



# QUARTERLY PERFORMANCE REPORT

SAN BERNARDINO COUNTY  
EMPLOYEES' RETIREMENT  
ASSOCIATION

MARCH 31, 2022

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# MARKET ENVIRONMENT



# ECONOMIC ENVIRONMENT

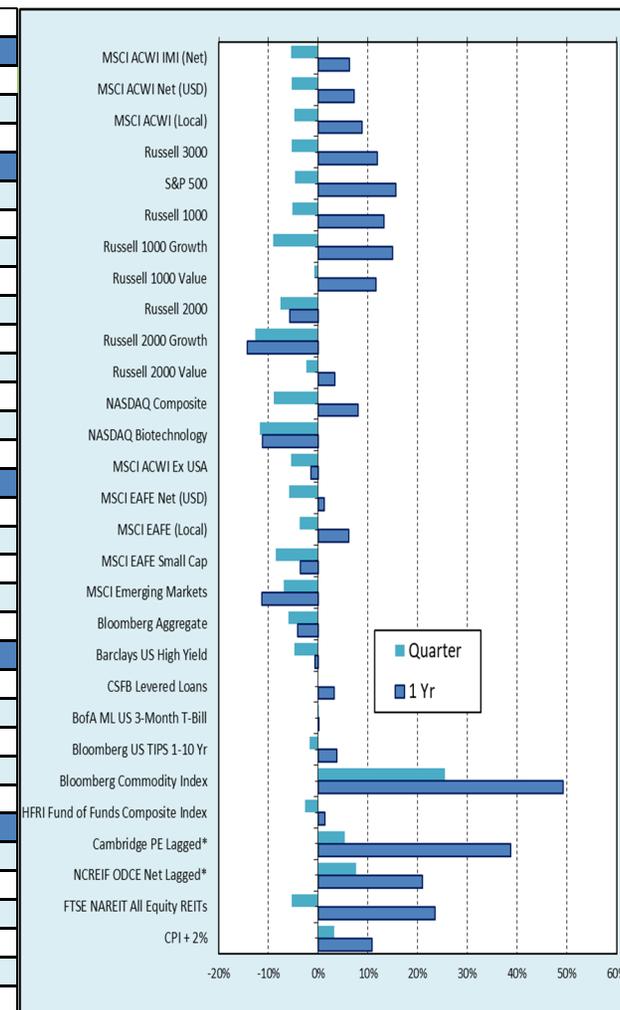
- **Q4 Real GDP (third estimate) grew at an annual rate of +6.9%.**
  - Retail sales ended February at +5.0% on a YoY basis. In the same period last year the YoY growth rate was +16.3%.
  - Corporate profits as a percent of GDP ended Q3 2021 at 11.3%, up from 10.1% on a YoY basis and remain elevated relative to historical levels.
  - The inventory-to-sales ratio ended February was 1.3. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April 2020.
  - The U.S. trade deficit remains close to record levels.
- **The unemployment rate was 3.6% in Q1, down from 3.9% in Q4; U-6, a broader measure of unemployment, decreased to 6.9% in Q1 from 7.3% in Q4.**
  - The labor force participation rate ended Q1 at 62.4% up from 61.9% in Q4, after declining 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 February) increased to 286.7 from 278.5 (in December) and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI spiked to 8.67% in Q1, up from 7.12% in Q4. In the same period last year, it was 2.73%; Capacity Utilization increased to 78.3% in Q1 from 76.5% in Q4.**
- **Fed Funds rate was increased 0.25% to a targeted range of 0.25%-to-0.50% from 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q1 at 2.1%, up from 1.5% in Q4.**
- **The Fed continues scaling back asset purchases. The Fed’s balance sheet is beginning to stabilize after a period of rapid growth post-pandemic.**
- **S&P valuations decreased in Q1 to 34.6 from 38.3 in Q4 and remain higher than the 10-year average of 28.3x.**
  - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.9x.



# MARKET ENVIRONMENT

## Q1 2022 OVERVIEW

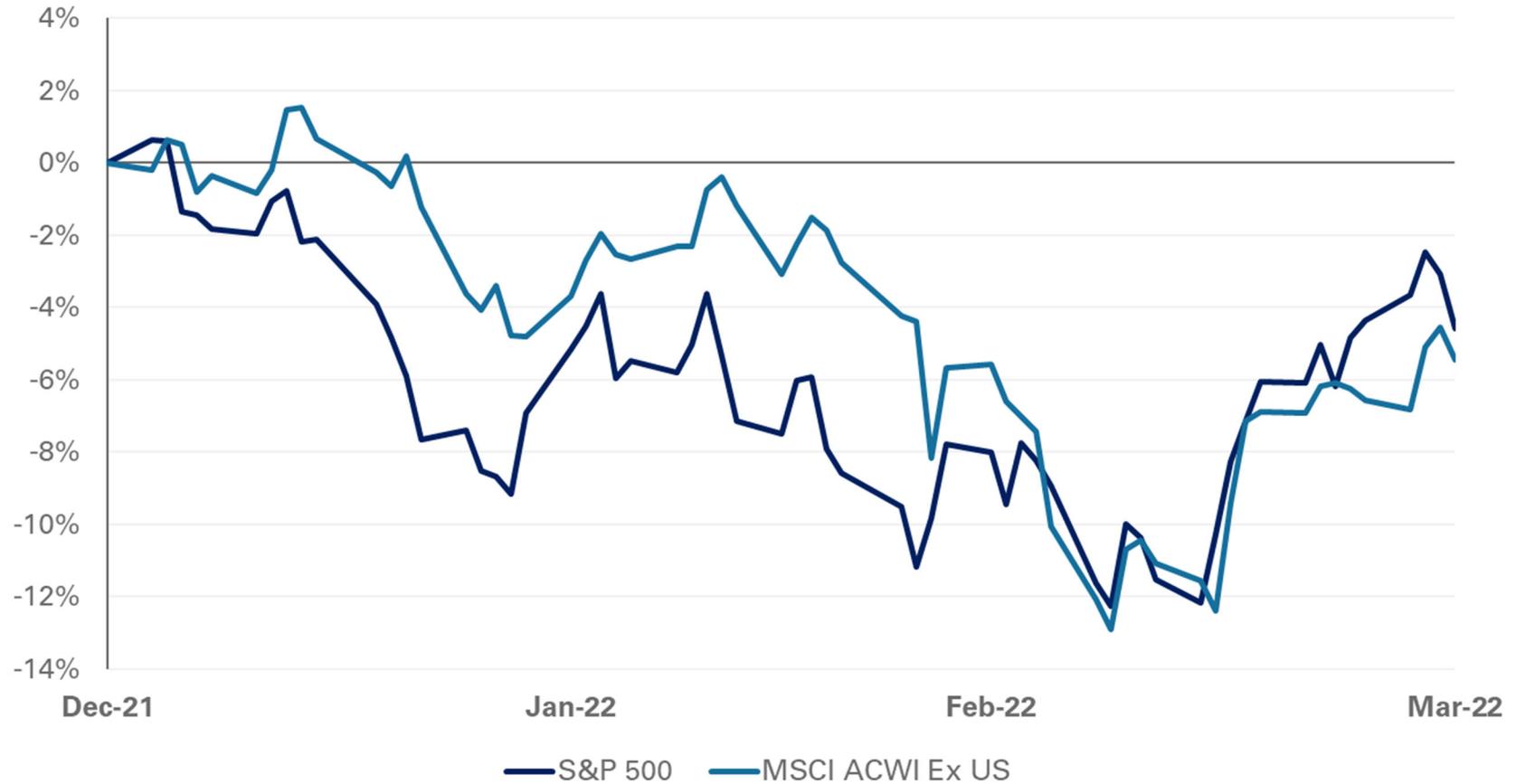
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI IMI (Net)	World with Small Cap	-5.47%	6.30%	13.49%	11.37%	9.95%
MSCI ACWI Net (USD)	World W/O Small Cap	-5.36%	7.28%	13.75%	11.64%	10.00%
MSCI ACWI (Local)	World (Local Currency)	-4.75%	8.79%	13.99%	11.56%	11.18%
<b>Domestic Equity Benchmarks</b>						
Russell 3000	Domestic All Cap	-5.28%	11.92%	18.24%	15.40%	14.28%
S&P 500	Large Core	-4.60%	15.65%	18.92%	15.99%	14.64%
Russell 1000	Large Core	-5.13%	13.27%	18.71%	15.82%	14.53%
Russell 1000 Growth	Large Growth	-9.04%	14.98%	23.60%	20.88%	17.04%
Russell 1000 Value	Large Value	-0.74%	11.67%	13.02%	10.29%	11.70%
Russell 2000	Small Core	-7.53%	-5.79%	11.74%	9.74%	11.04%
Russell 2000 Growth	Small Growth	-12.63%	-14.33%	9.88%	10.33%	11.21%
Russell 2000 Value	Small Value	-2.40%	3.32%	12.73%	8.57%	10.54%
NASDAQ Composite	Large Growth	-8.95%	8.06%	23.57%	20.31%	17.77%
NASDAQ Biotechnology	Biotech	-11.67%	-11.16%	6.54%	6.93%	12.97%
<b>International Equity Benchmarks</b>						
MSCI ACWI Ex USA	World ex-US	-5.44%	-1.49%	7.51%	6.76%	5.55%
MSCI EAFE Net (USD)	Int'l Developed	-5.91%	1.16%	7.78%	6.72%	6.27%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	-3.73%	6.21%	8.23%	6.55%	8.61%
MSCI EAFE Small Cap	Small Cap Int'l	-8.53%	-3.63%	8.51%	7.42%	8.30%
MSCI Emerging Markets	Emerging Equity	-6.98%	-11.37%	4.94%	5.98%	3.36%
<b>Domestic Fixed Income Benchmarks</b>						
Bloomberg Aggregate	Core Bonds	-5.93%	-4.15%	1.69%	2.14%	2.24%
Barclays US High Yield	High Yield	-4.84%	-0.66%	4.58%	4.69%	5.75%
CSFB Levered Loans	Bank Loans	-0.10%	3.22%	4.10%	4.05%	4.47%
BofA ML US 3-Month T-Bill	Cash	0.04%	0.06%	0.81%	1.13%	0.63%
Bloomberg US TIPS 1-10 Yr	Inflation	-1.75%	3.78%	5.45%	3.88%	2.24%
<b>Alternative Benchmarks</b>						
Bloomberg Commodity Index	Commodities	25.55%	49.25%	16.12%	9.00%	-0.70%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	-2.64%	1.32%	5.90%	4.65%	3.93%
Cambridge PE Lagged*	Private Equity	5.38%	38.73%	24.18%	19.98%	16.42%
NCREIF ODCE Net Lagged*	Real Estate	7.66%	21.02%	8.23%	7.74%	9.44%
FTSE NAREIT All Equity REITs	REIT	-5.29%	23.54%	11.71%	10.68%	10.50%
CPI + 2%	Inflation/Real Assets	3.21%	10.84%	6.34%	5.47%	4.37%



