



# QUARTERLY PERFORMANCE REPORT

**SAN BERNARDINO COUNTY  
EMPLOYEES' RETIREMENT  
ASSOCIATION**

JUNE 30, 2024

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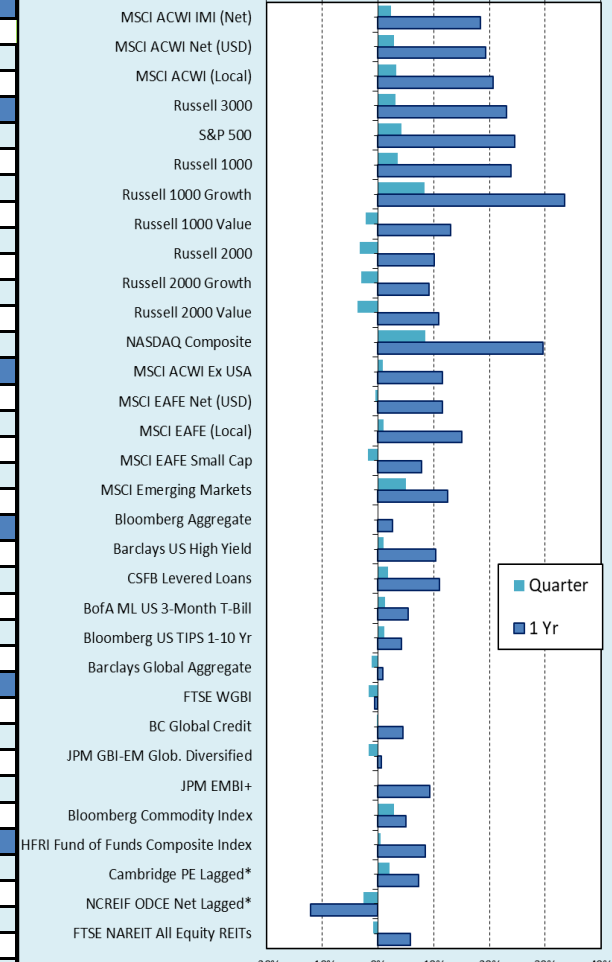
PROPRIETARY & CONFIDENTIAL

# MARKET ENVIRONMENT

# MARKET ENVIRONMENT

## Q2 2024 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI IMI (Net)	World with Small Cap	2.38%	18.40%	4.70%	10.36%	8.17%
MSCI ACWI Net (USD)	World W/O Small Cap	2.87%	19.38%	5.43%	10.76%	8.43%
MSCI ACWI (Local)	World (Local Currency)	3.35%	20.70%	7.24%	11.70%	9.82%
<b>Domestic Equity Benchmarks</b>						
Russell 3000	Domestic All Cap	3.22%	23.12%	8.05%	14.14%	12.15%
S&P 500	Large Core	4.28%	24.56%	10.01%	15.04%	12.86%
Russell 1000	Large Core	3.57%	23.88%	8.74%	14.61%	12.51%
Russell 1000 Growth	Large Growth	8.33%	33.48%	11.28%	19.34%	16.33%
Russell 1000 Value	Large Value	-2.17%	13.06%	5.52%	9.01%	8.23%
Russell 2000	Small Core	-3.28%	10.06%	-2.58%	6.94%	7.00%
Russell 2000 Growth	Small Growth	-2.92%	9.14%	-4.86%	6.17%	7.39%
Russell 2000 Value	Small Value	-3.64%	10.90%	-0.53%	7.07%	6.23%
NASDAQ Composite	Large Growth	8.47%	29.61%	7.78%	18.21%	16.07%
<b>International Equity Benchmarks</b>						
MSCI ACWI Ex USA	World ex-US	0.96%	11.62%	0.46%	5.55%	3.84%
MSCI EAFE Net (USD)	Int'l Developed	-0.42%	11.54%	2.89%	6.46%	4.33%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	1.00%	15.08%	8.10%	8.98%	7.40%
MSCI EAFE Small Cap	Small Cap Int'l	-1.84%	7.78%	-3.35%	4.19%	4.29%
MSCI Emerging Markets	Emerging Equity	5.00%	12.55%	-5.07%	3.10%	2.79%
<b>Domestic Fixed Income Benchmarks</b>						
Bloomberg Aggregate	Core Bonds	0.07%	2.63%	-3.02%	-0.23%	1.35%
Barclays US High Yield	High Yield	1.09%	10.44%	1.64%	3.92%	4.31%
CSFB Levered Loans	Bank Loans	1.87%	11.04%	5.97%	5.36%	4.61%
BofA ML US 3-Month T-Bill	Cash	1.32%	5.40%	3.03%	2.16%	1.51%
Bloomberg US TIPS 1-10 Yr	Inflation	1.12%	4.26%	0.40%	2.67%	2.05%
<b>Global Fixed Income Benchmarks</b>						
Barclays Global Aggregate	Global Core Bonds	-1.10%	0.93%	-5.49%	-2.02%	-0.42%
FTSE WGBI	World Gov. Bonds	-1.58%	-0.63%	-6.92%	-3.20%	-1.20%
BC Global Credit	Global Bonds	-0.19%	4.50%	-3.97%	-0.36%	0.87%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	-1.63%	0.67%	-3.27%	-1.29%	-0.87%
JPM EMBI+	Em. Mkt. Bonds	0.12%	9.36%	-5.69%	-2.43%	0.84%
<b>Alternative Benchmarks</b>						
Bloomberg Commodity Index	Commodities	2.89%	5.00%	5.65%	7.25%	-1.29%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	0.44%	8.50%	2.06%	4.78%	3.48%
Cambridge PE Lagged*	Private Equity	2.07%	7.27%	11.24%	14.82%	13.34%
NCREIF ODCE Net Lagged*	Real Estate	-2.58%	-12.00%	2.47%	2.56%	5.82%
FTSE NAREIT All Equity REITs	REIT	-0.90%	5.78%	-1.63%	3.40%	6.11%
CPI + 2%	Inflation/Real Assets	0.76%	5.04%	7.07%	6.25%	4.87%

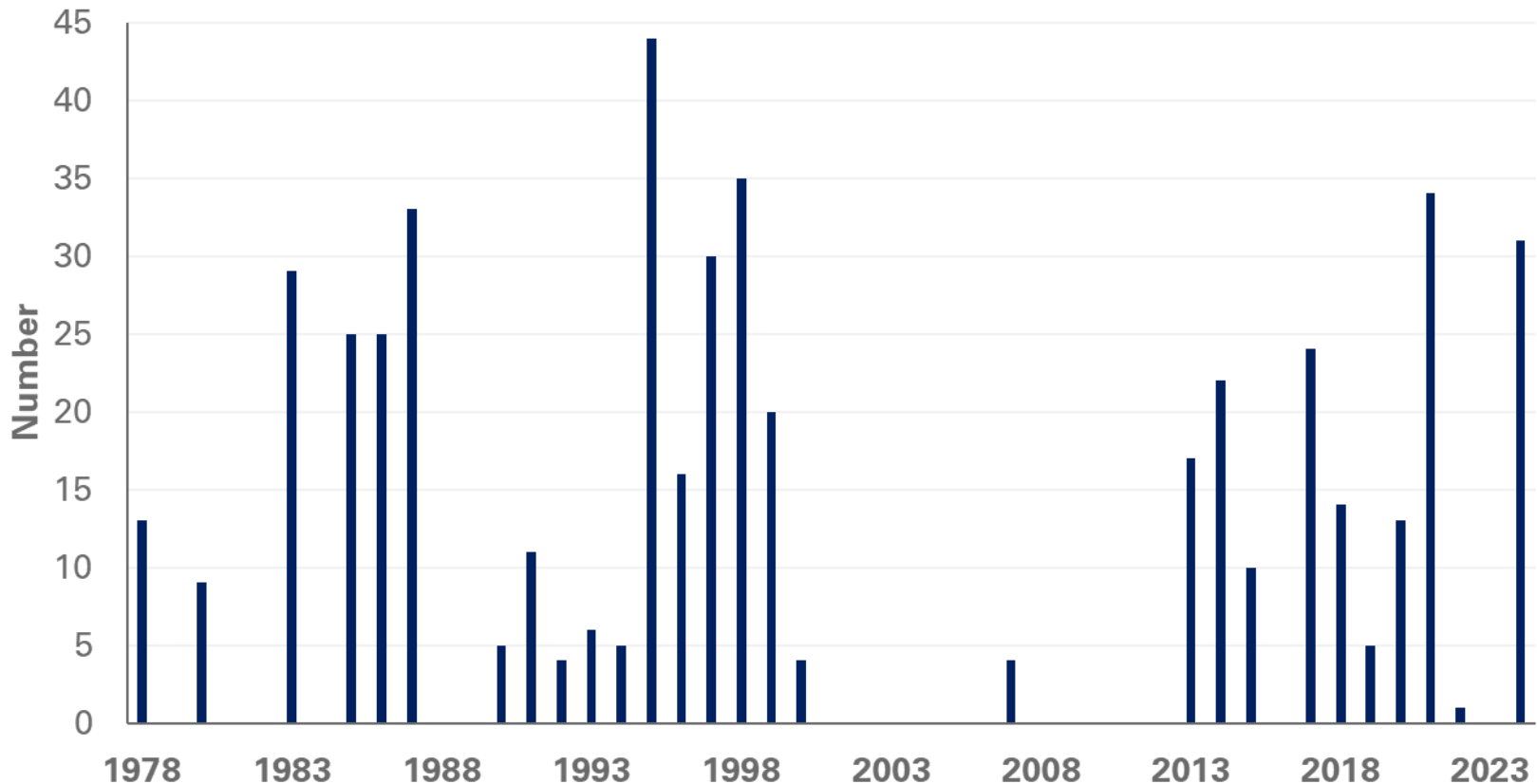


\* As of 3/31/2024



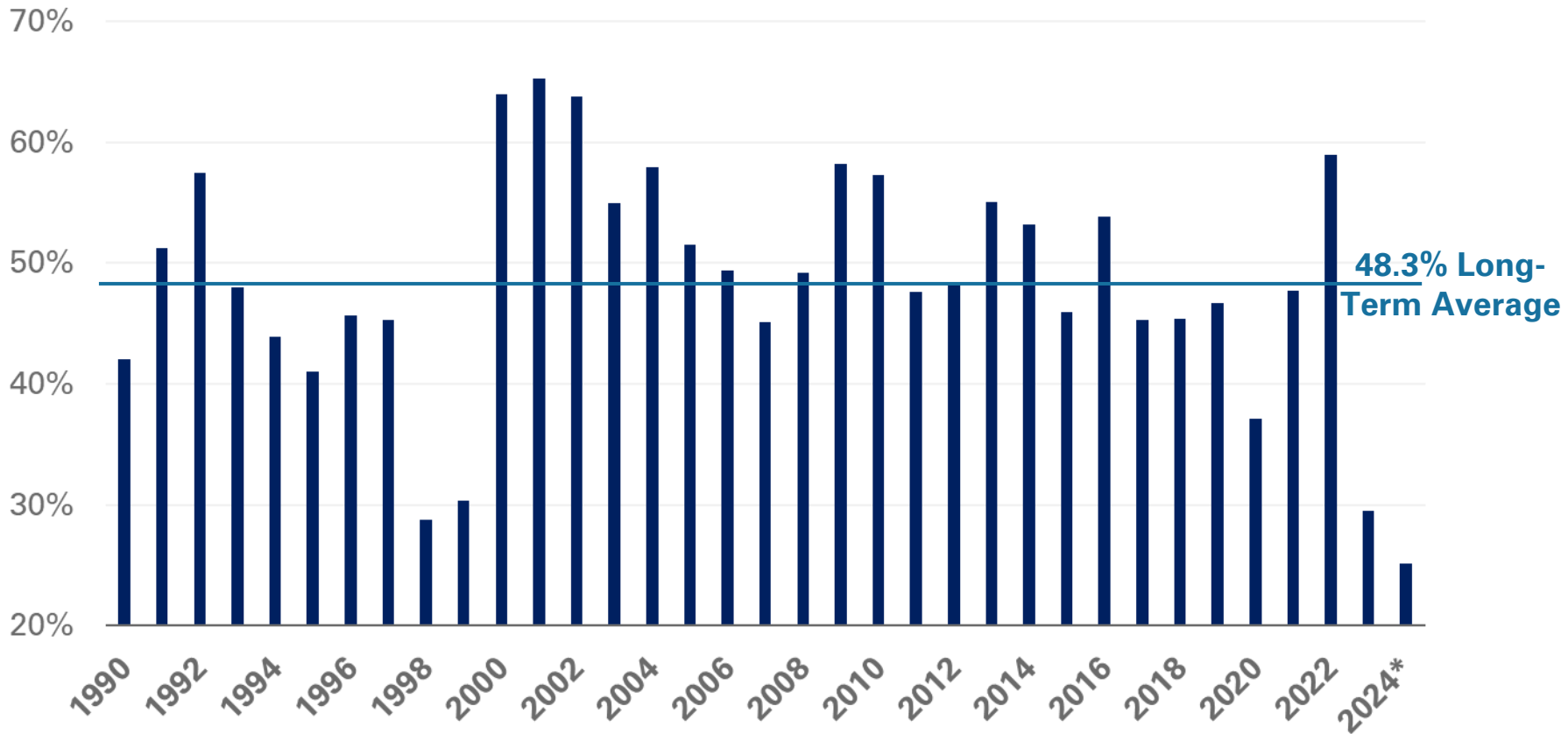
# THE S&P 500 HIT NEW ALL-TIME HIGHS

NUMBER OF RECORD HIGHS HIT IN FIRST 6 MONTHS OF YEAR



# EQUITY MARKET BREADTH REMAINS LIMITED

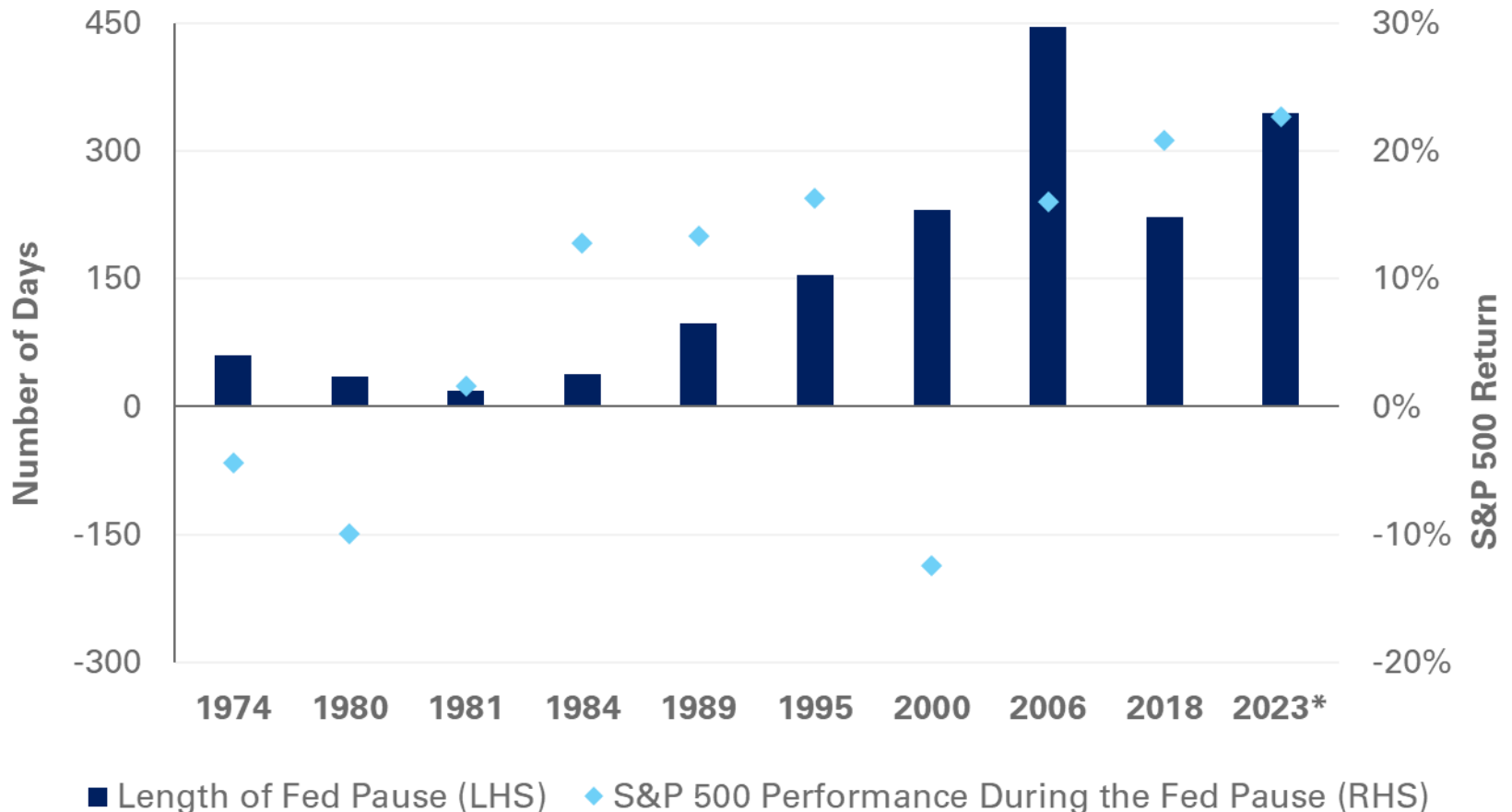
S&P 500 INDEX: % OF STOCKS OUTPERFORMING THE INDEX



Note: \*2024 reflects year-to-date returns through 06/30/2024. Data reflects price returns  
Sources: S&P, FactSet

# FED PAUSES TEND TO BE FAVORABLE FOR STOCKS

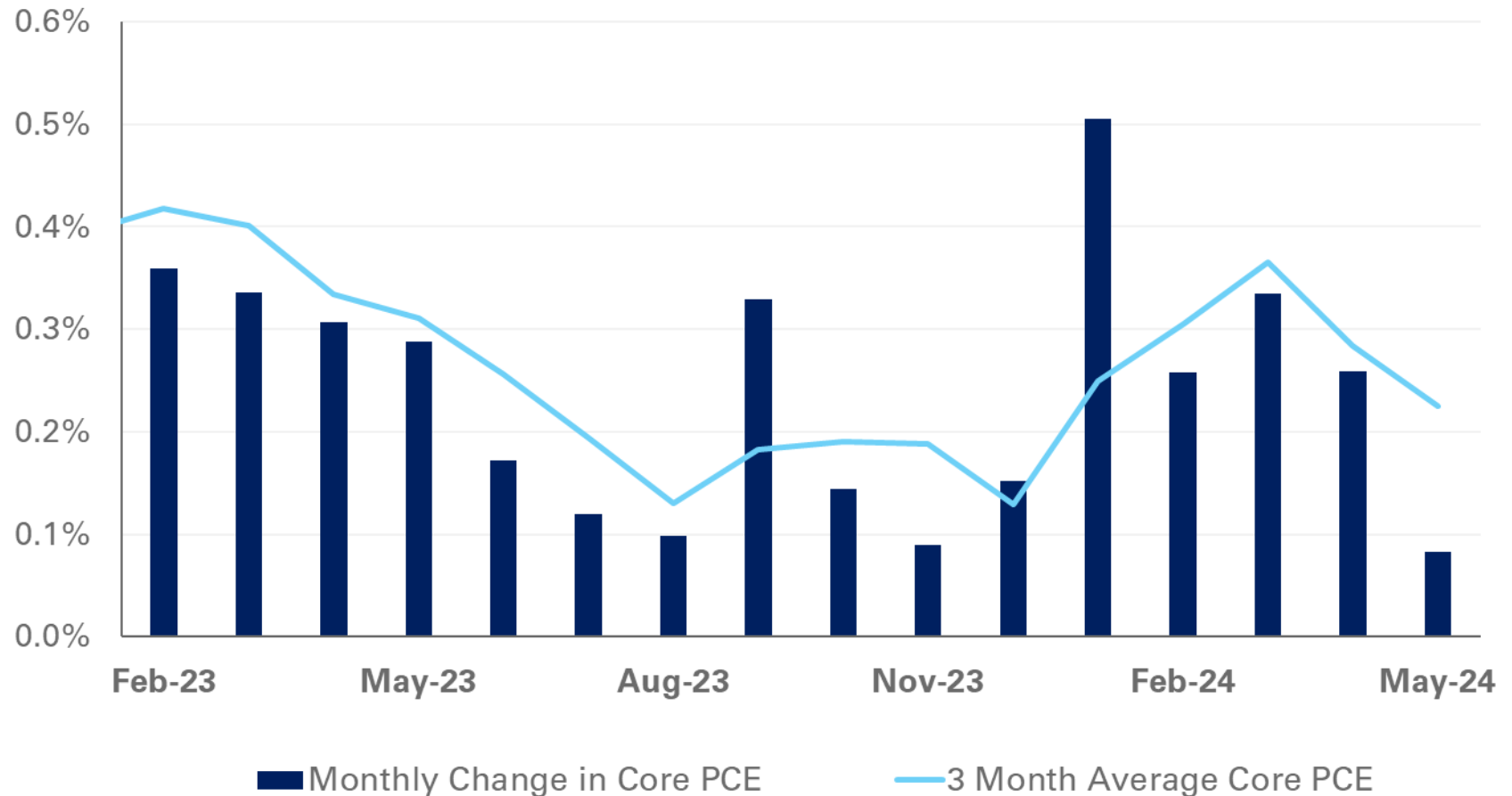
## THE S&P 500 DURING FED PAUSES



Note: \*2023 reflects data through 06/30/2024. Fed "pauses" reflect the length of time between the last Fed hike and the first Fed rate cut  
Sources: Federal Reserve, S&P, FactSet

# INFLATION PRESSURES BROADLY SOFTENED

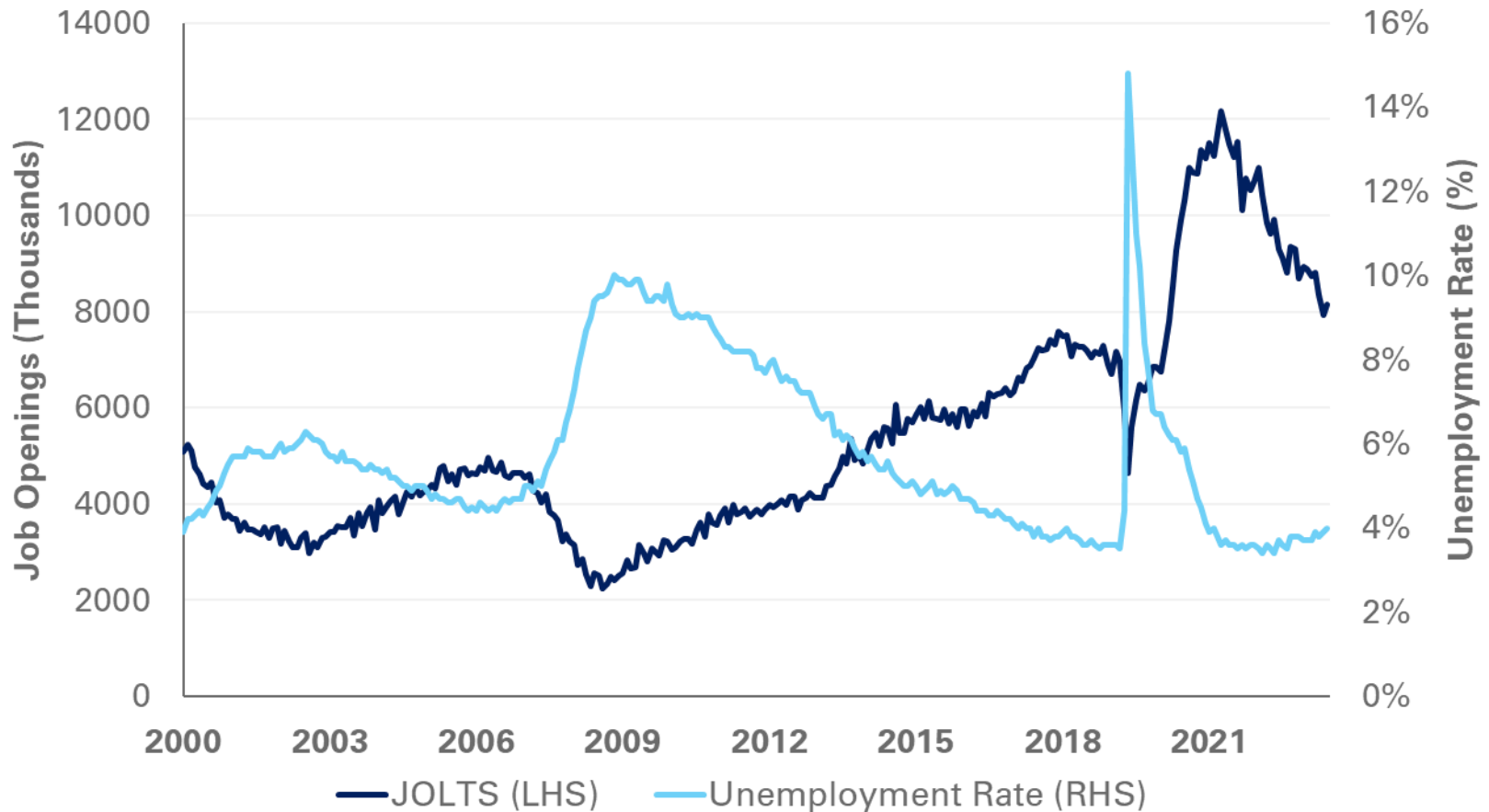
## U.S. CORE PCE PRICE INDEX





# THE LABOR MARKET IS IN BETTER BALANCE

## U.S. JOLTS VERSUS THE UNEMPLOYMENT RATE



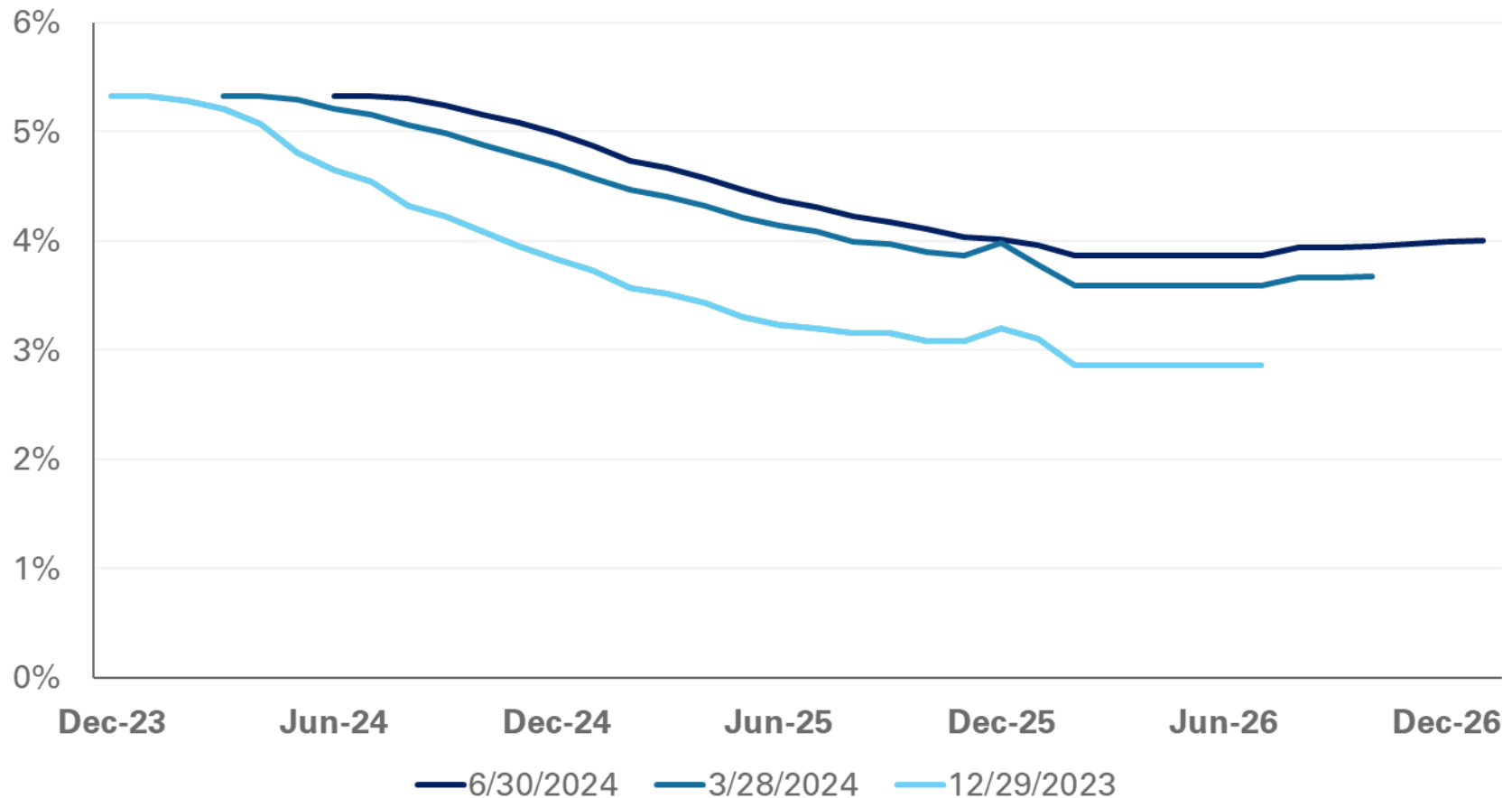
Sources: U.S. Department of Labor, FactSet





