



QUARTERLY PERFORMANCE REPORT

**SAN BERNARDINO COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION**

JUNE 30, 2023

Sam Austin, Partner

Allan Martin, Partner

Michael Malchenko, Consultant





MARKET ENVIRONMENT



PROPRIETARY & CONFIDENTIAL

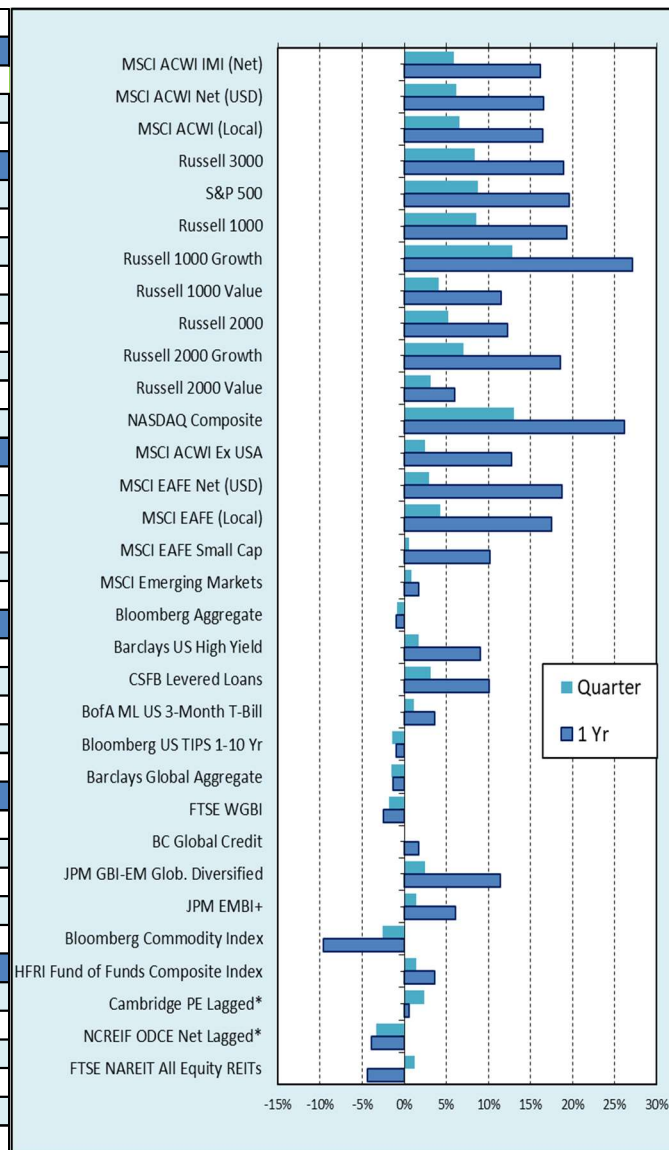
ECONOMIC ENVIRONMENT

- **Q1 Real GDP (third estimate) increased at an annual rate of 2.0%.**
 - Retail sales ended May at +0.9% on a YoY basis. In the same period last year the YoY growth rate was +8.9%.
 - Corporate profits as a percent of GDP ended January 2022 at 10.1%, down from 11.5% in the same period last year and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended May at 1.4 up from 1.3 one year ago. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April 2020.
 - The U.S. trade deficit narrowed in May as imports decreased to their lowest level since late 2021.
- **The unemployment rate was 3.6% ended Q2, up from 3.5% in Q1; U-6, a broader measure of unemployment, increased to 6.9% in Q2 from 6.7% in Q1.**
 - The labor force participation rate ended Q2 flat at 62.6% versus Q1. Labor force participation declined to 60.2% in April 2020 and is at levels below the 10 year pre-pandemic average of 63.0%.
- **The Case-Shiller Home Price Index (ended May) increased to 305.2 from 297.1 in Q1 and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI ended Q2 at 3.09% down from 4.98% in Q1. In the same period last year, it was 8.93%; Capacity Utilization decreased to 78.90 in Q2 from 79.51 Q1.**
- **Fed Funds rate increased in Q2 by 0.25% to a targeted range of 5.00%-to-5.25% up from a targeted range of 4.75%-to-5.00% ended Q1. The 10-year Treasury Yield (constant maturity) finished Q2 at 3.75% up from 3.66% in Q1.**
- **The Fed continues scaling back asset purchases. The Fed continues to reduce the size of its balance sheet after a period of rapid growth post-pandemic.**
- **S&P valuations increased in Q2 to 31.04x, up from 28.94x in Q1 and are lower than the 10-year average of 29.3x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 17.04x.

MARKET ENVIRONMENT

Q2 2023 OVERVIEW

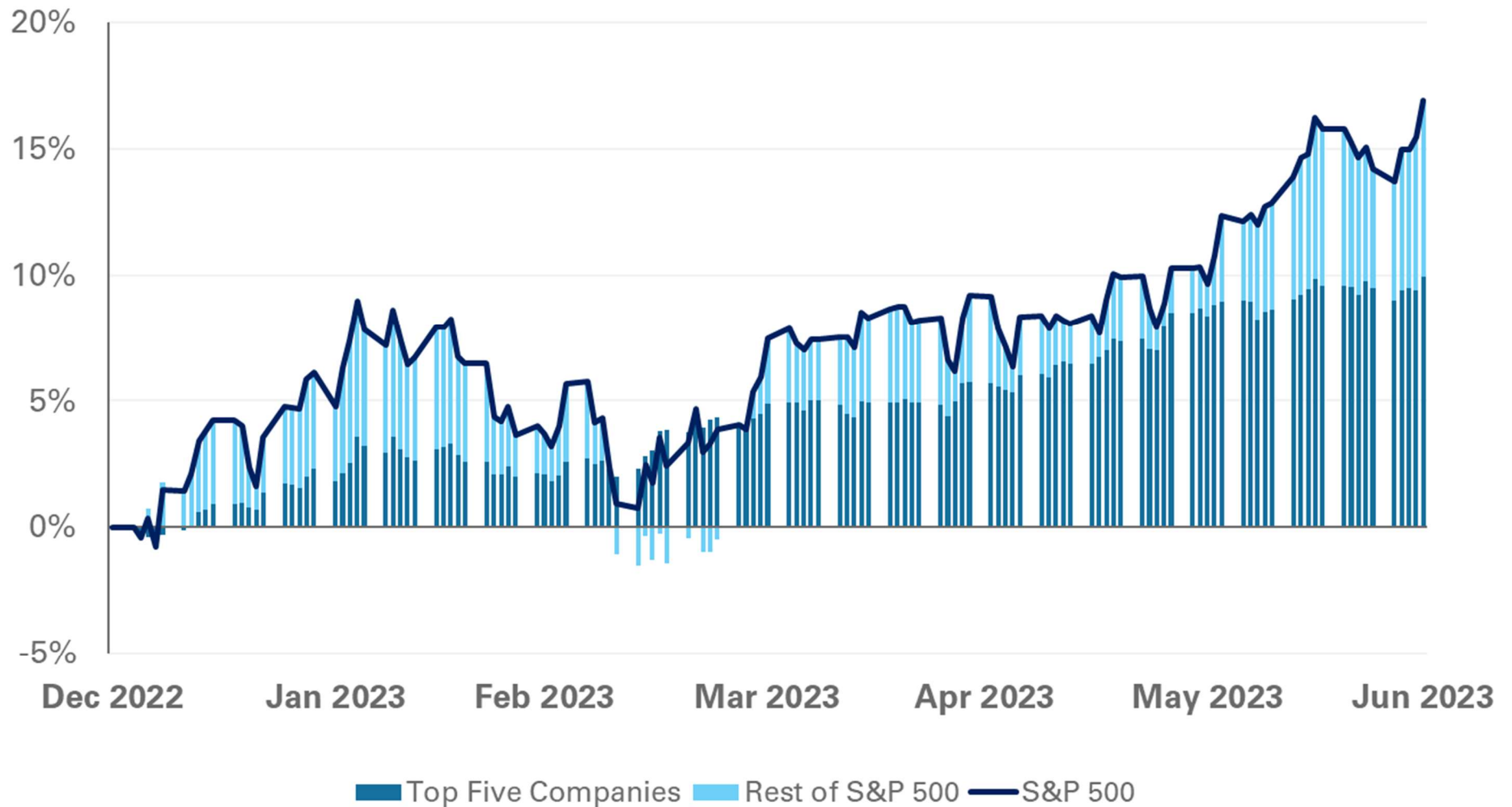
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	5.89%	16.14%	10.97%	7.65%	8.62%
MSCI ACWI Net (USD)	World W/O Small Cap	6.18%	16.53%	10.99%	8.10%	8.75%
MSCI ACWI (Local)	World (Local Currency)	6.55%	16.47%	11.80%	8.87%	9.83%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	8.39%	18.95%	13.89%	11.39%	12.34%
S&P 500	Large Core	8.74%	19.59%	14.60%	12.31%	12.86%
Russell 1000	Large Core	8.58%	19.36%	14.09%	11.92%	12.64%
Russell 1000 Growth	Large Growth	12.81%	27.11%	13.73%	15.14%	15.74%
Russell 1000 Value	Large Value	4.07%	11.54%	14.30%	8.11%	9.22%
Russell 2000	Small Core	5.21%	12.31%	10.82%	4.21%	8.26%
Russell 2000 Growth	Small Growth	7.05%	18.53%	6.10%	4.22%	8.83%
Russell 2000 Value	Small Value	3.18%	6.01%	15.43%	3.54%	7.29%
NASDAQ Composite	Large Growth	13.05%	26.14%	11.94%	13.93%	16.21%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	2.44%	12.71%	7.22%	3.52%	4.75%
MSCI EAFE Net (USD)	Int'l Developed	2.95%	18.77%	8.93%	4.39%	5.41%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	4.28%	17.50%	11.73%	6.42%	7.67%
MSCI EAFE Small Cap	Small Cap Int'l	0.58%	10.18%	5.70%	1.30%	6.19%
MSCI Emerging Markets	Emerging Equity	0.90%	1.75%	2.32%	0.93%	2.95%
Domestic Fixed Income Benchmarks						
Bloomberg Aggregate	Core Bonds	-0.84%	-0.94%	-3.97%	0.77%	1.52%
Barclays US High Yield	High Yield	1.75%	9.06%	3.13%	3.36%	4.43%
CSFB Levered Loans	Bank Loans	3.12%	10.10%	6.16%	4.02%	4.13%
BofA ML US 3-Month T-Bill	Cash	1.17%	3.59%	1.27%	1.55%	0.98%
Bloomberg US TIPS 1-10 Yr	Inflation	-1.42%	-0.92%	1.15%	2.75%	1.98%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	-1.53%	-1.32%	-4.96%	-1.09%	0.20%
FTSE WGBI	World Gov. Bonds	-1.79%	-2.49%	-6.49%	-2.04%	-0.48%
BC Global Credit	Global Bonds	0.08%	1.71%	-3.77%	0.21%	1.34%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	2.51%	11.38%	-1.42%	0.29%	-0.56%
JPM EMBI+	Em. Mkt. Bonds	1.43%	6.11%	-7.21%	-2.02%	0.96%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	-2.56%	-9.61%	17.82%	4.73%	-0.99%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	1.43%	3.58%	5.01%	3.30%	3.38%
Cambridge PE Lagged*	Private Equity	2.41%	0.56%	23.85%	15.93%	14.55%
NCREIF ODCE Net Lagged*	Real Estate	-3.38%	-3.91%	7.46%	6.56%	8.47%
FTSE NAREIT All Equity REITs	REIT	1.20%	-4.39%	6.12%	4.78%	6.81%
CPI + 2%	Inflation/Real Assets	1.17%	5.15%	7.86%	5.97%	4.77%



* As of 3/31/2023

TOP FIVE COMPANIES LED THE S&P 500 HIGHER

CUMULATIVE TOTAL RETURNS

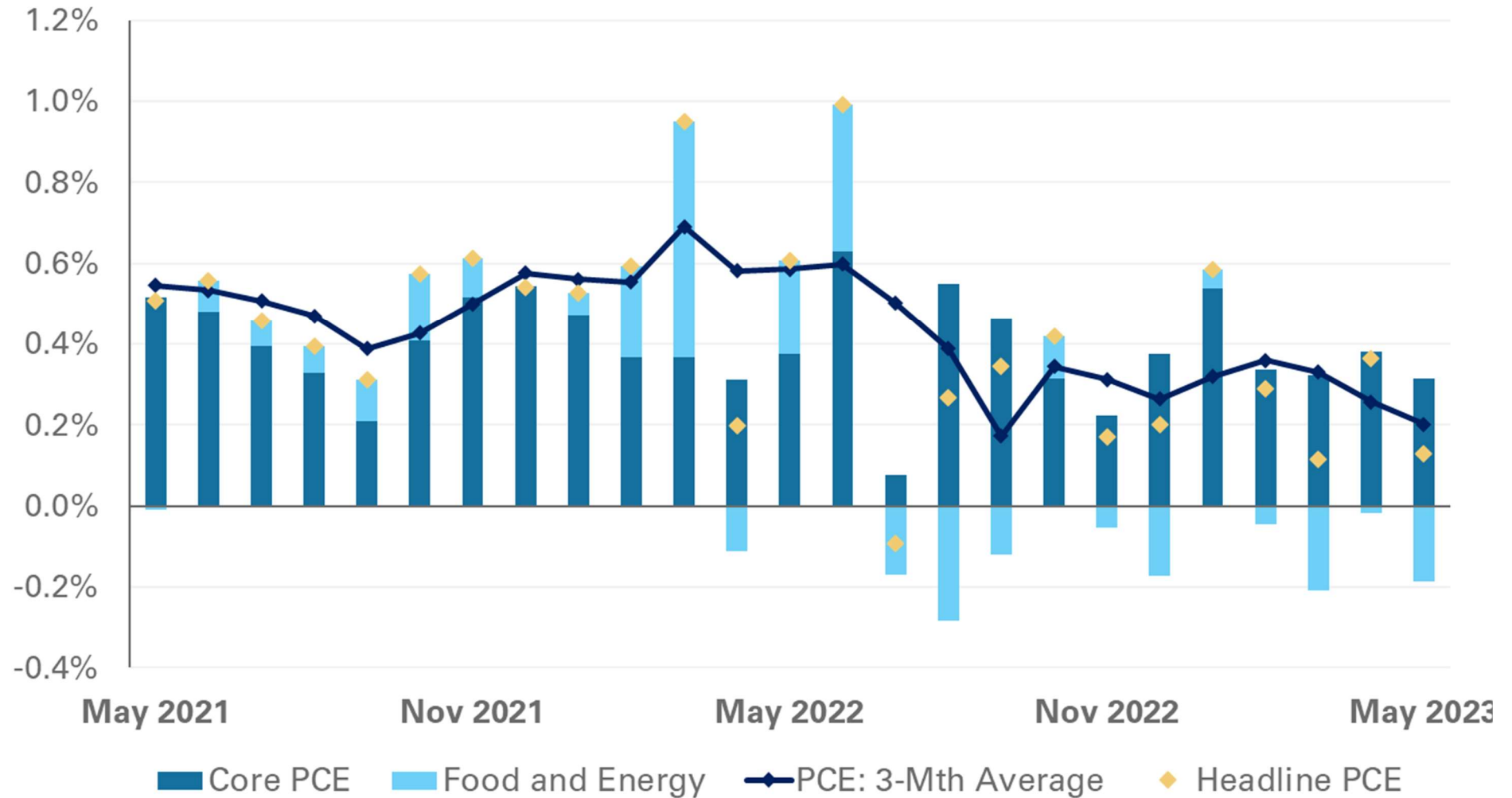


Top Five Companies represent Apple, Amazon, Alphabet, Microsoft, and NVidia,
Source: FactSet



CORE INFLATION REMAINED ELEVATED

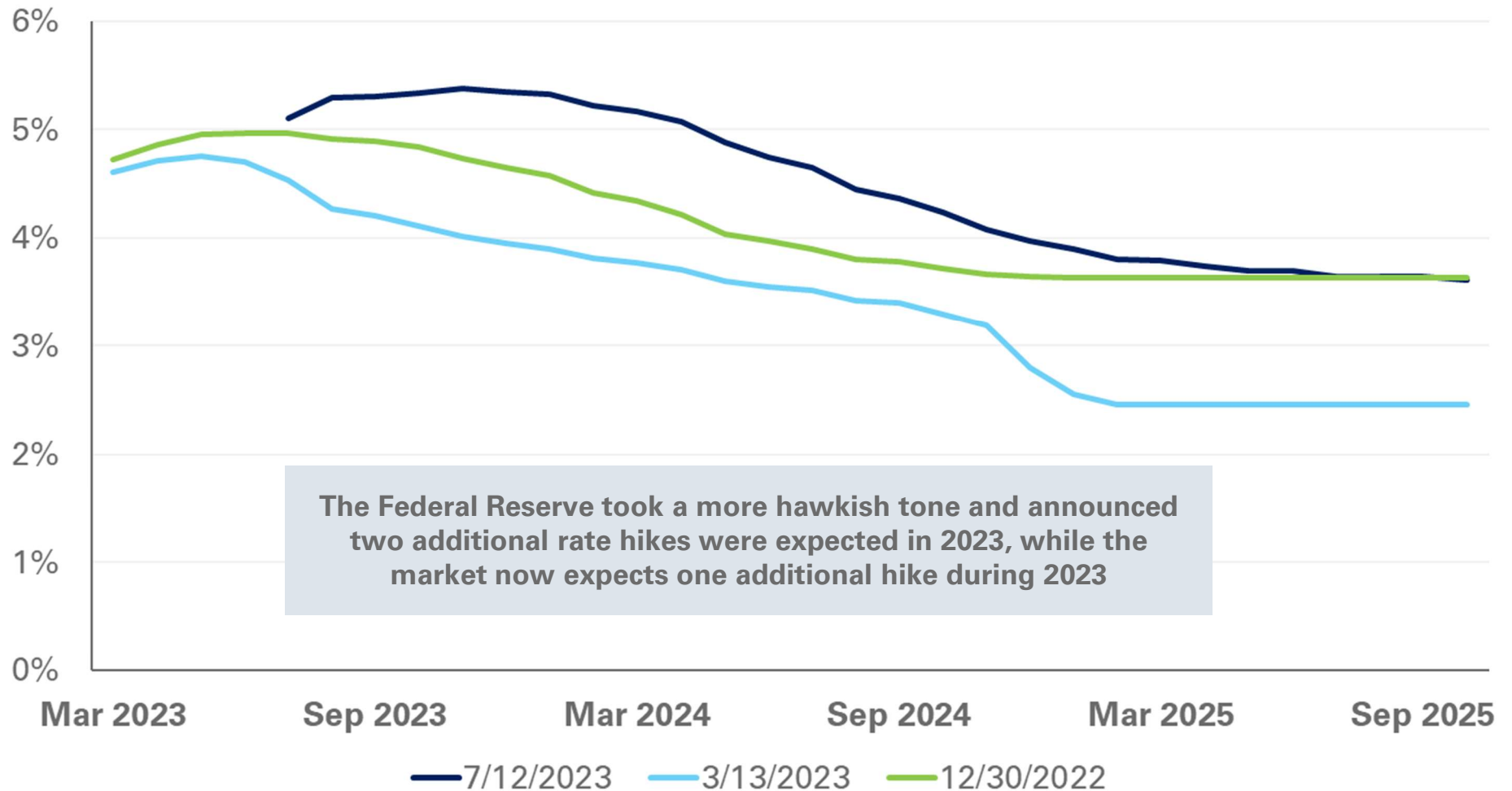
MONTHLY U.S. PCE PRICE INDEX CHANGES



Sources: Bureau of Economic Analysis, FactSet

MARKET RATE HIKE EXPECTATIONS ROSE

FEDERAL FUNDS FUTURES



3/13/2023 represents the Monday after the collapse of Silicon Valley Bank

Source: FactSet



THE YIELD CURVE FURTHER INVERTED

10-2 U.S. TREASURY YIELD SPREAD



Source: FactSet

U.S. ECONOMIC OUTLOOK



Market expectations for interest rates have converged with FOMC projections – signaling a higher-for-longer bias



Interest rate-sensitive sectors of the economy are still realizing the impact of a tighter monetary policy environment



Resilient data from the services sector and labor market strength continue to underpin “no landing” and “soft landing” outcomes



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 (%)
Total Fund	13,965,009,850	0.9 (95)	4.6 (89)	5.0 (89)	11.9 (4)	7.3 (22)	7.3 (47)
<i>Policy Index</i>		2.5 (62)	6.9 (40)	7.2 (56)	4.4 (98)	4.6 (97)	5.5 (100)
<i>S&P 500 Index</i>		8.7 (1)	16.9 (1)	19.6 (1)	14.6 (3)	12.3 (2)	12.9 (2)
<i>Blmbg. U.S. Aggregate Index</i>		-0.8 (100)	2.1 (96)	-0.9 (100)	-4.0 (100)	0.8 (99)	1.5 (100)
<i>60% MSCI World/40% FTSE WGBI</i>		3.4 (16)	9.8 (1)	10.2 (1)	4.9 (98)	5.2 (86)	6.0 (99)
<i>InvMetrics Public DB > \$1 Billion Median</i>		2.5	6.5	7.5	8.3	6.4	7.1

3 Years Ending June 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	11.85 (4)	7.46 (3)	1.36 (4)	2.84 (4)
<i>Policy Index</i>	4.40 (98)	10.74 (57)	0.34 (98)	0.49 (98)
<i>InvMetrics Public DB > \$1 Billion Median</i>	8.27	10.08	0.71	1.16