\* As of 12/31/2021

# VOLATILE START TO THE YEAR FOR EQUITIES

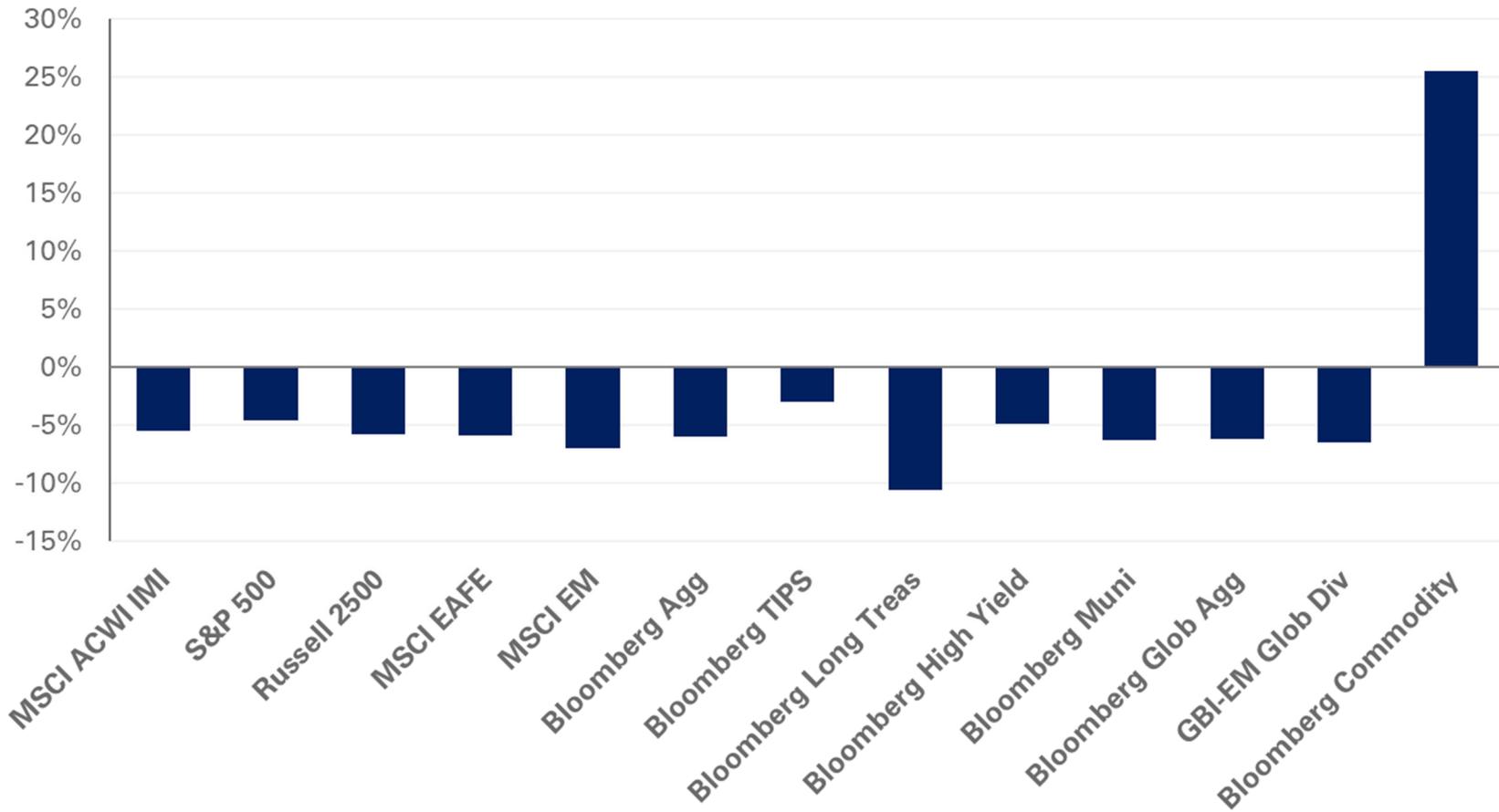
## CUMULATIVE TOTAL RETURNS



Source: S&P, MSCI, FactSet

# GLOBAL MARKETS BROADLY DECLINED

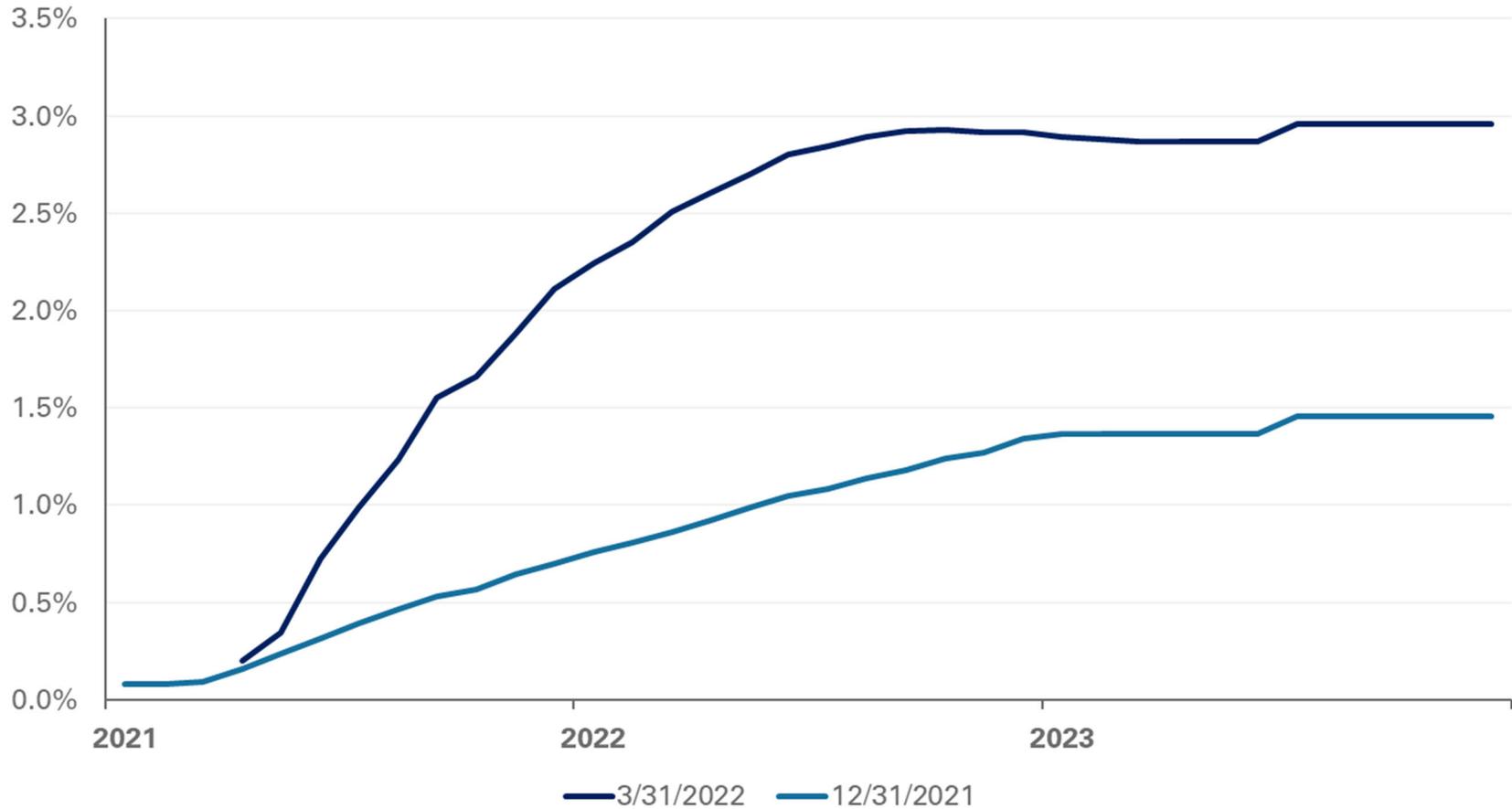
## QUARTERLY TOTAL RETURNS



Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet

# THE MARKET EXPECTS NINE RATE HIKES IN 2022

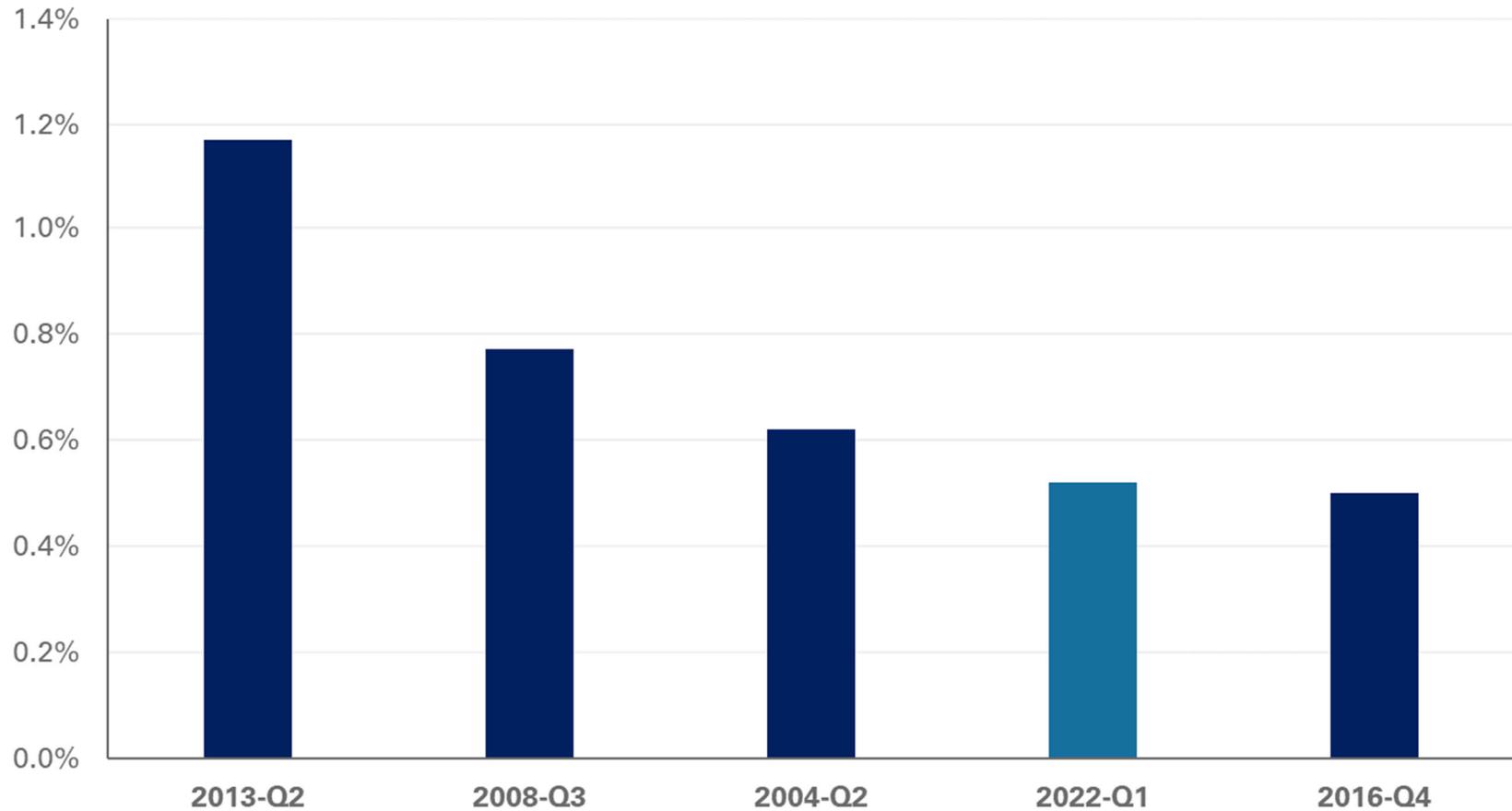
## FED FUNDS FUTURES



Source: FactSet

# REAL YIELDS SURGED DURING THE QUARTER

## TOP 5 QUARTERLY CHANGE IN 10-YEAR TIPS REAL YIELDS

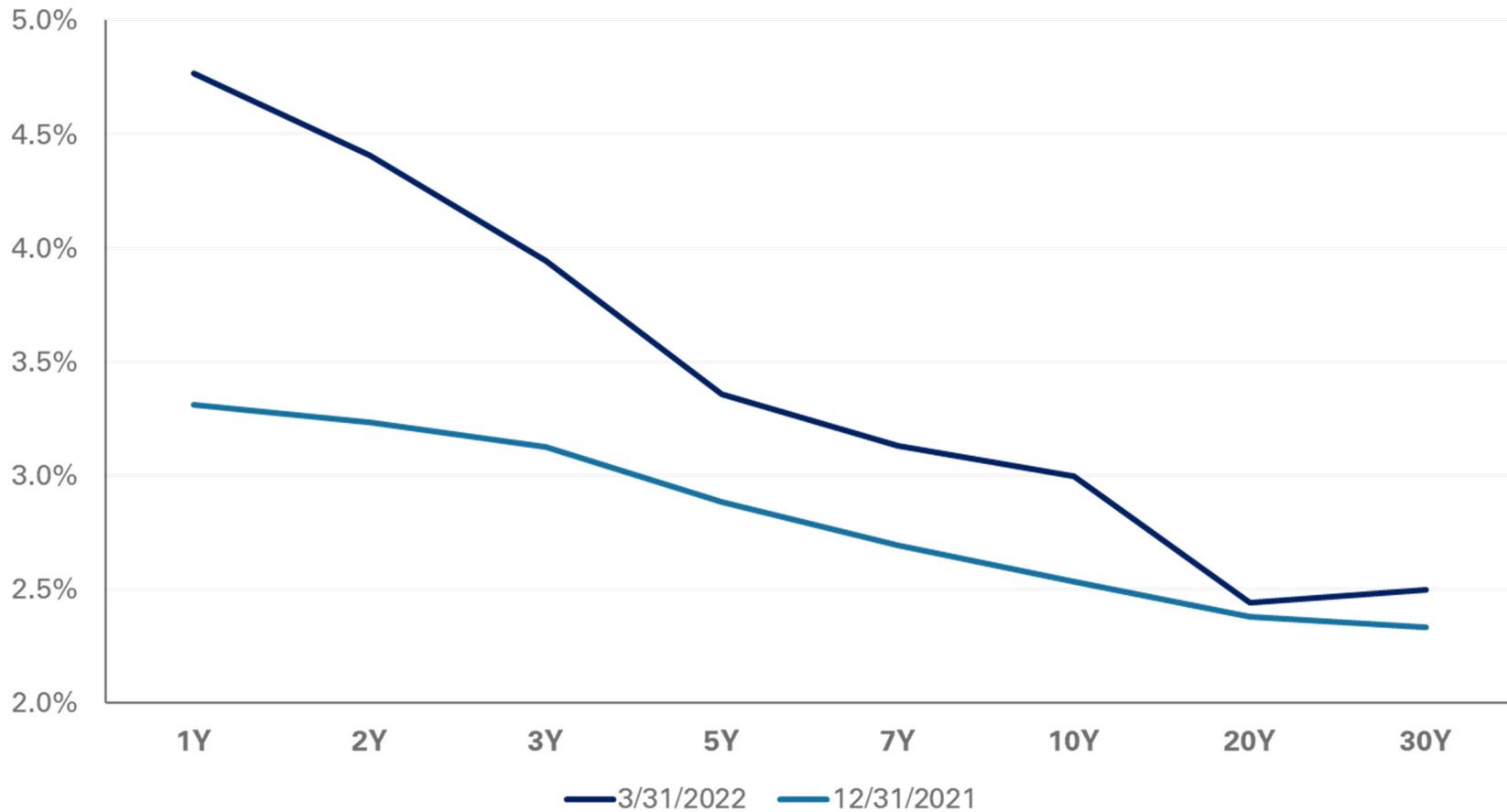


Calculated based on data between 12/31/2002 to 3/31/2022  
Source: FactSet



# NEAR-TERM INFLATION EXPECTATIONS ROSE

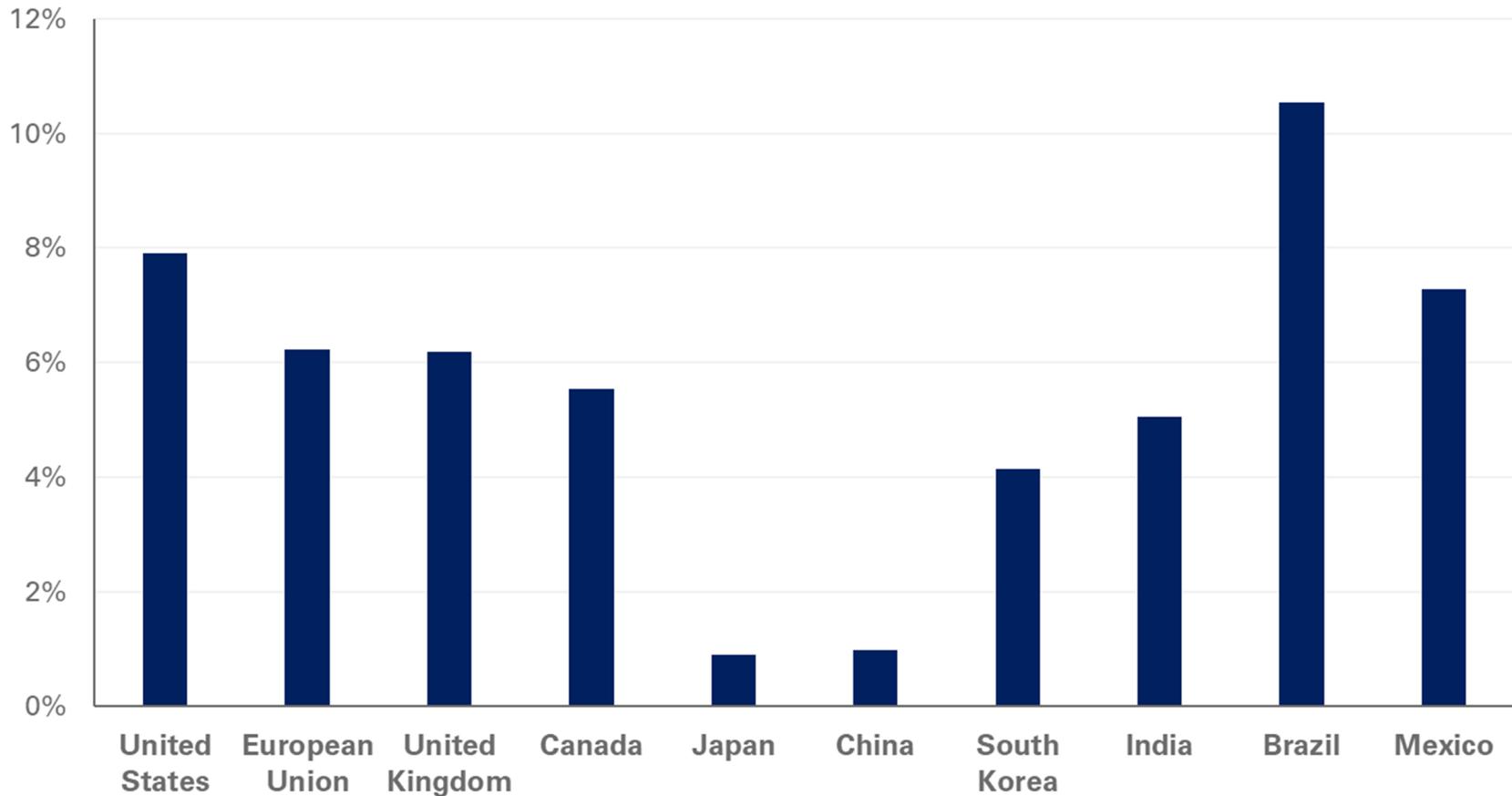
## U.S. BREAK-EVEN INFLATION CURVE



Source: FactSet

# MOST ECONOMIES PLAGUED BY HIGHER INFLATION

## ANNUAL CHANGE IN INFLATION



Data as of 2/28/2022; South Korea data as of 3/31/2022  
Source: FactSet



# ASSESSING THE KEY MARKET THEMES

AS OF 03/31/22

<p><b>Economic Crossroads</b></p> <p>Change in Status: <i>Neutral to Prevalent</i></p>	DORMANT	FADED	NEUTRAL	<b>PREVALENT</b>	DOMINANT
<p><b>Permanent Interventions</b></p> <p>Change in Status: -</p>	DORMANT	<b>FADED</b>	NEUTRAL	PREVALENT	DOMINANT
<p><b>Globalization Backlash</b></p> <p>Change in Status: -</p>	DORMANT	FADED	<b>NEUTRAL</b>	PREVALENT	DOMINANT
<p><b>China Transitions</b></p> <p>Change in Status: -</p>	DORMANT	FADED	NEUTRAL	<b>PREVALENT</b>	DOMINANT





# TOTAL FUND PERFORMANCE



PROPRIETARY & CONFIDENTIAL

# TOTAL FUND PERFORMANCE SUMMARY

## NET OF FEES

	Allocation		Performance (%)				
	Market Value (\$)	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Fund</b>	<b>14,176,362,033</b>	<b>-1.2 (1)</b>	<b>5.2 (4)</b>	<b>12.5 (9)</b>	<b>11.5 (21)</b>	<b>9.7 (30)</b>	<b>8.8 (15)</b>
<i>Policy Index</i>		-3.7 (57)	-0.9 (75)	3.5 (84)	8.3 (100)	7.5 (99)	6.7 (96)
<i>S&amp;P 500 Index (Net)</i>		-4.7 (75)	6.2 (1)	15.2 (1)	18.3 (1)	15.4 (1)	14.0 (1)
<i>Blmbg. U.S. Aggregate Index</i>		-5.9 (97)	-5.9 (100)	-4.2 (100)	1.7 (100)	2.1 (100)	2.2 (100)
<i>60% MSCI World/40% FTSE WGBI</i>		-5.6 (90)	-1.9 (92)	3.0 (90)	9.4 (96)	8.5 (69)	7.1 (93)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>		-3.6	0.9	5.5	10.5	9.0	8.4

3 Years Ending March 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	<b>11.5 (21)</b>	<b>8.2 (18)</b>	<b>1.3 (18)</b>	<b>2.0 (19)</b>
<i>Policy Index</i>	8.3 (100)	8.8 (22)	0.8 (63)	1.4 (43)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	10.5	10.5	0.9	1.3

5 Years Ending March 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	<b>9.7 (30)</b>	<b>6.8 (3)</b>	<b>1.2 (12)</b>	<b>2.0 (14)</b>
<i>Policy Index</i>	7.5 (99)	7.7 (22)	0.8 (40)	1.3 (33)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	9.0	9.2	0.8	1.2

10 Years Ending March 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>Total Fund</b>	<b>8.8 (15)</b>	<b>5.4 (1)</b>	<b>1.5 (3)</b>	<b>2.4 (5)</b>
<i>Policy Index</i>	6.7 (96)	6.7 (20)	0.9 (61)	1.5 (37)
<i>InvMetrics Public DB &gt; \$1 Billion Median</i>	8.4	7.8	0.9	1.4



Note: Risk statistics are measured on a monthly basis.



# INVESTMENT EXPOSURE SUMMARY

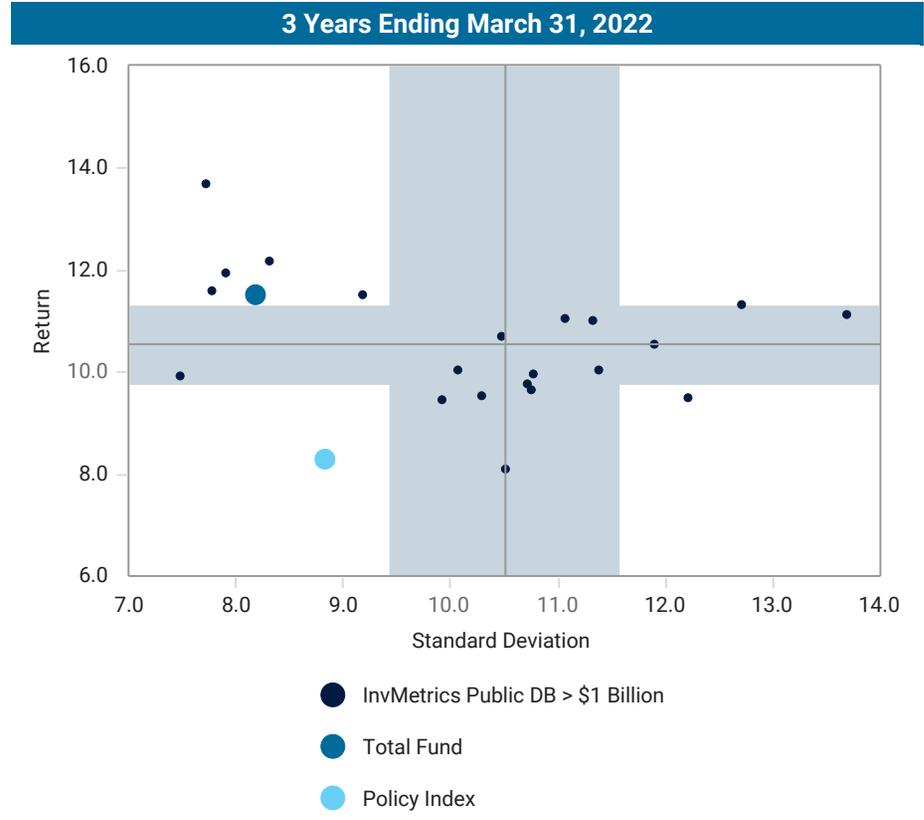
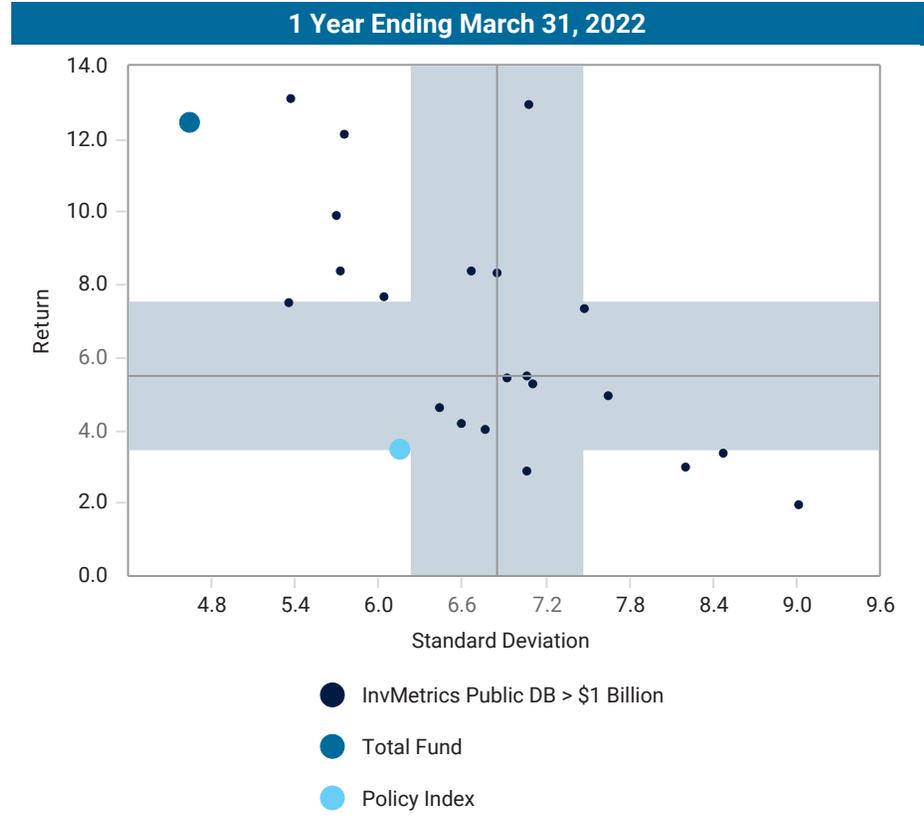
## OVERLAY AS OF MARCH 31, 2022

Asset Class	Physical Exposure		Delta Adjusted Synthetic Exposure		Net Position		Overlay Target		Policy Target	
<b>Total Market Value</b>	<b>13,981.3</b>	<b>100.0 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>13,981.3</b>	<b>100.0 %</b>	<b>13,981.3</b>	<b>100.0 %</b>	<b>13,981.3</b>	<b>100.00 %</b>
<b>Cash</b>	<b>3,104.1</b>	<b>22.2 %</b>	<b>-2,530.4</b>	<b>-18.1 %</b>	<b>573.7</b>	<b>4.1 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>0.0</b>	<b>0.00 %</b>
Cash	3,104.1	22.2 %	-2,530.4	-18.1 %	573.7	4.1 %	0.0	0.0 %	0.0	0.00 %
<b>Equity</b>	<b>2,296.6</b>	<b>16.4 %</b>	<b>1,250.1</b>	<b>8.9 %</b>	<b>3,546.7</b>	<b>25.4 %</b>	<b>4,116.4</b>	<b>29.4 %</b>	<b>4,138.5</b>	<b>29.60 %</b>
Emerging Markets	482.6	3.5 %	185.0	1.3 %	667.6	4.8 %	667.5	4.8 %	671.1	4.80 %
Equity Delta Hedge	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
International Developed	186.4	1.3 %	812.5	5.8 %	998.9	7.1 %	1,001.3	7.2 %	1,006.7	7.20 %
US Large Cap	1,627.3	11.6 %	-205.3	-1.5 %	1,422.0	10.2 %	1,988.7	14.2 %	1,999.3	14.30 %
US Small Cap	0.2	0.0 %	457.9	3.3 %	458.2	3.3 %	458.9	3.3 %	461.4	3.30 %
<b>Fixed</b>	<b>4,069.9</b>	<b>29.1 %</b>	<b>1,280.2</b>	<b>9.2 %</b>	<b>5,350.1</b>	<b>38.3 %</b>	<b>5,354.2</b>	<b>38.3 %</b>	<b>5,382.8</b>	<b>38.50 %</b>
EM High Yield CDX	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
Global ex US Fixed Income	2,447.3	17.5 %	932.4	6.7 %	3,379.7	24.2 %	3,337.7	23.9 %	3,355.5	24.00 %
High Yield	1,268.4	9.1 %	0.0	0.0 %	1,268.4	9.1 %	1,321.2	9.4 %	1,328.2	9.50 %
US Fixed Income	354.2	2.5 %	347.9	2.5 %	702.1	5.0 %	695.3	5.0 %	699.1	5.00 %
<b>Other</b>	<b>4,510.7</b>	<b>32.3 %</b>	<b>0.0</b>	<b>0.0 %</b>	<b>4,510.7</b>	<b>32.3 %</b>	<b>4,510.7</b>	<b>32.3 %</b>	<b>4,460.0</b>	<b>31.90 %</b>
Alternatives	24.4	0.2 %	0.0	0.0 %	24.4	0.2 %	24.4	0.2 %	28.0	0.20 %
Commodities	482.2	3.4 %	0.0	0.0 %	482.2	3.4 %	482.2	3.4 %	433.4	3.10 %
Infrastructure	98.7	0.7 %	0.0	0.0 %	98.7	0.7 %	98.7	0.7 %	111.9	0.80 %
Private Equity	2,515.8	18.0 %	0.0	0.0 %	2,515.8	18.0 %	2,515.8	18.0 %	2,432.8	17.40 %
Real Estate	536.8	3.8 %	0.0	0.0 %	536.8	3.8 %	536.8	3.8 %	601.2	4.30 %
Tactical Cash	852.9	6.1 %	0.0	0.0 %	852.9	6.1 %	852.9	6.1 %	852.9	6.10 %



Source: Russell Investments

# RISK VS. RETURN



**1 Year Ending March 31, 2022**

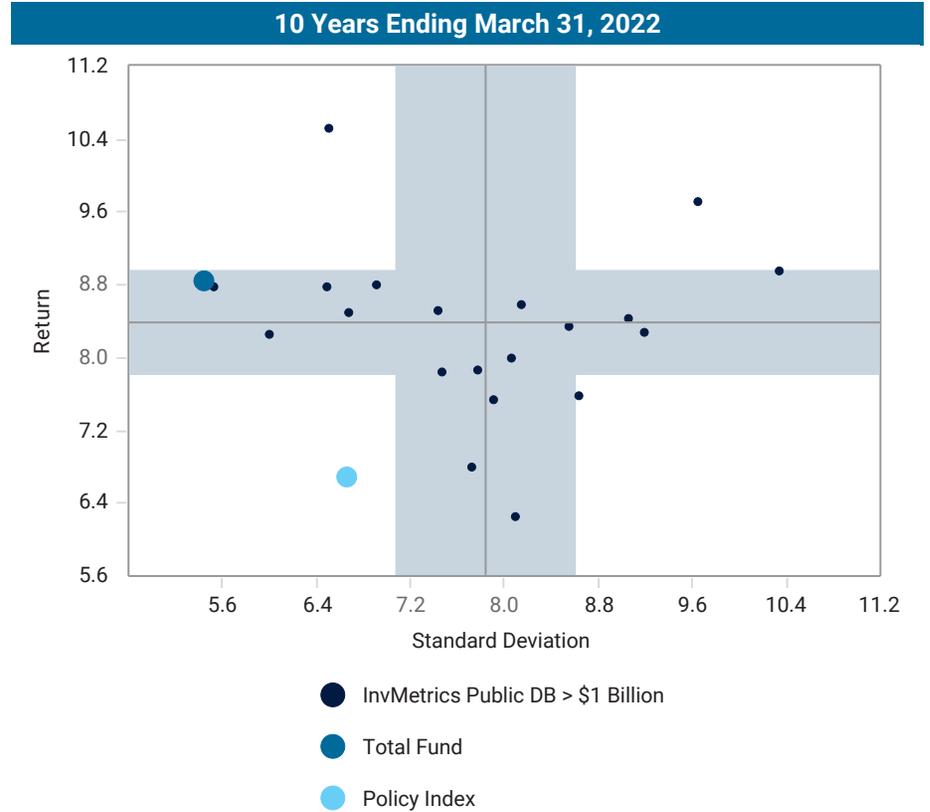
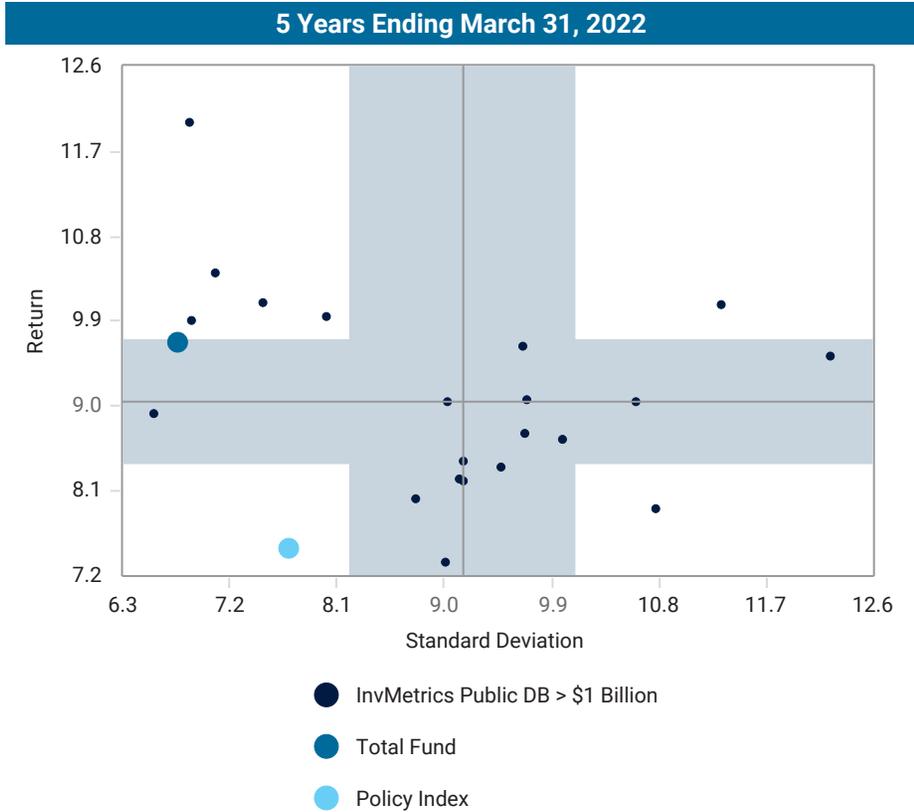
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	12.5 (9)	4.6 (1)	2.5 (1)	9.3 (1)
Policy Index	3.5 (84)	6.2 (26)	0.6 (81)	0.9 (82)
Population	21	21	21	21
Policy Index	3.5	6.2	0.6	0.9

**3 Years Ending March 31, 2022**

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	11.5 (21)	8.2 (18)	1.3 (18)	2.0 (19)
Policy Index	8.3 (100)	8.8 (22)	0.8 (63)	1.4 (43)
Population	21	21	21	21
Policy Index	8.3	8.8	0.8	1.4



# TOTAL FUND RISK/RETURN



**5 Years Ending March 31, 2022**

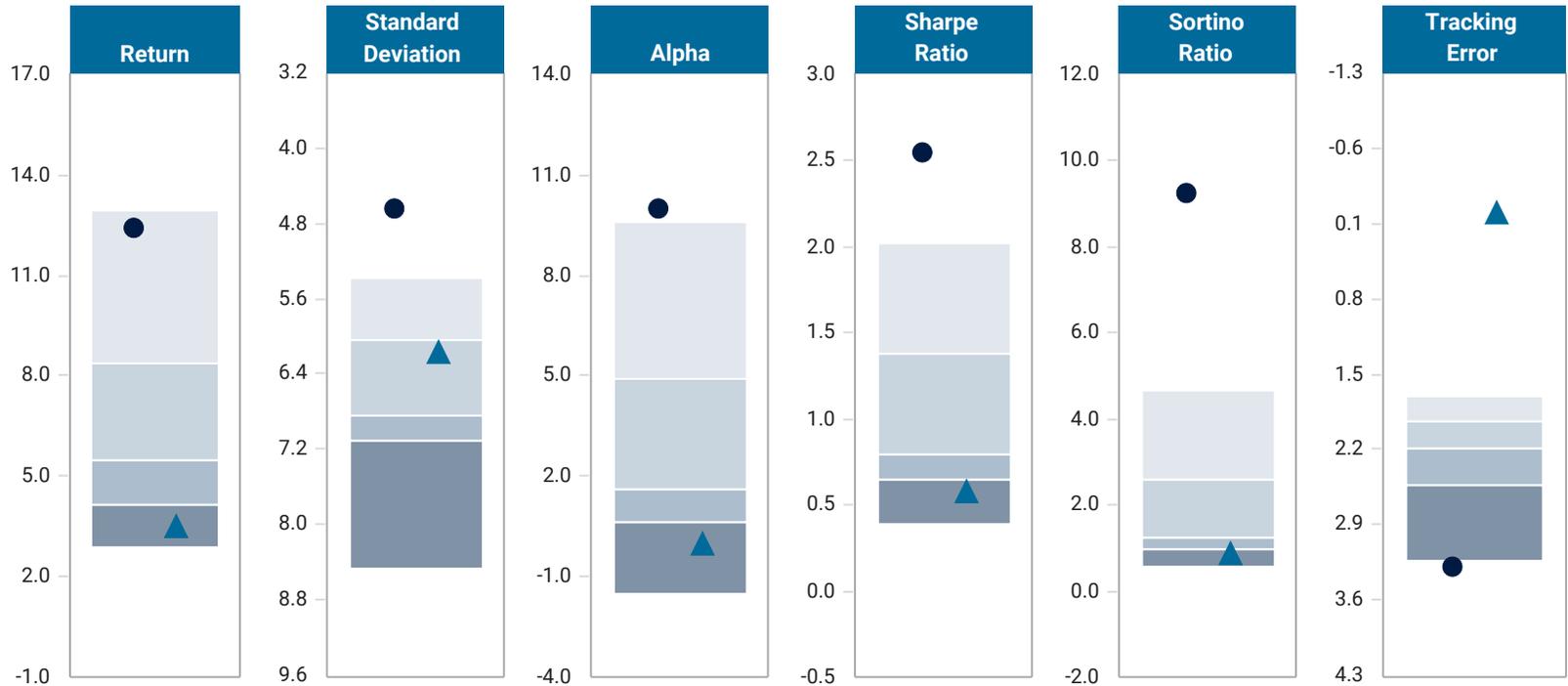
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	9.7 (30)	6.8 (3)	1.2 (12)	2.0 (14)
Policy Index	7.5 (99)	7.7 (22)	0.8 (40)	1.3 (33)
Population	21	21	21	21
Policy Index	7.5	7.7	0.8	1.3

**10 Years Ending March 31, 2022**

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Total Fund	8.8 (15)	5.4 (1)	1.5 (3)	2.4 (5)
Policy Index	6.7 (96)	6.7 (20)	0.9 (61)	1.5 (37)
Population	20	20	20	20
Policy Index	6.7	6.7	0.9	1.5

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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



