

**New Hampshire Retirement System (NHRS)
Investment Committee Meeting**

(Certain portions of the meeting may be held in Non-Public Session)

**Agenda
Tuesday, October 8, 2024**

- 12:30 pm Call to Order
- 12:30 pm Approve Minutes [Tab 1]
- August 13, 2024, Public Meeting Minutes *(Action Expected)*
- 12:35 pm Comments from the Chief Investment Officer [Tab 2]
- Portfolio: Performance & Manager Update(s)
 - Holdings Update
 - Work Plan (Action Expected)
 - Proposed 2025 Investment Committee Meeting Schedule
- 12:45 pm NHRS Global Fixed Income Asset Class Strategy Presentation [Tab 3] *(Action Expected)*
- 1:15 pm NHRS Global Equity Asset Class Strategy Presentation [Tab 4] *(Action Expected)*
- 1:45 pm Proposed Infrastructure Asset Class Guidelines Presentation [Tab 5]
- 2:00 pm Draft Transmittal Letter – Comprehensive Annual Investment Report [Tab 6]
- 2:15 pm Adjournment
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- Informational Materials [Tab 7]
- Callan Monthly Review – August 31, 2024
 - Asset Allocation Update
 - Private Debt & Equity Summary
 - Callan Quarterly Review for Period Ending June 30, 2024

Next Meeting: Tuesday, November 12, 2024

NOTE: The draft of these minutes from the August 13, 2024, Independent Investment Committee meeting is subject to approval and execution at a subsequent meeting.

**Independent Investment Committee Meeting
August 13, 2024
DRAFT Public Minutes**

**New Hampshire Retirement System
54 Regional Drive
Concord, NH 03301**

Committee Members:

- Christine Clinton, CFA, *Chair*
- Brian Bickford, CFA, CFP®, *Member*
- Maureen Kelliher, CFA, *Member*
- Mike McMahon, *Non-Voting Member (absent)*
- Paul Provost, CFP®, *Member*

Staff:

- Jan Goodwin, *Executive Director*
- Raynald Leveque, *Chief Investment Officer*
- Gregory Richard, CAIA, CFA, CTP, *Senior Investment Officer*
- Shana Biletch, CFP®, *Investment Officer*
- Jonathan Diaz, *Investment Officer*
- Jesse Pasierb, *Investment Operations Analyst*
- Mark Cavanaugh, *Associate Counsel, and Compliance Officer (by video conference)*
- Tim Crutchfield, *Deputy Director, and Chief Legal Counsel (by video conference)*
- Heather Hoffacker, *Internal Auditor (by video conference)*
- Marty Karlon, *Director of Communications and Legislative Affairs (by video conference)*

Guests:

- Angel Haddad, *Senior Vice President, Callan LLC*
- Pete Keliuotis, CFA, *Executive Vice President, Callan LLC*
- Britton Murdoch, *Senior Vice President, Callan LLC (by video conference)*
- David Smith, CFA, CTP, *Senior Vice President, Callan LLC*
- Till Burges, *Managing Director, HarbourVest Partners by video conference)*
- Carolina Espinal, *Managing Director, HarbourVest Partners by video conference)*

- Fran Peters, CFA, CAIA, *Managing Director, Head of Consultant Relations, North America, HarbourVest Partners, LLC*
- William Bohnsack, *President & Senior Partner, Oak Hill Advisors*
- Charlie Hannigan, *Managing Director, Oak Hill Advisors*
- Diedre Guice, *Institutional Business Development Executive, Oak Hill Advisors*
- Eric Muller, *Portfolio Manager & Partner, Oak Hill Advisors*

Chair Clinton called the meeting to order at 1:31 PM.

On a motion by Ms. Kelliher, seconded by Mr. Provost, the Independent Investment Committee (Committee) unanimously approved the public and non-public minutes of the July 8th, 2024, Special Investment Committee meeting as presented.

Mr. Leveque reviewed investment returns through recent periods and referred to the Callan Monthly Review for the period ending June 30, 2024. He shared an update on holdings within the NHRS portfolio, total plan liquidity, and Russian holdings and discussed the Work Plan.

On a motion by Mr. Provost, seconded by Mr. Bickford, the Committee unanimously approved the work plan as presented.

Next, Mr. Richard and Mr. Smith provided an overview of HarbourVest and discussed NHRS's investments in HarbourVest HIPEP Funds VII, VIII, and IX. Mr. Richard and Mr. Smith discussed their conviction in HIPEP X Fund L.P. and provided NHRS Investment Staff's recommendation to invest in Fund X. Following this, the Committee heard from representatives of HarbourVest.

Mr. Peters introduced HarbourVest to the Committee, providing an overview of the firm, its organizational structure, and its relationship with NHRS. He was followed by Ms. Espinal and Mr. Burges, who detailed HarbourVest's investment philosophy, team, and process. The presentation continued with a discussion on the European investment landscape, case studies, and the performance of investments in predecessor funds that NHRS has invested in. The session concluded with a discussion of HarbourVest's key terms.

The Committee discussed the presentation made by HarbourVest and the opportunity to invest in HIPEP X Fund L.P. On a motion by Mr. Bickford, seconded by Mr. Provost, the Committee unanimously voted to commit \$75 million to HIPEP X Fund L.P., subject to contract and legal review.

Next, Ms. Bilech and Mr. Keliuotis provided an overview of Oak Hill Advisors. They discussed the opportunity to invest in Oak Hill Advisors Senior Private Lending Fund (OLEND) unlevered portfolio and provided NHRS Investment Staff's recommendation to invest in OLEND. Following this, the Committee heard from representatives of Oak Hill Advisors.

Mr. Bohnsack introduced Oak Hill Advisors (OHA) to the Committee, providing an overview of the firm's history and organizational structure. He was followed by a detailed presentation on OHA's investment philosophy, team, and process. Mr. Muller then led a discussion on the new fund OLEND investment strategy, including how deals have been historically sourced and case studies. The session concluded with a discussion of OLEND's key terms.

The Committee discussed the presentation made by Oak Hill Advisors and the opportunity to invest in OLEND. On a motion by Ms. Kelliher, seconded by Mr. Bickford, the Committee unanimously voted to commit \$100 million to Oak Hill Advisors Senior Private Lending Fund (OLEND) unlevered portfolio, subject to contract and legal review.

On a motion by Mr. Bickford, seconded by Ms. Kelliher, the Committee unanimously voted to adjourn the meeting, by roll call vote.

The meeting adjourned at 3:14pm.



NHRS

New Hampshire Retirement System

To: Investment Committee
From: Raynald Leveque, Chief Investment Officer
Date: October 8, 2024
Re: **Work Plan / Recap of August Investment Committee Meeting**
Item: Action: Discussion: Informational:

The attached six-month Work Plan summarizes the high-level tasks and projects being addressed by the Investment Committee and Staff.

A recap of the August Investment Committee (IIC) meeting is as follows:

- Staff presented an update on the monthly performance of the public market asset classes of the NHRS, rebalancing, and holdings.
- The Committee received the NHRS Investment Office strategic plan presentation by Raynald Leveque, Chief Investment Officer.
- The Committee heard a presentation from private equity manager HarbourVest and unanimously voted to commit \$75 million to the HarbourVest HIPEP X Fund.
- The Committee heard a presentation from fixed income manager Oak Hill Advisors (OHA) and unanimously voted to commit \$100 million to Oak Hill Advisors Senior Private Lending Fund (OLEND).

Our Mission: To provide secure retirement benefits and superior service.



To: Investment Committee
From: Raynald Leveque, Chief Investment Officer
Date: October 8, 2024
Re: **Six-Month Investment Work Plan**
Item: Action: Discussion: Informational:

As time progresses, the Work Plan will be updated to reflect tasks and initiatives associated with the current and subsequent quarter. Items completed over the fiscal year will also be included.

Presentations are displayed using the following format:
IC meeting date – Pertinent details

Updates from the prior month are highlighted in **bold**.

2nd Quarter FY 2025: October – December 2024

Investment Program

- October / November – SAA Strategy & Implementation Plan:
Global Equity, Global Fixed Income, Infrastructure
- October - 2025 Investment Committee meeting schedule
- November - FY 2024 Comprehensive Annual Investment Report
- November - Annual Review of Investment Manual
- **November - Annual Update on Commission Sharing Agreements**

Marketable Investments

- Schedule presentations of current investment managers
- Monitor and execute structure of marketable assets portfolio

Alternative Investments

- Review 2024 Private Debt & Equity Strategic Plan and Performance
December – Callan/Staff, review of existing commitments
- Approve 2025 Private Debt & Equity Work Plan
December – Callan/Staff, proposed 2025 Strategic Plan

Real Estate

- Continue implementation of Calendar Year 2024 Real Estate Investment Plan
December - Townsend, review of the CY 2024 Investment Plan and approve proposed CY 2025 plan

3rd Quarter FY 2025: January – March 2025

Investment Program

- Continue implementation of Strategic Asset Allocation
- Discuss macroeconomic investment themes that may impact the portfolio

Marketable Investments

- Schedule contract renewal presentations of current investment managers
- Monitor marketable assets portfolio

Alternative Investments

- Begin implementation of 2025 Private Equity / Private Credit Strategic Plan

Real Estate

- Begin implementation of 2025 Real Estate Investment Plan

Vendors

- No action

Completed Items – Fiscal Year 2025

1st Quarter FY 2025: July – September 2024

Investment Program

- Discuss macroeconomic investment themes that may impact the portfolio
 - July – NHRS Investment Office Strategic Plan Presentation
 - July – Funston Advisory Service Review of Investment Office Strategic Plan

Marketable Investments

- Schedule presentations of current investment managers
- Monitor and execute structure of marketable assets portfolio

Alternative Investments

- Continue implementation of 2024 Private Debt & Equity Strategic Plan
 - August – Oak Hill Advisors, Senior Private Lending Fund (OLEND), Private Debt, unanimous approval of \$100 million commitment**
 - August – HarbourVest, HIPEP X, Private Equity, unanimous approval of \$75 million commitment**

Real Estate

- Continue implementation of 2024 Real Estate Investment Plan



To: Investment Committee
From: Raynald Leveque, Chief Investment Officer
Date: October 8, 2024
Re: **Summary of Quarterly Public Market Manager Discussions: Q2 2024**
Item: Action: Discussion: Informational:

Portfolio review calls or meetings are held with active NHRS public market investment managers on a quarterly basis. Managers are asked to provide firm-level updates; a review of portfolio performance; an update on portfolio positioning; an overview of their ESG practices; and their market outlook, as applicable.

Portfolio review discussions for the quarter-ended June 30, 2024 were held during the quarter-ended September 30, 2024 with the following managers:

Domestic Equity:

- AB (SMid Cap)
- Boston Trust Walden Company (Small Cap)
- Segall Bryant & Hamill (Small Cap)
- Thompson, Siegel & Walmsley (SMid Cap)
- Wellington (Small Cap)

Non-U.S. Equity:

- Aristotle (Core)
- Artisan (Core)
- Causeway Capital Management (Core)
- Lazard (Core)
- Walter Scott (Global)
- Wellington (Emerging Markets)
- Wellington (International Small Cap)

Fixed Income:

- BlackRock SIO (Unconstrained)
- Brandywine (Global)
- Fidelity (Multisector)
- IR+M (Core)
- Loomis Sayles (Multisector)
- Manulife Asset Management (Multisector)

Quarterly portfolio reviews will be conducted with the active public market managers in subsequent quarters, and results will be summarized for the Committee. During a quarter in which a manager presents to the Committee, that presentation will substitute for the quarterly staff review discussion. While reviews are conducted on a quarterly basis, a manager is judged on their ability to add value over full market cycles.



NHRS

New Hampshire Retirement System

To: Independent Investment Committee
From: Raynald Leveque, Chief Investment Officer
Date: October 8, 2024
Re: **Proposed 2025 Investment Committee Meeting Schedule**
Item: Action: Discussion: Informational:

Recommendation

NHRS staff recommends that the Investment Committee consider meeting in 2025 on a less-than-monthly basis, aligned with the recent approval of the Board of Trustees meeting frequency. Investment Committee meetings require significant time for members to prepare for, travel to, and attend. The NHRS Investment Team spends much time each month preparing, coordinating, and running each meeting.

The following proposed meeting frequency for consideration is a minimum of eight meetings per year. Should NHRS Staff require additional meetings for investment action, those meetings can be scheduled on an ad-hoc basis.

Additionally, the proposed meeting dates below are on the second Tuesday of the month per our usual schedule. However, the Committee can recommend adjusting these dates to a day later in the month to allow for more timely performance discussions following the completion of reporting.

Proposed Schedule for 2025 (no meetings scheduled for March, May, July and September)

January 14, 2025

February 11, 2025

April 8, 2025

June 10, 2025

August 12, 2025

October 14, 2025

November 11, 2025

December 9, 2025

Our Mission: To provide secure retirement benefits and superior service.

Market Environment As of August 31, 2024

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell 3000	2.18	3.22	26.14	7.87	15.19	12.36
S&P 500	2.43	4.28	27.14	9.38	15.92	12.98
Russell 2000	(1.49)	(3.28)	18.47	0.60	9.68	8.03
MSCI ACWI ex USA	2.85	0.96	18.21	2.11	7.56	4.42
MSCI Emerging Markets	1.61	5.00	15.07	(3.06)	4.79	2.56
Bloomberg Aggregate	1.44	0.07	7.30	(2.11)	(0.04)	1.64
NCREIF NFI-ODCE	(0.22)	(0.66)	(9.11)	(0.51)	2.03	5.21
Bloomberg Commodity Price	(0.38)	1.51	(9.38)	0.04	4.53	(2.72)

Both equities and fixed income posted gains in August, despite a volatile start triggered by weak U.S. jobs data and a surprise interest rate hike from the Bank of Japan. However, markets recovered as inflation data aligned with expectations and strong sales and corporate earnings eased fears of a severe downturn. The Fed's signals of a potential rate cut in September further fueled the rally. Large-cap stocks outperformed small caps, while value and growth stocks delivered mixed results. Developed markets outperformed emerging markets. Within fixed income, yields declined, boosting bond prices, with high yield outperforming investment-grade bonds. The Treasury yield curve normalized after 25 months of inversion.

Real, annualized U.S. GDP rose 3.0% in 2Q24, according to the second estimate, an increase from the advance estimate reading of 2.8%. GDP in 1Q24 increased 1.4%. The change in GDP from the advance estimate reflects an increase in consumer spending, private inventory investment, and nonresidential fixed investments. Imports also increased but are subtracted in the calculation of GDP.

The U.S. economy added 142,000 jobs in August, below expectations. Sectors experiencing employment growth included health care and construction. The seasonally adjusted unemployment rate for August was 4.2%, a slight decrease from the July reading of 4.3%. The July unemployment rate triggered the Sahm rule, a recession indicator. The labor force participation rate did not change at 62.7%.

Year-over-year headline Consumer Price Index (CPI) growth increased 2.5% in August, down from the July gain of 2.9%. Price levels rose 0.2% in August from the previous month, the same rate as from June to July. The shelter index accounted for the majority of the increase of the all items index. The food index increased, while the energy index fell. Core CPI, which excludes food and energy prices, rose 3.2%, the same increase as July. The core monthly increase was 0.2% in August.

*Due to a lag in the reporting of NCREIF NFI-ODCE Index returns, the monthly return shown is deduced from the most recent quarterly return.

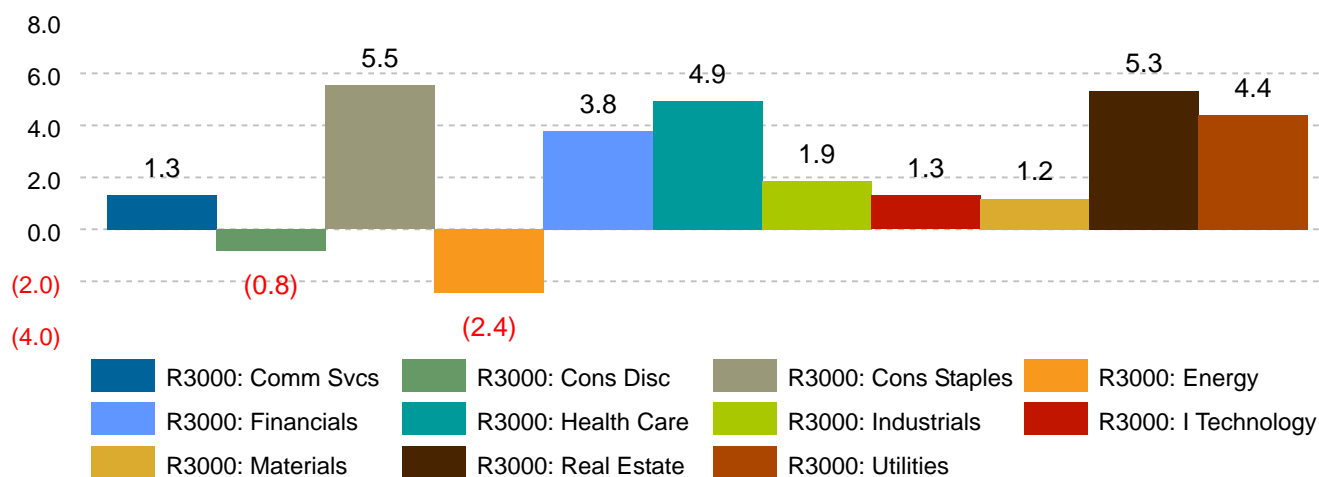
U.S. Equity Overview As of August 31, 2024

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Russell 3000	2.18	3.22	26.14	7.87	15.19	12.36
Russell 1000	2.37	3.57	26.60	8.34	15.55	12.66
Russell 1000 Growth	2.08	8.33	30.75	8.87	19.08	16.03
Russell 1000 Value	2.68	(2.17)	21.15	7.25	11.16	8.85
Russell Midcap	2.03	(3.35)	20.16	3.52	11.24	9.58
Russell 2000	(1.49)	(3.28)	18.47	0.60	9.68	8.03
Russell 2000 Growth	(1.11)	(2.92)	17.67	(2.07)	8.35	8.21
Russell 2000 Value	(1.88)	(3.64)	19.25	3.05	10.38	7.46

U.S. equities were up 2.2% in August (Russell 3000 Index). Early August experienced significant volatility due to the weaker-than-expected nonfarm payroll report and an increase in unemployment from July's data, which was released at the start of the month. Within the first three trading days of August, the S&P 500 dropped 6%. However, markets rebounded as the CPI released during the month was in line with expectations. Federal Reserve Chair Jerome Powell signaled a shift in focus toward labor market conditions over inflation risks, prompting investors to begin pricing in potential interest rate cuts, which helped drive the rebound. Large cap stocks outperformed small caps (Russell 1000 Index: +2.4% vs. Russell 2000 Index: -1.5%). In the large cap space, growth stocks underperformed value as returns broadened outside of the tech sector (Russell 1000 Growth Index: +2.1% vs. Russell 1000 Value Index: +2.7%). In the small cap space, both growth and value stocks posted negative returns (Russell 2000 Growth Index: -1.1%; Russell 2000 Value Index: -1.9%).

Sector performance was positive overall in August with 9 of the 11 sectors that comprise the Russell 3000 posting gains. Consumer Staples (+5.5%) was the top-performing sector, followed by Real Estate (+5.3%), Health Care (+4.9%), Utilities (+4.4%), and Financials (+3.8%). The Information Technology sector returned (+1.3%). The two negative-performing sectors were Energy (-2.4%) and Consumer Discretionary (-0.8%).

Russell 3000 Index 1 Month Sector Returns



Global ex-U.S. Equity Overview

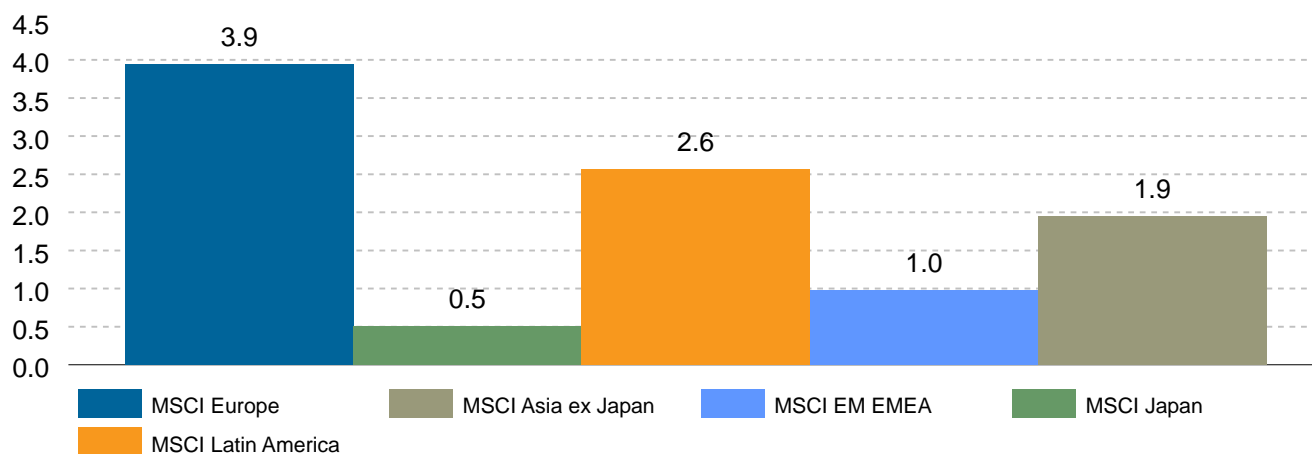
As of August 31, 2024

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
MSCI ACWI ex USA	2.85	0.96	18.21	2.11	7.56	4.42
MSCI EAFE	3.25	(0.42)	19.40	4.13	8.61	5.20
MSCI EAFE Hedged	0.64	1.70	20.05	10.40	11.91	9.18
MSCI Emerging Markets	1.61	5.00	15.07	(3.06)	4.79	2.56
MSCI ACWI ex USA Small Cap	1.84	0.66	15.15	(0.63)	8.09	5.15

Global ex-U.S. equities posted gains in August. The MSCI ACWI ex-USA Index rose 2.9%, with growth stocks outperforming value (MSCI ACWI ex-USA Growth Index: +3.2% vs. MSCI ACWI ex-USA Value Index: +2.5%) and small cap stocks outperforming large cap (MSCI ACWI ex-USA Small Cap Index: +1.8% vs. MSCI ACWI ex-USA Large Cap Index: +0.5%). Euro zone stocks rose, with strong performances in Real Estate and Communication Services, while Energy and Information Technology lagged. Inflation eased in August, leading investors to anticipate a rate cut at the European Central Bank's September meeting. In the U.K., markets performed well, with the Health Care, Consumer Staples, and Industrial sectors as top performers. The Bank of England made its first rate cut in four years, reducing the bank rate to 5.00%. In Japan, sharp movements in the yen caused high volatility in Japanese markets over the month. On Aug. 5, the Nikkei 225 experienced its largest single-day point drop in history, equivalent to a 12.4% decline. However, markets quickly rebounded the next day, gaining 10.2%. Japanese economic data released during the month was positive. The U.S. dollar weakened over the month against a basket of developed market currencies (MSCI EAFE Index: +3.3% vs. MSCI EAFE Hedged Index: +0.6%).

Emerging markets underperformed developed markets in August, gaining 1.6% (MSCI Emerging Markets Index). The MSCI Asia ex-Japan Index rose 1.9% this month. The Philippines, Indonesia, and Malaysia were the best-performing markets, while South Korea, India, and China dragged on index returns. Technology stocks surrendered some of their gains, while China's returns remained sluggish due to a slow economic recovery and the ongoing real estate crisis. Returns in emerging Europe, the Middle East, and Africa (MSCI EM EMEA: +1.0%) and Latin America (MSCI Latin America Index: +2.6%) were positive. Brazil's performance was strong due to currency strength, while the weakening peso hurt Mexican market returns.

MSCI Regional 1 Month Returns

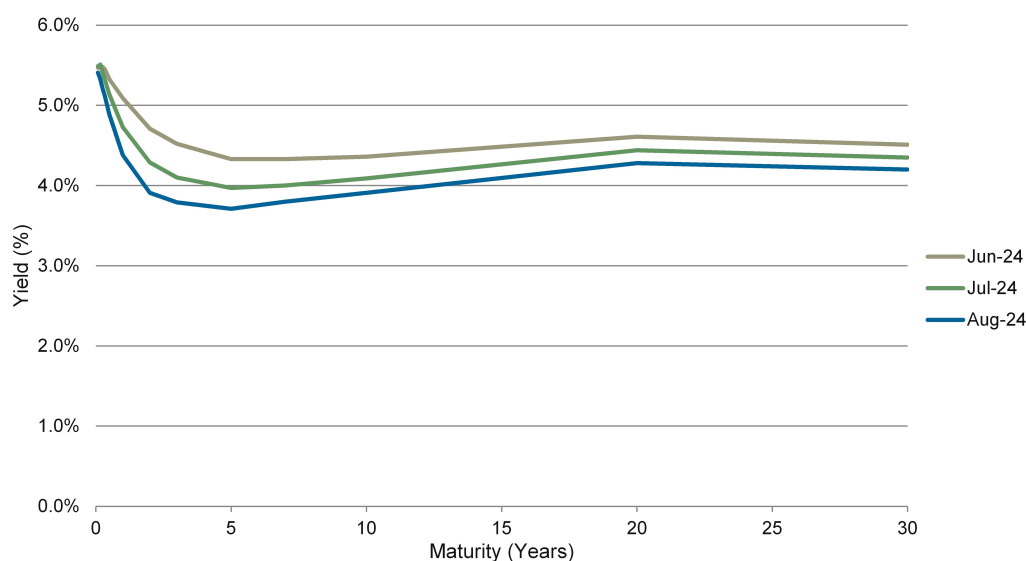


Fixed Income Overview

As of August 31, 2024

Index	Last Month	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Bloomberg Aggregate	1.44	0.07	7.30	(2.11)	(0.04)	1.64
Bloomberg Long Gov/Credit	2.08	(1.73)	7.46	(7.62)	(2.80)	1.83
Bloomberg Treasury	1.28	0.10	6.02	(2.53)	(0.61)	1.17
Bloomberg Credit	1.55	(0.05)	8.98	(2.03)	0.59	2.47
Bloomberg Mortgage	1.61	0.07	7.46	(1.70)	(0.18)	1.28
Bloomberg TIPS	0.78	0.79	6.17	(1.30)	2.04	2.13
Bloomberg Corp High Yield	1.63	1.09	12.55	2.55	4.46	4.65
Credit Suisse Leveraged Loans	0.60	1.87	9.81	6.26	5.54	4.72
90-day T-bill	0.48	1.32	5.48	3.35	2.27	1.61

Treasury Yield Curve



Bond returns were positive in August (Bloomberg Aggregate Index: +1.4%). The fixed income market also experienced volatility early in the month but subsided as investor concerns eased. Short-term Treasury yields dropped more significantly than long-term Treasury yields, leading to a steepening of the yield curve and a normalization of the 2- to 10-year inversion. Markets are now pricing in four rate cuts by year-end. Overall, the fixed income environment was shaped by expectations of easing monetary policy and falling yields.

Investment grade issuance was over \$108 billion in August. Investment grade spreads widened by 18 bps from 93 bps to 111 bps during the first week of August but ended the month at 93 bps. Yields fell 20 bps to 4.94%. High-yield bonds also saw significant primary market activity. High yield issuers priced \$18 billion, and spreads ended the month at 305 bps, 9 bps tighter than July. Yields dropped 29 bps to 7.3%. The 90-day T-bill yield decreased 20 bps from 5.41% to 5.21%, the 2-year fell 38 bps to 3.91%, the 10-year decreased 18 bps to 3.91%, and the 30-year decreased 15 bps to 4.20%. The 2- to 10-year Treasury yield spread narrowed significantly from -20 bps to 0 bps.

The Bloomberg Credit Index and the Bloomberg High Yield Corporate Index both gained 1.6%. Long bonds (Bloomberg Long Gov/Credit Index) increased 2.1% this month. TIPS (Bloomberg US TIPS Index: +0.8%) underperformed nominal Treasuries (Bloomberg Treasury Index: +1.3%). The 10-year breakeven inflation rate decreased from 2.24% to 2.15%.

The table below details the rates of return for the fund's asset classes over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended August 31, 2024									
Composite	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	32.93%	1.44%	6.90%	5.27%	16.12%	23.35%	6.91%	13.72%	11.07%
Domestic Equity Benchmark(1)		2.18%	7.30%	4.08%	18.19%	26.14%	7.87%	14.76%	12.45%
Excess Return		-0.74%	-0.40%	1.20%	-2.07%	-2.79%	-0.96%	-1.04%	-1.38%
Total Non US Equity	19.43%	2.86%	5.17%	5.72%	11.83%	17.88%	2.66%	7.83%	5.22%
Non US Equity Benchmark(2)		2.85%	5.13%	5.23%	11.22%	18.21%	2.11%	7.56%	4.42%
Excess Return		0.01%	0.04%	0.49%	0.61%	-0.33%	0.55%	0.27%	0.80%
Total Fixed Income	19.25%	1.56%	4.59%	3.83%	3.23%	7.97%	-1.25%	1.48%	2.21%
Bloomberg Capital Universe Bond Index		1.47%	4.72%	3.78%	3.49%	7.92%	-1.78%	0.34%	1.93%
Excess Return		0.09%	-0.13%	0.06%	-0.25%	0.05%	0.53%	1.14%	0.28%
Total Cash	1.91%	0.45%	1.33%	0.89%	3.56%	5.47%	3.44%	2.36%	1.69%
3-Month Treasury Bill		0.48%	1.34%	0.93%	3.58%	5.48%	3.35%	2.27%	1.61%
Excess Return		-0.03%	-0.01%	-0.04%	-0.03%	-0.01%	0.10%	0.09%	0.08%
Total Real Estate (Q1)*	9.04%	0.11%	-1.64%	-0.46%	-5.70%	-8.41%	3.19%	5.92%	8.43%
Real Estate Benchmark(3)		-0.22%	-1.30%	-0.44%	-7.85%	-10.67%	1.50%	2.36%	5.64%
Excess Return		0.33%	-0.34%	-0.02%	2.15%	2.26%	1.68%	3.55%	2.79%
Total Private Equity (Q1)*	13.08%	0.01%	-1.90%	-2.63%	-0.66%	-0.02%	4.21%	12.12%	11.15%
Private Equity Benchmark(4)		4.82%	3.85%	0.49%	24.80%	29.88%	11.59%	18.48%	15.87%
Excess Return		-4.82%	-5.75%	-3.12%	-25.46%	-29.89%	-7.39%	-6.36%	-4.72%
Total Private Debt (Q1)*	4.36%	0.07%	-0.08%	-1.69%	1.25%	1.60%	5.42%	5.02%	5.55%
Private Debt Benchmark(5)		1.18%	2.02%	1.08%	8.64%	13.30%	5.10%	4.80%	5.25%
Excess Return		-1.11%	-2.10%	-2.77%	-7.40%	-11.70%	0.33%	0.21%	0.31%
Total Fund Composite	100.00%	1.34%	3.68%	3.05%	7.27%	11.15%	3.71%	8.44%	7.28%
Total Fund Benchmark(6)		2.11%	4.76%	3.28%	10.47%	15.83%	4.31%	8.72%	7.61%
Excess Return		-0.77%	-1.09%	-0.23%	-3.21%	-4.68%	-0.60%	-0.28%	-0.32%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 Idx + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% MStar LSTA Lev Loan 100 lagged 3 months +1.0%.

(7) For the trailing 25 year period ended 8/31/24, the Total Fund has returned 6.41% versus the Total Fund Custom Benchmark return of 6.70%.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of August 31, 2024, with the distribution as of July 31, 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.

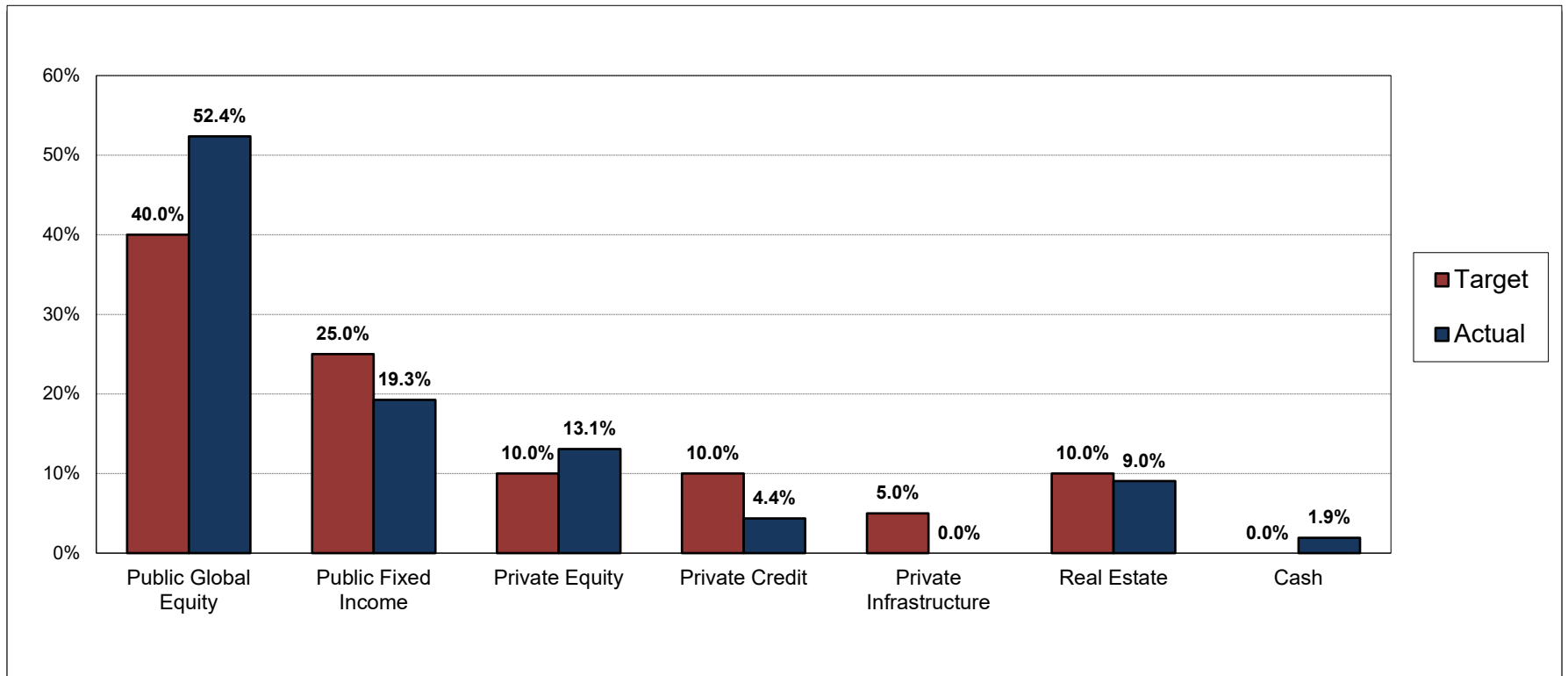
Asset Distribution Across Investment Managers

	August 31, 2024		Net New Inv.	Inv. Return	July 31, 2024	
	Market Value	Weight			Market Value	Weight
Total Domestic Equity	\$4,150,888,354	32.93%	\$0	\$59,685,083	\$4,091,203,271	32.85%
Large Cap Domestic Equity	\$2,390,026,557	18.96%	\$0	\$56,547,367	\$2,333,479,190	18.74%
Blackrock S&P 500	2,390,026,557	18.96%	0	56,547,367	2,333,479,190	18.74%
SMid Cap Domestic Equity	\$752,033,784	5.97%	\$0	\$1,109,274	\$750,924,510	6.03%
AllianceBernstein	473,983,490	3.76%	0	3,701,813	470,281,676	3.78%
TSW	278,050,295	2.21%	0	(2,592,539)	280,642,834	2.25%
Small Cap Domestic Equity	\$1,008,828,012	8.00%	\$0	\$2,028,442	\$1,006,799,570	8.09%
Boston Trust	255,346,823	2.03%	0	(4,386,957)	259,733,780	2.09%
Segall Bryant & Hamill	278,709,380	2.21%	0	(1,821,465)	280,530,845	2.25%
Wellington	474,771,809	3.77%	0	8,236,864	466,534,945	3.75%
Total Non US Equity	\$2,449,143,301	19.43%	\$(100,369)	\$69,110,919	\$2,380,132,751	19.11%
Core Non US Equity (1)	\$1,497,779,256	11.88%	\$(100,369)	\$42,275,882	\$1,455,603,743	11.69%
Aristotle	192,791,805	1.53%	0	6,036,565	186,755,240	1.50%
Artisan Partners	431,377,689	3.42%	0	10,239,542	421,138,147	3.38%
BlackRock Superfund	209,669,955	1.66%	0	5,803,774	203,866,181	1.64%
Causeway Capital	483,401,224	3.83%	0	14,903,710	468,497,514	3.76%
Lazard	179,964,827	1.43%	0	5,277,123	174,687,704	1.40%
Emerging Markets	\$185,100,958	1.47%	\$0	\$3,920,367	\$181,180,591	1.45%
Wellington Emerging Markets	185,100,958	1.47%	0	3,920,367	181,180,591	1.45%
Non US Small Cap	\$147,207,611	1.17%	\$0	\$2,415,238	\$144,792,374	1.16%
Wellington Int'l Small Cap Research	147,207,611	1.17%	0	2,415,238	144,792,374	1.16%
Global Equity	\$619,055,476	4.91%	\$0	\$20,499,432	\$598,556,043	4.81%
Walter Scott Global Equity	619,055,476	4.91%	0	20,499,432	598,556,043	4.81%
Total Fixed Income	\$2,426,729,258	19.25%	\$0	\$37,918,395	\$2,388,810,863	19.18%
BlackRock SIO Bond Fund	278,845,368	2.21%	0	2,863,644	275,981,724	2.22%
Brandywine Asset Mgmt	236,306,494	1.87%	0	7,484,204	228,822,291	1.84%
FIAM (Fidelity) Tactical Bond	390,193,367	3.10%	0	6,014,541	384,178,826	3.09%
Income Research & Management	812,762,952	6.45%	0	10,575,185	802,187,767	6.44%
Loomis Sayles	300,703,674	2.39%	0	4,783,513	295,920,161	2.38%
Manulife Strategic Fixed Income	223,258,462	1.77%	0	3,576,223	219,682,240	1.76%
Mellon US Agg Bond Index	184,658,941	1.46%	0	2,621,086	182,037,856	1.46%
Total Cash	\$240,929,682	1.91%	\$(13,254,135)	\$1,132,275	\$253,051,542	2.03%
Total Marketable Assets	\$9,267,690,595	73.52%	\$(13,354,504)	\$167,846,673	\$9,113,198,427	73.18%
Total Real Estate	\$1,139,580,508	9.04%	\$7,114,857	\$1,258,946	\$1,131,206,705	9.08%
Strategic Core Real Estate	658,369,090	5.22%	(4,882,343)	0	663,251,433	5.33%
Tactical Non-Core Real Estate	481,211,417	3.82%	11,997,200	1,258,946	467,955,271	3.76%
Total Alternative Assets	\$2,198,875,539	17.44%	\$(9,772,377)	\$706,452	\$2,207,941,463	17.73%
Private Equity	1,648,799,329	13.08%	7,422,462	127,066	1,641,249,800	13.18%
Private Debt	550,076,210	4.36%	(17,194,839)	579,386	566,691,663	4.55%
Total Fund Composite	\$12,606,146,642	100.0%	\$(16,012,024)	\$169,812,071	\$12,452,346,595	100.0%

-Alternatives market values reflect current custodian valuations, which may not be up to date.

(1) Includes \$573,756 in legacy assets that are not actively managed and in liquidation following the termination of Fisher Investments.

Class Targets vs. Actual Allocation as of August 31, 2024 (Preliminary)



Asset Class Allocations Relative to Policy Targets and Ranges



As of August 31, 2024 (preliminary)

Asset Class	Range ¹	Allocation			Objective	Comments
		Target	Actual	Variance		
Public Markets						
Global Equity	TBD	40.0%	52.4%	12.4%	Action	Actual allocation to be reduced over subsequent periods to fund new infrastructure allocation and increase to private credit.
Fixed Income ²	20 - 30%	25.0%	19.3%	-5.7%	Action	Below target allocation but within approved allocation range when cash is included.
Private Markets						
Equity ³	5 - 15%	10.0%	13.1%	3.1%	Monitor	No immediate action needed.
Credit ³	TBD	10.0%	4.4%	-5.6%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Infrastructure	TBD	5.0%	0.0%	-5.0%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Real Estate (RE) ³	5 - 20%	10.0%	9.0%	-1.0%	Monitor	No immediate action needed.
Cash Equivalents	NA	0.0%	1.9%	1.9%	No Action	Minimal cash balance to provide liquidity, as needed, for annuities, capital calls and other plan needs.
		100.0%	100.0%	0.0%		

¹New allocation ranges will be established as part of the implementation plan for the updated Strategic Asset Allocation.

²The investment team will adjust the allocation within the target ranges at the conclusion of the ongoing implementation plan for Global Fixed Income.

³As reported on the August 31, 2024, Callan Monthly Review.

2024 Global Fixed Income Asset Class Investment Strategy

NHRS Investment Team
Independent Investment Committee Meeting
October 2024

- The **Investment Strategy** outlines the **NHRS Investment Team’s approach to advising the IIC on asset allocation recommendations**
 - The “**why**” **behind the investment policy** for the asset class – our investment philosophy
 - The strategy guides the investment team in recommending a specific portfolio construction and composition of managers in the portfolio
 - This investment strategy is **tied directly to the long-term strategic asset allocation** for the NHRS total plan
- Following the Investment Strategy, the **Implementation Plan** (to be presented at subsequent IIC meetings) for the asset class is driven primarily by the specific investment strategy for the asset class
 - Specifies the **target mandates** for each strategy / sub-strategy within the asset class
 - Informs the **role and purpose of each mandate / manager** in the asset class

2023 Strategic Asset Allocation



- IIC evaluated and determined Portfolio B policy as the new policy for the SAA

Asset Class	Current Policy Target	06/30/23 Actual Allocation	Proposed LT Policy Portfolios		
			Portfolio A	Portfolio B	Portfolio C
Global Equity	50%	49%	45% ↓	40% ↓	40% ↓
Fixed Income	25%	20%	25%	25%	20% ↓
Alternatives					
Private Equity	10%	14%	10%	10%	10%
Private Credit	5%	5%	5%	10% ↑	15% ↑
Core Real Estate	10%	11%	10%	10%	10%
Private Infrastructure	0%	0%	5% ↑	5% ↑	5% ↑
Cash Equivalents	0%	1%	0%	0%	0%
	100%	100%	100%	100%	100%
Expected Return (10-Year)	7.2%	7.4%	7.2%	7.2%	7.3%
Expected Standard Deviation	13.0%	13.8%	12.6%	12.3%	12.9%
Expected Sharpe Ratio (Return / Risk)	0.33	0.32	0.34	0.35	0.34
Total Private Market Allocation	25%	30%	30%	35%	40%

Source: NHRS, Callan

2023 Strategic Asset Allocation



2023 Strategic Asset Allocation				
Asset Class	Benchmark	10-Yr Geometric Return	20-Yr Geometric Return	10-Yr Standard Deviation
Fixed Income				
Cash Equivalents	90-Day T-Bill	2.75%	2.80%	0.90%
Short Duration Govt/Credit	Bloomberg Barclays 1-3 Yr G/C	3.80%	3.85%	2.30%
Core US Fixed	Bloomberg Barclays Aggregate	4.25%	4.45%	4.10%
High Yield	Bloomberg Barclays High Yield	6.25%	6.30%	11.75%
Bank Loans	S&P/LSTA Leveraged Loan Index	6.10%	6.10%	9.70%
EMD	EMBI Global Diversified	5.85%	5.95%	10.65%
Private Credit	N/A	7.00%	7.25%	15.50%
Global Fixed Income (50% Core + 50% High Yield)	Bloomberg US Universal	5.31%	-	6.39%

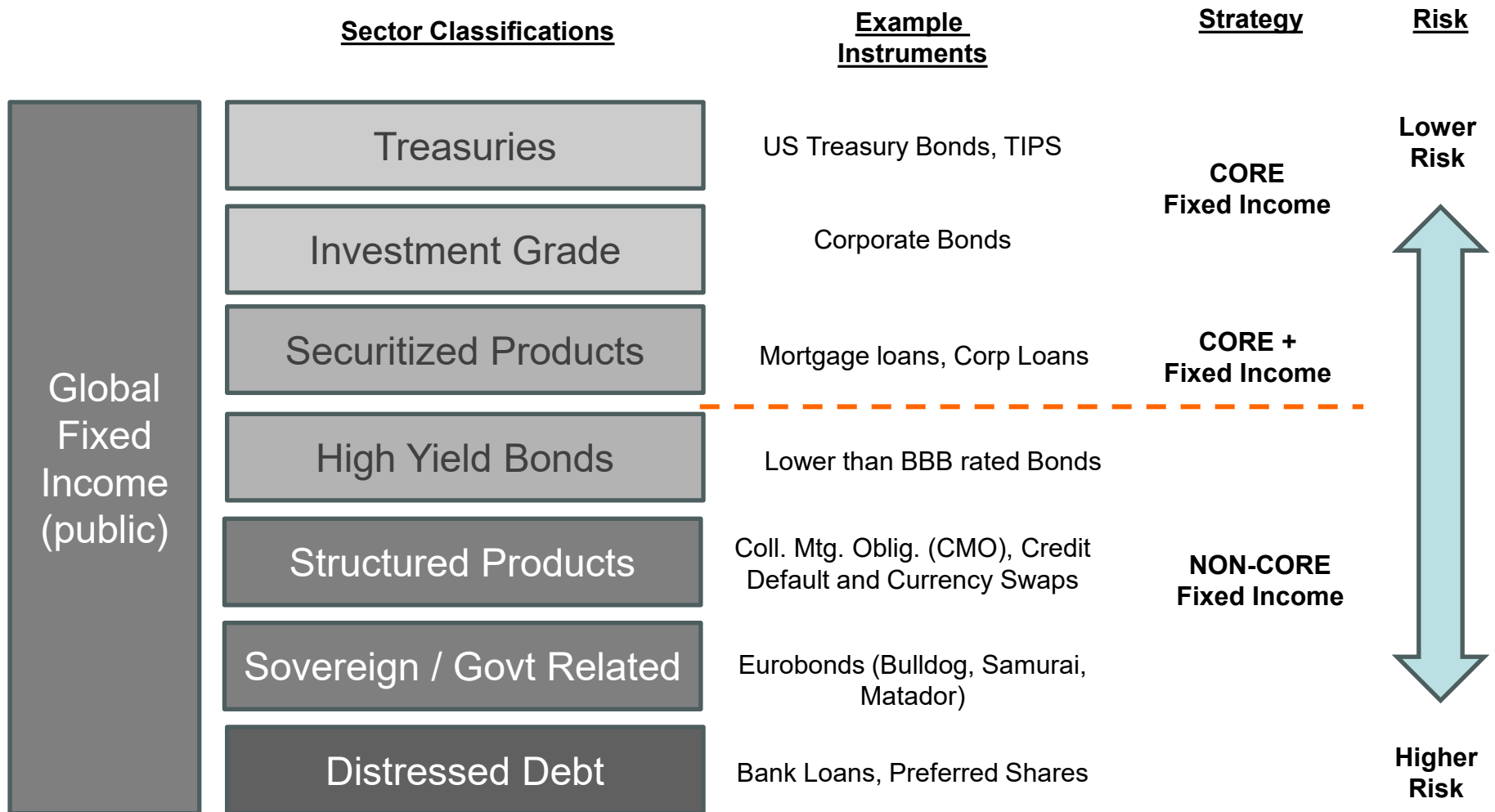
Source: NHRS, Callan

- During the SAA Update, we modeled the Global Fixed Income CMA as 50% Core US Fixed Income and 50% High Yield
- The 10-yr geometric expected return assumption = 5.31% with a 6.39% standard deviation) at the 10-year horizon

- Historically, in institutional portfolios, the Fixed Income asset class has served as a diversifier to the public equity asset class, with its primary role as capital preservation with some capital appreciation ability
- Fixed Income primarily employs both debt and credit strategies to fulfill its role in our portfolio, utilizing publicly traded instruments through a variety of sub-strategies (i.e., core and non-core)
- During the 2023 Strategic Asset Allocation Update, the Investment Team maintained its target allocation to Global Fixed Income :
 - Strong credit exposure in both core and non-core public fixed income
 - Exposure to global credit and debt opportunities
 - Potential to diversify the equity beta risk exposures in the broader portfolio
- Global Fixed Income continues to play an important role in the total plan – fulfilling the role of **primarily capital appreciation (credit) and capital preservation (debt)** in the total plan

- Objective:
 - The Global Fixed Income portfolio serves to generate income and return while reducing the overall volatility the plan experiences from its equity and equity-like investments
- Attributes:
 - Global Fixed Income allocations are diversified across strategy, sector, geography, quality, and instrument
- Target Allocation:
 - Approved long-term strategic allocation of 25%
- Policy Benchmark:
 - Bloomberg US Universal Index – a union of the US Aggregate, US Corporate High Yield, Investment Grade 144A, Eurodollar, US Emerging Markets, and non-ERISA CMBS indices
- Constraints
 - Current asset allocation range (20% to 30%)

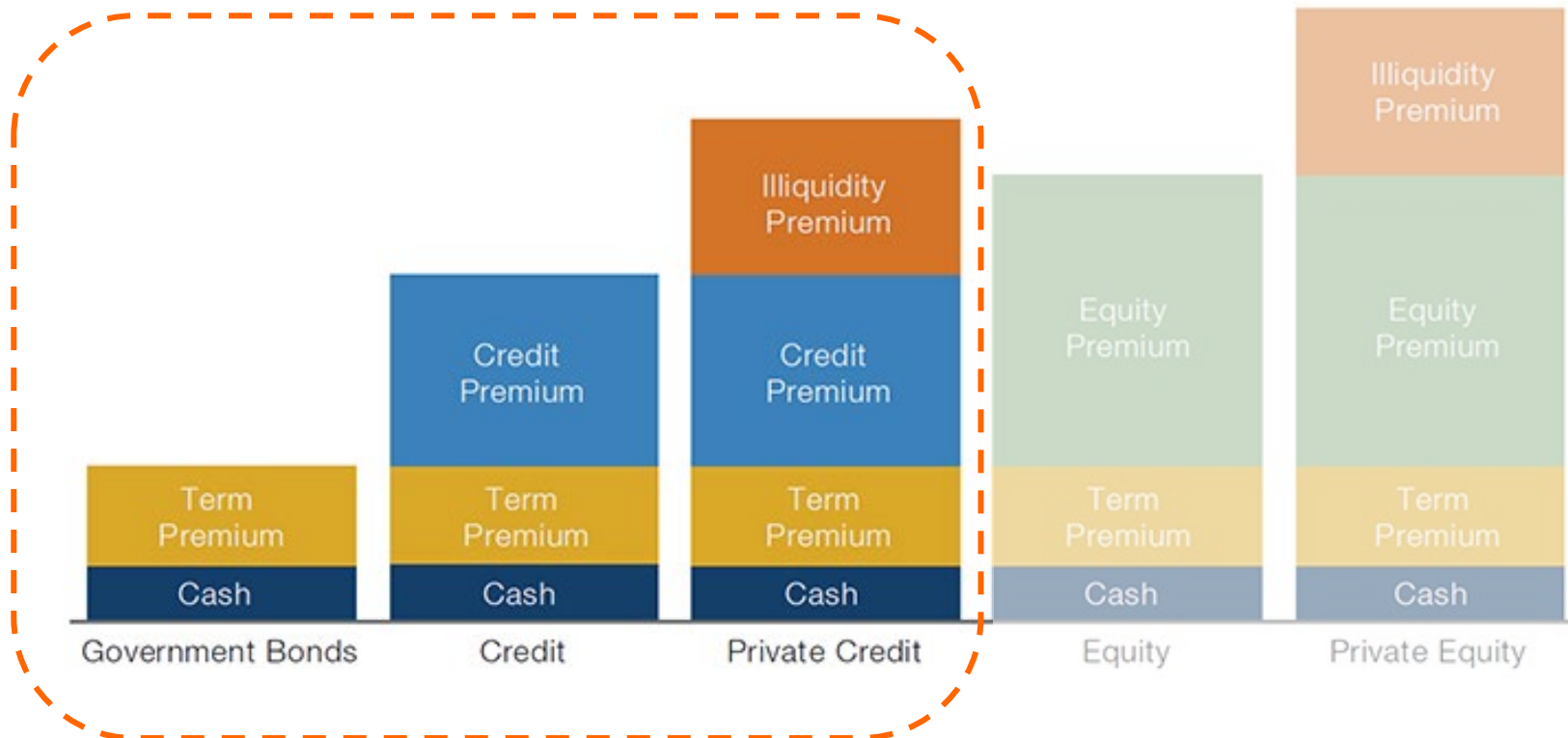
Portfolio Construction



Source: NHRS

Portfolio Construction

Relationship Between Public and Private Credit



Source: Man FRM.

- The Investment Team seeks to invest this asset class with the following principles:
 - **Active Management:** the debt and credit markets require expertise in various dynamics like sector, duration, yield, spread, volatility, and currency, managed over a credit cycle. Active management provides disciplined execution of strategies as market opportunities change during the business cycle
 - **Broad Market Exposure:** our public fixed income portfolio will seek tactical opportunities globally across both core and non-core fixed income, seeking an all-weather diversified portfolio with both index and non-index securities
 - **Multi-Strategy Managers:** managers with the breadth and scale to invest across multiple strategies can leverage their knowledge to respond to market opportunities and dislocations to identify and capture inefficiencies
 - **Currency:** the Investment Team recommends maintaining investments with managers who can implement currency risk as part of their credit strategy, limited to a small portion of their multi-strategy approach
 - **Anchor to Core Fixed Income:** our portfolio has benefited from maintaining an anchor to our core fixed income benchmark through active management with NHRS investment managers making opportunistic credit allocations and non-benchmark securities

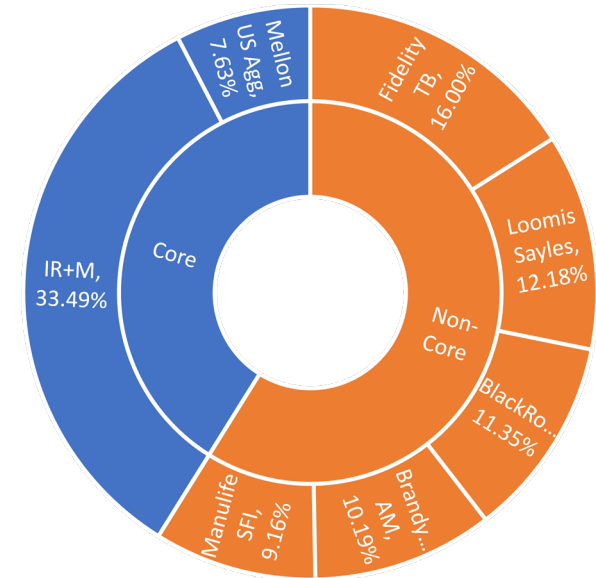
Manager Exposures as of 6/30/24

- Majority of exposure at the manager level allocated to Non-Core Fixed Income* (59%), with an anchor to Core Fixed Income (41%)
 - Mandates of non-core managers are multi-strategy, with a weighted average quality rating that is investment grade
- Total six active managers in portfolio with one index strategy (Mellon US Aggregate Bond Index)

Global Fixed Income Managers	Market Value	Classification	Current % of Global Fixed Income
Mellon US Agg Bond Index	\$ 177,869,728	Core	7.61%
Income Research & Management	\$ 784,651,371	Core	33.59%
BlackRock SIO Bond Fund	\$ 270,789,712	Non-Core	11.59%
Brandywine Asset Mgmt	\$ 221,997,543	Non-Core	9.50%
FIAM (Fidelity) Tactical Bond	\$ 375,407,619	Non-Core	16.07%
Loomis Sayles	\$ 289,656,164	Non-Core	12.40%
Manulife Strategic Fixed Income	\$ 215,765,425	Non-Core	9.24%
Total Fixed Income	\$ 2,336,137,563		100%
Dedicated Investment Grade	\$ 962,521,099	Core	41%
Unconstrained/Oppportunistic	\$ 1,373,616,464	Non-Core	59%

Source: NHRS, Callan

Global Fixed Income Portfolio Composition



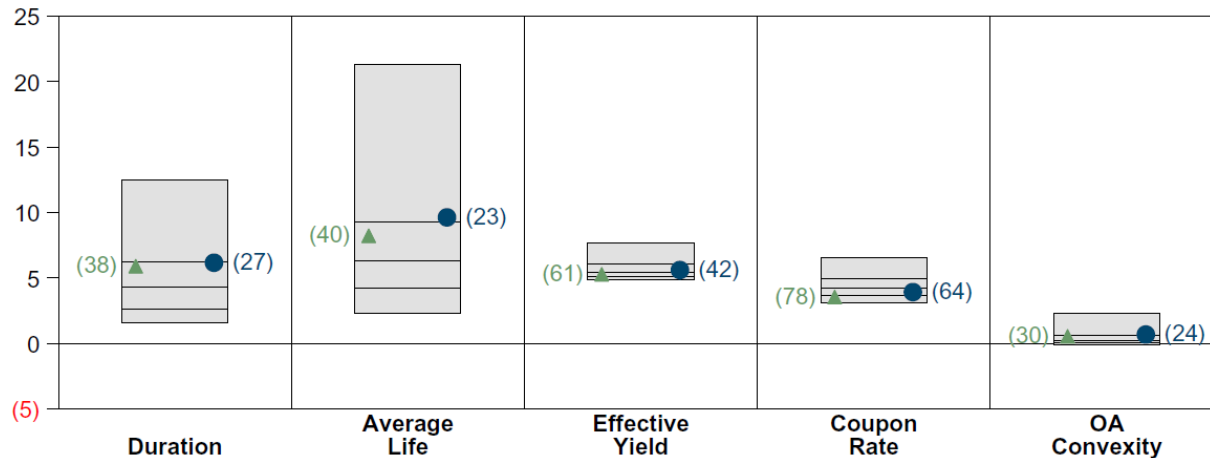
Source: NHRS

- With assistance from Callan, the Investment Team reviewed the current Global Fixed Income benchmark, **Bloomberg US Universal Index** and determined that it is **still the most appropriate choice for our portfolio**
- Rationale:
 - Similar portfolio characteristics between NHRS portfolio and benchmark (duration and high yield exposure)
 - Closest return profile between the two (highest correlation of returns, similar standard deviation and beta as well as lowest tracking error)

Portfolio Analytics : Characteristics



Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of June 30, 2024



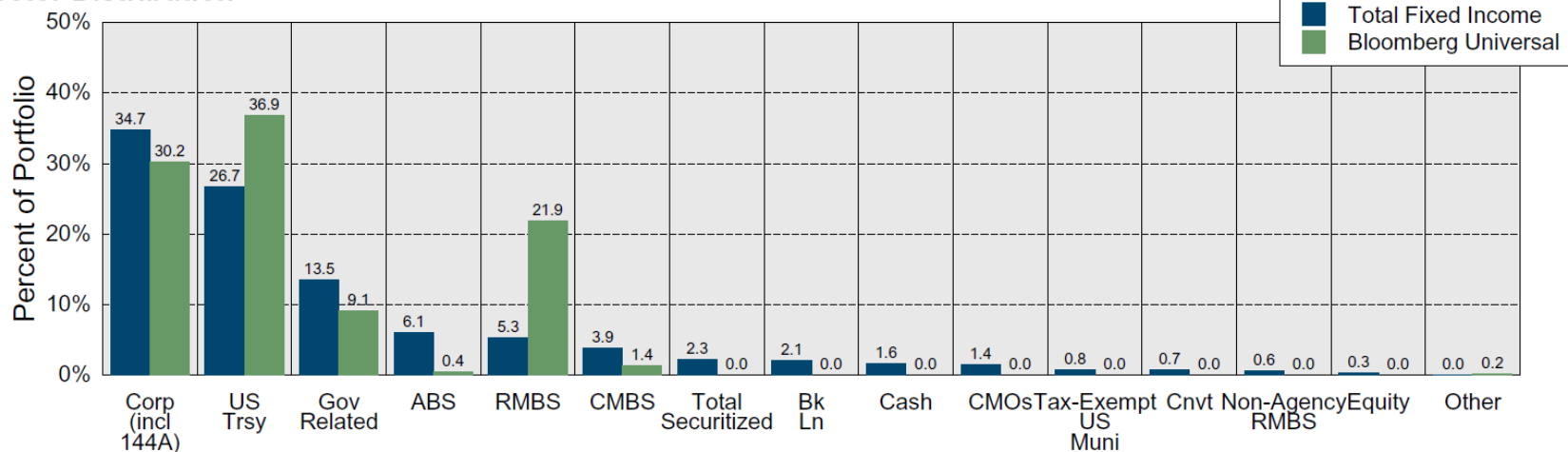
	Duration	Average Life	Effective Yield	Coupon Rate	OA Convexity
10th Percentile	12.45	21.34	7.65	6.53	2.33
25th Percentile	6.22	9.25	6.05	4.96	0.62
Median	4.27	6.28	5.44	4.22	0.21
75th Percentile	2.62	4.23	5.13	3.62	0.02
90th Percentile	1.56	2.26	4.84	3.07	(0.13)

Total Fixed Income ●	6.16	9.62	5.60	3.91	0.67
Bloomberg Universal ▲	5.90	8.22	5.27	3.54	0.54

Source: Callan

- As of June 30th, the NHRS Global Fixed Income portfolio demonstrated a higher duration and a higher yield relative to the Bloomberg Universal and peer group median

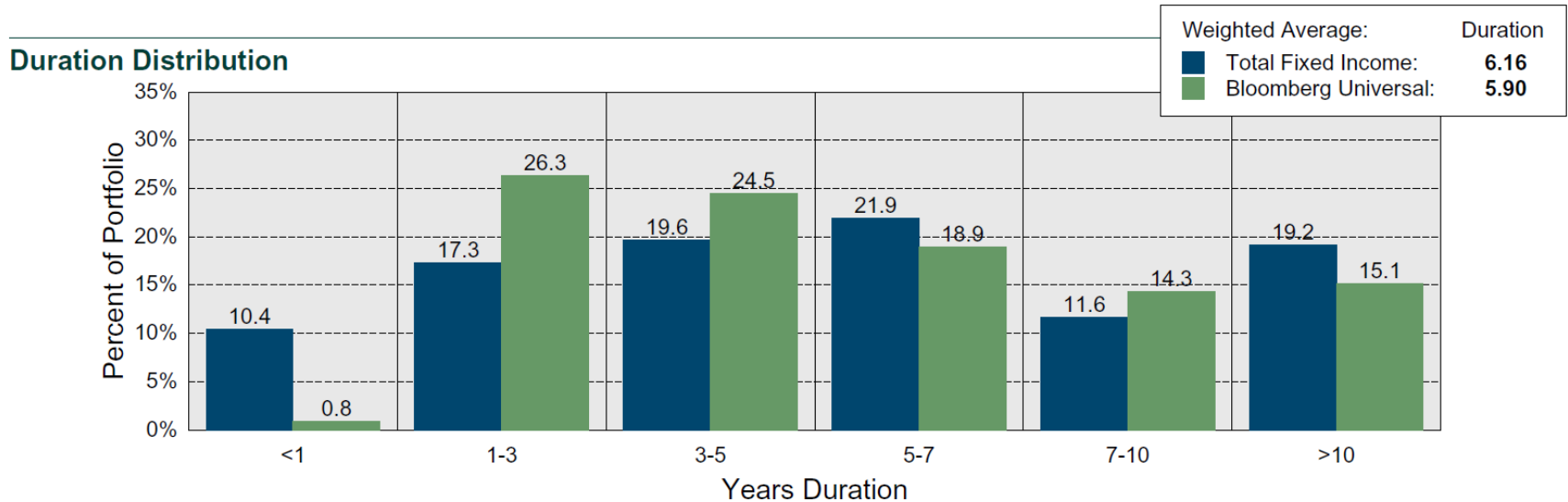
Sector Distribution



Source: Callan

- The portfolio exhibited an overweight to corporates, government-related (sovereigns) and securitized assets with an underweight to U.S. Treasuries relative to the benchmark. These allocations have resulted in higher income (yield and coupon rate) to NHRS

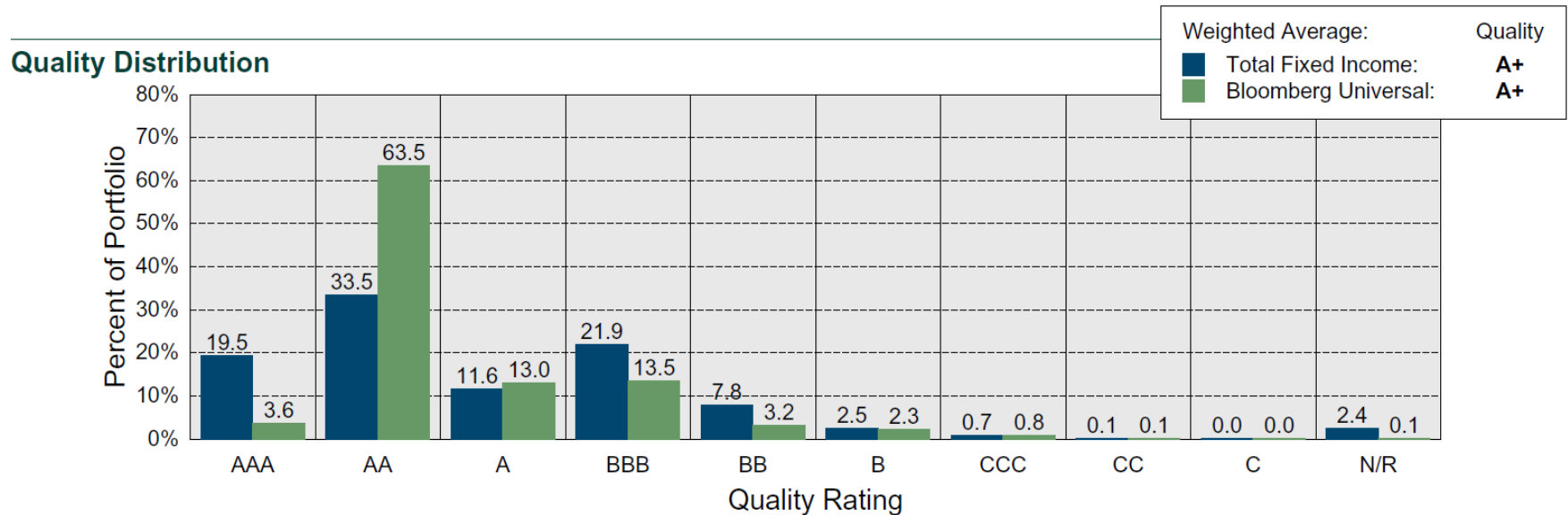
Portfolio Analytics : Duration



Source: Callan

- The portfolio's fixed income managers actively manage their duration, with current overweight relative to the benchmark at the short and long end of the yield curve

Portfolio Analytics : Quality Ranking



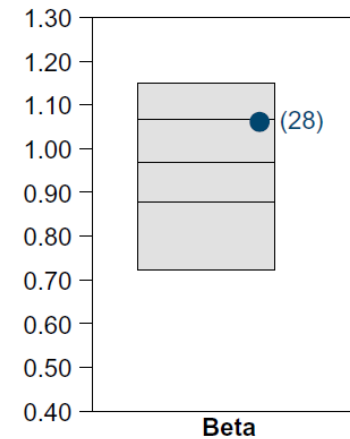
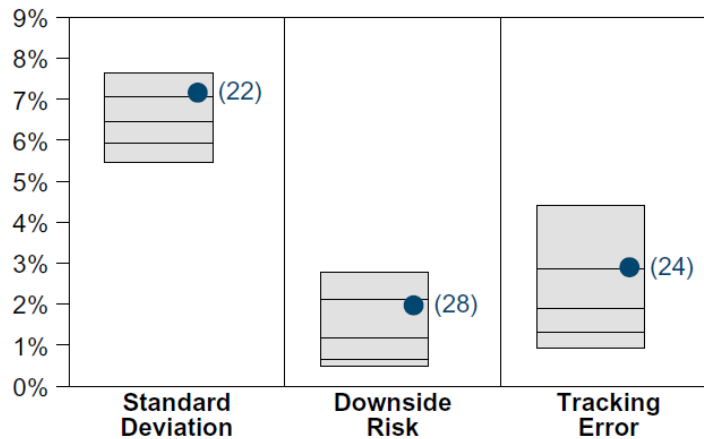
Source: Callan

- The portfolio maintained a high average quality rating of A+, in line with peers and the benchmark

Portfolio Analytics : Risk Characteristics



Risk Statistics Rankings vs Fixed Income Benchmark Rankings Against Lg Public Fund - Domestic Fixed (Gross) Five Years Ended June 30, 2024



10th Percentile	7.65	2.77	4.40	10th Percentile	1.15
25th Percentile	7.07	2.10	2.86	25th Percentile	1.07
Median	6.47	1.18	1.89	Median	0.97
75th Percentile	5.92	0.65	1.32	75th Percentile	0.88
90th Percentile	5.45	0.50	0.93	90th Percentile	0.72
Total Fixed Income	7.16	1.97	2.90	Total Fixed Income	1.06

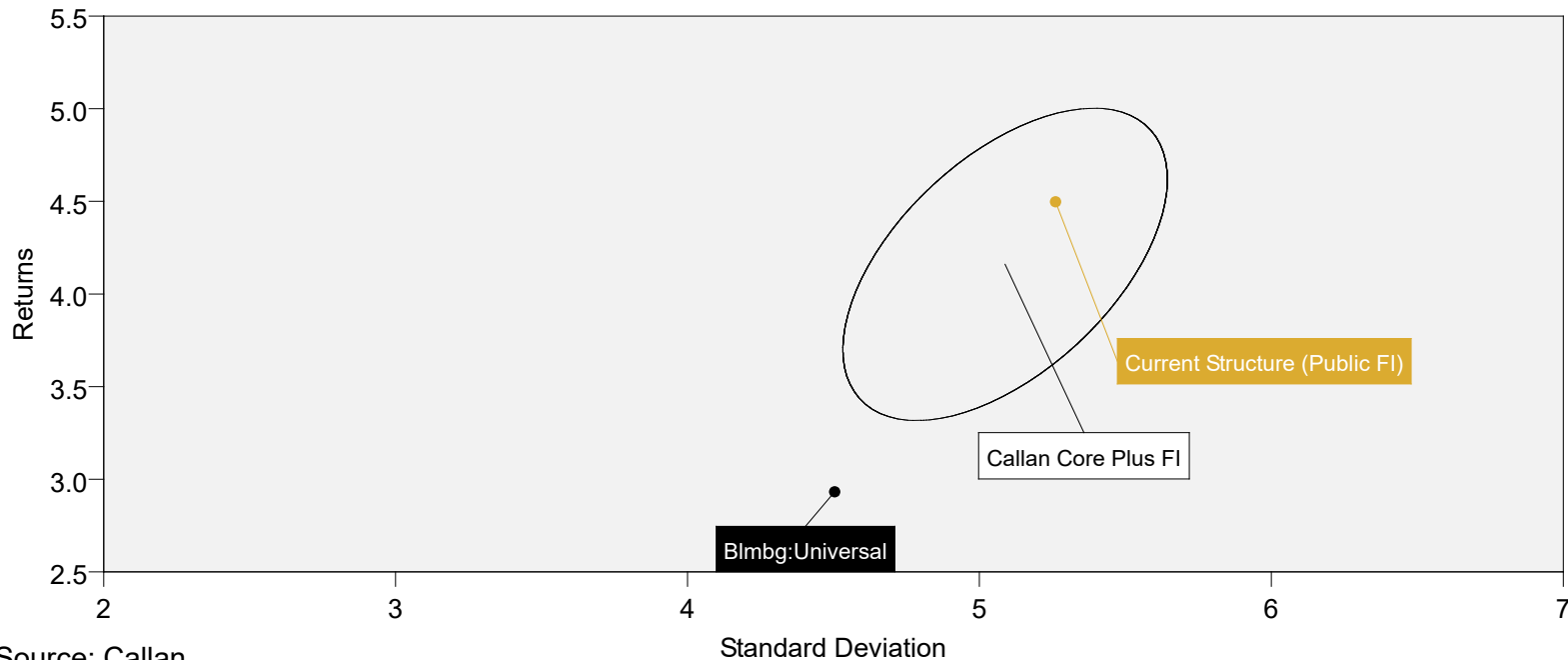
Source: Callan

- Given the portfolio’s actively managed approach to fixed income and non-core allocations, we’d expect a higher tracking error and beta relative to peers. The data confirms the assumption.
- Relative to other plans, NHRS is taking more risk measured by higher realized vol for the five-year period ending June 30th

Hypothetical Portfolio Return vs. Risk

Return vs. Volatility (assuming the current portfolio were held constant)

Scatter Chart
for 15 Years Ended June 30, 2024



- Consistent with the prior slide, we see a higher standard deviation if the current exposures were held constant over the prior 15 years
- NHRS would have been rewarded for the risk taken through higher returns. We can gather that the current approach to managing fixed income has produced stronger returns

Hypothetical 13-Year Performance



Rolling 60 Month Excess Return Relative To Blmbg:Universal
for 13 Years Ended June 30, 2024

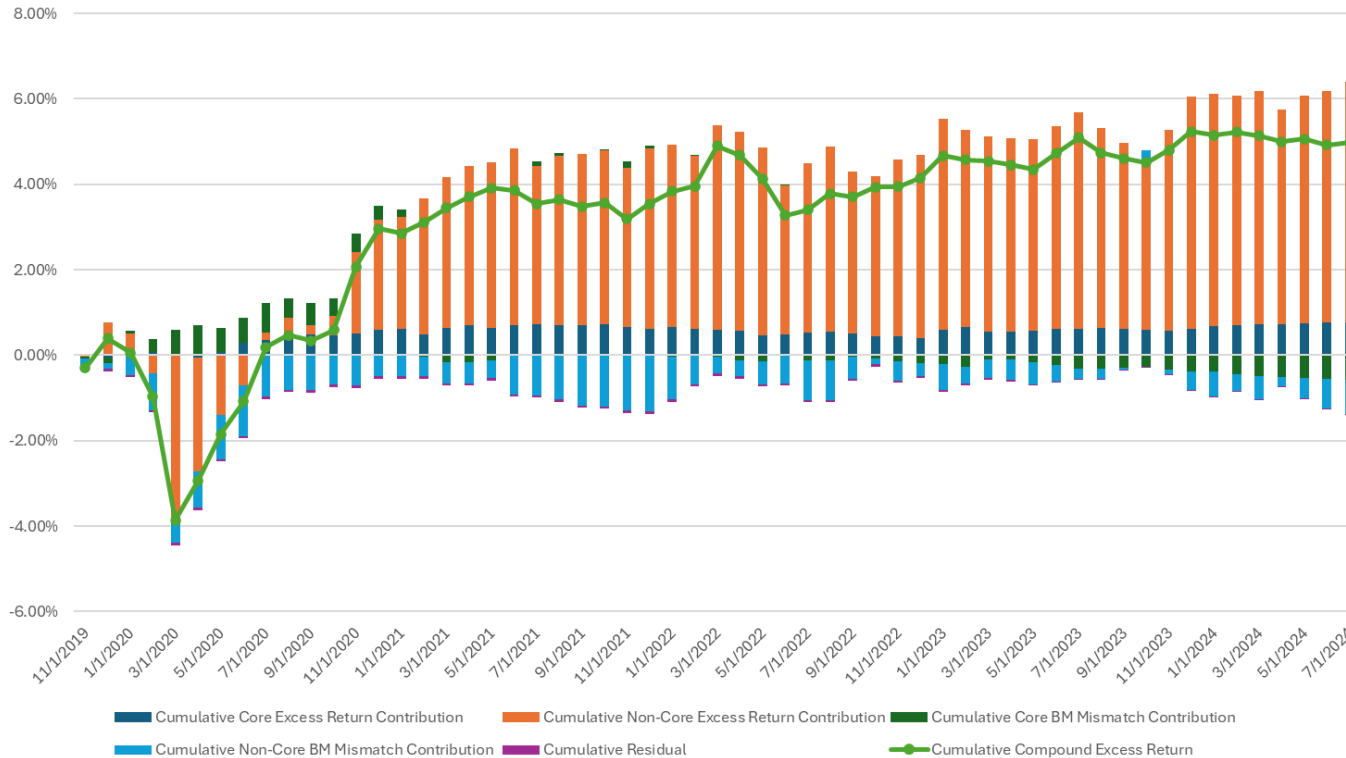


Source: Callan

- Holding current exposures constant, NHRS would have outperformed the Universal Index the majority of time
- Variation in the rolling excess returns illustrates difficulty in active management versus the benchmark

Hypothetical Performance Attribution

Attribution 10/31/19-7/31/24



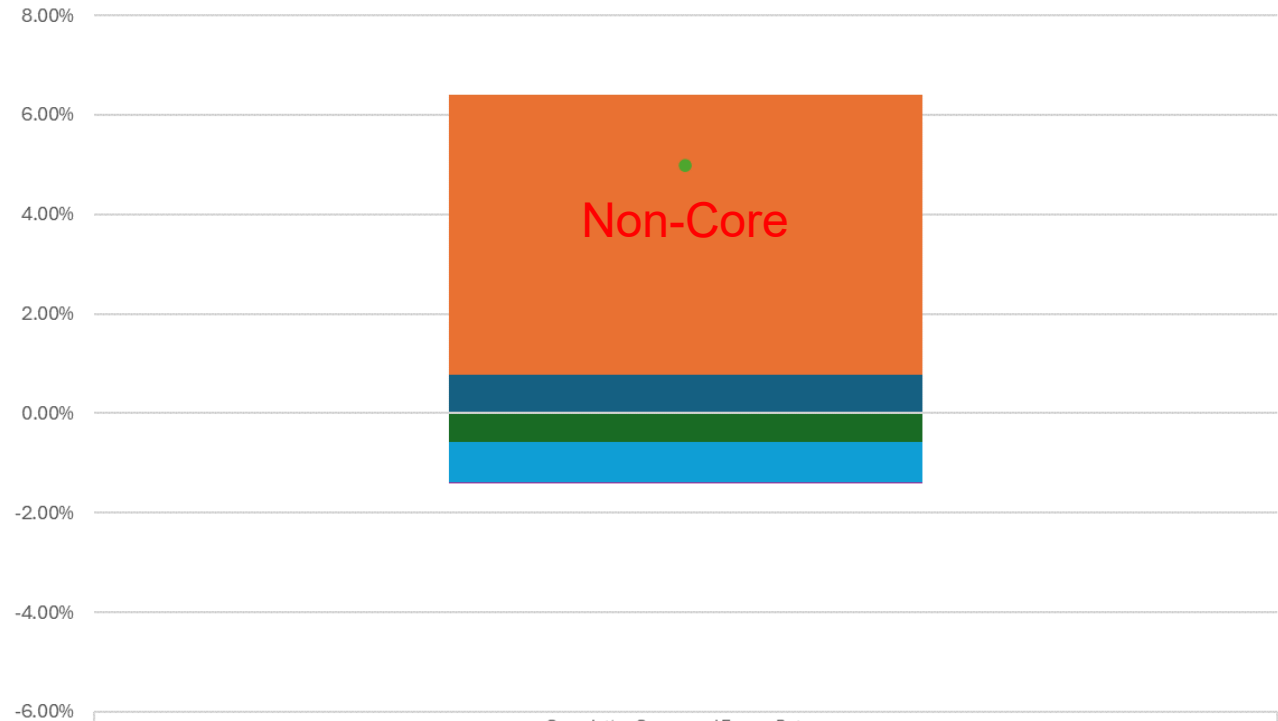
- Cumulative Compound returns (not annualized).
- Apart from COVID drawdown, consistent outperformance of non-core managers relative to core managers for the period shown
- Note: “Benchmark Mismatch” occurs when the manager’s benchmark differs from the asset class benchmark (Bloomberg Universal index), and was primarily attributable to currency, followed by duration

Source: Callan

Historical Net of Fee Performance Attribution for Core versus Non-Core Managers, if current weights were held constant

Hypothetical Performance Attribution

Attribution 10/31/19-7/31/24



	Cumulative Compound Excess Return
Cumulative Residual	-0.01%
Cumulative Non-Core BM Mismatch Contribution	-0.81%
Cumulative Core BM Mismatch Contribution	-0.58%
Cumulative Non-Core Excess Return Contribution	5.63%
Cumulative Core Excess Return Contribution	0.77%
Cumulative Compound Excess Return	4.99%

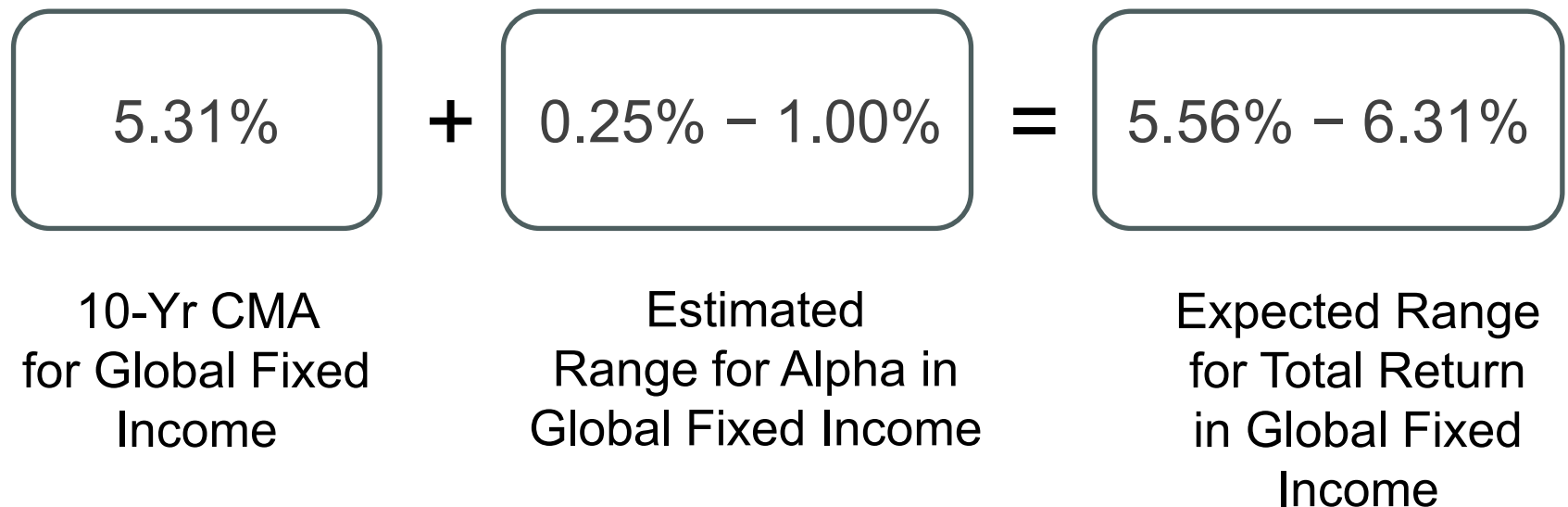
Source: Callan

Historical Net of Fee Performance Attribution for Core versus Non-Core Managers, if current weights were held constant

Alpha Estimate for Global Fixed Income



- NHRS worked with Callan to develop an estimate of the alpha generated from the Investment Team's recommended managers for the portfolio
- While there is no exact science for determining positive alpha generation, we find it important to estimate a range of outcomes over the long-term horizon (10-year or greater) for total return
- Investment Team estimates about 50 basis points of expected alpha with a range of 25 to 100 basis points around this point estimate
 - Consideration for active management in the asset class



Rebalancing Ranges for Fixed Income



- Investment Team is proposing new rebalancing ranges for three asset classes in the NHRS portfolio, with support from Callan
 - Widen the band by 2% from 5% to 7% for Fixed Income net of Cash Equivalents
 - Set the band for Private Credit at 5 to 15%, similar to Private Equity
 - Set the band for Cash Equivalents (0 to 5%)

Asset Class	Approved LT Policy Portfolio	07/31/24 Actual Allocation	Proposed Rebalancing Ranges
Global Equity	40%	52%	30 - 50% (-/+ 10%)
Global Fixed Income	25%	19%	18 - 32% (-/+ 7%)
Alternatives			
Private Equity	10%	14%	5 - 15% (+/-5%. No change)
Private Credit	10%	5%	5 - 15% (-/+ 5%)
Private Real Estate	10%	11%	5 - 20% (-5%, +10%. No change)
Private Infrastructure	5%	0%	0 - 10% (-/+ 5%)
Cash Equivalents	0%	1%	0 - 5% (0/+ 5%)
	100%	100%	

Source: NHRS

Summary and Next Steps

The Investment Team is **recommending the following**:

- Maintain the Bloomberg US Universal benchmark for the Global Fixed Income asset class (**no action required here**)
- **Approve the specific rebalancing ranges for Global Fixed Income, Cash Equivalents, and Private Credit** asset classes (see Callan Memorandum)
 - Global Fixed Income : **18% - 32%** (slightly wider than current range)
 - Cash Equivalents : **0 – 5%** (target will still be close to 0%)
 - Private Credit : **5 – 15%** (range will be similar to Private Equity)
- Investment Team **will present the Implementation Plan**, which will outline manager changes in Global Fixed Income at subsequent IIC meetings
 - Callan will continue to support the Investment Team in preparing those recommendations

September 2024



New Hampshire Retirement System

Fixed Income Current Structure

Kevin Machiz, CFA, FRM
Capital Markets Research

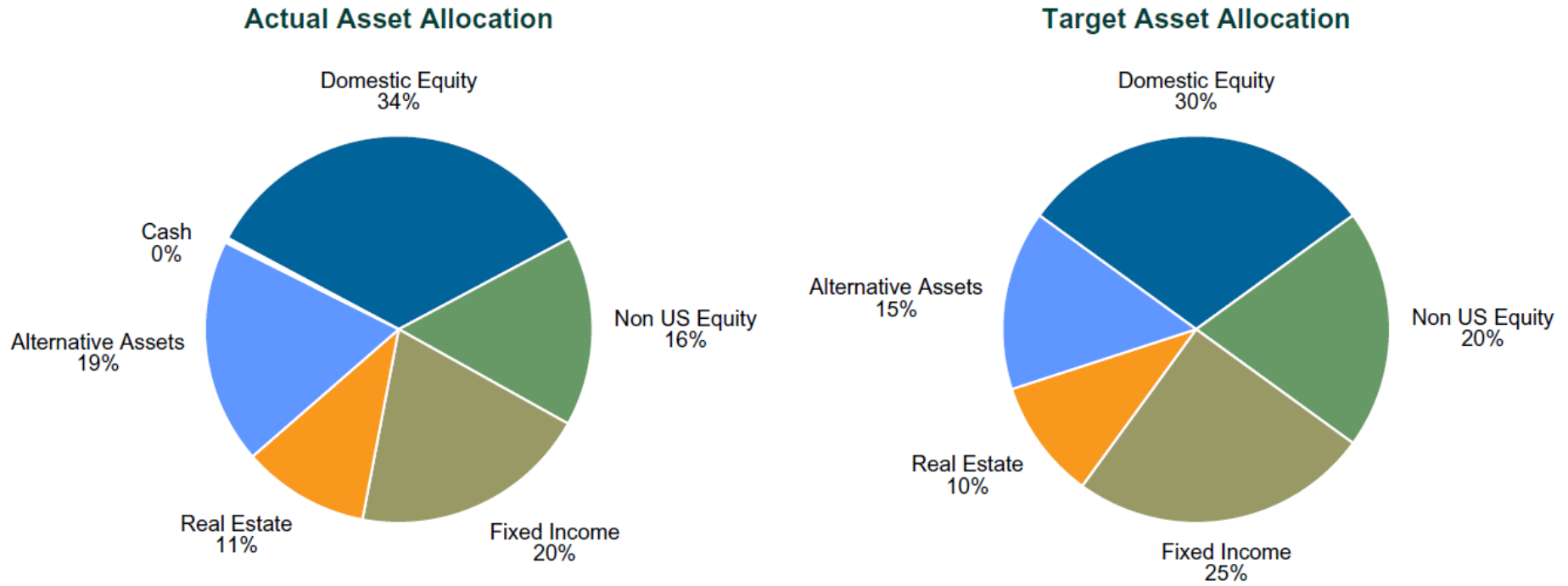
Angel Haddad
Fund Sponsor Consulting

Britton Murdoch
Fund Sponsor Consulting

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Current Asset Allocation

As of December 31, 2023



Current Actual Fixed Income asset allocation (20%) is 5% below Target (25%)

Current Actual Private Credit asset allocation (5%) is 5% below Target (10%)

Fixed Income Styles

Role of Fixed Income

- The primary role of public equities in asset allocation is capital growth
- Fixed income is typically a low-risk, diversifying asset for the equity allocation rather than a primary source of additional return to a fund
 - Bonds offer protection in the short run
 - Dependable income provides comfort in economic downturns or sudden market corrections
- The fixed income allocation is the primary diversifier for the exposure to equities
- Fixed income can also serve as an important source of liquidity
- Is the fixed income allocation fulfilling an appropriate role?
- How should fixed income be structured to fulfill competing goals of safety, diversification, liquidity, and returns?
 - A Passive Aggregate allocation can reduce tracking error and fees while reliably providing liquidity
 - The IR&M strategy is also conservative and seeks out incremental returns within high quality fixed income markets
 - The other opportunistic/unconstrained strategies can pursue a variety of risk factors (e.g. duration, yield curve, currency, etc.) and have wide latitude to scale risks up and down in pursuit of returns, and in doing so are expected to diversify more traditional fixed income allocations

Fixed Income Opportunities

The three main factors that define fixed income strategies are:

- Broad market exposure vs. one narrowed by sector or duration
- Use of tactical “core plus” mandates vs. dedicated allocations to “satellite” securities outside of the benchmark, such as low quality credit or global bonds
- Active vs. passive implementation

Approaches include core, core plus, and specialty

- Investment managers should be allowed to make tactical sector decisions
- Managers have the knowledge, experience, tools, and focus to make value-adding decisions on sector allocations that reflect the relative attractiveness of the sectors
- Overvalued sectors can be underweighted to limit losses consistent with the stabilizing role of fixed income
- Limiting managers to specific sectors often results in more complex structures due to the need for an increased number of managers
- Some fixed income managers use FX successfully as a tool for value creation

Global Fixed Income Overview

Expanding globally offers a differentiated source of return

- Fixed income returns vary widely by country due to different business and monetary policy cycles
- However, many developed countries face similar economic challenges as the U.S.
- Active management is strongly encouraged

Hedging currency is an important decision

- Historically, unhedged non-U.S. fixed income has had a similar return with significantly more volatility
- Predicting direction of US dollar is difficult but currency may be source of alpha for a global fixed income manager.

Variety of styles available, from benchmark oriented to “unconstrained”

Core Bond Style vs. Bloomberg Aggregate

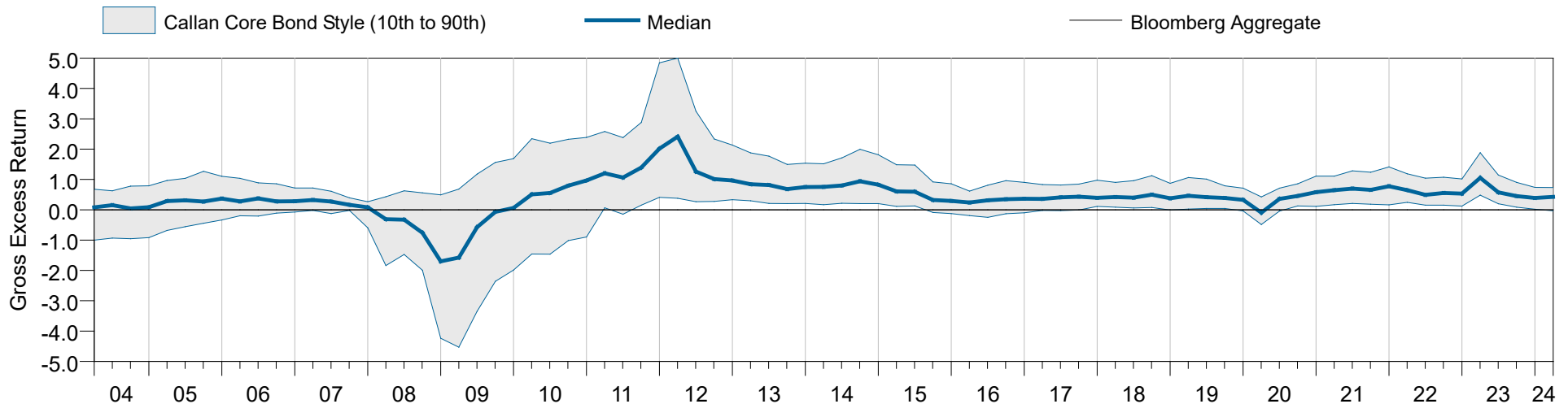
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	83%	81%	73%	66%	53%	46%	41%	38%	31%	28%
45th Percentile	86%	86%	81%	71%	64%	50%	45%	41%	38%	34%
40th Percentile	90%	88%	85%	80%	75%	65%	51%	44%	41%	38%
35th Percentile	91%	89%	86%	83%	79%	75%	64%	55%	48%	43%
30th Percentile	93%	93%	90%	86%	85%	80%	76%	66%	58%	53%
25th Percentile	95%	93%	93%	90%	89%	86%	84%	78%	70%	66%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.45%

Rolling 3-Year Gross Excess Return relative to Bloomberg Aggregate for 20 Years ended March 31, 2024



Core Plus Bond Style vs. Bloomberg Aggregate

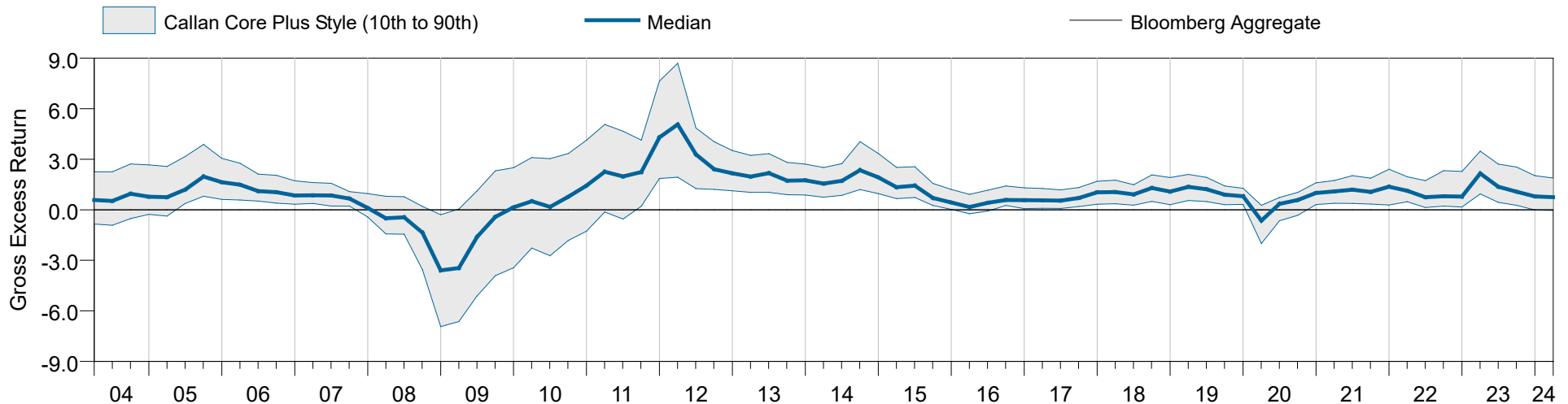
How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	85%	85%	85%	84%	84%	81%	81%	78%	73%	73%
45th Percentile	89%	88%	86%	86%	85%	83%	81%	81%	80%	74%
40th Percentile	90%	89%	89%	88%	88%	86%	85%	85%	84%	81%
35th Percentile	91%	90%	90%	89%	89%	89%	88%	88%	86%	84%
30th Percentile	91%	91%	91%	90%	90%	89%	89%	88%	88%	86%
25th Percentile	93%	93%	93%	93%	93%	90%	89%	89%	88%	88%

Average Annualized 3-Year Excess Return (gross) – Median Manager:

0.98%

Rolling 3-Year Gross Excess Return relative to Bloomberg Aggregate for 20 Years ended March 31, 2024



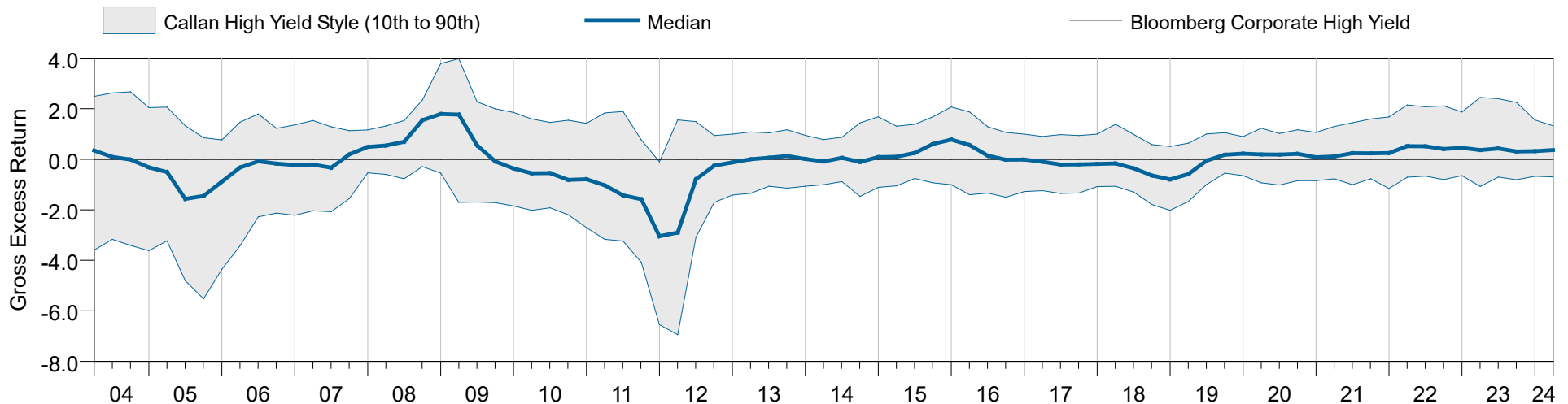
High Yield Style vs. Bloomberg Corporate High Yield

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	31%	25%	24%	21%	19%	16%	14%	10%	8%	6%
45th Percentile	44%	36%	33%	25%	23%	20%	18%	15%	10%	10%
40th Percentile	50%	46%	44%	38%	34%	28%	25%	20%	19%	13%
35th Percentile	64%	59%	53%	48%	44%	35%	34%	31%	26%	21%
30th Percentile	79%	73%	65%	60%	54%	46%	43%	36%	34%	33%
25th Percentile	85%	84%	83%	79%	76%	69%	61%	55%	53%	43%

Average Annualized 3-Year Excess Return (gross) – Median Manager: **-0.10%**

Rolling 3-Year Gross Excess Return relative to Bloomberg Corporate High Yield for 20 Years ended March 31, 2024



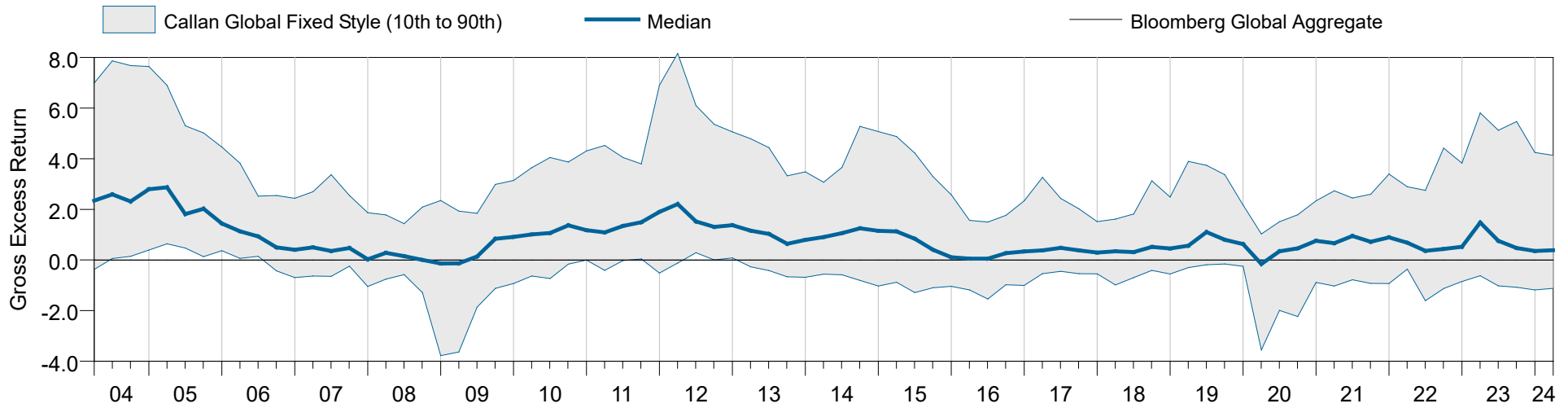
Global Fixed Style vs. Bloomberg Global Aggregate

How often Manager Beat Benchmark by more than Fee Hurdle in Rolling 3-Year Periods over last 20 Years

Fee Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	88%	88%	84%	79%	71%	68%	60%	56%	55%	53%
45th Percentile	90%	88%	88%	86%	84%	75%	75%	65%	60%	60%
40th Percentile	95%	95%	93%	90%	89%	88%	81%	80%	76%	73%
35th Percentile	100%	100%	99%	98%	95%	94%	93%	90%	88%	86%
30th Percentile	100%	100%	100%	99%	99%	99%	98%	95%	91%	90%
25th Percentile	100%	100%	100%	100%	100%	100%	99%	99%	95%	94%

Average Annualized 3-Year Excess Return (gross) – Median Manager: 0.83%

Rolling 3-Year Gross Excess Return relative to Bloomberg Global Aggregate for 20 Years ended March 31, 2024



Do Core Plus Managers Add Value with Sector Rotation?

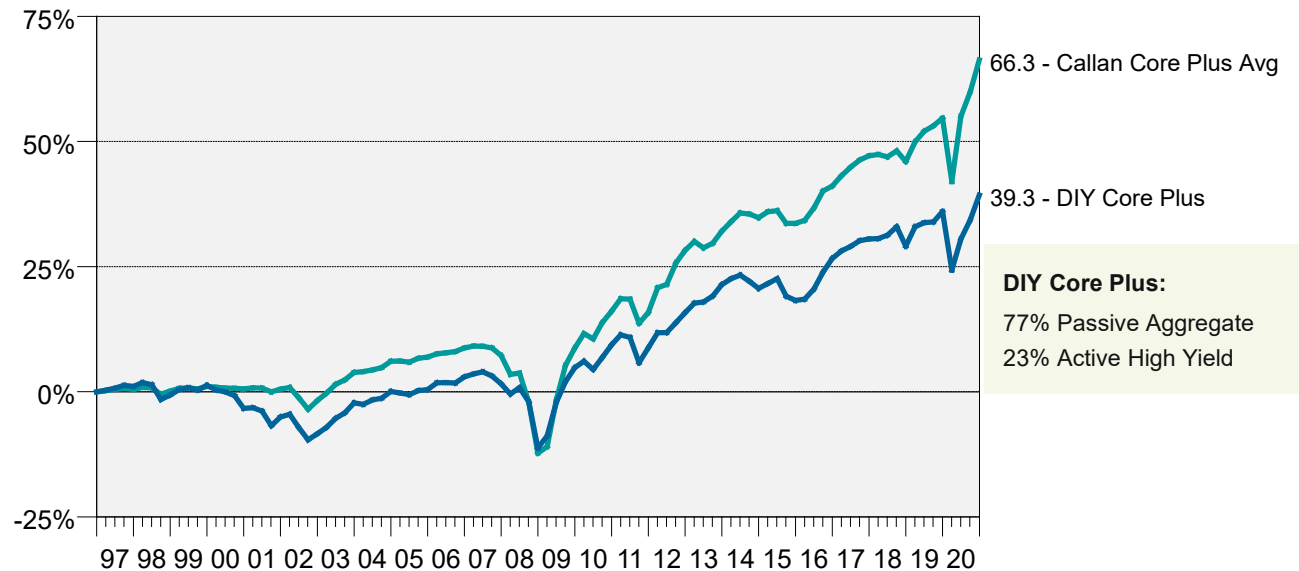
Idea: Core plus managers given an aggregate index benchmark will strategically overweight high yield credit

Question: Could asset owners reasonably take a do-it-yourself (DIY) approach to strategic sector allocation?

Goal: Perform a risk adjustment to the benchmarks to disentangle contribution to performance from a strategic overweight to credit vs. true sector rotation

Inputs: Bloomberg Barclays Aggregate, Callan High Yield peer group average return

Output: DIY portfolio that allocates to both and minimizes tracking error to the average active manager return



Source: Callan, details on methodology: <https://www.callan.com/research/active-fixed-income-managers/>

Fixed Income Strategies

Descriptions, Pros and Cons

Passive Aggregate: Attempts to replicate the return of the Bloomberg Aggregate index with minimal tracking error

Pros

- Minimal fee
- Minimal tracking error
- Liquidity

Cons

- Expected to underperform the index approximately by the amount of fees
- There is strong evidence that active fixed income managers have a high probability of outperforming

Purpose: Stability of Income/Diversification vs. Equity/Low Default Risk

Core Plus: Attempts to add value over the Bloomberg Aggregate with relatively high tracking error due in part to the use of non-index securities, such as low-quality credit or global bonds

Pros

- Managers have generally added value net of fees
- Use tactical allocation when valuations are attractive

Cons

- Higher tracking error than Core
- Non-index securities tend to have higher correlations to equities limiting potential diversification vs. equities

Purpose: Moderate Total Return

Fixed Income Strategies

Descriptions, Pros and Cons

Unconstrained Fixed Income: Attempts to achieve moderate to high total returns without the need to track the Bloomberg Aggregate index. Heavy use of non-index securities, such as low-quality credit or global bonds

Pros

- Higher potential for value added from active management due to relaxed constraints
- Able to allocate heavily to non-index securities and make significant use of sector rotation
- Greater potential for protection against a rising interest rate environment

Cons

- Untethering from benchmark may not be consistent with stabilizing role of fixed income
- Non-index securities tend to have higher correlation to equities, limiting portfolio diversification
- Heavily reliant on manager skill due to broad investment guidelines and tactical elements
- For these strategies to produce favorable risk-adjusted results, the manager must consistently make the right tactical choices

Purpose: Moderate to High Total Return, Diversification vs. Traditional Fixed Income

Fixed Income Strategies

Descriptions, Pros and Cons

Global: Broadly diversified allocations to bonds across the globe with varying degrees of risk and use of non-benchmark securities

Pros

- Managers have the ability to move between under- and over-valued markets
- Access to non-US markets can add significant diversification
- Broadening the opportunity set with active country allocations, especially to emerging markets, could add to returns

Cons

- Yields overseas are relatively low
- Requires a well-resourced firm to adequately cover the markets
- While leaving currency unhedged could allow greater diversification to Domestic Fixed Income, it comes with higher volatility

Purpose: Moderate Total Return/Some Diversification vs. Traditional Fixed Income

Callan

Fixed Income Structure Review

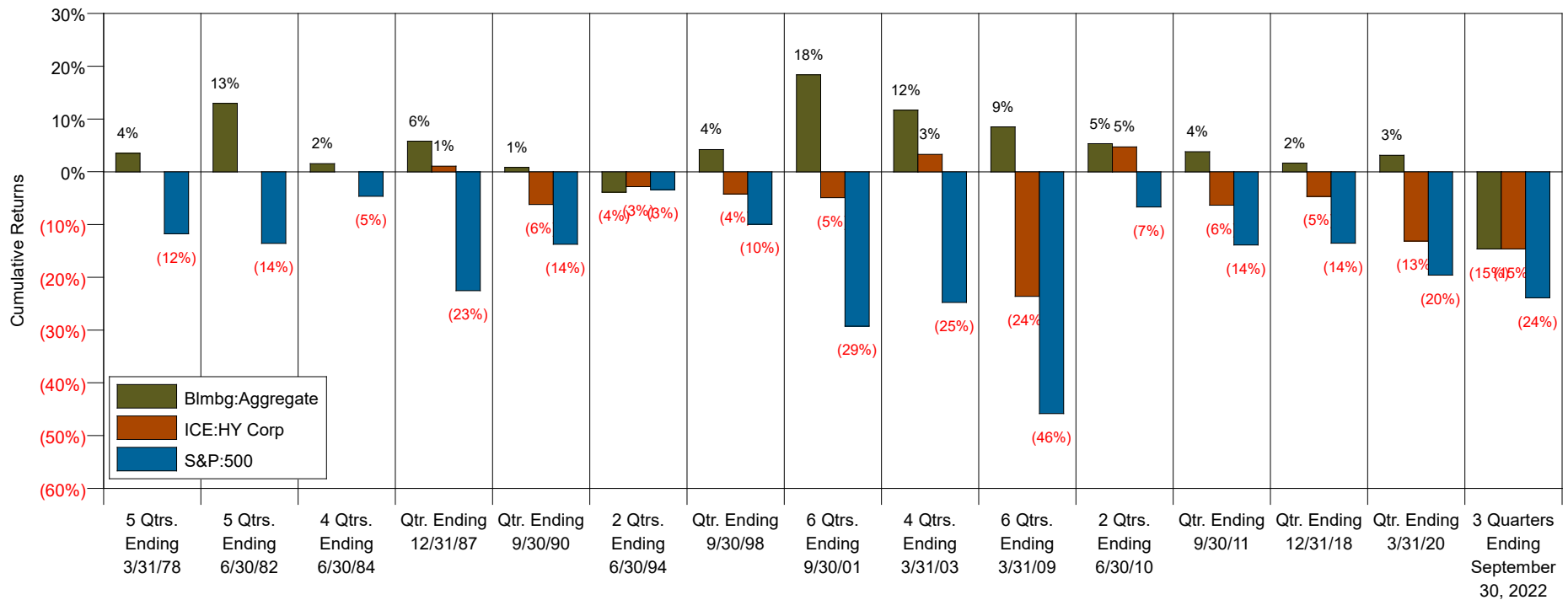
Current Fixed Income Structure

Category	Fund	Current \$	% of FI	Current % of Fund
Core	Mellon US Agg Bond Index	\$ 179,119,918	7.63%	1.5%
Core	Income Research & Management	\$ 785,987,790	33.49%	6.7%
Unconstrained/Oppportunistic	FIAM (Fidelity) Tactical Bond	\$ 375,407,619	16.00%	3.2%
Unconstrained/Oppportunistic	BlackRock SIO Bond Fund	\$ 266,277,704	11.35%	2.3%
Unconstrained/Oppportunistic	Brandywine Asset Mgmt	\$ 239,132,976	10.19%	2.0%
Unconstrained/Oppportunistic	Loomis Sayles	\$ 285,847,793	12.18%	2.4%
Unconstrained/Oppportunistic	Manulife Strategic Fixed Income	\$ 214,913,943	9.16%	1.8%
	Total Fixed Income	\$ 2,346,687,743	100.0%	19.9%
	Core	\$ 965,107,708		8.2%
	Unconstrained/Oppportunistic	\$ 1,381,580,035		11.7%

- The Current Fixed Income Structure consists of seven managers, a Passive Aggregate mandate from Mellon, a conservative high quality mandate from Income Research & Management, and several opportunistic/unconstrained mandates

An Illustration of the Role of Fixed Income

Role as the “Anchor to Windward” – Fixed Income Performance in Declining Equity Environments

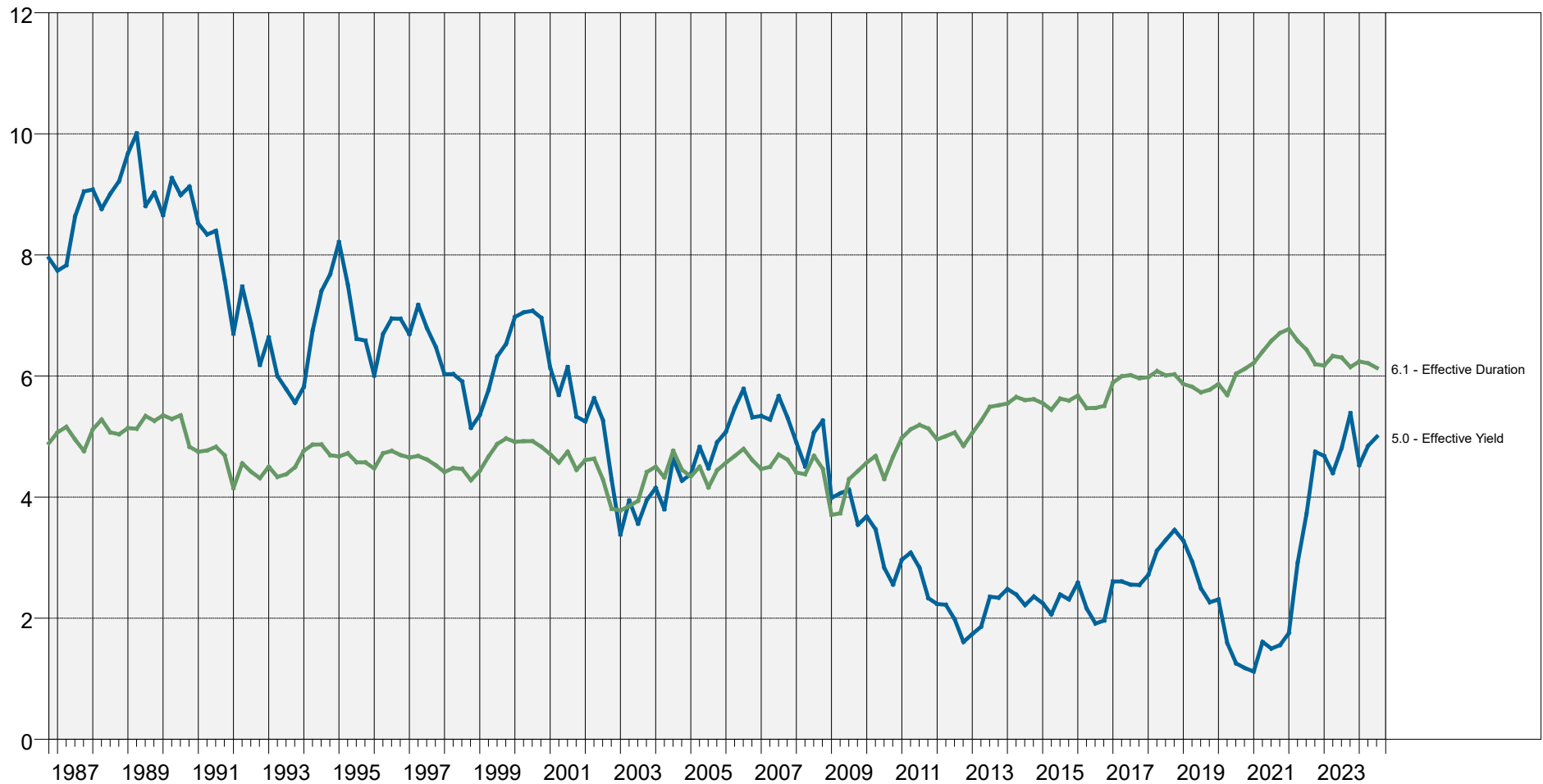


- Typically, the role of fixed income is to serve as a low-risk, diversifying anchor against which an investor takes on riskier investments in assets such as equity
 - Below-investment grade credit alone does not fulfill the role of anchor, but could be introduced alongside the anchor for other purposes

Inception of Merrill Lynch US High Yield Master II index is 4Q1986

Bond Yields Have Risen, Duration Remains Elevated

Portfolio: Blmbg:Aggregate



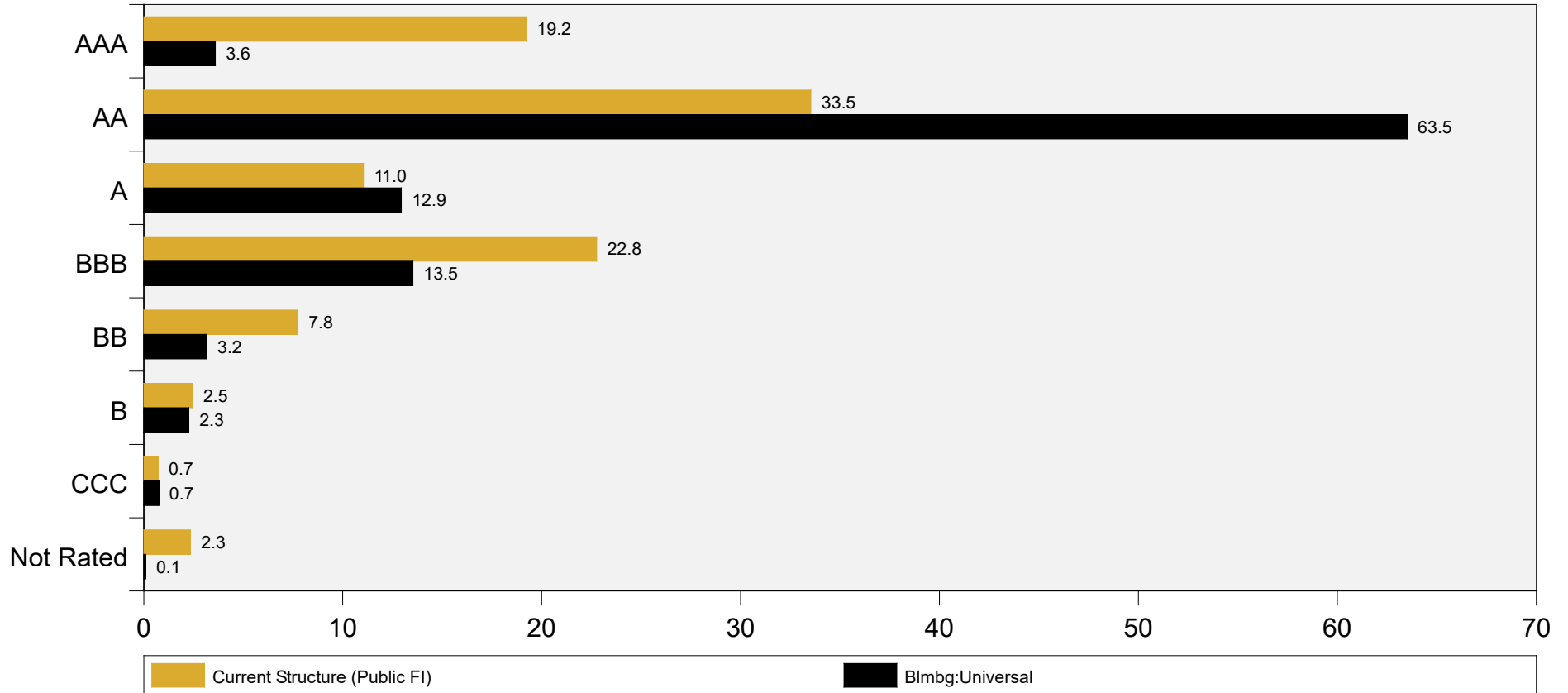
- Duration measures interest rate risk: at 6.2 years of duration, a 1% rise in yields would be expected to detract about 6.2% from returns
- Yield indicates the sustainable potential return if bonds are held to maturity without experiencing default

Historical Return Analysis

- To analyze historical results, Callan observed the Current Structure and modeled historical returns assuming monthly rebalancing
- This is an analysis of how structures would have performed historically, **not the portfolio's actual performance**
- All returns shown gross of fees unless noted otherwise
- Other material assumptions disclosed in appendix

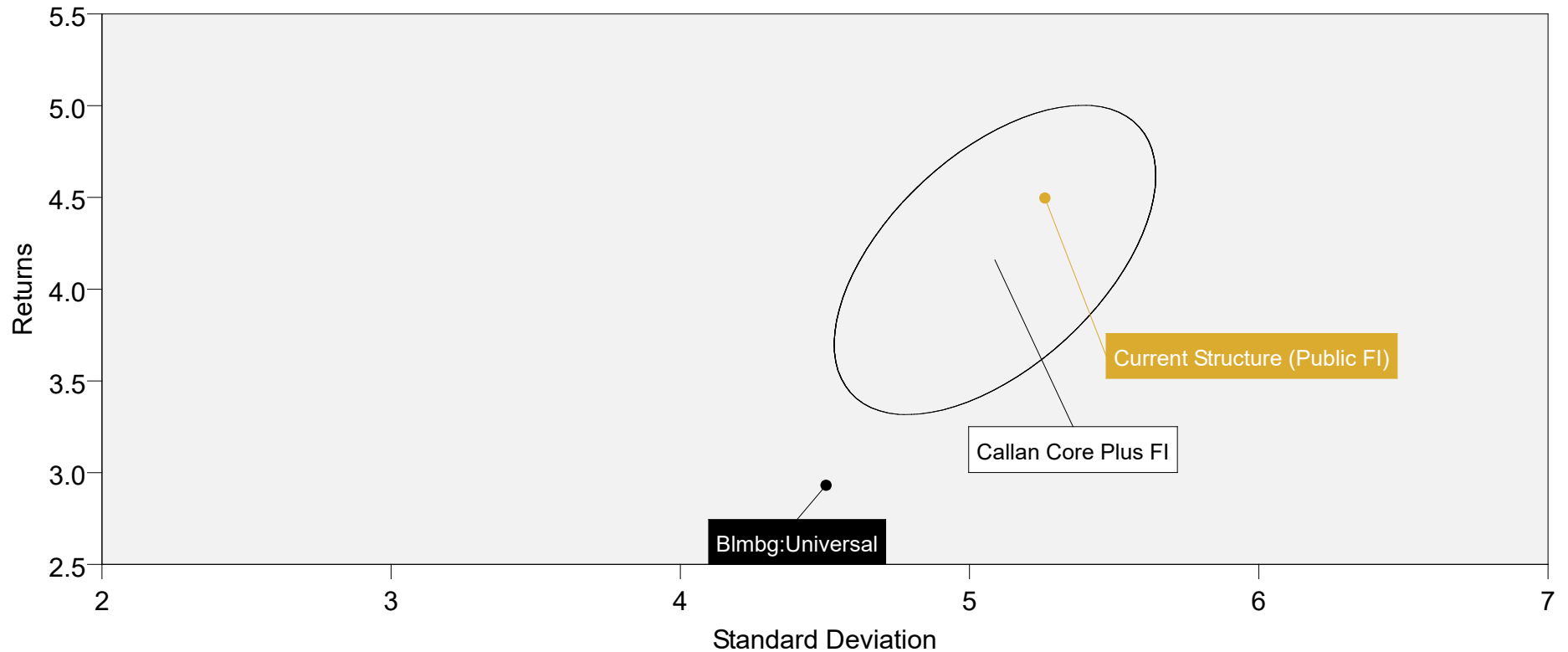
Credit Quality Allocations

June 30, 2024



Return vs. Volatility

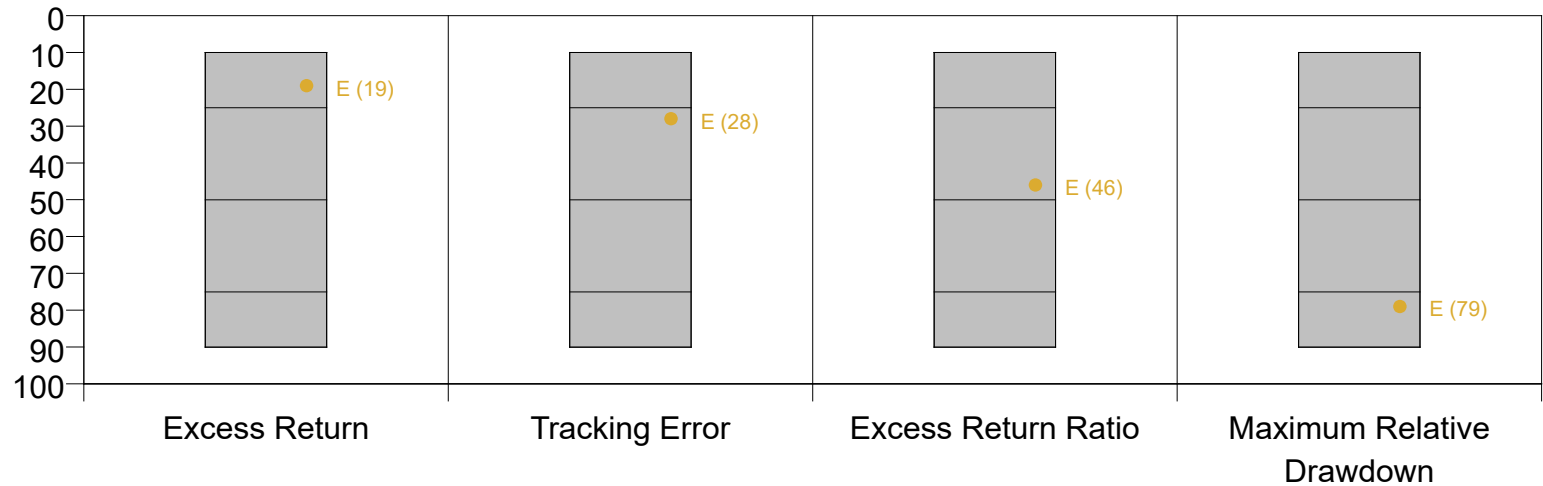
Scatter Chart
for 15 Years Ended June 30, 2024



Comparison to Institutional Core Plus Fixed Income Managers (vs. Universal Index)

Statistics relative to Blmbg:Universal
for 15 Years Ended June 30, 2024
Group: Callan Core Plus Fixed Income

Reference Index:
Bloomberg
Universal



	Excess Return	Tracking Error	Excess Return Ratio	Maximum Relative Drawdown
10th Percentile	2.14	2.26	1.28	(1.45)
25th Percentile	1.50	1.83	1.02	(2.02)
Median	1.19	1.25	0.83	(2.81)
75th Percentile	0.85	1.02	0.67	(4.14)
90th Percentile	0.46	0.77	0.46	(6.58)
Current Structure (Public FI) ● E	1.57	1.80	0.87	(4.37)

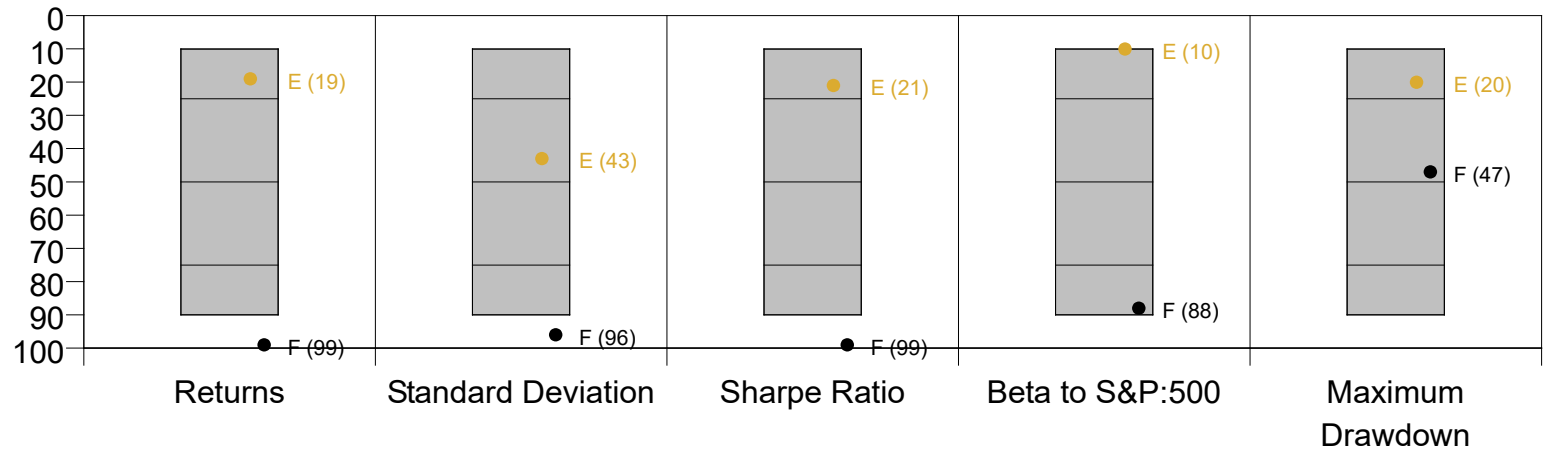
- Deviating relatively more from the benchmark (higher tracking error) allowed for higher excess returns over the time period

Comparison to Institutional Core Plus Fixed Income Managers

Statistics

for 15 Years Ended June 30, 2024

Group: Callan Core Plus Fixed Income



10th Percentile	5.07	5.15	0.81	0.18	(15.06)
25th Percentile	4.43	4.92	0.71	0.17	(15.94)
Median	4.12	4.75	0.64	0.14	(16.83)
75th Percentile	3.78	4.45	0.58	0.12	(17.60)
90th Percentile	3.39	4.29	0.52	0.10	(18.63)
Current Structure (Public FI) ● E	4.50	4.78	0.72	0.18	(15.55)
Blmbg:Universal ● F	2.93	4.26	0.44	0.10	(16.76)

Excess Returns

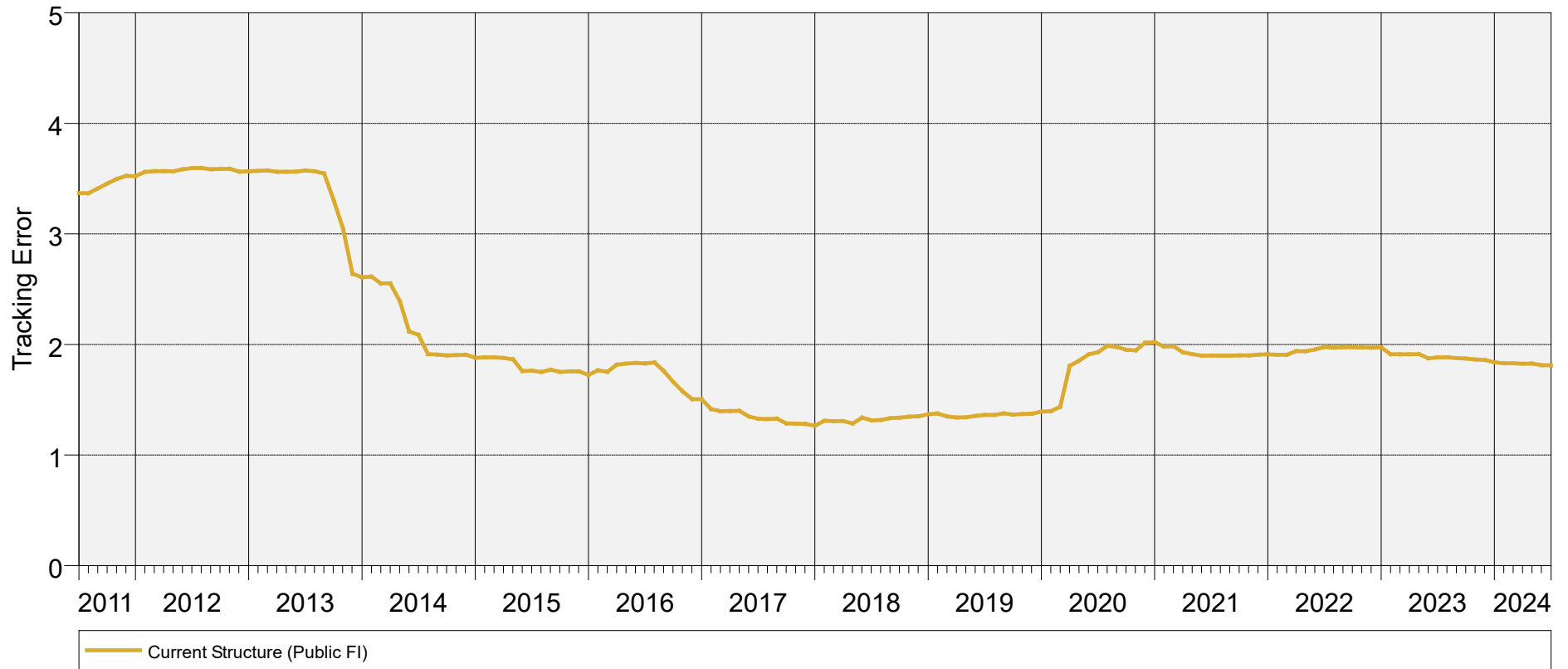
Rolling 60 Month Excess Return Relative To Blmbg:Universal
for 13 Years Ended June 30, 2024



➤ The Current Structure outperformed the Universal index the vast majority of the time

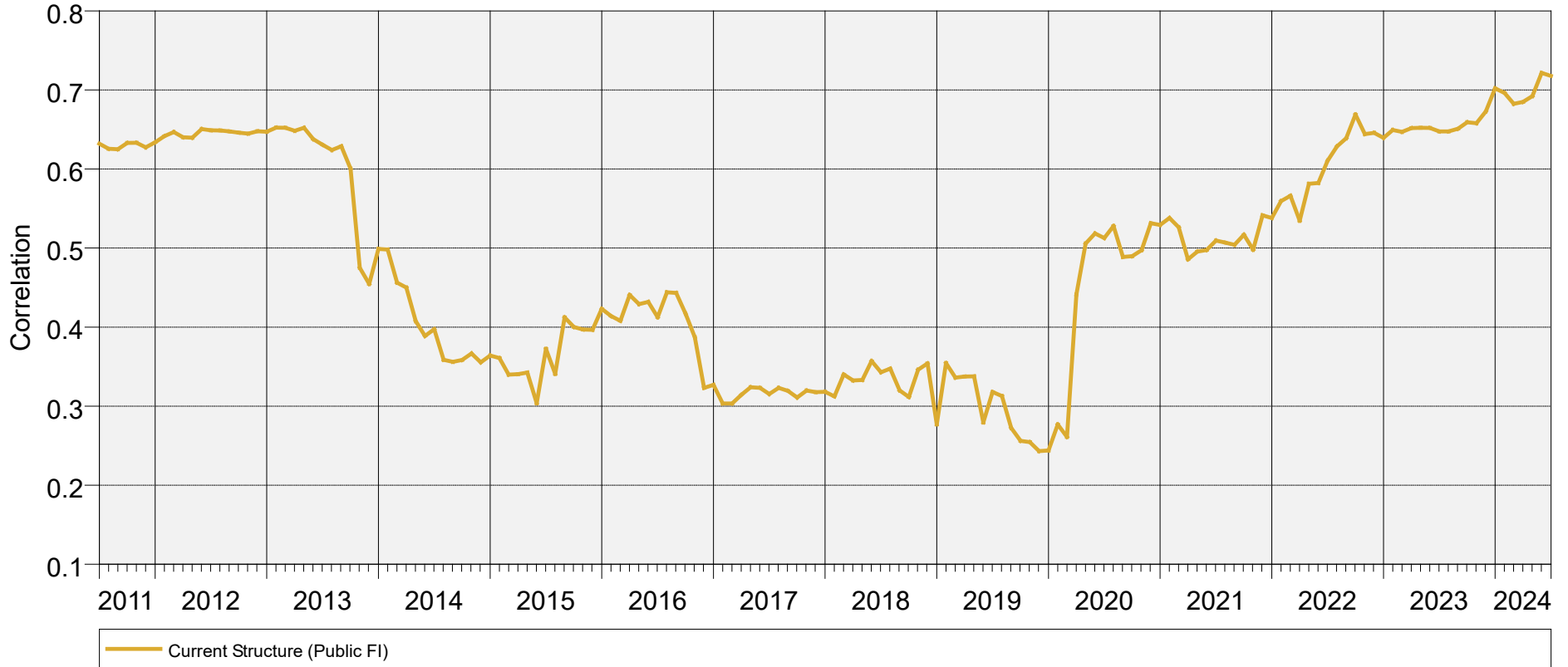
Tracking Error

Rolling 60 Month Tracking Error Relative To Blmbg:Universal
for 13 Years Ended June 30, 2024



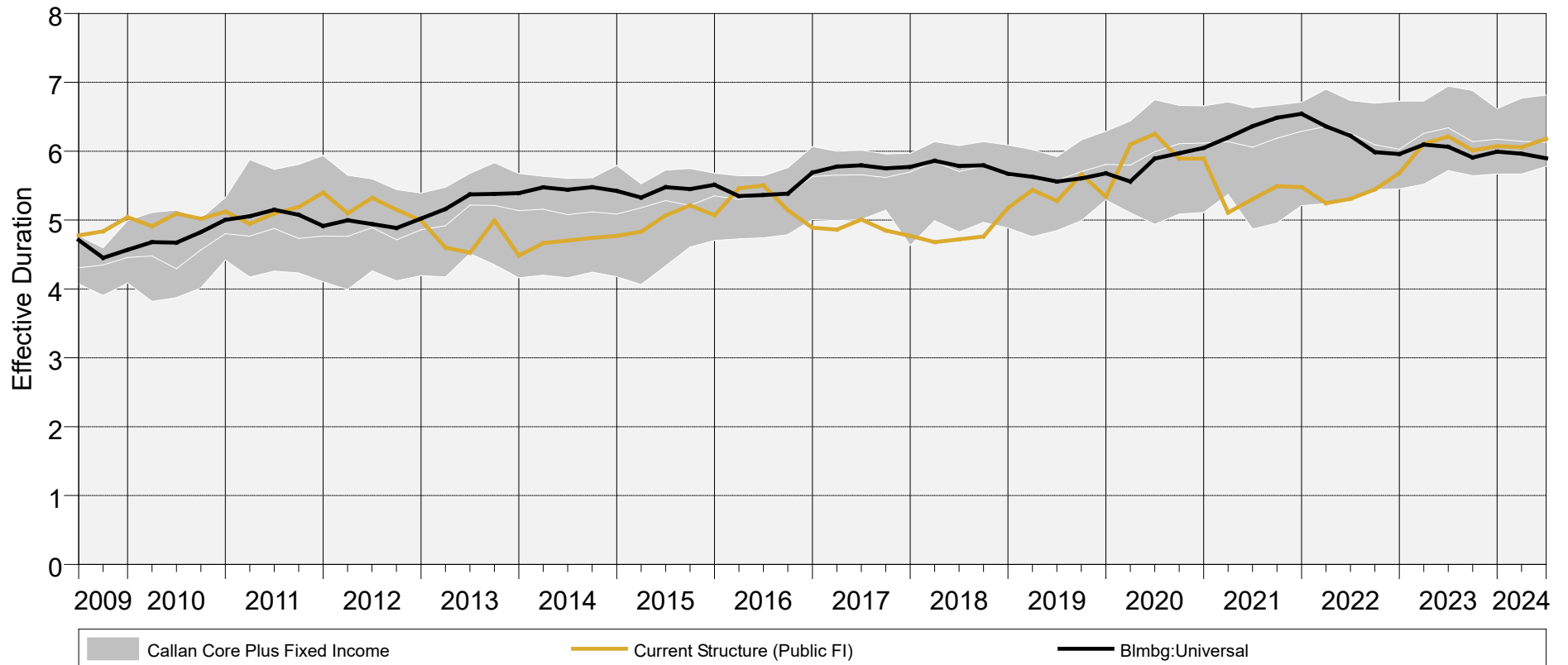
Correlation to Stocks

Rolling 60 Month Correlation Relative To S&P:500
for 13 Years Ended June 30, 2024



Duration (Interest Rate Risk)

Effective Duration
for 15 Years Ended June 30, 2024



- The Current Structure is notable for liberal use of duration positioning as a source of potential outperformance

Equity Beta

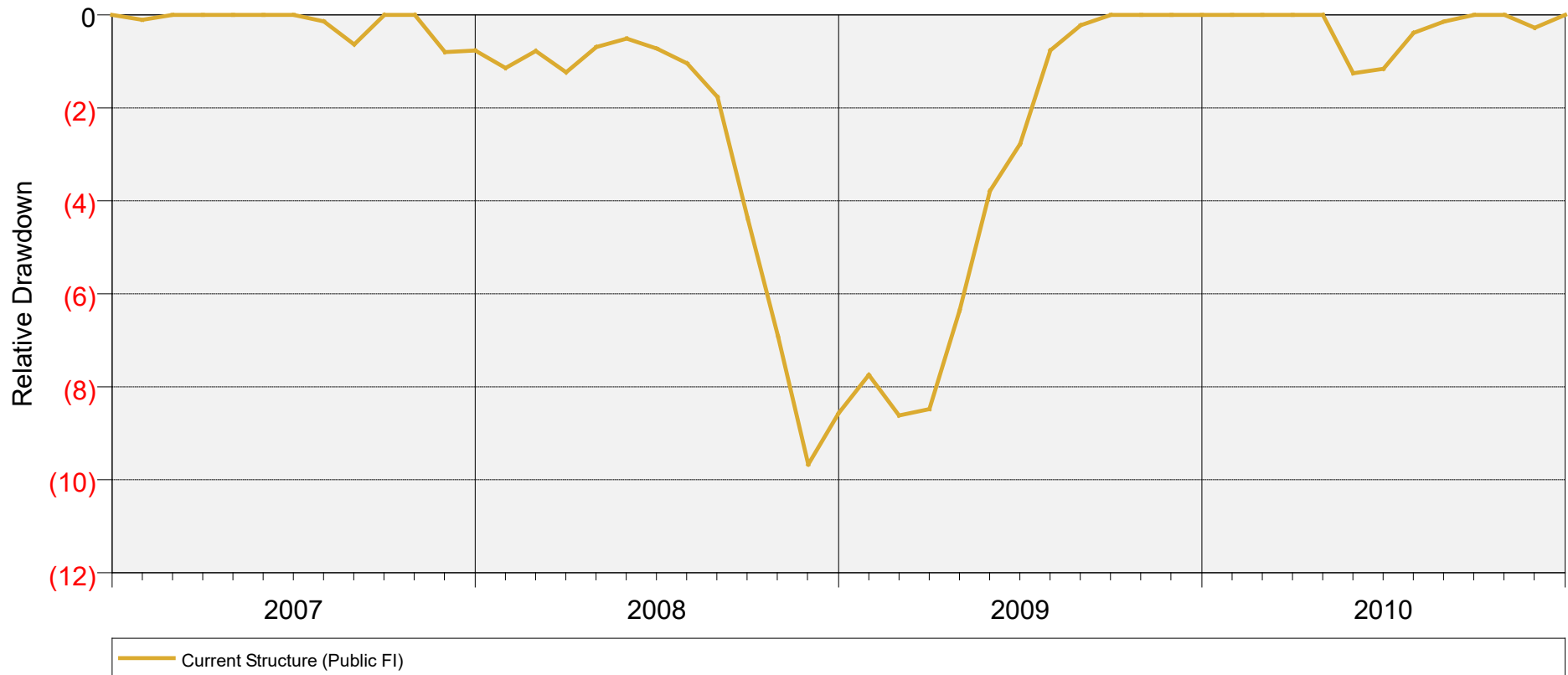
Rolling 60 Month Beta Relative To S&P:500
for 13 Years Ended June 30, 2024



- Equity Beta seeks to capture sensitivity or “hidden” exposure to stocks

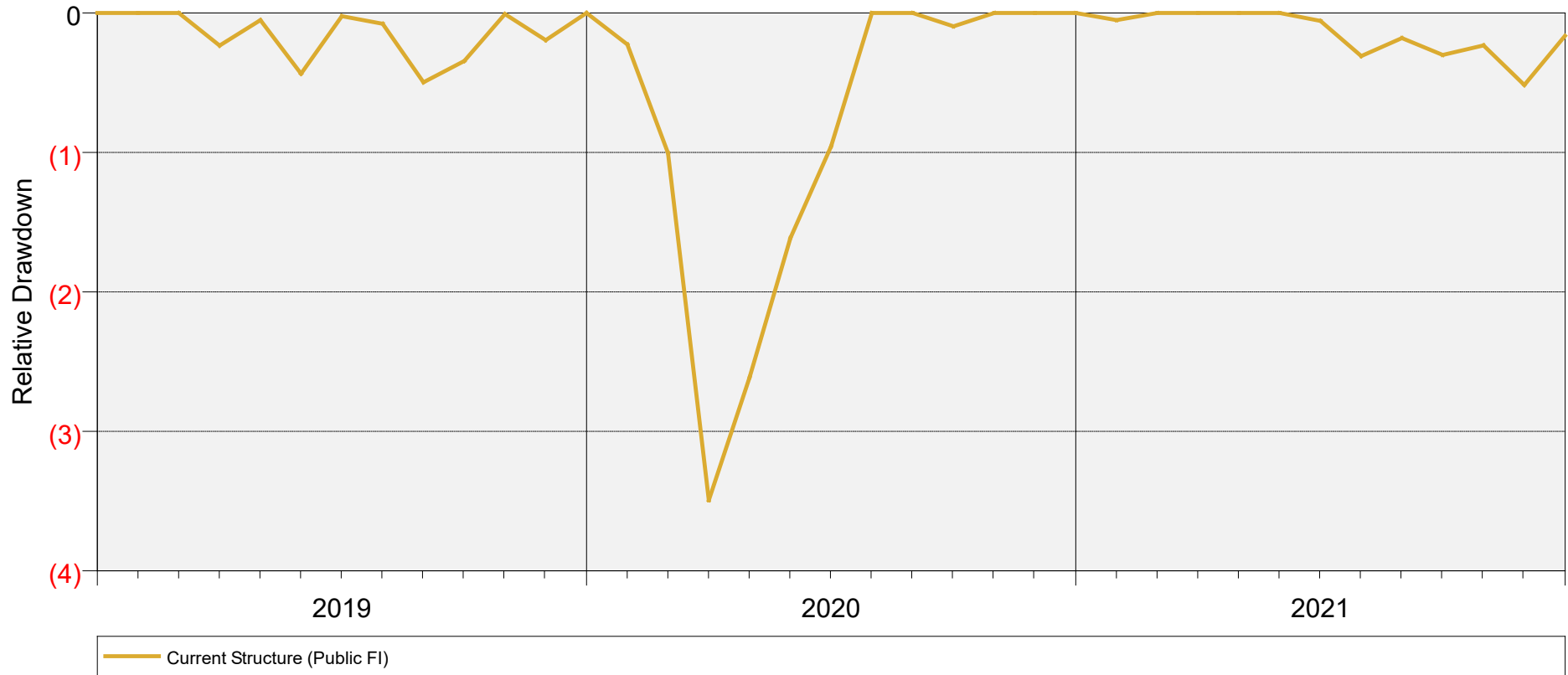
Global Financial Crisis Relative Drawdown

Relative Drawdown Relative To Blmbg:Universal
for 4 Years Ended December 31, 2010



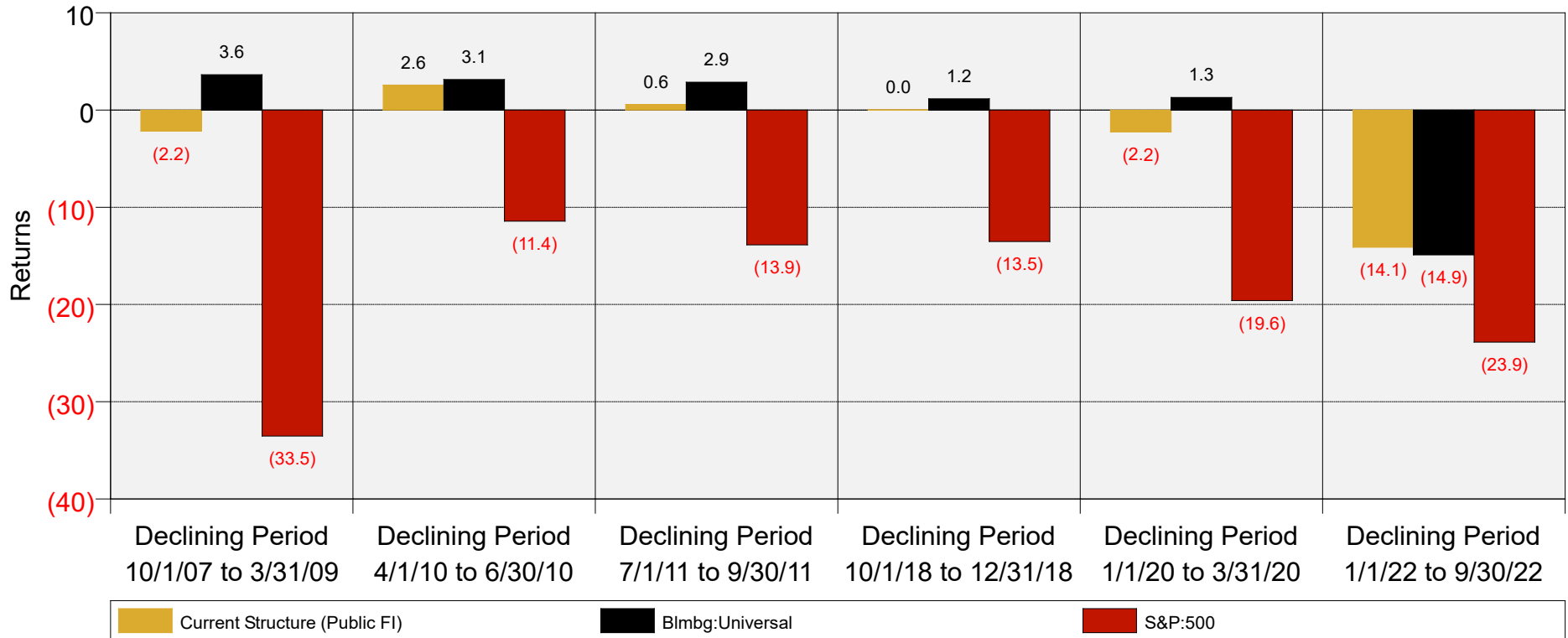
COVID-19 Outbreak Relative Drawdown

Relative Drawdown Relative To Blmbg:Universal
for 3 Years Ended December 31, 2021



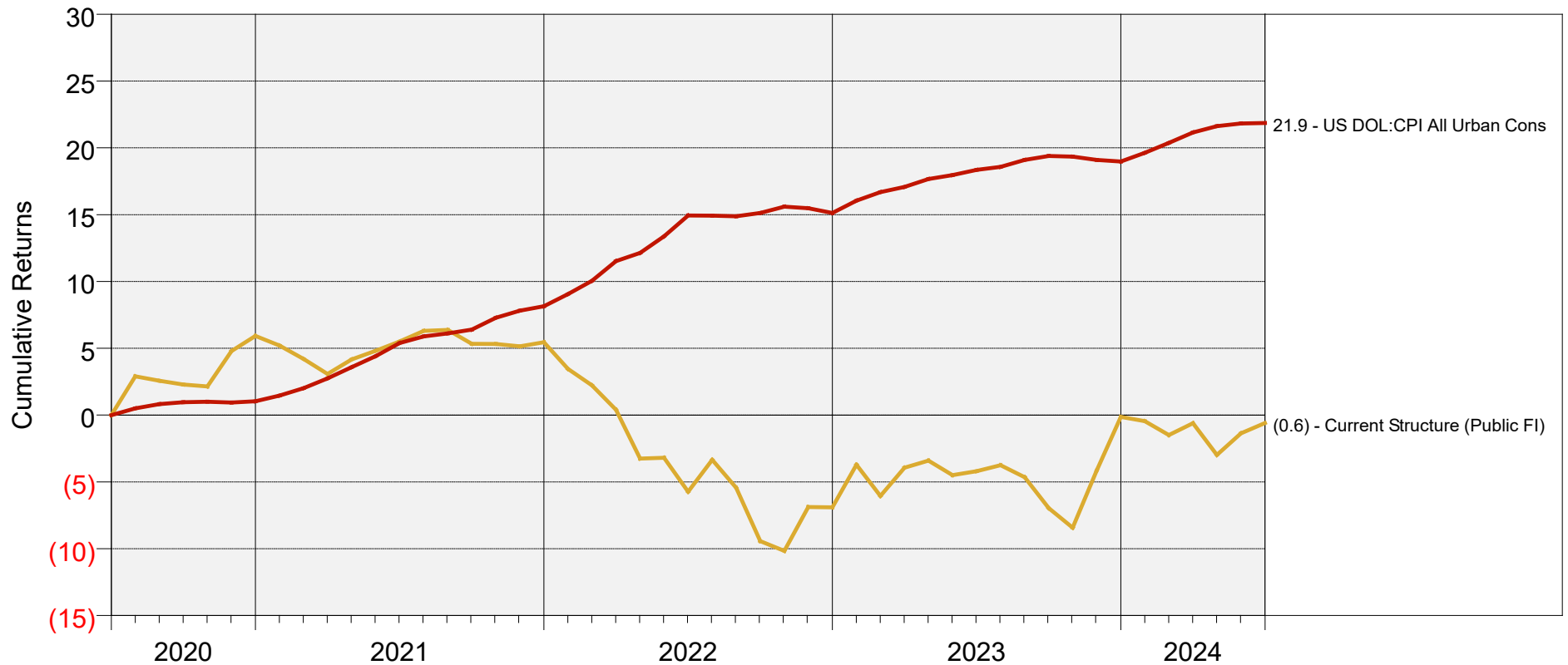
Cumulative Returns During Various Equity Drawdown Periods

Returns
for Domestic Equity Declining Periods
17 Years Ended June 30, 2024



Returns During Inflationary Environment

Cumulative Returns
for 4 Years Ended June 30, 2024



- The current inflationary environment, defined as the period since June 2020, has made it difficult for interest rate-sensitive fixed income to generate returns

Callan

Appendix

Other Material Assumptions for Historical Return Analysis

- To analyze historical results, Callan observed the Current Structure and modeled historical returns assuming monthly rebalancing
- This is an analysis of how structures would have performed historically, **not the portfolio's actual performance**
 - Fees based on current NHRS fee schedules

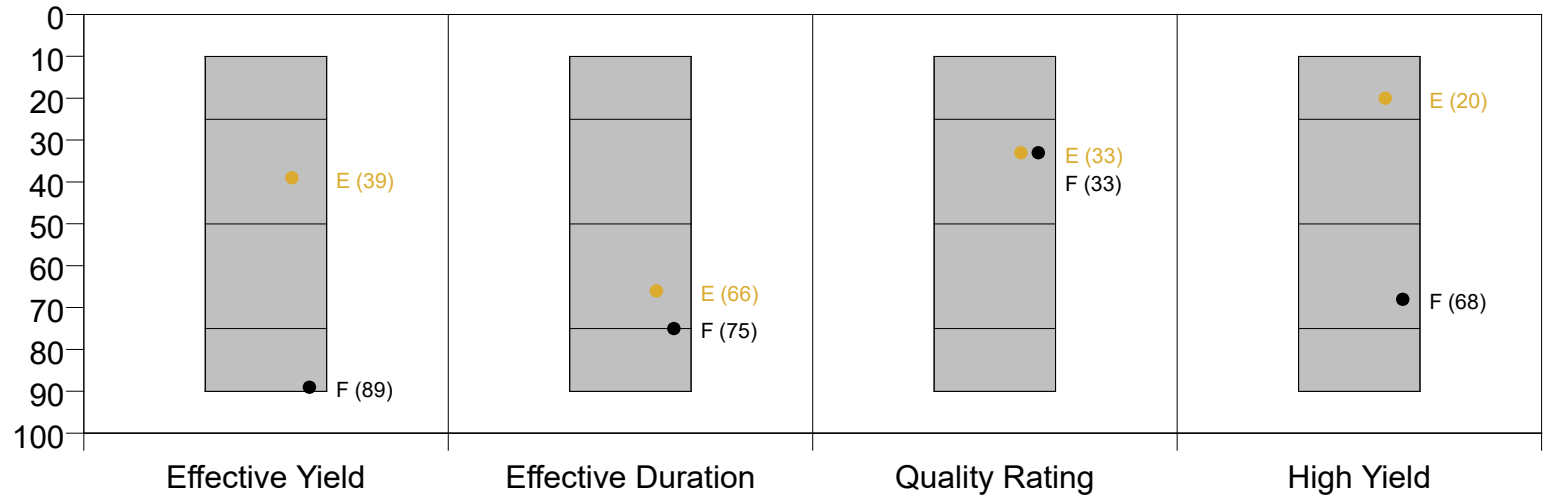
Fixed Income Fee Calculation Details



Portfolio Characteristics vs. Institutional Core Plus Fixed Income Managers

March 31, 2024

Group: Callan Core Plus Fixed Income

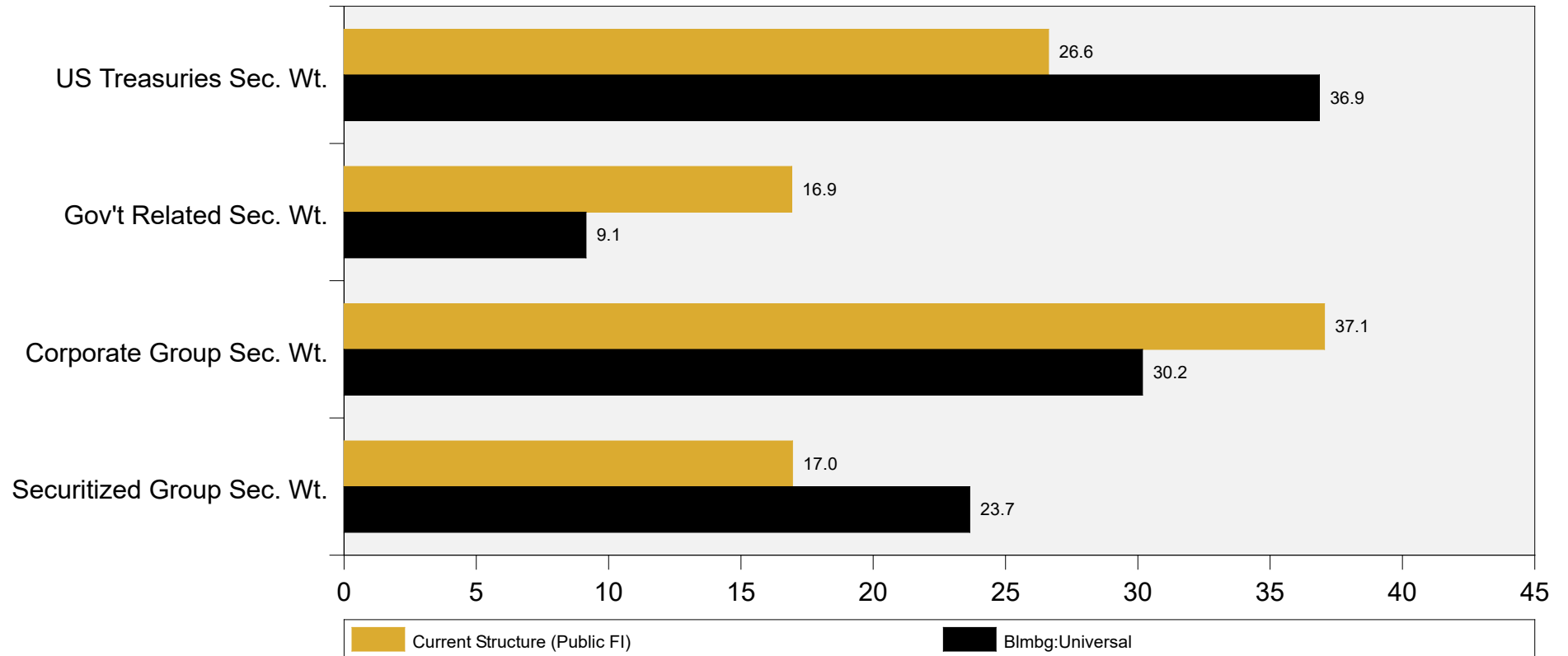


	Effective Yield	Effective Duration	Quality Rating	High Yield
10th Percentile	5.95	6.77	AA	16.02
25th Percentile	5.73	6.38	AA	11.38
Median	5.42	6.15	A	8.33
75th Percentile	5.28	5.97	A	4.58
90th Percentile	5.07	5.67	A	2.23
Current Structure (Public FI) ● E	5.54	6.06	A+	12.38
Blmbg:Universal ● F	5.12	5.97	A+	6.32

Sector Group Exposures

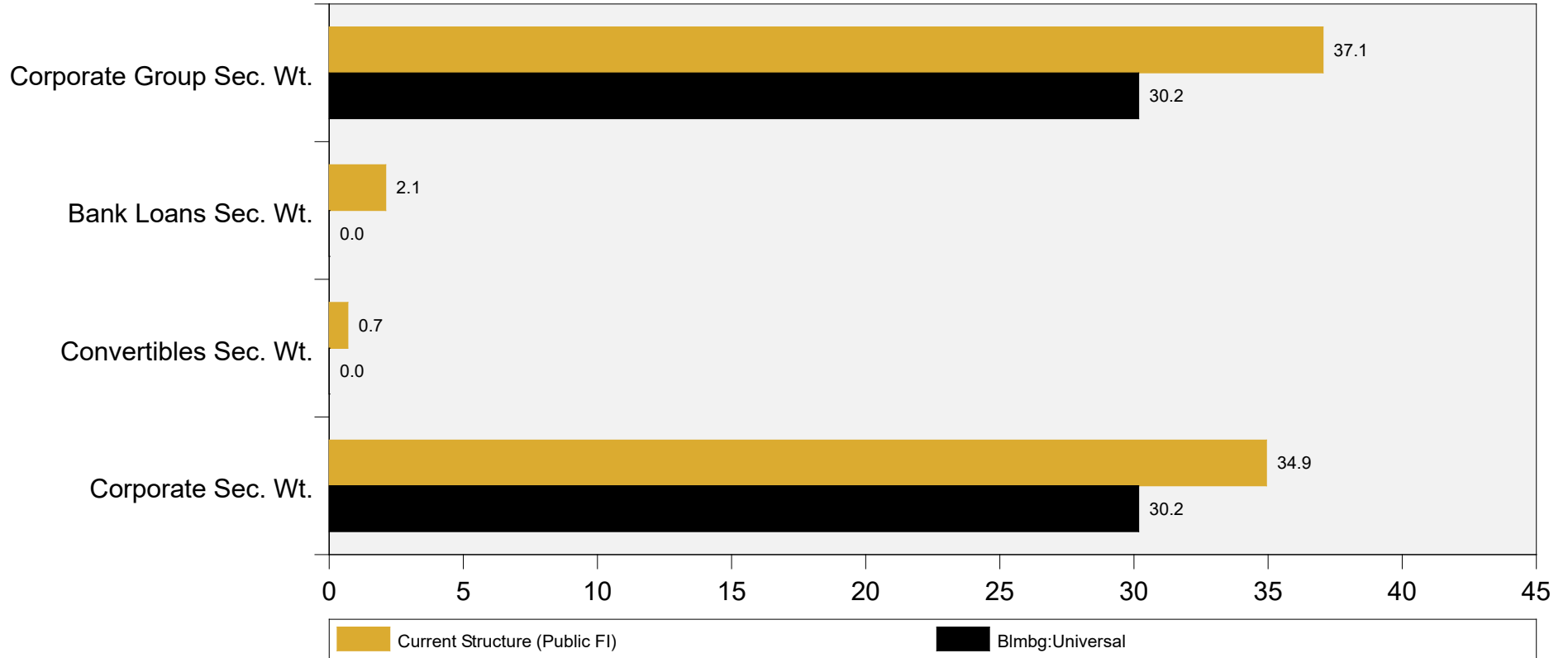
Statistics

for 1 Quarter Ended June 30, 2024



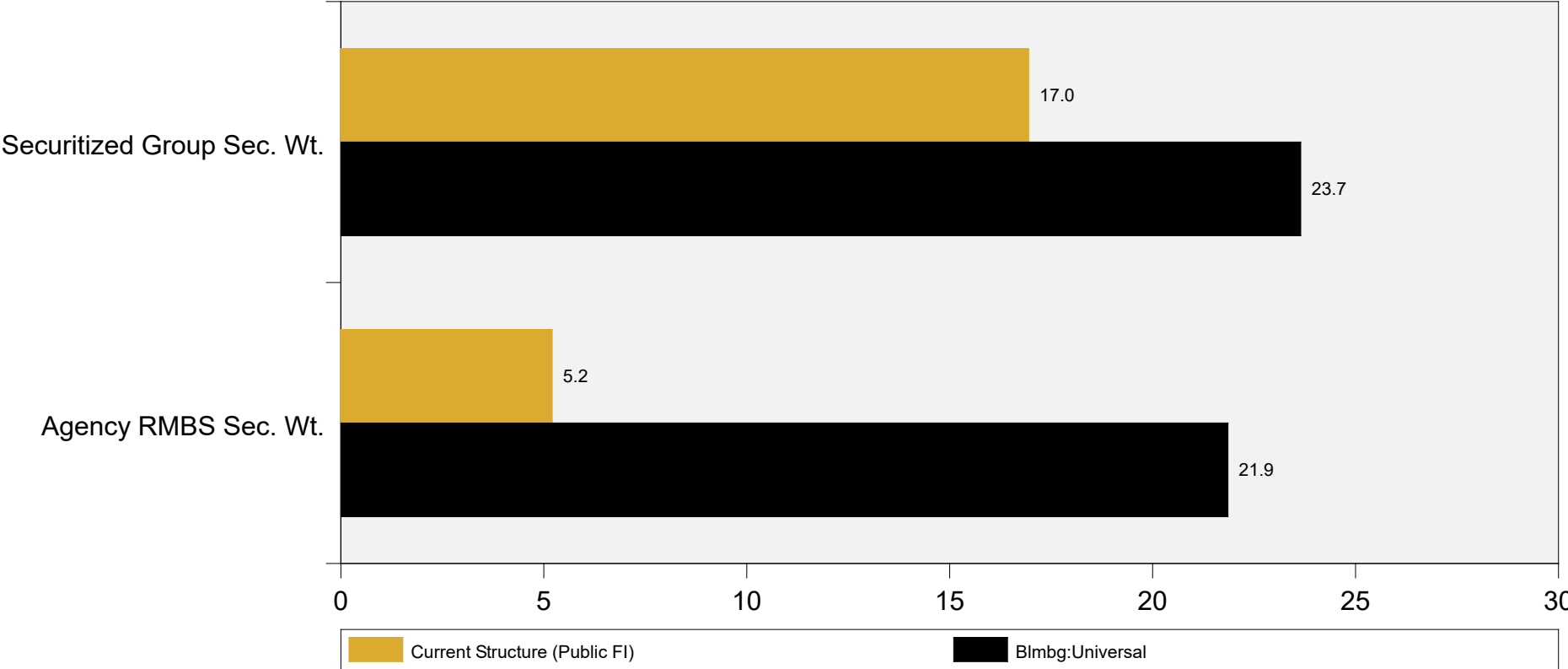
Corporate Sector Exposures

Statistics
for 1 Quarter Ended June 30, 2024



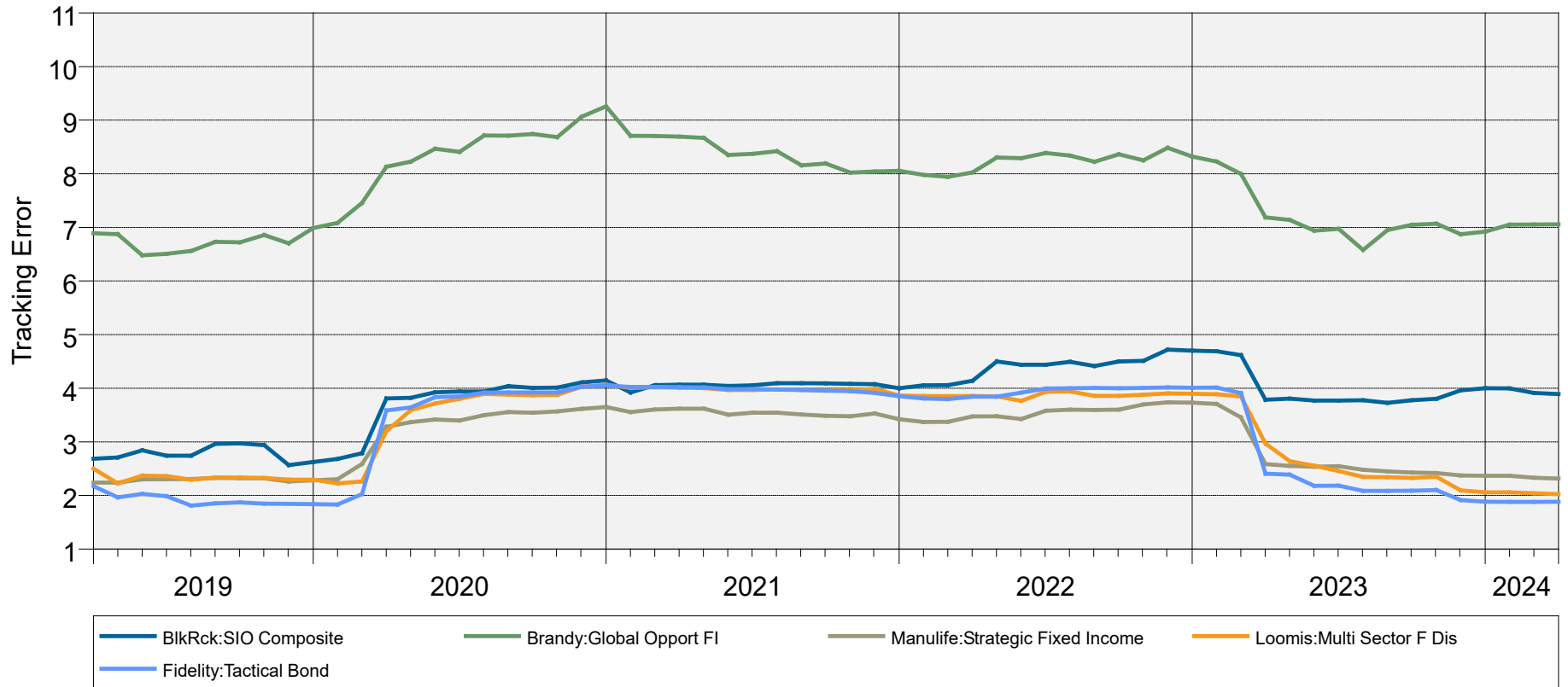
Securitized Sector Exposures

Statistics
for 1 Quarter Ended June 30, 2024



Active Manager Tracking Error

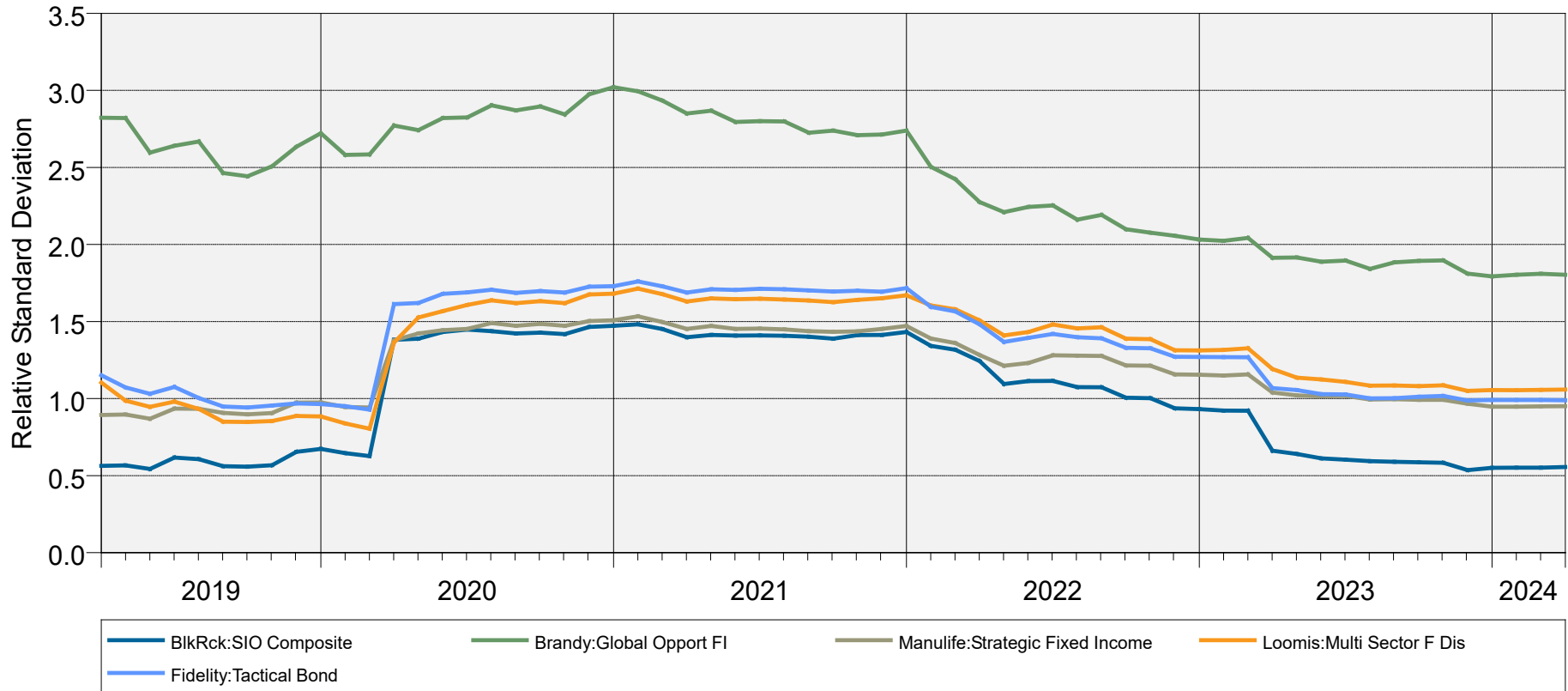
Rolling 36 Month Tracking Error Relative To Blmbg:Universal
for 5 Years Ended March 31, 2024



- BlackRock had slightly higher tracking error than Manulife, Loomis, and Fidelity
- Brandywine had much higher tracking error

Active Manager Relative Standard Deviation

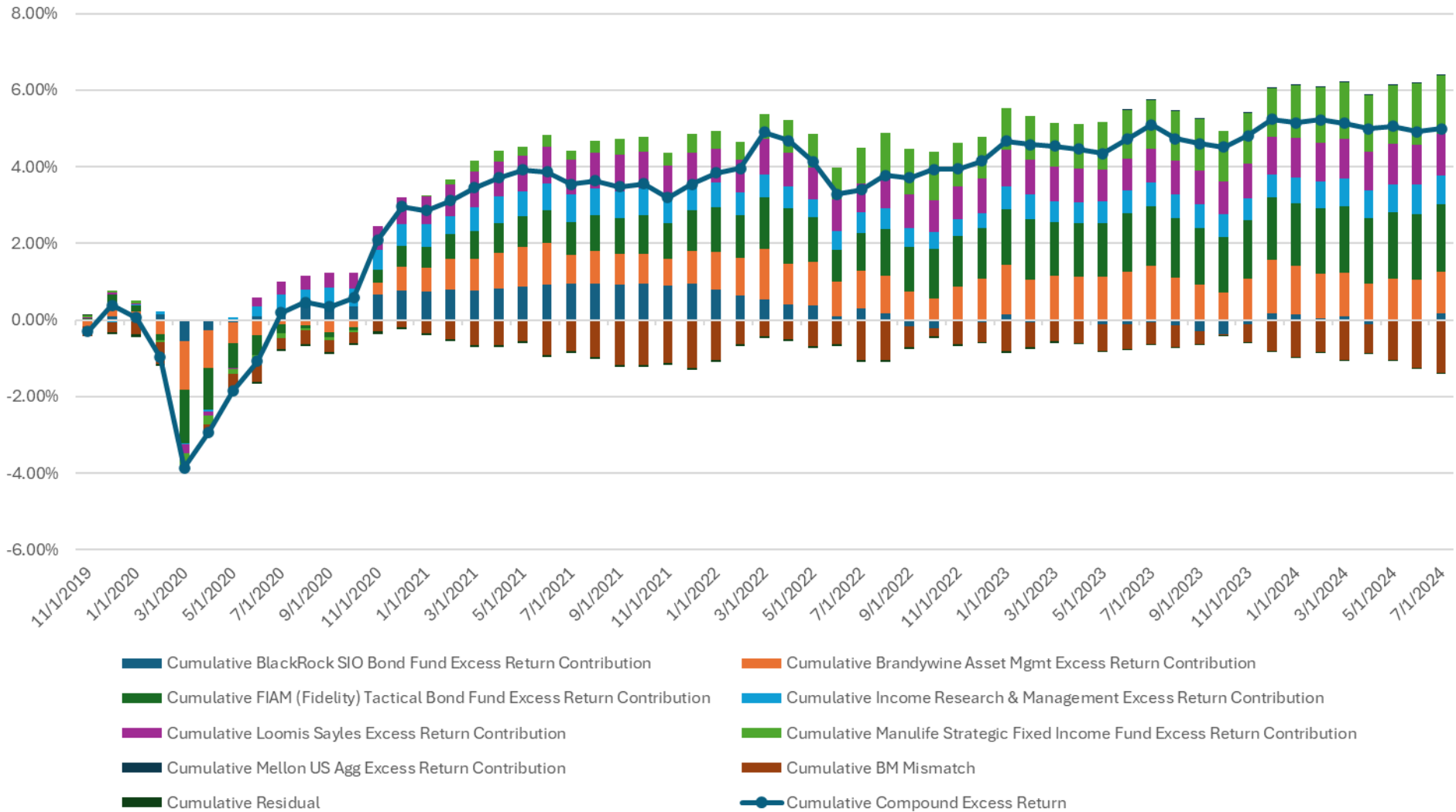
Rolling 36 Month Relative Standard Deviation Relative To Blmbg:Universal
for 5 Years Ended March 31, 2024



- Brandywine consistently had much higher volatility than the Bloomberg Universal index

Historical Performance Attribution Over Time by Manager

Attribution 10/31/19-7/31/24



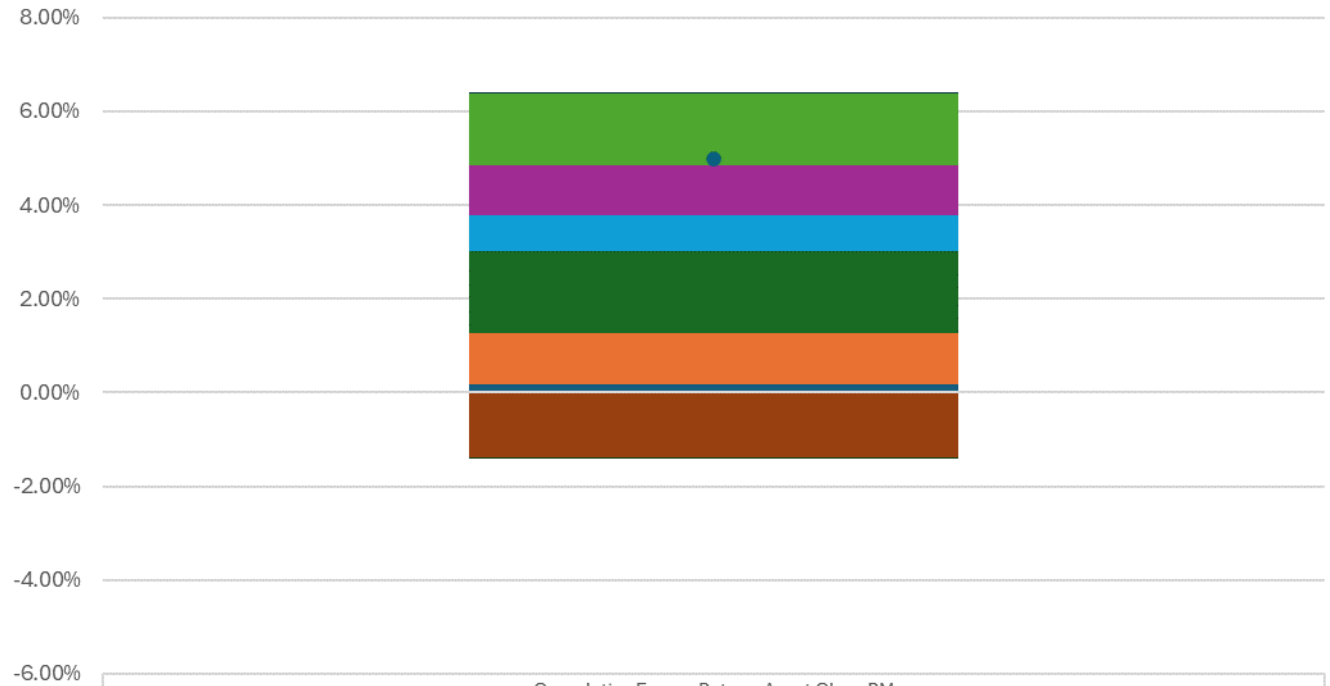
➤ Attribution of cumulative compound excess return (not annualized) vs. the asset class benchmark shown

Net of fee returns shown on this page

Note: "Benchmark Mismatch" occurs when the manager's benchmark differs from the asset class benchmark (Bloomberg Universal index), and was primarily attributable to currency, followed by duration

Full Period Historical Performance Attribution by Manager

Attribution 10/31/19-7/31/24



	Cumulative Excess Ret. vs. Asset Class BM
Residual	-0.01%
Total BM Mismatch	-1.39%
Mellon US Agg Excess Return Contribution	0.00%
Manulife Strategic Fixed Income Fund Excess Return Contribution	1.54%
Loomis Sayles Excess Return Contribution	1.07%
Income Research & Management Excess Return Contribution	0.76%
FIAM (Fidelity) Tactical Bond Fund Excess Return Contribution	1.76%
Brandywine Asset Mgmt Excess Return Contribution	1.08%
BlackRock SIO Bond Fund Excess Return Contribution	0.18%
Cumulative Excess Ret. vs. Asset Class BM	4.99%

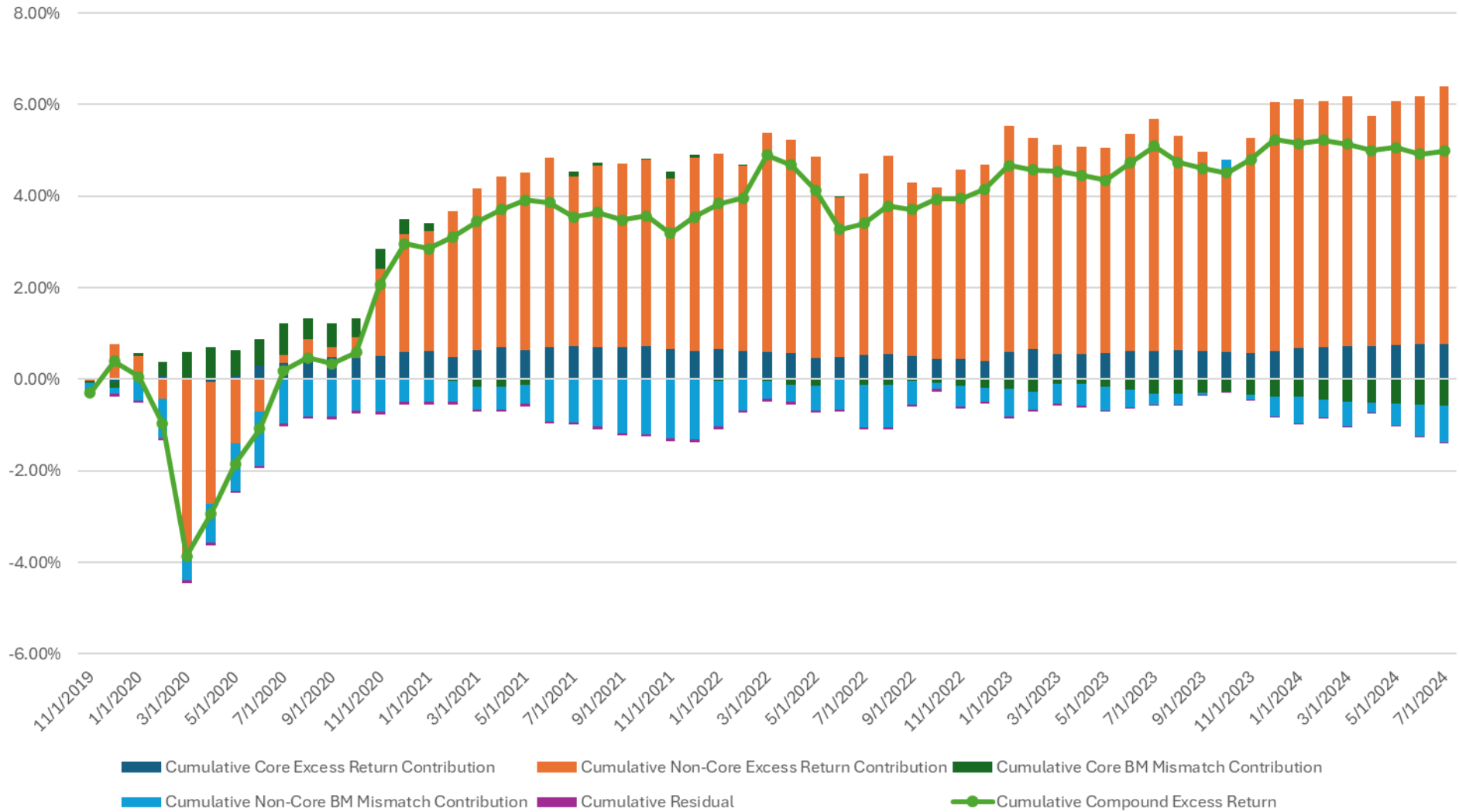
➤ Attribution of cumulative compound excess return (not annualized) vs. the asset class benchmark shown

Net of fee returns shown on this page

Note: "Benchmark Mismatch" occurs when the manager's benchmark differs from the asset class benchmark (Bloomberg Universal index), and was primarily attributable to currency, followed by duration

Historical Performance Attribution Over Time by Manager Category

Attribution 10/31/19-7/31/24



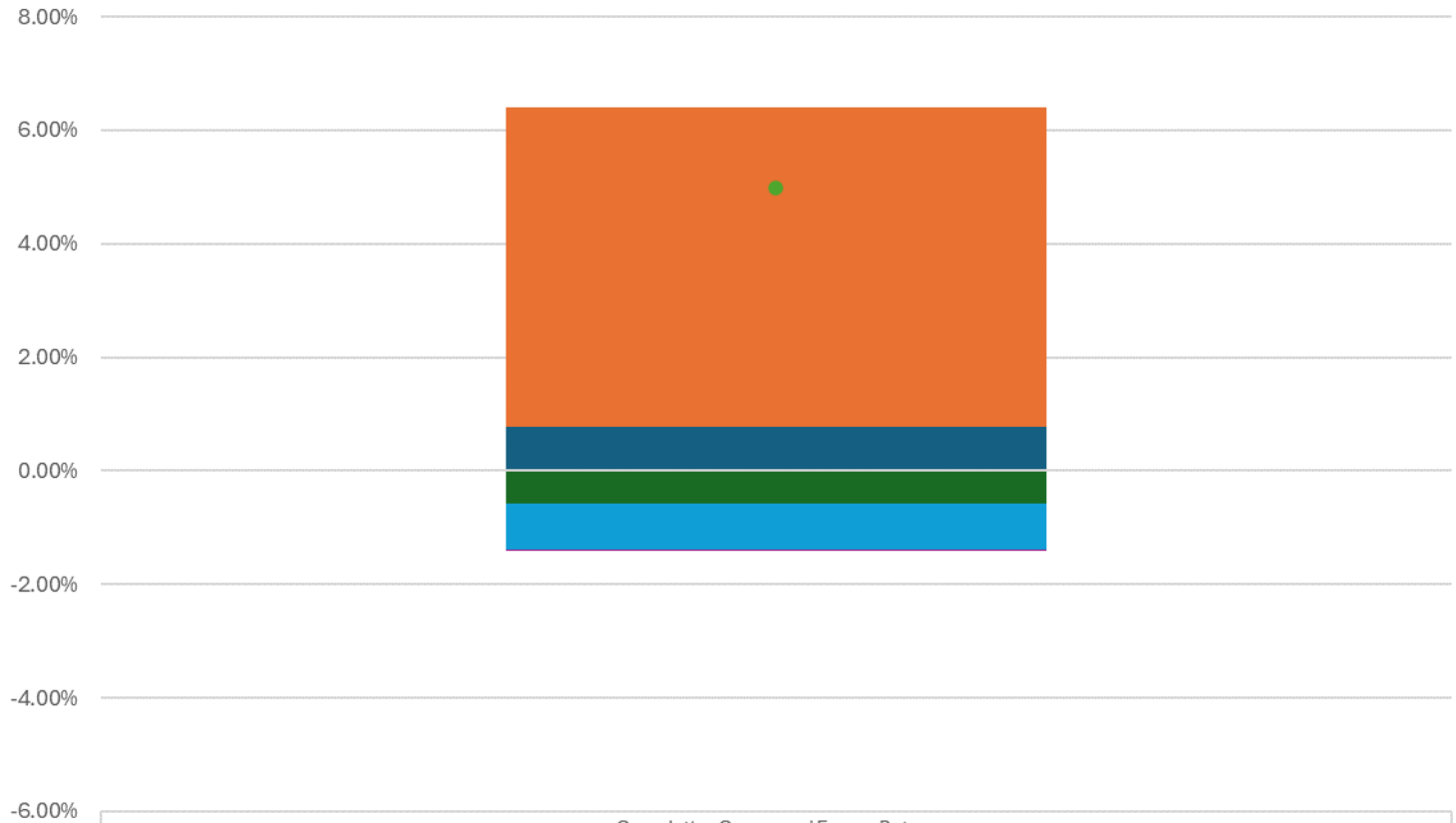
➤ Attribution of cumulative compound excess return (not annualized) vs. the asset class benchmark shown

Net of fee returns shown on this page

Note: "Benchmark Mismatch" occurs when the manager's benchmark differs from the asset class benchmark (Bloomberg Universal index), and was primarily attributable to currency, followed by duration

Full Period Historical Performance Attribution by Manager Category

Attribution 10/31/19-7/31/24



	Cumulative Compound Excess Return
Cumulative Residual	-0.01%
Cumulative Non-Core BM Mismatch Contribution	-0.81%
Cumulative Core BM Mismatch Contribution	-0.58%
Cumulative Non-Core Excess Return Contribution	5.63%
Cumulative Core Excess Return Contribution	0.77%
Cumulative Compound Excess Return	4.99%

➤ Attribution of cumulative compound excess return (not annualized) vs. the asset class benchmark shown

Net of fee returns shown on this page

Note: "Benchmark Mismatch" occurs when the manager's benchmark differs from the asset class benchmark (Bloomberg Universal index), and was primarily attributable to currency, followed by duration

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2024 Global Equity Asset Class Investment Strategy

NHRS Investment Team
Independent Investment Committee Meeting
October 2024

- The **Investment Strategy** outlines the **NHRS Investment Team's approach to advising the IIC on asset allocation recommendations**
 - The “**why**” **behind the investment policy** for the asset class – our investment philosophy
 - The strategy guides the investment team in recommending a specific portfolio construction and composition of managers in the portfolio
 - This investment strategy is **tied directly to the long-term strategic asset allocation** for the NHRS total plan
- Following the Investment Strategy, the **Implementation Plan** (separate document) for the asset class is driven primarily from the specific investment strategy for the asset class
 - Specifies the **target mandates** for each strategy / sub-strategy within the asset class
 - Informs the **role and purpose of each mandate / manager** in the asset class

2023 Strategic Asset Allocation



- IIC evaluated and determined Portfolio B policy as the new policy for the SAA

Asset Class	Current Policy Target	06/30/23 Actual Allocation	Proposed LT Policy Portfolios		
			Portfolio A	Portfolio B	Portfolio C
Global Equity	50%	49%	45% ↓	40% ↓	40% ↓
Fixed Income	25%	20%	25%	25%	20% ↓
Alternatives					
Private Equity	10%	14%	10%	10%	10%
Private Credit	5%	5%	5%	10% ↑	15% ↑
Core Real Estate	10%	11%	10%	10%	10%
Private Infrastructure	0%	0%	5% ↑	5% ↑	5% ↑
Cash Equivalents	0%	1%	0%	0%	0%
	100%	100%	100%	100%	100%
Expected Return (10-Year)	7.2%	7.4%	7.2%	7.2%	7.3%
Expected Standard Deviation	13.0%	13.8%	12.6%	12.3%	12.9%
Expected Sharpe Ratio (Return / Risk)	0.33	0.32	0.34	0.35	0.34
Total Private Market Allocation	25%	30%	30%	35%	40%

Source: NHRS, Callan

2023 Strategic Asset Allocation



2023 Strategic Asset Allocation				
Asset Class	Benchmark	10-Yr Geometric Return	20-Yr Geometric Return	10-Yr Standard Deviation
Equities				
Global Equity	MSCI ACWI	7.60%	7.90%	18.35%
Broad US Equity	Russell 3000	7.35%	7.65%	18.05%
Large Cap US Equity	S&P 500	7.25%	7.50%	17.75%
Small/Mid Cap US Equity	Russell 2500	7.45%	7.85%	22.15%
Global ex-US Equity	MSCI ACWI ex USA	7.45%	7.85%	21.25%
Developed ex-US Equity	MSCI World ex USA	7.25%	7.50%	20.15%
Emerging Market Equity	MSCI Emerging Markets	7.45%	8.00%	25.70%

- During the SAA Update, we modeled Global Equity as a composite of both Broad US Equity and Global ex-US Equity (see above)
- Going forward, we will utilize the Global Equity Capital Market Assumption (Expected return = 7.60% with an 18.35% standard deviation) at the 10-year horizon

- NHRS has historically held equities in two asset classes: **Domestic Equity & Non-US Equity (International Equities)**
 - **Not uncommon for pension plans to separate US and Non-US equities** to target specific regional opportunities, manage investment selection, and tailor specific risk allocations
 - Two separate asset classes naturally **requires more capacity to manage** from the Investment Team and **increases portfolio complexity**
- During the 2023 Strategic Asset Allocation Update, the Investment Team proposed combining the two asset classes into one Global Equity composite for the following reasons:
 - Simplified diversification
 - Holistic evaluation of global opportunities
 - Reduced complexity for oversight and management
 - Better tracking of equity allocation toward policy portfolio
- Today, the current Domestic Equity and Non-US Equity portfolio when combined at the holdings level, approximates the Global Equity benchmark

Global Equity Asset Class



- Objective:
 - The Global Equity portfolio serves to generate long-term capital appreciation through a diversified set of publicly traded equity investments across the globe
- Attributes:
 - Global Equity allocations will be diversified across geography, capitalization, style, sector, and instruments
- Target Allocation:
 - Approved long-term strategic allocation of 40%
- Policy Benchmark:
 - Recommend moving to a global equity benchmark – MSCI All Country World Investable Market Index (ACWI IMI) because it represents an investment opportunity set covering 99% of global equities, inclusive of smaller capitalization companies
- Constraints
 - Proposed Asset allocation range (30% to 50%)
 - Liquid investments on globally recognized exchanges or OTC markets

Market Cap Breakpoints

Market Segment	Market Cap
<p><u>US Equity Market</u></p> <p>Largest 1000 Stocks</p> <p>Mega Cap, Large Cap, Mid Cap</p>	<ul style="list-style-type: none"> • Large caps are still very efficient <ul style="list-style-type: none"> – Mega caps represent an estimated 46% of the market (top 50 stocks). Large caps (top 200 stocks) represent an estimated 70% of the overall market – NHRS approach is to continue to use passive management strategies & explore enhanced indexing strategies to gain competitive edge versus passive unmanaged strategies (i.e., indexing) – Explore distinct value and growth bias exposures thorough manager allocations • Midcaps have historically been difficult to generate excess returns <ul style="list-style-type: none"> – Difficult to generate alpha in midcap stocks via active management – NHRS approach is to move to passive management / enhanced indexing strategies
<p>Smallest 2000 Stocks</p>	<ul style="list-style-type: none"> • Small caps yield greater dispersion & opportunity <ul style="list-style-type: none"> – NHRS has success in active management here but would like to reduce overall US exposure relative to benchmark – Continue to use active management here to generate strong risk-adjusted returns

\$3.4T

\$40 B

\$4 B

\$150 M

Example Countries

Developed Markets

Europe,
Middle East,
Africa
(EMEA)

- Developed Markets yield diversification opportunity
 - International equities serve to diversify the overall domestic bias for the NHRS portfolio
 - Active management has historically generated mixed performance for our portfolio
 - NHRS approach is to **continue to invest in developed markets using active management approaches**
 - Explore small cap exposures & nimble managers

Germany
France
Switzerland

Emerging Markets (EM)

- Emerging Markets challenging yet optimistic
 - Historically challenging for NHRS, yet the team continues to believe EM will yield strong long-term returns
 - NHRS approach is to **revisit manager allocations in this segment of the portfolio**, utilizing both small cap and style bias strategies (e.g., value and growth)

China
Korea
India
Brazil

Asia Pacific (APAC)

- Asia Pacific still growth engine for institutional portfolios
 - **Continue to maintain an active management** approach for APAC, seeking opportunities within multi-strategy managers
 - Maintain benchmark weight and monitor exposure over time

Japan
Hong Kong
Australia

- NHRS Investment Team has begun to utilize in-house analytics at the asset class level to drive our analysis and implementation of the overall strategy
- Today, we have **no comprehensive enterprise analytics system** and have **limited tools** for portfolio-wide analysis, outside using Callan. The two platforms currently in use by the Investment Team for public securities are:
 - NEXEN reporting for security level analytics provided by BNY
 - Bloomberg PORT Risk & Analytics System available through our Bloomberg terminals
- NHRS began loading daily positions into Bloomberg for all public market managers on November 2, 2022
 - The Investment Team **utilized Bloomberg PORT to generate Global Equity analytics** in the following pages
- Global Equity analytics shown are based on composite of all equity holdings in the NHRS portfolio as compared to the MSCI All Country World IMI benchmark

