
Austin Police

Investment Performance Review
Period Ending December 31, 2024

MARINER

4th Quarter 2024 Market Environment

The Economy

- The US Federal Reserve (the Fed) continued to loosen its policy stance during the quarter with two fed funds rate cuts totaling 0.50%, bringing the year-end rate to a range of 4.25%-4.50%. While the Fed conveyed a degree of confidence that the fight against inflation is progressing in its December press release, Fed Chairman Jerome Powell signaled in his post-meeting press conference that the pace and timing of future rate cuts is unclear. The Fed's December "Dot Plot" now projects only two quarter-point rate cuts in 2025, down from four anticipated cuts in September's plot.
- Growth in the US labor market continued during the fourth quarter. US payrolls grew by 256,000 in December, up from the previous month's total of 212,000, and well above the 155,000 projected. If strength in the labor market continues, this data could support a slower pace Fed action in the form of policy rate reductions in 2025.

Equity (Domestic and International)

- US equity results were modestly higher for the quarter. Markets also saw a return to the narrowly focused technology and communication services company exuberance which has dominated domestic performance in recent years. The S&P 500 Index rose 2.4% for the quarter with the small-cap Russell 2000 Index managing just a 0.3% rise. The rotation away from large cap growth stocks during the third quarter seemed to reverse as the Russell 1000 Growth Index once again outpaced the Russell 1000 Value Index by a large margin.
- Large-cap equity benchmarks continue to represent a heavy concentration among a limited number of stocks. As of quarter end, the weight of the top 10 stocks in the S&P 500 Index exceeded 35%.
- Most international stocks faltered during the fourth quarter and US Dollar (USD) denominated results were further exacerbated by a strengthening USD. The USD performance of international stocks fell short of local currency (LCL) returns in most regions for the quarter, albeit to varying degrees.

Fixed Income

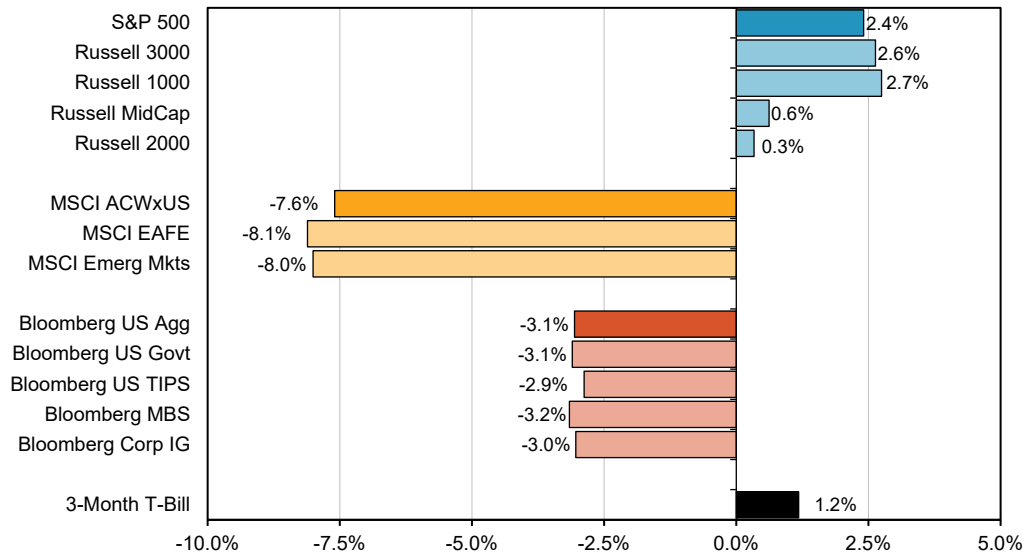
- Fixed-income markets traded lower during the quarter on the back of the Fed's ongoing policy actions. Short term Treasury yields fell while longer term yields rose, leading to a slight steepening in the yield curve. The yield on the bellwether 10-year Treasury advanced by 0.84% during the quarter, closing the year at a yield of 4.58%. The inverse relationship between prices and yields resulted in the Bloomberg US Aggregate Bond Index posting a -3.1% loss for the quarter.
- High-yield bonds outpaced the Bloomberg US Aggregate Bond Index for the quarter, largely due to higher coupons, a shorter duration profile, and a small narrowing of the option-adjusted spread (OAS) for the Bloomberg US High-Yield Index.
- Global bonds fell during the quarter, with the Bloomberg Global Aggregate ex-US returning -6.8% in USD terms. Like international equity results, global bond performance was dragged down by a strengthening USD during the quarter.

Market Themes

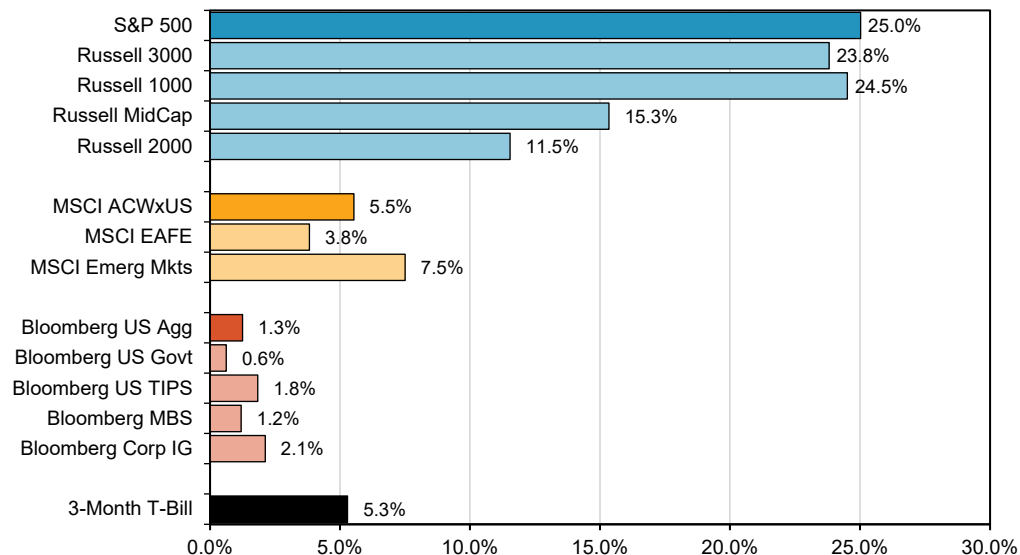
- Strength in the US Dollar during the quarter led to relative weakness in international markets. Many of the major currencies depreciated relative to the US Dollar as the year came to a close. Latin America saw the most significant decline during the period while the Pacific region was the only region to post positive LCL returns.
- The AI trade that has taken shape for much of the past two years continued in 2024 with the communication services and information technology sectors each posting gains of more than 35% for the year. This phenomenon contributed to narrow market leadership particularly within the large-cap segment of the market. The concentration in the large-cap indexes helped the S&P 500 post its second straight year of greater than a 20% return, further widening the performance gap between large and smaller capitalization benchmarks.
- Ongoing military conflicts in Ukraine and the Middle East, coupled with global economic uncertainty, continue to act as headwinds for international market results, further complicated by an advancing USD.
- The results of the most recent US presidential election appeared to please domestic equity markets in anticipation of the new administration supporting loosened regulations and pro-growth policies. As we move into the new year, equity markets will need to digest the anticipated effects of proposed tax legislation changes, a new view on foreign policy, and potential trade tariffs by the new administration.

- Domestic equity markets continued to climb higher during the quarter. Large-cap stocks returned to the forefront, outpacing small-cap stocks. The S&P 500 rose 2.4% during the quarter versus a muted gain of 0.3% for the Russell 2000 Index. The broad capitalization Russell 3000 Index, which benefited from strength in mid- and large-cap names, returned 2.6% for the quarter.
- International developed market equities reversed course and soured during the fourth quarter with the USD performance of the broad benchmarks each trading lower than (LCL) currency performance. The broad MSCI ACWI ex US Index delivered a disappointing -7.6% for the quarter but was down less than both the MSCI EAFE and MSCI EM indexes. The broad index was aided by Canada, which is not included in the EAFE or EM indexes. International developed market (DM) equities narrowly fell behind emerging market (EM) equities, returning -8.1% and -8.0%, respectively for the quarter. Negative performance for the international indexes was broad-based and not localized to any specific region.
- Broad market fixed-income benchmarks displayed a poor finish to the year as many of the core indexes succumbed to a steepening of the yield curve and the prospect of fewer rate cuts in 2025. The Bloomberg US Aggregate Index returned -3.1% for the quarter. The TIPS market, which is not part of the Aggregate Index, was also negative, posting a return of -2.9% for the quarter. While the performance differentials were small, the Mortgage-Backed Securities Index lagged other domestic bond market segments with a benchmark return of -3.2% for the quarter.
- Domestic equity indexes finished the year by adding to their already strong returns over the trailing one-year period. The S&P 500 Index gained 25.0% for the year and the Russell 1000 Index returned 24.5%. The weakest performing capitalization range of domestic equities for the year was the small-cap Russell 2000 Index, which still managed a double-digit climb over the last 12 months, returning a solid 11.5%.
- Domestic bond indexes' results were mixed throughout the year but still managed to deliver positive annual results. While the performance spread was narrow, investment-grade corporate bonds led bond index results for the year, returning a muted 2.1%. The government bond index lagged for the year, but was also positive, posting a return of 0.6%.
- International equity markets also delivered positive results for the trailing one-year period. The MSCI EM Index was the best international performer, returning 7.5%, while the MSCI EAFE and MSCI ACWI ex US indexes posted returns of 3.8% and 5.5%, respectively.

Quarter Performance



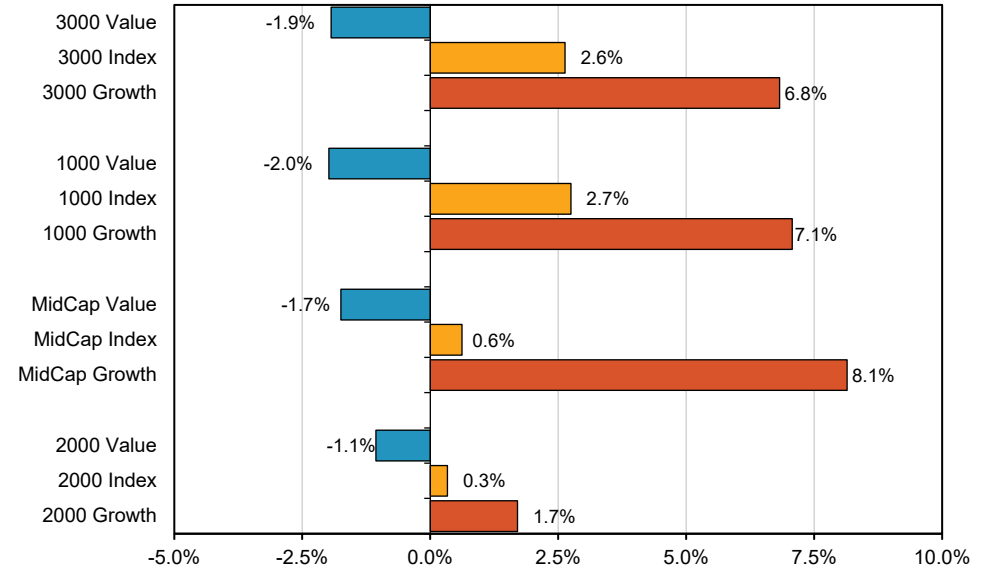
1-Year Performance



Source: Investment Metrics

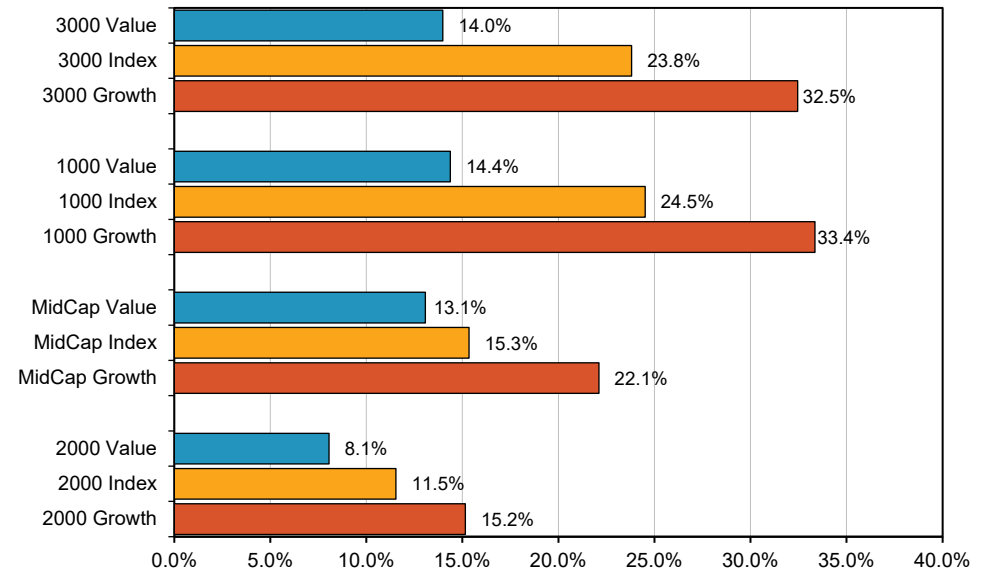
- Domestic equity benchmarks exhibited a return to their long-run trend of growth style companies vastly outperforming value during the fourth quarter. This theme was relatively consistent across the capitalization spectrum with growth benchmarks dominating performance results while value benchmarks each posted negative returns for the quarter.
- The broadest disparity between growth and value was visible in the mid-cap index. The Russell Mid Cap Value Index return of -1.7% trailed the Russell Mid Cap Growth Index return of 8.1%, a performance span of nearly 10%. The Russell Mid Cap Growth Index was also the best performing segment of the equity market during the quarter. Conversely, the worst performing segment of the market was large cap value which returned a disappointing -2.0% during the fourth quarter.

Quarter Performance - Russell Style Series



- This quarter's ascension of the growth indexes widened their performance gaps relative to the value indexes for the trailing year. The Russell 1000 Growth Index amassed a staggering 33.4% for the year, leading the way among style and market capitalization index performance. Much of the year's strong performance has been attributable to the emergence of the "Magnificent 7" stocks (Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla) which have dominated the large-cap core and growth indexes and the headlines over the past several years. The 10 largest stocks in the Russell 1000 Index have contributed more than 50% of the index's total performance over the trailing 12-month period. The weakest performing index for the year was the Russell 2000 Value Index, which still climbed 8.1%.
- The strength of growth sectors is also evident in the trailing one-year period with the chart on the right showing growth benchmarks at all capitalization ranges outpacing their value counterparts. The performance gap between the Russell 1000 Growth Index and the Russell 1000 Value Index was nearly 20% and the gaps for mid- and small-cap indexes were narrower, but still wide.