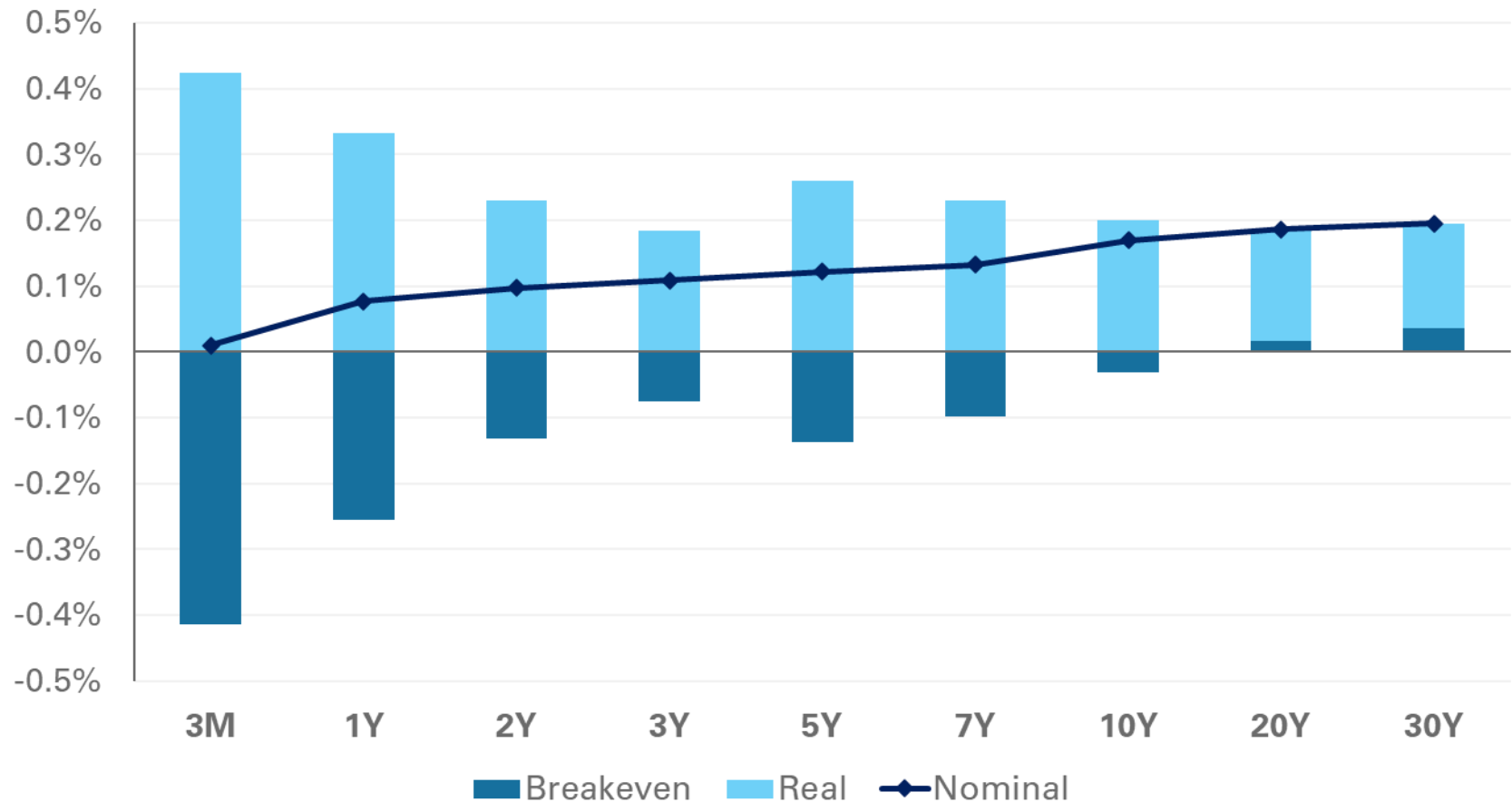
# RATE CUT EXPECTATIONS HAVE BEEN PUSHED OUT

## FED FUNDS FUTURES EXPECTATIONS



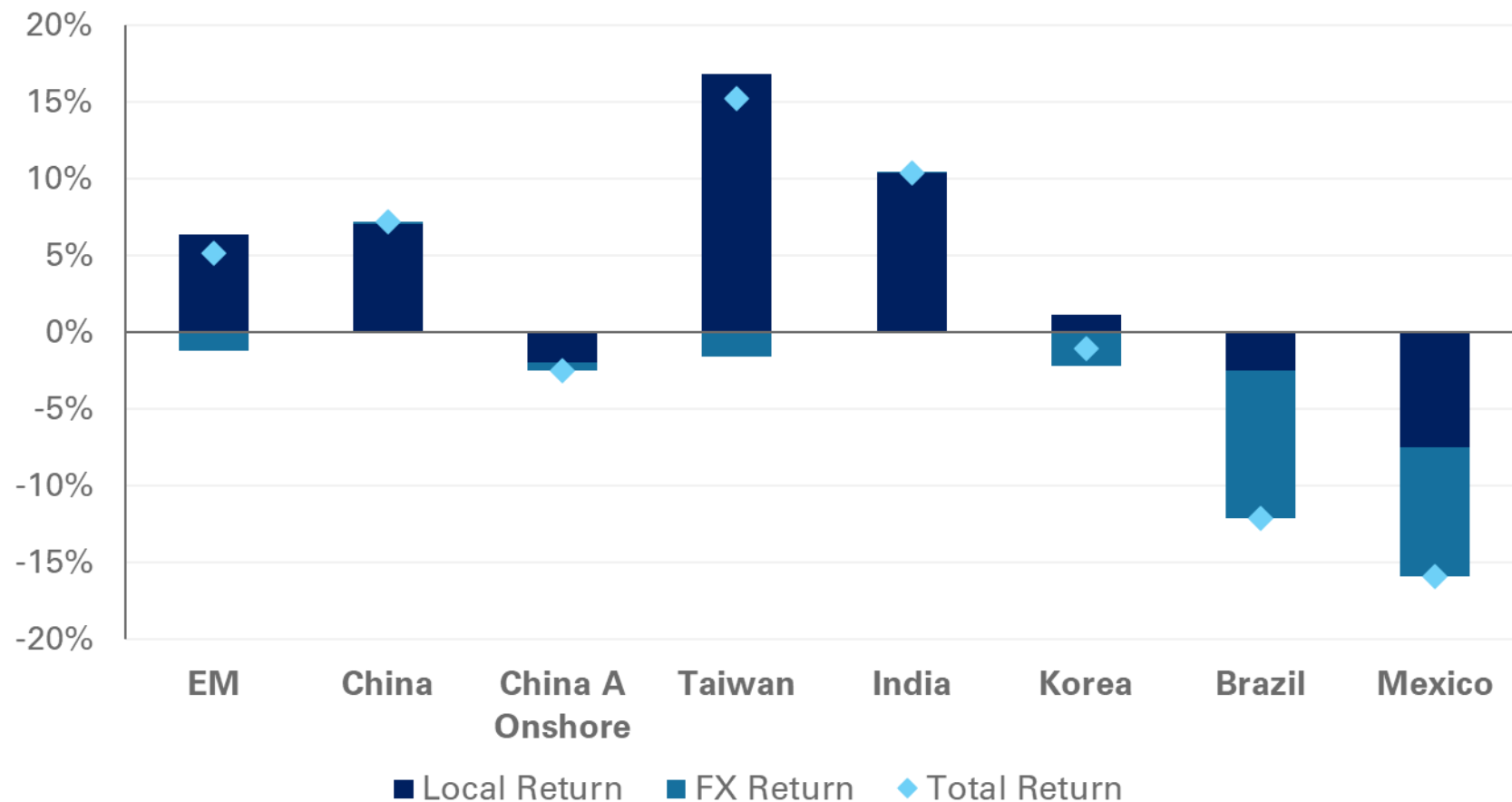
# REAL YIELDS DROVE THE CURVE HIGHER

## QUARTERLY CHANGE IN THE U.S. YIELD CURVE



# ASIAN EQUITIES BOLSTERED EM RETURNS

## QUARTERLY TOTAL RETURNS





# TOTAL FUND PERFORMANCE

# TOTAL FUND PERFORMANCE SUMMARY

## NET OF FEES

	Allocation	Performance (%)					
	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Fund</b>	15,201,103,116	2.1 (1)	4.4 (67)	9.3 (46)	4.7 (7)	8.2 (9)	7.1 (16)
<i>Policy Index</i>		1.0 (45)	4.6 (55)	10.3 (25)	1.6 (92)	5.4 (100)	5.1 (100)
<i>S&amp;P 500 Index</i>		4.3 (1)	15.3 (1)	24.6 (1)	10.0 (1)	15.0 (1)	12.9 (1)
<i>Blmbg. U.S. Aggregate Index</i>		0.1 (98)	-0.7 (100)	2.6 (100)	-3.0 (100)	-0.2 (100)	1.3 (100)
<i>60% MSCI World/40% FTSE WGBI</i>		1.0 (40)	5.4 (26)	11.8 (3)	1.6 (92)	6.1 (85)	5.5 (94)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>		0.9	4.8	9.3	2.9	6.8	6.3

3 Years Ending June 30, 2024				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	4.68 (7)	5.32 (1)	0.33 (4)	0.45 (4)
<i>Policy Index</i>	1.61 (92)	11.06 (80)	-0.07 (87)	-0.10 (87)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	2.87	9.64	0.04	0.05

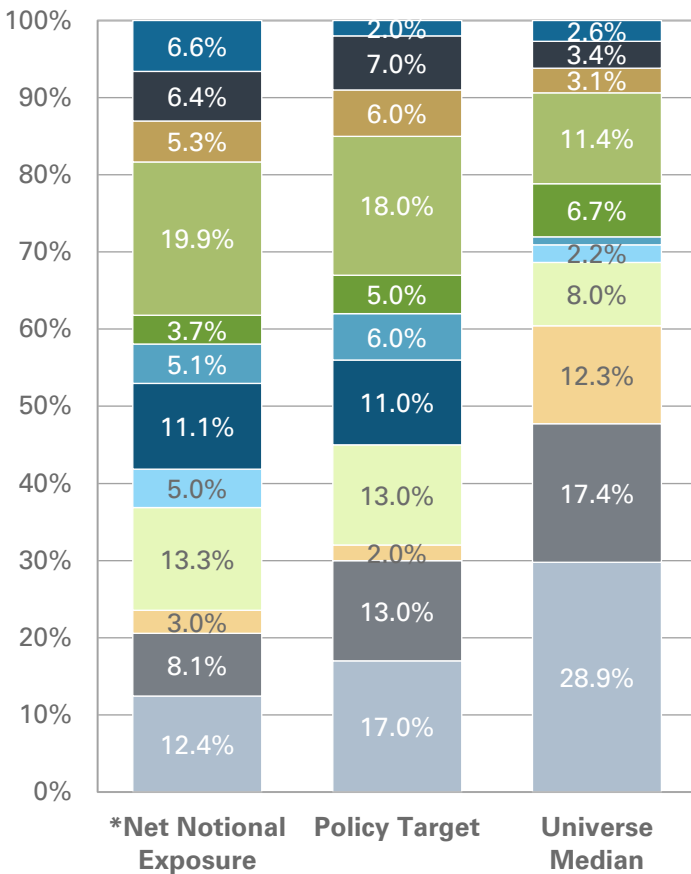
5 Years Ending June 30, 2024				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	8.15 (9)	7.44 (1)	0.79 (2)	1.21 (2)
<i>Policy Index</i>	5.42 (100)	10.50 (42)	0.35 (99)	0.51 (95)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	6.82	10.70	0.47	0.69

10 Years Ending June 30, 2024				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	7.06 (16)	5.86 (1)	0.93 (1)	1.45 (1)
<i>Policy Index</i>	5.14 (100)	8.45 (36)	0.46 (100)	0.68 (98)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	6.29	9.00	0.56	0.82



Note: Risk statistics are measured on a monthly basis.

# ASSET ALLOCATION COMPLIANCE



Asset Class	*Net Notional Exposure	Net Notional Exposure	Policy Target	Difference	Policy Ranges	Within Range
US Equities	1,892,284	12.4%	17.0%	-4.6%	10%-27%	Yes
Int'l Equities	1,234,434	8.1%	13.0%	-4.9%	8%-18%	Yes
US Core Fixed Income	455,810	3.0%	2.0%	1.0%	-3%-7%	Yes
US Credit	2,018,971	13.3%	13.0%	0.3%	8%-18%	Yes
Non-US Core Fixed Income	760,055	5.0%	0.0%	5.0%	-5%-5%	Yes
Non-US Credit	1,690,669	11.1%	11.0%	0.1%	6%-16%	Yes
Emerging Market Debt	772,287	5.1%	6.0%	-0.9%	1%-10%	Yes
Real Estate	568,991	3.7%	5.0%	-1.3%	0%-10%	Yes
Private Equity	3,017,982	19.9%	18.0%	1.9%	6%-23%	Yes
Real Assets	810,446	5.3%	6.0%	-0.7%	0%-10%	Yes
Absolute Return	979,695	6.4%	7.0%	-0.6%	0%-12%	Yes
Cash	999,478	6.6%	2.0%	4.6%	0%-10%	Yes
<b>Total</b>	<b>15,201,103</b>	<b>100.00%</b>	<b>100.00%</b>			

- US Equities
- U.S. Core
- Non-US Core Fixed Income
- Emerging Market Debt
- Private Equity
- Absolute Return
- Int'l Equities
- US Credit
- Non-US Credit
- Real Estate
- Real Assets
- Cash

Note: Notional values are sourced from Russell Investments. Net synthetic exposure applied to Non-US Core Fixed Income and Non-US Credit.



# INVESTMENT EXPOSURE SUMMARY

OVERLAY AS OF JUNE 30, 2024

<u>Asset Class</u>	<u>Physical Exposure</u>		<u>Delta Adjusted Synthetic Exposure</u>		<u>Net Position</u>		<u>Overlay Target</u>		<u>Policy Target</u>	
<b>Total Market Value</b>	<b>15,431.3</b>	<b>100.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>15,431.3</b>	<b>100.0%</b>	<b>15,431.3</b>	<b>100.0%</b>	<b>15,431.3</b>	<b>100.00%</b>
<b>Cash</b>	<b>1,999.6</b>	<b>13.0%</b>	<b>-2,204.9</b>	<b>-14.3%</b>	<b>-205.3</b>	<b>-1.3%</b>	<b>0.0</b>	<b>0.0%</b>	<b>0.0</b>	<b>0.00%</b>
Cash	1,999.6	13.0%	-2,204.9	-14.3%	-205.3	-1.3%	0.0	0.0%	0.0	0.00%
<b>Equity</b>	<b>2,653.6</b>	<b>17.2%</b>	<b>475.1</b>	<b>3.1%</b>	<b>3,128.7</b>	<b>20.3%</b>	<b>3,124.9</b>	<b>20.3%</b>	<b>3,124.8</b>	<b>20.25%</b>
Emerging Markets	399.0	2.6%	219.5	1.4%	618.6	4.0%	617.3	4.0%	617.3	4.00%
International Developed	461.5	3.0%	154.4	1.0%	615.8	4.0%	617.3	4.0%	617.3	4.00%
US Large Cap	1,792.8	11.6%	-59.9	-0.4%	1,733.0	11.2%	1,736.1	11.3%	1,736.0	11.25%
US Small Cap	0.3	0.0%	161.1	1.0%	161.3	1.0%	154.3	1.0%	154.3	1.00%
<b>Fixed</b>	<b>3,919.1</b>	<b>25.4%</b>	<b>1,729.8</b>	<b>11.2%</b>	<b>5,648.9</b>	<b>36.6%</b>	<b>5,447.4</b>	<b>35.3%</b>	<b>5,447.2</b>	<b>35.30%</b>
Global ex US Fixed Income	1,904.5	12.3%	1,274.0	8.3%	3,178.6	20.6%	3,178.9	20.6%	3,178.8	20.60%
High Yield	1,667.1	10.8%	0.0	0.0%	1,667.1	10.8%	1,466.0	9.5%	1,466.0	9.50%
US Fixed Income	347.4	2.3%	455.8	3.0%	803.2	5.2%	802.4	5.2%	802.4	5.20%
<b>Other</b>	<b>6,859.0</b>	<b>44.4%</b>	<b>0.0</b>	<b>0.0%</b>	<b>6,859.0</b>	<b>44.4%</b>	<b>6,859.0</b>	<b>44.4%</b>	<b>6,859.2</b>	<b>44.45%</b>
Alternatives	3.7	0.0%	0.0	0.0%	3.7	0.0%	3.7	0.0%	0.0	0.00%
Commodities	666.9	4.3%	0.0	0.0%	666.9	4.3%	666.9	4.3%	679.0	4.40%
Infrastructure	167.3	1.1%	0.0	0.0%	167.3	1.1%	167.3	1.1%	138.9	0.90%
Private Equity	2,976.4	19.3%	0.0	0.0%	2,976.4	19.3%	2,976.4	19.3%	3,009.1	19.50%
Real Estate	568.0	3.7%	0.0	0.0%	568.0	3.7%	568.0	3.7%	555.5	3.60%
Tactical Cash	2,476.7	16.0%	0.0	0.0%	2,476.7	16.0%	2,476.7	16.0%	2,476.7	16.05%

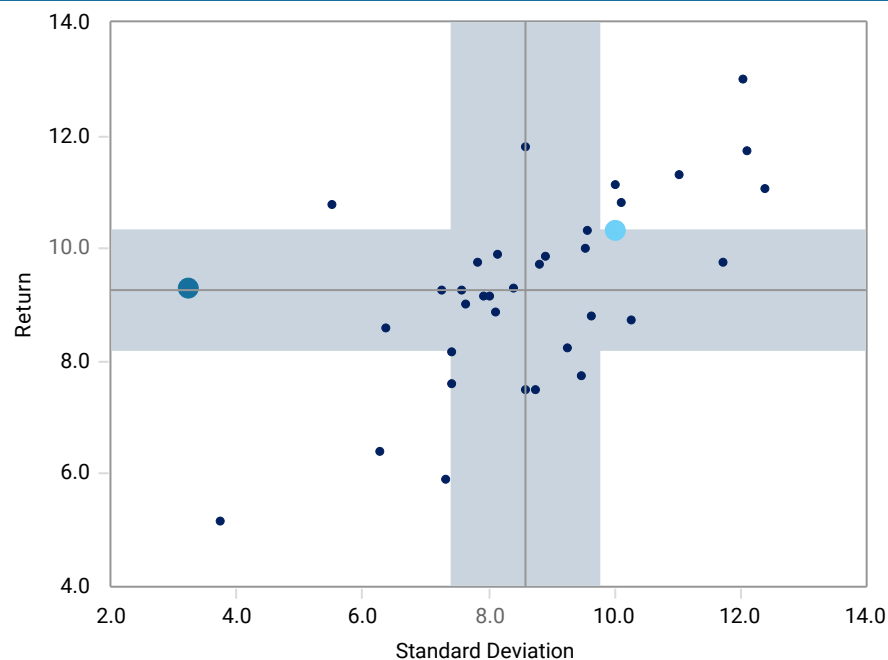


Source: Russell Investments



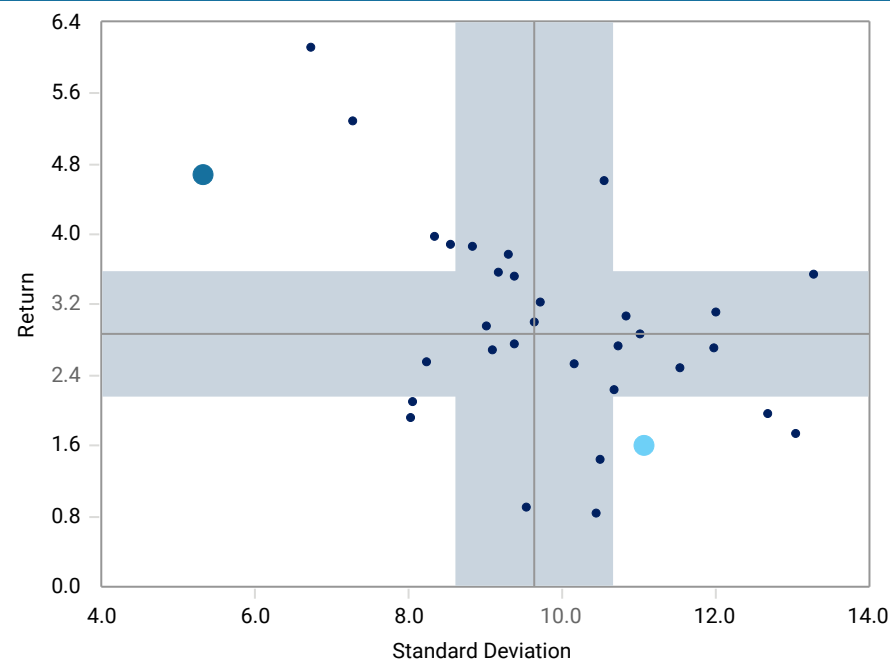
# RISK VS. RETURN

1 Year Ending June 30, 2024



● InvMetrics Public DB > \$1 Billion ● Total Fund  
● Policy Index

3 Years Ending June 30, 2024



● InvMetrics Public DB > \$1 Billion ● Total Fund  
● Policy Index

1 Year Ending June 30, 2024

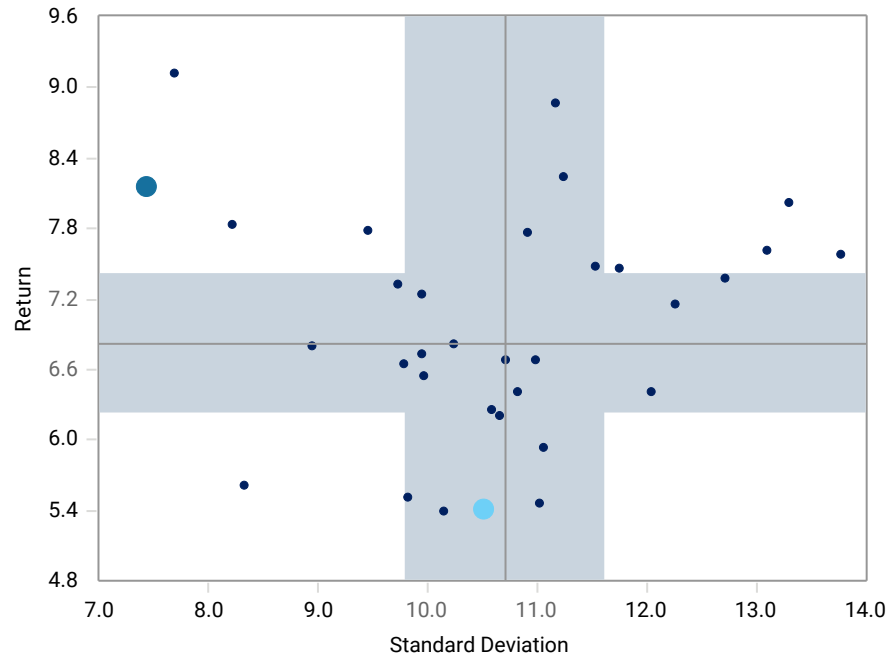
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	9.3 (46)	3.2 (1)	1.1 (1)	2.3 (1)
Policy Index	10.3 (25)	10.0 (78)	0.5 (39)	0.8 (37)
Population	34	34	34	34

3 Years Ending June 30, 2024

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	4.7 (7)	5.3 (1)	0.3 (4)	0.5 (4)
Policy Index	1.6 (92)	11.1 (80)	-0.1 (87)	-0.1 (87)
Population	31	31	31	31

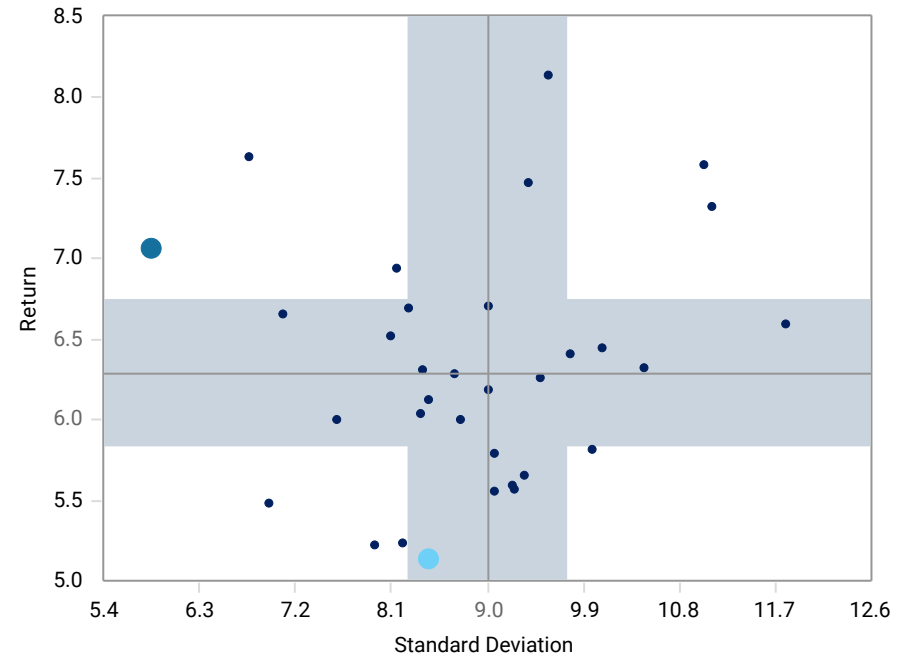
# RISK VS. RETURN

5 Years Ending June 30, 2024



● InvMetrics Public DB > \$1 Billion ● Total Fund  
● Policy Index

10 Years Ending June 30, 2024



● InvMetrics Public DB > \$1 Billion ● Total Fund  
● Policy Index

5 Years Ending June 30, 2024

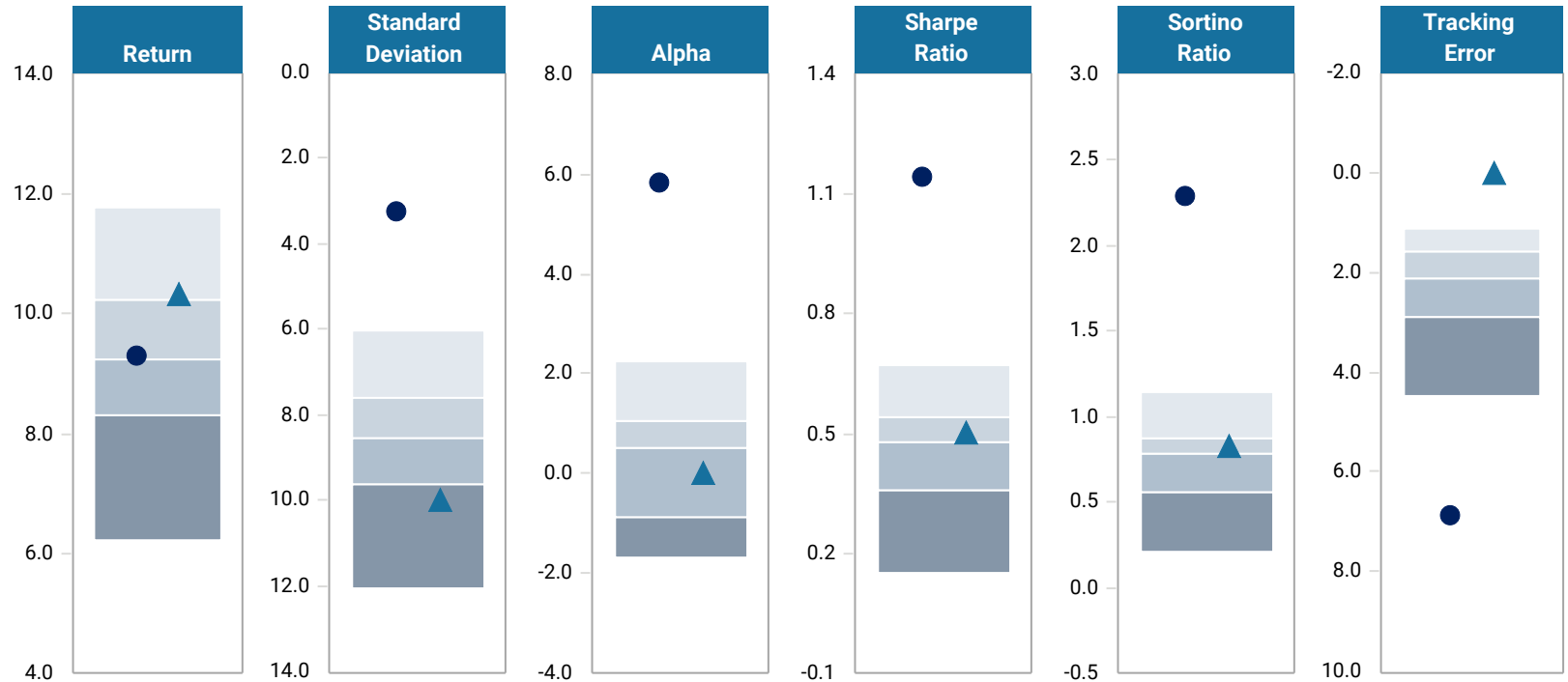
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	8.2 (9)	7.4 (1)	0.8 (2)	1.2 (2)
Policy Index	5.4 (100)	10.5 (42)	0.4 (99)	0.5 (95)
Population	31	31	31	31

