



San Bernardino County Employees'
Retirement Association

QUARTERLY PERFORMANCE REPORT

SAN BERNARDINO COUNTY
EMPLOYEES' RETIREMENT
ASSOCIATION

DECEMBER 31, 2022

Sam Austin, Partner
Allan Martin, Partner
Michael Malchenko, Consultant





MARKET ENVIRONMENT



PROPRIETARY & CONFIDENTIAL

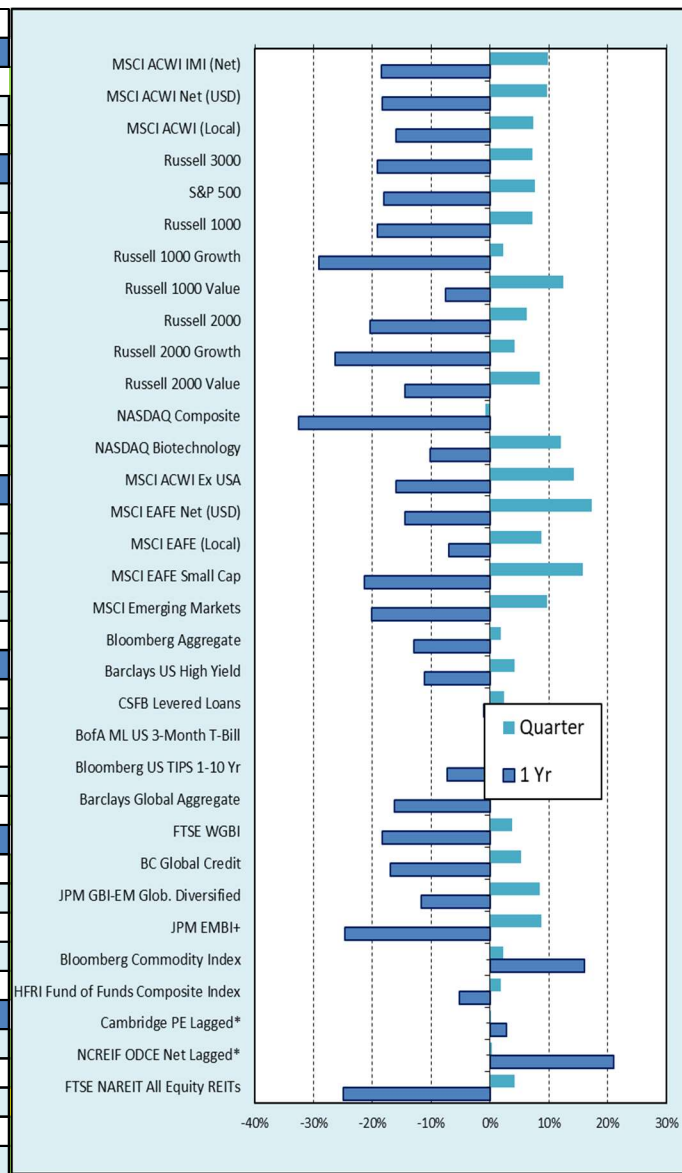
ECONOMIC ENVIRONMENT

- **Q3 Real GDP (third estimate) increased at an annual rate of 3.2%.**
 - Retail sales ended October at +6.4% on a YoY basis. In the same period last year the YoY growth rate was +16.0%.
 - Corporate profits as a percent of GDP ended June 2022 at 11.2%, down from 12.0% in the same period last year and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended October was 1.35 up from 1.26 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 November as imports decreased more than exports.
- **The unemployment rate was 3.5% ended Q4, down from 3.7% in Q3; U-6, a broader measure of unemployment, decreased to 6.5% in Q4 from 6.7% in Q3.**
 - The labor force participation rate ended Q4 unchanged from Q3 at 62.3%. 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 October) declined to 298.99 from 300.59 in September and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI ended Q4 at 6.42% down from Q3 at 8.2%. In the same period last year, it was 7.09%; Capacity Utilization decreased to 78.75% in Q4 from 80.07% in Q3.**
- **Fed Funds rate increased in Q4 by 1.25% to a targeted range of 4.25%-to-4.50% up from a targeted range of 3.00%-to-3.25% ended Q3. The 10-year Treasury Yield (constant maturity) finished Q4 at 3.62% up from 3.52% in Q3.**
- **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 decreased in Q4 to 27.96 from 28.42x in Q3 and are lower than the 10-year average of 28.99x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.99x.

MARKET ENVIRONMENT

Q4 2022 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	9.84%	-18.40%	3.89%	4.96%	7.94%
MSCI ACWI Net (USD)	World W/O Small Cap	9.76%	-18.36%	4.00%	5.23%	7.98%
MSCI ACWI (Local)	World (Local Currency)	7.36%	-15.98%	5.07%	6.10%	9.33%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	7.18%	-19.21%	7.07%	8.79%	12.13%
S&P 500	Large Core	7.56%	-18.11%	7.66%	9.42%	12.56%
Russell 1000	Large Core	7.24%	-19.13%	7.35%	9.13%	12.37%
Russell 1000 Growth	Large Growth	2.20%	-29.14%	7.79%	10.96%	14.10%
Russell 1000 Value	Large Value	12.42%	-7.54%	5.96%	6.67%	10.29%
Russell 2000	Small Core	6.23%	-20.44%	3.10%	4.13%	9.01%
Russell 2000 Growth	Small Growth	4.13%	-26.36%	0.65%	3.51%	9.20%
Russell 2000 Value	Small Value	8.42%	-14.48%	4.70%	4.13%	8.48%
NASDAQ Composite	Large Growth	-0.79%	-32.54%	6.10%	9.67%	14.43%
NASDAQ Biotechnology	Biotech	12.01%	-10.12%	4.36%	5.32%	11.92%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	14.28%	-16.00%	0.07%	0.88%	3.80%
MSCI EAFE Net (USD)	Int'l Developed	17.34%	-14.45%	0.87%	1.54%	4.67%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	8.72%	-7.00%	3.64%	3.81%	7.56%
MSCI EAFE Small Cap	Small Cap Int'l	15.79%	-21.39%	-0.93%	-0.05%	6.21%
MSCI Emerging Markets	Emerging Equity	9.70%	-20.09%	-2.69%	-1.40%	1.44%
Domestic Fixed Income Benchmarks						
Bloomberg Aggregate	Core Bonds	1.87%	-13.01%	-2.71%	0.02%	1.06%
Barclays US High Yield	High Yield	4.17%	-11.19%	0.05%	2.31%	4.03%
CSFB Levered Loans	Bank Loans	2.33%	-1.06%	2.34%	3.24%	3.78%
BofA ML US 3-Month T-Bill	Cash	0.84%	1.46%	0.72%	1.26%	0.76%
Bloomberg US TIPS 1-10 Yr	Inflation	1.64%	-7.34%	2.01%	2.50%	1.29%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	4.55%	-16.25%	-4.48%	-1.66%	-0.44%
FTSE WGBI	World Gov. Bonds	3.82%	-18.26%	-5.75%	-2.54%	-1.22%
BC Global Credit	Global Bonds	5.28%	-16.96%	-4.01%	-1.06%	0.60%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	8.45%	-11.69%	-6.11%	-2.51%	-2.03%
JPM EMBI+	Em. Mkt. Bonds	8.70%	-24.67%	-8.34%	-3.87%	-0.35%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	2.22%	16.09%	12.65%	6.44%	-1.28%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	1.79%	-5.25%	3.71%	3.02%	3.51%
Cambridge PE Lagged*	Private Equity	0.08%	2.86%	19.37%	16.75%	15.02%
NCREIF ODCE Net Lagged*	Real Estate	0.35%	21.05%	11.41%	9.28%	9.92%
FTSE NAREIT All Equity REITs	REIT	4.14%	-24.95%	0.20%	4.43%	7.10%

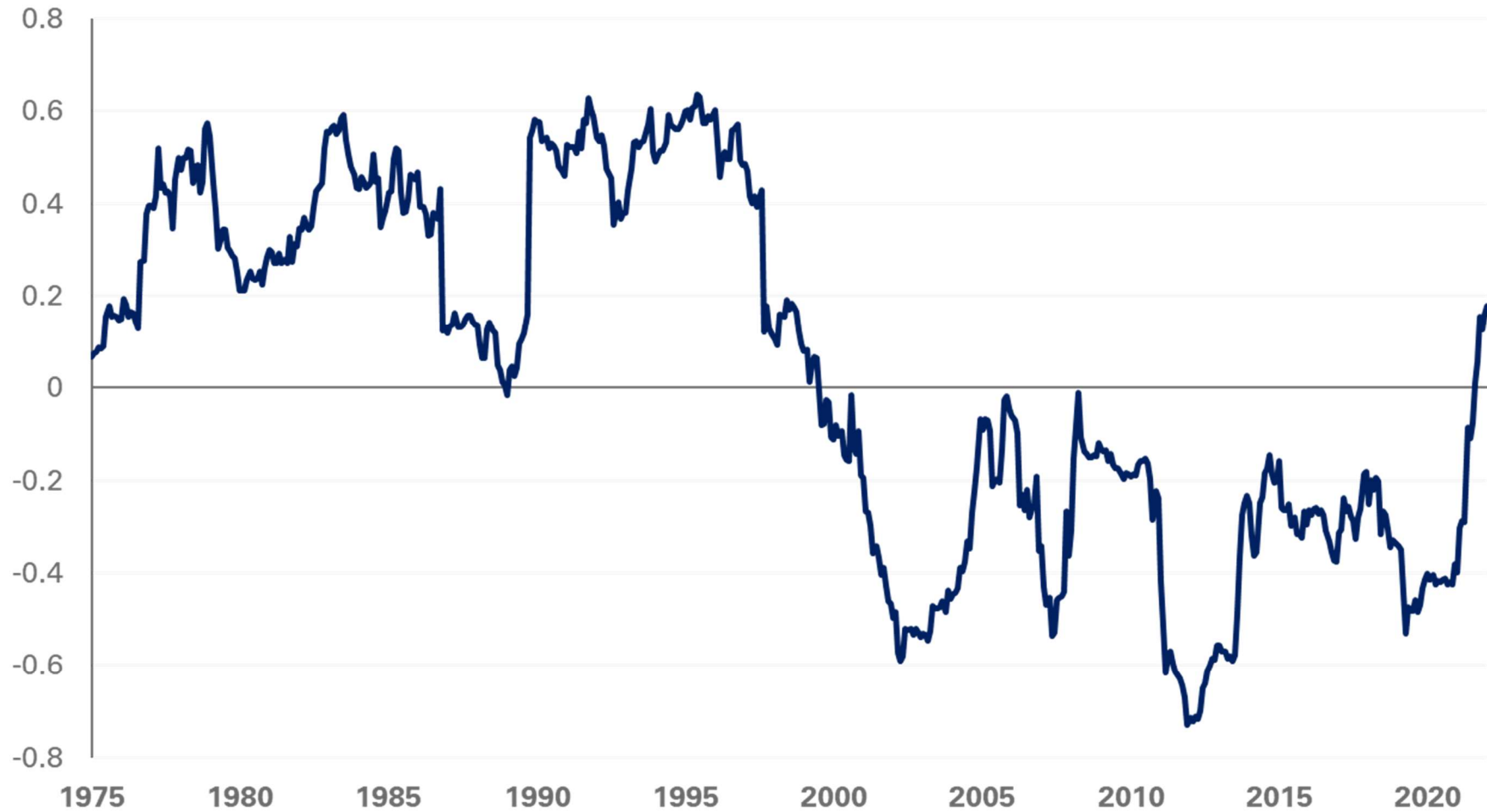


* As of 9/30/2022



ASSET CLASS CORRELATIONS SHIFTED

ROLLING CORRELATION BETWEEN THE S&P 500 AND TREASURIES

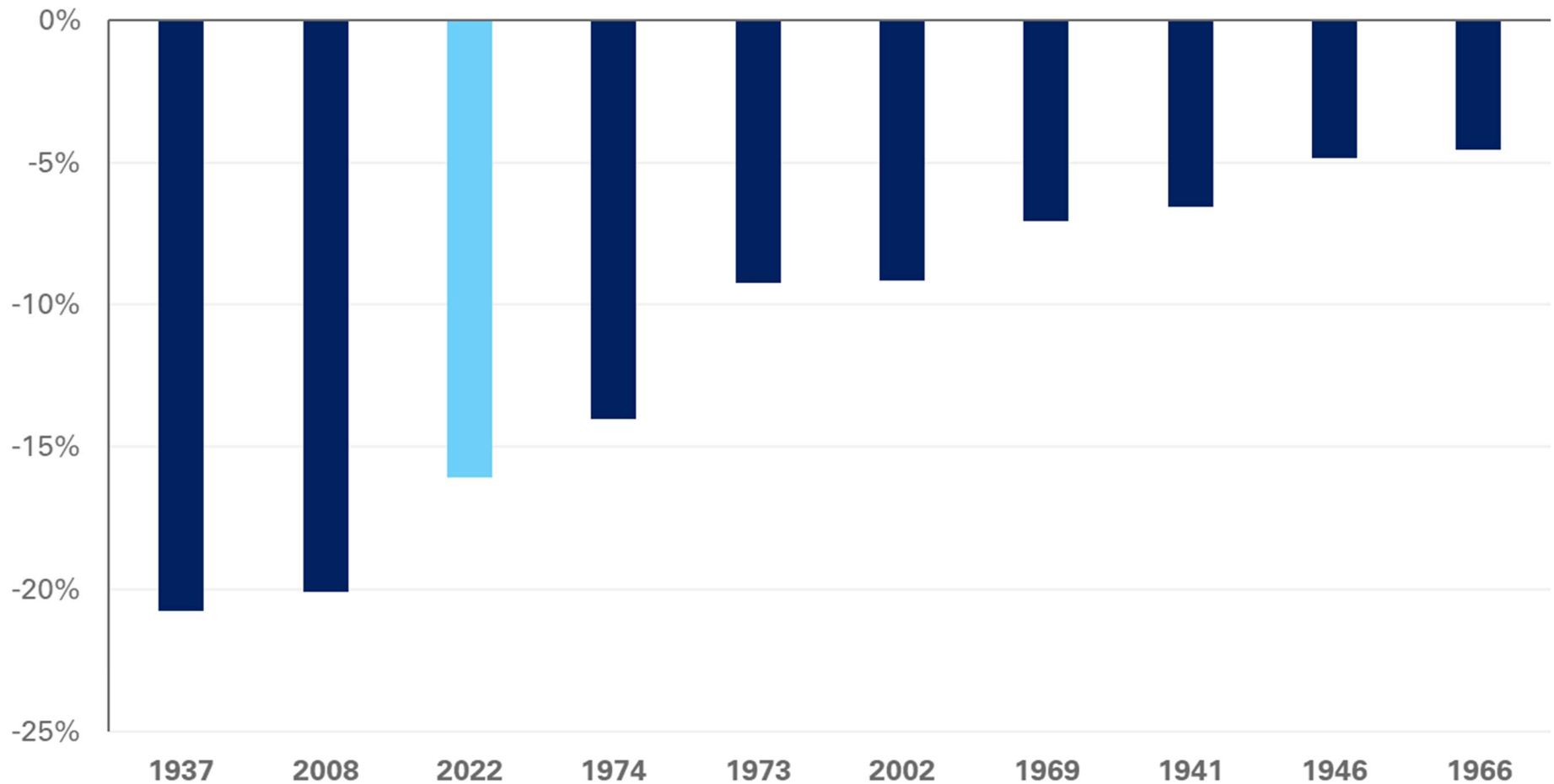


Correlations are calculated based on a rolling 3-year time horizon
Source: S&P, Bloomberg, FactSet



MOST ASSET CLASS RETURNS WERE CHALLENGED

WORST ANNUAL RETURNS: 60/40 PORTFOLIO



60/40 Portfolio represents 60% S&P 500 and 40% U.S. Aggregate Bonds (post 1975) and 40% Treasury (prior to 1974)

Data calculated from 12/31/1936

Sources: S&P, Bloomberg, FactSet



THE S&P 500 INDEX REMAINS IN A BEAR MARKET

LENGTH AND DEPTH OF S&P 500 BEAR MARKETS

Start	End	Length of Bear Market (Months)	Length of Recovery* (Months)	S&P 500 Decline
01/03/2022	?	12*	?	-18%
02/19/2020	03/23/2020	1	5	-34%
10/09/2007	03/09/2009	17	59	-57%
03/24/2000	10/09/2002	31	80	-49%
08/25/1987	12/04/1987	3	20	-34%
11/28/1980	08/12/1982	21	3	-27%
01/11/1973	10/03/1974	21	69	-48%

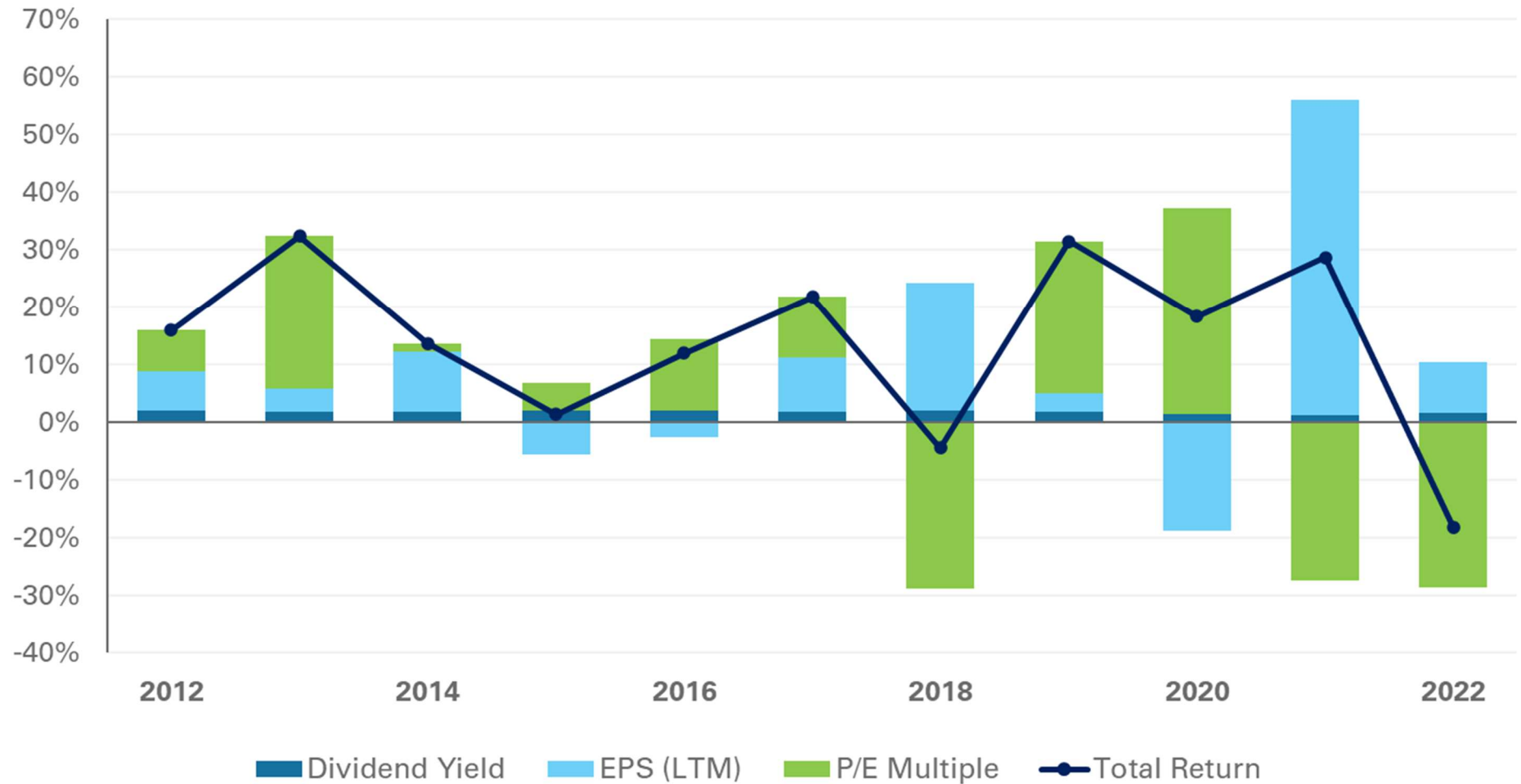
Notes: 2022 bear market is ongoing; represents historical bear markets since 1970. *Length of Recovery represents time to recoup losses from the start of the bear market.

