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# Austin Police

Investment Performance Review  
Period Ending March 31, 2024

MARINER

## **1st Quarter 2024 Market Environment**

## **The Economy**

- The US Federal Reserve (the Fed) held rates steady during the first quarter. However, domestic equities rallied on the prospect that the Fed could cut rates later in 2024. In its press release for the March meeting, the Fed stated that “In considering any adjustments to the target range for the federal funds rate, the Committee will carefully assess incoming data, the evolving outlook, and the balance of risks.” In addition, the Fed will continue reducing its balance sheet as described in its previously announced plans.
- The Fed’s prolonged pause in its rate-hiking cycle and the insertion of the word “any” in its December press release gave the market hope that the Fed may be ready to pivot in its stance and begin reducing rates to a less restrictive level in 2024. The Fed’s published “Dot Plot” shared expectations of three quarter-point rate cuts during the year, which would be the first rate cut since the COVID pandemic in 2020.
- Growth in the US labor market continued in March, as nonfarm payrolls increased by 303,000 and unemployment held steady at 3.8%. Federal Reserve Chair Jerome Powell stated, “Strong hiring in and of itself would not be a reason to hold off on rate cuts,” adding that the job market is not a primary cause for concern around inflation. Powell added “an unexpected weakening in the labor market could also warrant a policy response.”

## **Equity (Domestic and International)**

- US equities moved broadly higher during the first quarter based on expectations of a more favorable interest rate environment in the coming year. The S&P 500 Index rose 10.6% for the quarter.
- International stocks experienced robust growth to begin the year, albeit muted by a strengthening US Dollar (USD). USD performance lagged local currency (LCL) performance in most regions for the quarter, though both currency readings were positive.
- GDP growth across regions remains mixed as many regions are dealing with local headwinds and tailwinds as much of the world continues to navigate sticky inflation with varying degrees of success. Conflicts abroad have dragged on performance, but as we have seen with the Russia-Ukraine conflict, market conditions will typically normalize once the broader impact has been reasonably assessed.

## **Fixed Income**

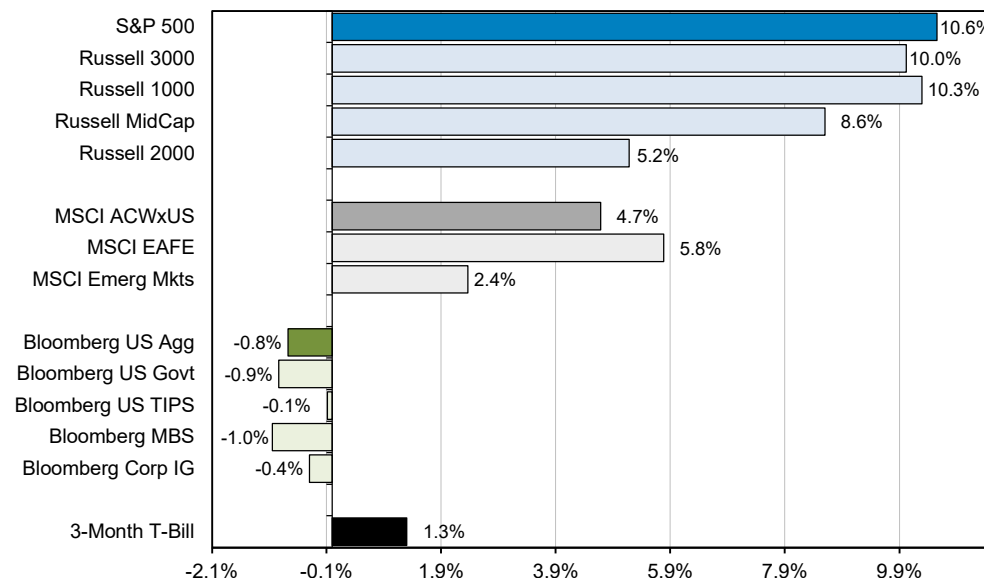
- While sticky inflation numbers and a robust job market likely prompted the Fed to keep the fed funds rate unchanged during the quarter, this lack of action also tempered expectations for potential rate cuts in 2024. Fixed-income markets fell in March (yield rose) on the belief that rates could be higher for longer.
- High-yield bonds outperformed investment-grade issues for the quarter, largely due to narrowing credit spreads and higher coupons. Although the high-yield bond benchmark’s duration is almost half of the US Aggregate Bond index’s duration, the high-yield index edged out the bellwether bond benchmark due to a relatively stable yield curve and the aforementioned narrowing credit spreads.
- Global bonds lagged the domestic bond market with the US Aggregate Index beating the Global Aggregate ex-US Index by 2.4%. This broke the two indexes’ tie in 2023 and left global bonds 2.4% behind the domestic bond market for the full year.

## **Market Themes**

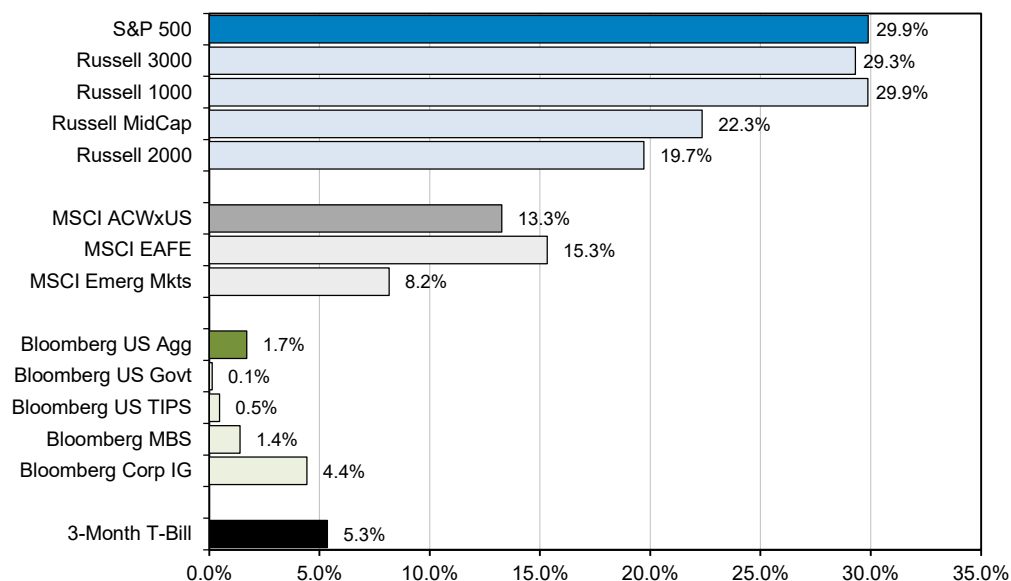
- 2024 opened with strong results in domestic and international equity markets, continuing what was a robust 2023. Growth sectors continued to outpace value sectors but by a narrower margin than 2023, showcasing increased breadth across many markets.
- Central banks remained vigilant in their stances to bring inflation under control. While inflation readings remain stubbornly elevated, signs of stable-to-cooling price pressures have shown up in most regions around the world.
- Policy rates remained relatively stable across most developed markets as central banks continued their tight policy stance. However, there are expectations of looser monetary policy to take hold as 2024 progresses.
- Ongoing military conflicts coupled with economic uncertainty around the globe continue to act as headwinds in international markets. While global disruptions from the Russia-Ukraine conflict seemed to subside, the proxy war in the Middle East has spread to other countries in the region and unsettled shipping channels globally.

- Domestic equity markets carried their momentum from late 2023 into the first quarter of 2024. Economic indicators continued to signal improving conditions for growth and softening inflation, resulting in an ongoing tailwind for risk assets. For the period, the S&P 500 large-cap benchmark returned 10.6% versus 8.6% for the Russell Mid Cap Index and 5.2% for the Russell 2000 small-cap index.
- International developed and emerging market equities also posted solid results. European markets continue to face geopolitical risks related to the conflict in Ukraine, the Middle East is grappling with a proxy war that has spread beyond Israel and Palestine, and Asia is feeling contagion effects from China's economic uncertainty. Despite the uncertainty, the developed market MSCI EAFE Index returned 5.8% for the quarter, while the MSCI Emerging Markets Index advanced 2.4%.
- Most broad fixed income indexes fell slightly during the first quarter of 2024. While market participants were generally optimistic about the possibility of a Fed rate cut during the first half of the year, sticky inflation pushed out these expectations and caused markets to re-think the timing of 2024's potential rate cuts. The Bloomberg (BB) US Aggregate Index returned -0.8% for the quarter while investment-grade corporate bonds were down less, returning -0.4%.
- US equity markets posted a stellar 29.9% during the trailing one-year period. The weakest relative performance for the year was the Russell 2000 Index, which nonetheless climbed 19.7% over the last 12 months.
- International markets also showcased a healthy rebound in 2023. Over the trailing one-year period, the MSCI EAFE Index was the best international performer, returning 15.3% while the MSCI Emerging Markets Index added a more modest 8.2%.
- Bond markets were relatively flat over the previous 12 months. Investment-grade corporate bonds were the best-performing sector, up by 4.4%. Meanwhile, Treasuries have lagged, returning just 0.1% over the previous 12 months. The bellwether fixed-income benchmark, the Bloomberg US Aggregate Index, returned a muted 1.7% for the year.

### Quarter Performance

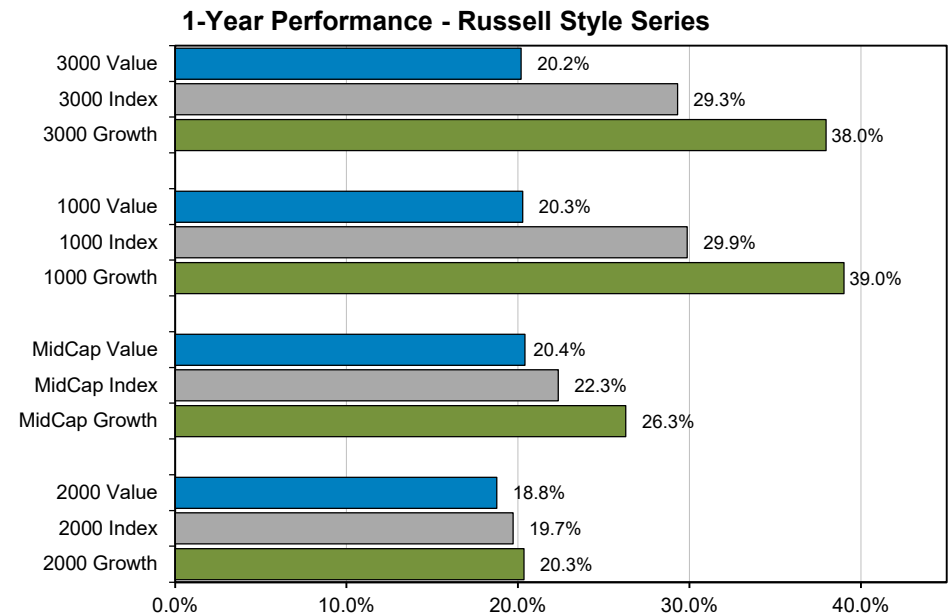
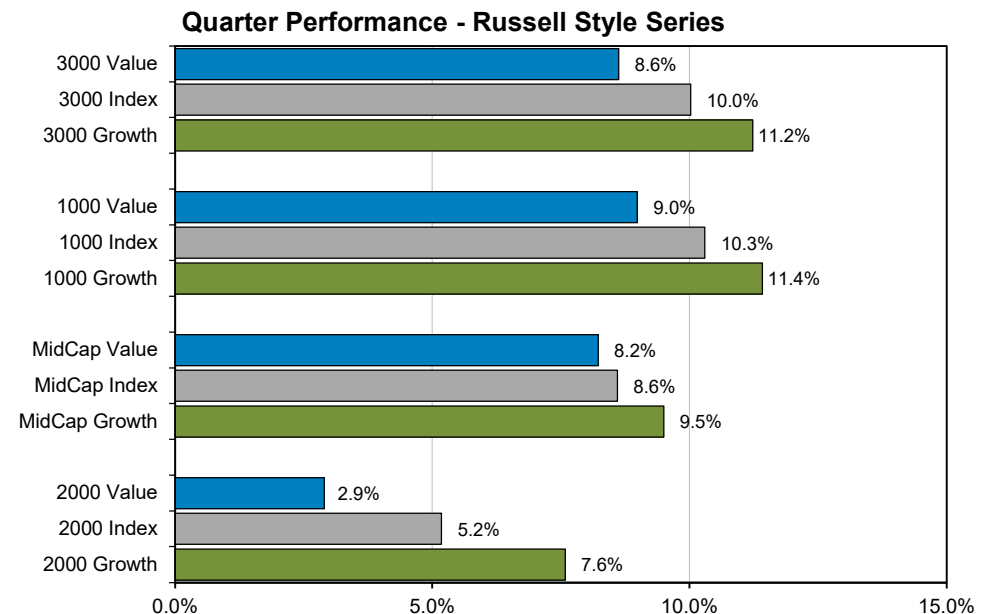


### 1-Year Performance



Source: Investment Metrics

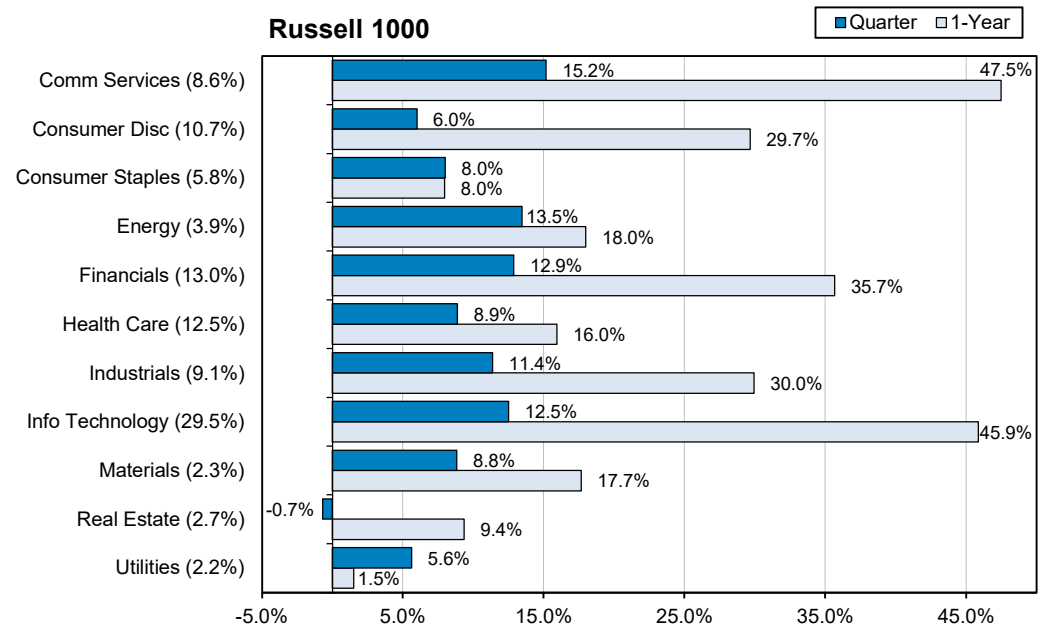
- Domestic equity benchmarks were positive for the second consecutive quarter and growth style issues continued to outpace value. The best-performing area of the equity market was large-cap growth, with the Russell 1000 Growth index returning 11.4%. The worst performing area of the market was small-cap value, with the Russell 2000 Value index returning just 2.9% for the quarter. From a market capitalization perspective, large-cap stocks led their small-cap counterparts, with the Russell 1000 Index returning 10.3% and the Russell 2000 Index lagging with a lower, but still solid, 5.2%.
- The market continued its growth-led rally as growth stocks outpaced value stocks across the market-capitalization spectrum. While growth led the way during the quarter, value benchmarks largely kept pace, signaling that the rally seen in domestic equities may be broadening to other areas of the market.
- For the year, within large-cap stocks, the Russell 1000 Growth Index returned an impressive 39.0%, leading the way among style and market capitalization classifications. The weakest performing index for the year was the Russell 2000 Value, which still posted a double-digit return of 18.8%.
- The dominance of growth sectors is evident in the chart, with all growth benchmarks handily outpacing their core and value index counterparts. However, the strength of the outperformance differs meaningfully between the large cap and small cap segments of the market. The Russell 2000 Growth Index returned 20.3%, outpacing the Russell 2000 Value index return by a narrow margin of just 1.5%. However, this spread widens to 5.9% for the Russell Midcap Growth benchmarks and blows out to a span of 18.7% for the large cap benchmarks.



