

Wilshire Advisors

City of Grand Rapids Police & Fire Retirement System *Executive Summary of Investment Performance*

As of December 31, 2023

Quarterly Market Review

December 31, 2023

Market Commentary

U.S. Equity

The U.S. stock market was up 12.1% for the fourth quarter and is up 26.1% for the past 12 months. The best performing sectors were real estate (+18.0%) and information technology (+17.0%). The worst performing – and only negative – sector was energy (-6.8%). From a size perspective, small-cap outperformed large-cap by 165 basis points. Large growth stocks outperformed large value during the third quarter and led by 35%-points for all of 2023.

One possible recession metric that is widely considered in the investing arena is the spread between long- and short-term Treasury bond yields. When this spread turns negative – known as an inverted yield curve – a recession typically follows. During the past 60+ years, there is really only one instance (in 1966) that such conditions did not precede a recession. Currently, the curve is inverted to a degree not seen since the early 1980's recession that was driven by high inflation and high unemployment. The Federal Reserve Bank of New York has a model that converts the term spread to a probability of recession during the next twelve months, which stands at 68%.

Non-U.S. Equity

The eurozone likely fell into a mild recession in 2023 and recent data suggests that conditions are not improving. Business activity declined in December as new orders fell and job cuts were reported. Germany, the eurozone's largest economy, continues to suffer due to high energy prices and interest rate hikes. The outlook in China is complicated with recent data showing contraction in the factory and services sectors.

Fixed Income

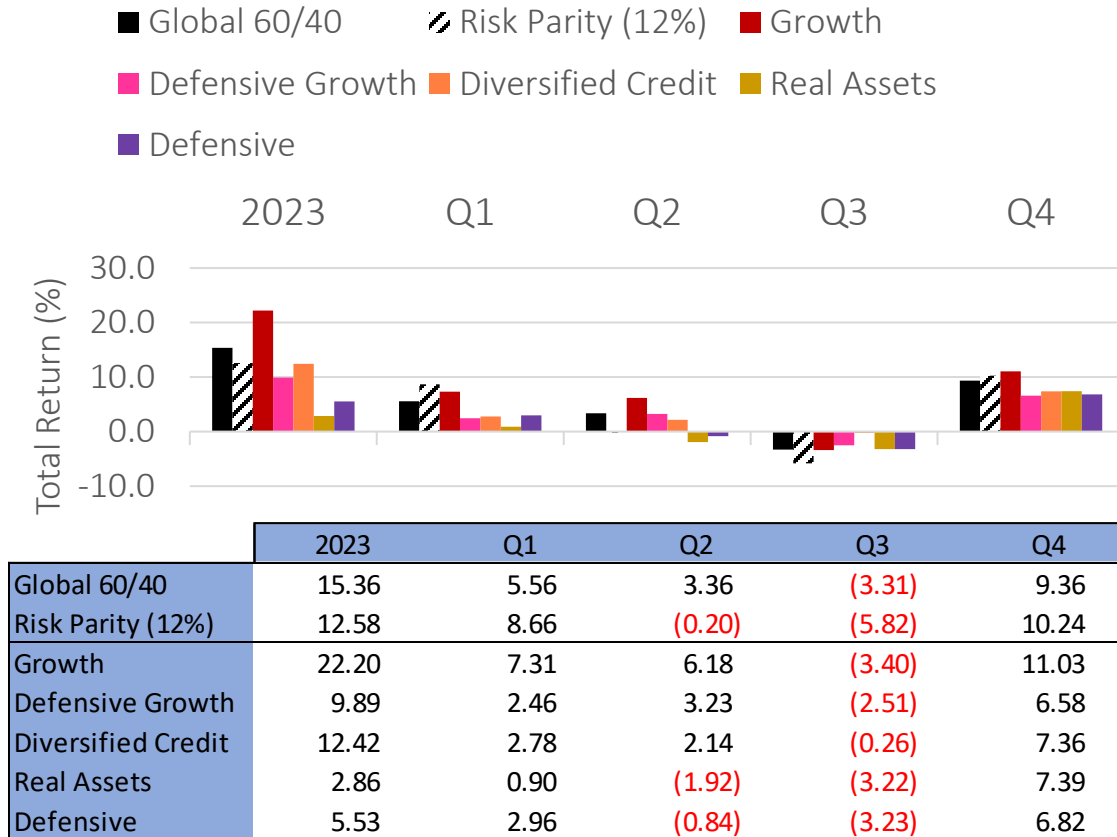
The U.S. Treasury yield curve was down across the maturity spectrum during the quarter, and to a greater degree in the long end of the curve. Credit spreads were down, as well, during the quarter. The FOMC left the overnight rate unchanged, targeting a range of 5.25% to 5.50%. During a recent speech, Fed Chair Jerome Powell reiterated the central bank's intent to be cautious, "Having come so far and so quickly, the FOMC is moving carefully forward, as the risks of under- and over-tightening are becoming more balanced.

December 2023 Asset Class Assumptions

	EQUITY						FIXED INCOME / CREDIT						REAL ASSETS						
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-US Bond (Hdg)	Real Estate US RES	Global RES	Private RE	Comdty	Real Assets	US CPI
Compound Return (%)	5.00	6.00	6.25	6.35	5.60	8.65	3.80	4.75	4.70	4.15	5.90	8.40	2.85	5.60	5.75	6.30	6.05	6.90	2.25
Arithmetic Return (%)	6.35	7.50	9.20	8.00	6.95	12.35	3.80	4.85	5.15	4.30	6.35	9.15	2.95	7.00	7.00	7.20	7.20	7.65	2.25
Risk (%)	17.00	18.00	26.00	19.00	17.05	29.65	0.75	4.70	9.85	6.00	10.00	12.75	4.00	17.50	16.45	13.90	16.00	12.60	1.75
Cash Yield (%)	1.45	3.10	2.50	2.95	2.00	0.00	3.80	5.10	5.25	4.35	9.20	4.95	3.65	3.90	3.90	2.50	3.80	3.40	0.00
Growth Factor Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.90	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Factor Exposure	-3.00	0.00	5.00	1.40	-1.35	-3.75	0.00	-2.55	-6.85	2.50	-1.00	-1.50	-3.00	1.00	1.80	1.00	12.00	5.25	1.00
CORRELATIONS																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.84	0.95	0.89	1.00															
Global Stock	0.95	0.91	0.84	0.94	1.00														
Private Equity	0.72	0.63	0.61	0.67	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.08	0.20	0.30	0.18	1.00											
LT Core Bond	0.31	0.15	0.01	0.11	0.24	0.31	0.11	0.94	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.48	1.00									
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.67	0.55	0.57	0.59	0.67	0.44	0.00	0.24	0.30	0.00	0.75	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.67	0.65	0.39	0.26	0.22	1.00						
US RE Securities	0.57	0.47	0.44	0.49	0.56	0.49	-0.05	0.17	0.22	0.10	0.56	0.61	0.05	1.00					
Global RE Securities	0.63	0.56	0.54	0.59	0.64	0.55	-0.05	0.17	0.21	0.11	0.60	0.67	0.04	0.97	1.00				
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.57	0.62	0.05	0.78	0.77	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.28	0.00	-0.03	-0.03	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.61	0.62	0.66	0.68	0.66	0.56	-0.03	0.24	0.26	0.32	0.64	0.69	0.05	0.78	0.83	0.76	0.62	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.21	1.00

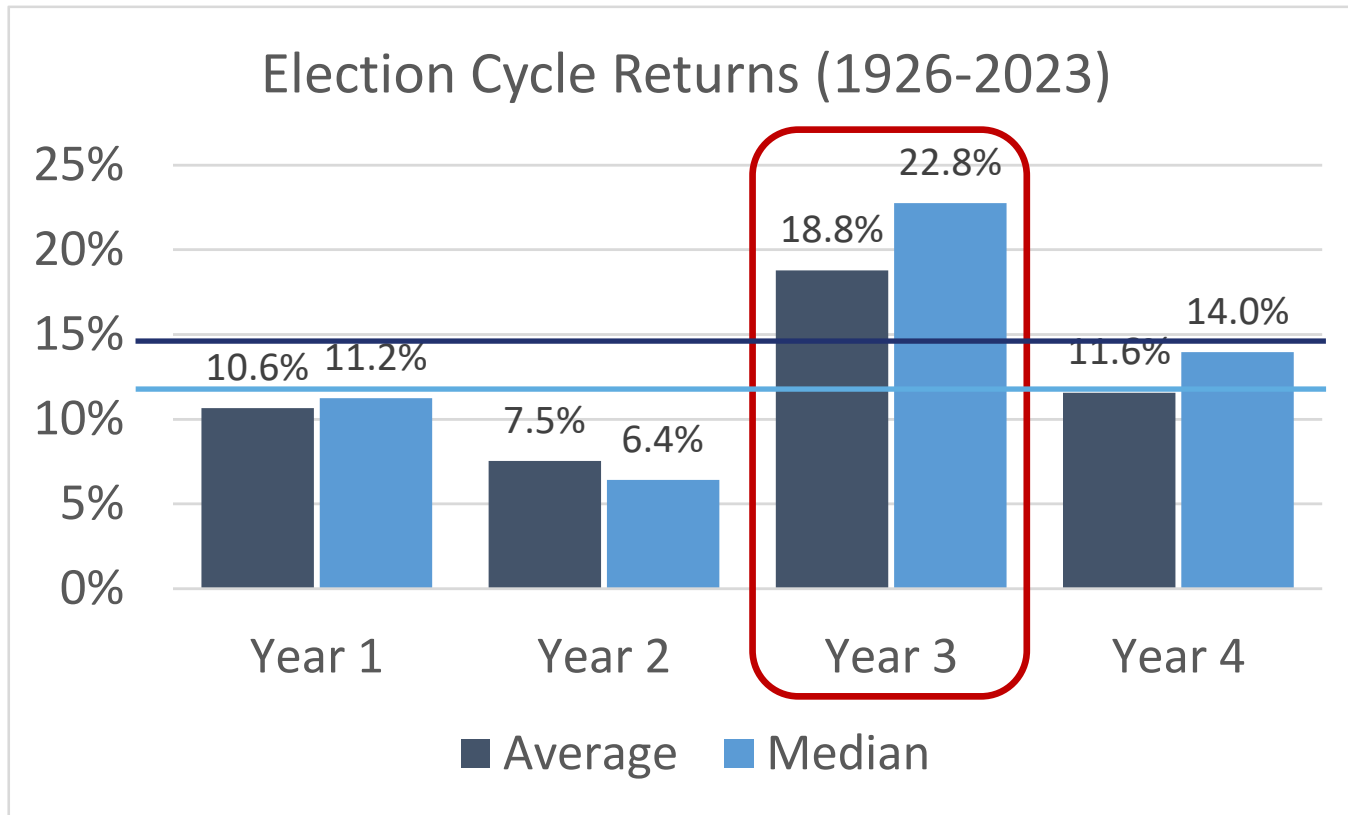
Thematic Return Stacks

Asset Allocation & Thematic Returns



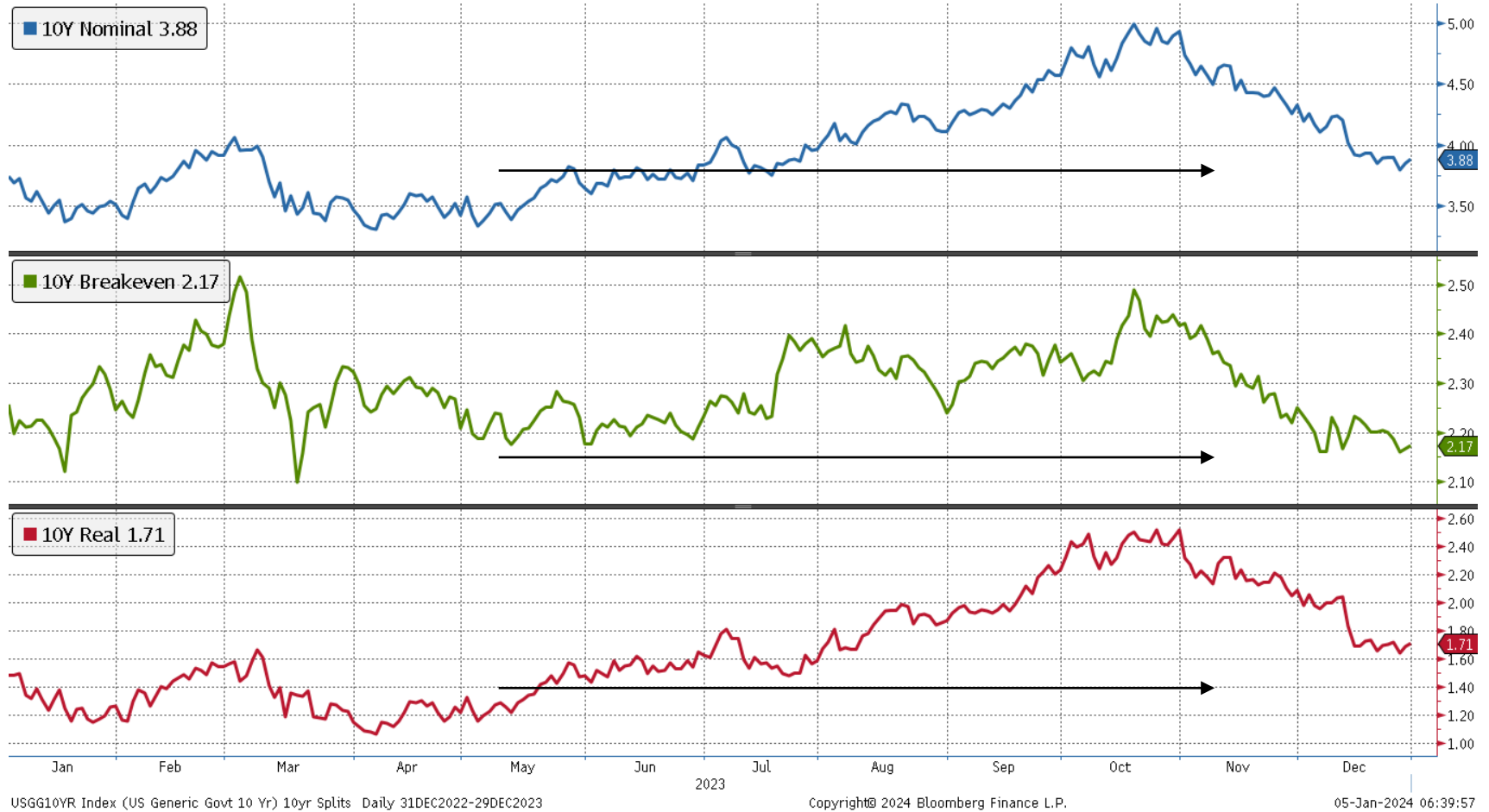
Data Source: Wilshire, Bloomberg

Election Cycles



Data Source: Wilshire Compass

Yield Whiplash



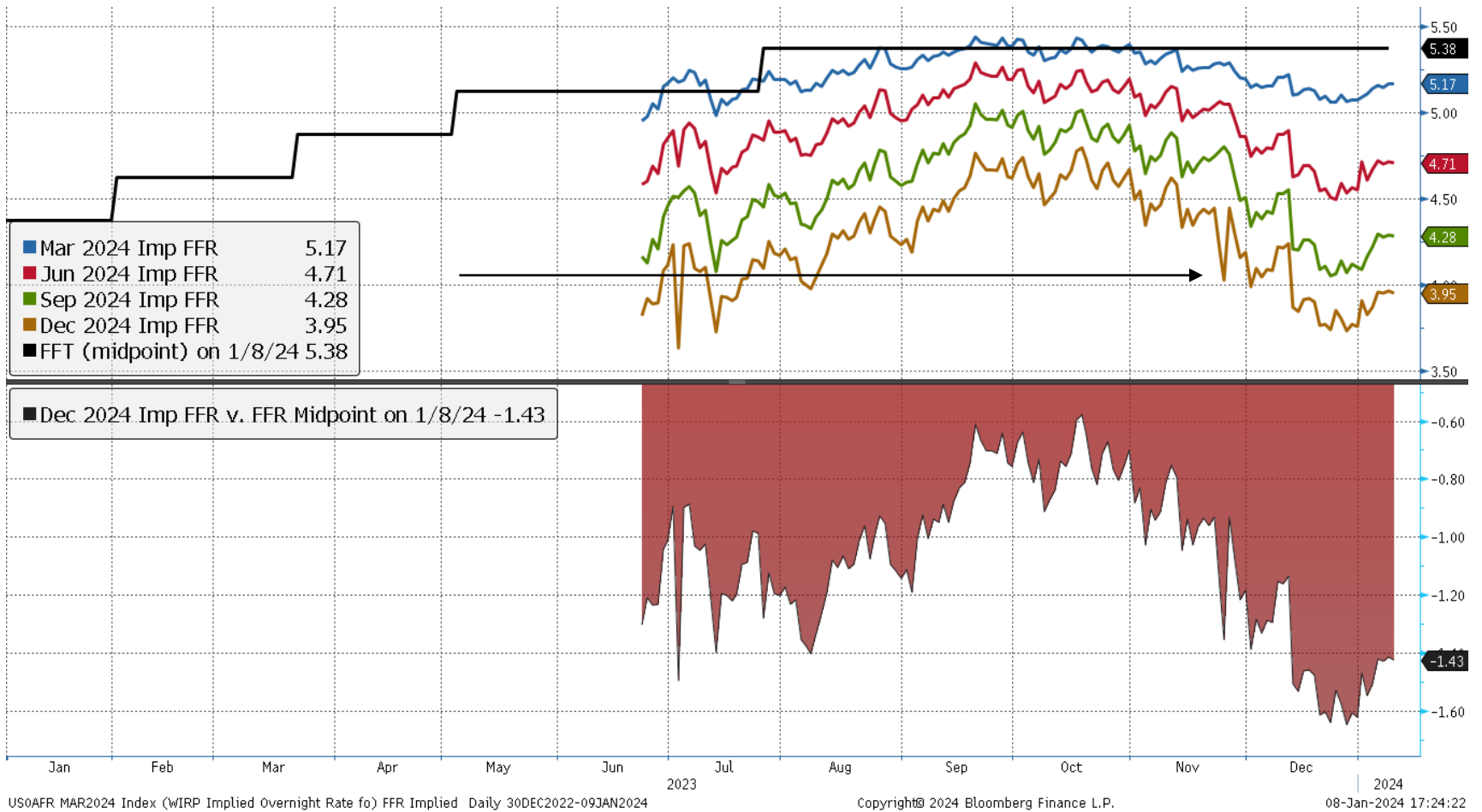
Data Source: Bloomberg

Fed Pivot: Hinting at “Mission Accomplished”



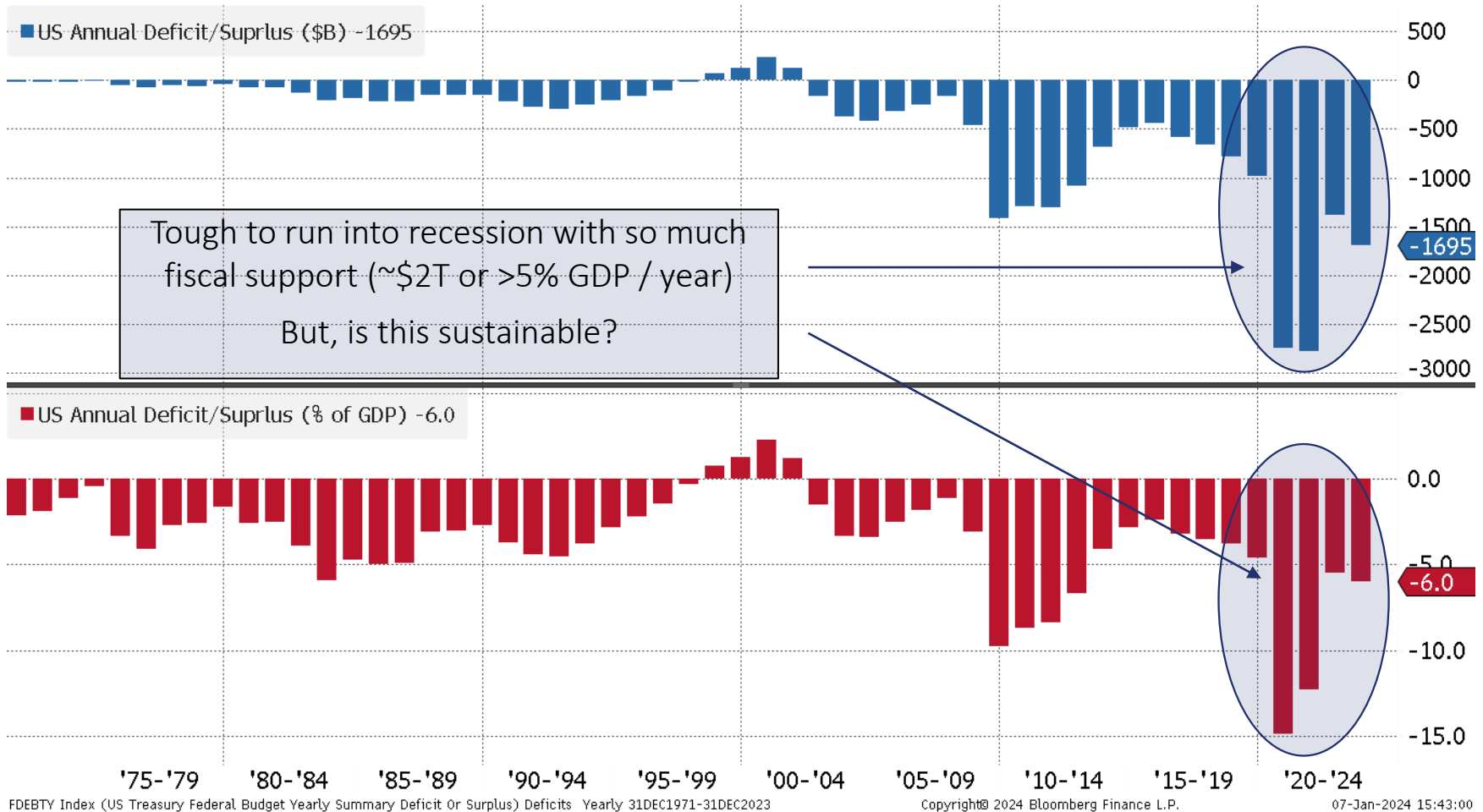
Data Source: Bloomberg

Markets Expect More in Rate Cuts



Data Source: Bloomberg

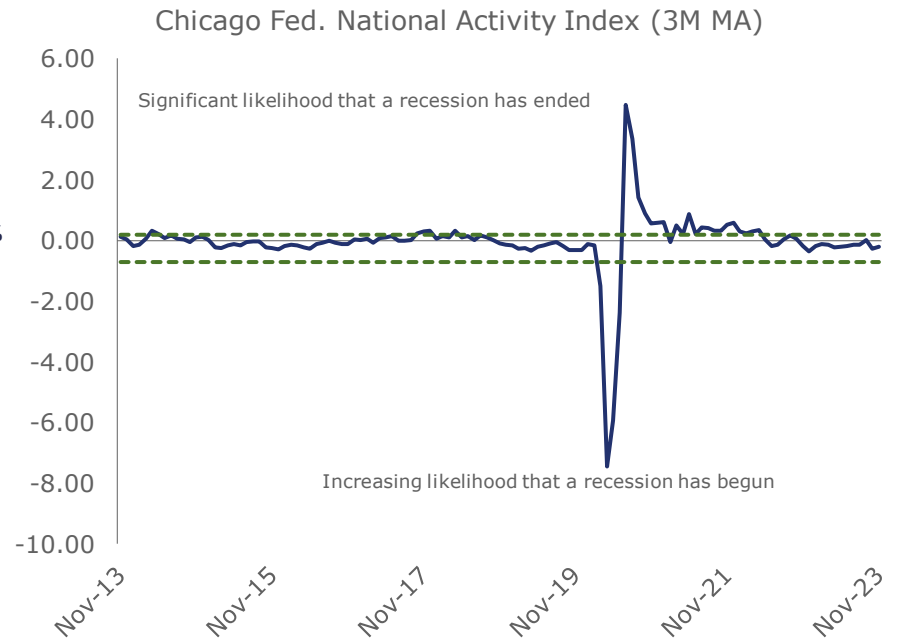
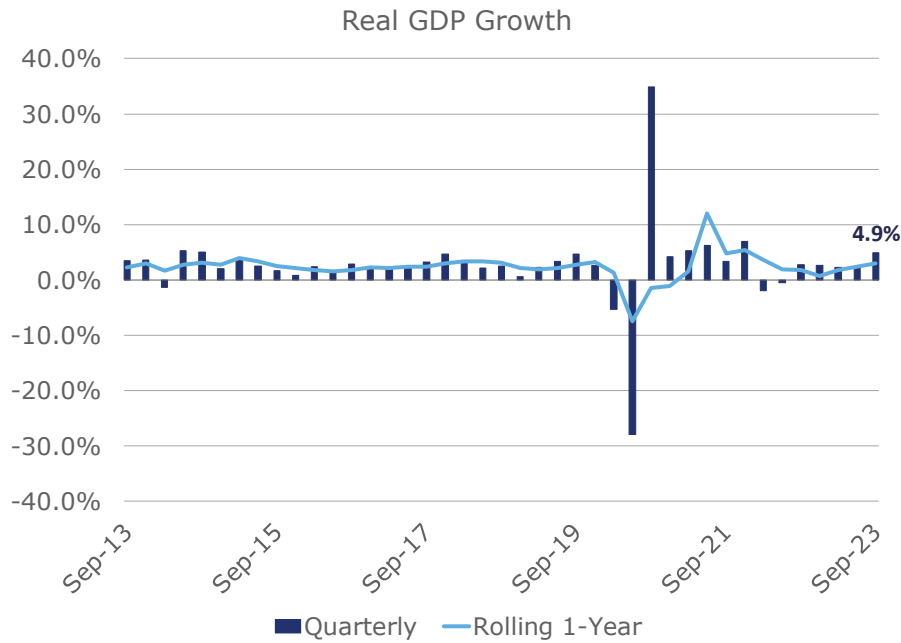
Recession Risks: How Did We All Get It So Wrong?



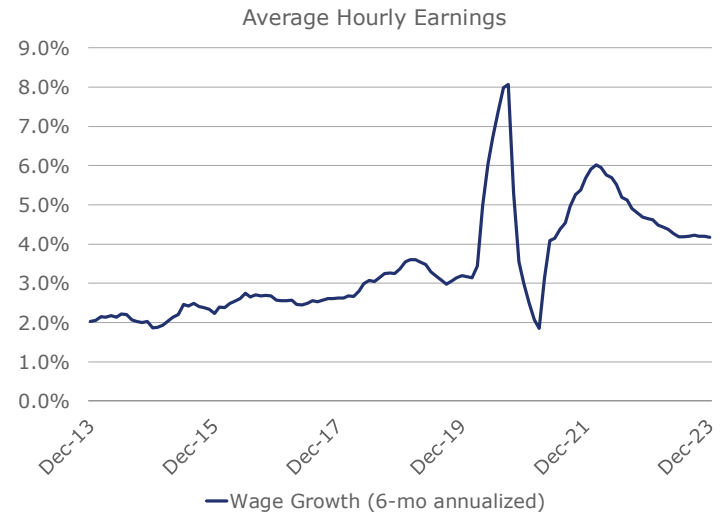
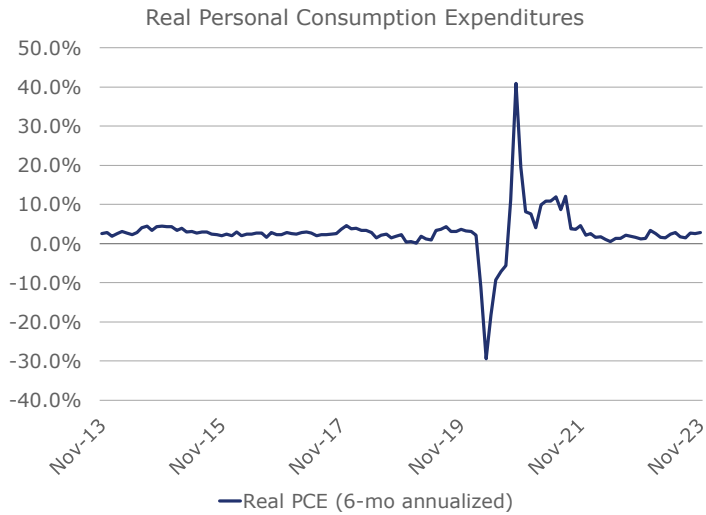
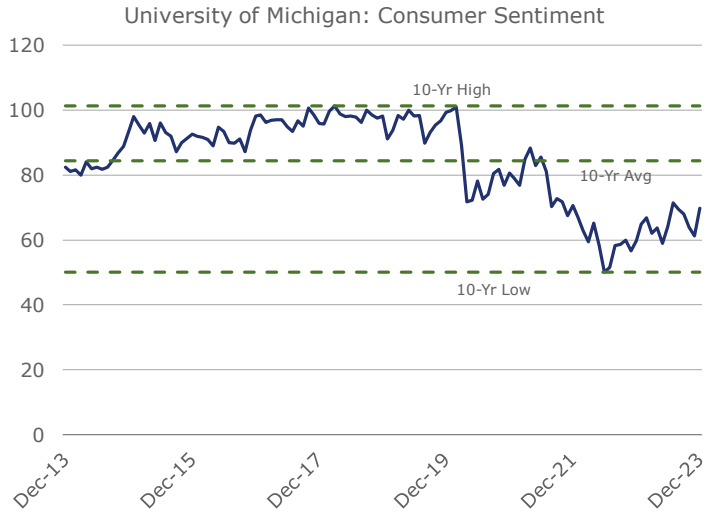
Data Source: Bloomberg

Economic/Market Activity

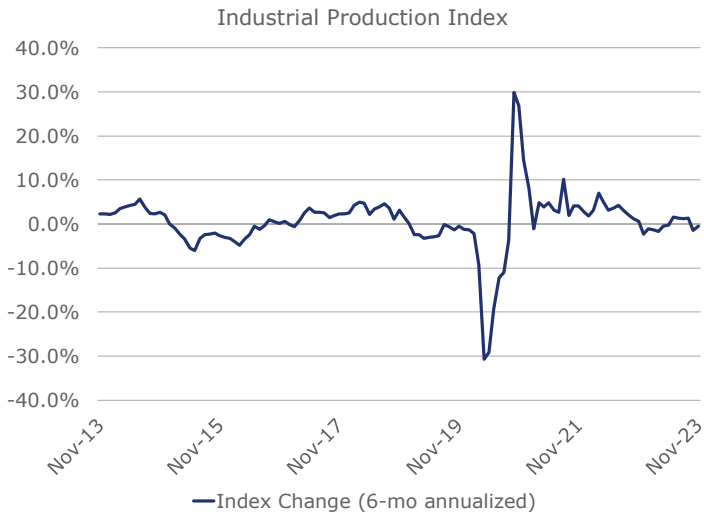
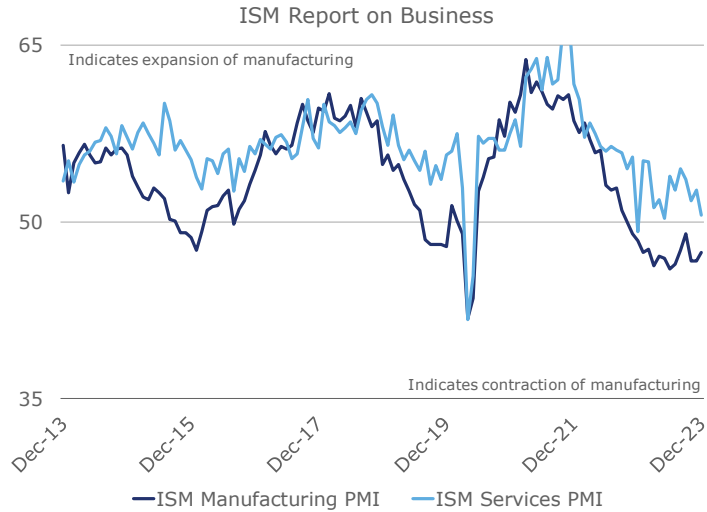
Economic Growth



