



# Quarterly Investment Performance Analysis

City of Jacksonville Employees' Retirement System

Period Ended: June 30, 2023



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# Capital Markets Review



**Second Quarter Economic Environment**

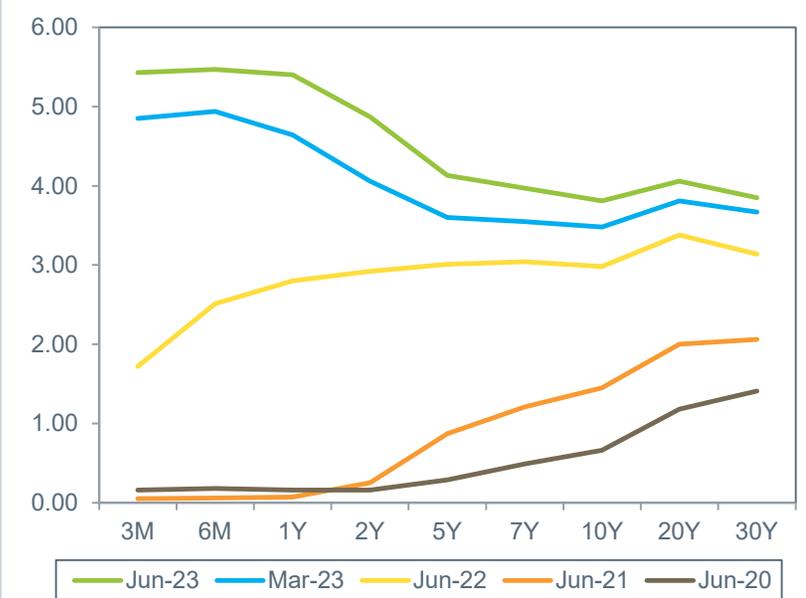
During Q2, investors focused on the uncertainty of the future interest rate path and timing of further actions by the US Federal Reserve and other global central banks. At the start of 2023, the combination of rate hikes and quantitative tightening kept expectations for a near-term US recession embedded in many market forecasts. However, the continued strength of certain indicators, such as consumer spending and job growth, has altered the expected timing of a recession for some market participants. Mid-quarter forecasts and market outlooks were further complicated by the US debt ceiling debate, raising concerns regarding a potential default on the national debt. Ultimately, a deal was struck that suspended the ceiling until 2025. In the June data release, the Consumer Price Index (CPI) slowed to a 3.0% year-over-year rate, its lowest since March 2021. Recent job growth reports in the US provided mixed signals. US equity markets delivered strong results in Q2, primarily driven by the largest growth-oriented companies. US fixed income markets broadly posted negative returns in Q2, as the yield curve inverted further. The economic outlook in China, and its impact on global growth, continued to be a significant topic for investors. As concerns about China have grown, more investors are starting to view India and other south-east Asia countries as the drivers of growth in the region. The World Bank released its 2023 Global Economic Prospects report in June, forecasting subdued global GDP growth of 2.1% in 2023 and 2.4% in 2024, caused by tightening financial conditions and decreases in demand due to continued elevated inflation.

**Key Economic Indicators**

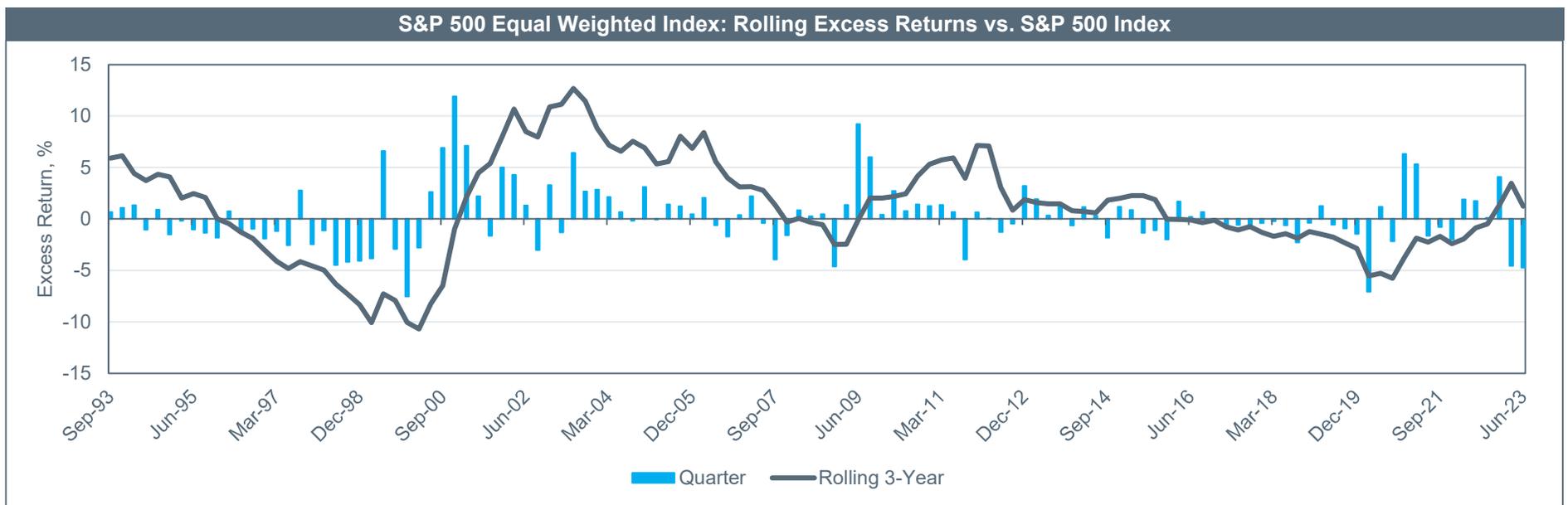
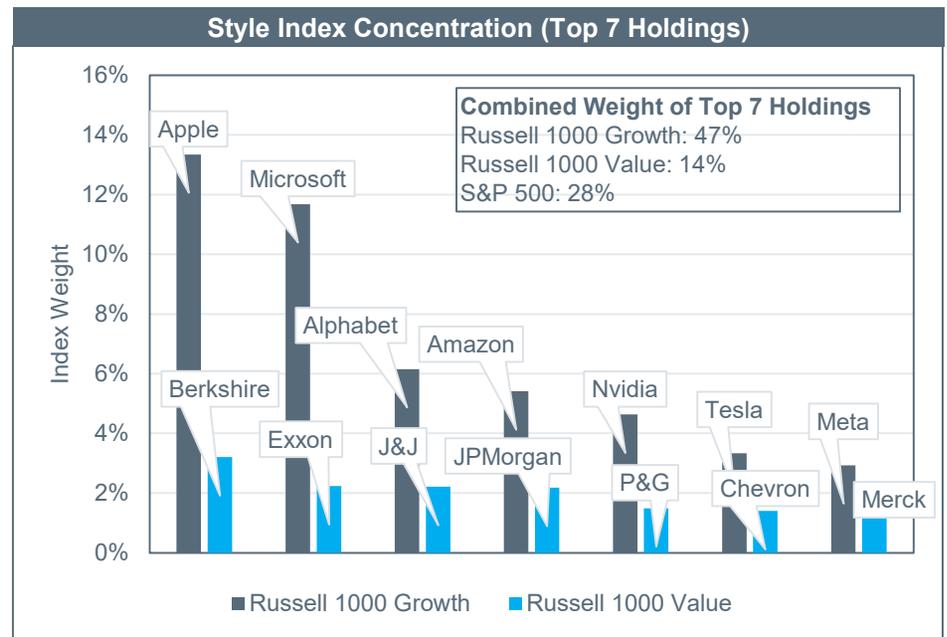
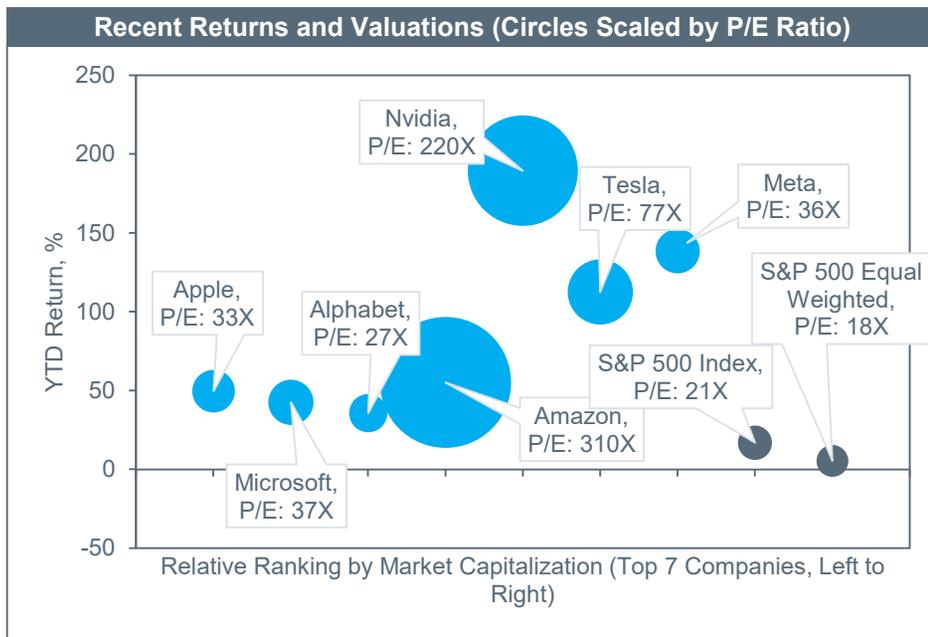


Economic Indicators	Jun-23	Mar-23	Jun-22	Jun-20	20 Yr
Federal Funds Rate (%)	5.08 ▲	4.83	1.58	0.08	1.39
Breakeven Infl. - 5 Yr (%)	2.17 ▼	2.47	2.62	1.17	1.94
Breakeven Infl. - 10 Yr (%)	2.21 ▼	2.33	2.34	1.34	2.09
CPI YoY (Headline) (%)	3.0 ▼	5.0	9.1	0.6	2.6
Unemployment Rate (%)	3.6 ▲	3.5	3.6	11.0	5.9
Real GDP YoY (%)	N/A —	1.8	1.8	-8.4	2.0
PMI - Manufacturing	46.0 ▼	46.3	53.0	52.4	53.6
USD Total Wtd Idx	119.89 ▲	119.48	121.05	120.49	103.57
WTI Crude Oil per Barrel (\$)	70.6 ▼	75.7	105.8	39.3	69.0
Gold Spot per Oz (\$)	1,906 ▼	1,979	1,807	1,781	1,199

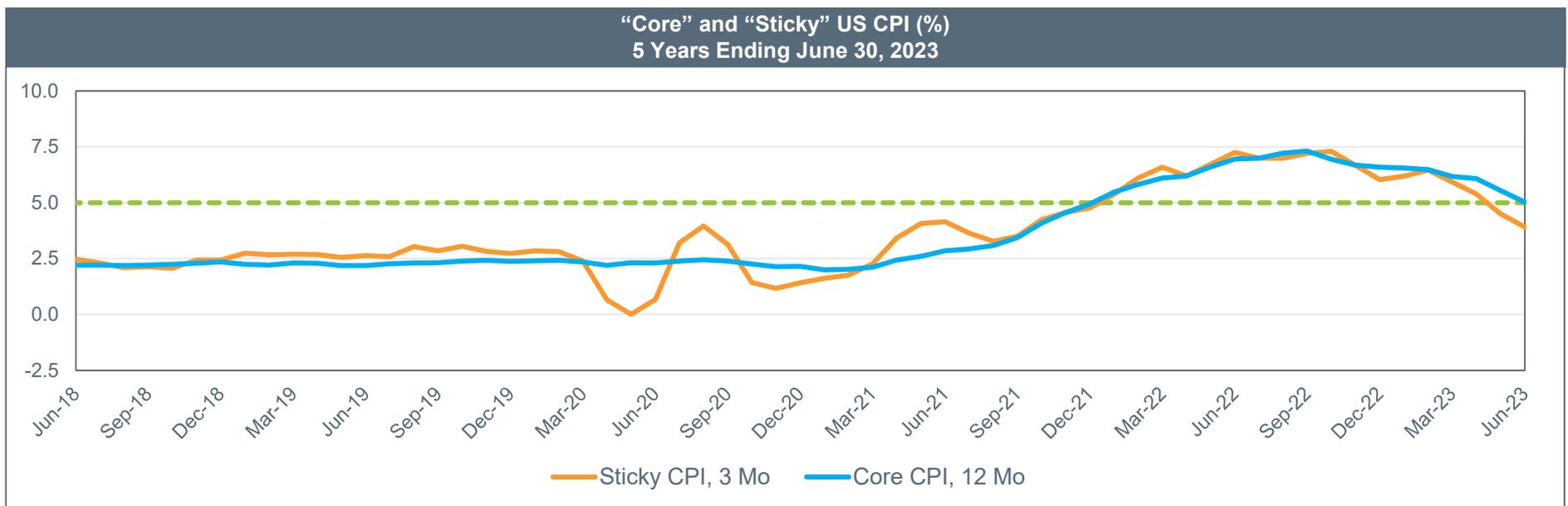
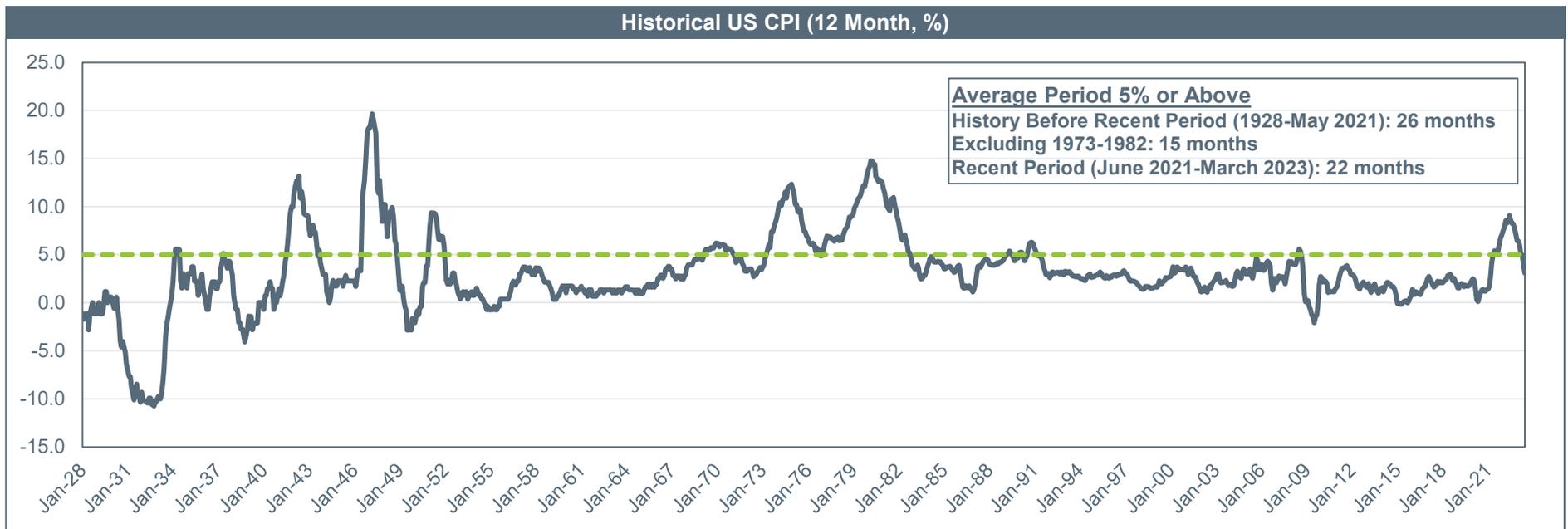
**Treasury Yield Curve (%)**



Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	8.74	16.89	19.59	12.31	12.86
Russell 2000	5.21	8.09	12.31	4.21	8.26
MSCI EAFE (Net)	2.95	11.67	18.77	4.39	5.41
MSCI EAFE SC (Net)	0.58	5.53	10.18	1.30	6.19
MSCI Emg Mkts (Net)	0.90	4.89	1.75	0.93	2.95
Bloomberg US Agg Bond	-0.84	2.09	-0.94	0.77	1.52
ICE BofAML 3 Mo US T-Bill	1.17	2.25	3.59	1.55	0.98
NCREIF ODCE (Gross)	-2.68	-5.77	-9.98	6.50	8.74
FTSE NAREIT Eq REIT (TR)	2.62	5.37	-0.13	4.55	6.42
HFRI FOF Comp	1.43	2.18	3.58	3.30	3.38
Bloomberg Cmdty (TR)	-2.56	-7.79	-9.61	4.73	-0.99



Sources: Morningstar, Bloomberg, FTSE Russell, and Standard & Poors.



Sources: US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, and Federal Reserve Bank of Atlanta.  
 Core CPI is represented by the Revised FRB Cleveland Trimmed Mean, 12-month. Sticky CPI is represented by the FRB Atlanta Sticky-Price Index, 3-month.

Second Quarter Review

Broad Market

US equity markets continued their recovery in Q2 primarily driven by a handful of mega-cap growth stocks. While all sectors, excluding energy and utilities, in the Russell 1000 Index were positive, roughly half of its returns came from the information technology sector driven by optimism around advancements in artificial intelligence (AI) and related technology. Further, roughly two-thirds of the Russell 1000 Q2 returns can be attributed to the 10 largest companies in the index.

Market Cap

Active large-cap managers continued to struggle to generate excess returns as index concentration rises. Mid-cap managers generally performed well in Q2 while a majority of active small-cap managers failed to outpace their respective benchmarks.

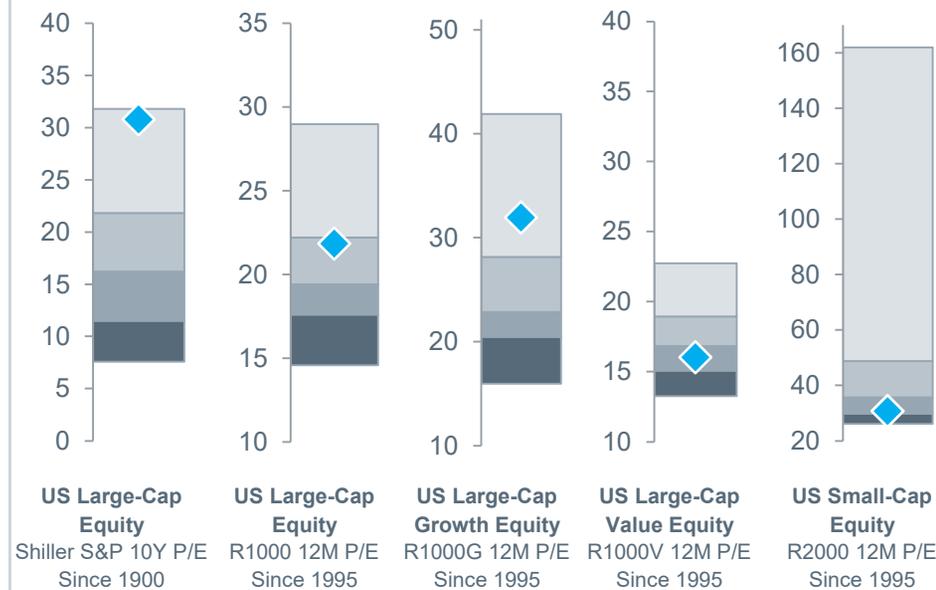
Style and Sector

Growth outperformed value by a significant margin across market caps for the second consecutive quarter. The return spread of the Russell 1000 and Russell 2000 Growth and Value Indexes were 8.7% and 3.9%, respectively. Additionally, the MSCI USA Cyclical Index continued to outperform the MSCI USA Defensive Index by 27.6% year-to-date, indicating improving economic sentiment from investors despite continued near-term uncertainty around inflation and interest rates.

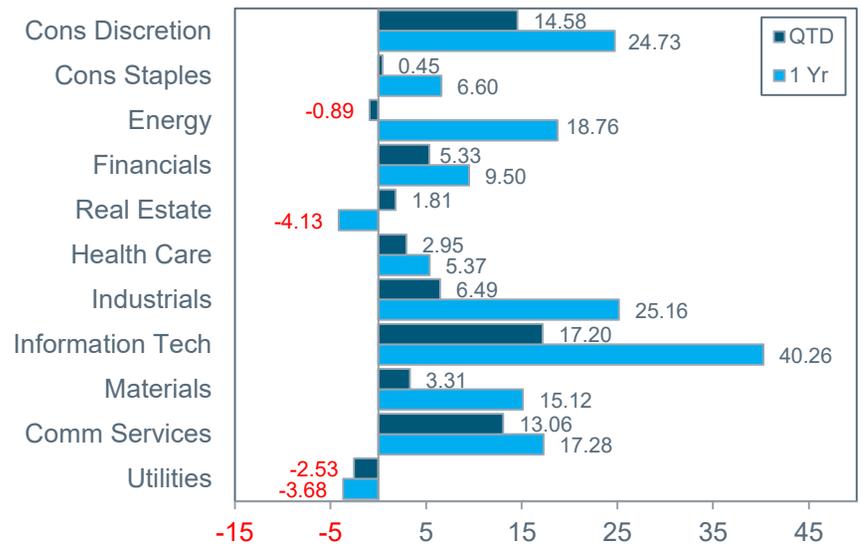
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



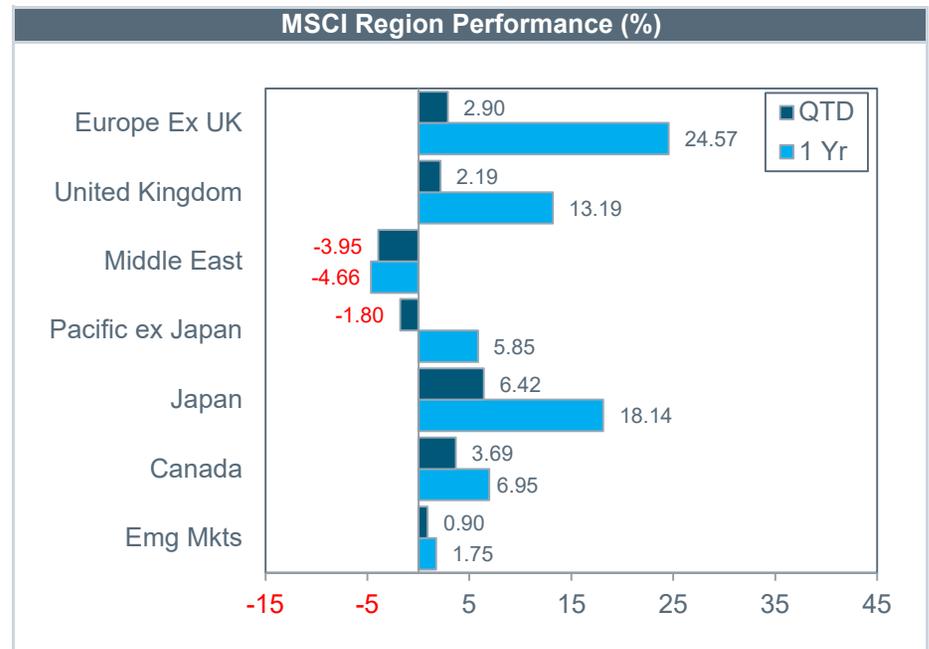
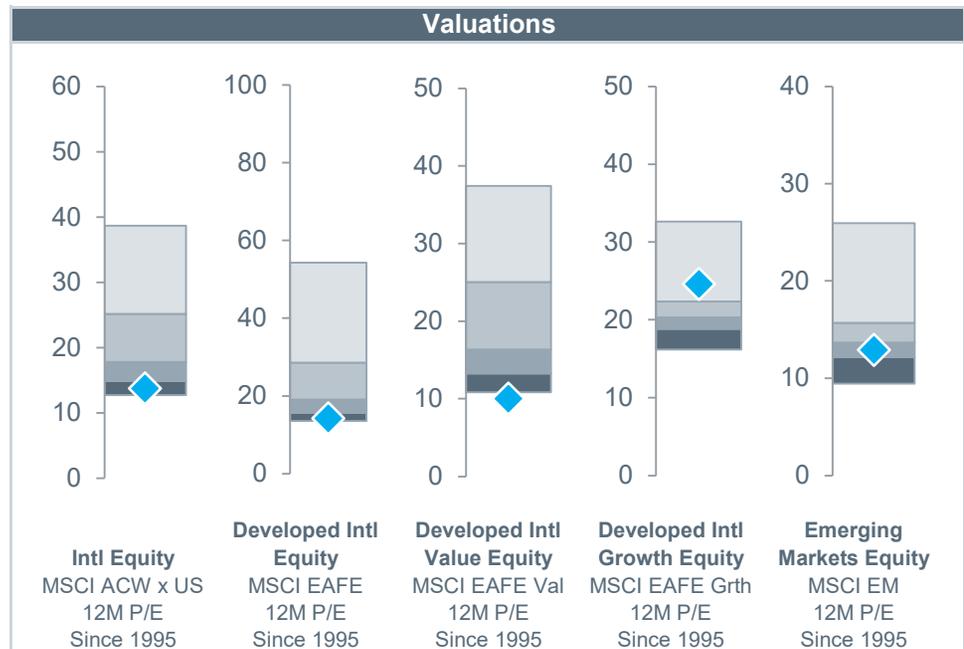
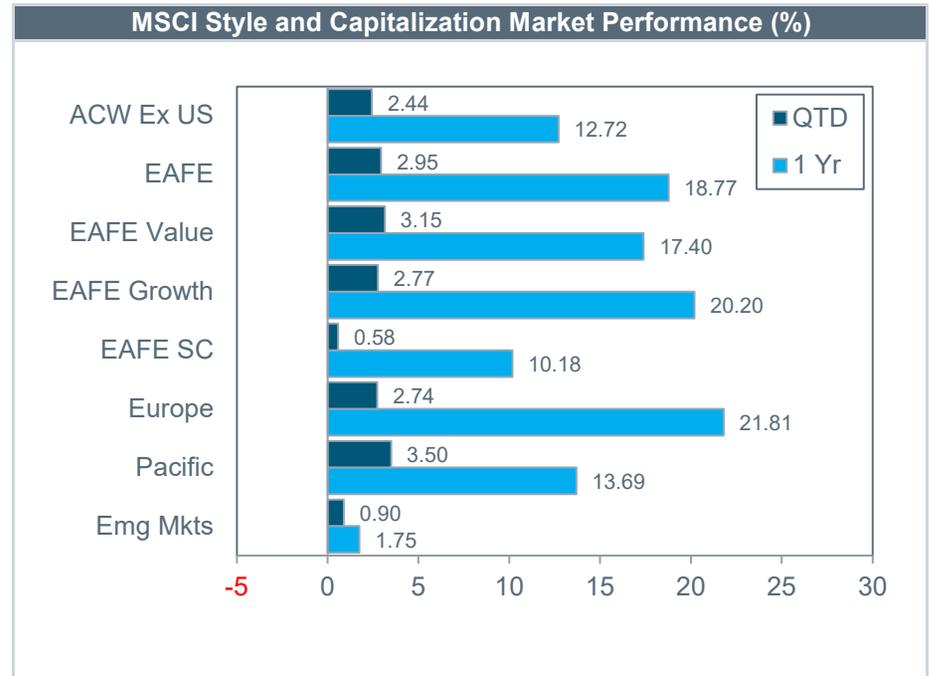
Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

### Second Quarter Review

**Developed Markets**  
 Following two consecutive quarters of outperformance, developed equity underperformed the US in Q2, with the MSCI EAFE returning 3.0%. Value stocks outperformed growth stocks, while developed large-cap stocks outperformed small-cap stocks. While most active large-cap managers outperformed the MSCI EAFE Index, small-cap managers broadly underperformed the MSCI EAFE Small Cap Index.

**Emerging Markets**  
 Emerging markets lagged developed markets in Q2, with the MSCI Emerging Market Index returning 0.9% as value outperformed growth and small-cap stocks outperformed large-cap stocks. The majority of active emerging market managers outperformed in Q2.

**Market Cap & Style**  
 While inflation in the US began to show signs of abatement, inflation continued to climb in Europe. Persistent above-target headline inflation combined with a tight labor market led the ECB to raise interest rates to 3.5%, its highest level in over 20 years.



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. All returns are shown net of foreign taxes on dividends.

**Second Quarter Review**

**Broad Market**

In Q2, the Fed maintained its interest rate range, breaking the streak of consecutive rate hikes. However, Fed Chair Powell noted that future rate hikes could still occur based on economic conditions. Treasury yields rose across maturities, with the 10-year yield reaching 3.85%. The yield curve inversion between the 2-year and 10-year yields deepened in Q2, nearing the peak observed in March prior to the bank failures. Against this backdrop, the Bloomberg US Aggregate Bond Index posted a return of -0.84%.

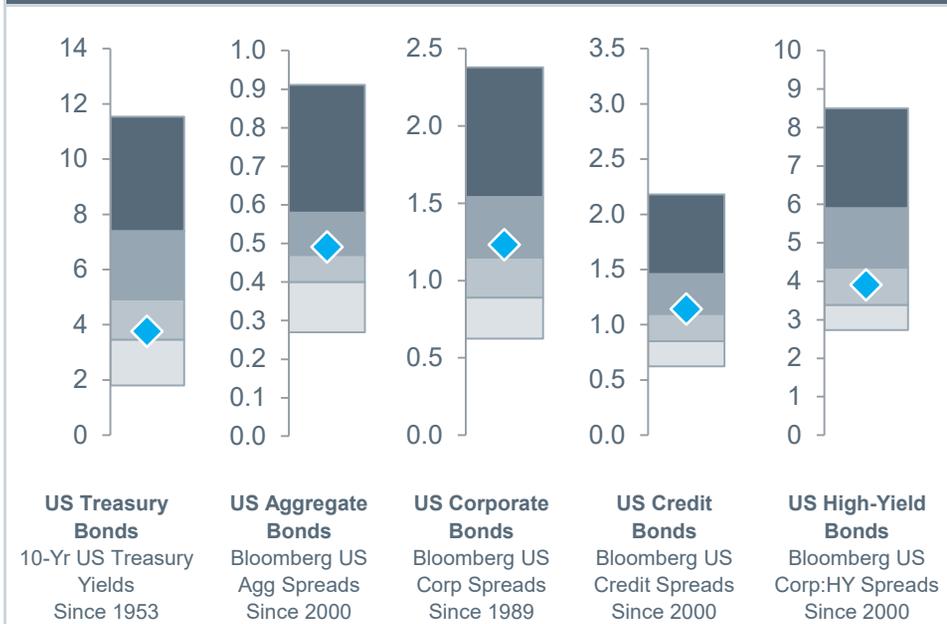
**Credit Market**

One trend observed in Q1 persisted, with lower-rated bonds delivering better performance. The Bloomberg US Corporate Investment Grade Index returned -0.29% in Q2, lagging the Bloomberg US Corporate High Yield Index return of 1.75%

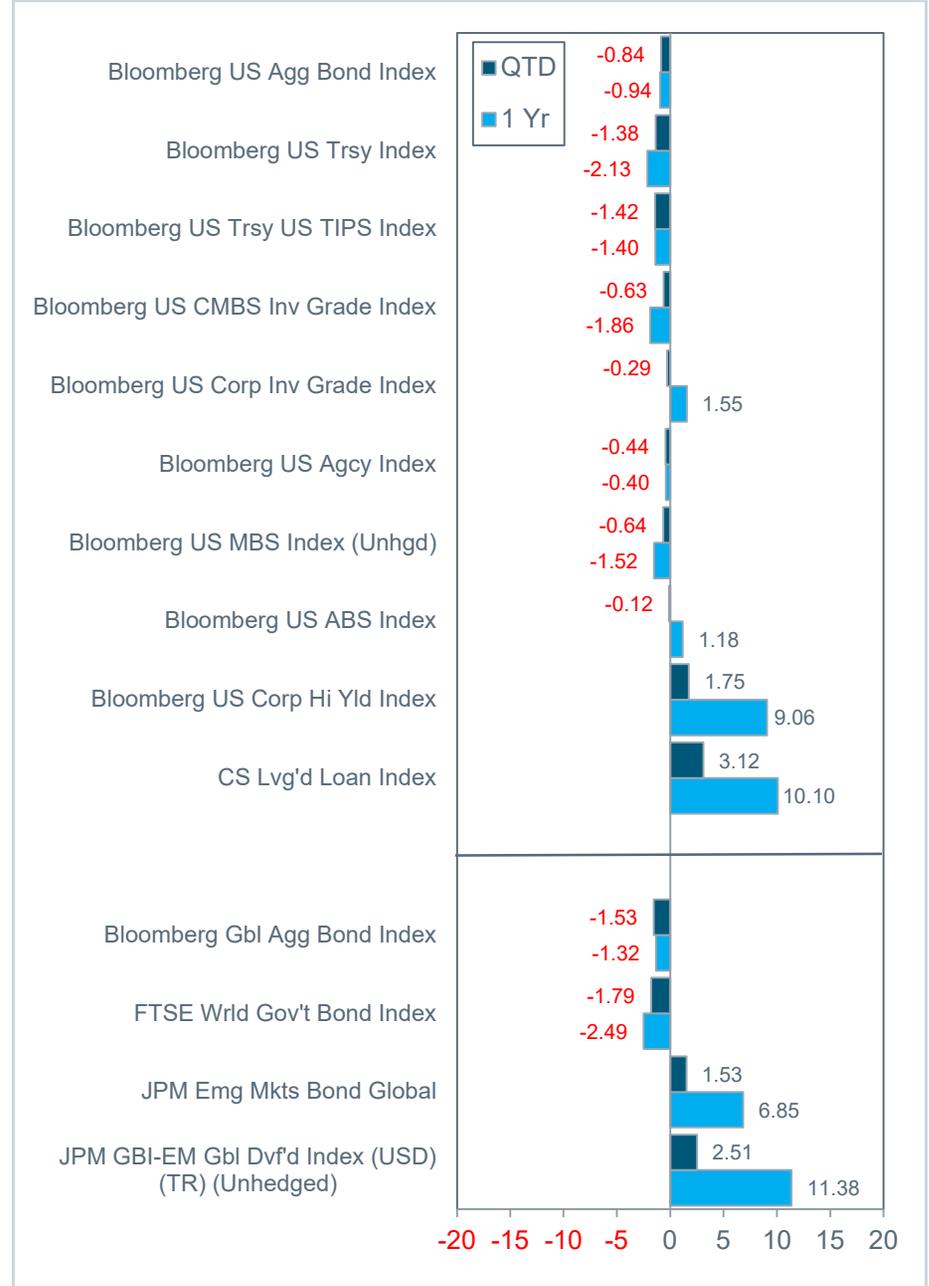
**Emerging Market Debt**

Emerging markets debt provided positive returns in Q2, with the JPMorgan EMBI Global Diversified Index returning 2.19%. Yields on emerging market sovereign and corporate bonds decreased, while high-yield issuers outperformed investment-grade issuers due to a risk-on environment. Local emerging markets outperformed hard currency, with the JPMorgan GBIEM Global Diversified Index returning 2.51%.

**Valuations**



**Fixed Income Performance (%)**



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



**Second Quarter Review - Absolute Return**

**General Market - Hedge Funds**

In Q2, hedge funds delivered a second straight quarter of positive results. The HFRI Fund-Weighted Composite Index reported a net return of 2.2%, highlighted by mixed results from commodity and macro-oriented managers amidst the Fed’s slowing interest rate trajectory and cooling inflation data. While the dispersion of return among strategies has been wide in Q2, market-neutral strategies focusing on relative value, dispersion, and volatility trading have been able to benefit from turbulence caused by the regional banking crisis fallout. However, most have struggled to generate short alpha in technology-oriented industries that have been broadly rallying in recent months.

**General Market - Global Tactical Asset Allocation (GTAA)**

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generally posted positive returns during Q2 with moderate dispersion. However, a US-centric blend of 60% equity and 40% fixed income outperformed most diversified active managers due to larger allocations to mega-cap equity holdings.

**Second Quarter Review - Real Assets**

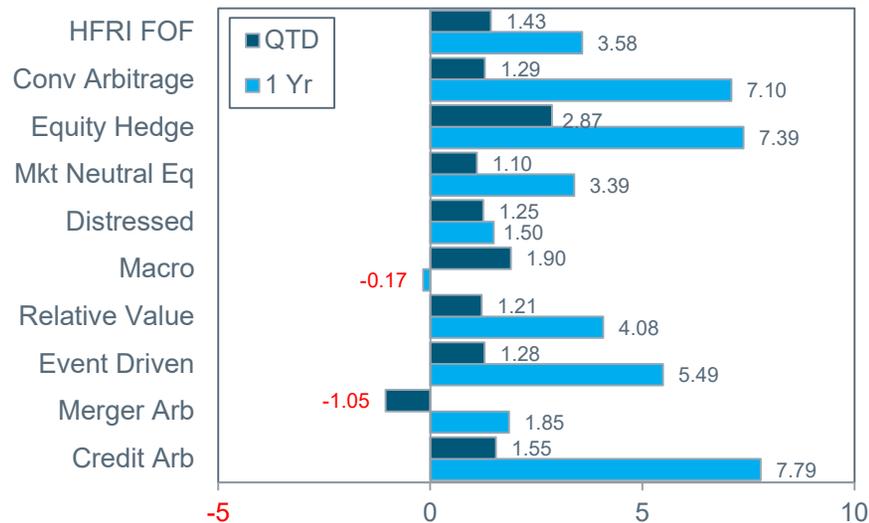
**General Market - Diversified Inflation Strategies (DIS)**

Diversified Inflation Strategy (DIS) managers tracked closely by RVK broadly underperformed a US-centric blend of 60% equity and 40% fixed income during the quarter. Managers with larger exposures to commodities and TIPS lagged peers most significantly while those with larger REIT and Global Listed Infrastructure allocations tended to outperform peers.

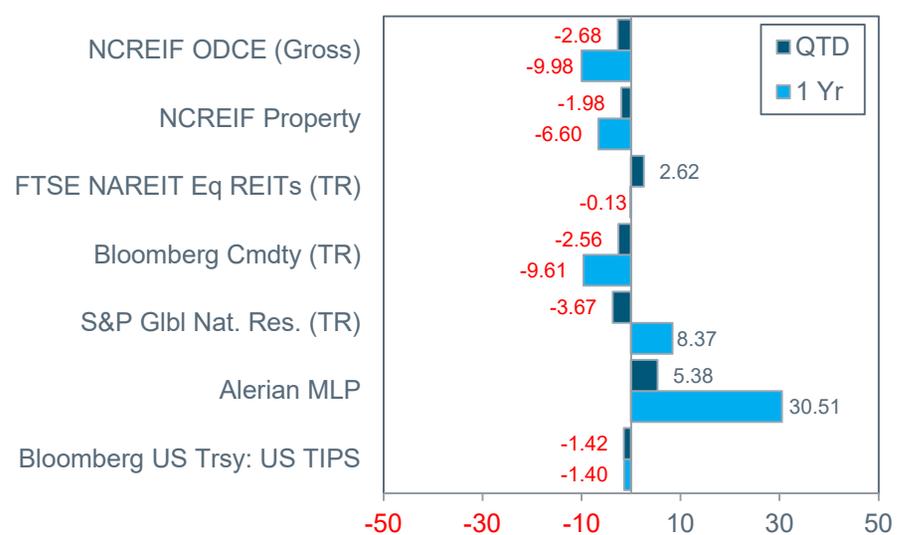
**General Market - Real Estate**

Core private real estate generated a -2.7% in Q2 (on a preliminary and gross-of-fee basis), as reported by the NFI-ODCE Index, with the total return comprising 0.9% from income and -3.6% from price appreciation. Income returns continue to trend at the lower end of historical levels while price appreciation continues to remain negative. Investors of publicly traded real estate significantly outperformed their private market counterparts by a meaningful margin, with publicly traded real estate delivering a Q2 total return of 1.6%, as measured by FTSE NAREIT All REIT Index. In Q2, private real estate markets continued to experience similar trends as the prior three quarters. Significant headwinds persisted as a direct result of disruptions in the capital markets from 2022.