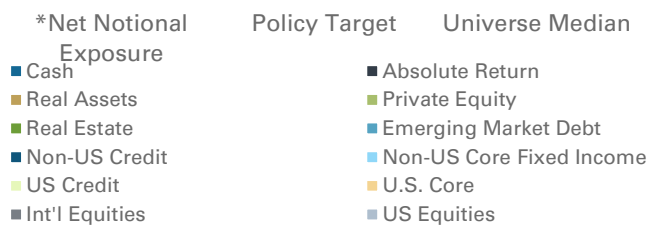
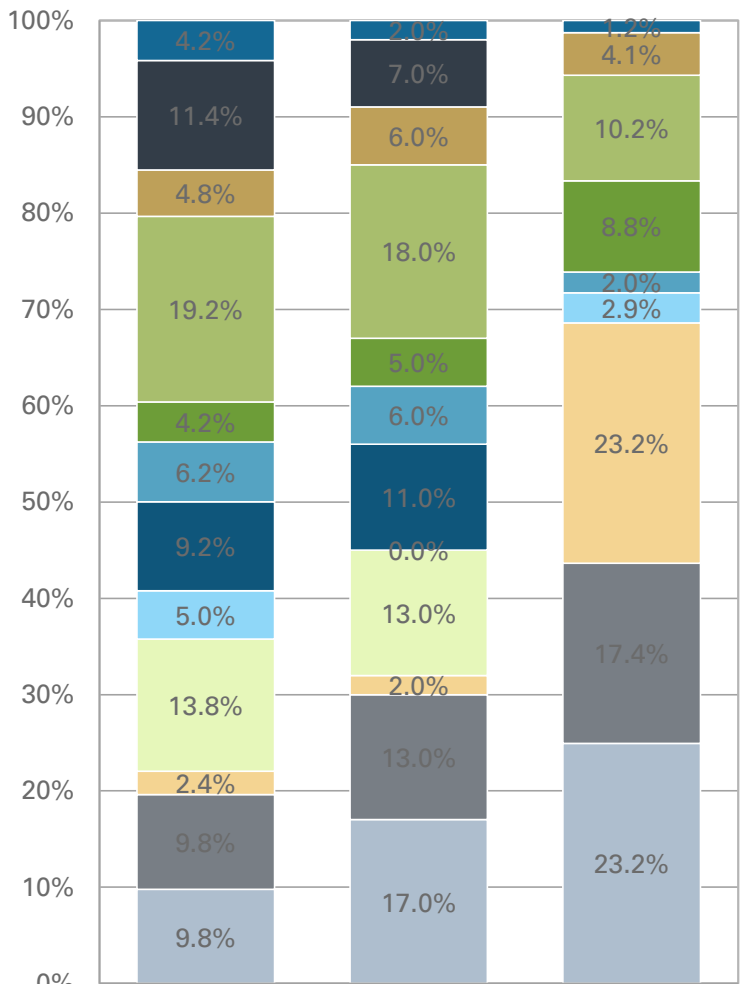
5 Years Ending June 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.25 (22)	7.61 (1)	0.75 (13)	1.13 (13)
<i>Policy Index</i>	4.62 (97)	10.23 (35)	0.34 (93)	0.48 (88)
<i>InvMetrics Public DB > \$1 Billion Median</i>	6.38	10.92	0.47	0.69

10 Years Ending June 30, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.28 (47)	5.83 (1)	1.06 (4)	1.67 (4)
<i>Policy Index</i>	5.52 (100)	8.03 (33)	0.59 (97)	0.88 (90)
<i>InvMetrics Public DB > \$1 Billion Median</i>	7.11	8.92	0.70	1.05



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	1,362,650	9.8%	17.0%	-7.2%	10%-27%	No
Int'l Equities	1,372,669	9.8%	13.0%	-3.2%	8%-18%	Yes
U.S. Core Fixed Income	340,687	2.4%	2.0%	0.4%	-3%-7%	Yes
US Credit	1,920,969	13.8%	13.0%	0.8%	8%-18%	Yes
Non-US Core Fixed Income	698,250	5.0%	0.0%	5.0%	-5%-5%	Yes
Non-US Credit	1,290,033	9.2%	11.0%	-1.8%	6%-16%	Yes
Emerging Market Debt	866,568	6.2%	6.0%	0.2%	1%-10%	Yes
Real Estate	582,422	4.2%	5.0%	-0.8%	0%-10%	Yes
Private Equity	2,687,586	19.2%	18.0%	1.2%	6%-23%	Yes
Real Assets	673,715	4.8%	6.0%	-1.2%	0%-10%	Yes
Absolute Return	1,587,823	11.4%	7.0%	4.4%	0%-12%	Yes
Cash	581,636	4.2%	2.0%	2.2%	0%-10%	Yes
Total	13,965,010	100.00%	100.00%			

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, 2023

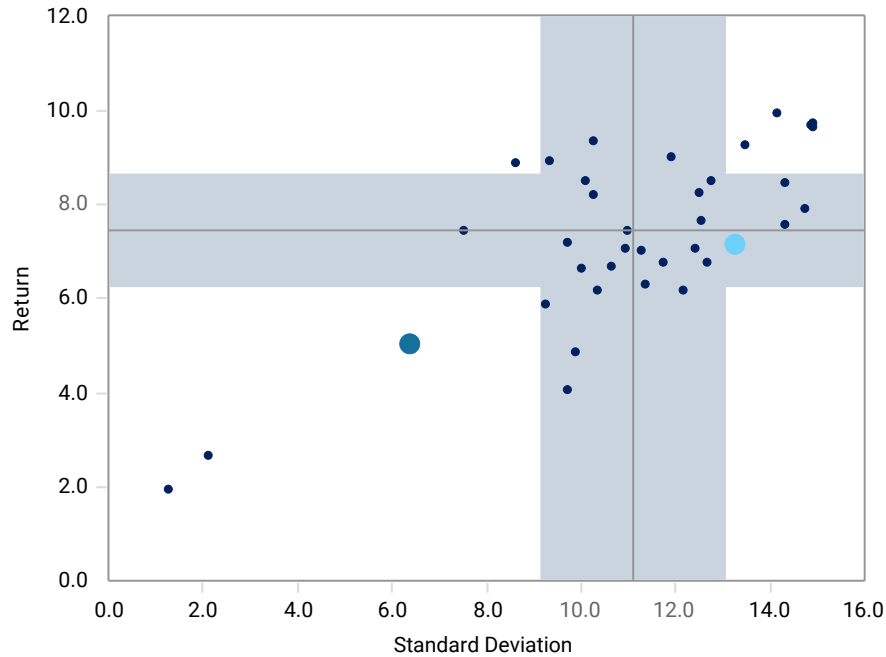
Asset Class	Physical Exposure		Delta Adjusted Synthetic Exposure		Net Position		Overlay Target		Policy Target	
	Value	%	Value	%	Value	%	Value	%	Value	%
Total Market Value	13,974.6	100.0 %	0.0	0.0 %	13,974.6	100.0 %	13,974.6	100.0 %	13,974.6	100.00 %
Cash	1,753.8	12.6 %	-1,385.3	-9.9 %	368.5	2.6 %	0.0	0.0 %	0.0	0.00 %
Cash	1,753.8	12.6 %	-1,385.3	-9.9 %	368.5	2.6 %	0.0	0.0 %	0.0	0.00 %
Equity	2,417.5	17.3 %	238.8	1.7 %	2,656.3	19.0 %	3,017.2	21.6 %	2,990.6	21.40 %
Emerging Markets	393.1	2.8 %	238.8	1.7 %	631.9	4.5 %	634.5	4.5 %	628.9	4.50 %
International Developed	408.9	2.9 %	235.4	1.7 %	644.3	4.6 %	690.9	4.9 %	684.8	4.90 %
US Large Cap	1,615.2	11.6 %	-324.3	-2.3 %	1,290.9	9.2 %	1,550.9	11.1 %	1,537.2	11.00 %
US Small Cap	0.3	0.0 %	88.9	0.6 %	89.2	0.6 %	141.0	1.0 %	139.7	1.00 %
Fixed	3,992.1	28.6 %	1,146.6	8.2 %	5,138.7	36.8 %	5,146.2	36.8 %	5,100.7	36.50 %
Global ex US Fixed Income	2,265.0	16.2 %	805.9	5.8 %	3,070.9	22.0 %	3,101.8	22.2 %	3,074.4	22.00 %
High Yield	1,388.0	9.9 %	0.0	0.0 %	1,388.0	9.9 %	1,339.4	9.6 %	1,327.6	9.50 %
US Fixed Income	339.1	2.4 %	340.7	2.4 %	679.8	4.9 %	705.0	5.0 %	698.7	5.00 %
Other	5,811.2	41.6 %	0.0	0.0 %	5,811.2	41.6 %	5,811.2	41.6 %	5,883.3	42.10 %
Alternatives	5.1	0.0 %	0.0	0.0 %	5.1	0.0 %	5.1	0.0 %	0.0	0.00 %
Commodities	593.8	4.2 %	0.0	0.0 %	593.8	4.2 %	593.8	4.2 %	600.9	4.30 %
Infrastructure	99.0	0.7 %	0.0	0.0 %	99.0	0.7 %	99.0	0.7 %	69.9	0.50 %
Private Equity	2,558.1	18.3 %	0.0	0.0 %	2,558.1	18.3 %	2,558.1	18.3 %	2,599.3	18.60 %
Real Estate	528.9	3.8 %	0.0	0.0 %	528.9	3.8 %	528.9	3.8 %	586.9	4.20 %
Tactical Cash	2,026.3	14.5 %	0.0	0.0 %	2,026.3	14.5 %	2,026.3	14.5 %	2,026.3	14.50 %



Source: Russell Investments

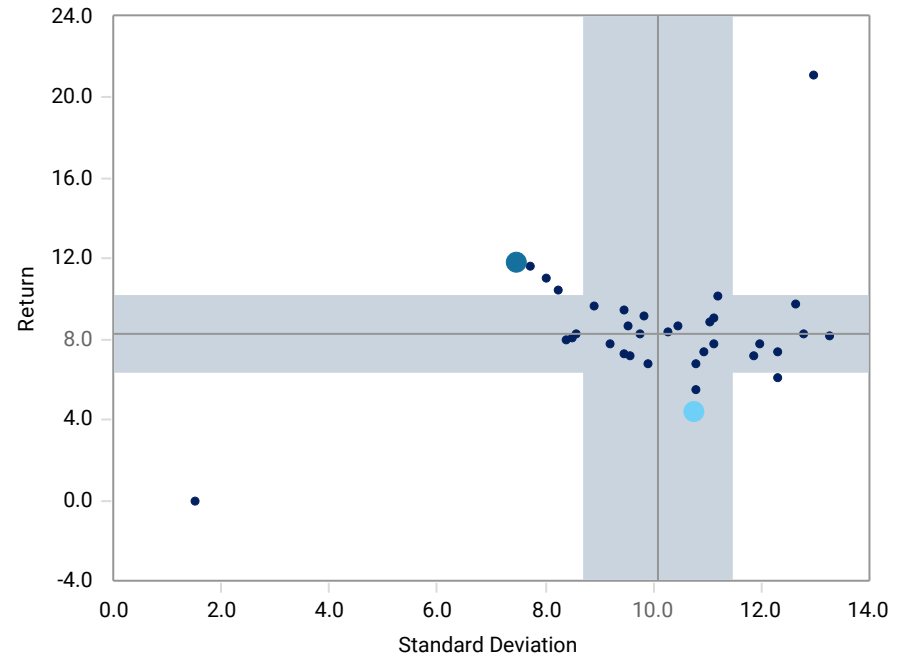
RISK VS. RETURN

1 Year Ending June 30, 2023



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

3 Years Ending June 30, 2023



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

1 Year Ending June 30, 2023

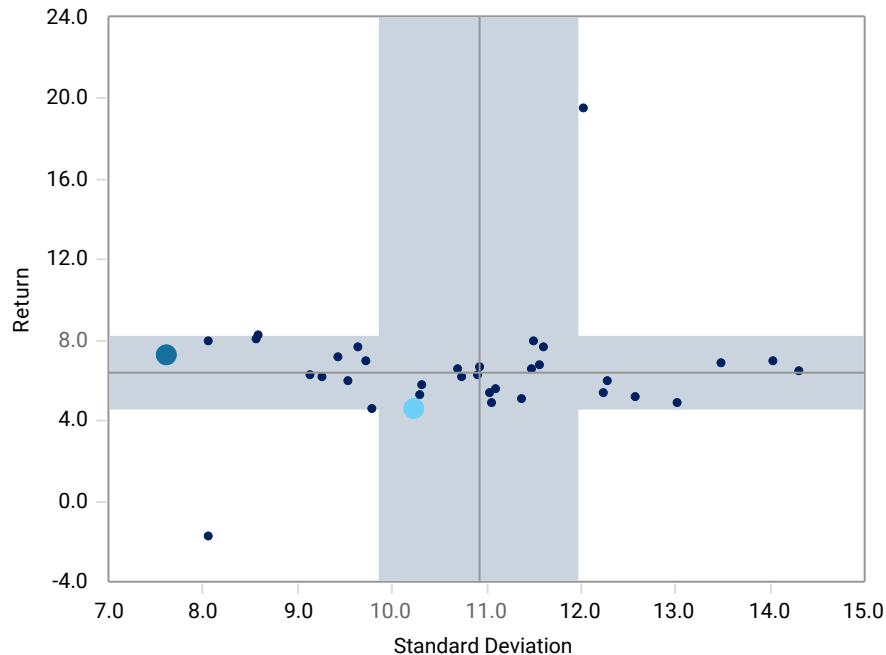
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	5.0 (89)	6.4 (5)	0.2 (89)	0.3 (89)
Policy Index	7.2 (56)	13.3 (79)	0.3 (71)	0.5 (71)
Population	36	36	36	36

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	11.9 (4)	7.5 (3)	1.4 (4)	2.8 (4)
Policy Index	4.4 (98)	10.7 (57)	0.3 (98)	0.5 (98)
Population	34	34	34	34

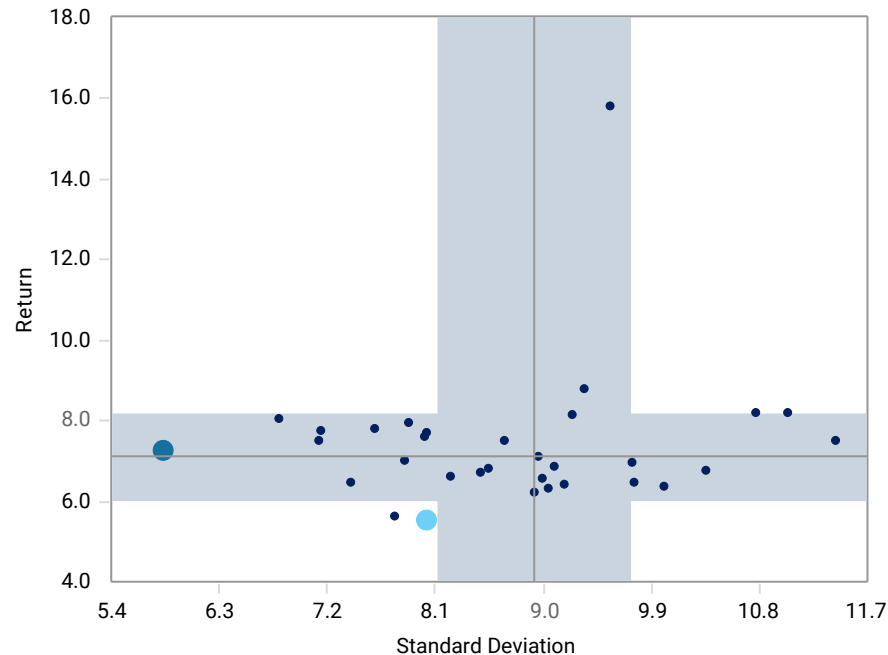
RISK VS. RETURN

5 Years Ending June 30, 2023



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

10 Years Ending June 30, 2023



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

5 Years Ending June 30, 2023

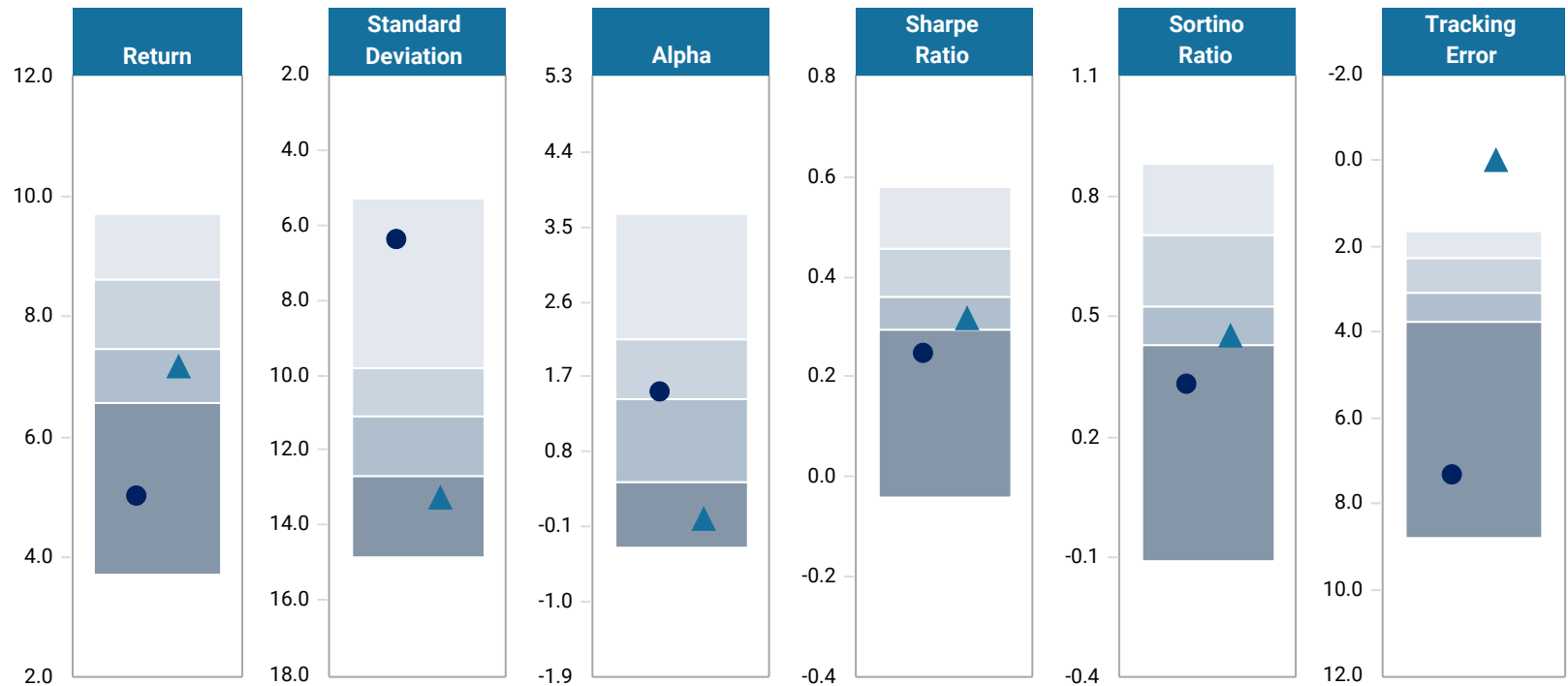
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.3 (22)	7.6 (1)	0.7 (13)	1.1 (13)
Policy Index	4.6 (97)	10.2 (35)	0.3 (93)	0.5 (88)
Population	34	34	34	34

10 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.3 (47)	5.8 (1)	1.1 (4)	1.7 (4)
Policy Index	5.5 (100)	8.0 (33)	0.6 (97)	0.9 (90)
Population	31	31	31	31

RISK STATISTICS VS. PEER UNIVERSE

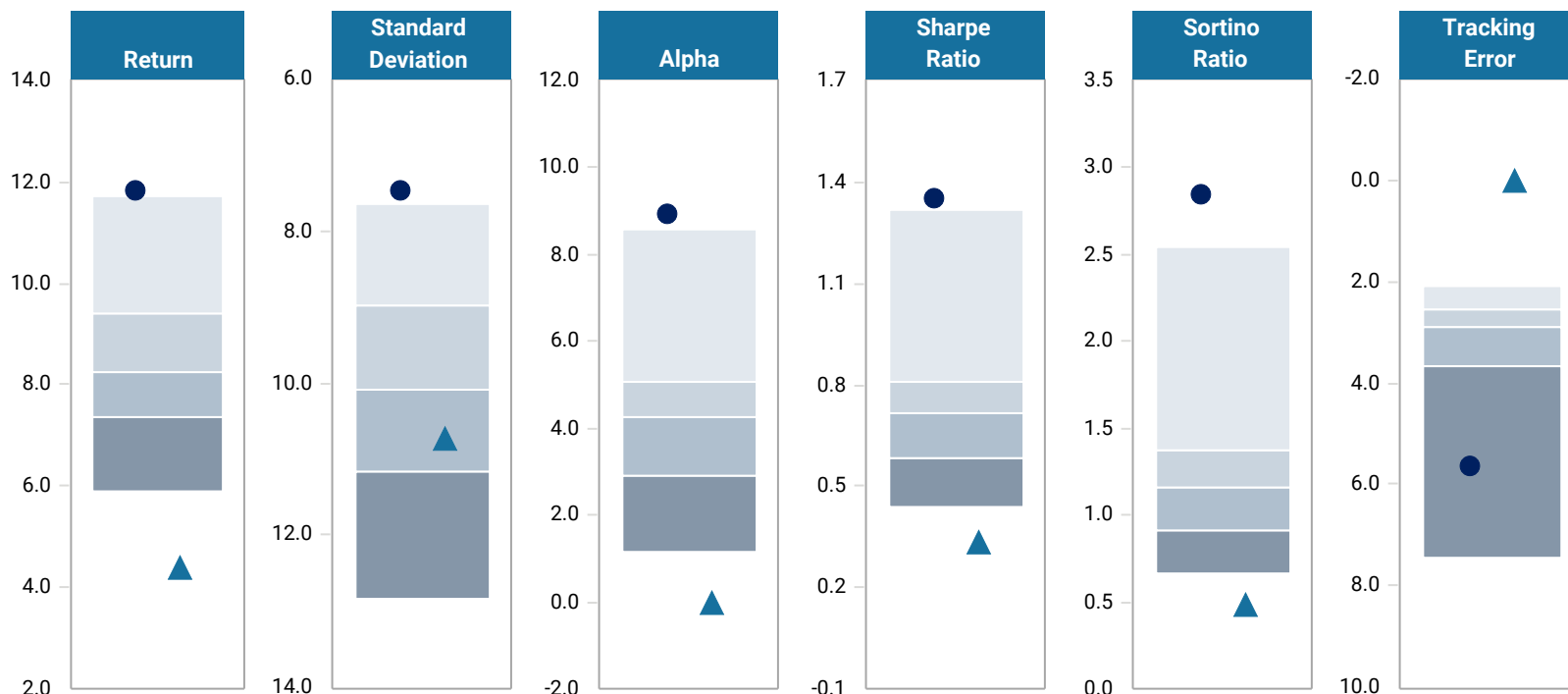
Total Fund vs. InvMetrics Public DB > \$1 Billion



	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)
● Total Fund	5.0 (89)	6.4 (5)	1.5 (46)	0.2 (89)	0.3 (89)	7.3 (94)
▲ Policy Index	7.2 (56)	13.3 (79)	0.0 (91)	0.3 (71)	0.5 (71)	0.0 (1)
5th Percentile	9.7	5.3	3.7	0.6	0.9	1.6
1st Quartile	8.6	9.8	2.1	0.5	0.7	2.3
Median	7.5	11.1	1.4	0.4	0.5	3.1
3rd Quartile	6.6	12.7	0.4	0.3	0.4	3.8
95th Percentile	3.7	14.9	-0.3	0.0	-0.1	8.8
Population	36	36	36	36	36	36