10 Years Ending June 30, 2024

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.1 (16)	5.9 (1)	0.9 (1)	1.5 (1)
Policy Index	5.1 (100)	8.5 (36)	0.5 (100)	0.7 (98)
Population	31	31	31	31

# RISK STATISTICS VS. PEER UNIVERSE

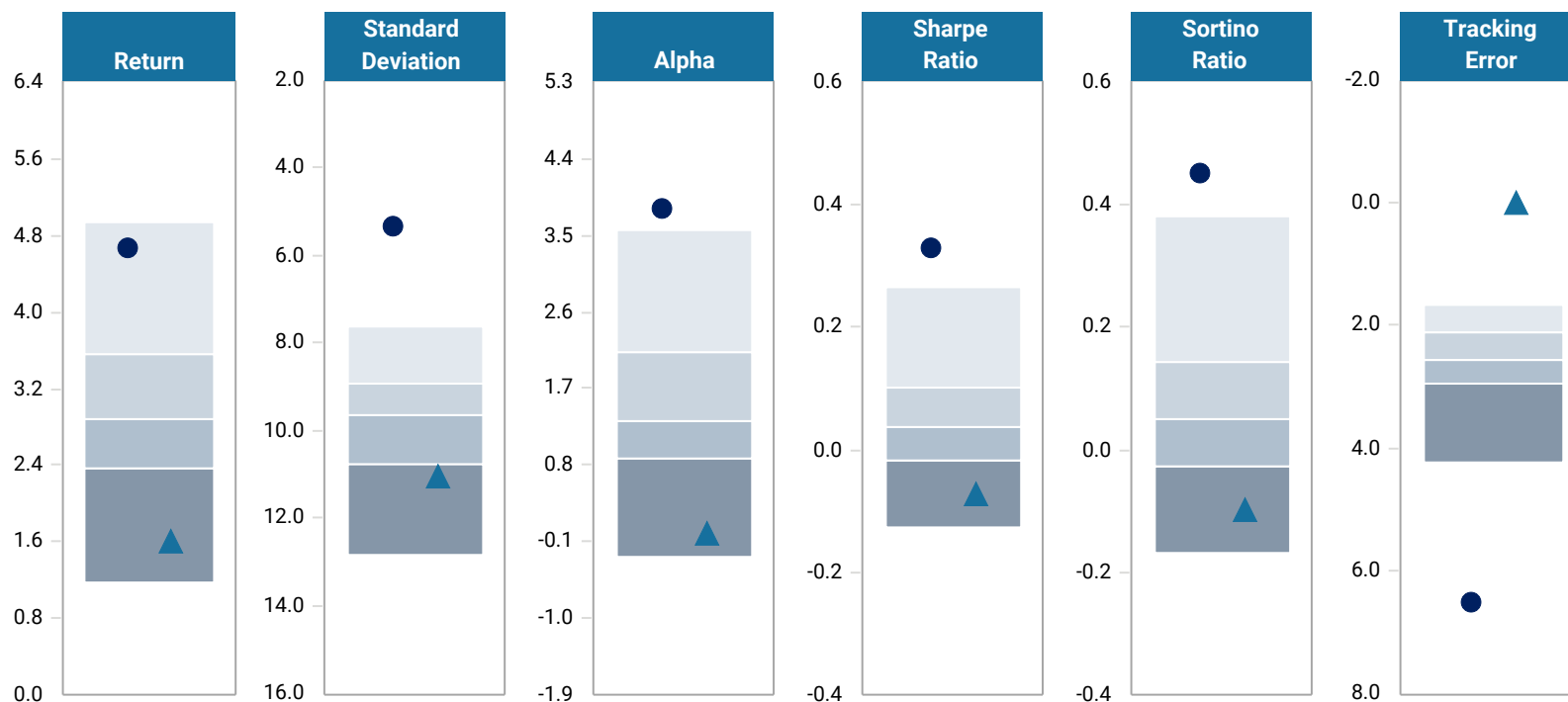
Total Fund vs. InvMetrics Public DB > \$1 Billion



	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)
● Total Fund	9.3 (46)	3.2 (1)	5.9 (1)	1.1 (1)	2.3 (1)	6.9 (100)
▲ Policy Index	10.3 (25)	10.0 (78)	0.0 (70)	0.5 (39)	0.8 (37)	0.0 (1)
5th Percentile	11.8	6.0	2.3	0.7	1.1	1.1
1st Quartile	10.2	7.6	1.1	0.5	0.9	1.6
Median	9.3	8.6	0.5	0.5	0.8	2.1
3rd Quartile	8.3	9.6	-0.9	0.4	0.6	2.9
95th Percentile	6.2	12.1	-1.7	0.2	0.2	4.5
Population	34	34	34	34	34	34

# RISK STATISTICS VS. PEER UNIVERSE

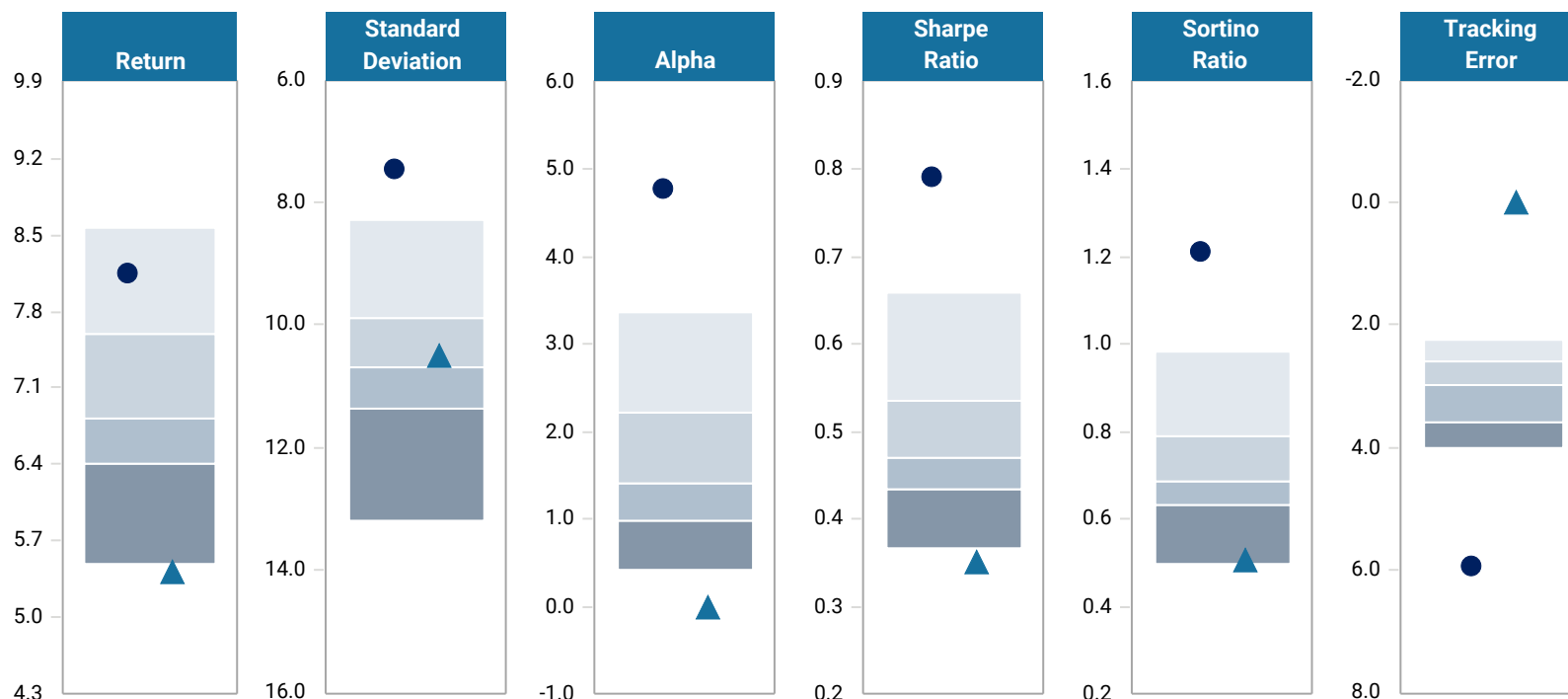
## Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)
● Total Fund	4.7 (7)	5.3 (1)	3.8 (5)	0.3 (4)	0.5 (4)	6.5 (100)
▲ Policy Index	1.6 (92)	11.1 (80)	0.0 (91)	-0.1 (87)	-0.1 (87)	0.0 (1)
5th Percentile	4.9	7.6	3.6	0.3	0.4	1.7
1st Quartile	3.6	8.9	2.1	0.1	0.1	2.1
Median	2.9	9.6	1.3	0.0	0.1	2.6
3rd Quartile	2.4	10.8	0.9	0.0	0.0	2.9
95th Percentile	1.2	12.8	-0.3	-0.1	-0.2	4.2
Population	31	31	31	31	31	31

# RISK STATISTICS VS. PEER UNIVERSE

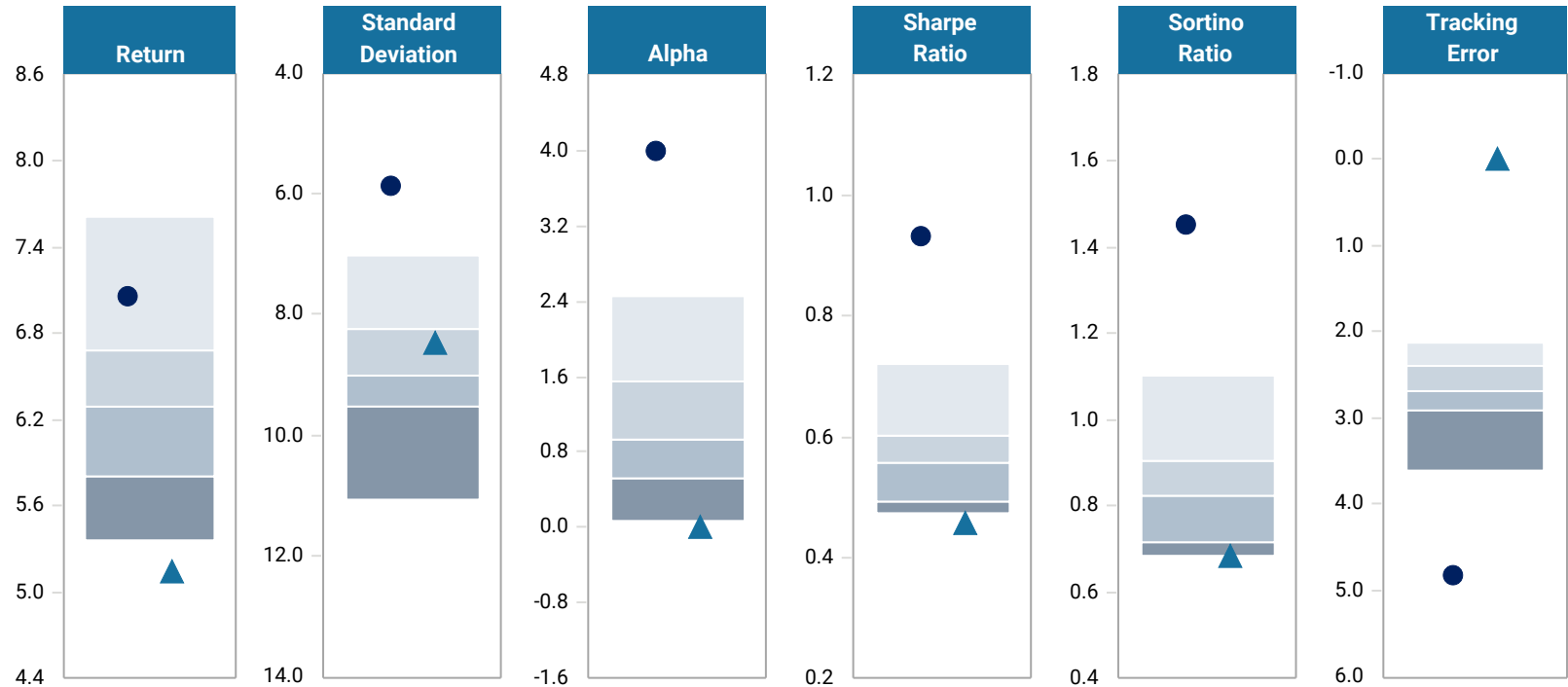
## Total Fund vs. InvMetrics Public DB > \$1 Billion



	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)
● Total Fund	8.2 (9)	7.4 (1)	4.8 (1)	0.8 (2)	1.2 (2)	5.9 (100)
▲ Policy Index	5.4 (100)	10.5 (42)	0.0 (100)	0.4 (99)	0.5 (95)	0.0 (1)
5th Percentile	8.6	8.3	3.4	0.7	1.0	2.3
1st Quartile	7.6	9.9	2.2	0.5	0.8	2.6
Median	6.8	10.7	1.4	0.5	0.7	3.0
3rd Quartile	6.4	11.4	1.0	0.4	0.6	3.6
95th Percentile	5.5	13.2	0.4	0.4	0.5	4.0
Population	31	31	31	31	31	31

# RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1 Billion



	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)
● Total Fund	7.1 (16)	5.9 (1)	4.0 (1)	0.9 (1)	1.5 (1)	4.8 (100)
▲ Policy Index	5.1 (100)	8.5 (36)	0.0 (96)	0.5 (100)	0.7 (98)	0.0 (1)
5th Percentile	7.6	7.0	2.5	0.7	1.1	2.1
1st Quartile	6.7	8.2	1.6	0.6	0.9	2.4
Median	6.3	9.0	0.9	0.6	0.8	2.7
3rd Quartile	5.8	9.5	0.5	0.5	0.7	2.9
95th Percentile	5.4	11.1	0.1	0.5	0.7	3.6
Population	31	31	31	31	31	31

# TOTAL PLAN RISK STATISTICS

1 Years Ending June 30, 2024				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>20.6</b>	<b>14.1</b>	<b>1.7</b>	<b>-1.3</b>
<i>Russell 3000 Index</i>	<i>23.1</i>	<i>15.2</i>	<i>0.0</i>	
<b>International Equity With Beta Overlay</b>	<b>8.3</b>	<b>12.6</b>	<b>2.3</b>	<b>-1.6</b>
<i>MSCI AC World ex USA index</i>	<i>12.2</i>	<i>14.3</i>	<i>0.0</i>	
<b>Global Fixed Income With Beta Overlay</b>	<b>7.5</b>	<b>1.6</b>	<b>7.2</b>	<b>0.8</b>
<i>Blmbg. Global Aggregate</i>	<i>0.9</i>	<i>8.5</i>	<i>0.0</i>	
<b>U.S. Credit Strategies</b>	<b>9.8</b>	<b>1.6</b>	<b>3.3</b>	<b>-0.2</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	<i>10.6</i>	<i>3.5</i>	<i>0.0</i>	
<b>Non-U.S. Credit Composite</b>	<b>16.3</b>	<b>2.7</b>	<b>8.3</b>	<b>0.8</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	<i>8.7</i>	<i>8.7</i>	<i>0.0</i>	
<b>Emerging Markets Debt Composite</b>	<b>4.5</b>	<b>2.1</b>	<b>8.7</b>	<b>-0.1</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	<i>4.9</i>	<i>9.0</i>	<i>0.0</i>	
<b>Alpha Pool Composite</b>	<b>12.7</b>	<b>1.7</b>	<b>1.7</b>	<b>2.2</b>
<i>91 Day T-Bill + 3%</i>	<i>8.6</i>	<i>0.1</i>	<i>0.0</i>	
<b>Private Equity Composite</b>	<b>7.2</b>	<b>2.9</b>	<b>4.1</b>	<b>0.6</b>
<i>CJA Global All PE (Qtr Lag)</i>	<i>4.5</i>	<i>2.8</i>	<i>0.0</i>	
<b>Real Estate Composite</b>	<b>-7.3</b>	<b>2.9</b>	<b>5.6</b>	<b>0.0</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	<i>-7.2</i>	<i>3.5</i>	<i>0.0</i>	
<b>Real Assets Composite</b>	<b>9.0</b>	<b>4.4</b>	<b>8.9</b>	<b>-0.3</b>
<i>Real Assets Custom Blend</i>	<i>11.1</i>	<i>9.5</i>	<i>0.0</i>	



# TOTAL PLAN RISK STATISTICS

3 Years Ending June 30, 2024				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>4.9</b>	<b>16.9</b>	<b>2.5</b>	<b>-1.2</b>
<i>Russell 3000 Index</i>	<i>8.1</i>	<i>18.1</i>	<i>0.0</i>	
<b>International Equity With Beta Overlay</b>	<b>-0.2</b>	<b>12.9</b>	<b>4.1</b>	<b>-0.4</b>
<i>MSCI AC World ex USA index</i>	<i>1.0</i>	<i>16.4</i>	<i>0.0</i>	
<b>Global Fixed Income With Beta Overlay</b>	<b>4.5</b>	<b>3.4</b>	<b>7.2</b>	<b>1.4</b>
<i>Blmbg. Global Aggregate</i>	<i>-5.5</i>	<i>8.8</i>	<i>0.0</i>	
<b>U.S. Credit Strategies</b>	<b>5.3</b>	<b>3.5</b>	<b>4.3</b>	<b>0.3</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	<i>3.8</i>	<i>5.6</i>	<i>0.0</i>	
<b>Non-U.S. Credit Composite</b>	<b>11.4</b>	<b>6.6</b>	<b>11.7</b>	<b>1.1</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	<i>-2.5</i>	<i>12.4</i>	<i>0.0</i>	
<b>Emerging Markets Debt Composite</b>	<b>0.6</b>	<b>4.4</b>	<b>9.4</b>	<b>0.3</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	<i>-2.9</i>	<i>10.4</i>	<i>0.0</i>	
<b>Alpha Pool Composite</b>	<b>5.9</b>	<b>3.8</b>	<b>3.6</b>	<b>0.0</b>
<i>91 Day T-Bill + 3%</i>	<i>6.1</i>	<i>0.7</i>	<i>0.0</i>	
<b>Private Equity Composite</b>	<b>9.6</b>	<b>5.7</b>	<b>7.8</b>	<b>0.3</b>
<i>CJA Global All PE (Qtr Lag)</i>	<i>7.0</i>	<i>8.6</i>	<i>0.0</i>	
<b>Real Estate Composite</b>	<b>4.0</b>	<b>5.2</b>	<b>8.8</b>	<b>0.0</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	<i>3.6</i>	<i>7.1</i>	<i>0.0</i>	
<b>Real Assets Composite</b>	<b>11.5</b>	<b>4.6</b>	<b>10.7</b>	<b>0.6</b>
<i>Real Assets Custom Blend</i>	<i>4.5</i>	<i>11.8</i>	<i>0.0</i>	

# TOTAL PLAN RISK STATISTICS

5 Years Ending June 30, 2024				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>11.2</b>	<b>18.5</b>	<b>2.8</b>	<b>-1.0</b>
<i>Russell 3000 Index</i>	<i>14.1</i>	<i>18.6</i>	<i>0.0</i>	
<b>International Equity With Beta Overlay</b>	<b>4.7</b>	<b>14.9</b>	<b>3.7</b>	<b>-0.4</b>
<i>MSCI AC World ex USA index</i>	<i>6.1</i>	<i>17.2</i>	<i>0.0</i>	
<b>Global Fixed Income With Beta Overlay</b>	<b>6.1</b>	<b>6.3</b>	<b>7.9</b>	<b>1.0</b>
<i>Blmbg. Global Aggregate</i>	<i>-2.0</i>	<i>7.5</i>	<i>0.0</i>	
<b>U.S. Credit Strategies</b>	<b>7.8</b>	<b>6.8</b>	<b>5.8</b>	<b>0.5</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	<i>4.5</i>	<i>7.6</i>	<i>0.0</i>	
<b>Non-U.S. Credit Composite</b>	<b>8.4</b>	<b>8.6</b>	<b>11.9</b>	<b>0.5</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	<i>1.1</i>	<i>13.3</i>	<i>0.0</i>	
<b>Emerging Markets Debt Composite</b>	<b>0.5</b>	<b>6.1</b>	<b>9.5</b>	<b>0.1</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	<i>-0.6</i>	<i>11.1</i>	<i>0.0</i>	
<b>Alpha Pool Composite</b>	<b>5.3</b>	<b>6.2</b>	<b>6.2</b>	<b>0.0</b>
<i>91 Day T-Bill + 3%</i>	<i>5.2</i>	<i>0.6</i>	<i>0.0</i>	
<b>Private Equity Composite</b>	<b>14.9</b>	<b>8.3</b>	<b>12.5</b>	<b>0.1</b>
<i>CJA Global All PE (Qtr Lag)</i>	<i>13.2</i>	<i>12.7</i>	<i>0.0</i>	
<b>Real Estate Composite</b>	<b>4.6</b>	<b>4.3</b>	<b>7.2</b>	<b>0.1</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	<i>3.8</i>	<i>5.6</i>	<i>0.0</i>	
<b>Real Assets Composite</b>	<b>11.6</b>	<b>9.4</b>	<b>10.6</b>	<b>0.4</b>
<i>Real Assets Custom Blend</i>	<i>6.4</i>	<i>11.7</i>	<i>0.0</i>	

# TOTAL PLAN RISK STATISTICS

10 Years Ending June 30, 2024				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity</b>	<b>7.4</b>	<b>13.6</b>	<b>7.9</b>	<b>-0.6</b>
<i>Russell 3000 Index</i>	<i>12.1</i>	<i>15.8</i>	<i>0.0</i>	
<b>International Equity</b>	<b>1.8</b>	<b>15.8</b>	<b>8.4</b>	<b>-0.7</b>
<i>MSCI AC World Index (Net)</i>	<i>8.4</i>	<i>14.8</i>	<i>0.0</i>	
<b>International Emerging</b>	<b>0.5</b>	<b>15.2</b>	<b>5.3</b>	<b>-0.5</b>
<i>MSCI Emerging Markets (Net)</i>	<i>2.8</i>	<i>17.2</i>	<i>0.0</i>	
<b>U.S. Credit Strategies</b>	<b>6.7</b>	<b>5.3</b>	<b>5.0</b>	<b>0.4</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	<i>4.4</i>	<i>6.0</i>	<i>0.0</i>	
<b>Non-U.S. Credit Composite</b>	<b>7.1</b>	<b>6.6</b>	<b>11.0</b>	<b>0.5</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	<i>0.7</i>	<i>11.6</i>	<i>0.0</i>	
<b>Emerging Markets Debt Composite</b>	<b>1.9</b>	<b>5.7</b>	<b>7.9</b>	<b>0.1</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	<i>0.9</i>	<i>9.6</i>	<i>0.0</i>	
<b>Alpha Pool Composite</b>	<b>4.9</b>	<b>5.0</b>	<b>5.0</b>	<b>0.1</b>
<i>91 Day T-Bill + 3%</i>	<i>4.5</i>	<i>0.5</i>	<i>0.0</i>	
<b>Private Equity Composite</b>	<b>13.6</b>	<b>6.5</b>	<b>10.1</b>	<b>0.1</b>
<i>CJA Global All PE (Qtr Lag)</i>	<i>12.2</i>	<i>9.9</i>	<i>0.0</i>	
<b>Real Estate Composite</b>	<b>6.6</b>	<b>3.7</b>	<b>6.3</b>	<b>0.0</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	<i>6.4</i>	<i>4.9</i>	<i>0.0</i>	
<b>Real Assets Composite</b>	<b>6.3</b>	<b>7.9</b>	<b>8.5</b>	<b>0.5</b>
<i>Real Assets Custom Blend</i>	<i>2.0</i>	<i>9.3</i>	<i>0.0</i>	

# INVESTMENT MANAGER TOP 10

ASSETS UNDER MANAGEMENT AS OF JUNE 30, 2024

Manager	Market Value	Portfolio %
SSgA	\$2,478,856,114.86	16.31%
Pathway	\$817,677,602.62	5.38%
Alcentra	\$813,647,494.20	5.35%
Russell	\$798,969,870.14	5.26%
Zais	\$769,154,135.66	5.06%
GoldenTree	\$758,026,366.60	4.99%
Ares	\$733,144,154.07	4.82%
Apollo	\$701,291,872.30	4.61%
Pinnacle	\$667,273,903.79	4.39%
Partners Group	\$631,928,396.25	4.16%
<b>Total</b>	<b>\$9,169,969,910.49</b>	<b>60.32%</b>

# PUBLIC EQUITY PORTFOLIO

Public Equity Portfolio (30% Target)	US Equities (17% Target)	<b>Large Cap (14.5%)</b>	Russell Investments Russell 1000 Index SSGA S&P500 Index Fund TOBAM Anti-Benchmark US Equity Fund	Overlay exposure to an index of largest 1,000 stocks (by market cap) in the Russell 3000 Index of 500 of the largest US publicly-traded companies in US Rules-based index focused on a more efficiently diversified benchmark vs. MSCI US
		<b>Small Cap (2.5%)</b>	Russell Investments Russell 2000 Index	Overlay exposure to an index of smallest 2,000 stocks (by market cap) in the Russell 3000
	International Equities (13% Target)	<b>Developed Markets (7%)</b>	Russell Investments MSCI EAFE Index SSGA MSCI World ex-USA Index Fund TOBAM Anti-Benchmark World ex-US Fund	Overlay exposure to an index of large/mid-cap stocks across 21 developed markets ex-US/Canada Index of publicly-traded large-cap and mid-cap equities in 22 developed countries ex-US Rules-based index focused on a more efficiently diversified benchmark vs. MSCI World ex-US
		<b>Emerging Markets (6%)</b>	Russell Investments MSCI EM Index TOBAM Anti-Benchmark EM Equity Fund William Blair EM Growth Fund Wasatch EM Select Fund	Overlay exposure to an index of large/mid-cap stocks across 27 emerging markets Rules-based index focused on a more efficiently diversified benchmark vs. MSCI Emerging Markets Diversified, all-cap portfolio investing in high quality growth companies in emerging markets Concentrated portfolio investing in emerging market opportunities over a 3-5 year investment horizon

# GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Equity</b>	<b>2,651,619,844</b>	<b>17.4</b>	<b>2.7</b>	<b>10.7</b>	<b>17.0</b>	<b>2.9</b>	<b>8.6</b>	<b>6.0</b>
MSCI AC World Index (Net)			<u>2.9</u>	<u>11.3</u>	<u>19.4</u>	<u>5.4</u>	<u>10.8</u>	<u>8.4</u>
Over/Under			-0.2	-0.6	-2.4	-2.5	-2.2	-2.4
<b>Domestic Equity With Beta Overlay</b>	<b>1,892,284,166</b>	<b>12.4</b>	<b>2.7</b>	<b>13.0</b>	<b>20.6</b>	<b>4.9</b>	<b>11.2</b>	
Russell 3000 Index			<u>3.2</u>	<u>13.6</u>	<u>23.1</u>	<u>8.1</u>	<u>14.1</u>	
Over/Under			-0.5	-0.6	-2.5	-3.2	-2.9	
<b>Domestic Equity</b>	<b>1,791,083,185</b>	<b>11.8</b>	<b>3.6</b>	<b>14.1</b>	<b>21.1</b>	<b>6.8</b>	<b>12.2</b>	<b>7.4</b>
Russell 3000 Index			<u>3.2</u>	<u>13.6</u>	<u>23.1</u>	<u>8.1</u>	<u>14.1</u>	<u>12.1</u>
Over/Under			0.4	0.5	-2.0	-1.3	-1.9	-4.7
<b>Large Cap Equity</b>	<b>1,791,083,185</b>	<b>11.8</b>	<b>4.3 (14)</b>	<b>15.3 (17)</b>	<b>24.6 (20)</b>	<b>9.9 (13)</b>	<b>14.6 (19)</b>	<b>9.3 (51)</b>
S&P 500 Index			<u>4.3 (15)</u>	<u>15.3 (18)</u>	<u>24.6 (20)</u>	<u>10.0 (12)</u>	<u>15.0 (15)</u>	<u>12.9 (15)</u>
Over/Under			0.0	0.0	0.0	-0.1	-0.4	-3.6
SSgA S&P500	1,791,083,185	11.8	4.4 (14)	15.4 (17)	24.6 (20)	9.9 (13)	15.0 (17)	10.9 (33)
S&P 500 Index			<u>4.3 (15)</u>	<u>15.3 (18)</u>	<u>24.6 (20)</u>	<u>10.0 (12)</u>	<u>15.0 (15)</u>	<u>12.9 (15)</u>
Over/Under			0.1	0.1	0.0	-0.1	0.0	-2.0

# GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>International Equity With Beta Overlay</b>	<b>1,234,434,092</b>	<b>8.1</b>	<b>1.4</b>	<b>4.2</b>	<b>8.3</b>	<b>-0.2</b>	<b>4.7</b>	
<i>MSCI AC World ex USA index</i>			<u>1.2</u>	<u>6.0</u>	<u>12.2</u>	<u>1.0</u>	<u>6.1</u>	
Over/Under			0.2	-1.8	-3.9	-1.2	-1.4	
<b>International Equity</b>	<b>860,536,659</b>	<b>5.7</b>	<b>1.1</b>	<b>3.9</b>	<b>8.8</b>	<b>-4.8</b>	<b>1.5</b>	<b>1.8</b>
<i>MSCI AC World Index (Net)</i>			<u>2.9</u>	<u>11.3</u>	<u>19.4</u>	<u>5.4</u>	<u>10.8</u>	<u>8.4</u>
Over/Under			-1.8	-7.4	-10.6	-10.2	-9.3	-6.6
<b>International Developed</b>	<b>461,506,902</b>	<b>3.0</b>	<b>-0.3</b>	<b>4.0</b>	<b>8.7</b>	<b>-0.9</b>	<b>2.5</b>	<b>2.2</b>
<i>MSCI EAFE (Net)</i>			<u>-0.4</u>	<u>5.3</u>	<u>11.5</u>	<u>2.9</u>	<u>6.5</u>	<u>4.3</u>
Over/Under			0.1	-1.3	-2.8	-3.8	-4.0	-2.1
SSGA MSCI World Ex-US Equity	461,506,902	3.0	-0.4 (66)	5.2 (51)	11.6 (43)			
<i>MSCI World ex U.S.</i>			<u>-0.4</u> (66)	<u>5.4</u> (50)	<u>11.8</u> (41)			
Over/Under			0.0	-0.2	-0.2			
<b>International Emerging</b>	<b>399,029,757</b>	<b>2.6</b>	<b>2.5</b>	<b>3.4</b>	<b>8.6</b>	<b>-7.1</b>	<b>0.2</b>	<b>0.5</b>
<i>MSCI Emerging Markets (Net)</i>			<u>5.0</u>	<u>7.5</u>	<u>12.5</u>	<u>-5.1</u>	<u>3.1</u>	<u>2.8</u>
Over/Under			-2.5	-4.1	-3.9	-2.0	-2.9	-2.3
Wasatch EM Select	221,646,424	1.5	2.3	-1.2	6.9			
<i>MSCI Emerging Markets (Net)</i>			<u>5.0</u>	<u>7.5</u>	<u>12.5</u>			
Over/Under			-2.7	-8.7	-5.6			
William Blair EM Growth	177,383,333	1.2	5.7	10.4	15.8			
<i>MSCI Emerging Markets (Net)</i>			<u>5.0</u>	<u>7.5</u>	<u>12.5</u>			
Over/Under			0.7	2.9	3.3			



# GLOBAL DEBT STRATEGIES

Global Debt Strategies (32% Target)	US Fixed Income (15% Target)	<b>Core Fixed Income (2%)</b>	Russell Investments Bloomberg Barclays US Agg Bond TR Index	Broad-based bond market index of intermediate-term investment grade bonds in US
		<b>Credit Strategies/ High Yield Strategies (13%)</b>	<p>Apollo Atlas Warehouse Co (MCA)</p> <p>Apollo Asset-Backed Finance Fund (MCA)</p> <p>Apollo Credit Strategies Fund LP (MCA)</p> <p>Apollo Offshore Credit Fund LTD (MCA)</p> <p>Bardin Hill Direct Portfolio (MCA)</p> <p>Bardin Hill Opportunistic Credit Fund (MCA)</p> <p>Bardin Hill Opportunistic Credit Fund II (MCA)</p> <p>Bardin Hill Solutions Fund LP (MCA)</p> <p>Beach Point Select Fund LP</p> <p>GoldenTree Distressed Debt Fund 2010</p> <p>GoldenTree Asset Management SMA</p> <p>Kayne Anderson BDC (MCA)</p> <p>Waterfall Ready Capital Corp. (MCA)</p> <p>Waterfall Asset Management SMA (MCA)</p> <p>Waterfall Mortgage Loan Opportunity Fund (MCA)</p> <p>Waterfall Victoria Fund LP (MCA)</p>	<p>Global lending franchise (formerly CSFB securitized products group) originating warehouse assets</p> <p>Diversified portfolio of asset-backed products across consumer finance, resi/commercial, and hard/financial assets</p> <p>Long/short credit fund focused on capital structure arbitrage, defensive credit, stressed credit and distressed credit</p> <p>Global credit fund focused on bank loans, structured credit, and bonds</p> <p>Co-investments in event-driven/special situation and mispriced credit opportunities</p> <p>Investments in quality, stable businesses trading at discounts and/or creative structured situations</p> <p>Investments in quality, stable businesses trading at discounts and/or creative structured situations</p> <p>Credit fund with focus on event-driven/special situations</p> <p>Credit fund with focus on mispriced credit opportunities</p> <p>Fund focused on global distressed, restructuring and turnaround opportunities</p> <p>SMA with opportunistic relative-value approach to bonds, loans, structured credit, distressed debt and emerging markets</p> <p>BDC investing in third-party and secondary market CLO opportunities</p> <p>Publicly traded REIT specializing in small balance commercial real estate loans</p> <p>Separate account focused on multi-sector high yield loans and bonds</p> <p>Fund investing in assets sold by non-bank mortgage companies given interest rate-related liquidity stress</p> <p>Fund investing in ABS, primarily residential whole loans originated on a primary or secondary basis</p>
	Global Fixed Income (17% Target)	<b>International Core (0%)</b>	Russell Investments (Barclays Global Aggregate ex-US Unhedged)	Broad-based bond market index of investment grade debt from 24 local currency markets ex-USD
		<b>International Credit (11%)</b>	<p>Alcentra Limited SMA</p> <p>Alcentra European Direct Lending Fund</p> <p>Alcentra Strategic Credit Fund</p> <p>Alcentra Structured Credit Opportunity Fund III</p> <p>Alcentra Viaduct Fund LP</p> <p>Cairn Capital Limited SMA</p> <p>Cairn Capstone Special Opportunities Fund</p> <p>Cairn Loan Investments</p> <p>Cairn Loan Investments II</p> <p>Cairn Pathfinder I</p> <p>Cairn Pathfinder III</p> <p>Marathon Asset Management SMA</p> <p>Marathon CLO Equity Fund</p> <p>Marathon European Credit Opportunity Fund III</p> <p>Marathon Structured Product Strategies Fund II</p> <p>Marathon Structured Product Strategies Fund III</p>	<p>SMA investing in European and US performing and non-performing bonds/loans, and CLO equity</p> <p>2013 fund investing in European direct lending opportunities</p> <p>2015 fund investing in European CLOs and stressed/distressed credit opportunities</p> <p>2017 fund investing in European CLO opportunities</p> <p>2018 fund investing in European CLO opportunities including CLO warehousing, risk retention, and equity</p> <p>SMA focused on opportunistic European credit, private asset backed, regulatory risk transfer, European CLOs</p> <p>Fund focused on cash-flow oriented regulatory risk transfer, private asset backed loans, and structured credit</p> <p>European CLO Risk Retention vehicle</p> <p>European CLO Risk Retention vehicle</p> <p>Barclays regulatory capital risk transfer on UK mid cap corporate RCF</p> <p>Barclays regulatory capital risk transfer on global (70% US) large cap corporate RCF</p> <p>SMA focused on opportunistic global stressed and distressed credit, restructured real estate, and credit-related real assets</p> <p>Legacy risk retention vehicle that maintains an economic interest in Marathon issued CLO equity</p> <p>Fund focused on European commercial real estate credit</p> <p>Fund focused on private asset-backed secured debt across multiple sectors</p> <p>Fund focused on private asset-backed secured debt across multiple sectors (transports, real estate, healthcare, etc.)</p>
		<b>Emerging Market Debt (6%)</b>	<p>Finisterre EM Debt Total Return Fund</p> <p>Gramercy Capital Solutions Fund (MCA)</p> <p>Gramercy Capital Solutions Fund II (MCA)</p> <p>Gramercy Distressed Argentina Fund III Private (MCA)</p> <p>Gramercy Distressed Argentina Fund IV Private (MCA)</p> <p>Gramercy Distressed Opportunity Fund II (MCA)</p> <p>Gramercy Distressed Opportunity Fund III (MCA)</p> <p>Gramercy Separate Account (MCA)</p> <p>Gramercy Venezuela Opportunity Fund (MCA)</p> <p>Gramercy Emerging Markets Dynamic Credit Fund (MCA)</p> <p>Gramercy Venezuela Opportunity Fund II (MCA)</p> <p>Gramercy Venezuela Special Situations Fund (MCA)</p> <p>PGIM Emerging Market Debt Opportunities Fund</p>	<p>Fund focused on an all-weather strategy across the cycle in emerging markets</p> <p>2018 fund engaged in emerging markets corporate direct lending</p> <p>2021 fund engaged in emerging markets corporate direct lending</p> <p>Fund engaged in Argentina-focused corporate direct lending</p> <p>Fund engaged in opportunistic Argentina focused sovereign positions</p> <p>Diversified emerging markets hedge fund</p> <p>Diversified emerging markets hedge fund</p> <p>Stressed and distressed emerging market credit investments in public and private assets.</p> <p>Venezuelan sovereign-focused fund</p> <p>Performing and opportunistic credit in public and private markets weighted with a top-down view</p> <p>OFAC-compliant distressed credit related to Venezuela</p> <p>Litigation financing (e.g. ICSID claims) related to Venezuela</p> <p>Fund investing in sovereign bonds, local bonds, corporate bonds and currencies in emerging economies.</p>

# GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Global Fixed Income With Beta Overlay</b>	<b>5,700,035,701</b>	<b>37.5</b>	<b>1.9</b>	<b>3.1</b>	<b>7.5</b>	<b>4.5</b>	<b>6.1</b>	
Blmbg. Global Aggregate			-1.1	-3.2	0.9	-5.5	-2.0	
Over/Under			3.0	6.3	6.6	10.0	8.1	
<b>Total Fixed</b>	<b>4,028,310,743</b>	<b>26.5</b>	<b>3.3</b>	<b>5.5</b>	<b>10.8</b>	<b>5.3</b>	<b>5.6</b>	<b>5.3</b>
Blmbg. U.S. Aggregate Index			0.1	-0.7	2.6	-3.0	-0.2	1.3
Over/Under			3.2	6.2	8.2	8.3	5.8	4.0
Apollo AP Grange Holdings, LLC	85,000,000	0.6						
<b>U.S. Credit Strategies</b>	<b>1,795,816,936</b>	<b>11.8</b>	<b>1.5 (3)</b>	<b>3.7 (4)</b>	<b>9.8 (6)</b>	<b>5.3 (1)</b>	<b>7.8 (1)</b>	<b>6.7 (1)</b>
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			1.5 (3)	3.5 (4)	10.6 (6)	3.8 (1)	4.5 (3)	4.4 (1)
Over/Under			0.0	0.2	-0.8	1.5	3.3	2.3
Stone Tower Offshore Credit (Apollo)	180,282,820	1.2	2.2	5.4	12.1	5.9	6.4	5.7
Beach Point Capital (Formerly Post)	321,533,283	2.1	1.5	4.8	9.0	4.8	7.9	7.2
Mackay / Gold Coast		0.0						
Stone Tower Credit (Apollo)	147,881,113	1.0	2.0	4.0	6.3	5.4	9.3	7.3
Gold Coast Capital IV	105,426	0.0	-9.9	-41.3	-38.7	-15.8	-7.7	
Waterfall Asset Management	51,176,398	0.3	-5.1	-10.0	-10.9	-3.7	3.8	
Waterfall Victoria	71,723,264	0.5	3.5	2.5	-4.1	-2.2	1.3	
KAYNE ANDERSON BDC, LLC	81,018,219	0.5	-0.4	2.8	23.4	13.9		
Apollo Asset Backed Finance Fund	50,614,750	0.3	1.2					
Apollo Atlas Warehouse CO	7,498,355	0.0	2.7					
Golden Tree Asset Management	751,364,044	4.9	1.6	3.7	12.0	6.7	10.5	9.7

# GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Non-U.S. Fixed Income Composite</b>	<b>2,147,493,807</b>	<b>14.1</b>	<b>4.9</b>	<b>7.0</b>	<b>11.8</b>	<b>7.0</b>	<b>5.1</b>	<b>5.0</b>
Blmbg. Global Aggregate Ex USD			<u>-2.1</u>	<u>-5.3</u>	<u>-0.7</u>	<u>-7.5</u>	<u>-3.6</u>	<u>-1.9</u>
Over/Under			7.0	12.3	12.5	14.5	8.7	6.9
<b>Non-U.S. Credit Composite</b>	<b>1,375,207,236</b>	<b>9.0</b>	<b>7.0</b>	<b>9.4</b>	<b>16.3</b>	<b>11.4</b>	<b>8.4</b>	<b>7.1</b>
ICE BofA Euro High Yield Constrained TR			<u>0.7</u>	<u>0.1</u>	<u>8.7</u>	<u>-2.5</u>	<u>1.1</u>	<u>0.7</u>
Over/Under			6.3	9.3	7.6	13.9	7.3	6.4
Marathon/Gold Coast	235,913,114	1.6	4.0	4.0	4.3	5.3	6.7	7.3
ICE BofA Euro High Yield Constrained TR			<u>0.7</u>	<u>0.1</u>	<u>8.7</u>	<u>-2.5</u>	<u>1.1</u>	<u>0.7</u>
Over/Under			3.3	3.9	-4.4	7.8	5.6	6.6
Halcyon Asset Management	214,439,807	1.4	3.0 (1)	2.0 (9)	3.6 (92)	10.5 (1)	4.6 (3)	
ICE BofA Euro High Yield Constrained TR			<u>0.7</u> (15)	<u>0.1</u> (72)	<u>8.7</u> (11)	<u>-2.5</u> (55)	<u>1.1</u> (50)	
Over/Under			2.3	1.9	-5.1	13.0	3.5	
Cairn Composite	111,206,820	0.7	5.9 (1)	5.6 (3)	18.6 (2)	11.8 (1)	9.7 (1)	7.0 (1)
ICE BofA Euro High Yield Constrained TR			<u>0.7</u> (15)	<u>0.1</u> (72)	<u>8.7</u> (11)	<u>-2.5</u> (55)	<u>1.1</u> (50)	<u>0.7</u> (81)
Over/Under			5.2	5.5	9.9	14.3	8.6	6.3
Alcentra - KT1	689,913,342	4.5	8.2	13.4	23.0	13.6	9.8	
ICE BofA Euro High Yield Constrained TR			<u>0.7</u>	<u>0.1</u>	<u>8.7</u>	<u>-2.5</u>	<u>1.1</u>	
Over/Under			7.5	13.3	14.3	16.1	8.7	
Alcentra SP2 - KT1	13,157,468	0.1	-1.1	-7.4	-4.9	0.8	-3.9	
ICE BofA Euro High Yield Constrained TR			<u>0.7</u>	<u>0.1</u>	<u>8.7</u>	<u>-2.5</u>	<u>1.1</u>	
Over/Under			-1.8	-7.5	-13.6	3.3	-5.0	
Alcentra SP4 - KT1	110,576,685	0.7	19.1	29.5	34.4	19.2	15.5	
ICE BofA Euro High Yield Constrained TR			<u>0.7</u>	<u>0.1</u>	<u>8.7</u>	<u>-2.5</u>	<u>1.1</u>	
Over/Under			18.4	29.4	25.7	21.7	14.4	

# GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Emerging Markets Debt Composite</b>	<b>772,286,570</b>	<b>5.1</b>	<b>1.4 (15)</b>	<b>3.0 (35)</b>	<b>4.5 (76)</b>	<b>0.6 (11)</b>	<b>0.5 (60)</b>	<b>1.9 (59)</b>
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			-0.7 (72)	-0.7 (76)	4.9 (75)	-2.9 (84)	-0.6 (86)	0.9 (74)
Over/Under			2.1	3.7	-0.4	3.5	1.1	1.0
Gramercy Funds Management LLC	540,046,570	3.6	2.1 (4)	3.9 (21)	4.1 (78)	3.2 (3)	1.4 (33)	3.1 (18)
JP Morgan ELMI+ TR USD			-0.3 (64)	-1.4 (79)	2.9 (80)	-1.1 (39)	-0.1 (75)	-0.4 (86)
Over/Under			2.4	5.3	1.2	4.3	1.5	3.5
PGIM Fixed Income	114,391,200	0.8	0.0 (60)	1.3 (63)	7.6 (55)	-2.4 (74)	2.6 (12)	3.1 (19)
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-0.7 (72)	-0.7 (76)	4.9 (75)	-2.9 (84)	-0.6 (86)	0.9 (74)
Over/Under			0.7	2.0	2.7	0.5	3.2	2.2
Finisterre EM Debt Total Return Fund	117,848,800	0.8	-0.7	0.2	4.1			
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-0.7	-0.7	4.9			
Over/Under			0.0	0.9	-0.8			

# ABSOLUTE RETURN (ALPHA POOL)

<p>Absolute Return (Alpha Pool) (7% Target)</p>	<p><b>Core &amp; Credit Strategies (7%)</b></p> <p>Apollo Global SMA (MCA)          Apollo Accord+ (MCA)          Ares ECO Master Fund II, LTD (MCA)          Birch Grove Credit Strategies Fund          Corrum Capital Global Credit Opportunities Fund          Corrum Capital GCO Co-Invest Fund          SSGA Short-Term Treasury Strategy SMA          Zais Group SMA          Zais Opportunity Fund, LTD          Zais Zephyr A-8, LP          Zais Zephyr A-9, LP</p>	<p>Credit focused separate account investing in bespoke credit opportunities          2021 credit fund focused on opportunities across structured credits, special situations, performing credit and origination          Corporate debt investments in non-investment grade companies, with a focus on senior bank debt          All-weather approach to credit/portfolio construction across capital structure and across all market cycles          Yield-paying principal-protected transactions with collateralization by hard and soft assets          Yield-paying principal-protected transactions with collateralization by hard and soft assets          Short term treasury vehicle          Long only structured credit SMA that focuses on stable cash flows and low duration, includes student housing          Diversified structured credit fund with the ability to use hedges and derivative strategies          Closed-end fund focused on CLO equity post risk retention requirements          2022 closed-end fund focused on CLO equity post risk retention requirements</p>
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# ALPHA POOL STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Alpha Pool Composite</b>	<b>2,343,477,106</b>	<b>15.4</b>	<b>3.2</b>	<b>7.0</b>	<b>12.7</b>	<b>5.9</b>	<b>5.3</b>	<b>4.9</b>
91 Day T-Bill + 3%			<u>2.1</u>	<u>4.2</u>	<u>8.6</u>	<u>6.1</u>	<u>5.2</u>	<u>4.5</u>
Over/Under			1.1	2.8	4.1	-0.2	0.1	0.4
Alpha Liquidity (Ssga)	226,266,027	1.5	1.3	2.6	5.5	3.0	2.3	1.7
Apollo Global Management	2,418,078	0.0						
Ares Eco Master Fund II	612,193,259	4.0	1.8	4.7	10.8	3.8	5.3	
Birch Grove Credit Strategies	271,435,219	1.8	2.7	6.2	15.0	3.2	6.0	5.8
Corrum Capital	288,506,974	1.9	1.2	3.4	-0.3	5.0	-0.8	2.8
Zais	155,821,457	1.0	2.2	6.9	15.4	3.9	2.4	3.8
Zais Group Invest Advisors	513,280,137	3.4	3.4	11.9	23.7	12.2	10.0	8.9
Zais Zephyr 8	46,513,341	0.3	42.7	49.5	63.7	18.4	15.5	
Zais Zephyr 9	53,539,200	0.4	1.4	-0.8	-1.6			
Apollo Accord+	173,503,414	1.1	8.4	8.4	16.0			

# PRIVATE ASSETS

Private Assets (18% Target)	Private Equity	<b>Diversified</b>	Adams Street SMA (MCA) Industry Ventures Arrowhead LP (MCA) Partners Group SMA (MCA) Pathway Capital SMA (MCA) Pathway PE Fund VII LLC SL Capital European Strategic Partners 2008	Global investment opportunities in venture, growth equity, buyout, and private credit Fund investing in direct and secondary co-investments across the venture and buyout sectors Global SMA in private markets; primarily in private equity but also includes infrastructure and real estate Private equity investments in primary/secondary funds and co-investment opportunities Fund of funds focused on mid/large buyout funds in the US 2008 fund of funds investing in European-focused primary funds
		<b>Buyout Funds</b>	Industry Ventures Tech Buyout, LP (MCA) Industry Ventures Tech Buyout II, LP (MCA) Kayne Partners Fund IV LP (MCA) Kayne Partners Fund V LP (MCA) Kayne Growth Co-Investments (MCA) Partners Group Direct Equity 2016 (MCA) Partners Group Direct Equity Fund IV (MCA) Partners Group Direct Equity Fund V (MCA) Partners Group Direct Investments 2012 LP (MCA) Waterfall PE Co-Investments (MCA) Waterfall Sentinel Fund (MCA)	2018 fund investing in small high growth tech companies 2022 fund investing in small high growth tech companies 2016 fund investing in middle market growth equity opportunities in US companies 2020 fund investing in middle market growth equity opportunities in US companies Co-investment commitments (2022 and later) invested alongside Kayne Partners Funds Global portfolio of direct private equity deals Global portfolio of direct private equity deals (previously Direct Equity 2019) Global portfolio of direct private equity deals (2024) Global portfolio of direct private equity deals Co-investment opportunities in US lower middle market specialty finance companies 2019 fund investing in US lower middle market specialty finance focused companies
		<b>Venture Funds</b>	Industry Ventures Direct LP (MCA) Industry Ventures Direct II LP (MCA) Industry Ventures Direct III LP (MCA) Industry Ventures Fund V LP (MCA) Industry Ventures Fund VI LP (MCA) Industry Ventures Partnership Holdings II LP (MCA) Industry Ventures Partnership Holdings III LP (MCA) Industry Ventures Partnership Holdings III-A LP (MCA) Industry Ventures Partnership Holdings IV LP (MCA) Industry Ventures Partnership Holdings V LP (MCA) Industry Ventures Partnership Holdings VI LP (MCA) Industry Ventures Partnership Holdings VII LP (MCA) Industry Ventures Special Opportunities Fund II-A LP (MCA)	2016 fund investing in venture capital opportunities 2019 fund investing in venture capital opportunities 2021 fund investing in venture capital opportunities Fund of funds focused on small but well-established US venture capital funds Fund of funds focused on small but well-established US venture capital funds 2011 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2013 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2014 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2016 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2019 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2021 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2024 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments 2016 fund investing in venture capital opportunistic transactions in the secondary market
		<b>Secondary Funds</b>	Aberdeen Standard Secondary Opportunities Fund IV Industry Ventures Secondary VII LP (MCA) Industry Ventures Secondary VIII LP (MCA) Industry Ventures Secondary IX LP (MCA) Industry Ventures Secondary X LP (MCA) Lexington Capital Partners VII Lexington Middle Market Investors II SL Capital Secondary Opportunities Fund III	2020 fund investing in secondary purchases of PE fund of funds and other complex transactions 2013 fund investing in secondary transactions in venture capital opportunities 2017 fund investing in secondary transactions in venture capital opportunities 2021 fund investing in secondary transactions in venture capital opportunities 2023 fund investing in secondary transactions in venture capital opportunities Fund of funds focused mainly on buyout funds in US and Western Europe Fund of funds focused on secondary interest in US middle-market buyouts Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe
		<b>Sector Specific Funds</b>	Kayne Anderson Energy Fund VII LP Kayne Anderson Private Energy Income Fund II (MCA) Kayne Anderson Private Energy Income Fund III (MCA) Tennenbaum Energy Opportunities Fund LP (MCA)	2017 fund investing in US upstream energy companies with a focus on growing enterprise value 2018 fund investing in US upstream energy companies, focused on income from large asset acq/development 2023 fund investing in US upstream energy companies, focused on income from large asset acq/development 2015 fund investing in senior secured notes and first/second lien debt of US companies in the energy sector
	Private Debt	<b>Direct Lending</b>	Ares Private Credit Solutions Fund (MCA) Ares Private Credit Solutions Fund 2 (MCA) Ares Senior Direct Lending Fund III (MCA) Irradiant Renewables Opportunities Partners Tennenbaum Direct Lending Fund VIII, LLC (MCA) Tennenbaum Direct Lending Fund IX, LLC Tennenbaum Waterman Fund LP (MCA)	Junior debt investments in large private companies Junior debt investments in large private companies Senior secured 1L loans to primarily sponsor-backed private companies 2020 fund investing in the equity and debt of renewable power generating companies Privately-originated, performing senior secured debt in mid-market (100mm-1.5bn) companies in NA (levered share class) Privately-originated, performing senior secured debt in mid-market (100mm-1.5bn) companies in NA (unlevered share class) Senior 1L loans to middle-market companies, primarily in the US
		<b>Credit/Distressed/ Opportunistic/ Special Situations</b>	Ares ICOF II (MCA) Ares ICOF III (MCA) Ares SMA (MCA) Ares Special Situations Fund IV (MCA) Catalyst Fund LP II Crestline Portfolio Financing Fund Crestline Portfolio Financing Fund II Irradiant CLO Partners II (MCA) Irradiant CLO Partners III (MCA) Irradiant Partners Climate Co (MCA) Irradiant Solutions Fund (MCA) Irradiant Solutions Fund II (MCA) LuminArx Opportunistic Alternative Solutions Fund Siguler Guff Distressed Opportunity Fund III LP Tennenbaum Co-Investments (MCA) Tennenbaum Special Situations Fund IX LLC (MCA)	Structured credit in CLO vehicles and private asset-backed credits Structured credit in CLO vehicles and private asset-backed credits Separate account in liquid credit and income-focused opportunities Global distressed debt and special situations 2006 fund investing in Canadian stressed/distressed investment opportunities Financing to late-stage private equity funds and GPs Financing to late-stage private equity funds and GPs 2020 fund investing in CLOs issued by Irradiant 2023 fund investing in CLOs issued by Irradiant 2023 fund investing in climate-oriented solutions focused on energy transition opportunity 2017 fund investing in special situation opportunities in US credit 2023 fund investing in special situation opportunities in US credit Hybrid fund investing in capital solutions opportunities globally, with a focus on the US 2009 fund of funds investing in US and International opportunistic credit funds and co-investments Co-investment opportunities driven from Tennenbaum funds Distressed and rescue-financing in mid-market companies in NA