**HFRI Hedge Fund Performance (%)**



**Real Asset Performance (%)**



Annual Asset Class Performance

As of June 30, 2023

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD
Best	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	43.24	16.09	16.89
	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47	11.67
	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46	8.09
	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.31	5.53
	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19	5.38
	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85	5.37
	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01	4.89
	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45	4.39
	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11	2.25
	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09	2.18
	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44	2.09
	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.39	1.87
	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.37	-5.77
Worst	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09	-7.79
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



# Total Fund



Watch List Managers	Date Added to Watch List	Benchmark	Peer Group	Inception Date	Quantitative Factors						Qualitative Factors	Last Meeting w/Staff or RVK	Rationale for Addition to Watch List
					Rolling 5-Year Return (NoF) for three consecutive quarters falls below the respective strategy benchmark			Rolling 5-Year Return (GoF) for three consecutive quarters falls in the bottom third of the respective Peer Group Universe			Meaningful Updates		
Real Estate					5-Years Ending Jun-2023	5-Years Ending Mar-2023	5-Years Ending Dec-2022	5-Years Ending Jun-2023	5-Years Ending Mar-2023	5-Years Ending Dec-2022			
Principal US Property (CF)	Jun-23	NCREIF ODCE Index (AWA) (Net)	IM U.S. Open End Private Real Estate (SA+CF) Median	Dec-13	✓	✓	✓	✓	✓	✓	N/A	Jun-23	Investment team turnover
Fixed Income					5-Years Ending Jun-2023	5-Years Ending Mar-2023	5-Years Ending Dec-2022	5-Years Ending Jun-2023	5-Years Ending Mar-2023	5-Years Ending Dec-2022			
Loomis Sayles Multisector Full Discretion (CF)	Jun-23	Bloomberg Gbl Agg Bond Index	IM Global Fixed Income (SA+CF) Median	Sep-07	✓	✓	✓	✓	✓	✓	N/A	Jun-23	Investment team turnover

✓ = strategy exceeds the benchmark / falls in the top two thirds of the peer group over the stated trailing period.  
 ✗ = strategy does not exceed the benchmark / falls in the bottom third of the peer group over the stated trailing period.

**Organization, Team, Process, and AUM Developments**

**Principle US Property**

Principal announced that Co-PM Meighan Phillips is leaving Principal at the end of the month to pursue a senior executive position at a local Des Moines, Iowa residential developer. Her role is being backfilled by an experienced Principal colleague in Kyle Elfers of ~12 years. Kyle will be joining an already experienced team with Co-PM Darren Kleis, Bridget Lechtenberg, Ross Johnson and Ellen Bennett. Additionally, John Berg, Senior Managing Director and head of Private Equity Portfolio Management will take on a more active role with the USPA Team on a temporary basis to assist in the transition of responsibilities. While Meighan's departure is significant, Principal has staffed the platform accordingly with depth and breadth of experienced professionals that gives RVK comfort in future success of the strategy.

**Loomis Salyes Multisector Full Discretion**

RVK has been informed of the retirement of Elaine Stokes, Vice President, Portfolio Manager, and Co-Head of the Full Discretion team at Loomis, Sayles & Company, in February 2024. Ms. Stokes boasts an impressive 35-year career in the investment industry and has been an integral part of Loomis Sayles since 1988. During her tenure, she has co-managed various mutual fund and institutional strategies, including the Multisector Full Discretionary portfolio. RVK had a detailed discussion with Co-Portfolio Manager Brian Kennedy on June 2, 2023, to assess the impact of Ms. Stokes' retirement on the current portfolio management team structure. After Elaine's retirement, Matt Eagan, with 32 years of investment industry experience, will lead the Full Discretion team. Brian Kennedy, also with 32 years of experience, and Bryan Hazelton, with 15 years of experience, have been promoted as co-portfolio manager and assistant portfolio manager, respectively. The team is supported by six senior strategists and a large analyst team. Loomis Sayles' team-based approach and strong resources provide stability despite recent changes. We are confident in the team's ability to adapt and minimize the impact of Ms. Stokes' retirement.

**City of Jacksonville Employees' Retirement System**  
**Asset Allocation, Performance & Schedule of Investable Assets**

As of June 30, 2023

	Allocation		Performance (%)		Allocation		Performance (%)
	Market Value (\$)	%	QTD		Market Value (\$)	%	QTD
<b>US Equity</b>	<b>843,208,475</b>	<b>35.23</b>	<b>9.38</b>	<b>Real Estate</b>	<b>448,132,850</b>	<b>18.72</b>	<b>-2.12</b>
Eagle Capital Large Cap Value (SA)	165,466,201	6.91	11.44	Harrison Street Core Property LP	132,981,888	5.56	-0.47
Wellington Select Equity Income Fund (SA)	148,830,600	6.22	N/A	PGIM Real Estate PRISA II LP	72,592,919	3.03	-2.36
Mellon Large Cap Core Index (CF)	168,042,324	7.02	8.62	Principal US Property (CF)	151,425,100	6.33	-1.86
Loomis Sayles Large Cap Growth (CF)	148,317,808	6.20	13.47	UBS Trumbull Property	68,618,095	2.87	-7.23
Kayne Anderson US SMID Value (SA)	68,628,506	2.87	3.26	Vanguard RE Idx;ETF (VNQ)	1,175,071	0.05	1.74
Systematic Financial US SMID Value (SA)	72,070,984	3.01	4.17	Abacus Multi-Family Partners VI LP	2,385,606	0.10	-28.93
Pinnacle Associates US SMID Cap Growth (SA)	71,852,051	3.00	7.18	H.I.G. Realty Partners IV (Onshore) LP	18,829,231	0.79	7.57
				Bell Value-Add VIII LP	124,939	0.01	0.03
<b>International Equity</b>	<b>562,261,144</b>	<b>23.49</b>	<b>2.50</b>	<b>Diversifying Assets</b>	<b>116,009,266</b>	<b>4.85</b>	<b>1.26</b>
Silchester International Value (CF)	275,965,228	11.53	3.40	Hancock Timberland (SA)	736,141	0.03	-10.67
Baillie Gifford International Growth (BGEFX)	160,455,844	6.70	0.08	Adams Street Private Equity (SA)	65,304,169	2.73	0.57
Acadian Emerging Markets (CF)	125,840,071	5.26	3.71	Hamilton Lane Private Credit (SA)	49,968,956	2.09	2.44
<b>Fixed Income</b>	<b>420,851,463</b>	<b>17.58</b>	<b>0.38</b>	Dreyfus Gvt Csh Mgt;Inst (DGCXX)	3,178,525	0.13	1.22
Baird Core Fixed Income (SA)	207,021,974	8.65	-0.64	Transition Account	109,940	0.00	N/A
Loomis Sayles Multisector Full Discretion (CF)	105,743,780	4.42	-0.61				
Schroder Flexible Secured Income Fund	108,085,709	4.52	3.40				

**Schedule of Investable Assets (Total Assets)**

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
FYTD	2,073,880,146	5,923,176	313,948,342	2,393,751,664	15.13

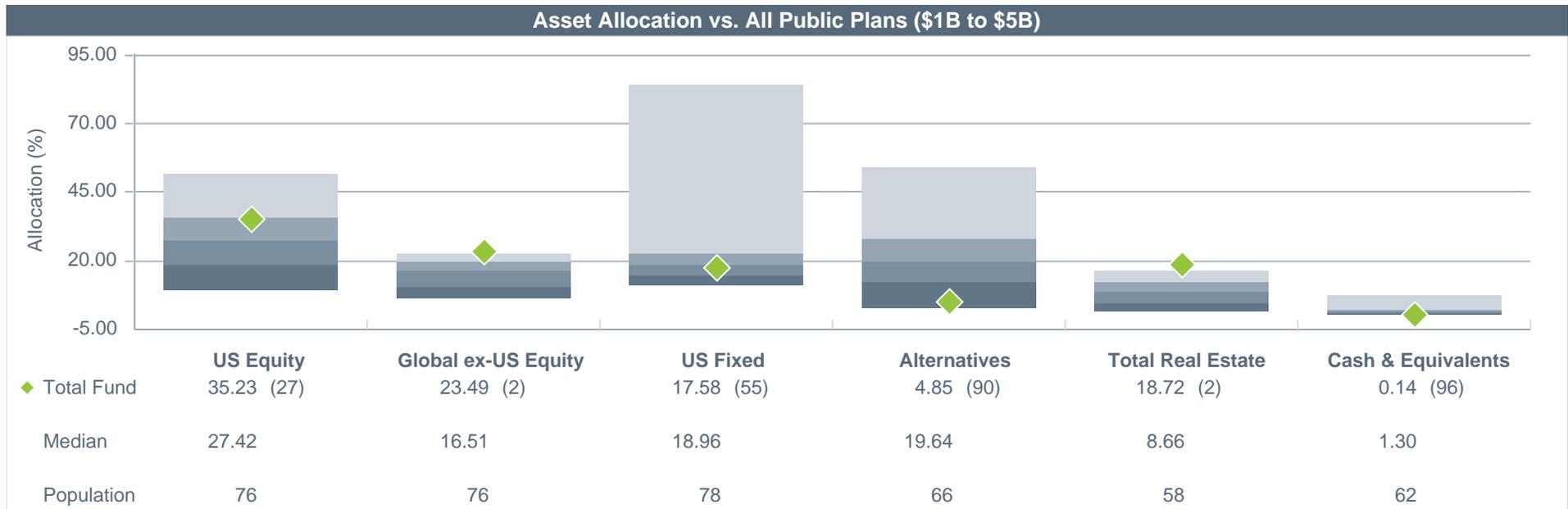
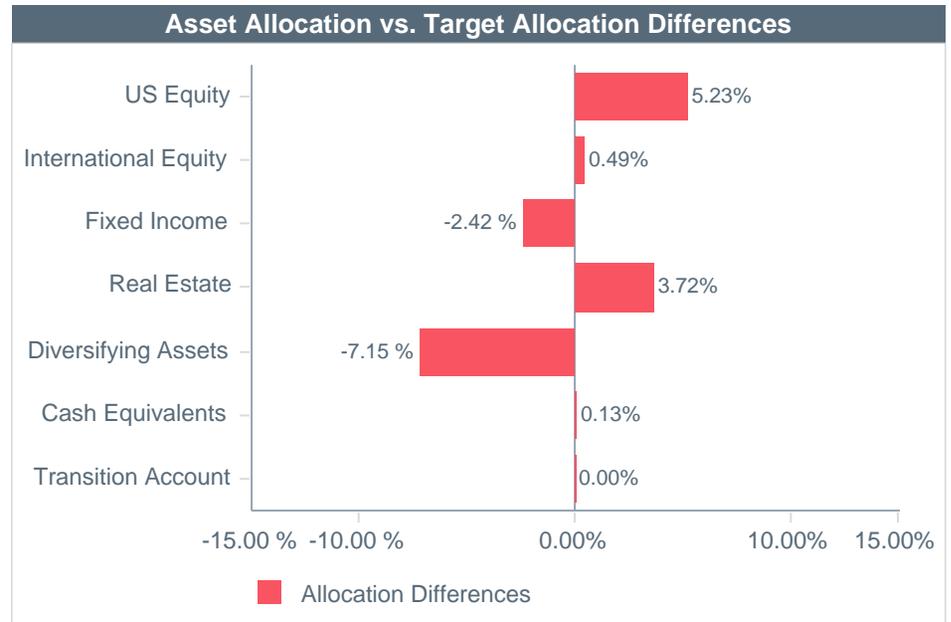
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. During 05/2023, Wellington Select Equity Income Fund (SA) was funded.



**City of Jacksonville Employees' Retirement System**  
**Total Fund vs. All Public Plans (\$1B to \$5B)**  
**Asset Allocation vs. Target and Plan Sponsor Peer Group**

As of June 30, 2023

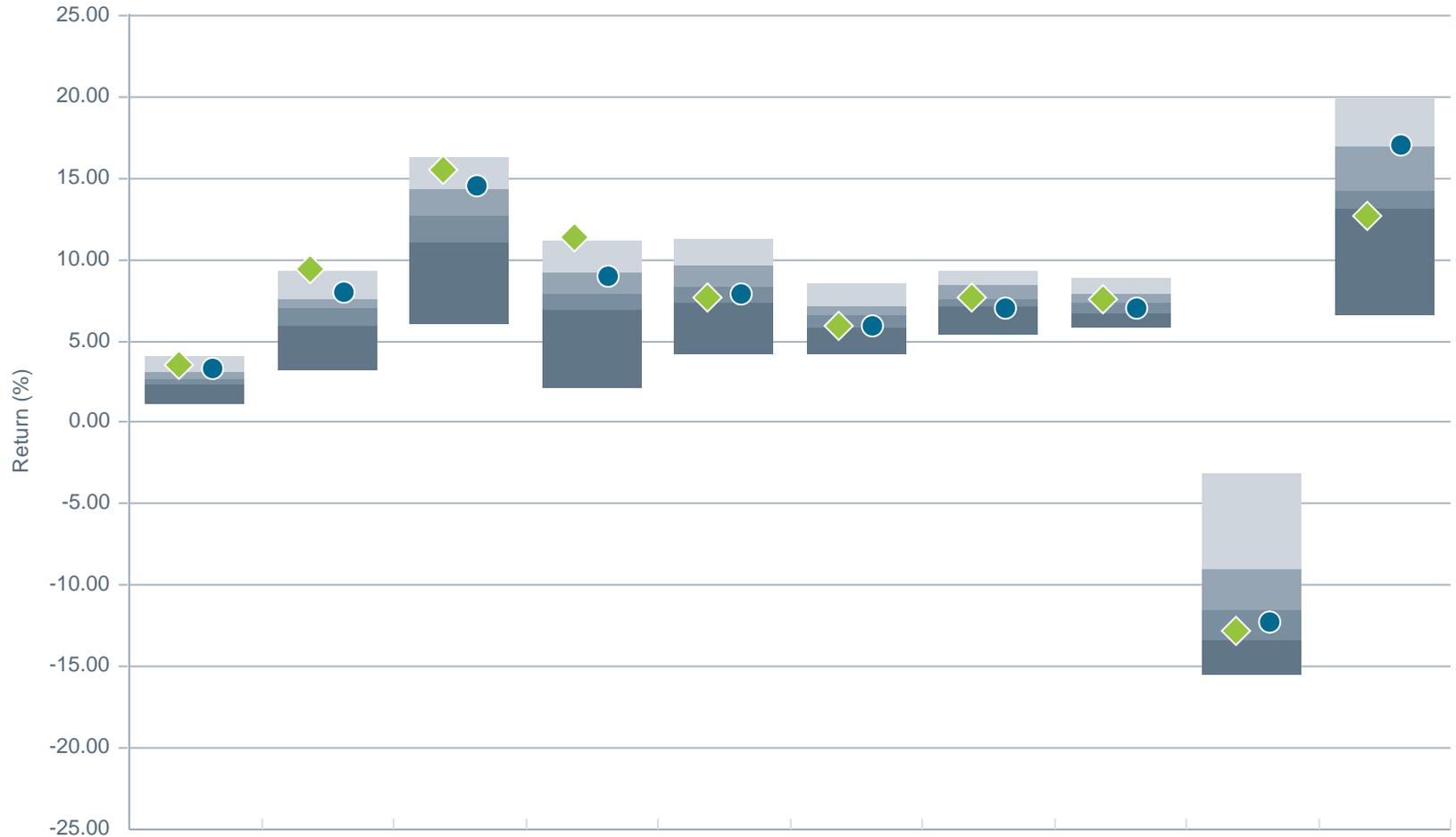
Asset Allocation vs. Target Allocation					
	Market Value (\$)	Allocation (%)	Min (%)	Target (%)	Max (%)
<b>Total Fund</b>	<b>2,393,751,664</b>	<b>100.00</b>	<b>-</b>	<b>100.00</b>	<b>-</b>
US Equity	843,208,475	35.23	20.00	30.00	40.00
International Equity	562,261,144	23.49	13.00	23.00	25.00
Fixed Income	420,851,463	17.58	10.00	20.00	30.00
Real Estate	448,132,850	18.72	0.00	15.00	20.00
Diversifying Assets	116,009,266	4.85	0.00	12.00	20.00
Cash Equivalents	3,178,525	0.13	0.00	0.00	10.00
Transition Account	109,940	0.00	0.00	0.00	0.00



Allocations shown may not sum up to 100% exactly due to rounding. Parentheses contain percentile ranks.

City of Jacksonville Employees' Retirement System  
 Total Fund vs. All Public Plans (\$1B to \$5B)  
 Plan Sponsor Peer Group Analysis

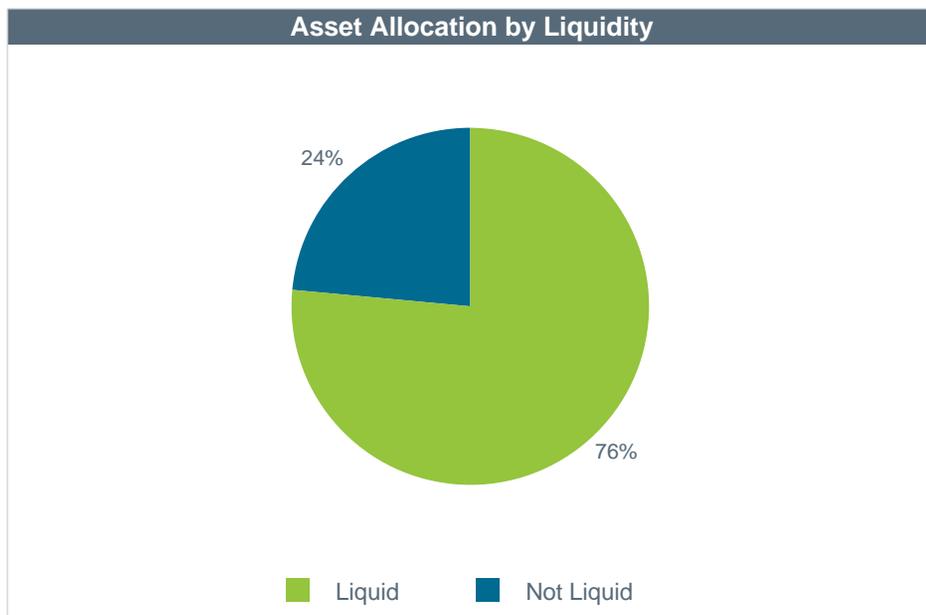
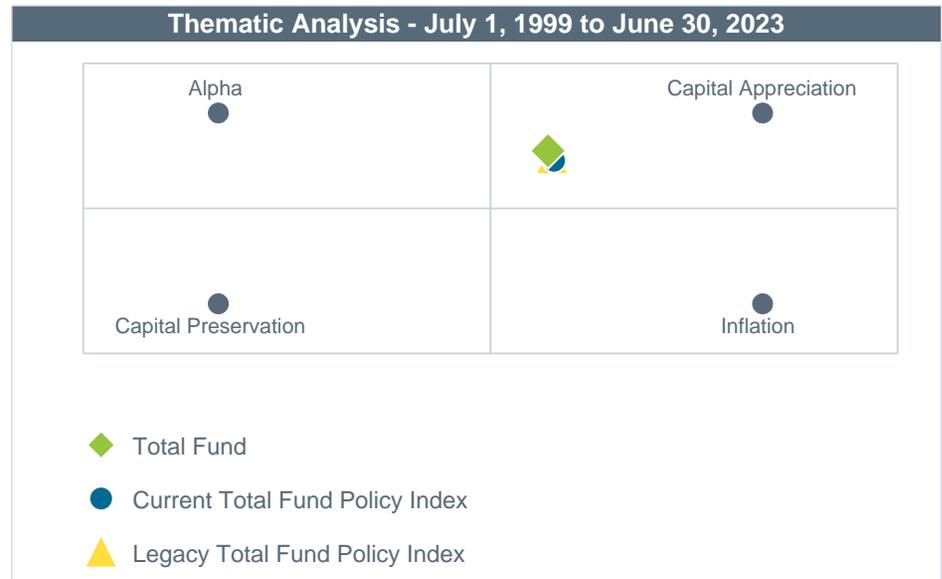
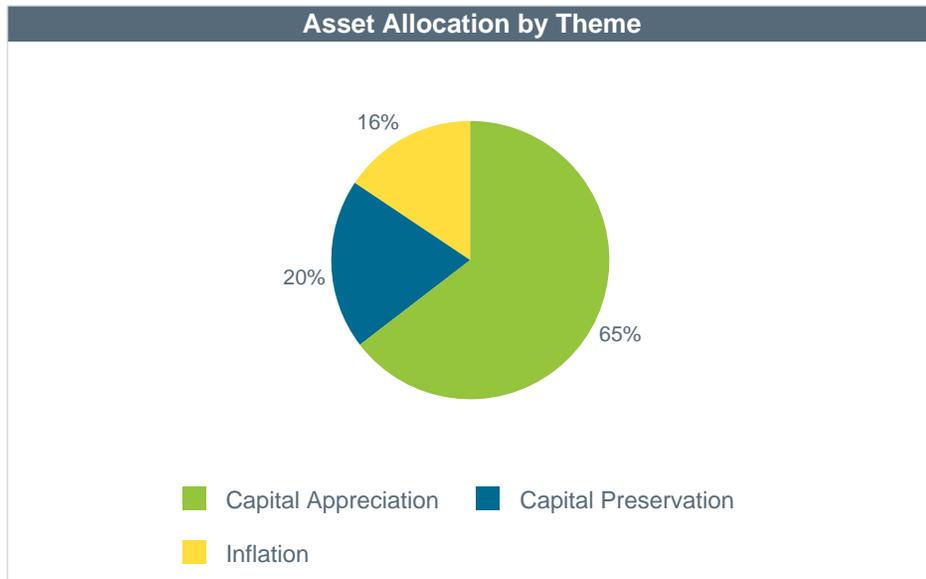
As of June 30, 2023



	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021
◆ Total Fund	3.49 (14)	9.40 (4)	15.54 (14)	11.36 (5)	7.67 (66)	5.93 (70)	7.72 (41)	7.58 (39)	-12.79 (67)	12.64 (81)
● Current Total Fund Policy Index	3.28 (19)	8.04 (16)	14.59 (21)	9.01 (30)	7.95 (62)	5.94 (70)	6.99 (81)	6.99 (61)	-12.23 (62)	17.09 (21)
5th Percentile	4.10	9.27	16.27	11.16	11.28	8.53	9.26	8.87	-3.15	19.92
1st Quartile	3.11	7.56	14.29	9.26	9.60	7.10	8.41	7.88	-9.01	16.91
Median	2.72	6.98	12.70	7.94	8.31	6.61	7.57	7.35	-11.48	14.25
3rd Quartile	2.30	5.98	11.04	6.94	7.37	5.80	7.11	6.68	-13.34	13.11
95th Percentile	1.10	3.18	6.03	2.08	4.14	4.19	5.42	5.88	-15.52	6.64

Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.





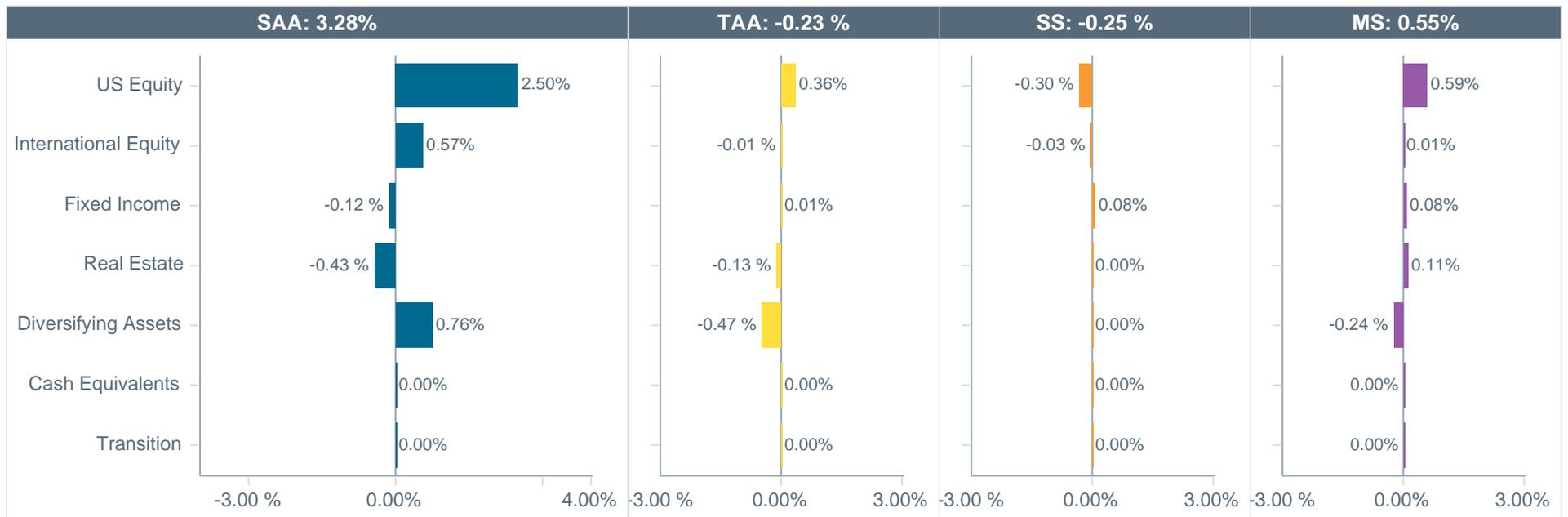
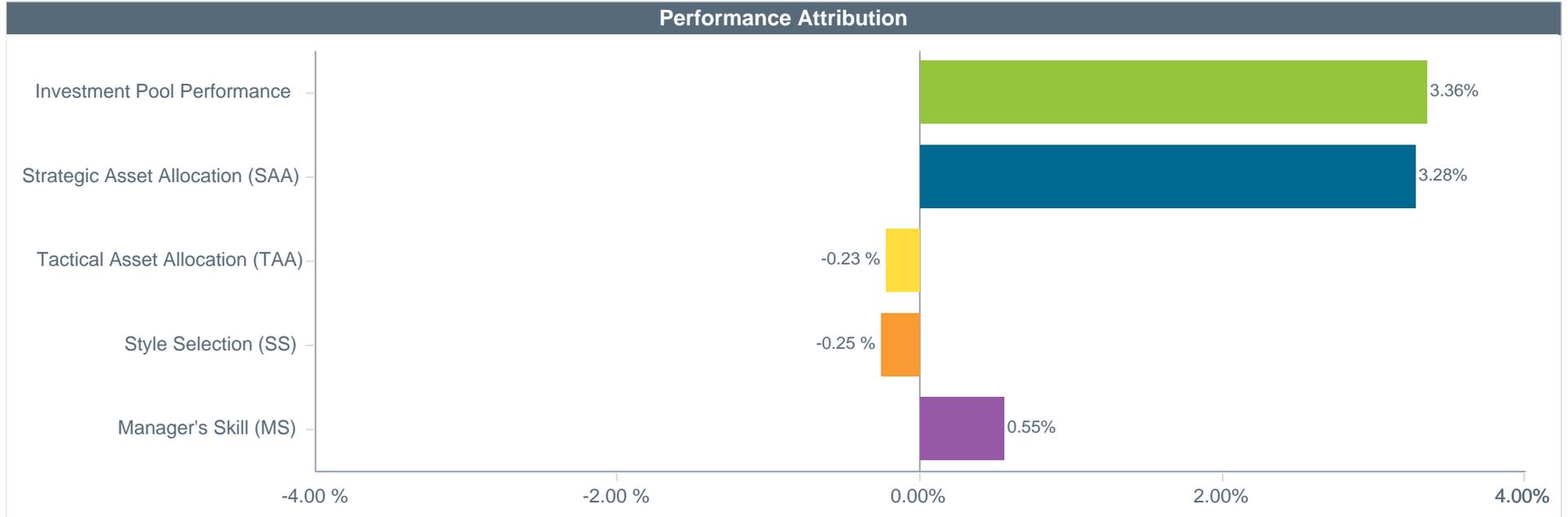
### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.52	1.00		
C	-0.15	0.03	1.00	
D	0.47	0.79	0.12	1.00

Legend:

- A = HFRI EH: Equity Market Neutral Index (Alpha)
- B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)
- C = Bloomberg US Gov't Bond Index (Capital Preservation)
- D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions.

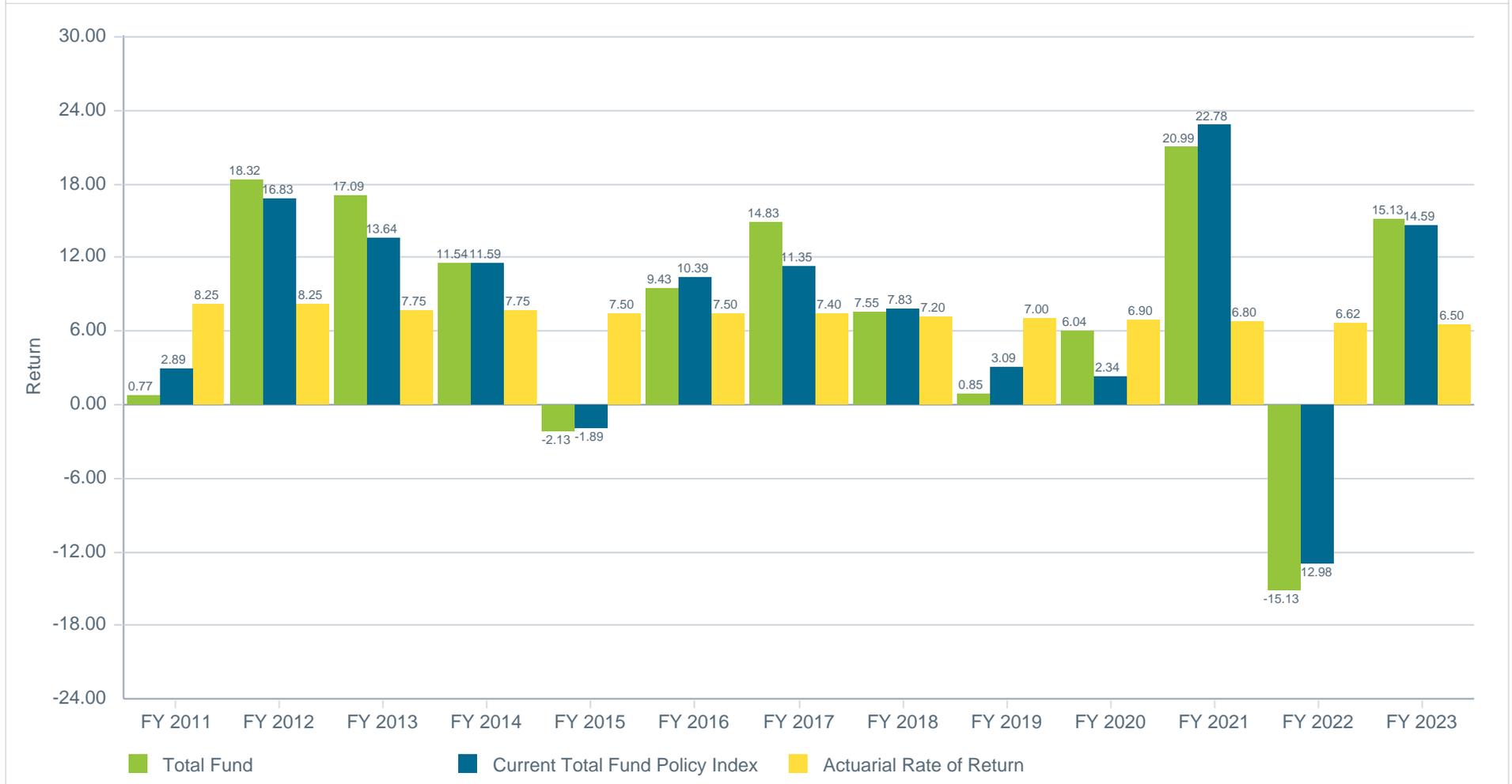


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

City of Jacksonville Employees' Retirement System  
Historical Fiscal Year Returns

As of June 30, 2023

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FYTD
<b>Total Fund</b>	<b>0.77</b>	<b>18.32</b>	<b>17.09</b>	<b>11.54</b>	<b>-2.13</b>	<b>9.43</b>	<b>14.83</b>	<b>7.55</b>	<b>0.85</b>	<b>6.04</b>	<b>20.99</b>	<b>-15.13</b>	<b>15.13</b>
Current Total Fund Policy Index	2.89	16.83	13.64	11.59	-1.89	10.39	11.35	7.83	3.09	2.34	22.78	-12.98	14.59
Difference	-2.12	1.49	3.45	-0.05	-0.24	-0.96	3.48	-0.28	-2.24	3.70	-1.79	-2.15	0.54
Actuarial Rate of Return	8.25	8.25	7.75	7.75	7.50	7.50	7.40	7.20	7.00	6.90	6.80	6.62	6.50
Difference	-7.48	10.07	9.34	3.79	-9.63	1.93	7.43	0.35	-6.15	-0.86	14.19	-21.75	8.63



Performance shown is net of fees. Fiscal year for the COJ ends 09/30. The Fiscal Year Actuarial Rate of Return changed from 8.40% to 8.25% effective 10/01/2010, changed to 7.75% effective 10/01/2012, changed to 7.50% effective 10/01/2014, changed to 7.40% effective 10/01/2016, changed to 7.20% effective 10/01/2017, changed to 7.00% effective 10/01/2018, changed to 6.90% effective 10/01/2019, changed to 6.80% effective 10/01/2020, changed to 6.62% effective 10/01/2021, and then changed to 6.50% effective 10/01/2022. Please see the Addendum for custom index definitions.