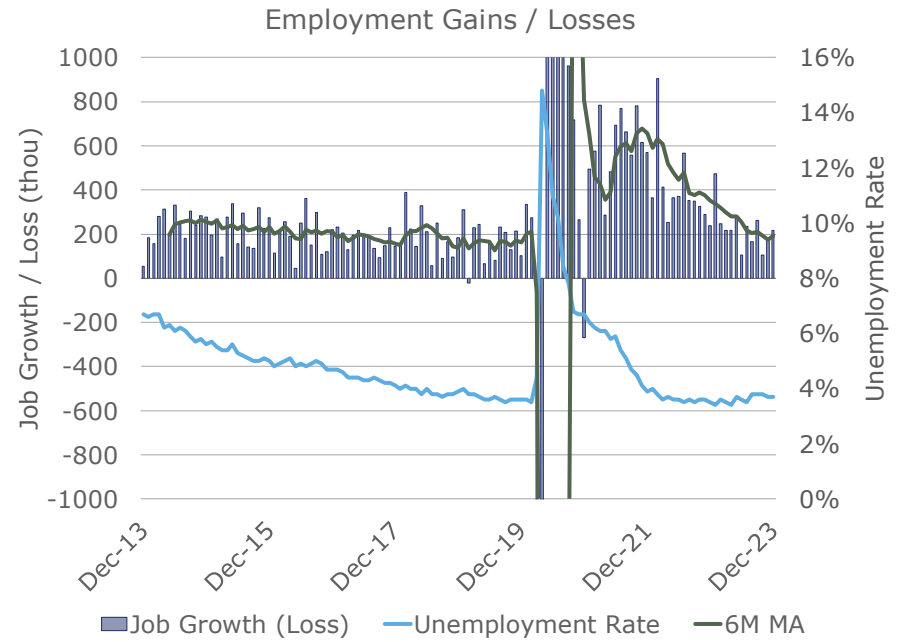
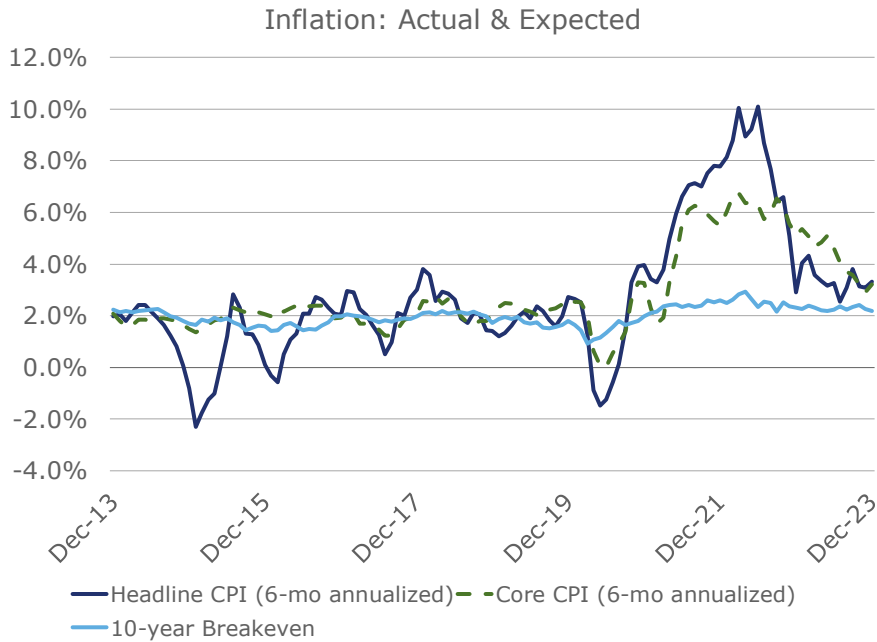
Consumer Activity



Business Activity



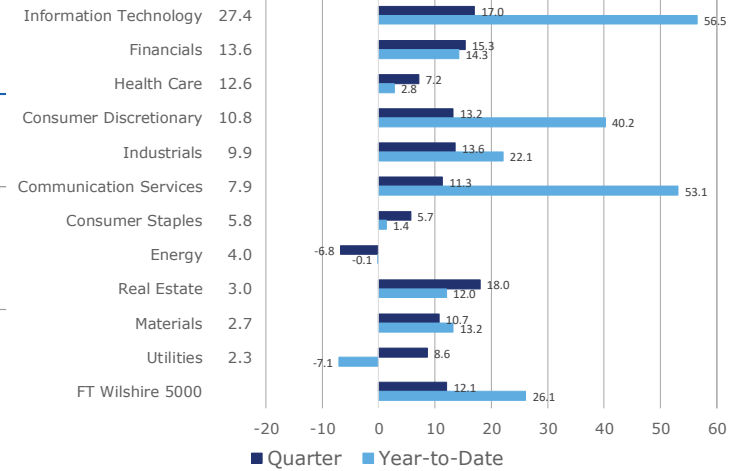
Inflation and Employment



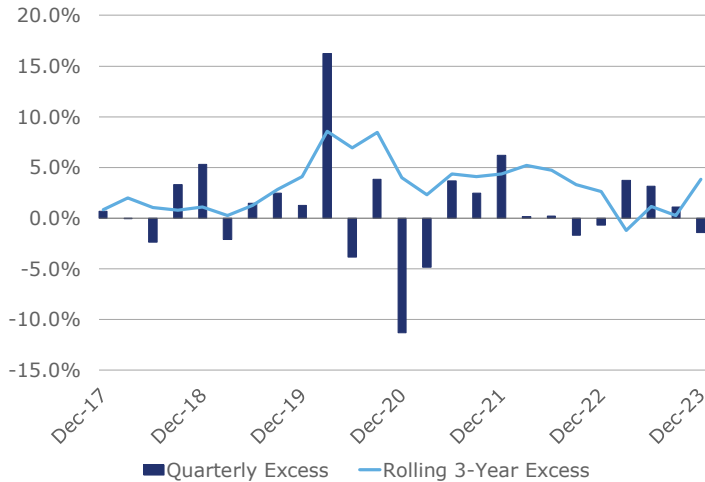
U.S. Equity Market

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	12.1	26.1	26.1	9.0	15.4	11.7
Wilshire U.S. Large Cap	11.9	27.3	27.3	9.5	15.9	12.2
Wilshire U.S. Small Cap	13.5	19.5	19.5	5.5	12.0	8.7
Wilshire U.S. Large Growth	14.7	46.1	46.1	8.7	19.2	n/a
Wilshire U.S. Large Value	9.1	11.1	11.1	10.0	12.2	n/a
Wilshire U.S. Small Growth	12.9	21.8	21.8	0.6	11.6	n/a
Wilshire U.S. Small Value	14.2	17.2	17.2	10.3	12.1	n/a
Wilshire REIT Index	16.3	16.1	16.1	7.5	7.6	7.7
MSCI USA Min. Vol. Index	7.8	9.8	9.8	6.5	10.3	10.4
FTSE RAFI U.S. 1000 Index	11.2	16.1	16.1	12.3	14.3	10.4

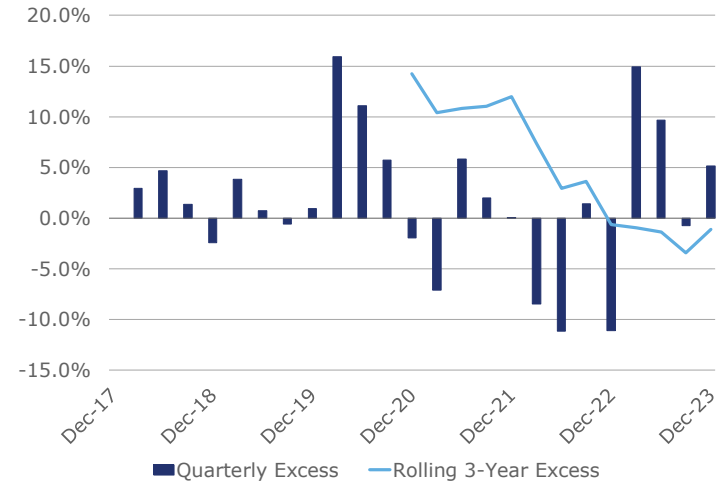
U.S. Sector Weight and Return (%)



Large Cap vs Small Cap



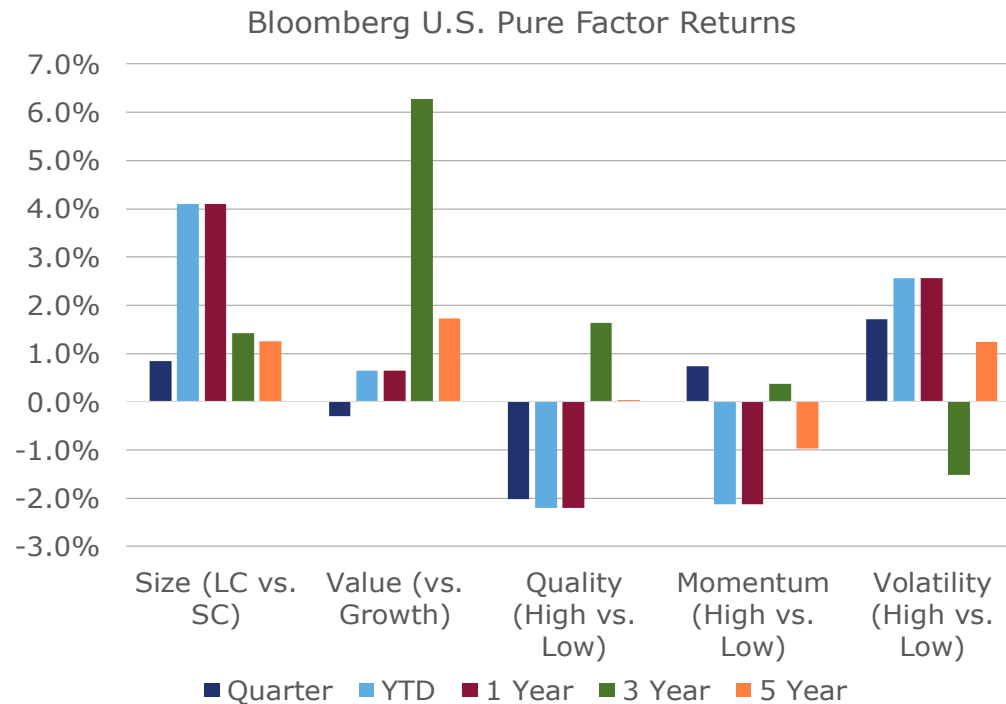
Large Growth vs Large Value



Data Sources: Bloomberg, Wilshire Atlas

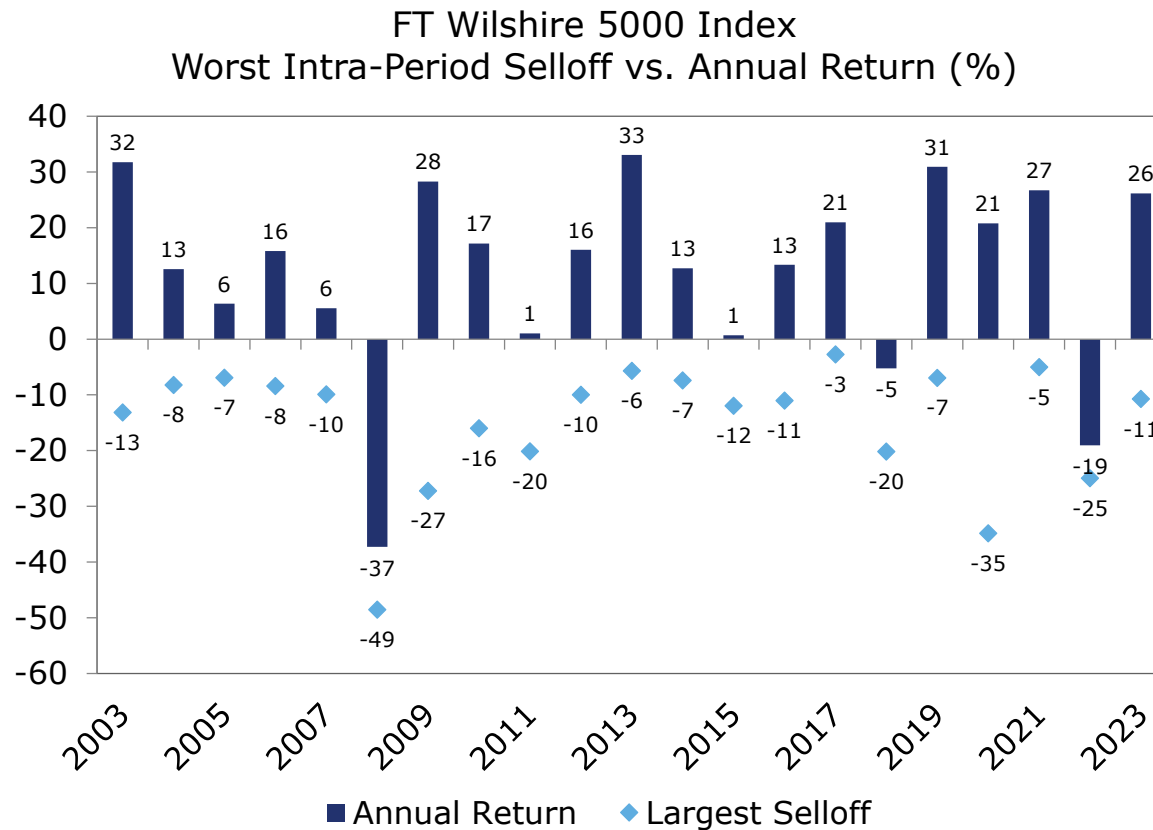
U.S. Factor Returns

- Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module
- Large cap and high volatility have mostly outperformed this year



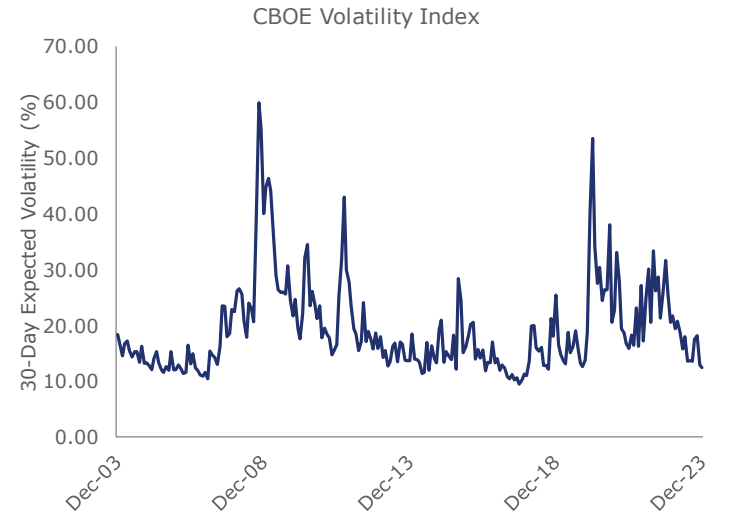
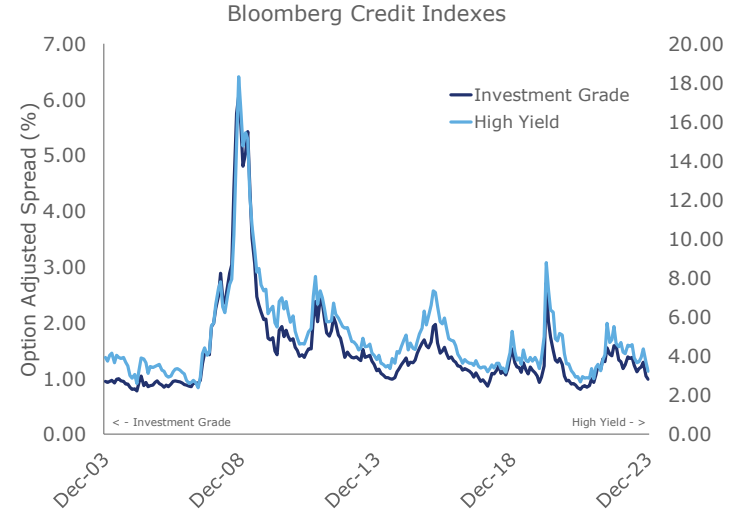
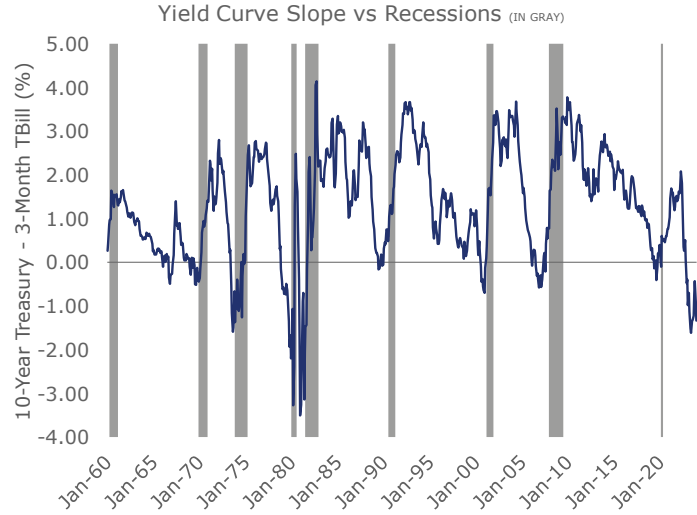
Annual Equity Market Selloffs

U.S. equity suffered a meaningful selloff in Feb.-Mar. but generally rebounded strongly from 2022



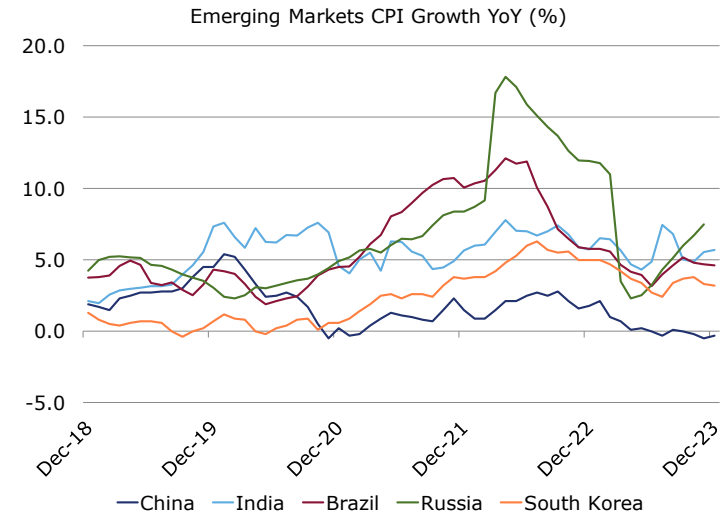
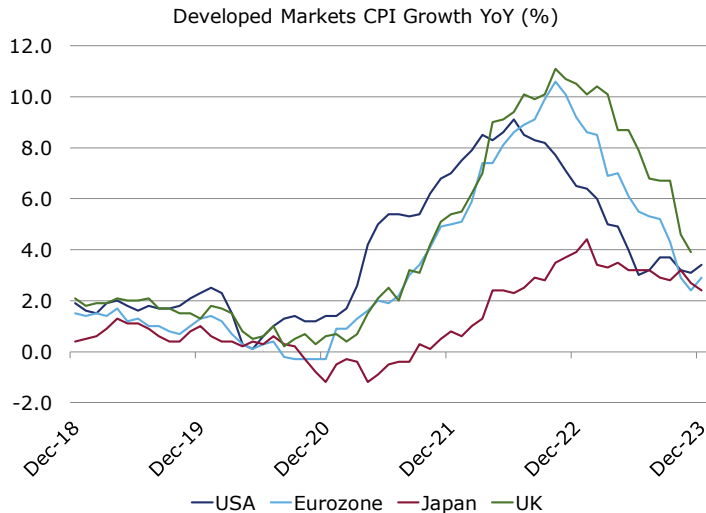
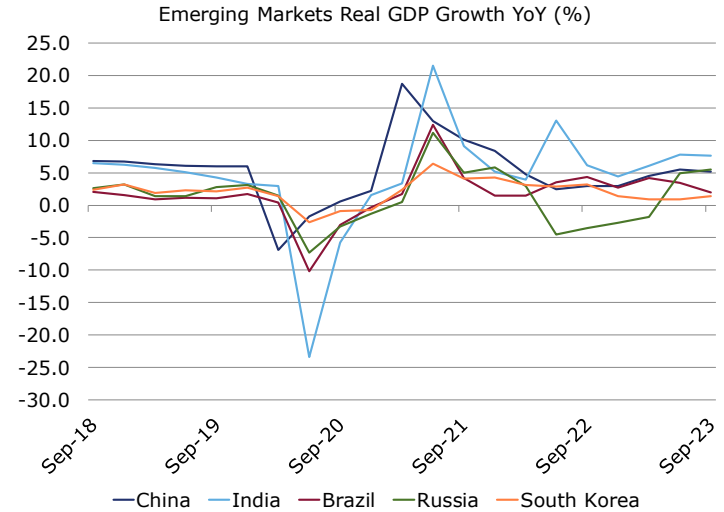
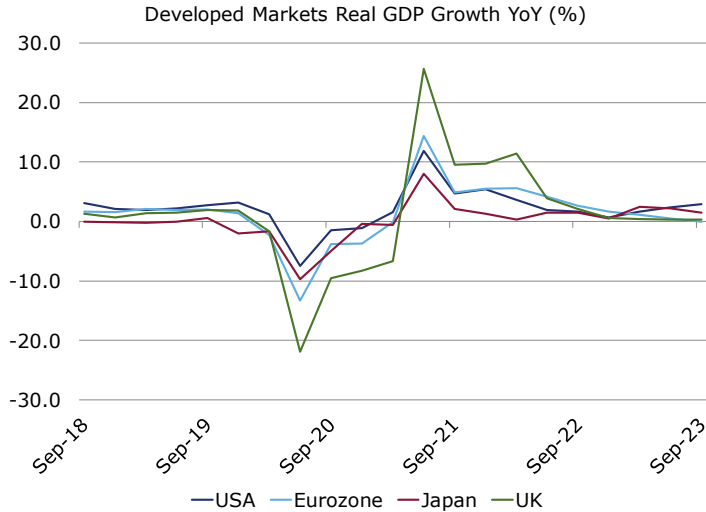
Data Sources: Wilshire Web, Bloomberg

Risk Monitor



Data Sources: Bloomberg

Non-U.S. Growth and Inflation

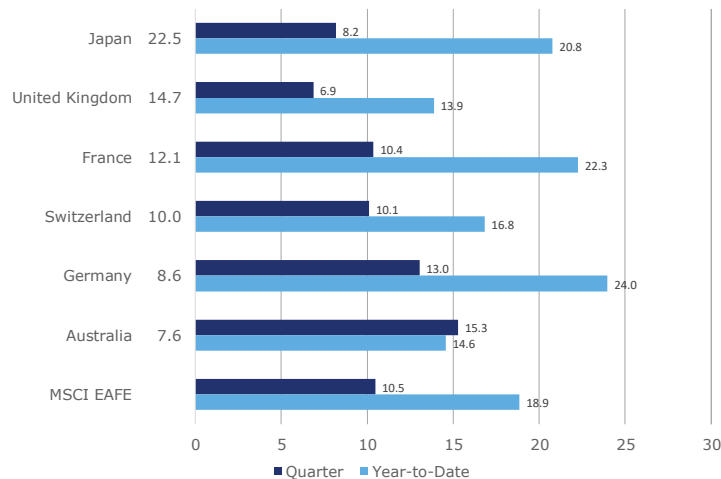


Data Sources: Bloomberg

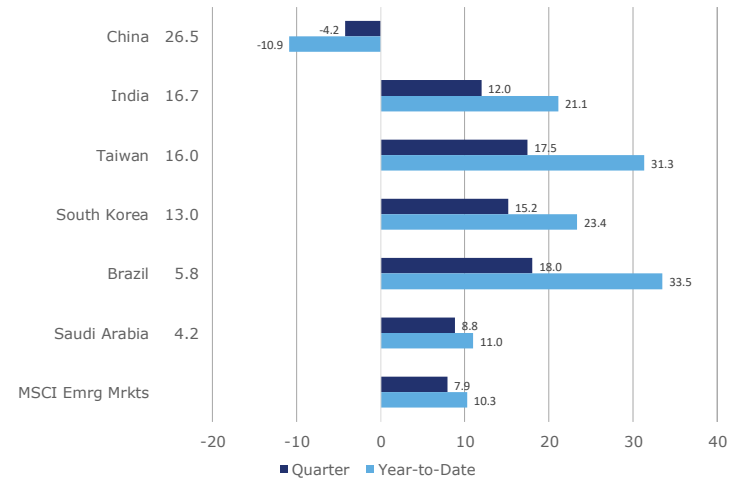
Non-U.S. Equity Market

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	9.8	16.2	16.2	2.0	7.6	4.3
MSCI EAFE (\$G)	10.5	18.9	18.9	4.5	8.7	4.8
MSCI Emerging Markets (\$G)	7.9	10.3	10.3	-4.7	4.1	3.0
MSCI Frontier Markets (\$G)	7.6	12.5	12.5	-1.1	1.6	0.9
MSCI ACWI ex-US Growth (\$G)	11.2	14.4	14.4	-2.4	7.8	4.9
MSCI ACWI ex-US Value (\$G)	8.7	18.1	18.1	6.4	7.2	3.8
MSCI ACWI ex-US Small (\$G)	10.2	16.2	16.2	2.0	8.4	5.3
MSCI ACWI Minimum Volatility	6.6	8.4	8.4	3.8	7.1	7.5
MSCI EAFE Minimum Volatility	7.3	12.4	12.4	1.1	4.1	4.7
FTSE RAFI Developed ex-US	9.5	19.0	19.0	7.7	8.8	4.5
MSCI EAFE LC (G)	5.0	16.8	16.8	9.2	10.0	7.1
MSCI Emerging Markets LC (G)	5.6	10.3	10.3	-2.1	5.8	5.6

Developed Markets Weight and Return (%)



Emerging Markets Weight and Return (%)

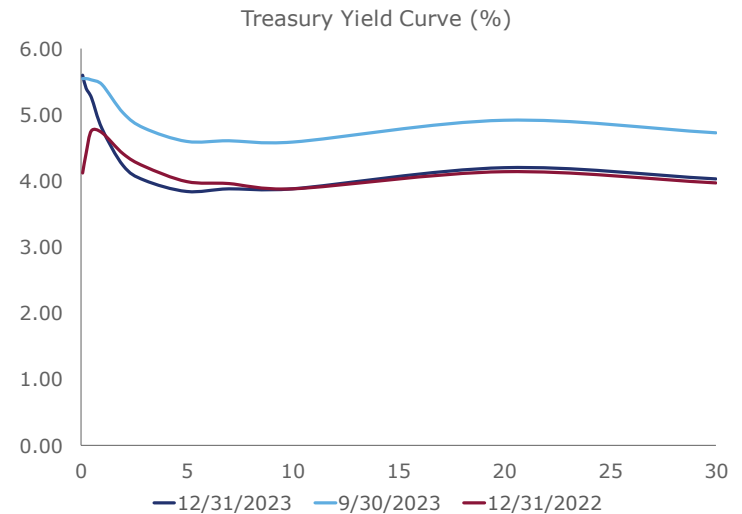
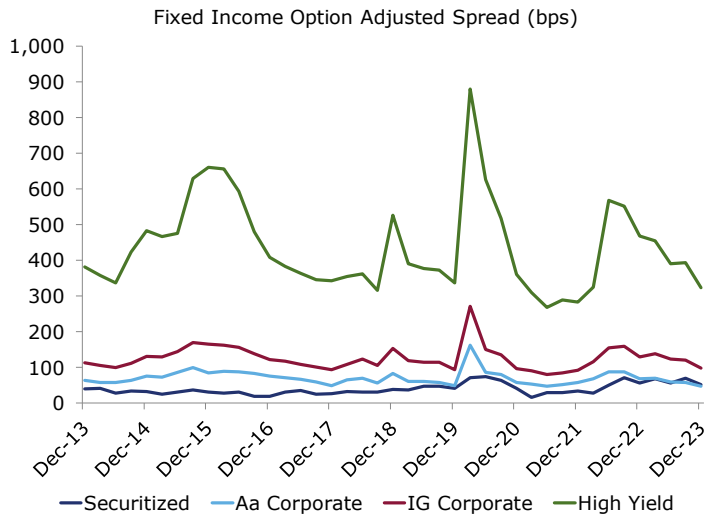


Data Sources: Bloomberg

U.S. Fixed Income

As of 12/31/2023	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.5	6.2	6.8	5.5	5.5	-3.3	1.1	1.8
Bloomberg Treasury	4.1	6.2	5.7	4.1	4.1	-3.8	0.5	1.3
Bloomberg Gov't-Rel.	4.6	5.3	5.5	5.8	5.8	-2.4	1.4	2.0
Bloomberg Securitized	4.7	5.8	7.3	5.1	5.1	-2.8	0.4	1.4
Bloomberg Corporate	5.1	7.1	8.5	8.5	8.5	-3.3	2.6	3.0
Bloomberg LT Gov't/Credit	4.7	14.3	13.2	7.1	7.1	-8.7	1.1	3.2
Bloomberg LT Treasury	4.1	15.7	12.7	3.1	3.1	-11.4	-1.2	2.3
Bloomberg LT Gov't-Rel.	5.2	11.8	11.2	8.9	8.9	-6.1	1.5	3.5
Bloomberg LT Corporate	5.2	13.1	14.0	10.9	10.9	-6.6	2.9	3.9
Bloomberg U.S. TIPS *	3.9	7.3	4.7	3.9	3.9	-1.0	3.2	2.4
Bloomberg High Yield	7.6	3.2	7.2	13.4	13.4	2.0	5.4	4.6
S&P/LSTA Leveraged Loan	9.4	0.3	2.9	13.3	13.3	5.8	5.8	4.4
Treasury Bills	5.2	0.3	1.4	5.1	5.1	2.1	1.9	1.3

* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

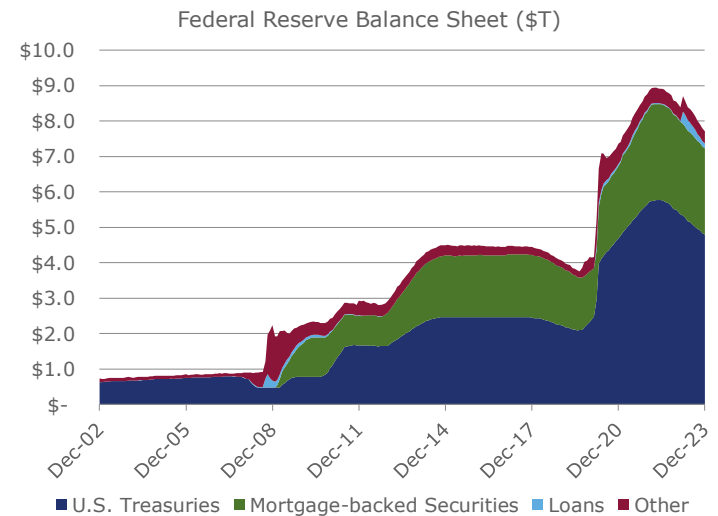
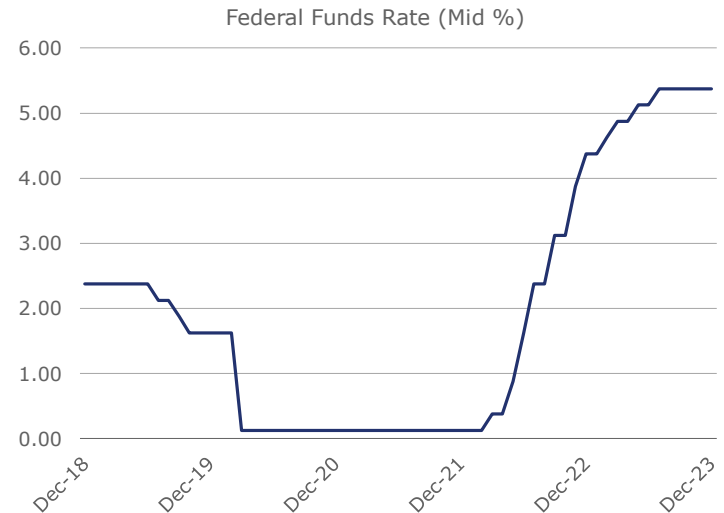