# REAL ESTATE PORTFOLIO


Real Estate Portfolio (5% Target)	Core Real Estate (2.5%)	<b>Core Real Estate</b> 348 West Hospitality Lane Invesco Real Estate Asia Fund Kayne Anderson Real Estate Debt III (MCA) Kayne Anderson Real Estate Debt IV (MCA) Kayne Anderson Commercial Real Estate Debt (MCA) Marathon Real Estate Debt Fund PGIM Real Estate Capital VI LP PGIM Real Estate Capital VII LP PRISA II TPG Angelo Gordon Essential Housing Fund III	SBCERA headquarters Asia-focused open-ended core real estate fund 2018 fund investing in first-lien US residential mortgage debt 2020 fund investing in first-lien US residential mortgage debt Open-ended fund investing in direct loan origination and Freddie-Mac structured products Fund investing in senior secured first mortgage loans in the US European (UK and Germany focused) mezzanine lending fund for value-add real estate projects European (UK and Germany focused) mezzanine lending fund for value-add real estate projects US core-plus open-ended real estate equity fund with low leverage 2024 fund providing homebuilders with off-balance sheet financing for short duration, close-to-production land
	Non-Core Real Estate (2.5%)	<b>Enhanced Real Estate/ High Return</b> Apollo Real Estate Fund II LP (MCA) Apollo Real Estate Fund III LP (MCA) Fortress Japan Opportunity Fund II Invesco US Real Estate VI Kayne Anderson Real Estate Partners V LP (MCA) Kayne Anderson Real Estate Partners VI LP (MCA) Morgan Stanley RE Fund V International PRISA III	2015 fund investing in value-add US real estate opportunities 2020 fund investing in value-add US real estate opportunities 2011 fund investing in value-add Japanese real estate opportunities 2020 fund investing in value-add US real estate opportunities 2017 fund investing in value-add US real estate opportunities 2021 fund investing in value-add US real estate opportunities 2005 fund investing in value-add International real estate opportunities Value-add US real estate equity fund
		<b>Real Estate Secondaries</b> Partners Group Real Estate Secondary 2013 A LP (MCA) Partners Group Real Estate Secondary 2017 A LP (MCA)	Global private real estate fund interests purchased on the secondary market at discounts to intrinsic value Global private real estate fund interests purchased on the secondary market at discounts to intrinsic value

# REAL ASSETS PORTFOLIO

Real Asset Portfolio (6% Target)	<b>Commodities (4% Target)</b>	Pinnacle Natural Resources LP	Commodity fund of funds with both directional and relative value exposure across multiple commodities
		Pinnacle Physicals & Financing LTD	Multi-manager fund focused on physical commodities (livestock, metals, energy and agriculture)
	<b>Infrastructure (2%)</b>	Kayne Anderson MLP Strategy (MCA)	Separate account opportunistically investing in publicly traded US MLP securities
	<b>Timber (0% Target)</b>	Domain Environmental Investors II	Fund focused on acquiring, developing, and operating a variety of environmental assets (wetlands, fisheries, restorations)

# ALTERNATIVES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Private Equity Composite</b>	<b>3,017,981,837</b>	<b>19.9</b>	<b>2.1</b>	<b>2.6</b>	<b>7.2</b>	<b>9.6</b>	<b>14.9</b>	<b>13.6</b>
<i>CJA Global All PE (Qtr Lag)</i>			<u>1.3</u>	<u>3.7</u>	<u>4.5</u>	<u>7.0</u>	<u>13.2</u>	<u>12.2</u>
Over/Under			0.8	-1.1	2.7	2.6	1.7	1.4
<i>Russell 3000 Index</i>			<u>3.2</u>	<u>13.6</u>	<u>23.1</u>	<u>8.1</u>	<u>14.1</u>	<u>12.1</u>
Over/Under			-1.1	-11.0	-15.9	1.5	0.8	1.5
<i>CJA US All PE (1 Qtr Lag)</i>			<u>2.1</u>	<u>4.8</u>	<u>8.1</u>	<u>11.5</u>	<u>15.0</u>	<u>13.4</u>
Over/Under			0.0	-2.2	-0.9	-1.9	-0.1	0.2
<b>Real Estate Composite</b>	<b>568,991,480</b>	<b>3.7</b>	<b>-2.4</b>	<b>-5.1</b>	<b>-7.3</b>	<b>4.0</b>	<b>4.6</b>	<b>6.6</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>-1.0</u>	<u>-4.0</u>	<u>-7.2</u>	<u>3.6</u>	<u>3.8</u>	<u>6.4</u>
Over/Under			-1.4	-1.1	-0.1	0.4	0.8	0.2
<b>Real Assets Composite</b>	<b>810,446,422</b>	<b>5.3</b>	<b>-0.8</b>	<b>5.9</b>	<b>9.0</b>	<b>11.5</b>	<b>11.6</b>	<b>6.3</b>
<i>Real Assets Custom Blend</i>			<u>0.7</u>	<u>7.6</u>	<u>11.1</u>	<u>4.5</u>	<u>6.4</u>	<u>2.0</u>
Over/Under			-1.5	-1.7	-2.1	7.0	5.2	4.3
<b>Infrastructure</b>	<b>139,102,341</b>	<b>0.9</b>	<b>-10.0</b>	<b>3.8</b>	<b>13.3</b>	<b>11.3</b>	<b>13.5</b>	<b>9.1</b>
<i>Real Assets Custom Blend</i>			<u>0.7</u>	<u>7.6</u>	<u>11.1</u>	<u>4.5</u>	<u>6.4</u>	<u>2.0</u>
Over/Under			-10.7	-3.8	2.2	6.8	7.1	7.1
<b>Commodities</b>	<b>667,693,814</b>	<b>4.4</b>	<b>0.9</b>	<b>6.4</b>	<b>8.7</b>	<b>11.9</b>	<b>12.7</b>	<b>7.4</b>
<i>S&amp;P GSCI Composite TR Index</i>			<u>0.7</u>	<u>11.1</u>	<u>15.0</u>	<u>12.7</u>	<u>8.3</u>	<u>-3.1</u>
Over/Under			0.2	-4.7	-6.3	-0.8	4.4	10.5



# APPENDIX: PERFORMANCE SUMMARY

Real Estate

Real Assets

Private Equity

# REAL ESTATE PERFORMANCE

## AS OF DECEMBER 31, 2023

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	TVPI Ratio	IRR
American Realty Advisors	1996	128,009,773	128,009,773	0	0	278,446,295	0	278,446,295	2.18	6.89%
Tuckerman Multi-Family Development Fund III	2002	10,000,000	10,219,311	0	0	16,939,699	0	16,939,699	1.66	26.67%
CBRE Strategic Partners III	2003	10,000,000	10,000,000	0	0	12,698,783	0	12,698,783	1.27	8.02%
Prudential PRISA III	2003	75,000,000	81,872,124	-6,872,124	3,778,589	73,250,112	81,496,069	154,746,181	1.81	16.57%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	0	0	15,987,617	0	15,987,617	1.64	10.71%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	11,771,835	0	39,932,161	117,280	40,049,441	4.87	70.73%
Prudential PRISA II	2004	140,000,000	140,000,000	0	6,102,942	70,118,109	172,355,323	242,473,432	1.66	6.44%
RREEF America REIT III	2004	20,000,000	20,539,309	0	0	23,658,675	0	23,658,675	1.15	3.00%
BlackRock Diamond Property Fund	2005	25,000,000	25,000,000	0	0	15,233,347	0	15,233,347	0.61	-9.31%
CBRE Strategic Partners IV	2005	40,000,000	40,000,000	0	0	2,609,685	0	2,609,685	0.07	-27.76%
INVESCO Real Estate Fund I	2005	10,000,000	9,248,390	0	0	10,015,656	0	10,015,656	1.08	1.54%
LaSalle Income & Growth Fund IV	2005	20,000,000	19,469,417	0	0	13,482,024	0	13,482,024	0.69	-5.51%
North Haven Real Estate Fund V International	2005	27,500,000	27,377,414	0	86,449	33,395,867	0	33,395,867	1.22	6.83%
Prologis Japan Fund	2005	25,290,819	25,290,819	0	0	33,126,118	0	33,126,118	1.31	4.81%
Tri Continental Capital VII	2005	23,000,000	22,277,928	722,072	0	3,168,198	471,594	3,639,792	0.16	-14.34%
American Realty Value Add	2006	13,125,215	13,125,215	0	0	32,080,321	0	32,080,321	2.44	10.92%
Beacon Capital Strategic Partners IV, L.P.	2006	38,000,000	38,000,000	0	0	31,424,699	0	31,424,699	0.83	-3.26%
Fillmore East Fund	2006	25,000,000	31,403,818	0	0	20,777,177	0	20,777,177	0.66	-9.78%
Starwood Capital Hospitality Fund I-2	2006	30,000,000	30,000,000	0	0	27,879,087	2,574,428	30,453,515	1.02	0.19%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	0	0	19,601,350	468,445	20,069,795	0.80	-2.36%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	0	0	27,760,957	798,441	28,559,398	0.71	-3.65%
Beacon Capital Strategic Partners V, L.P.	2007	18,000,000	18,000,000	0	0	11,174,695	0	11,174,695	0.62	-7.87%
Invesco Asian Real Estate Partners II (USD), LP	2007	20,000,000	8,412,833	0	-11,533	11,465,147	0	11,465,147	1.36	7.52%
Invesco High Yield Debt Fund I	2007	20,000,000	20,000,000	0	0	8,567,605	0	8,567,605	0.43	-35.57%
Square Mile Partners II	2007	19,831,232	19,831,232	0	0	5,311,330	0	5,311,330	0.27	-19.11%
Fillmore West Fund	2008	20,000,000	19,561,557	0	0	21,175,799	0	21,175,799	1.08	1.14%
Square Mile Partners III LP	2008	20,000,000	19,730,190	0	0	28,873,622	0	28,873,622	1.46	11.52%
Starwood Debt Fund II, LP	2008	20,000,000	17,599,882	0	0	21,912,511	0	21,912,511	1.25	6.45%
Structured Real Estate III, LP (Guggenheim)	2008	20,000,000	20,000,000	0	0	16,320,664	0	16,320,664	0.82	-4.99%
Bryanston Real Estate Opportunity Fund II, L.P.	2009	20,000,000	8,589,256	0	0	11,851,333	0	11,851,333	1.08	10.20%
Fortress Japan Opportunity Fund II	2012	5,472,095	1,212,284	4,259,811	302,777	25,644,920	1,266,831	26,911,751	17.76	25.30%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	503,255	39,431,074	190,399	39,621,473	1.55	12.70%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	2,601,837	16,908,082	63,427,517	80,335,600	1.48	4.93%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	-349,081	37,986,927	27,370,446	65,357,373	1.33	6.00%
Apollo US Real Estate Fund II	2015	20,000,000	17,193,513	2,806,487	29,763	8,828,347	14,773,441	23,601,788	1.37	7.50%
Pramerica Real Estate Capital VI	2016	24,890,077	22,583,937	2,306,140	58,392	14,775,416	6,137,183	20,912,600	0.92	-3.59%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	19,272,676	727,324	-61,031	14,048,592	17,384,055	31,432,647	1.64	15.88%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	45,821,280	29,178,720	44,125	753,447	59,331,845	60,085,292	1.31	6.26%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,947,473	0	45,464	25,318,141	0	25,318,141	1.27	11.24%
Apollo US Real Estate Fund III	2021	50,000,000	28,214,251	21,785,749	415,331	5,330,711	33,981,139	39,311,850	1.37	22.49%
Kayne Anderson Real Estate Debt IV	2021	30,000,000	27,540,157	2,459,843	0	9,808,509	21,497,521	31,306,030	1.14	10.91%
Kayne Anderson Real Estate Fund VI	2021	20,000,000	10,077,049	9,922,951	0	350,000	11,606,921	11,956,921	1.19	15.62%
Pramerica Real Estate Capital VII	2021	55,182,939	29,204,077	25,978,862	118,086	7,980,888	21,555,470	29,536,357	1.01	0.61%
<b>Total: San Bernardino</b>		<b>1,395,034,651</b>	<b>1,253,898,311</b>	<b>120,506,079</b>	<b>13,665,365</b>	<b>1,145,403,699</b>	<b>536,804,349</b>	<b>1,682,208,048</b>	<b>1.33</b>	<b>4.33%</b>



# REAL ASSETS PERFORMANCE

AS OF DECEMBER 31, 2023

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	TVPI Ratio	IRR
Hancock Timberland VII	2005	90,000,000	90,000,000	0	0	101,142,900	0	101,142,900	1.12	1.02%
Hancock Timberland VIII	2006	40,000,000	40,000,000	0	200	45,947,325	0	45,947,325	1.15	1.11%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	0	0	63,302,361	0	63,302,361	1.07	0.87%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	846,289	55,238,754	0	55,238,754	1.09	12.09%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	0	0	51,855,967	0	51,855,967	1.04	0.38%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	135,000,000	135,000,000	0	0	0	272,421,305	272,421,305	2.02	8.23%
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	0	50,548	21,494,831	3,587,292	25,082,123	0.83	-2.34%
Pinnacle Physicals and Financing Master, Ltd	2009	205,800,000	205,800,000	0	15,984	2,018,221	353,485,968	355,504,189	1.73	8.32%
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	0	0	41,902,882	0	41,902,882	0.92	-1.99%
<b>Total: San Bernardino</b>		<b>706,203,354</b>	<b>705,322,473</b>	<b>0</b>	<b>913,021</b>	<b>382,903,241</b>	<b>629,494,565</b>	<b>1,012,397,806</b>	<b>1.43</b>	<b>4.33%</b>



# PRIVATE EQUITY PERFORMANCE

## AS OF DECEMBER 31, 2023

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	TVPI Ratio	IRR
European Strategic Partners 2004	2004	238,688,631	222,037,366	16,651,266	88,078	280,950,879	191,765	281,142,644	1.27	3.95%
Partners Group MCA	2004	1,000,000,000	1,009,041,456	-9,041,456	0	900,591,871	650,709,214	1,551,301,085	1.54	8.86%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	863,586,961	40,913,039	0	1,504,827,241	177,572,602	1,682,399,843	1.95	11.53%
Aurora Equity Partners III, L.P.	2005	25,000,000	23,544,536	0	1,422,824	41,738,196	0	41,738,196	1.67	13.61%
Lexington Middle Market I	2005	25,000,000	24,771,942	228,058	0	40,464,141	52,179	40,516,320	1.64	11.38%
NB Secondary Opportunities I, LP	2005	20,000,000	18,500,843	0	0	24,330,105	0	24,330,105	1.32	6.49%
Lexington Capital Partners VI-B	2006	25,000,000	24,591,319	408,681	3,012	35,008,201	128,591	35,136,792	1.43	6.86%
Siguler Guff DOF II	2006	30,000,000	30,000,000	0	-43,638	42,440,278	0	42,440,278	1.42	8.64%
TCW/Crescent Mezzanine IV, L.P.	2006	40,000,000	39,590,976	0	-81,547	45,049,090	0	45,049,090	1.14	3.03%
Catalyst Fund II, L.P.	2007	10,000,000	9,956,944	43,056	65,604	3,859,103	21,489,981	25,349,084	2.53	7.95%
Energy Spectrum Partners V, LP	2007	15,000,000	13,840,666	0	12,744	25,811,900	0	25,811,900	1.86	31.80%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	0	14,435,464	610,649	15,046,113	1.50	5.57%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	-15,638	17,866,793	62,380	17,929,173	2.04	22.79%
Aurora Resurgence Fund, L.P.	2008	15,000,000	5,653,009	0	40,630	10,350,965	0	10,350,965	1.82	17.60%
Industry Ventures Fund V	2008	10,000,000	9,500,000	0	0	27,399,602	0	27,399,602	2.88	29.29%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	40,771	16,136,880	1,950,734	18,087,614	1.84	14.43%
NB Secondary Opportunities II, LP	2008	20,000,000	17,080,642	0	430,639	26,888,038	0	26,888,038	1.54	14.40%
Siguler Guff DOF III	2008	10,000,000	9,700,000	300,000	-234	14,733,073	1,057,785	15,790,858	1.63	10.31%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	-51,494	27,450,244	0	27,450,244	1.38	9.80%
Apollo European Principal Finance Fund (Feeder), L	2009	53,001,432	46,434,825	6,566,607	13,022	69,417,013	116,728	69,533,742	1.50	11.81%
DRI II, L.P.	2009	20,000,000	19,917,669	0	-100,096	26,302,807	0	26,302,807	1.33	19.64%
Starwood Energy Infrastructure Fund	2009	15,000,000	14,750,000	0	93,463	20,239,979	0	20,239,979	1.36	7.88%
Apollo PCPL Webb V	2010	4,844,398	4,844,398	0	0	5,196,757	0	5,196,757	1.07	6.04%
Apollo PCPL Webb VIII	2010	4,734,303	4,734,303	0	32	12,146,258	0	12,146,258	2.57	46.47%
Energy Spectrum Partners VI, LP	2010	20,000,000	17,240,577	2,759,423	288	20,849,798	406,660	21,256,458	1.23	5.82%
European Strategic Partners 2008	2010	31,220,786	29,704,596	1,516,190	160,998	40,518,100	2,119,687	42,637,787	1.43	7.88%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	0	24,850,771	265,817	25,116,588	1.37	7.99%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,465,470	4,534,530	118,325	31,794,115	2,603,327	34,397,442	1.67	14.53%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	7,882,885	12,117,115	0	16,804,926	81,276	16,886,202	2.14	8.06%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	2,654,902	40,094,037	483,901	40,577,938	2.04	18.09%
BNY Mellon - Alcentra Mezzanine III	2012	25,000,000	23,254,658	0	0	26,736,979	0	26,736,979	1.15	12.73%
Industry Ventures Partnership Holdings Fund II, L.P.	2012	25,000,000	23,500,000	1,500,000	0	58,975,714	44,613,604	103,589,318	4.41	22.18%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	1,152	73,463,734	60,397,413	133,861,147	1.91	10.00%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	0	42,503,590	32,064,124	74,567,714	3.20	21.79%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	0	38,456,740	6,178,904	44,635,644	1.93	15.88%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	11,162,500	1,337,500	0	7,375,723	4,454,092	11,829,815	1.06	1.16%



# PRIVATE EQUITY PERFORMANCE

## AS OF DECEMBER 31, 2023

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	TVPI Ratio	IRR
Pathway SBCERA MCA	2014	350,000,000	318,037,181	31,962,819	0	110,909,445	665,485,450	776,394,895	2.44	19.76%
SL Capital SOF I LP	2014	25,000,000	21,408,596	3,591,404	0	27,610,595	1,700,353	29,310,948	1.37	9.54%
ARES European Loan Opp Fund	2015	15,000,000	8,413,136	0	0	7,613,498	0	7,613,498	0.90	-6.02%
Ares Special Situations Fund IV, LP	2015	50,000,000	47,686,469	2,313,531	0	37,362,661	35,810,367	73,173,028	1.53	8.08%
Tennenbaum Special Situations Fund IX	2015	50,000,000	32,057,933	17,942,067	85,183	32,877,330	19,048,692	51,926,022	1.62	9.59%
Industry Ventures Direct, LP	2016	25,000,000	23,920,425	1,079,575	0	11,577,501	35,181,946	46,759,447	1.95	16.02%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	22,750,000	2,250,000	0	8,419,172	41,143,785	49,562,957	2.18	18.22%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,694,029	10,805,971	0	3,589,133	1,529,641	5,118,774	3.02	37.87%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	21,606,919	18,393,081	148,810	18,468,239	16,208,236	34,676,475	1.59	7.86%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	1,567,938	18,432,062	0	5,829,327	1,557,104	7,386,431	4.71	9.65%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	0	-7,580	8,310,474	0	8,310,474	1.11	7.44%
Industry Ventures Secondary VIII	2017	25,000,000	22,525,000	2,475,000	0	24,439,690	19,191,512	43,631,202	1.94	25.00%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,638,804	1,361,196	0	1,411,891	5,503,180	6,915,071	0.80	-3.67%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	19,700,828	299,172	127,793	17,322,762	20,880,954	38,203,716	1.93	20.22%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	0	71,201,400	77,911,974	149,113,374	1.18	3.50%
SL Capital SOF III LP	2017	25,000,000	17,774,188	7,225,812	-440	18,781,230	18,091,599	36,872,830	2.07	21.11%
Crestline Portfolio Financing Fund	2018	50,000,000	33,107,629	16,892,371	0	21,639,887	25,639,286	47,279,173	1.43	10.51%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	23,000,000	2,000,000	0	626,933	40,957,577	41,584,510	1.81	20.98%
Industry Ventures Tech Buyout LP	2018	50,000,000	45,553,986	4,446,014	0	0	60,337,615	60,337,615	1.32	11.58%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	18,895,116	1,104,884	0	9,524,695	25,079,779	34,604,474	1.83	38.12%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,600,000	1,400,000	0	11,215,154	10,087,949	21,303,103	3.23	37.74%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	0	48,925,348	0	48,925,348	1.20	16.24%
Kayne Solutions Fund LP	2018	20,000,000	9,809,659	0	19,174	10,797,587	0	10,797,587	1.10	9.14%
Industry Ventures Direct II, LP	2019	50,000,000	45,034,012	4,965,988	0	0	66,175,992	66,175,992	1.47	15.54%
Kayne Renewable Opportunities Partners (TE), LP	2019	100,000,000	20,704,033	0	0	27,857,425	0	27,857,425	1.35	21.72%
Waterfall Sentinel Co-Investments	2019	30,000,000	24,810,848	5,189,153	140,580	60,209,500	4,464,608	64,674,108	2.59	29.40%
Waterfall Sentinel Fund	2019	30,000,000	25,664,698	4,335,302	0	30,136,240	11,793,362	41,929,602	1.63	15.24%
Adams Street SBCERA	2020	150,000,000	136,775,298	13,224,702	0	19,168,594	150,772,507	169,941,101	1.24	14.13%
Kayne Anderson FRG	2020	30,000,000	30,000,000	0	0	45,283,966	0	45,283,966	1.51	44.79%
Kayne CLO Partners II, LP	2020	50,000,000	44,721,625	0	-97,167	52,848,194	0	52,848,194	1.18	13.44%
Industry Ventures Partnership Holdings VI, LP	2021	40,000,000	20,815,991	19,184,009	0	305,308	22,706,870	23,012,178	1.11	8.92%
Industry Ventures Secondary IX, LP	2021	50,000,000	45,054,461	4,945,539	-578	1,091,888	54,881,529	55,973,417	1.24	15.35%
Industry Ventures Direct III, L.P.	2022	40,000,000	8,254,527	31,745,473	-1,408	0	6,786,852	6,786,852	0.82	-20.05%
Industry Ventures IV Arrowhead, L.P.	2022	30,000,000	23,099,190	6,900,810	0	334,379	22,597,255	22,931,634	0.99	-1.61%
Industry Ventures Tech Buyout II, L.P.	2022	100,000,000	31,033,556	68,966,444	-181,108	0	34,095,558	34,095,558	1.11	15.60%
Adams Street SBCERA 2	2023	80,000,000	15,720,000	64,280,000	0	0	17,331,965	17,331,965	1.10	11.32%
<b>Total: San Bernardino</b>		<b>4,704,989,550</b>	<b>4,096,737,350</b>	<b>465,033,652</b>	<b>5,087,096</b>	<b>4,401,748,549</b>	<b>2,520,564,910</b>	<b>6,922,313,459</b>	<b>1.69</b>	<b>10.79%</b>





# APPENDIX



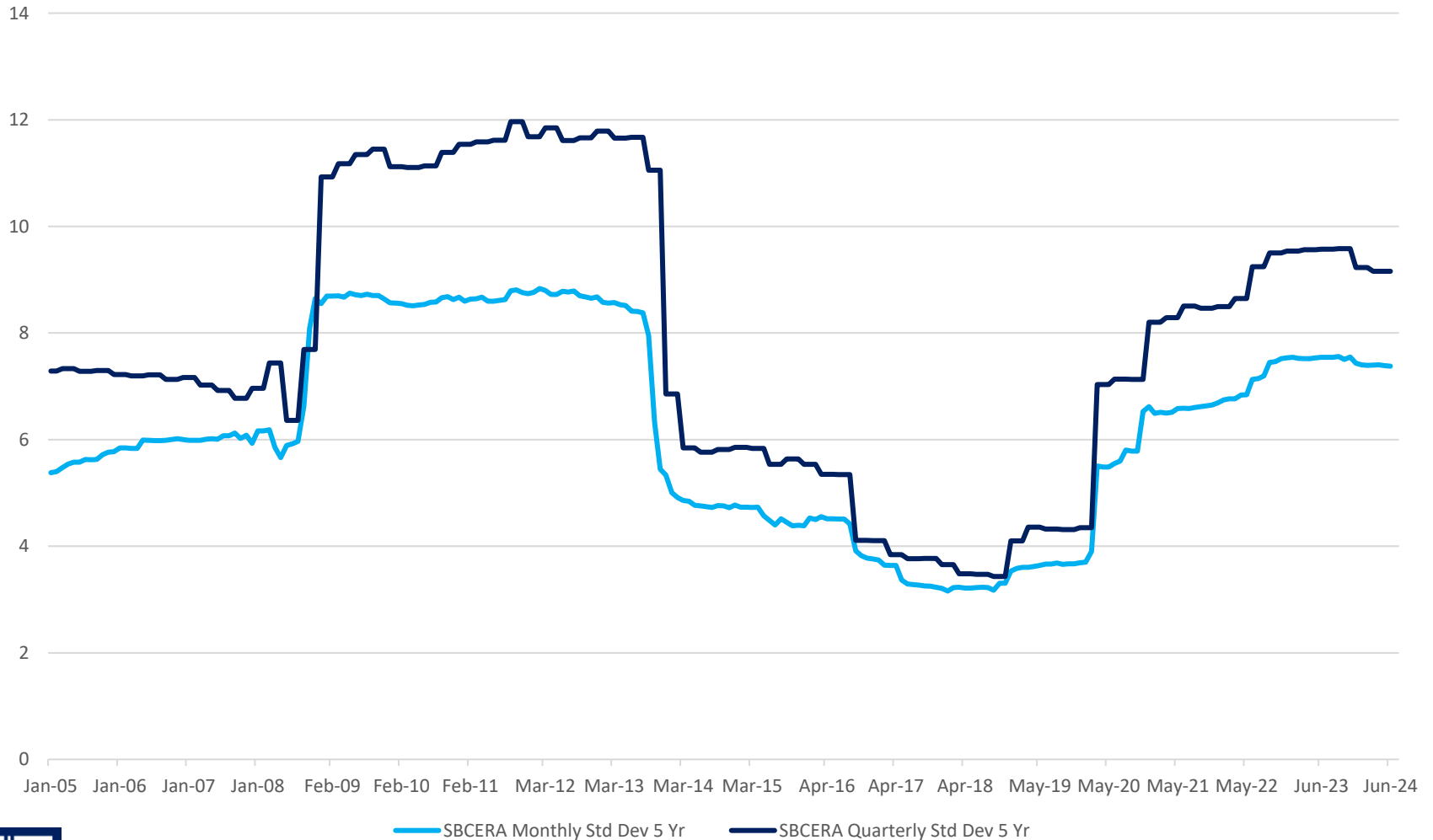
# POLICY INDEX COMPOSITION

Index	7/1/ 2022	7/1/ 2021	7/1/ 2019	7/1/ 2018	7/1/ 2014	7/1/ 2012	6/1/ 2012	6/1/ 2010	6/1/ 2009	6/1/ 2008	9/1/ 2006	7/1/ 2005	4/1/ 2004	6/1/ 2002
Russell 3000 Index	35	31	29	29	29	30	29	29	28	34	38	38	43	43
MSCI ACWI ex USA Index	13	15	15	15	15	13	7	7	7	11	13	13	18	18
MSCI Emerging Markets Index							4	4	3	4	3	3		
Bloomberg US Aggregate Bond Index	22	22	22	22	22	24	13	13	18	15	21	21	18	26
Bloomberg Global Aggregate Bond ex US Index	17	19	20	20	18	16	10	10	9	8	5			
Bloomberg Global Aggregate Bond Index Hedged												5	5	5
Merrill Lynch High Yield Master II Index							13	13	13	8	8	8	8	
JP Morgan EMBI Global Diversified Index							6	6	4	4	2	2		
NCREIF Property Index	5	5	7	7	9	9	12.5	12.5	13	11	10	10	8	8
67% S&P GSCI + 33% BBG US TIPS Index	6													
67% Bloomberg Commodity Index+ 33% BBG US TIPS Index		6	5											
NCREIF Timberland 1Q Lag				2.5	2.5	3								
Bloomberg Commodity Index				2.5	2.5	3	3.5	3.5	3	3				
91 Day T-Bill Index	2	2	2	2	2	2	2	2	2	2				