City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Gross of Fees)

As of June 30, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,393,751,664</b>	<b>100.00</b>	<b>3.49</b>	<b>9.40</b>	<b>15.54</b>	<b>11.36</b>	<b>7.67</b>	<b>5.93</b>	<b>7.72</b>	<b>7.58</b>	<b>6.48</b>	<b>07/01/1999</b>
Current Total Fund Policy Index			3.28	8.04	14.59	9.01	7.95	5.94	6.99	6.99	5.82	
Difference			0.21	1.36	0.95	2.35	-0.28	-0.01	0.73	0.59	0.66	
All Public Plans (\$1B to \$5B) (Custom PG) Median			2.72	6.98	12.70	7.94	8.31	6.61	7.57	7.35	6.34	
Rank			14	4	14	5	66	70	41	39	38	
<b>Total Equity</b>	<b>1,405,469,619</b>	<b>58.71</b>	<b>6.63</b>	<b>17.49</b>	<b>29.84</b>	<b>21.40</b>	<b>11.19</b>	<b>8.29</b>	<b>11.01</b>	<b>10.08</b>	<b>6.81</b>	<b>07/01/1999</b>
<b>US Equity</b>	<b>843,208,475</b>	<b>35.23</b>	<b>9.55</b>	<b>21.38</b>	<b>30.30</b>	<b>25.36</b>	<b>14.26</b>	<b>11.13</b>	<b>12.92</b>	<b>12.14</b>	<b>7.56</b>	<b>07/01/1999</b>
US Equity Index			8.39	16.17	24.51	18.95	13.89	11.39	12.86	12.34	7.29	
Difference			1.16	5.21	5.79	6.41	0.37	-0.26	0.06	-0.20	0.27	
IM U.S. Equity (SA+CF) Median			5.71	10.69	20.77	16.52	14.33	9.48	11.81	11.17	9.04	
Rank			16	12	10	12	51	34	37	38	79	
<b>International Equity</b>	<b>562,261,144</b>	<b>23.49</b>	<b>2.64</b>	<b>12.17</b>	<b>29.44</b>	<b>15.11</b>	<b>6.42</b>	<b>3.84</b>	<b>8.01</b>	<b>6.63</b>	<b>5.97</b>	<b>07/01/1999</b>
International Equity Index			2.44	9.47	25.11	12.72	7.22	3.52	6.32	4.75	3.92	
Difference			0.20	2.70	4.33	2.39	-0.80	0.32	1.69	1.88	2.05	
IM International Equity (SA+CF) Median			2.89	11.18	28.18	16.48	8.66	4.59	7.39	6.35	6.24	
Rank			56	40	44	59	74	63	38	45	59	
<b>Fixed Income</b>	<b>420,851,463</b>	<b>17.58</b>	<b>0.48</b>	<b>3.46</b>	<b>5.15</b>	<b>1.34</b>	<b>-2.87</b>	<b>0.49</b>	<b>1.07</b>	<b>1.51</b>	<b>4.38</b>	<b>07/01/1999</b>
Fixed Income Index			-0.59	2.32	4.62	-0.04	-3.43	0.98	0.58	1.62	3.97	
Difference			1.07	1.14	0.53	1.38	0.56	-0.49	0.49	-0.11	0.41	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	7.58	3.73	-0.28	2.11	2.34	2.50	5.56	
Rank			49	47	83	66	73	68	70	61	61	
<b>Real Estate</b>	<b>448,132,850</b>	<b>18.72</b>	<b>-2.00</b>	<b>-5.09</b>	<b>-6.29</b>	<b>-3.13</b>	<b>7.59</b>	<b>6.35</b>	<b>6.88</b>	<b>8.23</b>	<b>6.41</b>	<b>12/01/2005</b>
Real Estate Index			-2.86	-6.13	-10.97	-10.69	7.06	5.57	6.03	7.78	6.06	
Difference			0.86	1.04	4.68	7.56	0.53	0.78	0.85	0.45	0.35	
<b>Core Real Estate</b>	<b>426,793,074</b>	<b>17.83</b>	<b>-2.30</b>	<b>-5.48</b>	<b>-6.80</b>	<b>-3.63</b>	<b>7.26</b>	<b>6.16</b>	<b>6.74</b>	<b>8.13</b>	<b>6.36</b>	<b>12/01/2005</b>
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-10.44	-9.97	7.99	6.50	6.97	8.74	7.04	
Difference			0.38	0.28	3.64	6.34	-0.73	-0.34	-0.23	-0.61	-0.68	
<b>Non-Core Real Estate</b>	<b>21,339,776</b>	<b>0.89</b>	<b>5.50</b>	<b>5.50</b>	<b>9.69</b>	<b>12.75</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>48.65</b>	<b>01/01/2022</b>
NCREIF ODCE Index (AWA)( Gross) +2%			-2.19	-4.83	-9.10	-8.17	10.15	8.63	9.11	10.92	2.86	
Difference			7.69	10.33	18.79	20.92	N/A	N/A	N/A	N/A	45.79	
<b>Diversifying Assets</b>	<b>116,009,266</b>	<b>4.85</b>	<b>1.32</b>	<b>5.00</b>	<b>3.64</b>	<b>5.10</b>	<b>27.04</b>	<b>9.70</b>	<b>8.12</b>	<b>6.59</b>	<b>8.76</b>	<b>03/01/2011</b>
Diversifying Assets Index			6.37	13.35	22.51	17.54	12.46	2.22	2.29	2.08	3.57	
Difference			-5.05	-8.35	-18.87	-12.44	14.58	7.48	5.83	4.51	5.19	

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City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Gross of Fees)

As of June 30, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>US Equity</b>												
<b>Eagle Capital Large Cap Value (SA)</b>	<b>165,466,201</b>	<b>6.91</b>	<b>11.65</b>	<b>24.96</b>	<b>35.29</b>	<b>29.76</b>	<b>16.03</b>	<b>11.31</b>	<b>13.98</b>	<b>12.97</b>	<b>11.11</b>	<b>02/01/2007</b>
Russell 1000 Val Index			4.07	5.12	18.18	11.54	14.30	8.11	8.94	9.22	6.57	
Difference			7.58	19.84	17.11	18.22	1.73	3.20	5.04	3.75	4.54	
Russell 1000 Index			8.58	16.68	25.13	19.36	14.09	11.92	13.15	12.64	9.25	
Difference			3.07	8.28	10.16	10.40	1.94	-0.61	0.83	0.33	1.86	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.31	5.57	19.00	12.65	15.73	9.43	10.78	10.28	8.11	
Rank			1	2	2	2	47	22	9	7	3	
<b>Wellington Select Equity Income Fund (SA)</b>	<b>148,830,600</b>	<b>6.22</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.82</b>	<b>06/01/2023</b>
Russell 1000 Val Index			4.07	5.12	18.18	11.54	14.30	8.11	8.94	9.22	6.64	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.18	
IM U.S. Large Cap Value Equity (SA+CF) Median			4.31	5.57	19.00	12.65	15.73	9.43	10.78	10.28	6.77	
Rank			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	48	
<b>Mellon Large Cap Core Index (CF)</b>	<b>168,042,324</b>	<b>7.02</b>	<b>8.62</b>	<b>16.71</b>	<b>25.19</b>	<b>19.42</b>	<b>14.09</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.92</b>	<b>05/01/2019</b>
Russell 1000 Index			8.58	16.68	25.13	19.36	14.09	11.92	13.15	12.64	11.93	
Difference			0.04	0.03	0.06	0.06	0.00	N/A	N/A	N/A	-0.01	
IM U.S. Large Cap Core Equity (SA+CF) Median			7.75	14.41	24.00	18.00	14.08	11.58	13.03	12.68	11.46	
Rank			33	29	36	35	50	N/A	N/A	N/A	41	
<b>Loomis Sayles Large Cap Growth (CF)</b>	<b>148,317,808</b>	<b>6.20</b>	<b>13.76</b>	<b>38.12</b>	<b>47.01</b>	<b>41.11</b>	<b>13.30</b>	<b>15.03</b>	<b>N/A</b>	<b>N/A</b>	<b>15.28</b>	<b>08/01/2017</b>
Russell 1000 Grth Index			12.81	29.02	31.85	27.11	13.73	15.14	16.91	15.74	16.07	
Difference			0.95	9.10	15.16	14.00	-0.43	-0.11	N/A	N/A	-0.79	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.73	26.20	29.65	25.32	11.74	13.23	15.39	14.69	14.34	
Rank			23	3	2	1	30	20	N/A	N/A	29	
<b>Kayne Anderson US SMID Value (SA)</b>	<b>68,628,506</b>	<b>2.87</b>	<b>3.41</b>	<b>7.89</b>	<b>14.33</b>	<b>9.58</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.99</b>	<b>03/01/2022</b>
Russell 2500 Val Index			4.37	5.83	15.58	10.37	16.07	5.32	7.97	8.02	-3.51	
Difference			-0.96	2.06	-1.25	-0.79	N/A	N/A	N/A	N/A	1.52	
IM U.S. SMID Cap Value Equity (SA+CF) Median			4.50	7.22	19.16	14.25	17.68	7.82	10.39	9.88	-0.12	
Rank			75	40	87	89	N/A	N/A	N/A	N/A	67	
<b>Systematic Financial US SMID Value (SA)</b>	<b>72,070,984</b>	<b>3.01</b>	<b>4.34</b>	<b>6.88</b>	<b>20.10</b>	<b>13.97</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.07</b>	<b>03/01/2022</b>
Russell 2500 Val Index			4.37	5.83	15.58	10.37	16.07	5.32	7.97	8.02	-3.51	
Difference			-0.03	1.05	4.52	3.60	N/A	N/A	N/A	N/A	2.44	
IM U.S. SMID Cap Value Equity (SA+CF) Median			4.50	7.22	19.16	14.25	17.68	7.82	10.39	9.88	-0.12	
Rank			55	58	41	55	N/A	N/A	N/A	N/A	61	

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**City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Gross of Fees)**

**As of June 30, 2023**

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Pinnacle Associates US SMID Cap Growth (SA)</b>	<b>71,852,051</b>	<b>3.00</b>	<b>7.36</b>	<b>16.58</b>	<b>20.95</b>	<b>18.26</b>	<b>11.60</b>	<b>10.52</b>	<b>13.51</b>	<b>11.59</b>	<b>13.26</b>	<b>03/01/2010</b>
Russell 2500 Grth Index			6.41	13.38	18.73	18.58	6.56	7.00	10.95	10.38	12.03	
Difference			0.95	3.20	2.22	-0.32	5.04	3.52	2.56	1.21	1.23	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			5.36	13.46	19.63	18.02	8.26	9.57	13.00	11.57	13.40	
Rank			20	29	39	48	27	33	45	50	62	

Performance shown is gross of fees except if noted otherwise, and is annualized for periods greater than one year. Allocations may not sum up to 100% due to the exclusion of managers in liquidation. Please see the addendum for custom benchmark definitions. Fiscal year for the COJ ends 09/30. Market Values for Abacus Multi-Family Partners Fund VI (CF), Adams Street, LP, Bell Value-Add Fund VII LP, H.I.G Realty Fund IV (CF), and Hamilton Lane Private Credit are preliminary. During 05/2023, Wellington Select Equity Income Fund (SA) was funded.



City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Gross of Fees)

As of June 30, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>International Equity</b>												
<b>Silchester International Value (CF)</b>	<b>275,965,228</b>	<b>11.53</b>	<b>3.54</b>	<b>11.39</b>	<b>32.35</b>	<b>18.17</b>	<b>12.31</b>	<b>4.77</b>	<b>7.87</b>	<b>7.23</b>	<b>9.22</b>	<b>06/01/2009</b>
MSCI EAFE Val Index (USD) (Net)			3.15	9.28	30.74	17.40	11.34	2.93	6.02	4.15	5.03	
Difference			0.39	2.11	1.61	0.77	0.97	1.84	1.85	3.08	4.19	
IM EAFE Value (SA+CF) Median			3.27	12.86	32.40	19.30	11.50	4.33	6.81	5.79	7.11	
Rank			43	74	52	55	29	40	27	11	9	
<b>Baillie Gifford International Growth (BGEFX)</b>	<b>160,455,844</b>	<b>6.70</b>	<b>0.20</b>	<b>13.63</b>	<b>28.66</b>	<b>15.18</b>	<b>-1.71</b>	<b>3.95</b>	<b>10.20</b>	<b>8.40</b>	<b>9.37</b>	<b>06/01/2009</b>
Baillie Gifford Index			1.94	10.70	24.97	13.26	3.96	4.06	6.25	5.62	6.88	
Difference			-1.74	2.93	3.69	1.92	-5.67	-0.11	3.95	2.78	2.49	
Baillie Gifford Spliced Index			2.44	9.47	25.11	12.72	7.22	3.70	6.37	5.06	6.09	
Difference			-2.24	4.16	3.55	2.46	-8.93	0.25	3.83	3.34	3.28	
IM ACWI Ex US Growth (SA+CF) Median			3.06	12.49	28.21	17.96	6.50	5.66	8.30	6.93	8.31	
Rank			98	36	45	83	98	79	20	26	19	
<b>Acadian Emerging Markets (CF)</b>	<b>125,840,071</b>	<b>5.26</b>	<b>3.85</b>	<b>12.03</b>	<b>24.40</b>	<b>8.85</b>	<b>7.43</b>	<b>3.02</b>	<b>6.59</b>	<b>4.02</b>	<b>3.20</b>	<b>02/01/2011</b>
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	15.07	1.75	2.32	0.93	4.95	2.95	1.47	
Difference			2.95	7.14	9.33	7.10	5.11	2.09	1.64	1.07	1.73	
IM Emerging Markets Equity (SA+CF) Median			2.39	7.35	18.29	6.81	4.15	2.91	6.12	4.39	2.96	
Rank			33	18	17	41	37	48	44	63	40	
<b>Fixed Income</b>												
<b>Baird Core Fixed Income (SA)</b>	<b>207,021,974</b>	<b>8.65</b>	<b>-0.58</b>	<b>2.81</b>	<b>4.73</b>	<b>-0.12</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.35</b>	<b>03/01/2021</b>
Bloomberg US Agg Bond Index			-0.84	2.09	4.00	-0.94	-3.97	0.77	0.44	1.52	-4.71	
Difference			0.26	0.72	0.73	0.82	N/A	N/A	N/A	N/A	0.36	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			-0.72	2.43	4.29	-0.41	-3.43	1.20	0.94	1.96	-4.41	
Rank			36	18	23	26	N/A	N/A	N/A	N/A	46	
<b>Loomis Sayles Multisector Full Discretion (CF)</b>	<b>105,743,780</b>	<b>4.42</b>	<b>-0.44</b>	<b>2.97</b>	<b>5.71</b>	<b>2.30</b>	<b>-0.90</b>	<b>3.02</b>	<b>3.68</b>	<b>4.07</b>	<b>5.64</b>	<b>10/01/2007</b>
Bloomberg Gbl Agg Bond Index			-1.53	1.43	6.04	-1.32	-4.96	-1.09	-0.90	0.20	1.71	
Difference			1.09	1.54	-0.33	3.62	4.06	4.11	4.58	3.87	3.93	
IM Global Fixed Income (SA+CF) Median			0.35	3.16	7.58	3.73	-0.28	2.11	2.34	2.50	2.95	
Rank			65	55	78	59	54	30	33	26	9	
<b>Schroder Flexible Secured Income Fund</b>	<b>108,085,709</b>	<b>4.52</b>	<b>3.55</b>	<b>5.25</b>	<b>5.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5.40</b>	<b>10/01/2022</b>
1 Month LIBOR+1.75%			1.69	3.27	4.66	5.66	3.16	3.41	3.26	2.87	4.66	
Difference			1.86	1.98	0.74	N/A	N/A	N/A	N/A	N/A	0.74	
1 Month LIBOR+5%			2.49	4.91	7.16	9.03	6.45	6.72	6.56	6.16	7.16	
Difference			1.06	0.34	-1.76	N/A	N/A	N/A	N/A	N/A	-1.76	

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	Allocation		Performance (%)									
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<b>Real Estate</b>												
<b>Harrison Street Core Property LP</b>	<b>132,981,888</b>	<b>5.56</b>	<b>-0.47</b>	<b>-1.18</b>	<b>0.96</b>	<b>7.20</b>	<b>7.44</b>	<b>7.63</b>	<b>8.07</b>	<b>N/A</b>	<b>7.83</b>	<b>11/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-10.44	-9.97	7.99	6.50	6.97	8.74	7.40	
Difference			2.21	4.58	11.40	17.17	-0.55	1.13	1.10	N/A	0.43	
<b>PGIM Real Estate PRISA II LP</b>	<b>72,592,919</b>	<b>3.03</b>	<b>-2.21</b>	<b>-8.33</b>	<b>-7.31</b>	<b>-3.14</b>	<b>9.17</b>	<b>7.96</b>	<b>8.30</b>	<b>N/A</b>	<b>8.99</b>	<b>01/01/2015</b>
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-10.44	-9.97	7.99	6.50	6.97	8.74	8.00	
Difference			0.47	-2.57	3.13	6.83	1.18	1.46	1.33	N/A	0.99	
<b>Principal US Property (CF)</b>	<b>151,425,100</b>	<b>6.33</b>	<b>-1.67</b>	<b>-4.59</b>	<b>-10.33</b>	<b>-9.73</b>	<b>8.23</b>	<b>7.05</b>	<b>7.76</b>	<b>N/A</b>	<b>9.20</b>	<b>01/01/2014</b>
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-10.44	-9.97	7.99	6.50	6.97	8.74	8.47	
Difference			1.01	1.17	0.11	0.24	0.24	0.55	0.79	N/A	0.73	
<b>UBS Trumbull Property</b>	<b>68,618,095</b>	<b>2.87</b>	<b>-7.05</b>	<b>-11.89</b>	<b>-11.87</b>	<b>-8.28</b>	<b>4.17</b>	<b>2.27</b>	<b>3.49</b>	<b>5.75</b>	<b>5.48</b>	<b>12/01/2005</b>
NCREIF ODCE Index (AWA) (Gross)			-2.68	-5.76	-10.44	-9.97	7.99	6.50	6.97	8.74	7.04	
Difference			-4.37	-6.13	-1.43	1.69	-3.82	-4.23	-3.48	-2.99	-1.56	
<b>Vanguard RE Idx;ETF (VNQ)</b>	<b>1,175,071</b>	<b>0.05</b>	<b>1.74</b>	<b>3.42</b>	<b>7.89</b>	<b>-3.97</b>	<b>5.85</b>	<b>4.36</b>	<b>3.07</b>	<b>6.00</b>	<b>10.82</b>	<b>12/01/2008</b>
Custom REITs Index			1.68	3.54	8.04	-3.82	6.00	4.55	3.47	6.39	11.53	
Difference			0.06	-0.12	-0.15	-0.15	-0.15	-0.19	-0.40	-0.39	-0.71	
<b>Abacus Multi-Family Partners VI LP</b>	<b>2,385,606</b>	<b>0.10</b>	<b>-28.93</b>	<b>-28.93</b>	<b>-28.93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-28.93</b>	<b>10/01/2022</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	-9.68	
Difference			-26.53	-23.70	-19.25	N/A	N/A	N/A	N/A	N/A	-19.25	
<b>H.I.G. Realty Partners IV (Onshore) LP</b>	<b>18,829,231</b>	<b>0.79</b>	<b>7.57</b>	<b>7.57</b>	<b>12.12</b>	<b>20.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>01/01/2022</b>
NCREIF ODCE Index (AWA)(Gross) +2%			-2.19	-4.83	-9.10	-8.17	10.15	8.63	9.11	10.92	2.86	
Difference			9.76	12.40	21.22	28.31	N/A	N/A	N/A	N/A	N/A	
<b>Bell Value-Add VIII LP</b>	<b>124,939</b>	<b>0.01</b>	<b>0.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.03</b>	<b>04/01/2023</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	-2.40	
Difference			2.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.43	

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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Diversifying Assets</b>												
<b>Hancock Timberland (SA)</b>	<b>736,141</b>	<b>0.03</b>	<b>-10.67</b>	<b>-10.46</b>	<b>-15.52</b>	<b>-0.58</b>	<b>20.73</b>	<b>12.92</b>	<b>11.66</b>	<b>9.96</b>	<b>6.36</b>	<b>10/01/2006</b>
NCREIF Timberland Index			1.71	3.49	8.55	11.13	8.67	5.80	5.13	5.90	5.90	
Difference			-12.38	-13.95	-24.07	-11.71	12.06	7.12	6.53	4.06	0.46	
<b>Adams Street Private Equity (SA)</b>	<b>65,304,169</b>	<b>2.73</b>	<b>0.57</b>	<b>6.20</b>	<b>3.84</b>	<b>5.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>27.46</b>	<b>11/01/2020</b>
S&P 500 Index+3%			9.55	18.63	28.55	23.18	18.04	15.68	16.78	16.25	17.46	
Difference			-8.98	-12.43	-24.71	-17.57	N/A	N/A	N/A	N/A	10.00	
<b>Hamilton Lane Private Credit (SA)</b>	<b>49,968,956</b>	<b>2.09</b>	<b>2.61</b>	<b>3.56</b>	<b>4.09</b>	<b>3.96</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5.48</b>	<b>04/01/2021</b>
ICE BofAML Gbl Hi Yld Index +2%			2.13	6.32	14.32	11.88	3.49	4.27	5.68	5.71	-1.39	
Difference			0.48	-2.76	-10.23	-7.92	N/A	N/A	N/A	N/A	6.87	
<b>Dreyfus Gvt Csh Mgt;Inst (DGCXX)</b>	<b>3,178,525</b>	<b>0.13</b>	<b>1.25</b>	<b>2.40</b>	<b>3.34</b>	<b>3.74</b>	<b>1.59</b>	<b>1.75</b>	<b>1.51</b>	<b>1.10</b>	<b>1.46</b>	<b>04/01/2001</b>
FTSE 3 Mo T-Bill Index			1.25	2.39	3.28	3.75	1.33	1.57	1.37	0.98	1.39	
Difference			0.00	0.01	0.06	-0.01	0.26	0.18	0.14	0.12	0.07	

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City of Jacksonville Employees' Retirement System  
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	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,393,751,664</b>	<b>100.00</b>	<b>3.36</b>	<b>9.14</b>	<b>15.13</b>	<b>10.82</b>	<b>7.18</b>	<b>5.41</b>	<b>7.18</b>	<b>7.05</b>	<b>6.15</b>	<b>07/01/1999</b>
Current Total Fund Policy Index			3.28	8.04	14.59	9.01	7.95	5.94	6.99	6.99	5.82	
Difference			0.08	1.10	0.54	1.81	-0.77	-0.53	0.19	0.06	0.33	
<b>Total Equity</b>	<b>1,405,469,619</b>	<b>58.71</b>	<b>6.48</b>	<b>17.18</b>	<b>29.33</b>	<b>20.76</b>	<b>10.65</b>	<b>7.75</b>	<b>10.44</b>	<b>9.50</b>	<b>6.48</b>	<b>07/01/1999</b>
<b>US Equity</b>	<b>843,208,475</b>	<b>35.23</b>	<b>9.38</b>	<b>21.07</b>	<b>29.79</b>	<b>24.72</b>	<b>13.74</b>	<b>10.61</b>	<b>12.36</b>	<b>11.58</b>	<b>7.24</b>	<b>07/01/1999</b>
US Equity Index			8.39	16.17	24.51	18.95	13.89	11.39	12.86	12.34	7.29	
Difference			0.99	4.90	5.28	5.77	-0.15	-0.78	-0.50	-0.76	-0.05	
<b>International Equity</b>	<b>562,261,144</b>	<b>23.49</b>	<b>2.50</b>	<b>11.87</b>	<b>28.92</b>	<b>14.49</b>	<b>5.85</b>	<b>3.27</b>	<b>7.41</b>	<b>6.03</b>	<b>5.62</b>	<b>07/01/1999</b>
International Equity Index			2.44	9.47	25.11	12.72	7.22	3.52	6.32	4.75	3.92	
Difference			0.06	2.40	3.81	1.77	-1.37	-0.25	1.09	1.28	1.70	
<b>Fixed Income</b>	<b>420,851,463</b>	<b>17.58</b>	<b>0.38</b>	<b>3.29</b>	<b>4.86</b>	<b>0.98</b>	<b>-3.15</b>	<b>0.21</b>	<b>0.80</b>	<b>1.28</b>	<b>4.21</b>	<b>07/01/1999</b>
Fixed Income Index			-0.59	2.32	4.62	-0.04	-3.43	0.98	0.58	1.62	3.97	
Difference			0.97	0.97	0.24	1.02	0.28	-0.77	0.22	-0.34	0.24	
<b>Real Estate</b>	<b>448,132,850</b>	<b>18.72</b>	<b>-2.12</b>	<b>-5.34</b>	<b>-6.65</b>	<b>-3.62</b>	<b>7.03</b>	<b>5.62</b>	<b>6.16</b>	<b>7.48</b>	<b>5.75</b>	<b>12/01/2005</b>
Real Estate Index			-2.86	-6.13	-10.97	-10.69	7.06	5.57	6.03	7.78	6.06	
Difference			0.74	0.79	4.32	7.07	-0.03	0.05	0.13	-0.30	-0.31	
<b>Core Real Estate</b>	<b>426,793,074</b>	<b>17.83</b>	<b>-2.43</b>	<b>-5.73</b>	<b>-7.17</b>	<b>-4.14</b>	<b>6.71</b>	<b>5.44</b>	<b>6.03</b>	<b>7.38</b>	<b>5.70</b>	<b>12/01/2005</b>
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-11.01	-10.73	7.04	5.56	6.02	7.77	6.06	
Difference			0.45	0.43	3.84	6.59	-0.33	-0.12	0.01	-0.39	-0.36	
<b>Non-Core Real Estate</b>	<b>21,339,776</b>	<b>0.89</b>	<b>5.50</b>	<b>5.50</b>	<b>9.69</b>	<b>12.75</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>48.65</b>	<b>01/01/2022</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	1.99	
Difference			7.90	10.73	19.37	21.70	N/A	N/A	N/A	N/A	46.66	
<b>Diversifying Assets</b>	<b>116,009,266</b>	<b>4.85</b>	<b>1.26</b>	<b>4.87</b>	<b>3.43</b>	<b>4.80</b>	<b>26.41</b>	<b>9.17</b>	<b>7.60</b>	<b>6.07</b>	<b>8.23</b>	<b>03/01/2011</b>
Diversifying Assets Index			6.37	13.35	22.51	17.54	12.46	2.22	2.29	2.08	3.57	
Difference			-5.11	-8.48	-19.08	-12.74	13.95	6.95	5.31	3.99	4.66	

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<b>US Equity</b>												
<b>Eagle Capital Large Cap Value (SA)</b>	<b>165,466,201</b>	<b>6.91</b>	<b>11.44</b>	<b>24.52</b>	<b>34.53</b>	<b>28.80</b>	<b>15.17</b>	<b>10.48</b>	<b>13.12</b>	<b>12.12</b>	<b>10.39</b>	<b>02/01/2007</b>
Russell 1000 Val Index			4.07	5.12	18.18	11.54	14.30	8.11	8.94	9.22	6.57	
Difference			7.37	19.40	16.35	17.26	0.87	2.37	4.18	2.90	3.82	
Russell 1000 Index			8.58	16.68	25.13	19.36	14.09	11.92	13.15	12.64	9.25	
Difference			2.86	7.84	9.40	9.44	1.08	-1.44	-0.03	-0.52	1.14	
<b>Wellington Select Equity Income Fund (SA)</b>	<b>148,830,600</b>	<b>6.22</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.79</b>	<b>06/01/2023</b>
Russell 1000 Val Index			4.07	5.12	18.18	11.54	14.30	8.11	8.94	9.22	6.64	
Difference			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.15	
<b>Mellon Large Cap Core Index (CF)</b>	<b>168,042,324</b>	<b>7.02</b>	<b>8.62</b>	<b>16.70</b>	<b>25.17</b>	<b>19.40</b>	<b>14.06</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>11.90</b>	<b>05/01/2019</b>
Russell 1000 Index			8.58	16.68	25.13	19.36	14.09	11.92	13.15	12.64	11.93	
Difference			0.04	0.02	0.04	0.04	-0.03	N/A	N/A	N/A	-0.03	
<b>Loomis Sayles Large Cap Growth (CF)</b>	<b>148,317,808</b>	<b>6.20</b>	<b>13.47</b>	<b>37.64</b>	<b>46.22</b>	<b>40.09</b>	<b>12.59</b>	<b>14.39</b>	<b>N/A</b>	<b>N/A</b>	<b>14.43</b>	<b>07/01/2017</b>
Russell 1000 Grth Index			12.81	29.02	31.85	27.11	13.73	15.14	16.91	15.74	16.33	
Difference			0.66	8.62	14.37	12.98	-1.14	-0.75	N/A	N/A	-1.90	
<b>Kayne Anderson US SMID Value (SA)</b>	<b>68,628,506</b>	<b>2.87</b>	<b>3.26</b>	<b>7.58</b>	<b>13.80</b>	<b>8.91</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-2.51</b>	<b>03/01/2022</b>
Russell 2500 Val Index			4.37	5.83	15.58	10.37	16.07	5.32	7.97	8.02	-3.51	
Difference			-1.11	1.75	-1.78	-1.46	N/A	N/A	N/A	N/A	1.00	
<b>Systematic Financial US SMID Value (SA)</b>	<b>72,070,984</b>	<b>3.01</b>	<b>4.17</b>	<b>6.55</b>	<b>19.53</b>	<b>13.27</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.60</b>	<b>03/01/2022</b>
Russell 2500 Val Index			4.37	5.83	15.58	10.37	16.07	5.32	7.97	8.02	-3.51	
Difference			-0.20	0.72	3.95	2.90	N/A	N/A	N/A	N/A	1.91	
<b>Pinnacle Associates US SMID Cap Growth (SA)</b>	<b>71,852,051</b>	<b>3.00</b>	<b>7.18</b>	<b>16.21</b>	<b>20.35</b>	<b>17.49</b>	<b>10.85</b>	<b>9.81</b>	<b>12.78</b>	<b>10.83</b>	<b>12.50</b>	<b>03/01/2010</b>
Russell 2500 Grth Index			6.41	13.38	18.73	18.58	6.56	7.00	10.95	10.38	12.03	
Difference			0.77	2.83	1.62	-1.09	4.29	2.81	1.83	0.45	0.47	

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City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Net of Fees)

As of June 30, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>International Equity</b>												
<b>Silchester International Value (CF)</b>	<b>275,965,228</b>	<b>11.53</b>	<b>3.40</b>	<b>11.08</b>	<b>31.79</b>	<b>17.49</b>	<b>11.67</b>	<b>4.17</b>	<b>7.25</b>	<b>6.62</b>	<b>8.58</b>	<b>06/01/2009</b>
MSCI EAFE Val Index (USD) (Net)			3.15	9.28	30.74	17.40	11.34	2.93	6.02	4.15	5.03	
Difference			0.25	1.80	1.05	0.09	0.33	1.24	1.23	2.47	3.55	
<b>Baillie Gifford International Growth (BGEFX)</b>	<b>160,455,844</b>	<b>6.70</b>	<b>0.08</b>	<b>13.37</b>	<b>28.21</b>	<b>14.64</b>	<b>-2.18</b>	<b>3.44</b>	<b>9.65</b>	<b>7.84</b>	<b>8.95</b>	<b>06/01/2009</b>
Baillie Gifford Index			1.94	10.70	24.97	13.26	3.96	4.06	6.25	5.62	6.88	
Difference			-1.86	2.67	3.24	1.38	-6.14	-0.62	3.40	2.22	2.07	
Baillie Gifford Spliced Index			2.44	9.47	25.11	12.72	7.22	3.70	6.37	5.06	6.09	
Difference			-2.36	3.90	3.10	1.92	-9.40	-0.26	3.28	2.78	2.86	
<b>Acadian Emerging Markets (CF)</b>	<b>125,840,071</b>	<b>5.26</b>	<b>3.71</b>	<b>11.72</b>	<b>23.89</b>	<b>8.23</b>	<b>6.83</b>	<b>2.43</b>	<b>5.98</b>	<b>3.41</b>	<b>2.60</b>	<b>02/01/2011</b>
MSCI Emg Mkts Index (USD) (Net)			0.90	4.89	15.07	1.75	2.32	0.93	4.95	2.95	1.47	
Difference			2.81	6.83	8.82	6.48	4.51	1.50	1.03	0.46	1.13	
<b>Fixed Income</b>												
<b>Baird Core Fixed Income (SA)</b>	<b>207,021,974</b>	<b>8.65</b>	<b>-0.64</b>	<b>2.70</b>	<b>4.56</b>	<b>-0.34</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-4.54</b>	<b>03/01/2021</b>
Bloomberg US Agg Bond Index			-0.84	2.09	4.00	-0.94	-3.97	0.77	0.44	1.52	-4.71	
Difference			0.20	0.61	0.56	0.60	N/A	N/A	N/A	N/A	0.17	
<b>Loomis Sayles Multisector Full Discretion (CF)</b>	<b>105,743,780</b>	<b>4.42</b>	<b>-0.61</b>	<b>2.79</b>	<b>5.41</b>	<b>1.92</b>	<b>-1.25</b>	<b>2.62</b>	<b>3.29</b>	<b>3.65</b>	<b>5.29</b>	<b>10/01/2007</b>
Bloomberg Gbl Agg Bond Index			-1.53	1.43	6.04	-1.32	-4.96	-1.09	-0.90	0.20	1.71	
Difference			0.92	1.36	-0.63	3.24	3.71	3.71	4.19	3.45	3.58	
<b>Schroder Flexible Secured Income Fund</b>	<b>108,085,709</b>	<b>4.52</b>	<b>3.40</b>	<b>4.94</b>	<b>4.93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>4.93</b>	<b>10/01/2022</b>
1 Month LIBOR+1.75%			1.69	3.27	4.66	5.66	3.16	3.41	3.26	2.87	4.66	
Difference			1.71	1.67	0.27	N/A	N/A	N/A	N/A	N/A	0.27	
1 Month LIBOR+5%			2.49	4.91	7.16	9.03	6.45	6.72	6.56	6.16	7.16	
Difference			0.91	0.03	-2.23	N/A	N/A	N/A	N/A	N/A	-2.23	

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City of Jacksonville Employees' Retirement System  
Asset Allocation & Performance (Net of Fees)

As of June 30, 2023

	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Real Estate</b>												
<b>Harrison Street Core Property LP</b>	<b>132,981,888</b>	<b>5.56</b>	<b>-0.47</b>	<b>-1.18</b>	<b>0.96</b>	<b>7.20</b>	<b>7.35</b>	<b>7.14</b>	<b>7.72</b>	<b>N/A</b>	<b>7.52</b>	<b>11/01/2015</b>
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-11.01	-10.73	7.04	5.56	6.02	7.77	6.43	
Difference			2.41	4.98	11.97	17.93	0.31	1.58	1.70	N/A	1.09	
<b>PGIM Real Estate PRISA II LP</b>	<b>72,592,919</b>	<b>3.03</b>	<b>-2.36</b>	<b>-8.64</b>	<b>-7.77</b>	<b>-3.77</b>	<b>8.53</b>	<b>7.04</b>	<b>7.37</b>	<b>N/A</b>	<b>8.16</b>	<b>01/01/2015</b>
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-11.01	-10.73	7.04	5.56	6.02	7.77	7.04	
Difference			0.52	-2.48	3.24	6.96	1.49	1.48	1.35	N/A	1.12	
<b>Principal US Property (CF)</b>	<b>151,425,100</b>	<b>6.33</b>	<b>-1.86</b>	<b>-4.97</b>	<b>-10.87</b>	<b>-10.46</b>	<b>7.37</b>	<b>6.20</b>	<b>6.89</b>	<b>N/A</b>	<b>8.32</b>	<b>01/01/2014</b>
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-11.01	-10.73	7.04	5.56	6.02	7.77	7.50	
Difference			1.02	1.19	0.14	0.27	0.33	0.64	0.87	N/A	0.82	
<b>UBS Trumbull Property</b>	<b>68,618,095</b>	<b>2.87</b>	<b>-7.23</b>	<b>-12.22</b>	<b>-12.37</b>	<b>-8.97</b>	<b>3.45</b>	<b>1.51</b>	<b>2.65</b>	<b>4.84</b>	<b>4.57</b>	<b>12/01/2005</b>
NCREIF ODCE Index (AWA) (Net)			-2.88	-6.16	-11.01	-10.73	7.04	5.56	6.02	7.77	6.06	
Difference			-4.35	-6.06	-1.36	1.76	-3.59	-4.05	-3.37	-2.93	-1.49	
<b>Vanguard RE Idx;ETF (VNQ)</b>	<b>1,175,071</b>	<b>0.05</b>	<b>1.74</b>	<b>3.42</b>	<b>7.89</b>	<b>-3.97</b>	<b>5.85</b>	<b>4.36</b>	<b>3.07</b>	<b>6.00</b>	<b>10.82</b>	<b>12/01/2008</b>
Custom REITs Index			1.68	3.54	8.04	-3.82	6.00	4.55	3.47	6.39	11.53	
Difference			0.06	-0.12	-0.15	-0.15	-0.15	-0.19	-0.40	-0.39	-0.71	
<b>Abacus Multi-Family Partners VI LP</b>	<b>2,385,606</b>	<b>0.10</b>	<b>-28.93</b>	<b>-28.93</b>	<b>-28.93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-28.93</b>	<b>10/01/2022</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	-9.68	
Difference			-26.53	-23.70	-19.25	N/A	N/A	N/A	N/A	N/A	-19.25	
<b>H.I.G. Realty Partners IV (Onshore) LP</b>	<b>18,829,231</b>	<b>0.79</b>	<b>7.57</b>	<b>7.57</b>	<b>12.12</b>	<b>20.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>01/01/2022</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	1.99	
Difference			9.97	12.80	21.80	29.09	N/A	N/A	N/A	N/A	N/A	
<b>Bell Value-Add VIII LP</b>	<b>124,939</b>	<b>0.01</b>	<b>0.03</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.03</b>	<b>04/01/2023</b>
NCREIF ODCE Index (AWA) (Net) (Monthly)+2%			-2.40	-5.23	-9.68	-8.95	9.18	7.67	8.14	9.93	-2.40	
Difference			2.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.43	

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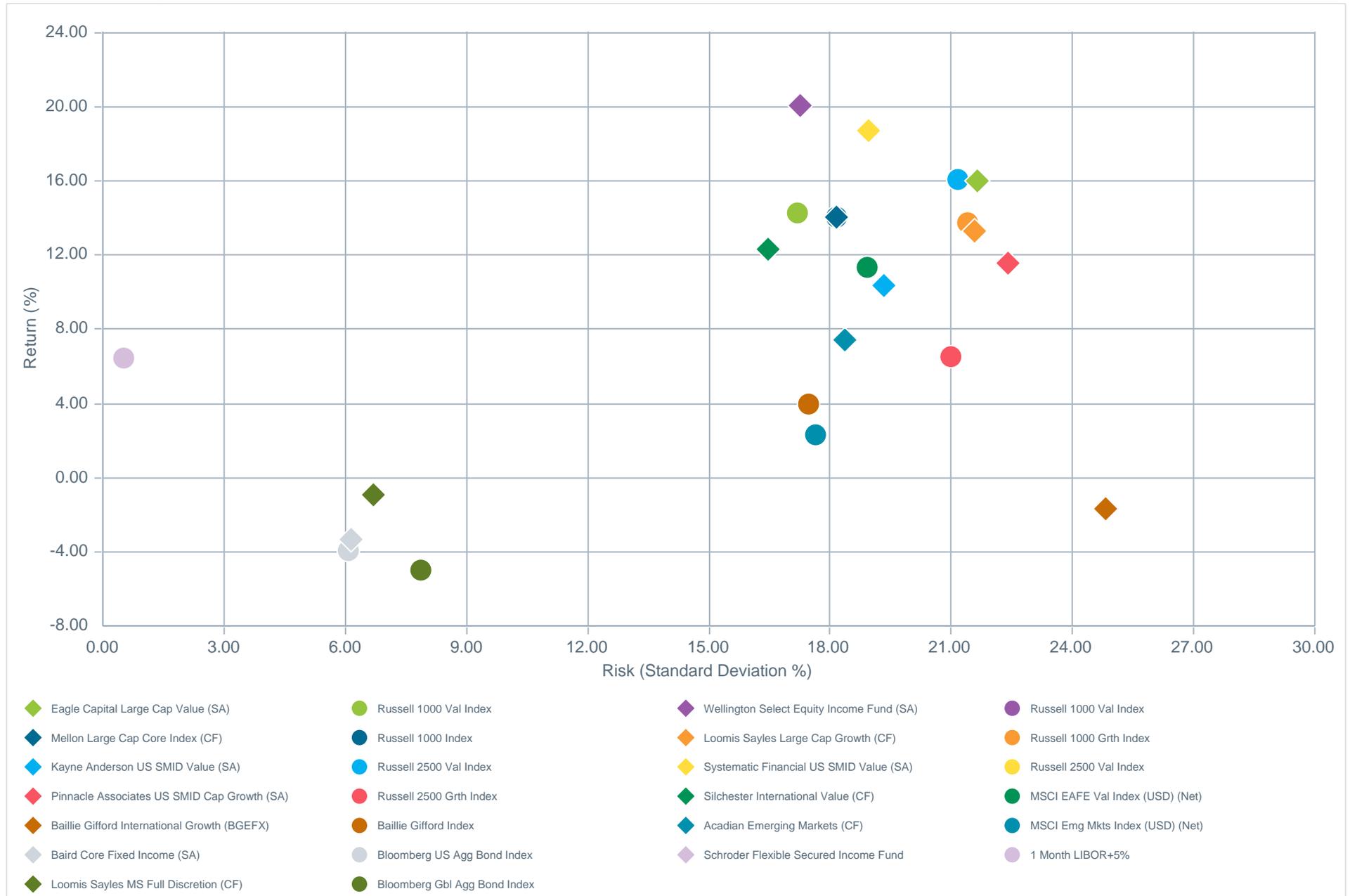
City of Jacksonville Employees' Retirement System  
 Asset Allocation & Performance (Net of Fees)