Sources: S&P, FactSet, NEPC



P/E RATIO CONTRACTION LED TO LOWER RETURNS

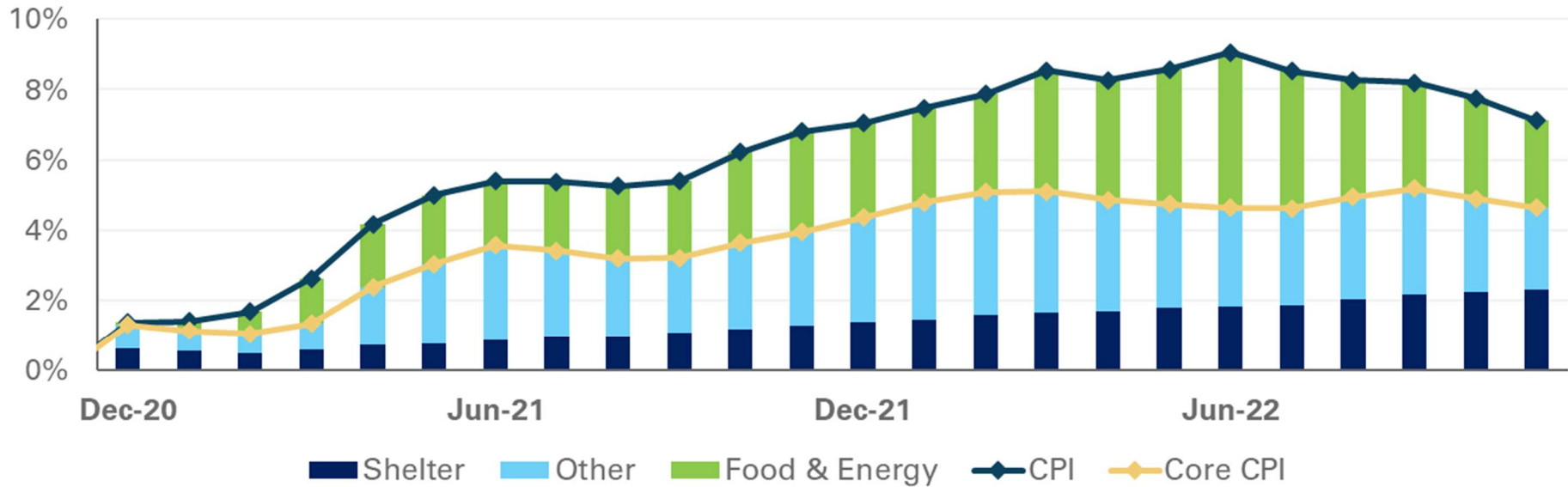
S&P 500 ATTRIBUTION TO TOTAL RETURNS



Source: S&P, FactSet

U.S. HEADLINE AND CORE CPI REMAIN ELEVATED

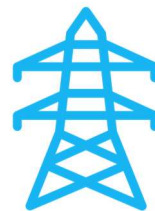
ANNUAL U.S. CPI-U CHANGES



Annual Change in U.S. CPI-U Subcategories



+11.2%
Food



+33.5%
Utilities



+14.7%
Transportation
Services



+19.7%
Motor Fuel



+7.4%
Used Cars
and Trucks

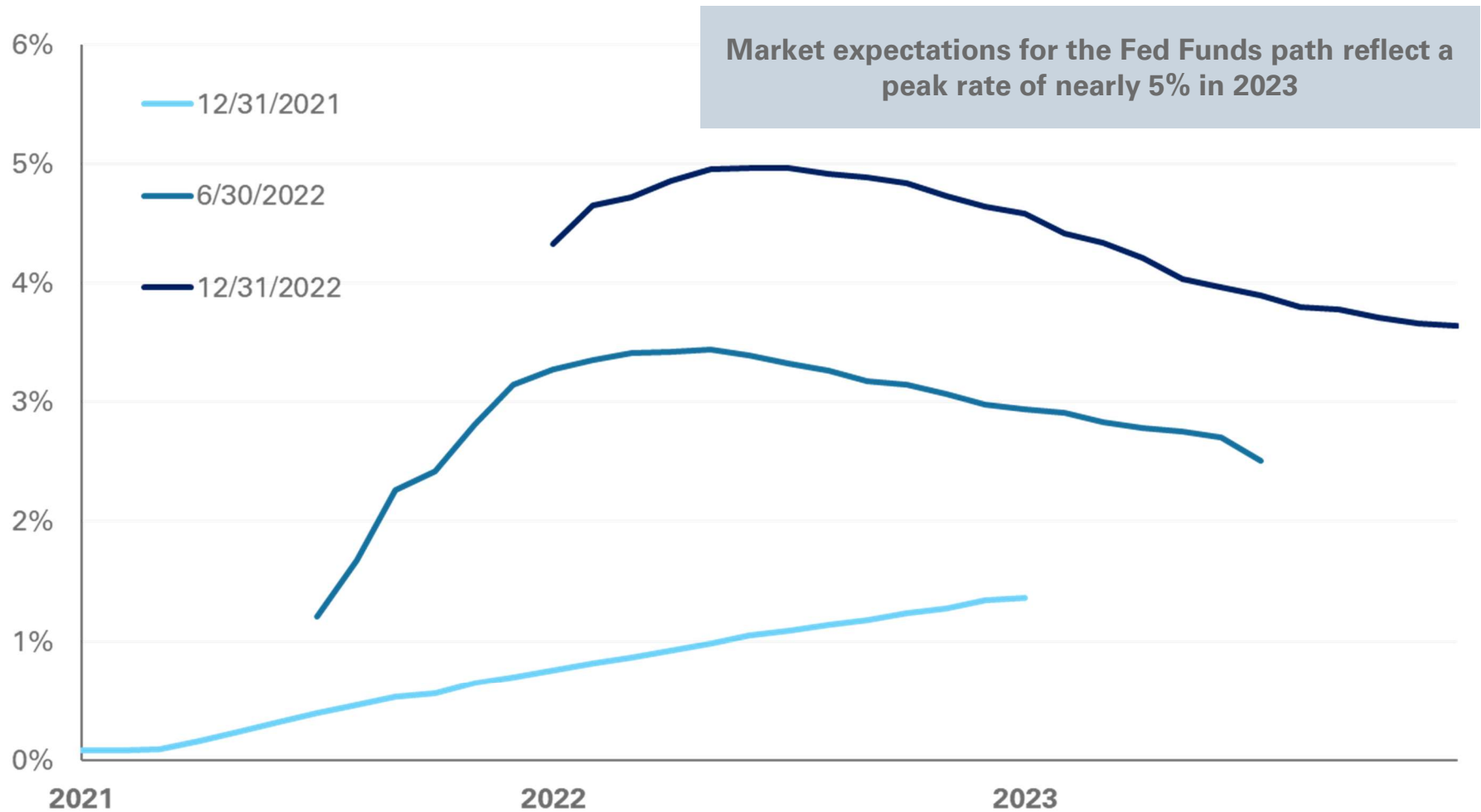


+6.6%
Shelter

Sources: Bureau of Labor Statistics, FactSet

RATE EXPECTATIONS INCREASED DRAMATICALLY

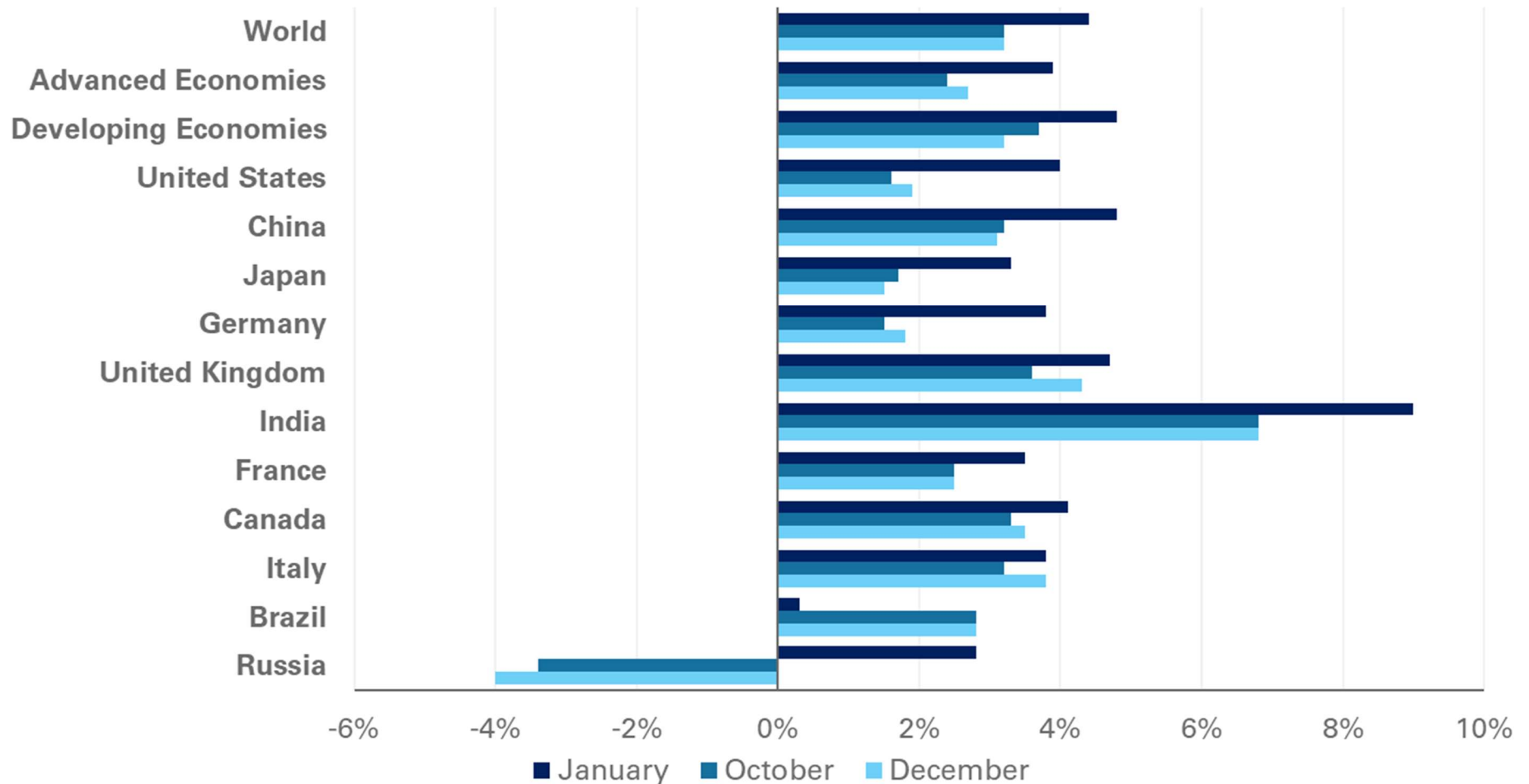
FED FUNDS EXPECTATIONS



Source: FactSet

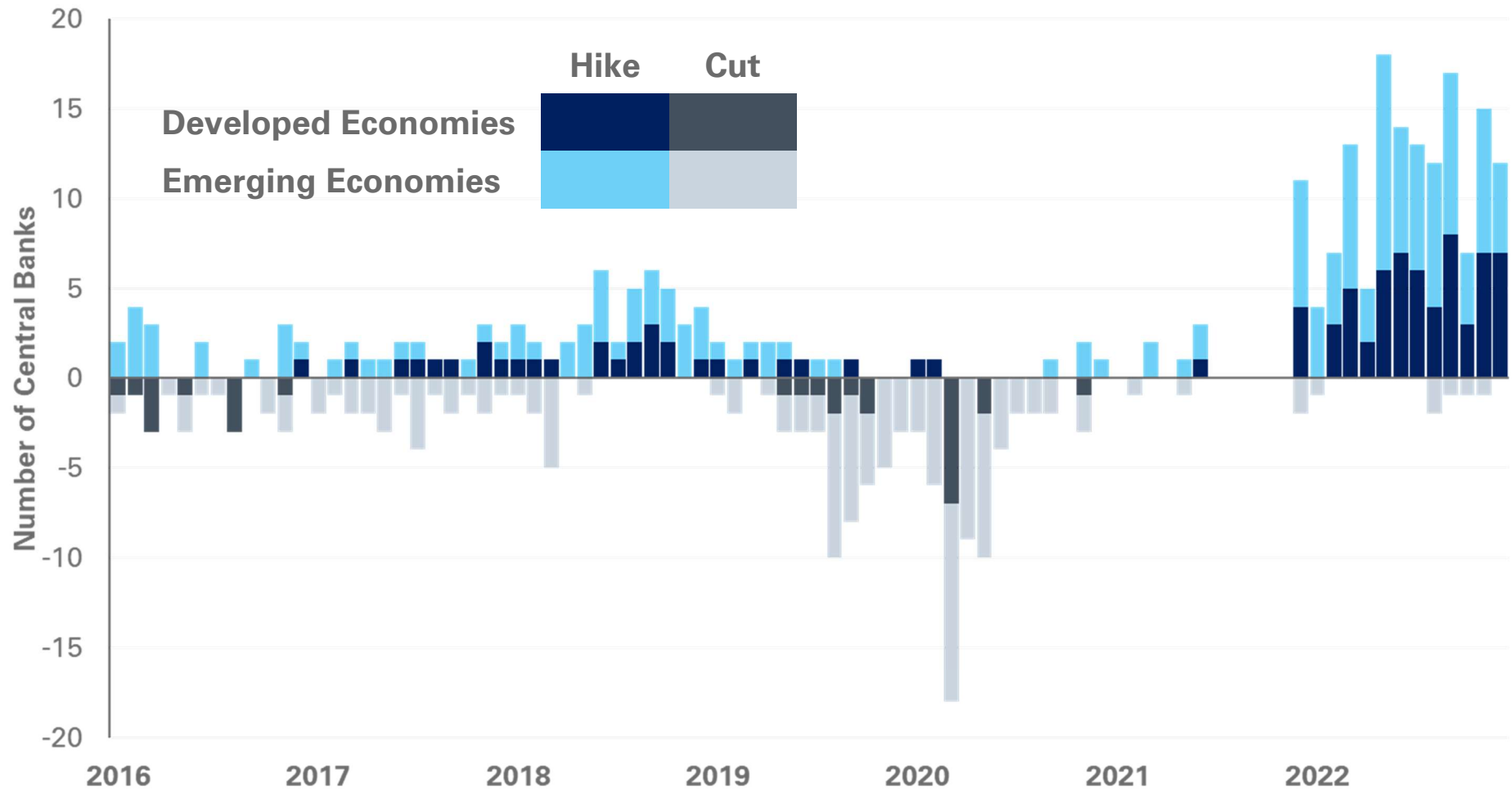
GLOBAL GROWTH EXPECTATIONS WEAKENED

2022 REAL GDP PROJECTIONS



THE MONETARY POLICY BACKDROP IS TIGHTER

INTEREST RATE CHANGES BY GLOBAL CENTRAL BANKS



Notes: Developed Economies include Australia, Canada, countries governed by the European Central Bank, Japan, New Zealand, Norway, Sweden, Switzerland, United Kingdom, and the United States. Emerging Economies include Argentina, Brazil, Chile, China, Egypt, Ghana, India, Malaysia, Mexico, Pakistan, Peru, Philippines, South Africa, Thailand, and Turkey.
Source: FactSet



2023 KEY INVESTMENT THEMES

NEPC MARKET OUTLOOK



Stagflation Trends

Stagflation trends challenge the investment landscape and are the driving force for market dynamics



Recession Outlook

Changes in unemployment, wages, and service sector inflation will inform the likelihood and potential severity of a U.S. recession



European Energy Transition

Europe is on the clock to secure new sources of natural gas supply or face severe energy shortages



China Reopening

China's reopening will have global implications for growth, trade, and inflation and may drive a consumer resurgence in China



U.S. Dollar Trajectory

U.S. Dollar strength reveals risks in the global financial system and is a tightening of financial conditions

TOTAL FUND PERFORMANCE



TOTAL FUND PERFORMANCE SUMMARY

NET OF FEES

	Allocation	Performance (%)				
	Market Value (\$)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	13,524,039,711	3.7 (92)	-5.8 (14)	7.4 (5)	6.9 (9)	7.5 (35)
<i>Policy Index</i>		6.3 (13)	-13.6 (82)	1.7 (100)	3.3 (100)	5.1 (100)
<i>S&P 500 Index</i>		7.6 (1)	-18.1 (100)	7.7 (2)	9.4 (1)	12.6 (1)
<i>Blmbg. U.S. Aggregate Index</i>		1.9 (100)	-13.0 (74)	-2.7 (100)	0.0 (100)	1.1 (100)
<i>60% MSCI World/40% FTSE WGBI</i>		7.5 (1)	-17.7 (100)	1.2 (100)	3.2 (100)	5.3 (100)
<i>InvMetrics Public DB > \$1 Billion Median</i>		4.7	-11.1	4.8	5.6	7.2

3 Years Ending December 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.36 (5)	9.17 (4)	0.73 (5)	1.12 (5)
<i>Policy Index</i>	1.68 (100)	11.55 (40)	0.14 (100)	0.19 (100)

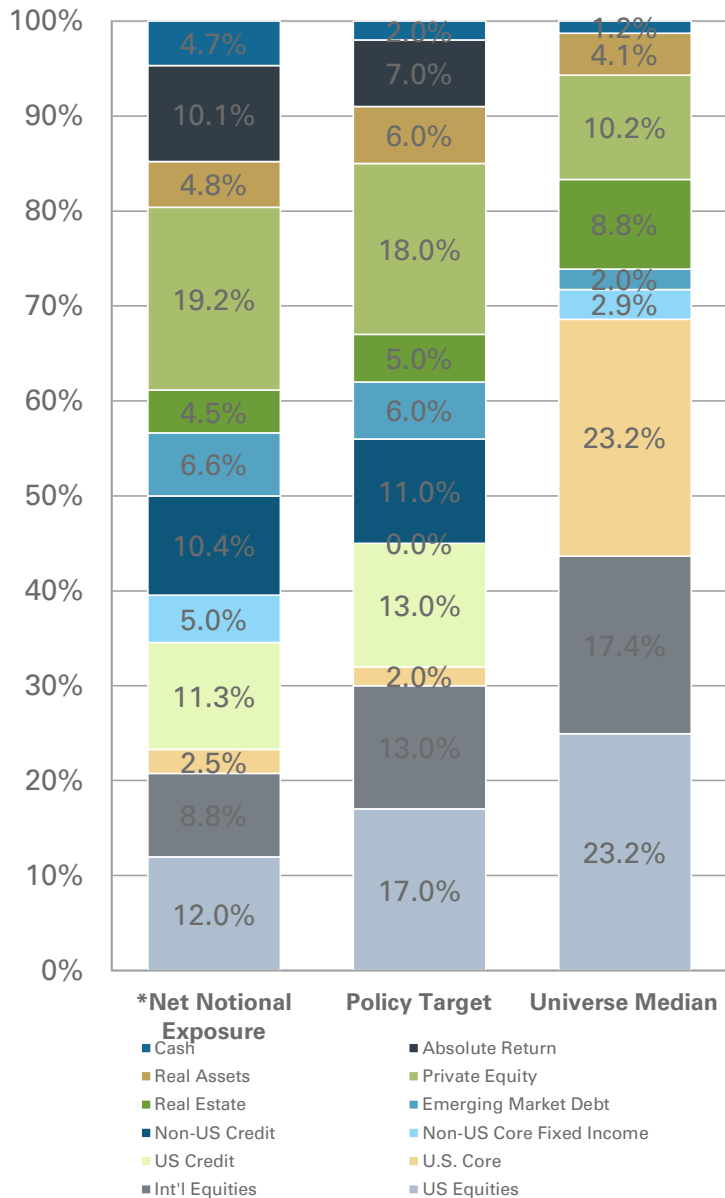
5 Years Ending December 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	6.86 (9)	7.53 (1)	0.74 (1)	1.13 (1)
<i>Policy Index</i>	3.29 (100)	9.84 (36)	0.25 (97)	0.35 (97)
<i>InvMetrics Public DB > \$1 Billion Median</i>	5.60	10.62	0.43	0.62

10 Years Ending December 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.52 (35)	5.79 (1)	1.14 (1)	1.81 (1)
<i>Policy Index</i>	5.11 (100)	7.79 (25)	0.58 (98)	0.86 (97)
<i>InvMetrics Public DB > \$1 Billion Median</i>	7.24	8.65	0.74	1.13



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	1,617,069	12.0%	17.0%	-5.0%	10%-27%	Yes
Int'l Equities	1,186,868	8.8%	13.0%	-4.2%	8%-18%	Yes
U.S. Core Fixed Income	343,100	2.5%	2.0%	0.5%	-3%-7%	Yes
US Credit	1,527,295	11.3%	13.0%	-1.7%	8%-18%	Yes
Non-US Core Fixed Income	676,201	5.0%	0.0%	5.0%	-5%-5%	Yes
Non-US Credit	1,410,283	10.4%	11.0%	-0.6%	6%-16%	Yes
Emerging Market Debt	897,522	6.6%	6.0%	0.6%	1%-10%	Yes
Real Estate	610,312	4.5%	5.0%	-0.5%	0%-10%	Yes
Private Equity	2,602,338	19.2%	18.0%	1.2%	6%-23%	Yes
Real Assets	651,443	4.8%	6.0%	-1.2%	0%-10%	Yes
Absolute Return	1,369,911	10.1%	7.0%	3.1%	0%-12%	Yes
Cash	631,696	4.7%	2.0%	2.7%	0%-10%	Yes
Total	13,524,040	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 DECEMBER 31, 2022

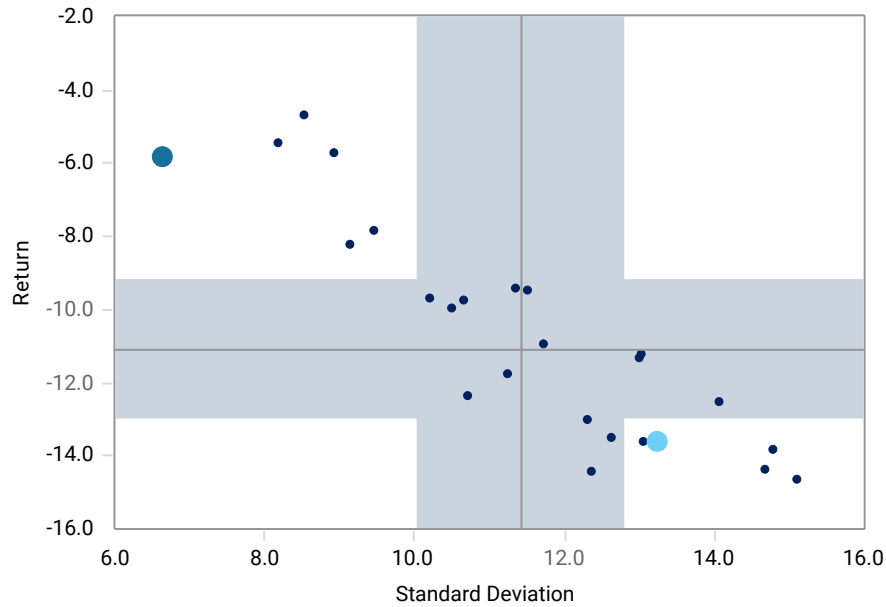
Asset Class	Physical Exposure		Delta Adjusted Synthetic Exposure		Net Position		Overlay Target		Policy Target	
	Value	%	Value	%	Value	%	Value	%	Value	%
Total Market Value	13,315.0	100.0 %	0.0	0.0 %	13,315.0	100.0 %	13,315.0	100.0 %	13,315.0	100.00 %
Cash	1,437.5	10.8 %	-1,455.4	-10.9 %	-17.9	-0.1 %	0.0	0.0 %	0.0	0.00 %
Cash	1,437.5	10.8 %	-1,455.4	-10.9 %	-17.9	-0.1 %	0.0	0.0 %	0.0	0.00 %
Equity	2,423.8	18.2 %	374.8	2.8 %	2,798.6	21.0 %	2,800.7	21.0 %	2,796.2	21.00 %
Emerging Markets	628.7	4.7 %	-31.0	-0.2 %	597.7	4.5 %	600.2	4.5 %	599.2	4.50 %
International Developed	373.9	2.8 %	223.7	1.7 %	597.6	4.5 %	600.2	4.5 %	599.2	4.50 %
US Large Cap	1,420.9	10.7 %	56.1	0.4 %	1,477.0	11.1 %	1,467.0	11.0 %	1,464.7	11.00 %
US Small Cap	0.3	0.0 %	126.0	0.9 %	126.3	0.9 %	133.4	1.0 %	133.2	1.00 %
Fixed	3,807.3	28.6 %	1,080.6	8.1 %	4,887.9	36.7 %	4,867.9	36.6 %	4,860.0	36.50 %
Global ex US Fixed Income	2,177.8	16.4 %	737.6	5.5 %	2,915.3	21.9 %	2,934.1	22.0 %	2,929.3	22.00 %
High Yield	1,295.0	9.7 %	0.0	0.0 %	1,295.0	9.7 %	1,267.0	9.5 %	1,264.9	9.50 %
US Fixed Income	334.5	2.5 %	343.1	2.6 %	677.6	5.1 %	666.8	5.0 %	665.8	5.00 %
Other	5,646.4	42.4 %	0.0	0.0 %	5,646.4	42.4 %	5,646.4	42.4 %	5,658.9	42.50 %
Alternatives	8.6	0.1 %	0.0	0.0 %	8.6	0.1 %	8.6	0.1 %	13.3	0.10 %
Commodities	563.7	4.2 %	0.0	0.0 %	563.7	4.2 %	563.7	4.2 %	559.2	4.20 %
Infrastructure	94.9	0.7 %	0.0	0.0 %	94.9	0.7 %	94.9	0.7 %	66.6	0.50 %
Private Equity	2,502.5	18.8 %	0.0	0.0 %	2,502.5	18.8 %	2,502.5	18.8 %	2,503.2	18.80 %
Real Estate	559.3	4.2 %	0.0	0.0 %	559.3	4.2 %	559.3	4.2 %	599.2	4.50 %
Tactical Cash	1,917.4	14.4 %	0.0	0.0 %	1,917.4	14.4 %	1,917.4	14.4 %	1,917.4	14.40 %