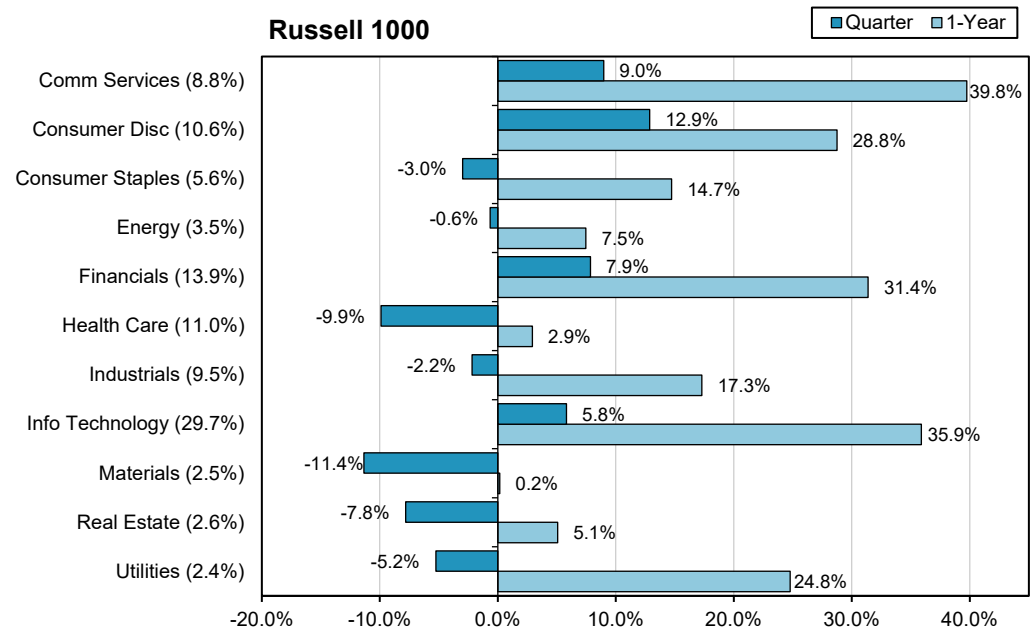
1-Year Performance - Russell Style Series



Source: Investment Metrics

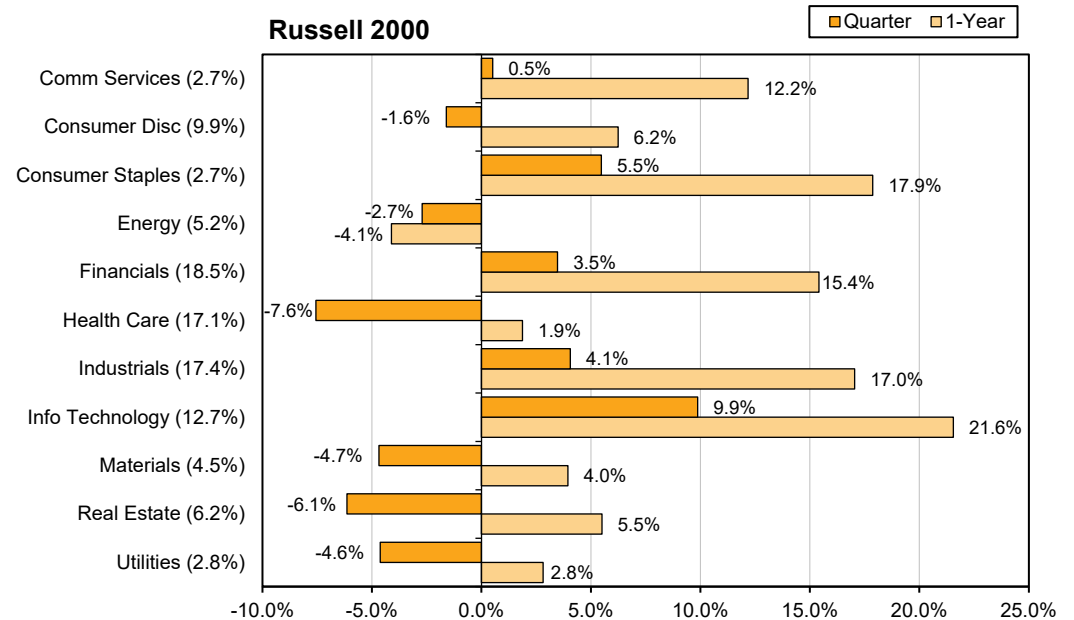
- Economic sector performance delivered mixed results in the fourth quarter as just four of the 11 economic sectors moved higher in the large-cap index. While performance during the year could be characterized by broader participation in the domestic equity markets, this was not the case during the fourth quarter as only the communication services, consumer discretionary, financials, and information technology sectors managed to post positive returns. Within the large cap index, consumer discretionary stocks led the way, collectively returning 12.9% for the quarter while the materials sector struggled, falling -11.4% during the period.
- Full year results during 2024 showcased strong performance across the economic sector classifications. Communication services narrowly outpaced information technology for the year, posting returns of 39.8% and 35.9%, respectively, with financials coming in third with a return of 31.4%. While all sectors posted positive returns for the year, the broad index's strong performance during 2024 was largely driven by three of the five most heavily weighted index sectors.

Russell 1000



- Similar to the large cap benchmark, just five of the 11 small-cap economic sectors gained value during the quarter. Communication services, consumer staples, financials, industrials, and information technology led the way with information technology as the best performing sector during the quarter. Health care faltered as the worst-performing sector with a return of -7.6% during the quarter, followed closely by real estate, which finished the quarter with a return of -6.1%.
- Despite their struggles during the most recent quarter, small-cap stocks delivered strong results for the year. Ten small-cap sectors advanced higher during the trailing one-year period, making energy the lone negative performer over the period. The sector's -2.7% return during the fourth quarter pushed the sector's performance to -4.1% for the trailing year. Information technology (up 21.6%) was the only sector to cross the 20% return threshold, but four others also amassed double digit positive returns for the calendar year.

Russell 2000



Source: Morningstar Direct
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

The Market Environment
Top 10 Index Weights & Quarterly Performance for the Russell 1000 & 2000
As of December 31, 2024

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.6%	7.6%	30.7%	Information Technology
NVIDIA Corp	5.8%	10.6%	171.2%	Information Technology
Microsoft Corp	5.8%	-1.8%	12.9%	Information Technology
Amazon.com Inc	3.8%	17.7%	44.4%	Consumer Discretionary
Meta Platforms Inc Class A	2.4%	2.4%	66.0%	Communication Services
Tesla Inc	2.1%	54.4%	62.5%	Consumer Discretionary
Alphabet Inc Class A	2.1%	14.3%	36.0%	Communication Services
Broadcom Inc	2.0%	34.7%	110.4%	Information Technology
Alphabet Inc Class C	1.7%	14.0%	35.6%	Communication Services
Berkshire Hathaway Inc Class B	1.5%	-1.5%	27.1%	Financials

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Astera Labs Inc	0.0%	152.8%	N/A	Information Technology
AppLovin Corp Ordinary Shares	0.2%	148.1%	712.6%	Information Technology
Trump Media & Technology Group	0.0%	112.2%	N/A	Communication Services
Palantir Technologies Inc Ordinary	0.3%	103.3%	340.5%	Information Technology
SoFi Technologies Inc Ordinary Shares	0.0%	95.9%	54.8%	Financials
Amer Sports Inc	0.0%	75.3%	N/A	Consumer Discretionary
MicroStrategy Inc	0.1%	71.8%	358.5%	Information Technology
United Airlines Holdings Inc	0.1%	70.2%	135.3%	Industrials
New Fortress Energy Inc	0.0%	66.3%	-59.3%	Utilities
Twilio Inc Class A	0.0%	65.7%	42.5%	Information Technology

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Capri Holdings Ltd	0.0%	-50.4%	-58.1%	Consumer Discretionary
Celanese Corp Class A	0.0%	-48.8%	-54.6%	Materials
Rocket Companies Inc Ordinary	0.0%	-41.3%	-22.2%	Financials
Enphase Energy Inc	0.0%	-39.2%	-48.0%	Information Technology
Moderna Inc	0.0%	-37.8%	-58.2%	Health Care
Acadia Healthcare Co Inc	0.0%	-37.5%	-49.0%	Health Care
Viking Therapeutics Inc	0.0%	-36.4%	116.2%	Health Care
10x Genomics Inc Ordinary	0.0%	-36.4%	-74.3%	Health Care
Monolithic Power Systems Inc	0.1%	-35.9%	-5.6%	Information Technology
The AES Corp	0.0%	-35.1%	-30.3%	Utilities

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
FTAI Aviation Ltd	0.5%	8.6%	214.7%	Industrials
Sprouts Farmers Market Inc	0.5%	15.1%	164.1%	Consumer Staples
Insmed Inc	0.4%	-5.4%	122.8%	Health Care
Vaxcyte Inc Ordinary Shares	0.4%	-28.4%	30.4%	Health Care
Credo Technology Group Holding Ltd	0.4%	118.2%	245.2%	Information Technology
Applied Industrial Technologies Inc	0.3%	7.5%	39.7%	Industrials
Mueller Industries Inc	0.3%	7.4%	70.5%	Industrials
Rocket Lab USA Inc	0.3%	161.8%	360.6%	Industrials
Fluor Corp	0.3%	3.4%	25.9%	Industrials
IonQ Inc Class A	0.3%	377.9%	237.1%	Information Technology

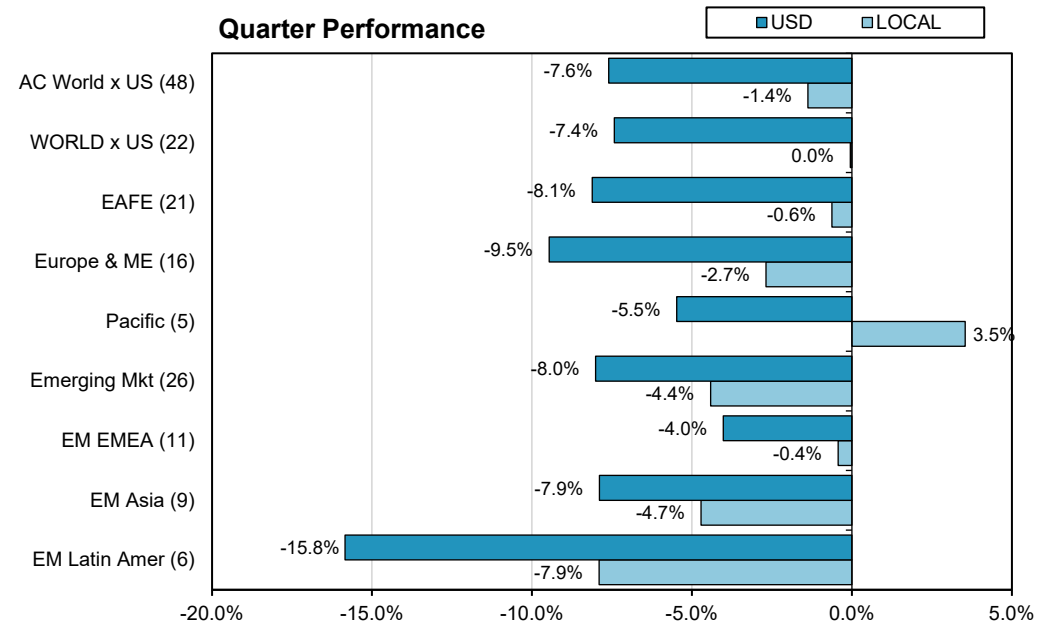
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Rigetti Computing Inc	0.1%	1848.7%	1449.4%	Information Technology
D-Wave Quantum Inc.	0.0%	754.6%	854.4%	Information Technology
Scholar Rock Holding Corp	0.1%	439.6%	129.9%	Health Care
IonQ Inc Class A	0.3%	377.9%	237.1%	Information Technology
SoundHound AI Inc Ordinary Shares	0.2%	325.8%	835.8%	Information Technology
Kodiak Sciences Inc	0.0%	281.2%	227.3%	Health Care
The RealReal Inc	0.0%	248.1%	443.8%	Consumer Discretionary
SES AI Corp	0.0%	242.3%	19.7%	Industrials
Poseida Therapeutics Inc Ordinary	0.0%	235.7%	185.7%	Health Care
Archer Aviation Inc Class A	0.1%	221.8%	58.8%	Industrials

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Q32 Bio Inc	0.0%	-92.3%	0.0%	Health Care
Cassava Sciences Inc	0.0%	-92.0%	-89.5%	Health Care
Applied Therapeutics Inc	0.0%	-89.9%	-74.4%	Health Care
Perspective Therapeutics Inc	0.0%	-76.1%	-20.6%	Health Care
Keros Therapeutics Inc	0.0%	-72.7%	-60.2%	Health Care
Bioage Labs Inc	0.0%	-72.2%	N/A	Health Care
Inovio Pharmaceuticals Inc	0.0%	-68.3%	-70.1%	Health Care
PACS Group Inc	0.0%	-67.2%	N/A	Health Care
Shattuck Labs Inc Ordinary Shares	0.0%	-65.3%	-83.0%	Health Care
Sunnova Energy International Inc	0.0%	-64.8%	-77.5%	Utilities

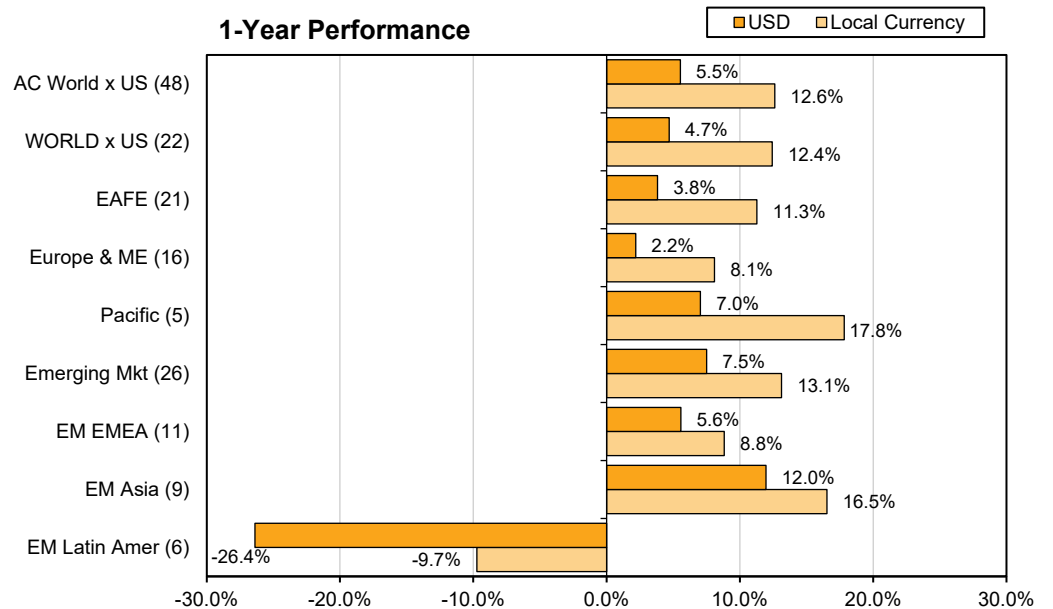
Source: Morningstar Direct

- Results in USD terms among the headline international equity indexes were sharply lower during the quarter. The strengthening USD relative to many major currencies during the quarter was a substantial headwind for the USD performance of non-US regional benchmarks' returns. The developed-market MSCI EAFE Index returned a muted -0.6% in LCL terms but fell -8.1% in USD terms. The MSCI ACWI ex-US Index pulled back -7.6% in USD and -1.4% in LCL terms for the quarter.
- Latin America continued to lag other regions during the quarter in USD terms, posting an outsized loss of -15.8%. Weakening currencies in the region put added pressure on realized performance for US investors. The MSCI Pacific benchmark was the only regional benchmark to deliver positive performance in LCL terms with a return of 3.5%, but USD strength led to a -5.5% decline in USD terms for the quarter. Regional LCL currency performance was disparate for the quarter, with some regional indexes remaining relatively flat over the final three months of the year.
- Full year results by country show Taiwan and Malaysia as the biggest winners during the year in USD terms. These two countries advanced 34.4% and 20.8%, respectively. China was not far behind with the largest economy in the emerging market world climbing 19.4% in USD terms for the year despite declining 7.7% during the fourth quarter. Much of the broad-based MSCI Emerging Market Index's returns are attributable to the health of the dominant Chinese economy, which came under pressure during the year due to troubles in the manufacturing and commercial property sectors.
- Much like domestic markets, trailing one-year results for international developed and emerging markets benchmarks were strongly positive. Higher LCL versus USD returns for most international benchmarks demonstrate the USD's relative strength over the trailing one-year period, which represents a drag on results for US investors.
- Most broad and regional indexes were positive for the trailing 12 months in both USD and LCL terms. The exception to these positive results is the EM Latin America index, where negative LCL performance was exacerbated by the region's currency weakness, which led to a more severe -26.4% return in USD terms. The MSCI Pacific Index led the way with a return of 17.8% in LCL terms for the trailing year, but US investor returns were dampened to just 7.0% in USD terms.