As of June 30, 2023

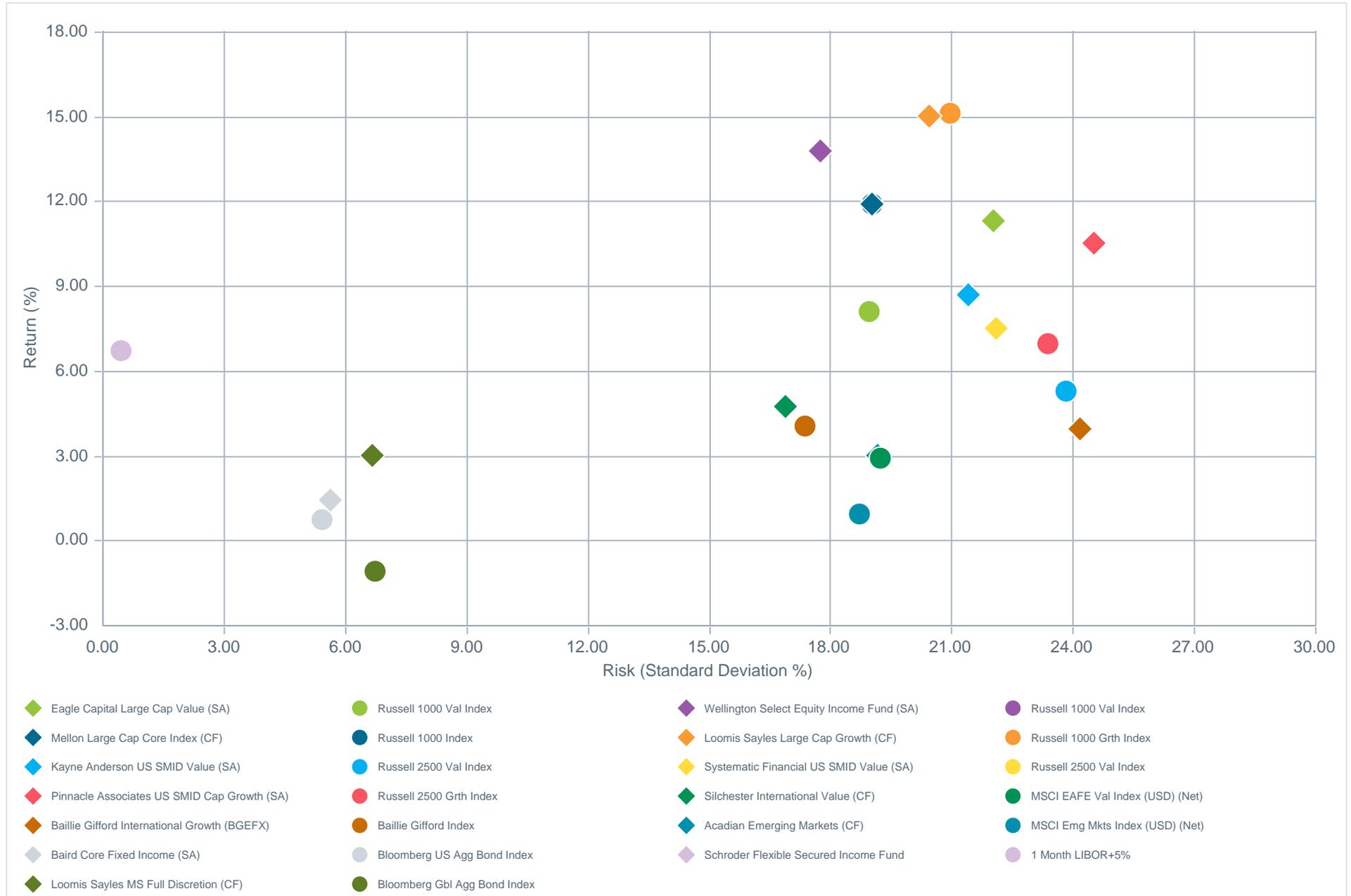
	Allocation		Performance (%)									
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
<b>Diversifying Assets</b>												
<b>Hancock Timberland (SA)</b>	<b>736,141</b>	<b>0.03</b>	<b>-10.67</b>	<b>-10.46</b>	<b>-15.52</b>	<b>-0.58</b>	<b>20.73</b>	<b>12.92</b>	<b>11.66</b>	<b>9.96</b>	<b>6.36</b>	<b>10/01/2006</b>
NCREIF Timberland Index			1.71	3.49	8.55	11.13	8.67	5.80	5.13	5.90	5.90	
Difference			-12.38	-13.95	-24.07	-11.71	12.06	7.12	6.53	4.06	0.46	
<b>Adams Street Private Equity (SA)</b>	<b>65,304,169</b>	<b>2.73</b>	<b>0.57</b>	<b>6.20</b>	<b>3.84</b>	<b>5.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>27.46</b>	<b>11/01/2020</b>
S&P 500 Index+3%			9.55	18.63	28.55	23.18	18.04	15.68	16.78	16.25	17.46	
Difference			-8.98	-12.43	-24.71	-17.57	N/A	N/A	N/A	N/A	10.00	
<b>Hamilton Lane Private Credit (SA)</b>	<b>49,968,956</b>	<b>2.09</b>	<b>2.44</b>	<b>3.20</b>	<b>3.52</b>	<b>3.13</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.99</b>	<b>04/01/2021</b>
ICE BofAML Gbl Hi Yld Index +2%			2.13	6.32	14.32	11.88	3.49	4.27	5.68	5.71	-1.39	
Difference			0.31	-3.12	-10.80	-8.75	N/A	N/A	N/A	N/A	0.40	
<b>Dreyfus Gvt Csh Mgt;Inst (DGCXX)</b>	<b>3,178,525</b>	<b>0.13</b>	<b>1.22</b>	<b>2.33</b>	<b>3.23</b>	<b>3.61</b>	<b>1.44</b>	<b>1.60</b>	<b>1.41</b>	<b>1.03</b>	<b>1.41</b>	<b>04/01/2001</b>
FTSE 3 Mo T-Bill Index			1.25	2.39	3.28	3.75	1.33	1.57	1.37	0.98	1.39	
Difference			-0.03	-0.06	-0.05	-0.14	0.11	0.03	0.04	0.05	0.02	

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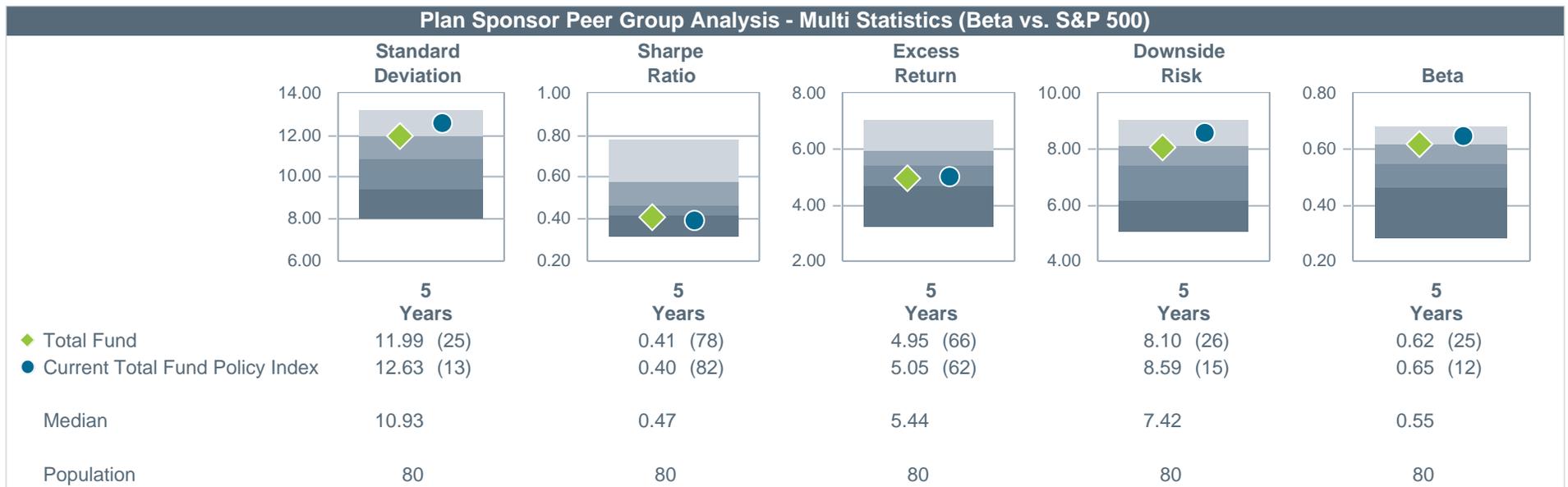
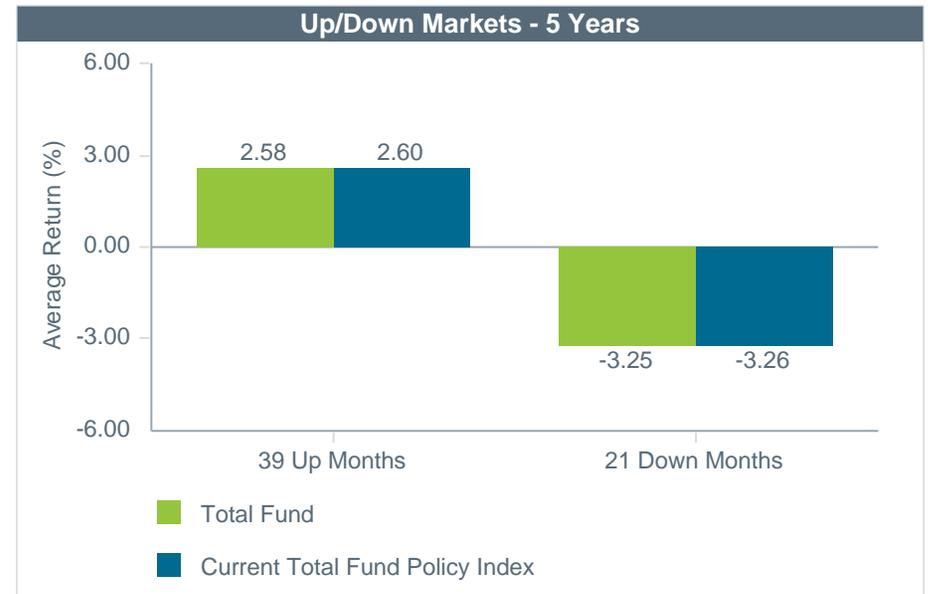
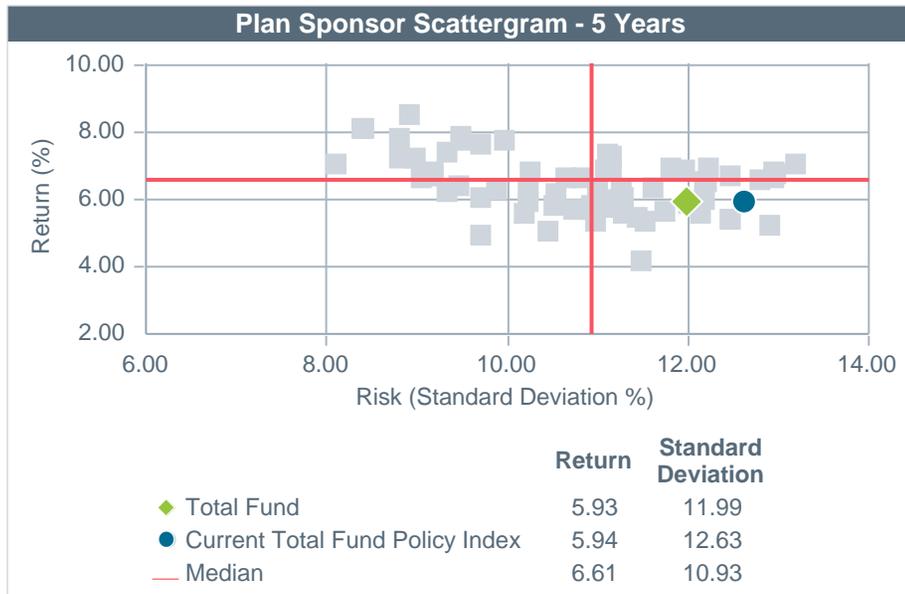




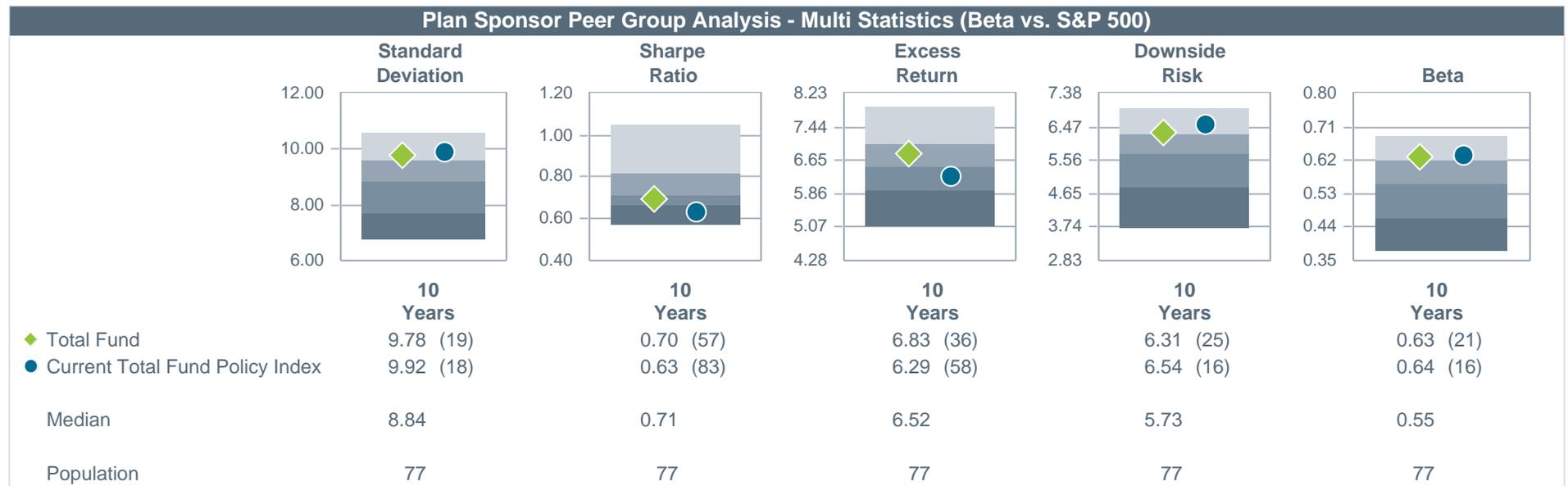
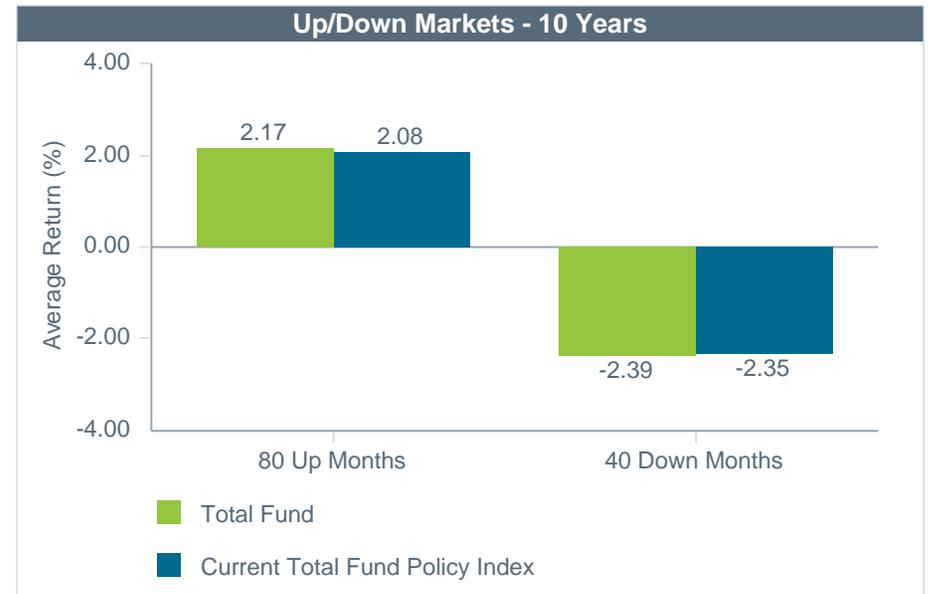
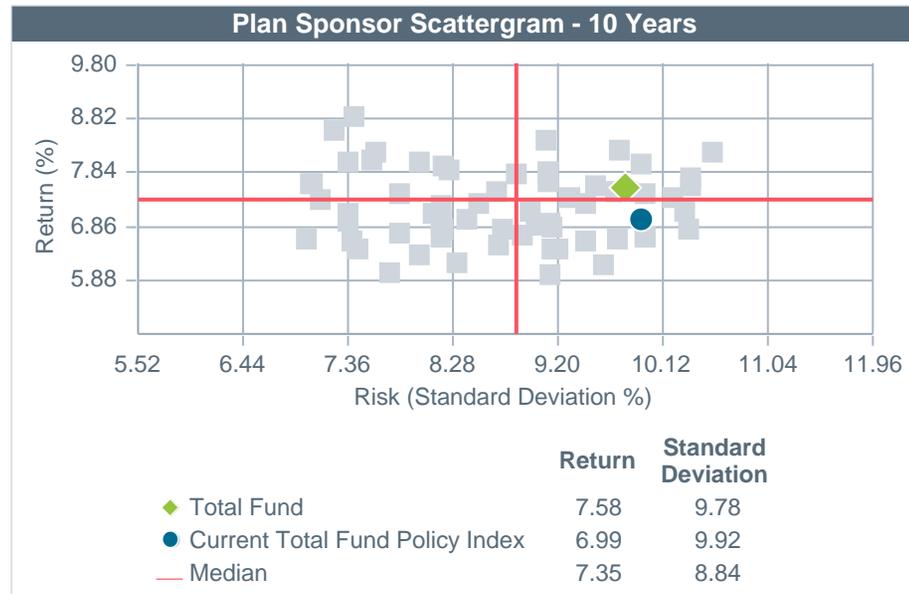
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Managers with less history than the specified time period are backfilled with product specific performance, except for Schroder Flexible Secured Income Fund. Please see the Addendum for custom index definitions.



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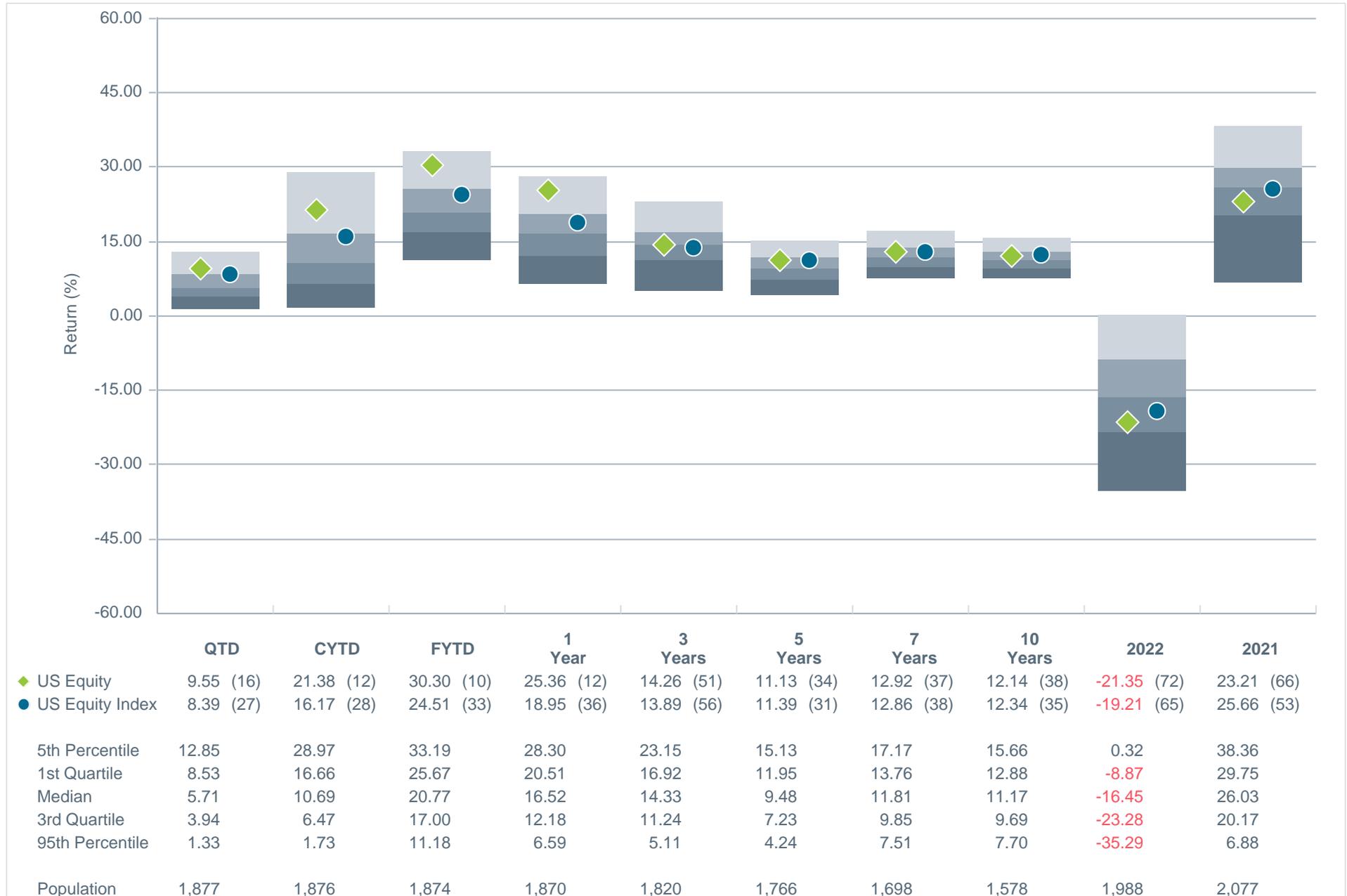
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# Composite Profiles



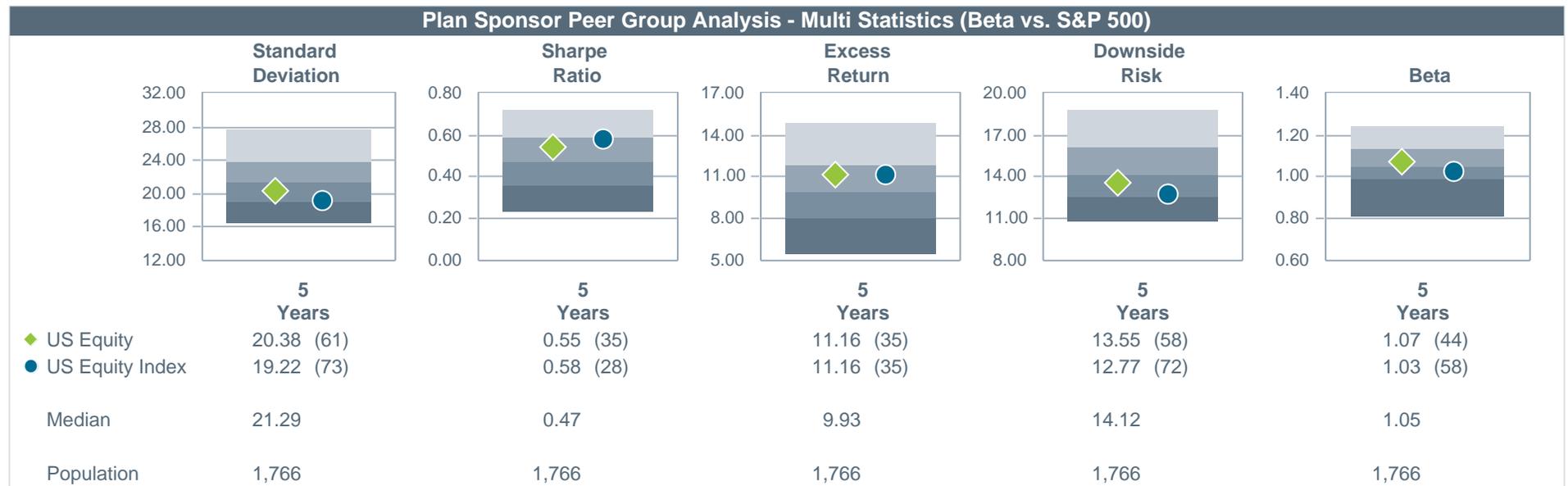
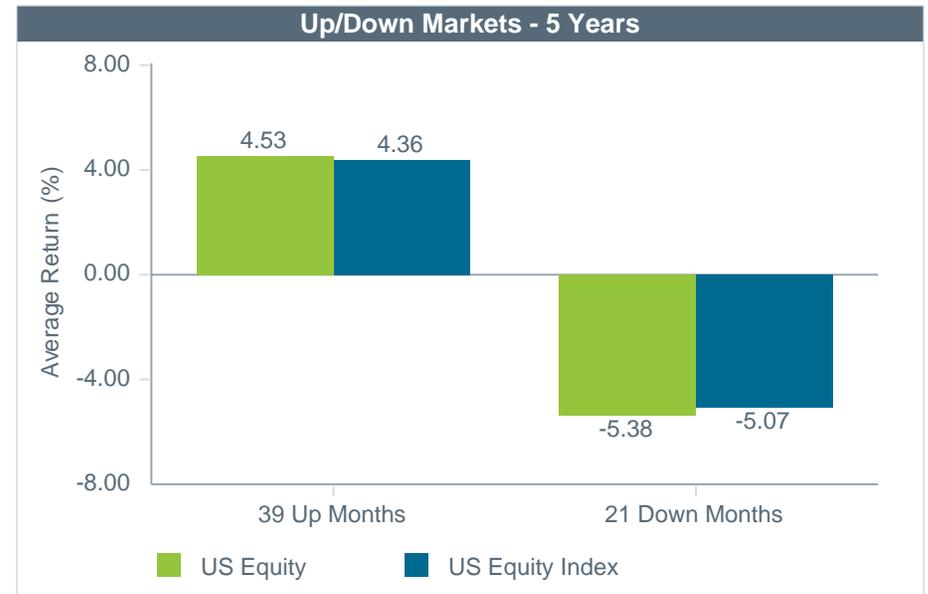
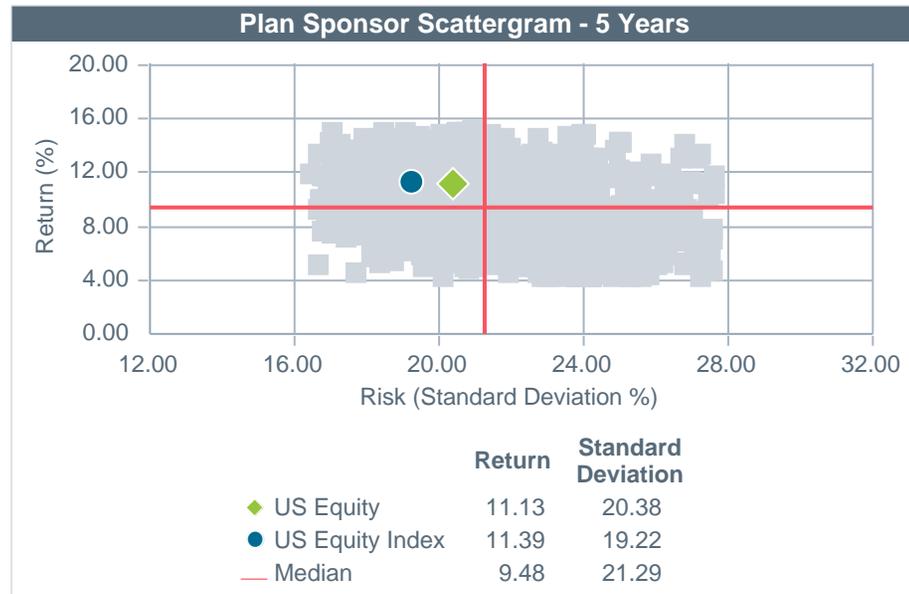
City of Jacksonville Employees' Retirement System  
 US Equity vs. IM U.S. Equity (SA+CF)  
 Peer Group Analysis

As of June 30, 2023



Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.





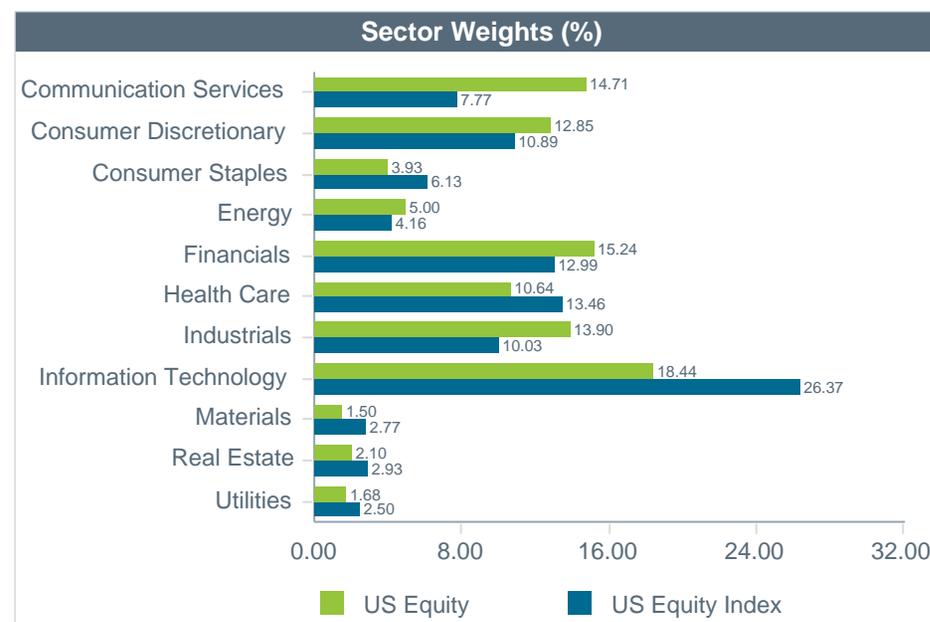
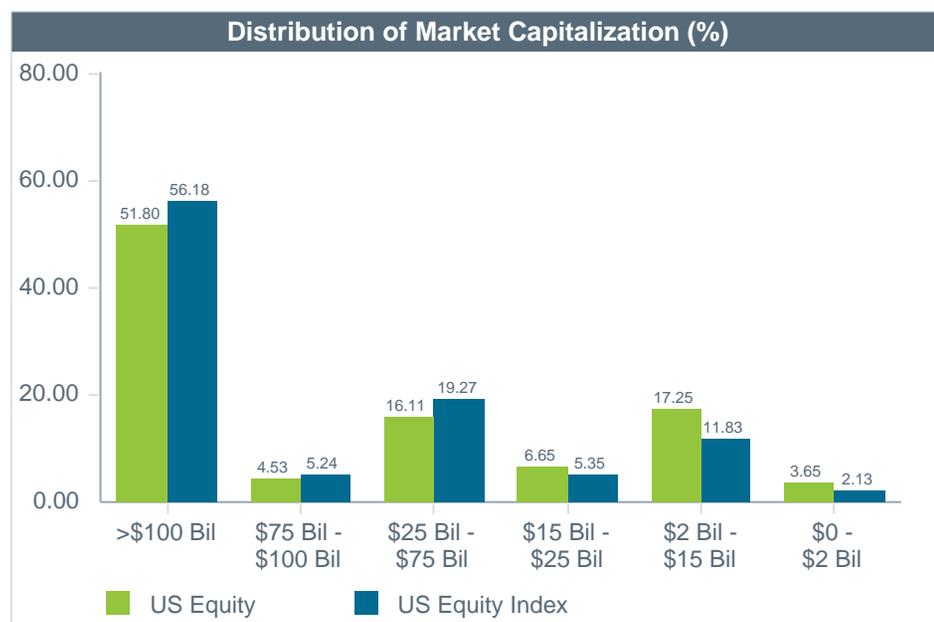
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

City of Jacksonville Employees' Retirement System  
 US Equity vs. US Equity Index  
 Portfolio Characteristics

As of June 30, 2023

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	4.08	5.83	-1.75	18.38
Meta Platforms Inc	3.87	1.46	2.41	35.41
Amazon.com Inc	3.59	2.70	0.89	26.21
Alphabet Inc	2.79	1.43	1.36	16.32
Netflix Inc	2.72	0.44	2.28	27.50
Conocophillips	2.63	0.29	2.34	5.59
Unitedhealth Group Inc	1.79	1.03	0.76	1.70
General Electric Co	1.78	0.27	1.51	14.91
NVIDIA Corporation	1.69	2.31	-0.62	52.31
Comcast Corp	1.45	0.40	1.05	10.44
% of Portfolio	26.39	16.16	10.23	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	382,403	580,225
Median Mkt. Cap (\$M)	11,017	1,973
Price/Earnings Ratio	18.88	21.97
Price/Book Ratio	3.60	4.24
5 Yr. EPS Growth Rate (%)	14.33	16.59
Current Yield (%)	1.51	1.53
Beta (5 Years, Monthly)	1.05	1.00
Number of Securities	1,151	3,010
Active Share	57.93	N/A



The Top Ten Domestic Equity Holdings included Visa Inc (2.01%), Apple Inc (1.76%), and Tesla Inc (1.48%) in Q1 2023 which was replaced by Conocophillips (2.63%), Unitedhealth Group Inc (1.79%), and Comcast Corp (1.45%) in Q2 2023.



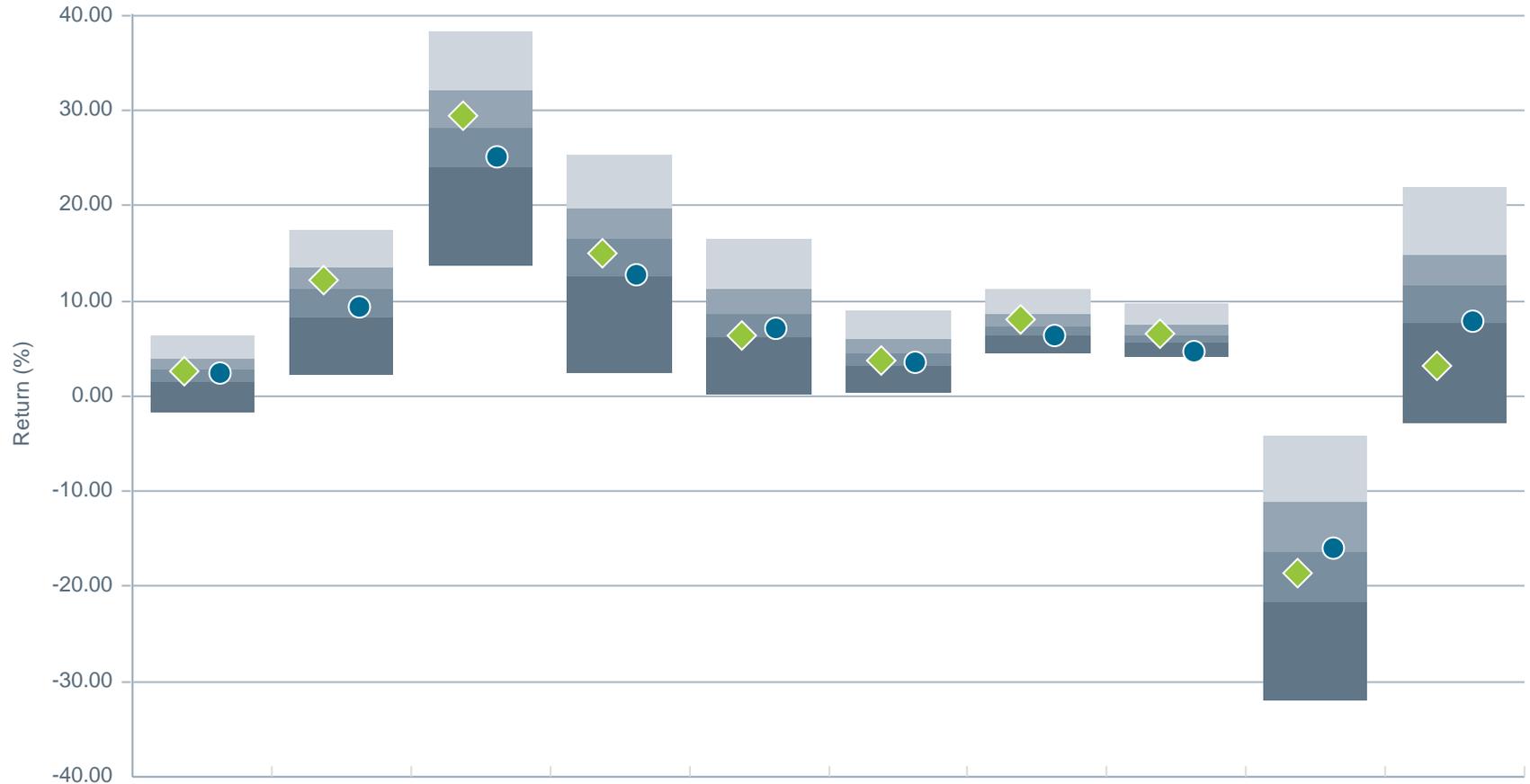
Style Map with History (12 Months)



Calculation is based on monthly periodicity. This is a return based calculation. Performance prior to manager inception date is backfilled with product specific returns.