Source: Russell Investments

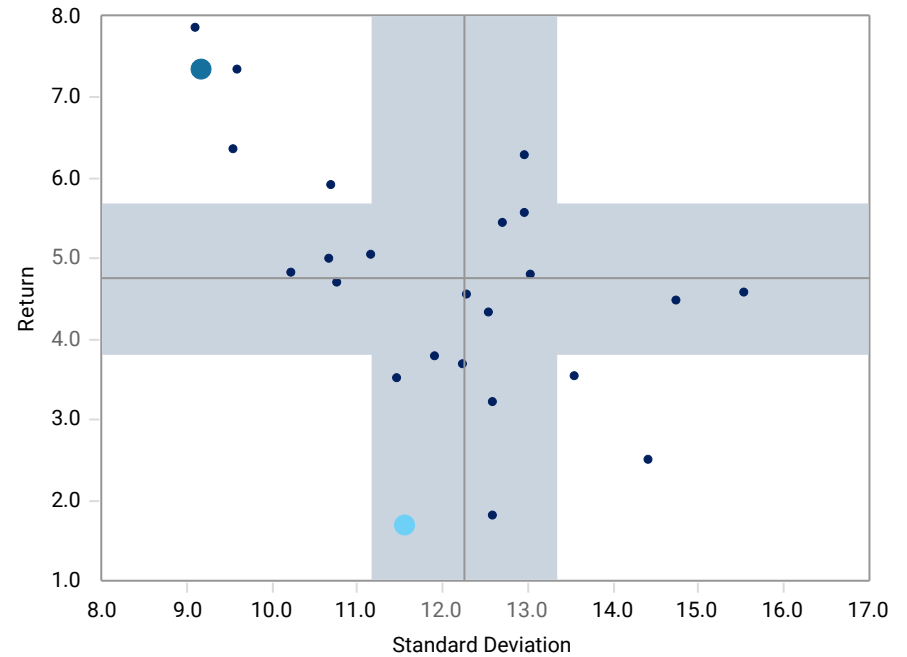
RISK VS. RETURN

1 Year Ending December 31, 2022



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

3 Years Ending December 31, 2022



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

1 Year Ending December 31, 2022

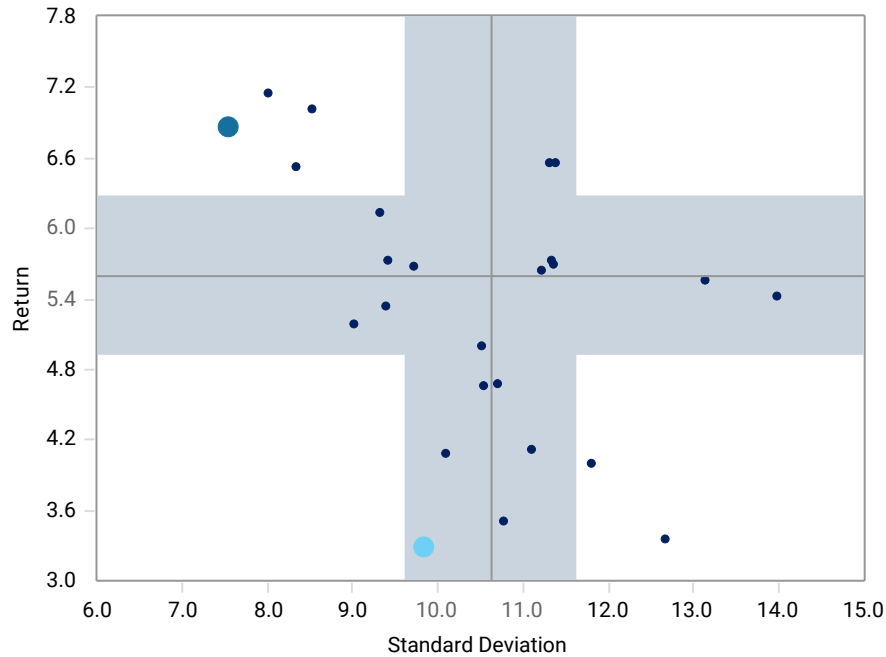
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	-5.8 (14)	6.6 (1)	-1.1 (74)	-1.2 (40)
Policy Index	-13.6 (82)	13.2 (83)	-1.1 (78)	-1.3 (77)
Population	24	24	24	24

3 Years Ending December 31, 2022

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.4 (5)	9.2 (4)	0.7 (5)	1.1 (5)
Policy Index	1.7 (100)	11.6 (40)	0.1 (100)	0.2 (100)
Population	24	24	24	24

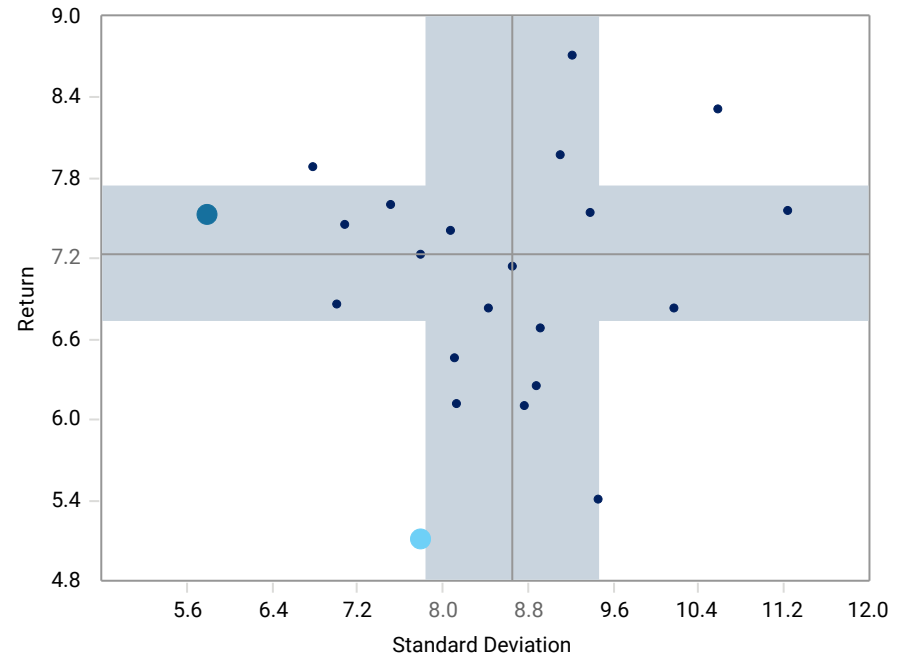
RISK VS. RETURN

5 Years Ending December 31, 2022



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

10 Years Ending December 31, 2022



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

5 Years Ending December 31, 2022

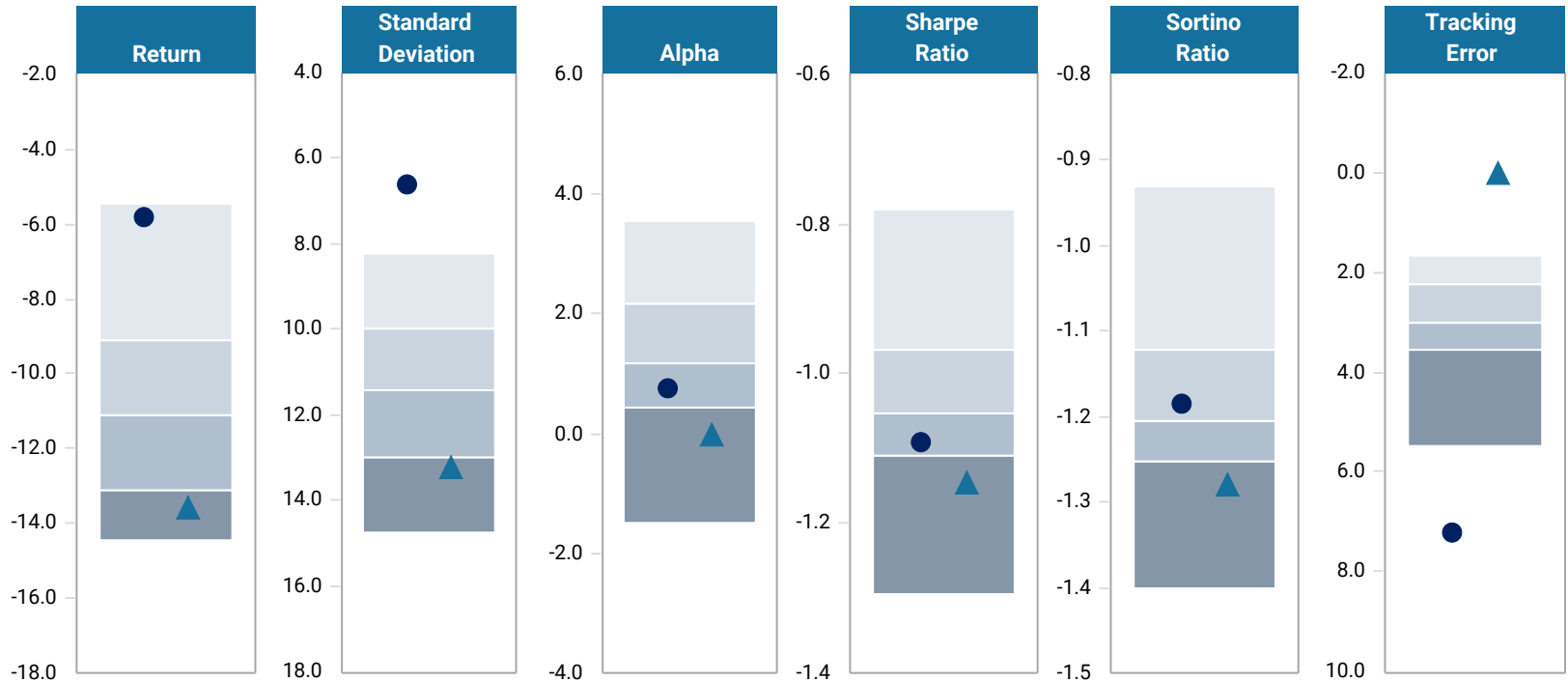
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	6.9 (9)	7.5 (1)	0.7 (1)	1.1 (1)
Policy Index	3.3 (100)	9.8 (36)	0.2 (97)	0.4 (97)
Population	24	24	24	24

10 Years Ending December 31, 2022

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	7.5 (35)	5.8 (1)	1.1 (1)	1.8 (1)
Policy Index	5.1 (100)	7.8 (25)	0.6 (98)	0.9 (97)
Population	21	21	21	21

RISK STATISTICS VS. PEER UNIVERSE

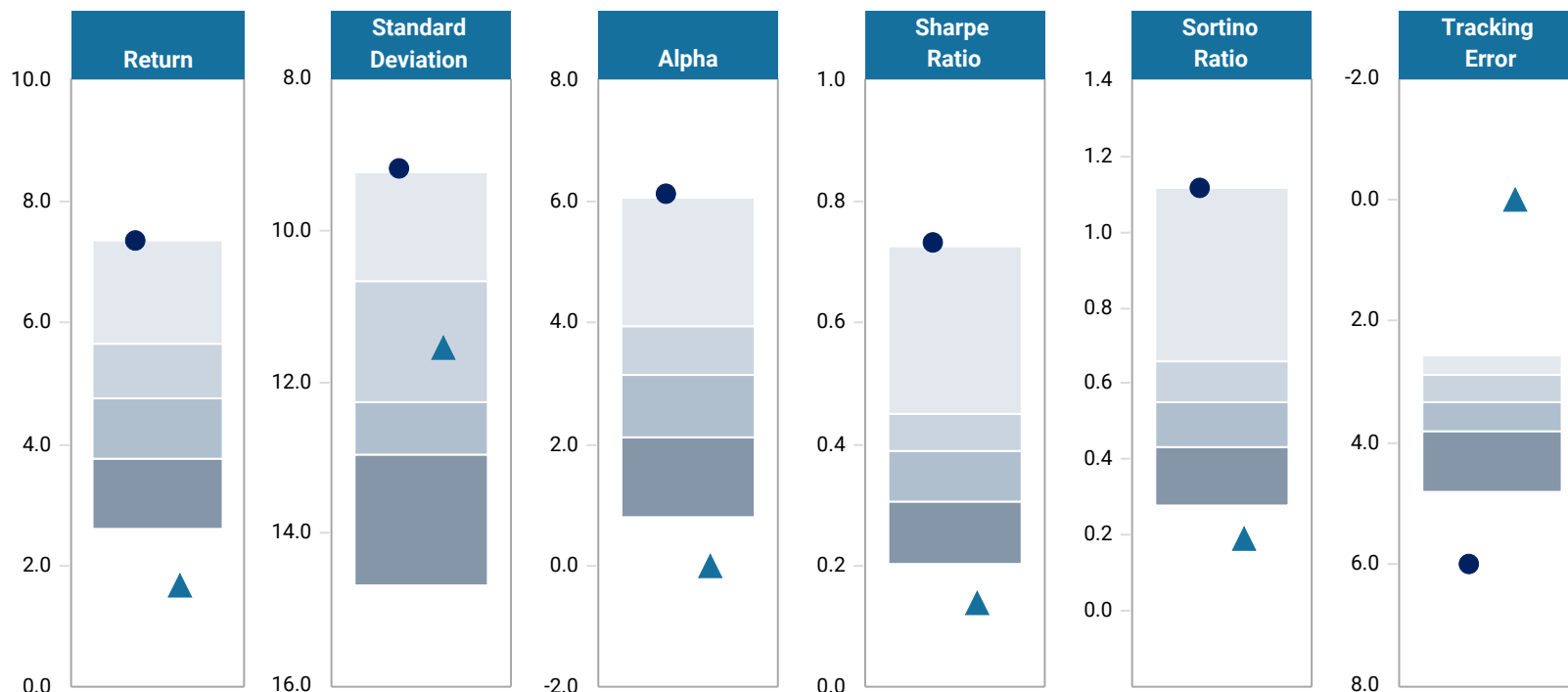
Total Fund vs. InvMetrics Public DB > \$1 Billion



	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)	1 Yr (%)
● Total Fund	-5.8 (14)	6.6 (1)	0.8 (66)	-1.1 (74)	-1.2 (40)	7.2 (100)
▲ Policy Index	-13.6 (82)	13.2 (83)	0.0 (77)	-1.1 (78)	-1.3 (77)	0.0 (1)
5th Percentile	-5.5	8.2	3.6	-0.8	-0.9	1.7
1st Quartile	-9.1	10.0	2.2	-1.0	-1.1	2.3
Median	-11.1	11.4	1.2	-1.1	-1.2	3.0
3rd Quartile	-13.1	13.0	0.4	-1.1	-1.3	3.6
95th Percentile	-14.4	14.8	-1.5	-1.3	-1.4	5.5
Population	24	24	24	24	24	24

RISK STATISTICS VS. PEER UNIVERSE

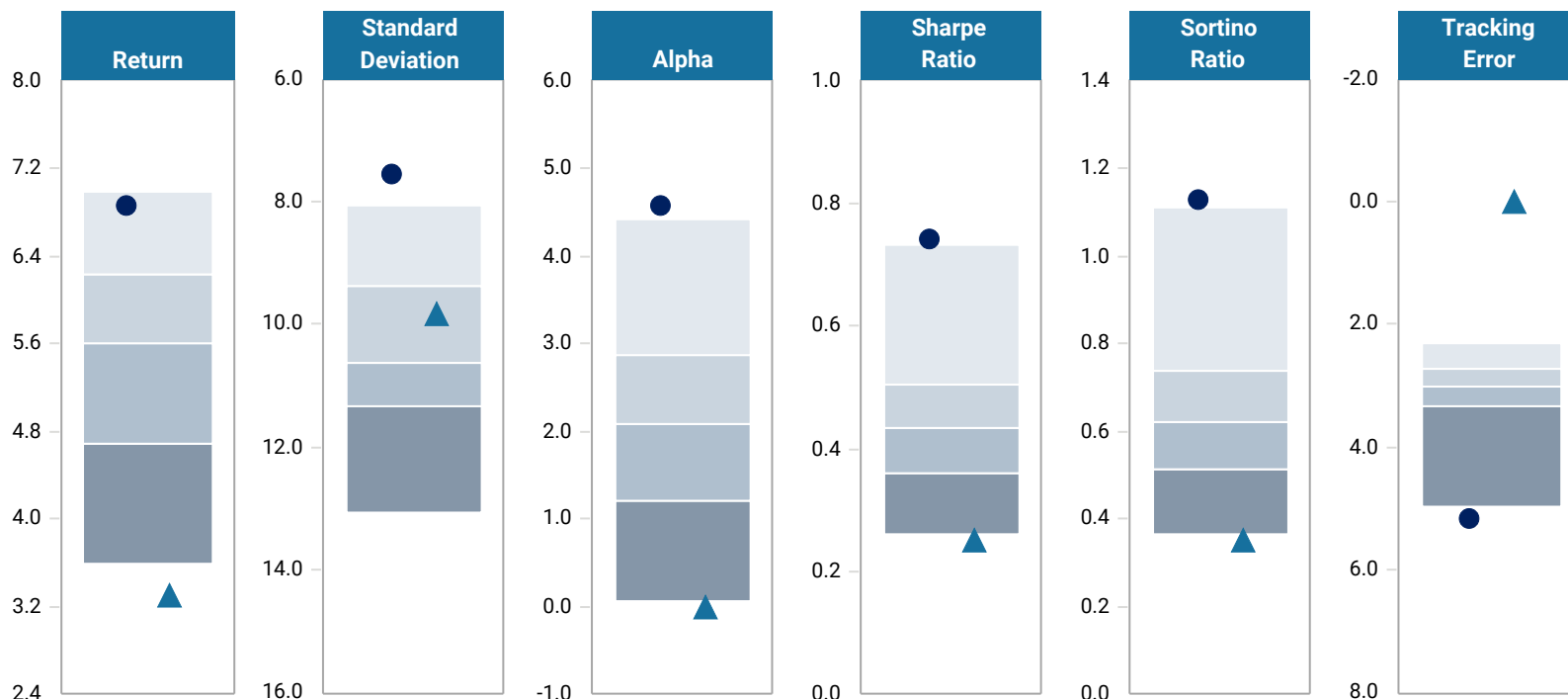
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)
● Total Fund	7.4 (5)	9.2 (4)	6.1 (5)	0.7 (5)	1.1 (5)	6.0 (100)
▲ Policy Index	1.7 (100)	11.6 (40)	0.0 (100)	0.1 (100)	0.2 (100)	0.0 (1)
5th Percentile	7.4	9.2	6.1	0.7	1.1	2.6
1st Quartile	5.7	10.7	4.0	0.4	0.7	2.9
Median	4.8	12.3	3.1	0.4	0.6	3.4
3rd Quartile	3.8	13.0	2.1	0.3	0.4	3.8
95th Percentile	2.6	14.7	0.8	0.2	0.3	4.8
Population	24	24	24	24	24	24

RISK STATISTICS VS. PEER UNIVERSE

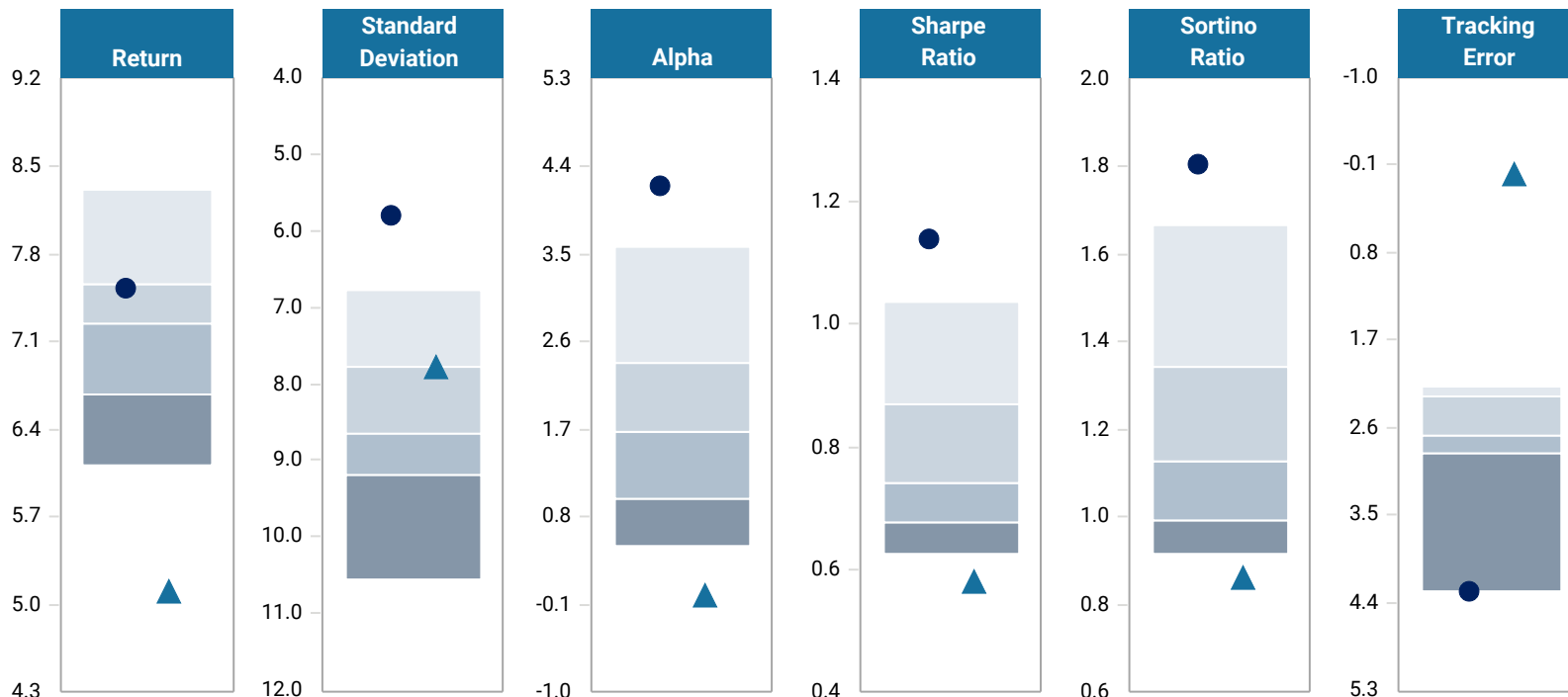
Total Fund vs. InvMetrics Public DB > \$1 Billion



	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)
● Total Fund	6.9 (9)	7.5 (1)	4.6 (1)	0.7 (1)	1.1 (1)	5.2 (100)
▲ Policy Index	3.3 (100)	9.8 (36)	0.0 (96)	0.2 (97)	0.4 (97)	0.0 (1)
5th Percentile	7.0	8.1	4.4	0.7	1.1	2.3
1st Quartile	6.2	9.4	2.9	0.5	0.7	2.7
Median	5.6	10.6	2.1	0.4	0.6	3.0
3rd Quartile	4.7	11.3	1.2	0.4	0.5	3.3
95th Percentile	3.6	13.1	0.1	0.3	0.4	5.0
Population	24	24	24	24	24	24

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	7.5 (35)	5.8 (1)	4.2 (1)	1.1 (1)	1.8 (1)	4.3 (95)
▲ Policy Index	5.1 (100)	7.8 (25)	0.0 (98)	0.6 (98)	0.9 (97)	0.0 (1)
5th Percentile	8.3	6.8	3.6	1.0	1.7	2.2
1st Quartile	7.6	7.8	2.4	0.9	1.3	2.3
Median	7.2	8.7	1.7	0.7	1.1	2.7
3rd Quartile	6.7	9.2	1.0	0.7	1.0	2.9
95th Percentile	6.1	10.6	0.5	0.6	0.9	4.3
Population	21	21	21	21	21	21

TOTAL PLAN RISK STATISTICS

1 Years Ending December 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	-18.2	21.2	2.8	0.4
<i>Russell 3000 Index</i>	-19.2	22.1	0.0	
International Equity With Beta Overlay	-12.9	14.1	5.8	0.4
<i>MSCI AC World ex USA index</i>	-15.6	19.5	0.0	
Global Fixed Income With Beta Overlay	-3.3	3.7	8.3	1.7
<i>Blmbg. Global Aggregate</i>	-16.2	10.0	0.0	
U.S. Credit Strategies	-2.9	4.5	5.7	0.5
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	-5.8	7.4	0.0	
Non-U.S. Credit Composite	-0.3	4.7	13.9	1.2
<i>ICE BofA Euro High Yield Constrained TR</i>	-17.0	16.7	0.0	
Emerging Markets Debt Composite	-5.2	5.3	12.3	0.8
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-14.8	13.1	0.0	
Alpha Pool Composite	-3.3	5.1	4.9	-1.5
<i>91 Day T-Bill + 3%</i>	4.5	0.4	0.0	
Private Equity Composite	2.0	5.0	7.0	0.7
<i>CJA Global All PE (Qtr Lag)</i>	-2.9	7.5	0.0	
Real Estate Composite	13.3	4.4	10.3	-0.3
<i>NCREIF Property Index 1 Qtr. Lag</i>	16.1	7.6	0.0	
Real Assets Composite	11.2	4.7	13.0	0.5
<i>Real Assets Custom Blend</i>	2.6	15.4	0.0	