- The Investment Team seeks to invest this asset class with the following principles:
 - **Active and Passive Management:** Continue to utilize active management to seek alpha within the global equity portfolio except for U.S. large/mid cap which will be passively managed due to efficiency of these markets
 - **Small Cap Exposure:** Maintain overweight position relative to the benchmark in this inefficient market segment but reduce the overweight exposure to mitigate misfit risk (details on slide 15)
 - **Growth and Value Exposures:** Increase value relative to current exposure to reduce style difference versus benchmark (details on slide 16)
 - **Enhanced Indexing versus Unmanaged Indexing :** Research the pros and cons of enhanced indexing as compared to current passive index approach utilized

Manager Exposures as of 6/30/24

Global Equity Managers	Market Value	Active / Passive	Geography*	Style	CapSize Classification	Current % of Global Equity
Blackrock S&P 500	\$ 2,305,420,983	Passive	United States	Broad	Large Cap	36.86%
AllianceBernstein	\$ 445,959,496	Active	United States	Core	Mid-Small Cap	7.13%
TSW	\$ 258,260,662	Active	United States	Value	Mid-Small Cap	4.13%
Boston Trust	\$ 236,923,311	Active	United States	Core	Small Cap	3.79%
Segall Bryant & Hamill	\$ 260,802,217	Active	United States	Core	Small Cap	4.17%
Wellington SmallCap	\$ 433,780,720	Active	United States	Core	Small Cap	6.93%
Aristotle	\$ 177,787,986	Active	Developed Markets	Growth	N/A	2.84%
Artisan Partners	\$ 407,062,258	Active	Developed Markets	Growth	N/A	6.51%
BlackRock Superfund	\$ 199,447,677	Passive	Developed Markets	Broad	Large Cap	3.19%
Causeway Capital	\$ 449,774,683	Active	Developed Markets	Value	N/A	7.19%
Lazard	\$ 169,339,080	Active	Developed Markets	Growth	N/A	2.71%
Wellington Emerging Markets	\$ 179,813,061	Active	Emerging Markets	Growth	N/A	2.87%
Wellington Int'l Small Cap Research	\$ 136,620,364	Active	Developed Markets	Core	Small Cap	2.18%
Walter Scott Global Equity	\$ 594,188,859	Active	Developed Markets	Broad	N/A	9.50%
Total Global Equity	\$ 6,255,181,357					100%

Global Equity Manager Allocation
Geography



■ US ■ Non-US

Global Equity Manager Allocation
Active vs. Passive



■ Active ■ Passive

Global Equity Manager Allocation
Style



■ Style: Core or Broad ■ Style: Growth ■ Style: Value

Source: NHRS, Bloomberg

Portfolio Analytics : Characteristics



Bloomberg PORT Portfolio & Benchmark Comparison			
Global Equity as of 06/30/2024	Port (%)	Bench (%) (MSCI ACWI IMI)	Port - Bench
Dividend Yield	1.96	2.13	-0.17
BEST Div Yld	1.95	2.14	-0.19
Price / Earnings	23.34	22.90	+0.44
Price / Cash Flow	14.68	14.69	-0.01
Price / Book Value	2.97	2.89	+0.08
Current Ratio	1.26	1.21	+0.05
ROE	11.57	12.05	-0.48

Source: NHRS, Bloomberg

BNY Reporting Portfolio & Benchmark Comparison	
Global Equity as of 06/30/2024	Port (%)
Portfolio P/E	26.0
Portfolio P/E ex. Neg. Earnings	22.2
Price/Book Value	2.9
Price/CashFlow	14.4
Price/Sales	2.1
IBES 1 Yr Forecast EPS	18.6
IBES Growth Forecast	13.3
IBES 1 Year EPS Forecast	11.3
ROE - 5-Yr Avg	19.8
EPS Growth - 5-Yr	14.4
EPS Variability - 10-Yr	48.7

Source: NHRS, BNY

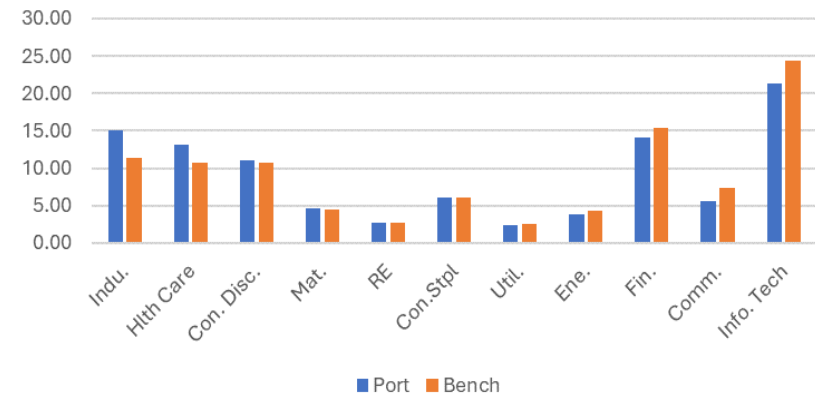
- Overall global equity portfolio is slightly growthier than the MSCI ACWI IMI (benchmark) based on P/E
- For valuation metrics, the composite portfolio appears similar to the benchmark
 - Price / Book Value
 - Price / Cash Flow
- Comparison of other metrics reported by BNY NEXEN illustrates comparable levels to Bloomberg PORT analytics

Portfolio Analytics : Sector

GICS Sector Comparison sorted by Port - Bench Difference				
Global Equity Composite as of 06/30/2024	Port (%)	Bench (%) (MSCI ACWI IMI)	Port - Bench	Num. of Securities
Industrials	15.01	11.29	+3.72	604
Health Care	13.13	10.73	+2.40	341
Consumer Discretionary	11.00	10.68	+0.32	377
Materials	4.56	4.42	+0.14	345
Real Estate	2.75	2.63	+0.12	157
Consumer Staples	6.10	6.08	+0.02	241
Utilities	2.38	2.51	-0.13	159
Energy	3.85	4.38	-0.53	153
Financials	14.11	15.45	-1.34	578
Communication Services	5.62	7.39	-1.77	160
Information Technology	21.24	24.42	-3.18	396
Not Classified	0.25	0.00	+0.25	18
Total	100.00	99.98	-	3,529

Source: NHRS, Bloomberg

GICS Sector Comparison for Global Equity
as of 06/30/24



Source: NHRS, Bloomberg

- GICS sector exposure for our global equity composite holdings show relative underweight in Information Technology, which has been a key driver of recent underperformance in the Domestic Equity portfolio in 2024
- Overall, portfolio sector exposure is fairly aligned with the proposed benchmark with the largest over/under weights at approximately +/- 3%

Portfolio Analytics: Geographic

Market Segmentation Comparison			
Global Equity as of 06/30/2024	Port (%)	Bench (%) (MSCI ACWI IMI)	Port - Bench
United States	67.87	62.09	+5.78
Developed ex. US	26.61	27.30	-0.69
Emerging Markets	5.44	10.61	-5.17
Not Classified	0.08	-	+0.08

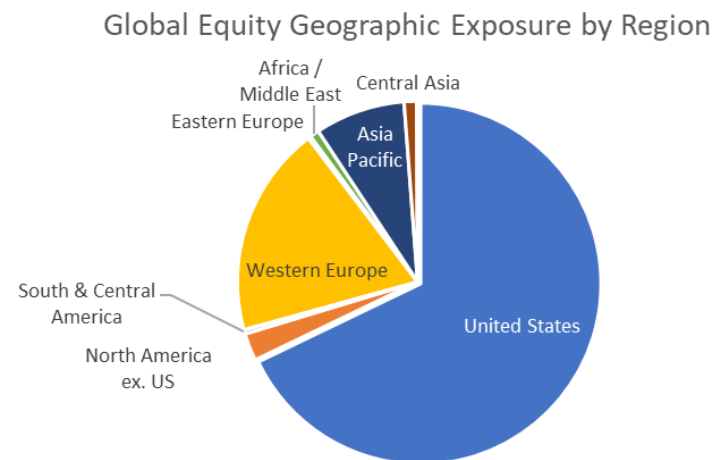
Source: NHRS, Bloomberg

- Global Equity is concentrated with US exposure (6% over the proposed benchmark)
 - Next largest overweight is in Europe (20% of the composite within Developed ex. US)

Geographic Region Comparison			
Global Equity as of 06/30/2024	Port (%)	Bench (%) (MSCI ACWI IMI)	Port - Bench
United States	67.87	62.09	+5.78
North America ex. US	2.46	3.11	-0.65
South & Central America	0.38	0.63	-0.25
Western Europe	18.91	15.76	+3.15
Eastern Europe	0.25	0.26	-0.01
Africa / Middle East	0.83	1.27	-0.44
Asia Pacific	8.08	14.66	-6.58
Central Asia	1.13	2.21	-1.08
Not Classified	0.08	-	+0.08

Source: NHRS, Bloomberg

- Emerging markets is underweight (about 1/2 of the proposed benchmark)



Source: NHRS, Bloomberg

Portfolio Analytics: Capitalization Size



Style Exposure Matrix for 8 1/2 Years Ended June 30, 2024
 Top: Total Eq 06/24

Bottom: MSCI:ACWI IMI

Large	16.1%	18.5%	28.3%	63.0%
	22.1% (299)	20.2% (266)	29.8% (316)	72.2% (881)
Mid	4.4%	6.4%	7.8%	18.5%
	5.4% (521)	5.7% (581)	6.4% (660)	17.5% (1762)
Small	3.8%	7.4%	6.0%	17.2%
	2.7% (1086)	3.2% (1302)	2.7% (1137)	8.6% (3525)
Micro	0.3%	0.6%	0.4%	1.3%
	0.6% (943)	0.6% (966)	0.5% (733)	1.7% (2643)
Total	24.6%	32.9%	42.5%	100.0%
	30.8% (2850)	29.8% (3115)	39.4% (2846)	100.0% (8811)
	Value	Core	Growth	Total

Source: Callan

- From Capsize perspective, 63% of the composite weight is in Large Caps, trailing the benchmark which holds 72% large cap companies
- In Small Caps, the composite portfolio is overweight the by nearly double the benchmark (17.2% - 8.6%) = 8.6%
- Most of the Global Equity exposure for Small Caps is being driven by the US exposure (see Appendix)

Portfolio Analytics: Style (Value & Growth)



Style Exposure Matrix for 8 1/2 Years Ended June 30, 2024

Top: Total Eq 06/24

Bottom: MSCI:ACWI IMI

Europe	4.1%	5.7%	8.6%	18.4%
	5.5% (464)	5.3% (507)	7.4% (510)	18.2% (1481)
N. America	18.1%	23.4%	27.7%	69.2%
	18.4% (844)	17.6% (1076)	23.3% (818)	59.3% (2738)
Pacific	1.1%	1.9%	3.2%	6.2%
	3.6% (568)	3.3% (552)	4.0% (547)	10.9% (1667)
Emerging	1.3%	1.9%	3.0%	6.2%
	3.3% (973)	3.6% (981)	4.7% (972)	11.6% (2926)
Total	24.6%	32.9%	42.5%	100.0%
	30.8% (2850)	29.8% (3115)	39.4% (2846)	100.0% (8811)
	Value	Core	Growth	Total

Source: Callan

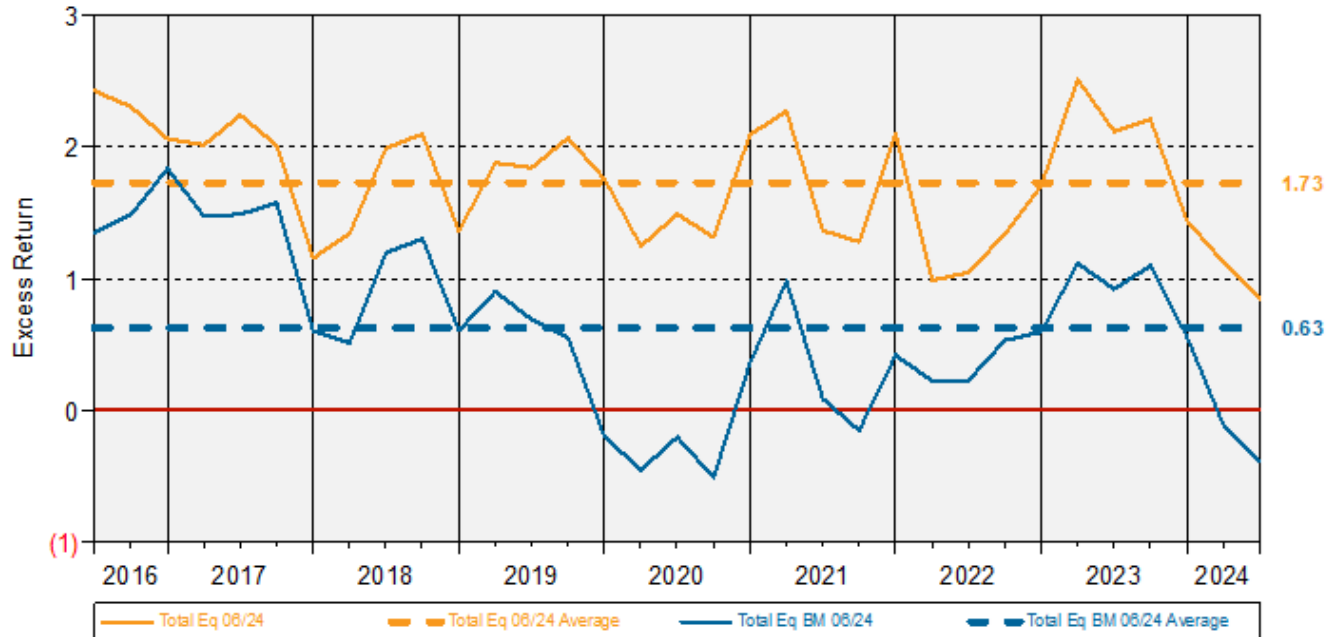
- Composite exposure for style indicates a larger exposure for Growth over Value, whether looking at the MSCI ACWI benchmark (in blue) or the MSCI ACWI IMI benchmark (in red)
 - On a relative basis, the Global Equity composite is overweight Growth and underweight Value
- As expected, style exposure is concentrated in the US (North America region)

- Moving to a Global Equity asset class will necessitate the adoption of a new policy benchmark which represents the broadest opportunity set for the unified asset class
 - Legacy benchmark for Domestic Equity: Russell 3000 Index
 - Legacy benchmark for Non-US Equity: MSCI ACWI Ex US Index
- The Global Equity opportunity set incorporates smaller capitalization exposures in both US and International portfolios. A benchmark for Global Equity should incorporate the small cap opportunity set for our portfolio
- Callan’s analysis showed significant misfit risk related to exposures outside the intended portfolio benchmark for Domestic Equity.
 - Manager benchmark mis-match drove significant portion of misfit risk, in addition to portfolio weighting for small cap (Domestic)

- With assistance from Callan, the Investment Team proposes the Global Equity benchmark to be the **MSCI All Country World (ACWI) Investable Market Index (IMI)**
- Rationale
 - Free float-adjusted market capitalization index, reducing the bias for restricted securities and better reflection of trading volatility
 - Covers 99% of world's investable securities (9000 stocks) in both developed and emerging markets available to foreign and domestic investors
 - Incorporates smaller capitalization companies that are typically excluded from the broader index
 - Widely adopted by many asset owners for policy tracking of an institutional global equity mandate

Hypothetical Performance

Rolling 12 Quarter Excess Return Relative To MSCI:ACWI IMI
for 8 Years Ended June 30, 2024



Source: Callan

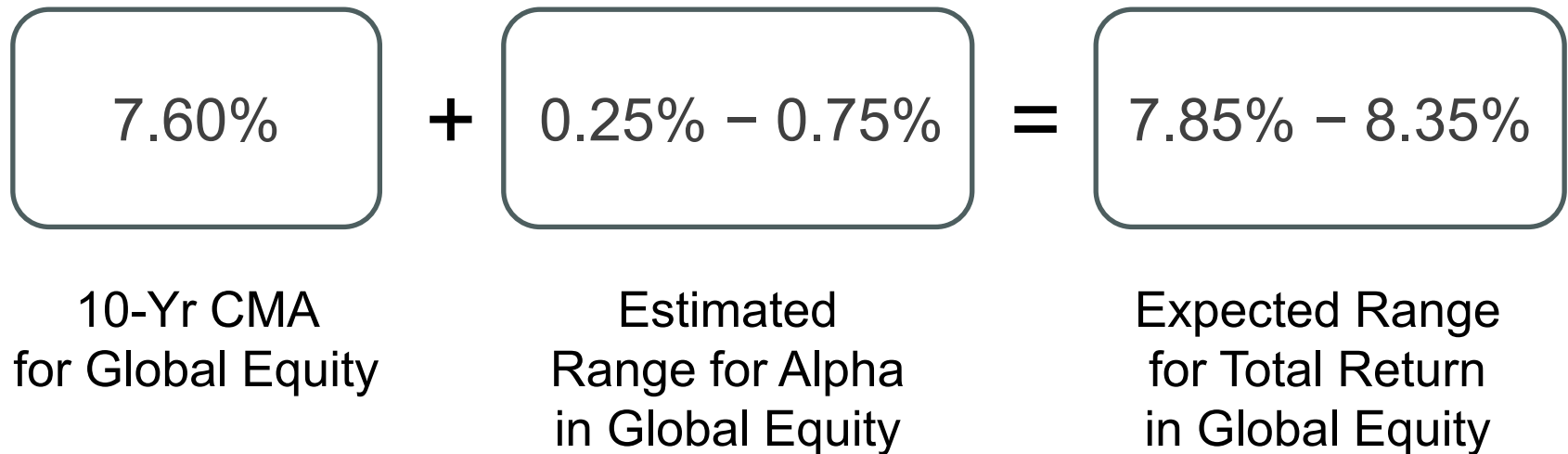
Historical excess returns, pro-forma, if current weights and managers were held constant

- Combined performance for Total Equity has generated positive excess returns over the MSCI ACWI IMI benchmark

Alpha Estimate for Global Equity



- NHRS worked with Callan to develop an estimate of the alpha generation provided by the Investment Team
- While there is no exact science for determining positive alpha generation, we find it important to estimate a range of outcomes over the long-term horizon (10-year or greater)
- Investment Team estimates about 50 basis points of expected alpha with a range of 25 to 75 basis points around this point estimate for Global Equity
 - Consideration for passive management in US large caps



Rebalancing Ranges for Global Equity



- Investment Team is proposing new rebalancing ranges for the NHRS portfolio, with support from Callan
 - Maintain the +/- 10% bands around equities to reflect the higher volatility
 - Alternatives maintain +/- 5% bands exclusive of Real Estate

Asset Class	Approved LT Policy Portfolio	07/31/24 Actual Allocation	Proposed Rebalancing Ranges
Global Equity	40%	52%	30 - 50% (-/+ 10%)
Global Fixed Income	25%	19%	17 - 32% (-/+ 7%)
Alternatives			
Private Equity	10%	14%	5 - 15% (no change)
Private Credit	10%	5%	5 - 15% (-/+ 5%)
Private Real Estate	10%	11%	5 - 20% (no change)
Private Infrastructure	5%	0%	0 - 10% (-/+ 5%)
Cash Equivalents	0%	1%	0 - 5% (0/+ 5%)
	100%	100%	

Source: NHRS

The Investment Team is **recommending the following:**

- **Create the Global Equity asset class**, combining both Domestic & Non-US Equity asset classes as outlined in the 2024 SAA Update
 - Proposed Investment Policy to be updated to reflect a composite asset class
- **Adopting the MSCI ACWI IMI benchmark** for the Global Equity asset class
- **Approve the specific rebalancing ranges for Global Equity asset class**
 - 30% - 50% (represents +/- 10% from the 40% policy target)
- Investment Team **will present the Implementation Plan**, which will outline manager changes in Global Equity following review by the Investment Team at subsequent IIC meetings
 - Callan will support the Investment Team in evaluating those recommendations

APPENDIX

US Equity Capitalization Size

Style Exposure Matrix for 10 Years Ended March 31, 2024

Top: Dom Eq 12/23

Bottom: Russell:3000 Index

Large	16.8%	15.3%	20.1%	52.2%
	23.0% (98)	21.6% (97)	31.5% (102)	76.1% (298)
Mid	5.7%	7.8%	8.2%	21.8%
	4.9% (171)	5.7% (212)	5.8% (214)	16.4% (597)
Small	5.5%	10.8%	8.1%	24.5%
	1.9% (319)	2.7% (496)	2.1% (381)	6.6% (1195)
Micro	0.4%	0.7%	0.5%	1.6%
	0.3% (297)	0.3% (396)	0.2% (189)	0.8% (882)
Total	28.5%	34.6%	36.9%	100.0%
	30.1% (885)	30.3% (1201)	39.6% (885)	100.0% (2971)
	Value	Core	Growth	Total

Source: Callan

- For the US Equity Asset Class, Small Caps have been a significantly overweight (24.5%) versus the Russell 3000 Index (6.6%)

Portfolio Analytics: China Exposure



Geographic Region Comparison			
Global Equity as of 06/30/2024	Port (%)	Bench (%) (MSCI ACWI IMI)	Port - Bench
United States	67.87	62.09	+5.78
North America ex. US	2.46	3.11	-0.65
South & Central America	0.38	0.63	-0.25
Western Europe	18.91	15.76	+3.15
Eastern Europe	0.25	0.26	-0.01
Africa / Middle East	0.83	1.27	-0.44
Asia Pacific ex. China+HK	6.52	11.90	-5.38
China + Hong Kong	1.56	2.76	-1.20
Central Asia	1.13	2.21	-1.08
Not Classified	0.08	-	+0.08

Source: NHRS, Bloomberg

- China is an important economy in consideration of the MSCI ACWI IMI benchmark
- The Global Equity Composite is currently underweight China (including Hong Kong) by 120 basis points.
 - Underweight may be result of being underweight EM mandate
- While our Chinese stock exposure is not explicitly managed at the asset class level, the Investment Team will continue to monitor the exposure to limit unintended tracking error

October 8, 2024



NHRS Equity Structure Analysis

High-Level Assessment of Current
Portfolio Positioning

Angel Haddad, CFA

Fund Sponsor Consulting

Britt Murdoch, CFA

Fund Sponsor Consulting

Jay Kloepfer

Capital Market Research

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Equity Structure Considerations

Seek to maximize plan alpha at a palatable level of active risk relative to the plan benchmark

- Think of manager structure in an overall portfolio context
- Incorporate active managers only if they are expected to contribute sufficient alpha to compensate for the possibility of underperforming the benchmark
- This is a net-of-fees exercise

Spend plan's active risk budget efficiently

- Spend active risk in sectors and regions where active management has high probability of succeeding
- Otherwise, rely heavily on indexes in order to control both expenses and risk
- Keep magnitude of systematic bets vs. the plan benchmark (misfit risk) under control

Incorporate diversification

- Seek broad diversification across all global equity markets
- The risk an individual active manager contributes to the overall portfolio depends on both its size and its tracking error
- Avoid excessive risk contribution from any one manager
- However, avoid over diversification or “closet indexing”

Simplify where appropriate

- Structure should meet investment objective with the minimum level of complexity
- Benefit is lower monitoring costs as well as explicit costs
- Active manager mandate sizes must be large enough to be meaningful to the fund but not overwhelming to the manager

Sources of Active Risk in the Equity Structure

Selection Risk

Risk stemming from active managers' bets relative to their benchmarks

- Risk which is expected to be rewarded with alpha if manager is skillful
- The risk you are paying your active managers to take
- This risk at the plan level is reduced as the number of active managers increases due to diversification

Misfit Risk

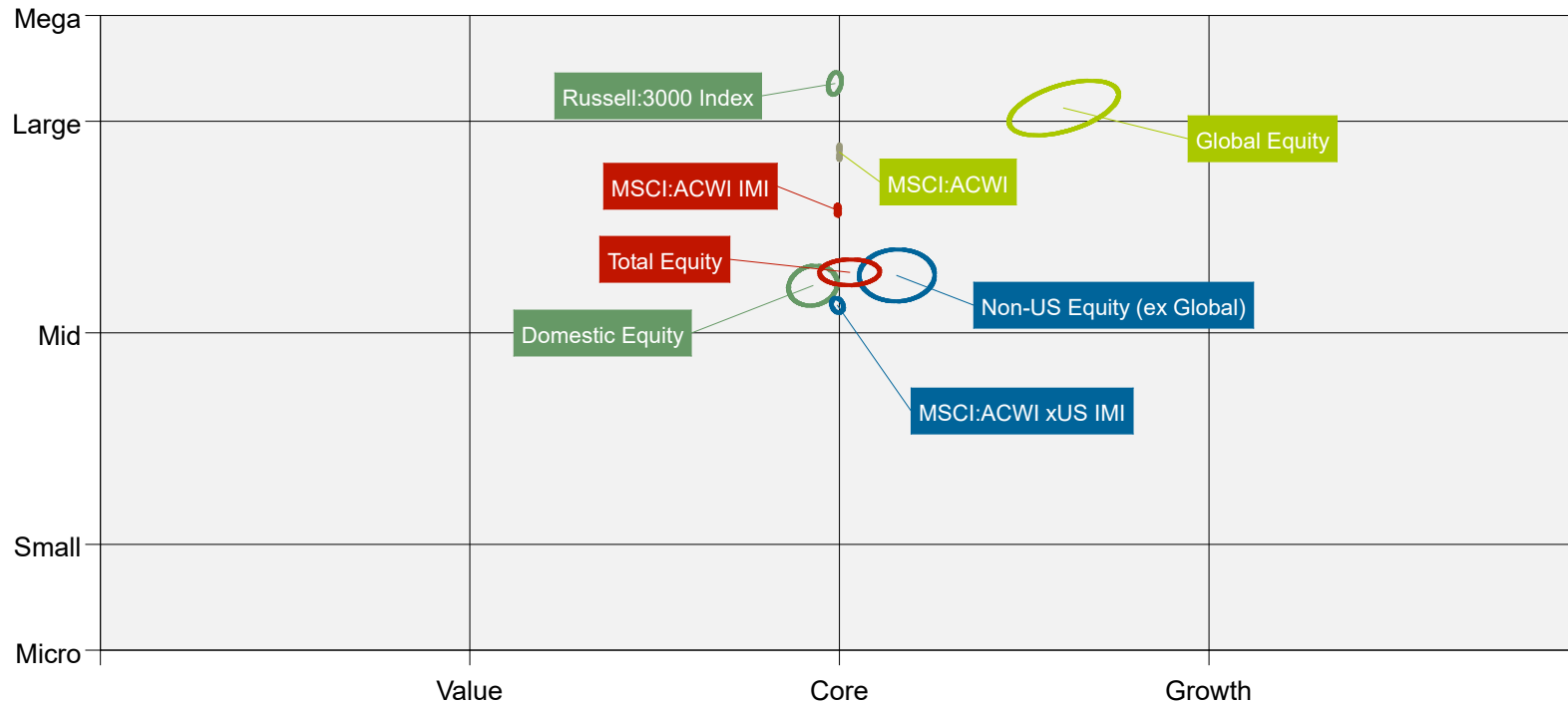
Risk which results when the overall style exposures of the plan's manager benchmarks differ from the plan's benchmark

- When unintentional, misfit confers additional active risk without any expected return
- Misfit can be controlled by ensuring overall manager style exposures (large vs. small; value vs. growth, U.S. vs. international) are generally consistent with the plan's benchmark
- When intentional, some misfit can be justified if reflects a high conviction bet on styles, capitalizations, or regions
- However, the bar for skill is high and tactical bets should be scaled as to not be a disproportionate driver of active risk

Total Public Equity Structure Review

Holdings-Based Style Analysis: Broad Components

Global Equity Style Map for 5 Years Ended June 30, 2024



NHRS public equity is well diversified with components in U.S. equity, non-U.S. equity and global equity

Individual components have style tilts

- ▶ U.S. equity has a relatively small capitalization and slight value bias
- ▶ Non-U.S. equity has a larger capitalization than the ACWI ex-US IMI and a slight growth bias

The overall public equity exposure is style neutral but substantially below the capitalization of the ACWI IMI index

Total Equity Manager Structure – Current Allocation at 6/30/2024

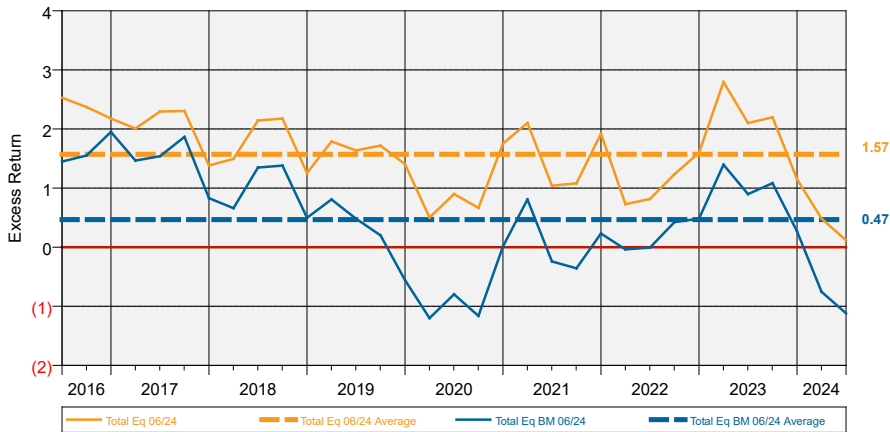
	<i>NHRS Current (06/30/2024)</i>			
	<i>Assets</i>	<i>% of Class</i>	<i>% of total</i>	<i>Benchmark</i>
US Equity				
Large Cap	2,305	58.5%	36.9%	S&P 500
BlackRock S&P 500	2,305	58.5%	36.9%	S&P 500
Mid/Small Cap	704	17.9%	11.3%	Russell 2500
AllianceBernstein	446	11.3%	7.1%	Russell 2500
TSW	258	6.6%	4.1%	Russell 2500 V
Small Cap	932	23.6%	14.9%	
Boston Trust	237	6.0%	3.8%	Russell 2000
Segall Bryant	261	6.6%	4.2%	Russell 2000
Wellington	434	11.0%	6.9%	Russell 2000
Total US Equity	3,941	100.0%	63.0%	Russell 3000
Non-US Equity				
Large/Mid Cap Core	1,403	81.6%	22.4%	ACWI ex USA
Artisan Partners	407	23.7%	6.5%	EAFE
Causeway Capital	450	26.2%	7.2%	EAFE
Aristotle	178	10.3%	2.8%	EAFE
Lazard	169	9.8%	2.7%	EAFE
BlackRock Superfund	199	11.6%	3.2%	ACWI ex USA
Small Cap	180	10.5%	2.9%	
Wellington	180	10.5%	2.9%	EAFE Small Cap
Emerging Markets	137	7.9%	2.2%	
Wellington	137	7.9%	2.2%	Emerging Markets
Total Non-US Equity (ex Gbl)	1,720	100.0%	27.5%	ACWI ex USA IMI
Global Equity				
Global Equity	594	100.0%	9.5%	ACWI
Walter Scott	594	100.0%	9.5%	ACWI
New - Global Value				
Total Equity	6,255		100.0%	ACWI IMI

Total Equity Manager Structure – Factor Exposures, Excess Return and Tracking Error

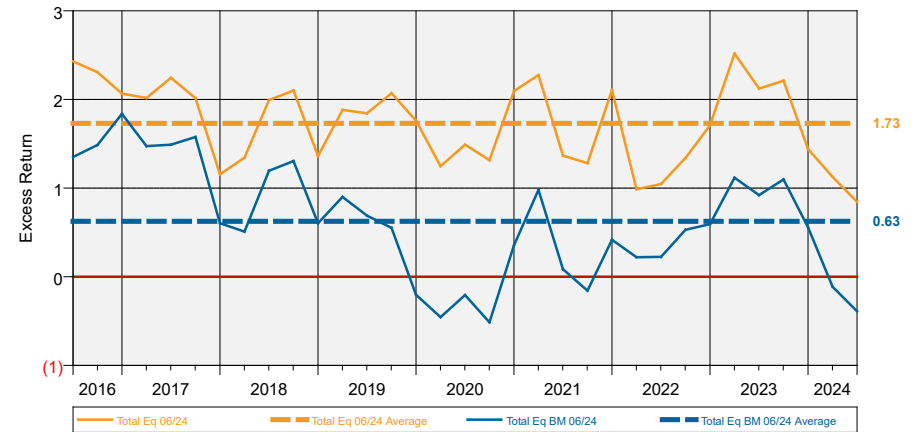
Total Equity	6,255	100.0%	ACWI IMI
Portfolio Construction			
Number of Managers/Number active	14	12	
% Active Management		60%	
Developed/Emerging (manager exposures)			
Developed		95%	89%
Emerging		5%	12%
Capitalization			
Large Cap		63%	73%
Mid Cap		19%	17%
Small Cap		18%	10%
Style			
Value		22%	29%
Core		32%	28%
Growth		46%	42%
Active Performance*			
Excess Return (bps)		173	
Tracking Error (bps)		181	
Excess Return Ratio		0.99	
Passive Performance**			
Excess Return (bps)		63	
Misfit Risk (bps)		189	
Excess Return Ratio		0.32	
* Average active performance vs. total equity benchmark (ACWI IMI) for rolling 12-quarter periods for 8 years ended Q2 2024.			
** Average passive performance vs. total non-US benchmark for rolling 12-quarter periods for 8 years ended Q2 2024.			

Total Equity – Excess Return vs. ACWI and ACWI IMI

Rolling 12 Quarter Excess Return Relative To MSCI:ACWI for 8 Years Ended June 30, 2024



Rolling 12 Quarter Excess Return Relative To MSCI:ACWI IMI for 8 Years Ended June 30, 2024

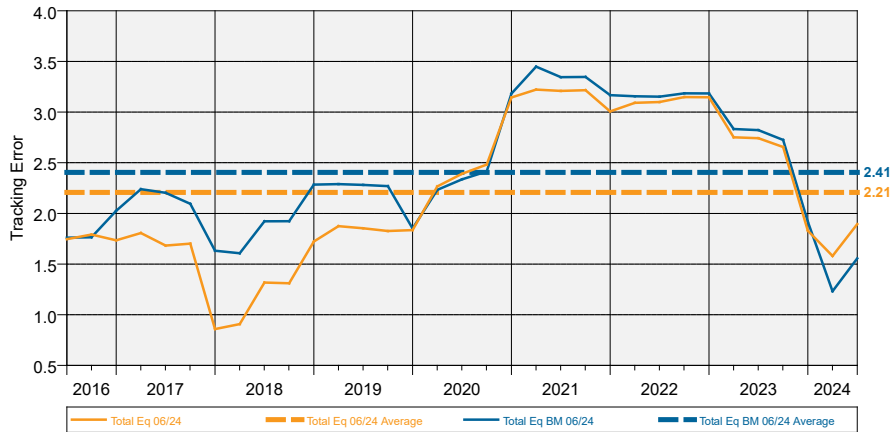


Total equity portfolio structure has consistently added value over the ACWI benchmark, even when some managers underperformed, and outperformed the drag of the misfit risk.

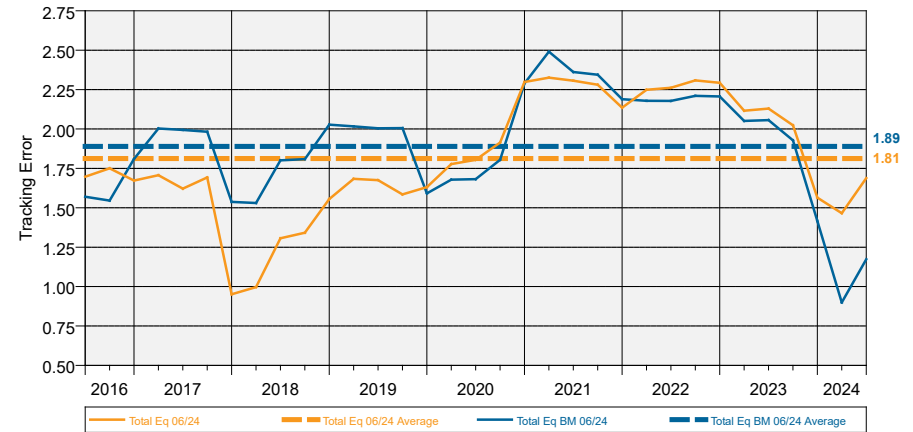
Performance compared to a benchmark of ACWI IMI is more consistent, and at a higher average return.

Total Equity – Tracking Error vs. ACWI and ACWI IMI

Rolling 12 Quarter Tracking Error Relative To MSCI:ACWI for 8 Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error Relative To MSCI:ACWI IMI for 8 Years Ended June 30, 2024



Total international tracking error has averaged 2.21% over the past 8 years. High tracking errors for the EAFE-benchmarked core managers and the presence of out-of-benchmark EAFE small cap and EM explain some of this tracking error, in addition to the active manager bets.

Four of the five core international three Small Cap managers are benchmarked to EAFE, introducing a lot of misfit risk in Core International relative to its ACWI ex-US benchmark

Tracking error relative to the ACWI IMI shows a similar pattern to that of ACWI, but at a lower average level (1.81 vs 2.21)

Total Equity Structure Capitalization and Style Matrix vs. ACWI IMI

Style Exposure Matrix for 8 1/2 Years Ended June 30, 2024

Top: Total Eq 06/24

Middle: Total Eq BM 06/24

Bottom: MSCI:ACWI IMI

Large	16.1%	18.5%	28.3%	63.0%
	18.1%	17.4%	25.2%	60.7%
Mid	4.4%	6.4%	7.8%	18.5%
	5.6%	6.5%	6.7%	18.8%
Small	3.8%	7.4%	6.0%	17.2%
	5.0%	7.2%	5.8%	17.9%
Micro	0.3%	0.6%	0.4%	1.3%
	0.9%	1.1%	0.6%	2.6%
Total	24.6%	32.9%	42.5%	100.0%
	29.6%	32.1%	38.3%	100.0%
	22.1% (299)	20.2% (266)	29.8% (316)	72.2% (881)
	5.4% (521)	5.7% (581)	6.4% (660)	17.5% (1762)
	2.7% (1086)	3.2% (1302)	2.7% (1137)	8.6% (3525)
	0.6% (943)	0.6% (966)	0.5% (733)	1.7% (2643)
	30.8% (2850)	29.8% (3115)	39.4% (2846)	100.0% (8811)
	Value	Core	Growth	Total

The Current total equity structure is overweight small and Mid Cap stocks and underweight large cap stocks relative to the intended total equity benchmark (ACWI IMI).

The structure is underweight to value and in favor of modest overweights to core and growth

The total equity structure exhibits meaningful misfit risk relative to ACWI and ACWI IMI

Total Equity Structure Country and Style Matrix vs. ACWI IMI

Style Exposure Matrix for 8 1/2 Years Ended June 30, 2024

Top: Total Eq 06/24

Middle: Total Eq BM 06/24

Bottom: MSCI:ACWI IMI

Europe	4.1% 5.0% 5.5% (464)	5.7% 5.0% 5.3% (507)	8.6% 6.8% 7.4% (510)	18.4% 16.7% 18.2% (1481)
N. America	18.1% 20.0% 18.4% (844)	23.4% 22.6% 17.6% (1076)	27.7% 25.9% 23.3% (818)	69.2% 68.6% 59.3% (2738)
Pacific	1.1% 3.2% 3.6% (568)	1.9% 3.0% 3.3% (552)	3.2% 3.6% 4.0% (547)	6.2% 9.8% 10.9% (1667)
Emerging	1.3% 1.4% 3.3% (973)	1.9% 1.6% 3.6% (981)	3.0% 2.0% 4.7% (972)	6.2% 4.9% 11.6% (2926)
Total	24.6% 29.6% 30.8% (2850)	32.9% 32.1% 29.8% (3115)	42.5% 38.3% 39.4% (2846)	100.0% 100.0% 100.0% (8811)
	Value	Core	Growth	Total

The Current total equity structure is underweight emerging markets due to the mismatch between the ACWI ex-US international equity benchmark and the underlying managers' benchmarks, as well as non-benchmark exposure including EAFE small cap and global.

The structure is underweight to value and in favor of modest overweights to core and growth

The total equity structure exhibits meaningful misfit risk relative to ACWI IMI

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Past performance is no guarantee of future results.

2024 Proposed Infrastructure Investment Asset Class Guidelines

NHRS Investment Team
Independent Investment Committee Meeting
October 2024

- The **Infrastructure Investment Guidelines** outline the **NHRS Investment Team's approach to how the Infrastructure asset class will be managed** within the NHRS portfolio (see guidelines attached)
 - Clearly define the asset class goals, strategy, composition, benchmark, policy limits, and other key details for implementation
 - Infrastructure was approved at the December 2023 Strategic Asset Allocation Update for inclusion in the total plan
 - The Investment Team worked with both Callan, our general consultant, as well as our Real Estate Advisor, Townsend, in drafting the guidelines
 - Both **Callan and Townsend support the guidelines** recommended by the Investment Team
 - Once the IIC approves the Infrastructure Investment Guidelines, the Investment Team will **incorporate those guidelines into the Investment Manual** for the total plan

Infrastructure Guidelines Summary



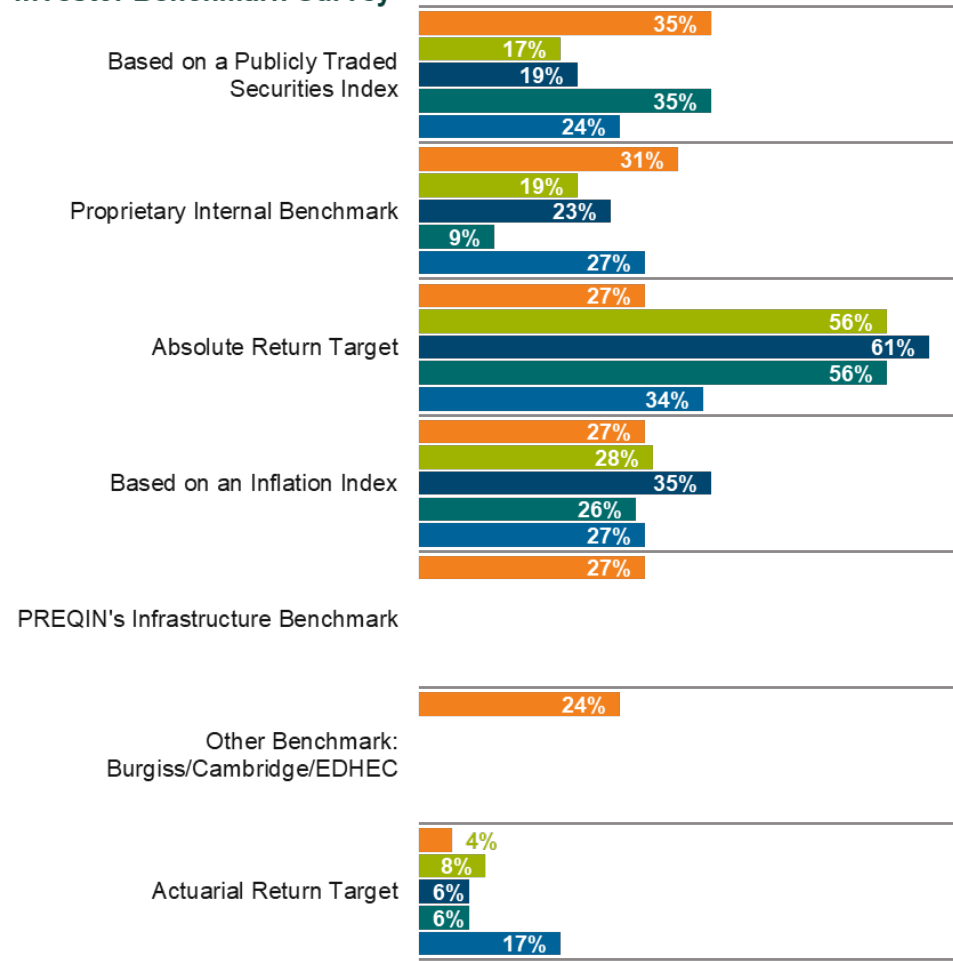
Policy Parameter	Policy Limit
Allocation to Infrastructure	5% of total plan assets; range of 0-10%.
Permissible Investments	Equity investments in infrastructure.
Investment Styles <ul style="list-style-type: none"> • Core / Core Plus • Non-Core 	Core / Core Plus: Target: 70% to 100% Non-Core: Target 0% to 30%
Manager Exposure	No more than 50% of capital committed to any single investment manager
Infrastructure Sector Ranges <ul style="list-style-type: none"> • Communications / Data • Power / Energy (including Renewables) • Water / Wastewater • Transportation 	The portfolio will limit exposure to any single infrastructure sub-sector to avoid over-concentration. This strategy is designed to mitigate sector-specific risks and enhance the overall stability and resilience of the portfolio.
Geographic Exposures <ul style="list-style-type: none"> • Developed Markets / OECD • Emerging Markets / Non-OECD 	The Fund aims to invest in a broadly diversified range of geographic markets, with a primary focus on major investable infrastructure markets within the OECD, specifically North America, Europe, and Australia. Investments in these regions will comprise at least 75% of the Fund's infrastructure allocation. Additionally, investments in emerging markets and/or non-OECD countries will be capped at a maximum of 25% of the Fund's infrastructure allocation.
Leverage	Underlying investment managers may use various forms of debt financing to execute their respective investment mandates. The use of leverage will be monitored for prudence and will maintain the following loan to value ratios. <ul style="list-style-type: none"> • The total Program shall, in aggregate, utilize no more than 65% fund level leverage
Portfolio Buildout	During the initial investment period the portfolio is likely to be below the 5% target as infrastructure funds often require several years to identify and acquire assets.

- **Benchmark:** The portfolio will initially benchmark performance against an absolute benchmark of **Consumer Price Index (CPI) + 400 basis points** for the asset class
 - 4% or 400 basis points accounts for the illiquidity premium for utilizing **private market investments** for the asset class
 - Expectation that the Infrastructure asset class will generate real return above inflation, given the relatively stable cash flows
- Other public market benchmarks for Infrastructure vary widely in sector composition and geography
 - The Investment Team will **evaluate the universe of benchmarks** as we deploy capital and build out the portfolio, and expect to recommend a secondary benchmark as we near our 5% allocation

Public Market Benchmark Comps

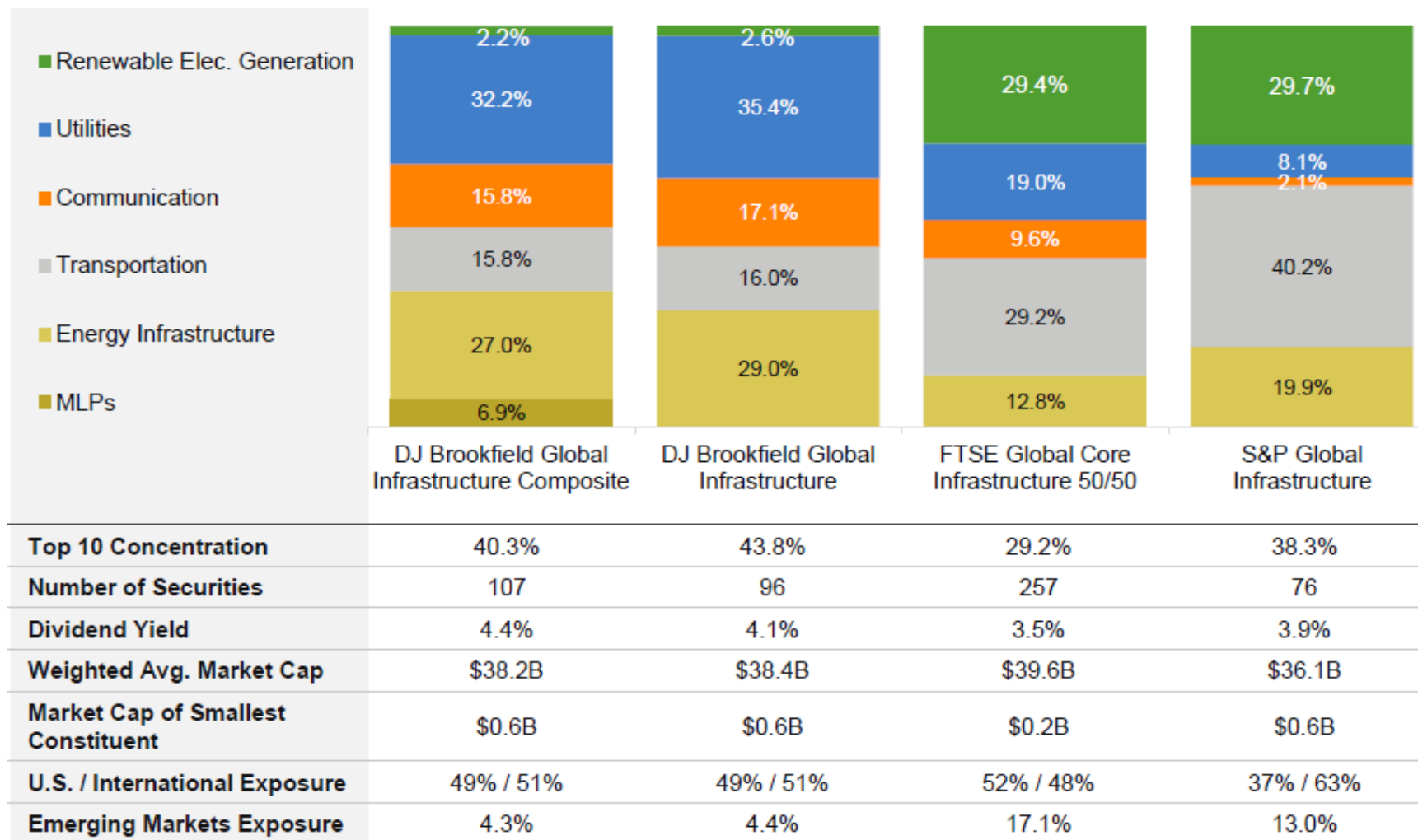
- ▶ The 2022 Investor Benchmark Survey suggests that investors use multiple benchmarks as the responses total more than 100%.
- ▶ With rising inflation, investors have cooled on the use of an absolute return target compared to prior years.
- ▶ Publicly traded indices continue to be relevant for investor benchmarks.
- ▶ Private infrastructure benchmarks are being developed (e.g., Burgiss, Cambridge and EDHEC); in some cases there are regional concentrations (e.g. Australia) that do not reflect individual investor portfolios.
- ▶ Investors have yet to agree on a single benchmark for private infrastructure in the way that they have for private real estate (NCREIF-ODCE Index).

Investor Benchmark Survey



Source: Callan (Infrastructure Education Sept. 2024)

Public Market Benchmark Comps



Source: Callan (Infrastructure Education Sept. 2024)

Recommendations for the IIC



The Investment Team is **recommending the following:**

- **Approve the Infrastructure Investment Guidelines**, with any changes, for the Infrastructure asset class for inclusion in the NHRS Investment Manual

APPENDIX

Key Benefits

- **Portfolio Diversification** – low correlation of infrastructure with other asset classes (public markets) over long-term
- **Stabilized Demand** – assets providing essential services with few competitors drive stable demand through various economic environments
- **Longevity** – infrastructure assets typically have long life spans
- **Sector Diversity** – infrastructure has matured as an asset class since the 1990s, with newer sectors being introduced (e.g., telecom)
- **Downside Protection** – stable free cash flow influences downside protection in sub-strategies that focus on income over capital appreciation

Important Considerations

- **Market Breadth** – infrastructure market has expanded to include newer technologies (i.e., broadband, data centers), which tend to be capital-intensive and introduce innovation risk
- **Capital Intensive** – infrastructure assets are capital intensive for greenfield assets due to development costs (similar to real estate)
- **Inflation Linkage** – infrastructure assets are linked to inflation through regulations or contracts that adjust to changes in inflation rates. Other sectors may have less sensitivity to inflation (e.g., telecom / internet service)
- **Demand for Core** – infrastructure investors had demanded core (income assets) exposure, driving up acquisition prices and reducing underwriting returns

Infrastructure Sector Examples

Transportation & Logistics



Power & Utilities



Environmental



Energy



Telecommunications



Social



Source: BlackRock, 2022

Infrastructure Risk and Return

	Core	Core Plus	Value Add
Revenue Model	<ul style="list-style-type: none"> ▪ Cash flow underpinned by regulation or concession ▪ None or limited price and volume risk 	<ul style="list-style-type: none"> ▪ Cash flow underpinned by medium to long term contracts, strong market position, or concession ▪ Some price/volume risk 	<ul style="list-style-type: none"> ▪ Medium term contracts ▪ Some to significant volume and price risk, ramp-up risk ▪ Growth opportunities (add-on, roll-up) ▪ Core/core-plus Greenfield assets
Leverage	70-90%, IG ¹	60-80%, IG ¹	40-60%, IG or sub-IG ¹
Operating Risk	Low to medium	Low to medium	Medium to high
Market Risk	Low	Low to moderate	Moderate to high
Yield	High	Medium to high	Low to medium
Growth Potential	Low	Low to Medium	High
Targeted Returns	6-8%	8-10%	12-15%

Risk and return 

IG = Investment Grade
Source: Townsend

PROPOSED

Infrastructure Investment Guidelines

Purpose: The allocation to Infrastructure serves to provide diversification to the overall plan as well as offer the opportunity to generate superior risk-adjusted returns through income and capital appreciation. This allocation is expected to have a lower overall correlation with other asset classes, thus potentially reducing the volatility of the return of the Total Fund. Moreover, like real estate assets, infrastructure investments may serve as an inflation hedge.

Allocation: The target allocation to Infrastructure is 5% of the Total Fund per the strategic asset allocation, with an allowable range of 0 – 10%.

During the initial investment period the portfolio is likely to be below the 5% target as infrastructure funds often require several years to identify and acquire assets.

To achieve and maintain the target allocation, capital commitments in excess of 5% of the Total Fund may be made. An annual pacing pace will be approved by the Independent Investment Committee (IIC). This flexibility in over-commitment is designed to accommodate the nature of capital calls, offering periods, and the anticipated return of capital.

Structure: The Infrastructure portfolio seeks to be broadly diversified and consists of two strategy segments: Core and Non- Core, defined below.

Core Infrastructure: Core Infrastructure are typically investments which produce stable, long-lived current income through assets with operating history and high level of contracted revenues with no capital appreciation. Core infrastructure assets generally have been operationally de-risked, with fixed pricing through long-term contracts and contractual inflation escalation. Core investments are typically located in developed markets, which infrastructure managers commonly refer to as the Organization for Economic Co-operation and Development (“OECD”) markets; member countries represent approximately 80% of world trade. Core investments offer relatively high current income returns, and as a result, a greater predictability of total returns under normal market conditions. The income component typically represents a significant component of the expected total return.

Core Plus: Core Plus Infrastructure investments are expected to have low to moderate levels of capital appreciation through improvements, repairs, or expansion with little to no construction risk. Core Plus investments will have a higher exposure to fluctuations in demand compared to Core assets, with features that will limit overall risk (e.g., long-term contracts, regulatory price support, etc.). Core Plus assets are typically found in OECD markets, although may include investments in non-OECD countries. Core Plus infrastructure will yield exposure primarily to current income with some capital appreciation exposure through higher operational or structural complexity.

Non-Core Infrastructure includes Value-Add and Opportunistic strategies, which are accessed through closed-end funds.

Value-Add Infrastructure: Value-Add Infrastructure investments are expected to have moderate levels of capital appreciation through improvements, repairs, or expansion with little to no construction risk. Value-Add investments will exhibit higher operating risk with higher growth potential compared to Core strategies. Value-Add assets are typically found in OECD markets, although may include investments in non-OECD countries. Value Add infrastructure derives a higher share return from capital appreciation than current income, which is often re-invested into the infrastructure business.

Opportunistic Infrastructure: Opportunistic Infrastructure investments are assets with a high exposure to capital appreciation returns through development or construction. Opportunistic investments exhibit the highest risk-return profile, focusing on capital growth of the underlying asset and very little on stable cash flows, with no contracted revenues and higher exposure to market competition. Opportunistic investments can be found in both OECD and emerging markets. Opportunistic investments will attribute most of its returns to capital growth and appreciation.

Portfolio Composition	Lower Target	Upper Target	OECD	Non-OECD
Core / Core Plus Infrastructure	70%	100%		
Non-core Infrastructure	0%	30%		
Total Portfolio		100%	≥ 75%	≤ 25%

Target: 75% Core / Core Plus & 25% Non-core

Infrastructure sectors vary across three project stages or development stages that are analogous to risk profile:

- *Secondary* – a fully operational asset or structure that has no further need for development investment, with fully developed operational cash flow and revenue.
- *Brownfield* – an existing structure or asset that requires improvements, repairs or expansion, that is partially operational and may be generating income.
- *Greenfield* – an asset that does not currently exist and needs to be designed and constructed, with uncertain demand, usage, price and development costs. Greenfield investments have no revenue generation prior to existence.

The infrastructure investment opportunity set can be broken into six sector groupings:

- *Transportation* – includes toll roads, bridges, tunnels, airports, ports, rail and

mass transit networks

- *Energy and Power Generation* – includes both conventional and renewable power generation, storage and pipelines
- *Utilities* – includes power utilities, water utilities, regulated transmission and distribution assets, water treatment and processing,
- *Telecommunications* – includes fiber optics networks, broadcast and mobile towers, data centers and digital assets
- *Energy transition* – includes electric vehicle charging infrastructure, smart metering, hydrogen, carbon capture, waste to energy, microgrids
- *Social* – includes educational facilities, health care offices, courts, police stations, defense, judicial and community centers

Implementation: Investment vehicles for the infrastructure asset class will be made primarily through private open-end funds and closed-end commingled funds. Other structures such as fund of funds, fund-of-one mandates, or managed accounts by an advisor approved by the IIC may be considered. Additionally, investments may also include secondaries and co-investments alongside a general partner or a dedicated co-investment vehicle. Open-end funds will have defined investment and redemption provisions and/or limited partnerships will have fund expiration and extension provisions.

Custody: All assets are held in custody at the discretion of the general partner (investment manager) of the fund vehicle.

Currency: NHRS accepts the currency risks consistent with the geographic exposures of the infrastructure asset class. Infrastructure managers may or may not offer investment vehicles that are hedged back to United States Dollars (USD), but the Fund will not implement currency hedges. Where possible, the Fund will make investments in USD-hedged vehicles and receive distributions in USD.

Benchmark: The portfolio will initially benchmark performance against an absolute benchmark Consumer Price Index (CPI) + 400 bps and evaluate the universe of benchmarks as the asset class continues to evolve.

Portfolio Construction: Portfolio investments will be allocated across various factors to achieve the intended target. The attributes by which investments should be distributed or diversified to most effectively reduce risk are:

- 1) Sector
- 2) Geographic location
- 3) Manager allocation and investment size
- 4) Leverage

As such, within the infrastructure asset class allocation, the guidelines are as follows:

Sector - The portfolio will limit exposure to any single infrastructure sub-sector to avoid over-concentration. This strategy is designed to mitigate sector-specific risks and enhance the overall stability and resilience of the portfolio.

Geographic Location – Investments within the Infrastructure allocation will be distributed geographically for the purpose of attaining economic market diversification. OECD markets are expected to represent a minimum of 75% of the portfolio. Non-OECD markets may represent up to 25% of the portfolio.

Manager Allocation and Investment Size – Investments within the Infrastructure allocation will be diversified both by individual investment exposure and manager exposure, as the System does not want the failure of a single investment to have a significant or material impact on the performance of the overall asset class.

- No more than 50% of capital committed to any single investment manager
- No more than 50% of the non-OECD exposure to come from investments in emerging markets

Leverage – infrastructure investments will utilize leverage based on risk profile, with the amount of leverage related to the level and security of the asset's revenue streams. Core investments will usually have higher levels of leverage and Non-Core investments may have lower leverage levels. The intent for the asset class is to have a moderate level of leverage with respect to the overall portfolio exposure, typically at the fund level.

Permissible leverage: The total Program shall, in aggregate, utilize no more than 65% fund level leverage. Any single fund shall utilize no more than 75% leverage.

Summary of Policy Limits

Policy Parameter	Policy Limit
Allocation to Infrastructure	5% of total plan assets; range of 0-10%.
Permissible Investments	Equity investments in infrastructure.
Investment Styles <ul style="list-style-type: none"> • Core / Core Plus • Non-Core 	Core / Core Plus: Target: 70% to 100% Non-Core: Target 0% to 30%
Manager Exposure	No more than 50% of capital committed to any single investment manager
Infrastructure Sector Ranges <ul style="list-style-type: none"> • Communications / Data • Power / Energy (including Renewables) • Water / Wastewater • Transportation • Social 	The portfolio will limit exposure to any single infrastructure sub-sector to avoid over-concentration. This strategy is designed to mitigate sector-specific risks and enhance the overall stability and resilience of the portfolio.
Geographic Exposures Developed Markets / OECD Emerging Markets / Non-OECD	The Fund aims to invest in a broadly diversified range of geographic markets, with a primary focus on major investable infrastructure markets within the OECD, specifically North America, Europe, and Australia. Investments in these regions will comprise at least 75% of the Fund's infrastructure allocation. Additionally, investments in emerging markets and/or non-OECD countries will be capped at a maximum of 25% of the Fund's infrastructure allocation.
Leverage	Underlying investment managers may use various forms of debt financing to execute their respective investment mandates. The use of leverage will be monitored for prudence and will maintain the following loan to value ratios. <ul style="list-style-type: none"> ▪ The total Program shall, in aggregate, utilize no more than 65% fund level leverage ▪ Any single fund shall utilize no more than 75% leverage
Portfolio Buildout	During the initial investment period the portfolio is likely to be below the 5% target as infrastructure funds often require several years to identify and acquire assets.



December 10, 2024

The Honorable Christopher Sununu, Governor
The Honorable Jeb Bradley, President of the Senate
The Honorable Sherman Packard, Speaker of the House of Representatives

Annual Report for Fiscal Year 2024

The Independent Investment Committee (Investment Committee) of the New Hampshire Retirement System (NHRS, System) is pleased to present the Comprehensive Annual Investment Report for the Fiscal Year ended June 30, 2024, in accordance with the provisions of the Revised Statutes Annotated (RSA) 100-A:15, VII of the State of New Hampshire.

Asset Allocation & Summary of Results

Total assets at the end of Fiscal Year 2024 were \$12.1 billion, reflecting a \$0.7 billion increase compared to \$11.4 billion the prior year. The System's investment portfolio is prudently managed for the long-term in order to generate adequate returns to support benefit payments promised to members. To achieve that goal, investments are broadly diversified across the following asset classes: domestic (U.S.) and non-U.S. stocks, bonds, real estate, and alternative investments.

The target allocation and range for each asset class shown below was adopted by the Board of Trustees on May 14, 2019, based on a recommendation of the Investment Committee.

Asset Class	Target Allocation	Allocation Range	Actual Allocation at June 30, 2024*
U.S. Equity	30%	20 - 40%	35.1%
Non-U.S. Equity	20%	15 - 25%	16.2%
Fixed Income	25%	20 – 30%	20.8%
Real Estate	10%	5 – 20%	9.3%
Alternative Investments	15%	5 – 25%	18.5%

* U.S. Equity and Non-U.S. Equity have been adjusted to reflect a global equity portfolio which may opportunistically invest in each of these asset classes. Fixed Income includes cash. Refer to Appendix C for additional detail.

As illustrated in the table, as of June 30, 2024, all asset classes were within the allocation ranges.

The NHRS return was 8.53% net of fees for the Fiscal Year ended June 30, 2024, compared to the benchmark return of 12.43%. The five-year annualized net of fees return was 7.62% compared to the benchmark return of 7.95%. The ten-year annualized net of fees return was 7.01% compared to the benchmark return of 7.41%. Note that these benchmarks do not include any management fees which would be incurred if NHRS invested in the underlying indices. Compared to our peers, NHRS ranked in the top 41% and 29% for the five and ten-year trailing periods, respectively. These rankings are based on the Callan Public Fund Large Defined Benefit Gross Universe.

Over the long-term, the 25-year annualized net of fees return was 6.28%. The System's actuarial assumed rate of return is 6.75%.

Please refer to Appendix A for a detailed review of investment performance as well as market commentary.

The Investment Committee

The Investment Committee is responsible for investing in accordance with policies established by the NHRS Board of Trustees (Board), and making recommendations to the Board regarding asset allocation, investment consultants, and other investment policy matters. In addition, the Investment Committee is responsible for selecting investment managers, agents, custodial banks, and reviewing performance.

The Investment Committee meets most months and is comprised of six members: three independent voting members and an active non-voting member of the retirement system appointed by the Governor and Executive Council; and two voting members of the Board of Trustees appointed by the Chair of the Board. All members are required by statute to have significant experience in institutional investing or finance. As of June 30, 2024, the Chair of the IIC was Christine Clinton, the independent member was Brian Bickford, CFA; and the active non-voting member was Michael McMahon.

The two Board members serving on the Investment Committee were Maureen Kelliher, CFA (Chair); and Paul Provost, CFP®. One vacancy remains for an independent voting member. Brief biographies and photographs of the Investment Committee members as of June 30, 2024, follow this report.

The Committee would like to recognize prior Committee Chair, Maureen Kelliher, for her contributions and dedicated service. Ms. Kelliher served as Chair of the Investment Committee from March 2017 to February 2024. Ms. Kelliher continues her service to the New Hampshire Retirement System as Chair of its Board of Trustees and as a voting member of the Investment Committee.

Investment Manual

The NHRS Investment Manual provides governance and oversight of the pension fund assets and is presented in Appendix C of this report. Highlights are listed below:

- The Investment Policy and Accountability Matrix provide a description of the roles and responsibilities of the Board, the Investment Committee, NHRS Staff, and the System's service providers.
- The Proxy Voting Policy and Securities Lending Policy provide specific guidance on these individual topics.
- The program's benchmarks and asset allocation policy are detailed along with discussions of risk management, liquidity, rebalancing and portfolio monitoring controls.
- Various considerations related to the oversight of investments are described, including the selection of service providers and use of active or passive strategies.
- Asset class guidelines detail portfolio construction, permissible and prohibited investment vehicles, as well as concentration limits.

The Board sets the assumed rate of return based on the recommendations of the System's actuary, NHRS Staff, the Investment Committee, and analysis provided by the investment consultant and

other industry experts. A written opinion letter on this subject is included in this report as Appendix B.

Governance, Benchmarks and Measurement of Outcomes

The management and administration of the pension trust is a complex effort involving multiple stakeholders with distinct roles and responsibilities as described in the Investment Manual and in statute. At each regular meeting of the Board or Investment Committee, status reports are provided regarding the outcomes of various investment initiatives. Additionally, performance is reviewed versus benchmarks at the manager-level, asset class-level, and portfolio-level on a monthly and quarterly basis, as appropriate, and over various time-periods since the inception of a particular investment mandate or strategy to continually evaluate the portfolio.

NHRS continuously monitors the investment fees paid to managers and discloses alternative investment fees on an aggregate basis each quarter in compliance with the New Hampshire House Bill (HB) 173 passed in 2021. NHRS has a procedure to monitor Environmental, Social, and Governance factors for all marketable managers.

Administrative Comments

The Investment Committee meets at the System's offices monthly. Notice is provided regarding the time, agenda and location of these meetings pursuant to RSA 91-A:2, II. The Investment Committee promotes transparency regarding the investment program through these public meetings, investment materials and reports. Meeting minutes are posted on the NHRS website. Certain investment matters may require discussion in non-public session in accordance with statute. On a regular basis, the Investment Committee receives presentations from investment managers currently retained by NHRS as well as from prospective managers.

Raynald D. Leveque was the System's Chief Investment Officer for the Fiscal Year ending June 30, 2024. In this capacity, Mr. Leveque served as the primary staff liaison on investment matters. In addition, he directed all aspects of the System's investment program including the development of recommendations regarding the System's overall investment strategy and asset allocation;

oversight of external portfolio managers; and promoting productive relationships with investment consultants and service providers. A biography of Mr. Leveque follows this report.

Each fiscal year, NHRS produces an Annual Comprehensive Financial Report (ACFR), which details the operation and financial condition of the retirement system. This report also includes a financial section which outlines the funded status and unfunded actuarial accrued liability, in addition to other actuarial statistics. ACFR reports are available on the System's website, www.nhrs.org.

Overview of Significant Investment Committee Initiatives during the 2024 Fiscal Year:

- Approved the development and implementation of a new Strategic Asset Allocation.
- Development of a long-term Strategic Plan for the NHRS Investment Office.
- Elected Christine Clinton as IIC Chairperson, following the appointment of Maureen Kelliher the prior IIC Chairperson, to Chairperson of the Board of Trustees.
- Reviewed the long-term performance of all current marketable investment managers against their respective benchmarks and renewed their contracts, where appropriate.
- Reviewed and renewed, where appropriate, service provider/other contracts:
 - Renewed the trading cost analysis services agreement with Abel Noser for an additional two-year period and expanded the scope of services to include fixed income and foreign exchange cost analysis.
 - Renewed the real estate investment management agreement with The Townsend Group for an additional two-year period.
- Approved a revised proxy voting policy which was subsequently approved by the NHRS Board of Trustees.
- Continued the expansion of the alternative investments program; new commitments of \$400 million in aggregate were made to one private equity and four private credit investment strategies respectively.

- Performed a comprehensive review of all private debt and equity commitments made since the program's restart in 2009 and adopted an annual private debt and equity investment plan.
- Adopted an annual real estate investment plan.

The Investment Committee is dedicated to achieving the best long-term investment results possible within acceptable levels of risk and consistent with prudent policies and practices.

Respectfully submitted,

Christine Clinton, Chair
Brian Bickford
Maureen Kelliher
Paul Provost
Michael McMahon

Jan Goodwin, Executive Director
Raynald Leveque, Chief Investment Officer

DRAFT



October 3, 2024

Board of Trustees
New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301

Re: Reasonableness of the Assumed Rate of Return

Dear Board Members:

The purpose of this letter is to provide our actuarial opinion regarding the reasonableness of the assumed rate of return for the New Hampshire Retirement System and to address any differences between the assumed rate of return and the expected rate of return under the System's investment policy statement as required under New Hampshire statute.

Background:

The requirement under New Hampshire statute is as follows:

RSA 100-A:15 VII.

- (c) An annual investment policy statement which shall incorporate the following:
 - (1) A clear statement of investment objectives including the adoption of a reasonable and sound expected rate of return the retirement system is attempting to earn. The expected rate of return utilized for the statement of investment objectives shall bear some reasonable relationship to the assumed rate of return set by the trustees for the biennial actuarial calculation. *The retirement system's actuaries shall issue a written opinion in regard to the reasonableness of the assumed rate of return that shall address any difference between the assumed rate of return and the expected rate of return.*

We understand the new asset allocation targets and ranges, adopted by the Board of Trustees effective July 1, 2024, are based on asset liability modeling and asset allocation recommendations from investment consultants. The Independent Investment Committee reviewed the results of asset/liability and asset allocation studies and confirmed the asset allocation targets and ranges remain appropriate. Based on the 2024 capital market assumptions, Callan has indicated the following expectations for NHRS' current asset allocation:

- During the next 10-year period:
 - The expected rate of return is 7.65% per year;
 - The standard deviation is 12.05% per year; and
 - The implicit price inflation rate is 2.50% per year.

- During the next 30-year period:
 - The expected rate of return is 7.80% per year;
 - The standard deviation is 12.05% per year; and
 - The implicit price inflation rate is 2.50% per year.

In determining the assumed rate of return for the actuarial valuation, we abide by Actuarial Standard of Practice (ASOP) No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, as adopted by the Actuarial Standards Board.

Under ASOP No. 27, we determine a reasonable assumption for each economic assumption. The reasonable assumption must be appropriate for the purpose of the measurement, reflect the actuary's professional judgement, take into account relevant historical and current demographic data, reflect the actuary's estimate of future experience or the estimates inherent in the market data and have no significant bias. For the investment return assumption, our analysis is based on forward-looking measures of expected investment return outcomes for the asset classes in the System's current investment policy.

For purposes of this analysis, we have analyzed the System's investment policy with the capital market assumptions from thirteen nationally recognized investment firms and the 2024 GRS Capital Market Assumption Modeler (CMAM). The capital market assumptions in the 2024 CMAM are from the following investment firms (in alphabetical order): Aon, Blackrock, BNY Mellon, Callan, Cambridge, JPMorgan, Meketa, Mercer, NEPC, Northern Trust, RVK, Verus, and Wilshire. Twelve of these firms provide capital market expectations for a 10-year horizon, eight of them provide expectations for longer horizons of 20-30 years. Capital market expectations can vary significantly from year to year and often are contrarian. The financial markets at the end of 2022 were not particularly strong resulting in higher expectations in 2023 and 2024 than in prior years.



Our analysis is based on the GRS 2024 CMAM. The purpose of the CMAM is to assess the reasonability of the assumed rate of return for use in the actuarial valuations for the plan. In our professional judgment, the CMAM has the capability to provide results that are consistent with this purpose. We performed tests to ensure that the model reasonably represents that which is intended to be modeled. We are relying on the GRS actuaries and Internal Software, Training, and Processes Team who developed and maintain the model.

Actuarial Opinion:

For the June 30, 2024 valuation, the actuarial assumed rate of return is made up of a price inflation assumption of 2.25% and a real rate of return assumption of 4.50% for a total of 6.75% per year, net of investment expenses. This assumption was adopted by the Board to be effective in the June 30, 2023 valuation based on the 2019-2023 Experience Study.

Based on our independent analysis using NHRS' target asset allocation and the 2024 CMAM, the median rate of return is 6.74% over a 10-year horizon. As discussed, this year's expectations are slightly higher than prior years.

Over the longer horizon of 20-30 years, the median rate of return is 6.94%. The current NHRS net investment rate assumption of 6.75% is reasonable when compared to our 2024 CMAM medians of 6.74% - 6.94% and Callan's 7.65% - 7.80% current estimates for the expected rate of return.

It should be noted that due to the methods utilized by the GRS CMAM, differences in the underlying inflation assumption between the actuarial valuation (2.25%) and Callan's (2.50%) result in expected returns that may not be directly comparable. For example, if Callan's inflation assumption of 2.50% was used in our analysis, the expected returns discussed above based on the 2024 GRS CMAM would be approximately 0.25% higher.

Differences between the expected rate of return in the System's Investment Policy and the actuarial assumed rate of return are attributable in part to the different objectives of the measurement. Key differences are:

- The Investment Policy focuses on asset allocation decisions and establishes benchmarks for manager performance. The assumed rate of return is a long-term assumption for funding policy.
- The Investment Horizon of 10 years in the Investment Policy is based on a shorter time frame than used to determine the assumed rate of return which can be 20-30 years or longer. When focusing on the 20- 30-year time horizon, the policy and the actuarial assumption produce similar expected returns.



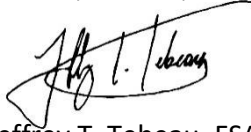
Given the purpose and use of the different assumptions, different results are not uncommon. Under the current actuarial standard of practice, the current assumed rate of return for valuation purposes is reasonable and, therefore, meets the requirements of those standards.

Governmental Accounting Standards Board (GASB) Statement No. 67:

The statutory funding requirements of RSA 100-A:16 and the NHRS' Actuarial Funding Policy call for the NHRS pension unfunded actuarial accrued liability as of June 30, 2017 to be amortized through 2039. Each subsequent change in liability as calculated in odd-numbered years shall be separately amortized over a fixed period of no longer than 20 years. Based on this, the GASB discount rate will be equal to the assumed rate of investment return of 6.75%.

Jeffrey T. Tebeau, Heidi G. Barry, and Casey T. Ahlbrandt-Rains are independent of the plan sponsor, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Jeffrey T. Tebeau, FSA, EA, FCA, MAAA



Heidi G. Barry, ASA, FCA, MAAA



Casey T. Ahlbrandt-Rains, ASA, FCA, MAAA

JTT/HGB/CTA:ah



August 31, 2024



New Hampshire Retirement System

**Investment Measurement Service
Monthly Review**

The table below details the rates of return for the fund’s asset classes over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended August 31, 2024									
Composite	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	32.93%	1.44%	6.90%	5.27%	16.12%	23.35%	6.91%	13.72%	11.07%
<i>Domestic Equity Benchmark(1)</i>		2.18%	7.30%	4.08%	18.19%	26.14%	7.87%	14.76%	12.45%
<i>Excess Return</i>		-0.74%	-0.40%	1.20%	-2.07%	-2.79%	-0.96%	-1.04%	-1.38%
Total Non US Equity	19.43%	2.86%	5.17%	5.72%	11.83%	17.88%	2.66%	7.83%	5.22%
<i>Non US Equity Benchmark(2)</i>		2.85%	5.13%	5.23%	11.22%	18.21%	2.11%	7.56%	4.42%
<i>Excess Return</i>		0.01%	0.04%	0.49%	0.61%	-0.33%	0.55%	0.27%	0.80%
Total Fixed Income	19.25%	1.56%	4.59%	3.83%	3.23%	7.97%	-1.25%	1.48%	2.21%
<i>Bloomberg Capital Universe Bond Index</i>		1.47%	4.72%	3.78%	3.49%	7.92%	-1.78%	0.34%	1.93%
<i>Excess Return</i>		0.09%	-0.13%	0.06%	-0.25%	0.05%	0.53%	1.14%	0.28%
Total Cash	1.91%	0.45%	1.33%	0.89%	3.56%	5.47%	3.44%	2.36%	1.69%
<i>3-Month Treasury Bill</i>		0.48%	1.34%	0.93%	3.58%	5.48%	3.35%	2.27%	1.61%
<i>Excess Return</i>		-0.03%	-0.01%	-0.04%	-0.03%	-0.01%	0.10%	0.09%	0.08%
Total Real Estate (Q1)*	9.04%	0.11%	-1.64%	-0.46%	-5.70%	-8.41%	3.19%	5.92%	8.43%
<i>Real Estate Benchmark(3)</i>		-0.22%	-1.30%	-0.44%	-7.85%	-10.67%	1.50%	2.36%	5.64%
<i>Excess Return</i>		0.33%	-0.34%	-0.02%	2.15%	2.26%	1.68%	3.55%	2.79%
Total Private Equity (Q1)*	13.08%	0.01%	-1.90%	-2.63%	-0.66%	-0.02%	4.21%	12.12%	11.15%
<i>Private Equity Benchmark(4)</i>		4.82%	3.85%	0.49%	24.80%	29.88%	11.59%	18.48%	15.87%
<i>Excess Return</i>		-4.82%	-5.75%	-3.12%	-25.46%	-29.89%	-7.39%	-6.36%	-4.72%
Total Private Debt (Q1)*	4.36%	0.07%	-0.08%	-1.69%	1.25%	1.60%	5.42%	5.02%	5.55%
<i>Private Debt Benchmark(5)</i>		1.18%	2.02%	1.08%	8.64%	13.30%	5.10%	4.80%	5.25%
<i>Excess Return</i>		-1.11%	-2.10%	-2.77%	-7.40%	-11.70%	0.33%	0.21%	0.31%
Total Fund Composite	100.00%	1.34%	3.68%	3.05%	7.27%	11.15%	3.71%	8.44%	7.28%
<i>Total Fund Benchmark(6)</i>		2.11%	4.76%	3.28%	10.47%	15.83%	4.31%	8.72%	7.61%
<i>Excess Return</i>		-0.77%	-1.09%	-0.23%	-3.21%	-4.68%	-0.60%	-0.28%	-0.32%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 Idx + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% MStar LSTA Lev Loan 100 lagged 3 months +1.0%.

(7) For the trailing 25 year period ended 8/31/24, the Total Fund has returned 6.41% versus the Total Fund Custom Benchmark return of 6.70%.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

The table below details the rates of return for the fund's investment managers over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended August 31, 2024									
Composite	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Domestic Equity	32.93%	1.44%	6.90%	5.27%	16.12%	23.35%	6.91%	13.72%	11.07%
Domestic Equity Benchmark(1)		2.18%	7.30%	4.08%	18.19%	26.14%	7.87%	14.76%	12.45%
Excess Return		-0.74%	-0.40%	1.20%	-2.07%	-2.79%	-0.96%	-1.04%	-1.38%
Large Cap Domestic Equity	18.96%	2.42%	7.39%	3.67%	19.59%	27.20%	9.34%	15.26%	12.08%
S&P 500 Index		2.43%	7.39%	3.67%	19.53%	27.14%	9.38%	15.92%	12.98%
Excess Return		0.00%	-0.01%	0.00%	0.06%	0.06%	-0.04%	-0.66%	-0.90%
BlackRock S&P 500	18.96%	2.42%	7.39%	3.67%	19.59%	27.20%	9.34%	15.87%	12.95%
S&P 500 Index		2.43%	7.39%	3.67%	19.53%	27.14%	9.38%	15.92%	12.98%
Excess Return		0.00%	-0.01%	0.00%	0.06%	0.06%	-0.04%	-0.05%	-0.03%
Smid Cap Domestic Equity	5.97%	0.10%	4.75%	6.69%	10.02%	15.81%	2.18%	10.72%	8.33%
Russell 2500 Index		-0.26%	5.55%	7.15%	9.67%	17.37%	1.87%	10.49%	8.76%
Excess Return		0.36%	-0.80%	-0.46%	0.35%	-1.56%	0.31%	0.23%	-0.43%
AllianceBernstein	3.76%	0.74%	4.69%	6.19%	10.98%	18.24%	0.57%	11.17%	9.39%
Russell 2500 Index		-0.26%	5.55%	7.15%	9.67%	17.37%	1.87%	10.49%	8.76%
Excess Return		1.00%	-0.86%	-0.96%	1.31%	0.87%	-1.30%	0.68%	0.63%
TSW	2.21%	-0.98%	4.85%	7.55%	8.43%	11.89%	5.19%	9.97%	6.74%
TSW Blended Benchmark (2)		0.00%	5.92%	8.09%	9.72%	18.14%	4.62%	10.66%	8.70%
Excess Return		-0.97%	-1.07%	-0.54%	-1.29%	-6.25%	0.57%	-0.70%	-1.96%
Small Cap Domestic Equity	8.00%	0.15%	7.38%	8.19%	12.60%	20.10%	4.67%	12.37%	10.59%
Russell 2000 Index		-1.49%	7.51%	8.51%	10.39%	18.47%	0.60%	9.68%	8.03%
Excess Return		1.64%	-0.13%	-0.33%	2.21%	1.63%	4.07%	2.69%	2.56%
Boston Trust	2.03%	-1.72%	6.46%	7.71%	9.69%	14.75%	5.40%	11.18%	10.47%
Russell 2000 Index		-1.49%	7.51%	8.51%	10.39%	18.47%	0.60%	9.68%	8.03%
Excess Return		-0.23%	-1.05%	-0.81%	-0.71%	-3.72%	4.80%	1.49%	2.44%
Segall Bryant & Hamill	2.21%	-0.71%	5.90%	6.73%	12.60%	20.50%	5.88%	13.29%	9.99%
Russell 2000 Index		-1.49%	7.51%	8.51%	10.39%	18.47%	0.60%	9.68%	8.03%
Excess Return		0.78%	-1.61%	-1.78%	2.21%	2.03%	5.28%	3.60%	1.96%
Wellington	3.77%	1.71%	8.78%	9.32%	14.23%	22.95%	3.59%	12.52%	11.03%
Russell 2000 Index		-1.49%	7.51%	8.51%	10.39%	18.47%	0.60%	9.68%	8.03%
Excess Return		3.20%	1.27%	0.81%	3.84%	4.48%	2.99%	2.84%	2.99%

The table below details the rates of return for the fund's investment managers over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Composite	Net of Fees Returns for Periods Ended August 31, 2024								
	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Non US Equity	19.43%	2.86%	5.17%	5.72%	11.83%	17.88%	2.66%	7.83%	5.22%
Non US Equity Benchmark (1)		2.85%	5.13%	5.23%	11.22%	18.21%	2.11%	7.56%	4.42%
Excess Return		0.01%	0.04%	0.49%	0.61%	-0.33%	0.55%	0.27%	0.80%
Core Non US Equity	11.88%	2.86%	5.11%	6.60%	12.28%	18.36%	4.44%	8.28%	4.94%
Core Non US Benchmark (2)		2.85%	5.13%	5.23%	11.22%	18.21%	2.11%	7.56%	4.42%
Excess Return		0.02%	-0.02%	1.37%	1.06%	0.15%	2.33%	0.71%	0.52%
Aristotle	1.53%	3.20%	5.97%	8.36%	11.33%	17.94%	2.91%	-	-
MSCI EAFE		3.25%	4.56%	6.28%	11.96%	19.40%	4.13%	-	-
Excess Return		-0.06%	1.40%	2.08%	-0.63%	-1.46%	-1.22%	-	-
Artisan Partners	3.42%	2.38%	5.25%	5.86%	14.97%	19.95%	1.99%	6.65%	-
MSCI EAFE		3.25%	4.56%	6.28%	11.96%	19.40%	4.13%	8.61%	-
Excess Return		-0.87%	0.68%	-0.42%	3.01%	0.55%	-2.14%	-1.96%	-
BlackRock SuperFund	1.66%	2.84%	4.99%	5.12%	11.27%	18.16%	-	-	-
MSCI ACWI Ex-US		2.85%	5.13%	5.23%	11.22%	18.21%	-	-	-
Excess Return		0.00%	-0.14%	-0.11%	0.05%	-0.05%	-	-	-
Causeway Capital	3.83%	3.14%	4.93%	7.38%	11.99%	17.82%	9.87%	12.48%	-
MSCI EAFE		3.25%	4.56%	6.28%	11.96%	19.40%	4.13%	8.61%	-
Excess Return		-0.12%	0.37%	1.10%	0.03%	-1.58%	5.74%	3.86%	-
Lazard	1.43%	2.98%	4.46%	6.18%	9.12%	16.87%	0.71%	-	-
MSCI EAFE		3.25%	4.56%	6.28%	11.96%	19.40%	4.13%	-	-
Excess Return		-0.27%	-0.10%	-0.10%	-2.84%	-2.54%	-3.42%	-	-
Emerging Markets	1.47%	2.08%	3.57%	2.76%	9.51%	12.24%	-4.26%	2.33%	1.62%
MSCI EM		1.61%	5.94%	1.92%	9.55%	15.07%	-3.06%	4.79%	2.56%
Excess Return		0.46%	-2.36%	0.85%	-0.04%	-2.83%	-1.20%	-2.46%	-0.94%
Wellington Emerging Markets	1.47%	2.08%	3.57%	2.76%	9.51%	12.24%	-4.37%	2.43%	2.44%
MSCI EM		1.61%	5.94%	1.92%	9.55%	15.07%	-3.06%	4.79%	2.56%
Excess Return		0.46%	-2.36%	0.85%	-0.04%	-2.83%	-1.32%	-2.36%	-0.13%
Non US Small Cap	1.17%	1.61%	3.58%	7.62%	8.56%	16.64%	-3.82%	3.13%	0.68%
MSCI EAFE Small Cap		1.98%	4.52%	7.79%	8.34%	15.08%	-2.39%	6.45%	5.35%
Excess Return		-0.37%	-0.94%	-0.17%	0.22%	1.56%	-1.43%	-3.32%	-4.67%
Wellington Int'l Small Cap Research	1.17%	1.61%	3.58%	7.62%	8.56%	16.64%	-	-	-
MSCI EAFE Small Cap		1.98%	4.52%	7.79%	8.34%	15.08%	-	-	-
Excess Return		-0.37%	-0.94%	-0.17%	0.22%	1.56%	-	-	-
Global Equity	4.91%	3.39%	6.22%	4.11%	12.25%	18.80%	4.50%	11.60%	10.92%
MSCI ACWI net		2.54%	6.51%	4.19%	15.97%	23.44%	5.77%	12.14%	8.78%
Excess Return		0.85%	-0.30%	-0.09%	-3.72%	-4.64%	-1.27%	-0.54%	2.14%
Walter Scott Global Equity	4.91%	3.39%	6.22%	4.11%	12.25%	18.80%	4.50%	11.60%	10.92%
Walter Scott Blended Benchmark (3)		2.54%	6.51%	4.19%	15.97%	23.44%	5.77%	12.14%	8.78%
Excess Return		0.85%	-0.30%	-0.09%	-3.72%	-4.64%	-1.27%	-0.54%	2.14%

(1) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(2) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(3) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

The table below details the rates of return for the fund's investment managers over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended August 31, 2024									
Composite	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Fixed Income	19.25%	1.56%	4.59%	3.83%	3.23%	7.97%	-1.25%	1.48%	2.21%
<i>Fixed Income Benchmark (1)</i>		1.47%	4.72%	3.78%	3.49%	7.92%	-1.78%	0.34%	1.93%
<i>Excess Return</i>		0.09%	-0.13%	0.06%	-0.25%	0.05%	0.53%	1.14%	0.28%
BlackRock SIO Bond Fund	2.21%	1.00%	3.81%	2.89%	4.38%	9.18%	1.70%	2.97%	-
<i>BlackRock Custom Benchmark (2)</i>		0.45%	1.36%	0.94%	3.69%	5.54%	3.51%	2.40%	-
<i>Excess Return</i>		0.55%	2.45%	1.95%	0.70%	3.64%	-1.81%	0.57%	-
Brandywine Asset Mgmt	1.87%	3.24%	5.84%	6.39%	-1.38%	5.50%	-4.68%	-0.19%	0.46%
<i>Brandywine Custom Benchmark (3)</i>		2.32%	5.30%	5.41%	0.79%	5.50%	-5.75%	-2.69%	-0.67%
<i>Excess Return</i>		0.92%	0.54%	0.98%	-2.17%	0.00%	1.07%	2.50%	1.14%
FIAM (Fidelity) Tactical Bond	3.10%	1.54%	4.69%	3.88%	3.72%	8.23%	-0.41%	2.21%	-
<i>Bloomberg Aggregate</i>		1.44%	4.79%	3.81%	3.07%	7.30%	-2.11%	-0.04%	-
<i>Excess Return</i>		0.10%	-0.09%	0.07%	0.65%	0.93%	1.70%	2.25%	-
Income Research & Management	6.45%	1.30%	4.48%	3.55%	3.29%	7.38%	-2.23%	0.37%	2.08%
<i>Bloomberg Gov/Credit</i>		1.38%	4.56%	3.65%	2.95%	7.21%	-2.31%	-0.02%	1.76%
<i>Excess Return</i>		-0.08%	-0.08%	-0.10%	0.34%	0.17%	0.07%	0.39%	0.31%
Loomis Sayles	2.39%	1.59%	4.64%	3.76%	4.97%	10.49%	0.08%	3.38%	3.46%
<i>Loomis Sayles Custom Benchmark (4)</i>		1.50%	4.72%	3.74%	4.19%	9.12%	-0.47%	1.58%	2.74%
<i>Excess Return</i>		0.08%	-0.07%	0.02%	0.78%	1.37%	0.55%	1.80%	0.72%
Manulife Strategic Fixed Income	1.77%	1.60%	4.23%	3.42%	3.69%	8.14%	-0.05%	1.88%	-
<i>Bloomberg Multiverse</i>		2.36%	5.31%	5.15%	2.05%	7.17%	-3.94%	-1.16%	-
<i>Excess Return</i>		-0.76%	-1.09%	-1.73%	1.65%	0.96%	3.89%	3.04%	-
Mellon US Agg Bond Index	1.46%	1.44%	4.80%	3.81%	3.08%	7.31%	-	-	-
<i>Bloomberg Aggregate Bond Index</i>		1.44%	4.79%	3.81%	3.07%	7.30%	-	-	-
<i>Excess Return</i>		0.00%	0.01%	0.01%	0.01%	0.02%	-	-	-
Total Cash	1.91%	0.45%	1.33%	0.89%	3.56%	5.47%	3.44%	2.36%	1.69%
<i>3-month Treasury Bill</i>		0.48%	1.34%	0.93%	3.58%	5.48%	3.35%	2.27%	1.61%
<i>Excess Return</i>		-0.03%	-0.01%	-0.04%	-0.03%	-0.01%	0.10%	0.09%	0.08%
Total Marketable Assets	73.52%	1.82%	5.68%	4.90%	11.15%	17.29%	3.46%	8.39%	6.86%
<i>Total Marketable Index (5)</i>		2.12%	5.87%	4.28%	11.33%	17.82%	3.26%	8.17%	7.00%
<i>Excess Return</i>		-0.31%	-0.18%	0.61%	-0.18%	-0.53%	0.19%	0.22%	-0.15%

(1) The Fixed Income Benchmark is the Bloomberg Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

The table below details the rates of return for the fund's investment managers over various time periods ended August 31, 2024. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Net of Fees Returns for Periods Ended August 31, 2024									
Composite	Total Fund Weighting As of 8/31/2024	Last Month	Last 3 Months	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Total Real Estate (Q1)* (5)	9.04%	0.11%	-1.64%	-0.46%	-5.70%	-8.41%	3.19%	5.92%	8.43%
<i>Real Estate Benchmark (1)</i>		-0.22%	-1.30%	-0.44%	-7.85%	-10.67%	1.50%	2.36%	5.64%
<i>Excess Return</i>		0.33%	-0.34%	-0.02%	2.15%	2.26%	1.68%	3.55%	2.79%
Strategic Core Real Estate (Q1)*	5.22%	0.00%	-3.67%	-1.51%	-8.86%	-11.71%	1.97%	3.64%	6.98%
<i>Real Estate Benchmark (1)</i>		-0.22%	-1.30%	-0.44%	-7.85%	-10.67%	1.50%	2.36%	5.64%
<i>Excess Return</i>		0.22%	-2.37%	-1.07%	-1.00%	-1.04%	0.47%	1.28%	1.35%
Tactical Non-Core Real Estate (Q1)*	3.82%	0.27%	1.37%	1.06%	-0.74%	-3.15%	5.11%	9.90%	10.91%
<i>Real Estate Benchmark (1)</i>		-0.22%	-1.30%	-0.44%	-7.85%	-10.67%	1.50%	2.36%	5.64%
<i>Excess Return</i>		0.49%	2.67%	1.50%	7.11%	7.52%	3.61%	7.54%	5.28%
Total Alternative Assets (Q1)*	17.44%	0.02%	-1.44%	-2.39%	-0.18%	0.39%	4.51%	9.91%	8.56%
<i>Alternative Assets Benchmark (2)</i>		3.61%	3.27%	0.71%	19.30%	24.28%	9.52%	13.84%	11.33%
<i>Excess Return</i>		-3.59%	-4.71%	-3.10%	-19.48%	-23.89%	-5.01%	-3.93%	-2.76%
Total Private Equity (Q1)*	13.08%	0.01%	-1.90%	-2.63%	-0.66%	-0.02%	4.21%	12.12%	11.15%
<i>Private Equity Benchmark (3)</i>		4.82%	3.85%	0.49%	24.80%	29.88%	11.59%	18.48%	15.87%
<i>Excess Return</i>		-4.82%	-5.75%	-3.12%	-25.46%	-29.89%	-7.39%	-6.36%	-4.72%
Total Private Debt (Q1)*	4.36%	0.07%	-0.08%	-1.69%	1.25%	1.60%	5.42%	5.02%	5.55%
<i>Private Debt Benchmark (4)</i>		1.18%	2.02%	1.08%	8.64%	13.30%	5.10%	4.80%	5.25%
<i>Excess Return</i>		-1.11%	-2.10%	-2.77%	-7.40%	-11.70%	0.33%	0.21%	0.31%

(1) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(2) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 2% lagged 1 quarter and 33.3% ((50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1%) lagged 1 quarter as of 7/1/2022.

(3) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(4) The Private Debt Benchmark is (50% MStar LSTA Leveraged Loan 100 Index / 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(5) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of August 31, 2024, with the distribution as of July 31, 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

	August 31, 2024		Net New Inv.	Inv. Return	July 31, 2024	
	Market Value	Weight			Market Value	Weight
Total Domestic Equity	\$4,150,888,354	32.93%	\$0	\$59,685,083	\$4,091,203,271	32.85%
Large Cap Domestic Equity	\$2,390,026,557	18.96%	\$0	\$56,547,367	\$2,333,479,190	18.74%
Blackrock S&P 500	2,390,026,557	18.96%	0	56,547,367	2,333,479,190	18.74%
SMid Cap Domestic Equity	\$752,033,784	5.97%	\$0	\$1,109,274	\$750,924,510	6.03%
AllianceBernstein	473,983,490	3.76%	0	3,701,813	470,281,676	3.78%
TSW	278,050,295	2.21%	0	(2,592,539)	280,642,834	2.25%
Small Cap Domestic Equity	\$1,008,828,012	8.00%	\$0	\$2,028,442	\$1,006,799,570	8.09%
Boston Trust	255,346,823	2.03%	0	(4,386,957)	259,733,780	2.09%
Segall Bryant & Hamill	278,709,380	2.21%	0	(1,821,465)	280,530,845	2.25%
Wellington	474,771,809	3.77%	0	8,236,864	466,534,945	3.75%
Total Non US Equity	\$2,449,143,301	19.43%	\$(100,369)	\$69,110,919	\$2,380,132,751	19.11%
Core Non US Equity (1)	\$1,497,779,256	11.88%	\$(100,369)	\$42,275,882	\$1,455,603,743	11.69%
Aristotle	192,791,805	1.53%	0	6,036,565	186,755,240	1.50%
Artisan Partners	431,377,689	3.42%	0	10,239,542	421,138,147	3.38%
BlackRock Superfund	209,669,955	1.66%	0	5,803,774	203,866,181	1.64%
Causeway Capital	483,401,224	3.83%	0	14,903,710	468,497,514	3.76%
Lazard	179,964,827	1.43%	0	5,277,123	174,687,704	1.40%
Emerging Markets	\$185,100,958	1.47%	\$0	\$3,920,367	\$181,180,591	1.45%
Wellington Emerging Markets	185,100,958	1.47%	0	3,920,367	181,180,591	1.45%
Non US Small Cap	\$147,207,611	1.17%	\$0	\$2,415,238	\$144,792,374	1.16%
Wellington Int'l Small Cap Research	147,207,611	1.17%	0	2,415,238	144,792,374	1.16%
Global Equity	\$619,055,476	4.91%	\$0	\$20,499,432	\$598,556,043	4.81%
Walter Scott Global Equity	619,055,476	4.91%	0	20,499,432	598,556,043	4.81%
Total Fixed Income	\$2,426,729,258	19.25%	\$0	\$37,918,395	\$2,388,810,863	19.18%
BlackRock SIO Bond Fund	278,845,368	2.21%	0	2,863,644	275,981,724	2.22%
Brandywine Asset Mgmt	236,306,494	1.87%	0	7,484,204	228,822,291	1.84%
FIAM (Fidelity) Tactical Bond	390,193,367	3.10%	0	6,014,541	384,178,826	3.09%
Income Research & Management	812,762,952	6.45%	0	10,575,185	802,187,767	6.44%
Loomis Sayles	300,703,674	2.39%	0	4,783,513	295,920,161	2.38%
Manulife Strategic Fixed Income	223,258,462	1.77%	0	3,576,223	219,682,240	1.76%
Mellon US Agg Bond Index	184,658,941	1.46%	0	2,621,086	182,037,856	1.46%
Total Cash	\$240,929,682	1.91%	\$(13,254,135)	\$1,132,275	\$253,051,542	2.03%
Total Marketable Assets	\$9,267,690,595	73.52%	\$(13,354,504)	\$167,846,673	\$9,113,198,427	73.18%
Total Real Estate	\$1,139,580,508	9.04%	\$7,114,857	\$1,258,946	\$1,131,206,705	9.08%
Strategic Core Real Estate	658,369,090	5.22%	(4,882,343)	0	663,251,433	5.33%
Tactical Non-Core Real Estate	481,211,417	3.82%	11,997,200	1,258,946	467,955,271	3.76%
Total Alternative Assets	\$2,198,875,539	17.44%	\$(9,772,377)	\$706,452	\$2,207,941,463	17.73%
Private Equity	1,648,799,329	13.08%	7,422,462	127,066	1,641,249,800	13.18%
Private Debt	550,076,210	4.36%	(17,194,839)	579,386	566,691,663	4.55%
Total Fund Composite	\$12,606,146,642	100.0%	\$(16,012,024)	\$169,812,071	\$12,452,346,595	100.0%

-Alternatives market values reflect current custodian valuations, which may not be up to date.

(1) Includes \$573,756 in legacy assets that are not actively managed and in liquidation following the termination of Fisher Investments.

New Hampshire Retirement System Target History

30-Jun-2022 - 31-Aug-2024			
Domestic Broad			
Eq	Russell 3000 Index	30.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Russell 3000 Index+2.00%	10.00%	
Other Alternatives	Bloomberg HY Corporate+1.00%	2.50%	
Other Alternatives	Morningstar LSTA Leveraged Loan 100+1.00%	2.50%	
			100.00%

30-Jun-2021 - 30-Jun-2022			
Domestic Broad			
Eq	Russell 3000 Index	30.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+3.00%	10.00%	
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%	
			100.00%

30-Sep-2020 - 30-Jun-2021			
Domestic Broad			
Eq	S&P 500 Index	30.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+3.00%	10.00%	
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%	
			100.00%

30-Jun-2015 - 30-Sep-2020			
Domestic Broad			
Eq	S&P 500 Index	30.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	15.00%	
			100.00%

31-Mar-2015 - 30-Jun-2015			
Domestic Broad			
Eq	Russell 3000 Index	37.30%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.70%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	9.00%	
			100.00%

31-Dec-2014 - 31-Mar-2015			
Domestic Broad			
Eq	Russell 3000 Index	37.70%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.80%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	8.50%	
			100.00%

30-Sep-2014 - 31-Dec-2014			
Domestic Broad			
Eq	Russell 3000 Index	39.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.60%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	7.40%	
			100.00%

30-Jun-2014 - 30-Sep-2014			
Domestic Broad			
Eq	Russell 3000 Index	39.60%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.90%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	6.50%	
			100.00%

31-Mar-2014 - 30-Jun-2014			
Domestic Broad			
Eq	Russell 3000 Index	42.20%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.60%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	4.20%	
			100.00%

31-Dec-2013 - 31-Mar-2014			
Domestic Broad			
Eq	Russell 3000 Index	41.80%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	9.10%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	4.10%	
			100.00%

30-Sep-2013 - 31-Dec-2013			
Domestic Broad			
Eq	Russell 3000 Index	42.90%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.60%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	3.50%	
			100.00%

30-Jun-2013 - 30-Sep-2013			
Domestic Broad			
Eq	Russell 3000 Index	42.50%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	9.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	S&P 500 Index+5.00%	3.50%	
			100.00%

31-Mar-2013 - 30-Jun-2013			
Domestic Broad			
Eq	Russell 3000 Index	43.00%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.60%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	3.40%	
			100.00%

31-Dec-2012 - 31-Mar-2013			
Domestic Broad			
Eq	Russell 3000 Index	43.60%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.80%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.60%	
			100.00%

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 Idx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 Idx + 50% Bloomberg HY Idx) + 1%) (1 qtr lag).

From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Idx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015: S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5% + Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.

New Hampshire Retirement System Target History

30-Sep-2012 - 31-Dec-2012			
Domestic Broad			
Eq	Russell 3000 Index	43.90%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	8.70%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.40%	
		100.00%	

30-Jun-2012 - 30-Sep-2012			
Domestic Broad			
Eq	Russell 3000 Index	43.50%	
Domestic Fixed	Bloomberg Universal	25.00%	
Real Estate	NCREIF Property Index+0.50%	9.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.50%	
		100.00%	

31-Mar-2012 - 30-Jun-2012			
Domestic Broad			
Eq	Russell 3000 Index	40.10%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	7.60%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.30%	
		100.00%	

31-Dec-2011 - 31-Mar-2012			
Domestic Broad			
Eq	Russell 3000 Index	39.70%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	8.00%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.30%	
		100.00%	

30-Sep-2011 - 31-Dec-2011			
Domestic Broad			
Eq	Russell 3000 Index	40.20%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	7.40%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.40%	
		100.00%	

30-Jun-2011 - 30-Sep-2011			
Domestic Broad			
Eq	Russell 3000 Index	42.50%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.40%	
Intl Equity	MSCI ACWI xUS (Net)	20.00%	
Other Alternatives	Alternative Asset Benchmark	2.10%	
		100.00%	

31-Mar-2011 - 30-Jun-2011			
Domestic Broad			
Eq	Russell 3000 Index	43.00%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.30%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	1.70%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

31-Dec-2010 - 31-Mar-2011			
Domestic Broad			
Eq	Russell 3000 Index	43.00%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.20%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	1.80%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

30-Sep-2010 - 31-Dec-2010			
Domestic Broad			
Eq	Russell 3000 Index	42.80%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.40%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	1.80%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

30-Jun-2010 - 30-Sep-2010			
Domestic Broad			
Eq	Russell 3000 Index	42.90%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.00%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	2.10%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

31-Dec-2009 - 30-Jun-2010			
Domestic Broad			
Eq	Russell 3000 Index	43.30%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	4.70%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	2.00%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

30-Sep-2009 - 31-Dec-2009			
Domestic Broad			
Eq	Russell 3000 Index	42.30%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	5.50%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	2.20%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

30-Jun-2009 - 30-Sep-2009			
Domestic Broad			
Eq	Russell 3000 Index	41.50%	
Domestic Fixed	Bloomberg Universal	30.00%	
Real Estate	NCREIF Property Index+0.50%	6.20%	
Intl Equity	MSCI ACWI xUS (Net)	15.00%	
Other Alternatives	Alternative Asset Benchmark	2.30%	
Global Equity			
Broad	MSCI ACWI (Net)	5.00%	
		100.00%	

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 Idx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 Idx + 50% Bloomberg HY Idx) + 1%) (1 qtr lag).

From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Idx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015: S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5% + Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.

New Hampshire Retirement System Target History

31-Mar-2009 - 30-Jun-2009		
Domestic Broad		
Eq	Russell 3000 Index	38.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	9.30%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.70%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

31-Dec-2008 - 31-Mar-2009		
Domestic Broad		
Eq	Russell 3000 Index	37.20%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	9.70%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	3.10%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

30-Sep-2008 - 31-Dec-2008		
Domestic Broad		
Eq	Russell 3000 Index	38.90%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	8.20%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Consumer Price Index (W) + 5%	2.90%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

30-Jun-2008 - 30-Sep-2008		
Domestic Broad		
Eq	Russell 3000 Index	40.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	7.30%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Consumer Price Index (W) + 5%	2.70%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

30-Jun-2007 - 30-Jun-2008		
Domestic Broad		
Eq	Russell 3000 Index	44.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	5.00%
Intl Equity	MSCI ACWI xUS (Net)	16.00%
Other Alternatives	Consumer Price Index (W) + 5%	5.00%
		100.00%

30-Nov-2006 - 30-Jun-2007		
Domestic Broad		
Eq	Russell 3000 Index	44.00%
Domestic Fixed	Bloomberg Universal	26.00%
Real Estate	NCREIF Property Index	5.00%
Intl Equity	MSCI ACWI xUS (Net)	16.00%
Other Alternatives	Consumer Price Index (W) + 5%	5.00%
Global Fixed-Inc	Brandywine Blended Benchmark	4.00%
		100.00%

30-Jun-2003 - 30-Nov-2006		
Domestic Broad		
Eq	Russell 3000 Index	47.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI ACWI xUS (Net)	12.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	Brandywine Blended Benchmark	3.00%
		100.00%

31-Oct-1997 - 30-Jun-2003		
Domestic Broad		
Eq	S&P 500 Index	50.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	Brandywine Blended Benchmark	3.00%
		100.00%

31-Mar-1990 - 31-Oct-1997		
Domestic Broad		
Eq	S&P 500 Index	50.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	JPM GBI Global Unhedged USD	3.00%
		100.00%

30-Jun-1975 - 31-Mar-1990		
Domestic Broad		
Eq	S&P 500 Index	50.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	JPM GBI Global Unhedged USD	3.00%
		82.00%

Alternatives Benchmark represents from 7/1/2022 to present: 66.7% Russell 3000 Idx + 2% (1 qtr lag) and 33.3% ((50% S&P LSTA Leveraged Loan 100 Idx + 50% Bloomberg HY Idx) + 1%) (1 qtr lag).

From 7/1/2019 to 7/1/2022: 66.7% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019: 33.3% S&P 500 +3% (1 qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag) + 33.3% of Cash (6-mo USD LIBOR) + 5%. From 7/1/2015 to 7/1/2016: 33.3% S&P 500 +3% (1qtr lag) + 33.3% S&P LSTA Leverage Loan 100 Idx(1 qtr lag) + 33.3% of Cash (1 month USD LIBID) +5%. From 7/1/2013 to 7/1/2015: S&P 500 plus 5% (1 qtr lag). From 7/1/2011 to 7/1/2013: Qtr ending weight of Private Equity x S&P 500 plus 5% + Qtr ending weight Absolute Return x CPI + 5%. Prior to 7/1/2011: CPI + 5%.

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NHRS Asset Allocation Update

NHRS Investment Team
Independent Investment Committee Meeting

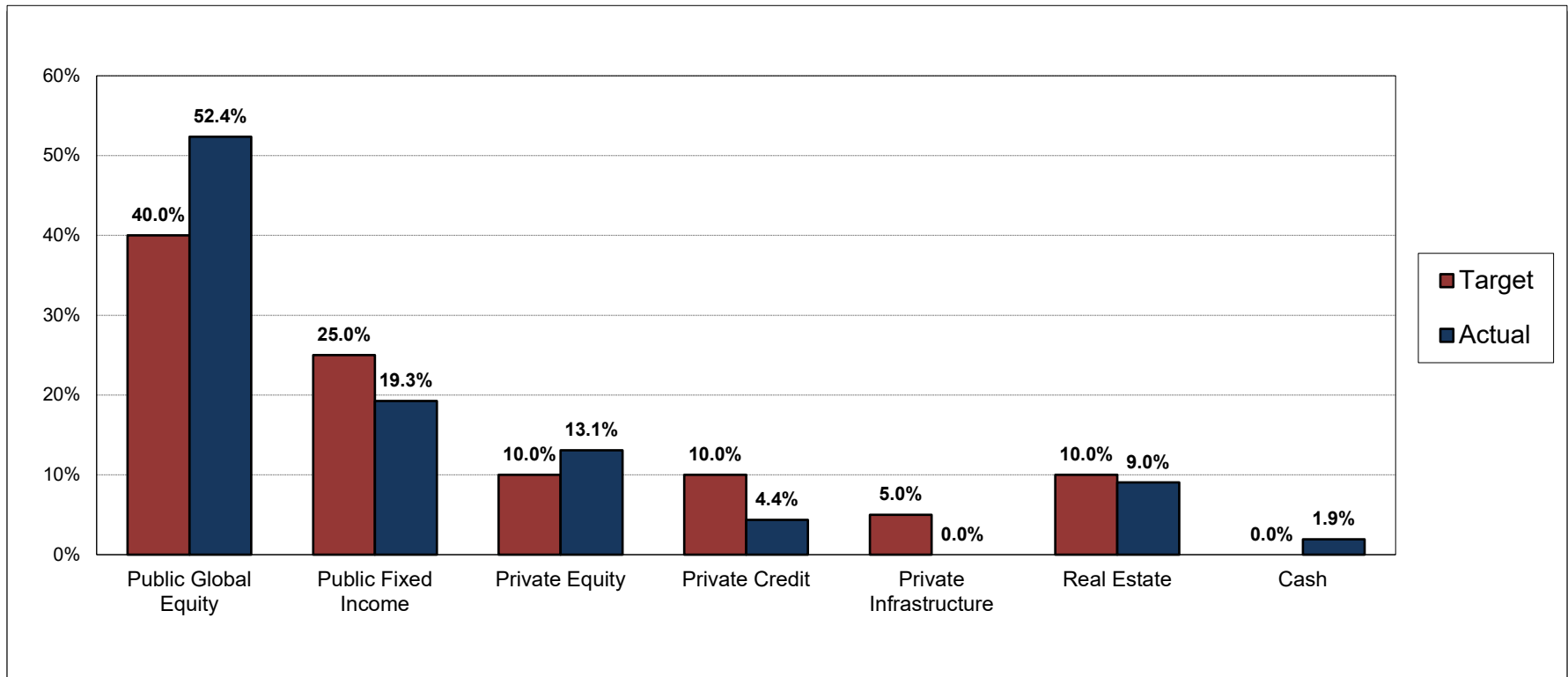
October 8, 2024

Summary



- On August 31, 2024, the preliminary Total Fund value was approximately \$12.6 billion.
- Current asset allocation targets were approved by the Board of Trustees on December 12, 2023 (targets) and December 14, 2019 (ranges), respectively.
 - The new Target Asset Allocation, approved by the Board in December 2023, took effect at the start of the new fiscal year on July 1, 2024. Implementation will occur over a multi-year timeframe, with interim targets to be determined in subsequent meetings by the Investment Committee.
- Allocations are managed within approved allocation ranges. All asset classes are continually monitored and Staff takes action to prudently rebalance as a range limit is approached.
- Current status of Targets vs. Actual is illustrated on page 2.
- All asset classes are within approved allocation ranges (page 3) as of August 31, 2024.
 - The investment team will adjust the allocation within the target ranges at the conclusion of the ongoing implementation plan for the total plan.
- Total Fund allocation is above and below the target of 70% Equity-like and 30% Fixed Income investments, respectively as of August 31, 2024 (page 4).

Class Targets vs. Actual Allocation as of August 31, 2024 (Preliminary)



Source: NHRS

Asset Class Allocations Relative to Policy Targets and Ranges



As of August 31, 2024 (preliminary)

Asset Class	Range ¹	Allocation			Objective	Comments
		Target	Actual	Variance		
Public Markets						
Global Equity	TBD	40.0%	52.4%	12.4%	Action	Actual allocation to be reduced over subsequent periods to fund new infrastructure allocation and increase to private credit.
Fixed Income ²	20 - 30%	25.0%	19.3%	-5.7%	Action	Below target allocation but within approved allocation range when cash is included.
Private Markets						
Equity ³	5 - 15%	10.0%	13.1%	3.1%	Monitor	No immediate action needed.
Credit ³	TBD	10.0%	4.4%	-5.6%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Infrastructure	TBD	5.0%	0.0%	-5.0%	Action	To be scaled up incrementally over subsequent periods as part of SAA implementation.
Real Estate (RE) ³	5 - 20%	10.0%	9.0%	-1.0%	Monitor	No immediate action needed.
Cash Equivalents	NA	0.0%	1.9%	1.9%	No Action	Minimal cash balance to provide liquidity, as needed, for annuities, capital calls and other plan needs.
		100.0%	100.0%	0.0%		

¹New allocation ranges will be established as part of the implementation plan for the updated Strategic Asset Allocation.

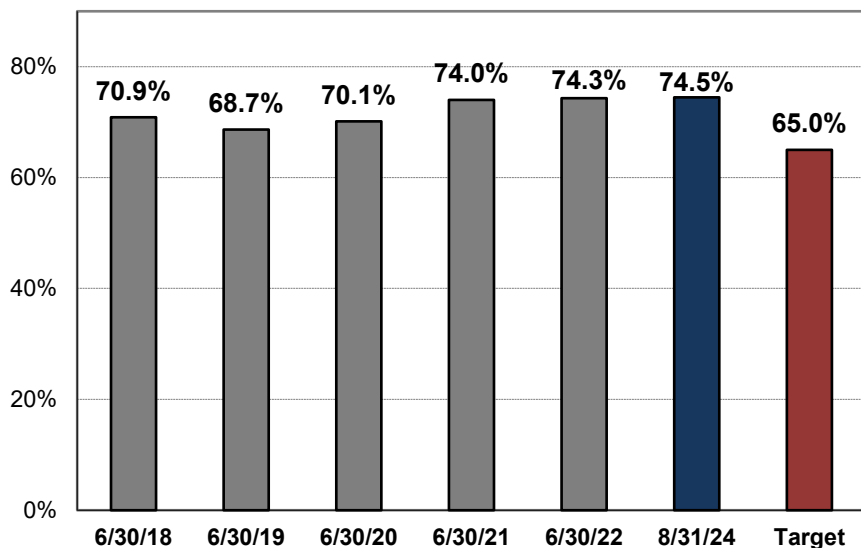
²The investment team will adjust the allocation within the target ranges at the conclusion of the ongoing implementation plan for Global Fixed Income.

³As reported on the August 31, 2024, Callan Monthly Review.

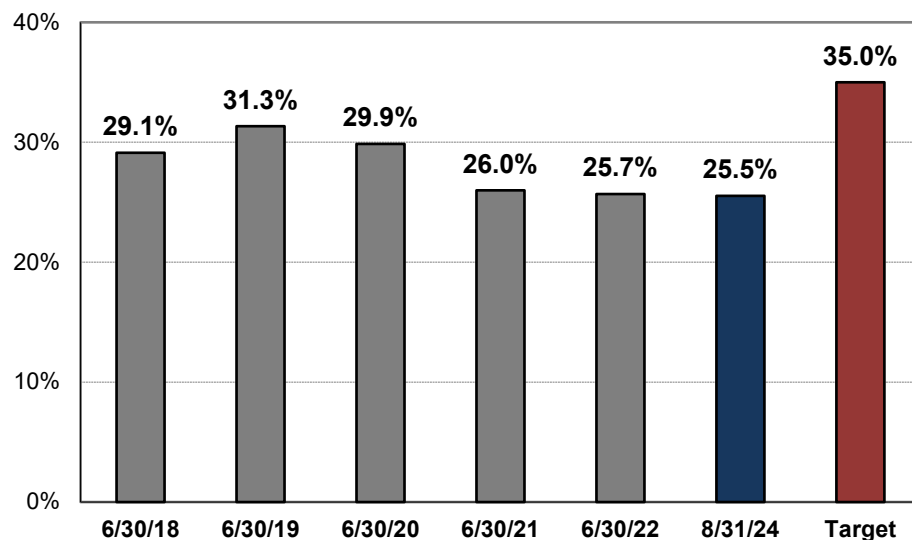
Source: NHRS

- The Total Fund allocation is above and below the target of 70% Equity-like and 30% Fixed Income investments, respectively.

Equity-like Investments



Fixed Income



Source: NHRS

Private Debt & Equity Summary: As of August 31, 2024

<u>IIC Approval</u>	<u>Investment Name</u>	<u>Amount</u>	<u>Strategy</u>
June 2009	Lexington Capital Partners VII	\$ 20,000,000	Secondaries
March 2011	Siguler Guff Distressed Opportunities IV *	\$ 20,000,000	Distressed
April 2011	Avenue Special Situations Fund VI	\$ 20,000,000	Distressed
April 2011	Lexington Capital Partners VII	\$ 20,000,000	Secondaries
May 2011	Industry Ventures Fund VI *	\$ 20,000,000	Secondaries
August 2011	RFE Investment Partners VIII *	\$ 20,000,000	Buyout
August 2011	Tennenbaum Opportunities Fund VI	\$ 20,000,000	Distressed
September 2011	Edgewater Growth Capital Partners Fund III *	\$ 20,000,000	Buyout
November 2011	SL Capital European Smaller Funds I *	\$ 20,000,000 **	Buyout
July 2012	Ironwood Mezzanine Fund III *	\$ 20,000,000	Mezzanine
July 2012	Coller International Partners VI	\$ 20,000,000	Secondaries
December 2012	Paul Capital Partners X *	\$ 12,500,000	Secondaries
February 2013	HarbourVest Dover Street VIII *	\$ 50,000,000	Secondaries
May 2013	Gramercy Distressed Opportunity Fund II *	\$ 50,000,000	Distressed
July 2013	Monroe Capital Senior Secured Direct Loan Fund *	\$ 50,000,000	Direct Lending
September 2013	Industry Ventures Fund VII *	\$ 20,000,000	Secondaries
September 2013	Industry Ventures Partnership Holdings Fund III *	\$ 20,000,000	Venture Capital
October 2013	Pine Brook Capital Partners II	\$ 50,000,000	Growth
February 2014	CCMP Capital Investors III	\$ 50,000,000	Buyout
February 2014	Carlyle Group *	\$ 150,000,000	Growth
March 2014	Crescent Direct Lending Levered Fund *	\$ 50,000,000	Direct Lending
April 2014	Lexington Capital Partners VIII *	\$ 50,000,000	Secondaries
August 2014	Alcentra European Direct Lending Fund	\$ 50,000,000	Direct Lending
August 2014	HarbourVest HIPEP VII *	\$ 50,000,000	Buyout
September 2014	Top Tier Venture Velocity Fund *	\$ 20,000,000	Secondaries
October 2014	BlackRock Private Opportunities Fund - 2014 Series	\$ 150,000,000	Co-Investments
November 2014	NGP Natural Resources XI *	\$ 75,000,000	Energy
January 2015	Comvest Capital III *	\$ 40,000,000	Direct Lending
January 2015	CarVal Investors Credit Value Fund III *	\$ 50,000,000	Multi-sector
April 2015	Coller International Partners VII	\$ 50,000,000	Secondaries
August 2015	Gramercy Distressed Opportunity Fund III *	\$ 50,000,000	Distressed
August 2015	Monroe Capital Private Credit Fund II *	\$ 50,000,000	Direct Lending
August 2015	BlueBay Direct Lending Fund II *	\$ 50,000,000 **	Direct Lending
September 2015	Industry Ventures Partnership Holdings Fund IV *	\$ 20,000,000	Venture Capital
September 2015	Warburg Pincus XII	\$ 64,000,000 ***	Growth
November 2015	HarbourVest Dover Street IX *	\$ 50,000,000	Secondaries
November 2015	Kayne Anderson Energy Fund VII *	\$ 50,000,000	Energy
February 2016	Alcentra European Direct Lending Fund II *	\$ 50,000,000	Direct Lending
February 2016	Riverstone Credit Partners *	\$ 50,000,000	Energy
March 2016	Thoma Bravo Fund XII	\$ 46,000,000 ***	Buyout
October 2016	Comvest Capital IV *	\$ 50,000,000	Direct Lending
December 2016	HarbourVest HIPEP VIII *	\$ 50,000,000	Buyout
January 2017	Actis Energy 4	\$ 50,000,000	Energy
February 2017	Edgewater Growth Capital Partners Fund IV *	\$ 50,000,000	Buyout
February 2017	Top Tier Venture Velocity Fund 2 *	\$ 25,000,000	Secondaries
April 2017	Apollo Investment Fund IX	\$ 40,000,000 ***	Buyout
June 2017	Crescent Direct Lending Levered Fund II *	\$ 50,000,000	Direct Lending
September 2017	Carlyle Asia V *	\$ 50,000,000	Growth
September 2017	CarVal Investors Credit Value Fund IV *	\$ 50,000,000	Multi-sector
October 2017	BlackRock Private Opportunities Fund - 2018 Series	\$ 150,000,000	Co-Investments
November 2017	Riverstone Credit Partners II *	\$ 50,000,000	Energy
February 2018	Industry Ventures Partnership Holdings Fund V *	\$ 25,000,000	Venture Capital
March 2018	BlueBay Direct Lending Fund III *	\$ 50,000,000	Direct Lending
April 2018	Monroe Capital Private Credit Fund III *	\$ 50,000,000	Direct Lending
September 2018	Alcentra European Direct Lending Fund III *	\$ 50,000,000	Direct Lending
September 2018	Thoma Bravo Fund XIII	\$ 50,000,000	Buyout
September 2018	Warburg Pincus Global Growth	\$ 50,000,000	Growth
April 2019	HarbourVest Dover Street X *	\$ 50,000,000	Secondaries
April 2019	Top Tier Venture Velocity Fund 3 *	\$ 25,000,000	Secondaries

Private Debt & Equity Summary: As of August 31, 2024

<u>IIC Approval</u>	<u>Investment Name</u>	<u>Amount</u>	<u>Strategy</u>
March 2020	Coller International Partners VIII	\$ 75,000,000	Secondaries
March 2020	HarbourVest HIPEP IX *	\$ 75,000,000	Buyout
April 2020	Comvest Capital V *	\$ 50,000,000	Direct Lending
September 2020	Thoma Bravo Fund XIV	\$ 50,000,000 ***	Buyout
October 2020	CarVal Investors Credit Value Fund V *	\$ 50,000,000	Multi-sector
October 2020	Industry Ventures Fund IX *	\$ 50,000,000	Secondaries
November 2020	BlackRock Private Opportunities Fund - 2021 Series	\$ 150,000,000	Co-Investments
December 2020	Monroe Capital Private Credit Fund IV *	\$ 50,000,000	Direct Lending
February 2021	Crescent Direct Lending Levered Fund III *	\$ 50,000,000	Direct Lending
June 2021	Industry Ventures Partnership Holdings Fund VI *	\$ 25,000,000	Venture Capital
September 2021	Top Tier Venture Velocity Fund 4 *	\$ 25,000,000	Secondaries
November 2021	Atalaya Special Opportunities Fund VIII	\$ 50,000,000	Specialty Finance
February 2022	Clearlake Capital Partners VII	\$ 50,000,000	Buyout
February 2022	Thoma Bravo Fund XV	\$ 50,000,000	Buyout
March 2022	Comvest Capital VI *	\$ 50,000,000	Direct Lending
March 2022	Warburg Pincus 14	\$ 50,000,000	Growth
May 2022	HarbourVest Dover Street XI *	\$ 50,000,000	Secondaries
May 2023	American Industrial Partners VIII	\$ 50,000,000	Buyout
May 2023	Apollo X	\$ 40,000,000	Buyout
May 2023	Apollo X Co-Investment	\$ 40,000,000	Buyout
Aug / Sept 2023	Ares Pathfinder II	\$ 75,000,000	Specialty Finance
October 2023	Strategic Value Partners Capital Solutions II	\$ 50,000,000	Multi-sector
December 2023	Sixth Street Partners TAO Global	\$ 75,000,000	Multi-sector
February 2024	H.I.G. Capital Advantage Buyout Fund II	\$ 50,000,000	Buyout
February 2024	H.I.G. Capital Advantage Buyout Fund II Co-Investment	\$ 50,000,000	Buyout
June 2024	Ares Senior Direct Lending Fund III	\$ 100,000,000	Direct Lending
August 2024	HarbourVest HIPEP X	\$ 75,000,000	Buyout
August 2024	Oak Hill Advisors Senior Private Lending Fund (OLEND)	\$ 100,000,000	Direct Lending
		\$ 4,357,500,000	

Red indicates Private Equity (\$2,687.5m or 62% of commitments)

Green indicates Private Debt (\$1,670.0m or 38% of commitments)

Investments that are bolded and shaded represent re-ups

* Advisory Board Member (includes observer seats)

** Commitment made in Euros

*** Amount reduced due to oversubscription



September 19, 2024

**New Hampshire Retirement
System – Defined Benefit Plan**

Second Quarter 2024

Executive Summary

Angel G. Haddad

Senior Vice President, Fund Sponsor Consulting

Britton M. Murdoch

Senior Vice President, Fund Sponsor Consulting

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

Equity and Bond Markets Mixed in 2Q

Many sectors still have ground to make up to recover losses of 2022

S&P 500 climbed 4.3% in 2Q24

- Emerging markets and non-U.S. small cap equities also posted gains but U.S. small cap and developed non-U.S. stocks fell.

Core fixed income eked out a gain

- The Bloomberg Aggregate rose 0.1% despite rates rising over the quarter due to coupon income offsetting price losses.
- Long duration fixed income and non-U.S. bonds fell.
- Interest rates have been volatile as the markets assess when and how swiftly the Fed will begin easing.
- CPI-U came in at 3.0% (year-over-year) in 2Q, falling sharply from last quarter's 3.5%, and improving the prospects for a rate cut later this year.

Economy reignites in second quarter

- After a weak 1.4% rise in 1Q24, the initial estimate for 2Q24 GDP came in at a brisk 2.8%, with consumer spending and business investment fueling the climb.

Returns for Periods ended 6/30/24

	Quarter	1 Year	1/1/22 - Current	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	3.22	23.13	5.96	14.14	12.15	7.82
S&P 500	4.28	24.56	7.29	15.05	12.86	7.67
Russell 2000	-3.28	10.06	-2.18	6.94	7.00	7.60
Global ex-U.S. Equity						
MSCI World ex USA	-0.60	11.22	2.39	6.55	4.27	4.63
MSCI Emerging Markets	5.00	12.55	-2.31	3.10	2.79	--
MSCI ACWI ex USA Small Cap	0.66	11.26	-1.98	6.13	4.44	6.74
Fixed Income						
Bloomberg Aggregate	0.07	2.63	-3.64	-0.23	1.35	3.88
90-day T-Bill	1.32	5.40	3.64	2.16	1.51	1.91
Bloomberg Long Gov/Credit	-1.73	-1.58	-10.91	-2.22	1.65	5.29
Bloomberg Global Agg ex-US	-2.11	-0.66	-7.88	-3.56	-1.86	2.46
Real Estate						
NCREIF Property	-0.26	-5.53	-1.64	3.39	6.07	7.75
FTSE Nareit Equity	0.06	7.79	-5.90	3.90	5.90	9.06
Alternatives						
Cambridge Private Equity*	1.17	5.16	1.70	14.58	13.47	13.37
Cambridge Senior Debt*	0.73	7.73	5.58	6.87	6.73	4.25
HFRI Fund Weighted	0.54	9.80	3.44	6.67	4.77	6.00
Bloomberg Commodity	2.89	5.00	4.79	7.25	-1.29	2.69
CPI-U	0.59	2.97	4.89	4.17	2.80	2.58

*Cambridge Private Equity and Cambridge Senior Debt data as of 3/31/24.

Returns greater than one year are annualized. Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

Key Observations

NHRS Pension Plan

Asset Allocation and Portfolio Structure

- Overall, the Fund's asset allocation was close to the permissible Policy ranges at quarter-end. The Fund's allocation to defensive positions, including fixed income and cash, represented 20.8% of total assets. The fixed income allocation was slightly below the policy range by 0.8%, partially balanced by a 1.6% allocation to cash equivalent instruments. The Fund had an overweight to domestic equity and alternatives relative to target, and underweight positions to international equity fixed income, and real estate.

Investment Performance

- The Fund had a gross return of 0.49% over the fourth quarter of Fiscal Year 2024, underperforming the market benchmark return of 2.08% and ranking in the 96th percentile of its peers. On a net-of-fees basis, the Fund returned 0.36%
 - The Alternative Assets and Non-U.S. Equity portfolios detracted most from relative performance over the quarter
 - By contrast, the Domestic Equity, Fixed Income, and Real Estate portfolios contributed to performance. The Fund's underweight to Fixed Income and overweight to Alternative Assets contributed to performance.
- Overall, performance is competitive relative to both benchmarks over longer periods measured. The Fund outperformed the peer group median over the long term, ranking in the top 29% of peers for the trailing 10-year period, and in the top 46% of peers over the last 25 years
- The Fund exhibits attractive risk-adjusted performance, as measured by the Sharpe Ratio over the last five years. In addition, relative risk-adjusted scores, as measured by the Excess Return Ratio, are also strong. Both of these ratios ranked in the top 42% of peers

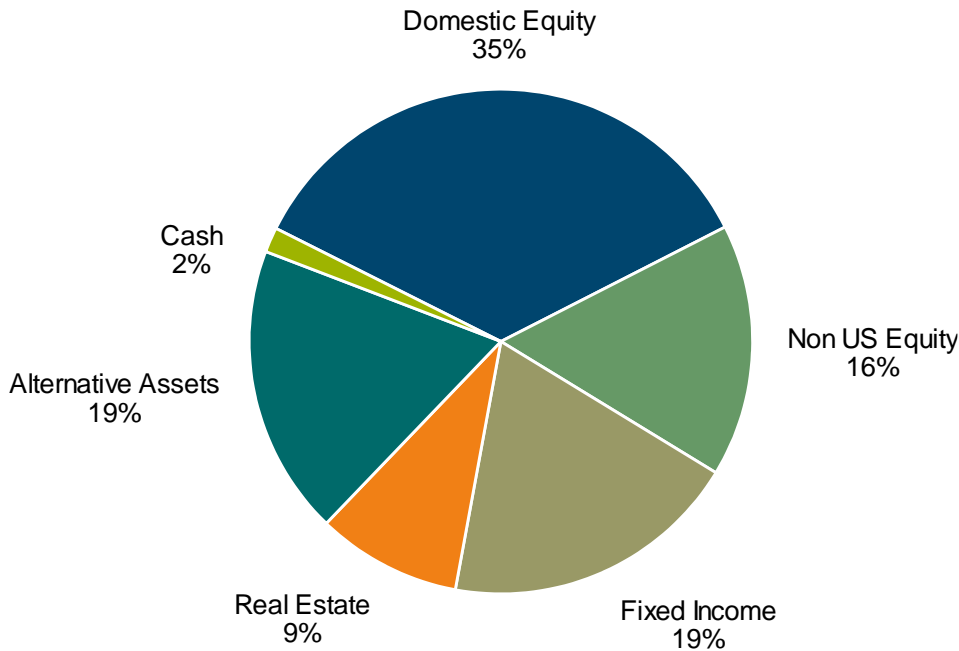
Other Developments

- Callan and NHRS Staff are working to implement the recently approved asset allocation.

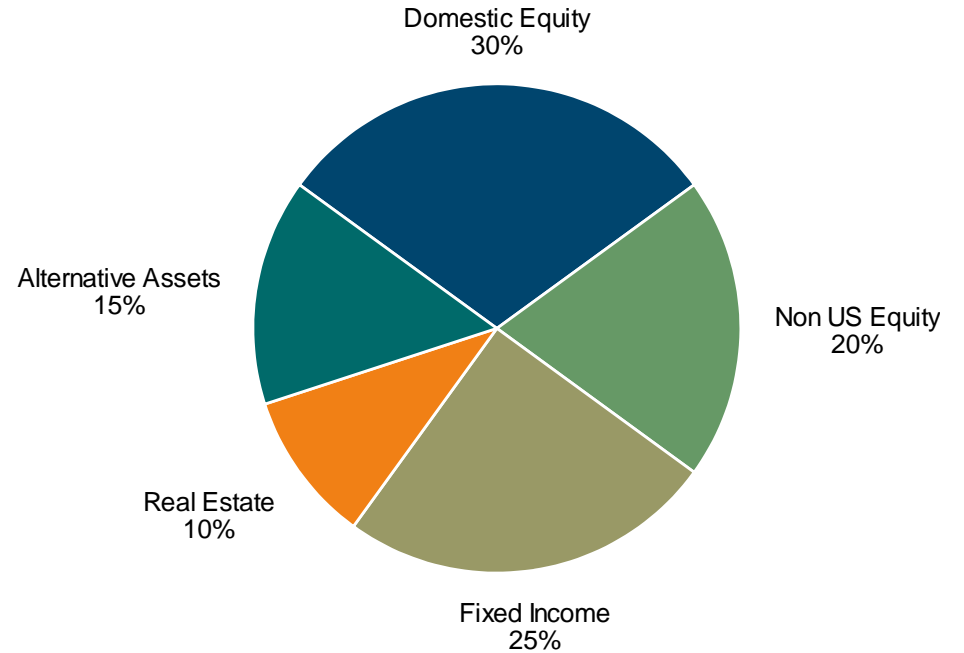
Total Fund

Actual Asset Allocation vs. Target, as of June 30, 2024

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	4,282	35.1%	30.0%	5.1%	627
Non US Equity	1,974	16.2%	20.0%	(3.8%)	(462)
Fixed Income	2,336	19.2%	25.0%	(5.8%)	(709)
Real Estate	1,131	9.3%	10.0%	(0.7%)	(87)
Alternative Assets	2,262	18.6%	15.0%	3.6%	435
Cash	196	1.6%	0.0%	1.6%	196
Total	12,181	100.0%	100.0%		

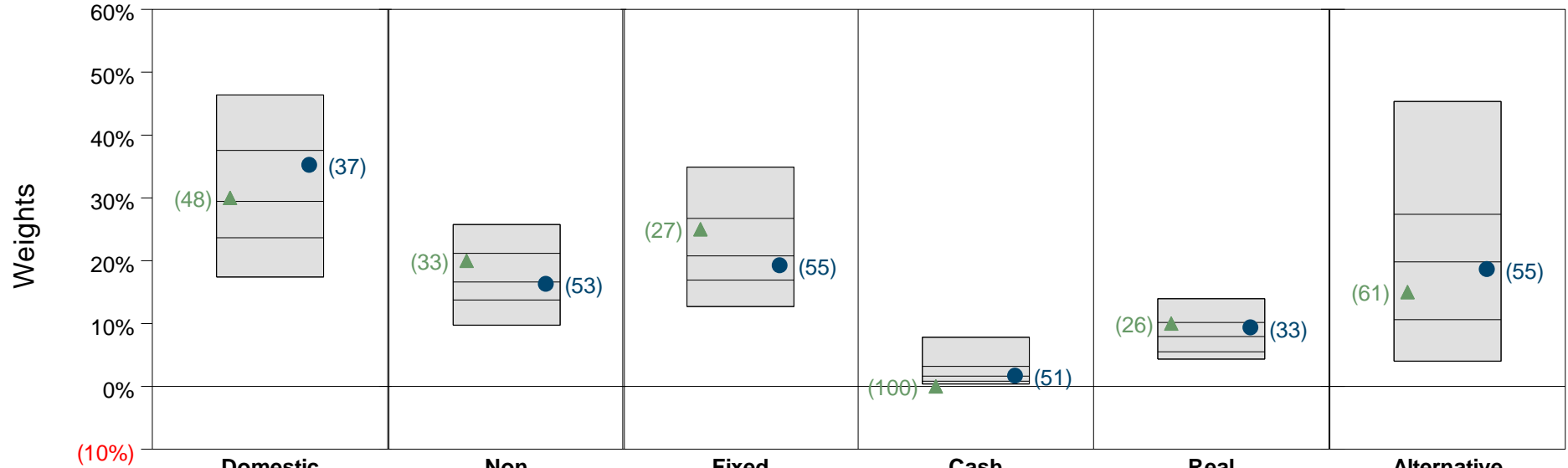
*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

**The United States equity portion of the Walter Scott Global Equity fund is allocated to the Domestic Equity composite.

Total Fund

Actual Asset Allocation vs. Large Public DB Plan (>\$1B) Peer Group, as of June 30, 2024

Asset Class Weights vs Callan Public Fund Spons - Large (>1B)



	Domestic Equity	Non US Equity	Fixed Income	Cash	Real Estate	Alternative Assets
10th Percentile	46.37	25.76	34.91	7.82	13.95	45.35
25th Percentile	37.56	21.18	26.73	3.18	10.17	27.38
Median	29.43	16.60	20.76	1.63	7.95	19.82
75th Percentile	23.64	13.75	16.92	0.82	5.50	10.63
90th Percentile	17.41	9.73	12.70	0.38	4.34	4.00
Fund ●	35.15	16.21	19.18	1.61	9.28	18.57
Target ▲	30.00	20.00	25.00	0.00	10.00	15.00
% Group Invested	100.00%	98.41%	96.83%	85.71%	79.37%	76.92%

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund

Market Values

	June 30, 2024			March 31, 2024		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Domestic Equity	\$3,941,147,389	32.35%	\$(175,000,000)	\$45,982,430	\$4,070,164,959	33.42%
Large Cap Domestic Equity	\$2,305,420,983	18.93%	\$(175,000,000)	\$90,459,599	\$2,389,961,384	19.62%
Blackrock S&P 500	2,305,420,983	18.93%	(175,000,000)	90,459,599	2,389,961,384	19.62%
SMid Cap Domestic Equity	\$704,220,158	5.78%	\$0	\$(30,534,707)	\$734,754,865	6.03%
AllianceBernstein	445,959,496	3.66%	0	(20,512,743)	466,472,240	3.83%
TSW	258,260,662	2.12%	0	(10,021,964)	268,282,626	2.20%
Small Cap Domestic Equity	\$931,506,248	7.65%	\$0	\$(13,942,462)	\$945,448,710	7.76%
Boston Trust	236,923,311	1.95%	0	(7,294,322)	244,217,633	2.01%
Segall Bryant & Hamill	260,802,217	2.14%	0	(2,583,349)	263,385,565	2.16%
Wellington	433,780,720	3.56%	0	(4,064,792)	437,845,512	3.59%
Total Non US Equity *	\$2,314,686,635	19.00%	\$(1,284)	\$(2,091,344)	\$2,316,779,263	19.02%
Core Non US Equity *	\$1,404,064,350	11.53%	\$(1,284)	\$(2,553,161)	\$1,406,618,795	11.55%
Aristotle	177,787,986	1.46%	0	(1,385,973)	179,173,959	1.47%
Artisan Partners	407,062,258	3.34%	0	(4,559,079)	411,621,337	3.38%
BlackRock Superfund	199,447,677	1.64%	0	2,271,909	197,175,769	1.62%
Causeway Capital	449,774,683	3.69%	(86)	6,355,881	443,418,889	3.64%
Lazard	169,339,080	1.39%	0	(5,232,077)	174,571,157	1.43%
Emerging Markets	\$179,813,061	1.48%	\$0	\$5,135,923	\$174,677,138	1.43%
Wellington Emerging Markets	179,813,061	1.48%	0	5,135,923	174,677,138	1.43%
Non US Small Cap	\$136,620,364	1.12%	\$0	\$(4,587,317)	\$141,207,682	1.16%
Wellington Int'l Small Cap Research	136,620,364	1.12%	0	(4,587,317)	141,207,682	1.16%
Global Equity	\$594,188,859	4.88%	\$0	\$(86,789)	\$594,275,648	4.88%
Walter Scott Global Equity	594,188,859	4.88%	0	(86,789)	594,275,648	4.88%

*Includes \$683,533 in legacy assets that are not actively managed and in liquidation following the termination of Fisher

Total Fund

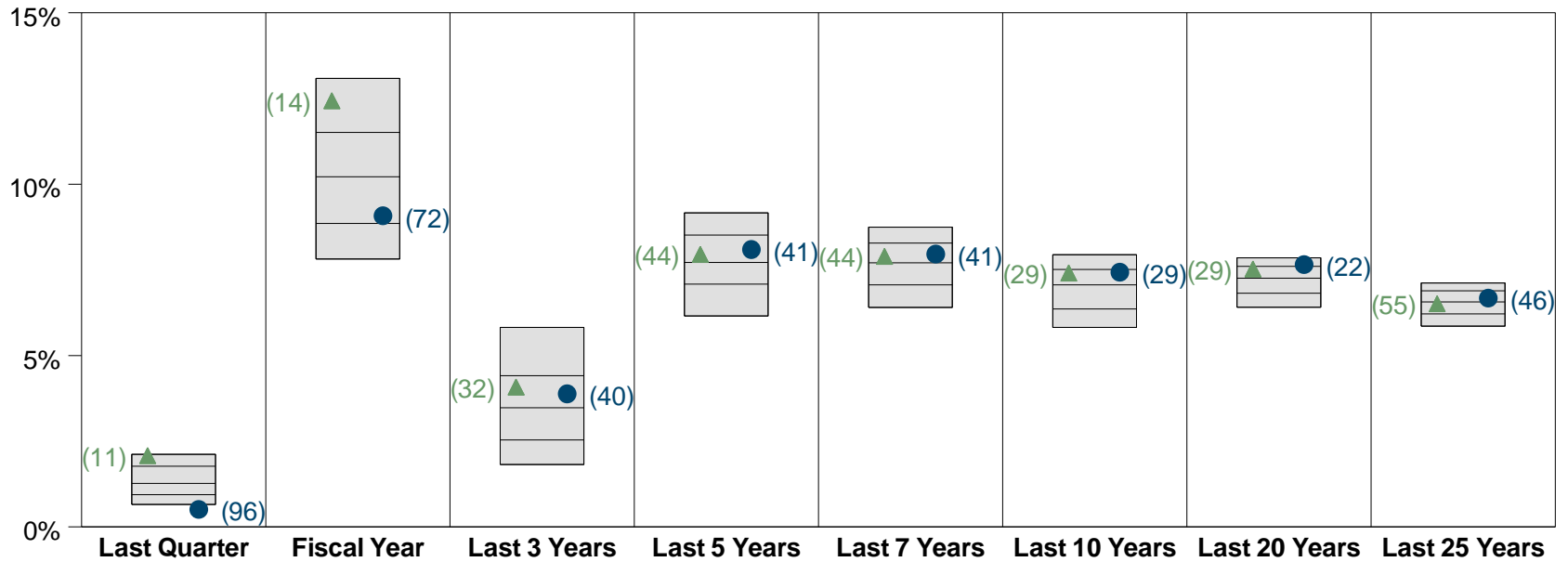
Market Values

	June 30, 2024				March 31, 2024	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Fixed Income	\$2,336,137,563	19.18%	\$0	\$632,558	\$2,335,505,005	19.17%
BlackRock SIO Bond Fund	270,789,712	2.22%	0	2,351,213	268,438,499	2.20%
Brandywine Asset Mgmt	221,997,543	1.82%	0	(5,871,846)	227,869,390	1.87%
FIAM (Fidelity) Tactical Bond	375,407,619	3.08%	0	250,606	375,157,014	3.08%
Income Research & Management	784,651,371	6.44%	0	1,369,572	783,281,800	6.43%
Loomis Sayles	289,656,164	2.38%	0	1,711,272	287,944,892	2.36%
Manulife Strategic Fixed Income	215,765,425	1.77%	0	681,185	215,084,239	1.77%
Mellon US Agg Bond Index	177,869,728	1.46%	0	140,556	177,729,171	1.46%
Total Cash	\$196,464,243	1.61%	\$152,632,893	\$1,911,661	\$41,919,689	0.34%
Total Marketable Assets	\$8,788,435,830	72.15%	\$(22,368,391)	\$46,435,304	\$8,764,368,916	71.96%
Total Real Estate	\$1,130,822,864	9.28%	\$(33,532,402)	\$(23,444,774)	\$1,187,800,040	9.75%
Strategic Core Real Estate	666,562,084	5.47%	(38,758,647)	(20,585,427)	725,906,158	5.96%
Tactical Non-Core Real Estate	464,260,779	3.81%	5,994,445	(3,627,547)	461,893,882	3.79%
Total Alternative Assets	\$2,261,851,512	18.57%	\$(3,647,100)	\$37,690,858	\$2,227,807,754	18.29%
Private Equity	1,685,568,274	13.84%	3,543,048	22,422,245	1,659,602,981	13.63%
Private Debt	576,283,238	4.73%	(7,190,148)	15,268,613	568,204,773	4.67%
Total Fund Composite	\$12,181,110,205	100.00%	\$(59,547,894)	\$60,681,388	\$12,179,976,711	100.00%

Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of June 30, 2024

Performance vs Callan Public Fund Large DB (Gross)



10th Percentile	2.12	13.08	5.82	9.16	8.74	7.94	7.85	7.12
25th Percentile	1.77	11.51	4.41	8.52	8.28	7.51	7.60	6.89
Median	1.27	10.21	3.48	7.72	7.70	7.06	7.25	6.56
75th Percentile	0.94	8.85	2.54	7.08	7.06	6.36	6.82	6.22
90th Percentile	0.66	7.82	1.82	6.16	6.41	5.82	6.41	5.86
Total Fund Composite	● 0.49	9.05	3.86	8.07	7.94	7.41	7.63	6.65
Total Fund Benchmark	▲ 2.08	12.43	4.08	7.95	7.89	7.41	7.53	6.51

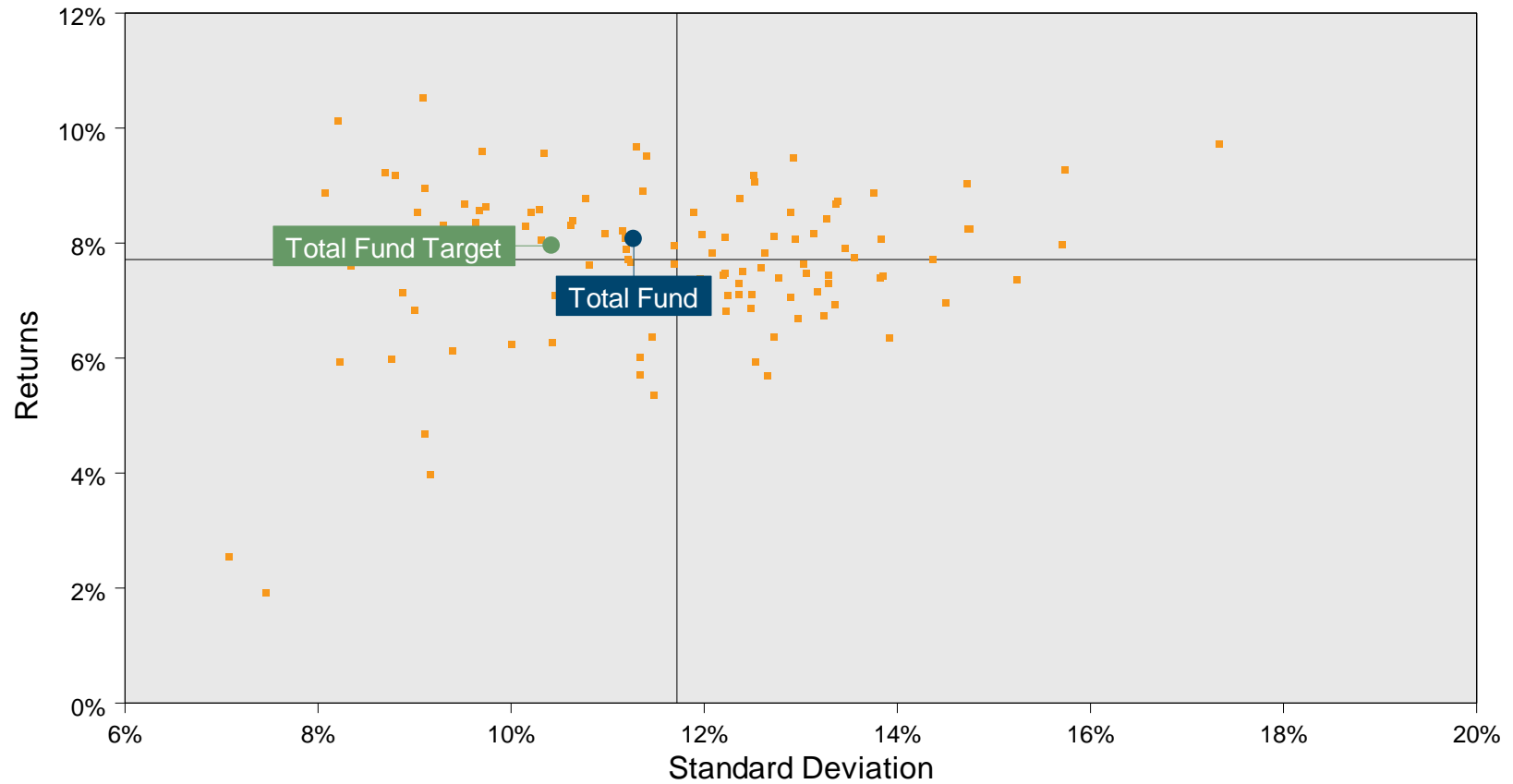
Note: Investment results are shown gross of investment management fees versus corresponding peer group.

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Gross of Investment Management Fees

Five-Year Risk/Return Analysis as of June 30, 2024

Five Year Annualized Risk vs Return



Squares represent membership of the Callan Public Fund Spons - Large (>1B)

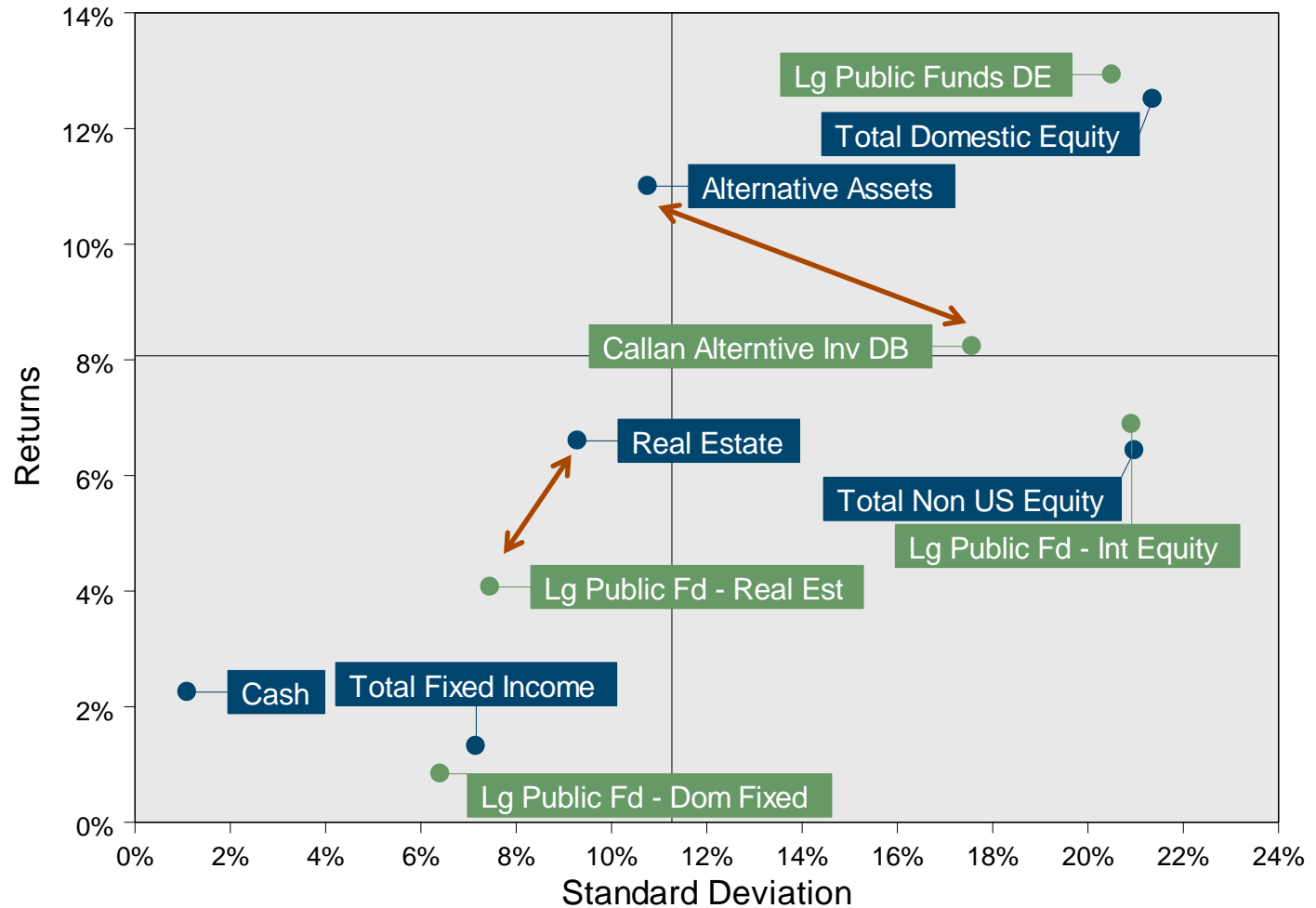
Note: Investment results are shown gross of investment management fees versus corresponding peer group.

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Gross of Investment Management Fees

Asset Class Composites – Five-Year Risk/Return Analysis as of June 30, 2024

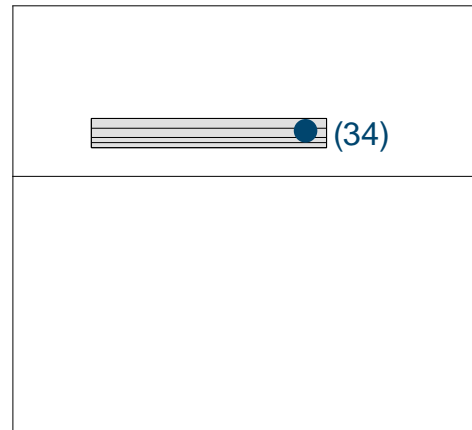
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



Note: Investment results are shown gross of investment management fees.

Total Fund Performance – Gross of Investment Management Fees

Five-Year Sharpe Ratio, as of June 30, 2024



**Sharpe
Ratio**

10th Percentile	0.68
25th Percentile	0.57
Median	0.46
75th Percentile	0.40
90th Percentile	0.34

Total Fund Composite ● 0.52

- Measures absolute risk-adjusted performance, taking into account the risk-free rate and portfolio volatility
- Ranks near the top quartile of the peer group

Note: Investment results are shown gross of investment management fees versus corresponding peer group.

Total Fund Performance – Net of Investment Management Fees

One-Year Attribution Analysis vs. Policy Benchmark, as of June 30, 2024

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	31%	30%	18.95%	23.13%	(1.22%)	0.09%	(1.13%)
Non US Equity	18%	20%	11.31%	11.62%	(0.07%)	(0.01%)	(0.09%)
Fixed Income	20%	25%	3.50%	3.47%	0.01%	0.50%	0.50%
Real Estate	11%	10%	(7.07%)	(12.00%)	0.67%	(0.17%)	0.50%
Alternative Assets	19%	15%	3.71%	25.08%	(4.10%)	0.46%	(3.65%)
Cash	1%	0%	5.48%	5.48%	0.00%	(0.06%)	(0.06%)
Total			8.53%	= 12.43%	+ (4.70%)	+ 0.80%	(3.90%)

What helped relative performance?

- Strong relative performance from the real estate portfolio
- An underweight to fixed income relative to target
- An overweight to alternative assets relative to target
- A slight overweight domestic equity relative to target

What hurt relative performance?

- Weak relative performance from the alternative assets, domestic equity, and non-US equity portfolios
- An overweight to the real estate relative to target
- A slight overweight to cash relative to target

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Net of Investment Management Fees

Five-Year Attribution Analysis vs. Policy Benchmark, as of June 30, 2024

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
Domestic Equity	30%	30%	12.21%	13.81%	(0.42%)	(0.11%)	(0.53%)
Non US Equity	18%	20%	5.78%	5.55%	0.03%	(0.01%)	0.01%
Fixed Income	21%	25%	1.04%	0.11%	0.19%	0.33%	0.52%
Real Estate	11%	10%	5.98%	2.56%	0.38%	(0.08%)	0.30%
Alternative Assets	19%	15%	10.38%	13.48%	(0.69%)	0.13%	(0.56%)
Cash	1%	0%	2.25%	2.25%	0.00%	(0.07%)	(0.07%)
Total			7.62%	7.95%	+ (0.52%)	+ 0.18%	(0.33%)

What helped relative performance?

- Strong relative performance from real estate, fixed income, and non-U.S. equity portfolios
- An underweight to fixed income relative to target
- An overweight to alternative assets relative to target

What hurt relative performance?

- Weak relative performance from alternative assets and domestic equity portfolios
- A slight underweight to domestic equity and non-U.S. equity relative to target
- A slight overweight to real estate and cash relative to target

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Callan

Appendix

Investment Manager Returns – Net of Investment Management Fees

As of June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Domestic Equity	1.28%	18.95%	6.48%	12.21%
Domestic Equity Benchmark (1)	3.22%	23.13%	8.05%	13.81%
Secondary Domestic Equity Bmk (6)	1.02%	18.82%	5.42%	12.19%
Large Cap Domestic Equity	4.35%	24.63%	9.99%	14.24%
S&P 500 Index	4.28%	24.56%	10.01%	15.05%
Blackrock S&P 500	4.35%	24.63%	9.99%	15.00%
SMid Cap Domestic Equity	(4.29%)	10.09%	0.74%	8.46%
Russell 2500 Index	(4.27%)	10.47%	(0.29%)	8.31%
AllianceBernstein	(4.53%)	12.61%	(0.51%)	8.97%
TSW	(3.88%)	5.99%	3.06%	7.61%
TSW Blended Benchmark (2)	(4.31%)	11.24%	2.15%	8.01%
Small Cap Domestic Equity	(1.63%)	12.63%	2.54%	10.25%
Russell 2000 Index	(3.28%)	10.06%	(2.58%)	6.94%
Boston Trust	(3.08%)	7.92%	4.39%	9.59%
Segall Bryant & Hamill	(1.17%)	14.65%	4.27%	11.48%
Wellington	(1.10%)	14.14%	0.62%	9.90%
Total Non US Equity	(0.22%)	11.31%	1.47%	5.80%
Non US Equity Benchmark (3)	0.96%	11.62%	0.46%	5.55%
Core Non US Equity	(0.30%)	11.12%	3.09%	5.95%
Core Non US Benchmark (4)	0.96%	11.62%	0.46%	5.55%
Aristotle	(0.88%)	8.16%	0.82%	-
Artisan Partners	(1.26%)	13.97%	1.55%	5.32%
BlackRock Superfund	1.14%	11.68%	-	-
Causeway Capital	1.30%	10.71%	7.44%	9.45%
Lazard	(3.12%)	8.23%	(0.20%)	-
Emerging Markets	2.68%	9.43%	(6.49%)	0.76%
MSCI EM	5.00%	12.55%	(5.07%)	3.10%
Wellington Emerging Markets	2.68%	9.43%	(6.46%)	0.66%
Non US Small Cap	(3.42%)	8.67%	(5.13%)	0.66%
Wellington Int'l Small Cap Research	(3.42%)	8.67%	-	-
MSCI EAFE Small Cap	(1.84%)	7.78%	(3.35%)	4.19%
Global Equity	(0.12%)	12.97%	5.25%	10.53%
MSCI ACWI net	2.87%	19.38%	5.43%	10.76%
Walter Scott Global Equity	(0.12%)	12.97%	5.25%	10.53%
Walter Scott Blended Benchmark (5)	2.87%	19.38%	5.43%	10.76%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) The Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns – Net of Investment Management Fees

As of June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Fixed Income	(0.04%)	3.50%	(2.25%)	1.04%
Fixed Income Benchmark (1)	0.19%	3.47%	(2.68%)	0.11%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
BlackRock SIO Bond Fund	0.75%	6.89%	0.85%	2.57%
BlackRock Custom Benchmark (2)	1.35%	5.51%	3.05%	2.21%
Brandywine Asset Mgmt	(2.65%)	(3.29%)	(6.90%)	(1.74%)
Brandywine Custom Benchmark (3)	(1.83%)	(1.06%)	(7.07%)	(3.29%)
FIAM (Fidelity) Tactical Bond	(0.01%)	3.62%	(1.28%)	1.84%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Income Research & Management	0.13%	3.12%	(3.00%)	0.36%
Bloomberg Gov/Credit	0.05%	2.74%	(3.11%)	(0.07%)
Loomis Sayles	0.51%	6.93%	(0.91%)	2.92%
Loomis Sayles Custom Benchmark (4)	0.43%	5.31%	(1.38%)	1.27%
Manulife Strategic Fixed Income	0.25%	4.33%	(0.95%)	1.67%
Bloomberg Multiverse	(1.03%)	1.30%	(5.26%)	(1.84%)
Mellon US Agg Bond Index	0.07%	2.64%	-	-
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Total Cash	1.30%	5.48%	3.14%	2.25%
3-month Treasury Bill	1.32%	5.40%	3.03%	2.16%
Total Marketable Assets	0.50%	12.37%	2.66%	7.13%
Total Marketable Index (5)	1.62%	13.34%	2.57%	7.19%
Total Real Estate (10)	(2.43%)	(7.07%)	3.69%	5.98%
Real Estate Benchmark (6)	(2.58%)	(12.00%)	2.47%	2.56%
Strategic Core Real Estate	(3.42%)	(9.07%)	2.49%	3.96%
Tactical Non-Core Real Estate	(0.95%)	(3.94%)	5.68%	9.57%
Total Alternative Assets	1.29%	3.71%	5.36%	10.38%
Alternative Assets Benchmark (7)	7.56%	25.08%	10.94%	13.48%
Total Private Equity	1.09%	3.38%	5.14%	12.65%
Private Equity Benchmark (8)	10.40%	31.52%	13.76%	17.92%
Cambridge Global PE Idx 1 Qtr Lag	1.21%	5.00%	7.07%	14.16%
Total Private Debt	1.91%	4.72%	6.03%	5.34%
Private Debt Benchmark (9)	1.96%	12.70%	5.07%	4.88%
Cambridge Private Credit Idx 1 Qtr Lag	1.62%	8.52%	8.78%	8.51%
Total Fund Composite	0.36%	8.53%	3.31%	7.62%
Total Fund Benchmark *	2.08%	12.43%	4.08%	7.95%

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 2% and 33.3% ((50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1%) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 2% as of 7/1/2022.

(9) The Private Debt Benchmark is (50% S&P LSTA Leveraged Loan 100 Index & 50% Bloomberg HY Index) + 1% as of 7/1/2022..

(10) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

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Past performance is no guarantee of future results.

June 30, 2024

New Hampshire Retirement System



**Investment Measurement Service
Quarterly Review**

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Will the Fed Be Able to Stick the Landing?

ECONOMY

2 Here we are, on the verge of something that's never been done before: a soft landing for the U.S. economy, where inflation is brought down while growth gradually subsides, but we avoid a recession. After the devastation of the pandemic, it would be a remarkable achievement.

Slight Gain for Bonds; Markets Await Fed

FIXED INCOME

8 The Bloomberg US and Global Aggregate indices both rose 0.1%. Treasury yields were up modestly, to 4.36%. Municipal yields climbed higher than U.S. Treasury yields. Major currencies' weakness against the dollar hurt unhedged returns.

Gains Continue to Top Leveraged Loans

PRIVATE CREDIT

12 Private credit has shown a net IRR of 8.0% over the last 10 years, easily topping a leveraged loan benchmark. Sub-investment grade corporate yields rose sharply at the start of 2022 and peaked in September. Yields continued to drop in 1Q24 and spreads contracted.

Solid Gains Over Trailing One Year

INSTITUTIONAL INVESTORS

4 Continued strong U.S. equity gains helped institutional investors show strong gains over the trailing one year ended 6/30/24, but a lagging bond market and lower global ex-U.S. equity performance held them back from matching a 60% stocks/40% bonds index.

Income Positive but Appreciation Falls

REAL ESTATE/REAL ASSETS

10 NPI income returns were positive across sectors and regions but all appreciation returns declined, except for hotels. REITs underperformed equities in the U.S. and globally. ODCE redemption queues have exceeded the levels hit during the Global Financial Crisis.

Managers Capitalizing on Volatility in 2Q24

HEDGE FUNDS/MACs

13 The median Callan Institutional Hedge Fund Peer Group manager rose 1.6%. Within the HFRI Indices, the best-performing strategy was relative value, which was up 1.4%. Equity hedge ended the quarter up 1.0%. Macro strategies ended the quarter slightly negative.

Strong Start to Year in U.S. but Not Globally

EQUITY

6 The U.S. equity markets had an exceptional start with the S&P 500 hitting 31 record highs over the first six months of 2024 and gaining 15.3%. Developed non-U.S. markets struggled with growing uncertainty on future economic growth. Emerging markets rebounded.

Signs of Rebound; Challenges Remain

PRIVATE EQUITY

11 The number of funds raised in 1Q24 dropped 42% vs. 1Q23, but the dollar amount was flat. This year also saw improving buyout conditions. Valuations rose amid mixed signs of recovery for venture capital and growth equity. Short-term returns lag public equity.

DC Index Starts Year with a Big Gain

DEFINED CONTRIBUTION

15 The Callan DC Index™ gained 6.6% in 1Q24. Balances rose by 6.6% after a 9.0% increase in 4Q23, driven exclusively by investment gains. Stable value saw large outflows for the sixth straight quarter. U.S. large cap equity saw large percentage increases in allocation.

Broad Market Quarterly Returns

U.S. Equity
Russell 3000



3.2%

Global ex-U.S. Equity
MSCI ACWI ex USA



1.0%

U.S. Fixed Income
Bloomberg Agg



0.1%

Global ex-U.S. Fixed Income
Bloomberg Global Agg ex US



-2.1%

Sources: Bloomberg, FTSE Russell, MSCI

Can the Fed Stick the Landing?

ECONOMY | Jay Kloepfer

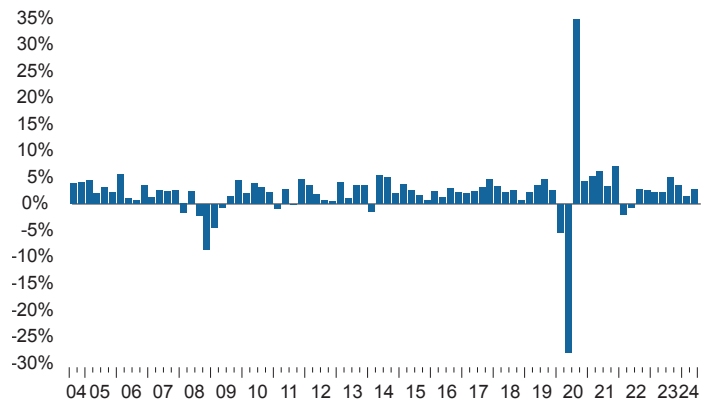
The hunt for signs of the much-anticipated slowdown in the U.S. economy continues to be thwarted. Every data release is scrutinized: Is this the one that is finally the sign of a crack in growth? The economy is clearly set to slow compared to the surprise robust growth in the second half of 2023, but key measures like stubborn inflation, a job market that has yet to sag, and persistent growth in consumption spending have kept surprising to the upside. Inflation eased from the worrisome rise in 1Q24, but still sits at 3.0% compared to a year ago, well above the Fed's target. The job market looked like it finally cracked in April, creating just 108,000 jobs after adding 800,000 in the first three months of the year. Then job growth rebounded to 218,000 in May and 206,000 in June, clearly softer than the average monthly rate of 250,000 in 2023 and the surge in 1Q, but still solid. The unemployment rate remains low at 4.1%, although initial unemployment claims have been rising gradually since the recent low set in January. The labor market is indeed softening, which should reduce pressure on wage inflation at some point.

A softer labor market will likely dampen consumer demand, and therefore provide more relief to inflation pressures. Consumer spending slowed from a robust 3% growth rate in the second half of 2023 to 1.5% in 1Q, another potential crack in the façade. Then spending rebounded to a 2.3% gain in 2Q and drove a surprising 2Q GDP growth rate of 2.8%, about double the rate expected for the quarter. In addition to consumer spending, GDP growth was driven by private inventory investment and business fixed investment, particularly in equipment and intellectual property. 1Q GDP growth came in at just 1.4%, the first sure sign of the anticipated slowdown—or so it seemed.

Interest rates have been higher for a longer period than many expected, including the Fed. There are surprisingly few signs that these higher rates have taken the expected toll on the economy. The economy does appear to be gradually slowing, current contradictory indicators like the strong GDP report aside. The cost of borrowing is sharply higher, and delinquencies in auto loans

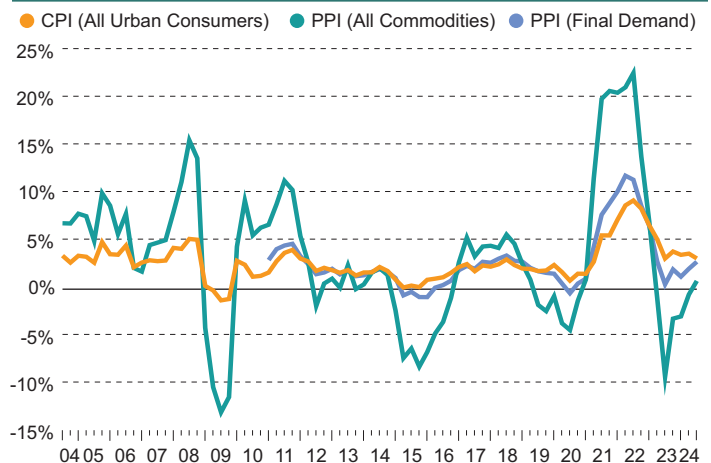
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

and credit cards are rising. The real estate market is grappling with much higher mortgage rates, although the market is showing a few unexpected features. The sale of existing homes in 2023 fell by one-third from the peak set in 2021, and the rate of sales in 2024 is holding steady at the 2023 rate. However, home prices are rising around the country. As interest rates rose, homeowners were supposedly reluctant to sell and buy again with much higher mortgage rates. However, the supply of homes for sale is rising, alongside higher prices and high mortgage rates compared to 2021, a puzzling market dynamic.

Inflation cooled in May and June after throwing a scare into both the Fed and the capital markets during the first four months of 2024. CPI had inched up to an annual rate of 3.5% in March from 3.1% in January. Then gasoline prices fell 3.6% in May and 3.8% in June, enough to bring the monthly change in the CPI to zero in May and slightly negative in June. The annual rate eased to 3.0% in June. Broad inflation may now be headed in the right direction for the Fed to act on rates. However, under the hood, inflation weighs heavily on basic items for lower- and middle-income households: shelter, food, motor vehicle insurance, and medical care. The shelter index rose 5.2% from June 2023 to June 2024 and accounted for over 60% of the increase in headline CPI this past year. While the spike in inflation may be past, the impact of prices now “permanently” higher on household budgets is likely to dampen the consumer spending that has driven the economy.

So what to make of all this contrasting economic data? Putting it in context, four years ago U.S. GDP dropped an incredible 28% in one quarter. While it quickly rebounded, the country suffered a pandemic of stunning cost, both economically and, more importantly, in terms of lost lives, severed social connections, missed education, and worsening mental health. And yet here we are, on the verge of something that’s never been done before: a soft landing for the U.S. economy, where inflation is brought down while growth gradually subsides, but we avoid a recession. It would be a remarkable achievement.

The Long-Term View

Index	2Q24	Periods Ended 6/30/24			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	3.2	23.1	14.1	12.1	7.8
S&P 500	4.3	24.6	15.0	12.9	7.7
Russell 2000	-3.3	10.1	6.9	7.0	7.6
Global ex-U.S. Equity					
MSCI EAFE	-0.4	11.5	6.5	4.3	4.5
MSCI ACWI ex USA	1.0	11.6	5.5	3.8	--
MSCI Emerging Markets	5.0	12.5	3.1	2.8	--
MSCI ACWI ex USA Small Cap	0.7	11.3	6.1	4.4	6.7
Fixed Income					
Bloomberg Agg	0.1	2.6	-0.2	1.3	3.9
90-Day T-Bill	1.3	5.4	2.2	1.5	1.9
Bloomberg Long G/C	-1.7	-1.6	-2.2	1.6	5.3
Bloomberg GI Agg ex US	-2.1	-0.7	-3.6	-1.9	2.5
Real Estate					
NCREIF Property	-0.3	-5.5	3.4	6.1	7.8
FTSE Nareit Equity	0.1	7.8	3.9	5.9	9.1
Alternatives					
Cambridge PE*	1.2	5.2	14.6	13.5	13.4
Cambridge Senior Debt*	4.2	10.0	6.9	6.9	4.2
HFRI Fund Weighted	0.5	9.8	6.7	4.8	6.0
Bloomberg Commodity	2.9	5.0	7.2	-1.3	2.7
Inflation – CPI-U	0.6	3.0	4.2	2.8	2.6

*Data for most recent period lags. Data as of 1Q24.

Sources: Bloomberg, Bureau of Economic Analysis, FTSE Russell, Hedge Fund Research, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

Recent Quarterly Economic Indicators

	2Q24	1Q24	4Q23	3Q23	2Q23	1Q23
Employment Cost: Total Compensation Growth	4.1%	4.2%	4.2%	4.3%	4.5%	4.8%
Nonfarm Business: Productivity Growth	2.3%	0.4%	3.5%	4.6%	3.3%	-0.3%
GDP Growth	2.8%	1.4%	3.4%	4.9%	2.1%	2.2%
Manufacturing Capacity Utilization	77.5%	77.1%	77.6%	78.1%	78.4%	78.7%
Consumer Sentiment Index (1966=100)	71.1	78.4	64.9	69.6	62.3	64.6

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

Investors Show Gains but Still Lag Benchmark

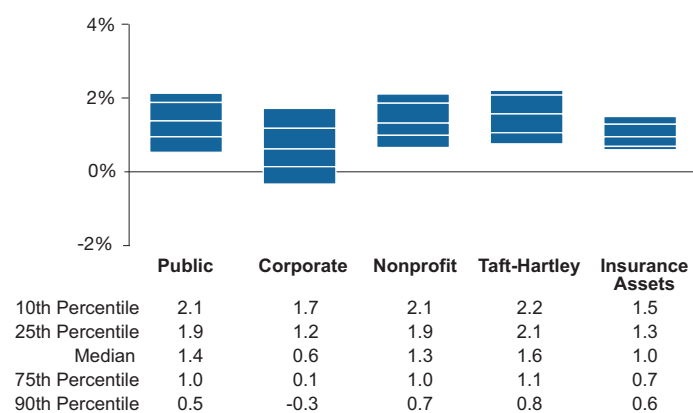
INSTITUTIONAL INVESTORS

- Continued strong U.S. equity gains helped institutional investors show robust gains over the trailing one year ended 6/30/24, but a lagging bond market and lower global ex-U.S. equity performance held them back from matching a 60% stocks/40% bonds benchmark.
- Still, most investor types showed double-digit gains.
- Corporate plans, with their typically bond-heavy portfolios, were the exception.
- Even over longer periods, the gap between institutional investor returns and the 60%/40% benchmark continued.
- Institutional investors are focused on a handful of major macroeconomic issues:
 - Interest rates and inflation
 - The U.S. election
 - Geopolitics
- Public DB plans have reviewed their allocations to fixed income and generally either confirmed the amount or made an increase.
- Plans are starting to review their fixed income structures, specifically the need for risk in a higher-rate environment.
- Plans are also starting to evaluate their exposure to risk assets, with some wondering why invest in anything besides U.S. large cap stocks and others debating whether to take risk off the table.

Public defined benefit (DB) plans

- The median discount rate, according to the most recent NASRA survey, is 7.00%.
- A 7.00% return expectation can be achieved with 50% in core fixed income.

Quarterly Returns, Callan Database Groups (6/30/24)



Source: Callan

Callan Database Median and Index Returns* for Periods Ended 6/30/24

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	1.4	11.1	3.2	7.7	7.0	7.1
Corporate Database	0.6	7.5	-0.7	4.6	5.3	6.5
Nonprofit Database	1.3	11.9	3.1	7.6	6.5	7.0
Taft-Hartley Database	1.6	11.0	3.4	7.5	6.9	6.9
Insurance Assets Database	1.0	7.8	1.0	3.5	3.7	4.5
All Institutional Investors	1.2	10.8	2.8	7.2	6.5	6.9
Large (>\$1 billion)	1.1	9.8	2.9	7.5	6.8	7.1
Medium (\$100mm - \$1bn)	1.2	10.9	2.9	7.3	6.6	7.0
Small (<\$100 million)	1.3	11.6	2.6	7.0	6.2	6.7
60% S&P 500/40% Bloomberg Agg	2.6	15.5	4.8	9.2	8.4	7.7

*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

Corporate DB plans

- Interest rate hedging continues to work.
- Funded status continues to be a major, if not the major, issue. Funded ratios for some corporate DB plans improved as the equity market increased.
- As closed plans' liabilities shorten, intermediate fixed income will continue to attract interest.
- As credit spreads have tightened, it is important to manage or reduce any overweight to credit.

Nonprofits

- Nonprofits indicated that they had noticeable uncertainty about allocations to private markets in general.
- For plans that had increased the risk in their fixed income sleeves to gain a higher yield (in the lower-rate environment), they too are reviewing the need for risk in a higher-rate environment.
- Others are worried about concentration in their growth portfolios.

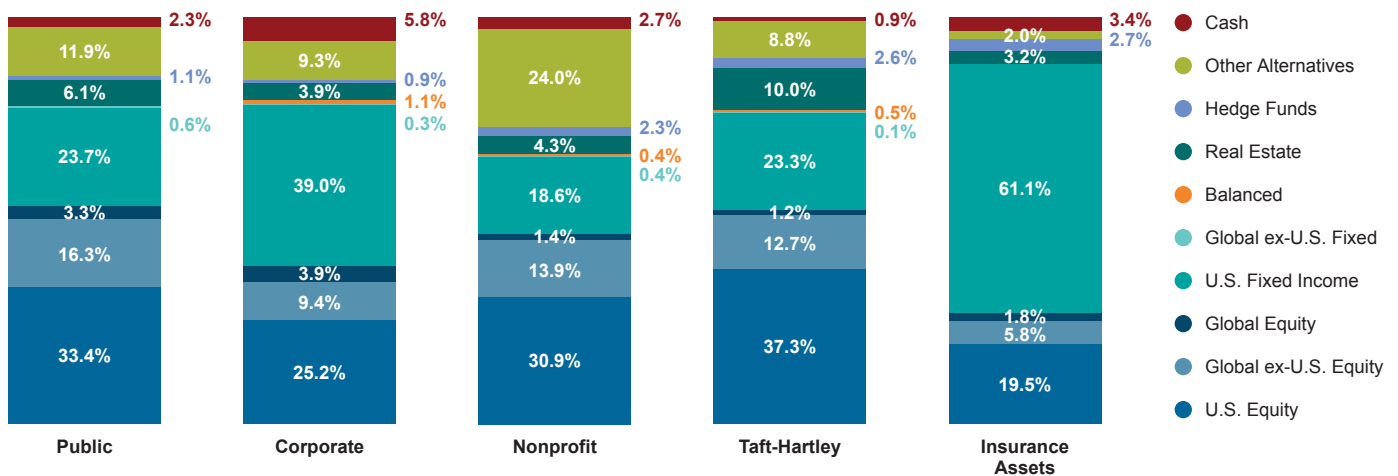
Insurance asset pools

- They are still benefiting from higher yields on short-term fixed income.
- Claims costs are higher from experienced inflation.
- Risk-based capital charges must be considered when investing in alternative investments.

Defined contribution (DC) plans

- The Callan DC Index™ gained 6.6% in 1Q24 due to the strong equity market.
- Turnover (i.e., net transfer activity) increased slightly to 0.44% from the prior quarter's 0.24%. The index's historical average remained at 0.55% and is a good reminder that participants tend to set their allocation and not make many changes.
- Automatic features typically result in target date funds (TDFs) receiving the largest net inflows in the index, as they did in 1Q24, garnering 80% of quarterly net flows. Stable value, money market, and company stock saw the largest outflows during the quarter.
- The gap in returns between money market and stable value funds continues to concern DC plans.
- Discussions are ongoing around how or whether to help participants with retirement income.

Average Asset Allocation, Callan Database Groups



Note: Charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets. Source: Callan

Equity

U.S. Equities

Broad indices exhibit strong start to 2024

- The U.S. equity markets had an exceptional start with the S&P 500 hitting 31 record highs over the first six months of 2024 and gaining 15.3%.
- Index returns continue to be driven by a handful of stocks, especially the “Magnificent Seven,” which comprised 33% of the S&P 500 as of quarter-end. As a group, the cohort gained 33% in the first six months of the year, far exceeding the S&P 493 gain of only 5%.

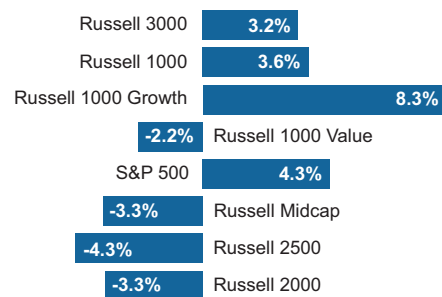
Performance underlying indices is uneven

- 2Q returns for the broad index were modest at 4.3%, but sector performance was quite mixed, ranging from -4.5% (Materials) to +13.8% (Technology), with 6 of the 11 S&P 500 sectors posting negative returns during the period.
- During 2Q, value (R1000V: -2.2%) continued to underperform growth (R1000G: +8.3%) and small cap (R2000: -3.3%) continued to underperform large cap (R1000: +3.6%).
- The “Magnificent Seven” stocks pushed large cap indices to record highs while the rest of the market traded sideways.
- Magnificent Seven stocks accounted for 116% of S&P 500 total return in 2Q24.
- YTD 2024, the bucket of Magnificent Seven stocks handily outperformed the equal weight S&P 500 Index and small cap Russell 2000 Index returns.
- Magnificent Seven returns over the trailing 3½ years (dating back to 2021) drove a large contribution of total index returns relative to the remaining ~493 stocks in the S&P 500.

- Market concentration has hit its highest level since 1972. The top 10 stocks have broken away from stocks #11-#50 to an even greater degree than in the tech bubble in 2000-01.
- The largest and most successful stocks were generating more earnings, earnings growth, and cash relative to the smaller stocks in the index. Price appreciation for the largest stocks is supported by strong earnings growth and robust economic profits.

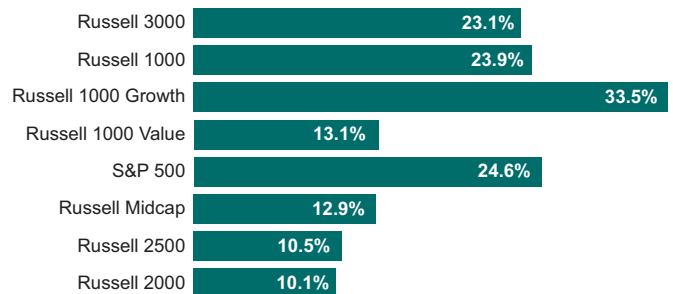
U.S. Equity: Quarterly Returns

(6/30/24)



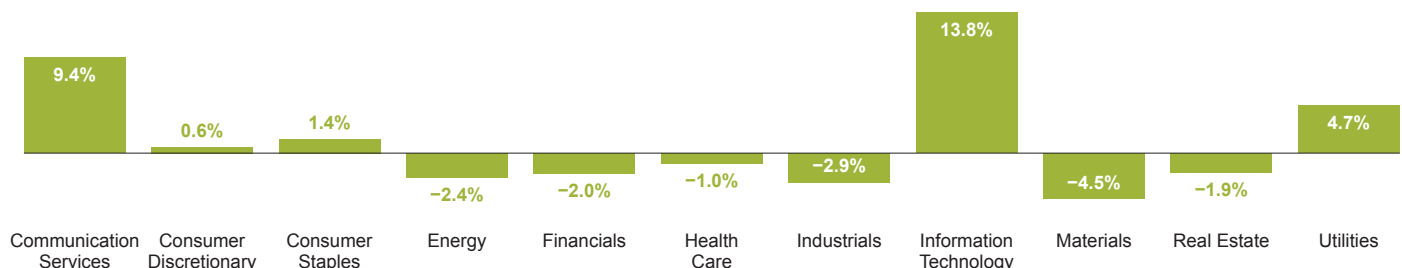
U.S. Equity: One-Year Returns

(6/30/24)



Sources: FTSE Russell and S&P Dow Jones Indices

Quarterly Performance of Industry Sectors (6/30/24)



Source: S&P Dow Jones Indices

Global Equities

Broad market

- The U.S. continued its lead over developed non-U.S. markets resulting in a positive ACWI return.
- Developed non-U.S. markets struggled with growing uncertainty on future economic growth, political instability, and divergent central bank policies.
- Small caps once again trailed large caps in a higher interest rate environment and amid exchange rate volatility.

Emerging markets

- Emerging markets rebounded, snapping a two-quarter losing streak relative to developed markets as both China and India produced strong returns.
- China's GDP growth exceeded expectations with a rebound in industrial production, manufacturing, and exports. Further, the Chinese government implemented several measures to support capital markets.

Growth vs. value

- Growth and value saw little difference, as much of the caution was driven around macro concerns about future growth and a growing risk of a recession.

U.S. dollar strength

- The U.S. Dollar Index (DXY), was relatively flat in 2Q due to a balancing act of increased global uncertainty but a more likely 2024 U.S. central bank rate cut.

China experiences significant decline

- Mainland China's allocation within the MSCI EM Index and active EM equity strategies has steadily declined since peaking in 2020. Sluggish growth with weak home sales and deflationary pressures combined with heightened geopolitical risks have been contributors.

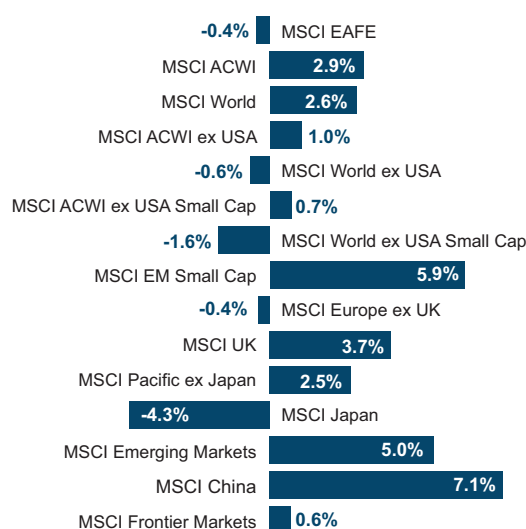
Taiwan increases with Taiwan Semiconductor strength

- Despite Taiwan's related geopolitical concerns to mainland China, Taiwan has seen increasing allocations in the index and across managers. The largest stock in the MSCI Taiwan Index, Taiwan Semiconductor, which accounts for ~50% of the index, continues to exhibit robust growth as the global leader in semiconductor manufacturing.

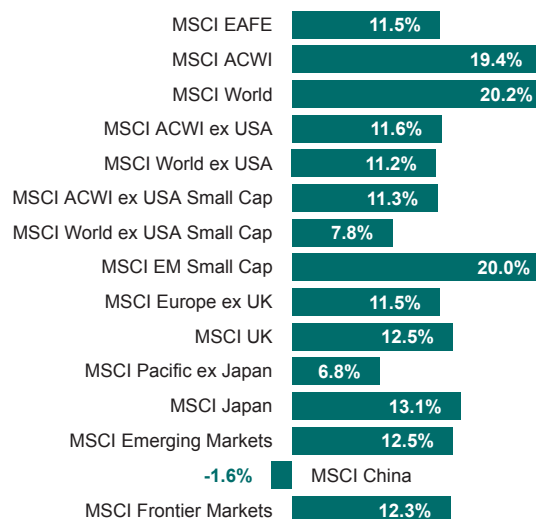
India continues rapid growth

- Benefiting from positive demographics with a large growing working population, India has experienced one of the highest real GDP growth rates globally in recent years when compared to other major countries/regions.
- India's growth within the MSCI EM Index and manager allocations has been nearly the mirror image to China's allocations since 2020.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 6/30/24)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 6/30/24)



Source: MSCI

Fixed Income

U.S. Fixed Income

Macro environment

- Fed on hold awaiting more evidence that inflation is under control as economy remained resilient
- 10-year U.S. Treasury yield up modestly from 4.21% to 4.36%
- Curve remained inverted

Performance and drivers

- The Bloomberg US Aggregate Index rose 0.1% amid higher rates.
- Corporates and most securitized sectors were roughly flat vs. U.S. Treasuries on a duration-adjusted basis.
- Lower quality outperformed, with high yield corporates and leveraged loans posting the best returns.
- Longer maturity underperformed short and intermediate strategies as curve steepened from 5 years out to 30.

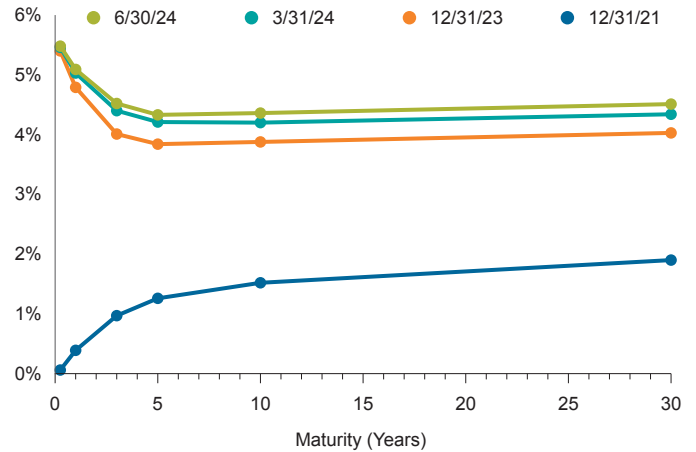
Valuations

- Corporate credit remains rich with spreads near historical tight.
- Default rates fell to just 1.2% for HY and 1.1% for bank loans.
- Corporate bond issuance remained robust
- IG corporate new issuance slowed from record highs in 1Q but remained robust with \$349 billion in new debt, bringing YTD total to \$886 billion.
- HY new issuance in 2Q nearly matched 1Q with \$83 billion, bringing YTD total to \$172 billion.
- Both were met with strong investor demand.

Rate cut expectations

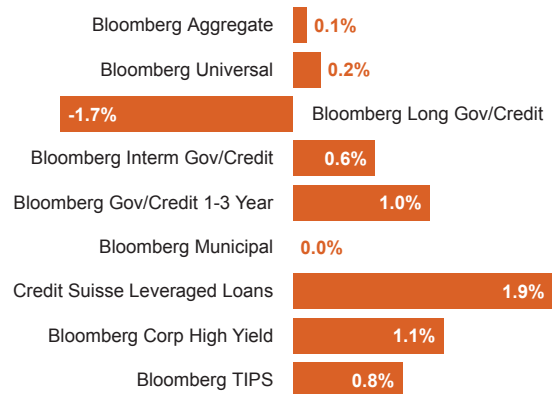
- Strong April jobs reports and sticky inflation readings initially drove intermediate- and long-term rates higher, sending the 10-year Treasury 50 bps higher and reducing the 2s10s inversion to just -24 bps.
- Markets reacted with reduced expectations for Fed rate cuts. Entering 2024, Fed Funds futures priced in at least six cuts for the year; that declined to around one as of April.
- However, subsequent data, including easing inflation, brought rates back close to where they started, with the 10-year Treasury ending the quarter 16 bps higher.

U.S. Treasury Yield Curves

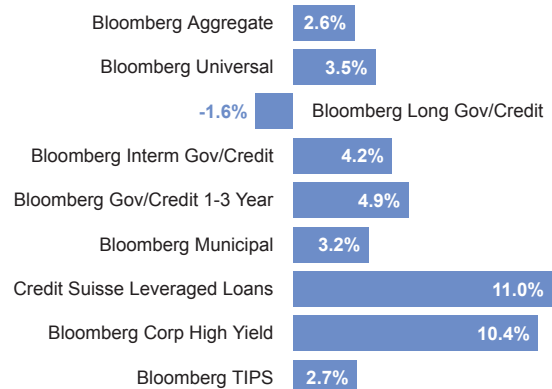


Source: Bloomberg

U.S. Fixed Income: Quarterly Returns (6/30/24)



U.S. Fixed Income: One-Year Returns (6/30/24)



Sources: Bloomberg and Credit Suisse

Municipal Bonds

Higher quality municipal bonds post flat returns in 2Q

- Muni bond yields climbed more than U.S. Treasury yields.
- 10-year AAA municipal bond yield rose 33 bps to 2.84%.
- 10-year U.S. Treasury yield ended 2Q at 4.36% from 4.21%.
- YTD issuance (\$235 billion, up 37% YOY) has been met by strong demand with \$11.4 billion in positive flows to municipal bond funds.

BBB performs best for the quarter and year

- AAA: -0.28%
- AA: -0.11%
- A: +0.22%
- BBB: +0.68%

Muni valuations vs. U.S. Treasuries remain rich

- 10-year AAA Muni/10-year U.S. Treasury yield ratio increased to 65%, but remains below the 10-year median
- Fundamentals for state and local governments remain sound as upgrades continue to surpass downgrades.
- The need for increased infrastructure spending could benefit municipal bond issuance in years to come.

Global Fixed Income

Macro environment

- Developed market rates rose further in 2Q.
- In June, the Bank of Canada lowered its overnight rate, and the European Central bank cut rates for the first time in five years as growth and inflation moderated.
- Japan's 10-year government bond yield rose above 1% for the first time since 2013.

U.S. dollar continues to strengthen

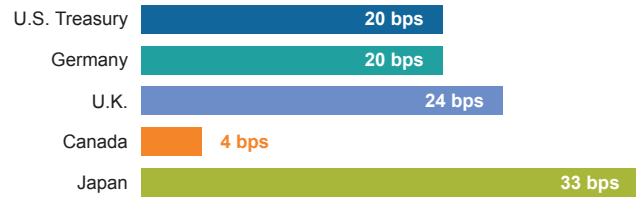
- Major currencies generally continued to weaken relative to the U.S. dollar, albeit at a slower pace from 2Q, detracting from unhedged returns.
- Hedged investors were flat for the quarter following the increase in yields.

Emerging market debt is similarly lackluster

- India was added to the JPM GBI-EM suite of indices in June.

Change in 10-Year Global Government Bond Yields

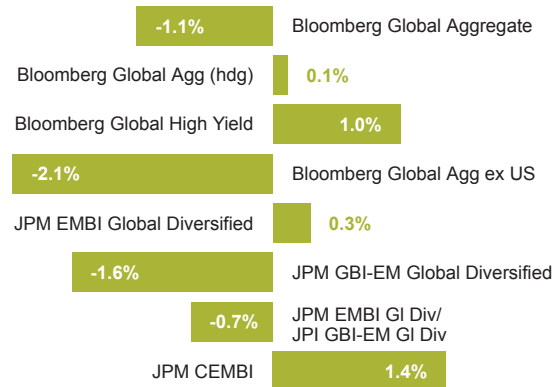
1Q24 to 2Q24



Source: Bloomberg

Global Fixed Income: Quarterly Returns

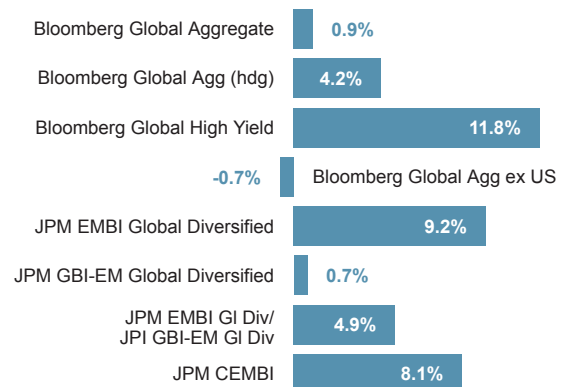
(6/30/24)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(6/30/24)



Sources: Bloomberg and JPMorgan Chase

- EM hard currency rose 0.3% while the local currency JPM EMBI Global Diversified Index declined 1.6% as the U.S. dollar generally if modestly strengthened relative to local currencies.