Quarter Performance



1-Year Performance



Source: MSCI Global Index Monitor (Returns are Net)

The Market Environment
US Dollar International Index Attribution & Country Detail
As of December 31, 2024

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.8%	-4.7%	11.2%
Consumer Discretionary	11.3%	-4.3%	1.4%
Consumer Staples	8.3%	-12.6%	-7.9%
Energy	3.5%	-8.3%	-10.5%
Financials	21.9%	-2.3%	20.9%
Health Care	12.4%	-14.1%	-1.5%
Industrials	17.8%	-6.4%	9.6%
Information Technology	8.8%	-7.2%	3.8%
Materials	6.1%	-17.8%	-12.9%
Real Estate	2.0%	-13.4%	-3.9%
Utilities	3.2%	-12.8%	-4.1%
Total	100.0%	-8.1%	3.8%

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.9%	-6.8%	12.4%
Consumer Discretionary	11.2%	-8.1%	4.6%
Consumer Staples	7.0%	-12.4%	-7.8%
Energy	5.0%	-7.9%	-3.5%
Financials	23.7%	-2.8%	17.5%
Health Care	8.8%	-13.9%	-1.4%
Industrials	14.0%	-7.1%	7.5%
Information Technology	13.5%	-1.8%	13.3%
Materials	6.3%	-17.2%	-12.6%
Real Estate	1.8%	-11.5%	-1.7%
Utilities	3.0%	-12.8%	-2.0%
Total	100.0%	-7.6%	5.5%

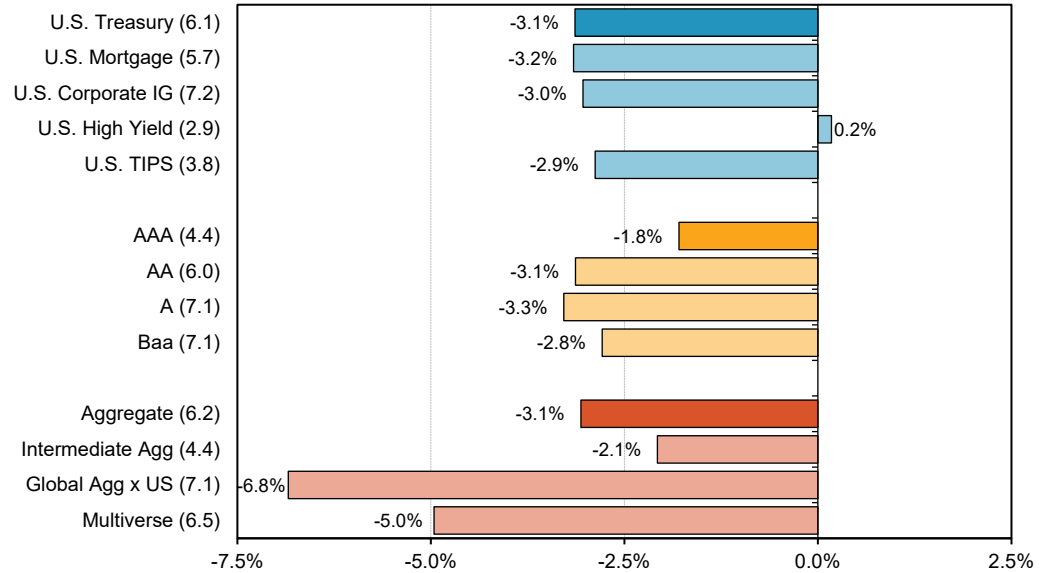
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	9.4%	-8.1%	15.9%
Consumer Discretionary	13.1%	-14.5%	11.8%
Consumer Staples	4.8%	-13.9%	-11.1%
Energy	4.6%	-14.5%	-5.9%
Financials	23.7%	-5.0%	11.0%
Health Care	3.5%	-11.7%	-0.9%
Industrials	6.6%	-10.9%	0.6%
Information Technology	24.3%	1.1%	20.4%
Materials	5.7%	-18.6%	-19.6%
Real Estate	1.7%	-6.5%	3.8%
Utilities	2.7%	-14.1%	3.3%
Total	100.0%	-8.0%	7.5%

Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1- Year Return
Japan	23.2%	14.5%	-3.6%	8.3%
United Kingdom	14.9%	9.3%	-6.8%	7.5%
France	11.1%	6.9%	-10.3%	-5.3%
Switzerland	9.6%	6.0%	-11.3%	-2.0%
Germany	9.2%	5.8%	-5.7%	10.2%
Australia	7.4%	4.6%	-11.4%	1.2%
Netherlands	4.6%	2.9%	-12.4%	1.4%
Sweden	3.6%	2.2%	-14.0%	-3.7%
Denmark	2.9%	1.8%	-21.5%	-12.9%
Italy	2.8%	1.7%	-6.7%	11.3%
Spain	2.8%	1.7%	-9.2%	9.8%
Hong Kong	2.0%	1.2%	-9.8%	0.1%
Singapore	1.7%	1.0%	3.2%	32.3%
Belgium	1.0%	0.6%	-8.3%	8.5%
Finland	1.0%	0.6%	-13.1%	-7.3%
Israel	1.0%	0.6%	14.1%	38.3%
Norway	0.6%	0.4%	-5.4%	-4.3%
Ireland	0.3%	0.2%	-12.6%	14.0%
New Zealand	0.2%	0.1%	-6.0%	-1.5%
Austria	0.2%	0.1%	1.1%	18.3%
Portugal	0.2%	0.1%	-22.7%	-25.2%
Total EAFE Countries	100.0%	62.3%	-8.1%	3.8%
Canada		8.1%	-1.8%	11.9%
Total Developed Countries		70.4%	-7.4%	4.7%
China		8.2%	-7.7%	19.4%
Taiwan		5.8%	3.3%	34.4%
India		5.8%	-11.3%	11.2%
Korea		2.7%	-19.2%	-23.4%
Saudi Arabia		1.2%	-1.5%	0.6%
Brazil		1.2%	-19.4%	-29.8%
South Africa		0.9%	-12.1%	6.7%
Mexico		0.5%	-10.6%	-27.1%
Malaysia		0.5%	-6.9%	20.8%
Indonesia		0.4%	-15.6%	-13.0%
Thailand		0.4%	-10.1%	1.3%
United Arab Emirates		0.4%	9.0%	19.6%
Qatar		0.3%	-0.2%	6.1%
Poland		0.2%	-11.5%	-6.7%
Kuwait		0.2%	1.2%	10.5%
Turkey		0.2%	-3.2%	17.8%
Philippines		0.2%	-13.9%	-0.7%
Greece		0.1%	-6.2%	8.9%
Chile		0.1%	-6.8%	-7.5%
Peru		0.1%	-9.1%	15.8%
Hungary		0.1%	-2.3%	14.0%
Czech Republic		0.0%	0.9%	4.0%
Colombia		0.0%	-0.2%	7.9%
Egypt		0.0%	-9.0%	-31.2%
Total Emerging Countries		29.7%	-8.0%	7.5%
Total ACWixUS Countries		100.0%	-7.6%	5.5%

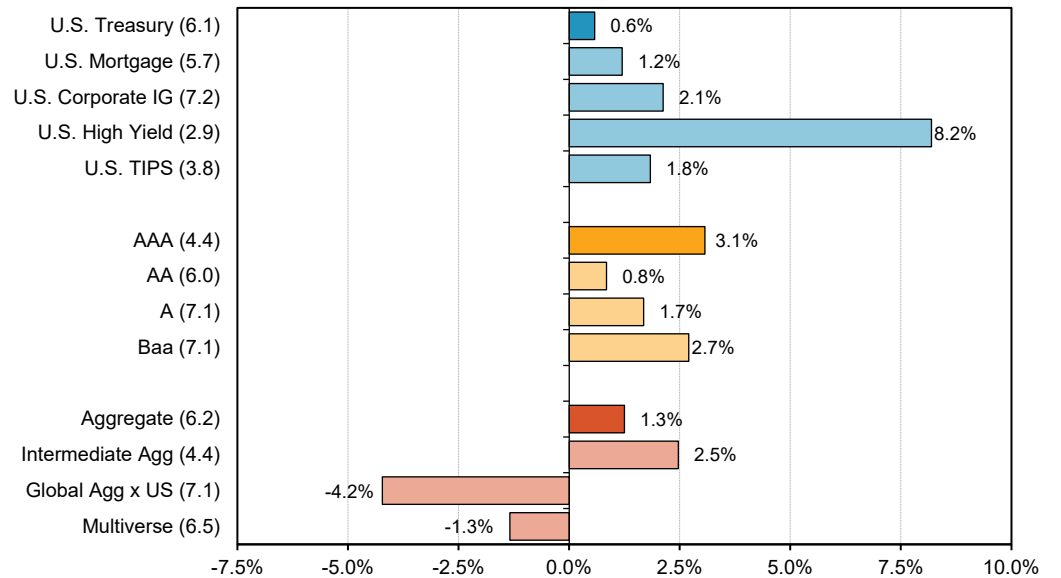
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

- Domestic fixed-income markets declined during the fourth quarter despite two additional 0.25% rate cuts by the Fed. Although the Fed's action moved short-term rates lower, longer-term yields advanced during the quarter, leading to a modest steepening of the Treasury Yield Curve. The Fed's target range is now set at 4.25%-4.50% at year-end, down a full percentage point, including the first 0.50% cut in September of 2024.
- While the Fed's first rate cut in September was initially celebrated by fixed income investors and boosted the levels of the indexes during the third quarter, many of the core indexes fell during the fourth quarter as longer-term yields advanced and worked against the Fed's short-term rate declines. Performance across the investment-grade index's segments declined with the Treasury, Mortgage-Backed and Corporate IG indexes falling in a tight range around -3.0%. Higher quality issues performed better, as BBB issues fell by -2.8%, while AAA issues fell a smaller -1.8% due in large part to their lower duration (4.4 vs. 7.1 years).
- High Yield bonds outperformed investment grade issues as longer-term yields climbed. This was primarily due to the high-yield benchmark's lower duration and higher coupon income. Despite their lower credit quality, below-investment grade issues returned just 0.2% for the quarter, but still outpaced all other broad-based investment-grade fixed income indexes.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index posted a return of 1.3%. The benchmark's sub-components also posted positive performance over the trailing 12 months with the Bloomberg US Corporate Investment Grade Index rising 2.1% and the US Mortgage Index returning 1.2%. US TIPS, which are excluded from the Bloomberg US Aggregate Bond Index, returned 1.8% for the trailing year.
- Results were mixed across credit qualities of investment grade issues. The performance of AAA issues was aided by their lower duration and returned 3.1% while AA issues returned only 0.8% for the year. High yield bonds were also the best performing segment of the market for the year, returning an outsized 8.2%, more than double any other segment of the domestic fixed income market. Results in high yield were spurred by stable credit spreads and higher coupon income.
- The Bloomberg Global Aggregate ex-US Index finished both the quarter and the year significantly weaker than its domestic benchmark counterpart. Strength in the USD was a primary driver in the international index's weak -6.8% fourth quarter performance and its -4.2% return for the calendar year.

Quarter Performance



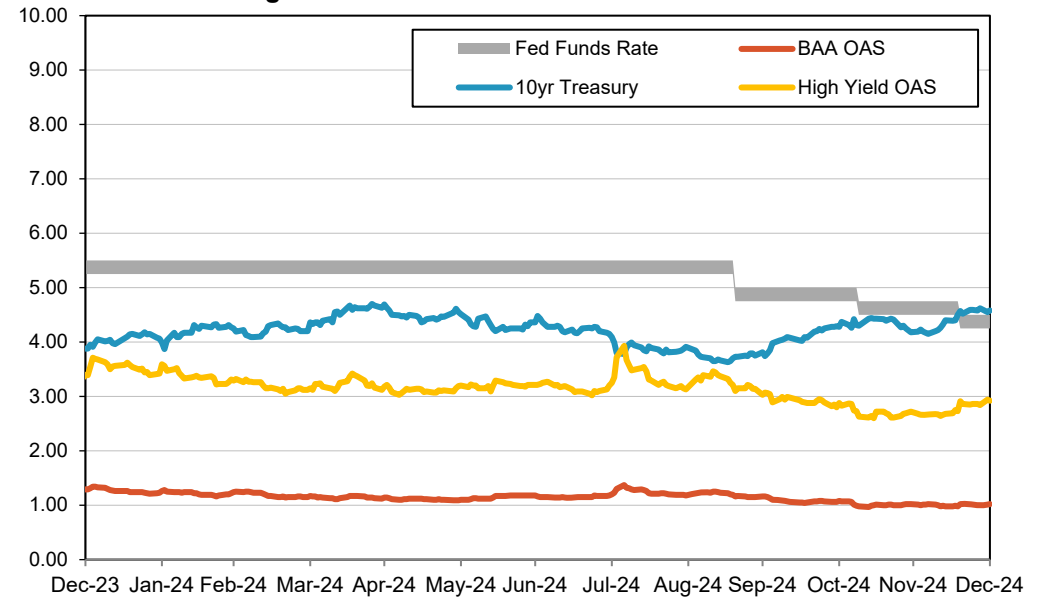
1-Year Performance



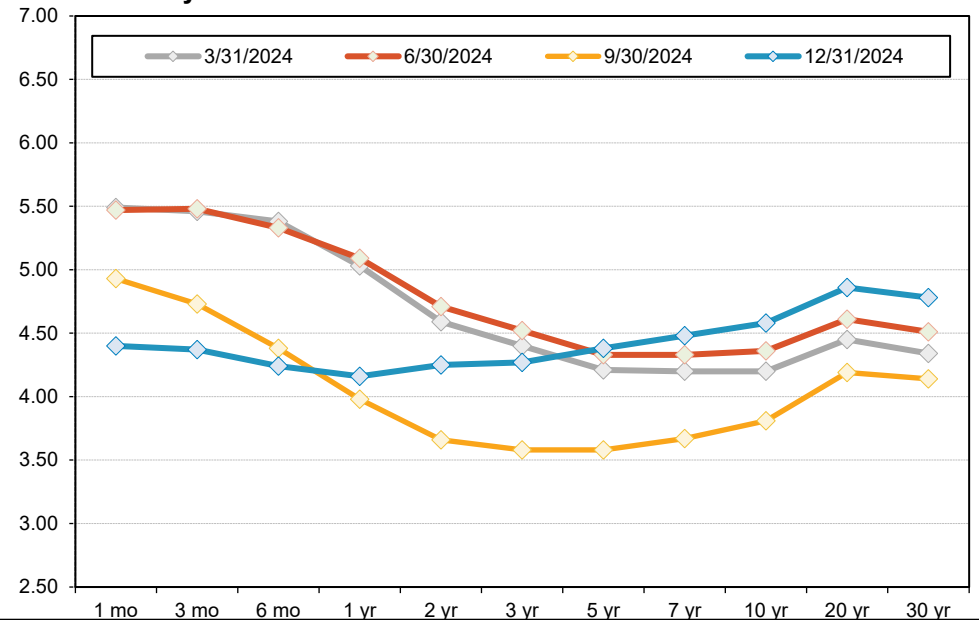
Source: Bloomberg

- The gray band across the graph illustrates the fed funds target rate range over the last 12 months. During the fourth quarter, the Federal Open Market Committee (FOMC) cut its policy rates by 0.50% with two successive 0.25% cuts in November and December. The target policy range now stands at 4.25-4.50%, a level not seen since January of 2023. With inflation declining and unemployment remaining largely stable, the Fed has pivoted from its restrictive monetary policy stance. The most recent FOMC press release continued to emphasize economic data-dependent outcomes while placing greater emphasis on the second part of the committee's dual mandate: full employment. The CME FedWatch tool, which forecasts rates based on fed fund futures pricing, showed a greater than 90% probability of no rate decrease at the FOMC January meeting at the time of this writing. Fed officials and market participants continue to express concern that leaving rates at their current elevated levels for an extended period could tip the US economy into a recession.
- The yield on the US 10-year Treasury (blue line of the top chart) rose 0.84% during the quarter. The bellwether benchmark rate opened the quarter at a yield of 3.74% and finished December at a yield of 4.58%, which is its highest level since May 2024.
- The red line in the top chart shows the option-adjusted spread (OAS) for BAA-rated corporate bonds. This measure quantifies the additional yield premium investors require to purchase and hold non-US Treasury issues with the lowest investment grade rating. During the quarter, the yield spread experienced a slight decline, beginning October at 1.13% and finishing December at 1.02%. High-yield OAS spreads (represented by the yellow line in the top chart) also remained relatively stable, despite a sharp spike in early August spurred by an unwinding of the yen carry trade. The high-yield OAS fell by 0.11% over the quarter from 3.03% to 2.92%. The spread measure's relative stability over the trailing year results from steady economic growth, stable monetary policy, and falling inflation readings.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. For the first time since November 2022, the quarter-end yield on the 30-year Treasury was higher than the one-month Treasury. Furthermore, the spread between the two-year yield and the 10-year yield continued to widen during the quarter, growing from 0.15% in October to 0.30% at year end. The yield curve had been inverted for much of the last two years. This 2-10-year yield curve inversion is a common heuristic used to foretell a pending recession.