Data Sources: Bloomberg

Federal Reserve

- The Federal Open Market Committee has left their overnight rate unchanged since July of 2023
- QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis
- The Fed’s balance sheet has begun to shrink again during the past nine months

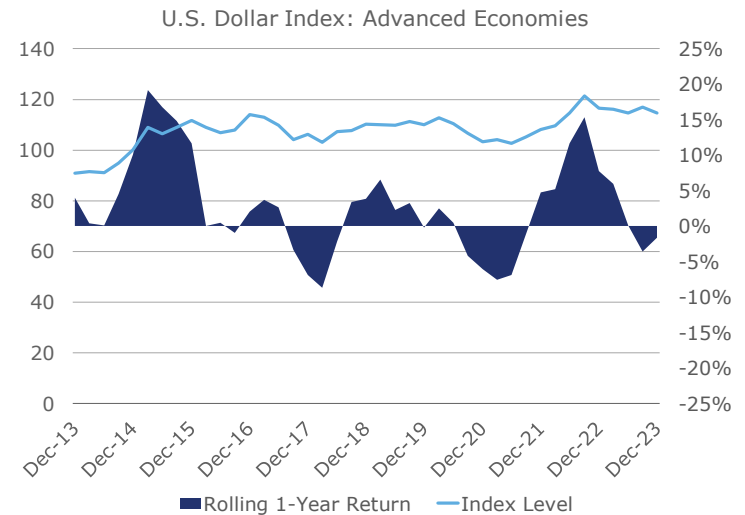
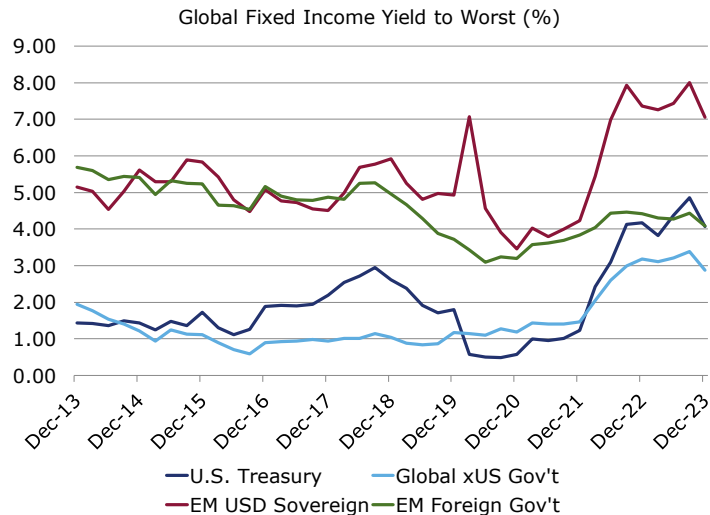
	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020	3/15/2022	\$4,779



Non-U.S. Fixed Income

As of 12/31/2023	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	9.2	5.7	5.7	-7.2	-1.6	-0.8
Bloomberg Global Aggregate xUS *	5.4	8.3	8.3	-1.2	1.5	2.8
Bloomberg Global Inflation Linked xUS	11.9	7.4	7.4	-8.7	-1.4	-0.2
Bloomberg Global Inflation Linked xUS *	7.6	5.3	5.3	-4.5	0.4	3.3
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	8.1	9.1	9.1	-3.1	1.8	3.0
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	7.0	6.9	6.9	-1.2	2.1	1.3
Bloomberg EM Local Currency Gov't *	3.9	8.6	8.6	1.4	3.1	3.0
Euro vs. Dollar	4.4	3.1	3.1	-3.3	-0.8	-2.2
Yen vs. Dollar	5.9	-7.0	-7.0	-9.9	-4.9	-2.9
Pound vs. Dollar	4.4	5.4	5.4	-2.3	0.0	-2.6

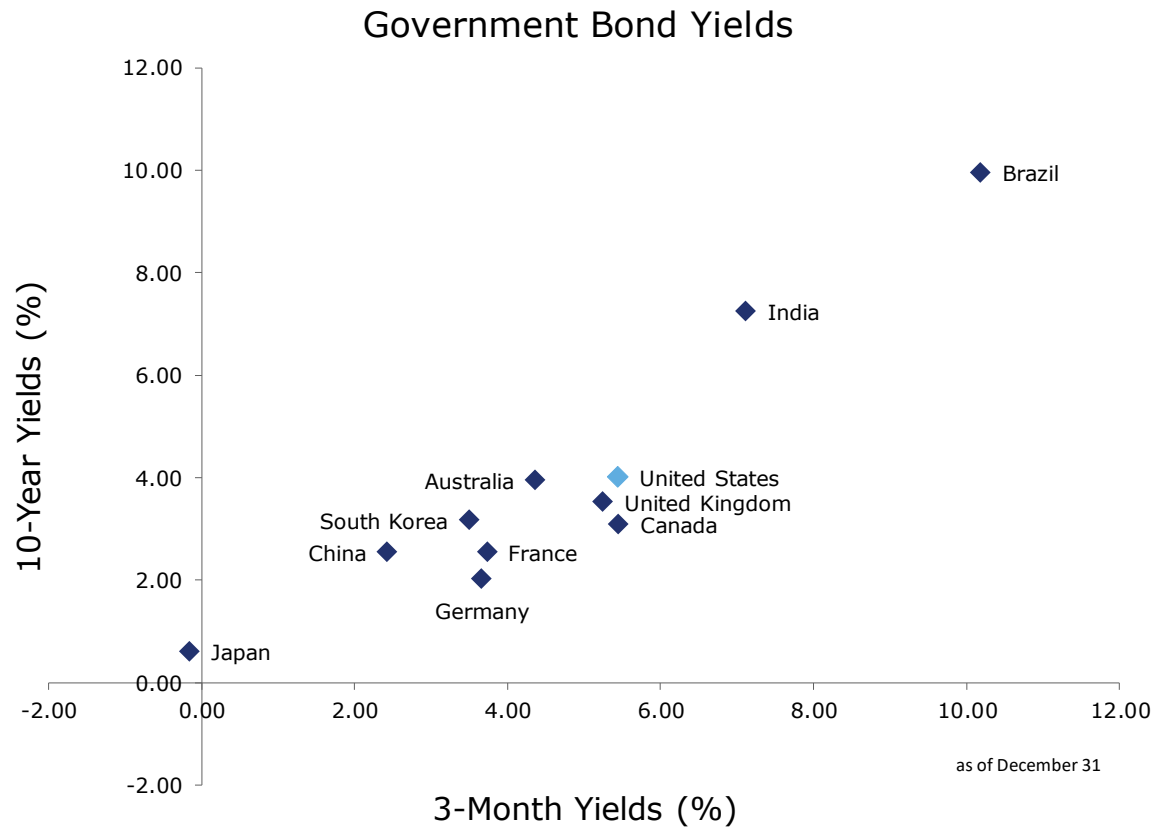
* Returns are reported in terms of local market investors, which removes currency effects.



Data Sources: Bloomberg

Global Interest Rates

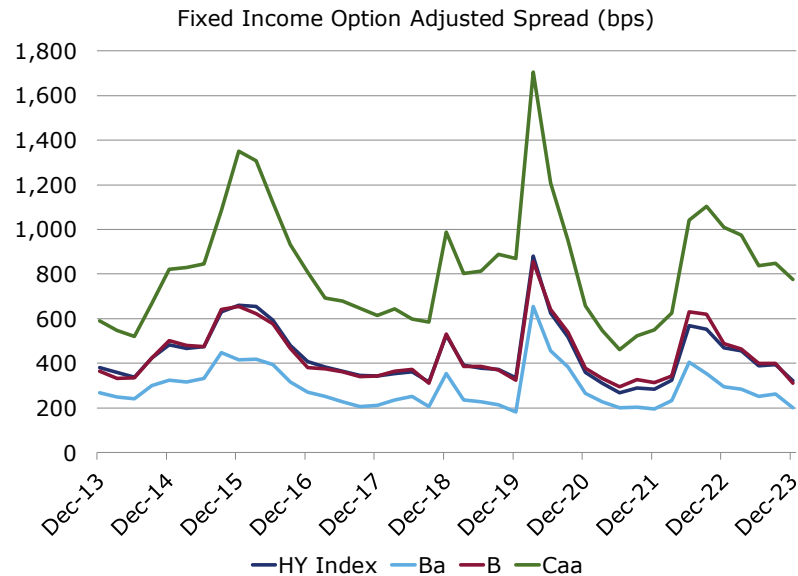
Short-term rates have turned positive in most larger countries; longer-term rates near 4.0% in the U.K. and Australia



High Yield Bond Market

As of 12/31/2023

	YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield	7.6	7.2	13.4	13.4	2.0	5.4	4.6
S&P LSTA Leveraged Loan	9.4	3.2	13.2	13.2	5.2	5.8	4.0
High Yield Quality Distribution	Weight						
Ba U.S. High Yield	46.1%	6.3	7.4	11.6	11.6	1.4	5.0
B U.S. High Yield	41.1%	7.5	7.0	13.8	13.8	2.3	4.2
Caa U.S. High Yield	11.7%	12.1	6.9	19.8	19.8	2.9	4.0
Ca to D U.S. High Yield	1.1%	15.3	5.1	16.4	16.4	5.5	-4.0



Data Sources: Bloomberg

Asset Class Performance

Asset Class Returns - Best to Worst

2018	2019	2020	2021	2022	2023 YTD	Annualized 5-Year as of 12/23
T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 26.1%	U.S. Equity 15.4%
Core Bond 0.0%	REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Developed 18.9%	Developed 8.7%
U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 16.1%	REITs 7.6%
High Yield -2.1%	Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 13.4%	Commodities 6.1%
REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	Emrg Mrkts 10.3%	High Yield 5.4%
U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Core Bond 5.5%	Emrg Mrkts 4.1%
Commodities -11.2%	U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 5.1%	U.S. TIPS 3.2%
Developed -13.4%	Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	U.S. TIPS 3.9%	T-Bills 1.9%
Emrg Mrkts -14.2%	T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Commodities -1.3%	Core Bond 1.1%

Data Sources: Bloomberg Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

Grand Rapids Police & Fire Retirement System

Total Fund

Asset Allocation Compliance

Total Fund

Periods Ended As of December 31, 2023

Executive Summary

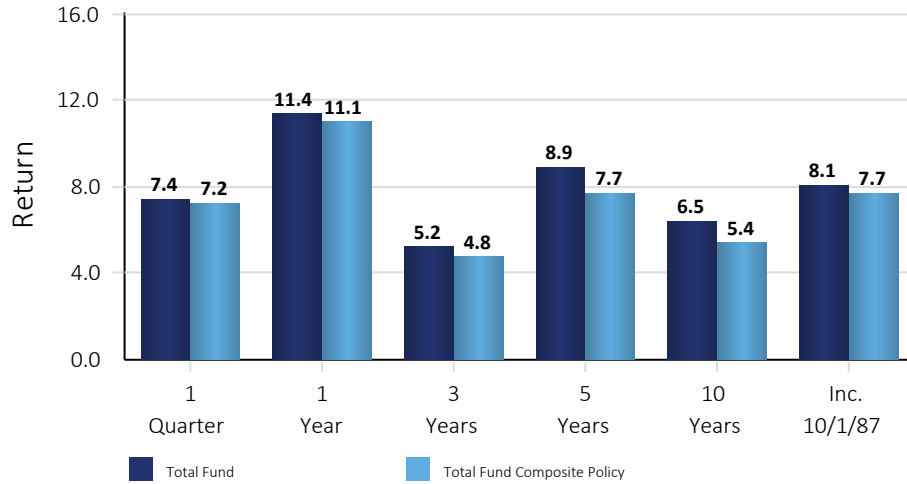
Asset Class	Current Allocation		Policy (%)	Difference to Target	
	(\$000)	(%)		(\$000)	(%)
Domestic Equity	91,240	18.5	17.8	3,831	0.8
International Equity	85,679	17.4	17.8	(1,730)	(0.4)
Private Equity	33,281	6.8	5.0	8,658	1.8
Total Growth Assets	210,200	42.7	40.5	10,760	2.2
Global Low Volatility Equity	49,715	10.1	10.0	471	0.1
Private Credit	21,126	4.3	5.0	(3,496)	(0.7)
Total Defensive Growth Assets	70,842	14.4	15.0	(3,025)	(0.6)
Core Fixed Income	115,448	23.4	24.5	(5,201)	(1.1)
Cash & Equivalents	1,764	0.4	0.0	1,764	0.4
Total Defensive Assets	117,212	23.8	24.5	(3,437)	(0.7)
U.S. TIPS	21,863	4.4	5.0	(2,760)	(0.6)
U.S. REITs	24,733	5.0	5.0	111	0.0
Commodities	23,470	4.8	5.0	(1,153)	(0.2)
Midstream Energy Infrastructure	24,127	4.9	5.0	(496)	(0.1)
Total Inflation Oriented Assets	94,192	19.1	20.0	(4,297)	(0.9)
Total Fund Assets	492,446	100.0	100.0	-	0.0

Composite Performance Summary

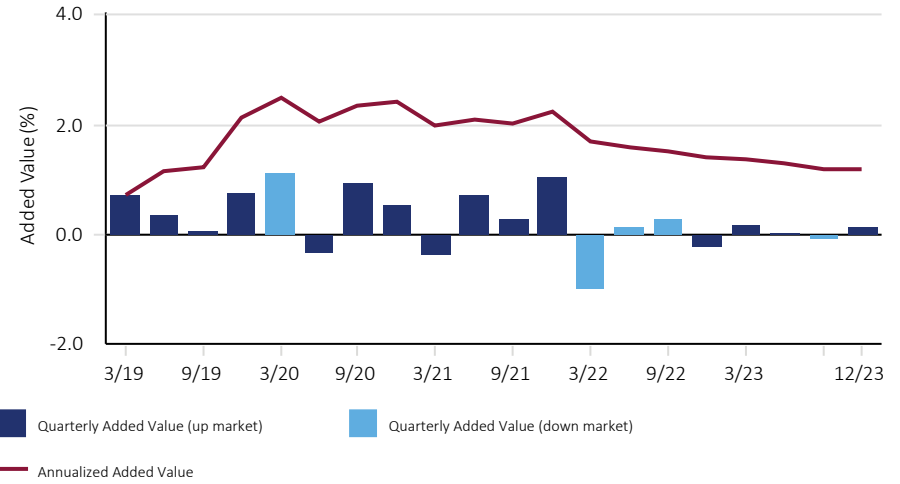
Total Fund

Periods Ended December 31, 2023

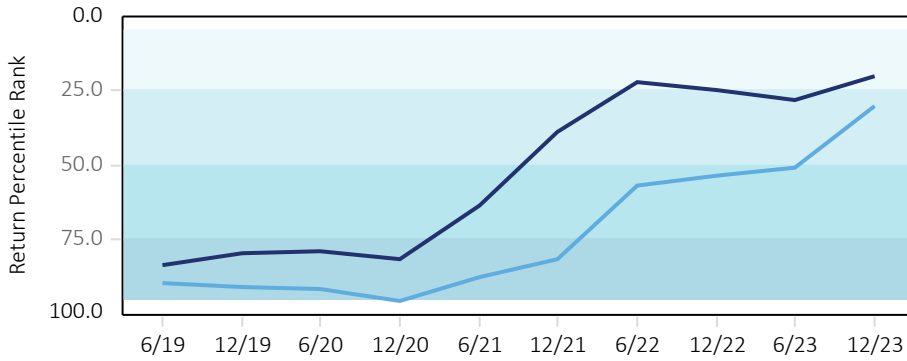
Comparative Performance



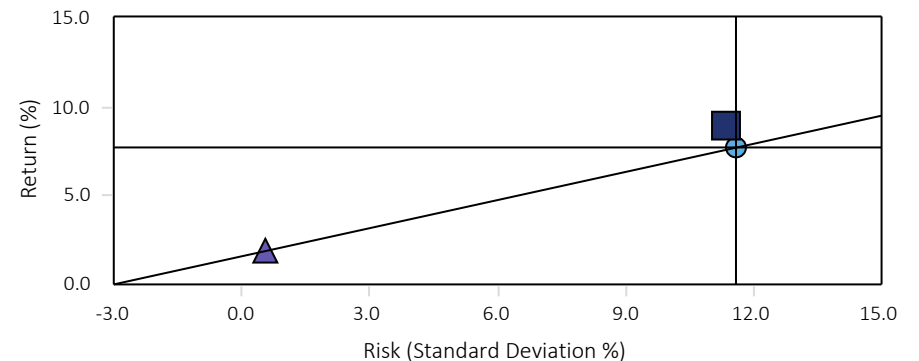
Added Value History



Rolling Percentile Rank: All Public Plans-Total Fund



Risk and Return 01/1/19 - 12/31/23



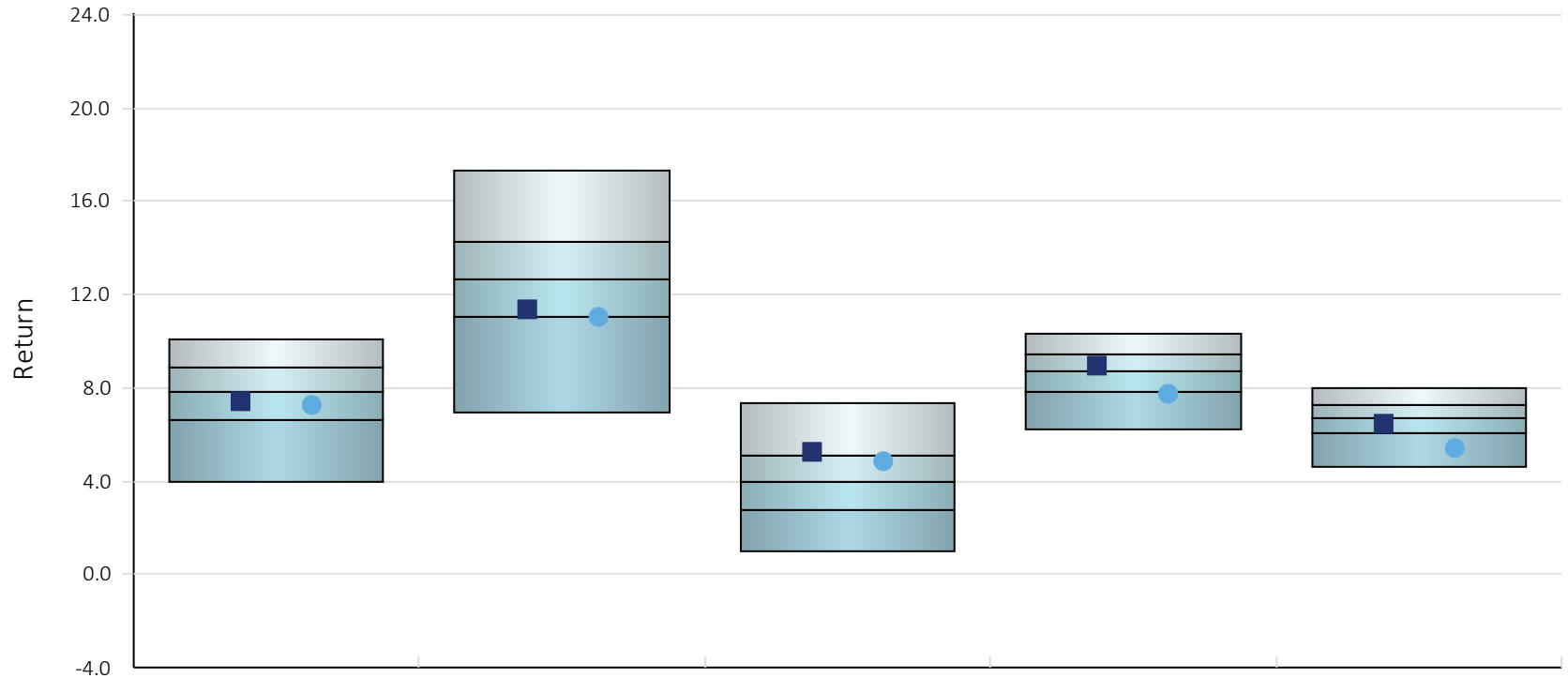
	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
— Total Fund	10	3 (30%)	2 (20%)	1 (10%)	4 (40%)
— Benchmark	10	0 (0%)	1 (10%)	3 (30%)	6 (60%)



Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans-Total Fund

Periods Ended December 31, 2023



	QTD	1 Year	3 Years	5 Years	10 Years
■ Total Fund	7.40 (61)	11.38 (70)	5.25 (20)	8.91 (45)	6.48 (60)
● Total Fund Composite Policy	7.24 (64)	11.07 (75)	4.82 (30)	7.73 (78)	5.45 (88)
5th Percentile	10.08	17.34	7.38	10.33	7.98
1st Quartile	8.86	14.25	5.06	9.40	7.27
Median	7.85	12.69	3.96	8.69	6.74
3rd Quartile	6.64	11.07	2.75	7.85	6.08
95th Percentile	3.99	6.96	0.97	6.24	4.62
Population	500	463	425	409	364

Gross of Fees

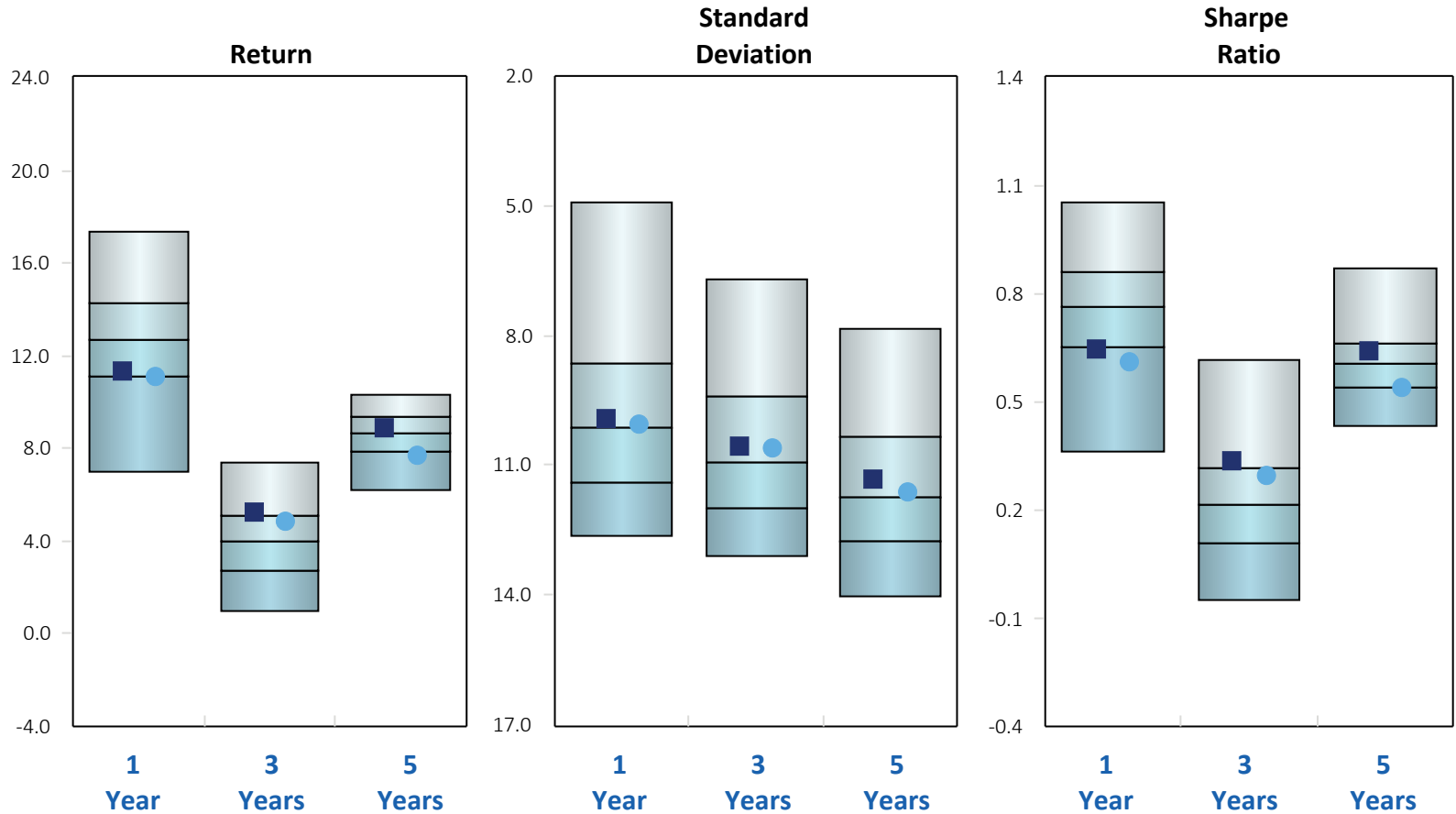
Parentheses contain percentile rankings.

Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

Total Fund vs All Public Plans-Total Fund

Periods Ended December 31, 2023



	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years	1 Year	3 Years	5 Years
■ Total Fund	11.38 (70)	5.25 (20)	8.91 (45)	9.91 (45)	10.54 (41)	11.33 (40)	0.65 (77)	0.34 (24)	0.64 (31)
● Total Fund Composite Policy	11.07 (75)	4.82 (30)	7.73 (78)	10.06 (47)	10.61 (42)	11.60 (47)	0.61 (84)	0.30 (31)	0.54 (77)
5th Percentile	17.34	7.38	10.33	4.91	6.70	7.83	1.05	0.62	0.87
1st Quartile	14.25	5.06	9.40	8.64	9.41	10.36	0.86	0.32	0.66
Median	12.69	3.96	8.69	10.16	10.95	11.76	0.76	0.21	0.61
3rd Quartile	11.07	2.75	7.85	11.43	12.00	12.75	0.65	0.11	0.54
95th Percentile	6.96	0.97	6.24	12.65	13.10	14.02	0.36	-0.05	0.44

Gross of Fees

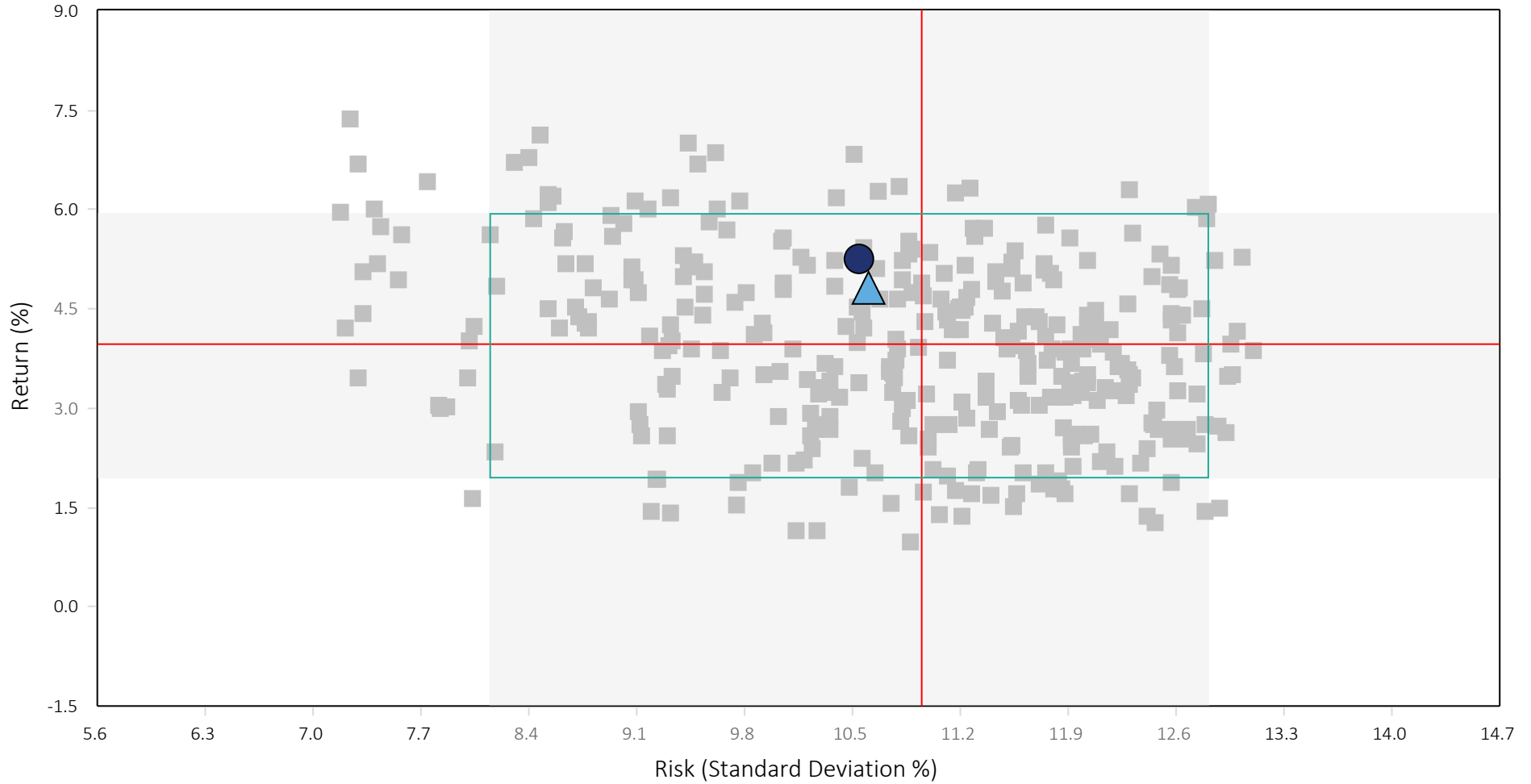
Parentheses contain percentile rankings.

Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended January 1, 2021 To December 31, 2023



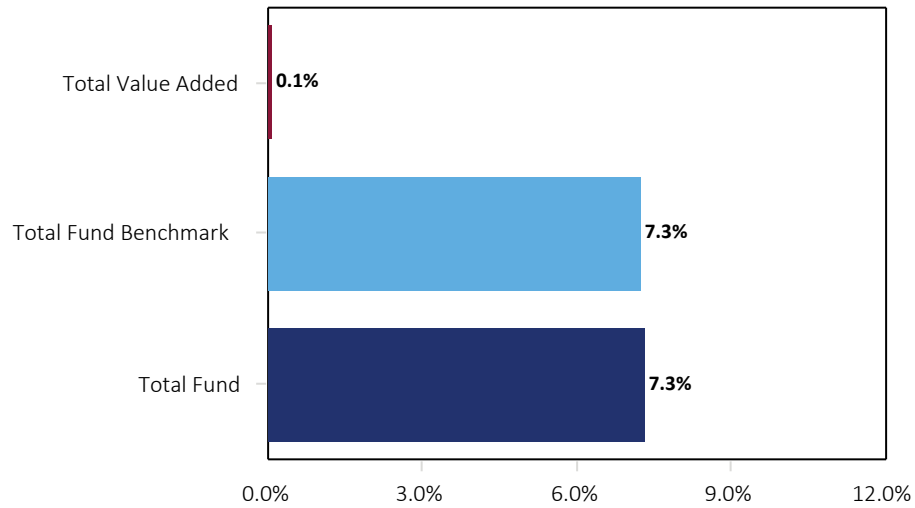
	Return	Standard Deviation
● Total Fund	5.25	10.54
▲ Total Fund Composite Policy	4.82	10.61
— Median	3.96	10.95

Total Fund Attribution

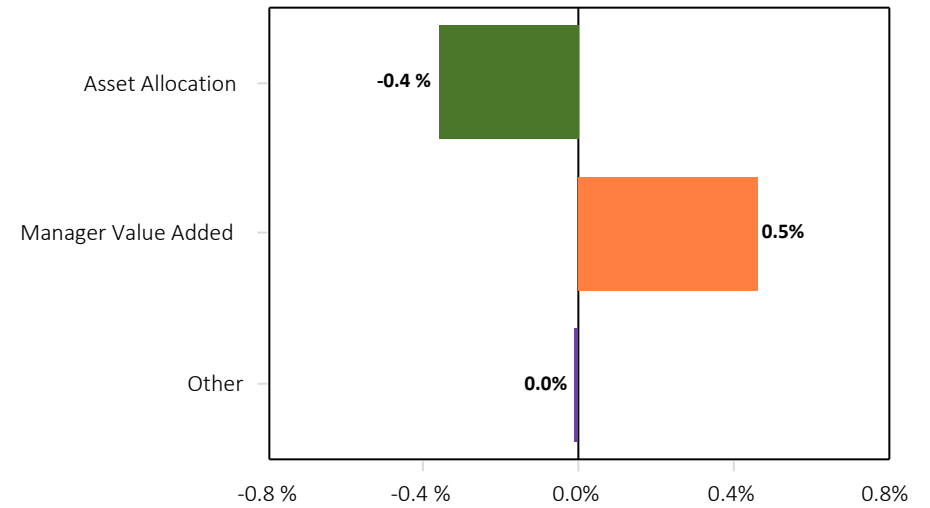
Total Fund

Periods Ended 1 Quarter Ending December 31, 2023

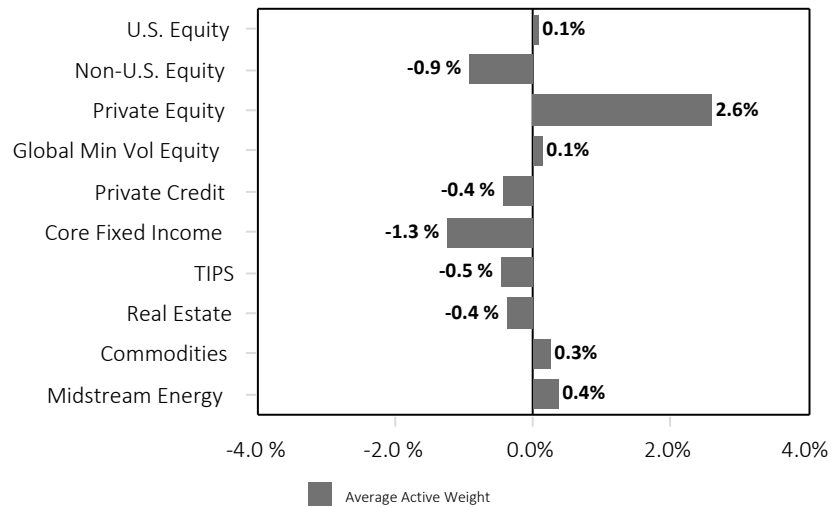
Total Fund Performance



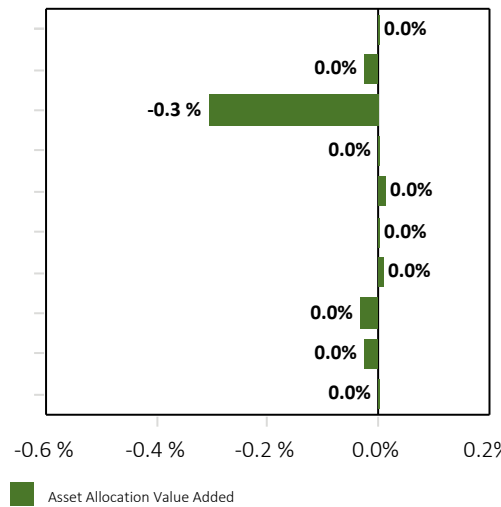
Total Value Added:0.1%



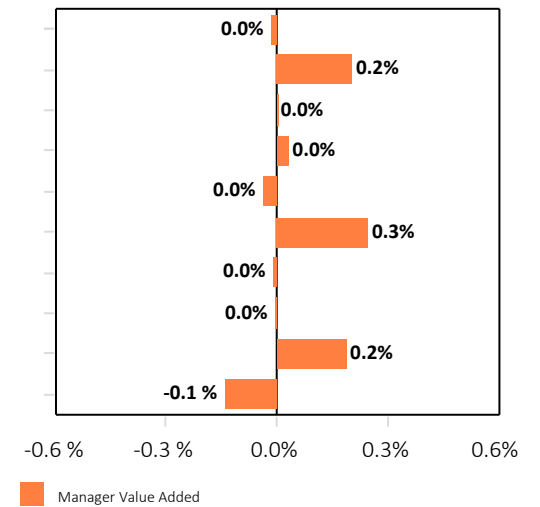
Total Asset Allocation:-0.4 %



Asset Allocation Value Added:-0.4 %



Total Manager Value Added:0.5%

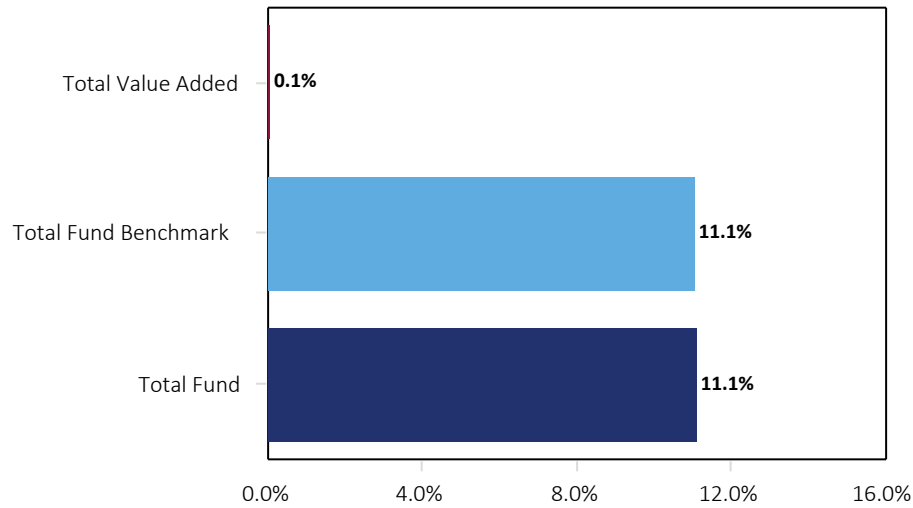


Total Fund Attribution

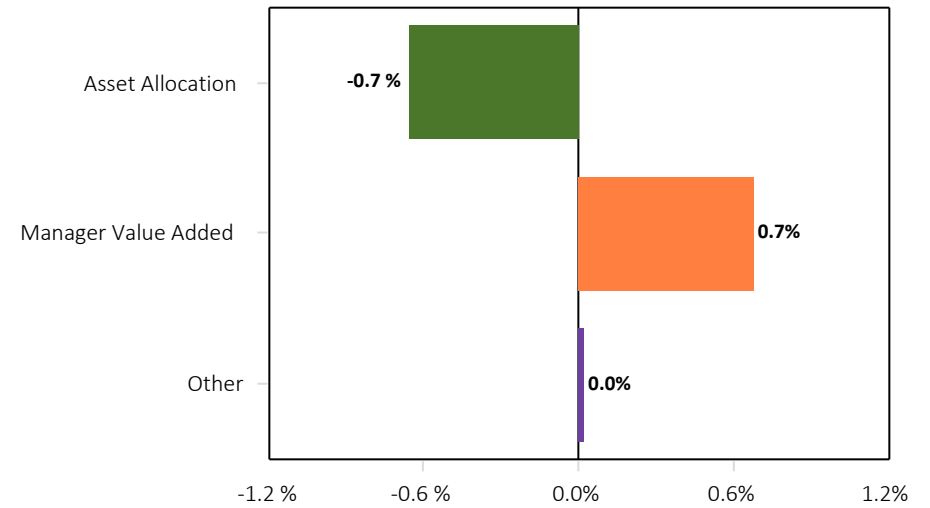
Total Fund

Periods Ended 1 Year Ending December 31, 2023

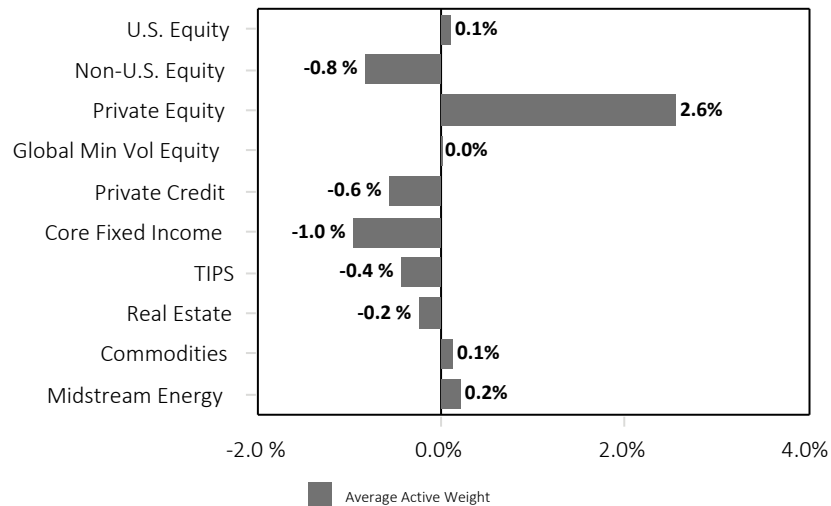
Total Fund Performance



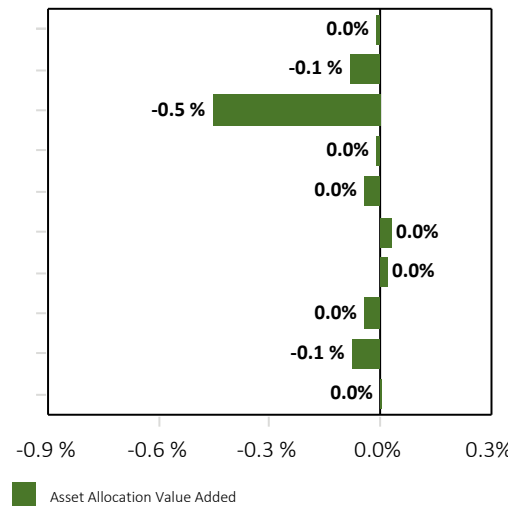
Total Value Added: 0.1%



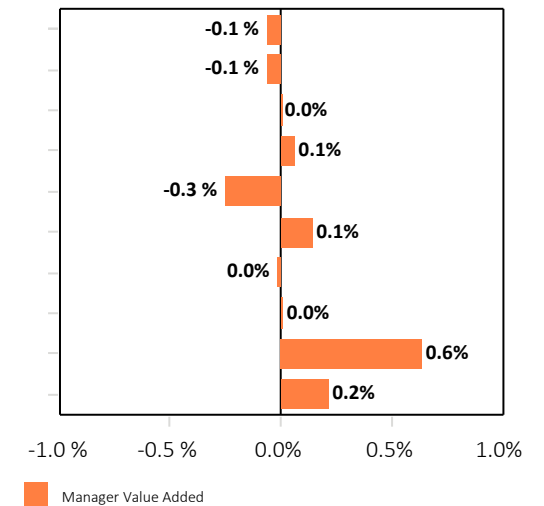
Total Asset Allocation: -0.7%



Asset Allocation Value Added: -0.7%



Total Manager Value Added: 0.7%

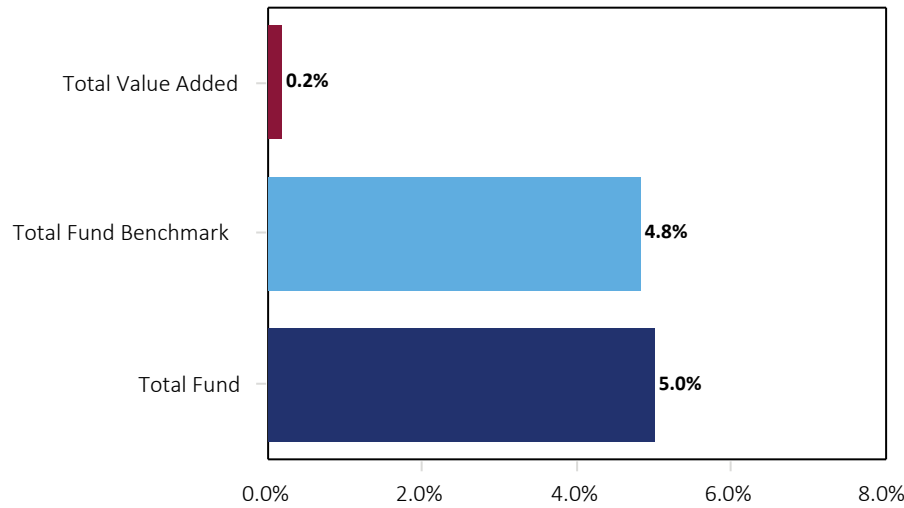


Total Fund Attribution

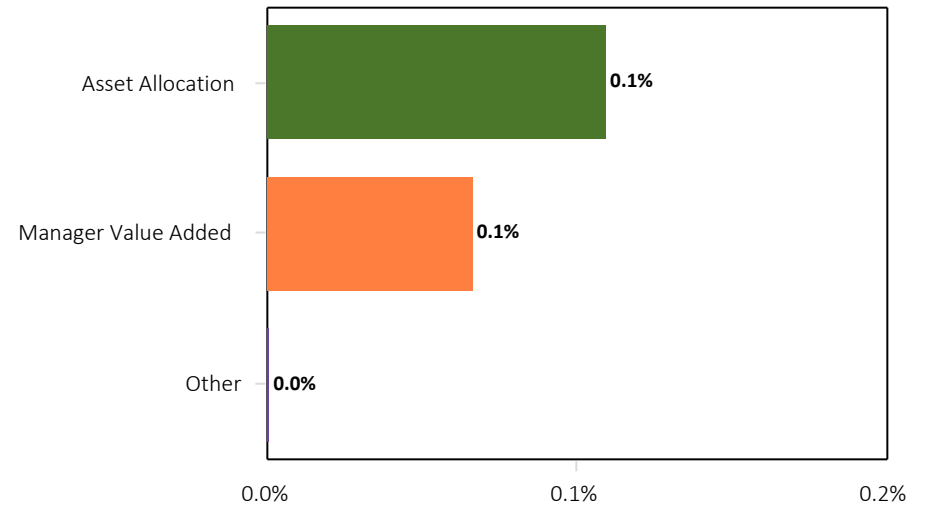
Total Fund

Periods Ended 3 Years Ending December 31, 2023

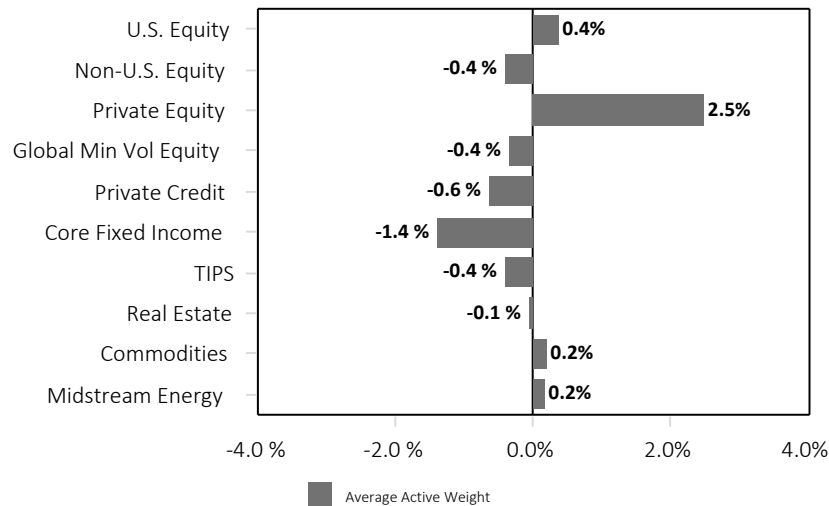
Total Fund Performance



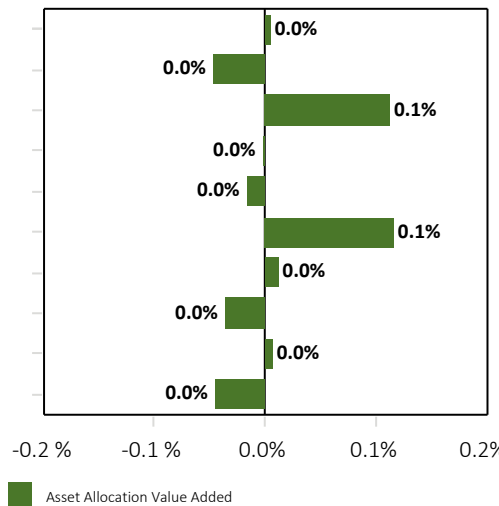
Total Value Added:0.2%



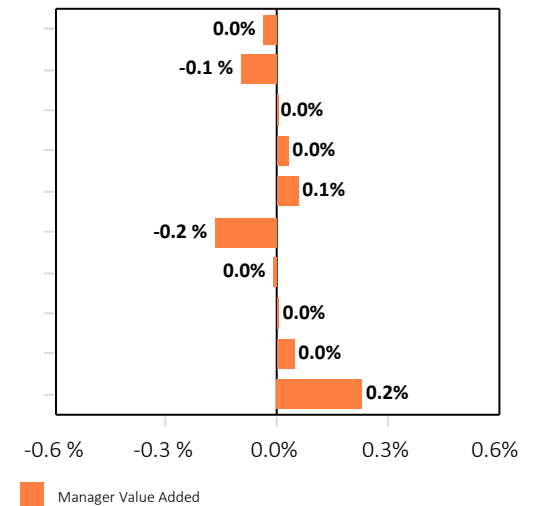
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:0.1%

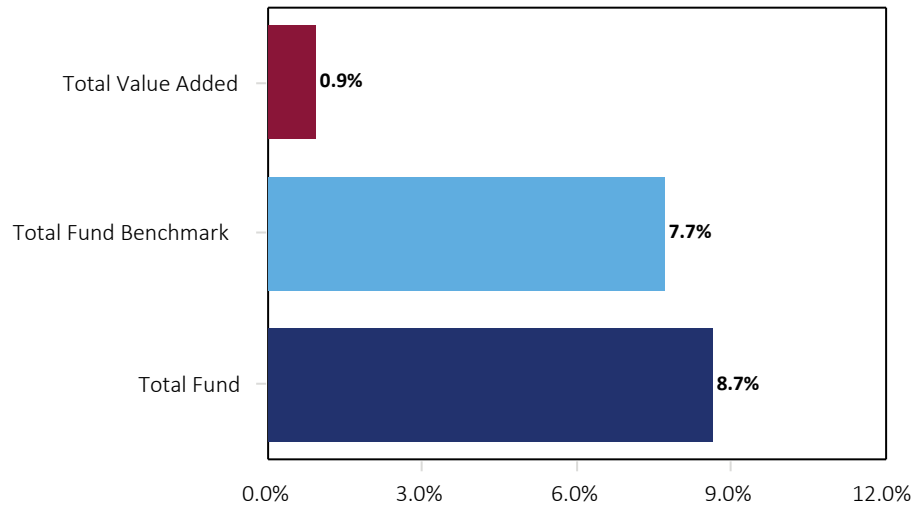


Total Fund Attribution

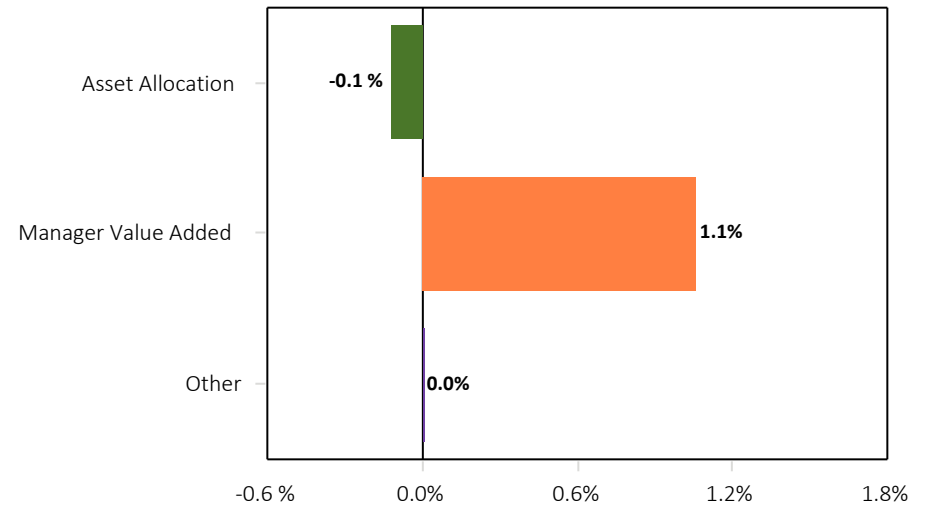
Total Fund

Periods Ended 5 Years Ending December 31, 2023

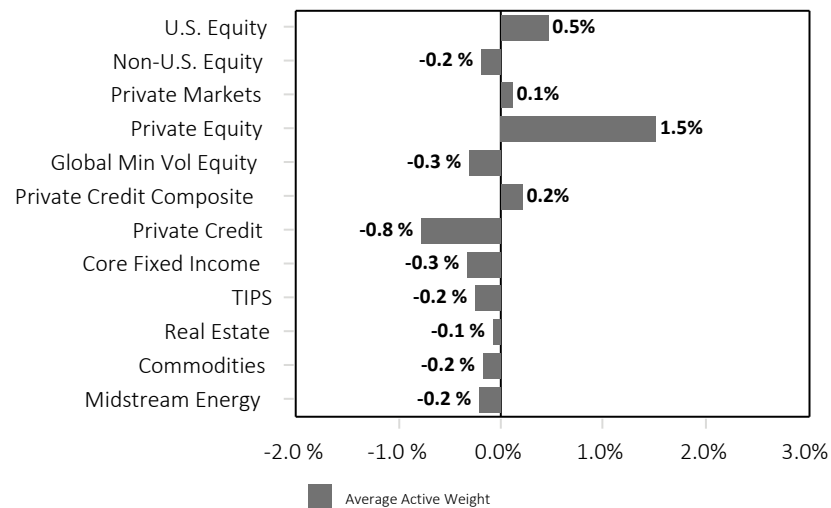
Total Fund Performance



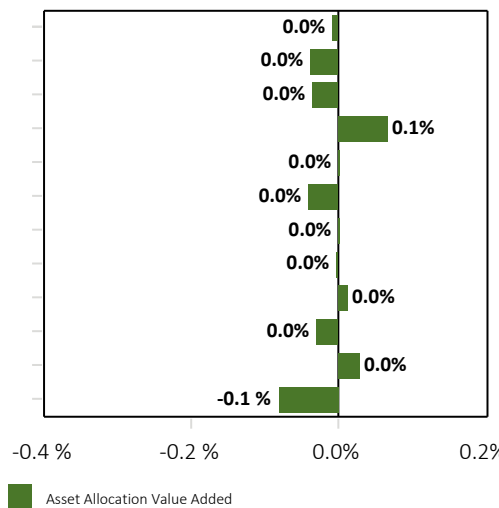
Total Value Added:0.9%



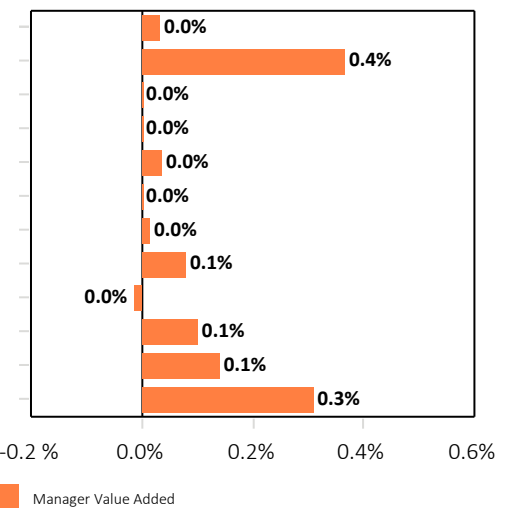
Total Asset Allocation:-0.1 %



Asset Allocation Value Added:-0.1 %



Total Manager Value Added:1.1%



Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Fund	492,446,000	100.00	7.34	11.13	5.01	8.67	7.20	6.23	7.92	10/1/1987
Total Fund Composite Policy			7.24	11.07	4.82	7.73	6.41	5.45	7.68	
Value Added			0.10	0.06	0.19	0.94	0.79	0.78	0.24	
U.S. Equity	91,240,272	18.53	12.00	25.74	8.77	15.50	12.96	11.75	10.00	10/1/1987
FT Wilshire 5000 Index			12.10	26.14	8.97	15.42	12.96	11.68	10.01	
Value Added			-0.10	-0.40	-0.20	0.08	0.00	0.07	-0.01	
Non-U.S. Equity	85,679,303	17.40	11.04	15.31	0.92	8.97	7.56	5.15	7.73	1/1/1990
International Equity Composite Policy			9.75	15.62	1.55	7.08	6.33	3.83	4.55	
Value Added			1.29	-0.31	-0.63	1.89	1.23	1.32	3.18	
Private Equity	33,280,710	6.76	-4.65	-4.88	17.87	16.58	16.85	15.13	11.83	5/1/2010
Private Equity Policy Index			-4.65	-4.88	17.87	16.58	16.85	15.13	11.83	
Value Added			0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Global Low Volatility Equity	49,715,107	10.10	6.78	8.34	3.61				5.33	6/1/2019
MSCI AC World Minimum Volatility Index (Net)			6.48	7.74	3.26				4.94	
Value Added			0.30	0.60	0.35				0.39	
Private Credit	21,126,480	4.29	1.98	7.59	7.26	5.36			4.99	10/1/2018
Morningstar LSTA U.S. Leveraged Loan			2.87	13.32	5.76	5.80			4.81	
Value Added			-0.89	-5.73	1.50	-0.44			0.18	
Core Fixed Income	115,447,798	23.44	7.90	6.14	-3.93	1.44	1.72	2.42	5.95	10/1/1987
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	1.29	1.81	5.56	
Value Added			1.08	0.61	-0.62	0.34	0.43	0.61	0.39	

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Real Assets Composite	94,191,871	19.13	5.67	9.90	11.96	8.97	5.59		3.86	4/1/2015
Real Assets Composite Policy			5.36	8.96	12.48	8.34	5.34		3.71	
Value Added			0.31	0.94	-0.52	0.63	0.25		0.15	
TIPS	21,862,700	4.44	4.53	3.53	-1.27	2.87	2.21		1.94	5/1/2015
Blmbg. U.S. TIPS Index			4.71	3.90	-1.00	3.15	2.49		2.12	
Value Added			-0.18	-0.37	-0.27	-0.28	-0.28		-0.18	
Real Estate	24,732,801	5.02	16.23	14.21	7.33	7.39	5.40	5.05	7.91	6/1/2009
Real Estate Policy Index			16.35	13.96	7.18	5.29	4.35	4.81	8.03	
Value Added			-0.12	0.25	0.15	2.10	1.05	0.24	-0.12	
Commodities	23,469,682	4.77	-1.08	3.08	12.38	10.96	6.99	1.53	-0.12	2/1/2013
Bloomberg Commodity Index Total Return			-4.63	-7.91	10.76	7.23	3.59	-1.11	-2.13	
Value Added			3.55	10.99	1.62	3.73	3.40	2.64	2.01	
S&P GSCI Equal Weight Index			-2.16	0.22	12.01	9.59	6.75	1.29	-0.34	
Value Added			1.08	2.86	0.37	1.37	0.24	0.24	0.22	
Midstream Energy Composite	24,126,689	4.90	3.79	18.35	29.30	12.56	5.64		2.30	3/1/2015
Midstream Energy Policy Index			6.45	14.02	24.25	5.74	-0.05		-4.15	
Value Added			-2.66	4.33	5.05	6.82	5.69		6.45	

Historical Hybrid Composition

Grand Rapids General Retirement System

Periods Ended December 31, 2023

Policy Index	Weight (%)
Jan-1976	
FT Wilshire 5000 Index	55.00
Blmbg. U.S. Aggregate Index	40.00
MSCI EAFE (Net)	5.00
Jul-1998	
FT Wilshire 5000 Index	50.00
Blmbg. U.S. Aggregate Index	40.00
MSCI EAFE (Net)	10.00
Oct-2002	
FT Wilshire 5000 Index	50.00
Blmbg. U.S. Aggregate Index	35.00
MSCI EAFE (Net)	15.00
Apr-2006	
FT Wilshire 5000 Index	55.00
Blmbg. U.S. Aggregate Index	30.00
MSCI EAFE (Net)	15.00
Jul-2006	
FT Wilshire 5000 Index	55.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
Jul-2009	
FT Wilshire 5000 Index	50.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
FTSE EPRA/NAREIT Developed Index (Net)	5.00

Policy Index	Weight (%)
Apr-2010	
FT Wilshire 5000 Index	50.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
FTSE EPRA/NAREIT Developed Index (Net)	5.00
May-2010	
FT Wilshire 5000 Index	45.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity	5.00
Jul-2010	
FT Wilshire 5000 Index	45.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity Policy Index	5.00
Jan-2013	
FT Wilshire 5000 Index	40.00
Blmbg. U.S. Aggregate Index	30.00
MSCI AC World ex USA (Net)	15.00
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity Policy Index	5.00
Bloomberg Commodity Index Total Return	5.00

Historical Hybrid Composition

Grand Rapids General Retirement System

Periods Ended December 31, 2023

Policy Index	Weight (%)
Apr-2015	
FT Wilshire 5000 Index	22.50
Blmbg. U.S. Aggregate Index	25.00
MSCI AC World ex USA (Net)	22.50
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity Policy Index	5.00
Bloomberg Commodity Index Total Return	5.00
S&P MLP Index	5.00
Blmbg. U.S. TIPS Index	10.00
Dec-2018	
FT Wilshire 5000 Index	22.50
Blmbg. U.S. Aggregate Index	25.00
MSCI AC World ex USA (Net)	22.50
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity Policy Index	5.00
Bloomberg Commodity Index Total Return	5.00
S&P MLP Index	5.00
Blmbg. U.S. TIPS Index	10.00

Policy Index	Weight (%)
Jul-2019	
FT Wilshire 5000 Index	17.75
Blmbg. U.S. Aggregate Index	24.50
MSCI AC World ex USA (Net)	17.75
FTSE EPRA/NAREIT Developed Index (Net)	5.00
Private Equity Policy Index	5.00
Bloomberg Commodity Index Total Return	5.00
Alerian MLP Index	5.00
Blmbg. U.S. TIPS Index	5.00
S&P LSTA Leverage Loan Index	5.00
MSCI AC World Minimum Volatility Index (Net)	10.00
Oct-2019	
FT Wilshire 5000 Index	17.75
MSCI AC World ex USA (Net)	17.75
MSCI AC World Minimum Volatility Index (Net)	10.00
Private Equity Policy Index	5.00
S&P LSTA Leverage Loan Index	5.00
Blmbg. U.S. Aggregate Index	24.50
Blmbg. U.S. TIPS Index	5.00
Dow Jones U.S. Select REIT Total Return Index	5.00
Bloomberg Commodity Index Total Return	5.00
Alerian MLP Index	5.00

Historical Hybrid Composition

Grand Rapids General Retirement System

Periods Ended December 31, 2023

Policy Index	Weight (%)
Oct-2020	
FT Wilshire 5000 Index	17.75
MSCI AC World ex USA (Net)	17.75
Private Equity Policy Index	5.00
MSCI AC World Minimum Volatility Index (Net)	10.00
S&P LSTA Leverage Loan Index	5.00
Blmbg. U.S. Aggregate Index	24.50
Blmbg. U.S. TIPS Index	5.00
Dow Jones U.S. Select REIT Total Return Index	5.00
Bloomberg Commodity Index Total Return	5.00
Alerian Midstream Energy Index	5.00