City of Jacksonville Employees' Retirement System  
 International Equity vs. IM International Equity (SA+CF)  
 Peer Group Analysis

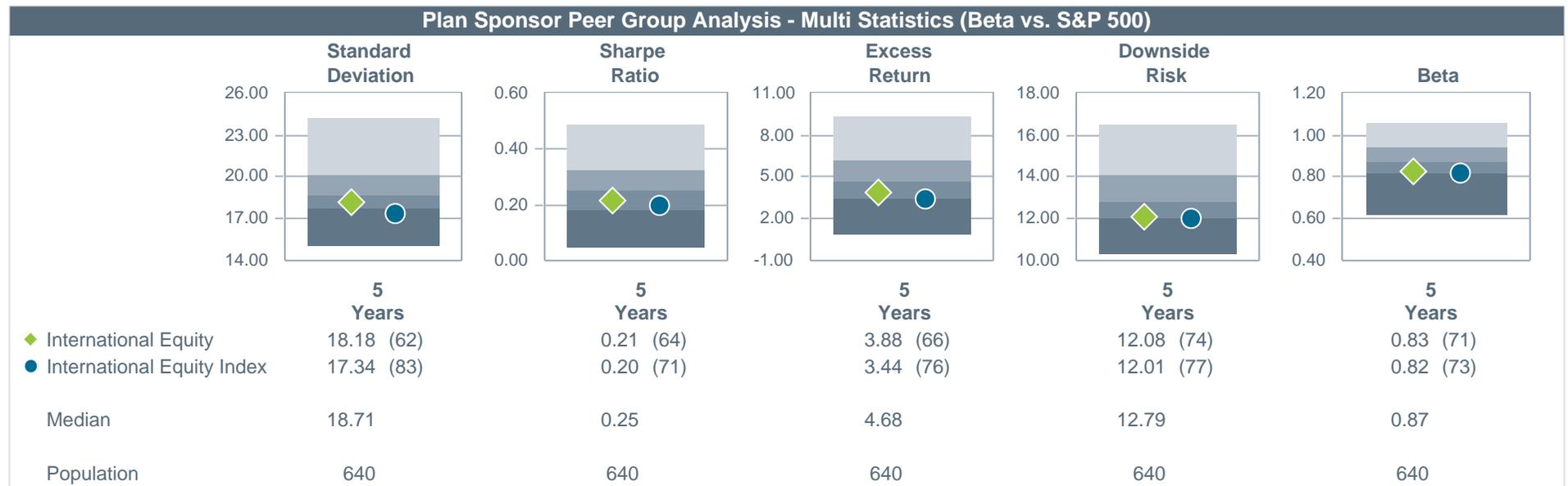
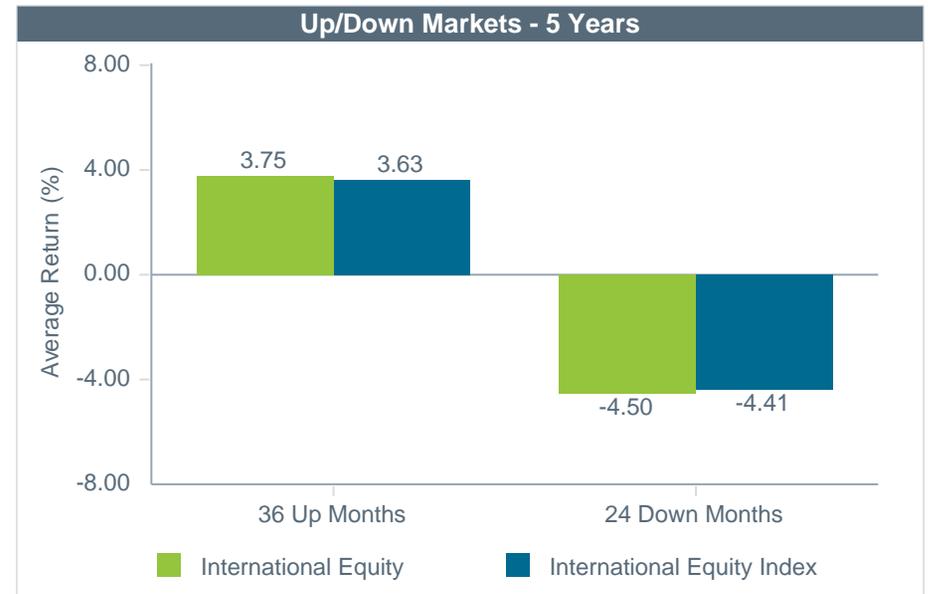
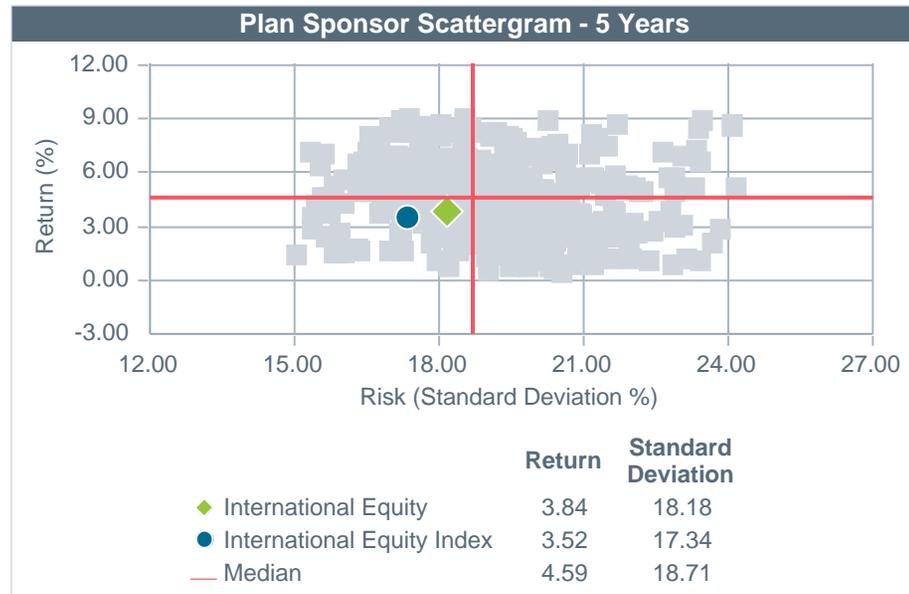
As of June 30, 2023



	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021
◆ International Equity	2.64 (56)	12.17 (40)	29.44 (44)	15.11 (59)	6.42 (74)	3.84 (63)	8.01 (38)	6.63 (45)	-18.57 (63)	3.25 (88)
● International Equity Index	2.44 (61)	9.47 (67)	25.11 (70)	12.72 (74)	7.22 (68)	3.52 (71)	6.32 (75)	4.75 (91)	-16.00 (48)	7.82 (75)
5th Percentile	6.36	17.46	38.28	25.38	16.52	9.04	11.32	9.81	-4.08	22.06
1st Quartile	3.95	13.58	32.12	19.81	11.20	5.99	8.72	7.50	-11.12	14.83
Median	2.89	11.18	28.18	16.48	8.66	4.59	7.39	6.35	-16.30	11.60
3rd Quartile	1.45	8.23	23.95	12.51	6.18	3.17	6.31	5.62	-21.59	7.68
95th Percentile	-1.64	2.21	13.71	2.44	0.18	0.41	4.52	4.15	-31.84	-2.85
Population	693	692	689	688	667	640	597	523	733	764

Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.





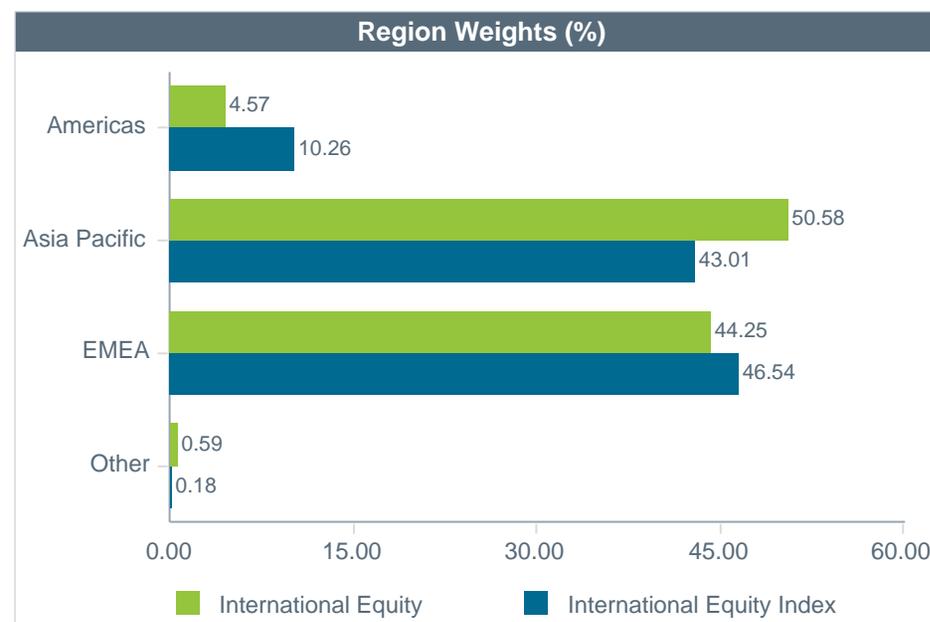
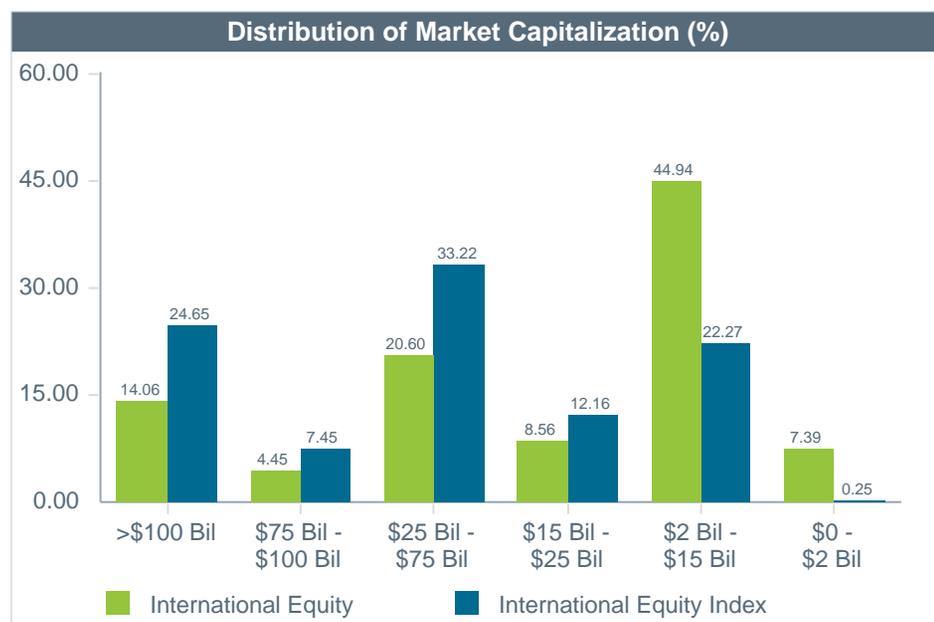
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

City of Jacksonville Employees' Retirement System  
International Equity vs. International Equity Index  
Portfolio Characteristics

As of June 30, 2023

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
ASML Holding NV	2.15	1.21	0.94	7.31
Taiwan Semiconductor Mfg	1.95	1.89	0.06	5.65
Honda Motor Co Ltd	1.79	0.19	1.60	13.88
MercadoLibre Inc	1.71	0.00	1.71	-10.13
Adyen N.V	1.62	0.16	1.46	9.13
Ferrari NV	1.53	0.17	1.36	21.50
Sanofi	1.46	0.50	0.96	2.09
Spotify Technology S.A	1.30	0.00	1.30	20.15
Kering	1.28	0.17	1.11	-13.35
Bayerische Motoren Werke AG	1.26	0.17	1.09	21.51
% of Portfolio	16.05	4.46	11.59	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	70,527	87,907
Median Mkt. Cap (\$M)	1,364	9,035
Price/Earnings Ratio	12.14	13.13
Price/Book Ratio	2.47	2.42
5 Yr. EPS Growth Rate (%)	9.35	10.67
Current Yield (%)	3.67	3.26
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	974	2,308
Active Share	83.24	N/A



The Top Ten International Equity Holdings included Tesco PLC (1.39%) and Novartis AG (1.35%) in Q1 2023 which was replaced by Spotify Technology S.A (1.30%) and Bayerische Motoren Werke AG (1.26%) in Q2 2023.



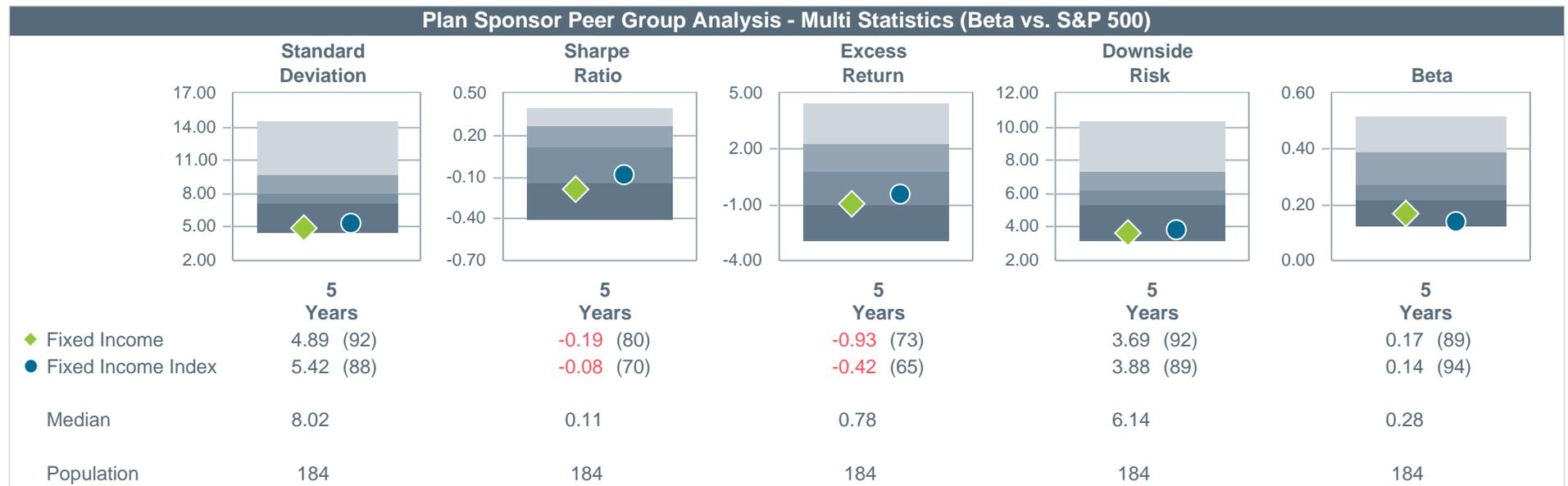
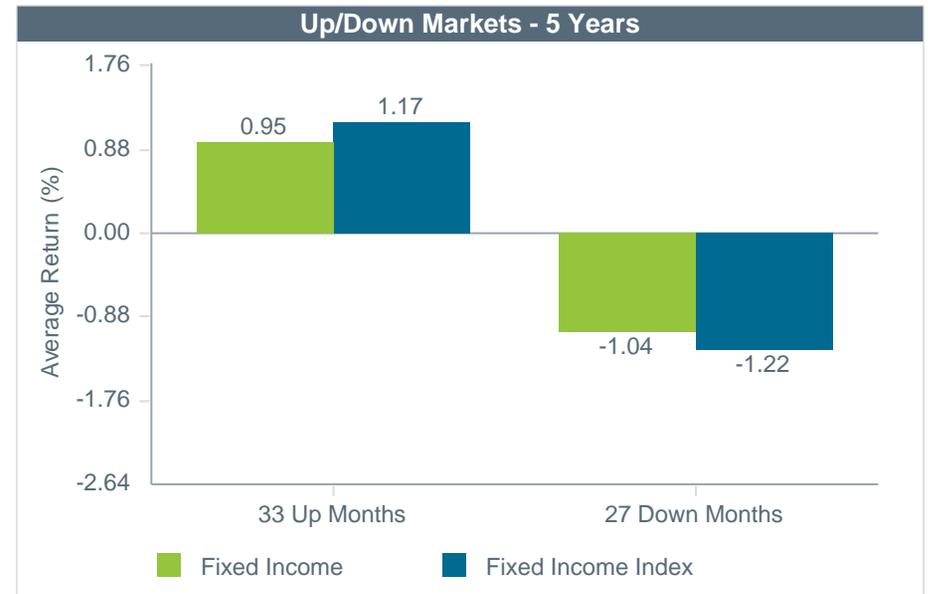
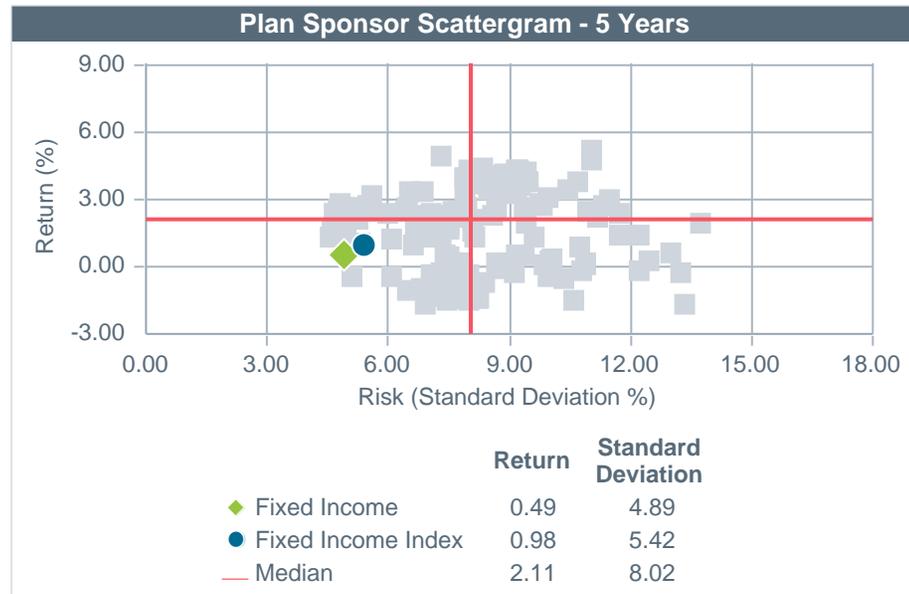
City of Jacksonville Employees' Retirement System  
 Fixed Income vs. IM Global Fixed Income (SA+CF)  
 Peer Group Analysis

As of June 30, 2023



Performance shown is gross of fees. Parentheses contain percentile ranks. Fiscal year for the COJ ends 09/30.



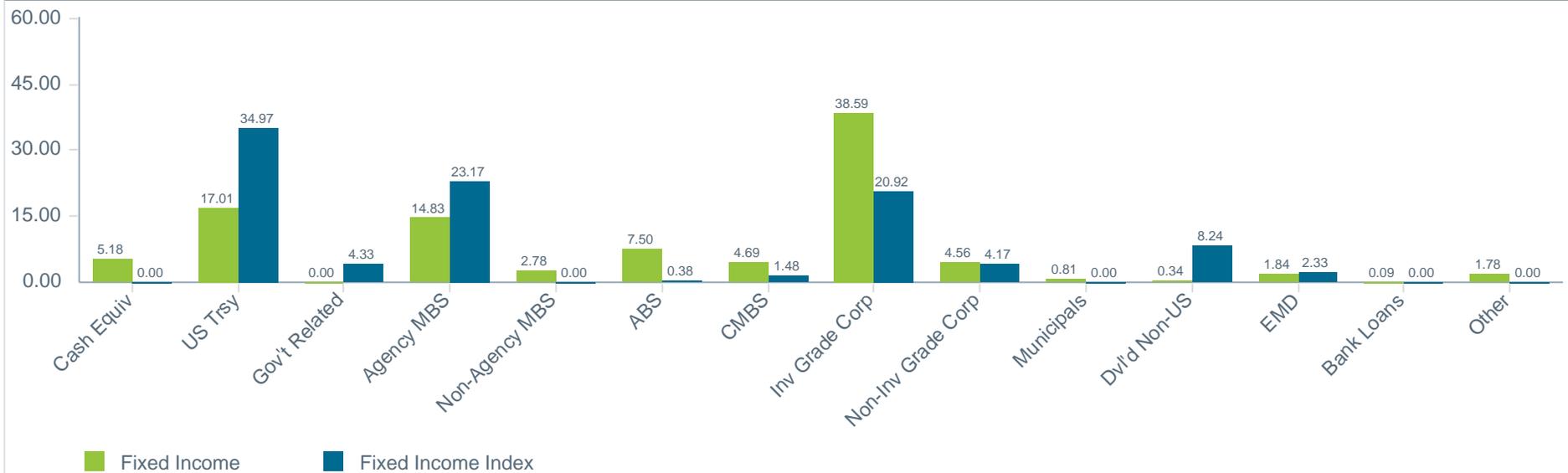


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.33	6.06
Avg. Maturity	7.67	8.37
Avg. Quality	A2	N/A
Yield To Maturity (%)	N/A	5.19
Coupon Rate (%)	3.29	3.14
Current Yield (%)	N/A	N/A

Sector Distribution (%)

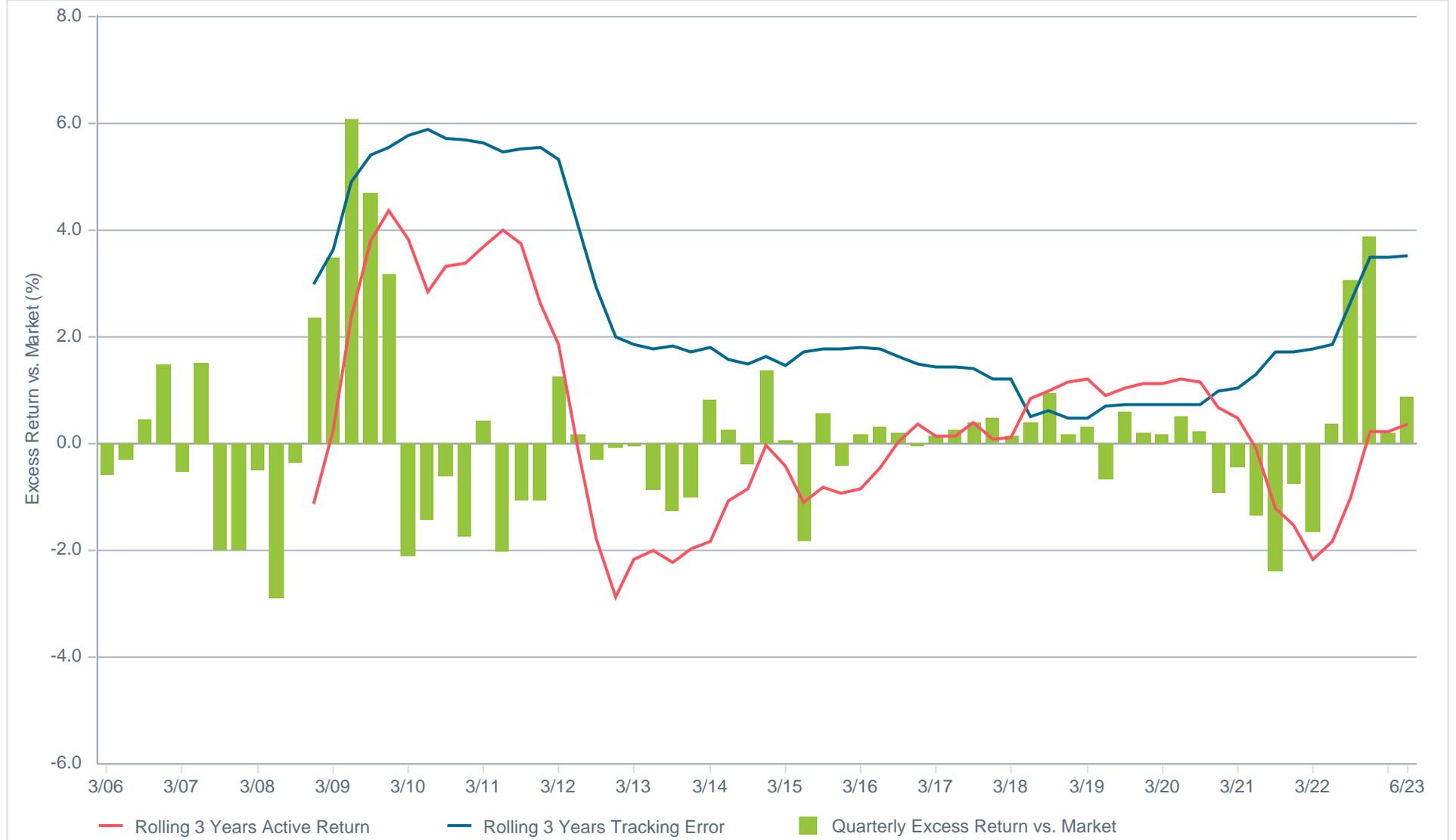


Cash equivalents are defined as any security with duration under one year. Allocation to Other consists of convertibles, preferred securities, and hedge funds.

City of Jacksonville Employees' Retirement System  
 Real Estate vs. Real Estate Index  
 Comparative Performance & Rolling Return

As of June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	Since Incep.	Inception Date
Real Estate	-2.00	-5.09	-6.29	-3.13	7.59	6.35	6.88	8.23	12.96	15.43	0.31	6.41	12/01/2005
Real Estate Index	-2.86	-6.13	-10.97	-10.69	7.06	5.57	6.03	7.78	6.57	21.02	0.34	6.06	
Difference	0.86	1.04	4.68	7.56	0.53	0.78	0.85	0.45	6.39	-5.59	-0.03	0.35	



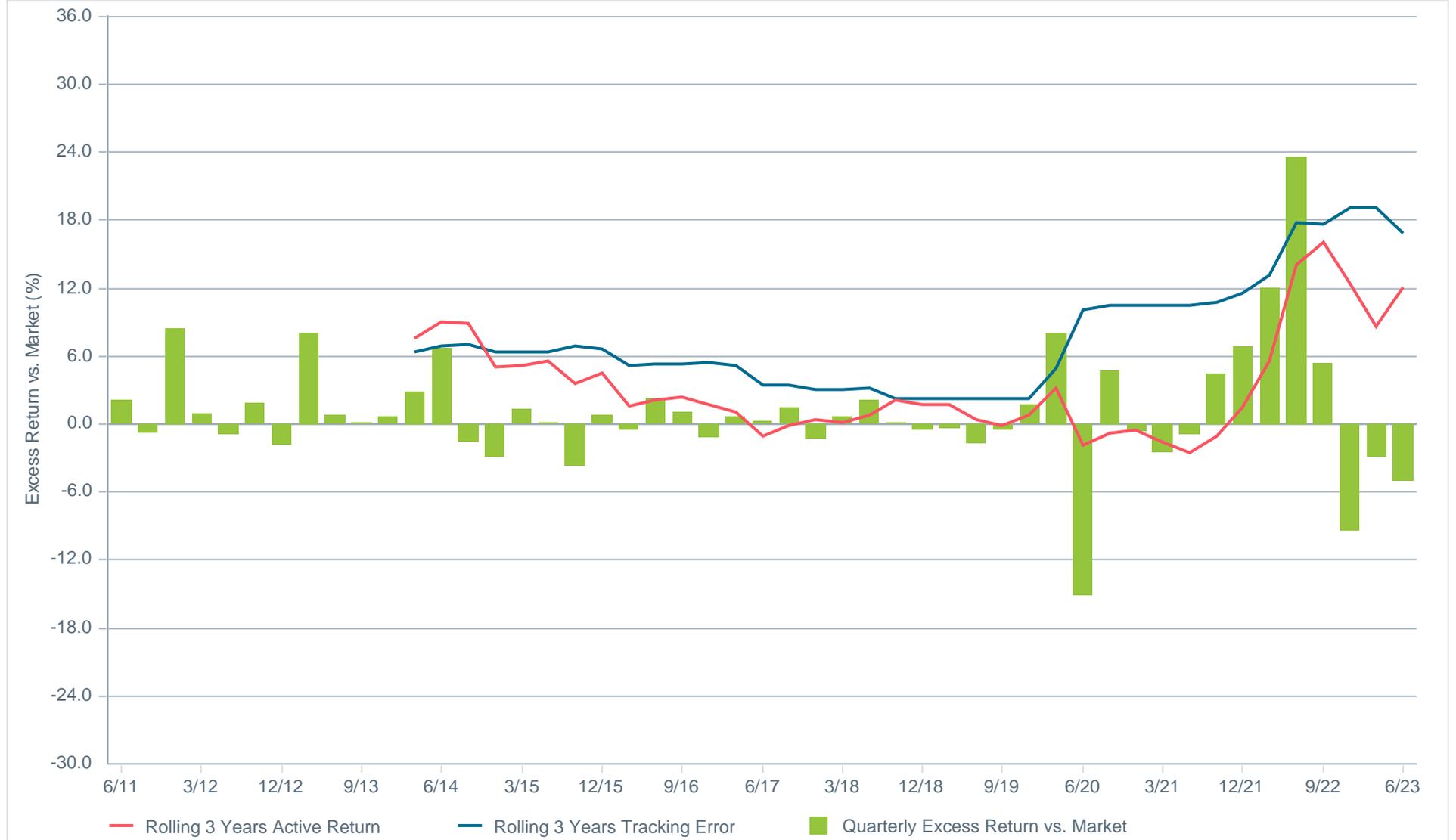
Performance shown is gross of fees. Calculation is based on quarterly periodicity.



**City of Jacksonville Employees' Retirement System**  
**Diversifying Assets vs. Diversifying Assets Index**  
**Comparative Performance & Rolling Return**

As of June 30, 2023

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	Since Incep.	Inception Date
Diversifying Assets	1.32	5.00	3.64	5.10	27.04	9.70	8.12	6.59	22.92	47.46	-14.35	8.76	03/01/2011
Diversifying Assets Index	6.37	13.35	22.51	17.54	12.46	2.22	2.29	2.08	-10.53	36.38	-18.40	3.57	
Difference	-5.05	-8.35	-18.87	-12.44	14.58	7.48	5.83	4.51	33.45	11.08	4.05	5.19	



Performance shown is gross of fees. Calculation is based on quarterly periodicity.

City of Jacksonville Employees' Retirement System  
Alternative Investment Real Estate Fund Performance Listing

As of March 31, 2023

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
H.I.G. Realty Partners IV (Onshore) LP	2021	Real Estate - Opportunistic	25,000,000	16,247,314	3,743,508	16,507,922	60.12	N/A	-6.82	1.25
Abacus Multi-Family Partners VI LP	2022	Real Estate - Value Added	20,000,000	1,232,301	0	673,277	N/M	N/A	N/M	0.55
Bell Value-Add VIII LP	2022	Real Estate - Value Added	20,000,000	124,906	0	26,251	N/M	N/A	N/M	0.21
Hammes Partners IV LP	2022	Real Estate - Value Added	15,000,000	0	0	-76,232	N/M	N/A	N/M	
			<b>80,000,000</b>	<b>17,604,521</b>	<b>3,743,508</b>	<b>17,131,218</b>	<b>45.83</b>		<b>-7.32</b>	<b>1.19</b>

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA) (Net) (Monthly)+2% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



City of Jacksonville Employees' Retirement System  
 Alternative Investment Private Equity Fund Performance Listing

As of March 31, 2023

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
ASP COJ PE Fund LP	2020	Private Equity - Fund of Funds	105,000,000	45,552,892	5,564,720	54,539,632	25.81	N/A	8.57	1.32
			<b>105,000,000</b>	<b>45,552,892</b>	<b>5,564,720</b>	<b>54,539,632</b>	<b>25.81</b>		<b>8.57</b>	<b>1.32</b>

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P 500 Index (CW)+3% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



City of Jacksonville Employees' Retirement System  
 Alternative Investment Private Credit Fund Performance Listing

As of March 31, 2023

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Hamilton Lane Private Credit (SA)	2021	Private Credit - Direct Investment	250,000,000	38,271,240	4,730,299	36,335,951	8.45	N/A	1.34	1.07
			<b>250,000,000</b>	<b>38,271,240</b>	<b>4,730,299</b>	<b>36,335,951</b>	<b>8.45</b>		<b>1.34</b>	<b>1.07</b>

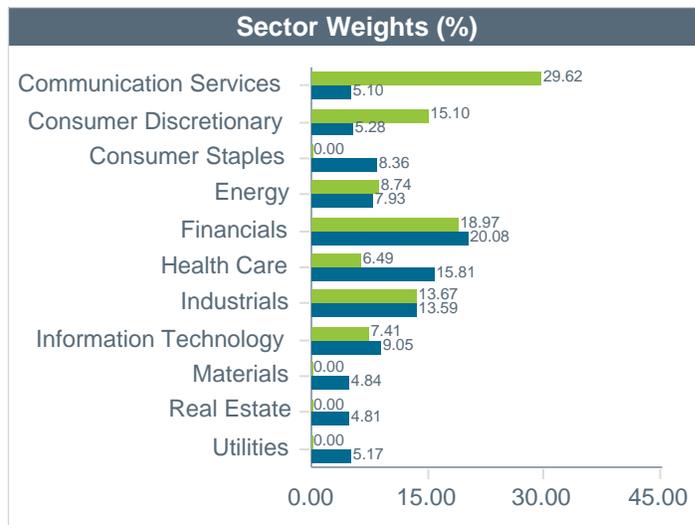
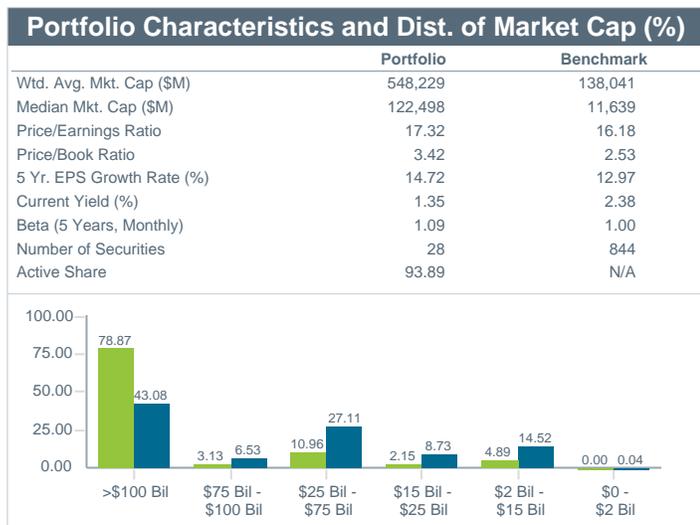
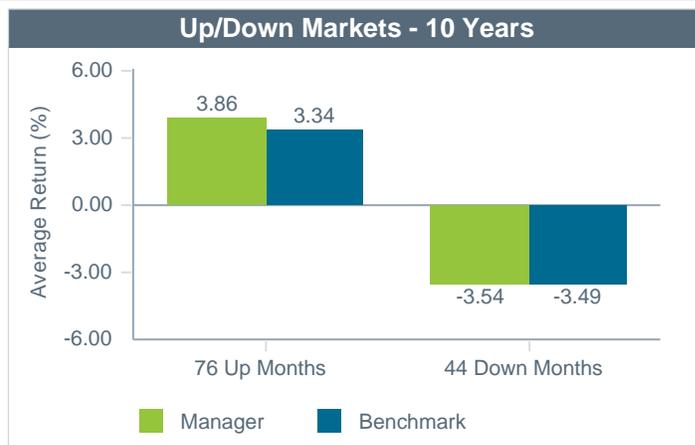
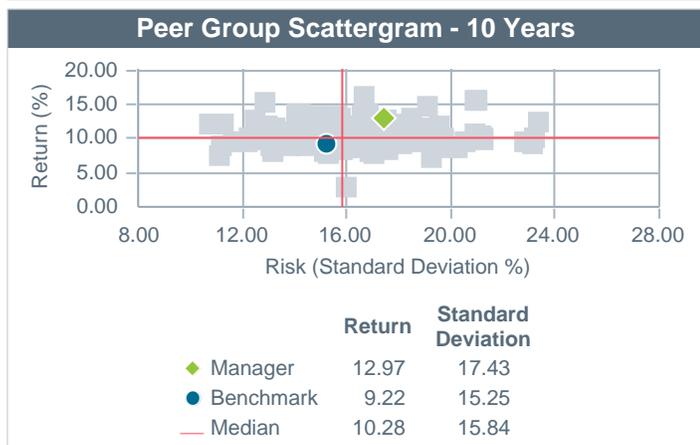
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# Investment Manager Profiles



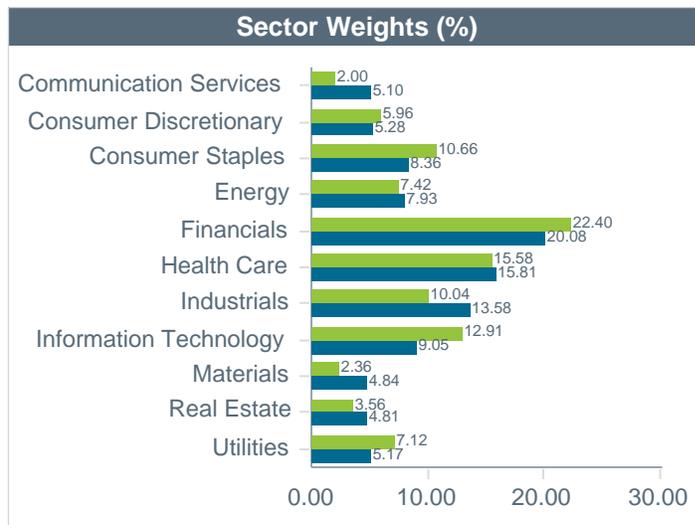
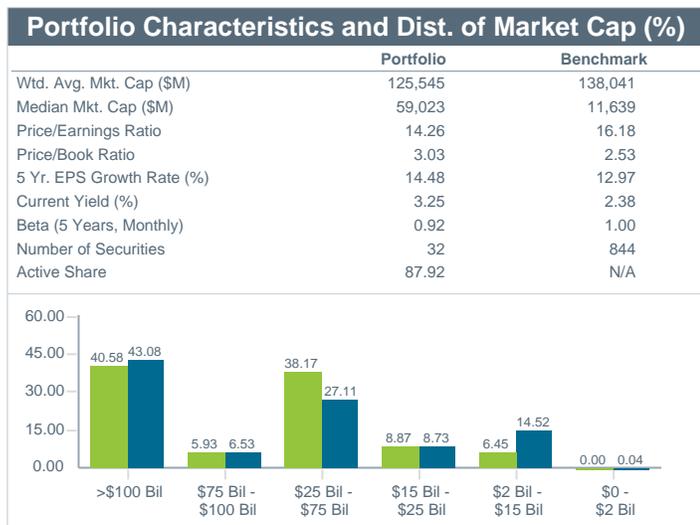
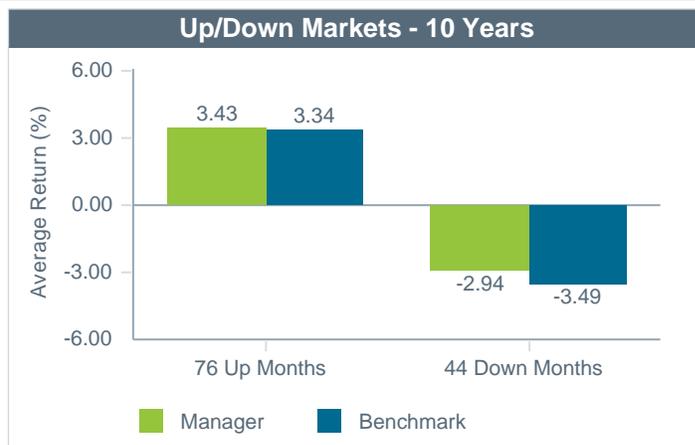
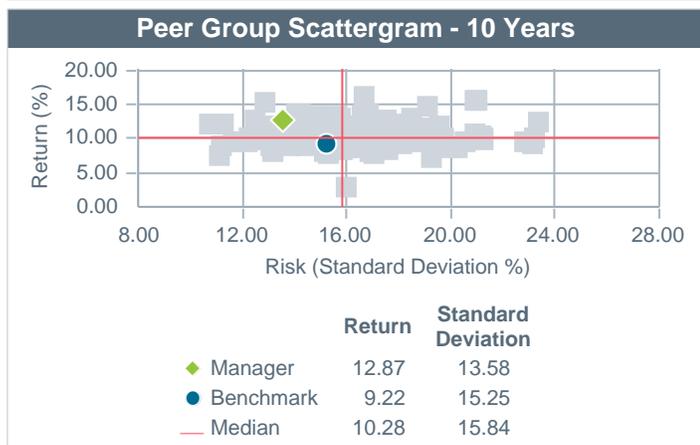
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	11.65	29.76	16.03	11.31	13.98	12.97	-23.92	28.01	15.54	31.94	-3.90
Benchmark	4.07	11.54	14.30	8.11	8.94	9.22	-7.54	25.16	2.80	26.54	-8.27
Difference	7.58	18.22	1.73	3.20	5.04	3.75	-16.38	2.85	12.74	5.40	4.37
Peer Group Median	4.31	12.65	15.73	9.43	10.78	10.28	-5.41	27.92	4.44	27.50	-8.39
Rank	1	2	47	22	9	7	98	50	12	14	16
Population	233	233	226	221	215	206	245	261	277	301	315