TOTAL PLAN RISK STATISTICS

3 Years Ending December 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	5.2	21.7	3.1	-0.5
<i>Russell 3000 Index</i>	7.1	21.5	0.0	
International Equity With Beta Overlay	0.6	16.7	4.4	-0.1
<i>MSCI AC World ex USA index</i>	0.5	19.2	0.0	
Global Fixed Income With Beta Overlay	5.3	7.7	8.7	1.1
<i>Blmbg. Global Aggregate</i>	-4.5	7.4	0.0	
U.S. Credit Strategies	6.9	8.6	6.9	0.8
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	1.1	9.2	0.0	
Non-U.S. Credit Composite	5.4	9.4	13.0	0.6
<i>ICE BofA Euro High Yield Constrained TR</i>	-3.7	15.5	0.0	
Emerging Markets Debt Composite	-2.0	7.1	10.6	0.3
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-5.7	12.5	0.0	
Alpha Pool Composite	2.8	7.6	7.7	-0.1
<i>91 Day T-Bill + 3%</i>	3.7	0.3	0.0	
Private Equity Composite	20.2	10.0	15.7	0.1
<i>CJA Global All PE (Qtr Lag)</i>	18.3	15.9	0.0	
Real Estate Composite	10.8	4.3	8.2	0.1
<i>NCREIF Property Index 1 Qtr. Lag</i>	9.9	5.8	0.0	
Real Assets Composite	13.5	11.4	11.8	0.4
<i>Real Assets Custom Blend</i>	7.8	13.2	0.0	

TOTAL PLAN RISK STATISTICS

5 Years Ending December 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity With Beta Overlay	6.8	18.6	3.0	-0.6
<i>Russell 3000 Index</i>	8.8	19.1	0.0	
International Equity With Beta Overlay	1.1	15.0	3.6	-0.2
<i>MSCI AC World ex USA index</i>	1.4	17.1	0.0	
Global Fixed Income With Beta Overlay	4.5	6.4	7.7	0.8
<i>Blmbg. Global Aggregate</i>	-1.7	6.3	0.0	
U.S. Credit Strategies	6.7	6.9	5.9	0.6
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	2.8	7.5	0.0	
Non-U.S. Credit Composite	5.3	7.7	11.6	0.6
<i>ICE BofA Euro High Yield Constrained TR</i>	-2.2	13.0	0.0	
Emerging Markets Debt Composite	-1.3	6.0	9.4	0.0
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-1.9	10.9	0.0	
Alpha Pool Composite	3.6	6.2	6.2	-0.1
<i>91 Day T-Bill + 3%</i>	4.3	0.3	0.0	
Private Equity Composite	17.4	8.2	12.9	0.1
<i>CJA Global All PE (Qtr Lag)</i>	15.7	13.0	0.0	
Real Estate Composite	9.3	3.5	6.8	0.1
<i>NCREIF Property Index 1 Qtr. Lag</i>	8.6	4.9	0.0	
Real Assets Composite	9.2	9.9	9.7	0.4
<i>Real Assets Custom Blend</i>	4.9	10.8	0.0	

TOTAL PLAN RISK STATISTICS

10 Years Ending December 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
Domestic Equity	4.9	12.7	9.0	-0.8
<i>Russell 3000 Index</i>	12.1	15.1	0.0	
International Equity	2.3	15.5	8.4	-0.6
<i>MSCI AC World Index (Net)</i>	8.0	14.3	0.0	
International Emerging	-0.6	14.9	5.1	-0.5
<i>MSCI Emerging Markets (Net)</i>	1.4	16.6	0.0	
U.S. Credit Strategies	6.9	5.3	5.0	0.6
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	3.9	5.8	0.0	
Non-U.S. Credit Composite	6.6	6.0	10.6	0.5
<i>ICE BofA Euro High Yield Constrained TR</i>	1.1	11.5	0.0	
Emerging Markets Debt Composite	1.1	6.1	7.6	0.1
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-0.2	9.6	0.0	
Alpha Pool Composite	4.4	4.9	5.0	0.1
<i>91 Day T-Bill + 3%</i>	3.8	0.3	0.0	
Private Equity Composite	15.3	6.5	10.5	0.1
<i>CJA Global All PE (Qtr Lag)</i>	14.2	10.2	0.0	
Real Estate Composite	9.2	3.5	5.9	-0.1
<i>NCREIF Property Index 1 Qtr. Lag</i>	9.5	4.6	0.0	
Real Assets Composite	5.9	8.0	8.0	0.5
<i>Real Assets Custom Blend</i>	2.1	8.8	0.0	

INVESTMENT MANAGER TOP 10

ASSETS UNDER MANAGEMENT AS OF DECEMBER 31, 2022

Manager	Market Value	Portfolio %
Total SSGA	\$1,443,715,808.43	10.68%
Total Russell	\$963,359,670.65	7.12%
Total Tobam	\$842,466,599.42	6.23%
Total Pathway	\$757,674,082.90	5.60%
Total Ares	\$707,211,090.51	5.23%
Gramercy Funds Management	\$674,961,521.50	4.99%
Total Alcentra	\$627,474,890.87	4.64%
Total Golden Tree	\$599,588,618.11	4.43%
Total Zais	\$580,105,424.05	4.29%
Total Pinnacle	\$564,584,117.81	4.17%
Total	\$7,761,141,824.25	57.39%



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 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
			State Street Global Advisors S&P500 Index Fund	
			TOBAM Anti-Benchmark US Equity Fund	
	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
		State Street Global Advisors MSCI World ex-USA Index Fund		
TOBAM Anti-Benchmark World ex-US Fund				
Emerging Markets (6%)	Mondrian Emerging Markets Equity Fund LP	Value-focused strategy centered on free cash flow generation and dividend discount methodology 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		
	Russell Investments MSCI EM Index			
	TOBAM Anti-Benchmark EM Equity Fund			
	William Blair EM Growth Fund			
	Wasatch EM Select Fund			

GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)				
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Equity	2,426,625,483	17.9	9.0	-16.2	3.0	4.3	4.6
<i>MSCI AC World Index (Net)</i>			<u>9.8</u>	<u>-18.4</u>	<u>4.0</u>	<u>5.2</u>	<u>8.0</u>
Over/Under			-0.8	2.2	-1.0	-0.9	-3.4
Domestic Equity With Beta Overlay	1,617,069,423	12.0	7.9	-18.2	5.2	6.8	
<i>Russell 3000 Index</i>			<u>7.2</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	
Over/Under			0.7	1.0	-1.9	-2.0	
Domestic Equity	1,433,012,005	10.6	8.5	-16.0	6.2	7.3	4.9
<i>Russell 3000 Index</i>			<u>7.2</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	<u>12.1</u>
Over/Under			1.3	3.2	-0.9	-1.5	-7.2
Tobam AB US Equity	407,502,000	3.0	10.8 (32)	-10.0 (26)	6.6 (49)		
<i>Russell 3000 Index</i>			<u>7.2</u> (64)	<u>-19.2</u> (61)	<u>7.1</u> (41)		
Over/Under			3.6	9.2	-0.5		
<i>eV All US Equity Median</i>			8.7	-17.0	6.4		
Large Cap Equity	1,025,257,009	7.6	7.6 (59)	-18.1 (55)	7.0 (42)	8.4 (36)	5.8 (99)
<i>S&P 500 Index</i>			<u>7.6</u> (59)	<u>-18.1</u> (55)	<u>7.7</u> (31)	<u>9.4</u> (21)	<u>12.6</u> (18)
Over/Under			0.0	0.0	-0.7	-1.0	-6.8
<i>eV All US Equity Median</i>			8.7	-17.0	6.4	7.4	10.9
SSgA S&P500	1,024,300,541	7.6	7.6 (59)	-18.1 (55)	7.5 (34)	8.8 (30)	8.7 (87)
<i>S&P 500 Index</i>			<u>7.6</u> (59)	<u>-18.1</u> (55)	<u>7.7</u> (31)	<u>9.4</u> (21)	<u>12.6</u> (18)
Over/Under			0.0	0.0	-0.2	-0.6	-3.9
<i>eV All US Equity Median</i>			8.7	-17.0	6.4	7.4	10.9
Russell US Large Cap Volatility	956,468	0.0					
Small Cap Equity	252,996	0.0					
Russell US Small Cap Volatility	252,996	0.0	1.0	1.8	0.8	1.6	-18.7

GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)				
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
International Equity With Beta Overlay	1,186,868,116	8.8	9.0	-12.9	0.6	1.1	
<i>MSCI AC World ex USA index</i>			<u>14.4</u>	<u>-15.6</u>	<u>0.5</u>	<u>1.4</u>	
Over/Under			-5.4	2.7	0.1	-0.3	
International Equity	993,613,478	7.3	8.9	-18.2	-3.6	-2.0	2.3
<i>MSCI AC World Index (Net)</i>			<u>9.8</u>	<u>-18.4</u>	<u>4.0</u>	<u>5.2</u>	<u>8.0</u>
Over/Under			-0.9	0.2	-7.6	-7.2	-5.7
International Developed	375,168,196	2.8	15.3	-13.0	-2.8	-1.0	5.1
<i>MSCI EAFE (Net)</i>			<u>17.3</u>	<u>-14.5</u>	<u>0.9</u>	<u>1.5</u>	<u>4.7</u>
Over/Under			-2.0	1.5	-3.7	-2.5	0.4
Russell International Volatility	16,742	0.0					
Tobam AB World Ex-US Equity	165,120,808	1.2	14.1 (61)	-15.2 (35)	-4.1 (96)		
<i>MSCI AC World ex USA (Net)</i>			<u>14.3</u> (57)	<u>-16.0</u> (39)	<u>0.1</u> (63)		
Over/Under			-0.2	0.8	-4.2		
<i>eV All ACWI ex-US Equity Median</i>			14.5	-18.4	0.8		
SSGA MSCI World Ex-US Equity	210,030,647	1.6	16.2 (26)				
<i>MSCI AC World ex USA (Net)</i>			<u>14.3</u> (57)				
Over/Under			1.9				
<i>eV All ACWI ex-US Equity Median</i>			14.5				
International Emerging	618,445,282	4.6	4.4	-21.2	-4.8	-3.1	-0.6
<i>MSCI Emerging Markets (Net)</i>			<u>9.7</u>	<u>-20.1</u>	<u>-2.7</u>	<u>-1.4</u>	<u>1.4</u>
Over/Under			-5.3	-1.1	-2.1	-1.7	-2.0
Mondrian	146,346,034	1.1	12.6 (20)	-15.8 (28)	-2.6 (63)	-1.1 (59)	0.2 (93)
<i>MSCI Emerging Markets (Net)</i>			<u>9.7</u> (63)	<u>-20.1</u> (53)	<u>-2.7</u> (64)	<u>-1.4</u> (64)	<u>1.4</u> (71)
Over/Under			2.9	4.3	0.1	0.3	-1.2
<i>eV Emg Mkts Equity Median</i>			10.4	-19.9	-1.6	-0.7	2.0
Tobam	269,843,792	2.0	3.4 (96)	-21.6 (62)	-5.0 (88)	-3.6 (94)	
<i>MSCI Emerging Markets (Net)</i>			<u>9.7</u> (63)	<u>-20.1</u> (53)	<u>-2.7</u> (64)	<u>-1.4</u> (64)	
Over/Under			-6.3	-1.5	-2.3	-2.2	
<i>eV Emg Mkts Equity Median</i>			10.4	-19.9	-1.6	-0.7	
Wasatch EM Select	101,391,877	0.7					
William Blair EM Growth	100,863,579	0.7					

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) MacKay Shields High Yield Bond Strategy SMA Manulife Asset Management SMA Waterfall Ready Capital Corp. (MCA) Waterfall Asset Management SMA (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 SMA investing in non-investment grade corporate debt 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 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 II Marathon European Credit Opportunity Fund III 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
		Emerging Market Debt (6%) Ashmore Emerging Markets MCA 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 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.) SMA investing in sovereign bonds, local bonds, corporate bonds and currencies in emerging economies. 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 (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Global Fixed Income With Beta Overlay	4,823,549,172	35.7	1.6	-3.3	5.3	4.5	
<i>Blmbg. Global Aggregate</i>			<u>4.5</u>	<u>-16.2</u>	<u>-4.5</u>	<u>-1.7</u>	
Over/Under			-2.9	12.9	9.8	6.2	
Total Fixed	3,742,849,172	27.7	-0.4	-5.2	3.1	3.5	5.2
<i>Blmbg. U.S. Aggregate Index</i>			<u>1.9</u>	<u>-13.0</u>	<u>-2.7</u>	<u>0.0</u>	<u>1.1</u>
Over/Under			-2.3	7.8	5.8	3.5	4.1
U.S. Credit Strategies	1,549,153,309	11.5	1.1 (100)	-2.9 (3)	6.9 (1)	6.7 (1)	6.9 (1)
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>			<u>3.3 (64)</u>	<u>-5.8 (9)</u>	<u>1.1 (3)</u>	<u>2.8 (1)</u>	<u>3.9 (3)</u>
Over/Under			-2.2	2.9	5.8	3.9	3.0
<i>eV Global Credit Fixed Inc Median</i>			4.1	-15.2	-3.1	0.1	1.9
Stone Tower Offshore Credit (Apollo)	275,224,349	2.0	-2.5	-5.5	3.8	3.8	5.2
Beach Point Capital (Formerly Post)	230,415,555	1.7	-2.7	-6.9	6.7	6.4	8.0
Mackay / Gold Coast	2,973,293	0.0	3.3	-11.7	-0.1	1.9	3.9
Stone Tower Credit (Apollo)	129,742,273	1.0	-1.8	-1.2	9.2	8.7	7.7
Gold Coast Capital IV	94,468,122	0.7	0.4	-6.3	0.8	2.7	
Waterfall Asset Management	54,131,428	0.4	11.6	-12.8	6.1	8.1	
Waterfall Victoria	79,910,187	0.6	-1.3	-0.1	3.8	6.4	
KAYNE ANDERSON BDC, LLC	60,841,601	0.4	2.5	20.8			
Golden Tree Asset Management	595,797,589	4.4	3.9	-3.0	9.5	9.5	10.0

GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)				
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Non-U.S. Fixed Income Composite	2,193,695,863	16.2	3.4	-2.2	2.2	2.6	4.6
Blmbg. Global Aggregate Ex USD			<u>6.8</u>	<u>-18.7</u>	<u>-5.9</u>	<u>-3.1</u>	<u>-1.6</u>
Over/Under			-3.4	16.5	8.1	5.7	6.2
Non-U.S. Credit Composite	1,296,173,466	9.6	4.0	-0.3	5.4	5.3	6.6
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>	<u>-2.2</u>	<u>1.1</u>
Over/Under			-10.0	16.7	9.1	7.5	5.5
Marathon/Gold Coast	226,832,826	1.7	-0.4	4.6	8.2	9.2	9.4
Halcyon Asset Management	210,116,665	1.6	-2.1 (100)	-4.2 (5)	4.6 (1)	4.9 (1)	
ICE BofA Euro High Yield Constrained TR			<u>14.0</u> (1)	<u>-17.0</u> (73)	<u>-3.7</u> (71)	<u>-2.2</u> (81)	
Over/Under			-16.1	12.8	8.3	7.1	
eV Global Credit Fixed Inc Median			4.1	-15.2	-3.1	0.1	
Cairn Composite	231,749,084	1.7	5.9 (23)	1.9 (1)	4.5 (1)	4.1 (1)	4.4 (2)
ICE BofA Euro High Yield Constrained TR			<u>14.0</u> (1)	<u>-17.0</u> (73)	<u>-3.7</u> (71)	<u>-2.2</u> (81)	<u>1.1</u> (72)
Over/Under			-8.1	18.9	8.2	6.3	3.3
eV Global Credit Fixed Inc Median			4.1	-15.2	-3.1	0.1	1.9
Alcentra - KT1	503,471,913	3.7	8.3	-4.3	4.4	5.2	
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>	<u>-2.2</u>	
Over/Under			-5.7	12.7	8.1	7.4	
Alcentra SP1 - KT1	965,031	0.0	1.0	13.0	22.3	-6.9	
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>	<u>-2.2</u>	
Over/Under			-13.0	30.0	26.0	-4.7	
Alcentra SP2 - KT1	16,535,609	0.1	3.8	5.5	1.3	-3.4	
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>	<u>-2.2</u>	
Over/Under			-10.2	22.5	5.0	-1.2	
Alcentra SP3 - KT1	27,578,044	0.2	1.0	-12.7	1.9	3.6	
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>	<u>-2.2</u>	
Over/Under			-13.0	4.3	5.6	5.8	
Alcentra SP4 - KT1	78,924,294	0.6	4.5	18.7	13.1		
ICE BofA Euro High Yield Constrained TR			<u>14.0</u>	<u>-17.0</u>	<u>-3.7</u>		
Over/Under			-9.5	35.7	16.8		

GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	
Emerging Markets Debt Composite	897,522,397	6.6	2.7 (99)	-5.2 (6)	-2.0 (24)	-1.3 (55)	1.1 (37)	
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			<u>8.3</u> (52)	<u>-14.8</u> (66)	<u>-5.7</u> (82)	<u>-1.9</u> (67)	<u>-0.2</u> (66)	
Over/Under			-5.6	9.6	3.7	0.6	1.3	
eV All Emg Mkts Fixed Inc Median			8.3	-12.8	-4.1	-1.1	0.8	
Ashmore Emerging Markets Liquid Investments	14,975,716	0.1	59.0 (1)	19.1 (1)	5.5 (1)	4.9 (1)		
JP Morgan GBI - EM Global Diversified Index			<u>8.5</u> (45)	<u>-11.7</u> (40)	<u>-6.1</u> (87)	<u>-2.5</u> (85)		
Over/Under			50.5	30.8	11.6	7.4		
eV All Emg Mkts Fixed Inc Median			8.3	-12.8	-4.1	-1.1		
Gramercy Funds Management LLC	674,961,522	5.0	2.1 (100)	0.3 (2)	0.1 (6)	-0.8 (43)		
JP Morgan ELMI+ TR USD			<u>7.3</u> (72)	<u>-7.1</u> (10)	<u>-2.9</u> (34)	<u>-1.4</u> (59)		
Over/Under			-5.2	7.4	3.0	0.6		
eV All Emg Mkts Fixed Inc Median			8.3	-12.8	-4.1	-1.1		
PGIM Fixed Income	100,326,960	0.7	0.7 (100)	-12.7 (50)	-2.1 (26)	0.2 (26)		
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			<u>8.3</u> (52)	<u>-14.8</u> (66)	<u>-5.7</u> (82)	<u>-1.9</u> (67)		
Over/Under			-7.6	2.1	3.6	2.1		
eV All Emg Mkts Fixed Inc Median			8.3	-12.8	-4.1	-1.1		
Finissterre EM Debt Total Return Fund	107,258,200	0.8						

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 (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Alpha Pool Composite	1,918,400,349	14.2	2.1	-3.3	2.8	3.6	4.4
<i>91 Day T-Bill + 3%</i>			<u>1.6</u>	<u>4.5</u>	<u>3.7</u>	<u>4.3</u>	<u>3.8</u>
Over/Under			0.5	-7.8	-0.9	-0.7	0.6
Alpha Liquidity (Ssga)	209,384,621	1.5	0.9	1.2	0.9	1.4	0.9
Apollo Global Management	2,229,239	0.0	-47.5	-57.0	-10.9	0.0	
Ares Eco Master Fund II	548,334,083	4.1	2.6	-6.5	3.3	3.2	
Birch Grove Credit Strategies	232,792,236	1.7	-3.3	-8.7	3.8	5.0	
Corrum Capital	237,262,804	1.8	9.3	6.9	-2.3	1.1	3.8
Zais	129,289,405	1.0	-1.2	-9.9	-0.3	-0.3	3.2
Zais Group Invest Advisors	381,038,960	2.8	4.3	0.6	7.0	6.0	7.7
Zais Zephyr 8	47,010,780	0.3	-1.6	-7.7	6.3		
Zais Zephyr 9	22,766,280	0.2	-4.6				
Apollo Accord+	108,291,942	0.8	1.1				

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) Industry Ventures Tech Buyout, 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 2018 fund investing in small high growth tech companies
		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) 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 Kayne Anderson Energy Fund VII LP	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 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 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 acq/development 2015 fund investing in senior secured notes and first/second lien debt of US companies in the energy sector
		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</p> <p>Invesco Real Estate Asia Fund</p> <p>Kayne Anderson Real Estate Debt III (MCA)</p> <p>Kayne Anderson Real Estate Debt IV (MCA)</p> <p>Marathon Real Estate Debt Fund</p> <p>PGIM Real Estate Capital VI LP</p> <p>PGIM Real Estate Capital VII LP</p> <p>PRISA II</p>	<p>SBCERA headquarters</p> <p>Asia-focused open-ended core real estate fund</p> <p>2018 fund investing in first-lien US residential mortgage debt</p> <p>2020 fund investing in first-lien US residential mortgage debt</p> <p>Fund investing in senior secured first mortgage loans in the US</p> <p>European (UK and Germany focused) mezzanine lending fund for value-add real estate projects</p> <p>European (UK and Germany focused) mezzanine lending fund for value-add real estate projects</p> <p>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)</p> <p>Apollo Real Estate Fund III LP (MCA)</p> <p>Bryanston Retail Opportunity</p> <p>Fortress Japan Opportunity Fund II</p> <p>Invesco US Real Estate VI</p> <p>Kayne Anderson Real Estate Partners V LP (MCA)</p> <p>Kayne Anderson Real Estate Partners VI LP (MCA)</p> <p>Morgan Stanley RE Fund V International</p> <p>Oaktree RE Opportunities Fund V</p> <p>PRISA III</p> <p>Starwood Global Opportunity Fund VII-A</p> <p>Walton Street Real Estate Fund V</p>	<p>2015 fund investing in value-add US real estate opportunities</p> <p>2020 fund investing in value-add US real estate opportunities</p> <p>2004 fund investing in value-add US real estate opportunities in the retail sector</p> <p>2011 fund investing in value-add Japanese real estate opportunities</p> <p>2020 fund investing in value-add US real estate opportunities</p> <p>2017 fund investing in value-add US real estate opportunities</p> <p>2021 fund investing in value-add US real estate opportunities</p> <p>2005 fund investing in value-add International real estate opportunities</p> <p>Diversified value-add US real estate equity fund</p> <p>Value-add US real estate equity fund</p> <p>Opportunistic investments in RE operating companies, RE debt, residential land and international opportunities</p> <p>Value-add US real estate fund</p>
	Real Estate Secondaries	<p>Partners Group Real Estate Secondary 2013 A LP (MCA)</p> <p>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</p> <p>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
	Domain Environmental Investments II LP		Mitigation banking (natural wetlands) and conservation banking (natural habitats for threatened/endangered species)

ALTERNATIVES - NET

	Allocation		Performance (%)				
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Private Equity Composite	2,602,337,563	19.2	1.6	2.0	20.2	17.4	15.3
<i>CJA Global All PE (Qtr Lag)</i>			<u>-1.7</u>	<u>-2.9</u>	<u>18.3</u>	<u>15.7</u>	<u>14.2</u>
Over/Under			3.3	4.9	1.9	1.7	1.1
<i>Russell 3000 Index</i>			<u>7.2</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	<u>12.1</u>
Over/Under			-5.6	21.2	13.1	8.6	3.2
<i>CJA US All PE (1 Qtr Lag)</i>			<u>0.1</u>	<u>2.9</u>	<u>19.4</u>	<u>16.8</u>	<u>15.0</u>
Over/Under			1.5	-0.9	0.8	0.6	0.3
Real Estate Composite	610,312,417	4.5	0.7	13.3	10.8	9.3	9.2
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>0.6</u>	<u>16.1</u>	<u>9.9</u>	<u>8.6</u>	<u>9.5</u>
Over/Under			0.1	-2.8	0.9	0.7	-0.3
Real Assets Composite	651,443,294	4.8	1.8	11.2	13.5	9.2	5.9
<i>Real Assets Custom Blend</i>			<u>3.0</u>	<u>2.6</u>	<u>7.8</u>	<u>4.9</u>	<u>2.1</u>
Over/Under			-1.2	8.6	5.7	4.3	3.8
Timber	8,598,923	0.1	-0.9	27.6	6.2	2.5	3.6
<i>NCREIF Timberland 1 Qtr. Lag</i>			<u>2.4</u>	<u>12.5</u>	<u>5.8</u>	<u>4.7</u>	<u>5.9</u>
Over/Under			-3.3	15.1	0.4	-2.2	-2.3
Infrastructure	77,414,361	0.6	10.3	19.3	15.5	7.5	5.4
<i>Russell 3000 Index</i>			<u>7.2</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	<u>12.1</u>
Over/Under			3.1	38.5	8.4	-1.3	-6.7
Commodities	565,430,010	4.2	0.7	9.0	14.3	12.8	6.4
<i>S&P GSCI Composite TR Index</i>			<u>3.4</u>	<u>26.0</u>	<u>10.5</u>	<u>6.5</u>	<u>-3.3</u>
Over/Under			-2.7	-17.0	3.8	6.3	9.7