# 5 YEAR STANDARD DEVIATION

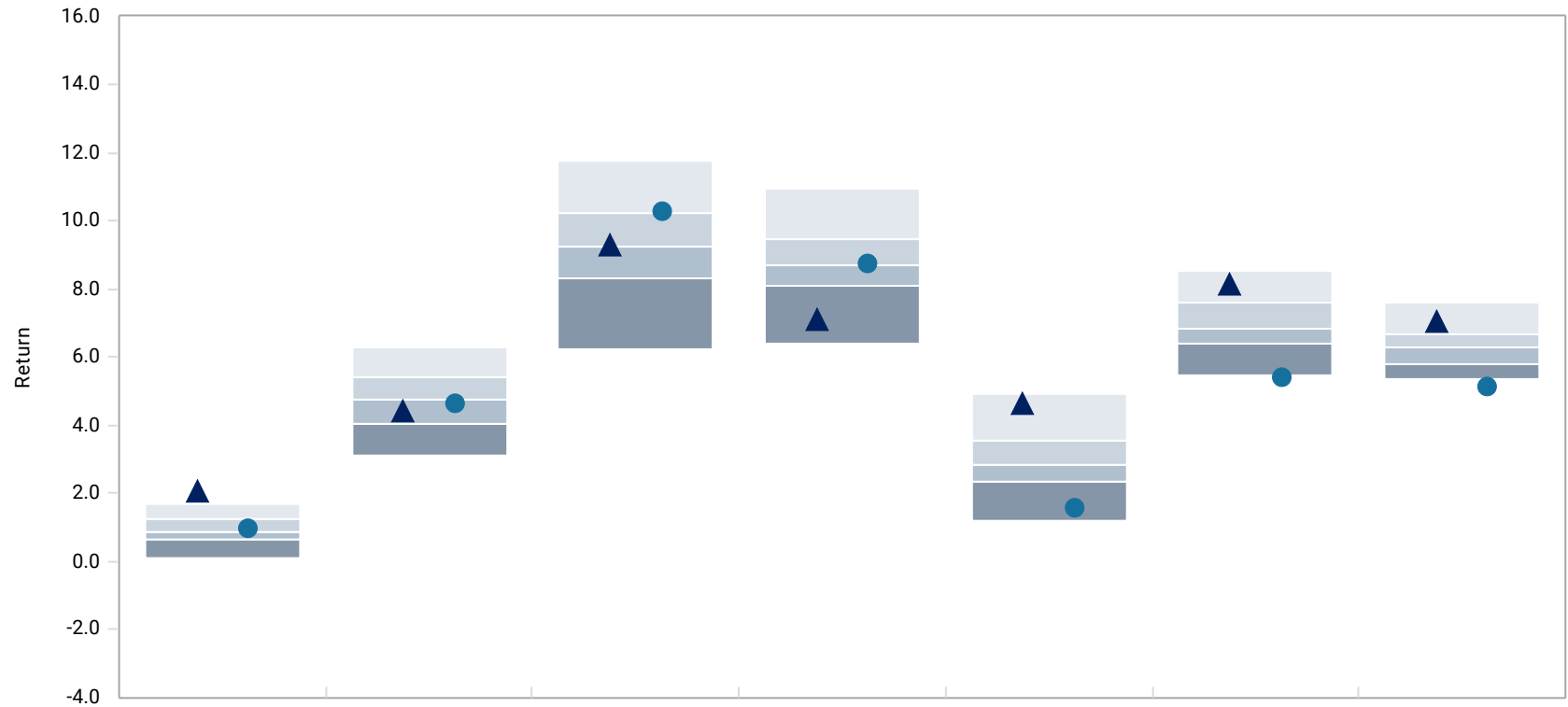
## MONTHLY TIME SERIES VS. QUARTERLY TIME SERIES

Standard Deviation Rolling 5 Yr



# RETURN SUMMARY VS. PEER UNIVERSE

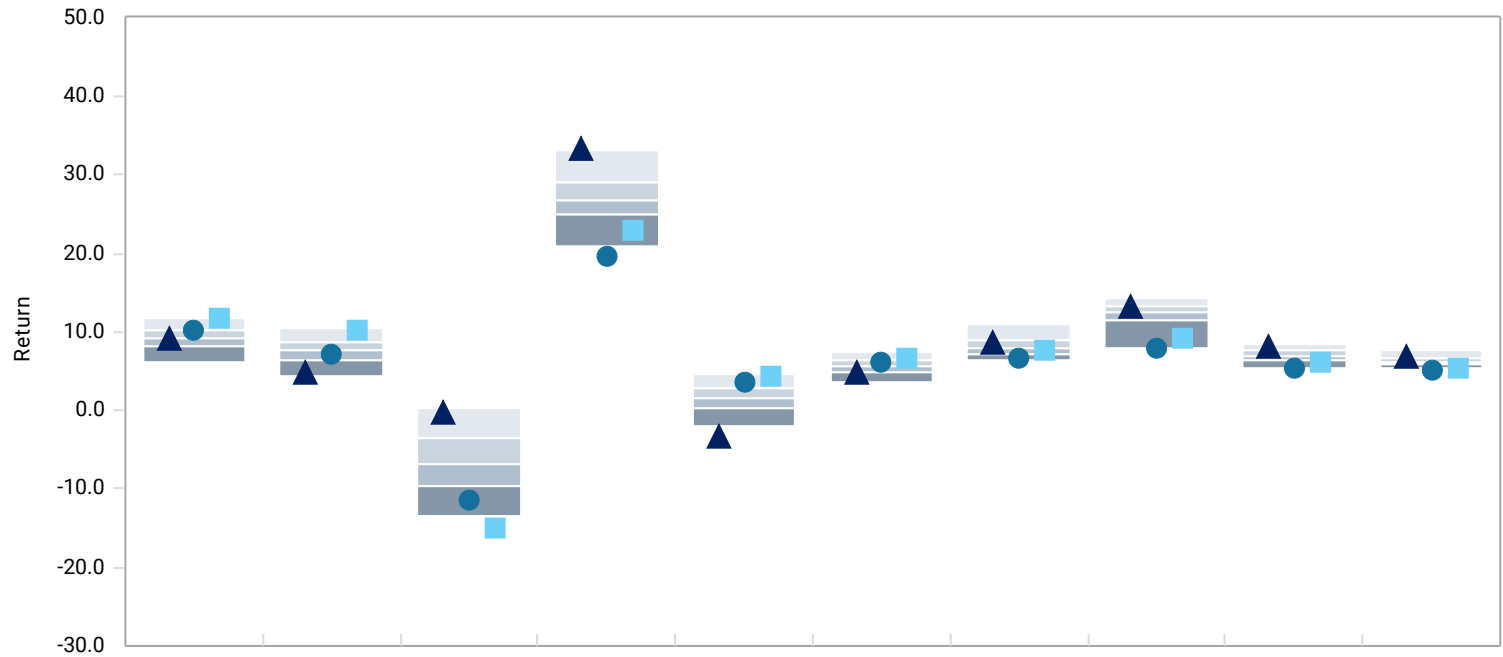
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Mo	YTD	1 Year	2 Years	3 Years	5 Years	10 Years
▲ Total Fund	2.1 (1)	4.4 (67)	9.3 (46)	7.1 (91)	4.7 (7)	8.2 (9)	7.1 (16)
● Policy Index	1.0 (45)	4.6 (55)	10.3 (25)	8.7 (48)	1.6 (92)	5.4 (100)	5.1 (100)
5th Percentile	1.7	6.3	11.8	11.0	4.9	8.6	7.6
1st Quartile	1.2	5.4	10.2	9.5	3.6	7.6	6.7
Median	0.9	4.8	9.3	8.7	2.9	6.8	6.3
3rd Quartile	0.7	4.1	8.3	8.1	2.4	6.4	5.8
95th Percentile	0.1	3.1	6.2	6.4	1.2	5.5	5.4
Population	34	34	34	32	31	31	31

# RETURN SUMMARY VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB &gt; \$1 Billion



	Fiscal 2024 (%)	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	5 Yrs (%)	10 Yrs (%)
▲ Total Fund	9.3 (46)	5.0 (91)	-0.1 (6)	33.3 (5)	-3.2 (97)	4.8 (78)	8.8 (33)	13.3 (29)	8.2 (9)	7.1 (16)
● Policy Index	10.3 (25)	7.2 (61)	-11.3 (89)	19.7 (97)	3.7 (12)	6.2 (32)	6.8 (91)	8.0 (96)	5.4 (100)	5.1 (100)
■ 60% MSCI World/40% FTSE WGBI	11.8 (3)	10.2 (6)	-14.9 (98)	23.0 (91)	4.4 (7)	6.7 (20)	7.8 (61)	9.2 (95)	6.1 (85)	5.5 (94)
5th Percentile	11.8	10.5	0.2	33.1	4.6	7.3	10.9	14.4	8.6	7.6
1st Quartile	10.2	8.7	-3.6	29.1	2.9	6.5	9.1	13.4	7.6	6.7
Median	9.3	7.6	-6.7	26.9	1.6	5.8	8.1	12.5	6.8	6.3
3rd Quartile	8.3	6.4	-9.5	25.1	0.3	4.9	7.2	11.5	6.4	5.8
95th Percentile	6.2	4.3	-13.5	20.9	-2.0	3.6	6.5	8.0	5.5	5.4
Population	34	172	169	211	192	162	141	135	31	31



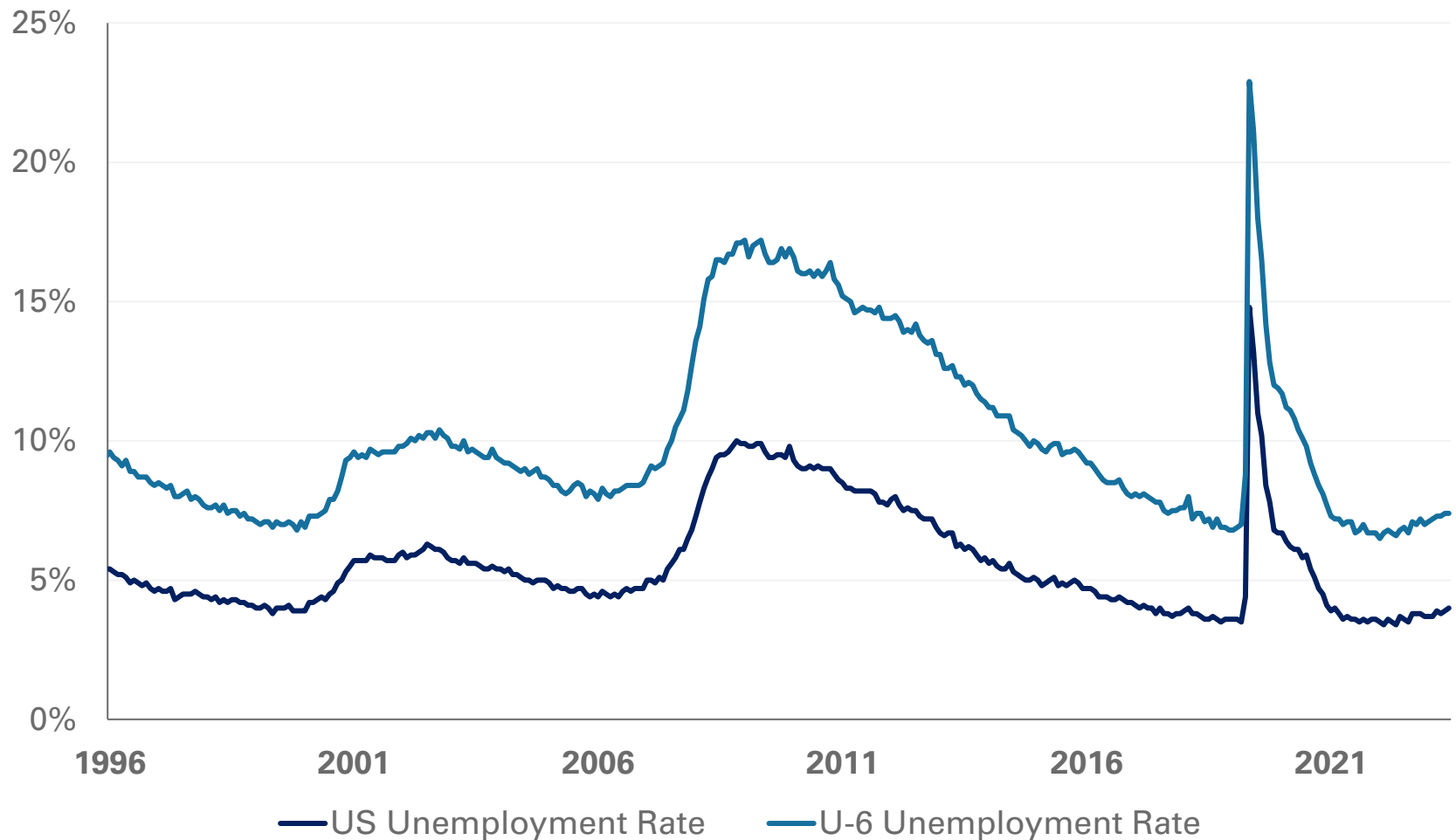
# MACRO

# INFLATION

## U.S. CONSUMER PRICE INDEX



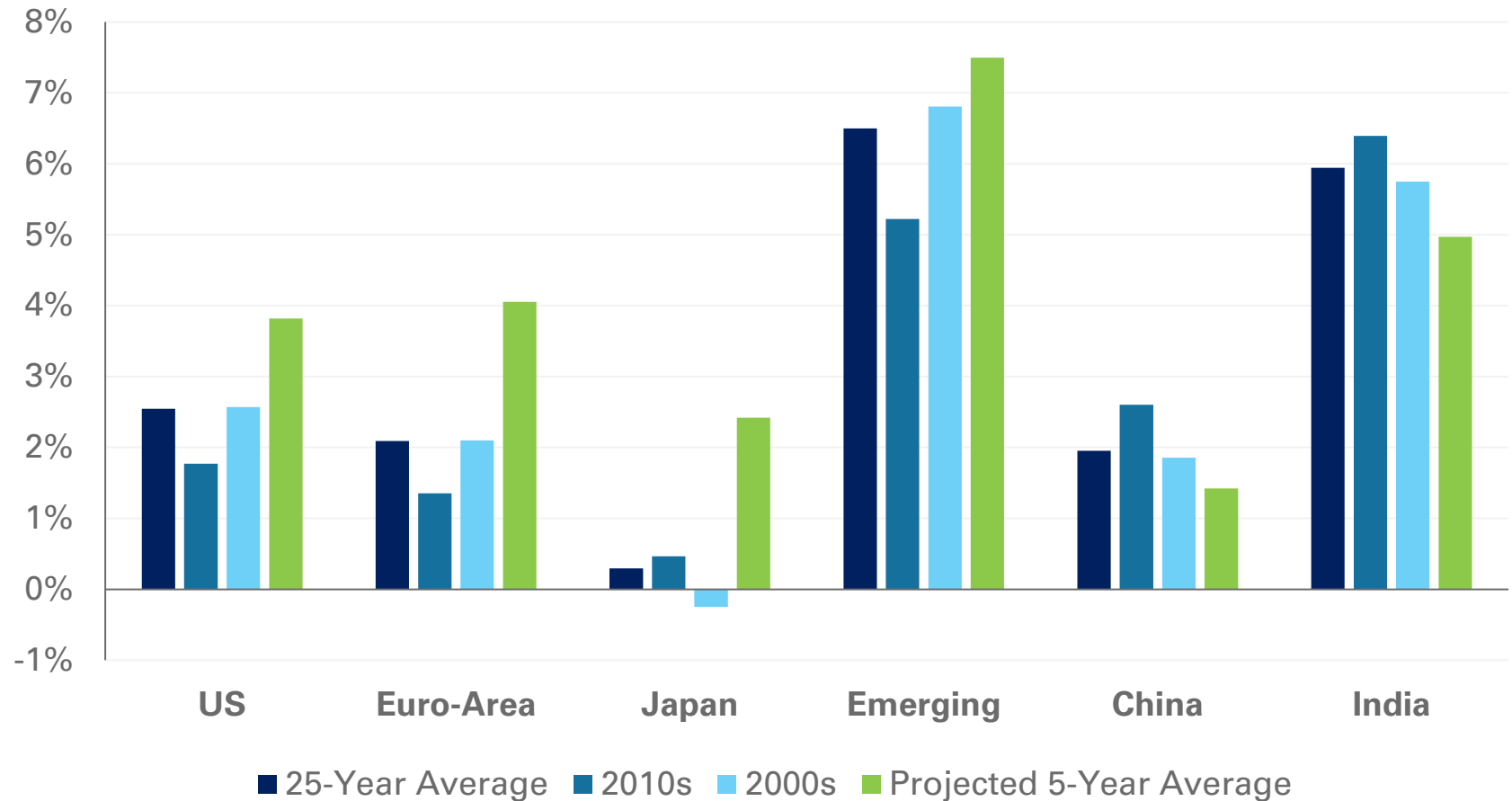
# U.S. UNEMPLOYMENT RATES



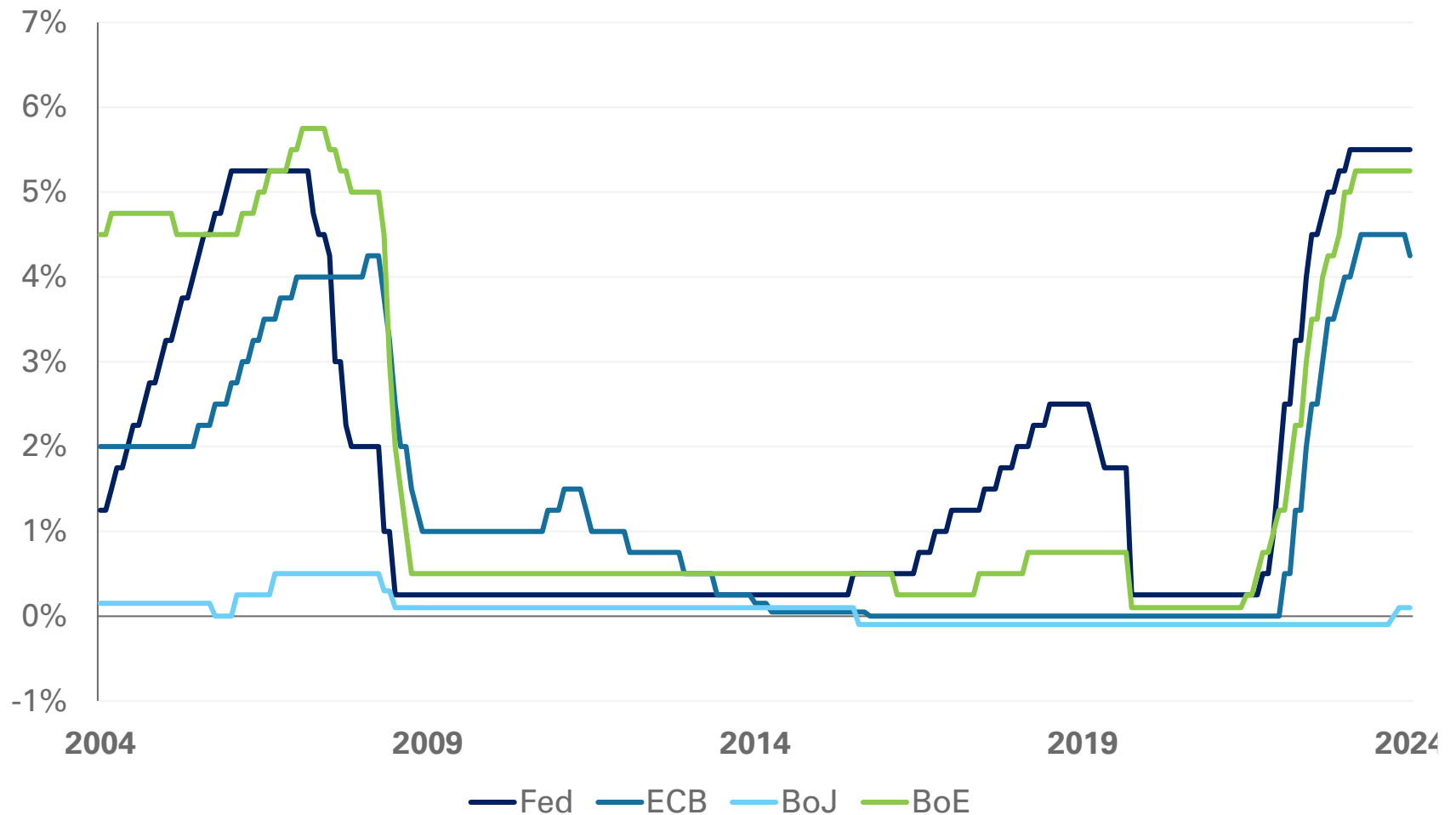


# HISTORICAL INFLATION

## IMF PROJECTIONS

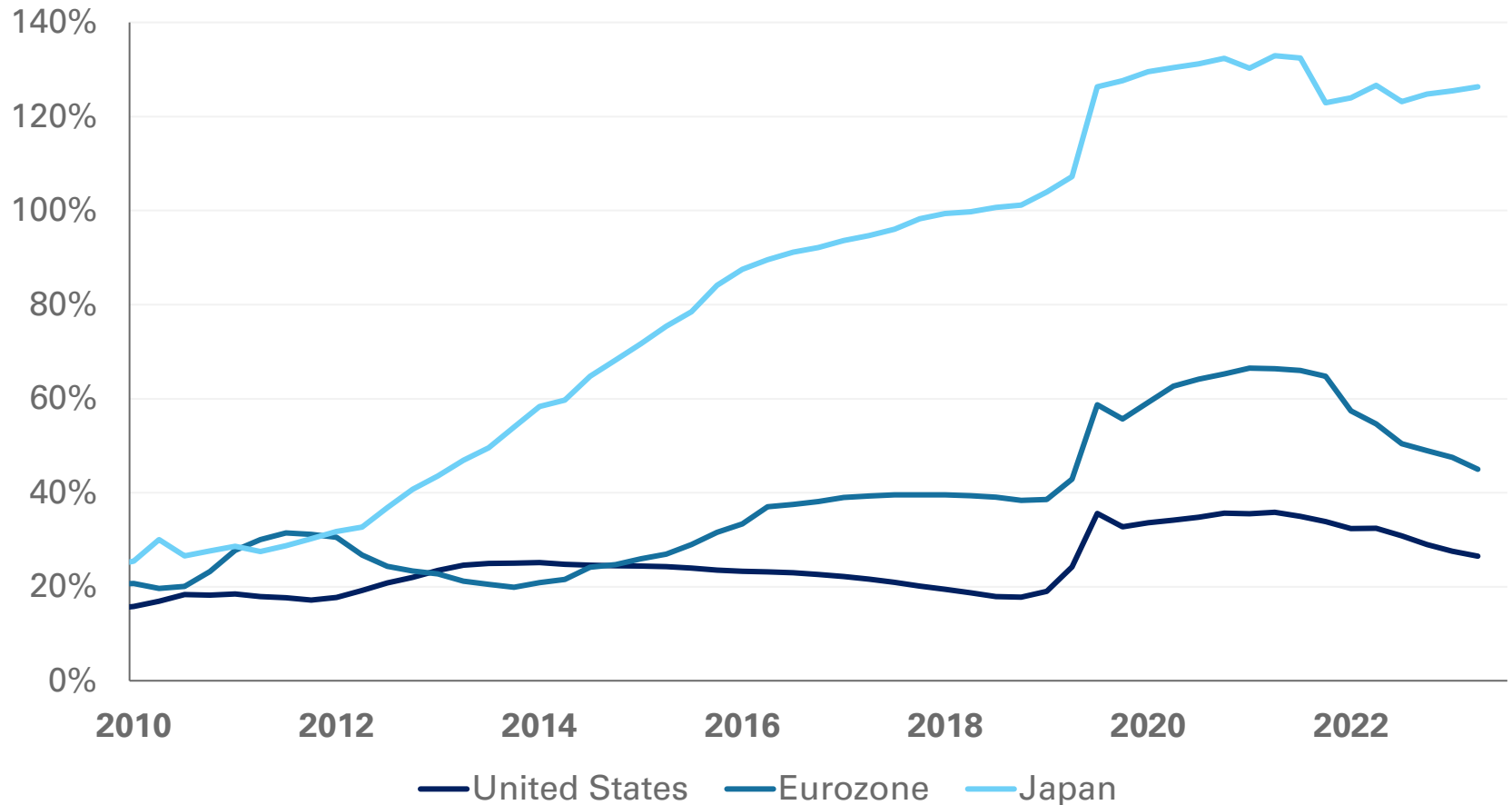


# CENTRAL BANK POLICY RATES



# CENTRAL BANK BALANCE SHEETS

AS A PERCENTAGE OF GDP



# CURRENCIES

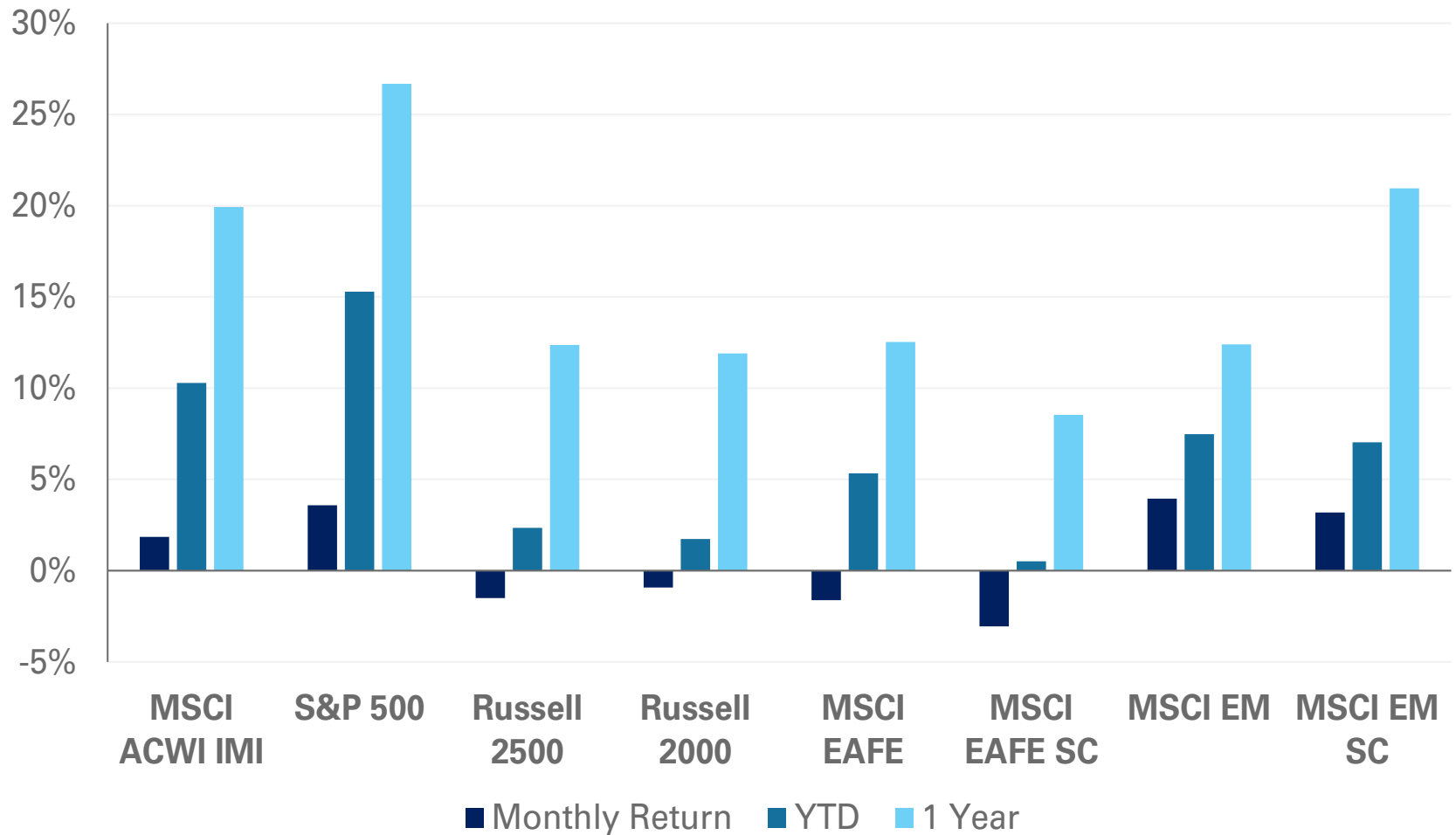
## RELATIVE TO THE U.S. DOLLAR

Currencies	Spot	1 Month	YTD	1 Year
<b>Euro</b>	<b>1.07</b>	-1.3%	-3.0%	-1.7%
<b>British Pound</b>	<b>1.26</b>	-0.7%	-0.8%	0.2%
<b>Japanese Yen</b>	<b>160.86</b>	-2.3%	-12.4%	-10.1%
<b>Swiss Franc</b>	<b>0.90</b>	0.4%	-6.3%	-0.1%
<b>Australian Dollar</b>	<b>0.67</b>	0.4%	-2.1%	1.2%
<b>New Zealand Dollar</b>	<b>1.64</b>	-0.8%	-3.8%	0.2%
<b>Canadian Dollar</b>	<b>1.37</b>	-0.4%	-3.6%	-3.1%
<b>Chinese Yuan</b>	<b>7.27</b>	-0.3%	-2.4%	-0.3%
<b>Taiwanese Dollar</b>	<b>32.44</b>	-0.1%	-5.4%	-4.2%
<b>Korean Won</b>	<b>1377</b>	0.6%	-6.4%	-5.0%
<b>Vietnamese Dong</b>	<b>25455</b>	0.0%	-4.7%	-7.5%
<b>Thai Baht</b>	<b>36.70</b>	0.3%	-7.0%	-2.9%
<b>Philippines Peso</b>	<b>58.61</b>	-0.2%	-5.5%	-5.6%
<b>Indian Rupee</b>	<b>83.39</b>	0.1%	-0.2%	-1.6%
<b>Russian Ruble</b>	<b>86.25</b>	4.8%	3.7%	0.4%
<b>Mexican Peso</b>	<b>18.29</b>	-6.7%	-7.4%	-6.5%
<b>Brazilian Real</b>	<b>5.55</b>	-5.4%	-12.5%	-12.6%
<b>Chilean Peso</b>	<b>0.03</b>	-3.6%	-5.4%	-12.8%
<b>Argentine Peso</b>	<b>912.00</b>	-1.8%	-11.3%	-71.9%
<b>South African Rand</b>	<b>18.26</b>	3.1%	0.2%	2.6%

