

Investment Performance Review  
Period Ending December 31, 2023

## Austin Police

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On behalf of the entire AndCo team, thank you for the opportunity to serve you this past year and for the trust you have placed in us. We take our role as your consultant and trusted advisor seriously and will continue working hard to maintain your confidence.

Looking back at the year, we would like to provide a brief update on where we stand as a firm. 2023 marked the 23rd straight year of growth for the firm and we advise on approximately \$100 billion in client assets as of year-end. We won our second consecutive Greenwich Quality Leader Award based on feedback from our valued clients. Thank you! We continued to reinvest 100% of our net profits back into the organization so we can continue to evolve and adapt within a market environment that is constantly changing and challenging. As we have stated in previous updates, we do not believe the “status quo” is an effective strategy and we are convicted in our belief that a firm not focused on moving forward in our industry is moving backward.

To execute on our commitment to evolve and continue to enhance the organization, we made significant investments in technology during 2023 to embrace digital transformation. We also continued to invest in our proprietary software system to compile and share information firmwide to better serve our clients. We conducted an internal employee survey and received valuable feedback from team members that reinforced what is working and helped us put together action plans to address areas of opportunity to continue to invest in, and understand, our most important asset - our people. We believe this effort helps drive our differentiated culture.

At the beginning of each year, we also discuss the AndCo partnership and, when earned, announce new partners. This year I am thrilled to share five new team members were named partners at AndCo – Joe Carter, Tony Kay, Sara Searle, John Rodak, and Kevin Laake. Joe has been with the firm since 2017 and has held many roles. Most recently he has been in our Performance Reporting department with an eye on transitioning to our Consulting Department. Tony has been with our firm for 8 years and is a

valuable member of the Consulting Department. Sara Searle has been with the company for almost 6 years and is our Chief Compliance Officer. John Rodak has been with the firm for 13 years and has operated within many functional areas and service departments over the years. He currently resides in our Solutions & Growth function. Finally, Kevin has been with the firm for 7 years and operates within our Research Department, covering both public and private equity over his tenure. We could not be happier for the new partners of AndCo or more grateful for the contributions they have made to AndCo since joining the firm. Joe, Tony, Sara, John, and Kevin represent what it means to be an AndCo team member, and we are honored and fortunate to have them as partners at our firm.

The big news for 2024 is that AndCo will be joining Mariner as their new institutional advisory platform. We believe joining forces with Mariner will allow us to better serve our clients going forward and leverage a robust corporate infrastructure so we can continuously focus on a clients first approach.

In closing, while the name AndCo will soon be Mariner Institutional, what won't change is our commitment to you and driving decisions by first asking “how will this impact our clients?” We strongly believe we have found a partner that shares our client-first focus, and we look forward to leveraging our combined expertise to enhance your overall client experience. On the wall at Mariner's headquarters, just like at AndCo's, it proudly says “Clients First.”

Thank you again for your valued partnership and the opportunity to serve you. Happy New Year!



Mike Welker, CFA®  
CEO

# Organization Chart

## Partnership

Mike Welker, CFA®	Jason Purdy	Steve Gordon
Brian Green	Joe Carter, CPFA	Tony Kay
Brooke Wilson, CIPM®	John Rodak, CIPM®	Troy Brown, CFA®
Bryan Bakardjiev, CFA®	Jon Breth, CFP®	Tyler Grumbles, CFA®, CIPM®, CAIA®
Dan Johnson	Kerry Richardville, CFA®	
Dan Osika, CFA®	Kevin Laake, CFA®, CAIA®	
Evan Scussel, CFA®, CAIA®	Kim Spurlin, CPA	
Jacob Peacock, CPFA	Sara Searle	

## Leadership & Management

Mike Welker, CFA® CEO	Steve Gordon Solutions & Growth Director	Jacob Peacock, CPFA® Consulting Director
Bryan Bakardjiev, CFA® COO	Troy Brown, CFA® Executive Director of Consulting	Jason Purdy I.T. Director
Evan Scussel, CFA®, CAIA® Executive Director of Research	Brooke Wilson, CIPM® Executive Director of Performance Reporting	Molly Halcom Solutions & Growth Director
Kim Spurlin, CPA CFO	Dan Johnson Consulting Director	Rachel Brignoni, MHR People & Culture Director
Sara Searle CCO	Jack Evatt Consulting Director	
Stacie Runion CHRO		

## Investment Policy Committee

Bryan Bakardjiev, CFA®	Sara Searle
Evan Scussel, CFA®, CAIA®	Troy Brown, CFA®
Mike Welker, CFA®	Brooke Wilson, CIPM®

## Consulting

Annette Bidart	Chris Kuhn, CFA®, CAIA®	Gwelda Swilley	Jennifer Brozstek	Jon Breth, CFP®	Mary Nye	Oleg Sydyak, CFA®, FSA, EA	Tony Kay
Brad Hess, CFA®, CPFA	Christiaan Brokaw, CFA®	Ian Jones	Jennifer Gainfort, CFA®, CPFA	Jorge Friguls, CPFA	Michael Fleiner	Paul Murray, CPFA	Tyler Grumbles, CFA®, CIPM®, CAIA®
Brendon Vavrica, CFP®	Dave West, CFA®	James Ross	John Mellinger	Justin Lauver, Esq.	Michael Holycross	Peter Brown	
Brian Green	Doug Anderson, CPFA	Jeff Kuchta, CFA®, CPFA	John Thinnas, CFA®, CAIA®, CPFA	Kerry Richardville, CFA®	Mike Bostler	Tim Walters	

## Research

Abigail Torres Research Operations	David Julier Real Estate & Real Assets	Julie Baker, CFA®, CAIA® Public & Private Equity	Xinxin Liu, CFA®, CAIA®, FRM Private Equity & Private Debt
Andrew Mulhall, CFA® Public Equity & Fixed Income	Elizabeth Wolfe Public & Private Equity	Justin Ellsesser, CFA®, CAIA® Private Equity	Zac Chichinski, CFA®, CIPM® Public Equity
Ben Baldrige, CFA®, CAIA® Private & Hedged Fixed Income	Evan Scussel, CFA®, CAIA® Public & Private Equity	Kevin Laake, CFA®, CAIA® Private Equity	
Dan Lomelino, CFA® Fixed Income	Josue Christiansen, CFA®, CIPM® Public Equity	Michael Kosoff Hedge Funds	

## Performance Reporting

Albert Sauerland	Don Delaney	Jeff Pruniski
Alexandre Samuel	Donnell Lehrer, CPFA	Joe Carter, CPFA
Amy Steele	Edward Cha	Kim Hummel
Andrew Easton	Grace Niebrzydowski	Rotchild Dorson
Bob Bulas	James Culpepper	
David Gough, CPFA	James Reno	

## Operations

<b>Finance</b>	<b>Human Resources</b>	<b>IT &amp; Operations</b>	<b>Compliance</b>	<b>Marketing</b>	<b>Solutions &amp; Growth</b>
Michelle Boff	Kelly Pearce	Jerry Camel	Thay Arroyo	Linden Landry-Jennings	Dan Osika, CFA®
Robert Marquetti		Kenneth Day	Joseph Ivaszuk	Shelley Berthold	John Rodak, CIPM®
		Marcos Ferrer		Tara Redding	Jonathan Branch
					Patrick Perez

89 Employees      9 CAIA®  
37 Advanced Degrees      12 CPFA  
24 CFA®      5 CIPM®

Employee counts are as of 1/3/2024 and reflect only full time employees and do not include any who are part time, temporary or independent contractors.

## **4th Quarter 2023 Market Environment**

## The Economy

- The US Federal Reserve Bank (the Fed) paused on additional rate hikes during the fourth quarter. As evidenced by capital market performance during the quarter, the pause was welcomed by participants. The Fed continued to prioritize fighting higher inflation over full employment. In its press release for the December meeting, the Fed said that in determining the extent of any additional policy firming that may be appropriate to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments. They also indicated the Committee will continue to reduce the holdings on its balance sheet.
- 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.
- Muted growth in the US labor market continued in December, as nonfarm payrolls increased by 216,000, and unemployment held steady at 3.7%. Unemployment was little changed over the last year, closing 2022 at a level of 3.5%.

## Equity (Domestic and International)

- US equities moved broadly higher during the fourth quarter, led by a broad recovery across multiple sectors and expectations of a more favorable interest rate environment. The S&P 500 Index rose 11.7% for the quarter, its best-performing period since the first quarter of 2021. Small-cap value (15.3%) was the best-performing segment of the domestic equity market during the quarter, while large-cap value (9.5%), though solid, was the weakest relative performer for the period.
- International stocks experienced robust growth during the year, helped by a weakening US Dollar (USD). USD performance outpaced local currency (LCL) performance in most regions for the quarter, though both benchmarks were positive as the USD traded lower during the period.
- Global GDP growth continued to face challenges despite falling energy prices. European growth remained under pressure amid hawkish central bank policies. China continued to face economic challenges and drag on growth in the region. Additionally, renewed conflicts in the Middle East weighed on performance for the region and threatened to be a headwind going into 2024.

## Fixed Income

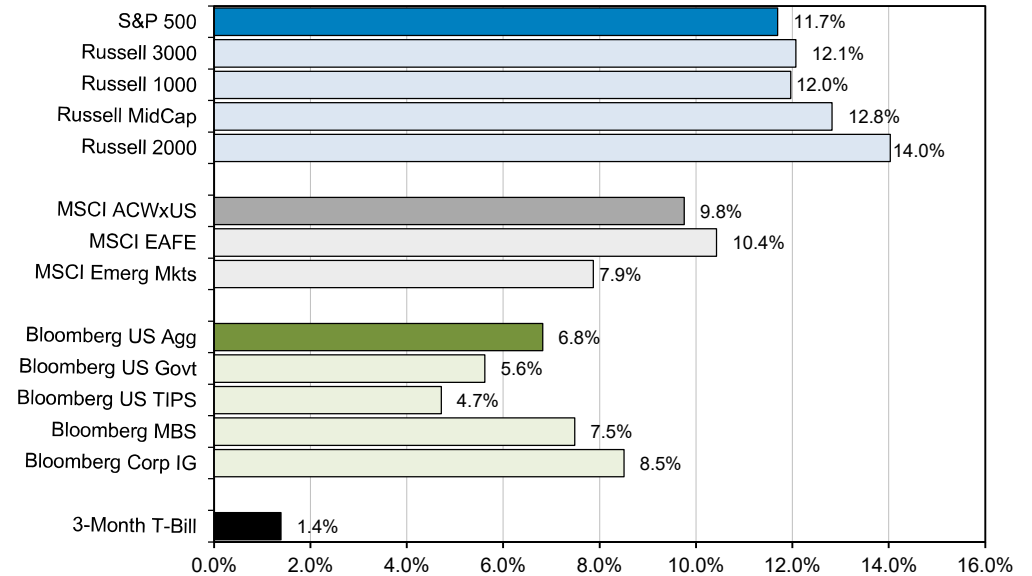
- While economic data signaled that inflation continued to moderate, the Fed maintained its conviction in fighting inflation by keeping the fed funds rate unchanged during the quarter. Equity and fixed-income markets rallied on the hope that this could signal a pivot in the Fed's policy stance in 2024.
- US Government securities were the lowest relative performing US Aggregate Bond sector during the quarter, but bond returns surged as longer maturity yields fell significantly. Credit spreads also narrowed during the quarter, lifting performance for non-government sectors.
- Lower quality investment grade corporate bonds outperformed higher quality corporate issues, aided by narrowing credit spreads as well as 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 managed to edge out the bellwether bond benchmark for the quarter.
- Global bonds outpaced the domestic bond market with the Global Aggregate ex-US Index besting the US Aggregate Index by 2.4% due to USD weakness. This brought results for the full year slightly ahead of the domestic bond market.

## Market Themes

- Central banks remained vigilant in their stance against inflation going into the new year. Signs of cooling price pressures have shown up in most regions around the world, and many central banks have chosen to pause on their rate hiking cycle, much in line with the US Fed's stance.
- Geopolitical risk around the world continues to be a headwind for global growth and economic stability. In addition to the conflict in Ukraine, a proxy war arose in the Middle East in October between Israel and Palestine, which could drag on performance in the region in quarters to come.
- Short-term interest rates remained consistent across most developed markets as central banks continued their tight policy stance with an eye towards potential rate cuts in the indeterminate future.
- 2023 closed with both US and international equity markets affirming their recovery from the disappointing performance of 2022. Growth sectors significantly outpaced value sectors during the year.

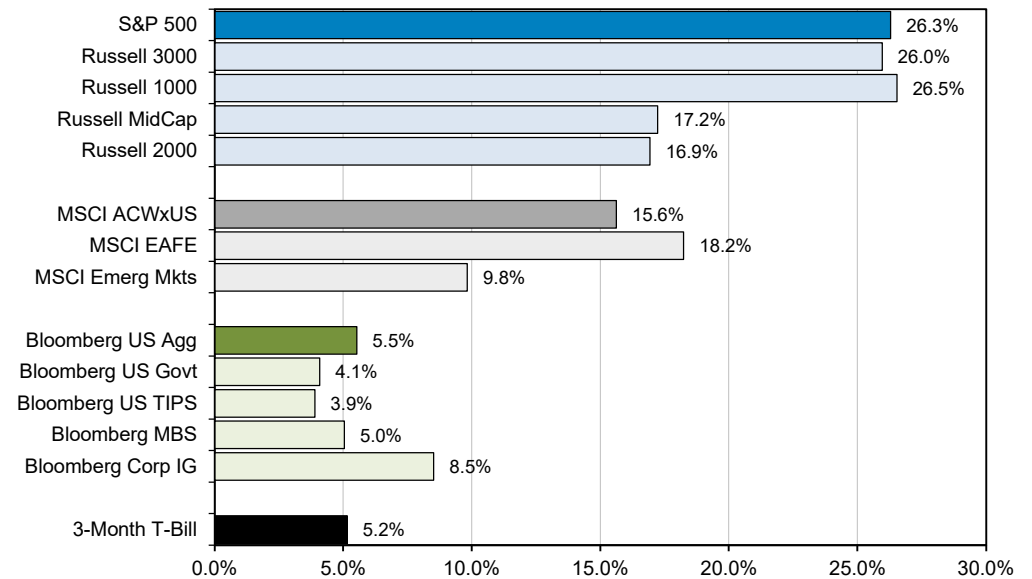
- Domestic equity market performance surged in the fourth quarter. Many of the challenges facing the U.S. economy over the past several quarters have begun to wane and forecasts for easing inflation and positive economic growth have been a growing consensus. For the period, the S&P 500 large-cap benchmark returned 11.7% versus 12.8% for the Russell Mid Cap Index and 14.0% for the Russell 2000 small-cap index.
- International developed and emerging market equities also delivered strong results. Europe continued to face geopolitical risks related to the conflict in Ukraine and elevated interest rates. The developed market MSCI EAFE Index returned 10.4% for the quarter and the MSCI Emerging Markets Index rose by 7.9%.
- The domestic bond market rallied during the final two months of the year as the Fed took on a more dovish tone at their recent meetings. The Bloomberg US Aggregate Index returned 6.8% for the period, while investment-grade corporate bonds beat out the government and securitized sectors with a gain of 8.5%.