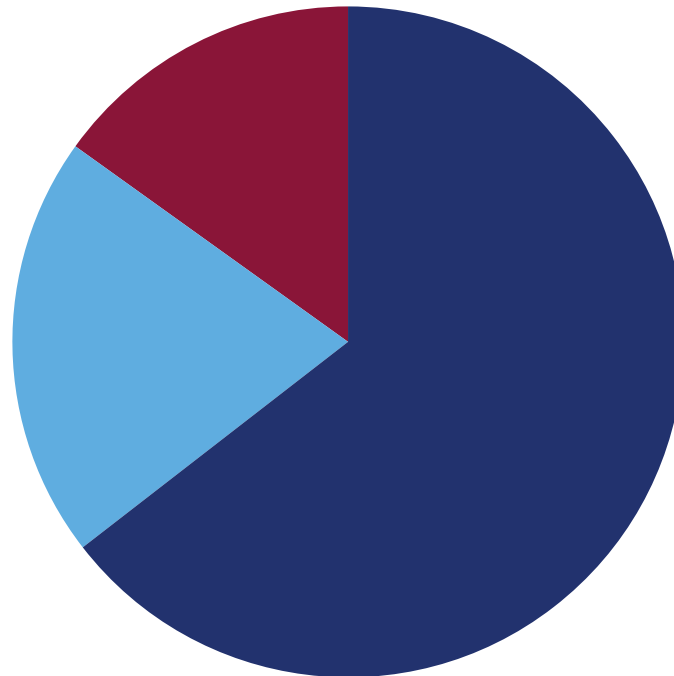
U.S. Equity

Asset Allocation By Manager

U.S. Equity

Periods Ended December 31, 2023

Dec-2023 : 91,240,272.5



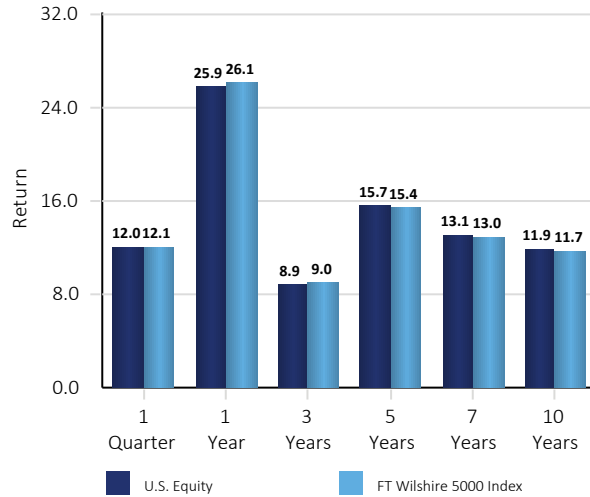
	Market Value \$	Allocation (%)
■ NTAM S&P 500	58,857,051	64.5
■ PIMCO Stock Plus	18,615,110	20.4
■ Wellington Small Cap	13,768,112	15.1

Performance Summary

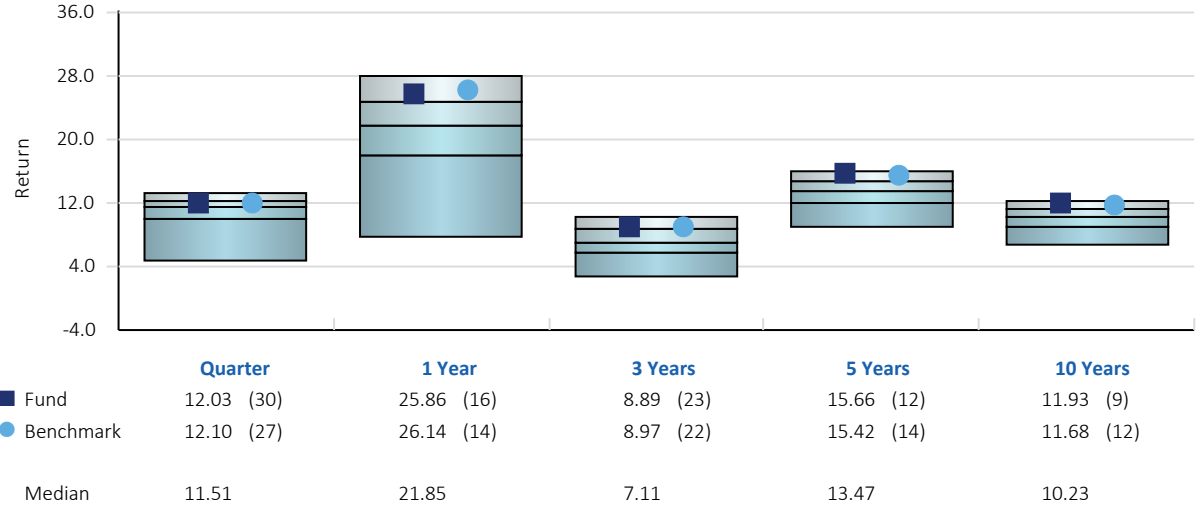
U.S. Equity

Periods Ended December 31, 2023

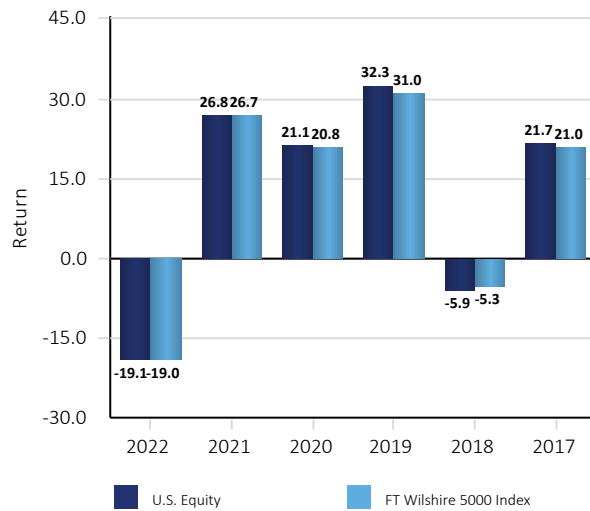
Comparative Performance



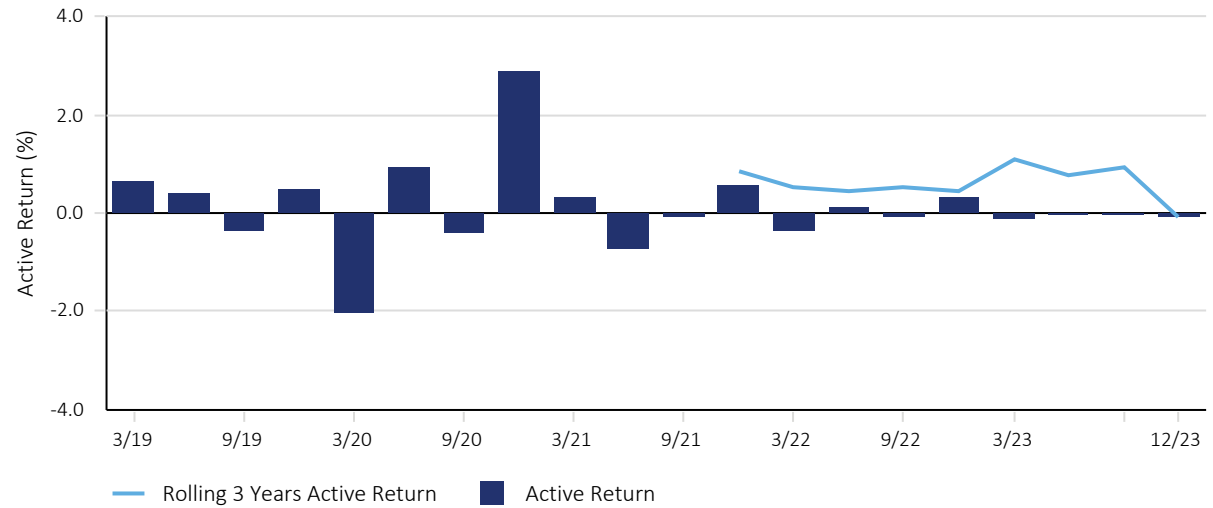
Peer Group Analysis: All Master Trust-US Equity Segment



Comparative Performance



Rolling 3 Years Performance

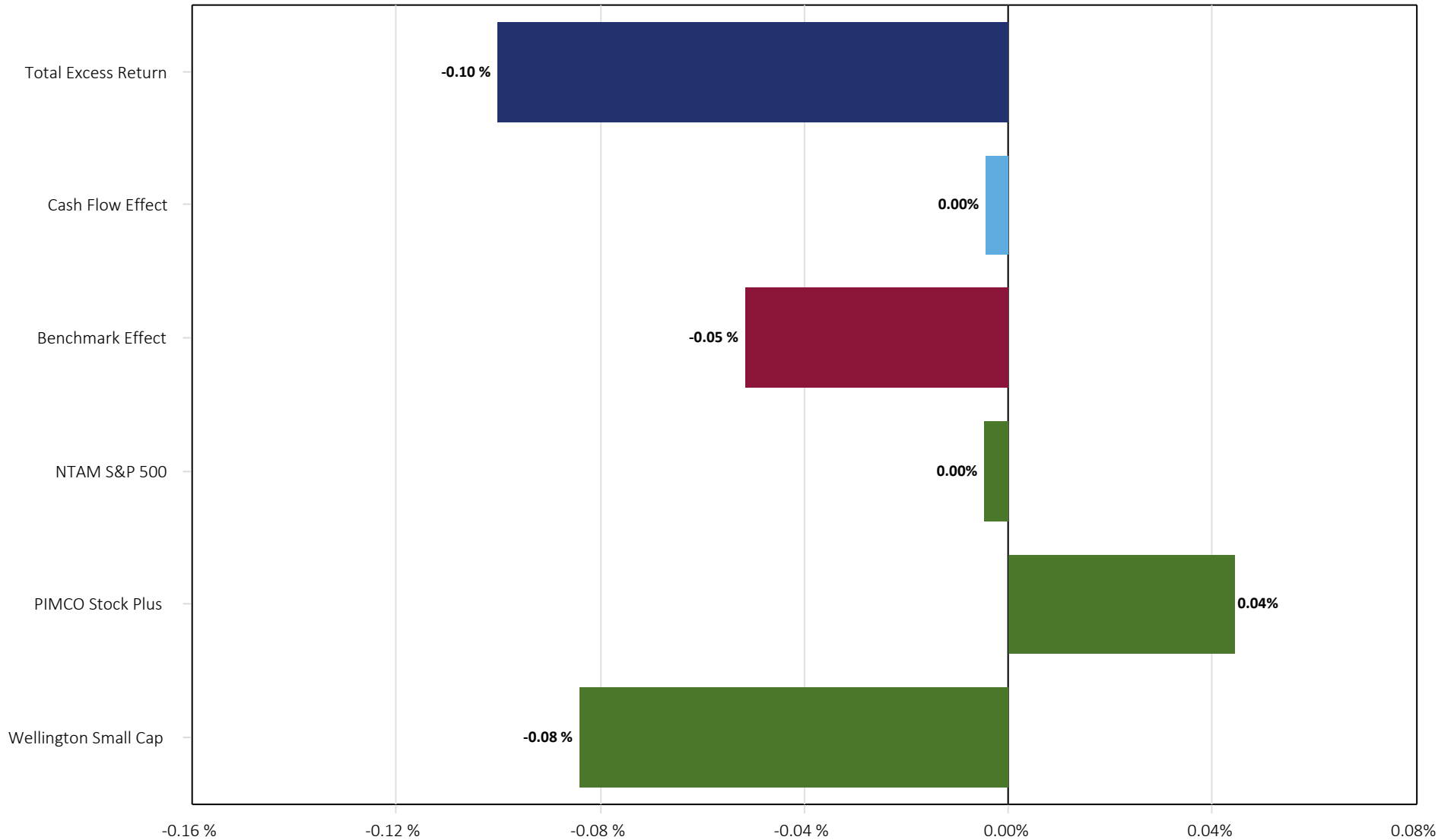


Asset Class Attribution

U.S. Equity

Periods Ended 1 Quarter Ending December 31, 2023

1 Quarter



Asset Allocation & Performance

U.S. Equity

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
U.S. Equity	91,240,272	100.00	12.00	25.74	8.77	15.50	12.96	11.75	10.00	10/1/1987
FT Wilshire 5000 Index			12.10	26.14	8.97	15.42	12.96	11.68	10.01	
Value Added			-0.10	-0.40	-0.20	0.08	0.00	0.07	-0.01	
NTAM S&P 500	58,857,051	64.51	11.68	26.26	9.98	15.68	13.40	12.04	8.89	4/1/1998
NTAM Policy			11.69	26.29	10.00	15.69	13.42	12.03	7.97	
Value Added			-0.01	-0.03	-0.02	-0.01	-0.02	0.01	0.92	
PIMCO Stock Plus	18,615,110	20.40	11.91	27.16	8.97	15.46	13.22	11.85	7.33	6/1/2000
S&P 500 Index			11.69	26.29	10.00	15.69	13.42	12.03	7.29	
Value Added			0.22	0.87	-1.03	-0.23	-0.20	-0.18	0.04	
Wellington Small Cap	13,768,112	15.09	13.47	21.46	3.17	13.51	10.67	10.07	11.06	9/1/1999
Russell 2000 Index			14.03	16.93	2.22	9.97	7.33	7.16	8.04	
Value Added			-0.56	4.53	0.95	3.54	3.34	2.91	3.02	

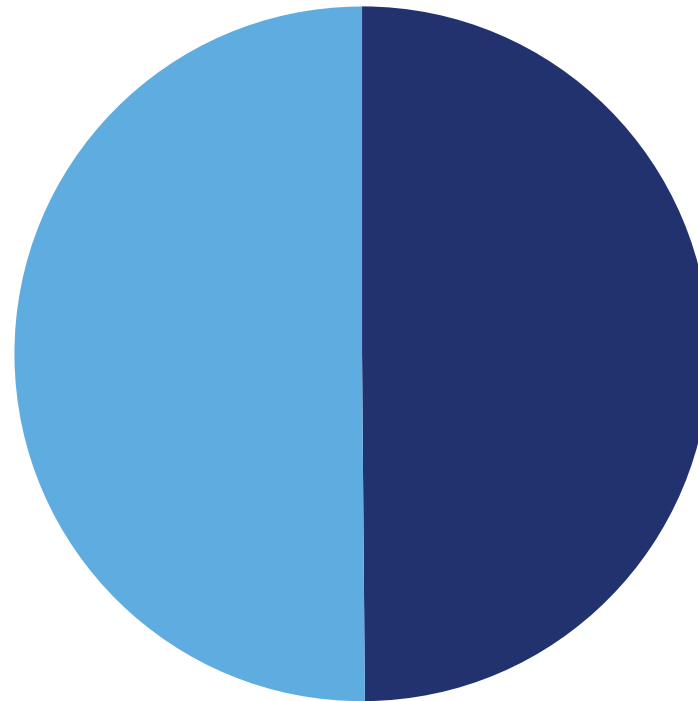
Non-U.S. Equity

Asset Allocation By Manager

Non-U.S. Equity

Periods Ended December 31, 2023

Dec-2023 : 85,679,303.4



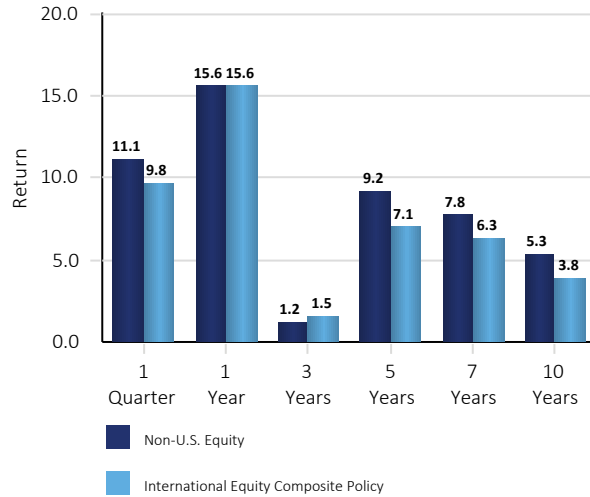
	Market Value \$	Allocation (%)
■ Harding Loevner	42,728,959	49.9
■ Neuberger Berman CIT	42,950,345	50.1

Performance Summary

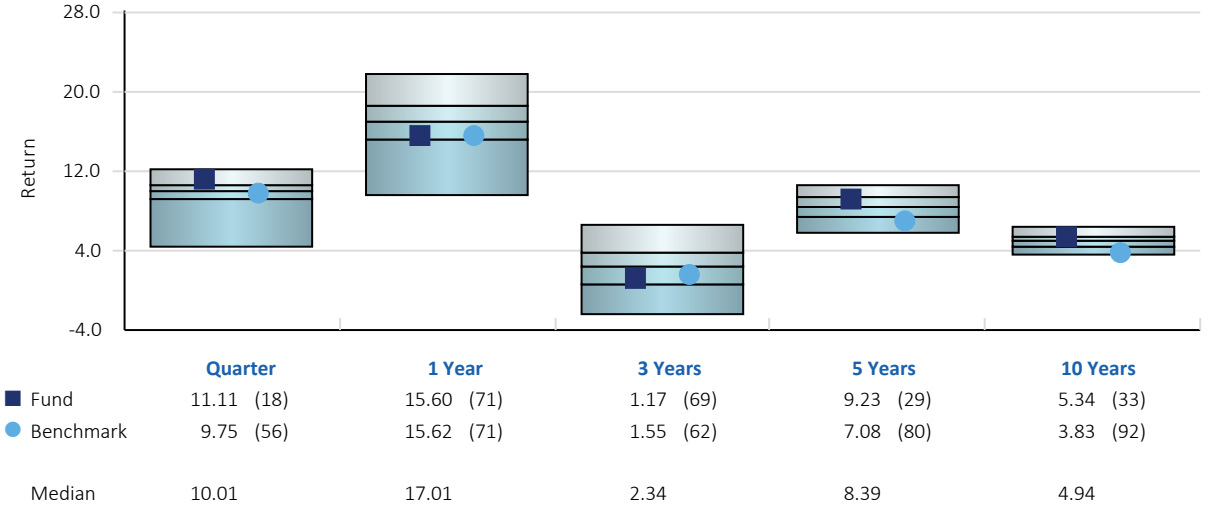
Non-U.S. Equity

Periods Ended December 31, 2023

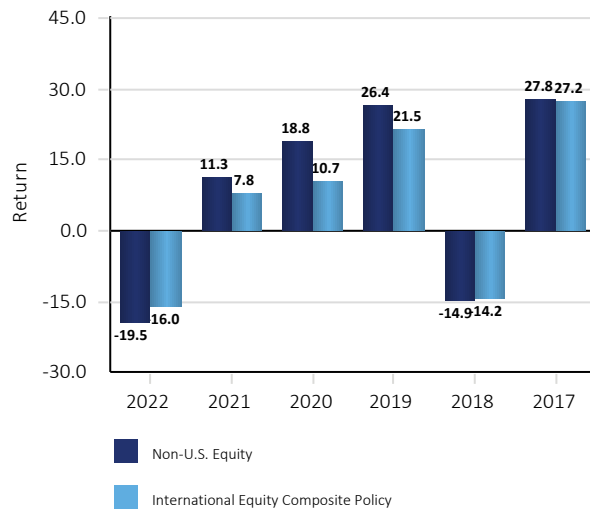
Comparative Performance



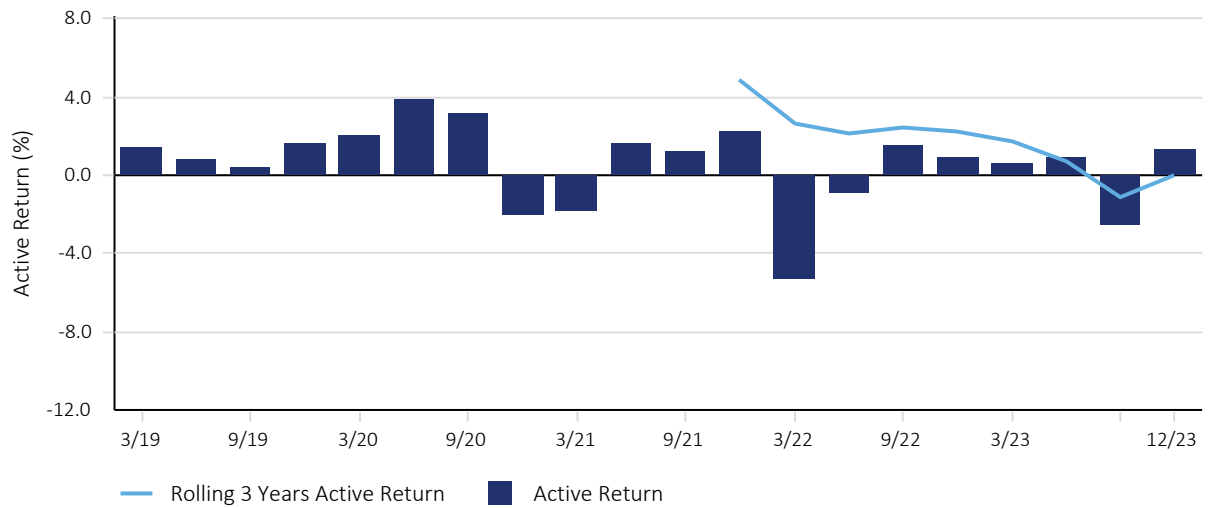
Peer Group Analysis: All Master Trust-Intl. Equity Segment



Comparative Performance



Rolling 3 Years Performance

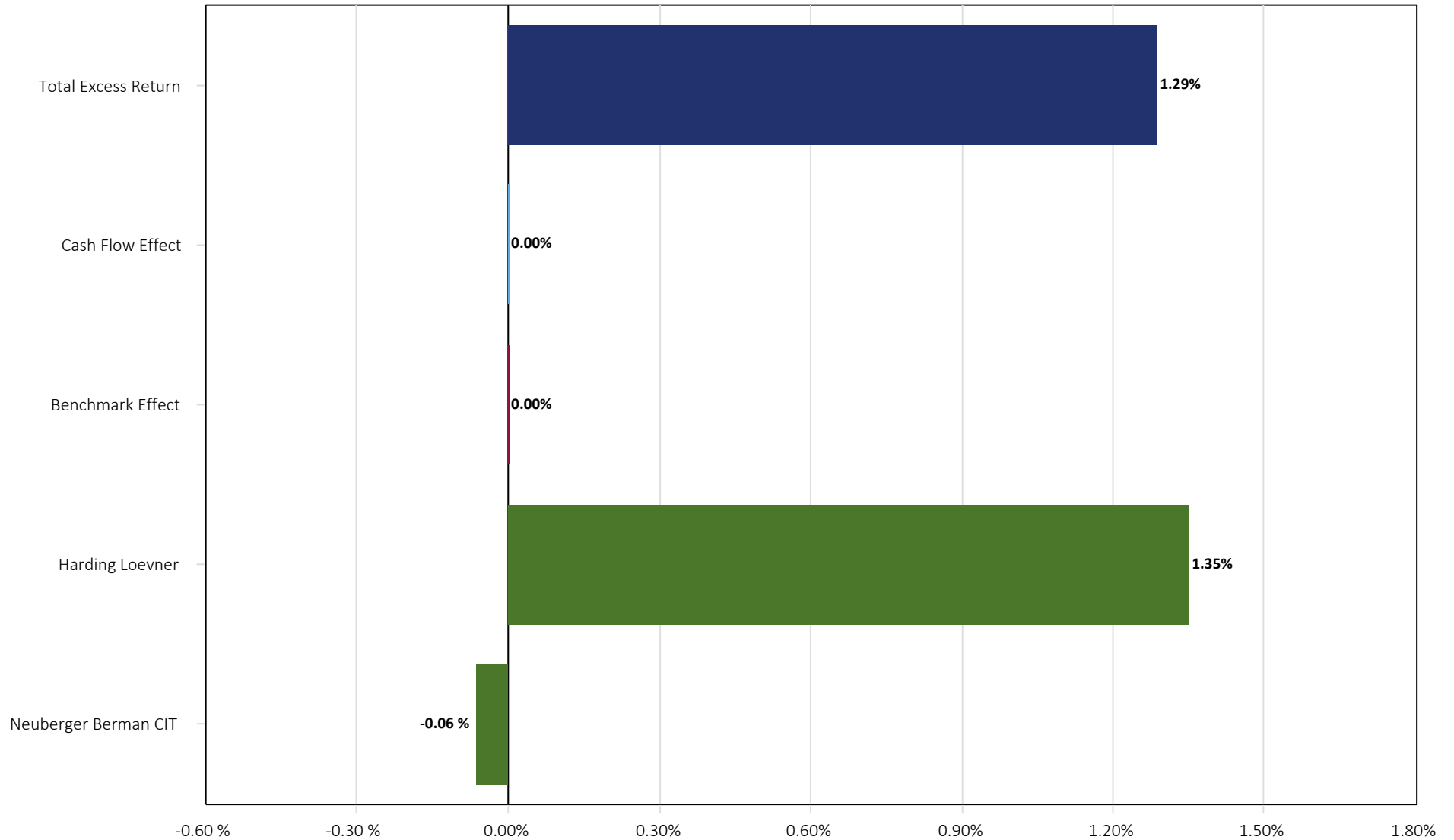


Asset Class Attribution

Non-U.S. Equity

Periods Ended 1 Quarter Ending December 31, 2023

1 Quarter



Asset Allocation & Performance

Non-U.S. Equity

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Non-U.S. Equity	85,679,303	100.00	11.04	15.31	0.92	8.97	7.56	5.15	7.73	1/1/1990
International Equity Composite Policy			9.75	15.62	1.55	7.08	6.33	3.83	4.55	
Value Added			1.29	-0.31	-0.63	1.89	1.23	1.32	3.18	
Harding Loevner	42,728,959	49.87	12.50	16.07	0.83	8.66	7.67		5.78	4/1/2015
MSCI AC World ex USA (Net)			9.75	15.62	1.55	7.08	6.33		4.45	
Value Added			2.75	0.45	-0.72	1.58	1.34		1.33	
Neuberger Berman CIT	42,950,345	50.13	9.63	14.57	1.00	9.17			5.20	7/1/2018
MSCI AC World ex USA (Net)			9.75	15.62	1.55	7.08			4.22	
Value Added			-0.12	-1.05	-0.55	2.09			0.98	

Private Equity

Private Equity Composite Overview

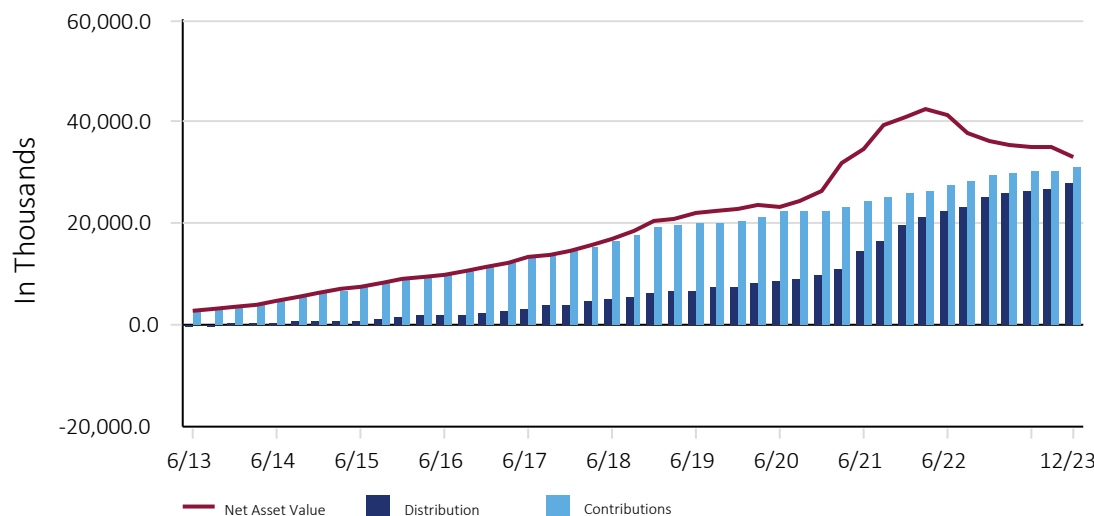
Private Equity

Periods Ended As of December 31, 2023

Cash Flow Summary

Capital Committed:	34,500,000
Capital Invested:	9,773,735
Total Contributions:	31,046,723
Remaining Capital Commitment:	3,822,032
Total Distributions:	27,922,729
Market Value:	33,280,710
Inception Date:	5/1/2010
Inception IRR:	15.5
TVPI:	2.0

Cash Flow Analysis



Private Equity Portfolio

Partnerships	Capital Committed \$	Total Contribution \$	Total Distribution \$	Market Value \$	IRR (%)	TVPI Multiple (%)
Adams Street 2010 Direct Fund	500,000	480,500	730,781	161,473	11.5	1.9
Adams Street 2010 EM Fund	500,000	449,000	496,005	401,961	9.9	2.0
Adams Street 2010 Non-US Fund	1,500,000	1,350,750	1,947,139	575,019	12.2	1.9
Adams Street 2010 US Fund	2,500,000	2,202,500	4,049,918	1,398,036	15.9	2.5
Adams Street 2013 Global Fund	5,000,000	4,634,201	4,804,517	4,710,766	13.0	2.1
Adams Street 2015 Global	6,500,000	5,781,603	4,803,677	7,732,564	20.2	2.2
Adams Street 2017 Global Fund	6,000,000	5,134,135	2,067,907	7,478,679	18.8	1.9
Aberdeen Global	5,000,000	4,950,000	8,220,004	3,624,301	14.9	2.4
Adams Street 2019 Global	7,000,000	6,064,034	802,781	7,197,911	18.6	1.3

Private Equity Composite Overview

Private Equity

Periods Ended As of December 31, 2023

Partnerships	Capital Committed \$	Total Contribution \$	Total Distribution \$	Market Value \$	IRR (%)	TVPI Multiple (%)
Private Equity	34,500,000	31,046,723	27,922,729	33,280,710	15.5	2.0