RISK STATISTICS VS. PEER UNIVERSE

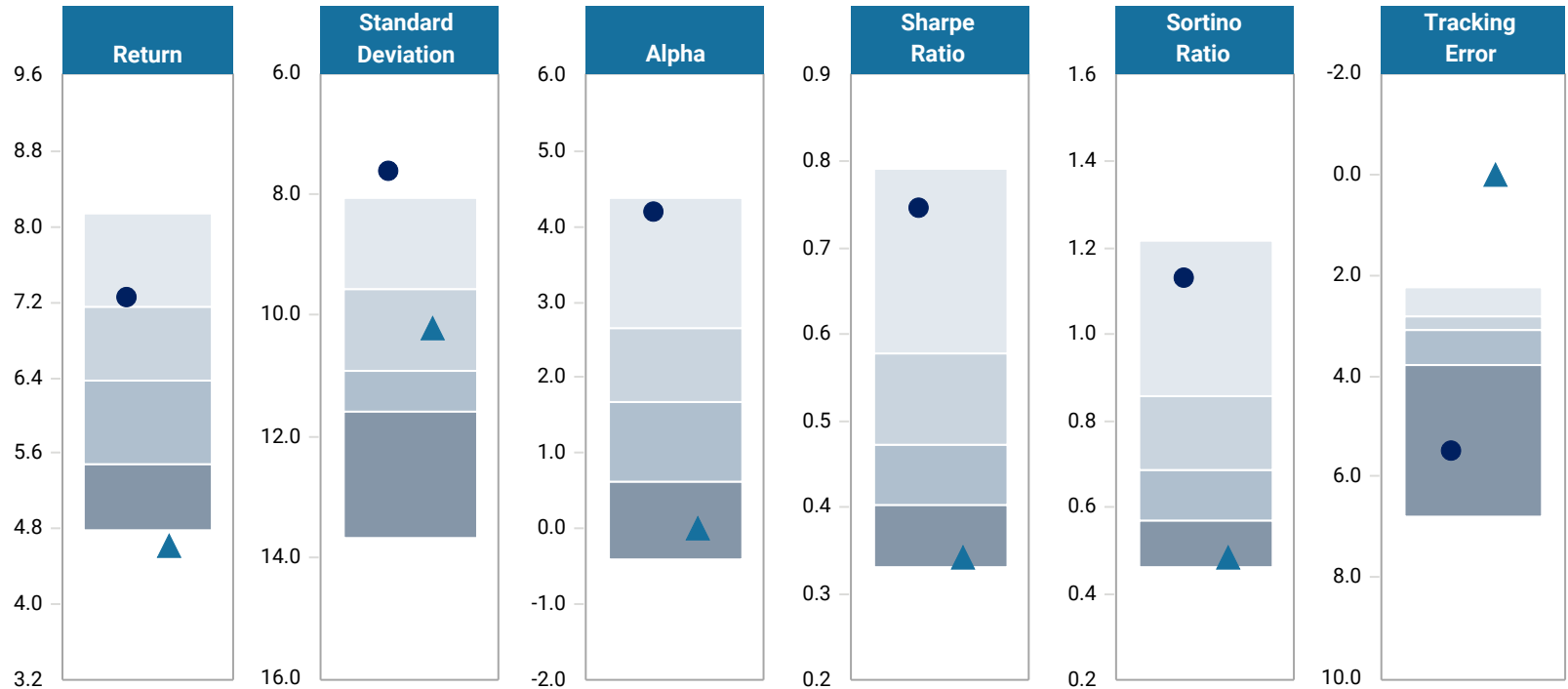
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)
● Total Fund	11.9 (4)	7.5 (3)	8.9 (4)	1.4 (4)	2.8 (4)	5.6 (93)
▲ Policy Index	4.4 (98)	10.7 (57)	0.0 (100)	0.3 (98)	0.5 (98)	0.0 (1)
5th Percentile	11.7	7.6	8.6	1.3	2.5	2.1
1st Quartile	9.4	9.0	5.0	0.8	1.4	2.6
Median	8.3	10.1	4.2	0.7	1.2	2.9
3rd Quartile	7.3	11.2	2.9	0.6	0.9	3.7
95th Percentile	5.9	12.8	1.1	0.4	0.7	7.5
Population	34	34	34	34	34	34

RISK STATISTICS VS. PEER UNIVERSE

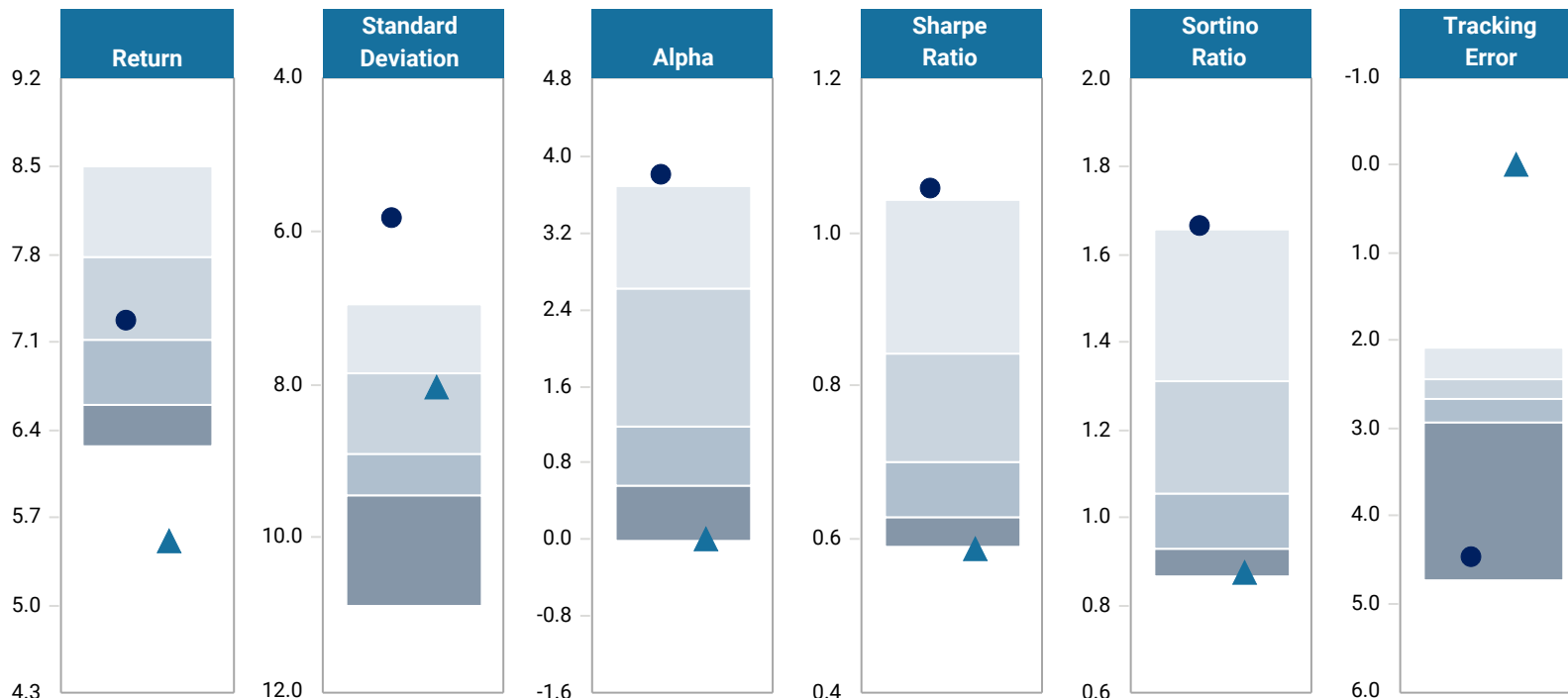
Total Fund vs. InvMetrics Public DB > \$1 Billion



	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)
● Total Fund	7.3 (22)	7.6 (1)	4.2 (10)	0.7 (13)	1.1 (13)	5.5 (93)
▲ Policy Index	4.6 (97)	10.2 (35)	0.0 (91)	0.3 (93)	0.5 (88)	0.0 (1)
5th Percentile	8.1	8.1	4.4	0.8	1.2	2.2
1st Quartile	7.2	9.6	2.6	0.6	0.9	2.8
Median	6.4	10.9	1.7	0.5	0.7	3.1
3rd Quartile	5.5	11.6	0.6	0.4	0.6	3.8
95th Percentile	4.8	13.7	-0.4	0.3	0.5	6.8
Population	34	34	34	34	34	34

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	7.3 (47)	5.8 (1)	3.8 (4)	1.1 (4)	1.7 (4)	4.5 (93)
▲ Policy Index	5.5 (100)	8.0 (33)	0.0 (95)	0.6 (97)	0.9 (90)	0.0 (1)
5th Percentile	8.5	7.0	3.7	1.0	1.7	2.1
1st Quartile	7.8	7.9	2.6	0.8	1.3	2.4
Median	7.1	8.9	1.2	0.7	1.1	2.7
3rd Quartile	6.6	9.4	0.6	0.6	0.9	3.0
95th Percentile	6.3	10.9	0.0	0.6	0.9	4.7
Population	31	31	31	31	31	31

TOTAL PLAN RISK STATISTICS

1 Years Ending June 30, 2023				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	13.1	19.1	2.9	-1.8
<i>Russell 3000 Index</i>	19.0	20.7	0.0	
International Equity With Beta Overlay	8.8	15.4	5.1	-0.9
<i>MSCI AC World ex USA index</i>	13.3	20.2	0.0	
Global Fixed Income With Beta Overlay	4.4	4.1	8.3	0.6
<i>Blmbg. Global Aggregate</i>	-1.3	10.7	0.0	
U.S. Credit Strategies	6.1	3.4	6.2	-0.5
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	9.4	6.5	0.0	
Non-U.S. Credit Composite	9.2	9.6	14.6	-0.3
<i>ICE BofA Euro High Yield Constrained TR</i>	13.6	13.8	0.0	
Emerging Markets Debt Composite	4.9	5.4	10.6	-0.4
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	9.4	11.4	0.0	
Alpha Pool Composite	7.9	3.1	3.1	0.4
<i>91 Day T-Bill + 3%</i>	6.7	0.4	0.0	
Private Equity Composite	-1.7	4.6	5.3	0.4
<i>CJA Global All PE (Qtr Lag)</i>	-3.9	5.9	0.0	
Real Estate Composite	-1.4	2.7	5.9	0.0
<i>NCREIF Property Index 1 Qtr. Lag</i>	-1.6	5.3	0.0	
Real Assets Composite	8.1	3.4	11.2	1.6
<i>Real Assets Custom Blend</i>	-10.0	11.4	0.0	

TOTAL PLAN RISK STATISTICS

3 Years Ending June 30, 2023				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	10.7	17.3	3.0	-1.0
<i>Russell 3000 Index</i>	13.9	18.5	0.0	
International Equity With Beta Overlay	7.0	13.6	4.6	-0.3
<i>MSCI AC World ex USA index</i>	7.7	17.0	0.0	
Global Fixed Income With Beta Overlay	9.5	5.1	6.9	2.0
<i>Blmbg. Global Aggregate</i>	-5.0	8.0	0.0	
U.S. Credit Strategies	10.3	5.4	5.0	1.1
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	4.4	5.7	0.0	
Non-U.S. Credit Composite	13.4	7.2	12.8	0.9
<i>ICE BofA Euro High Yield Constrained TR</i>	0.1	13.5	0.0	
Emerging Markets Debt Composite	2.0	4.9	8.7	0.4
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-2.2	10.3	0.0	
Alpha Pool Composite	8.1	5.2	5.2	0.7
<i>91 Day T-Bill + 3%</i>	4.3	0.5	0.0	
Private Equity Composite	23.3	9.0	15.1	0.1
<i>CJA Global All PE (Qtr Lag)</i>	21.4	14.8	0.0	
Real Estate Composite	9.2	4.5	8.5	0.2
<i>NCREIF Property Index 1 Qtr. Lag</i>	7.2	6.6	0.0	
Real Assets Composite	18.2	6.1	11.3	0.5
<i>Real Assets Custom Blend</i>	10.6	12.1	0.0	

TOTAL PLAN RISK STATISTICS

5 Years Ending June 30, 2023				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	8.0	19.0	3.0	-1.0
<i>Russell 3000 Index</i>	11.4	19.4	0.0	
International Equity With Beta Overlay	3.2	15.3	3.7	-0.3
<i>MSCI AC World ex USA index</i>	4.0	17.5	0.0	
Global Fixed Income With Beta Overlay	4.8	6.5	7.9	0.7
<i>Blmbg. Global Aggregate</i>	-1.1	6.8	0.0	
U.S. Credit Strategies	6.6	7.0	6.1	0.4
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	3.7	7.7	0.0	
Non-U.S. Credit Composite	5.8	8.7	12.1	0.4
<i>ICE BofA Euro High Yield Constrained TR</i>	0.0	13.2	0.0	
Emerging Markets Debt Composite	0.0	6.2	9.5	-0.1
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	0.5	11.1	0.0	
Alpha Pool Composite	4.0	6.3	6.3	-0.1
<i>91 Day T-Bill + 3%</i>	4.6	0.4	0.0	
Private Equity Composite	16.4	8.4	12.9	0.1
<i>CJA Global All PE (Qtr Lag)</i>	14.7	12.9	0.0	
Real Estate Composite	7.6	3.8	7.0	0.1
<i>NCREIF Property Index 1 Qtr. Lag</i>	6.7	5.3	0.0	
Real Assets Composite	9.6	9.8	10.0	0.5
<i>Real Assets Custom Blend</i>	3.7	11.2	0.0	

TOTAL PLAN RISK STATISTICS

10 Years Ending June 30, 2023				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity	4.9	13.0	8.9	-0.8
<i>Russell 3000 Index</i>	12.3	15.3	0.0	
International Equity	2.2	15.5	8.4	-0.7
<i>MSCI AC World Index (Net)</i>	8.8	14.5	0.0	
International Emerging	0.6	15.0	5.1	-0.5
<i>MSCI Emerging Markets (Net)</i>	3.0	16.9	0.0	
U.S. Credit Strategies	6.6	5.4	5.0	0.4
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	4.3	5.9	0.0	
Non-U.S. Credit Composite	6.7	6.5	11.0	0.4
<i>ICE BofA Euro High Yield Constrained TR</i>	1.7	11.5	0.0	
Emerging Markets Debt Composite	2.1	5.9	7.6	0.1
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	1.2	9.6	0.0	
Alpha Pool Composite	4.5	5.0	5.0	0.1
<i>91 Day T-Bill + 3%</i>	4.0	0.4	0.0	
Private Equity Composite	14.9	6.5	10.4	0.1
<i>CJA Global All PE (Qtr Lag)</i>	13.7	10.2	0.0	
Real Estate Composite	8.6	3.7	6.0	0.0
<i>NCREIF Property Index 1 Qtr. Lag</i>	8.3	4.8	0.0	
Real Assets Composite	5.7	7.9	8.2	0.5
<i>Real Assets Custom Blend</i>	1.8	9.0	0.0	

INVESTMENT MANAGER TOP 10

ASSETS UNDER MANAGEMENT AS OF JUNE 30, 2023

Manager	Market Value	Portfolio %
SSGA	\$1,645,870,614.36	11.79%
Tobam	\$843,079,571.36	6.04%
Russell	\$814,861,711.69	5.84%
Pathway	\$784,747,728.78	5.62%
Ares	\$741,039,515.48	5.31%
Alcentra	\$699,422,453.71	5.01%
GoldenTree	\$650,155,530.36	4.66%
Gramercy	\$647,003,046.99	4.63%
Partners Group	\$631,297,049.38	4.52%
Zais	\$615,326,160.22	4.41%
Total	\$8,072,803,382.33	57.81%

PUBLIC EQUITY PORTFOLIO

Public Equity Portfolio (30% Target)	US Equities (17% Target)	Large Cap (14.5%)	Russell Investments Russell 1000 Index	Overlay exposure to an index of largest 1,000 stocks (by market cap) in the Russell 3000	
			State Street Global Advisors S&P500 Index Fund	Index of 500 of the largest US publicly-traded companies in US	
			TOBAM Anti-Benchmark US Equity Fund	Rules-based index focused on a more efficiently diversified benchmark vs. MSCI US	
	International Equities (13% Target)	Small Cap (2.5%)	Russell Investments Russell 2000 Index	Overlay exposure to an index of smallest 2,000 stocks (by market cap) in the Russell 3000	
			Developed Markets (7%)	Russell Investments MSCI EAFE Index	Overlay exposure to an index of large/mid-cap stocks across 21 developed markets ex-US/Canada
				State Street Global Advisors MSCI World ex-USA Index Fund	Index of publicly-traded large-cap and mid-cap equities in 22 developed countries ex-US
Emerging Markets (6%)		TOBAM Anti-Benchmark World ex-US Fund	Rules-based index focused on a more efficiently diversified benchmark vs. MSCI World ex-US		
	Russell Investments MSCI EM Index	Overlay exposure to an index of large/mid-cap stocks across 27 emerging markets			
	TOBAM Anti-Benchmark EM Equity Fund	Rules-based index focused on a more efficiently diversified benchmark vs. MSCI Emerging Markets			
	William Blair EM Growth Fund	Diversified, all-cap portfolio investing in high quality growth companies in emerging markets			
Wasatch EM Select Fund	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 (%)
Total Equity	2,493,978,470	17.9	4.5	9.4	11.6	8.1	6.3	4.5
<i>MSCI AC World Index (Net)</i>			<u>6.2</u>	<u>13.9</u>	<u>16.5</u>	<u>11.0</u>	<u>8.1</u>	<u>8.8</u>
Over/Under			-1.7	-4.5	-4.9	-2.9	-1.8	-4.3
Domestic Equity With Beta Overlay	1,362,650,025	9.8	5.6	10.3	13.1	10.7	8.0	
<i>Russell 3000 Index</i>			<u>8.4</u>	<u>16.2</u>	<u>19.0</u>	<u>13.9</u>	<u>11.4</u>	
Over/Under			-2.8	-5.9	-5.9	-3.2	-3.4	
Domestic Equity	1,596,009,829	11.4	6.3	11.3	14.5	11.5	9.4	4.9
<i>Russell 3000 Index</i>			<u>8.4</u>	<u>16.2</u>	<u>19.0</u>	<u>13.9</u>	<u>11.4</u>	<u>12.3</u>
Over/Under			-2.1	-4.9	-4.5	-2.4	-2.0	-7.4
Tobam AB US Equity	397,707,300	2.8	-0.3 (98)	-2.5 (99)	1.5 (97)	5.6 (93)	5.3 (85)	
<i>Russell 3000 Index</i>			<u>8.4</u> (24)	<u>16.2</u> (24)	<u>19.0</u> (30)	<u>13.9</u> (46)	<u>11.4</u> (23)	
Over/Under			-8.7	-18.7	-17.5	-8.3	-6.1	
Large Cap Equity	1,198,043,261	8.6	8.7 (20)	16.8 (21)	19.5 (26)	14.0 (45)	11.6 (21)	6.5 (96)
<i>S&P 500 Index</i>			<u>8.7</u> (20)	<u>16.9</u> (20)	<u>19.6</u> (25)	<u>14.6</u> (37)	<u>12.3</u> (14)	<u>12.9</u> (16)
Over/Under			0.0	-0.1	-0.1	-0.6	-0.7	-6.4
SSgA S&P500	1,197,063,081	8.6	8.7 (20)	16.9 (21)	19.6 (26)	14.4 (40)	12.0 (17)	9.7 (63)
<i>S&P 500 Index</i>			<u>8.7</u> (20)	<u>16.9</u> (20)	<u>19.6</u> (25)	<u>14.6</u> (37)	<u>12.3</u> (14)	<u>12.9</u> (16)
Over/Under			0.0	0.0	0.0	-0.2	-0.3	-3.2
Russell US Large Cap Volatility	980,181	0.0						
Small Cap Equity	259,268	0.0						
Russell US Small Cap Volatility	259,268	0.0	1.3	2.5	4.1	1.4	1.9	-18.7

GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
International Equity With Beta Overlay	1,372,669,439	9.8	2.0	7.5	8.8	7.0	3.2	
<i>MSCI AC World ex USA index</i>			<u>2.7</u>	<u>9.9</u>	<u>13.3</u>	<u>7.7</u>	<u>4.0</u>	
Over/Under			-0.7	-2.4	-4.5	-0.7	-0.8	
International Equity	897,968,641	6.4	1.4	6.0	4.7	1.8	-0.1	2.2
<i>MSCI AC World Index (Net)</i>			<u>6.2</u>	<u>13.9</u>	<u>16.5</u>	<u>11.0</u>	<u>8.1</u>	<u>8.8</u>
Over/Under			-4.8	-7.9	-11.8	-9.2	-8.2	-6.6
International Developed	409,526,816	2.9	2.1	9.1	13.8	2.7	0.7	2.9
<i>MSCI EAFE (Net)</i>			<u>3.0</u>	<u>11.7</u>	<u>18.8</u>	<u>8.9</u>	<u>4.4</u>	<u>5.4</u>
Over/Under			-0.9	-2.6	-5.0	-6.2	-3.7	-2.5
Russell International Volatility	17,157	0.0						
Tobam AB World Ex-US Equity	175,088,688	1.3	0.6 (90)	6.0 (92)	7.4 (93)	0.8 (93)	-1.2 (99)	
<i>MSCI AC World ex USA (Net)</i>			<u>2.4</u> (56)	<u>9.5</u> (67)	<u>12.7</u> (69)	<u>7.2</u> (55)	<u>3.5</u> (63)	
Over/Under			-1.8	-3.5	-5.3	-6.4	-4.7	
SSGA MSCI World Ex-US Equity	234,420,971	1.7	3.2 (35)	11.6 (41)				
<i>MSCI World ex U.S.</i>			<u>3.3</u> (33)	<u>11.8</u> (40)				
Over/Under			-0.1	-0.2				
International Emerging	488,441,825	3.5	0.9	3.7	-1.2	-0.2	-1.4	0.6
<i>MSCI Emerging Markets (Net)</i>			<u>0.9</u>	<u>4.9</u>	<u>1.7</u>	<u>2.3</u>	<u>0.9</u>	<u>3.0</u>
Over/Under			0.0	-1.2	-2.9	-2.5	-2.3	-2.4
Tobam	270,283,583	1.9	0.9 (70)	0.0 (98)	-3.7 (97)	-2.6 (97)	-3.0 (100)	
<i>MSCI Emerging Markets (Net)</i>			<u>0.9</u> (71)	<u>4.9</u> (77)	<u>1.7</u> (79)	<u>2.3</u> (64)	<u>0.9</u> (72)	
Over/Under			0.0	-4.9	-5.4	-4.9	-3.9	
Wasatch EM Select	111,400,006	0.8	0.6	9.9				
<i>MSCI Emerging Markets (Net)</i>			<u>0.9</u>	<u>4.9</u>				
Over/Under			-0.3	5.0				
William Blair EM Growth	106,758,236	0.8	1.7	5.5				
<i>MSCI Emerging Markets (Net)</i>			<u>0.9</u>	<u>4.9</u>				
Over/Under			0.8	0.6				