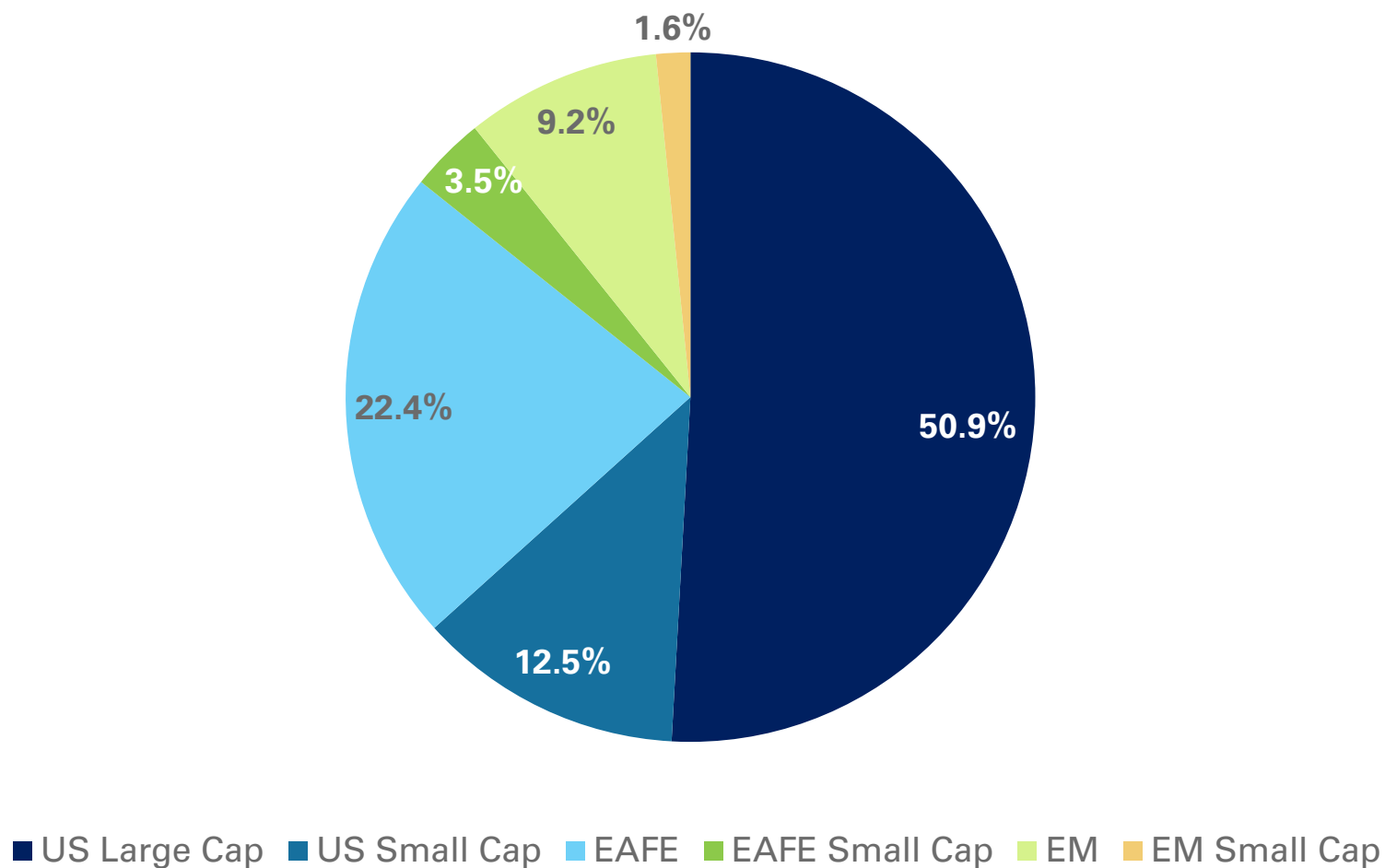


# EQUITY

# EQUITY INDEX PERFORMANCE

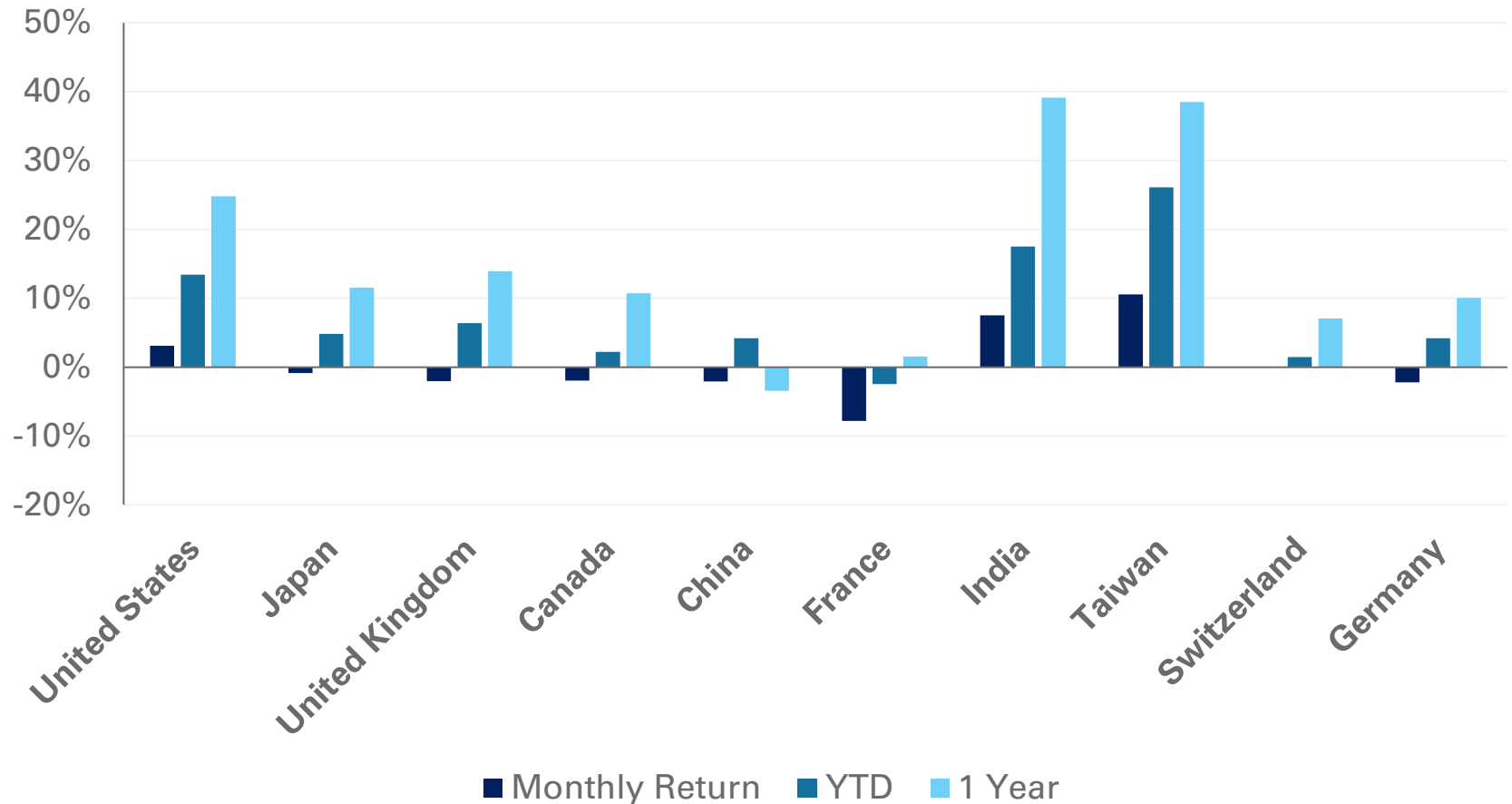


# MSCI ACWI IMI WEIGHTS



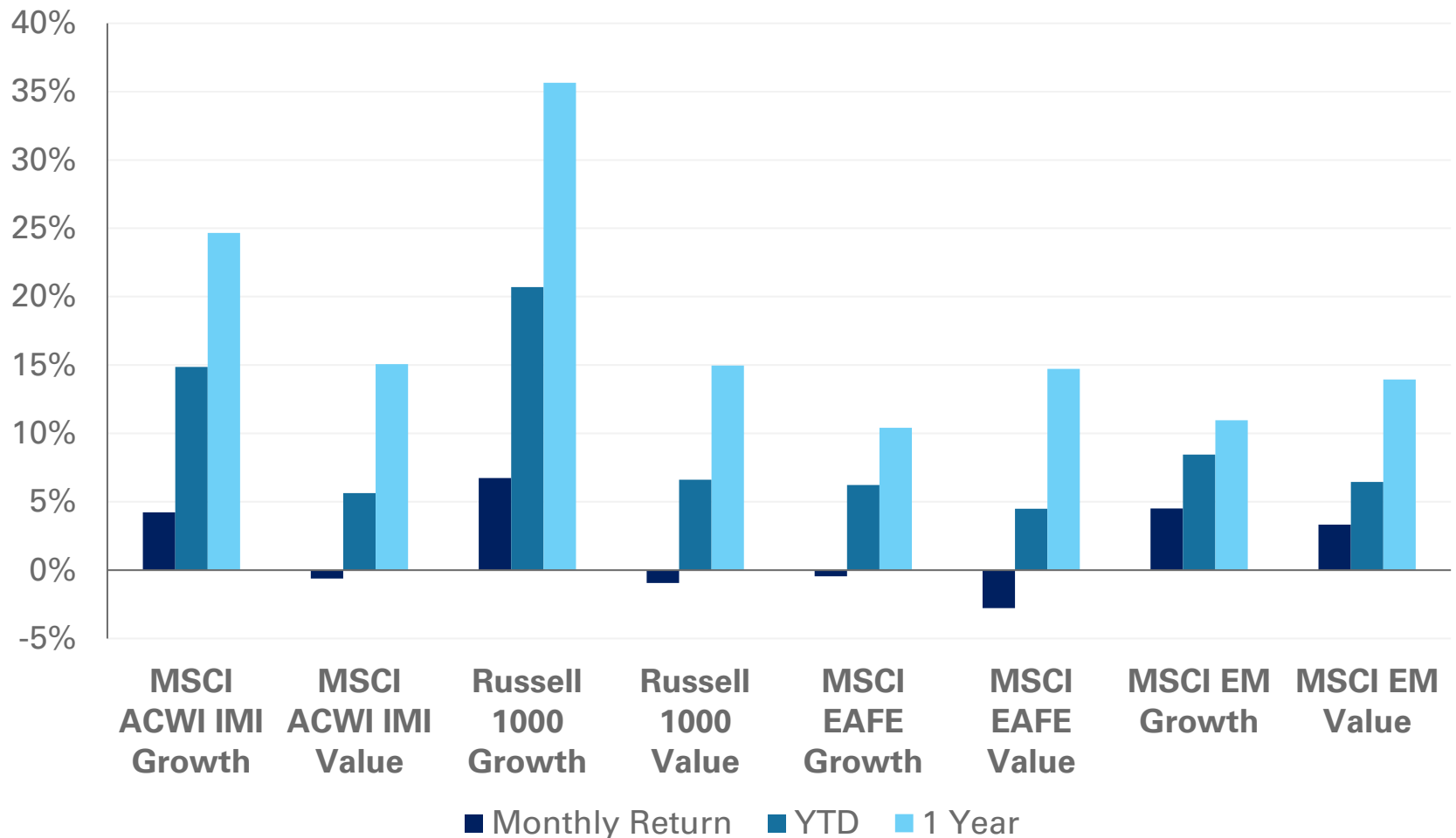
# EQUITY INDEX PERFORMANCE

TOP 10 COUNTRIES BY MARKET CAP IN MSCI ACWI IMI INDEX





# STYLE INDEX PERFORMANCE

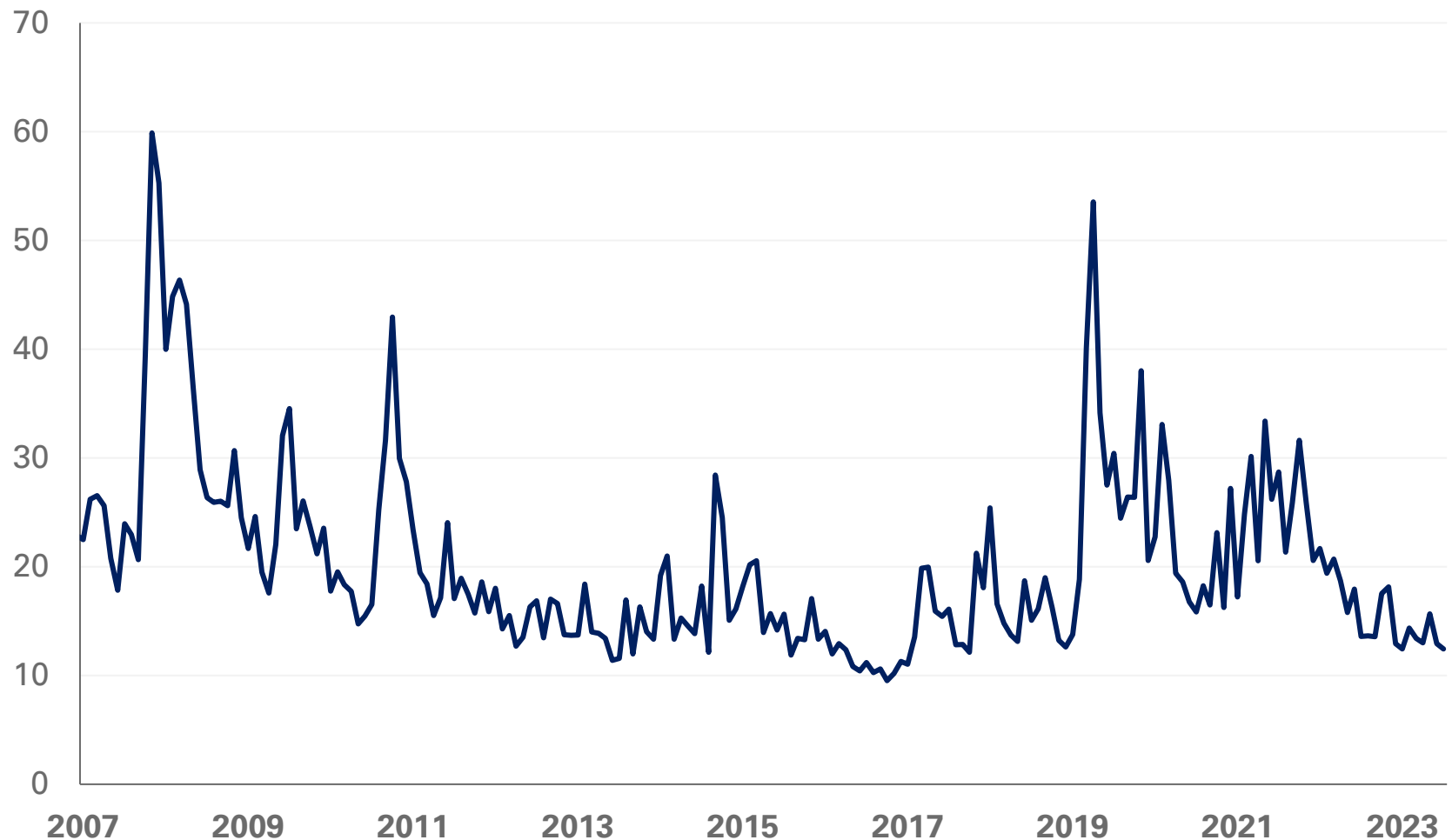


# SECTOR INDEX PERFORMANCE

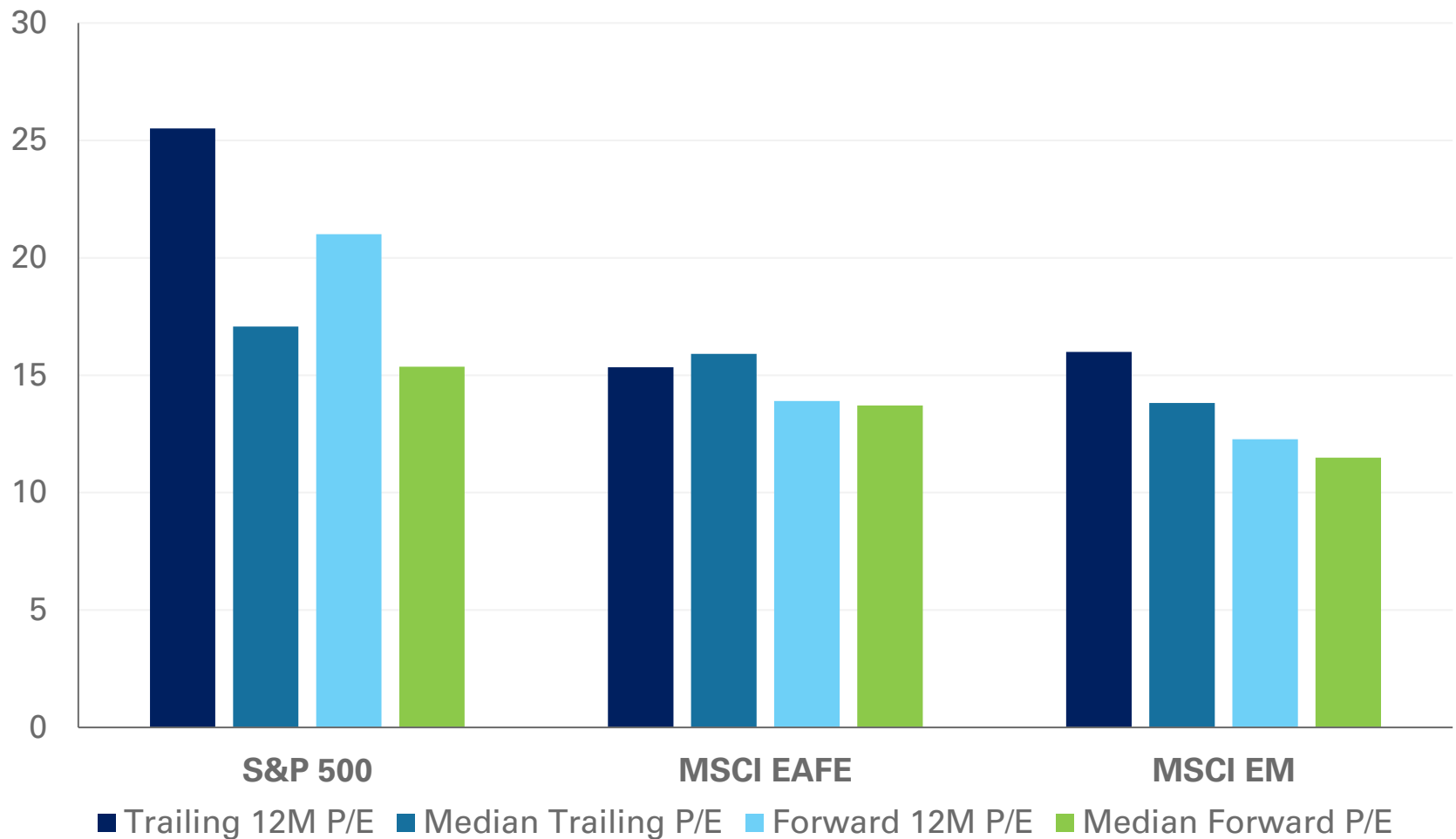
	Monthly Return	YTD	1 Year	Index Weight
<b>MSCI ACWI IMI</b>	<b>1.9%</b>	<b>10.3%</b>	<b>19.9%</b>	<b>100.0%</b>
Communication Services	3.6%	19.2%	30.6%	7.4%
Consumer Discretionary	1.5%	3.8%	10.0%	10.7%
Consumer Staples	-1.3%	2.5%	2.8%	6.1%
Energy	-1.8%	8.6%	19.2%	4.4%
Financials	-0.6%	8.8%	24.1%	15.4%
Health Care	1.8%	6.7%	11.1%	10.7%
Industrials	-1.8%	6.9%	16.1%	11.3%
Information Technology	8.7%	23.5%	38.4%	24.4%
Materials	-3.6%	-1.2%	7.7%	4.4%
Real Estate	-0.1%	-4.3%	4.8%	2.6%
Utilities	-4.1%	4.8%	6.6%	2.5%

	Monthly Return	YTD	1 Year	Index Weight
<b>S&amp;P 500</b>	<b>3.6%</b>	<b>15.3%</b>	<b>26.7%</b>	<b>100.0%</b>
Communication Services	4.8%	26.7%	45.4%	9.3%
Consumer Discretionary	4.9%	5.7%	14.7%	10.0%
Consumer Staples	-0.2%	9.0%	9.0%	5.8%
Energy	-1.3%	10.9%	17.9%	3.6%
Financials	-0.9%	10.2%	27.5%	12.4%
Health Care	1.9%	7.8%	13.6%	11.7%
Industrials	-0.9%	7.8%	17.7%	8.1%
Information Technology	9.3%	28.2%	44.5%	32.4%
Materials	-3.0%	4.0%	11.2%	2.2%
Real Estate	2.0%	-2.4%	7.2%	2.2%
Utilities	-5.5%	9.4%	9.1%	2.3%