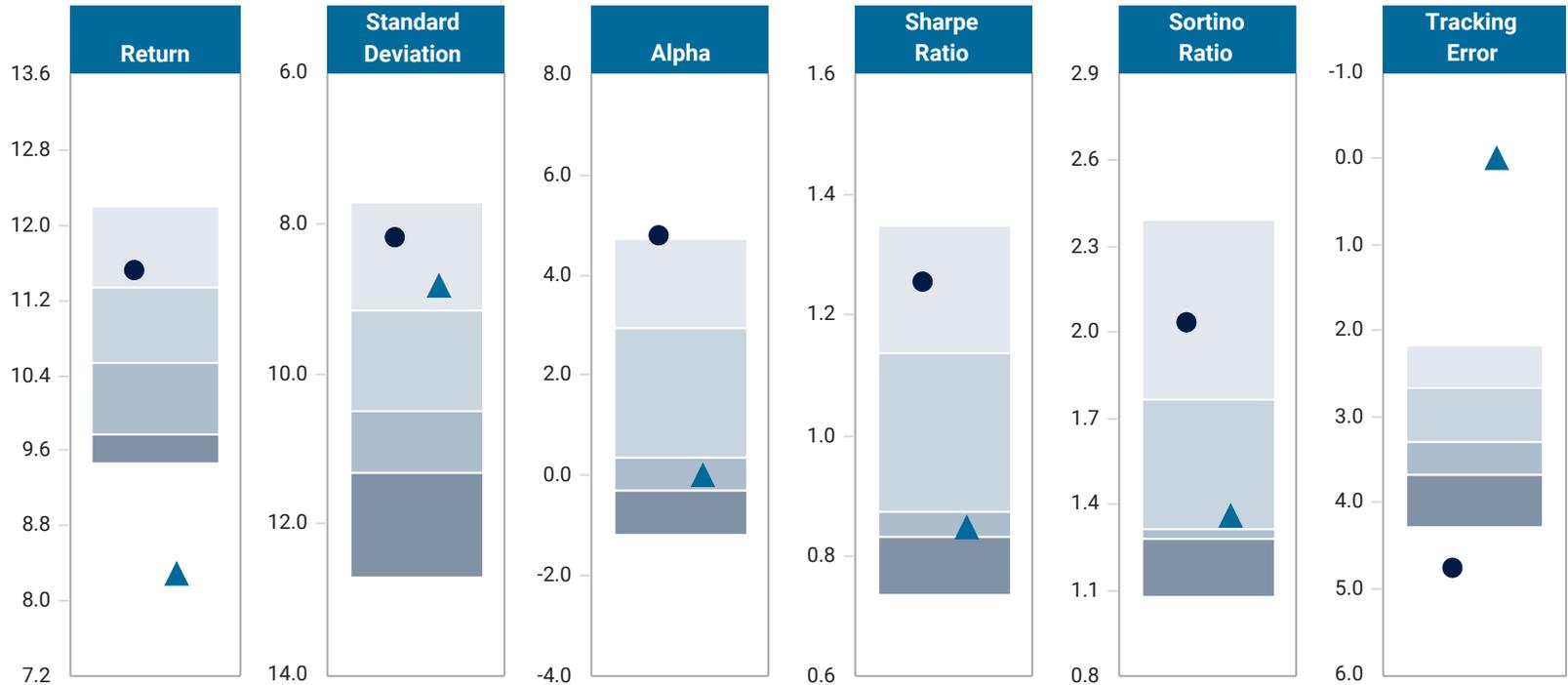
	1 Yr (%)					
● Total Fund	12.5 (9)	4.6 (1)	10.0 (1)	2.5 (1)	9.3 (1)	3.3 (95)
▲ Policy Index	3.5 (84)	6.2 (26)	0.0 (82)	0.6 (81)	0.9 (82)	0.0 (1)
5th Percentile	13.0	5.4	9.6	2.0	4.7	1.7
1st Quartile	8.4	6.0	4.9	1.4	2.6	1.9
Median	5.5	6.8	1.6	0.8	1.2	2.2
3rd Quartile	4.2	7.1	0.6	0.6	1.0	2.5
95th Percentile	2.9	8.5	-1.5	0.4	0.6	3.2
Population	21	21	21	21	21	21

Sortino Ratio requires at least two negative points during the time period in order to calculate



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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



	3 Yrs (%)					
● Total Fund	11.5 (21)	8.2 (18)	4.8 (5)	1.3 (18)	2.0 (19)	4.8 (97)
▲ Policy Index	8.3 (100)	8.8 (22)	0.0 (72)	0.8 (63)	1.4 (43)	0.0 (1)
5th Percentile	12.2	7.7	4.7	1.4	2.4	2.2
1st Quartile	11.3	9.2	3.0	1.1	1.8	2.7
Median	10.5	10.5	0.4	0.9	1.3	3.3
3rd Quartile	9.8	11.3	-0.3	0.8	1.3	3.7
95th Percentile	9.5	12.7	-1.2	0.7	1.1	4.3
Population	21	21	21	21	21	21

Sortino Ratio requires at least two negative points during the time period in order to calculate



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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



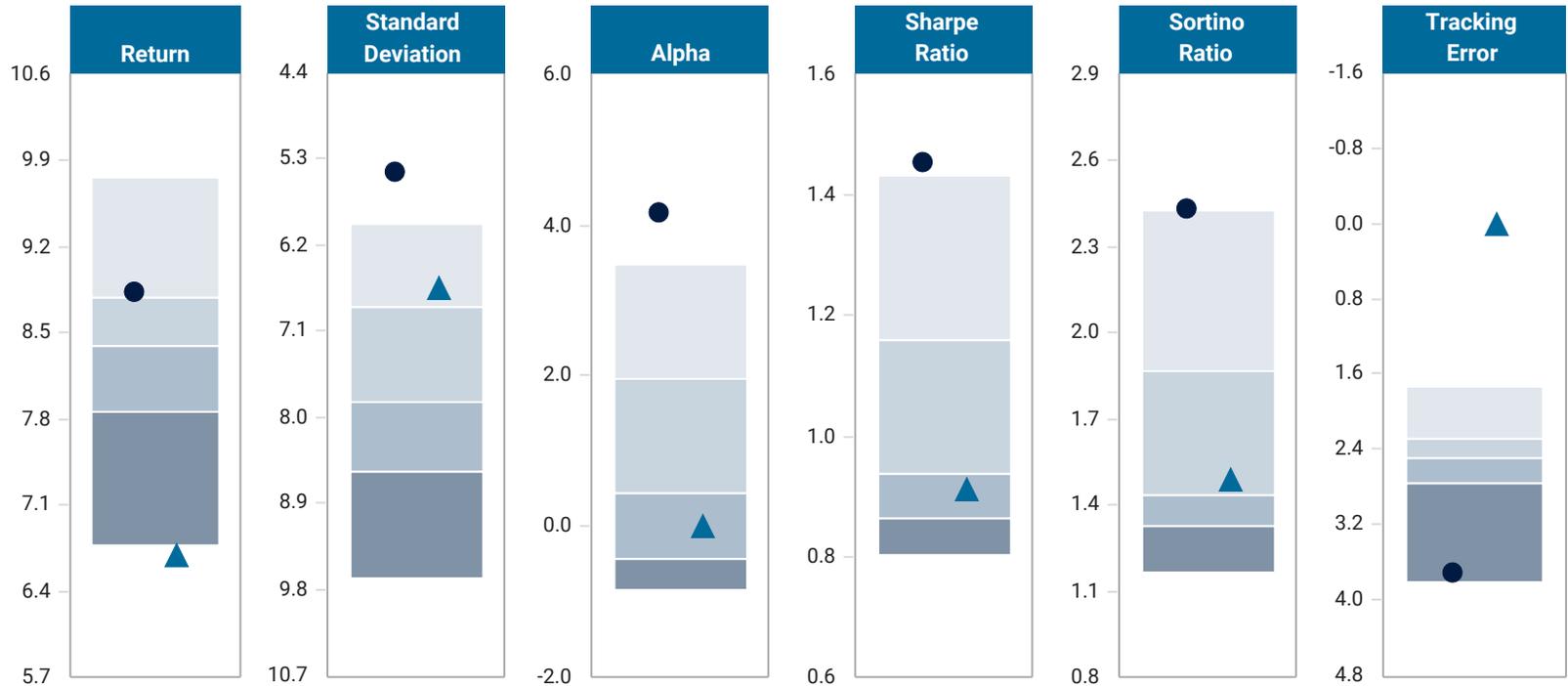
	5 Yrs (%)					
● Total Fund	9.7 (30)	6.8 (3)	4.0 (5)	1.2 (12)	2.0 (14)	4.1 (95)
▲ Policy Index	7.5 (99)	7.7 (22)	0.0 (45)	0.8 (40)	1.3 (33)	0.0 (1)
5th Percentile	10.4	6.9	3.7	1.3	2.1	2.0
1st Quartile	9.9	8.0	2.6	1.1	1.6	2.5
Median	9.0	9.2	-0.3	0.8	1.2	2.8
3rd Quartile	8.3	9.7	-0.6	0.8	1.1	3.1
95th Percentile	7.9	11.3	-1.7	0.7	1.0	4.1
Population	21	21	21	21	21	21

Sortino Ratio requires at least two negative points during the time period in order to calculate



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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



	10 Yrs (%)					
● Total Fund	8.8 (15)	5.4 (1)	4.2 (1)	1.5 (3)	2.4 (5)	3.7 (93)
▲ Policy Index	6.7 (96)	6.7 (20)	0.0 (63)	0.9 (61)	1.5 (37)	0.0 (1)
5th Percentile	9.8	6.0	3.5	1.4	2.4	1.7
1st Quartile	8.8	6.9	2.0	1.2	1.9	2.3
Median	8.4	7.8	0.4	0.9	1.4	2.5
3rd Quartile	7.9	8.6	-0.4	0.9	1.3	2.8
95th Percentile	6.8	9.7	-0.9	0.8	1.2	3.8
Population	20	20	20	20	20	20

Sortino Ratio requires at least two negative points during the time period in order to calculate



# TOTAL FUND RISK STATISTICS

1 Years Ending March 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>7.1</b>	<b>12.0</b>	<b>2.4</b>	<b>-1.9</b>
<i>Russell 3000 Index</i>	<i>11.9</i>	<i>12.9</i>	<i>0.0</i>	
<b>International Equity With Beta Overlay</b>	<b>-3.3</b>	<b>7.7</b>	<b>3.2</b>	<b>-0.8</b>
<i>MSCI AC World ex USA index</i>	<i>-1.0</i>	<i>9.8</i>	<i>0.0</i>	
<b>Global Fixed Income With Beta Overlay</b>	<b>11.9</b>	<b>2.7</b>	<b>3.5</b>	<b>5.0</b>
<i>Blmbg. Global Aggregate</i>	<i>-6.4</i>	<i>4.5</i>	<i>0.0</i>	
<b>U.S. Credit Strategies</b>	<b>10.7</b>	<b>3.1</b>	<b>2.7</b>	<b>3.3</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	<i>1.4</i>	<i>2.4</i>	<i>0.0</i>	
<b>Non-U.S. Credit Composite</b>	<b>20.5</b>	<b>3.5</b>	<b>5.5</b>	<b>5.0</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	<i>-8.3</i>	<i>7.1</i>	<i>0.0</i>	
<b>Emerging Markets Debt Composite</b>	<b>-0.1</b>	<b>2.8</b>	<b>6.3</b>	<b>1.3</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	<i>-8.0</i>	<i>7.5</i>	<i>0.0</i>	
<b>Alpha Pool Composite</b>	<b>5.8</b>	<b>2.3</b>	<b>2.3</b>	<b>1.1</b>
<i>91 Day T-Bill + 3%</i>	<i>3.1</i>	<i>0.0</i>	<i>0.0</i>	
<b>Private Equity Composite</b>	<b>40.4</b>	<b>8.2</b>	<b>15.9</b>	<b>0.2</b>
<i>CJA Global All PE (Qtr Lag)</i>	<i>35.1</i>	<i>14.0</i>	<i>0.0</i>	
<b>Real Estate Composite</b>	<b>18.2</b>	<b>4.7</b>	<b>11.1</b>	<b>0.0</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	<i>17.7</i>	<i>7.6</i>	<i>0.0</i>	
<b>Real Assets Composite</b>	<b>23.7</b>	<b>5.5</b>	<b>10.9</b>	<b>-0.7</b>
<i>Real Assets Custom Blend</i>	<i>33.2</i>	<i>9.5</i>	<i>0.0</i>	

US Credit and Non-US Credit composites are based on physical assets.



# TOTAL FUND RISK STATISTICS

3 Years Ending March 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>15.1</b>	<b>18.7</b>	<b>2.9</b>	<b>-0.9</b>
<i>Russell 3000 Index</i>	18.2	18.2	0.0	
<b>International Equity With Beta Overlay</b>	<b>6.2</b>	<b>15.5</b>	<b>3.0</b>	<b>-0.6</b>
<i>MSCI AC World ex USA index</i>	8.0	16.6	0.0	
<b>Global Fixed Income With Beta Overlay</b>	<b>7.8</b>	<b>7.5</b>	<b>7.9</b>	<b>0.9</b>
<i>Blmbg. Global Aggregate</i>	0.7	4.9	0.0	
<b>U.S. Credit Strategies</b>	<b>9.9</b>	<b>8.0</b>	<b>6.2</b>	<b>0.9</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	4.3	8.3	0.0	
<b>Non-U.S. Credit Composite</b>	<b>7.4</b>	<b>9.2</b>	<b>11.4</b>	<b>0.4</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	1.9	12.7	0.0	
<b>Emerging Markets Debt Composite</b>	<b>-0.1</b>	<b>6.6</b>	<b>9.0</b>	<b>0.0</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	-0.5	10.9	0.0	
<b>Alpha Pool Composite</b>	<b>4.7</b>	<b>7.1</b>	<b>7.2</b>	<b>0.1</b>
<i>91 Day T-Bill + 3%</i>	3.8	0.3	0.0	
<b>Private Equity Composite</b>	<b>24.8</b>	<b>9.4</b>	<b>15.8</b>	<b>-0.1</b>
<i>CJA Global All PE (Qtr Lag)</i>	25.0	15.3	0.0	
<b>Real Estate Composite</b>	<b>9.8</b>	<b>3.8</b>	<b>7.1</b>	<b>0.2</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	8.4	5.1	0.0	
<b>Real Assets Composite</b>	<b>12.1</b>	<b>11.5</b>	<b>10.0</b>	<b>-0.1</b>
<i>Real Assets Custom Blend</i>	12.9	11.0	0.0	

US Credit and Non-US Credit composites are based on physical assets.

# TOTAL FUND RISK STATISTICS

5 Years Ending March 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity With Beta Overlay</b>	<b>11.8</b>	<b>16.0</b>	<b>2.9</b>	<b>-1.1</b>
<i>Russell 3000 Index</i>	15.4	16.2	0.0	
<b>International Equity With Beta Overlay</b>	<b>5.5</b>	<b>13.7</b>	<b>2.9</b>	<b>-0.6</b>
<i>MSCI AC World ex USA index</i>	7.3	14.8	0.0	
<b>Global Fixed Income With Beta Overlay</b>	<b>5.3</b>	<b>6.2</b>	<b>7.0</b>	<b>0.5</b>
<i>Blmbg. Global Aggregate</i>	1.7	4.4	0.0	
<b>U.S. Credit Strategies</b>	<b>8.2</b>	<b>6.6</b>	<b>5.6</b>	<b>0.7</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	4.3	6.7	0.0	
<b>Non-U.S. Credit Composite</b>	<b>7.7</b>	<b>7.5</b>	<b>10.4</b>	<b>0.4</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	3.4	11.1	0.0	
<b>Emerging Markets Debt Composite</b>	<b>0.8</b>	<b>5.8</b>	<b>8.1</b>	<b>-0.1</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	1.0	9.5	0.0	
<b>Alpha Pool Composite</b>	<b>4.8</b>	<b>5.7</b>	<b>5.8</b>	<b>0.1</b>
<i>91 Day T-Bill + 3%</i>	4.2	0.3	0.0	
<b>Private Equity Composite</b>	<b>21.0</b>	<b>7.8</b>	<b>13.1</b>	<b>0.0</b>
<i>CJA Global All PE (Qtr Lag)</i>	20.5	12.7	0.0	
<b>Real Estate Composite</b>	<b>8.0</b>	<b>3.5</b>	<b>6.1</b>	<b>0.0</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	7.8	4.3	0.0	
<b>Real Assets Composite</b>	<b>8.7</b>	<b>9.8</b>	<b>8.3</b>	<b>0.1</b>
<i>Real Assets Custom Blend</i>	8.1	9.0	0.0	

Percent of Total equals 88.1% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

# TOTAL FUND RISK STATISTICS

10 Years Ending March 31, 2022				
	Return	Standard Deviation	Tracking Error	Information Ratio
<b>Domestic Equity</b>	<b>6.5</b>	<b>11.0</b>	<b>9.1</b>	<b>-0.8</b>
<i>Russell 3000 Index</i>	14.3	13.6	0.0	
<b>International Equity</b>	<b>4.6</b>	<b>15.8</b>	<b>8.5</b>	<b>-0.5</b>
<i>MSCI AC World Index (Net)</i>	10.0	13.2	0.0	
<b>International Emerging</b>	<b>1.5</b>	<b>14.9</b>	<b>4.2</b>	<b>-0.5</b>
<i>MSCI Emerging Markets (Net)</i>	3.4	15.9	0.0	
<b>U.S. Credit Strategies</b>	<b>8.0</b>	<b>5.1</b>	<b>4.7</b>	<b>0.6</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>	5.0	5.4	0.0	
<b>Non-U.S. Credit Composite</b>	<b>7.9</b>	<b>5.9</b>	<b>10.1</b>	<b>0.4</b>
<i>ICE BofA Euro High Yield Constrained TR</i>	3.4	10.9	0.0	
<b>Emerging Markets Debt Composite</b>	<b>2.2</b>	<b>6.2</b>	<b>6.7</b>	<b>0.1</b>
<i>50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified</i>	1.5	9.2	0.0	
<b>Alpha Pool Composite</b>	<b>5.4</b>	<b>4.6</b>	<b>4.7</b>	<b>0.4</b>
<i>91 Day T-Bill + 3%</i>	3.6	0.3	0.0	
<b>Private Equity Composite</b>	<b>16.5</b>	<b>6.3</b>	<b>10.5</b>	<b>0.0</b>
<i>CJA Global All PE (Qtr Lag)</i>	16.1	10.1	0.0	
<b>Real Estate Composite</b>	<b>8.9</b>	<b>3.4</b>	<b>5.4</b>	<b>-0.1</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>	9.3	4.4	0.0	
<b>Real Assets Composite</b>	<b>5.5</b>	<b>7.9</b>	<b>7.4</b>	<b>0.3</b>
<i>Real Assets Custom Blend</i>	3.3	8.1	0.0	

Percent of Total equals 88.1% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.



# INVESTMENT MANAGER TOP 10

ASSETS UNDER MANAGEMENT AS OF MARCH 31, 2022

Manager	Market Value	Portfolio %
Total Russell	\$1,202,851,964.83	8.48%
SSGA S&P500 Flagship Fund	\$1,193,302,567.03	8.42%
Total Tobam	\$931,240,252.23	6.57%
Total Ares	\$899,584,393.31	6.35%
Total Pathway	\$791,732,906.50	5.58%
Gramercy Funds Management	\$694,256,953.43	4.90%
Total Alcentra	\$650,816,428.51	4.59%
Total GoldenTree	\$621,438,917.77	4.38%
Total Zais	\$598,733,198.97	4.22%
Total Apollo	\$569,759,764.14	4.02%
<b>Total</b>	<b>\$8,153,717,346.72</b>	<b>57.52%</b>



# PUBLIC EQUITY PORTFOLIO

Public Equity Portfolio (28% Target)	US Equities (13% Target)	<b>Large Cap (8%)</b>	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
			StateStreet Global Advisors S&P500 Index Fund	
			TOBAM Anti-Benchmark US Equity Fund	
	<b>Small Cap (2%)</b>	Russell Investments (Russell 2000 Index)	Overlay exposure to an index of smallest 2,000 stocks (by market cap) in the Russell 3000	
		<b>Volatility (3%)</b>	Russell Investments (Russell 1000 Index)	Overlay exposure to an index of largest 1,000 stocks (by market cap) in the Russell 3000
			International Equities (15% Target)	<b>Developed Markets (6%)</b>
	TOBAM Anti-Benchmark World ex-US Fund			
	<b>Emerging Markets (6%)</b>	Mondrian Emerging Markets Equity Fund LP		Value-focused strategy centered on free cash flow generation and dividend discount methodology
		Russell Investments (MSCI EM Index)	Overlay exposure to an index of large/mid-cap stocks across 27 emerging markets	
	<b>Volatility (3%)</b>	TOBAM Anti-Benchmark EM Equity Fund	Rules-based index focused on a more efficiently diversified benchmark vs. MSCI Emerging Markets	
Russell Investments (MSCI EAFE Index)		Overlay exposure to an index of large/mid-cap stocks across 21 developed markets ex-US/Canada		



# GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Equity</b>	<b>2,289,250,178</b>	<b>16.1</b>	<b>-5.2</b>	<b>-3.6</b>	<b>2.9</b>	<b>11.3</b>	<b>9.1</b>	<b>6.3</b>
<i>MSCI AC World Index (Net)</i>			<u>-5.4</u>	<u>-0.1</u>	<u>7.3</u>	<u>13.8</u>	<u>11.6</u>	<u>10.0</u>
Over/Under			0.2	-3.5	-4.4	-2.5	-2.5	-3.7
<b>Domestic Equity With Beta Overlay</b>	<b>2,082,236,744</b>	<b>14.7</b>	<b>-5.7</b>	<b>0.1</b>	<b>7.1</b>	<b>15.1</b>	<b>11.8</b>	
<i>Russell 3000 Index</i>			<u>-5.3</u>	<u>3.4</u>	<u>11.9</u>	<u>18.2</u>	<u>15.4</u>	
Over/Under			-0.4	-3.3	-4.8	-3.1	-3.6	
<b>Domestic Equity</b>	<b>1,622,412,908</b>	<b>11.4</b>	<b>-4.8</b>	<b>2.2</b>	<b>10.4</b>	<b>16.5</b>	<b>11.7</b>	<b>6.5</b>
<i>Russell 3000 Index</i>			<u>-5.3</u>	<u>3.4</u>	<u>11.9</u>	<u>18.2</u>	<u>15.4</u>	<u>14.3</u>
Over/Under			0.5	-1.2	-1.5	-1.7	-3.7	-7.8
Tobam AB US Equity	427,921,500	3.0	-5.4 (47)	-5.9 (78)	0.6 (77)	12.9 (75)		
<i>Russell 3000 Index</i>			<u>-5.3</u> (46)	<u>3.4</u> (39)	<u>11.9</u> (32)	<u>18.2</u> (24)		
Over/Under			-0.1	-9.3	-11.3	-5.3		
<i>eV All US Equity Median</i>			-5.8	1.4	7.9	15.2		
<b>Large Cap Equity</b>	<b>1,194,242,726</b>	<b>8.4</b>	<b>-4.6 (39)</b>	<b>6.1 (22)</b>	<b>15.2 (13)</b>	<b>18.1 (26)</b>	<b>13.1 (47)</b>	<b>7.8 (99)</b>
<i>S&amp;P 500 Index</i>			<u>-4.6</u> (39)	<u>6.5</u> (19)	<u>15.6</u> (10)	<u>18.9</u> (18)	<u>16.0</u> (24)	<u>14.6</u> (18)
Over/Under			0.0	-0.4	-0.4	-0.8	-2.9	-6.8
<i>eV All US Equity Median</i>			-5.8	1.4	7.9	15.2	12.6	12.5
SSgA S&P500	1,193,302,567	8.4	-4.6 (39)	6.1 (22)	15.2 (13)	18.8 (20)	14.0 (40)	10.6 (86)
<i>S&amp;P 500 Index</i>			<u>-4.6</u> (39)	<u>6.5</u> (19)	<u>15.6</u> (10)	<u>18.9</u> (18)	<u>16.0</u> (24)	<u>14.6</u> (18)
Over/Under			0.0	-0.4	-0.4	-0.1	-2.0	-4.0
<i>eV All US Equity Median</i>			-5.8	1.4	7.9	15.2	12.6	12.5
Russell US Large Cap Volatility	940,159	0.0						
<b>Small Cap Equity</b>	<b>248,682</b>	<b>0.0</b>						
Russell US Small Cap Volatility	248,682	0.0						

# GLOBAL EQUITY STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>International Equity With Beta Overlay</b>	<b>1,664,882,451</b>	<b>11.7</b>	<b>-5.4</b>	<b>-7.2</b>	<b>-3.3</b>	<b>6.2</b>	<b>5.5</b>	
<i>MSCI AC World ex USA index</i>			<u>-5.3</u>	<u>-6.3</u>	<u>-1.0</u>	<u>8.0</u>	<u>7.3</u>	
Over/Under			-0.1	-0.9	-2.3	-1.8	-1.8	
<b>International Equity</b>	<b>666,837,269</b>	<b>4.7</b>	<b>-6.2</b>	<b>-14.3</b>	<b>-10.4</b>	<b>2.3</b>	<b>3.8</b>	<b>4.6</b>
<i>MSCI AC World Index (Net)</i>			<u>-5.4</u>	<u>-0.1</u>	<u>7.3</u>	<u>13.8</u>	<u>11.6</u>	<u>10.0</u>
Over/Under			-0.8	-14.2	-17.7	-11.5	-7.8	-5.4
<b>International Developed</b>	<b>184,092,051</b>	<b>1.3</b>	<b>-5.6</b>	<b>-10.9</b>	<b>-8.6</b>	<b>1.1</b>	<b>0.7</b>	<b>7.8</b>
<i>MSCI EAFE (Net)</i>			<u>-5.9</u>	<u>-3.8</u>	<u>1.2</u>	<u>7.8</u>	<u>6.7</u>	<u>6.3</u>
Over/Under			0.3	-7.1	-9.8	-6.7	-6.0	1.5
Russell International Volatility	16,456	0.0						
Tobam AB World Ex-US Equity	184,075,595	1.3	-5.4 (26)	-10.7 (64)	-8.3 (82)	0.7 (98)		
<i>MSCI AC World ex USA (Net)</i>			<u>-5.4</u> (27)	<u>-6.6</u> (36)	<u>-1.5</u> (34)	<u>7.5</u> (65)		
Over/Under			0.0	-4.1	-6.8	-6.8		
<i>eV All ACWI ex-US Equity Median</i>			-8.5	-8.4	-3.1	8.6		
<b>International Emerging</b>	<b>482,745,218</b>	<b>3.4</b>	<b>-6.5</b>	<b>-15.6</b>	<b>-11.2</b>	<b>2.1</b>	<b>4.2</b>	<b>1.5</b>
<i>MSCI Emerging Markets (Net)</i>			<u>-7.0</u>	<u>-15.6</u>	<u>-11.4</u>	<u>4.9</u>	<u>6.0</u>	<u>3.4</u>
Over/Under			0.5	0.0	0.2	-2.8	-1.8	-1.9
Mondrian	163,502,061	1.2	-5.5 (36)	-15.7 (53)	-13.3 (63)	3.8 (77)	3.9 (85)	2.0 (90)
<i>MSCI Emerging Markets (Net)</i>			<u>-7.0</u> (44)	<u>-15.6</u> (52)	<u>-11.4</u> (54)	<u>4.9</u> (62)	<u>6.0</u> (50)	<u>3.4</u> (63)
Over/Under			1.5	-0.1	-1.9	-1.1	-2.1	-1.4
<i>eV Emg Mkts Equity Median</i>			-7.9	-14.9	-10.0	5.9	6.0	3.8
Tobam	319,243,157	2.3	-7.0 (44)	-15.6 (52)	-10.1 (51)	1.3 (91)	4.1 (83)	
<i>MSCI Emerging Markets (Net)</i>			<u>-7.0</u> (44)	<u>-15.6</u> (52)	<u>-11.4</u> (54)	<u>4.9</u> (62)	<u>6.0</u> (50)	
Over/Under			0.0	0.0	1.3	-3.6	-1.9	
<i>eV Emg Mkts Equity Median</i>			-7.9	-14.9	-10.0	5.9	6.0	