GLOBAL DEBT STRATEGIES

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

GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Global Fixed Income With Beta Overlay	5,101,916,255	36.5	-0.6	4.5	4.4	9.5	4.8	
<i>Blmbg. Global Aggregate</i>			<i>-1.5</i>	<i>1.4</i>	<i>-1.3</i>	<i>-5.0</i>	<i>-1.1</i>	
Over/Under			0.9	3.1	5.7	14.5	5.9	
Total Fixed	3,955,334,017	28.3	-0.3	5.6	4.0	8.2	4.0	5.2
<i>Blmbg. U.S. Aggregate Index</i>			<i>-0.8</i>	<i>2.1</i>	<i>-0.9</i>	<i>-4.0</i>	<i>0.8</i>	<i>1.5</i>
Over/Under			0.5	3.5	4.9	12.2	3.2	3.7
U.S. Credit Strategies	1,715,219,631	12.3	2.2 (12)	4.6 (12)	6.1 (15)	10.3 (1)	6.6 (1)	6.6 (1)
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>			<i>2.2 (12)</i>	<i>5.6 (6)</i>	<i>9.4 (2)</i>	<i>4.4 (3)</i>	<i>3.7 (2)</i>	<i>4.3 (1)</i>
Over/Under			0.0	-1.0	-3.3	5.9	2.9	2.3
Stone Tower Offshore Credit (Apollo)	280,988,570	2.0	2.0	6.8	5.1	7.7	4.8	5.3
Beach Point Capital (Formerly Post)	244,388,589	1.8	1.5	6.1	4.3	10.8	6.9	7.6
Mackay / Gold Coast	107	0.0						
Stone Tower Credit (Apollo)	139,100,912	1.0	3.7	7.2	6.6	8.1	9.6	7.7
Gold Coast Capital IV	98,589,495	0.7	2.1	3.6	3.0	3.3	3.0	
Waterfall Asset Management	57,965,005	0.4	11.8	7.7	12.1	21.1	7.5	
Waterfall Victoria	74,798,773	0.5	-4.5	-6.4	-8.2	4.0	3.4	
KAYNE ANDERSON BDC, LLC	57,328,466	0.4	0.2	-5.9	-2.1			
Golden Tree Asset Management	645,873,112	4.6	2.7	6.9	10.8	15.2	9.5	9.9

GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Non-U.S. Fixed Income Composite	2,240,114,386	16.0	-2.0	6.2	7.4	8.4	3.4	4.9
<i>Blmbg. Global Aggregate Ex USD</i>			<u>-2.2</u>	<u>0.8</u>	<u>-1.8</u>	<u>-5.9</u>	<u>-2.7</u>	<u>-0.9</u>
Over/Under			0.2	5.4	9.2	14.3	6.1	5.8
Non-U.S. Credit Composite	1,373,546,251	9.8	-4.4	7.3	9.2	13.4	5.8	6.7
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	<u>1.7</u>
Over/Under			-6.5	0.6	-4.4	13.3	5.8	5.0
Marathon/Gold Coast	224,535,086	1.6	-0.7	-1.6	-1.5	7.7	7.6	8.1
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	<u>1.7</u>
Over/Under			-2.8	-8.3	-15.1	7.6	7.6	6.4
Halcyon Asset Management	218,350,276	1.6	-0.4 (91)	3.4 (44)	-1.8 (100)	14.9 (1)	3.7 (2)	
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u> (13)	<u>6.7</u> (6)	<u>13.6</u> (1)	<u>0.1</u> (16)	<u>0.0</u> (79)	
Over/Under			-2.5	-3.3	-15.4	14.8	3.7	
Cairn Composite	231,238,436	1.7	5.6 (1)	12.0 (1)	13.6 (1)	11.7 (1)	6.4 (1)	5.6 (1)
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u> (13)	<u>6.7</u> (6)	<u>13.6</u> (1)	<u>0.1</u> (16)	<u>0.0</u> (79)	<u>1.7</u> (73)
Over/Under			3.5	5.3	0.0	11.6	6.4	3.9
Alcentra - KT1	566,219,678	4.1	-12.0	11.7	18.7	17.1	6.2	
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	
Over/Under			-14.1	5.0	5.1	17.0	6.2	
Alcentra SP1 - KT1	1,021,948	0.0	5.0	5.9	11.1	27.3	-7.3	
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	
Over/Under			2.9	-0.8	-2.5	27.2	-7.3	
Alcentra SP2 - KT1	17,224,617	0.1	-2.0	4.2	-2.8	4.5	-3.2	
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	
Over/Under			-4.1	-2.5	-16.4	4.4	-3.2	
Alcentra SP3 - KT1	21,900,881	0.2	5.5	14.7	0.0	25.6	5.9	
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>	<u>0.0</u>	
Over/Under			3.4	8.0	-13.6	25.5	5.9	
Alcentra SP4 - KT1	93,055,329	0.7	2.5	3.0	17.4	13.8		
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>2.1</u>	<u>6.7</u>	<u>13.6</u>	<u>0.1</u>		
Over/Under			0.4	-3.7	3.8	13.7		

GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	
Emerging Markets Debt Composite	866,568,135	6.2	1.8 (63)	4.6 (49)	4.9 (84)	2.0 (10)	0.0 (86)	2.1 (55)	
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			<u>2.3</u> (49)	<u>5.9</u> (34)	<u>9.4</u> (44)	<u>-2.2</u> (75)	<u>0.5</u> (74)	<u>1.2</u> (71)	
Over/Under			-0.5	-1.3	-4.5	4.2	-0.5	0.9	
Ashmore Emerging Markets Liquid Investments	6,528	0.0							
JP Morgan GBI - EM Global Diversified Index			<u>2.5</u> (44)	<u>7.8</u> (17)	<u>11.4</u> (23)	<u>-1.4</u> (59)	<u>0.3</u> (78)	<u>-0.6</u> (94)	
Over/Under									
Gramercy Funds Management LLC	647,003,047	4.6	1.8 (66)	4.3 (54)	5.5 (81)	3.1 (6)	0.0 (85)	3.9 (6)	
JP Morgan ELM+ TR USD			<u>0.8</u> (90)	<u>4.0</u> (61)	<u>7.1</u> (68)	<u>0.2</u> (29)	<u>0.0</u> (85)	<u>-0.4</u> (91)	
Over/Under			1.0	0.3	-1.6	2.9	0.0	4.3	
PGIM Fixed Income	106,354,960	0.8	1.0 (85)	6.0 (34)	0.6 (99)	4.3 (2)	2.0 (25)		
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			<u>2.3</u> (49)	<u>5.9</u> (34)	<u>9.4</u> (44)	<u>-2.2</u> (75)	<u>0.5</u> (74)		
Over/Under			-1.3	0.1	-8.8	6.5	1.5		
Finisterre EM Debt Total Return Fund	113,203,600	0.8	2.9	5.5					
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			<u>2.3</u>	<u>5.9</u>					
Over/Under			0.6	-0.4					

ABSOLUTE RETURN (ALPHA POOL)

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> Absolute Return (Alpha Pool) (7% Target) </p>	Apollo Global SMA (MCA)	Credit focused separate account investing in bespoke credit opportunities
	Apollo Accord+ (MCA)	2021 credit fund focused on opportunities across structured credits, special situations, performing credit and origination
	Ares ECO Master Fund II, LTD (MCA)	Corporate debt investments in non-investment grade companies, with a focus on senior bank debt
	Birch Grove Credit Strategies Fund	All-weather approach to credit/portfolio construction across capital structure and across all market cycles
	Core & Credit Strategies (7%) Corrum Capital Global Credit Opportunities Fund	Yield-paying principal-protected transactions with collateralization by hard and soft assets
	Corrum Capital GCO Co-Invest Fund	Yield-paying principal-protected transactions with collateralization by hard and soft assets
	State Street Global Advisors Short Term Treasury Strategy SMA	Short term treasury vehicle
	Zais Group SMA	Long only structured credit SMA that focuses on stable cash flows and low duration, includes student housing
	Zais Opportunity Fund, LTD	Diversified structured credit fund with the ability to use hedges and derivative strategies
	Zais Zephyr A-8, LP	Closed-end fund focused on CLO equity post risk retention requirements
Zais Zephyr A-9, LP	2022 closed-end fund focused on CLO equity post risk retention requirements	

ALPHA POOL STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Alpha Pool Composite	2,189,333,813	15.7	3.0	5.2	7.9	8.1	4.0	4.5
91 Day T-Bill + 3%			<u>1.9</u>	<u>3.8</u>	<u>6.7</u>	<u>4.3</u>	<u>4.6</u>	<u>4.0</u>
Over/Under			1.1	1.4	1.2	3.8	-0.6	0.5
Alpha Liquidity (Ssga)	214,386,563	1.5	1.1	2.3	3.7	1.1	1.7	1.1
Apollo Global Management	2,284,506	0.0						
Ares Eco Master Fund II	599,034,895	4.3	2.2	5.2	7.5	6.4	3.9	
Birch Grove Credit Strategies	235,934,334	1.7	0.7	1.3	-2.0	6.5	4.5	
Corrum Capital	383,489,558	2.7	1.7	4.0	13.6	5.3	0.6	3.5
Zais	135,054,224	1.0	2.8	4.5	3.1	10.1	0.1	3.1
Zais Group Invest Advisors	411,459,959	2.9	5.0	7.6	18.0	15.0	6.7	7.8
Zais Zephyr 8	41,016,310	0.3	3.2	3.3	-1.3	9.0		
Zais Zephyr 9	27,795,667	0.2	13.9	22.1	23.3			
Apollo Accord+	138,877,799	1.0	8.8	8.8	3.7			

PRIVATE ASSETS

Private Assets (18% Target)	Private Equity	Diversified	Adams Street SMA (MCA) Aberdeen Standard Co-Investment Fund II Industry Ventures Arrowhead LP (MCA) Partners Group SMA (MCA) Pathway Capital SMA (MCA) Pathway PE Fund VII LLC SL Capital European Strategic Partners 2004 SL Capital European Strategic Partners 2008	Global investment opportunities in venture, growth equity, buyout, and private credit SMA investing in private debt and equity opportunities in credit, energy, infrastructure, and growth equity 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 2004 fund of funds investing in European-focused primary funds 2008 fund of funds investing in European-focused primary funds
		Buyout Funds	Aurora Equity Partners IV 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 Investments 2012 LP (MCA) Waterfall PE Co-Investments (MCA) Waterfall Sentinel Fund (MCA)	US middle market focused buyout fund 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 Co-investment opportunities in US lower middle market specialty finance companies 2019 fund investing in US lower middle market specialty finance focused companies
		Venture Funds	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 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 2016 fund investing in venture capital opportunistic transactions in the secondary market
		Secondary Funds	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 VI Lexington Capital Partners VII Lexington Middle Market Investors I Lexington Middle Market Investors II Partners Group Secondary 2008 LP SL Capital Secondary Opportunities Fund I SL Capital Secondary Opportunities Fund 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 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 interest in US middle-market buyouts Fund of funds focused on global secondaries in private equity funds Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe
		Sector Specific Funds	Kayne Anderson Energy Fund VII LP Kayne Anderson Private Energy Income Fund II (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 with a focus on generating income from large asset aca/development 2015 fund investing in senior secured notes and first/second lien debt of US companies in the energy sector
	Private Debt	Direct Lending	Ares Private Credit Solutions Fund (MCA) Ares Private Credit Solutions Fund 2 (MCA) Irradiant Renewables Opportunities Partners Tennenbaum Direct Lending Fund VIII, LLC (MCA) Tennenbaum Direct Lending Fund IX, LLC (MCA) Tennenbaum Waterman Fund LP (MCA)	Junior debt investments in large private companies Junior debt investments in large 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
		Credit/Distressed/ Opportunistic/ Special Situations	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 Solutions Fund (MCA) Siguler Guff Distressed Opportunity Fund III LP Tennenbaum Co-Investments (MCA) Tennenbaum Opportunities Fund V LLC (MCA) Tennenbaum Opportunities Fund VI LLC (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 Kayne Anderson 2017 fund investing in special situation opportunities in US credit 2009 fund of funds investing in US and International opportunistic credit funds and co-investments Co-investment opportunities driven from Tennenbaum funds Deep value control positions in distressed companies Deep value control positions in distressed companies Distressed and rescue-financing in mid-market companies in NA



REAL ESTATE PORTFOLIO

Real Estate Portfolio (5% Target)	Core Real Estate (2.5%)	<p>348 West Hospitality Lane Invesco Real Estate Asia Fund Kayne Anderson Real Estate Debt III (MCA) Kayne Anderson Real Estate Debt IV (MCA) Core Real Estate 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</p>	<p>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</p>
	Non-Core Real Estate (2.5%)	<p>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) Enhanced Real Estate/ High Return Morgan Stanley RE Fund V International Oaktree RE Opportunities Fund V PRISA III Starwood Global Opportunity Fund VII-A Walton Street Real Estate Fund V</p>	<p>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 Diversified value-add US real estate equity fund Value-add US real estate equity fund Opportunistic investments in RE operating companies, RE debt, residential land and international opportunities Value-add US real estate fund</p>
		<p>Real Estate Secondaries Partners Group Real Estate Secondary 2013 A LP (MCA) Partners Group Real Estate Secondary 2017 A LP (MCA)</p>	<p>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</p>

REAL ASSETS PORTFOLIO

Real Asset Portfolio (6% Target)	Commodities (4% Target)	Energy Spectrum Partners VI LP	2011 fund investing in US middle market midstream energy sector
		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)
	Infrastructure (2% Target)	Kayne Anderson MLP Strategy (MCA)	Separate account opportunistically investing in publicly traded US MLP securities
		Timber (0% Target)	Hancock Timberland VIII LP

ALTERNATIVES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Private Equity Composite	2,687,585,767	19.2	-0.1	1.6	-1.7	23.3	16.4	14.9
<i>CJA Global All PE (Qtr Lag)</i>			<u>2.0</u>	<u>2.9</u>	<u>-3.9</u>	<u>21.4</u>	<u>14.7</u>	<u>13.7</u>
Over/Under			-2.1	-1.3	2.2	1.9	1.7	1.2
<i>Russell 3000 Index</i>			<u>8.4</u>	<u>16.2</u>	<u>19.0</u>	<u>13.9</u>	<u>11.4</u>	<u>12.3</u>
Over/Under			-8.5	-14.6	-20.7	9.4	5.0	2.6
<i>CJA US All PE (1 Qtr Lag)</i>			<u>2.4</u>	<u>3.7</u>	<u>0.6</u>	<u>23.9</u>	<u>15.9</u>	<u>14.5</u>
Over/Under			-2.5	-2.1	-2.3	-0.6	0.5	0.4
Real Estate Composite	582,421,686	4.2	-1.6	-3.2	-1.4	9.2	7.6	8.6
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>-1.8</u>	<u>-5.3</u>	<u>-1.6</u>	<u>7.2</u>	<u>6.7</u>	<u>8.3</u>
Over/Under			0.2	2.1	0.2	2.0	0.9	0.3
Real Assets Composite	673,715,115	4.8	1.2	4.4	8.1	18.2	9.6	5.7
<i>Real Assets Custom Blend</i>			<u>-2.2</u>	<u>-4.5</u>	<u>-10.0</u>	<u>10.6</u>	<u>3.7</u>	<u>1.8</u>
Over/Under			3.4	8.9	18.1	7.6	5.9	3.9
Infrastructure	77,727,052	0.6	3.1	5.4	17.0	31.2	9.9	5.6
<i>Real Assets Custom Blend</i>			<u>-2.2</u>	<u>-4.5</u>	<u>-10.0</u>	<u>10.6</u>	<u>3.7</u>	<u>1.8</u>
Over/Under			5.3	9.9	27.0	20.6	6.2	3.8
Commodities	590,846,532	4.2	1.1	4.5	7.0	13.6	12.0	6.8
<i>S&P GSCI Composite TR Index</i>			<u>-2.7</u>	<u>-7.5</u>	<u>-14.2</u>	<u>25.1</u>	<u>2.8</u>	<u>-3.5</u>
Over/Under			3.8	12.0	21.2	-11.5	9.2	10.3

APPENDIX: PERFORMANCE SUMMARY

Real Estate
Real Assets
Private Equity



REAL ESTATE PERFORMANCE

AS OF DECEMBER 31, 2022

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	68,971,338	6,028,662	3,778,589	72,277,414	73,720,253	145,997,667	2.01	17.70%
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	22,975,068	17,135,402	40,110,470	4.87	70.73%
Prudential PRISA II	2004	140,000,000	140,000,000	0	6,102,942	65,515,086	203,563,042	269,078,128	1.84	8.24%
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	122,586	86,449	33,112,232	280,358	33,392,590	1.22	6.84%
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	437,329	3,605,527	0.16	-14.78%
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	2,556,840	30,435,927	1.01	0.19%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	0	0	19,517,190	587,264	20,104,454	0.80	-2.35%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	0	0	27,259,862	1,397,050	28,656,912	0.72	-3.62%
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	1.38	10.20%
Fortress Japan Opportunity Fund II	2012	21,739,130	2,766,702	18,972,428	302,777	24,047,944	3,886,135	27,934,079	9.10	25.38%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	559,775	39,287,074	510,793	39,797,867	1.56	12.75%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	2,601,837	15,699,760	65,893,292	81,593,052	1.50	5.68%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	-349,081	35,861,822	33,160,601	69,022,423	1.40	7.68%
Apollo US Real Estate Fund II	2015	20,000,000	16,422,684	3,577,316	29,763	8,004,085	17,469,113	25,473,198	1.55	11.28%
Pramerica Real Estate Capital VI	2016	24,890,077	22,583,937	2,306,140	58,392	14,775,416	9,093,712	23,869,128	1.05	2.59%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	18,025,000	1,975,000	-239,597	13,814,886	17,719,928	31,534,814	1.77	20.43%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	45,071,281	29,928,719	44,125	753,447	64,471,401	65,224,848	1.45	11.09%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,947,473	52,527	45,464	25,318,141	0	25,318,141	1.27	11.24%
Apollo US Real Estate Fund III	2021	50,000,000	21,603,372	28,396,628	415,331	3,513,645	25,671,909	29,185,554	1.33	32.39%
Kayne Anderson Real Estate Debt IV	2021	30,000,000	20,280,616	9,719,384	0	6,911,297	14,790,174	21,701,471	1.07	8.51%
Kayne Anderson Real Estate Fund VI	2021	20,000,000	4,477,049	15,522,951	0	5,424,583	5,424,583	5,424,583	1.21	21.25%
Pramerica Real Estate Capital VII	2021	53,327,719	19,475,295	33,852,424	118,086	112,508	17,583,914	17,696,422	0.90	-12.82%
Total: San Bernardino		1,409,446,466	1,210,584,237	178,407,081	13,543,319	1,102,936,966	575,353,093	1,678,290,059	1.37	4.76%



REAL ASSETS PERFORMANCE

AS OF DECEMBER 31, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Hancock Timberland VII	2005	90,000,000	90,000,000	0	0	101,142,900	0	1.12	1.02%
Hancock Timberland VIII	2006	40,000,000	40,000,000	0	200	43,384,325	2,555,484	1.15	1.11%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	0	0	63,302,361	0	1.07	0.87%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	846,289	55,238,754	0	1.09	12.09%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	0	0	51,855,967	0	1.04	0.38%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	135,000,000	135,000,000	0	0	0	244,932,108	1.81	7.92%
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	0	50,548	20,654,831	5,294,523	0.86	-1.91%
Pinnacle Physicals and Financing Master, Ltd	2009	205,800,000	205,800,000	0	15,984	2,018,221	333,952,147	1.63	8.68%
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	0	0	41,902,882	0	0.92	-1.99%
Total: San Bernardino		706,203,354	705,322,473	0	913,021	379,500,241	586,734,263	1.37	4.10%



PRIVATE EQUITY PERFORMANCE

AS OF DECEMBER 31, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	239,844,984	221,611,324	18,233,660	88,078	280,078,373	651,960	1.27	3.95%
Partners Group MCA	2004	1,000,000,000	989,792,310	10,207,690	0	875,053,135	637,450,577	1.53	9.18%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	861,417,562	43,082,438	0	1,463,871,996	205,437,781	1.94	11.58%
Aurora Equity Partners III, L.P.	2005	25,000,000	23,544,536	0	1,422,824	41,738,196	0	1.67	13.61%
Lexington Middle Market I	2005	25,000,000	24,771,942	228,058	0	40,309,398	250,777	1.64	11.39%
NB Secondary Opportunities I, LP	2005	20,000,000	18,500,843	0	0	24,330,105	0	1.32	6.49%
Lexington Capital Partners VI-B	2006	25,000,000	24,591,319	408,681	3,012	34,911,743	227,422	1.43	6.87%
Siguler Guff DOF II	2006	30,000,000	30,000,000	0	-43,638	42,440,278	0	1.42	8.64%
TCW/Crescent Mezzanine IV, L.P.	2006	40,000,000	39,590,976	0	-81,547	45,049,090	0	1.14	3.03%
Catalyst Fund II, L.P.	2007	10,000,000	9,956,944	43,056	65,604	3,859,103	33,899,074	3.77	11.81%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	0	14,329,948	949,691	1.53	5.74%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	-15,638	17,798,007	114,522	2.04	22.79%
Aurora Resurgence Fund, L.P.	2008	15,000,000	5,653,009	0	40,630	10,350,965	0	1.82	17.60%
Industry Ventures Fund V	2008	10,000,000	9,500,000	500,000	0	27,399,602	0	2.88	29.29%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	40,771	15,840,987	2,197,083	1.84	14.58%
NB Secondary Opportunities II, LP	2008	20,000,000	17,080,642	0	430,639	26,888,038	0	1.54	14.40%
Siguler Guff DOF III	2008	10,000,000	9,700,000	300,000	-234	14,618,900	1,449,303	1.66	10.57%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	-51,494	27,301,678	155,242	1.38	9.81%
Apollo European Principal Finance Fund (Feeder), LP	2009	53,461,095	46,434,825	7,026,270	13,022	69,417,013	126,973	1.50	11.81%
DRI II, L.P.	2009	20,000,000	19,917,669	0	-100,096	26,302,807	0	1.33	19.64%
Apollo PCPL Webb V	2010	4,844,398	4,844,398	0	0	5,196,757	0	1.07	6.04%
Apollo PCPL Webb VIII	2010	4,734,303	4,734,303	0	32	12,146,258	0	2.57	46.47%
European Strategic Partners 2008	2010	31,324,315	29,553,666	1,770,649	160,998	39,887,809	3,488,375	1.46	8.29%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	0	24,850,771	246,127	1.36	7.99%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,453,173	4,546,827	118,325	31,144,965	3,291,803	1.67	14.70%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	7,882,885	12,117,115	0	16,472,851	413,752	2.14	8.07%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	2,654,902	40,094,037	532,655	2.04	18.13%
BNY Mellon - Alcentra Mezzanine III	2012	25,000,000	23,254,658	0	0	26,736,979	0	1.15	12.73%
Industry Ventures Partnership Holdings Fund II, L.P.	2012	25,000,000	23,500,000	1,500,000	0	53,620,148	51,861,804	4.49	23.47%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	1,081	68,822,734	59,132,418	1.83	9.98%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	0	41,607,632	36,974,239	3.38	23.97%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	0	37,680,549	7,413,738	1.95	16.44%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	11,162,500	1,337,500	0	7,375,723	5,932,049	1.19	3.66%