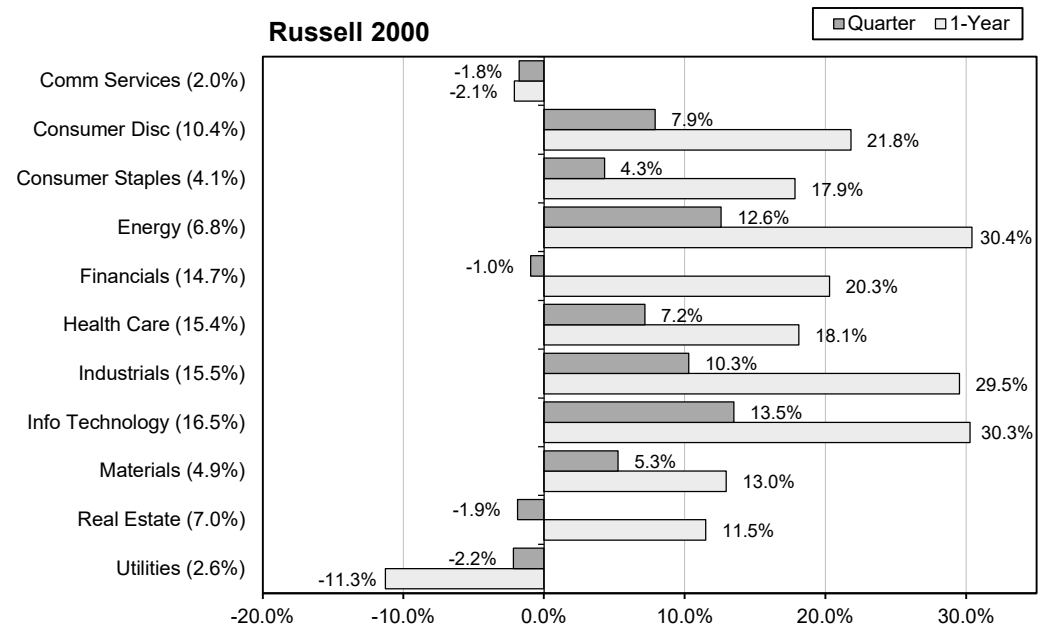
Source: Investment Metrics

- 2023's year-end rally continued into the first quarter of 2024 and expanded its breadth across styles and market capitalizations.
- Ten of the 11 GICS economic sectors in the large-cap Russell 1000 Index moved higher during the first quarter. Five of the 11 sectors outpaced the broad index return of 10.0%. Communication services led the way at 15.2% followed by energy (up 13.5%), financials (12.9%), information technology (12.5%), and industrials (11.4%).
- For the full year, all 11 economic sectors finished in positive territory with communication services leading the way at 47.5% and information technology following in lock step at 45.9%. Of the 11 sectors, four were up at least 30.0% the past year. Utilities (up 1.5%), consumer staples (8.0%), and real estate (9.4%) were the only three sectors that did not post double-digit results over the trailing year.
- Seven small-cap economic sectors posted positive results during the quarter with six of those sectors exceeding the 5.2% return of the Russell 2000 Index. The information technology (up 13.5%), energy (12.6%), and industrials (10.3%) sectors led the way as the only three sectors to showcase double-digit performance for the quarter. Utilities (-2.2%), real estate (-1.9%), communication services (-1.8%), and financials (-1.0%) sectors all lost ground during the quarter.
- Similar to large-cap sector performance, nine of the 11 small cap sectors were positive over the trailing year. Energy posted the strongest sector results (30.4%) with the information technology (30.3%) sector not far behind. Industrials (29.5%), consumer discretionary (21.8%) and financials (20.3%) each also returned more than 20.0% for the period. Six of the 11 economic sectors fell short of the core small-cap benchmark's return of 19.7% over the trailing year. The two negative sectors for the year were utilities with a return of -11.3% and communication services, which returned -2.1%.

### Russell 1000



### 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 March 31, 2024

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Microsoft Corp	6.5%	12.1%	47.1%	Information Technology
Apple Inc	5.2%	-10.8%	4.5%	Information Technology
NVIDIA Corp	4.5%	82.5%	225.4%	Information Technology
Amazon.com Inc	3.4%	18.7%	74.6%	Consumer Discretionary
Meta Platforms Inc Class A	2.2%	37.3%	129.4%	Communication Services
Alphabet Inc Class A	1.9%	8.0%	45.5%	Communication Services
Berkshire Hathaway Inc Class B	1.6%	17.9%	36.2%	Financials
Alphabet Inc Class C	1.6%	8.0%	46.4%	Communication Services
Eli Lilly and Co	1.4%	33.7%	128.4%	Health Care
JPMorgan Chase & Co	1.2%	18.5%	58.1%	Financials

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
NVIDIA Corp	4.5%	82.5%	225.4%	Information Technology
Vistra Corp	0.1%	81.4%	197.1%	Utilities
AppLovin Corp Ordinary Shares	0.0%	73.7%	339.5%	Information Technology
Shockwave Medical Inc	0.0%	70.9%	50.2%	Health Care
Vertiv Holdings Co Class A	0.1%	70.1%	471.2%	Industrials
Cava Group Inc	0.0%	63.0%	N/A	Consumer Discretionary
EMCOR Group Inc	0.0%	62.7%	116.2%	Industrials
Maplebear Inc	0.0%	58.9%	N/A	Consumer Staples
Constellation Energy Corp	0.1%	58.5%	138.0%	Utilities
Williams-Sonoma Inc	0.0%	58.0%	167.4%	Consumer Discretionary

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
New York Community Bancorp Inc	0.0%	-68.2%	-62.3%	Financials
SSR Mining Inc	0.0%	-58.7%	-70.1%	Materials
Rivian Automotive Inc Class A	0.0%	-53.3%	-29.3%	Consumer Discretionary
Agilon Health Inc	0.0%	-51.4%	-74.3%	Health Care
AMC Entertainment Holdings Inc	0.0%	-39.2%	-91.6%	Communication Services
Iridium Communications Inc	0.0%	-36.1%	-57.2%	Communication Services
Viasat Inc	0.0%	-35.3%	-46.5%	Information Technology
QuidelOrtho Corp	0.0%	-35.0%	-46.2%	Health Care
Unity Software Inc Ordinary Shares	0.0%	-34.7%	-17.7%	Information Technology
10x Genomics Inc Ordinary Shares	0.0%	-32.9%	-32.7%	Health Care

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Super Micro Computer Inc	1.9%	255.3%	847.9%	Information Technology
MicroStrategy Inc Class A	0.9%	169.9%	483.1%	Information Technology
Comfort Systems USA Inc	0.4%	54.6%	118.7%	Industrials
e.l.f. Beauty Inc	0.4%	35.8%	138.0%	Consumer Staples
Light & Wonder Inc Ordinary Shares	0.3%	24.3%	70.0%	Consumer Discretionary
Carvana Co Class A	0.3%	66.1%	798.0%	Consumer Discretionary
Onto Innovation Inc	0.3%	18.4%	106.1%	Information Technology
Simpson Manufacturing Co Inc	0.3%	3.8%	88.6%	Industrials
Viking Therapeutics Inc	0.3%	340.6%	392.5%	Health Care
Weatherford International PLC	0.3%	18.0%	94.5%	Energy

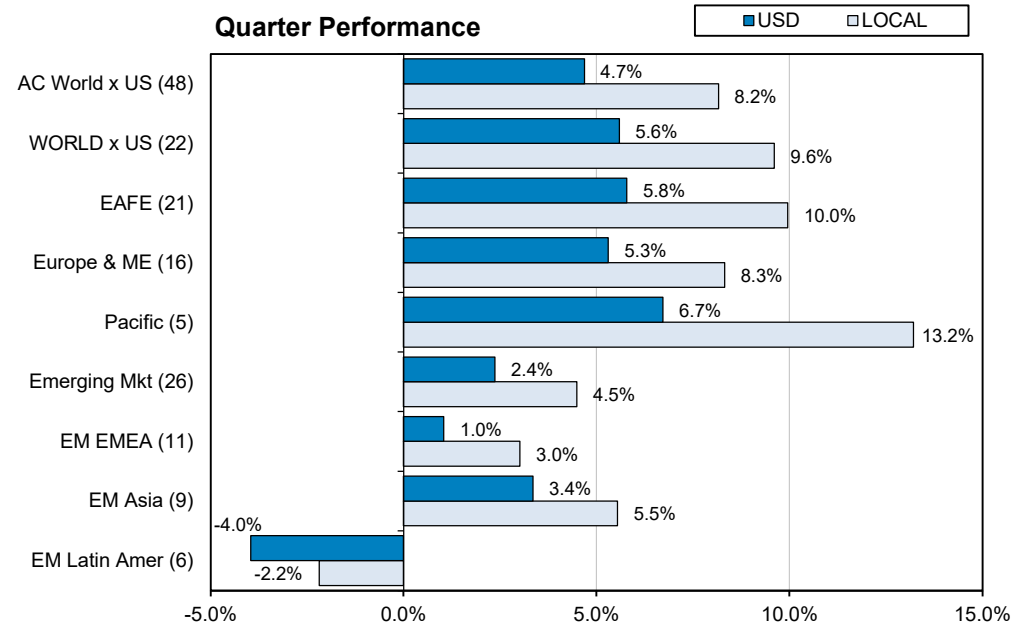
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Ocean Biomedical Inc	0.0%	473.5%	-43.0%	Health Care
Viking Therapeutics Inc	0.3%	340.6%	392.5%	Health Care
Longboard Pharmaceuticals Inc	0.0%	258.2%	438.7%	Health Care
Super Micro Computer Inc	1.9%	255.3%	847.9%	Information Technology
Janux Therapeutics Inc	0.0%	250.9%	211.2%	Health Care
Arcutis Biotherapeutics Inc	0.0%	206.8%	-9.9%	Health Care
Veritone Inc	0.0%	190.6%	-9.8%	Information Technology
Avidity Biosciences Inc	0.1%	182.0%	66.3%	Health Care
Vera Therapeutics Inc Class A	0.1%	180.4%	455.7%	Health Care
SoundHound AI Inc Ordinary Shares	0.0%	177.8%	113.4%	Information Technology

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Amylyx Pharmaceuticals Inc	0.0%	-80.7%	-90.3%	Health Care
Bakkt Holdings Inc Ordinary Shares	0.0%	-79.4%	-73.3%	Financials
WW International Inc	0.0%	-78.9%	-55.1%	Consumer Discretionary
iRobot Corp	0.0%	-77.4%	-79.9%	Consumer Discretionary
LivePerson Inc	0.0%	-73.7%	-77.4%	Information Technology
Office Properties Income Trust	0.0%	-72.1%	-81.1%	Real Estate
Spirit Airlines Inc	0.0%	-69.6%	-69.3%	Industrials
2U Inc	0.0%	-68.3%	-94.3%	Consumer Discretionary
CareMax Inc Ordinary Shares	0.0%	-67.8%	-94.0%	Health Care
Presto Automation Inc	0.0%	-67.3%	-89.0%	Information Technology

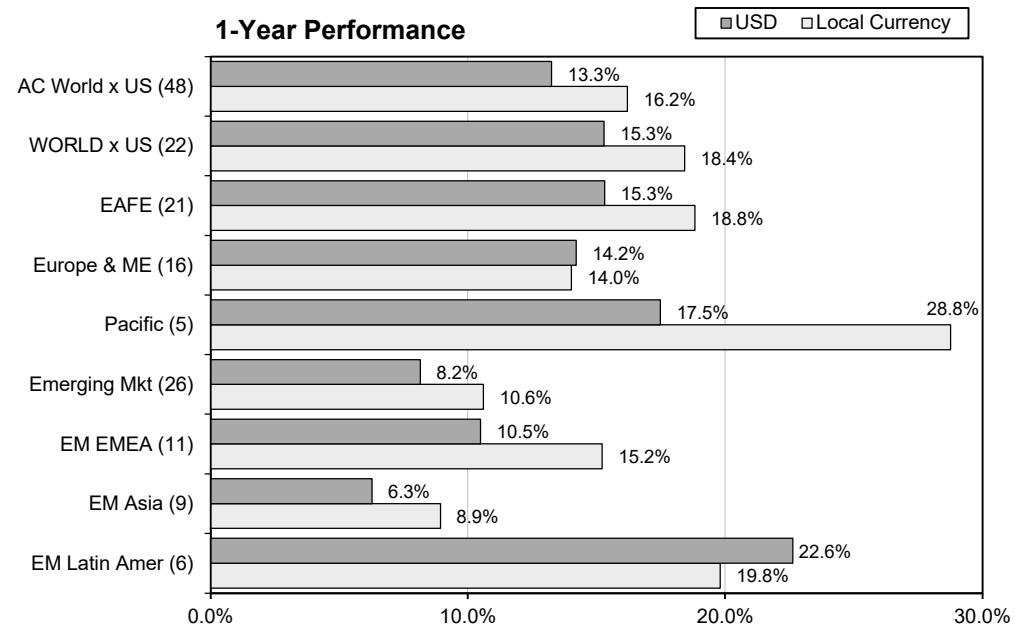
Source: Morningstar Direct

- Many of the international developed- and emerging-market benchmarks posted positive performance in both USD and LCL terms for the first quarter. A strengthening of the USD during the period was a drag on domestic non-US index performance across all regions. The developed-market MSCI EAFE Index still returned a solid 5.8% in USD and 10.0% in LCL terms for the period. The MSCI Emerging Markets Index rose by 2.4% in USD and 4.5% in LCL terms.
- Latin America was the only region to post negative performance for the quarter in both USD and LCL terms. The cyclical nature of demand for commodity exports in the region has resulted in greater volatility due to continued uncertainty over central bank policies and global demand.
- The heaviest weighted country in the emerging market index (China, 7.0%) continued its drag on broad index returns, returning -2.2% during the quarter. The Chinese economy grew at a rate of 5.2% in 2023, lower than its pre-pandemic rate of 6.0% which was a headwind for performance. Troubles in the commercial property and banking sectors have also created challenges for growth in the region.
- Much like domestic markets, trailing one-year results for international developed and emerging markets benchmarks were strong. Outside of EM Latin America, the USD showed strength over broad and regional benchmarks for the year, and as a result, LCL returns finished higher than USD performance.
- MSCI Pacific results led the way in LCL currency terms at 28.8% for the trailing year. USD returns for the region were still strong but returned a more muted 17.5% due to softening currency in the region. Due to demand for commodity exports and rising oil prices, EM Latin America was the only region where the USD weakened relative to LCL returns, resulting in higher USD returns (22.6% vs. 19.8%). The EM Asia regional benchmark was the weakest relative-performing region in the emerging market index, with the EM Asia index returning 6.3% in USD and 8.9% in LCL 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 March 31, 2024