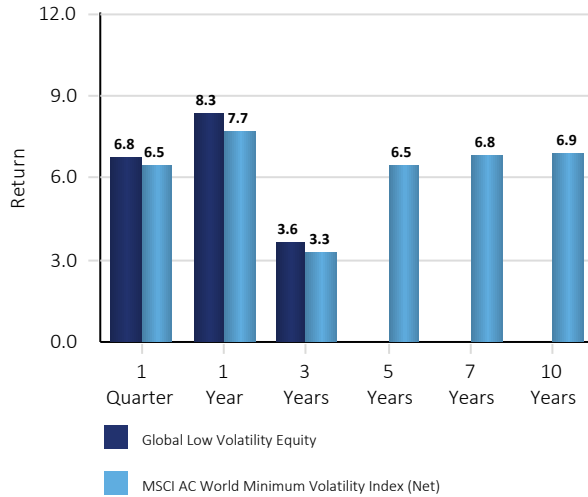
Global Low Volatility Equity

Performance Summary

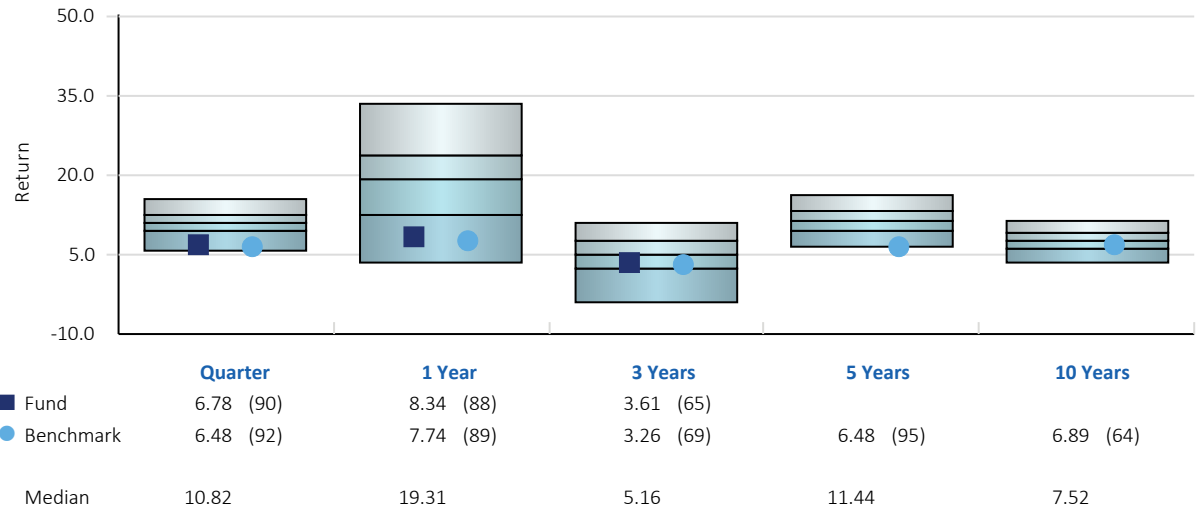
Global Low Volatility Equity

Periods Ended December 31, 2023

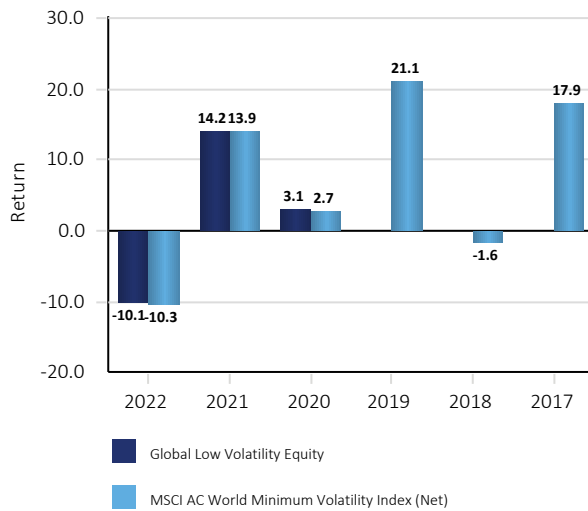
Comparative Performance



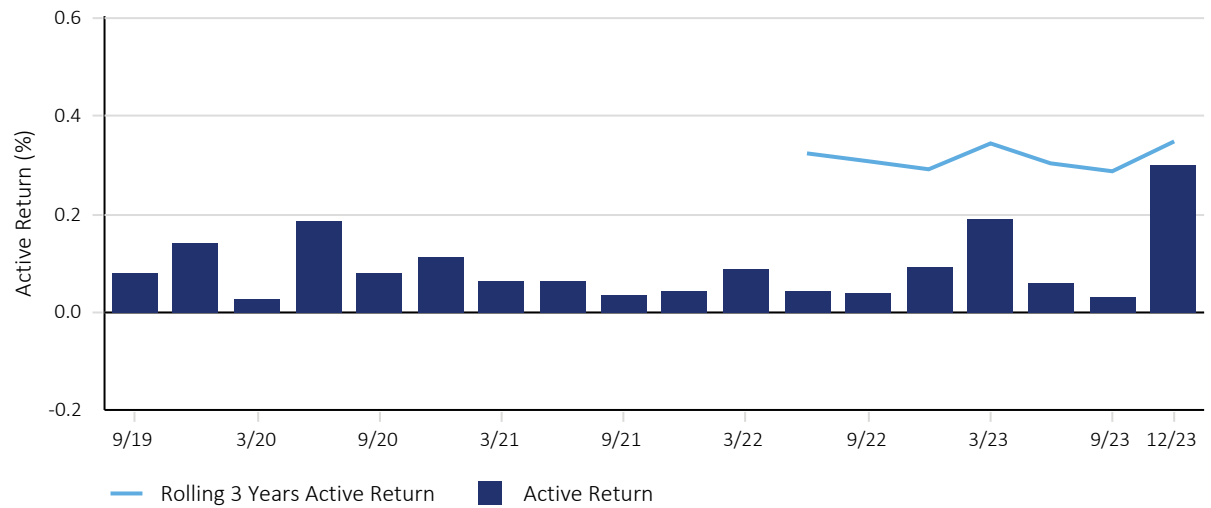
Peer Group Analysis: IM Global Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance



Asset Allocation & Performance

Global Low Volatility Equity

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Global Low Volatility Equity	49,715,107	100.00	6.78	8.34	3.61				5.33	6/1/2019
MSCI AC World Minimum Volatility Index (Net)			6.48	7.74	3.26				4.94	
Value Added			0.30	0.60	0.35				0.39	
BlackRock MSCI ACWI Min Vol	49,715,107	100.00	6.78	8.34	3.61				5.33	6/1/2019
MSCI AC World Minimum Volatility Index (Net)			6.48	7.74	3.26				4.94	
Value Added			0.30	0.60	0.35				0.39	

Private Credit

Private Credit Composite Overview

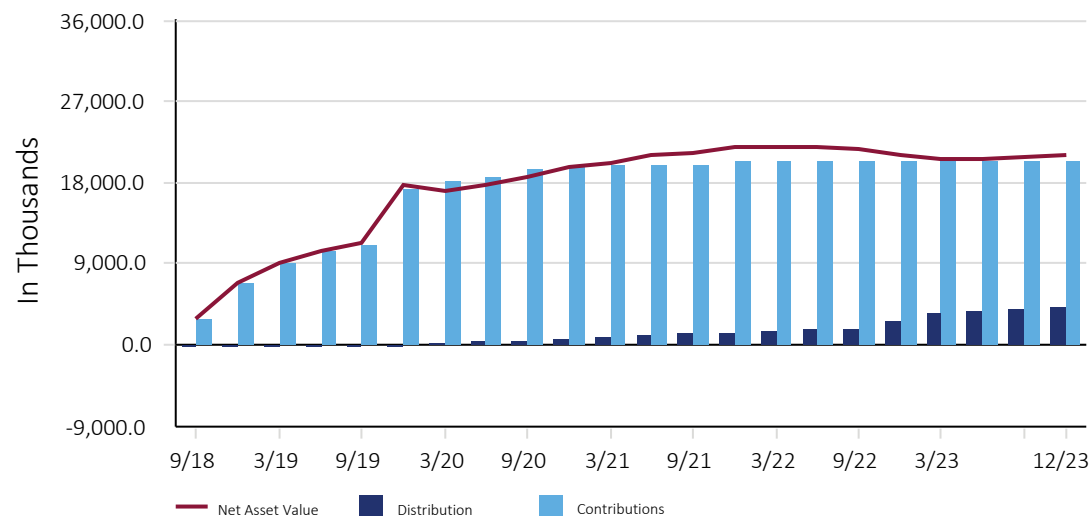
Private Credit

Periods Ended As of December 31, 2023

Cash Flow Summary

Capital Committed:	21,000,000
Capital Invested:	2,670,227
Total Contributions:	20,290,736
Remaining Capital Commitment:	709,264
Total Distributions:	4,172,803
Market Value:	21,126,480
Inception Date:	10/1/2018
Inception IRR:	5.4
TVPI:	1.2

Cash Flow Analysis



Private Equity Portfolio

Partnerships	Capital Committed \$	Total Contribution \$	Total Distribution \$	Market Value \$	IRR (%)	TVPI Multiple (%)
50 South Capital Private Credit	7,000,000	6,290,736	3,365,664	4,608,835	7.5	1.3
Grosvenor PC	14,000,000	14,000,000	807,139	16,517,645	4.8	1.2
Private Credit	21,000,000	20,290,736	4,172,803	21,126,480	5.4	1.2

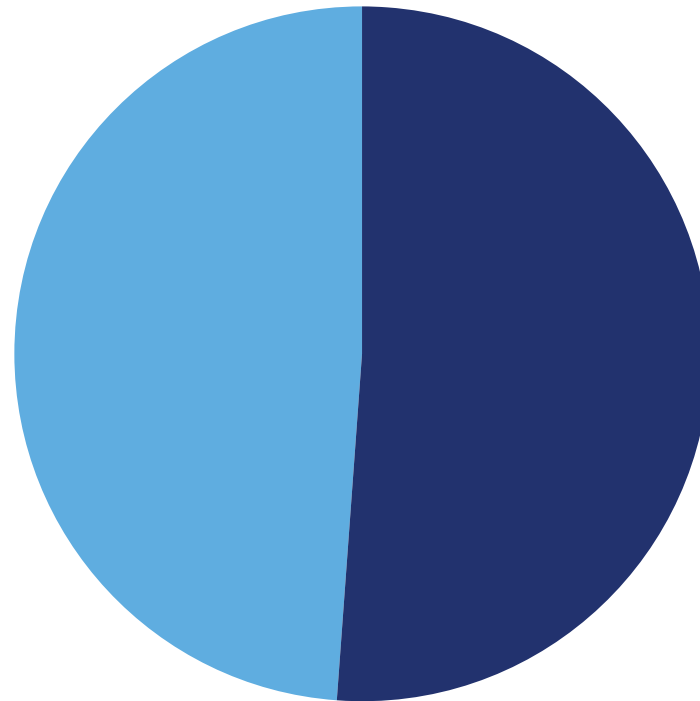
Core Fixed Income

Asset Allocation By Manager

Core Fixed Income

Periods Ended December 31, 2023

Dec-2023 : 115,447,798.3



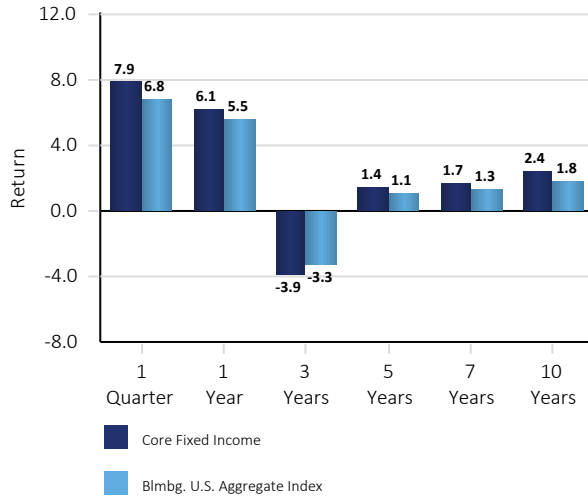
	Market Value \$	Allocation (%)
■ Baird Advisors	59,060,771	51.2
■ Western Asset Management	56,387,027	48.8

Performance Summary

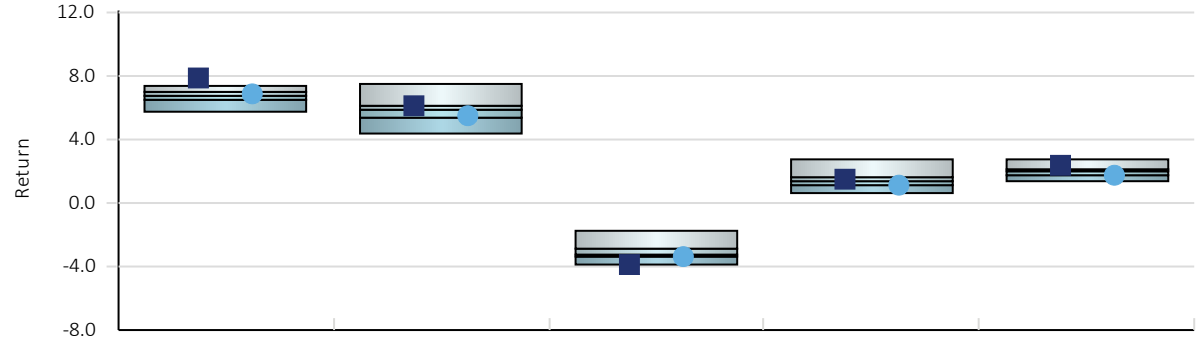
Core Fixed Income

Periods Ended December 31, 2023

Comparative Performance

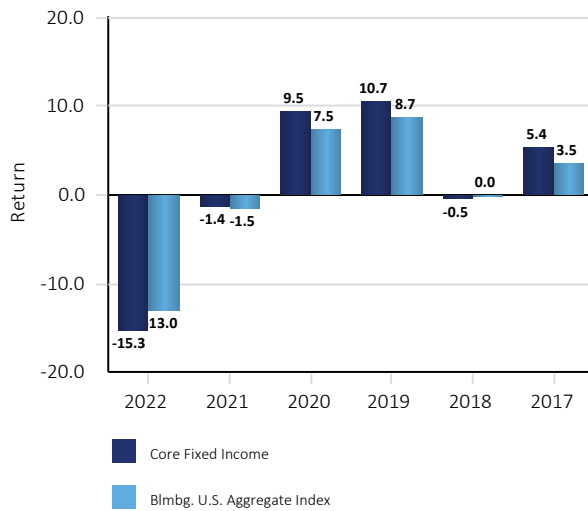


Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)

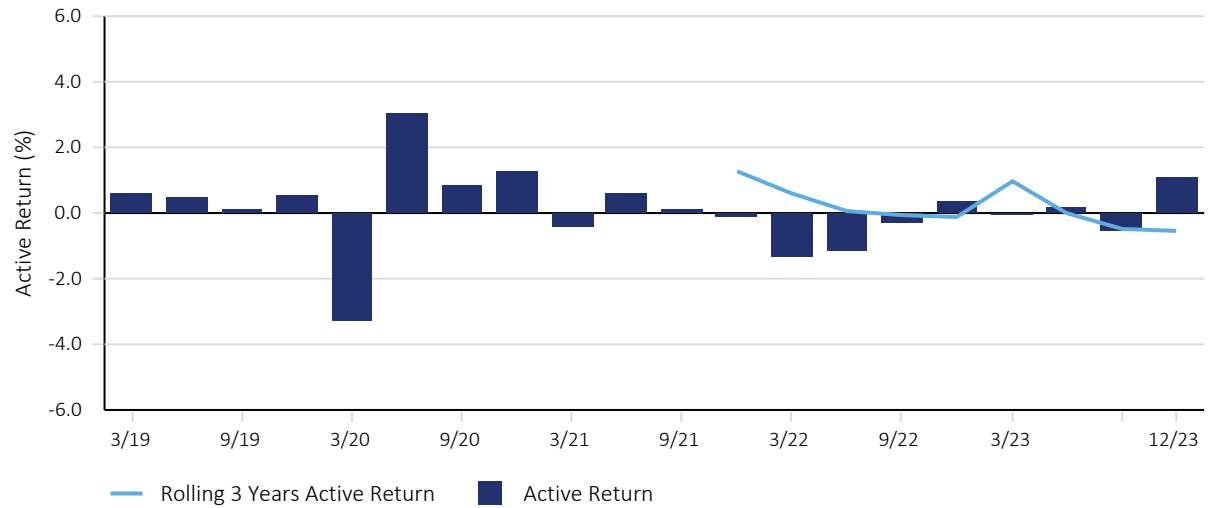


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	7.90 (3)	6.14 (26)	-3.93 (97)	1.44 (38)	2.42 (12)
Benchmark	6.82 (44)	5.53 (68)	-3.31 (60)	1.10 (76)	1.81 (73)
Median	6.76	5.82	-3.19	1.37	2.00

Comparative Performance



Rolling 3 Years Performance

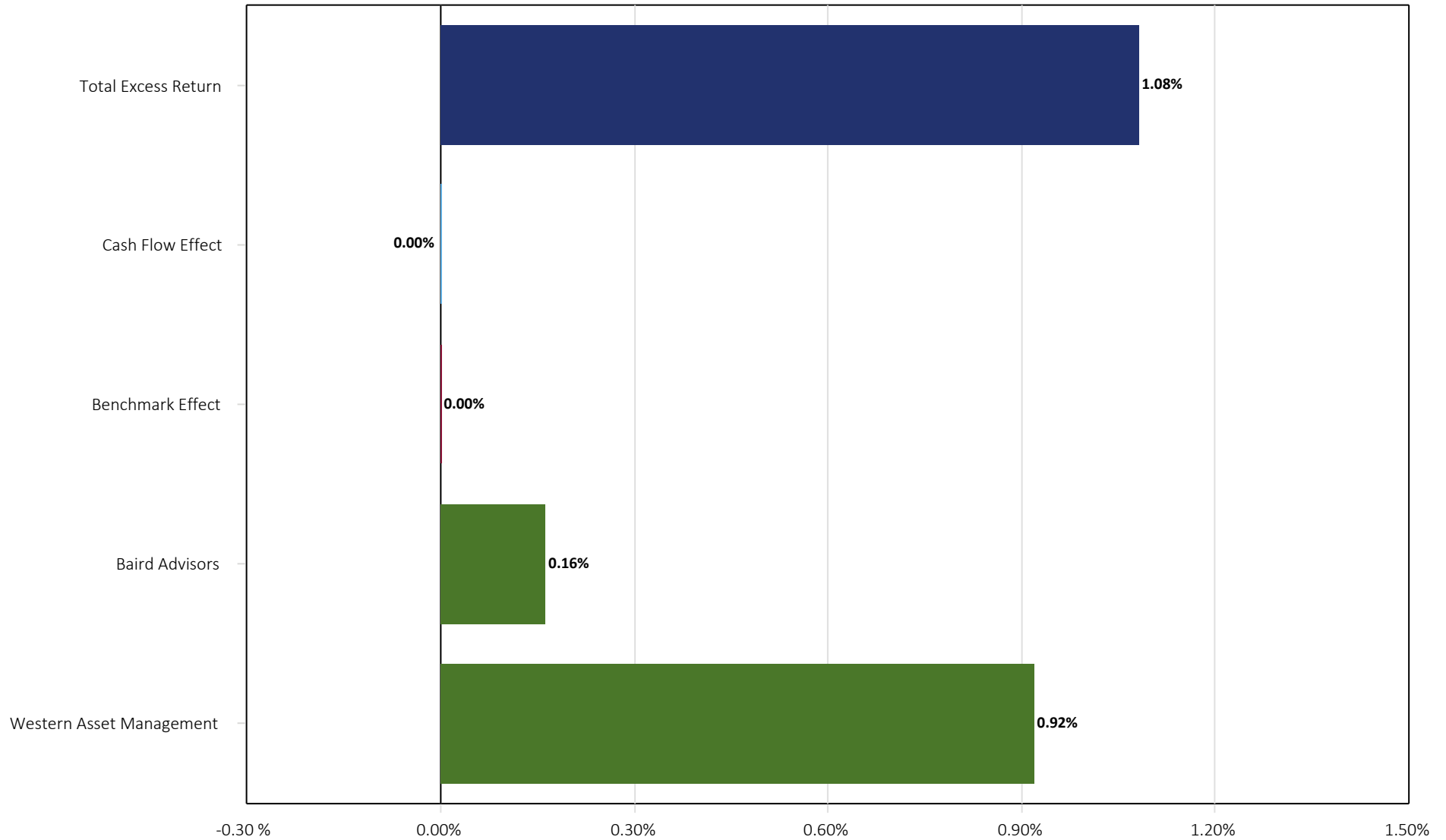


Asset Class Attribution

Core Fixed Income

Periods Ended 1 Quarter Ending December 31, 2023

1 Quarter



Asset Allocation & Performance

Core Fixed Income

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Core Fixed Income	115,447,798	100.00	7.90	6.14	-3.93	1.44	1.72	2.42	5.95	10/1/1987
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	1.29	1.81	5.56	
Value Added			1.08	0.61	-0.62	0.34	0.43	0.61	0.39	
Baird Advisors	59,060,771	51.16	7.13	6.27	-3.01	1.55	1.73	2.32	3.55	12/1/2002
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	1.29	1.81	3.30	
Value Added			0.31	0.74	0.30	0.45	0.44	0.51	0.25	
Western Asset Management	56,387,027	48.84	8.71	5.99	-4.87	1.30	1.66	2.49	3.95	1/1/2004
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	1.29	1.81	3.17	
Value Added			1.89	0.46	-1.56	0.20	0.37	0.68	0.78	

TIPS

Asset Allocation & Performance

TIPS

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
TIPS	21,862,700	100.00	4.53	3.53	-1.27	2.87	2.21		1.94	5/1/2015
Blmbg. U.S. TIPS Index			4.71	3.90	-1.00	3.15	2.49		2.12	
Value Added			-0.18	-0.37	-0.27	-0.28	-0.28		-0.18	
Brown Brothers Harriman	21,862,700	100.00	4.53	3.53	-1.27	2.87	2.21		1.94	5/1/2015
Blmbg. U.S. TIPS Index			4.71	3.90	-1.00	3.15	2.49		2.12	
Value Added			-0.18	-0.37	-0.27	-0.28	-0.28		-0.18	

Real Estate

Asset Allocation & Performance

Real Estate

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Real Estate	24,732,801	100.00	16.23	14.21	7.33	7.39	5.40	5.05	7.91	6/1/2009
Real Estate Policy Index			16.35	13.96	7.18	5.29	4.35	4.81	8.03	
Value Added			-0.12	0.25	0.15	2.10	1.05	0.24	-0.12	
Centersquare	24,732,801	100.00	16.23	14.21	7.33				4.05	10/1/2019
Dow Jones U.S. Select REIT Total Return Index			16.35	13.96	7.18				1.82	
Value Added			-0.12	0.25	0.15				2.23	

Commodities

Asset Allocation & Performance

Commodities

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Commodities	23,469,682	100.00	-1.08	3.08	12.38	10.96	6.99	1.53	-0.12	2/1/2013
Bloomberg Commodity Index Total Return			-4.63	-7.91	10.76	7.23	3.59	-1.11	-2.13	
Value Added			3.55	10.99	1.62	3.73	3.40	2.64	2.01	
S&P GSCI Equal Weight Index			-2.16	0.22	12.01	9.59	6.75	1.29	-0.34	
Value Added			1.08	2.86	0.37	1.37	0.24	0.24	0.22	
Wellington Commodities	23,469,682	100.00	-1.08	3.08	12.38	10.96	6.99	1.53	-0.12	2/1/2013
Bloomberg Commodity Index Total Return			-4.63	-7.91	10.76	7.23	3.59	-1.11	-2.13	
Value Added			3.55	10.99	1.62	3.73	3.40	2.64	2.01	
S&P GSCI Equal Weight Index			-2.16	0.22	12.01	9.59	6.75	1.29	-0.34	
Value Added			1.08	2.86	0.37	1.37	0.24	0.24	0.22	

Midstream Energy

Asset Allocation & Performance

Midstream Energy Composite

Periods Ended December 31, 2023

	Allocation		Performance (%) net of fees							
	Market Value \$	%	1 Quarter	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Midstream Energy Composite	24,126,689	100.00	3.79	18.35	29.30	12.56	5.64		2.30	3/1/2015
Midstream Energy Policy Index			6.45	14.02	24.25	5.74	-0.05		-4.15	
Value Added			-2.66	4.33	5.05	6.82	5.69		6.45	
Harvest MLP	24,126,689	100.00	3.79	18.35	29.30	12.56	5.64		2.30	3/1/2015
Midstream Energy Policy Index			6.45	14.02	24.25	5.74	-0.05		-4.15	
Value Added			-2.66	4.33	5.05	6.82	5.69		6.45	

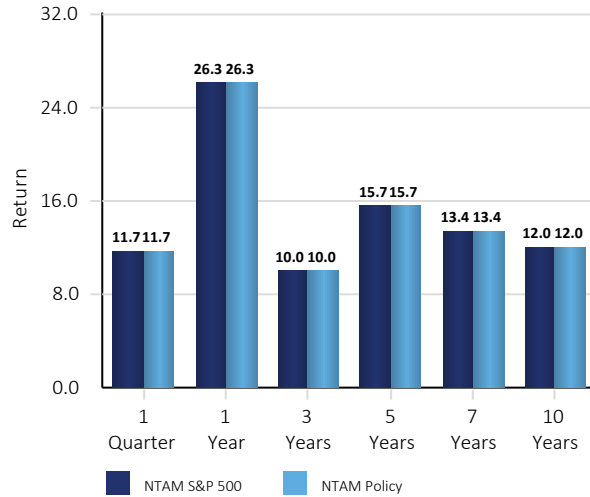
Appendix

Performance Summary

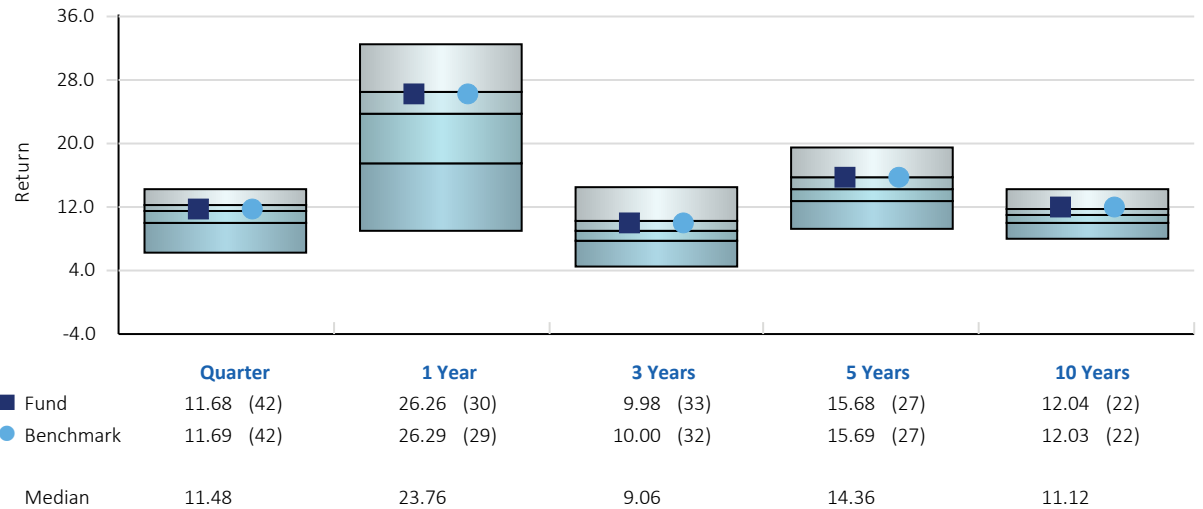
NTAM S&P 500

Periods Ended December 31, 2023

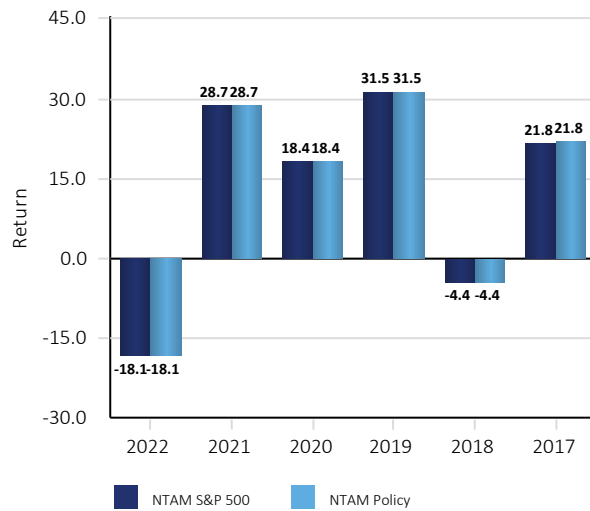
Comparative Performance



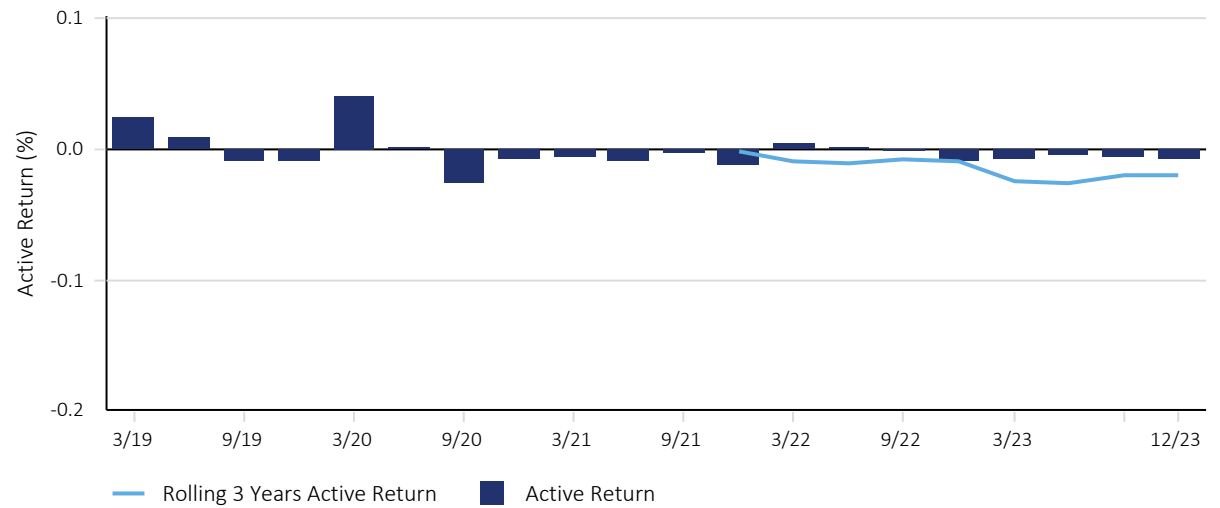
Peer Group Analysis: IM U.S. Large Cap Core Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