PRIVATE EQUITY PERFORMANCE

AS OF DECEMBER 31, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Pathway SBCERA MCA	2014	300,000,000	282,410,822	17,589,178	0	110,909,445	562,596,599	2.38	21.17%
SL Capital SOF I LP	2014	25,000,000	21,382,263	3,617,737	0	26,055,149	3,841,957	1.40	10.18%
ARES European Loan Opp Fund	2015	15,000,000	8,413,136	0	0	7,613,498	0	0.90	-6.02%
Ares Special Situations Fund IV, LP	2015	50,000,000	47,686,469	2,313,531	0	32,847,992	37,691,585	1.48	8.12%
Tennenbaum Special Situations Fund IX	2015	50,000,000	32,057,933	17,942,067	85,183	32,877,330	22,784,203	1.73	11.63%
Industry Ventures Direct, LP	2016	25,000,000	23,420,425	1,579,575	0	11,577,501	40,352,481	2.22	22.24%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	22,575,000	2,425,000	0	8,419,172	45,627,699	2.39	24.61%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,694,029	10,805,971	0	2,112,302	2,407,518	2.67	38.86%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	24,091,003	15,908,997	148,810	9,707,238	23,505,133	1.37	6.41%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	4,170,678	15,829,322	0	6,435,114	4,463,335	2.61	11.64%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	0	-7,580	8,310,474	0	1.11	7.44%
Industry Ventures Secondary VIII	2017	25,000,000	22,525,000	2,475,000	0	20,853,153	23,882,589	1.99	30.17%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,638,804	1,361,196	0	599,181	5,714,732	0.73	-6.07%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	19,508,621	491,379	127,793	17,322,762	18,806,651	1.84	21.77%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	0	62,706,100	72,952,398	1.07	1.71%
SL Capital SOF III LP	2017	25,000,000	17,018,589	7,981,411	-440	11,169,043	22,864,543	2.00	22.81%
Crestline Portfolio Financing Fund	2018	50,000,000	31,199,460	18,800,540	0	16,422,237	25,643,621	1.35	9.82%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	21,500,000	3,500,000	0	626,933	45,713,958	2.16	38.92%
Industry Ventures Tech Buyout LP	2018	50,000,000	40,244,835	9,755,165	0	0	57,067,165	1.42	21.00%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	15,047,284	4,952,716	0	5,700,758	18,109,682	1.58	38.24%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,600,000	1,400,000	0	8,923,193	10,628,648	2.96	40.53%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	0	44,273,922	4,462,550	1.20	16.86%
Kayne Solutions Fund LP	2018	20,000,000	9,809,659	10,190,341	19,174	10,797,587	0	1.10	9.14%
Industry Ventures Direct II, LP	2019	50,000,000	42,668,033	7,331,967	0	0	73,661,702	1.73	35.24%
Kayne Renewable Opportunities Partners (TE), LP	2019	100,000,000	20,704,033	0	0	27,857,425	0	1.35	21.72%
Waterfall Sentinel Co-Investments	2019	30,000,000	23,766,885	6,233,116	140,580	11,907,260	47,739,030	2.49	33.23%
Waterfall Sentinel Fund	2019	30,000,000	25,378,369	4,621,631	0	6,493,596	32,389,052	1.53	16.79%
Adams Street SBCERA	2020	150,000,000	105,299,612	44,700,388	0	13,064,376	118,698,473	1.25	22.85%
Kayne Anderson FRG	2020	30,000,000	30,000,000	0	0	45,283,966	0	1.51	44.79%
Kayne CLO Partners II, LP	2020	50,000,000	44,721,625	0	-97,167	52,848,194	0	1.18	13.44%
Industry Ventures Partnership Holdings VI, LP	2021	40,000,000	12,409,022	27,590,978	0	67,097	12,634,231	1.02	3.41%
Industry Ventures Secondary IX, LP	2021	50,000,000	29,536,814	20,463,186	-578	874,116	39,186,112	1.36	34.04%
Industry Ventures Direct III, L.P.	2022	40,000,000	4,832,678	35,167,322	-1,408	0	4,289,358	0.89	-19.69%
Industry Ventures IV Arrowhead, L.P.	2022	25,000,000	5,000,000	20,000,000	0	0	4,755,422	0.95	-4.89%
Industry Ventures Tech Buyout II, L.P.	2022	100,000,000	10,000,000	90,000,000	0	0	8,758,595	0.88	-19.51%
Total: San Bernardino		4,521,709,094	3,866,773,299	523,816,922	5,161,637	4,122,182,686	2,443,426,387	1.70	11.03%





APPENDIX



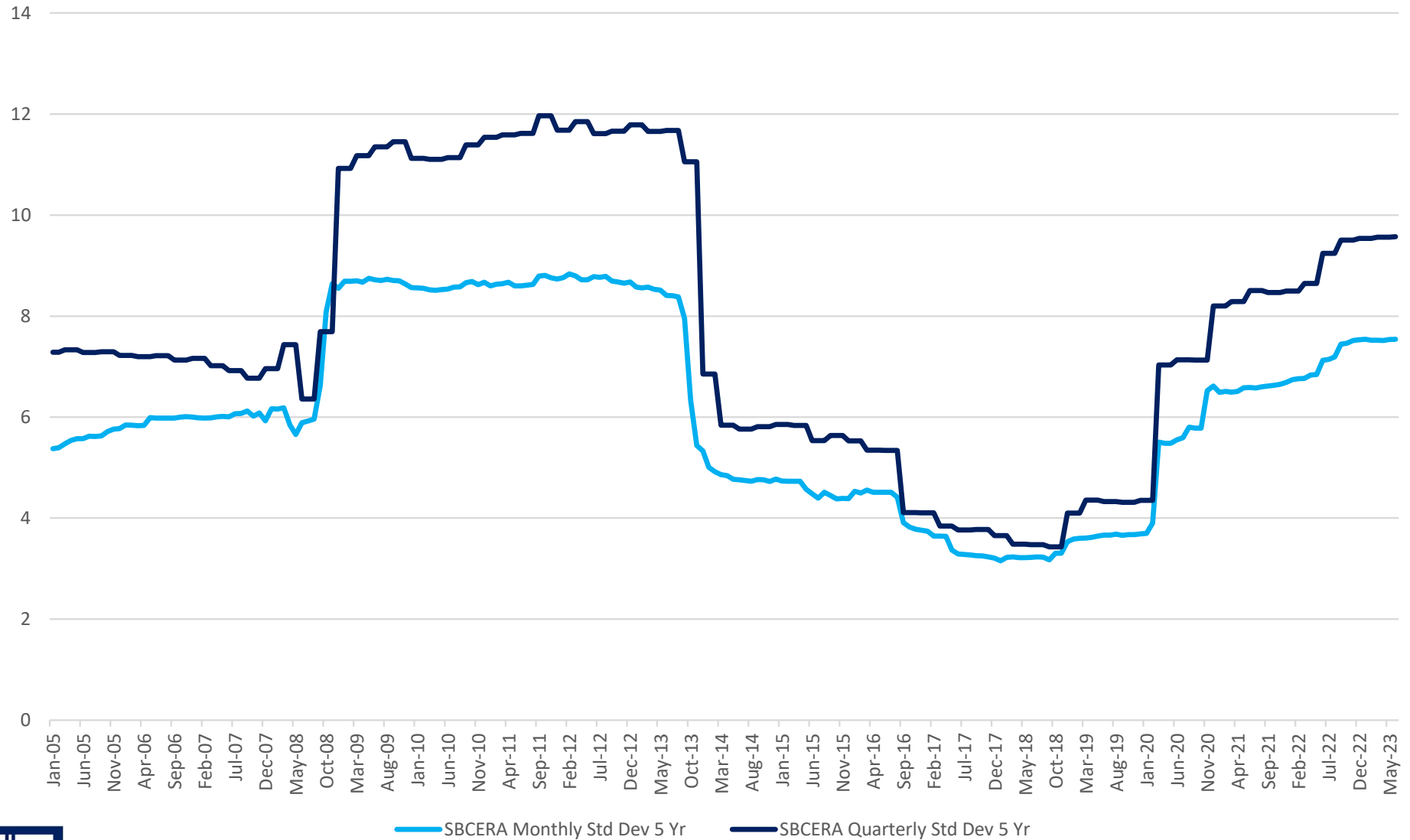
POLICY INDEX COMPOSITION

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

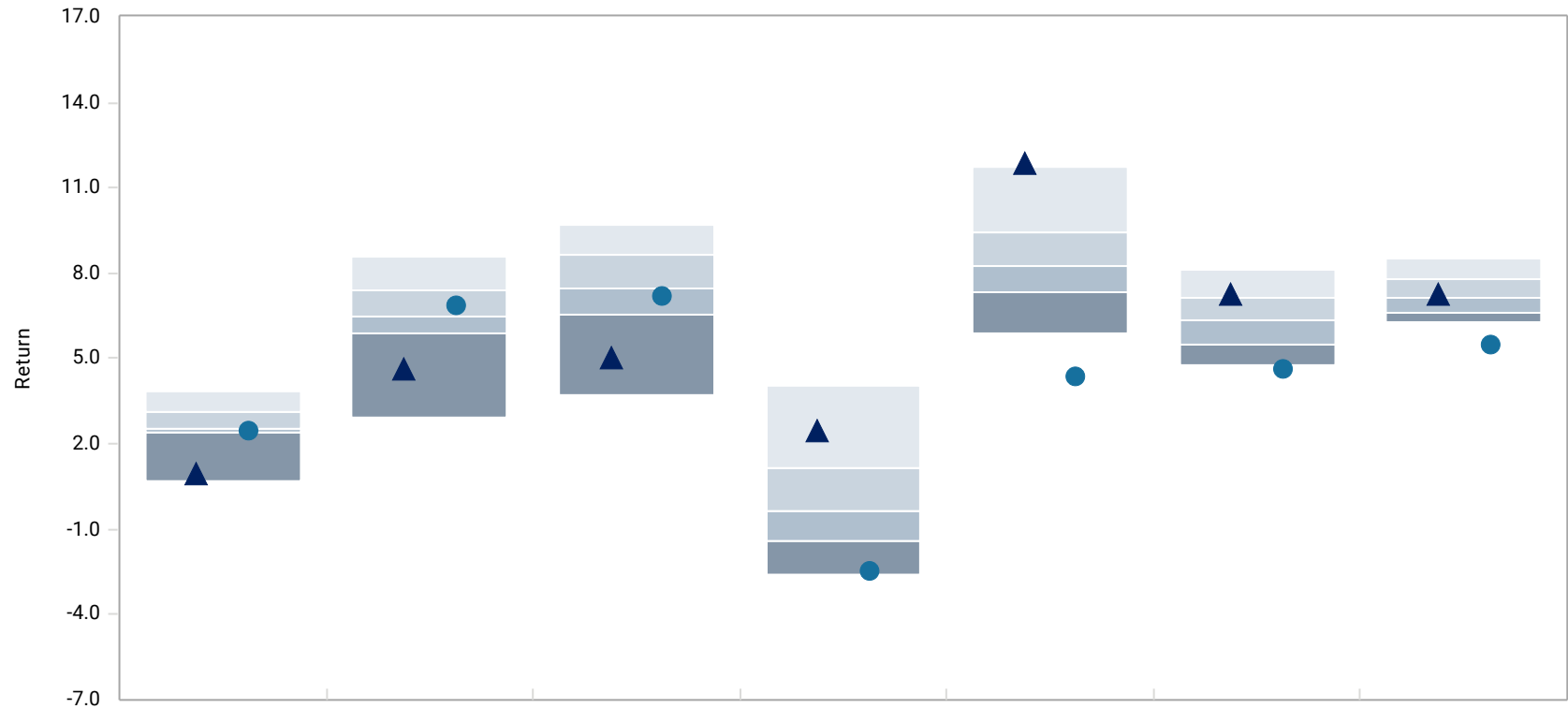
MONTHLY TIME SERIES VS. QUARTERLY TIME SERIES

Standard Deviation Rolling 5 Yr



RETURN SUMMARY VS. PEER UNIVERSE

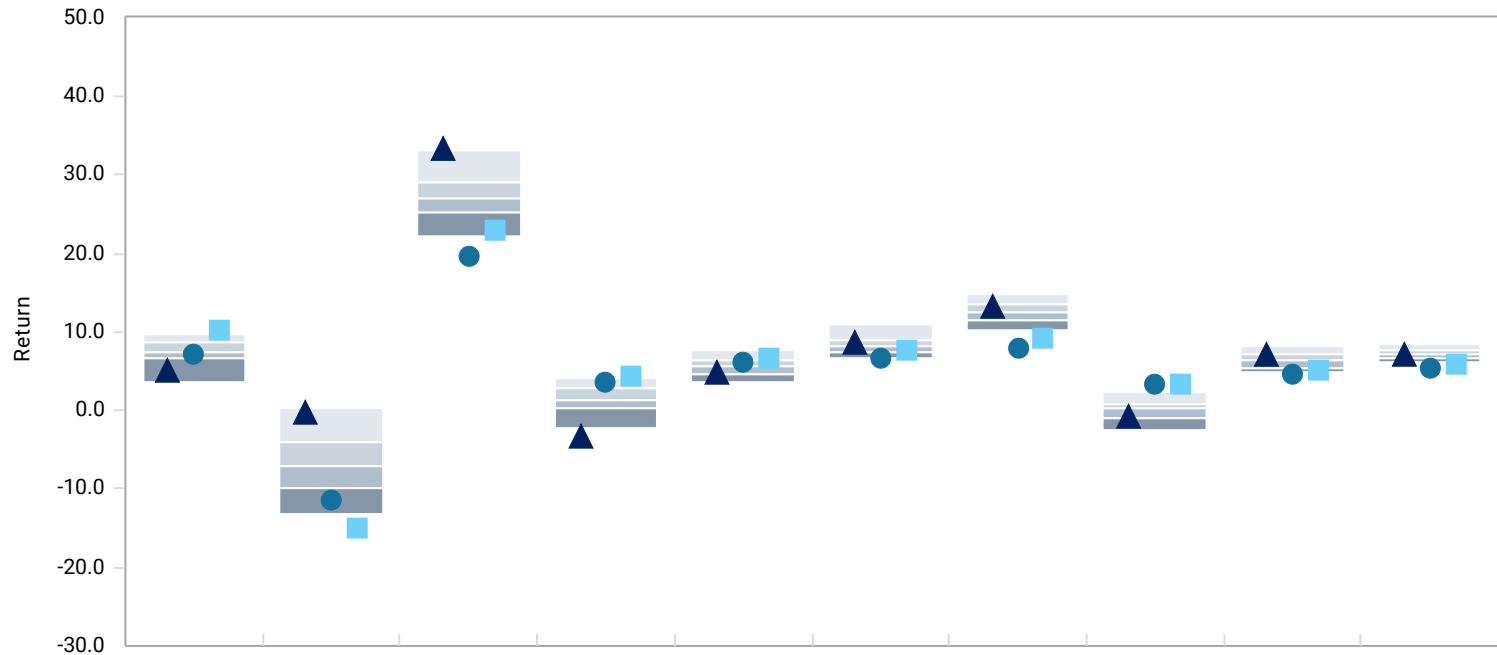
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Mo	YTD	1 Year	2 Years	3 Years	5 Years	10 Years
▲ Total Fund	0.9 (95)	4.6 (89)	5.0 (89)	2.5 (12)	11.9 (4)	7.3 (22)	7.3 (47)
● Policy Index	2.5 (62)	6.9 (40)	7.2 (56)	-2.5 (89)	4.4 (98)	4.6 (97)	5.5 (100)
5th Percentile	3.8	8.6	9.7	4.1	11.7	8.1	8.5
1st Quartile	3.1	7.4	8.6	1.2	9.4	7.2	7.8
Median	2.5	6.5	7.5	-0.4	8.3	6.4	7.1
3rd Quartile	2.4	5.9	6.6	-1.4	7.3	5.5	6.6
95th Percentile	0.7	2.9	3.7	-2.6	5.9	4.8	6.3
Population	36	36	36	35	34	34	31

RETURN SUMMARY VS. PEER UNIVERSE

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



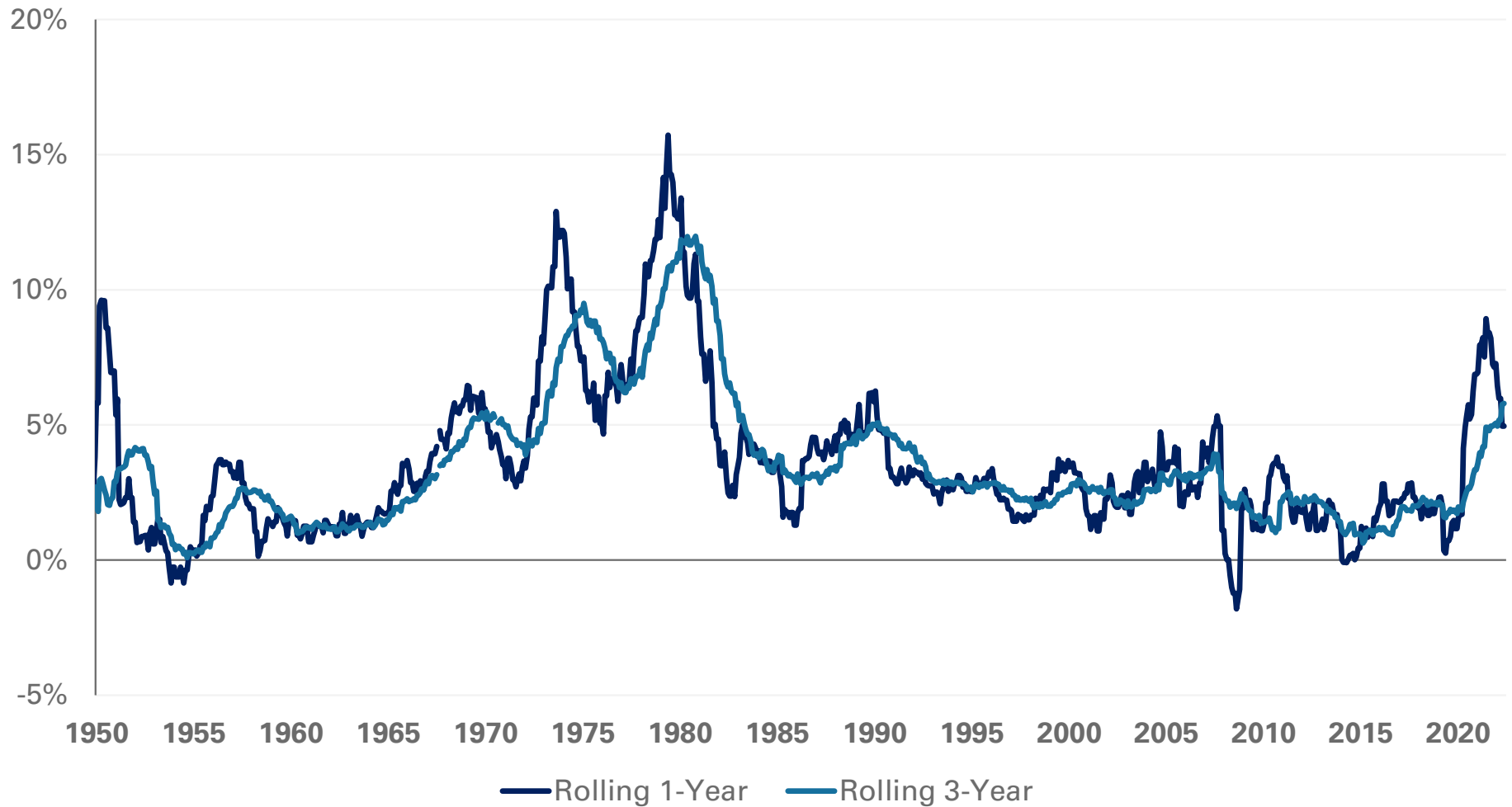
	Fiscal 2023 (%)	Fiscal 2022 (%)	Fiscal 2021 (%)	Fiscal 2020 (%)	Fiscal 2019 (%)	Fiscal 2018 (%)	Fiscal 2017 (%)	Fiscal 2016 (%)	5 Yrs (%)	10 Yrs (%)
▲ Total Fund	5.0 (89)	-0.1 (7)	33.3 (5)	-3.2 (97)	4.8 (73)	8.8 (33)	13.3 (32)	-0.8 (73)	7.3 (22)	7.3 (47)
● Policy Index	7.2 (56)	-11.3 (89)	19.7 (100)	3.7 (13)	6.2 (29)	6.8 (95)	8.0 (99)	3.4 (1)	4.6 (97)	5.5 (100)
■ 60% MSCI World/40% FTSE WGBI	10.2 (1)	-14.9 (99)	23.0 (94)	4.4 (5)	6.7 (18)	7.8 (69)	9.2 (98)	3.3 (1)	5.2 (86)	6.0 (99)
5th Percentile	9.7	0.4	33.2	4.1	7.7	11.1	14.8	2.3	8.1	8.5
1st Quartile	8.6	-3.9	29.2	2.9	6.4	9.1	13.6	0.9	7.2	7.8
Median	7.5	-7.0	27.0	1.3	5.7	8.2	12.6	0.2	6.4	7.1
3rd Quartile	6.6	-9.9	25.4	0.2	4.7	7.5	11.6	-0.9	5.5	6.6
95th Percentile	3.7	-13.3	22.2	-2.2	3.7	6.7	10.1	-2.5	4.8	6.3
Population	36	113	150	130	103	81	78	75	34	31