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



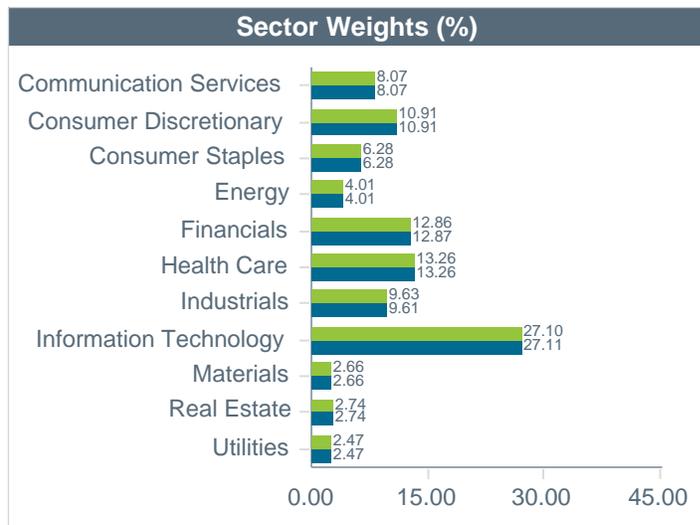
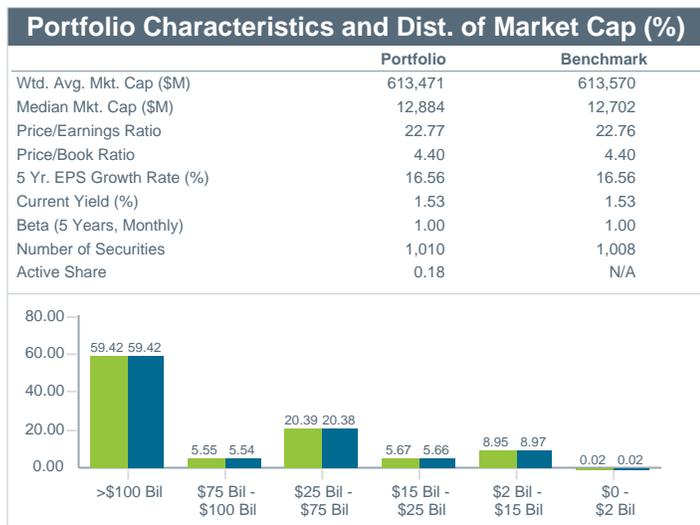
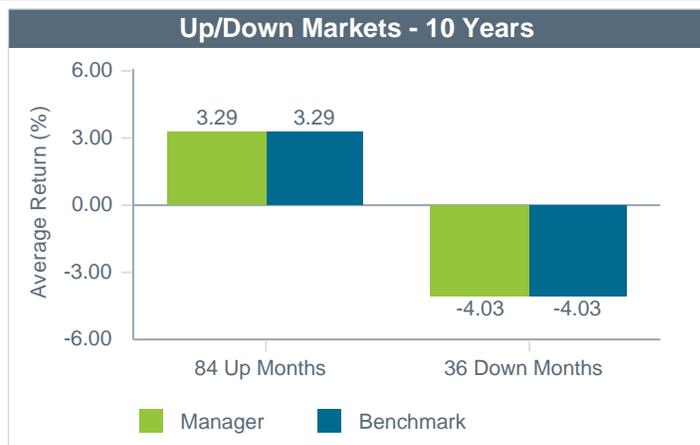
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	4.18	13.50	20.11	13.82	13.65	12.87	4.15	30.58	10.07	31.19	-6.42
Benchmark	4.07	11.54	14.30	8.11	8.94	9.22	-7.54	25.16	2.80	26.54	-8.27
Difference	0.11	1.96	5.81	5.71	4.71	3.65	11.69	5.42	7.27	4.65	1.85
Peer Group Median	4.31	12.65	15.73	9.43	10.78	10.28	-5.41	27.92	4.44	27.50	-8.39
Rank	53	43	12	6	11	7	6	24	28	18	31
Population	233	233	226	221	215	206	245	261	277	301	315



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



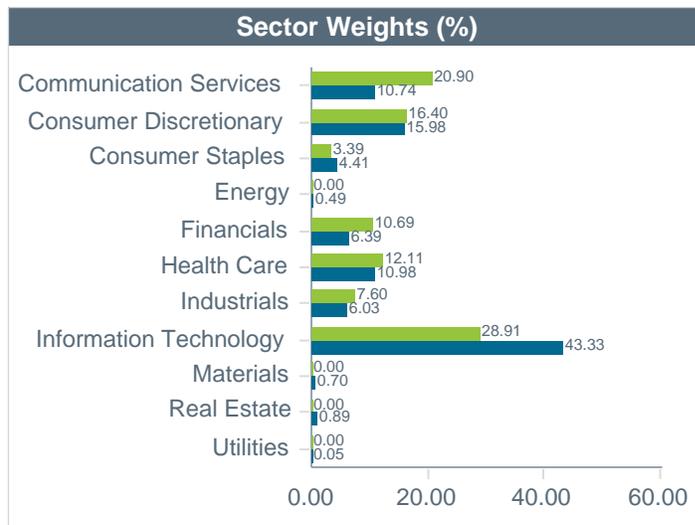
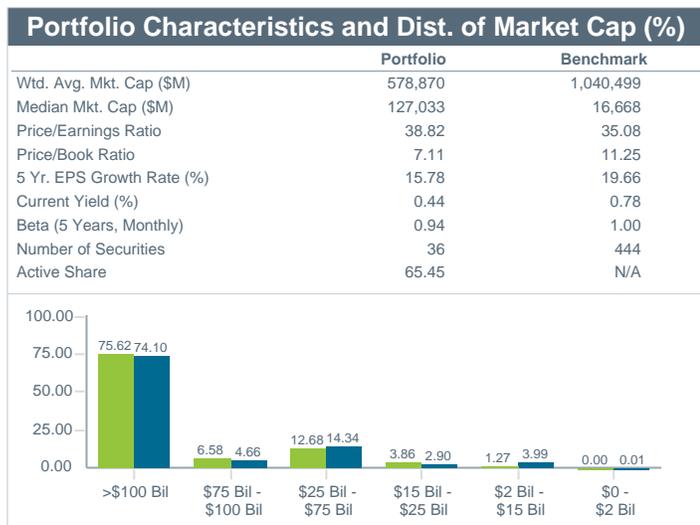
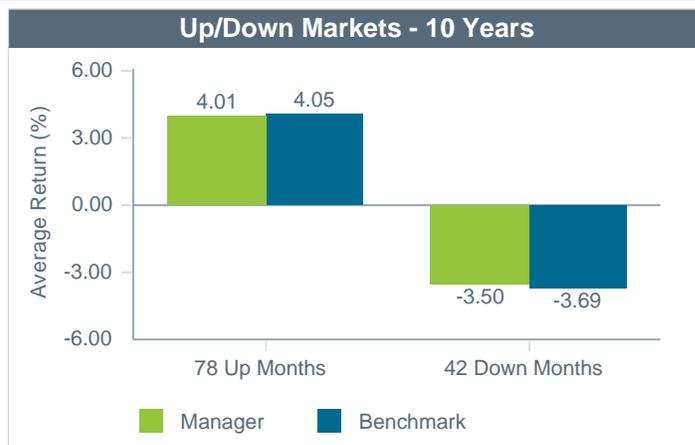
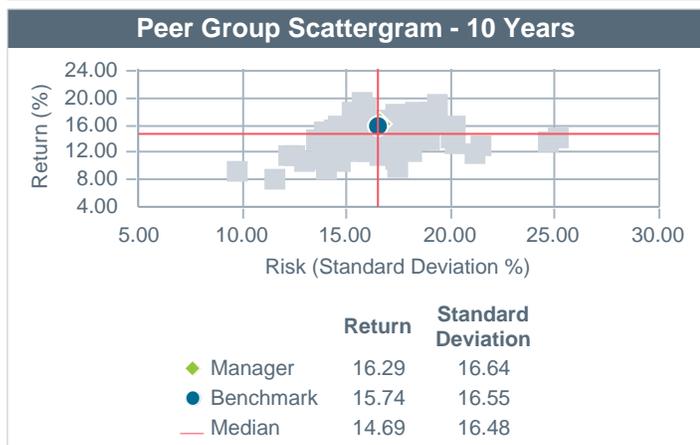
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	8.58	19.35	14.08	11.91	13.14	12.64	-19.14	26.46	20.91	31.42	-4.77
Benchmark	8.58	19.36	14.09	11.92	13.15	12.64	-19.13	26.45	20.96	31.43	-4.78
Difference	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	0.01	-0.05	-0.01	0.01
Peer Group Median	7.75	18.00	14.08	11.58	13.03	12.68	-16.49	27.75	17.54	30.06	-5.05
Rank	34	35	50	45	46	52	75	60	30	35	46
Population	201	201	192	186	180	161	210	216	233	259	280



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

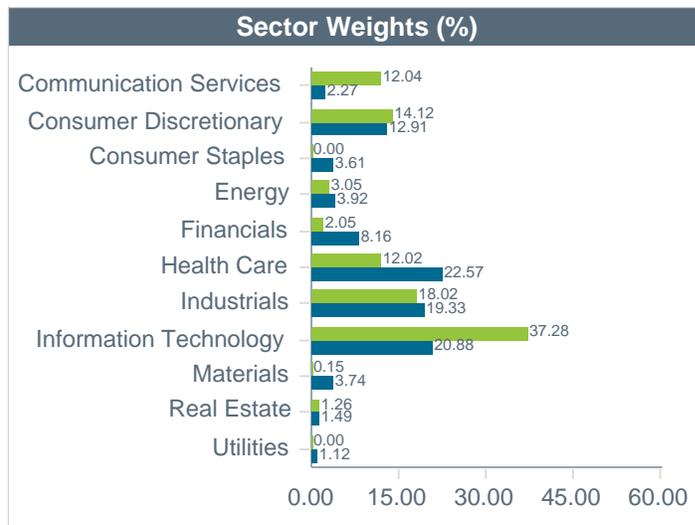
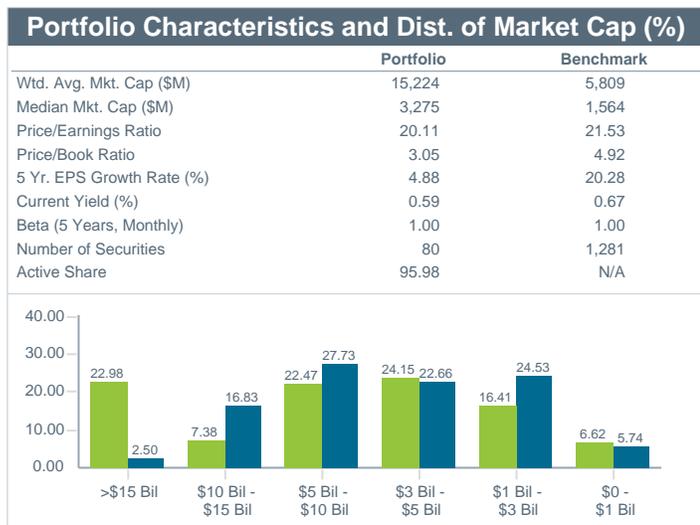
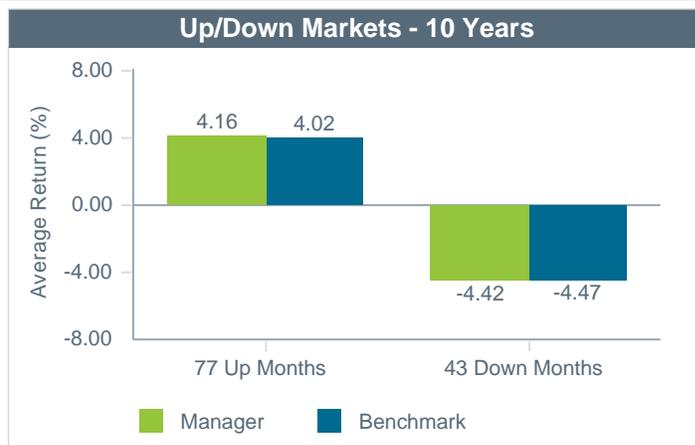
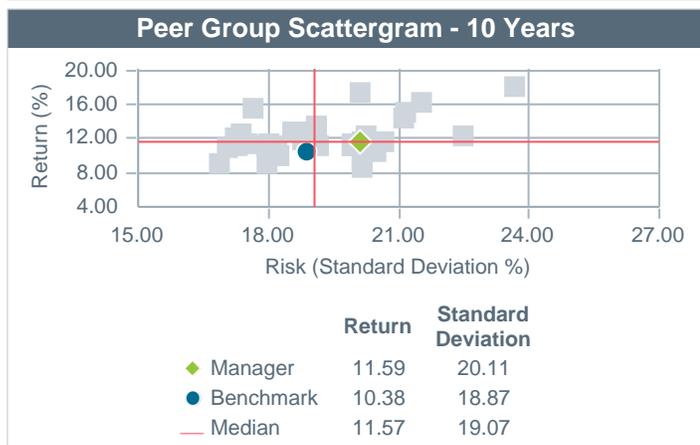


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	13.79	41.08	13.23	15.02	16.45	16.29	-27.15	19.45	32.95	32.71	-1.72
Benchmark	12.81	27.11	13.73	15.14	16.91	15.74	-29.14	27.60	38.49	36.39	-1.51
Difference	0.98	13.97	-0.50	-0.12	-0.46	0.55	1.99	-8.15	-5.54	-3.68	-0.21
Peer Group Median	11.73	25.32	11.74	13.23	15.39	14.69	-29.22	24.95	35.40	33.98	-0.53
Rank	23	1	31	20	29	10	39	81	63	63	59
Population	200	200	196	194	181	173	209	213	225	238	253



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

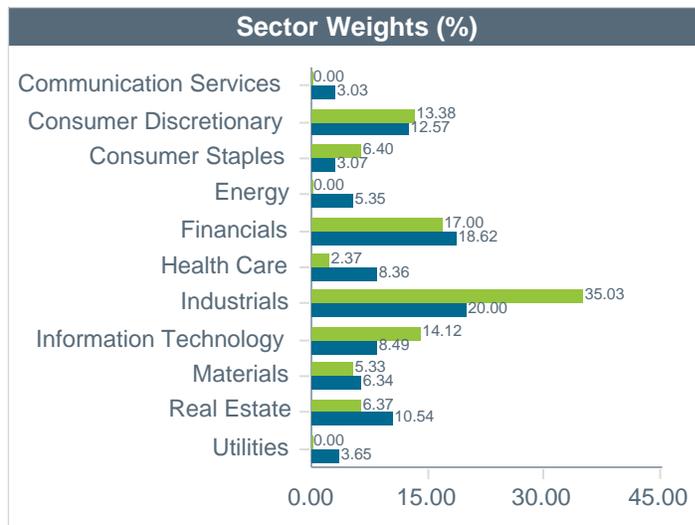
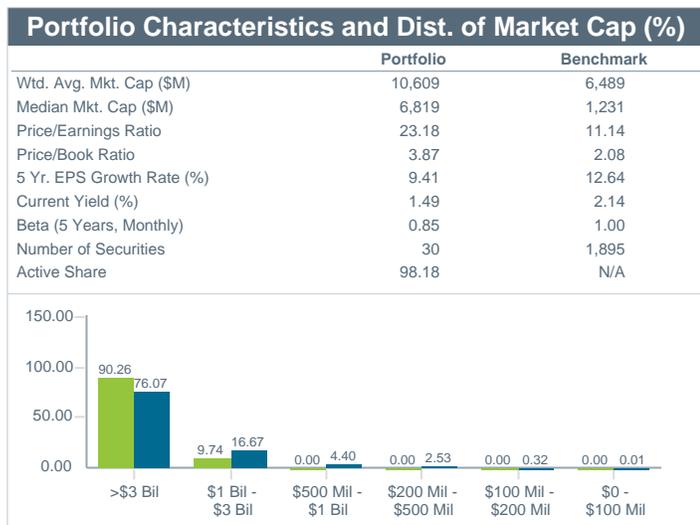
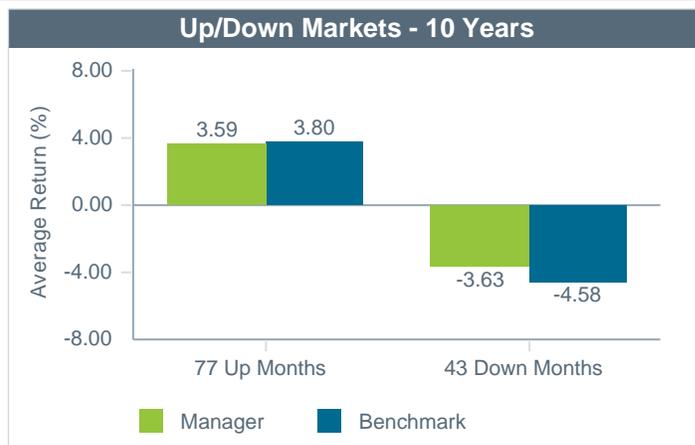
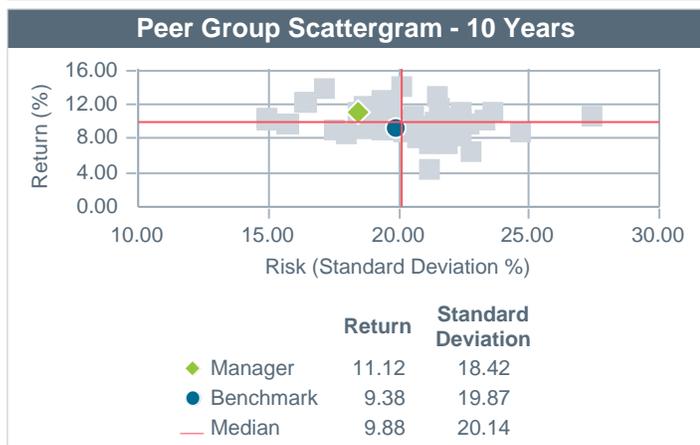
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	7.36	18.26	11.60	10.52	13.51	11.59	-23.95	12.71	33.32	41.57	-10.36
Benchmark	6.41	18.58	6.56	7.00	10.95	10.38	-26.21	5.04	40.47	32.65	-7.47
Difference	0.95	-0.32	5.04	3.52	2.56	1.21	2.26	7.67	-7.15	8.92	-2.89
Peer Group Median	5.36	18.02	8.26	9.57	13.00	11.57	-27.79	13.29	47.90	32.16	-3.57
Rank	20	48	27	33	45	50	33	54	79	3	89
Population	58	58	55	47	43	34	58	60	59	56	57



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



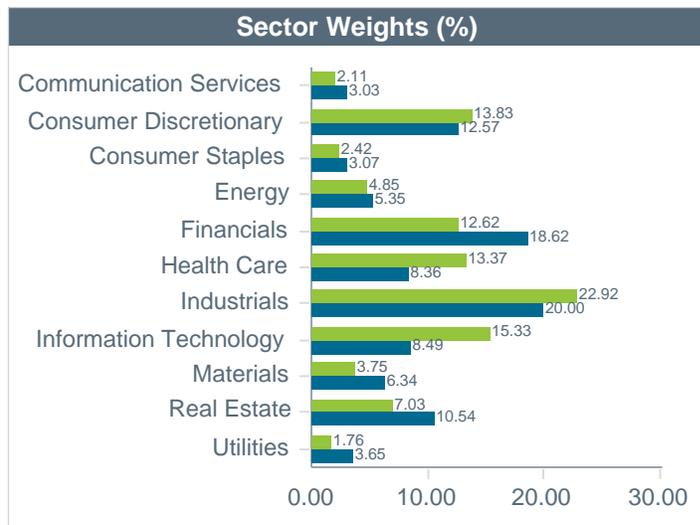
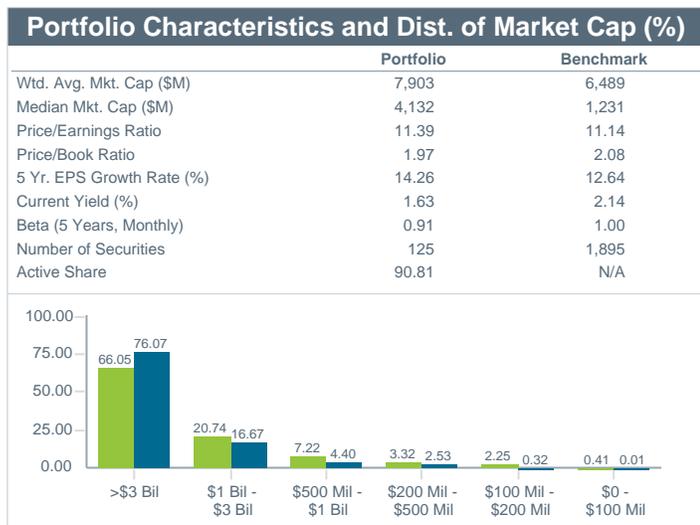
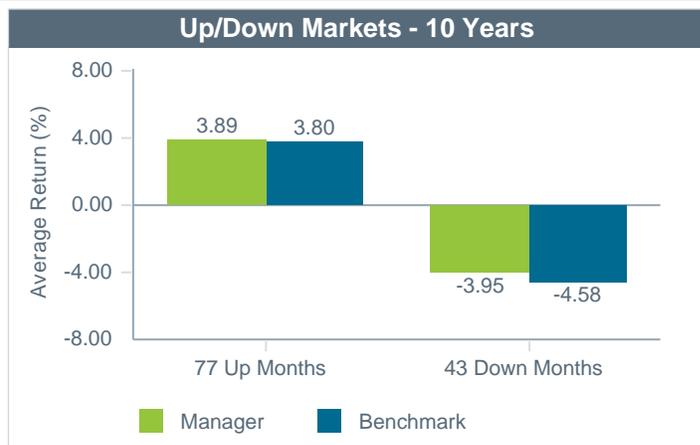
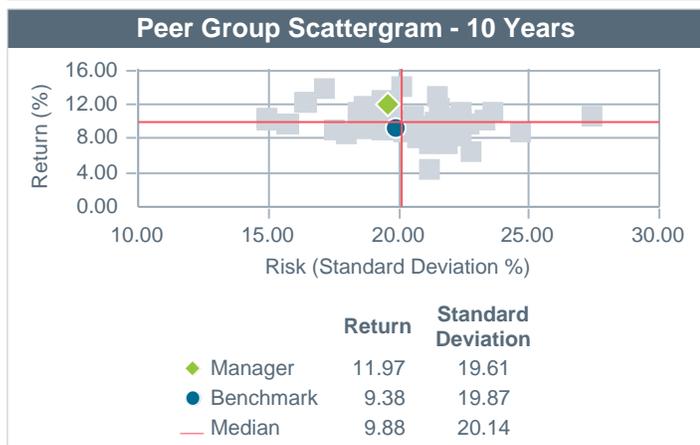
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	3.41	9.58	10.36	8.71	10.36	11.12	-20.00	22.18	24.69	33.20	-11.97
Benchmark	4.37	10.37	16.07	5.32	7.97	8.02	-13.08	27.78	4.88	23.56	-12.36
Difference	-0.96	-0.79	-5.71	3.39	2.39	3.10	-6.92	-5.60	19.81	9.64	0.39
Peer Group Median	4.50	14.25	17.68	7.82	10.39	9.88	-10.29	27.78	7.23	27.19	-12.88
Rank	75	89	96	35	51	21	90	93	5	6	41
Population	66	66	66	62	58	54	73	77	85	85	92



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

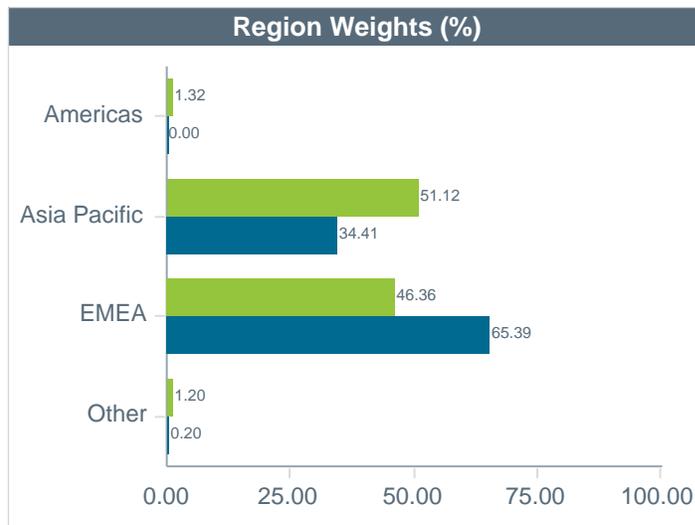
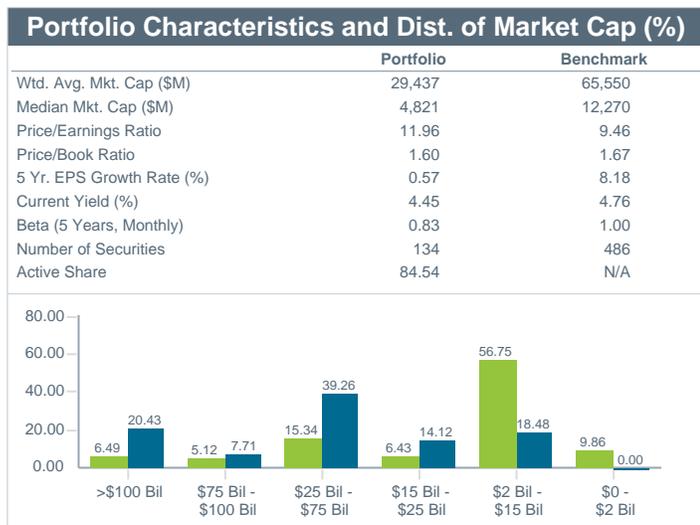
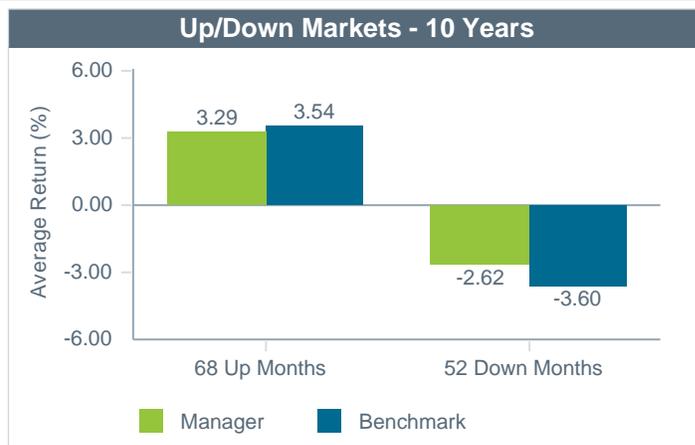
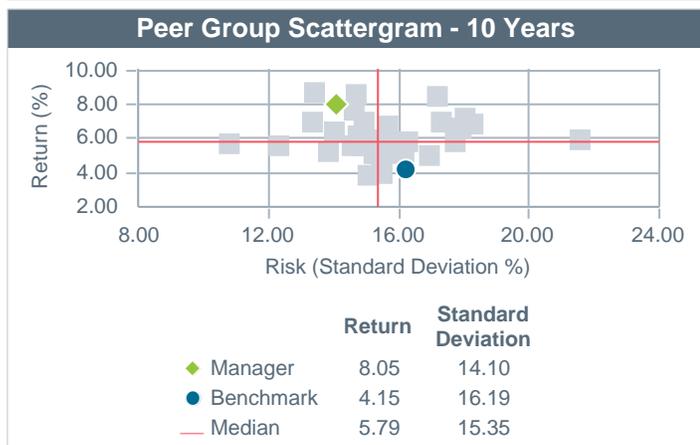


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	4.34	13.97	18.71	7.50	11.58	11.97	-9.07	31.53	7.55	27.80	-14.17
Benchmark	4.37	10.37	16.07	5.32	7.97	8.02	-13.08	27.78	4.88	23.56	-12.36
Difference	-0.03	3.60	2.64	2.18	3.61	3.95	4.01	3.75	2.67	4.24	-1.81
Peer Group Median	4.50	14.25	17.68	7.82	10.39	9.88	-10.29	27.78	7.23	27.19	-12.88
Rank	55	55	33	62	22	14	41	25	49	42	61
Population	66	66	66	62	58	54	73	77	85	85	92



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

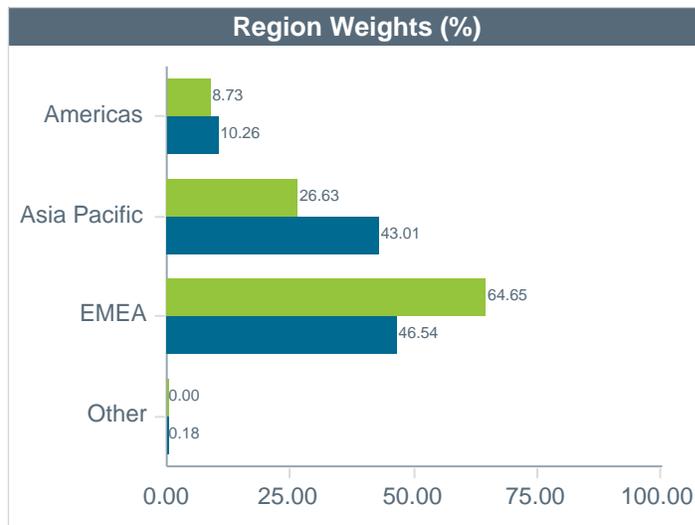
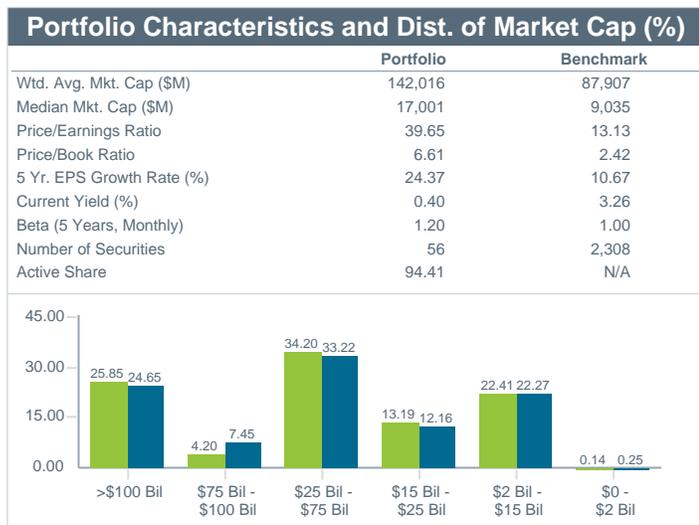
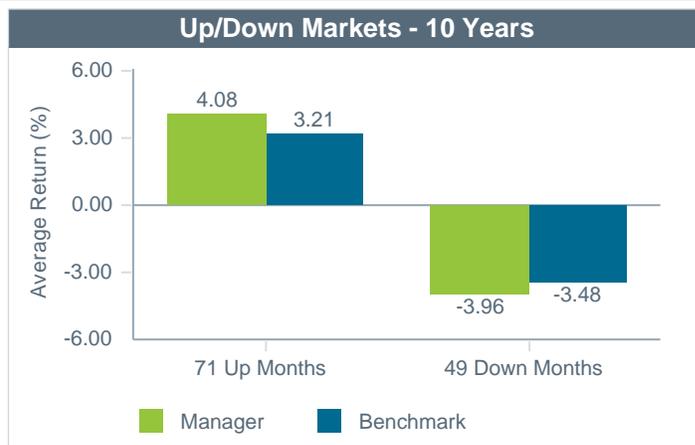
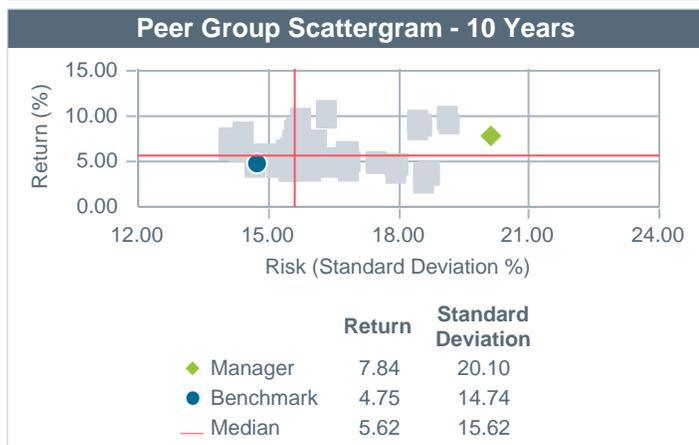
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
<b>Manager</b>	<b>11.66</b>	<b>27.43</b>	<b>15.17</b>	<b>6.36</b>	<b>9.04</b>	<b>8.05</b>	<b>-5.23</b>	<b>12.52</b>	<b>0.17</b>	<b>18.05</b>	<b>-13.74</b>
Benchmark	3.15	17.40	11.34	2.93	6.02	4.15	-5.58	10.89	-2.63	16.09	-14.78
Difference	8.51	10.03	3.83	3.43	3.02	3.90	0.35	1.63	2.80	1.96	1.04
Peer Group Median	3.27	19.30	11.50	4.33	6.81	5.79	-9.94	11.65	4.53	21.17	-15.76
Rank	1	5	15	9	12	7	10	42	81	90	41
Population	39	39	39	39	38	38	45	46	51	57	59



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

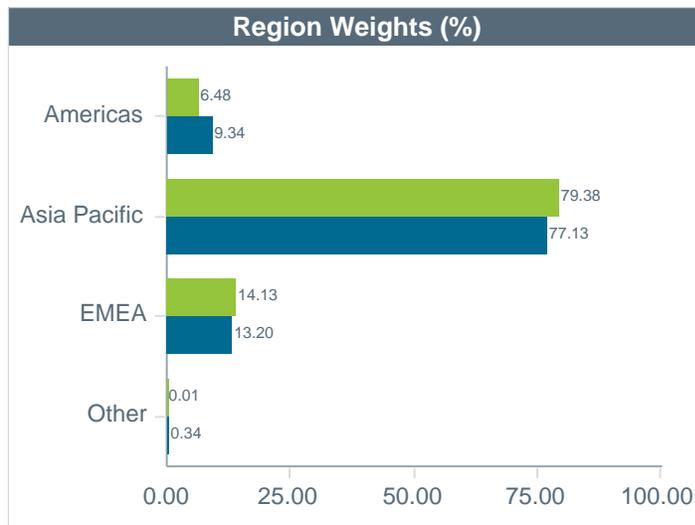
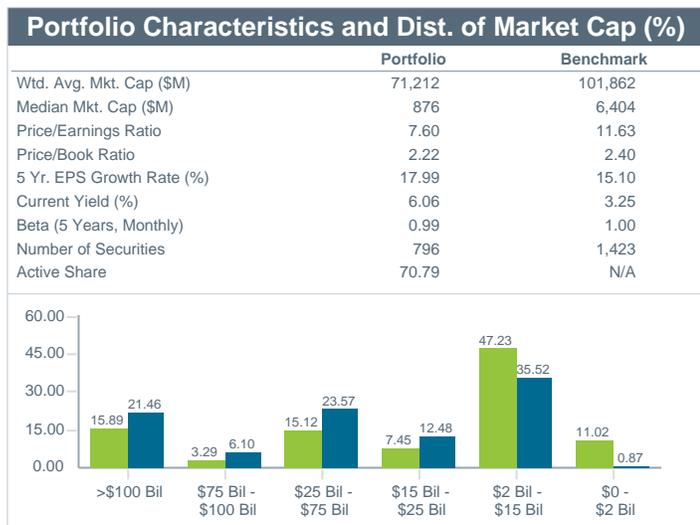
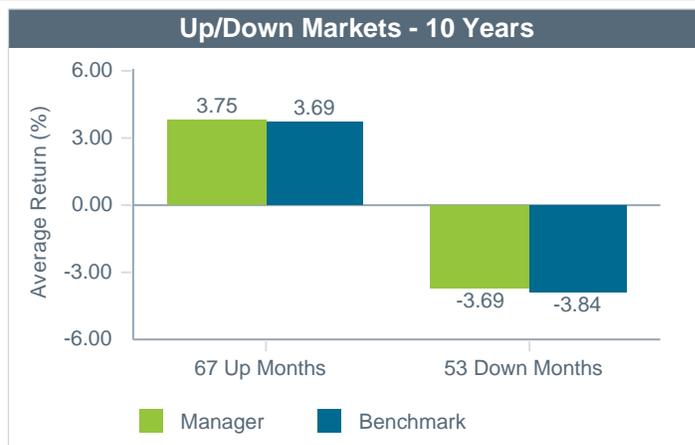
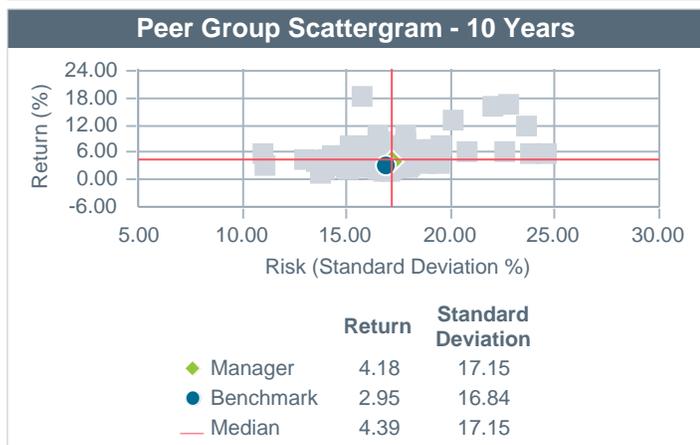


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	0.08	14.64	-2.18	3.44	9.65	7.84	-34.36	-9.32	63.13	37.48	-17.23
Benchmark	2.44	12.72	7.22	3.52	6.32	4.75	-16.00	7.82	10.65	21.51	-14.20
Difference	-2.36	1.92	-9.40	-0.08	3.33	3.09	-18.36	-17.14	52.48	15.97	-3.03
Peer Group Median	2.12	14.85	4.18	4.06	6.74	5.62	-26.63	7.93	22.75	27.84	-14.32
Rank	94	53	95	68	9	15	90	98	1	2	79
Population	170	170	170	170	162	126	170	170	170	172	176