APPENDIX: PERFORMANCE SUMMARY

Real Estate
Real Assets
Private Equity



REAL ESTATE PERFORMANCE

AS OF JUNE 30, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
American Realty Advisors	1996	128,009,773	128,009,773	0	278,446,295	0	2.18	6.89%
Tuckerman Multi-Family Development Fund III	2002	10,000,000	10,219,311	0	16,939,699	0	1.66	26.67%
CBRE Strategic Partners III	2003	10,000,000	10,000,000	0	12,698,783	0	1.27	8.02%
Prudential PRISA III	2003	75,000,000	68,971,338	6,028,662	71,456,230	75,306,626	2.02	18.20%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	229,110	15,939,604	48,013	1.64	10.71%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	11,771,835	22,859,093	16,522,058	4.79	70.74%
Prudential PRISA II	2004	140,000,000	140,000,000	0	62,663,169	218,290,273	1.92	9.14%
RREEF America REIT III	2004	20,000,000	20,539,309	0	23,658,675	0	1.15	3.00%
BlackRock Diamond Property Fund	2005	25,000,000	25,000,000	0	15,233,347	0	0.61	-9.31%
CBRE Strategic Partners IV	2005	40,000,000	40,000,000	0	2,609,685	0	0.07	-27.76%
INVESCO Real Estate Fund I	2005	10,000,000	9,248,390	0	10,015,656	0	1.08	1.54%
LaSalle Income & Growth Fund IV	2005	20,000,000	19,469,417	0	13,482,024	0	0.69	-5.51%
North Haven Real Estate Fund V International	2005	27,500,000	27,377,414	122,586	32,219,306	1,117,378	1.21	6.82%
Prologis Japan Fund	2005	25,290,819	25,290,819	0	33,126,118	0	1.31	4.81%
Tri Continental Capital VII	2005	23,000,000	22,277,928	722,072	3,168,198	429,649	0.16	-14.95%
American Realty Value Add	2006	13,125,215	13,125,215	0	32,080,321	0	2.44	10.92%
Beacon Capital Strategic Partners IV, L.P.	2006	38,000,000	38,000,000	0	31,424,699	0	0.83	-3.26%
Fillmore East Fund	2006	25,000,000	31,403,818	0	20,777,177	0	0.66	-9.78%
Starwood Capital Hospitality Fund I-2	2006	30,000,000	30,000,000	0	27,879,087	2,557,741	1.01	0.19%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	0	19,517,190	579,052	0.80	-2.36%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	0	27,259,862	1,778,939	0.73	-3.46%
Beacon Capital Strategic Partners V, L.P.	2007	18,000,000	18,000,000	0	11,174,695	0	0.62	-7.87%
Invesco Asian Real Estate Partners II (USD), LP	2007	20,000,000	8,412,833	0	11,465,147	0	1.36	7.52%
Invesco High Yield Debt Fund I	2007	20,000,000	20,000,000	0	8,567,605	0	0.43	-35.57%
Square Mile Partners II	2007	19,831,232	19,831,232	0	5,311,330	0	0.27	-19.11%
Fillmore West Fund	2008	20,000,000	19,561,557	0	21,175,799	0	1.08	1.14%
Square Mile Partners III LP	2008	20,000,000	19,730,190	269,810	28,756,613	121,135	1.46	11.53%
Starwood Debt Fund II, LP	2008	20,000,000	17,599,882	0	21,912,511	0	1.25	6.45%
Structured Real Estate III, LP (Guggenheim)	2008	20,000,000	20,000,000	0	16,320,664	0	0.82	-4.99%
Bryanston Real Estate Opportunity Fund II, L.P.	2009	20,000,000	8,589,256	0	11,851,333	0	1.38	10.20%
Fortress Japan Opportunity Fund II	2012	21,739,130	2,766,702	18,972,428	24,047,944	3,737,709	9.05	25.45%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	39,287,074	605,010	1.56	12.79%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	15,338,807	66,449,208	1.51	6.06%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	33,486,707	37,057,048	1.43	8.57%
Apollo US Real Estate Fund II	2015	20,000,000	15,997,877	4,002,123	7,773,158	16,928,999	1.54	11.87%
Pramerica Real Estate Capital VI	2016	24,833,009	22,284,117	2,548,892	14,775,416	9,454,622	1.08	4.26%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	18,025,000	1,975,000	11,932,884	18,595,659	1.71	21.22%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	45,071,281	29,928,719	118,130	63,568,438	1.41	12.13%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,361,000	639,000	16,393,928	7,947,304	1.25	11.29%
Apollo US Real Estate Fund III	2021	50,000,000	18,760,642	31,239,358	1,936,780	23,521,764	1.33	45.36%
Kayne Anderson Real Estate Debt IV	2021	30,000,000	15,169,416	14,830,584	5,916,294	10,036,777	1.05	7.35%
Kayne Anderson Real Estate Fund VI	2021	20,000,000	4,200,000	15,800,000	0	4,508,663	1.07	14.49%
Pramerica Real Estate Capital VII	2021	52,682,111	15,871,848	36,810,263	0	12,728,421	0.80	-32.13%
Total: San Bernardino		1,408,743,790	1,197,438,711	191,348,852	1,080,997,040	591,890,487	1.38	4.91%



REAL ASSETS PERFORMANCE

AS OF JUNE 30, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Hancock Timberland VII	2005	90,000,000	90,000,000	0	101,142,900	0	1.12	1.02%
Hancock Timberland VIII	2006	40,000,000	40,000,000	0	27,351,925	18,848,088	1.15	1.16%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	880,881	63,302,361	0	1.07	0.87%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	55,238,754	0	1.09	12.09%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	0	51,855,967	0	1.04	0.38%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	105,000,000	105,000,000	0	0	201,448,854	1.92	7.69%
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	0	20,414,831	6,105,047	0.88	-1.64%
Pinnacle Physicals and Financing Master, Ltd	2009	200,000,000	180,815,984	19,184,016	2,018,221	288,953,418	1.61	8.34%
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	0	41,902,882	0	0.92	-1.99%
Total: San Bernardino		670,403,354	650,338,457	20,064,897	363,227,841	515,355,407	1.35	3.83%



PRIVATE EQUITY PERFORMANCE

AS OF JUNE 30, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	238,652,127	221,611,324	17,040,804	280,078,373	662,240	1.27	3.95%
Partners Group MCA	2004	1,000,000,000	936,742,671	63,257,329	816,810,321	585,663,701	1.50	8.89%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	860,119,311	44,380,689	1,448,453,796	220,171,092	1.94	11.65%
Aurora Equity Partners III, L.P.	2005	25,000,000	23,544,536	0	41,738,196	0	1.67	13.61%
Lexington Middle Market I	2005	25,000,000	24,771,942	228,058	40,309,398	278,133	1.64	11.40%
NB Secondary Opportunities I, LP	2005	20,000,000	18,500,843	0	24,330,105	0	1.32	6.49%
Lexington Capital Partners VI-B	2006	25,000,000	24,591,319	408,681	34,911,743	241,799	1.43	6.88%
Siguler Guff DOF II	2006	30,000,000	30,000,000	0	42,440,278	0	1.42	8.64%
TCW/Crescent Mezzanine IV, L.P.	2006	40,000,000	39,590,976	0	45,049,090	0	1.14	3.03%
Catalyst Fund II, L.P.	2007	10,000,000	9,956,944	43,056	3,859,103	33,899,074	3.77	12.24%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	14,329,948	444,536	1.48	5.42%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	17,754,793	158,910	2.04	22.80%
Aurora Resurgence Fund, L.P.	2008	15,000,000	5,653,009	0	10,350,965	0	1.82	17.60%
Industry Ventures Fund V	2008	10,000,000	9,500,000	500,000	27,240,341	169,910	2.89	29.29%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	15,808,072	2,511,048	1.87	14.88%
NB Secondary Opportunities II, LP	2008	20,000,000	17,080,642	0	26,888,038	0	1.54	14.40%
Siguler Guff DOF III	2008	10,000,000	9,700,000	300,000	14,484,228	1,769,970	1.68	10.75%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	27,301,678	118,215	1.38	9.79%
Apollo European Principal Finance Fund (Feeder), LP	2009	53,001,432	46,434,825	6,566,607	69,417,013	120,752	1.50	11.81%
DRI II, L.P.	2009	20,000,000	19,917,669	0	26,302,807	0	1.33	19.64%
Apollo PCPL Webb V	2010	4,844,398	4,844,398	0	5,196,757	0	1.07	6.04%
Apollo PCPL Webb VIII	2010	4,734,303	4,734,303	0	12,146,258	0	2.57	46.47%
European Strategic Partners 2008	2010	31,211,023	29,529,845	1,681,178	39,455,070	3,981,805	1.46	8.37%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	24,850,771	236,760	1.36	7.99%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,440,468	4,559,532	30,721,224	4,027,767	1.69	14.95%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	7,882,885	12,117,115	15,625,996	1,260,606	2.14	8.08%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	36,935,852	3,746,502	2.04	18.20%
BNY Mellon - Alcentra Mezzanine III	2012	25,000,000	23,254,658	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	50,997,019	64,382,789	4.91	25.36%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	66,631,734	63,938,200	1.87	10.62%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	40,141,851	44,488,345	3.64	26.19%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	36,795,285	9,093,478	1.98	17.03%



PRIVATE EQUITY PERFORMANCE

AS OF JUNE 30, 2022

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	11,162,500	1,337,500	7,375,723	6,293,820	1.22	4.38%
Pathway SBCERA MCA	2014	300,000,000	259,030,152	40,969,848	101,409,445	548,153,778	2.51	23.16%
SL Capital SOF I LP	2014	25,000,000	21,382,263	3,617,737	26,055,149	4,001,352	1.41	10.45%
ARES European Loan Opp Fund	2015	15,000,000	8,413,136	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	31,197,827	36,717,395	1.42	7.76%
Tennenbaum Special Situations Fund IX	2015	50,000,000	32,057,933	17,942,067	31,073,636	30,181,390	1.91	14.16%
Industry Ventures Direct, LP	2016	25,000,000	23,420,425	1,579,575	10,419,963	52,130,128	2.67	30.49%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	22,575,000	2,425,000	6,778,707	53,928,090	2.69	31.32%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,630,722	10,869,278	1,559,328	2,695,175	2.61	40.91%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	26,438,623	13,561,377	9,079,299	25,941,610	1.32	6.58%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	6,656,980	13,343,020	6,257,031	7,650,754	2.09	12.73%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	0	8,310,474	0	1.11	7.44%
Industry Ventures Secondary VIII	2017	25,000,000	22,525,000	2,475,000	19,423,841	29,256,170	2.16	37.24%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,614,431	1,385,569	574,808	6,777,183	0.85	-3.38%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	18,978,753	1,021,247	17,284,387	18,337,373	1.86	23.70%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	58,503,825	69,093,374	1.01	0.27%
SL Capital SOF III LP	2017	25,000,000	16,623,796	8,376,204	6,653,147	25,420,344	1.93	23.94%
Crestline Portfolio Financing Fund	2018	50,000,000	28,516,097	21,483,903	9,709,113	29,755,626	1.38	10.99%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	20,500,000	4,500,000	626,933	47,613,483	2.35	54.87%
Industry Ventures Tech Buyout LP	2018	50,000,000	32,470,896	17,529,104	0	45,663,254	1.41	23.31%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	5,880,000	14,120,000	4,248,102	9,081,599	2.27	41.52%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,600,000	1,400,000	7,211,923	12,077,356	2.92	44.12%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	44,072,300	4,633,605	1.20	17.37%
Kayne Solutions Fund LP	2018	20,000,000	9,809,659	10,190,341	10,797,587	0	1.10	9.14%
Industry Ventures Direct II, LP	2019	50,000,000	41,494,066	8,505,934	0	74,344,314	1.79	52.94%
Kayne Renewable Opportunities Partners (TE), LP	2019	100,000,000	20,704,033	79,295,967	27,857,425	0	1.35	21.72%
Waterfall Sentinel Co-Investments	2019	30,000,000	23,766,885	6,233,116	11,907,260	43,148,182	2.30	34.77%
Waterfall Sentinel Fund	2019	30,000,000	22,557,007	7,442,993	6,493,596	29,642,162	1.60	19.89%
Adams Street SBCERA	2020	100,000,000	73,421,446	26,578,554	13,064,376	86,724,869	1.36	36.88%
Kayne Anderson FRG	2020	30,000,000	30,000,000	0	45,283,966	0	1.51	44.79%
Kayne CLO Partners II, LP	2020	50,000,000	44,721,625	5,278,375	19,921,490	0	0.45	N/A
Industry Ventures Direct III, L.P.	2022	40,000,000	0	40,000,000	0	0	0.00	N/A
Industry Ventures Tech Buyout II, L.P.	2022	100,000,000	0	100,000,000	0	0	0.00	N/A
Total: San Bernardino		4,354,943,284	3,674,553,200	633,845,552	3,964,857,242	2,340,628,018	1.71	11.15%