MACRO

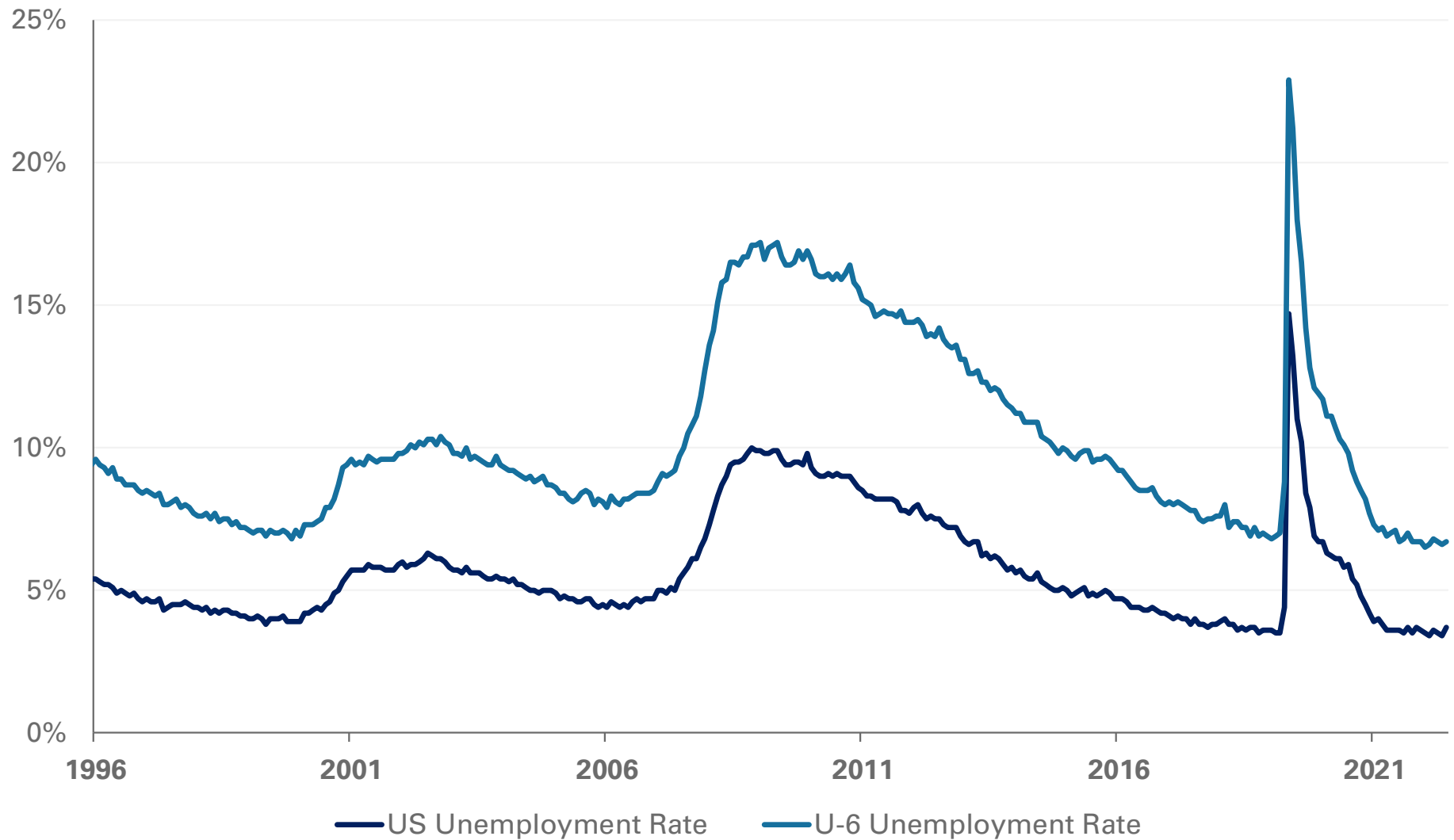
INFLATION

U.S. CONSUMER PRICE INDEX



Source: Bureau of Labor Statistics, FactSet

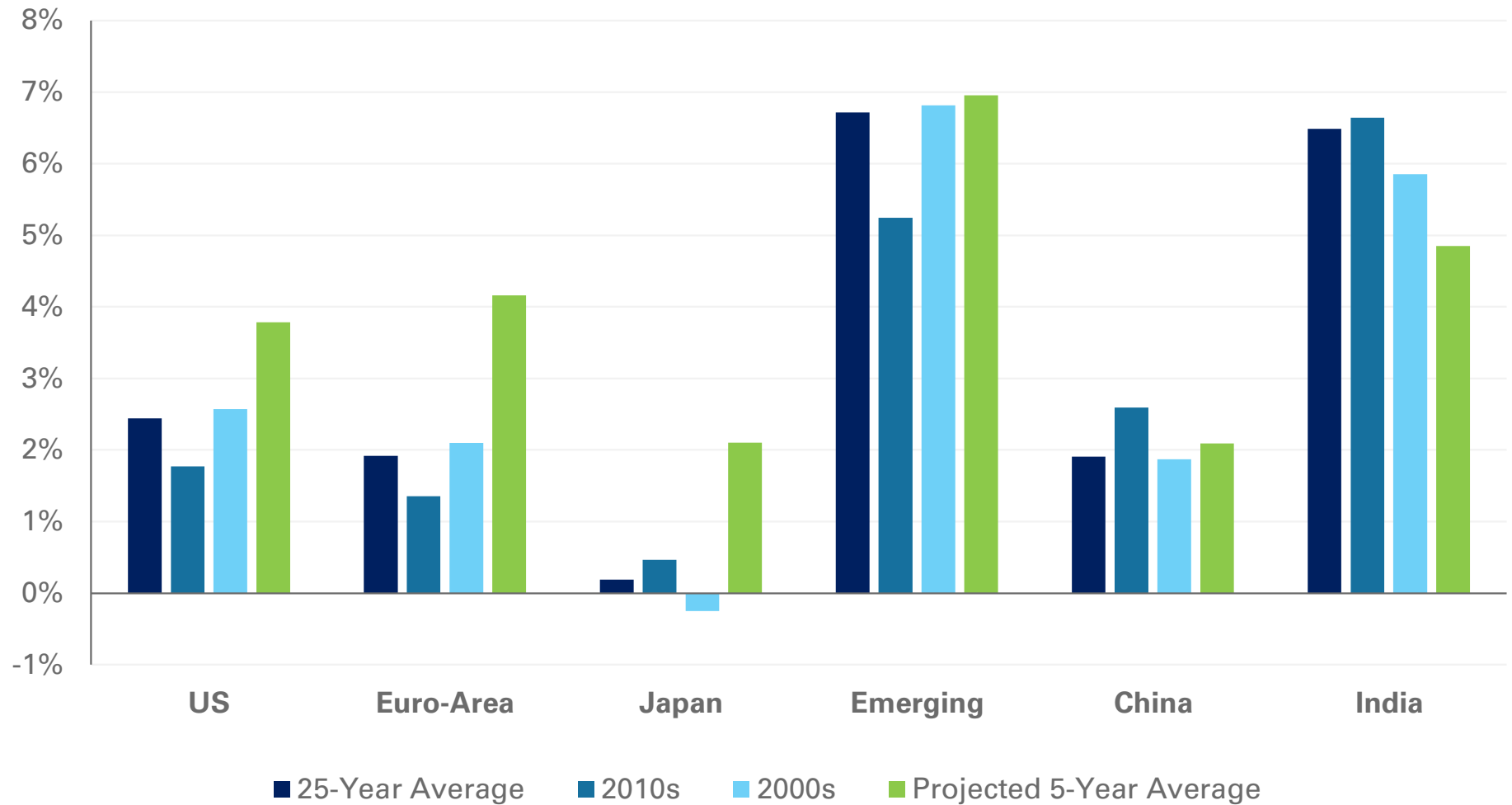
U.S. UNEMPLOYMENT RATES



Source: FactSet

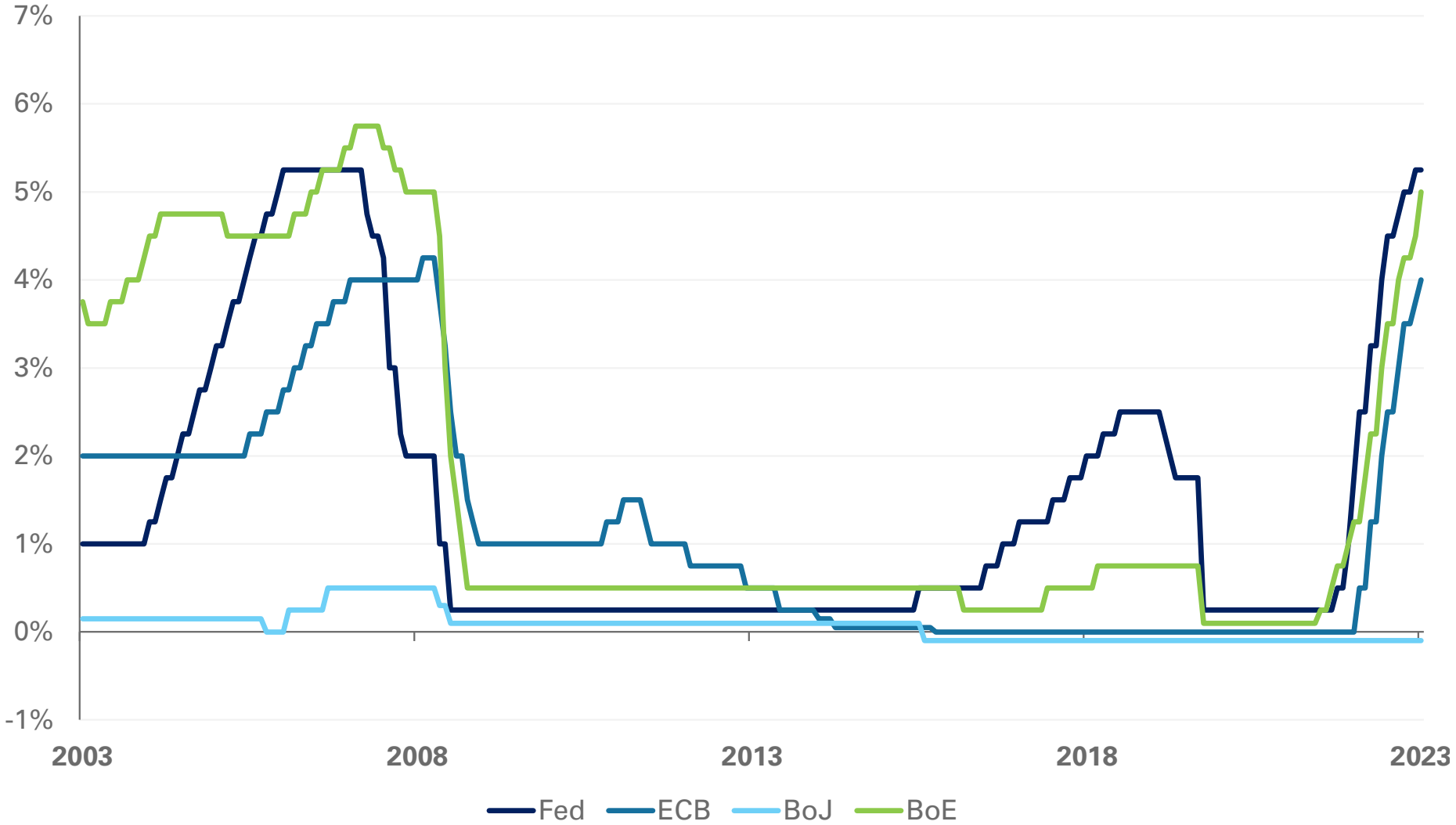
HISTORICAL INFLATION

IMF PROJECTIONS



Source: IMF, FactSet

CENTRAL BANK POLICY RATES

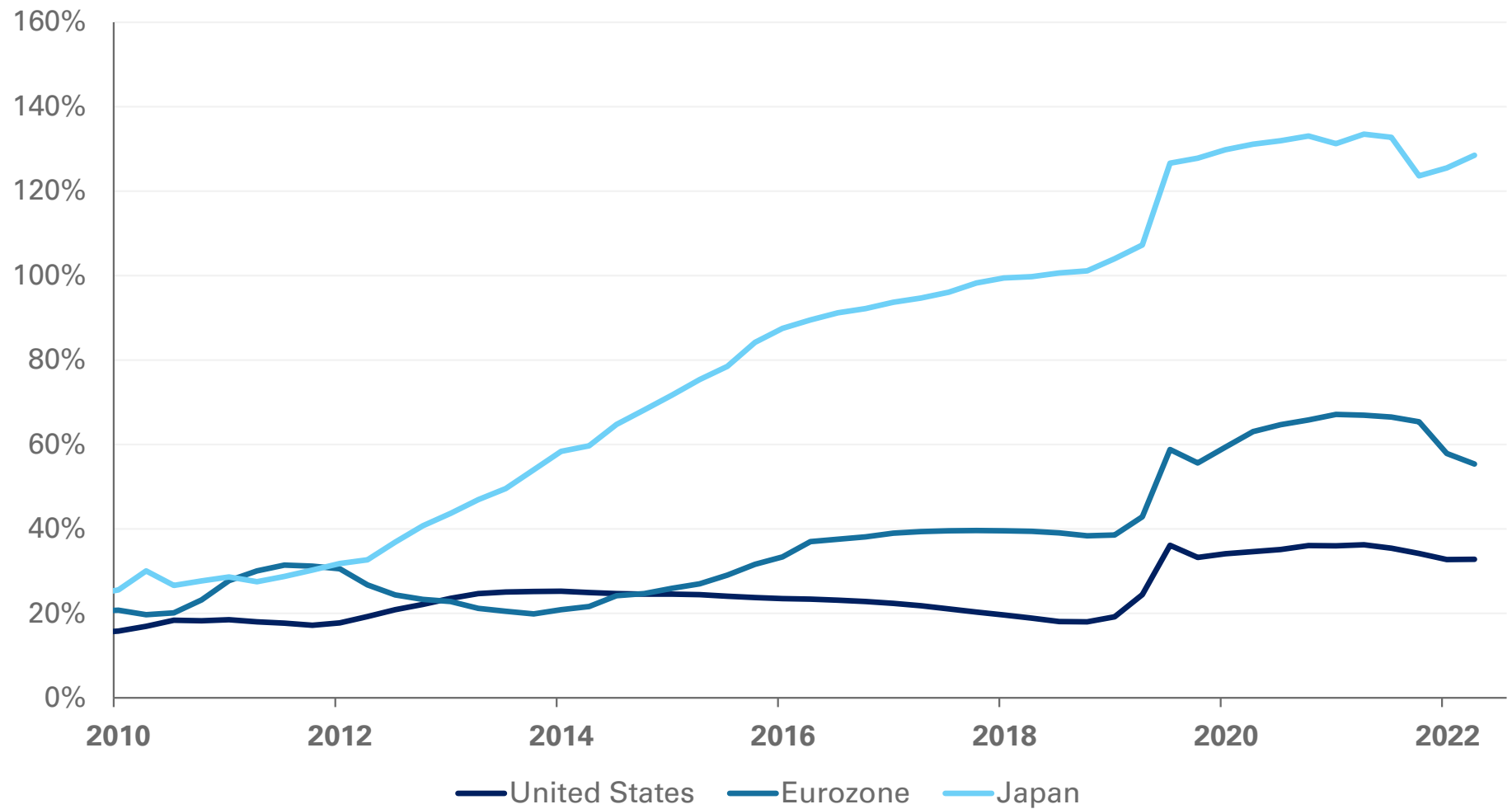


Source: Federal Reserve, ECB, Bank of Japan, Bank of England, FactSet



CENTRAL BANK BALANCE SHEETS

AS A PERCENTAGE OF GDP



Source: FactSet

CURRENCIES

RELATIVE TO THE U.S. DOLLAR

Currencies	Spot	1 Month	YTD	1 Year
Euro	1.09	2.3%	2.2%	4.4%
British Pound	1.27	2.6%	5.7%	4.7%
Japanese Yen	144.54	-3.3%	-8.7%	-6.0%
Swiss Franc	0.89	2.2%	3.4%	7.0%
Australian Dollar	0.67	2.9%	-1.8%	-3.2%
New Zealand Dollar	1.63	2.2%	-3.1%	-1.5%
Canadian Dollar	1.32	2.7%	2.4%	-2.5%
Chinese Yuan	7.26	-2.2%	-4.3%	-7.8%
Taiwanese Dollar	31.14	-1.3%	-1.3%	-4.5%
Korean Won	1318	0.7%	-4.0%	-1.5%
Vietnamese Dong	23585	-0.4%	0.0%	-1.4%
Thai Baht	35.46	-1.8%	-2.3%	-0.3%
Philippines Peso	55.20	1.7%	1.0%	-0.4%
Indian Rupee	82.04	0.8%	0.8%	-3.7%
Russian Ruble	89.50	-9.2%	-18.4%	-38.8%
Mexican Peso	17.15	3.5%	13.6%	17.6%
Brazilian Real	4.82	6.2%	9.4%	8.4%
Chilean Peso	0.02	1.0%	9.7%	25.7%
Argentine Peso	256.73	-6.7%	-31.0%	-51.2%
South African Rand	18.89	4.9%	-9.9%	-13.3%