**Quarter Performance**



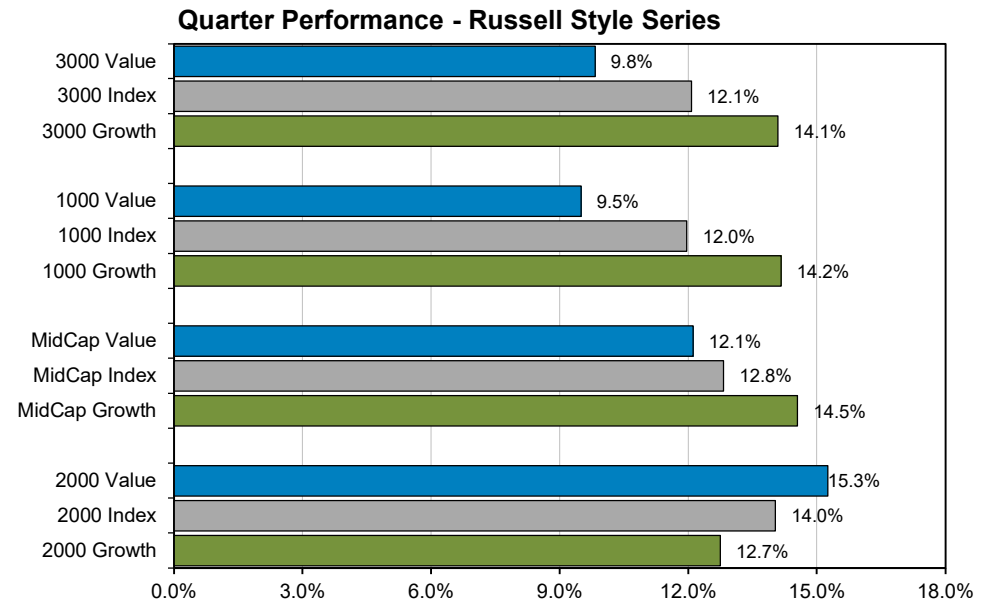
- During the 2023 calendar year, US equity markets posted their strongest performance since 2021. The large-cap S&P 500 Index finished 2023 with an exceptional 26.3% return. The weakest relative performance for the year was from the Russell 2000 Index, which still climbed 16.9%.
- International markets also reverted from their poor performance of the year prior. The MSCI EAFE Index was the best international index performer, returning 18.2%, while the MSCI Emerging Markets Index added a more tempered, but still solid, 9.8%.
- Bond markets were broadly higher for the year. Investment-grade corporate bonds were the best-performing sector of the US Aggregate Index and gained 8.5% for the year. Treasuries lagged at 4.1% during the year but were still a welcome relief from 2022's negative bond market results. The bellwether fixed-income benchmark, the Bloomberg US Aggregate Index, climbed 5.5% in 2023.

**1-Year Performance**

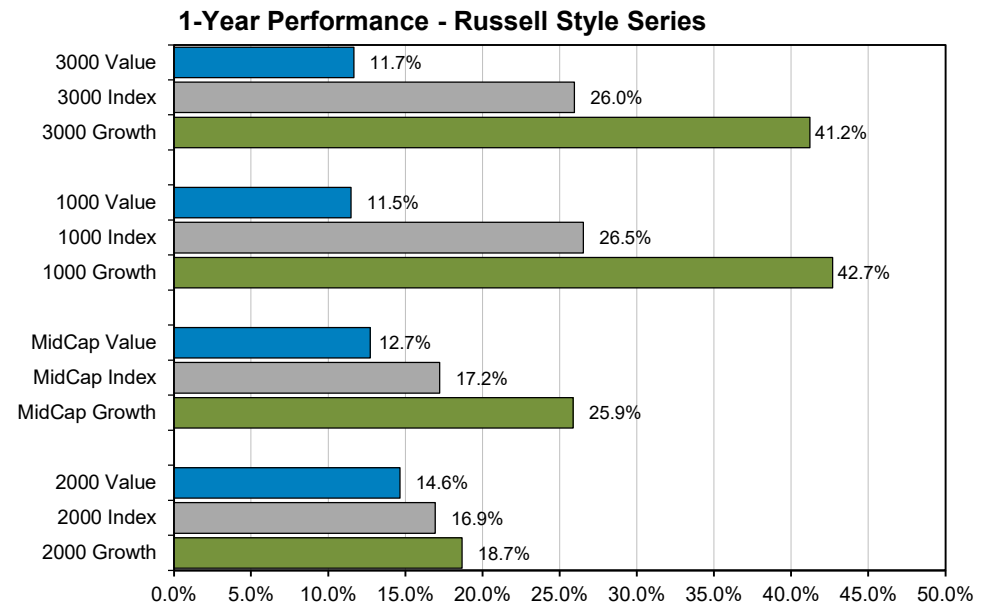


Source: Investment Metrics

- After softening in the third quarter, core domestic equity benchmarks finished 2023 on a strong note. Increasing optimism regarding taming inflation and future economic growth were the primary factors driving performance during the quarter. While the global economy still faces geopolitical risk in the Middle East and Eastern Europe, the US economy remains resilient heading into 2024. The small-cap Russell 2000 Index (14.0%) led results this quarter among the core capitalization-based benchmarks, besting both the mid-cap (12.8%) and large-cap (12.0%) indices. Growth was favored over value across the broad market as the Russell 3000 Growth Index outpaced its value counterpart by 4.3%. However, among small-cap stocks, value led the way with the Russell 2000 Value Index returning 15.3%. The Russell 2000 Growth Index was not far behind, gaining 12.7% for the quarter.
- Outside of small cap, growth stocks broadly outperformed their value counterparts by a sizable margin for the quarter. This continued a persistent theme for 2023 of growth-based benchmark outperformance. Despite these differentials, the large-, mid-, and small-cap value benchmarks each posted solid performance for the quarter with the Russell 2000 Value Index posting a chart-leading return of 15.3%.



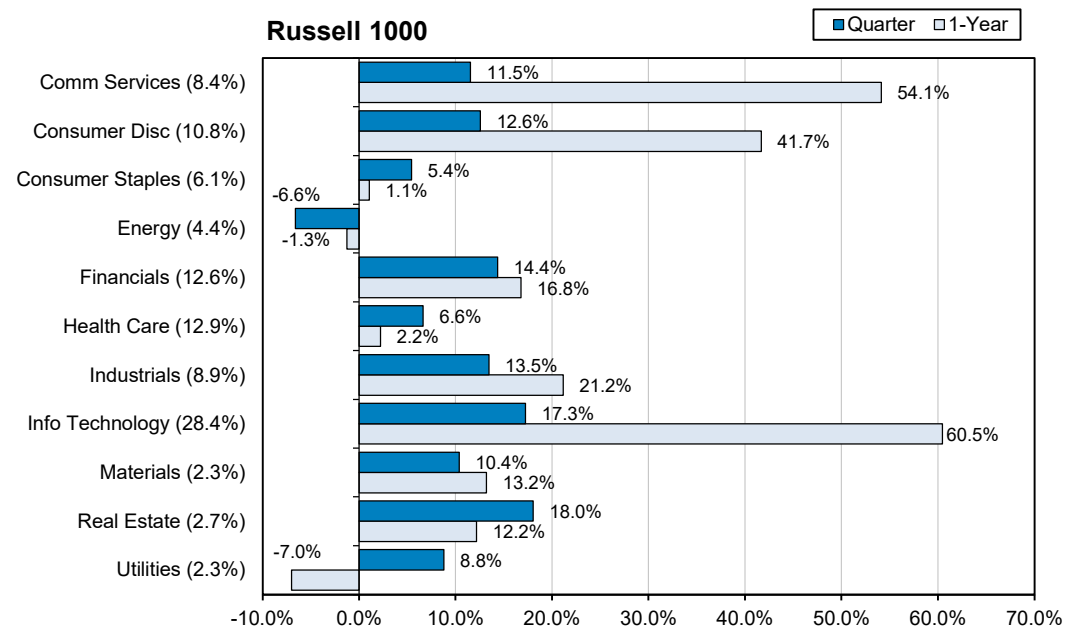
- The broad rally in domestic equity markets during the fourth quarter contributed to a strong year of index results. Within large-cap stocks, the Russell 1000 Growth Index returned an exceptional 42.7% for the year, leading the way among style and market capitalization-based benchmark results. The lowest relative performing equity index was the Russell 1000 Value, but still posted a double-digit return of 11.5% for the year.
- Growth rebounded during 2023 and led value-based benchmarks at all market capitalization ranges for the year. The Russell 2000 Growth Index returned 18.7%, outpacing the Russell 2000 Value Index's 14.6% return by a span of 4.1%. The Russell 1000 Growth and Russell Midcap Growth benchmarks gained 42.7% and 25.9%, respectively, while their corresponding value index counterparts returned solid, but lagging, performance of 11.5% and 12.7%, respectively.



Source: Investment Metrics

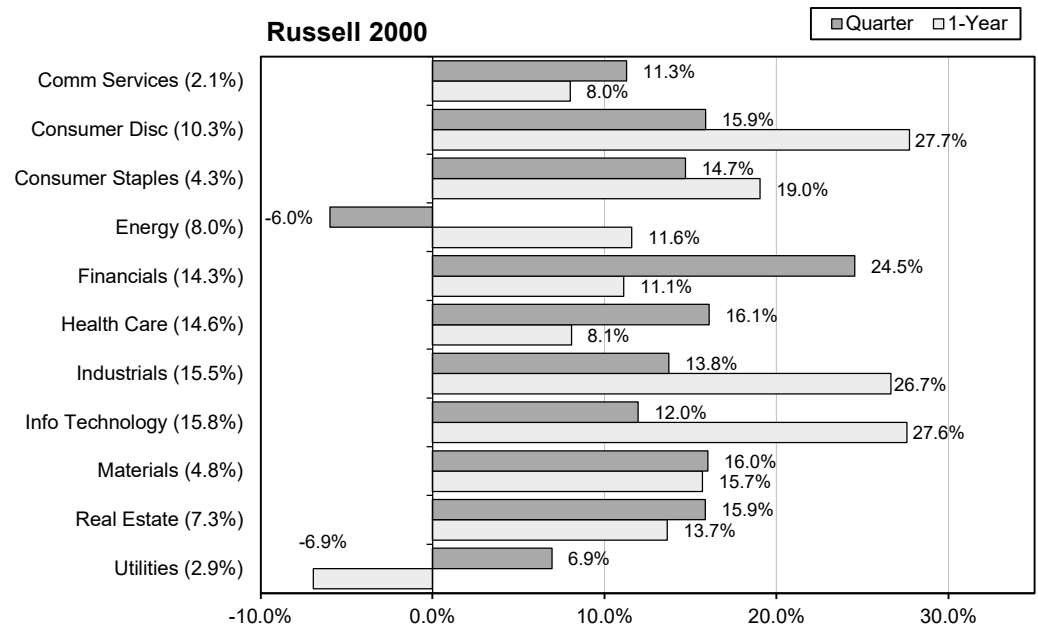
- Large-cap sector performance was generally positive for the fourth quarter. Ten of 11 economic sectors posted positive absolute performance for the quarter, with five sectors outpacing the return of the Russell 1000 Index.
- After being challenged by rapidly rising inflation and an uncertain growth trajectory in 2022, the information technology sector rebounded significantly during 2023, ending the year with an impressive 17.3% return in the fourth quarter. The other four sectors that outpaced the headline index's return for the quarter were consumer discretionary (12.6%), financials (14.4%), industrials (13.5%) and real estate (18.0%). Energy was the only sector to lose ground for the quarter, returning -6.6%.
- For the full year, just three economic sectors exceeded the return of the broad large-cap benchmark but nine of the 11 sectors posted positive performance. Performance in the Information technology (60.5%), communication services (54.1%), and consumer discretionary (41.7%) sectors made the greatest contributions to the index's 26.5% return during the year. The weakest economic sector in the Russell 1000 for the year was utilities, which declined by -7.0%.

**Russell 1000**



- Ten small-cap economic sectors posted positive results during the quarter while six of 11 sectors exceeded the 14.0% return of the Russell 2000 Index. Performance in the financials (24.5%) sector led the way for the quarter while the energy (-6.0%) was the only sector to post a negative result.
- Like large-cap sector performance over the trailing year, ten small-cap sectors were positive. Consumer discretionary (27.7%) posted the strongest sector result, with honorable mentions going to the industrials and information technology sectors, which each returned more than 20% for the year. Seven of the 11 economic sectors fell short of the core small-cap benchmark's return of 16.9% for the year. The worst-performing sector for the year was utilities, which slid -6.9% and was the only sector to post a negative return for 2023.

**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, 2023

Top 10 Weighted Stocks				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Apple Inc	6.5%	12.6%	49.0%	Information Technology
Microsoft Corp	6.4%	19.3%	58.2%	Information Technology
Amazon.com Inc	3.1%	19.5%	80.9%	Consumer Discretionary
NVIDIA Corp	2.7%	13.9%	239.0%	Information Technology
Alphabet Inc Class A	1.9%	6.7%	58.3%	Communication Services
Meta Platforms Inc Class A	1.8%	17.9%	194.1%	Communication Services
Alphabet Inc Class C	1.6%	6.9%	58.8%	Communication Services
Tesla Inc	1.6%	-0.7%	101.7%	Consumer Discretionary
Berkshire Hathaway Inc Class B	1.5%	1.8%	15.5%	Financials
Eli Lilly and Co	1.1%	8.7%	60.9%	Health Care

Top 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
Coinbase Global Inc Ordinary Shares	0.1%	131.6%	391.4%	Financials
Affirm Holdings Inc Ordinary Shares	0.0%	131.0%	408.2%	Financials
Gap Inc	0.0%	99.6%	96.8%	Consumer Discretionary
Spirit AeroSystems Holdings Inc	0.0%	96.9%	7.4%	Industrials
Karuna Therapeutics Inc	0.0%	87.2%	61.1%	Health Care
Rocket Companies Inc Ordinary Shares	0.0%	77.0%	106.9%	Financials
Block Inc Class A	0.1%	74.8%	23.1%	Financials
Macy's Inc	0.0%	74.8%	1.6%	Consumer Discretionary
SentinelOne Inc Class A	0.0%	62.8%	88.1%	Information Technology
Frontier Communications Parent Inc	0.0%	61.9%	-0.5%	Communication Services

Bottom 10 Performing Stocks (by Quarter)				
Russell 1000	Weight	1-Qtr Return	1-Year Return	Sector
ChargePoint Holdings Inc	0.0%	-52.9%	-75.4%	Industrials
Plug Power Inc	0.0%	-40.8%	-63.6%	Industrials
Maravai LifeSciences Holdings Inc	0.0%	-34.5%	-54.2%	Health Care
R1 RCM Inc	0.0%	-29.9%	-3.5%	Health Care
Agilon Health Inc	0.0%	-29.3%	-22.2%	Health Care
BILL Holdings Inc Ordinary Shares	0.0%	-24.9%	-25.1%	Information Technology
Lucid Group Inc Shs	0.0%	-24.7%	-38.4%	Consumer Discretionary
AMC Entertainment Holdings Inc	0.0%	-23.4%	-83.0%	Communication Services
Petco Health and Wellness Co Inc	0.0%	-22.7%	-66.7%	Consumer Discretionary
Hasbro Inc	0.0%	-21.6%	-12.0%	Consumer Discretionary

Top 10 Weighted Stocks				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Super Micro Computer Inc	0.5%	3.7%	246.2%	Information Technology
Simpson Manufacturing Co Inc	0.3%	32.4%	125.3%	Industrials
e.l.f. Beauty Inc	0.3%	31.4%	161.0%	Consumer Staples
Cytokinetics Inc	0.3%	183.4%	82.2%	Health Care
MicroStrategy Inc Class A	0.3%	92.4%	346.2%	Information Technology
UFP Industries Inc	0.3%	22.9%	60.3%	Industrials
Light & Wonder Inc Ordinary Shares	0.3%	15.1%	40.1%	Consumer Discretionary
Onto Innovation Inc	0.3%	19.9%	124.6%	Information Technology
Rambus Inc	0.3%	22.3%	90.5%	Information Technology
BellRing Brands Inc Class A	0.3%	34.4%	116.2%	Consumer Staples

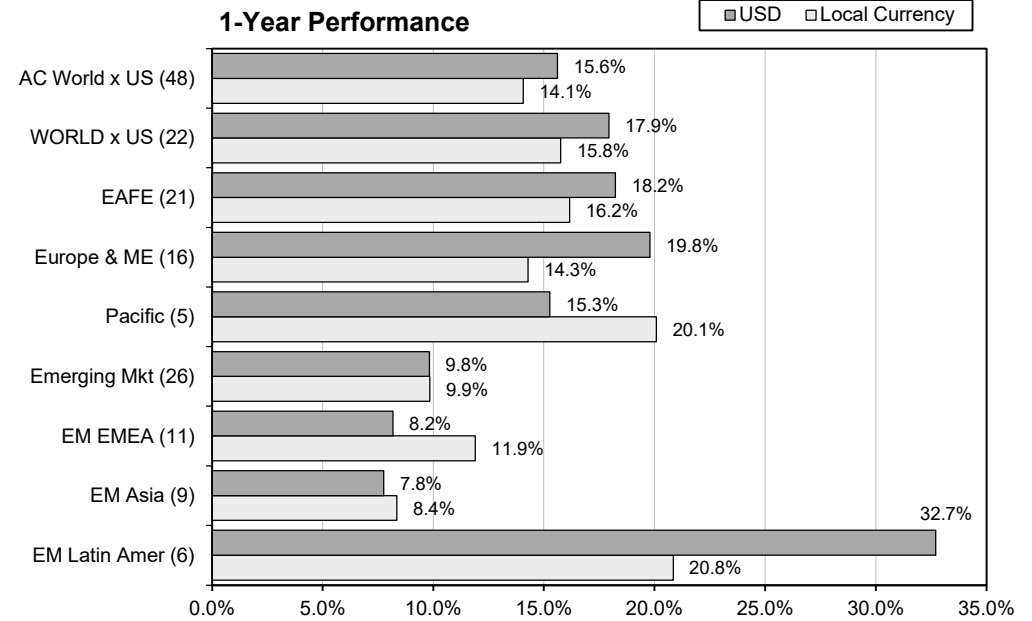
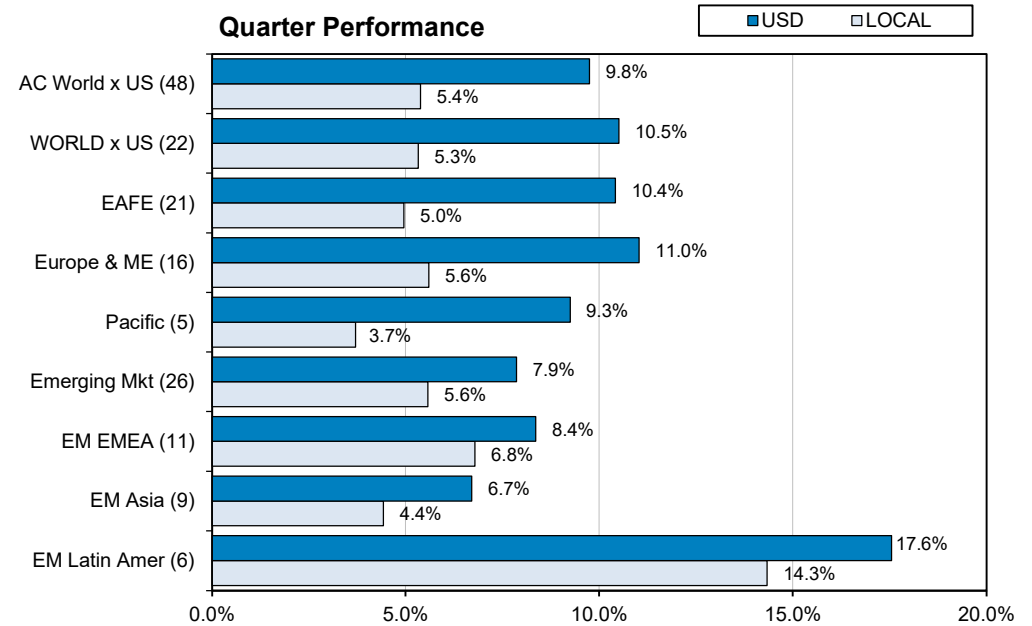
Top 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Nkarta Inc Ordinary Shares	0.0%	374.8%	10.2%	Health Care
Altimune Inc	0.0%	332.7%	-31.6%	Health Care
ALX Oncology Holdings Inc	0.0%	210.2%	32.1%	Health Care
Pulse Biosciences Inc	0.0%	203.7%	341.9%	Health Care
ImmunityBio Inc Ordinary Shares	0.0%	197.0%	-1.0%	Health Care
Cleanspark Inc	0.1%	189.5%	440.7%	Information Technology
EyePoint Pharmaceuticals Inc	0.0%	189.2%	560.3%	Health Care
Cytokinetics Inc	0.3%	183.4%	82.2%	Health Care
RayzeBio inc	0.0%	180.0%	N/A	Health Care
Marathon Digital Holdings Inc	0.2%	176.4%	586.8%	Information Technology

Bottom 10 Performing Stocks (by Quarter)				
Russell 2000	Weight	1-Qtr Return	1-Year Return	Sector
Ventix Biosciences Inc	0.0%	-92.9%	-92.5%	Health Care
Enviva Inc	0.0%	-86.7%	-98.1%	Energy
Aclaris Therapeutics Inc	0.0%	-84.7%	-93.3%	Health Care
Li-Cycle Holdings Corp Ordinary	0.0%	-83.5%	-87.7%	Industrials
Ocean Biomedical Inc	0.0%	-83.1%	N/A	Health Care
Reneo Pharmaceuticals Inc	0.0%	-79.0%	-31.3%	Health Care
Charge Enterprises Inc	0.0%	-77.1%	-90.8%	Communication Services
Cano Health Inc Ordinary Shares	0.0%	-76.9%	-95.7%	Health Care
CareMax Inc Ordinary Shares	0.0%	-76.5%	-86.4%	Health Care
Velo3D Inc	0.0%	-74.5%	-77.8%	Industrials

Source: Morningstar Direct

**The Market Environment**  
**International and Regional Market Index Performance (Country Count)**  
 As of December 31, 2023

- The fourth quarter ended with strong performance across international equity markets in both in LCL and USD terms. The USD weakened substantially against most non-US currencies for the quarter, which boosted USD index performance relative to LCL returns. The developed market MSCI EAFE Index gained 10.4% in USD and 5.0% in LCL terms for the quarter. The MSCI Emerging Markets Index rose 7.9% in USD and a lower 5.6% in LCL terms.
- Latin America (LATAM) continued to lead the way, closing out 2023 with a quarterly return of 17.6% in USD terms. Performance in the region was driven by strong demand for commodity exports from growing worldwide production along with a USD performance boost due to LCL strength in the region.
- The performance of the largest weighted country in the emerging market index (China, 26.7%) lagged during the year with a return of -4.4% for the fourth quarter and -13.3% for the year in USD terms. Investors have struggled to accurately forecast the pace of China's recovery after its economic reopening from COVID-19 lockdowns, which led to a flurry of spending that has since cooled.
- Similar to domestic markets, results for international developed and emerging markets were much stronger in 2023 after inflationary pressures and geopolitical risks stunted growth in 2022. Much of the strong USD performance in late 2022 abated in 2023 with many of the international indices showcasing modestly stronger performance in USD terms.
- Annual returns across emerging markets were bifurcated. The LATAM index finished significantly ahead of the other regional indexes in USD terms, with strengthening currencies contributing significantly to the region's strong performance. The LATAM index returned 32.7% in USD and 20.8% in LCL terms for year. Performance in the EM Asia regional benchmark detracted from the emerging market index, with the EM Asia index posting returns of 7.8% in USD and 8.4% in LCL terms versus an overall MSCI Emerging Markets index return of 9.8% and 9.9% in USD and LCL terms, respectively. The EMEA, Asia and Pacific regions saw local currencies depreciate overall in 2023 due to factors related to additional military conflicts in the region and China's sluggish growth.



Source: MSCI Global Index Monitor (Returns are Net)

**The Market Environment**  
**US Dollar International Index Attribution & Country Detail**  
As of December 31, 2023

MSCI - EAFE	Sector Weight	Quarter Return	1-Year Return
Communication Services	4.1%	8.9%	13.1%
Consumer Discretionary	11.8%	8.0%	21.7%
Consumer Staples	9.3%	5.2%	4.5%
Energy	4.3%	0.4%	12.5%
Financials	18.9%	10.0%	18.8%
Health Care	12.8%	4.9%	9.3%
Industrials	16.4%	14.3%	27.6%
Information Technology	8.6%	21.3%	36.4%
Materials	7.8%	17.1%	19.9%
Real Estate	2.5%	14.9%	9.1%
Utilities	3.5%	14.0%	17.0%
<b>Total</b>	<b>100.0%</b>	<b>10.4%</b>	<b>18.2%</b>

MSCI - ACWIxUS	Sector Weight	Quarter Return	1-Year Return
Communication Services	5.2%	4.7%	5.7%
Consumer Discretionary	11.5%	5.7%	12.7%
Consumer Staples	8.0%	5.6%	4.9%
Energy	5.6%	2.3%	15.0%
Financials	21.2%	10.1%	16.2%
Health Care	9.3%	5.2%	8.0%
Industrials	13.4%	12.8%	23.2%
Information Technology	12.5%	20.0%	36.3%
Materials	8.0%	12.5%	12.2%
Real Estate	2.1%	11.1%	5.3%
Utilities	3.2%	13.6%	12.0%
<b>Total</b>	<b>100.0%</b>	<b>9.8%</b>	<b>15.6%</b>

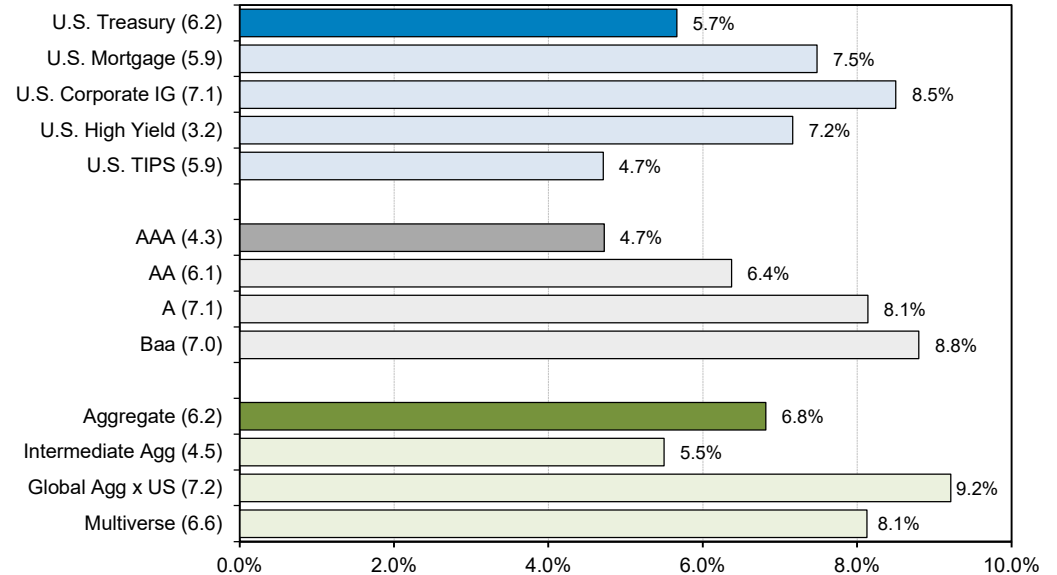
MSCI - Emerging Mkt	Sector Weight	Quarter Return	1-Year Return
Communication Services	8.8%	0.1%	-1.1%
Consumer Discretionary	12.8%	0.8%	-3.4%
Consumer Staples	6.0%	6.1%	4.2%
Energy	5.1%	6.7%	26.8%
Financials	22.3%	8.3%	11.5%
Health Care	3.8%	7.3%	-1.3%
Industrials	6.8%	6.3%	5.4%
Information Technology	22.1%	17.8%	32.3%
Materials	7.9%	6.8%	1.5%
Real Estate	1.6%	-0.2%	-7.1%
Utilities	2.7%	12.8%	2.0%
<b>Total</b>	<b>100.0%</b>	<b>7.9%</b>	<b>9.8%</b>

Country	MSCI-EAFE Weight	MSCI-ACWIxUS Weight	Quarter Return	1-Year Return
Japan	22.5%	14.4%	8.0%	17.8%
United Kingdom	14.7%	9.5%	6.1%	9.5%
France	12.1%	7.7%	10.1%	18.8%
Switzerland	10.0%	6.4%	10.1%	13.4%
Germany	8.6%	5.5%	13.0%	19.9%
Australia	7.6%	4.9%	14.5%	10.0%
Netherlands	4.6%	3.0%	19.6%	23.7%
Denmark	3.3%	2.2%	12.2%	29.7%
Sweden	3.2%	2.1%	20.9%	21.0%
Spain	2.7%	1.7%	11.3%	28.2%
Italy	2.6%	1.7%	11.9%	31.7%
Hong Kong	2.2%	1.4%	2.9%	-17.8%
Singapore	1.4%	0.9%	3.8%	0.4%
Finland	1.1%	0.7%	8.8%	-8.2%
Belgium	1.0%	0.6%	6.1%	4.1%
Israel	0.7%	0.4%	9.0%	9.3%
Norway	0.7%	0.4%	2.2%	-0.4%
Ireland	0.5%	0.3%	6.2%	22.9%
Portugal	0.2%	0.1%	15.0%	5.1%
New Zealand	0.2%	0.1%	14.4%	3.4%
Austria	0.2%	0.1%	9.6%	12.8%
<b>Total EAFE Countries</b>	<b>100.0%</b>	<b>64.3%</b>	<b>10.4%</b>	<b>18.2%</b>
Canada		7.7%	10.6%	12.6%
<b>Total Developed Countries</b>		<b>72.0%</b>	<b>10.5%</b>	<b>17.9%</b>
China		7.5%	-4.4%	-13.3%
India		4.7%	11.6%	19.6%
Taiwan		4.5%	17.2%	26.9%
Korea		3.6%	14.7%	21.7%
Brazil		1.6%	15.8%	23.4%
Saudi Arabia		1.2%	8.5%	7.2%
South Africa		0.9%	12.1%	-1.6%
Mexico		0.8%	16.9%	36.2%
Indonesia		0.5%	1.7%	3.3%
Thailand		0.5%	3.6%	-12.6%
Malaysia		0.4%	4.2%	-7.2%
United Arab Emirates		0.4%	-3.2%	-3.0%
Poland		0.3%	37.7%	45.0%
Qatar		0.3%	4.7%	-2.9%
Kuwait		0.2%	-0.3%	-10.4%
Turkey		0.2%	-12.5%	-8.9%
Philippines		0.2%	6.1%	1.7%
Chile		0.1%	6.2%	-1.2%
Greece		0.1%	11.7%	44.2%
Peru		0.1%	22.8%	30.2%
Hungary		0.1%	17.0%	45.5%
Czech Republic		0.0%	4.6%	22.4%
Colombia		0.0%	12.8%	2.3%
Egypt		0.0%	20.2%	37.7%
<b>Total Emerging Countries</b>		<b>28.0%</b>	<b>7.9%</b>	<b>9.8%</b>
<b>Total ACWIxUS Countries</b>		<b>100.0%</b>	<b>9.8%</b>	<b>15.6%</b>

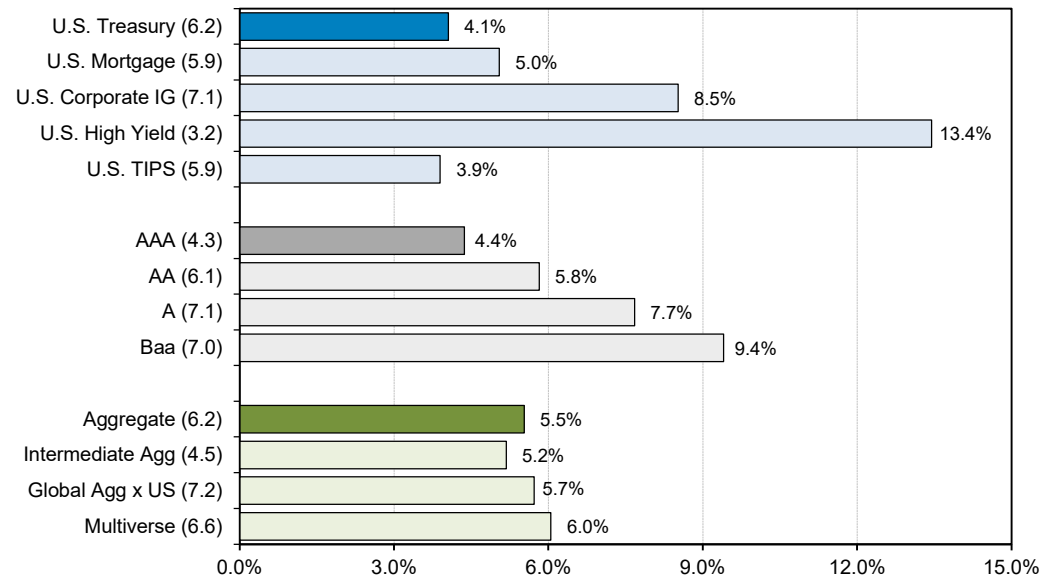
Source: Morningstar Direct, MSCI Global Index Monitor (Returns are Net in USD)  
As a result of the GICS classification changes on 9/28/2018 and certain associated reporting limitations, sector performance represents backward looking performance for the prior year of each sector's current constituency,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

- Fixed-income markets rallied during the fourth quarter. Yields remained elevated for much of the year as economies across the globe attempted to stave off inflationary pressures. A five-month-long pause in rate hikes by the Fed coupled with expectations of cooler price pressures drove a rally in bonds globally. After a challenging 2022 in fixed-income markets brought on by the largest and most rapid increase in interest rates since the early 1980s, higher starting yields and a slower pace of rate increases led to better results in 2023. While not without its challenges during the year, the fourth-quarter's rally helped some of the fixed income sectors realize their best calendar-year performance since prior to the COVID-19 pandemic.
- The Bloomberg US Aggregate Bond Index, the bellwether US investment grade benchmark, posted its best-performing quarter of the year to close out 2023, returning 6.8% for the period. Performance across the investment grade index's segments was broadly higher during the period with the Bloomberg US Corporate Investment Grade Index returning 8.5%, the US Mortgage Index finishing slightly lower at 7.5% and the US Treasury sector returning a more modest, but still solid, 5.7% for the quarter.
- Outside of the aggregate index's sub-components, high-yield bonds continued their strong performance for the year with a return of 7.2% for the quarter as credit spreads narrowed by more than 1.0%. US TIPS gained 4.7% for the quarter, lagging most of the fixed-income market. The Bloomberg Global Aggregate ex-US Index outpaced the domestic indices during the quarter, returning a strong 9.2%.
- Over the trailing one-year period, the Bloomberg US Aggregate Bond Index posted a return of 5.5%. The Corporate Investment-grade sector outperformed the broader index during the year, gaining 8.5%. US TIPS, which are excluded from the aggregate index, lagged at just 3.9% 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 returning a strong 13.4% for the calendar year.
- Non-US bonds exceeded their domestic counterparts for the quarter, lifting the 5.7% return of the Bloomberg Global Aggregate ex-US Index past the 5.5% return of US Aggregate Index for the year. Rising interest rates, elevated inflation, and geopolitical risks have hindered non-US index performance. Some of those headwinds eased in the fourth quarter, contributing to the index's positive performance for the calendar year.

**Quarter Performance**



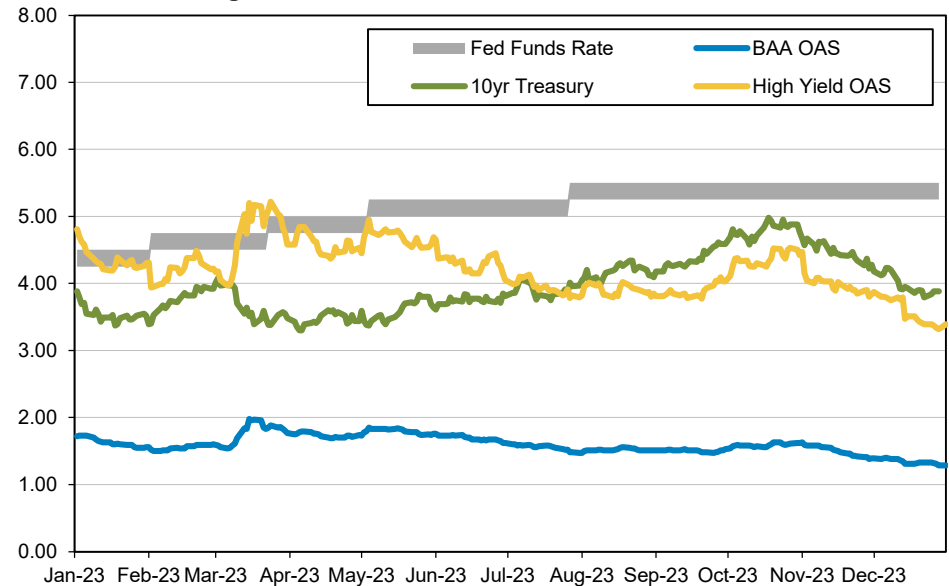
**1-Year Performance**



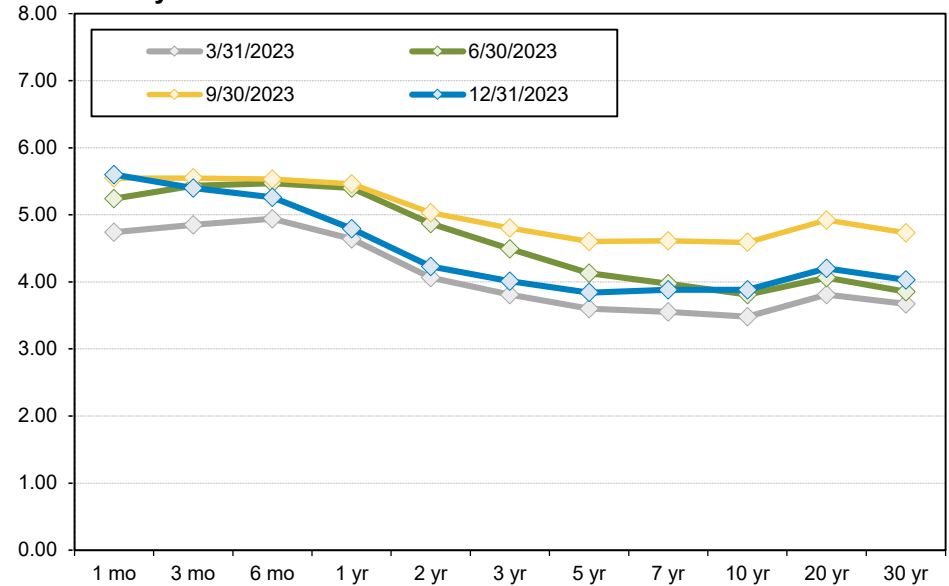
Source: Bloomberg

- The gray band across the graph illustrates the range of the fed funds target rate. The Fed last raised its rate range at the July 2023 meeting. The lower end of the range remained at 5.25% at year-end. The Fed’s decision to pause on additional rate increases for the remainder of 2023 and took on a more dovish tone in their December press release, which was well-received by market participants.
  
- The yield on the US 10-year Treasury (green line) exceeded 5.00% during the final week of October, its highest mark since July 2007. However, the benchmark yield proceeded to fall more than 1.00% over the final two months of the year, with the 10-Year Treasury finishing the year at a yield of 3.88%. The sharp decline in yields was likely a response to market participants anticipating rate cuts by the Fed in 2024.
  
- The blue line illustrates changes in the BAA OAS (Option Adjusted Spread) for lower-quality investment-grade 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. For the full calendar year, the spread narrowed 0.44% from 1.73% to 1.29%, signaling a lower premium for credit risk than the beginning of the year.
  
- High Yield OAS spreads have narrowed from 4.81% in January 2023 to 3.39% as of the end of 2023. High-yield spreads reached their widest point in March 2023, before trending lower for the remainder of the year. The spike in both the BAA OAS and High Yield spreads in March was a result of a short-lived crisis of confidence in the banking sector, which was addressed quickly by the Federal Deposit Insurance Corporation (FDIC) and supported further by the Fed's aggressive short-term par loan program. Though spreads tightened since the high, spreads traded slightly wider during October on the heels of a spark in the conflict between Israel and Palestine.
  
- The lower graph provides a snapshot of the US Treasury yield curve at the end of each of the last four quarters. Short-term yields rose modestly during the year and remained elevated. Despite this, both intermediate and longer-term yields are lower than they were at the end of the third quarter. Since September, the yield curve has further inverted (meaning that short-term rates are higher than long-term rates) between the two- and 10-year maturities. This is consistent with market expectations for a lower interest rate environment going forward. Since the Fed generally lowers rates to support economic growth, a persistent inversion of these two key rates has historically suggested an economic recession within six to 24 months, though this is an imprecise predictor of future economic growth.

**1-Year Trailing Market Rates**



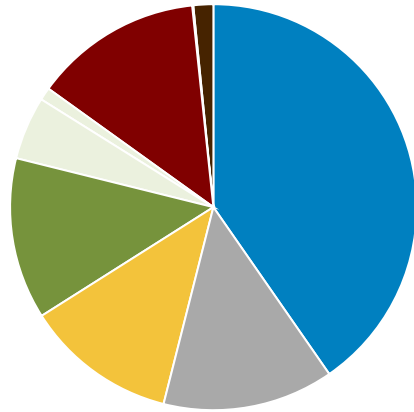
**Treasury Yield Curve**



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

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**Asset Allocation by Segment**  
Dec-2023 : \$1,015,706,092.3



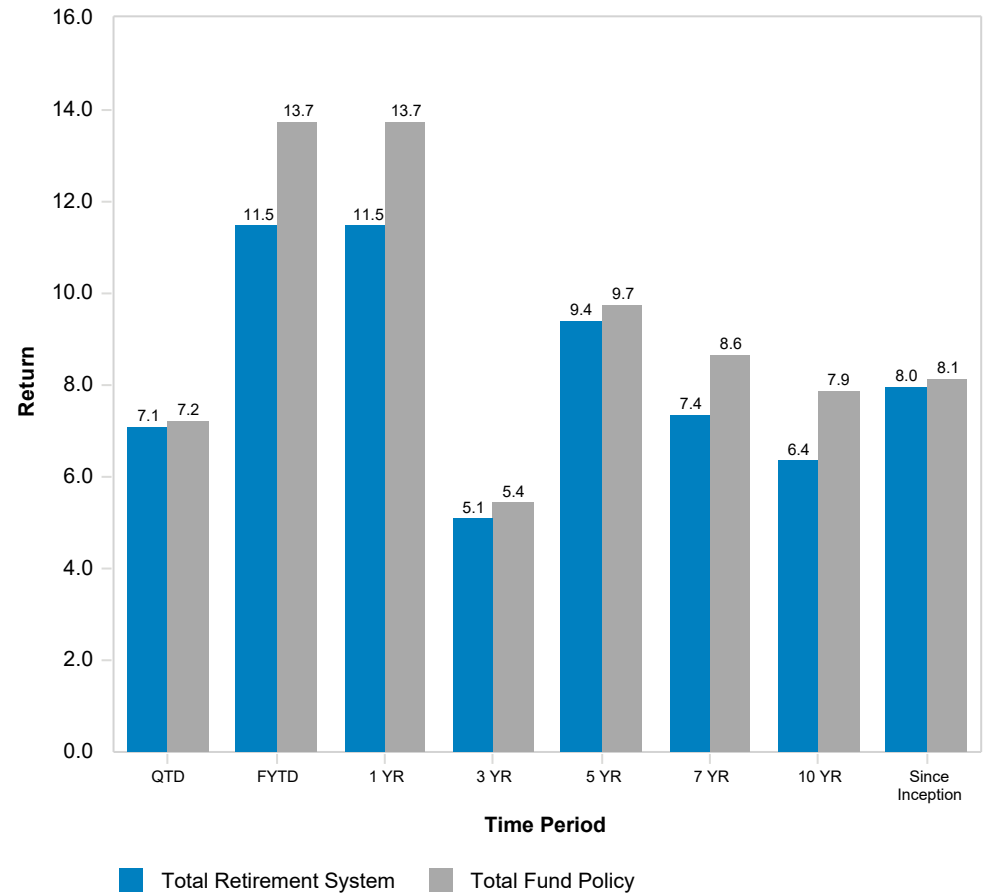
**Allocation**

	Market Value	Allocation
Total Domestic Equity	409,941,879	40.4
Total International Equity	138,008,843	13.6
Total Other Equity	122,526,162	12.1
Total Core Fixed Income	130,768,314	12.9
Total Non Core Fixed Income	51,093,840	5.0
Total Other Fixed Income	10,344,050	1.0
Total Real Estate	135,983,696	13.4
Total Timber Funds	886,000	0.1
Cash Account	16,153,309	1.6

**Gain/Loss Summary**

	QTD	FYTD	1 YR
Total Retirement System			
Beginning Market Value	953,868,251	933,934,678	933,934,678
Net Contributions	-5,415,446	-24,188,640	-24,188,640
Return on Investment	68,024,814	109,165,815	109,165,815
Ending Market Value	1,015,706,092	1,015,706,092	1,015,706,092

**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.

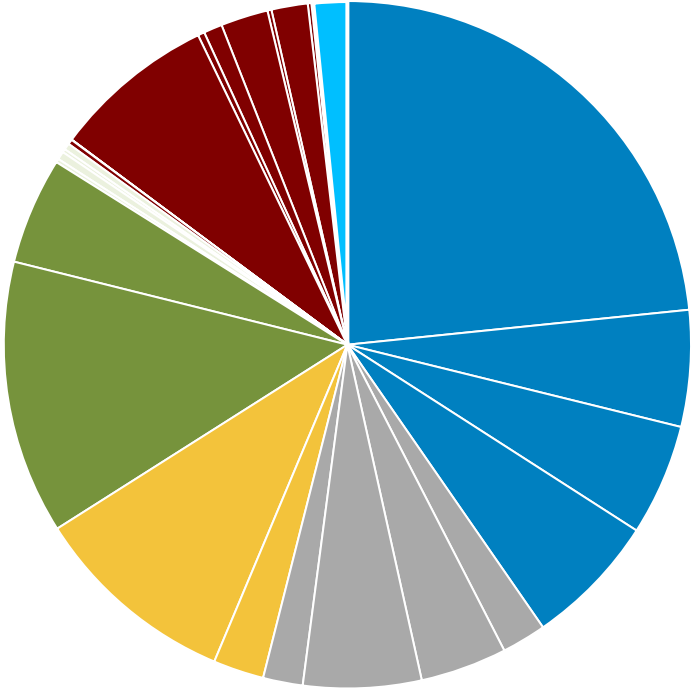
**Asset Allocation by Manager  
Total Fund**

**As of December 31, 2023**

**Dec-2023 : \$1,015,706,092.3**

**Allocation**

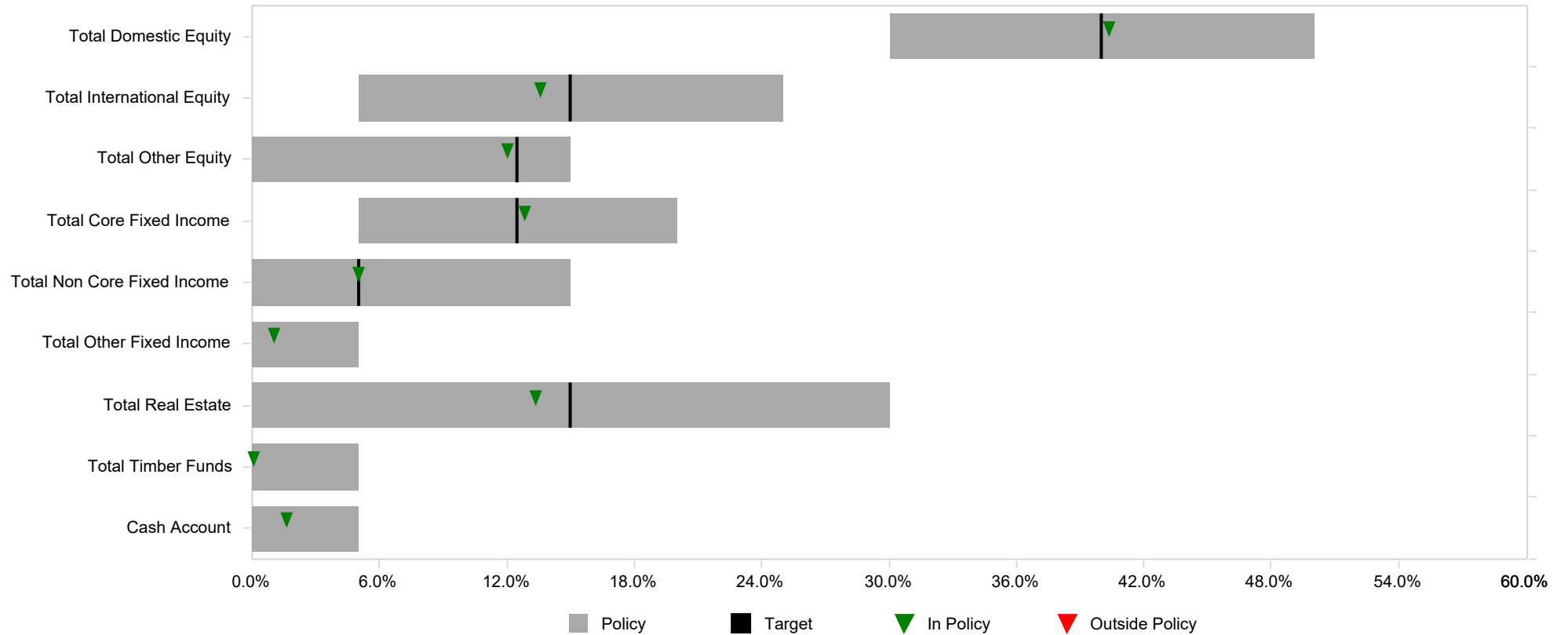
	<b>Market Value</b>	<b>Allocation</b>
NT Collective Russell 3000 Index	237,439,399	23.4
Baird Mid Cap Growth	55,535,501	5.5
Nuance Mid Cap Value	53,248,145	5.2
Kennedy Small Cap Value	63,718,833	6.3
Driehaus International Small Cap Growth	21,276,238	2.1
WCM Focused Intl Growth LP	41,365,321	4.1
Thompson Siegel & Walmsley	56,357,924	5.5
Wellington Emerging Markets Fund	19,009,360	1.9
Huff Energy Fund	24,253,938	2.4
Franklin Park Private Equity	98,272,224	9.7
Orleans Capital	130,768,314	12.9
Pimco Diversified Income Fund	51,093,840	5.0
LBC Credit Partners III	1,760,465	0.2
LBC Credit Partners IV	3,836,436	0.4
Providence Debt Fund III	1,683,414	0.2
Capital Point Partners (Princeton Capital)	3,063,735	0.3
Edison Investments	2,342,426	0.2
India Property Fund	125,024	0.0
Gainesville Property	1	0.0
Morgan Stanley	77,825,160	7.7
AEW Partners Fund VIII	3,218,019	0.3
GreenOak US III	8,891,678	0.9
Brookfield Premier RE Partners	22,570,516	2.2
Artemis Real Estate IV	1,966,437	0.2
Stockbridge Smart Markets	17,343,061	1.7
APRS Building	1,701,375	0.2
Domain Environmental Investments II	886,000	0.1
Cash Account	16,153,309	1.6



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>1,015,706,092</b>	<b>100.0</b>	<b>N/A</b>	<b>N/A</b>	<b>100.0</b>
Total Domestic Equity	409,941,879	40.4	30.0	50.0	40.0
Total International Equity	138,008,843	13.6	5.0	25.0	15.0
Total Other Equity	122,526,162	12.1	0.0	15.0	12.5
Total Core Fixed Income	130,768,314	12.9	5.0	20.0	12.5
Total Non Core Fixed Income	51,093,840	5.0	0.0	15.0	5.0
Total Other Fixed Income	10,344,050	1.0	0.0	5.0	0.0
Total Real Estate	135,983,696	13.4	0.0	30.0	15.0
Total Timber Funds	886,000	0.1	0.0	5.0	0.0
Cash Account	16,153,309	1.6	0.0	5.0	0.0

Financial Reconciliation Quarter to Date										
	Market Value 10/01/2023	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2023
<b>Total Retirement System</b>	<b>953,868,251</b>	<b>-</b>	<b>19,393,476</b>	<b>-24,808,922</b>	<b>-623,469</b>	<b>-148,057</b>	<b>4,525,475</b>	<b>63,499,339</b>	<b>68,024,814</b>	<b>1,015,706,092</b>
<b>Total Equity</b>	<b>617,390,363</b>	<b>-7,142,028</b>	<b>-</b>	<b>-</b>	<b>-394,188</b>	<b>-92,250</b>	<b>1,048,833</b>	<b>59,666,153</b>	<b>60,714,986</b>	<b>670,476,883</b>
<b>Total Domestic Equity</b>	<b>377,010,787</b>	<b>-13,107,563</b>	<b>-</b>	<b>-</b>	<b>-280,320</b>	<b>-</b>	<b>859,606</b>	<b>45,459,370</b>	<b>46,318,975</b>	<b>409,941,879</b>
NT Collective Russell 3000 Index	224,308,639	-13,376,668	-	-	-11,215	-	-	26,518,644	26,518,644	237,439,399
Baird Mid Cap Growth	49,104,616	85,908	-	-	-85,908	-	133,471	6,297,414	6,430,885	55,535,501
Nuance Mid Cap Value	47,359,021	44,408	-	-	-44,408	-	412,177	5,476,947	5,889,124	53,248,145
Kennedy Small Cap Value	56,238,511	138,789	-	-	-138,789	-	313,958	7,166,365	7,480,322	63,718,833
<b>Total International Equity</b>	<b>125,824,402</b>	<b>35,117</b>	<b>-</b>	<b>-</b>	<b>-35,117</b>	<b>-</b>	<b>76,977</b>	<b>12,107,464</b>	<b>12,184,441</b>	<b>138,008,843</b>
Driehaus International Small Cap Growth	19,451,485	-	-	-	-	-	-	1,824,752	1,824,752	21,276,238
Thompson Siegel & Walmsley	51,291,938	-	-	-	-	-	-	5,065,986	5,065,986	56,357,924
WCM Focused Intl Growth LP	37,055,790	-	-	-	-	-	-	4,309,531	4,309,531	41,365,321
Wellington Emerging Markets Fund	18,025,188	35,117	-	-	-35,117	-	76,977	907,195	984,172	19,009,360
<b>Total Other Equity</b>	<b>114,555,174</b>	<b>5,930,418</b>	<b>-</b>	<b>-</b>	<b>-78,750</b>	<b>-92,250</b>	<b>112,251</b>	<b>2,099,319</b>	<b>2,211,570</b>	<b>122,526,162</b>
Huff Energy Fund	24,253,938	-	-	-	-	-	-	-	-	24,253,938
Franklin Park Private Equity	90,301,236	5,930,418	-	-	-78,750	-92,250	112,251	2,099,319	2,211,570	98,272,224
<b>Total Fixed Income</b>	<b>180,516,252</b>	<b>-922,127</b>	<b>-</b>	<b>-</b>	<b>-39,267</b>	<b>-</b>	<b>2,115,035</b>	<b>10,536,310</b>	<b>12,651,346</b>	<b>192,206,203</b>
Orleans Capital	122,066,958	39,267	-	-	-39,267	-	1,345,707	7,355,649	8,701,356	130,768,314
Pimco Diversified Income Fund	47,391,241	-	-	-	-	-	605,199	3,097,400	3,702,599	51,093,840
<b>Total Other Fixed Income</b>	<b>11,058,053</b>	<b>-961,394</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>164,130</b>	<b>83,261</b>	<b>247,391</b>	<b>10,344,050</b>
Capital Point Partners (Princeton Capital)	3,078,931	-	-	-	-	-	-	-15,196	-15,196	3,063,735
LBC Credit Partners III	1,722,110	-71,511	-	-	-	-	71,511	38,354	109,865	1,760,465
LBC Credit Partners IV	4,232,117	-537,996	-	-	-	-	60,030	82,285	142,315	3,836,436
Providence Debt Fund III	2,024,895	-351,887	-	-	-	-	32,588	-22,182	10,406	1,683,414

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

## Financial Reconciliation

## Total Fund

1 Quarter Ending December 31, 2023

	Market Value 10/01/2023	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2023
<b>Total Real Estate &amp; Timber</b>	<b>144,266,639</b>	<b>-1,649,608</b>	-	-	<b>-190,015</b>	<b>-13,300</b>	<b>1,159,105</b>	<b>-6,703,124</b>	<b>-5,544,020</b>	<b>136,869,696</b>
<b>Total Real Estate</b>	<b>143,275,025</b>	<b>-1,649,608</b>	-	-	<b>-190,015</b>	<b>-13,300</b>	<b>1,159,105</b>	<b>-6,597,510</b>	<b>-5,438,406</b>	<b>135,983,696</b>
Edison Investments	2,333,235	-11,382	-	-	-	-	11,382	9,191	20,573	2,342,426
India Property Fund	123,979	-	-	-	-	-	-	1,045	1,045	125,024
Gainesville Property	1,644,315	-1,863,427	-	-	-	-	-	219,113	219,113	1
Morgan Stanley	79,579,871	-	-	-	-	-	784,020	-2,538,731	-1,754,711	77,825,160
AEW Partners Fund VIII	3,687,990	-465,862	-	-	-	-	-	-4,109	-4,109	3,218,019
GreenOak US III	11,043,538	67,915	-	-	-	-	-	-2,219,775	-2,219,775	8,891,678
Brookfield Premier Real Estate Partners	23,890,353	-	-	-	-	-	166,666	-1,486,503	-1,319,837	22,570,516
Artemis Real Estate IV	1,401,845	623,148	-	-	-149,589	-13,300	-	104,333	104,333	1,966,437
Stockbridge Smart Markets	17,868,524	-	-	-	-40,426	-	197,037	-682,074	-485,037	17,343,061
APRS Building	1,701,375	-	-	-	-	-	-	-	-	1,701,375
<b>Total Timber Funds</b>	<b>991,614</b>	-	-	-	-	-	-	<b>-105,614</b>	<b>-105,614</b>	<b>886,000</b>
Domain Environmental Investments II	991,614	-	-	-	-	-	-	-105,614	-105,614	886,000
<b>Cash Account</b>	<b>11,694,997</b>	<b>9,713,763</b>	<b>19,393,476</b>	<b>-24,808,922</b>	-	<b>-42,507</b>	<b>202,502</b>	-	<b>202,502</b>	<b>16,153,309</b>

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

## Financial Reconciliation

## Total Fund

Year To Date Ending December 31, 2023

Financial Reconciliation Year to Date										
	Market Value 01/01/2023	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2023
<b>Total Retirement System</b>	<b>933,934,678</b>	<b>-</b>	<b>74,021,764</b>	<b>-98,210,404</b>	<b>-2,822,197</b>	<b>-383,564</b>	<b>17,635,273</b>	<b>91,530,543</b>	<b>109,165,815</b>	<b>1,015,706,092</b>
<b>Total Equity</b>	<b>616,613,154</b>	<b>-52,339,385</b>	<b>-</b>	<b>-</b>	<b>-2,211,216</b>	<b>-92,250</b>	<b>3,946,319</b>	<b>104,560,261</b>	<b>108,506,580</b>	<b>670,476,883</b>
<b>Total Domestic Equity</b>	<b>397,664,840</b>	<b>-62,395,278</b>	<b>-</b>	<b>-</b>	<b>-1,467,624</b>	<b>-</b>	<b>3,413,518</b>	<b>72,726,423</b>	<b>76,139,941</b>	<b>409,941,879</b>
NT Collective Russell 3000 Index	223,929,044	-40,805,470	-	-	-57,432	-	-	54,373,258	54,373,258	237,439,399
Baird Mid Cap Growth	53,296,257	-7,639,315	-	-	-360,685	-	441,687	9,797,557	10,239,243	55,535,501
Nuance Mid Cap Value	63,994,131	-14,629,571	-	-	-370,429	-	1,786,014	2,468,001	4,254,014	53,248,145
Kennedy Small Cap Value	56,445,407	679,078	-	-	-679,078	-	1,185,818	6,087,608	7,273,426	63,718,833
<b>Total International Equity</b>	<b>120,605,613</b>	<b>135,747</b>	<b>-</b>	<b>-</b>	<b>-137,613</b>	<b>-</b>	<b>417,990</b>	<b>16,987,106</b>	<b>17,405,096</b>	<b>138,008,843</b>
Driehaus International Small Cap Growth	18,794,285	-1,866	-	-	-	-	-	2,483,818	2,483,818	21,276,238
Thompson Siegel & Walmsley	48,366,324	-	-	-	-	-	-	7,991,600	7,991,600	56,357,924
WCM Focused Intl Growth LP	35,451,214	-	-	-	-	-	-	5,914,107	5,914,107	41,365,321
Wellington Emerging Markets Fund	17,993,789	137,613	-	-	-137,613	-	417,990	597,581	1,015,571	19,009,360
<b>Total Other Equity</b>	<b>98,220,333</b>	<b>10,003,611</b>	<b>-</b>	<b>-</b>	<b>-605,978</b>	<b>-92,250</b>	<b>114,811</b>	<b>14,885,635</b>	<b>15,000,446</b>	<b>122,526,162</b>
Huff Energy Fund	19,396,200	-	-	-	-	-	-	4,857,738	4,857,738	24,253,938
Franklin Park Private Equity	78,824,133	10,003,611	-	-	-605,978	-92,250	114,811	10,027,897	10,142,708	98,272,224
<b>Total Fixed Income</b>	<b>104,845,570</b>	<b>75,188,819</b>	<b>-</b>	<b>-</b>	<b>-120,341</b>	<b>-</b>	<b>7,483,928</b>	<b>4,808,227</b>	<b>12,292,155</b>	<b>192,206,203</b>
Orleans Capital	46,504,138	77,859,077	-	-	-121,579	-	4,627,642	1,899,036	6,526,678	130,768,314
Pimco Diversified Income Fund	46,278,146	-	-	-	-	-	2,319,289	2,496,405	4,815,694	51,093,840
<b>Total Other Fixed Income</b>	<b>12,063,285</b>	<b>-2,670,258</b>	<b>-</b>	<b>-</b>	<b>1,239</b>	<b>-</b>	<b>536,997</b>	<b>412,787</b>	<b>949,784</b>	<b>10,344,050</b>
Capital Point Partners (Princeton Capital)	3,257,754	-	-	-	-	-	-	-194,019	-194,019	3,063,735
LBC Credit Partners III	1,531,158	-120,407	-	-	1,239	-	119,169	229,306	348,475	1,760,465
LBC Credit Partners IV	4,295,655	-1,238,007	-	-	-	-	261,211	517,577	778,788	3,836,436
Providence Debt Fund III	2,978,718	-1,311,844	-	-	-	-	156,618	-140,078	16,540	1,683,414

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

## Financial Reconciliation

## Total Fund

Year To Date Ending December 31, 2023

	Market Value 01/01/2023	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Income	Apprec./ Deprec.	Return On Investment	Market Value 12/31/2023
<b>Total Real Estate &amp; Timber</b>	<b>150,592,903</b>	<b>652,332</b>	-	-	<b>-490,641</b>	<b>-120,025</b>	<b>4,845,649</b>	<b>-18,610,522</b>	<b>-13,764,873</b>	<b>136,869,696</b>
<b>Total Real Estate</b>	<b>148,252,053</b>	<b>1,859,033</b>	-	-	<b>-490,641</b>	<b>-120,025</b>	<b>4,845,649</b>	<b>-18,362,373</b>	<b>-13,516,724</b>	<b>135,983,696</b>
Edison Investments	2,304,992	-39,838	-	-	-	-	39,838	37,434	77,272	2,342,426
India Property Fund	173,212	-29,111	-	-	-	-	-	-19,077	-19,077	125,024
Gainesville Property	1,644,315	-1,846,809	-	-	-	-16,618	-	219,113	219,113	1
Morgan Stanley	82,607,316	-	-	-	-	-	3,193,432	-7,975,588	-4,782,157	77,825,160
AEW Partners Fund VIII	3,725,317	-584,284	-	-	-	-	-	76,986	76,986	3,218,019
GreenOak US III	10,019,132	857,243	-	-	-56,008	-	-	-1,928,689	-1,928,689	8,891,678
Brookfield Premier Real Estate Partners	28,185,074	-	-	-	-	-	835,422	-6,449,980	-5,614,558	22,570,516
Artemis Real Estate IV	399,234	1,800,458	-	-	-266,301	-103,407	11,051	125,402	136,453	1,966,437
Stockbridge Smart Markets	19,193,461	-	-	-	-168,332	-	765,905	-2,447,974	-1,682,069	17,343,061
APRS Building	-	1,701,375	-	-	-	-	-	-	-	1,701,375
<b>Total Timber Funds</b>	<b>2,340,850</b>	<b>-1,206,701</b>	-	-	-	-	-	<b>-248,149</b>	<b>-248,149</b>	<b>886,000</b>
Domain Environmental Investments II	1,318,953	-210,000	-	-	-	-	-	-222,953	-222,953	886,000
<b>Cash Account</b>	<b>6,940,300</b>	<b>32,937,106</b>	<b>74,021,764</b>	<b>-98,210,404</b>	-	<b>-171,290</b>	<b>641,448</b>	<b>-5,615</b>	<b>635,833</b>	<b>16,153,309</b>

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
<b>Total Retirement System (Net)</b>	<b>7.07</b>	<b>11.50</b>	<b>11.50</b>	<b>5.09</b>	<b>9.40</b>	<b>7.37</b>	<b>6.35</b>	<b>7.97</b>	<b>10/01/1992</b>
<b>Total Retirement System (Gross)</b>	<b>7.14 (66)</b>	<b>11.82 (64)</b>	<b>11.82 (64)</b>	<b>5.32 (19)</b>	<b>9.66 (17)</b>	<b>7.63 (52)</b>	<b>6.61 (55)</b>	<b>8.28 (20)</b>	<b>10/01/1992</b>
Total Fund Policy	7.23	13.74	13.74	5.42	9.74	8.63	7.88	8.15	
Variance	-0.09	-1.92	-1.92	-0.10	-0.08	-1.00	-1.27	0.13	
All Public Plans-Total Fund Median	7.85	12.69	12.69	3.96	8.69	7.65	6.74	7.82	
<b>Total Equity</b>	<b>9.79</b>	<b>17.99</b>	<b>17.99</b>	<b>6.63</b>	<b>12.80</b>	<b>10.02</b>	<b>8.32</b>	<b>8.93</b>	<b>01/01/1994</b>
Total Equity Policy	11.70	24.12	24.12	7.70	13.65	11.52	9.60	8.81	
Variance	-1.91	-6.13	-6.13	-1.07	-0.85	-1.50	-1.28	0.12	
<b>Domestic Equity</b>	<b>12.41 (43)</b>	<b>20.43 (43)</b>	<b>20.43 (43)</b>	<b>6.99 (61)</b>	<b>13.85 (45)</b>	<b>11.06 (47)</b>	<b>9.71 (51)</b>	<b>10.82 (61)</b>	<b>05/01/2013</b>
Russell 3000 Index	12.07	25.96	25.96	8.54	15.16	12.81	11.48	12.48	
Variance	0.34	-5.53	-5.53	-1.55	-1.31	-1.75	-1.77	-1.66	
IM U.S. Equity (SA+CF+MF) Median	11.91	18.56	18.56	8.34	13.30	10.68	9.74	11.49	
NT Collective Russell 3000 Index	12.08 (43)	25.95 (35)	25.95 (35)	8.57 (62)	15.17 (47)	12.82 (47)	11.49 (38)	11.49 (38)	01/01/2014
Russell 3000 Index	12.07	25.96	25.96	8.54	15.16	12.81	11.48	11.48	
Variance	0.01	-0.01	-0.01	0.03	0.01	0.01	0.01	0.01	
IM U.S. All Cap Core Equity (SA+CF) Median	11.70	22.90	22.90	8.96	15.01	12.52	11.02	11.02	
Baird Mid Cap Growth	12.88 (53)	19.92 (77)	19.92 (77)	1.91 (36)	14.28 (52)	13.56 (40)	N/A	10.27 (72)	07/01/2014
Russell Midcap Growth Index	14.55	25.87	25.87	1.31	13.81	12.49	10.57	10.42	
Variance	-1.67	-5.95	-5.95	0.60	0.47	1.07	N/A	-0.15	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	13.28	23.42	23.42	0.76	14.32	13.19	10.76	11.00	
Nuance Mid Cap Value	12.44 (30)	7.65 (93)	7.65 (93)	5.18 (97)	N/A	N/A	N/A	8.03 (84)	04/01/2019
Russell Midcap Value Index	12.11	12.71	12.71	8.36	11.16	7.76	8.26	8.66	
Variance	0.33	-5.06	-5.06	-3.18	N/A	N/A	N/A	-0.63	
IM U.S. Mid Cap Value Equity (SA+CF) Median	11.74	14.32	14.32	11.15	13.45	9.25	9.19	11.13	
Kennedy Small Cap Value	13.01 (49)	11.56 (89)	11.56 (89)	8.43 (75)	10.89 (82)	6.09 (94)	N/A	9.08 (95)	03/01/2016
Russell 2000 Value Index	15.26	14.65	14.65	7.94	10.00	6.10	6.76	10.09	
Variance	-2.25	-3.09	-3.09	0.49	0.89	-0.01	N/A	-1.01	
IM U.S. Small Cap Value Equity (SA+CF) Median	12.95	17.24	17.24	10.77	12.62	8.38	8.35	11.60	

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, 2023

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
<b>International Equity</b>	<b>9.65 (53)</b>	<b>14.38 (67)</b>	<b>14.38 (67)</b>	<b>-0.04 (63)</b>	<b>6.33 (76)</b>	<b>5.44 (85)</b>	<b>3.57 (83)</b>	<b>4.93 (82)</b>	<b>05/01/2013</b>
MSCI AC World ex USA	9.82	16.21	16.21	2.04	7.60	6.84	4.32	4.80	
Variance	-0.17	-1.83	-1.83	-2.08	-1.27	-1.40	-0.75	0.13	
IM International Equity (SA+CF+MF) Median	9.82	16.56	16.56	1.89	8.34	7.29	4.90	6.13	
Driehaus International Small Cap Growth	9.38 (83)	12.79 (59)	12.79 (59)	-1.35 (47)	10.22 (3)	9.67 (2)	6.78 (3)	9.18 (8)	09/01/2012
MSCI AC World ex USA Small Growth	10.23	14.47	14.47	-1.72	8.02	7.08	5.23	6.94	
Variance	-0.85	-1.68	-1.68	0.37	2.20	2.59	1.55	2.24	
IM International SMID Cap Growth Equity (MF) Median	11.42	13.44	13.44	-1.61	6.67	6.12	4.22	6.48	
Thompson Siegel & Walmsley	9.88 (63)	16.52 (69)	16.52 (69)	4.53 (36)	8.09 (69)	6.18 (87)	N/A	4.52 (87)	10/01/2014
MSCI EAFE (Net) Index	10.42	18.24	18.24	4.02	8.16	6.91	4.28	4.79	
Variance	-0.54	-1.72	-1.72	0.51	-0.07	-0.73	N/A	-0.27	
IM International Large Cap Core Equity (SA+CF) Median	10.28	18.01	18.01	3.52	8.88	7.58	5.13	5.62	
WCM Focused Intl Growth LP	11.63 (38)	16.68 (30)	16.68 (30)	-0.68 (60)	N/A	N/A	N/A	1.09 (61)	12/01/2020
MSCI AC World ex USA Growth (Net)	11.12	14.03	14.03	-2.67	7.49	7.14	4.55	-0.96	
Variance	0.51	2.65	2.65	1.99	N/A	N/A	N/A	2.05	
IM International Large Cap Growth Equity (MF) Median	10.83	15.54	15.54	0.33	8.40	7.28	4.42	1.99	
Wellington Emerging Markets Fund	5.25 (87)	4.86 (89)	4.86 (89)	-8.19 (82)	N/A	N/A	N/A	-1.44 (94)	02/01/2020
MSCI Emerging Markets (Net) Index	7.86	9.83	9.83	-5.08	3.68	4.98	2.66	1.53	
Variance	-2.61	-4.97	-4.97	-3.11	N/A	N/A	N/A	-2.97	
IM Emerging Markets Equity (SA+CF) Median	8.16	12.87	12.87	-3.24	5.62	6.45	3.92	3.18	
<b>Total Other Equity</b>	<b>1.79</b>	<b>14.39</b>	<b>14.39</b>	<b>18.09</b>	<b>20.74</b>	<b>7.33</b>	<b>N/A</b>	<b>7.33</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 December 31, 2023

	Performance (%)								Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	
<b>Total Fixed Income</b>	<b>7.02</b>	<b>6.94</b>	<b>6.94</b>	<b>-1.19</b>	<b>0.89</b>	<b>1.05</b>	<b>1.24</b>	<b>5.70</b>	<b>12/01/1993</b>
Total Fixed Income Policy	7.28	6.70	6.70	-3.74	0.83	1.28	1.35	4.21	
Variance	-0.26	0.24	0.24	2.55	0.06	-0.23	-0.11	1.49	
Orleans Capital	7.09 (25)	5.37 (91)	5.37 (91)	-3.27 (73)	1.08 (97)	1.33 (87)	1.87 (85)	1.87 (85)	01/01/2014
Blmbg. U.S. Aggregate Index	6.82	5.53	5.53	-3.31	1.10	1.29	1.81	1.81	
Variance	0.27	-0.16	-0.16	0.04	-0.02	0.04	0.06	0.06	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	6.82	6.05	6.05	-3.00	1.65	1.76	2.25	2.25	
Pimco Diversified Income Fund	7.81 (41)	10.41 (4)	10.41 (4)	-1.56 (22)	N/A	N/A	N/A	0.66 (12)	07/01/2020
Blmbg. Global Credit (Hedged)	7.32	9.36	9.36	-2.06	2.51	2.51	3.11	-0.35	
Variance	0.49	1.05	1.05	0.50	N/A	N/A	N/A	1.01	
IM Global Fixed Income (MF) Median	7.37	6.74	6.74	-3.56	0.82	1.25	1.12	-1.37	
<b>Total Other Fixed Income</b>	<b>2.45</b>	<b>9.04</b>	<b>9.04</b>	<b>8.84</b>	<b>6.08</b>	<b>4.42</b>	<b>N/A</b>	<b>4.42</b>	<b>01/01/2017</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 December 31, 2023

	Performance (%)								Inception	Inception Date
	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR			
<b>Alternative Investments</b>										
<b>Other Assets</b>										
Cash Account	1.34	4.94	4.94	2.09	1.76	1.61	1.16	4.15	06/01/1988	
<b>Other Alternative Assets</b>										
Total Real Estate	-3.98	-9.31	-9.31	6.20	4.75	4.54	6.63	4.13	08/01/2005	
NCREIF Property Index	-3.02	-7.94	-7.94	4.57	4.33	5.04	6.80	7.11		
Variance	-0.96	-1.37	-1.37	1.63	0.42	-0.50	-0.17	-2.98		
Morgan Stanley	-2.21	-5.79	-5.79	6.70	5.48	6.29	N/A	6.65	01/01/2016	
NCREIF Fund Index-ODCE (EW)	-5.37	-13.33	-13.33	4.35	3.78	4.72	6.65	5.17		
Variance	3.16	7.54	7.54	2.35	1.70	1.57	N/A	1.48		
Brookfield Premier Real Estate Partners	-5.52	-19.92	-19.92	3.61	N/A	N/A	N/A	3.04	11/01/2019	
NCREIF Fund Index-ODCE (EW)	-5.37	-13.33	-13.33	4.35	3.78	4.72	6.65	3.62		
Variance	-0.15	-6.59	-6.59	-0.74	N/A	N/A	N/A	-0.58		
Stockbridge Smart Markets	-2.94	-9.64	-9.64	N/A	N/A	N/A	N/A	-9.36	08/01/2022	
NCREIF Fund Index-ODCE (EW)	-5.37	-13.33	-13.33	4.35	3.78	4.72	6.65	-12.40		
Variance	2.43	3.69	3.69	N/A	N/A	N/A	N/A	3.04		
Total Timber Funds	-10.65	-20.21	-20.21	1.33	0.86	0.05	0.54	1.44	08/01/2005	
NCREIF Timberland Index	4.34	9.45	9.45	10.50	6.62	5.69	5.77	6.76		
Variance	-14.99	-29.66	-29.66	-9.17	-5.76	-5.64	-5.23	-5.32		

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 Fiscal Year Returns

	Performance (%)									
	YTD	2022	2021	2020	2019	2018	2017	2016	2015	
<b>Total Retirement System (Net)</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>-1.05</b>	
<b>Total Retirement System (Gross)</b>	<b>11.82 (64)</b>	<b>-11.36 (30)</b>	<b>17.86 (11)</b>	<b>11.99 (60)</b>	<b>21.23 (15)</b>	<b>-5.95 (88)</b>	<b>12.17 (91)</b>	<b>7.87 (44)</b>	<b>-0.83 (70)</b>	
Total Fund Policy	13.74	-11.69	16.63	13.40	19.81	-3.12	15.79	8.04	2.43	
Variance	-1.92	0.33	1.23	-1.41	1.42	-2.83	-3.62	-0.17	-3.26	
All Public Plans-Total Fund Median	12.69	-12.90	13.96	12.63	18.68	-4.12	15.16	7.57	-0.10	
<b>Total Equity</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>	<b>-2.87</b>	
Total Equity Policy	24.12	-17.82	22.48	17.62	29.04	-7.34	22.07	9.61	-0.51	
Variance	-6.13	2.69	-1.42	-1.65	0.84	-2.49	-3.58	1.80	-2.36	
<b>Domestic Equity</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>	<b>-3.09 (70)</b>	
Russell 3000 Index	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74	0.48	
Variance	-5.53	0.90	-1.17	-1.78	0.13	-1.94	-3.74	3.02	-3.57	
IM U.S. Equity (SA+CF+MF) Median	18.56	-16.40	25.60	15.39	28.76	-6.57	19.23	12.53	-0.60	
NT Collective Russell 3000 Index	25.95 (35)	-19.15 (77)	25.68 (57)	20.83 (41)	31.02 (35)	-5.23 (54)	21.15 (48)	12.79 (37)	0.49 (47)	
Russell 3000 Index	25.96	-19.21	25.66	20.89	31.02	-5.24	21.13	12.74	0.48	
Variance	-0.01	0.06	0.02	-0.06	0.00	0.01	0.02	0.05	0.01	
IM U.S. All Cap Core Equity (SA+CF) Median	22.90	-17.21	26.27	18.60	29.22	-5.10	20.92	10.91	0.39	
Baird Mid Cap Growth	19.92 (77)	-27.51 (52)	21.76 (9)	35.15 (57)	36.27 (50)	-1.60 (34)	26.98 (36)	5.35 (50)	-3.03 (82)	
Russell Midcap Growth Index	25.87	-26.72	12.73	35.59	35.47	-4.75	25.27	7.33	-0.20	
Variance	-5.95	-0.79	9.03	-0.44	0.80	3.15	1.71	-1.98	-2.83	
IM U.S. Mid Cap Growth Equity (SA+CF) Median	23.42	-27.38	13.84	38.03	36.20	-4.23	25.96	5.34	1.17	
Nuance Mid Cap Value	7.65 (93)	-3.68 (18)	12.23 (100)	5.24 (45)	N/A	N/A	N/A	N/A	N/A	
Russell Midcap Value Index	12.71	-12.03	28.34	4.96	27.06	-12.29	13.34	20.00	-4.78	
Variance	-5.06	8.35	-16.11	0.28	N/A	N/A	N/A	N/A	N/A	
IM U.S. Mid Cap Value Equity (SA+CF) Median	14.32	-8.48	29.45	4.69	29.18	-13.36	15.65	19.53	-3.02	
Kennedy Small Cap Value	11.56 (89)	-17.75 (90)	38.92 (15)	4.93 (52)	25.37 (47)	-19.83 (94)	12.51 (42)	N/A	N/A	
Russell 2000 Value Index	14.65	-14.48	28.27	4.63	22.39	-12.86	7.84	31.74	-7.47	
Variance	-3.09	-3.27	10.65	0.30	2.98	-6.97	4.67	N/A	N/A	
IM U.S. Small Cap Value Equity (SA+CF) Median	17.24	-10.61	30.09	5.18	24.99	-14.08	11.56	27.12	-4.29	

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, 2023

	Performance (%)																	
	YTD	2022	2021	2020	2019	2018	2017	2016	2015									
<b>International Equity</b>	<b>14.38</b>	<b>(67)</b>	<b>-21.97</b>	<b>(70)</b>	<b>11.90</b>	<b>(38)</b>	<b>12.54</b>	<b>(55)</b>	<b>20.92</b>	<b>(69)</b>	<b>-16.28</b>	<b>(65)</b>	<b>27.37</b>	<b>(65)</b>	<b>0.67</b>	<b>(70)</b>	<b>-2.40</b>	<b>(61)</b>
MSCI AC World ex USA	16.21		-15.57		8.29		11.13		22.13		-13.78		27.77		5.01		-5.25	
Variance	-1.83		-6.40		3.61		1.41		-1.21		-2.50		-0.40		-4.34		2.85	
IM International Equity (SA+CF+MF) Median	16.56		-17.66		10.20		14.11		23.42		-14.91		29.71		2.83		-0.55	
Driehaus International Small Cap Growth	12.79	(59)	-24.34	(45)	12.49	(49)	29.79	(17)	30.57	(11)	-16.92	(32)	41.19	(6)	-6.24	(89)	12.59	(11)
MSCI AC World ex USA Small Growth	14.47		-25.85		11.83		23.99		24.96		-18.07		33.99		-0.04		6.74	
Variance	-1.68		1.51		0.66		5.80		5.61		1.15		7.20		-6.20		5.85	
IM International SMID Cap Growth Equity (MF) Median	13.44		-25.76		12.40		14.79		24.29		-19.24		34.22		-0.76		6.36	
Thompson Siegel & Walmsley	16.52	(69)	-13.89	(32)	13.82	(29)	6.62	(80)	21.18	(71)	-15.93	(74)	22.70	(93)	0.47	(65)	1.38	(38)
MSCI EAFE (Net) Index	18.24		-14.45		11.26		7.82		22.01		-13.79		25.03		1.00		-0.81	
Variance	-1.72		0.56		2.56		-1.20		-0.83		-2.14		-2.33		-0.53		2.19	
IM International Large Cap Core Equity (SA+CF) Median	18.01		-15.91		11.88		11.69		23.61		-14.32		27.86		1.71		0.50	
WCM Focused Intl Growth LP	16.68	(30)	-28.63	(88)	17.64	(3)	N/A		N/A		N/A		N/A		N/A		N/A	
MSCI AC World ex USA Growth (Net)	14.03		-23.05		5.09		22.20		27.34		-14.43		32.01		0.12		-1.25	
Variance	2.65		-5.58		12.55		N/A		N/A		N/A		N/A		N/A		N/A	
IM International Large Cap Growth Equity (MF) Median	15.54		-20.24		8.88		20.00		27.50		-14.67		28.61		-1.94		0.25	
Wellington Emerging Markets Fund	4.86	(89)	-24.51	(78)	-2.23	(64)	N/A		N/A		N/A		N/A		N/A		N/A	
MSCI Emerging Markets (Net) Index	9.83		-20.09		-2.54		18.31		18.42		-14.57		37.28		11.19		-14.92	
Variance	-4.97		-4.42		0.31		N/A		N/A		N/A		N/A		N/A		N/A	
IM Emerging Markets Equity (SA+CF) Median	12.87		-19.54		0.94		18.40		20.15		-15.21		37.08		9.84		-11.93	
<b>Total Other Equity</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>		<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 December 31, 2023

	Performance (%)								
	YTD	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total Fixed Income</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>	<b>-0.97</b>
Total Fixed Income Policy	6.70	-14.66	-2.05	8.28	7.93	-0.66	5.60	2.77	-1.37
Variance	0.24	3.38	3.74	-4.18	-3.85	0.72	-2.74	1.59	0.40
Orleans Capital	5.37 (91)	-12.93 (48)	-1.34 (56)	7.16 (93)	8.80 (68)	0.07 (46)	3.87 (58)	3.79 (28)	0.57 (74)
Blmbg. U.S. Aggregate Index	5.53	-13.01	-1.55	7.51	8.72	0.01	3.54	2.65	0.55
Variance	-0.16	0.08	0.21	-0.35	0.08	0.06	0.33	1.14	0.02
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	6.05	-12.95	-1.24	8.36	9.17	0.06	3.99	3.07	0.81
Pimco Diversified Income Fund	10.41 (4)	-13.81 (50)	0.26 (5)	N/A	N/A	N/A	N/A	N/A	N/A
Blmbg. Global Credit (Hedged)	9.36	-13.75	-0.41	7.53	12.08	-0.81	5.89	7.33	-0.20
Variance	1.05	-0.06	0.67	N/A	N/A	N/A	N/A	N/A	N/A
IM Global Fixed Income (MF) Median	6.74	-14.66	-2.73	8.29	8.08	-1.78	6.82	2.92	-3.83
<b>Total Other Fixed Income</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>	<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 December 31, 2023

	Performance (%)								
	YTD	2022	2021	2020	2019	2018	2017	2016	2015
<b>Alternative Investments</b>									
<b>Other Assets</b>									
Cash Account	4.94	1.38	0.01	0.43	2.11	1.72	0.76	0.27	0.01
<b>Other Alternative Assets</b>									
Total Real Estate	-9.31	6.27	24.27	-0.45	5.75	5.14	2.90	0.76	5.40
NCREIF Property Index	-7.94	5.52	17.70	1.60	6.42	6.72	6.96	7.97	13.33
Variance	-1.37	0.75	6.57	-2.05	-0.67	-1.58	-4.06	-7.21	-7.93
Morgan Stanley	-5.79	6.14	21.48	1.26	6.16	7.96	8.74	9.20	N/A
NCREIF Fund Index-ODCE (EW)	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36	14.18
Variance	7.54	-1.42	-0.40	0.51	0.98	0.66	1.82	0.84	N/A
Brookfield Premier Real Estate Partners	-19.92	10.55	25.66	0.57	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36	14.18
Variance	-6.59	2.99	3.78	-0.18	N/A	N/A	N/A	N/A	N/A
Stockbridge Smart Markets	-9.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NCREIF Fund Index-ODCE (EW)	-13.33	7.56	21.88	0.75	5.18	7.30	6.92	8.36	14.18
Variance	3.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Timber Funds	-20.21	21.88	6.99	1.43	-1.12	0.13	-3.94	-6.92	1.93
NCREIF Timberland Index	9.45	12.90	9.17	0.81	1.30	3.21	3.63	2.59	4.97
Variance	-29.66	8.98	-2.18	0.62	-2.42	-3.08	-7.57	-9.51	-3.04

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 December 31, 2023

**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>135,983,696</b>	<b>-4.02</b>	<b>-3.97</b>	<b>-9.38</b>	<b>-9.38</b>	<b>5.24</b>	<b>4.11</b>	<b>6.22</b>	<b>07/31/2005</b>
Edison Investments	2,342,426	0.89	0.88	3.38	3.38	3.17	3.08	11.92	09/30/1996
India Property Fund	125,024	0.84	0.84	-11.54	-11.54	-21.37	-24.85	-8.16	05/24/2007
Gainesville Property	1	0.00	96.79	15.64	15.64	3.66	1.67	-5.47	01/31/2008
Morgan Stanley	77,825,160	-2.21	-2.21	-5.79	-5.79	6.70	5.46	6.45	12/31/2015
AEW Partners Fund VIII	3,218,019	-0.13	-0.12	2.12	2.12	39.03	22.00	18.98	06/26/2017
GreenOak US III	8,891,678	-19.98	-20.02	-18.87	-18.87	-1.55	-5.09	-6.07	06/22/2018
Brookfield Premier Real Estate Partners	22,570,516	-5.52	-5.52	-19.92	-19.92	3.61	N/A	2.94	10/01/2019
Artemis Real Estate IV	1,966,437	5.60	-3.07	-18.57	-18.57	N/A	N/A	-28.12	06/23/2022
Stockbridge Smart Markets	17,343,061	-2.94	-2.94	-9.64	-9.64	N/A	N/A	-9.94	07/01/2022
<b>Total Timber Funds</b>	<b>886,000</b>	<b>-10.65</b>	<b>-10.65</b>	<b>-19.63</b>	<b>-19.63</b>	<b>11.03</b>	<b>2.27</b>	<b>0.14</b>	<b>07/31/2005</b>
Domain Environmental Investments II	886,000	-10.65	-10.65	-18.91	-18.91	-14.92	-7.95	-2.92	04/30/2008
<b>Total Other Equity</b>	<b>122,526,162</b>	<b>1.86</b>	<b>1.74</b>	<b>14.23</b>	<b>14.23</b>	<b>18.00</b>	<b>18.11</b>	<b>27.29</b>	<b>01/01/2017</b>
Huff Energy Fund	24,253,938	0.00	0.00	25.04	25.04	17.12	21.74	6.95	12/31/2006
Franklin Park Private Equity	98,272,224	2.34	2.20	11.69	11.69	18.48	16.95	16.37	01/31/2018
<b>Total Other Fixed Income</b>	<b>10,344,050</b>	<b>2.45</b>	<b>2.34</b>	<b>8.75</b>	<b>8.75</b>	<b>9.76</b>	<b>5.00</b>	<b>147.66</b>	<b>12/21/2016</b>
Capital Point Partners (Princeton Capital)	3,063,735	-0.49	-0.49	-5.96	-5.96	23.73	1.13	0.21	03/31/2007
LBC Credit Partners III	1,760,465	6.66	6.47	23.38	23.38	3.93	4.15	7.92	03/07/2014
LBC Credit Partners IV	3,836,436	3.85	3.58	20.42	20.42	7.97	7.20	8.38	09/19/2016
Providence Debt Fund III	1,683,414	0.62	0.57	0.72	0.72	6.41	4.24	6.15	04/21/2014

**Summary of Partnerships  
Other Alternative Investments**

As of December 31, 2023

<b>Private Equity Summary of Partnership</b>						
<b>Partnerships</b>	<b>Drawn Down \$</b>	<b>Market Value \$</b>	<b>Distributed \$</b>	<b>IRR (%)</b>	<b>TVPI Multiple</b>	
<b>Total Real Estate Investments</b>						
Edison Investments	8,146,177	2,342,426	20,013,653	11.9	2.7	
India Property Fund	4,354,162	125,024	2,388,478	-8.2	0.6	
Gainesville Property	5,510,156	1	2,609,488	-5.5	0.5	
Morgan Stanley	50,000,000	77,825,160	-	6.5	1.6	
AEW Partners Fund VIII	15,381,261	3,218,019	18,907,756	19.0	1.4	
GreenOak US III	12,513,780	8,891,678	1,434,323	-6.1	0.8	
Brookfield Premier Real Estate Partners	20,000,000	22,570,516	-	2.9	1.1	
Artemis Real Estate IV	2,768,682	1,966,437	360,908	-28.1	0.8	
Stockbridge Smart Markets	20,000,000	17,343,061	-	-9.9	0.9	
<b>Total Timber Investments</b>						
Domain Environmental Investments II	7,623,603	886,000	5,213,231	-2.9	0.8	

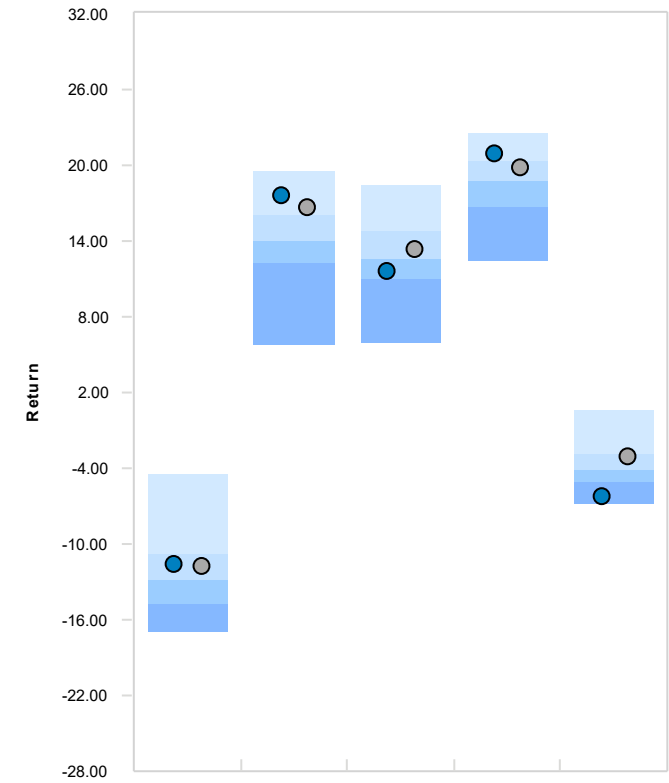
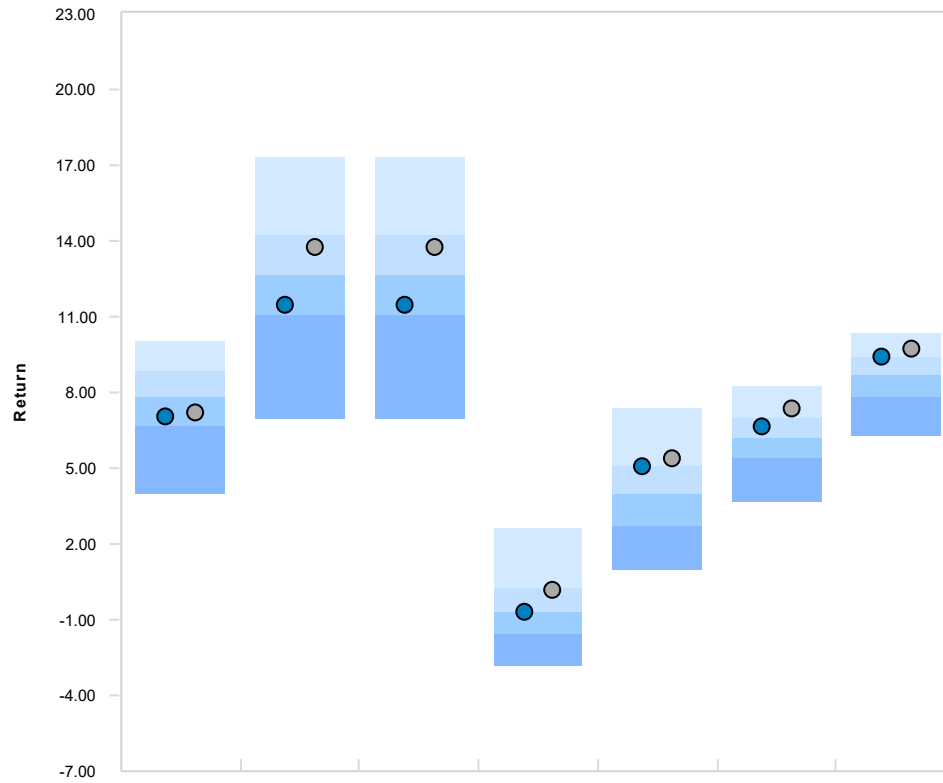
**Summary of Partnerships  
Other Alternative Investments**

As of December 31, 2023

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	7.0	2.3
Franklin Park Private Equity	75,830,427	98,272,224	9,040,060	16.4	1.4
<b>Total Other Fixed Income</b>					
Capital Point Partners (Princeton Capital)	12,058,210	3,063,735	9,145,851	0.2	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	3,836,436	18,665,733	8.4	1.3
Providence Debt Fund III	11,128,113	1,683,414	12,681,052	6.2	1.3



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



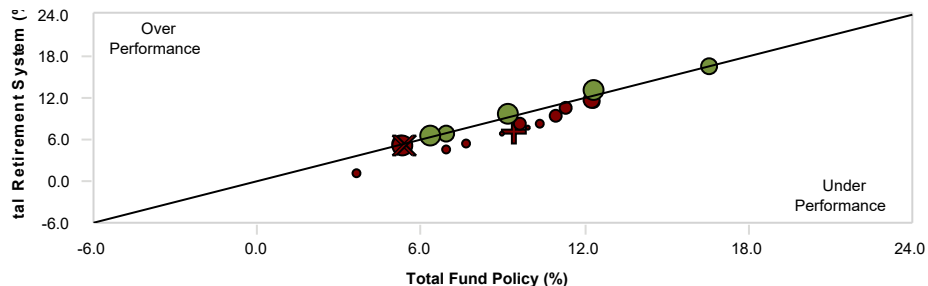
	QTR	FYTD	1 YR	2 YR	3 YR	4 YR	5 YR
● Total Retirement System	7.07 (68)	11.50 (68)	11.50 (68)	-0.69 (53)	5.09 (25)	6.69 (32)	9.40 (26)
● Total Fund Policy	7.23 (64)	13.74 (35)	13.74 (35)	0.22 (27)	5.42 (18)	7.36 (15)	9.74 (14)
Median	7.85	12.69	12.69	-0.65	3.96	6.20	8.69

	2022	2021	2020	2019	2018
● Total Retirement System	11.54 (33)	17.68 (12)	11.65 (65)	20.92 (19)	-6.18 (90)
● Total Fund Policy	11.69 (36)	16.63 (21)	13.40 (40)	19.81 (34)	-3.12 (30)
Median	12.90	13.96	12.63	18.68	-4.12

Comparative Performance

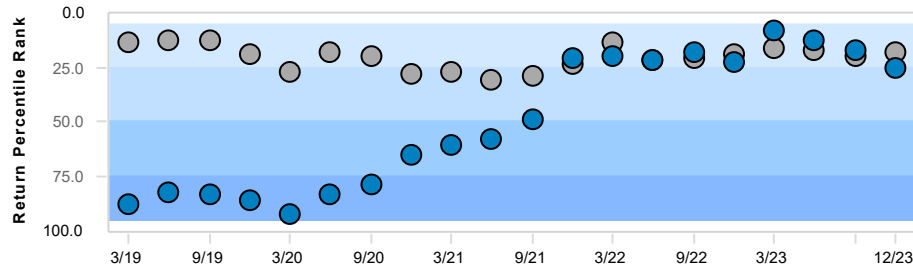
	1 Qtr Ending Sep-2023	1 Qtr Ending Jun-2023	1 Qtr Ending Mar-2023	1 Qtr Ending Dec-2022	1 Qtr Ending Sep-2022	1 Qtr Ending Jun-2022
Total Retirement System	-3.13 (70)	2.78 (67)	4.59 (34)	4.91 (72)	-3.49 (19)	-9.89 (49)
Total Fund Policy	-2.50 (47)	3.79 (19)	4.81 (27)	5.77 (46)	-3.68 (24)	-10.63 (68)
All Public Plans-Total Fund Median	-2.60	3.08	4.18	5.65	-4.34	-9.98

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



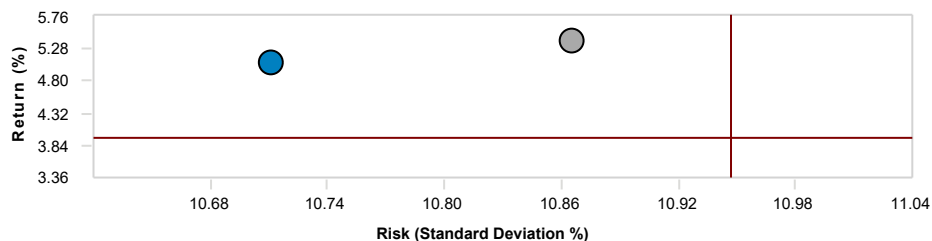
- Over Performance
- Under Performance
- + Earliest Date
- x Latest Date

### 3 Yr Rolling Percentile Ranking - 5 Years



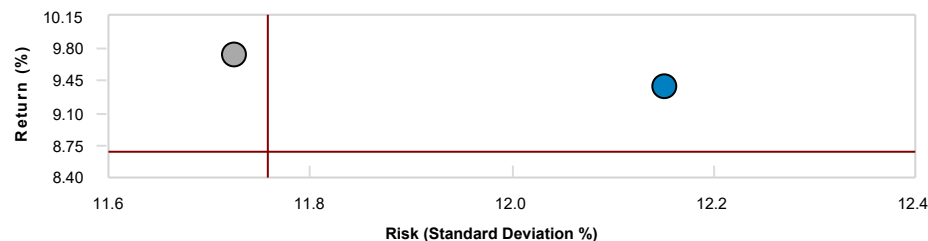
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
<span style="color: blue;">●</span> Total Retirement System	20	9 (45%)	1 (5%)	3 (15%)	7 (35%)
<span style="color: grey;">●</span> Total Fund Policy	20	15 (75%)	5 (25%)	0 (0%)	0 (0%)

### Peer Group Scattergram - 3 Years



	Return	Standard Deviation
<span style="color: blue;">●</span> Total Retirement System	5.09	10.71
<span style="color: grey;">●</span> Total Fund Policy	5.42	10.86
<span style="color: red;">—</span> Median	3.96	10.95

### Peer Group Scattergram - 5 Years



	Return	Standard Deviation
<span style="color: blue;">●</span> Total Retirement System	9.40	12.15
<span style="color: grey;">●</span> Total Fund Policy	9.74	11.72
<span style="color: red;">—</span> Median	8.69	11.76

### Historical Statistics - 3 Years

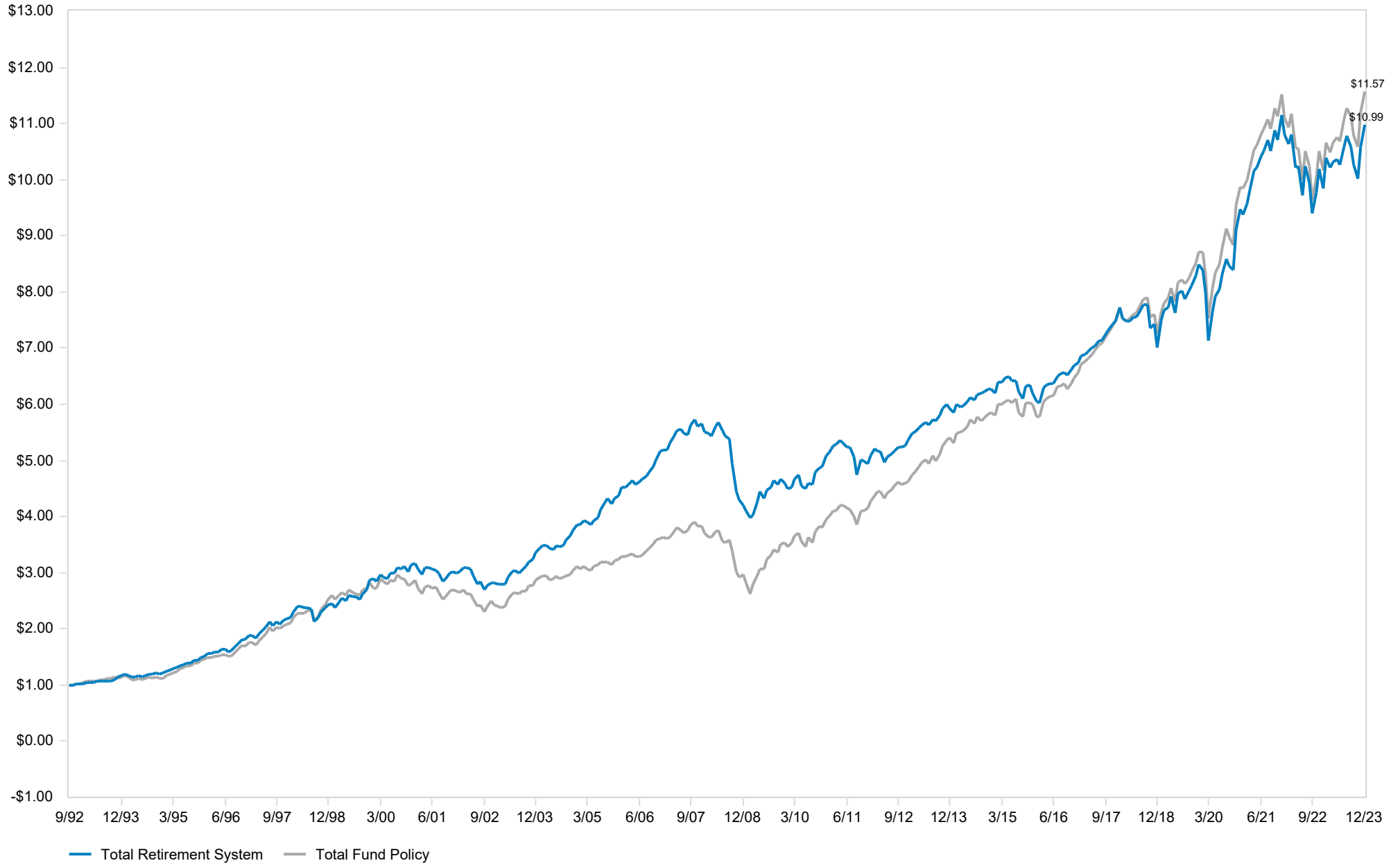
	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.31	98.78	100.70	-0.20	-0.25	0.32	0.98	6.88
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.35	1.00	7.11

### Historical Statistics - 5 Years

	Tracking Error	Up Market Capture	Down Market Capture	Alpha	Information Ratio	Sharpe Ratio	Beta	Downside Risk
Total Retirement System	1.72	101.57	104.98	-0.53	-0.15	0.65	1.03	7.70
Total Fund Policy	0.00	100.00	100.00	0.00	N/A	0.69	1.00	7.44

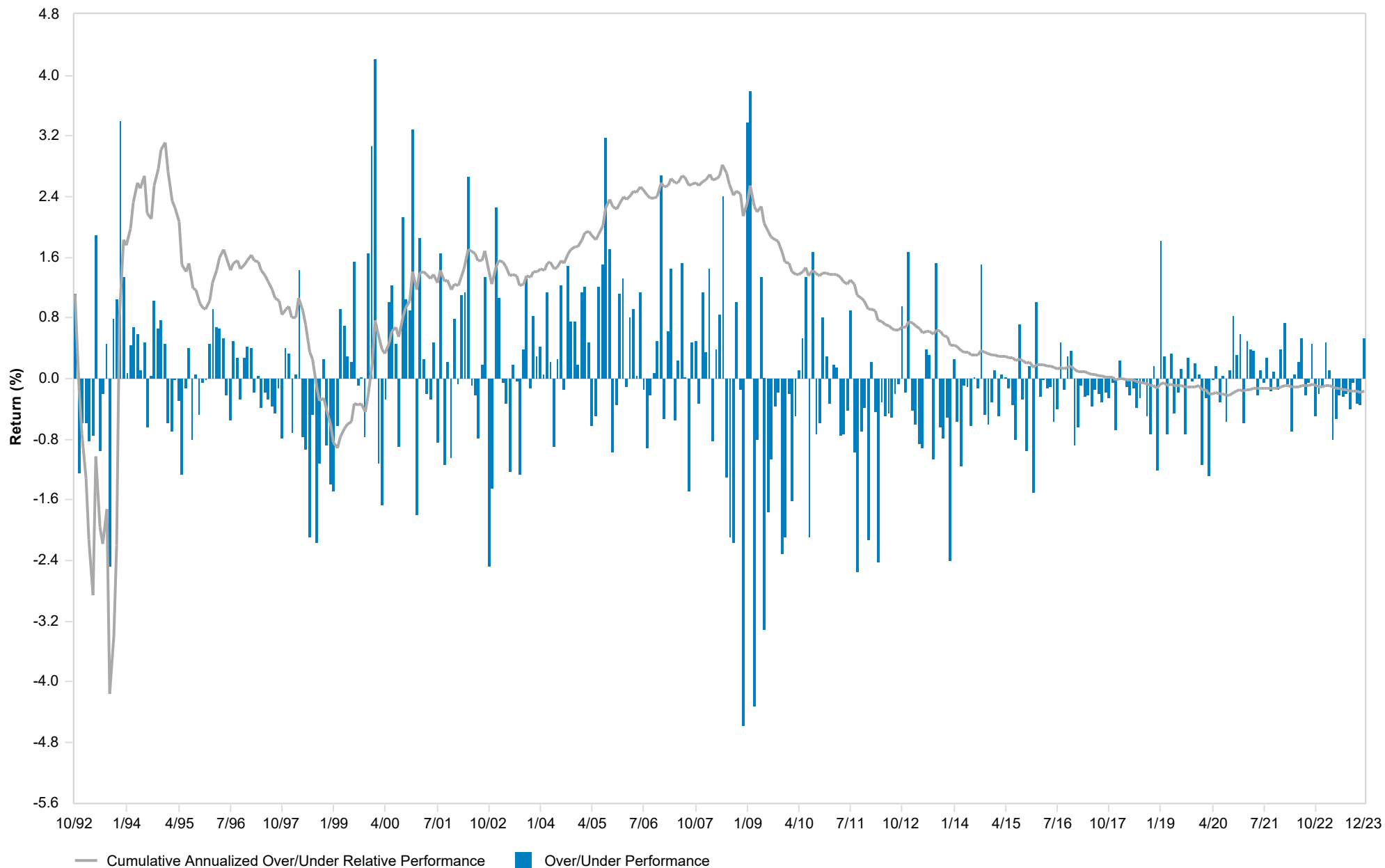
**Growth of \$1**  
**Total Retirement System**  
Since Inception Ending December 31, 2023

**Growth of \$1**



Calculation based on monthly periodicity.

Relative Performance



Calculation based on monthly periodicity.

**Austin Police  
Fee Analysis  
As of December 31, 2023**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
<b>Total Domestic Equity</b>	<b>0.35</b>	<b>409,941,879</b>	<b>1,426,502</b>	
NT Collective Russell 3000 Index	0.02	237,439,399	47,488	0.02 % of Assets
Baird Mid Cap Growth	0.69	55,535,501	383,213	0.70 % of First \$50 M 0.60 % Thereafter
Nuance Mid Cap Value	0.67	53,248,145	358,613	0.70 % of First \$25 M 0.65 % Thereafter
Kennedy Small Cap Value	1.00	63,718,833	637,188	1.00 % of Assets
<b>Total International Equity</b>	<b>0.76</b>	<b>138,008,843</b>	<b>1,051,988</b>	
Thompson Siegel & Walmsley	0.65	56,357,924	366,327	0.65 % of Assets
Driehaus International Small Cap Growth	0.90	21,276,238	191,486	0.90 % of Assets
WCM Focused Intl Growth LP	0.85	41,365,321	351,605	0.85 % of Assets
Wellington Emerging Markets Fund	0.75	19,009,360	142,570	0.75 % of Assets
<b>Total Other Equity</b>	<b>0.32</b>	<b>122,526,162</b>	<b>395,681</b>	
Huff Energy Fund	0.62	24,253,938	150,000	
*Franklin Park Private Equity	0.25	98,272,224	245,681	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>0.36</b>	<b>192,206,203</b>	<b>684,056</b>	
Orleans Capital	0.13	130,768,314	171,922	0.15 % of First \$50 M 0.12 % Thereafter
Pimco Diversified Income Fund	0.75	51,093,840	383,204	0.75 % of Assets
<b>Total Other Fixed Income</b>	<b>1.25</b>	<b>10,344,050</b>	<b>128,930</b>	
Capital Point Partners (Princeton Capital)	1.65	3,063,735	50,552	
LBC Credit Partners III	1.25	1,760,465	22,006	
LBC Credit Partners IV	1.25	3,836,436	47,955	
Providence Debt Fund III	0.50	1,683,414	8,417	

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, 2023**

	Estimated Annual Fee (%)	Market Value (\$)	Estimated Annual Fee (\$)	Fee Schedule
<b>Total Real Estate</b>	<b>0.94</b>	<b>135,983,696</b>	<b>1,276,555</b>	
Edison Investments	1.00	2,342,426	23,424	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	77,825,160	700,426	0.90 % of Assets
AEW Partners Fund VIII	1.25	3,218,019	40,225	1.25 % of Assets
GreenOak US III	1.50	8,891,678	133,375	1.50 % of Assets
Brookfield Premier Real Estate Partners	1.00	22,570,516	225,705	1.00 % of Assets
Artemis Real Estate IV	1.50	1,966,437	29,497	1.50 % of Assets
Stockbridge Smart Markets	0.70	17,343,061	121,401	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>886,000</b>	<b>11,075</b>	
Domain Environmental Investments II	1.25	886,000	11,075	1.25 % of Assets
Cash Account	0.00	16,153,309	-	0.00 % of Assets
<b>Total Retirement System</b>	<b>0.48</b>	<b>1,015,706,092</b>	<b>4,845,856</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.

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

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

<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.

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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.

Mariner Institutional uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. Mariner Institutional analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides Mariner Institutional with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides Mariner Institutional with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause Mariner Institutional to believe that the information presented is significantly misstated.

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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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