APPENDIX



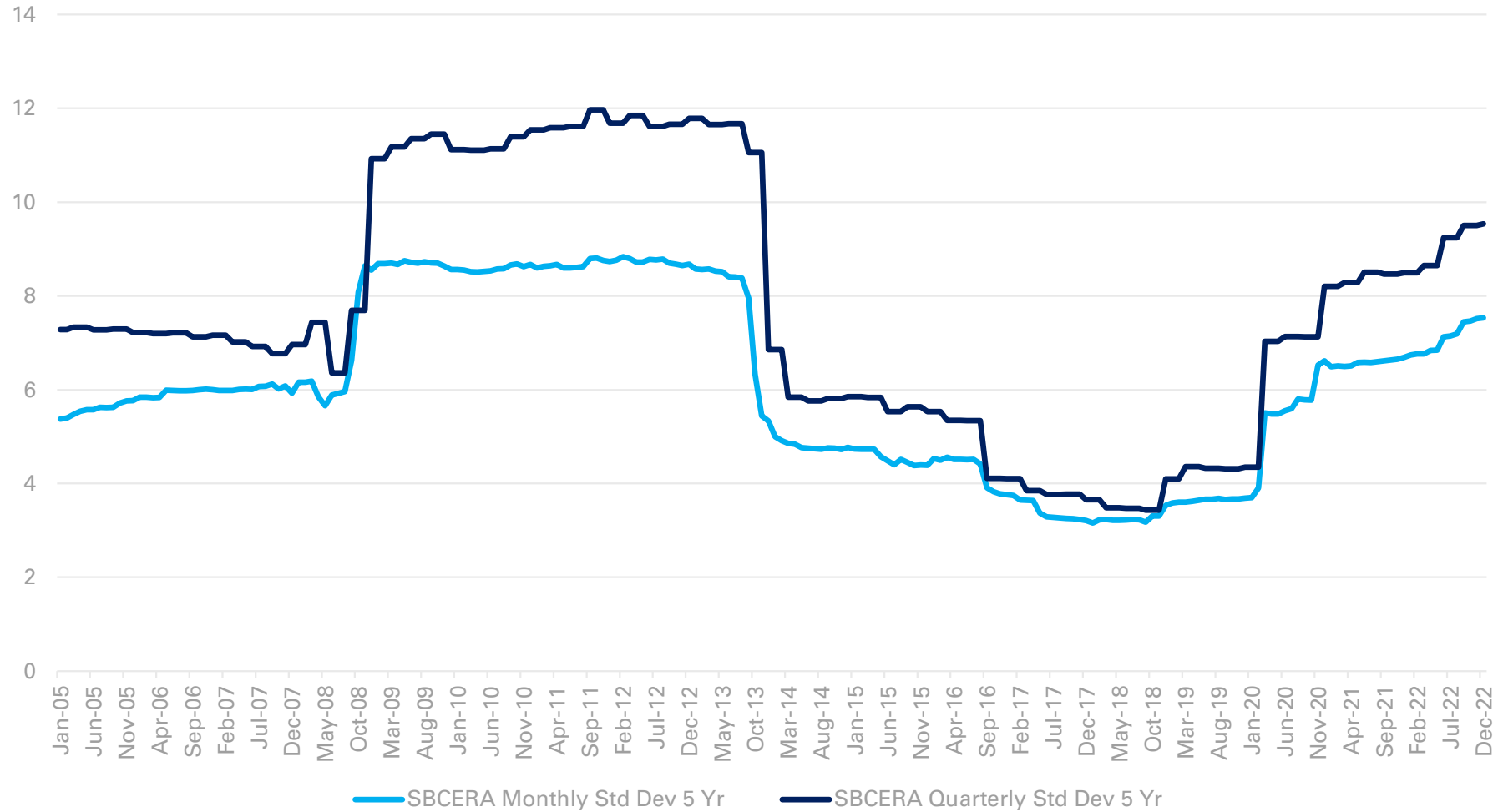
POLICY INDEX COMPOSITION

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

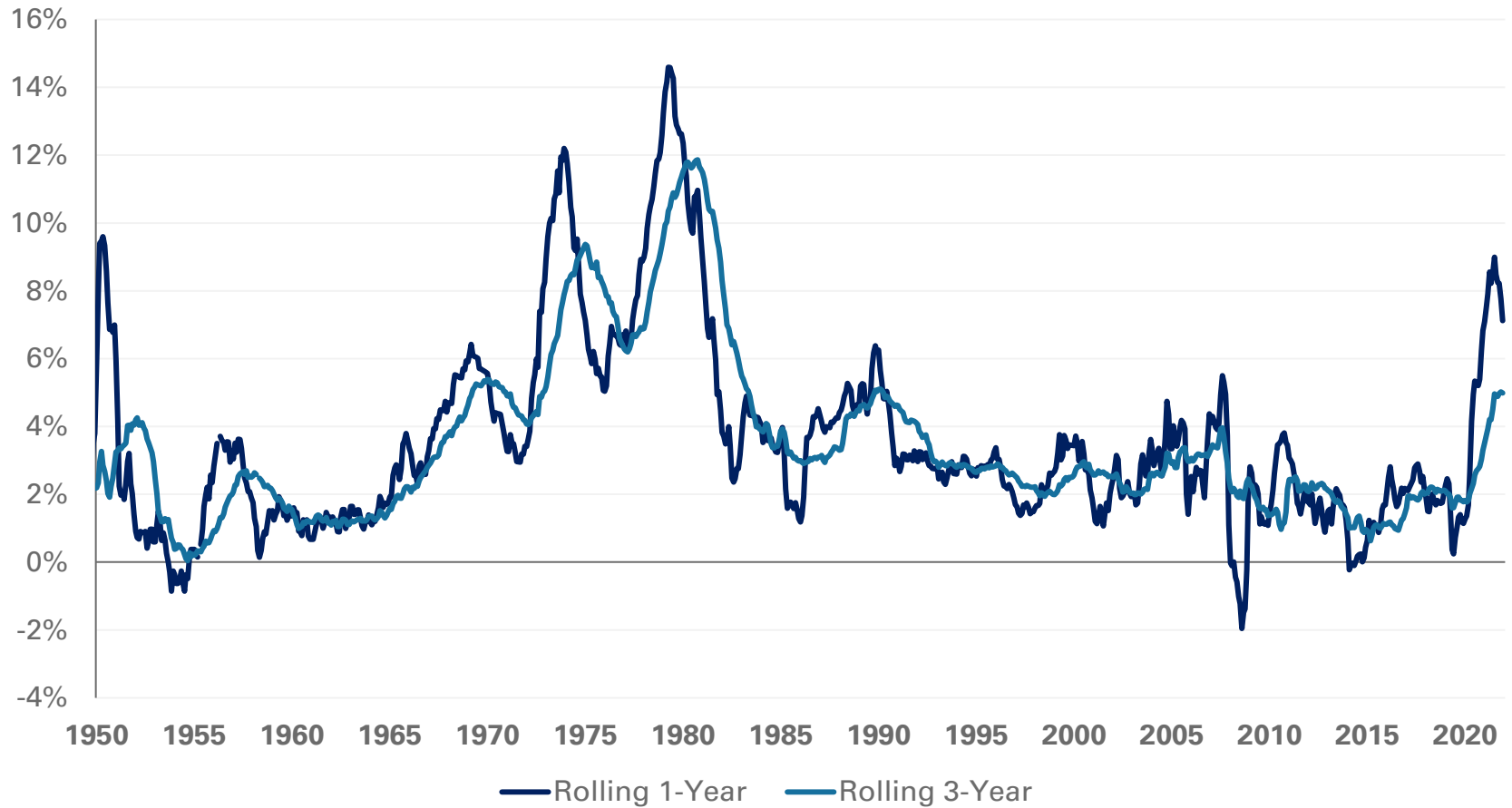




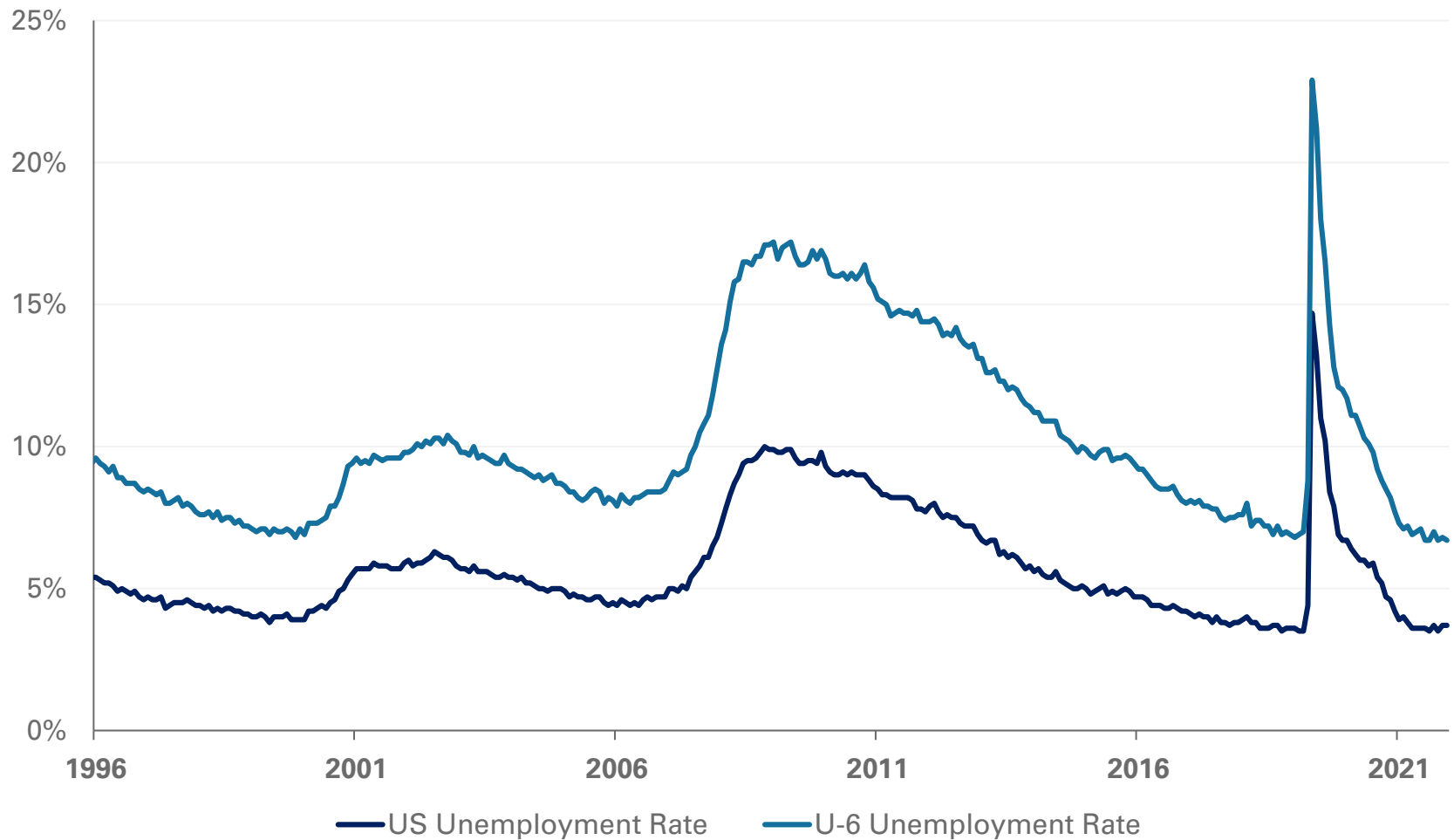
MACRO

INFLATION

U.S. CONSUMER PRICE INDEX

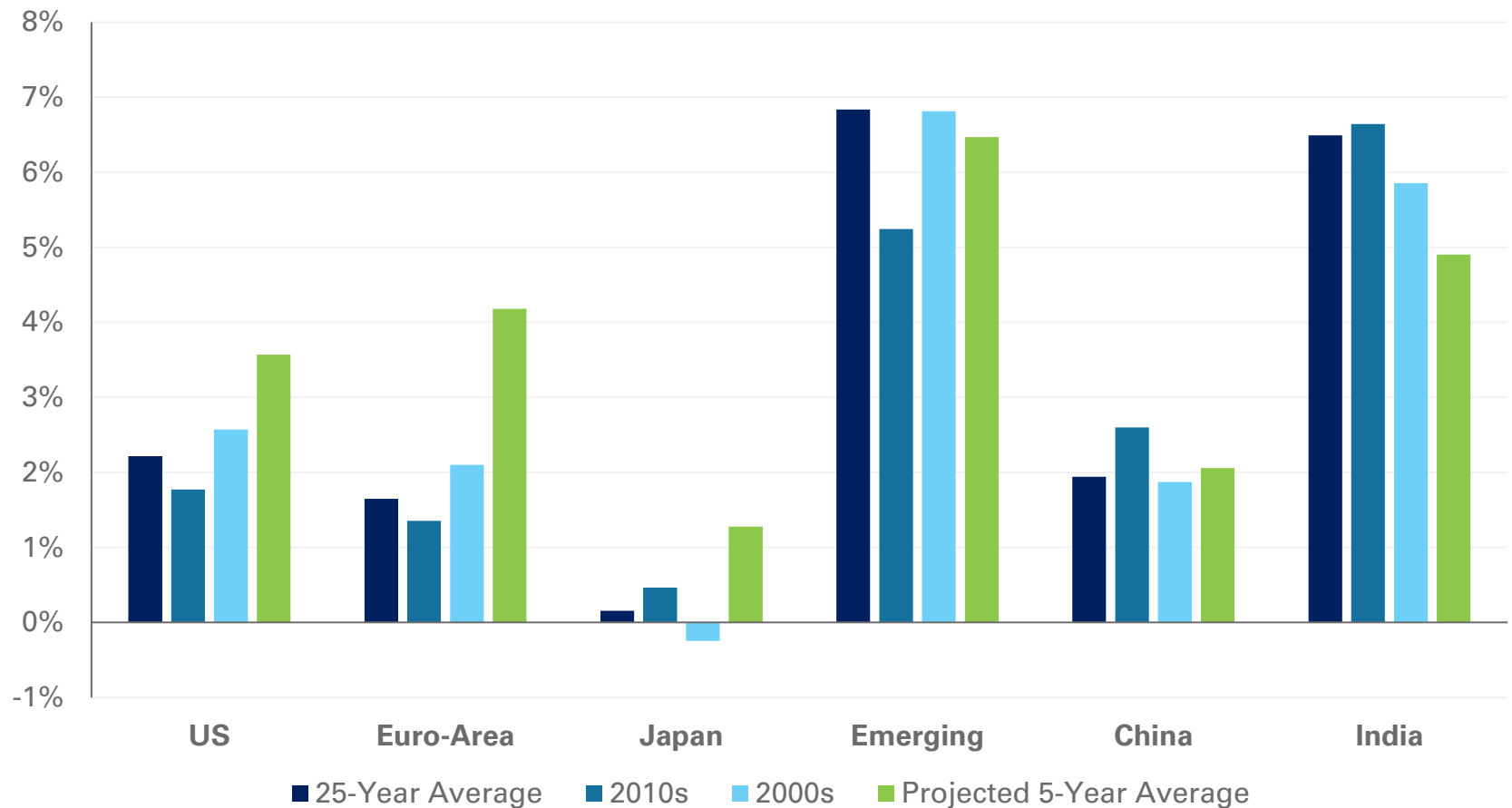


U.S. UNEMPLOYMENT RATES

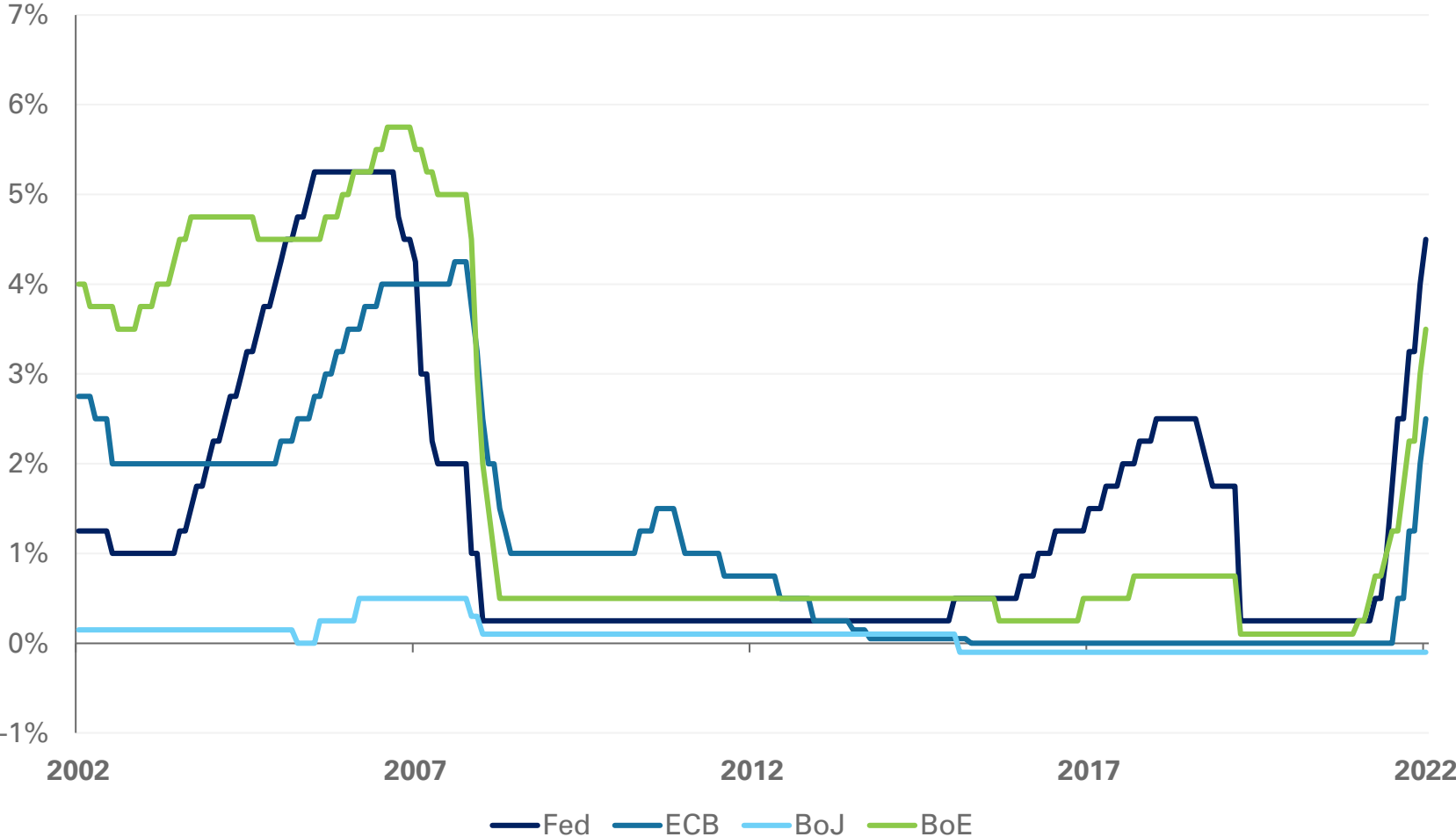


HISTORICAL INFLATION

IMF PROJECTIONS

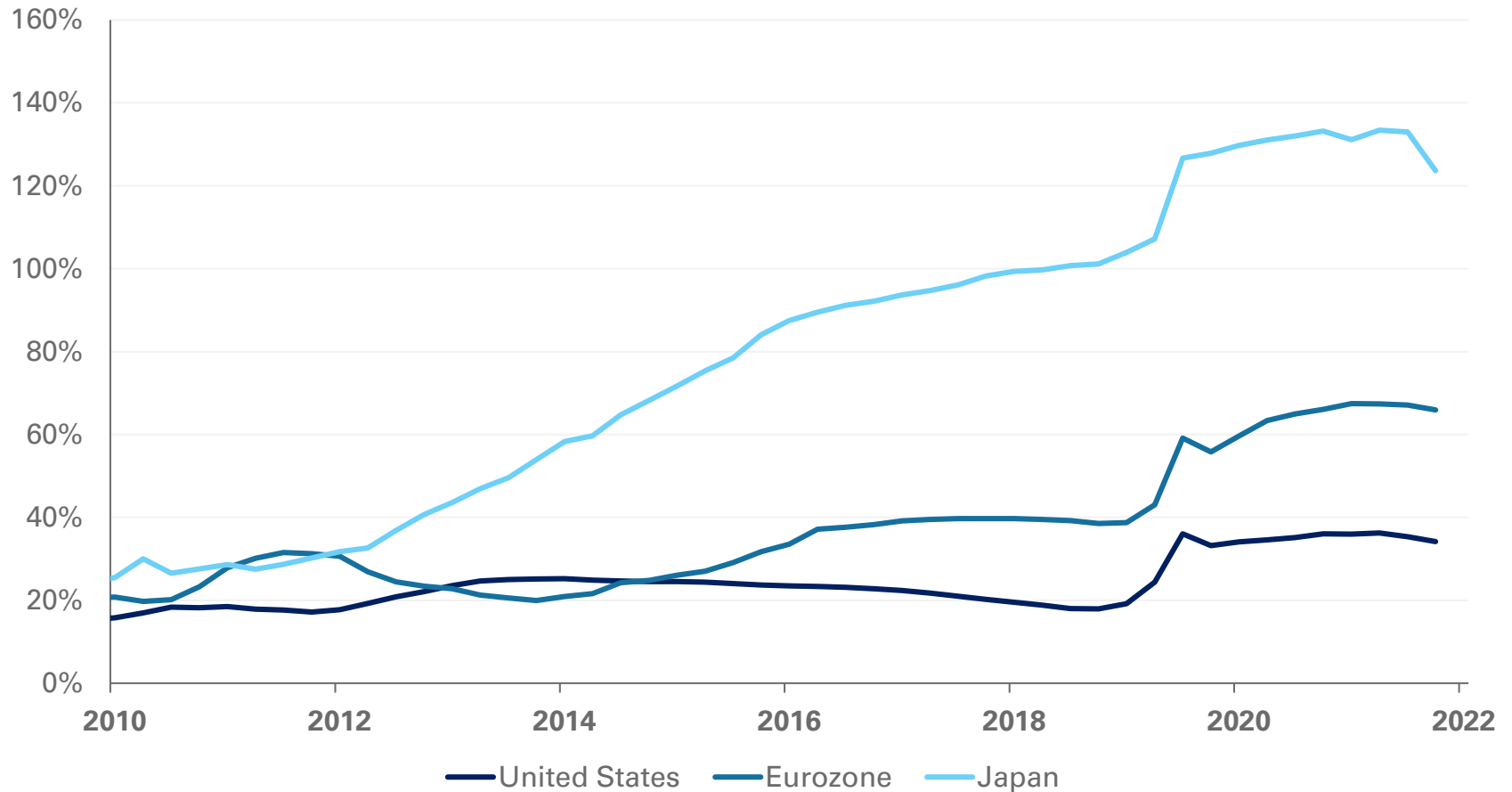


CENTRAL BANK POLICY RATES



CENTRAL BANK BALANCE SHEETS

AS A PERCENTAGE OF GDP



CURRENCIES

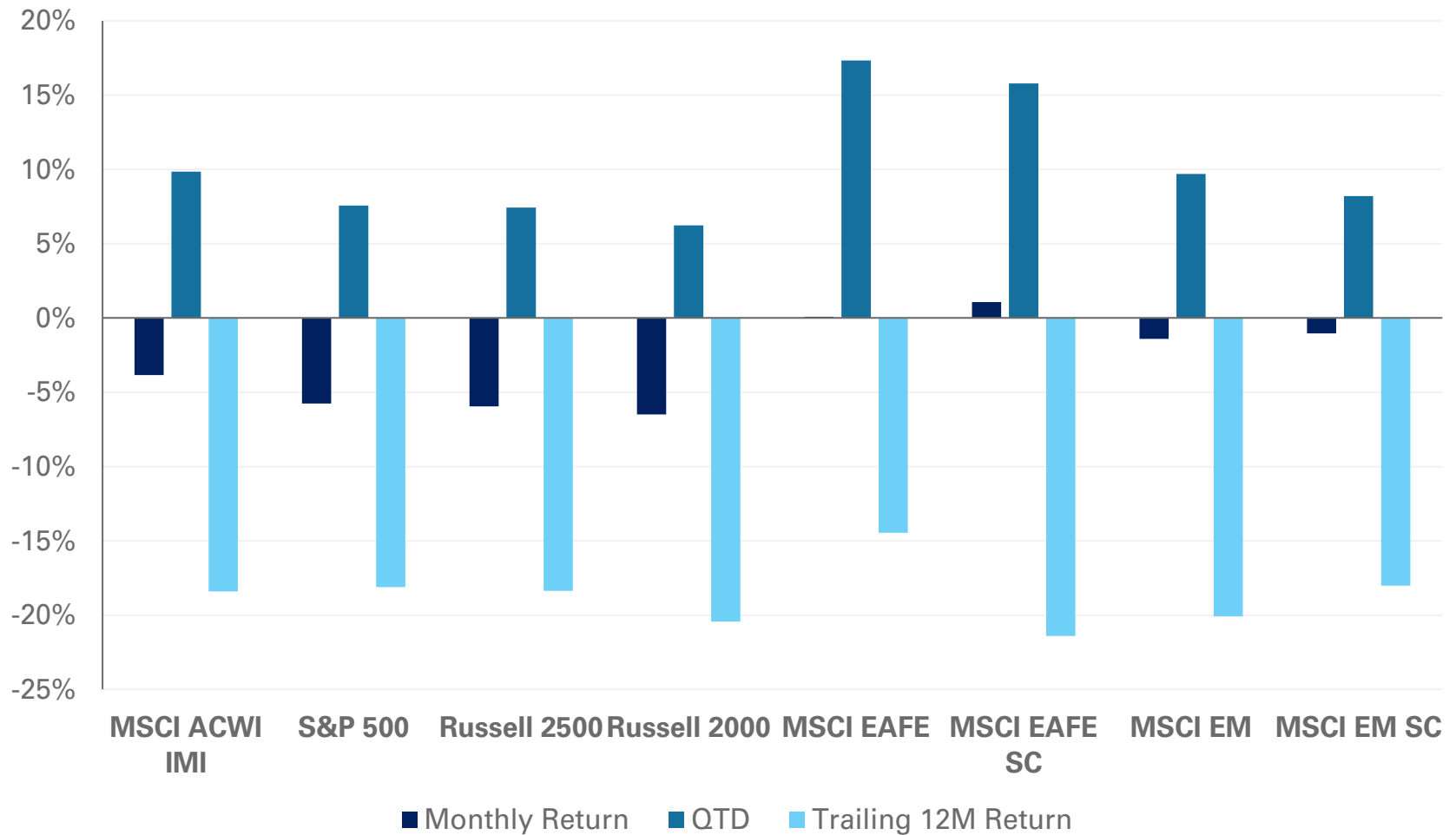
RELATIVE TO THE U.S. DOLLAR

Currencies	Spot	1 Month	QTD	1 Year
Euro	1.07	3.7%	8.9%	-6.2%
British Pound	1.20	1.0%	7.8%	-11.2%
Japanese Yen	131.95	5.8%	9.7%	-12.7%
Swiss Franc	0.93	3.0%	6.4%	-1.5%
Australian Dollar	0.68	1.3%	5.5%	-6.7%
New Zealand Dollar	1.58	1.8%	11.8%	-7.6%
Canadian Dollar	1.35	0.1%	1.4%	-6.8%
Chinese Yuan	6.95	2.8%	2.0%	-8.3%
Taiwanese Dollar	30.74	0.6%	3.3%	-10.0%
Korean Won	1265	4.3%	13.1%	-6.0%
Vietnamese Dong	23575	4.5%	1.2%	-3.3%
Thai Baht	34.64	1.8%	8.9%	-3.6%
Philippines Peso	55.73	1.5%	5.2%	-8.5%
Indian Rupee	82.73	-1.6%	-1.7%	-10.1%
Russian Ruble	73.00	-16.6%	-16.3%	2.7%
Mexican Peso	19.49	-0.6%	3.2%	5.0%
Brazilian Real	5.28	-0.4%	2.4%	5.5%
Chilean Peso	0.02	6.0%	14.5%	12.6%
Argentine Peso	177.11	-5.6%	-16.8%	-42.0%
South African Rand	17.02	-0.1%	5.6%	-6.2%

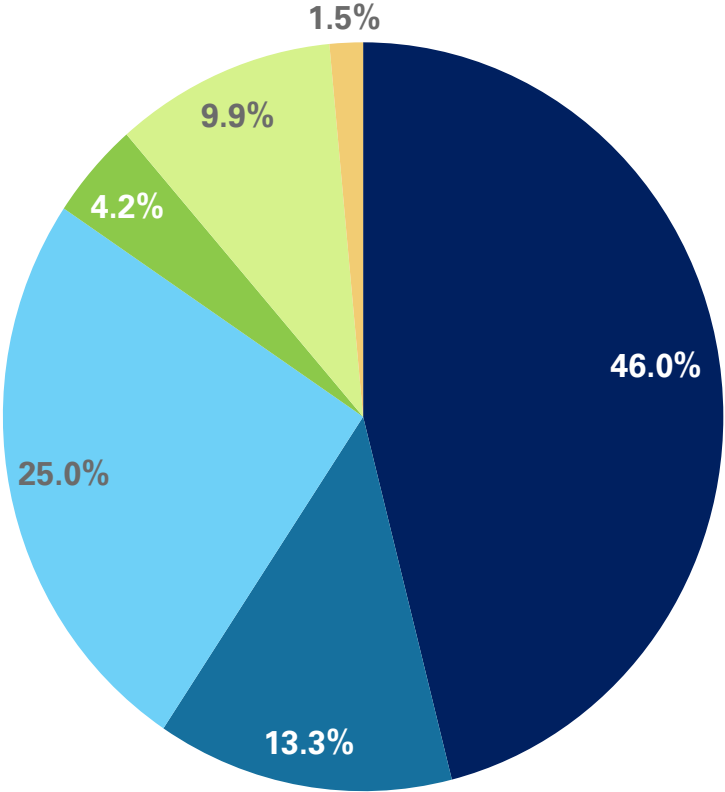


EQUITY

EQUITY INDEX PERFORMANCE



MSCI ACWI IMI WEIGHTS

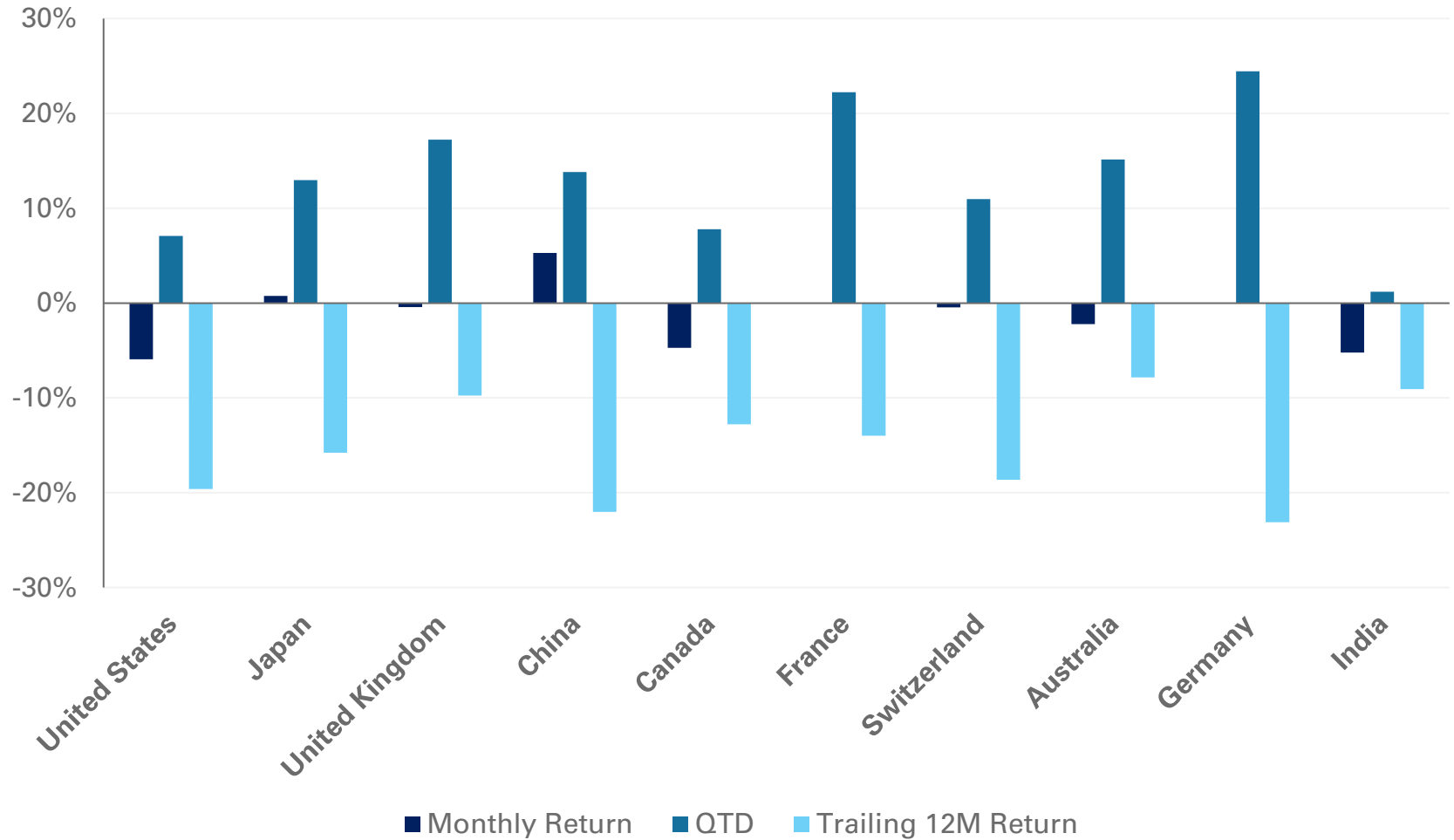


■ US Large Cap ■ US Small Cap ■ EAFE ■ EAFE Small Cap ■ EM ■ EM Small Cap

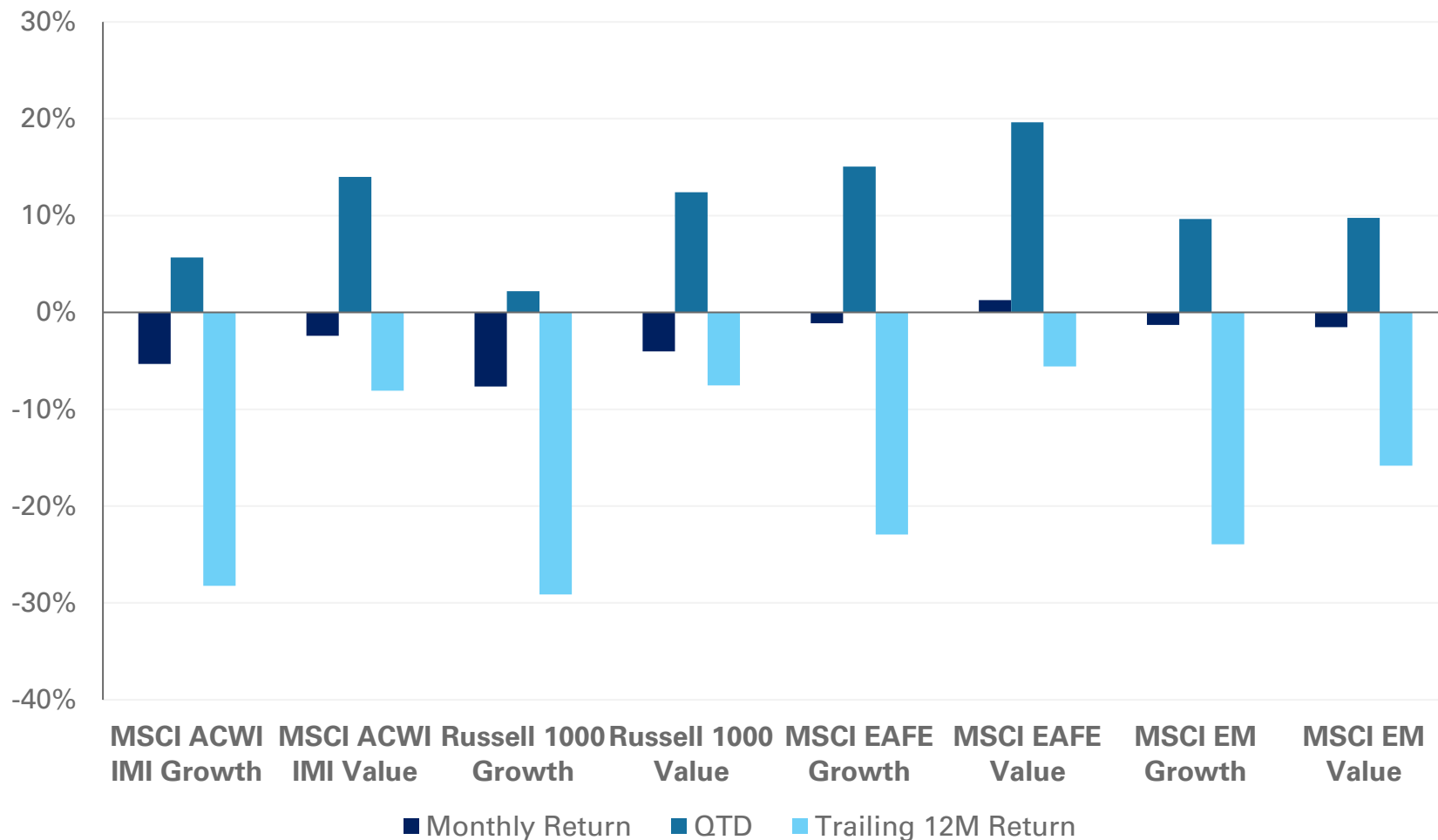


EQUITY INDEX PERFORMANCE

TOP 10 COUNTRIES BY MARKET CAP IN MSCI ACWI IMI INDEX



STYLE INDEX PERFORMANCE

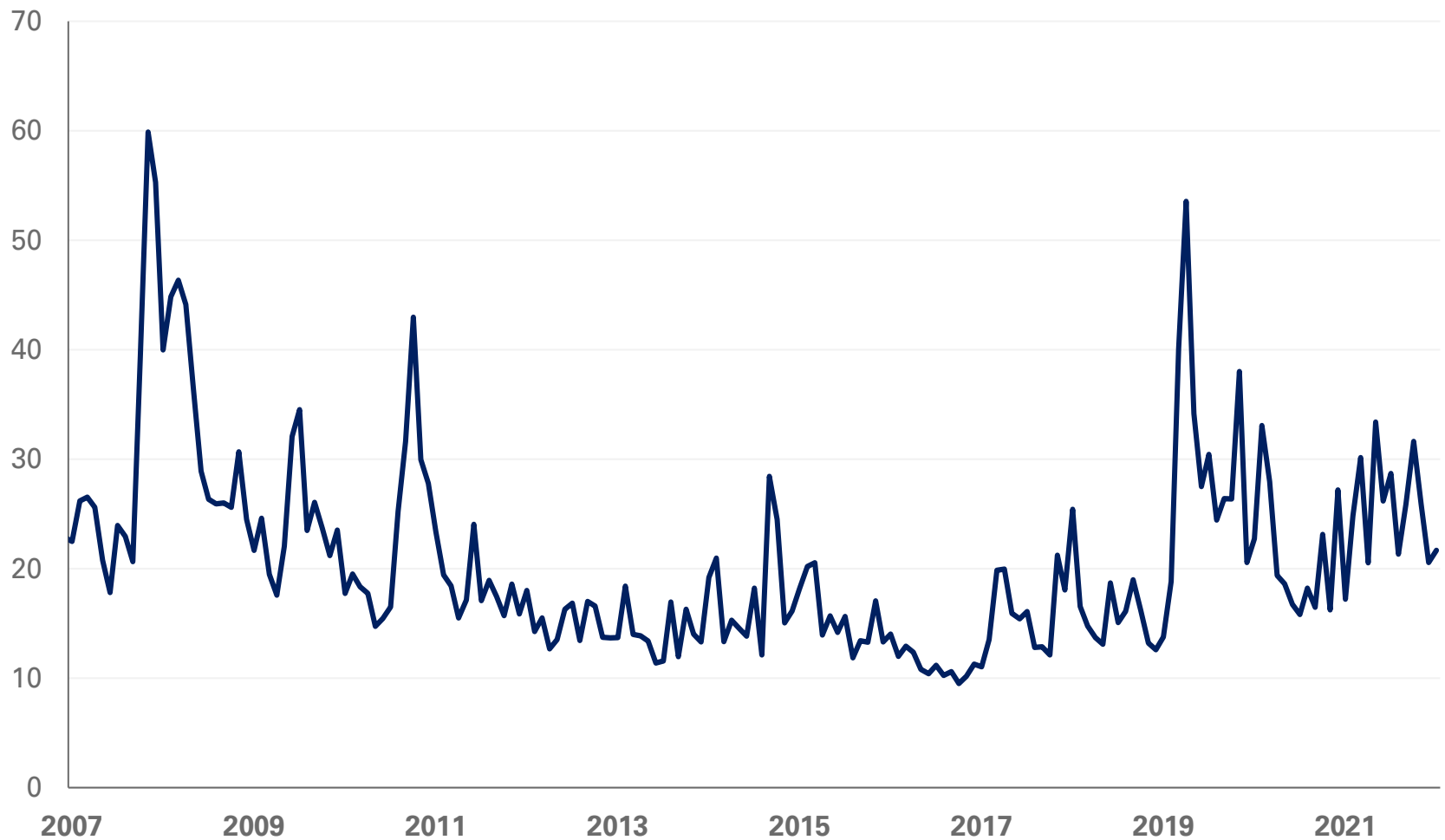


SECTOR INDEX PERFORMANCE

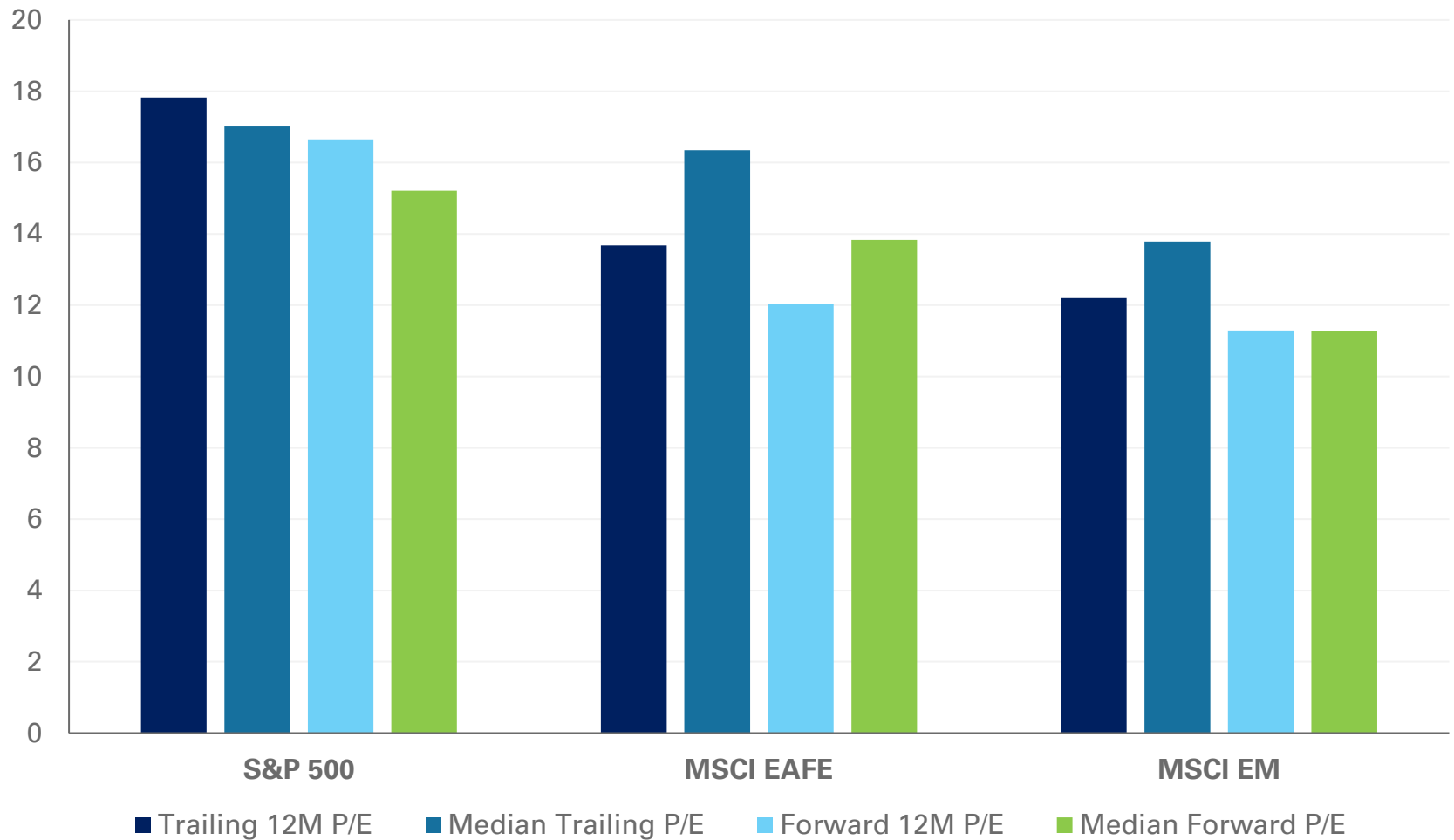
	Monthly Return	QTD	Trailing 12M Return	Index Weight
MSCI ACWI IMI	-3.8%	9.8%	-18.4%	100.0%
Communication Services	-4.4%	2.7%	-35.3%	6.3%
Consumer Discretionary	-6.7%	0.8%	-31.0%	10.7%
Consumer Staples	-1.4%	11.3%	-6.8%	7.4%
Energy	-3.9%	17.3%	34.1%	5.5%
Financials	-2.6%	14.0%	-10.1%	15.0%
Health Care	-1.3%	12.1%	-8.7%	13.0%
Industrials	-2.1%	16.7%	-13.6%	11.2%
Information Technology	-7.6%	6.0%	-30.9%	19.0%
Materials	-2.6%	15.7%	-12.1%	5.4%
Real Estate	-3.1%	6.4%	-25.5%	3.3%
Utilities	-0.2%	10.2%	-4.7%	3.2%

	Monthly Return	QTD	Trailing 12M Return	Index Weight
S&P 500	-5.8%	7.6%	-18.1%	100.0%
Communication Services	-7.8%	-1.4%	-39.9%	7.3%
Consumer Discretionary	-11.3%	-10.2%	-37.0%	9.8%
Consumer Staples	-2.8%	12.7%	-0.6%	7.2%
Energy	-2.9%	22.8%	65.7%	5.2%
Financials	-5.2%	13.6%	-10.5%	11.7%
Health Care	-1.9%	12.8%	-2.0%	15.8%
Industrials	-3.0%	19.2%	-5.5%	8.7%
Information Technology	-8.4%	4.7%	-28.2%	25.7%
Materials	-5.6%	15.0%	-12.3%	2.7%
Real Estate	-4.8%	3.8%	-26.1%	2.7%
Utilities	-0.5%	8.6%	1.6%	3.2%

EQUITY VOLATILITY INDEX (VIX)

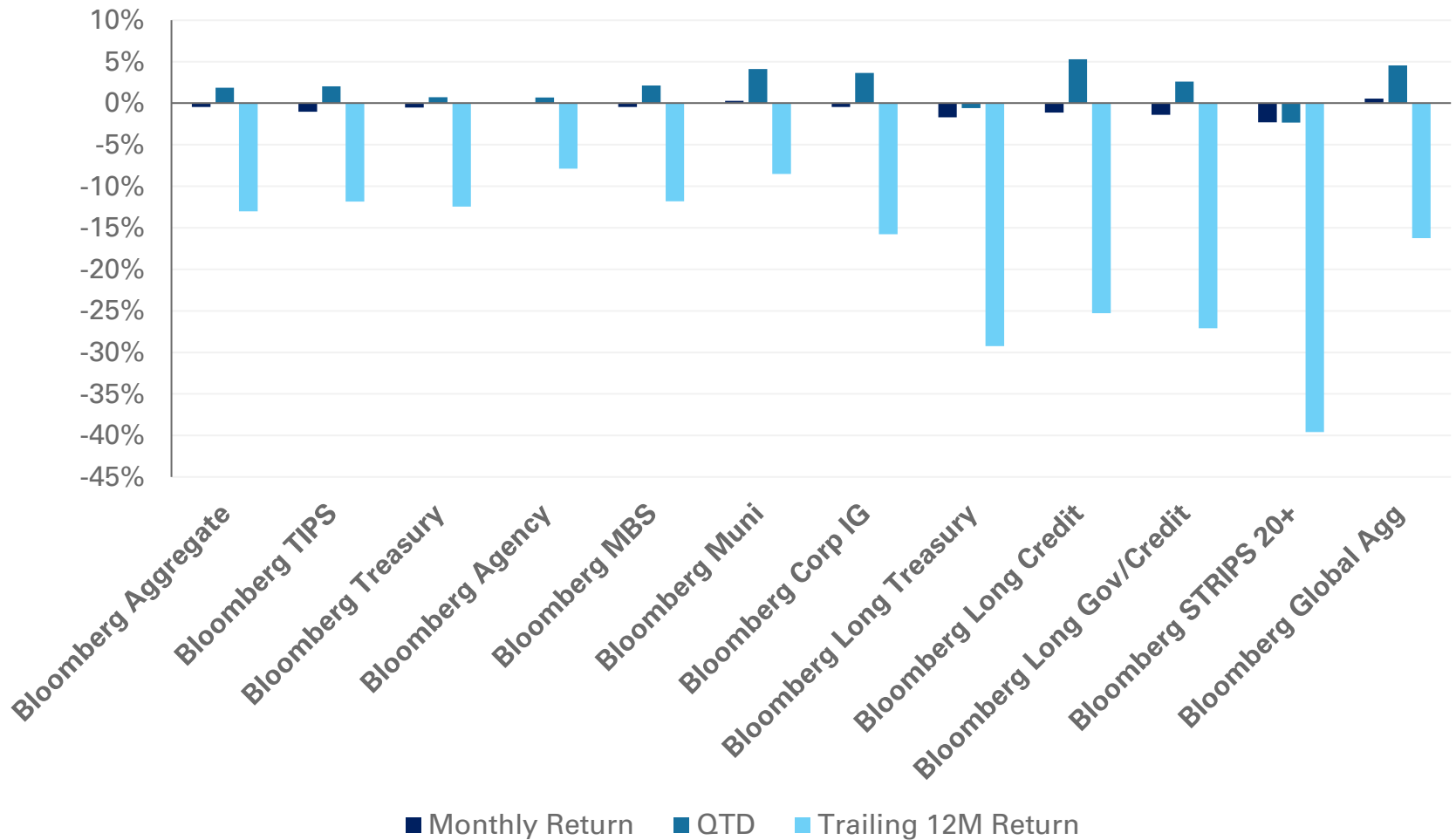


GLOBAL EQUITY VALUATIONS



SAFE-HAVEN FIXED INCOME

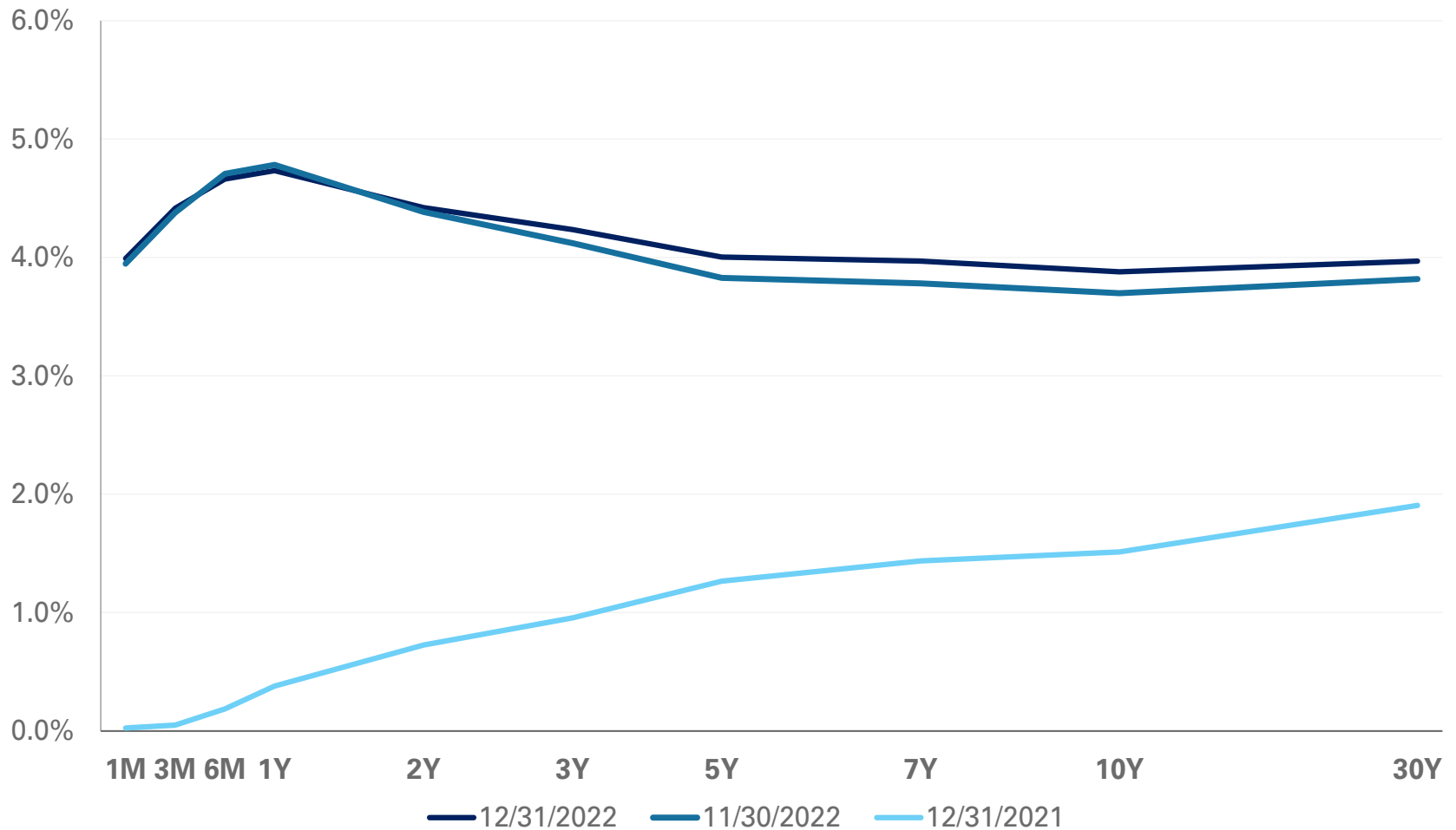
SAFE-HAVEN FIXED INCOME PERFORMANCE



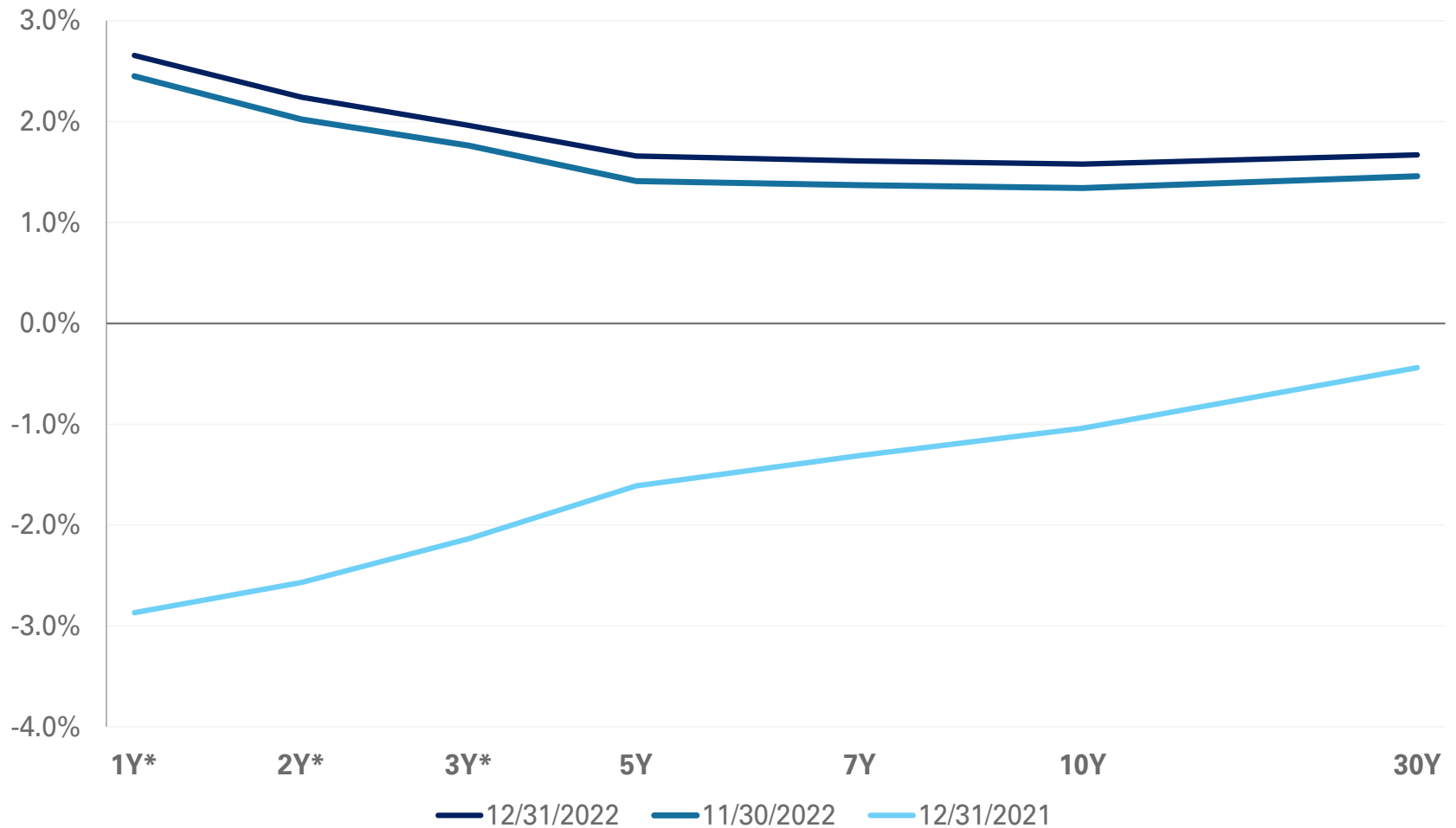
FIXED INCOME CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg Aggregate	4.68%	51	6.2
Bloomberg TIPS	4.38%	-	5.4
Bloomberg Treasury	4.18%	-	6.1
Bloomberg Agency	4.58%	26	3.4
Bloomberg MBS	4.71%	51	5.8
Bloomberg Muni	3.55%	-	6.2
Bloomberg Corp IG	5.42%	130	7.1
Bloomberg Long Treasury	4.08%	-	16.2
Bloomberg Long Credit	5.59%	157	12.8
Bloomberg Long Gov/Credit	4.91%	87	14.3
Bloomberg STRIPS 20+	4.06%	-	25.0
Bloomberg Global Agg	3.73%	51	6.7