Income Positive but Appreciation Falls

REAL ESTATE/REAL ASSETS | Munir Iman

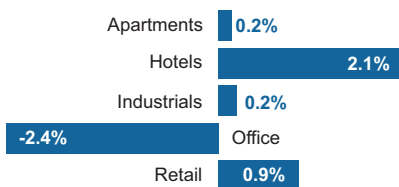
Valuations reflect higher interest rates

- NCREIF Property Index income returns were positive across sectors and regions.
- All property sectors and regions experienced negative appreciation, except for hotels.
- Valuations are reflective of higher interest rates, which have put upward pressure on capitalization rate and discount rate assumptions.
- Both the NPI and the NCREIF ODCE Index fell in the quarter and have produced negative returns over the last year.

Observations

- Global REITs underperformed in 2Q24, declining 2.4% compared to a 2.6% increase for global equities (MSCI World).
- U.S. REITs gained 0.1% in 2Q24, in contrast with the S&P 500 Index, which rose 4.3%.

Sector Quarterly Returns by Property Type (6/30/24)



Source: NCREIF

Callan Database Median and Index Returns* for Periods Ended 6/30/24

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	20 Years
Real Estate ODCE Style	-0.4	-2.8	-9.6	1.6	2.8	6.0	5.4
NFI-ODCE (value-weighted, net)	-0.7	-3.2	-10.0	1.0	2.3	5.5	5.8
NCREIF Property	-0.3	-1.2	-5.5	2.3	3.4	6.1	7.3
NCREIF Farmland	-0.2	0.5	2.5	6.8	5.8	6.9	12.1
NCREIF Timberland	1.7	3.9	9.8	11.0	7.2	5.9	7.1
Public Real Estate							
Global Real Estate Style	-1.7	-2.1	6.6	-3.1	2.0	4.5	7.1
FTSE EPRA Nareit Developed	0.5	1.2	2.7	1.8	2.6	4.7	--
Global ex-U.S. Real Estate Style	-3.3	-4.9	6.4	-7.5	-0.2	3.0	--
FTSE EPRA Nareit Dev ex US	-5.6	-7.6	3.1	-9.6	-4.4	-0.5	--
U.S. REIT Style	-0.2	-0.6	7.1	-0.1	4.9	6.6	8.6
FTSE EPRA Nareit Equity REITs	0.1	-0.1	7.8	0.3	3.9	5.9	7.7

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

- REITs continue to trade at a discount to NAV (-4.2%) and offer some relative value given this spread.
- Historically, global REITs have traded at a -4.0% discount to NAV.

Redemption queues

- Current ODCE redemption queues are approximately 17.3% of net asset value, with a median queue of 13.9%. This compares to the GFC when queues peaked at approximately 15% of NAV.
- Outstanding redemption requests for most large ODCE funds are approximately 11% to 20% of net asset value.
- For a large proportion of funds, these redemptions are partial redemptions, due to portfolio rebalancing and liquidity needs. For a smaller underperforming subset, redemption requests are full redemptions indicative of manager termination.

Transaction activity

- Transaction volume has flattened on a rolling four-quarter basis and remains well below five-year averages.
- In 2Q24, transaction volume increased slightly on a quarter-over-quarter basis. Transaction volume remains significantly lower compared to 2022.
- The volatile rise in interest rates is the driving force behind the slowdown in transactions.

Some Early Signs of a Rebound, but Challenges Remain

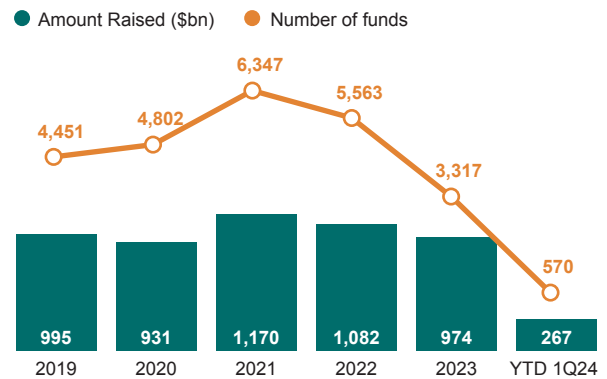
PRIVATE EQUITY | Ashley Kahn

Fundraising ► The 2023 vintage year experienced the full impact of the denominator effect, with sharp declines in fundraising for the year. The number of funds raised dropped by ~50% from the highs of 2021–22. Heading into 2024, fundraising continues to fall. The number of funds raised in 1Q24 was down by 42% compared to 1Q23, although the dollar amount raised is consistent.

Buyouts ► 2023 represented the trough in buyout dealmaking, with early 2024 seeing improved liquidity conditions and higher public markets comps. Buyout activity was up by 7% in 1Q24 compared to 4Q23. Lower valuations, reflecting higher interest rates and a narrowing of the bid-ask spread, have led to greater activity.

Venture Capital and Growth Equity ► Venture capital and growth equity have shown mixed signs of recovery but no large snapback, yet. 1Q24 deal activity was down by 9% from 4Q23. While venture capital activity was steady, there was a significant slowdown in growth equity, with no large growth equity deals during the quarter. 1Q24 exhibited a notable recovery in late-stage valuations. Similarly, early-stage valuations in 2024 also increased by 21% from the prior year.

Annual Fundraising (3/31/24)



Source: Pitchbook

Exits ► In 2023, private equity exits declined dramatically by over 50% compared to their all-time record in 2021. Exit activity is up so far in 2024, by 15% compared to early 2023. IPO activity remains depressed, and the public offerings that do occur tend to be smaller in scale.

Returns ► Public equity's exceptional start to 2024 (led by the "Magnificent Seven" technology stocks) has left private equity in its wake. Over the long-term, private equity has outperformed public equity by 1%-3%.

Private Equity Performance (%) (Pooled Horizon IRRs through 3/31/24*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
All Venture	1.4	-1.5	0.6	16.1	15.3	12.5
Growth Equity	1.0	3.9	3.5	14.2	13.3	13.4
All Buyouts	1.1	7.6	10.8	15.4	13.8	14.1
Mezzanine	1.8	10.4	11.1	11.5	10.9	11.3
Credit Opportunities	1.9	8.2	8.8	8.4	7.3	9.2
Control Distressed	0.8	4.5	12.9	13.8	11.0	11.3
All Private Equity	1.2	5.1	7.3	14.7	13.4	13.2

Note: Private equity returns are net of fees. Sources: LSEG/Cambridge and S&P Dow Jones Indices

*Most recent data available at time of publication

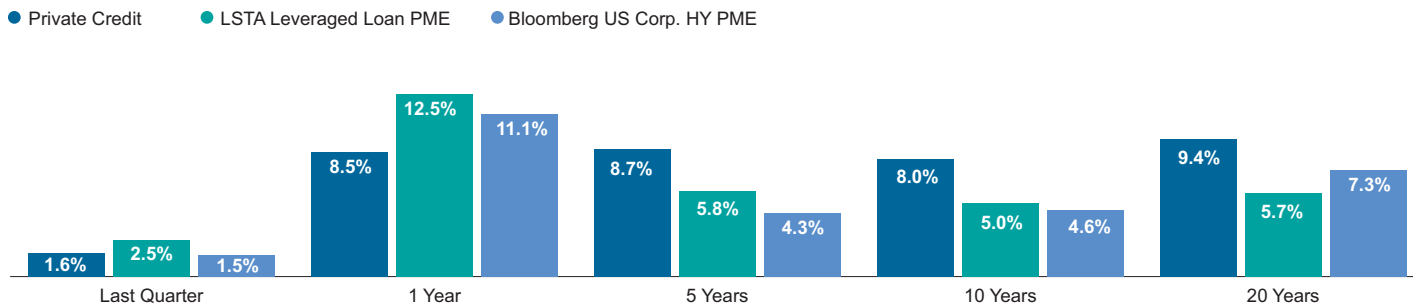
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

Gains Outpace Leveraged Loans Over Time; Spreads Contract

PRIVATE CREDIT | Cos Braswell and Daniel Brown

- Over the past 10 years private credit has generated a net IRR of 8.0%, outperforming leveraged loans as of 1Q24.
- Higher-risk strategies have performed better than lower-risk strategies.
- U.S. sub-investment grade corporate yields rose dramatically at the beginning of 2022 with yields peaking in September. This was a combination of higher interest rates due to tighter Fed policy and a widening of high yield spreads. Effective yields continued to drop in 1Q24.
- Spreads contracted during 1Q24, a continuation from late 2023, due to stronger credit conditions as the U.S. economic outlook improved.
- Default rates for U.S. corporate bonds and loans in 2024 continued to slightly rise but remained in the historical average of 3% – 4%.
- The Corporate Bond Market Distress Index (CMDI) rose rapidly during 2022, especially for investment grade bonds, but has fallen since then. In 2024, both the investment grade distress and high yield bond indicator continued to fall, a trend that has proceeded since last year.
- Private credit assets under management (AUM) stood at over \$1.5 trillion at the end of 2023, with Preqin forecasting the asset class will grow to over \$2.5 trillion by 2028 at a 11.13% compound annual growth rate from 2023 to 2028.
- Direct lending is expected to grow steadily through 2028 as investors increase their private credit allocations. Distressed exposure should grow a bit more slowly with other strategies such as opportunistic, special situations, and other niche diversifiers growing more quickly.

Private Credit Performance (%) (Pooled Horizon IRRs through 3/31/24*)



Private Credit Performance (%) (Pooled Horizon IRRs by Strategy through 3/31/24*)

Strategy	Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	0.7	7.7	7.0	7.0	7.2
Mezzanine	1.8	10.4	11.6	10.9	11.3
Credit Opportunities	1.9	8.2	8.4	7.3	9.2
Total Private Credit	1.6	8.5	8.7	8.0	9.4

Source: LSEG/Cambridge

*Most recent data available at time of publication

Hedge Funds Gain, Capitalizing on Volatility

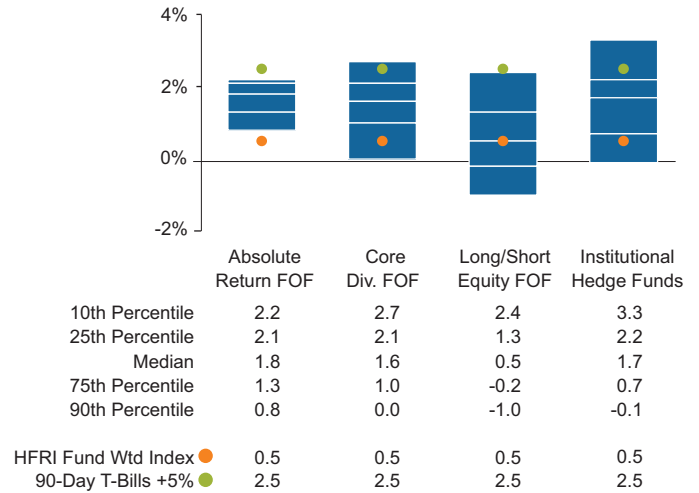
HEDGE FUNDS/MACs | Sean Lee and Joe McGuane

U.S. equity markets moved higher during 2Q24, driven by a few large technology and AI-related companies along with generally healthy corporate earnings. Interest rates were volatile during the quarter, as signs of sticky inflation drove bond yields sharply higher, but as the quarter wore on, softer macroeconomic data points and lower inflation readings reversed much of the move. The 10-year U.S. Treasury rose from 4.21% to 4.36%, and the 30-year from 4.34% to 4.51%, as Fed minutes indicate an eagerness to cut rates in September, driven primarily by concerns about the employment outlook despite reasonably good current data.

The S&P 500 rose 4.3% during 2Q, as Technology, Communication Services, and Utilities were the best sectors. Materials, Energy, and Real Estate were down on concerns of higher rates for longer and the slowing economy. Highlighting the AI theme during 2Q, the top six technology stocks in the S&P 500 rose 17% on average primarily due to EPS revisions and multiple expansion, while the remaining 494 S&P 500 stocks saw a slight upward earnings-per-share revision and larger multiple compression driving a 1% decline on average.

Hedge Fund Style Group Returns

(6/30/24)



Sources: Callan, Credit Suisse, Federal Reserve

Hedge funds ended 2Q higher, as strategies with a higher correlation and a material beta to equities were successfully able to capitalize on volatility in markets. Equity hedge funds again saw positive performance, as managers that focused on technology saw the biggest gains. Managers with more

Callan Peer Group Median and Index Returns* for Periods Ended 6/30/24

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	1.7	10.1	5.7	7.3	6.3	7.4
Callan Fund-of-Funds Peer Group	1.3	9.8	3.8	5.7	4.4	5.4
Callan Absolute Return FOF Style	1.8	8.8	5.1	5.4	4.0	5.1
Callan Core Diversified FOF Style	1.6	10.0	4.2	5.9	4.5	5.6
Callan Long/Short Equity FOF Style	0.5	11.1	0.8	5.6	5.3	5.6
HFRI Fund Weighted Index	0.5	9.8	2.9	6.7	4.8	5.3
HFRI Fixed Convertible Arbitrage	1.2	7.5	4.1	6.6	5.0	6.5
HFRI Distressed/Restructuring	2.1	10.5	2.9	6.5	4.1	6.4
HFRI Emerging Markets	1.8	8.6	-1.3	4.1	3.3	4.2
HFRI Equity Market Neutral	2.0	11.2	5.1	4.2	3.4	3.1
HFRI Event-Driven	0.2	10.5	2.7	6.2	4.5	6.1
HFRI Relative Value	1.4	8.4	3.7	4.6	3.9	5.6
HFRI Macro	-0.8	5.9	4.4	5.7	3.5	2.8
HFRI Equity Hedge	1.0	11.8	1.9	7.8	5.6	6.2
HFRI Multi-Strategy	1.1	11.0	-0.3	5.0	2.9	4.5
HFRI Merger Arbitrage	0.0	8.3	3.4	5.5	4.5	4.4
90-Day T-Bill + 5%	2.5	10.4	8.0	7.2	6.5	6.0

*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

directional equity exposure and those with more of a market-neutral focus also had a solid quarter. Relative value strategies also gained, as credit relative value and merger arbitrage strategies added to that performance. Macro strategies ended the quarter lower, as long positioning in developed market front-end rates detracted from performance, along with shorts in U.S. equities and long Japanese yen exposure.

Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group rose 1.7%. Within this style group of 50 peers, the average hedged credit manager gained 1.6%, driven by interest rate volatility. Meanwhile, the average hedged equity manager added 2.4%, as those focused on the Technology, Energy, and Health Care sectors drove performance. The median Callan Institutional hedged rates manager rose 1.6%, largely driven by relative value fixed income trades.

Within the HFRI Indices, the best-performing strategy was relative value, which was up 1.4%, as managers were positioned to profit off interest rate volatility during the quarter. Equity hedge gained 1.0%, as managers that were focused on tech, media, and telecom drove performance. Macro strategies ended the quarter slightly negative, as rates trading and long U.S. equities drove performance lower.

Across the Callan Hedge FOF database, the median Callan Long-Short Equity FOF ended 0.5% higher, as managers with a focus on the Technology sector drove performance. Meanwhile, the median Callan Core Diversified FOF rose 1.6%, driven by equity and event-driven strategies. The Callan Absolute Return FOF ended up 1.8%; equity beta strategies were behind this move.

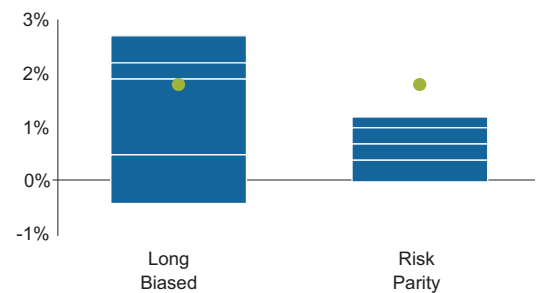
Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular among investors for their attractive risk-adjusted returns that are similarly uncorrelated with traditional stock and bond investments but offered at a lower cost. Much of that interest is focused on rules-based, long-short strategies that isolate known risk premia such as value, momentum, and carry found across the various capital markets. These alternative risk

premia are often embedded, to varying degrees, in hedge funds as well as other actively managed investment products.

Within Callan's database of liquid alternative solutions, the median Callan MAC Long Biased manager rose 1.9%, as the strong equity rally pushed performance higher. The Callan MAC Risk Parity peer group rose 0.7%, as equities and fixed income drove the gains.

MAC Style Group Returns

(6/30/24)



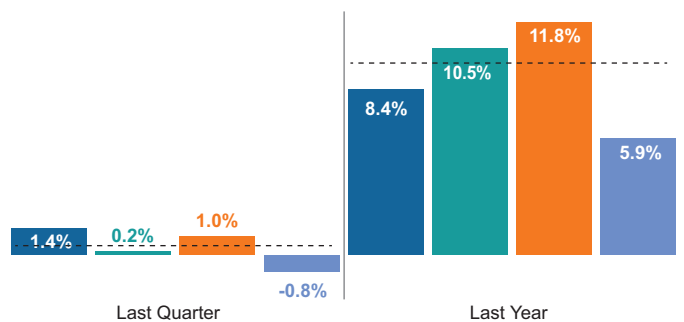
60% ACWI / 40% Bloomberg Agg	1.7	1.7
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Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

HFRI Hedge Fund-Weighted Strategy Returns

(6/30/24)

● Relative Value ● Event-Driven ● Equity Hedge ● Macro
 --- HFRI Fund Weighted Index



Source: HFRI

DC Index Starts Year with a Big Gain

DEFINED CONTRIBUTION | [Scotty Lee](#)

Performance: Index kicks off 2024 with a gain

- The Callan DC Index™ gained 6.6% in 1Q24, which brought the Index’s trailing one-year gain to 18.8%.

Growth Sources: Investment gains lead to rise in balances

- Balances within the DC Index rose by 6.6% after a 9.0% increase in the previous quarter.
- Investment gains (6.6%) were the sole driver of the gain, while net flows (0.03%) had a negligible effect.

Turnover: Net transfers increase

- Turnover (i.e., net transfer activity levels within DC plans) in the DC Index increased to 0.44% from the previous quarter’s measure of 0.24%.

Net cash flow analysis: Stable value declines sharply

- Automatic features and their appeal to “do-it-for-me” investors typically result in target date funds (TDFs) receiving the largest net inflows in the DC Index, which was the case in 1Q24 as the asset allocation funds garnered 79.5% of quarterly net flows.
- Within equities, investors withdrew assets from U.S. small/mid-cap equity (-12.7%) and company stock (-15.6%).
- Notably, stable value (-50.9%) saw relatively large outflows for the sixth consecutive quarter.

Equity allocation: Exposure rises

- The Index’s overall allocation to equity (73.5%) rose slightly from the previous quarter’s level (72.5%). The current equity allocation continues to sit above the Index’s historical average (68.6%).

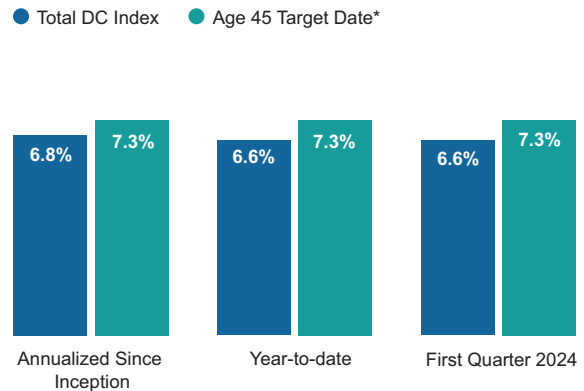
Asset allocation: Fixed income exposure falls

- U.S. large cap equity (27.8%) and target date funds (35.3%) were among the asset classes with the largest percentage increases in allocation.
- Stable value (6.6%) had the largest decrease in allocation from the previous quarter due to net outflows.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.

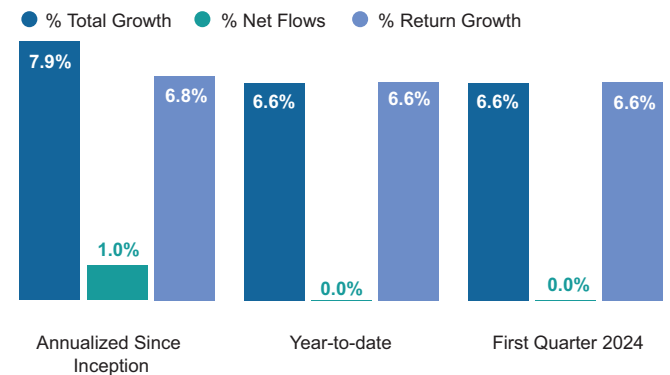
Investment Performance

(3/31/24)



Growth Sources

(3/31/24)



Net Cash Flow Analysis 1Q24

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	79.5%
U.S. Large Cap	10.5%
Company Stock	-15.6%
Stable Value	-50.9%
Total Turnover**	0.4%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

** Total Index “turnover” measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

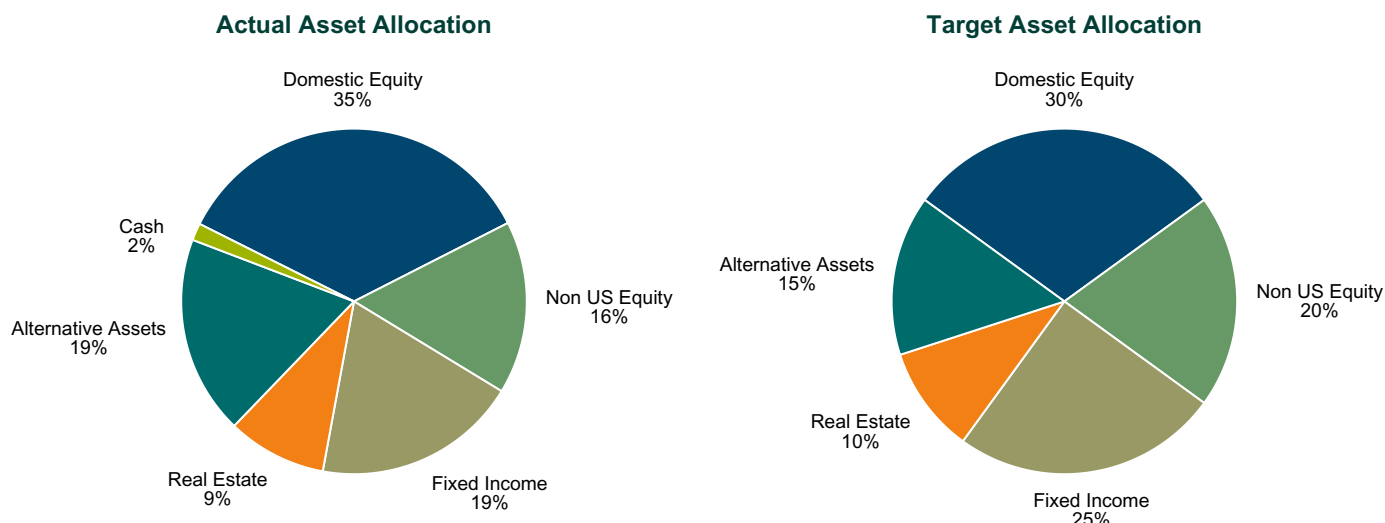
ASSET ALLOCATION AND PERFORMANCE

Asset Allocation and Performance

This section begins with an overview of the fund's asset allocation at the broad asset class level. The fund's historical performance is then examined relative to funds with similar objectives. Performance of each asset class is then shown relative to the asset class performance of other funds. This is followed by a top down performance attribution analysis which analyzes the fund's performance relative to the performance of the fund's policy target asset allocation. Finally, a summary is presented of the holdings of the fund's investment managers, and the returns of those managers over various recent periods.

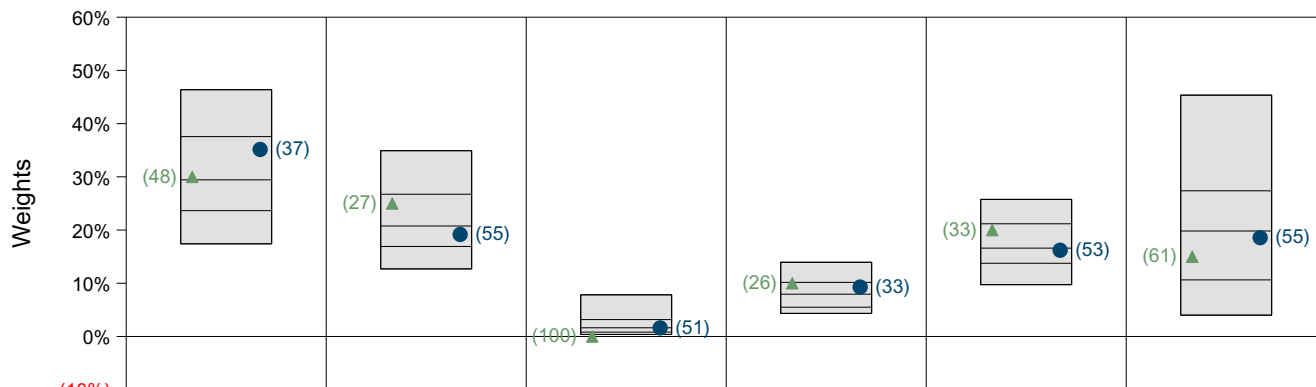
Actual vs Target Asset Allocation As of June 30, 2024

The top left chart shows the Fund's asset allocation as of June 30, 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 Public Fund Spons - Large (>1B).



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	4,282	35.1%	30.0%	5.1%	627
Non US Equity	1,974	16.2%	20.0%	(3.8%)	(462)
Fixed Income	2,336	19.2%	25.0%	(5.8%)	(709)
Real Estate	1,131	9.3%	10.0%	(0.7%)	(87)
Alternative Assets	2,262	18.6%	15.0%	3.6%	435
Cash	196	1.6%	0.0%	1.6%	196
Total	12,181	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Spons - Large (>1B)



	Domestic Equity	Fixed Income	Cash	Real Estate	Non US Equity	Alternative Assets
10th Percentile	46.37	34.91	7.82	13.95	25.76	45.35
25th Percentile	37.56	26.73	3.18	10.17	21.18	27.38
Median	29.43	20.76	1.63	7.95	16.60	19.82
75th Percentile	23.64	16.92	0.82	5.50	13.75	10.63
90th Percentile	17.41	12.70	0.38	4.34	9.73	4.00
Fund ●	35.15	19.18	1.61	9.28	16.21	18.57
Target ▲	30.00	25.00	0.00	10.00	20.00	15.00
% Group Invested	100.00%	96.83%	85.71%	79.37%	98.41%	76.92%

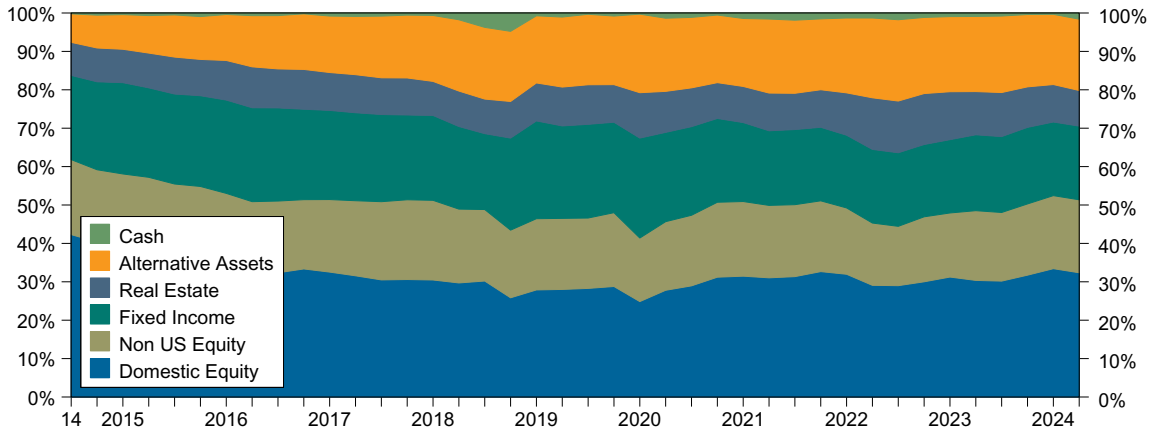
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

** The United States equity portion of the Walter Scott Global Equity fund is allocated to the Domestic Equity composite.

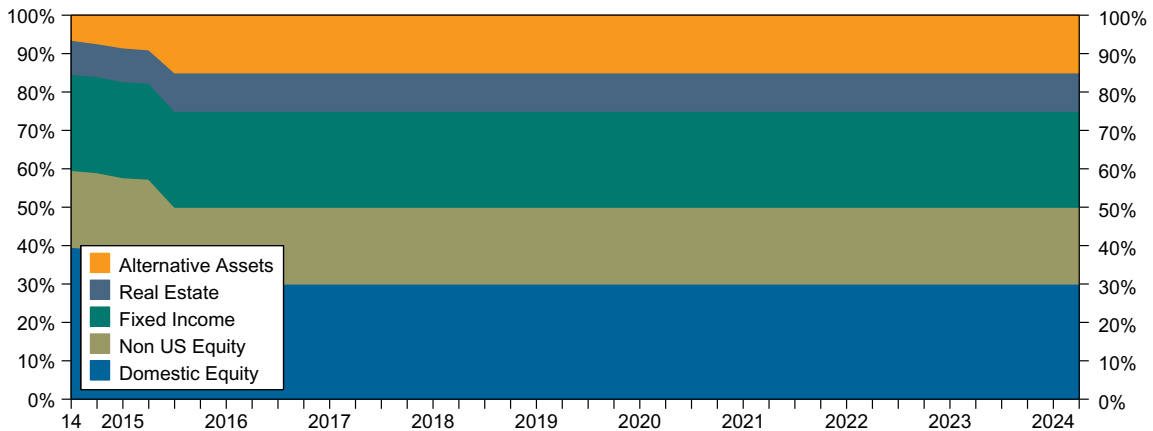
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Spons - Large (>1B).

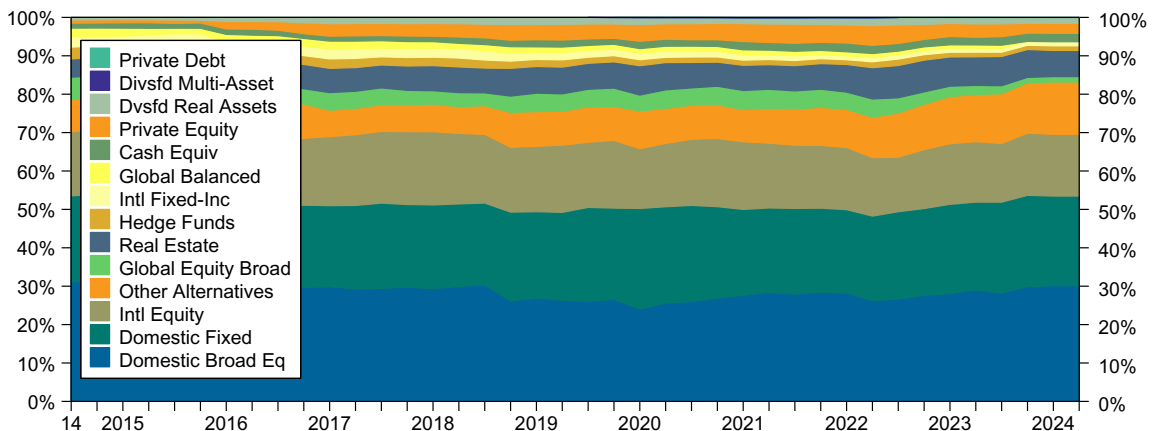
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Spons - Large (>1B) Historical Asset Allocation



* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

Total Fund Composite Period Ended June 30, 2024

Total Fund Benchmark

As of 7/1/2022 the total fund benchmark is 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

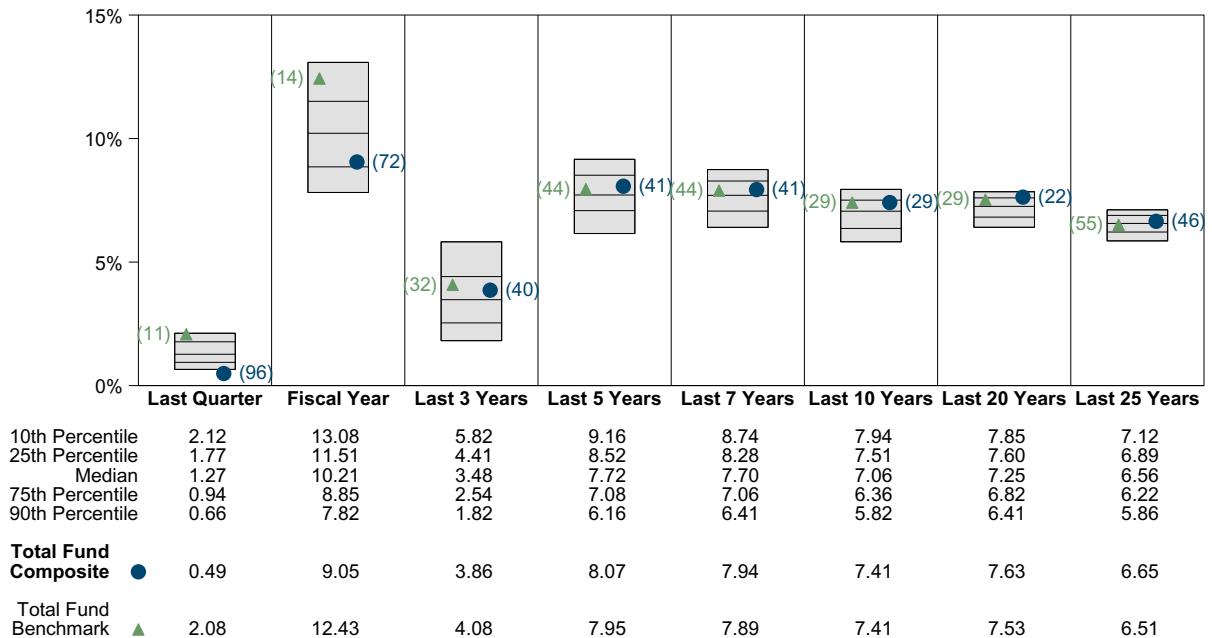
Quarterly Summary and Highlights

- Total Fund Composite's portfolio posted a 0.49% return for the quarter placing it in the 96 percentile of the Callan Public Fund Large DB group for the quarter and in the 72 percentile for the last year.
- Total Fund Composite's portfolio underperformed the Total Fund Benchmark by 1.59% for the quarter and underperformed the Total Fund Benchmark for the year by 3.38%.

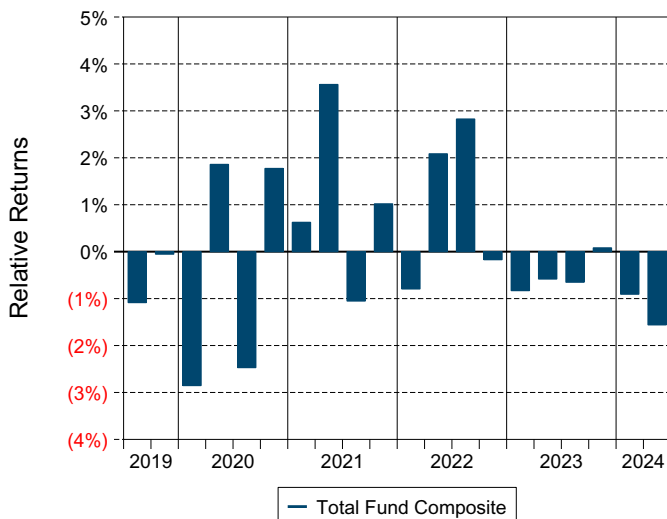
Quarterly Asset Growth

Beginning Market Value	\$12,179,976,711
Net New Investment	\$-59,547,894
Investment Gains/(Losses)	\$60,681,388
Ending Market Value	\$12,181,110,205

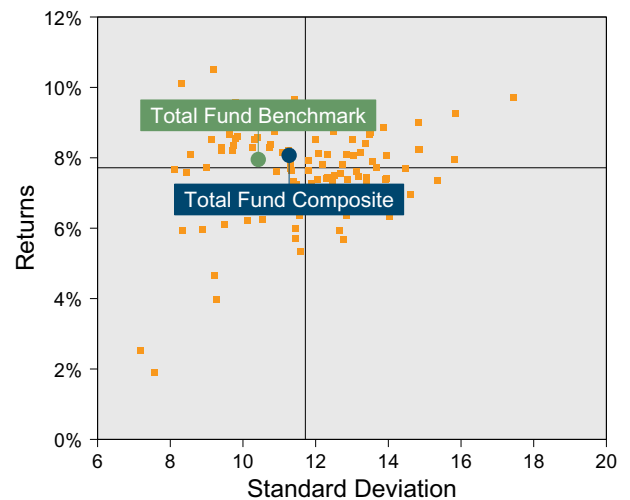
Performance vs Callan Public Fund Large DB (Gross)



Relative Return vs Total Fund Benchmark



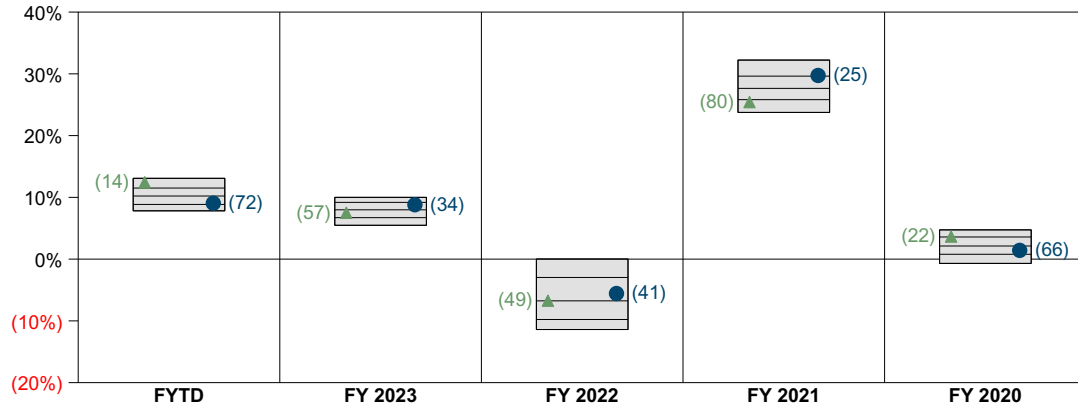
Callan Public Fund Large DB (Gross) Annualized Five Year Risk vs Return



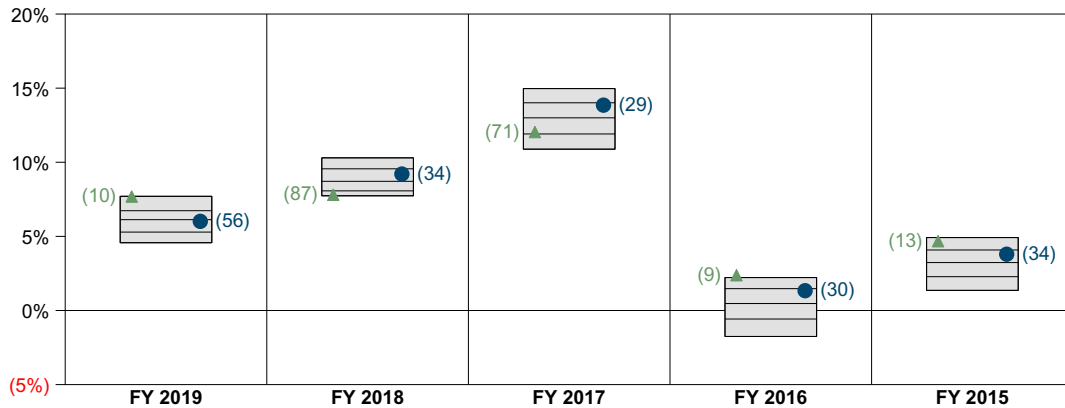
New Hampshire Retirement System Performance vs Callan Public Fund Spons - Large (>1B) Periods Ended June 30, 2024

Return Ranking

The chart below illustrates fund rankings over various periods versus the Callan Public Fund Spons - Large (>1B). The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the Callan Public Fund Spons - Large (>1B). The numbers to the right of the bar represent the percentile rankings of the fund being analyzed. The table below the chart details the rates of return plotted in the graph above.



10th Percentile	13.08	10.00	0.01	32.23	4.74
25th Percentile	11.51	9.19	(2.97)	29.63	3.58
Median	10.21	7.98	(6.76)	27.65	2.13
75th Percentile	8.85	6.72	(9.78)	25.82	0.79
90th Percentile	7.82	5.47	(11.40)	23.75	(0.69)
Total Fund Composite	● 9.05	8.80	(5.57)	29.74	1.41
Total Fund Benchmark	▲ 12.43	7.50	(6.72)	25.43	3.67



10th Percentile	7.70	10.30	14.97	2.22	4.92
25th Percentile	6.73	9.56	14.01	1.47	4.08
Median	6.13	8.71	13.00	0.47	3.23
75th Percentile	5.29	8.07	11.91	(0.58)	2.28
90th Percentile	4.57	7.74	10.88	(1.75)	1.36
Total Fund Composite	● 6.01	9.21	13.85	1.33	3.80
Total Fund Benchmark	▲ 7.69	7.81	12.04	2.38	4.67

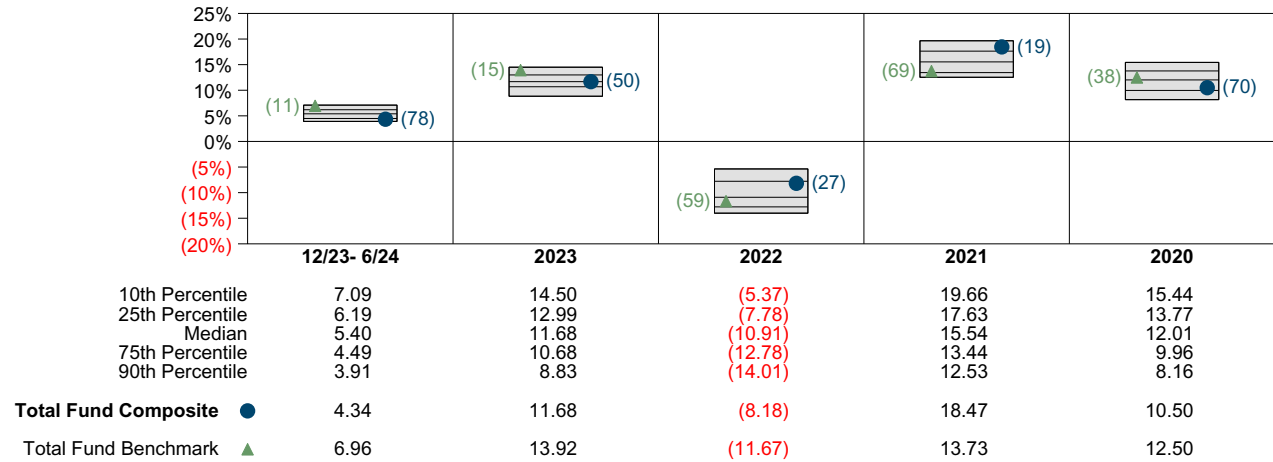
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

Total Fund Composite Return Analysis Summary

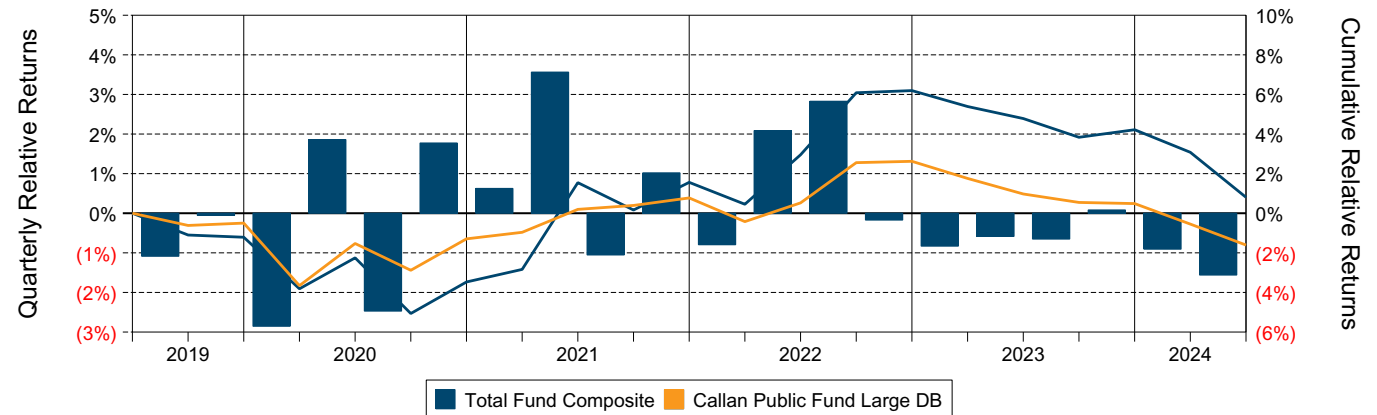
Return Analysis

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

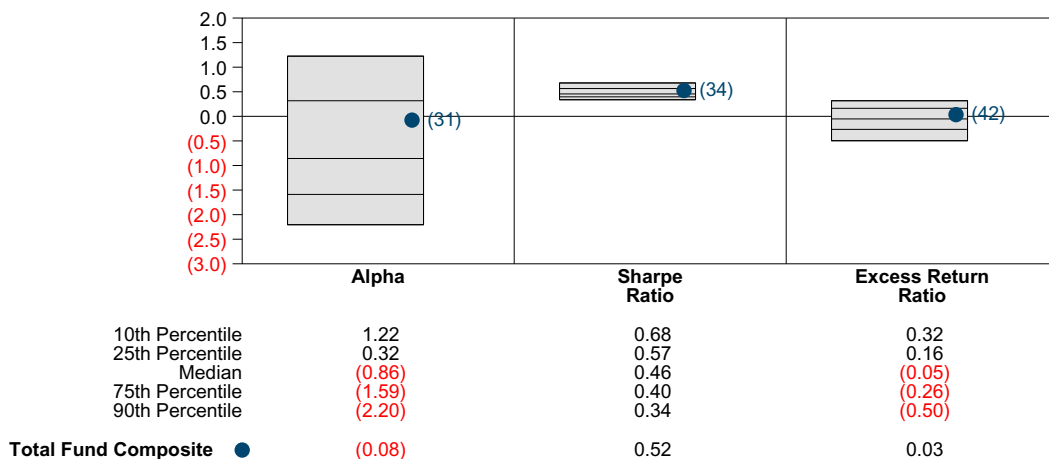
Performance vs Callan Public Fund Large DB (Gross)



Cumulative and Quarterly Relative Returns vs Total Fund Benchmark



Risk Adjusted Return Measures vs Total Fund Benchmark Rankings Against Callan Public Fund Large DB (Gross) Five Years Ended June 30, 2024



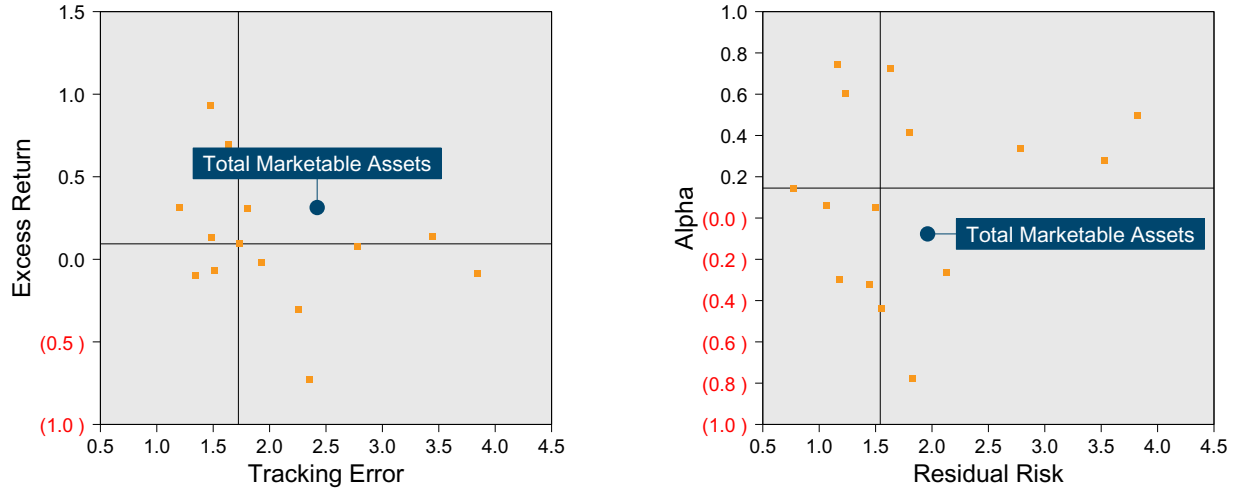
Total Marketable Assets

Total Fund vs Target Risk Analysis

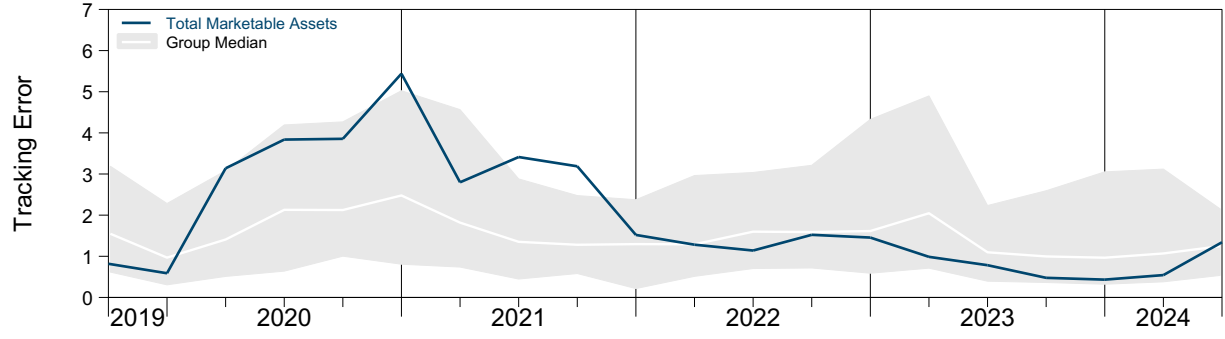
Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

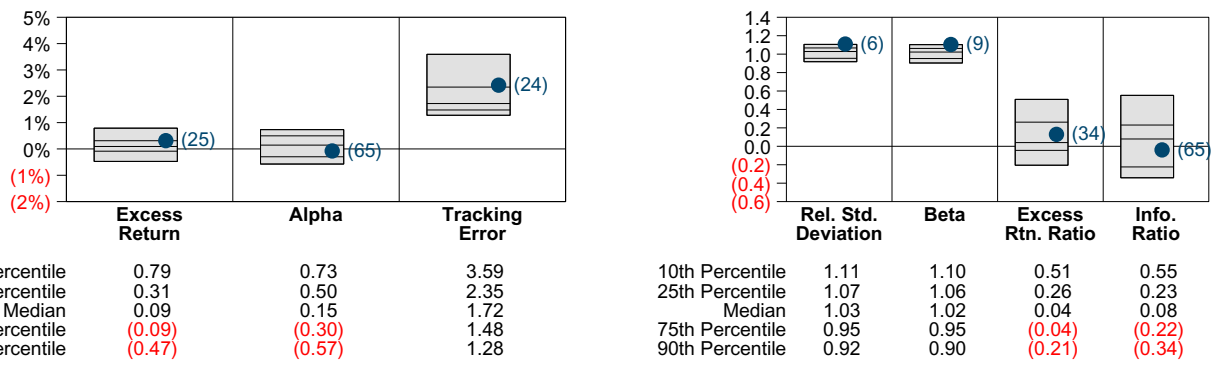
Risk Analysis vs Callan Public Fund Spns - Large (>1B) Five Years Ended June 30, 2024



Rolling 4 Quarter Tracking Error vs Targets Compared to Callan Public Fund Spns - Large (>1B)



Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Spns - Large (>1B) Five Years Ended June 30, 2024



	Excess Return	Alpha	Tracking Error	Rel. Std. Deviation	Beta	Excess Rtn. Ratio	Info. Ratio
10th Percentile	0.79	0.73	3.59	1.11	1.10	0.51	0.55
25th Percentile	0.31	0.50	2.35	1.07	1.06	0.26	0.23
Median	0.09	0.15	1.72	1.03	1.02	0.04	0.08
75th Percentile	(0.09)	(0.30)	1.48	0.95	0.95	(0.04)	(0.22)
90th Percentile	(0.47)	(0.57)	1.28	0.92	0.90	(0.21)	(0.34)
Total Marketable Assets	● 0.31	(0.08)	2.42	● 1.11	1.10	0.13	(0.04)

Total Marketable Assets

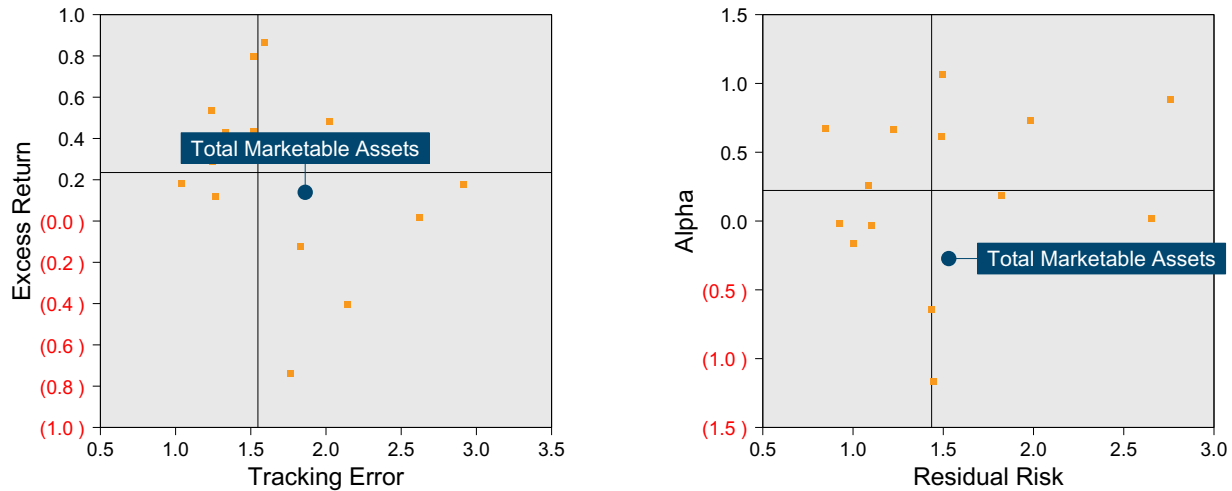
Total Fund vs Target Risk Analysis

Risk Analysis

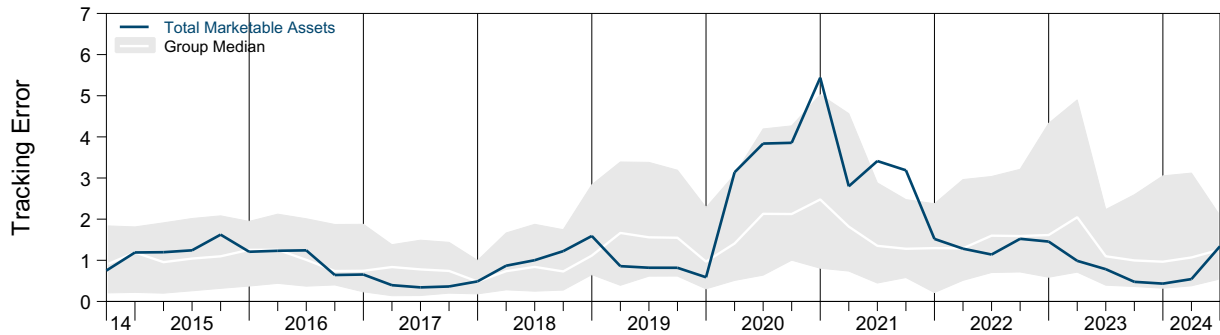
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Risk Analysis vs Callan Public Fund Spons - Large (>1B)

Ten Years Ended June 30, 2024



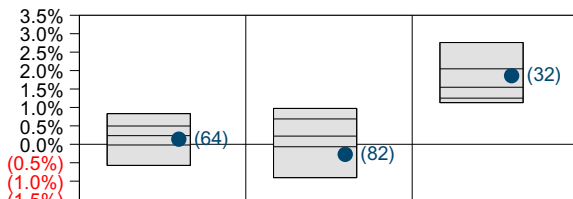
Rolling 4 Quarter Tracking Error vs Targets Compared to Callan Public Fund Spons - Large (>1B)



Risk Statistics Rankings vs Targets

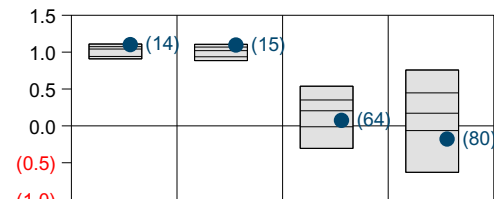
Rankings Against Callan Public Fund Spons - Large (>1B)

Ten Years Ended June 30, 2024



	Excess Return	Alpha	Tracking Error
10th Percentile	0.83	0.97	2.76
25th Percentile	0.50	0.69	2.05
Median	0.24	0.22	1.55
75th Percentile	(0.02)	(0.07)	1.25
90th Percentile	(0.57)	(0.90)	1.13

Total Marketable Assets ● 0.14 (0.27) 1.86



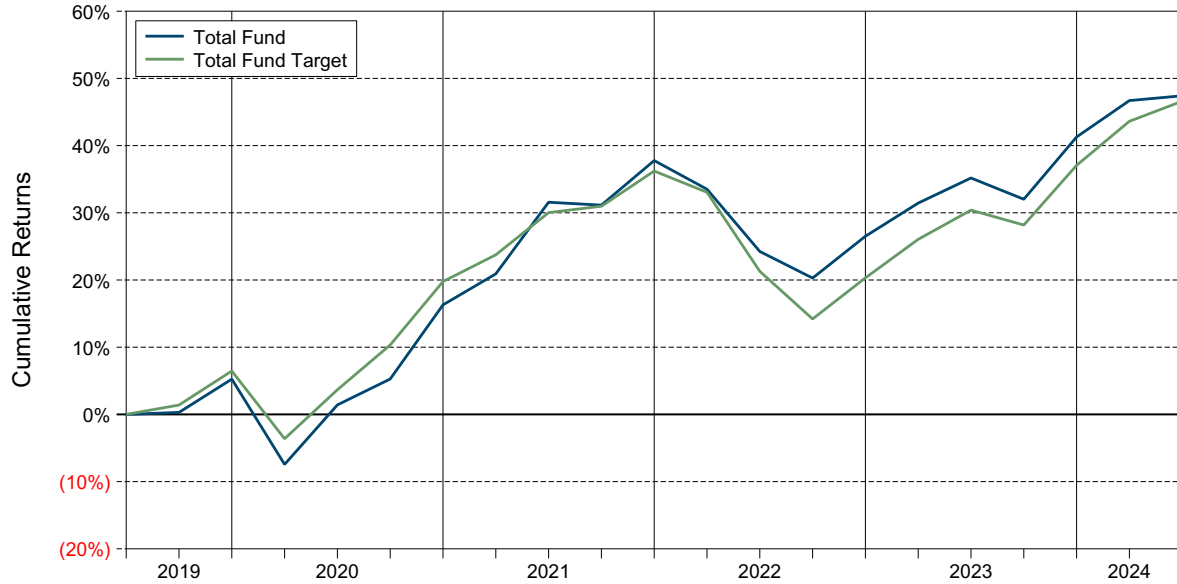
	Rel. Std. Deviation	Beta	Excess Rtn. Ratio	Info. Ratio
10th Percentile	1.11	1.11	0.54	0.76
25th Percentile	1.07	1.07	0.35	0.45
Median	1.04	1.02	0.20	0.17
75th Percentile	0.94	0.94	(0.01)	(0.06)
90th Percentile	0.91	0.89	(0.31)	(0.63)

Total Marketable Assets ● 1.10 1.10 0.07 (0.18)

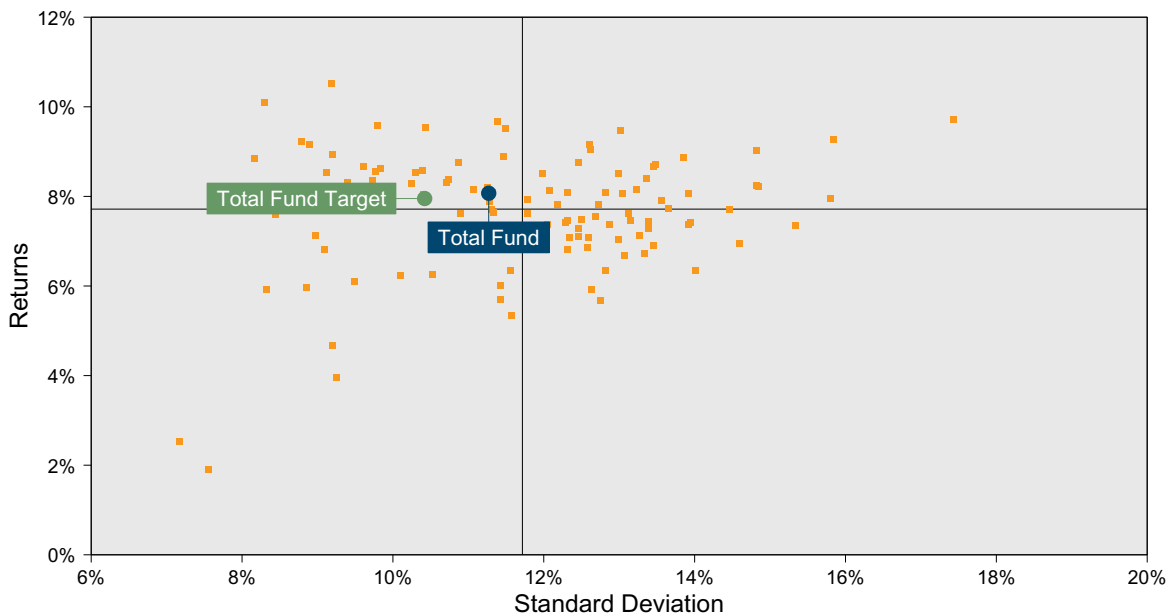
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the Callan Public Fund Spons - Large (>1B).

Cumulative Returns Actual vs Target



Five Year Annualized Risk vs Return



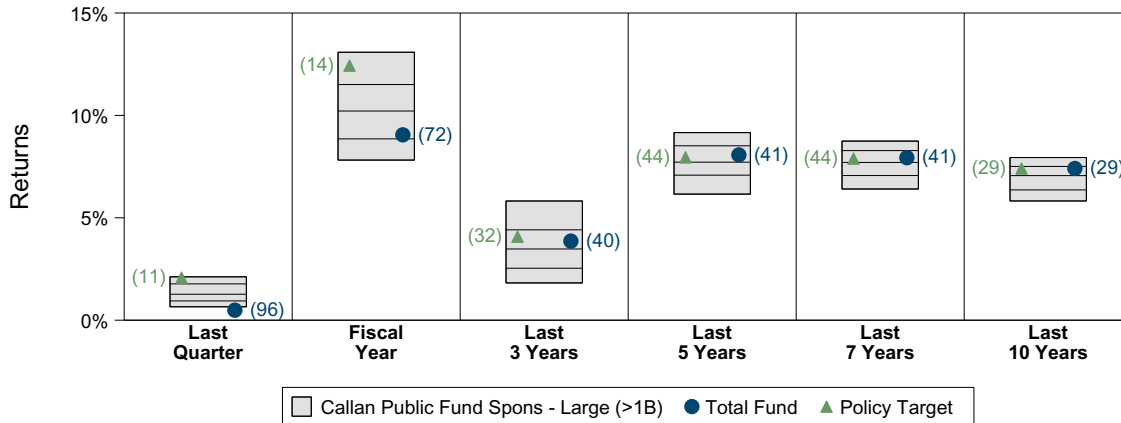
Squares represent membership of the Callan Public Fund Spons - Large (>1B)

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

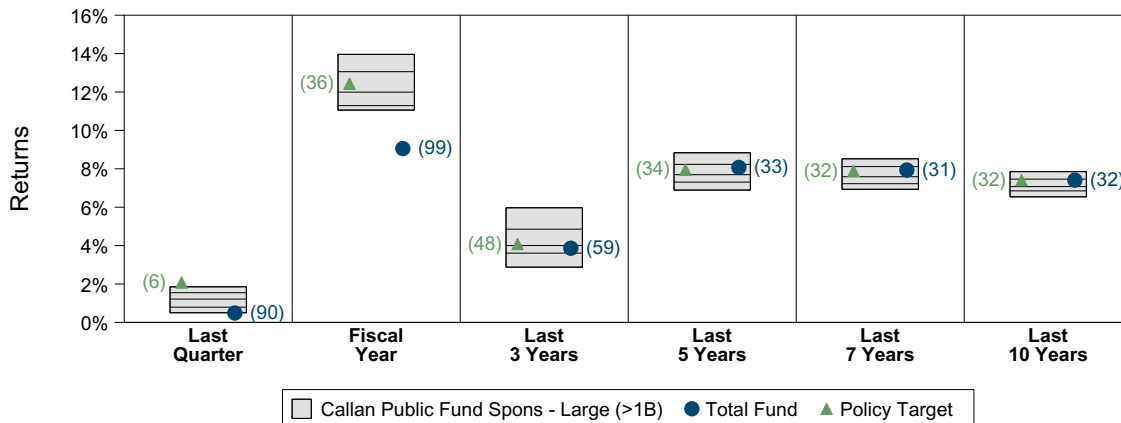
Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Spons - Large (>1B) for periods ended June 30, 2024. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund. The final chart shows the history of the one year ranking of the Total Fund versus the Callan Public Fund Spons - Large (>1B), both on an unadjusted and asset allocation adjusted basis.

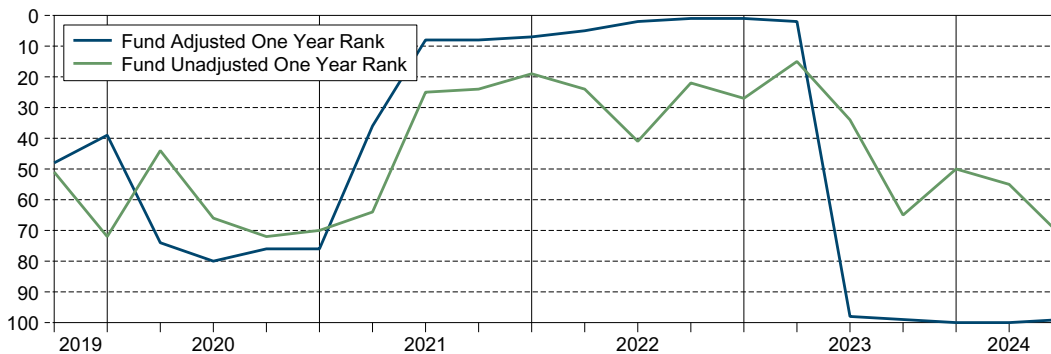
Callan Public Fund Spons - Large (>1B)



Asset Allocation Adjusted Ranking



Rolling One Year Ranking vs Callan Public Fund Spons - Large (>1B)

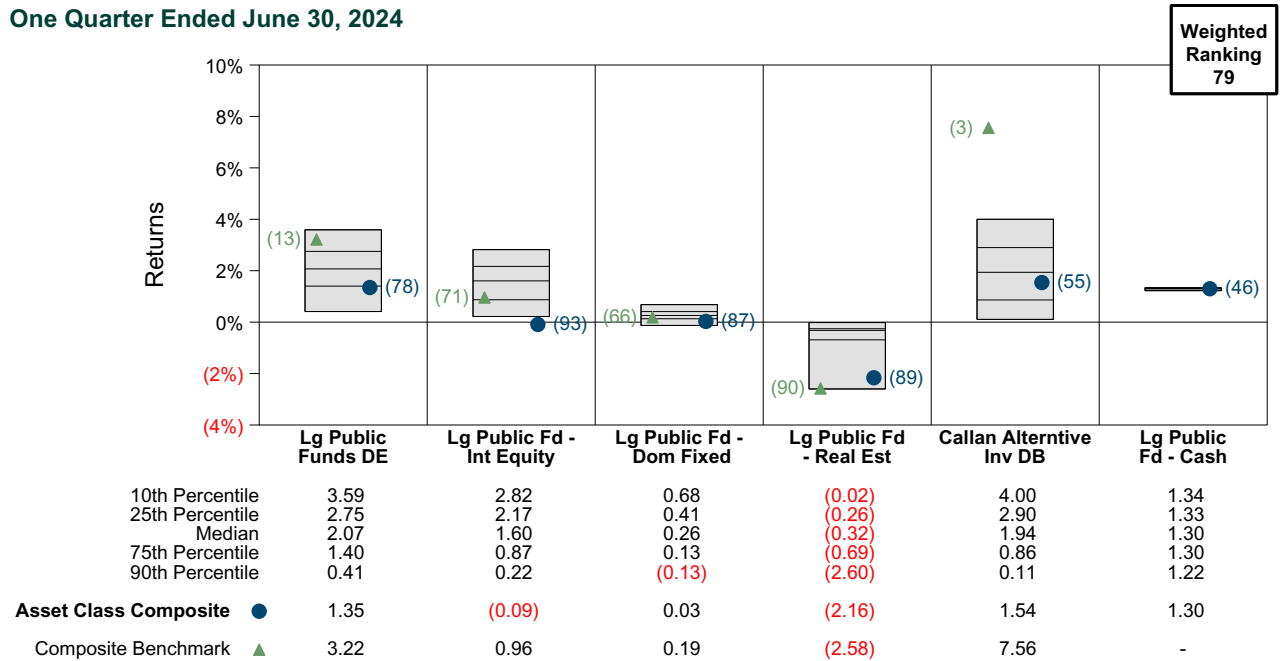


* Current Quarter Target = 30.0% Russell 3000 Index, 25.0% Blmbg Universal, 20.0% MSCI ACWI xUS (Net), 10.0% NCREIF NFI-ODCE Val Wt Nt lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Blmbg HY Corp lagged 3 months+1.0% and 2.5% Mstar LSTA Lev Loan 100 lagged 3 months+1.0%.

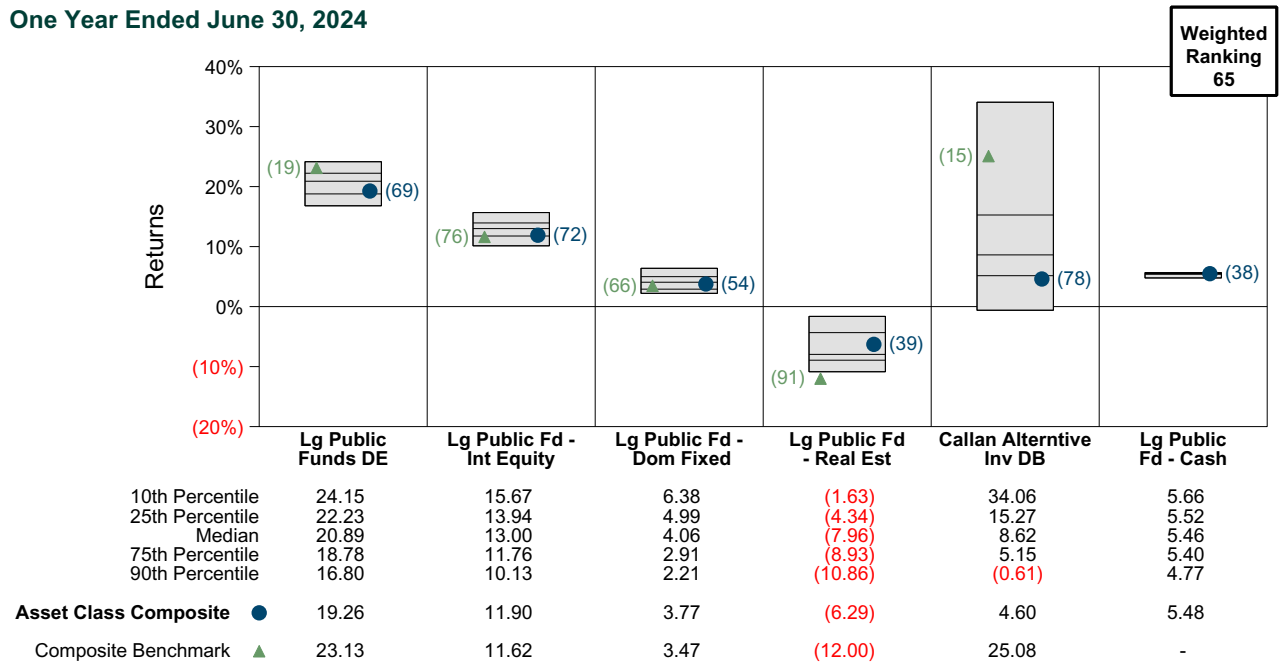
Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

Total Asset Class Performance One Quarter Ended June 30, 2024



Total Asset Class Performance One Year Ended June 30, 2024

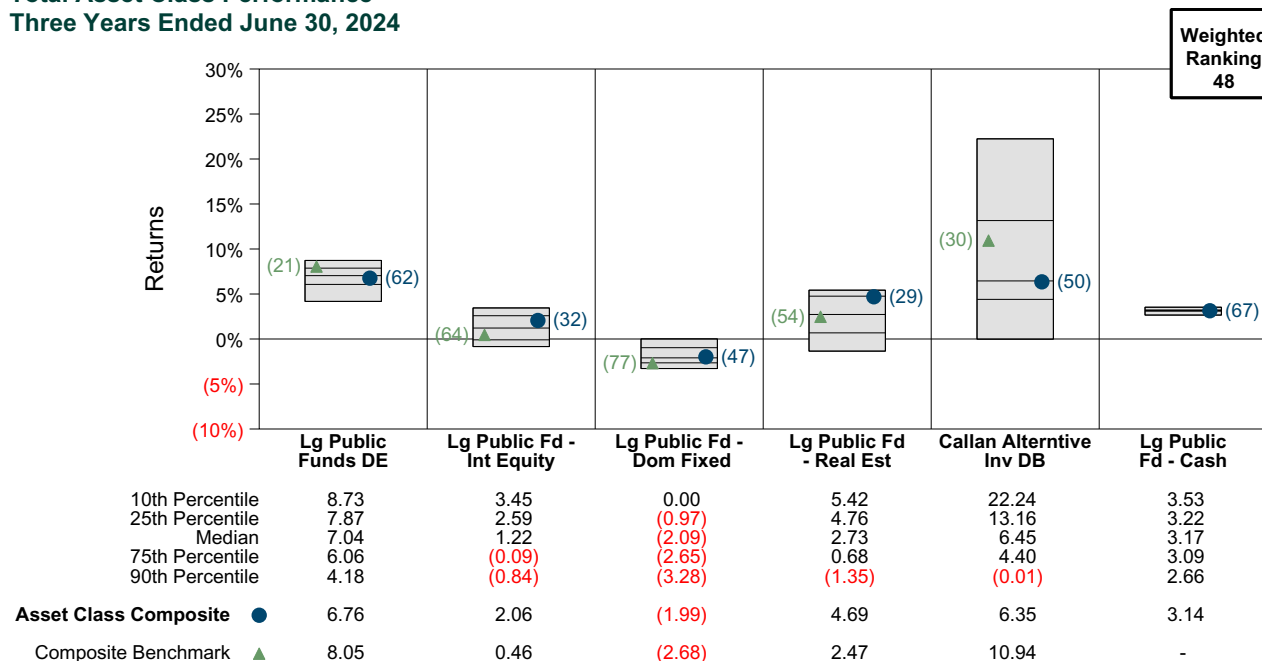


* Current Quarter Target = 30.0% Russell 3000 Index, 25.0% Blmbg Universal, 20.0% MSCI ACWI xUS (Net), 10.0% NCREIF NFI-ODCE Val Wt Nt lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Blmbg HY Corp lagged 3 months+1.0% and 2.5% Mstar LSTA Lev Loan 100 lagged 3 months+1.0%.

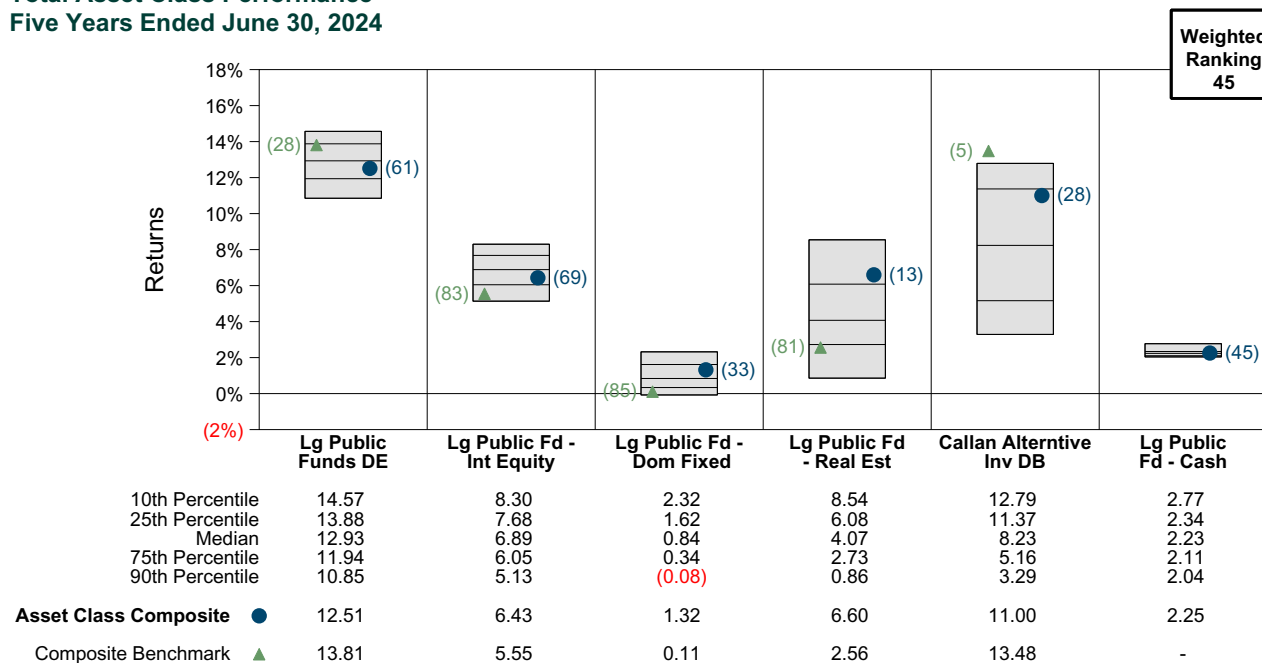
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Total Asset Class Performance Three Years Ended June 30, 2024



Total Asset Class Performance Five Years Ended June 30, 2024

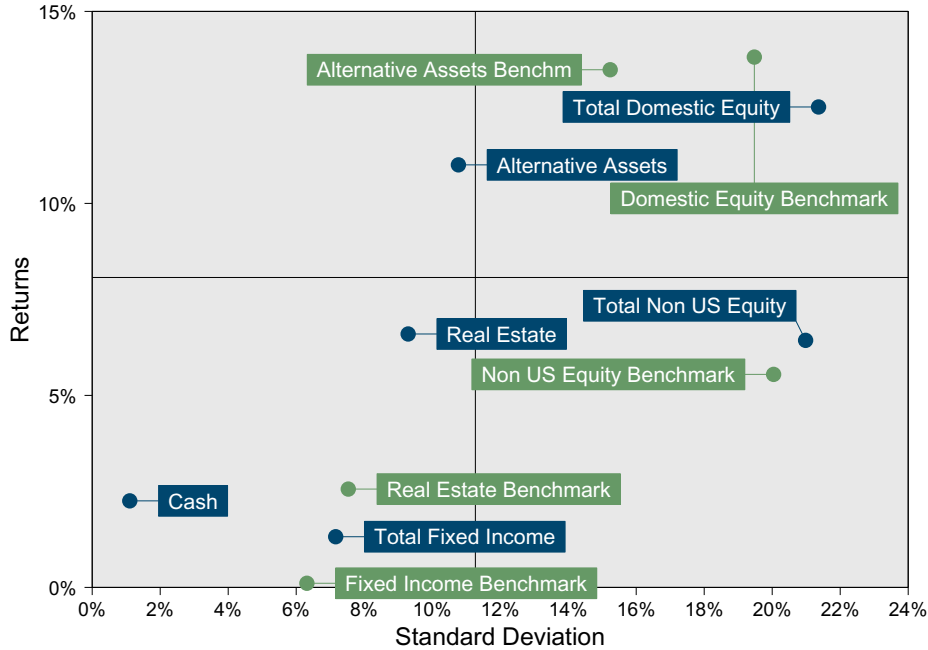


* Current Quarter Target = 30.0% Russell 3000 Index, 25.0% Blmbg Universal, 20.0% MSCI ACWI xUS (Net), 10.0% NCREIF NFI-ODCE Val Wt Nt lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Blmbg HY Corp lagged 3 months+1.0% and 2.5% Mstar LSTA Lev Loan 100 lagged 3 months+1.0%.

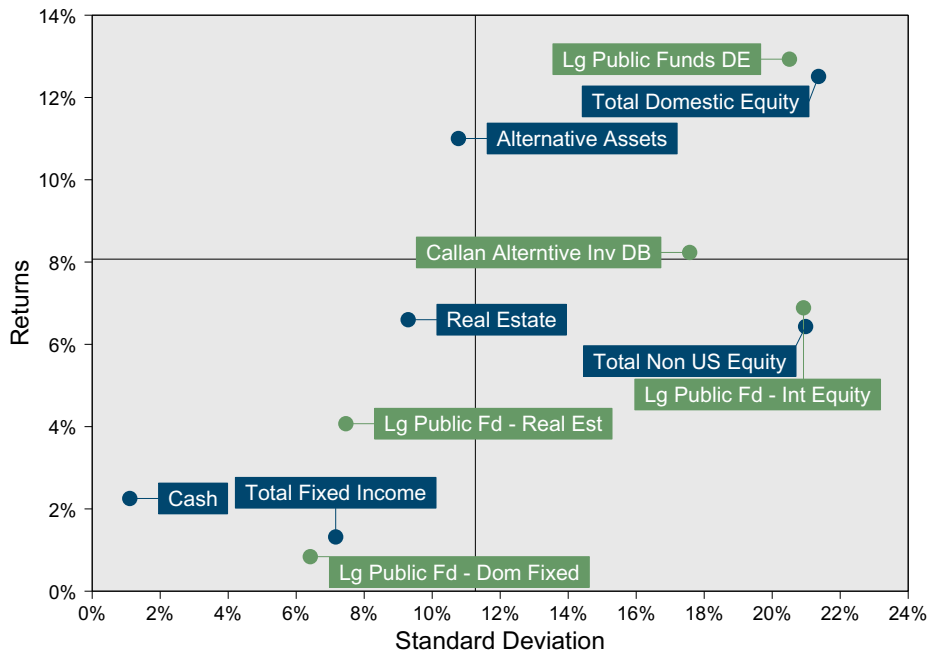
Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Five Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



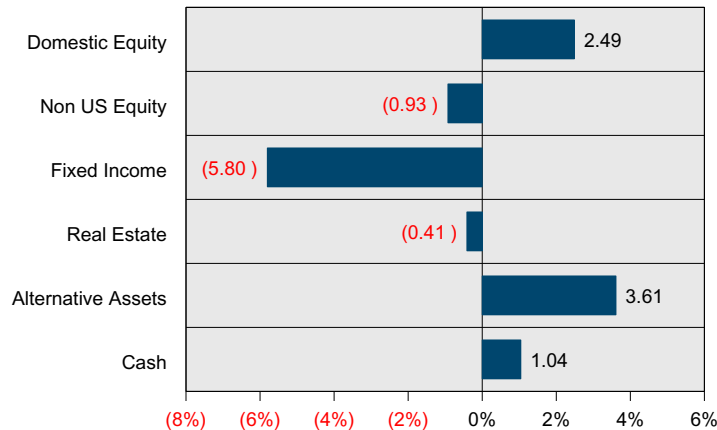
Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



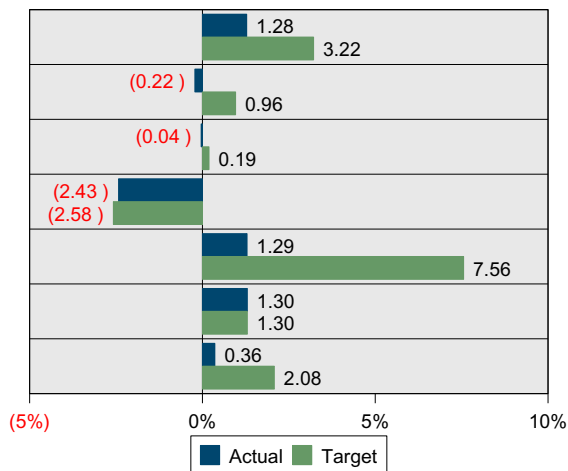
Quarterly Total Fund Relative Attribution - June 30, 2024

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.

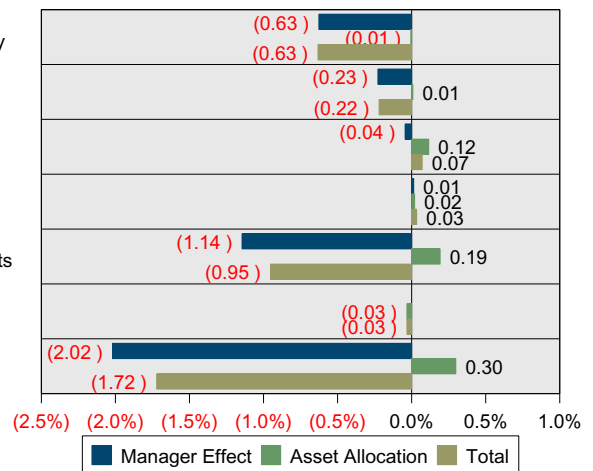
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2024

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	32%	30%	1.28%	3.22%	(0.63%)	(0.01%)	(0.63%)
Non US Equity	19%	20%	(0.22%)	0.96%	(0.23%)	0.01%	(0.22%)
Fixed Income	19%	25%	(0.04%)	0.19%	(0.04%)	0.12%	0.07%
Real Estate	10%	10%	(2.43%)	(2.58%)	0.01%	0.02%	0.03%
Alternative Assets	19%	15%	1.29%	7.56%	(1.14%)	0.19%	(0.95%)
Cash	1%	0%	1.30%	1.30%	0.00%	(0.03%)	(0.03%)

Total **0.36% = 2.08% + (2.02%) + 0.30%** **(1.72%)**

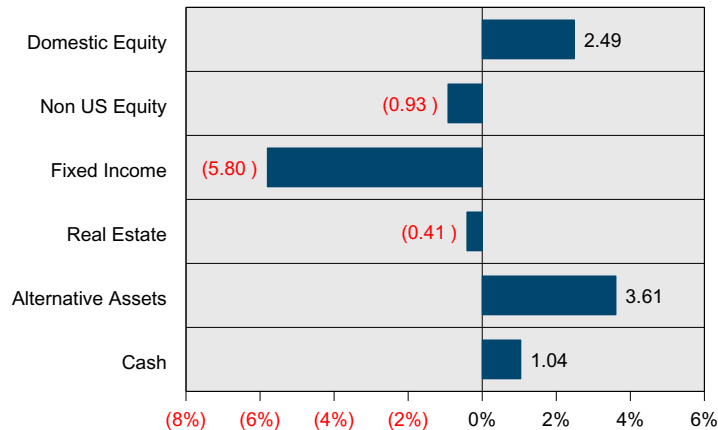
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

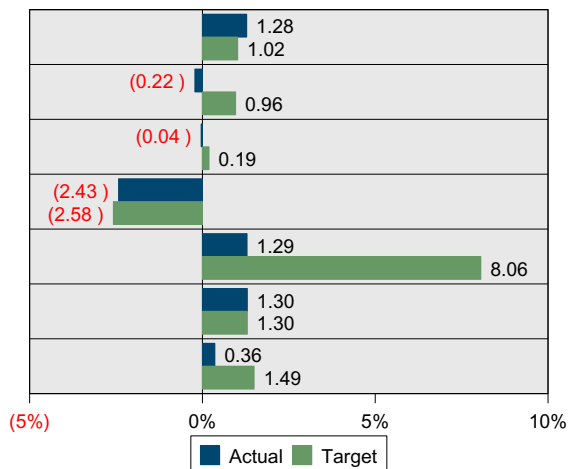
Quarterly Total Fund Relative Attribution - June 30, 2024

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.

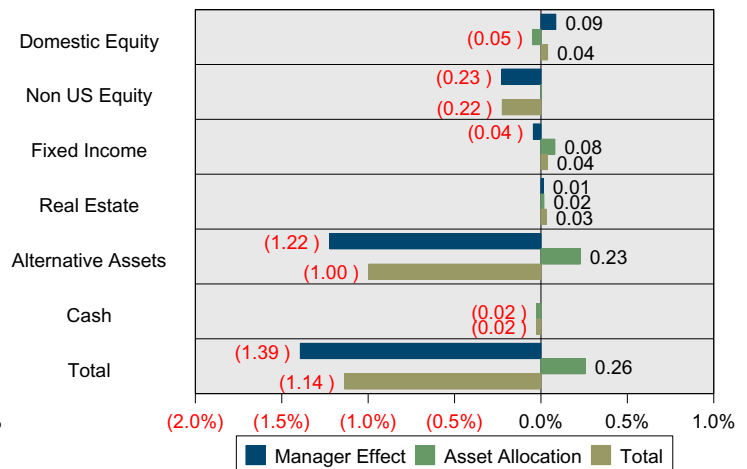
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2024

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	32%	30%	1.28%	1.02%	0.09%	(0.05%)	0.04%
Non US Equity	19%	20%	(0.22%)	0.96%	(0.23%)	0.00%	(0.22%)
Fixed Income	19%	25%	(0.04%)	0.19%	(0.04%)	0.08%	0.04%
Real Estate	10%	10%	(2.43%)	(2.58%)	0.01%	0.02%	0.03%
Alternative Assets	19%	15%	1.29%	8.06%	(1.22%)	0.23%	(1.00%)
Cash	1%	0%	1.30%	1.30%	0.00%	(0.02%)	(0.02%)

Total	0.36%	=	1.49%	+	(1.39%)	+	0.26%	(1.14%)
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* Current Quarter Target = 18% S+P 500 Index, 6% Russell 2500, 6% Russell 2000, 25% Bloomberg Universal,

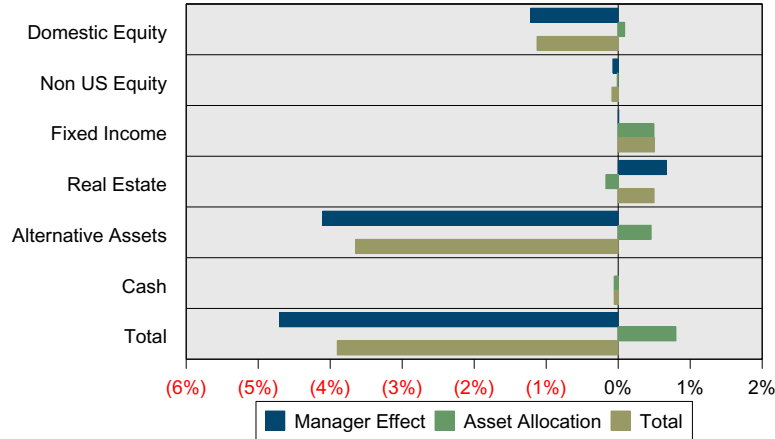
20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net(1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

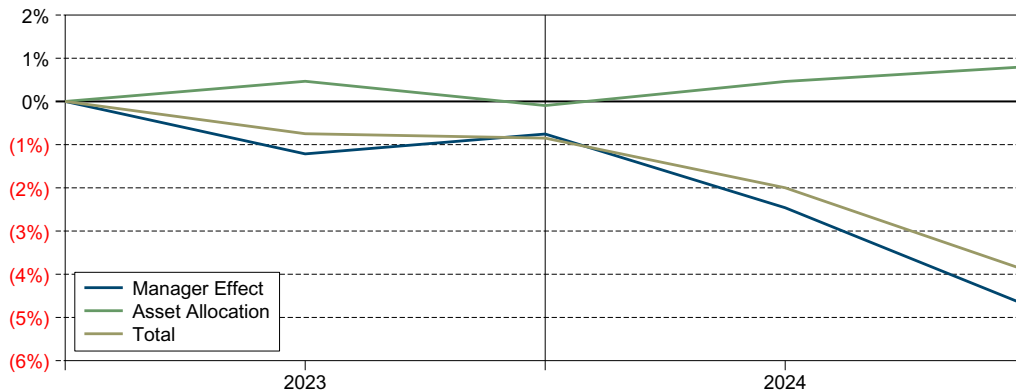
Cumulative Total Fund Relative Attribution - June 30, 2024

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
Domestic Equity	31%	30%	18.95%	23.13%	(1.22%)	0.09%	(1.13%)
Non US Equity	18%	20%	11.31%	11.62%	(0.07%)	(0.01%)	(0.09%)
Fixed Income	20%	25%	3.50%	3.47%	0.01%	0.50%	0.50%
Real Estate	11%	10%	(7.07%)	(12.00%)	0.67%	(0.17%)	0.50%
Alternative Assets	19%	15%	3.71%	25.08%	(4.10%)	0.46%	(3.65%)
Cash	1%	0%	5.48%	5.48%	0.00%	(0.06%)	(0.06%)
Total			8.53%	12.43%	+ (4.70%)	+ 0.80%	(3.90%)

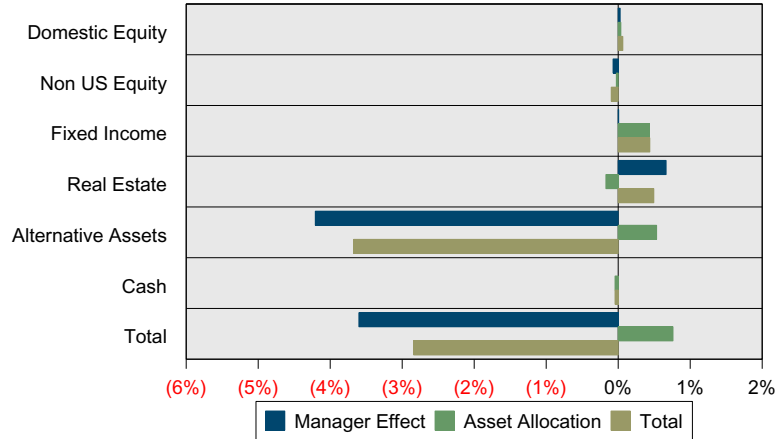
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

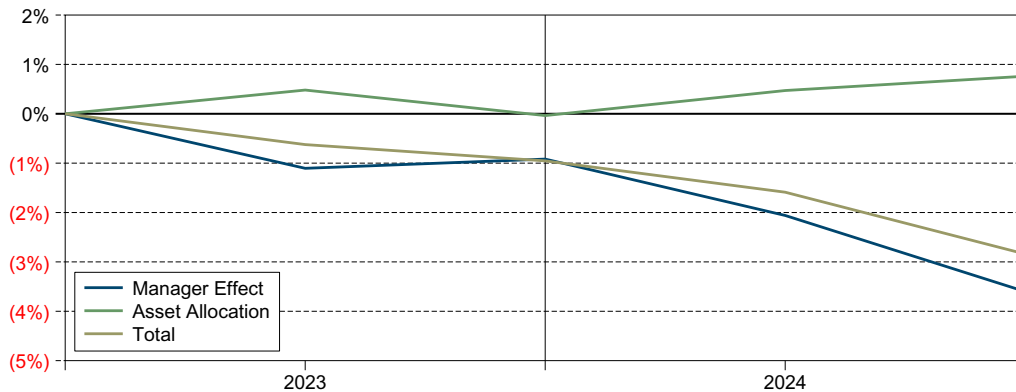
Cumulative Total Fund Relative Attribution - June 30, 2024

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

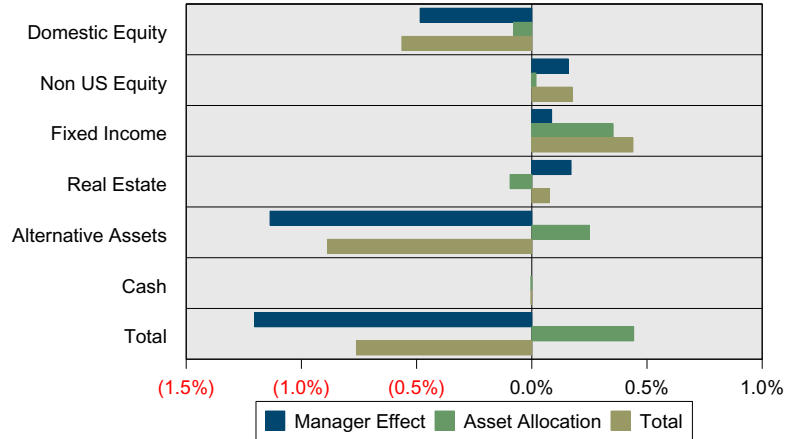
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	31%	30%	18.95%	18.82%	0.03%	0.04%	0.06%
Non US Equity	18%	20%	11.31%	11.62%	(0.07%)	(0.03%)	(0.10%)
Fixed Income	20%	25%	3.50%	3.47%	0.01%	0.43%	0.44%
Real Estate	11%	10%	(7.07%)	(12.00%)	0.67%	(0.17%)	0.49%
Alternative Assets	19%	15%	3.71%	25.99%	(4.21%)	0.53%	(3.67%)
Cash	1%	0%	5.48%	5.48%	0.00%	(0.04%)	(0.04%)
Total			8.53%	11.37%	+ (3.60%)	+ 0.76%	(2.84%)

* Current Quarter Target = 18% S+P 500 Index, 6% Russell 2500, 6% Russell 2000, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net(1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).
 * Actual returns are net of fees.

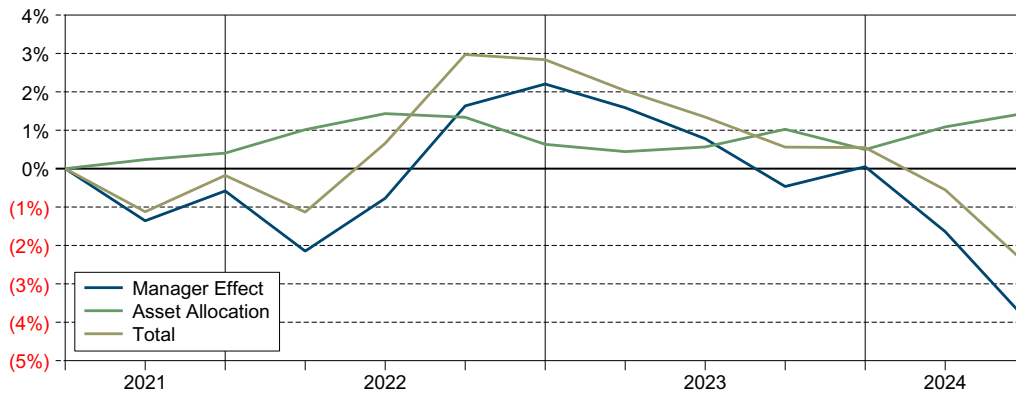
Cumulative Total Fund Relative Attribution - June 30, 2024

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
Domestic Equity	31%	30%	6.48%	8.05%	(0.48%)	(0.08%)	(0.56%)
Non US Equity	18%	20%	1.44%	0.46%	0.16%	0.02%	0.18%
Fixed Income	19%	25%	(2.25%)	(2.68%)	0.09%	0.35%	0.44%
Real Estate	11%	10%	3.69%	2.47%	0.17%	(0.09%)	0.08%
Alternative Assets	19%	15%	5.36%	10.94%	(1.14%)	0.25%	(0.89%)
Cash	1%	0%	3.14%	3.14%	0.00%	(0.00%)	(0.00%)
Total			3.32%	4.08%	+ (1.20%)	+ 0.44%	(0.76%)

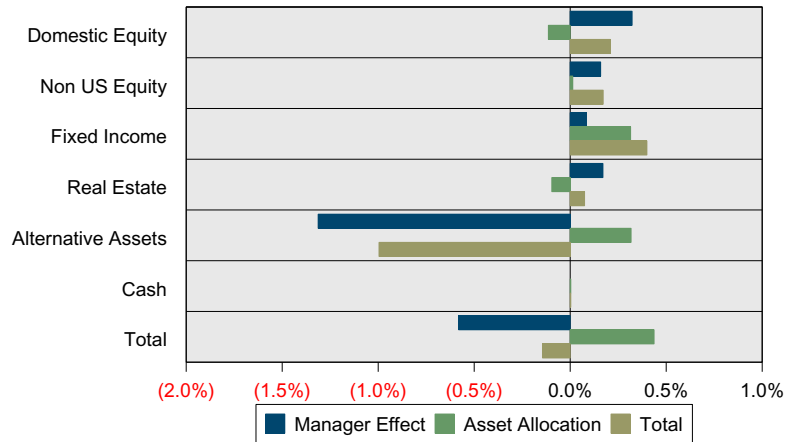
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

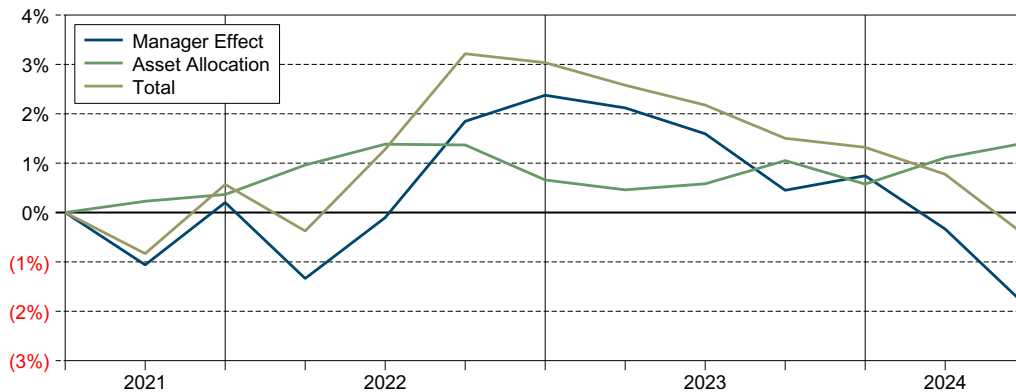
Cumulative Total Fund Relative Attribution - June 30, 2024

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

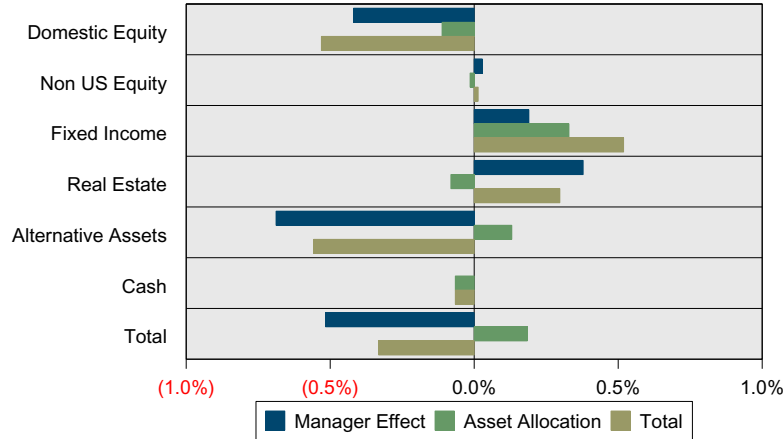
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	31%	30%	6.48%	5.42%	0.32%	(0.11%)	0.21%
Non US Equity	18%	20%	1.44%	0.46%	0.16%	0.01%	0.17%
Fixed Income	19%	25%	(2.25%)	(2.68%)	0.08%	0.31%	0.40%
Real Estate	11%	10%	3.69%	2.47%	0.17%	(0.10%)	0.07%
Alternative Assets	19%	15%	5.36%	11.95%	(1.31%)	0.32%	(1.00%)
Cash	1%	0%	3.14%	3.14%	0.00%	0.00%	0.00%
Total			3.32%	3.47%	(0.58%)	0.44%	(0.14%)

* Current Quarter Target = 18% S+P 500 Index, 6% Russell 2500, 6% Russell 2000, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net(1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).
 * Actual returns are net of fees.

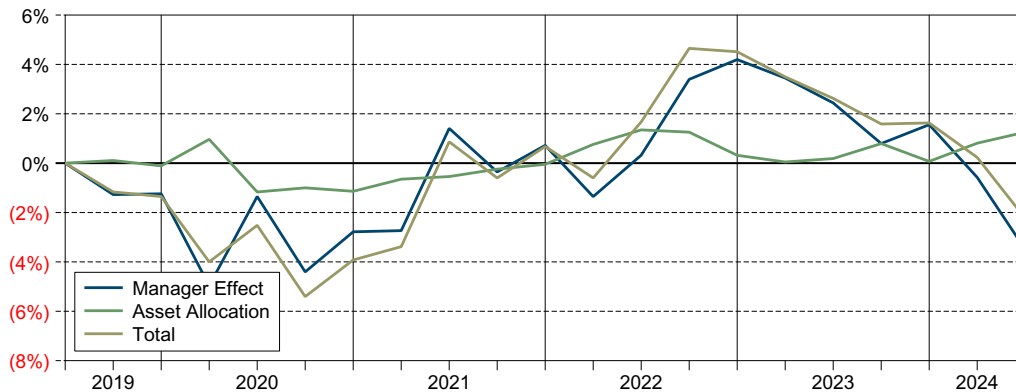
Cumulative Total Fund Relative Attribution - June 30, 2024

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	
Domestic Equity	30%	30%	12.21%	13.81%	(0.42%)	(0.11%)	(0.53%)	
Non US Equity	18%	20%	5.78%	5.55%	0.03%	(0.01%)	0.01%	
Fixed Income	21%	25%	1.04%	0.11%	0.19%	0.33%	0.52%	
Real Estate	11%	10%	5.98%	2.56%	0.38%	(0.08%)	0.30%	
Alternative Assets	19%	15%	10.38%	13.48%	(0.69%)	0.13%	(0.56%)	
Cash	1%	0%	2.25%	2.25%	0.00%	(0.07%)	(0.07%)	
Total			7.62%	7.95%	+	(0.52%)	+ 0.18%	(0.33%)

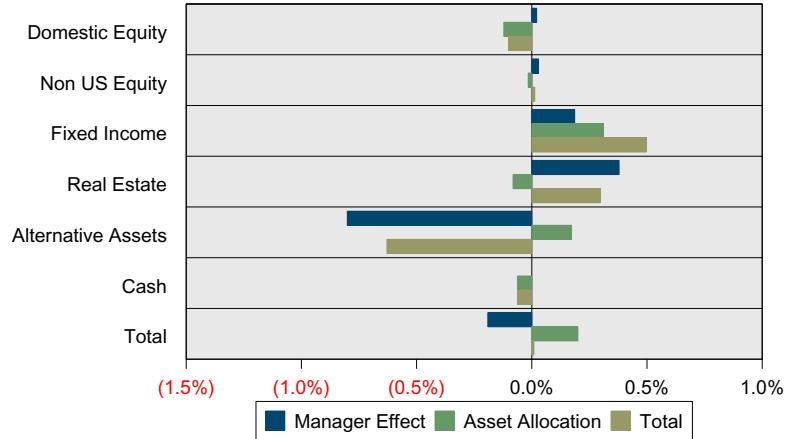
* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

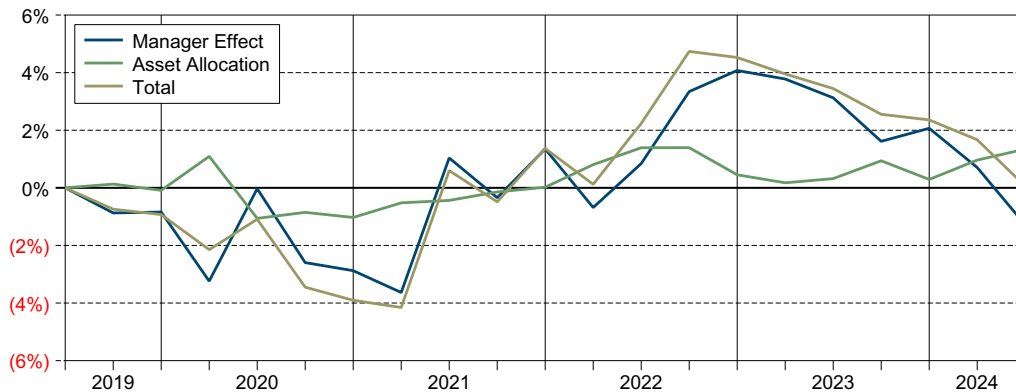
Cumulative Total Fund Relative Attribution - June 30, 2024

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

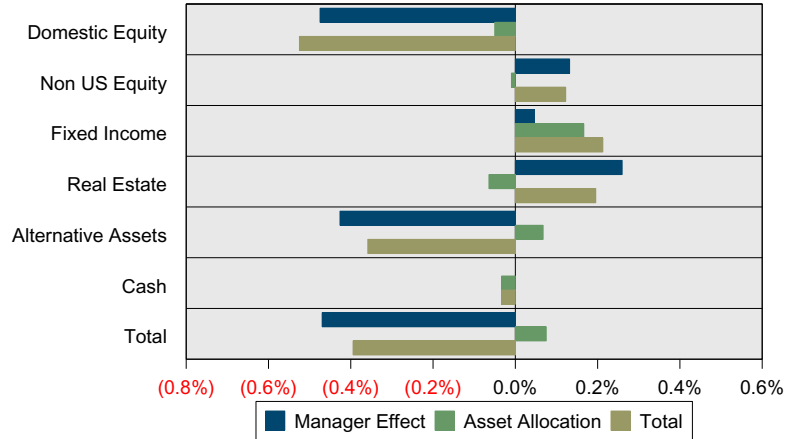
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	30%	30%	12.21%	12.19%	0.02%	(0.12%)	(0.10%)
Non US Equity	18%	20%	5.78%	5.55%	0.03%	(0.02%)	0.01%
Fixed Income	21%	25%	1.04%	0.11%	0.19%	0.31%	0.50%
Real Estate	11%	10%	5.98%	2.56%	0.38%	(0.08%)	0.30%
Alternative Assets	19%	15%	10.38%	14.10%	(0.80%)	0.17%	(0.63%)
Cash	1%	0%	2.25%	2.25%	0.00%	(0.06%)	(0.06%)
Total			7.62%	7.61%	0.19%	0.20%	0.01%

* Current Quarter Target = 18% S+P 500 Index, 6% Russell 2500, 6% Russell 2000, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net(1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).
 * Actual returns are net of fees.

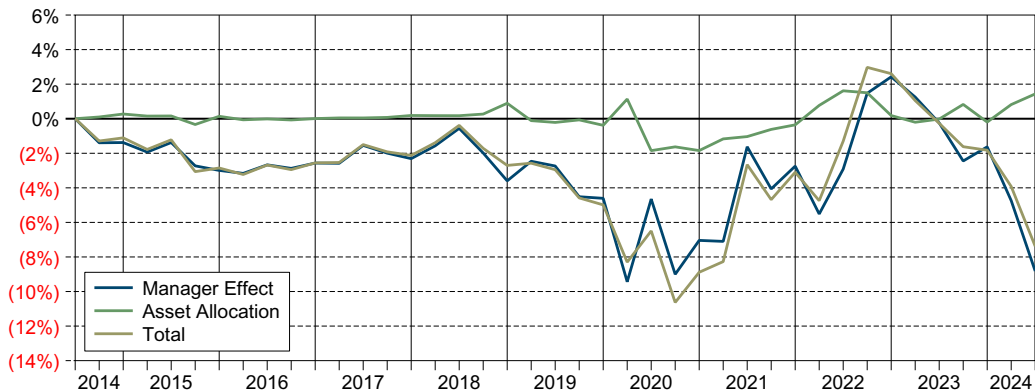
Cumulative Total Fund Relative Attribution - June 30, 2024

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.

Ten Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	32%	31%	10.64%	12.24%	(0.47%)	(0.05%)	(0.52%)
Non US Equity	19%	20%	4.56%	3.84%	0.13%	(0.01%)	0.12%
Fixed Income	22%	25%	1.90%	1.63%	0.05%	0.17%	0.21%
Real Estate	10%	10%	8.31%	5.89%	0.26%	(0.06%)	0.20%
Alternative Assets	16%	14%	8.87%	11.67%	(0.43%)	0.07%	(0.36%)
Cash	1%	0%	1.60%	1.60%	0.00%	(0.03%)	(0.03%)
Total			7.02%	7.41%	+ (0.47%)	+ 0.08%	(0.39%)

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

* Actual returns are net of fees.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2024, with the distribution as of March 31, 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

	June 30, 2024			Inv. Return	March 31, 2024	
	Market Value	Weight	Net New Inv.		Market Value	Weight
Total Domestic Equity	\$3,941,147,389	32.35%	\$(175,000,000)	\$45,982,430	\$4,070,164,959	33.42%
Large Cap Domestic Equity	\$2,305,420,983	18.93%	\$(175,000,000)	\$90,459,599	\$2,389,961,384	19.62%
Blackrock S&P 500	2,305,420,983	18.93%	(175,000,000)	90,459,599	2,389,961,384	19.62%
SMid Cap Domestic Equity	\$704,220,158	5.78%	\$0	\$(30,534,707)	\$734,754,865	6.03%
AllianceBernstein	445,959,496	3.66%	0	(20,512,743)	466,472,240	3.83%
TSW	258,260,662	2.12%	0	(10,021,964)	268,282,626	2.20%
Small Cap Domestic Equity	\$931,506,248	7.65%	\$0	\$(13,942,462)	\$945,448,710	7.76%
Boston Trust	236,923,311	1.95%	0	(7,294,322)	244,217,633	2.01%
Segall Bryant & Hamill	260,802,217	2.14%	0	(2,583,349)	263,385,565	2.16%
Wellington	433,780,720	3.56%	0	(4,064,792)	437,845,512	3.59%
Total Non US Equity	\$2,314,686,635	19.00%	\$(1,284)	\$(2,091,344)	\$2,316,779,263	19.02%
Core Non US Equity	\$1,404,064,350	11.53%	\$(1,284)	\$(2,553,161)	\$1,406,618,795	11.55%
Aristotle	177,787,986	1.46%	0	(1,385,973)	179,173,959	1.47%
Artisan Partners	407,062,258	3.34%	0	(4,559,079)	411,621,337	3.38%
BlackRock Superfund	199,447,677	1.64%	0	2,271,909	197,175,769	1.62%
Causeway Capital	449,774,683	3.69%	(86)	6,355,881	443,418,889	3.64%
Lazard	169,339,080	1.39%	0	(5,232,077)	174,571,157	1.43%
Emerging Markets	\$179,813,061	1.48%	\$0	\$5,135,923	\$174,677,138	1.43%
Wellington Emerging Markets	179,813,061	1.48%	0	5,135,923	174,677,138	1.43%
Non US Small Cap	\$136,620,364	1.12%	\$0	\$(4,587,317)	\$141,207,682	1.16%
Wellington Int'l Small Cap Research	136,620,364	1.12%	0	(4,587,317)	141,207,682	1.16%
Global Equity	\$594,188,859	4.88%	\$0	\$(86,789)	\$594,275,648	4.88%
Walter Scott Global Equity	594,188,859	4.88%	0	(86,789)	594,275,648	4.88%
Total Fixed Income	\$2,336,137,563	19.18%	\$0	\$632,558	\$2,335,505,005	19.17%
BlackRock SIO Bond Fund	270,789,712	2.22%	0	2,351,213	268,438,499	2.20%
Brandywine Asset Mgmt	221,997,543	1.82%	0	(5,871,846)	227,869,390	1.87%
FIAM (Fidelity) Tactical Bond	375,407,619	3.08%	0	250,606	375,157,014	3.08%
Income Research & Management	784,651,371	6.44%	0	1,369,572	783,281,800	6.43%
Loomis Sayles	289,656,164	2.38%	0	1,711,272	287,944,892	2.36%
Manulife Strategic Fixed Income	215,765,425	1.77%	0	681,185	215,084,239	1.77%
Mellon US Agg Bond Index	177,869,728	1.46%	0	140,556	177,729,171	1.46%
Total Cash	\$196,464,243	1.61%	\$152,632,893	\$1,911,661	\$41,919,689	0.34%
Total Marketable Assets	\$8,788,435,830	72.15%	\$(22,368,391)	\$46,435,304	\$8,764,368,916	71.96%
Total Real Estate	\$1,130,822,864	9.28%	\$(33,532,402)	\$(23,444,774)	\$1,187,800,040	9.75%
Strategic Core Real Estate	666,562,084	5.47%	(38,758,647)	(20,585,427)	725,906,158	5.96%
Tactical Non-Core Real Estate	464,260,779	3.81%	5,994,445	(3,627,547)	461,893,882	3.79%
Total Alternative Assets	\$2,261,851,512	18.57%	\$(3,647,100)	\$37,690,858	\$2,227,807,754	18.29%
Private Equity	1,685,568,274	13.84%	3,543,048	22,422,245	1,659,602,981	13.63%
Private Debt	576,283,238	4.73%	(7,190,148)	15,268,613	568,204,773	4.67%
Total Fund Composite	\$12,181,110,205	100.00%	\$(59,547,894)	\$60,681,388	\$12,179,976,711	100.00%

-Alternatives market values reflect current custodian valuations, which may not be up to date.

-Includes \$683,533 in legacy assets that are not actively managed and in liquidation following the termination of Fisher

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Gross of Fees				
Total Domestic Equity	1.35%	19.26%	6.76%	12.51%
Domestic Equity Benchmark (1)	3.22%	23.13%	8.05%	13.81%
Secondary Domestic Equity Bmk (6)	1.02%	18.82%	5.42%	12.19%
Large Cap Domestic Equity	4.35%	24.64%	10.00%	14.27%
S&P 500 Index	4.28%	24.56%	10.01%	15.05%
Blackrock S&P 500	4.35%	24.64%	10.00%	15.01%
SMid Cap Domestic Equity	(4.16%)	10.70%	1.30%	9.06%
Russell 2500 Index	(4.27%)	10.47%	(0.29%)	8.31%
AllianceBernstein	(4.40%)	13.21%	0.03%	9.56%
TSW	(3.74%)	6.62%	3.65%	8.24%
TSW Blended Benchmark (2)	(4.31%)	11.24%	2.15%	8.01%
Small Cap Domestic Equity	(1.47%)	13.37%	3.23%	10.99%
Russell 2000 Index	(3.28%)	10.06%	(2.58%)	6.94%
Boston Trust	(2.99%)	8.39%	4.87%	10.11%
Segall Bryant & Hamill	(0.98%)	15.53%	5.09%	12.36%
Wellington	(0.93%)	14.96%	1.34%	10.70%
Total Non US Equity	(0.09%)	11.90%	2.06%	6.43%
Non US Equity Benchmark (3)	0.96%	11.62%	0.46%	5.55%
Core Non US Equity	(0.18%)	11.64%	3.62%	6.51%
Core Non US Benchmark (4)	0.96%	11.62%	0.46%	5.55%
Aristotle	(0.77%)	8.63%	1.27%	-
Artisan Partners	(1.11%)	14.68%	2.19%	5.99%
BlackRock Superfund	1.15%	11.71%	-	-
Causeway Capital	1.43%	11.28%	8.00%	10.02%
Lazard	(3.00%)	8.77%	0.30%	-
Emerging Markets	2.94%	10.53%	(5.59%)	1.72%
MSCI EM	5.00%	12.55%	(5.07%)	3.10%
Wellington Emerging Markets	2.94%	10.53%	(5.51%)	1.67%
Non US Small Cap	(3.25%)	9.46%	(4.53%)	1.26%
Wellington Int'l Small Cap Research	(3.25%)	9.46%	-	-
MSCI EAFE Small Cap	(1.84%)	7.78%	(3.35%)	4.19%
Global Equity	(0.01%)	13.52%	5.80%	11.12%
MSCI ACWI net	2.87%	19.38%	5.43%	10.76%
Walter Scott Global Equity	(0.01%)	13.52%	5.80%	11.12%
Walter Scott Blended Benchmark (5)	2.87%	19.38%	5.43%	10.76%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Gross of Fees				
Total Fixed Income	0.03%	3.77%	(1.99%)	1.32%
Fixed Income Benchmark (1)	0.19%	3.47%	(2.68%)	0.11%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
BlackRock SIO Bond Fund	0.88%	7.40%	1.33%	3.07%
BlackRock Custom Benchmark (2)	1.35%	5.51%	3.05%	2.21%
Brandywine Asset Mgmt	(2.58%)	(2.99%)	(6.60%)	(1.43%)
Brandywine Custom Benchmark (3)	(1.83%)	(1.06%)	(7.07%)	(3.29%)
FIAM (Fidelity) Tactical Bond	0.07%	3.96%	(0.96%)	2.17%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Income Research & Management	0.17%	3.29%	(2.83%)	0.53%
Bloomberg Gov/Credit	0.05%	2.74%	(3.11%)	(0.07%)
Loomis Sayles	0.59%	7.28%	(0.59%)	3.25%
Loomis Sayles Custom Benchmark (4)	0.43%	5.31%	(1.38%)	1.27%
Manulife Strategic Fixed Income	0.32%	4.62%	(0.67%)	1.96%
Bloomberg Multiverse	(1.03%)	1.30%	(5.26%)	(1.84%)
Mellon US Agg Bond Index	0.08%	2.66%	-	-
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Total Cash	1.30%	5.48%	3.14%	2.25%
3-month Treasury Bill	1.32%	5.40%	3.03%	2.16%
Total Marketable Assets	0.58%	12.74%	3.01%	7.50%
Total Marketable Index (5)	1.62%	13.34%	2.57%	7.19%
Total Real Estate	(2.16%)	(6.29%)	4.69%	6.60%
Real Estate Benchmark (6)	(2.58%)	(12.00%)	2.47%	2.56%
Strategic Core Real Estate	(3.18%)	(8.35%)	3.29%	4.45%
Tactical Non-Core Real Estate	(0.83%)	(3.53%)	6.62%	10.16%
Total Alternative Assets	1.54%	4.60%	6.35%	11.00%
Alternative Assets Benchmark (7)	7.56%	25.08%	10.94%	13.48%
Total Private Equity	1.24%	4.12%	5.88%	13.13%
Private Equity Benchmark (8)	10.40%	31.52%	13.76%	17.92%
Cambridge Global PE Idx 1 Qtr Lag	1.21%	5.00%	7.07%	14.16%
Total Private Debt	2.43%	6.05%	7.75%	6.36%
Private Debt Benchmark (9)	1.96%	12.70%	5.07%	4.88%
Cambridge Private Credit Idx 1 Qtr Lag	1.62%	8.52%	8.78%	8.51%
Total Fund Composite	0.49%	9.05%	3.86%	8.07%
Total Fund Benchmark *	2.08%	12.43%	4.08%	7.95%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1% (1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last 7 Years	Last 10 Years	Last 25 Years	Since Inception
Gross of Fees				
Total Domestic Equity	11.96%	10.97%	7.34%	11.21% (7/75)
Domestic Equity Benchmark (1)	13.40%	12.24%	7.66%	11.66% (7/75)
Secondary Domestic Equity Bmk (6)	11.72%	10.81%	8.02%	-
Large Cap Domestic Equity	13.38%	12.00%	-	14.28% (9/10)
S&P 500 Index	14.28%	12.86%	7.67%	14.86% (9/10)
Blackrock S&P 500	14.25%	12.84%	-	14.84% (9/10)
SMid Cap Domestic Equity	8.60%	8.24%	-	11.10% (12/10)
Russell 2500 Index	8.44%	7.99%	8.80%	10.46% (12/10)
AllianceBernstein	10.20%	9.37%	-	11.78% (12/10)
TSW	6.21%	6.56%	-	10.05% (12/10)
TSW Blended Benchmark (2)	8.23%	7.84%	8.74%	10.35% (12/10)
Small Cap Domestic Equity	11.08%	10.28%	-	12.25% (11/10)
Russell 2000 Index	6.85%	7.00%	7.60%	9.62% (11/10)
Boston Trust	10.66%	9.92%	-	11.43% (11/10)
Segall Bryant & Hamill	12.10%	9.99%	-	12.18% (11/10)
Wellington	10.76%	10.67%	-	13.23% (11/10)
Total Non US Equity	6.20%	5.23%	5.23%	6.44% (4/88)
Non US Equity Benchmark (3)	5.17%	3.84%	4.60%	5.12% (4/88)
Core Non US Equity	5.95%	4.68%	5.00%	6.29% (4/88)
Core Non US Benchmark (4)	5.17%	3.84%	4.38%	4.96% (4/88)
Aristotle	-	-	-	3.95% (1/21)
Artisan Partners	6.93%	-	-	5.74% (11/14)
BlackRock Superfund	-	-	-	12.90% (3/23)
Causeway Capital	7.58%	-	-	6.17% (10/14)
Lazard	-	-	-	2.42% (1/21)
MSCI EAFE	5.73%	4.33%	4.49%	4.98% (1/21)
Emerging Markets	2.30%	2.57%	-	2.83% (6/11)
MSCI EM	3.54%	2.79%	-	1.92% (6/11)
Wellington Emerging Markets	2.86%	3.51%	-	4.25% (6/11)
Non US Small Cap	(0.40%)	0.14%	-	2.48% (7/11)
MSCI EAFE Small Cap	3.74%	4.30%	6.69%	5.55% (7/11)
Global Equity	12.40%	11.21%	-	9.67% (5/08)
MSCI ACWI net	10.02%	8.43%	-	6.78% (5/08)
Walter Scott Global Equity	12.40%	11.21%	-	10.54% (1/05)
Walter Scott Blended Benchmark (5)	10.02%	8.43%	6.73%	7.92% (1/05)

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index.

Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last 7 Years	Last 10 Years	Last 25 Years	Since Inception
Gross of Fees				
Total Fixed Income	1.95%	2.19%	5.31%	7.31% (7/75)
Fixed Income Benchmark (1)	1.15%	1.63%	4.15%	-
Bloomberg Aggregate	0.86%	1.35%	3.88%	-
BlackRock SIO Bond Fund	-	-	-	3.53% (1/19)
BlackRock Custom Benchmark (2)	-	-	-	2.24% (1/19)
Brandywine Asset Mgmt	(0.32%)	0.26%	5.72%	5.72% (11/97)
Brandywine Custom Benchmark (3)	(1.35%)	(1.24%)	2.85%	2.88% (11/97)
FIAM (Fidelity) Tactical Bond	-	-	-	3.11% (2/19)
Bloomberg Aggregate	0.86%	1.35%	3.88%	0.69% (2/19)
Income Research & Management	1.57%	2.01%	4.77%	6.23% (9/87)
Bloomberg Gov/Credit	1.04%	1.51%	3.98%	5.44% (9/87)
Loomis Sayles	3.57%	3.45%	-	7.11% (10/02)
Loomis Sayles Custom Benchmark (4)	2.09%	2.43%	4.83%	4.82% (10/02)
Manulife Strategic Fixed Income	2.28%	-	-	2.34% (3/15)
Bloomberg Multiverse	(0.30%)	(0.26%)	3.28%	0.29% (3/15)
Mellon US Agg Bond Index	-	-	-	2.12% (6/23)
Bloomberg Aggregate	0.86%	1.35%	3.88%	2.09% (6/23)
Total Cash	2.15%	1.60%	2.01%	2.59% (4/94)
3-month Treasury Bill	2.07%	1.51%	1.91%	2.49% (4/94)
Total Marketable Assets	7.38%	6.82%	6.37%	9.48% (7/75)
Total Marketable Index (5)	7.29%	6.68%	5.86%	-
Total Real Estate	7.21%	8.62%	9.56%	9.51% (3/83)
Real Estate Benchmark (6)	3.76%	5.89%	7.30%	-
Strategic Core Real Estate	5.70%	7.40%	8.98%	9.11% (4/83)
Tactical Non-Core Real Estate	9.73%	10.70%	-	10.10% (10/04)
Total Alternative Assets	10.41%	9.25%	3.57%	7.34% (3/87)
Alternative Assets Benchmark (7)	12.09%	11.67%	10.27%	-
Total Private Equity	13.03%	11.63%	3.22%	6.55% (12/90)
Private Equity Benchmark (8)	17.09%	16.26%	12.26%	15.72% (12/90)
Cambridge Global PE Idx 1 Qtr Lag	14.40%	13.14%	13.26%	15.13% (12/90)
Total Private Debt	6.17%	6.24%	-	5.50% (6/11)
Private Debt Benchmark (9)	4.47%	5.54%	-	8.76% (6/11)
Cambridge Private Credit Idx 1 Qtr Lag	8.56%	7.84%	9.59%	8.65% (6/11)
Total Fund Composite	7.94%	7.41%	6.65%	8.92% (6/89)
Total Fund Benchmark *	7.89%	7.41%	6.51%	-

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1% (1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. 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.

	12/2023- 6/2024	2023	2022	2021	2020
Gross of Fees					
Total Domestic Equity	10.44%	22.25%	(17.50%)	26.35%	17.06%
Domestic Equity Benchmark (1)	13.56%	25.96%	(19.21%)	25.82%	18.40%
Secondary Domestic Equity Bmk (6)	9.87%	22.81%	(18.58%)	23.83%	19.35%
Large Cap Domestic Equity	15.36%	26.11%	(18.10%)	28.64%	14.60%
S&P 500 Index	15.29%	26.29%	(18.11%)	28.71%	18.40%
Blackrock S&P 500	15.36%	26.11%	(18.10%)	28.64%	18.37%
SMid Cap Domestic Equity	3.41%	16.40%	(18.09%)	25.77%	17.97%
Russell 2500 Index	2.35%	17.42%	(18.37%)	18.18%	19.99%
AllianceBernstein	4.79%	18.79%	(24.13%)	27.09%	26.15%
TSW	1.12%	12.64%	(6.30%)	23.28%	5.09%
TSW Blended Benchmark (2)	1.50%	15.98%	(13.08%)	27.78%	4.88%
Small Cap Domestic Equity	4.41%	17.25%	(15.52%)	21.79%	23.11%
Russell 2000 Index	1.73%	16.93%	(20.44%)	14.82%	19.96%
Boston Trust	2.04%	11.16%	(8.18%)	29.56%	10.66%
Segall Bryant & Hamill	5.89%	15.55%	(12.25%)	24.57%	24.00%
Wellington	4.86%	22.07%	(21.25%)	16.63%	29.55%
Total Non US Equity	6.05%	20.37%	(17.52%)	9.44%	9.72%
Non US Equity Benchmark (3)	5.69%	15.62%	(16.00%)	7.82%	10.65%
Core Non US Equity	5.57%	20.99%	(14.63%)	10.69%	5.11%
Core Non US Benchmark (4)	5.69%	15.62%	(16.00%)	7.82%	10.65%
Artisan Partners	8.94%	16.60%	(18.46%)	10.25%	7.81%
Aristotle	2.96%	19.22%	(20.48%)	17.35%	-
Causeway Capital	4.56%	28.49%	(6.69%)	10.15%	6.88%
Lazard	3.02%	18.77%	(16.36%)	6.26%	-
MSCI EAFE	5.34%	18.24%	(14.45%)	11.26%	7.82%
Emerging Markets	7.09%	10.36%	(21.04%)	(4.98%)	15.78%
MSCI EM	7.49%	9.83%	(20.09%)	(2.54%)	18.31%
Wellington Emerging Markets	7.09%	7.99%	(19.38%)	(5.37%)	17.67%
Non US Small Cap	1.24%	17.20%	(23.55%)	9.57%	(3.66%)
Wellington Int'l Small Cap Research	1.24%	17.20%	(23.55%)	-	-
MSCI EAFE Small Cap	0.51%	13.16%	(21.39%)	10.10%	12.34%
Global Equity	8.07%	24.04%	(19.11%)	19.44%	20.02%
MSCI ACWI net	11.30%	22.20%	(18.36%)	18.54%	16.25%
Walter Scott Global Equity	8.07%	24.04%	(19.11%)	19.44%	20.02%
Walter Scott Blended Benchmark (5)	11.30%	22.20%	(18.36%)	18.54%	16.25%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index.

Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE

Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. 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.

	12/2023- 6/2024	2023	2022	2021	2020
Gross of Fees					
Total Fixed Income	(0.45%)	7.32%	(11.77%)	(0.27%)	10.41%
Fixed Income Benchmark (1)	(0.28%)	6.17%	(12.99%)	(1.10%)	7.58%
Bloomberg Aggregate	(0.71%)	5.53%	(13.01%)	(1.54%)	7.51%
BlackRock SIO Bond Fund	1.69%	7.97%	(5.79%)	2.13%	7.17%
BlackRock Custom Benchmark (2)	2.72%	5.09%	1.32%	0.17%	0.74%
Brandywine Asset Mgmt	(7.17%)	8.08%	(15.57%)	(4.89%)	12.55%
Brandywine Custom Benchmark (3)	(4.38%)	5.36%	(18.42%)	(6.98%)	10.11%
FIAM (Fidelity) Tactical Bond	(0.00%)	7.38%	(10.58%)	1.50%	9.79%
Bloomberg Aggregate	(0.71%)	5.53%	(13.01%)	(1.54%)	7.51%
Income Research & Management	(0.17%)	6.41%	(13.74%)	(1.49%)	10.89%
Bloomberg Gov/Credit	(0.68%)	5.72%	(13.58%)	(1.75%)	8.93%
Loomis Sayles	1.33%	8.85%	(11.24%)	2.54%	13.08%
Loomis Sayles Custom Benchmark (4)	0.44%	8.25%	(12.32%)	0.81%	7.61%
Manulife Strategic Fixed Income	0.40%	7.86%	(9.58%)	0.47%	8.33%
Bloomberg Multiverse	(2.95%)	6.05%	(16.01%)	(4.51%)	9.02%
Total Cash	2.65%	5.21%	1.58%	0.06%	0.63%
3-month Treasury Bill	2.63%	5.01%	1.46%	0.05%	0.67%
Total Marketable Assets	6.13%	16.99%	(15.62%)	13.49%	13.08%
Total Marketable Index (5)	6.76%	16.46%	(16.01%)	11.63%	13.33%
Total Real Estate	(4.81%)	(9.18%)	22.65%	24.22%	2.91%
Real Estate Benchmark (6)	(7.45%)	(12.88%)	20.96%	13.64%	0.52%
Strategic Core Real Estate	(7.09%)	(13.43%)	27.48%	17.70%	1.62%
Tactical Non-Core Real Estate	(1.50%)	(1.13%)	13.65%	36.24%	5.48%
Total Alternative Assets	2.69%	7.44%	4.21%	37.25%	5.28%
Alternative Assets Benchmark (7)	18.46%	19.58%	(10.61%)	24.04%	12.87%
Total Private Equity	2.33%	7.38%	2.62%	48.35%	8.46%
Private Equity Benchmark (8)	24.19%	22.76%	(12.74%)	33.31%	19.37%
Cambridge Global PE Idx 1 Qtr Lag	3.89%	3.92%	(3.37%)	50.49%	17.46%
Total Private Debt	3.75%	7.60%	9.06%	12.72%	(0.96%)
Private Debt Benchmark (9)	7.48%	13.14%	(6.59%)	6.66%	1.71%
Cambridge Private Credit Idx 1 Qtr Lag	4.71%	10.29%	2.78%	20.74%	2.83%
Total Fund Composite	4.34%	11.68%	(8.18%)	18.47%	10.50%
Total Fund Benchmark *	6.96%	13.92%	(11.67%)	13.73%	12.50%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1% (1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Domestic Equity	1.28%	18.95%	6.48%	12.21%
Domestic Equity Benchmark (1)	3.22%	23.13%	8.05%	13.81%
Secondary Domestic Equity Bmk (6)	1.02%	18.82%	5.42%	12.19%
Large Cap Domestic Equity	4.35%	24.63%	9.99%	14.24%
S&P 500 Index	4.28%	24.56%	10.01%	15.05%
Blackrock S&P 500	4.35%	24.63%	9.99%	15.00%
SMid Cap Domestic Equity	(4.29%)	10.09%	0.74%	8.46%
Russell 2500 Index	(4.27%)	10.47%	(0.29%)	8.31%
AllianceBernstein	(4.53%)	12.61%	(0.51%)	8.97%
TSW	(3.88%)	5.99%	3.06%	7.61%
TSW Blended Benchmark (2)	(4.31%)	11.24%	2.15%	8.01%
Small Cap Domestic Equity	(1.63%)	12.63%	2.54%	10.25%
Russell 2000 Index	(3.28%)	10.06%	(2.58%)	6.94%
Boston Trust	(3.08%)	7.92%	4.39%	9.59%
Segall Bryant & Hamill	(1.17%)	14.65%	4.27%	11.48%
Wellington	(1.10%)	14.14%	0.62%	9.90%
Total Non US Equity	(0.22%)	11.31%	1.47%	5.80%
Non US Equity Benchmark (3)	0.96%	11.62%	0.46%	5.55%
Core Non US Equity	(0.30%)	11.12%	3.09%	5.95%
Core Non US Benchmark (4)	0.96%	11.62%	0.46%	5.55%
Aristotle	(0.88%)	8.16%	0.82%	-
Artisan Partners	(1.26%)	13.97%	1.55%	5.32%
BlackRock Superfund	1.14%	11.68%	-	-
Causeway Capital	1.30%	10.71%	7.44%	9.45%
Lazard	(3.12%)	8.23%	(0.20%)	-
Emerging Markets	2.68%	9.43%	(6.49%)	0.76%
MSCI EM	5.00%	12.55%	(5.07%)	3.10%
Wellington Emerging Markets	2.68%	9.43%	(6.46%)	0.66%
Non US Small Cap	(3.42%)	8.67%	(5.13%)	0.66%
Wellington Int'l Small Cap Research	(3.42%)	8.67%	-	-
MSCI EAFE Small Cap	(1.84%)	7.78%	(3.35%)	4.19%
Global Equity	(0.12%)	12.97%	5.25%	10.53%
MSCI ACWI net	2.87%	19.38%	5.43%	10.76%
Walter Scott Global Equity	(0.12%)	12.97%	5.25%	10.53%
Walter Scott Blended Benchmark (5)	2.87%	19.38%	5.43%	10.76%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Fixed Income	(0.04%)	3.50%	(2.25%)	1.04%
Fixed Income Benchmark (1)	0.19%	3.47%	(2.68%)	0.11%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
BlackRock SIO Bond Fund	0.75%	6.89%	0.85%	2.57%
BlackRock Custom Benchmark (2)	1.35%	5.51%	3.05%	2.21%
Brandywine Asset Mgmt	(2.65%)	(3.29%)	(6.90%)	(1.74%)
Brandywine Custom Benchmark (3)	(1.83%)	(1.06%)	(7.07%)	(3.29%)
FIAM (Fidelity) Tactical Bond	(0.01%)	3.62%	(1.28%)	1.84%
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Income Research & Management	0.13%	3.12%	(3.00%)	0.36%
Bloomberg Gov/Credit	0.05%	2.74%	(3.11%)	(0.07%)
Loomis Sayles	0.51%	6.93%	(0.91%)	2.92%
Loomis Sayles Custom Benchmark (4)	0.43%	5.31%	(1.38%)	1.27%
Manulife Strategic Fixed Income	0.25%	4.33%	(0.95%)	1.67%
Bloomberg Multiverse	(1.03%)	1.30%	(5.26%)	(1.84%)
Mellon US Agg Bond Index	0.07%	2.64%	-	-
Bloomberg Aggregate	0.07%	2.63%	(3.02%)	(0.23%)
Total Cash	1.30%	5.48%	3.14%	2.25%
3-month Treasury Bill	1.32%	5.40%	3.03%	2.16%
Total Marketable Assets	0.50%	12.37%	2.66%	7.13%
Total Marketable Index (5)	1.62%	13.34%	2.57%	7.19%
Total Real Estate (10)	(2.43%)	(7.07%)	3.69%	5.98%
Real Estate Benchmark (6)	(2.58%)	(12.00%)	2.47%	2.56%
Strategic Core Real Estate	(3.42%)	(9.07%)	2.49%	3.96%
Tactical Non-Core Real Estate	(0.95%)	(3.94%)	5.68%	9.57%
Total Alternative Assets	1.29%	3.71%	5.36%	10.38%
Alternative Assets Benchmark (7)	7.56%	25.08%	10.94%	13.48%
Total Private Equity	1.09%	3.38%	5.14%	12.65%
Private Equity Benchmark (8)	10.40%	31.52%	13.76%	17.92%
Cambridge Global PE Idx 1 Qtr Lag	1.21%	5.00%	7.07%	14.16%
Total Private Debt	1.91%	4.72%	6.03%	5.34%
Private Debt Benchmark (9)	1.96%	12.70%	5.07%	4.88%
Cambridge Private Credit Idx 1 Qtr Lag	1.62%	8.52%	8.78%	8.51%
Total Fund Composite	0.36%	8.53%	3.31%	7.62%
Total Fund Benchmark *	2.08%	12.43%	4.08%	7.95%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1%

(1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag)

as of 7/1/2022.

(10) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last 7 Years	Last 10 Years	Last 25 Years	Since Inception
Net of Fees				
Total Domestic Equity	11.64%	10.64%	7.01%	11.04% (7/75)
Domestic Equity Benchmark (1)	13.40%	12.24%	7.66%	11.66% (7/75)
Secondary Domestic Equity Bmk (6)	11.72%	10.81%	8.02%	-
Large Cap Domestic Equity	13.34%	11.94%	-	14.20% (9/10)
S&P 500 Index	14.28%	12.86%	7.67%	14.86% (9/10)
Blackrock S&P 500	14.24%	12.83%	-	14.83% (9/10)
SMid Cap Domestic Equity	7.97%	7.59%	-	10.40% (12/10)
Russell 2500 Index	8.44%	7.99%	8.80%	10.46% (12/10)
AllianceBernstein	9.59%	8.73%	-	11.09% (12/10)
TSW	5.56%	5.88%	-	9.32% (12/10)
TSW Blended Benchmark (2)	8.23%	7.84%	8.74%	10.35% (12/10)
Small Cap Domestic Equity	10.33%	9.52%	-	11.46% (11/10)
Russell 2000 Index	6.85%	7.00%	7.60%	9.62% (11/10)
Boston Trust	10.13%	9.37%	-	10.84% (11/10)
Segall Bryant & Hamill	11.22%	9.09%	-	11.24% (11/10)
Wellington	9.96%	9.87%	-	12.40% (11/10)
Total Non US Equity	5.55%	4.57%	4.65%	6.04% (4/88)
Non US Equity Benchmark (3)	5.17%	3.84%	4.60%	5.12% (4/88)
Core Non US Equity	5.38%	4.11%	4.46%	5.91% (4/88)
Core Non US Benchmark (4)	5.17%	3.84%	4.38%	4.96% (4/88)
Artisan Partners	6.25%	-	-	5.07% (11/14)
Aristotle	-	-	-	3.49% (1/21)
BlackRock Superfund	-	-	-	12.87% (3/23)
Causeway Capital	7.02%	-	-	5.61% (10/14)
Lazard	-	-	-	1.91% (1/21)
Emerging Markets	1.34%	1.59%	-	1.85% (6/11)
MSCI EM	3.54%	2.79%	-	1.92% (6/11)
Wellington Emerging Markets	1.83%	2.47%	-	3.21% (6/11)
Non US Small Cap	(0.98%)	(0.51%)	-	1.78% (7/11)
MSCI EAFE Small Cap	3.74%	4.30%	6.69%	5.55% (7/11)
Global Equity	11.79%	10.59%	-	9.03% (5/08)
MSCI ACWI net	10.02%	8.43%	-	6.78% (5/08)
Walter Scott Global Equity	11.79%	10.59%	-	9.88% (1/05)
Walter Scott Blended Benchmark (5)	10.02%	8.43%	6.73%	7.92% (1/05)

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index.

Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024				
	Last 7 Years	Last 10 Years	Last 25 Years	Since Inception
Net of Fees				
Total Fixed Income	1.67%	1.90%	5.05%	7.17% (7/75)
Fixed Income Benchmark (1)	1.15%	1.63%	4.15%	-
Bloomberg Aggregate	0.86%	1.35%	3.88%	-
BlackRock SIO Bond Fund	-	-	-	3.03% (1/19)
BlackRock Custom Benchmark (2)	-	-	-	2.24% (1/19)
Brandywine Asset Mgmt	(0.63%)	(0.05%)	5.40%	5.41% (11/97)
Brandywine Custom Benchmark (3)	(1.35%)	(1.24%)	2.85%	2.88% (11/97)
FIAM (Fidelity) Tactical Bond	-	-	-	2.79% (2/19)
Bloomberg Aggregate	0.86%	1.35%	3.88%	0.69% (2/19)
Income Research & Management	1.40%	1.83%	4.58%	6.10% (9/87)
Bloomberg Gov/Credit	1.04%	1.51%	3.98%	5.44% (9/87)
Loomis Sayles	3.24%	3.12%	-	6.75% (10/02)
Loomis Sayles Custom Benchmark (4)	2.09%	2.43%	4.83%	4.82% (10/02)
Manulife Strategic Fixed Income	2.00%	-	-	2.06% (3/15)
Bloomberg Multiverse	(0.30%)	(0.26%)	3.28%	0.29% (3/15)
Mellon US Agg Bond Index	-	-	-	2.10% (6/23)
Bloomberg Aggregate	0.86%	1.35%	3.88%	2.09% (6/23)
Total Cash	2.15%	1.60%	2.01%	2.59% (4/94)
3-month Treasury Bill	2.07%	1.51%	1.91%	2.49% (4/94)
Total Marketable Assets	6.99%	6.42%	6.01%	9.29% (7/75)
Total Marketable Index (5)	7.29%	6.68%	5.86%	-
Total Real Estate (10)	6.77%	8.31%	8.95%	8.99% (3/83)
Real Estate Benchmark (6)	3.76%	5.89%	7.30%	-
Strategic Core Real Estate	5.34%	7.15%	8.41%	8.60% (4/83)
Tactical Non-Core Real Estate	9.31%	10.40%	-	9.26% (10/04)
Total Alternative Assets	9.94%	8.87%	3.30%	7.15% (3/87)
Alternative Assets Benchmark (7)	12.09%	11.67%	10.27%	-
Total Private Equity	12.68%	11.40%	3.11%	6.47% (12/90)
Private Equity Benchmark (8)	17.09%	16.26%	12.26%	15.72% (12/90)
Cambridge Global PE Idx 1 Qtr Lag	14.40%	13.14%	13.26%	15.13% (12/90)
Total Private Debt	5.44%	5.73%	-	5.03% (6/11)
Private Debt Benchmark (9)	4.47%	5.54%	-	8.76% (6/11)
Cambridge Private Credit Idx 1 Qtr Lag	8.56%	7.84%	9.59%	8.65% (6/11)
Total Fund Composite	7.52%	7.01%	6.28%	8.65% (6/89)
Total Fund Benchmark *	7.89%	7.41%	6.51%	-

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1%

(1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag)

as of 7/1/2022.

(10) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. 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.

	12/2023- 6/2024	2023	2022	2021	2020
Net of Fees					
Total Domestic Equity	10.30%	21.93%	(17.72%)	26.02%	16.75%
Domestic Equity Benchmark (1)	13.56%	25.96%	(19.21%)	25.82%	18.40%
Secondary Domestic Equity Bmk (6)	9.87%	22.81%	(18.58%)	23.83%	19.35%
Large Cap Domestic Equity	15.36%	26.10%	(18.11%)	28.63%	14.56%
S&P 500 Index	15.29%	26.29%	(18.11%)	28.71%	18.40%
Blackrock S&P 500	15.36%	26.10%	(18.11%)	28.63%	18.36%
SMid Cap Domestic Equity	3.13%	15.77%	(18.54%)	25.09%	17.31%
Russell 2500 Index	2.35%	17.42%	(18.37%)	18.18%	19.99%
AllianceBernstein	4.51%	18.16%	(24.54%)	26.42%	25.47%
TSW	0.82%	12.00%	(6.83%)	22.58%	4.44%
TSW Blended Benchmark (2)	1.50%	15.98%	(13.08%)	27.78%	4.88%
Small Cap Domestic Equity	4.08%	16.47%	(16.09%)	20.97%	22.26%
Russell 2000 Index	1.73%	16.93%	(20.44%)	14.82%	19.96%
Boston Trust	1.84%	10.65%	(8.61%)	28.95%	10.10%
Segall Bryant & Hamill	5.50%	14.64%	(12.96%)	23.58%	23.01%
Wellington	4.50%	21.21%	(21.82%)	15.80%	28.62%
Total Non US Equity	5.78%	19.71%	(18.04%)	8.78%	9.03%
Non US Equity Benchmark (3)	5.69%	15.62%	(16.00%)	7.82%	10.65%
Core Non US Equity	5.33%	20.42%	(15.10%)	10.09%	4.52%
Core Non US Benchmark (4)	5.69%	15.62%	(16.00%)	7.82%	10.65%
Artisan Partners	8.60%	15.87%	(18.97%)	9.57%	7.14%
Aristotle	2.74%	18.69%	(20.84%)	16.84%	-
Causeway Capital	4.29%	27.83%	(7.18%)	9.58%	6.31%
Lazard	2.76%	18.18%	(16.78%)	5.73%	-
Emerging Markets	6.57%	9.28%	(21.78%)	(5.85%)	14.72%
MSCI EM	7.49%	9.83%	(20.09%)	(2.54%)	18.31%
Wellington Emerging Markets	6.57%	6.91%	(20.19%)	(6.31%)	16.51%
Non US Small Cap	0.87%	16.42%	(24.06%)	9.08%	(4.19%)
Wellington Int'l Small Cap Research	0.87%	16.42%	(24.06%)	-	-
MSCI EAFE Small Cap	0.51%	13.16%	(21.39%)	10.10%	12.34%
Global Equity	7.82%	23.40%	(19.54%)	18.82%	19.36%
MSCI ACWI net	11.30%	22.20%	(18.36%)	18.54%	16.25%
Walter Scott Global Equity	7.82%	23.40%	(19.54%)	18.82%	19.36%
Walter Scott Blended Benchmark (5)	11.30%	22.20%	(18.36%)	18.54%	16.25%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

(6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. 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.

	12/2023- 6/2024	2023	2022	2021	2020
Net of Fees					
Total Fixed Income	(0.58%)	7.03%	(12.02%)	(0.55%)	10.10%
Fixed Income Benchmark (1)	(0.28%)	6.17%	(12.99%)	(1.10%)	7.58%
Bloomberg Aggregate	(0.71%)	5.53%	(13.01%)	(1.54%)	7.51%
BlackRock SIO Bond Fund	1.45%	7.45%	(6.24%)	1.64%	6.66%
BlackRock Custom Benchmark (2)	2.72%	5.09%	1.32%	0.17%	0.74%
Brandywine Asset Mgmt	(7.31%)	7.73%	(15.84%)	(5.19%)	12.20%
Brandywine Custom Benchmark (3)	(4.38%)	5.36%	(18.42%)	(6.98%)	10.11%
FIAM (Fidelity) Tactical Bond	(0.16%)	7.04%	(10.86%)	1.17%	9.44%
Bloomberg Aggregate	(0.71%)	5.53%	(13.01%)	(1.54%)	7.51%
Income Research & Management	(0.25%)	6.23%	(13.88%)	(1.65%)	10.70%
Bloomberg Gov/Credit	(0.68%)	5.72%	(13.58%)	(1.75%)	8.93%
Loomis Sayles	1.17%	8.50%	(11.53%)	2.21%	12.71%
Loomis Sayles Custom Benchmark (4)	0.44%	8.25%	(12.32%)	0.81%	7.61%
Manulife Strategic Fixed Income	0.26%	7.56%	(9.84%)	0.19%	8.03%
Bloomberg Multiverse	(2.95%)	6.05%	(16.01%)	(4.51%)	9.02%
Total Cash	2.65%	5.21%	1.58%	0.06%	0.63%
3-month Treasury Bill	2.63%	5.01%	1.46%	0.05%	0.67%
Total Marketable Assets	5.96%	16.60%	(15.91%)	13.09%	12.67%
Total Marketable Index (5)	6.76%	16.46%	(16.01%)	11.63%	13.33%
Total Real Estate (10)	(5.26%)	(9.94%)	20.74%	24.22%	2.91%
Real Estate Benchmark (6)	(7.45%)	(12.88%)	20.96%	13.64%	0.52%
Strategic Core Real Estate	(7.45%)	(13.99%)	25.83%	17.70%	1.62%
Tactical Non-Core Real Estate	(1.78%)	(1.79%)	11.73%	36.24%	5.48%
Total Alternative Assets	2.26%	6.31%	2.83%	37.25%	5.28%
Alternative Assets Benchmark (7)	18.46%	19.58%	(10.61%)	24.04%	12.87%
Total Private Equity	2.02%	6.67%	1.46%	48.35%	8.46%
Private Equity Benchmark (8)	24.19%	22.76%	(12.74%)	33.31%	19.37%
Cambridge Global PE Idx 1 Qtr Lag	3.89%	3.92%	(3.37%)	50.49%	17.46%
Total Private Debt	2.99%	5.31%	6.98%	12.72%	(0.96%)
Private Debt Benchmark (9)	7.48%	13.14%	(6.59%)	6.66%	1.71%
Cambridge Private Credit Idx 1 Qtr Lag	4.71%	10.29%	2.78%	20.74%	2.83%
Total Fund Composite	4.09%	11.08%	(8.81%)	18.16%	10.21%
Total Fund Benchmark *	6.96%	13.92%	(11.67%)	13.73%	12.50%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net (1 qtr lag), 10% Russell 3000 Index +2.0% (1 qtr lag), 2.5% Bloomberg HY Corp +1.0% (1 qtr lag), and 2.5% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag).

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1% (1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 3% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Bmk is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

(10) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2024, with the distribution as of March 31, 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

	June 30, 2024			March 31, 2024		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Real Estate						
Strategic Core Real Estate	\$666,562,084	58.94%	\$(38,758,647)	\$(20,585,427)	\$725,906,158	61.11%
Berkshire MF Income	20,210,989	1.79%	(87,736)	(107,101)	20,405,826	1.72%
Black Creek Industrial Fund	33,545,409	2.97%	(1,119,228)	(100,929)	34,765,566	2.93%
Brookfield Premier Real Estate Partners	61,603,709	5.45%	(2,860,870)	(3,474,980)	67,939,558	5.72%
Carlyle Property Investors	30,675,439	2.71%	(202,339)	(99,149)	30,976,927	2.61%
Clarion Lion Properties Fund	15,130,423	1.34%	(114,722)	(439,643)	15,684,788	1.32%
Cortland Growth & Income	23,383,583	2.07%	(148,128)	(107,696)	23,639,407	1.99%
Dream Industrial Fund	43,417,864	3.84%	(415,566)	1,033,176	42,800,254	3.60%
Greystar Growth And Income	10,702,345	0.95%	(53,760)	(2,129,088)	12,885,193	1.08%
Hancock US Real Estate	11,035,917	0.98%	(21,330,241)	(5,688,263)	38,054,421	3.20%
Jamestown Premier Property	24,576,905	2.17%	(21,820)	(1,744,216)	26,342,940	2.22%
JP Morgan Strategic Property	52,739,310	4.66%	(2,021,240)	(3,277,453)	58,038,003	4.89%
Kayne Anderson Core Real Estate	38,813,801	3.43%	(689,844)	675,892	38,827,753	3.27%
Lion Industrial Trust	91,994,552	8.14%	(3,903,268)	(984,519)	96,882,340	8.16%
MetLife Core Property	58,998,929	5.22%	(2,800,784)	(824,133)	62,623,846	5.27%
Prime Property Fund LLC	60,111,098	5.32%	(1,741,400)	(688,743)	62,541,241	5.27%
Smart Markets Fund	50,716,620	4.48%	(3,198,935)	(196,113)	54,111,668	4.56%
Tactical Non-Core Real Estate	\$464,260,779	41.06%	\$5,994,445	\$(3,627,547)	\$461,893,882	38.89%
Almanac Realty Securities (ARS) VII Side	18,534,333	1.64%	(313,063)	1,033,650	17,813,746	1.50%
Almanac Realty Securities VII LP	10,929,487	0.97%	(142,862)	(227,821)	11,300,170	0.95%
Almanac Realty Securities VIII LP	15,170,203	1.34%	1,140,288	371,395	13,658,520	1.15%
Alterra IOS Ventures II	18,859,493	1.67%	389,200	1,045,010	17,425,282	1.47%
Asana Real Estate Partners I	26,607,939	2.35%	844,899	(186,438)	25,949,479	2.18%
Berkshire Bridge Loan II	7,718,384	0.68%	(245,998)	0	7,964,382	0.67%
Bozzuto Capital Partners II, LLC	14,637,591	1.29%	(82,963)	101,099	14,619,456	1.23%
Bridge Logistics JV	18,816,303	1.66%	(81,525)	(287,083)	19,184,911	1.62%
Broadview Real Estate Partners LP	11,509,695	1.02%	(237,000)	820,499	10,926,196	0.92%
Brockton Capital II	1,014,520	0.09%	0	(2,160)	1,016,680	0.09%
BRV Partners I	3,651,711	0.32%	(174,345)	(98,106)	3,924,162	0.33%
Bryanston Retail Opportunity Fund	40,799	0.00%	64	(321)	41,056	0.00%
Buckingham Multifamily Fund I	23,335,460	2.06%	390,613	(1,239,469)	24,184,316	2.04%
Buckingham Multifamily Fund II	9,209,014	0.81%	262,328	433,964	8,512,722	0.72%
Caprock Partners Industrial Co-Investmen	12,745,975	1.13%	85,955	(941,879)	13,601,899	1.15%
Carroll Fund V Bedrock Sidecar	931,747	0.08%	0	70,574	861,173	0.07%
Carroll Multifamily Real Estate Fund V	4,139,382	0.37%	0	(268,891)	4,408,273	0.37%
Carroll Multifamily Real Estate Fund VI	12,932,293	1.14%	0	(1,133,626)	14,065,919	1.18%
Carroll Multifamily Real Estate Fund VII	4,642,862	0.41%	0	(311,408)	4,954,270	0.42%
CITIC Capital China Retail Properties In	9,235,833	0.82%	(22,878)	(656,371)	9,915,082	0.83%
Crossbay Townsend Feeder	1,553,902	0.14%	2,757	37,901	1,513,244	0.13%
Fortress Japan Opportunity Fund IV	8,333,837	0.74%	(602,794)	2,993,120	5,943,511	0.50%
Fortress Japan Opportunity Fund I	234,913	0.02%	466	26,430	208,017	0.02%
Fortress Japan Opportunity Fund II	724,213	0.06%	(6,150)	(64,336)	794,699	0.07%
Fortress Japan Residential Co-Investment	24,283,075	2.15%	(104,315)	581,517	23,805,873	2.00%
Gerrity Retail II	15,115,028	1.34%	(52,546)	131,376	15,036,198	1.27%
GID Mainstay Fund	38,905,190	3.44%	1,951,233	(2,432,468)	39,386,426	3.32%
Gramercy Property EUR IV Townsend Feeder	20,177,432	1.78%	(238,907)	(2,387,512)	22,803,851	1.92%
Greenfield Partners	23,301	0.00%	0	547	22,754	0.00%
Greenfield VII	821,306	0.07%	(48,404)	(71,103)	940,813	0.08%
H/2 SOF III	5,420,562	0.48%	(287,470)	7,971	5,700,061	0.48%
H2 Special Opportunities II	188,954	0.02%	(409)	(183)	189,546	0.02%
Heitman Asia-Pacific Property Fund	8,392,571	0.74%	(676,836)	(568,401)	9,637,808	0.81%
HSRE Quad V	15,880,903	1.40%	(59,356)	(620,669)	16,560,928	1.39%
Jadian Real Estate I	30,498,441	2.70%	(1,441,830)	3,039,001	28,901,270	2.43%
Lone Star Fund V	64,124	0.01%	0	1,378	62,746	0.01%
Noble SSCIV	14,861,964	1.31%	(391,143)	319,259	14,933,848	1.26%
Oaktree Real Estate Opportunities Fund V	13,507,132	1.19%	172,607	(448,400)	13,782,925	1.16%
Prosperitas Real Estate Partners III	13,566	0.00%	0	(937)	14,503	0.00%
Resmark Townsend M H	3,555,411	0.31%	(526,956)	105,059	3,977,308	0.33%
Rockpoint Real Estate Fund III, L.P.	173,674	0.02%	0	3,284	170,390	0.01%
Slate Canadian Real Estate Opportunities	3,983,455	0.35%	0	(38,899)	4,022,354	0.34%
Slate Canadian Real Estate Opportunities	13,093,413	1.16%	50,764	(391,488)	13,434,136	1.13%
SLI European Real Estate Club II	0	0.00%	0	(1)	1	0.00%
Unico Core Plus Partners LP	4,288,889	0.38%	(84,340)	(4,303,038)	8,676,268	0.73%
VBI Brazil Real Estate Opportunities II	2,328,921	0.21%	0	0	2,328,921	0.20%
Waterton Residential Property Venture XI	1,761,527	0.16%	(8,320)	(115,593)	1,885,440	0.16%
Wolff Credit Partners II LP	0	0.00%	472	(74,512)	74,040	0.01%
Total Real Estate	\$1,130,822,864	100.00%	\$(33,532,402)	\$(23,444,774)	\$1,187,800,040	100.00%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Net of Fees					
Total Strategic Core Real Estate	(3.42%)	(9.07%)	2.49%	3.96%	7.15%
Berkshire MF Income	(0.53%)	(13.81%)	(0.16%)	1.89%	-
Black Creek Industrial Fund	(6.33%)	(7.71%)	6.47%	-	-
Brookfield Premier Real Estate Partners	(5.34%)	(16.18%)	(1.03%)	1.90%	-
Carlyle Property Investors	(0.52%)	(4.35%)	6.67%	8.85%	-
Cortland Growth & Income Fund	(0.73%)	(12.06%)	2.15%	4.23%	-
Greystar Growth And Income Fund LP	(17.21%)	(23.60%)	(4.19%)	(0.86%)	-
Hancock US Real Estate Fund LP	(23.58%)	(26.15%)	(4.46%)	-	-
Jamestown Premier Property Fund	(6.62%)	(23.16%)	(25.63%)	(18.54%)	(5.06%)
JP Morgan Strategic Property Fund	(5.85%)	(16.30%)	(1.82%)	0.39%	4.28%
Kayne Anderson Core Real Estate LP	1.77%	(3.79%)	4.15%	5.05%	-
Lion Industrial Trust	(1.05%)	(3.52%)	14.51%	15.77%	15.33%
MetLife Core Property Fund LP	(1.66%)	(8.76%)	1.89%	3.62%	-
Prime Property Fund LLC	(1.68%)	(3.70%)	4.62%	4.65%	7.54%
Smart Markets Fund	(0.87%)	(5.20%)	3.41%	4.97%	7.08%
Total Tactical Non-Core Real Estate	(0.95%)	(3.94%)	5.68%	9.57%	10.40%
Almanac Realty Securities VII LP	(2.16%)	0.67%	3.51%	7.01%	-
Almanac Realty Securities (ARS) VII Side	4.63%	9.52%	9.76%	15.18%	-
Almanac Realty Securities VIII LP	2.86%	0.35%	8.45%	6.38%	-
Asana Real Estate Partners I	5.91%	6.18%	8.57%	8.47%	-
Bozzuto Capital Partners II, LLC	0.69%	0.65%	4.71%	5.19%	11.16%
Broadview Real Estate Partners LP	4.95%	3.58%	8.53%	0.07%	-
Brockton Capital II	(0.21%)	(0.96%)	(6.54%)	(4.26%)	(1.41%)
BRV Partners I	0.19%	(6.20%)	4.53%	8.06%	-
Bryanston Retail Opportunity Fund	(0.47%)	1.48%	4886.30%	1106.72%	278.71%
Buckingham Multifamily Fund I	(1.92%)	(8.76%)	12.48%	15.14%	-
Caprock Partners Industrial Co-Investmen	(5.70%)	(5.90%)	24.47%	-	-
Carroll Fund V Bedrock Sidecar	8.20%	(8.72%)	(13.12%)	8.07%	-
Carroll Multifamily Real Estate Fund VI	(8.06%)	(18.73%)	(4.92%)	-	-
CITIC Capital China Retail Properties In	(7.08%)	(7.24%)	(9.17%)	(3.42%)	(1.85%)
Crossbay Townsend Feeder	2.87%	3.47%	24.03%	-	-
Fortress Japan Opportunity Fund I	13.19%	10.70%	12.02%	0.46%	11.52%
Fortress Japan Residential Co-Investment	1.56%	10.58%	23.65%	21.11%	-
Fortress Japan Opportunity Fund II	(9.50%)	(11.30%)	3.64%	3.27%	15.01%
Fortress Japan Opportunity Fund IV	28.04%	35.35%	28.23%	16.72%	-
Gerrity Retail II	0.17%	(10.50%)	(0.51%)	(1.90%)	-
GID Mainstay Fund	(6.00%)	(5.08%)	-	-	-
Gramercy Property EUR IV Townsend Feeder	(10.48%)	(10.79%)	(0.81%)	6.36%	-
Greenfield VII	(9.13%)	(6.74%)	4.33%	9.34%	-
H2 Special Opportunities II	(0.53%)	12.88%	5.70%	(23.68%)	(9.16%)
H/2 SOF III	(0.62%)	8.90%	9.42%	2.64%	-
Heitman Asia-Pacific Property Fund	(7.09%)	(6.90%)	(3.02%)	0.38%	-
HSRE Quad V	(4.21%)	(2.48%)	8.13%	10.00%	-
Jadian Real Estate I	6.60%	10.95%	20.98%	-	-
Lone Star Fund V	2.20%	22.58%	5.86%	8.32%	(0.31%)
Oaktree Real Estate Opportunities Fund V	(0.39%)	1.57%	1.20%	-	-
Rockpoint Real Estate Fund III, L.P.	1.93%	2.23%	(9.38%)	(4.97%)	(0.93%)
Slate Canadian Real Estate Opportunities	(0.97%)	(69.96%)	(36.61%)	(25.90%)	-
Slate Canadian Real Estate Opportunities	(2.16%)	(7.39%)	15.36%	-	-
SLI European Real Estate Club II	0.00%	(0.92%)	(97.95%)	*****%)	-
Unico Core Plus Partners LP	(51.28%)	(55.29%)	(38.65%)	(24.46%)	-
VBI Brazil Real Estate Opportunities II	0.00%	6.76%	7.73%	(1.63%)	(5.76%)
Waterton Residential Property Venture XI	(6.54%)	(9.10%)	(2.59%)	(2.28%)	6.05%
Wolff Credit Partners II LP	(94.25%)	(92.86%)	(53.90%)	(33.49%)	-
Total Real Estate	(2.43%)	(7.07%)	3.69%	5.98%	8.31%
Real Estate Benchmark*	(2.58%)	(12.00%)	2.47%	2.56%	5.89%

* The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2024, with the distribution as of March 31, 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 Manager Return.

Asset Distribution Across Investment Managers

	June 30, 2024			March 31, 2024		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Alternatives						
Total Private Equity	\$1,685,568,274	74.52%	\$3,543,048	\$22,422,245	\$1,659,602,981	74.49%
Actis Energy 4 LP	6,473,618	0.29%	(127,382)	232,945	6,368,055	0.29%
Apollo IX	38,540,199	1.70%	(1,668,068)	923,379	39,284,888	1.76%
BlackRock Private Op	396,714,281	17.54%	779,666	14,169,565	381,765,050	17.14%
Carlyle Asia Fund V LP	44,432,784	1.96%	(650,160)	926,296	44,156,648	1.98%
Carlyle Asia IV	11,438,900	0.51%	(417,480)	(2,370,413)	14,226,793	0.64%
Carlyle Japan III	5,014,863	0.22%	(25,645)	84,231	4,956,277	0.22%
Carlyle Sub-Saharan Africa Fund	18,175,015	0.80%	(4,264,569)	(395,433)	22,835,017	1.02%
CCMP Capital Investors III, L.P.	383,145	0.02%	29,279	(140,623)	494,489	0.02%
Coller International Partners VI, L.P.	1,851,706	0.08%	(153,280)	(17,370)	2,022,356	0.09%
Coller International Partners VIII LP	63,669,569	2.81%	(1,853,413)	2,577,501	62,945,480	2.83%
Coller VII	22,529,040	1.00%	(706,476)	358,887	22,876,629	1.03%
Dover Street IX LP	29,595,952	1.31%	(286,714)	(165,436)	30,048,102	1.35%
Dover Street VIII, L.P.	3,196,973	0.14%	(24,957)	(101,935)	3,323,865	0.15%
Dover Street X LP	44,250,048	1.96%	458,716	1,106,739	42,684,593	1.92%
HarbourVest HIPEP IX	31,413,008	1.39%	2,475,000	1,069,803	27,868,205	1.25%
HarbourVest HIPEP VII	46,442,507	2.05%	(1,859,402)	2,067,182	46,234,727	2.08%
HarbourVest HIPEP VIII	50,729,874	2.24%	1,906,381	2,592,187	46,231,306	2.08%
Industry Ventures Fund VI, LP	270,966	0.01%	191,757	(181,501)	260,710	0.01%
Industry Ventures Partnership Holdings I	32,864,027	1.45%	266,767	(2,718,506)	35,315,766	1.59%
Industry Ventures PH VI	17,046,855	0.75%	1,561,103	934,747	14,551,004	0.65%
Industry Ventures Partnership Holdings V	40,188,680	1.78%	1,130,558	(6,031,366)	45,089,488	2.02%
Industry Ventures Partnership III	25,054,500	1.11%	(113,861)	(2,554,605)	27,722,966	1.24%
Industry Ventures Secondary IX	53,512,246	2.37%	(1,295,760)	653,694	54,154,312	2.43%
Industry Ventures Secondary VII LP	4,650,033	0.21%	(298,065)	131,742	4,816,356	0.22%
Kayne Anderson Energy Fund VII LP	28,221,270	1.25%	(709,345)	1,414,718	27,515,897	1.24%
Lexington Capital Partners VII	3,630,271	0.16%	(132,822)	27,437	3,735,656	0.17%
Lexington Capital Partners VIII LP	26,793,977	1.18%	(1,199,508)	25,882	27,967,603	1.26%
NGP XI	38,471,304	1.70%	(3,109,724)	1,514,657	40,066,371	1.80%
Pine Brook Capital Partners II LP	36,823,246	1.63%	(80,755)	883,367	36,020,634	1.62%
RFE Investment Partners VIII, LP	15,574,024	0.69%	163,153	(815,765)	16,226,636	0.73%
SL Capital European Smaller Funds I	4,739,085	0.21%	(363,878)	(334,000)	5,436,963	0.24%
Edgewater Growth Capital Partners III	5,218,557	0.23%	0	51,048	5,167,509	0.23%
Edgewater Growth Capital Partners IV LP	41,545,157	1.84%	0	876,423	40,668,734	1.83%
Thoma Bravo Fund XIII LP	72,808,633	3.22%	(81,750)	(964,533)	73,854,916	3.32%
Thoma Bravo XII	57,689,432	2.55%	(98,920)	1,593,796	56,194,556	2.52%
Thoma Bravo Fund XIV LP	53,224,418	2.35%	0	1,878,952	51,345,466	2.30%
Top Tier Venture Velocity Fund 3 LP	18,744,273	0.83%	(29,921)	(1,187,387)	19,961,581	0.90%
Top Tier Venture Velocity Fund II LP	25,732,673	1.14%	59,095	(1,278,122)	26,951,700	1.21%
Top Tier VVF	11,676,317	0.52%	27,940	(280,234)	11,928,612	0.54%
Warburg Pincus Global Growth	58,941,128	2.61%	(2,010,000)	1,113,456	59,837,672	2.69%
Warburg Pincus Private Equity XII LP	48,167,221	2.13%	(1,816,320)	771,955	49,211,586	2.21%
Total Private Debt	\$576,283,238	25.48%	\$(7,190,148)	\$15,268,613	\$568,204,773	25.51%
Atalaya SOF VIII	49,329,838	2.18%	3,919,748	1,412,188	43,997,902	1.97%
Avenue Special Situations Fund VI (A), L	1,846,586	0.08%	0	(144,648)	1,991,234	0.09%
BlueBay DLF II	3,267,781	0.14%	(44,540)	271,779	3,040,542	0.14%
Bluebay DLF III	37,535,961	1.66%	(2,597,693)	1,537,683	38,595,971	1.73%
CarVal CVF III	7,874,832	0.35%	(172,672)	322,738	7,724,766	0.35%
CarVal Credit Value Fund IV LP	31,675,794	1.40%	(5,075,811)	829,913	35,921,693	1.61%
CarVal Credit Value Fund V LP	53,183,131	2.35%	12,405,163	1,313,007	39,464,961	1.77%
Clareant European DLF Investor Feeder LP	1	0.00%	(301,918)	25,316	276,602	0.01%
Clareant European DLF II	23,249,652	1.03%	(541,783)	(153,726)	23,945,161	1.07%
Alcentra European Direct Lending III	33,551,176	1.48%	(2,204,375)	542,812	35,212,739	1.58%
Comvest III	1,625,275	0.07%	(5,084)	31,984	1,598,375	0.07%
Comvest IV	25,589,429	1.13%	(1,887,553)	677,586	26,799,396	1.20%
Comvest V	39,410,663	1.74%	(1,606,895)	1,490,749	39,526,809	1.77%
Crescent Capital Direct Lending Levered	20,622,442	0.91%	(1,243,036)	1,338,166	20,527,312	0.92%
Crescent Direct Lending Fund	1,035,423	0.05%	(2,314,151)	265,272	3,084,302	0.14%
Crescent Direct III	31,110,647	1.38%	(1,626,021)	2,452,152	30,284,516	1.36%
Gramercy Distressed Opportunity II	21,720,764	0.96%	0	(785,412)	22,506,176	1.01%
Gramercy DOF III	14,974,893	0.66%	0	47,167	14,927,726	0.67%
Ironwood Mezzanine Fund III, L.P.	3,346,839	0.15%	(42,769)	(279,658)	3,669,266	0.16%
Matlin Patterson Global Opportunities II	0	0.00%	0	(28,615)	28,615	0.00%
Monroe Capital Private Credit Fund III L	24,068,030	1.06%	(1,627,479)	537,338	25,158,171	1.13%
Monroe Private Credit Fund II	8,441,658	0.37%	7,515	(32,378)	8,466,521	0.38%
Monroe Private Credit IV	44,455,198	1.97%	(1,102,294)	940,965	44,616,527	2.00%
Riverstone Credit	14,776,152	0.65%	(21,676)	(306,160)	15,103,988	0.68%
Riverstone Credit II NEPC	6,325,651	0.28%	(1,049,865)	0	7,375,516	0.33%
Riverstone Credit Partners II LP	16,921,809	0.75%	(5,841,387)	981,037	21,782,159	0.98%
Siguler Guff Distressed Opportunities IV	3,099,186	0.14%	(534,909)	(13,394)	3,647,489	0.16%
Tennenbaum Opportunities Fund VI, LLC	81,276	0.00%	10,025	(10,025)	81,276	0.00%
Total Alternative Assets	\$2,261,851,512	100.00%	\$(3,647,100)	\$37,690,858	\$2,227,807,754	100.00%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 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 June 30, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Net of Fees					
Total Private Equity	1.09%	3.38%	5.14%	12.65%	11.40%
Actis Energy 4 LP	2.86%	2.46%	13.97%	10.03%	-
Apollo IX	1.59%	6.69%	16.26%	18.69%	-
BlackRock Private Op	3.12%	3.91%	1.16%	11.74%	-
Carlyle Asia Fund V LP	0.64%	2.45%	(2.64%)	8.11%	-
Carlyle Asia IV	(11.33%)	3.08%	7.40%	17.87%	-
Carlyle Japan III	0.64%	4.86%	38.15%	19.30%	18.25%
Carlyle Sub-Saharan Africa Fund	(1.80%)	9.66%	19.51%	11.33%	-
CCMP Capital Investors III, L.P.	(17.61%)	(30.33%)	(23.59%)	(0.32%)	3.55%
Coller International Partners VI, L.P.	(0.93%)	(1.16%)	(1.11%)	5.80%	9.58%
Coller International Partners VIII LP	4.22%	8.22%	14.80%	-	-
Coller VII	1.58%	5.25%	7.12%	11.73%	-
Dover Street IX LP	(2.43%)	(2.58%)	(0.89%)	11.19%	-
Dover Street VIII, L.P.	(4.53%)	(6.15%)	(8.93%)	2.54%	9.20%
Dover Street X LP	1.19%	(0.42%)	12.17%	-	-
Edgewater Growth Capital Partners III	0.99%	1.33%	6.92%	(0.98%)	3.59%
Edgewater Growth Capital Partners IV LP	2.16%	7.25%	19.22%	16.74%	-
HarbourVest HIPEP IX	2.83%	(0.14%)	8.17%	-	-
HarbourVest HIPEP VII	3.61%	2.72%	2.75%	14.75%	-
HarbourVest HIPEP VIII	5.14%	3.73%	5.00%	15.31%	-
Industry Ventures Fund VI, LP	188.25%	176.15%	8.80%	24.82%	12.24%
Industry Ventures Partnership Holdings I	(6.24%)	(8.07%)	2.68%	16.21%	-
Industry Ventures Partnership Holdings V	(10.14%)	(11.73%)	6.42%	16.37%	-
Industry Ventures Partnership III	(7.64%)	(8.83%)	(12.05%)	13.59%	14.97%
Industry Ventures Secondary VII LP	1.44%	(2.68%)	(10.45%)	9.46%	11.92%
Industry Ventures Secondary IX	0.45%	(0.56%)	5.20%	-	-
Kayne Anderson Energy Fund VII LP	5.28%	23.83%	24.88%	(6.93%)	-
Lexington Capital Partners VII	0.75%	0.68%	1.27%	8.03%	8.36%
Lexington Capital Partners VIII LP	0.10%	0.32%	3.26%	10.77%	-
NGP XI	1.77%	4.02%	24.24%	11.75%	-
Pine Brook Capital Partners II LP	2.00%	1.06%	4.61%	4.02%	5.61%
RFE Investment Partners VIII, LP	(3.04%)	(5.70%)	7.93%	10.12%	11.06%
SL Capital European Smaller Funds I	(6.55%)	(9.40%)	(2.67%)	2.38%	3.83%
Thoma Bravo Fund XIII LP	(1.53%)	7.24%	6.98%	24.66%	-
Thoma Bravo Fund XIV LP	3.66%	10.22%	6.12%	-	-
Thoma Bravo XII	2.48%	15.55%	12.55%	17.05%	-
Top Tier Venture Velocity Fund 3 LP	(5.95%)	(5.87%)	(12.30%)	-	-
Top Tier Venture Velocity Fund II LP	(3.81%)	(5.48%)	(8.38%)	21.97%	-
Top Tier VVF	(1.88%)	(8.36%)	(0.02%)	13.65%	-
Warburg Pincus Global Growth	1.93%	4.94%	9.10%	9.03%	-
Warburg Pincus Private Equity XII LP	1.62%	(4.09%)	2.04%	13.21%	-
Total Private Debt	1.91%	4.72%	6.03%	5.34%	5.73%
Alcentra European Direct Lending III	9.38%	*****%	16079.40%	2060.66%	-
Avenue Special Situations Fund VI (A), L	(7.26%)	(8.05%)	(4.82%)	8.87%	0.76%
BlueBay DLF II	5.93%	(9.92%)	(7.35%)	(1.78%)	-
Bluebay DLF III	2.69%	8.62%	8.78%	7.89%	-
CarVal Credit Value Fund IV LP	1.83%	3.73%	6.67%	7.05%	-
CarVal CVF III	(0.29%)	1.58%	6.36%	5.28%	-
Clareant European DLF II	5.03%	10.84%	6.80%	5.58%	-
Clareant European DLF Investor Feeder LP	0.81%	5.47%	4.92%	6.19%	-
Comvest III	1.36%	(1.49%)	(23.41%)	(12.80%)	-
Comvest IV	0.56%	1.97%	2.83%	5.53%	-
Comvest V	1.31%	5.29%	7.71%	-	-
Crescent Capital Direct Lending Levered	4.13%	8.22%	9.20%	9.28%	-
Crescent Direct Lending Fund	13.58%	17.59%	9.40%	8.36%	-
Gramercy Distressed Opportunity II	(3.49%)	(10.61%)	(7.32%)	(9.15%)	(5.96%)
Gramercy DOF III	0.32%	(2.73%)	(3.24%)	(3.93%)	-
Ironwood Mezzanine Fund III, L.P.	(9.90%)	(10.53%)	1.30%	2.60%	4.69%
Matlin Patterson Global Opportunities II	(64.16%)	(86.22%)	(57.40%)	(41.06%)	(23.78%)
Monroe Capital Private Credit Fund III L	1.75%	6.44%	7.80%	7.91%	-
Monroe Private Credit Fund II	(0.21%)	(1.48%)	1.17%	5.09%	-
Riverstone Credit	(2.31%)	(8.48%)	4.70%	(0.37%)	-
Riverstone Credit II NEPC	0.00%	4.80%	10.57%	11.53%	-
Riverstone Credit Partners II LP	3.66%	(3.27%)	14.18%	8.90%	-
Siguler Guff Distressed Opportunities IV	(0.43%)	(5.32%)	0.27%	3.17%	5.67%
Tennenbaum Opportunities Fund VI, LLC	14.00%	32.20%	(3.47%)	10.93%	6.14%
Total Alternative Assets	1.29%	3.71%	5.36%	10.38%	8.87%
Alternative Assets Benchmark*	7.56%	25.08%	10.94%	13.48%	11.67%

* The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1% (1 qtr lag) and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022.

Total Domestic Equity Period Ended June 30, 2024

Domestic Equity Benchmark

The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500 Index. Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

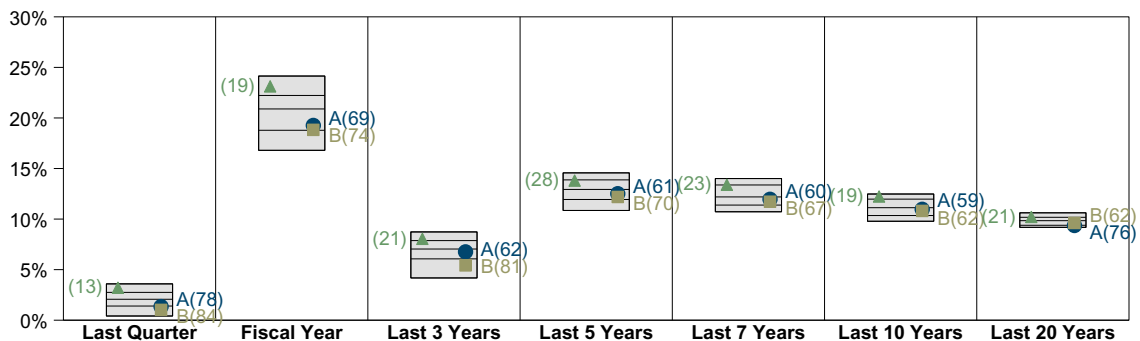
Quarterly Summary and Highlights

- Total Domestic Equity's portfolio posted a 1.35% return for the quarter placing it in the 78 percentile of the Large Public Funds Domestic Equity group for the quarter and in the 69 percentile for the last year.
- Total Domestic Equity's portfolio underperformed the Domestic Equity Benchmark by 1.87% for the quarter and underperformed the Domestic Equity Benchmark for the year by 3.86%.

Quarterly Asset Growth

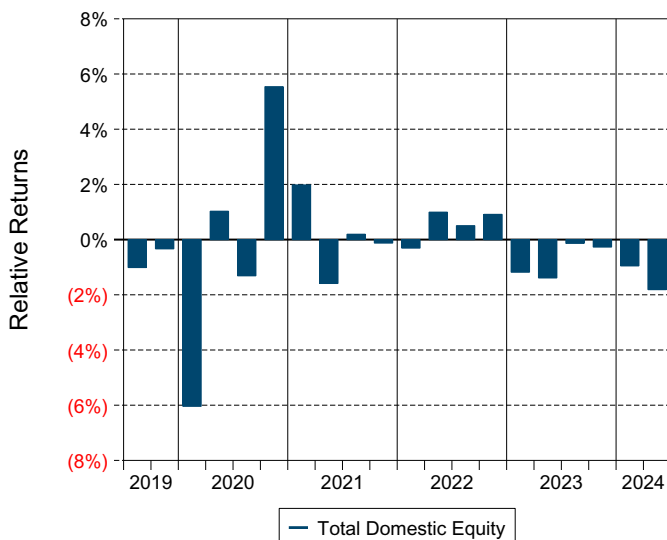
Beginning Market Value	\$4,070,164,959
Net New Investment	\$-175,000,000
Investment Gains/(Losses)	\$45,982,430
Ending Market Value	\$3,941,147,389

Performance vs Large Public Funds Domestic Equity (Gross)

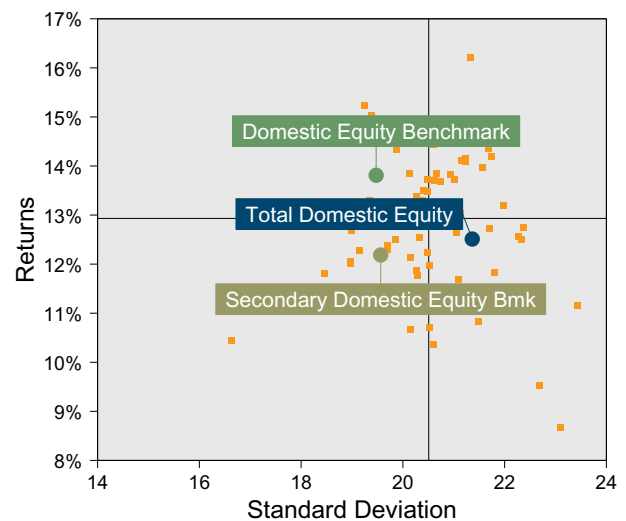


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	3.59	24.15	8.73	14.57	14.01	12.48	10.62
25th Percentile	2.75	22.23	7.87	13.88	13.37	11.97	10.18
Median	2.07	20.89	7.04	12.93	12.19	11.13	9.84
75th Percentile	1.40	18.78	6.06	11.94	11.38	10.35	9.39
90th Percentile	0.41	16.80	4.18	10.85	10.72	9.78	9.18
Total Domestic Equity	● A 1.35	19.26	6.76	12.51	11.96	10.97	9.36
Secondary Domestic Equity Bmk	■ B 1.02	18.82	5.42	12.19	11.72	10.81	9.62
Domestic Equity Benchmark	▲ 3.22	23.13	8.05	13.81	13.40	12.24	10.21

Relative Returns vs Domestic Equity Benchmark



Large Public Funds Domestic Equity (Gross) Annualized Five Year Risk vs Return

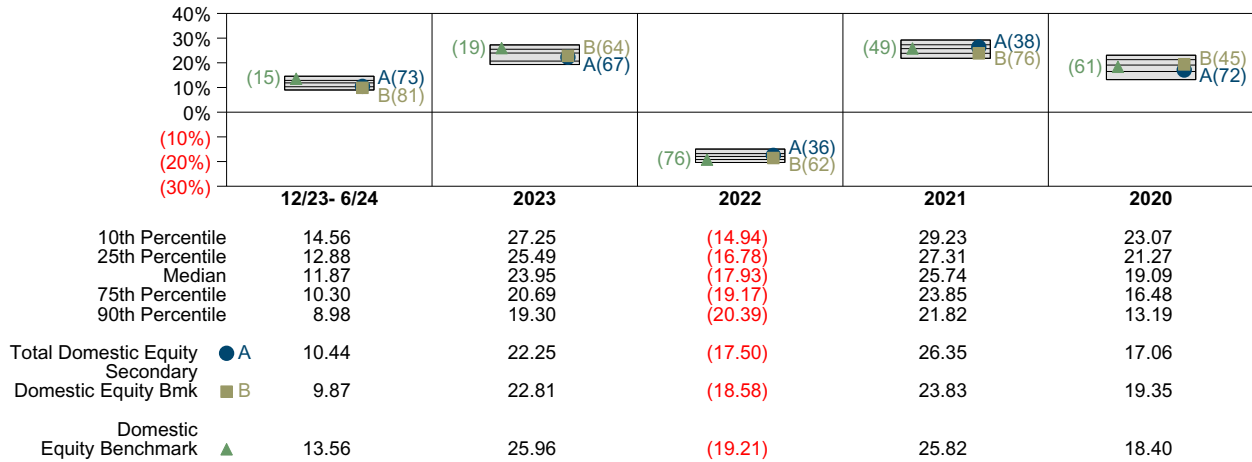


Total Domestic Equity Return Analysis Summary

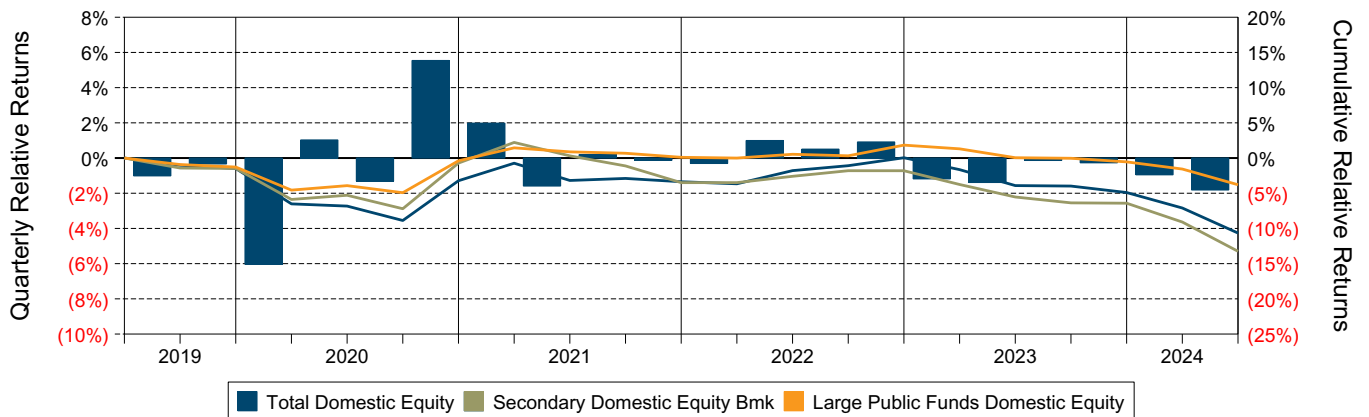
Return Analysis

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

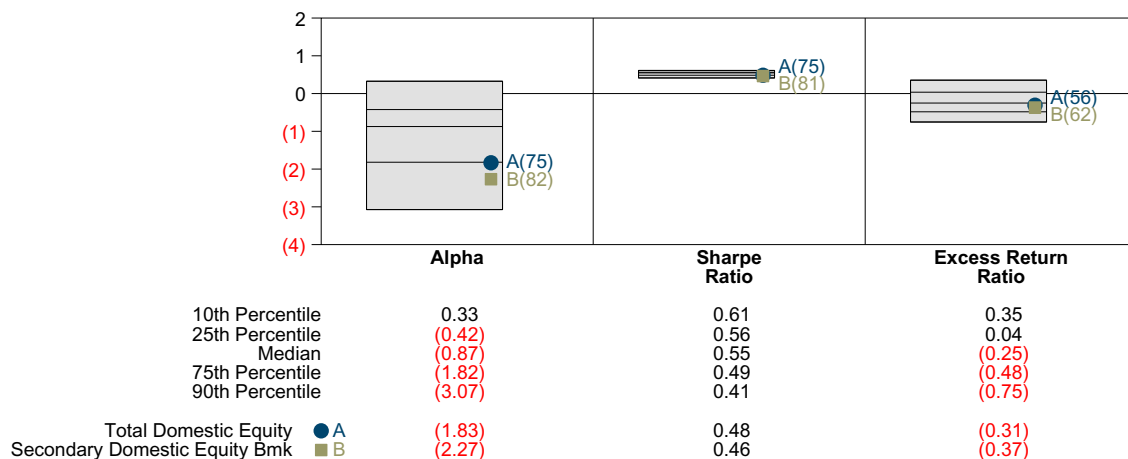
Performance vs Large Public Funds Domestic Equity (Gross)



Cumulative and Quarterly Relative Returns vs Domestic Equity Benchmark



Risk Adjusted Return Measures vs Domestic Equity Benchmark Rankings Against Large Public Funds Domestic Equity (Gross) Five Years Ended June 30, 2024

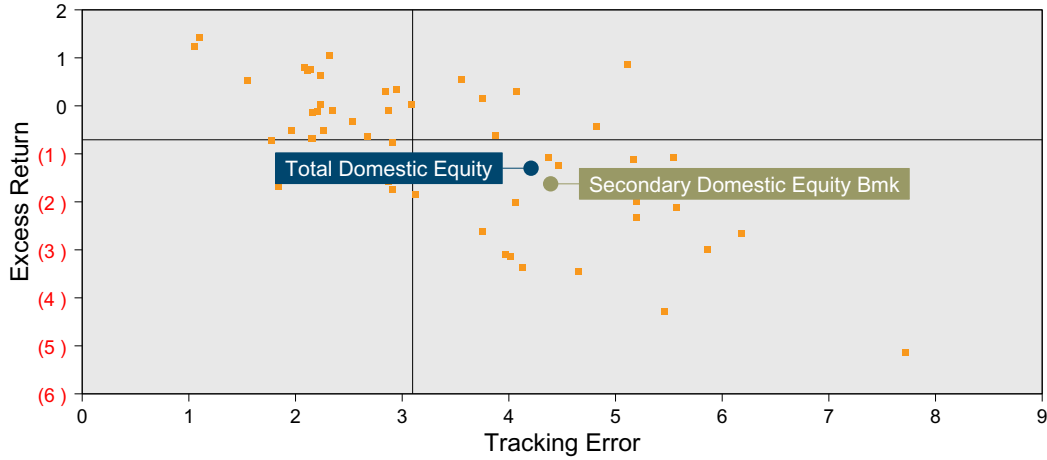


Total Domestic Equity Risk Analysis Summary

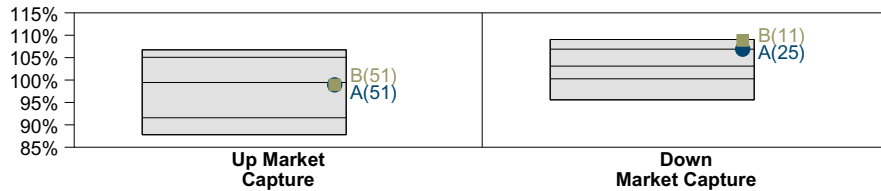
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

Risk Analysis vs Large Public Funds Domestic Equity (Gross) Five Years Ended June 30, 2024



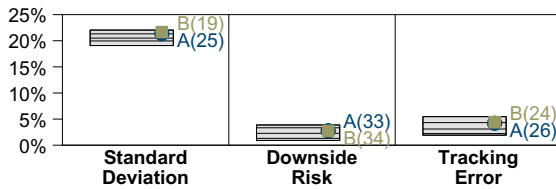
Market Capture vs Domestic Equity Benchmark Rankings Against Large Public Funds Domestic Equity (Gross) Five Years Ended June 30, 2024



	Up Market Capture	Down Market Capture
10th Percentile	106.74	109.05
25th Percentile	105.07	106.89
Median	99.45	103.11
75th Percentile	91.58	100.27
90th Percentile	87.79	95.58

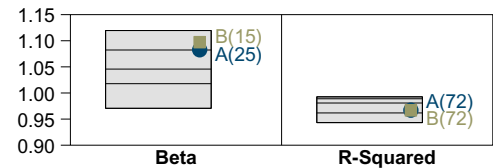
Total Domestic Equity	● A	98.92	106.88
Secondary Domestic Equity Bmk	■ B	98.93	108.82

Risk Statistics Rankings vs Domestic Equity Benchmark Rankings Against Large Public Funds Domestic Equity (Gross) Five Years Ended June 30, 2024



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	22.04	3.88	5.47
25th Percentile	21.33	3.33	4.33
Median	20.51	2.27	3.10
75th Percentile	19.96	1.31	2.22
90th Percentile	19.08	0.91	1.92

Total Domestic Equity	● A	21.36	2.77	4.21
Secondary Domestic Equity Bmk	■ B	21.66	2.74	4.39



	Beta	R-Squared
10th Percentile	1.12	0.99
25th Percentile	1.08	0.99
Median	1.05	0.98
75th Percentile	1.02	0.96
90th Percentile	0.97	0.94

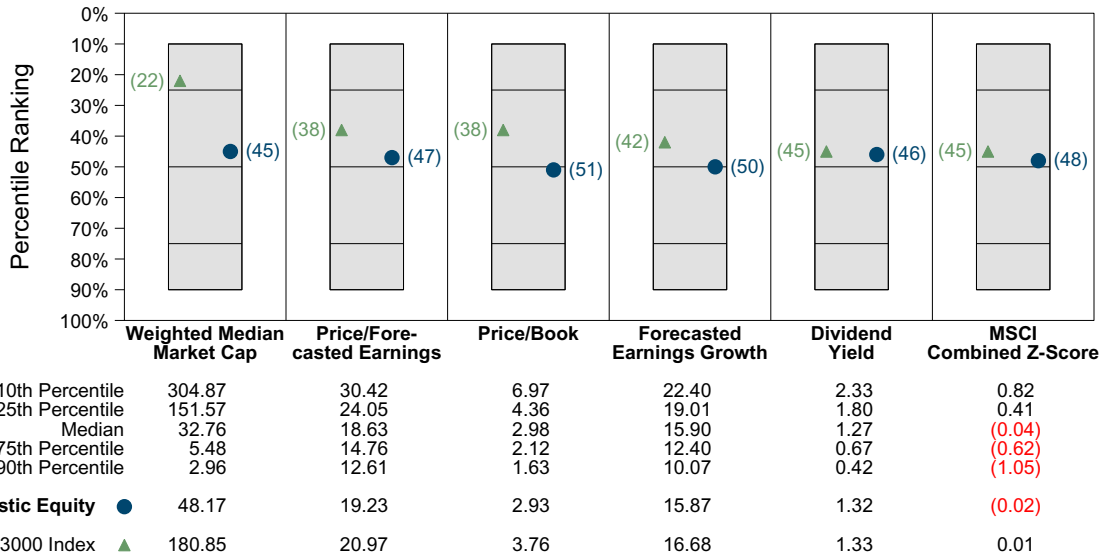
Total Domestic Equity	● A	1.08	0.97
Secondary Domestic Equity Bmk	■ B	1.10	0.97

Total Domestic Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

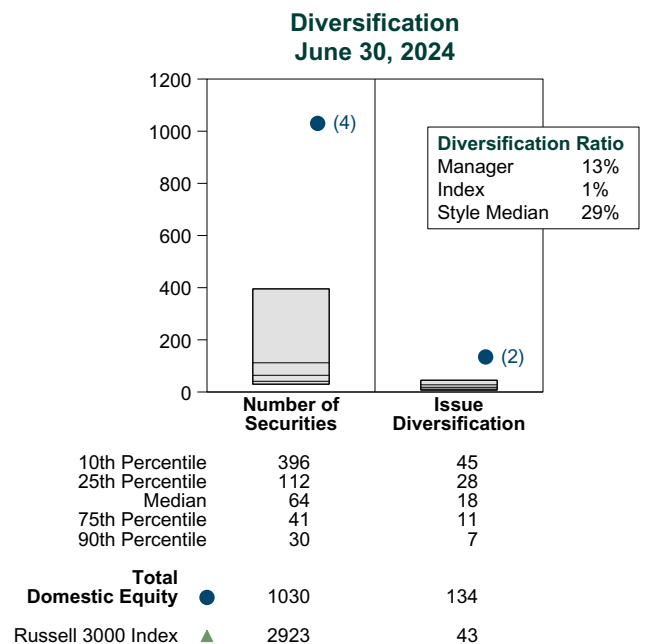
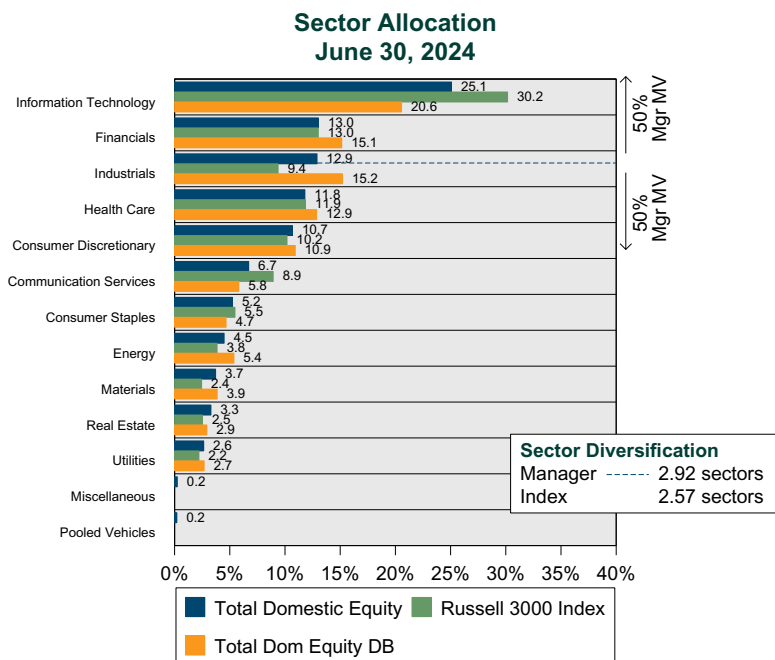
This graph compares the portfolio's characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Total Domestic Equity Database as of June 30, 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.



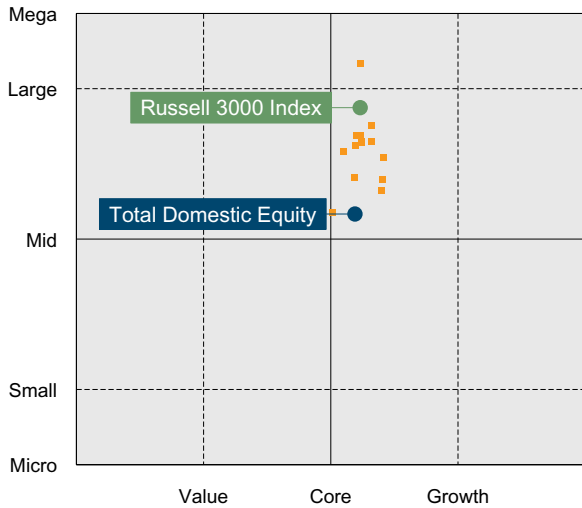
Current Holdings Based Style Analysis

Total Domestic Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

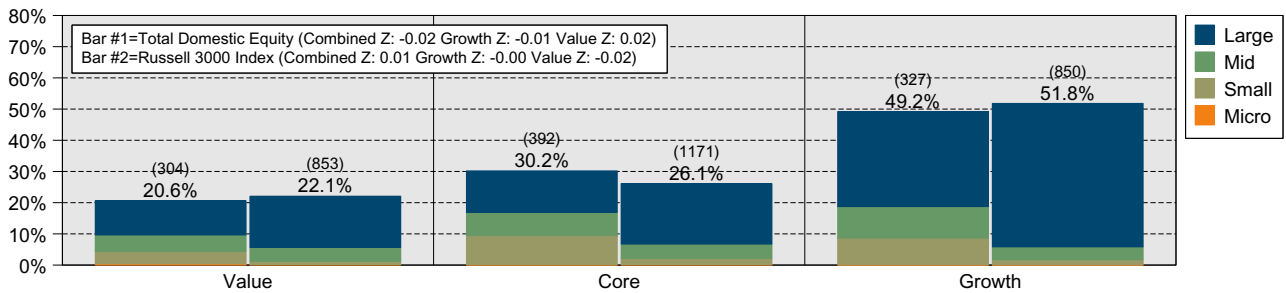
Style Map vs Large Public Funds DE Holdings as of June 30, 2024



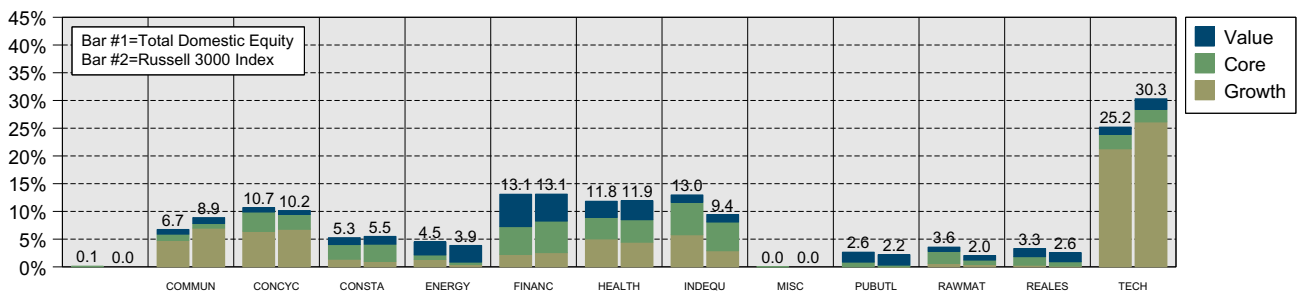
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	11.0% (101)	13.3% (94)	30.5% (78)	54.7% (273)
	16.4% (101)	19.4% (93)	46.0% (93)	81.7% (287)
Mid	5.3% (130)	7.4% (140)	10.1% (122)	22.9% (392)
	4.5% (166)	4.6% (203)	4.1% (207)	13.3% (576)
Small	3.9% (62)	9.3% (149)	8.5% (124)	21.8% (335)
	1.0% (261)	2.0% (508)	1.6% (381)	4.6% (1150)
Micro	0.4% (11)	0.1% (9)	0.1% (3)	0.6% (23)
	0.2% (325)	0.2% (367)	0.1% (169)	0.4% (861)
Total	20.6% (304)	30.2% (392)	49.2% (327)	100.0% (1023)
	22.1% (853)	26.1% (1171)	51.8% (850)	100.0% (2874)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



Sector Weights Distribution Holdings as of June 30, 2024



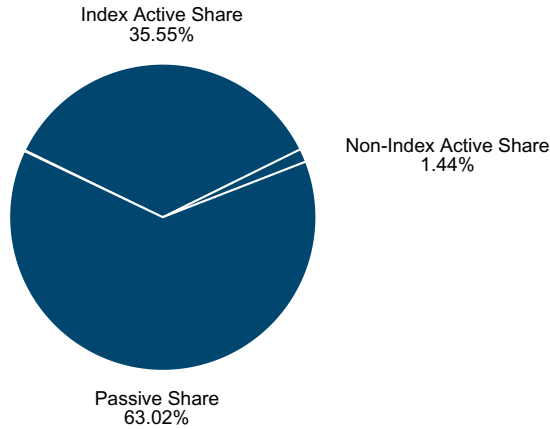
Total Domestic Equity

Active Share Analysis as of June 30, 2024

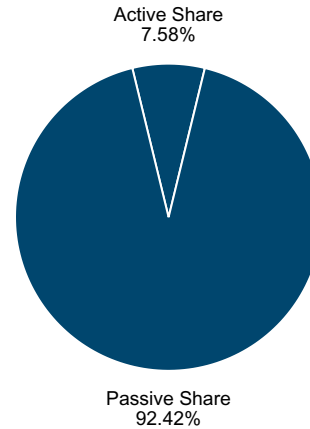
vs. Russell 3000 Index

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.

Holdings-Level Active Share



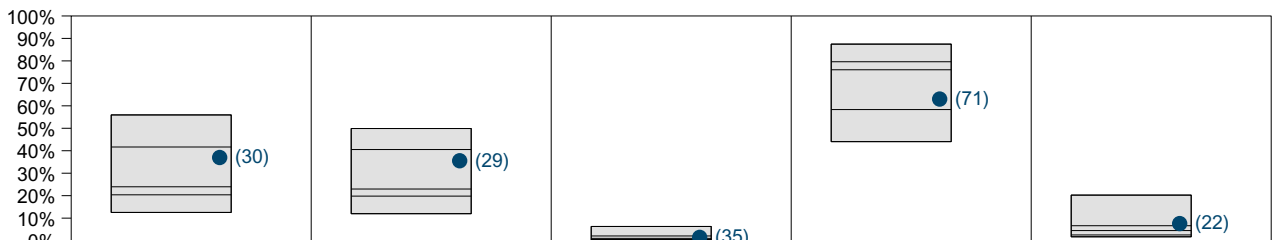
Sector Exposure Active Share



Total Active Share: 36.98%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	15.87%	1.09%	16.96%	8.93%	6.71%	2.17%
Consumer Discretionary	38.17%	1.70%	39.87%	10.18%	10.68%	4.00%
Consumer Staples	29.57%	1.25%	30.81%	5.47%	5.24%	1.72%
Energy	42.59%	2.51%	45.10%	3.85%	4.49%	1.76%
Financials	38.92%	0.13%	39.05%	13.02%	13.03%	5.13%
Health Care	35.27%	0.97%	36.24%	11.85%	11.80%	4.31%
Industrials	50.88%	0.95%	51.84%	9.37%	12.90%	5.37%
Information Technology	20.80%	1.36%	22.16%	30.16%	25.08%	7.97%
Materials	59.60%	4.24%	63.84%	2.44%	3.71%	1.86%
Miscellaneous	0.00%	100.00%	100.00%	-	0.25%	0.06%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.20%	0.10%
Real Estate	54.46%	0.90%	55.36%	2.53%	3.29%	1.50%
Utilities	44.37%	0.00%	44.37%	2.20%	2.64%	0.98%
Total	35.55%	1.44%	36.98%	100.00%	100.00%	36.92%

Active Share vs. Lg Public Funds DE

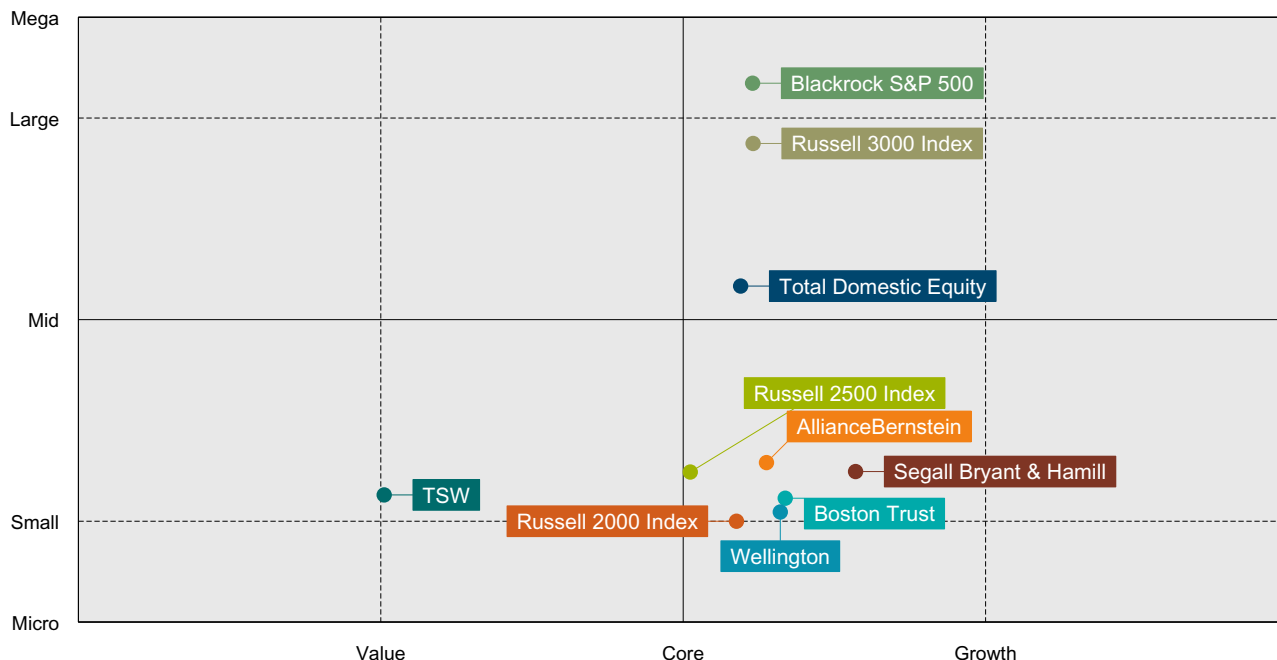


10th Percentile	55.94	49.89	6.29	87.46	20.26
25th Percentile	41.66	40.53	2.06	79.61	6.63
Median	23.95	22.95	1.00	76.05	4.46
75th Percentile	20.39	19.80	0.46	58.34	2.51
90th Percentile	12.54	11.97	0.29	44.06	1.70
Total Domestic Equity	36.98	35.55	1.44	63.02	7.58

Holdings Based Style Analysis For One Quarter Ended June 30, 2024

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

Style Map Holdings for One Quarter Ended June 30, 2024

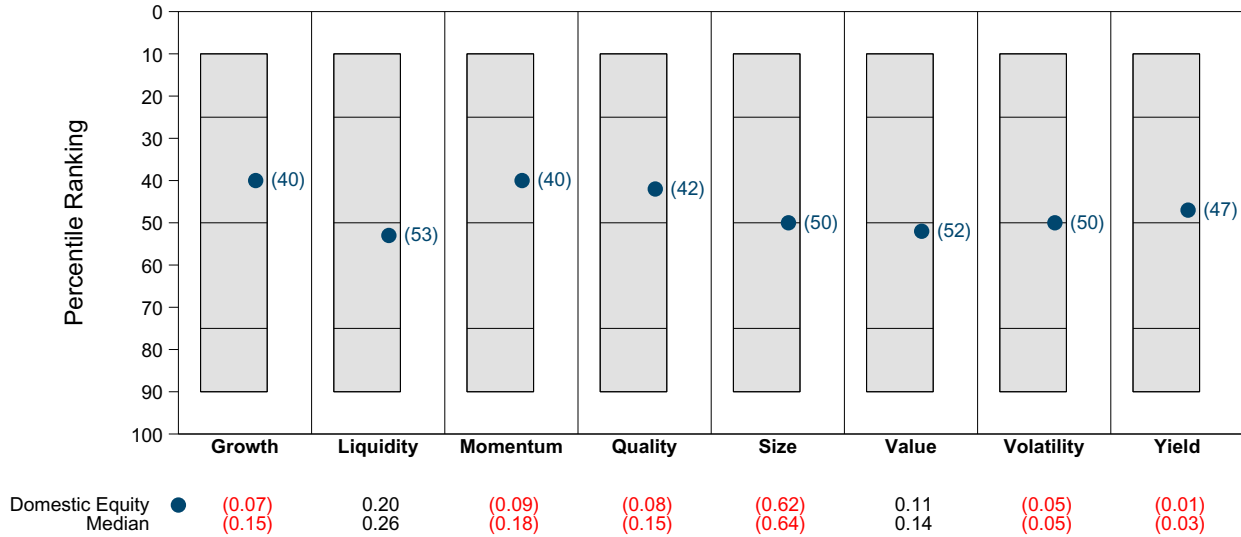


	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
Total Domestic Equity	100.00%	48.17	(0.02)	(0.01)	0.02	1030	134.44
Blackrock S&P 500	58.50%	276.00	0.01	(0.01)	(0.02)	504	27.71
Russell 3000 Index	-	180.85	0.01	(0.00)	(0.02)	2923	42.85
AllianceBernstein	11.32%	7.05	0.05	0.06	0.01	176	65.18
TSW	6.55%	4.82	(1.07)	(0.36)	0.71	85	26.94
Russell 2500 Index	-	6.40	(0.15)	(0.05)	0.10	2414	300.42
Boston Trust	6.01%	4.59	0.10	0.05	(0.05)	70	25.16
Segall Bryant & Hamill	6.62%	6.43	0.28	0.11	(0.17)	84	29.41
Wellington	11.01%	3.63	0.08	0.05	(0.04)	249	61.83
Russell 2000 Index	-	3.00	(0.03)	(0.02)	0.01	1919	271.66

Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Total Domestic Equity Database group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

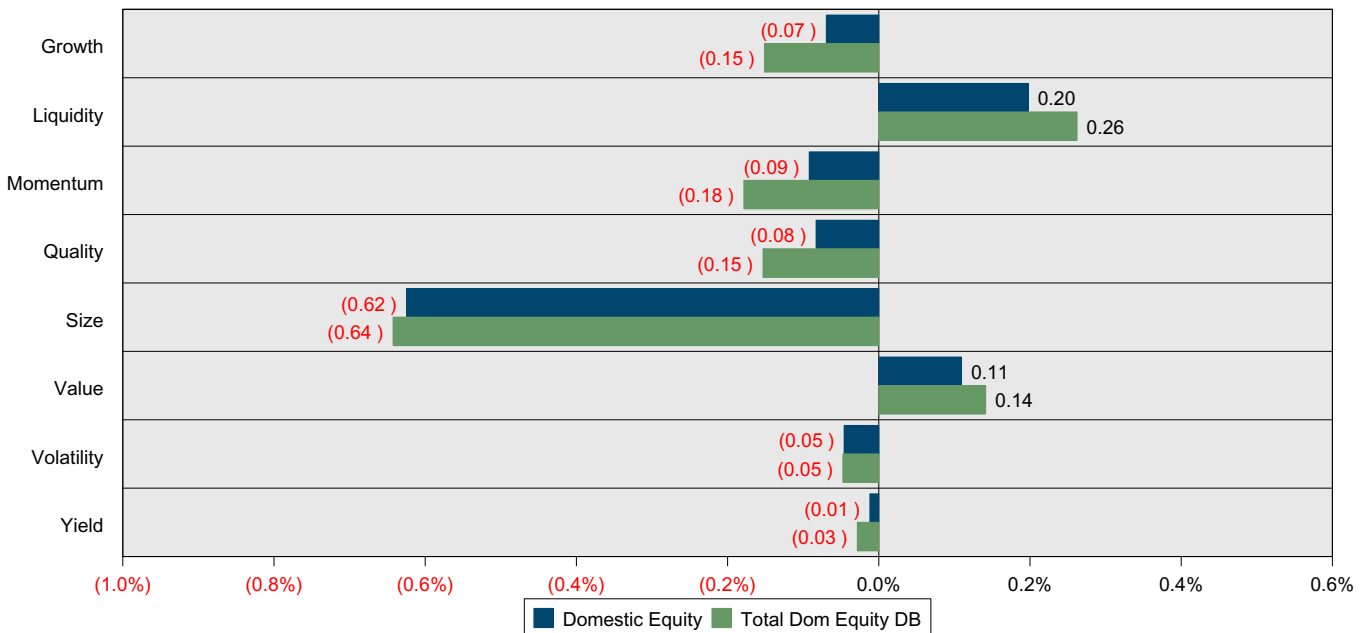
Factor Exposures Relative to Russell 3000 Index, Rankings vs Total Domestic Equity Database for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Total Domestic Equity Database group relative to the Russell 3000 Index.

Factor Exposures Relative to Russell 3000 Index for Period Ended June 30, 2024



Blackrock S&P 500 Period Ended June 30, 2024

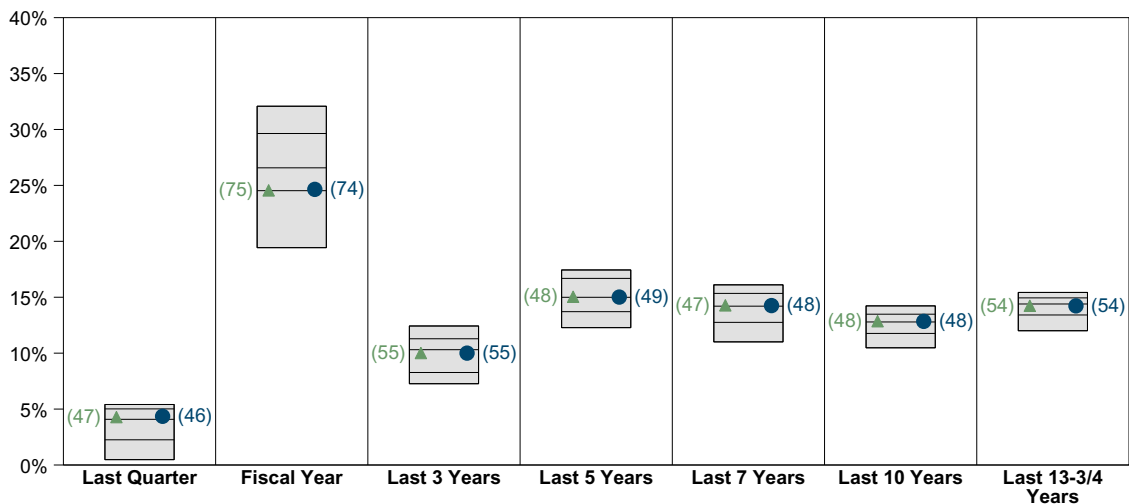
Investment Philosophy

BlackRock index strategies are designed to provide the best possible tracking error versus their respective benchmarks with minimal transaction costs. NHRS inception in the fund was August 2010.

Quarterly Asset Growth

Beginning Market Value	\$2,389,961,384
Net New Investment	\$-175,000,000
Investment Gains/(Losses)	\$90,459,599
Ending Market Value	\$2,305,420,983

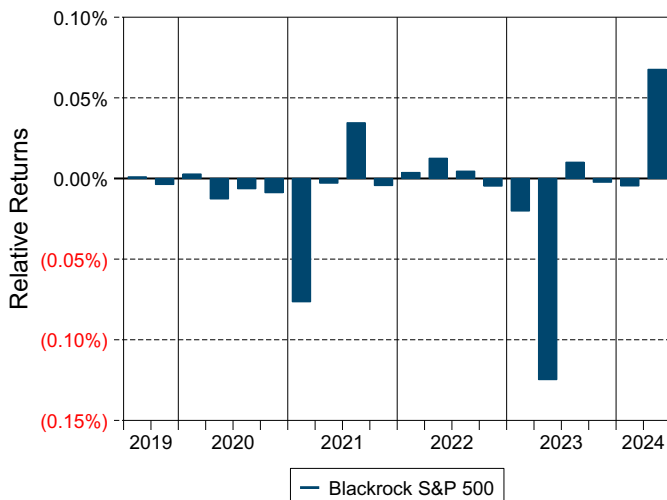
Performance vs Callan Large Cap Core (Gross)



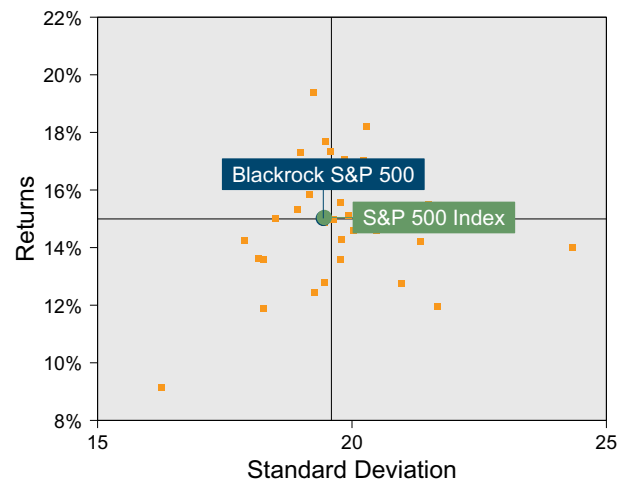
10th Percentile	5.41	32.08	12.43	17.44	16.11	14.23	15.43
25th Percentile	5.02	29.64	11.29	16.68	15.34	13.48	14.94
Median	4.08	26.57	10.31	15.00	14.20	12.79	14.40
75th Percentile	2.25	24.53	8.27	13.71	12.75	11.76	13.42
90th Percentile	0.48	19.43	7.27	12.28	11.01	10.48	12.01

Blackrock S&P 500	●	4.35	24.64	10.00	15.01	14.25	12.84	14.23
S&P 500 Index	▲	4.28	24.56	10.01	15.05	14.28	12.86	14.24

Relative Return vs S&P 500 Index



Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return

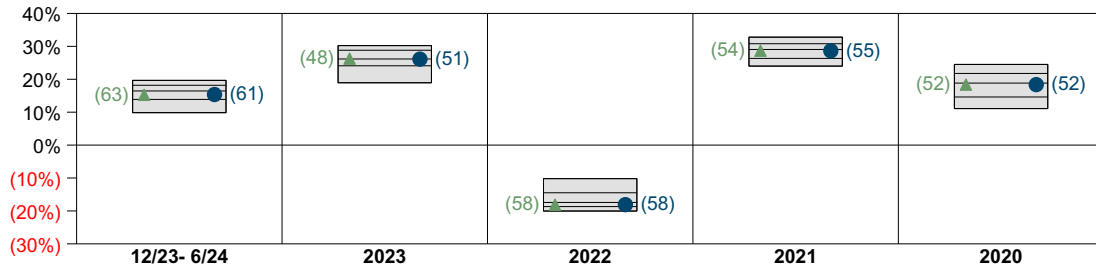


Blackrock S&P 500 Return Analysis Summary

Return Analysis

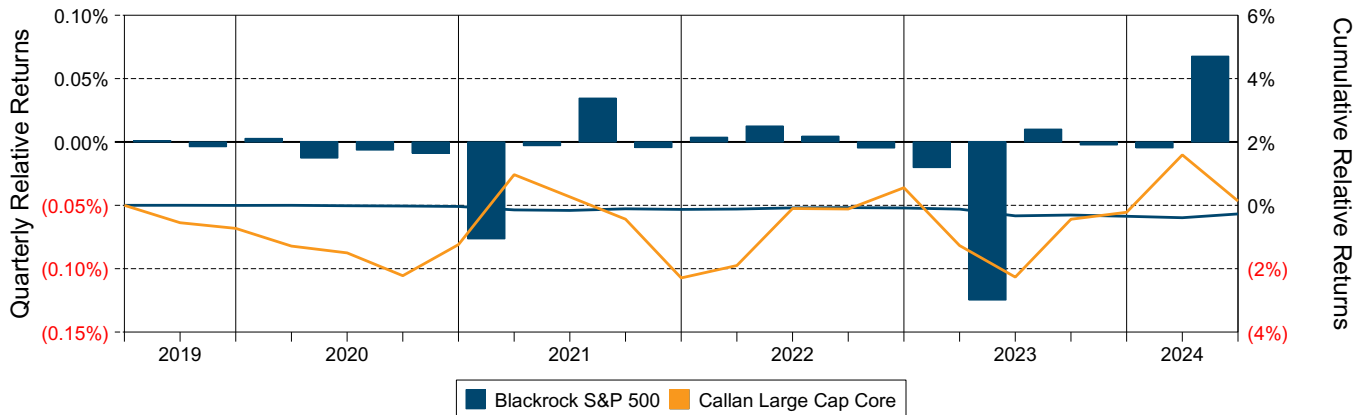
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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

Performance vs Callan Large Cap Core (Gross)

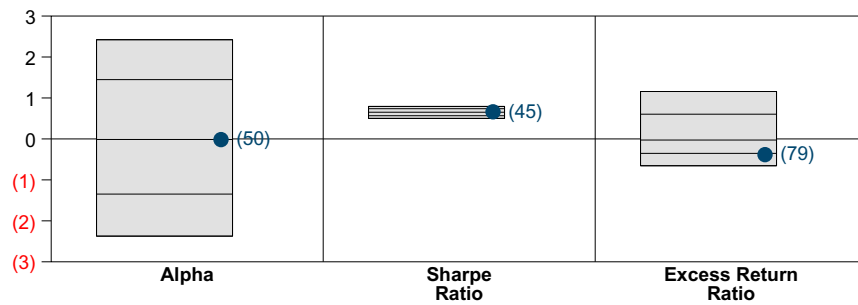


10th Percentile	19.66	30.23	(10.19)	32.80	24.51
25th Percentile	18.18	28.82	(14.48)	30.79	21.77
Median	16.45	26.16	(17.42)	29.05	18.84
75th Percentile	13.88	24.09	(18.69)	26.34	14.62
90th Percentile	9.85	18.94	(20.04)	24.00	11.09
Blackrock S&P 500	● 15.36	26.11	(18.10)	28.64	18.37
S&P 500 Index	▲ 15.29	26.29	(18.11)	28.71	18.40

Cumulative and Quarterly Relative Returns vs S&P 500 Index



Risk Adjusted Return Measures vs S&P 500 Index Rankings Against Callan Large Cap Core (Gross) Five Years Ended June 30, 2024



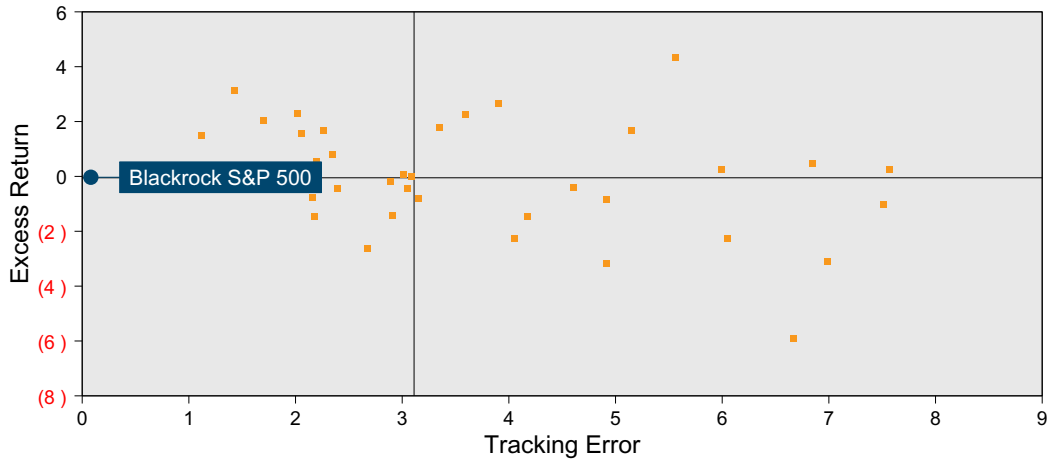
10th Percentile	2.42	0.79	1.16
25th Percentile	1.45	0.74	0.60
Median	(0.01)	0.65	(0.03)
75th Percentile	(1.35)	0.57	(0.35)
90th Percentile	(2.37)	0.50	(0.66)
Blackrock S&P 500	● (0.02)	0.66	(0.38)

Blackrock S&P 500 Risk Analysis Summary

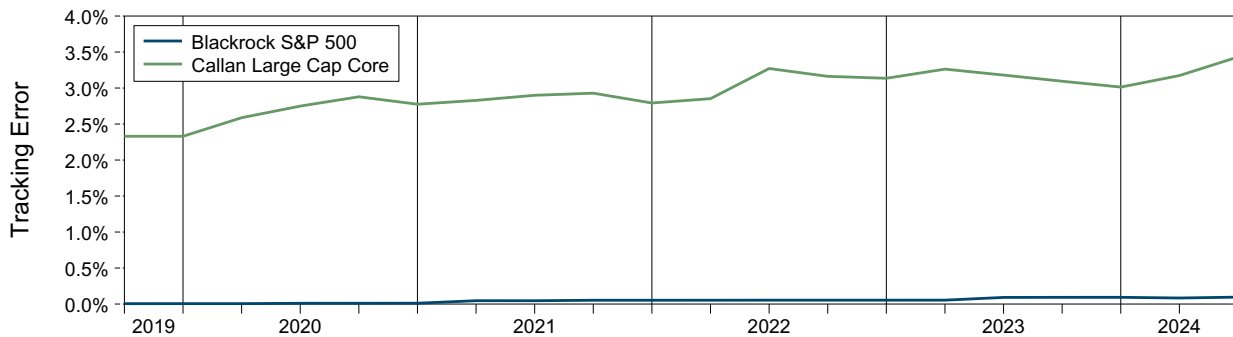
Risk Analysis

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.

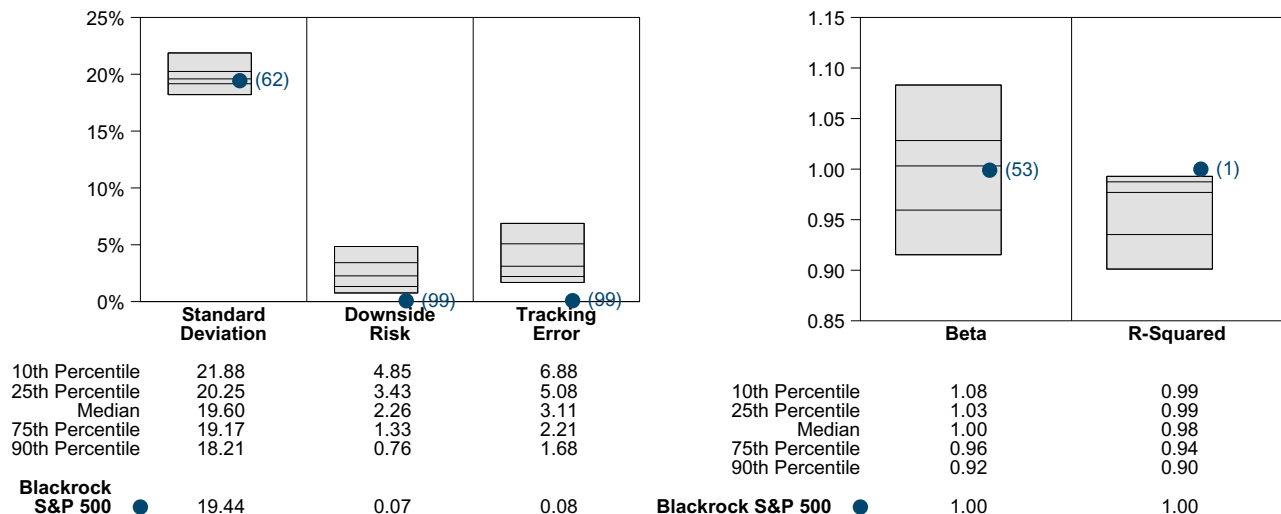
Risk Analysis vs Callan Large Cap Core (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs S&P 500 Index



Risk Statistics Rankings vs S&P 500 Index Rankings Against Callan Large Cap Core (Gross) Five Years Ended June 30, 2024

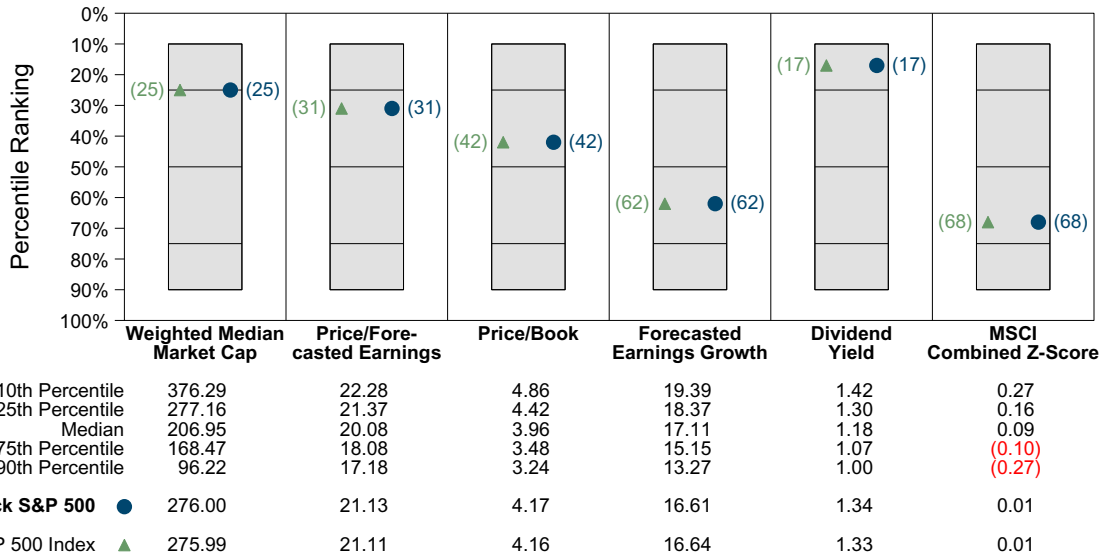


Blackrock S&P 500 Equity Characteristics Analysis Summary

Portfolio Characteristics

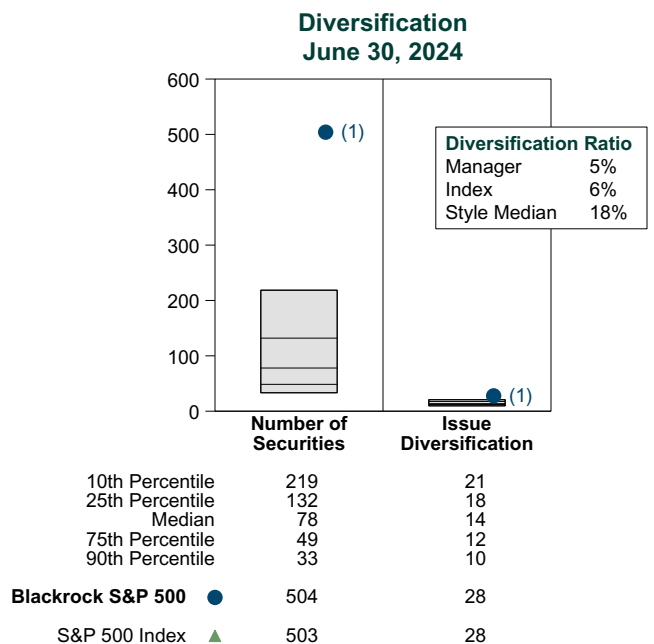
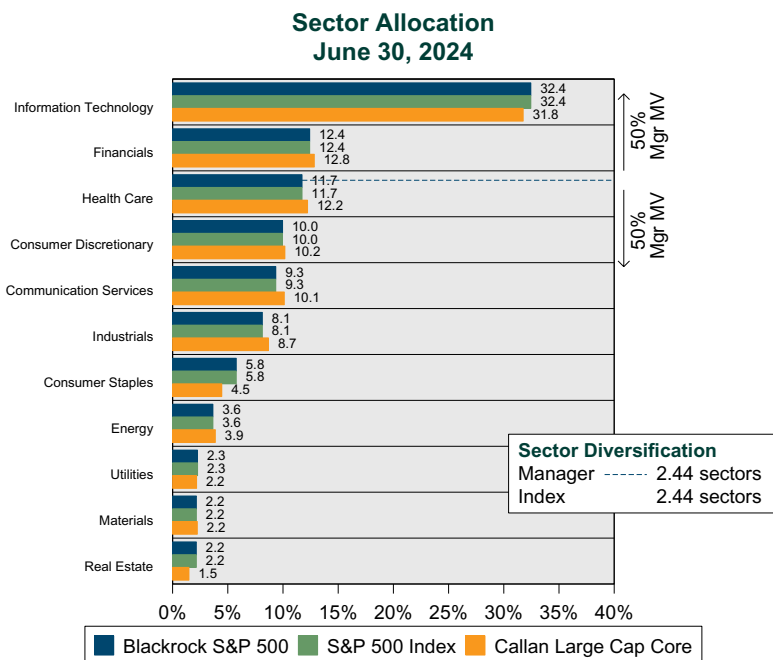
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core as of June 30, 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.



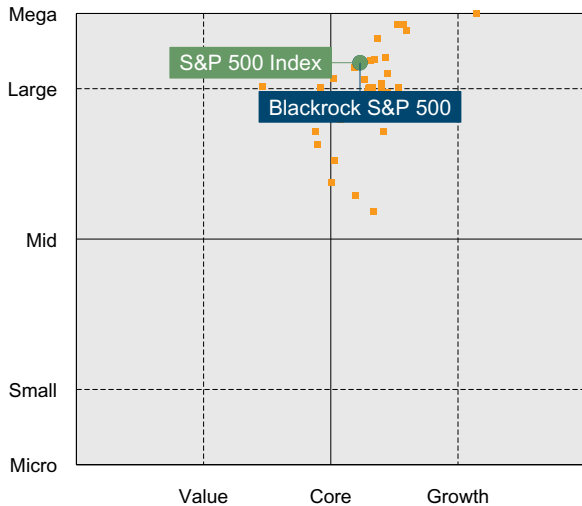
Current Holdings Based Style Analysis

Blackrock S&P 500

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

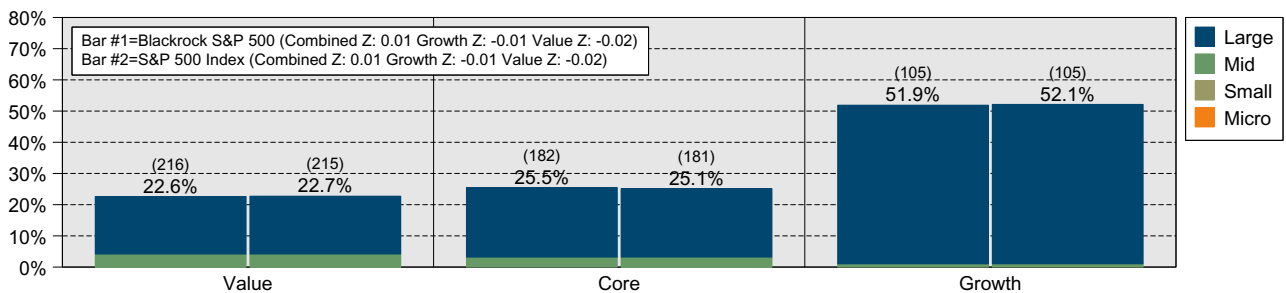
Style Map vs Callan Large Cap Core Holdings as of June 30, 2024



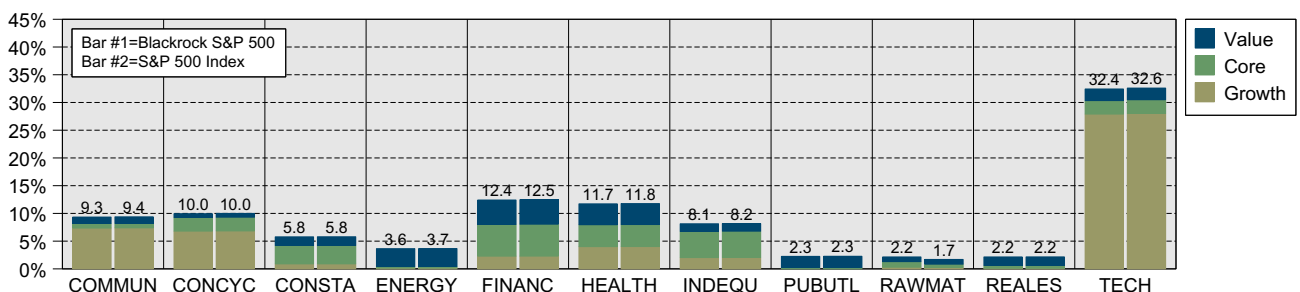
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	18.4% (101)	22.3% (94)	50.8% (77)	91.6% (272)
	18.5% (101)	21.9% (93)	51.1% (77)	91.5% (271)
Mid	4.2% (115)	3.2% (88)	1.1% (28)	8.4% (231)
	4.2% (114)	3.2% (88)	1.1% (28)	8.5% (230)
Small	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	22.6% (216)	25.5% (182)	51.9% (105)	100.0% (503)
	22.7% (215)	25.1% (181)	52.1% (105)	100.0% (501)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



Sector Weights Distribution Holdings as of June 30, 2024



SMid Cap Domestic Equity Period Ended June 30, 2024

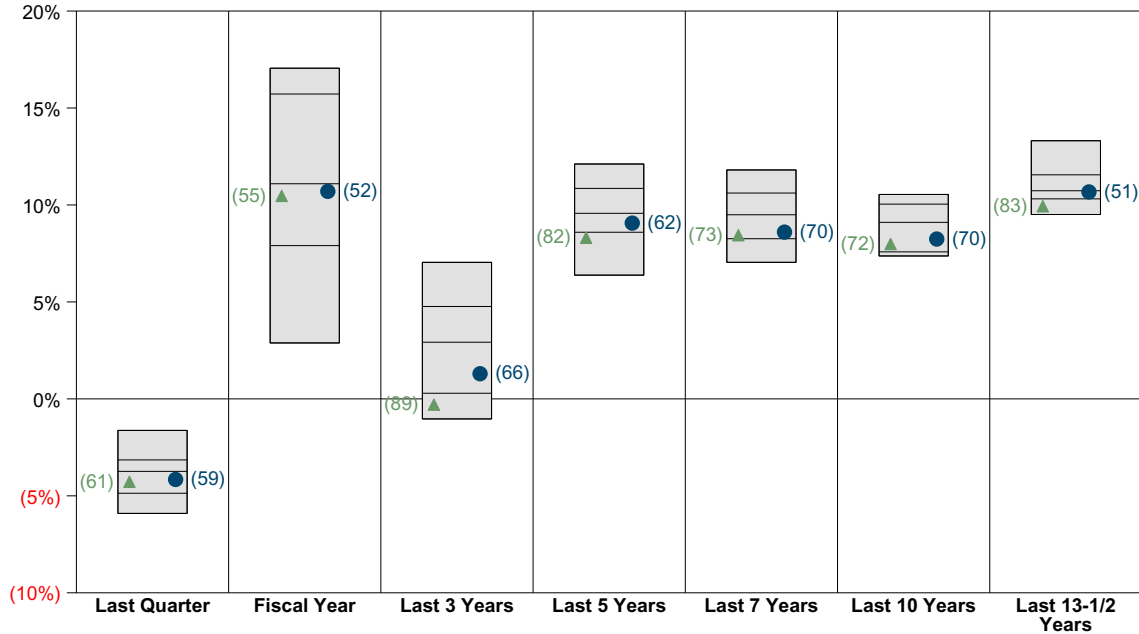
Quarterly Summary and Highlights

- SMid Cap Domestic Equity's portfolio posted a (4.16)% return for the quarter placing it in the 59 percentile of the Callan Small/MidCap Core group for the quarter and in the 52 percentile for the last year.
- SMid Cap Domestic Equity's portfolio outperformed the Russell 2500 Index by 0.12% for the quarter and outperformed the Russell 2500 Index for the year by 0.23%.

Quarterly Asset Growth

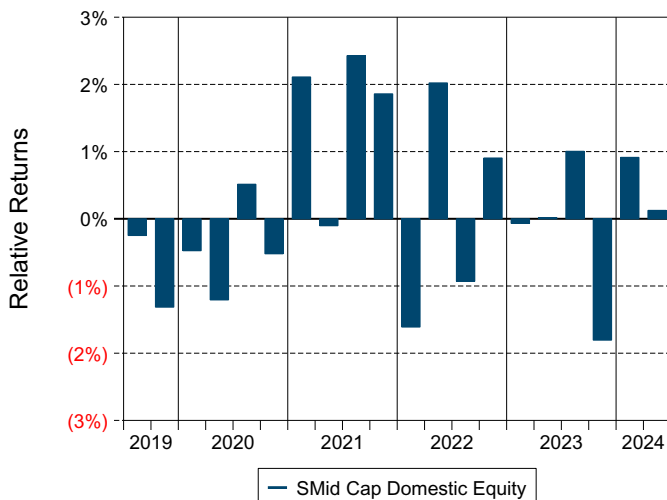
Beginning Market Value	\$734,754,865
Net New Investment	\$0
Investment Gains/(Losses)	\$-30,534,707
Ending Market Value	\$704,220,158

Performance vs Callan Small/MidCap Core (Gross)

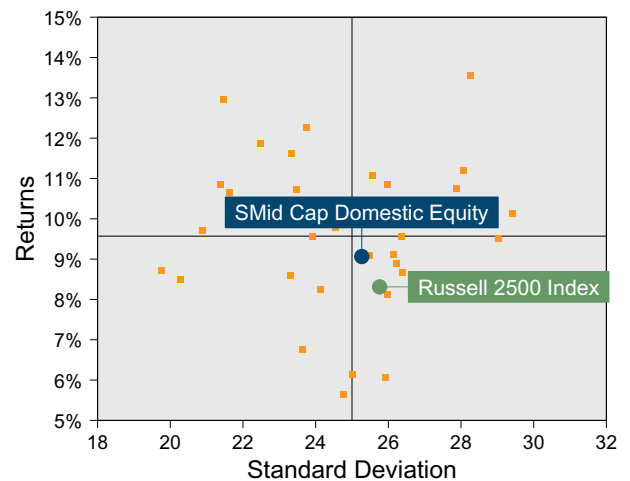


10th Percentile	(1.63)	17.05	7.04	12.11	11.81	10.54	13.31
25th Percentile	(3.15)	15.72	4.76	10.85	10.62	10.04	11.55
Median	(3.74)	11.09	2.92	9.57	9.49	9.10	10.73
75th Percentile	(4.87)	7.90	0.29	8.59	8.26	7.58	10.31
90th Percentile	(5.91)	2.88	(1.03)	6.38	7.04	7.37	9.51
SMid Cap Domestic Equity	● (4.16)	10.70	1.30	9.06	8.60	8.24	10.67
Russell 2500 Index	▲ (4.27)	10.47	(0.29)	8.31	8.44	7.99	9.93

Relative Return vs Russell 2500 Index



Callan Small/MidCap Core (Gross) Annualized Five Year Risk vs Return

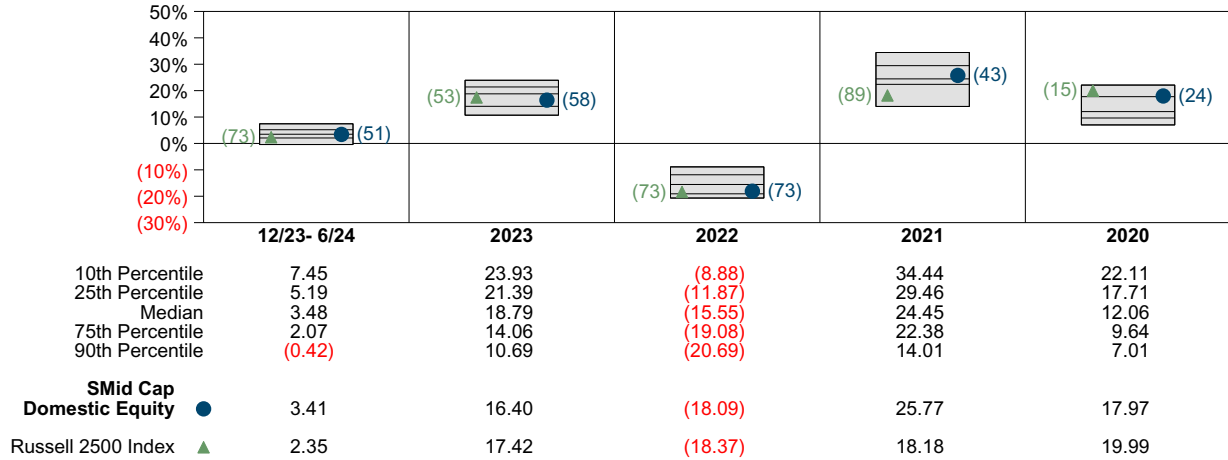


SMid Cap Domestic Equity Return Analysis Summary

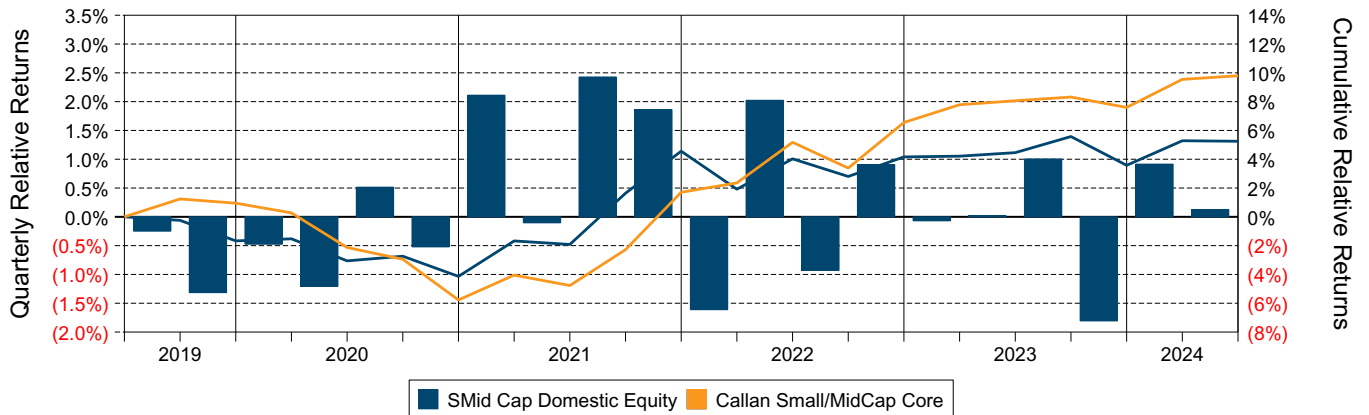
Return Analysis

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

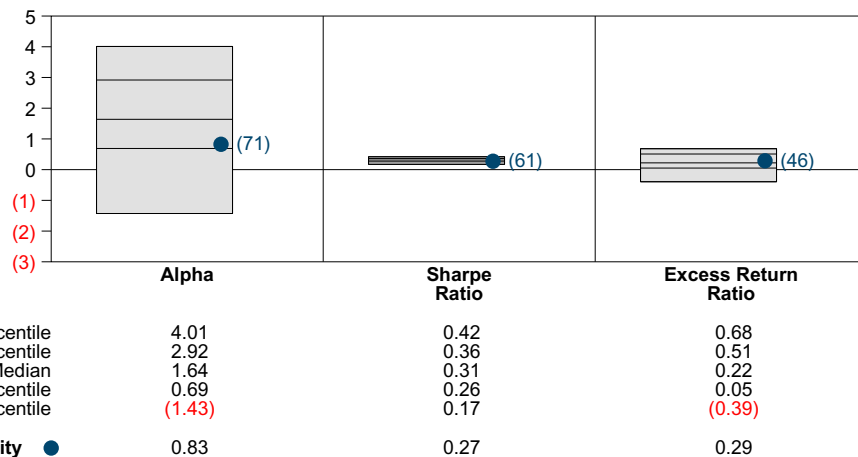
Performance vs Callan Small/MidCap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2500 Index



Risk Adjusted Return Measures vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024

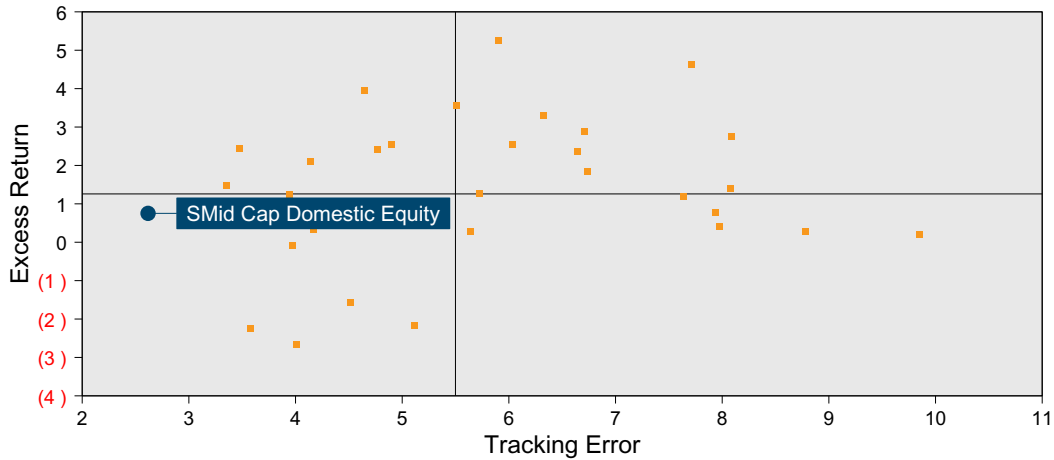


SMid Cap Domestic Equity Risk Analysis Summary

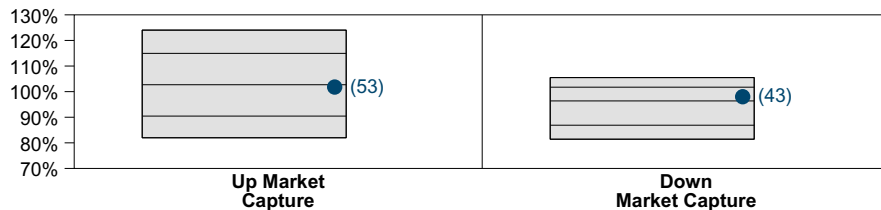
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

Risk Analysis vs Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024

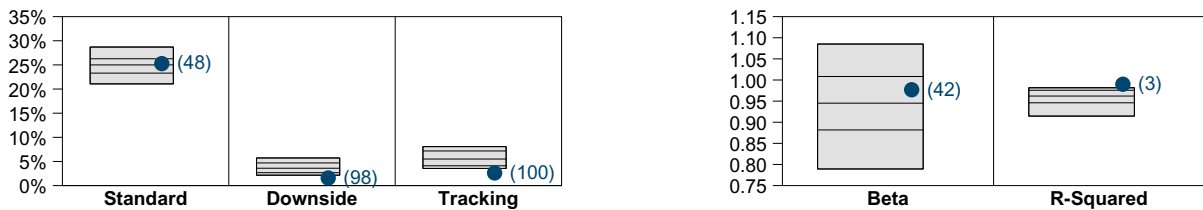


Market Capture vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024



	Up Market Capture	Down Market Capture
10th Percentile	124.03	105.49
25th Percentile	114.95	101.74
Median	102.70	96.37
75th Percentile	90.44	86.88
90th Percentile	81.98	81.42
SMid Cap Domestic Equity	101.79	98.01

Risk Statistics Rankings vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024



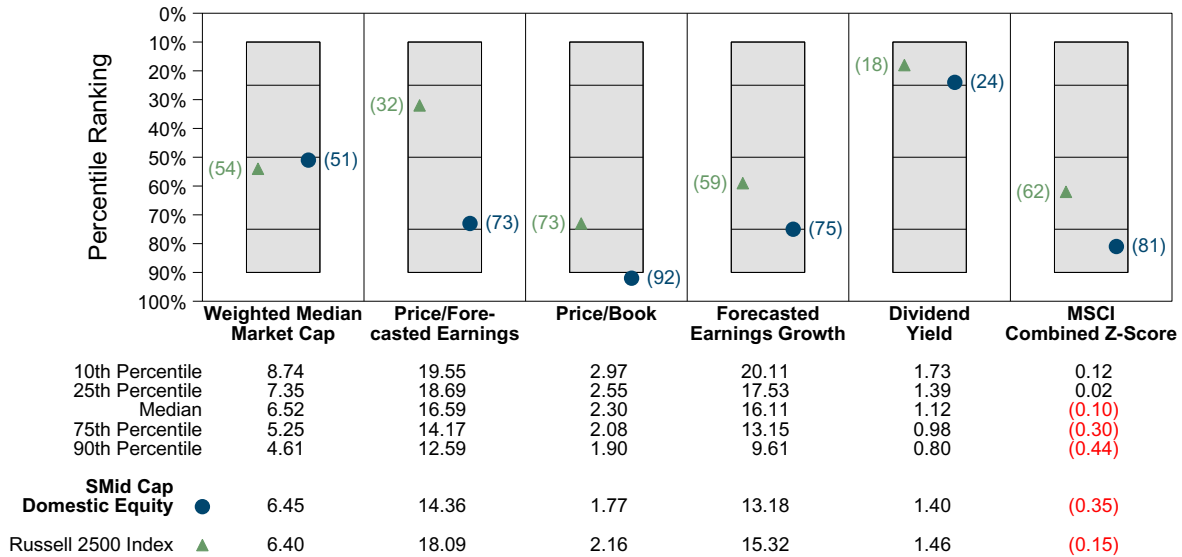
	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	28.70	5.72	8.08	1.09	0.98
25th Percentile	26.27	4.70	7.18	1.01	0.98
Median	25.00	3.60	5.50	0.95	0.96
75th Percentile	23.30	2.67	4.10	0.88	0.95
90th Percentile	21.07	2.16	3.55	0.79	0.91
SMid Cap Domestic Equity	25.27	1.57	2.62	0.98	0.99

SMid Cap Domestic Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

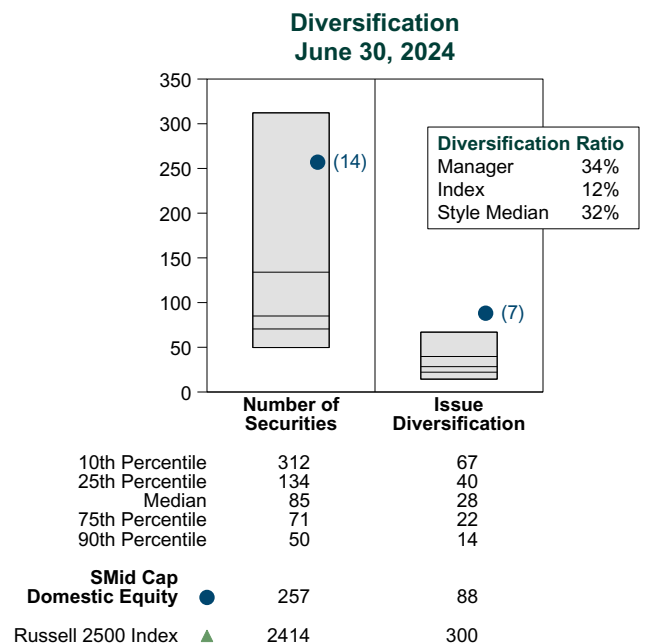
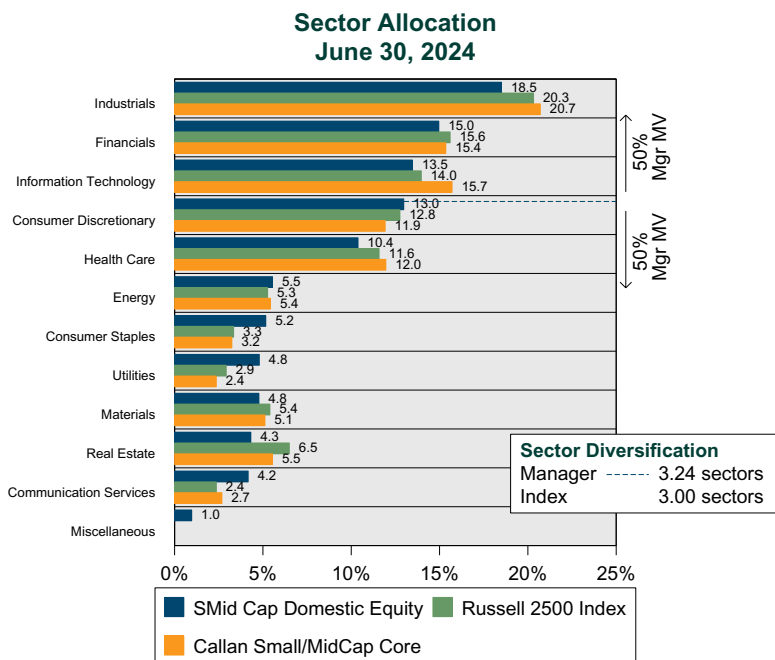
This graph compares the portfolio's characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small/MidCap Core as of June 30, 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.



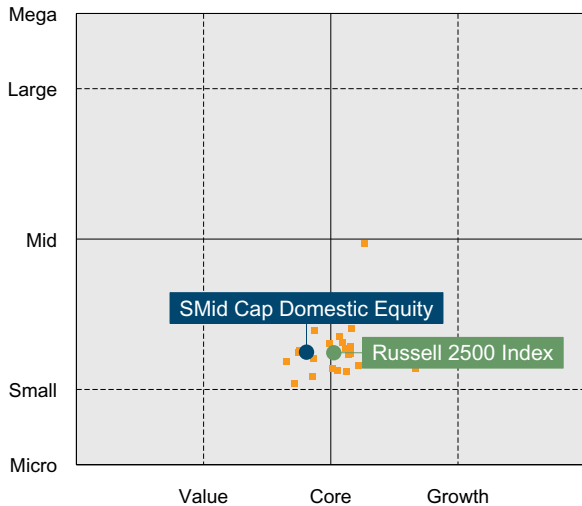
Current Holdings Based Style Analysis

SMid Cap Domestic Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

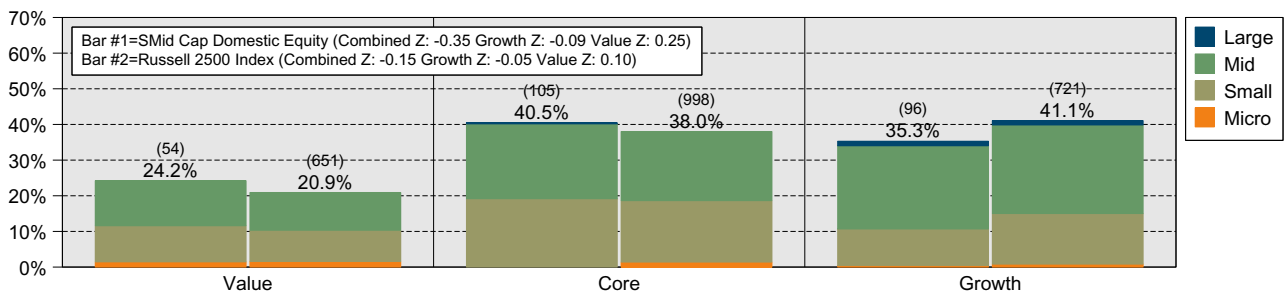
Style Map vs Callan Small/MidCap Core Holdings as of June 30, 2024



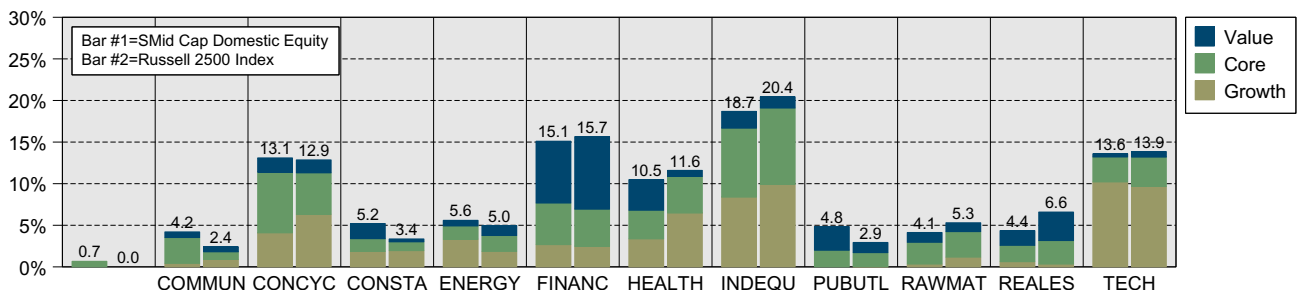
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.3% (1)	1.3% (4)	1.6% (5)
	0.0% (0)	0.0% (0)	1.2% (2)	1.2% (2)
Mid	12.6% (26)	21.0% (51)	23.3% (60)	57.0% (137)
	10.6% (68)	19.4% (129)	24.9% (169)	54.8% (366)
Small	10.1% (22)	19.2% (53)	10.3% (30)	39.5% (105)
	8.7% (258)	17.2% (504)	14.2% (381)	40.1% (1143)
Micro	1.5% (6)	0.0% (0)	0.4% (2)	1.9% (8)
	1.6% (325)	1.4% (365)	0.8% (169)	3.8% (859)
Total	24.2% (54)	40.5% (105)	35.3% (96)	100.0% (255)
	20.9% (651)	38.0% (998)	41.1% (721)	100.0% (2370)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



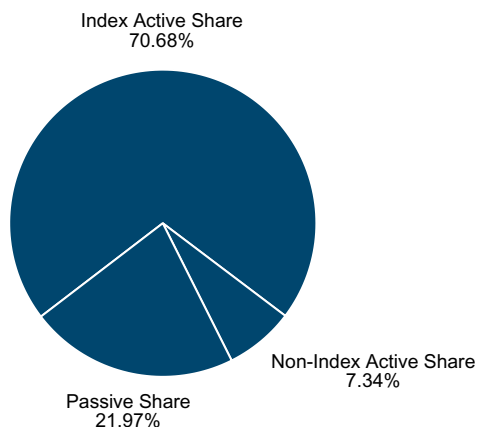
Sector Weights Distribution Holdings as of June 30, 2024



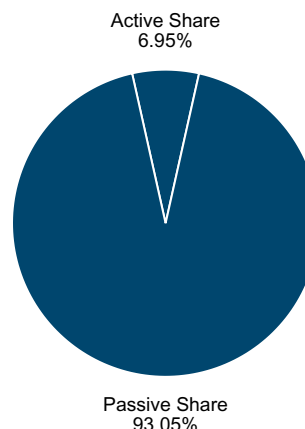
SMid Cap Domestic Equity Active Share Analysis as of June 30, 2024 vs. Russell 2500 Index

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.

Holdings-Level Active Share



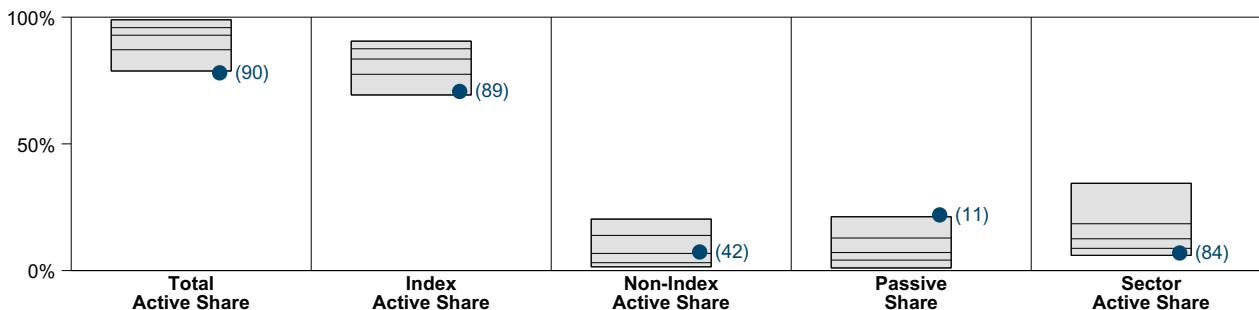
Sector Exposure Active Share



Total Active Share: 78.03%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	63.97%	18.01%	81.99%	2.36%	4.16%	2.83%
Consumer Discretionary	68.04%	8.80%	76.84%	12.75%	12.97%	9.89%
Consumer Staples	59.83%	16.27%	76.10%	3.34%	5.16%	3.44%
Energy	70.44%	4.99%	75.42%	5.27%	5.54%	4.10%
Financials	77.13%	0.00%	77.13%	15.60%	14.96%	11.73%
Health Care	65.40%	14.40%	79.81%	11.58%	10.38%	8.73%
Industrials	69.36%	4.59%	73.95%	20.32%	18.51%	14.08%
Information Technology	70.60%	6.59%	77.19%	13.97%	13.47%	10.51%
Materials	82.00%	5.24%	87.24%	5.39%	4.77%	4.39%
Miscellaneous	0.00%	100.00%	100.00%	-	0.97%	0.15%
Real Estate	87.47%	0.00%	87.47%	6.49%	4.32%	4.60%
Utilities	71.68%	7.40%	79.08%	2.92%	4.80%	3.23%
Total	70.68%	7.34%	78.03%	100.00%	100.00%	77.70%

Active Share vs. Callan Small/MidCap Core



	Total Active Share	Index Active Share	Non-Index Active Share	Passive Share	Sector Active Share
10th Percentile	98.96	90.54	20.33	21.24	34.46
25th Percentile	95.86	87.52	13.88	12.86	18.49
Median	92.88	83.48	6.78	7.12	12.55
75th Percentile	87.14	77.46	3.12	4.14	8.78
90th Percentile	78.76	69.29	1.48	1.04	6.02

SMid Cap Domestic Equity ●

78.03

70.68

7.34

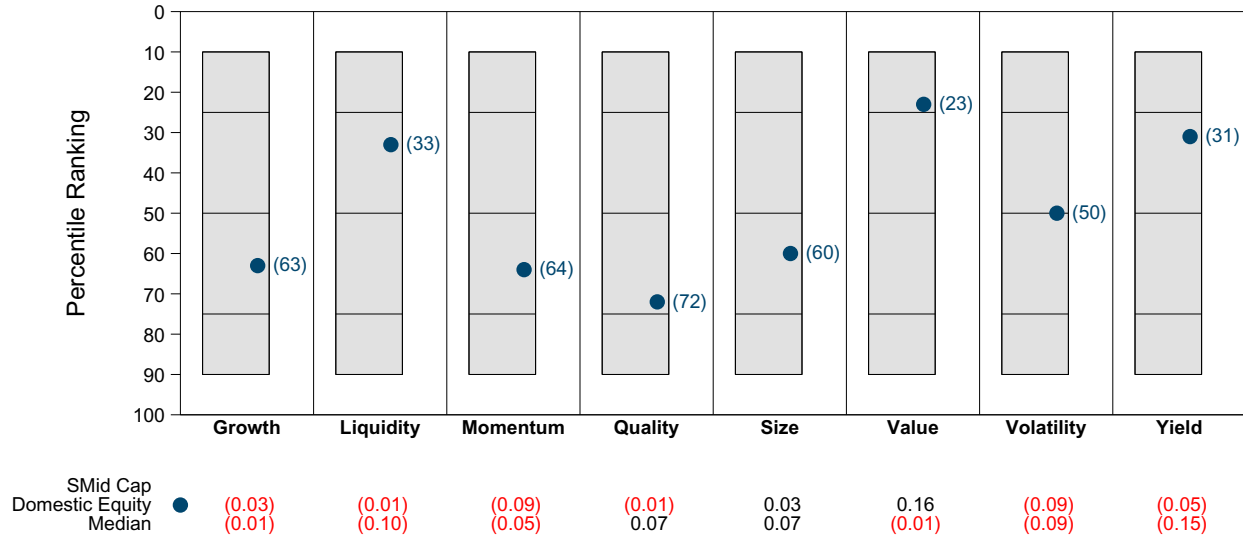
21.97

6.95

Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Small/MidCap Core group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

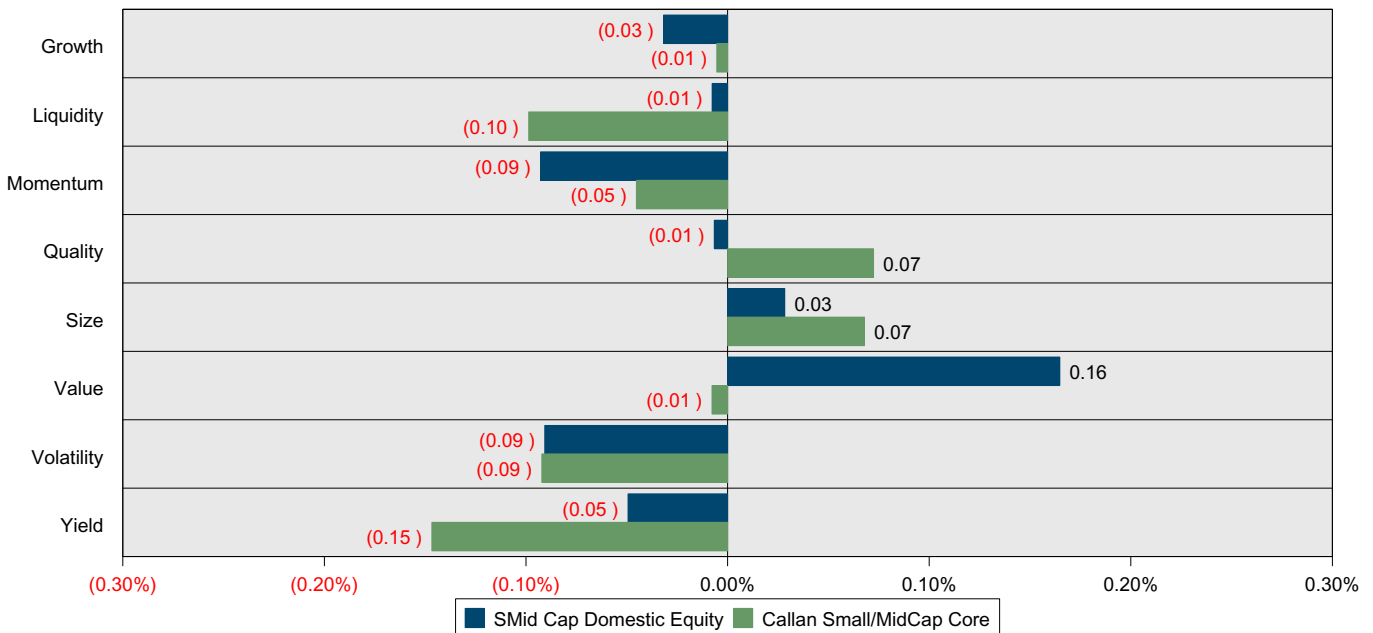
Factor Exposures Relative to Russell 2500 Index, Rankings vs Callan Small/MidCap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Small/MidCap Core group relative to the Russell 2500 Index.

Factor Exposures Relative to Russell 2500 Index for Period Ended June 30, 2024



AllianceBernstein

Period Ended June 30, 2024

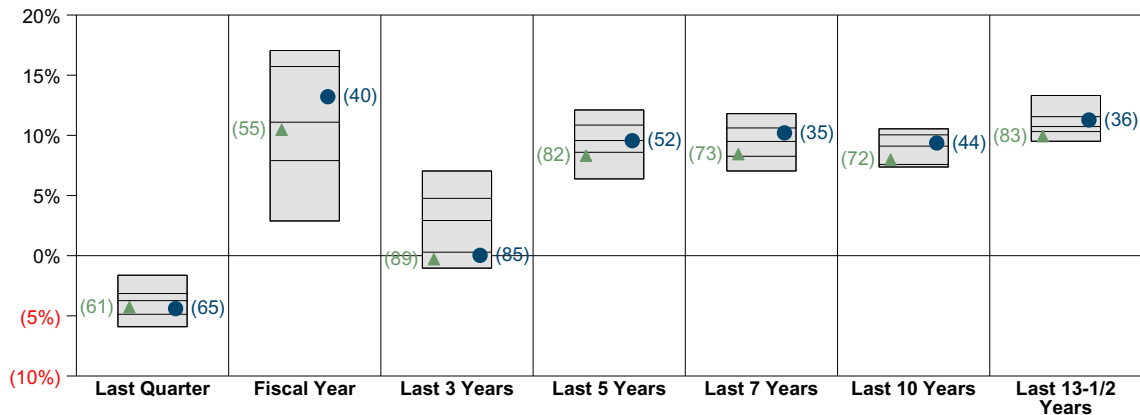
Investment Philosophy

AB's US SMID Cap Style Blend strategy is an active, multi-manager core equity portfolio that holds 150-200 stocks. It aims to deliver alpha by combining a high-conviction growth component (US SMID Cap Growth) with a value component (US SMID Cap Value). Nelson Yu dictates the allocation between the two underlying strategies. Purchase and sale decisions for the growth and value components of the US SMID Style Blend portfolio are made by the respective growth and value teams. NHRS inception in the fund is November 2010.

Quarterly Asset Growth

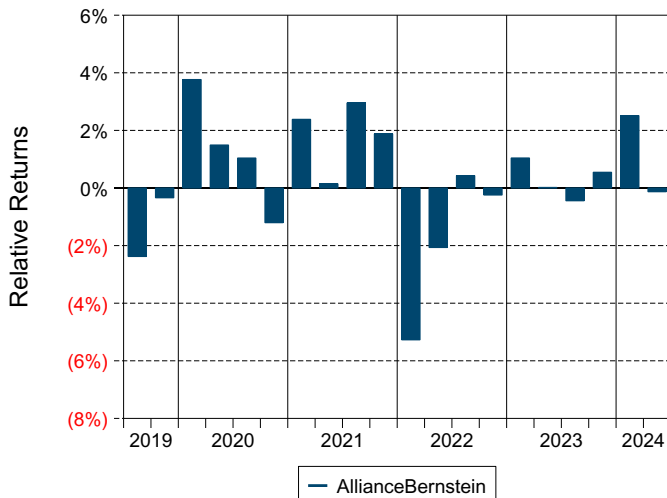
Beginning Market Value	\$466,472,240
Net New Investment	\$0
Investment Gains/(Losses)	\$-20,512,743
Ending Market Value	\$445,959,496

Performance vs Callan Small/MidCap Core (Gross)

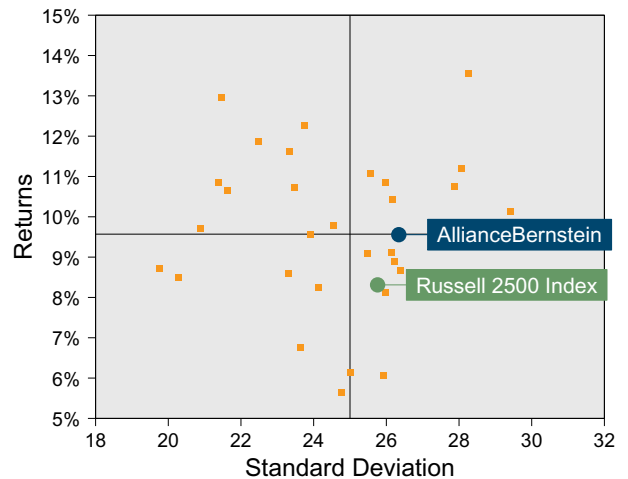


10th Percentile	(1.63)	17.05	7.04	12.11	11.81	10.54	13.31
25th Percentile	(3.15)	15.72	4.76	10.85	10.62	10.04	11.55
Median	(3.74)	11.09	2.92	9.57	9.49	9.10	10.73
75th Percentile	(4.87)	7.90	0.29	8.59	8.26	7.58	10.31
90th Percentile	(5.91)	2.88	(1.03)	6.38	7.04	7.37	9.51
AllianceBernstein	● (4.40)	13.21	0.03	9.56	10.20	9.37	11.28
Russell 2500 Index	▲ (4.27)	10.47	(0.29)	8.31	8.44	7.99	9.93

Relative Return vs Russell 2500 Index



Callan Small/MidCap Core (Gross) Annualized Five Year Risk vs Return

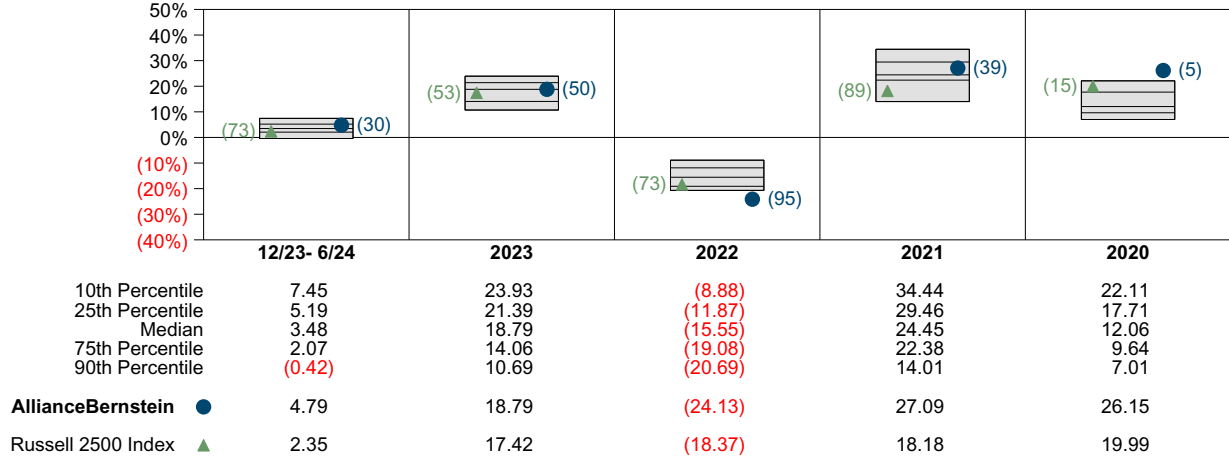


AllianceBernstein Return Analysis Summary

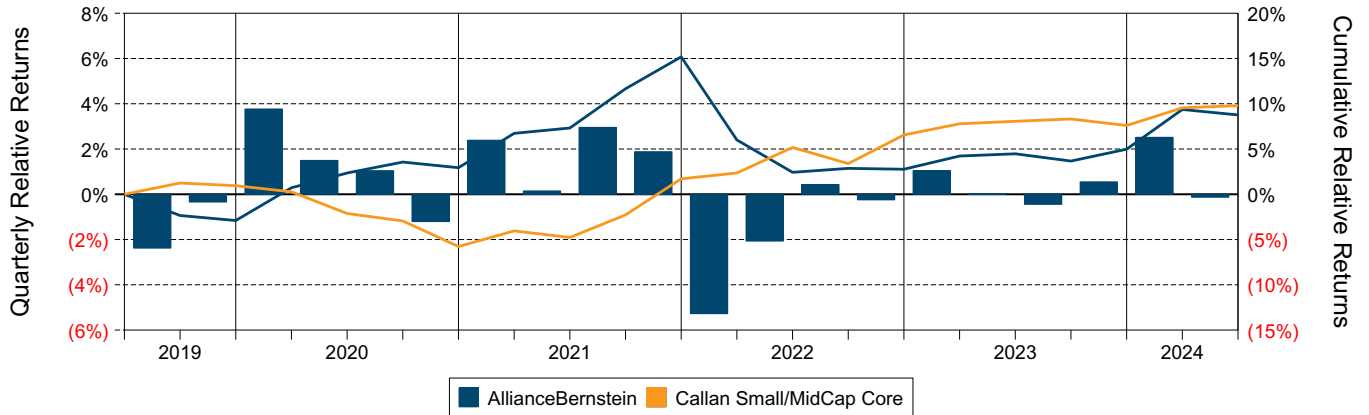
Return Analysis

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.

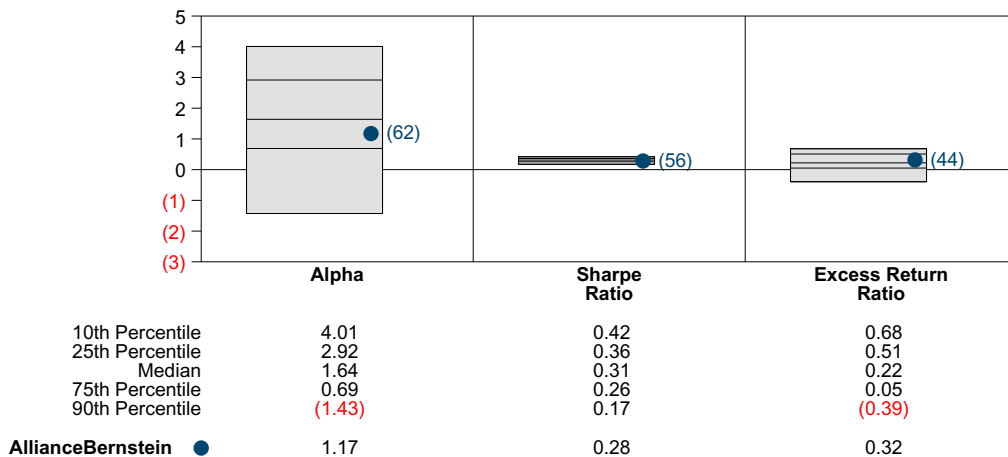
Performance vs Callan Small/MidCap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2500 Index



Risk Adjusted Return Measures vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024

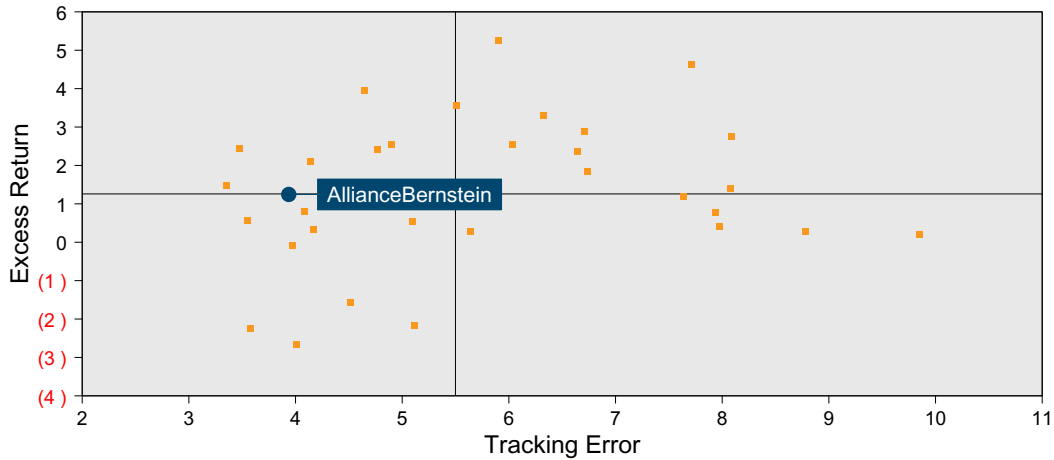


AllianceBernstein Risk Analysis Summary

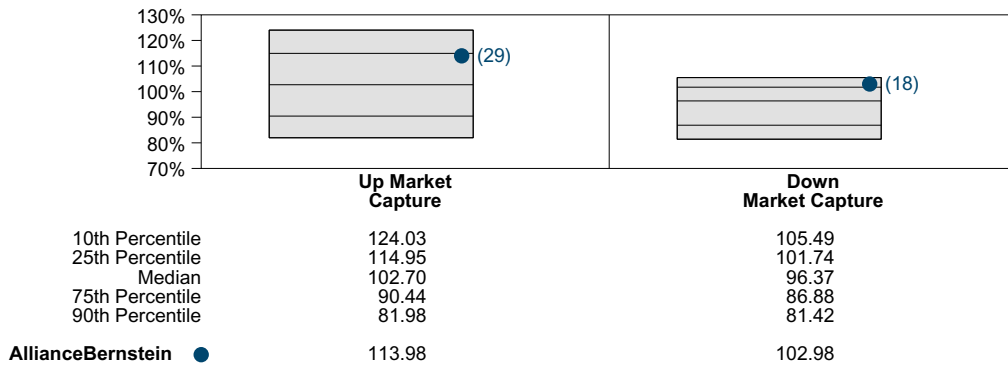
Risk Analysis

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.

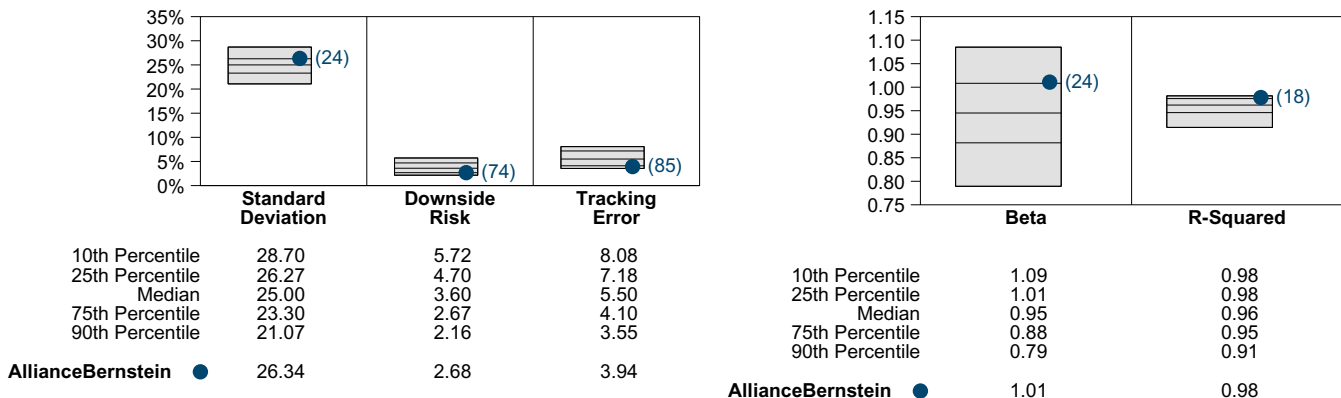
Risk Analysis vs Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024



Market Capture vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Russell 2500 Index Rankings Against Callan Small/MidCap Core (Gross) Five Years Ended June 30, 2024

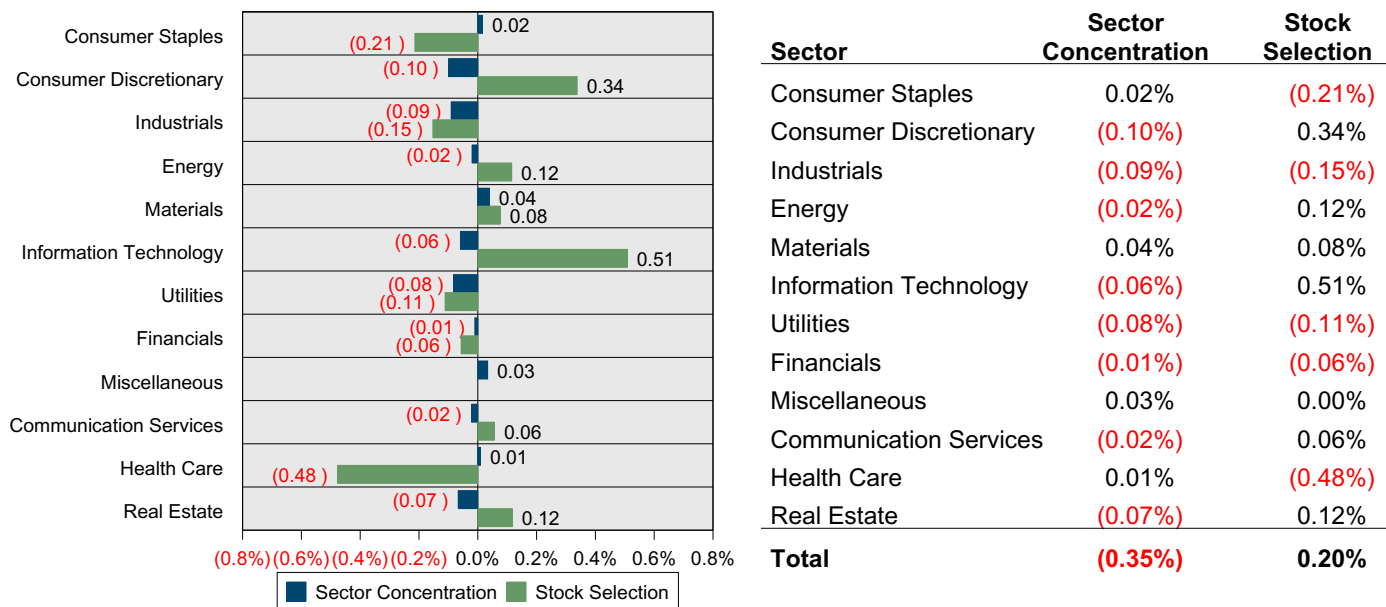


AllianceBernstein vs Russell 2500 Index Quarterly Equity Buy and Hold Attribution

Attribution Ranking and Sector Detail

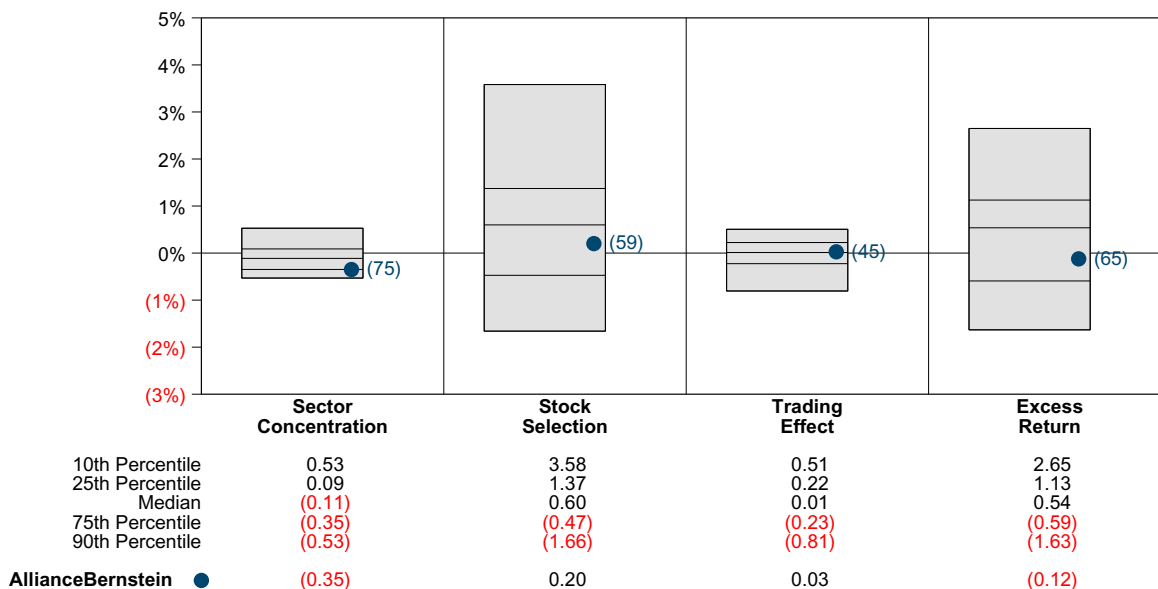
The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small/MidCap Core over the same time period.

Attribution Effects by Sector vs Russell 2500 Index Quarter ended June 30, 2024



Manager Return	=	Index Return	+	Sector Concentration	+	Stock Selection	+	Trading
(4.40%)		(4.27%)		(0.35%)		0.20%		0.03%

Equity Attribution Ranking vs Callan Small/MidCap Core Quarter ended June 30, 2024

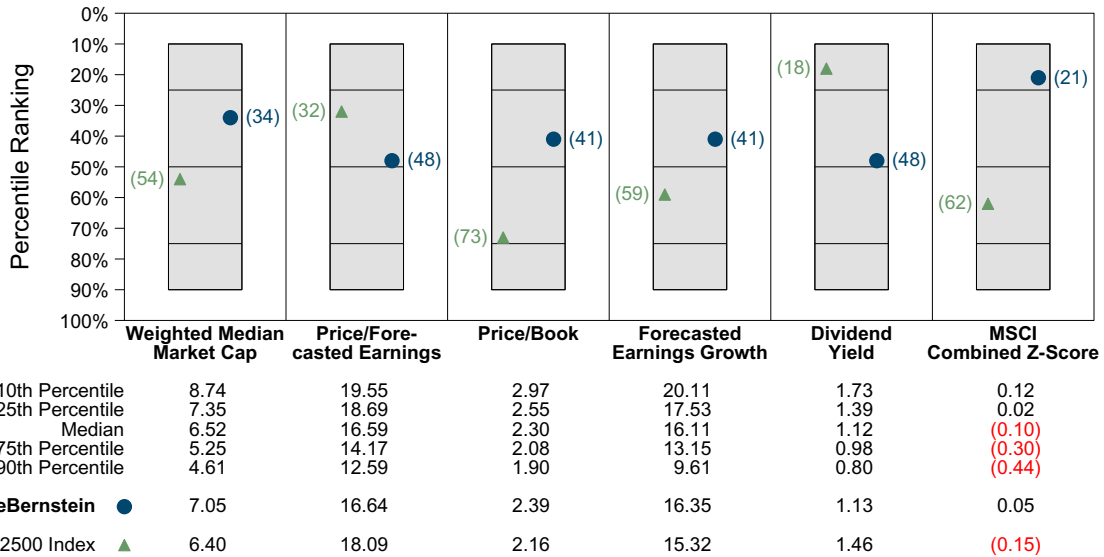


AllianceBernstein Equity Characteristics Analysis Summary

Portfolio Characteristics

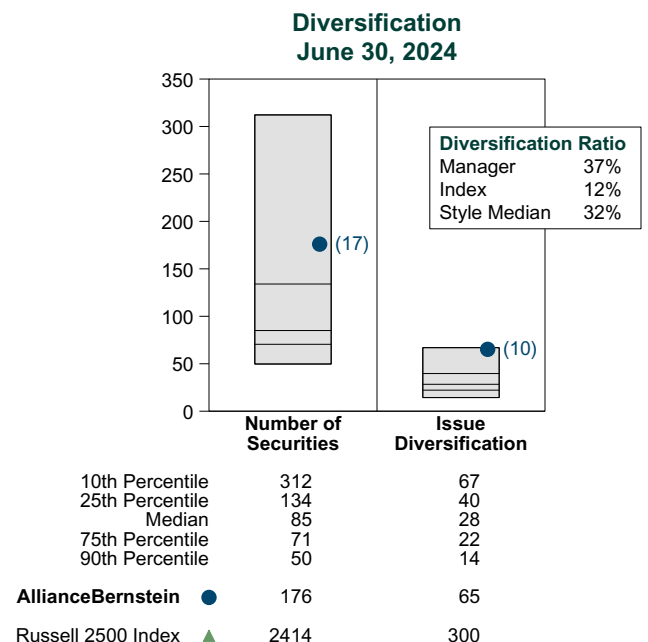
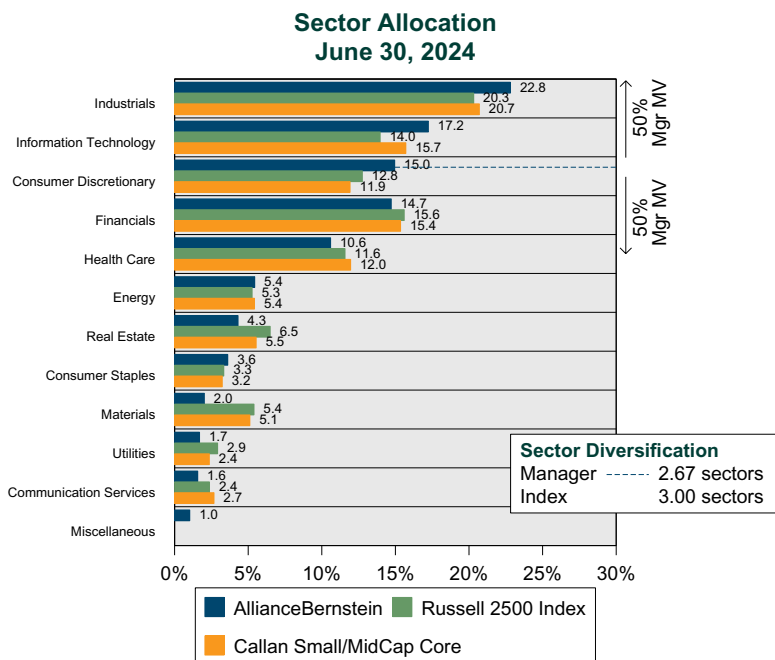
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small/MidCap Core as of June 30, 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.

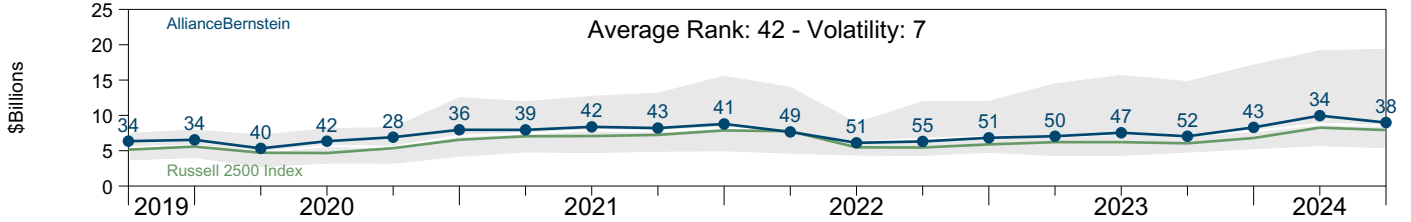


Portfolio Characteristics Analysis

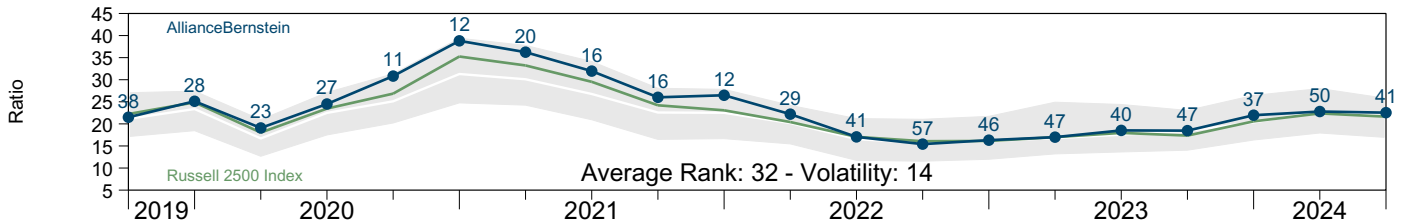
Callan Small/MidCap Core

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Small/MidCap Core Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 2500 Index is shown for comparison purposes.

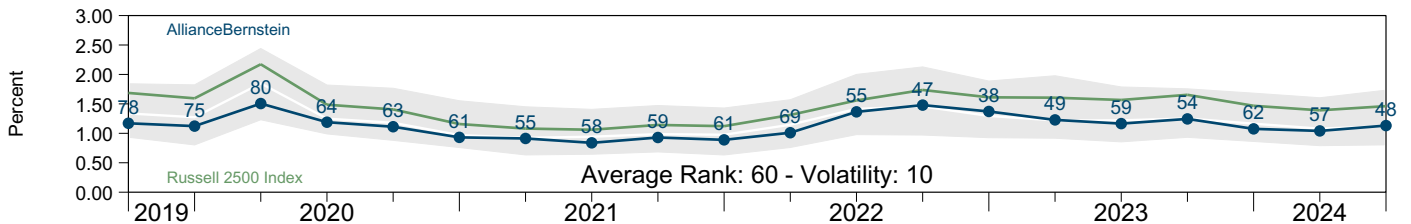
Weighted Average Market Cap



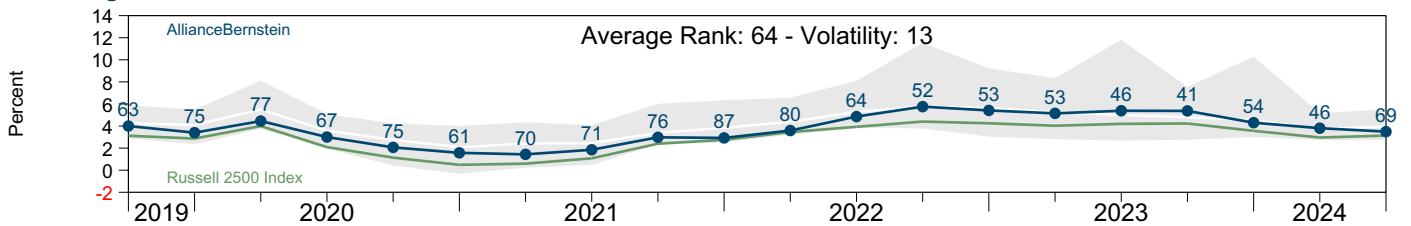
Trailing P/E



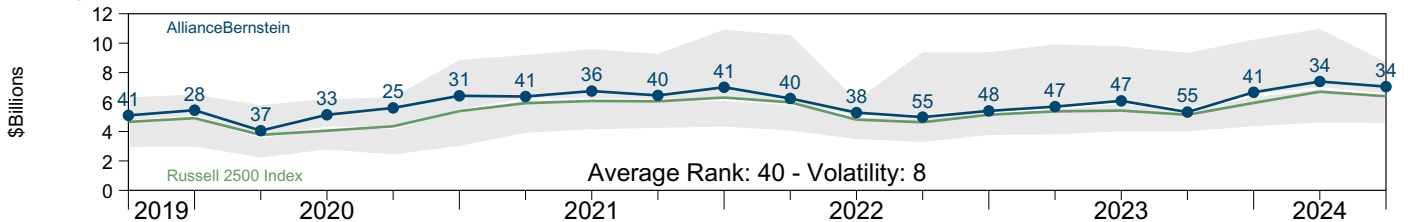
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

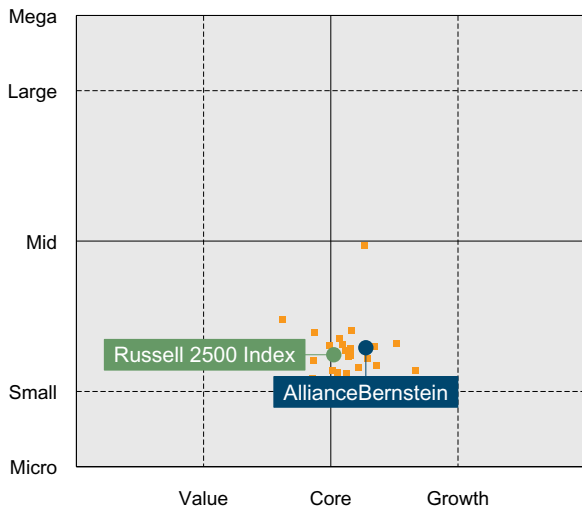
Current Holdings Based Style Analysis

AllianceBernstein

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

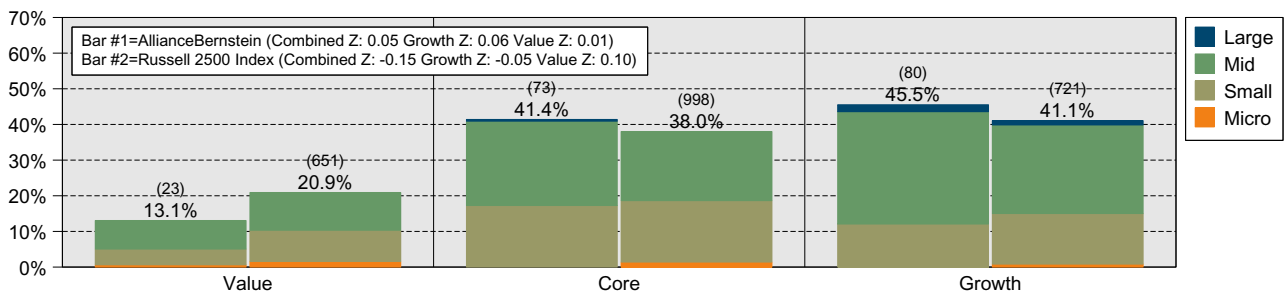
Style Map vs Callan Small/MidCap Core Holdings as of June 30, 2024



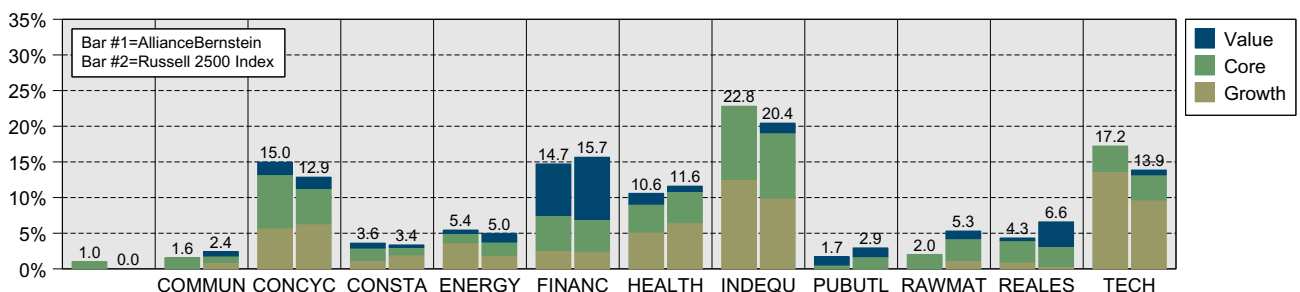
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.5% (1)	1.9% (4)	2.4% (5)
	0.0% (0)	0.0% (0)	1.2% (2)	1.2% (2)
Mid	8.0% (13)	23.7% (38)	31.5% (53)	63.2% (104)
	10.6% (68)	19.4% (129)	24.9% (169)	54.8% (366)
Small	4.4% (8)	17.3% (34)	12.1% (23)	33.7% (65)
	8.7% (258)	17.2% (504)	14.2% (381)	40.1% (1143)
Micro	0.6% (2)	0.0% (0)	0.0% (0)	0.6% (2)
	1.6% (325)	1.4% (365)	0.8% (169)	3.8% (859)
Total	13.1% (23)	41.4% (73)	45.5% (80)	100.0% (176)
	20.9% (651)	38.0% (998)	41.1% (721)	100.0% (2370)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



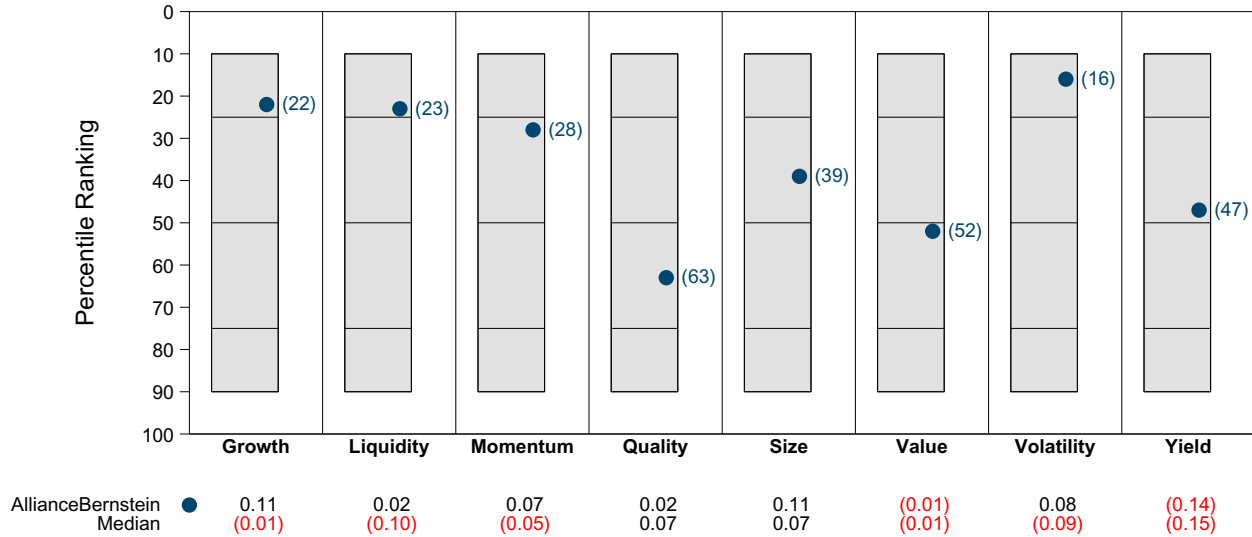
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager’s factor exposure with the distribution of exposures for the Callan Small/MidCap Core group. This analysis illustrates whether the manager’s factor exposures are consistent with those of other managers employing the same style.

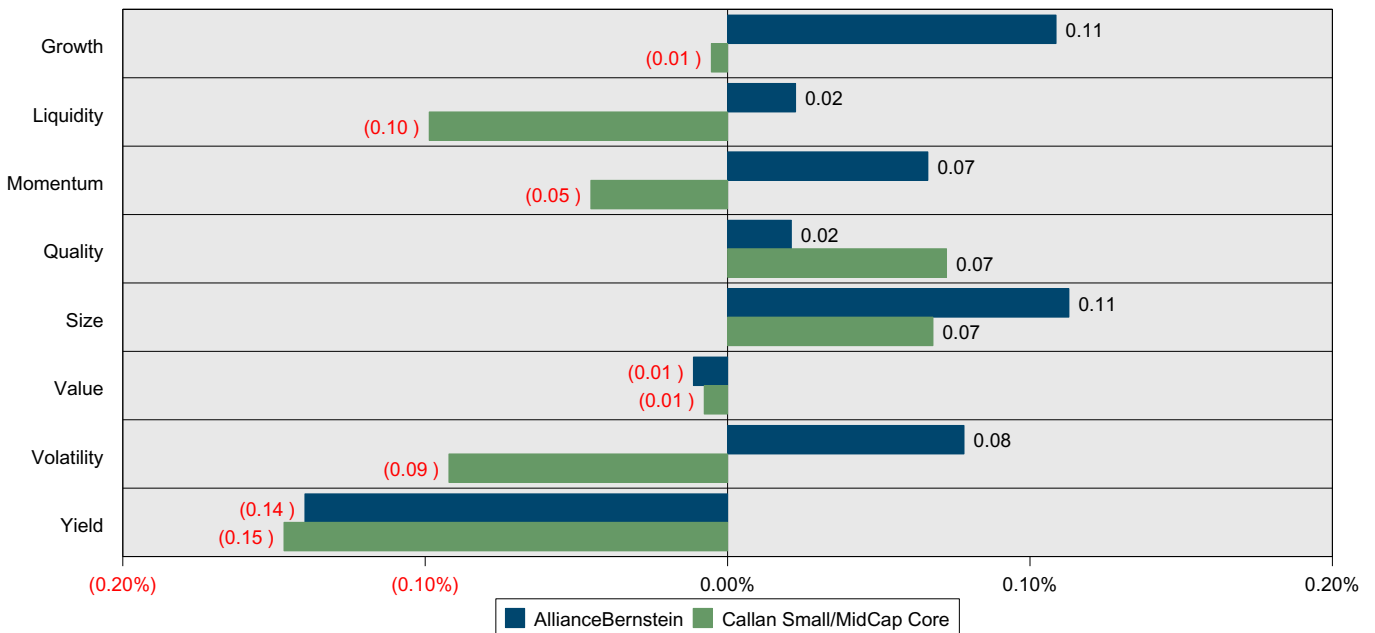
Factor Exposures Relative to Russell 2500 Index, Rankings vs Callan Small/MidCap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager’s factor exposures and the median factor for the Callan Small/MidCap Core group relative to the Russell 2500 Index.

Factor Exposures Relative to Russell 2500 Index for Period Ended June 30, 2024



TSW

Period Ended June 30, 2024

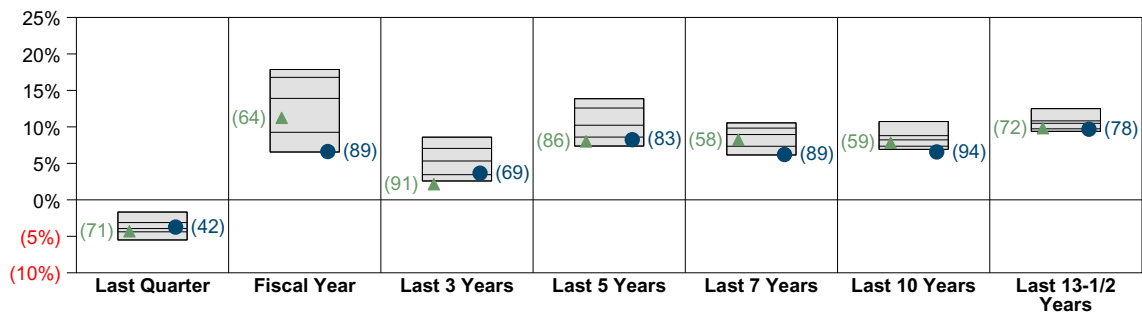
Investment Philosophy

TS&W Small / Mid (SMID) Cap Value Fund takes an investment philosophy based on the concept of fundamental value. Focusing on conducting fundamental research on individual stocks, the team constructs the portfolios using a bottom-up approach that combines a quantitative screen with fundamental analysis. SMID cap value strategy assets are fully invested with cash comprising up to 5% of the portfolio. The portfolio holds approximately 85 security positions that are continually reviewed for their risk/reward potential and re-ranked using a four-factor screen. The strategy typically owns less than 10 days trading volume in each stock and trims positions as necessary to limit liquidity risks. The TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 the benchmark was the Russell 2500 Index. NHRS inception in the fund is November 2010.

Quarterly Asset Growth

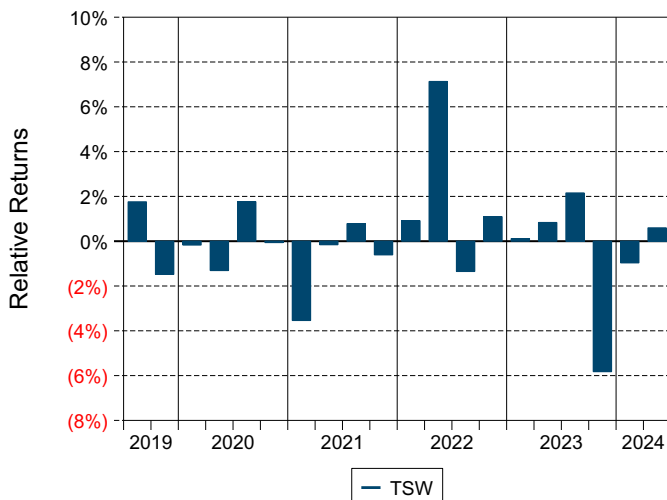
Beginning Market Value	\$268,282,626
Net New Investment	\$0
Investment Gains/(Losses)	\$-10,021,964
Ending Market Value	\$258,260,662

Performance vs Callan Small/MidCap Value (Gross)

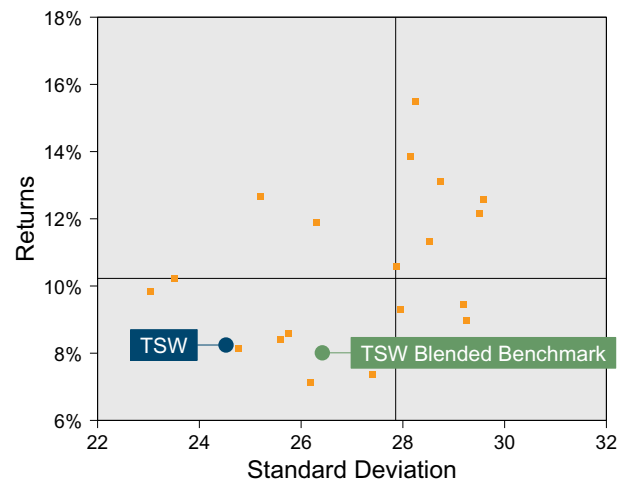


10th Percentile	(1.67)	17.86	8.59	13.86	10.55	10.74	12.50
25th Percentile	(3.11)	16.79	7.05	12.59	9.83	8.80	10.82
Median	(3.93)	13.90	5.33	10.23	8.95	8.22	10.49
75th Percentile	(4.38)	9.26	3.45	8.60	7.34	7.35	9.73
90th Percentile	(5.50)	6.55	2.59	7.37	6.15	6.92	9.39
TSW	(3.74)	6.62	3.65	8.24	6.21	6.56	9.68
TSW Blended Benchmark	(4.31)	11.24	2.15	8.01	8.23	7.84	9.82

Relative Return vs TSW Blended Benchmark



Callan Small/MidCap Value (Gross) Annualized Five Year Risk vs Return

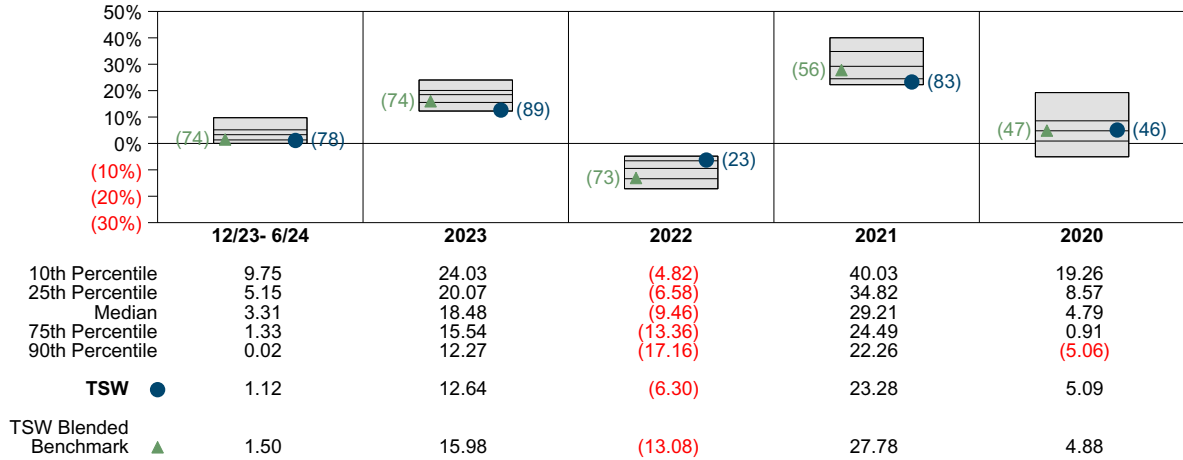


TSW Return Analysis Summary

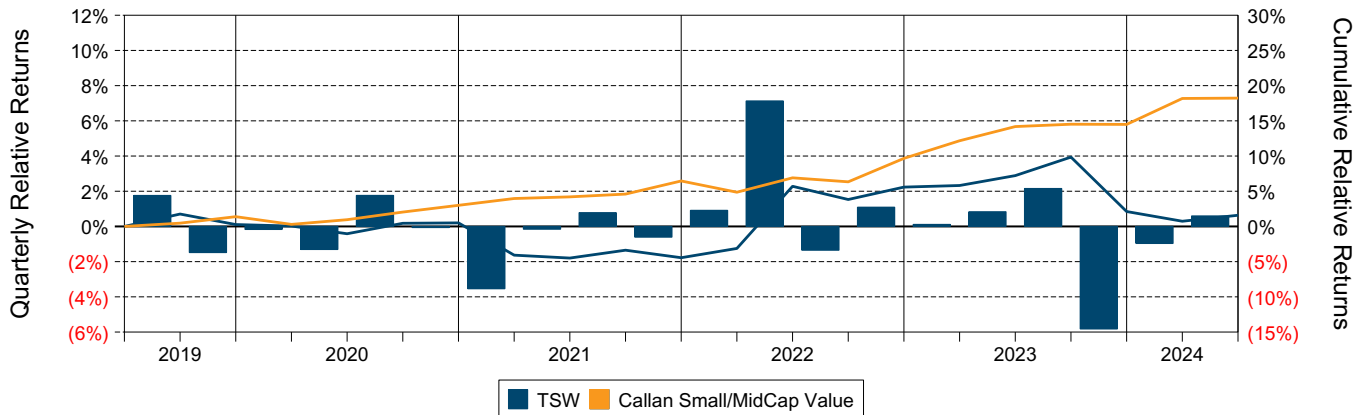
Return Analysis

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.

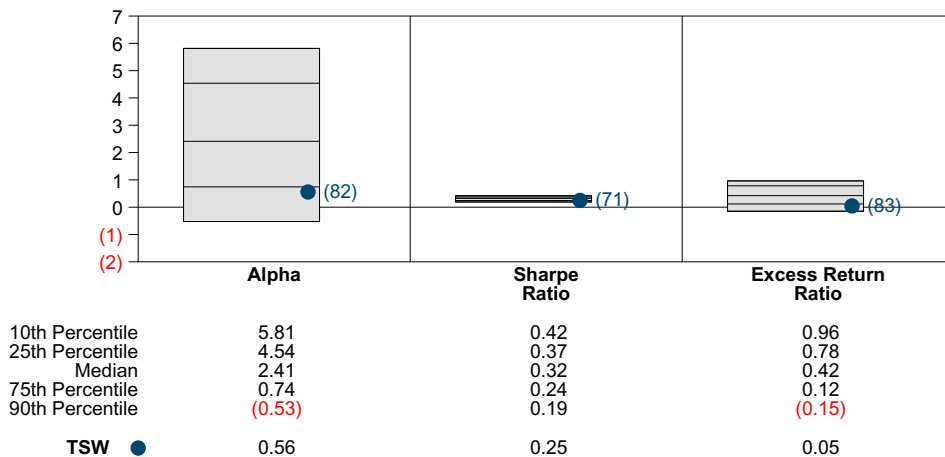
Performance vs Callan Small/MidCap Value (Gross)



Cumulative and Quarterly Relative Returns vs TSW Blended Benchmark



Risk Adjusted Return Measures vs TSW Blended Benchmark Rankings Against Callan Small/MidCap Value (Gross) Five Years Ended June 30, 2024

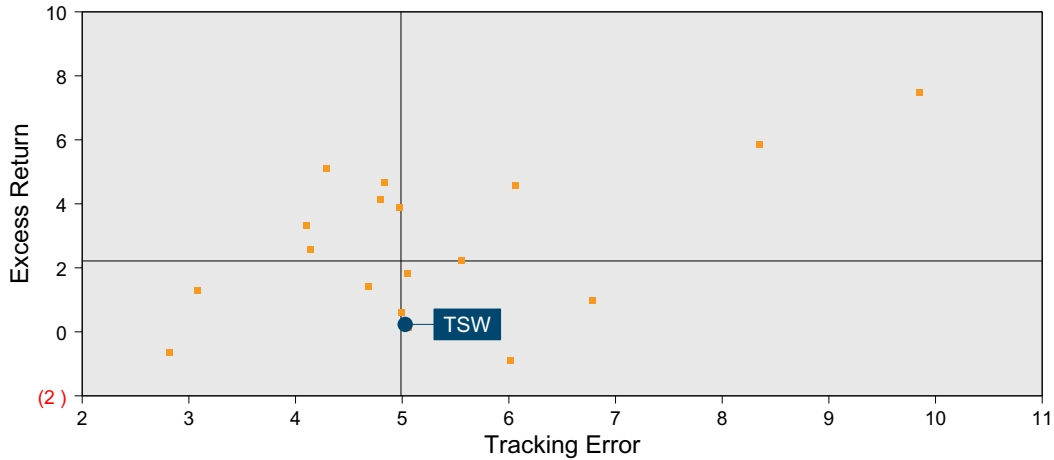


TSW Risk Analysis Summary

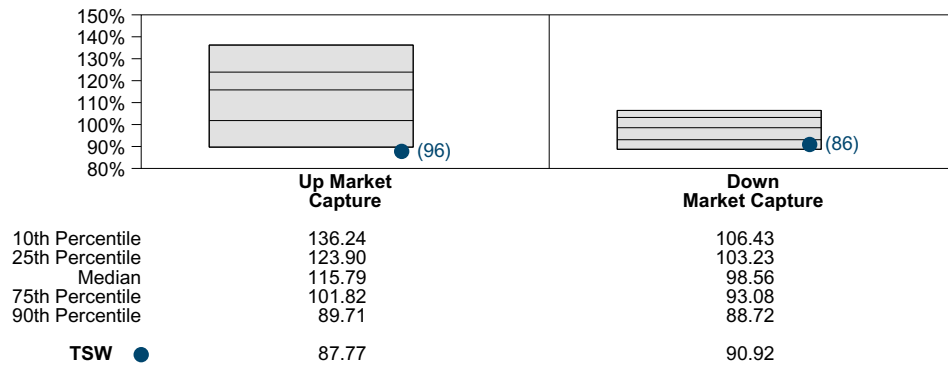
Risk Analysis

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.

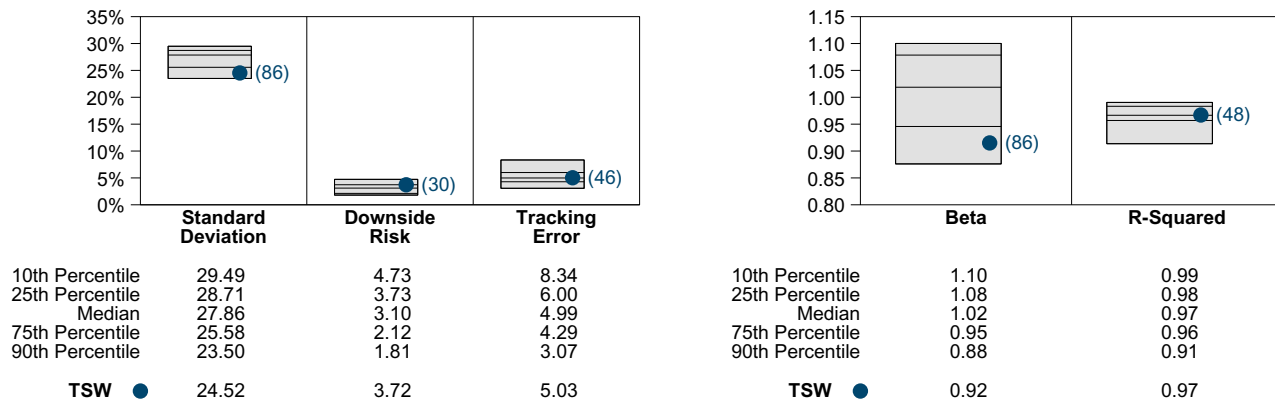
Risk Analysis vs Callan Small/MidCap Value (Gross) Five Years Ended June 30, 2024



Market Capture vs TSW Blended Benchmark Rankings Against Callan Small/MidCap Value (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs TSW Blended Benchmark Rankings Against Callan Small/MidCap Value (Gross) Five Years Ended June 30, 2024

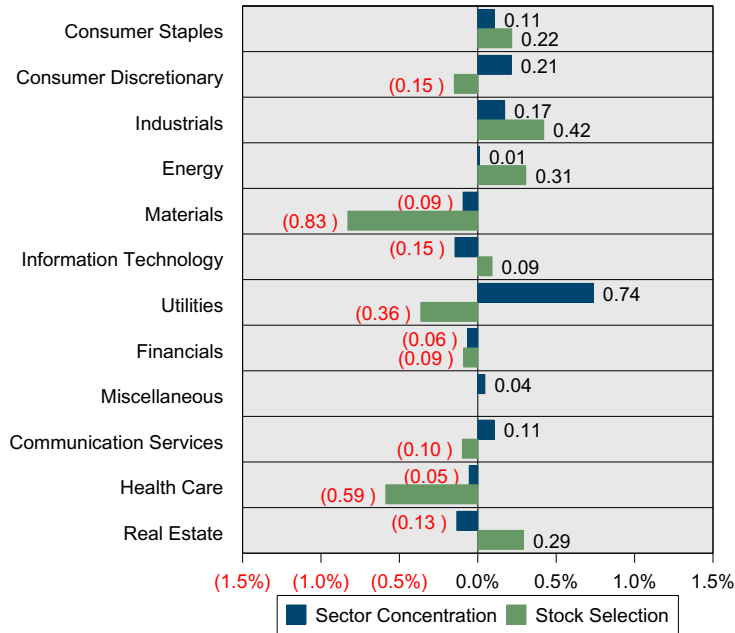


TSW vs TSW Blended Benchmark Quarterly Equity Buy and Hold Attribution

Attribution Ranking and Sector Detail

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart details the manager return, the index return, and the attribution factors over the same time period.

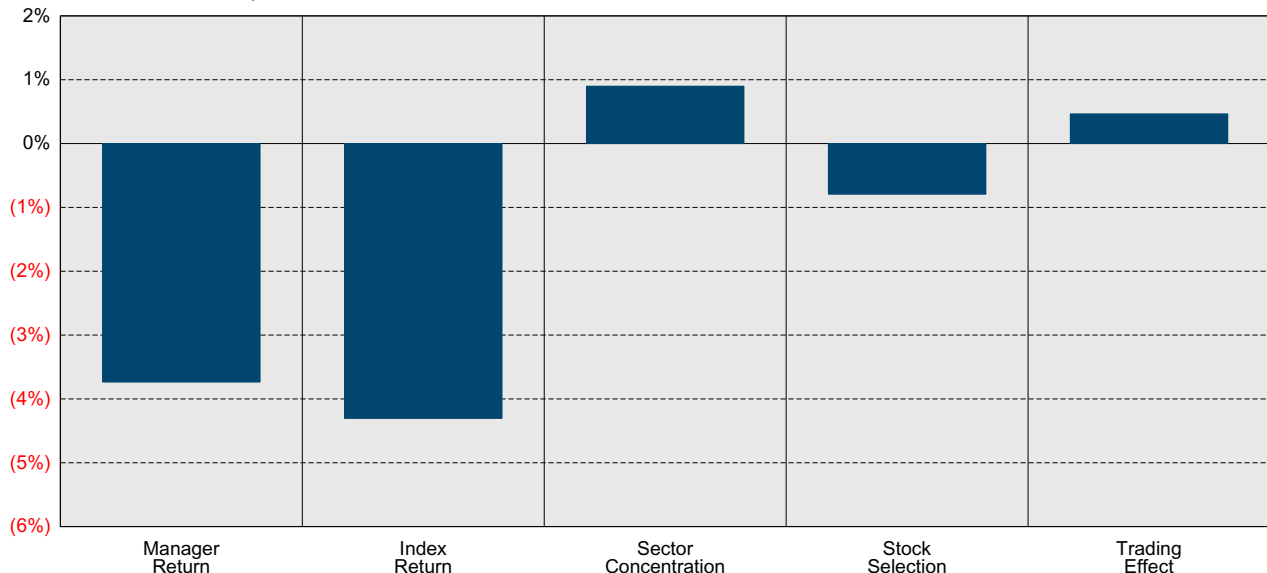
Attribution Effects by Sector vs TSW Blended Benchmark Quarter ended June 30, 2024



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.11%	0.22%
Consumer Discretionary	0.21%	(0.15%)
Industrials	0.17%	0.42%
Energy	0.01%	0.31%
Materials	(0.09%)	(0.83%)
Information Technology	(0.15%)	0.09%
Utilities	0.74%	(0.36%)
Financials	(0.06%)	(0.09%)
Miscellaneous	0.04%	0.00%
Communication Services	0.11%	(0.10%)
Health Care	(0.05%)	(0.59%)
Real Estate	(0.13%)	0.29%
Total	0.90%	(0.79%)

Manager Return	=	Index Return	+	Sector Concentration	+	Stock Selection	+	Trading
(3.74%)		(4.31%)		0.90%		(0.79%)		0.46%

Total Fund Attribution Effects vs TSW Blended Benchmark Quarter ended June 30, 2024

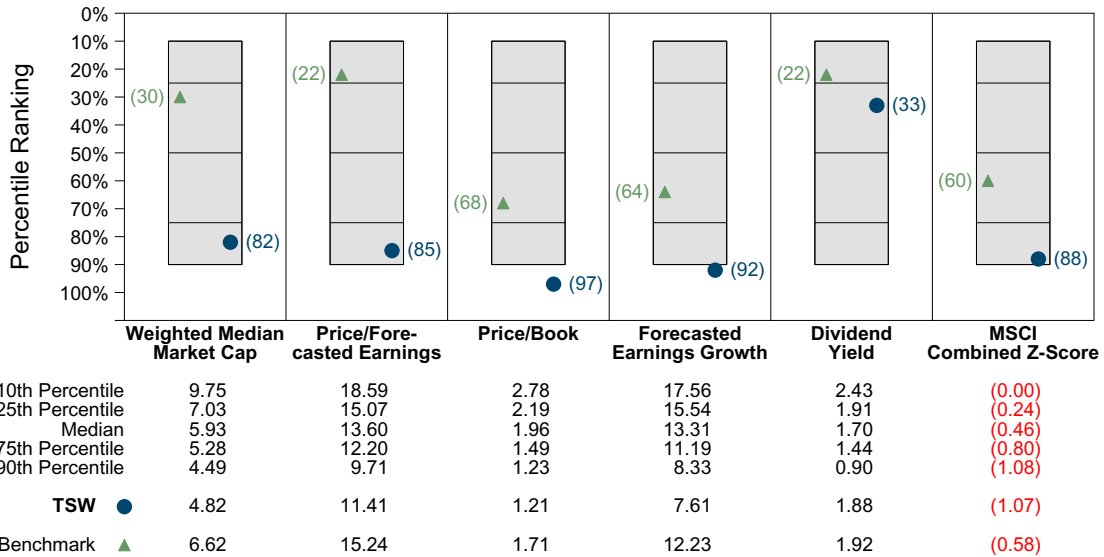


TSW Equity Characteristics Analysis Summary

Portfolio Characteristics

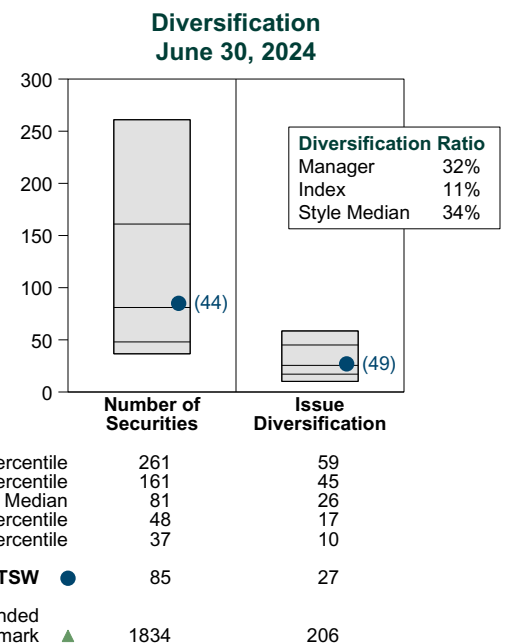
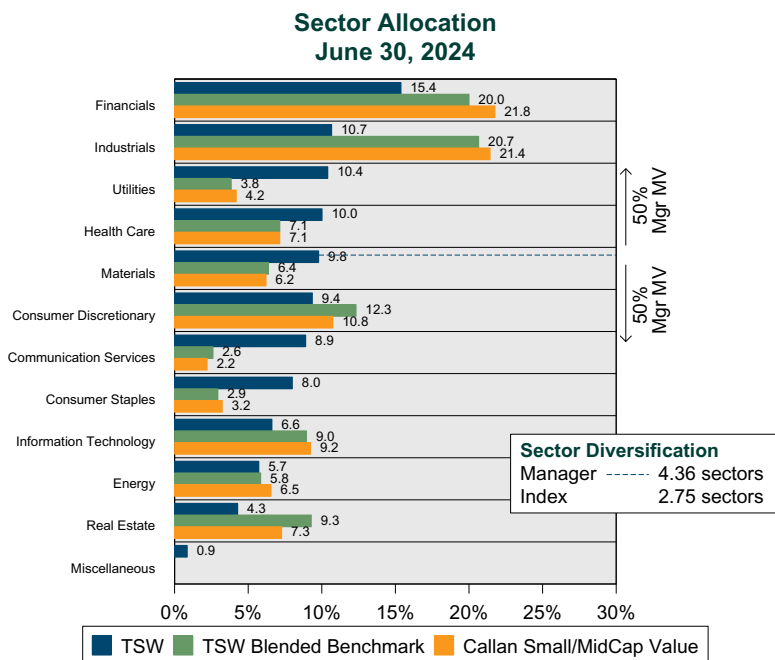
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small/MidCap Value as of June 30, 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.

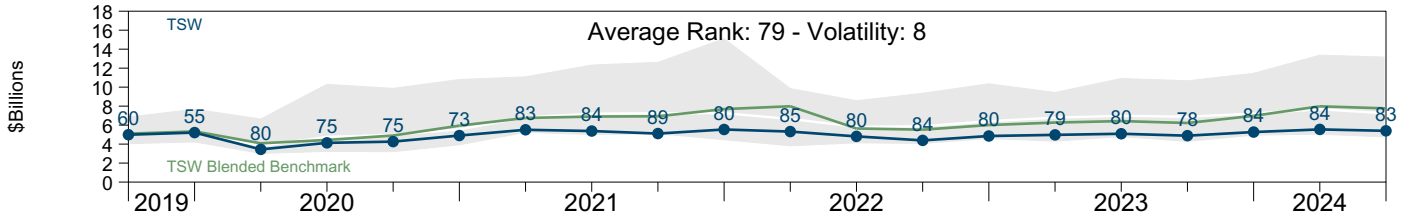


Portfolio Characteristics Analysis

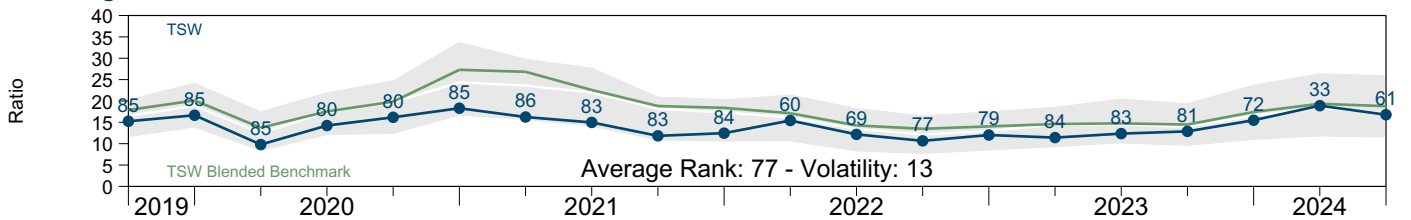
Callan Small/MidCap Value

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Small/MidCap Value Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The TSW Blended Benchmark is shown for comparison purposes.

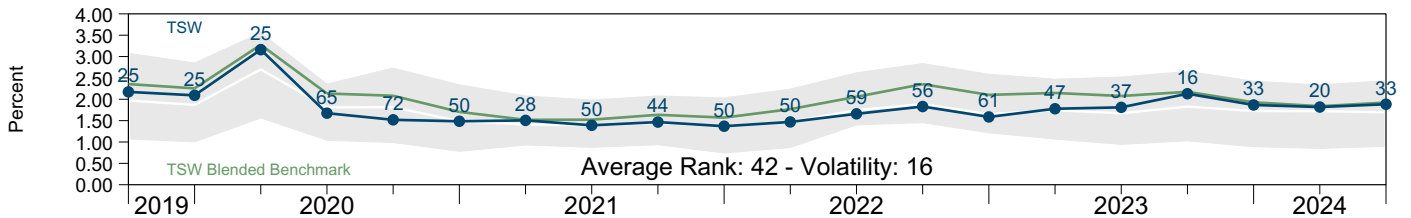
Weighted Average Market Cap



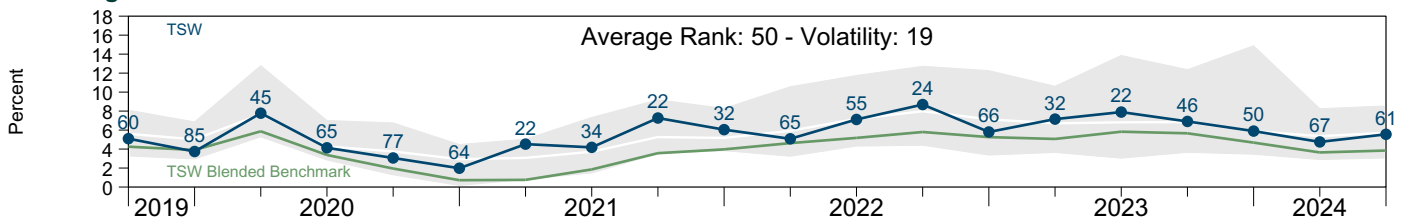
Trailing P/E



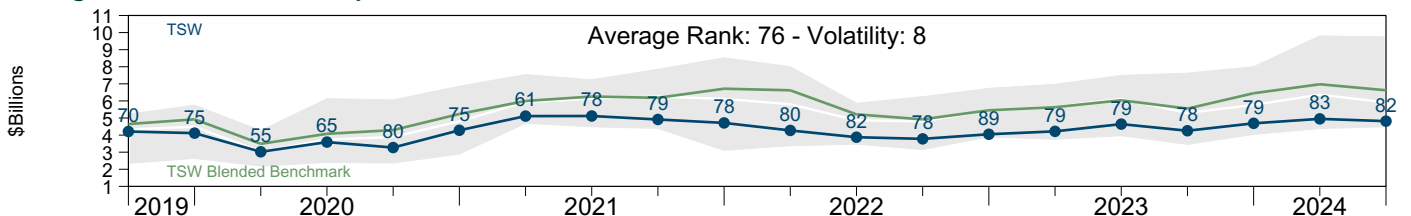
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

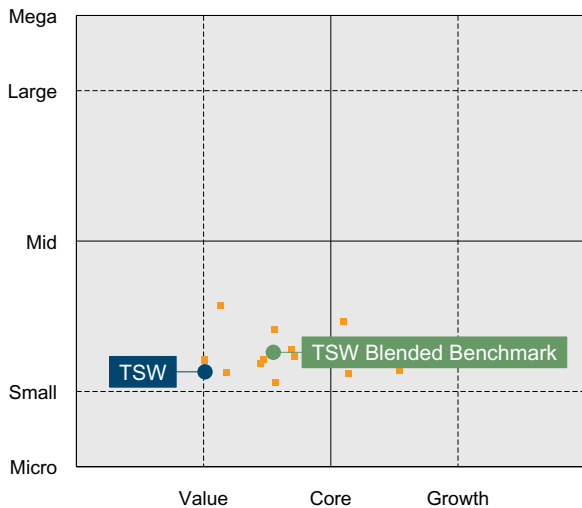
Current Holdings Based Style Analysis

TSW

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

Style Map vs Callan Small/MidCap Value Holdings as of June 30, 2024

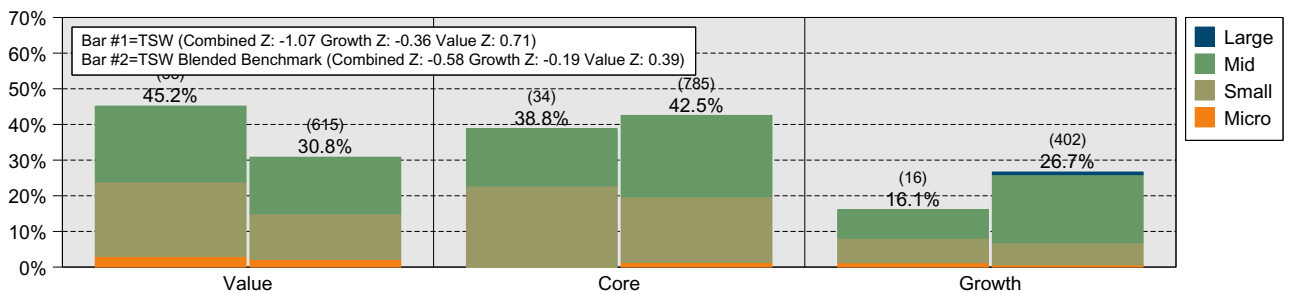


Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.7% (1)	0.7% (1)
Mid	21.3% (14)	16.0% (14)	8.0% (7)	45.3% (35)
	15.8% (68)	22.8% (113)	19.1% (110)	57.8% (291)
Small	20.8% (15)	22.7% (20)	6.9% (7)	50.4% (42)
	12.8% (252)	18.4% (401)	6.2% (180)	37.4% (833)
Micro	3.0% (4)	0.0% (0)	1.2% (2)	4.3% (6)
	2.2% (295)	1.3% (271)	0.6% (111)	4.1% (677)
Total	45.2% (33)	38.8% (34)	16.1% (16)	100.0% (83)
	30.8% (615)	42.5% (785)	26.7% (402)	100.0% (1802)

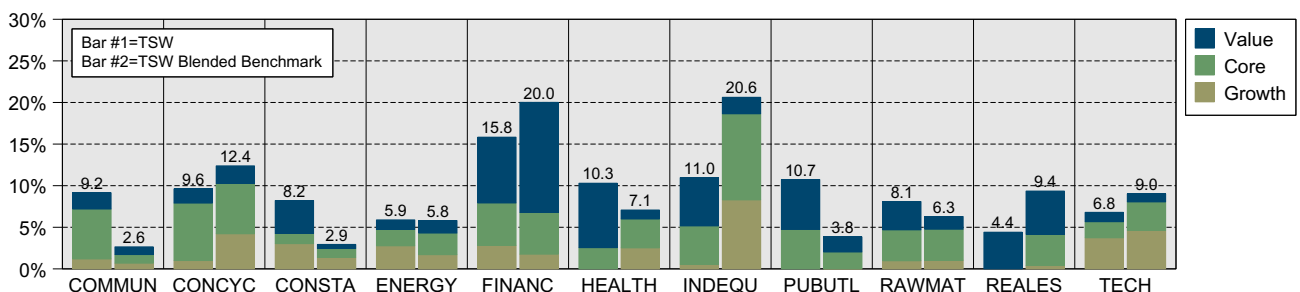
Combined Z-Score Style Distribution

Holdings as of June 30, 2024



Sector Weights Distribution

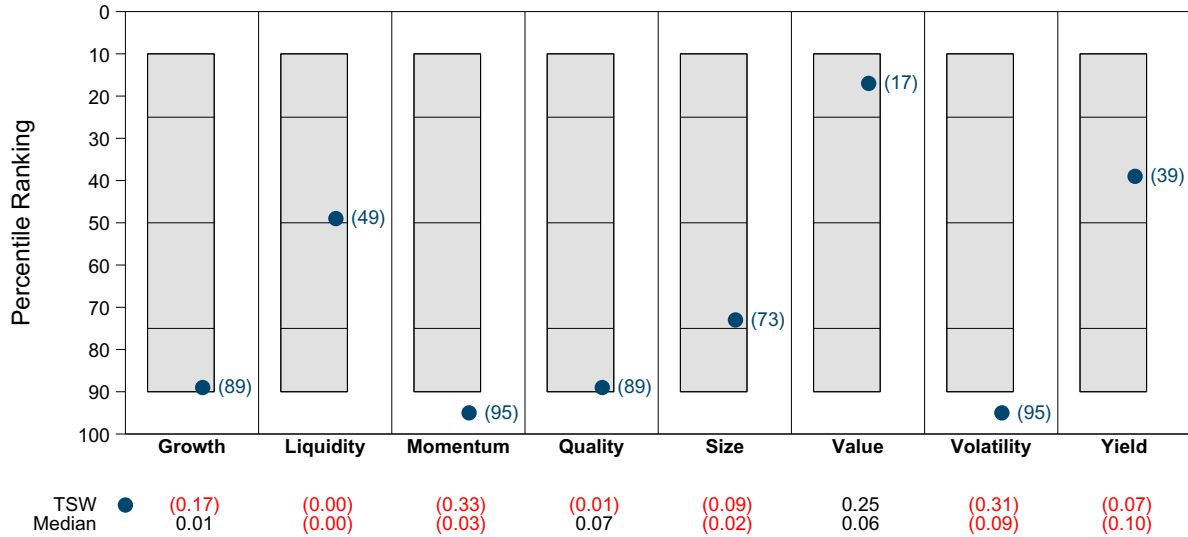
Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Small/MidCap Value group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

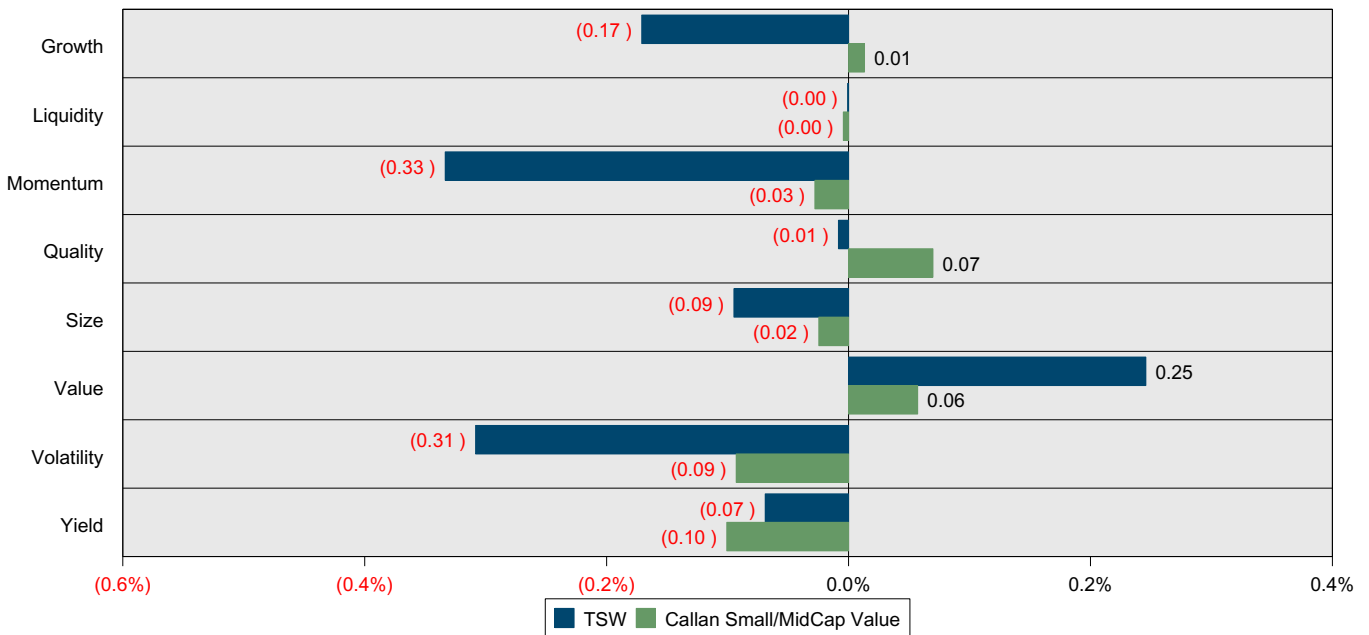
Factor Exposures Relative to TSW Blended Benchmark, Rankings vs Callan Small/MidCap Value for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Small/MidCap Value group relative to the TSW Blended Benchmark.

Factor Exposures Relative to TSW Blended Benchmark for Period Ended June 30, 2024



Small Cap Domestic Equity Period Ended June 30, 2024

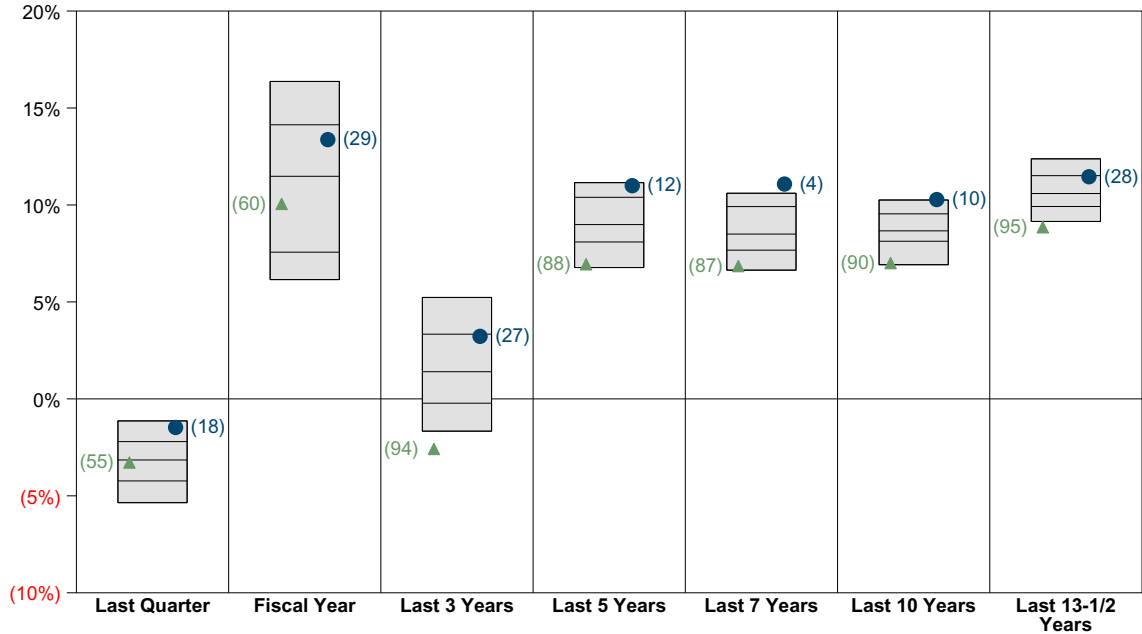
Quarterly Summary and Highlights

- Small Cap Domestic Equity's portfolio posted a (1.47)% return for the quarter placing it in the 18 percentile of the Callan Small Cap Core group for the quarter and in the 29 percentile for the last year.
- Small Cap Domestic Equity's portfolio outperformed the Russell 2000 Index by 1.80% for the quarter and outperformed the Russell 2000 Index for the year by 3.31%.

Quarterly Asset Growth

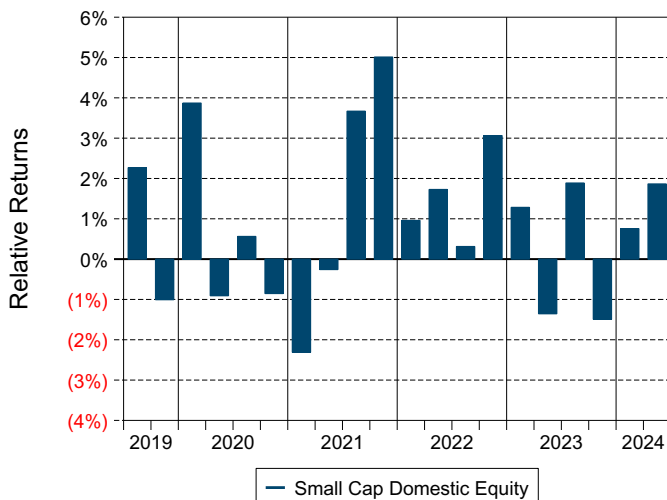
Beginning Market Value	\$945,448,710
Net New Investment	\$0
Investment Gains/(Losses)	\$-13,942,462
Ending Market Value	\$931,506,248

Performance vs Callan Small Cap Core (Gross)

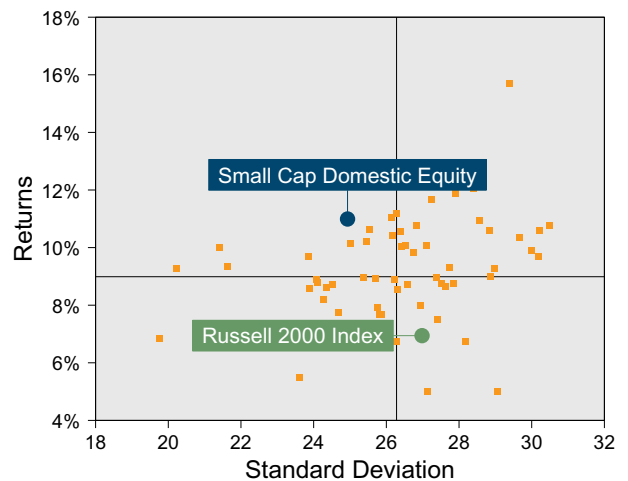


10th Percentile	(1.14)	16.37	5.23	11.15	10.60	10.26	12.38
25th Percentile	(2.20)	14.13	3.34	10.39	9.92	9.54	11.51
Median	(3.15)	11.48	1.40	8.99	8.50	8.67	10.59
75th Percentile	(4.23)	7.56	(0.22)	8.09	7.67	8.13	9.92
90th Percentile	(5.35)	6.15	(1.67)	6.77	6.64	6.92	9.15
Small Cap Domestic Equity	● (1.47)	13.37	3.23	10.99	11.08	10.28	11.46
Russell 2000 Index	▲ (3.28)	10.06	(2.58)	6.94	6.85	7.00	8.85

Relative Return vs Russell 2000 Index



Callan Small Cap Core (Gross) Annualized Five Year Risk vs Return

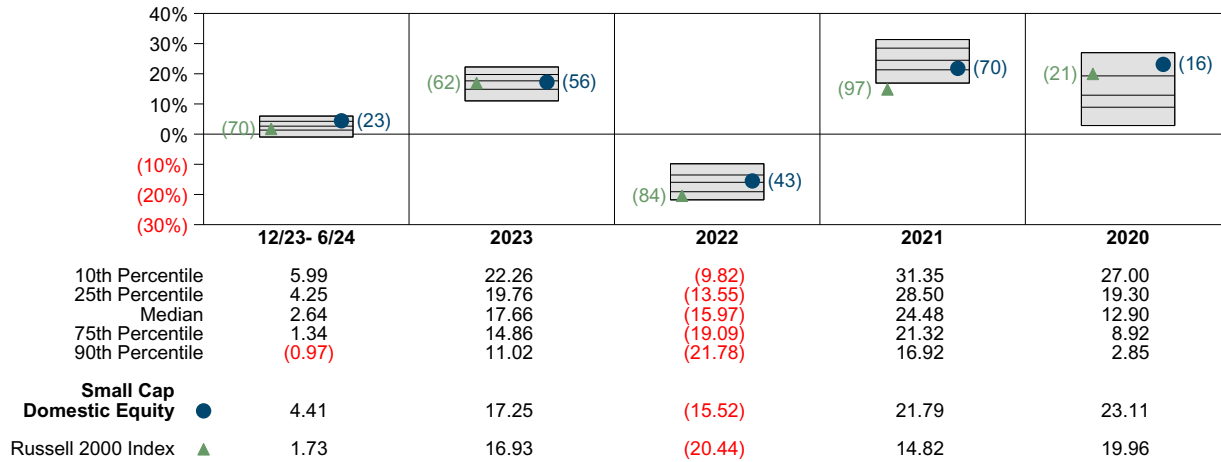


Small Cap Domestic Equity Return Analysis Summary

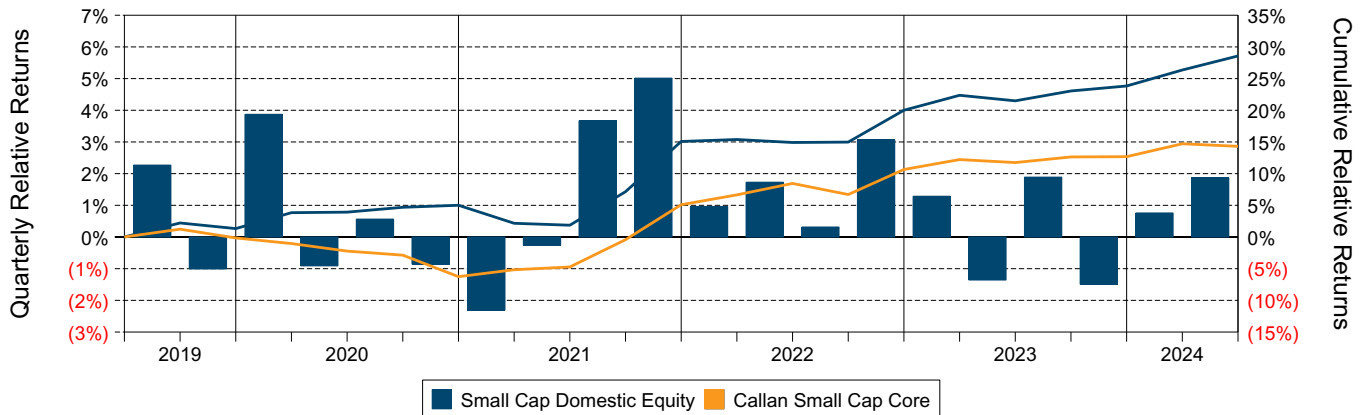
Return Analysis

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

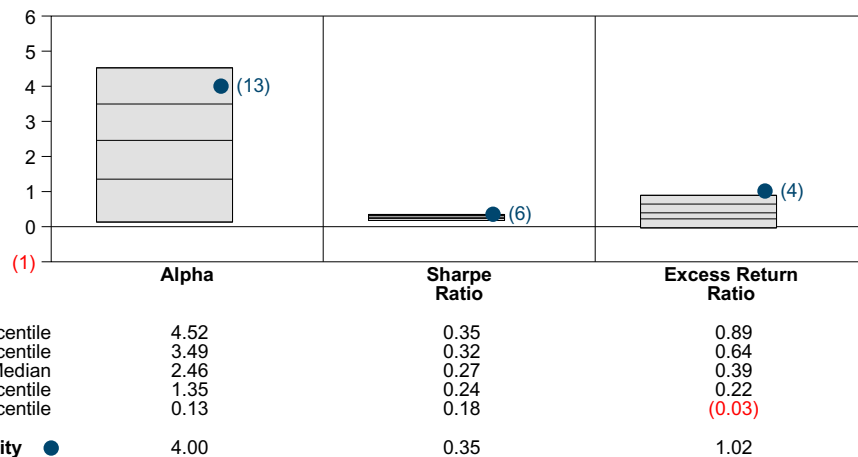
Performance vs Callan Small Cap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024

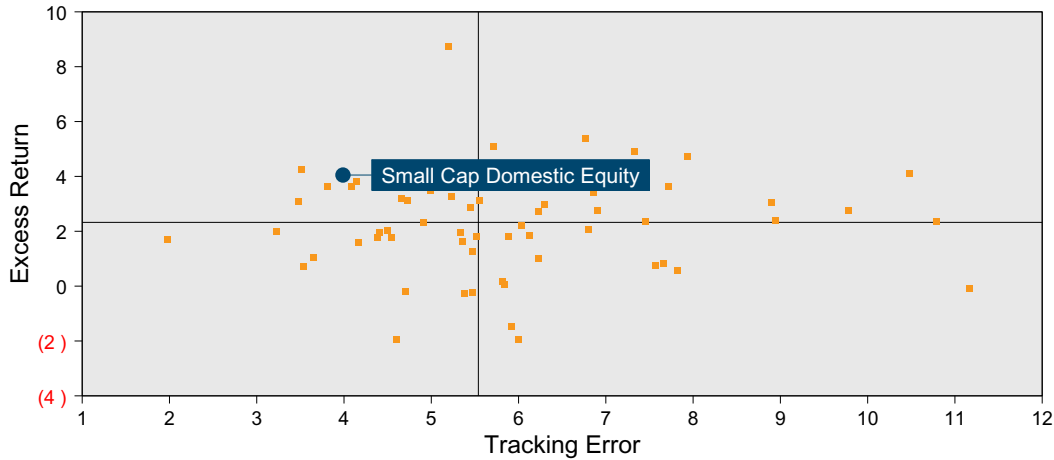


Small Cap Domestic Equity Risk Analysis Summary

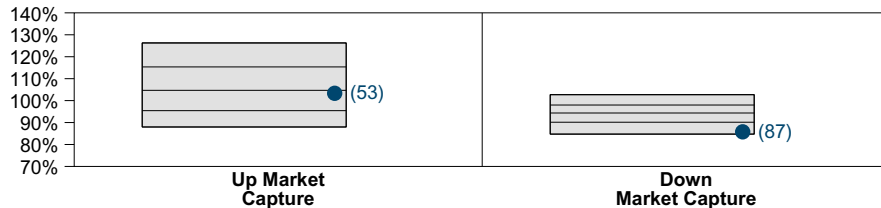
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

Risk Analysis vs Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



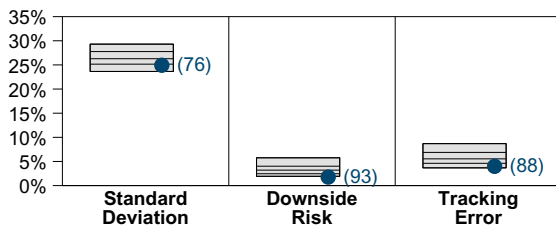
10th Percentile	126.28
25th Percentile	115.35
Median	104.68
75th Percentile	95.43
90th Percentile	87.97

10th Percentile	102.70
25th Percentile	97.99
Median	94.35
75th Percentile	90.15
90th Percentile	84.73

Small Cap Domestic Equity ● 103.34

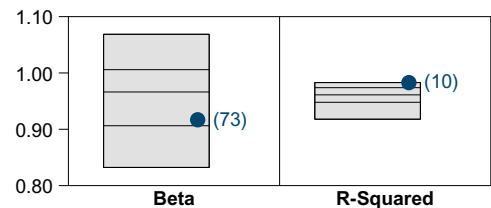
85.76

Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



10th Percentile	29.30	5.76	8.69
25th Percentile	27.77	4.01	6.87
Median	26.28	3.21	5.54
75th Percentile	25.16	2.46	4.62
90th Percentile	23.64	1.92	3.67

Small Cap Domestic Equity ● 24.93 1.76 3.99



10th Percentile	1.07	0.98
25th Percentile	1.01	0.97
Median	0.97	0.96
75th Percentile	0.91	0.95
90th Percentile	0.83	0.92

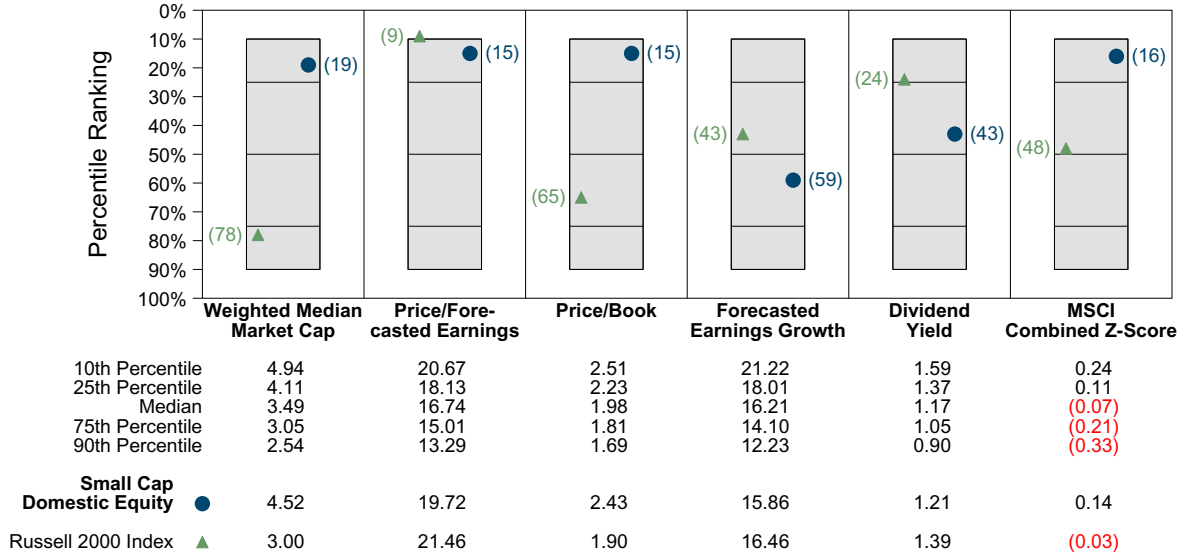
Small Cap Domestic Equity ● 0.92 0.98

Small Cap Domestic Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

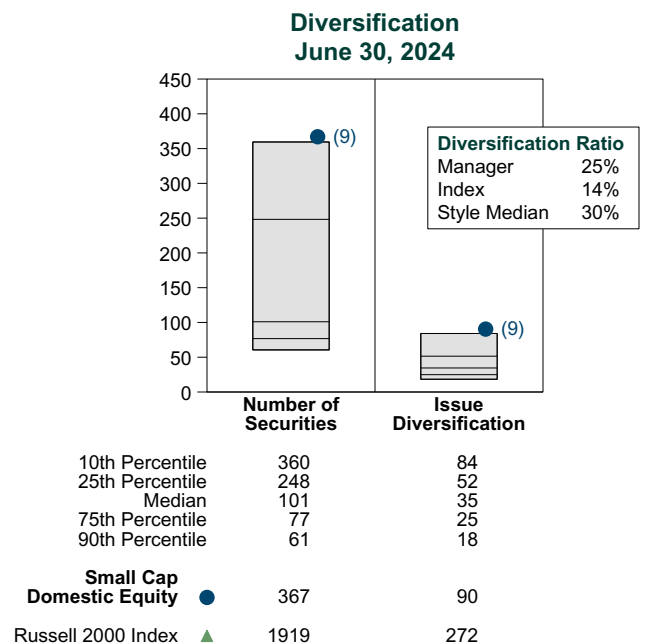
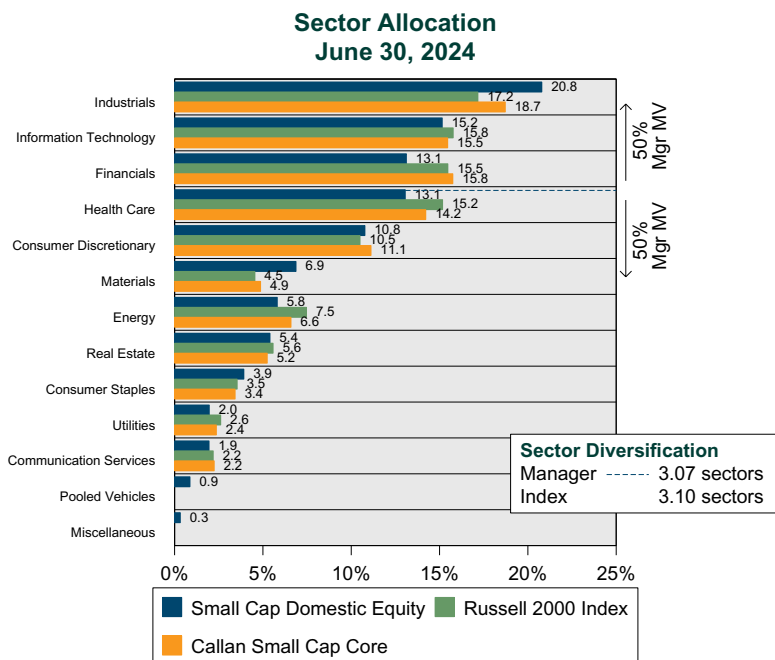
This graph compares the portfolio's characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Core as of June 30, 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.



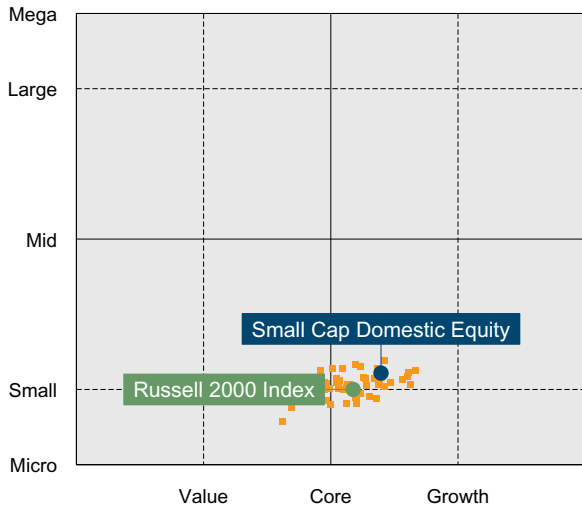
Current Holdings Based Style Analysis

Small Cap Domestic Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

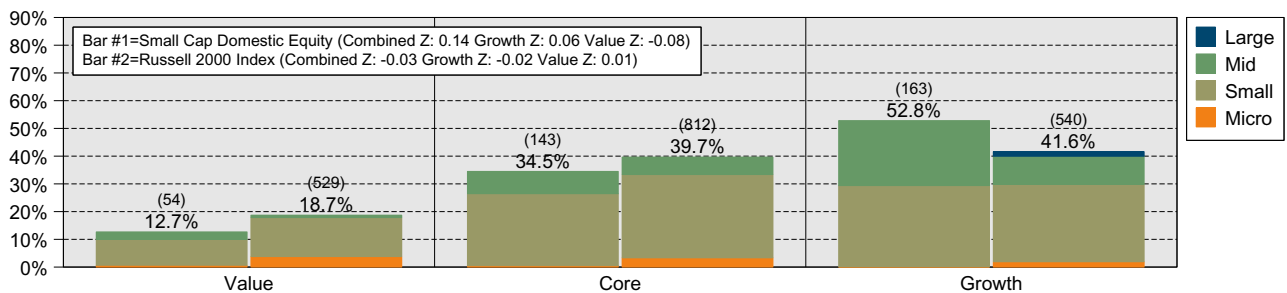
Style Map vs Callan Small Cap Core Holdings as of June 30, 2024



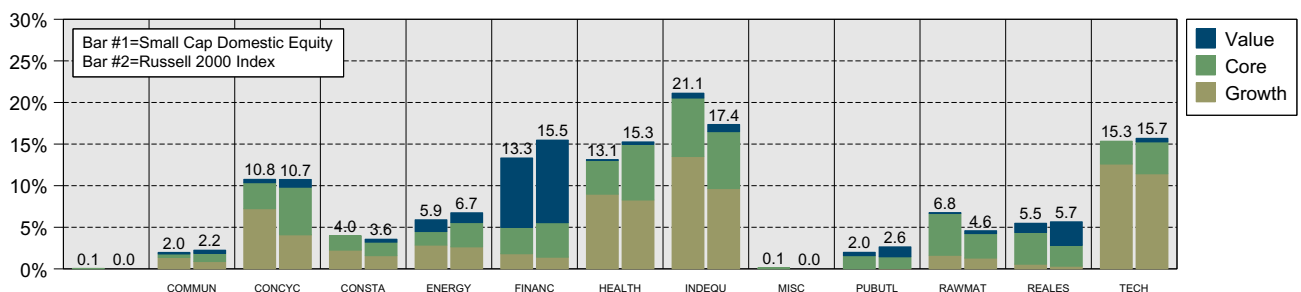
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	1.7% (1)	1.7% (1)
Mid	2.7% (7)	8.0% (25)	23.4% (57)	34.2% (89)
	0.9% (3)	6.3% (23)	10.1% (36)	17.3% (62)
Small	9.3% (42)	26.0% (109)	29.3% (105)	64.6% (256)
	14.1% (202)	30.0% (424)	27.9% (336)	72.0% (962)
Micro	0.6% (5)	0.5% (9)	0.1% (1)	1.3% (15)
	3.8% (324)	3.3% (365)	1.9% (167)	9.0% (856)
Total	12.7% (54)	34.5% (143)	52.8% (163)	100.0% (360)
	18.7% (529)	39.7% (812)	41.6% (540)	100.0% (1881)

Combined Z-Score Style Distribution Holdings as of June 30, 2024

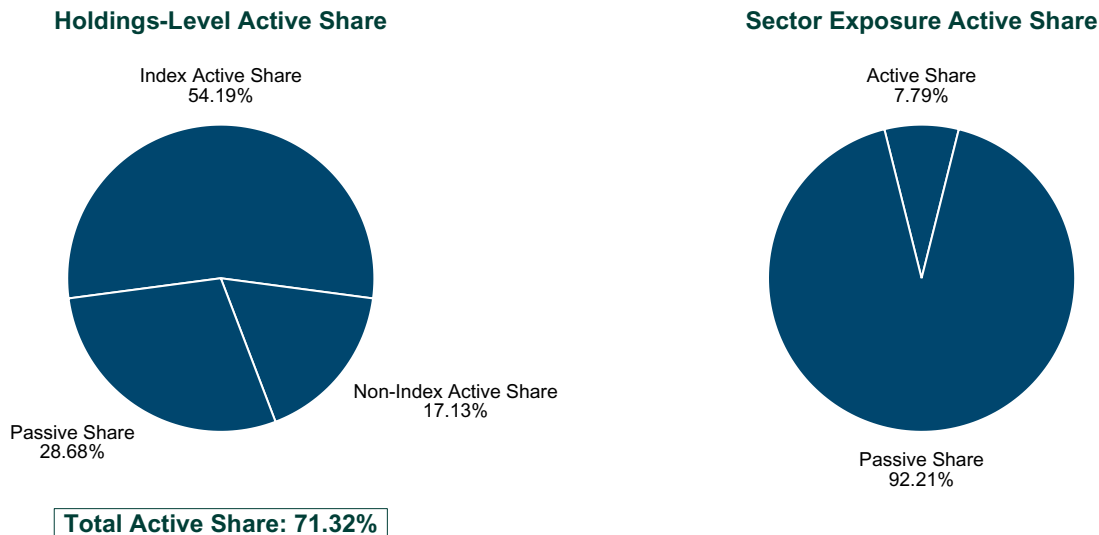


Sector Weights Distribution Holdings as of June 30, 2024



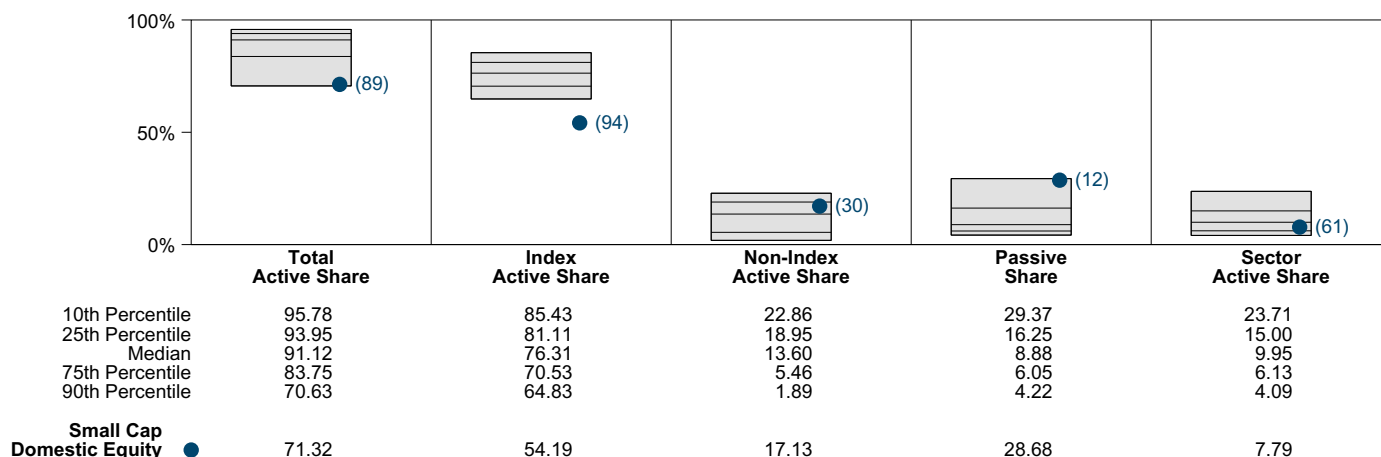
Small Cap Domestic Equity Active Share Analysis as of June 30, 2024 vs. Russell 2000 Index

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.



	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	74.82%	9.82%	84.64%	2.19%	1.95%	1.74%
Consumer Discretionary	55.25%	19.58%	74.82%	10.50%	10.77%	7.98%
Consumer Staples	43.15%	14.36%	57.51%	3.54%	3.92%	2.14%
Energy	63.41%	6.91%	70.31%	7.46%	5.81%	4.53%
Financials	64.40%	11.54%	75.94%	15.47%	13.12%	10.68%
Health Care	52.72%	13.87%	66.59%	15.17%	13.06%	9.29%
Industrials	49.17%	22.61%	71.78%	17.17%	20.79%	14.00%
Information Technology	53.88%	15.79%	69.67%	15.77%	15.15%	10.65%
Materials	41.44%	23.67%	65.12%	4.55%	6.87%	3.84%
Miscellaneous	0.00%	100.00%	100.00%	-	0.32%	0.13%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.87%	0.43%
Real Estate	58.21%	17.85%	76.06%	5.58%	5.40%	4.16%
Utilities	64.25%	13.19%	77.44%	2.61%	1.96%	1.71%
Total	54.19%	17.13%	71.32%	100.00%	100.00%	71.29%

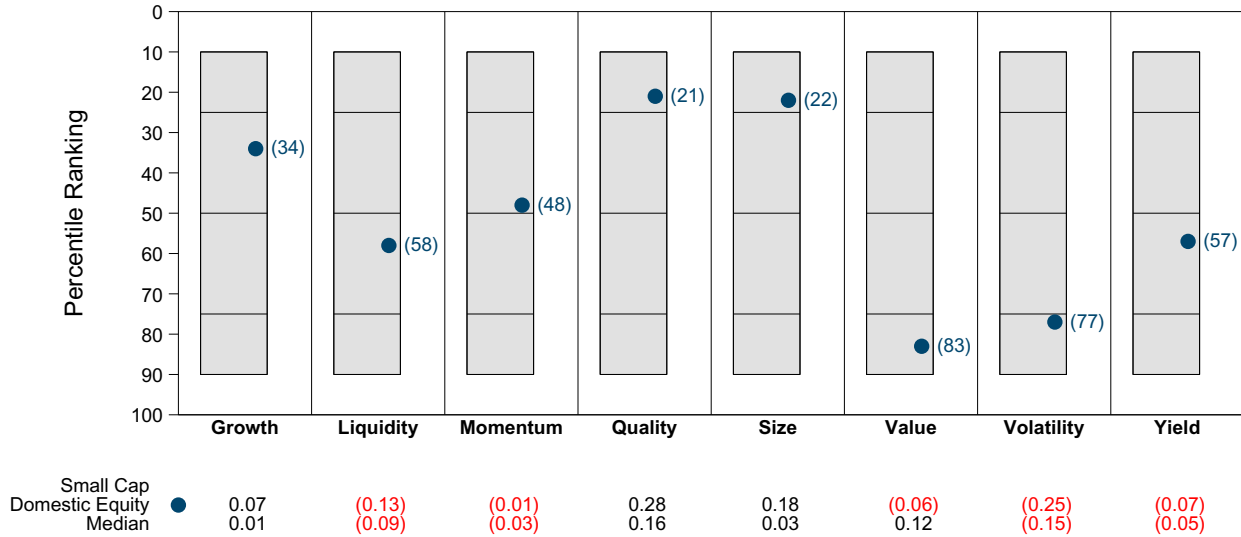
Active Share vs. Callan Small Cap Core



Relative Factor Exposure Rankings

This graph compares the manager’s factor exposure with the distribution of exposures for the Callan Small Cap Core group. This analysis illustrates whether the manager’s factor exposures are consistent with those of other managers employing the same style.

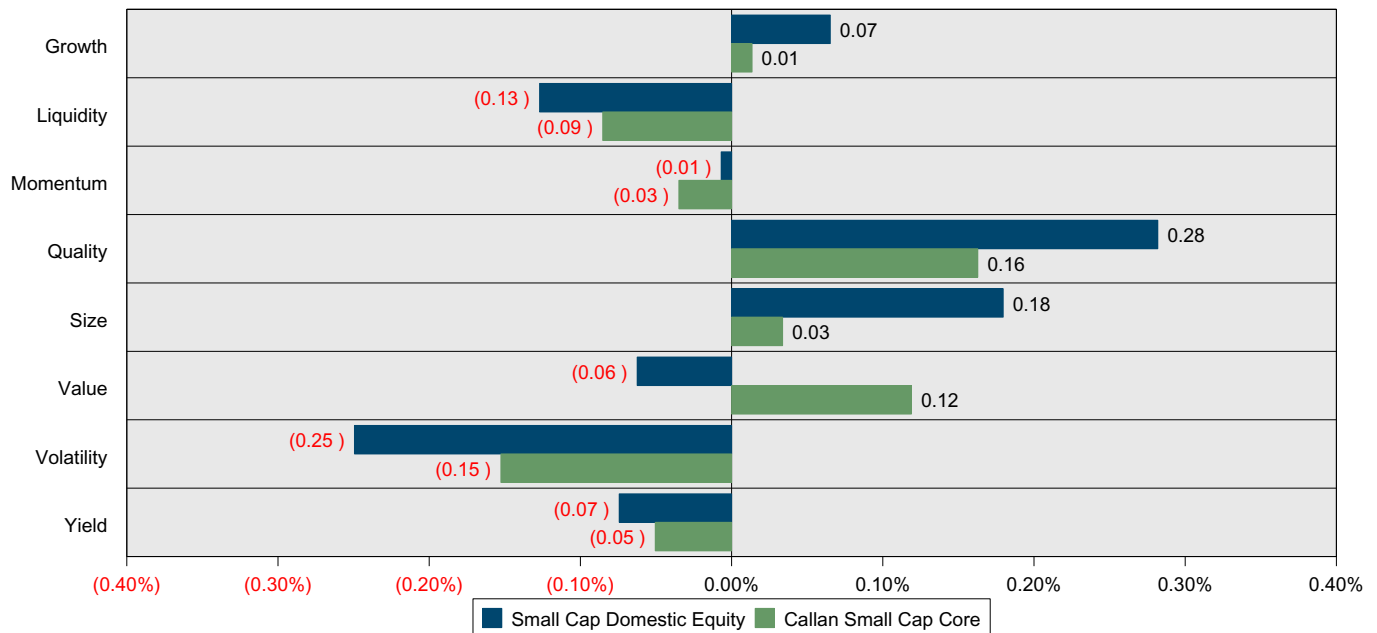
Factor Exposures Relative to Russell 2000 Index, Rankings vs Callan Small Cap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager’s factor exposures and the median factor for the Callan Small Cap Core group relative the the Russell 2000 Index.

Factor Exposures Relative to Russell 2000 Index for Period Ended June 30, 2024



Boston Trust

Period Ended June 30, 2024

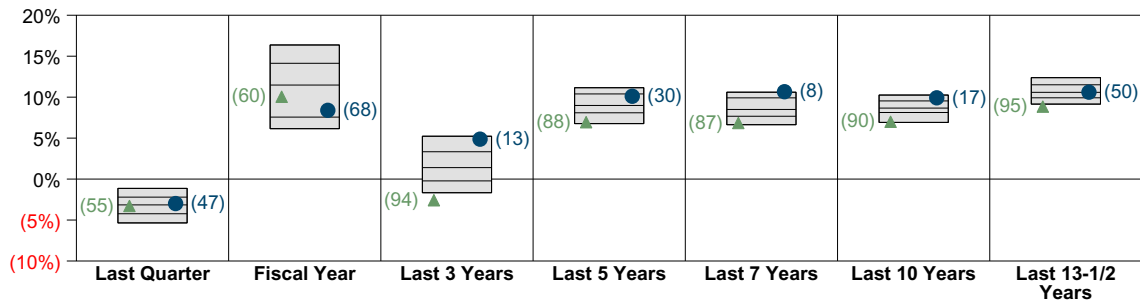
Investment Philosophy

Boston Trust Walden Company is a Boston-based investment firm. The firm's small cap product is team managed but overseen by lead PM Richard Williams, who is supported by three additional co-portfolio managers (including co-CEO Ken Scott) and team of generalist analysts. In addition to traditional fundamental equity analysts, the firm employs dedicated ESG investment analysts to manage engagement with portfolio companies. The strategy focuses on companies that exhibit quality with attractive valuations. The portfolio emphasizes quality and durability of earnings for target companies. The portfolio typically holds 70-90 holdings with an emphasis on quality earnings, reasonable valuations, and lower exposure to momentum. Risk is managed via sector positioning (typically within +/- 5% of benchmark weights) and individual security underwriting. The portfolio turnover tends to be lower, averaging 20% over the long-term. NHRS inception in the fund is October 2010.

Quarterly Asset Growth

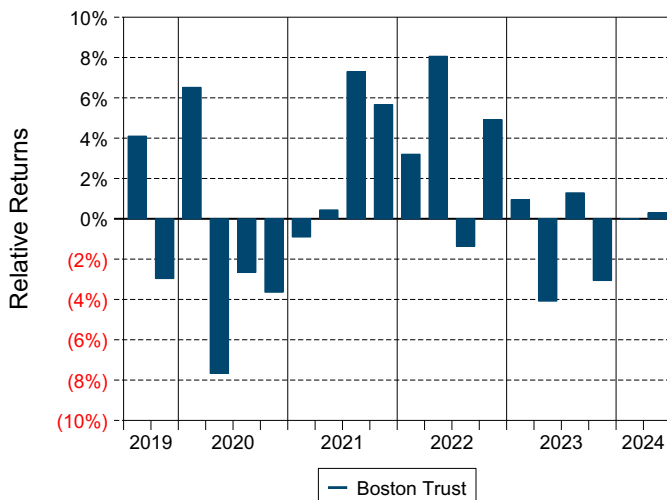
Beginning Market Value	\$244,217,633
Net New Investment	\$0
Investment Gains/(Losses)	\$-7,294,322
Ending Market Value	\$236,923,311

Performance vs Callan Small Cap Core (Gross)

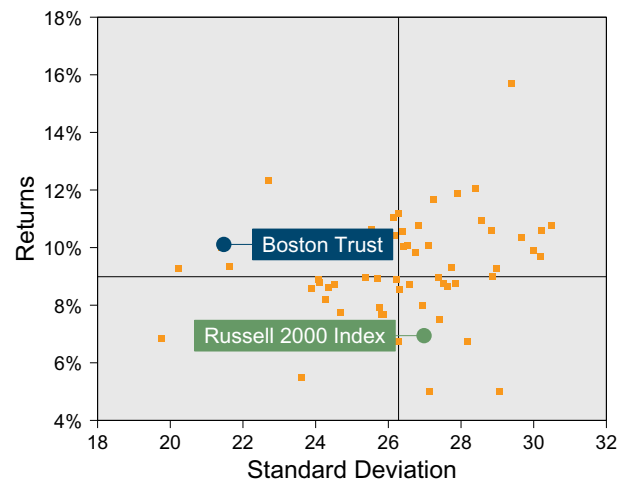


10th Percentile	(1.14)	16.37	5.23	11.15	10.60	10.26	12.38
25th Percentile	(2.20)	14.13	3.34	10.39	9.92	9.54	11.51
Median	(3.15)	11.48	1.40	8.99	8.50	8.67	10.59
75th Percentile	(4.23)	7.56	(0.22)	8.09	7.67	8.13	9.92
90th Percentile	(5.35)	6.15	(1.67)	6.77	6.64	6.92	9.15
Boston Trust	● (2.99)	8.39	4.87	10.11	10.66	9.92	10.61
Russell 2000 Index	▲ (3.28)	10.06	(2.58)	6.94	6.85	7.00	8.85

Relative Return vs Russell 2000 Index



Callan Small Cap Core (Gross) Annualized Five Year Risk vs Return

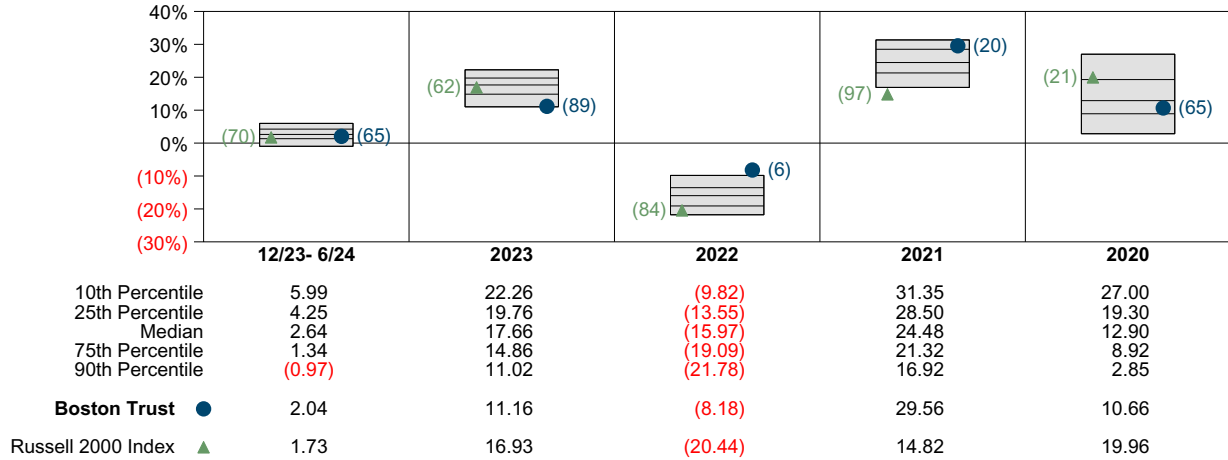


Boston Trust Return Analysis Summary

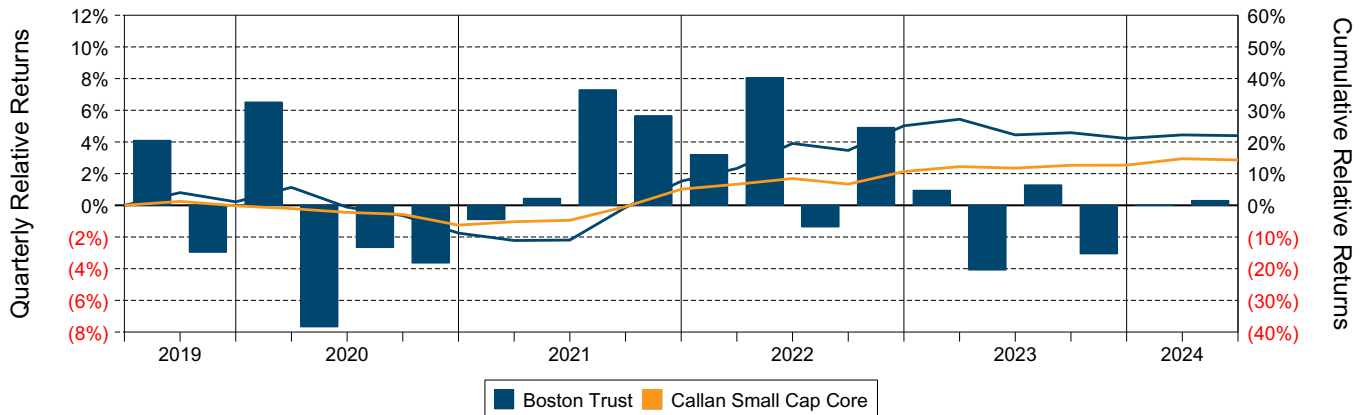
Return Analysis

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.

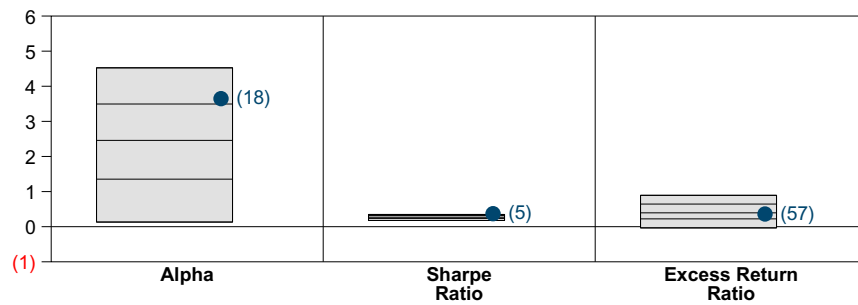
Performance vs Callan Small Cap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



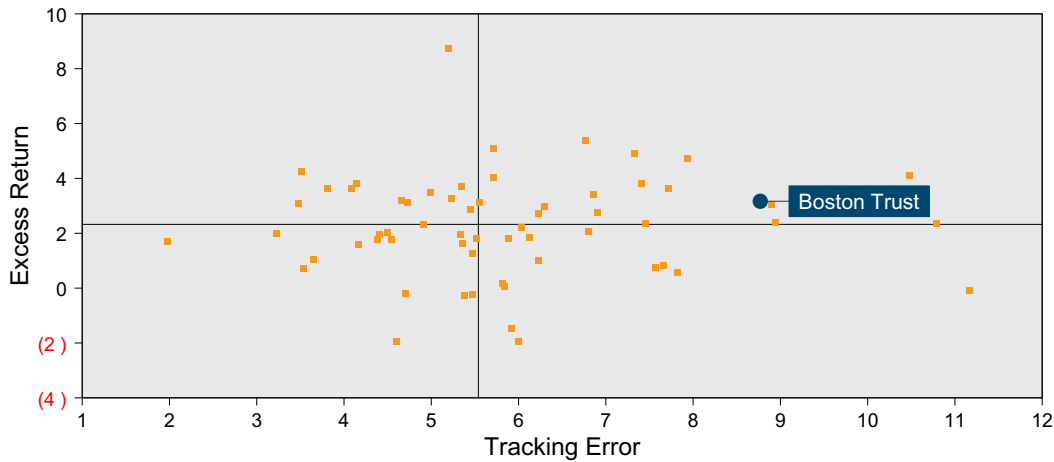
	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	4.52	0.35	0.89
25th Percentile	3.49	0.32	0.64
Median	2.46	0.27	0.39
75th Percentile	1.35	0.24	0.22
90th Percentile	0.13	0.18	(0.03)
Boston Trust	3.65	0.37	0.36

Boston Trust Risk Analysis Summary

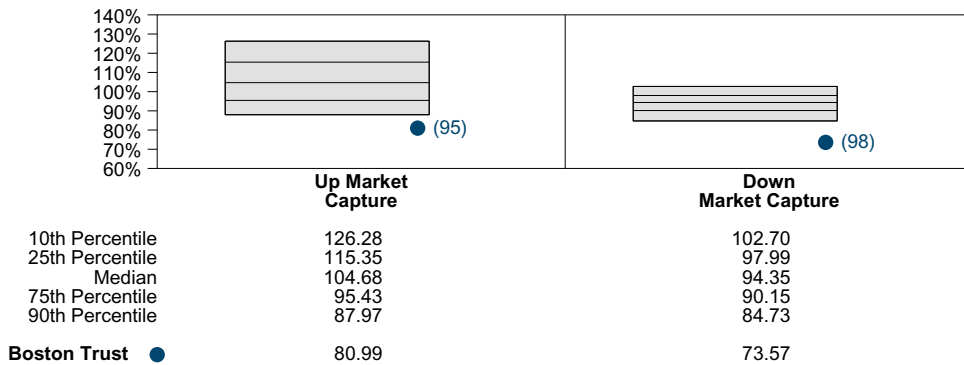
Risk Analysis

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.

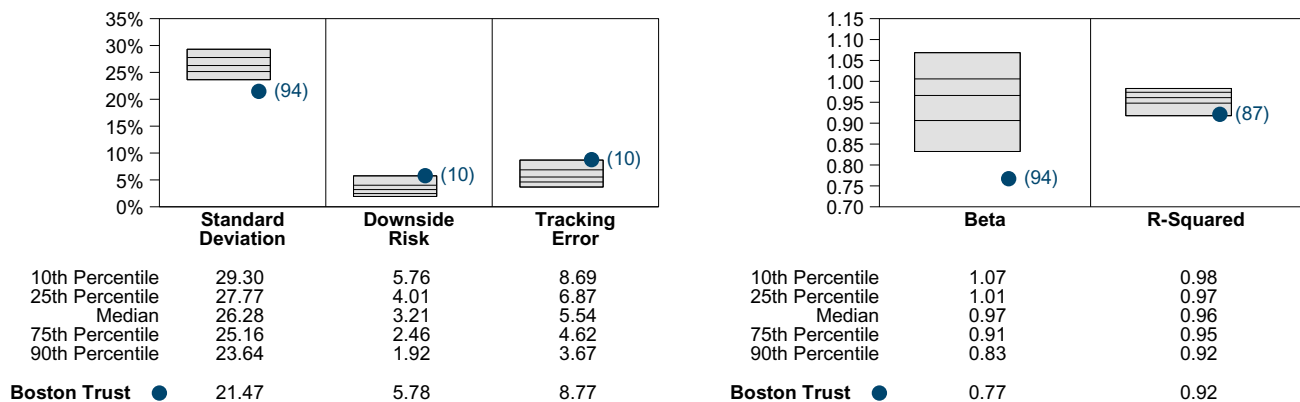
Risk Analysis vs Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024

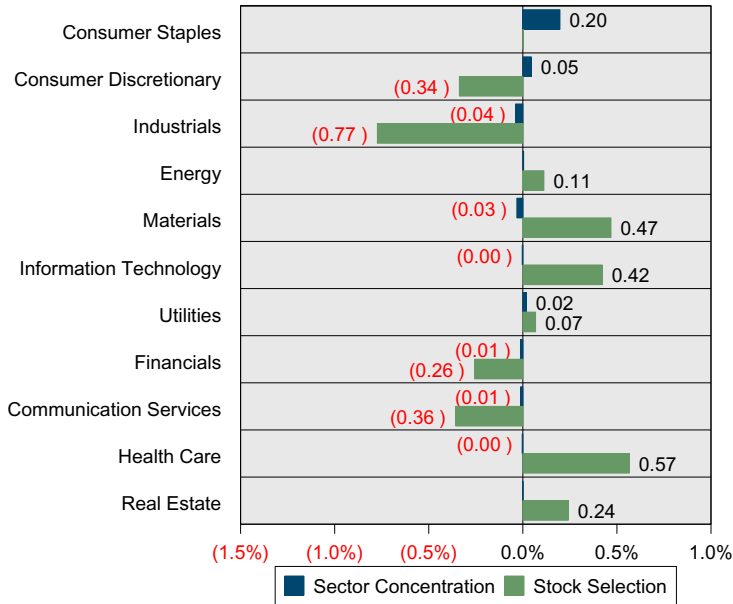


Boston Trust vs Russell 2000 Index Quarterly Equity Buy and Hold Attribution

Attribution Ranking and Sector Detail

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Core over the same time period.

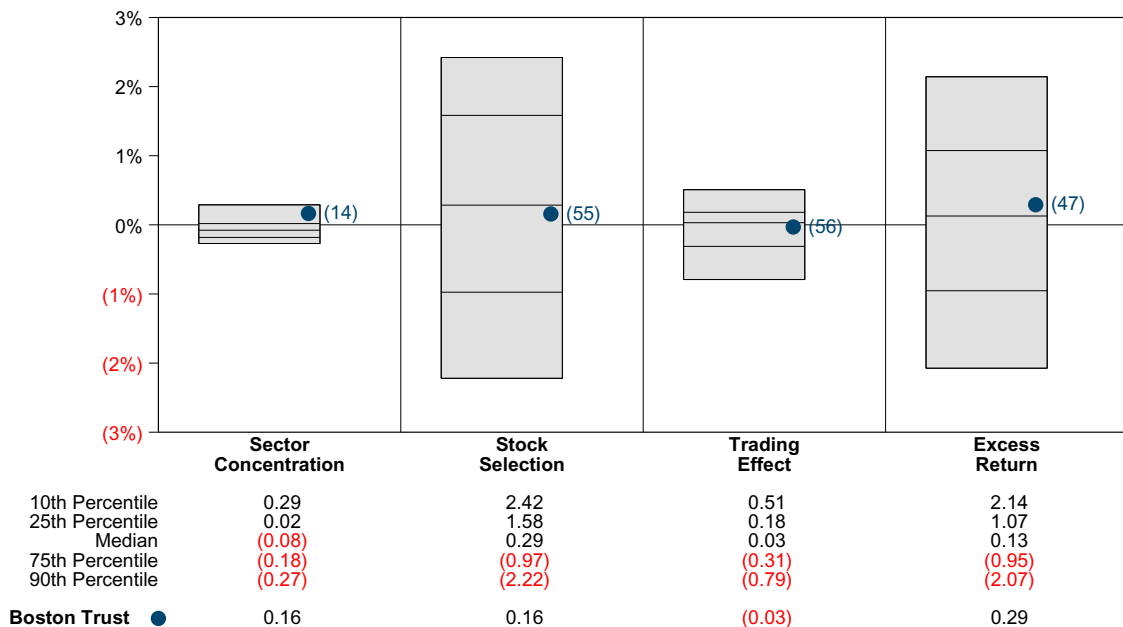
Attribution Effects by Sector vs Russell 2000 Index Quarter ended June 30, 2024



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.20%	0.00%
Consumer Discretionary	0.05%	(0.34%)
Industrials	(0.04%)	(0.77%)
Energy	0.00%	0.11%
Materials	(0.03%)	0.47%
Information Technology	(0.00%)	0.42%
Utilities	0.02%	0.07%
Financials	(0.01%)	(0.26%)
Communication Services	(0.01%)	(0.36%)
Health Care	(0.00%)	0.57%
Real Estate	0.00%	0.24%
Total	0.16%	0.16%

Manager Return	=	Index Return	+	Sector Concentration	+	Stock Selection	+	Trading
(2.99%)		(3.28%)		0.16%		0.16%		(0.03%)

Equity Attribution Ranking vs Callan Small Cap Core Quarter ended June 30, 2024

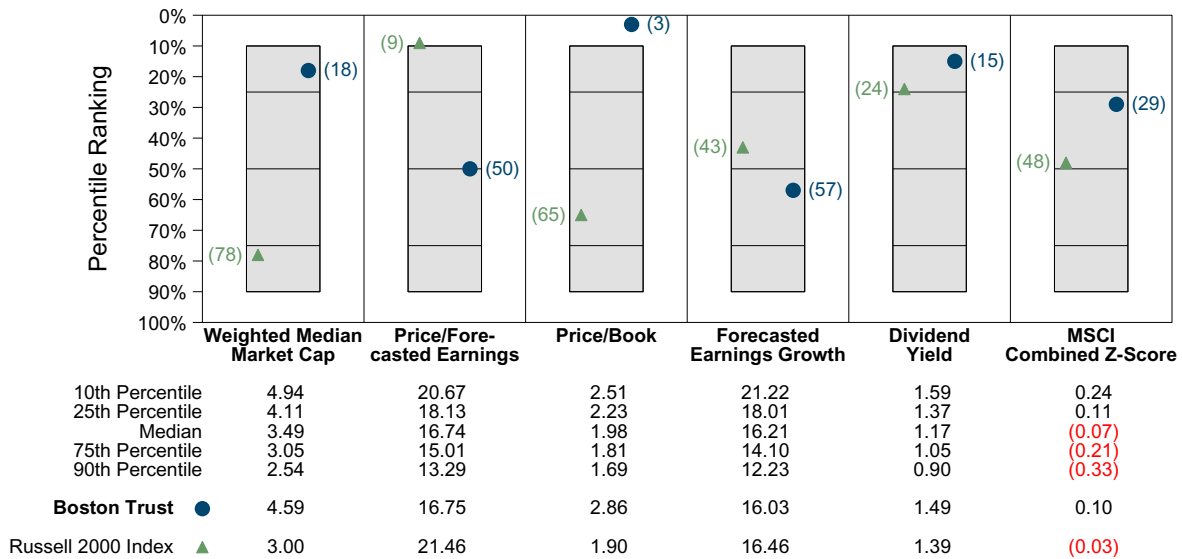


Boston Trust Equity Characteristics Analysis Summary

Portfolio Characteristics

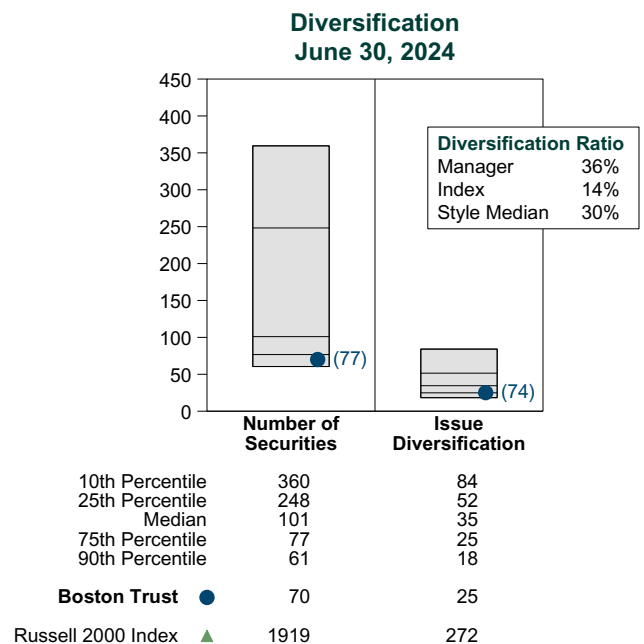
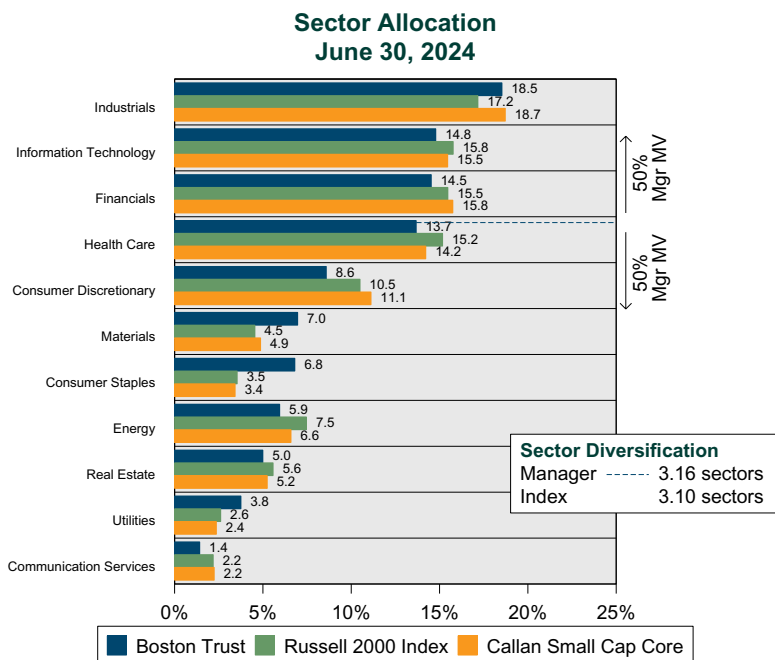
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Core as of June 30, 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.

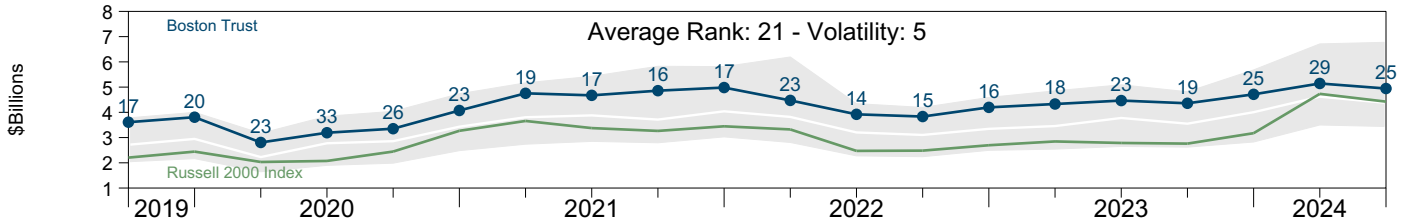


Portfolio Characteristics Analysis

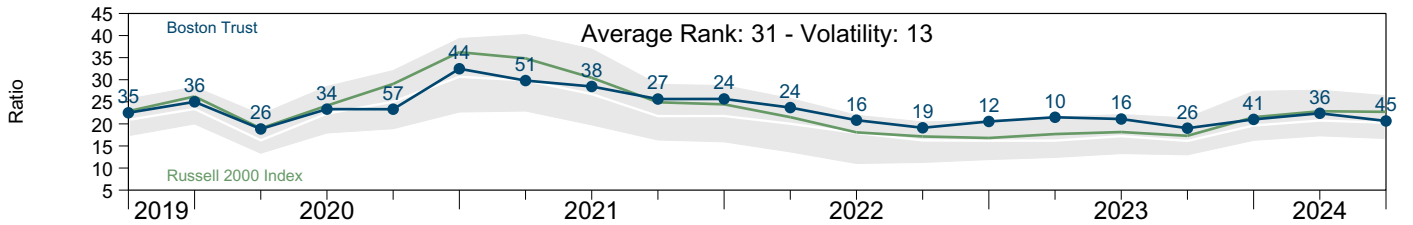
Callan Small Cap Core

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Small Cap Core Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 2000 Index is shown for comparison purposes.

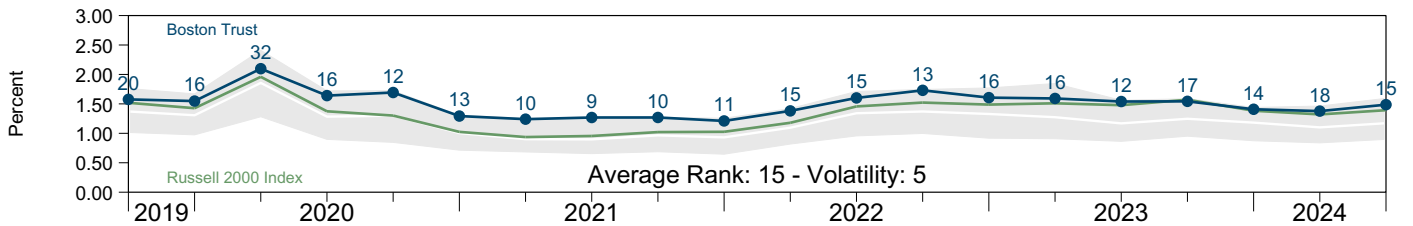
Weighted Average Market Cap



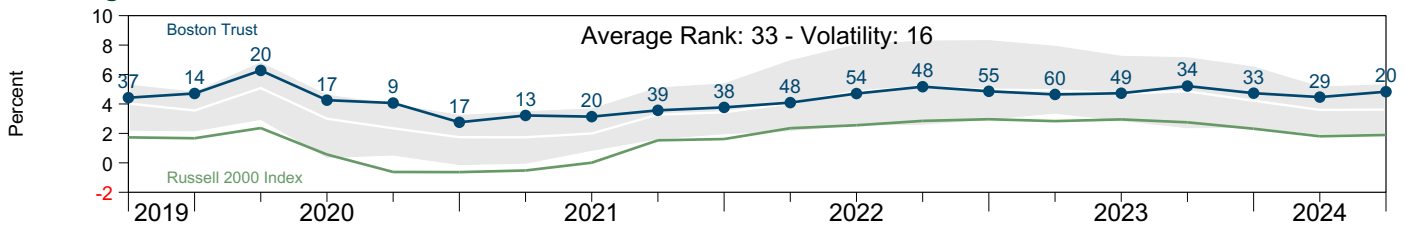
Trailing P/E



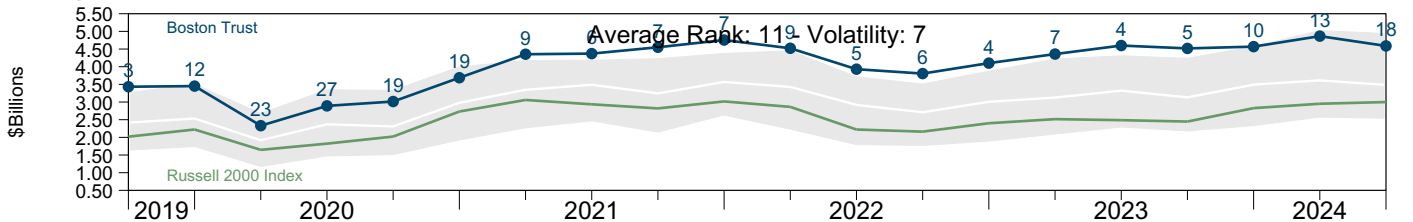
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

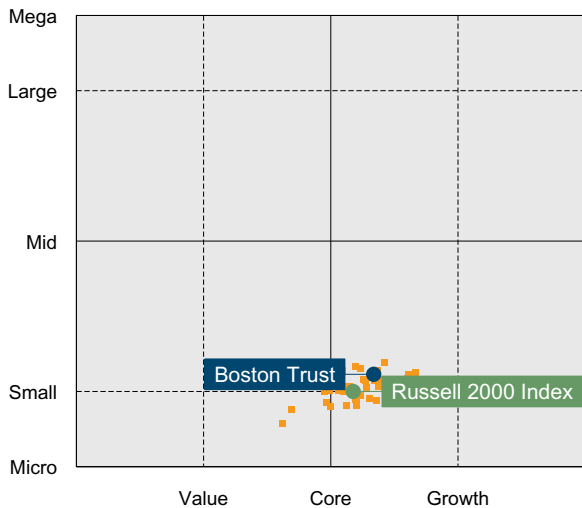
Current Holdings Based Style Analysis

Boston Trust

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

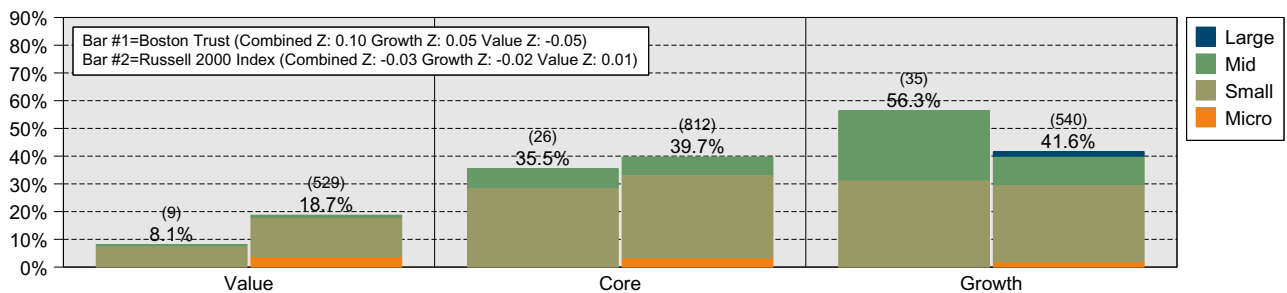
Style Map vs Callan Small Cap Core Holdings as of June 30, 2024



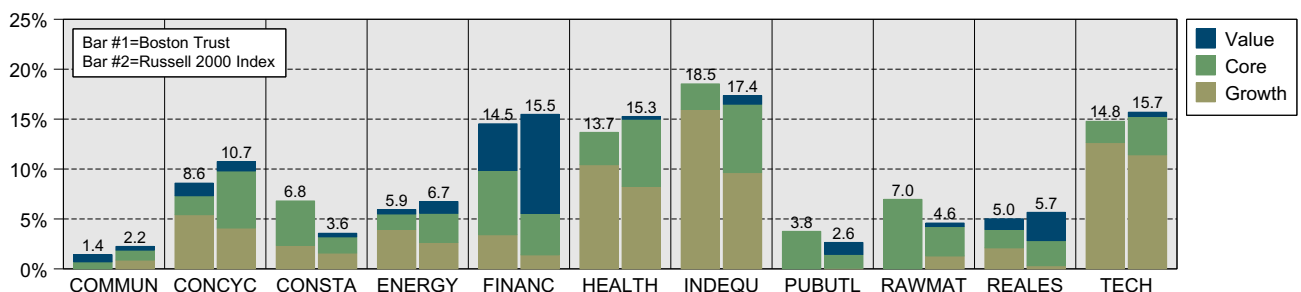
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	1.7% (1)	1.7% (1)
Mid	0.4% (1)	6.9% (4)	24.9% (15)	32.2% (20)
	0.9% (3)	6.3% (23)	10.1% (36)	17.3% (62)
Small	7.7% (8)	28.6% (22)	31.4% (20)	67.8% (50)
	14.1% (202)	30.0% (424)	27.9% (336)	72.0% (962)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	3.8% (324)	3.3% (365)	1.9% (167)	9.0% (856)
Total	8.1% (9)	35.5% (26)	56.3% (35)	100.0% (70)
	18.7% (529)	39.7% (812)	41.6% (540)	100.0% (1881)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



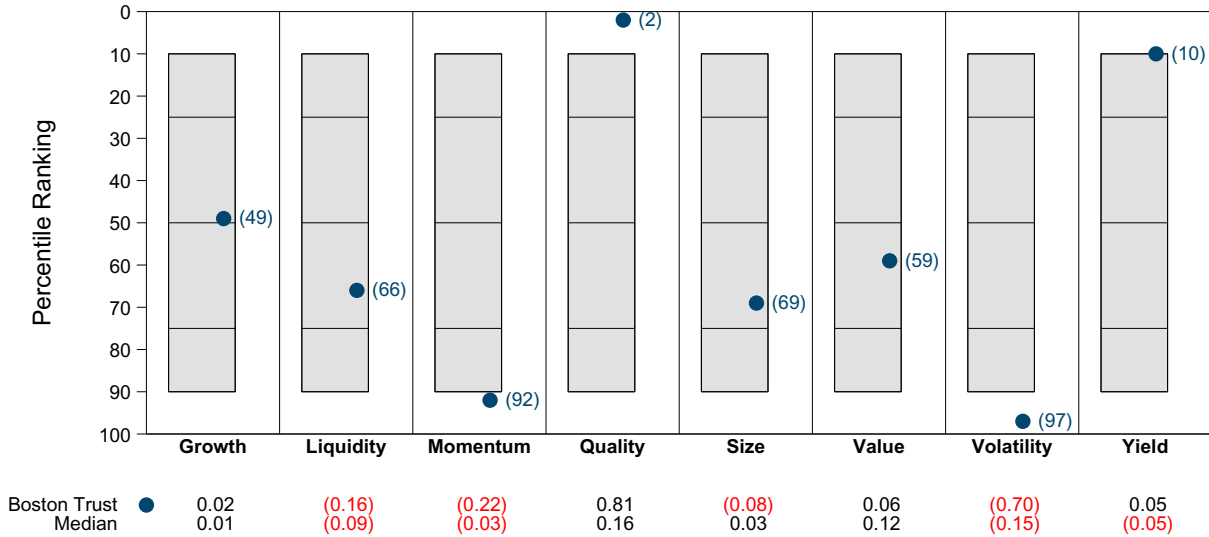
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager’s factor exposure with the distribution of exposures for the Callan Small Cap Core group. This analysis illustrates whether the manager’s factor exposures are consistent with those of other managers employing the same style.

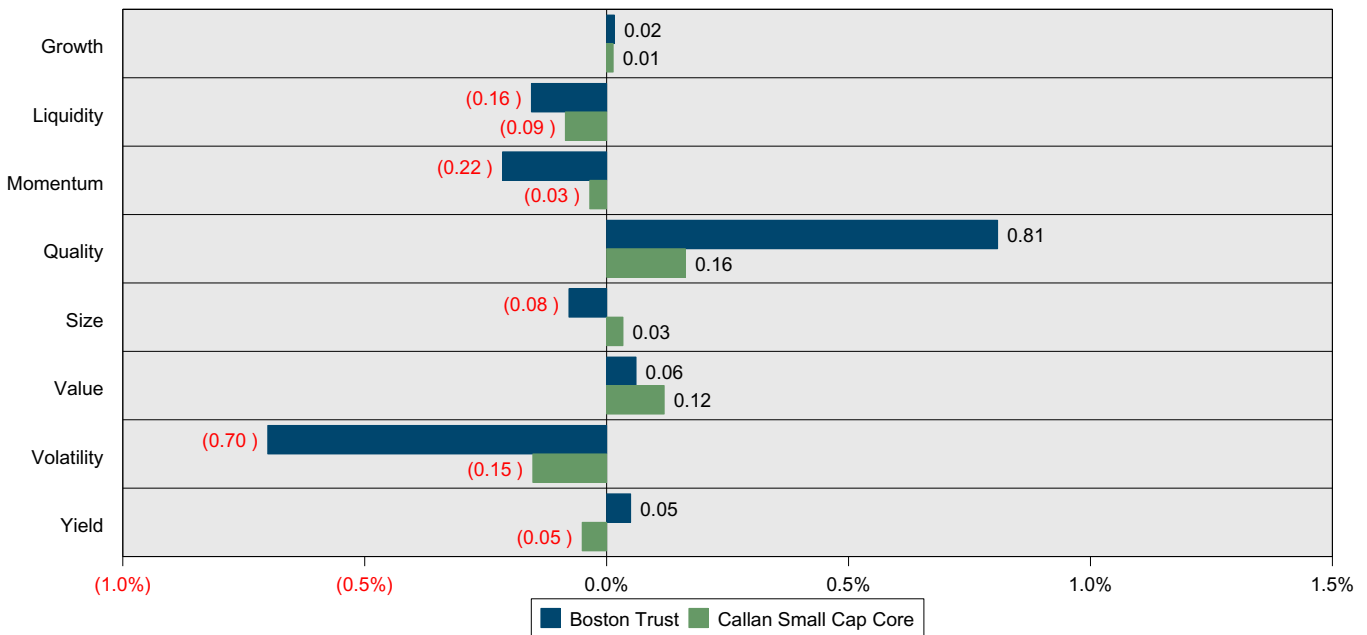
Factor Exposures Relative to Russell 2000 Index, Rankings vs Callan Small Cap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager’s factor exposures and the median factor for the Callan Small Cap Core group relative the the Russell 2000 Index.

Factor Exposures Relative to Russell 2000 Index for Period Ended June 30, 2024



Segall Bryant & Hamill Period Ended June 30, 2024

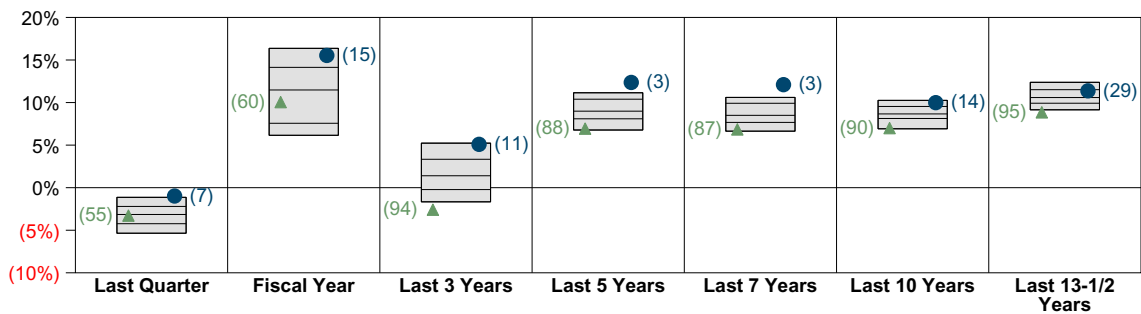
Investment Philosophy

Segall, Bryant, & Hamill (SBH) is an investment firm that is headquartered in Chicago, IL and has office locations in four additional US cities. The firm was recently acquired by CI Financial, a Canadian asset manager, who looks to expand its distribution in the US marketplace by leveraging SBH's platform of equity and fixed income product offerings. The Small Cap Core strategy is managed by portfolio manager, Jeff Paulis, who works with a team of five small cap analysts. The team employs a bottom-up, fundamental process that is anchored on return-on-invested-capital (ROIC) framework. The portfolio has a blend of high ROIC (growth) and improving ROIC (value) companies that culminates into a core strategy. The portfolio typically holds 70-85 securities. The portfolio can be utilized as a standalone mandate or within a multi-manager structure given its style consistency and risk/return profile. NHRS inception in the fund is October 2010.

Quarterly Asset Growth

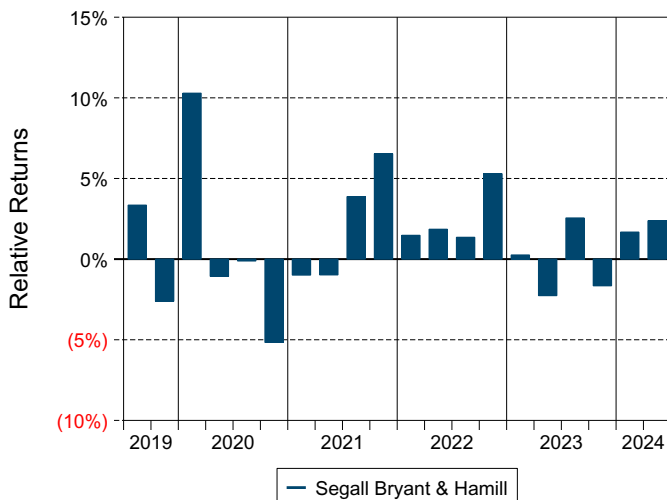
Beginning Market Value	\$263,385,565
Net New Investment	\$0
Investment Gains/(Losses)	\$-2,583,349
Ending Market Value	\$260,802,217

Performance vs Callan Small Cap Core (Gross)

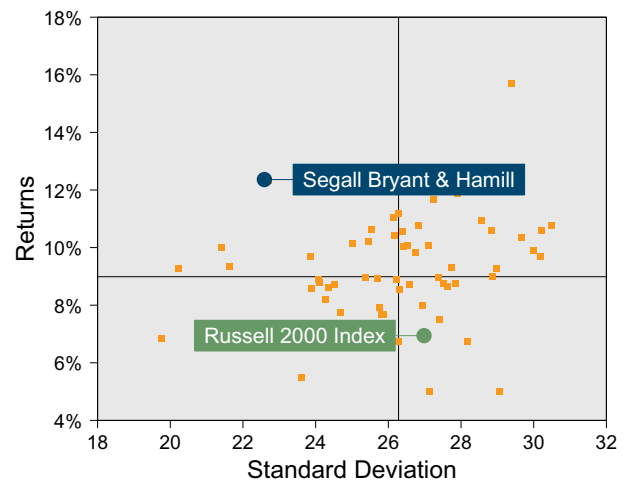


10th Percentile	(1.14)	16.37	5.23	11.15	10.60	10.26	12.38
25th Percentile	(2.20)	14.13	3.34	10.39	9.92	9.54	11.51
Median	(3.15)	11.48	1.40	8.99	8.50	8.67	10.59
75th Percentile	(4.23)	7.56	(0.22)	8.09	7.67	8.13	9.92
90th Percentile	(5.35)	6.15	(1.67)	6.77	6.64	6.92	9.15
Segall Bryant & Hamill	● (0.98)	15.53	5.09	12.36	12.10	9.99	11.38
Russell 2000 Index	▲ (3.28)	10.06	(2.58)	6.94	6.85	7.00	8.85

Relative Return vs Russell 2000 Index



Callan Small Cap Core (Gross) Annualized Five Year Risk vs Return

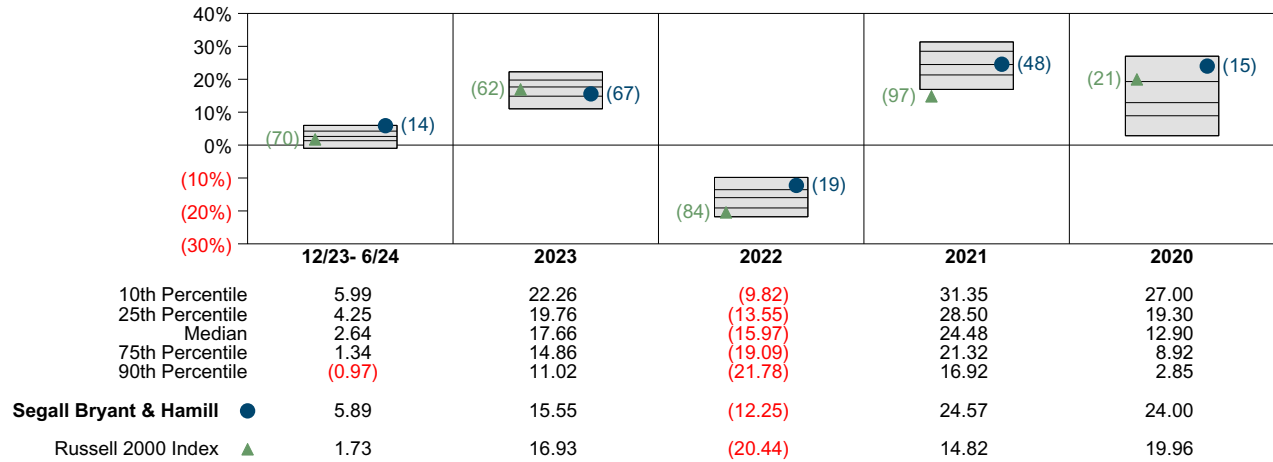


Segall Bryant & Hamill Return Analysis Summary

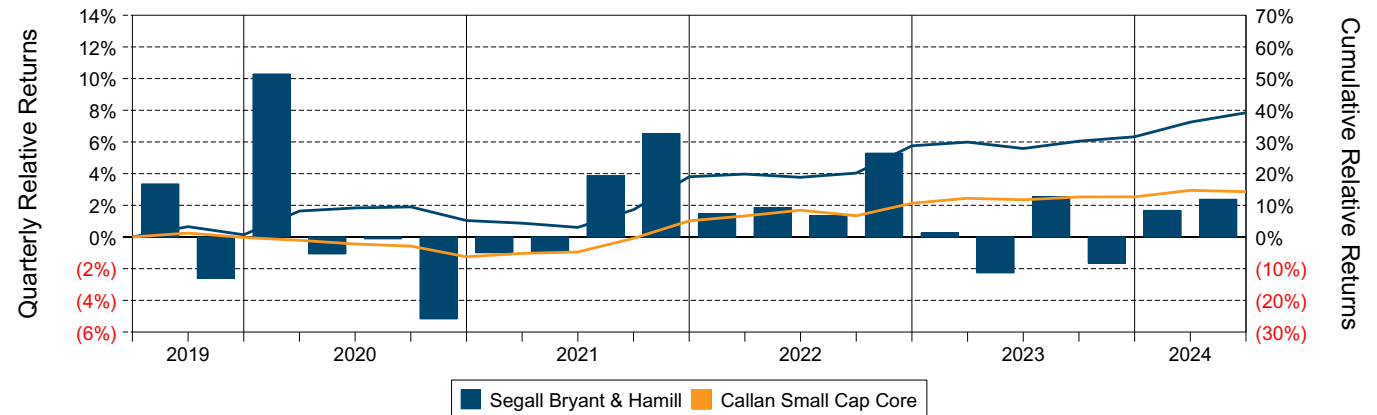
Return Analysis

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.

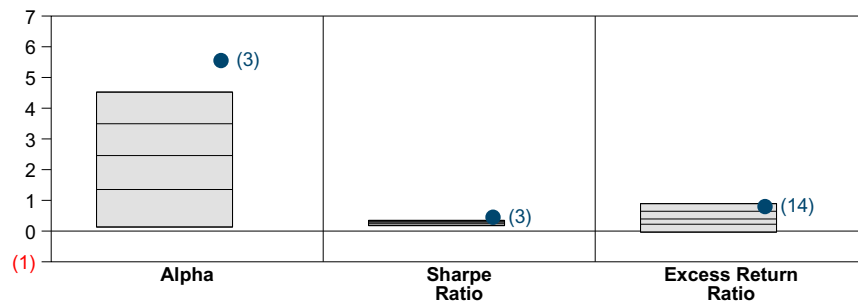
Performance vs Callan Small Cap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



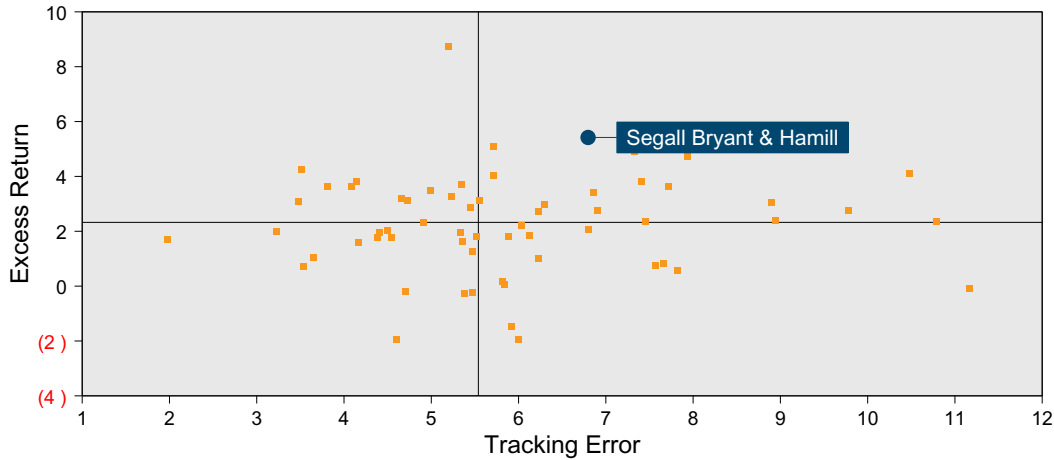
	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	4.52	0.35	0.89
25th Percentile	3.49	0.32	0.64
Median	2.46	0.27	0.39
75th Percentile	1.35	0.24	0.22
90th Percentile	0.13	0.18	(0.03)
Segall Bryant & Hamill	● 5.55	0.45	0.80

Segall Bryant & Hamill Risk Analysis Summary

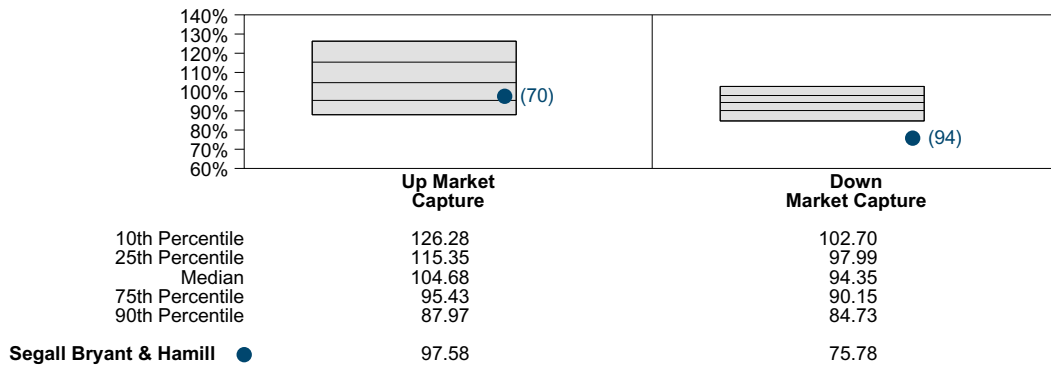
Risk Analysis

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.

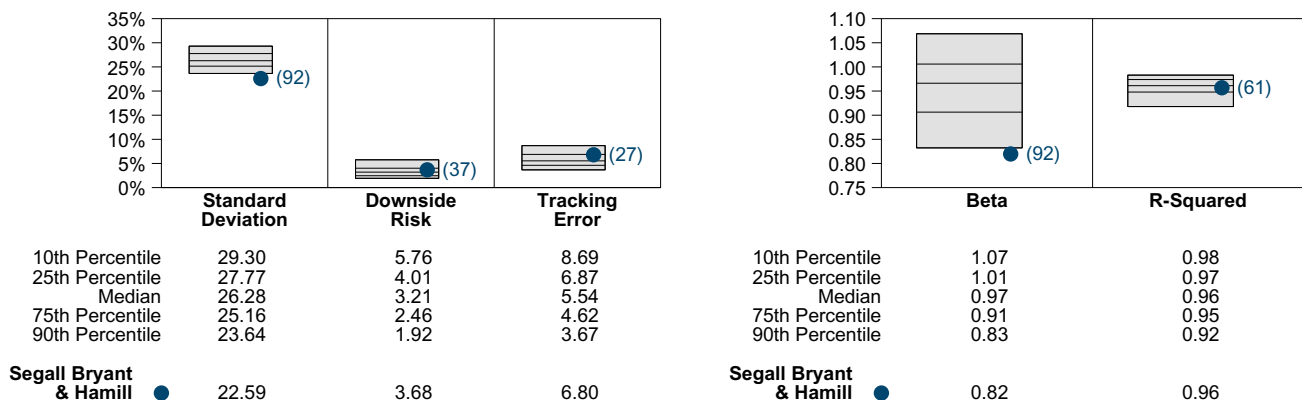
Risk Analysis vs Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024

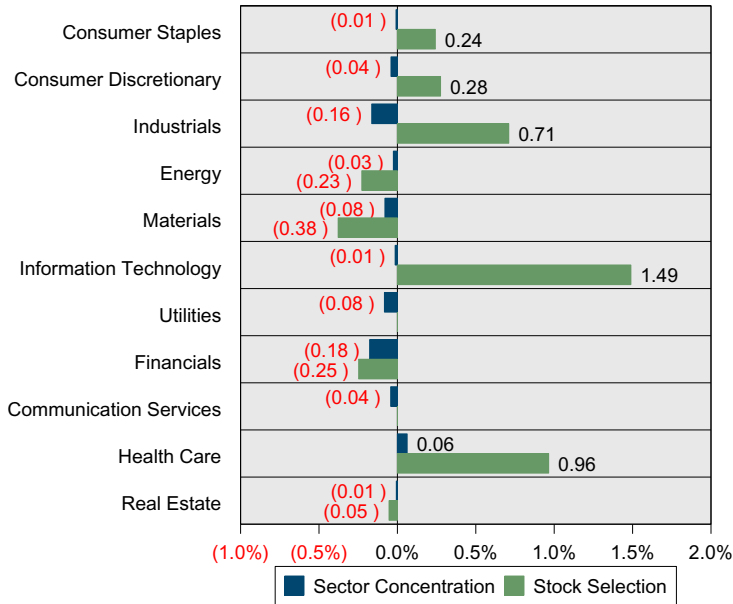


Segall Bryant & Hamill vs Russell 2000 Index Quarterly Equity Buy and Hold Attribution

Attribution Ranking and Sector Detail

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Core over the same time period.

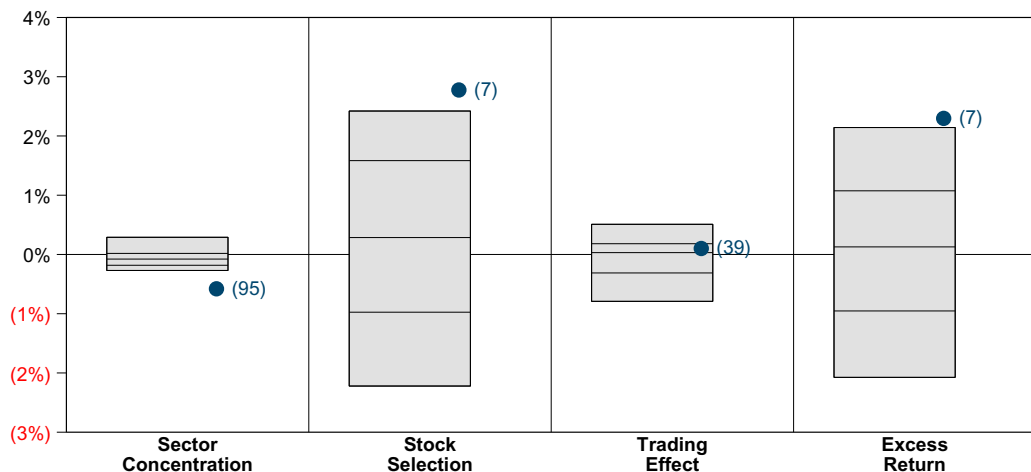
Attribution Effects by Sector vs Russell 2000 Index Quarter ended June 30, 2024



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.01%)	0.24%
Consumer Discretionary	(0.04%)	0.28%
Industrials	(0.16%)	0.71%
Energy	(0.03%)	(0.23%)
Materials	(0.08%)	(0.38%)
Information Technology	(0.01%)	1.49%
Utilities	(0.08%)	0.00%
Financials	(0.18%)	(0.25%)
Communication Services	(0.04%)	0.00%
Health Care	0.06%	0.96%
Real Estate	(0.01%)	(0.05%)
Total	(0.58%)	2.78%

Manager Return	=	Index Return	+	Sector Concentration	+	Stock Selection	+	Trading
(0.98%)		(3.28%)		(0.58%)		2.78%		0.10%

Equity Attribution Ranking vs Callan Small Cap Core Quarter ended June 30, 2024



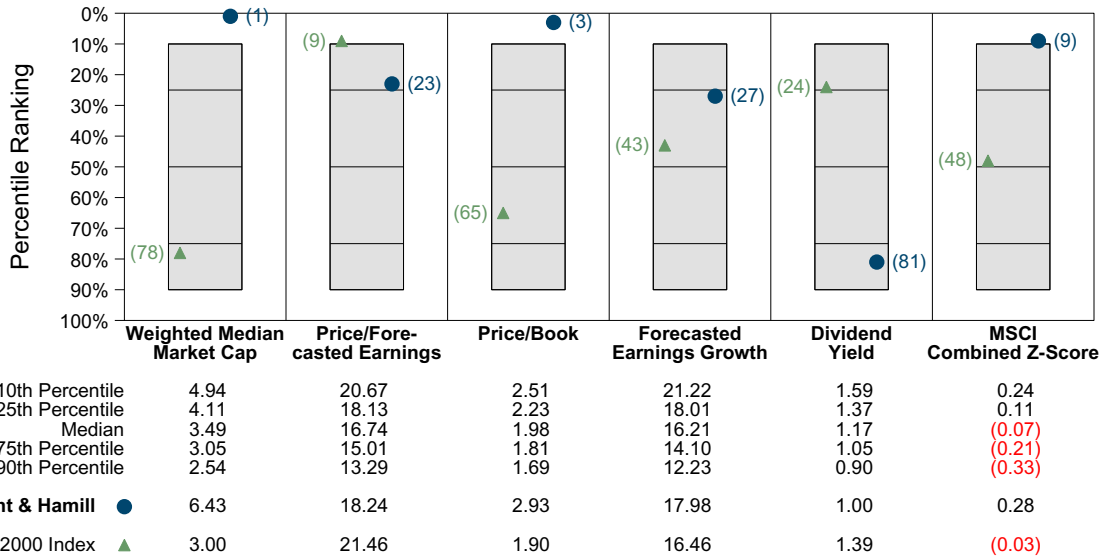
10th Percentile	0.29	2.42	0.51	2.14
25th Percentile	0.02	1.58	0.18	1.07
Median	(0.08)	0.29	0.03	0.13
75th Percentile	(0.18)	(0.97)	(0.31)	(0.95)
90th Percentile	(0.27)	(2.22)	(0.79)	(2.07)
Segall Bryant & Hamill	(0.58)	2.78	0.10	2.30

Segall Bryant & Hamill Equity Characteristics Analysis Summary

Portfolio Characteristics

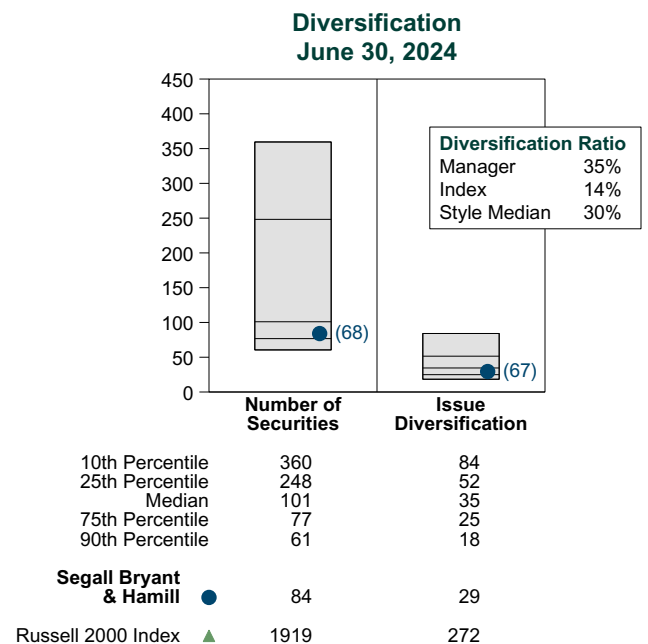
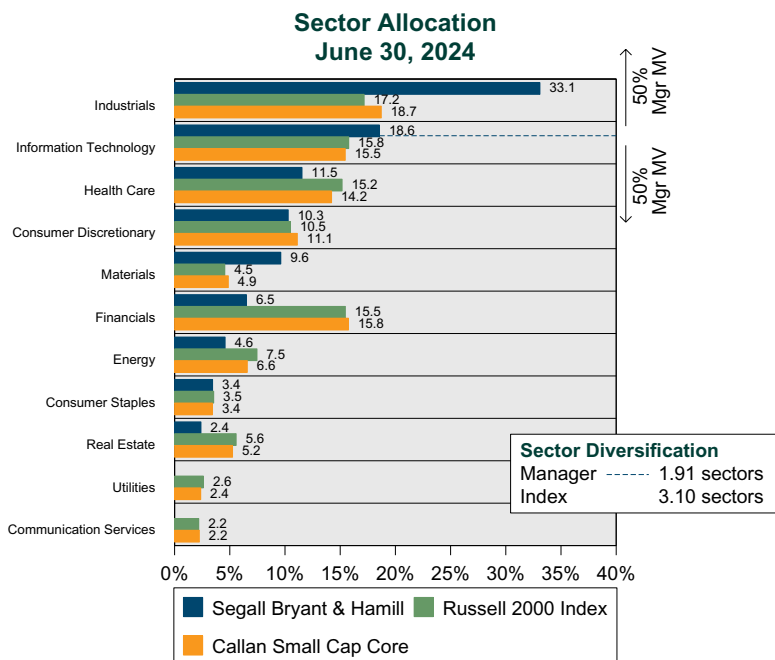
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Core as of June 30, 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.

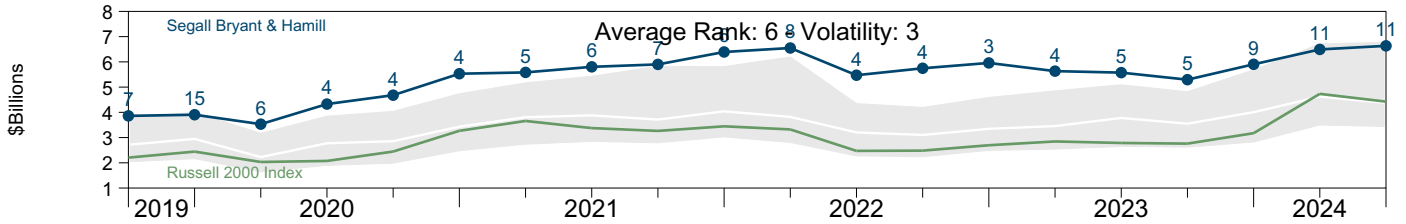


Portfolio Characteristics Analysis

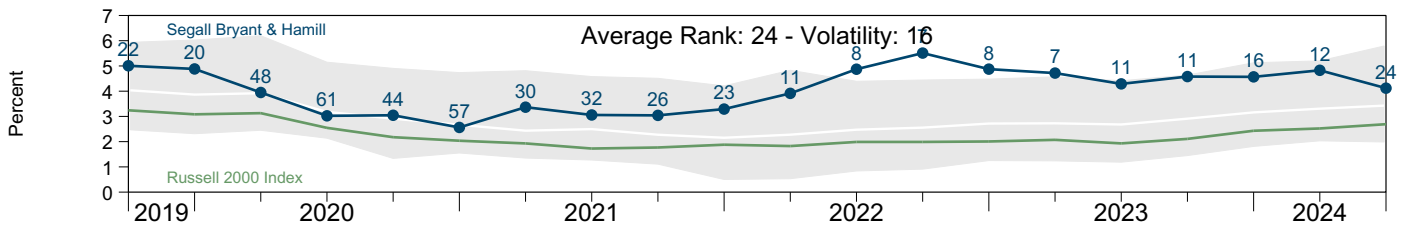
Callan Small Cap Core

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Small Cap Core Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 2000 Index is shown for comparison purposes.

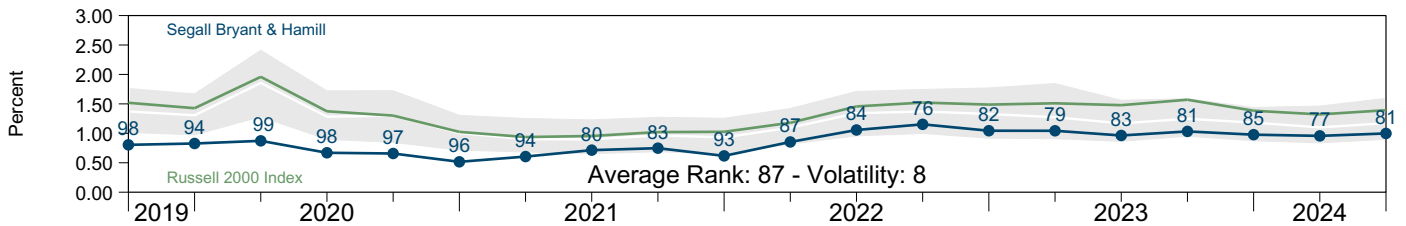
Weighted Average Market Cap



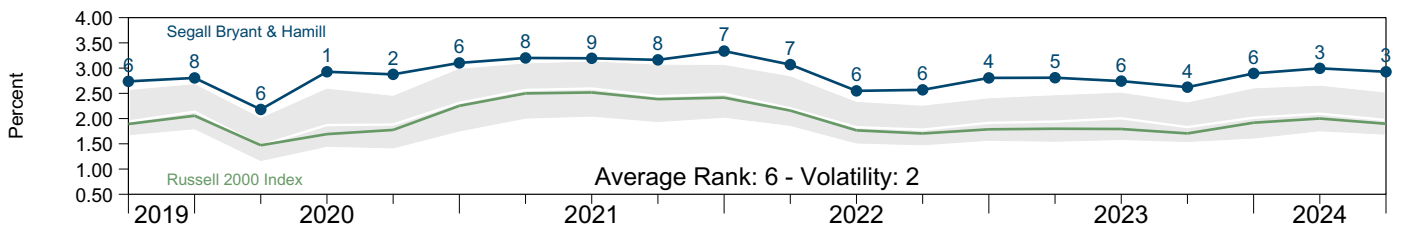
Growth in Dividends



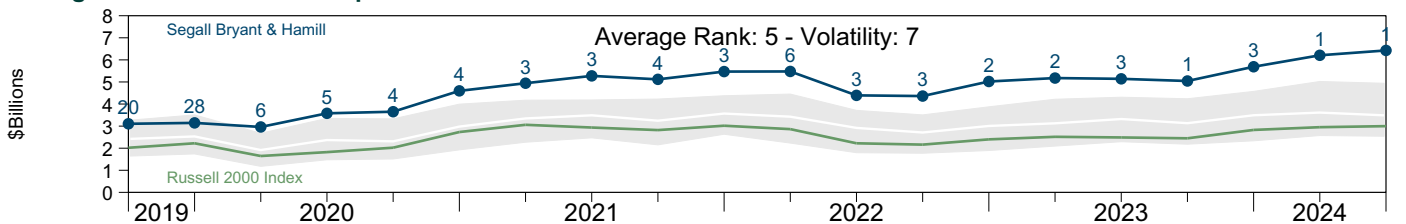
Dividend Yield



Price/Book Value



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

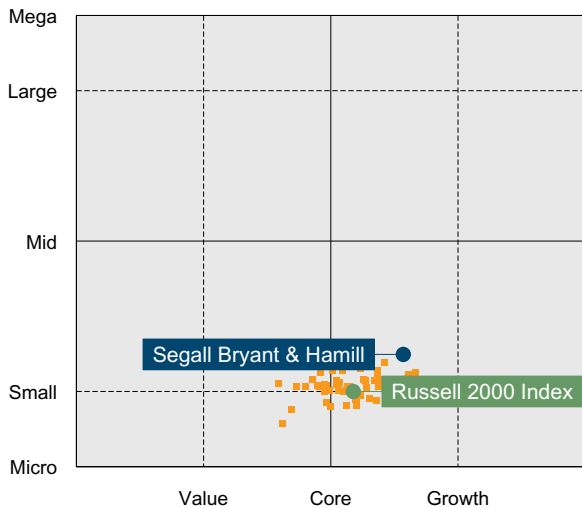
Current Holdings Based Style Analysis

Segall Bryant & Hamill

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

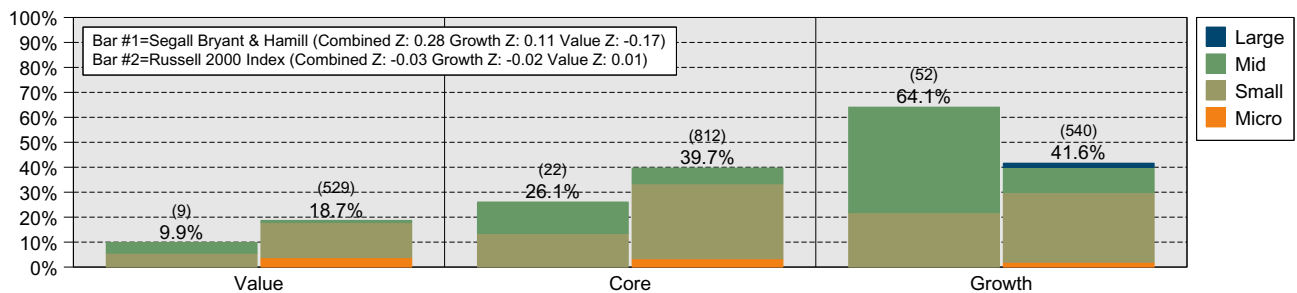
Style Map vs Callan Small Cap Core Holdings as of June 30, 2024



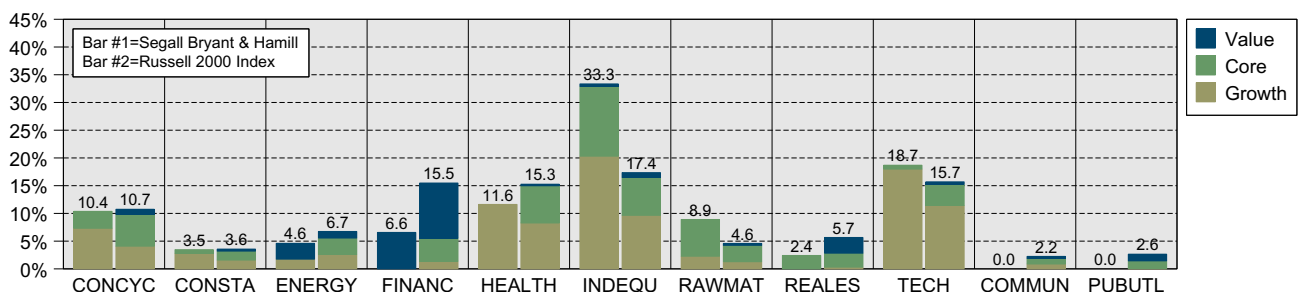
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	1.7% (1)	1.7% (1)
Mid	4.3% (3)	12.5% (9)	42.3% (31)	59.1% (43)
	0.9% (3)	6.3% (23)	10.1% (36)	17.3% (62)
Small	5.6% (6)	13.5% (13)	21.8% (21)	40.9% (40)
	14.1% (202)	30.0% (424)	27.9% (336)	72.0% (962)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	3.8% (324)	3.3% (365)	1.9% (167)	9.0% (856)
Total	9.9% (9)	26.1% (22)	64.1% (52)	100.0% (83)
	18.7% (529)	39.7% (812)	41.6% (540)	100.0% (1881)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



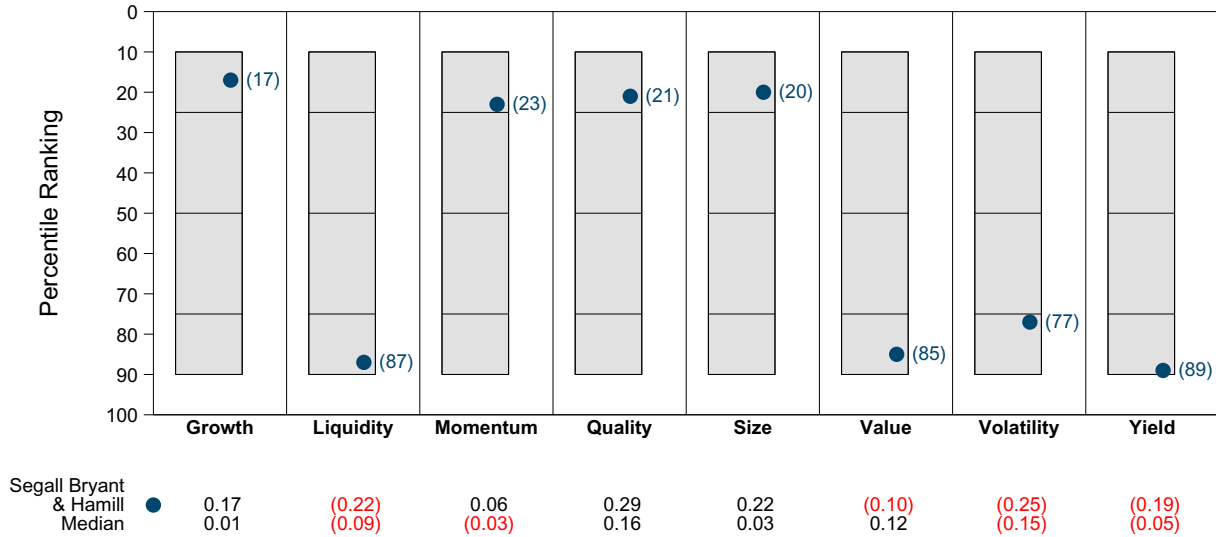
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager’s factor exposure with the distribution of exposures for the Callan Small Cap Core group. This analysis illustrates whether the manager’s factor exposures are consistent with those of other managers employing the same style.

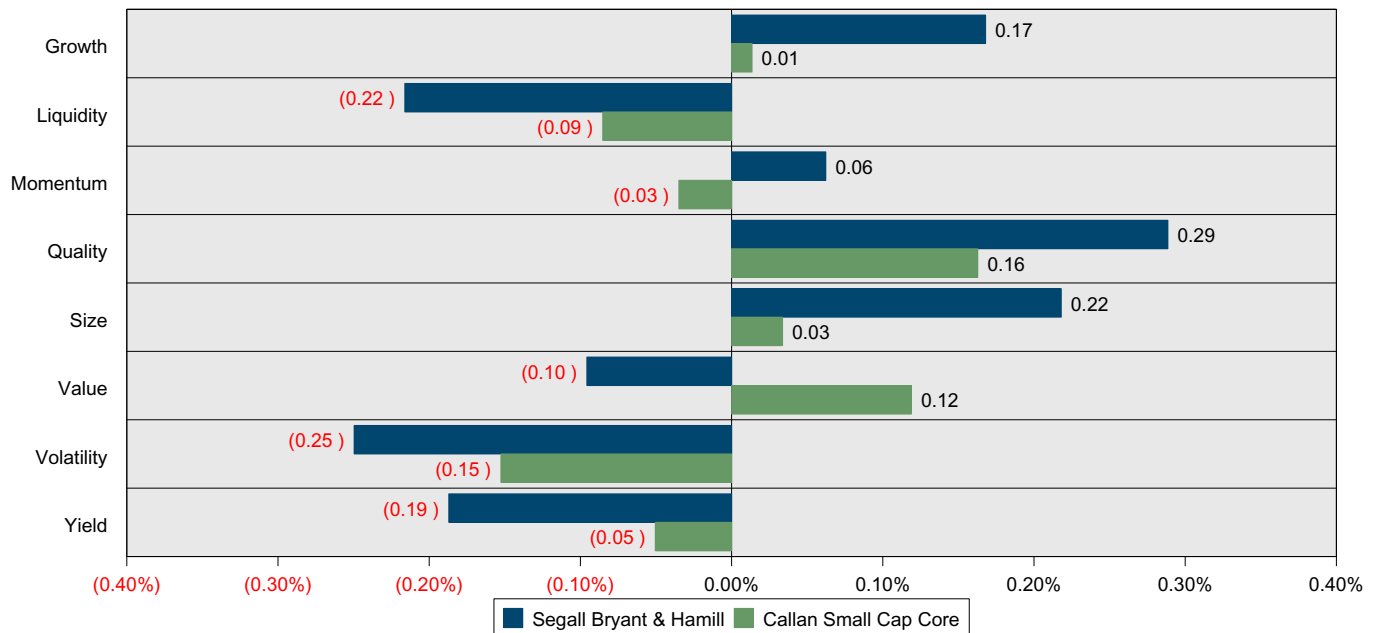
Factor Exposures Relative to Russell 2000 Index, Rankings vs Callan Small Cap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager’s factor exposures and the median factor for the Callan Small Cap Core group relative the the Russell 2000 Index.

Factor Exposures Relative to Russell 2000 Index for Period Ended June 30, 2024



Wellington

Period Ended June 30, 2024

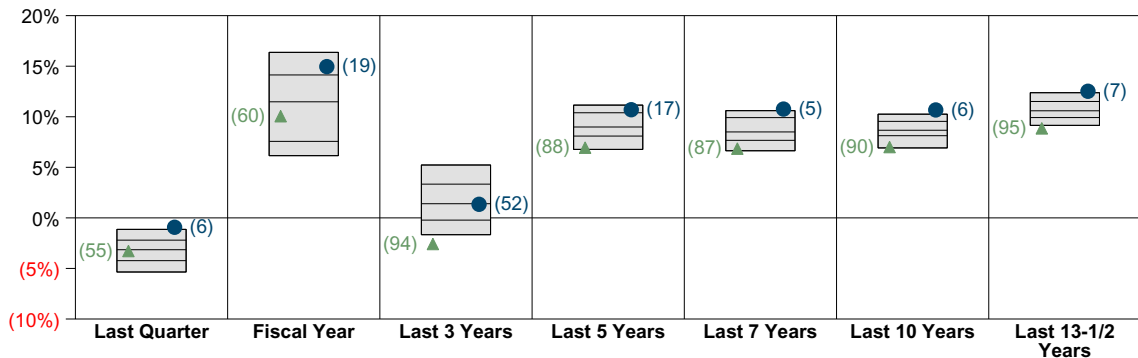
Investment Philosophy

Wellington Management Company is a 100% employee-owned company headquartered in Boston, Massachusetts. The Small Cap 2000 strategy employs a bottom-up fundamental process that relies heavily on Wellington's pool of centralized Global Industry Analysts. The portfolio managers, Mary Pryshlak and Jonathan White, provide strategy oversight from an implementation and risk perspective. The portfolio is diversified from both a stock and sector perspective and aims to neutralize industry and factor exposures. The portfolio has a range between 200-250 holdings with a max position size of 5%. Wellington Small Cap 2000 is appropriate for both standalone, as well as multi-manager structures. NHRS inception in the fund is October 2010.

Quarterly Asset Growth

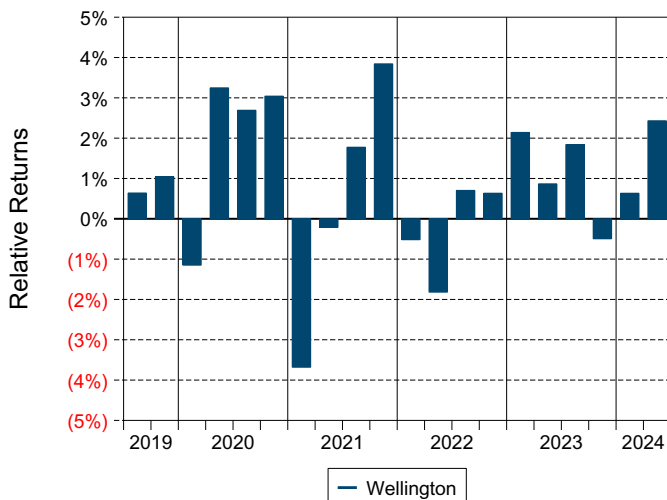
Beginning Market Value	\$437,845,512
Net New Investment	\$0
Investment Gains/(Losses)	\$-4,064,792
Ending Market Value	\$433,780,720

Performance vs Callan Small Cap Core (Gross)

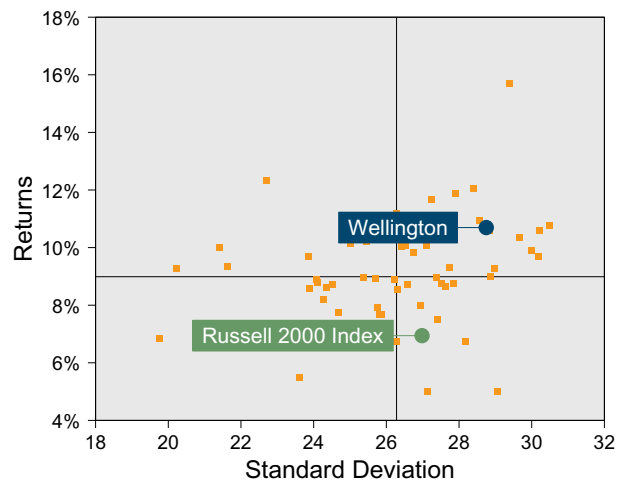


10th Percentile	(1.14)	16.37	5.23	11.15	10.60	10.26	12.38
25th Percentile	(2.20)	14.13	3.34	10.39	9.92	9.54	11.51
Median	(3.15)	11.48	1.40	8.99	8.50	8.67	10.59
75th Percentile	(4.23)	7.56	(0.22)	8.09	7.67	8.13	9.92
90th Percentile	(5.35)	6.15	(1.67)	6.77	6.64	6.92	9.15
Wellington	● (0.93)	14.96	1.34	10.70	10.76	10.67	12.52
Russell 2000 Index	▲ (3.28)	10.06	(2.58)	6.94	6.85	7.00	8.85

Relative Return vs Russell 2000 Index



Callan Small Cap Core (Gross) Annualized Five Year Risk vs Return

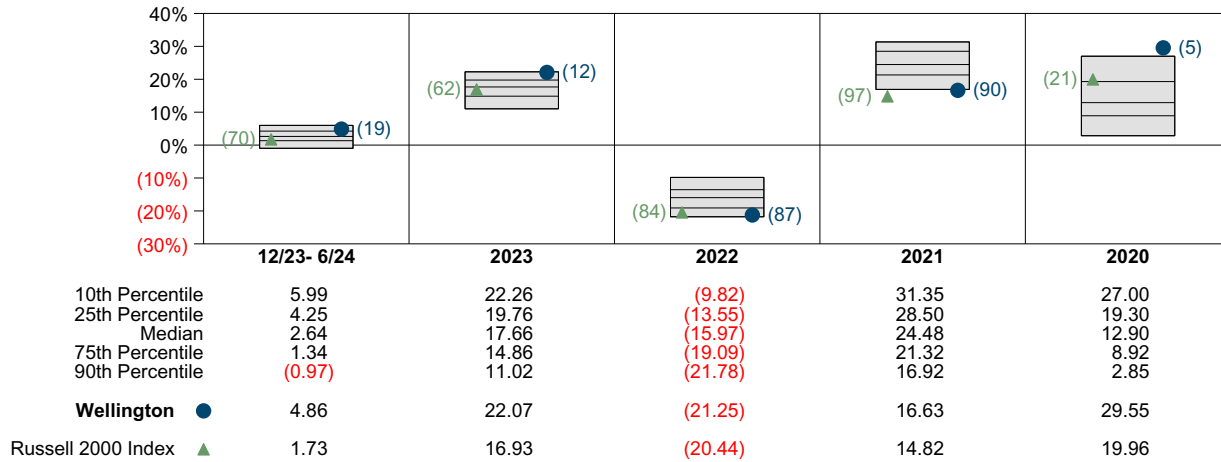


Wellington Return Analysis Summary

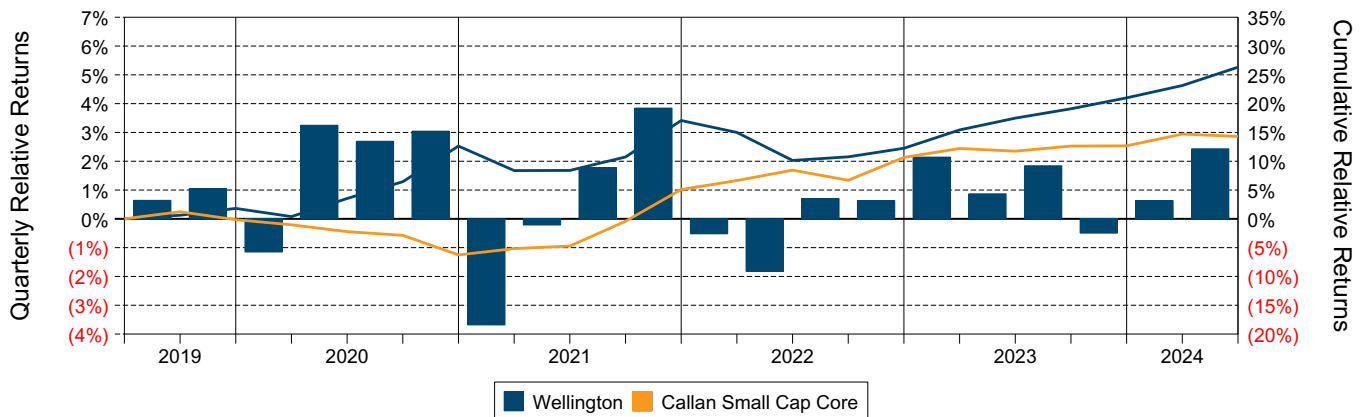
Return Analysis

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.

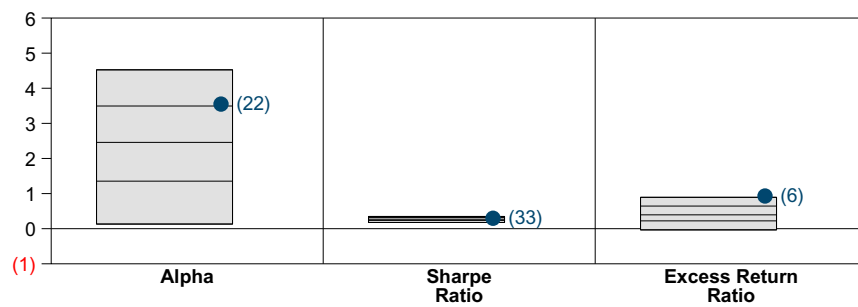
Performance vs Callan Small Cap Core (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



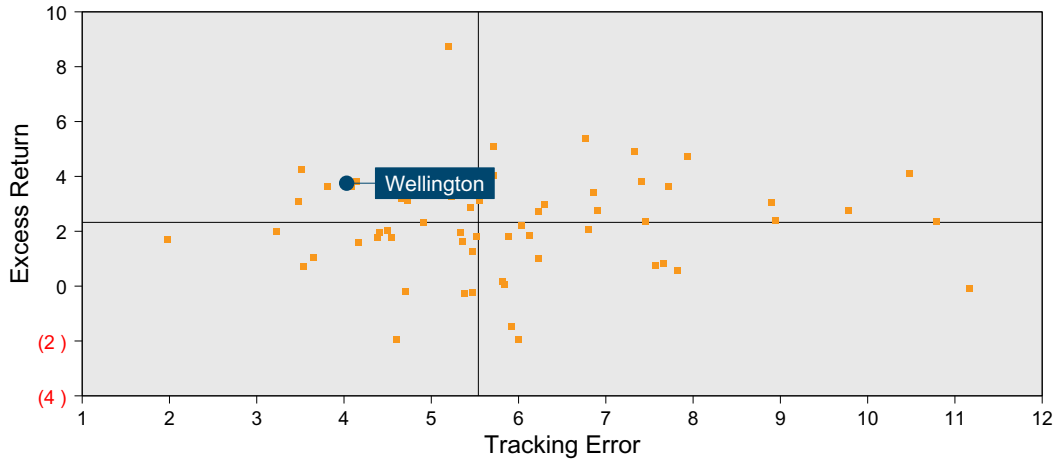
10th Percentile	4.52	0.35	0.89
25th Percentile	3.49	0.32	0.64
Median	2.46	0.27	0.39
75th Percentile	1.35	0.24	0.22
90th Percentile	0.13	0.18	(0.03)
Wellington	3.55	0.30	0.93

Wellington Risk Analysis Summary

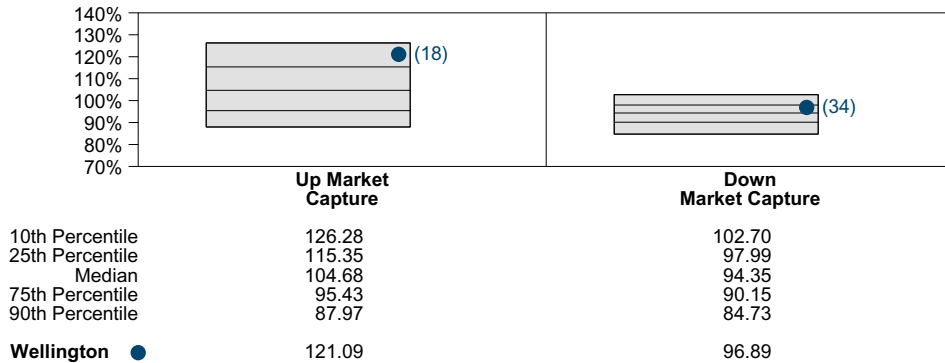
Risk Analysis

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.

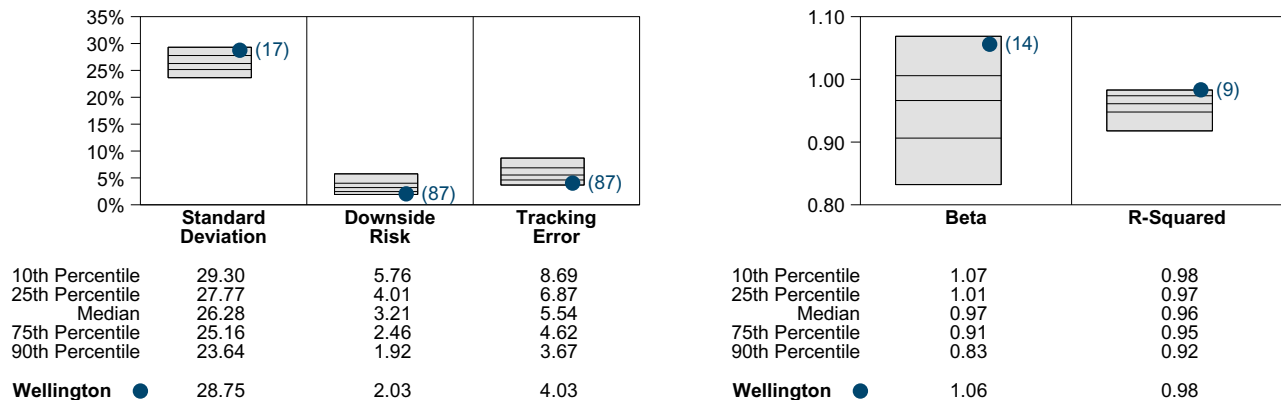
Risk Analysis vs Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Market Capture vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Cap Core (Gross) Five Years Ended June 30, 2024

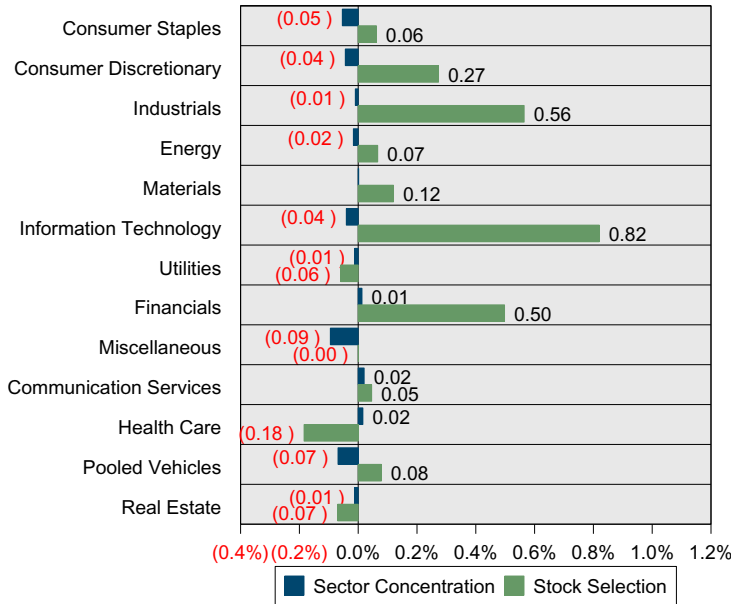


Wellington vs Russell 2000 Index Quarterly Equity Buy and Hold Attribution

Attribution Ranking and Sector Detail

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Core over the same time period.

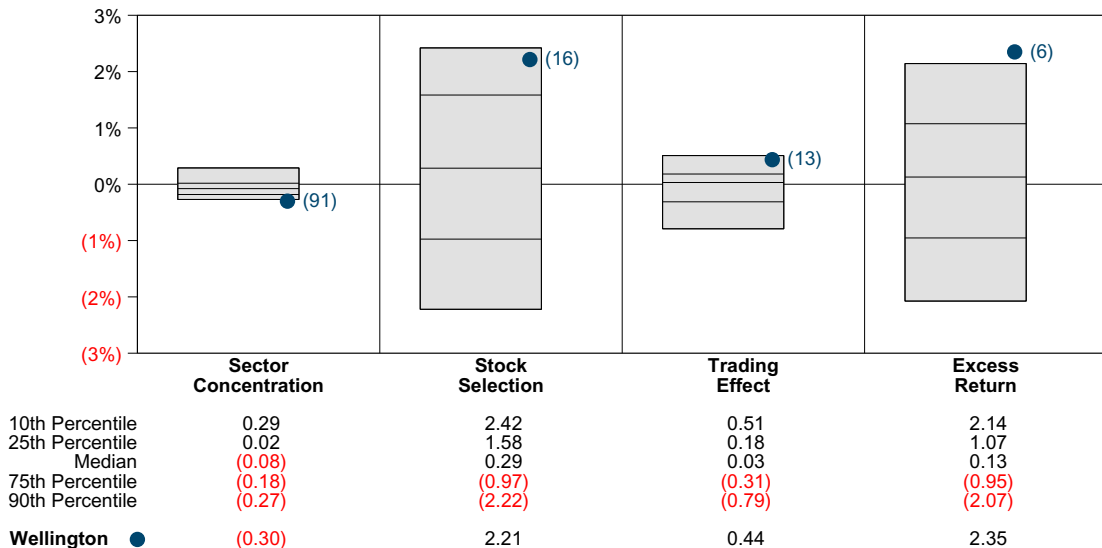
Attribution Effects by Sector vs Russell 2000 Index Quarter ended June 30, 2024



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.05%)	0.06%
Consumer Discretionary	(0.04%)	0.27%
Industrials	(0.01%)	0.56%
Energy	(0.02%)	0.07%
Materials	0.00%	0.12%
Information Technology	(0.04%)	0.82%
Utilities	(0.01%)	(0.06%)
Financials	0.01%	0.50%
Miscellaneous	(0.09%)	(0.00%)
Communication Services	0.02%	0.05%
Health Care	0.02%	(0.18%)
Pooled Vehicles	(0.07%)	0.08%
Real Estate	(0.01%)	(0.07%)
Total	(0.30%)	2.21%

Manager Return	=	Index Return	+	Sector Concentration	+	Stock Selection	+	Trading
(0.93%)		(3.28%)		(0.30%)		2.21%		0.44%

Equity Attribution Ranking vs Callan Small Cap Core Quarter ended June 30, 2024

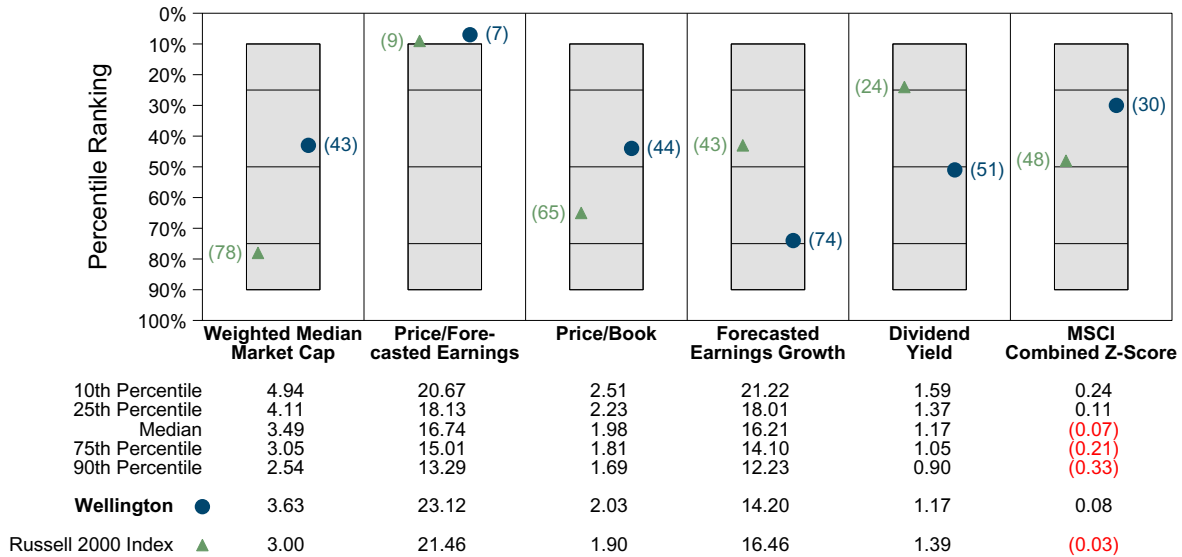


Wellington Equity Characteristics Analysis Summary

Portfolio Characteristics

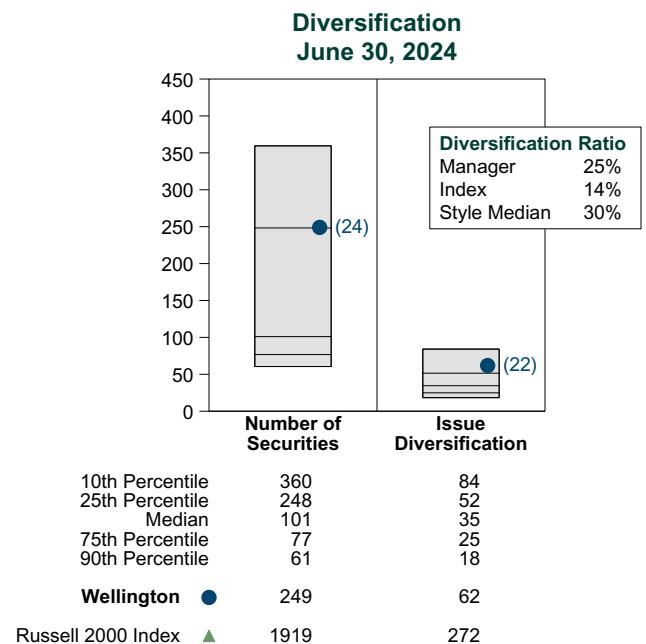
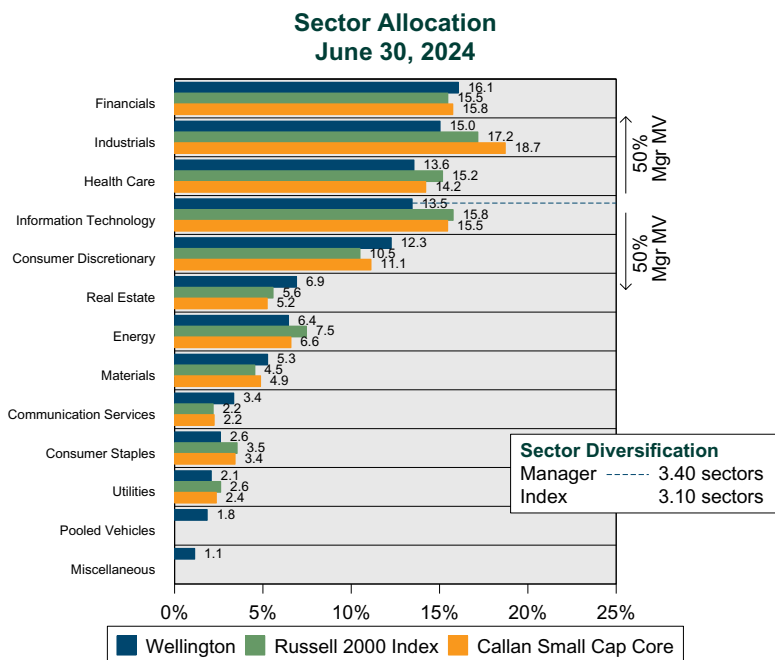
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Core as of June 30, 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.

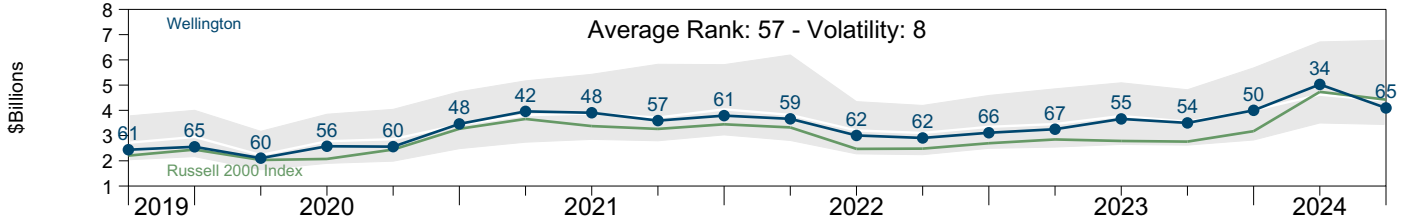


Portfolio Characteristics Analysis

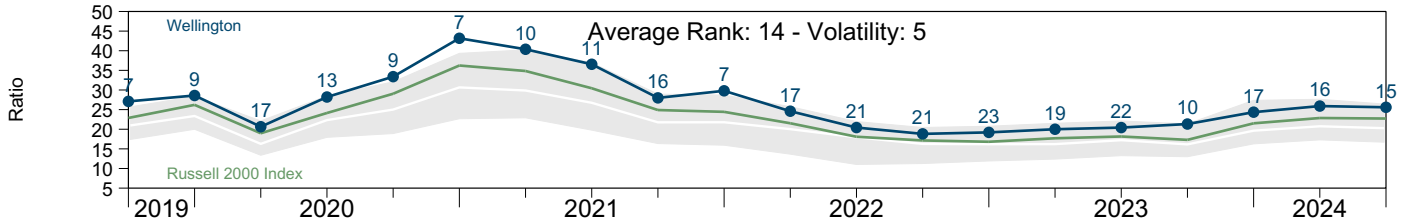
Callan Small Cap Core

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Small Cap Core Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 2000 Index is shown for comparison purposes.

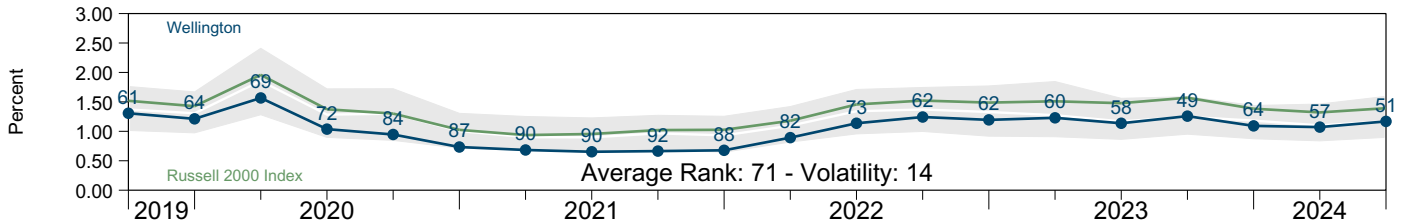
Weighted Average Market Cap



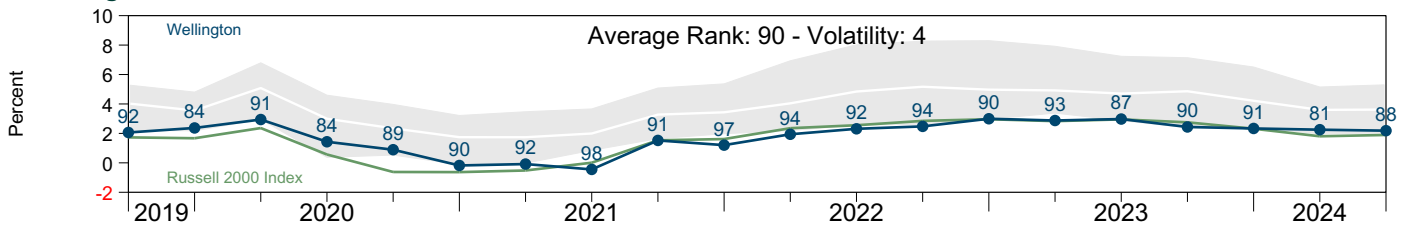
Trailing P/E



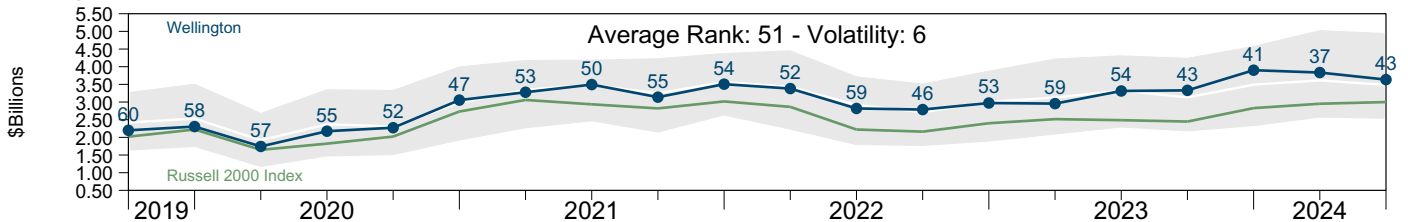
Dividend Yield



Earnings Yield



Weighted Median Market Cap

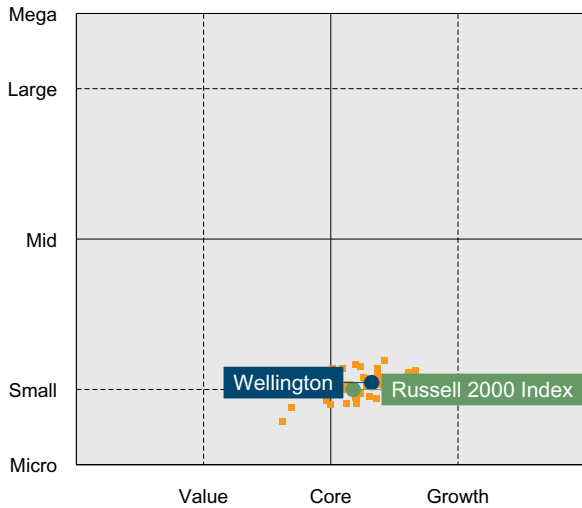


Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

Current Holdings Based Style Analysis Wellington As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

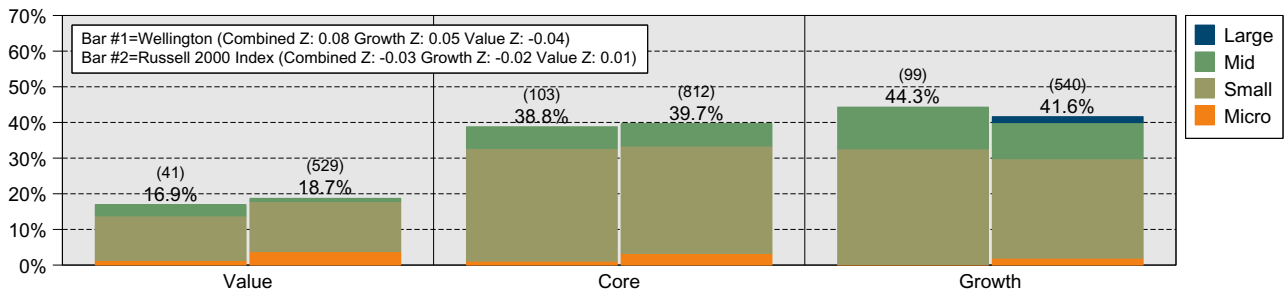
Style Map vs Callan Small Cap Core Holdings as of June 30, 2024



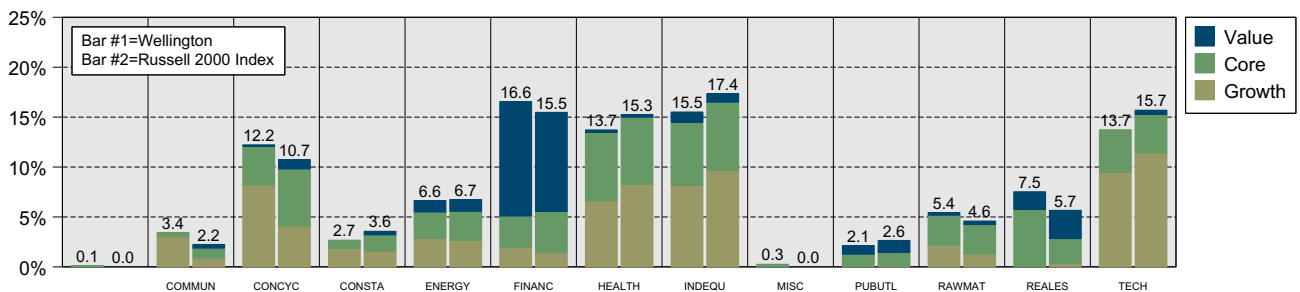
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	1.7% (1)	1.7% (1)
Mid	3.1% (6)	6.1% (14)	11.7% (21)	20.9% (41)
	0.9% (3)	6.3% (23)	10.1% (36)	17.3% (62)
Small	12.4% (30)	31.6% (80)	32.4% (77)	76.4% (187)
	14.1% (202)	30.0% (424)	27.9% (336)	72.0% (962)
Micro	1.4% (5)	1.1% (9)	0.2% (1)	2.7% (15)
	3.8% (324)	3.3% (365)	1.9% (167)	9.0% (856)
Total	16.9% (41)	38.8% (103)	44.3% (99)	100.0% (243)
	18.7% (529)	39.7% (812)	41.6% (540)	100.0% (1881)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



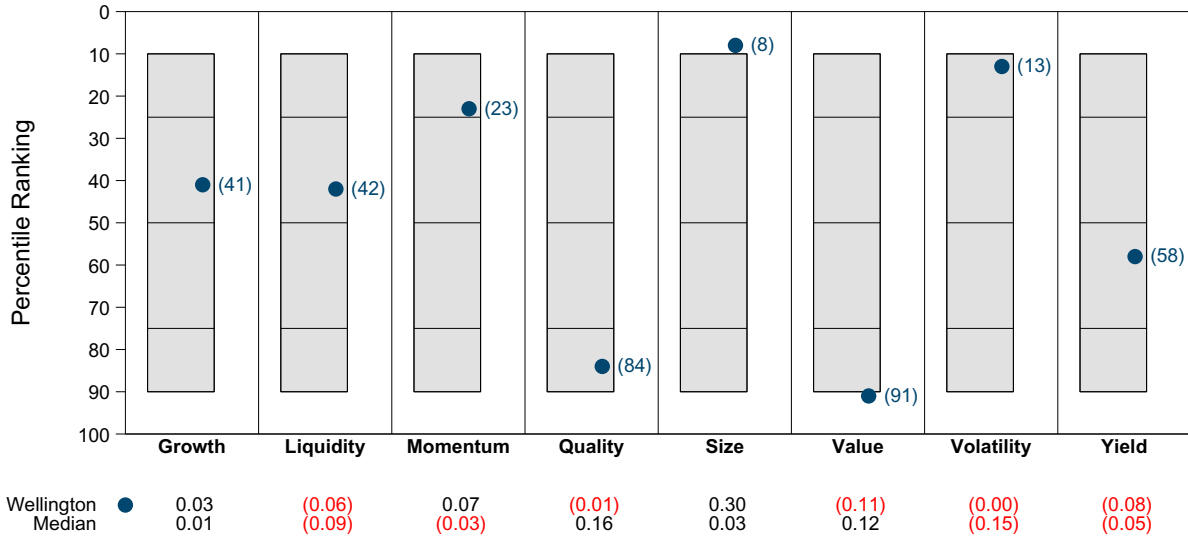
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Small Cap Core group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

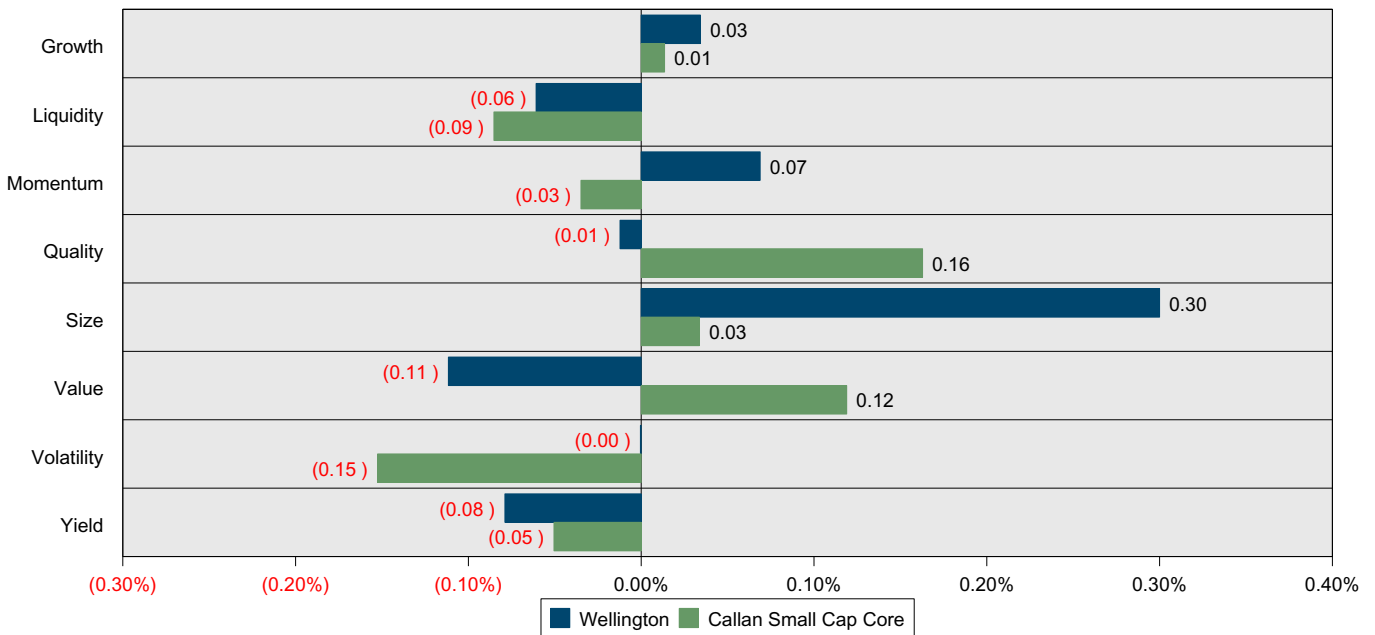
Factor Exposures Relative to Russell 2000 Index, Rankings vs Callan Small Cap Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Small Cap Core group relative to the Russell 2000 Index.

Factor Exposures Relative to Russell 2000 Index for Period Ended June 30, 2024



Total Non US Equity Period Ended June 30, 2024

Non US Equity Benchmark

The Non US Equity Benchmark is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 the benchmark was the MSCI EAFE Index.

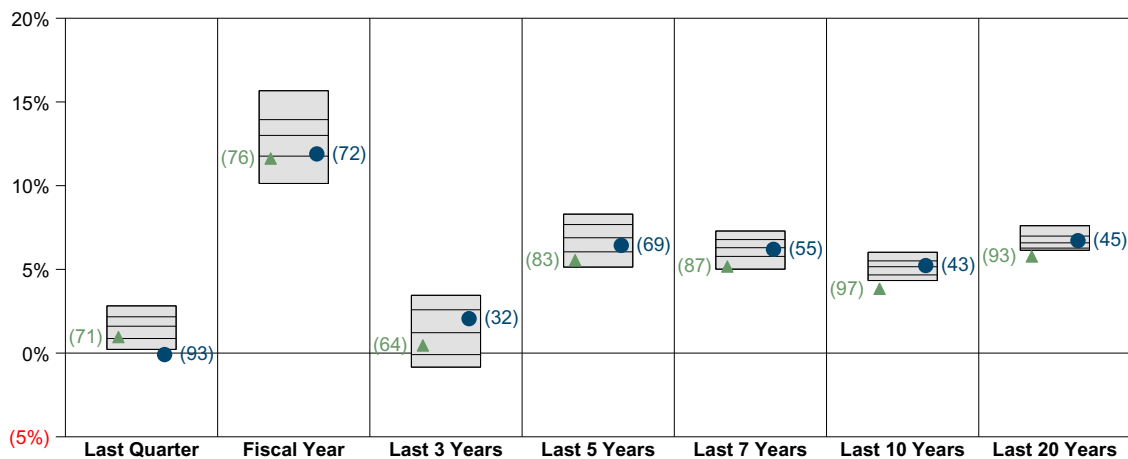
Quarterly Summary and Highlights

- Total Non US Equity's portfolio posted a (0.09)% return for the quarter placing it in the 93 percentile of the Large Public Fd - Int Equity group for the quarter and in the 72 percentile for the last year.
- Total Non US Equity's portfolio underperformed the Non US Equity Benchmark by 1.05% for the quarter and outperformed the Non US Equity Benchmark for the year by 0.27%.

Quarterly Asset Growth

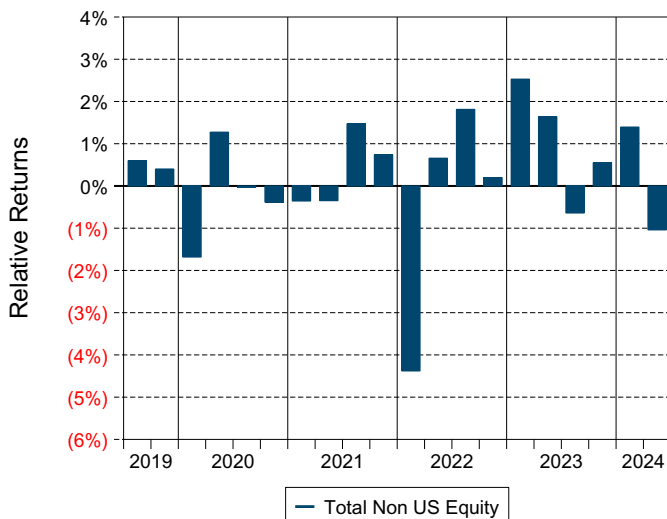
Beginning Market Value	\$2,316,779,263
Net New Investment	\$-1,284
Investment Gains/(Losses)	\$-2,091,344
Ending Market Value	\$2,314,686,635

Performance vs Large Public Fd - Int Equity (Gross)

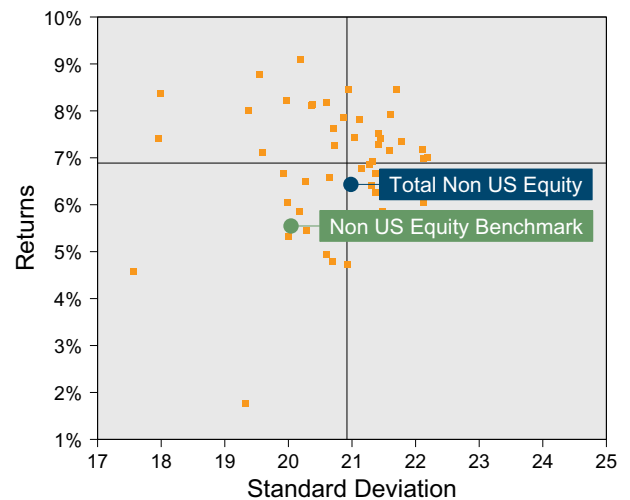


10th Percentile	2.82	15.67	3.45	8.30	7.29	6.02	7.61
25th Percentile	2.17	13.94	2.59	7.68	6.78	5.51	6.99
Median	1.60	13.00	1.22	6.89	6.29	5.16	6.58
75th Percentile	0.87	11.76	(0.09)	6.05	5.78	4.67	6.27
90th Percentile	0.22	10.13	(0.84)	5.13	5.01	4.33	6.14
Total Non US Equity ●	(0.09)	11.90	2.06	6.43	6.20	5.23	6.71
Non US Equity Benchmark ▲	0.96	11.62	0.46	5.55	5.17	3.84	5.78

Relative Return vs Non US Equity Benchmark



Large Public Fd - Int Equity (Gross) Annualized Five Year Risk vs Return

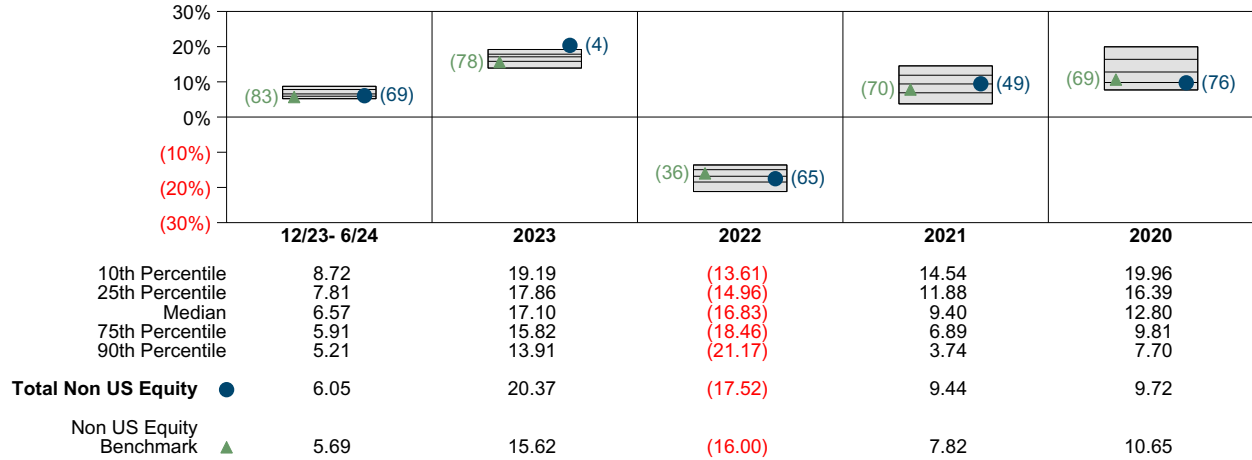


Total Non US Equity Return Analysis Summary

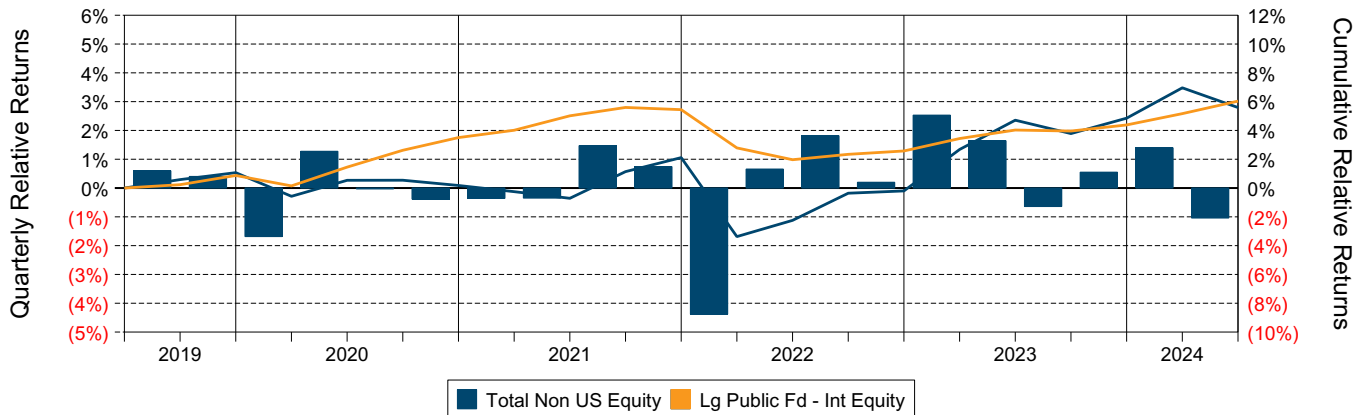
Return Analysis

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

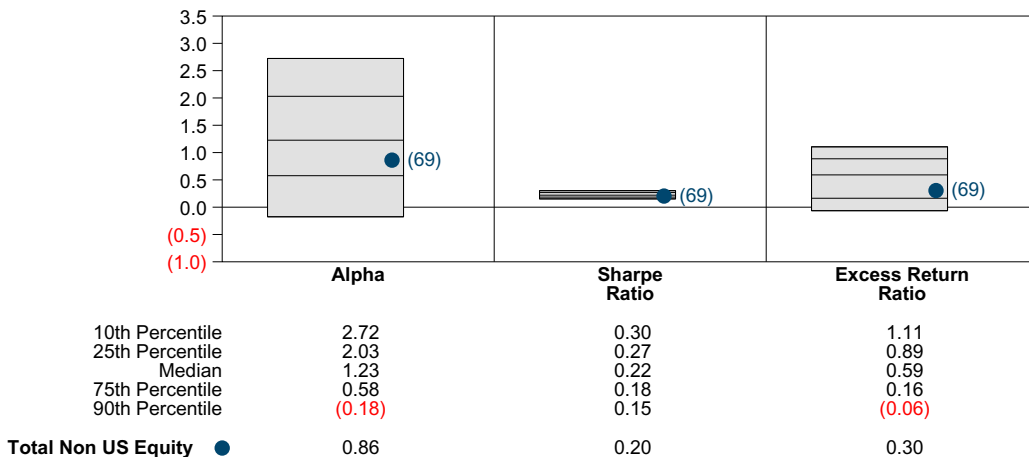
Performance vs Lg Public Fd - Int Equity (Gross)



Cumulative and Quarterly Relative Returns vs Non US Equity Benchmark



Risk Adjusted Return Measures vs Non US Equity Benchmark Rankings Against Lg Public Fd - Int Equity (Gross) Five Years Ended June 30, 2024

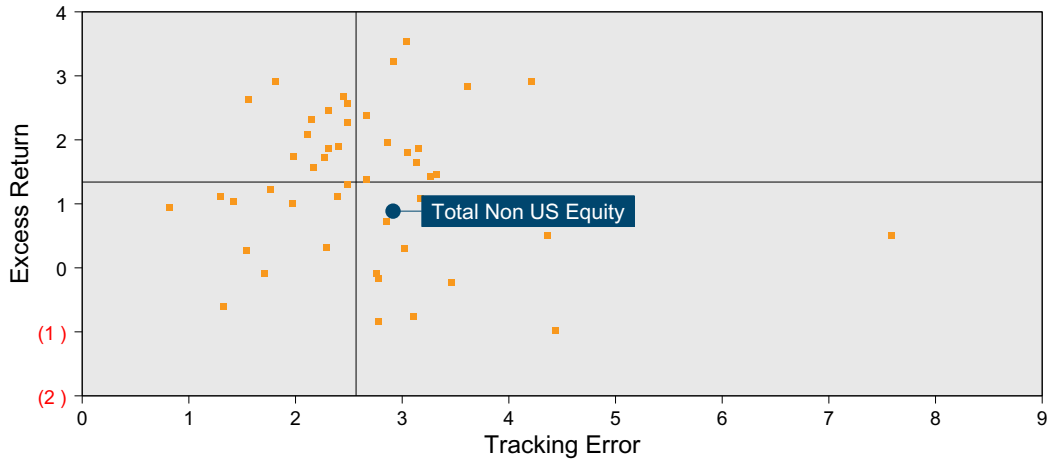


Total Non US Equity Risk Analysis Summary

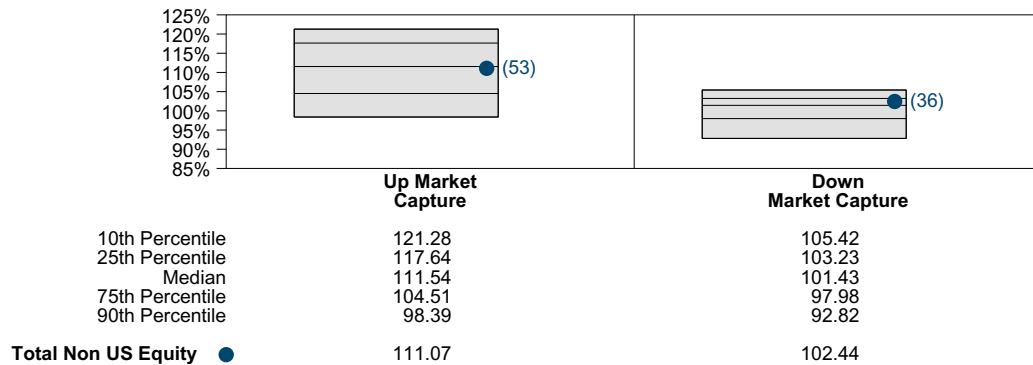
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

Risk Analysis vs Lg Public Fund - International Equity (Gross) Five Years Ended June 30, 2024



Market Capture vs Non US Equity Benchmark Rankings Against Lg Public Fund - International Equity (Gross) Five Years Ended June 30, 2024

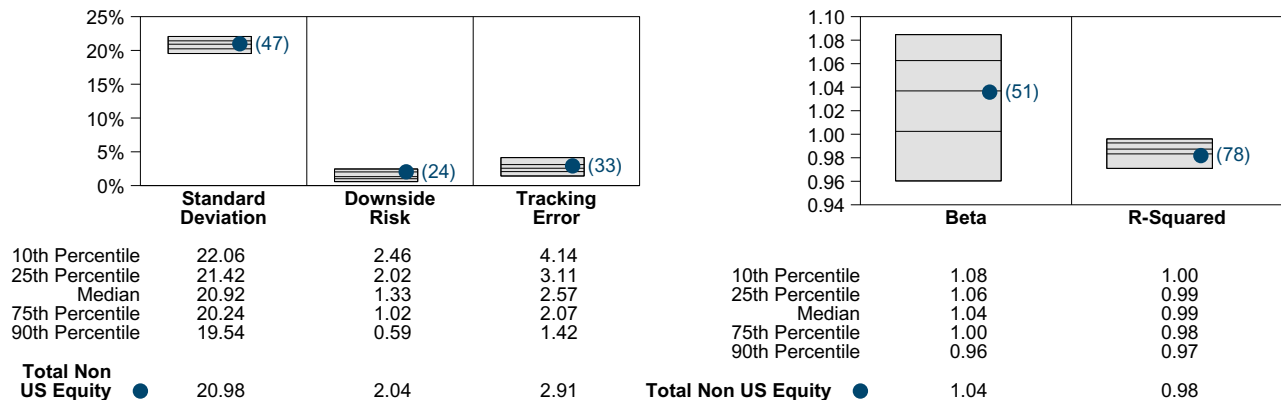


10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

121.28
117.64
111.54
104.51
98.39

105.42
103.23
101.43
97.98
92.82

Risk Statistics Rankings vs Non US Equity Benchmark Rankings Against Lg Public Fund - International Equity (Gross) Five Years Ended June 30, 2024



10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

22.06
21.42
20.92
20.24
19.54

2.46
2.02
1.33
1.02
0.59

4.14
3.11
2.57
2.07
1.42

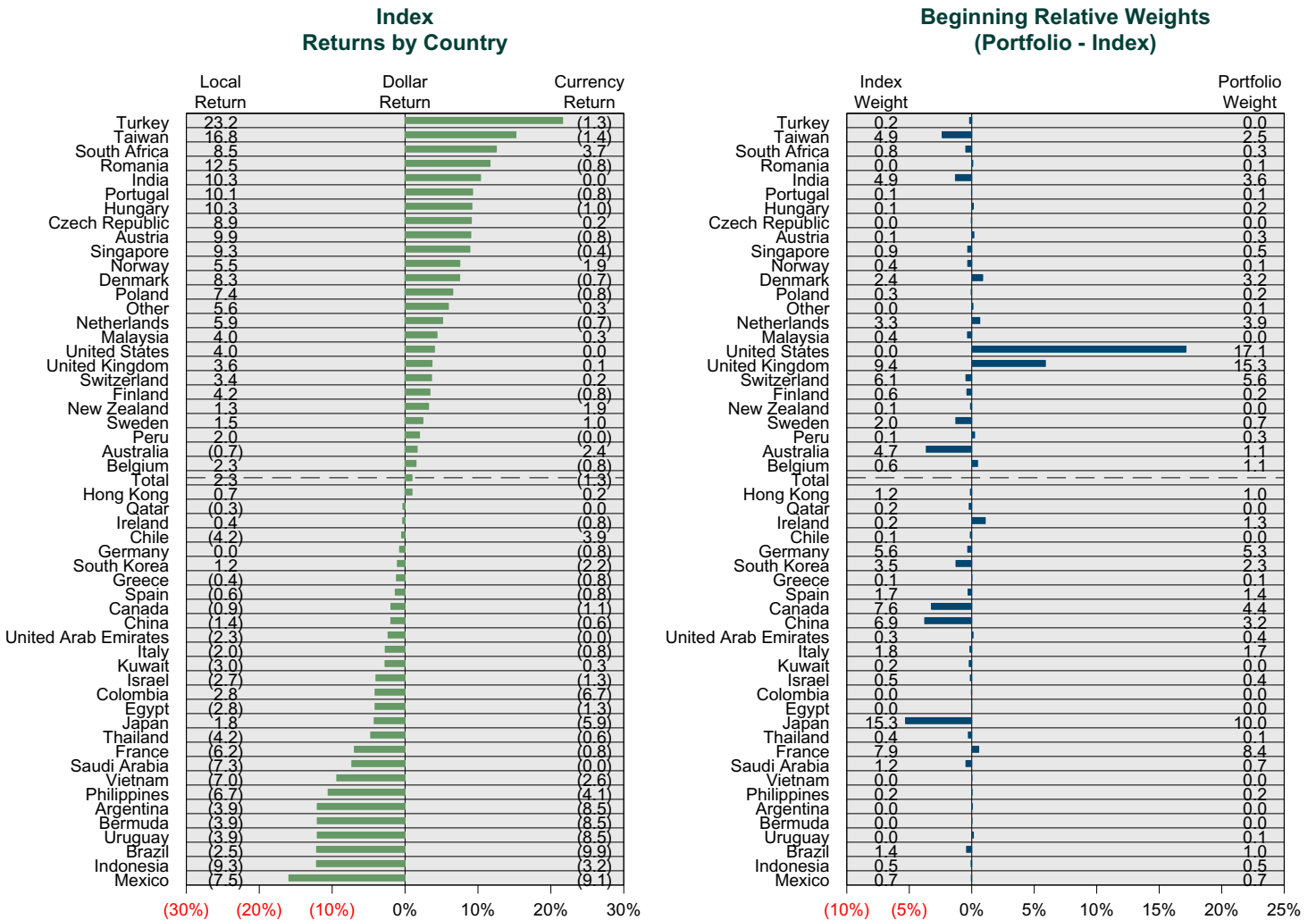
1.08
1.06
1.04
1.00
0.96

1.00
0.99
0.99
0.98
0.97

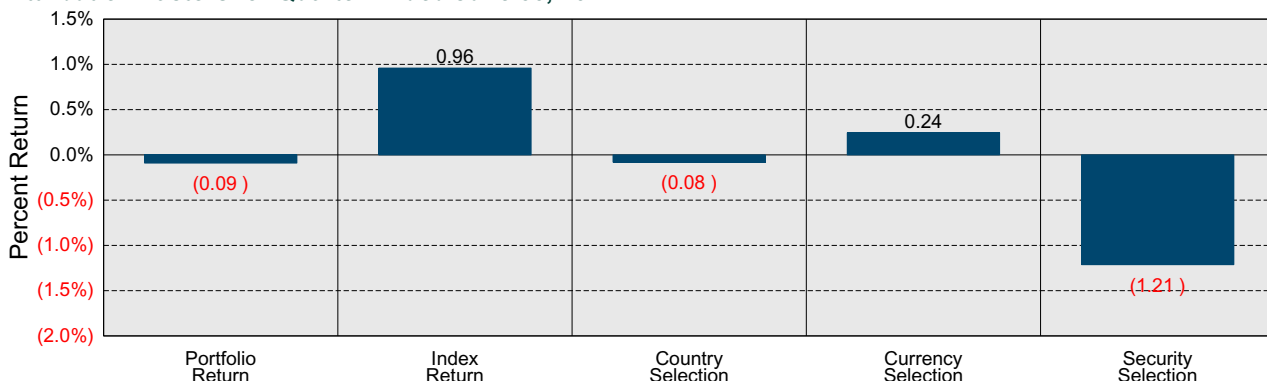
Total Non US Equity vs MSCI ACWI xUS (Net) Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

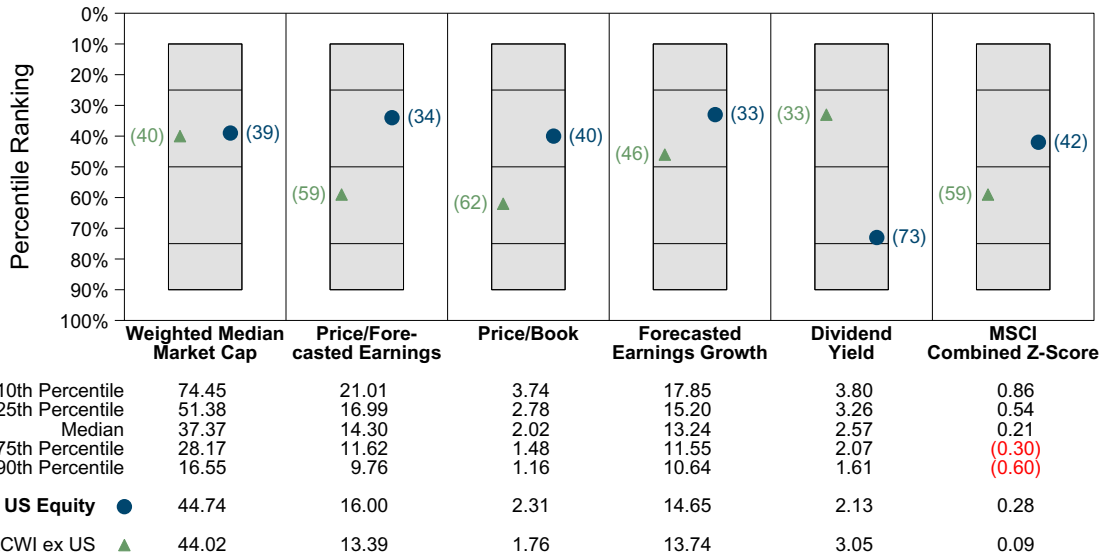


Total Non US Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

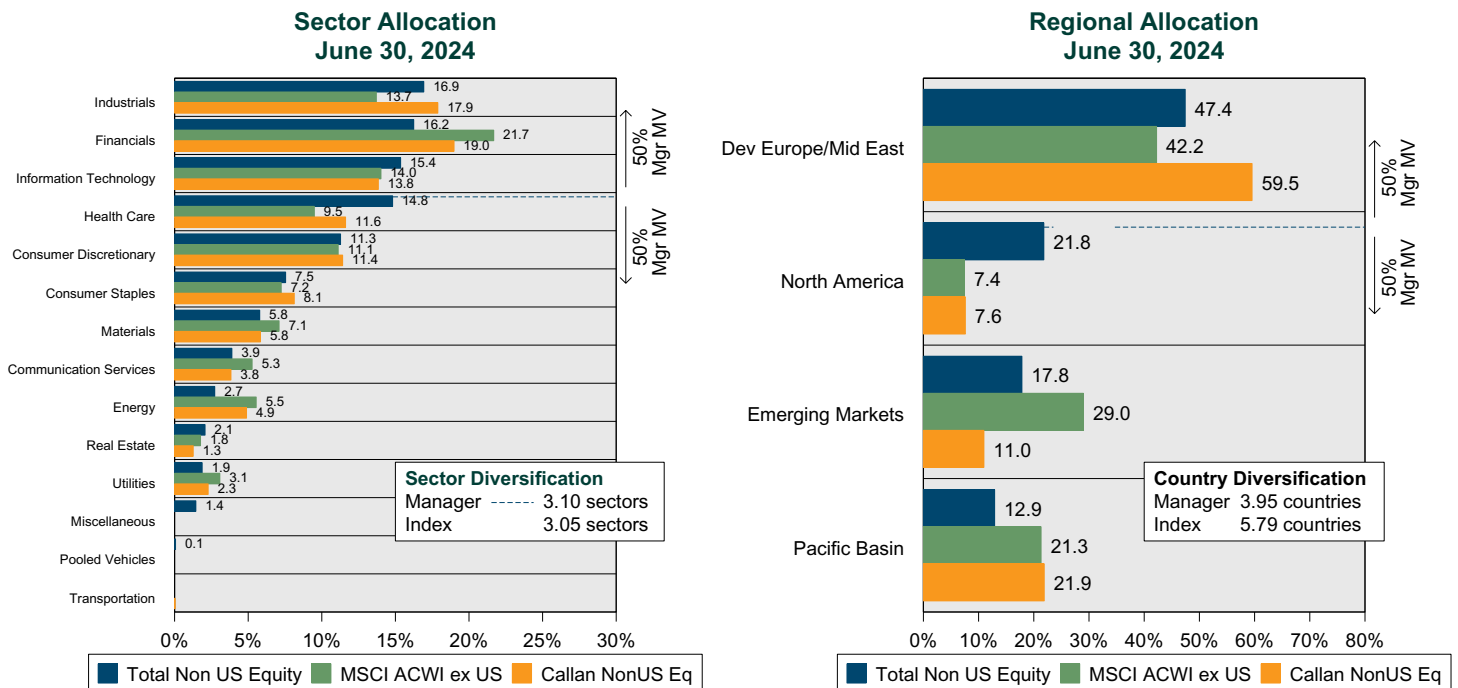
This graph compares the portfolio's characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 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.



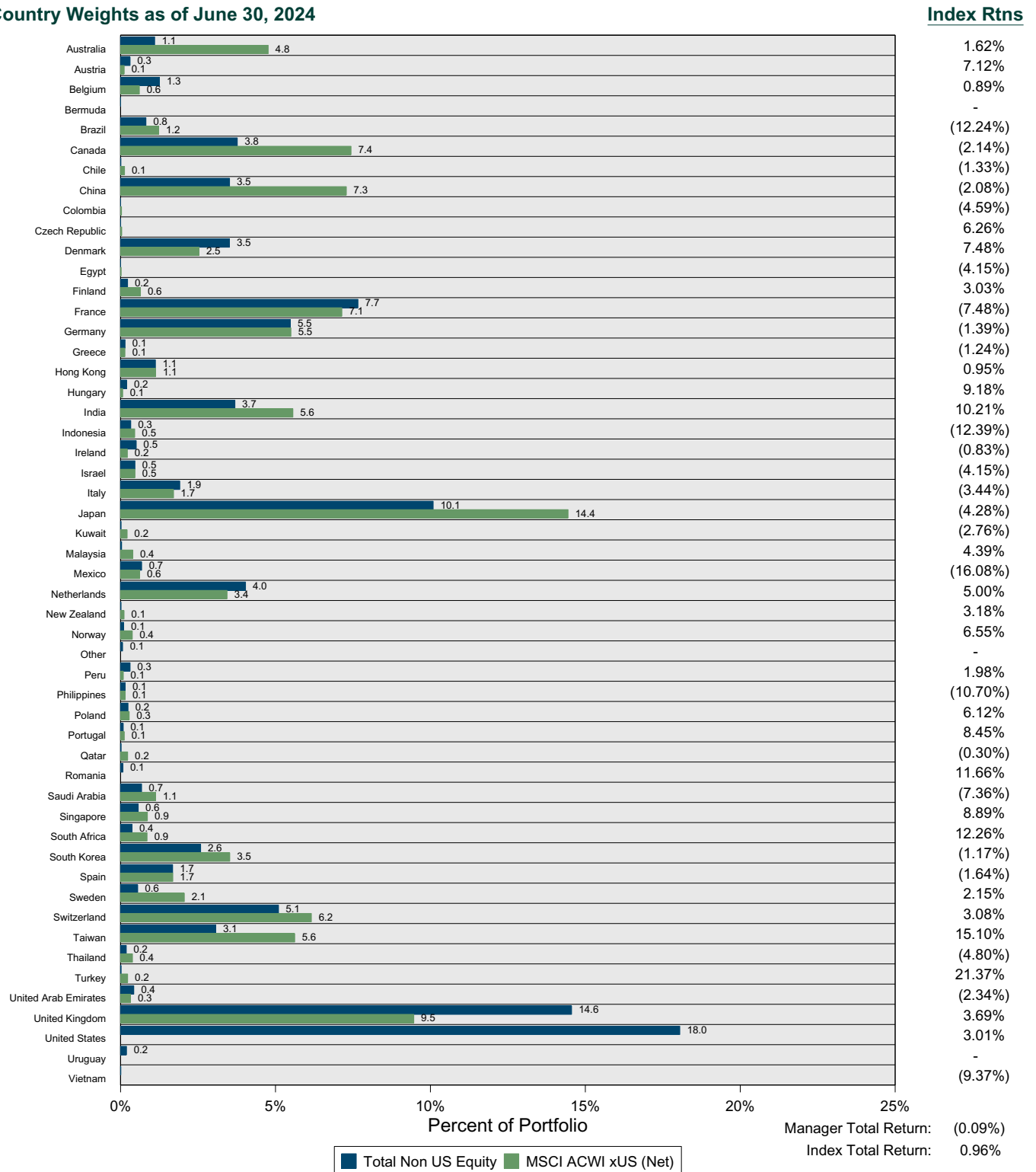
Country Allocation

Total Non US Equity VS MSCI ACWI xUS (Net)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2024. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of June 30, 2024



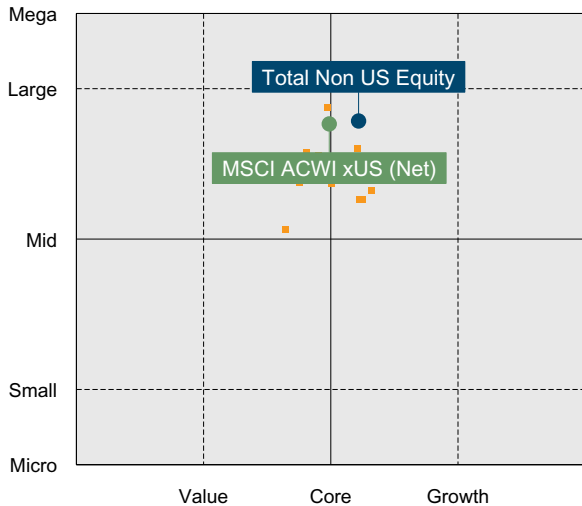
Current Holdings Based Style Analysis

Total Non US Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

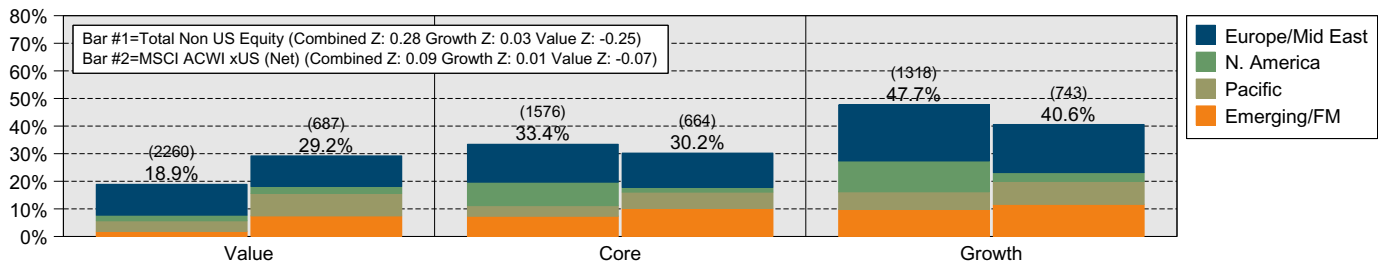
Style Map vs Lg Public Fd - Int Equity Holdings as of June 30, 2024



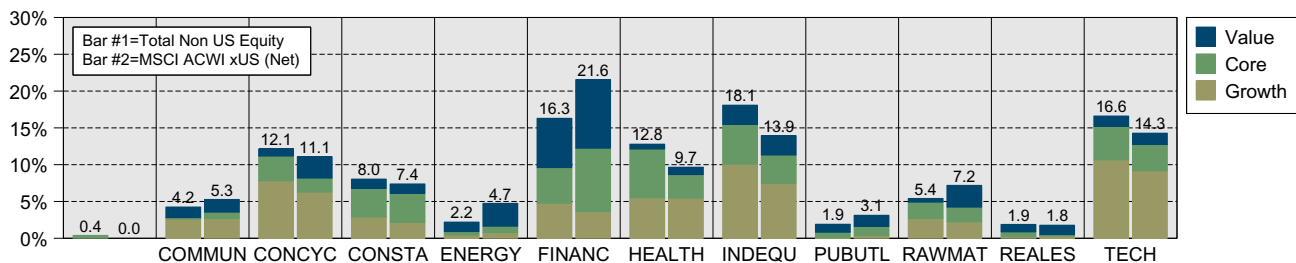
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	11.2% (232)	13.7% (256)	20.3% (196)	45.3% (684)
N. America	11.1% (158)	12.4% (140)	17.4% (127)	40.8% (425)
Pacific	2.0% (332)	8.5% (196)	11.2% (140)	21.7% (668)
Emerging/ FM	2.6% (27)	1.8% (21)	3.2% (39)	7.6% (87)
Total	18.9% (2260)	33.4% (1576)	47.7% (1318)	100.0% (5154)
	29.2% (687)	30.2% (664)	40.6% (743)	100.0% (2094)

Combined Z-Score Style Distribution Holdings as of June 30, 2024

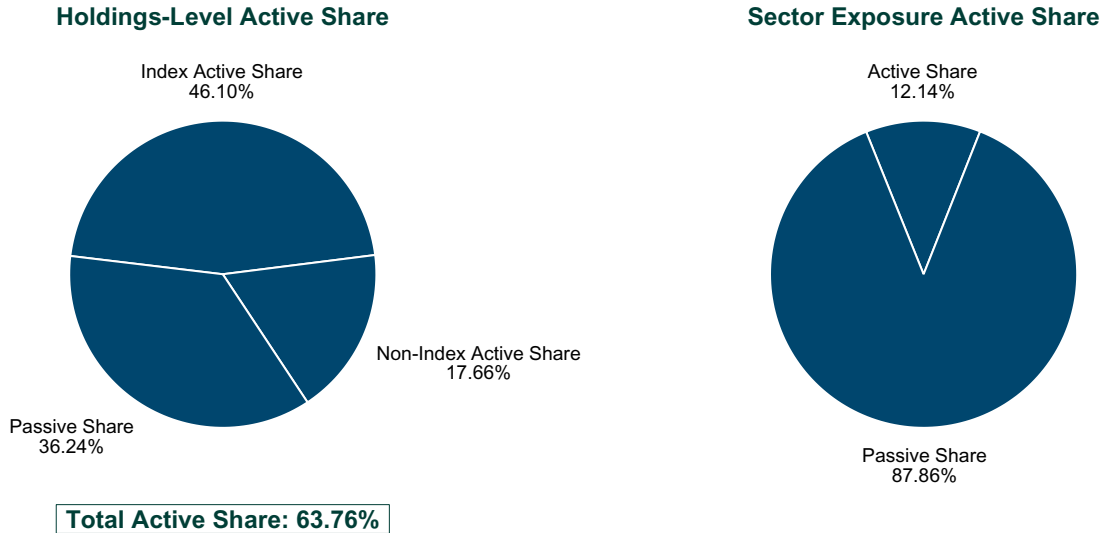


Sector Weights Distribution Holdings as of June 30, 2024



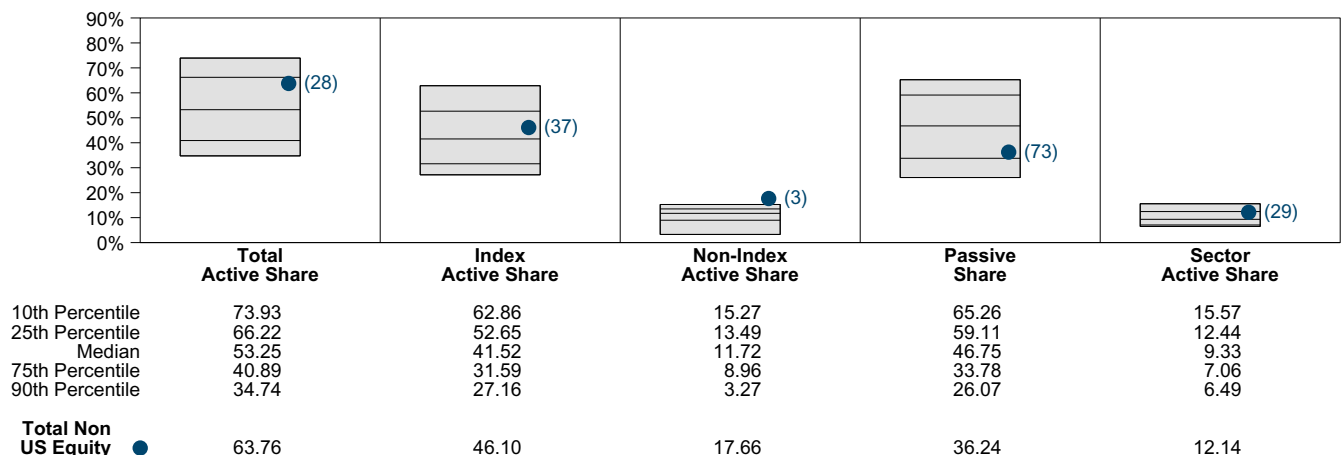
Total Non US Equity Active Share Analysis as of June 30, 2024 vs. MSCI ACWI xUS (Net)

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.



	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	41.56%	14.15%	55.71%	5.27%	3.89%	2.52%
Consumer Discretionary	46.28%	20.64%	66.92%	11.11%	11.27%	7.49%
Consumer Staples	41.19%	12.01%	53.19%	7.24%	7.54%	3.94%
Energy	41.80%	17.56%	59.37%	5.54%	2.73%	2.73%
Financials	55.26%	9.42%	64.68%	21.68%	16.24%	12.08%
Health Care	36.07%	26.28%	62.34%	9.49%	14.81%	7.61%
Industrials	52.41%	14.44%	66.85%	13.71%	16.93%	10.42%
Information Technology	38.38%	18.51%	56.89%	14.02%	15.35%	8.28%
Materials	54.38%	21.51%	75.88%	7.10%	5.78%	4.89%
Miscellaneous	0.00%	100.00%	100.00%	-	1.44%	0.54%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.06%	0.03%
Real Estate	50.69%	22.30%	72.98%	1.76%	2.07%	1.42%
Utilities	52.89%	12.09%	64.98%	3.07%	1.87%	1.62%
Total	46.10%	17.66%	63.76%	100.00%	100.00%	63.58%

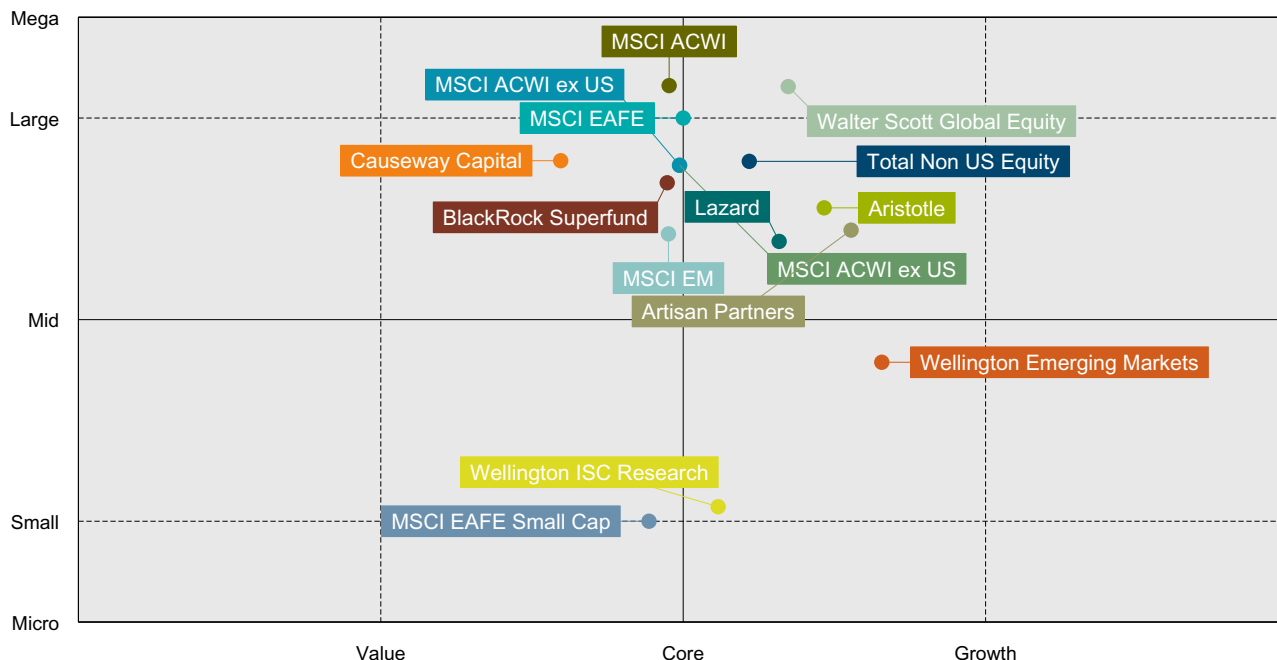
Active Share vs. Lg Public Fd - Int Equity



International Holdings Based Style Analysis For One Quarter Ended June 30, 2024

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

Style Map Holdings for One Quarter Ended June 30, 2024

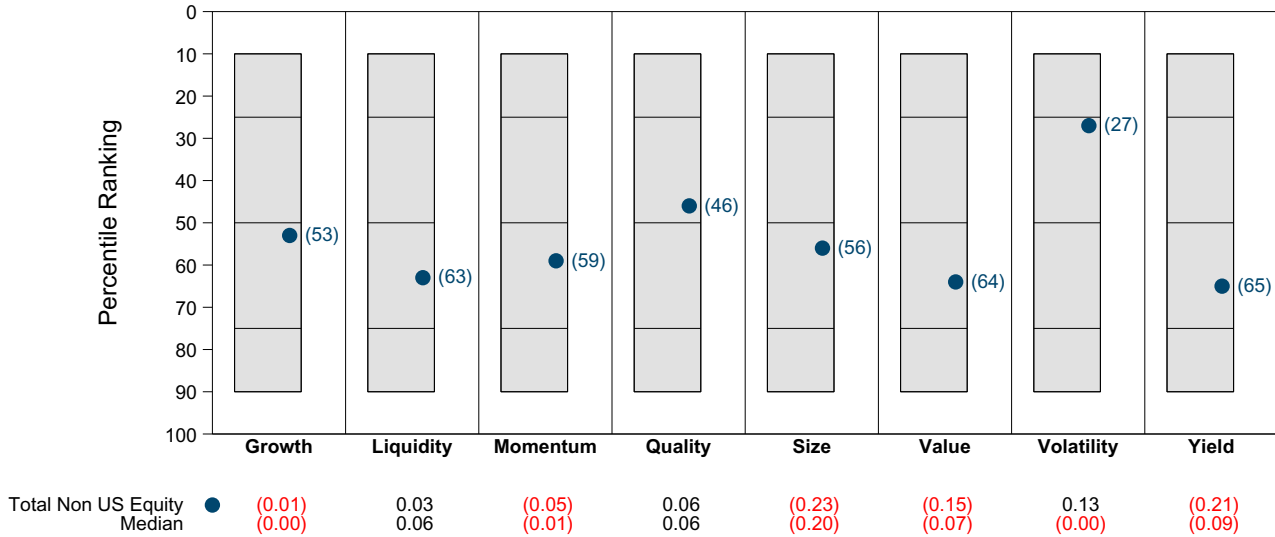


	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
Total Non US Equity	100.00%	44.74	0.28	0.03	(0.25)	5585	70.69
MSCI ACWI ex US	-	44.02	0.09	0.01	(0.07)	2158	145.04
Artisan Partners	17.59%	32.07	0.57	0.27	(0.29)	59	13.02
Causeway Capital	19.43%	44.86	(0.27)	(0.15)	0.12	68	17.89
Lazard	7.32%	30.00	0.36	0.10	(0.27)	60	19.45
Aristotle	7.68%	36.18	0.49	0.20	(0.29)	38	14.04
MSCI EAFE	-	52.71	0.10	0.02	(0.08)	742	81.26
BlackRock Superfund	8.62%	40.80	0.05	(0.00)	(0.05)	5437	144.22
MSCI ACWI ex US	-	44.02	0.09	0.01	(0.07)	2158	145.04
Wellington Emerging Markets	7.77%	12.85	0.65	0.15	(0.50)	99	28.27
MSCI EM	-	31.39	0.05	(0.01)	(0.06)	1329	73.79
Wellington ISC Research	5.90%	3.53	0.19	0.04	(0.15)	237	54.72
MSCI EAFE Small Cap	-	2.60	(0.01)	(0.01)	(0.01)	2118	419.16
Walter Scott Global Equity	25.67%	122.35	0.39	(0.10)	(0.49)	47	15.26
MSCI ACWI	-	124.55	0.05	0.01	(0.05)	2759	104.59

Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

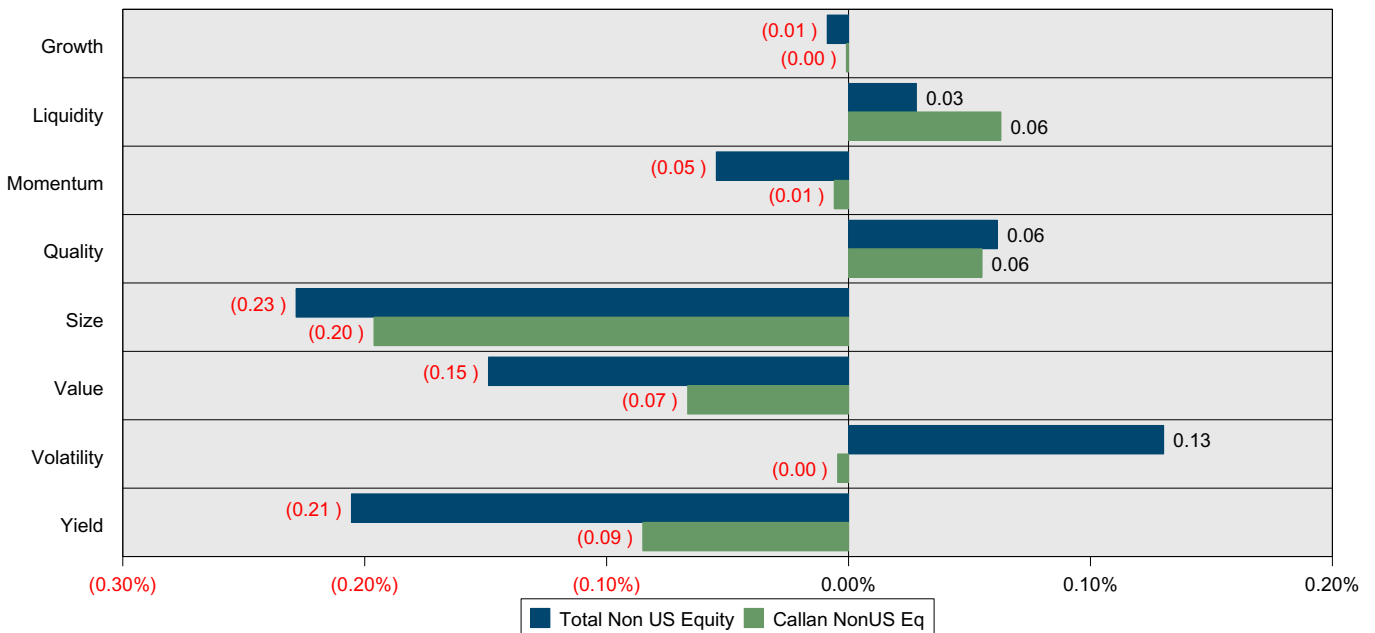
Factor Exposures Relative to MSCI ACWI xUS (Net), Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative to the MSCI ACWI xUS (Net).

Factor Exposures Relative to MSCI ACWI xUS (Net) for Period Ended June 30, 2024



Core Non US Equity Period Ended June 30, 2024

Core Non US Equity Benchmark

The Core Non US Equity Benchmark is the MSCI ACWI ex US Index as of 7/1/2007. Prior to 7/1/2007 the benchmark was the MSCI EAFE Index.

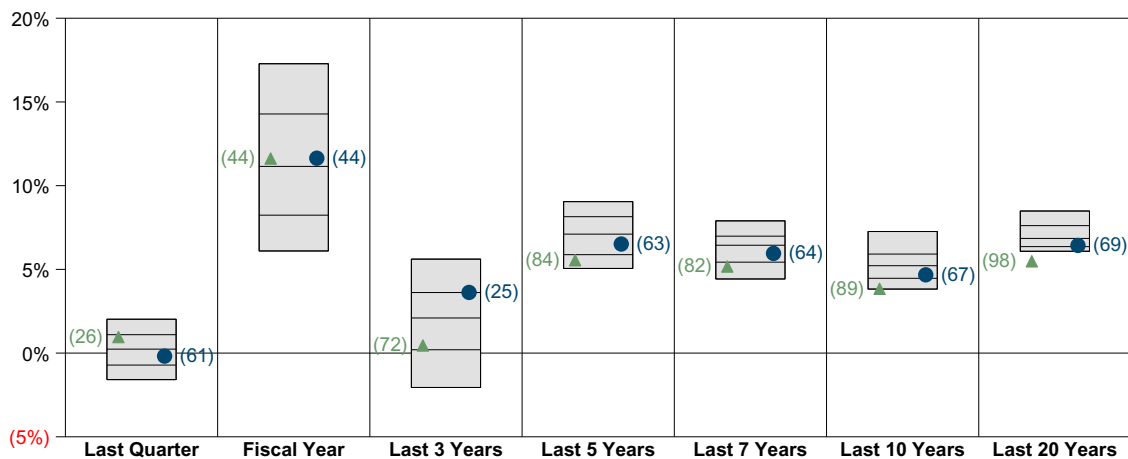
Quarterly Summary and Highlights

- Core Non US Equity's portfolio posted a (0.18)% return for the quarter placing it in the 61 percentile of the Callan NonUS Eq group for the quarter and in the 44 percentile for the last year.
- Core Non US Equity's portfolio underperformed the Core Non US Benchmark by 1.14% for the quarter and outperformed the Core Non US Benchmark for the year by 0.02%.

Quarterly Asset Growth

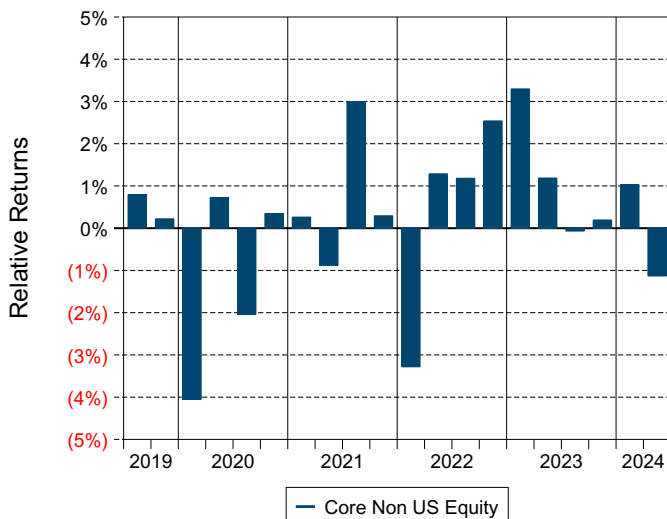
Beginning Market Value	\$1,406,618,795
Net New Investment	\$-1,284
Investment Gains/(Losses)	\$-2,553,161
Ending Market Value	\$1,404,064,350

Performance vs Callan NonUS Eq (Gross)

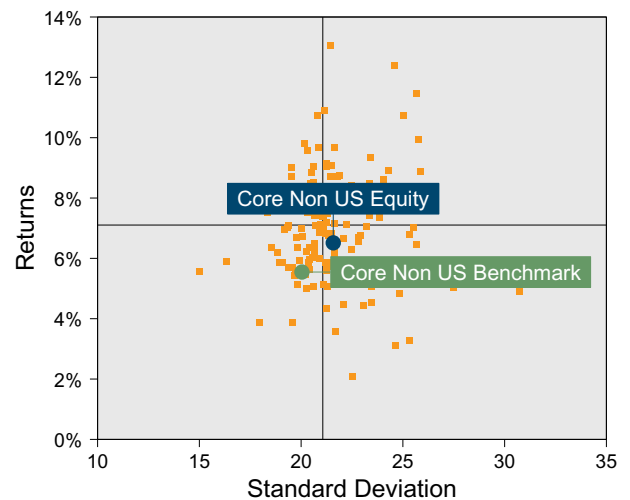


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	2.02	17.28	5.61	9.05	7.90	7.26	8.49
25th Percentile	1.10	14.28	3.62	8.15	6.98	5.91	7.61
Median	0.23	11.15	2.10	7.10	6.44	5.22	6.85
75th Percentile	(0.72)	8.24	0.20	5.88	5.43	4.47	6.36
90th Percentile	(1.59)	6.10	(2.05)	5.06	4.43	3.82	6.08
Core Non US Equity ●	(0.18)	11.64	3.62	6.51	5.95	4.68	6.43
Core Non US Benchmark ▲	0.96	11.62	0.46	5.55	5.17	3.84	5.48

Relative Return vs Core Non US Benchmark



Callan NonUS Eq (Gross) Annualized Five Year Risk vs Return

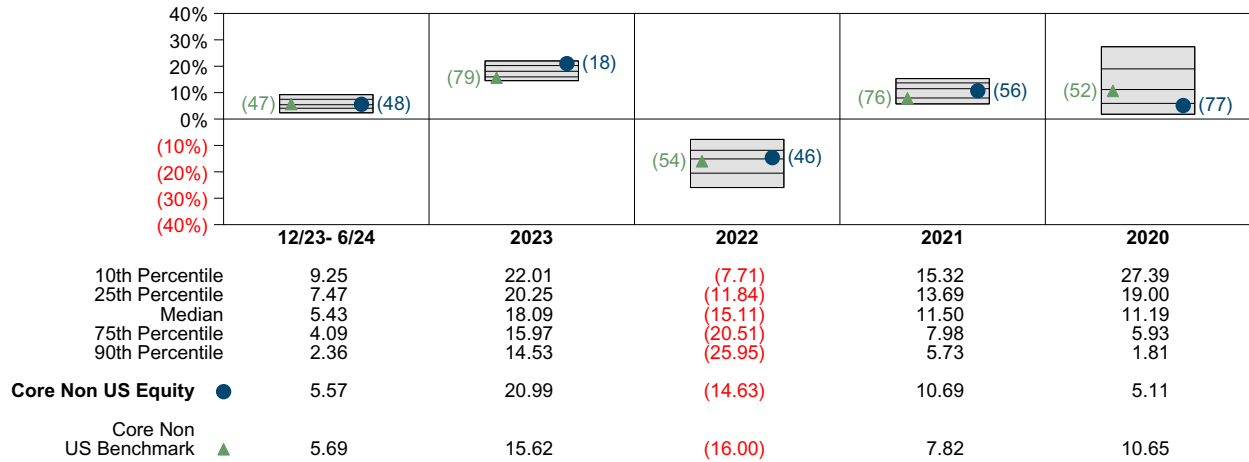


Core Non US Equity Return Analysis Summary

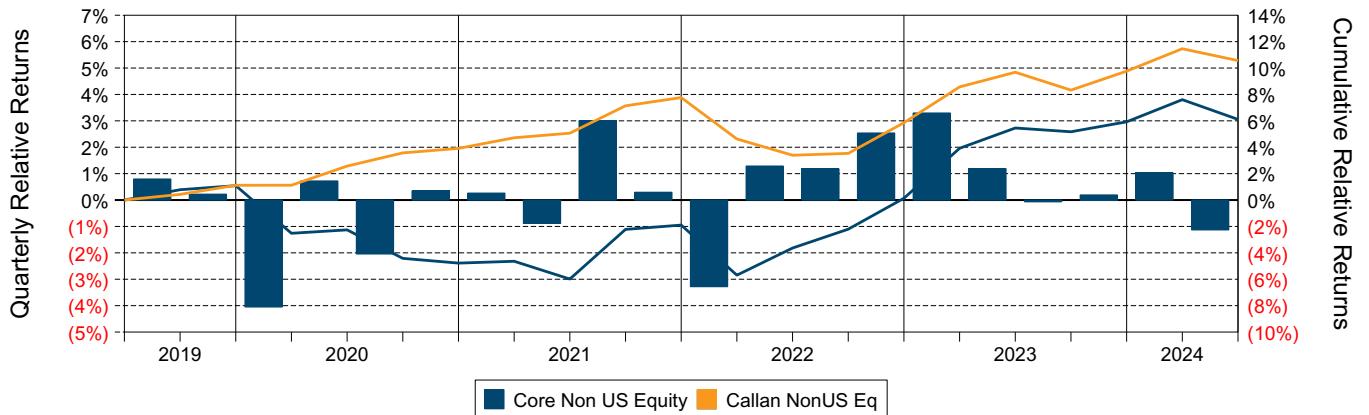
Return Analysis

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

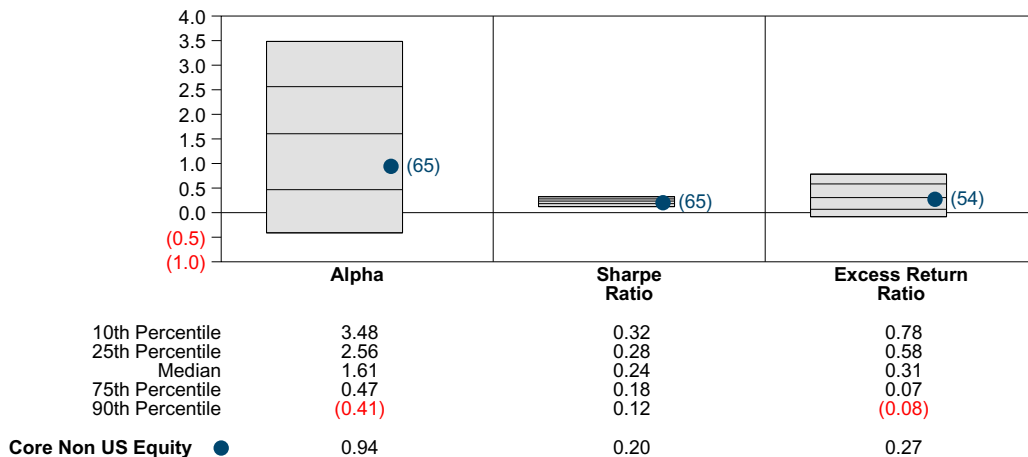
Performance vs Callan NonUS Eq (Gross)



Cumulative and Quarterly Relative Returns vs Core Non US Benchmark



Risk Adjusted Return Measures vs Core Non US Benchmark Rankings Against Callan NonUS Eq (Gross) Five Years Ended June 30, 2024

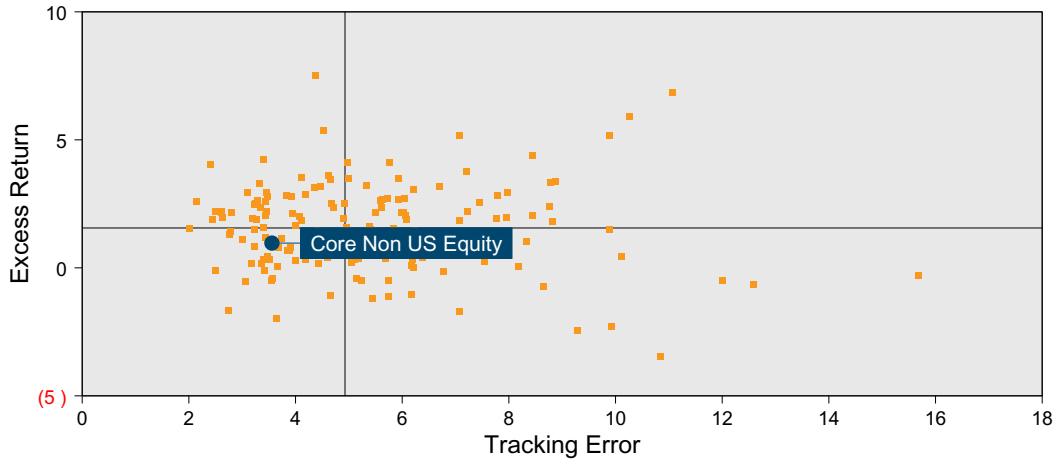


Core Non US Equity Risk Analysis Summary

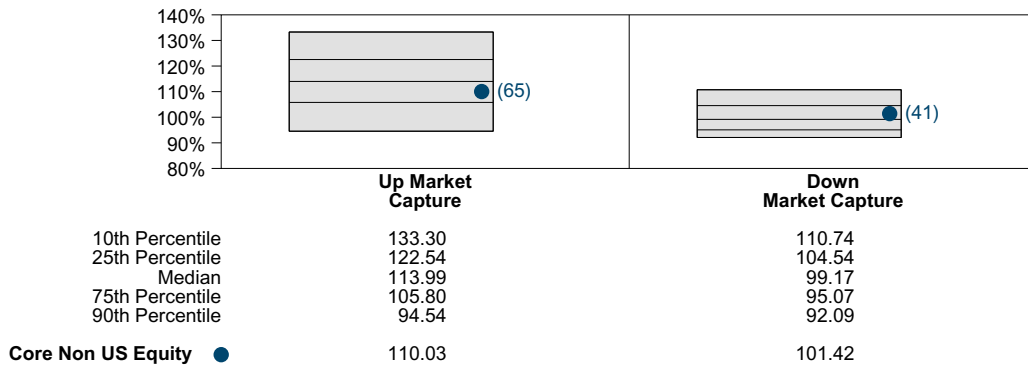
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

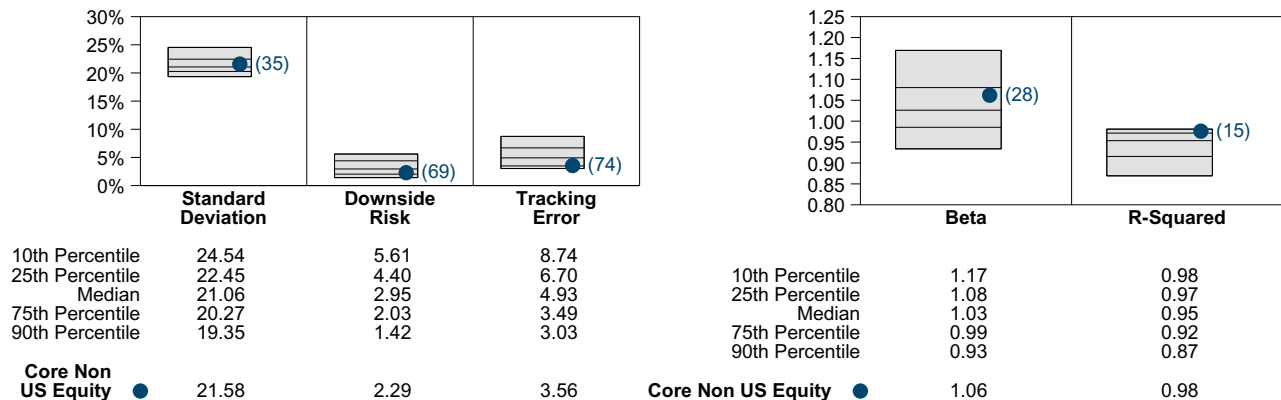
Risk Analysis vs Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



Market Capture vs Core Non US Benchmark Rankings Against Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



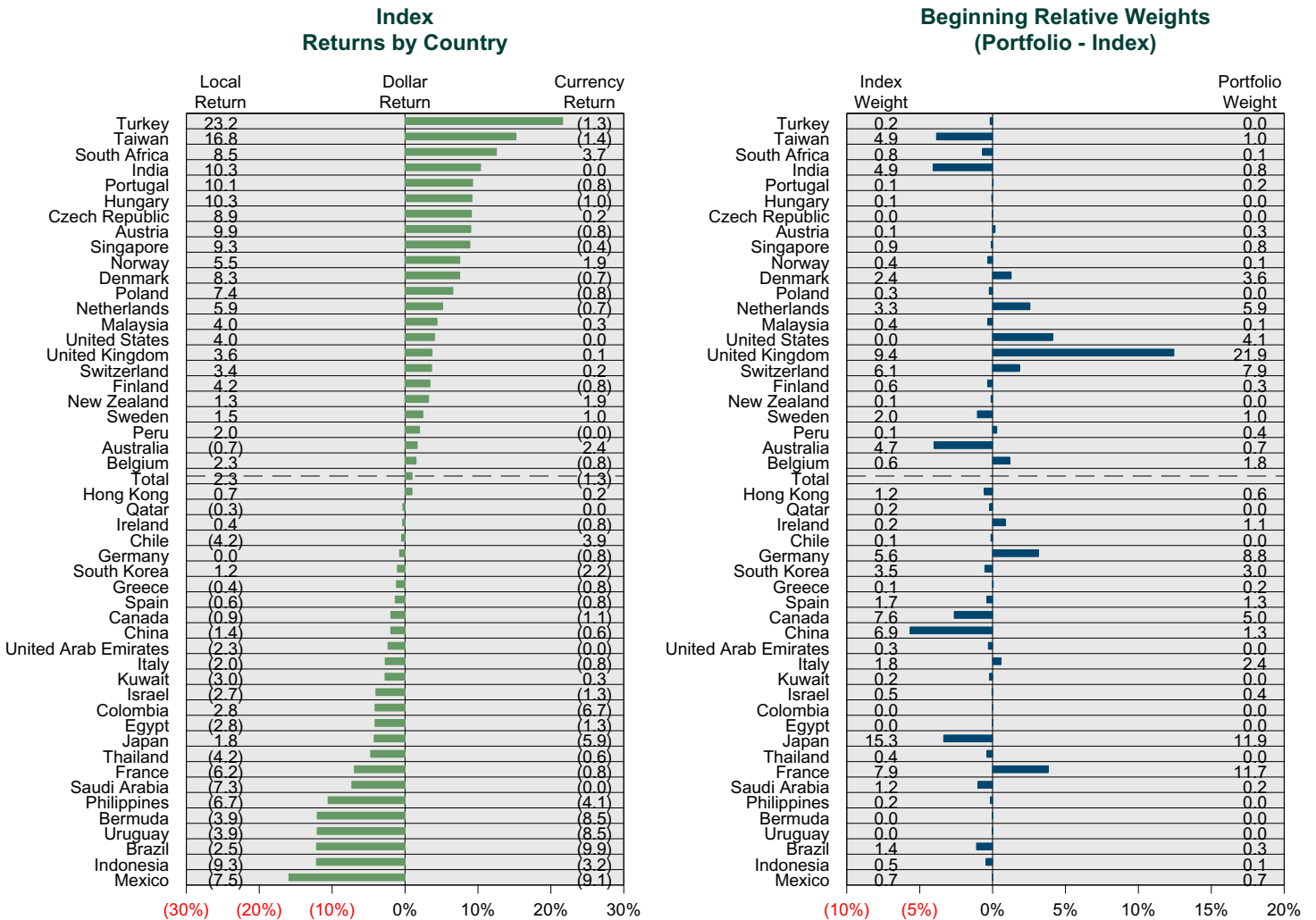
Risk Statistics Rankings vs Core Non US Benchmark Rankings Against Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



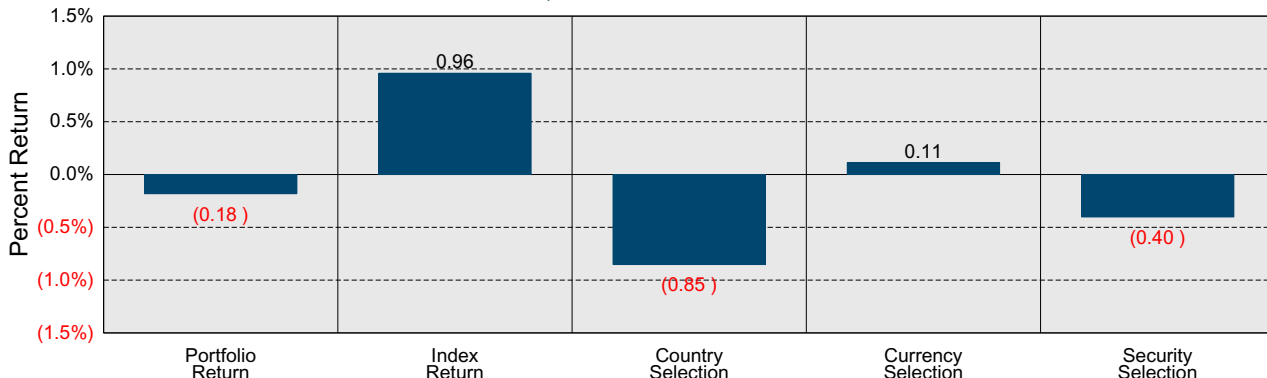
Core Non US Equity vs MSCI ACWI xUS (Net) Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

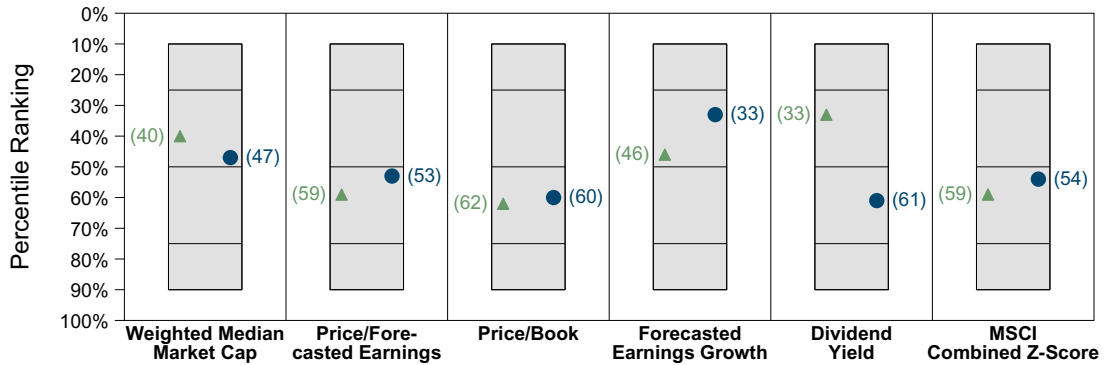


Core Non US Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

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

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 2024

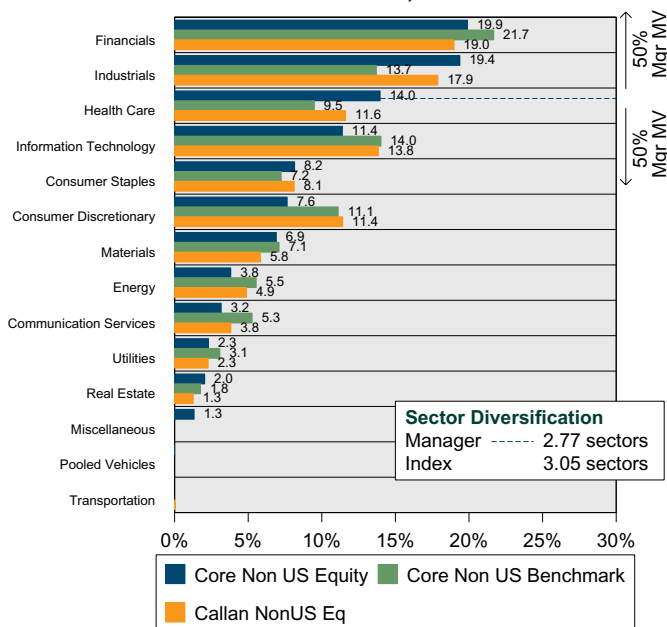


	Weighted Median Market Cap	Price/Forecasted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
10th Percentile	74.45	21.01	3.74	17.85	3.80	0.86
25th Percentile	51.38	16.99	2.78	15.20	3.26	0.54
Median	37.37	14.30	2.02	13.24	2.57	0.21
75th Percentile	28.17	11.62	1.48	11.55	2.07	(0.30)
90th Percentile	16.55	9.76	1.16	10.64	1.61	(0.60)
Core Non US Equity	39.59	13.99	1.85	14.61	2.43	0.18
Core Non US Benchmark	44.02	13.39	1.76	13.74	3.05	0.09

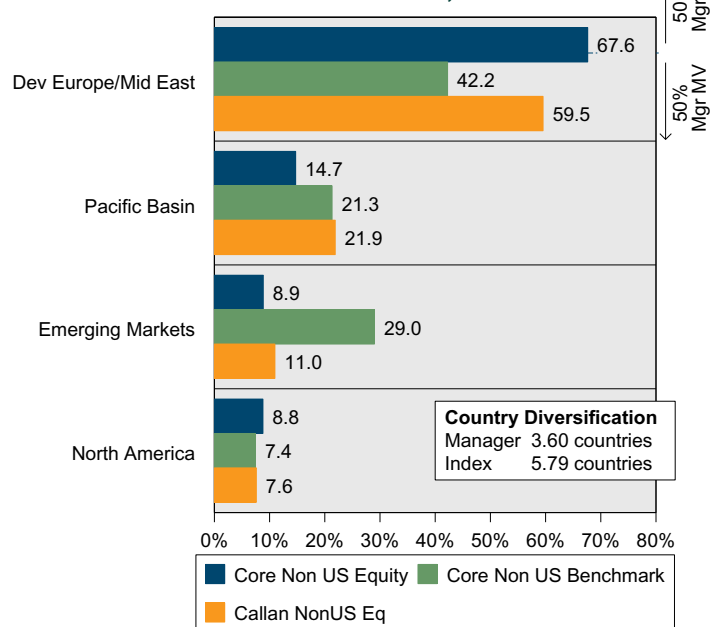
Sector Weights

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.

Sector Allocation June 30, 2024



Regional Allocation June 30, 2024



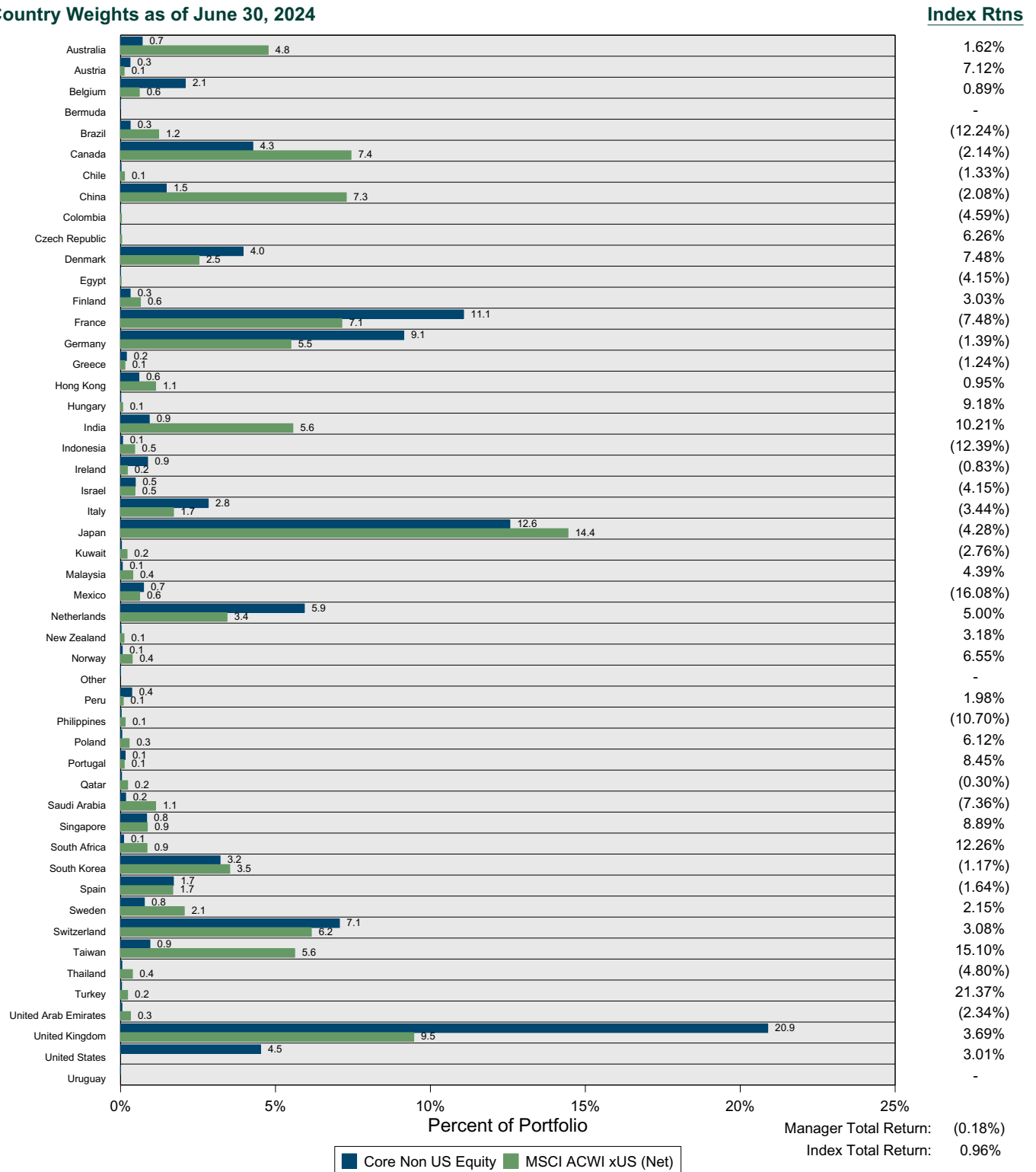
Country Allocation

Core Non US Equity VS MSCI ACWI xUS (Net)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2024. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of June 30, 2024



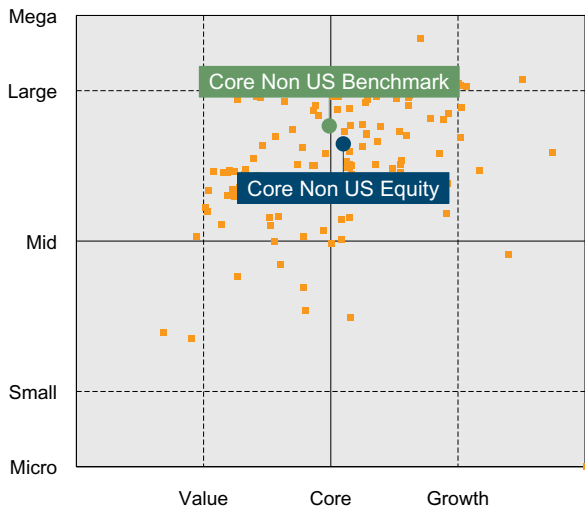
Current Holdings Based Style Analysis

Core Non US Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

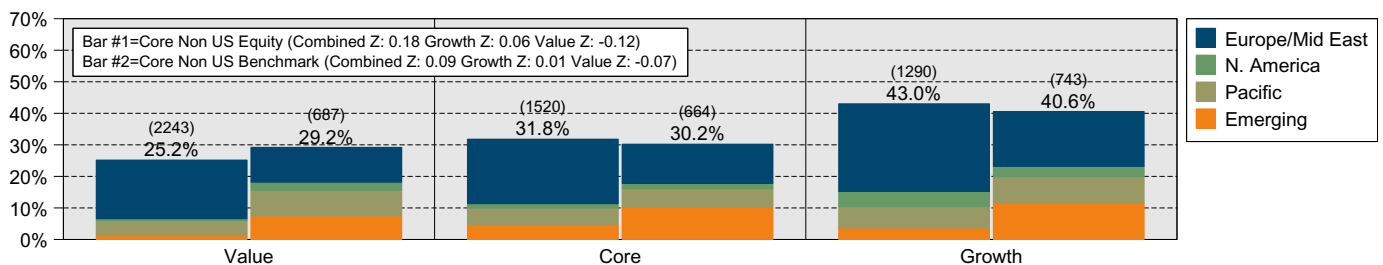
Style Map vs Callan NonUS Eq Holdings as of June 30, 2024



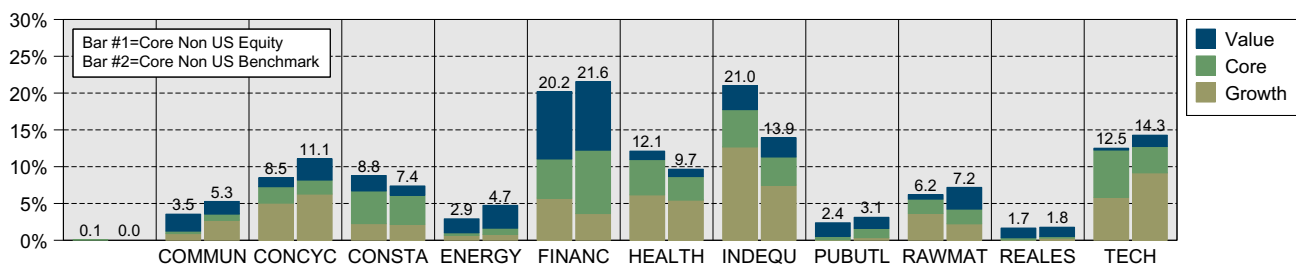
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	18.6% (224)	20.5% (237)	27.7% (185)	66.8% (646)
N. America	11.1% (158)	12.4% (140)	17.4% (127)	40.8% (425)
Pacific	0.6% (327)	1.4% (190)	4.9% (136)	6.9% (653)
Emerging	2.6% (27)	1.8% (21)	3.2% (39)	7.6% (87)
Total	25.2% (2243)	31.8% (1520)	43.0% (1290)	100.0% (5053)
	29.2% (687)	30.2% (664)	40.6% (743)	100.0% (2094)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



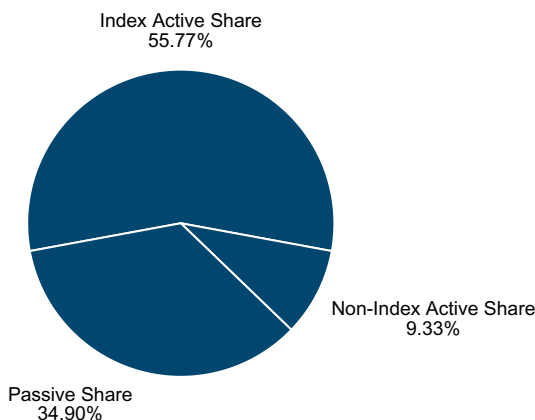
Sector Weights Distribution Holdings as of June 30, 2024



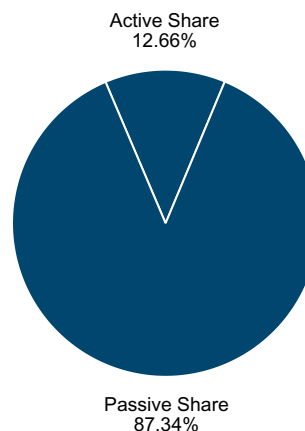
Core Non US Equity Active Share Analysis as of June 30, 2024 vs. MSCI ACWI xUS (Net)

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.

Holdings-Level Active Share



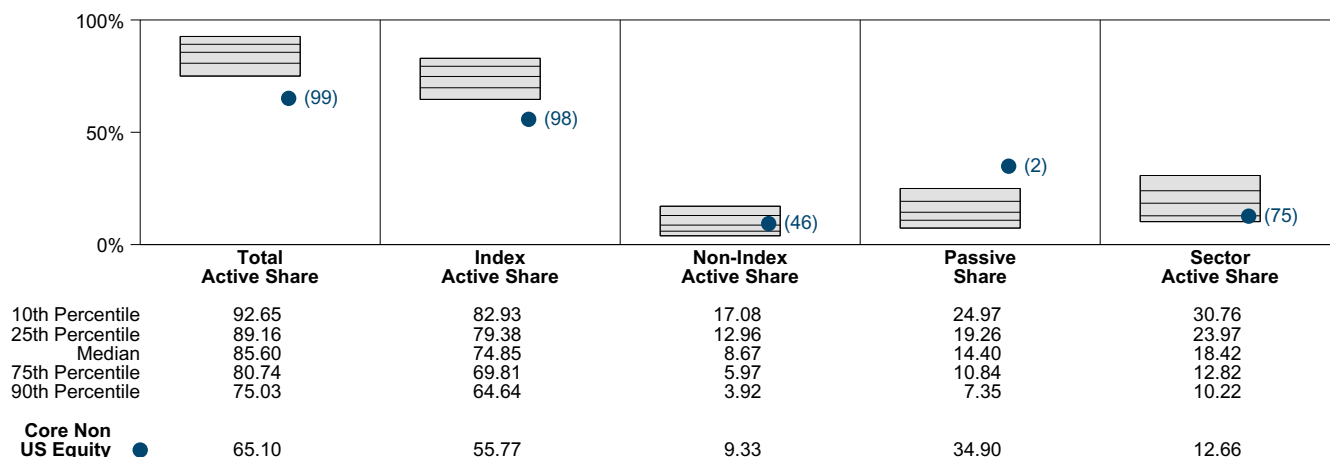
Sector Exposure Active Share



Total Active Share: 65.10%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	55.03%	0.55%	55.58%	5.27%	3.17%	2.59%
Consumer Discretionary	54.44%	13.58%	68.02%	11.11%	7.65%	6.58%
Consumer Staples	55.50%	4.17%	59.66%	7.24%	8.15%	4.62%
Energy	50.02%	15.92%	65.93%	5.54%	3.82%	3.11%
Financials	62.41%	5.07%	67.48%	21.68%	19.90%	13.98%
Health Care	40.32%	17.39%	57.71%	9.49%	13.96%	6.94%
Industrials	60.78%	5.79%	66.58%	13.71%	19.38%	11.09%
Information Technology	49.13%	5.43%	54.56%	14.02%	11.40%	7.04%
Materials	60.68%	16.15%	76.83%	7.10%	6.91%	5.39%
Miscellaneous	0.00%	100.00%	100.00%	-	1.33%	0.62%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.00%	0.00%
Real Estate	62.08%	13.78%	75.86%	1.76%	2.04%	1.45%
Utilities	58.83%	3.89%	62.72%	3.07%	2.30%	1.64%
Total	55.77%	9.33%	65.10%	100.00%	100.00%	65.06%

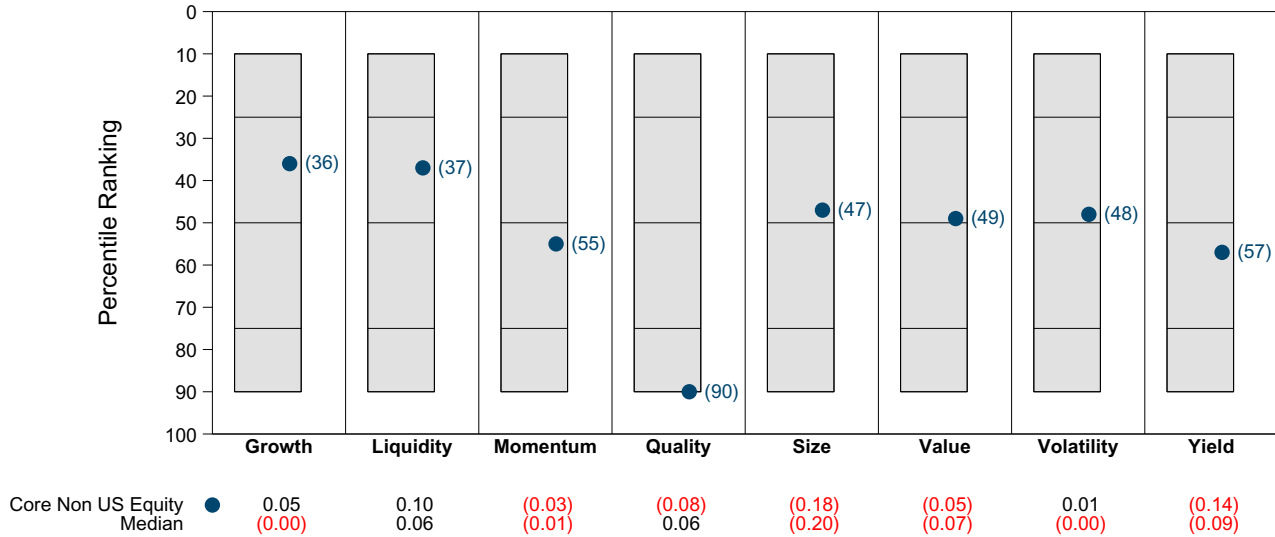
Active Share vs. Callan NonUS Eq



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

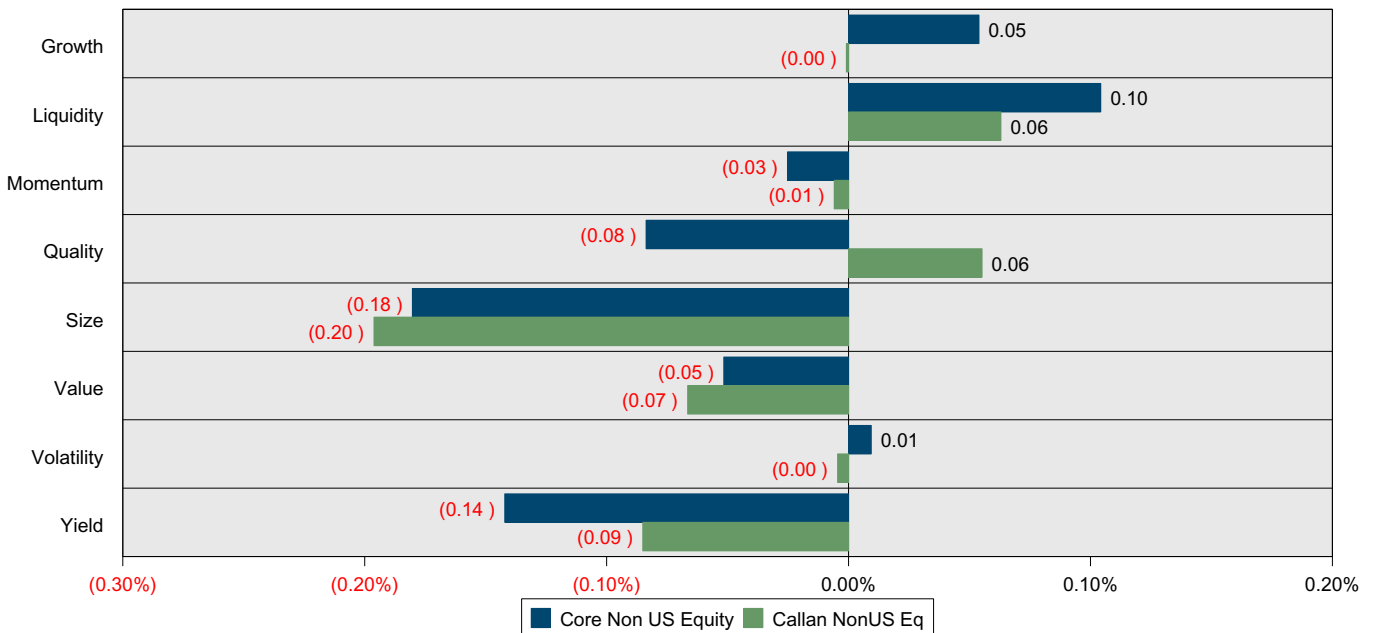
Factor Exposures Relative to MSCI ACWI xUS (Net), Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative to the MSCI ACWI xUS (Net).

Factor Exposures Relative to MSCI ACWI xUS (Net) for Period Ended June 30, 2024



Aristotle

Period Ended June 30, 2024

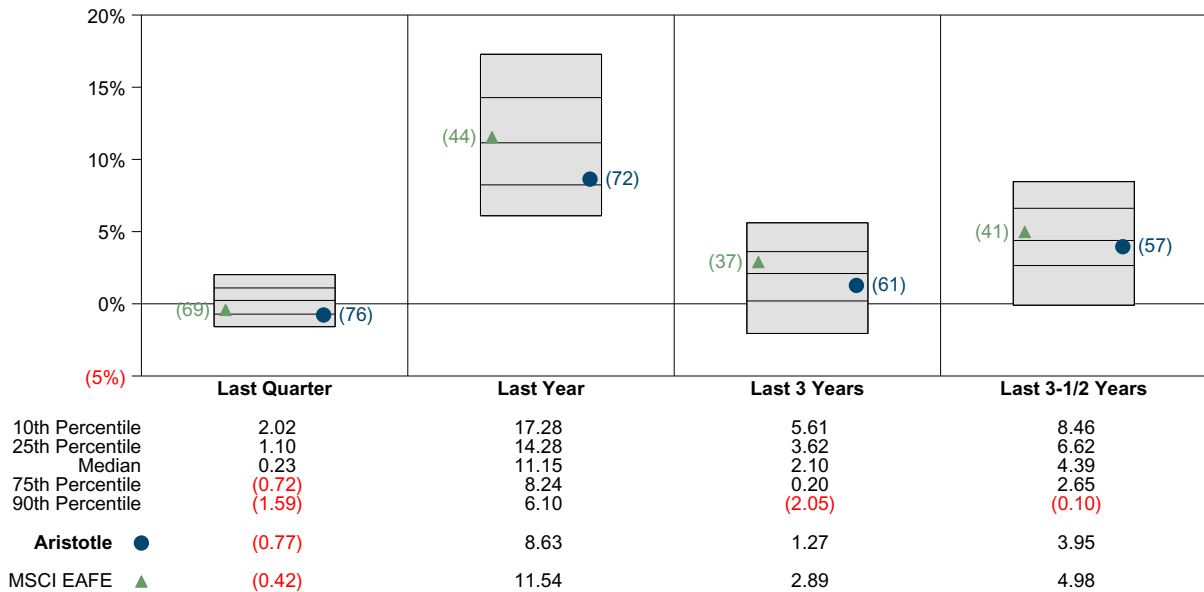
Investment Philosophy

Aristotle Capital's investment philosophy consists of four tenets to capture market inefficiencies: identify high-quality businesses; analyze businesses from a global perspective; identify catalysts and invest with a long-term view; and construct focused portfolios. This leads to a portfolio that is diversified, high conviction, and low turnover with alpha generation driven by security selection. Given this process, characteristics can oscillate between core, value and growth but will have persistent exposure to quality. NHRS inception in the fund is December 2020.

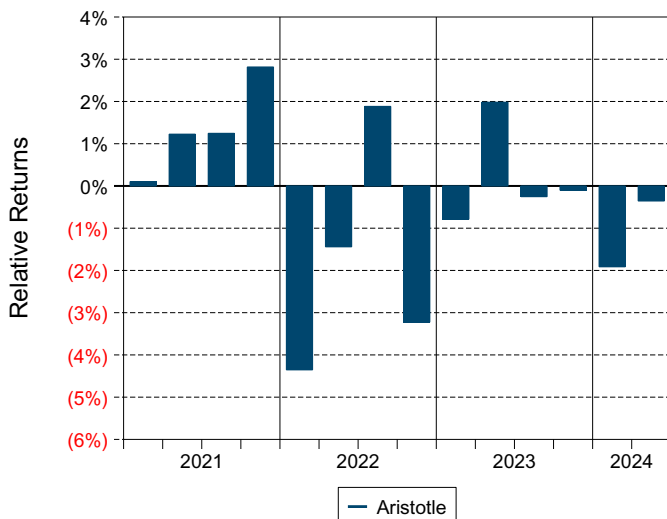
Quarterly Asset Growth

Beginning Market Value	\$179,173,959
Net New Investment	\$0
Investment Gains/(Losses)	\$-1,385,973
Ending Market Value	\$177,787,986

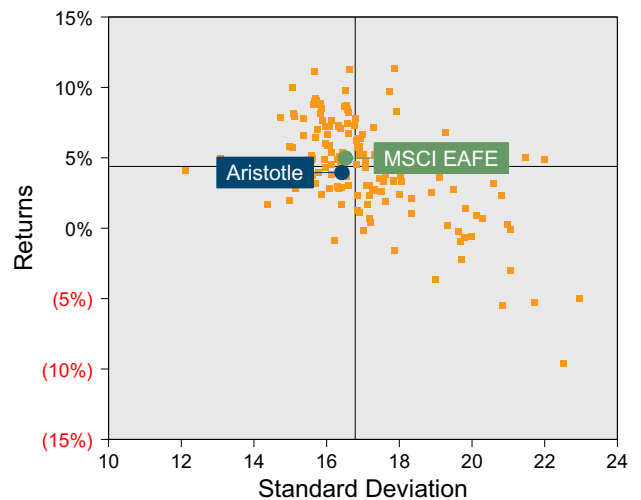
Performance vs Callan NonUS Eq (Gross)



Relative Return vs MSCI EAFE



Callan NonUS Eq (Gross) Annualized Three and One-Half Year Risk vs Return

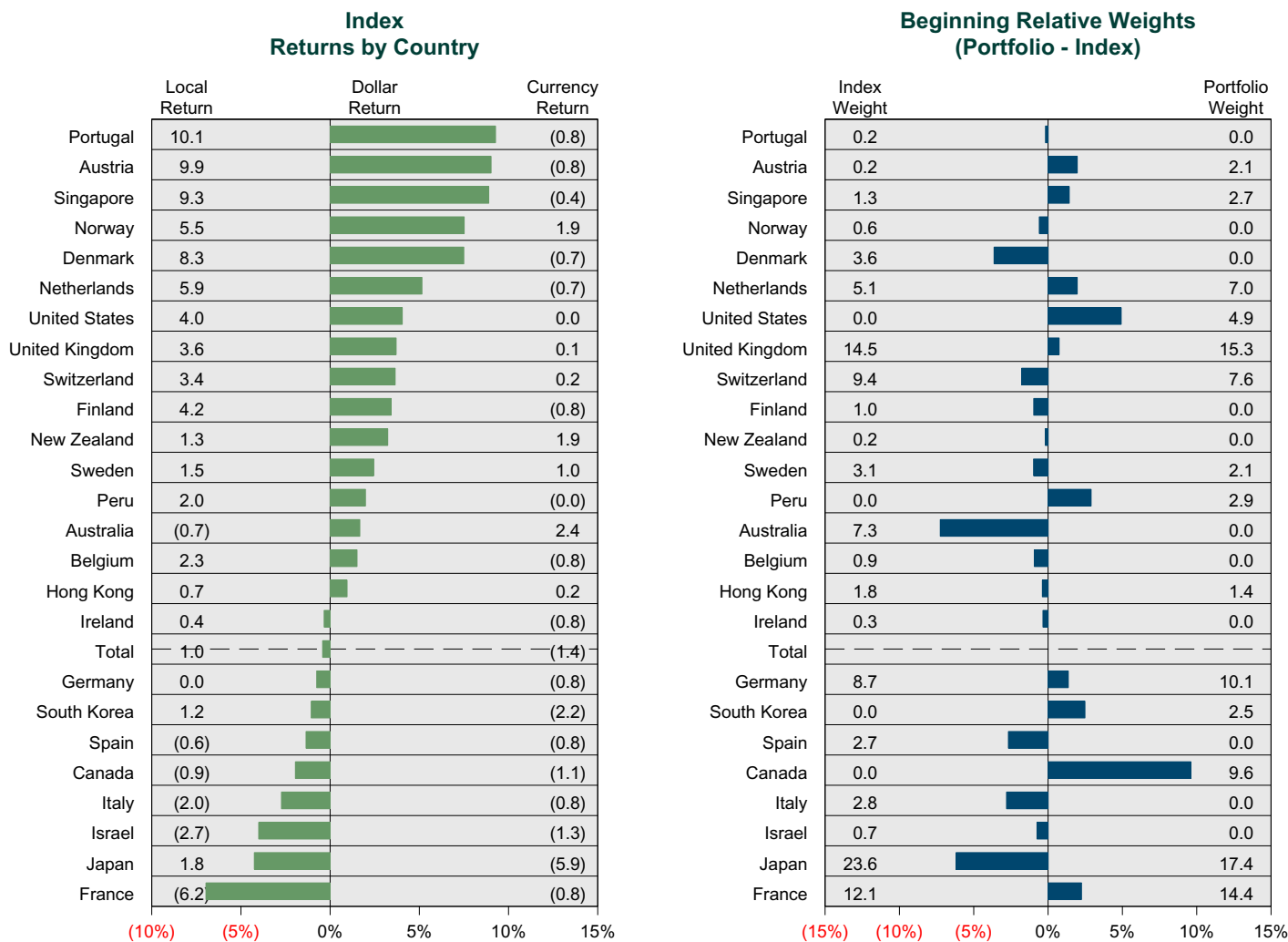


Aristotle vs MSCI EAFE

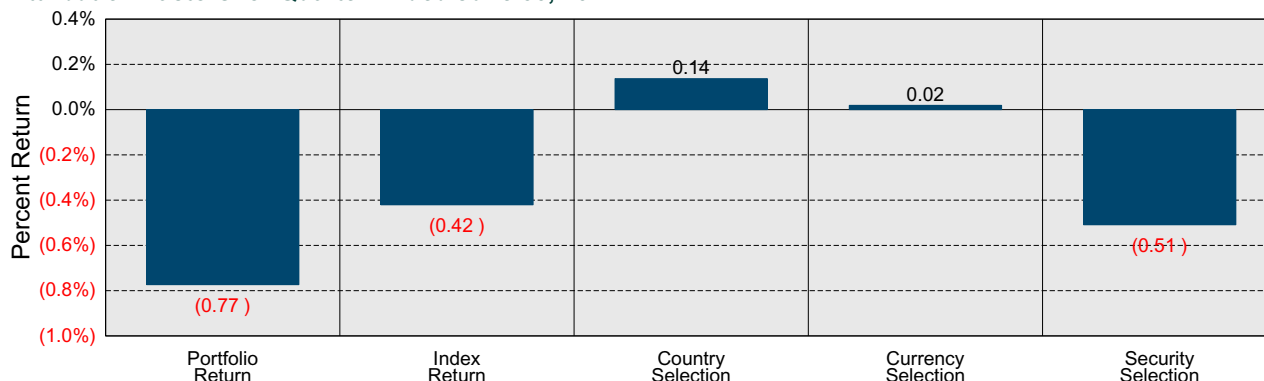
Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

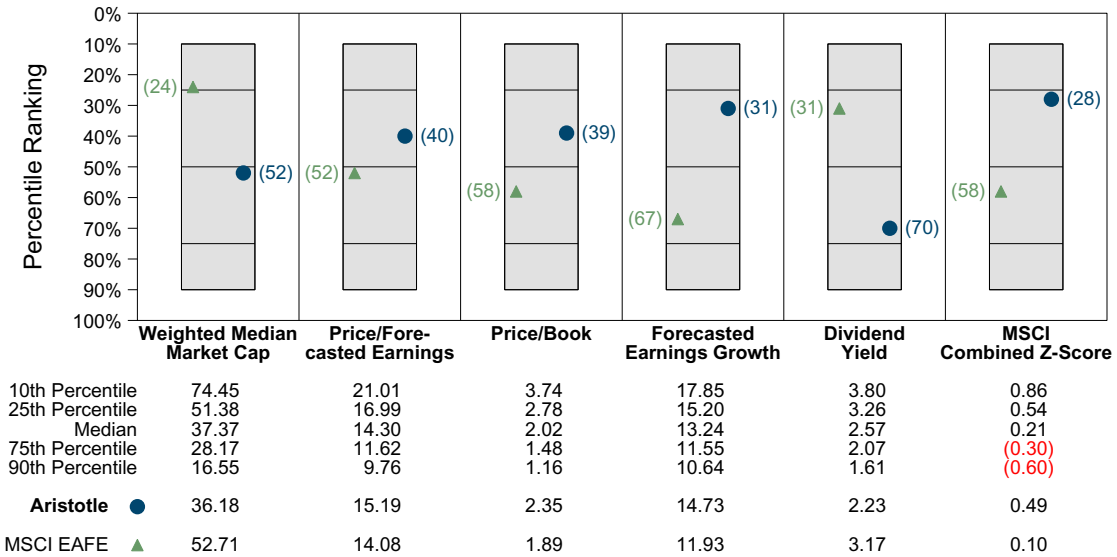


Aristotle Equity Characteristics Analysis Summary

Portfolio Characteristics

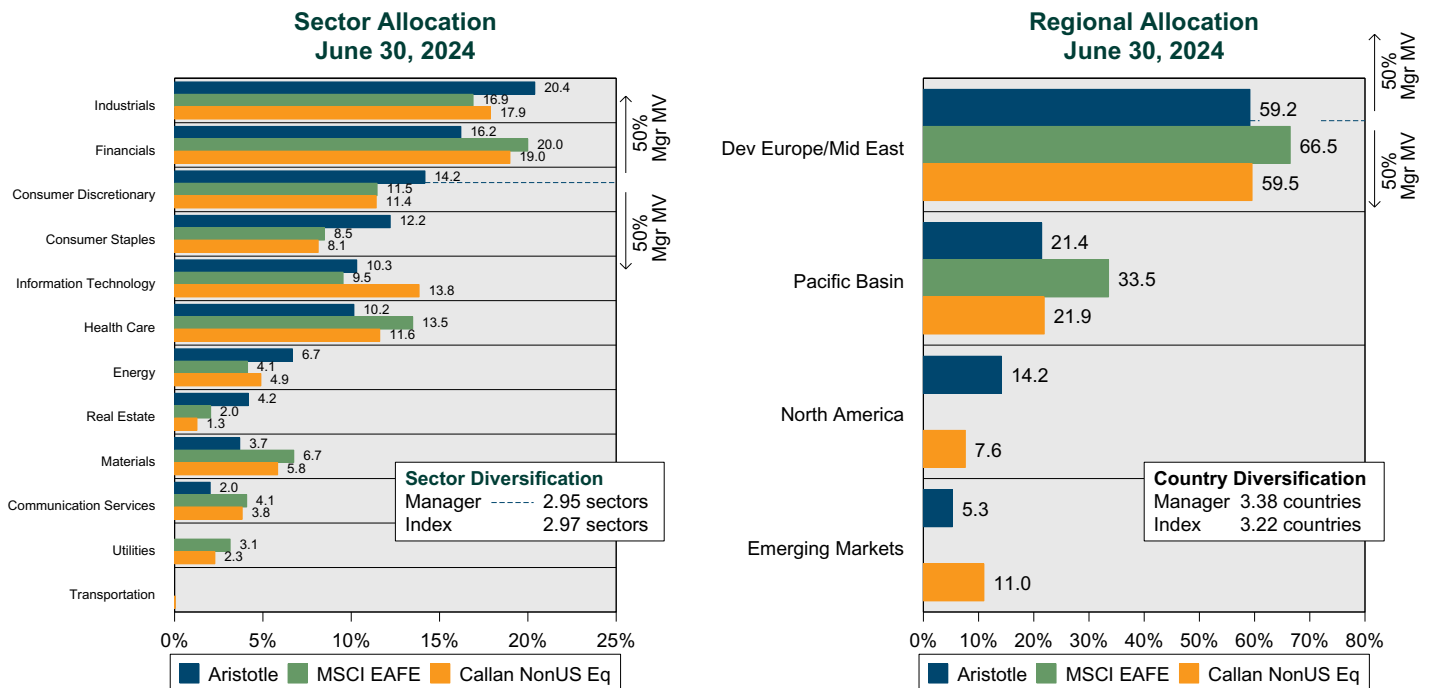
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 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.



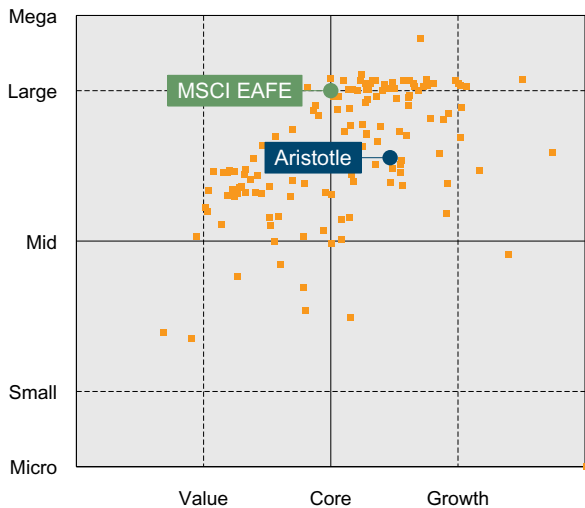
Current Holdings Based Style Analysis

Aristotle

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

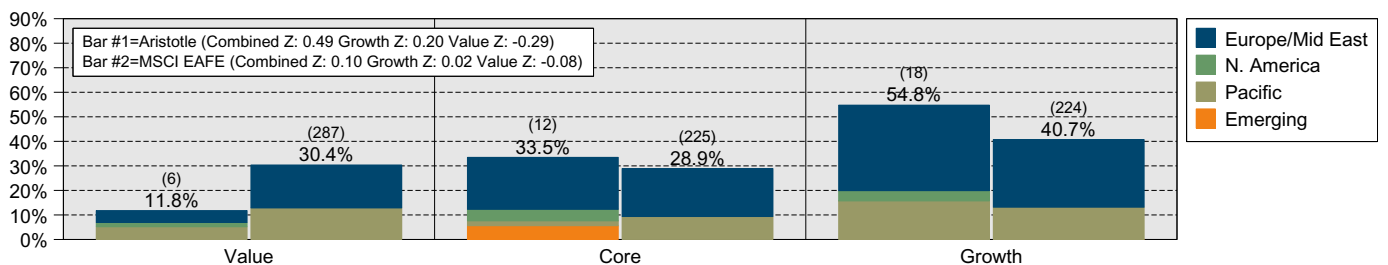
Style Map vs Callan NonUS Eq Holdings as of June 30, 2024



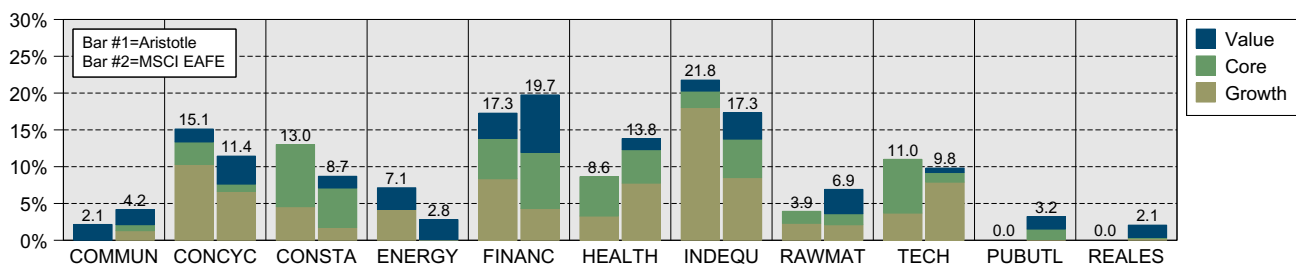
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	4.8% (2) 17.5% (158)	21.2% (8) 19.6% (140)	34.9% (11) 27.6% (127)	60.9% (21) 64.6% (425)
N. America	1.8% (1) 0.0% (0)	4.7% (1) 0.0% (0)	4.2% (1) 0.0% (0)	10.6% (3) 0.0% (0)
Pacific	5.2% (3) 12.9% (129)	2.0% (1) 9.4% (85)	15.7% (6) 13.1% (96)	22.9% (10) 35.3% (310)
Emerging	0.0% (0) 0.0% (0)	5.6% (2) 0.0% (0)	0.0% (0) 0.0% (1)	5.6% (2) 0.0% (1)
Total	11.8% (6) 30.4% (287)	33.5% (12) 28.9% (225)	54.8% (18) 40.7% (224)	100.0% (36) 100.0% (736)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



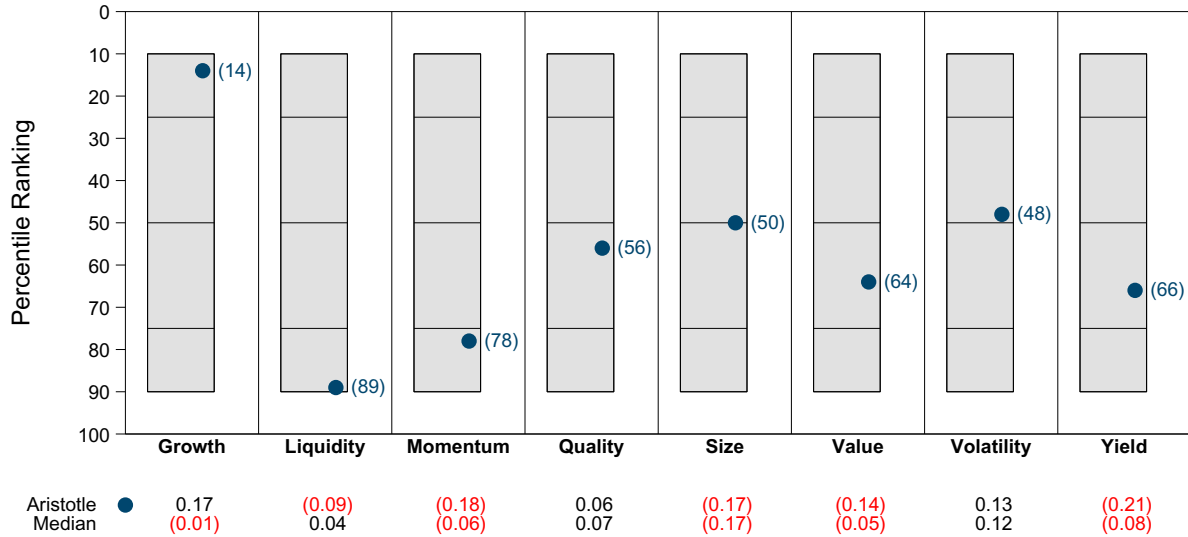
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

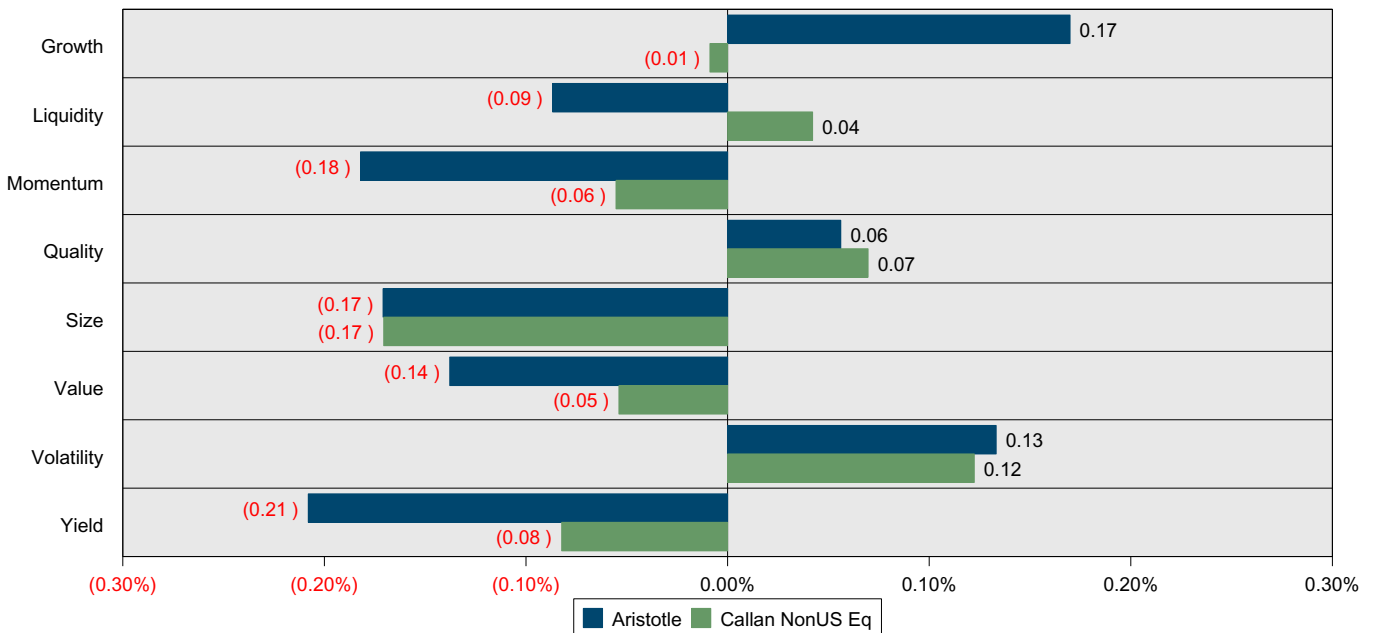
Factor Exposures Relative to MSCI EAFE, Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative to the MSCI EAFE.

Factor Exposures Relative to MSCI EAFE for Period Ended June 30, 2024



Artisan Partners Period Ended June 30, 2024

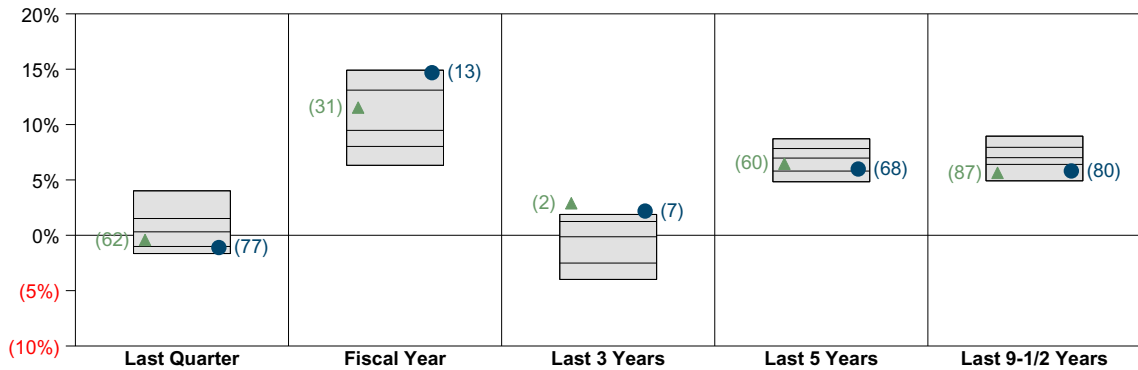
Investment Philosophy

Artisan Partners, founded in 1994, is a publicly traded company with 10 unique investment units headquartered in Milwaukee. The leadership of the strategy has been stable under Portfolio Manager Mark Yockey since its inception in 1996. Yockey is supported by three co-portfolio managers and nine dedicated analysts. The team employs a bottom-up, fundamental process to construct portfolios with growth companies benefiting from secular trends. The strategy typically consists of 50-100 securities with an expected annual turnover of around 40%. The strategy has consistently performed in line with expectations. NHRS inception in the fund is October 2014.

Quarterly Asset Growth

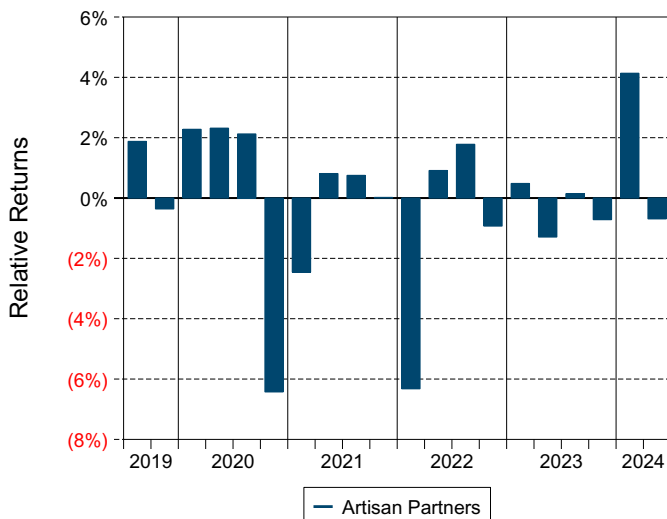
Beginning Market Value	\$411,621,337
Net New Investment	\$0
Investment Gains/(Losses)	\$-4,559,079
Ending Market Value	\$407,062,258

Performance vs Callan NonUS AC Gr Eq (Gross)

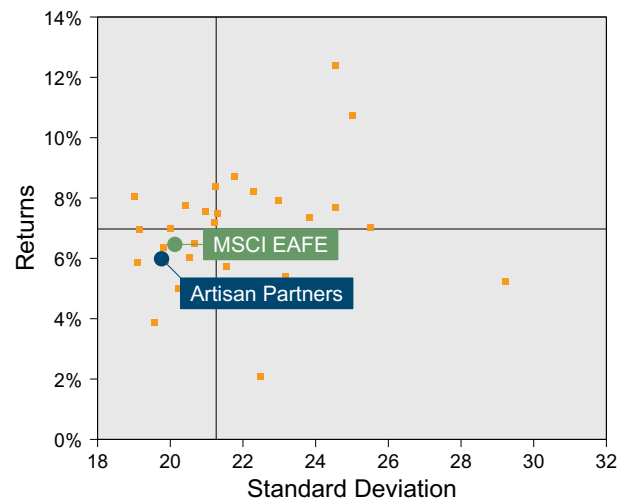


10th Percentile	4.02	14.91	1.88	8.72	8.95
25th Percentile	1.52	13.11	1.24	7.83	7.94
Median	0.31	9.47	(0.14)	6.97	7.01
75th Percentile	(1.01)	8.03	(2.51)	5.80	6.40
90th Percentile	(1.65)	6.32	(3.99)	4.83	4.92
Artisan Partners	(1.11)	14.68	2.19	5.99	5.81
MSCI EAFE	(0.42)	11.54	2.89	6.46	5.64

Relative Return vs MSCI EAFE



Callan NonUS AC Gr Eq (Gross) Annualized Five Year Risk vs Return

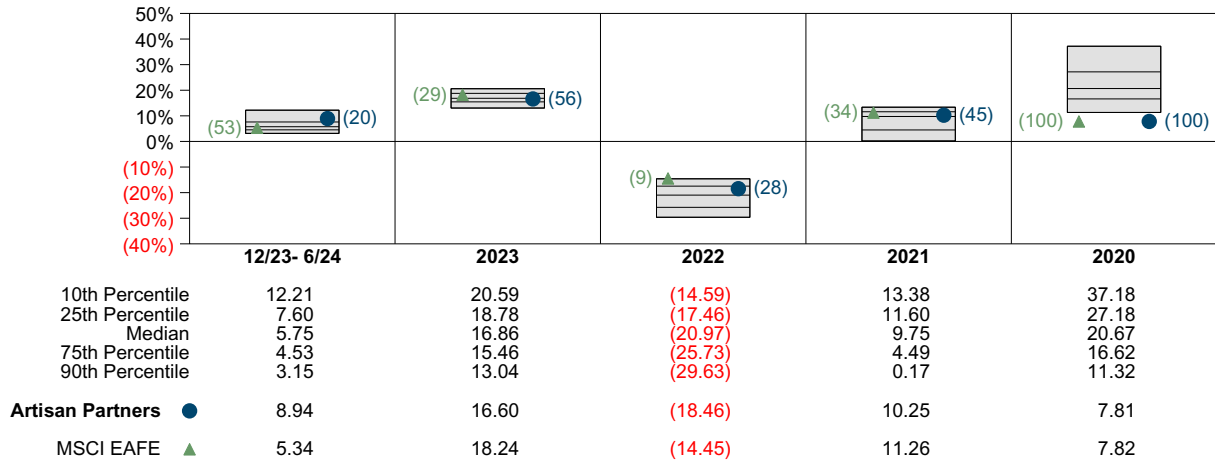


Artisan Partners Return Analysis Summary

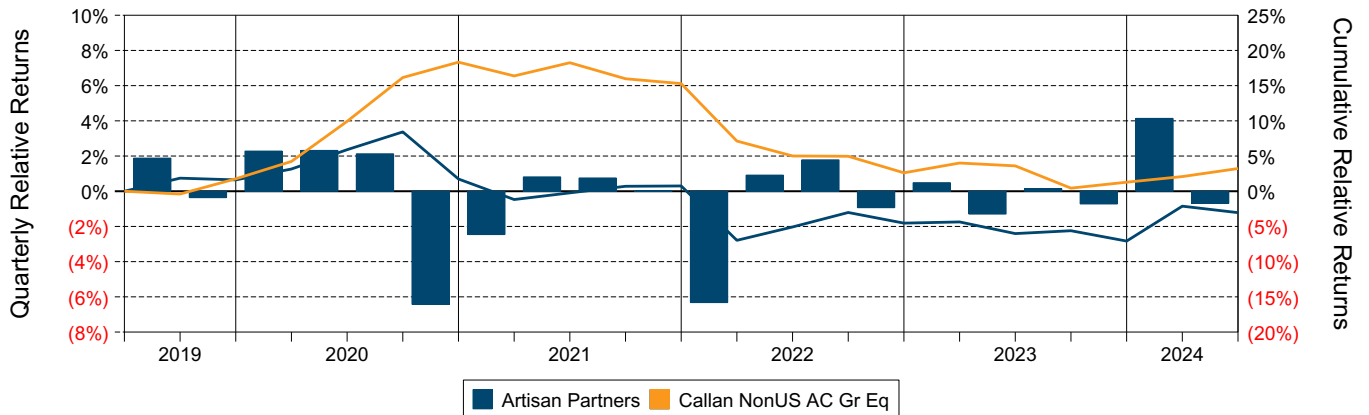
Return Analysis

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.

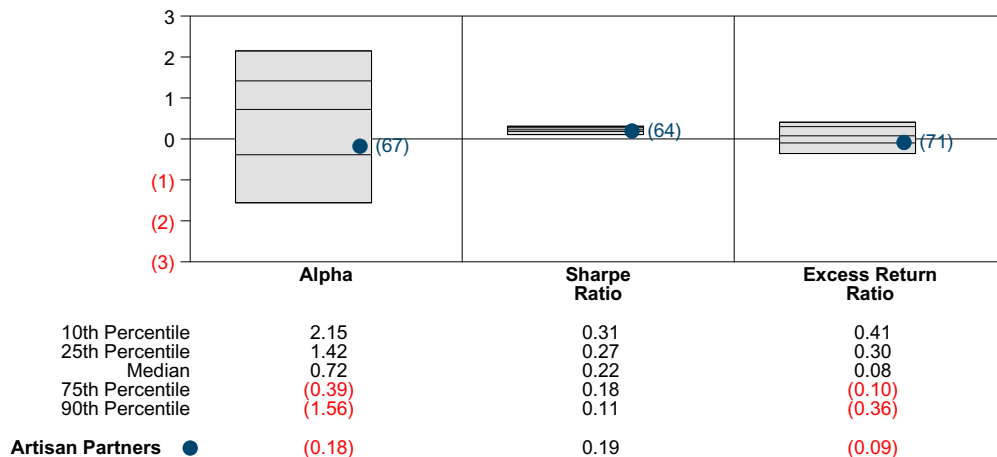
Performance vs Callan NonUS AC Gr Eq (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EAFE



Risk Adjusted Return Measures vs MSCI EAFE Rankings Against Callan NonUS AC Gr Eq (Gross) Five Years Ended June 30, 2024

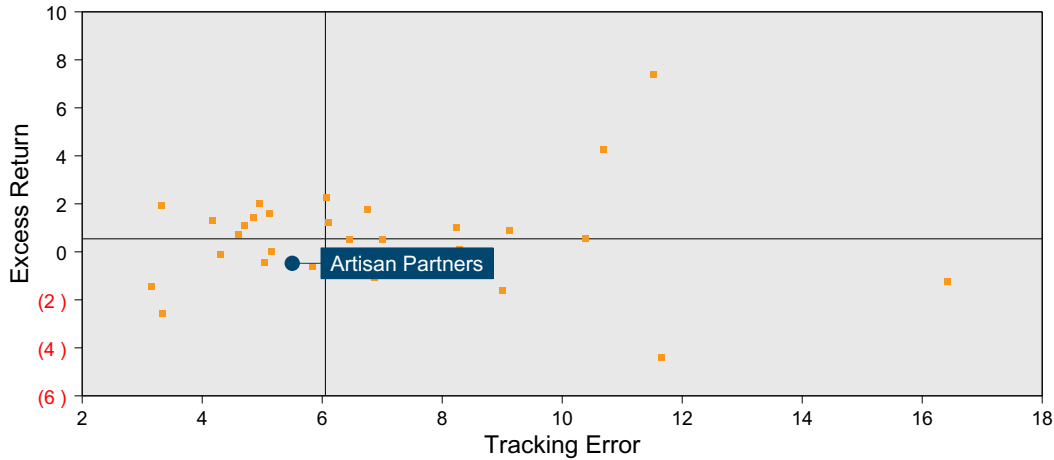


Artisan Partners Risk Analysis Summary

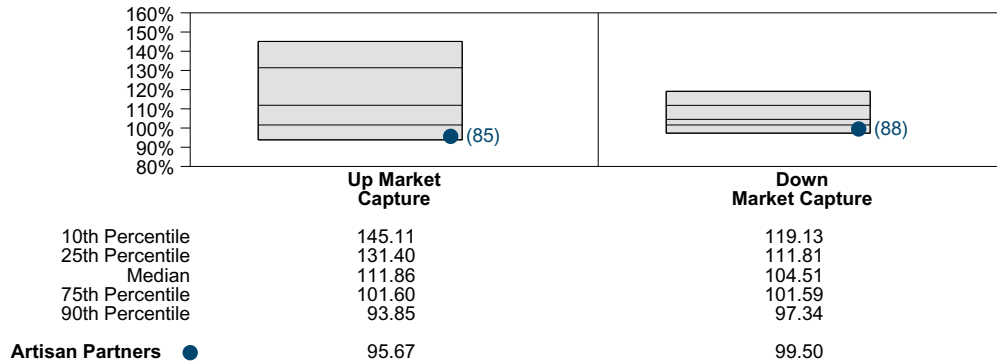
Risk Analysis

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.

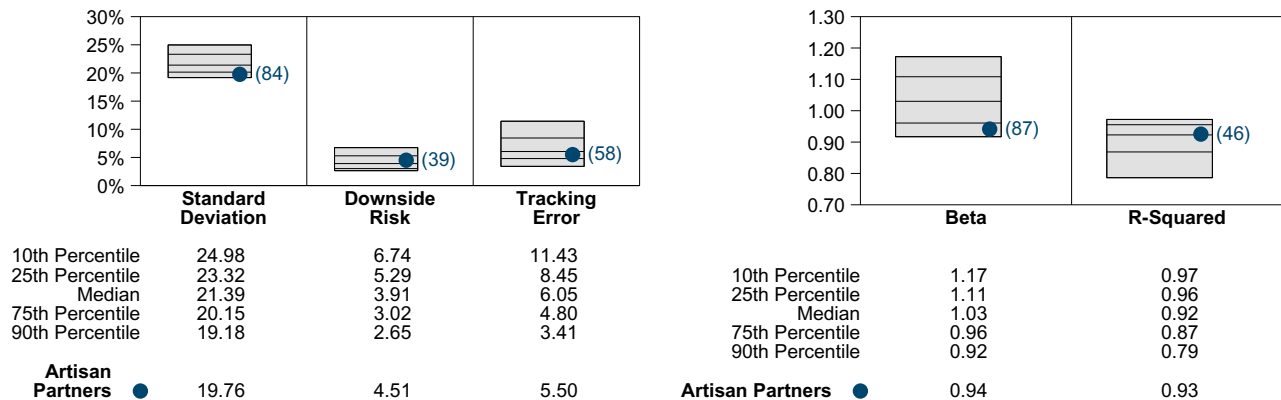
Risk Analysis vs Callan Non-US All Country Growth Equity (Gross) Five Years Ended June 30, 2024



Market Capture vs MSCI EAFE Rankings Against Callan Non-US All Country Growth Equity (Gross) Five Years Ended June 30, 2024



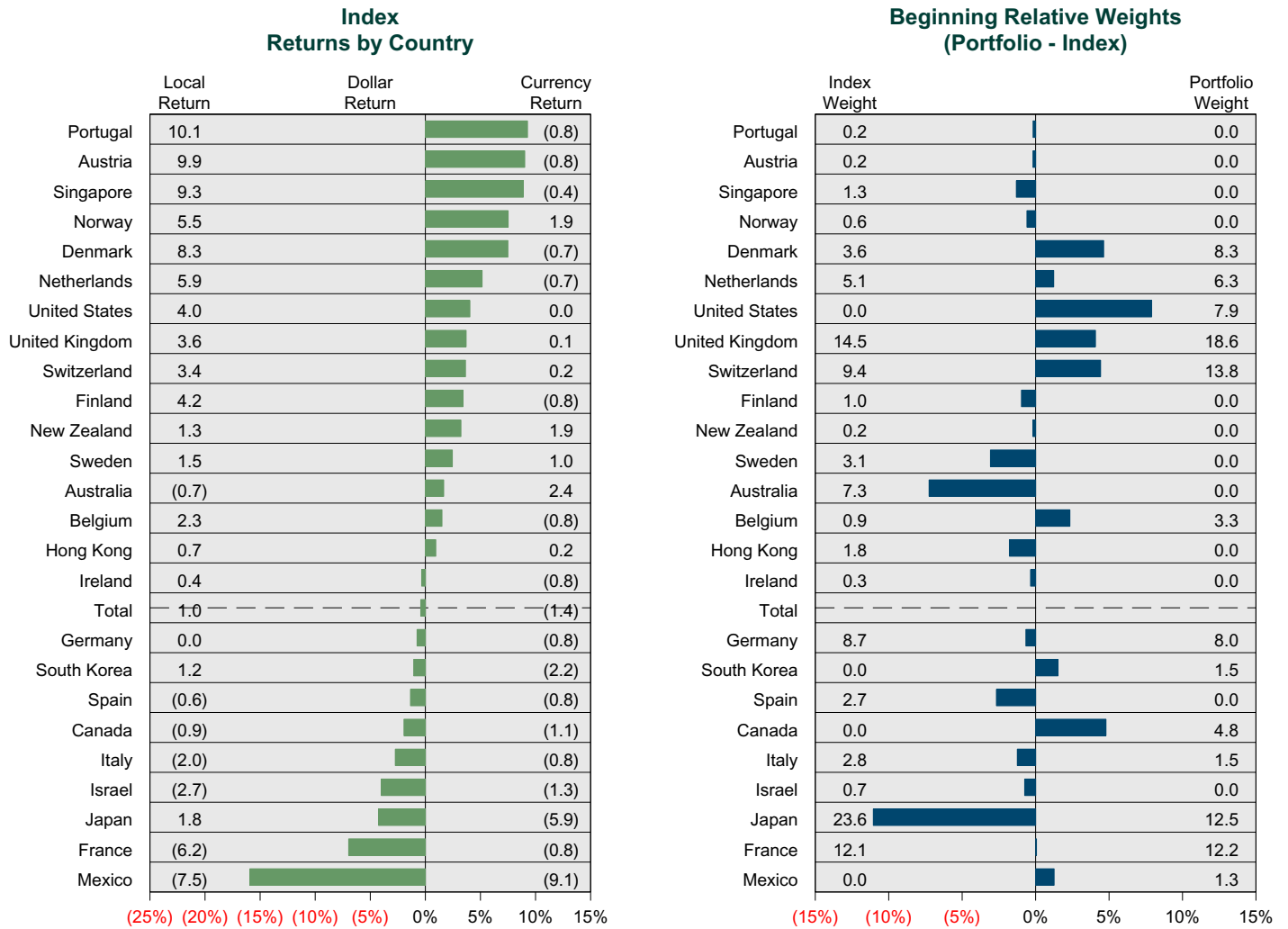
Risk Statistics Rankings vs MSCI EAFE Rankings Against Callan Non-US All Country Growth Equity (Gross) Five Years Ended June 30, 2024



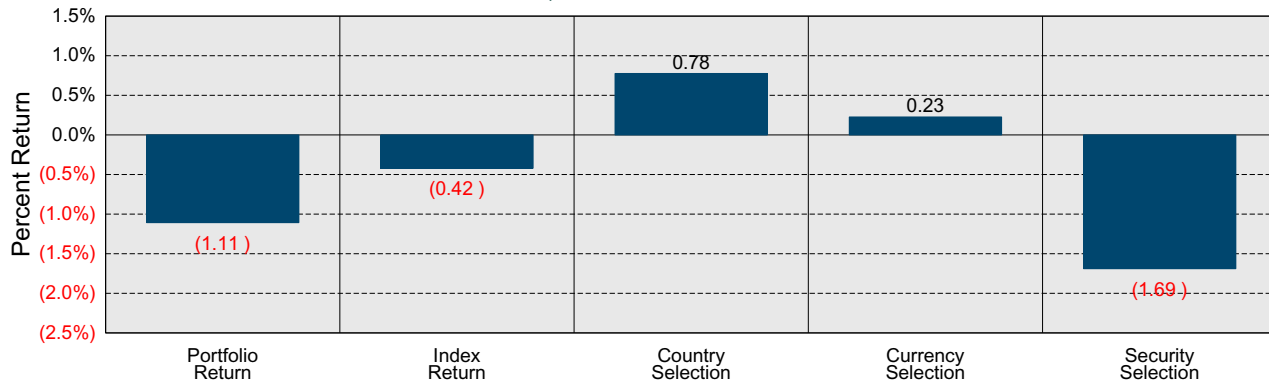
Artisan Partners vs MSCI EAFE Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

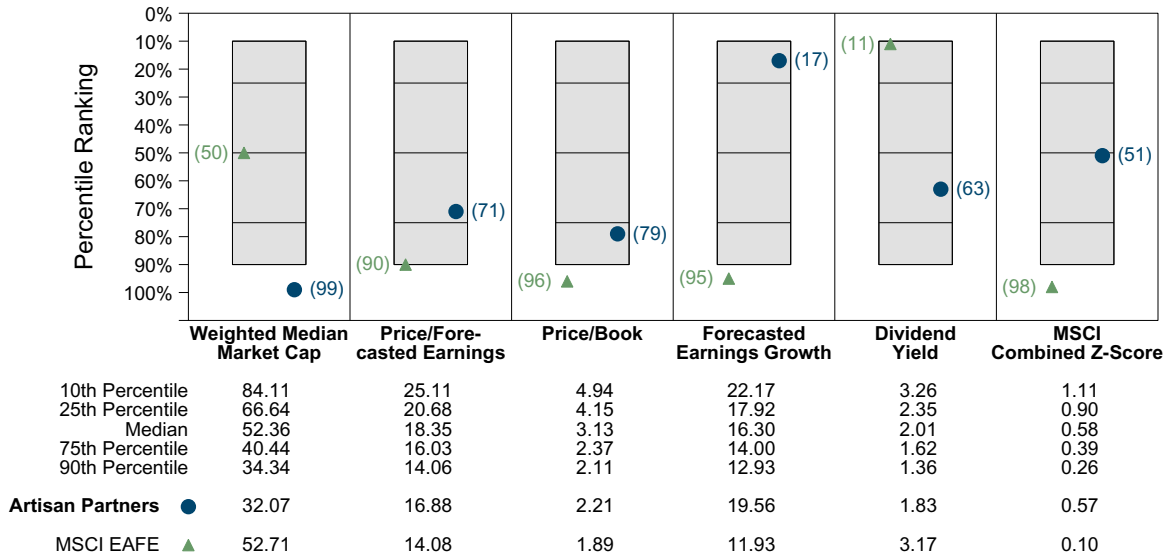


Artisan Partners Equity Characteristics Analysis Summary

Portfolio Characteristics

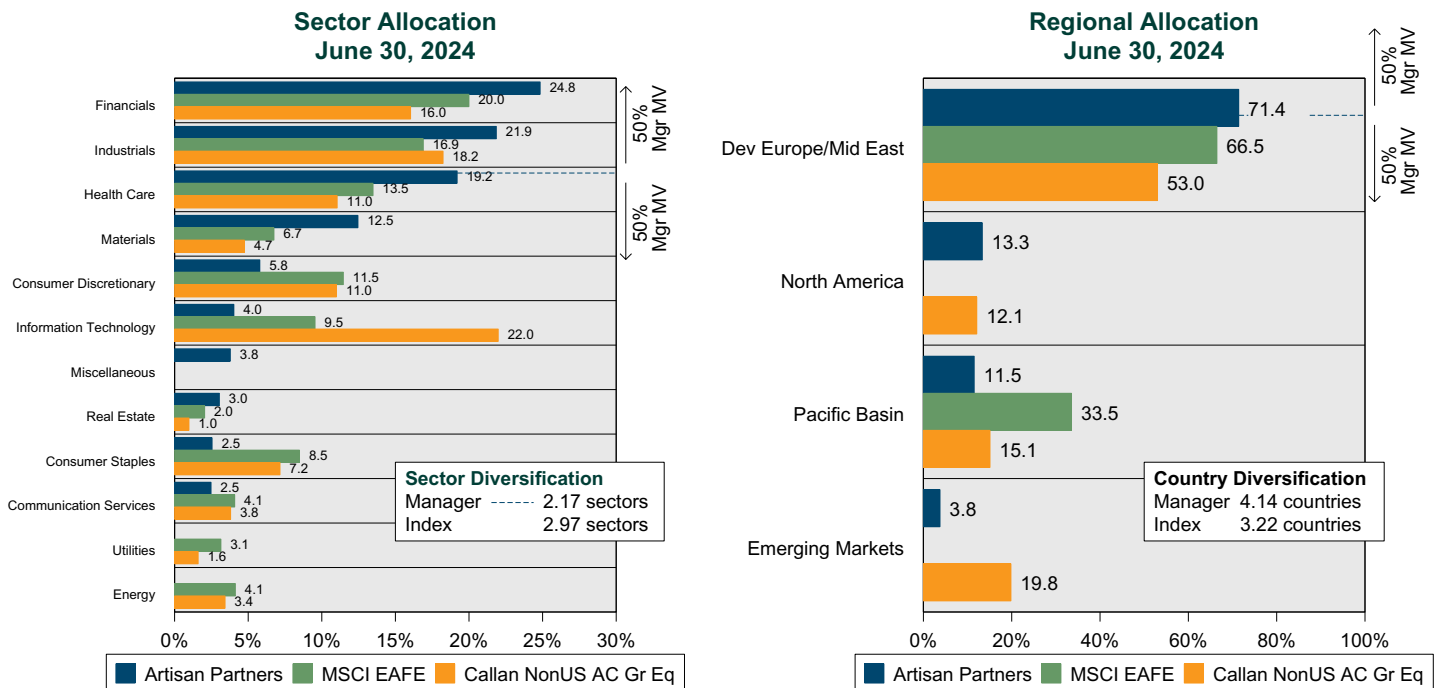
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US All Country Growth Equity as of June 30, 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.

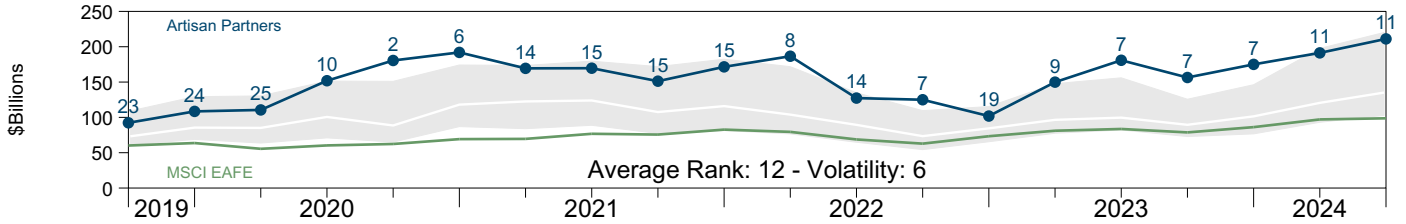


Portfolio Characteristics Analysis

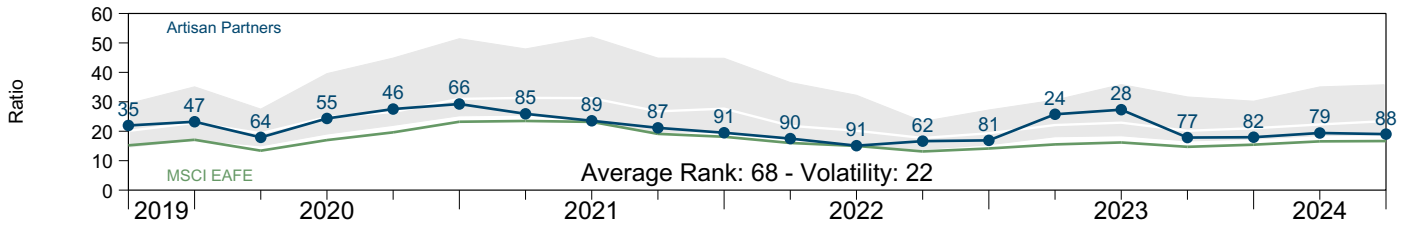
Callan NonUS AC Gr Eq

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan NonUS AC Gr Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI EAFE is shown for comparison purposes.

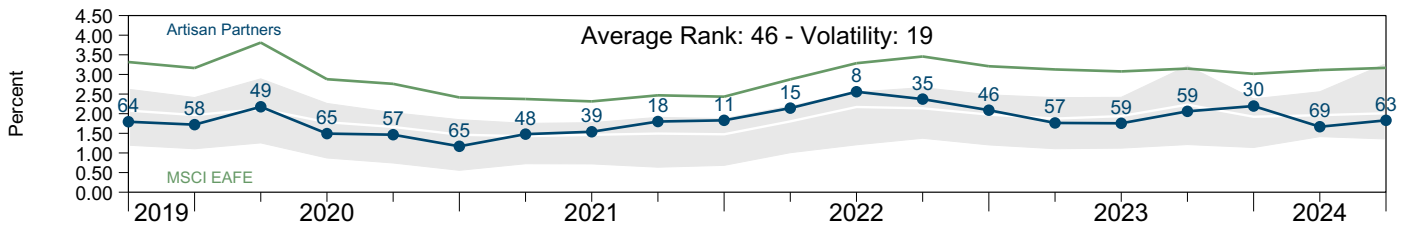
Weighted Average Market Cap



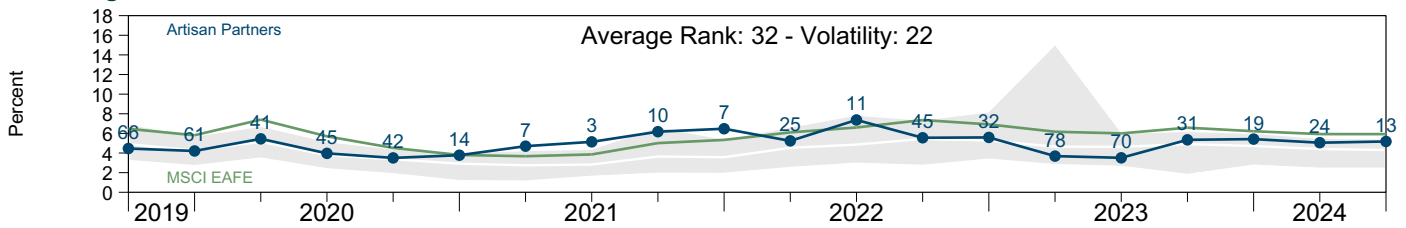
Trailing P/E



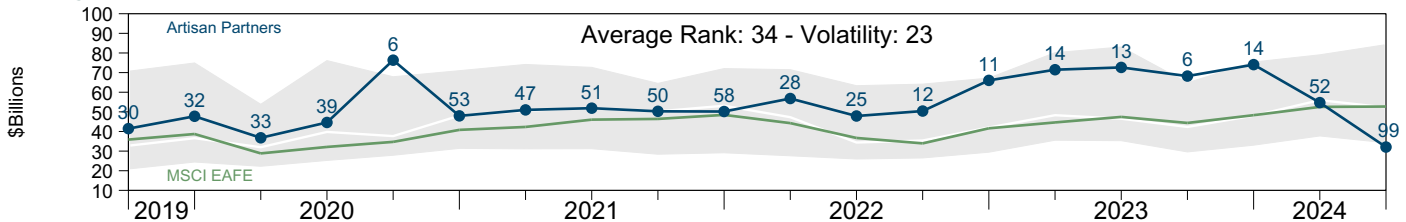
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

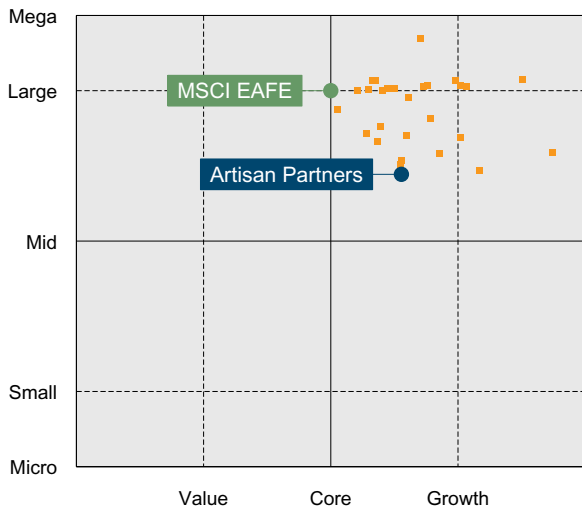
Current Holdings Based Style Analysis

Artisan Partners

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

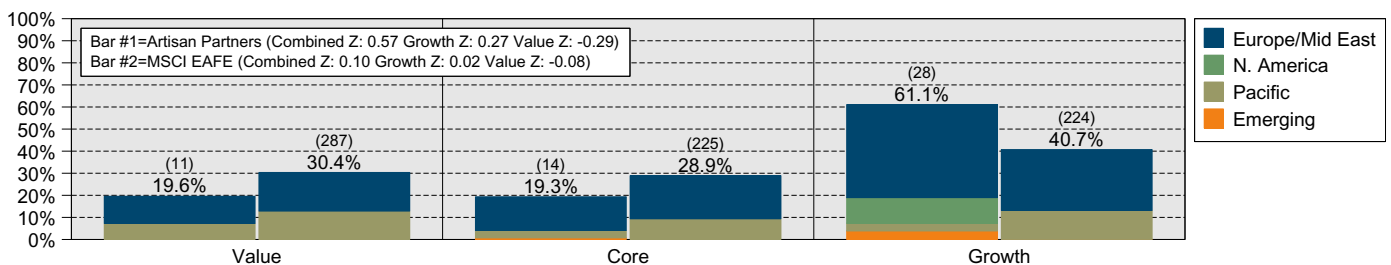
Style Map vs Callan NonUS AC Gr Eq Holdings as of June 30, 2024



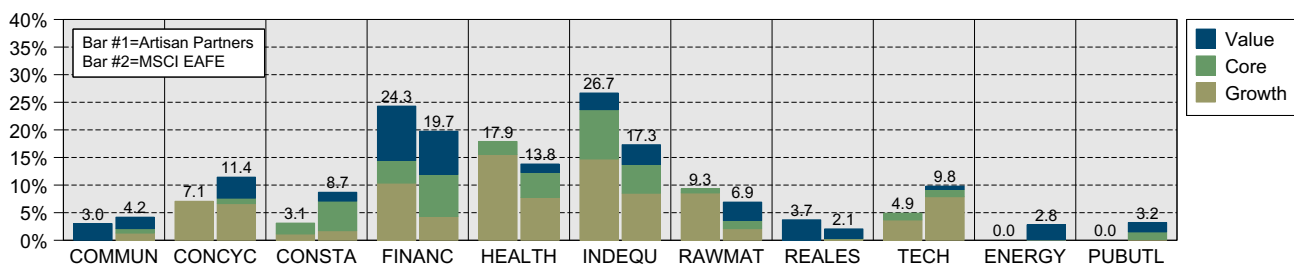
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	12.3% (6) 17.5% (158)	15.3% (9) 19.6% (140)	42.1% (20) 27.6% (127)	69.7% (35) 64.6% (425)
N. America	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	11.7% (3) 0.0% (0)	11.7% (3) 0.0% (0)
Pacific	7.3% (5) 12.9% (129)	3.3% (4) 9.4% (85)	3.4% (2) 13.1% (96)	14.1% (11) 35.3% (310)
Emerging	0.0% (0) 0.0% (0)	0.7% (1) 0.0% (0)	3.9% (3) 0.0% (1)	4.6% (4) 0.0% (1)
Total	19.6% (11) 30.4% (287)	19.3% (14) 28.9% (225)	61.1% (28) 40.7% (224)	100.0% (53) 100.0% (736)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



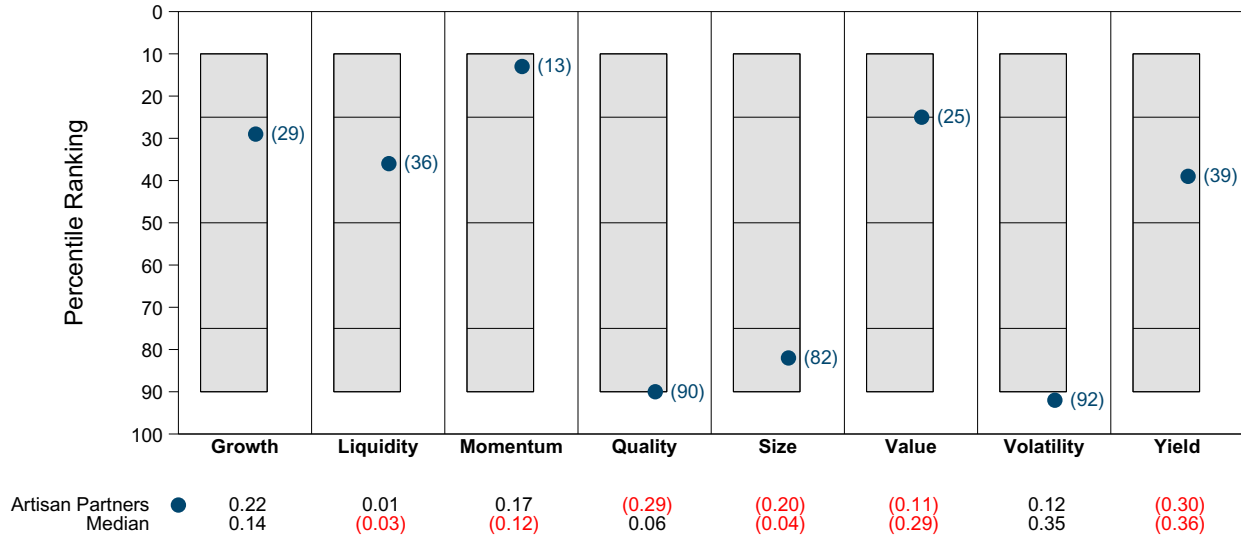
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US All Country Growth Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

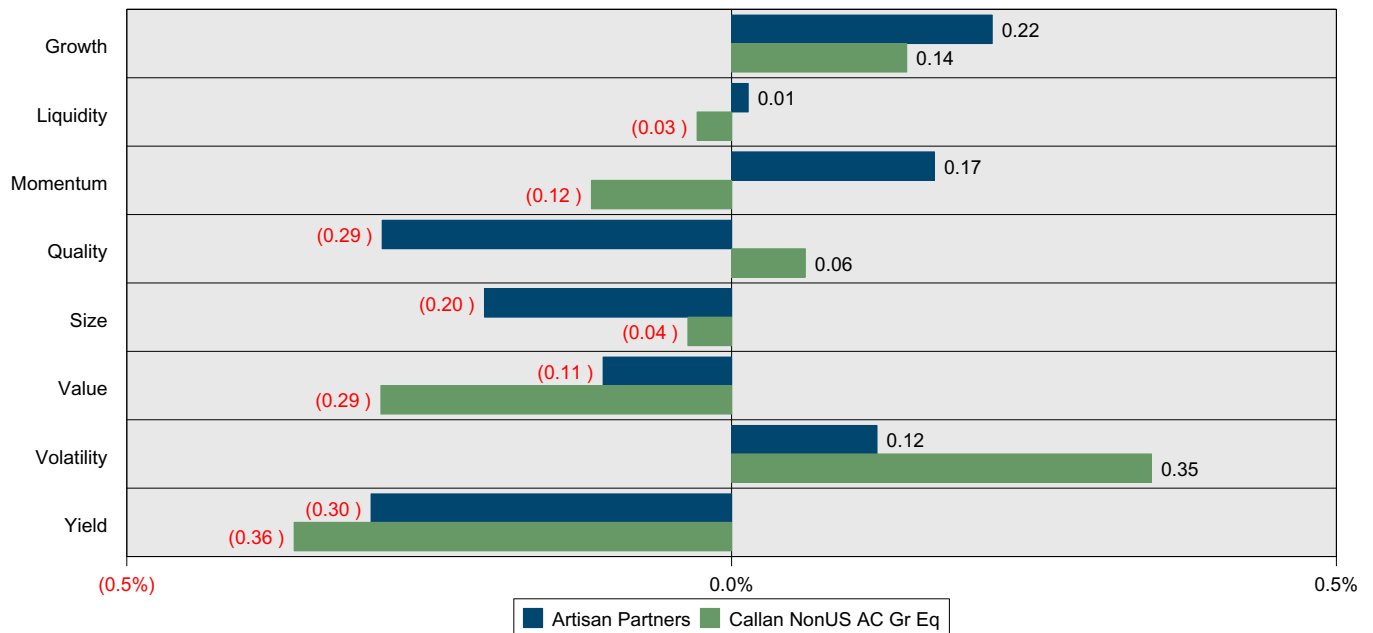
Factor Exposures Relative to MSCI EAFE, Rankings vs Callan Non-US All Country Growth Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US All Country Growth Equity group relative to the MSCI EAFE.

Factor Exposures Relative to MSCI EAFE for Period Ended June 30, 2024



BlackRock Superfund Period Ended June 30, 2024

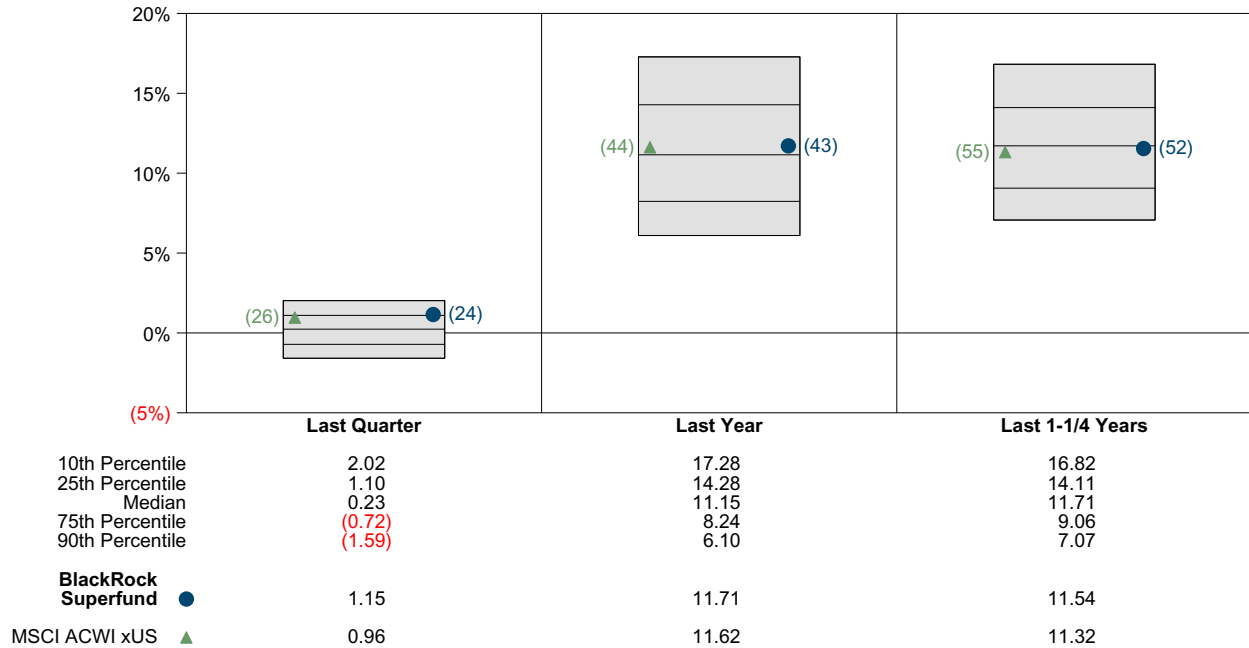
Investment Philosophy

The BlackRock MSCI ACWI ex U.S. strategy seeks to track the performance of the MSCI ACWI ex U.S. Index. The strategy is managed by BlackRock's ETF & Index Investments team, which is comprised of over 160 professionals globally. NHRS inception in the fund is October 2014.

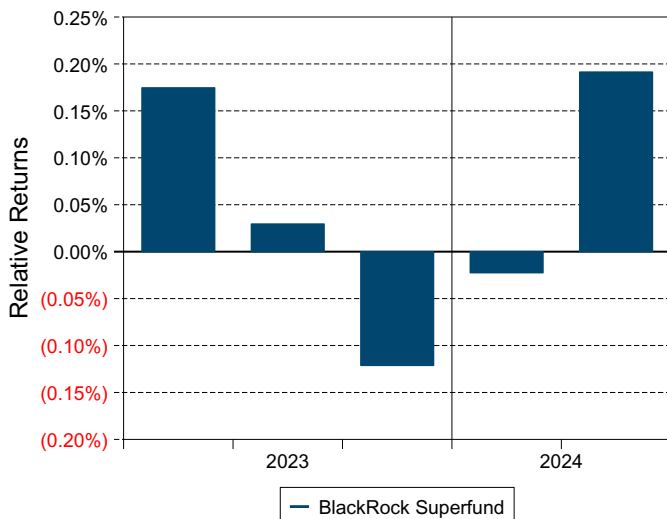
Quarterly Asset Growth

Beginning Market Value	\$197,175,769
Net New Investment	\$0
Investment Gains/(Losses)	\$2,271,909
Ending Market Value	\$199,447,677

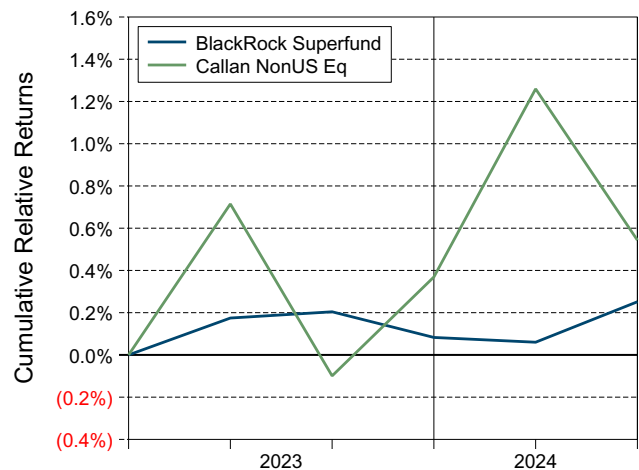
Performance vs Callan NonUS Eq (Gross)



Relative Return vs MSCI ACWI xUS



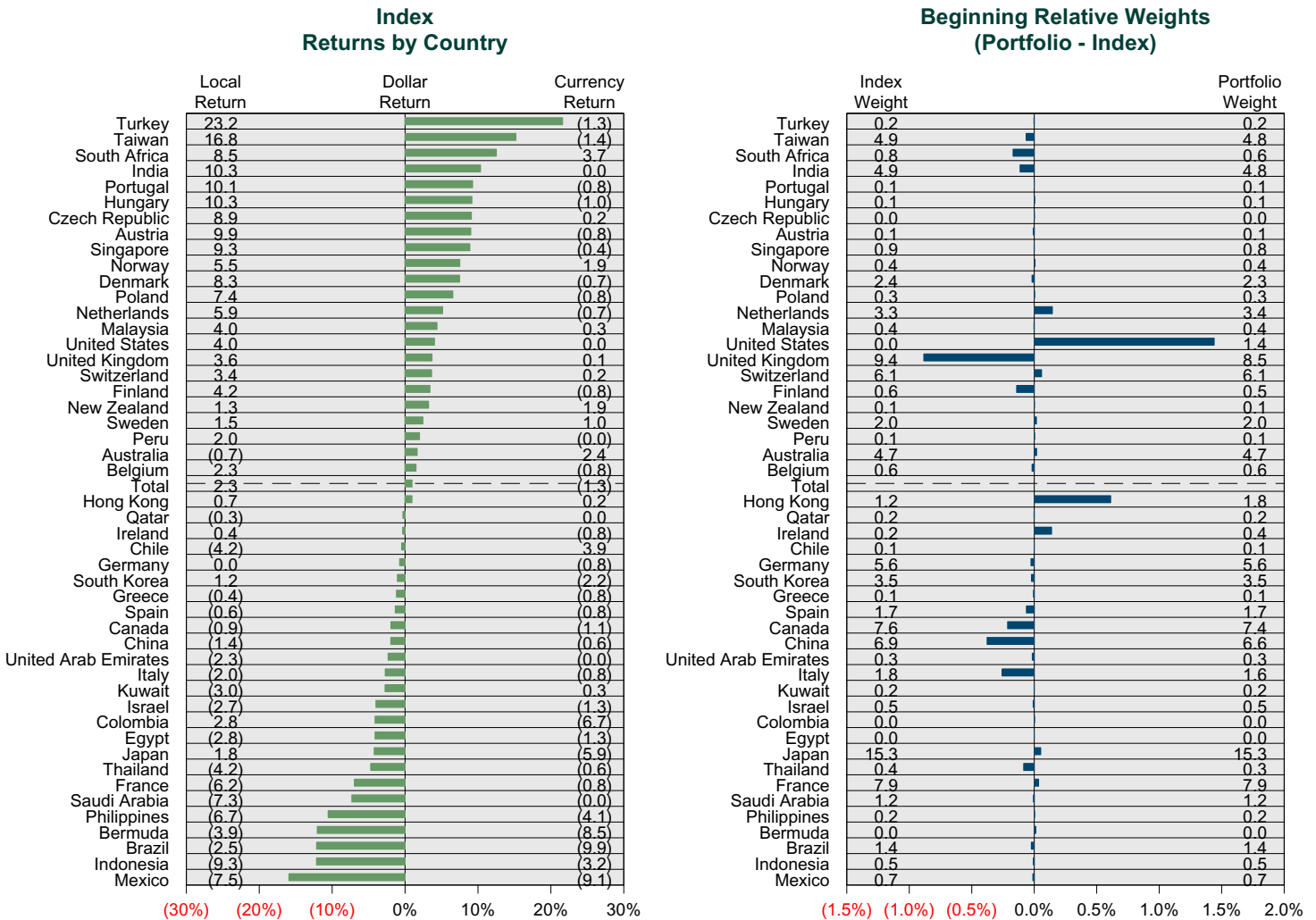
Cumulative Returns vs MSCI ACWI xUS



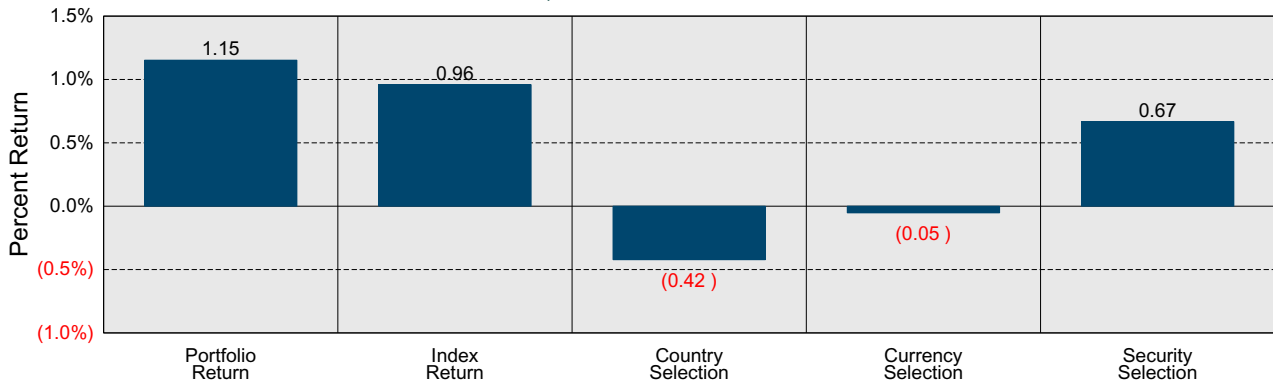
BlackRock Superfund vs MSCI ACWI xUS (Net) Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

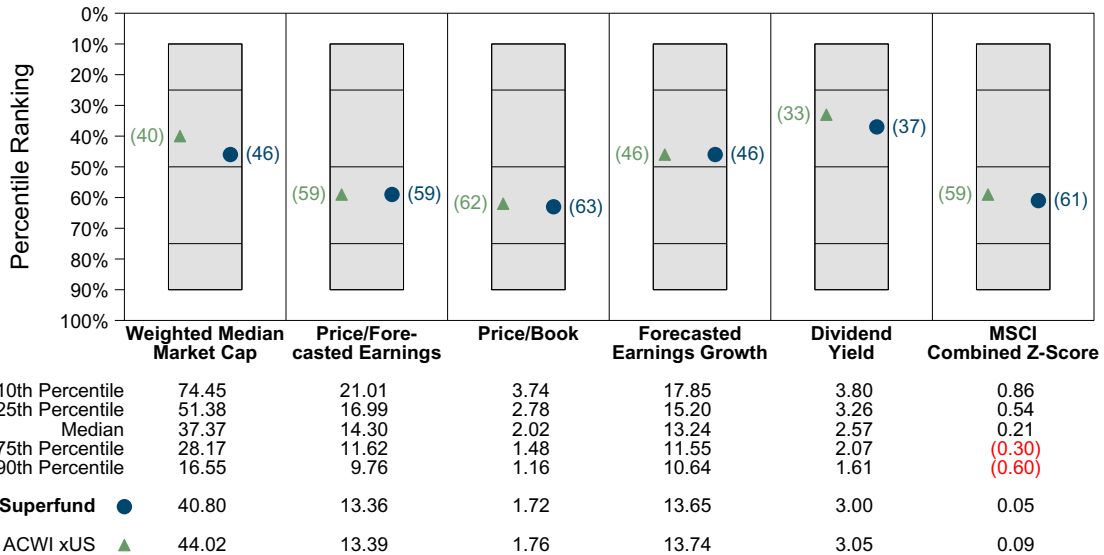


BlackRock Superfund Equity Characteristics Analysis Summary

Portfolio Characteristics

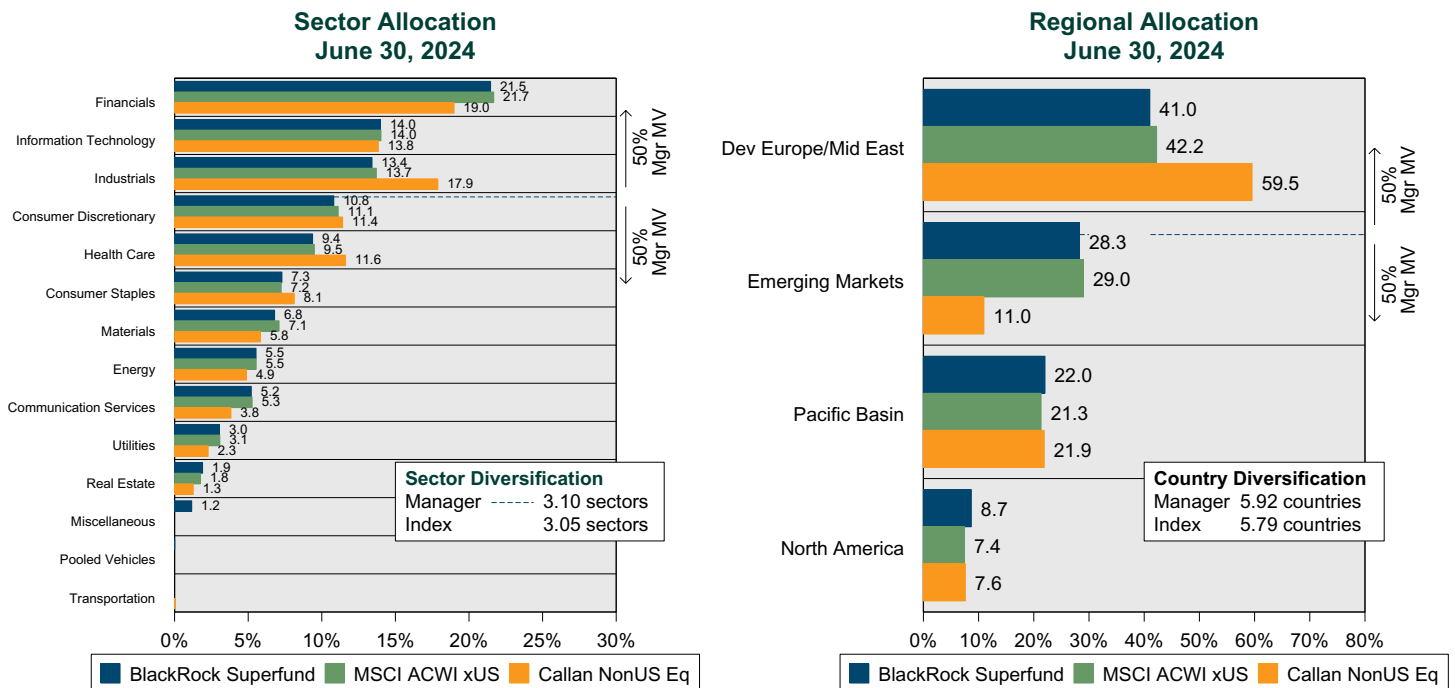
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 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.



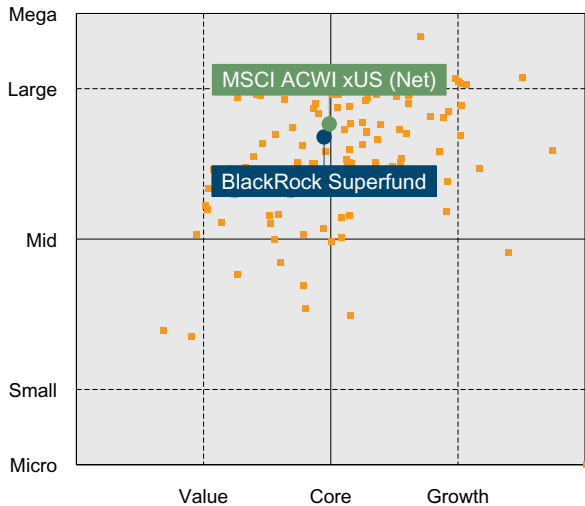
Current Holdings Based Style Analysis

BlackRock Superfund

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

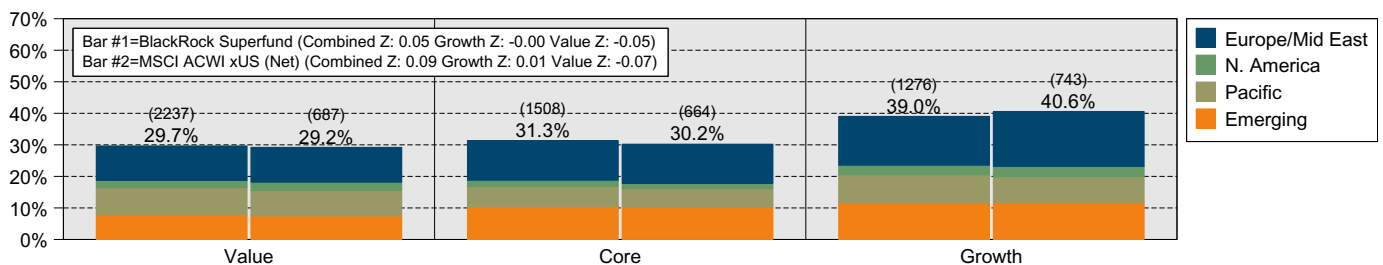
Style Map vs Callan NonUS Eq Holdings as of June 30, 2024



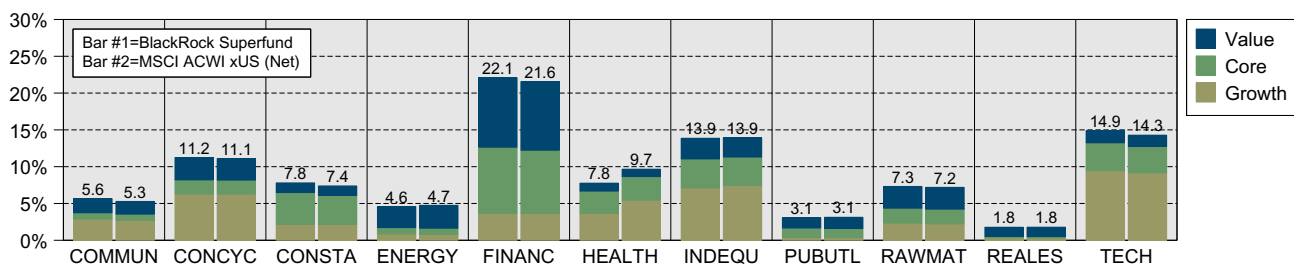
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	10.9% (219)	12.5% (230)	15.5% (175)	38.9% (624)
N. America	11.1% (158)	12.4% (140)	17.4% (127)	40.8% (425)
Pacific	2.3% (327)	2.0% (190)	3.1% (135)	7.4% (652)
Emerging	2.6% (27)	1.8% (21)	3.2% (39)	7.6% (87)
Total	29.7% (2237)	31.3% (1508)	39.0% (1276)	100.0% (5021)
	29.2% (687)	30.2% (664)	40.6% (743)	100.0% (2094)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



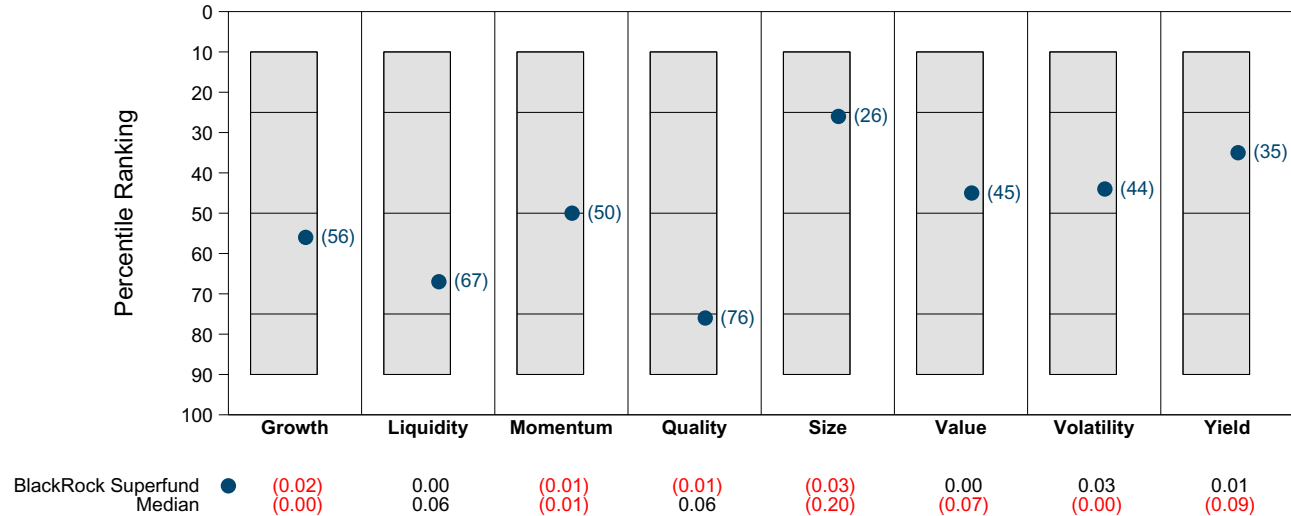
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

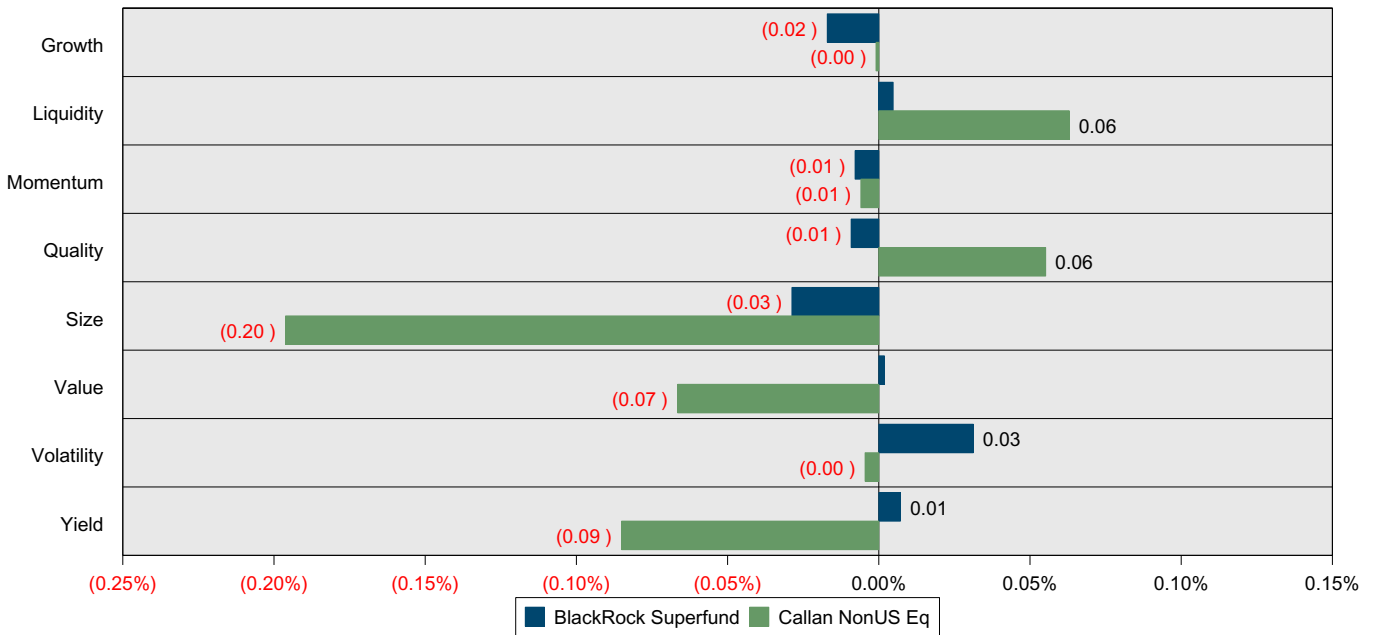
Factor Exposures Relative to MSCI ACWI xUS (Net), Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative the the MSCI ACWI xUS (Net).

Factor Exposures Relative to MSCI ACWI xUS (Net) for Period Ended June 30, 2024



Causeway Capital

Period Ended June 30, 2024

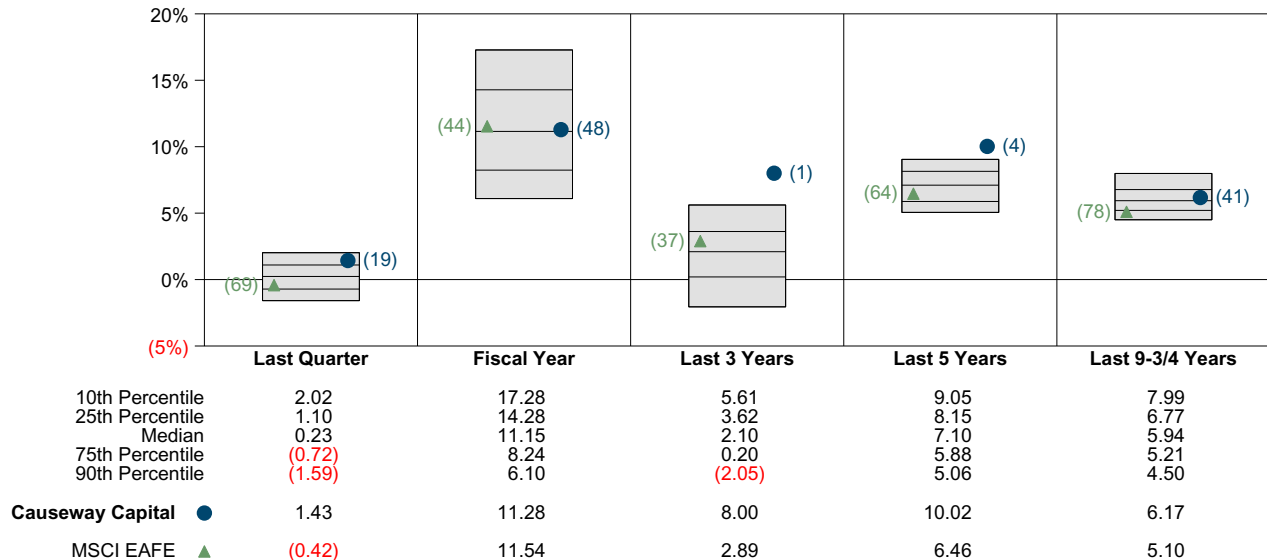
Investment Philosophy

Causeway is an employee-owned firm founded in 2001 that exclusively manages international, global and emerging market equity mandates with a value philosophy. The International Value strategy is a traditional value, EAFE-plus portfolio. The investment team is institutionally focused and manages the strategy with a conventional total-return focus. The portfolio consists of between 50 and 80 holdings with a 5% maximum stock weighting and 25% maximum industry weighting. The strategy is focused on developed markets, with opportunistic exposure to emerging markets generally less than 15% of the portfolio. NHRS inception in the fund is September 2014.

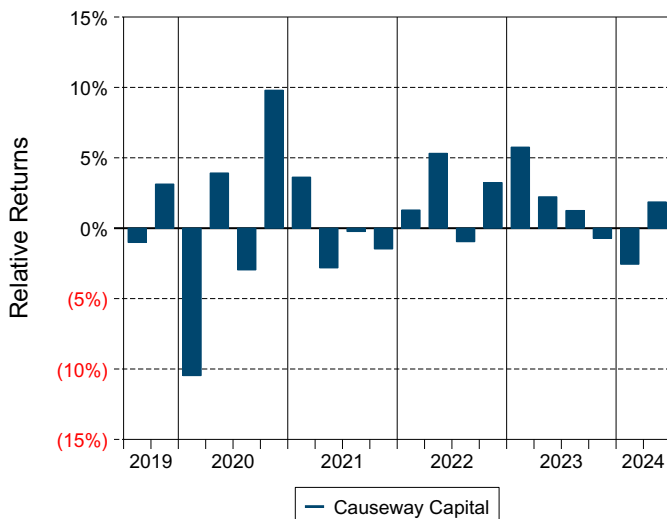
Quarterly Asset Growth

Beginning Market Value	\$443,418,889
Net New Investment	\$-86
Investment Gains/(Losses)	\$6,355,881
Ending Market Value	\$449,774,683

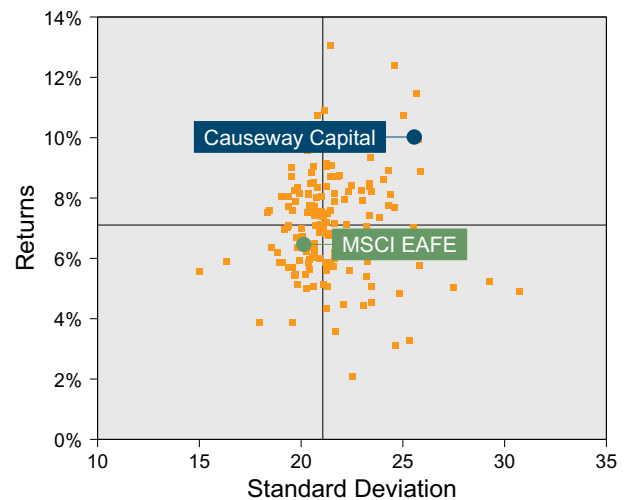
Performance vs Callan NonUS Eq (Gross)



Relative Return vs MSCI EAFE



Callan NonUS Eq (Gross) Annualized Five Year Risk vs Return

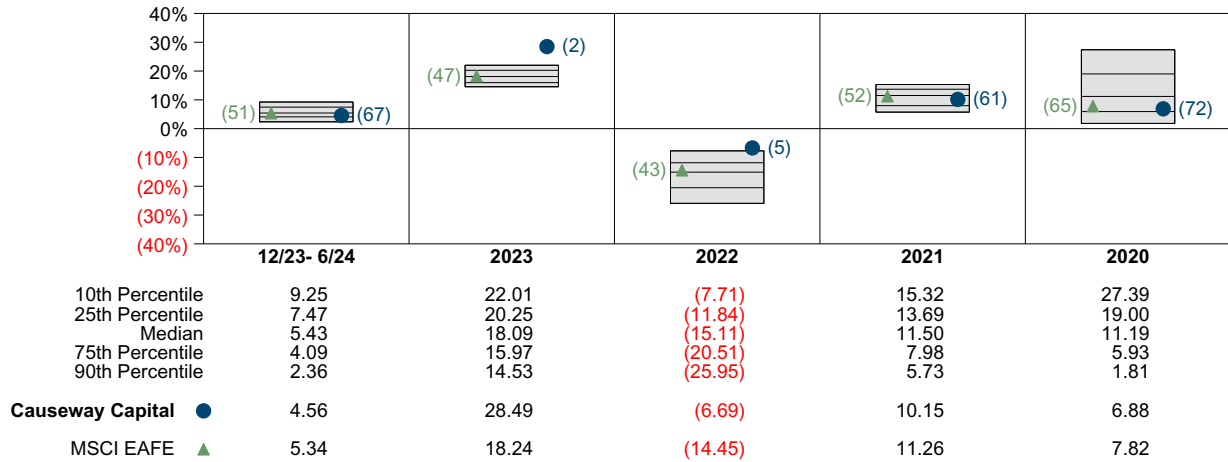


Causeway Capital Return Analysis Summary

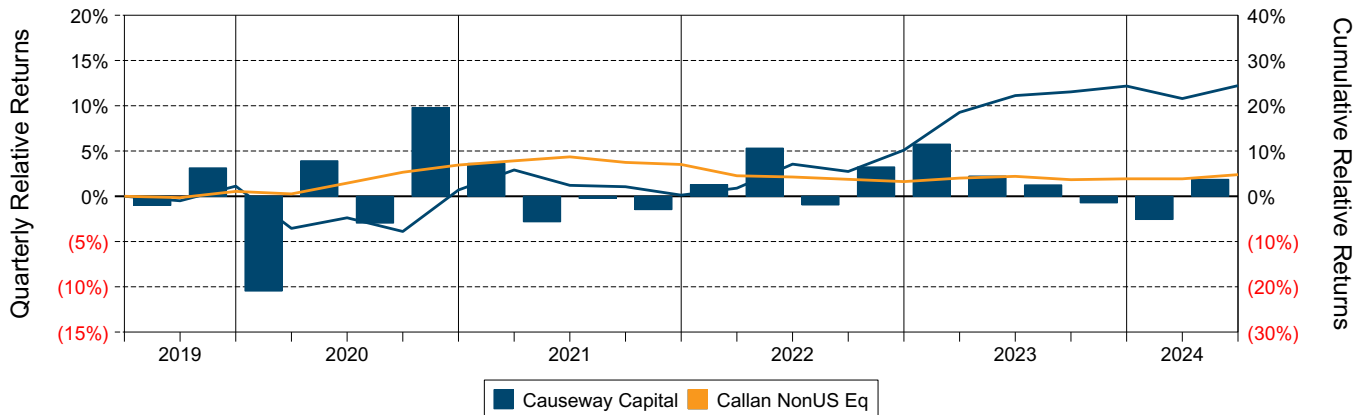
Return Analysis

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.

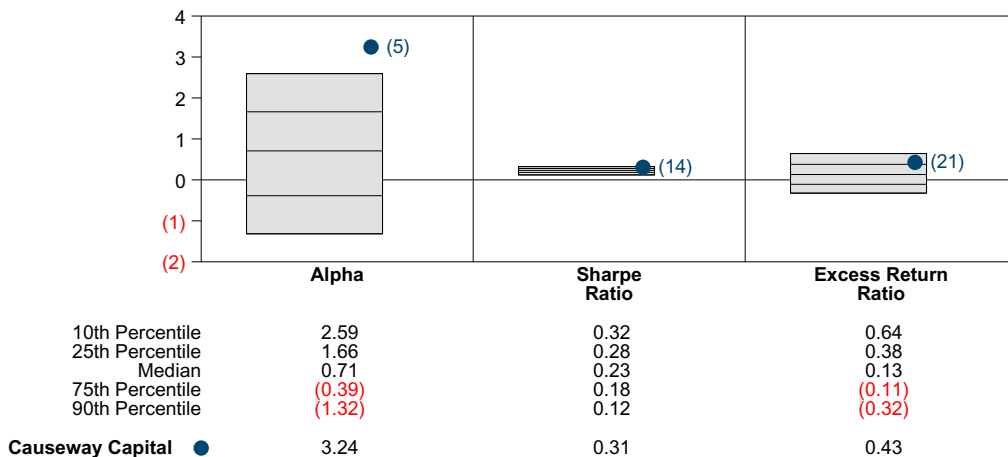
Performance vs Callan NonUS Eq (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EAFE



Risk Adjusted Return Measures vs MSCI EAFE Rankings Against Callan NonUS Eq (Gross) Five Years Ended June 30, 2024

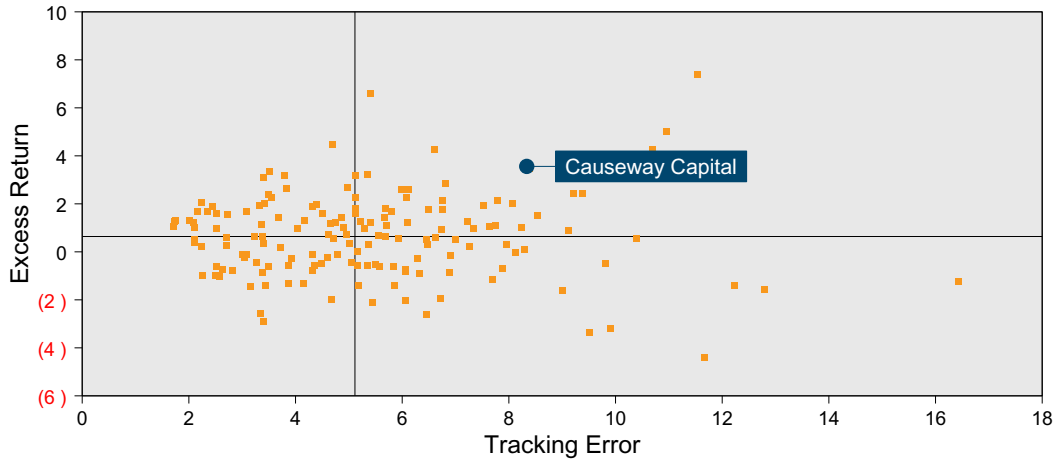


Causeway Capital Risk Analysis Summary

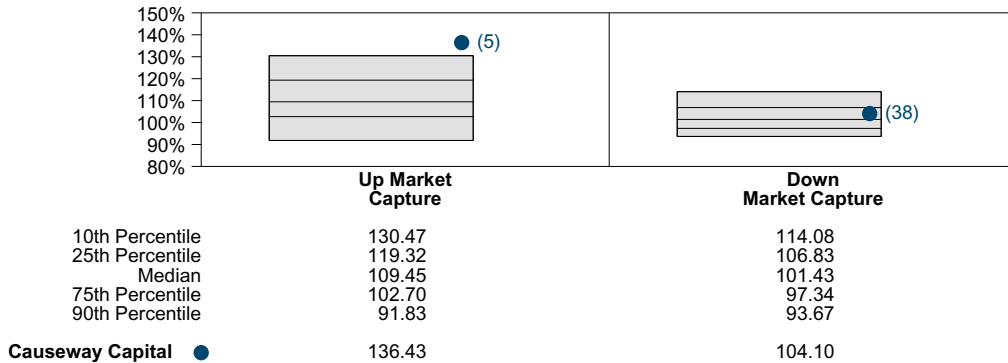
Risk Analysis

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.

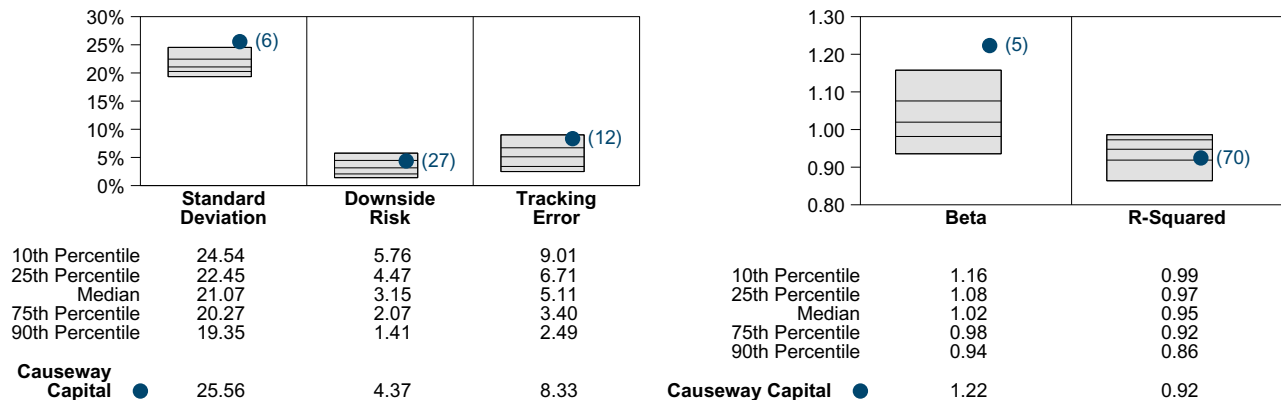
Risk Analysis vs Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



Market Capture vs MSCI EAFE Rankings Against Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



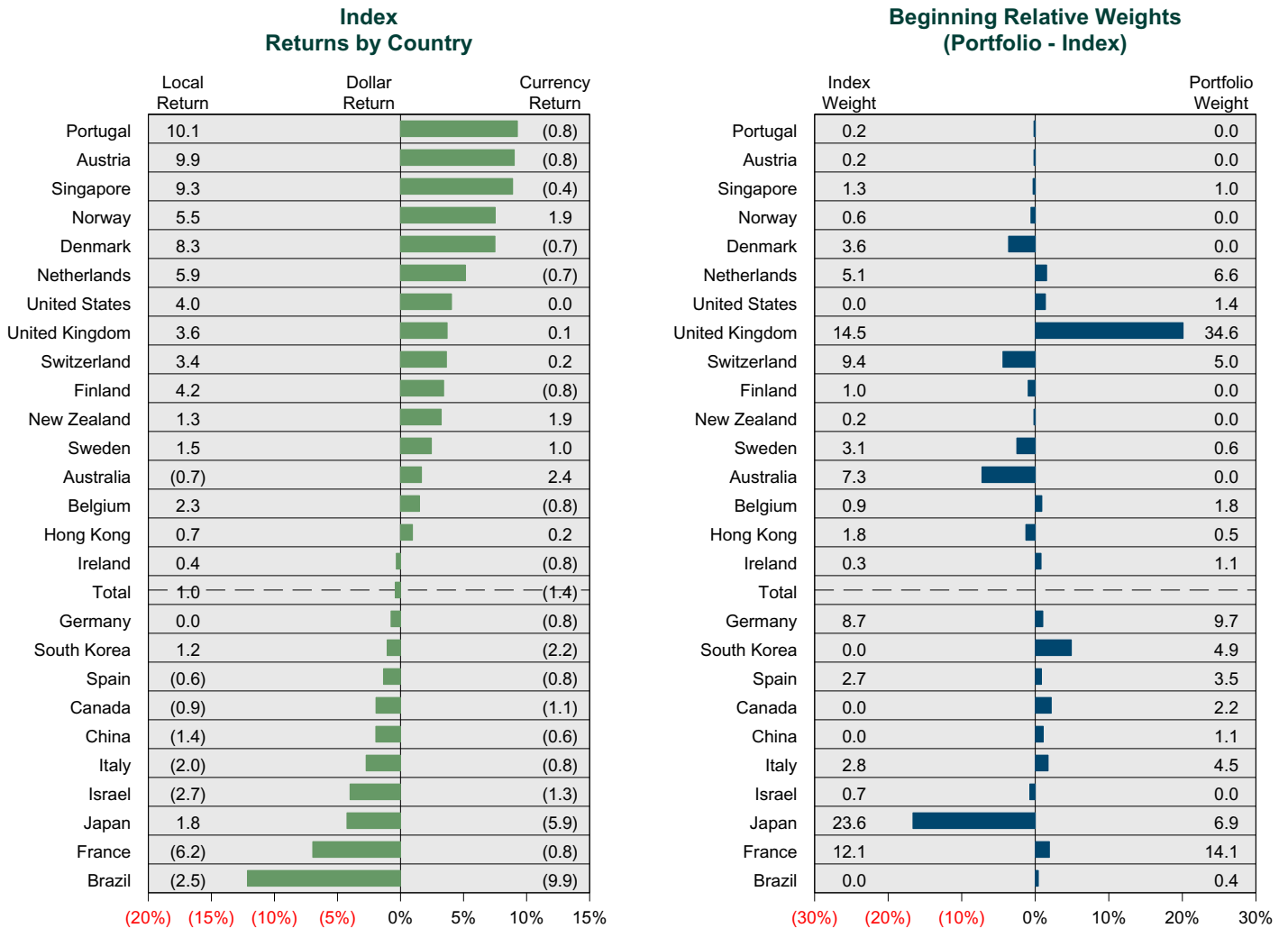
Risk Statistics Rankings vs MSCI EAFE Rankings Against Callan Non-US Equity (Gross) Five Years Ended June 30, 2024



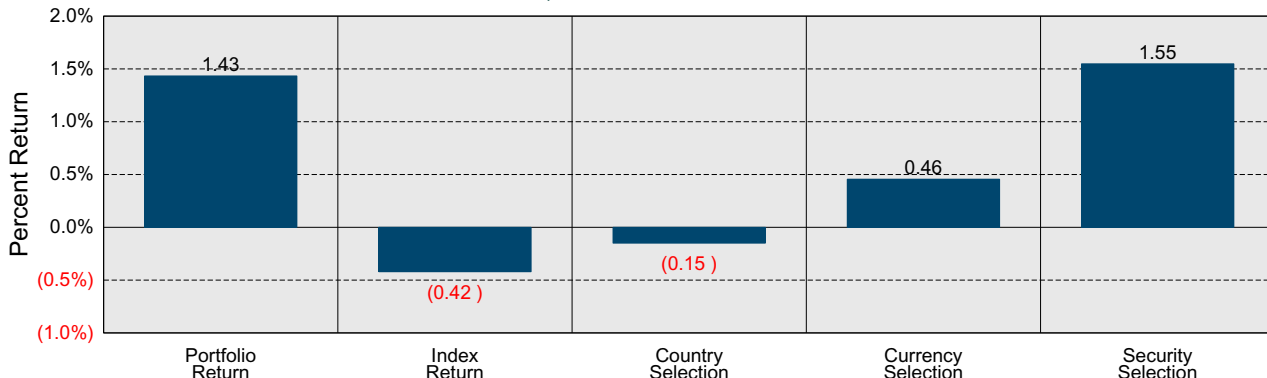
Causeway Capital vs MSCI EAFE Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

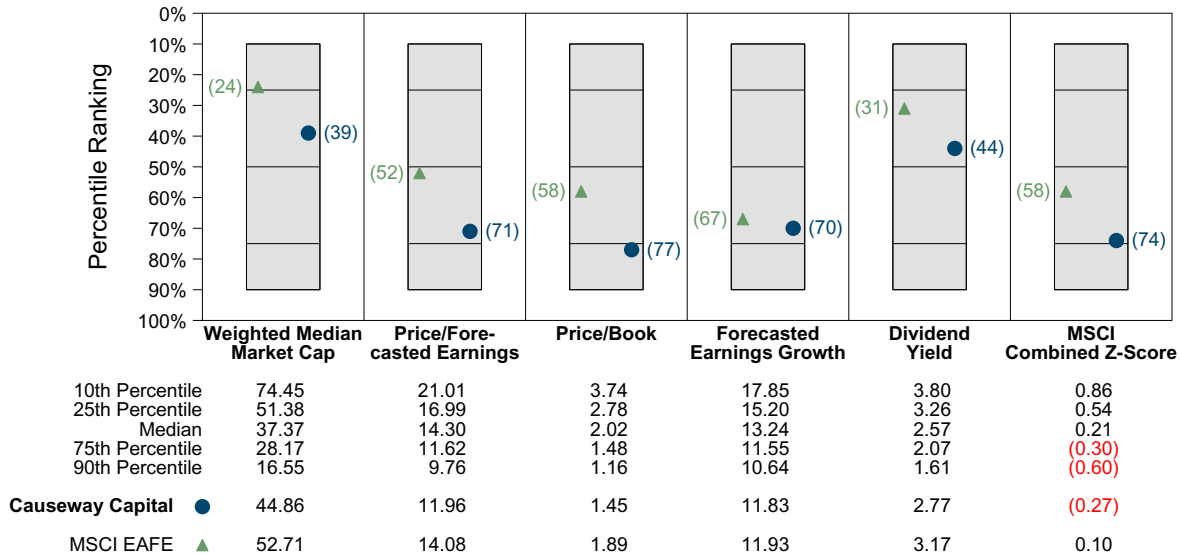


Causeway Capital Equity Characteristics Analysis Summary

Portfolio Characteristics

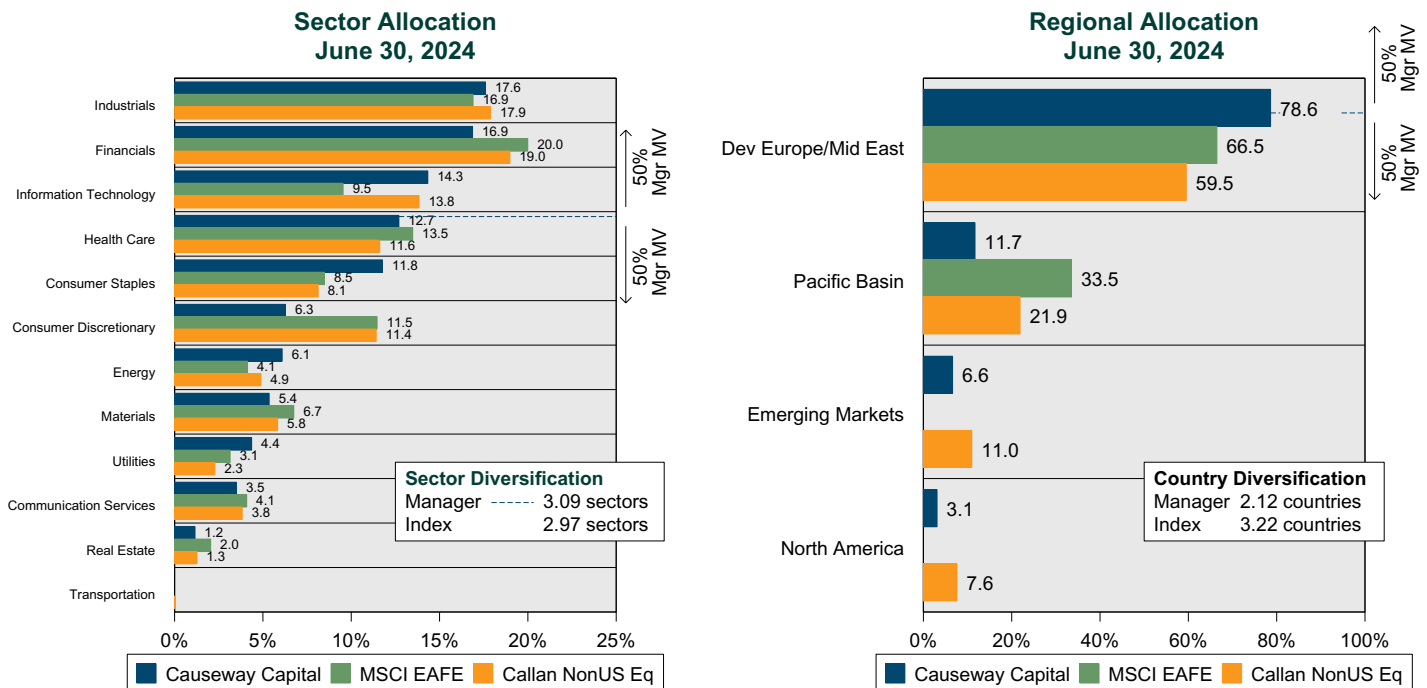
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 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.

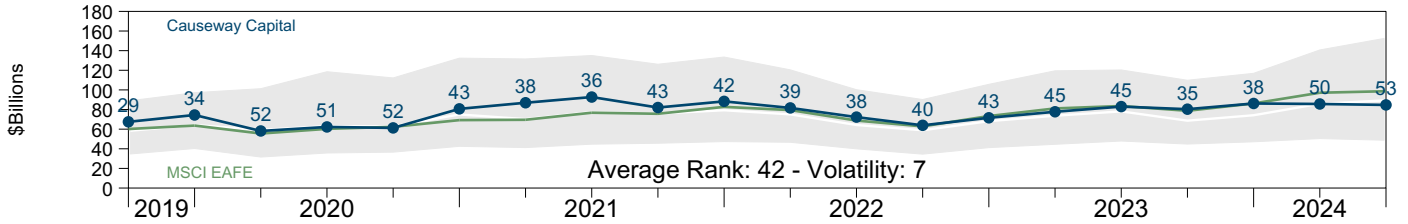


Portfolio Characteristics Analysis

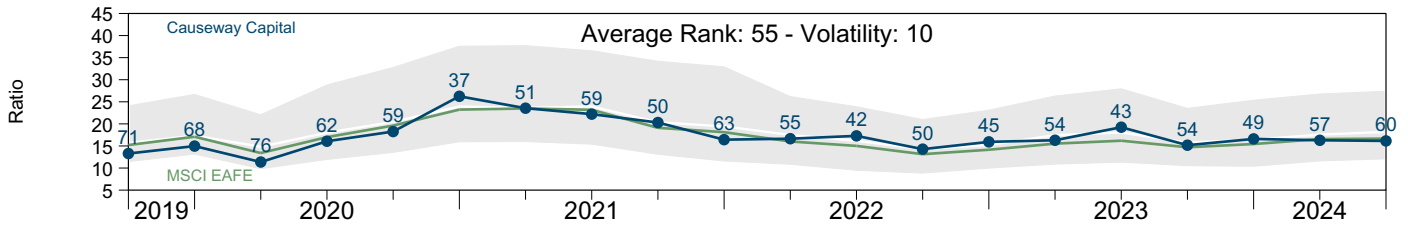
Callan NonUS Eq

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan NonUS Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI EAFE is shown for comparison purposes.

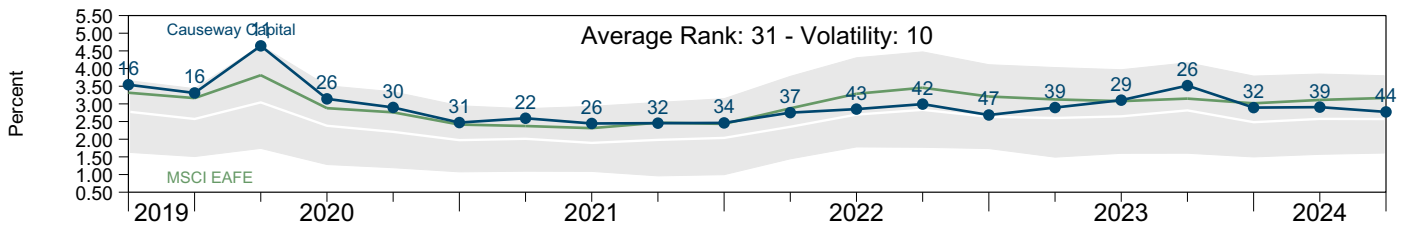
Weighted Average Market Cap



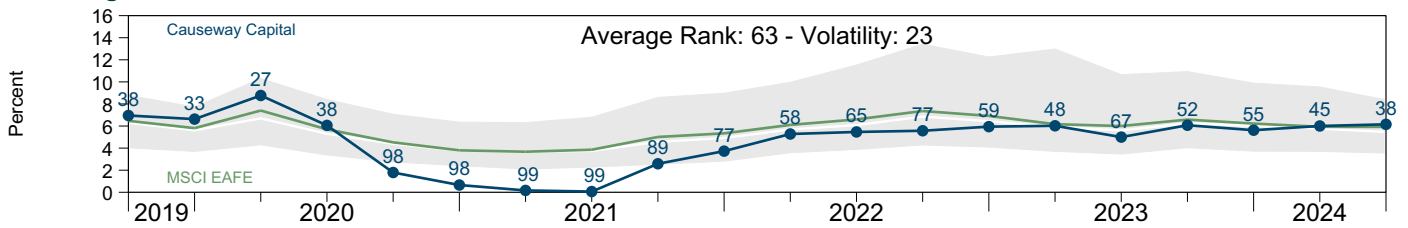
Trailing P/E



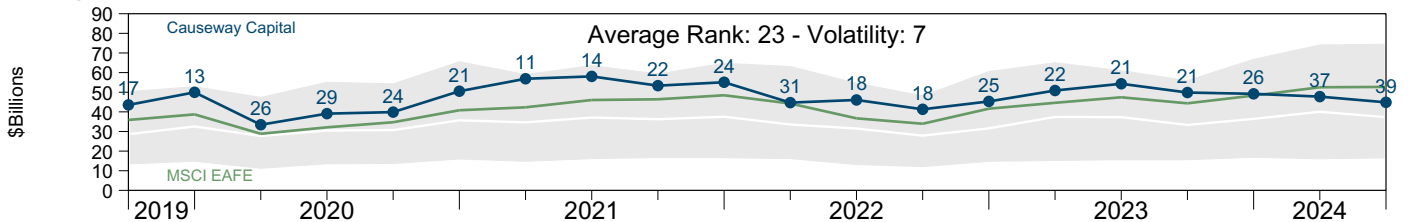
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

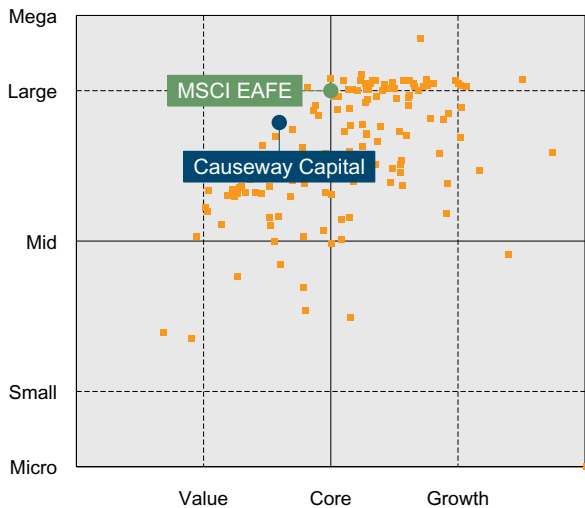
Current Holdings Based Style Analysis

Causeway Capital

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

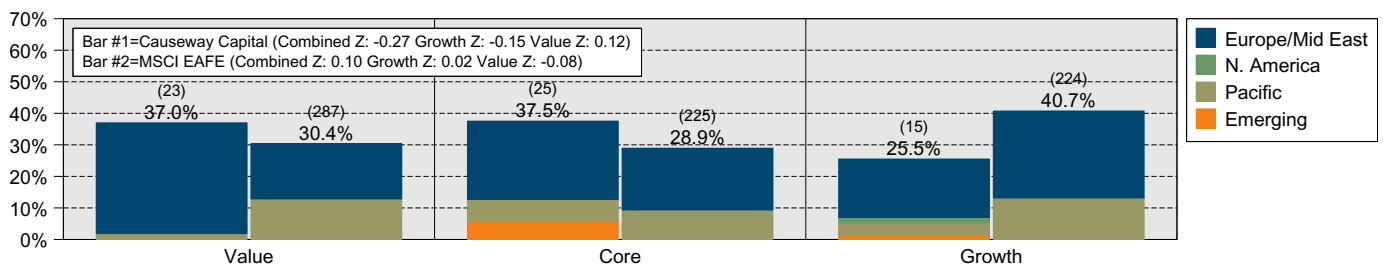
Style Map vs Callan NonUS Eq Holdings as of June 30, 2024



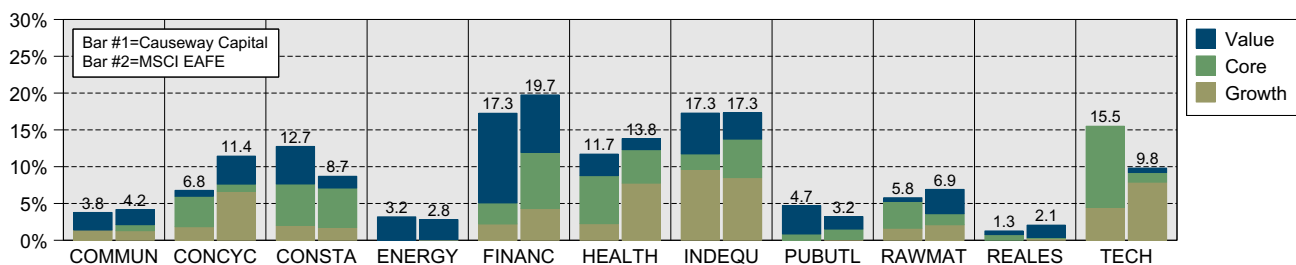
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	35.1% (21) 17.5% (158)	24.8% (17) 19.6% (140)	18.5% (11) 27.6% (127)	78.5% (49) 64.6% (425)
N. America	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	1.7% (1) 0.0% (0)	1.7% (1) 0.0% (0)
Pacific	1.9% (2) 12.9% (129)	6.9% (4) 9.4% (85)	3.9% (2) 13.1% (96)	12.6% (8) 35.3% (310)
Emerging	0.0% (0) 0.0% (0)	5.8% (4) 0.0% (0)	1.4% (1) 0.0% (1)	7.2% (5) 0.0% (1)
Total	37.0% (23) 30.4% (287)	37.5% (25) 28.9% (225)	25.5% (15) 40.7% (224)	100.0% (63) 100.0% (736)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



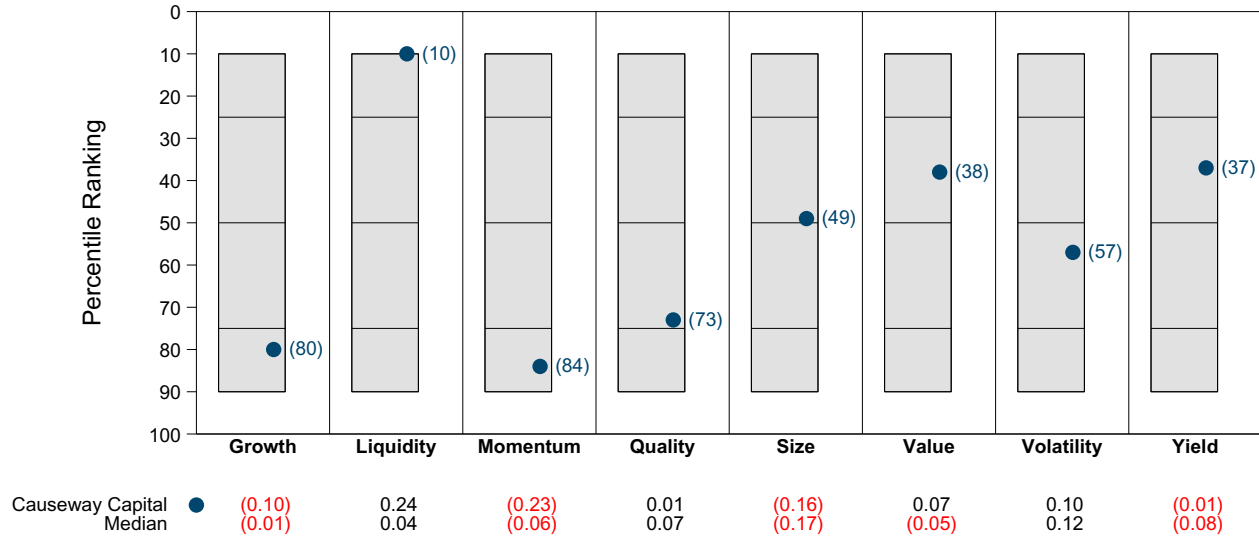
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

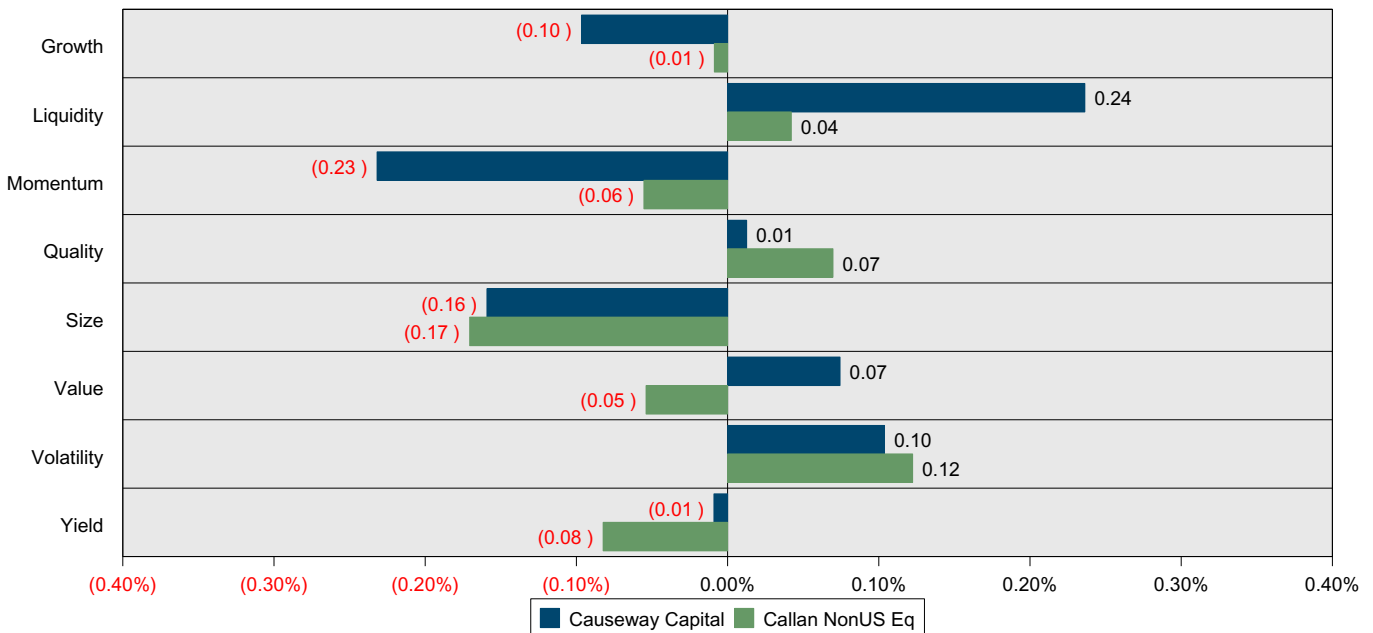
Factor Exposures Relative to MSCI EAFE, Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative to the MSCI EAFE.

Factor Exposures Relative to MSCI EAFE for Period Ended June 30, 2024



Lazard
Period Ended June 30, 2024

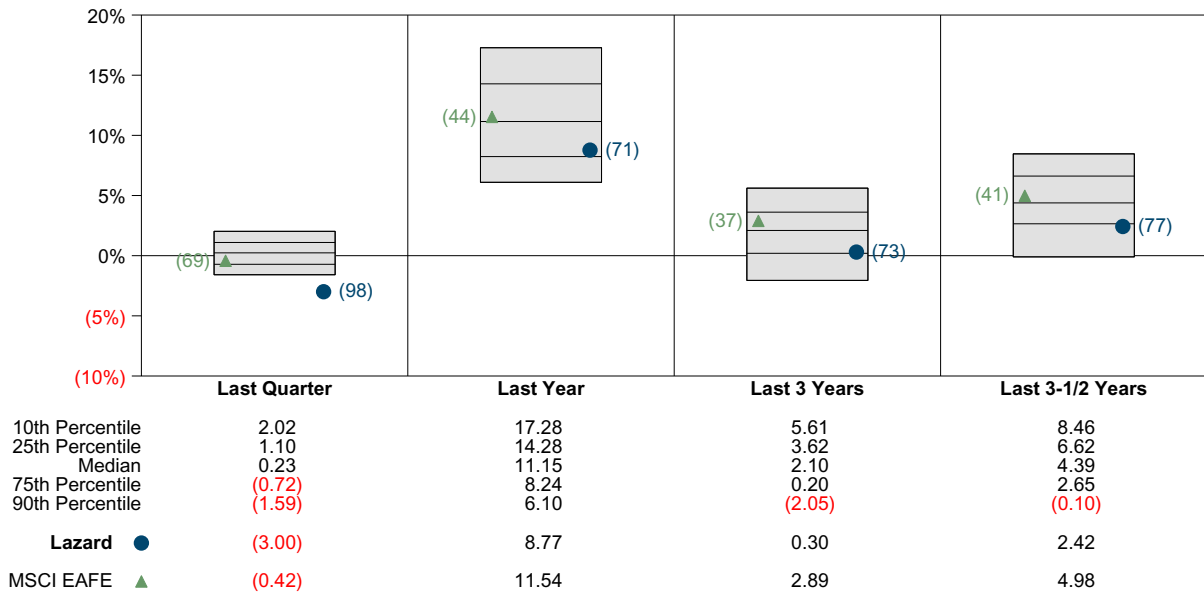
Investment Philosophy

The International Strategic Equity strategy is based on Lazard’s "relative value", bottom-up philosophy, typically buying companies with sustainable returns (i.e., ROE) above that of the market. The team consists of five portfolio managers supported by approximately 80 central research analysts. The portfolio usually holds 55 to 70 securities with an expected annual turnover of 30%-50%. Given the investment process, portfolio characteristics can oscillate around core with the focus on quality and can provide a growth tilt at times. NHRS inception in the fund is November 2020.

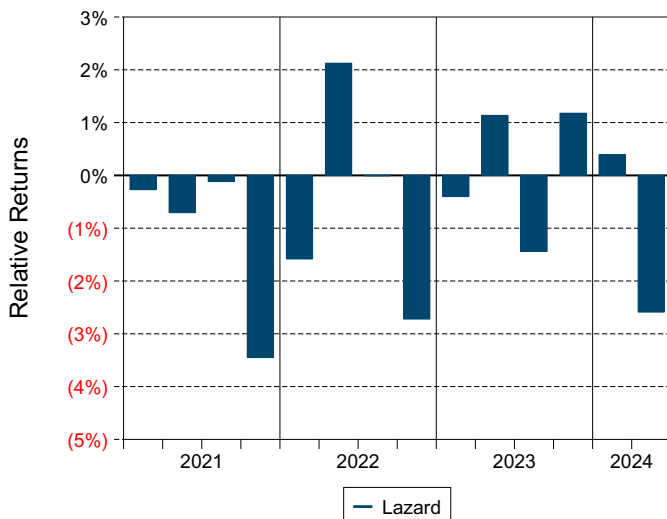
Quarterly Asset Growth

Beginning Market Value	\$174,571,157
Net New Investment	\$0
Investment Gains/(Losses)	\$-5,232,077
Ending Market Value	\$169,339,080

Performance vs Callan NonUS Eq (Gross)

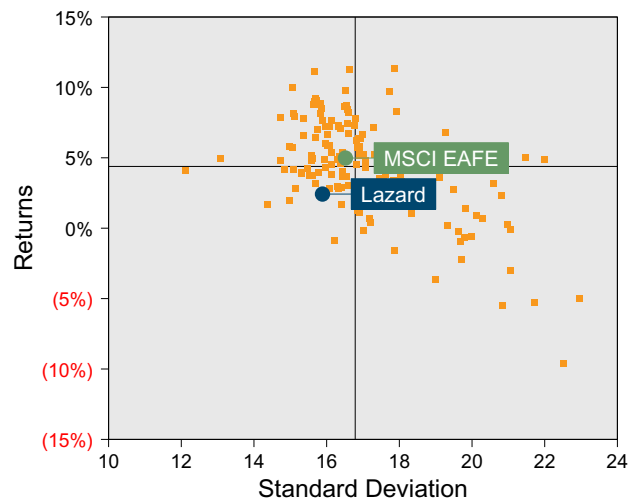


Relative Return vs MSCI EAFE



Callan NonUS Eq (Gross)

Annualized Three and One-Half Year Risk vs Return

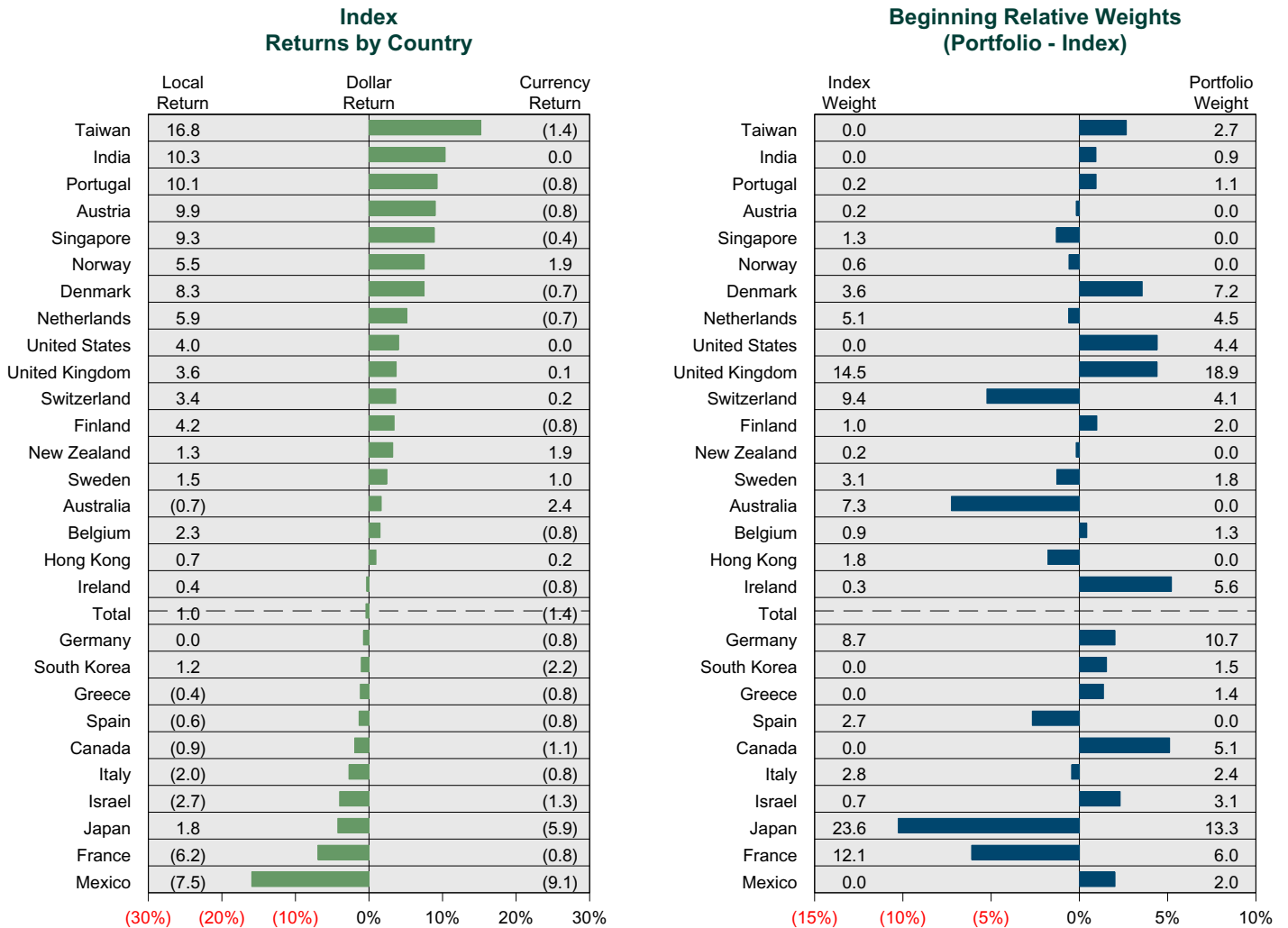


Lazard vs MSCI EAFE

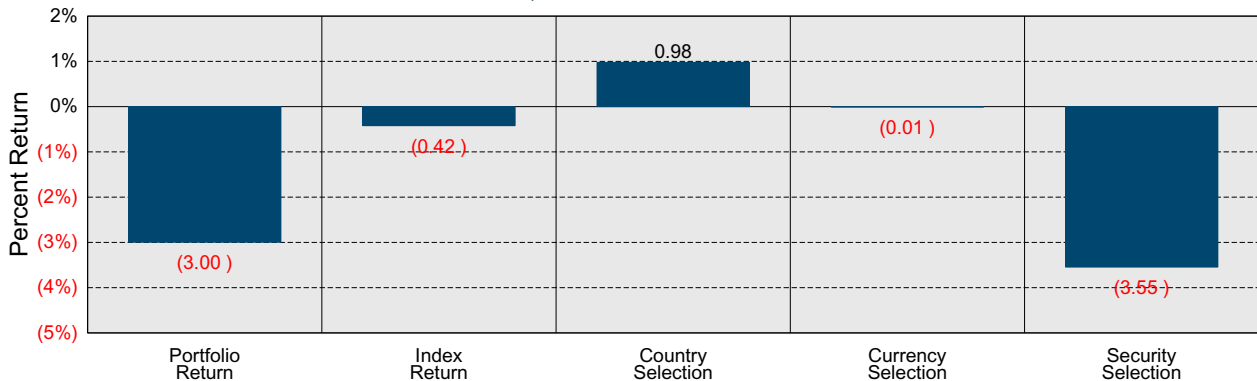
Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

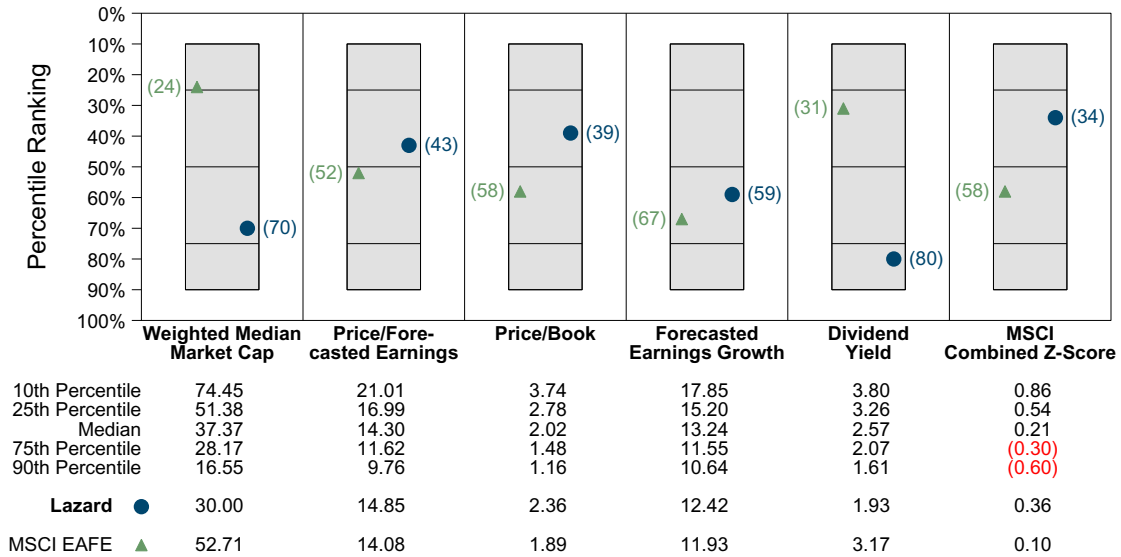


Lazard Equity Characteristics Analysis Summary

Portfolio Characteristics

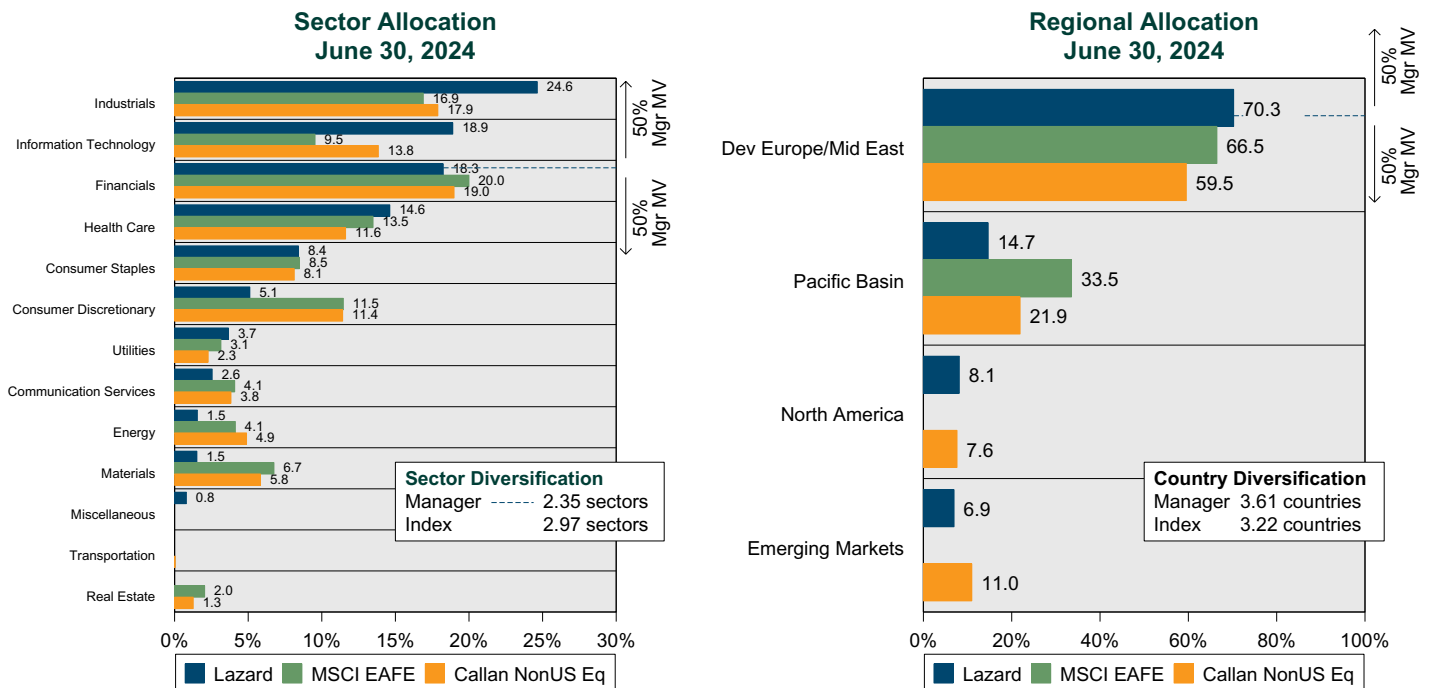
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity as of June 30, 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.

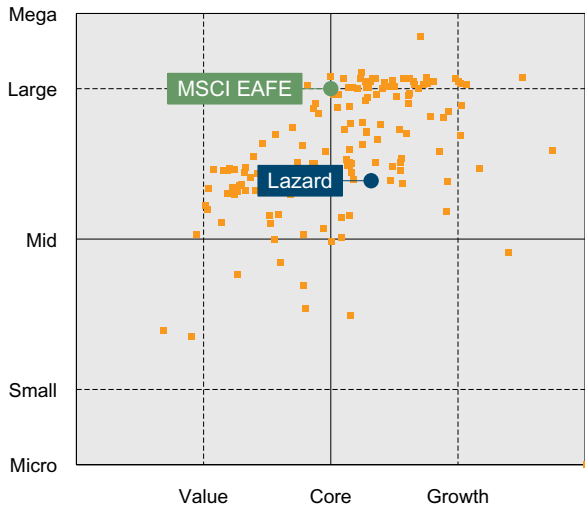


Current Holdings Based Style Analysis

Lazard As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

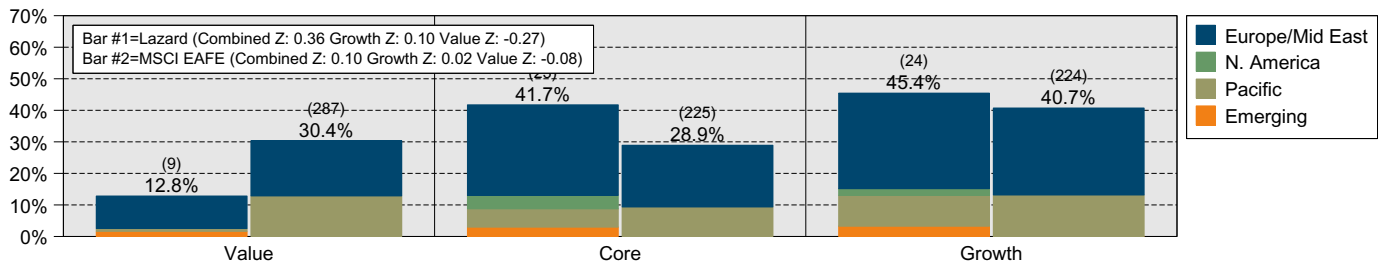
Style Map vs Callan NonUS Eq Holdings as of June 30, 2024



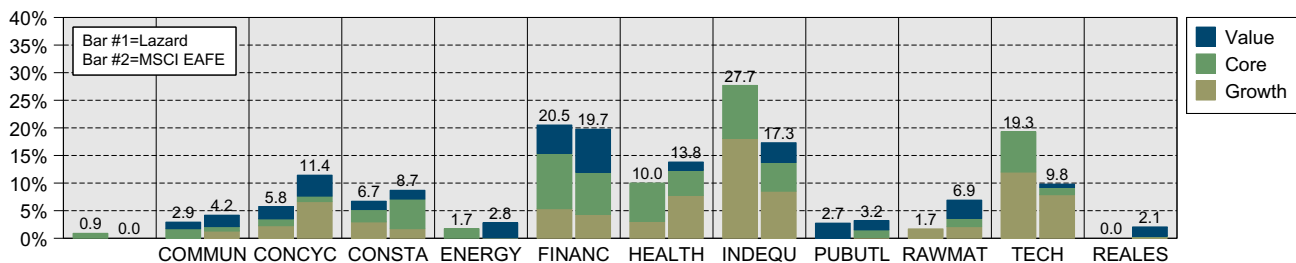
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	10.3% (7) 17.5% (158)	28.7% (14) 19.6% (140)	30.3% (14) 27.6% (127)	69.3% (35) 64.6% (425)
N. America	0.0% (0) 0.0% (0)	4.3% (3) 0.0% (0)	2.1% (1) 0.0% (0)	6.4% (4) 0.0% (0)
Pacific	0.9% (1) 12.9% (129)	5.8% (4) 9.4% (85)	9.8% (7) 13.1% (96)	16.5% (12) 35.3% (310)
Emerging	1.6% (1) 0.0% (0)	3.0% (2) 0.0% (0)	3.2% (2) 0.0% (1)	7.8% (5) 0.0% (1)
Total	12.8% (9) 30.4% (287)	41.7% (23) 28.9% (225)	45.4% (24) 40.7% (224)	100.0% (56) 100.0% (736)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



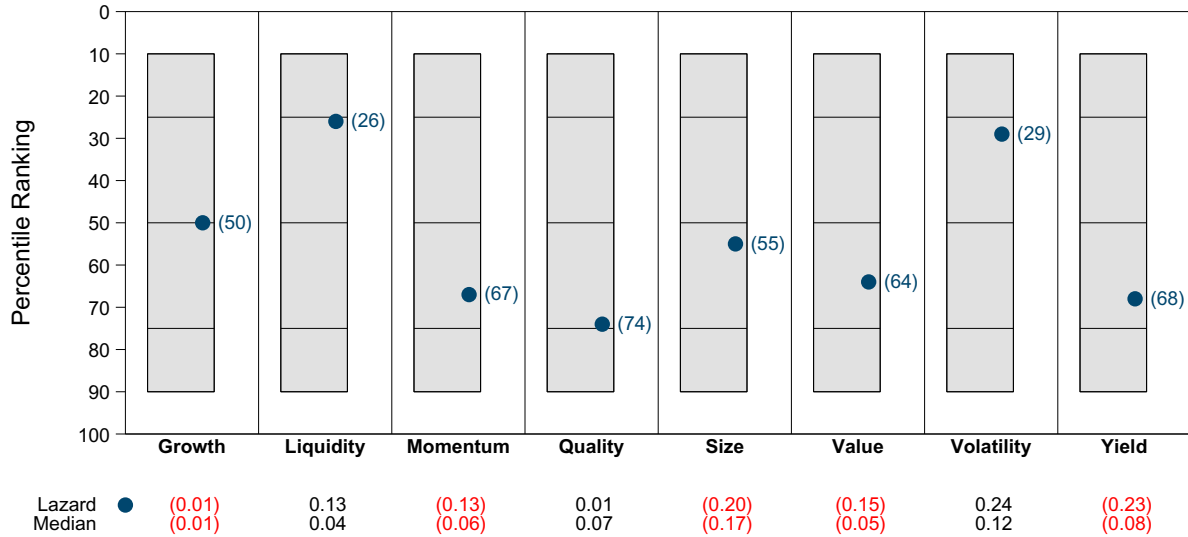
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Non-US Equity group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

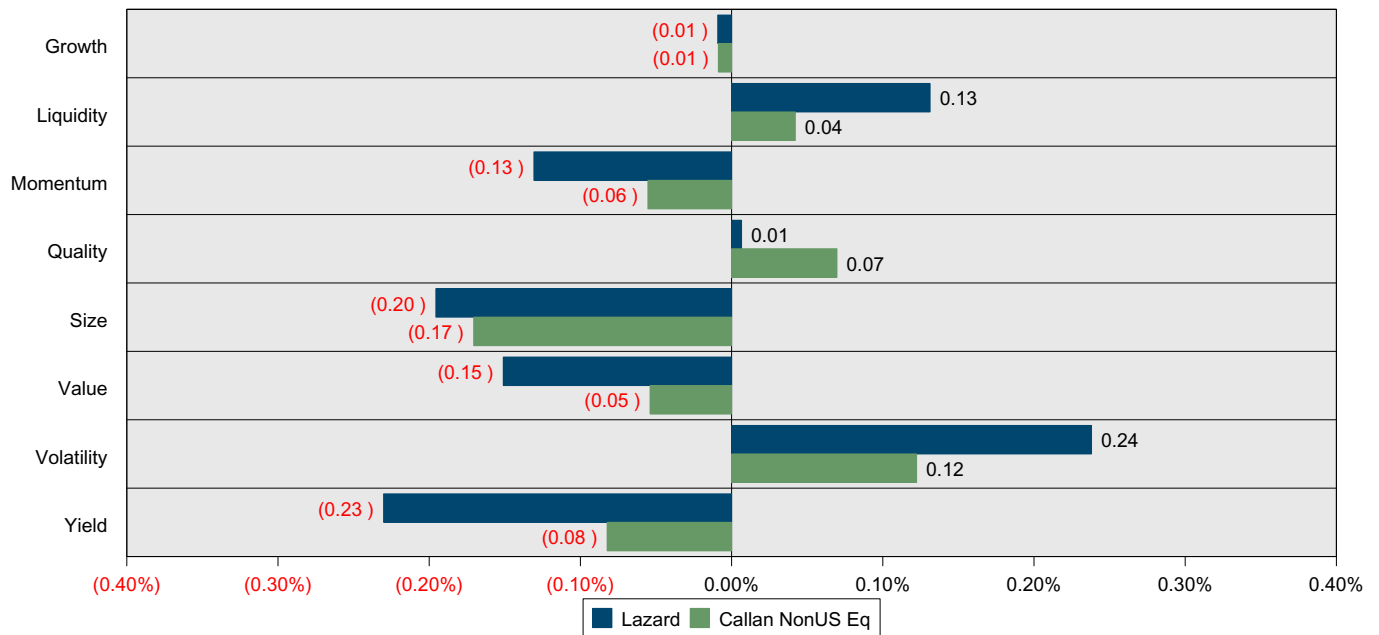
Factor Exposures Relative to MSCI EAFE, Rankings vs Callan Non-US Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Non-US Equity group relative to the MSCI EAFE.

Factor Exposures Relative to MSCI EAFE for Period Ended June 30, 2024



Emerging Markets Period Ended June 30, 2024

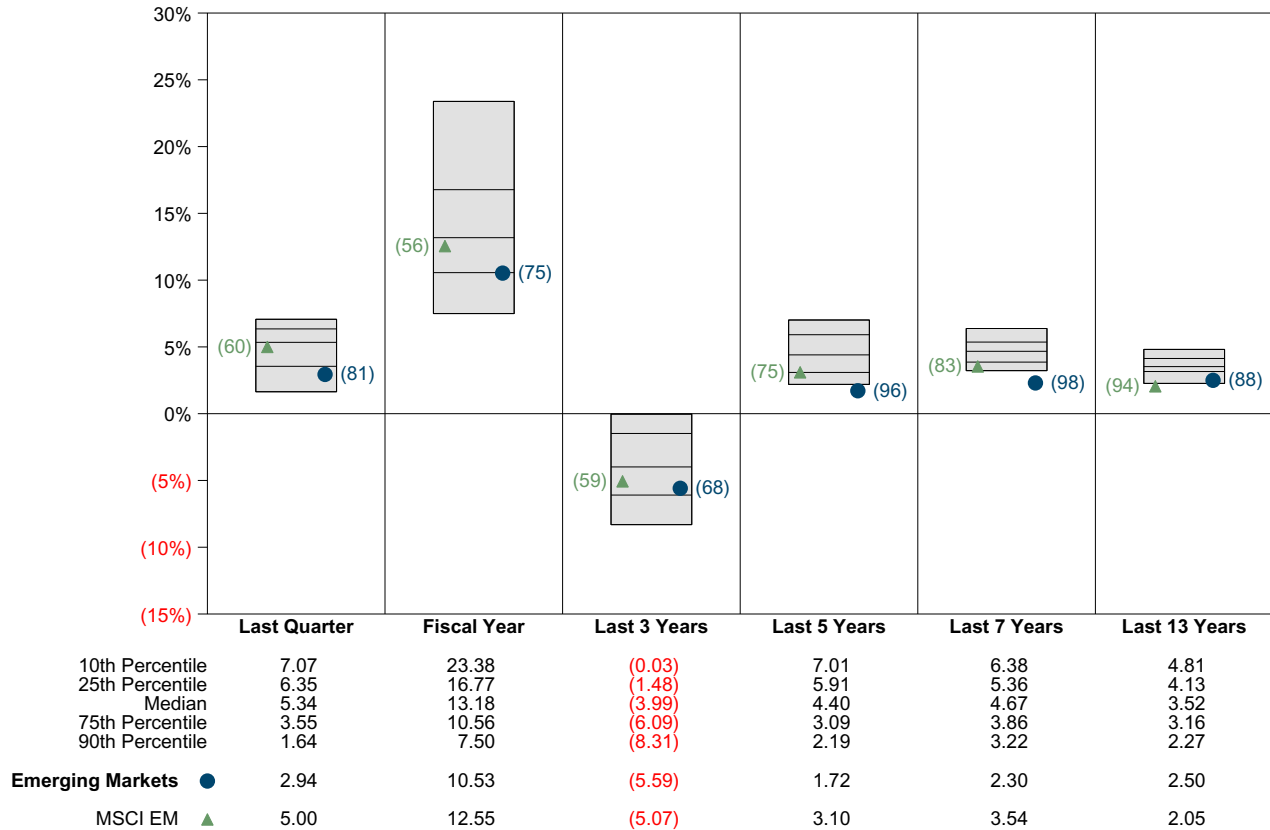
Quarterly Summary and Highlights

- Emerging Markets's portfolio posted a 2.94% return for the quarter placing it in the 81 percentile of the Callan Emerging Core group for the quarter and in the 75 percentile for the last year.
- Emerging Markets's portfolio underperformed the MSCI EM by 2.06% for the quarter and underperformed the MSCI EM for the year by 2.02%.

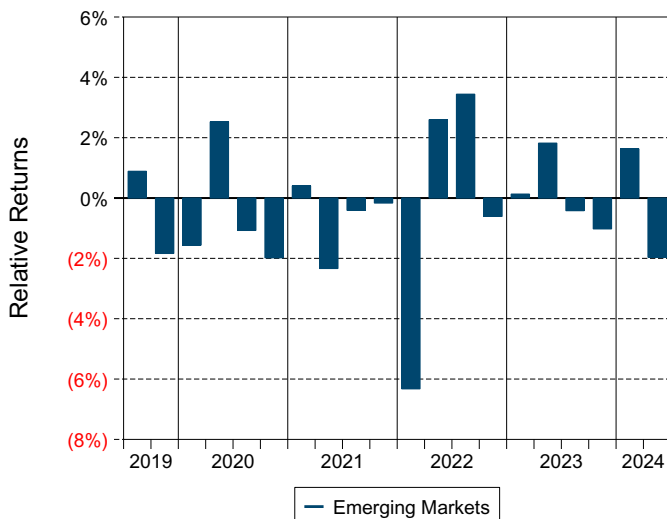
Quarterly Asset Growth

Beginning Market Value	\$174,677,138
Net New Investment	\$0
Investment Gains/(Losses)	\$5,135,923
Ending Market Value	\$179,813,061

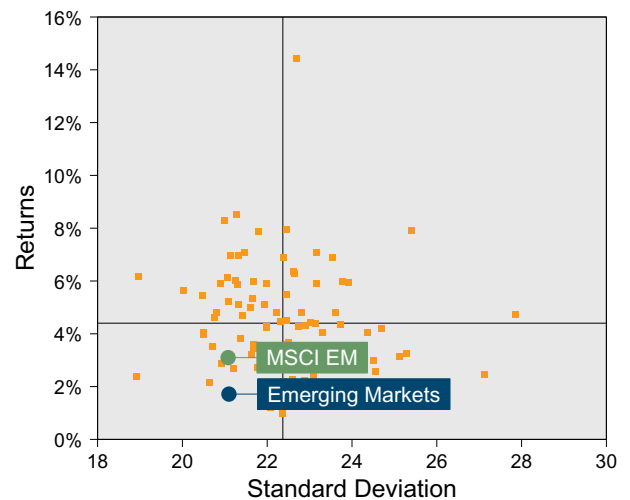
Performance vs Callan Emerging Core (Gross)



Relative Return vs MSCI EM



Callan Emerging Core (Gross) Annualized Five Year Risk vs Return

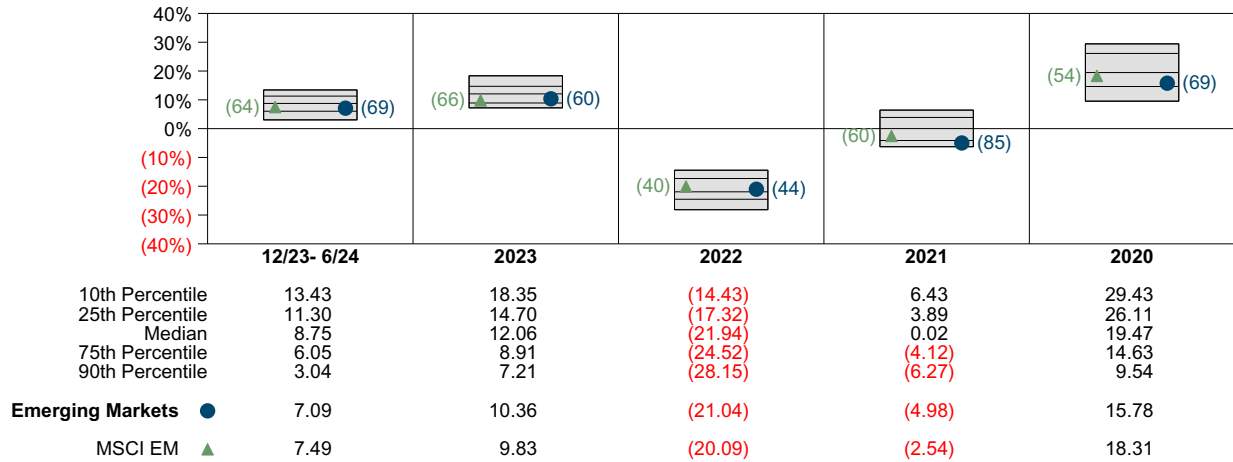


Emerging Markets Return Analysis Summary

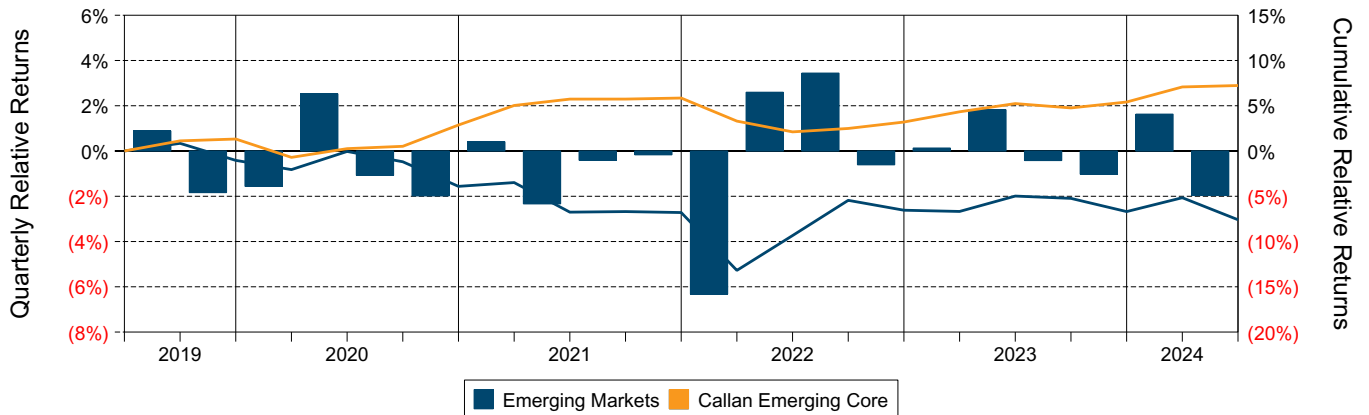
Return Analysis

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

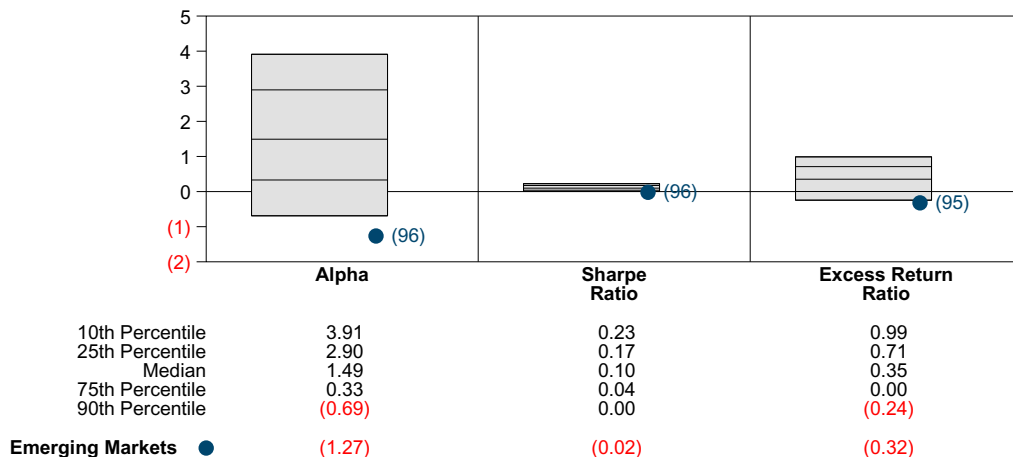
Performance vs Callan Emerging Core (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024

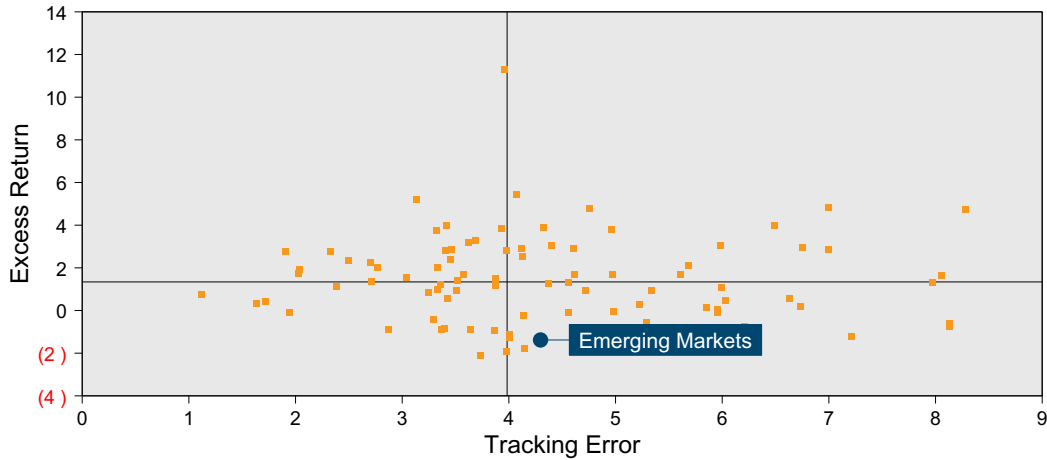


Emerging Markets Risk Analysis Summary

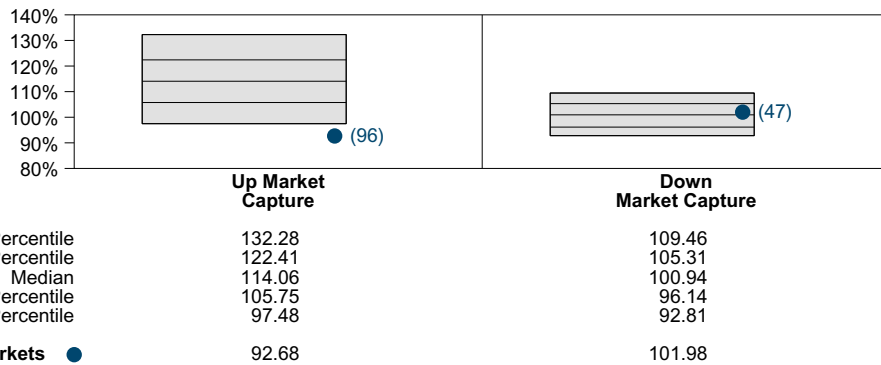
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

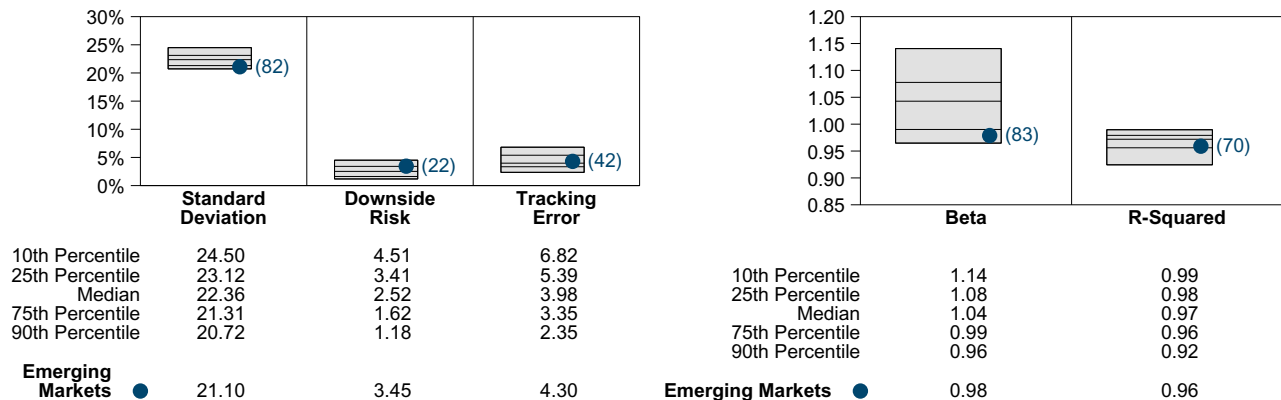
Risk Analysis vs Callan Emerging Core (Gross) Five Years Ended June 30, 2024



Market Capture vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024



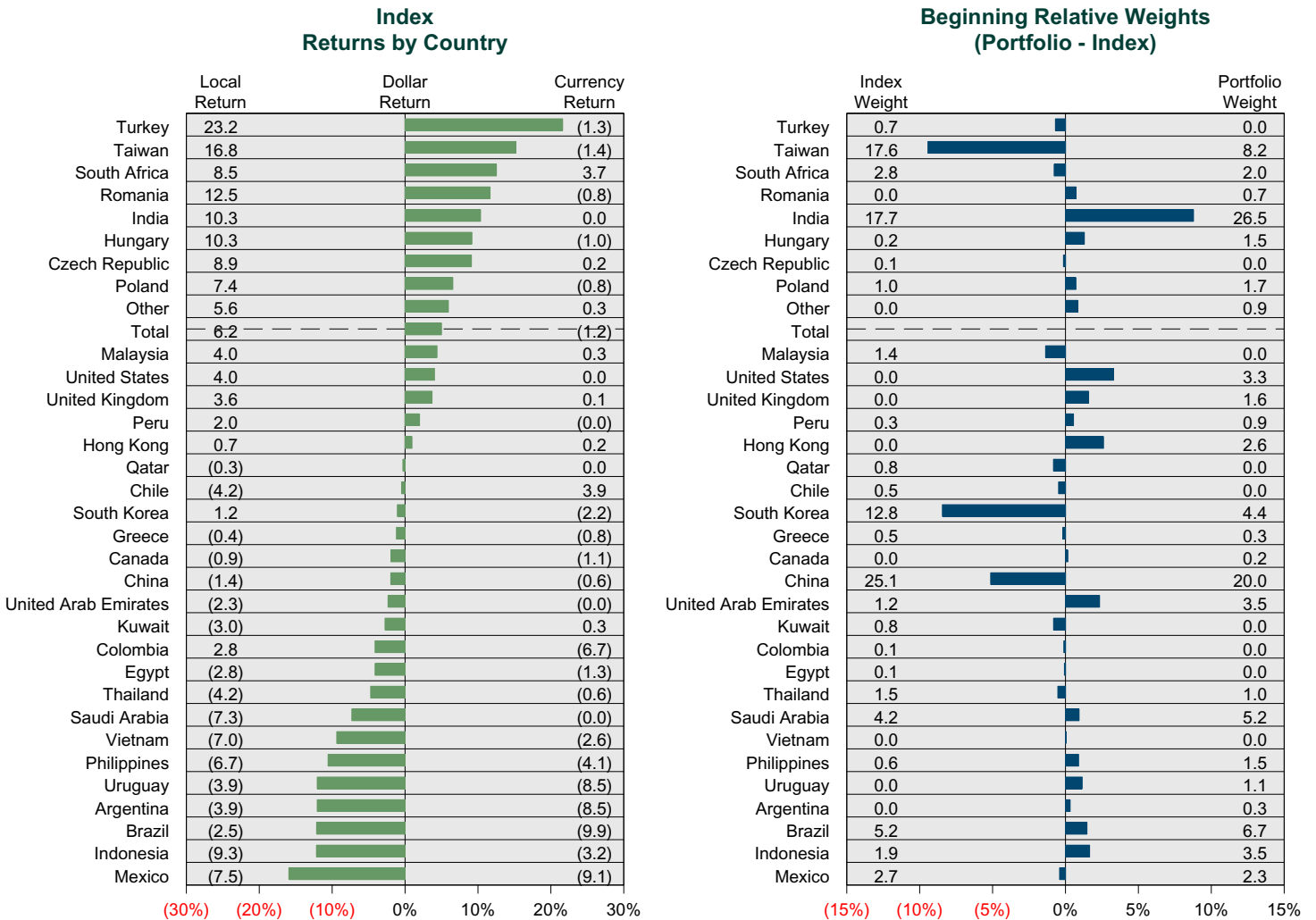
Risk Statistics Rankings vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024



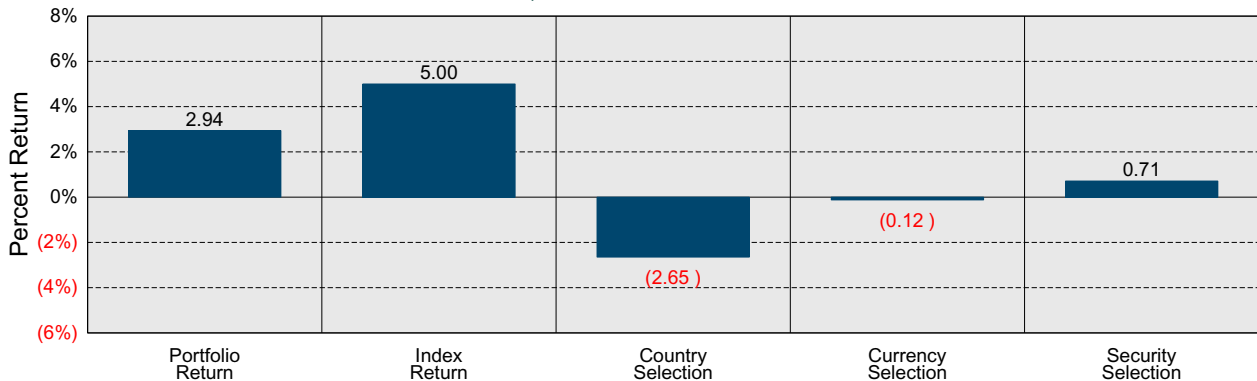
Emerging Markets vs MSCI EM Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

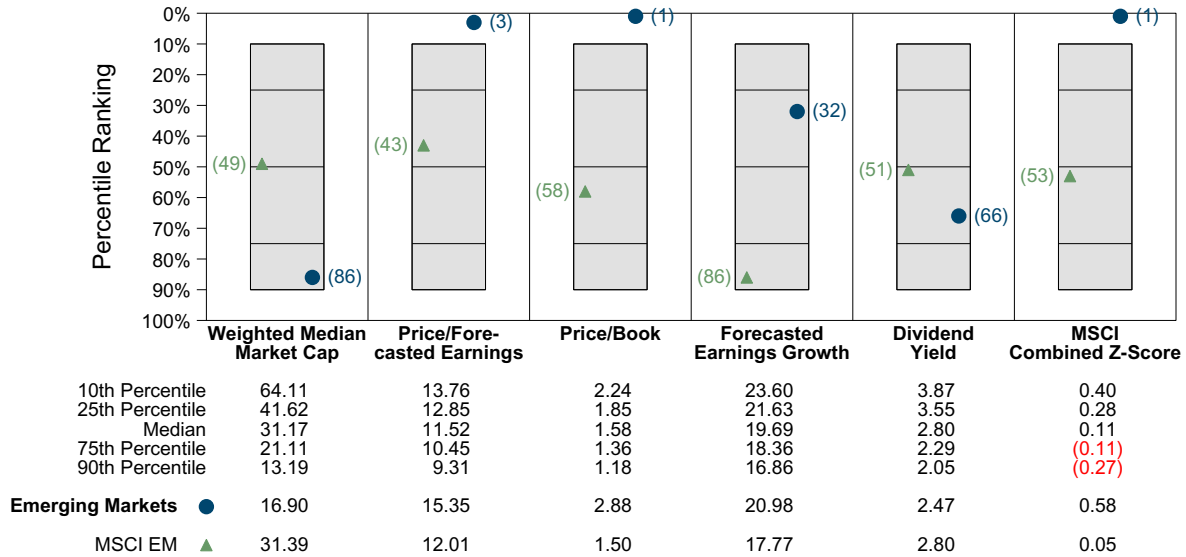


Emerging Markets Equity Characteristics Analysis Summary

Portfolio Characteristics

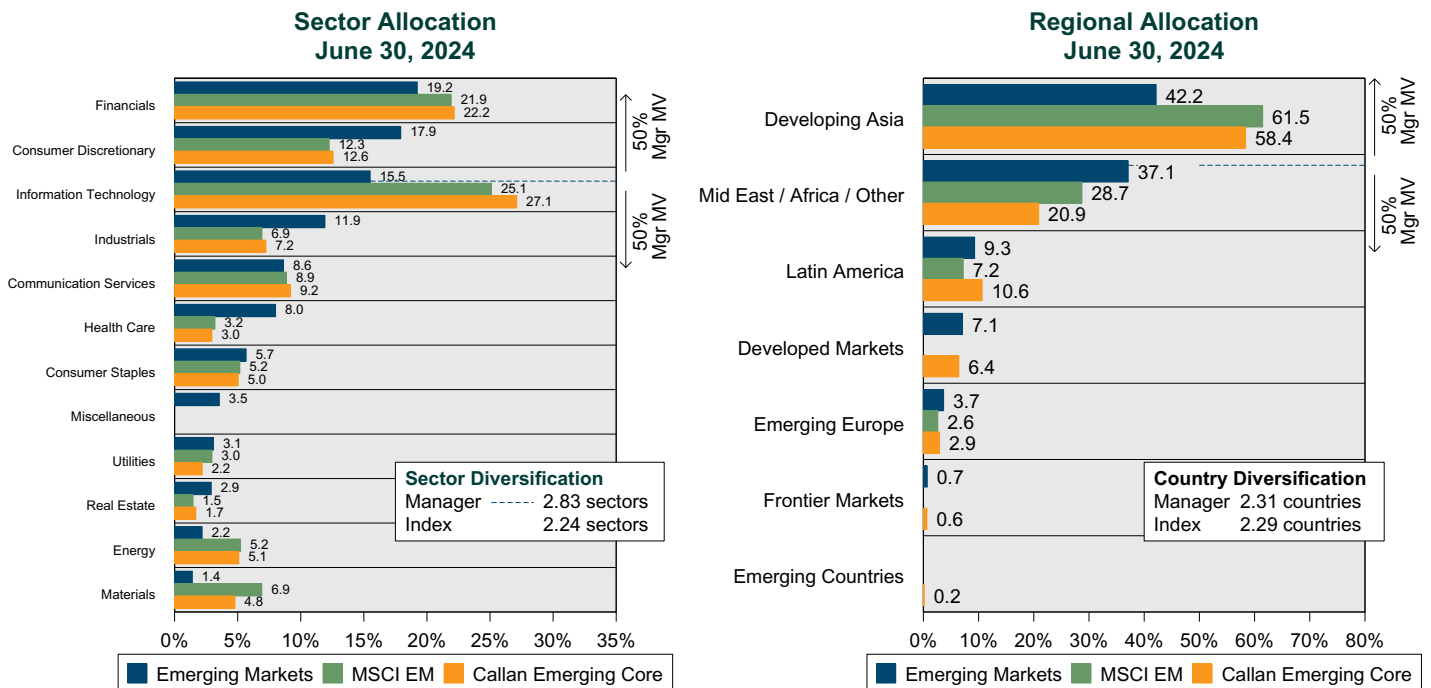
This graph compares the portfolio's characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Core as of June 30, 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.

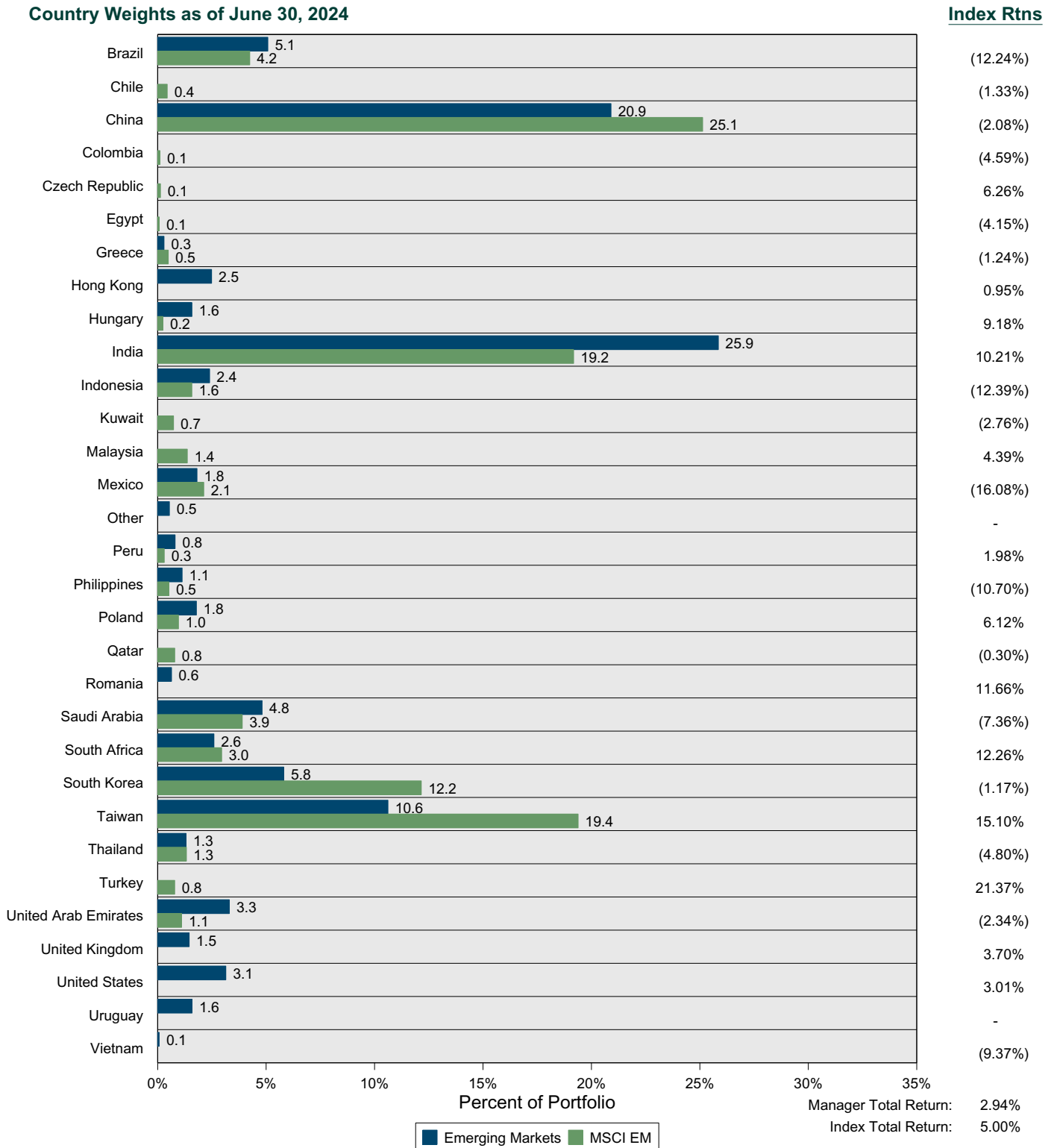


Country Allocation Emerging Markets VS MSCI Emerging Markets (Net)

Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of June 30, 2024. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

Country Weights as of June 30, 2024



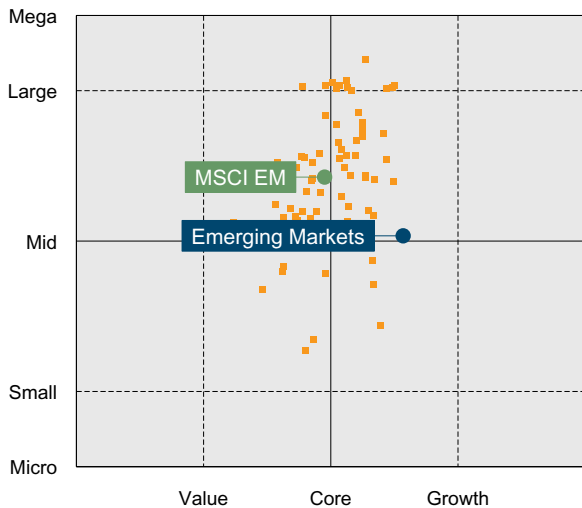
Current Holdings Based Style Analysis

Emerging Markets

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

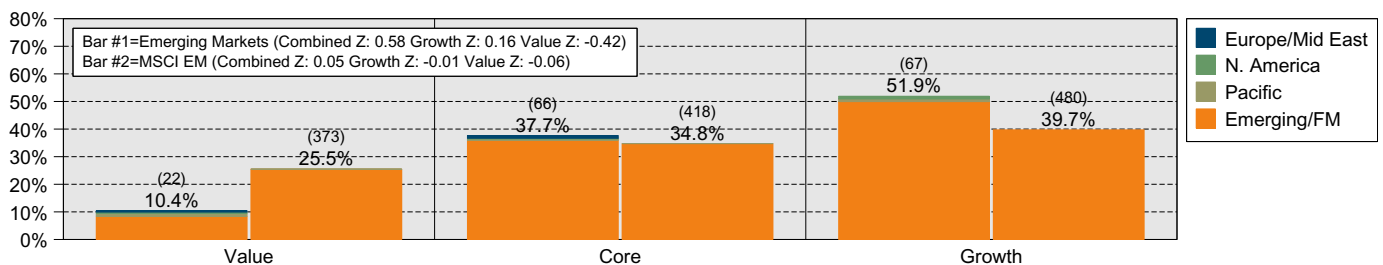
Style Map vs Callan Emerging Core Holdings as of June 30, 2024



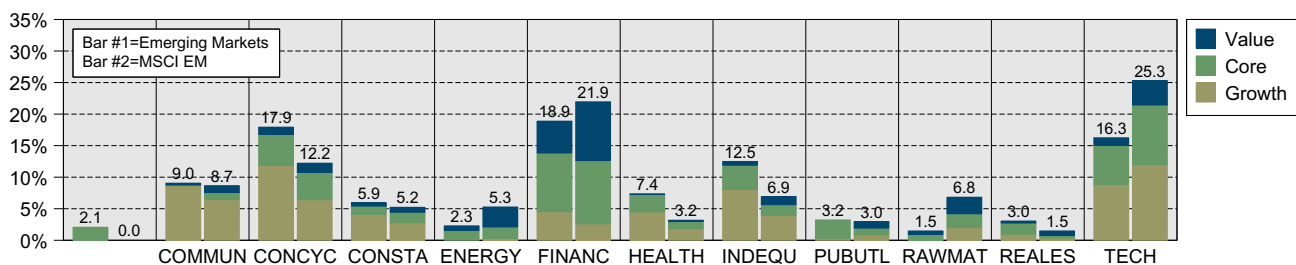
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	0.5% (1) 0.0% (0)	1.0% (2) 0.0% (0)	0.0% (0) 0.0% (0)	1.5% (3) 0.0% (0)
N. America	0.4% (1) 0.0% (0)	0.3% (1) 0.0% (0)	1.0% (2) 0.0% (0)	1.6% (4) 0.0% (0)
Pacific	1.2% (1) 0.0% (1)	0.5% (1) 0.0% (1)	1.0% (2) 0.0% (0)	2.6% (4) 0.1% (2)
Emerging/ FM	8.4% (19) 25.5% (372)	35.9% (62) 34.7% (417)	50.0% (63) 39.7% (480)	94.2% (144) 99.9% (1269)
Total	10.4% (22) 25.5% (373)	37.7% (66) 34.8% (418)	51.9% (67) 39.7% (480)	100.0% (155) 100.0% (1271)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



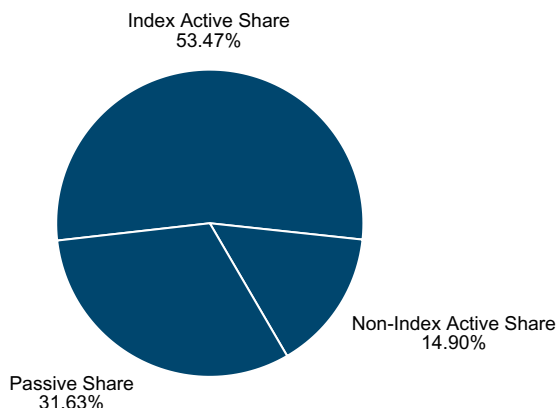
Sector Weights Distribution Holdings as of June 30, 2024



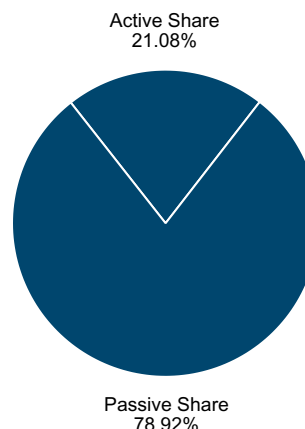
Emerging Markets Active Share Analysis as of June 30, 2024 vs. MSCI Emerging Markets (Net)

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.

Holdings-Level Active Share



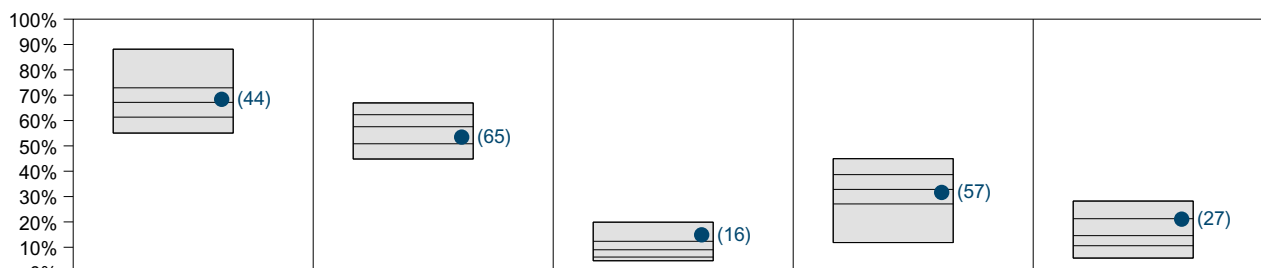
Sector Exposure Active Share



Total Active Share: 68.37%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	38.87%	3.65%	42.52%	8.87%	8.63%	3.66%
Consumer Discretionary	45.62%	16.87%	62.50%	12.25%	17.92%	9.74%
Consumer Staples	71.65%	6.72%	78.37%	5.17%	5.67%	4.30%
Energy	53.15%	0.00%	53.15%	5.23%	2.18%	1.38%
Financials	65.80%	6.37%	72.17%	21.92%	19.23%	14.67%
Health Care	49.11%	32.77%	81.88%	3.20%	8.00%	5.02%
Industrials	65.13%	18.13%	83.25%	6.92%	11.91%	8.08%
Information Technology	37.92%	9.15%	47.06%	25.12%	15.50%	10.94%
Materials	56.06%	43.15%	99.21%	6.91%	1.41%	4.10%
Miscellaneous	0.00%	100.00%	100.00%	-	3.55%	0.79%
Real Estate	61.38%	18.68%	80.06%	1.46%	2.91%	1.89%
Utilities	66.19%	27.06%	93.25%	2.96%	3.08%	2.82%
Total	53.47%	14.90%	68.37%	100.00%	100.00%	67.39%

Active Share vs. Callan Emerging Core

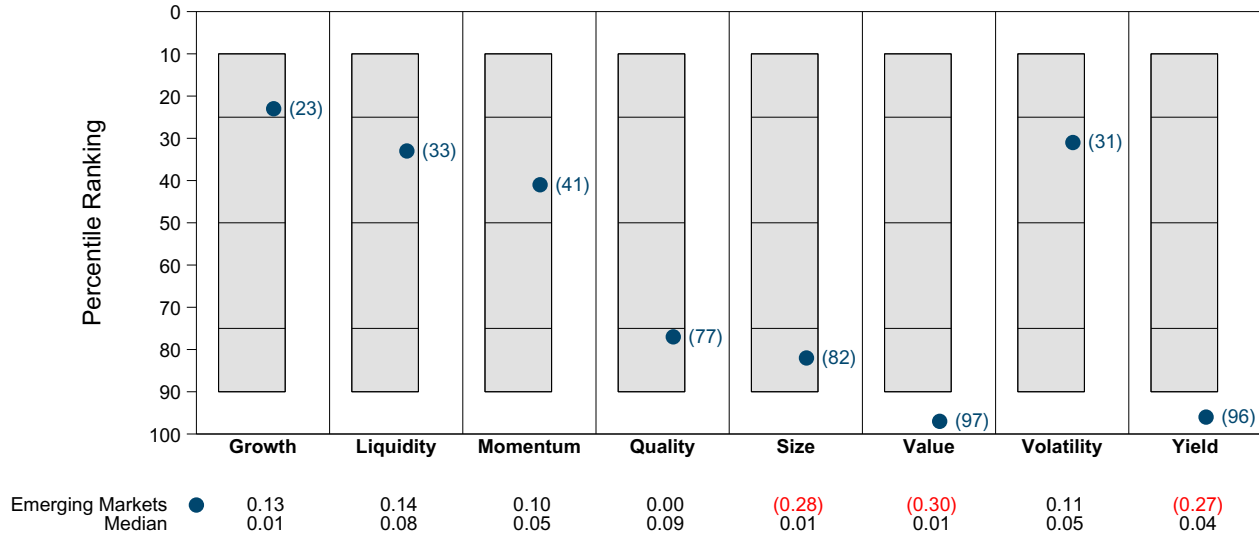


10th Percentile	88.15	66.95	19.90	44.95	28.23
25th Percentile	72.91	62.30	12.35	38.66	21.27
Median	67.18	57.56	9.00	32.82	14.59
75th Percentile	61.34	50.83	6.14	27.09	10.60
90th Percentile	55.05	44.82	4.67	11.85	5.73
Emerging Markets	68.37	53.47	14.90	31.63	21.08

Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Emerging Core group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

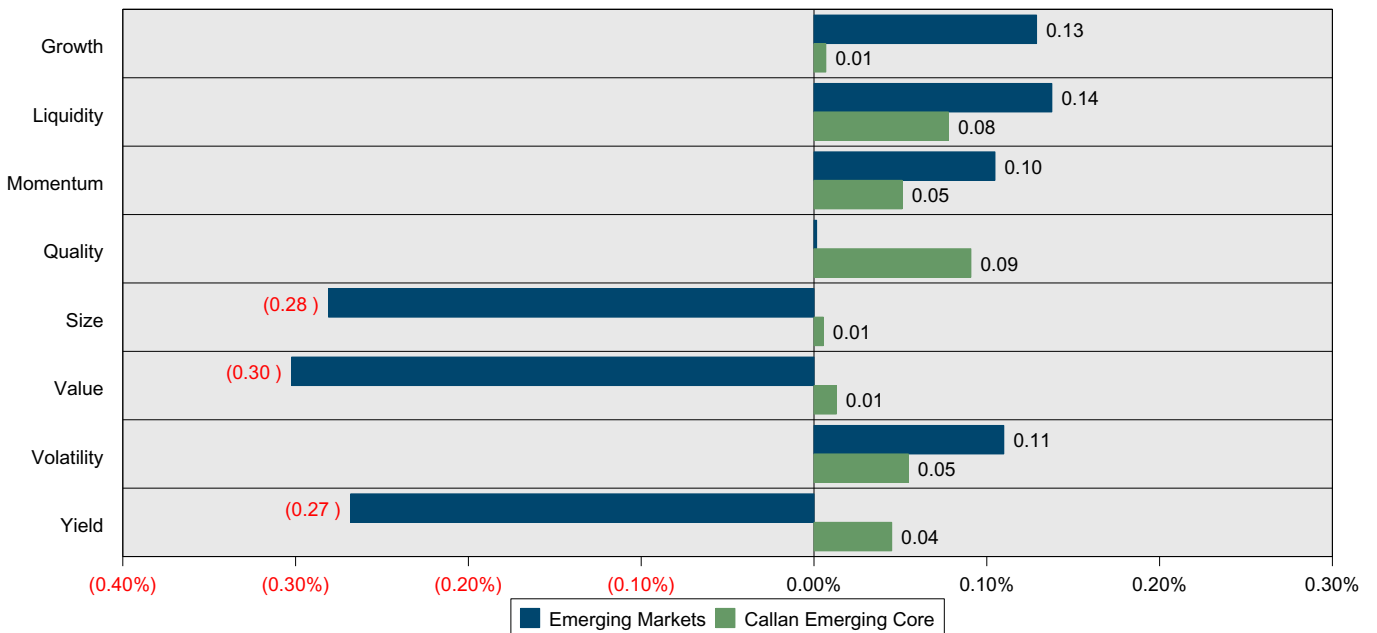
Factor Exposures Relative to MSCI EM, Rankings vs Callan Emerging Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Emerging Core group relative the the MSCI EM.

Factor Exposures Relative to MSCI EM for Period Ended June 30, 2024



Wellington Emerging Markets Period Ended June 30, 2024

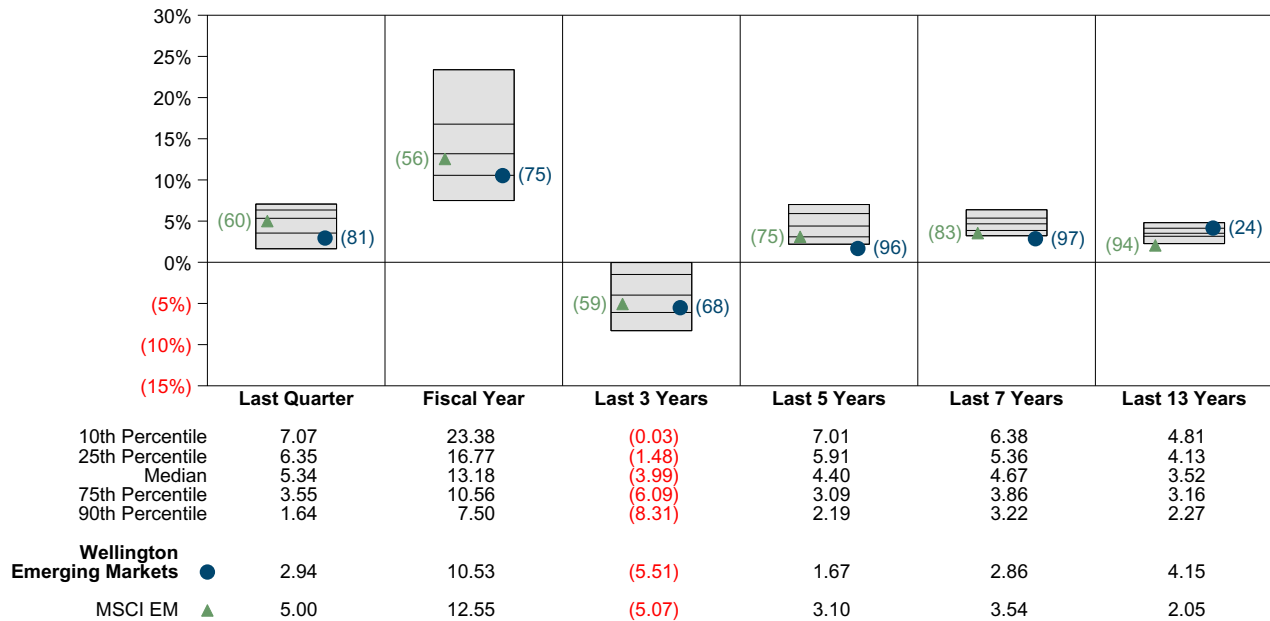
Investment Philosophy

Wellington employs an industry-focused, bottom-up approach to managing equity portfolios. The research portfolio is the reflection of Wellington's global industry analysts expertise. The team seeks to add value through in-depth fundamental research and understanding of their industries. The portfolio is diversified and constructed in a way to ensure stock selection drives performance. NHRS inception in the fund is May 2011.

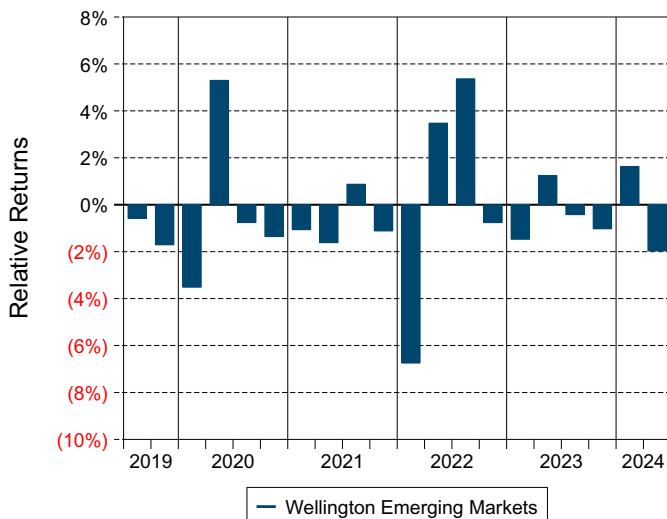
Quarterly Asset Growth

Beginning Market Value	\$174,677,138
Net New Investment	\$0
Investment Gains/(Losses)	\$5,135,923
Ending Market Value	\$179,813,061

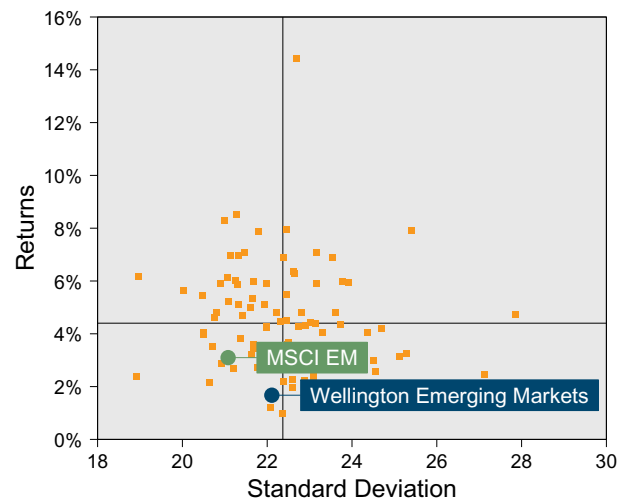
Performance vs Callan Emerging Core (Gross)



Relative Return vs MSCI EM



Callan Emerging Core (Gross) Annualized Five Year Risk vs Return

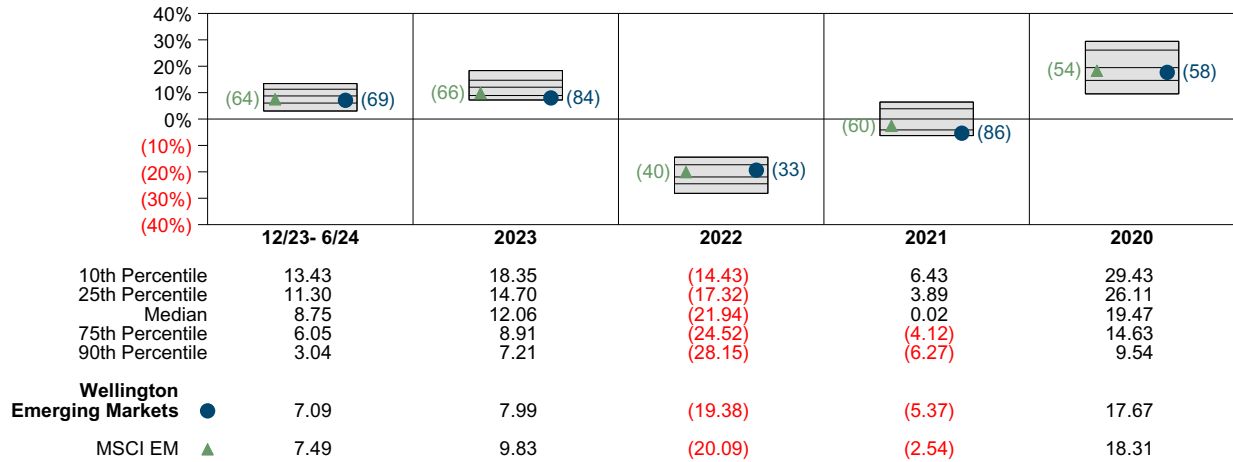


Wellington Emerging Markets Return Analysis Summary

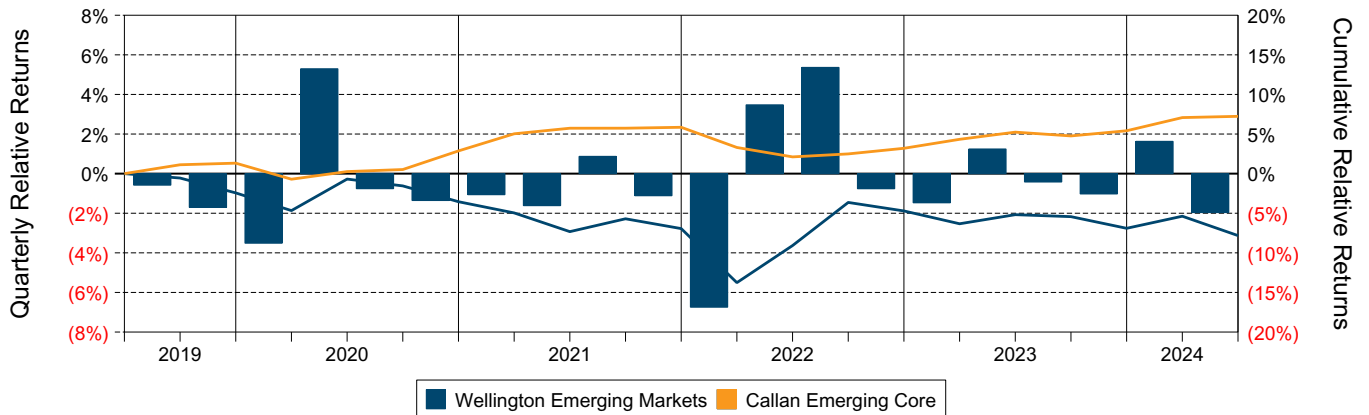
Return Analysis

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.

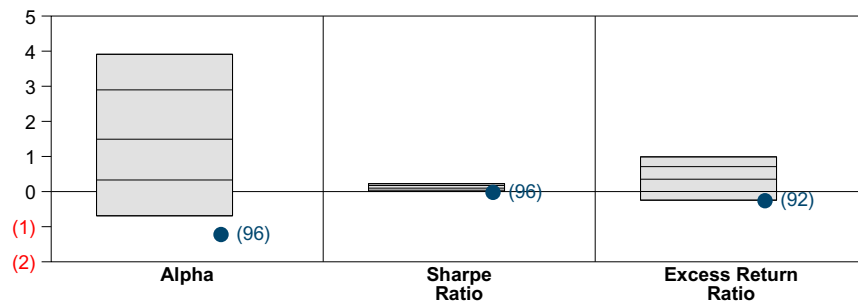
Performance vs Callan Emerging Core (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024

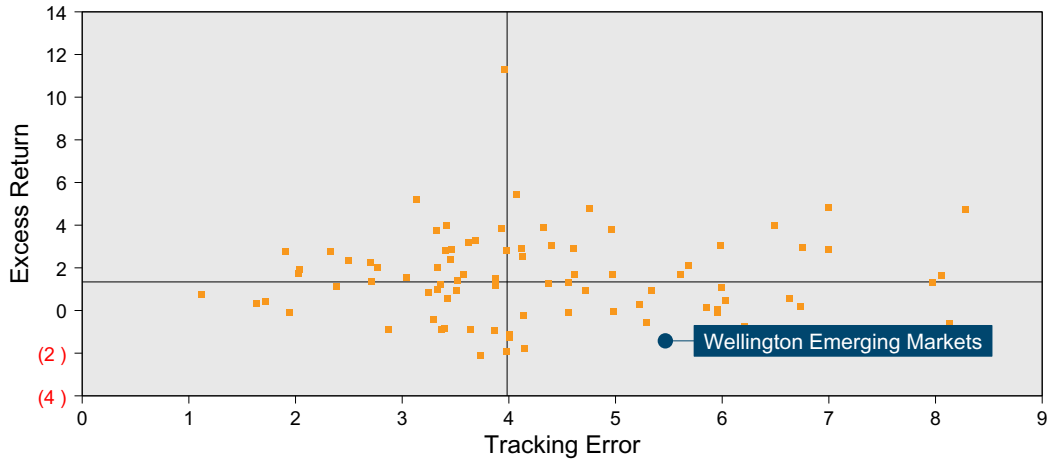


Wellington Emerging Markets Risk Analysis Summary

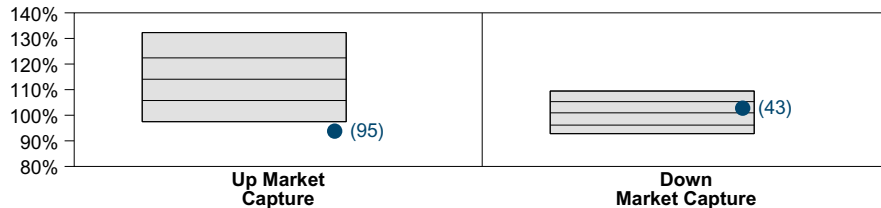
Risk Analysis

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 Callan Emerging Core (Gross) Five Years Ended June 30, 2024

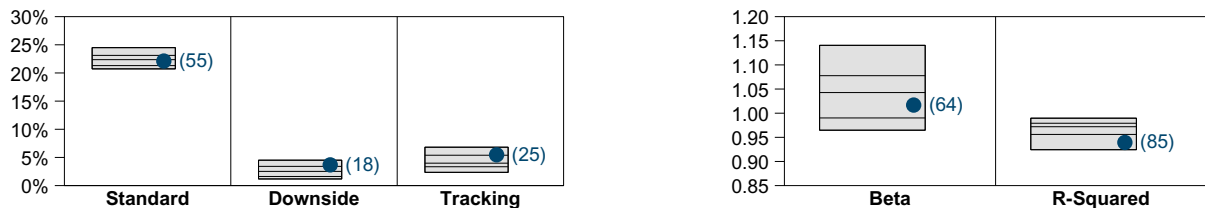


Market Capture vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024



	Up Market Capture	Down Market Capture
10th Percentile	132.28	109.46
25th Percentile	122.41	105.31
Median	114.06	100.94
75th Percentile	105.75	96.14
90th Percentile	97.48	92.81
Wellington Emerging Markets	93.80	102.76

Risk Statistics Rankings vs MSCI EM Rankings Against Callan Emerging Core (Gross) Five Years Ended June 30, 2024

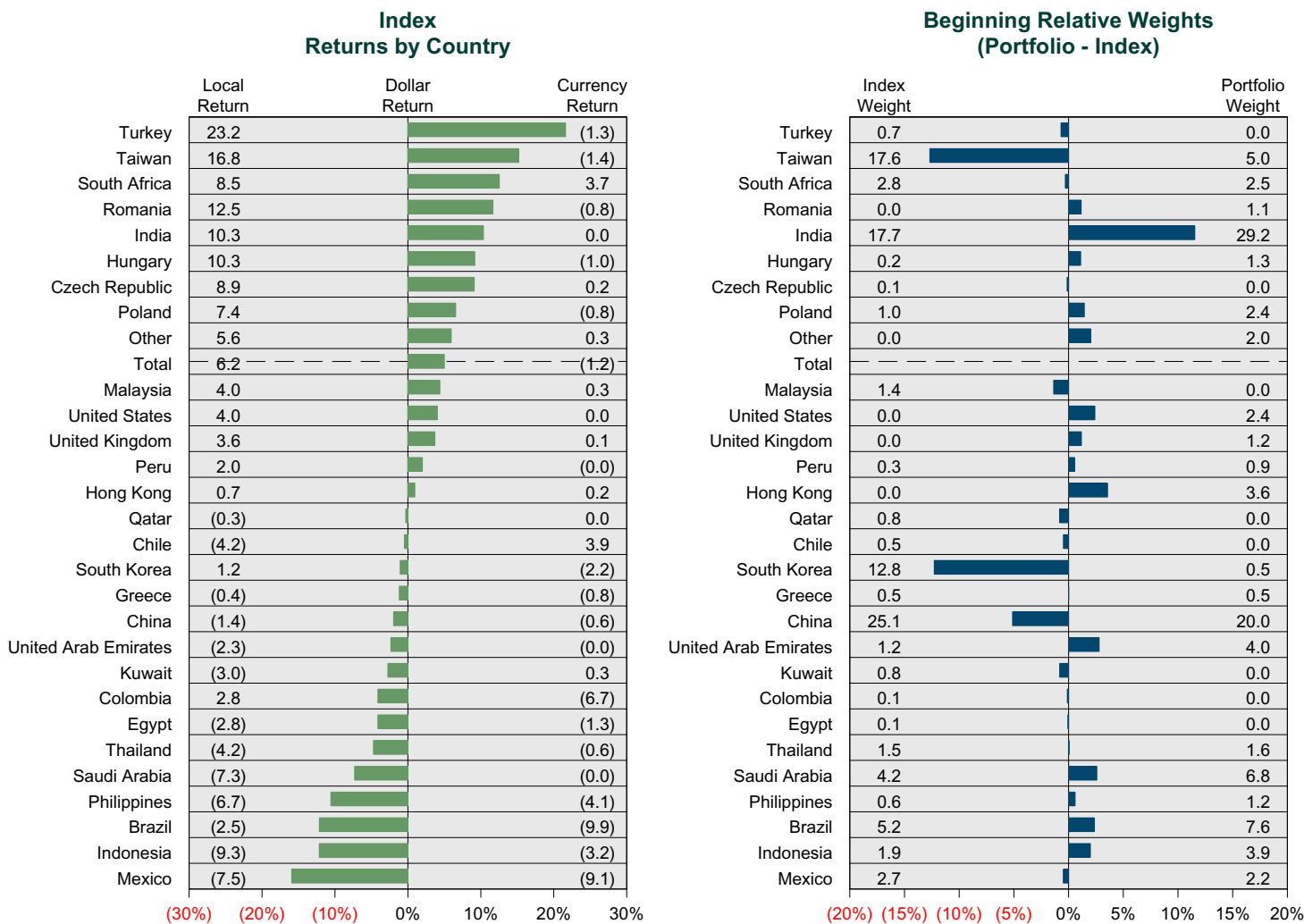


	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	24.50	4.51	6.82	1.14	0.99
25th Percentile	23.12	3.41	5.39	1.08	0.98
Median	22.36	2.52	3.98	1.04	0.97
75th Percentile	21.31	1.62	3.35	0.99	0.96
90th Percentile	20.72	1.18	2.35	0.96	0.92
Wellington Emerging Markets	22.11	3.68	5.47	1.02	0.94

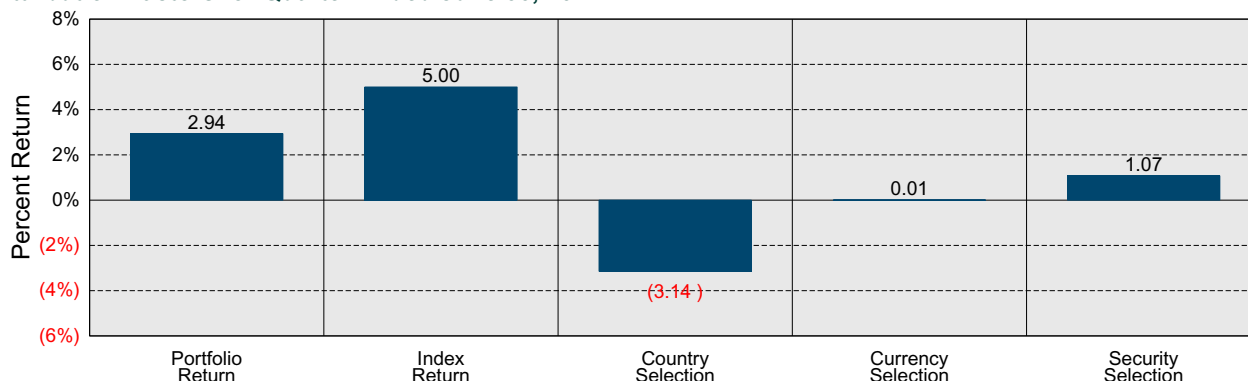
Wellington Emerging Markets vs MSCI EM Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

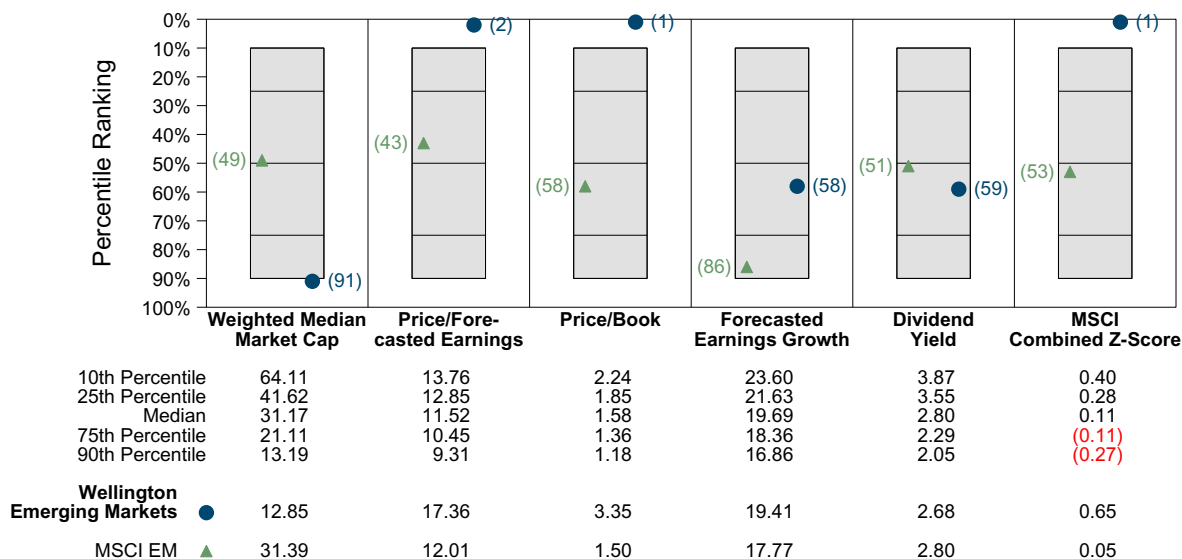


Wellington Emerging Markets Equity Characteristics Analysis Summary

Portfolio Characteristics

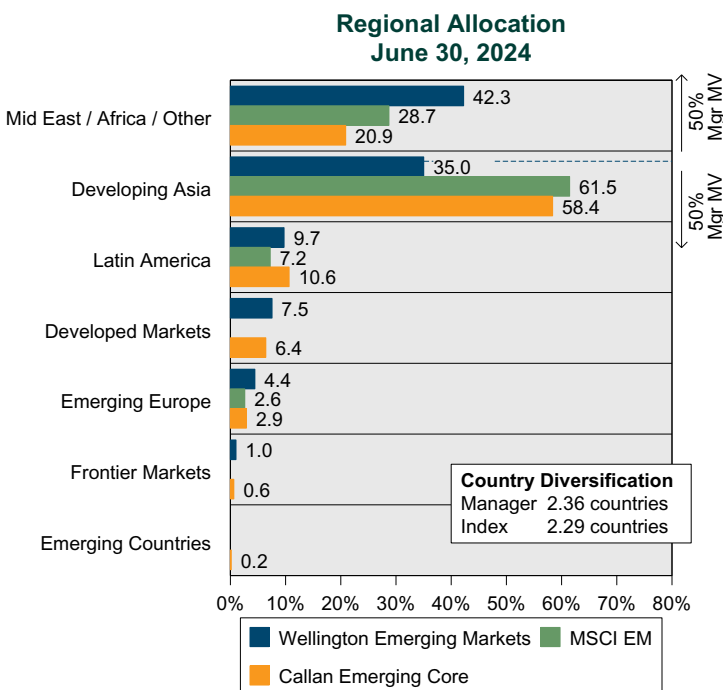
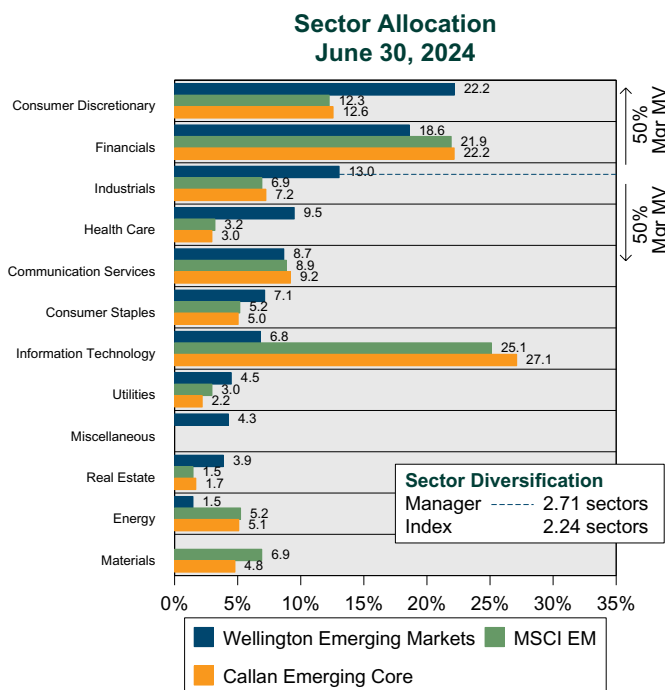
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Core as of June 30, 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.

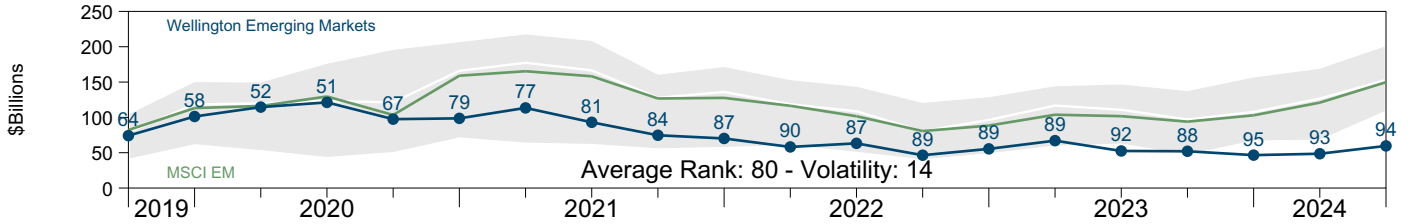


Portfolio Characteristics Analysis

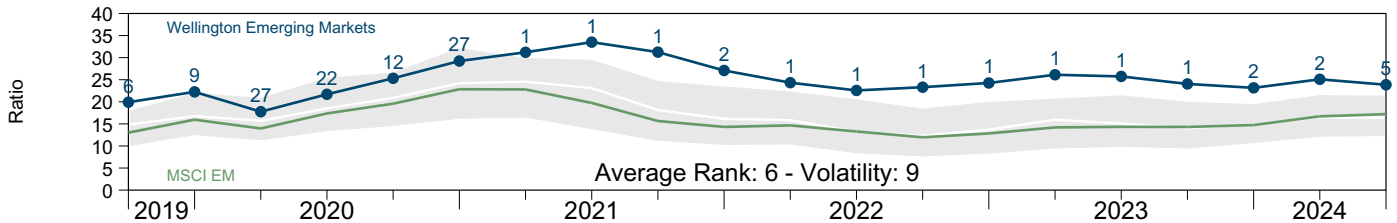
Callan Emerging Core

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Emerging Core Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI EM is shown for comparison purposes.

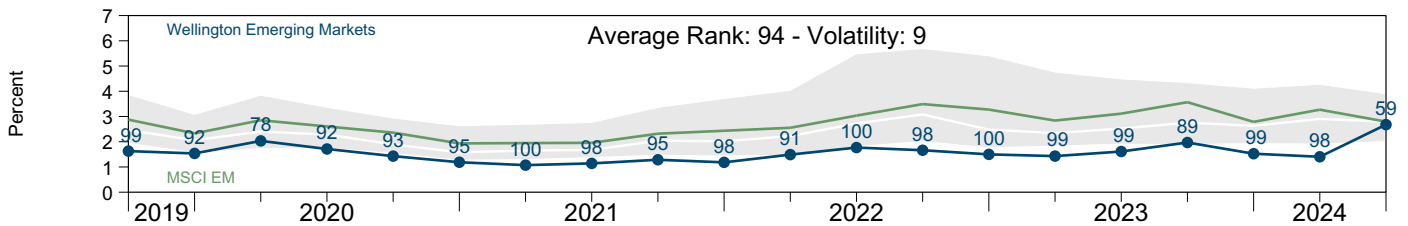
Weighted Average Market Cap



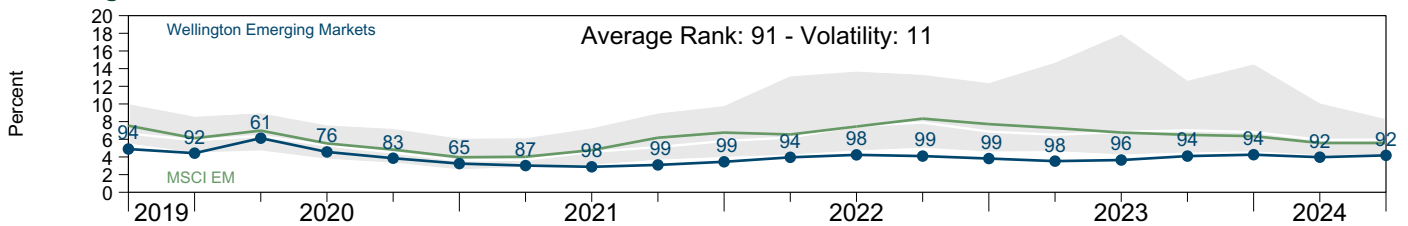
Trailing P/E



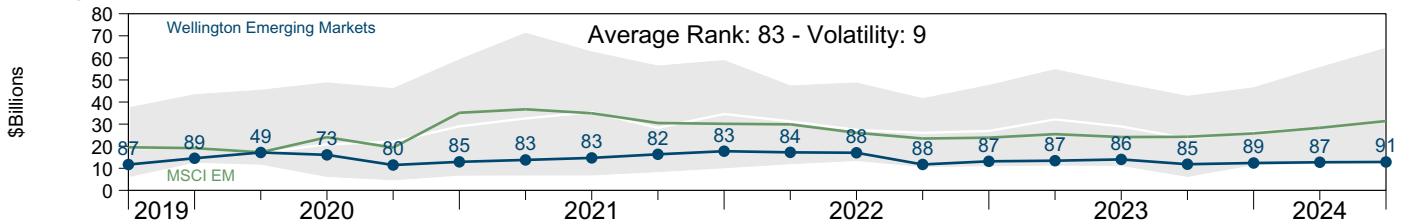
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

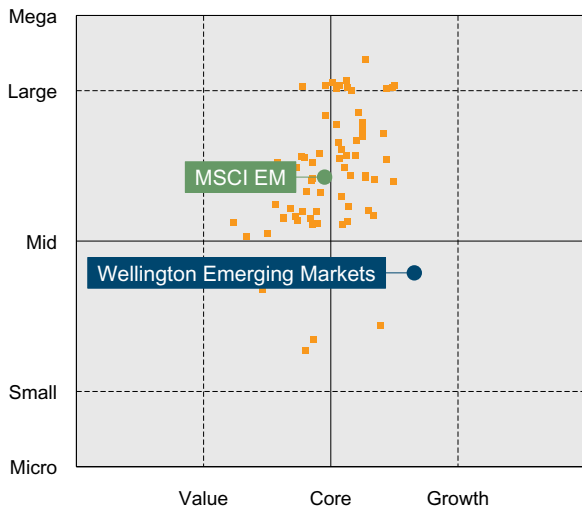
Current Holdings Based Style Analysis

Wellington Emerging Markets

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left chart illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

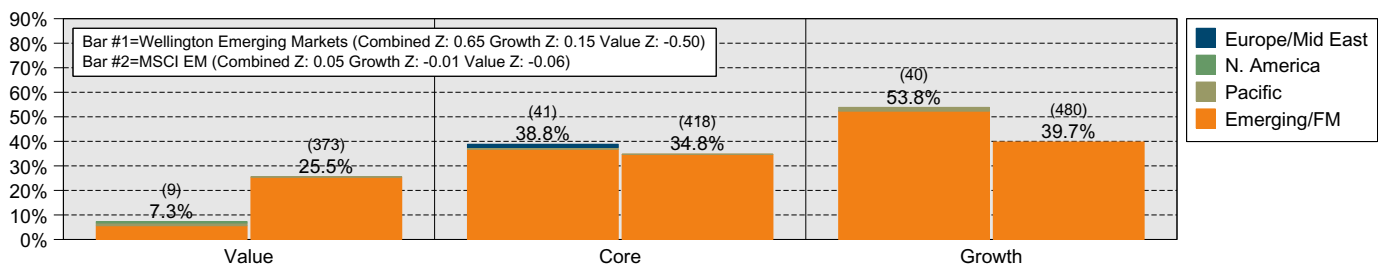
Style Map vs Callan Emerging Core Holdings as of June 30, 2024



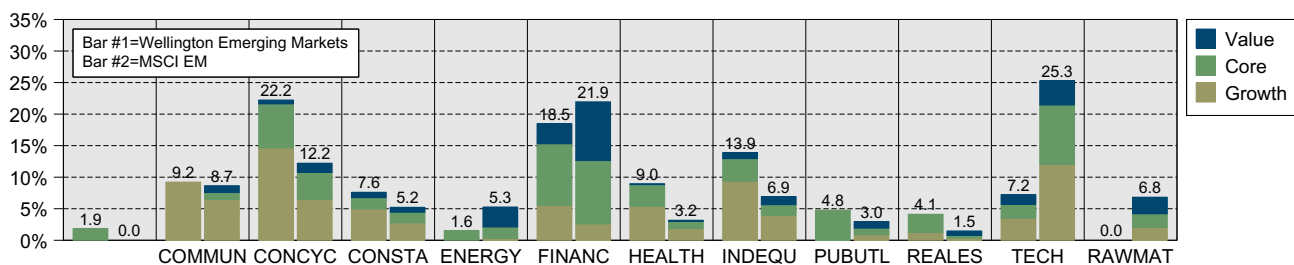
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	0.0% (0) 0.0% (0)	1.3% (1) 0.0% (0)	0.0% (0) 0.0% (0)	1.3% (1) 0.0% (0)
N. America	0.6% (1) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.6% (1) 0.0% (0)
Pacific	1.1% (1) 0.0% (1)	0.8% (1) 0.0% (1)	1.6% (2) 0.0% (0)	3.5% (4) 0.1% (2)
Emerging/ FM	5.6% (7) 25.5% (372)	36.7% (39) 34.7% (417)	52.3% (38) 39.7% (480)	94.6% (84) 99.9% (1269)
Total	7.3% (9) 25.5% (373)	38.8% (41) 34.8% (418)	53.8% (40) 39.7% (480)	100.0% (90) 100.0% (1271)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



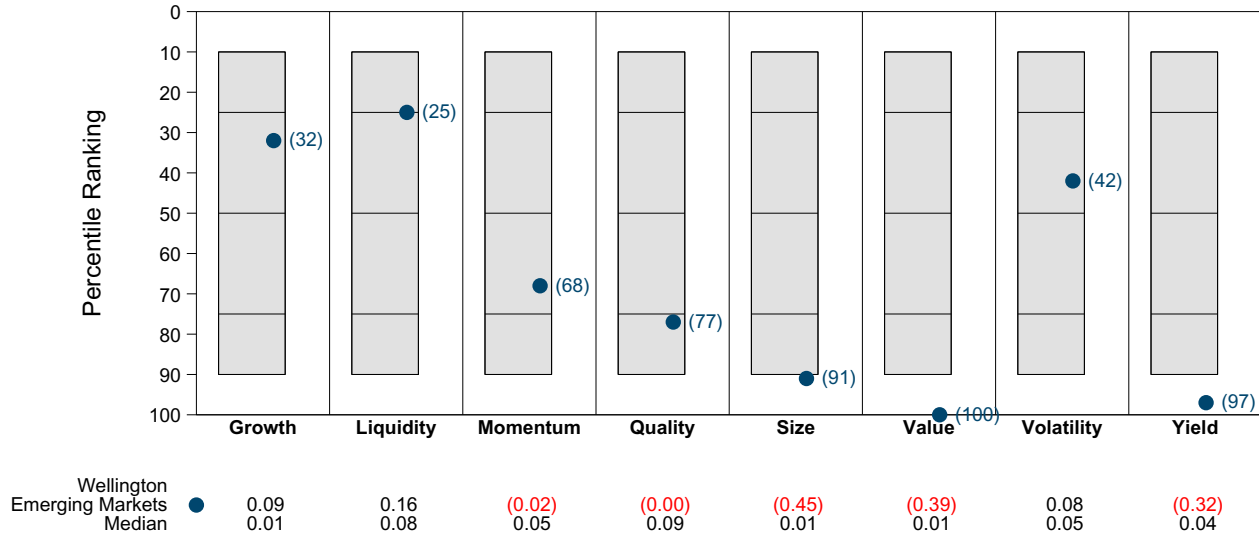
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan Emerging Core group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

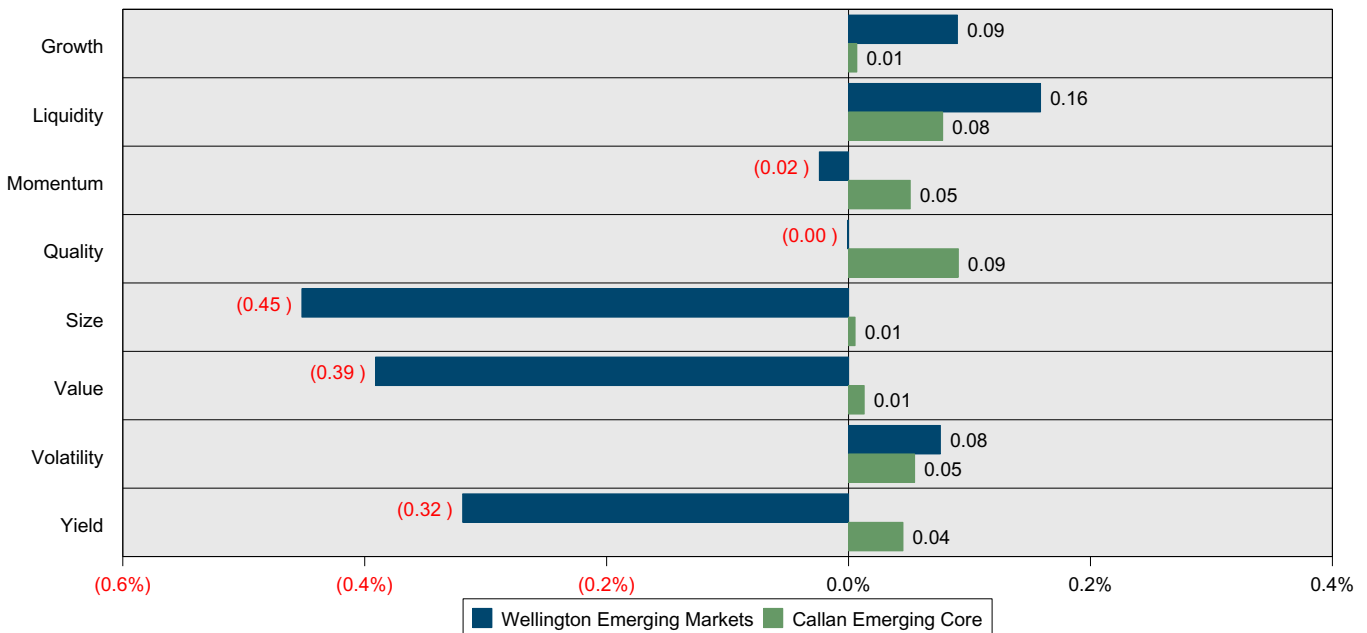
Factor Exposures Relative to MSCI EM, Rankings vs Callan Emerging Core for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan Emerging Core group relative to the MSCI EM.

Factor Exposures Relative to MSCI EM for Period Ended June 30, 2024



Wellington Int'l Small Cap Research Period Ended June 30, 2024

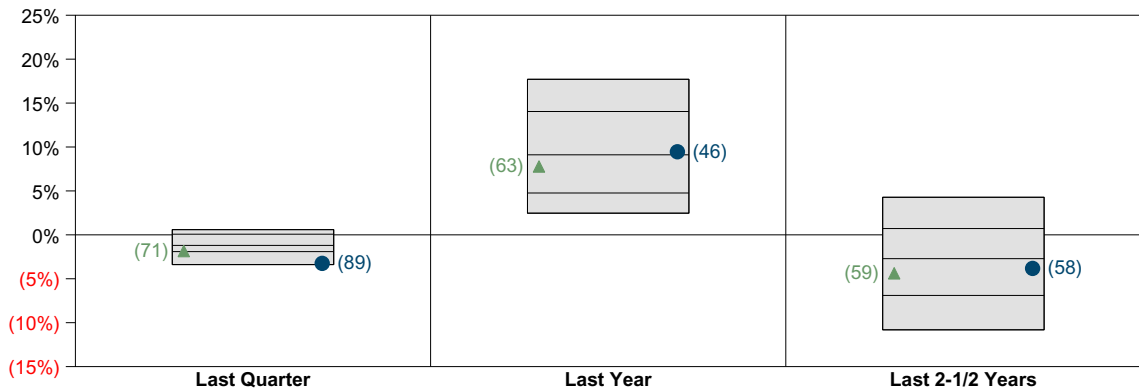
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Quarterly Asset Growth

Beginning Market Value	\$141,207,682
Net New Investment	\$0
Investment Gains/(Losses)	\$-4,587,317
Ending Market Value	\$136,620,364

Performance vs Callan Intl Small Cap (Gross)

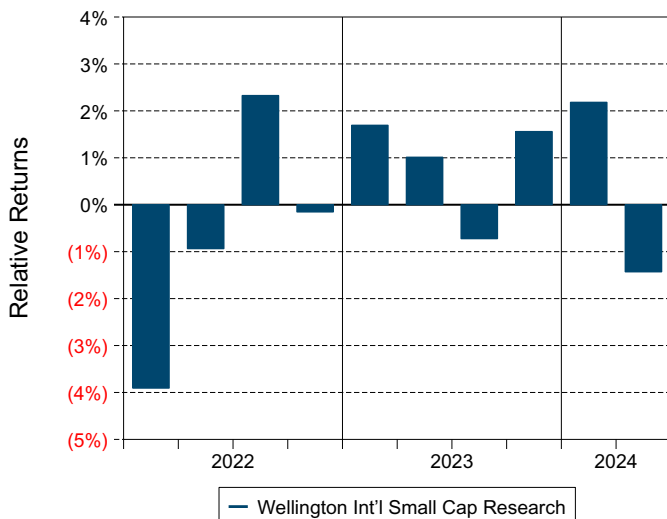


	Last Quarter	Last Year	Last 2-1/2 Years
10th Percentile	0.59	17.71	4.28
25th Percentile	0.07	14.04	0.72
Median	(1.20)	9.11	(2.71)
75th Percentile	(1.91)	4.76	(6.90)
90th Percentile	(3.39)	2.47	(10.81)

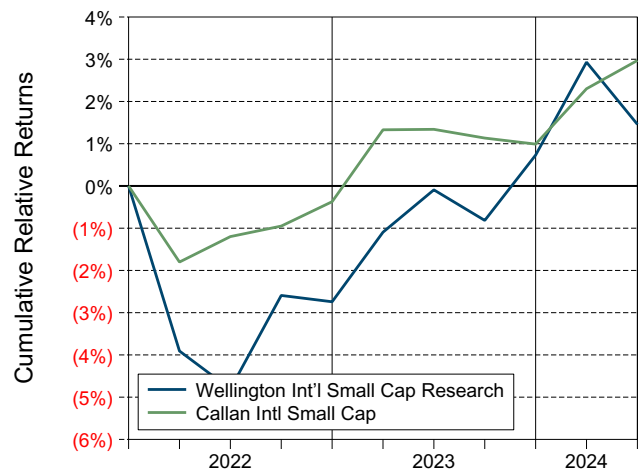
Wellington Int'l Small Cap Research ●
MSCI EAFE Small Cap ▲

Wellington Int'l Small Cap Research	(3.25)	9.46	(3.82)
MSCI EAFE Small Cap	(1.84)	7.78	(4.38)

Relative Return vs MSCI EAFE Small Cap



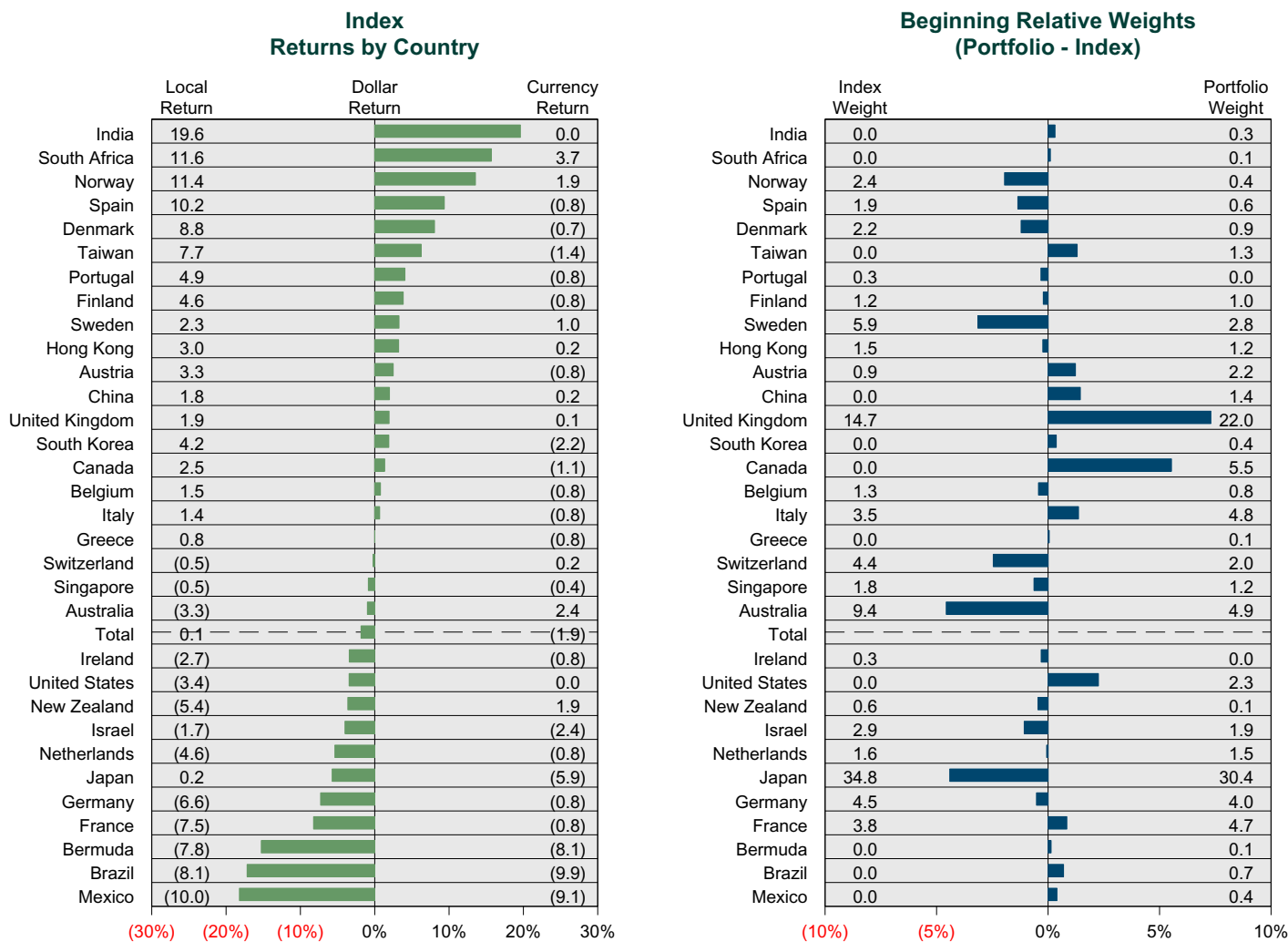
Cumulative Returns vs MSCI EAFE Small Cap



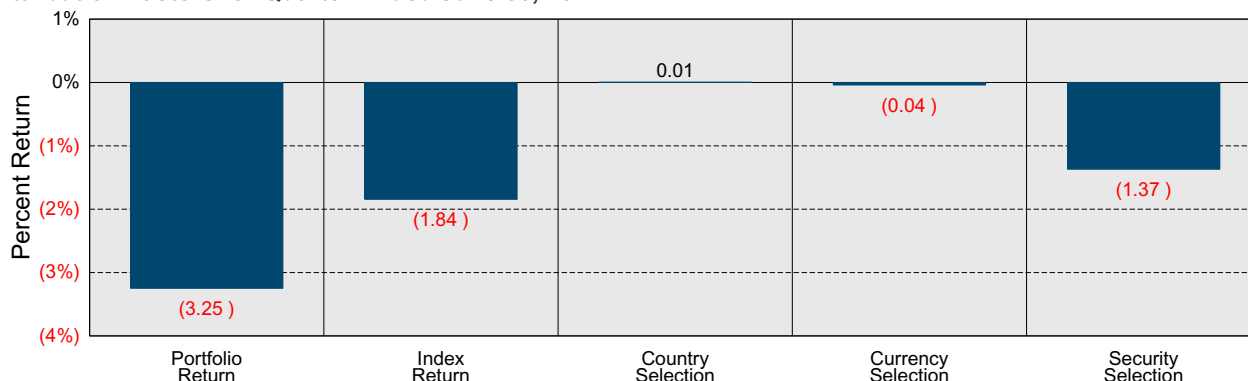
Wellington Int'l Small Cap Research vs MSCI EAFE Small Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

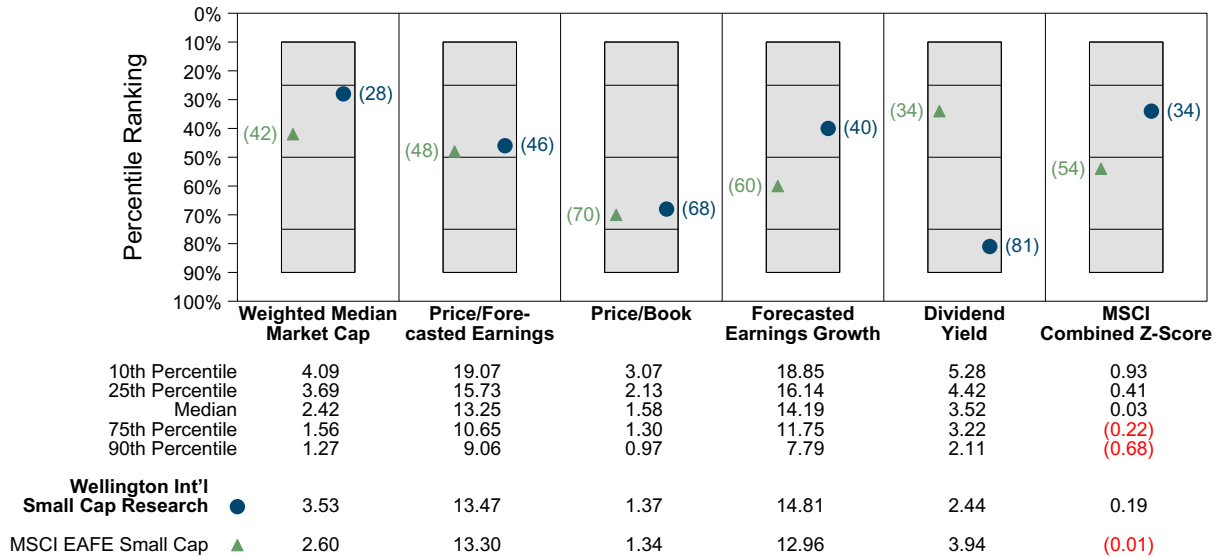


Wellington Int'l Small Cap Research Equity Characteristics Analysis Summary

Portfolio Characteristics

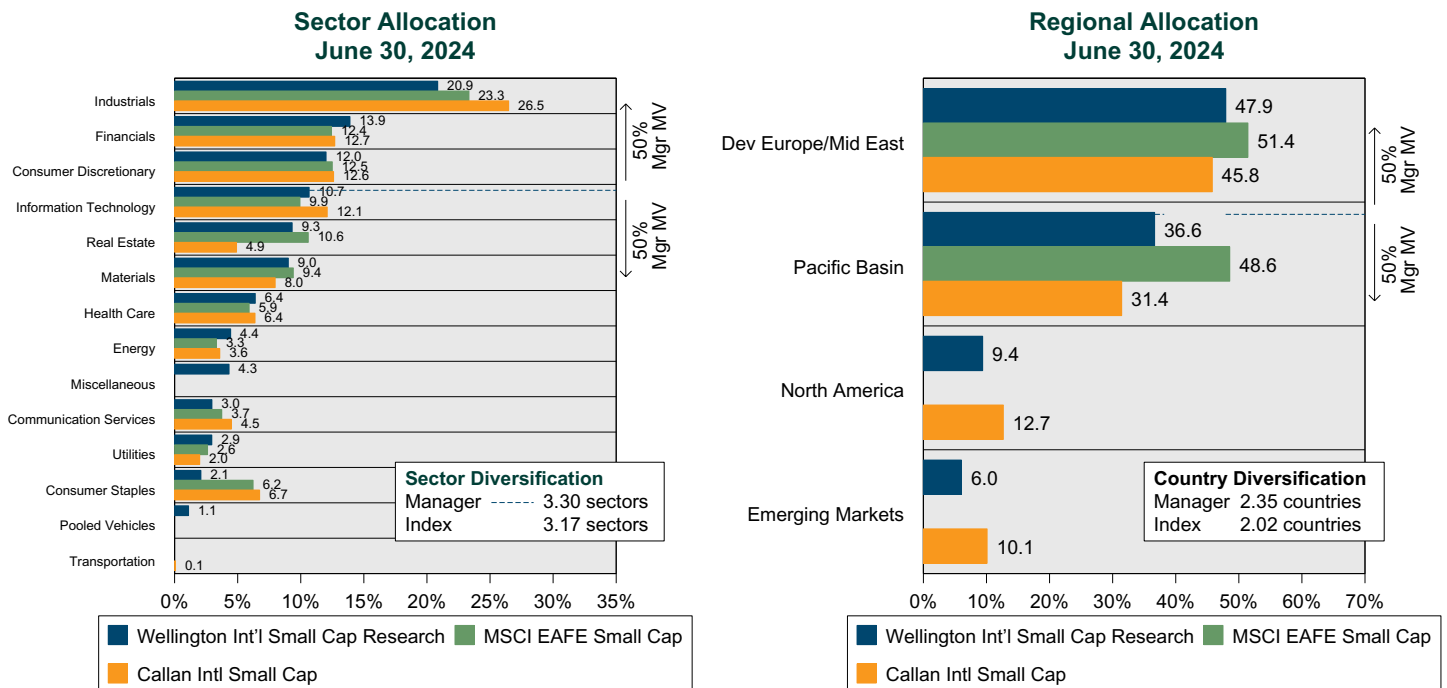
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of June 30, 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.



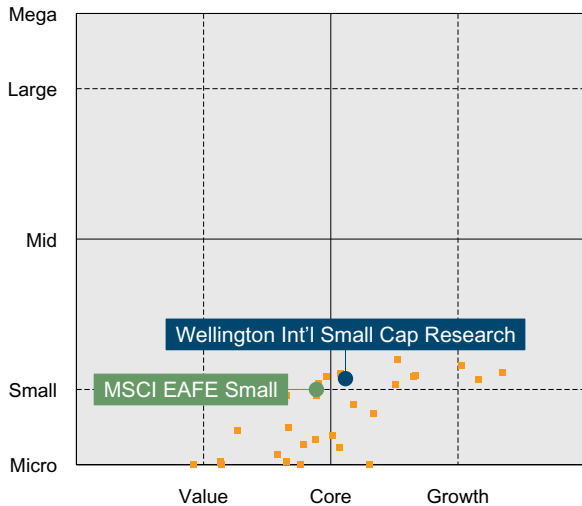
Current Holdings Based Style Analysis

Wellington Int'l Small Cap Research

As of June 30, 2024

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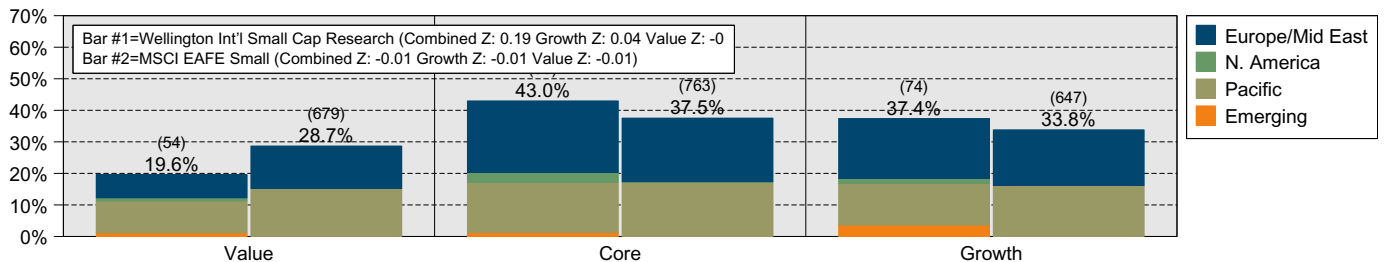
Style Map vs Callan Intl Small Cap Holdings as of June 30, 2024



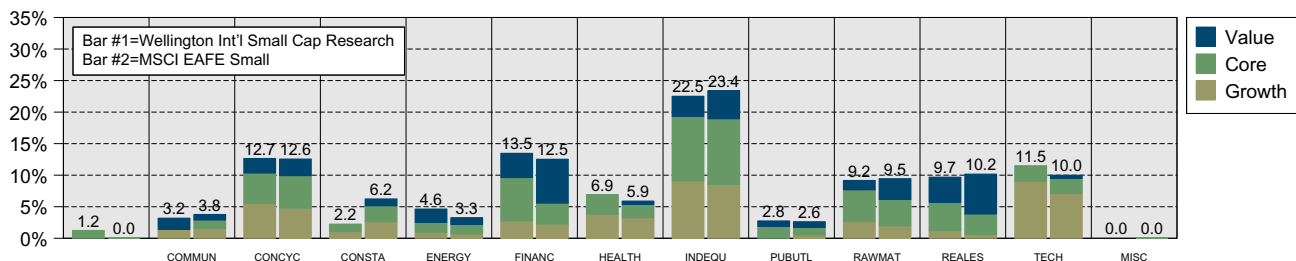
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/ Mid East	7.4% (19) 13.5% (279)	22.6% (42) 20.2% (374)	19.0% (28) 17.6% (298)	49.0% (89) 51.2% (951)
N. America	1.0% (4) 0.0% (0)	3.2% (6) 0.1% (3)	1.6% (4) 0.0% (0)	5.8% (14) 0.1% (3)
Pacific	10.1% (29) 15.2% (400)	15.9% (42) 17.3% (386)	13.2% (34) 16.2% (349)	39.2% (105) 48.7% (1135)
Emerging	1.2% (2) 0.0% (0)	1.3% (5) 0.0% (0)	3.6% (8) 0.0% (0)	6.1% (15) 0.0% (0)
Total	19.6% (54) 28.7% (679)	43.0% (95) 37.5% (763)	37.4% (74) 33.8% (647)	100.0% (223) 100.0% (2089)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



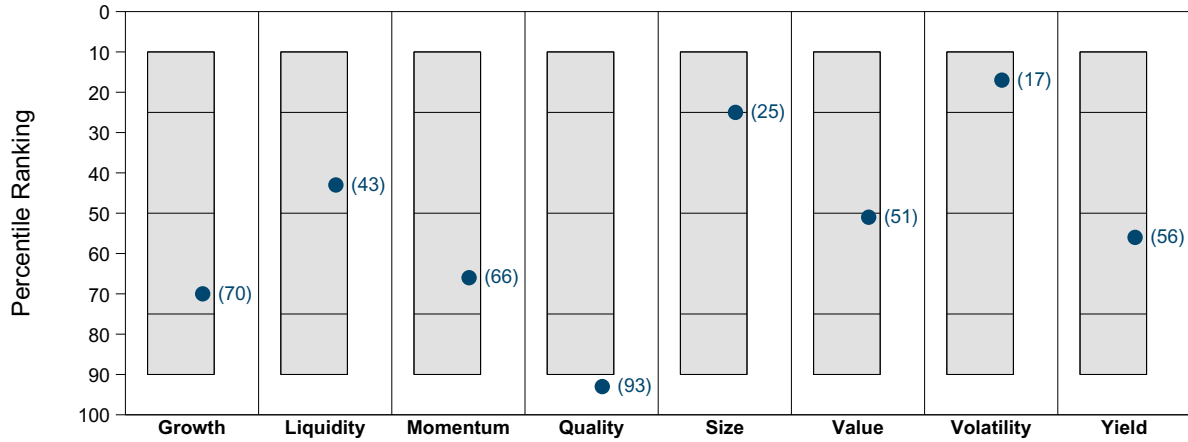
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager's factor exposure with the distribution of exposures for the Callan International Small Cap group. This analysis illustrates whether the manager's factor exposures are consistent with those of other managers employing the same style.

Factor Exposures Relative to MSCI EAFE Small, Rankings vs Callan International Small Cap for Period Ended June 30, 2024

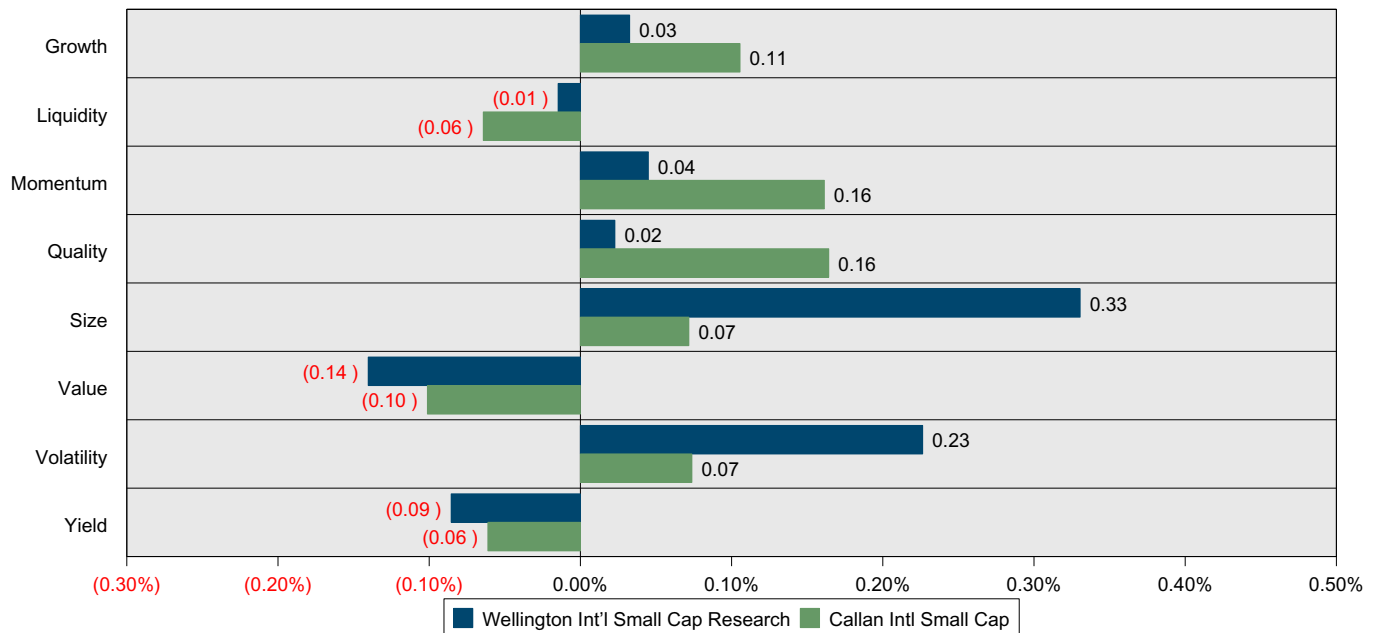


Wellington Int'l Small Cap Research	●	0.03	(0.01)	0.04	0.02	0.33	(0.14)	0.23	(0.09)
Median		0.11	(0.06)	0.16	0.16	0.07	(0.10)	0.07	(0.06)

Relative Factor Exposures

This graph compares the manager's factor exposures and the median factor for the Callan International Small Cap group relative to the MSCI EAFE Small.

Factor Exposures Relative to MSCI EAFE Small for Period Ended June 30, 2024



Walter Scott Global Equity Period Ended June 30, 2024

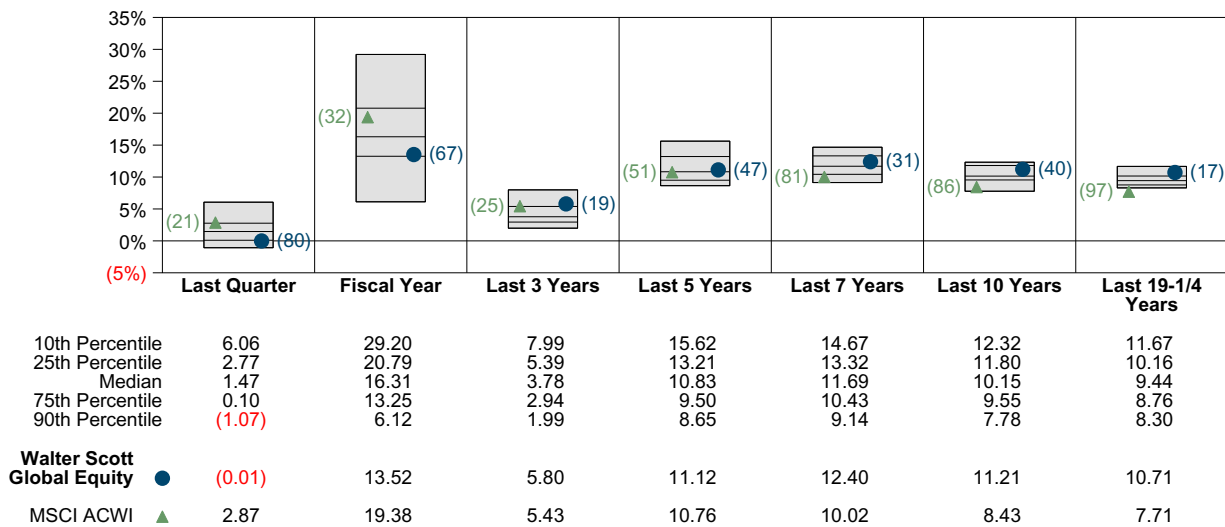
Investment Philosophy

Walter Scott was founded in 1983 and is based in Edinburgh, Scotland. The firm-wide philosophy is centered on the belief that companies with sustainable wealth generation, as defined by 1) cash return on capital employed, 2) return on equity, and 3) growth in earnings per share, will outperform over the long-term. The 24-person investment team of regional experts identifies these opportunities through in-house, bottom-up research. Walter Scott seeks high-quality and competitively-positioned companies that generate strong cash flows and are led by prudent management teams. The Global Equity portfolio holds 40 to 60 stocks with opportunistic exposure to emerging markets. The consistently-applied process is reflected in the strategy's compelling longer-term investment performance. NHRS inception in the fund is December 2004.

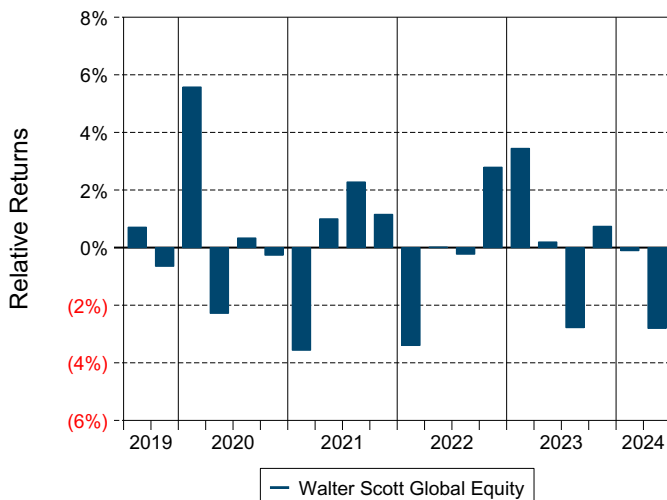
Quarterly Asset Growth

Beginning Market Value	\$594,275,648
Net New Investment	\$0
Investment Gains/(Losses)	\$-86,789
Ending Market Value	\$594,188,859

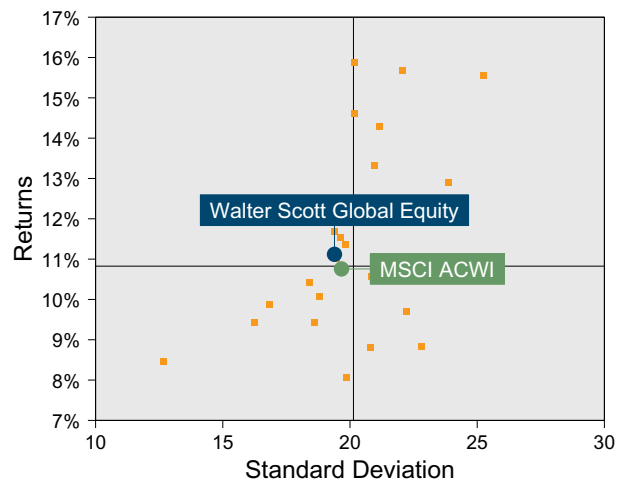
Performance vs Callan Gbl Dev Gr Eq (Gross)



Relative Return vs MSCI ACWI



Callan Gbl Dev Gr Eq (Gross) Annualized Five Year Risk vs Return

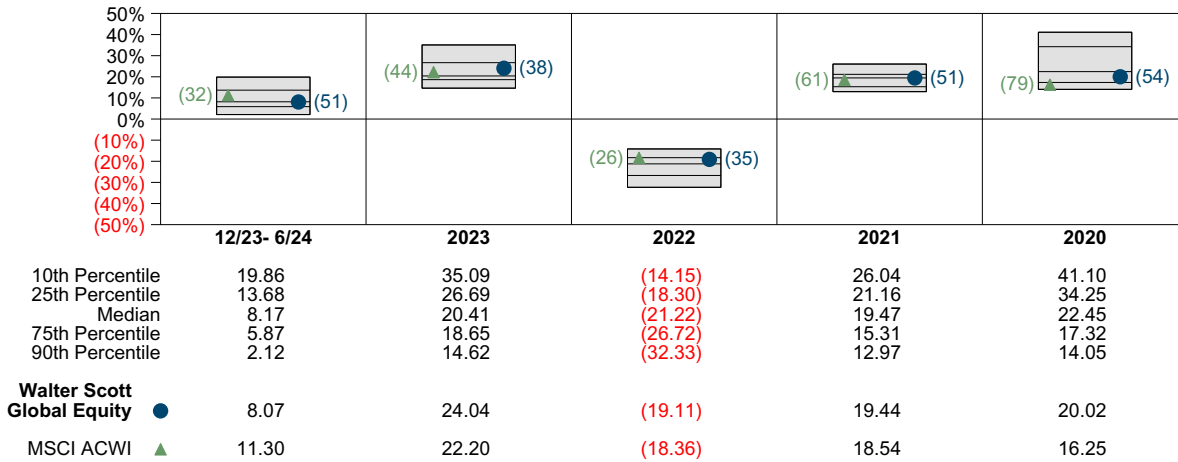


Walter Scott Global Equity Return Analysis Summary

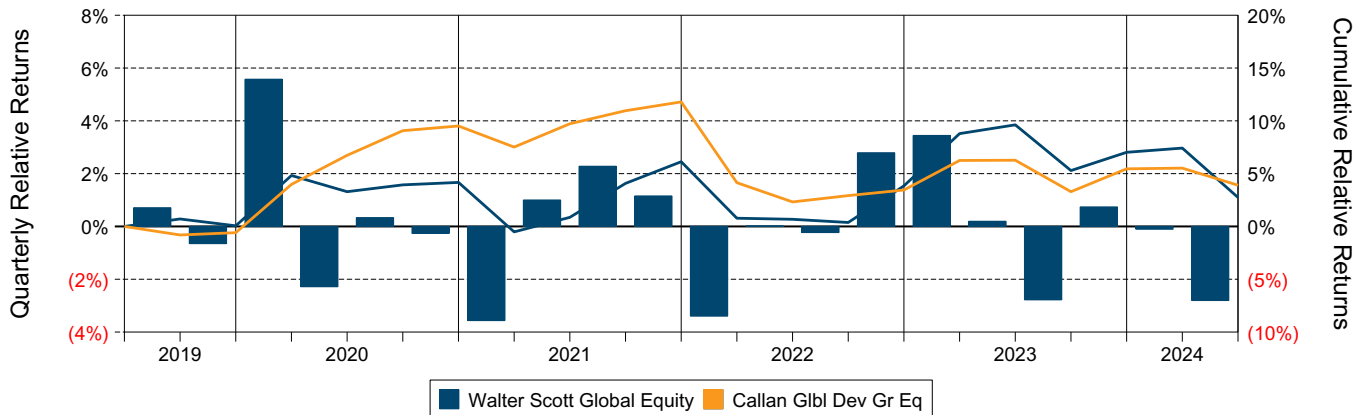
Return Analysis

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.

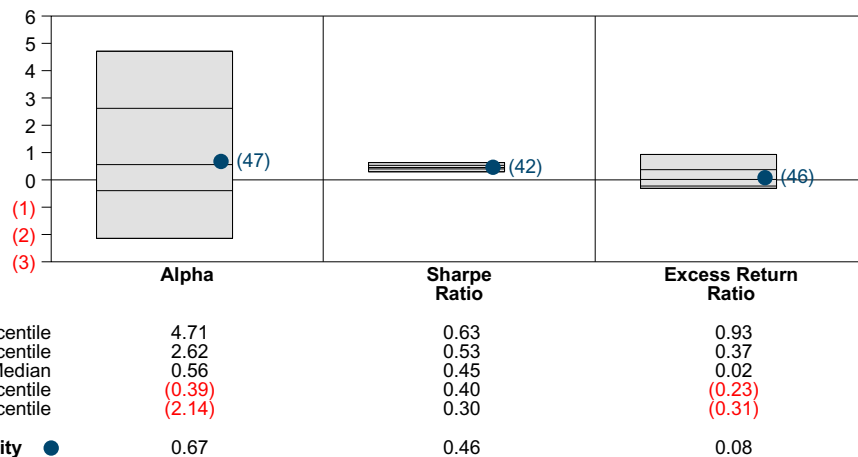
Performance vs Callan Gbl Dev Gr Eq (Gross)



Cumulative and Quarterly Relative Returns vs MSCI ACWI



Risk Adjusted Return Measures vs MSCI ACWI Rankings Against Callan Gbl Dev Gr Eq (Gross) Five Years Ended June 30, 2024

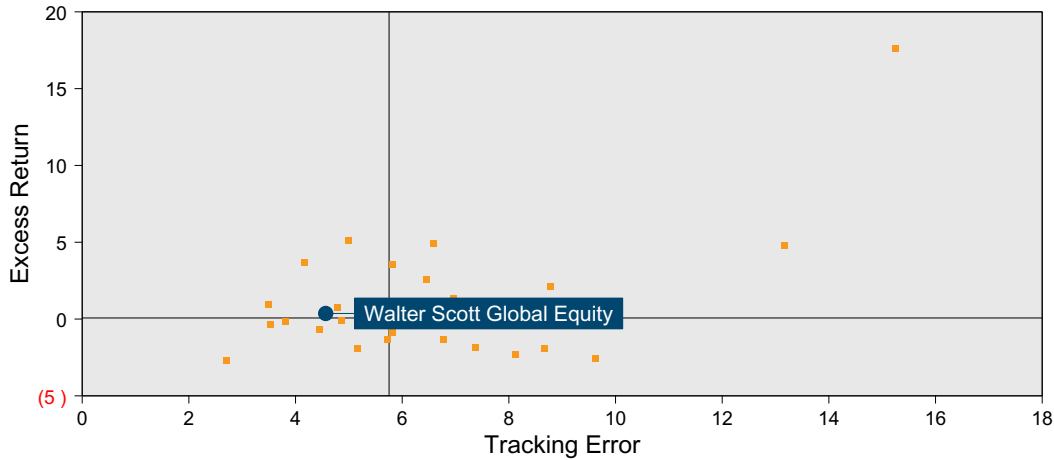


Walter Scott Global Equity Risk Analysis Summary

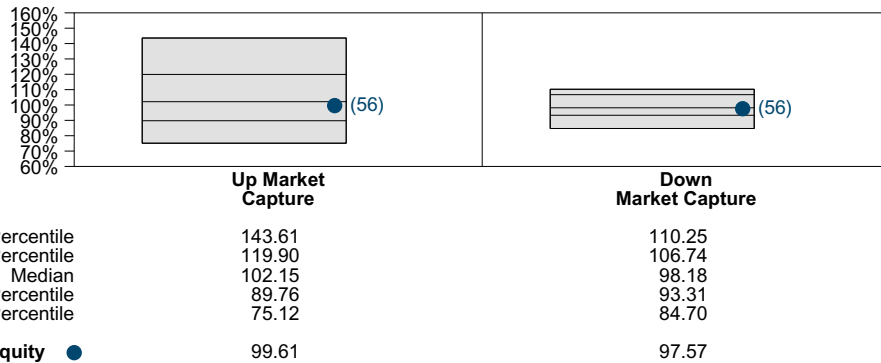
Risk Analysis

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.

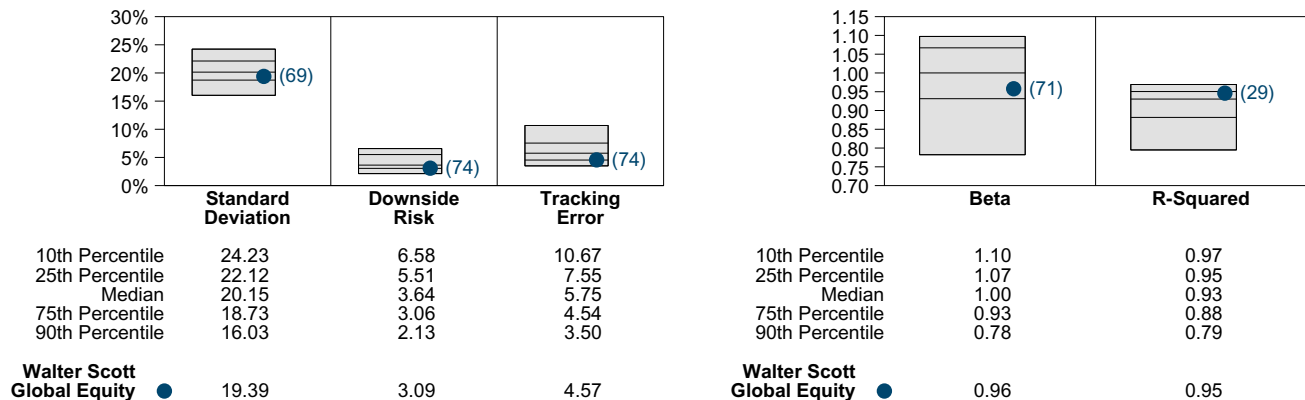
Risk Analysis vs Callan Global Developed Growth Equity (Gross) Five Years Ended June 30, 2024



Market Capture vs MSCI ACWI Rankings Against Callan Global Developed Growth Equity (Gross) Five Years Ended June 30, 2024



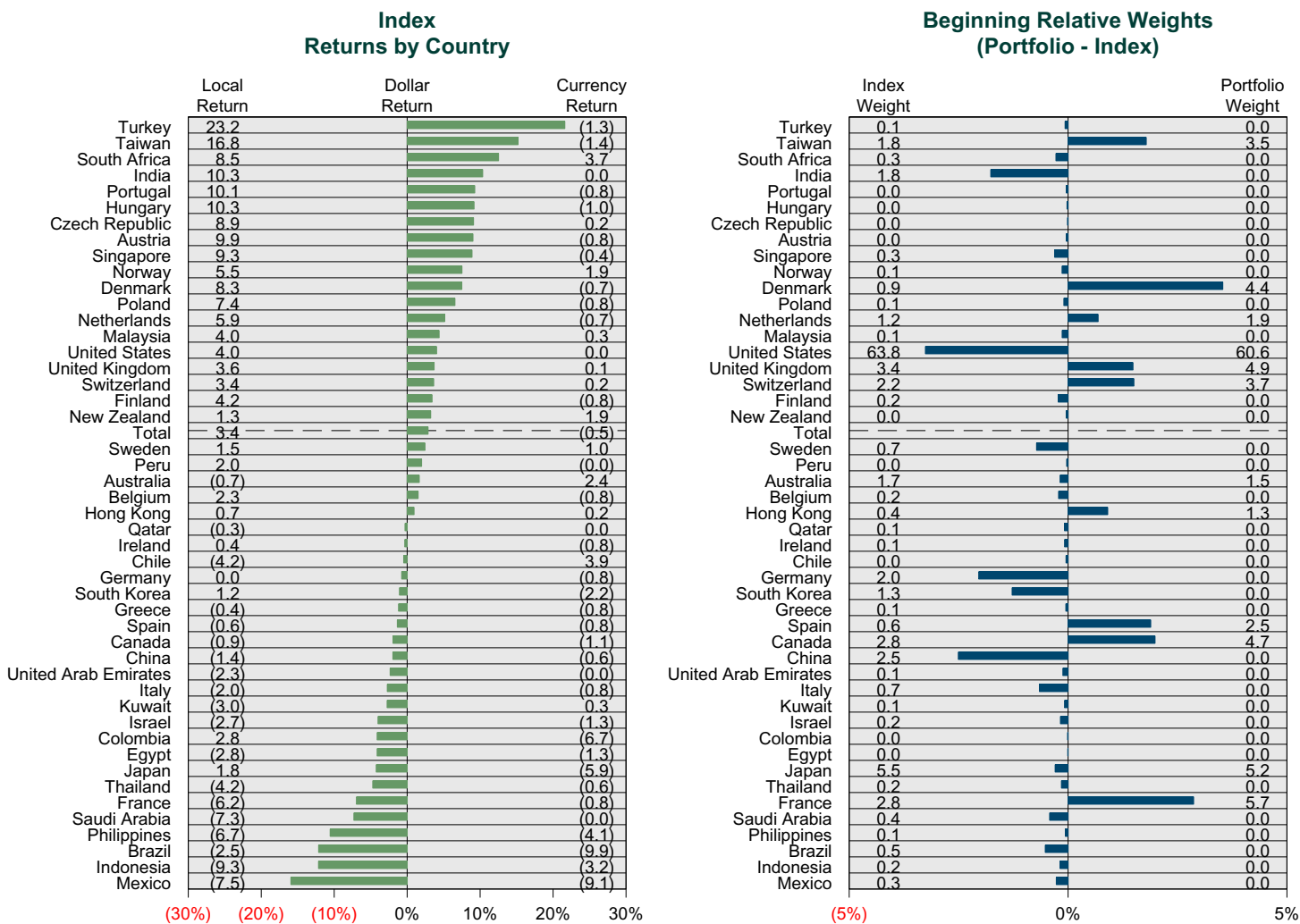
Risk Statistics Rankings vs MSCI ACWI Rankings Against Callan Global Developed Growth Equity (Gross) Five Years Ended June 30, 2024



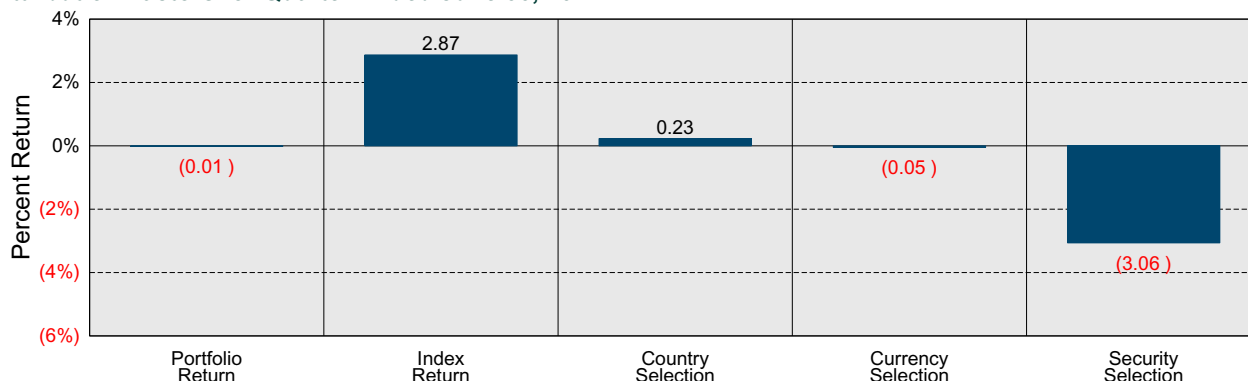
Walter Scott Global Equity vs MSCI ACWI Attribution for Quarter Ended June 30, 2024

International Attribution

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Attribution Factors for Quarter Ended June 30, 2024

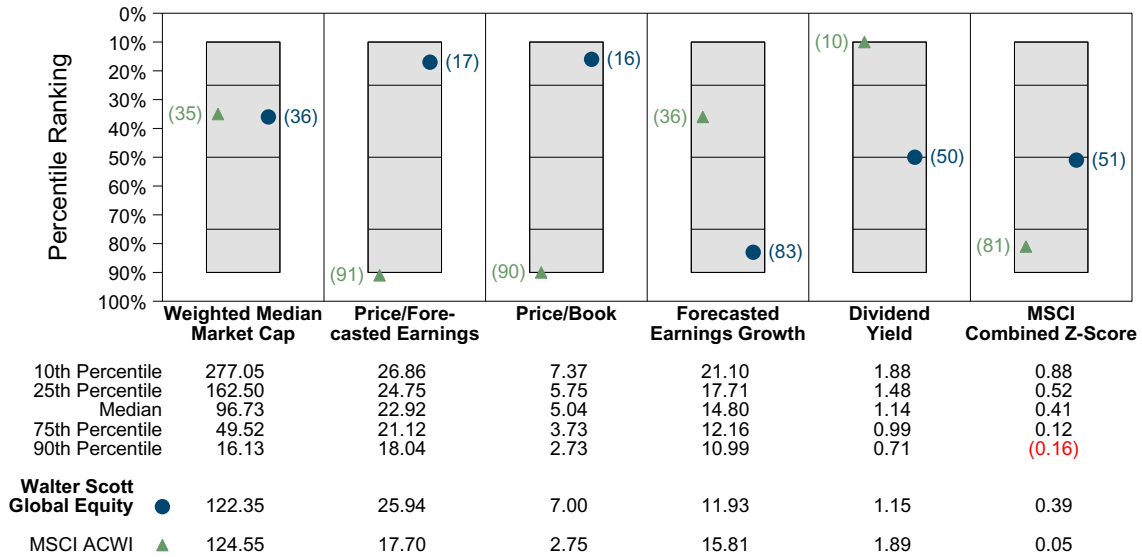


Walter Scott Global Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

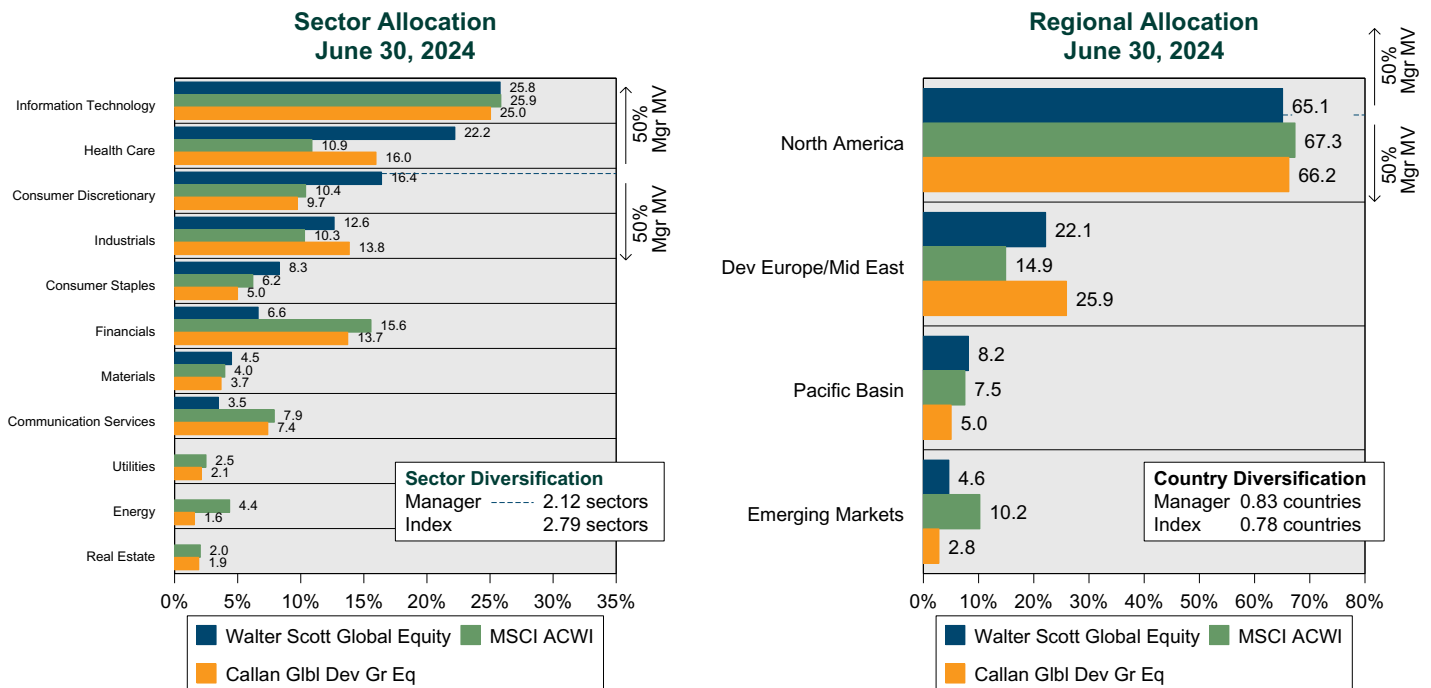
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Developed Growth Equity as of June 30, 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.

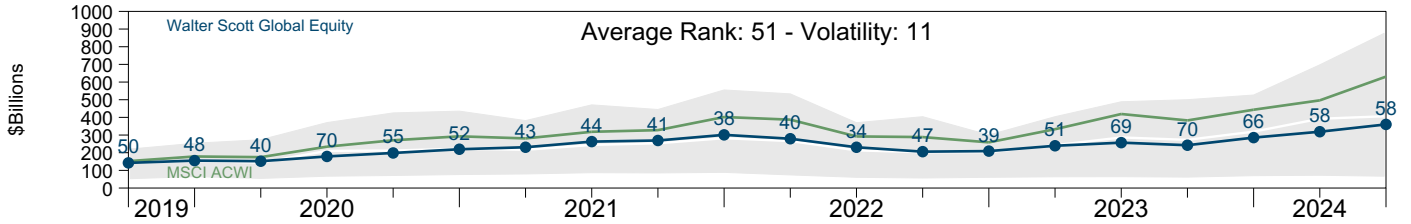


Portfolio Characteristics Analysis

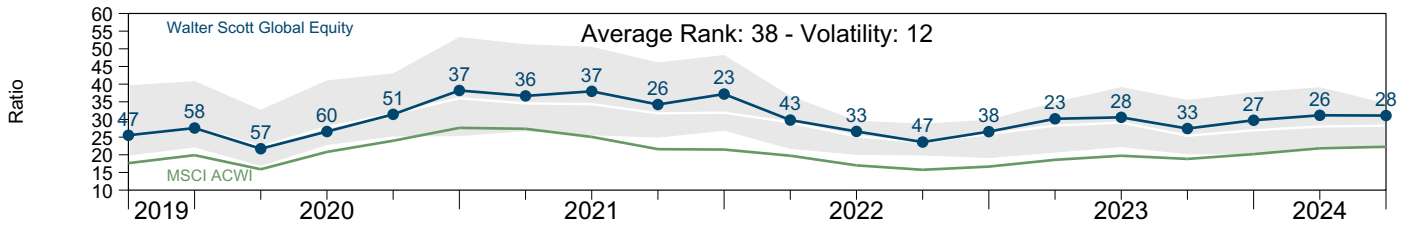
Callan Gbl Dev Gr Eq

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan Gbl Dev Gr Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI ACWI is shown for comparison purposes.

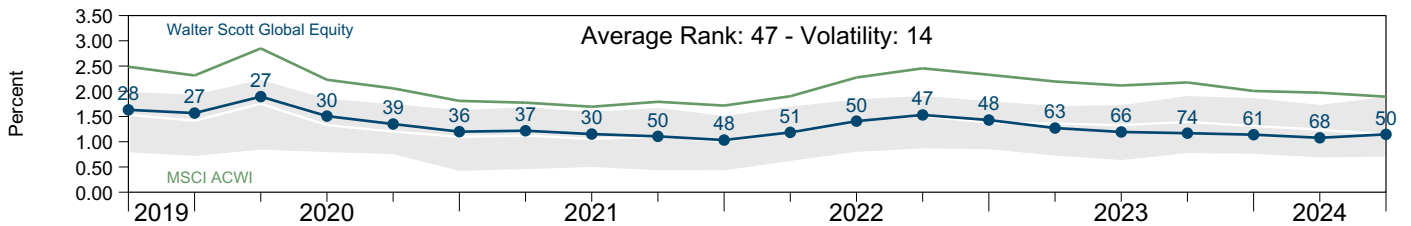
Weighted Average Market Cap



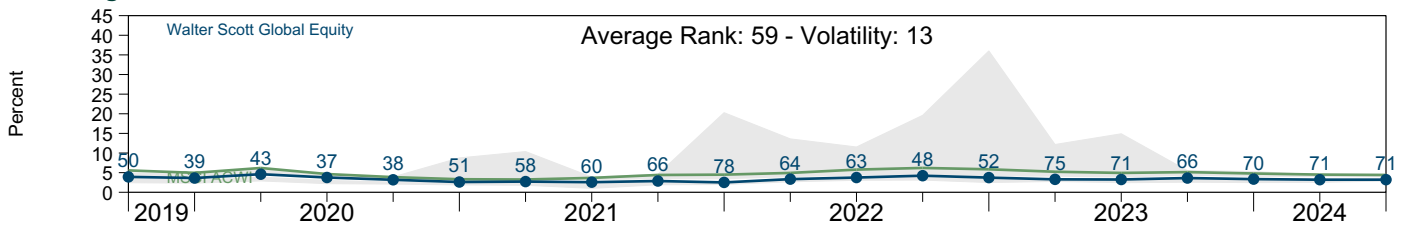
Trailing P/E



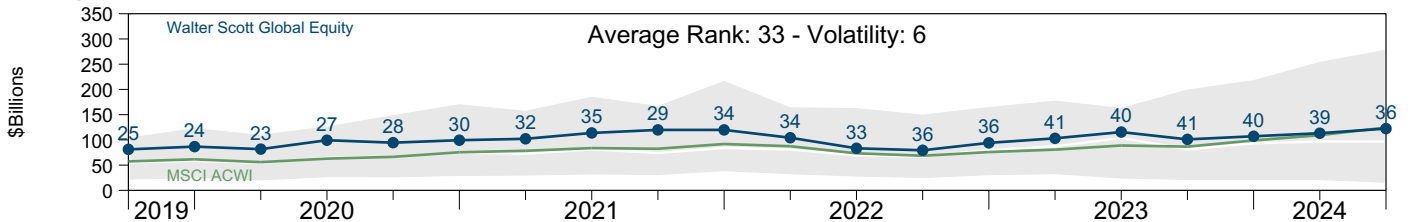
Dividend Yield



Earnings Yield



Weighted Median Market Cap



Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

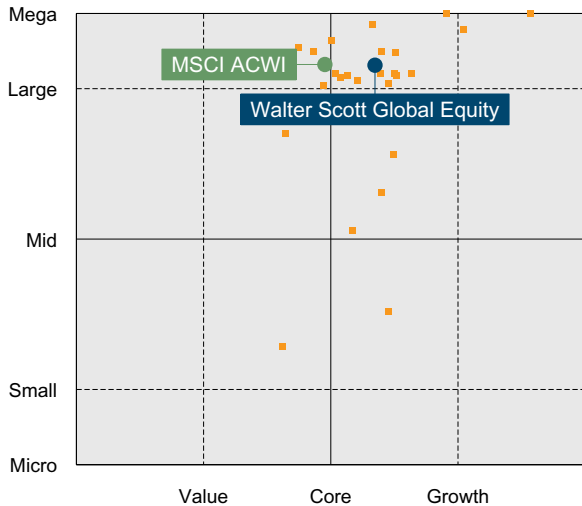
Current Holdings Based Style Analysis

Walter Scott Global Equity

As of June 30, 2024

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

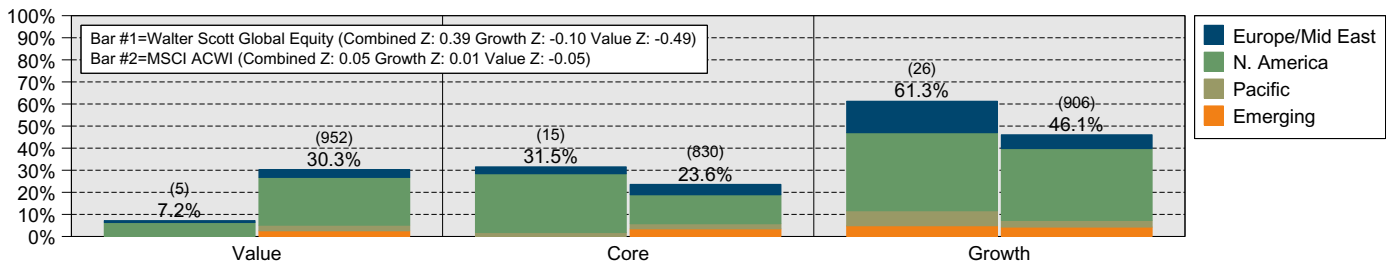
Style Map vs Callan Gbl Dev Gr Eq Holdings as of June 30, 2024



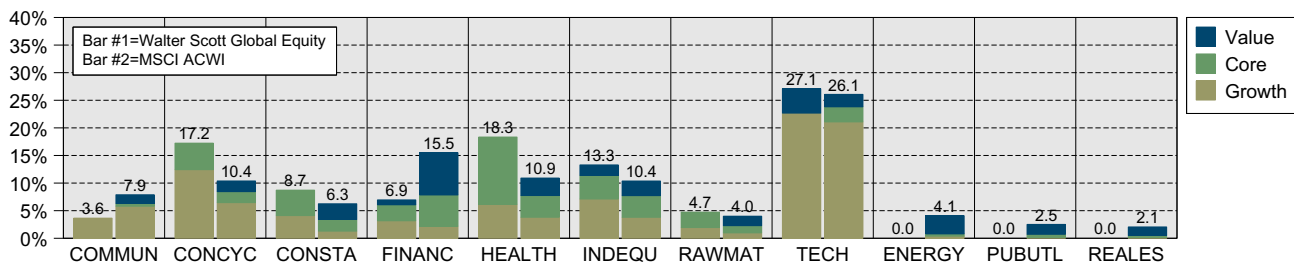
Style Exposure Matrix Holdings as of June 30, 2024

	Value	Core	Growth	Total
Europe/Mid East	0.9% (1) 3.6% (147)	3.1% (2) 4.7% (148)	14.3% (7) 6.3% (134)	18.3% (10) 14.6% (429)
N. America	6.3% (4) 21.6% (320)	26.6% (12) 13.1% (188)	35.3% (14) 32.6% (166)	68.3% (30) 67.3% (674)
Pacific	0.0% (0) 2.5% (122)	1.8% (1) 2.3% (92)	6.8% (4) 3.0% (99)	8.6% (5) 7.8% (313)
Emerging	0.0% (0) 2.6% (363)	0.0% (0) 3.4% (402)	4.9% (1) 4.3% (507)	4.9% (1) 10.3% (1272)
Total	7.2% (5) 30.3% (952)	31.5% (15) 23.6% (830)	61.3% (26) 46.1% (906)	100.0% (46) 100.0% (2688)

Combined Z-Score Style Distribution Holdings as of June 30, 2024



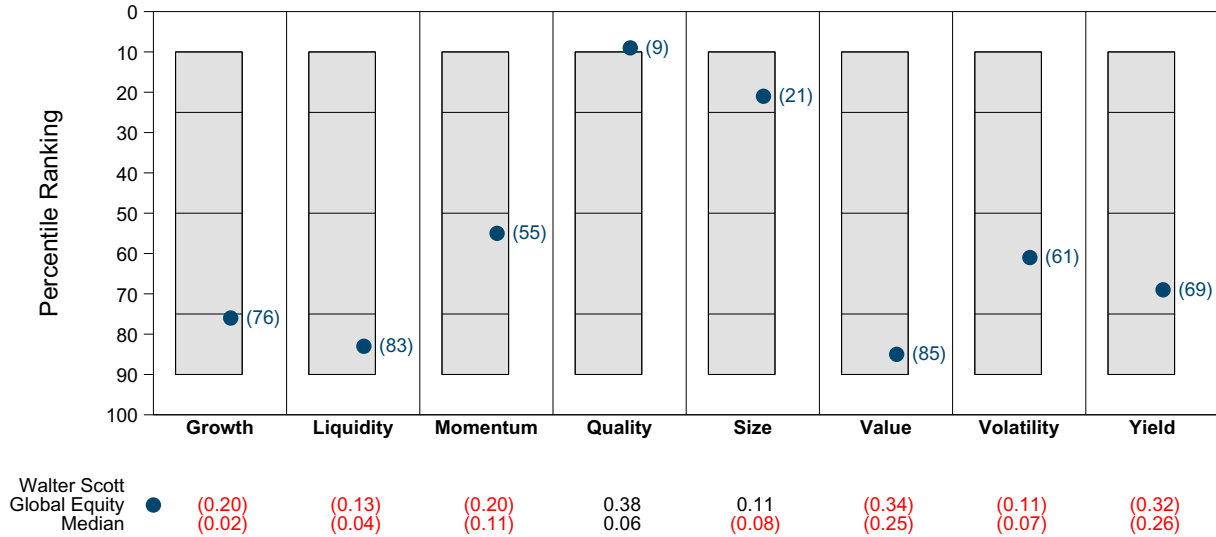
Sector Weights Distribution Holdings as of June 30, 2024



Relative Factor Exposure Rankings

This graph compares the manager’s factor exposure with the distribution of exposures for the Callan Global Developed Growth Equity group. This analysis illustrates whether the manager’s factor exposures are consistent with those of other managers employing the same style.

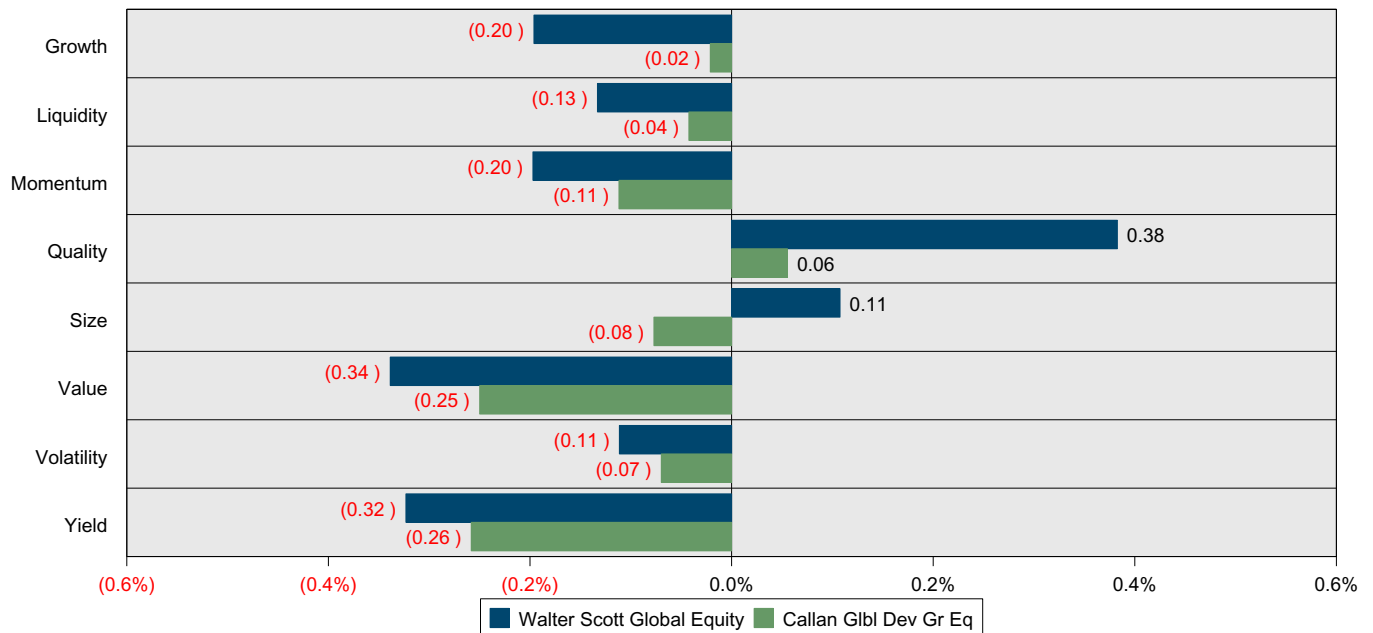
Factor Exposures Relative to MSCI ACWI, Rankings vs Callan Global Developed Growth Equity for Period Ended June 30, 2024



Relative Factor Exposures

This graph compares the manager’s factor exposures and the median factor for the Callan Global Developed Growth Equity group relative to the MSCI ACWI.

Factor Exposures Relative to MSCI ACWI for Period Ended June 30, 2024



Total Fixed Income Period Ended June 30, 2024

Fixed Income Benchmark

The Fixed Income Benchmark is the Bloomberg Universal Bond Index as of 7/1/2007. From 1/1/2005 to 7/1/2007 the benchmark was 85% Bloomberg Universal Bond Index and 15% JP Morgan GBI Broad Index. From 1/1/2000 to 1/1/2005 the benchmark was 83% Bloomberg Universal Bond Index and 17% JP Morgan GBI Broad Index. From 1/1/1996 to 1/1/2000 the benchmark was 80% Bloomberg Universal Bond Index and 20% JP Morgan GBI Broad Index. Prior to 1/1/1996 the benchmark was the Bloomberg Universal Bond Index.

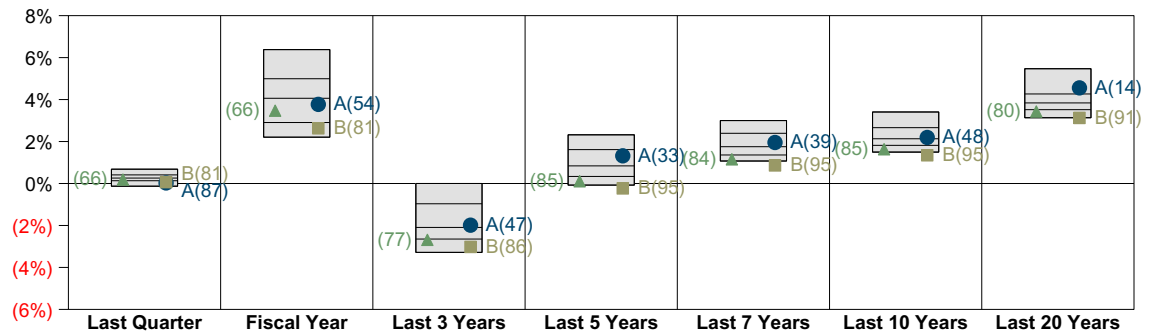
Quarterly Summary and Highlights

- Total Fixed Income's portfolio posted a 0.03% return for the quarter placing it in the 87 percentile of the Large Public Fd - Dom Fixed group for the quarter and in the 54 percentile for the last year.
- Total Fixed Income's portfolio underperformed the Fixed Income Benchmark by 0.16% for the quarter and outperformed the Fixed Income Benchmark for the year by 0.30%.

Quarterly Asset Growth

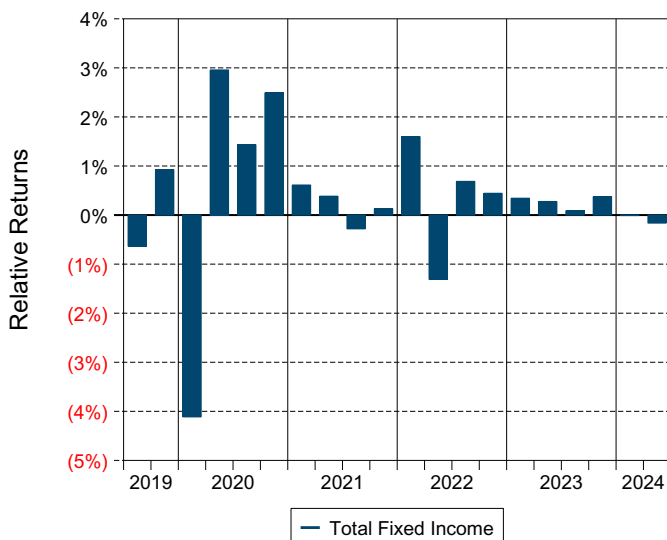
Beginning Market Value	\$2,335,505,005
Net New Investment	\$0
Investment Gains/(Losses)	\$632,558
Ending Market Value	\$2,336,137,563

Performance vs Large Public Fd - Dom Fixed (Gross)

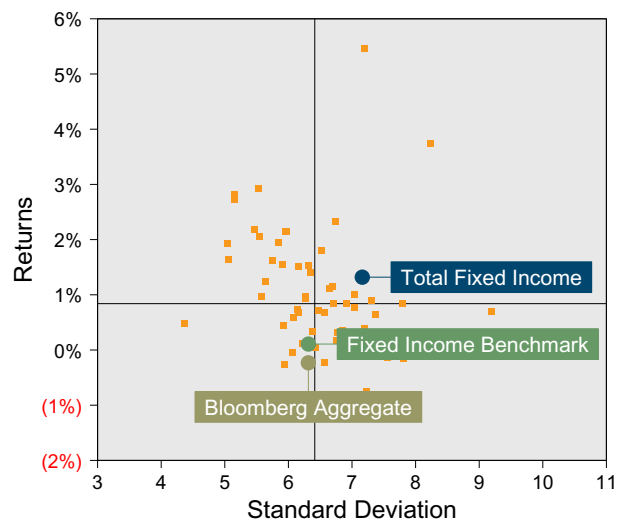


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	0.68	6.38	0.00	2.32	3.00	3.41	5.47
25th Percentile	0.41	4.99	(0.97)	1.62	2.39	2.66	4.27
Median	0.26	4.06	(2.09)	0.84	1.75	2.13	3.84
75th Percentile	0.13	2.91	(2.65)	0.34	1.36	1.82	3.52
90th Percentile	(0.13)	2.21	(3.28)	(0.08)	1.07	1.50	3.13
Total Fixed Income	● A 0.03	3.77	(1.99)	1.32	1.95	2.19	4.56
Bloomberg Aggregate	■ B 0.07	2.63	(3.02)	(0.23)	0.86	1.35	3.12
Fixed Income Benchmark	▲ 0.19	3.47	(2.68)	0.11	1.15	1.63	3.43

Relative Return vs Fixed Income Benchmark



Large Public Fd - Dom Fixed (Gross) Annualized Five Year Risk vs Return

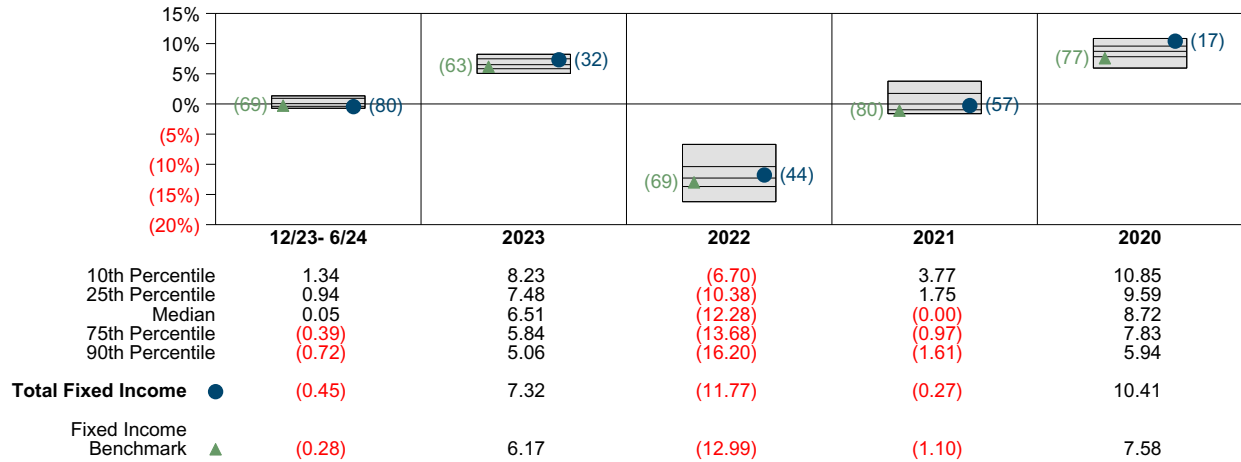


Total Fixed Income Return Analysis Summary

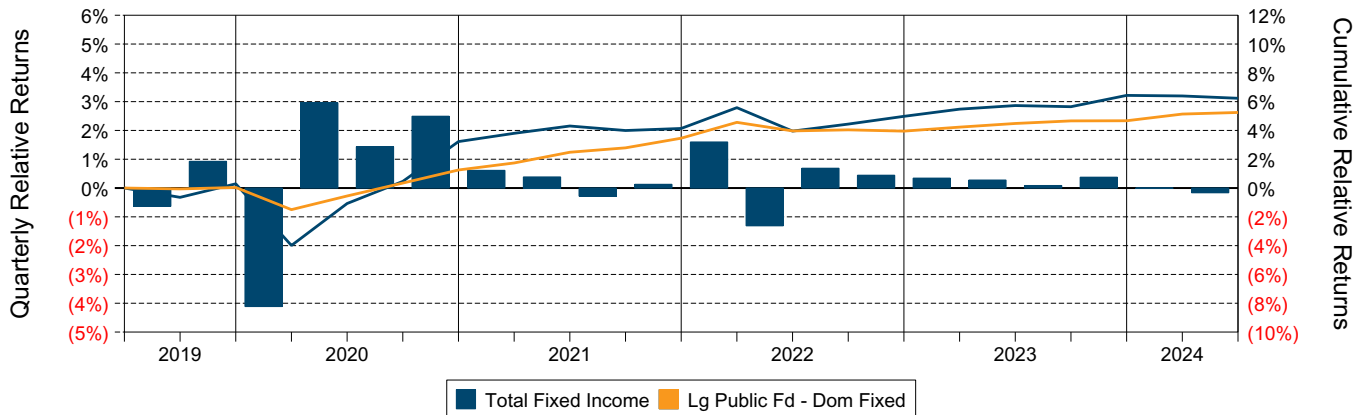
Return Analysis

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

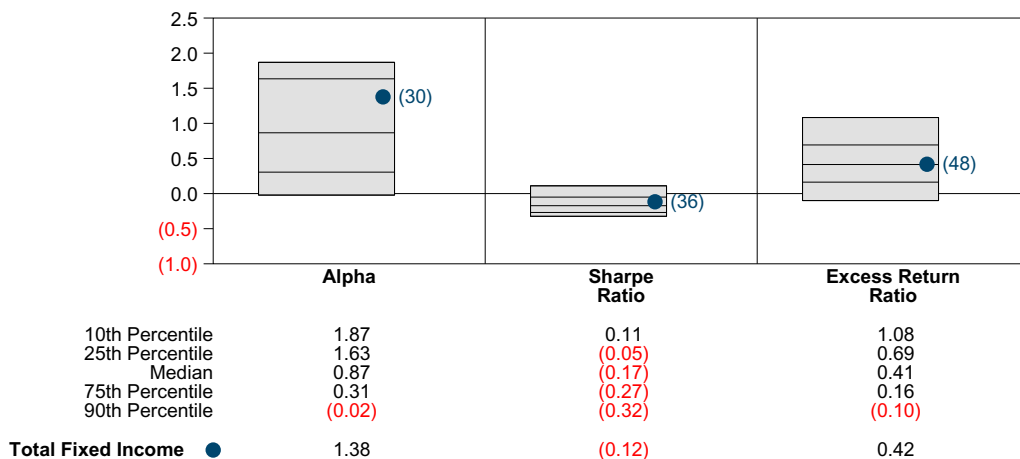
Performance vs Lg Public Fd - Dom Fixed (Gross)



Cumulative and Quarterly Relative Returns vs Fixed Income Benchmark



Risk Adjusted Return Measures vs Fixed Income Benchmark Rankings Against Lg Public Fd - Dom Fixed (Gross) Five Years Ended June 30, 2024

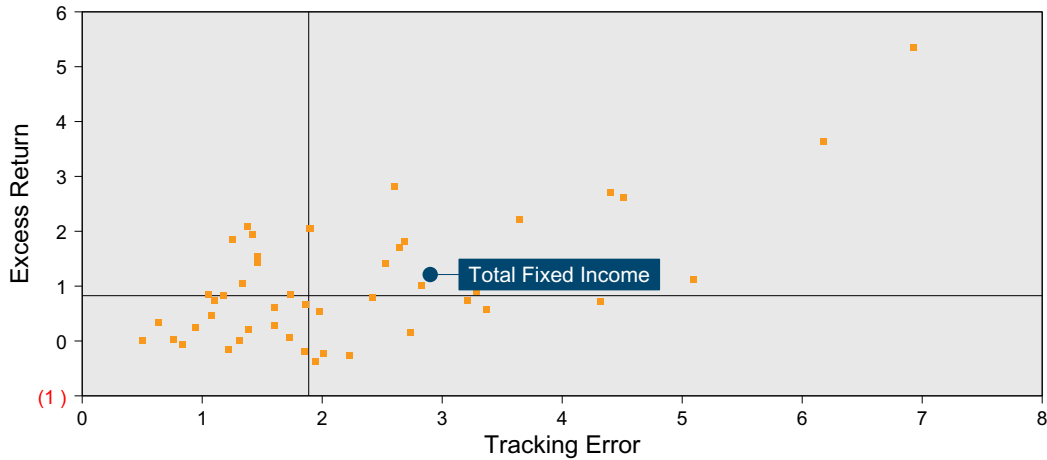


Total Fixed Income Risk Analysis Summary

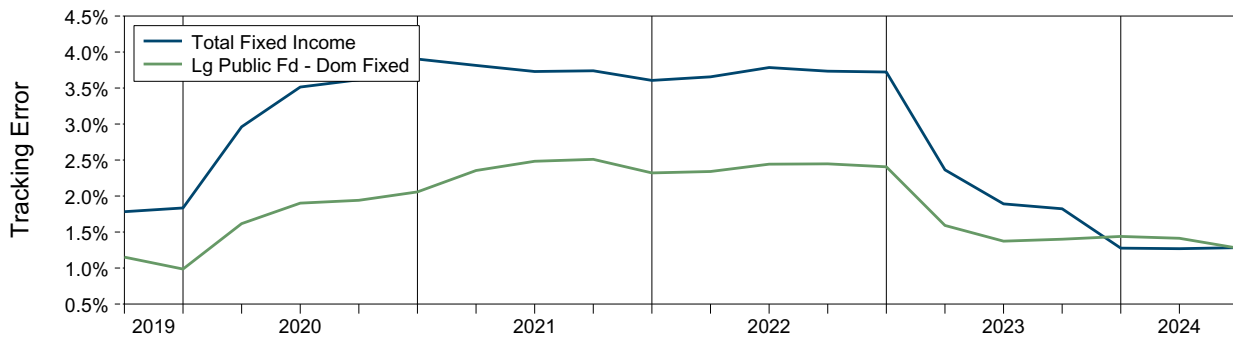
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

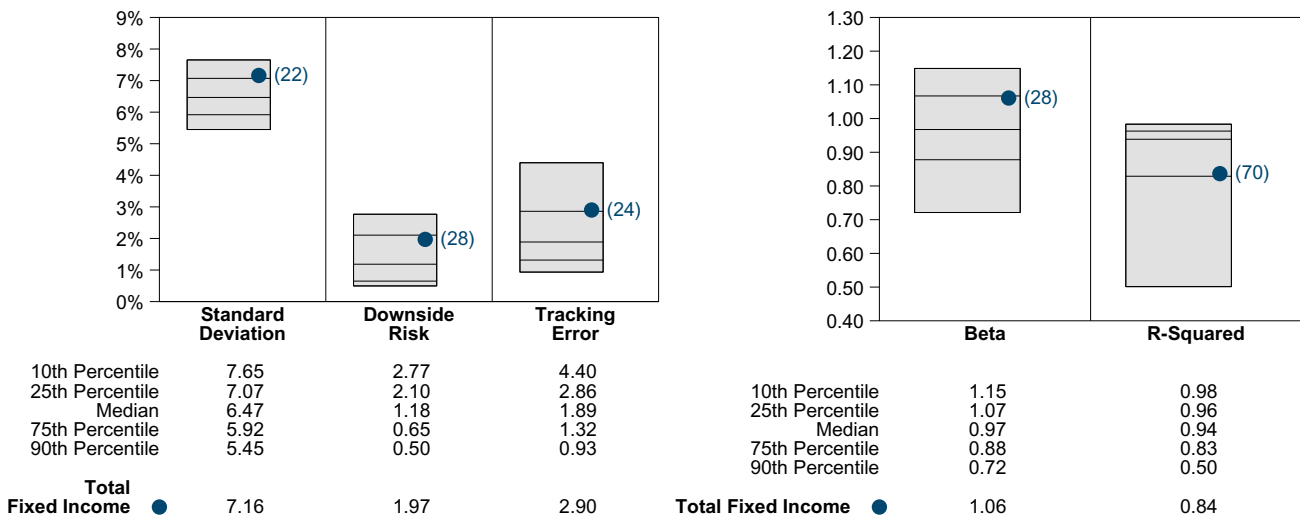
Risk Analysis vs Lg Public Fund - Domestic Fixed (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs Fixed Income Benchmark



Risk Statistics Rankings vs Fixed Income Benchmark Rankings Against Lg Public Fund - Domestic Fixed (Gross) Five Years Ended June 30, 2024

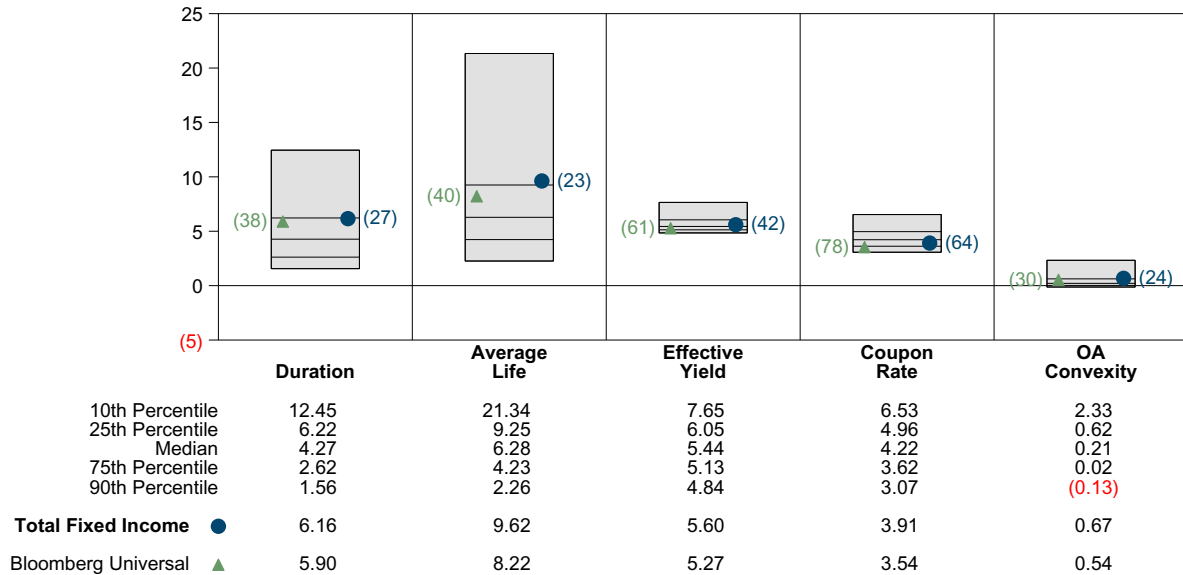


Total Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

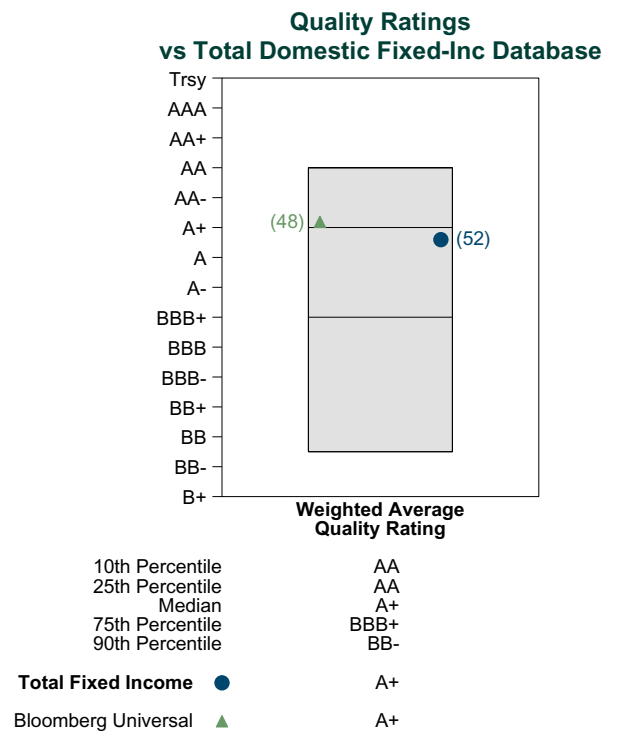
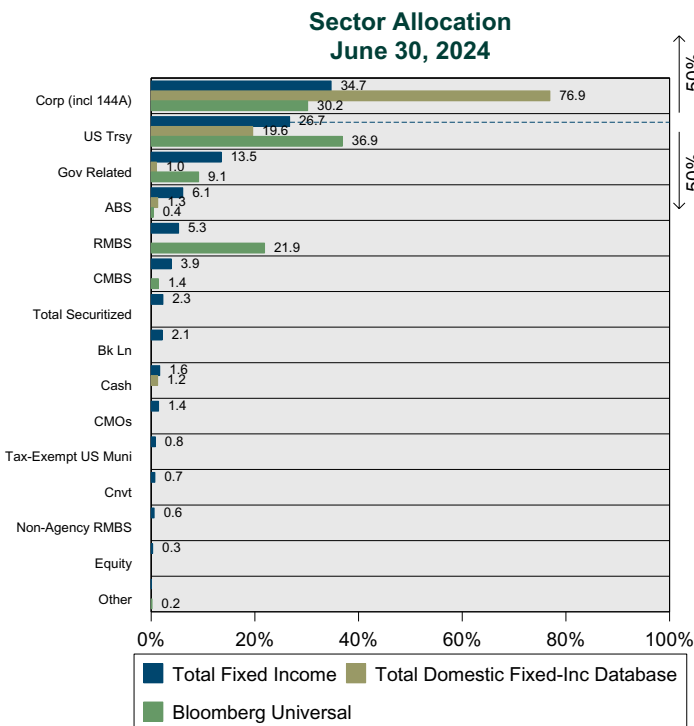
This graph compares the portfolio characteristics with the range of characteristics for the portfolios which make up the portfolio's style group. This analysis illustrates whether the portfolio's current holdings are consistent with other portfolios employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of June 30, 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.

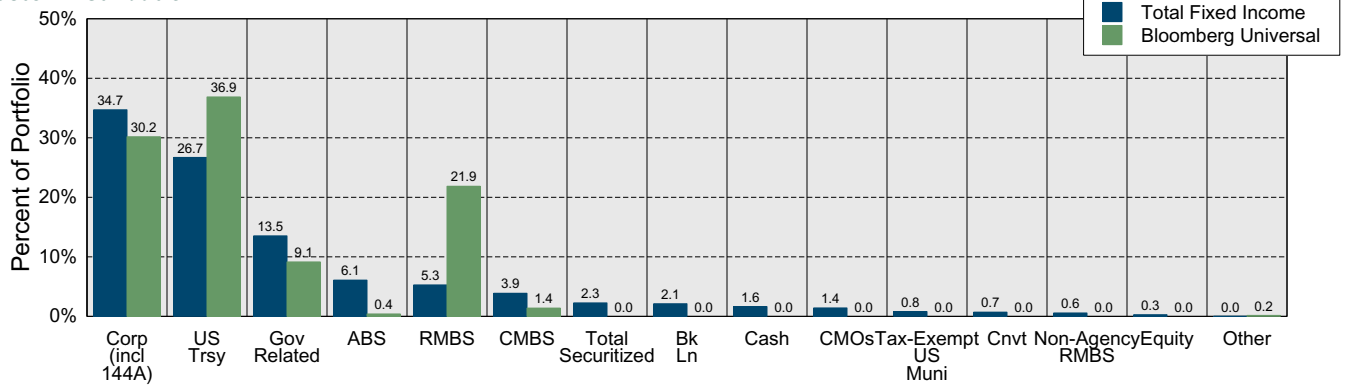


Total Fixed Income Portfolio Characteristics Summary As of June 30, 2024

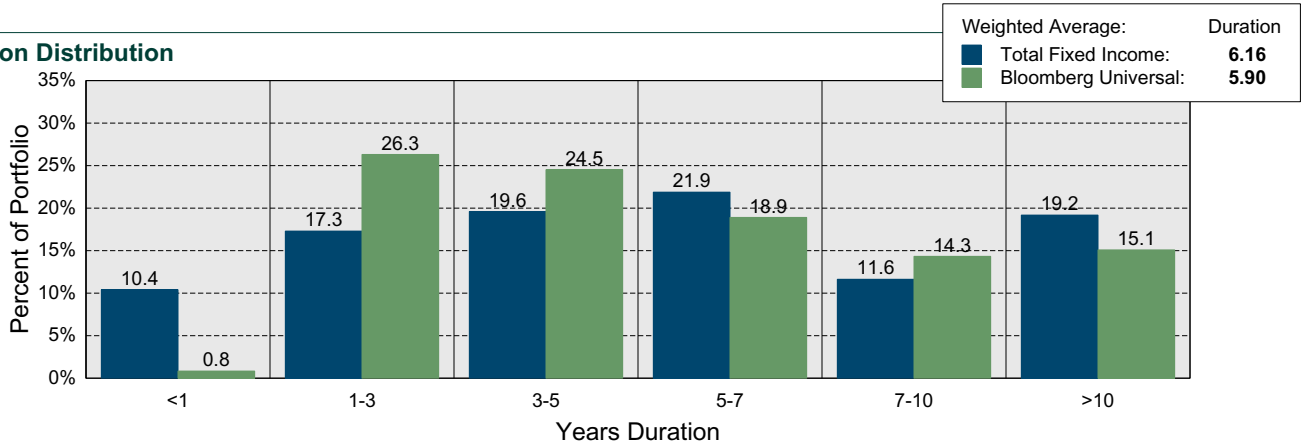
Portfolio Structure Comparison

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.

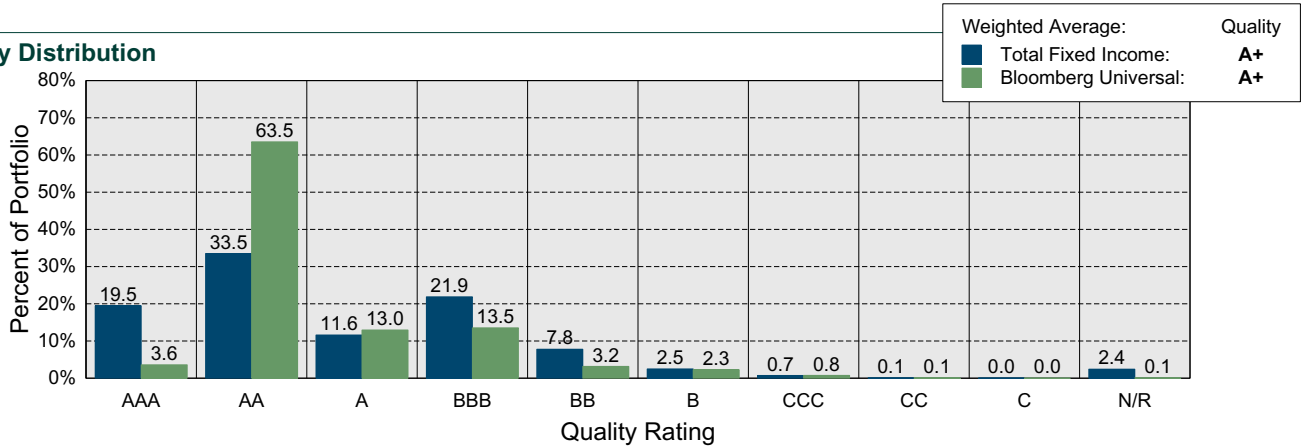
Sector Distribution



Duration Distribution



Quality Distribution



BlackRock SIO Bond Fund

Period Ended June 30, 2024

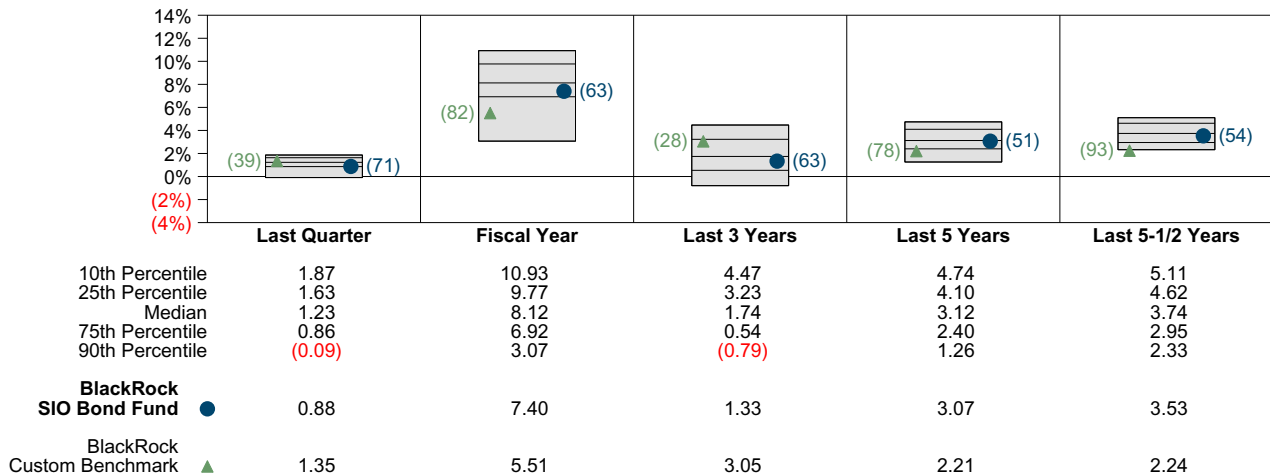
Investment Philosophy

BlackRock Strategic Income Opportunities ("SIO") is managed as an Unconstrained strategy and is not managed to a benchmark. The strategy seeks total return by investing across mainly fixed income sectors and credit qualities utilizing a framework with a typical volatility risk budget of 2-4%, with a maximum risk of 7%. Permissible portfolio duration can range between -2 years to +7 years, though historically has ranged between 0-3 years. At times, the strategy may have small exposures to equities, as well as prevalent use of derivatives to target specific risk profiles. Risk management is an integral part of the strategy and aims to provide downside protection as well as manage volatility. The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022. Prior to 1/1/2022 it was the ICE BofA US Dollar 3-Month Deposit Offered Rate Constant Maturity Index as of 7/1/2020. Prior to 7/1/2020 the benchmark was 3-Month Libor Total Return USD. NHRS inception in the fund is December 2018.

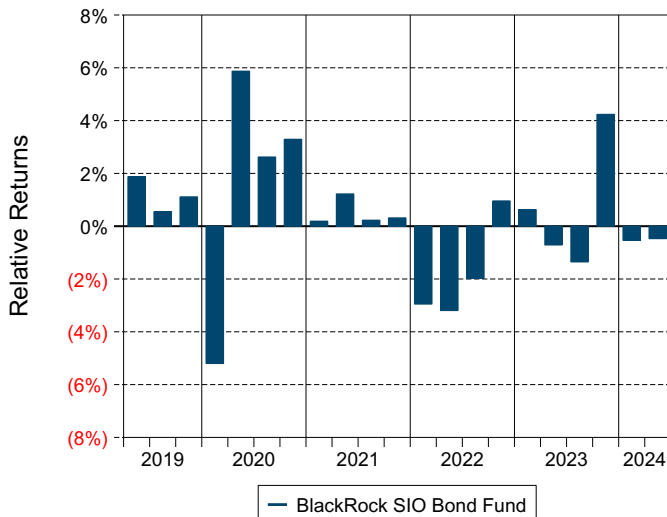
Quarterly Asset Growth

Beginning Market Value	\$268,438,499
Net New Investment	\$0
Investment Gains/(Losses)	\$2,351,213
Ending Market Value	\$270,789,712

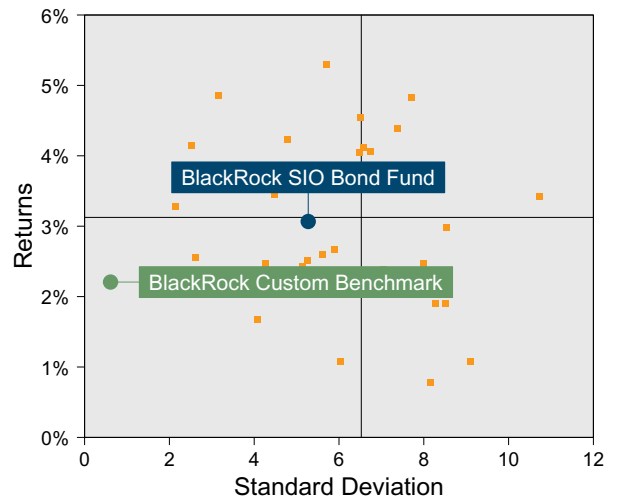
Performance vs Callan Unconstrained FI (Gross)



Relative Returns vs BlackRock Custom Benchmark



Callan Unconstrained FI (Gross) Annualized Five Year Risk vs Return

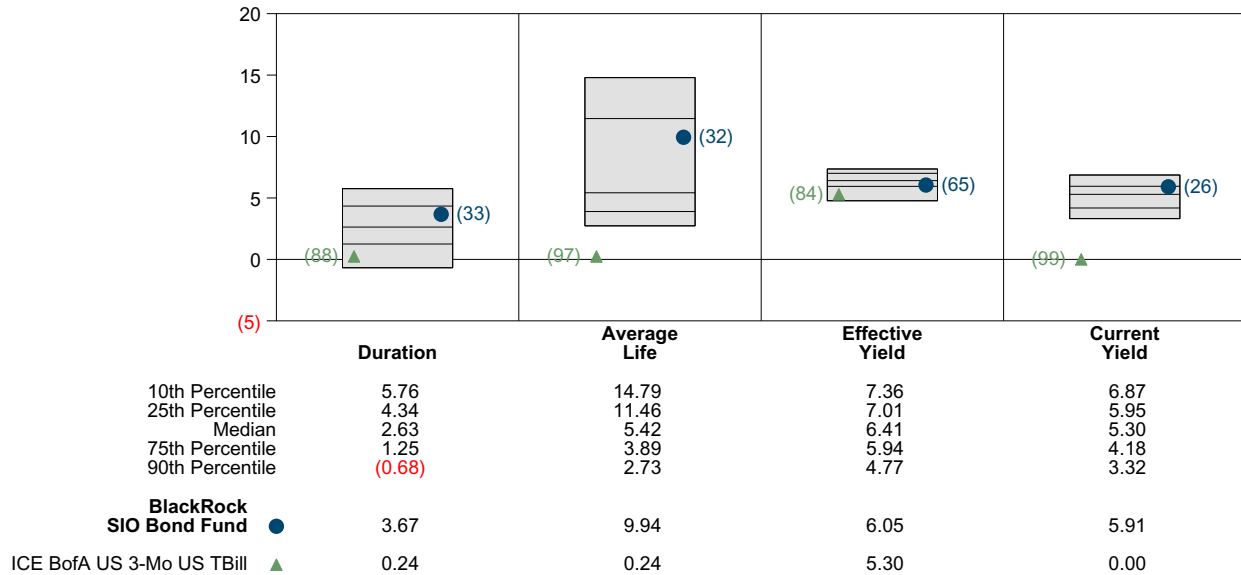


BlackRock SIO Bond Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

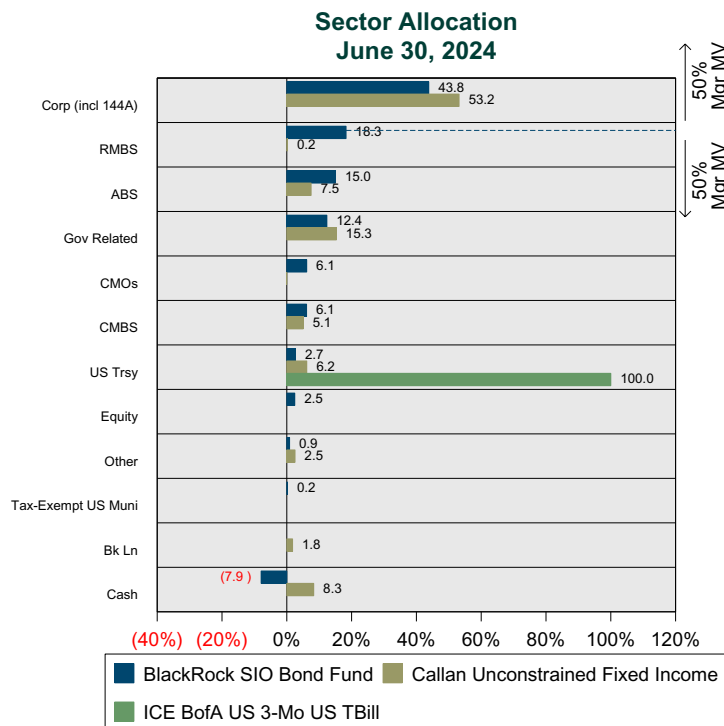
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Unconstrained Fixed Income as of June 30, 2024

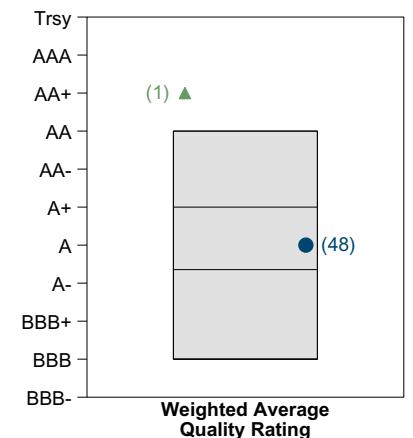


Sector Allocation and Quality Ratings

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.



Quality Ratings vs Callan Unconstrained Fixed Income



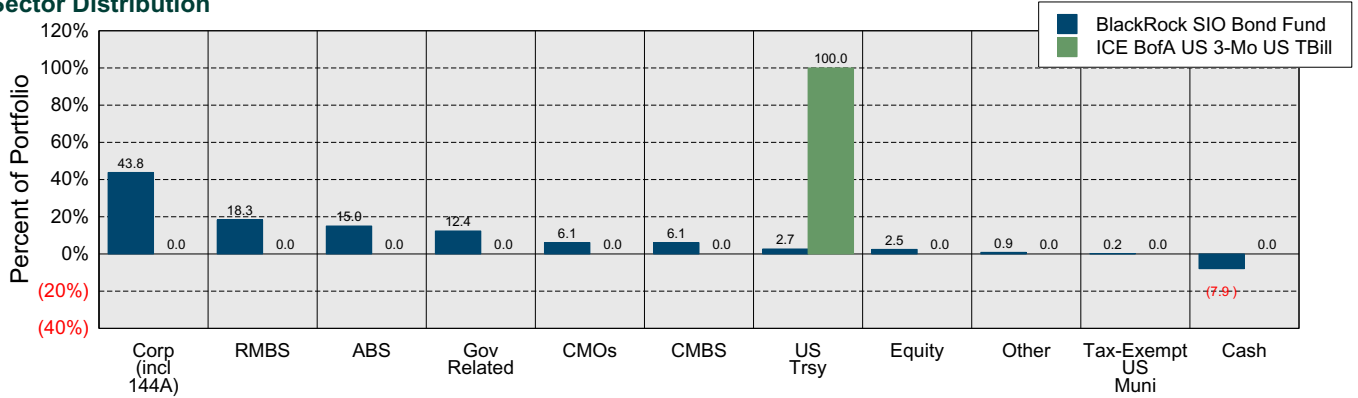
10th Percentile	AA
25th Percentile	A+
Median	A-
75th Percentile	BBB
90th Percentile	BBB
BlackRock SIO Bond Fund	A
ICE BofA US 3-Mo US TBill	AA+

BlackRock SIO Bond Fund Portfolio Characteristics Summary As of June 30, 2024

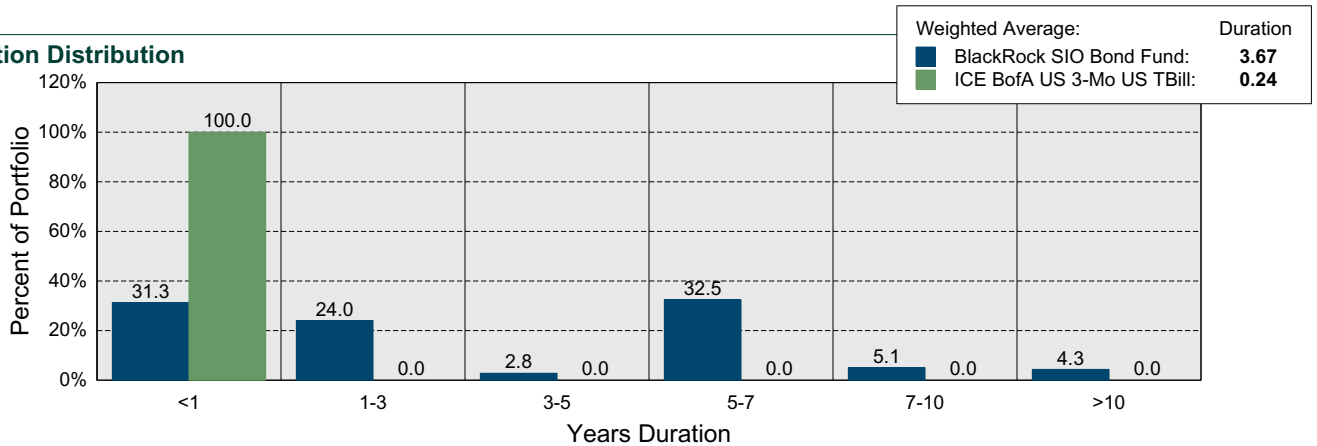
Portfolio Structure Comparison

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.

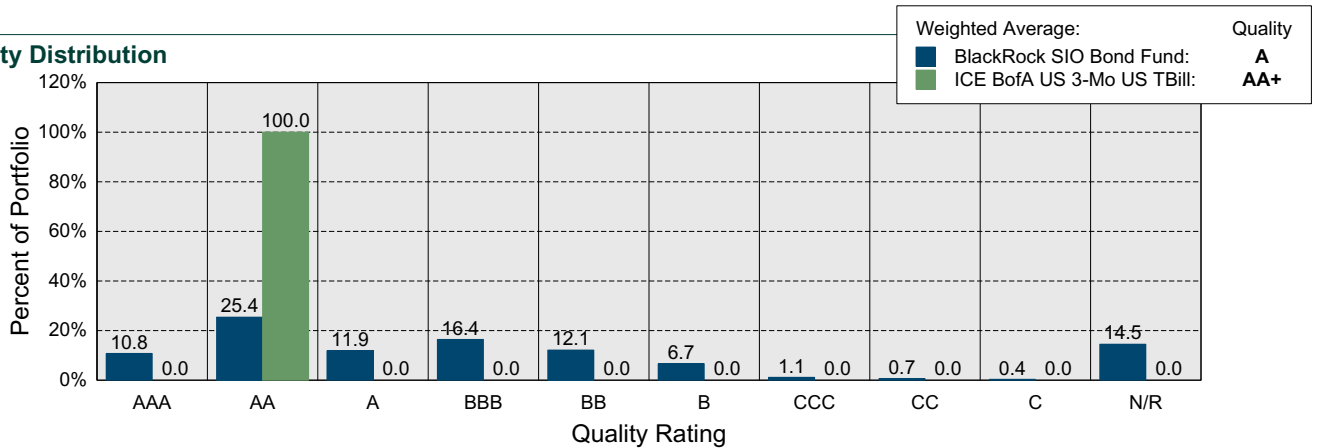
Sector Distribution



Duration Distribution



Quality Distribution



Brandywine Asset Mgmt Period Ended June 30, 2024

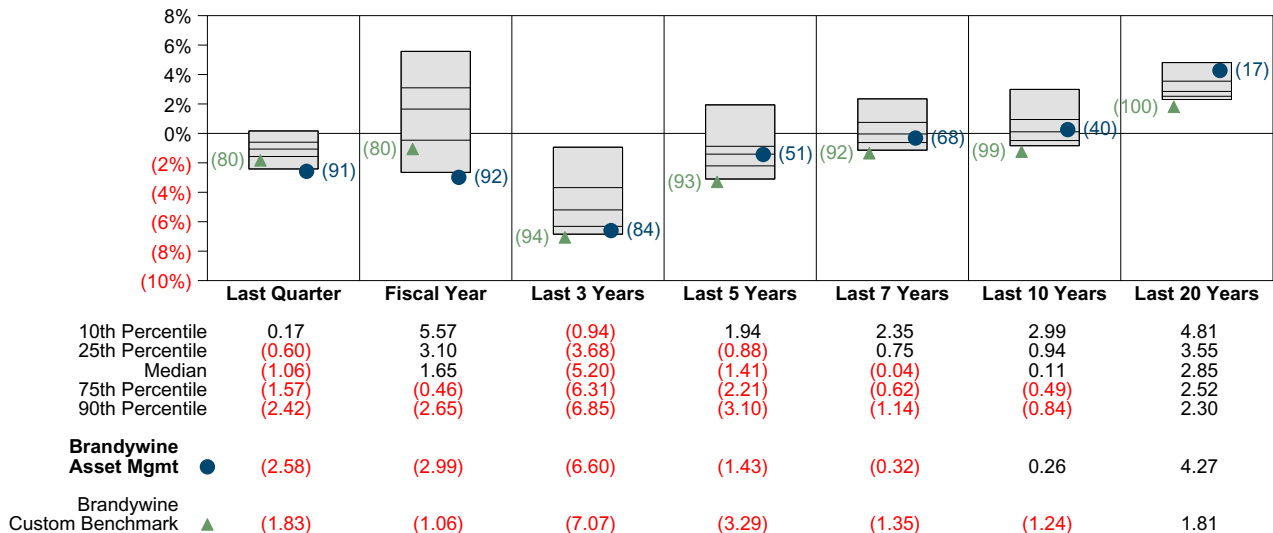
Investment Philosophy

Brandywine's Global Opportunistic Fixed Income strategy ("GOFI") is a value-driven, opportunistic approach. Value is defined as a combination of above-average real interest rates and an under-valued currency. They concentrate investments where existing economic and market conditions can enable that value to be realized in an intermediate-to-long time frame. They capture excess returns through strategic investments in sovereign bond, corporate credit, structured product, and currencies. The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021. Prior to 11/1/2021, the benchmark was the FTSE WGBI Index as of 9/1/2013. Prior to 9/1/2013, it was the JP Morgan GBI Broad Index. NHRS inception in the fund is October 1997.

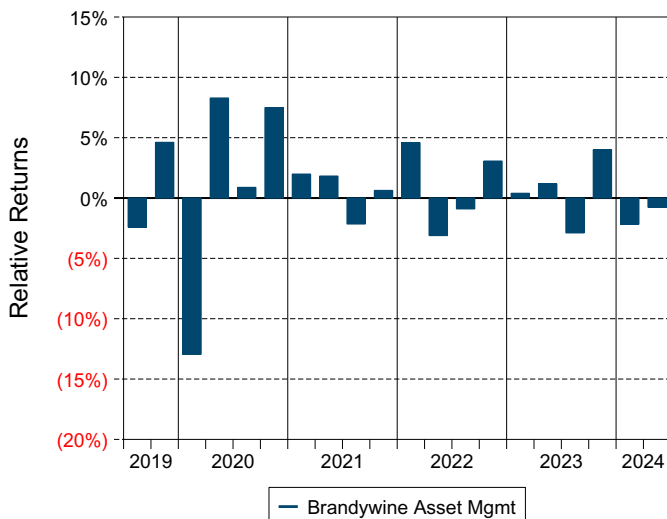
Quarterly Asset Growth

Beginning Market Value	\$227,869,390
Net New Investment	\$0
Investment Gains/(Losses)	\$-5,871,846
Ending Market Value	\$221,997,543

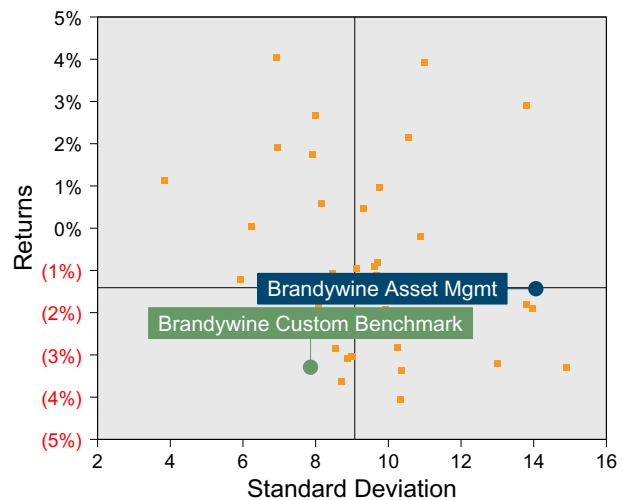
Performance vs Callan Global Fixed Income (Unhedged) (Gross)



Relative Returns vs Brandywine Custom Benchmark



Callan Global Fixed Income (Unhedged) (Gross) Annualized Five Year Risk vs Return

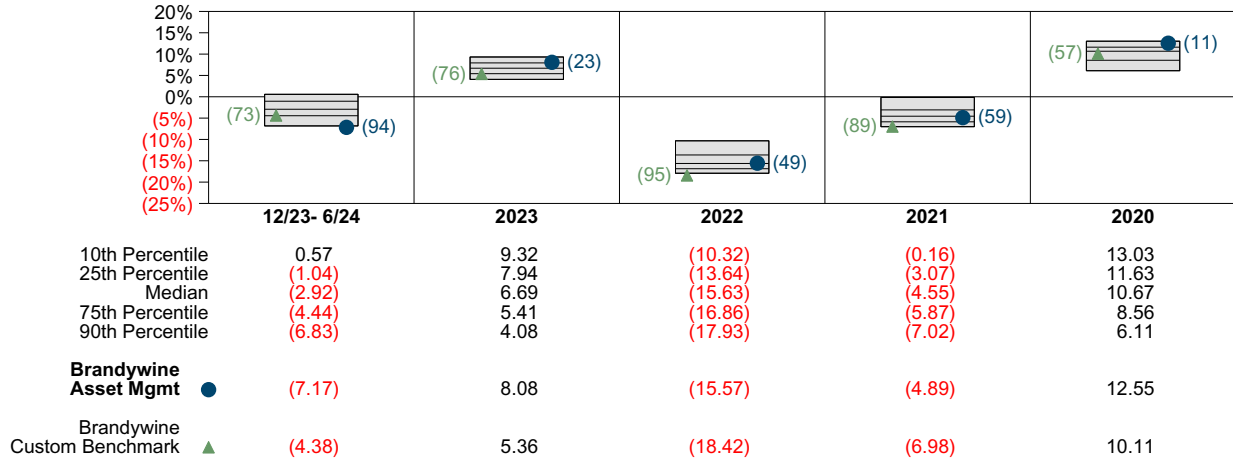


Brandywine Asset Mgmt Return Analysis Summary

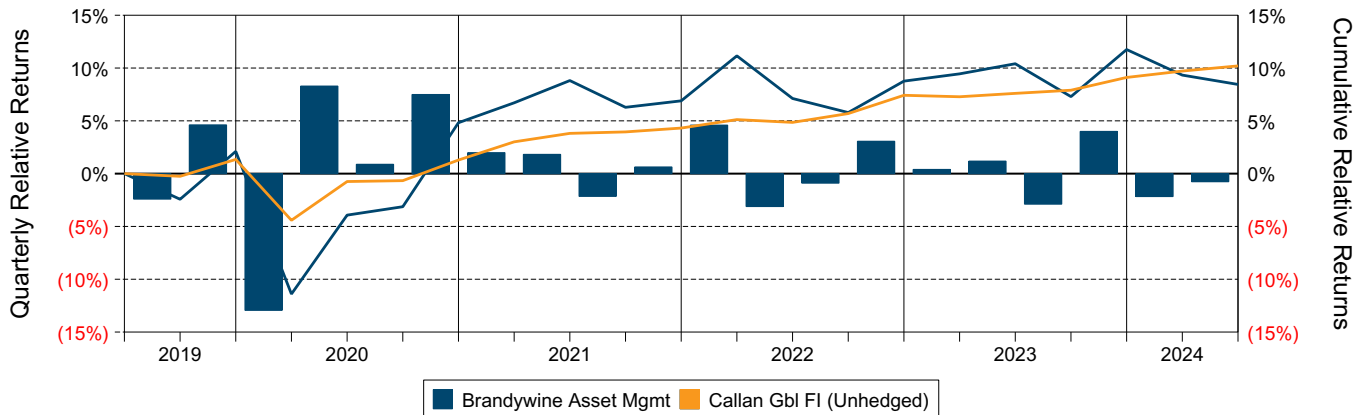
Return Analysis

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.

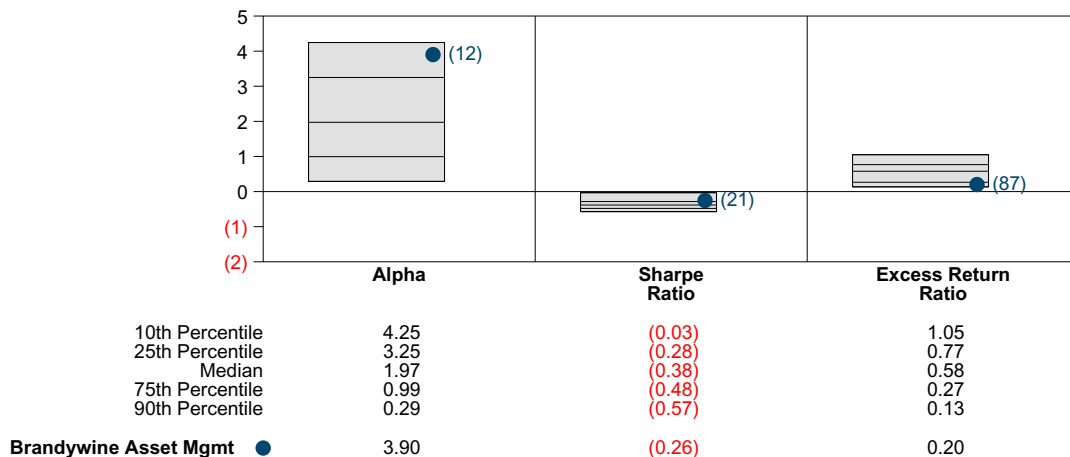
Performance vs Callan Global Fixed Income (Unhedged) (Gross)



Cumulative and Quarterly Relative Returns vs Brandywine Custom Benchmark



Risk Adjusted Return Measures vs Brandywine Custom Benchmark Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024

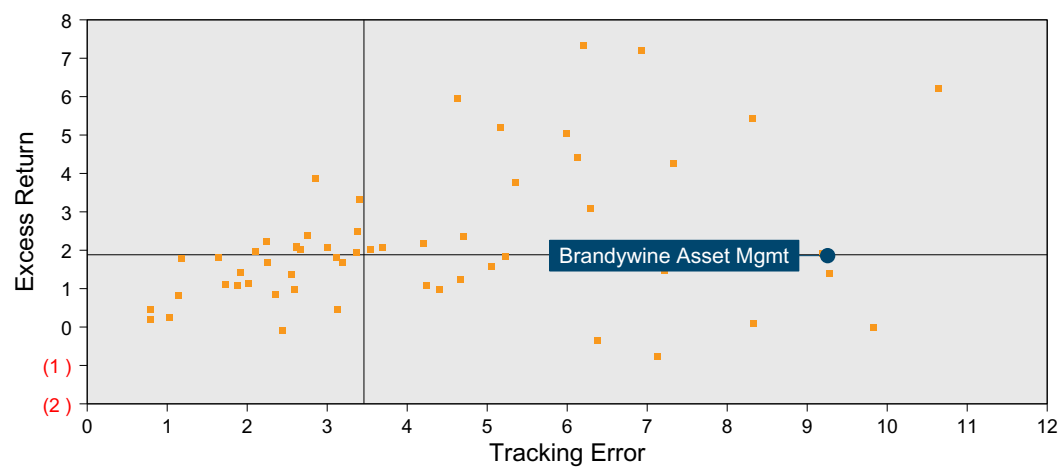


Brandywine Asset Mgmt Risk Analysis Summary

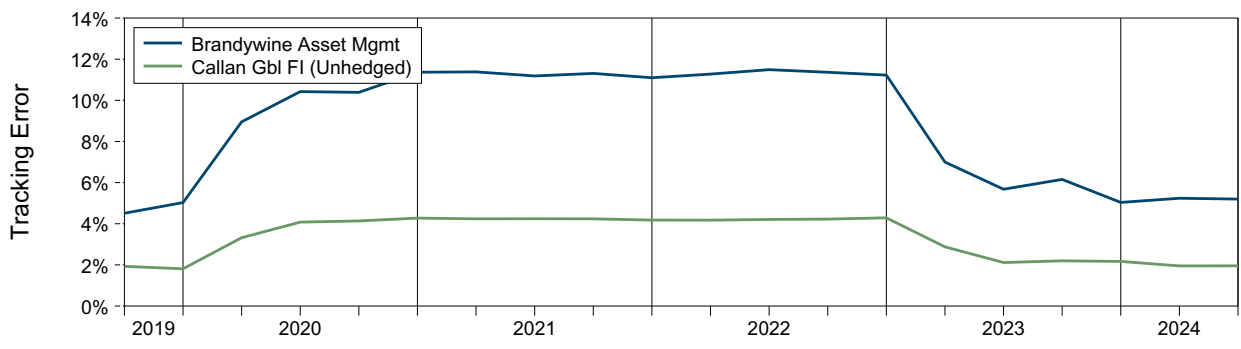
Risk Analysis

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.

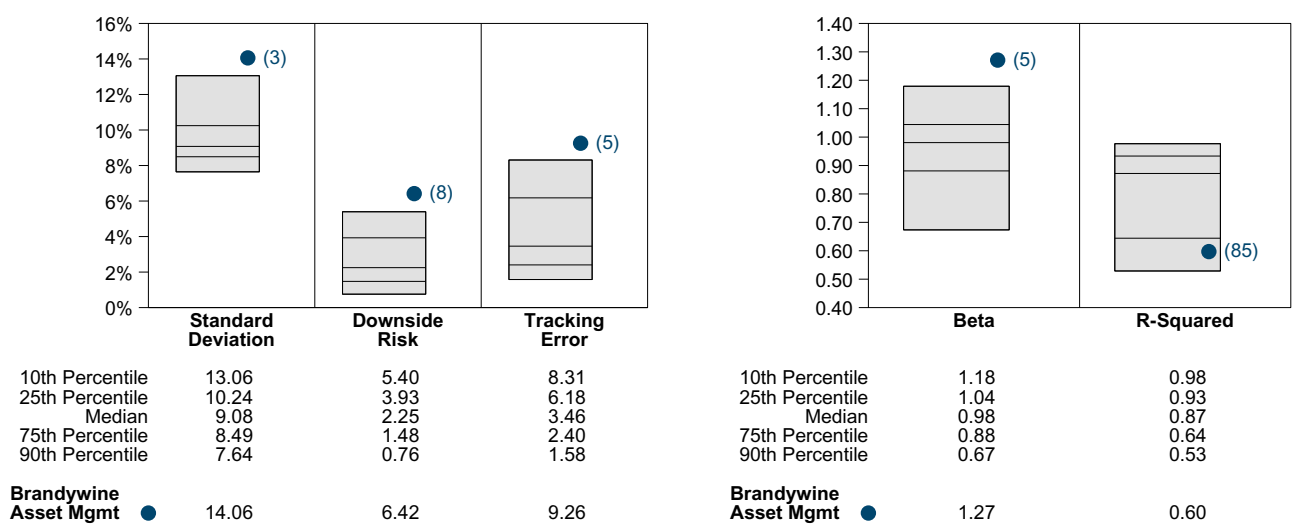
Risk Analysis vs Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs Brandywine Custom Benchmark



Risk Statistics Rankings vs Brandywine Custom Benchmark Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024

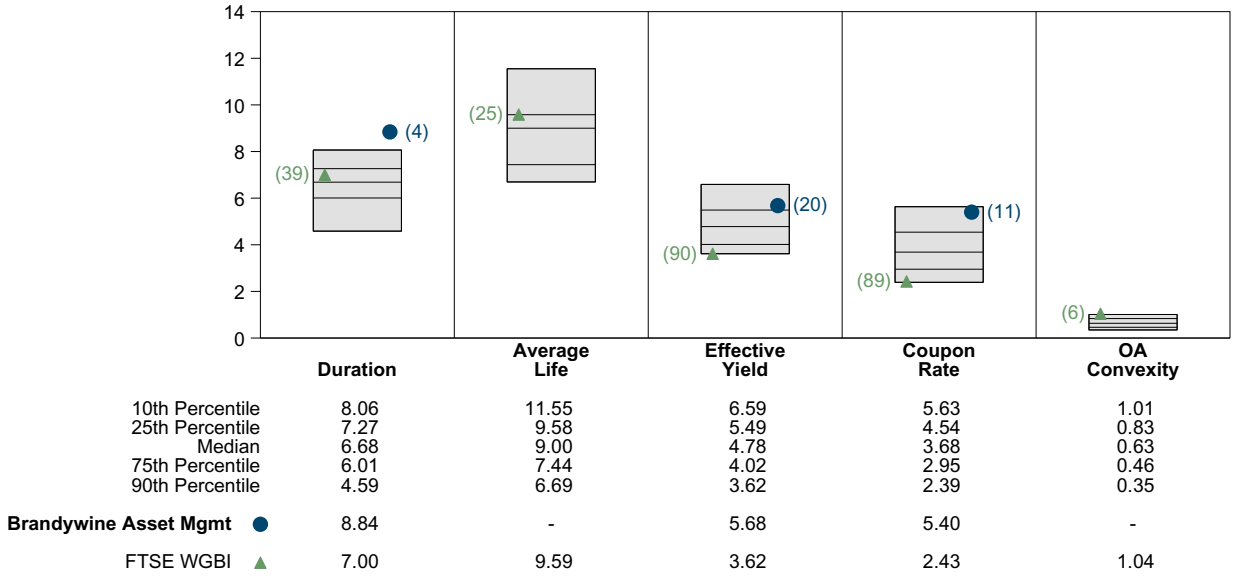


Brandywine Asset Mgmt Bond Characteristics Analysis Summary

Portfolio Characteristics

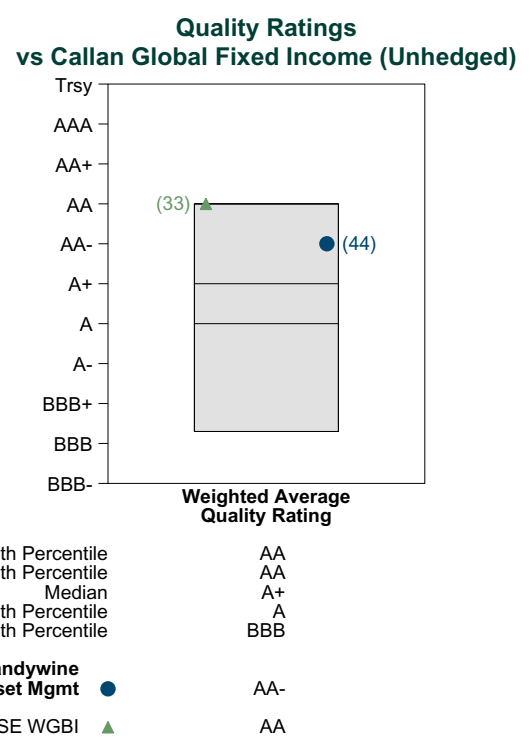
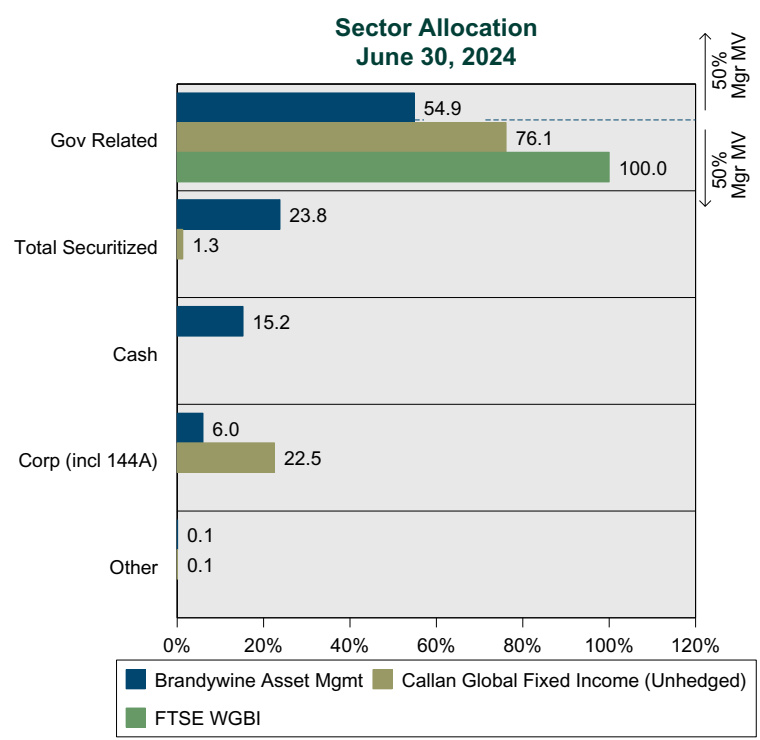
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed Income (Unhedged) as of June 30, 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.

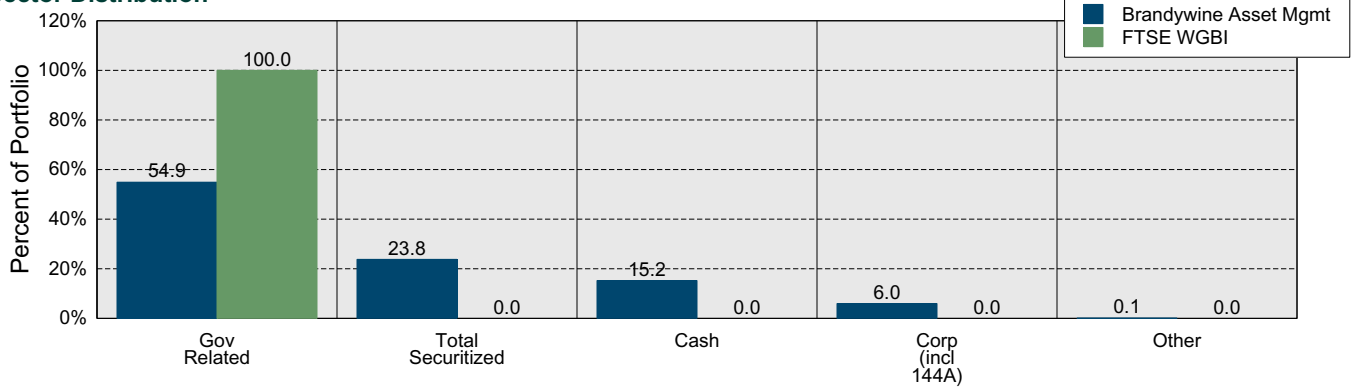


Brandywine Asset Mgmt Portfolio Characteristics Summary As of June 30, 2024

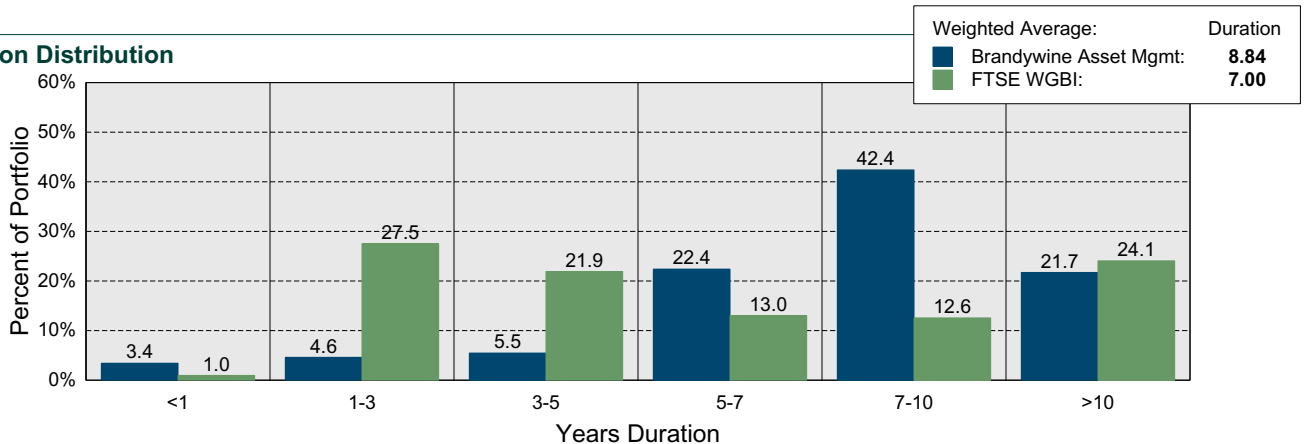
Portfolio Structure Comparison

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.

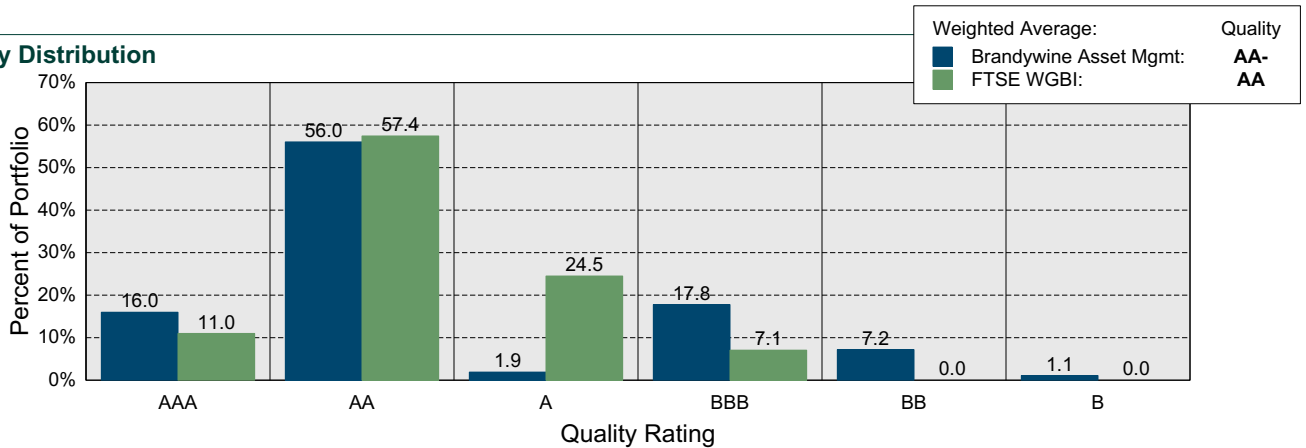
Sector Distribution



Duration Distribution



Quality Distribution



FIAM (Fidelity) Tactical Bond Fund

Period Ended June 30, 2024

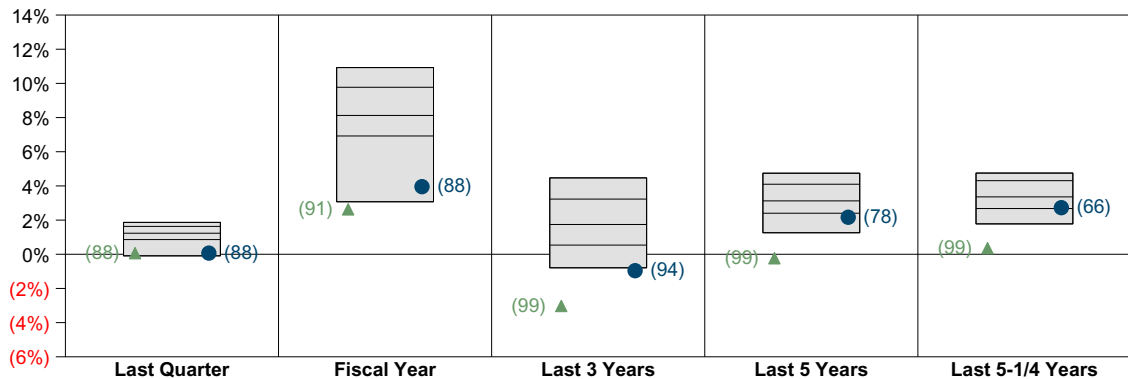
Investment Philosophy

The Fidelity Tactical Bond strategy provides diversified exposure to the fixed income market, investing across sectors including investment grade corporates, securitized, international credit, high yield, and emerging markets debt. The strategy is led by Jeff Moore and Michael Plage, who leverage sector specific teams and the broad research resources of the Fidelity organization. The strategy seeks to outperform the Bloomberg Aggregate Index while targeting 3-6% volatility over a full market cycle. NHRS inception in the fund is January 2019.

Quarterly Asset Growth

Beginning Market Value	\$375,157,014
Net New Investment	\$0
Investment Gains/(Losses)	\$250,606
Ending Market Value	\$375,407,619

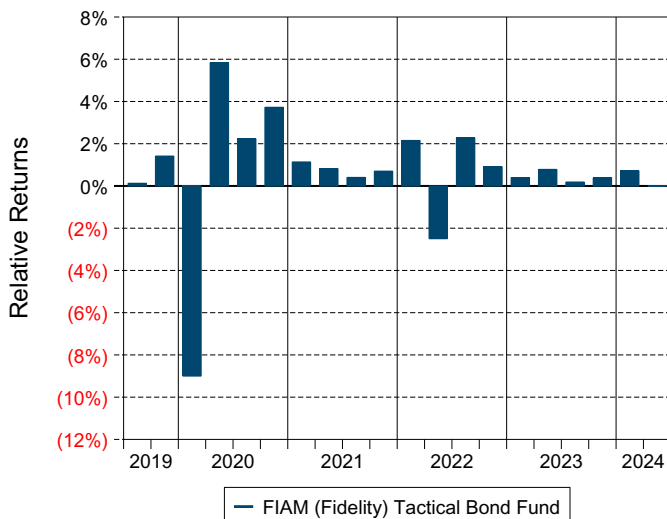
Performance vs Callan Unconstrained FI (Gross)



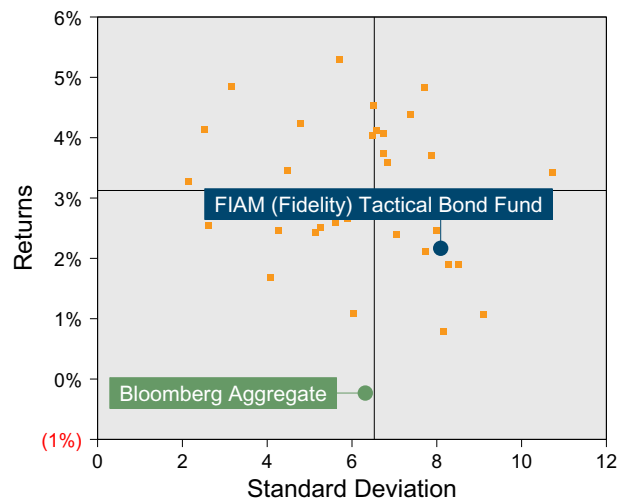
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 5-1/4 Years
10th Percentile	1.87	10.93	4.47	4.74	4.75
25th Percentile	1.63	9.77	3.23	4.10	4.31
Median	1.23	8.12	1.74	3.12	3.36
75th Percentile	0.86	6.92	0.54	2.40	2.68
90th Percentile	(0.09)	3.07	(0.79)	1.26	1.78

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 5-1/4 Years
FIAM (Fidelity) Tactical Bond Fund ●	0.07	3.96	(0.96)	2.17	2.73
Bloomberg Aggregate ▲	0.07	2.63	(3.02)	(0.23)	0.36

Relative Return vs Bloomberg Aggregate



Callan Unconstrained FI (Gross) Annualized Five Year Risk vs Return

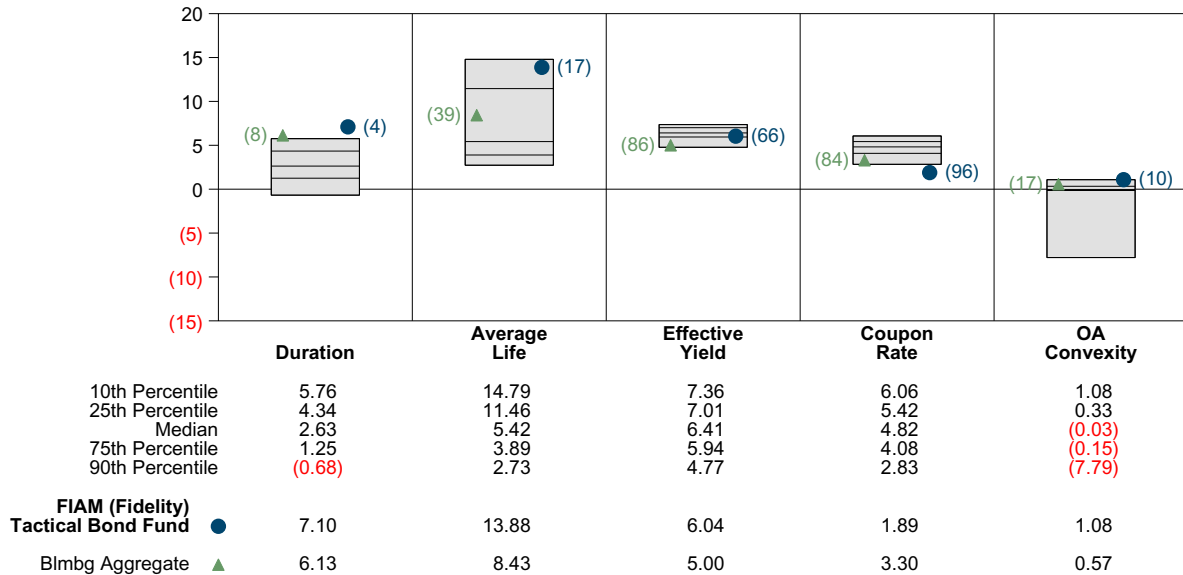


FIAM (Fidelity) Tactical Bond Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

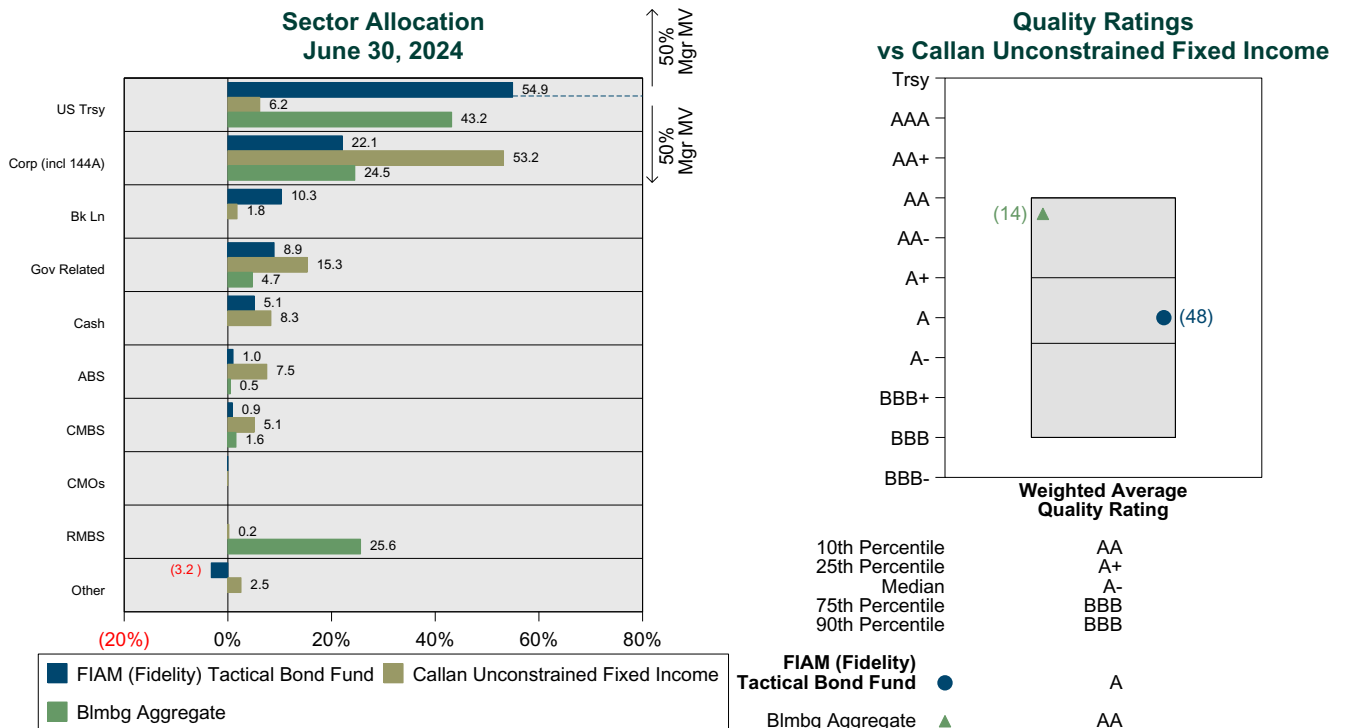
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Unconstrained Fixed Income as of June 30, 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.

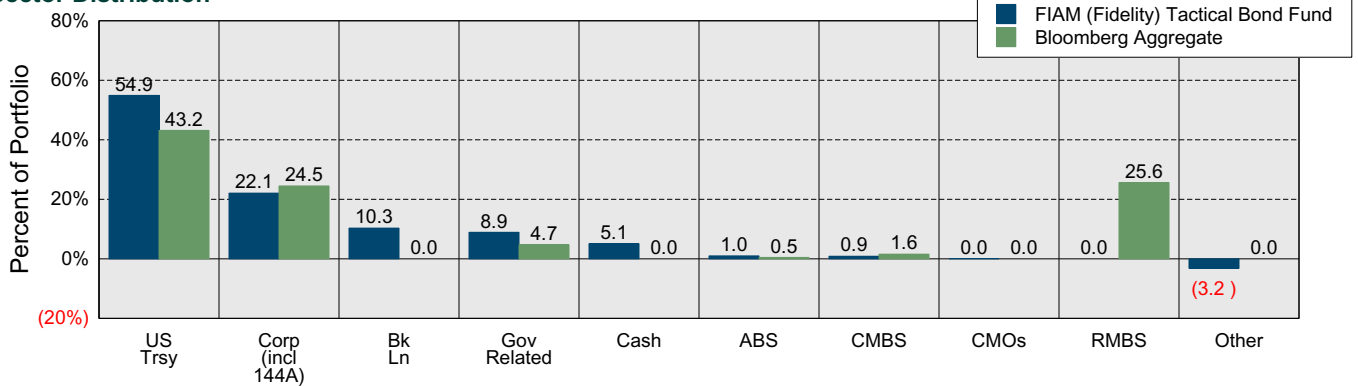


FIAM (Fidelity) Tactical Bond Fund Portfolio Characteristics Summary As of June 30, 2024

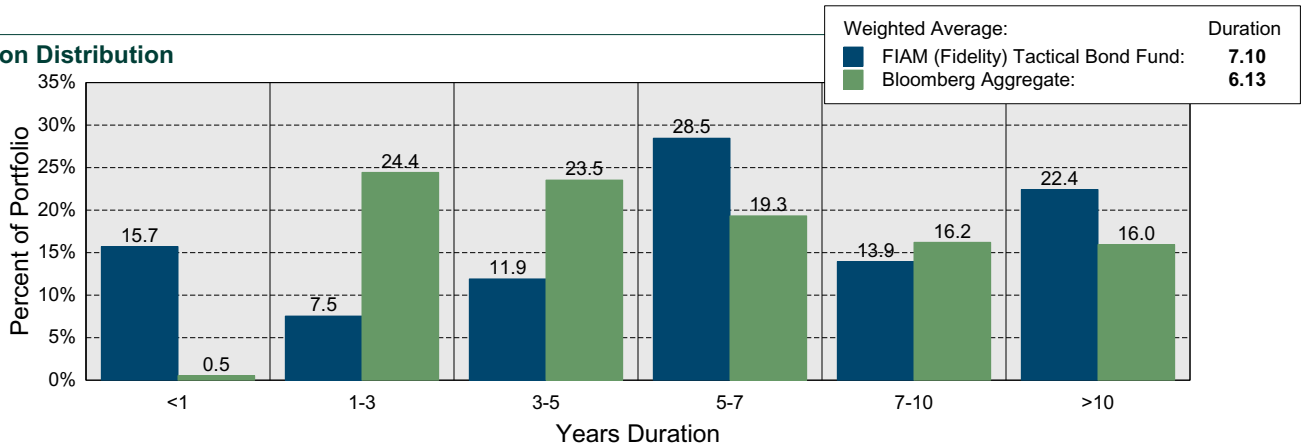
Portfolio Structure Comparison

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.

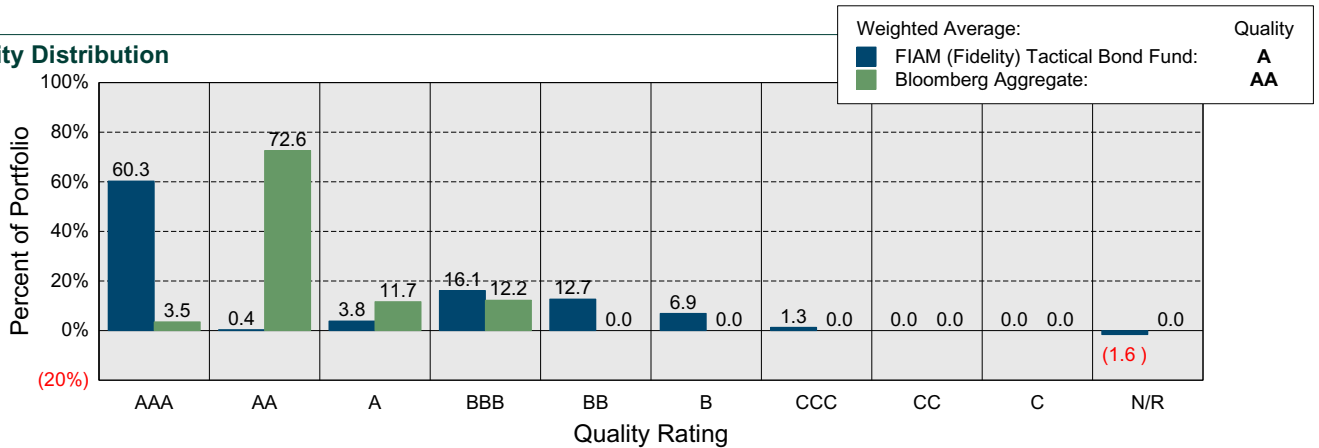
Sector Distribution



Duration Distribution



Quality Distribution



Income Research & Management Period Ended June 30, 2024

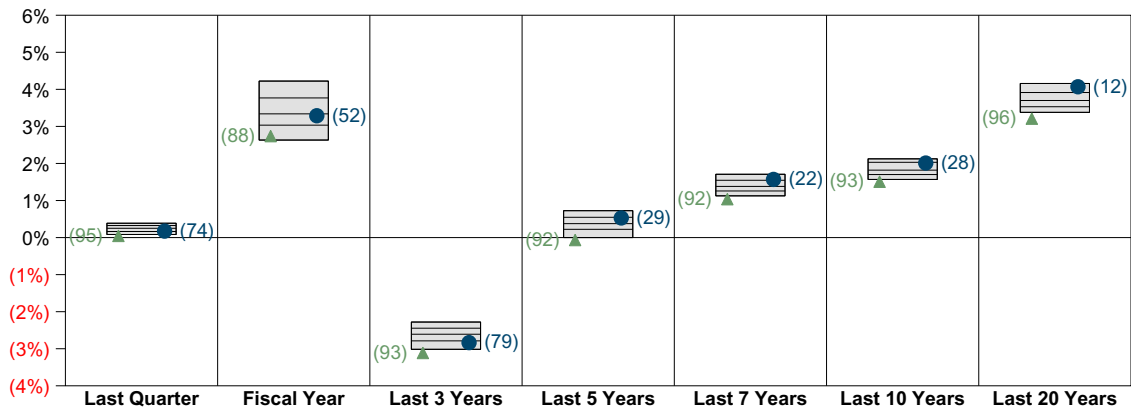
Investment Philosophy

IR+M's bottom-up and duration-neutral investment philosophy is based on their belief that careful security selection and active portfolio-risk management should lead to superior returns over the long term. Their emphasis on fundamental analysis allows them to identify and invest in securities with favorable credit, structure, and price characteristics. NHRS inception in the fund is August 1987.

Quarterly Asset Growth

Beginning Market Value	\$783,281,800
Net New Investment	\$0
Investment Gains/(Losses)	\$1,369,572
Ending Market Value	\$784,651,371

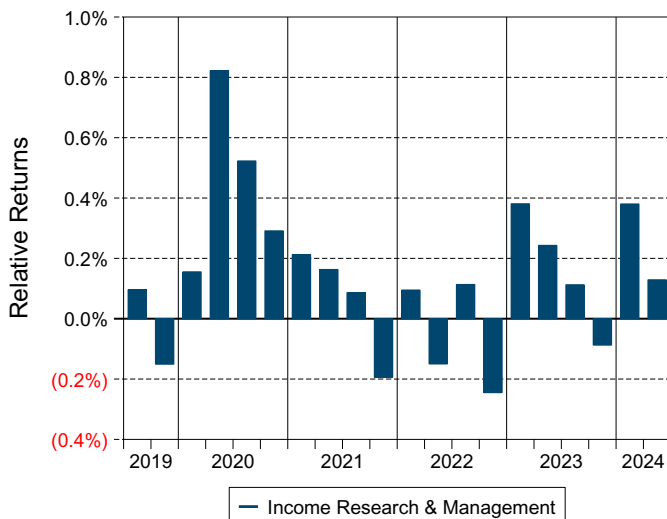
Performance vs Callan Core Bond FI (Gross)



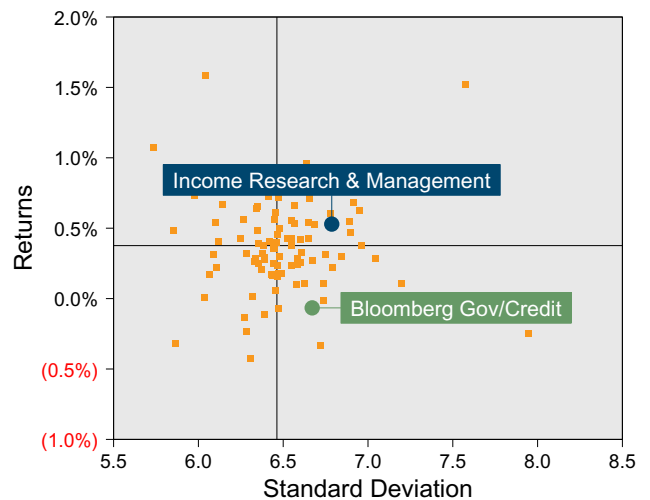
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	0.39	4.22	(2.28)	0.73	1.71	2.13	4.16
25th Percentile	0.33	3.77	(2.45)	0.55	1.55	2.03	3.91
Median	0.25	3.34	(2.61)	0.38	1.38	1.82	3.70
75th Percentile	0.16	3.03	(2.79)	0.22	1.26	1.70	3.53
90th Percentile	0.08	2.63	(3.02)	0.00	1.13	1.57	3.38

	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
Income Research & Management ●	0.17	3.29	(2.83)	0.53	1.57	2.01	4.07
Bloomberg Gov/Credit ▲	0.05	2.74	(3.11)	(0.07)	1.04	1.51	3.21

Relative Return vs Bloomberg Gov/Credit



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

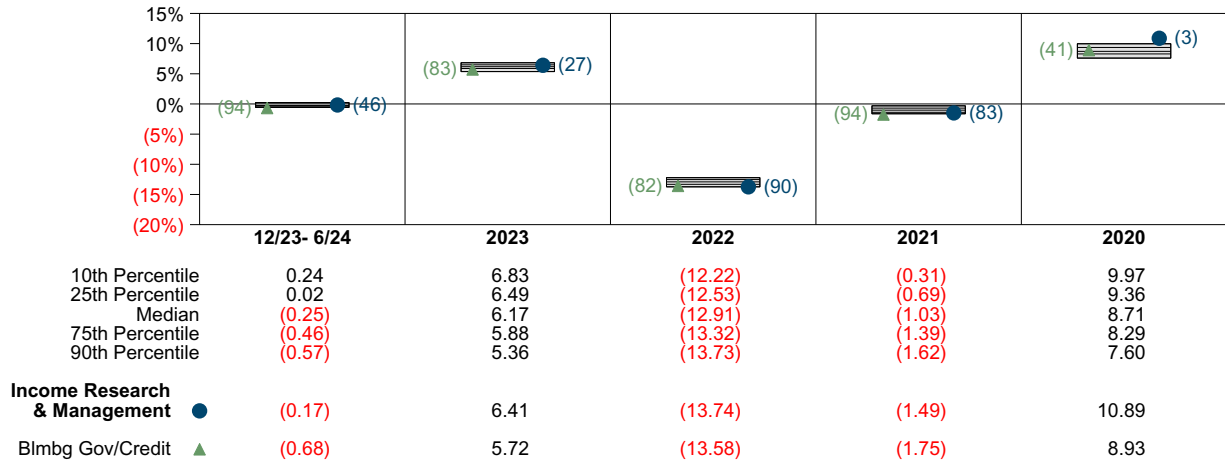


Income Research & Management Return Analysis Summary

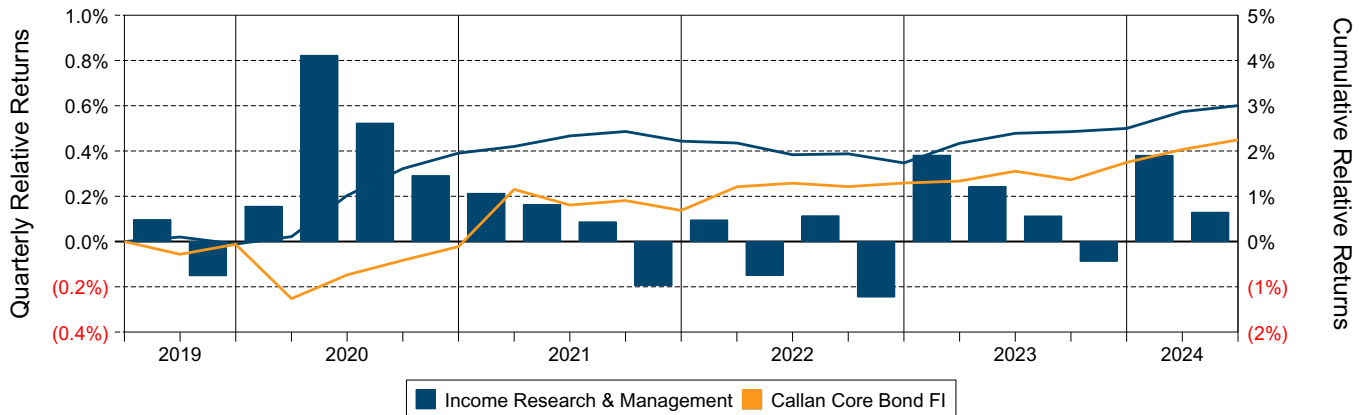
Return Analysis

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.

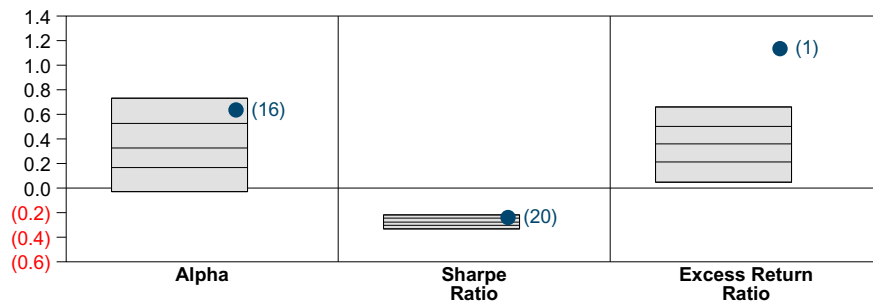
Performance vs Callan Core Bond FI (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg Gov/Credit



Risk Adjusted Return Measures vs Blmbg Gov/Credit Rankings Against Callan Core Bond FI (Gross) Five Years Ended June 30, 2024



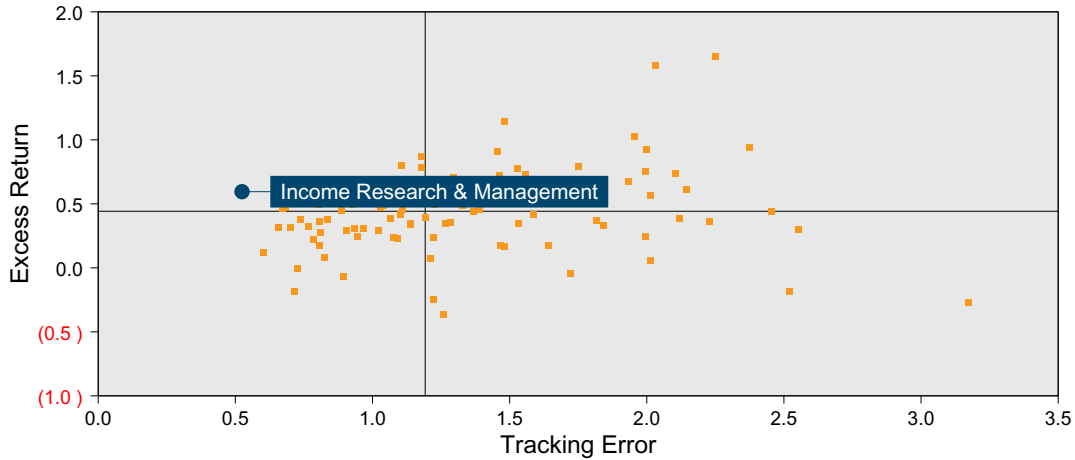
	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.73	(0.22)	0.66
25th Percentile	0.53	(0.24)	0.50
Median	0.33	(0.28)	0.36
75th Percentile	0.17	(0.30)	0.21
90th Percentile	(0.03)	(0.33)	0.05
Income Research & Management	0.64	(0.24)	1.13

Income Research & Management Risk Analysis Summary

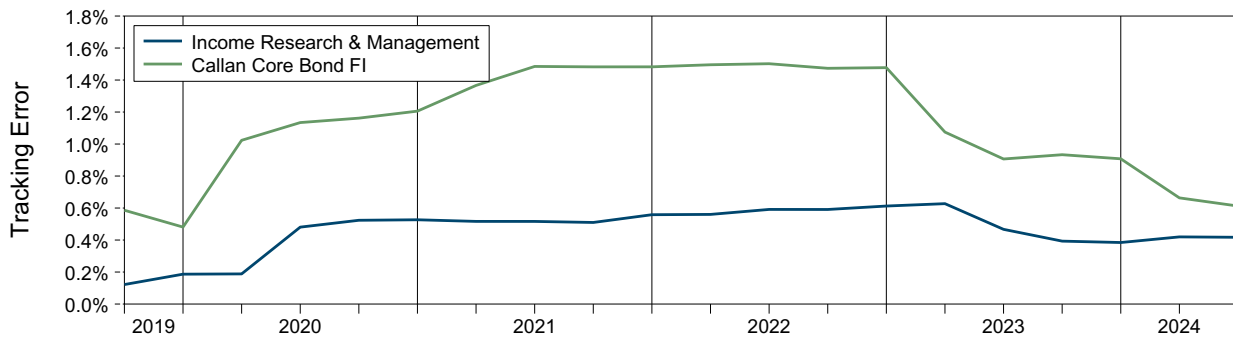
Risk Analysis

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.

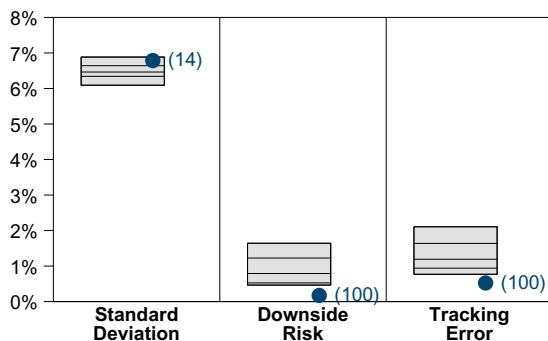
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs Blmbg Gov/Credit

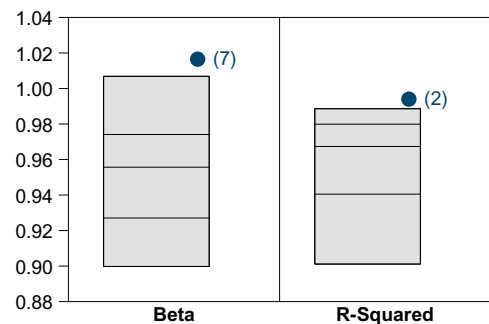


Risk Statistics Rankings vs Blmbg Gov/Credit Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended June 30, 2024



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	6.89	1.64	2.11
25th Percentile	6.64	1.23	1.64
Median	6.46	0.79	1.19
75th Percentile	6.34	0.53	0.94
90th Percentile	6.09	0.46	0.77

Income Research & Management ● 6.79 0.17 0.52



	Beta	R-Squared
10th Percentile	1.01	0.99
25th Percentile	0.97	0.98
Median	0.96	0.97
75th Percentile	0.93	0.94
90th Percentile	0.90	0.90

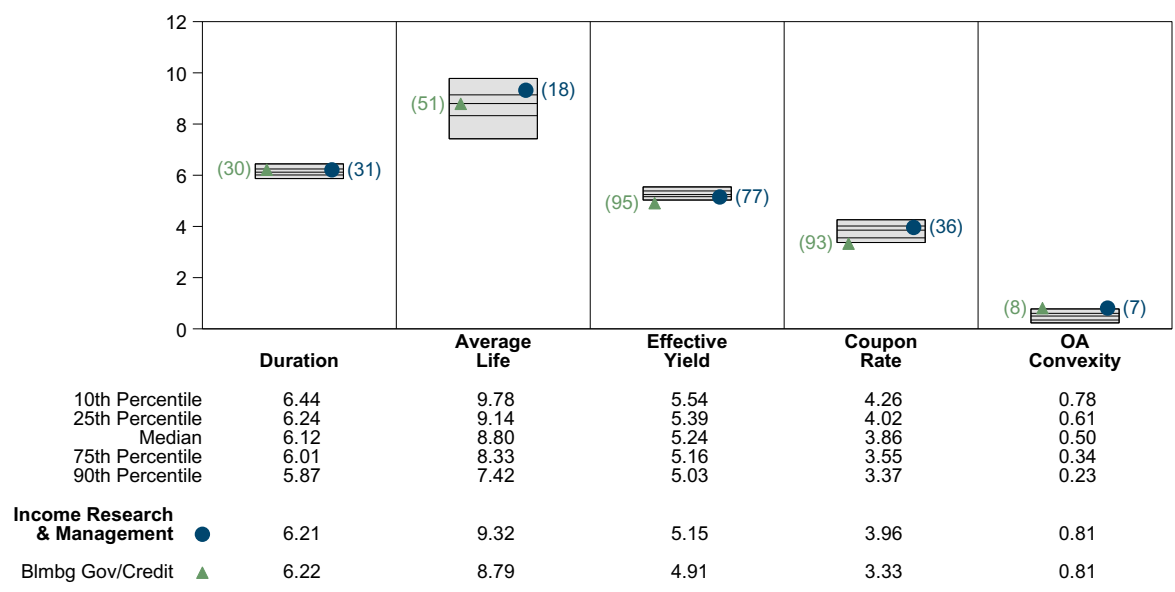
Income Research & Management ● 1.02 0.99

Income Research & Management Bond Characteristics Analysis Summary

Portfolio Characteristics

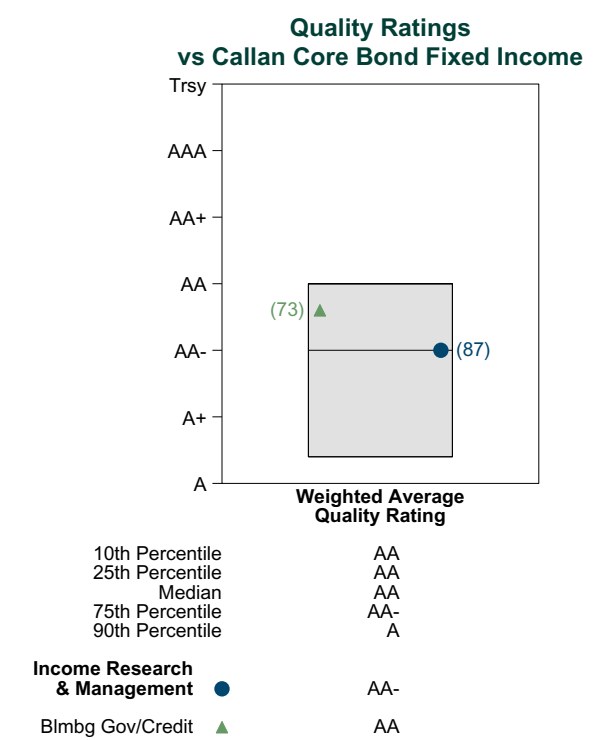
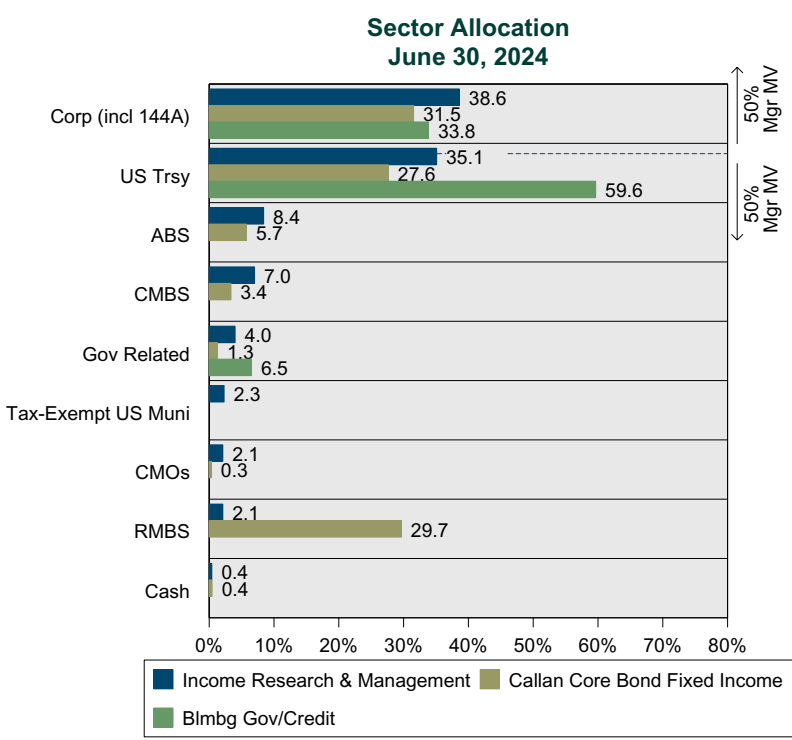
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of June 30, 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.

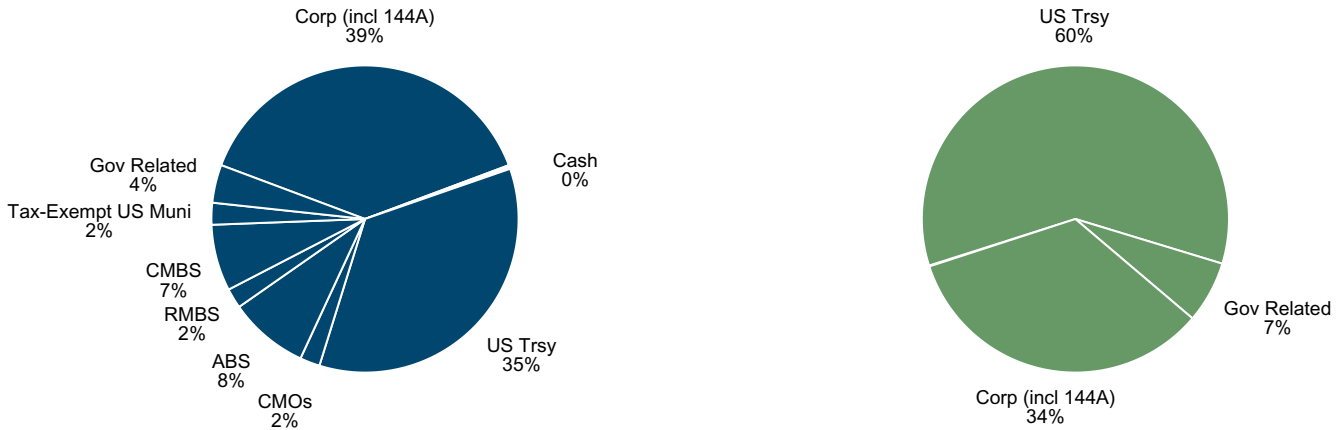


Income Research & Management Portfolio Characteristics Summary As of June 30, 2024

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.

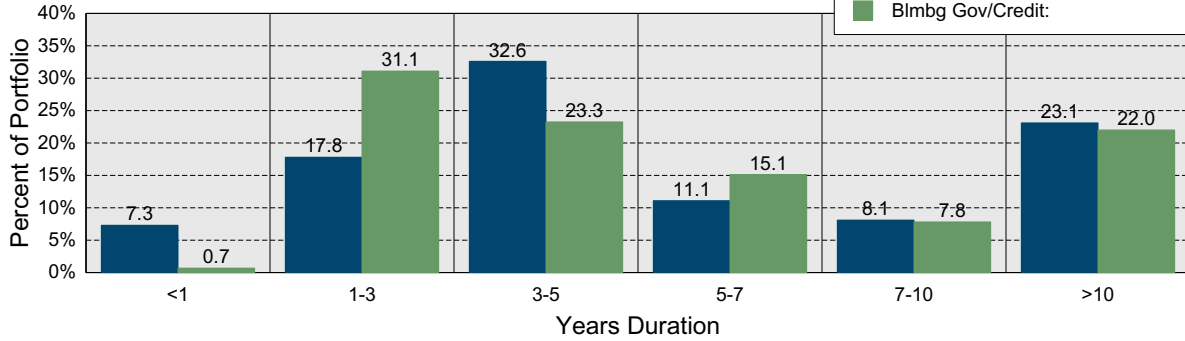
Sector Allocation



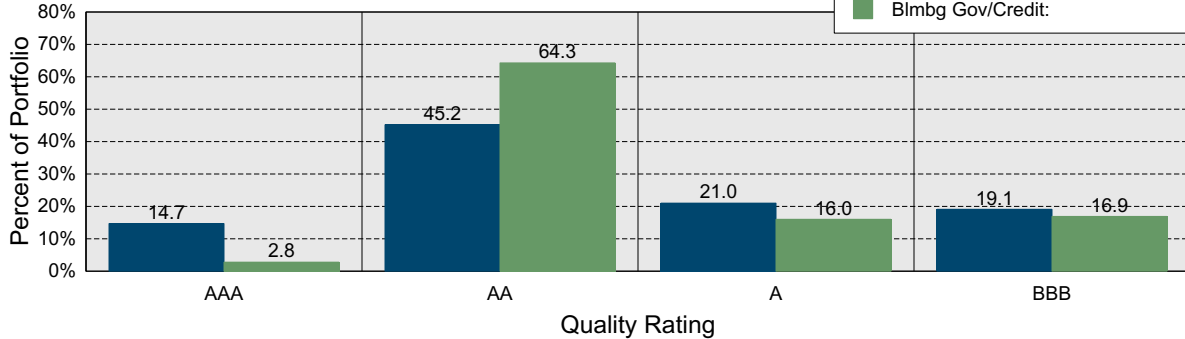
Income Research & Management

Blmbg Gov/Credit

Duration Distribution



Quality Distribution



Loomis Sayles

Period Ended June 30, 2024

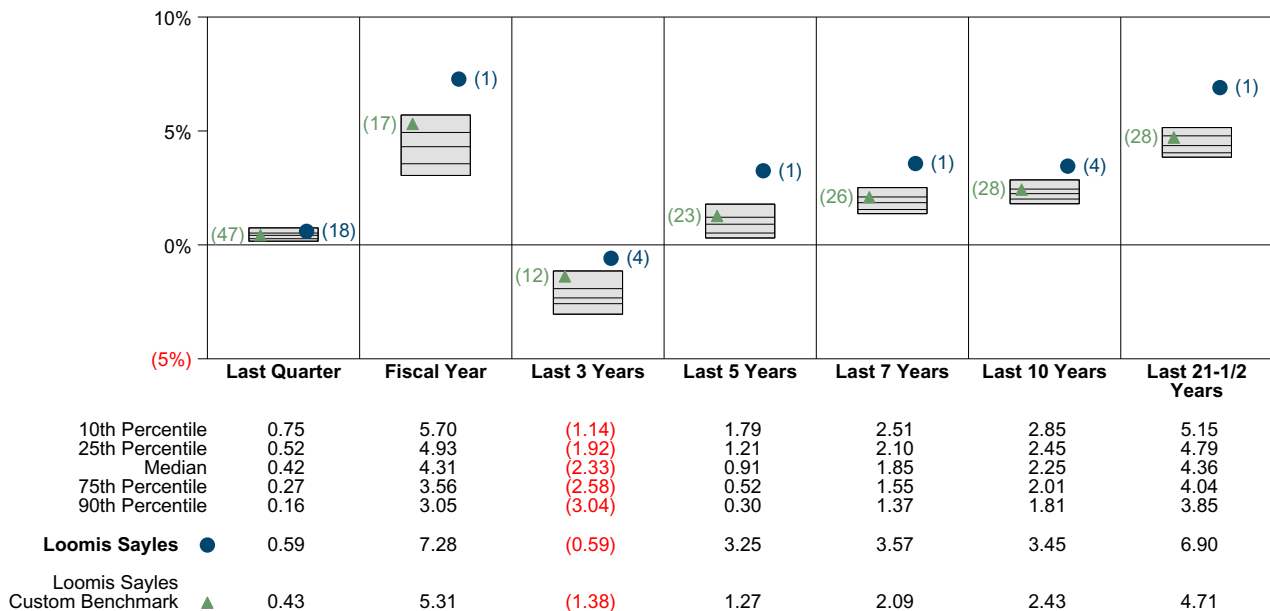
Investment Philosophy

The Multisector Full Discretion ("MSFD") strategy is an opportunistic, multisector fixed income strategy managed by a team of seasoned professionals. The strategy is diversified across all sectors of the bond market. This "go anywhere" approach allows the portfolio management team to pursue mispriced securities with high intrinsic value. The Loomis Sayles Custom Benchmark is 65% Bloomberg Barclays Aggregate Index and 35% Bloomberg Barclays High Yield Corporate Index. NHRS inception in the fund is September 2002.

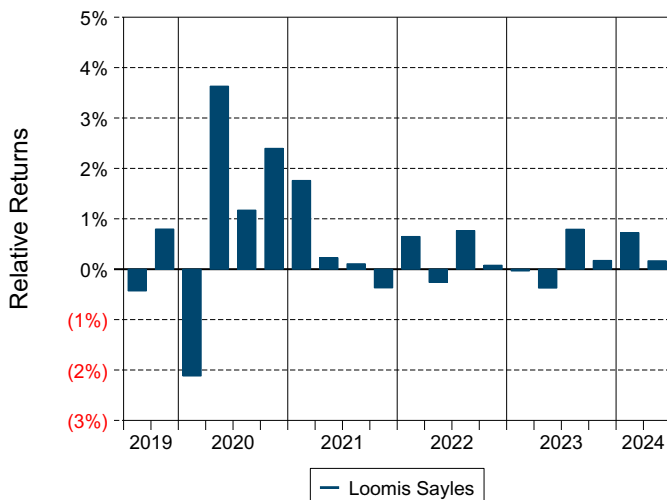
Quarterly Asset Growth

Beginning Market Value	\$287,944,892
Net New Investment	\$0
Investment Gains/(Losses)	\$1,711,272
Ending Market Value	\$289,656,164

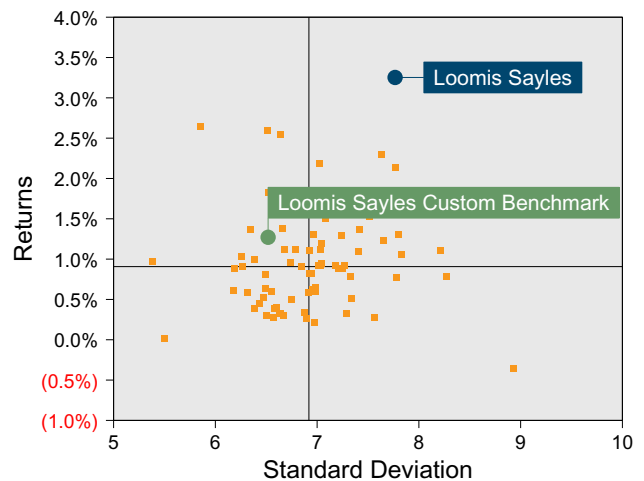
Performance vs Callan Core Plus FI (Gross)



Relative Returns vs Loomis Sayles Custom Benchmark



Callan Core Plus FI (Gross) Annualized Five Year Risk vs Return

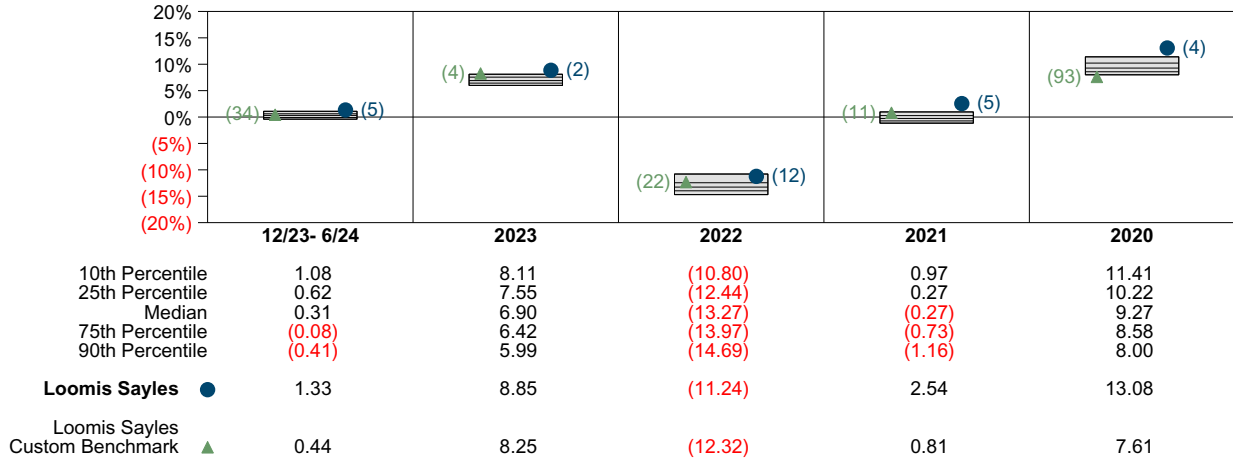


Loomis Sayles Return Analysis Summary

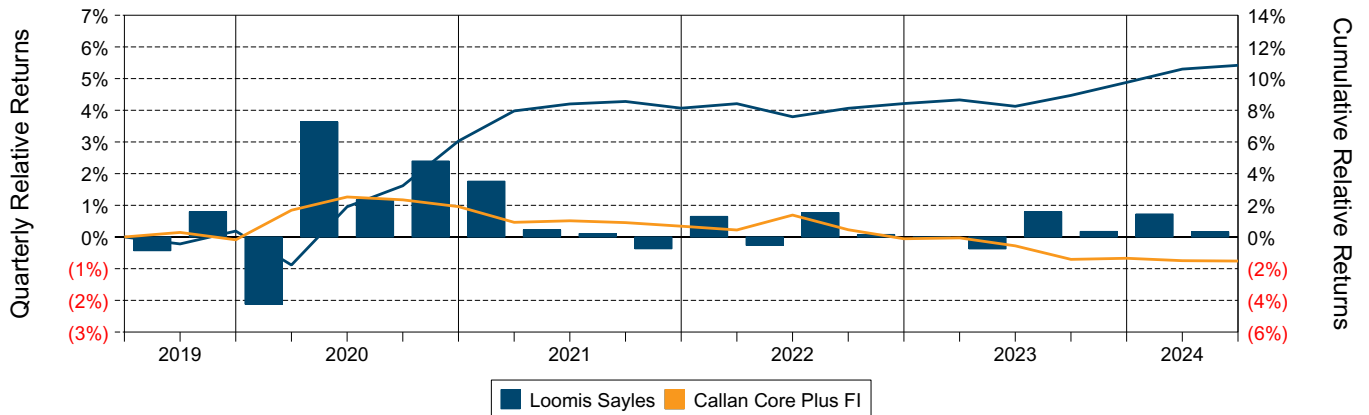
Return Analysis

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.

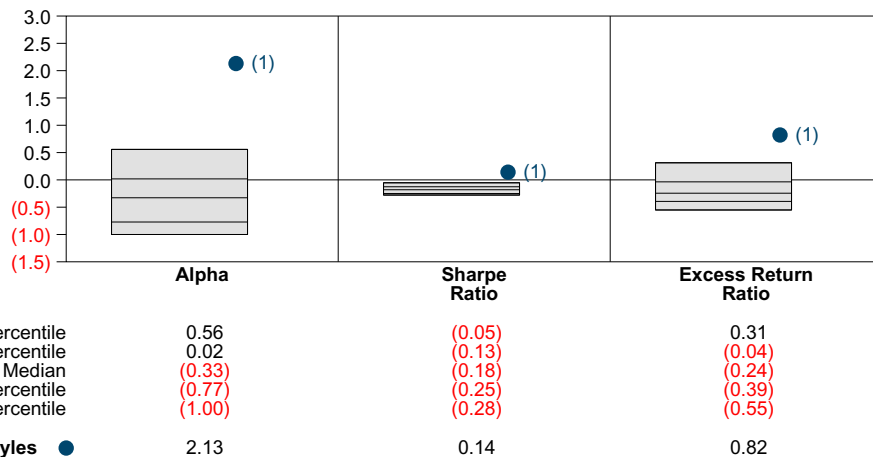
Performance vs Callan Core Plus FI (Gross)



Cumulative and Quarterly Relative Returns vs Loomis Sayles Custom Benchmark



Risk Adjusted Return Measures vs Loomis Sayles Custom Benchmark Rankings Against Callan Core Plus FI (Gross) Five Years Ended June 30, 2024

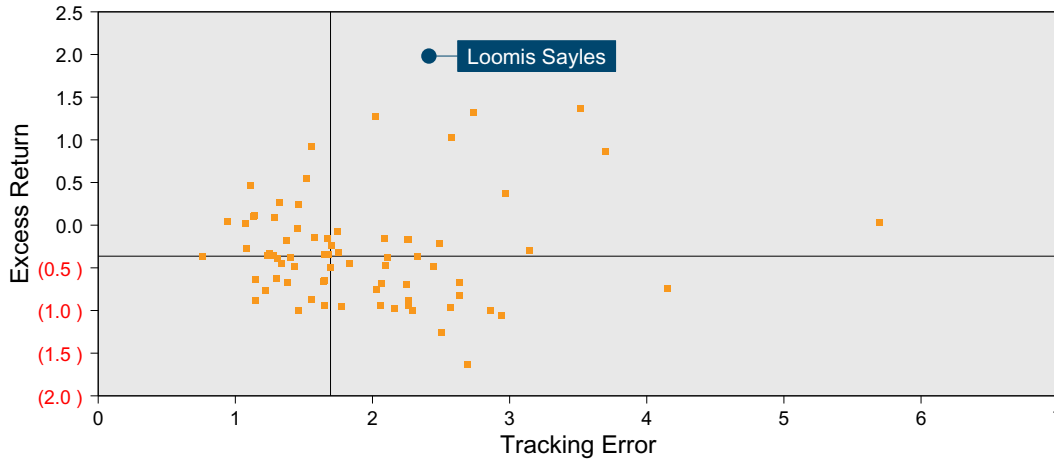


Loomis Sayles Risk Analysis Summary

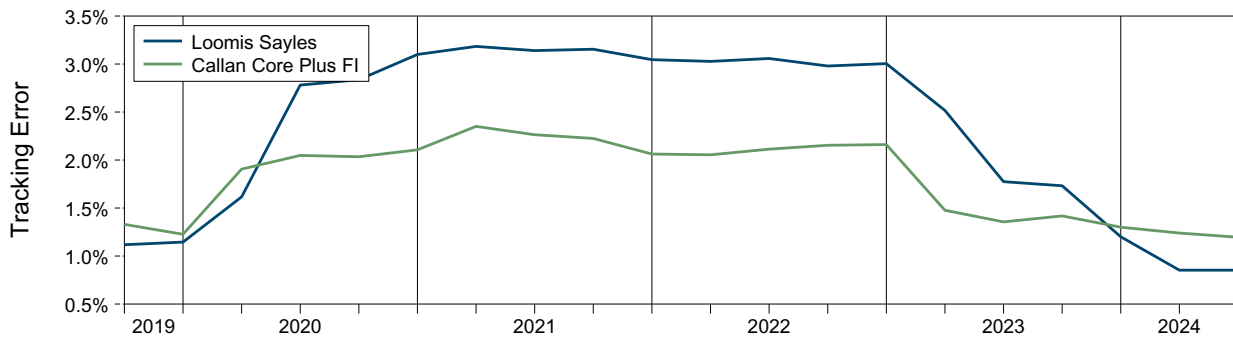
Risk Analysis

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.

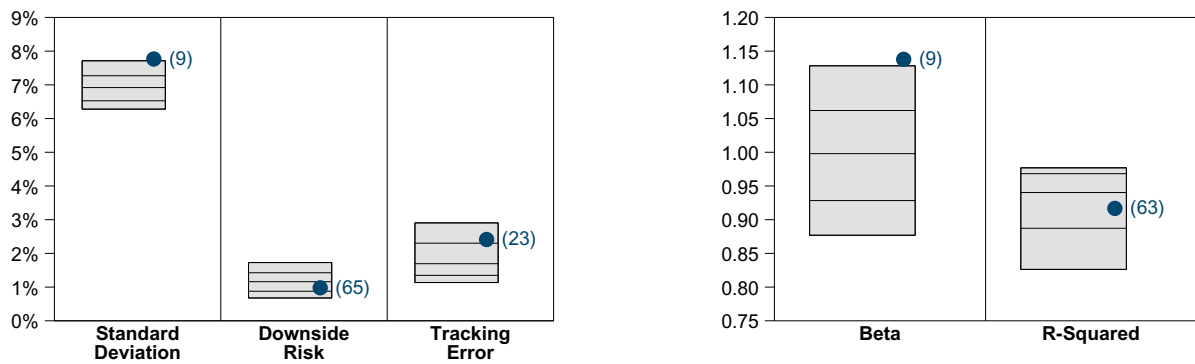
Risk Analysis vs Callan Core Plus Fixed Income (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs Loomis Sayles Custom Benchmark



Risk Statistics Rankings vs Loomis Sayles Custom Benchmark Rankings Against Callan Core Plus Fixed Income (Gross) Five Years Ended June 30, 2024



10th Percentile
25th Percentile
Median
75th Percentile
90th Percentile

7.71
7.27
6.92
6.53
6.28

1.73
1.43
1.16
0.88
0.68

2.90
2.30
1.69
1.35
1.14

1.13
1.06
1.00
0.93
0.88

0.98
0.97
0.94
0.89
0.83

Loomis Sayles ● 7.77

0.98

2.41

Loomis Sayles ● 1.14

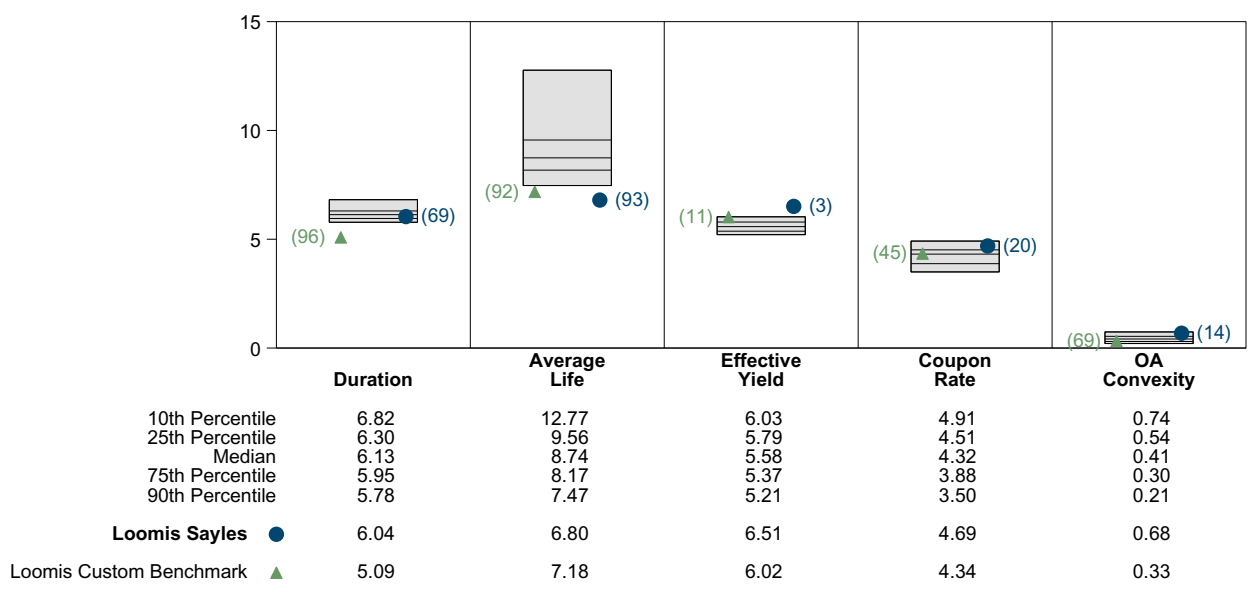
0.92

Loomis Sayles Bond Characteristics Analysis Summary

Portfolio Characteristics

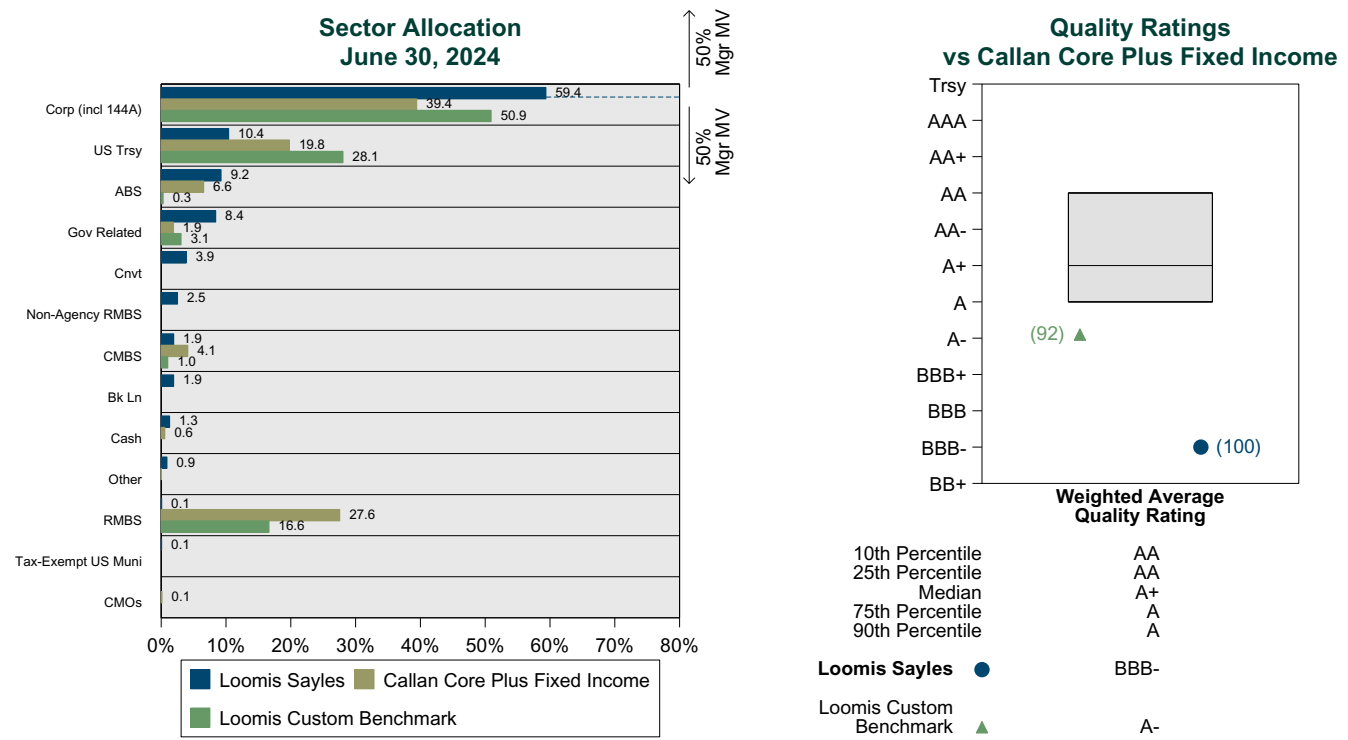
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Plus Fixed Income as of June 30, 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.

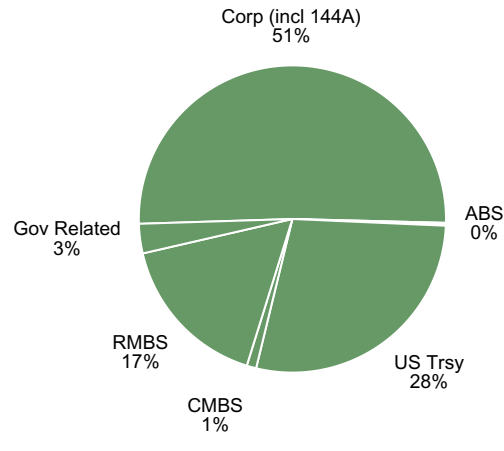
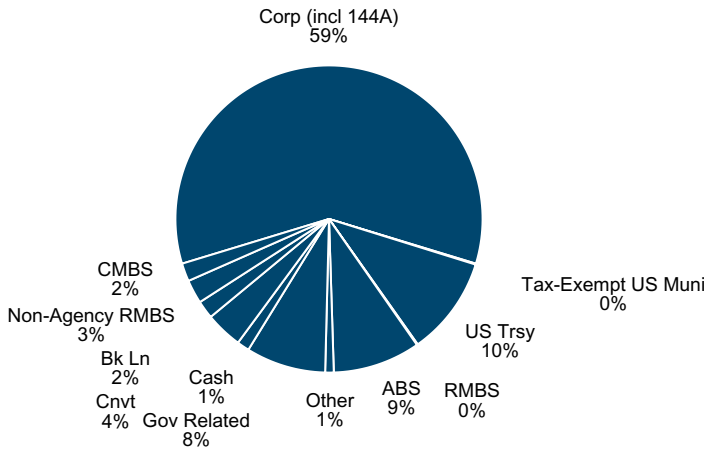


Loomis Sayles
Portfolio Characteristics Summary
As of June 30, 2024

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.

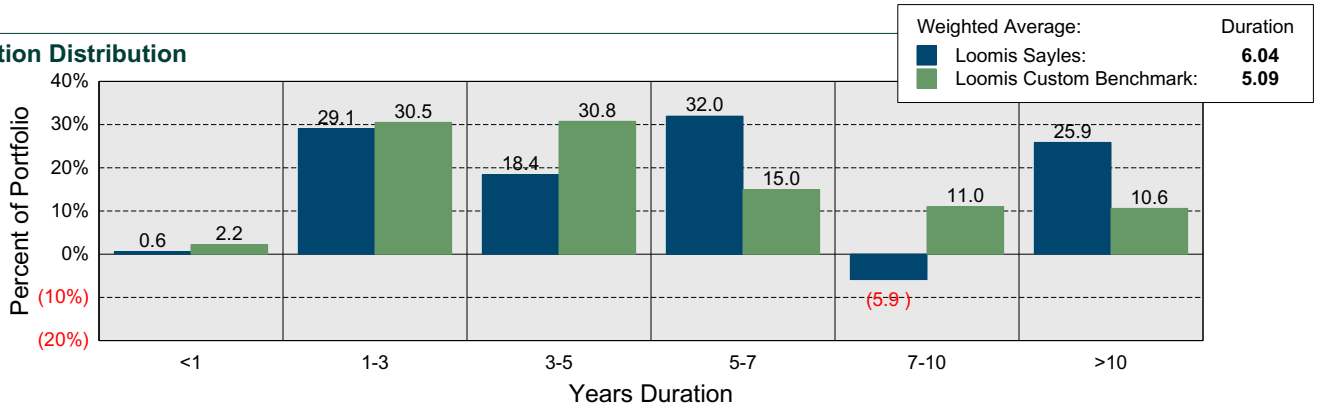
Sector Allocation



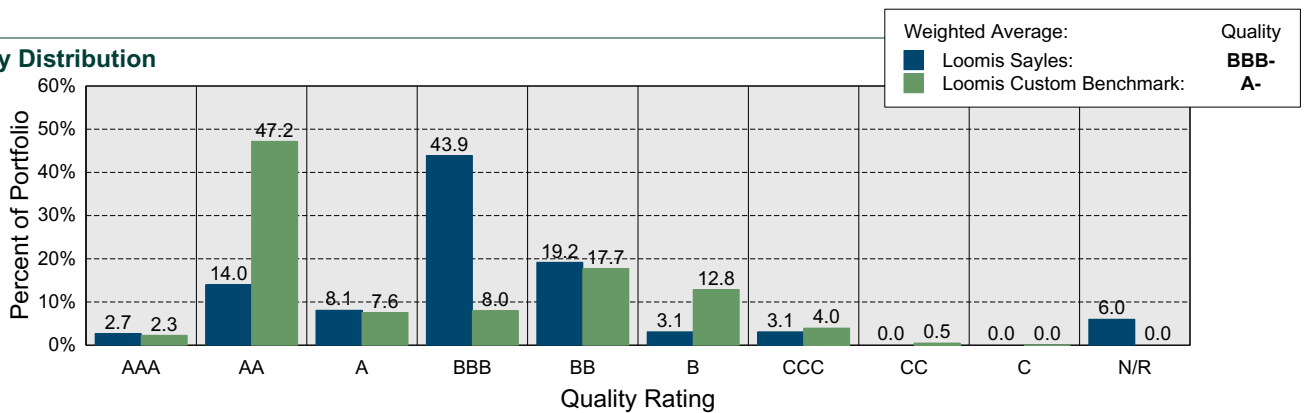
Loomis Sayles

Loomis Custom Benchmark

Duration Distribution



Quality Distribution



Manulife Strategic Fixed Income Fund

Period Ended June 30, 2024

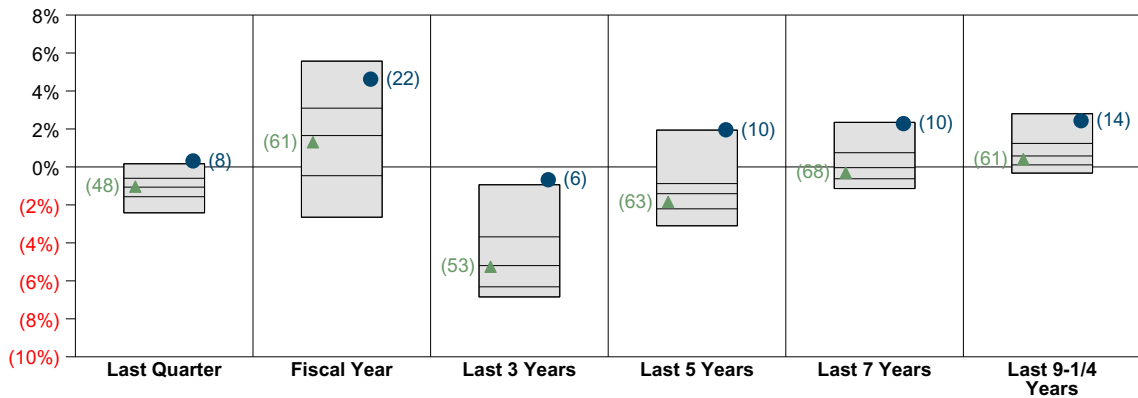
Investment Philosophy

Manulife believes in a combination of global bonds that are actively managed across a variety of credit qualities - from government to high yield - and skillfully executed currency investing. They capitalize on these shifts by using a research driven process to identify attractive sectors as well as mispriced securities within those sectors. Their investment universe consists of high yield bonds, foreign bonds including emerging markets and non-dollar, U.S. government securities and active currency management. NHRS inception in the fund is February 2015.

Quarterly Asset Growth

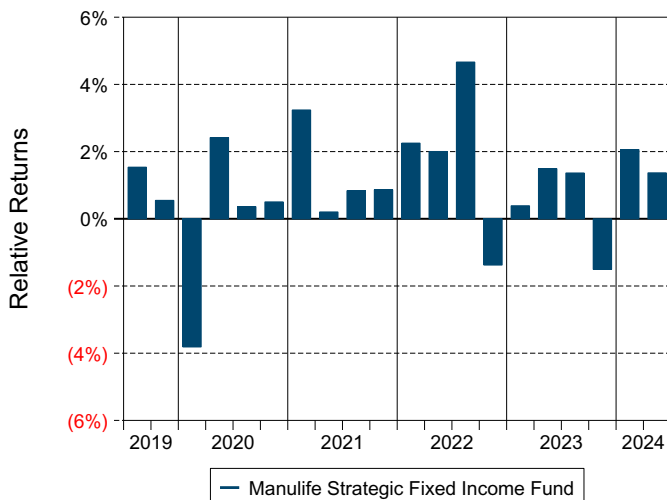
Beginning Market Value	\$215,084,239
Net New Investment	\$0
Investment Gains/(Losses)	\$681,185
Ending Market Value	\$215,765,425

Performance vs Callan Global Fixed Income (Unhedged) (Gross)

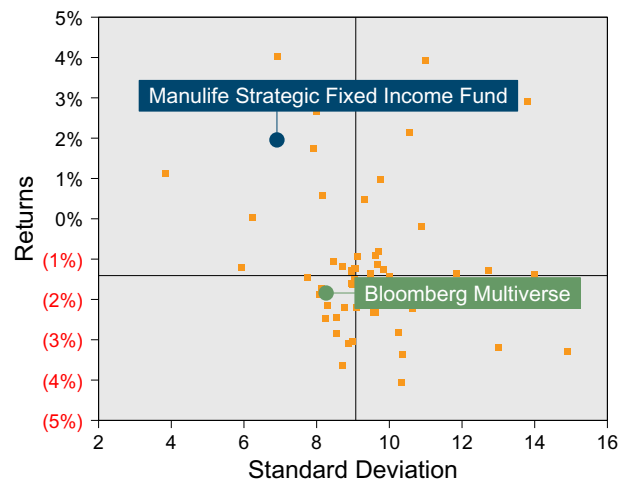


10th Percentile	0.17	5.57	(0.94)	1.94	2.35	2.80
25th Percentile	(0.60)	3.10	(3.68)	(0.88)	0.75	1.24
Median	(1.06)	1.65	(5.20)	(1.41)	(0.04)	0.58
75th Percentile	(1.57)	(0.46)	(6.31)	(2.21)	(0.62)	0.11
90th Percentile	(2.42)	(2.65)	(6.85)	(3.10)	(1.14)	(0.33)
Manulife Strategic Fixed Income Fund	● 0.32	4.62	(0.67)	1.96	2.28	2.43
Bloomberg Multiverse	▲ (1.03)	1.30	(5.26)	(1.84)	(0.30)	0.40

Relative Return vs Bloomberg Multiverse



Callan Global Fixed Income (Unhedged) (Gross) Annualized Five Year Risk vs Return

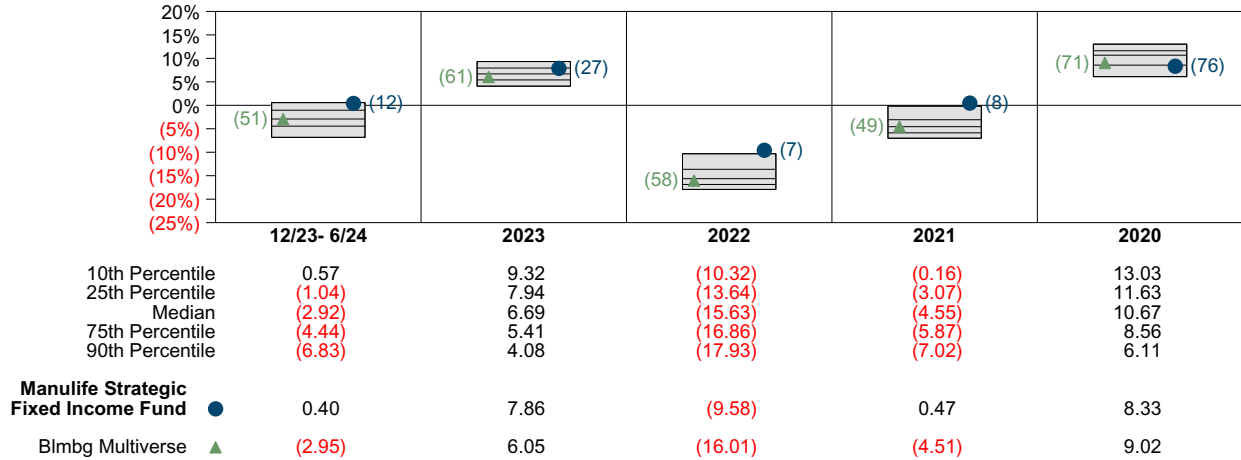


Manulife Strategic Fixed Income Fund Return Analysis Summary

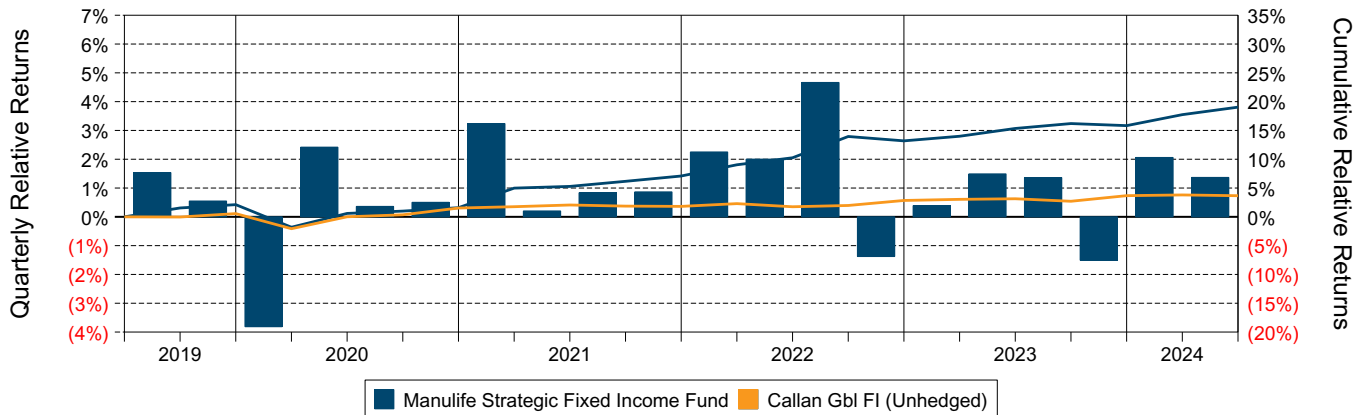
Return Analysis

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.

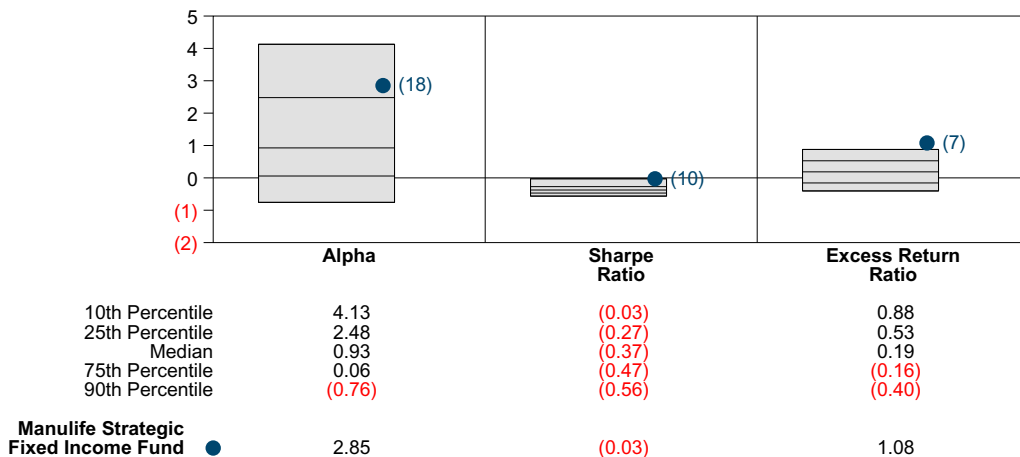
Performance vs Callan Global Fixed Income (Unhedged) (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg Multiverse



Risk Adjusted Return Measures vs Blmbg Multiverse Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024

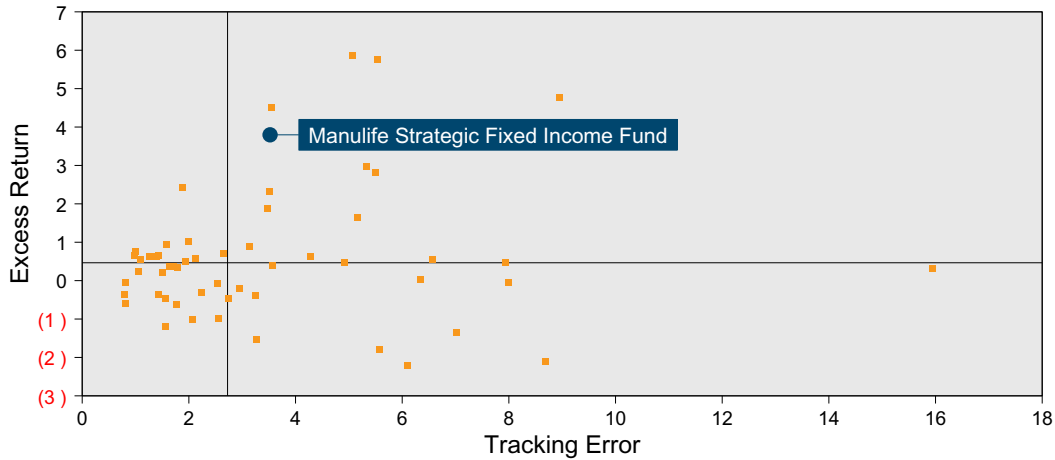


Manulife Strategic Fixed Income Fund Risk Analysis Summary

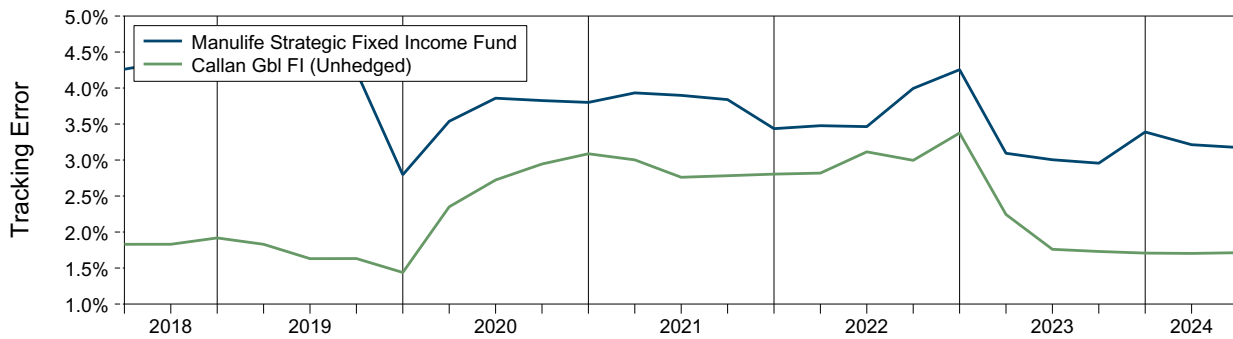
Risk Analysis

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.

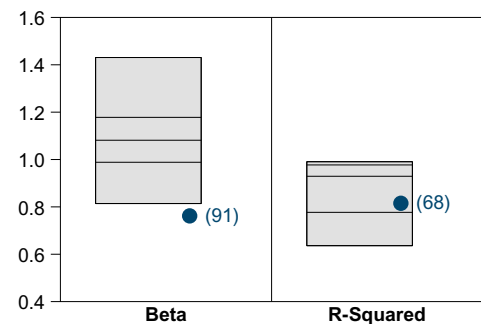
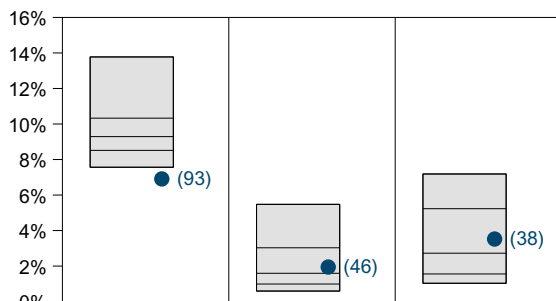
Risk Analysis vs Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024



Rolling 12 Quarter Tracking Error vs Blmbg Multiverse



Risk Statistics Rankings vs Blmbg Multiverse Rankings Against Callan Global Fixed Income (Unhedged) (Gross) Five Years Ended June 30, 2024



10th Percentile 13.78
25th Percentile 10.33
Median 9.29
75th Percentile 8.52
90th Percentile 7.56

10th Percentile 5.48
25th Percentile 3.03
Median 1.59
75th Percentile 0.99
90th Percentile 0.59

10th Percentile 7.19
25th Percentile 5.23
Median 2.73
75th Percentile 1.56
90th Percentile 1.03

10th Percentile 1.43
25th Percentile 1.18
Median 1.08
75th Percentile 0.99
90th Percentile 0.81

10th Percentile 0.99
25th Percentile 0.98
Median 0.93
75th Percentile 0.78
90th Percentile 0.64

Manulife Strategic Fixed Income Fund ● 6.91 1.95 3.52

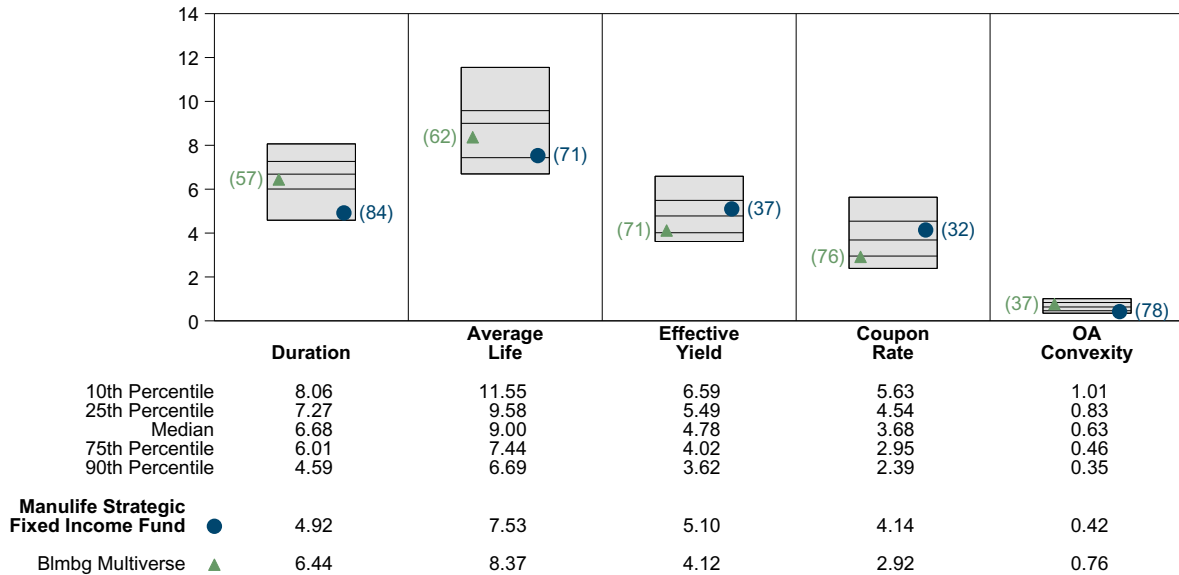
Manulife Strategic Fixed Income Fund ● 0.76 0.82

Manulife Strategic Fixed Income Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

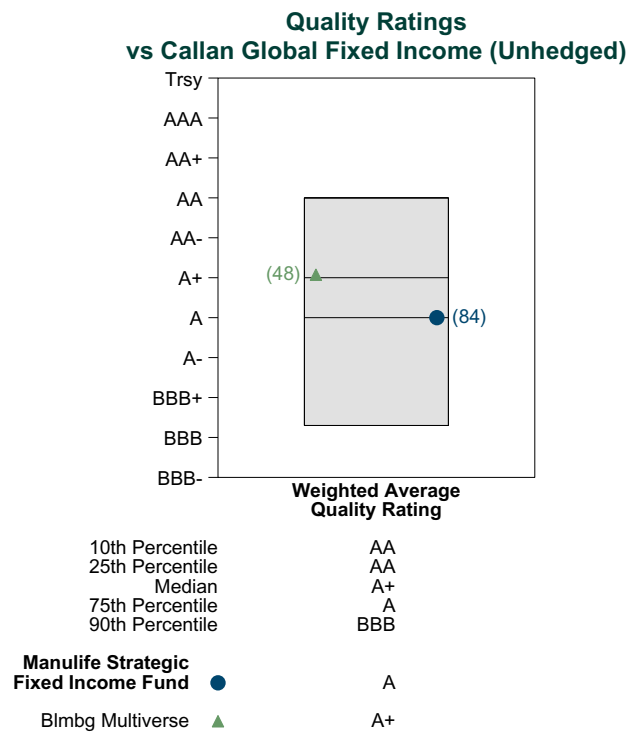
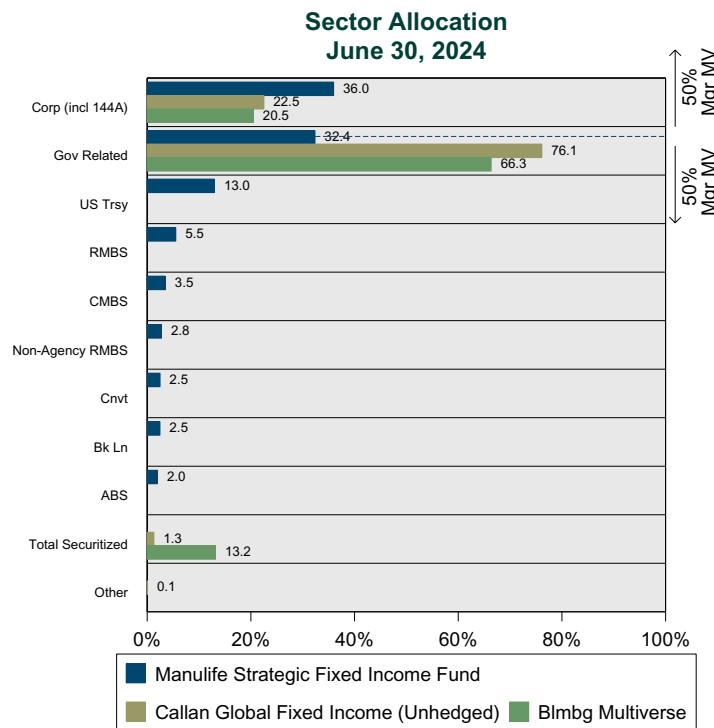
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed Income (Unhedged) as of June 30, 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.

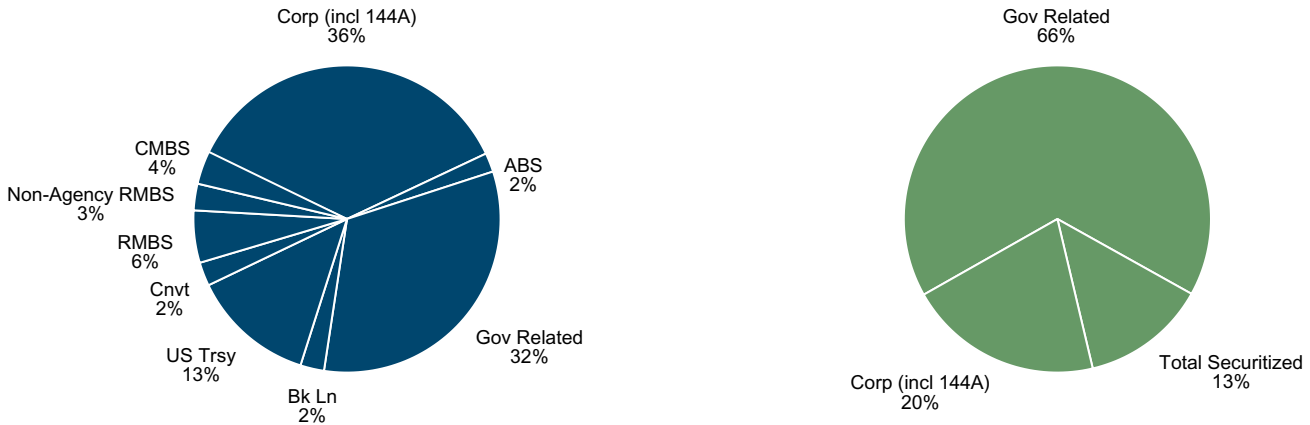


Manulife Strategic Fixed Income Fund Portfolio Characteristics Summary As of June 30, 2024

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.

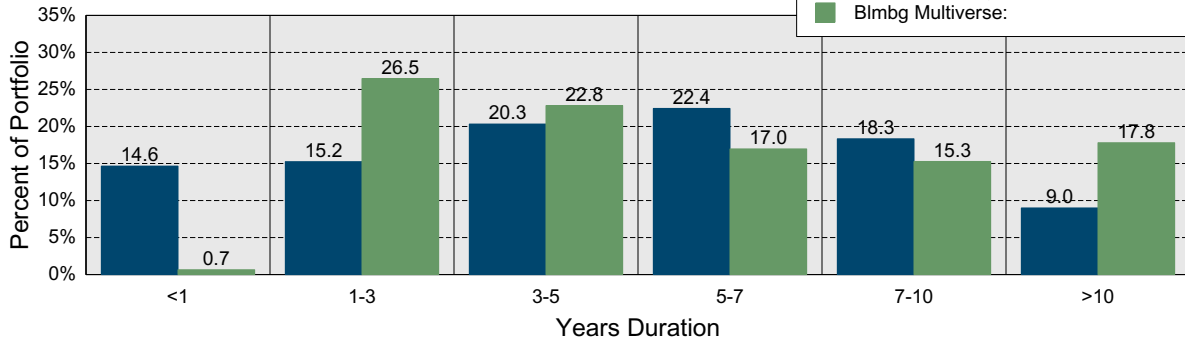
Sector Allocation



Manulife Strategic Fixed Income Fund

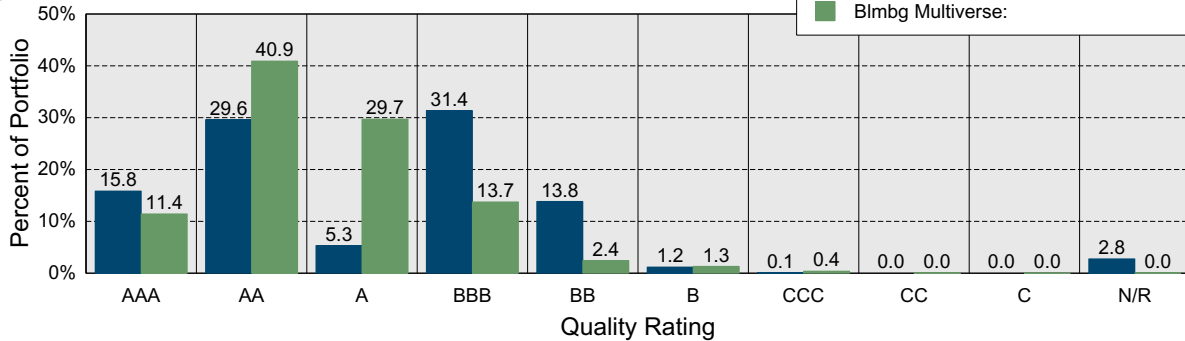
Blmbg Multiverse

Duration Distribution



Weighted Average:	Duration
Manulife Strategic Fixed Income Fund:	4.92
Blmbg Multiverse:	6.44

Quality Distribution



Weighted Average:	Quality
Manulife Strategic Fixed Income Fund:	A
Blmbg Multiverse:	A+

Mellon US Agg Bond Index Period Ended June 30, 2024

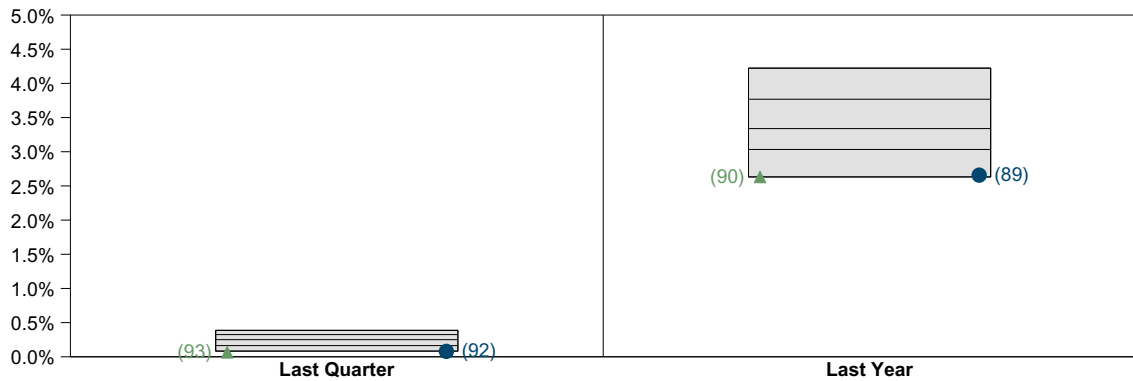
Investment Philosophy

Fixed income indexing offers a cost-effective, sensible investment approach to gaining diversified market exposure and receiving competitive relative returns over the long-term. Mellon Capital's Aggregate Bond Index Strategy employs a stratified sampling approach that has consistently added value with very little tracking error versus the Barclays Capital Aggregate Bond Index. We emphasize low turnover (low transaction costs) and strict risk control in the structuring of our portfolios. NHRS inception in the fund is May 2023.

Quarterly Asset Growth

Beginning Market Value	\$177,729,171
Net New Investment	\$0
Investment Gains/(Losses)	\$140,556
Ending Market Value	\$177,869,728

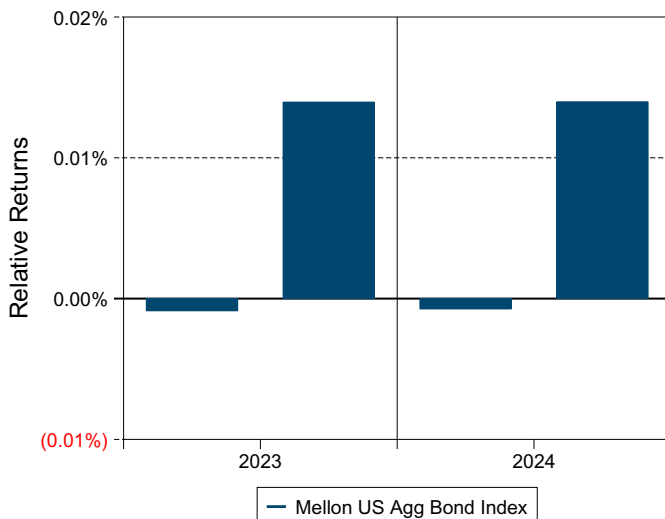
Performance vs Callan Core Bond Fixed Income (Gross)



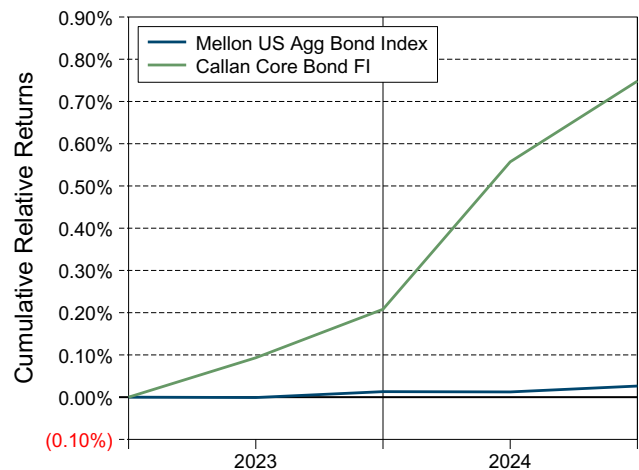
10th Percentile	0.39	4.22
25th Percentile	0.33	3.77
Median	0.25	3.34
75th Percentile	0.16	3.03
90th Percentile	0.08	2.63

Mellon US Agg Bond Index ●	0.08	2.66
Bloomberg Aggregate ▲	0.07	2.63

Relative Return vs Bloomberg Aggregate



Cumulative Returns vs Bloomberg Aggregate



Total Real Estate

Period Ended June 30, 2024

Real Estate Benchmark

The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index (lagged 1 quarter) as of 7/1/2015. From 1/1/2008 to 7/1/2015 the benchmark was the NCREIF Property Index + 50 bps (lagged 1 quarter). Prior to 1/1/2008 the benchmark was the NCREIF Property Index (lagged 1 quarter). As of 7/1/2022, Total Real Estate returns include Townsend's discretionary fee.

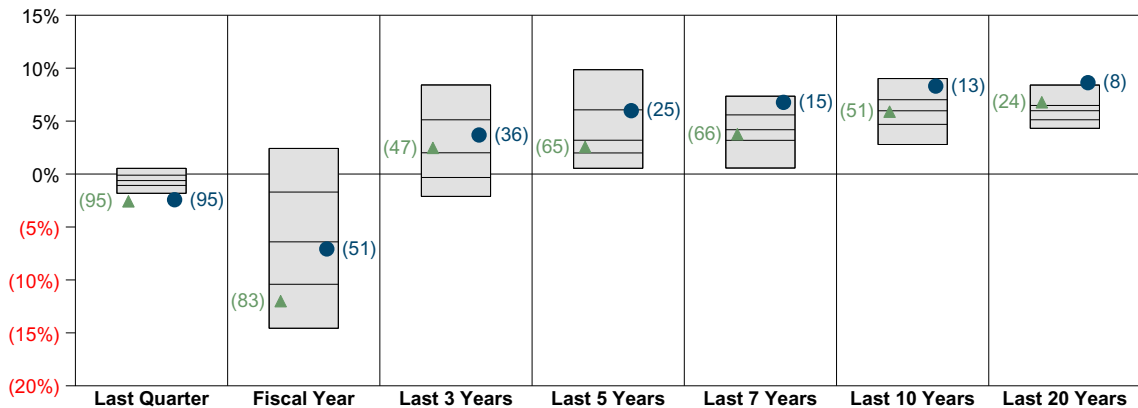
Quarterly Summary and Highlights

- Total Real Estate's portfolio posted a (2.43)% return for the quarter placing it in the 95 percentile of the Callan Total Real Estate group for the quarter and in the 51 percentile for the last year.
- Total Real Estate's portfolio outperformed the Real Estate Benchmark by 0.15% for the quarter and outperformed the Real Estate Benchmark for the year by 4.93%.

Quarterly Asset Growth

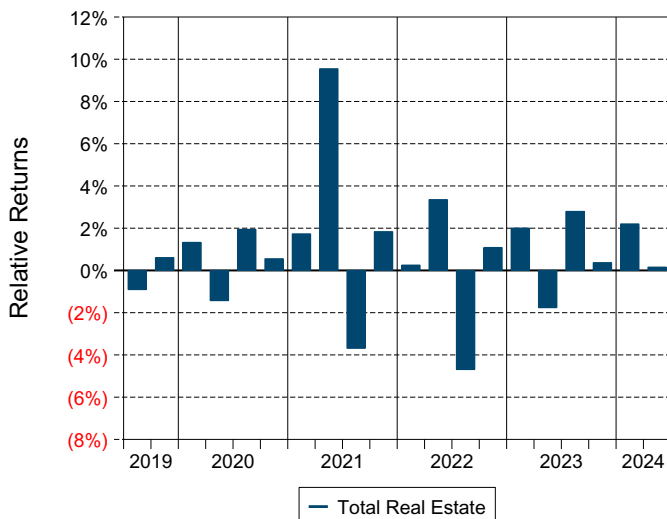
Beginning Market Value	\$1,187,800,040
Net New Investment	\$-33,532,402
Investment Gains/(Losses)	\$-23,444,774
Ending Market Value	\$1,130,822,864

Performance vs Callan Total Real Estate (Net)

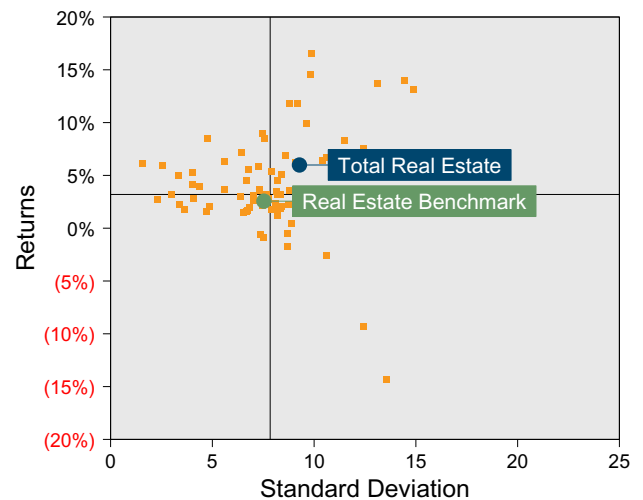


	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	0.54	2.42	8.42	9.86	7.35	9.02	8.41
25th Percentile	(0.11)	(1.70)	5.12	6.06	5.59	7.02	6.48
Median	(0.62)	(6.40)	2.01	3.20	4.19	5.98	5.98
75th Percentile	(1.07)	(10.41)	(0.32)	1.99	3.18	4.69	5.13
90th Percentile	(1.82)	(14.57)	(2.11)	0.54	0.57	2.79	4.32
Total Real Estate ●	(2.43)	(7.07)	3.69	5.98	6.77	8.31	8.63
Real Estate Benchmark ▲	(2.58)	(12.00)	2.47	2.56	3.76	5.89	6.78

Relative Return vs Real Estate Benchmark



Callan Total Real Estate (Net) Annualized Five Year Risk vs Return

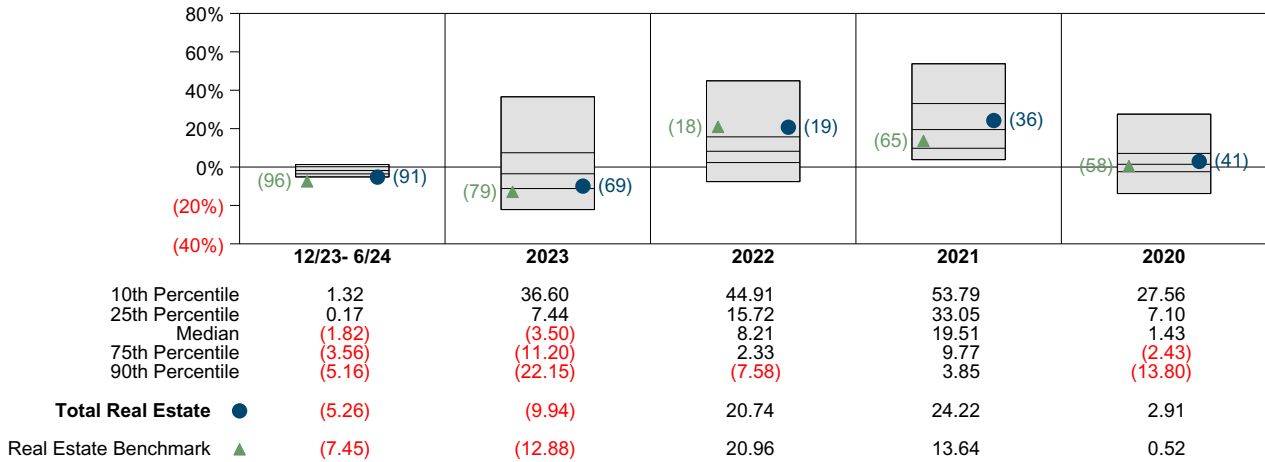


Total Real Estate Return Analysis Summary

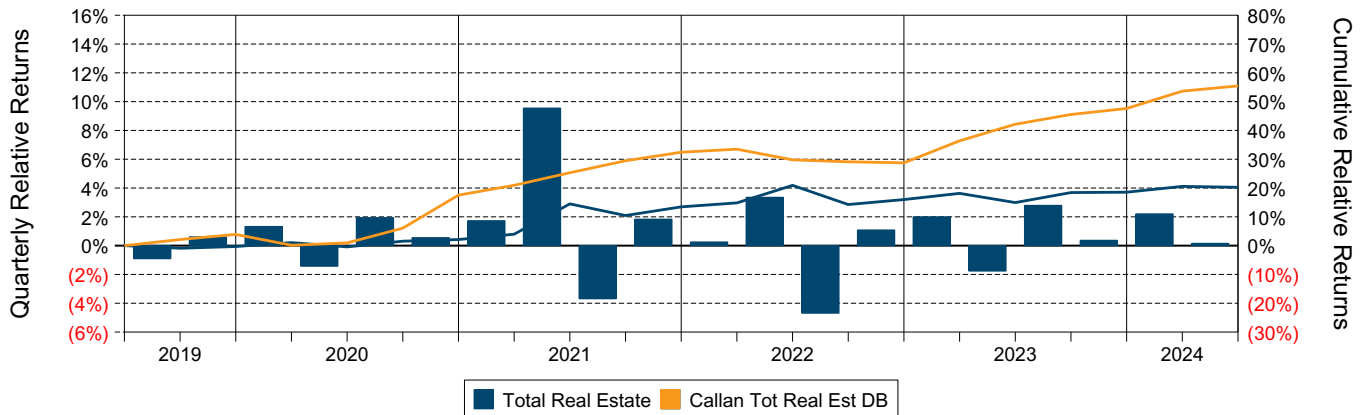
Return Analysis

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

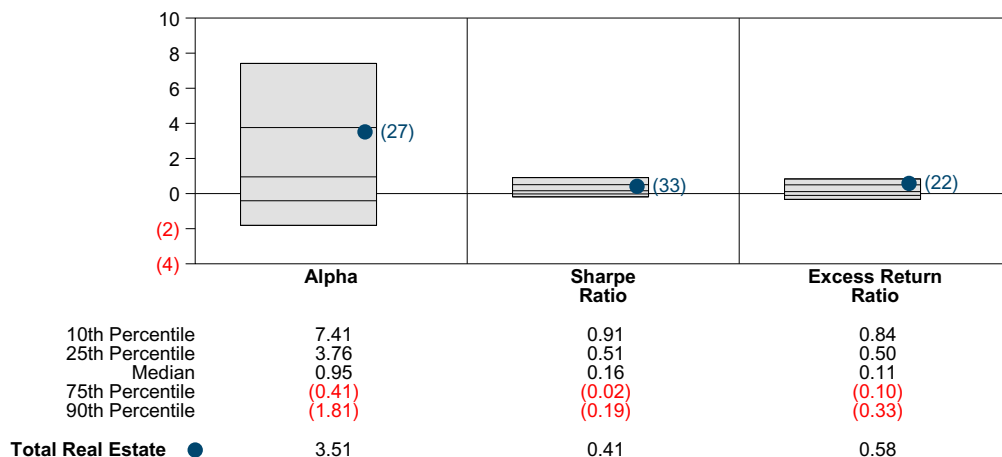
Performance vs Callan Tot Real Est DB (Net)



Cumulative and Quarterly Relative Returns vs Real Estate Benchmark



Risk Adjusted Return Measures vs Real Estate Benchmark Rankings Against Callan Tot Real Est DB (Net) Five Years Ended June 30, 2024

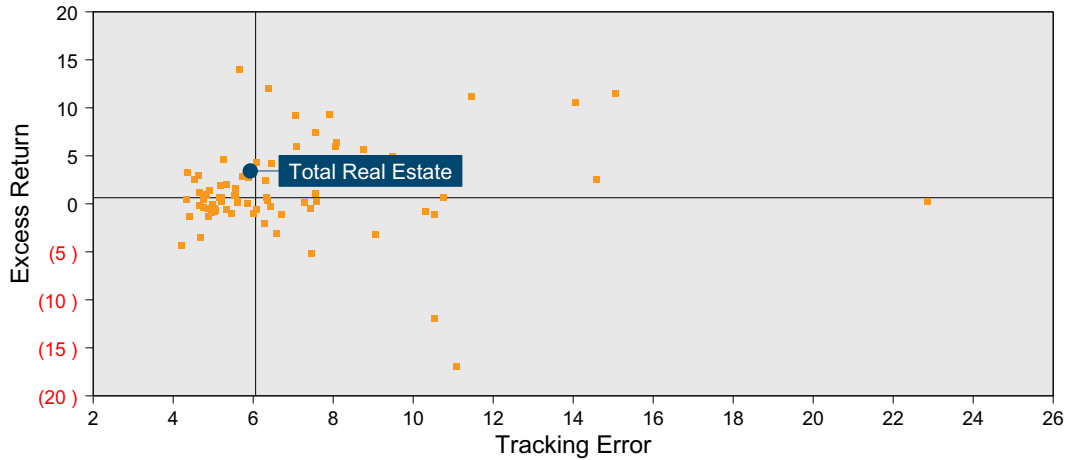


Total Real Estate Risk Analysis Summary

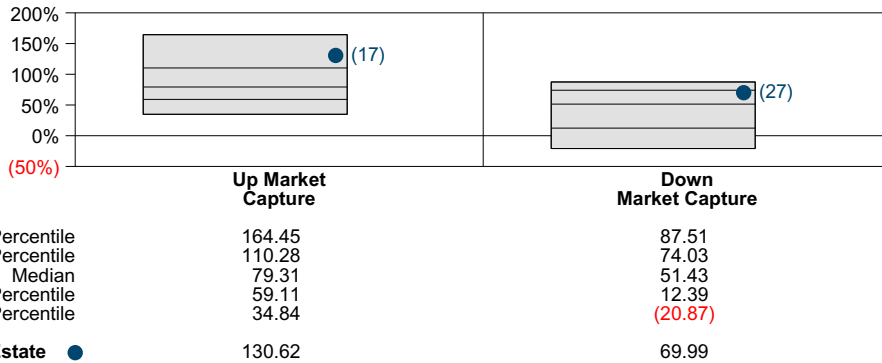
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

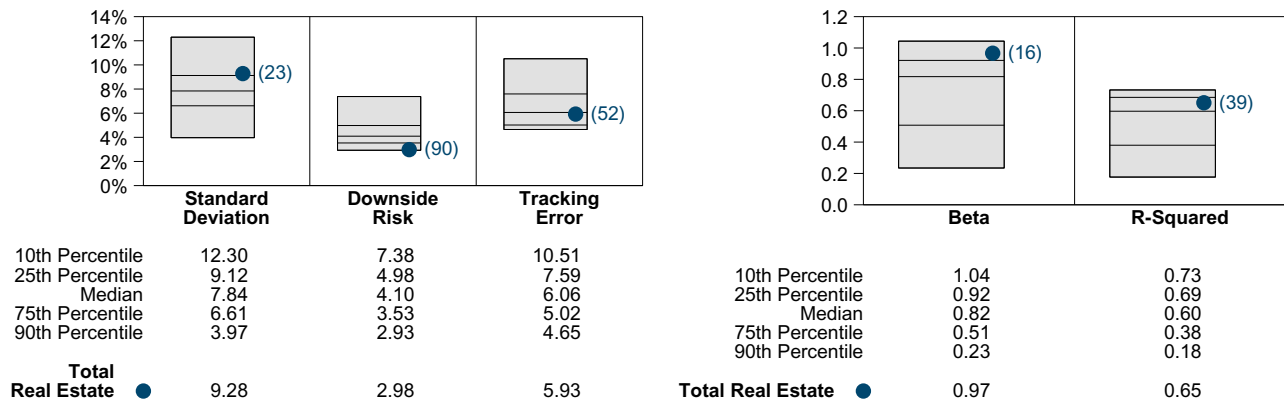
Risk Analysis vs Callan Total Domestic Real Estate DB (Net) Five Years Ended June 30, 2024



Market Capture vs Real Estate Benchmark Rankings Against Callan Total Domestic Real Estate DB (Net) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Real Estate Benchmark Rankings Against Callan Total Domestic Real Estate DB (Net) Five Years Ended June 30, 2024



Strategic Core Real Estate Period Ended June 30, 2024

Real Estate Benchmark

The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index (lagged 1 quarter) as of 7/1/2015. From 1/1/2008 to 7/1/2015 the benchmark was the NCREIF Property Index + 50 bps (lagged 1 quarter). Prior to 1/1/2008 the benchmark was the NCREIF Property Index (lagged 1 quarter).

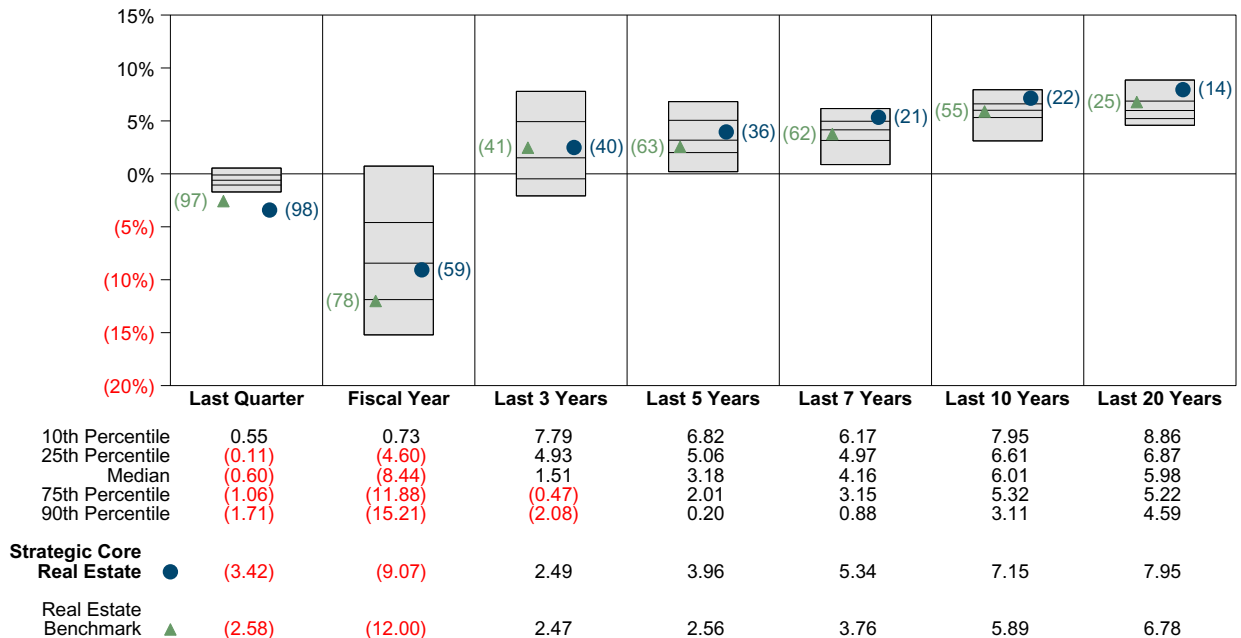
Quarterly Summary and Highlights

- Strategic Core Real Estate's portfolio posted a (3.42)% return for the quarter placing it in the 98 percentile of the Callan Real Estate Core group for the quarter and in the 59 percentile for the last year.
- Strategic Core Real Estate's portfolio underperformed the Real Estate Benchmark by 0.84% for the quarter and outperformed the Real Estate Benchmark for the year by 2.94%.

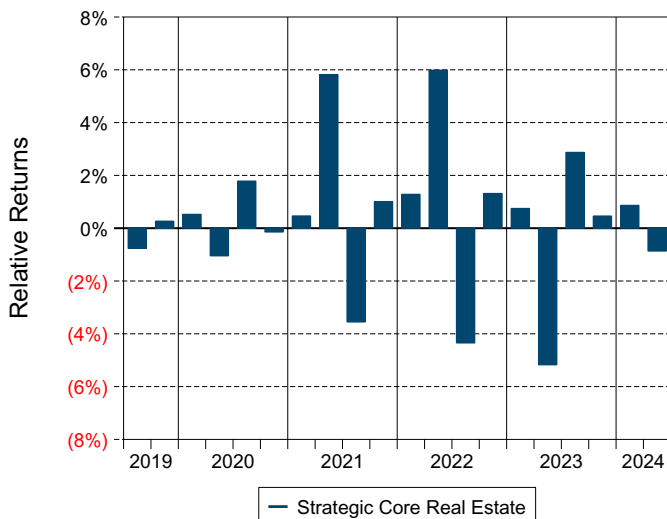
Quarterly Asset Growth

Beginning Market Value	\$725,906,158
Net New Investment	\$-38,758,647
Investment Gains/(Losses)	\$-20,585,427
Ending Market Value	\$666,562,084

Performance vs Callan Real Estate Core (Net)



Relative Return vs Real Estate Benchmark



Callan Real Estate Core (Net) Annualized Five Year Risk vs Return

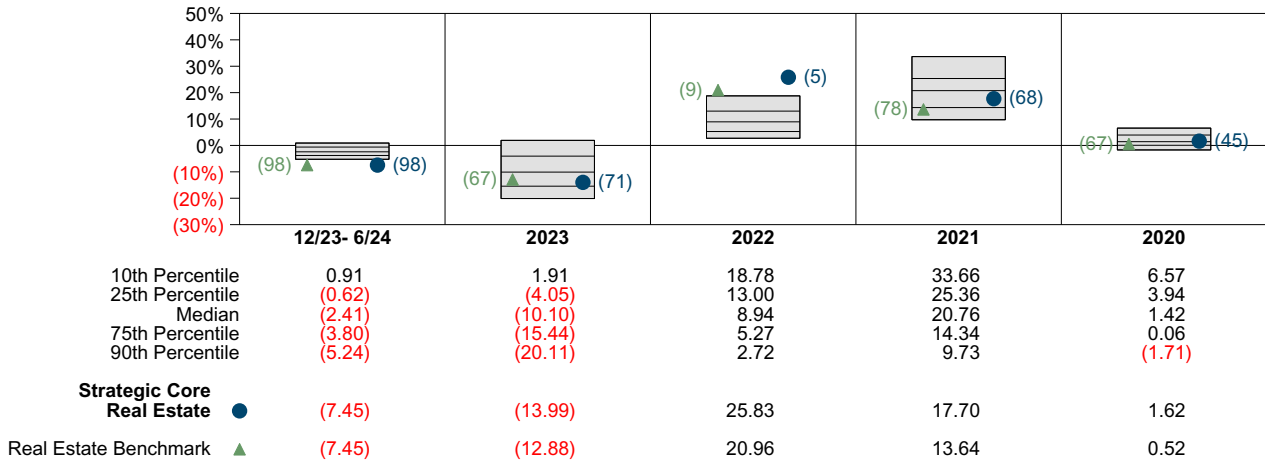


Strategic Core Real Estate Return Analysis Summary

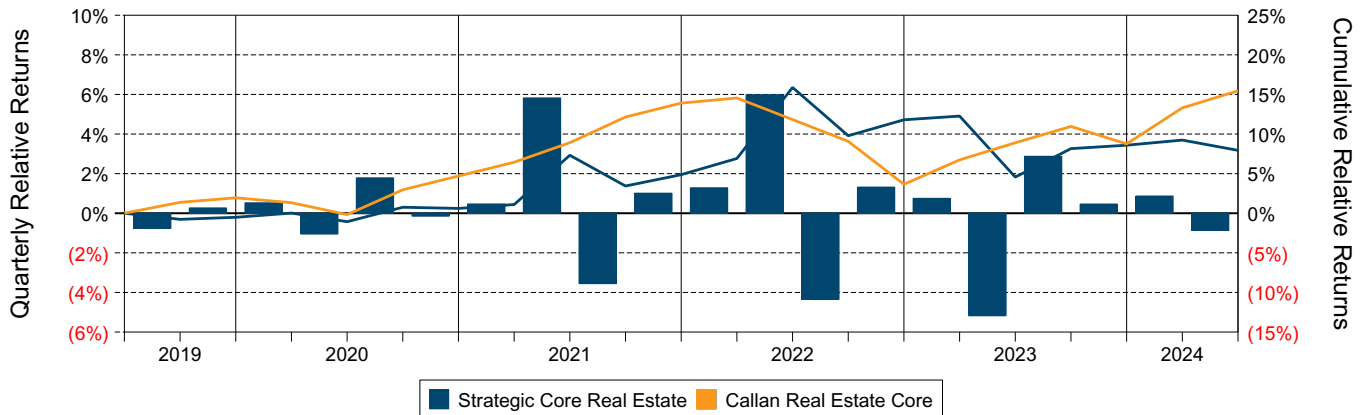
Return Analysis

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

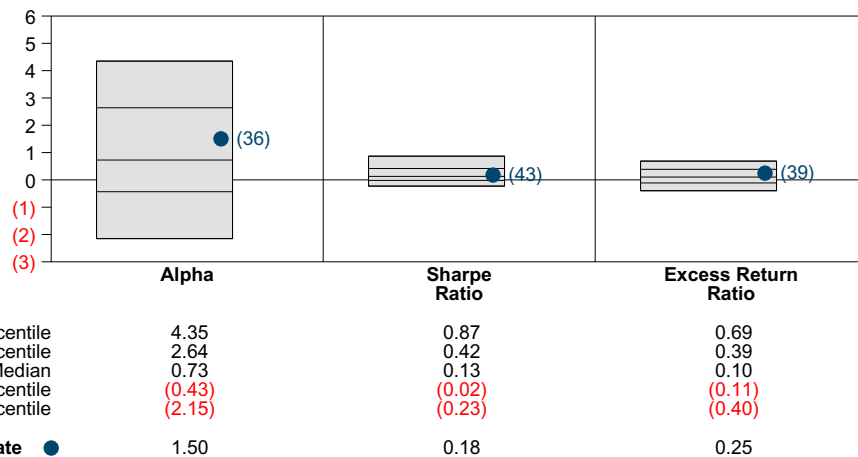
Performance vs Callan Real Estate Core (Net)



Cumulative and Quarterly Relative Returns vs Real Estate Benchmark



Risk Adjusted Return Measures vs Real Estate Benchmark Rankings Against Callan Real Estate Core (Net) Five Years Ended June 30, 2024

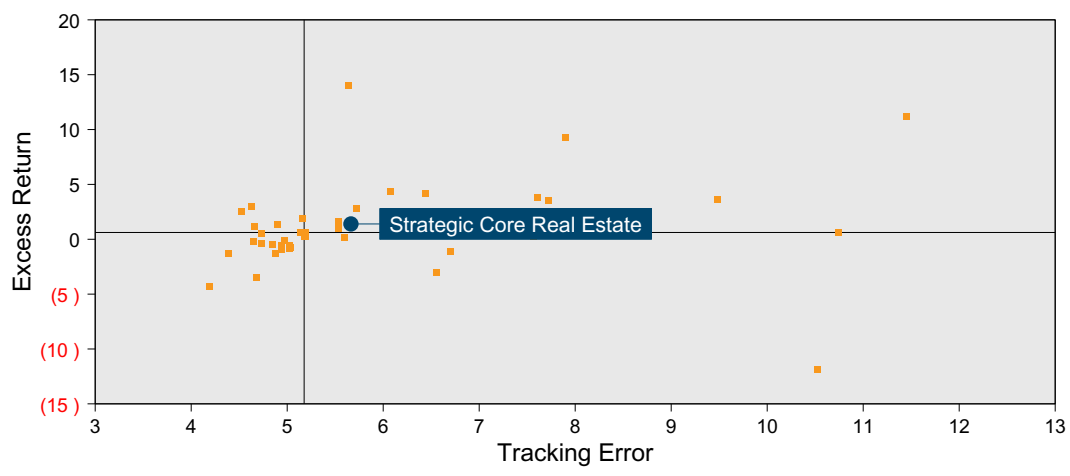


Strategic Core Real Estate Risk Analysis Summary

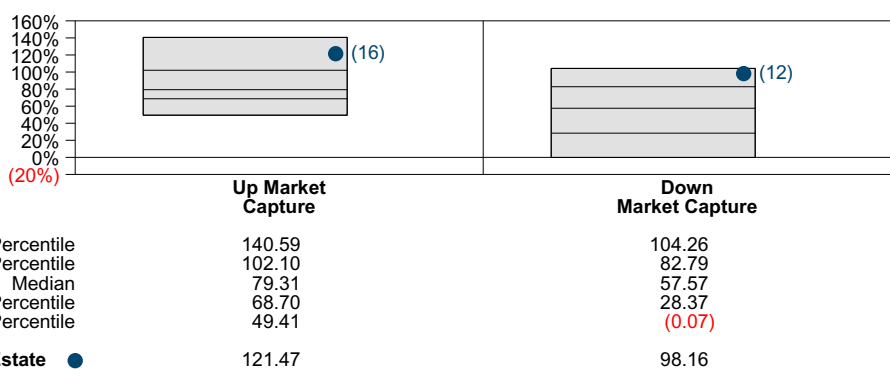
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

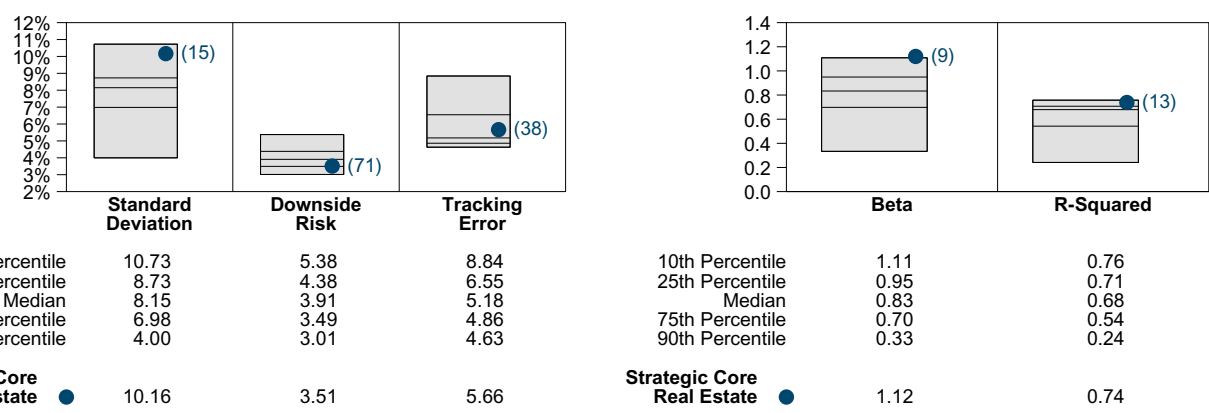
Risk Analysis vs Callan Real Estate Core (Net) Five Years Ended June 30, 2024



Market Capture vs Real Estate Benchmark Rankings Against Callan Real Estate Core (Net) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Real Estate Benchmark Rankings Against Callan Real Estate Core (Net) Five Years Ended June 30, 2024



Tactical Non-Core Real Estate Period Ended June 30, 2024

Real Estate Benchmark

The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index (lagged 1 quarter) as of 7/1/2015. From 1/1/2008 to 7/1/2015 the benchmark was the NCREIF Property Index + 50 bps (lagged 1 quarter). Prior to 1/1/2008 the benchmark was the NCREIF Property Index (lagged 1 quarter).

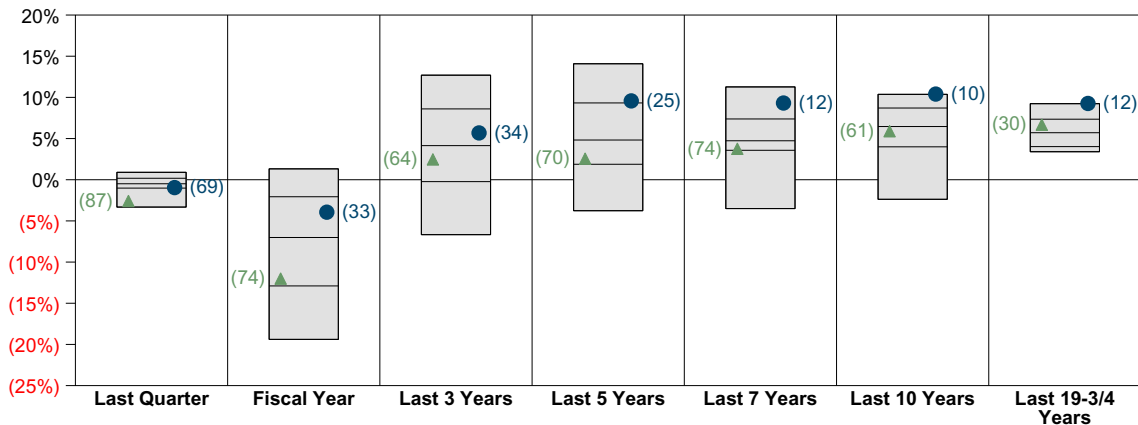
Quarterly Summary and Highlights

- Tactical Non-Core Real Estate's portfolio posted a (0.95)% return for the quarter placing it in the 69 percentile of the Callan Real Est Val Add group for the quarter and in the 33 percentile for the last year.
- Tactical Non-Core Real Estate's portfolio outperformed the Real Estate Benchmark by 1.62% for the quarter and outperformed the Real Estate Benchmark for the year by 8.06%.

Quarterly Asset Growth

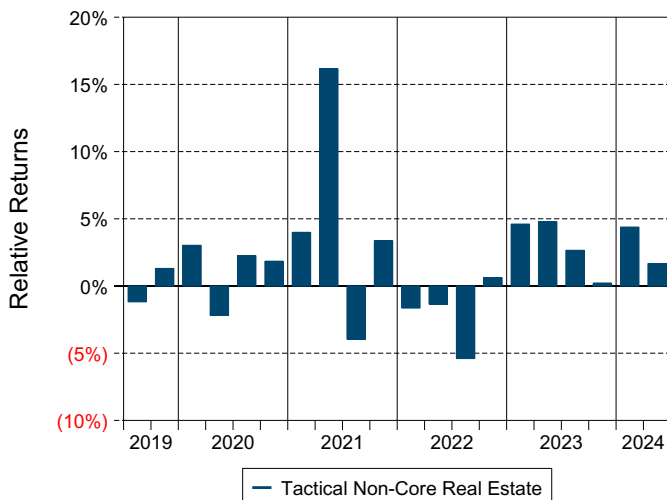
Beginning Market Value	\$461,893,882
Net New Investment	\$5,994,445
Investment Gains/(Losses)	\$-3,627,547
Ending Market Value	\$464,260,779

Performance vs Callan Real Est Val Add (Net)

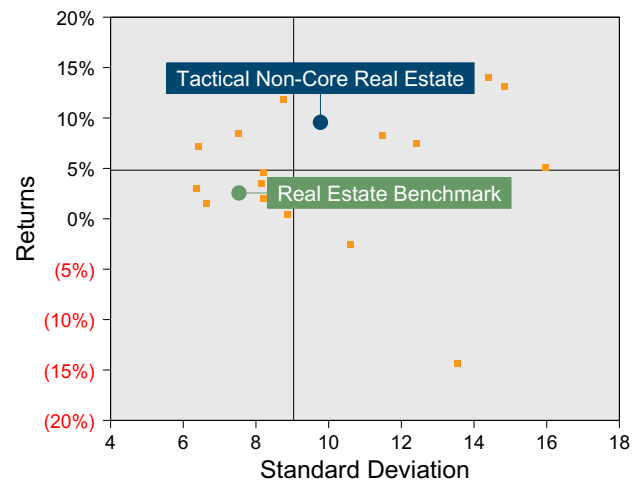


10th Percentile	0.90	1.32	12.70	14.08	11.27	10.37	9.24
25th Percentile	0.18	(2.06)	8.60	9.33	7.38	8.71	7.35
Median	(0.49)	(7.01)	4.14	4.82	4.73	6.46	5.71
75th Percentile	(1.02)	(12.89)	(0.23)	1.88	3.57	3.99	4.02
90th Percentile	(3.32)	(19.39)	(6.67)	(3.76)	(3.50)	(2.38)	3.40
Tactical Non-Core Real Estate	● (0.95)	(3.94)	5.68	9.57	9.31	10.40	9.26
Real Estate Benchmark	▲ (2.58)	(12.00)	2.47	2.56	3.76	5.89	6.69

Relative Return vs Real Estate Benchmark



Callan Real Est Val Add (Net) Annualized Five Year Risk vs Return

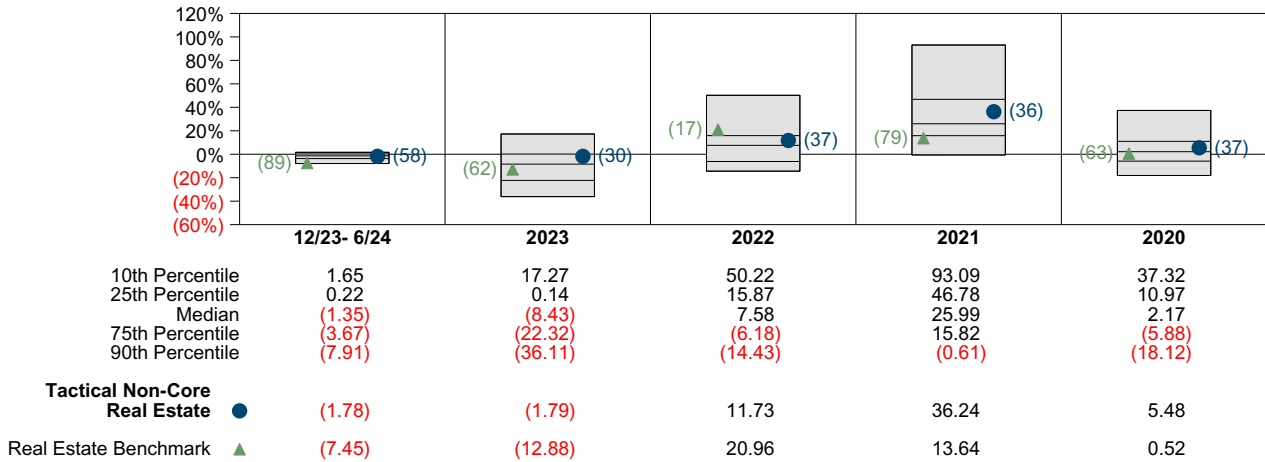


Tactical Non-Core Real Estate Return Analysis Summary

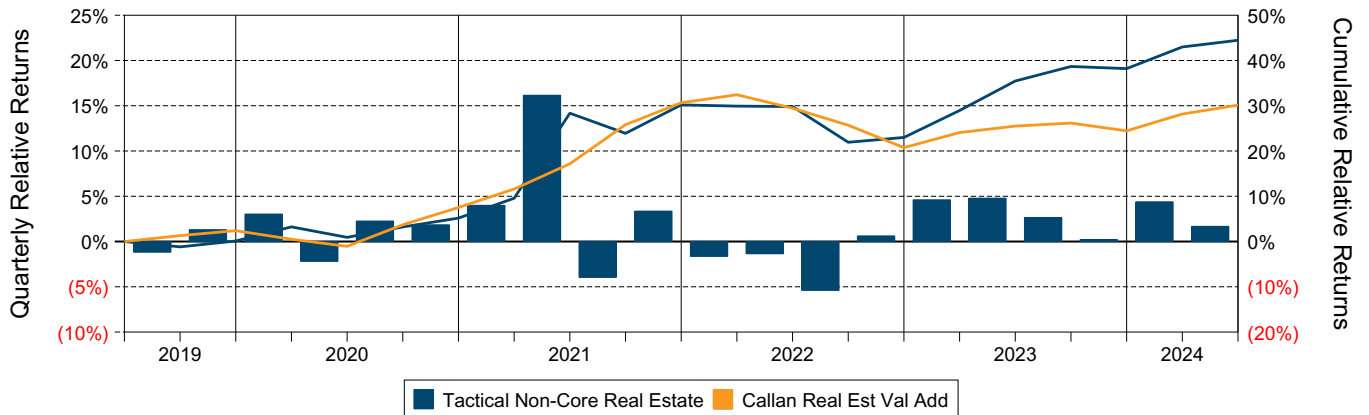
Return Analysis

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

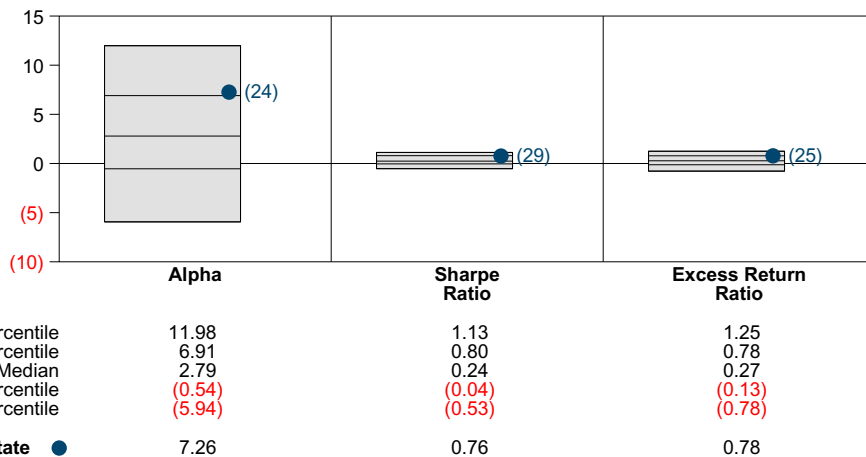
Performance vs Callan Real Est Val Add (Net)



Cumulative and Quarterly Relative Returns vs Real Estate Benchmark



Risk Adjusted Return Measures vs Real Estate Benchmark Rankings Against Callan Real Est Val Add (Net) Five Years Ended June 30, 2024

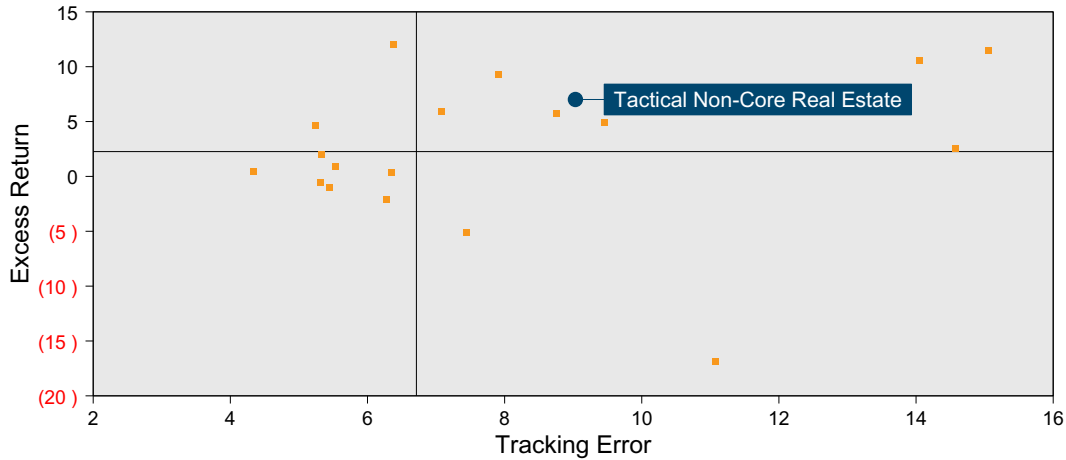


Tactical Non-Core Real Estate Risk Analysis Summary

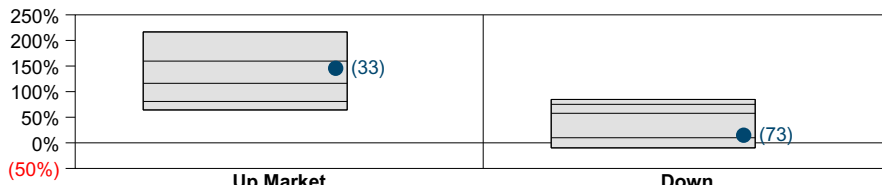
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

Risk Analysis vs Callan Real Estate Value Added (Net) Five Years Ended June 30, 2024



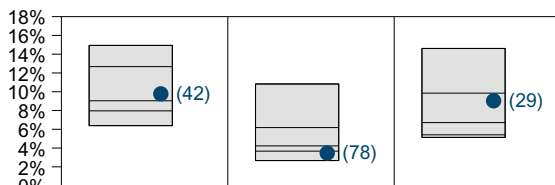
Market Capture vs Real Estate Benchmark Rankings Against Callan Real Estate Value Added (Net) Five Years Ended June 30, 2024



	Up Market Capture	Down Market Capture
10th Percentile	216.60	84.75
25th Percentile	159.62	75.22
Median	116.25	57.71
75th Percentile	80.86	9.97
90th Percentile	64.22	(9.85)

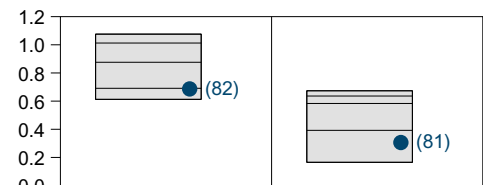
Tactical Non-Core Real Estate ● 145.62 14.88

Risk Statistics Rankings vs Real Estate Benchmark Rankings Against Callan Real Estate Value Added (Net) Five Years Ended June 30, 2024



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	14.93	10.83	14.61
25th Percentile	12.67	6.18	9.85
Median	9.04	4.23	6.71
75th Percentile	7.96	3.67	5.41
90th Percentile	6.39	2.67	5.13

Tactical Non-Core Real Estate ● 9.77 3.47 9.03



	Beta	R-Squared
10th Percentile	1.08	0.67
25th Percentile	1.01	0.64
Median	0.88	0.58
75th Percentile	0.69	0.39
90th Percentile	0.61	0.17

Tactical Non-Core Real Estate ● 0.69 0.31

Total Alternative Assets Period Ended June 30, 2024

Alternative Assets Benchmark

The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 3% (1 qtr lag), 16.7% Bloomberg HY Corp +1%(1 qtr lag), and 16.7% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022. From 7/1/2019 to 7/1/2022 the benchmark was 66.7% S&P 500 +3% (1 qtr lag) and 33.3% S&P LSTA Leveraged Loan 100 Index (1 qtr lag). From 7/1/2016 to 7/1/2019 the benchmark was 33.3% S&P 500 + 3% (1 qtr lag), 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag), and 33.3% 6-month USD LIBOR 5%. From 7/1/2015 to 7/1/2016 the benchmark was 33.3% S&P 500 + 3% (1 qtr lag), 33.3% S&P LSTA Leverage Loan 100 Index (1 qtr lag), and 33.3% 1-month USD LIBID + 5%. From 7/1/2013 to 7/1/2015 the benchmark was 100% S&P 500 + 5% (1 qtr lag). From 7/1/2011 to 7/1/2013 the benchmark was the quarter ending weight of Private Equity x S&P 500 + 5% (1 qtr lag) and the quarter ending weight of Absolute Return x CPI + 5% (1 qtr lag). Prior to 7/1/2011 the benchmark was 100% CPI + 5% (1 qtr lag).

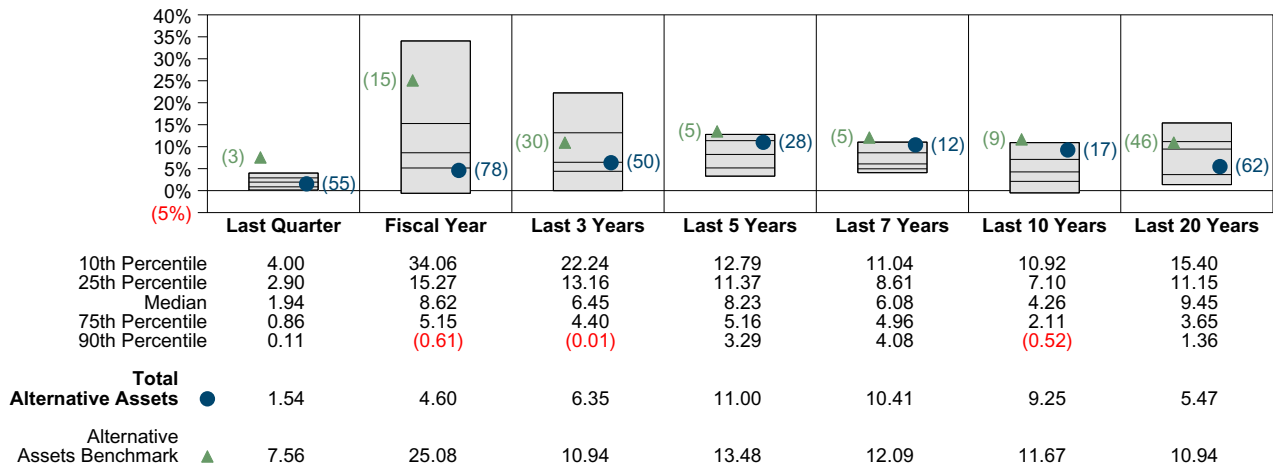
Quarterly Summary and Highlights

- Total Alternative Assets's portfolio posted a 1.54% return for the quarter placing it in the 55 percentile of the Callan Alternative Inv DB group for the quarter and in the 78 percentile for the last year.
- Total Alternative Assets's portfolio underperformed the Alternative Assets Benchmark by 6.02% for the quarter and underperformed the Alternative Assets Benchmark for the year by 20.48%.

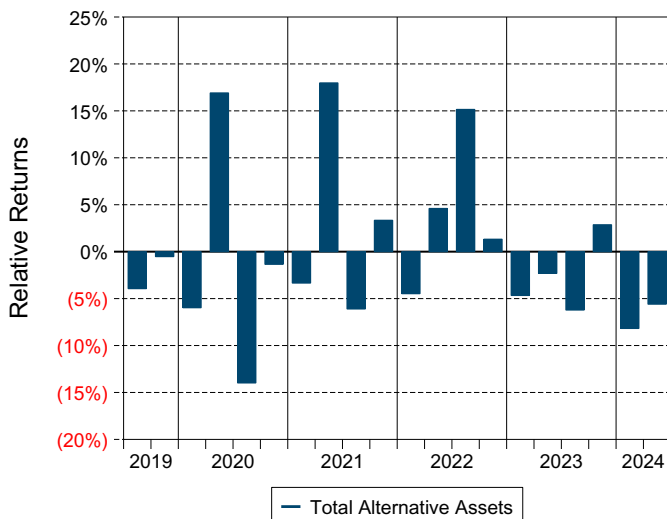
Quarterly Asset Growth

Beginning Market Value	\$2,227,807,754
Net New Investment	\$-3,647,100
Investment Gains/(Losses)	\$37,690,858
Ending Market Value	\$2,261,851,512

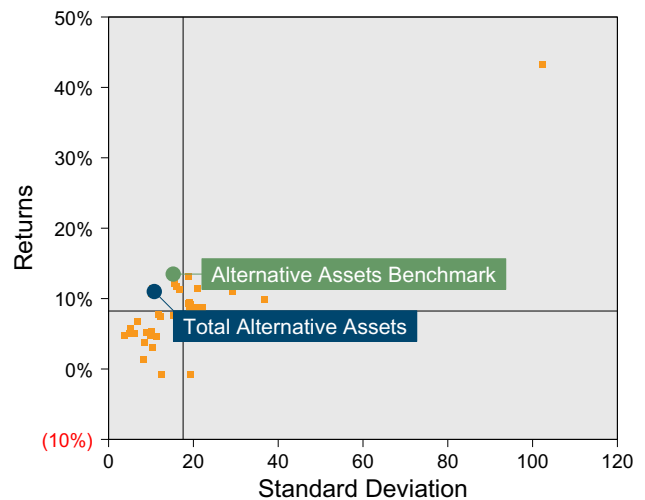
Performance vs Callan Alternative Inv DB (Gross)



Relative Returns vs Alternative Assets Benchmark



Callan Alternative Inv DB (Gross) Annualized Five Year Risk vs Return

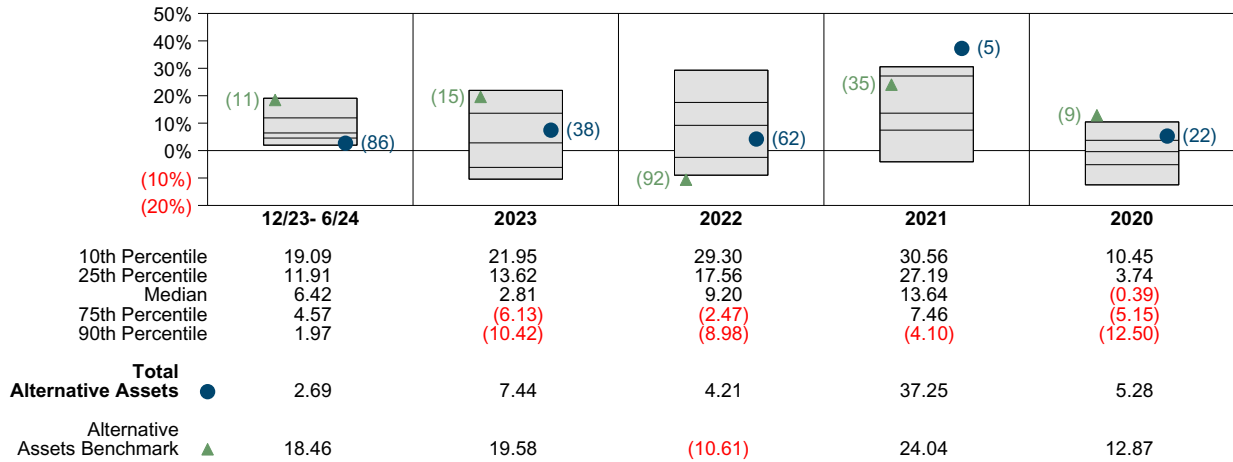


Total Alternative Assets Return Analysis Summary

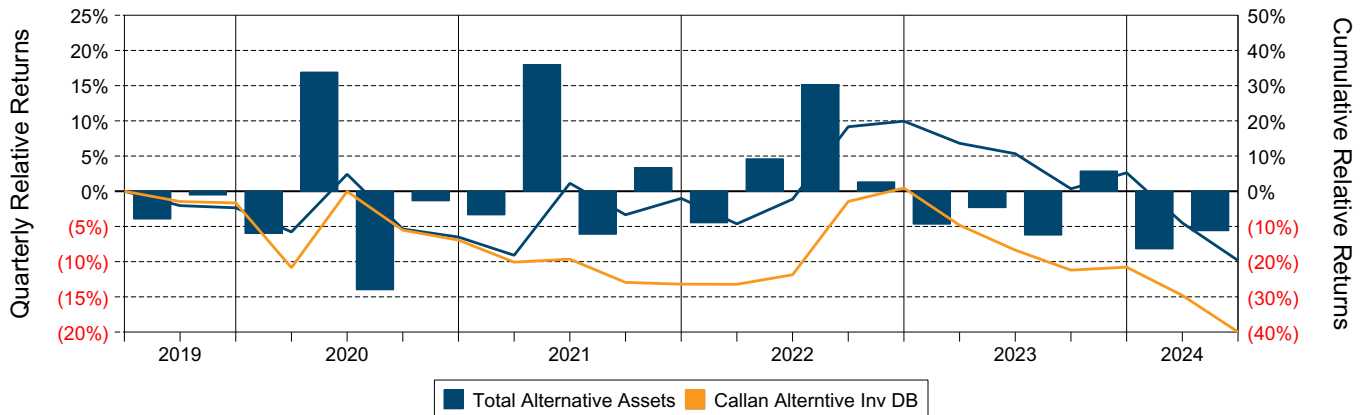
Return Analysis

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

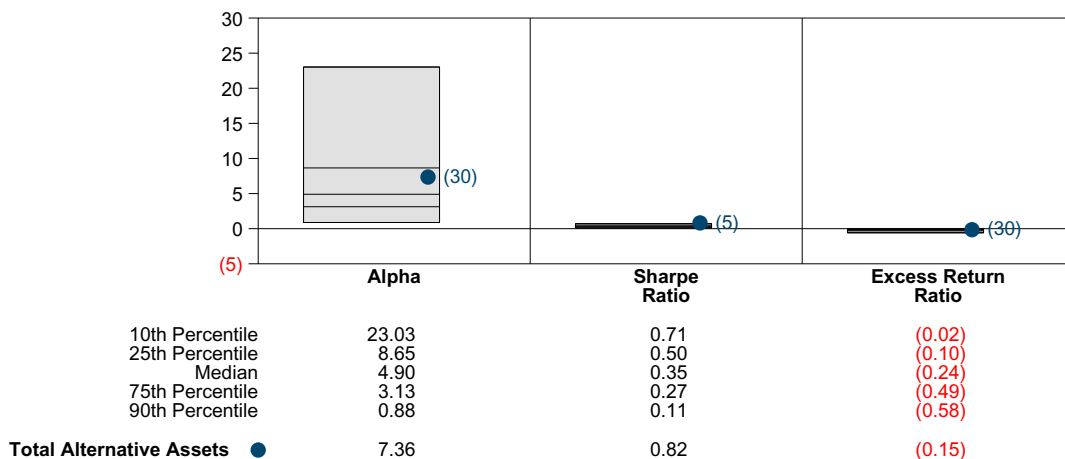
Performance vs Callan Alternative Inv DB (Gross)



Cumulative and Quarterly Relative Returns vs Alternative Assets Benchmark



Risk Adjusted Return Measures vs Alternative Assets Benchmark Rankings Against Callan Alternative Inv DB (Gross) Five Years Ended June 30, 2024

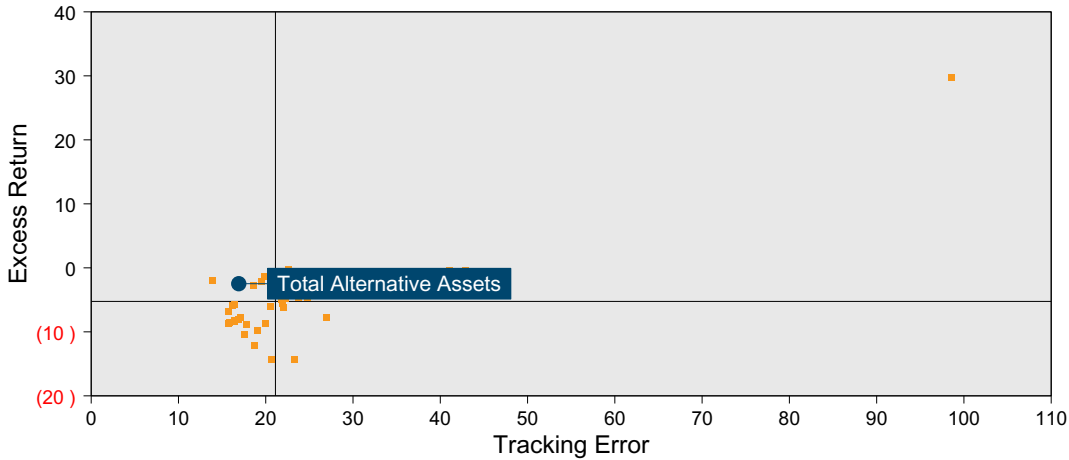


Total Alternative Assets Risk Analysis Summary

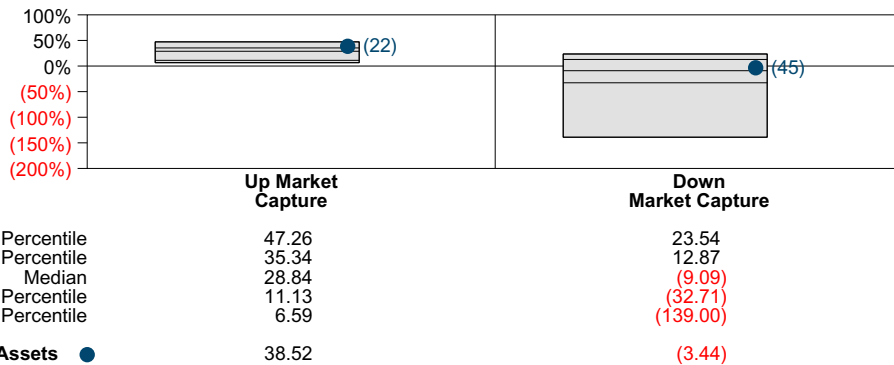
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

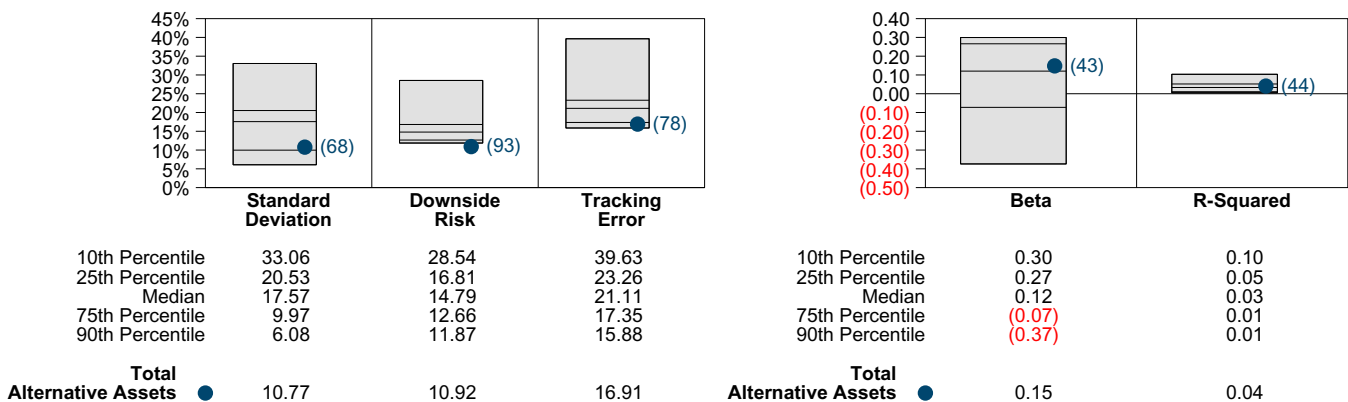
Risk Analysis vs Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Market Capture vs Alternative Assets Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Alternative Assets Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Private Equity Period Ended June 30, 2024

Private Equity Benchmark

The Private Equity Benchmark is the Russell 3000 + 3% (1 qtr lag) as of 7/1/2022. Prior to 7/1/2022, the benchmark was the S+P 500 + 3% (1 qtr lag). Prior to 7/1/2015 the benchmark was S&P 500 + 5% (1 qtr lag).

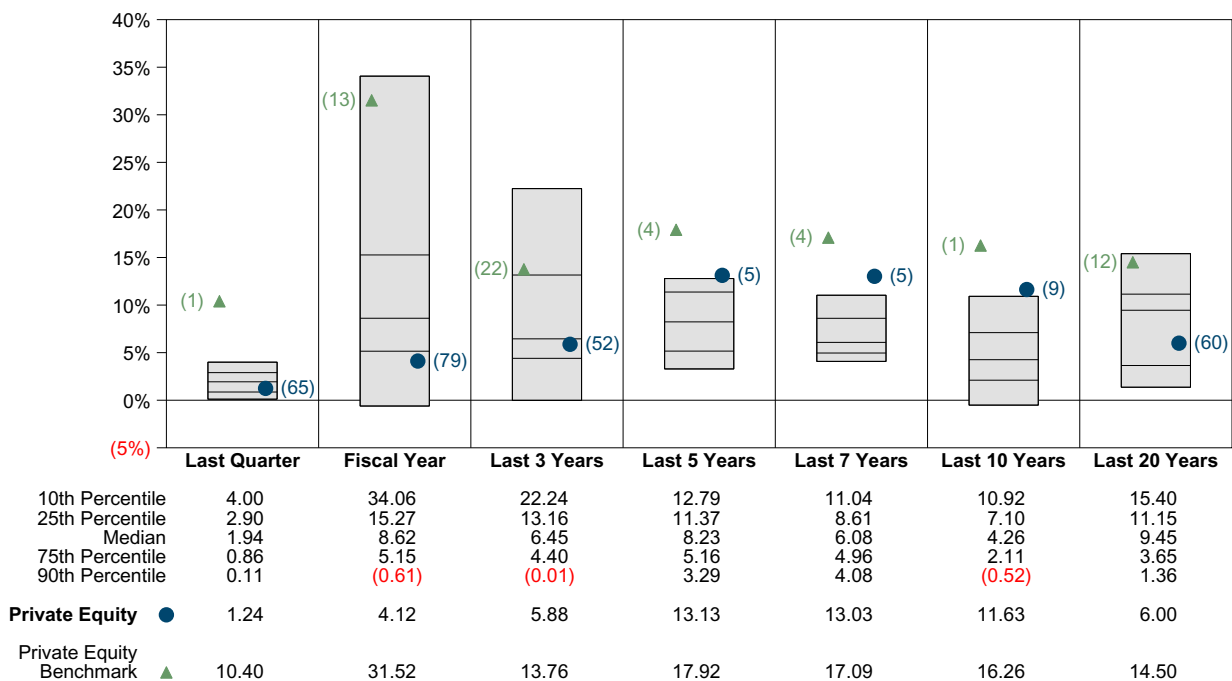
Quarterly Summary and Highlights

- Private Equity's portfolio posted a 1.24% return for the quarter placing it in the 65 percentile of the Callan Alternative Inv DB group for the quarter and in the 79 percentile for the last year.
- Private Equity's portfolio underperformed the Private Equity Benchmark by 9.16% for the quarter and underperformed the Private Equity Benchmark for the year by 27.40%.

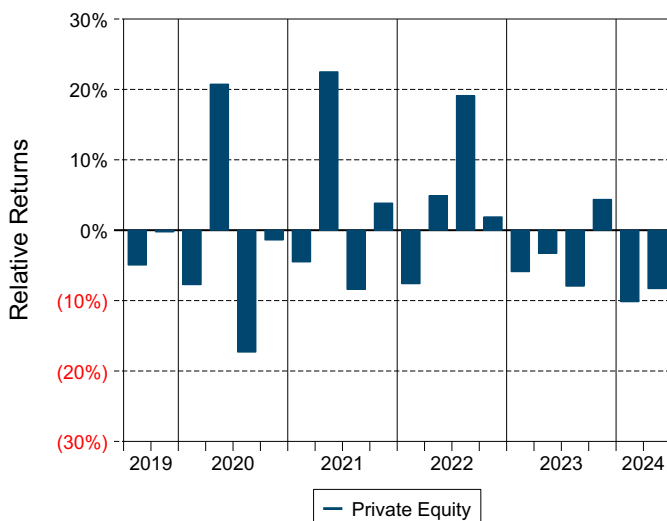
Quarterly Asset Growth

Beginning Market Value	\$1,659,602,981
Net New Investment	\$3,543,048
Investment Gains/(Losses)	\$22,422,245
Ending Market Value	\$1,685,568,274

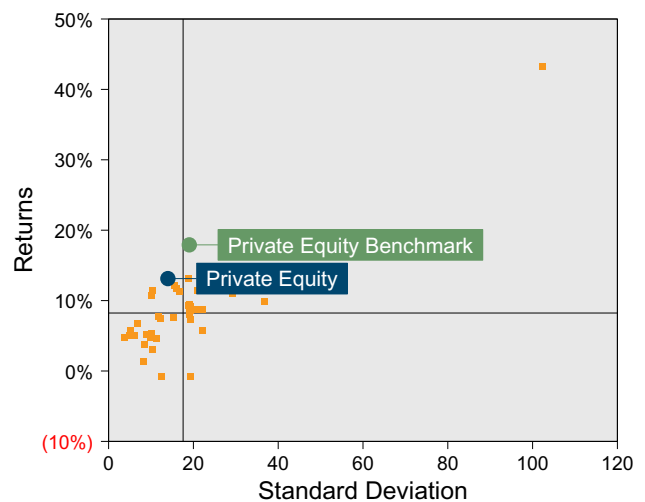
Performance vs Callan Alternative Inv DB (Gross)



Relative Return vs Private Equity Benchmark



Callan Alternative Inv DB (Gross) Annualized Five Year Risk vs Return

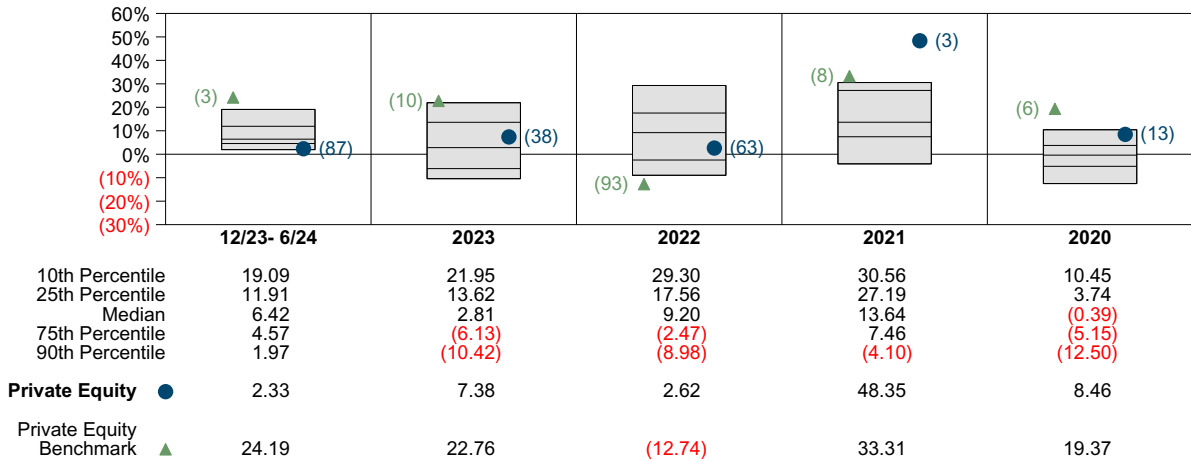


Private Equity Return Analysis Summary

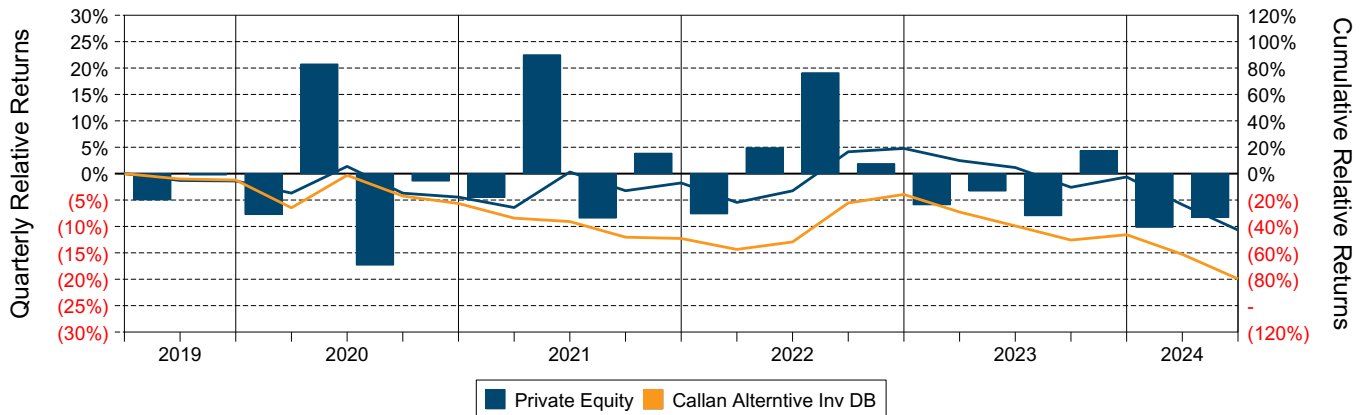
Return Analysis

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

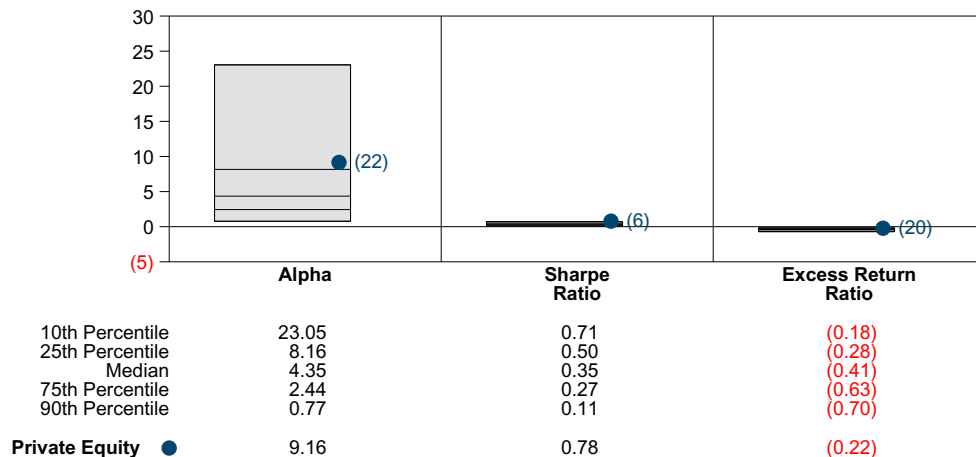
Performance vs Callan Alternative Inv DB (Gross)



Cumulative and Quarterly Relative Returns vs Private Equity Benchmark



Risk Adjusted Return Measures vs Private Equity Benchmark Rankings Against Callan Alternative Inv DB (Gross) Five Years Ended June 30, 2024

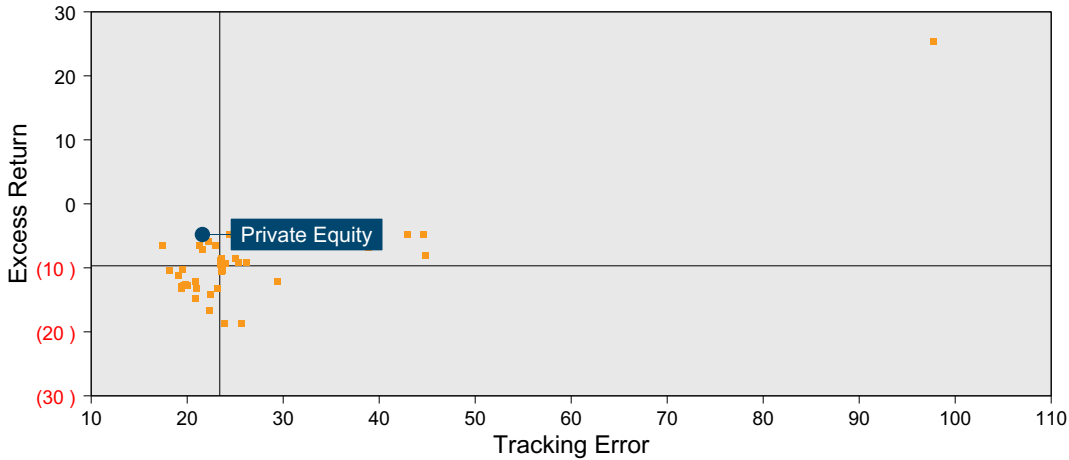


Private Equity Risk Analysis Summary

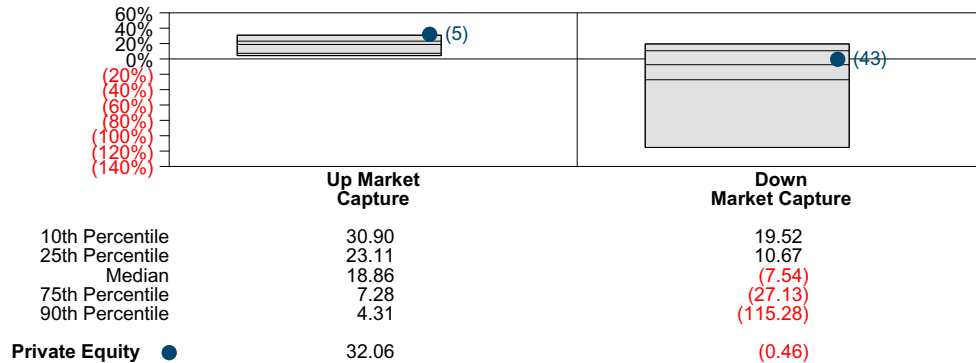
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

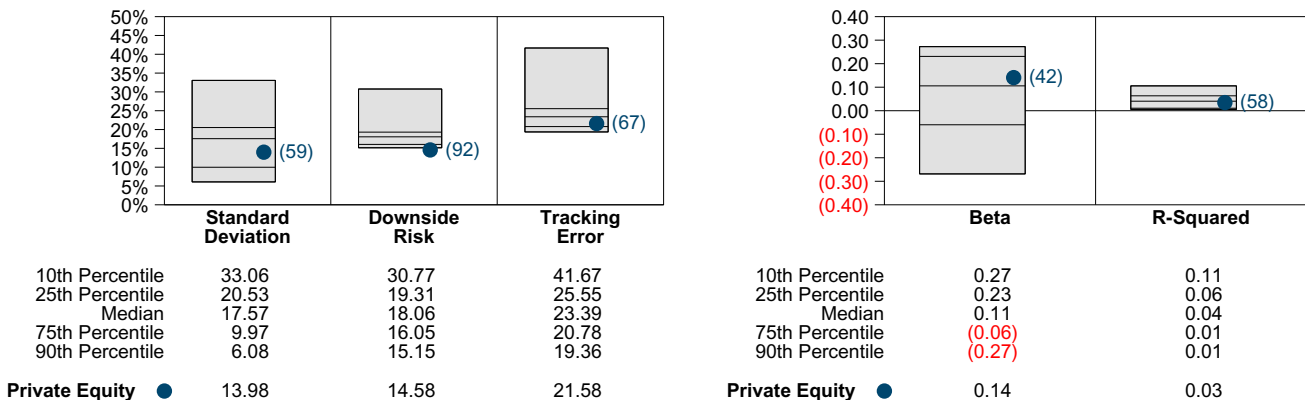
Risk Analysis vs Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Market Capture vs Private Equity Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Private Equity Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Private Debt Period Ended June 30, 2024

Private Debt Benchmark

The Private Debt Benchmark is 50% Bloomberg HY Corp +1% (1 qtr lag), and 50% S&P/LSTA Lev Loan 100 +1.0% (1 qtr lag) as of 7/1/2022. Prior to 7/1/2015, the benchmark was the S&P LSTA Leverage Loan 100 Index (1 qtr lag) . Prior to 7/1/2015 the benchmark was S&P 500 + 5% (1 qtr lag).

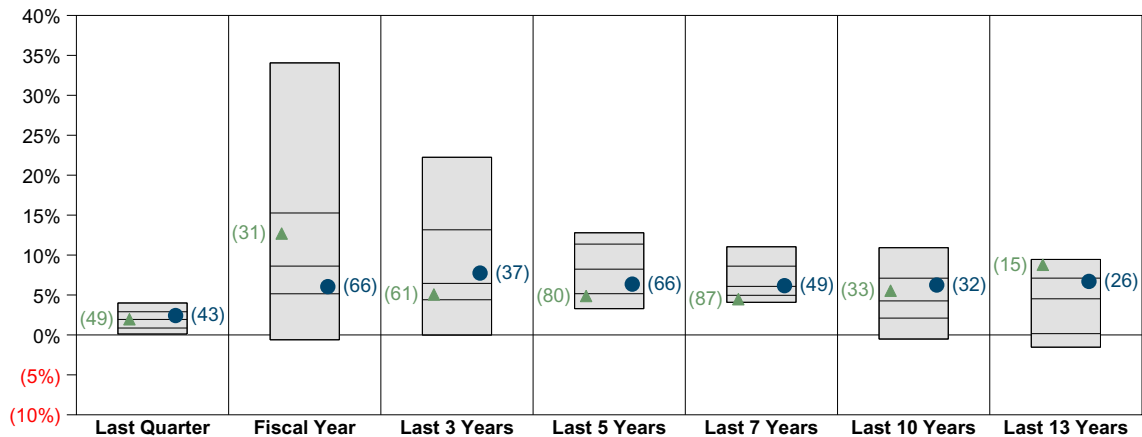
Quarterly Summary and Highlights

- Private Debt's portfolio posted a 2.43% return for the quarter placing it in the 43 percentile of the Callan Alternative Inv DB group for the quarter and in the 66 percentile for the last year.
- Private Debt's portfolio outperformed the Private Debt Benchmark by 0.47% for the quarter and underperformed the Private Debt Benchmark for the year by 6.65%.

Quarterly Asset Growth

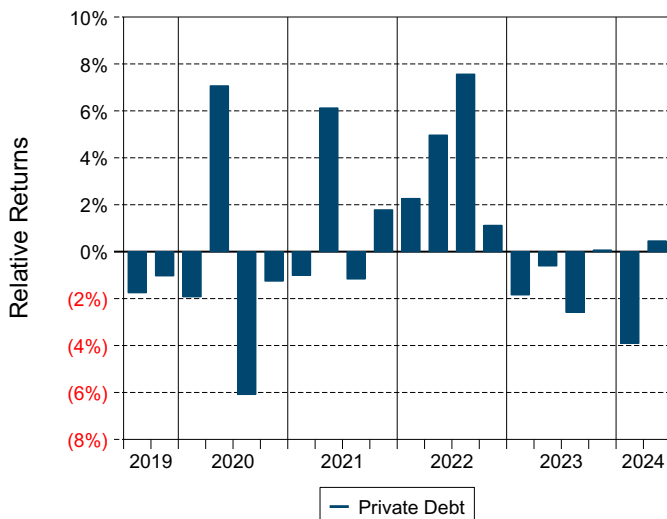
Beginning Market Value	\$568,204,773
Net New Investment	\$-7,190,148
Investment Gains/(Losses)	\$15,268,613
Ending Market Value	\$576,283,238

Performance vs Callan Alternative Inv DB (Gross)

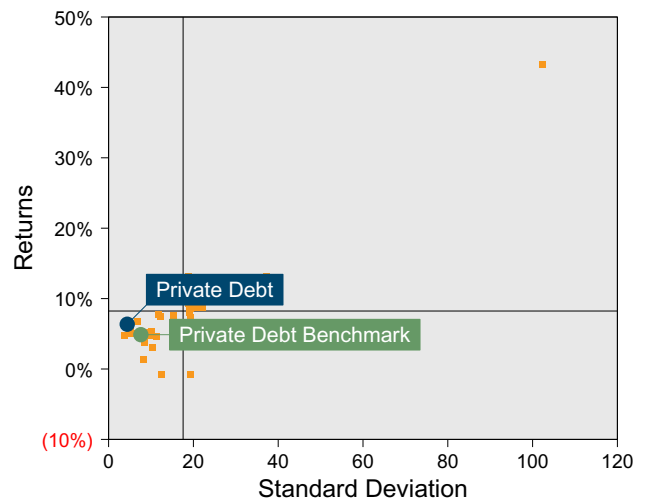


10th Percentile	4.00	34.06	22.24	12.79	11.04	10.92	9.45
25th Percentile	2.90	15.27	13.16	11.37	8.61	7.10	7.11
Median	1.94	8.62	6.45	8.23	6.08	4.26	4.52
75th Percentile	0.86	5.15	4.40	5.16	4.96	2.11	0.16
90th Percentile	0.11	(0.61)	(0.01)	3.29	4.08	(0.52)	(1.54)
Private Debt	● 2.43	6.05	7.75	6.36	6.17	6.24	6.70
Private Debt Benchmark	▲ 1.96	12.70	5.07	4.88	4.47	5.54	8.78

Relative Return vs Private Debt Benchmark



Callan Alternative Inv DB (Gross) Annualized Five Year Risk vs Return

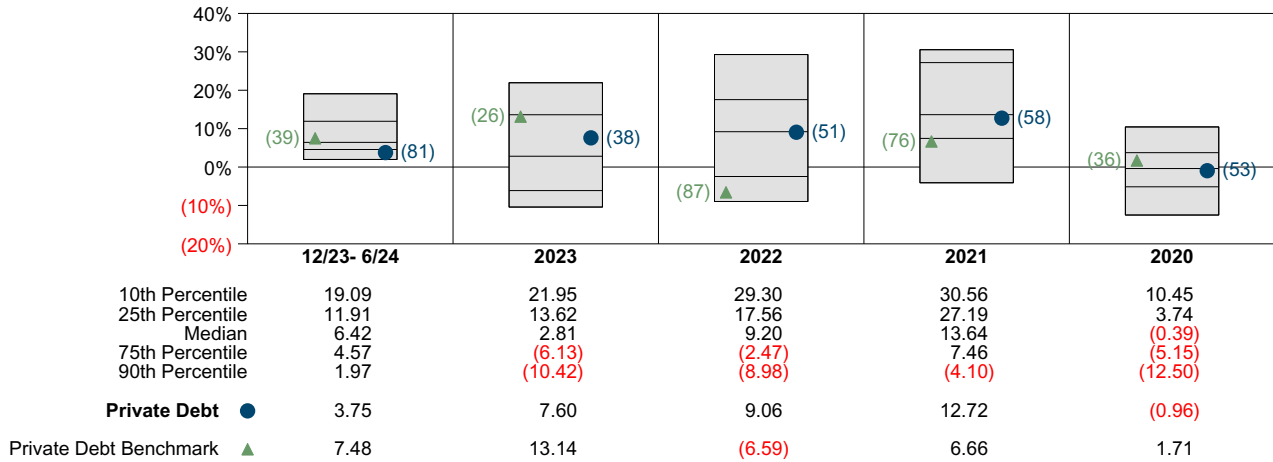


Private Debt Return Analysis Summary

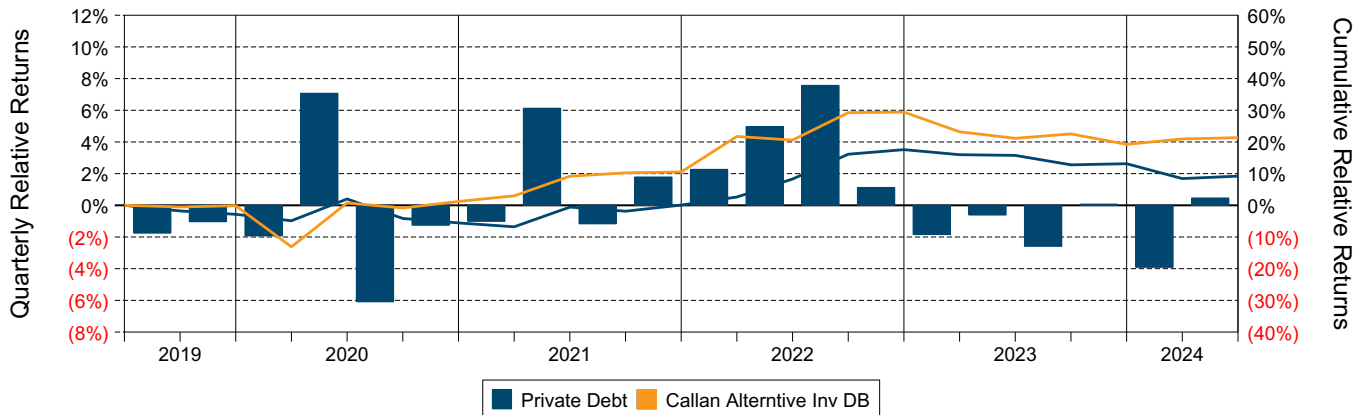
Return Analysis

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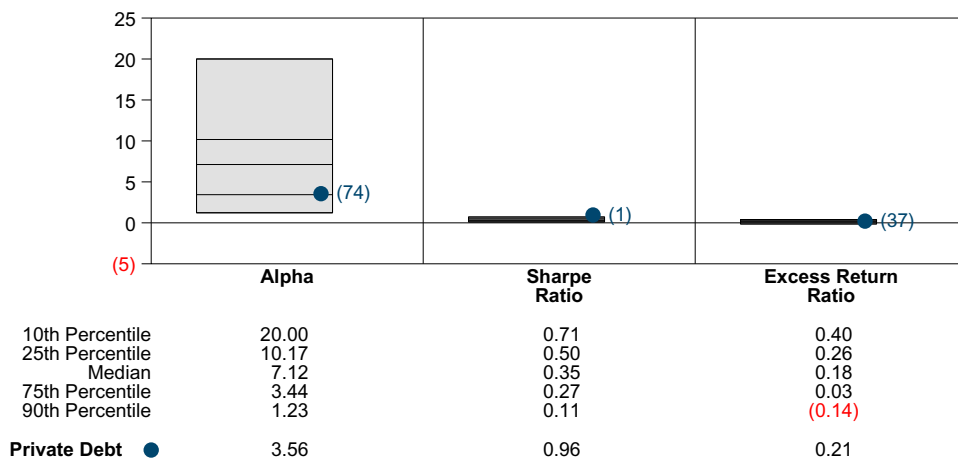
Performance vs Callan Alternative Inv DB (Gross)



Cumulative and Quarterly Relative Returns vs Private Debt Benchmark



Risk Adjusted Return Measures vs Private Debt Benchmark Rankings Against Callan Alternative Inv DB (Gross) Five Years Ended June 30, 2024

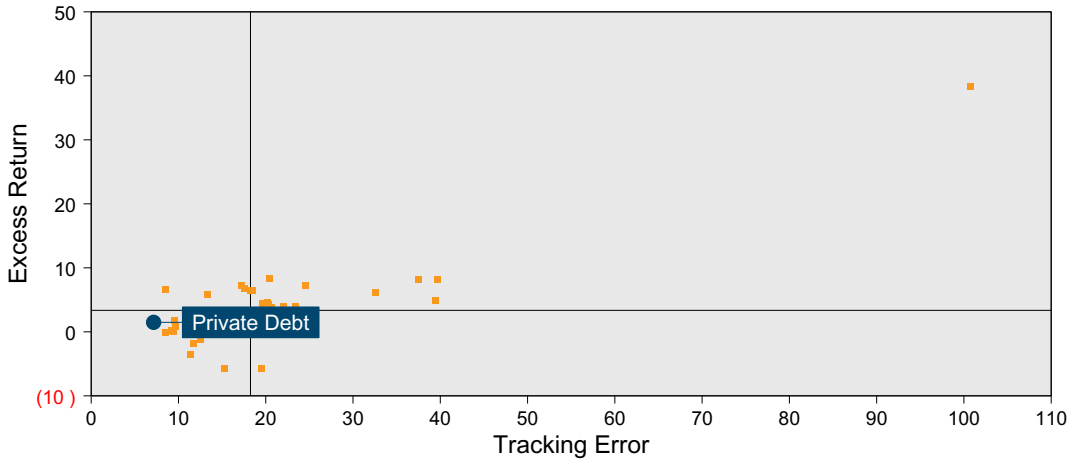


Private Debt Risk Analysis Summary

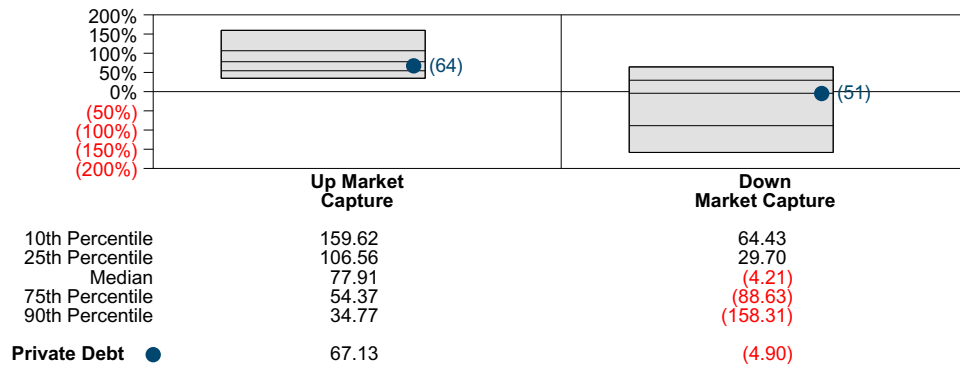
Risk Analysis

The graphs below analyze the risk or variation of the portfolio'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 portfolio's risk statistics versus the peer group.

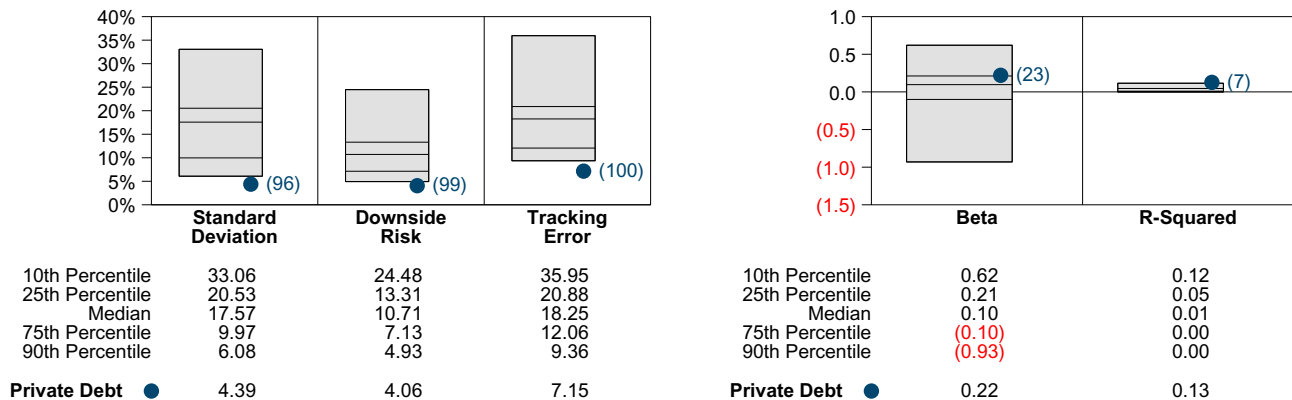
Risk Analysis vs Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Market Capture vs Private Debt Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



Risk Statistics Rankings vs Private Debt Benchmark Rankings Against Callan Alternative Investments DB (Gross) Five Years Ended June 30, 2024



New Hampshire Retirement System Target History

30-Jun-2022 - 30-Jun-2024		
Domestic Broad		
Eq	Russell 3000 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Russell 3000 Index+2.00%	10.00%
Other Alternatives	Bloomberg HY Corporate+1.00%	2.50%
Other Alternatives	Morningstar LSTA Leveraged Loan 100+1.00%2.50%	
		100.00%
30-Jun-2021 - 30-Jun-2022		
Domestic Broad		
Eq	Russell 3000 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+3.00%	10.00%
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%
		100.00%
30-Sep-2020 - 30-Jun-2021		
Domestic Broad		
Eq	S&P 500 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+3.00%	10.00%
Other Alternatives	Morningstar LSTA Leveraged Loan 100	5.00%
		100.00%
30-Jun-2015 - 30-Sep-2020		
Domestic Broad		
Eq	S&P 500 Index	30.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF NFI-ODCE Value Weight Net	10.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	15.00%
		100.00%
31-Mar-2015 - 30-Jun-2015		
Domestic Broad		
Eq	Russell 3000 Index	37.30%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.70%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	9.00%
		100.00%
31-Dec-2014 - 31-Mar-2015		
Domestic Broad		
Eq	Russell 3000 Index	37.70%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.80%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	8.50%
		100.00%
30-Sep-2014 - 31-Dec-2014		
Domestic Broad		
Eq	Russell 3000 Index	39.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.60%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	7.40%
		100.00%
30-Jun-2014 - 30-Sep-2014		
Domestic Broad		
Eq	Russell 3000 Index	39.60%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.90%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	6.50%
		100.00%
31-Mar-2014 - 30-Jun-2014		
Domestic Broad		
Eq	Russell 3000 Index	42.20%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.60%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	4.20%
		100.00%
31-Dec-2013 - 31-Mar-2014		
Domestic Broad		
Eq	Russell 3000 Index	41.80%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	9.10%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	4.10%
		100.00%
30-Sep-2013 - 31-Dec-2013		
Domestic Broad		
Eq	Russell 3000 Index	42.90%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.60%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	3.50%
		100.00%
30-Jun-2013 - 30-Sep-2013		
Domestic Broad		
Eq	Russell 3000 Index	42.50%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	9.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	S&P 500 Index+5.00%	3.50%
		100.00%
31-Mar-2013 - 30-Jun-2013		
Domestic Broad		
Eq	Russell 3000 Index	43.00%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.60%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	3.40%
		100.00%
31-Dec-2012 - 31-Mar-2013		
Domestic Broad		
Eq	Russell 3000 Index	43.60%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.80%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.60%
		100.00%
30-Sep-2012 - 31-Dec-2012		
Domestic Broad		
Eq	Russell 3000 Index	43.90%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	8.70%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.40%
		100.00%
30-Jun-2012 - 30-Sep-2012		
Domestic Broad		
Eq	Russell 3000 Index	43.50%
Domestic Fixed	Bloomberg Universal	25.00%
Real Estate	NCREIF Property Index+0.50%	9.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.50%
		100.00%

New Hampshire Retirement System Target History

31-Mar-2012 - 30-Jun-2012		
Domestic Broad		
Eq	Russell 3000 Index	40.10%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	7.60%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.30%
		100.00%
31-Dec-2011 - 31-Mar-2012		
Domestic Broad		
Eq	Russell 3000 Index	39.70%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	8.00%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.30%
		100.00%
30-Sep-2011 - 31-Dec-2011		
Domestic Broad		
Eq	Russell 3000 Index	40.20%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	7.40%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.40%
		100.00%
30-Jun-2011 - 30-Sep-2011		
Domestic Broad		
Eq	Russell 3000 Index	42.50%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.40%
Intl Equity	MSCI ACWI xUS (Net)	20.00%
Other Alternatives	Alternative Asset Benchmark	2.10%
		100.00%
31-Mar-2011 - 30-Jun-2011		
Domestic Broad		
Eq	Russell 3000 Index	43.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.30%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	1.70%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
31-Dec-2010 - 31-Mar-2011		
Domestic Broad		
Eq	Russell 3000 Index	43.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.20%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	1.80%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Sep-2010 - 31-Dec-2010		
Domestic Broad		
Eq	Russell 3000 Index	42.80%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.40%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	1.80%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Jun-2010 - 30-Sep-2010		
Domestic Broad		
Eq	Russell 3000 Index	42.90%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.00%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.10%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
31-Dec-2009 - 30-Jun-2010		
Domestic Broad		
Eq	Russell 3000 Index	43.30%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	4.70%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.00%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Sep-2009 - 31-Dec-2009		
Domestic Broad		
Eq	Russell 3000 Index	42.30%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	5.50%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.20%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Jun-2009 - 30-Sep-2009		
Domestic Broad		
Eq	Russell 3000 Index	41.50%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	6.20%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.30%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
31-Mar-2009 - 30-Jun-2009		
Domestic Broad		
Eq	Russell 3000 Index	38.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	9.30%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	2.70%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
31-Dec-2008 - 31-Mar-2009		
Domestic Broad		
Eq	Russell 3000 Index	37.20%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index+0.50%	9.70%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Alternative Asset Benchmark	3.10%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%
30-Sep-2008 - 31-Dec-2008		
Domestic Broad		
Eq	Russell 3000 Index	38.90%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	8.20%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Consumer Price Index (W) + 5%	2.90%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

New Hampshire Retirement System Target History

30-Jun-2008 - 30-Sep-2008

Domestic Broad		
Eq	Russell 3000 Index	40.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	7.30%
Intl Equity	MSCI ACWI xUS (Net)	15.00%
Other Alternatives	Consumer Price Index (W) + 5%	2.70%
Global Equity		
Broad	MSCI ACWI (Net)	5.00%
		100.00%

30-Jun-2007 - 30-Jun-2008

Domestic Broad		
Eq	Russell 3000 Index	44.00%
Domestic Fixed	Bloomberg Universal	30.00%
Real Estate	NCREIF Property Index	5.00%
Intl Equity	MSCI ACWI xUS (Net)	16.00%
Other Alternatives	Consumer Price Index (W) + 5%	5.00%
		100.00%

30-Nov-2006 - 30-Jun-2007

Domestic Broad		
Eq	Russell 3000 Index	44.00%
Domestic Fixed	Bloomberg Universal	26.00%
Real Estate	NCREIF Property Index	5.00%
Intl Equity	MSCI ACWI xUS (Net)	16.00%
Other Alternatives	Consumer Price Index (W) + 5%	5.00%
Global Fixed-Inc	Brandywine Blended Benchmark	4.00%
		100.00%

30-Jun-2003 - 30-Nov-2006

Domestic Broad		
Eq	Russell 3000 Index	47.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI ACWI xUS (Net)	12.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	Brandywine Blended Benchmark	3.00%
		100.00%

31-Oct-1997 - 30-Jun-2003

Domestic Broad		
Eq	S&P 500 Index	50.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	Brandywine Blended Benchmark	3.00%
		100.00%

31-Mar-1990 - 31-Oct-1997

Domestic Broad		
Eq	S&P 500 Index	50.00%
Domestic Fixed	Bloomberg Universal	18.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	JPM GBI Global Unhedged USD	3.00%
		100.00%

30-Jun-1975 - 31-Mar-1990

Domestic Broad		
Eq	S&P 500 Index	50.00%
Real Estate	NCREIF Property Index	10.00%
Intl Equity	MSCI EAFE (Net)	9.00%
Other Alternatives	Consumer Price Index (W) + 5%	10.00%
Global Fixed-Inc	JPM GBI Global Unhedged USD	3.00%
		82.00%

Risk/Reward Statistics

The risk statistics used in this report examine performance characteristics of a manager or a portfolio relative to a benchmark (market indicator) which assumes to represent overall movements in the asset class being considered. The main unit of analysis is the excess return, which is the portfolio return minus the return on a risk free asset (3 month T-Bill).

Alpha measures a portfolio's return in excess of the market return adjusted for risk. It is a measure of the manager's contribution to performance with reference to security selection. A positive alpha indicates that a portfolio was positively rewarded for the residual risk which was taken for that level of market exposure.

Beta measures the sensitivity of rates of portfolio returns to movements in the market index. A portfolio's beta measures the expected change in return per 1% change in the return on the market. If a beta of a portfolio is 1.5, a 1 percent increase in the return on the market will result, on average, in a 1.5 percent increase in the return on the portfolio. The converse would also be true.

Downside Risk stems from the desire to differentiate between "good risk" (upside volatility) and "bad risk" (downside volatility). Whereas standard deviation punishes both upside and downside volatility, downside risk measures only the standard deviation of returns below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

Excess Return Ratio is a measure of risk adjusted relative return. This ratio captures the amount of active management performance (value added relative to an index) per unit of active management risk (tracking error against the index.) It is calculated by dividing the manager's annualized cumulative excess return relative to the index by the standard deviation of the individual quarterly excess returns. The Excess Return Ratio can be interpreted as the manager's active risk/reward tradeoff for diverging from the index when the index is mandated to be the "riskless" market position.

Information Ratio measures the manager's market risk-adjusted excess return per unit of residual risk relative to a benchmark. It is computed by dividing alpha by the residual risk over a given time period. Assuming all other factors being equal, managers with lower residual risk achieve higher values in the information ratio. Managers with higher information ratios will add value relative to the benchmark more reliably and consistently.

R-Squared indicates the extent to which the variability of the portfolio returns are explained by market action. It can also be thought of as measuring the diversification relative to the appropriate benchmark. An r-squared value of .75 indicates that 75% of the fluctuation in a portfolio return is explained by market action. An r-squared of 1.0 indicates that a portfolio's returns are entirely related to the market and it is not influenced by other factors. An r-squared of zero indicates that no relationship exists between the portfolio's return and the market.

Relative Standard Deviation is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A ratio of .80 would imply 20% less risk. This ratio is especially useful when analyzing the risk of investment grade fixed-income products where actual historical durations are not available. By using this relative risk measure over rolling time periods one can illustrate the "implied" historical duration patterns of the portfolio versus the benchmark.

Residual Portfolio Risk is the unsystematic risk of a fund, the portion of the total risk unique to the fund (manager) itself and not related to the overall market. This reflects the "bets" which the manager places in that particular asset market. These bets may reflect emphasis in particular sectors, maturities (for bonds), or other issue specific factors which the manager considers a good investment opportunity. Diversification of the portfolio will reduce or eliminate the residual risk of that portfolio.

Risk/Reward Statistics

Rising Declining Periods refer to the sub-asset class cycles vis-a-vis the broader asset class. This is determined by evaluating the cumulative relative sub-asset class index performance to that of the broader asset class index. For example, to determine the Growth Style cycle, the S&P 500 Growth Index (sub-asset class) performance is compared to that of the S&P 500 Index (broader asset class).

Sharpe Ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken.

Sortino Ratio is a downside risk-adjusted measure of value-added. It measures excess return over a benchmark divided by downside risk. The natural appeal is that it identifies value-added per unit of truly bad risk. The danger of interpretation, however, lies in these two areas: (1) the statistical significance of the denominator, and (2) its reliance on the persistence of skewness in return distributions.

Standard Deviation is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (ie. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

Total Portfolio Risk is a measure of the volatility of the quarterly excess returns of an asset. Total risk is composed of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or unsystematic) risk. The purpose of portfolio diversification is to reduce the residual risk of the portfolio.

Tracking Error is a statistical measure of a portfolio's risk relative to an index. It reflects the standard deviation of a portfolio's individual quarterly or monthly returns from the index's returns. Typically, the lower the Tracking Error, the more "index-like" the portfolio.

Treynor Ratio represents the portfolio's average excess return over a specified period divided by the beta relative to its benchmark over that same period. This measure reflects the reward over the risk-free rate relative to the systematic risk assumed.

Note: Alpha, Total Risk, and Residual Risk are annualized.

Domestic Equity and Fixed Income Style Groups
Period Ended June 30, 2024

Domestic Equity Style Groups	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Large Cap Core	31	36	9,603.4	2,594.5	316.9
Callan Small/MidCap Core	32	33	1,103.6	636.6	32.0
Callan Small/MidCap Value	18	19	2,589.7	896.1	46.6
Callan Small Cap Core	56	61	2,097.4	837.8	115.4

Domestic Fixed Income Style Groups	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Unconstrained Fixed Income	31	34	2,774.9	1,552.7	88.8
Callan Core Bond Fixed Income	80	96	9,904.9	3,095.7	921.2
Callan Core Plus Fixed Income	62	73	12,377.8	3,786.1	878.8

Domestic Miscellaneous Style Groups	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Total Domestic Real Estate DB	105	240	4,519.2	1,976.1	429.3
Callan Real Estate Core	45	70	7,208.8	4,257.3	338.8
Callan Real Estate Value Added	35	55	2,706.0	2,237.9	56.8
Callan Alternative Investments DB	90	140	4,235.5	385.0	258.4

International Equity and Fixed Income Style Groups
Period Ended June 30, 2024

International Equity Style Groups	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Non-US Equity	94	157	5,359.7	1,874.1	798.6
Callan Non-US All Country Growth Equity	25	30	7,408.6	4,474.4	200.0
Callan Emerging Core	56	87	3,765.9	1,581.2	297.5
Callan International Small Cap	32	33	2,067.7	1,170.5	57.9
Callan Global Developed Growth Equity	24	27	6,588.2	2,544.2	151.5

International Fixed Income Style Groups	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Global Fixed Income (Unhedged)	31	56	2,118.9	858.5	108.1

Fund Sponsor Database Statistics
Period Ended June 30, 2024

Fund Sponsor Database	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Callan Public Fund Spons - Large (>1B)	139	139	20,645.4	6,103.6	2,560.0
Lg Public Fund - Domestic Equity	139	139	20,645.4	6,103.6	2,560.0
Lg Public Fund - International Equity	139	139	20,645.4	6,103.6	2,560.0

Fund Sponsor Database	Number of Organizations	Number of Funds	Assets Under Management		
			Mean(\$mil)	Median(\$mil)	Total(\$bil)
Lg Public Fund - Domestic Fixed	139	139	20,645.4	6,103.6	2,560.0

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends, carefully structured educational programs to enhance the knowledge of industry professionals, and events to enhance dialogue among investing professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

[Quantifying Sequence-of>Returns Risk for Institutional Investors](#) | This paper shows institutional investors how to quantify sequence-of-returns risk in a single number. The metric is flexible enough to apply to strategic asset-allocation decisions across a variety of investor types.

[Sector-Specialist Strategies on the Rise: Do They Make Sense for Large LPs' Portfolios?](#) | To distinguish themselves in a competitive market, more private equity general partners are offering sector-specialist strategies, which focus on investing in a specific industry.

[2024 Asset Manager DEI Study](#) | The study offers a high-level assessment of the degree to which asset management organizations have established diversity, equity, and inclusion (DEI) policies and procedures.

[2024 DC Trends Survey](#) | This survey provides extensive information for DC plan sponsors to use in improving and benchmarking their plans.

Webinar Replays

[Research Café: ESG Interview Series](#) | This session features Mark Wood, Callan ESG team member, interviewing Nicole Wubbena, fellow ESG and Global Manager Research group member. Their discussion focuses on impact investing in public equity.

Blog Highlights

[Commercial Real Estate Capital Markets and Institutional Investors](#) | A blog post from Christine Mays on the state of the commercial real estate capital markets.

[Is This a Time for Active Managers to Shine?](#) | Tony Lissuzzo of Callan's Nonprofit Group writes on how dispersion affects active management.

Quarterly Updates

[Private Equity Update, 1Q24](#) | A high-level summary of private equity activity in the quarter through all the investment stages

[Active vs. Passive Charts, 1Q24](#) | A comparison of active managers alongside relevant benchmarks over the long term

[Market Pulse, 1Q24](#) | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

[Capital Markets Review, 1Q24](#) | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

[Hedge Fund Update, 1Q24](#) | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

[Real Assets Update, 1Q24](#) | A summary of market activity for real assets and private real estate during the quarter

[Private Credit Update, 1Q24](#) | A review of performance and fundraising activity for private credit during the quarter

[Callan Target Date Index™, 1Q24](#) | Tracks the performance and asset allocation of available target date mutual funds and CITs

[Callan DC Index™, 1Q24](#) | Provides underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets.

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

October Regional Workshops

October 22, 2024 – Denver

October 23, 2024 – Chicago

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+

Unique pieces of research the Institute generates each year

525

Attendees (on average) of the Institute's annual National Conference

4,845

Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

September 24-26, 2024 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities.

Our virtual sessions are held over two to three days with virtual modules of 2.5-3 hours, while in-person sessions run either a full day or one-and-a-half days. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

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Past performance is no guarantee of future results.