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.0%	4.1%	6.6%
Consumer Discretionary	12.5%	11.1%	15.5%
Consumer Staples	8.6%	-3.1%	-5.9%
Energy	4.1%	2.2%	14.6%
Financials	19.3%	8.6%	25.8%
Health Care	12.7%	4.7%	8.6%
Industrials	16.8%	7.9%	23.1%
Information Technology	9.4%	14.3%	31.1%
Materials	7.2%	-1.1%	10.2%
Real Estate	2.3%	1.5%	13.0%
Utilities	3.1%	-5.0%	2.7%
<b>Total</b>	<b>100.0%</b>	<b>5.8%</b>	<b>15.3%</b>

MSCI - ACWixUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.1%	2.1%	-3.0%
Consumer Discretionary	11.8%	7.2%	8.6%
Consumer Staples	7.4%	-3.2%	-4.6%
Energy	5.5%	5.2%	21.4%
Financials	21.4%	5.9%	21.4%
Health Care	9.2%	3.7%	7.5%
Industrials	13.8%	6.9%	19.8%
Information Technology	13.4%	11.4%	29.4%
Materials	7.4%	-1.6%	4.1%
Real Estate	2.0%	-0.3%	6.8%
Utilities	3.0%	-3.0%	5.2%
<b>Total</b>	<b>100.0%</b>	<b>4.7%</b>	<b>13.3%</b>

MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	8.6%	0.8%	-11.5%
Consumer Discretionary	12.4%	-0.5%	-5.3%
Consumer Staples	5.6%	-4.3%	-2.6%
Energy	5.3%	6.9%	36.0%
Financials	22.4%	2.3%	15.0%
Health Care	3.5%	-4.5%	-0.9%
Industrials	7.0%	1.4%	4.6%
Information Technology	23.7%	9.9%	26.7%
Materials	7.2%	-4.6%	-5.4%
Real Estate	1.5%	-6.0%	-11.3%
Utilities	2.8%	3.5%	17.9%
<b>Total</b>	<b>100.0%</b>	<b>2.4%</b>	<b>8.2%</b>

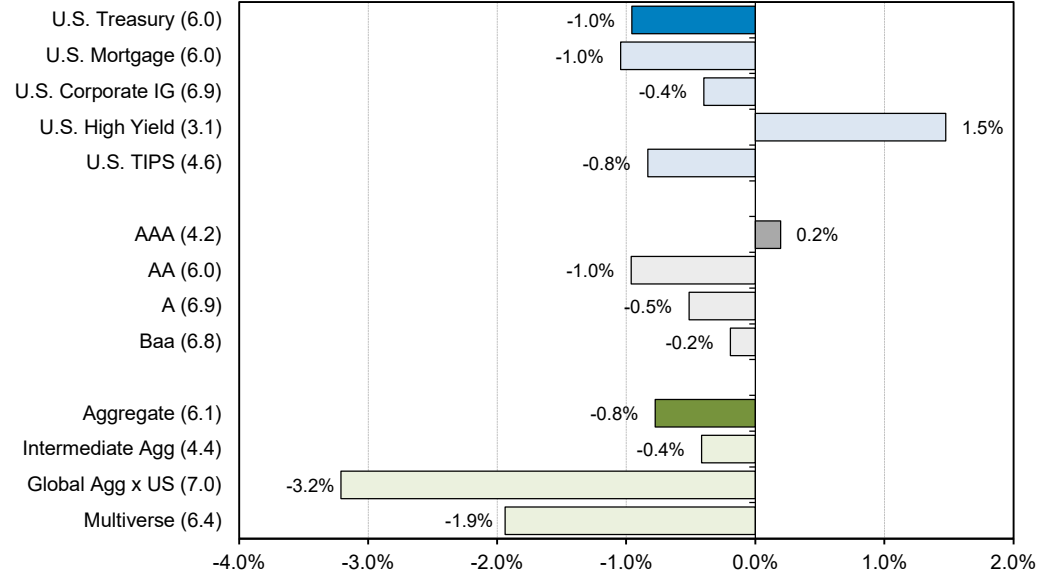
Country	MSCI-EAFE Weight	MSCI-ACWixUS Weight	Quarter Return	1-Year Return
Japan	23.3%	15.0%	10.2%	23.5%
United Kingdom	14.6%	9.4%	1.9%	6.4%
France	12.1%	7.8%	5.7%	9.7%
Switzerland	9.3%	6.0%	-2.1%	4.9%
Germany	8.7%	5.6%	6.8%	12.0%
Australia	7.3%	4.7%	-0.5%	8.1%
Netherlands	5.2%	3.3%	15.4%	22.5%
Denmark	3.6%	2.3%	14.4%	33.0%
Sweden	3.1%	2.0%	0.2%	11.6%
Italy	2.8%	1.8%	13.1%	30.6%
Spain	2.7%	1.7%	7.7%	19.6%
Hong Kong	1.8%	1.2%	-12.2%	-25.8%
Singapore	1.3%	0.9%	-0.1%	-6.1%
Finland	1.0%	0.6%	-6.0%	-12.8%
Belgium	0.9%	0.6%	1.7%	-0.2%
Israel	0.7%	0.5%	12.2%	22.1%
Norway	0.6%	0.4%	-7.9%	-0.2%
Ireland	0.4%	0.2%	14.8%	16.9%
Portugal	0.2%	0.1%	-17.9%	-16.6%
New Zealand	0.2%	0.1%	-4.9%	-8.2%
Austria	0.2%	0.1%	0.5%	10.5%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>64.5%</b>	<b>5.8%</b>	<b>15.3%</b>
Canada		7.7%	3.4%	12.3%
<b>Total Developed Countries</b>		<b>71.9%</b>	<b>5.6%</b>	<b>15.3%</b>
China		7.0%	-2.2%	-17.1%
India		5.0%	6.1%	36.8%
Taiwan		4.9%	12.4%	27.8%
Korea		3.5%	1.6%	14.2%
Brazil		1.4%	-7.4%	27.0%
Saudi Arabia		1.2%	4.7%	15.8%
South Africa		0.8%	-6.8%	-4.9%
Mexico		0.8%	0.5%	17.7%
Indonesia		0.5%	2.1%	3.4%
Thailand		0.4%	-8.2%	-16.4%
Malaysia		0.4%	3.0%	3.1%
United Arab Emirates		0.3%	0.4%	9.2%
Poland		0.3%	3.5%	55.3%
Qatar		0.2%	-3.6%	-1.4%
Kuwait		0.2%	8.3%	4.1%
Turkey		0.2%	14.6%	19.3%
Philippines		0.2%	6.1%	7.2%
Chile		0.1%	-4.5%	-5.9%
Greece		0.1%	6.5%	37.4%
Peru		0.1%	15.8%	46.2%
Hungary		0.1%	0.5%	47.4%
Czech Republic		0.0%	-7.7%	-7.6%
Colombia		0.0%	14.2%	48.3%
Egypt		0.0%	-29.7%	3.2%
<b>Total Emerging Countries</b>		<b>27.9%</b>	<b>2.4%</b>	<b>8.2%</b>
<b>Total ACWixUS Countries</b>		<b>100.0%</b>	<b>4.7%</b>	<b>13.3%</b>

Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)

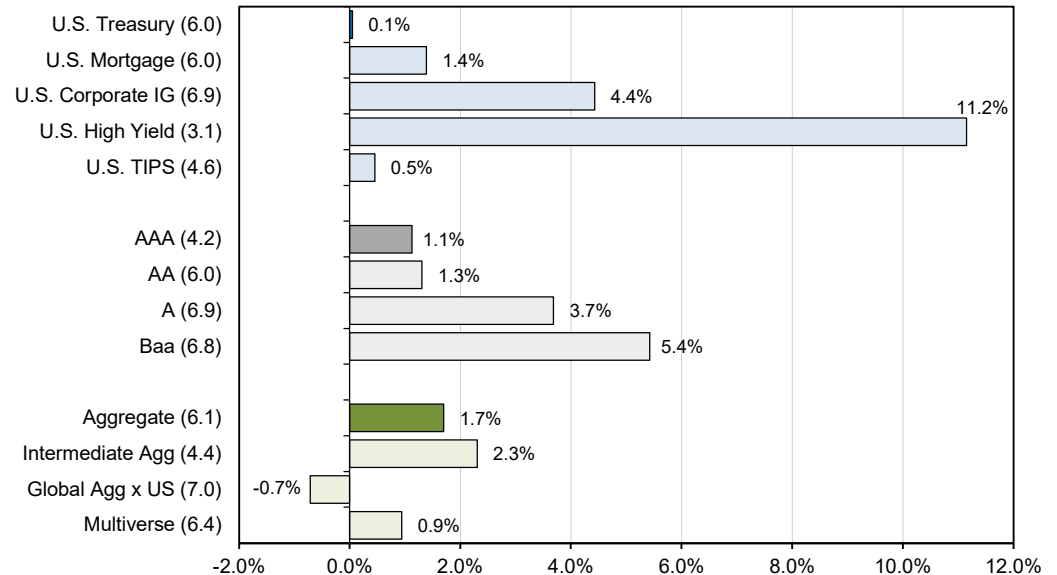
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency, post creation of the Communication Services sector.

- Fixed-income markets pulled back slightly to start the year with many domestic and international bond indexes finishing modestly lower during the quarter. Yields remain elevated due to the Federal Reserve's decision to maintain rates at their current levels. While market expectations are that the Fed will eventually begin cutting rates in 2024, which will be a jolt to bond holder performance as yield fall, higher yields and coupon rates on bonds also are also offer an attractive stabilizing, lower-risk benefit for bond allocations in diversified portfolios.
- The Bloomberg US Aggregate Bond Index, the bellwether US investment grade benchmark, returned a mild negative result of -0.8% for the quarter. Performance across the investment grade index's segments finished the period with similar performance with the Bloomberg US Corporate Investment Grade Index returning -0.4% and the US Mortgage Index sliding by -1.0%.
- Outside of the Aggregate index's sub-components, high-yield bonds continued to rise with a return of 1.5% as credit spreads narrowed during the quarter. US TIPS fell -0.8% for the quarter. The Bloomberg Global Aggregate ex-US Index return of -3.2% for the quarter lagged all domestic fixed-income indexes as well as the multiverse benchmark's return of -1.9%.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index climbed 1.7%. The benchmark's sub-components also posted positive performance over the trailing 12 months with the Bloomberg US Corporate Investment Grade Index rising 4.4% and the US Mortgage Index posting a more modest 1.4% return. US TIPS, which are excluded from the aggregate index, rose 0.5% for the year. High-yield corporate bonds, which have a much shorter duration, outpaced their investment grade counterparts with the Bloomberg US High Yield Index posting an equity-like return of 11.2% for the last year.
- Performance for non-US bonds were negative for the trailing year with the Bloomberg Global Aggregate ex-US Index falling by -0.7%. With foreign central banks largely tracking the Fed's tight monetary stance, the negative performance of global bonds is largely attributable to USD strength over the last year.

#### Quarter Performance



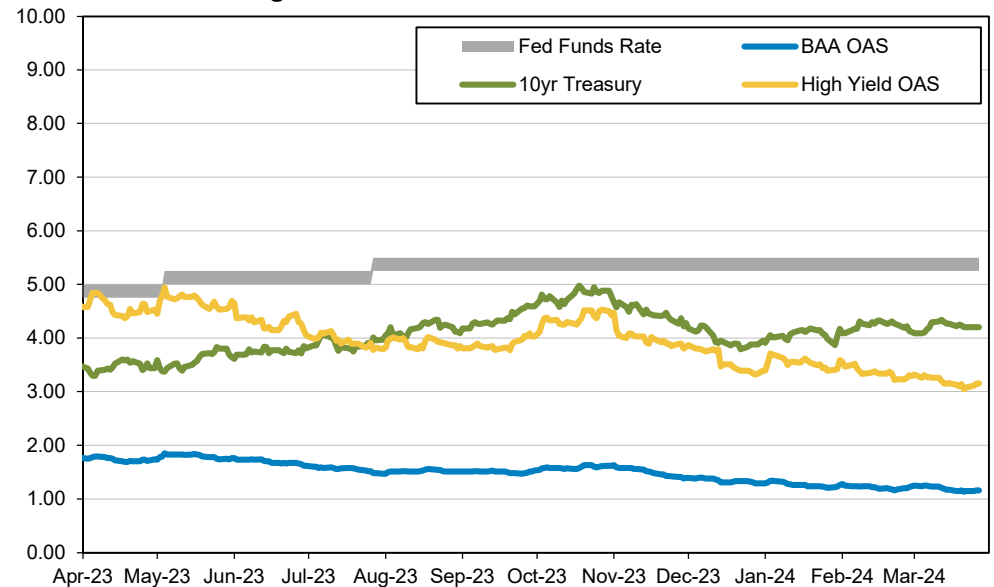
#### 1-Year Performance



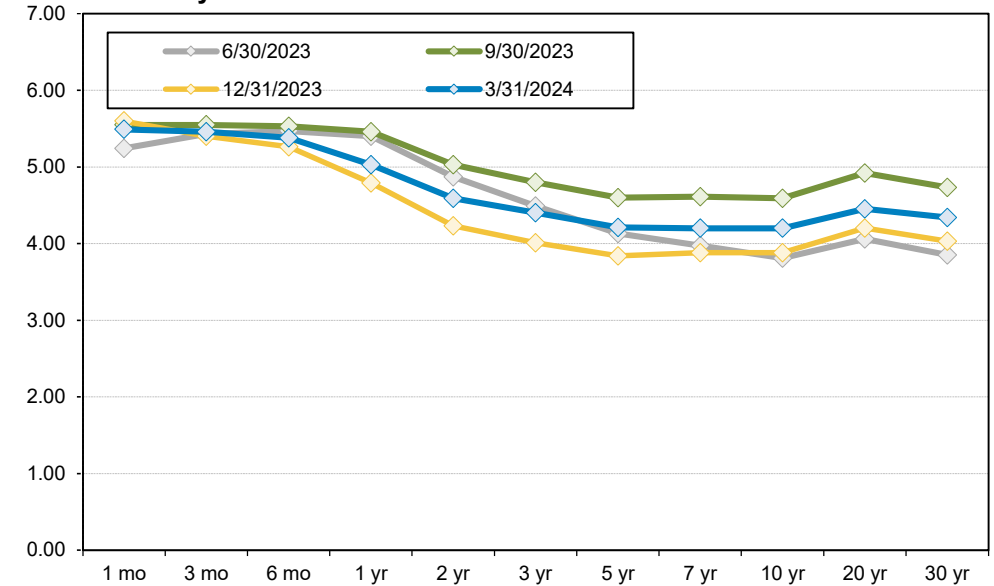
Source: Bloomberg

- The gray band across the graph illustrates the range of the current Fed Funds target rate. During the first quarter, the Federal Open Market Committee (FOMC) continued to hold the rates steady in the 5.25%-5.50% target range. The last rate increase in the current cycle occurred at the FOMC's July 2023 meeting and while their press releases have continued to push economic data-dependent outcomes, subtle press release rewordings since last July have increased the likelihood there will be no additional rate increase in this cycle. With early April's inflation surprise, the CME FedWatch tool, which forecasts rates based on Fed Fund futures pricing, is predicting two 0.25% rate cuts for 2024, with the first occurring in September. Fed officials and market participants have expressed concern about leaving rates at their current levels for an extended period could tip the US economy into a recession, but inflation remains stubbornly elevated and higher rates are the FOMC's primary inflation-fighting tool. Additionally, the FOMC continues to remove liquidity from the market by allowing bonds held on its balance sheet to mature without reinvesting maturity proceeds.
- The yield on the US 10-year Treasury (green line of the top chart) rose modestly, opening at the at 3.88% and finishing the quarter at 4.20%. The 0.32% increase was largely attributable to sticky inflation data released throughout the quarter. The benchmark's rate peaked in October 2023, cresting at just under 5.00% before pulling back in the remainder of the year.
- The blue line in the top chart illustrates changes in the Option Adjusted Spread (OAS) for BAA-rated corporate bonds. This measure quantifies the additional yield premium that investors require to purchase and hold non-US Treasury issues with the lowest investment grade rating. During the quarter, the spread narrowed from 1.29% to 1.17%, which is equivalent to falling rates for BAA bonds. The spread measure has continued to narrow over the trailing 12-month period after concerns about the regional banking sector during March 2023 caused credit spreads to spike. High-yield OAS spreads (represented by the yellow line in the top chart) have also continued to narrow from 3.39% at the end of 2023 to 3.15% at the end of March 2024. This narrowing provided an additional boost to high yield performance.
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. If the anticipated rate cuts materialize in 2024, the yield curve will steepen into a positively sloped yield curve, which is the normal shape of the yield. Historically, a persistent inversion of the yield curve, as measured by the spread between 2 and 10-year Treasuries, has been a precursor of an economic recession within six to 24 months. As of quarter-end, the current yield curve inversion has persisted for 21 months.

**1-Year Trailing Market Rates**



**Treasury Yield Curve**



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

[Fed Minutes Suggest Rate Hikes Are Over, but Offer No Timetable on Cuts - WSJ](#)

[Fed meeting today: Live updates on March Fed rate decision \(cnbc.com\)](#)

[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 \(stlouisfed.org\)](#)

[The quarter in review: what happened in the first three months of 2024? | J.P. Morgan Asset Management \(jpmorgan.com\)](#)

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

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

[The S&P 500 Clinches Best Start to Year Since 2019 - WSJ](#)

[China's Economy Limpes Into 2024 - WSJ](#)

[Support Site - Global Index Lens: Index Returns - MSCI](#)

[Q1 2024 CIO Review and Outlook - Matthews Asia - Commentaries - Advisor Perspectives](#)

[Treasuries Selloff Deepens as Traders Push Back First Rate Cut - Articles - Advisor Perspectives](#)

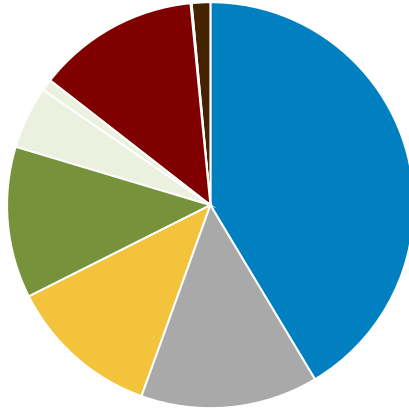
[Federal Reserve issues FOMC statement](#)

# Asset Allocation and Performance At-A-Glance

Total Fund

As of March 31, 2024

## Asset Allocation by Segment Mar-2024 : \$1,044,025,489



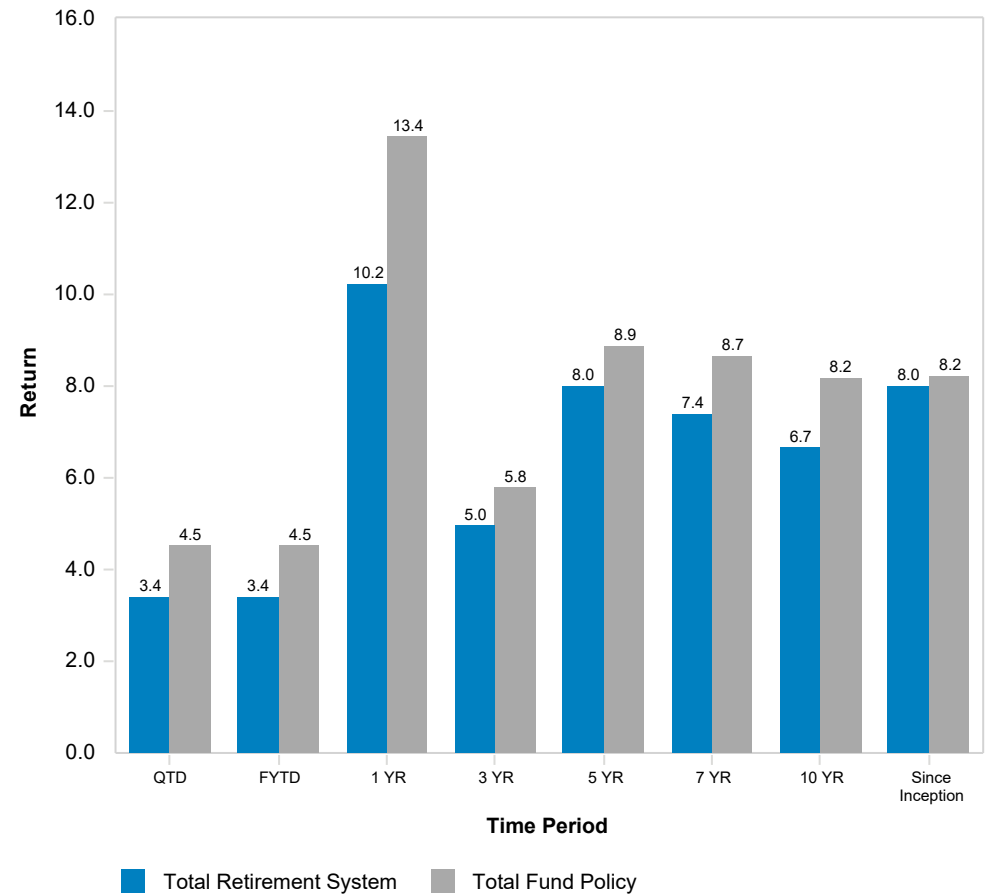
## Allocation

	Market Value	Allocation
Total Domestic Equity	432,307,431	41.4
Total International Equity	147,142,863	14.1
Total Other Equity	126,090,162	12.1
Total Core Fixed Income	126,004,276	12.1
Total Non Core Fixed Income	51,776,043	5.0
Total Other Fixed Income	9,781,088	0.9
Total Real Estate	134,577,375	12.9
Total Timber Funds	886,025	0.1
Cash Account	15,460,226	1.5

## Gain/Loss Summary

	QTD	FYTD	1 YR
Total Retirement System			
Beginning Market Value	1,015,706,092	1,015,706,092	970,798,826
Net Contributions	-6,077,429	-6,077,429	-24,272,608
Return on Investment	35,274,193	35,274,193	100,781,209
Ending Market Value	1,044,025,489	1,044,025,489	1,044,025,489

## Comparative Performance

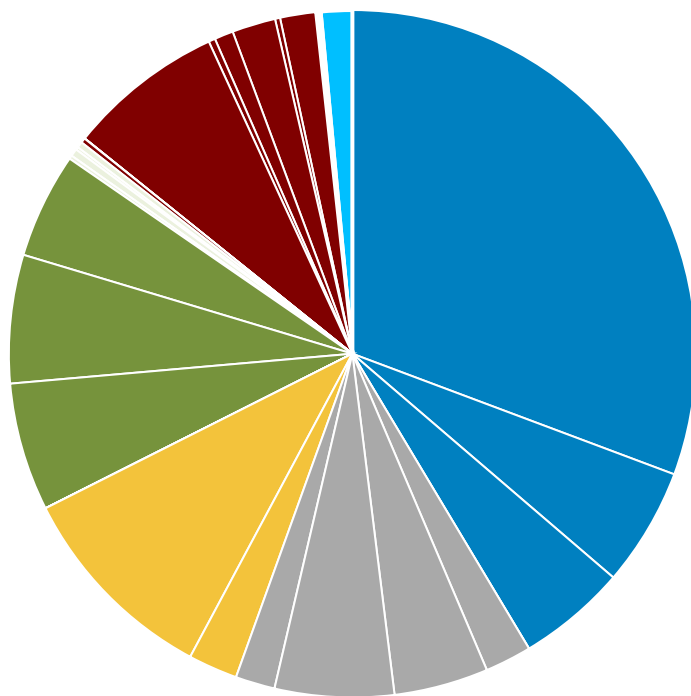


Market values subject to availability from Northern Trust and individual managers.  
All performance data is Net of Fees. Please refer to the end of the report for Investment Pricing Summary and Additional Notes.

# Asset Allocation by Manager Total Fund

As of March 31, 2024

Mar-2024 : \$1,044,025,489

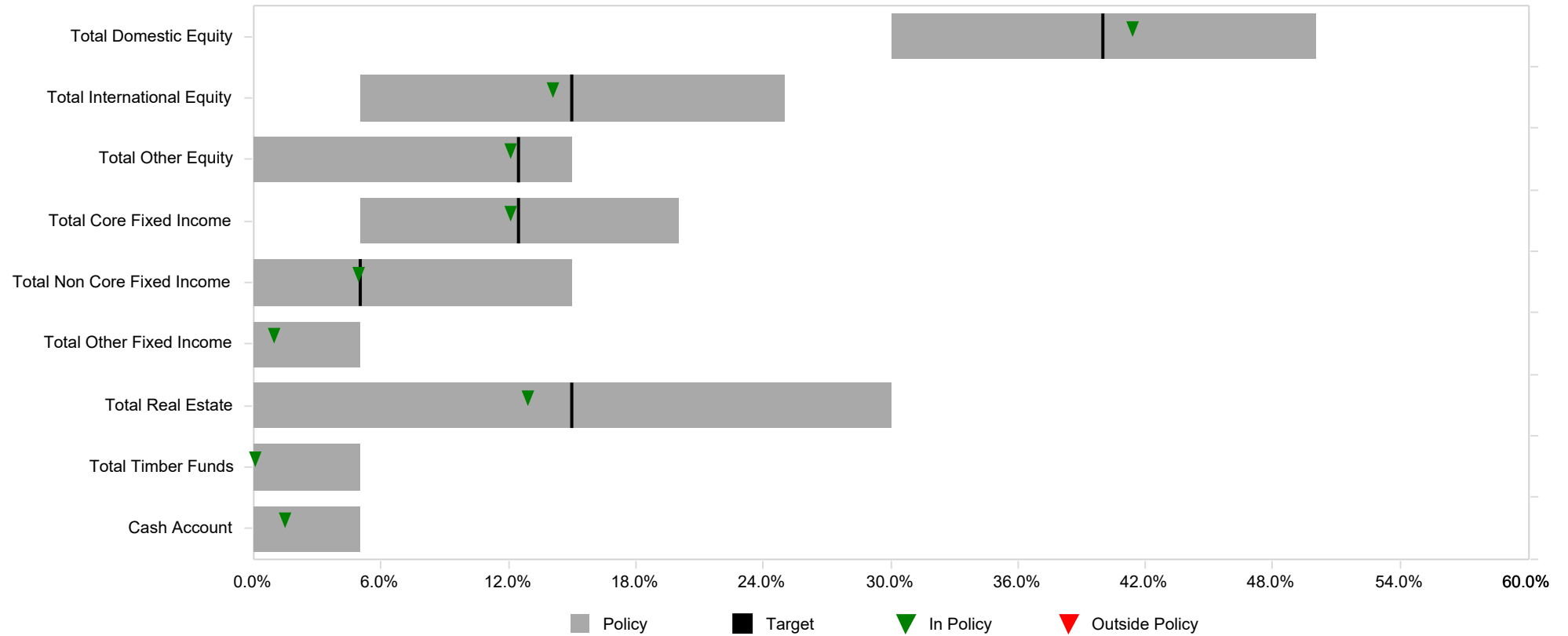


## Allocation

	Market Value	Allocation
NT Collective Russell 3000 Index	320,556,301	30.7
Baird Mid Cap Growth	58,207,861	5.6
Nuance Mid Cap Value	53,541,273	5.1
Kennedy Small Cap Value	1,996	0.0
Driehaus International Small Cap Growth	22,931,683	2.2
WCM Focused Intl Growth LP	46,313,442	4.4
Thompson Siegel & Walmsley	58,484,301	5.6
Wellington Emerging Markets Fund	19,413,438	1.9
Huff Energy Fund	24,253,938	2.3
Franklin Park Private Equity	101,836,224	9.8
Orleans Capital	44,103	0.0
Baird Aggregate Income Bond Fund	62,970,147	6.0
Dodge & Cox Fixed Income Fund	62,990,025	6.0
Pimco Diversified Income Fund	51,776,043	5.0
LBC Credit Partners III	1,760,465	0.2
LBC Credit Partners IV	3,702,671	0.4
Providence Debt Fund III	1,344,083	0.1
Capital Point Partners (Princeton Capital)	2,973,870	0.3
Edison Investments	2,351,775	0.2
India Property Fund	125,024	0.0
Gainesville Property	1	0.0
Morgan Stanley	76,778,793	7.4
AEW Partners Fund VIII	3,218,019	0.3
GreenOak US III	9,271,996	0.9
Brookfield Premier RE Partners	21,419,420	2.1
Artemis Real Estate IV	2,470,935	0.2
Stockbridge Smart Markets	17,240,037	1.7
APRS Building	1,701,375	0.2
Domain Environmental Investments II	886,025	0.1
Cash Account	15,460,226	1.5

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 (%)
<b>Total Retirement System</b>	<b>1,044,025,489</b>	<b>100.0</b>	<b>N/A</b>	<b>N/A</b>	<b>100.0</b>
Total Domestic Equity	432,307,431	41.4	30.0	50.0	40.0
Total International Equity	147,142,863	14.1	5.0	25.0	15.0
Total Other Equity	126,090,162	12.1	0.0	15.0	12.5
Total Core Fixed Income	126,004,276	12.1	5.0	20.0	12.5
Total Non Core Fixed Income	51,776,043	5.0	0.0	15.0	5.0
Total Other Fixed Income	9,781,088	0.9	0.0	5.0	0.0
Total Real Estate	134,577,375	12.9	0.0	30.0	15.0
Total Timber Funds	886,025	0.1	0.0	5.0	0.0
Cash Account	15,460,226	1.5	0.0	5.0	0.0

**Financial Reconciliation**  
**Total Fund**  
**1 Quarter Ending March 31, 2024**

Financial Reconciliation Quarter to Date										
	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 03/31/2024
<b>Total Retirement System</b>	<b>1,015,706,092</b>	<b>-</b>	<b>17,762,125</b>	<b>-23,839,554</b>	<b>-821,555</b>	<b>-55,812</b>	<b>4,830,247</b>	<b>30,443,946</b>	<b>35,274,193</b>	<b>1,044,025,489</b>
<b>Total Equity</b>	<b>670,476,883</b>	<b>-1,633,966</b>	<b>-</b>	<b>-</b>	<b>-557,035</b>	<b>-</b>	<b>787,675</b>	<b>36,466,899</b>	<b>37,254,574</b>	<b>705,540,457</b>
<b>Total Domestic Equity</b>	<b>409,941,879</b>	<b>-5,480,390</b>	<b>-</b>	<b>-</b>	<b>-274,611</b>	<b>-</b>	<b>712,573</b>	<b>27,407,980</b>	<b>28,120,553</b>	<b>432,307,431</b>
NT Collective Russell 3000 Index	237,439,399	58,572,462	-	-	-	-	8	24,544,432	24,544,440	320,556,301
Baird Mid Cap Growth	55,535,501	95,773	-	-	-95,773	-	120,725	2,551,635	2,672,360	58,207,861
Nuance Mid Cap Value	53,248,145	42,776	-	-	-42,776	-	352,686	-59,558	293,128	53,541,273
Kennedy Small Cap Value	63,718,833	-64,191,401	-	-	-136,062	-	239,154	371,471	610,626	1,996
<b>Total International Equity</b>	<b>138,008,843</b>	<b>34,282</b>	<b>-</b>	<b>-</b>	<b>-34,282</b>	<b>-</b>	<b>75,102</b>	<b>9,058,918</b>	<b>9,134,021</b>	<b>147,142,863</b>
Driehaus International Small Cap Growth	21,276,238	-	-	-	-	-	-	1,655,446	1,655,446	22,931,683
Thompson Siegel & Walmsley	56,357,924	-	-	-	-	-	-	2,126,377	2,126,377	58,484,301
WCM Focused Intl Growth LP	41,365,321	-	-	-	-	-	-	4,948,121	4,948,121	46,313,442
Wellington Emerging Markets Fund	19,009,360	34,282	-	-	-34,282	-	75,102	328,975	404,078	19,413,438
<b>Total Other Equity</b>	<b>122,526,162</b>	<b>3,812,142</b>	<b>-</b>	<b>-</b>	<b>-248,142</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>126,090,162</b>
Huff Energy Fund	24,253,938	-	-	-	-	-	-	-	-	24,253,938
Franklin Park Private Equity	98,272,224	3,812,142	-	-	-248,142	-	-	-	-	101,836,224
<b>Total Fixed Income</b>	<b>192,206,203</b>	<b>-4,559,013</b>	<b>-</b>	<b>-</b>	<b>-73,941</b>	<b>-</b>	<b>2,781,374</b>	<b>-2,793,216</b>	<b>-11,842</b>	<b>187,561,407</b>
Baird Aggregate Income Bond Fund	-	62,893,324	-	-	-	-	205,412	-128,589	76,823	62,970,147
Dodge & Cox Fixed Income Fund	-	62,893,324	-	-	-	-	645,959	-549,257	96,701	62,990,025
Orleans Capital	130,768,314	-129,872,565	-	-	-73,941	-	1,232,325	-2,010,030	-777,705	44,103
Pimco Diversified Income Fund	51,093,840	-	-	-	-	-	624,790	57,414	682,203	51,776,043
<b>Total Other Fixed Income</b>	<b>10,344,050</b>	<b>-473,096</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>72,888</b>	<b>-162,753</b>	<b>-89,865</b>	<b>9,781,088</b>
Capital Point Partners (Princeton Capital)	3,063,735	-	-	-	-	-	-	-89,865	-89,865	2,973,870
LBC Credit Partners III	1,760,465	-	-	-	-	-	-	-	-	1,760,465
LBC Credit Partners IV	3,836,436	-133,765	-	-	-	-	52,857	-52,857	-	3,702,671
Providence Debt Fund III	1,683,414	-339,331	-	-	-	-	20,031	-20,031	-	1,344,083

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



## Financial Reconciliation

## Total Fund

1 Quarter Ending March 31, 2024

	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 03/31/2024
<b>Total Real Estate &amp; Timber</b>	<b>136,869,696</b>	<b>1,040,317</b>	-	-	<b>-190,579</b>	<b>-13,627</b>	<b>987,329</b>	<b>-3,229,737</b>	<b>-2,242,408</b>	<b>135,463,400</b>
<b>Total Real Estate</b>	<b>135,983,696</b>	<b>1,040,317</b>	-	-	<b>-190,579</b>	<b>-13,627</b>	<b>987,329</b>	<b>-3,229,762</b>	<b>-2,242,433</b>	<b>134,577,375</b>
Edison Investments	2,342,426	-8,537	-	-	-	-	8,537	9,349	17,886	2,351,775
India Property Fund	125,024	-	-	-	-	-	-	-	-	125,024
Gainesville Property	1	-	-	-	-	-	-	-	-	1
Morgan Stanley	77,825,160	-	-	-	-	-	768,931	-1,815,298	-1,046,367	76,778,793
AEW Partners Fund VIII	3,218,019	-	-	-	-	-	-	-	-	3,218,019
GreenOak US III	8,891,678	380,318	-	-	-	-	-	-	-	9,271,996
Brookfield Premier Real Estate Partners	22,570,516	-	-	-	-	-	-	-1,151,096	-1,151,096	21,419,420
Artemis Real Estate IV	1,966,437	668,536	-	-	-150,411	-13,627	-	-	-	2,470,935
Stockbridge Smart Markets	17,343,061	-	-	-	-40,168	-	209,861	-272,717	-62,855	17,240,037
APRS Building	1,701,375	-	-	-	-	-	-	-	-	1,701,375
<b>Total Timber Funds</b>	<b>886,000</b>	-	-	-	-	-	-	<b>25</b>	<b>25</b>	<b>886,025</b>
Domain Environmental Investments II	886,000	-	-	-	-	-	-	25	25	886,025
<b>Cash Account</b>	<b>16,153,309</b>	<b>5,152,662</b>	<b>17,762,125</b>	<b>-23,839,554</b>	-	<b>-42,185</b>	<b>273,869</b>	-	<b>273,869</b>	<b>15,460,226</b>

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

## Financial Reconciliation

## Total Fund

Year To Date Ending March 31, 2024

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 03/31/2024
<b>Total Retirement System</b>	<b>1,015,706,092</b>	<b>-</b>	<b>17,762,125</b>	<b>-23,839,554</b>	<b>-821,555</b>	<b>-55,812</b>	<b>4,830,247</b>	<b>30,443,946</b>	<b>35,274,193</b>	<b>1,044,025,489</b>
<b>Total Equity</b>	<b>670,476,883</b>	<b>-1,633,966</b>	<b>-</b>	<b>-</b>	<b>-557,035</b>	<b>-</b>	<b>787,675</b>	<b>36,466,899</b>	<b>37,254,574</b>	<b>705,540,457</b>
<b>Total Domestic Equity</b>	<b>409,941,879</b>	<b>-5,480,390</b>	<b>-</b>	<b>-</b>	<b>-274,611</b>	<b>-</b>	<b>712,573</b>	<b>27,407,980</b>	<b>28,120,553</b>	<b>432,307,431</b>
NT Collective Russell 3000 Index	237,439,399	58,572,462	-	-	-	-	8	24,544,432	24,544,440	320,556,301
Baird Mid Cap Growth	55,535,501	95,773	-	-	-95,773	-	120,725	2,551,635	2,672,360	58,207,861
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Kennedy Small Cap Value	63,718,833	-64,191,401	-	-	-136,062	-	239,154	371,471	610,626	1,996
<b>Total International Equity</b>	<b>138,008,843</b>	<b>34,282</b>	<b>-</b>	<b>-</b>	<b>-34,282</b>	<b>-</b>	<b>75,102</b>	<b>9,058,918</b>	<b>9,134,021</b>	<b>147,142,863</b>
Driehaus International Small Cap Growth	21,276,238	-	-	-	-	-	-	1,655,446	1,655,446	22,931,683
Thompson Siegel & Walmsley	56,357,924	-	-	-	-	-	-	2,126,377	2,126,377	58,484,301
WCM Focused Intl Growth LP	41,365,321	-	-	-	-	-	-	4,948,121	4,948,121	46,313,442
Wellington Emerging Markets Fund	19,009,360	34,282	-	-	-34,282	-	75,102	328,975	404,078	19,413,438
<b>Total Other Equity</b>	<b>122,526,162</b>	<b>3,812,142</b>	<b>-</b>	<b>-</b>	<b>-248,142</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>126,090,162</b>
Huff Energy Fund	24,253,938	-	-	-	-	-	-	-	-	24,253,938
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<b>Total Fixed Income</b>	<b>192,206,203</b>	<b>-4,559,013</b>	<b>-</b>	<b>-</b>	<b>-73,941</b>	<b>-</b>	<b>2,781,374</b>	<b>-2,793,216</b>	<b>-11,842</b>	<b>187,561,407</b>
Baird Aggregate Income Bond Fund	-	62,893,324	-	-	-	-	205,412	-128,589	76,823	62,970,147
Dodge & Cox Fixed Income Fund	-	62,893,324	-	-	-	-	645,959	-549,257	96,701	62,990,025
Orleans Capital	130,768,314	-129,872,565	-	-	-73,941	-	1,232,325	-2,010,030	-777,705	44,103
Pimco Diversified Income Fund	51,093,840	-	-	-	-	-	624,790	57,414	682,203	51,776,043
<b>Total Other Fixed Income</b>	<b>10,344,050</b>	<b>-473,096</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>72,888</b>	<b>-162,753</b>	<b>-89,865</b>	<b>9,781,088</b>
Capital Point Partners (Princeton Capital)	3,063,735	-	-	-	-	-	-	-89,865	-89,865	2,973,870
LBC Credit Partners III	1,760,465	-	-	-	-	-	-	-	-	1,760,465
LBC Credit Partners IV	3,836,436	-133,765	-	-	-	-	52,857	-52,857	-	3,702,671
Providence Debt Fund III	1,683,414	-339,331	-	-	-	-	20,031	-20,031	-	1,344,083

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

## Financial Reconciliation

## Total Fund

Year To Date Ending March 31, 2024

	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 03/31/2024
<b>Total Real Estate &amp; Timber</b>	<b>136,869,696</b>	<b>1,040,317</b>	-	-	<b>-190,579</b>	<b>-13,627</b>	<b>987,329</b>	<b>-3,229,737</b>	<b>-2,242,408</b>	<b>135,463,400</b>
<b>Total Real Estate</b>	<b>135,983,696</b>	<b>1,040,317</b>	-	-	<b>-190,579</b>	<b>-13,627</b>	<b>987,329</b>	<b>-3,229,762</b>	<b>-2,242,433</b>	<b>134,577,375</b>
Edison Investments	2,342,426	-8,537	-	-	-	-	8,537	9,349	17,886	2,351,775
India Property Fund	125,024	-	-	-	-	-	-	-	-	125,024
Gainesville Property	1	-	-	-	-	-	-	-	-	1
Morgan Stanley	77,825,160	-	-	-	-	-	768,931	-1,815,298	-1,046,367	76,778,793
AEW Partners Fund VIII	3,218,019	-	-	-	-	-	-	-	-	3,218,019
GreenOak US III	8,891,678	380,318	-	-	-	-	-	-	-	9,271,996
Brookfield Premier Real Estate Partners	22,570,516	-	-	-	-	-	-	-1,151,096	-1,151,096	21,419,420
Artemis Real Estate IV	1,966,437	668,536	-	-	-150,411	-13,627	-	-	-	2,470,935
Stockbridge Smart Markets	17,343,061	-	-	-	-40,168	-	209,861	-272,717	-62,855	17,240,037
APRS Building	1,701,375	-	-	-	-	-	-	-	-	1,701,375
<b>Total Timber Funds</b>	<b>886,000</b>	-	-	-	-	-	-	<b>25</b>	<b>25</b>	<b>886,025</b>
Domain Environmental Investments II	886,000	-	-	-	-	-	-	25	25	886,025
<b>Cash Account</b>	<b>16,153,309</b>	<b>5,152,662</b>	<b>17,762,125</b>	<b>-23,839,554</b>	-	<b>-42,185</b>	<b>273,869</b>	-	<b>273,869</b>	<b>15,460,226</b>

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

# Comparative Performance

## Total Fund

As of March 31, 2024

### Comparative Performance Trailing Returns

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
<b>Total Retirement System (Net)</b>	<b>3.39</b>	<b>3.39</b>	<b>10.22</b>	<b>4.95</b>	<b>8.01</b>	<b>7.39</b>	<b>6.66</b>	<b>8.02</b>	<b>10/01/1992</b>
<b>Total Retirement System (Gross)</b>	<b>3.48 (83)</b>	<b>3.48 (83)</b>	<b>10.55 (83)</b>	<b>5.20 (27)</b>	<b>8.28 (39)</b>	<b>7.66 (56)</b>	<b>6.92 (58)</b>	<b>8.33 (21)</b>	<b>10/01/1992</b>
Total Fund Policy	4.54	4.54	13.44	5.76	8.88	8.67	8.16	8.23	
Variance	-1.06	-1.06	-2.89	-0.56	-0.60	-1.01	-1.24	0.10	
All Public Plans-Total Fund Median	4.68	4.68	13.30	4.43	7.98	7.78	7.12	7.87	
<b>Total Equity</b>	<b>5.50</b>	<b>5.50</b>	<b>16.78</b>	<b>6.78</b>	<b>10.94</b>	<b>10.04</b>	<b>8.67</b>	<b>9.05</b>	<b>01/01/1994</b>
Total Equity Policy	8.95	8.95	25.87	8.76	12.79	11.95	10.37	9.04	
Variance	-3.45	-3.45	-9.09	-1.98	-1.85	-1.91	-1.70	0.01	
<b>Domestic Equity</b>	<b>6.91 (72)</b>	<b>6.91 (72)</b>	<b>21.57 (61)</b>	<b>7.10 (58)</b>	<b>12.34 (49)</b>	<b>11.31 (51)</b>	<b>10.25 (53)</b>	<b>11.24 (63)</b>	<b>05/01/2013</b>
Russell 3000 Index	10.02	10.02	29.29	9.78	14.34	13.45	12.33	13.16	
Variance	-3.11	-3.11	-7.72	-2.68	-2.00	-2.14	-2.08	-1.92	
IM U.S. Equity (SA+CF+MF) Median	9.01	9.01	23.79	8.19	12.21	11.33	10.40	11.99	
NT Collective Russell 3000 Index	10.01 (46)	10.01 (46)	29.29 (43)	9.79 (45)	14.34 (46)	13.46 (42)	12.34 (38)	12.24 (35)	01/01/2014
Russell 3000 Index	10.02	10.02	29.29	9.78	14.34	13.45	12.33	12.22	
Variance	-0.01	-0.01	0.00	0.01	0.00	0.01	0.01	0.02	
IM U.S. All Cap Core Equity (SA+CF) Median	9.85	9.85	27.95	9.52	14.15	13.12	11.61	11.70	
Baird Mid Cap Growth	4.63 (100)	4.63 (100)	12.67 (100)	3.20 (45)	11.50 (61)	12.94 (61)	N/A	10.50 (76)	07/01/2014
Russell Midcap Growth Index	9.50	9.50	26.28	4.62	11.82	12.87	11.35	11.17	
Variance	-4.87	-4.87	-13.61	-1.42	-0.32	0.07	N/A	-0.67	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	8.72	8.72	23.56	3.03	12.35	13.21	11.46	11.43	
Nuance Mid Cap Value	0.55 (100)	0.55 (100)	4.68 (100)	3.55 (100)	7.74 (97)	N/A	N/A	7.74 (97)	04/01/2019
Russell Midcap Value Index	8.23	8.23	20.40	6.80	9.94	8.41	8.57	9.94	
Variance	-7.68	-7.68	-15.72	-3.25	-2.20	N/A	N/A	-2.20	
IM U.S. Mid Cap Value Equity (SA+CF) Median	8.54	8.54	23.00	8.84	11.72	9.56	9.57	11.72	

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 March 31, 2024

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
<b>International Equity</b>	<b>6.59 (23)</b>	<b>6.59 (23)</b>	<b>13.22 (51)</b>	<b>0.90 (60)</b>	<b>5.92 (67)</b>	<b>5.26 (76)</b>	<b>3.90 (81)</b>	<b>5.43 (79)</b>	<b>05/01/2013</b>
MSCI AC World ex USA	4.81	4.81	13.83	2.44	6.48	6.38	4.75	5.14	
Variance	1.78	1.78	-0.61	-1.54	-0.56	-1.12	-0.85	0.29	
IM International Equity (SA+CF+MF) Median	4.74	4.74	13.30	2.30	7.21	6.84	5.32	6.51	
Driehaus International Small Cap Growth	7.78 (6)	7.78 (6)	16.99 (10)	-0.21 (37)	9.17 (1)	9.57 (2)	7.36 (1)	9.68 (5)	09/01/2012
MSCI AC World ex USA Small Growth	1.88	1.88	10.34	-2.20	6.06	6.04	5.08	6.96	
Variance	5.90	5.90	6.65	1.99	3.11	3.53	2.28	2.72	
IM International SMID Cap Growth Equity (MF) Median	3.02	3.02	9.00	-1.21	5.17	5.21	4.32	6.73	
Thompson Siegel & Walmsley	3.77 (89)	3.77 (89)	11.78 (81)	3.60 (60)	7.20 (66)	5.73 (93)	N/A	4.80 (94)	10/01/2014
MSCI EAFE (Net) Index	5.78	5.78	15.32	4.78	7.33	6.70	4.80	5.28	
Variance	-2.01	-2.01	-3.54	-1.18	-0.13	-0.97	N/A	-0.48	
IM International Large Cap Core Equity (SA+CF) Median	6.02	6.02	15.48	4.07	7.78	7.36	5.69	6.15	
WCM Focused Intl Growth LP	11.96 (7)	11.96 (7)	18.30 (12)	3.09 (26)	N/A	N/A	N/A	4.49 (34)	12/01/2020
MSCI AC World ex USA Growth (Net)	5.91	5.91	11.22	-0.76	6.24	6.69	5.12	0.83	
Variance	6.05	6.05	7.08	3.85	N/A	N/A	N/A	3.66	
IM International Large Cap Growth Equity (MF) Median	6.85	6.85	12.49	1.82	7.25	6.99	5.12	3.64	
Wellington Emerging Markets Fund	1.94 (68)	1.94 (68)	2.73 (87)	-8.55 (87)	N/A	N/A	N/A	-0.90 (93)	02/01/2020
MSCI Emerging Markets (Net) Index	2.37	2.37	8.15	-5.05	2.22	3.72	2.95	2.01	
Variance	-0.43	-0.43	-5.42	-3.50	N/A	N/A	N/A	-2.91	
IM Emerging Markets Equity (SA+CF) Median	3.06	3.06	10.61	-2.82	4.20	5.10	4.54	4.09	
<b>Total Other Equity</b>	<b>-0.20</b>	<b>-0.20</b>	<b>5.75</b>	<b>21.47</b>	<b>9.53</b>	<b>8.64</b>	<b>N/A</b>	<b>7.04</b>	<b>01/01/2017</b>
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 March 31, 2024

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
<b>Total Fixed Income</b>	<b>-0.01</b>	<b>-0.01</b>	<b>4.59</b>	<b>-0.78</b>	<b>0.41</b>	<b>0.94</b>	<b>1.13</b>	<b>5.65</b>	<b>12/01/1993</b>
Total Fixed Income Policy	-0.70	-0.70	2.73	-2.81	0.16	0.99	1.07	4.15	
Variance	0.69	0.69	1.86	2.03	0.25	-0.05	0.06	1.50	
<b>Total Core Fixed Income</b>	<b>-0.47</b>	<b>-0.47</b>	<b>2.68</b>	<b>-2.39</b>	<b>0.39</b>	<b>1.14</b>	<b>1.63</b>	<b>0.84</b>	<b>05/01/2013</b>
Blmbg. U.S. Aggregate Index	-0.78	-0.78	1.70	-2.46	0.36	1.06	1.54	1.31	
Variance	0.31	0.31	0.98	0.07	0.03	0.08	0.09	-0.47	
Baird Aggregate Income Bond Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2024
Blmbg. U.S. Aggregate Index	-0.78	-0.78	1.70	-2.46	0.36	1.06	1.54	N/A	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.53	-0.53	2.08	-2.54	0.47	1.09	1.52	N/A	
Dodge & Cox Fixed Income Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2024
Blmbg. U.S. Aggregate Index	-0.78	-0.78	1.70	-2.46	0.36	1.06	1.54	N/A	
Variance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.53	-0.53	2.08	-2.54	0.47	1.09	1.52	N/A	
Pimco Diversified Income Fund	1.34 (7)	1.34 (7)	9.03 (4)	-0.28 (15)	N/A	N/A	N/A	0.98 (10)	07/01/2020
Blmbg. Global Credit (Hedged)	0.40	0.40	6.63	-1.05	1.65	2.34	2.89	-0.22	
Variance	0.94	0.94	2.40	0.77	N/A	N/A	N/A	1.20	
IM Global Fixed Income (MF) Median	-0.35	-0.35	3.35	-2.33	0.25	0.92	0.96	-1.56	
<b>Total Other Fixed Income</b>	<b>-0.87</b>	<b>-0.87</b>	<b>6.81</b>	<b>6.77</b>	<b>5.33</b>	<b>4.87</b>	<b>N/A</b>	<b>4.14</b>	<b>01/01/2017</b>
Capital Point Partners (Princeton Capital)									
LBC Credit Partners III									
LBC Credit Partners IV									
Providence Debt Fund III									

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# Comparative Performance

## Total Fund

As of March 31, 2024

	Performance (%)								
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
<b>Alternative Investments</b>									
<b>Other Assets</b>									
Cash Account	1.32	1.32	5.21	2.54	1.92	1.79	1.29	4.15	06/01/1988
<b>Other Alternative Assets</b>									
Total Real Estate	-1.78	-1.78	-9.29	4.81	4.14	4.09	6.36	3.98	08/01/2005
NCREIF Property Index	-0.98	-0.98	-7.16	3.63	3.76	4.67	6.41	6.95	
Variance	-0.80	-0.80	-2.13	1.18	0.38	-0.58	-0.05	-2.97	
Morgan Stanley	-1.34	-1.34	-5.89	5.55	4.93	5.80	N/A	6.27	01/01/2016
NCREIF Fund Index-ODCE (EW)	-2.38	-2.38	-12.33	2.81	2.98	4.12	6.15	4.70	
Variance	1.04	1.04	6.44	2.74	1.95	1.68	N/A	1.57	
Brookfield Premier Real Estate Partners	-5.10	-5.10	-20.59	0.96	N/A	N/A	N/A	1.66	11/01/2019
NCREIF Fund Index-ODCE (EW)	-2.38	-2.38	-12.33	2.81	2.98	4.12	6.15	2.85	
Variance	-2.72	-2.72	-8.26	-1.85	N/A	N/A	N/A	-1.19	
Stockbridge Smart Markets	-0.59	-0.59	-8.28	N/A	N/A	N/A	N/A	-8.34	08/01/2022
NCREIF Fund Index-ODCE (EW)	-2.38	-2.38	-12.33	2.81	2.98	4.12	6.15	-11.93	
Variance	1.79	1.79	4.05	N/A	N/A	N/A	N/A	3.59	
Total Timber Funds	0.00	0.00	-13.82	-0.55	0.56	0.68	0.44	1.42	08/01/2005
NCREIF Timberland Index	2.12	2.12	9.85	10.99	7.04	5.90	5.83	6.79	
Variance	-2.12	-2.12	-23.67	-11.54	-6.48	-5.22	-5.39	-5.37	

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 March 31, 2024

### Comparative Performance Fiscal Year Returns

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
<b>Total Retirement System (Net)</b>	<b>3.39</b>	<b>11.50</b>	<b>-11.54</b>	<b>17.68</b>	<b>11.65</b>	<b>20.92</b>	<b>-6.18</b>	<b>11.89</b>	<b>7.67</b>
<b>Total Retirement System (Gross)</b>	<b>3.48 (83)</b>	<b>11.82 (63)</b>	<b>-11.36 (29)</b>	<b>17.86 (11)</b>	<b>11.99 (61)</b>	<b>21.23 (15)</b>	<b>-5.95 (87)</b>	<b>12.17 (91)</b>	<b>7.87 (43)</b>
Total Fund Policy	4.54	13.74	-11.69	16.63	13.40	19.81	-3.12	15.79	8.04
Variance	-1.06	-1.92	0.33	1.23	-1.41	1.42	-2.83	-3.62	-0.17
All Public Plans-Total Fund Median	4.68	12.69	-12.96	14.04	12.76	18.74	-4.16	15.10	7.55
<b>Total Equity</b>	<b>5.50</b>	<b>17.99</b>	<b>-15.13</b>	<b>21.06</b>	<b>15.97</b>	<b>29.88</b>	<b>-9.83</b>	<b>18.49</b>	<b>11.41</b>
Total Equity Policy	8.95	24.12	-17.82	22.48	17.62	29.04	-7.34	22.07	9.61
Variance	-3.45	-6.13	2.69	-1.42	-1.65	0.84	-2.49	-3.58	1.80
<b>Domestic Equity</b>	<b>6.91 (72)</b>	<b>20.43 (43)</b>	<b>-18.31 (58)</b>	<b>24.49 (56)</b>	<b>19.11 (42)</b>	<b>31.15 (36)</b>	<b>-7.18 (54)</b>	<b>17.39 (59)</b>	<b>15.76 (36)</b>
Russell 3000 Index	10.02	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74
Variance	-3.11	-5.53	0.90	-1.17	-1.78	0.13	-1.94	-3.74	3.02
IM U.S. Equity (SA+CF+MF) Median	9.01	18.56	-16.40	25.60	15.39	28.76	-6.58	19.25	12.53
NT Collective Russell 3000 Index	10.01 (46)	25.95 (35)	-19.15 (77)	25.68 (57)	20.83 (41)	31.02 (35)	-5.23 (54)	21.15 (48)	12.79 (37)
Russell 3000 Index	10.02	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74
Variance	-0.01	-0.01	0.06	0.02	-0.06	0.00	0.01	0.02	0.05
IM U.S. All Cap Core Equity (SA+CF) Median	9.85	22.90	-17.15	26.27	18.60	29.22	-5.10	20.92	10.91
Baird Mid Cap Growth	4.63 (100)	19.92 (76)	-27.51 (51)	21.76 (9)	35.15 (57)	36.27 (50)	-1.60 (34)	26.98 (36)	5.35 (50)
Russell Midcap Growth Index	9.50	25.87	-26.72	12.73	35.59	35.47	-4.75	25.27	7.33
Variance	-4.87	-5.95	-0.79	9.03	-0.44	0.80	3.15	1.71	-1.98
IM U.S. Mid Cap Growth Equity (SA+CF) Median	8.72	23.41	-27.43	13.70	38.03	36.20	-4.23	25.96	5.34
Nuance Mid Cap Value	0.55 (100)	7.65 (92)	-3.68 (18)	12.23 (100)	5.24 (45)	N/A	N/A	N/A	N/A
Russell Midcap Value Index	8.23	12.71	-12.03	28.34	4.96	27.06	-12.29	13.34	20.00
Variance	-7.68	-5.06	8.35	-16.11	0.28	N/A	N/A	N/A	N/A
IM U.S. Mid Cap Value Equity (SA+CF) Median	8.54	14.19	-8.48	29.45	4.69	29.18	-13.36	15.65	19.53

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Comparative Performance

Total Fund

As of March 31, 2024

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
<b>International Equity</b>	<b>6.59 (23)</b>	<b>14.38 (67)</b>	<b>-21.97 (70)</b>	<b>11.90 (38)</b>	<b>12.54 (55)</b>	<b>20.92 (69)</b>	<b>-16.28 (65)</b>	<b>27.37 (65)</b>	<b>0.67 (70)</b>
MSCI AC World ex USA	4.81	16.21	-15.57	8.29	11.13	22.13	-13.78	27.77	5.01
Variance	1.78	-1.83	-6.40	3.61	1.41	-1.21	-2.50	-0.40	-4.34
IM International Equity (SA+CF+MF) Median	4.74	16.57	-17.67	10.20	14.09	23.42	-14.91	29.71	2.83
Driehaus International Small Cap Growth	7.78 (6)	12.79 (59)	-24.34 (45)	12.49 (49)	29.79 (17)	30.57 (11)	-16.92 (32)	41.19 (6)	-6.24 (89)
MSCI AC World ex USA Small Growth	1.88	14.47	-25.85	11.83	23.99	24.96	-18.07	33.99	-0.04
Variance	5.90	-1.68	1.51	0.66	5.80	5.61	1.15	7.20	-6.20
IM International SMID Cap Growth Equity (MF) Median	3.02	13.44	-25.76	12.40	14.79	24.29	-19.24	34.22	-0.76
Thompson Siegel & Walmsley	3.77 (89)	16.52 (69)	-13.89 (31)	13.82 (29)	6.62 (81)	21.18 (71)	-15.93 (74)	22.70 (93)	0.47 (65)
MSCI EAFE (Net) Index	5.78	18.24	-14.45	11.26	7.82	22.01	-13.79	25.03	1.00
Variance	-2.01	-1.72	0.56	2.56	-1.20	-0.83	-2.14	-2.33	-0.53
IM International Large Cap Core Equity (SA+CF) Median	6.02	18.09	-15.93	11.97	11.76	23.61	-14.32	27.86	1.71
WCM Focused Intl Growth LP	11.96 (7)	16.68 (30)	-28.63 (88)	17.64 (3)	N/A	N/A	N/A	N/A	N/A
MSCI AC World ex USA Growth (Net)	5.91	14.03	-23.05	5.09	22.20	27.34	-14.43	32.01	0.12
Variance	6.05	2.65	-5.58	12.55	N/A	N/A	N/A	N/A	N/A
IM International Large Cap Growth Equity (MF) Median	6.85	15.54	-20.24	8.88	20.00	27.50	-14.67	28.61	-1.94
Wellington Emerging Markets Fund	1.94 (68)	4.86 (89)	-24.51 (78)	-2.23 (64)	N/A	N/A	N/A	N/A	N/A
MSCI Emerging Markets (Net) Index	2.37	9.83	-20.09	-2.54	18.31	18.42	-14.57	37.28	11.19
Variance	-0.43	-4.97	-4.42	0.31	N/A	N/A	N/A	N/A	N/A
IM Emerging Markets Equity (SA+CF) Median	3.06	12.87	-19.54	0.94	18.29	20.15	-15.20	36.95	10.07
<b>Total Other Equity</b>	<b>-0.20</b>	<b>14.39</b>	<b>26.45</b>	<b>13.85</b>	<b>-5.66</b>	<b>65.17</b>	<b>-22.42</b>	<b>-17.60</b>	<b>N/A</b>
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 March 31, 2024

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
<b>Total Fixed Income</b>	<b>-0.01</b>	<b>6.94</b>	<b>-11.28</b>	<b>1.69</b>	<b>4.10</b>	<b>4.08</b>	<b>0.06</b>	<b>2.86</b>	<b>4.36</b>
Total Fixed Income Policy	-0.70	6.70	-14.66	-2.05	8.28	7.93	-0.66	5.60	2.77
Variance	0.69	0.24	3.38	3.74	-4.18	-3.85	0.72	-2.74	1.59
<b>Total Core Fixed Income</b>	<b>-0.47</b>	<b>5.37</b>	<b>-12.93</b>	<b>-1.34</b>	<b>7.21</b>	<b>8.80</b>	<b>-0.24</b>	<b>3.87</b>	<b>3.79</b>
Blmbg. U.S. Aggregate Index	-0.78	5.53	-13.01	-1.55	7.51	8.72	0.01	3.54	2.65
Variance	0.31	-0.16	0.08	0.21	-0.30	0.08	-0.25	0.33	1.14
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	-0.78	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
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.53	5.77	-13.66	-1.33	8.16	8.76	-0.62	3.60	2.90
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	-0.78	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
IM U.S. Broad Market Core Fixed Income (MF) Median	-0.53	5.77	-13.66	-1.33	8.16	8.76	-0.62	3.60	2.90
Pimco Diversified Income Fund	1.34 (7)	10.41 (4)	-13.81 (50)	0.26 (5)	N/A	N/A	N/A	N/A	N/A
Blmbg. Global Credit (Hedged)	0.40	9.36	-13.75	-0.41	7.53	12.08	-0.81	5.89	7.33
Variance	0.94	1.05	-0.06	0.67	N/A	N/A	N/A	N/A	N/A
IM Global Fixed Income (MF) Median	-0.35	6.74	-14.66	-2.73	8.29	8.08	-1.78	6.82	2.92
<b>Total Other Fixed Income</b>	<b>-0.87</b>	<b>9.04</b>	<b>4.87</b>	<b>12.76</b>	<b>0.48</b>	<b>3.66</b>	<b>1.27</b>	<b>-0.49</b>	<b>N/A</b>
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 March 31, 2024