US TREASURY YIELD CURVE



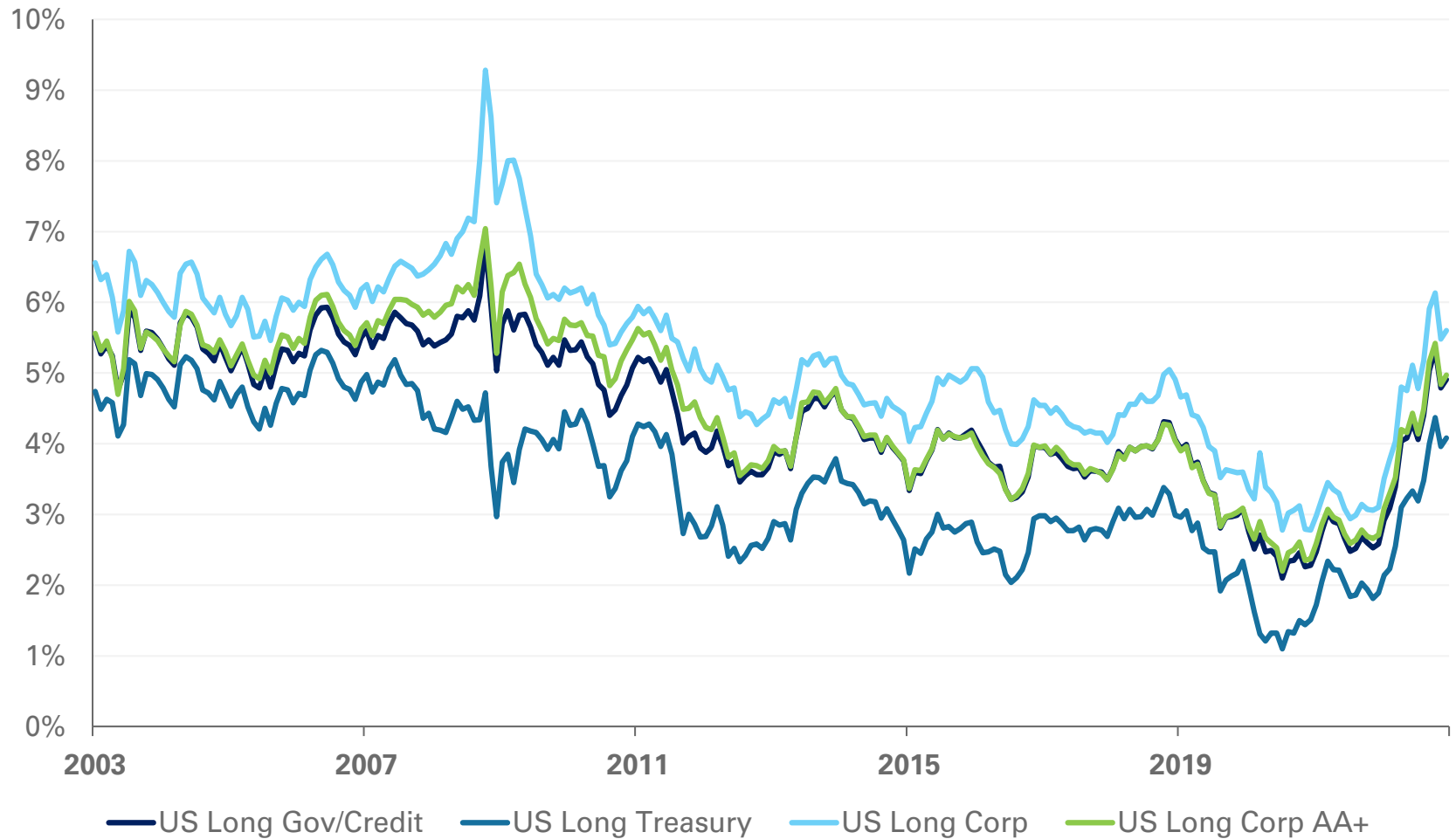
US TREASURY REAL YIELD CURVE



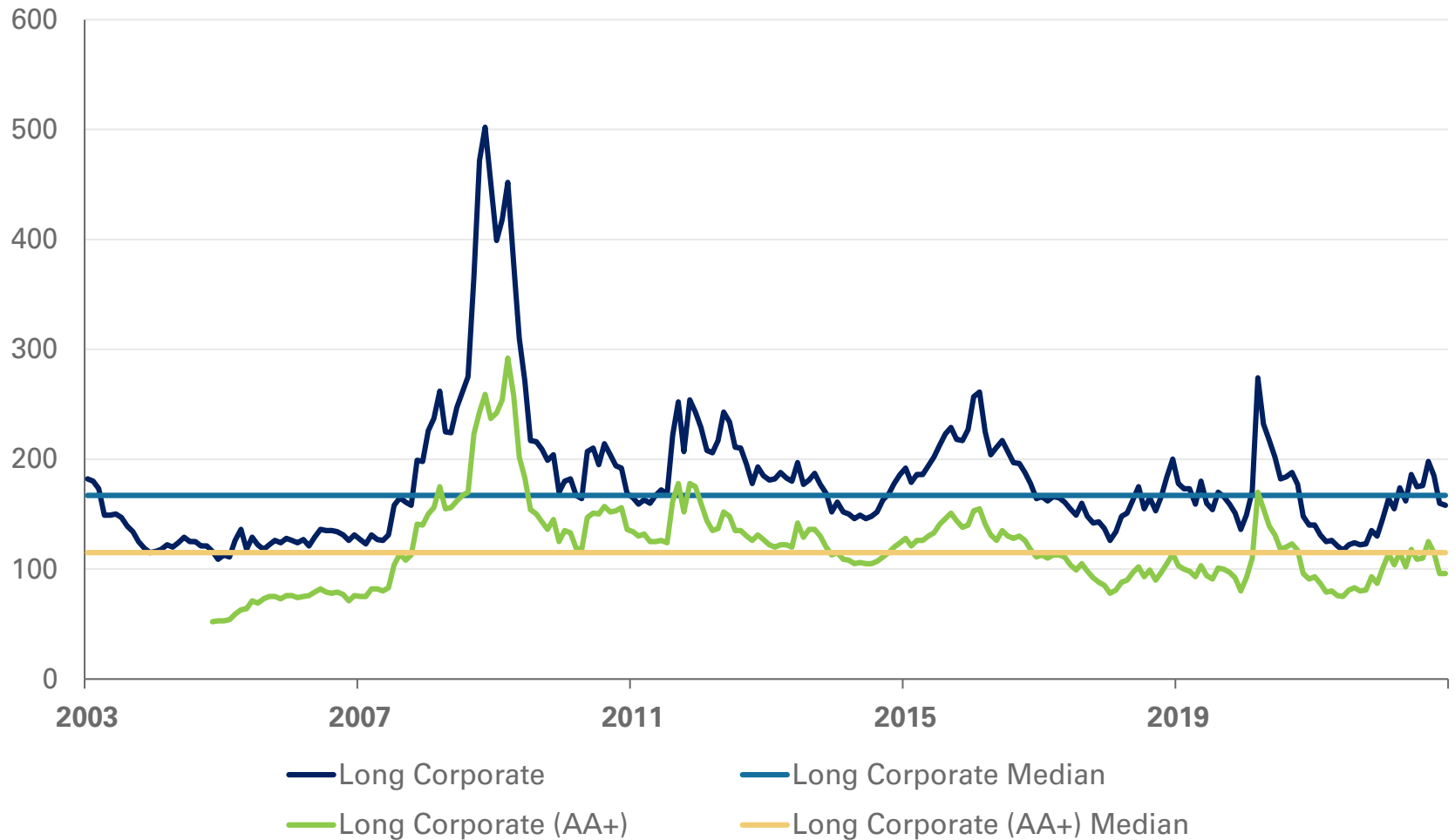
MUNI -TO-TREASURY RATIO



LONG DURATION YIELDS

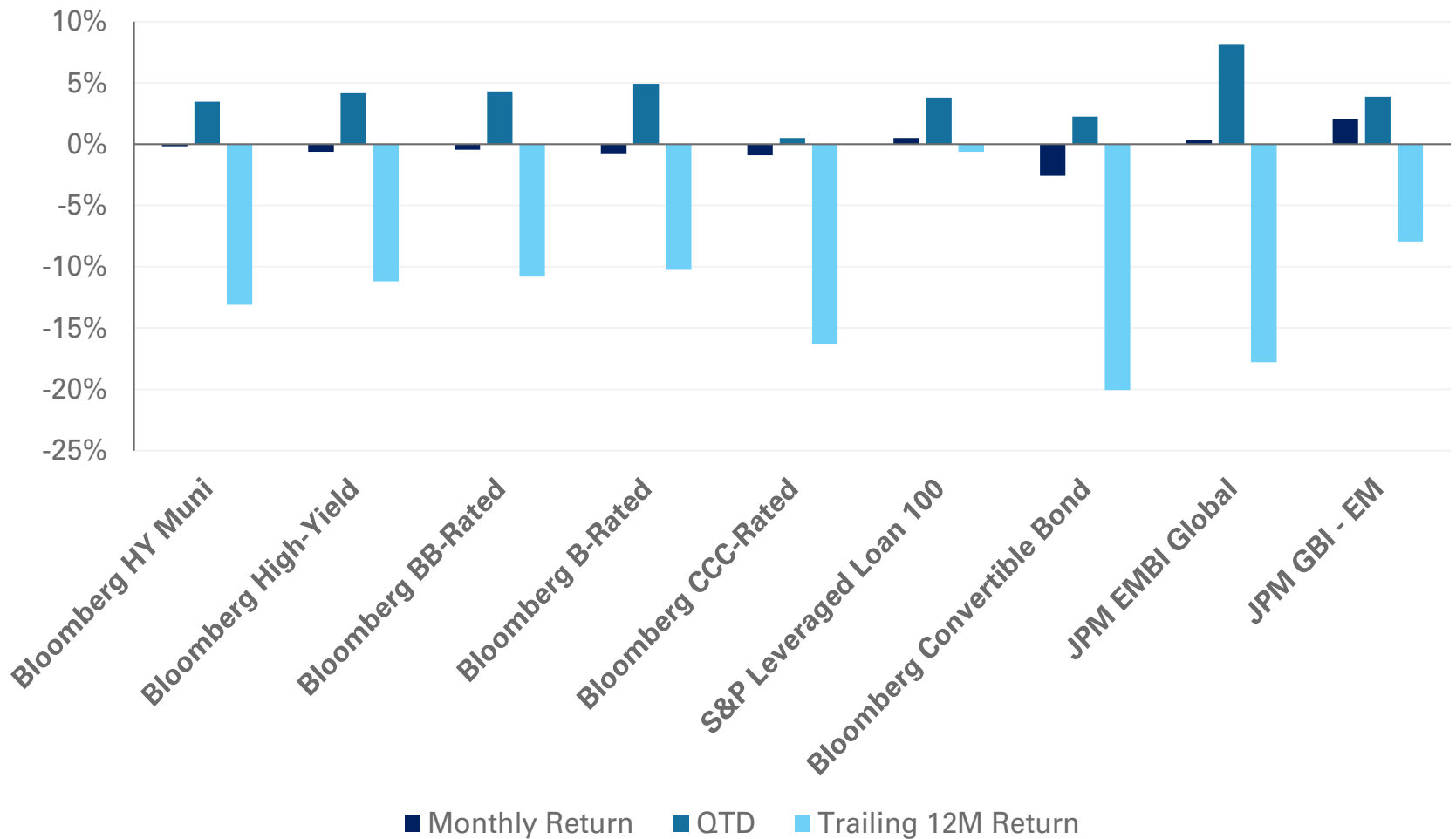


LONG DURATION CORPORATE SPREADS



RETURN-SEEKING CREDIT

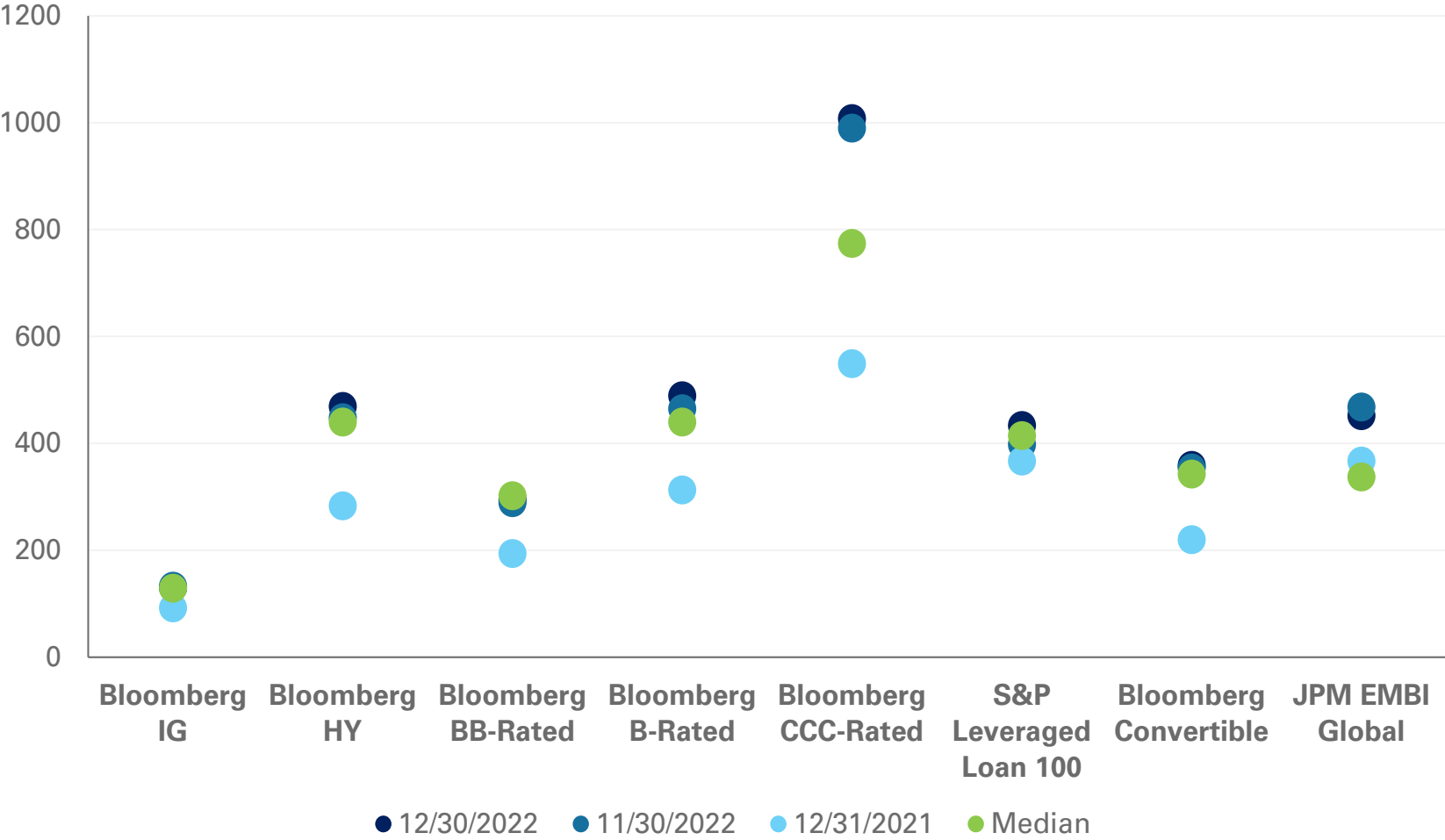
RETURN-SEEKING CREDIT INDEX PERFORMANCE



RETURN-SEEKING CREDIT CHARACTERISTICS

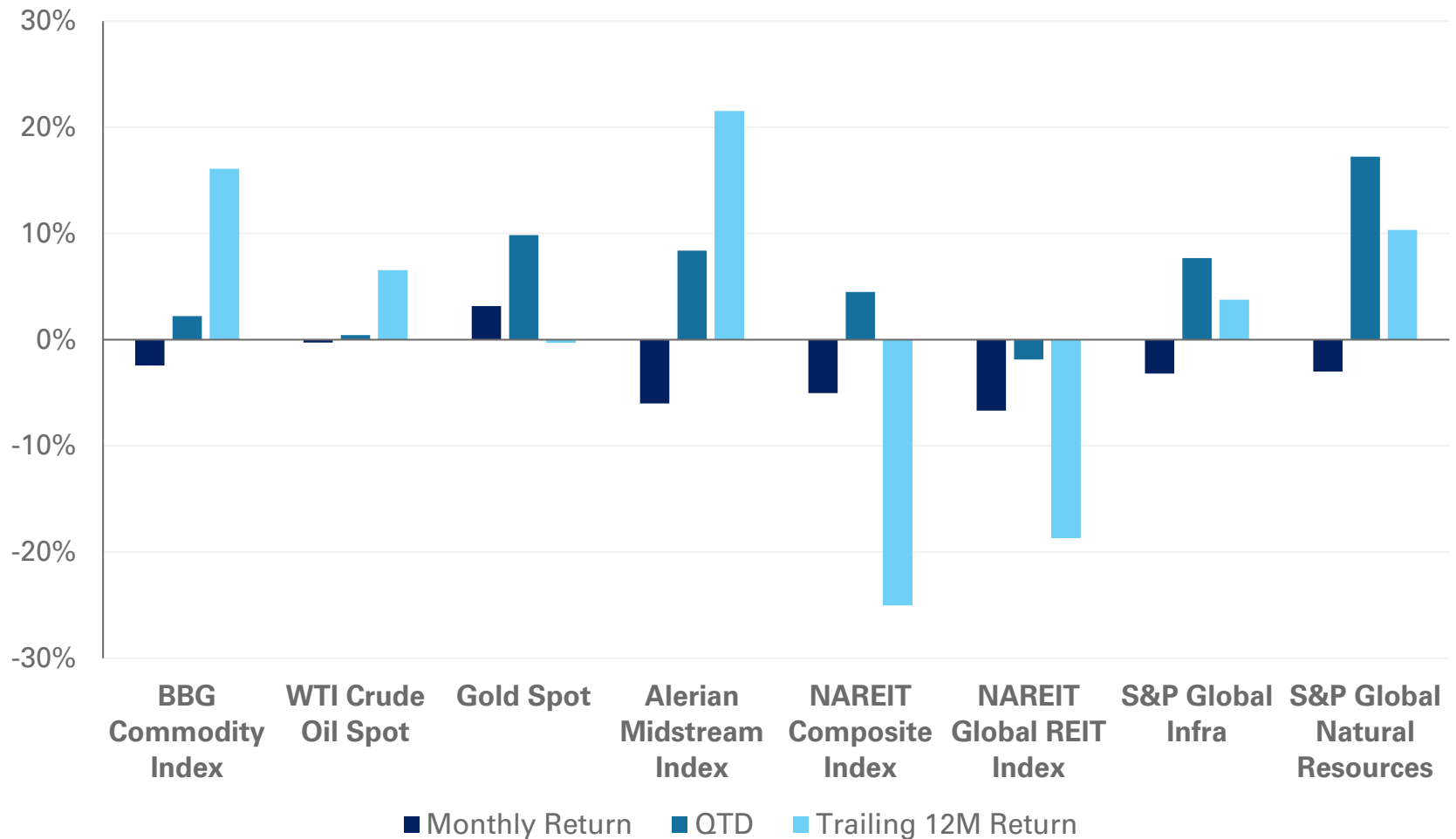
	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg HY Muni	5.83%	-	7.9
Bloomberg High-Yield	8.96%	469	3.9
Bloomberg BB-Rated	7.21%	295	4.3
Bloomberg B-Rated	9.21%	489	3.6
Bloomberg CCC-Rated	14.26%	1008	3.4
S&P/LSTA Leveraged Loan 100	9.10%	434	-
Bloomberg Convertible Bond	0.67%	359	2.2
JPM EMBI Global	8.56%	452	6.8
JPM GBI - EM	5.04%	-	5.4

CREDIT SPREADS



REAL ASSETS

REAL ASSETS INDEX PERFORMANCE



REAL ASSETS INDEX PERFORMANCE

Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-2.4%	2.2%	16.1%	16.1%	12.6%	6.4%
Bloomberg Sub Agriculture Index	1.6%	2.4%	15.5%	15.5%	19.4%	9.1%
Coffee	-1.2%	-22.3%	-21.9%	-21.9%	5.0%	-0.9%
Corn	2.1%	0.3%	23.0%	23.0%	23.0%	11.0%
Cotton	-1.1%	0.8%	-6.9%	-6.9%	13.4%	4.8%
Soybean	3.8%	11.6%	28.9%	28.9%	22.5%	10.1%
Soybean Oil	-9.5%	9.2%	29.6%	29.6%	31.1%	16.9%
Sugar	2.5%	14.5%	12.2%	12.2%	15.0%	2.8%
Wheat	-0.1%	-15.3%	-2.7%	-2.7%	6.9%	6.7%
Bloomberg Sub Energy	-12.2%	-9.1%	36.2%	36.2%	5.9%	3.0%
Brent Crude	-0.9%	7.2%	41.8%	41.8%	17.1%	13.1%
Heating Oil	-2.3%	14.6%	94.9%	94.9%	23.9%	14.8%
Natural Gas	-33.2%	-36.0%	19.4%	19.4%	-3.9%	-11.0%
Unleaded Gas	2.9%	12.8%	48.7%	48.7%	20.2%	12.5%
WTI Crude Oil	-0.2%	4.9%	24.9%	24.9%	-0.2%	1.3%
Bloomberg Sub Industrial Metals	2.2%	16.4%	-2.4%	-2.4%	13.9%	5.0%
Aluminum	-4.2%	9.8%	-15.1%	-15.1%	7.0%	-0.4%
Copper	2.3%	13.0%	-13.5%	-13.5%	10.6%	2.7%
Nickel	11.3%	42.6%	46.7%	46.7%	28.8%	18.8%
Zinc	-1.4%	1.7%	-10.5%	-10.5%	10.7%	1.1%
Bloomberg Sub Precious Metals	5.7%	13.3%	0.1%	0.1%	5.7%	5.7%
Gold	4.1%	9.5%	-0.7%	-0.7%	4.7%	5.7%
Silver	10.8%	26.7%	2.6%	2.6%	8.6%	5.6%
Bloomberg Sub Livestock	2.2%	8.5%	7.4%	7.4%	-3.7%	-3.7%
Lean Hogs	3.1%	11.8%	13.0%	13.0%	-1.1%	-6.9%
Live Cattle	1.8%	7.1%	4.7%	4.7%	-4.9%	-2.3%

OIL MARKETS

WTI VERSUS BRENT CRUDE SPOT PRICES



GOLD SPOT PRICE



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