# GLOBAL DEBT STRATEGIES

Global Debt Strategies (34% Target)	US Fixed Income (15% Target)	<b>Core Fixed Income (2%)</b>	Russell Investments (Bloomberg Barclays US Agg. Bond TR Index)	Broad-based bond market index of intermediate-term investment grade bonds in US
		<b>Credit Strategies/ High Yield Strategies (13%)</b>	Apollo Credit Strategies Fund LP (MCA) Apollo Offshore Credit Fund LTD (MCA) Bardin Hill Direct Portfolio (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 - Sutherland (Ready Cap) REIT Holdings LP (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 investing in bank loans, structured credit, and bonds Separate account co-investing in event-driven/special situation and mispriced credit opportunities 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 co-investing in 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 (19% Target)	<b>International Core (0%)</b>	Russell Investments (Barclays Global Aggregate ex US Unhedged)	Broad-based bond market index of investment grade debt from 24 local currency markets ex-USD
		<b>International Credit (11%)</b>	Alcentra European Direct Lending Fund Alcentra Strategic Credit Fund Alcentra Limited SMA Alcentra Structured Credit Opportunity Fund III Alcentra Viaduct Fund LP Cairn Capital Limited SMA	2013 fund investing in European direct lending opportunities 2015 fund investing in European CLOs and stressed/distressed credit opportunities SMA investing in European and US performing and non-performing bonds/loans, and CLO equity 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 (Closed) European subordinated financials fund Barclays reg cap risk transfer on UK mid cap corporate RCF Barclays reg cap 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
			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	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 (transports, real estate, healthcare, etc.) Fund focused on private asset-backed secured debt across multiple sectors (transports, real estate, healthcare, etc.)
		<b>Emerging Market Debt (8%)</b>	Ashmore Emerging Markets MCA 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 Emerging Markets Debt Allocation Fund (MCA) Gramercy Separate Account (MCA) Gramercy Venezuela Opportunity Fund (MCA) Gramercy Emerging Markets Dynamic Credit Fund (MCA) Gramercy Venezuela Opportunity Fund II (MCA) Gramercy EM Dislocation Fund (MCA) Gramercy Venezuela Special Situations Fund (MCA) PGIM Emerging Market Debt Opportunities Fund	SMA investing in sovereign bonds, local bonds, corporate bonds and currencies in emerging economies. 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 (Closed) Active sovereign focused pan-EM 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 (Closed) Fund designed to take advantage of 2020 dislocation 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 (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Global Fixed Income With Beta Overlay</b>	<b>5,366,053,452</b>	<b>37.9</b>	<b>0.9</b>	<b>6.1</b>	<b>11.9</b>	<b>7.8</b>	<b>5.3</b>	
<i>Blmbg. Global Aggregate</i>			-6.2	-7.6	-6.4	0.7	1.7	
Over/Under			7.1	13.7	18.3	7.1	3.6	
<b>Total Fixed</b>	<b>4,085,753,452</b>	<b>28.8</b>	<b>0.7</b>	<b>5.9</b>	<b>11.1</b>	<b>6.4</b>	<b>6.1</b>	<b>6.7</b>
<i>Blmbg. U.S. Aggregate Index</i>			-5.9	-5.9	-4.2	1.7	2.1	2.2
Over/Under			6.6	11.8	15.3	4.7	4.0	4.5
<b>U.S. Credit Strategies</b>	<b>1,639,869,578</b>	<b>11.6</b>	<b>0.0 (1)</b>	<b>4.7 (1)</b>	<b>10.7 (1)</b>	<b>9.9 (1)</b>	<b>8.2 (1)</b>	<b>8.0 (1)</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>			-2.4 (10)	-0.6 (1)	1.4 (1)	4.3 (12)	4.3 (11)	5.0 (11)
Over/Under			2.4	5.3	9.3	5.6	3.9	3.0
<i>eV Global Credit Fixed Inc Median</i>			-6.9	-7.1	-5.1	2.7	3.3	3.5
Stone Tower Offshore Credit (Apollo)	304,877,409	2.2	-0.3	4.8	7.4	7.0	5.6	6.8
Beach Point Capital (Formerly Post)	248,047,774	1.7	0.2	7.2	11.1	11.6	9.0	9.9
Mackay / Gold Coast	50,237,390	0.4	-4.6	-3.4	-0.9	5.1	4.4	5.7
Stone Tower Credit (Apollo)	132,054,853	0.9	0.5	4.7	6.7	12.7	10.4	8.7
Gold Coast Capital IV	97,826,581	0.7	-2.4	-2.1	0.4	3.9	4.5	
Waterfall Asset Management	38,890,562	0.3	-0.5	6.3	22.8	14.5	14.0	
Waterfall Victoria	61,183,880	0.4	1.4	5.8	9.1	6.9	7.9	
KAYNE ANDERSON BDC, LLC	48,794,563	0.3	14.4	20.6	24.2			
MD SASS Waterfall Victoria	26,569,631	0.2	-3.6	0.4	22.8	8.5	8.9	
Golden Tree Distressed Debt	7,631,265	0.1	6.1	30.0	45.2	6.8	5.6	9.5
Golden Tree Asset Management	613,807,652	4.3	-1.0	3.4	14.3	12.8	10.7	11.0
Russell Interest Rate Hedging	9,948,018	0.1	83.8	45.7	-17.2	-13.3	-19.0	-20.8

# GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Non-U.S. Fixed Income Composite</b>	<b>2,445,883,874</b>	<b>17.3</b>	<b>1.2</b>	<b>6.7</b>	<b>11.3</b>	<b>4.1</b>	<b>4.9</b>	<b>5.8</b>
Blmbg. Global Aggregate Ex USD			-6.1	-8.7	-7.9	-0.2	1.3	0.1
Over/Under			7.3	15.4	19.2	4.3	3.6	5.7
<b>Non-U.S. Credit Composite</b>	<b>1,500,921,482</b>	<b>10.6</b>	<b>2.6</b>	<b>13.9</b>	<b>20.5</b>	<b>7.4</b>	<b>7.7</b>	<b>7.9</b>
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9	3.4	3.4
Over/Under			9.5	24.3	28.8	5.5	4.3	4.5
Marathon/Gold Coast	296,651,813	2.1	3.9	12.9	17.1	10.6	11.1	10.2
Halcyon Asset Management	240,819,481	1.7	1.2 (1)	33.1 (1)	47.9 (1)	8.6 (1)	4.8 (6)	
ICE BofA Euro High Yield Constrained TR			-6.9 (51)	-10.4 (91)	-8.3 (88)	1.9 (73)	3.4 (43)	
Over/Under			8.1	43.5	56.2	6.7	1.4	
eV Global Credit Fixed Inc Median			-6.9	-7.1	-5.1	2.7	3.3	
Cairn Composite	312,633,760	2.2	1.1 (1)	4.3 (1)	8.9 (1)	4.8 (10)	7.1 (1)	5.5 (6)
ICE BofA Euro High Yield Constrained TR			-6.9 (51)	-10.4 (91)	-8.3 (88)	1.9 (73)	3.4 (43)	3.4 (53)
Over/Under			8.0	14.7	17.2	2.9	3.7	2.1
eV Global Credit Fixed Inc Median			-6.9	-7.1	-5.1	2.7	3.3	3.5
Alcentra - KT1	510,127,999	3.6	2.7	14.7	20.4	8.0	8.7	
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9	3.4	
Over/Under			9.6	25.1	28.7	6.1	5.3	
Alcentra SP1 - KT1	986,600	0.0	3.0	66.6	69.9	-16.4		
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9		
Over/Under			9.9	77.0	78.2	-18.3		
Alcentra SP2 - KT1	18,925,438	0.1	18.4	16.0	50.8	-3.2		
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9		
Over/Under			25.3	26.4	59.1	-5.1		
Alcentra SP3 - KT1	44,968,548	0.3	3.9	14.1	22.5	14.6	9.5	
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9	3.4	
Over/Under			10.8	24.5	30.8	12.7	6.1	
Alcentra SP4 - KT1	75,807,843	0.5	4.1	7.3	15.3	9.3		
ICE BofA Euro High Yield Constrained TR			-6.9	-10.4	-8.3	1.9		
Over/Under			11.0	17.7	23.6	7.4		

# GLOBAL DEBT STRATEGIES - NET

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	
<b>Emerging Markets Debt Composite</b>	<b>944,962,392</b>	<b>6.7</b>	<b>-0.9 (3)</b>	<b>-2.6 (3)</b>	<b>-0.1 (3)</b>	<b>-0.1 (70)</b>	<b>0.8 (75)</b>	<b>2.2 (56)</b>	
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			-8.2 (62)	-11.3 (73)	-8.0 (73)	-0.5 (78)	1.0 (72)	1.5 (66)	
Over/Under			7.3	8.7	7.9	0.4	-0.2	0.7	
eV All Emg Mkts Fixed Inc Median			-7.4	-10.0	-6.7	0.7	1.7	2.7	
<b>Ashmore Emerging Markets Liquid Investments</b>	<b>146,206,879</b>	<b>1.0</b>	<b>-10.9 (95)</b>	<b>-13.9 (93)</b>	<b>-10.7 (94)</b>	<b>-1.5 (90)</b>	<b>0.4 (80)</b>		
JP Morgan GBI - EM Global Diversified Index			-6.5 (36)	-11.7 (79)	-8.5 (80)	-1.1 (85)	0.2 (82)		
Over/Under			-4.4	-2.2	-2.2	-0.4	0.2		
eV All Emg Mkts Fixed Inc Median			-7.4	-10.0	-6.7	0.7	1.7		
<b>Gramercy Funds Management LLC</b>	<b>694,256,953</b>	<b>4.9</b>	<b>2.4 (1)</b>	<b>3.4 (1)</b>	<b>4.7 (1)</b>	<b>0.4 (59)</b>	<b>0.3 (80)</b>		
JP Morgan ELM1+ TR USD			-5.5 (24)	-7.9 (22)	-6.0 (39)	-1.2 (85)	0.1 (83)		
Over/Under			7.9	11.3	10.7	1.6	0.2		
eV All Emg Mkts Fixed Inc Median			-7.4	-10.0	-6.7	0.7	1.7		
<b>PGIM Fixed Income</b>	<b>104,498,560</b>	<b>0.7</b>	<b>-9.1 (77)</b>	<b>-14.9 (96)</b>	<b>-12.0 (96)</b>	<b>1.4 (30)</b>	<b>3.0 (17)</b>		
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-8.2 (62)	-11.3 (73)	-8.0 (73)	-0.5 (78)	1.0 (72)		
Over/Under			-0.9	-3.6	-4.0	1.9	2.0		
eV All Emg Mkts Fixed Inc Median			-7.4	-10.0	-6.7	0.7	1.7		

# ABSOLUTE RETURN (ALPHA POOL)

<p style="text-align: center;">Absolute Return (Alpha Pool) (7% Target)</p>	<p><b>Core &amp; Credit Strategies (7%)</b></p>	<p>Apollo Global SMA (MCA)</p>	<p>Credit focused separate account investing in bespoke credit opportunities</p>
		<p>Ares ECO Master Fund II, LTD (MCA)</p>	<p>Corporate debt investments in non-investment grade companies, with a focus on senior bank debt</p>
		<p>Birch Grove Credit Strategies Fund</p>	<p>All-weather approach to credit/portfolio construction across capital structure and across all market cycles</p>
		<p>Corrum Capital Global Credit Opportunities Fund</p>	<p>Yield-paying principal-protected transactions with collateralization by hard and soft assets</p>
		<p>Corrum Capital GCO Co-Invest Fund</p>	<p>Yield-paying principal-protected transactions with collateralization by hard and soft assets</p>
		<p>StateStreet Global Advisors Short Term Treasury Strategy SMA</p>	<p>Short term treasury vehicle</p>
		<p>Zais Group SMA</p>	<p>Long only structured credit SMA that focuses on stable cash flows and low duration, includes student housing</p>
		<p>Zais Opportunity Fund, LTD</p>	<p>Diversified structured credit fund with the ability to use hedges and derivative strategies</p>
		<p>Zais Zephyr A-6, LP</p>	<p>Closed-end risk retention vehicle (effectively closed)</p>
		<p>Zais Zephyr A-7, LP</p>	<p>Closed-end fund with trigger to opportunistically invest in CLO mezzanine and equity during market distress</p>
<p>Zais Zephyr A-8, LP</p>	<p>Closed-end fund focused on CLO equity post risk retention requirements</p>		



# ALPHA POOL STRATEGIES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Alpha Pool Composite</b>	<b>1,837,738,946</b>	<b>13.0</b>	<b>-0.6</b>	<b>3.0</b>	<b>5.8</b>	<b>4.7</b>	<b>4.8</b>	<b>5.4</b>
91 Day T-Bill + 3%			<u>0.8</u>	<u>2.3</u>	<u>3.1</u>	<u>3.8</u>	<u>4.2</u>	<u>3.6</u>
Over/Under			-1.4	0.7	2.7	0.9	0.6	1.8
Alpha Liquidity (Ssga)	206,550,691	1.5	-0.1	0.0	0.0	1.0	1.3	0.8
Apollo Global Management	18,122,493	0.1	15.6	69.2	121.5	30.8	23.6	
Ares Eco Master Fund II	567,186,402	4.0	-0.4	2.2	5.4	6.5	4.5	
Birch Grove Credit Strategies	170,876,355	1.2	0.4	3.6	6.6	9.4	8.2	
Corrum Capital	198,197,328	1.4	0.0	4.5	-0.1	-3.5	0.5	3.0
Zais	141,403,305	1.0	-1.5	1.7	6.6	1.4	2.0	5.7
Zais Group Invest Advisors	372,168,131	2.6	-1.1	4.3	9.6	7.0	6.9	8.0
Zais Zephyr 8	61,162,700	0.4	-0.1	6.2	14.7			
Zais Zephyr 9	23,999,064	0.2						
Apollo Accord+	78,072,478	0.6						

# PRIVATE ASSETS

Private Assets (18% Target)	Private Equity	<b>Diversified</b> Adams Street SMA (MCA) Aberdeen Standard Co-Investment Fund II 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 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
		<b>Buyout Funds</b> Aurora Equity Partners IV Kayne Partners Fund IV LP (MCA) Kayne Partners Fund V LP (MCA) Partners Group Direct Equity 2016 (MCA) Partners Group Direct Equity 2019 (MCA) Partners Group Direct Investments 2012 LP (MCA) Partners Group European Buyout 2005 (A) LP Waterfall PE Coinvest (MCA) Waterfall Sentinel Fund (MCA)	US middle market focused buyout fund 2016 fund investing in middle market growth equity opportunities in US companies 2020 fund investing in middle market growth equity opportunities in US companies Global portfolio of direct private equity deals Global portfolio of direct private equity deals Global portfolio of direct private equity deals Fund of funds focused on buyouts, direct investments, and select secondary investments in Europe Co-investment opportunities in US lower middle market specialty finance companies 2019 fund investing in US lower middle market specialty finance focused companies
		<b>Venture Funds</b> Industry Ventures Direct LP (MCA) Industry Ventures Direct II LP (MCA) Industry Ventures Direct III LP (MCA) Industry Ventures Fund 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 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
		<b>Secondary Funds</b> Aberdeen Standard Secondary Opportunities Fund IV Industry Ventures Secondary VII LP (MCA) Industry Ventures Secondary VIII LP (MCA) Industry Ventures Secondary IX LP (MCA) Lexington Capital Partners VI Lexington Capital Partners VII Lexington Middle Market Investors I Lexington Middle Market Investors II cronin 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 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
		<b>Sector Specific Funds</b> Kayne Anderson Energy Fund VII LP Tennenbaum Energy Opportunities Fund LP (MCA)	2017 fund investing in US upstream energy companies with a focus on growing enterprise value 2015 fund investing in senior secured notes and first/second lien debt of US companies in the energy sector
		<b>Direct Lending</b> Ares Private Credit Solutions Fund (MCA) Kayne Anderson Renewables Opportunities Portfolio (MCA) Tennenbaum Lending Fund VIII LLC (MCA) Tennenbaum Waterman Fund LP (MCA)	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 Senior 1L loans to middle-market companies, primarily in the US
		<b>Credit/Distressed/ Opportunistic/ Special Situations</b> Ares ICOF II (MCA) Ares ICOF III (MCA) Ares SMA (MCA) Ares Special Situations Fund IV (MCA) Catalyst Fund LP II Crestline Portfolio Financing Fund Crestline Portfolio Financing Fund II Kayne Anderson CLO Partners II (MCA) Kayne Anderson Solutions Fund (MCA) Siguler Guff Distressed Opportunity Fund III LP Tennenbaum Co-Invest (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-fund 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 (7% Target)	Core Real Estate (2.5%)	Core Real Estate	348 West Hospitality	SBCERA headquarters
			Invesco Real Estate Asia Fund	Asia-focused open-ended core real estate fund
			Kayne Anderson Real Estate Debt III (MCA)	2018 fund investing in first-lien US residential mortgage debt
			Kayne Anderson Real Estate Debt IV (MCA)	2020 fund investing in first-lien US residential mortgage debt
			Marathon Real Estate Debt Fund	Fund investing in senior secured first mortgage loans in the US
	PRISA II	US core-plus open-ended real estate equity fund with low leverage		
	PGIM Real Estate Capital VI LP	European (UK and Germany focused) mezzanine lending fund for value-add real estate projects		
	PGIM Real Estate Capital VII LP	European (UK and Germany focused) mezzanine lending fund for value-add real estate projects		
	Non-Core Real Estate (2.5%)	Enhanced Real Estate/ High Return	Apollo Real Estate Fund II LP (MCA)	2015 fund investing in value-add US real estate opportunities
			Apollo Real Estate Fund III LP (MCA)	2020 fund investing in value-add US real estate opportunities
Bryanston Retail Opportunity			2004 fund investing in value-add US real estate opportunities in the retail sector	
Fortress Japan Opportunity Fund II			2011 fund investing in value-add Japanese real estate opportunities	
Kayne Anderson Real Estate Partners V LP (MCA)			2017 fund investing in value-add US real estate opportunities	
Kayne Anderson Real Estate Partners VI LP (MCA)			2021 fund investing in value-add US real estate opportunities	
Morgan Stanley RE Fund V International			2005 fund investing in value-add International real estate opportunities	
Oaktree RE Opportunities Fund V			Diversified value-add US real estate equity fund, close-ended	
PRISA III			Value-add US Real Estate Equity Fund, open ended	
Starwood Global Opportunity Fund VII-A		Opportunistic investments in RE operating companies, RE debt, residential land and international opportunities		
Walton Street Real Estate Fund V	Value-add real estate in the US			
Real Estate Secondaries	Partners Group Real Estate Secondary 2013 A LP (MCA)	Global private real estate fund interests purchased on the secondary market at discounts to intrinsic value		
	Partners Group Real Estate Secondary 2017 A LP (MCA)	Global private real estate fund interests purchased on the secondary market at discounts to intrinsic value		



# REAL ASSETS PORTFOLIO

Real Asset Portfolio (6% Target)	<b>Commodities (4% Target)</b>	Energy Spectrum Partners VI LP Pinnacle Natural Resources LP Pinnacle Physicals & Financing LTD	2011 fund investing in US middle market midstream energy sector Commodity fund of funds with both directional and relative value exposure across multiple commodities Multi-manager fund focused on physical commodities (livestock, metals, energy and agriculture)
	<b>Infrastructure (2% Target)</b>	Kayne Anderson MLP Strategy (MCA)	Separate account opportunistically investing in publicly traded US MLP securities
	<b>Timber (0% Target)</b>	Hancock Timberland VIII LP Timbervest Crossover Partners II LP Timbervest Partners II LP	Global strategy predicated on intensive value-add forest management; diversified across species, age, end use and geography Mitigation banking (natural wetlands) and conservation banking (natural habitats for threatened/endangered species) Smaller timber properties (3,000-30,000 acres) in the US



# ALTERNATIVES - NET

	Allocation		Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Private Equity Composite</b>	<b>2,574,789,282</b>	<b>18.2</b>	<b>2.3</b>	<b>21.4</b>	<b>40.4</b>	<b>24.8</b>	<b>21.0</b>	<b>16.5</b>
<i>CJA Global All PE (Qtr Lag)</i>			<u>5.2</u>	<u>23.2</u>	<u>35.1</u>	<u>25.0</u>	<u>20.5</u>	<u>16.1</u>
Over/Under			-2.9	-1.8	5.3	-0.2	0.5	0.4
Private Assets	2,574,789,282	18.2	2.3	21.4	40.4	24.8	21.0	16.5
<i>CJA US All PE (1 Qtr Lag)</i>			<u>5.4</u>	<u>25.9</u>	<u>38.7</u>	<u>24.2</u>	<u>20.0</u>	<u>16.4</u>
Over/Under			-3.1	-4.5	1.7	0.6	1.0	0.1
<b>Real Estate Composite</b>	<b>561,515,519</b>	<b>4.0</b>	<b>5.1</b>	<b>16.3</b>	<b>18.2</b>	<b>9.8</b>	<b>8.0</b>	<b>8.9</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>6.1</u>	<u>15.7</u>	<u>17.7</u>	<u>8.4</u>	<u>7.8</u>	<u>9.3</u>
Over/Under			-1.0	0.6	0.5	1.4	0.2	-0.4
Apollo US Real Estate III	20,848,471	0.1	5.4					
<i>NCREIF Property Index</i>			<u>5.3</u>					
Over/Under			0.1					
<b>Real Assets Composite</b>	<b>587,153,263</b>	<b>4.1</b>	<b>5.1</b>	<b>14.8</b>	<b>23.7</b>	<b>12.1</b>	<b>8.7</b>	<b>5.5</b>
<i>Real Assets Custom Blend</i>			<u>15.6</u>	<u>21.1</u>	<u>33.2</u>	<u>12.9</u>	<u>8.1</u>	<u>3.3</u>
Over/Under			-10.5	-6.3	-9.5	-0.8	0.6	2.2
<i>67% Bloomberg Commodity/ 33% Barclays US TIPS</i>			<u>15.6</u>	<u>21.1</u>	<u>33.2</u>	<u>13.2</u>	<u>7.7</u>	<u>0.6</u>
Over/Under			-10.5	-6.3	-9.5	-1.1	1.0	4.9
Timber	23,868,231	0.2	-1.1	-3.1	-5.2	-3.4	-3.4	0.9
<i>NCREIF Timberland 1 Qtr. Lag</i>			<u>4.6</u>	<u>8.3</u>	<u>9.2</u>	<u>3.7</u>	<u>3.6</u>	<u>5.3</u>
Over/Under			-5.7	-11.4	-14.4	-7.1	-7.0	-4.4
<b>Infrastructure</b>	<b>84,077,500</b>	<b>0.6</b>	<b>21.6</b>	<b>17.8</b>	<b>35.7</b>	<b>15.9</b>	<b>12.5</b>	<b>6.0</b>
<i>Russell 3000 Index</i>			<u>-5.3</u>	<u>3.4</u>	<u>11.9</u>	<u>18.2</u>	<u>15.4</u>	<u>14.3</u>
Over/Under			26.9	14.4	23.8	-2.3	-2.9	-8.3
<b>Commodities</b>	<b>479,207,531</b>	<b>3.4</b>	<b>2.8</b>	<b>16.3</b>	<b>23.4</b>	<b>15.0</b>	<b>12.3</b>	<b>6.2</b>
<i>Bloomberg Commodity Index</i>			<u>25.5</u>	<u>31.7</u>	<u>49.3</u>	<u>16.1</u>	<u>9.0</u>	<u>-0.7</u>
Over/Under			-22.7	-15.4	-25.9	-1.1	3.3	6.9



# APPENDIX: PERFORMANCE SUMMARY

Real Estate

Real Assets

Private Equity



PROPRIETARY & CONFIDENTIAL

# REAL ESTATE PERFORMANCE

## AS OF SEPTEMBER 30, 2021

Investment	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	63,058,273	11,941,727	56,355,182	69,894,604	1.89	17.73%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	229,110	15,939,604	65,900	1.64	10.72%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	11,771,835	22,451,678	19,276,394	5.07	70.77%
Prudential PRISA II	2004	140,000,000	140,000,000	0	57,986,076	187,004,851	1.68	7.99%
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	32,070,486	1,138,143	1.21	6.77%
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	391,514	0.16	-15.30%
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	2,505,872	1.01	0.17%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	0	19,517,190	634,773	0.81	-2.33%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	0	26,758,768	2,772,826	0.74	-3.27%
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%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	55,238,754	0	1.09	12.09%
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	66,327	1.46	11.50%
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	2,714,510	19,024,620	23,868,875	3,542,014	9.18	25.54%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	38,913,074	913,349	1.56	12.83%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	14,037,368	69,473,846	1.54	7.00%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	24,769,953	45,292,005	1.42	9.29%
Apollo US Real Estate Fund II	2015	20,000,000	15,606,733	4,393,267	5,876,878	15,410,211	1.36	9.78%
Pramerica Real Estate Capital VI	2016	25,717,598	25,028,842	688,757	8,487,288	14,690,377	0.92	-4.09%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	17,225,000	2,775,000	4,819,952	19,832,204	1.45	17.14%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	42,071,273	32,928,727	118,130	54,007,205	1.29	10.93%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,828,428	171,572	7,807,996	16,096,963	1.20	10.91%
Apollo US Real Estate Fund III	2021	50,000,000	10,768,183	39,231,817	0	11,493,056	1.03	2.77%
Kayne Anderson Real Estate Debt IV	2021	30,000,000	0	30,000,000	0	0	0.00	N/A
Kayne Anderson Real Estate Fund VI	2021	20,000,000	799,999	19,200,001	0	704,213	0.88	-11.97%
Pramerica Real Estate Capital VII	2021	67,292,000	0	67,292,000	0	0	0.00	N/A
<b>Total : San Bernardino</b>		<b>1,474,238,267</b>	<b>1,198,060,730</b>	<b>256,221,310</b>	<b>1,073,092,714</b>	<b>535,206,646</b>	<b>1.33</b>	<b>4.52%</b>