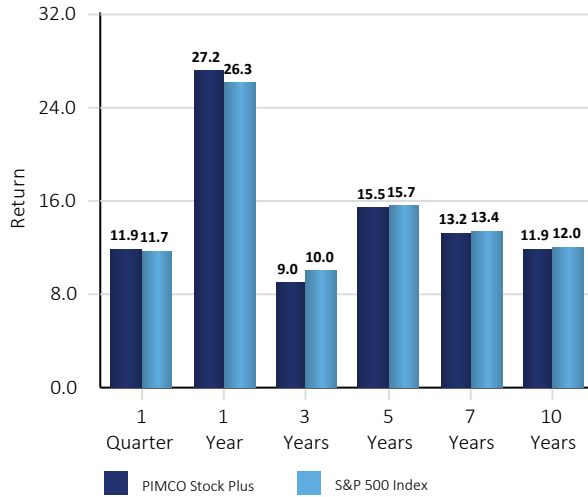


Performance Summary

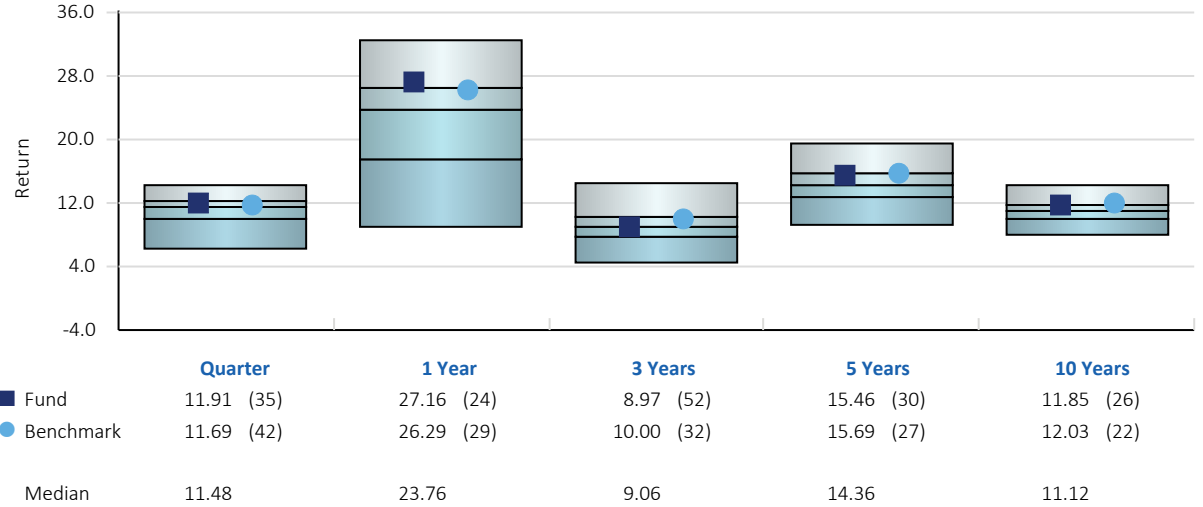
PIMCO Stock Plus

Periods Ended December 31, 2023

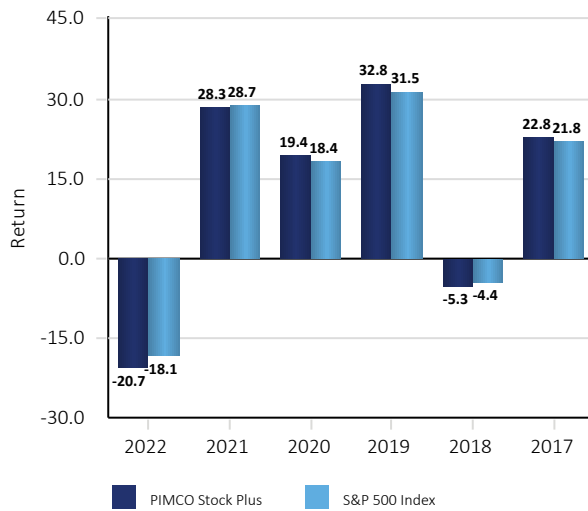
Comparative Performance



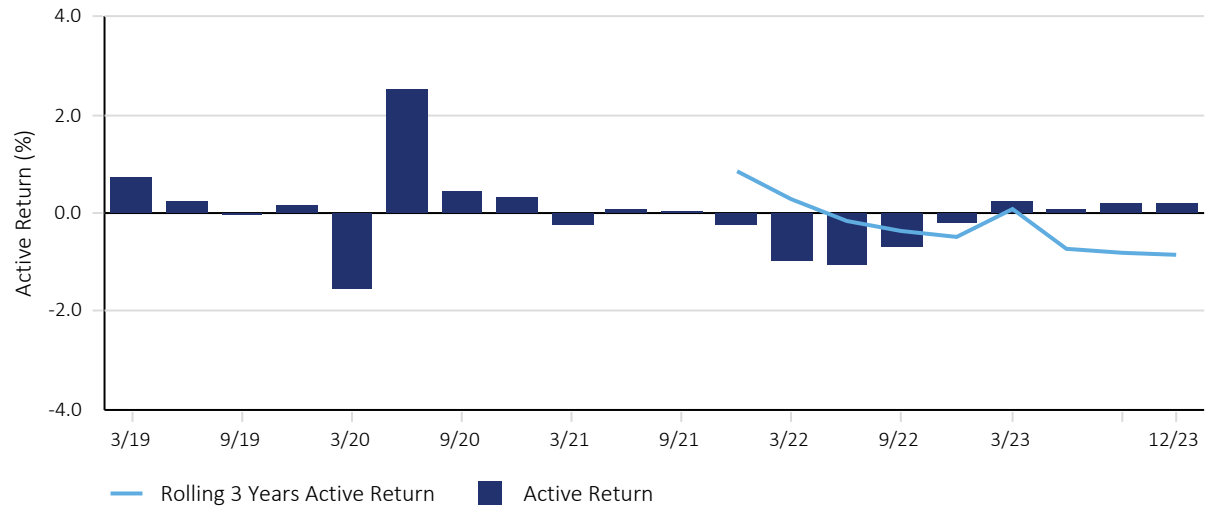
Peer Group Analysis: IM U.S. Large Cap Core Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

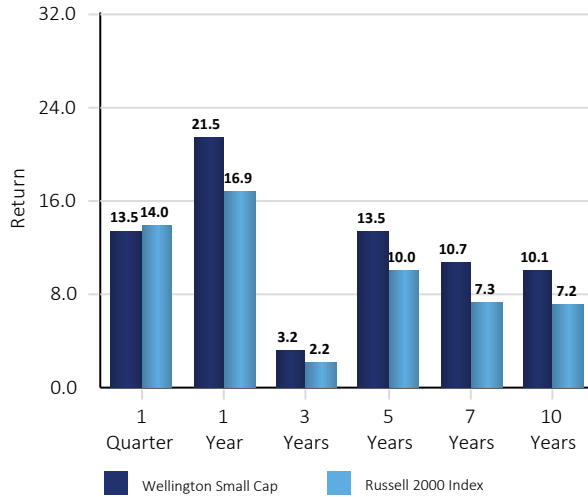


Performance Summary

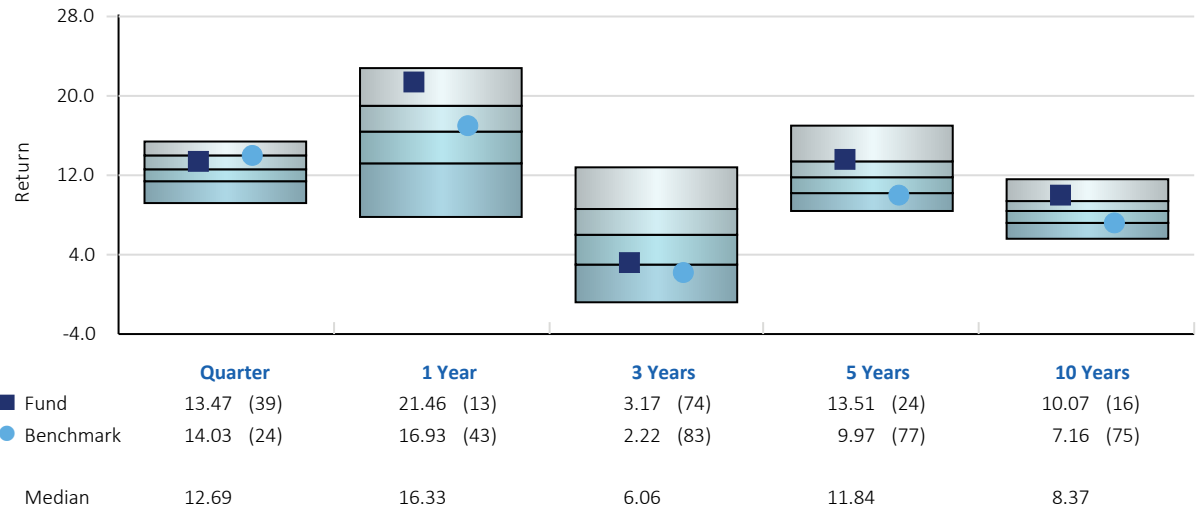
Wellington Small Cap

Periods Ended December 31, 2023

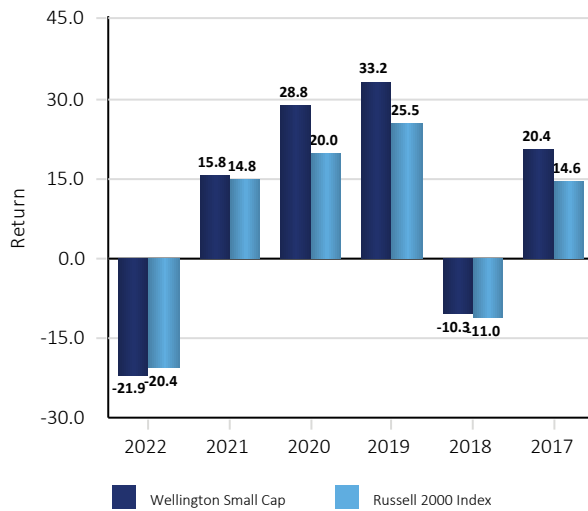
Comparative Performance



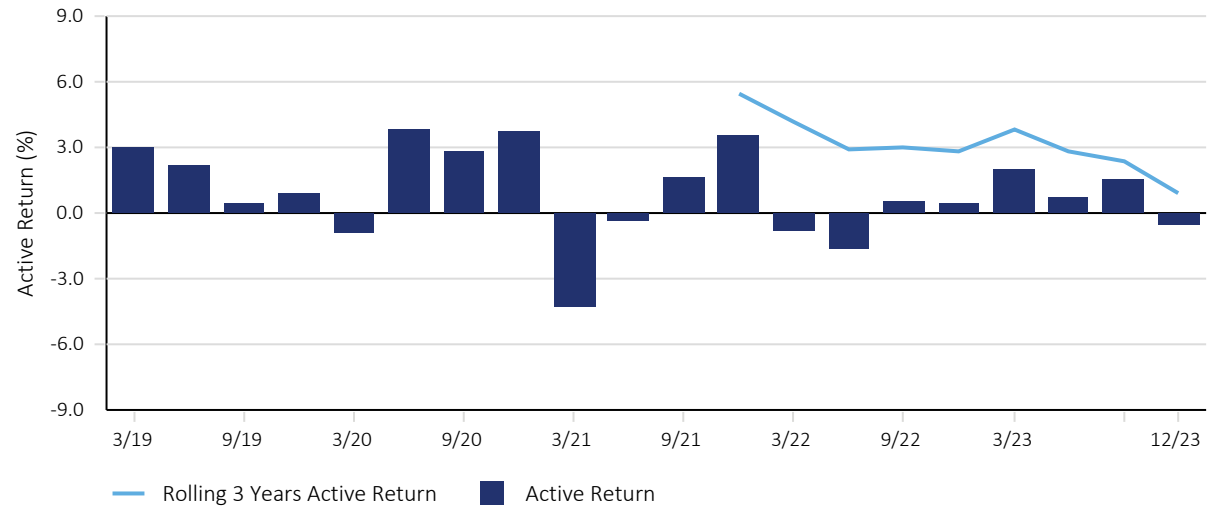
Peer Group Analysis: IM U.S. Small Cap Core Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

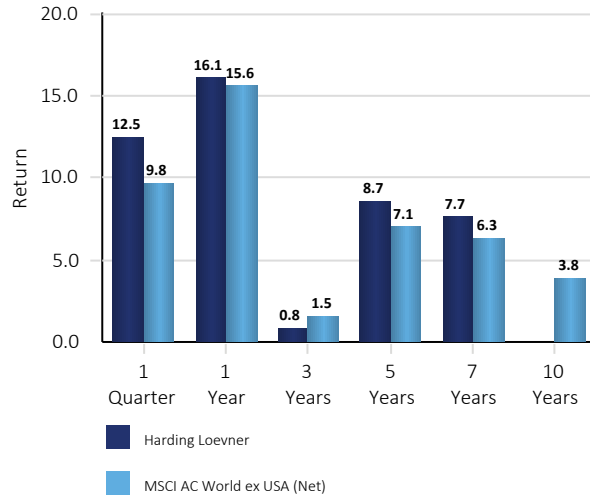


Performance Summary

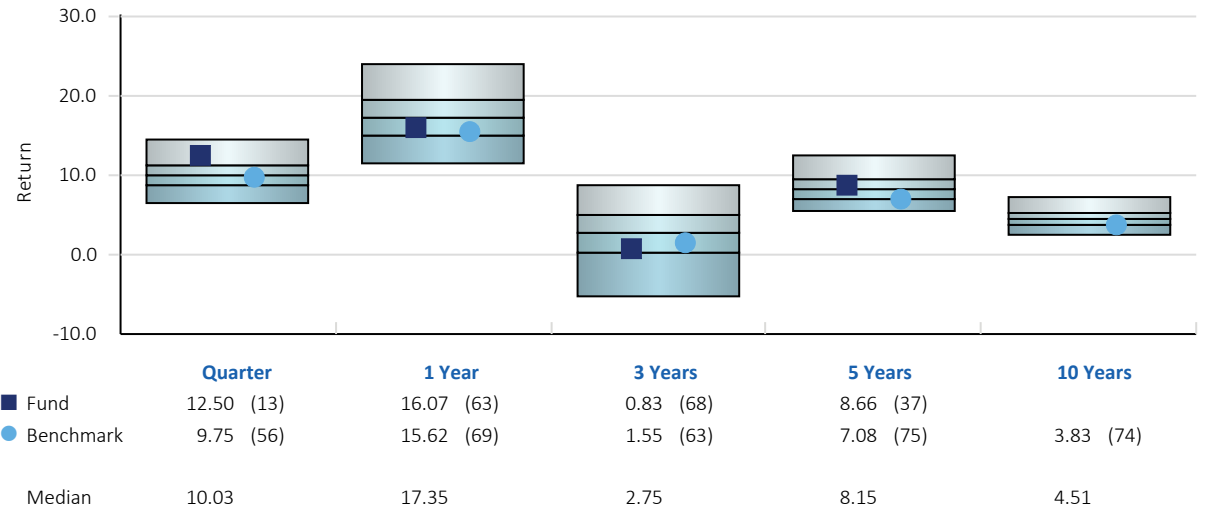
Harding Loevner

Periods Ended December 31, 2023

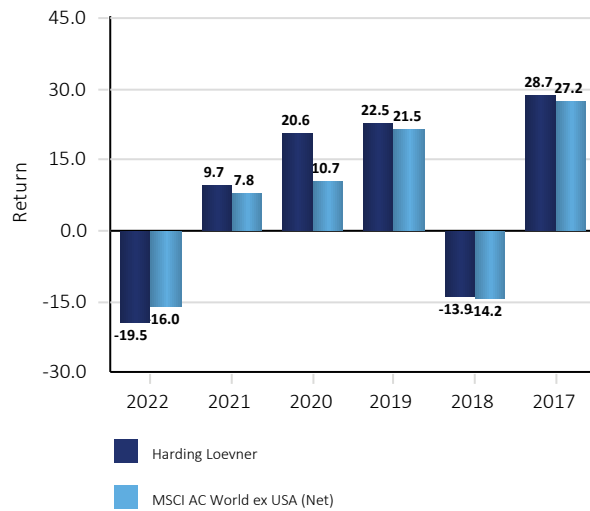
Comparative Performance



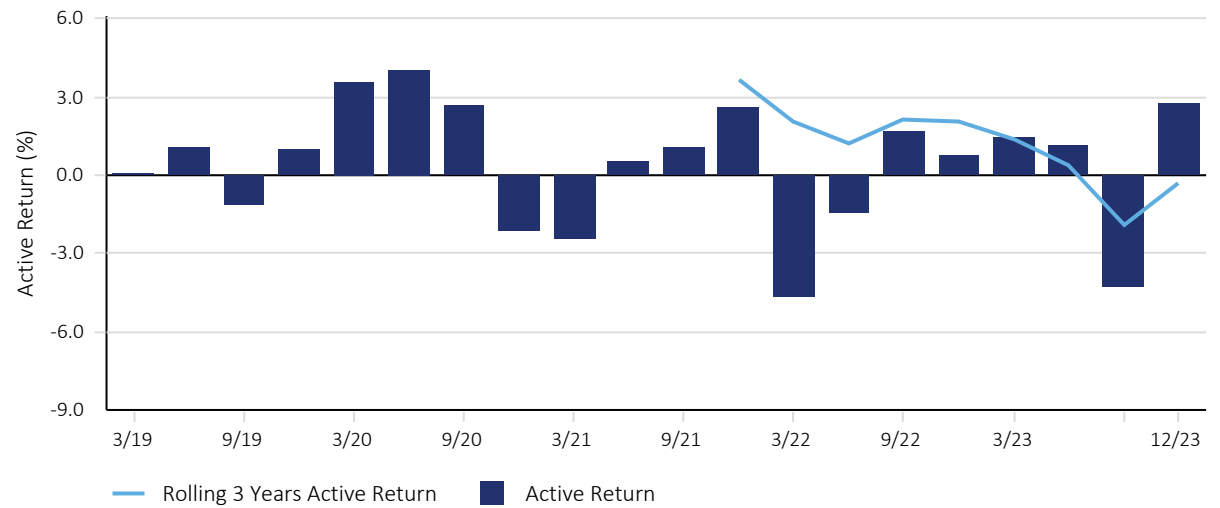
Peer Group Analysis: IM International Large Cap Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

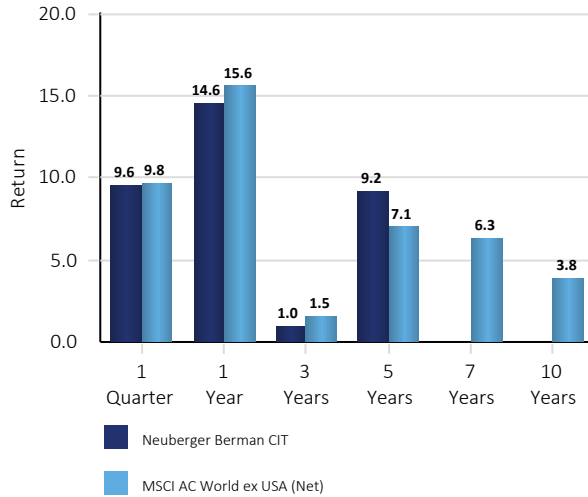


Performance Summary

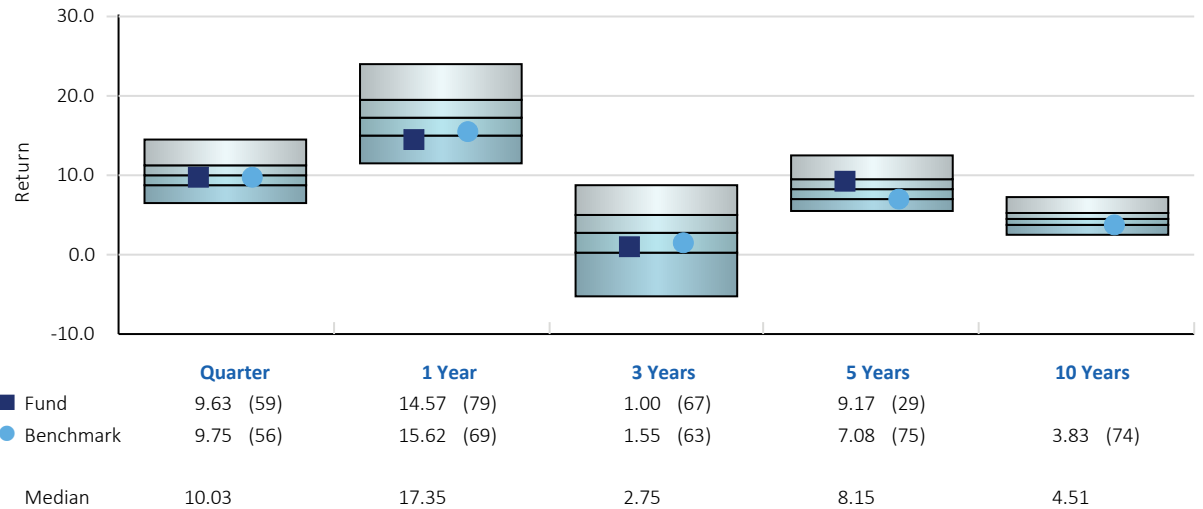
Neuberger Berman CIT

Periods Ended December 31, 2023

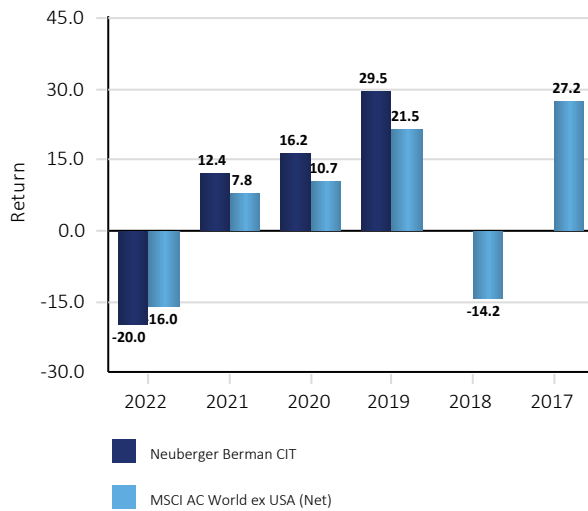
Comparative Performance



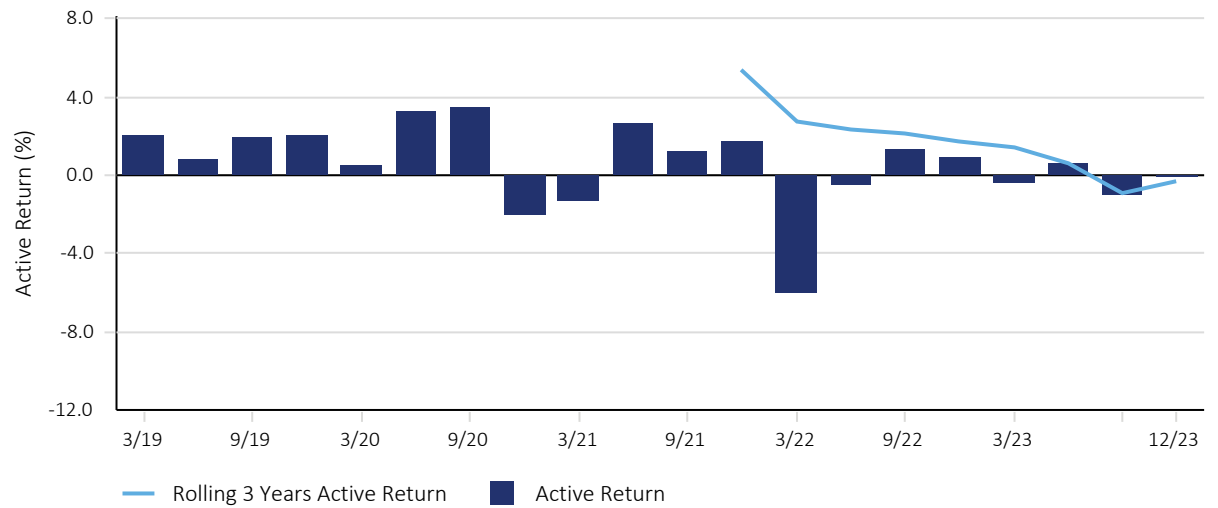
Peer Group Analysis: IM International Large Cap Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

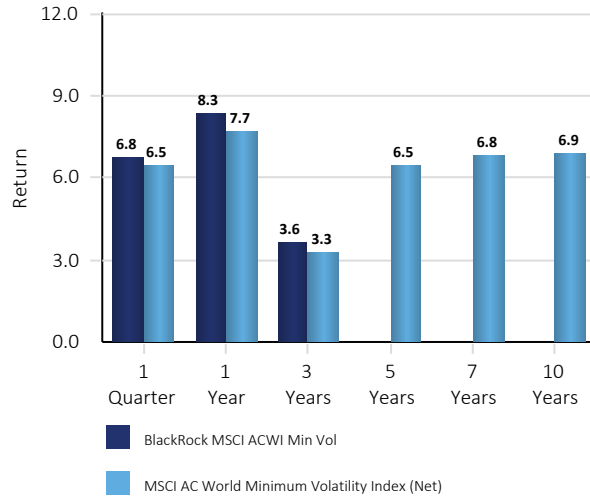


Performance Summary

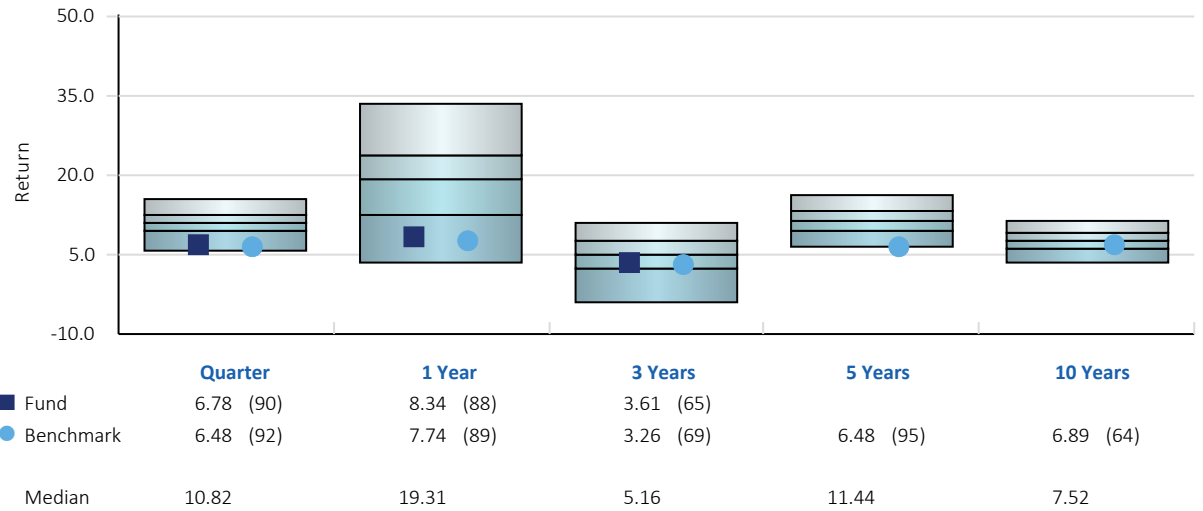
BlackRock MSCI ACWI Min Vol

Periods Ended December 31, 2023

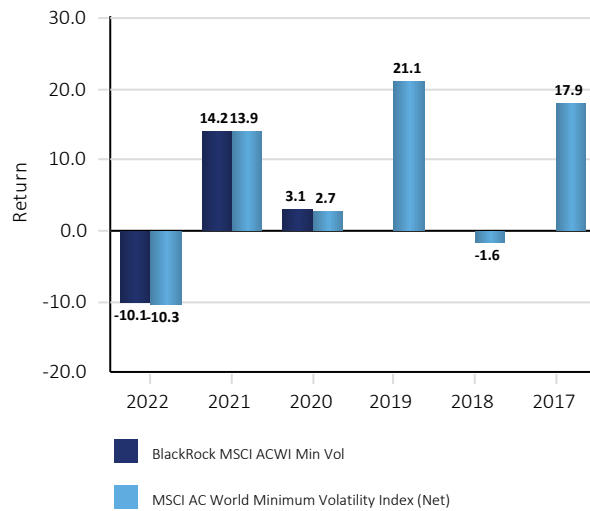
Comparative Performance



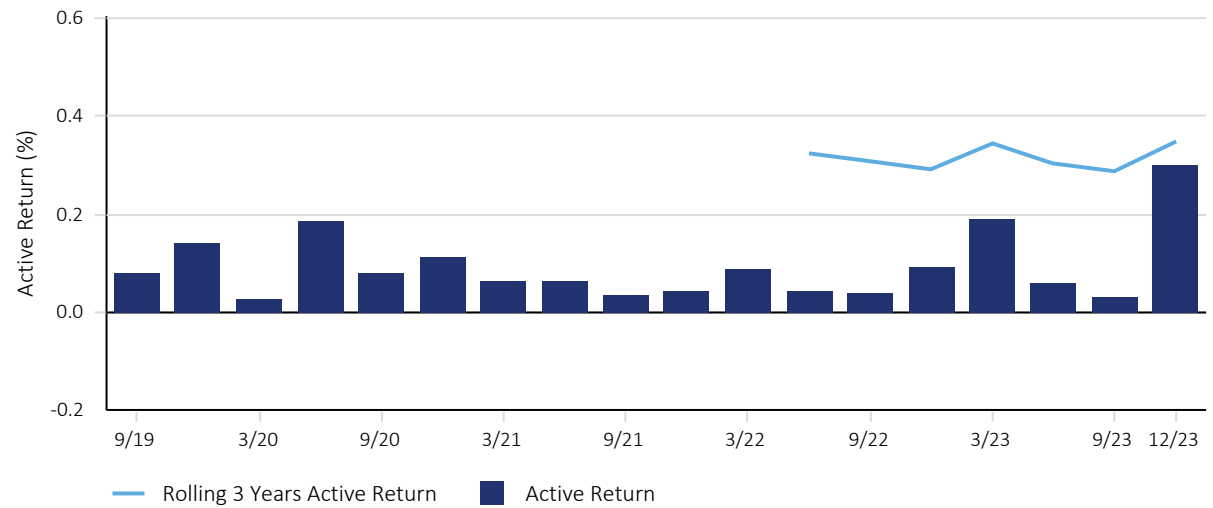
Peer Group Analysis: IM Global Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

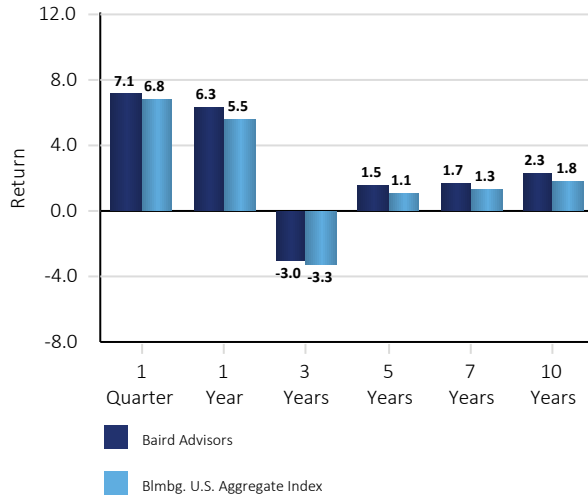


Performance Summary

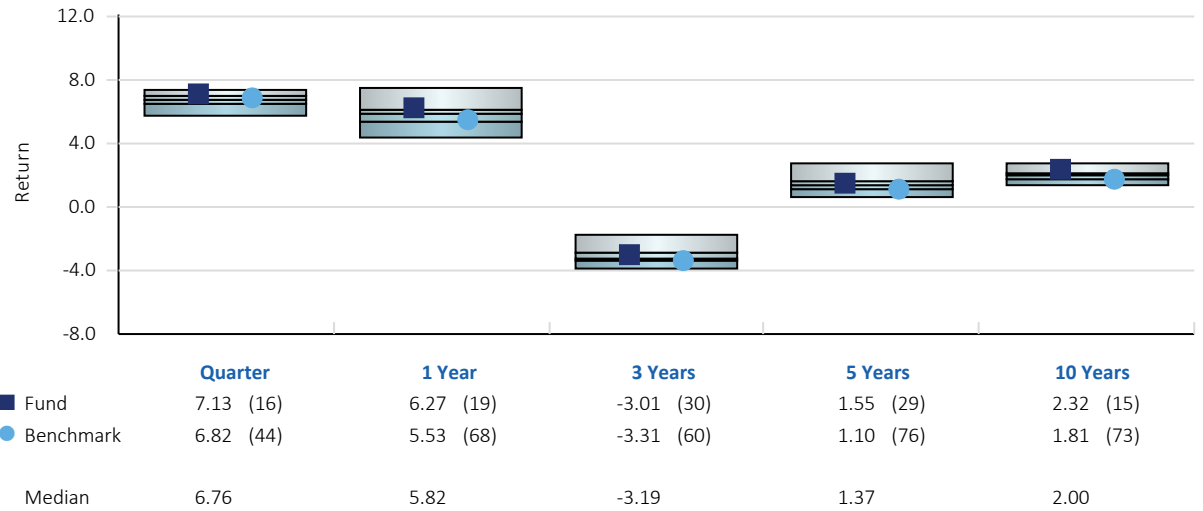
Baird Advisors

Periods Ended December 31, 2023

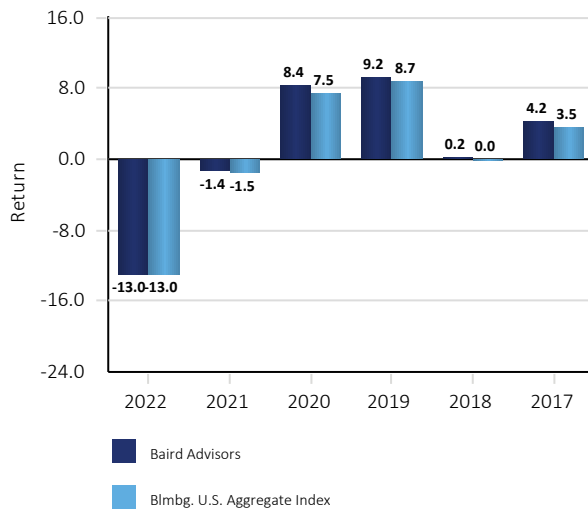
Comparative Performance



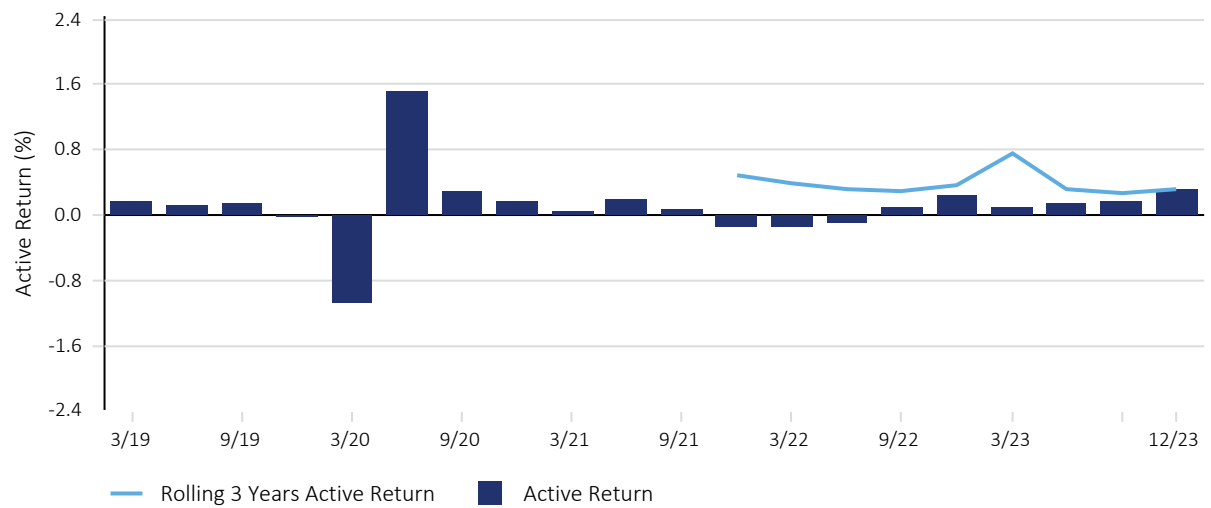
Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)