1-Year Trailing Market Rates



Treasury Yield Curve



Source: US Department of Treasury, FRED (Federal Reserve of St. Louis)

[CME FedWatch Tool - CME Group](#)

[Effective Federal Funds Rate - FEDERAL RESERVE BANK of NEW YORK \(newyorkfed.org\)](#)

[ICE BofA US High Yield Index Option-Adjusted Spread \(BAMLH0A0HYM2\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

[When will the Federal Reserve start cutting interest rates? | J.P. Morgan Asset Management \(jpmorgan.com\)](#)

[U.S. Department of the Treasury](#)

[China's Economy Limpes Into 2024 – WSJ Support Site - Global Index Lens: Index Returns – MSCI](#)

[Federal Reserve issues FOMC statement](#)

[The Fed - Meeting calendars and information \(federalreserve.gov\)](#)

[The Federal Reserve's latest dot plot, explained – and what it says about interest rates | Bankrate](#)

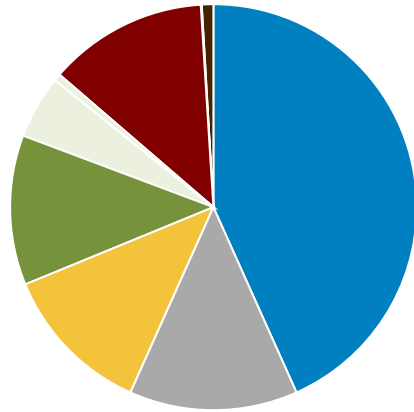
[Why Chinese banks are now vanishing \(economist.com\)](#)

[Fed rate cut: Here's what changed in the central bank's statement \(cnbc.com\)](#)

[10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity \(T10Y2Y\) | FRED | St. Louis Fed \(stlouisfed.org\)](#)

[The Fed's dot plot shows only two rate cuts in 2025, fewer than previously projected](#)

Asset Allocation by Segment
Dec-2024 : \$1,080,917,799



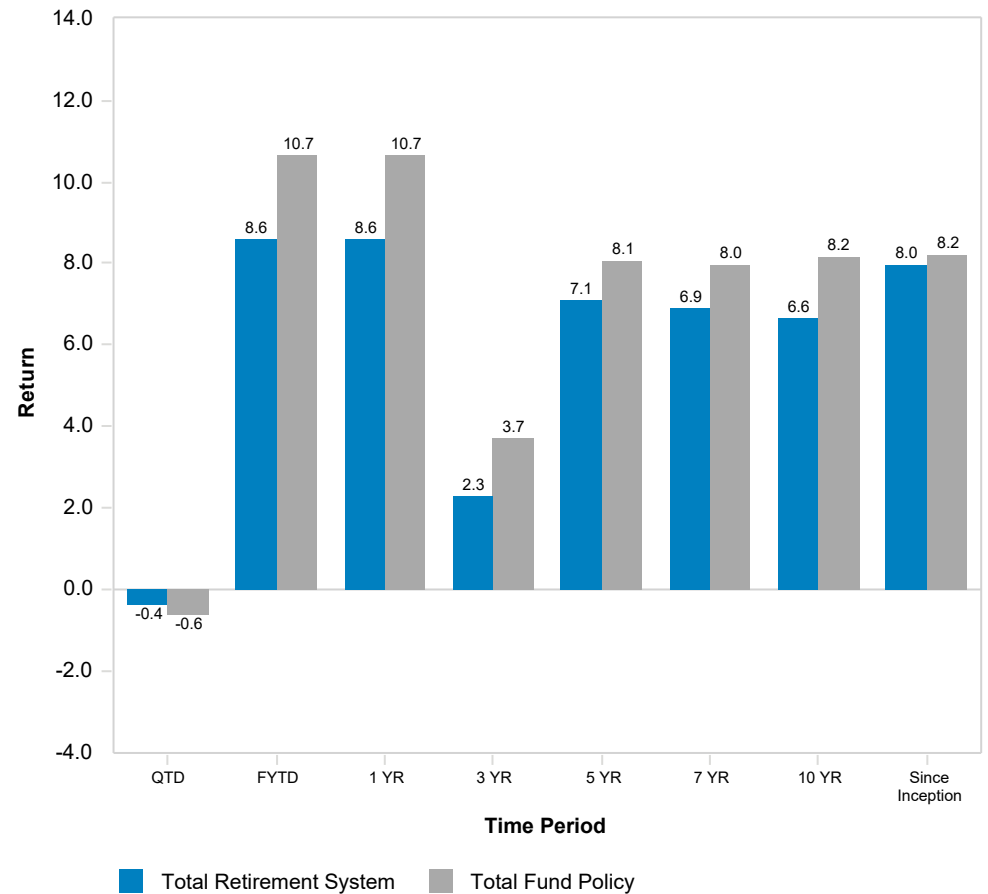
Allocation

	Market Value	Allocation
Total Domestic Equity	468,131,207	43.3
Total International Equity	144,671,337	13.4
Total Other Equity	130,808,895	12.1
Total Core Fixed Income	129,052,080	11.9
Total Non Core Fixed Income	54,305,484	5.0
Total Other Fixed Income	6,262,729	0.6
Total Real Estate	136,906,002	12.7
Total Timber Funds	767,033	0.1
Cash Account	10,013,033	0.9

Gain/Loss Summary

	QTD	FYTD	1 YR
Total Retirement System			
Beginning Market Value	1,088,615,499	1,015,706,092	1,015,706,092
Net Contributions	-3,591,307	-21,284,947	-21,284,947
Return on Investment	-3,727,797	89,005,207	89,005,207
Ending Market Value	1,080,917,799	1,080,917,799	1,080,917,799

Comparative Performance



Market values subject to availability from Northern Trust and individual managers.
All performance data is Net of Fees. Please refer to the end of the report for Investment Pricing Summary and Additional Notes.

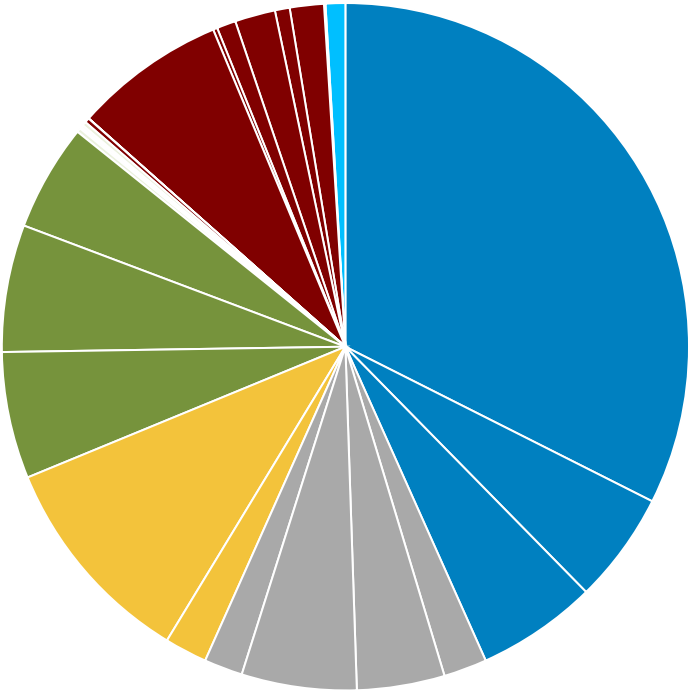
**Asset Allocation by Manager
Total Fund**

As of December 31, 2024

Dec-2024 : \$1,080,917,799

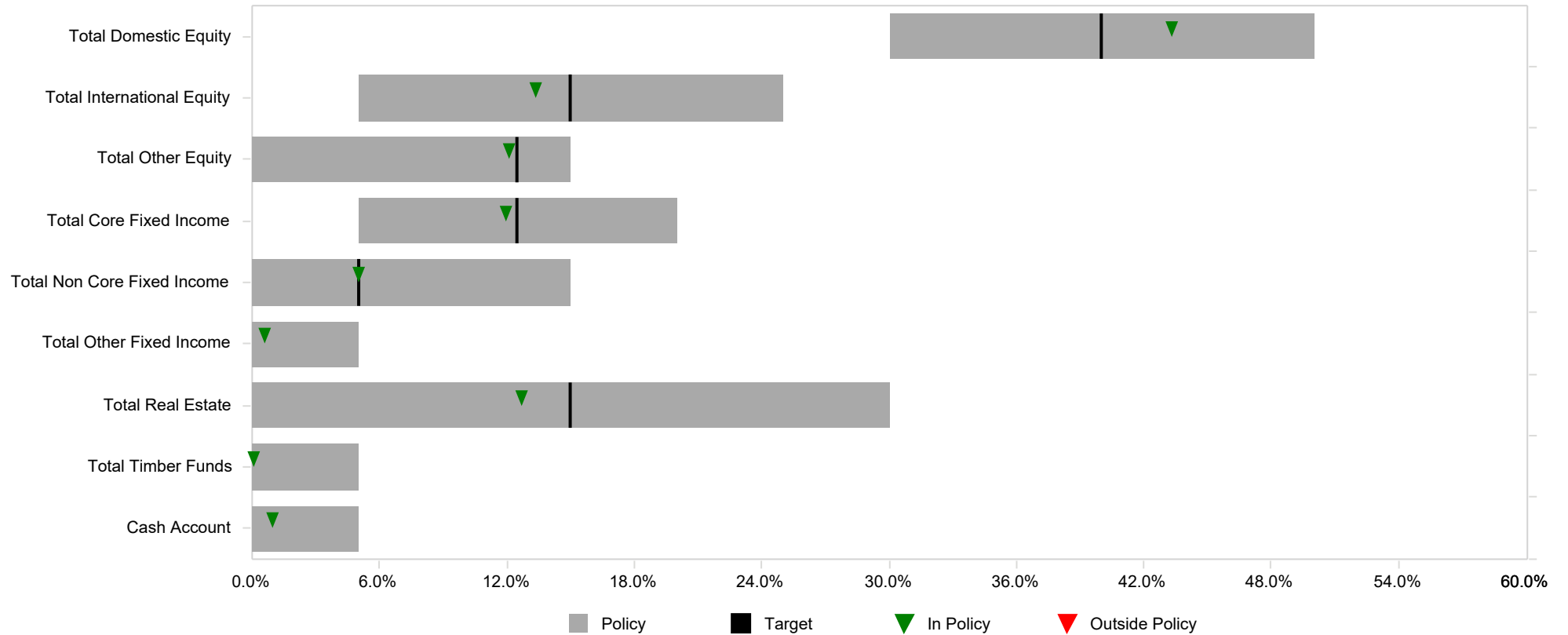
Allocation

	Market Value	Allocation
NT Collective Russell 3000 Index	350,486,365	32.4
MFS Mid Cap Value	56,450,582	5.2
Westfield Mid Cap Growth	61,194,260	5.7
Driehaus International Small Cap Growth	21,991,089	2.0
WCM Focused Intl Growth LP	44,631,130	4.1
Thompson Siegel & Walmsley	58,432,988	5.4
Fidelity Total International Index	19,616,129	1.8
Huff Energy Fund	21,633,621	2.0
Franklin Park Private Equity	109,175,274	10.1
Baird Aggregate Income Bond Fund	64,427,931	6.0
Dodge & Cox Fixed Income Fund	64,624,149	6.0
Pimco Diversified Income Fund	54,305,484	5.0
LBC Credit Partners III	2,154,644	0.2
LBC Credit Partners IV	956,568	0.1
Providence Debt Fund III	1,110,543	0.1
Capital Point Partners (Princeton Capital)	2,040,974	0.2
Edison Investments	2,361,127	0.2
India Property Fund	102,477	0.0
Gainesville Property	1	0.0
Morgan Stanley	77,222,962	7.1
AEW Partners Fund VIII	2,142,663	0.2
GreenOak US III	9,674,711	0.9
Brookfield Premier RE Partners	20,550,261	1.9
Artemis Real Estate IV	7,525,099	0.7
Stockbridge Smart Markets	17,326,701	1.6
Domain Environmental Investments II	767,033	0.1
Cash Account	10,013,033	0.9



Market values subject to availability from Northern Trust and individual managers. Please refer to the end of the report for Investment Pricing Summary and Additional Notes.

Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Total Retirement System	1,080,917,799	100.0	N/A	N/A	100.0
Total Domestic Equity	468,131,207	43.3	30.0	50.0	40.0
Total International Equity	144,671,337	13.4	5.0	25.0	15.0
Total Other Equity	130,808,895	12.1	0.0	15.0	12.5
Total Core Fixed Income	129,052,080	11.9	5.0	20.0	12.5
Total Non Core Fixed Income	54,305,484	5.0	0.0	15.0	5.0
Total Other Fixed Income	6,262,729	0.6	0.0	5.0	0.0
Total Real Estate	136,906,002	12.7	0.0	30.0	15.0
Total Timber Funds	767,033	0.1	0.0	5.0	0.0
Cash Account	10,013,033	0.9	0.0	5.0	0.0

Financial Reconciliation Quarter to Date										
	Market Value 10/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2024
Total Retirement System	1,088,615,499	-	21,479,189	-25,070,496	-323,079	-55,517	9,777,039	-13,504,836	-3,727,797	1,080,917,799
Total Equity	748,272,931	-4,735,755	-	-	-177,915	-	6,441,739	-6,189,561	252,178	743,611,439
Total Domestic Equity	459,883,050	-3,885,085	-	-	-114,915	-	5,812,279	6,435,878	12,248,157	468,131,207
NT Collective Russell 3000 Index	345,332,899	-3,982,733	-	-	-17,267	-	-	9,153,466	9,153,466	350,486,365
MFS Mid Cap Value	57,776,897	-	-	-	-	-	5,611,959	-6,938,274	-1,326,315	56,450,582
Westfield Mid Cap Growth	56,773,253	97,649	-	-	-97,649	-	200,320	4,220,687	4,421,007	61,194,260
Total International Equity	156,667,316	-	-	-	-	-	549,862	-12,545,841	-11,995,979	144,671,337
Driehaus International Small Cap Growth	23,985,149	-	-	-	-	-	-	-1,994,059	-1,994,059	21,991,089
Thompson Siegel & Walmsley	63,465,154	-	-	-	-	-	-	-5,032,166	-5,032,166	58,432,988
WCM Focused Intl Growth LP	47,989,772	-	-	-	-	-	-	-3,358,642	-3,358,642	44,631,130
Fidelity Total International Index	21,227,242	-	-	-	-	-	549,862	-2,160,975	-1,611,112	19,616,129
Total Other Equity	131,722,565	-850,670	-	-	-63,000	-	79,598	-79,598	-	130,808,895
Huff Energy Fund	21,633,621	-	-	-	-	-	-	-	-	21,633,621
Franklin Park Private Equity	110,088,944	-850,670	-	-	-63,000	-	79,598	-79,598	-	109,175,274
Total Fixed Income	195,480,747	-1,263,291	-	-	-	-	2,225,919	-6,823,082	-4,597,163	189,620,293
Baird Aggregate Income Bond Fund	66,429,760	-1,018	-	-	-	-	775,361	-2,776,172	-2,000,811	64,427,931
Dodge & Cox Fixed Income Fund	66,847,122	-	-	-	-	-	671,571	-2,894,544	-2,222,973	64,624,149
Pimco Diversified Income Fund	54,678,863	-	-	-	-	-	745,385	-1,118,764	-373,379	54,305,484
Total Other Fixed Income	7,525,002	-1,262,273	-	-	-	-	33,603	-33,603	-	6,262,729
Capital Point Partners (Princeton Capital)	2,040,974	-	-	-	-	-	-	-	-	2,040,974
LBC Credit Partners III	2,154,644	-	-	-	-	-	-	-	-	2,154,644
LBC Credit Partners IV	2,204,535	-1,247,967	-	-	-	-	19,297	-19,297	-	956,568
Providence Debt Fund III	1,124,849	-14,306	-	-	-	-	14,306	-14,306	-	1,110,543

Please refer to the end of the report for additional notes.

Financial Reconciliation

Total Fund

1 Quarter Ending December 31, 2024

	Market Value 10/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2024
Total Real Estate & Timber	136,147,766	1,202,181	-	-	-145,164	-12,932	973,376	-492,192	481,183	137,673,035
Total Real Estate	135,332,942	1,249,972	-	-	-145,164	-12,932	973,376	-492,192	481,183	136,906,002
Edison Investments	2,369,664	-8,537	-	-	-	-	8,537	-8,537	-	2,361,127
India Property Fund	125,470	-22,993	-	-	-	-	-	-	-	102,477
Gainesville Property	1	-	-	-	-	-	-	-	-	1
Morgan Stanley	76,807,568	-	-	-	-	-	756,617	-341,223	415,394	77,222,962
AEW Partners Fund VIII	2,970,489	-827,826	-	-	-	-	-	-	-	2,142,663
GreenOak US III	9,509,702	194,417	-	-	-29,408	-	-	-	-	9,674,711
Brookfield Premier Real Estate Partners	20,550,261	-	-	-	-	-	-	-	-	20,550,261
Artemis Real Estate IV	5,698,530	1,914,911	-	-	-75,410	-12,932	-	-	-	7,525,099
Stockbridge Smart Markets	17,301,257	-	-	-	-40,346	-	208,222	-142,433	65,789	17,326,701
Total Timber Funds	814,824	-47,791	-	-	-	-	-	-	-	767,033
Domain Environmental Investments II	814,824	-47,791	-	-	-	-	-	-	-	767,033
Cash Account	8,714,055	4,796,865	21,479,189	-25,070,496	-	-42,585	136,005	-	136,005	10,013,033

Please refer to the end of the report for additional notes.

Financial Reconciliation Year to Date										
	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2024
Total Retirement System	1,015,706,092	-	79,441,423	-100,726,370	-2,251,018	-257,535	22,597,603	66,407,604	89,005,207	1,080,917,799
Total Equity	670,476,883	-10,276,416	-	-	-1,398,181	-	8,314,941	76,494,212	84,809,153	743,611,439
Total Domestic Equity	409,941,879	-15,268,122	-	-	-713,246	-	7,178,900	66,991,797	74,170,697	468,131,207
NT Collective Russell 3000 Index	237,439,399	48,622,300	-	-	-49,838	-	8	64,474,496	64,474,504	350,486,365
Baird Mid Cap Growth	55,535,501	-52,970,557	-	-	-188,906	-	252,031	-2,628,068	-2,376,038	-
Nuance Mid Cap Value	53,248,145	-52,114,862	-	-	-131,376	-	776,318	-1,778,225	-1,001,907	-
Kennedy Small Cap Value	63,718,833	-64,123,186	-	-	-245,478	-	237,159	412,672	649,831	-
MFS Mid Cap Value	-	52,089,183	-	-	-	-	5,611,959	-1,250,559	4,361,399	56,450,582
Westfield Mid Cap Growth	-	53,229,001	-	-	-97,649	-	301,425	7,761,483	8,062,908	61,194,260
Total International Equity	138,008,843	34,282	-	-	-34,282	-	910,132	5,752,362	6,662,494	144,671,337
Driehaus International Small Cap Growth	21,276,238	-	-	-	-	-	-	714,851	714,851	21,991,089
Thompson Siegel & Walmsley	56,357,924	-	-	-	-	-	-	2,075,064	2,075,064	58,432,988
WCM Focused Intl Growth LP	41,365,321	-	-	-	-	-	-	3,265,809	3,265,809	44,631,130
Fidelity Total International Index	-	20,431,575	-	-	-	-	549,862	-1,365,308	-815,446	19,616,129
Wellington Emerging Markets Fund	19,009,360	-20,397,293	-	-	-34,282	-	360,269	1,061,946	1,422,215	-
Total Other Equity	122,526,162	4,957,424	-	-	-650,653	-	225,910	3,750,052	3,975,962	130,808,895
Huff Energy Fund	24,253,938	-	-	-	-	-	-	-2,620,317	-2,620,317	21,633,621
Franklin Park Private Equity	98,272,224	4,957,424	-	-	-650,653	-	225,910	6,370,369	6,596,279	109,175,274
Total Fixed Income	192,206,203	-7,848,605	-	-	-73,941	-	9,109,737	-3,773,102	5,336,635	189,620,293
Baird Aggregate Income Bond Fund	-	62,890,674	-	-	-	-	2,202,275	-665,017	1,537,257	64,427,931
Dodge & Cox Fixed Income Fund	-	62,893,324	-	-	-	-	2,670,511	-939,686	1,730,825	64,624,149
Orleans Capital	130,768,314	-129,916,668	-	-	-73,941	-	1,232,325	-2,010,030	-777,704	-
Pimco Diversified Income Fund	51,093,840	-	-	-	-	-	2,715,838	495,806	3,211,644	54,305,484
Total Other Fixed Income	10,344,050	-3,715,935	-	-	-	-	288,788	-654,174	-365,386	6,262,729
Capital Point Partners (Princeton Capital)	3,063,735	-	-	-	-	-	-	-1,022,761	-1,022,761	2,040,974
LBC Credit Partners III	1,760,465	-35,756	-	-	-	-	35,756	394,180	429,935	2,154,644
LBC Credit Partners IV	3,836,436	-3,184,019	-	-	-	-	182,605	121,545	304,151	956,568
Providence Debt Fund III	1,683,414	-496,160	-	-	-	-	70,427	-147,138	-76,711	1,110,543

Please refer to the end of the report for additional notes.

Financial Reconciliation

Total Fund

Year To Date Ending December 31, 2024

	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2024
Total Real Estate & Timber	136,869,696	5,400,706	-	-1,701,375	-778,896	-85,550	4,281,960	-6,313,506	-2,031,547	137,673,035
Total Real Estate	135,983,696	5,448,497	-	-1,701,375	-778,896	-85,550	4,281,960	-6,242,330	-1,960,371	136,906,002
Edison Investments	2,342,426	-34,147	-	-	-	-	34,147	18,701	52,848	2,361,127
India Property Fund	125,024	-22,993	-	-	-	-	-	446	446	102,477
Gainesville Property	1	-	-	-	-	-	-	-	-	1
Morgan Stanley	77,825,160	-	-	-	-	-	3,039,845	-3,642,043	-602,198	77,222,962
AEW Partners Fund VIII	3,218,019	-1,348,681	-	-	-	-	-	273,325	273,325	2,142,663
GreenOak US III	8,891,678	1,209,655	-	-	-92,017	-	-	-334,605	-334,605	9,674,711
Brookfield Premier Real Estate Partners	22,570,516	-	-	-	-	-	367,246	-2,387,501	-2,020,255	20,550,261
Artemis Real Estate IV	1,966,437	5,644,663	-	-	-526,027	-85,550	-	525,576	525,576	7,525,099
Stockbridge Smart Markets	17,343,061	-	-	-	-160,852	-	840,721	-696,230	144,492	17,326,701
Total Timber Funds	886,000	-47,791	-	-	-	-	-	-71,176	-71,176	767,033
Domain Environmental Investments II	886,000	-47,791	-	-	-	-	-	-71,176	-71,176	767,033
Cash Account	16,153,309	12,724,315	79,441,423	-99,024,995	-	-171,985	890,965	-	890,965	10,013,033

Please refer to the end of the report for additional notes.

Comparative Performance Trailing Returns

	Performance (%)								
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Total Retirement System (Net)	-0.37	8.59	8.59	2.31	7.07	6.91	6.65	7.99	10/01/1992
Total Retirement System (Gross)	-0.34 (22)	8.83 (77)	8.83 (77)	2.56 (60)	7.32 (39)	7.17 (44)	6.90 (61)	8.30 (19)	10/01/1992
Total Fund Policy	-0.61	10.65	10.65	3.70	8.08	7.98	8.17	8.24	
Variance	0.27	-1.82	-1.82	-1.14	-0.76	-0.81	-1.28	0.06	
All Public Plans-Total Fund Median	-1.08	10.71	10.71	2.92	7.07	7.01	7.17	7.66	
Total Equity	0.01	12.54	12.54	4.07	9.61	9.21	9.04	9.05	01/01/1994
Total Equity Policy	0.09	19.00	19.00	6.67	11.83	11.11	10.78	9.12	
Variance	-0.09	-6.46	-6.46	-2.61	-2.21	-1.90	-1.74	-0.07	
Domestic Equity	2.63 (32)	18.28 (41)	18.28 (41)	5.18 (56)	11.53 (48)	11.18 (45)	10.71 (50)	11.44 (56)	05/01/2013
Russell 3000 Index	2.63	23.81	23.81	8.01	13.86	13.16	12.55	13.41	
Variance	0.00	-5.53	-5.53	-2.83	-2.34	-1.98	-1.84	-1.97	
IM U.S. Equity (SA+CF) Median	0.77	16.06	16.06	5.82	11.22	10.65	10.65	11.81	
NT Collective Russell 3000 Index	2.62 (28)	23.76 (30)	23.76 (30)	8.02 (32)	13.86 (35)	13.16 (37)	12.55 (33)	12.55 (35)	01/01/2014
Russell 3000 Index	2.63	23.81	23.81	8.01	13.86	13.16	12.55	12.55	
Variance	-0.01	-0.05	-0.05	0.01	0.00	0.00	0.01	0.01	
IM U.S. All Cap Core Equity (SA+CF) Median	1.18	20.48	20.48	6.95	12.95	12.44	11.97	11.84	
MFS Mid Cap Value	-2.30 (63)	N/A	N/A	N/A	N/A	N/A	N/A	7.44 (42)	07/01/2024
Russell Midcap Value Index	-1.75	13.07	13.07	3.88	8.59	7.72	8.10	8.16	
Variance	-0.55	N/A	N/A	N/A	N/A	N/A	N/A	-0.71	
Mid-Cap Value Median	-1.72	11.10	11.10	4.95	8.77	7.58	7.99	7.13	
Westfield Mid Cap Growth	7.60 (16)	N/A	N/A	N/A	N/A	N/A	N/A	14.98 (9)	07/01/2024
Russell Midcap Growth Index	8.14	22.10	22.10	4.04	11.47	12.08	11.54	15.22	
Variance	-0.54	N/A	N/A	N/A	N/A	N/A	N/A	-0.24	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	4.59	15.14	15.14	0.69	10.00	10.98	10.63	8.89	

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.

Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)								Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR			
International Equity	-7.66 (57)	4.82 (56)	4.82 (56)	-2.20 (76)	3.33 (82)	2.55 (88)	4.09 (95)	4.92 (83)	05/01/2013	
MSCI AC World ex USA	-7.50	6.09	6.09	1.35	4.61	4.04	5.31	4.91		
Variance	-0.15	-1.28	-1.28	-3.55	-1.28	-1.49	-1.22	0.01		
IM International Equity (SA+CF) Median	-7.36	5.37	5.37	1.36	5.17	4.59	6.14	6.07		
Driehaus International Small Cap Growth	-8.31 (55)	3.36 (35)	3.36 (35)	-4.10 (19)	5.19 (7)	4.89 (5)	7.61 (1)	8.69 (11)	09/01/2012	
MSCI AC World ex USA Small Growth	-7.20	3.45	3.45	-4.24	4.02	3.20	5.95	6.65		
Variance	-1.12	-0.09	-0.09	0.14	1.17	1.69	1.66	2.04		
Foreign Small/Mid Growth Median	-7.62	0.92	0.92	-7.04	1.27	1.87	4.86	6.19		
Thompson Siegel & Walmsley	-7.93 (74)	3.68 (78)	3.68 (78)	1.33 (62)	4.77 (77)	3.66 (90)	4.86 (95)	4.43 (95)	10/01/2014	
MSCI EAFE (Net) Index	-8.11	3.82	3.82	1.65	4.73	4.10	5.20	4.70		
Variance	0.18	-0.14	-0.14	-0.32	0.04	-0.44	-0.34	-0.26		
IM International Large Cap Core Equity (SA+CF) Median	-7.18	6.22	6.22	1.90	5.70	4.83	6.03	5.63		
WCM Focused Intl Growth LP	-7.00 (37)	7.90 (27)	7.90 (27)	-3.50 (58)	N/A	N/A	N/A	2.72 (30)	12/01/2020	
MSCI AC World ex USA Growth (Net)	-7.88	5.07	5.07	-2.67	3.44	3.71	5.35	0.48		
Variance	0.88	2.83	2.83	-0.83	N/A	N/A	N/A	2.24		
Foreign Large Growth Median	-7.50	4.68	4.68	-2.68	3.79	4.28	5.52	0.61		
Fidelity Total International Index	-7.59 (53)	N/A	N/A	N/A	N/A	N/A	N/A	-7.59 (53)	10/01/2024	
MSCI AC World ex USA (Net)	-7.60	5.53	5.53	0.82	4.10	3.53	4.80	-7.60		
Variance	0.01	N/A	N/A	N/A	N/A	N/A	N/A	0.01		
Foreign Large Blend Median	-7.54	4.30	4.30	0.67	4.35	3.72	4.92	-7.54		
Total Other Equity	-0.05	2.61	2.61	14.07	9.77	10.74	N/A	6.73	01/01/2017	
Huff Energy Fund										
Franklin Park Private Equity										

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Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)								Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR			
Total Fixed Income	-2.36	2.84	2.84	-0.82	0.65	1.05	1.35	5.61	12/01/1993	
Total Fixed Income Policy	-3.22	1.40	1.40	-2.63	-0.42	0.70	1.17	4.12		
Variance	0.86	1.44	1.44	1.81	1.07	0.35	0.18	1.49		
Total Core Fixed Income	-3.17 (76)	1.98 (39)	1.98 (39)	-2.19 (44)	-0.21 (66)	1.03 (65)	1.53 (51)	1.00 (97)	05/01/2013	
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25	-2.41	-0.33	0.97	1.35	1.40		
Variance	-0.11	0.73	0.73	0.21	0.12	0.06	0.19	-0.40		
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-3.02	1.67	1.67	-2.26	-0.05	1.19	1.54	1.58		
Baird Aggregate Income Bond Fund	-3.01 (42)	N/A	N/A	N/A	N/A	N/A	N/A	2.32 (28)	04/01/2024	
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25	-2.41	-0.33	0.97	1.35	2.04		
Variance	0.05	N/A	N/A	N/A	N/A	N/A	N/A	0.28		
Intermediate Core Bond Median	-3.07	1.48	1.48	-2.46	-0.26	0.94	1.31	2.10		
Dodge & Cox Fixed Income Fund	-3.33 (88)	N/A	N/A	N/A	N/A	N/A	N/A	2.59 (15)	04/01/2024	
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25	-2.41	-0.33	0.97	1.35	2.04		
Variance	-0.26	N/A	N/A	N/A	N/A	N/A	N/A	0.55		
Intermediate Core Bond Median	-3.07	1.48	1.48	-2.46	-0.26	0.94	1.31	2.10		
Pimco Diversified Income Fund	-0.68 (12)	6.29 (2)	6.29 (2)	0.38 (14)	N/A	N/A	N/A	1.89 (7)	07/01/2020	
Blmbg. Global Credit (Hedged)	-1.15	4.47	4.47	-0.49	1.08	2.31	2.90	0.70		
Variance	0.46	1.82	1.82	0.86	N/A	N/A	N/A	1.19		
Global Bond Median	-5.27	-1.43	-1.43	-4.53	-2.18	-0.76	0.06	-2.47		
Total Other Fixed Income	0.00	-3.29	-3.29	3.41	4.61	3.99	N/A	3.42	01/01/2017	
Capital Point Partners (Princeton Capital)										
LBC Credit Partners III										
LBC Credit Partners IV										
Providence Debt Fund III										

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.

Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)								Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR			
Alternative Investments										
Other Assets										
Cash Account	1.16	5.18	5.18	3.82	2.36	2.24	1.67	4.17		06/01/1988
Other Alternative Assets										
Total Real Estate	0.25	-2.00	-2.00	-1.88	3.16	3.81	3.57	3.81		08/01/2005
NCREIF Property Index	0.90	0.43	0.43	-0.82	3.13	4.10	5.66	6.75		
Variance	-0.65	-2.43	-2.43	-1.07	0.03	-0.29	-2.09	-2.95		
Morgan Stanley	0.54	-0.77	-0.77	-0.26	4.07	4.91	N/A	5.80		01/01/2016
NCREIF Fund Index-ODCE (EW)	0.84	-2.44	-2.44	-3.11	2.23	3.36	5.24	4.30		
Variance	-0.30	1.66	1.66	2.85	1.83	1.55	N/A	1.50		
Brookfield Premier Real Estate Partners	0.00	-8.95	-8.95	-6.94	0.37	N/A	N/A	0.61		11/01/2019
NCREIF Fund Index-ODCE (EW)	0.84	-2.44	-2.44	-3.11	2.23	3.36	5.24	2.42		
Variance	-0.84	-6.51	-6.51	-3.82	-1.86	N/A	N/A	-1.81		
Stockbridge Smart Markets	0.15	-0.09	-0.09	N/A	N/A	N/A	N/A	-5.64		08/01/2022
NCREIF Fund Index-ODCE (EW)	0.84	-2.44	-2.44	-3.11	2.23	3.36	5.24	-8.41		
Variance	-0.69	2.34	2.34	N/A	N/A	N/A	N/A	2.77		
Total Timber Funds	0.00	-8.03	-8.03	-3.65	-0.60	-0.57	-1.32	0.93		08/01/2005
NCREIF Timberland Index	1.44	6.97	6.97	9.75	7.79	6.17	5.43	6.77		
Variance	-1.44	-15.00	-15.00	-13.40	-8.38	-6.74	-6.75	-5.84		

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Comparative Performance Fiscal Year Returns

	Performance (%)									
	YTD	2023	2022	2021	2020	2019	2018	2017	2016	
Total Retirement System (Net)	8.59	11.50	-11.54	17.68	11.65	20.92	-6.18	11.89	7.67	
Total Retirement System (Gross)	8.83 (77)	11.82 (63)	-11.36 (33)	17.86 (11)	11.99 (58)	21.23 (14)	-5.95 (88)	12.17 (90)	7.87 (46)	
Total Fund Policy	10.65	14.11	-11.69	16.63	13.40	19.81	-3.12	15.79	8.04	
Variance	-1.82	-2.29	0.33	1.24	-1.41	1.42	-2.83	-3.62	-0.17	
All Public Plans-Total Fund Median	10.71	12.69	-12.68	14.15	12.49	18.65	-4.05	15.16	7.64	
Total Equity	12.54	17.99	-15.13	21.06	15.97	29.88	-9.83	18.49	11.41	
Total Equity Policy	19.00	24.12	-17.82	22.48	17.62	29.04	-7.34	22.07	9.61	
Variance	-6.46	-6.13	2.69	-1.42	-1.65	0.84	-2.49	-3.59	1.80	
Domestic Equity	18.28 (41)	20.43 (46)	-18.31 (60)	24.49 (61)	19.11 (44)	31.15 (35)	-7.18 (51)	17.39 (60)	15.76 (40)	
Russell 3000 Index	23.81	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74	
Variance	-5.53	-5.53	0.89	-1.17	-1.77	0.13	-1.94	-3.74	3.02	
IM U.S. Equity (SA+CF) Median	16.06	19.40	-16.41	26.12	16.78	28.66	-7.05	19.44	13.13	
NT Collective Russell 3000 Index	23.76 (30)	25.95 (36)	-19.15 (75)	25.68 (58)	20.83 (40)	31.02 (35)	-5.23 (55)	21.15 (47)	12.79 (37)	
Russell 3000 Index	23.81	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74	
Variance	-0.05	-0.01	0.06	0.02	-0.06	0.00	0.01	0.02	0.06	
IM U.S. All Cap Core Equity (SA+CF) Median	20.48	23.36	-17.20	26.28	18.51	29.11	-5.10	20.91	10.86	
MFS Mid Cap Value	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Russell Midcap Value Index	13.07	12.71	-12.03	28.34	4.96	27.06	-12.29	13.34	20.00	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Mid-Cap Value Median	11.10	12.12	-7.88	28.64	3.08	26.85	-13.24	13.51	17.12	
Westfield Mid Cap Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Russell Midcap Growth Index	22.10	25.87	-26.72	12.73	35.59	35.47	-4.75	25.27	7.33	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	15.14	23.22	-27.35	13.14	34.42	34.91	-5.22	24.45	4.78	

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Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)									
	YTD	2023	2022	2021	2020	2019	2018	2017	2016	
International Equity	4.82 (56)	14.38 (78)	-21.97 (77)	11.90 (50)	12.54 (47)	20.92 (71)	-16.28 (67)	27.37 (60)	0.67 (68)	
MSCI AC World ex USA	6.09	16.21	-15.57	8.29	11.13	22.13	-13.78	27.77	5.01	
Variance	-1.28	-1.83	-6.40	3.60	1.42	-1.21	-2.51	-0.40	-4.34	
IM International Equity (SA+CF) Median	5.37	17.69	-16.30	11.79	11.60	23.50	-14.56	28.69	2.43	
Driehaus International Small Cap Growth	3.36 (35)	12.79 (43)	-24.34 (15)	12.49 (44)	29.79 (32)	30.57 (18)	-16.92 (44)	41.19 (11)	-6.24 (85)	
MSCI AC World ex USA Small Growth	3.45	14.47	-25.85	11.83	23.99	24.96	-18.07	33.99	-0.04	
Variance	-0.09	-1.68	1.50	0.66	5.80	5.61	1.15	7.21	-6.20	
Foreign Small/Mid Growth Median	0.92	12.17	-29.06	11.20	21.92	26.22	-17.70	34.77	-1.24	
Thompson Siegel & Walmsley	3.68 (78)	16.52 (69)	-13.89 (32)	13.82 (29)	6.62 (81)	21.18 (71)	-15.93 (73)	22.70 (93)	0.47 (65)	
MSCI EAFE (Net) Index	3.82	18.24	-14.45	11.26	7.82	22.01	-13.79	25.03	1.00	
Variance	-0.14	-1.72	0.56	2.55	-1.19	-0.84	-2.14	-2.34	-0.53	
IM International Large Cap Core Equity (SA+CF) Median	6.22	17.94	-15.93	11.88	11.76	23.63	-14.32	27.86	1.71	
WCM Focused Intl Growth LP	7.90 (27)	16.68 (43)	-28.63 (76)	17.64 (5)	N/A	N/A	N/A	N/A	N/A	
MSCI AC World ex USA Growth (Net)	5.07	14.03	-23.05	5.09	22.20	27.34	-14.43	32.01	0.12	
Variance	2.83	2.65	-5.58	12.55	N/A	N/A	N/A	N/A	N/A	
Foreign Large Growth Median	4.68	15.97	-25.05	8.70	22.14	28.14	-14.20	31.14	-2.44	
Fidelity Total International Index	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MSCI AC World ex USA (Net)	5.53	15.62	-16.00	7.82	10.65	21.51	-14.20	27.19	4.50	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Foreign Large Blend Median	4.30	16.40	-15.87	10.42	9.39	22.06	-14.87	25.54	0.66	
Total Other Equity	2.61	14.39	26.45	13.85	-5.66	65.17	-22.42	-17.60	N/A	
Huff Energy Fund										
Franklin Park Private Equity										

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.

Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
Total Fixed Income	2.84	6.94	-11.28	1.69	4.10	4.08	0.06	2.86	4.36
Total Fixed Income Policy	1.40	6.70	-14.66	-2.05	8.28	7.93	-0.66	5.60	2.77
Variance	1.44	0.24	3.38	3.74	-4.18	-3.85	0.73	-2.74	1.59
Total Core Fixed Income	1.98 (39)	5.37 (76)	-12.93 (36)	-1.34 (43)	7.21 (80)	8.80 (52)	-0.24 (58)	3.87 (36)	3.79 (19)
Blmbg. U.S. Aggregate Index	1.25	5.53	-13.01	-1.55	7.51	8.72	0.01	3.54	2.65
Variance	0.73	-0.16	0.08	0.20	-0.30	0.09	-0.25	0.33	1.14
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	1.67	5.80	-13.13	-1.47	8.03	8.82	-0.14	3.71	2.85
Baird Aggregate Income Bond Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blmbg. U.S. Aggregate Index	1.25	5.53	-13.01	-1.55	7.51	8.72	0.01	3.54	2.65
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate Core Bond Median	1.48	5.58	-13.41	-1.57	7.84	8.50	-0.43	3.43	2.64
Dodge & Cox Fixed Income Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blmbg. U.S. Aggregate Index	1.25	5.53	-13.01	-1.55	7.51	8.72	0.01	3.54	2.65
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate Core Bond Median	1.48	5.58	-13.41	-1.57	7.84	8.50	-0.43	3.43	2.64
Pimco Diversified Income Fund	6.29 (2)	10.41 (4)	-13.81 (39)	0.26 (5)	N/A	N/A	N/A	N/A	N/A
Blmbg. Global Credit (Hedged)	4.47	9.36	-13.75	-0.41	7.53	12.08	-0.81	5.89	7.33
Variance	1.82	1.05	-0.07	0.67	N/A	N/A	N/A	N/A	N/A
Global Bond Median	-1.43	6.10	-15.66	-5.00	9.09	6.92	-2.40	7.66	2.73
Total Other Fixed Income	-3.29	9.04	4.87	12.76	0.48	3.66	1.27	-0.49	N/A
Capital Point Partners (Princeton Capital)									
LBC Credit Partners III									
LBC Credit Partners IV									
Providence Debt Fund III									

Returns for periods greater than one year are annualized. Returns are expressed as percentages. All performance data is Net of Fees. Please refer to the end of the report for additional notes.

Comparative Performance

Total Fund

As of December 31, 2024

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
Alternative Investments									
Other Assets									
Cash Account	5.18	4.94	1.38	0.01	0.43	2.11	1.72	0.76	0.27
Other Alternative Assets									
Total Real Estate	-2.00	-9.31	6.27	24.27	-0.45	5.75	5.14	2.90	0.76
NCREIF Property Index	0.43	-7.94	5.52	17.70	1.60	6.42	6.72	6.96	7.97
Variance	-2.43	-1.37	0.75	6.58	-2.05	-0.67	-1.57	-4.06	-7.20
Morgan Stanley	-0.77	-5.79	6.14	21.48	1.26	6.16	7.96	8.74	9.20
NCREIF Fund Index-ODCE (EW)	-2.44	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	1.66	7.54	-1.42	-0.40	0.51	0.98	0.66	1.82	0.84
Brookfield Premier Real Estate Partners	-8.95	-19.92	10.55	25.66	0.57	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-2.44	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	-6.51	-6.59	2.99	3.77	-0.18	N/A	N/A	N/A	N/A
Stockbridge Smart Markets	-0.09	-9.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-2.44	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	2.34	3.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Timber Funds	-8.03	-20.21	21.88	6.99	1.43	-1.12	0.13	-3.94	-6.92
NCREIF Timberland Index	6.97	9.45	12.90	9.17	0.81	1.30	3.21	3.63	2.59
Variance	-15.00	-29.67	8.98	-2.18	0.62	-2.42	-3.09	-7.56	-9.51

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Comparative Performance - IRR
Other Alternative Investments
As of December 31, 2024

Comparative Performance - IRR									
	Market Value (\$)	MTH	QTR	YTD	1 YR	3 YR	5 YR	Inception IRR	Inception Date
Total Real Estate Investments	136,906,002	0.32	0.24	-2.04	-2.04	-2.42	2.51	5.80	07/31/2005
Edison Investments	2,361,127	0.00	0.00	2.27	2.27	2.94	2.95	11.89	09/30/1996
India Property Fund	102,477	0.00	0.00	0.37	0.37	-11.92	-22.58	-8.05	05/24/2007
Gainesville Property	1	0.00	0.00	0.00	0.00	6.23	2.41	-5.47	01/31/2008
Morgan Stanley	77,222,962	0.54	0.54	-0.77	-0.77	-0.26	4.06	5.54	12/31/2015
AEW Partners Fund VIII	2,142,663	0.00	0.00	9.32	9.32	12.43	22.29	18.58	06/26/2017
GreenOak US III	9,674,711	0.00	-0.30	-4.39	-4.39	-8.32	-5.20	-5.67	06/22/2018
Brookfield Premier Real Estate Partners	20,550,261	0.00	0.00	-8.93	-8.93	-6.93	0.37	0.53	10/01/2019
Artemis Real Estate IV	7,525,099	-0.10	-1.26	-1.95	-1.95	N/A	N/A	-8.36	06/23/2022
Stockbridge Smart Markets	17,326,701	0.15	0.15	-0.09	-0.09	N/A	N/A	-5.89	07/01/2022
Total Timber Funds	767,033	0.00	0.00	-8.04	-8.04	13.23	4.50	0.13	07/31/2005
Domain Environmental Investments II	767,033	0.00	0.00	-8.04	-8.04	-12.44	-10.09	-3.03	04/30/2008
Total Other Equity	130,808,895	0.00	-0.05	2.64	2.64	12.38	10.91	20.09	01/01/2017
Huff Energy Fund	21,633,621	0.00	0.00	-10.78	-10.78	47.39	3.55	5.69	12/31/2006
Franklin Park Private Equity	109,175,274	0.00	-0.06	5.84	5.84	7.94	13.90	13.35	01/31/2018
Total Other Fixed Income	6,262,729	0.00	0.00	-4.01	-4.01	3.72	4.62	N/A	12/21/2016
Capital Point Partners (Princeton Capital)	2,040,974	0.00	0.00	-33.31	-33.31	-4.81	-4.02	-1.30	03/31/2007
LBC Credit Partners III	2,154,644	0.00	0.00	24.51	24.51	7.44	7.78	8.21	03/07/2014
LBC Credit Partners IV	956,568	0.00	0.00	10.12	10.12	10.41	8.02	8.44	09/19/2016
Providence Debt Fund III	1,110,543	0.00	0.00	-5.88	-5.88	-1.77	2.63	5.94	04/21/2014

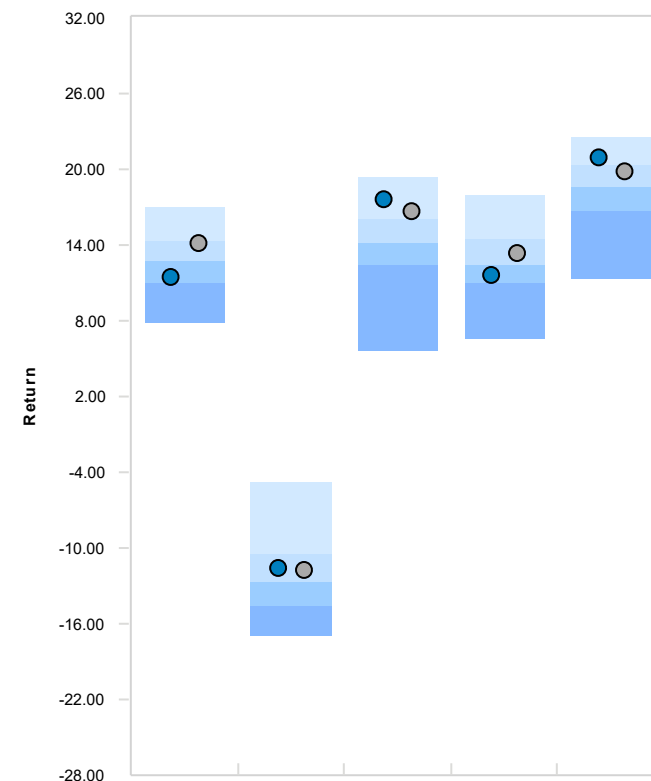
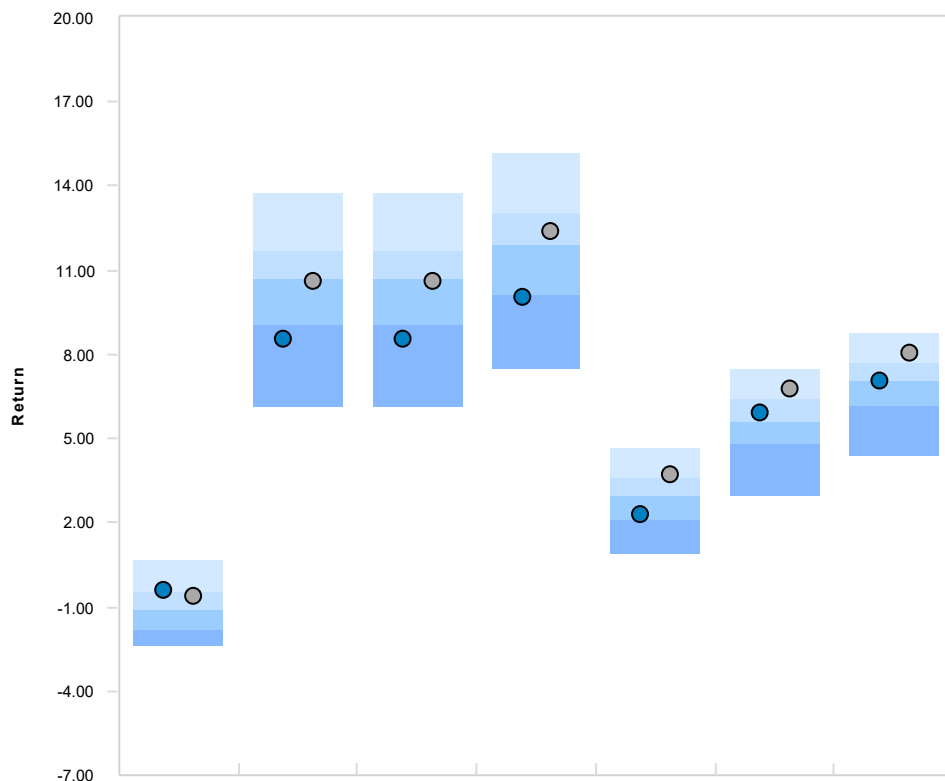
**Summary of Partnerships
Other Alternative Investments
As of December 31, 2024**

Private Equity Summary of Partnership					
Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
Total Real Estate Investments					
Edison Investments	8,146,177	2,361,127	20,047,800	11.9	2.8
India Property Fund	4,354,162	102,477	2,411,470	-8.0	0.6
Gainesville Property	5,510,156	1	2,609,488	-5.5	0.5
Morgan Stanley	50,000,000	77,222,962	-	5.5	1.5
AEW Partners Fund VIII	15,381,261	2,142,663	20,256,437	18.6	1.5
GreenOak US III	13,723,435	9,674,711	1,434,323	-5.7	0.8
Brookfield Premier Real Estate Partners	20,000,000	20,550,261	-	0.5	1.0
Artemis Real Estate IV	8,413,345	7,525,099	360,908	-8.4	0.9
Stockbridge Smart Markets	20,000,000	17,326,701	-	-5.9	0.9
Total Timber Investments					
Domain Environmental Investments II	7,635,812	767,033	5,273,231	-3.0	0.8

**Summary of Partnerships
Other Alternative Investments
As of December 31, 2024**

Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
Total Other Equity					
Huff Energy Fund	11,095,509	21,633,621	1,786,358	5.7	2.1
Franklin Park Private Equity	90,638,080	109,175,274	18,890,289	13.3	1.4
Total Other Fixed Income					
Capital Point Partners (Princeton Capital)	12,058,210	2,040,974	9,145,851	-1.3	0.9
LBC Credit Partners III	18,851,406	2,154,644	21,652,421	8.2	1.3
LBC Credit Partners IV	18,000,000	956,568	21,849,752	8.4	1.3
Providence Debt Fund III	11,128,113	1,110,543	13,177,212	5.9	1.3

Plan Sponsor Peer Group Analysis - All Public Plans-Total Fund



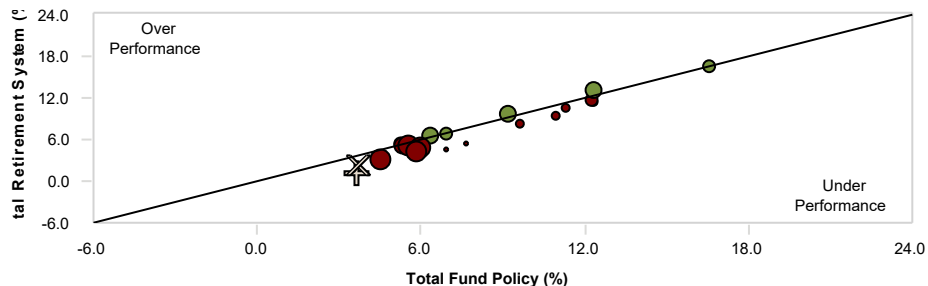
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Retirement System	-0.37 (23)	8.59 (79)	8.59 (79)	10.04 (77)	2.31 (70)	5.96 (42)	7.07 (50)
● Total Fund Policy	-0.61 (28)	10.65 (51)	10.65 (51)	12.37 (38)	3.70 (23)	6.79 (16)	8.08 (14)
Median	-1.08	10.71	10.71	11.93	2.92	5.57	7.07

	2023	2022	2021	2020	2019
● Total Retirement System	11.50 (68)	11.54 (36)	17.68 (13)	11.65 (63)	20.92 (18)
● Total Fund Policy	14.11 (29)	11.69 (39)	16.63 (22)	13.40 (37)	19.81 (34)
Median	12.69	12.68	14.15	12.49	18.65

Comparative Performance

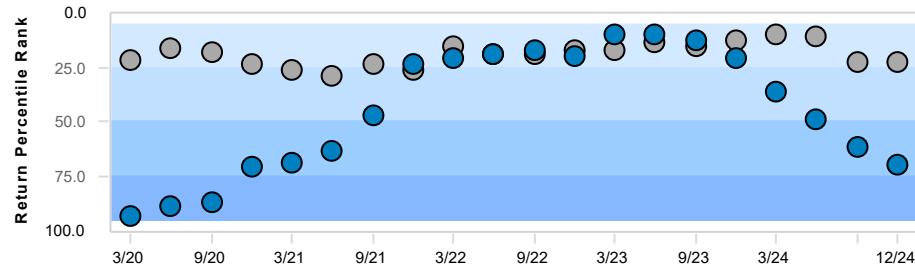
	1 Qtr Ending Sep-2024	1 Qtr Ending Jun-2024	1 Qtr Ending Mar-2024	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023
Total Retirement System	4.85 (66)	0.54 (83)	3.40 (85)	7.07 (67)	-3.13 (71)	2.78 (68)
Total Fund Policy	4.73 (69)	1.46 (27)	4.78 (41)	7.58 (55)	-2.50 (49)	3.79 (20)
All Public Plans-Total Fund Median	5.31	1.14	4.47	7.75	-2.54	3.12

3 Yr Rolling Under/Over Performance - 5 Years



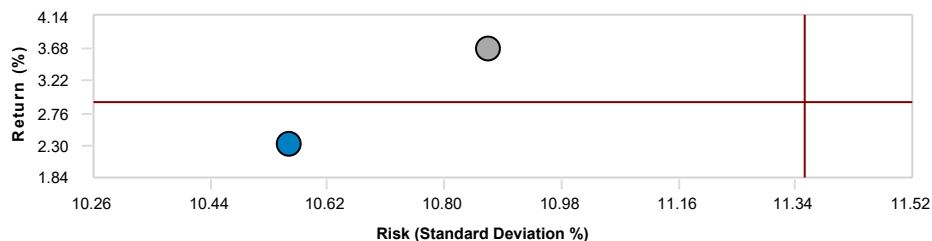
- Over Performance
- Under Performance
- + Earliest Date
- X Latest Date

3 Yr Rolling Percentile Ranking - 5 Years



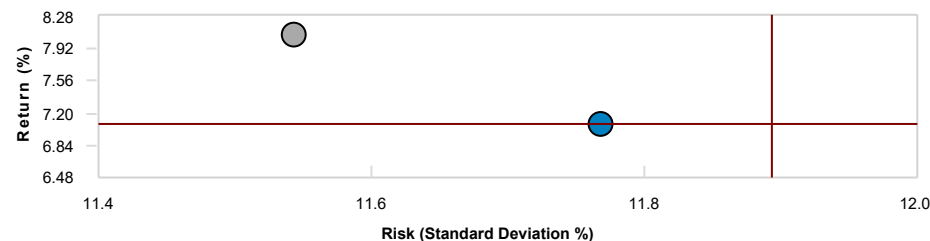
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
● Total Retirement System	20	9 (45%)	3 (15%)	5 (25%)	3 (15%)
● Total Fund Policy	20	17 (85%)	3 (15%)	0 (0%)	0 (0%)

Peer Group Scattergram - 3 Years



	Return	Standard Deviation
● Total Retirement System	2.31	10.56
● Total Fund Policy	3.70	10.87
— Median	2.92	11.35

Peer Group Scattergram - 5 Years



	Return	Standard Deviation
● Total Retirement System	7.07	11.77
● Total Fund Policy	8.08	11.54
— Median	7.07	11.89

Historical Statistics - 3 Years

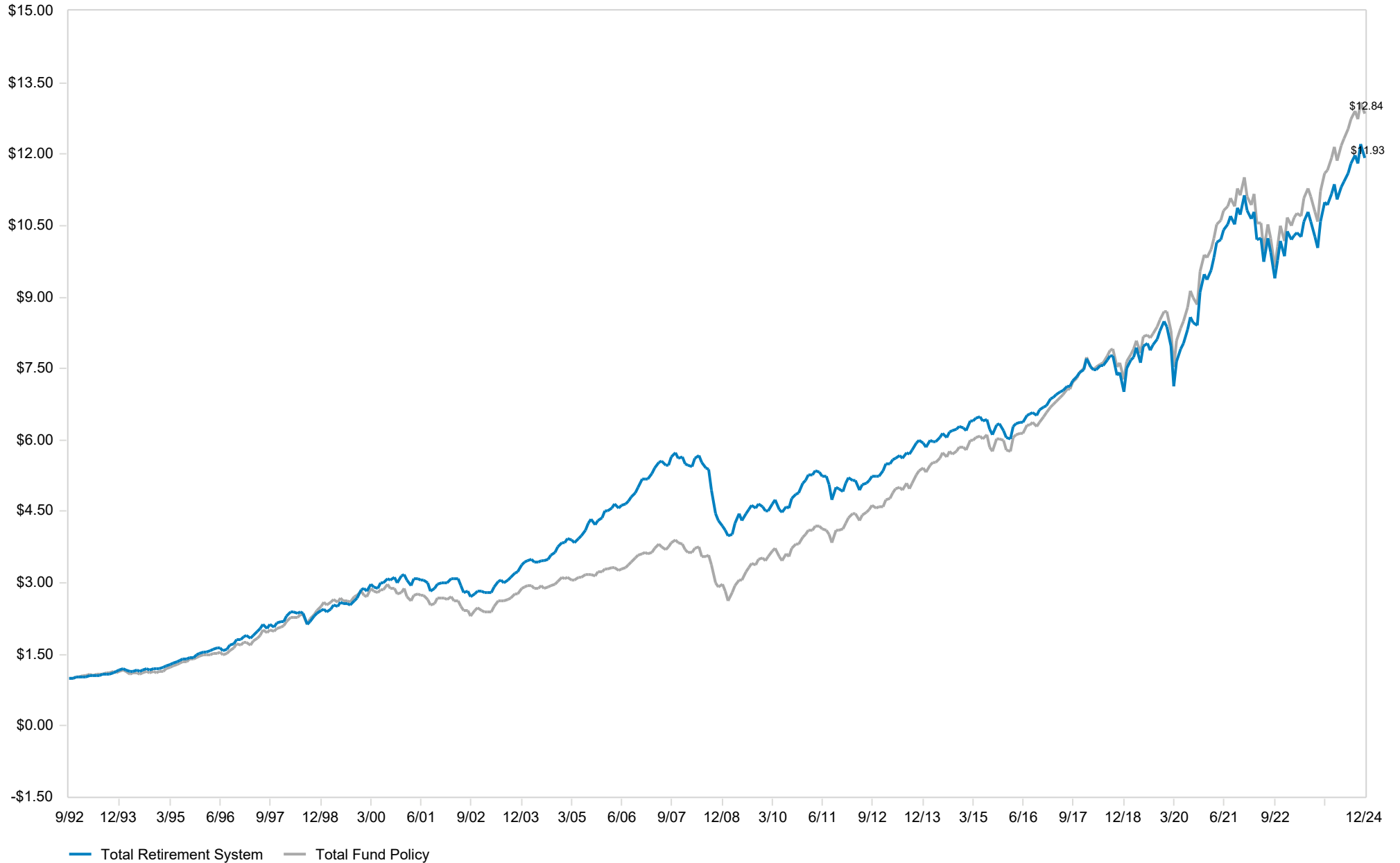
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.32	92.42	99.87	-1.22	-1.05	-0.09	0.96	7.09
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.04	1.00	7.29

Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.47	97.98	103.86	-1.01	-0.62	0.43	1.01	7.69
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.52	1.00	7.46

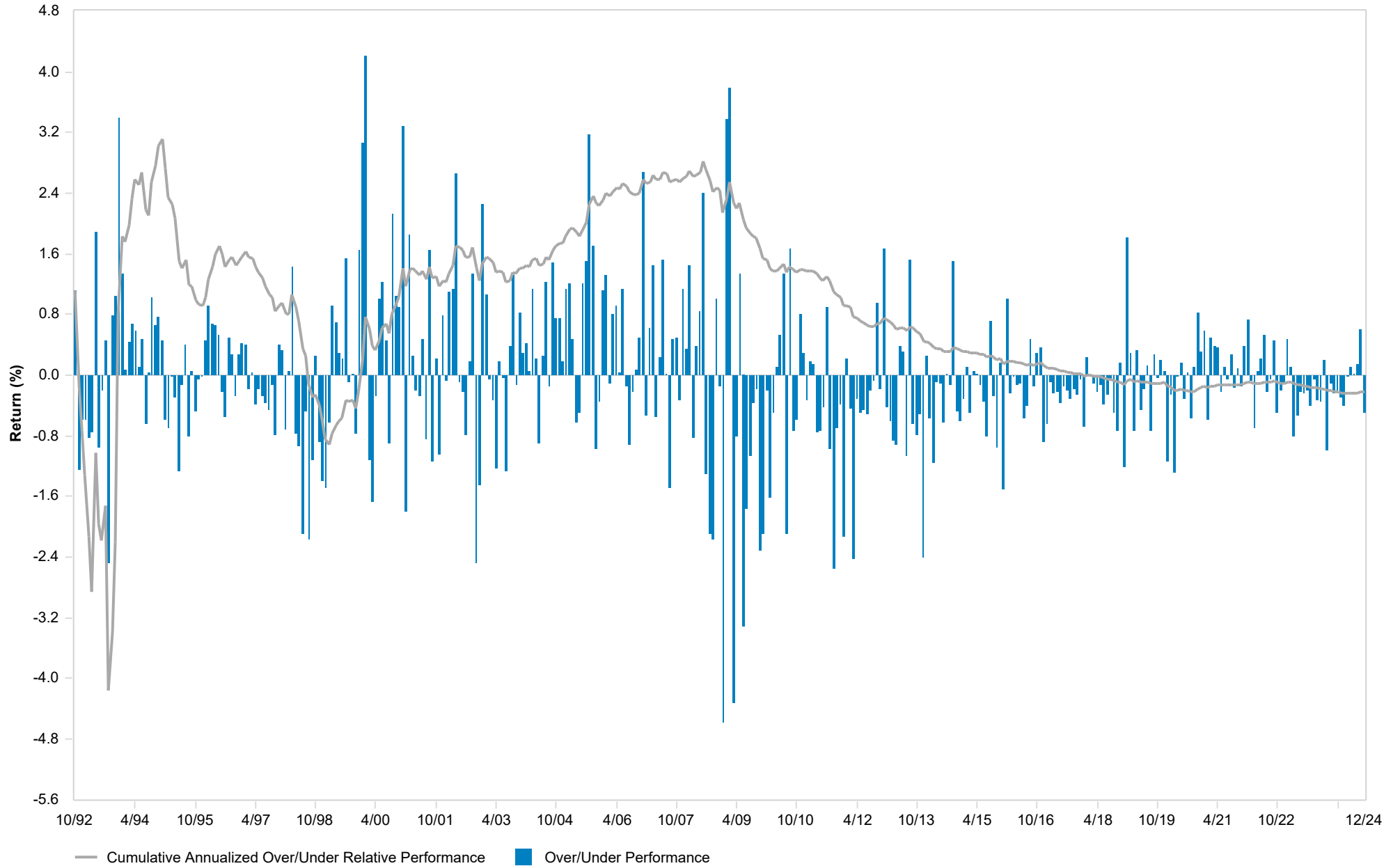
Growth of \$1
Total Retirement System
Since Inception Ending December 31, 2024

Growth of \$1



Calculation based on monthly periodicity.