Note: All metrics are calculated since inception  
\* Denotes cash adjusted

# REAL ASSETS PERFORMANCE

AS OF SEPTEMBER 30, 2021

Investment	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	20,871,925	19,492,758	1.01	0.08%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	880,881	63,076,794	235,688	1.07	0.87%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	0	50,000,000	1,887,408	1.04	0.38%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	75,000,000	75,000,000	0	0	142,264,359	1.90	6.48%
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	0	18,014,831	8,820,208	0.89	-1.52%
Pinnacle Physicals and Financing Master, Ltd	2009	200,000,000	180,815,984	19,184,016	2,018,221	276,624,825	1.54	8.63%
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	0	41,902,882	0	0.92	-1.99%
<b>Total : San Bernardino</b>		<b>590,403,354</b>	<b>570,338,457</b>	<b>20,064,897</b>	<b>297,027,553</b>	<b>449,325,246</b>	<b>1.31</b>	<b>3.27%</b>



Note: All metrics are calculated since inception  
 \* Denotes cash adjusted

# PRIVATE EQUITY PERFORMANCE

## AS OF SEPTEMBER 30, 2021

Investment	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	241,459,161	221,331,191	20,127,969	277,541,806	3,159,148	1.27	3.96%
Partners Group MCA	2004	800,000,000	856,476,177	-56,476,177	739,711,436	596,837,600	1.56	9.44%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	858,069,914	46,430,086	1,348,718,676	361,326,925	1.99	12.05%
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	38,833,948	2,294,421	1.66	11.56%
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	34,076,712	1,276,270	1.44	6.96%
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	12.94%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	12,430,669	2,239,285	1.47	5.40%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	17,630,400	266,062	2.04	22.81%
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	289,463	2.90	29.32%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	14,953,383	3,045,793	1.83	14.85%
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	14,318,072	1,768,476	1.66	10.72%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	27,301,678	133,607	1.38	9.81%
Apollo European Principal Finance Fund (Feeder), LP	2009	54,079,472	46,434,825	7,644,647	69,228,391	245,281	1.50	11.80%
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	31,489,670	29,384,338	2,105,332	38,750,695	4,922,016	1.48	8.63%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	24,410,738	1,111,565	1.39	8.35%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,409,757	4,590,243	29,379,033	5,222,883	1.69	15.12%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	7,882,885	12,117,115	12,531,656	4,856,225	2.21	8.51%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	36,915,470	3,644,699	2.04	18.32%
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	38,141,569	87,286,956	5.34	28.05%



Note: All metrics are calculated since inception  
\* Denotes cash adjusted

# PRIVATE EQUITY PERFORMANCE

## AS OF SEPTEMBER 30, 2021

Investment	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	63,184,234	67,561,112	1.87	11.25%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	34,928,375	55,714,524	3.89	29.56%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	33,521,276	14,986,061	2.09	18.77%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	11,087,500	1,412,500	6,369,499	7,020,655	1.21	4.41%
Pathway SBCERA MCA	2014	250,000,000	234,343,040	15,656,960	76,239,445	539,825,743	2.63	26.39%
SL Capital SOF I LP	2014	25,000,000	21,362,512	3,637,488	24,129,428	7,181,341	1.47	11.81%
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	23,071,891	43,001,593	1.39	7.88%
Tennenbaum Special Situations Fund IX	2015	50,000,000	32,057,933	17,942,067	20,308,637	39,815,168	1.87	15.00%
Industry Ventures Direct, LP	2016	25,000,000	22,745,425	2,254,575	6,820,948	47,842,754	2.40	32.27%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	21,500,000	3,500,000	3,835,128	49,522,340	2.48	34.17%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,630,722	10,869,278	1,301,834	3,890,388	3.18	57.96%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	26,438,623	13,561,377	7,929,463	26,738,968	1.30	7.32%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	6,656,980	13,343,020	6,078,949	4,922,475	1.65	9.16%
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	13,763,926	45,082,729	2.61	57.46%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,614,431	1,385,569	312,921	3,635,106	0.46	-19.01%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	17,976,155	2,023,845	5,523,574	26,327,715	1.76	24.90%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	56,768,734	75,053,669	1.04	1.23%
SL Capital SOF III LP	2017	25,000,000	16,564,864	8,435,136	4,432,083	26,335,386	1.86	28.24%
Crestline Portfolio Financing Fund	2018	50,000,000	26,727,190	23,272,810	7,800,943	28,543,416	1.36	12.02%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	18,500,000	6,500,000	529,993	34,065,399	1.87	60.31%
Industry Ventures Tech Buyout LP	2018	50,000,000	32,470,896	17,529,104	0	42,877,559	1.32	35.32%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	5,480,000	14,520,000	2,399,810	7,718,849	1.85	38.45%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,400,000	1,600,000	4,183,391	12,161,734	2.55	45.94%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	43,798,682	6,922,888	1.25	22.01%
Kayne Solutions Fund LP	2018	20,000,000	9,809,659	10,190,341	10,797,587	5,238,589	1.63	37.08%
Industry Ventures Direct II, LP	2019	50,000,000	28,570,099	21,429,901	0	37,740,322	1.32	34.69%
Kayne Renewable Opportunities Partners (TE), LP	2019	100,000,000	20,704,033	79,295,967	11,026,077	16,831,348	1.35	21.74%
Waterfall Sentinel Co-Investments	2019	30,000,000	23,519,893	6,480,108	1,013,119	42,856,866	1.85	33.28%
Waterfall Sentinel Fund	2019	30,000,000	22,557,007	7,442,993	757,172	32,021,130	1.45	21.35%
Adams Street SBCERA	2020	100,000,000	57,921,446	42,078,554	5,075,349	75,449,588	1.39	96.46%
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	32,926,704	1.18	25.04%
<b>Total : San Bernardino</b>		<b>3,969,107,004</b>	<b>3,531,127,699</b>	<b>391,434,775</b>	<b>3,624,185,147</b>	<b>2,573,637,869</b>	<b>1.75</b>	<b>11.24%</b>



Note: All metrics are calculated since inception  
\* Denotes cash adjusted



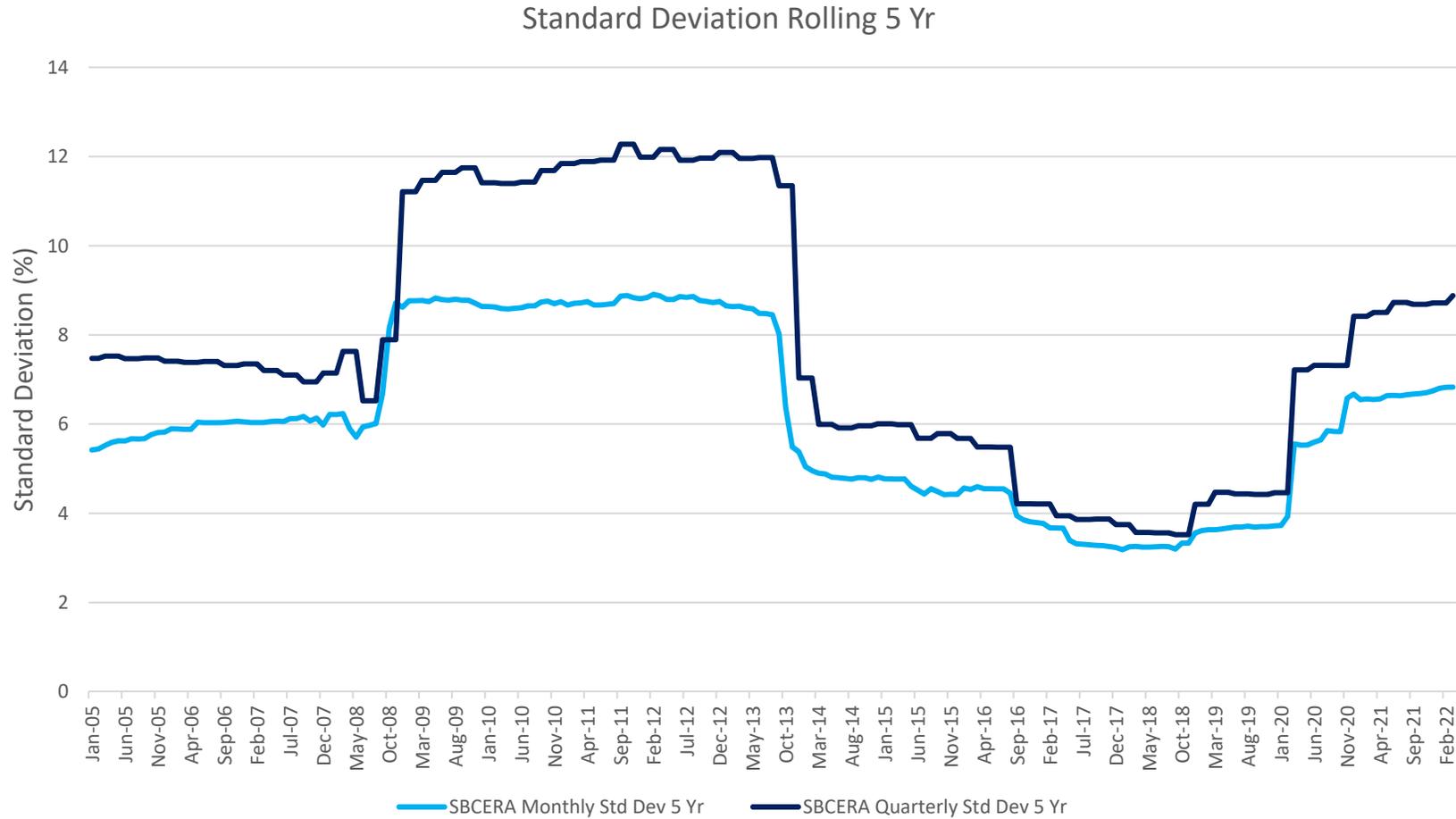
# APPENDIX



PROPRIETARY & CONFIDENTIAL

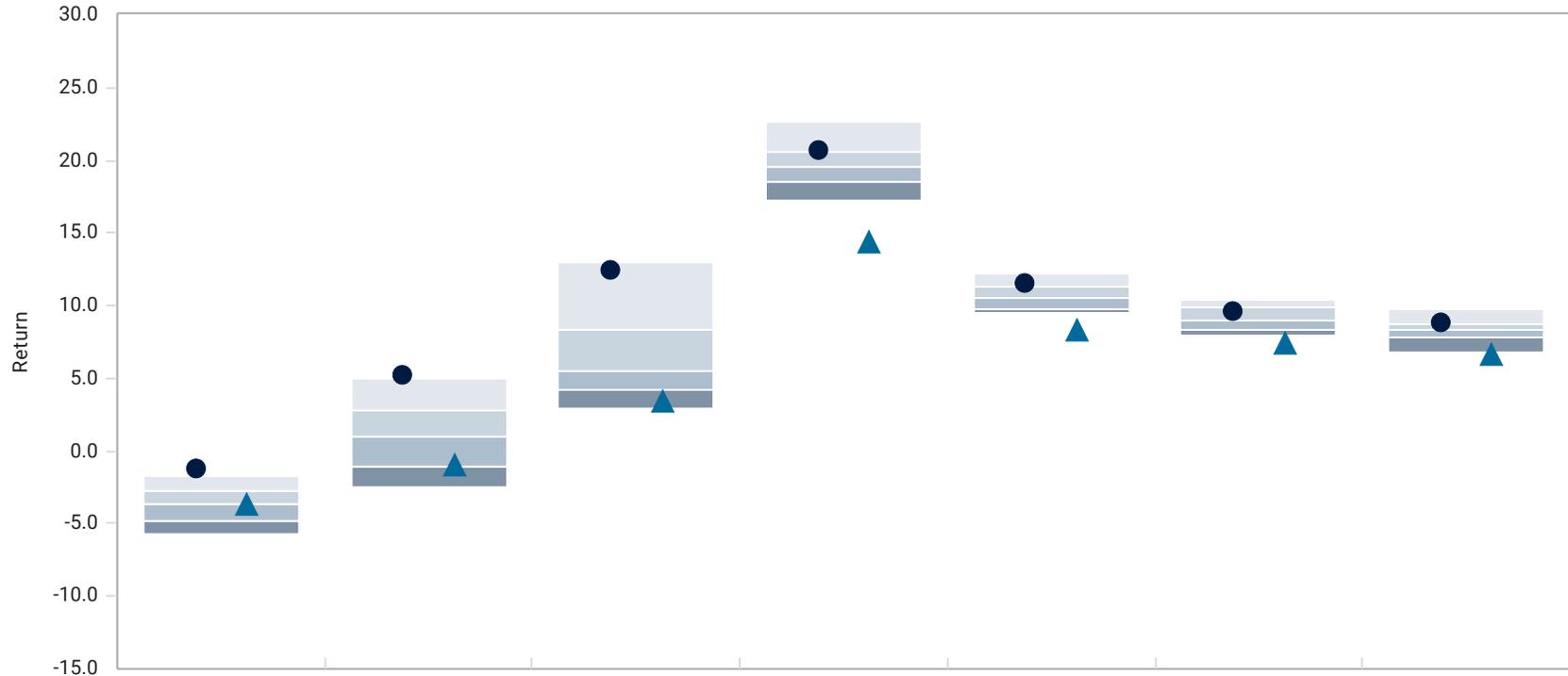
# VOLATILITY MEASUREMENT

## MONTHLY VS. QUARTERLY INTERVAL



# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

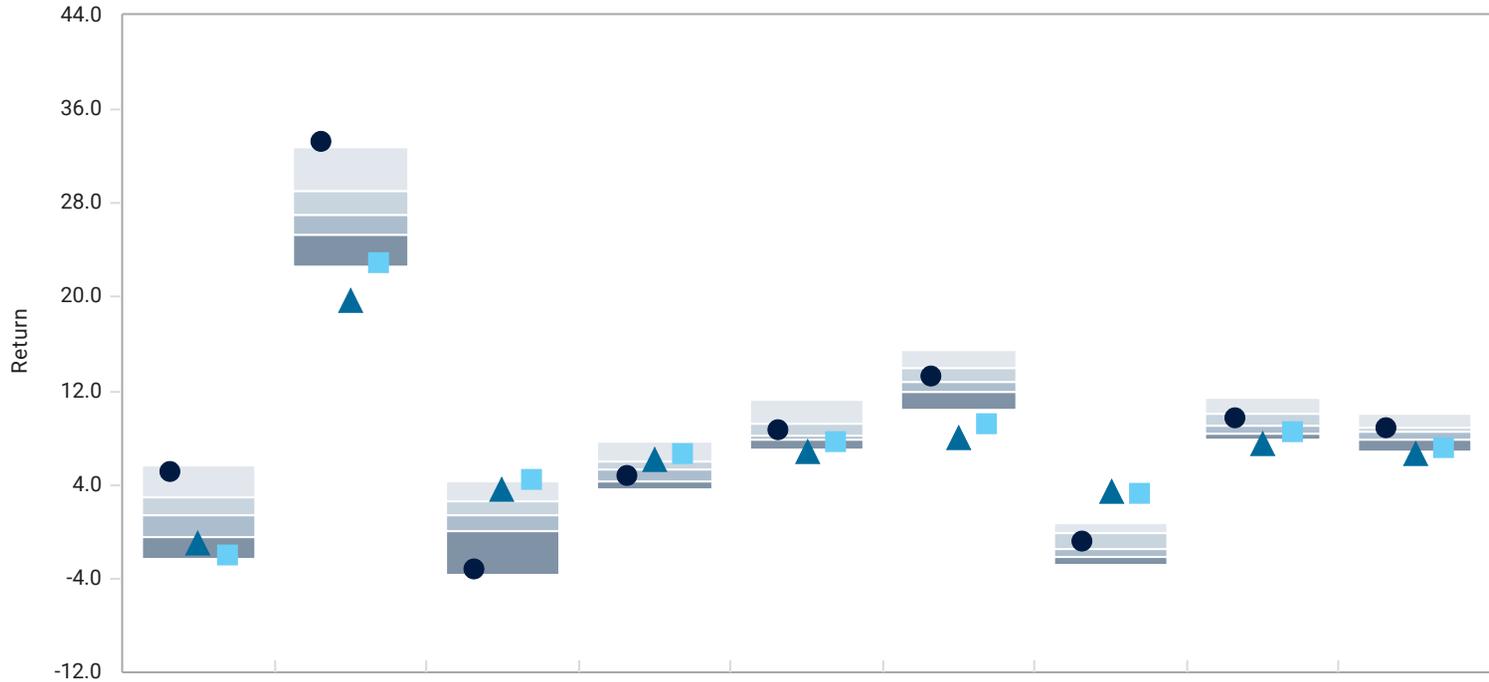


	3 Mo	FYTD (%)	1 Year	2 Years	3 Years	5 Years	10 Years
● Total Fund	-1.2 (1)	5.2 (4)	12.5 (9)	20.8 (21)	11.5 (21)	9.7 (30)	8.8 (15)
▲ Policy Index	-3.7 (57)	-0.9 (75)	3.5 (84)	14.4 (100)	8.3 (100)	7.5 (99)	6.7 (96)
5th Percentile	-1.7	5.0	13.0	22.7	12.2	10.4	9.8
1st Quartile	-2.8	2.8	8.4	20.6	11.3	9.9	8.8
Median	-3.6	0.9	5.5	19.6	10.5	9.0	8.4
3rd Quartile	-4.8	-1.0	4.2	18.6	9.8	8.3	7.9
95th Percentile	-5.7	-2.5	2.9	17.3	9.5	7.9	6.8
Population	22	21	21	21	21	21	20



# RETURN SUMMARY VS. PEER UNIVERSE

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



	Fiscal 2022	Fiscal 2021	Fiscal 2020	Fiscal 2019	Fiscal 2018	Fiscal 2017	Fiscal 2016	5 Yrs (%)	10 Yrs (%)
● Total Fund	5.2 (8)	33.3 (4)	-3.2 (95)	4.8 (55)	8.8 (32)	13.3 (44)	-0.8 (41)	9.7 (39)	8.8 (22)
▲ Policy Index	-0.9 (78)	19.7 (100)	3.7 (12)	6.2 (23)	6.8 (100)	8.0 (98)	3.4 (1)	7.5 (99)	6.7 (97)
■ 60% MSCI World/40% FTSE WGBI	-1.9 (93)	23.0 (95)	4.4 (5)	6.7 (15)	7.8 (78)	9.2 (97)	3.3 (1)	8.5 (73)	7.1 (94)
5th Percentile	5.7	32.8	4.2	7.7	11.2	15.5	0.8	11.4	10.1
1st Quartile	2.9	29.1	2.6	6.1	9.2	14.0	-0.1	10.0	8.8
Median	1.4	27.0	1.4	5.2	8.2	12.7	-1.4	9.1	8.5
3rd Quartile	-0.5	25.4	0.1	4.3	7.8	12.0	-2.2	8.4	7.9
95th Percentile	-2.4	22.7	-3.6	3.6	7.1	10.4	-2.8	7.9	6.9
Population	24	78	76	45	22	20	20	24	23





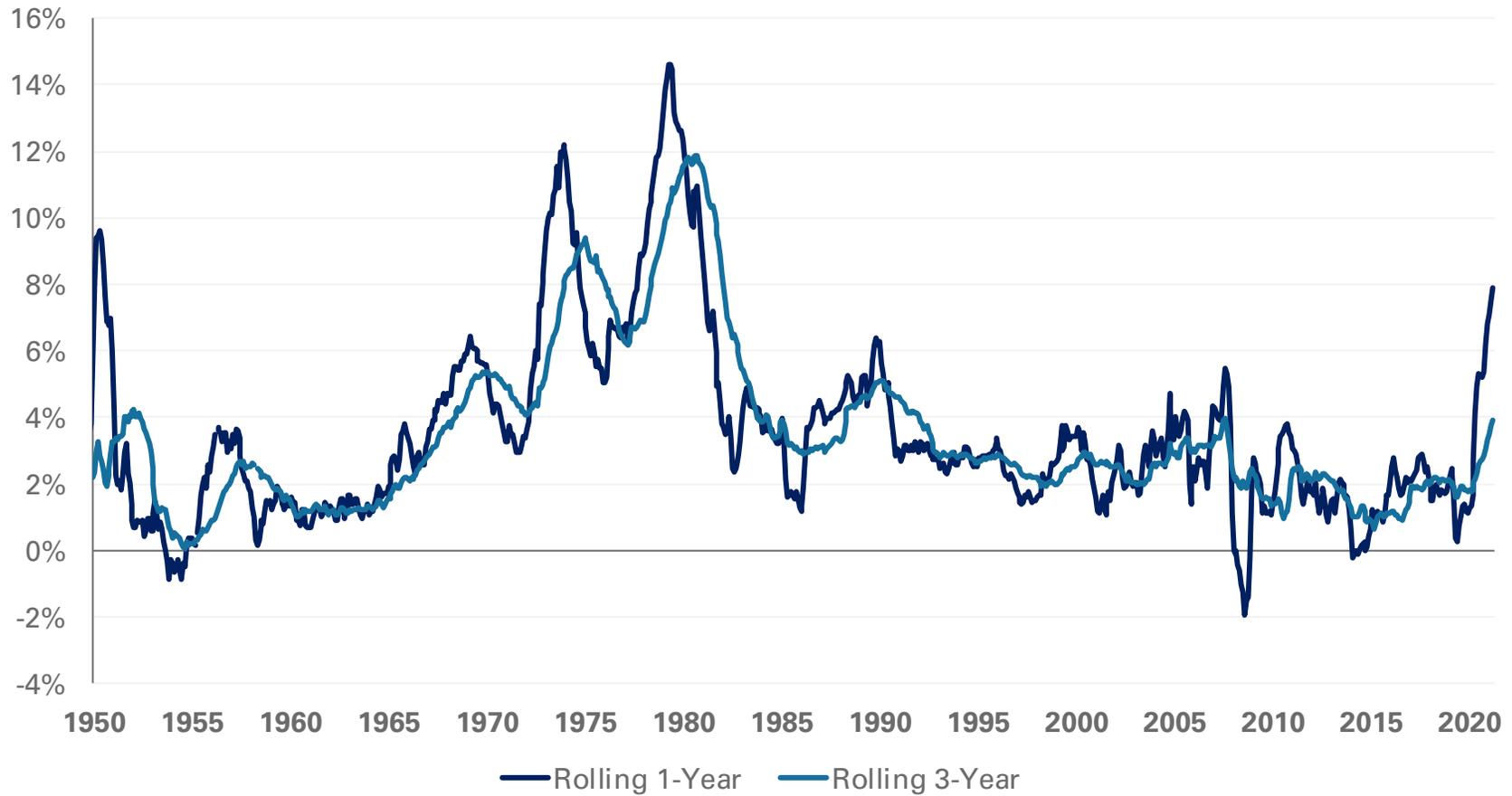
Source:



**MACRO**

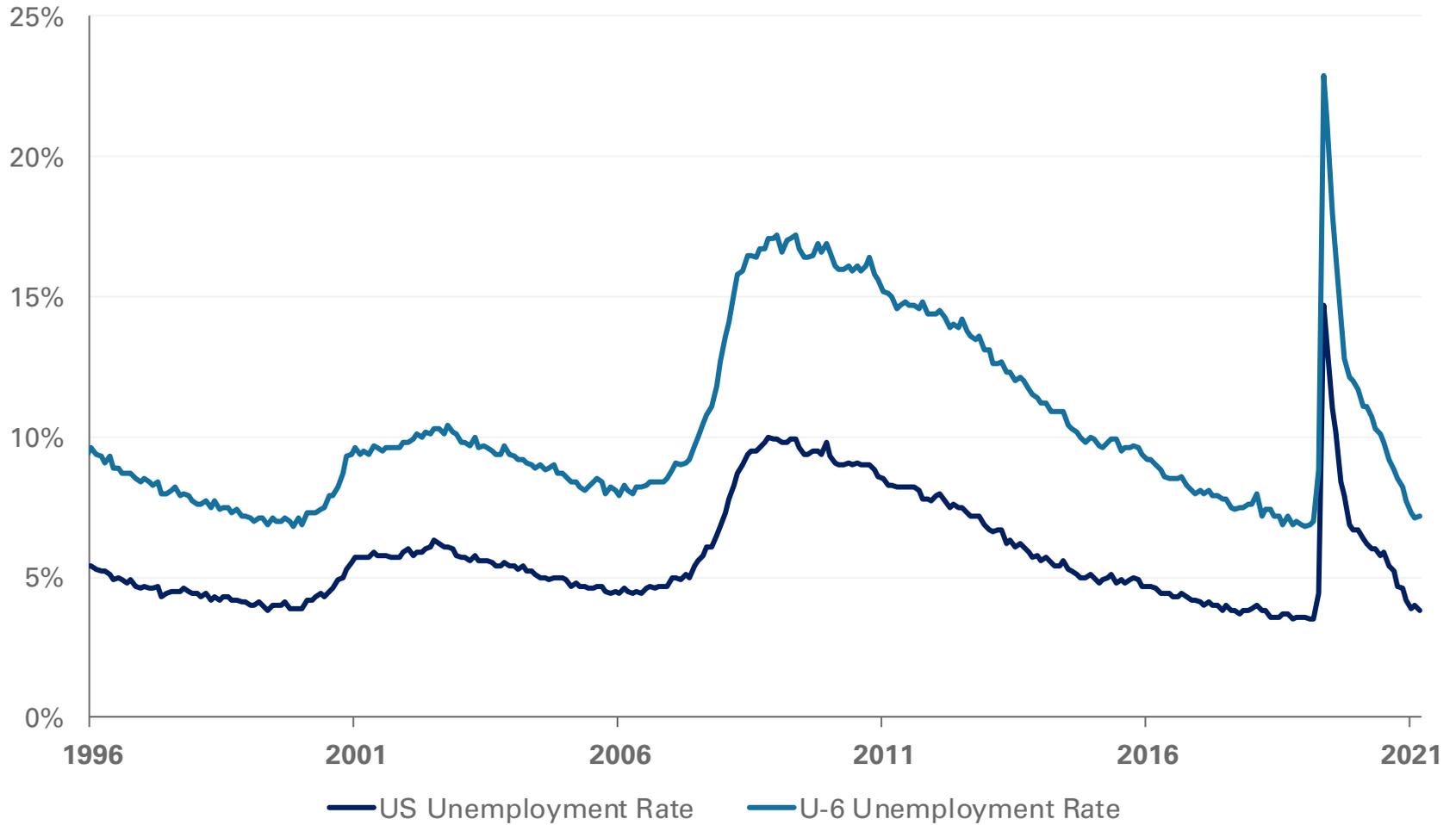
# INFLATION

## U.S. CONSUMER PRICE INDEX



Source: Bureau of Labor Statistics, FactSet

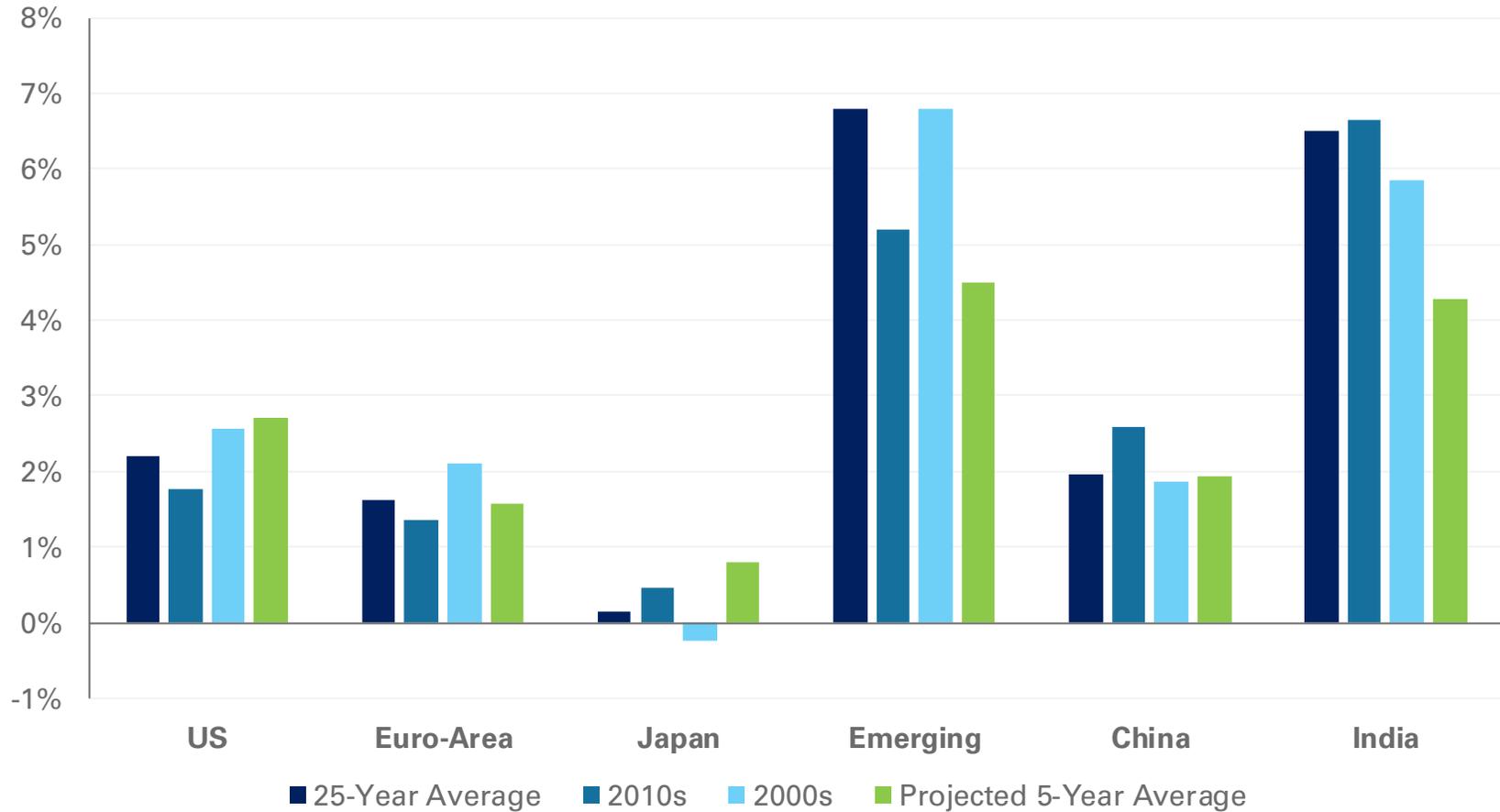
# U.S. UNEMPLOYMENT RATES



Source: FactSet

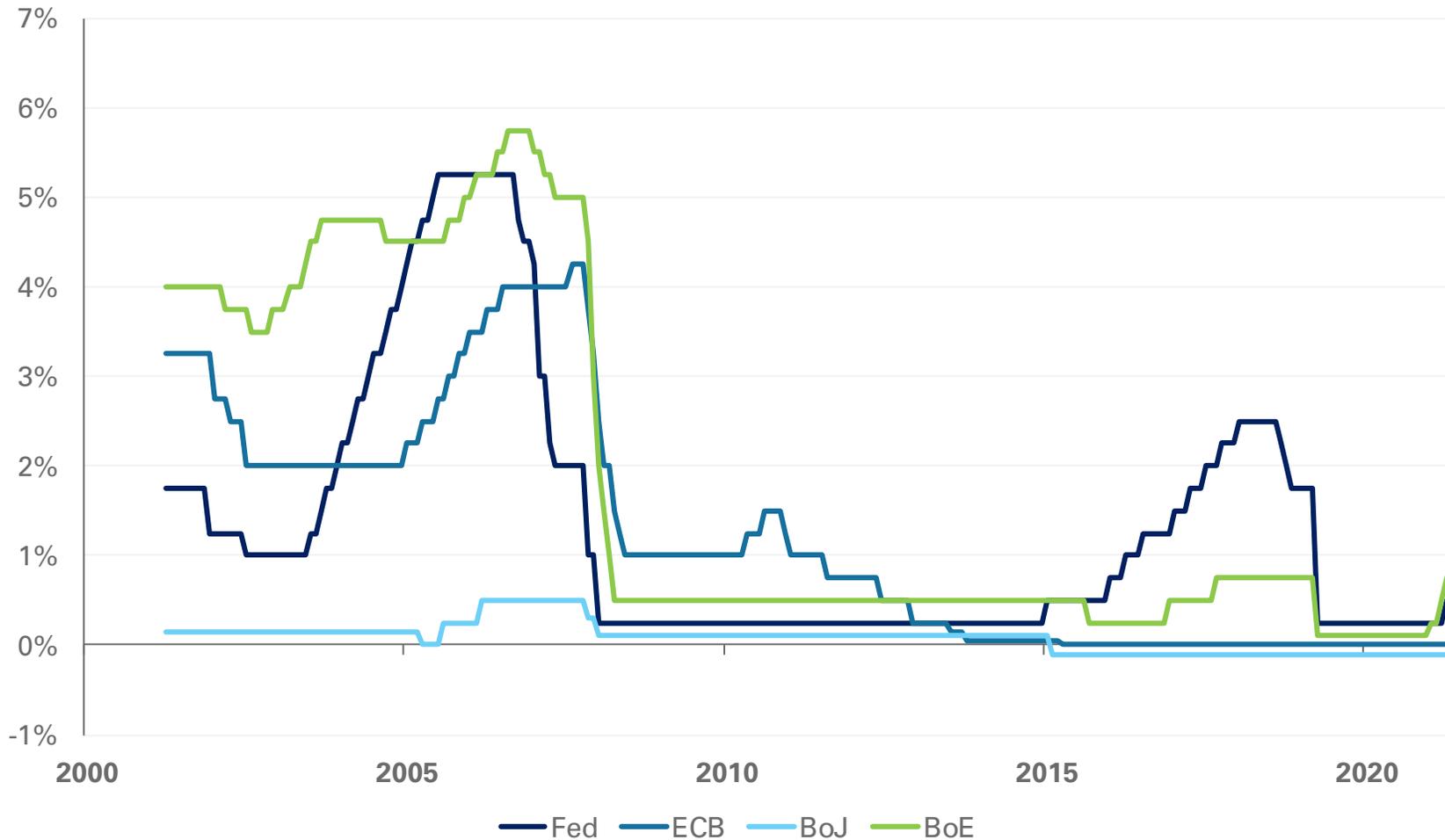
# HISTORICAL INFLATION

## IMF PROJECTIONS



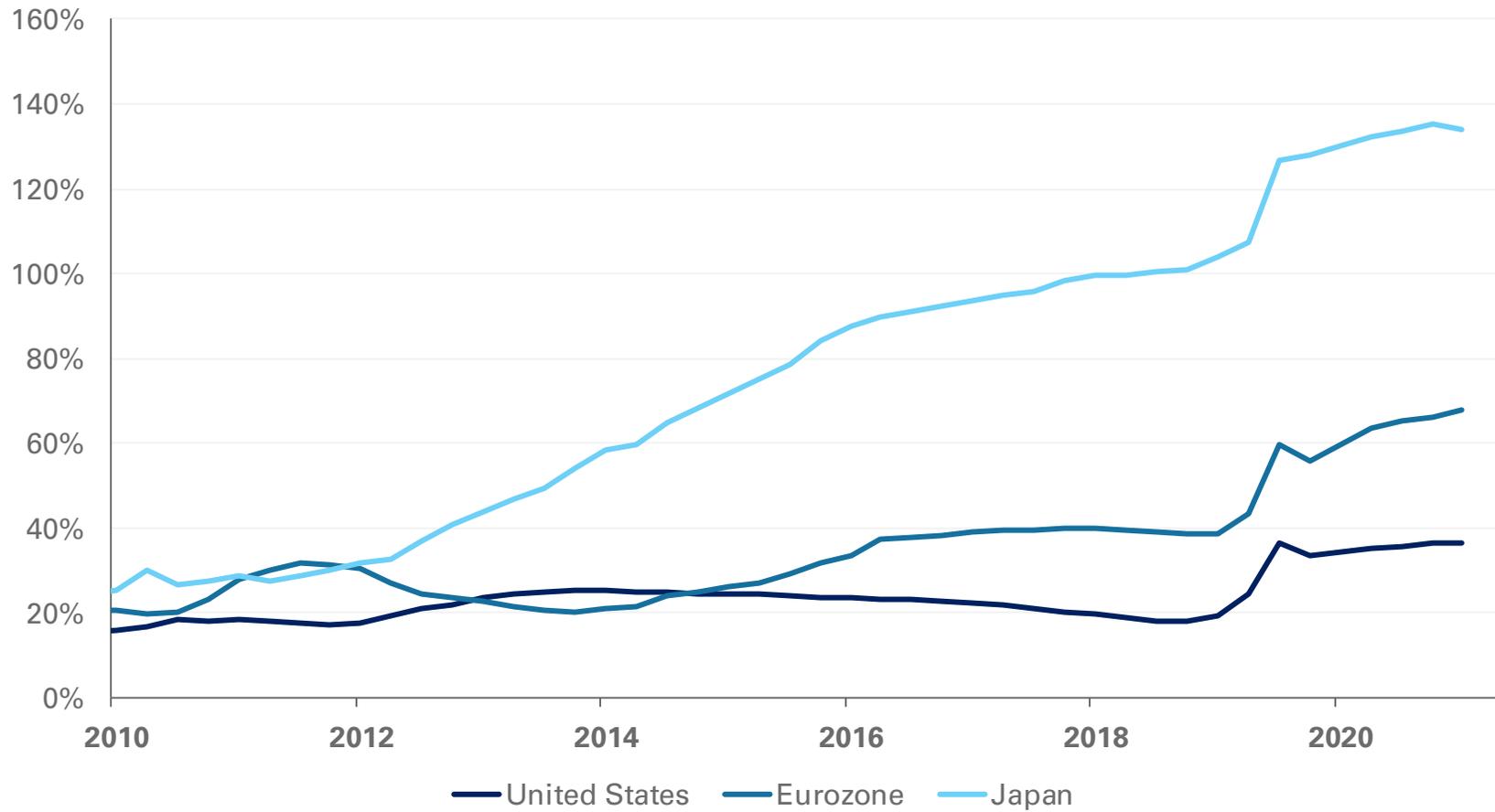
Source: IMF, FactSet

# 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
<b>Euro</b>	<b>1.11</b>	-0.9%	-2.2%	-5.3%
<b>British Pound</b>	<b>1.32</b>	-1.9%	-2.8%	-4.6%
<b>Japanese Yen</b>	<b>121.38</b>	-5.1%	-5.1%	-9.0%
<b>Swiss Franc</b>	<b>0.92</b>	-0.3%	-1.0%	2.3%
<b>Australian Dollar</b>	<b>0.75</b>	3.5%	3.3%	-1.4%
<b>New Zealand Dollar</b>	<b>1.44</b>	2.8%	1.6%	-0.7%
<b>Canadian Dollar</b>	<b>1.25</b>	1.5%	1.1%	0.6%
<b>Chinese Yuan</b>	<b>6.34</b>	-0.5%	0.5%	3.3%
<b>Taiwanese Dollar</b>	<b>28.65</b>	-2.2%	-3.4%	-0.4%
<b>Korean Won</b>	<b>1212</b>	-0.8%	-1.9%	-6.6%
<b>Vietnamese Dong</b>	<b>22841</b>	-0.1%	-0.2%	1.0%
<b>Thai Baht</b>	<b>33.25</b>	-1.7%	0.5%	-6.0%
<b>Philippines Peso</b>	<b>51.75</b>	-0.9%	-1.5%	-6.2%
<b>Indian Rupee</b>	<b>75.78</b>	-0.6%	-1.9%	-3.5%
<b>Russian Ruble</b>	<b>82.35</b>	30.2%	-8.9%	-8.3%
<b>Mexican Peso</b>	<b>19.94</b>	2.5%	2.6%	2.6%
<b>Brazilian Real</b>	<b>4.75</b>	8.4%	17.2%	18.8%
<b>Chilean Peso</b>	<b>0.02</b>	2.3%	10.5%	-0.3%
<b>Argentine Peso</b>	<b>110.99</b>	-3.2%	-7.5%	-17.1%
<b>South African Rand</b>	<b>14.61</b>	5.7%	9.2%	1.1%



Source: FactSet



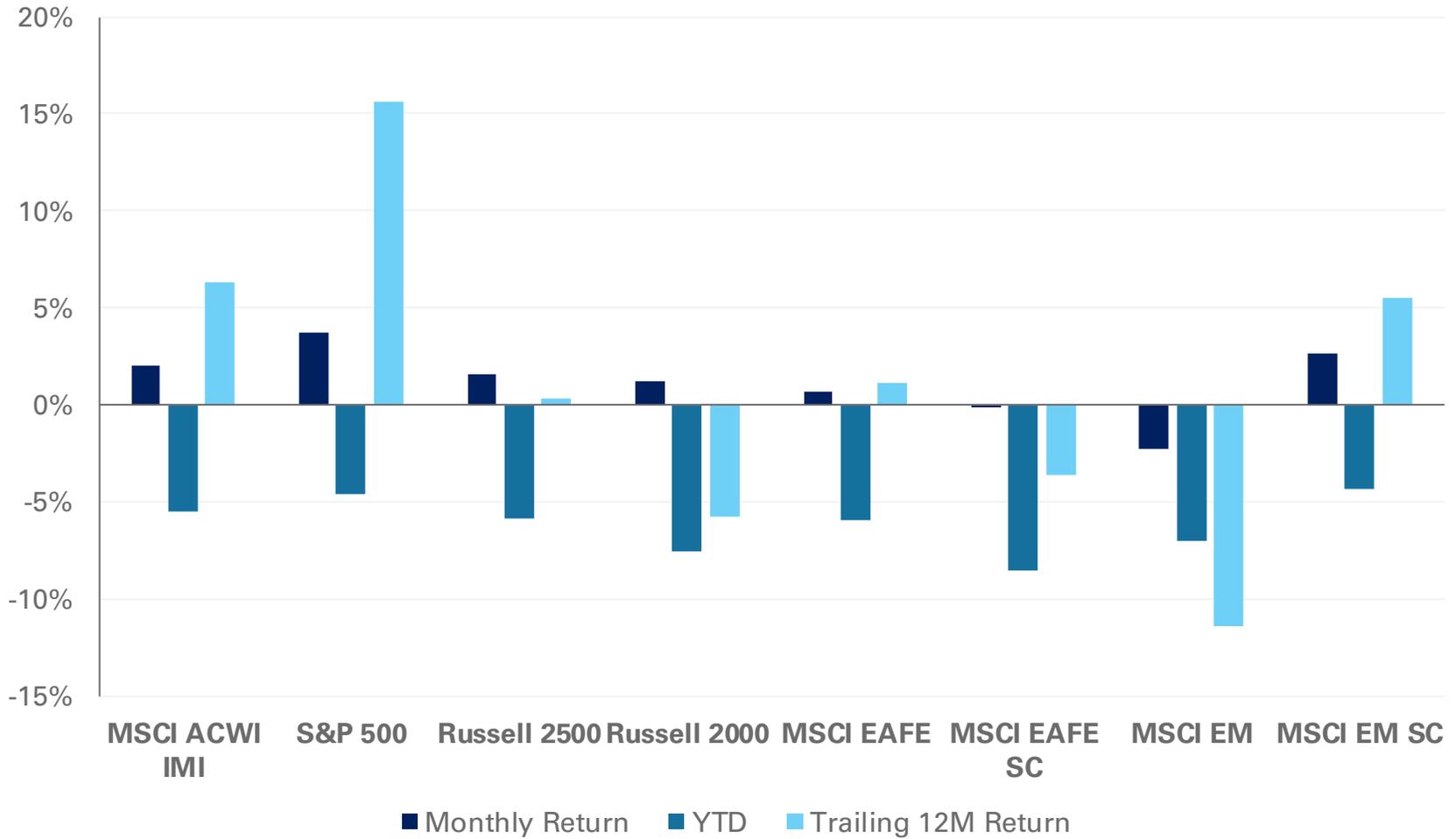
Source:



**EQUITY**

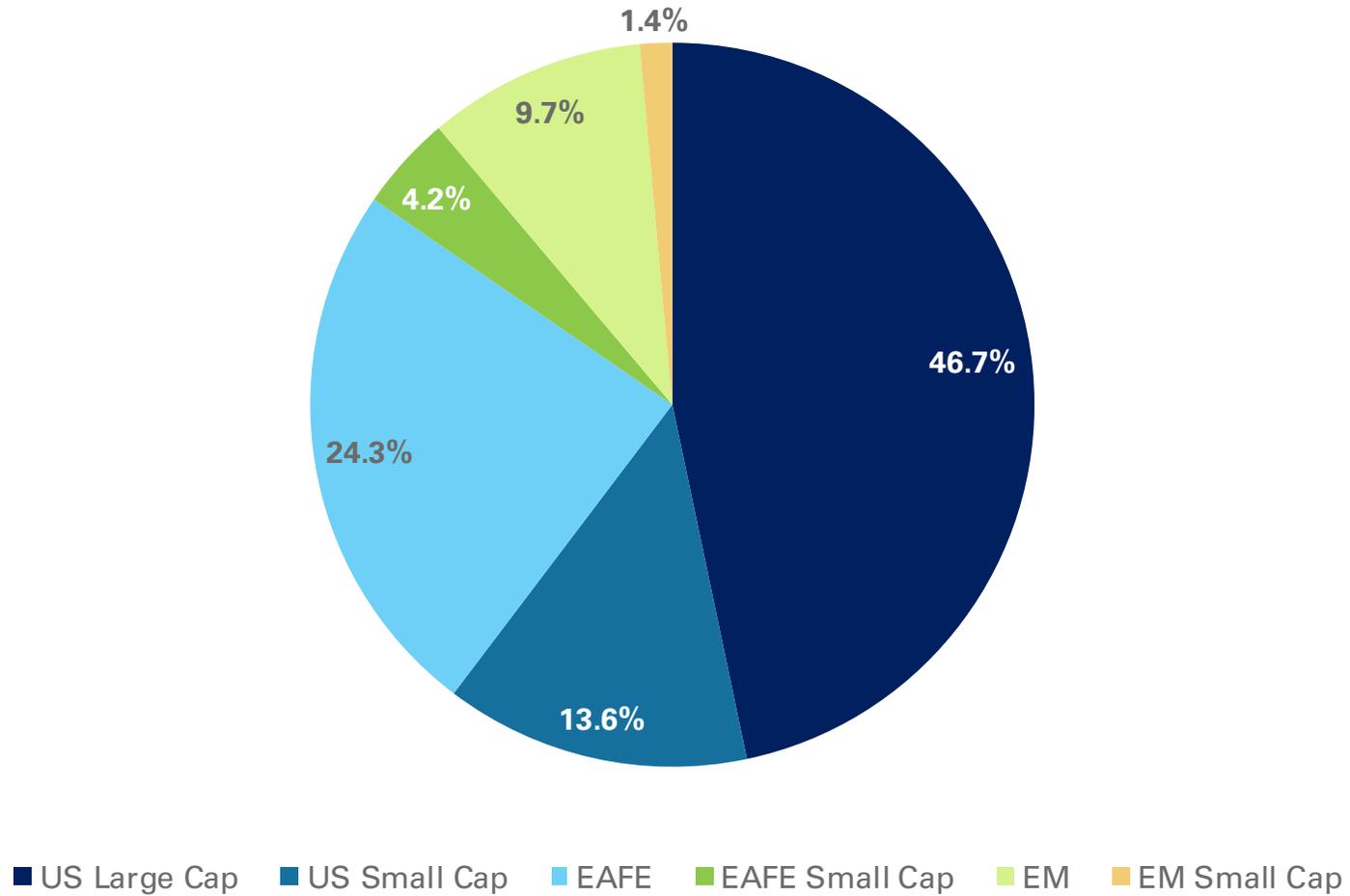
PROPRIETARY & CONFIDENTIAL

# EQUITY INDEX PERFORMANCE



Source: MSCI, S&P, Russell, FactSet

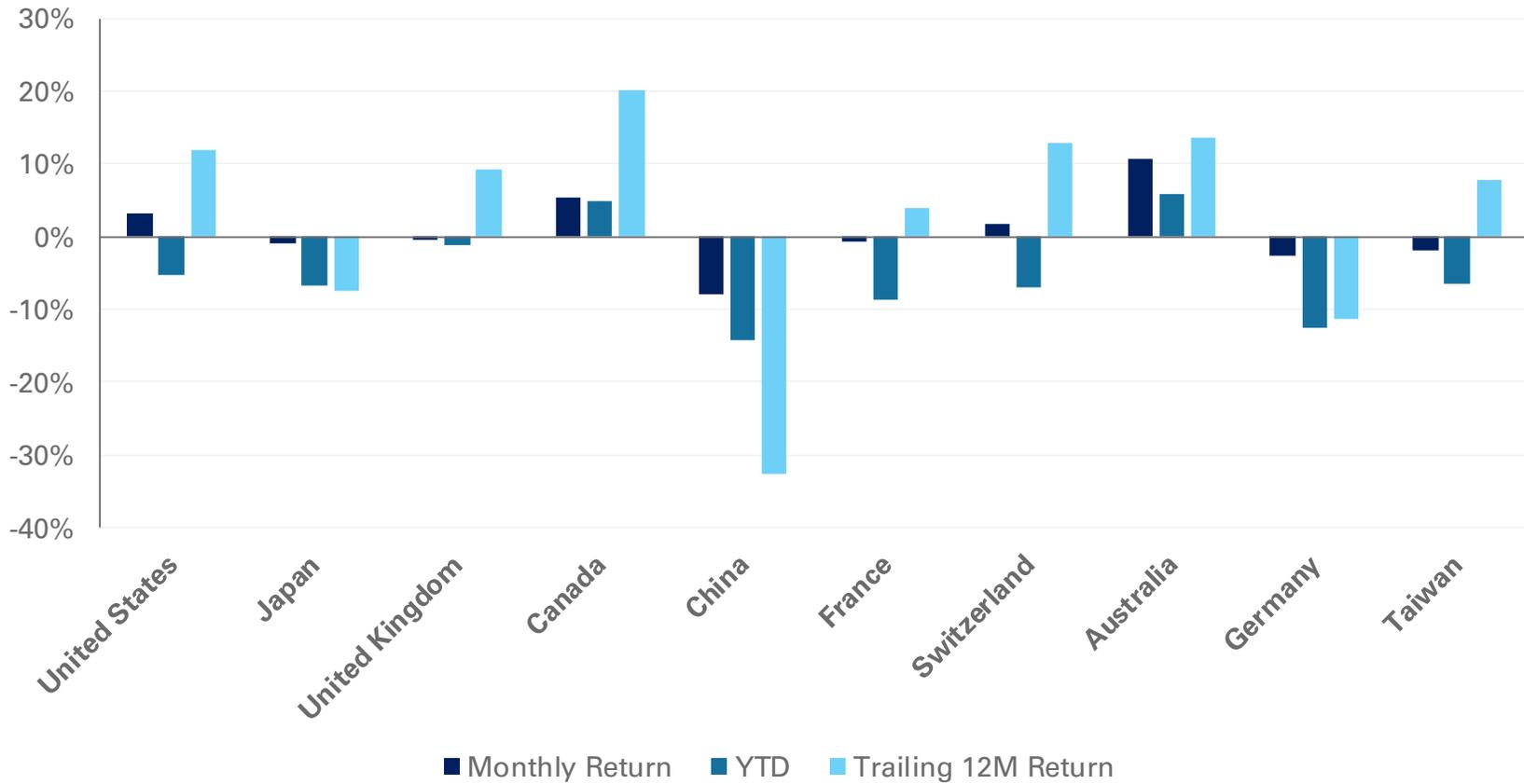
# MSCI ACWI IMI WEIGHTS



Source: MSCI, FactSet

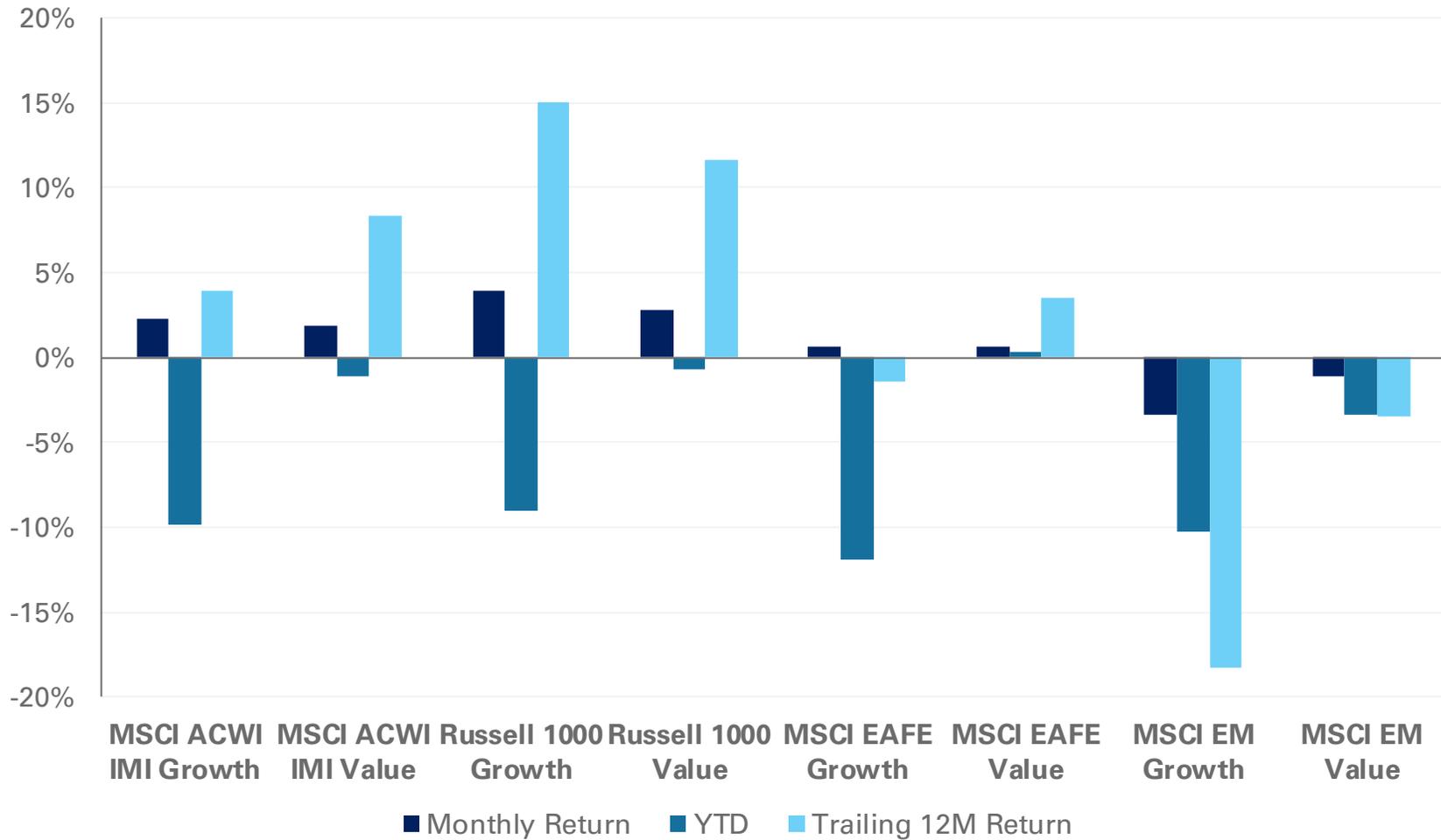
# EQUITY INDEX PERFORMANCE

## TOP 10 COUNTRIES BY MARKET CAP IN MSCI ACWI IMI INDEX



Source: MSCI, FactSet

# STYLE INDEX PERFORMANCE



Source: MSCI, Russell, FactSet

# SECTOR INDEX PERFORMANCE

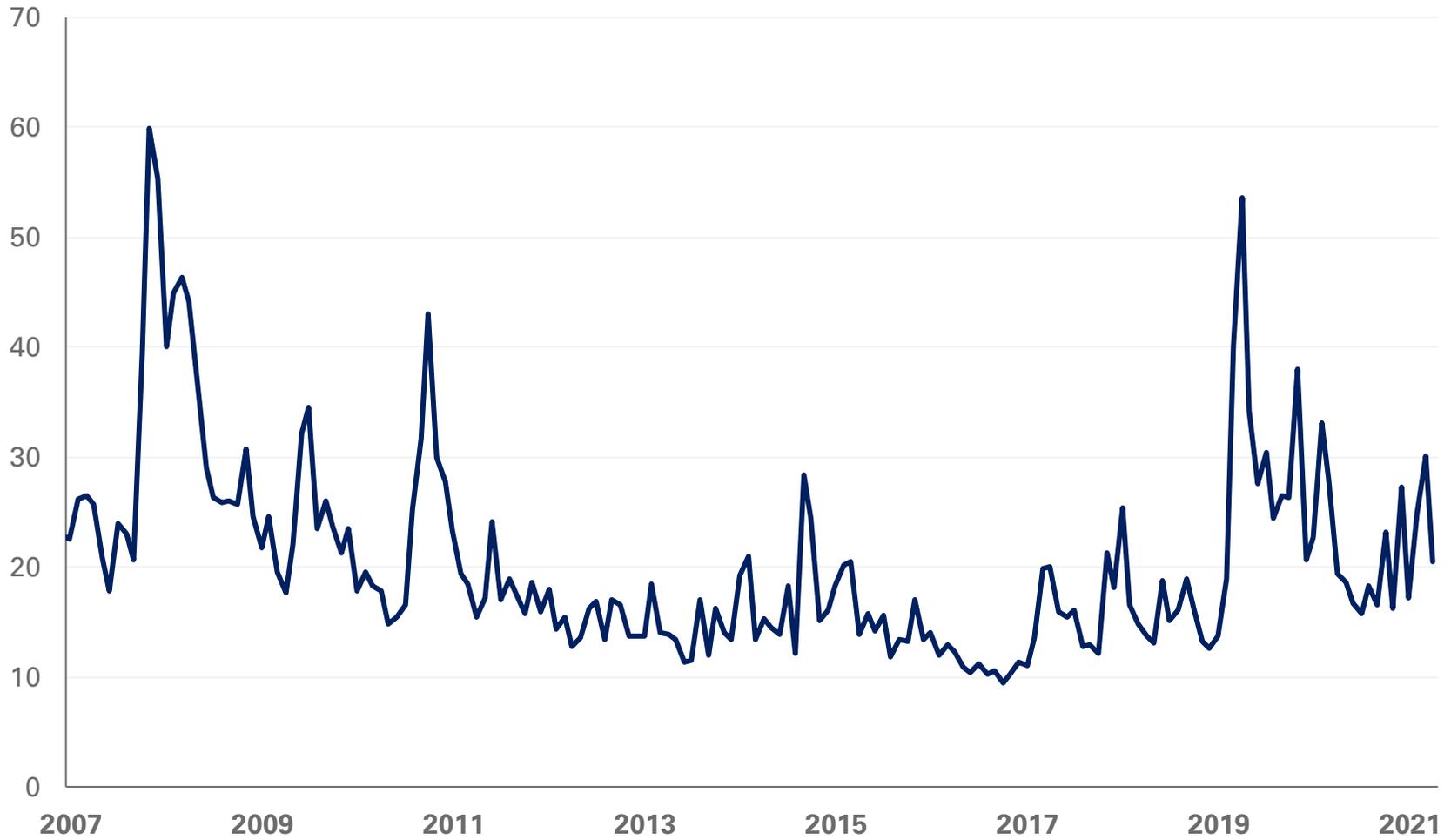
	Monthly Return	YTD	Trailing 12M Return	Index Weight
<b>MSCI ACWI IMI</b>	<b>2.0%</b>	<b>-5.5%</b>	<b>6.3%</b>	<b>100.0%</b>
Communication Services	-0.1%	-10.5%	-7.4%	7.5%
Consumer Discretionary	0.5%	-11.6%	-6.8%	11.7%
Consumer Staples	-0.4%	-4.1%	6.0%	6.6%
Energy	6.1%	22.6%	42.4%	4.4%
Financials	0.6%	-0.8%	10.3%	14.4%
Health Care	4.3%	-4.9%	8.3%	11.6%
Industrials	1.9%	-6.3%	1.7%	10.6%
Information Technology	2.3%	-10.4%	11.1%	21.2%
Materials	4.3%	2.6%	10.8%	5.5%
Real Estate	3.9%	-5.2%	9.9%	3.6%
Utilities	4.8%	1.2%	10.6%	2.9%

	Monthly Return	YTD	Trailing 12M Return	Index Weight
<b>S&amp;P 500</b>	<b>3.7%</b>	<b>-4.6%</b>	<b>15.6%</b>	<b>100.0%</b>
Communication Services	1.0%	-11.9%	-0.9%	9.4%
Consumer Discretionary	4.9%	-9.0%	9.8%	12.0%
Consumer Staples	1.8%	-1.0%	16.1%	6.1%
Energy	9.0%	39.0%	64.3%	3.9%
Financials	-0.2%	-1.5%	14.7%	11.1%
Health Care	5.6%	-2.6%	19.1%	13.6%
Industrials	3.4%	-2.4%	6.1%	7.9%
Information Technology	3.5%	-8.4%	20.9%	28.0%
Materials	6.1%	-2.4%	13.9%	2.6%
Real Estate	7.8%	-6.2%	25.8%	2.7%
Utilities	10.4%	4.8%	19.9%	2.7%



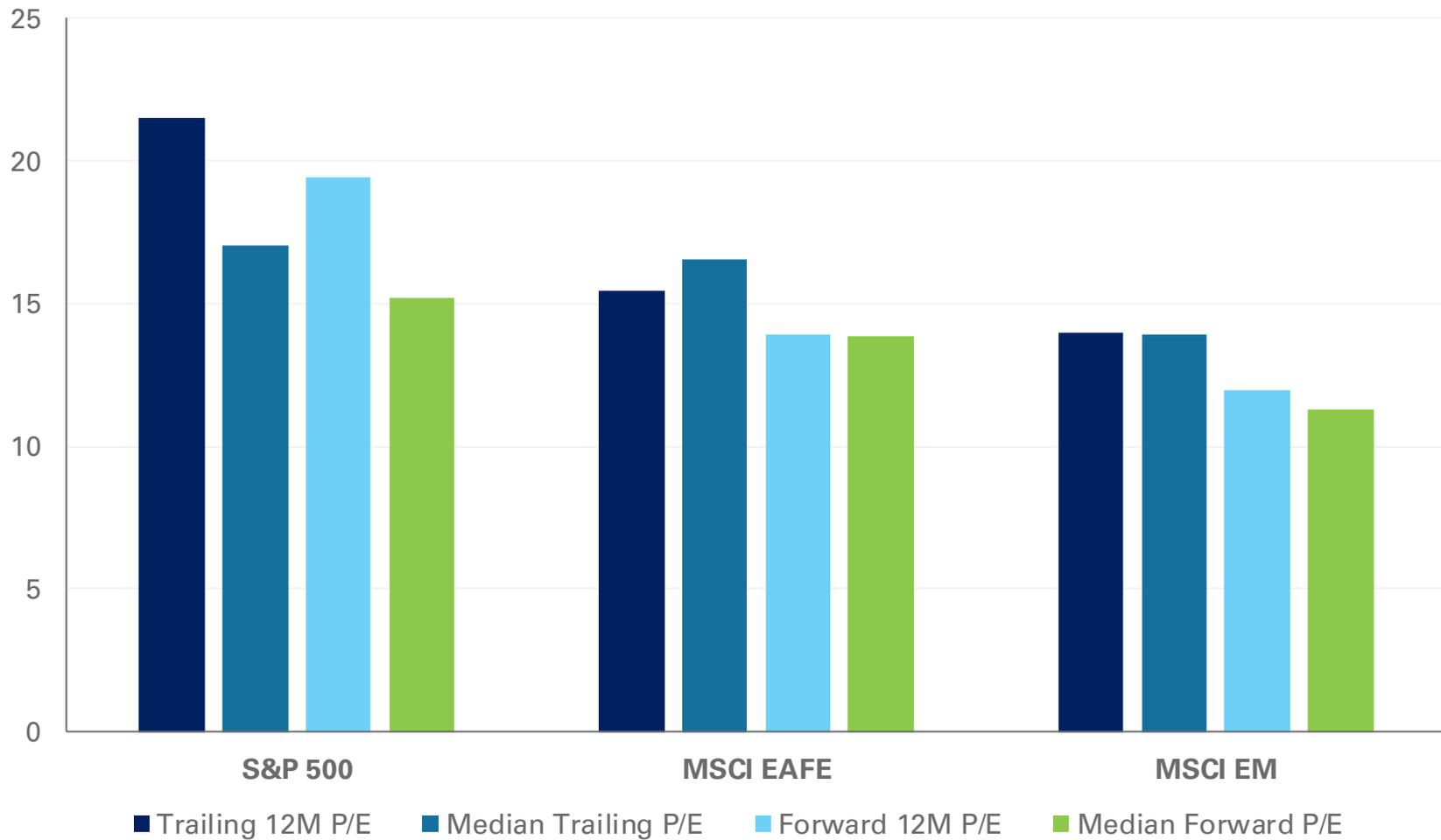
Source (Top): MSCI, FactSet  
Source (Bottom): S&P, FactSet

# EQUITY VOLATILITY INDEX (VIX)



Source: CBOE, FactSet

# GLOBAL EQUITY VALUATIONS



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





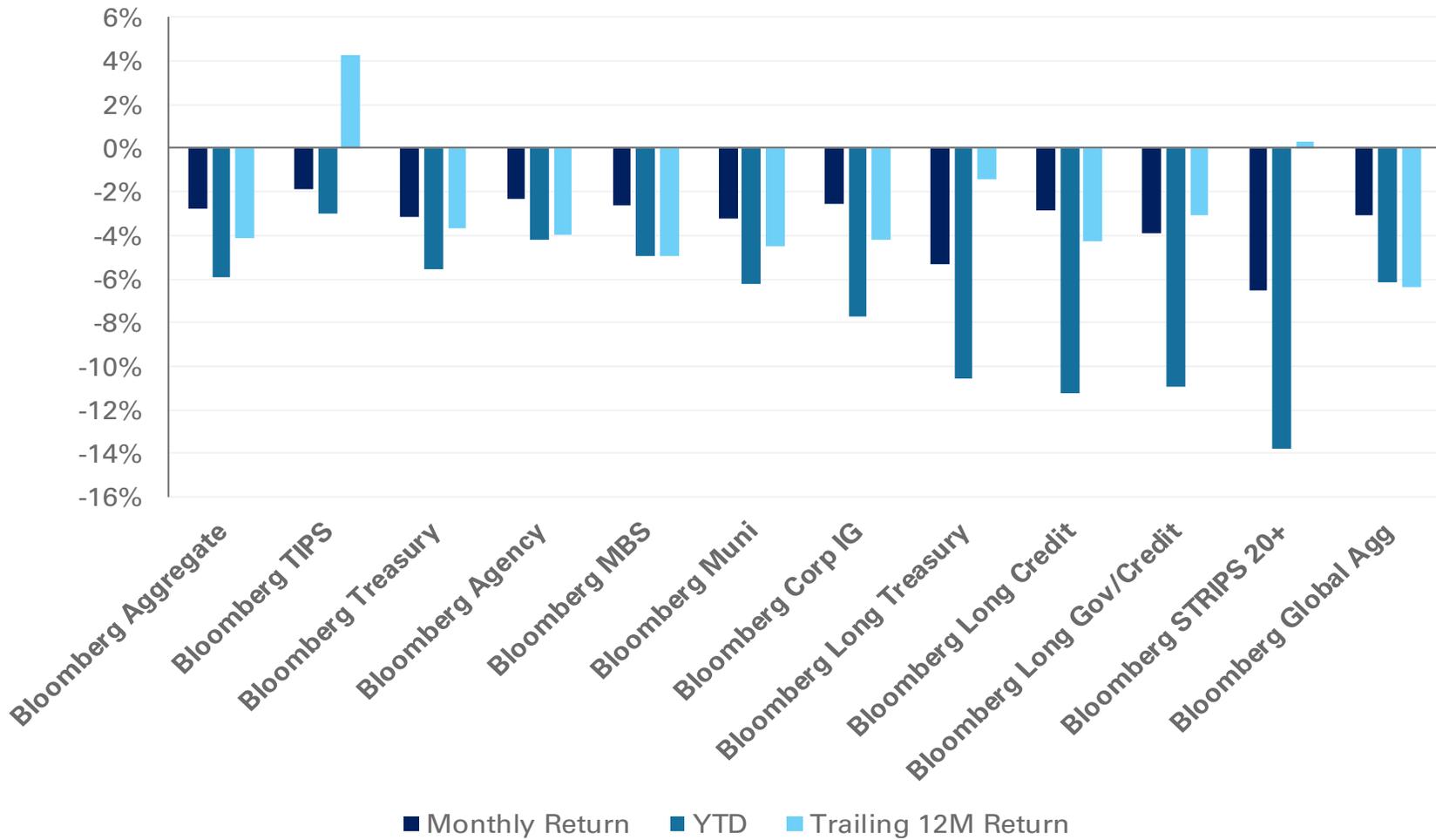
Source:



# SAFE-HAVEN FIXED INCOME

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# SAFE-HAVEN FIXED INCOME PERFORMANCE



Source: Bloomberg, FactSet

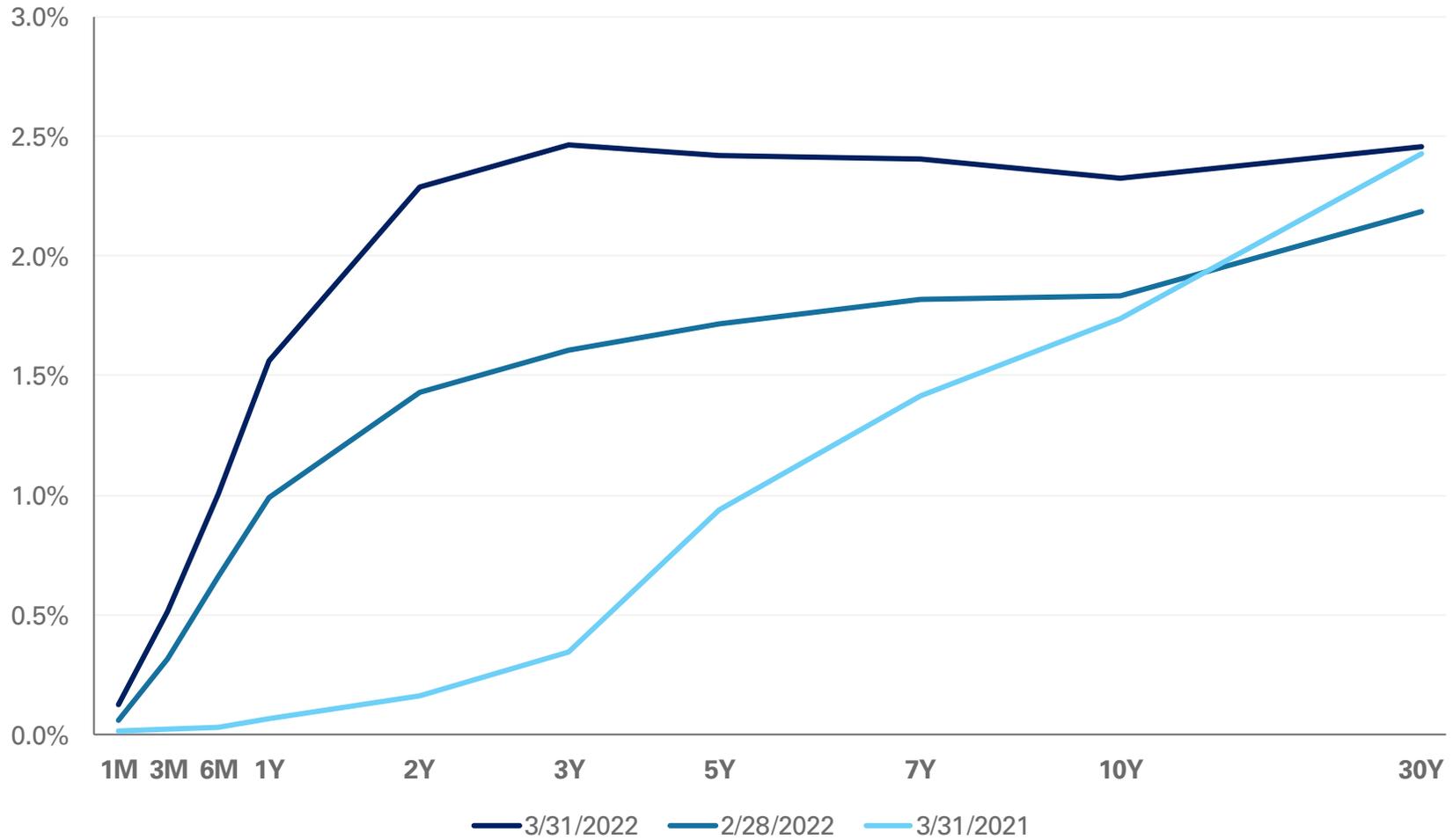
# FIXED INCOME CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg Aggregate</b>	2.92%	41	6.6
<b>Bloomberg TIPS</b>	2.55%	-	5.8
<b>Bloomberg Treasury</b>	2.42%	-	6.8
<b>Bloomberg Agency</b>	2.51%	13	3.8
<b>Bloomberg MBS</b>	2.99%	24	5.2
<b>Bloomberg Muni</b>	2.6%	-	5.6
<b>Bloomberg Corp IG</b>	3.60%	116	8.2
<b>Bloomberg Long Treasury</b>	2.55%	-	17.8
<b>Bloomberg Long Credit</b>	4.02%	155	14.2
<b>Bloomberg Long Gov/Credit</b>	3.39%	88	15.7
<b>Bloomberg STRIPS 20+</b>	2.56%	-	25.5
<b>Bloomberg Global Agg</b>	2.15%	42	7.3