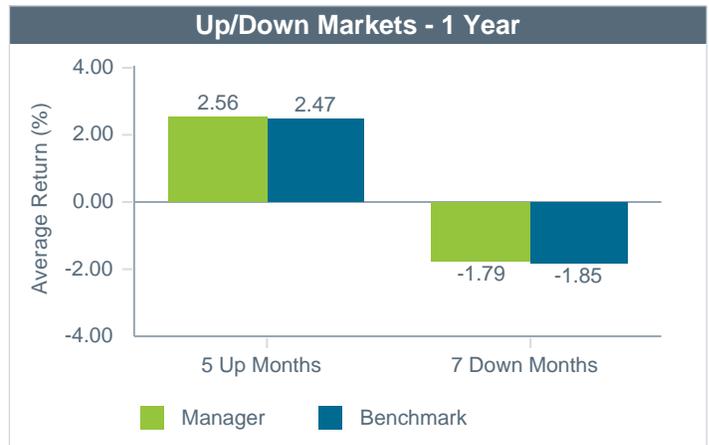
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
<b>Manager</b>	<b>3.90</b>	<b>9.11</b>	<b>7.63</b>	<b>3.16</b>	<b>6.74</b>	<b>4.18</b>	<b>-19.69</b>	<b>8.75</b>	<b>12.55</b>	<b>18.00</b>	<b>-18.30</b>
Benchmark	0.90	1.75	2.32	0.93	4.95	2.95	-20.09	-2.54	18.31	18.42	-14.57
Difference	3.00	7.36	5.31	2.23	1.79	1.23	0.40	11.29	-5.76	-0.42	-3.73
Peer Group Median	2.39	6.81	4.15	2.91	6.12	4.39	-19.50	0.93	18.34	20.17	-15.23
Rank	32	41	36	44	41	57	51	25	75	66	79
Population	298	292	272	248	230	191	306	317	345	368	368



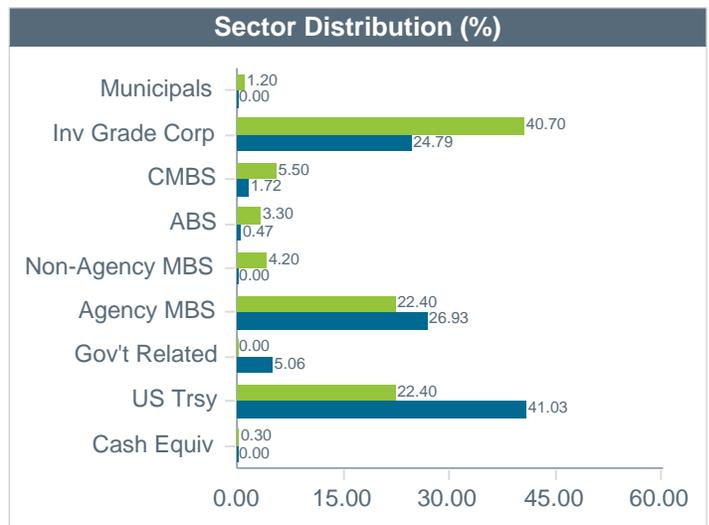
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-0.58	-0.12	N/A	N/A	N/A	N/A	-13.23	N/A	N/A	N/A	N/A
Benchmark	-0.84	-0.94	-3.97	0.77	0.44	1.52	-13.01	-1.55	7.51	8.72	0.01
Difference	0.26	0.82	N/A	N/A	N/A	N/A	-0.22	N/A	N/A	N/A	N/A
Peer Group Median	-0.72	-0.41	-3.43	1.20	0.94	1.96	-12.95	-1.24	8.49	9.17	0.06
Rank	36	26	N/A	N/A	N/A	N/A	73	N/A	N/A	N/A	N/A
Population	135	135	135	132	130	126	143	150	158	160	167



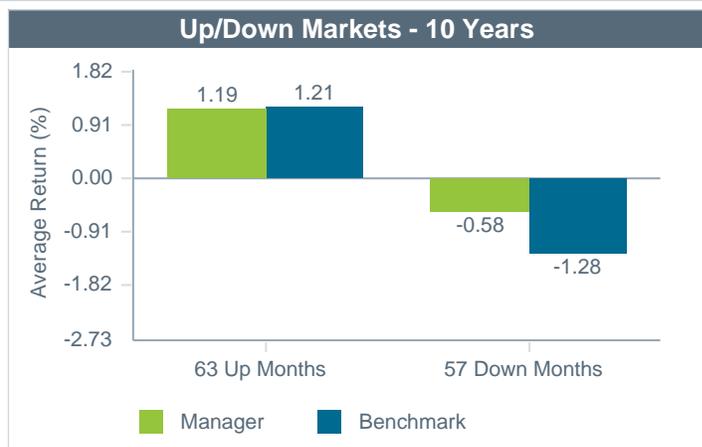
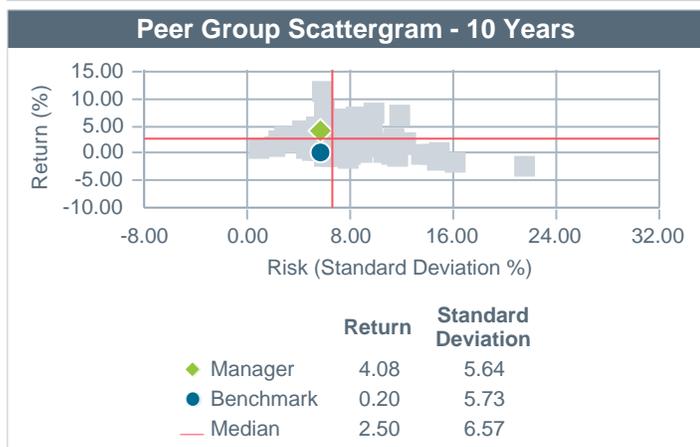
### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.31	6.31
Spread Duration	3.79	N/A
Avg. Maturity	8.38	8.60
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	N/A	4.81
Coupon Rate (%)	3.23	2.88
Current Yield (%)	N/A	N/A
Holdings Count	289	13,358



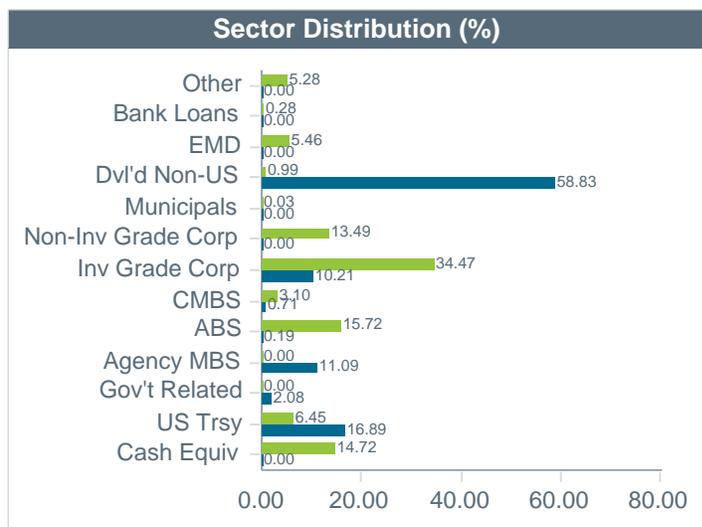
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-0.44	2.29	-0.86	3.04	3.70	4.08	-12.09	0.55	15.08	9.79	0.09
Benchmark	-1.53	-1.32	-4.96	-1.09	-0.90	0.20	-16.25	-4.71	9.20	6.84	-1.19
Difference	1.09	3.61	4.10	4.13	4.60	3.88	4.16	5.26	5.88	2.95	1.28
Peer Group Median	0.35	3.73	-0.28	2.11	2.34	2.50	-12.28	0.50	8.68	9.73	-1.81
Rank	65	59	54	30	33	25	49	48	7	50	23
Population	202	201	196	184	179	161	212	224	239	249	263



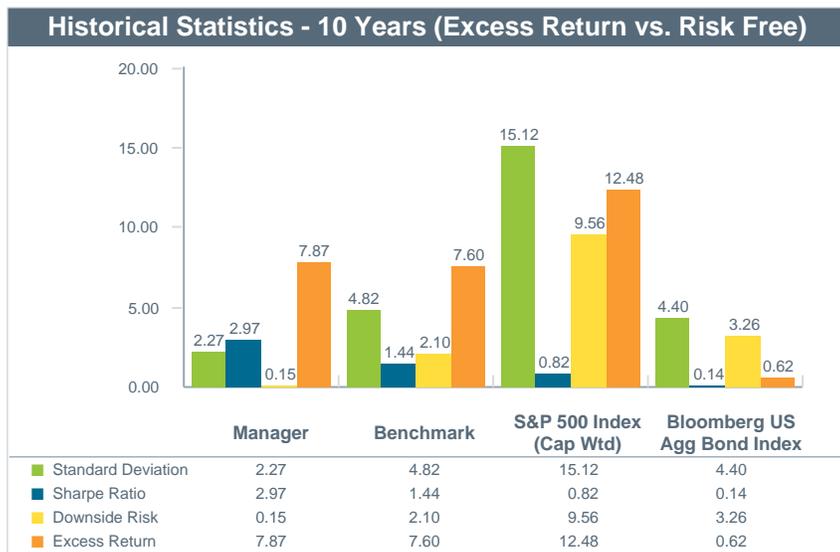
### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.38	6.76
Spread Duration	3.58	N/A
Avg. Maturity	6.28	8.65
Avg. Quality	Baa2	N/A
Yield To Maturity (%)	6.52	3.84
Coupon Rate (%)	3.42	2.47
Current Yield (%)	4.08	N/A
Holdings Count	829	29,426



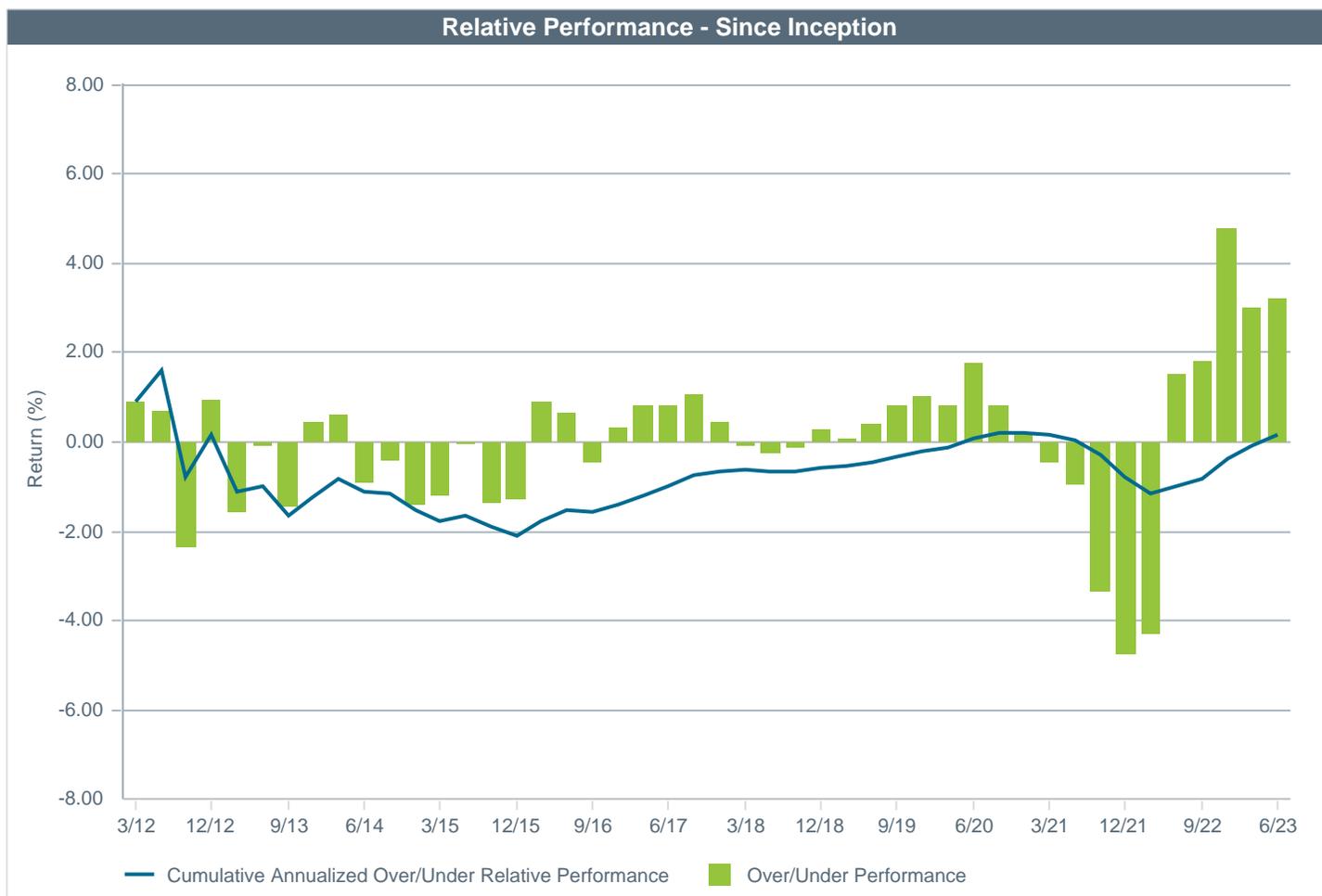
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of preferred equity and convertibles.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	0.44	2.10	8.41	7.84	8.35	9.12	11.43	10.94	4.91	7.87	8.18
Benchmark	-2.68	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34	8.35
Difference	3.12	12.07	0.42	1.34	1.38	0.38	3.96	-11.23	3.72	2.53	-0.17



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.71
S&P 500 Index (Cap Wtd)	-0.44
Russell 2000 Index	-0.38
MSCI EAFE Index (USD) (Net)	-0.46
MSCI Emg Mkts Index (USD) (Net)	-0.33
Bloomberg US Agg Bond Index	-0.41
Bloomberg US Trsy US TIPS Index	-0.46
Wilshire US REIT Index	-0.34
HFRI FOF Comp Index	-0.33
Bloomberg Cmdty Index (TR)	0.05
ICE BofAML 3 Mo US T-Bill Index	-0.53
Cons Price Index (Unadjusted)	0.32
NCREIF ODCE Index (AWA) (Gross)	0.71



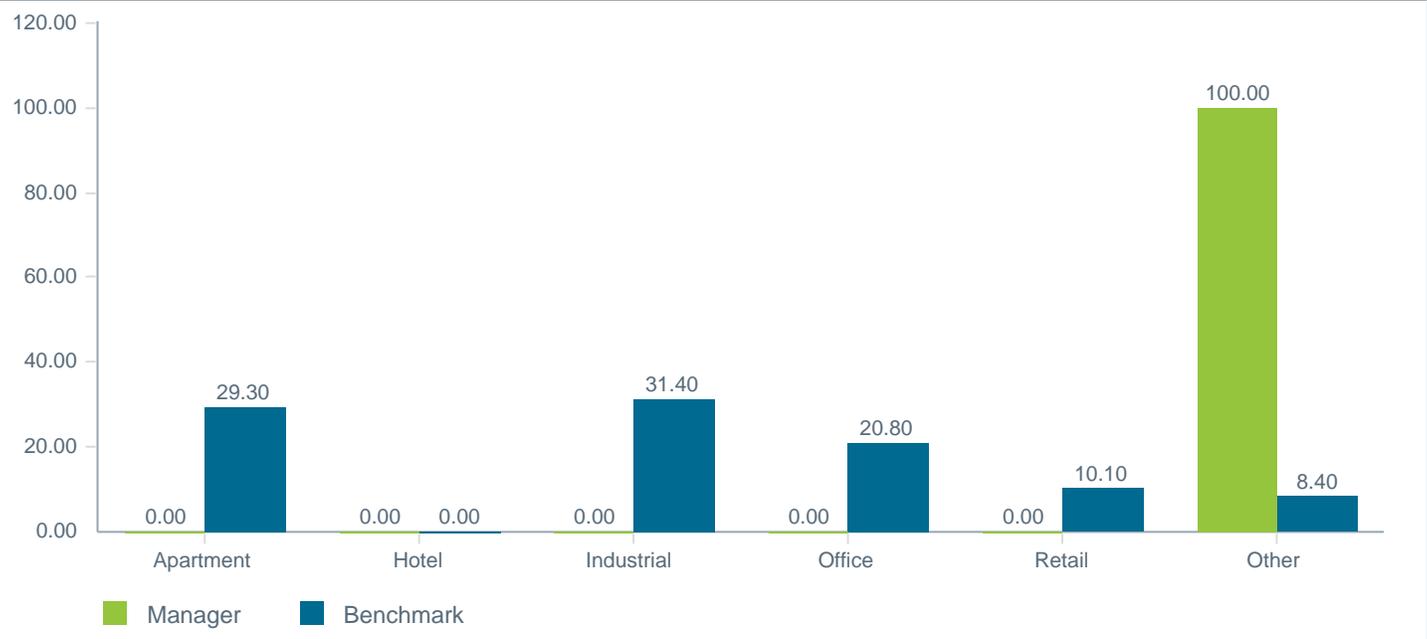
**Investment Strategy**

The Fund's strategy is on primarily stabilized income-producing investments in niche sectors; Education, Health, and Storage. Within these sectors the fund invests in student housing, seniors housing, medical office buildings, life science buildings, and self-storage. The majority of the return from the Fund is expected to be realized from current income, with a modest portion of the return to be derived from asset appreciation. Harrison Street believes that the primary property types it targets will provide better risk/return profiles than properties in traditional core portfolios across all economic cycles.

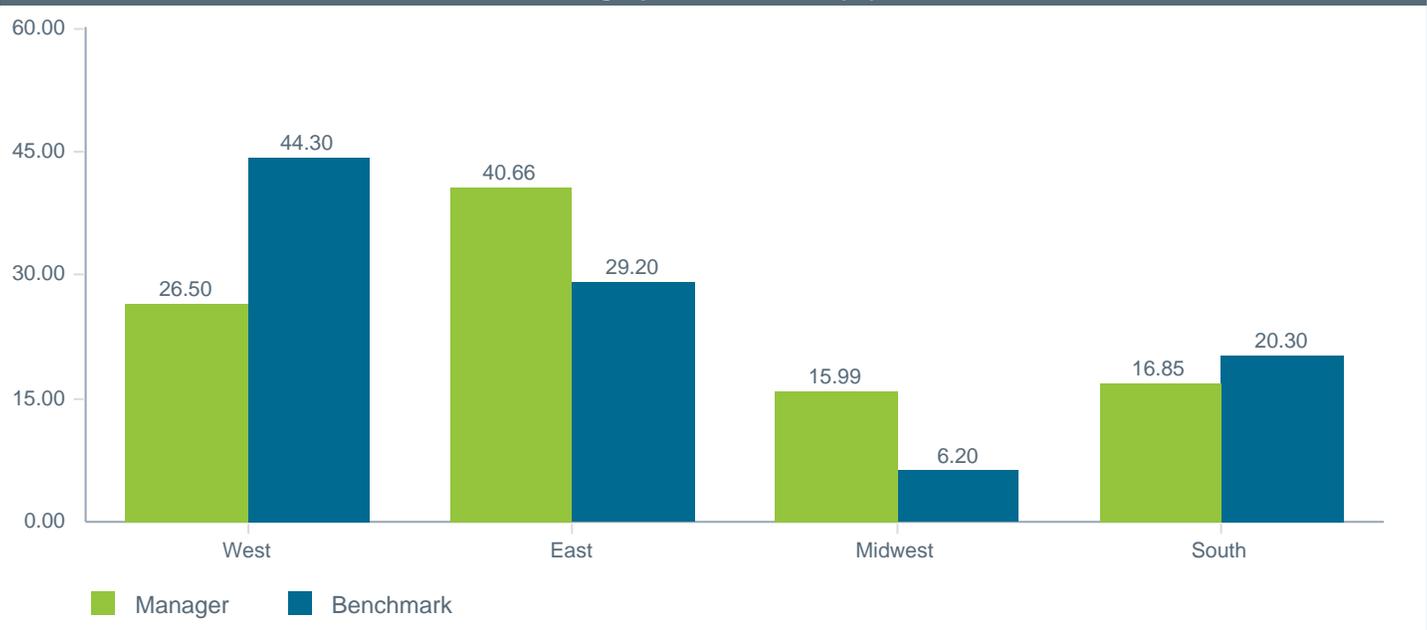
**Investment Profile**

Fund Inception	2011
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	14,057
Fund Leverage %	23.13
Portfolio Occupancy %	90.10
Cash Reserve %	0.35
Number of Investments	400
Number of Limited Partners	250

**Property Type Allocation (%)**



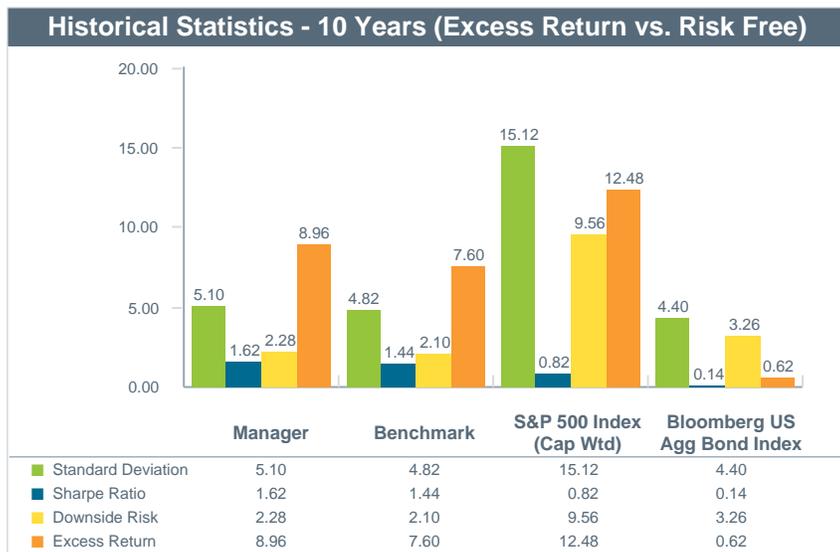
**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of education, healthcare, senior housing, life sciences, and storage real estate. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

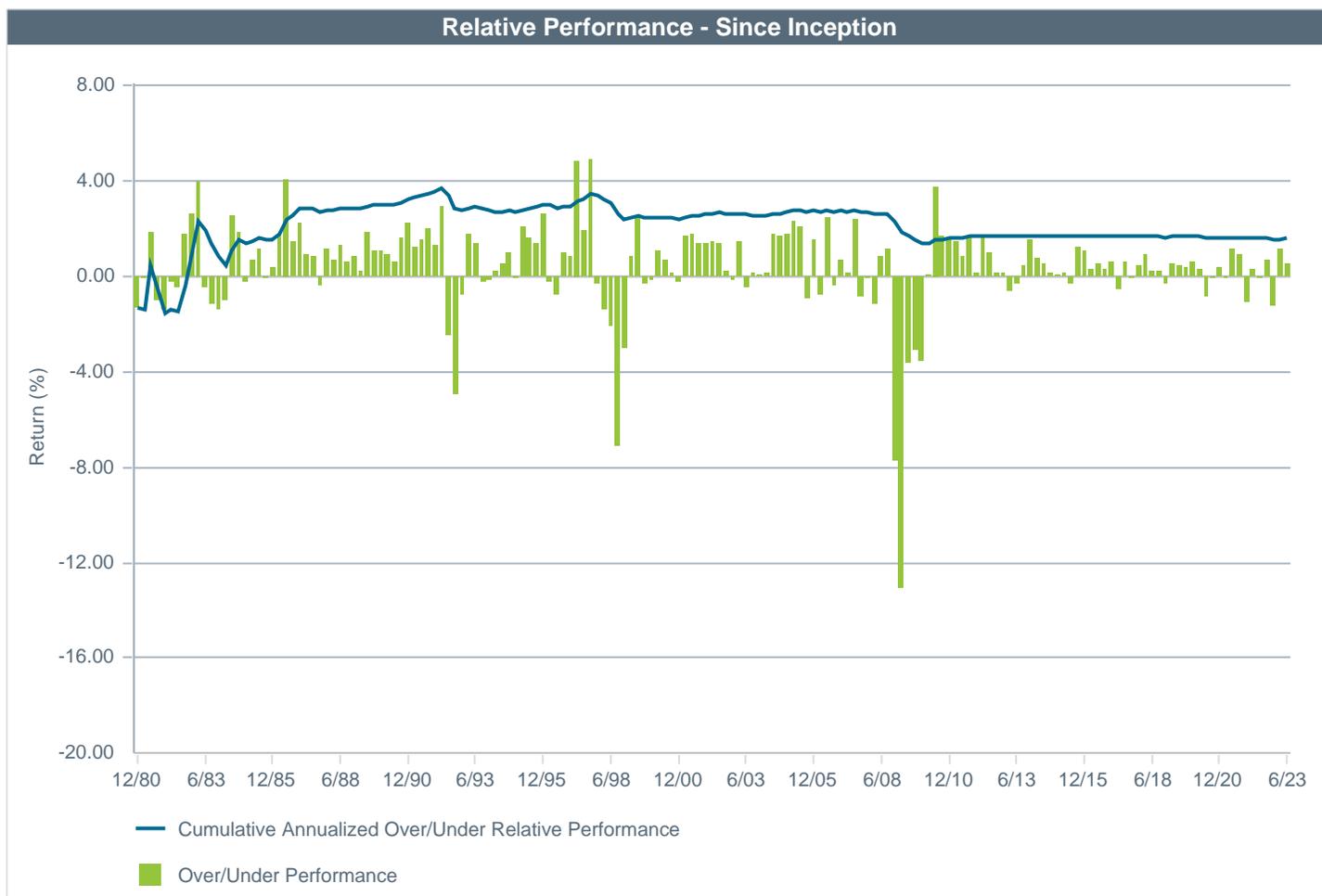


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-2.13	-8.87	8.98	7.39	7.99	10.18	7.13	23.30	1.03	7.52	9.48
Benchmark	-2.68	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34	8.35
Difference	0.55	1.10	0.99	0.89	1.02	1.44	-0.34	1.13	-0.16	2.18	1.13



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.97
S&P 500 Index (Cap Wtd)	-0.26
Russell 2000 Index	-0.25
MSCI EAFE Index (USD) (Net)	-0.36
MSCI Emg Mkts Index (USD) (Net)	-0.37
Bloomberg US Agg Bond Index	-0.35
Bloomberg US Trsy US TIPS Index	-0.26
Wilshire US REIT Index	-0.02
HFRI FOF Comp Index	-0.24
Bloomberg Cmnty Index (TR)	0.14
ICE BofAML 3 Mo US T-Bill Index	-0.66
Cons Price Index (Unadjusted)	0.25



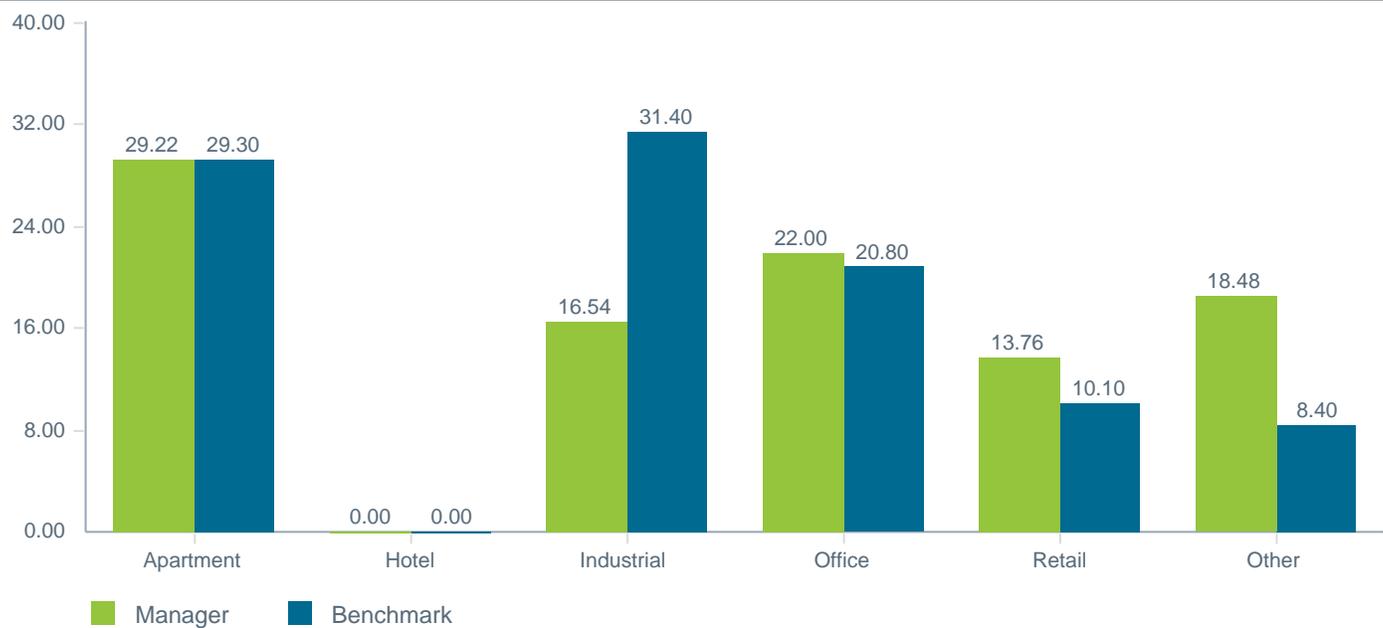
**Investment Strategy**

The Fund pursues a diversified core-plus real estate strategy that seeks to generate a total return before fees of 9.0% to 12.0% annually by structuring investments to enhance risk-adjusted returns. Investments may be made through direct property ownership or indirectly through such vehicles as joint ventures, general or limited partnerships, limited liability companies, mortgage loans and other loan types, including mezzanine debt, and debt secured by an interest in the borrowing entity or interests in companies or entities that directly or indirectly hold real estate or real estate interests. It operates with a leverage limit of 40% and may invest up to 35% of its gross assets in higher-risk, non-core real estate investment opportunities.

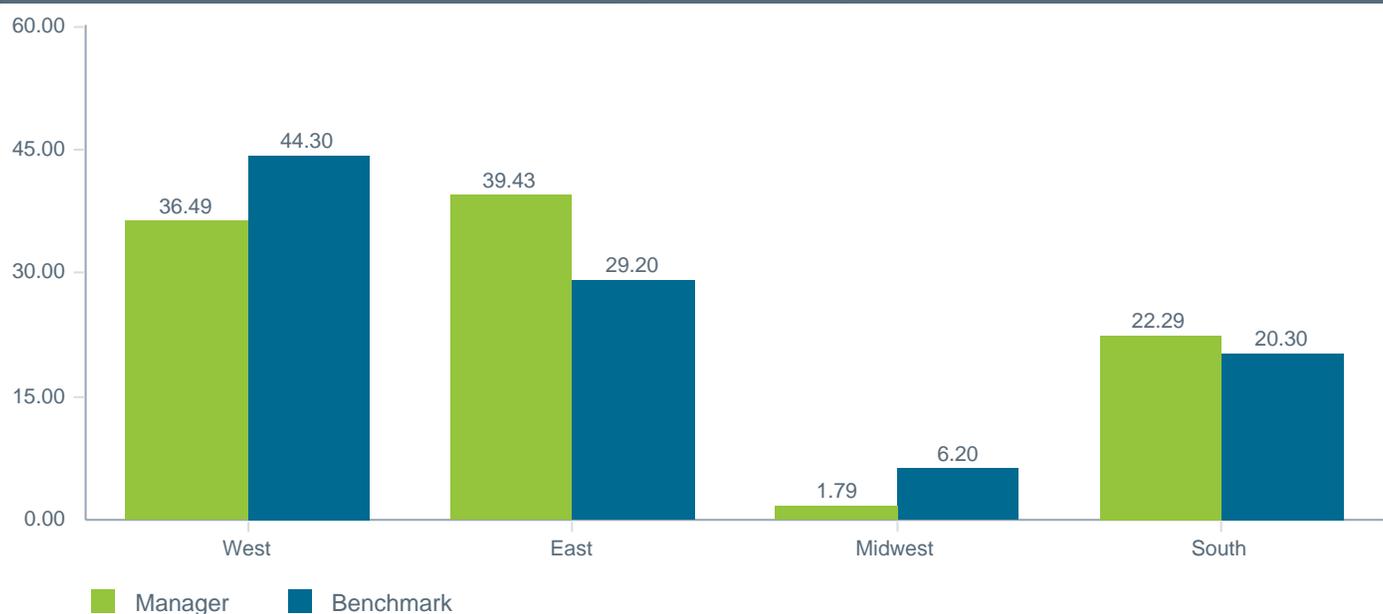
**Investment Profile**

Fund Inception	1980
Legal Structure	REIT
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	17,217
Fund Leverage %	34.94
Portfolio Occupancy %	89.65
Cash Reserve %	2.21
Number of Investments	154
Number of Limited Partners	112

**Property Type Allocation (%)**



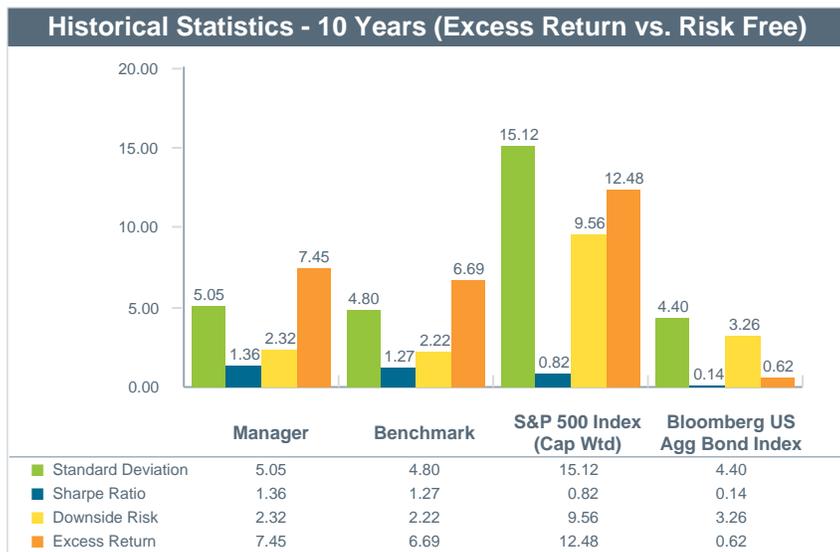
**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land, student housing, self-storage, and life science/lab space. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

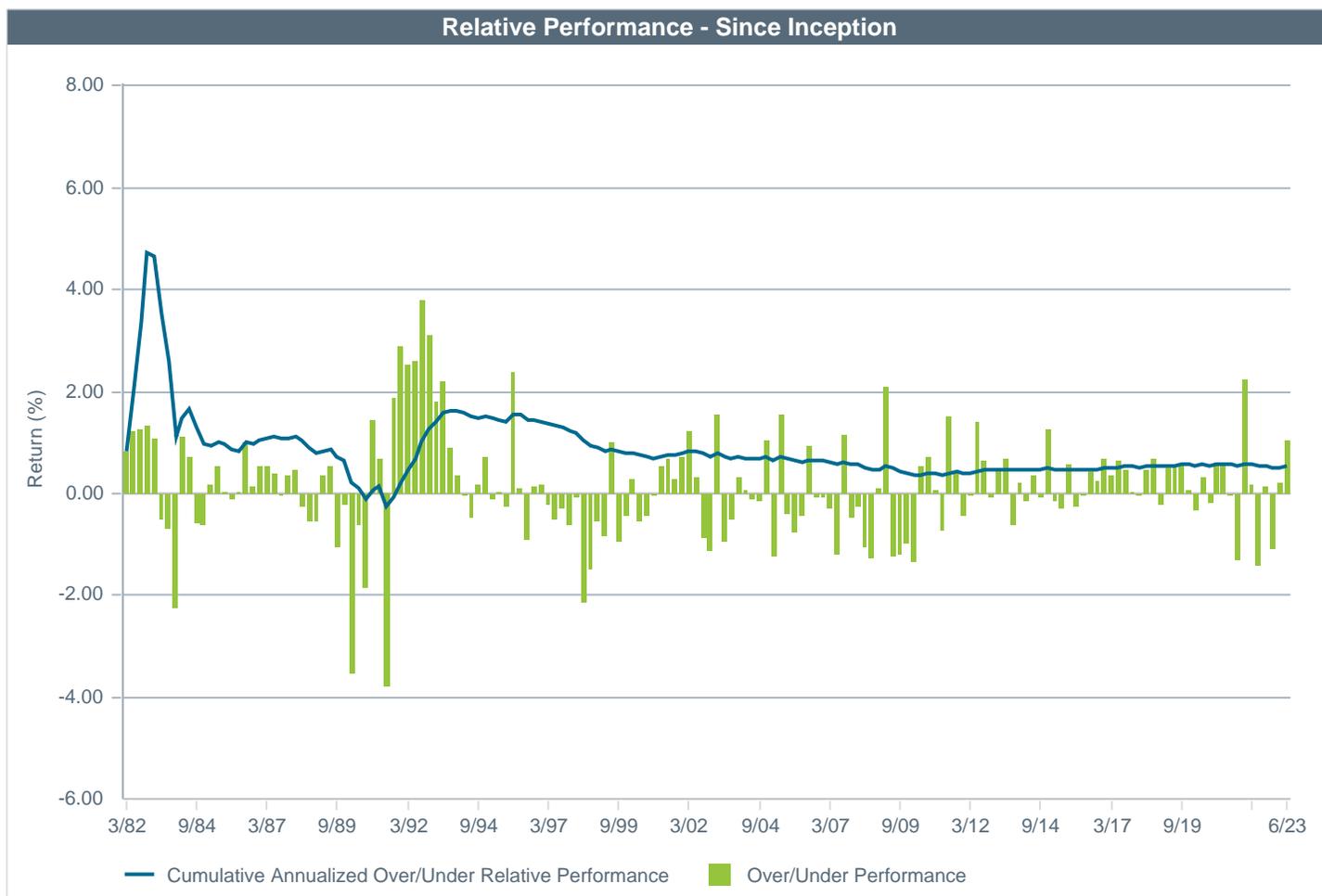


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-1.85	-10.42	7.42	6.25	6.95	8.57	4.27	22.83	0.81	6.22	8.32
Benchmark	-2.88	-10.73	7.04	5.56	6.02	7.77	6.55	21.02	0.34	4.39	7.36
Difference	1.03	0.31	0.38	0.69	0.93	0.80	-2.28	1.81	0.47	1.83	0.96



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Net)	0.96
S&P 500 Index (Cap Wtd)	-0.13
Russell 2000 Index	-0.15
MSCI EAFE Index (USD) (Net)	-0.30
MSCI Emg Mkts Index (USD) (Net)	-0.29
Bloomberg US Agg Bond Index	-0.32
Bloomberg US Trsy US TIPS Index	-0.20
Wilshire US REIT Index	0.13
HFRI FOF Comp Index	-0.17
Bloomberg Cmdty Index (TR)	0.14
ICE BofAML 3 Mo US T-Bill Index	-0.65
Cons Price Index (Unadjusted)	0.23
NCREIF ODCE Index (AWA) (Gross)	0.97



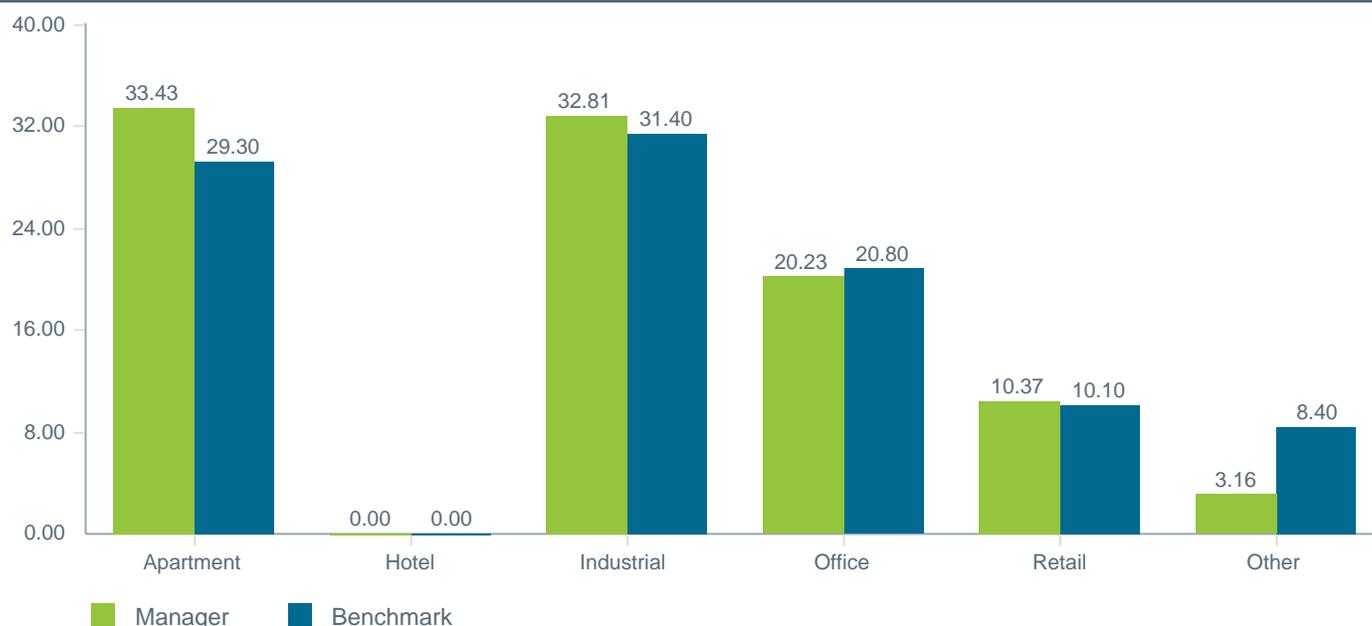
**Investment Strategy**

The Principal U.S. Property Account is a core real estate account designed to have a low to moderate risk profile consistent with other open-end real estate funds comprising the NFI-ODCE. This risk profile has two components: 1) a low to moderate real estate property risk profile; and 2) a low to moderate risk portfolio level operating profile. Low to moderate real estate property risk is accomplished by investing primarily in well-leased properties on an unleveraged basis. Low to moderate portfolio level risk is accomplished by operating with limited portfolio level obligations and a well-diversified portfolio. The Account invests in the traditional real estate property types; multifamily, office, industrial, and retail.