	Performance (%)								
	YTD	2023	2022	2021	2020	2019	2018	2017	2016
<b>Alternative Investments</b>									
<b>Other Assets</b>									
Cash Account	1.32	4.94	1.38	0.01	0.43	2.11	1.72	0.76	0.27
<b>Other Alternative Assets</b>									
Total Real Estate	-1.78	-9.31	6.27	24.27	-0.45	5.75	5.14	2.90	0.76
NCREIF Property Index	-0.98	-7.94	5.52	17.70	1.60	6.42	6.72	6.96	7.97
Variance	-0.80	-1.37	0.75	6.57	-2.05	-0.67	-1.58	-4.06	-7.21
Morgan Stanley	-1.34	-5.79	6.14	21.48	1.26	6.16	7.96	8.74	9.20
NCREIF Fund Index-ODCE (EW)	-2.38	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	1.04	7.54	-1.42	-0.40	0.51	0.98	0.66	1.82	0.84
Brookfield Premier Real Estate Partners	-5.10	-19.92	10.55	25.66	0.57	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-2.38	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	-2.72	-6.59	2.99	3.78	-0.18	N/A	N/A	N/A	N/A
Stockbridge Smart Markets	-0.59	-9.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-2.38	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36
Variance	1.79	3.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Timber Funds	0.00	-20.21	21.88	6.99	1.43	-1.12	0.13	-3.94	-6.92
NCREIF Timberland Index	2.12	9.45	12.90	9.17	0.81	1.30	3.21	3.63	2.59
Variance	-2.12	-29.66	8.98	-2.18	0.62	-2.42	-3.08	-7.57	-9.51

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 - IRR**  
**Other Alternative Investments**  
As of March 31, 2024

Comparative Performance - IRR									
	Market Value (\$)	MTH	QTR	YTD	1 YR	3 YR	5 YR	Inception IRR	Inception Date
<b>Total Real Estate Investments</b>	<b>134,577,375</b>	<b>-1.73</b>	<b>-1.79</b>	<b>-1.79</b>	<b>-9.32</b>	<b>3.79</b>	<b>3.44</b>	<b>6.05</b>	<b>07/31/2005</b>
Edison Investments	2,351,775	0.77	0.77	0.77	3.30	3.18	3.08	11.91	09/30/1996
India Property Fund	125,024	0.00	0.00	0.00	-6.82	-21.19	-24.80	-8.13	05/24/2007
Gainesville Property	1	0.00	0.00	0.00	23.73	4.02	1.79	-5.47	01/31/2008
Morgan Stanley	76,778,793	-1.34	-1.34	-1.34	-5.87	5.55	4.89	6.04	12/31/2015
AEW Partners Fund VIII	3,218,019	0.00	0.00	0.00	1.54	40.62	21.64	18.75	06/26/2017
GreenOak US III	9,271,996	0.00	0.00	0.00	-18.05	-1.51	-4.63	-5.66	06/22/2018
Brookfield Premier Real Estate Partners	21,419,420	-5.10	-5.10	-5.10	-20.54	0.96	N/A	1.56	10/01/2019
Artemis Real Estate IV	2,470,935	-3.60	-7.25	-7.25	-18.43	N/A	N/A	-27.46	06/23/2022
Stockbridge Smart Markets	17,240,037	-0.59	-0.59	-0.59	-8.25	N/A	N/A	-8.81	07/01/2022
<b>Total Timber Funds</b>	<b>886,025</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-13.42</b>	<b>8.66</b>	<b>1.81</b>	<b>0.14</b>	<b>07/31/2005</b>
Domain Environmental Investments II	886,025	0.00	0.00	0.00	-13.42	-10.41	-8.18	-2.90	04/30/2008
<b>Total Other Equity</b>	<b>126,090,162</b>	<b>0.00</b>	<b>-0.20</b>	<b>-0.20</b>	<b>5.55</b>	<b>18.89</b>	<b>11.82</b>	<b>24.69</b>	<b>01/01/2017</b>
Huff Energy Fund	24,253,938	0.00	0.00	0.00	0.00	53.11	5.94	6.83	12/31/2006
Franklin Park Private Equity	101,836,224	0.00	-0.25	-0.25	7.10	12.92	15.24	14.76	01/31/2018
<b>Total Other Fixed Income</b>	<b>9,781,088</b>	<b>0.00</b>	<b>-0.89</b>	<b>-0.89</b>	<b>7.00</b>	<b>7.28</b>	<b>4.29</b>	<b>N/A</b>	<b>12/21/2016</b>
Capital Point Partners (Princeton Capital)	2,973,870	0.00	-2.93	-2.93	0.25	14.83	-2.05	0.08	03/31/2007
LBC Credit Partners III	1,760,465	0.00	0.00	0.00	8.57	3.08	5.40	7.88	03/07/2014
LBC Credit Partners IV	3,702,671	0.00	0.00	0.00	14.10	7.60	7.41	8.27	09/19/2016
Providence Debt Fund III	1,344,083	0.00	0.00	0.00	2.17	2.79	2.92	6.12	04/21/2014

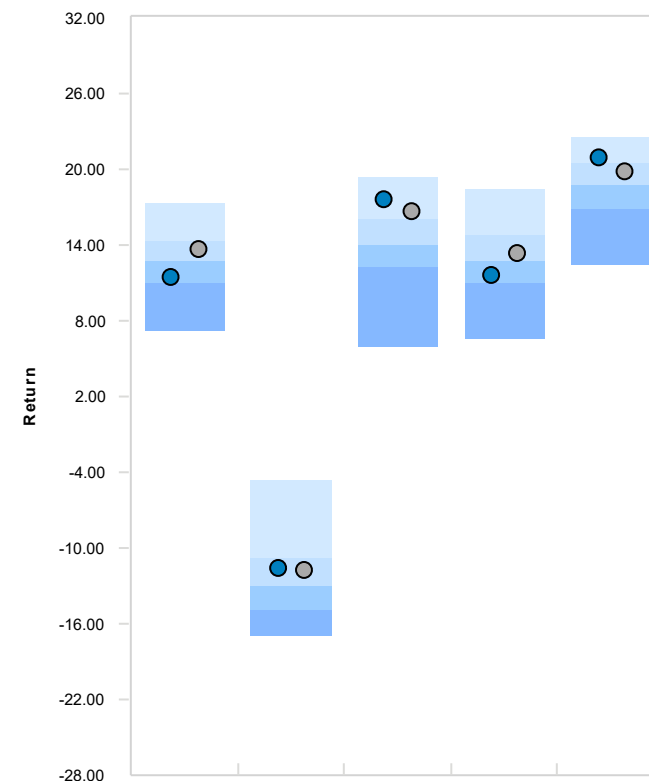
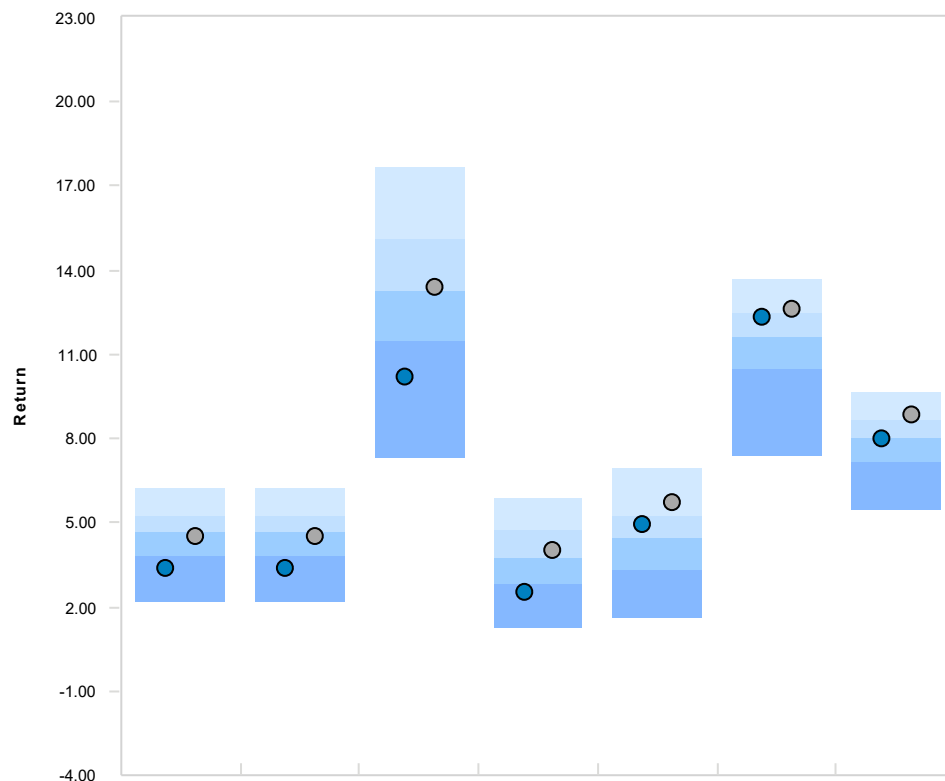
**Summary of Partnerships  
Other Alternative Investments  
As of March 31, 2024**

Private Equity Summary of Partnership					
Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
<b>Total Real Estate Investments</b>					
Edison Investments	8,146,177	2,351,775	20,022,190	11.9	2.7
India Property Fund	4,354,162	125,024	2,388,478	-8.1	0.6
Gainesville Property	5,510,156	1	2,609,488	-5.5	0.5
Morgan Stanley	50,000,000	76,778,793	-	6.0	1.5
AEW Partners Fund VIII	15,381,261	3,218,019	18,907,756	18.7	1.4
GreenOak US III	12,894,098	9,271,996	1,434,323	-5.7	0.8
Brookfield Premier Real Estate Partners	20,000,000	21,419,420	-	1.6	1.1
Artemis Real Estate IV	3,437,218	2,470,935	360,908	-27.5	0.8
Stockbridge Smart Markets	20,000,000	17,240,037	-	-8.8	0.9
<b>Total Timber Investments</b>					
Domain Environmental Investments II	7,623,603	886,025	5,213,231	-2.9	0.8

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

Partnerships	Drawn Down \$	Market Value \$	Distributed \$	IRR (%)	TVPI Multiple
<b>Total Other Equity</b>					
Huff Energy Fund	11,095,509	24,253,938	1,786,358	6.8	2.3
Franklin Park Private Equity	79,642,569	101,836,224	9,040,060	14.8	1.4
<b>Total Other Fixed Income</b>					
Capital Point Partners (Princeton Capital)	12,058,210	2,973,870	9,145,851	0.1	1.0
LBC Credit Partners III	18,851,406	1,760,465	21,616,666	7.9	1.2
LBC Credit Partners IV	18,000,000	3,702,671	18,799,498	8.3	1.3
Providence Debt Fund III	11,128,113	1,344,083	13,020,383	6.1	1.3

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



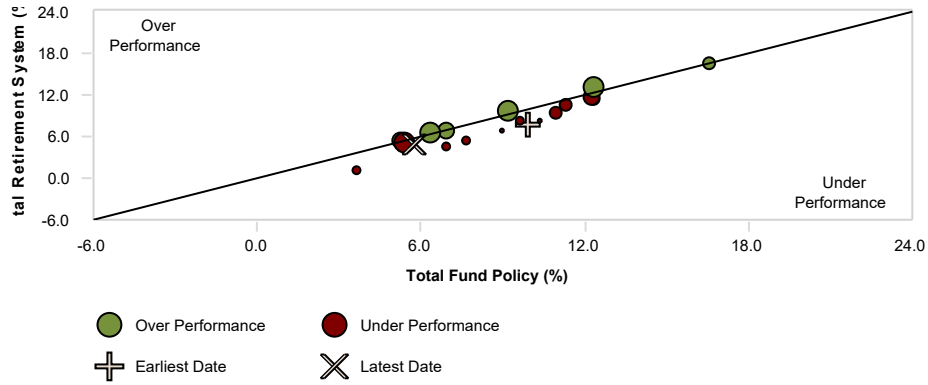
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Retirement System	3.39 (86)	3.39 (86)	10.22 (85)	2.56 (81)	4.95 (36)	12.36 (29)	8.01 (50)
● Total Fund Policy	4.54 (53)	4.54 (53)	13.44 (47)	4.05 (42)	5.76 (16)	12.61 (20)	8.88 (16)
Median	4.68	4.68	13.30	3.77	4.43	11.64	7.98

	2023	2022	2021	2020	2019
● Total Retirement System	11.50 (67)	11.54 (32)	17.68 (12)	11.65 (66)	20.92 (19)
● Total Fund Policy	13.74 (36)	11.69 (34)	16.63 (21)	13.40 (41)	19.81 (35)
Median	12.69	12.96	14.04	12.76	18.74

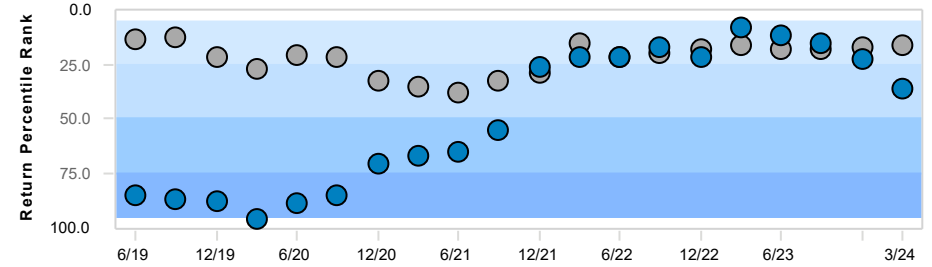
Comparative Performance

	1 Qtr Ending Dec-2023	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023	1 Qtr Ending Mar-2023	1 Qtr Ending Dec-2022	1 Qtr Ending Sep-2022
Total Retirement System	7.07 (69)	-3.13 (68)	2.78 (68)	4.59 (35)	4.91 (72)	-3.49 (19)
Total Fund Policy	7.23 (63)	-2.50 (44)	3.79 (20)	4.81 (28)	5.77 (47)	-3.68 (24)
All Public Plans-Total Fund Median	7.77	-2.69	3.14	4.19	5.68	-4.34

### 3 Yr Rolling Under/Over Performance - 5 Years

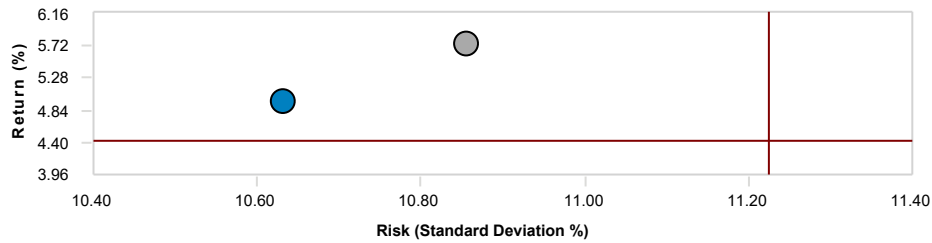


### 3 Yr Rolling Percentile Ranking - 5 Years



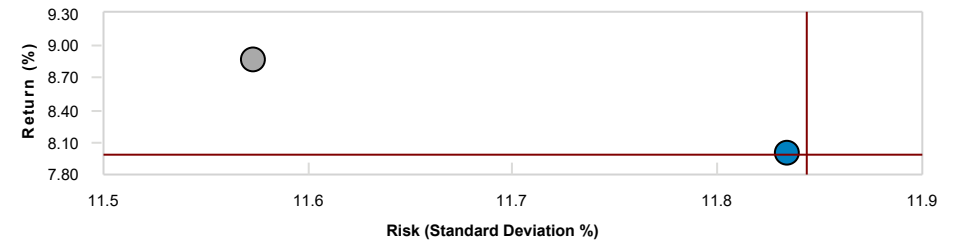
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Total Retirement System	20	8 (40%)	2 (10%)	4 (20%)	6 (30%)
Total Fund Policy	20	14 (70%)	6 (30%)	0 (0%)	0 (0%)