Comparative Performance



Rolling 3 Years Performance

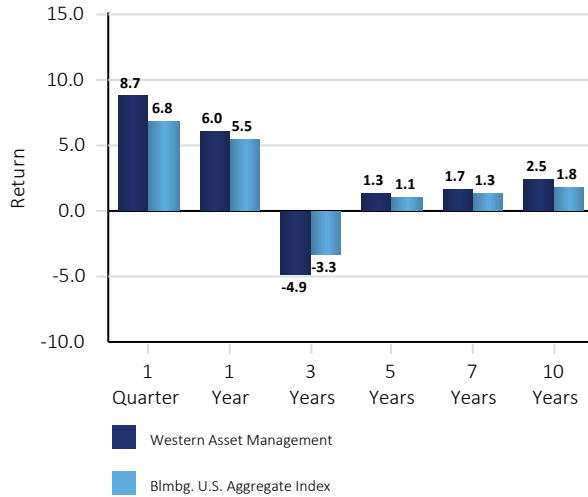


Performance Summary

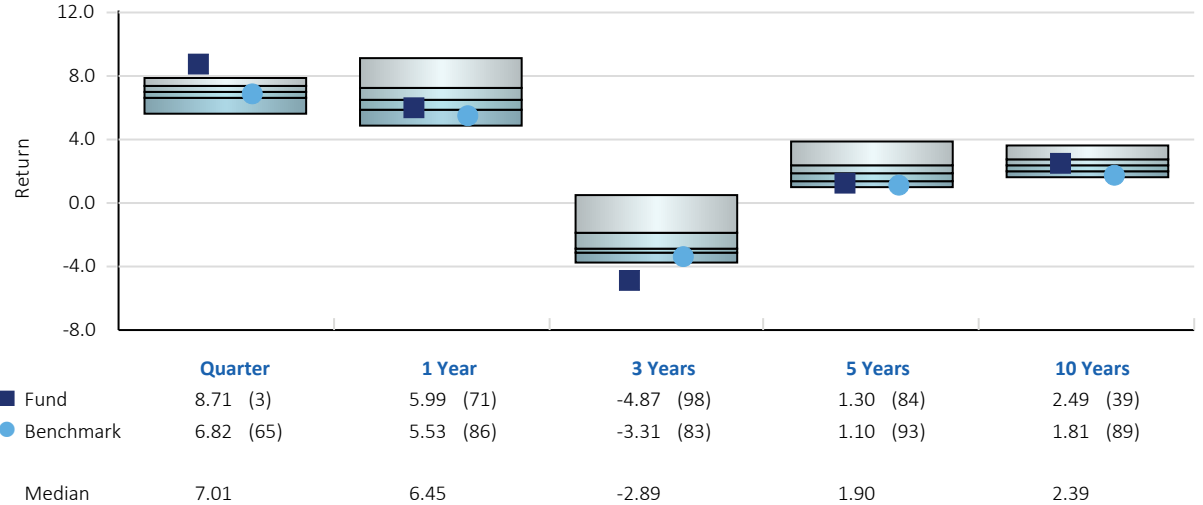
Western Asset Management

Periods Ended December 31, 2023

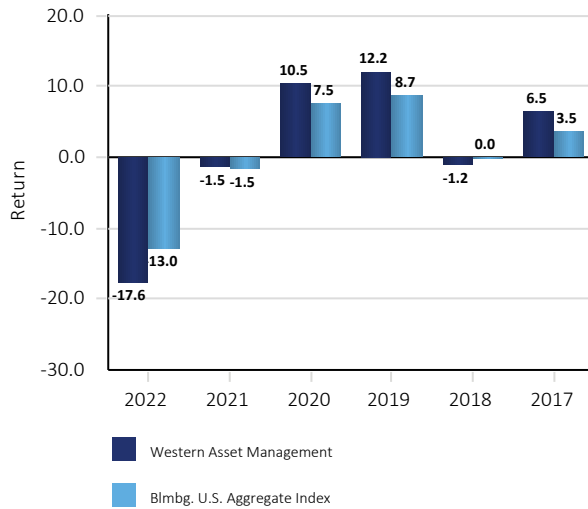
Comparative Performance



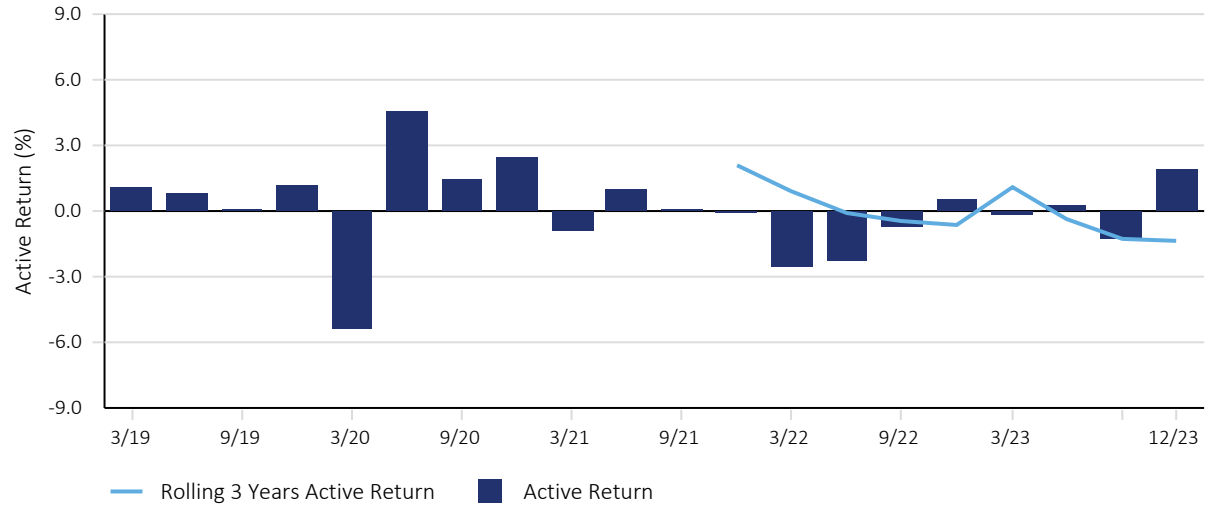
Peer Group Analysis: IM U.S. Broad Market Core+ Fixed Income (SA+CF)



Comparative Performance



Rolling 3 Years Performance

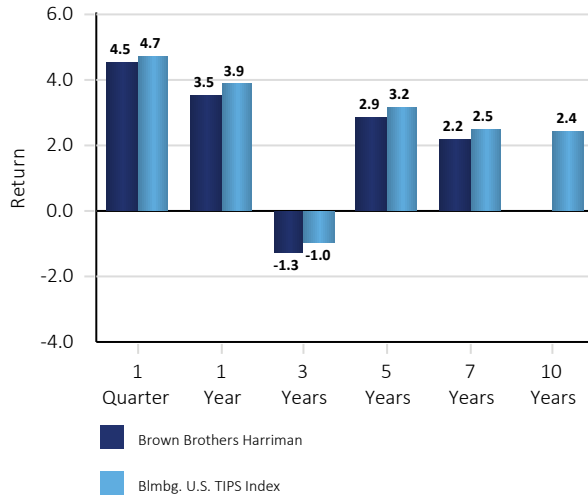


Performance Summary

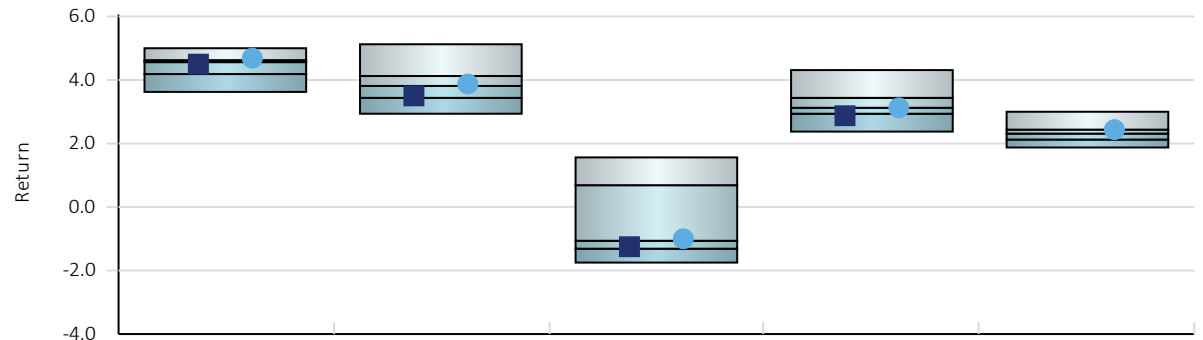
Brown Brothers Harriman

Periods Ended December 31, 2023

Comparative Performance

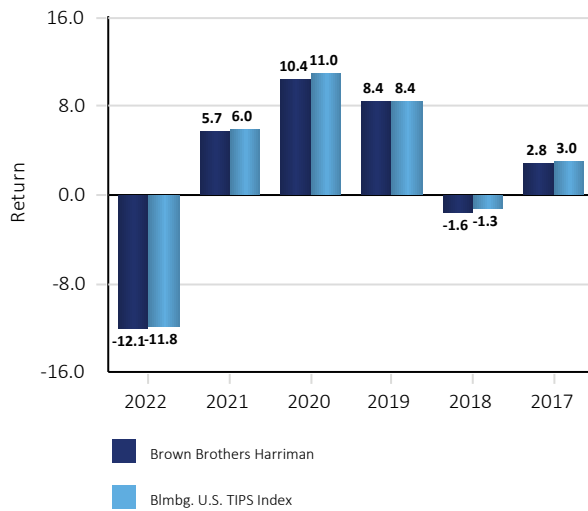


Peer Group Analysis: IM U.S. TIPS (SA+CF)

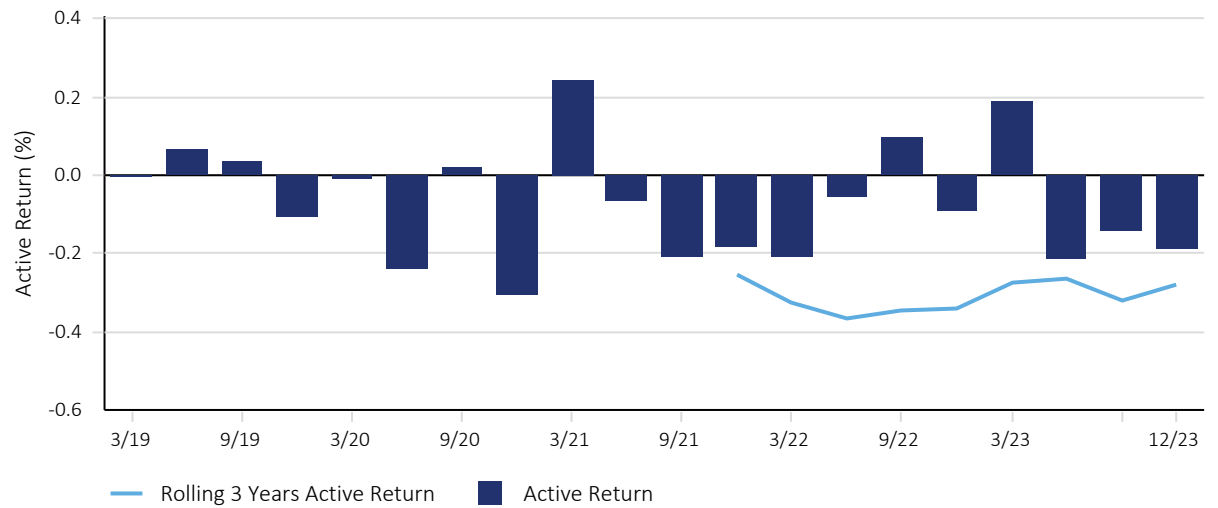


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	4.53 (58)	3.53 (63)	-1.27 (69)	2.87 (83)	
Benchmark	4.71 (19)	3.90 (44)	-1.00 (39)	3.15 (39)	2.42 (27)
Median	4.55	3.84	-1.07	3.13	2.34

Comparative Performance



Rolling 3 Years Performance

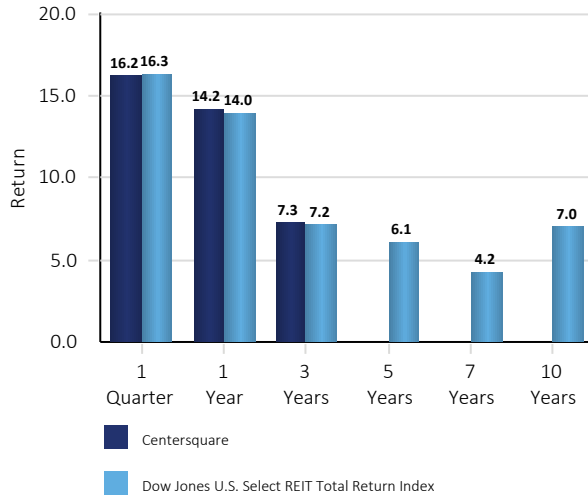


Performance Summary

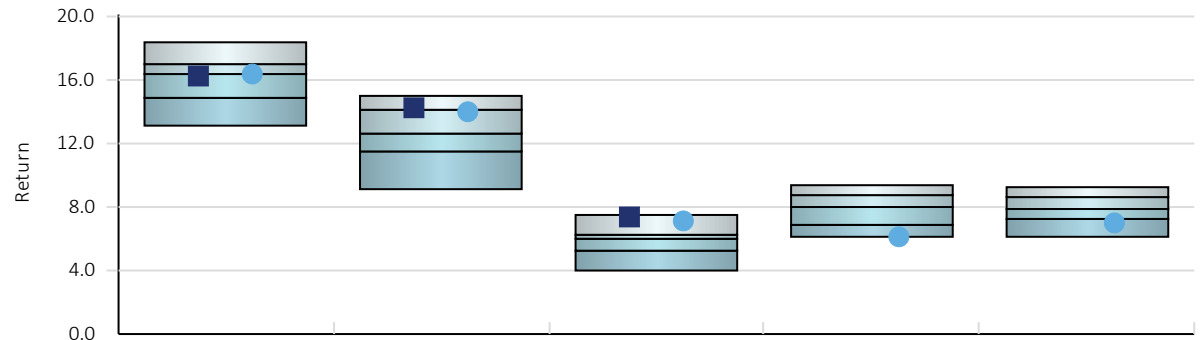
Centersquare

Periods Ended December 31, 2023

Comparative Performance

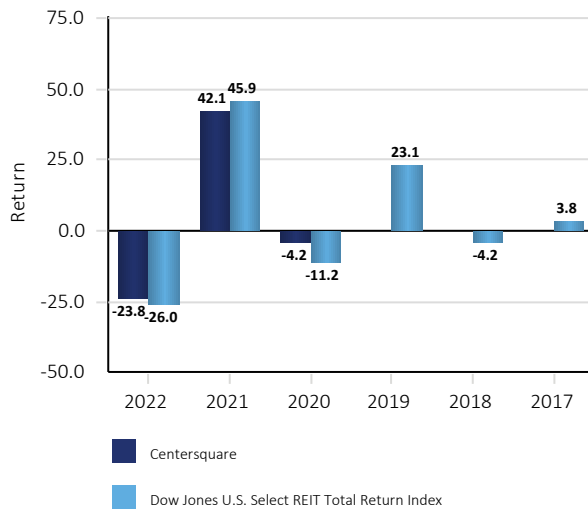


Peer Group Analysis: IM U.S. REIT (SA+CF)

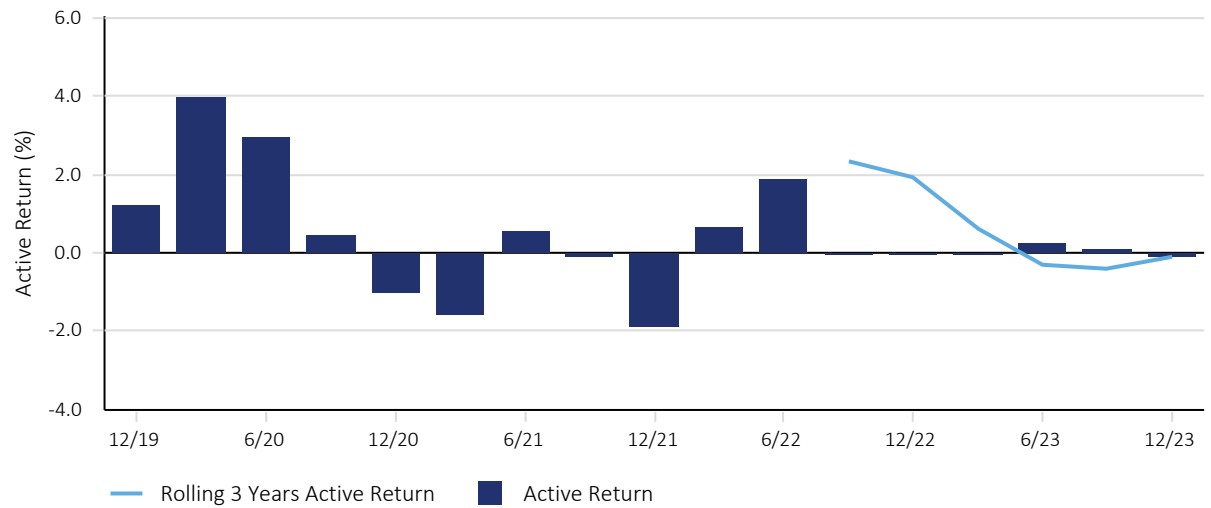


	Quarter	1 Year	3 Years	5 Years	10 Years
Fund	16.23 (57)	14.21 (25)	7.33 (7)	6.12 (95)	7.00 (82)
Benchmark	16.35 (51)	13.96 (27)	7.18 (9)	6.12 (95)	7.00 (82)
Median	16.36	12.63	5.94	8.00	7.84

Comparative Performance



Rolling 3 Years Performance

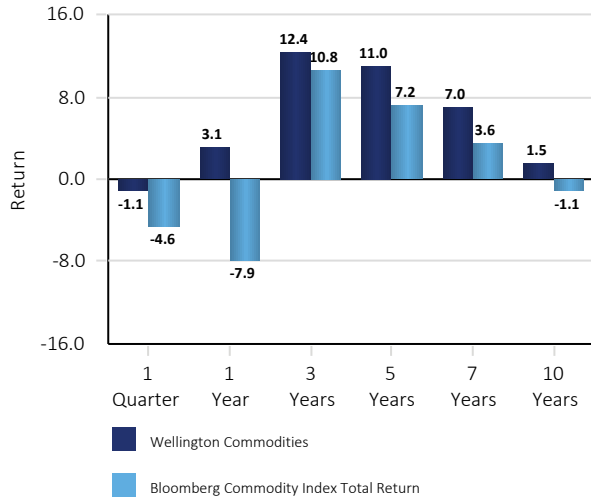


Performance Summary

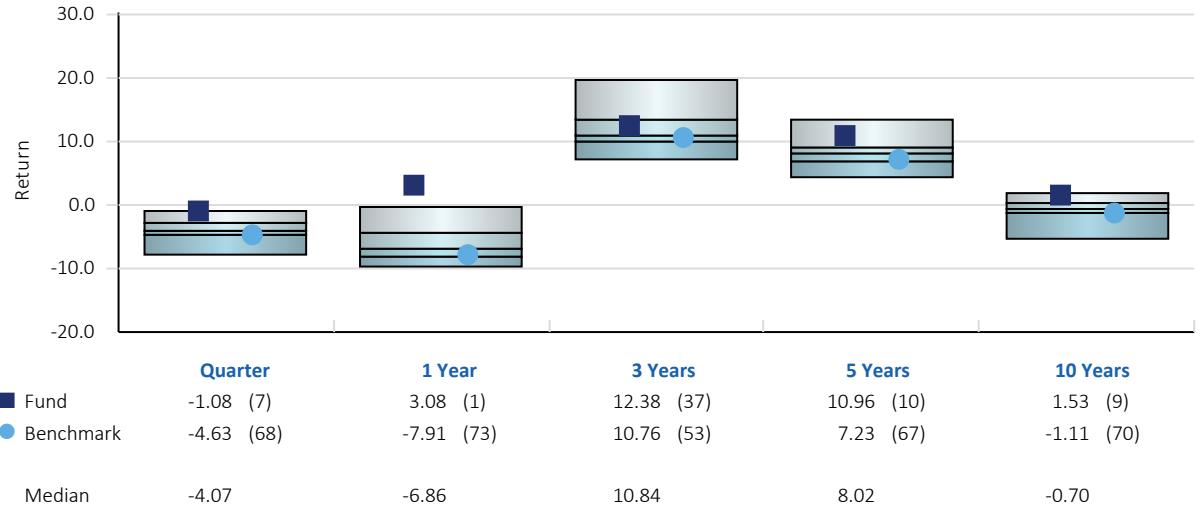
Wellington Commodities

Periods Ended December 31, 2023

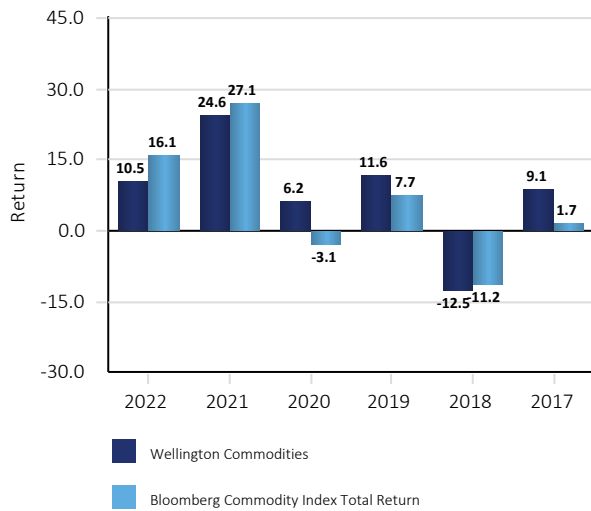
Comparative Performance



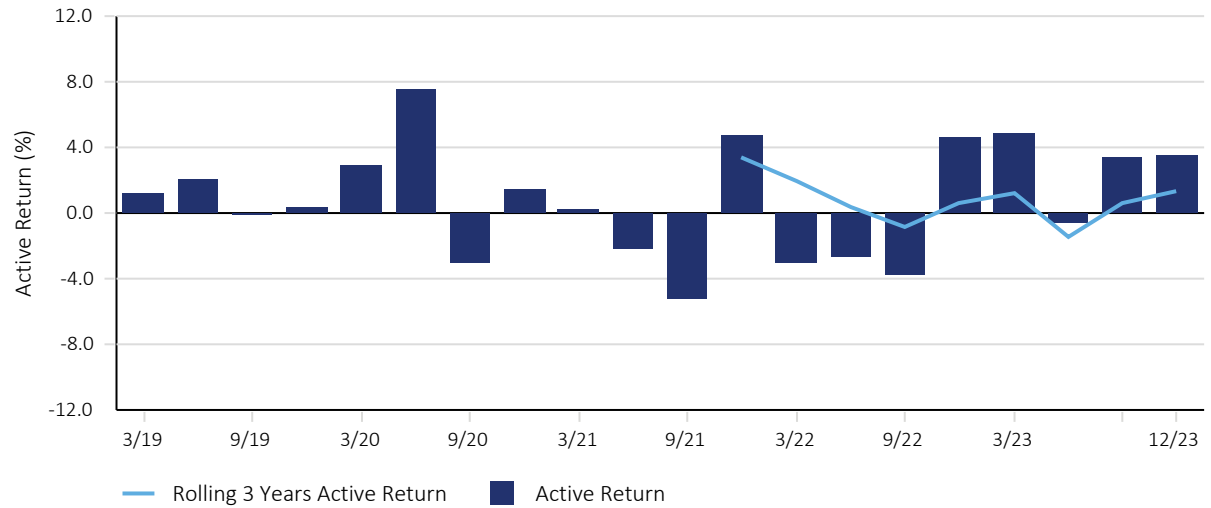
Peer Group Analysis: Commodities Broad Basket



Comparative Performance



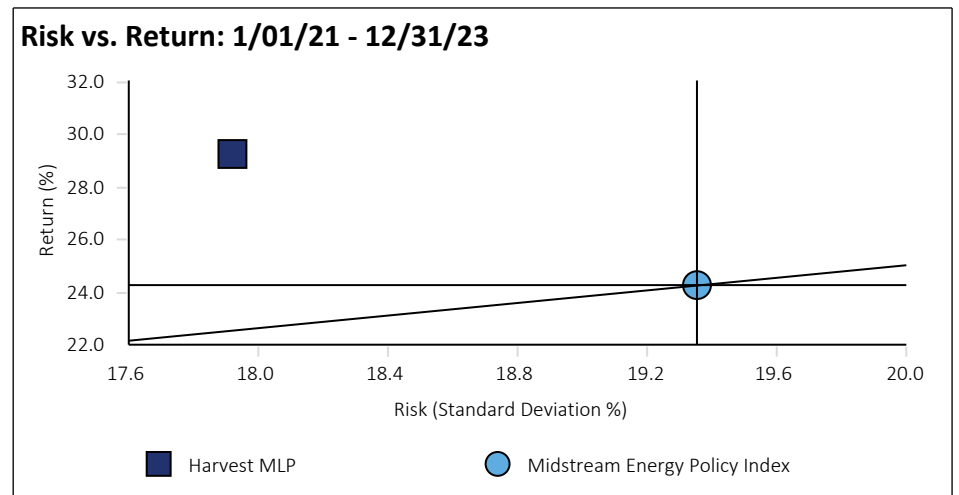
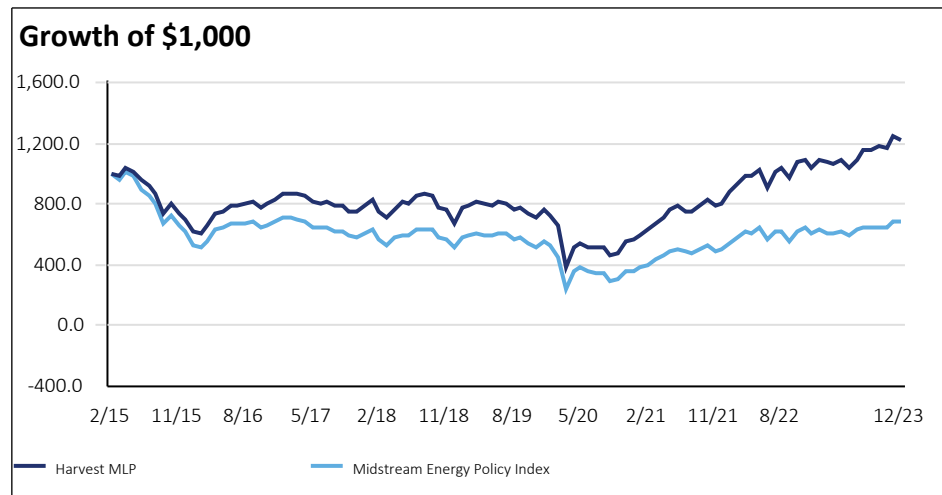
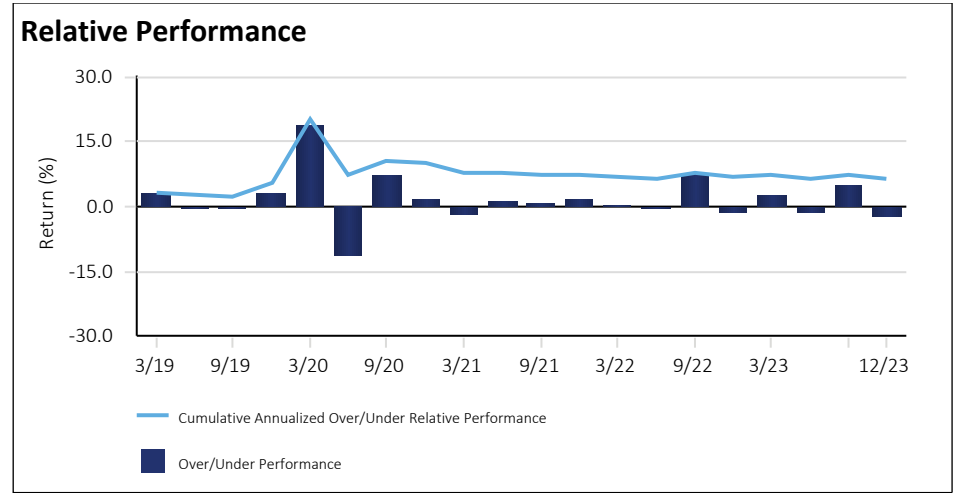
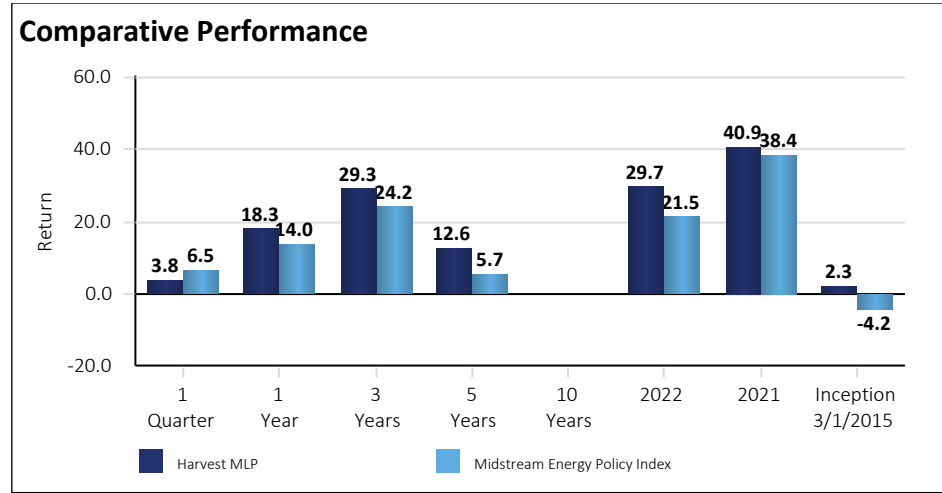
Rolling 3 Years Performance



Manager Summary

Harvest MLP

Periods Ended December 31, 2023



Historical Statistics: 1/01/21 - 12/31/23

	Alpha	Tracking Error	Information Ratio	Beta	Standard Deviation	Sharpe Ratio	Maximum Drawdown	Up Capture	Down Capture
Fund	6.94	5.91	0.68	0.89	17.52	1.45	-8.51	102.09	7.94
Benchmark	0.00	0.00	-	1.00	18.78	1.14	-9.53	100.00	100.00