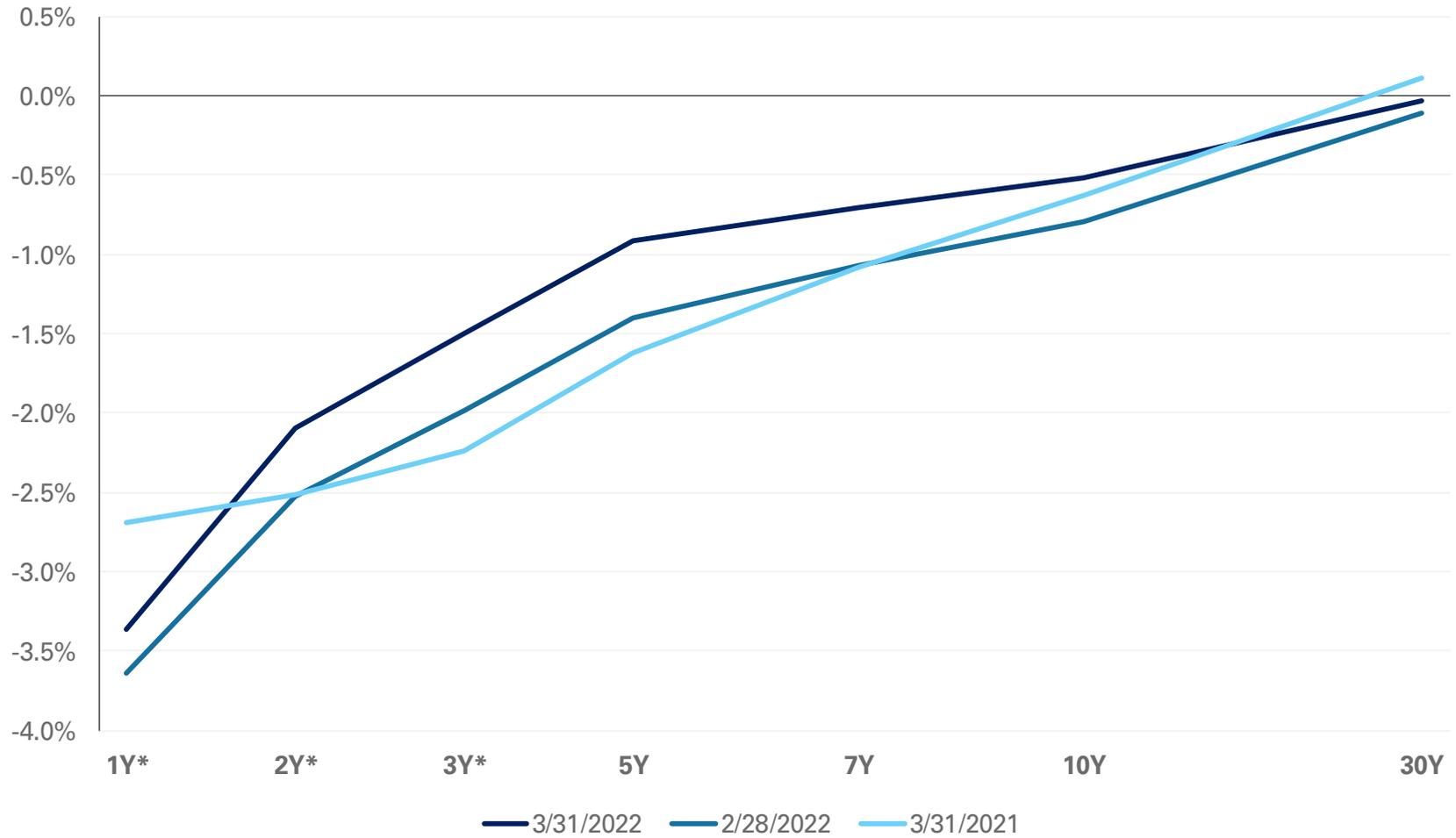
Source: Bloomberg, FactSet

# US TREASURY YIELD CURVE



Source: FactSet

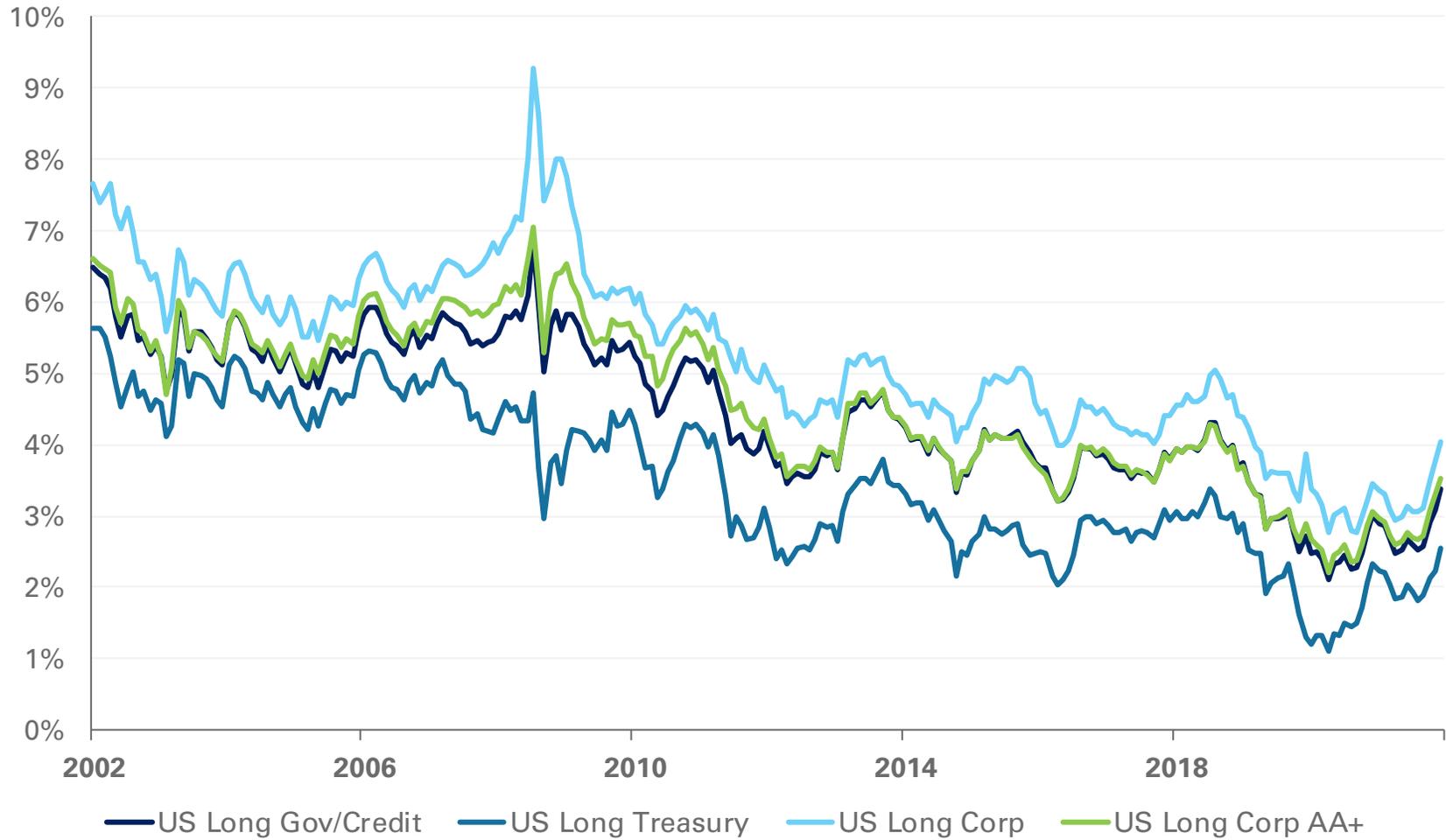
# US TREASURY REAL YIELD CURVE



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

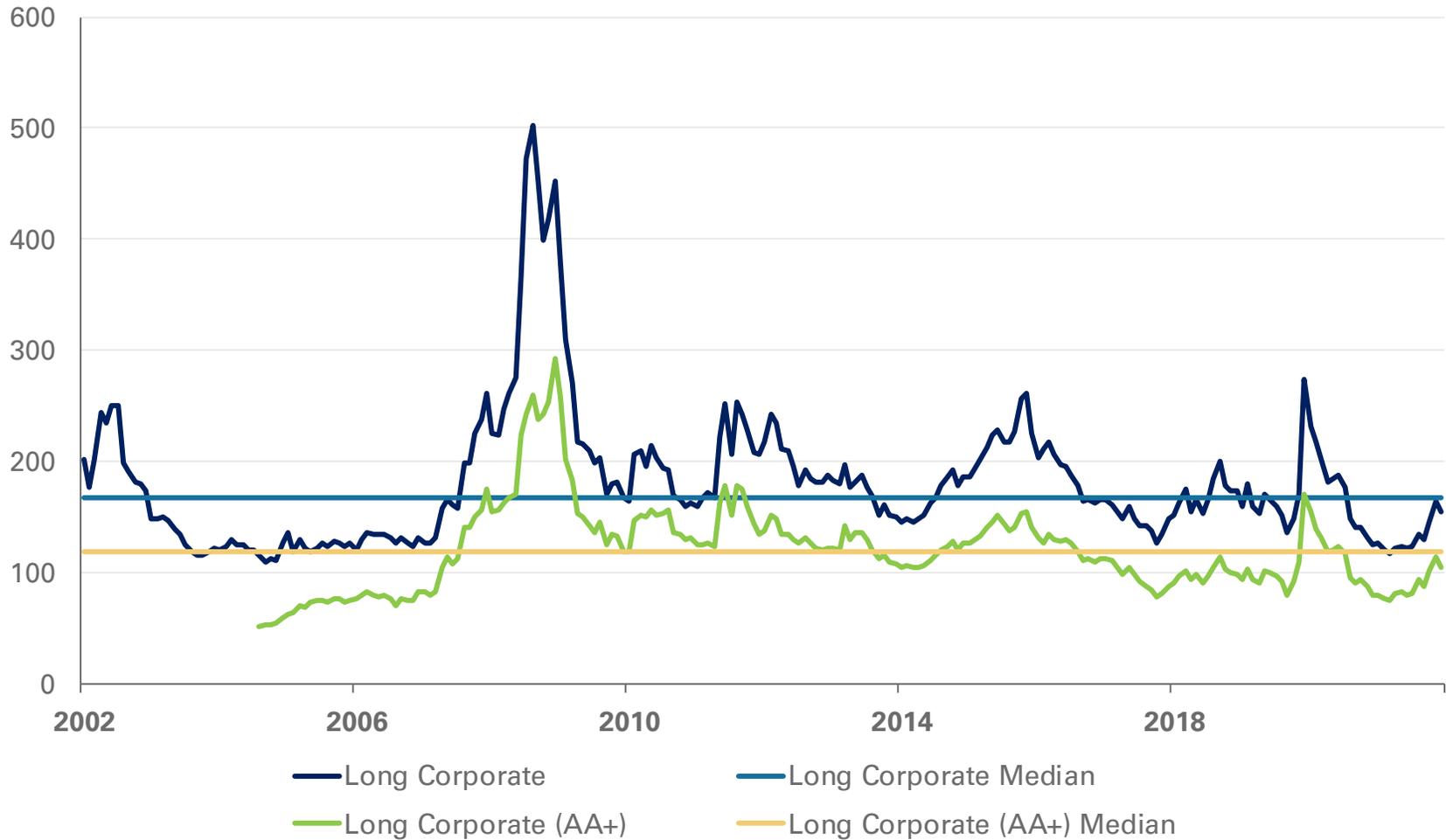


# LONG DURATION YIELDS



Source: Bloomberg, FactSet

# LONG DURATION CORPORATE SPREADS



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





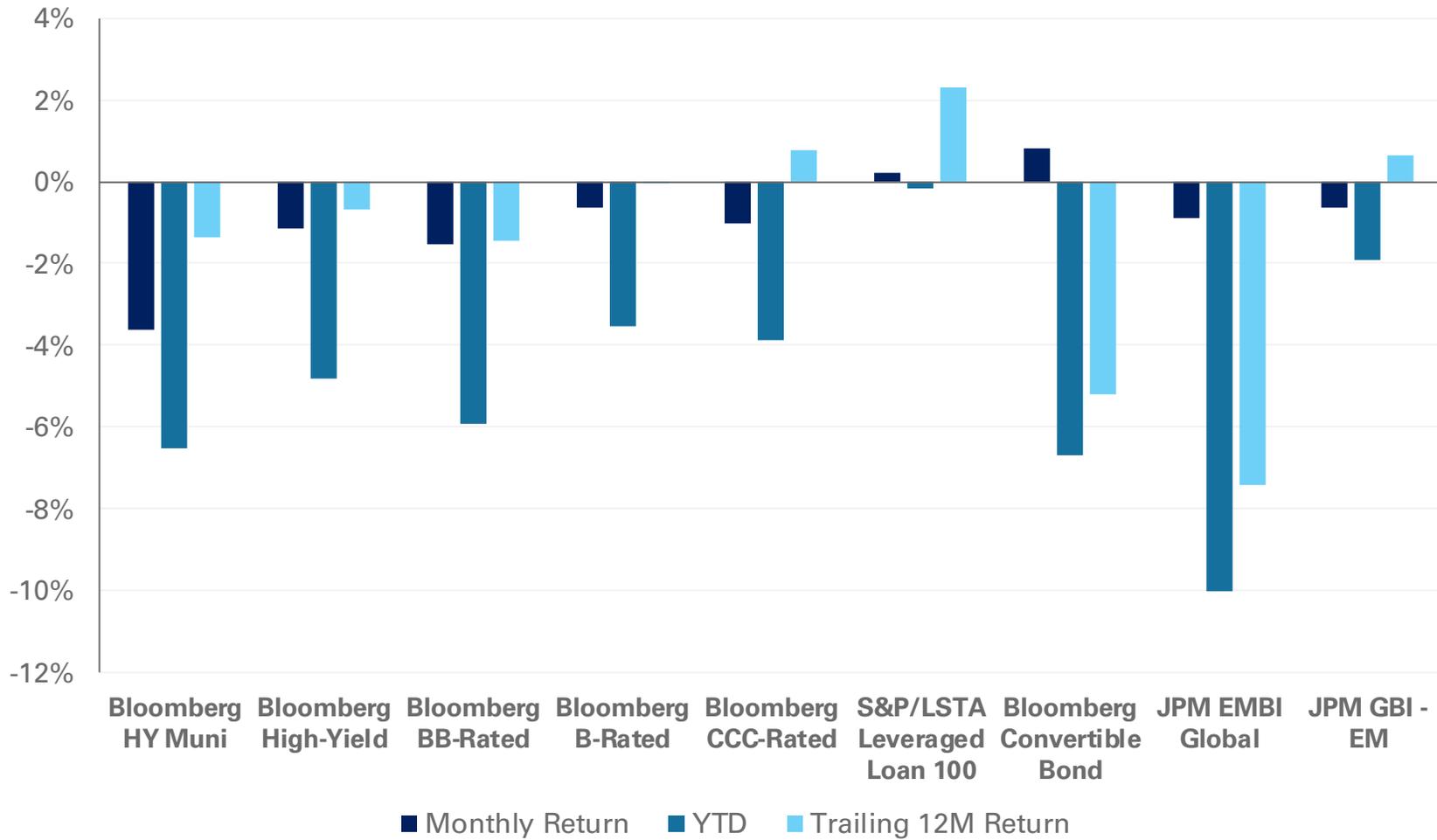
Source:



# RETURN-SEEKING CREDIT

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# RETURN-SEEKING CREDIT INDEX PERFORMANCE



Source: Bloomberg, S&P, JPM, FactSet

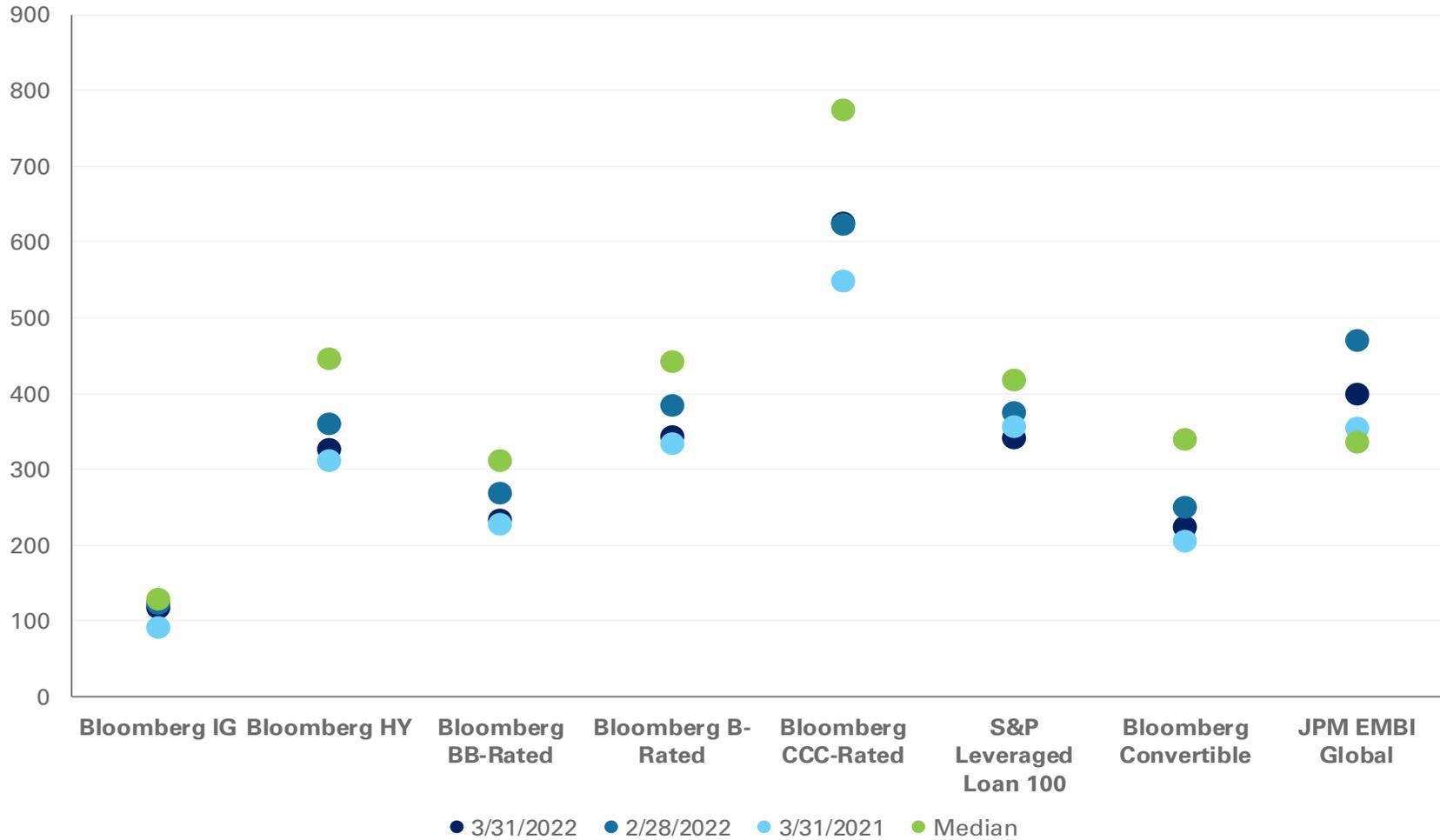
## RETURN-SEEKING CREDIT CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg HY Muni</b>	4.30%	-	8.1
<b>Bloomberg High-Yield</b>	6.01%	325	3.9
<b>Bloomberg BB-Rated</b>	5.00%	232	4.5
<b>Bloomberg B-Rated</b>	6.27%	342	3.5
<b>Bloomberg CCC-Rated</b>	9.06%	625	3.1
<b>S&amp;P/LSTA Leveraged Loan 100</b>	4.37%	340	-
<b>Bloomberg Convertible Bond</b>	0.87%	223	2.0
<b>JPM EMBI Global</b>	6.44%	399	7.5
<b>JPM GBI - EM</b>	4.93%	-	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



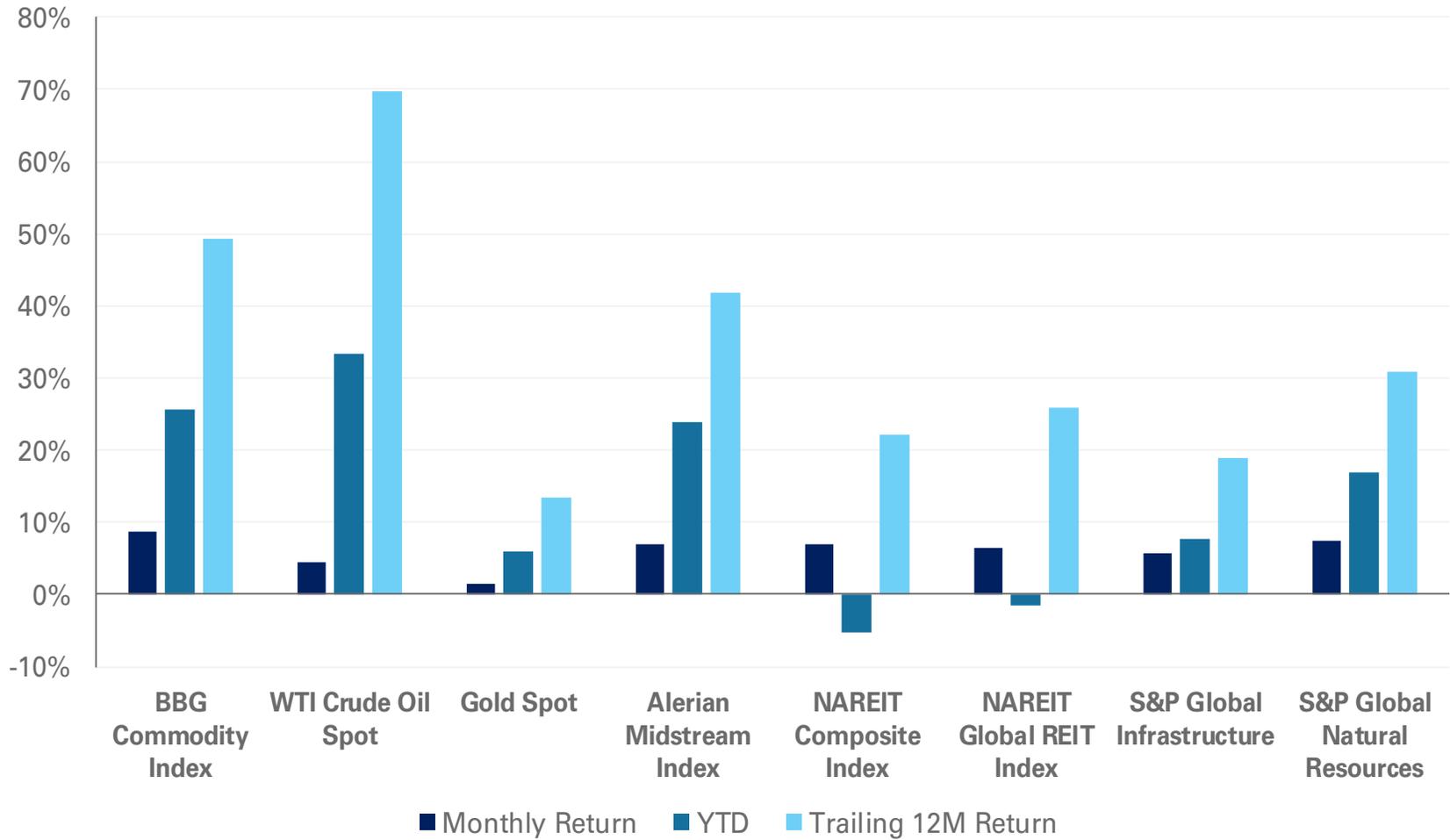


Source:



# REAL ASSETS

# REAL ASSETS INDEX PERFORMANCE



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

# REAL ASSETS INDEX PERFORMANCE

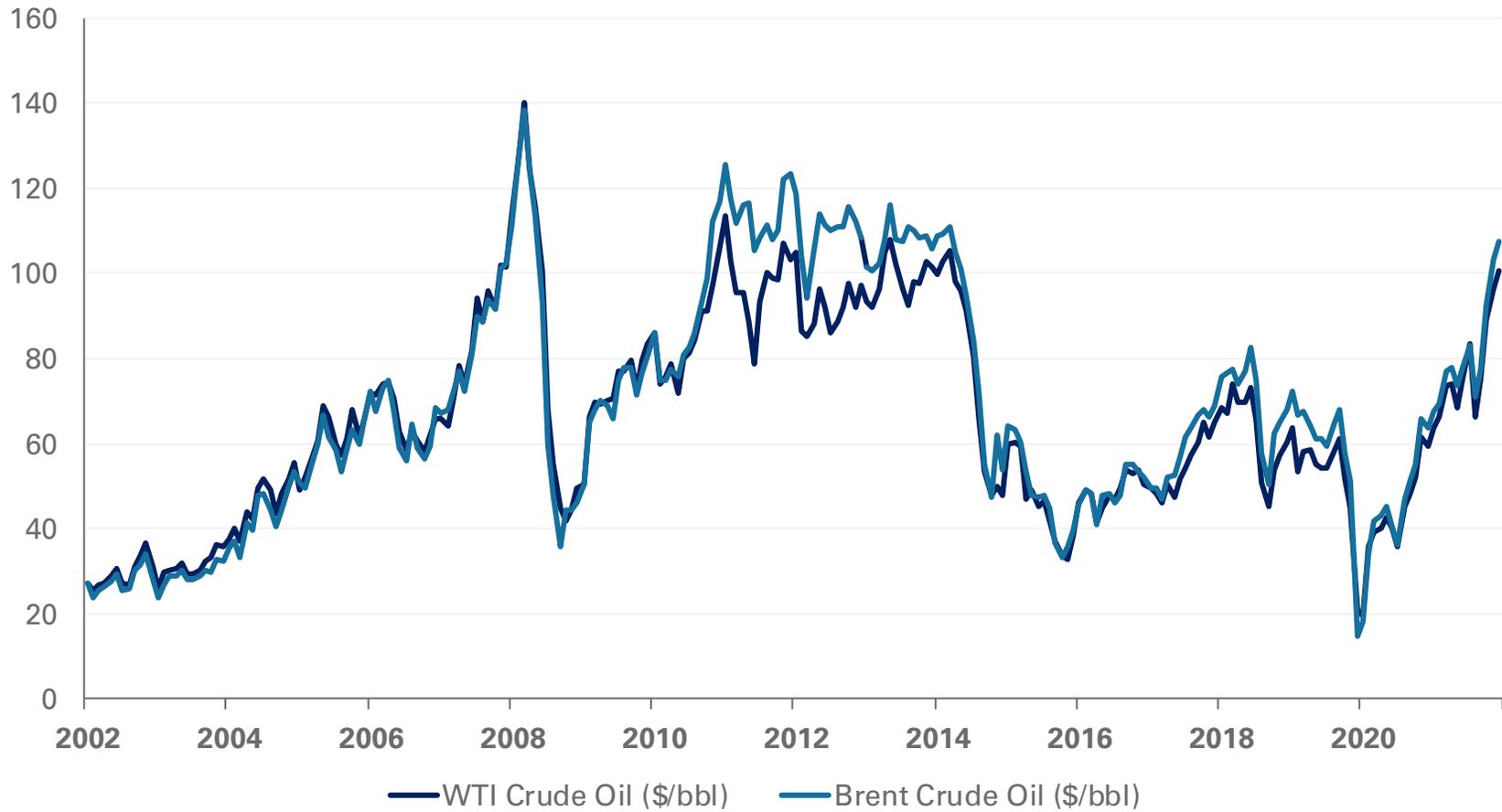
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
<b>Bloomberg Commodity Index</b>	<b>8.6%</b>	<b>25.5%</b>	<b>25.5%</b>	<b>49.0%</b>	<b>16.0%</b>	<b>9.0%</b>
<b>Bloomberg Sub Agriculture Index</b>	<b>4.1%</b>	<b>19.9%</b>	<b>19.9%</b>	<b>42.0%</b>	<b>22.8%</b>	<b>8.0%</b>
Coffee	-2.8%	0.1%	0.1%	72.6%	22.4%	0.5%
Corn	8.4%	26.3%	26.3%	45.0%	24.6%	8.4%
Cotton	14.0%	23.2%	23.2%	72.0%	19.3%	11.8%
Soybean	-1.1%	20.7%	20.7%	19.0%	20.5%	8.3%
Soybean Oil	-3.5%	23.8%	23.8%	46.8%	36.5%	16.3%
Sugar	10.2%	5.7%	5.7%	29.8%	11.3%	-1.3%
Wheat	7.7%	29.6%	29.6%	54.1%	25.0%	9.6%
<b>Bloomberg Sub Energy</b>	<b>16.1%</b>	<b>47.9%</b>	<b>47.9%</b>	<b>91.3%</b>	<b>7.5%</b>	<b>6.3%</b>
Brent Crude	12.1%	43.6%	43.6%	92.4%	20.7%	18.3%
Heating Oil	18.1%	54.7%	54.7%	103.4%	16.4%	15.2%
Natural Gas	27.7%	58.5%	58.5%	96.4%	-7.0%	-10.7%
Unleaded Gas	8.4%	36.8%	36.8%	79.5%	22.2%	14.2%
WTI Crude Oil	7.3%	38.3%	38.3%	82.1%	4.4%	6.3%
<b>Bloomberg Sub Industrial Metals</b>	<b>12.1%</b>	<b>22.7%</b>	<b>22.7%</b>	<b>48.6%</b>	<b>20.7%</b>	<b>14.0%</b>
Aluminum	3.5%	24.7%	24.7%	56.5%	18.8%	10.3%
Copper	6.7%	6.5%	6.5%	19.0%	16.8%	11.5%
Nickel	31.8%	56.2%	56.2%	102.0%	35.3%	26.0%
Zinc	14.5%	18.9%	18.9%	49.1%	13.8%	11.1%
<b>Bloomberg Sub Precious Metals</b>	<b>2.8%</b>	<b>6.9%</b>	<b>6.9%</b>	<b>10.5%</b>	<b>13.7%</b>	<b>7.3%</b>
Gold	2.7%	6.6%	6.6%	13.1%	12.9%	8.1%
Silver	3.2%	7.5%	7.5%	1.7%	16.2%	5.0%
<b>Bloomberg Sub Livestock</b>	<b>1.2%</b>	<b>5.8%</b>	<b>5.8%</b>	<b>4.0%</b>	<b>-7.5%</b>	<b>-2.9%</b>
Lean Hogs	3.4%	20.8%	20.8%	18.5%	-7.8%	-3.8%
Live Cattle	-0.2%	-1.9%	-1.9%	-4.1%	-7.3%	-2.8%



Source: Bloomberg, FactSet

# OIL MARKETS

## WTI VERSUS BRENT CRUDE SPOT PRICES



Source: WTI, Brent, FactSet

# GOLD SPOT PRICE



Source: FactSet

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