### Peer Group Scattergram - 3 Years



	Return	Standard Deviation
Total Retirement System	4.95	10.63
Total Fund Policy	5.76	10.86
Median	4.43	11.22

### Peer Group Scattergram - 5 Years



	Return	Standard Deviation
Total Retirement System	8.01	11.83
Total Fund Policy	8.88	11.57
Median	7.98	11.84

### Historical Statistics - 3 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.28	95.37	99.24	-0.63	-0.62	0.27	0.97	6.85
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.34	1.00	7.10

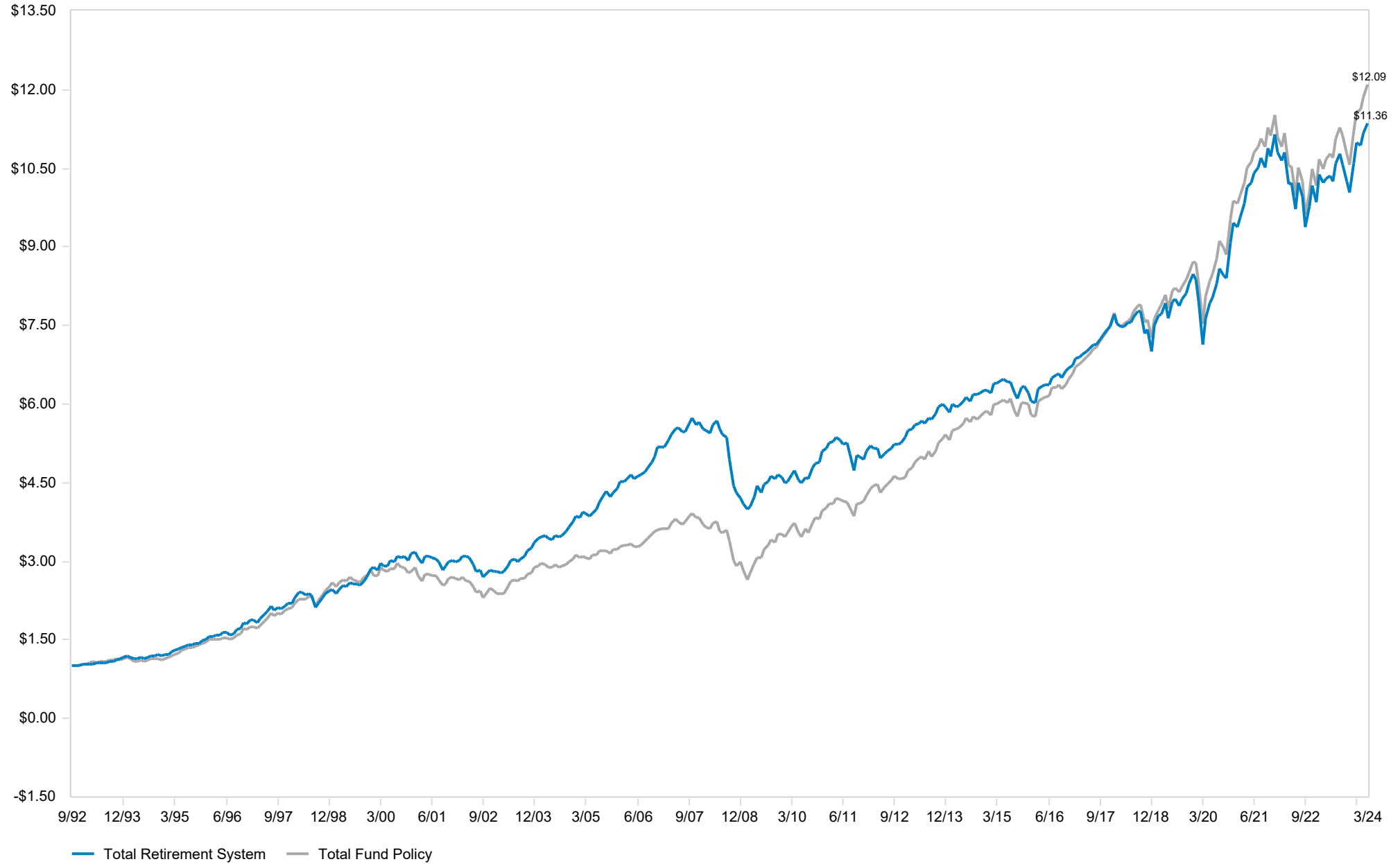
### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.48	99.26	104.98	-0.90	-0.52	0.54	1.01	7.71
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.62	1.00	7.44



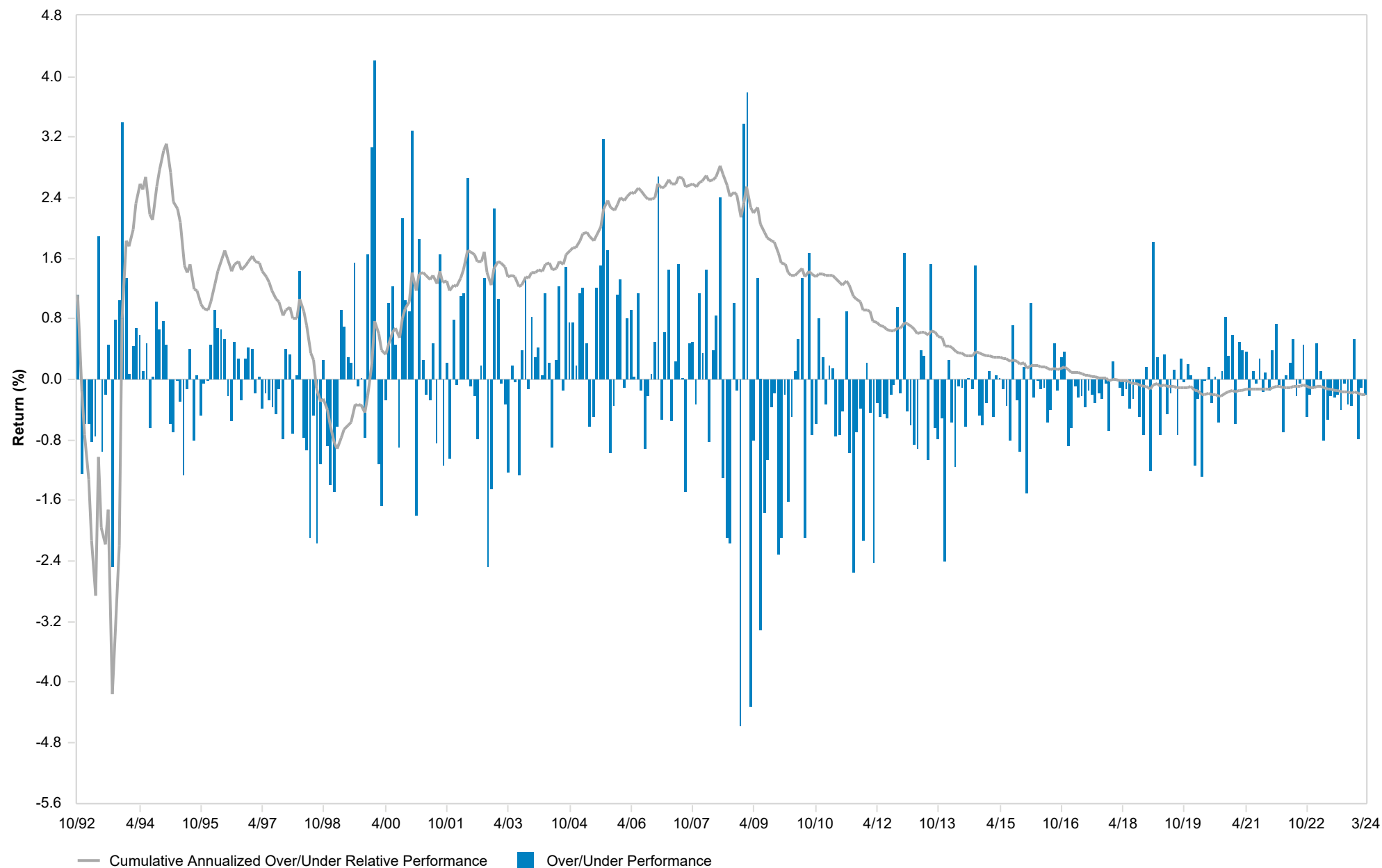
**Growth of \$1**  
**Total Retirement System**  
Since Inception Ending March 31, 2024

**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 March 31, 2024

	Baird Mid Cap			Nuance 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			Wellington			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 3/31/2024

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
<b>Total Retirement System</b>			
<b>Total Equity</b>			
<b>Total Domestic Equity</b>			
NT Collective Russell 3000 Fund	3/31/2024	Monthly	Custodian
Baird Mid Cap Growth	3/31/2024	Monthly	Custodian
Nuance Mid Cap Value	3/31/2024	Monthly	Custodian
<b>Total International Equity</b>			
Thompson Siegel & Walmsley	3/31/2024	Monthly	Custodian
Driehaus International Small Cap Growth	3/31/2024	Monthly	Custodian
WCM Focused Intl	3/31/2024	Monthly	Custodian
Wellington Emerging Markets	3/31/2024	Monthly	Custodian
<b>Total Other Equity</b>			
Huff Energy Fund	12/31/2022	Quarterly	Manager
Franklin Park	12/31/2023	Quarterly	Manager
<b>Total Fixed Income</b>			
<b>Total Fixed Income Funds</b>			
Baird Aggregate	3/31/2024	Monthly	Custodian
Dodge & Cox	3/31/2024	Monthly	Custodian
PIMCO Diversified	3/31/2024	Monthly	Custodian
<b>Total Other Fixed Income Funds</b>			
Capital Point Partners	12/31/2023	Quarterly	Manager
LBC Credit Partners III	12/31/2023	Quarterly	Manager

**Austin Police Retirement System**  
**Investment Pricing Summary**  
as of 3/31/2024

Plan	Most Recent Statement Date	Statement Frequency	Statement Source
LBC Credit Partners IV	12/31/2023	Quarterly	Manager
Providence Debt Fund III	12/31/2023	Quarterly	Manager
<b>Total Alternatives</b>			
<b>Total Real Estate (Composite)(6091100)</b>			
Edison Investments	3/31/2024	Quarterly	Manager
India Property Fund	12/31/2023	Quarterly	Manager
Gainesville Property	12/31/2017	N/A	Manager
Morgan Stanley	3/31/2024	Quarterly	Manager
AEW Parters VIII	12/31/2023	Quarterly	Manager
GreenOak US III	12/31/2023	Quarterly	Manager
Brookfield	12/31/2023	Quarterly	Manager
Artemis IV	12/31/2023	Quarterly	Manager
Stockbridge	3/31/2024	Quarterly	Manager
APRS Building	9/30/2021	N/A	Client
<b>Total Timber Funds</b>			
Domain Environmental	12/31/2023	Quarterly	Manager
Cash Account	3/31/2024	Monthly	Custodian

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

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
<b>Total Domestic Equity</b>	<b>0.19</b>	<b>432,307,431</b>	<b>823,897</b>	
NT Collective Russell 3000 Index	0.02	320,556,301	64,111	0.02 % of Assets
Baird Mid Cap Growth	0.69	58,207,861	399,247	0.70 % of First \$50 M 0.60 % Thereafter
Nuance Mid Cap Value	0.67	53,541,273	360,518	0.70 % of First \$25 M 0.65 % Thereafter
<b>Total International Equity</b>	<b>0.77</b>	<b>147,142,863</b>	<b>1,125,798</b>	
Thompson Siegel & Walmsley	0.65	58,484,301	380,148	0.65 % of Assets
Driehaus International Small Cap Growth	0.90	22,931,683	206,385	0.90 % of Assets
WCM Focused Intl Growth LP	0.85	46,313,442	393,664	0.85 % of Assets
Wellington Emerging Markets Fund	0.75	19,413,438	145,601	0.75 % of Assets
<b>Total Other Equity</b>	<b>0.32</b>	<b>126,090,162</b>	<b>404,591</b>	
Huff Energy Fund	0.62	24,253,938	150,000	
*Franklin Park Private Equity	0.25	101,836,224	254,591	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.				
<b>Total Fixed Income</b>	<b>0.51</b>	<b>187,561,407</b>	<b>959,634</b>	
Baird Aggregate Income Bond Fund	0.30	62,970,147	188,910	0.30 % of Assets
Dodge & Cox Fixed Income Fund	0.41	62,990,025	258,259	0.41 % of Assets
Pimco Diversified Income Fund	0.75	51,776,043	388,320	0.75 % of Assets
<b>Total Other Fixed Income</b>	<b>1.27</b>	<b>9,781,088</b>	<b>124,078</b>	
Capital Point Partners (Princeton Capital)	1.65	2,973,870	49,069	
LBC Credit Partners III	1.25	1,760,465	22,006	
LBC Credit Partners IV	1.25	3,702,671	46,283	
Providence Debt Fund III	0.50	1,344,083	6,720	

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 March 31, 2024**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
<b>Total Real Estate</b>	<b>0.94</b>	<b>134,577,375</b>	<b>1,268,271</b>	
Edison Investments	1.00	2,351,775	23,518	1.00 % of Assets
India Property Fund	2.00	125,024	2,500	2.00 % of Assets
Gainesville Property	0.00	1	-	0.00 % of Assets
Morgan Stanley	0.90	76,778,793	691,009	0.90 % of Assets
AEW Partners Fund VIII	1.25	3,218,019	40,225	1.25 % of Assets
GreenOak US III	1.50	9,271,996	139,080	1.50 % of Assets
Brookfield Premier Real Estate Partners	1.00	21,419,420	214,194	1.00 % of Assets
Artemis Real Estate IV	1.50	2,470,935	37,064	1.50 % of Assets
Stockbridge Smart Markets	0.70	17,240,037	120,680	0.70 % of Assets
APRS Building	0.00	1,701,375	-	0.00 % of Assets
<b>Total Timber Funds</b>	<b>1.25</b>	<b>886,025</b>	<b>11,075</b>	
Domain Environmental Investments II	1.25	886,025	11,075	1.25 % of Assets
Cash Account	0.00	15,460,226	-	0.00 % of Assets
<b>Total Retirement System</b>	<b>0.44</b>	<b>1,044,025,489</b>	<b>4,593,266</b>	

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 Retirement System**  
**Historical Hybrid Compositions**  
As of March 31, 2024

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

**Austin Police Retirement System**  
**Historical Hybrid Compositions**  
**As of March 31, 2024**

[illegible]

- 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.

<b>Active Return</b>	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
<b>Alpha</b>	- 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.
<b>Beta</b>	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
<b>Consistency</b>	- 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.
<b>Distributed to Paid In (DPI)</b>	- 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.
<b>Down Market Capture</b>	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
<b>Downside Risk</b>	- 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.
<b>Excess Return</b>	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
<b>Excess Risk</b>	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
<b>Information Ratio</b>	- 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.
<b>Public Market Equivalent (PME)</b>	- 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.
<b>R-Squared</b>	- 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.
<b>Return</b>	- Compounded rate of return for the period.
<b>Sharpe Ratio</b>	- 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.
<b>Standard Deviation</b>	- 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.
<b>Total Value to Paid In (TVPI)</b>	- 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
<b>Tracking Error</b>	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
<b>Treynor Ratio</b>	- 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.
<b>Up Market Capture</b>	- 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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