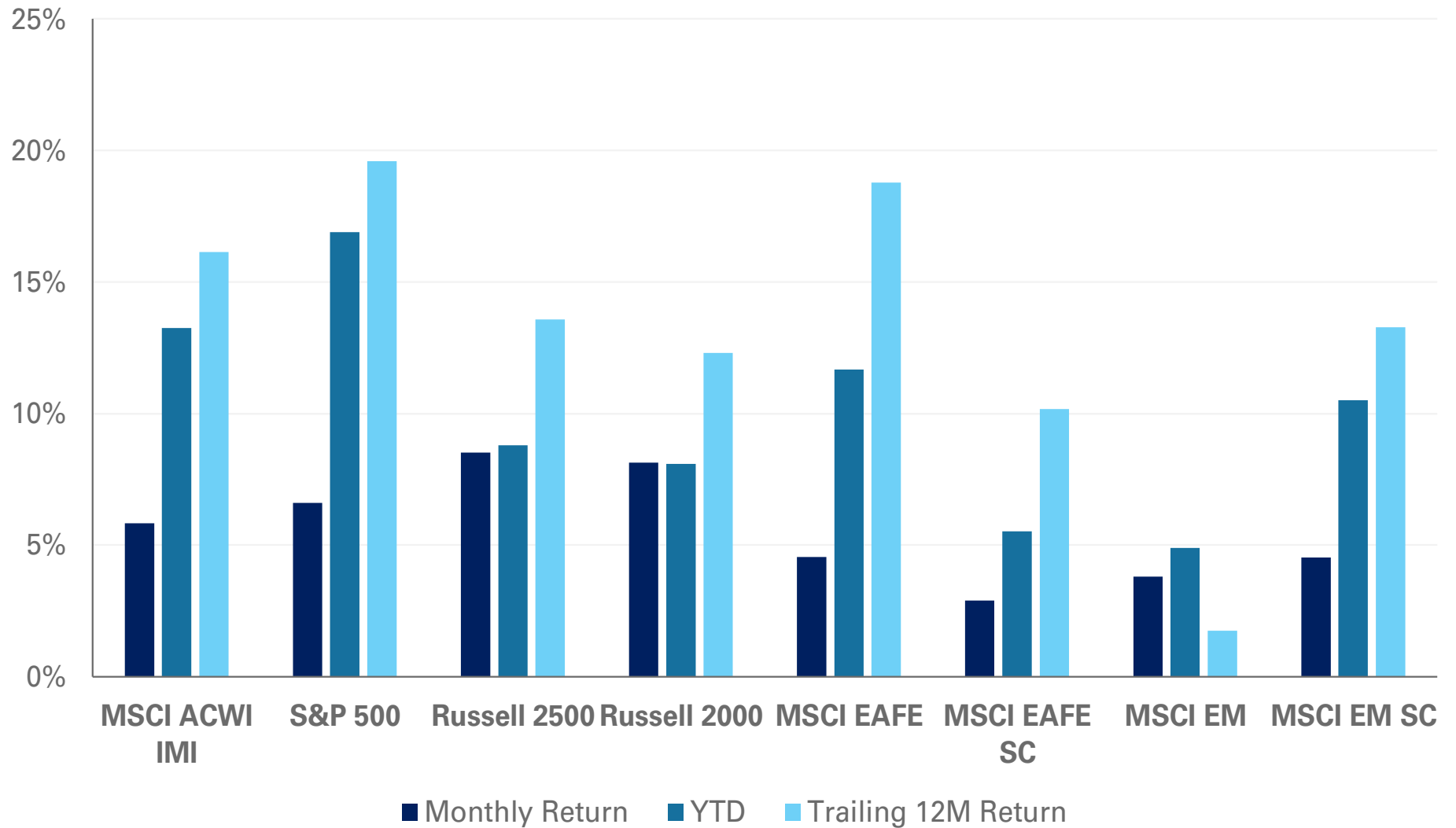


Source: FactSet



EQUITY

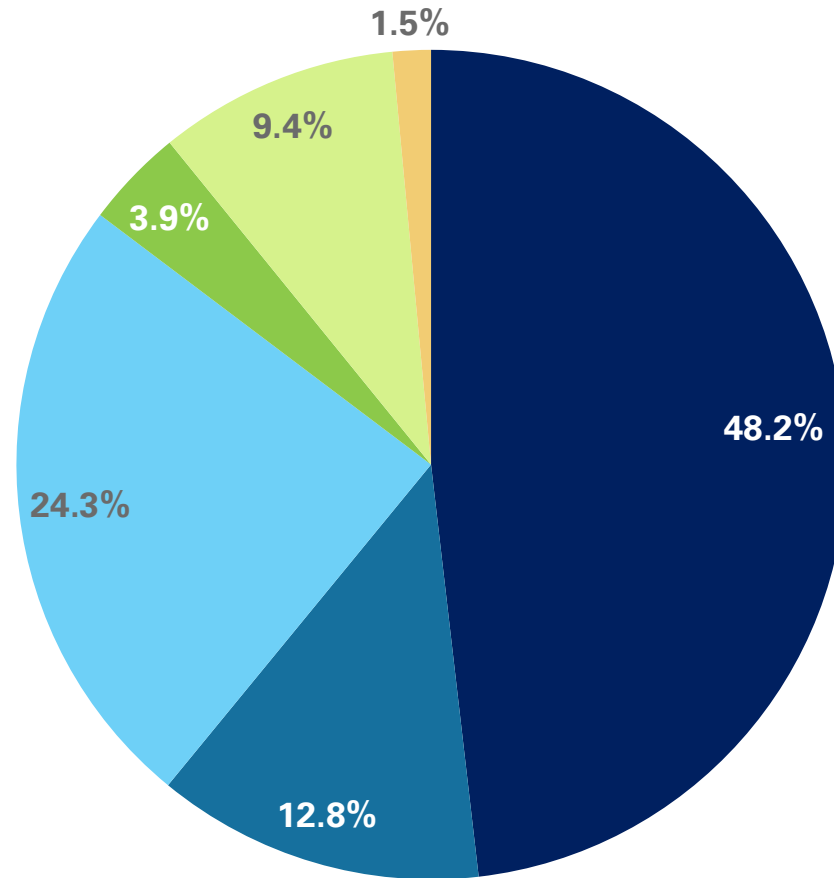
EQUITY INDEX PERFORMANCE



Source: MSCI, S&P, Russell, FactSet



MSCI ACWI IMI WEIGHTS



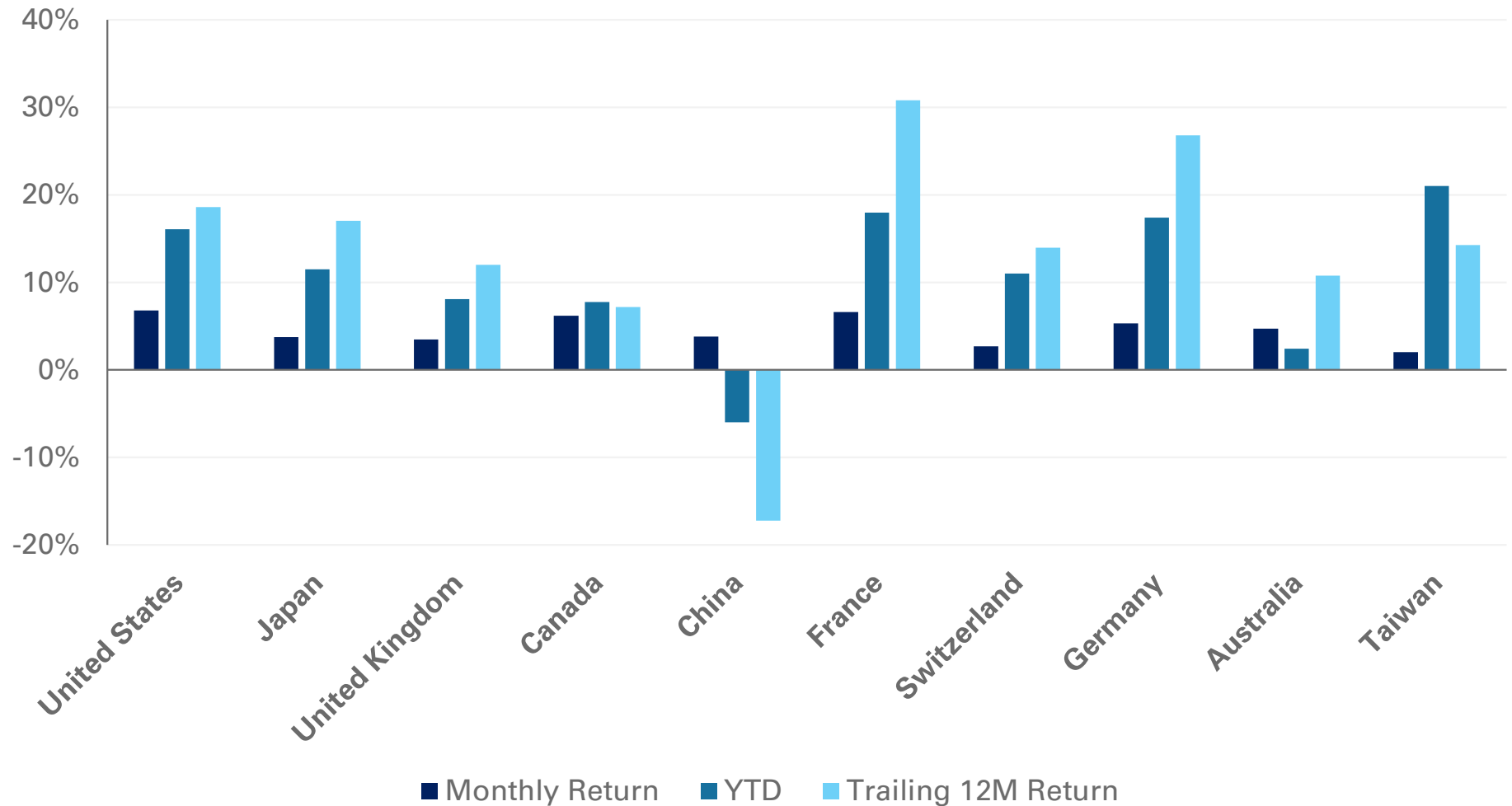
■ US Large Cap ■ US Small Cap ■ EAFE ■ EAFE Small Cap ■ EM ■ EM Small Cap



Source: MSCI, FactSet

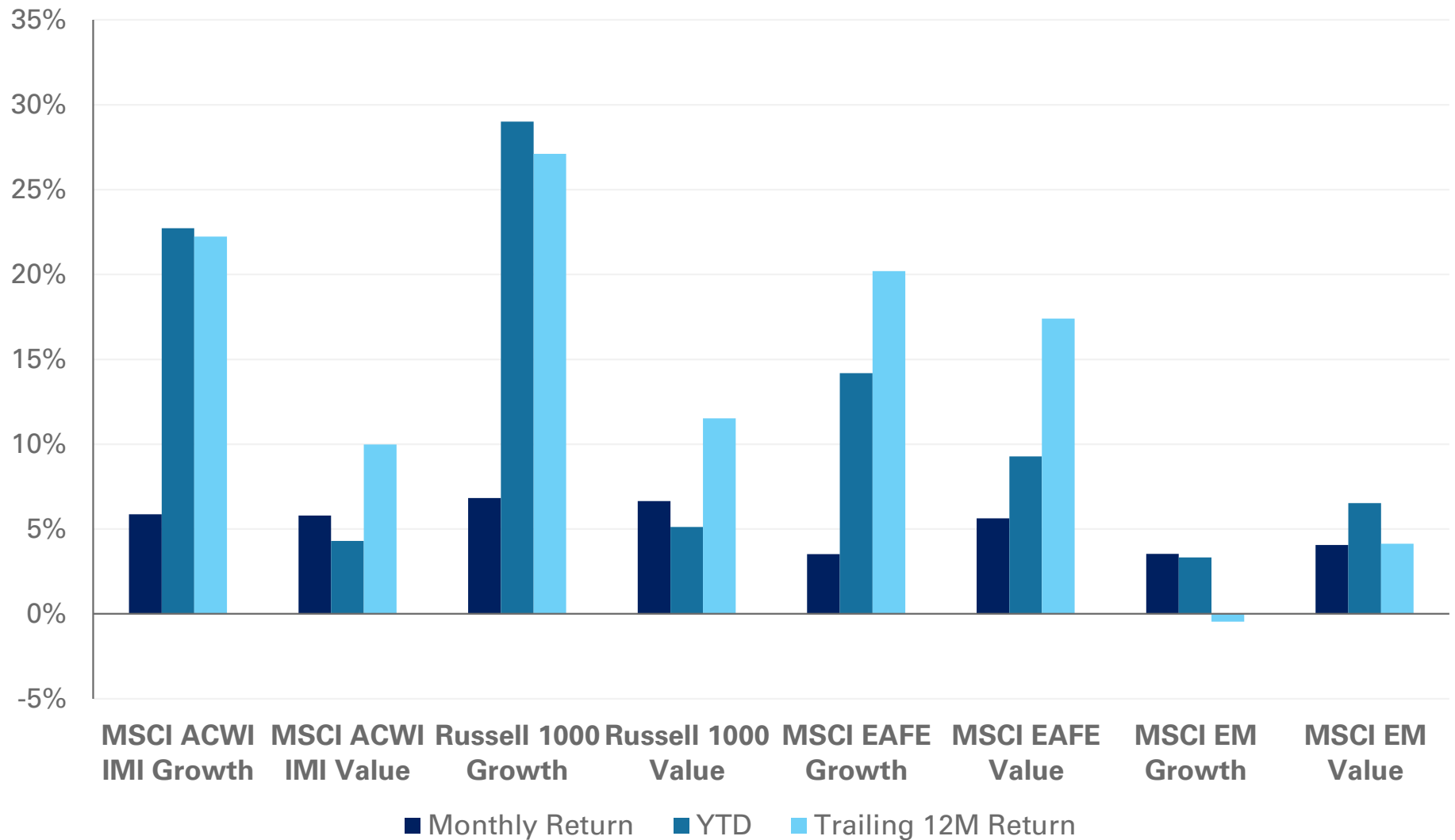
EQUITY INDEX PERFORMANCE

TOP 10 COUNTRIES BY MARKET CAP IN MSCI ACWI IMI INDEX



Source: MSCI, FactSet

STYLE INDEX PERFORMANCE



Source: MSCI, Russell, FactSet

SECTOR INDEX PERFORMANCE

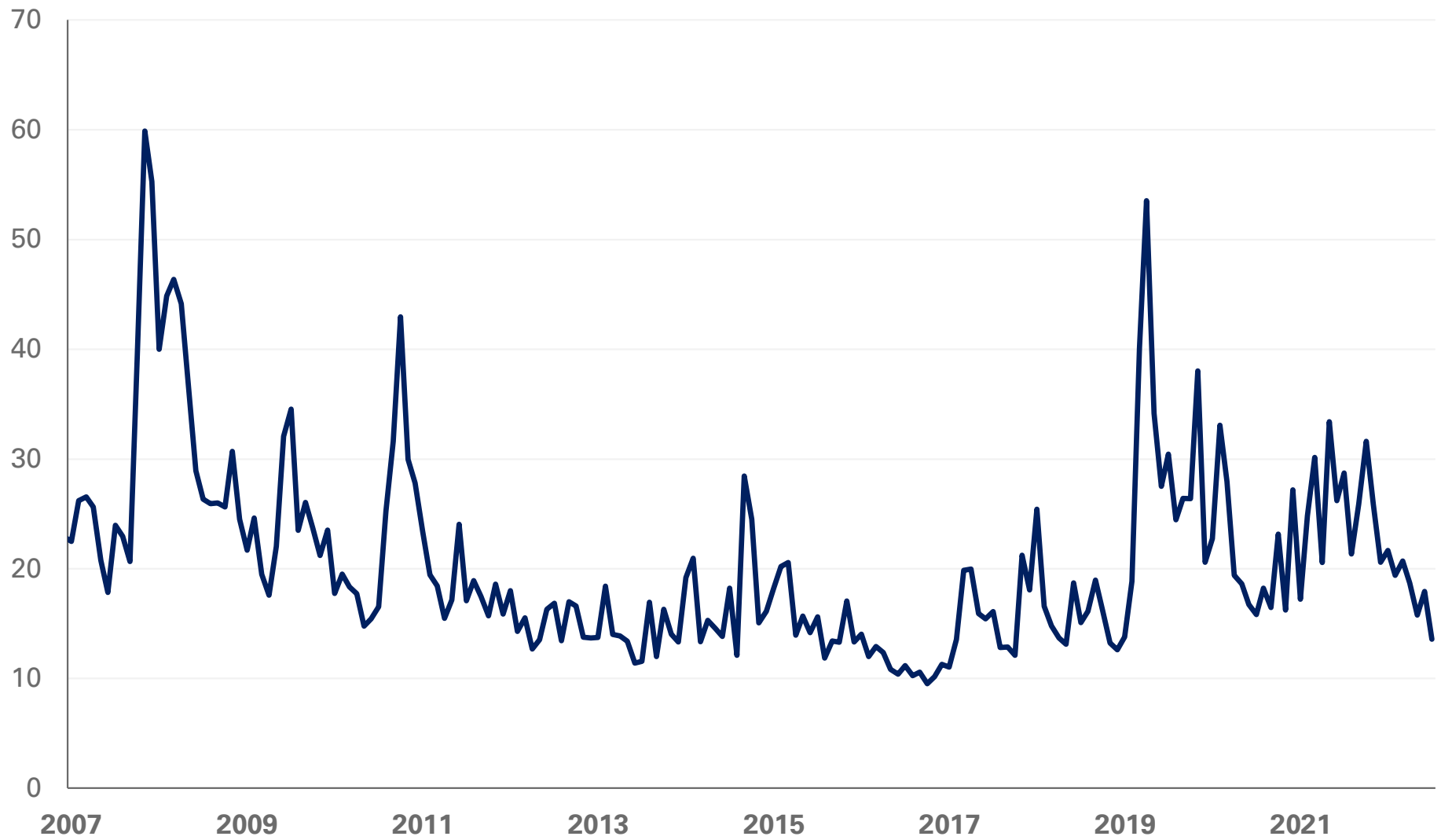
	Monthly Return	YTD	Trailing 12M Return	Index Weight
MSCI ACWI IMI	5.8%	13.2%	16.1%	100.0%
Communication Services	3.0%	24.2%	9.9%	6.8%
Consumer Discretionary	9.7%	22.1%	19.3%	11.5%
Consumer Staples	3.2%	3.7%	7.7%	7.0%
Energy	7.0%	-2.3%	13.4%	4.6%
Financials	6.1%	2.9%	10.7%	15.1%
Health Care	3.1%	1.1%	5.8%	11.7%
Industrials	8.7%	13.9%	25.4%	11.6%
Information Technology	5.8%	35.8%	33.6%	21.0%
Materials	6.7%	5.1%	12.8%	5.0%
Real Estate	3.8%	-0.1%	-6.8%	2.9%
Utilities	2.6%	-0.6%	0.8%	2.8%

	Monthly Return	YTD	Trailing 12M Return	Index Weight
S&P 500	6.6%	16.9%	19.6%	100.0%
Communication Services	2.6%	36.2%	17.3%	8.4%
Consumer Discretionary	12.1%	33.1%	24.7%	10.7%
Consumer Staples	3.2%	1.3%	6.6%	6.7%
Energy	6.6%	-5.5%	18.8%	4.1%
Financials	6.7%	-0.5%	9.5%	12.4%
Health Care	4.4%	-1.5%	5.4%	13.4%
Industrials	11.3%	10.2%	25.2%	8.5%
Information Technology	6.6%	42.8%	40.3%	28.3%
Materials	11.1%	7.7%	15.1%	2.5%
Real Estate	5.6%	3.8%	-4.1%	2.5%
Utilities	1.6%	-5.7%	-3.7%	2.6%

Source (Top): MSCI, FactSet
Source (Bottom): S&P, FactSet

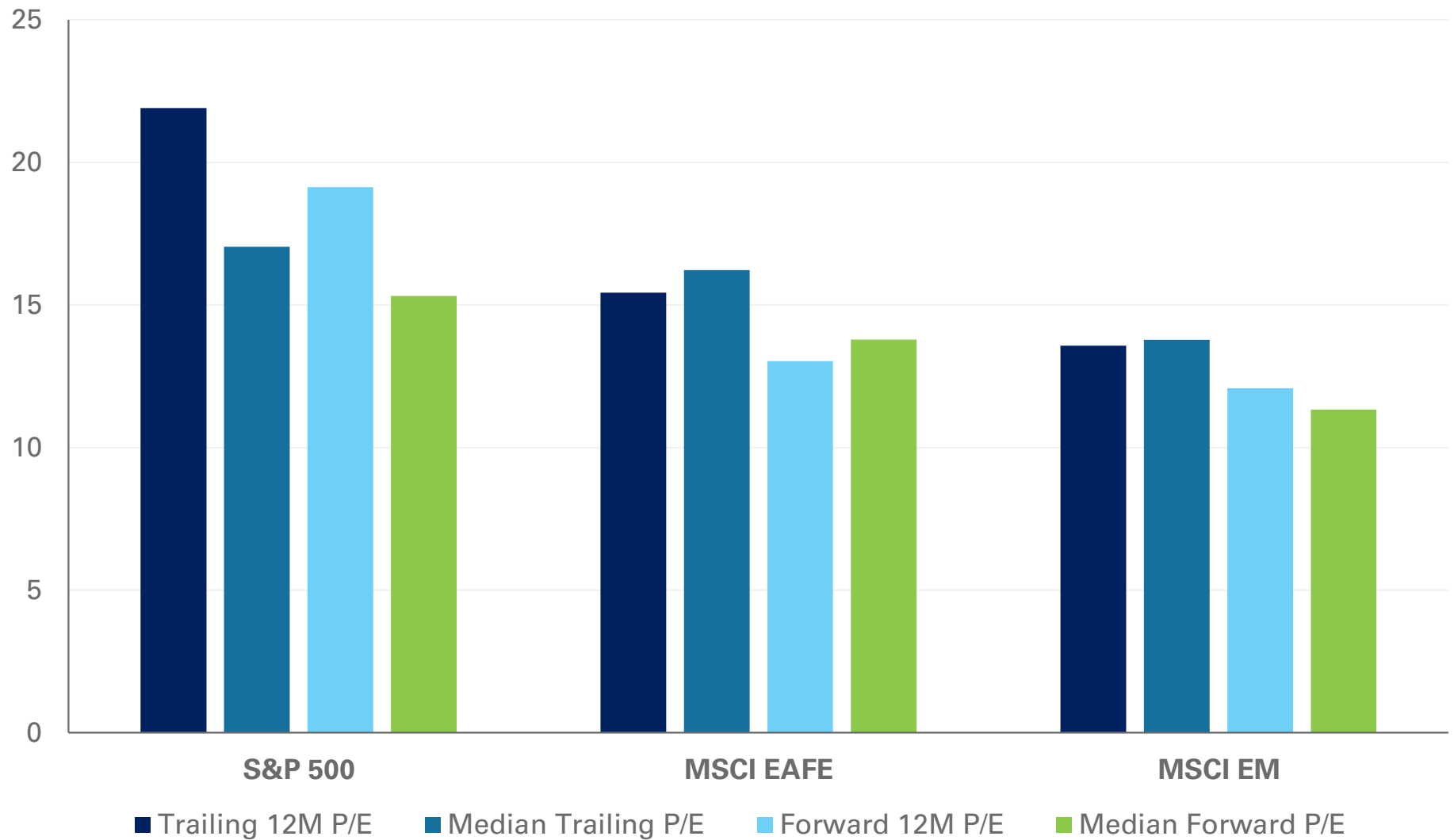


EQUITY VOLATILITY INDEX (VIX)



Source: CBOE, FactSet

GLOBAL EQUITY VALUATIONS



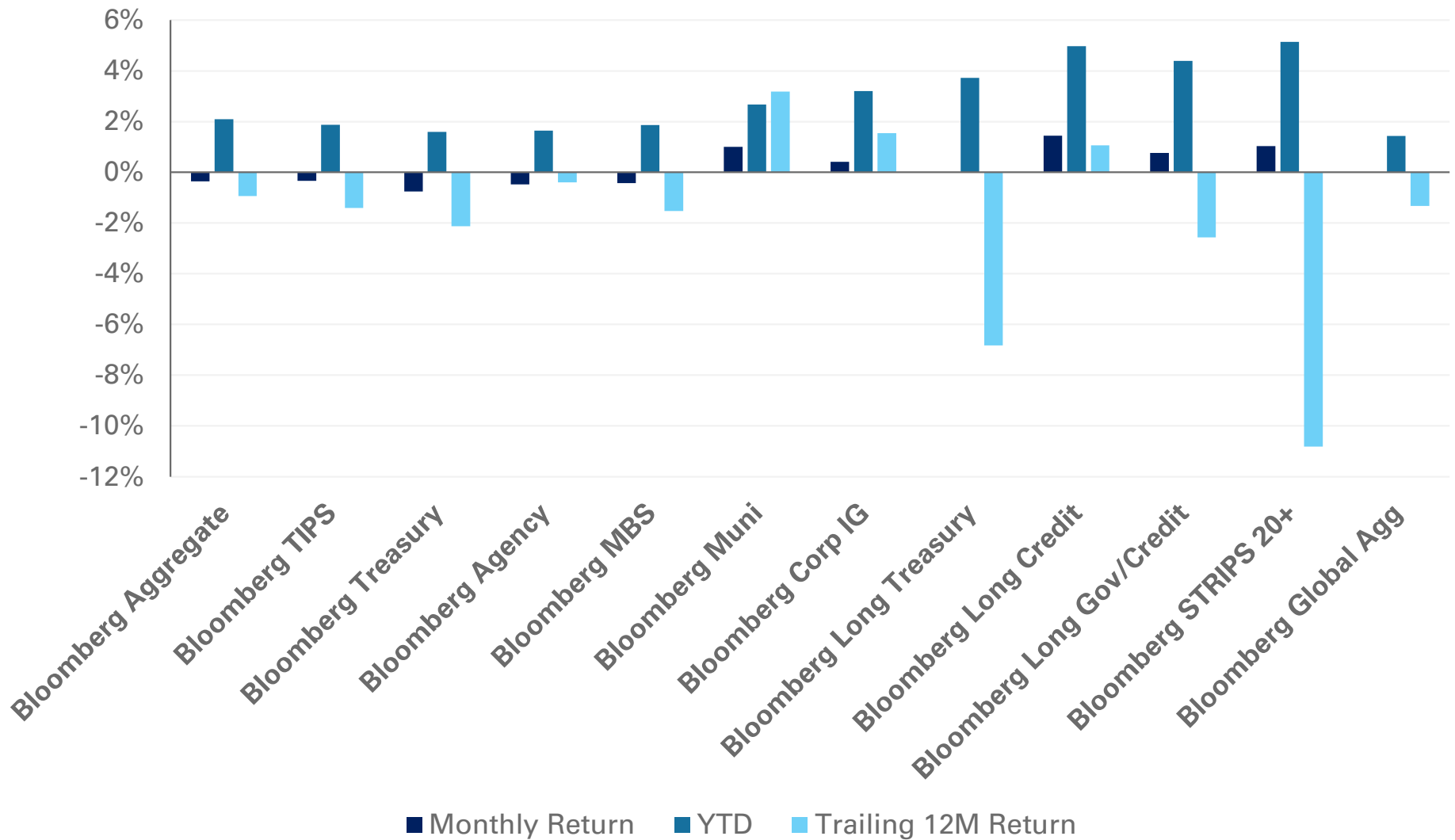
Median calculated based on 20-year monthly data
Source: S&P, MSCI, FactSet





SAFE-HAVEN FIXED INCOME

SAFE-HAVEN FIXED INCOME PERFORMANCE



Source: Bloomberg, FactSet

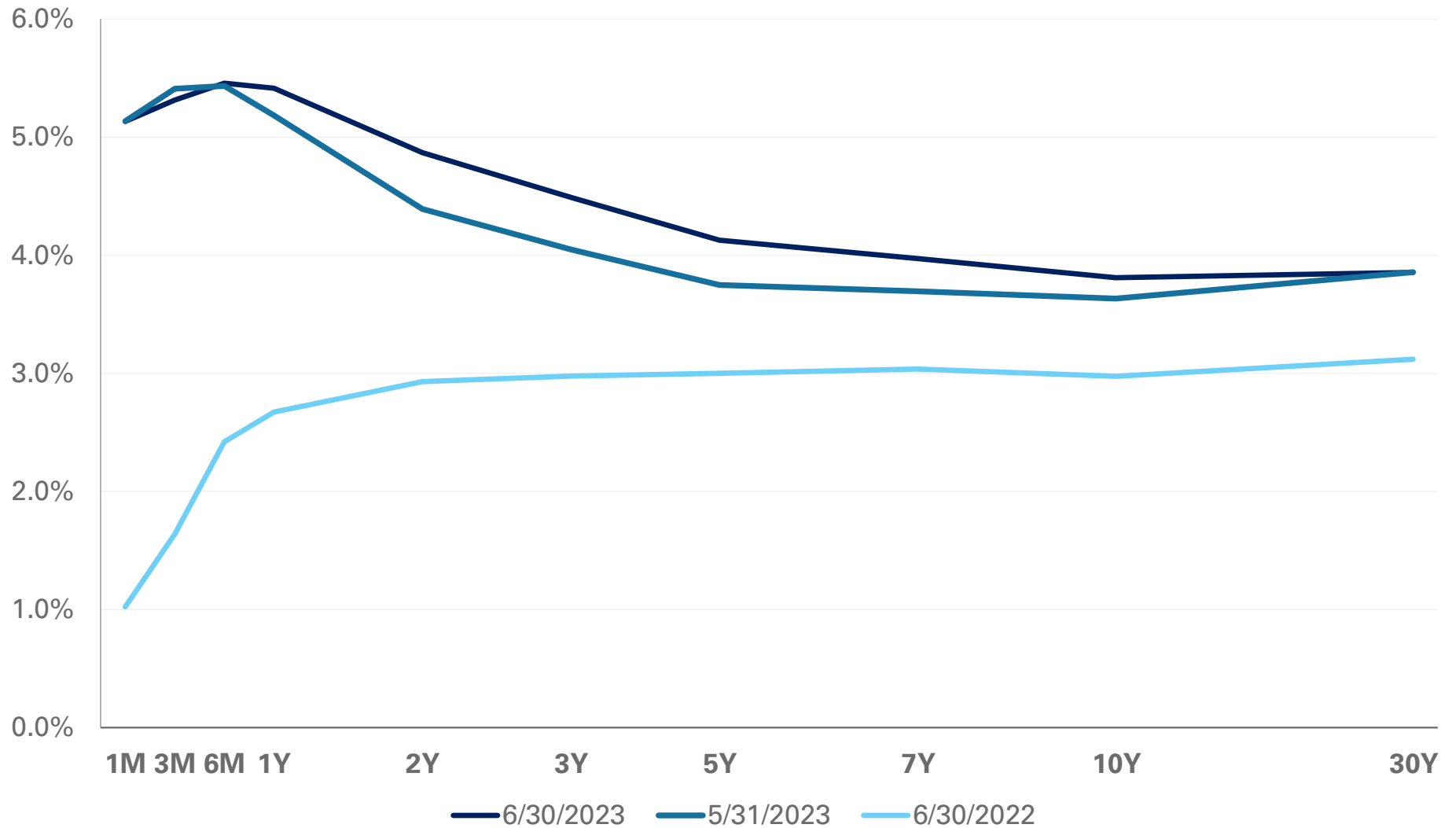
FIXED INCOME CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg Aggregate	4.81%	49	6.3
Bloomberg TIPS	4.60%	-	4.5
Bloomberg Treasury	4.37%	-	6.2
Bloomberg Agency	4.93%	19	3.2
Bloomberg MBS	4.78%	52	6.1
Bloomberg Muni	3.52%	-	6.1
Bloomberg Corp IG	5.48%	123	7.1
Bloomberg Long Treasury	3.97%	-	16.0
Bloomberg Long Credit	5.42%	148	12.9
Bloomberg Long Gov/Credit	4.75%	79	14.3
Bloomberg STRIPS 20+	3.91%	-	24.8
Bloomberg Global Agg	3.84%	50	6.8



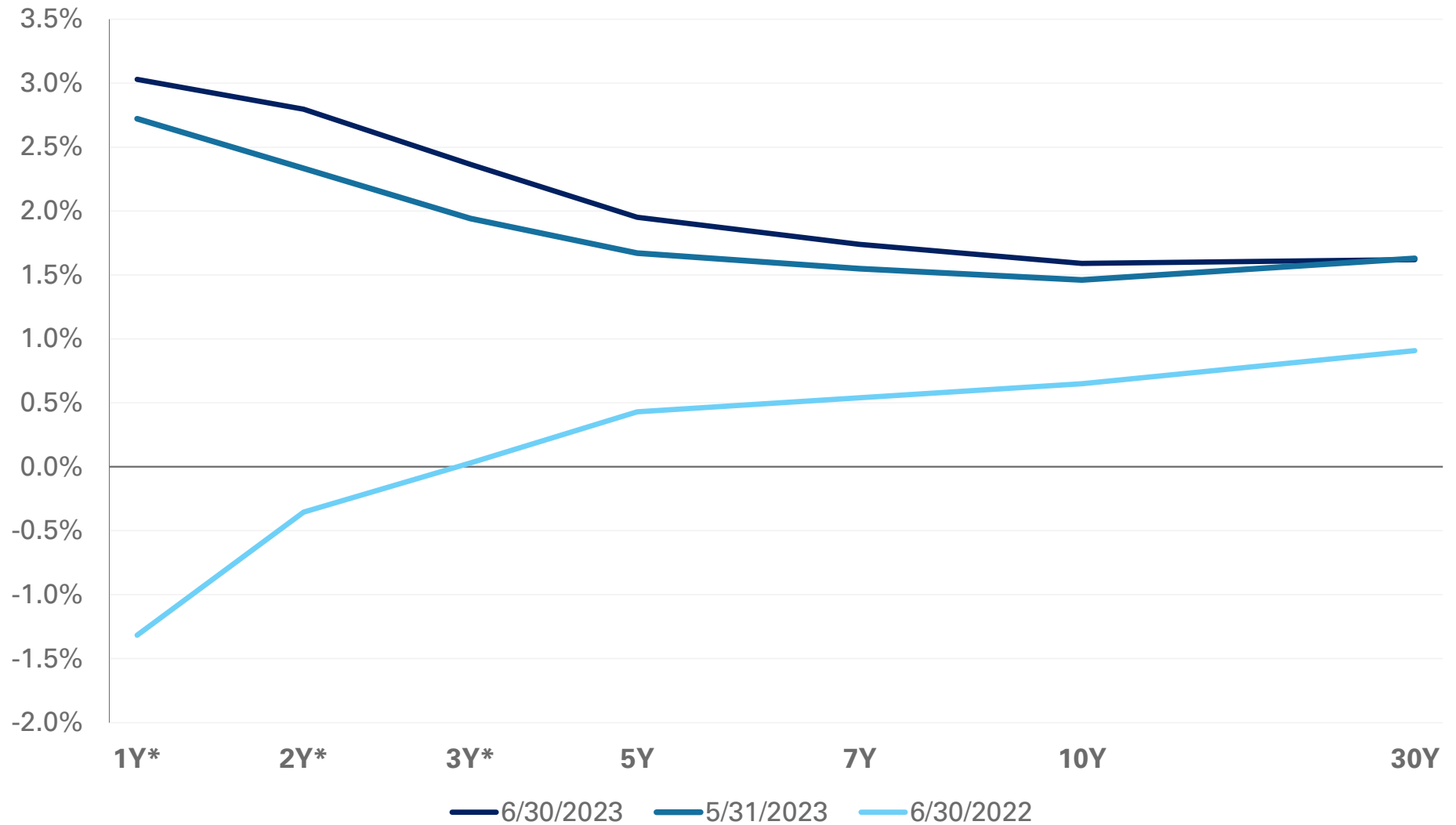
Source: Bloomberg, FactSet

US TREASURY YIELD CURVE



Source: FactSet

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



LONG DURATION YIELDS



Source: Bloomberg, FactSet

LONG DURATION CORPORATE SPREADS



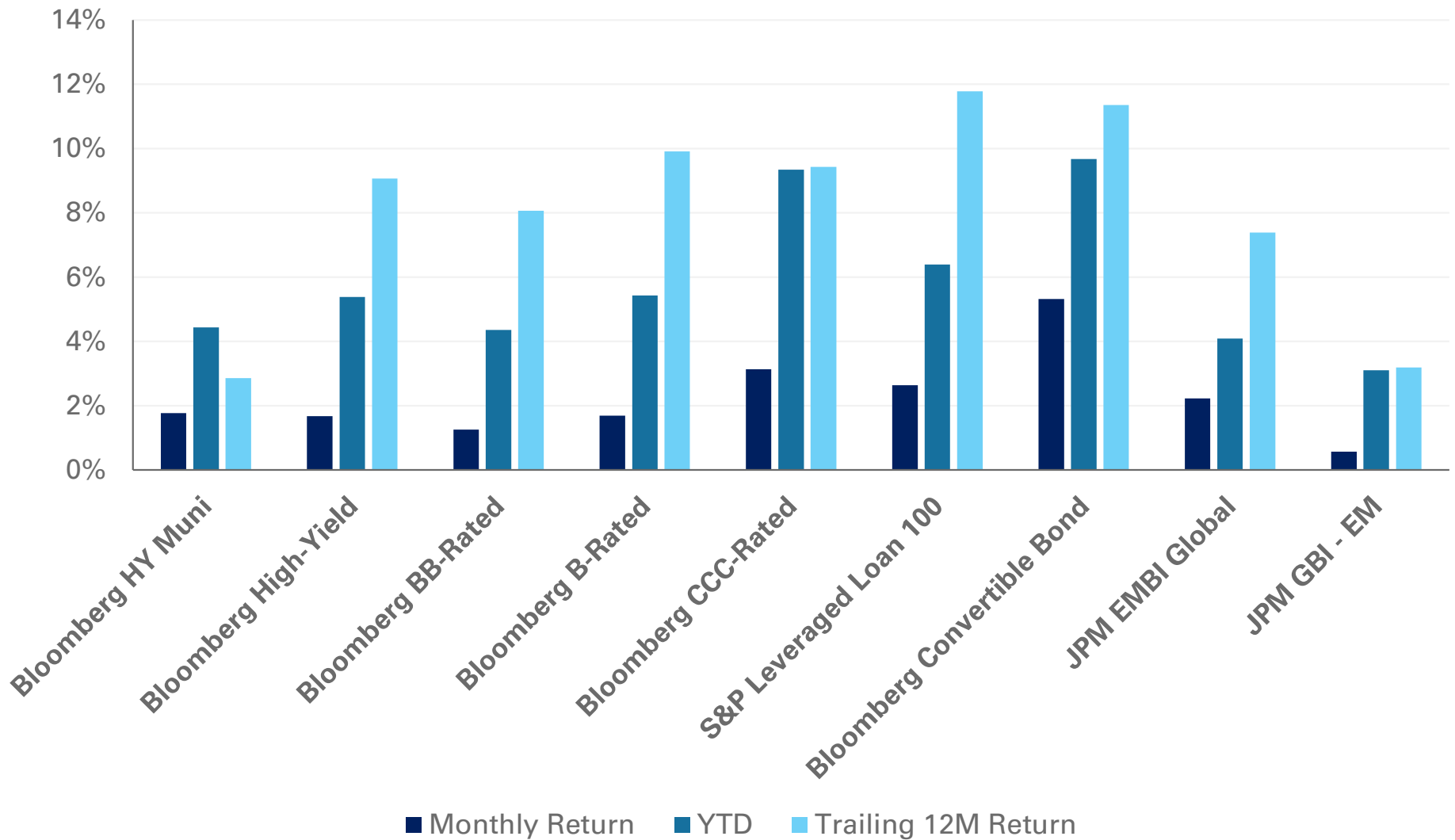
Median calculated based on 20-year of monthly data
Source: Bloomberg, FactSet





RETURN-SEEKING CREDIT

RETURN-SEEKING CREDIT INDEX PERFORMANCE



Source: Bloomberg, S&P, JPM, FactSet

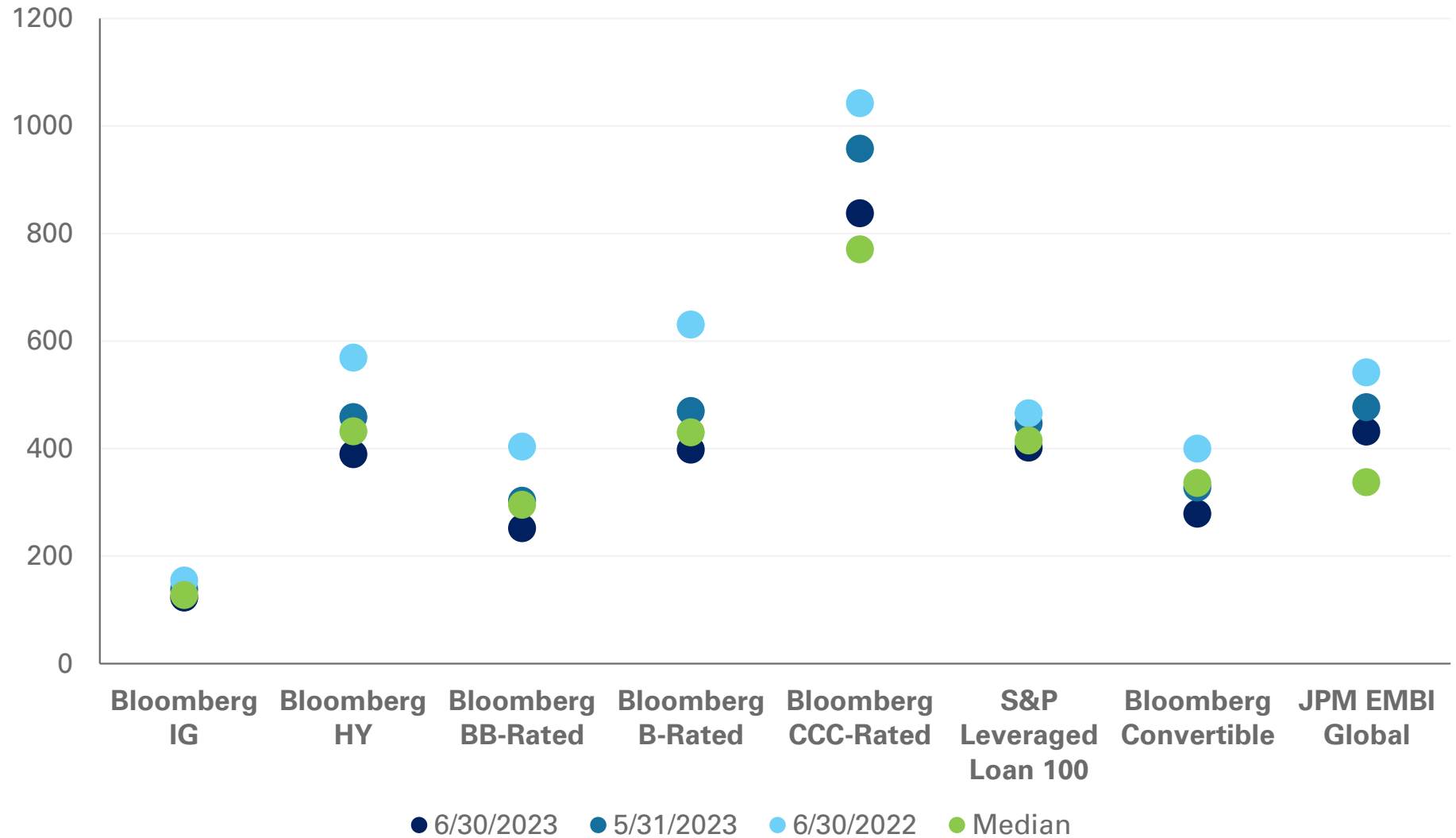
RETURN-SEEKING CREDIT CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg HY Muni	5.71%	-	7.6
Bloomberg High-Yield	8.50%	390	3.5
Bloomberg BB-Rated	7.08%	252	3.8
Bloomberg B-Rated	8.66%	398	3.2
Bloomberg CCC-Rated	12.88%	838	3.1
S&P/LSTA Leveraged Loan 100	9.56%	402	-
Bloomberg Convertible Bond	0.78%	279	2.0
JPM EMBI Global	8.37%	432	6.9
JPM GBI - EM	4.83%	-	5.4



Source: Bloomberg, S&P, JPM, FactSet

CREDIT SPREADS



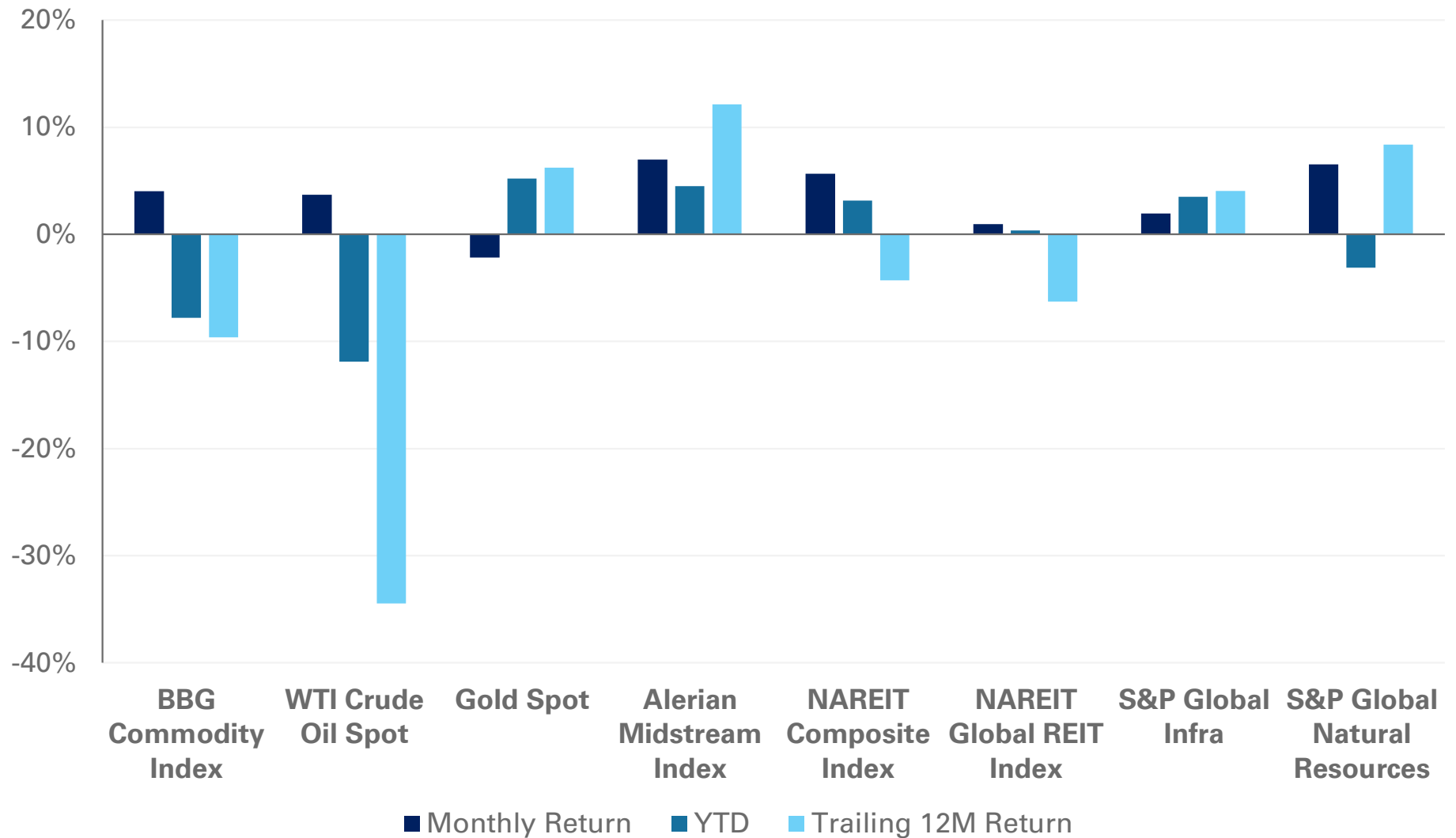
Median calculated based on 20-year of monthly data
 Source: Bloomberg, S&P, JPM, FactSet





REAL ASSETS

REAL ASSETS INDEX PERFORMANCE



Source: Bloomberg, Alerian, NAREIT, S&P, FactSet



REAL ASSETS INDEX PERFORMANCE

Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	4.0%	-2.6%	-7.8%	-9.6%	17.7%	4.7%
Bloomberg Sub Agriculture Index	5.1%	-1.0%	-1.0%	1.2%	25.2%	10.2%
Coffee	-8.6%	-2.5%	0.6%	-22.9%	16.0%	1.9%
Corn	-5.7%	-10.8%	-11.9%	-3.9%	24.7%	8.9%
Cotton	-0.3%	1.3%	1.2%	-11.3%	18.8%	3.3%
Soybean	18.6%	5.3%	5.7%	11.1%	29.6%	14.1%
Soybean Oil	33.4%	11.7%	-2.3%	2.6%	41.0%	19.7%
Sugar	-7.4%	8.1%	30.0%	45.7%	29.8%	13.3%
Wheat	8.0%	-7.8%	-19.5%	-30.0%	4.1%	0.6%
Bloomberg Sub Energy	8.4%	-1.6%	-20.0%	-31.0%	20.9%	-3.8%
Brent Crude	4.5%	-3.5%	-8.5%	-17.5%	36.6%	6.6%
Heating Oil	9.3%	-3.4%	-16.7%	-16.2%	43.8%	8.6%
Natural Gas	18.3%	2.1%	-49.3%	-59.2%	-10.2%	-21.8%
Unleaded Gas	8.6%	4.0%	6.2%	-4.2%	50.4%	12.0%
WTI Crude Oil	4.3%	-4.8%	-9.8%	-25.2%	29.3%	-4.9%
Bloomberg Sub Industrial Metals	1.1%	-10.5%	-12.4%	-5.4%	12.2%	3.3%
Aluminum	-5.0%	-11.0%	-10.2%	-12.1%	8.4%	-1.6%
Copper	3.5%	-7.3%	0.5%	4.8%	12.1%	5.2%
Nickel	-0.1%	-13.5%	-31.2%	-8.6%	17.6%	6.9%
Zinc	7.0%	-17.0%	-17.2%	-17.7%	7.9%	0.1%
Bloomberg Sub Precious Metals	-2.4%	-3.1%	3.0%	7.8%	2.2%	7.4%
Gold	-2.2%	-2.5%	5.4%	6.2%	1.1%	7.8%
Silver	-2.9%	-5.1%	-4.4%	13.1%	6.3%	5.9%
Bloomberg Sub Livestock	9.8%	9.7%	5.0%	16.7%	12.6%	-1.8%
Lean Hogs	17.3%	5.4%	-15.3%	-6.8%	19.4%	-8.5%
Live Cattle	6.1%	12.2%	17.8%	31.2%	9.5%	1.9%



Source: Bloomberg, FactSet

OIL MARKETS

WTI VERSUS BRENT CRUDE SPOT PRICES



Source: WTI, Brent, FactSet

GOLD SPOT PRICE



Source: FactSet



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.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

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