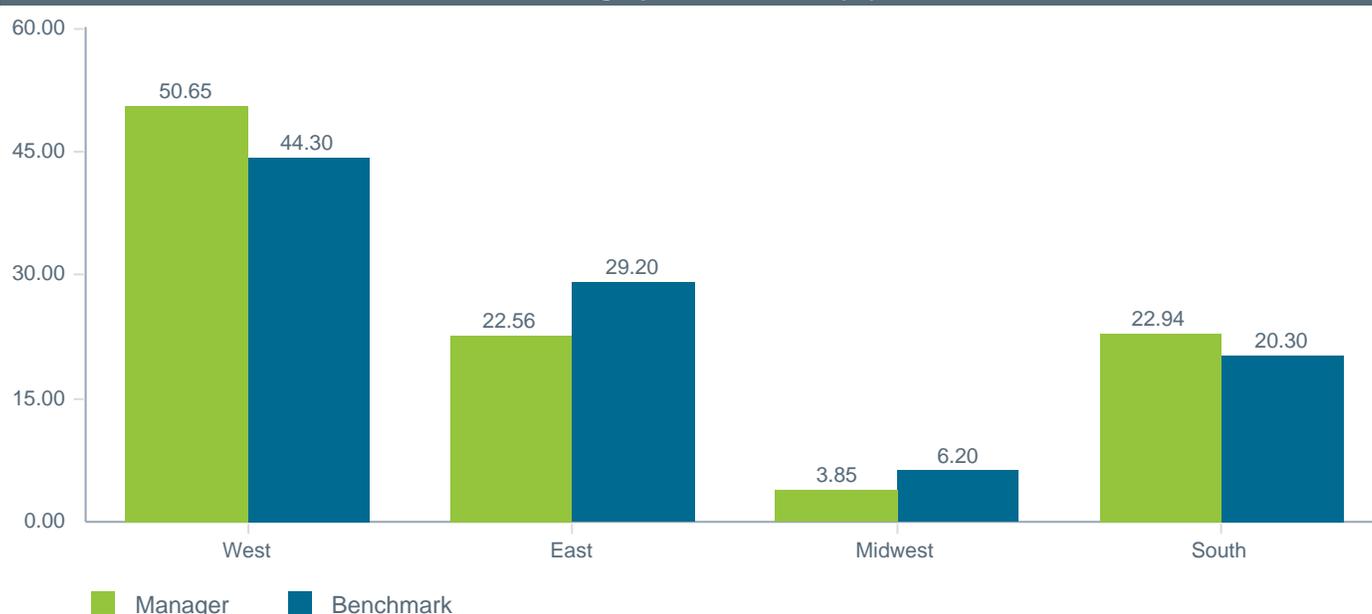
**Investment Profile**

Fund Inception	1982
Legal Structure	Insurance SA
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	13,121
Fund Leverage %	24.48
Portfolio Occupancy %	90.59
Cash Reserve %	1.82
Number of Investments	160
Number of Limited Partners	4,677

**Property Type Allocation (%)**



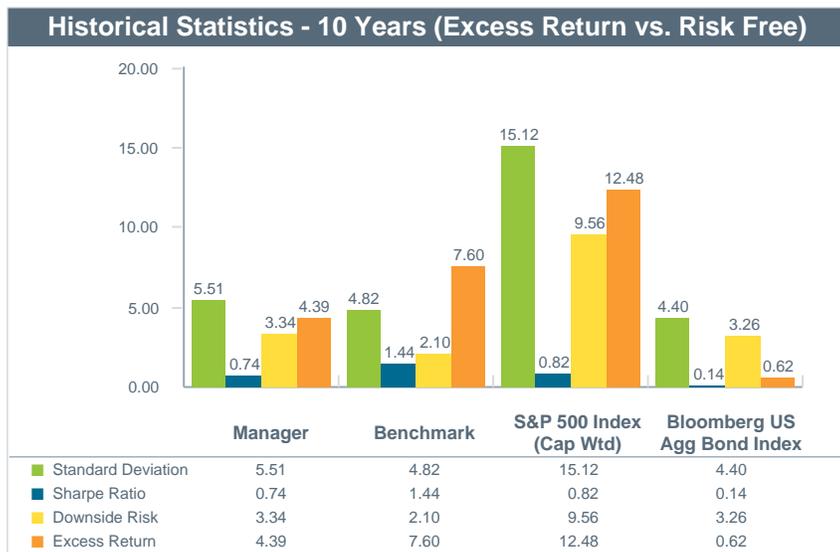
**Geographic Allocation (%)**



Performance shown is net of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land, self storage, and data centers. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

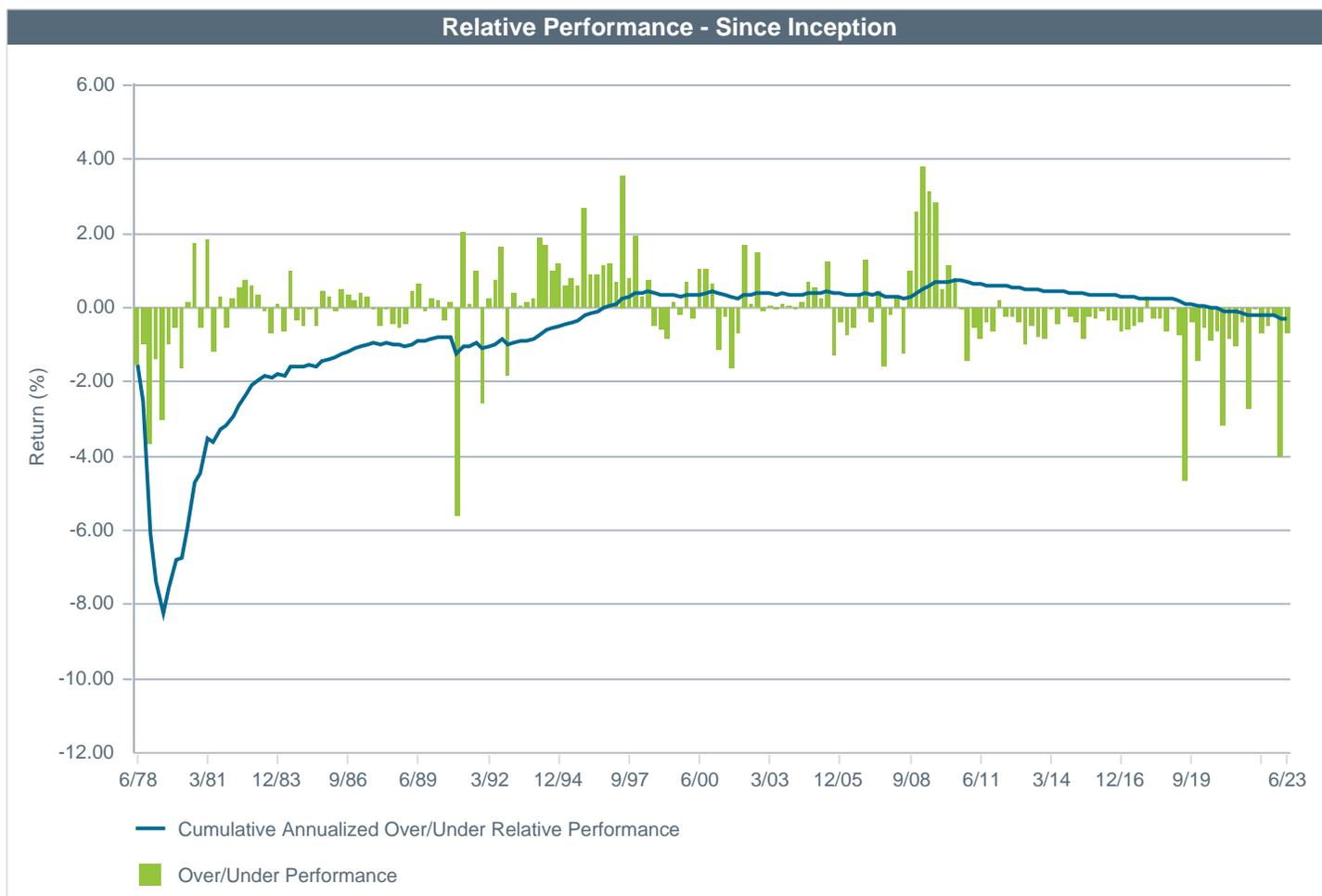


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-3.37	-14.84	2.69	1.40	2.87	5.32	5.91	16.24	-4.04	-2.10	6.99
Benchmark	-2.68	-9.97	7.99	6.50	6.97	8.74	7.47	22.17	1.19	5.34	8.35
Difference	-0.69	-4.87	-5.30	-5.10	-4.10	-3.42	-1.56	-5.93	-5.23	-7.44	-1.36



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.93
S&P 500 Index (Cap Wtd)	-0.33
Russell 2000 Index	-0.32
MSCI EAFE Index (USD) (Net)	-0.42
MSCI Emg Mkts Index (USD) (Net)	-0.38
Bloomberg US Agg Bond Index	-0.39
Bloomberg US Trsy US TIPS Index	-0.32
Wilshire US REIT Index	-0.07
HFRI FOF Comp Index	-0.31
Bloomberg Comdty Index (TR)	0.12
ICE BofAML 3 Mo US T-Bill Index	-0.71
Cons Price Index (Unadjusted)	0.18



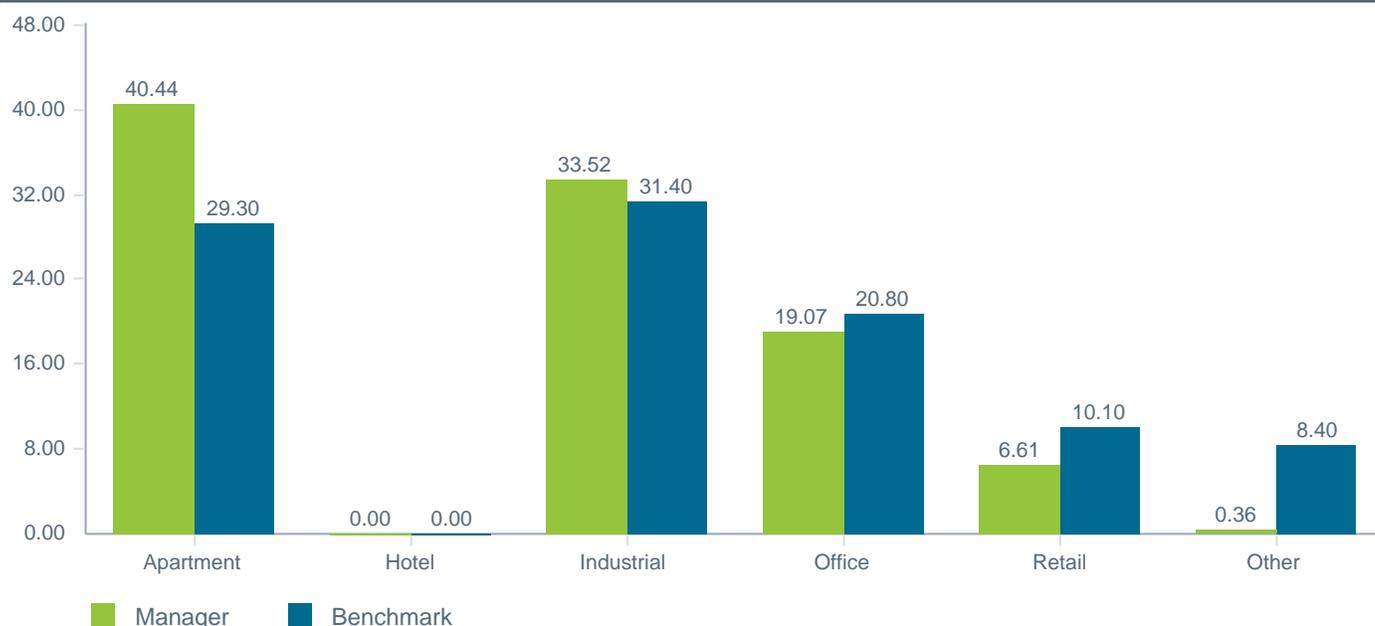
**Investment Strategy**

The Fund pursues a diversified core real estate strategy that seeks to produce attractive risk-adjusted returns by focusing on selective acquisitions, diversification, active portfolio management, and asset management. The Fund invests in well-leased, stabilized assets in major US metropolitan markets and receives the majority of its return from the income component. Diversification for the Fund is consistently pursued on many levels, including geographic region, property type, and economic sector. The Fund has historically maintained a leverage ratio significantly lower than the NCREIF ODCE Index and invests 5-15% of its gross assets in value-added type real estate investment opportunities.

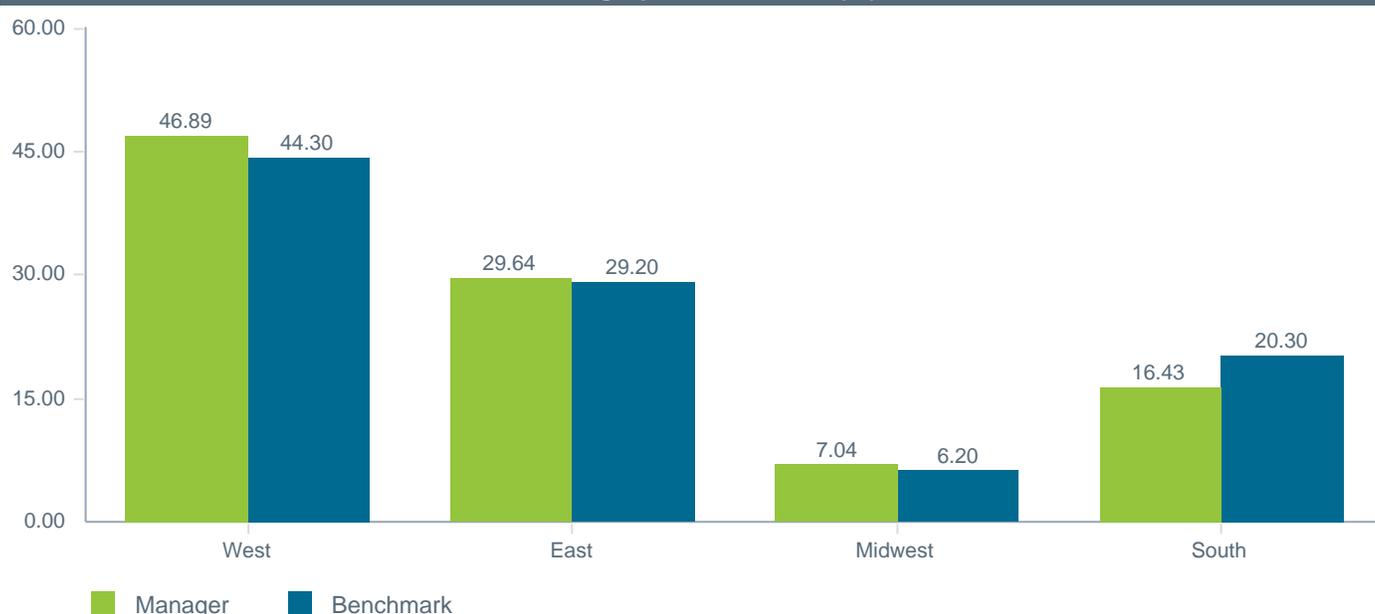
**Investment Profile**

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	15,657
Fund Leverage %	19.96
Portfolio Occupancy %	93.00
Cash Reserve %	1.40
Number of Investments	141
Number of Limited Partners	439

**Property Type Allocation (%)**



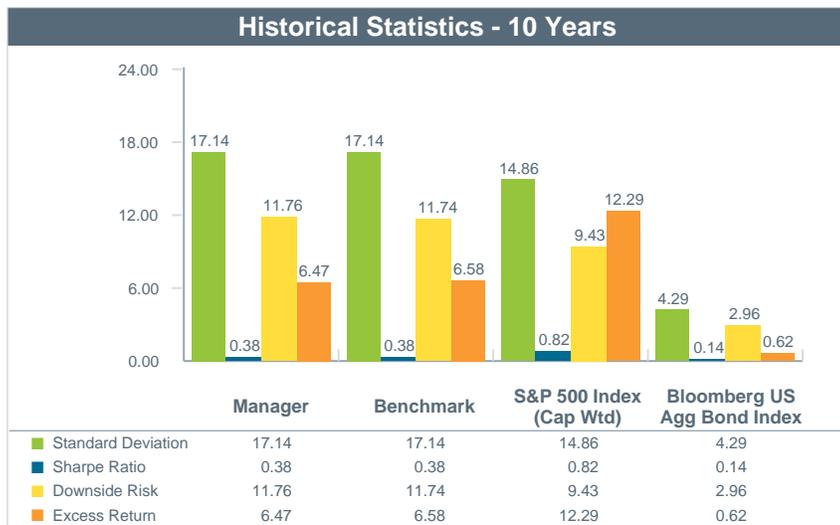
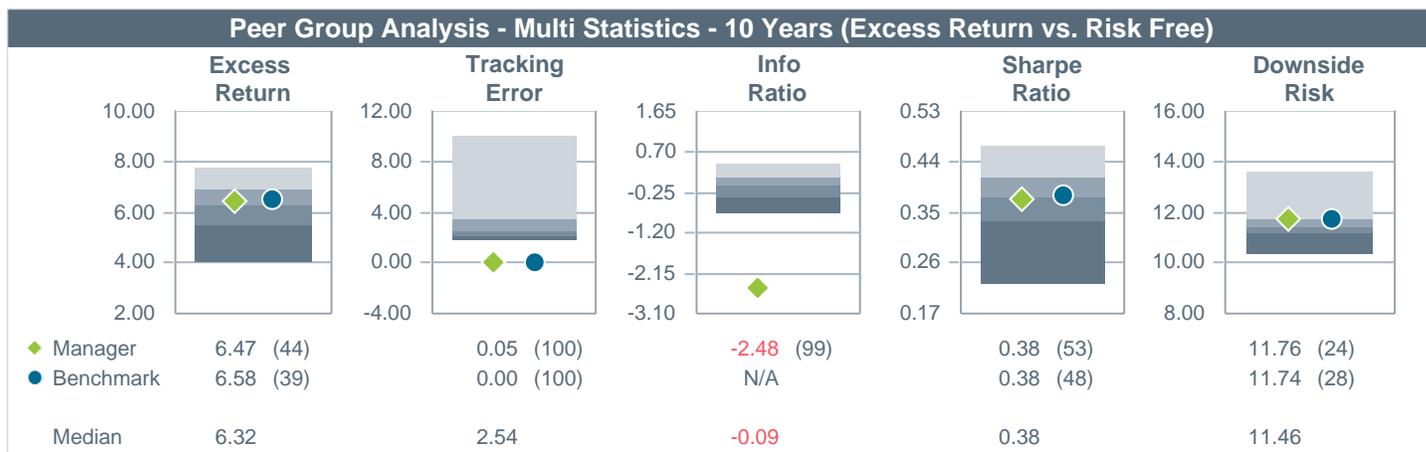
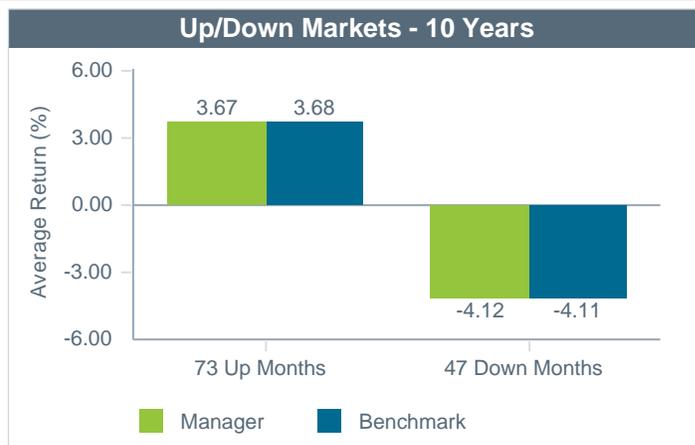
**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	1.63	-3.96	5.85	4.36	3.15	6.12	-26.20	40.38	-4.72	28.91	-5.95
Benchmark	1.68	-3.82	6.00	4.48	3.27	6.24	-26.12	40.56	-4.55	29.03	-5.86
Difference	-0.05	-0.14	-0.15	-0.12	-0.12	-0.12	-0.08	-0.18	-0.17	-0.12	-0.09
Peer Group Median	1.68	-2.96	6.84	4.41	3.32	6.04	-26.17	41.32	-4.31	27.32	-5.71
Rank	54	66	73	53	59	47	51	63	55	35	54
Population	248	247	229	211	188	147	247	251	248	256	244



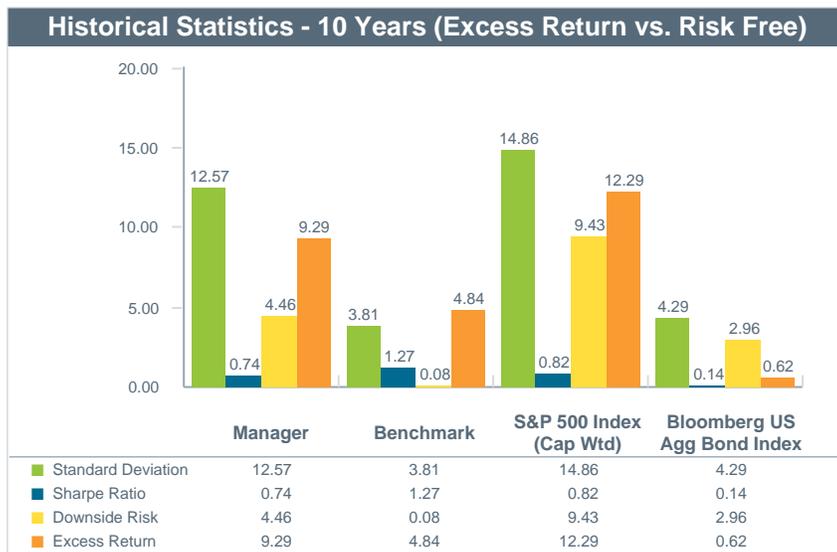
### Actual Correlation - 10 Years

Index	Actual Correlation
Vanguard Spl Real Estate Index	1.00
S&P 500 Index (Cap Wtd)	0.72
Russell 2000 Index	0.67
MSCI EAFE Index (USD) (Net)	0.64
MSCI Emg Mkts Index (USD) (Net)	0.52
Bloomberg US Agg Bond Index	0.50
Bloomberg US Trsy US TIPS Index	0.60
Wilshire US REIT Index	0.99
HFRI FOF Comp Index	0.59
Bloomberg Cmnty Index (TR)	0.31
ICE BofAML 3 Mo US T-Bill Index	-0.13
Cons Price Index (Unadjusted)	-0.03

Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Performance shown is calculated using Net Asset Values (NAV). Parentheses contain percentile ranks. Benchmark consists of MSCI US REIT Index (USD) (Gross) adjusted to include a 2% cash position (Lipper Money Market Average) through 04/30/09; MSCI US REIT Index (USD) (Gross) through 01/31/18; MSCI US IM Real Estate 25/50 Transition Index through 07/24/18; and MSCI US IM Real Estate 25/50 Index (Gross) thereafter.

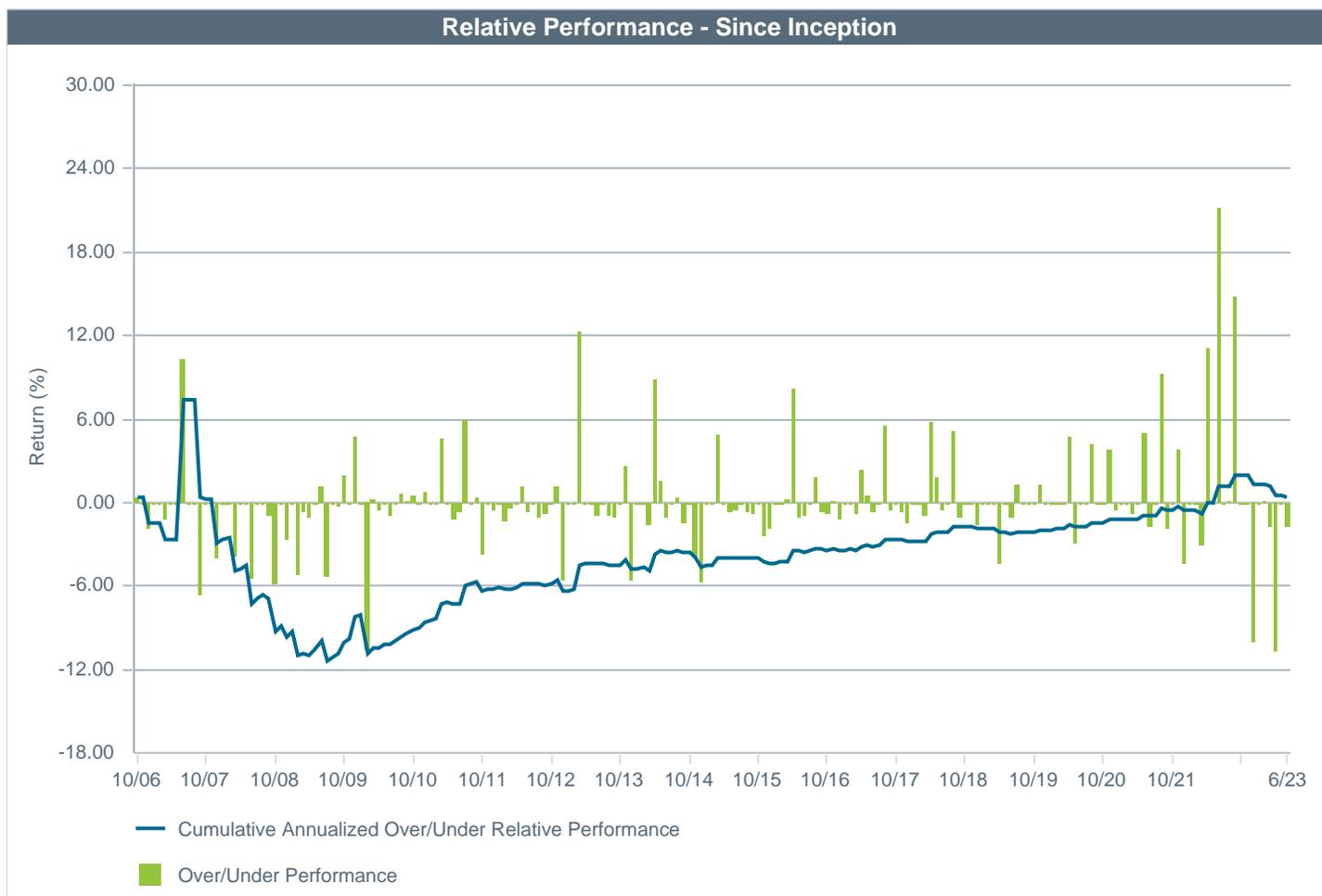


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	-10.67	-0.58	20.73	12.92	11.66	9.96	52.32	19.14	10.18	-1.69	12.47
Benchmark	1.71	11.13	8.67	5.80	5.13	5.90	12.90	9.17	0.81	1.30	3.21
Difference	-12.38	-11.71	12.06	7.12	6.53	4.06	39.42	9.97	9.37	-2.99	9.26



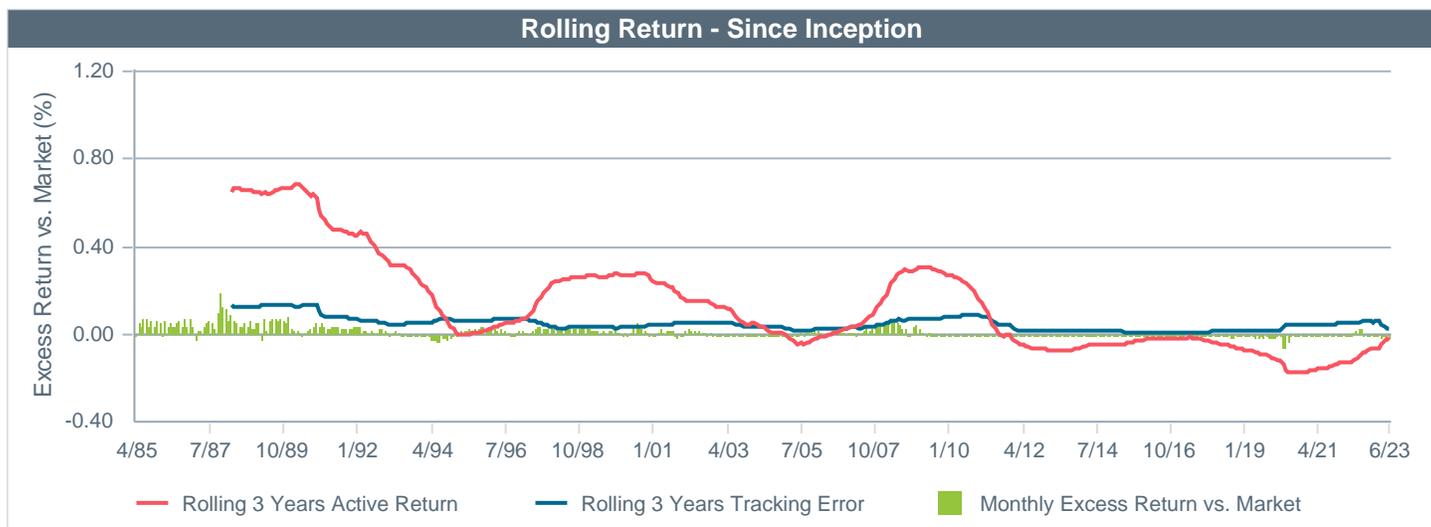
### Actual Correlation - 10 Years

	Actual Correlation
NCREIF Timberland Index	0.04
S&P 500 Index (Cap Wtd)	-0.20
Russell 2000 Index	-0.13
MSCI EAFE Index (USD) (Net)	-0.21
MSCI Emg Mkts Index (USD) (Net)	-0.15
Bloomberg US Agg Bond Index	-0.27
Bloomberg US Trsy US TIPS Index	-0.28
Wilshire US REIT Index	-0.16
HFRI FOF Comp Index	-0.09
Bloomberg Cmdb Index (TR)	-0.13
ICE BofAML 3 Mo US T-Bill Index	-0.13
Cons Price Index (Unadjusted)	0.24



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2022	2021	2020	2019	2018
Manager	1.22	3.73	1.30	1.47	1.29	0.91	1.55	0.03	0.37	2.09	1.73
Benchmark	1.25	3.75	1.33	1.57	1.37	0.98	1.50	0.05	0.58	2.25	1.86
Difference	-0.03	-0.02	-0.03	-0.10	-0.08	-0.07	0.05	-0.02	-0.21	-0.16	-0.13
Peer Group Median	1.17	3.53	1.21	1.35	1.13	0.79	1.39	0.01	0.30	1.90	1.54
Rank	18	22	17	19	17	19	21	12	31	20	22
Population	796	779	715	671	617	524	783	772	792	796	820



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

# Addendum & Glossary



## City of Jacksonville Employees' Retirement System Addendum

### Performance Related Comments:

- Performance is annualized for periods greater than one year.
- The inception date shown indicates the first full month of performance following initial funding.
- The market value shown for the Transition Account includes residual assets from terminated managers.
- RVK began monitoring the assets of the City of Jacksonville Retirement System on 01/01/2019. Prior historical data was provided by the custodian and previous consultant.

### Custom Composite Benchmark Comments:

- **Current Total Fund Policy Index:** The passive Total Fund Policy Index is calculated monthly and currently consists of 30% Russell 3000 Index, 23% MSCI ACW Ex US Index (USD) (Net), 20% Fixed Income Index, 15% Real Estate Index, and 12% Diversifying Assets Index.
- **US Equity Index:** The passive US Equity Index consists of 100% DJ US TSM Index through 06/2009 and 100% Russell 3000 Index thereafter.
- **International Equity Index:** The passive International Equity Index consists of 100% MSCI EAFE Index (USD) (Gross) through 01/2011 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Fixed Income Index:** The passive Fixed Income Index consists of 100% Bloomberg US Agg Bond Index through 10/2017 and 100% Bloomberg US Universal Bond Index thereafter.
- **Real Estate Index:** The active Real Estate Index is calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return.
- **Diversifying Assets Index:** The Diversifying Assets Index is calculated monthly and consists of 50% S&P MLP Index (TR)/50% NCREIF Timberland Index through 10/2017, 67% S&P MLP Index (TR)/33% NCREIF Timberland Index through 09/2020, and calculated monthly using beginning of month investment weights applied to each corresponding primary benchmark return thereafter.

### Custom Manager Benchmark Comments:

- **Baillie Gifford Index:** The passive Baillie Gifford Index consists of 100% MSCI EAFE Grth Index (USD) (Net) through 10/2017 and 100% MSCI ACW Ex US Grth Index (USD) (Net) thereafter.
- **Baillie Gifford Spliced Index:** The passive Baillie Gifford Spliced Index consists of 100% MSCI EAFE Index (USD) (Net) through 11/2019 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Custom REITs Index:** The passive Custom REITs Index consists of 100% MSCI US REIT Index (USD) (Gross) through 01/2019 and 100% Vanguard Spl Real Estate Index thereafter.
- **Vanguard Spliced Real Estate Index:** The Vanguard Spl Real Estate Index consists of MSCI US REIT Index (USD) (Gross) adjusted to include a 2% cash position (Lipper Money Market Average) through 04/30/2009, MSCI US REIT Index (USD) (Gross) through 01/31/2018, MSCI US IM Real Estate 25/50 Transition Index through 07/24/2018, and MSCI US IM Real Estate 25/50 Index (Gross) thereafter.

## Glossary

**Active Return** - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

**Active Share** - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

**Alpha** - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

**Alpha Ratio** - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

**Average Quality** - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>
<b><u>Higher Credit Quality – Investment Grade</u></b>			<b><u>Lower Credit Quality – Below Investment Grade</u></b>		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

**Benchmark Effect** - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Box Plots** - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1<sup>st</sup> quartile, 2<sup>nd</sup> quartile, 3<sup>rd</sup> quartile, and 4<sup>th</sup> quartile). The median observation is where the 2<sup>nd</sup> quartile and 3<sup>rd</sup> quartile meet.

**Buy and Hold Attribution** - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

**Sector** - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

## Glossary

### Capital Markets Review -

**Breakeven Inflation** - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

**Consumer Confidence** - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

**Consumer Price Index (CPI)** - Measures the change in the price level of consumer goods and services.

**Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

**Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

**Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

**Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

**Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.

**US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

**VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

**Cash Flow Effect** – The composite's active return minus the sum of each managers' active return minus the benchmark effect.

**Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

**Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

**Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

**Current Yield** - The annual income of a security divided by the security's current price.

**Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

**Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

**Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

**Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.

**Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

**Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

**Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

**Expense Ratios** - Morningstar is the source for mutual fund expense ratios.

**Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

**Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

**Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

## Glossary

**Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

**Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

**Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

**Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.

**Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

**Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

**Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

**Net Cash Flow** - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

### Peer Groups -

**Plan Sponsor Peer Groups** - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans.

**Investment Manager Peer Groups** - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value                      100 - Lowest Statistical Value

*Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.*

**Performance Methodology** - RVK calculates performance for investment managers and composites using different methodologies.

**Investment Managers** - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

**Portfolio Characteristics** - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

**Price to Earnings Ratio** - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

**Private Equity Quartile Ranks** - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**Return** - Compounded rate of return for the period.

**% Return** - The time-weighted rate of return of a portfolio for a given period.

**Risk Free Benchmark** - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

## Glossary

**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<u>Not Liquid Investments</u>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity	5
US SMid Cap Equity	85	Private Credit	5
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

**Sector Allocation** - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Simple Alpha** - The difference between the manager's return and the benchmark's return.

**Spread Duration** - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

**Thematic Classification** - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

**Time Period Abbreviations** - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

**Total Fund Attribution** - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

**Strategic Asset Allocation (SAA)** - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

**Tactical Asset Allocation (TAA)** - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

**Style Selection (SS)** - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

**Manager's Skill (MS)** - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

## Glossary

**Tracking Error** - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

**Unit Value** - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

**Up Market Capture** - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

**Yield to Maturity** - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

**Yield to Worst** - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

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