Relative Performance



Calculation based on monthly periodicity.

Total Fund Compliance:	Yes	No	N/A
The total plan return equaled or exceeded the total plan benchmark over the trailing three and five year periods.		•	
The total plan return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
The total plan return equaled or exceeded the actuarial earnings assumption of 7.25% over the three and five year periods.		•	
Equity Compliance:	Yes	No	N/A
Total domestic equity return equaled or exceeded the benchmark over the trailing three and five year periods.		•	
Total domestic equity return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
Total international equity return equaled or exceeded the benchmark over the trailing three and five year periods.		•	
Total international equity return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
The total equity allocation was less than or equal to 90% but greater than or equal to 35% of the total fund value at market.	•		
The total domestic equity allocation was less than or equal to 50% but greater than or equal to 30% of the total fund value at market.	•		
The total international equity allocation was less than or equal to 25% but greater than or equal to 5% of the total fund value at market.	•		
Fixed Income Compliance:	Yes	No	N/A
Total core fixed income return equaled or exceed the benchmark over the trailing three and five year periods.	•		
Total core fixed income return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.		•	
Total non-US fixed income return equaled or exceed the benchmark over the trailing three and five year periods.	•		
Total non-US fixed income return ranked within the top 50th percentile of its peer group over the trailing three and five year periods.	•		
The total fixed income allocation was less than or equal to 40% but greater than or equal to 5% of the total fund value at market.	•		
The core fixed income allocation was less than or equal to 20% but greater than or equal to 5% of the total fund value at market.	•		
The total non-US fixed income allocation was less than or equal to 15% of the total fund value at market.	•		

**Austin Police Retirement System
Compliance Checklist
As of December 31, 2024**

	MFS Mid Cap			Westfield MC			Driehaus			TS&W			
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	
	Manager outperformed the index over the trailing three and five year periods.			•			•				•		
Manager ranked within the top 50%-tile over trailing three and five year periods.			•			•				•			•
Less than four consecutive quarters of under performance relative to the benchmark.			•			•				•		•	
Three and five-year downside capture ratios less than 100%			•			•				•			•
Manager maintained style consistency for the mandate	•			•						•			•
Manager maintained low turnover in portfolio team or senior management.	•			•						•			•
Benchmark and index remained the same for the portfolio.	•			•						•			•
Manager sustained compliance with IPS.	•			•						•			•
No investigation by SEC was conducted on the manager.	•			•						•			•
Manager did not experience significant asset flows into or out of the company.	•			•						•			•
Manager is charging the same fee.	•			•						•			•
No reported servicing issues with manager.	•			•						•			•

	WCM			Fidelity			Baird			Dodge			PIMCO		
	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A
	Manager outperformed the index over the trailing three and five year periods.		•				•			•			•	•	
Manager ranked within the top 50%-tile over trailing three and five year periods.		•				•			•			•	•		
Less than four consecutive quarters of under performance relative to the benchmark.	•					•	•			•			•		
Three and five-year downside capture ratios less than 100%		•				•			•			•		•	
Manager maintained style consistency for the mandate	•			•					•			•	•		
Manager maintained low turnover in portfolio team or senior management.	•			•					•			•	•		
Benchmark and index remained the same for the portfolio.	•			•					•			•	•		
Manager sustained compliance with IPS.	•			•					•			•	•		
No investigation by SEC was conducted on the manager.	•			•					•			•	•		
Manager did not experience significant asset flows into or out of the company.	•			•					•			•	•		
Manager is charging the same fee.	•			•					•			•	•		
No reported servicing issues with manager.	•			•					•			•	•		

*The 3 & 5 year periods used for evaluation represent the historical performance of composite portfolios. As such, this data represents a combination of current managers, strategies and allocations as well as the realized performance of terminated portfolios and prior allocation strategies. The peer universes used are gross of fees therefore the manager returns used for the purpose of measuring compliance are also gross.

Austin Police Retirement System
Investment Pricing Summary
as of 12/31/2024

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
Total Retirement System			
Total Equity			
Total Domestic Equity			
NT Collective Russell 3000 Fund	12/31/2024	Monthly	Custodian
MFS Mid Cap Value	12/31/2024	Monthly	Custodian
Westfield Mid Cap Growth	12/31/2024	Monthly	Custodian
Total International Equity			
Thompson Siegel & Walmsley	12/31/2024	Monthly	Custodian
Driehaus International Small Cap Growth	12/31/2024	Monthly	Custodian
WCM Focused Intl	12/31/2024	Monthly	Custodian
Fidelity Total International	12/31/2024	Monthly	Custodian
Total Other Equity			
Huff Energy Fund	12/31/2023	Quarterly	Manager
Franklin Park	9/30/2024	Quarterly	Manager
Total Fixed Income			
Total Fixed Income Funds			
Baird Aggregate	12/31/2024	Monthly	Custodian
Dodge & Cox	12/31/2024	Monthly	Custodian
PIMCO Diversified	12/31/2024	Monthly	Custodian
Total Other Fixed Income Funds			
Capital Point Partners	9/30/2024	Quarterly	Manager
LBC Credit Partners III	9/30/2024	Quarterly	Manager

Austin Police Retirement System
Investment Pricing Summary
as of 12/31/2024

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
LBC Credit Partners IV	9/30/2024	Quarterly	Manager
Providence Debt Fund III	9/30/2024	Quarterly	Manager
Total Alternatives			
Total Real Estate			
Edison Investments	9/30/2024	Quarterly	Manager
India Property Fund	9/30/2024	Quarterly	Manager
Gainesville Property	12/31/2017	N/A	Manager
Morgan Stanley	12/31/2024	Quarterly	Manager
AEW Parters VIII	9/30/2024	Quarterly	Manager
GreenOak US III	9/30/2024	Quarterly	Manager
Brookfield	9/30/2024	Quarterly	Manager
Artemis IV	9/30/2024	Quarterly	Manager
Stockbridge	12/31/2024	Quarterly	Manager
Total Timber Funds			
Domain Environmental	9/30/2024	Quarterly	Manager
Cash Account	12/31/2024	Monthly	Custodian

**Austin Police
Fee Analysis
As of December 31, 2024**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Total Domestic Equity	0.18	468,131,207	837,256	
NT Collective Russell 3000 Index	0.02	350,486,365	70,097	0.02 % of Assets
MFS Mid Cap Value	0.62	56,450,582	349,994	0.62 % of Assets
Westfield Mid Cap Growth	0.68	61,194,260	417,166	0.80 % of First \$25 M 0.60 % of Next \$50 M 0.50 % Thereafter
Total International Equity	0.67	144,671,337	968,869	
Thompson Siegel & Walmsley	0.65	58,432,988	379,814	0.65 % of Assets
Driehaus International Small Cap Growth	0.90	21,991,089	197,920	0.90 % of Assets
WCM Focused Intl Growth LP	0.85	44,631,130	379,365	0.85 % of Assets
Fidelity Total International Index	0.06	19,616,129	11,770	0.06 % of Assets
Total Other Equity	0.32	130,808,895	422,938	
Huff Energy Fund	0.69	21,633,621	150,000	
*Franklin Park Private Equity	0.25	109,175,274	272,938	0.25 % of Assets
*In addition to the 25 bps management fee, a 1% commitment fee for the first year of that commitment and can potentially earn an incentive fee of 5% after APRS receives an 8% IRR preferred return on its investment.				
Total Fixed Income	0.50	189,620,293	943,653	
Baird Aggregate Income Bond Fund	0.30	64,427,931	193,284	0.30 % of Assets
Dodge & Cox Fixed Income Fund	0.41	64,624,149	264,959	0.41 % of Assets
Pimco Diversified Income Fund	0.75	54,305,484	407,291	0.75 % of Assets
Total Other Fixed Income	1.25	6,262,729	78,119	
Capital Point Partners (Princeton Capital)	1.65	2,040,974	33,676	
LBC Credit Partners III	1.25	2,154,644	26,933	
LBC Credit Partners IV	1.25	956,568	11,957	
Providence Debt Fund III	0.50	1,110,543	5,553	

Fee information on this page is an illustrative estimate of management fees based on current reported portfolio values. Fee estimates do not reflect actual calculation methodologies or applicable carried interest.

**Austin Police
Fee Analysis
As of December 31, 2024**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
Total Real Estate	0.97	136,906,002	1,332,237	
Edison Investments	1.00	2,361,127	23,611	1.00 % of Assets
India Property Fund	2.00	102,477	2,050	2.00 % of Assets
Gainesville Property	0.00	1	-	0.00 % of Assets
Morgan Stanley	0.90	77,222,962	695,007	0.90 % of Assets
AEW Partners Fund VIII	1.25	2,142,663	26,783	1.25 % of Assets
GreenOak US III	1.50	9,674,711	145,121	1.50 % of Assets
Brookfield Premier Real Estate Partners	1.00	20,550,261	205,503	1.00 % of Assets
Artemis Real Estate IV	1.50	7,525,099	112,876	1.50 % of Assets
Stockbridge Smart Markets	0.70	17,326,701	121,287	0.70 % of Assets
Total Timber Funds	1.25	767,033	9,588	
Domain Environmental Investments II	1.25	767,033	9,588	1.25 % of Assets
Cash Account	0.00	10,013,033	-	0.00 % of Assets
Total Retirement System	0.42	1,080,917,799	4,514,541	

Fee information on this page is an illustrative estimate of management fees based on current reported portfolio values. Fee estimates do not reflect actual calculation methodologies or applicable carried interest.

Total Fund Policy			
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1976		Jan-2021	
S&P 500 Index	60.00	Russell 3000 Index	42.50
Blmbg. U.S. Aggregate Index	40.00	MSCI World ex U.S.	15.00
Jan-2014		Blmbg. U.S. Aggregate Index	10.00
Russell 3000 Index	30.00	Blmbg. Global Credit	5.00
MSCI World ex U.S.	15.00	NCREIF Property Index	15.00
Blmbg. U.S. Aggregate Index	5.00	HFRI Fund of Funds Composite Index	5.00
Blmbg. Global Multiverse	5.00	Credit Suisse Leveraged Loan Index	5.00
NCREIF Property Index	15.00	Cambridge Associates Private Equity Index	2.50
NCREIF Timberland Index (Monthly)	5.00	Mar-2022	
Russell 3000 + 300 bps	12.50	Russell 3000 Index	45.00
HFRI Fund of Funds Composite Index	10.00	MSCI World ex U.S.	15.00
FTSE 3 Month T-Bill	2.50	Blmbg. U.S. Aggregate Index	5.00
Jan-2017		Blmbg. Global Credit	5.00
Russell 3000 Index	45.00	NCREIF Property Index	15.00
MSCI World ex U.S.	15.00	HFRI Fund of Funds Composite Index	5.00
Blmbg. U.S. Aggregate Index	5.00	Credit Suisse Leveraged Loan Index	2.50
Blmbg. Global Multiverse	5.00	Cambridge Associates Private Equity Index	7.50
NCREIF Property Index	15.00	Apr-2023	
NCREIF Timberland Index (Monthly)	2.50	Russell 3000 Index	40.00
HFRI Fund of Funds Composite Index	5.00	MSCI World ex U.S.	15.00
Credit Suisse Leveraged Loan Index	5.00	Blmbg. U.S. Aggregate Index	12.50
Cambridge Associates Private Equity Index	2.50	Blmbg. Global Credit	5.00
Jan-2018		NCREIF Property Index	15.00
Russell 3000 Index	42.50	Cambridge Associates Private Equity Index	12.50
MSCI World ex U.S.	15.00		
Blmbg. U.S. Aggregate Index	10.00		
Blmbg. Global Multiverse	5.00		
NCREIF Property Index	15.00		
HFRI Fund of Funds Composite Index	5.00		
Credit Suisse Leveraged Loan Index	5.00		
Cambridge Associates Private Equity Index	2.50		

Total Equity Policy		Total Private Equity Policy		Wellington Energy Hybrid	
Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)	Allocation Mandate	Weight (%)
Jan-1979		May-2013		Jan-1999	
Russell 3000 Index	67.00	Russell 3000 Index	100.00	Russell 3000 Energy SP	100.00
MSCI World ex U.S.	33.00				
Jan-2017		Jan-2017		Oct-2015	
Russell 3000 Index	75.00	Credit Suisse Leveraged Loan Index	67.00	S&P 500 Energy	100.00
MSCI World ex U.S.	25.00	Cambridge Associates Private Equity Index	33.00		
		Apr-2023			
		Cambridge Associates Private Equity Index	100.00		
Total Hedge Fund Policy					
Allocation Mandate		Weight (%)			
Jan-1990					
HFRI Fund of Funds Composite Index		100.00			
Total Fixed Income Policy					
Allocation Mandate		Weight (%)			
Dec-1993					
Blmbg. U.S. Aggregate Index		100.00			
Jan-1999					
Blmbg. U.S. Aggregate Index		50.00			
Blmbg. Global Multiverse		50.00			
Jan-2021					
Blmbg. U.S. Aggregate Index		50.00			
Blmbg. Global Credit		50.00			
Apr-2023					
Blmbg. U.S. Aggregate Index		75.00			
Blmbg. Global Credit		25.00			
Total Timber Policy					
Allocation Mandate		Weight (%)			
Apr-1987					
NCREIF Timberland Index		100.00			
Total Real Estate Policy					
Allocation Mandate		Weight (%)			
Jan-1978					
NCREIF Property Index		100.00			

- All market value and performance information through April 30, 2013 is provided by the previous consultant, CSG.
- All historical return data is presented Net of Fees.
- Best efforts have been made to acquire the most accurate data but due to reporting lag times Private Fixed Income, Real Estate, Timber, Private Equity and Hedge Fund information may not be current. Market values for these investments are subject to revision in future reports as more current information becomes available.
- NCREIF Property Index is updated quarterly. One month return information is shown as 0.00%.
- Effective May 1, 2013 the Sail Xtreme APRS Fund, LP and Xtreme Power, Inc. investments have been reclassified as Private Fixed Income under the Alternative Investments category. Prior to that they were listed as Fixed Income by the prior consultant.
- Returns for all Real Estate, Timber and Private Equity managers are Internal Rates of Return. All other managers are Time Weighted Rates of Return.
- Actuarial Assumption is currently 7.25%
- Prior to 1/1/2009 Capital Point (Princeton Capital) and Clinton Magnolia performance is included in the Total Fixed Income performance.
- The information contained in this report is obtained from third party sources and is not warranted to be accurate, complete or timely. All returns and market values are preliminary and subject to revision in future reports upon final reconciliation.
- Pricing may differ between the custodian and manager for reasons beyond the control of AndCo Consulting. Every effort will be made to use the most accurate and timely information available when the report is generated.
- * Xtreme Power declared bankruptcy in January 2014. After discussions with the Fund's Accountant, Auditor and Legal Counsel the investments in this company have been marked down to \$0.00 as of December 31st.
If any proceeds are recovered in the bankruptcy process they will be credited to the Fund at that time.
- As of 12/31/14 the Excelsior Investors, LTD position was reclassified to from the Hedge Fund composite to the Private Equity composite.

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

Mariner Institutional compiled this report for the sole use of the client for which it was prepared. Mariner Institutional is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. Mariner Institutional uses the results from this evaluation to make observations and recommendations to the client.

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Methodology for this Award: For the 2022 Greenwich Quality Award for Overall U.S. Investment Consulting – Midsize Consultants – Between February and November 2022, Coalition Greenwich conducted interviews with 727 individuals from 590 of the largest tax-exempt funds in the United States. These U.S.-based institutional investors are corporate and union funds, public funds, and endowment and foundation funds, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset management and investment consulting providers, including qualitative assessments of those firms soliciting their business and detailed information on important market trends.

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