# EQUITY VOLATILITY INDEX (VIX)



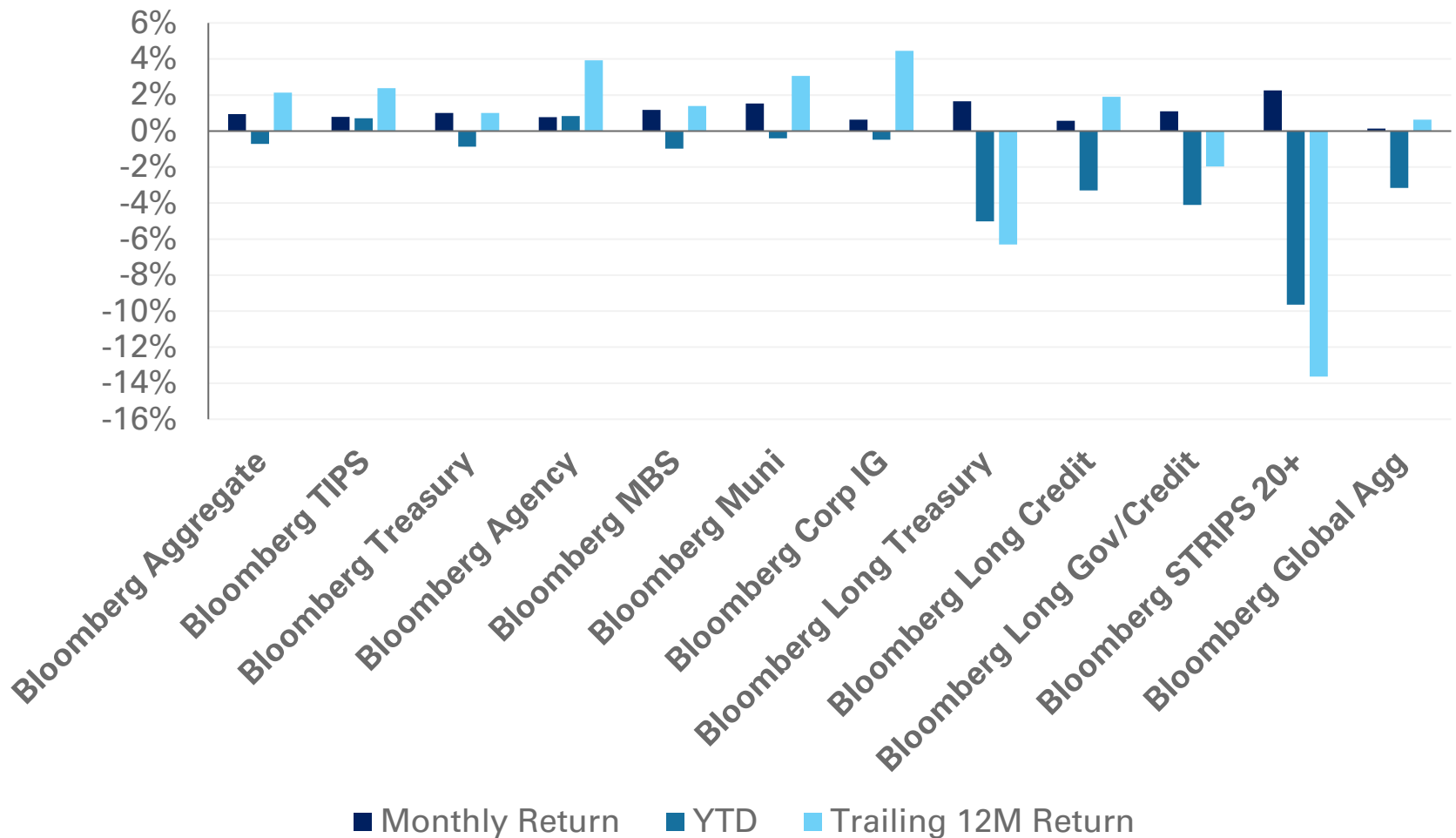
# GLOBAL EQUITY VALUATIONS



Median calculated based on 20-year monthly data  
Source: S&P, MSCI, FactSet

# SAFE-HAVEN FIXED INCOME

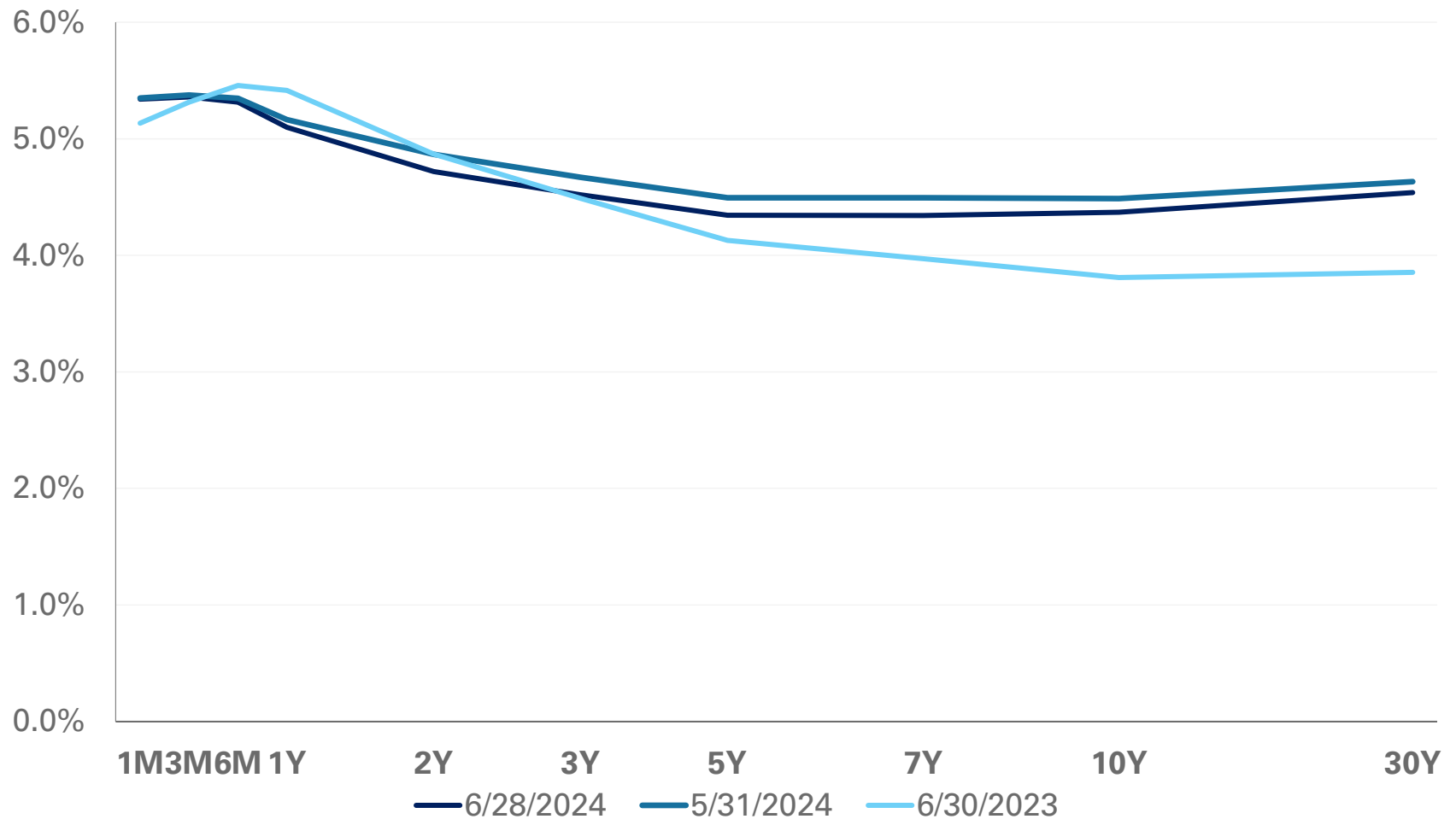
# SAFE-HAVEN FIXED INCOME PERFORMANCE



# FIXED INCOME CHARACTERISTICS

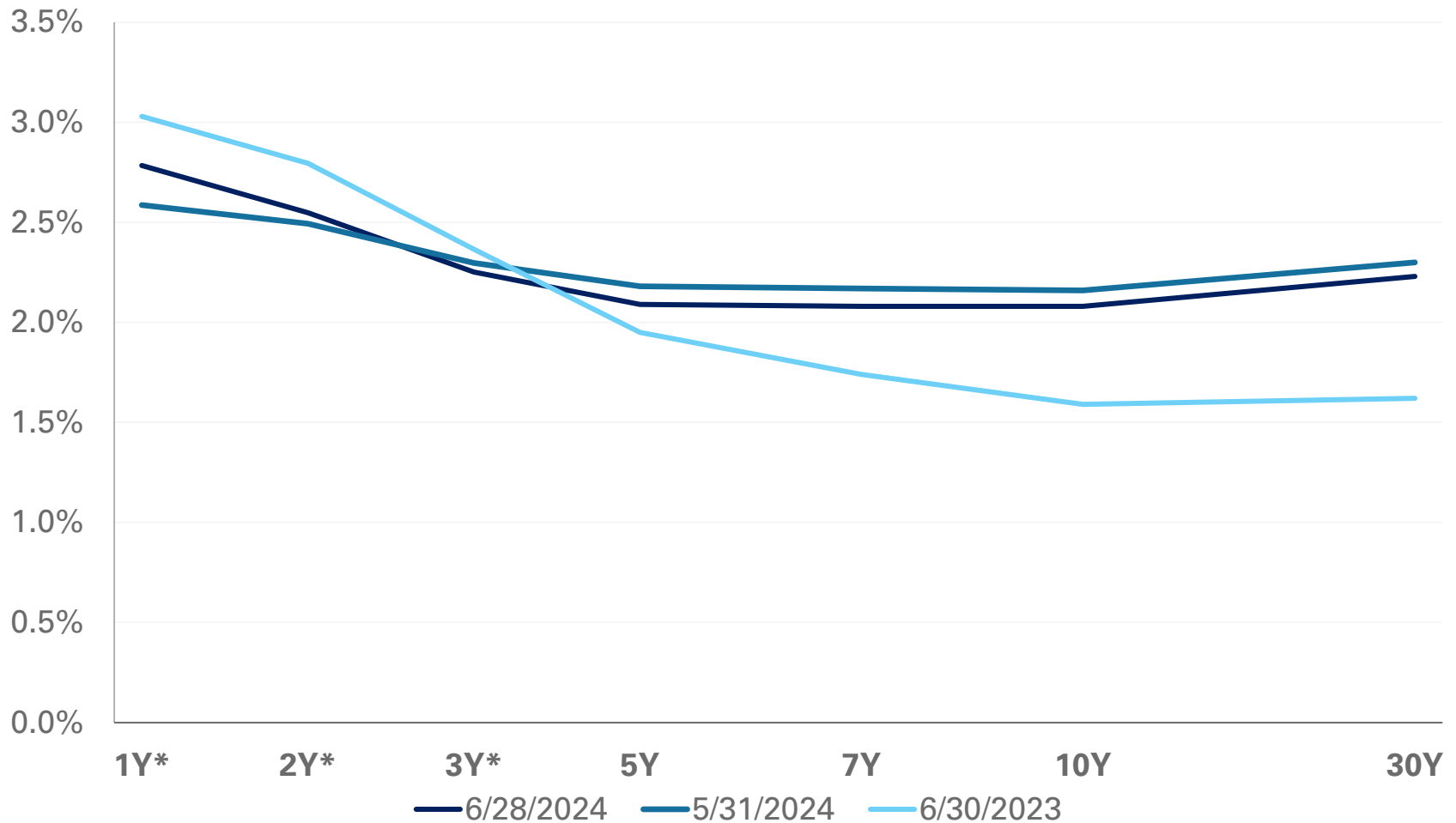
	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg Aggregate</b>	5.00%	39	6.1
<b>Bloomberg TIPS</b>	4.77%	-	4.9
<b>Bloomberg Treasury</b>	4.57%	-	5.9
<b>Bloomberg Agency</b>	4.95%	13	3.0
<b>Bloomberg MBS</b>	5.22%	48	6.1
<b>Bloomberg Muni</b>	3.72%	-	6.0
<b>Bloomberg Corp IG</b>	5.48%	94	6.9
<b>Bloomberg Long Treasury</b>	4.61%	-	15.1
<b>Bloomberg Long Credit</b>	5.71%	115	12.6
<b>Bloomberg Long Gov/Credit</b>	5.17%	60	13.8
<b>Bloomberg STRIPS 20+</b>	4.62%	-	25.1
<b>Bloomberg Global Agg</b>	3.90%	41	6.6

# US TREASURY YIELD CURVE





# US TREASURY REAL YIELD CURVE



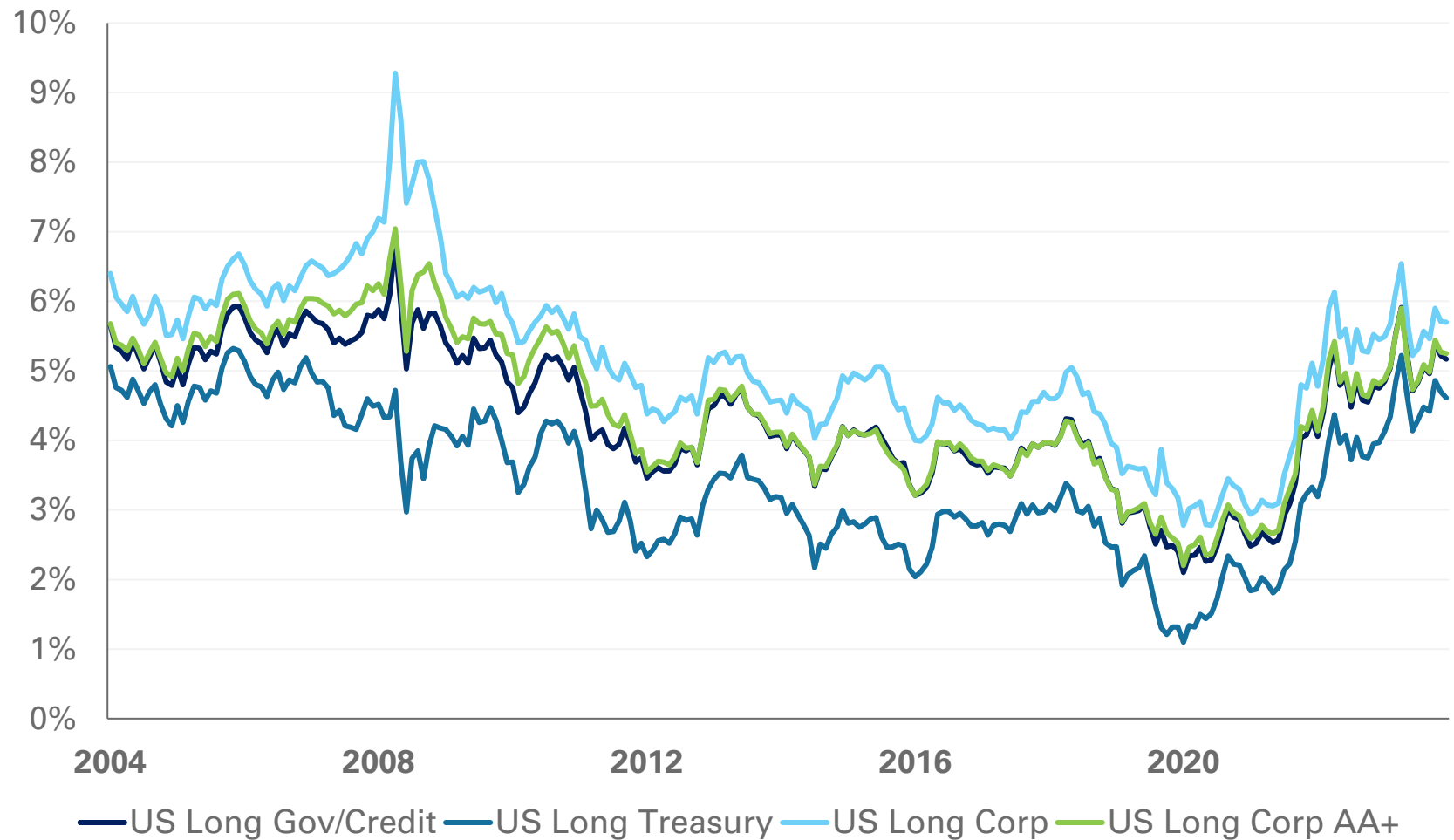
Notes: \*Real yields are calculated based on a weighted average of select off-the-run TIPS yields  
Source: NEPC, Bloomberg, FactSet

# MUNI -TO-TREASURY RATIO



Numerator represents yield-to-worst for municipal bonds  
Source: Bloomberg, FactSet

# LONG DURATION YIELDS



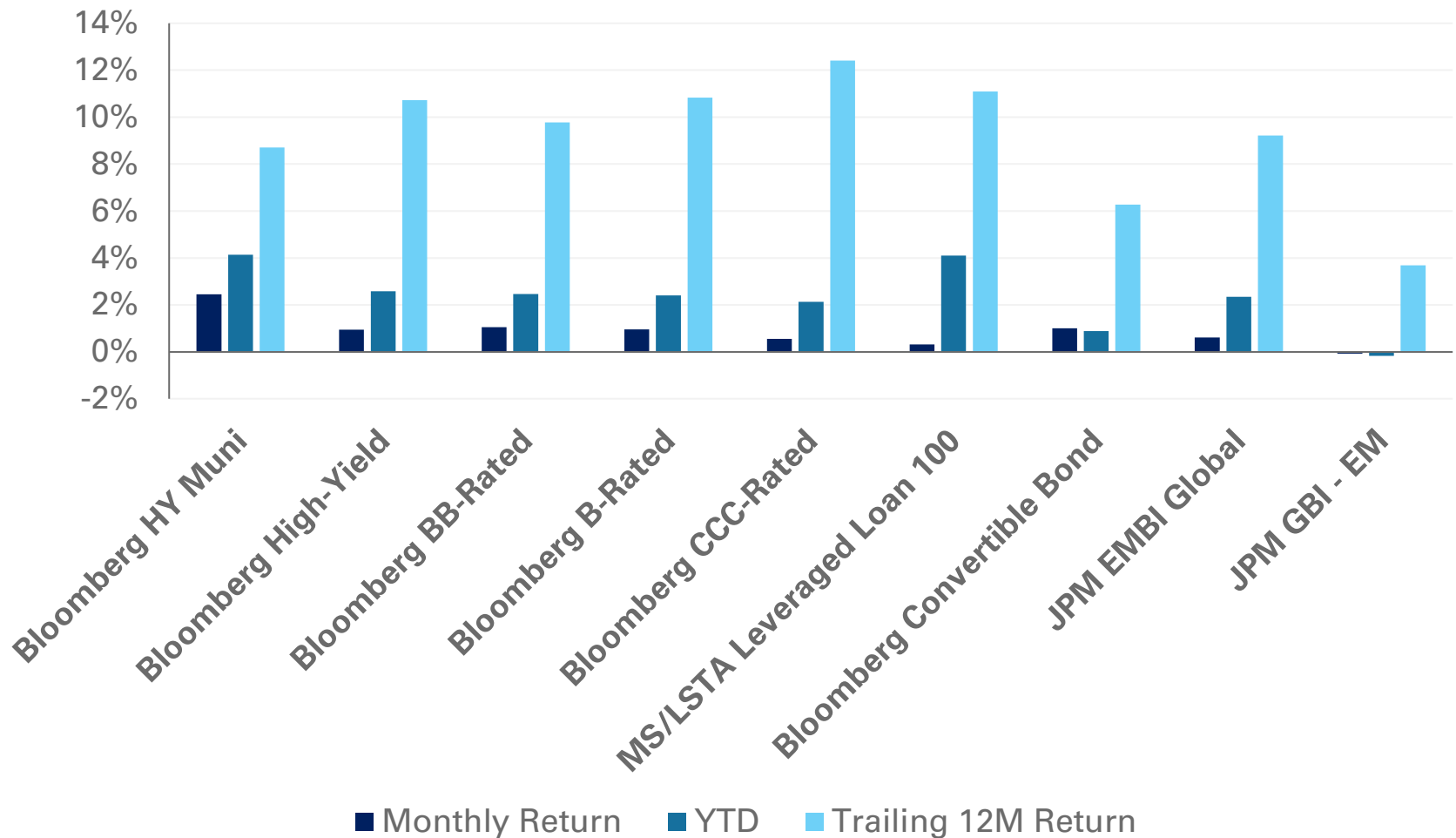
# LONG DURATION CORPORATE SPREADS



Median calculated based on 20-year of monthly data  
Source: Bloomberg, FactSet

# RETURN-SEEKING CREDIT

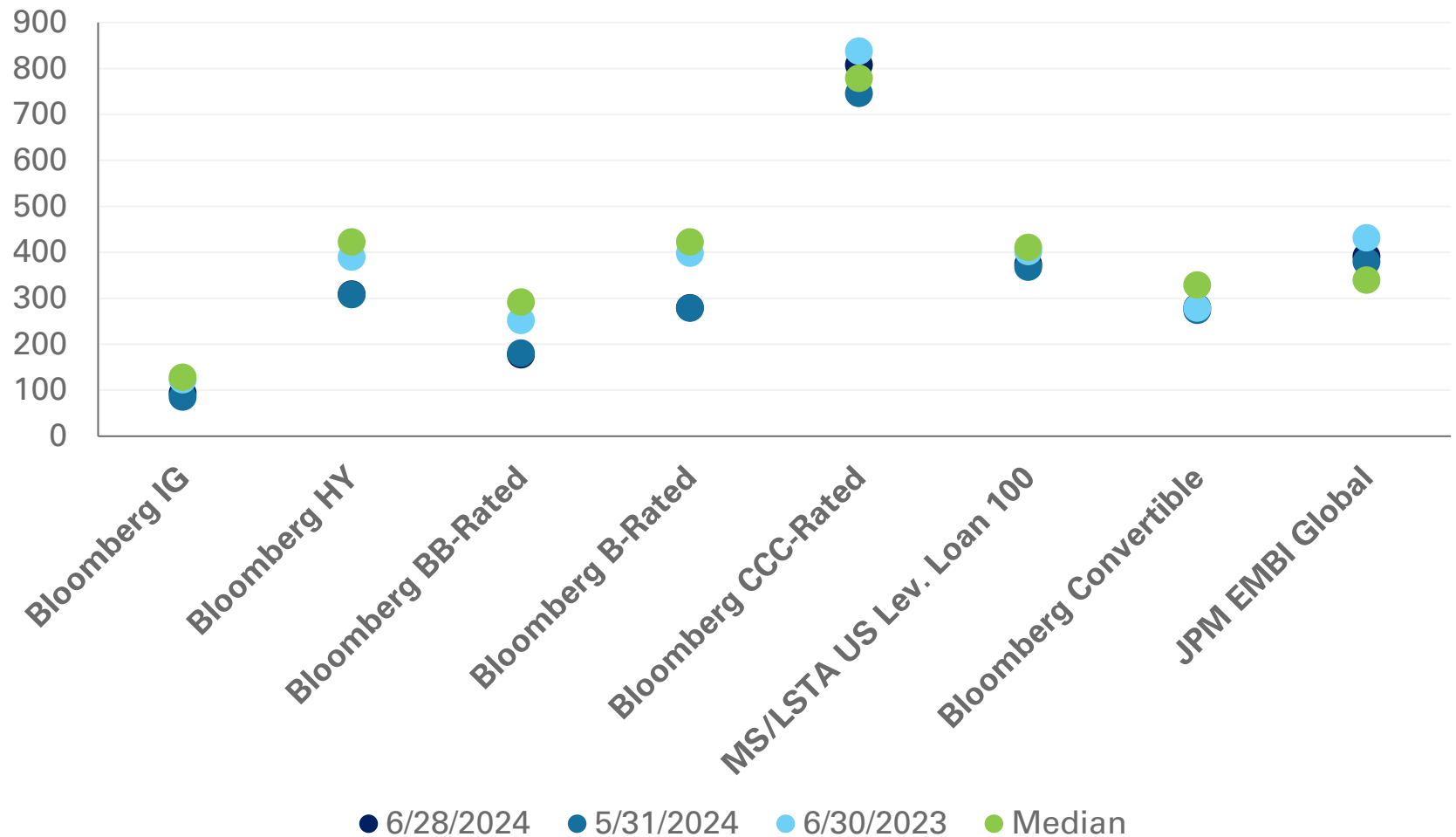
# RETURN-SEEKING CREDIT INDEX PERFORMANCE



# RETURN-SEEKING CREDIT CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg HY Muni</b>	5.43%	-	6.6
<b>Bloomberg High-Yield</b>	7.91%	309	3.1
<b>Bloomberg BB-Rated</b>	6.58%	177	3.4
<b>Bloomberg B-Rated</b>	7.67%	279	2.8
<b>Bloomberg CCC-Rated</b>	12.82%	808	2.9
<b>MS/LSTA Leveraged Loan 100</b>	9.33%	375	-
<b>Bloomberg Convertible Bond</b>	0.81%	280	1.9
<b>JPM EMBI Global</b>	8.42%	391	6.6
<b>JPM GBI - EM</b>	4.20%	-	5.6

# CREDIT SPREADS

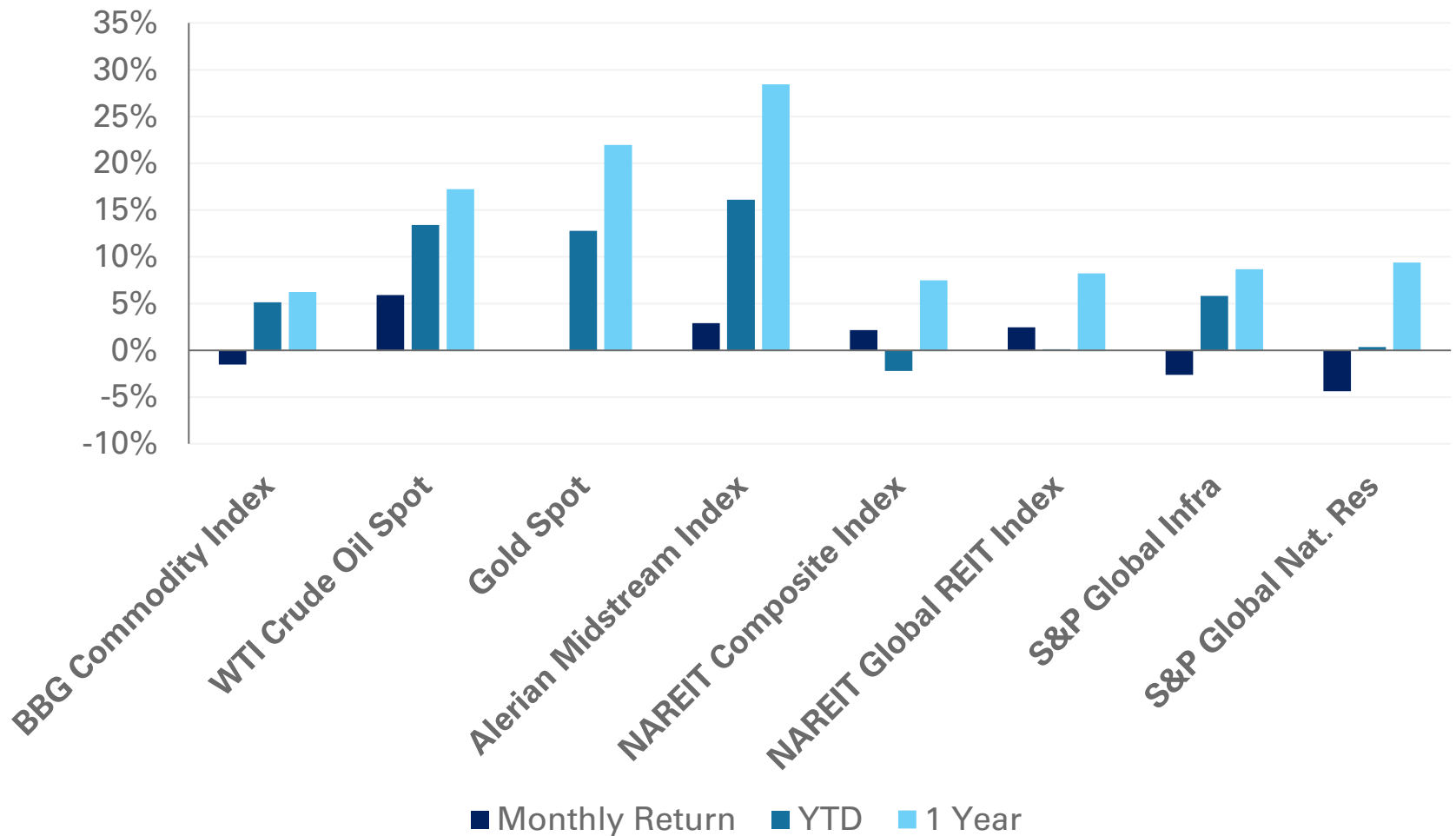






# REAL ASSETS

# REAL ASSETS INDEX PERFORMANCE



# REAL ASSETS INDEX PERFORMANCE

Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
<b>Bloomberg Commodity Index</b>	<b>-1.5%</b>	<b>2.9%</b>	<b>5.1%</b>	<b>5.0%</b>	<b>5.6%</b>	<b>7.2%</b>
<b>Bloomberg Sub Agriculture Index</b>	<b>-5.9%</b>	<b>-3.4%</b>	<b>-6.3%</b>	<b>-9.6%</b>	<b>2.9%</b>	<b>8.9%</b>
Coffee	2.2%	22.6%	27.2%	58.3%	19.5%	15.5%
Corn	-9.2%	-9.9%	-16.8%	-22.1%	-6.5%	2.4%
Cotton	-3.9%	-20.7%	-10.0%	-9.8%	5.1%	6.4%
Soybean	-5.8%	-4.9%	-12.0%	-15.1%	2.9%	10.8%
Soybean Oil	-4.2%	-9.2%	-9.4%	-22.9%	-4.2%	15.3%
Sugar	11.6%	-6.9%	6.4%	-2.3%	13.2%	13.6%
Wheat	-17.8%	-2.1%	-12.0%	-19.5%	-11.5%	-3.5%
<b>Bloomberg Sub Energy</b>	<b>4.1%</b>	<b>3.0%</b>	<b>8.0%</b>	<b>5.7%</b>	<b>6.6%</b>	<b>0.3%</b>
Brent Crude	5.5%	1.3%	17.1%	26.8%	22.2%	15.2%
Heating Oil	6.1%	-2.4%	10.3%	28.7%	31.9%	16.7%
Natural Gas	-0.8%	13.9%	-18.8%	-44.4%	-31.5%	-27.2%
Unleaded Gas	4.4%	-4.2%	13.7%	15.3%	27.6%	18.2%
WTI Crude Oil	6.3%	1.2%	19.1%	29.5%	15.6%	4.3%
<b>Bloomberg Sub Industrial Metals</b>	<b>-5.3%</b>	<b>9.8%</b>	<b>9.0%</b>	<b>13.0%</b>	<b>2.3%</b>	<b>8.4%</b>
Aluminum	-5.4%	7.4%	5.0%	15.5%	-0.8%	4.9%
Copper	-4.1%	10.6%	14.7%	19.6%	2.8%	10.9%
Nickel	-12.4%	3.2%	4.0%	-15.9%	-0.9%	6.6%
Zinc	-1.5%	20.4%	9.9%	24.6%	3.4%	5.4%
<b>Bloomberg Sub Precious Metals</b>	<b>-0.8%</b>	<b>7.9%</b>	<b>15.0%</b>	<b>22.5%</b>	<b>7.9%</b>	<b>10.2%</b>
Gold	0.1%	4.9%	12.7%	20.6%	9.1%	9.4%
Silver	-3.5%	17.8%	22.3%	27.6%	3.6%	12.6%
<b>Bloomberg Sub Livestock</b>	<b>0.9%</b>	<b>-1.2%</b>	<b>9.6%</b>	<b>2.4%</b>	<b>4.8%</b>	<b>-0.6%</b>
Lean Hogs	-4.2%	-10.5%	2.9%	-5.2%	-3.8%	-7.3%
Live Cattle	4.3%	5.6%	15.1%	7.9%	10.2%	3.4%

# OIL MARKETS

## WTI VERSUS BRENT CRUDE SPOT PRICES



# GOLD SPOT PRICE





## **DISCLAIMERS & DISCLOSURES**

# DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv