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# QUARTERLY PERFORMANCE REPORT

SAN BERNARDINO COUNTY  
EMPLOYEES' RETIREMENT  
ASSOCIATION

SEPTEMBER 30, 2021

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# MARKET ENVIRONMENT



# ECONOMIC ENVIRONMENT

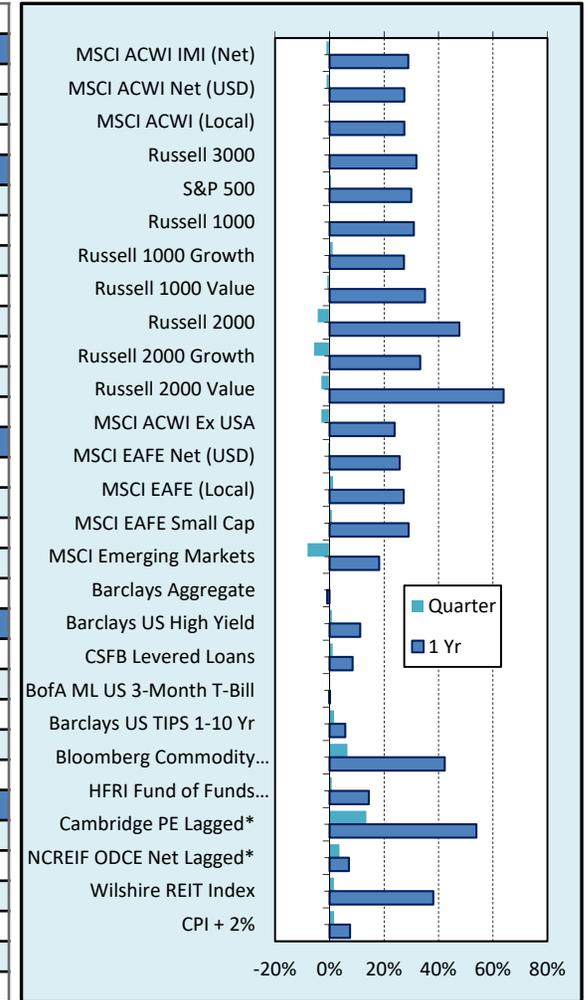
- **Q2 Real GDP (third estimate) grew at an annual rate of +6.7%.**
  - Retail sales ended August at +11.95% on a YoY basis. In the same period last year the YoY growth rate was +8.22%.
  - Corporate profits as a percent of GDP ended Q1 2021 at 11.83, up from 8.1% on a YoY basis and remain elevated relative to historical levels.
  - The inventory-to-sales ratio ended August 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 widened by 4.2 % (ended August).
- **The unemployment rate was 4.8% in Q3, down from 5.4% in Q2; U-6, a broader measure of unemployment, decreased to 8.5% in Q3 from 9.8% in Q2.**
  - The labor force participation rate ended Q3 at 61.6% and flat against Q2 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 August) increased to 268.62 from 261.06 in Q2 and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI was 5.44% in Q3, in the same period last year it was 1.41%; Capacity Utilization decreased to 75.2% in Q3 from 75.6% in Q2.**
- **The Fed Funds rate remains at a targeted range of 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q3 at 1.4%, down from 1.5% in Q2.**
- **The Fed has begun to signal that it may be time to begin tapering of asset purchases. The Fed's balance sheet continues to grow in the wake of the pandemic.**
- **S&P valuations decreased in Q3 to 37.12 from 37.44 in Q2 and remains higher than the 10-year average of 27.7x.**
  - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.9x



# MARKET ENVIRONMENT

## Q3 2021 OVERVIEW

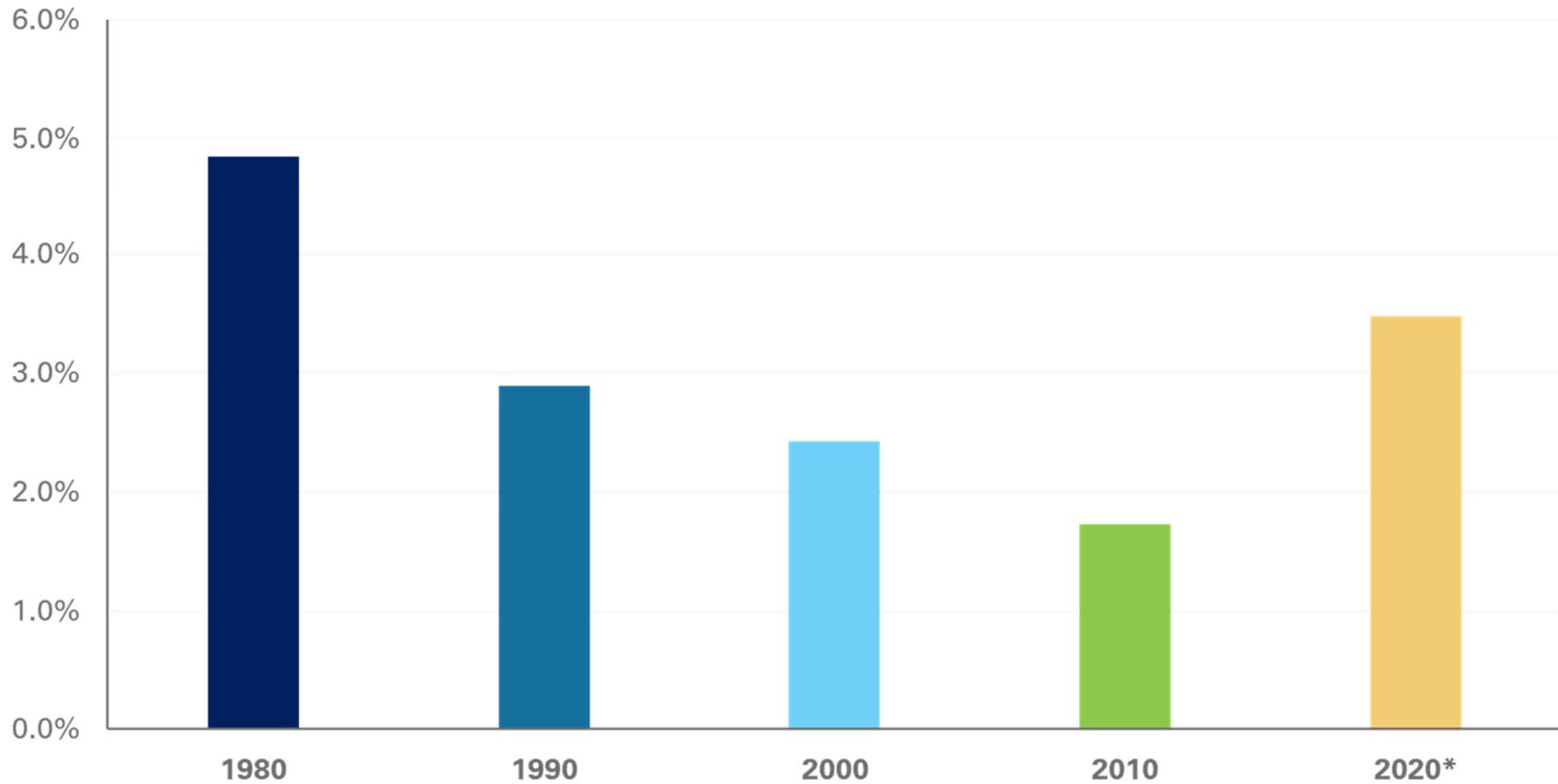
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI IMI (Net)	World with Small Cap	-1.11%	28.92%	12.38%	13.06%	11.96%
MSCI ACWI Net (USD)	World W/O Small Cap	-1.05%	27.44%	12.58%	13.20%	11.90%
MSCI ACWI (Local)	World (Local Currency)	-0.36%	27.45%	12.33%	13.27%	12.94%
<b>Domestic Equity Benchmarks</b>						
Russell 3000	Domestic All Cap	-0.10%	31.87%	16.00%	16.85%	16.60%
S&P 500	Large Core	0.58%	30.00%	15.99%	16.89%	16.63%
Russell 1000	Large Core	0.21%	30.96%	16.43%	17.11%	16.76%
Russell 1000 Growth	Large Growth	1.16%	27.32%	22.00%	22.84%	19.68%
Russell 1000 Value	Large Value	-0.78%	35.01%	10.07%	10.94%	13.51%
Russell 2000	Small Core	-4.36%	47.68%	10.54%	13.45%	14.63%
Russell 2000 Growth	Small Growth	-5.65%	33.26%	11.70%	15.34%	15.74%
Russell 2000 Value	Small Value	-2.98%	63.92%	8.58%	11.03%	13.22%
<b>International Equity Benchmarks</b>						
MSCI ACWI Ex USA	World ex-US	-2.99%	23.91%	8.03%	8.94%	7.48%
MSCI EAFE Net (USD)	Int'l Developed	-0.45%	25.73%	7.62%	8.81%	8.10%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	1.32%	27.20%	7.16%	9.01%	10.10%
MSCI EAFE Small Cap	Small Cap Int'l	0.89%	29.02%	9.05%	10.38%	10.73%
MSCI Emerging Markets	Emerging Equity	-8.09%	18.20%	8.58%	9.23%	6.09%
<b>Domestic Fixed Income Benchmarks</b>						
Barclays Aggregate	Core Bonds	0.05%	-0.90%	5.36%	2.94%	3.01%
Barclays US High Yield	High Yield	0.89%	11.28%	6.91%	6.52%	7.42%
CSFB Levered Loans	Bank Loans	1.13%	8.46%	4.09%	4.64%	5.04%
BofA ML US 3-Month T-Bill	Cash	0.01%	0.07%	1.18%	1.16%	0.63%
Barclays US TIPS 1-10 Yr	Inflation	1.68%	5.75%	6.41%	3.84%	2.58%
<b>Alternative Benchmarks</b>						
Bloomberg Commodity Index	Commodities	6.59%	42.29%	6.86%	4.54%	-2.66%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	0.83%	14.41%	6.53%	5.82%	4.47%
Cambridge PE Lagged*	Private Equity	13.54%	53.92%	20.79%	19.47%	15.31%
NCREIF ODCE Net Lagged*	Real Estate	3.68%	7.09%	4.60%	5.62%	8.60%
Wilshire REIT Index	REIT	1.64%	38.06%	10.39%	6.97%	11.30%
CPI + 2%	Inflation/Real Assets	1.67%	7.54%	4.94%	4.68%	3.97%



\* As of 6/30/2021

# REFRAMING INFLATION EXPECTATIONS

## ANNUALIZED INFLATION BY DECADE

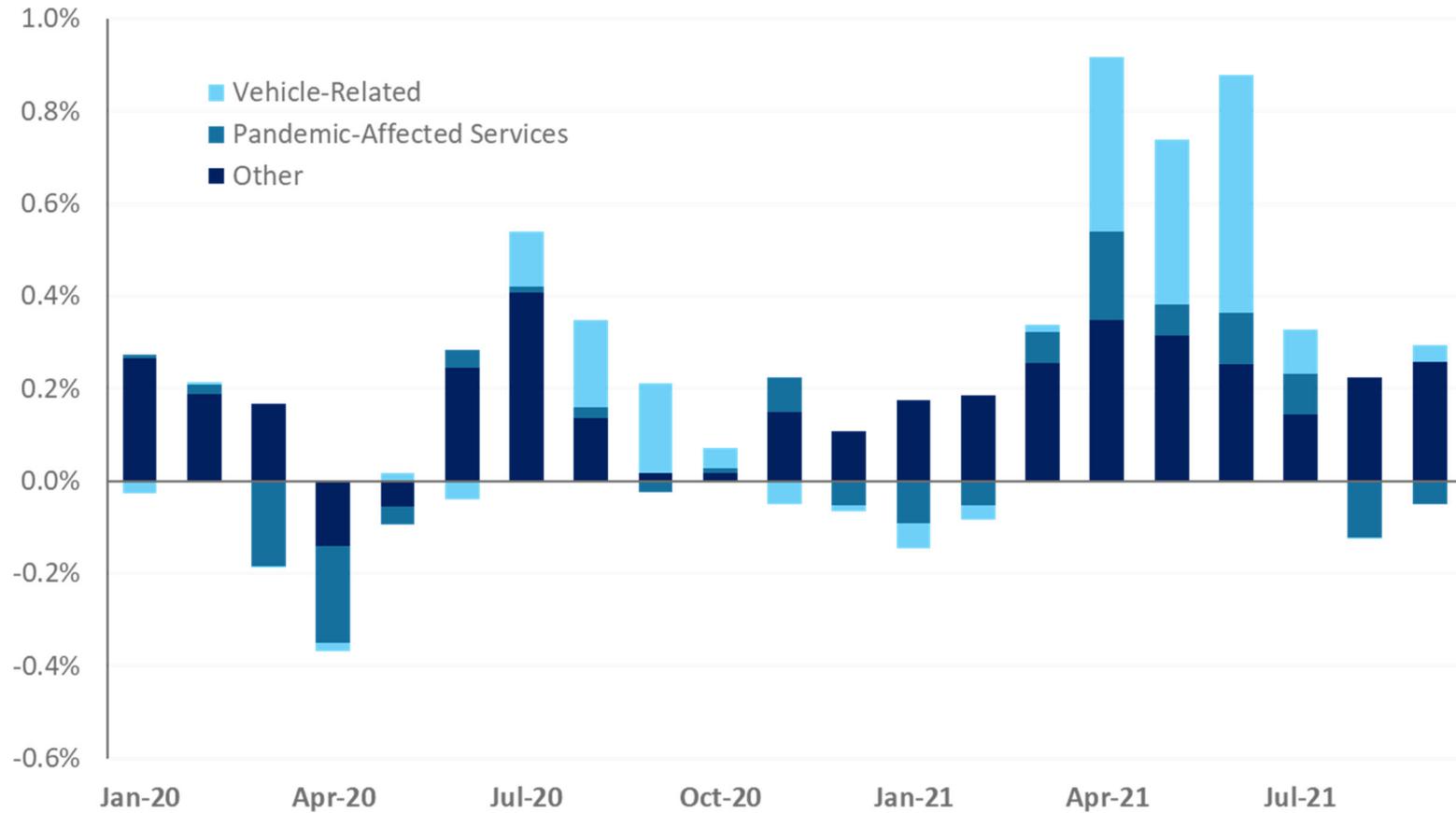


Notes: \*2020 reflects returns through September 30, 2021  
Source: Bureau of Labor Statistics, FactSet, NEPC



# TRANSITORY FACTORS HAVE WANED...

## CONTRIBUTION TO MONTHLY CORE CPI-U



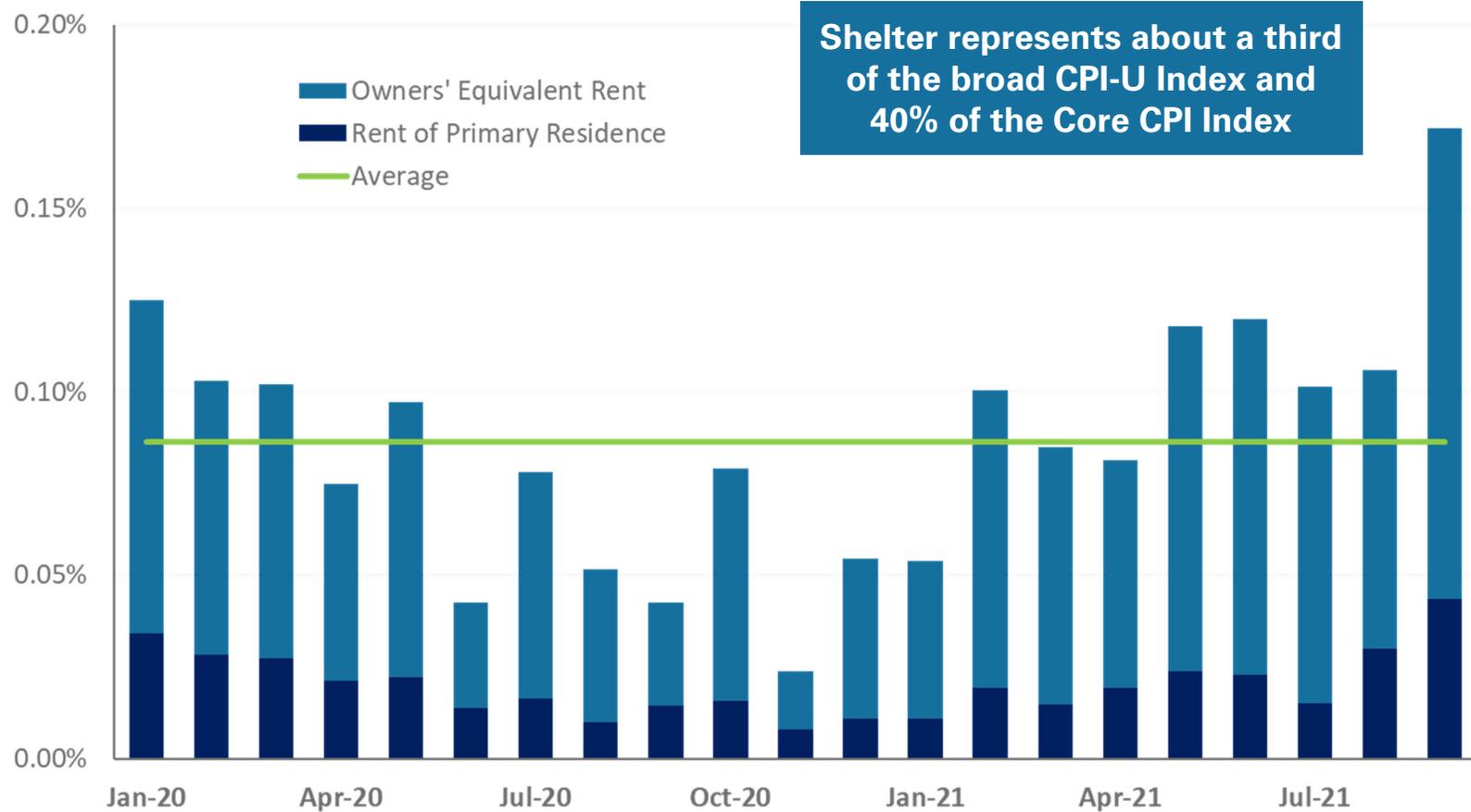
Notes: Vehicle-Related includes New Vehicles, Used Cars & Trucks, and Motor Vehicle Parts. Pandemic-Affected Services includes Airfare, Hotels, and Admissions to Events.

Source: Bureau of Labor Statistics, FactSet, NEPC



# ...STICKIER FACTORS MAY BE ON THE RISE

## CONTRIBUTION OF SHELTER TO MONTHLY CORE CPI-U

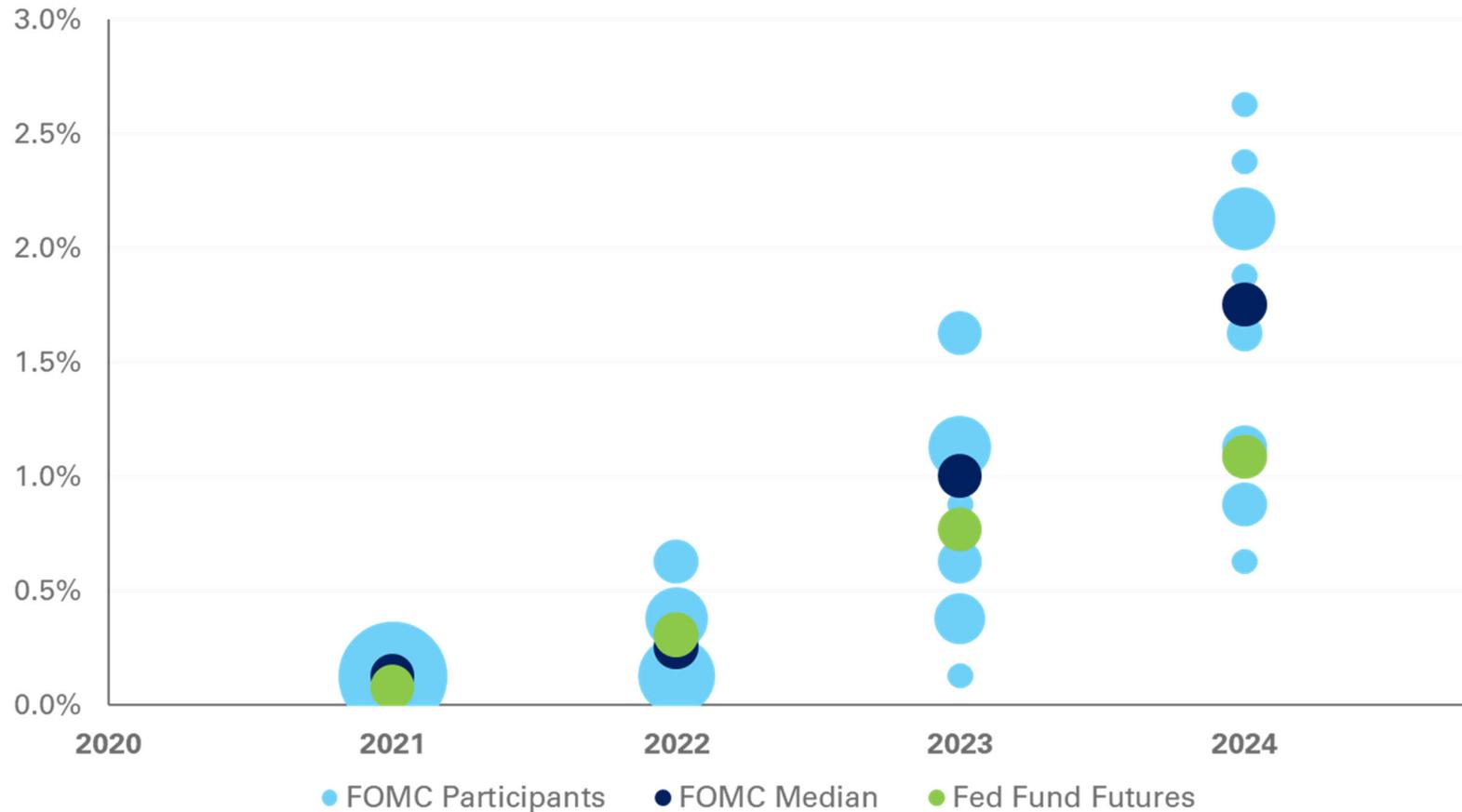


Notes: Average calculated 01/31/2019-09/30/2021  
Sources: Bureau of Labor Statistics, FactSet, NEPC



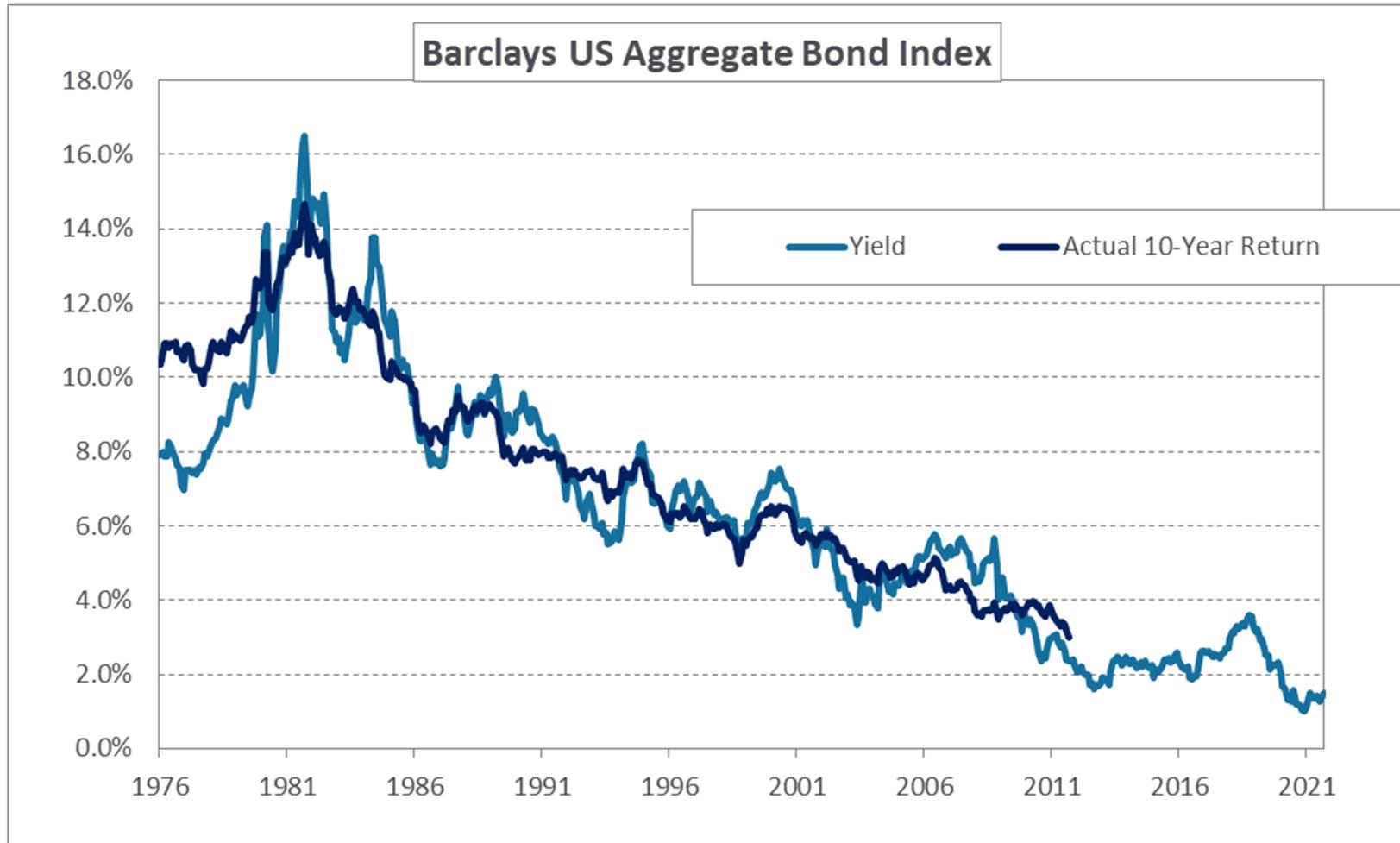
# FED PROJECTING THREE RATE HIKES IN 2023

## FED DOT PLOT VERSUS FED FUND FUTURES

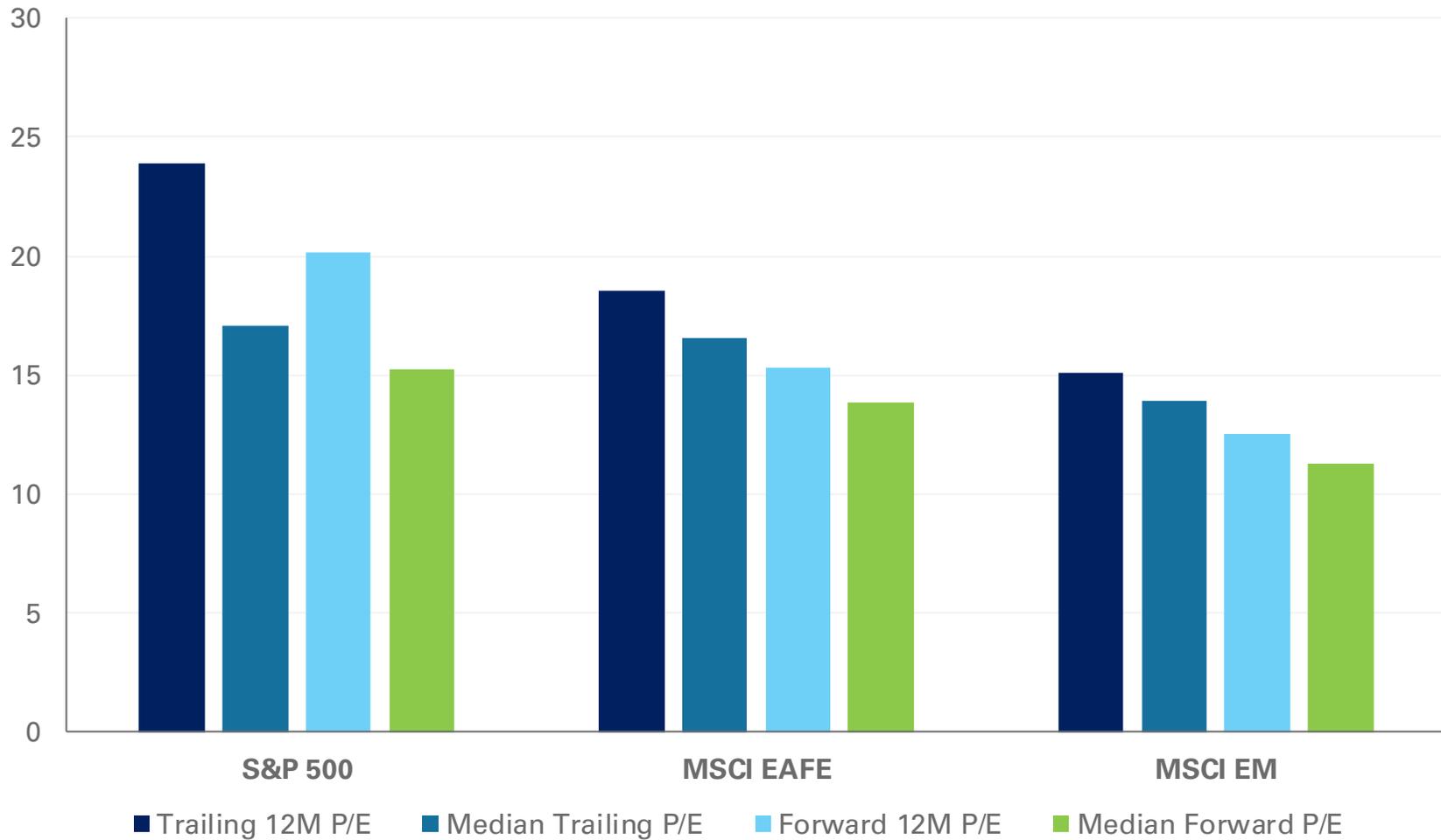


FOMC Participant dot size reflects the number of policymakers forecasts of federal fund rate at the end of each calendar year  
Source: FOMC, FactSet

# BOND YIELDS IMPLY LOW RETURNS GOING FORWARD



# GLOBAL EQUITY VALUATIONS

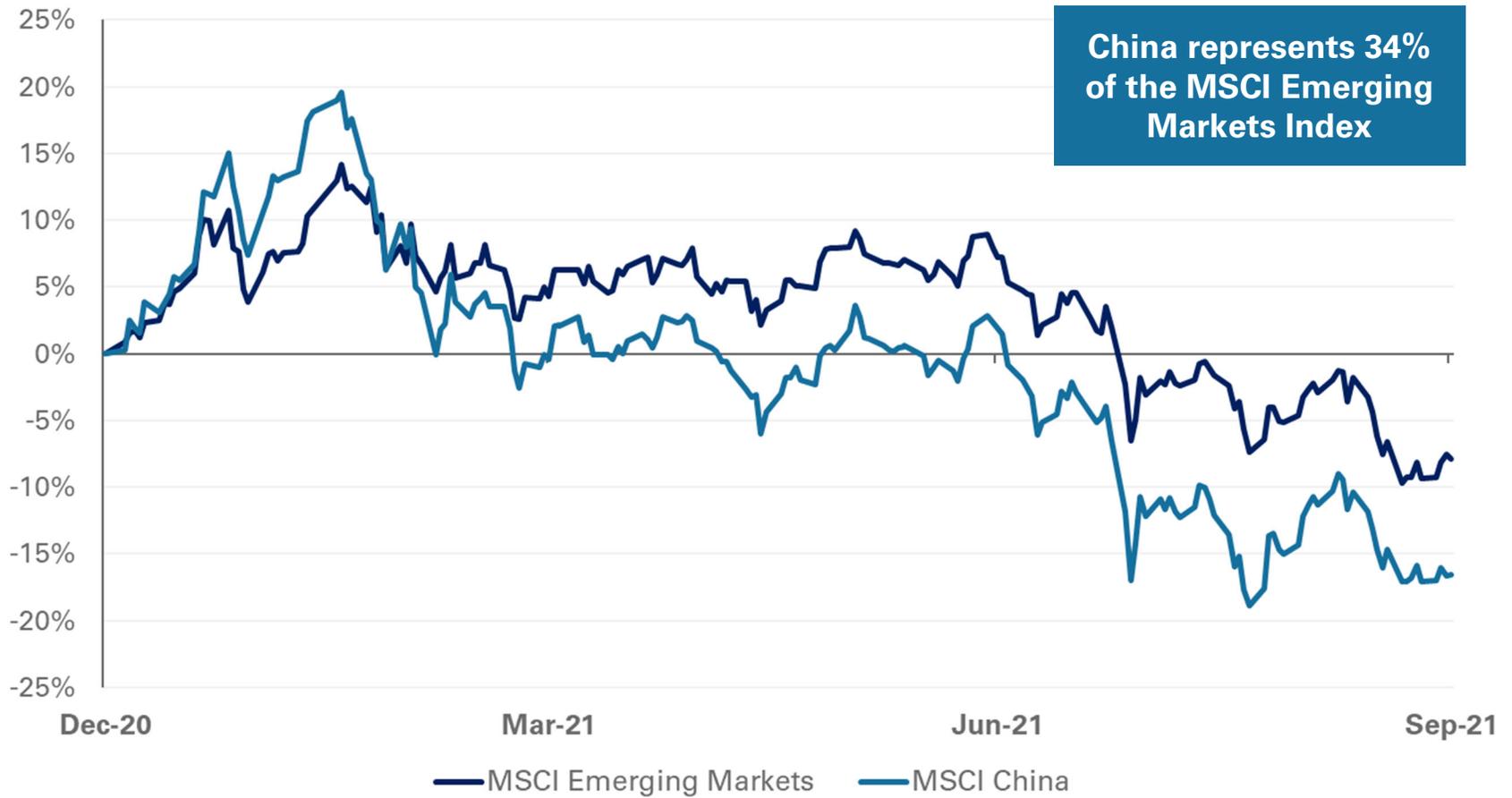


Median calculated based on 20-year monthly data  
Source: S&P, MSCI, FactSet



# CHINESE EQUITIES HAVE WEIGHED ON MARKETS

## YEAR-TO-DATE CUMULATIVE INDEX RETURNS





# TOTAL FUND PERFORMANCE



# TOTAL FUND PERFORMANCE SUMMARY

## NET OF FEES

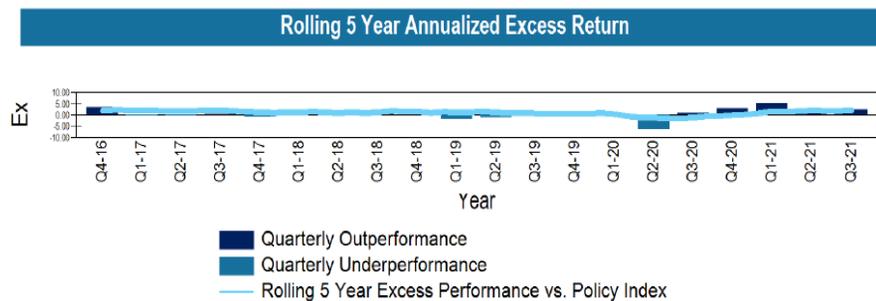
	Ending September 30, 2021												
	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
<b>Total Fund</b>	<b>\$13,931,301,688</b>	<b>2.2%</b>	<b>2</b>	<b>15.6%</b>	<b>1</b>	<b>28.6%</b>	<b>1</b>	<b>10.6%</b>	<b>19</b>	<b>10.2%</b>	<b>28</b>	<b>9.3%</b>	<b>55</b>
<i>Policy Index</i>		-0.2%	50	5.0%	99	13.8%	99	8.9%	83	8.1%	95	8.0%	88
<i>S&amp;P 500</i>		0.6%	15	15.9%	1	30.0%	1	16.0%	1	16.9%	1	16.6%	1
<i>Bloomberg US Aggregate TR</i>		0.1%	31	-1.6%	99	-0.9%	99	5.4%	99	2.9%	99	3.0%	99
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>		-1.1%	99	4.0%	99	14.4%	99	9.4%	72	8.6%	90	7.7%	92
<i>InvMetrics Public DB &gt; \$1B Net Median</i>		-0.2%		9.2%		21.3%		9.8%		9.7%		9.5%	

In the year ended September 30, 2021 the Fund return of 28.6% ranked in the 1<sup>st</sup> percentile of Public Funds > \$1 Billion. The Fund's assets totaled \$13.93 billion, up from \$10.80 billion one year ago.

In the three-year period ended September 30, 2021 the Fund return of 10.6% ranked in the 19<sup>th</sup> percentile among its peers. The Sharpe Ratio over this period of 1.1 ranks in the 4<sup>th</sup> percentile.

In the five-year period ended September 30, 2021 the Fund return of 10.2% ranked in the 28<sup>th</sup> percentile among its peers. On a risk adjusted basis, the Fund's Sharpe Ratio ranked in the 2<sup>nd</sup> percentile in its peer group while the Sortino Ratio ranked in the 11<sup>th</sup> percentile.

The preliminary InvMetrics Public DB > \$1B Net of Fee universe contains 33 observations as of September 30, 2021.



3 Years Ending September 30, 2021						
	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	8.5%	1	1.1	4	1.3	11
InvMetrics Public DB > \$1B Net Median	11.2%	--	0.8	--	1.0	--

5 Years Ending September 30, 2021						
	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	6.7%	1	1.4	2	1.3	11
InvMetrics Public DB > \$1B Net Median	9.0%	--	0.9	--	1.1	--



# San Bernardino County Employees' Retirement Association

## TOTAL FUND PERFORMANCE SUMMARY

### 1 Year Ending September 30, 2021

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	28.6%	1	7.3%	21	3.9	1	134.4	1
InvMetrics Public DB > \$1B Net Median	21.3%	--	8.2%	--	2.6	--	6.2	--

### 3 Years Ending September 30, 2021

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	10.6%	19	8.5%	1	1.1	4	1.3	11
InvMetrics Public DB > \$1B Net Median	9.8%	--	11.2%	--	0.8	--	1.0	--

### 5 Years Ending September 30, 2021

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	10.2%	28	6.7%	1	1.4	2	1.3	11
InvMetrics Public DB > \$1B Net Median	9.7%	--	9.0%	--	0.9	--	1.1	--

### 10 Years Ending September 30, 2021

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	9.3%	55	5.5%	1	1.6	1	1.7	7
InvMetrics Public DB > \$1B Net Median	9.5%	--	8.1%	--	1.1	--	1.3	--

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





# INVESTMENT EXPOSURE SUMMARY

## OVERLAY AS OF SEPTEMBER 30, 2021

Asset Class	Physical Exposure		Delta Adjusted Synthetic Exposure		Net Position		Overlay Target		Policy Target	
Total Market Value	13,829.0	100.0 %	0.0	0.0 %	13,829.0	100.0 %	13,829.0	100.0 %	13,829.0	100.0 %
Cash	3,204.9	23.2 %	-3,064.7	-22.2 %	140.2	1.0 %	0.0	0.0 %	0.0	0.0 %
Cash	3,204.9	23.2 %	-3,064.7	-22.2 %	140.2	1.0 %	0.0	0.0 %	0.0	0.0 %
Equity	2,106.9	15.2 %	3,115.5	22.5 %	5,222.4	37.8 %	5,286.1	38.2 %	5,255.0	38.0 %
Emerging Markets	524.4	3.8 %	578.9	4.2 %	1,103.3	8.0 %	1,112.9	8.0 %	1,106.3	8.0 %
Equity Delta Hedge	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
International Developed	205.2	1.5 %	1,449.9	10.5 %	1,655.1	12.0 %	1,669.3	12.1 %	1,659.5	12.0 %
US Large Cap	1,377.1	10.0 %	608.1	4.4 %	1,985.2	14.4 %	2,017.1	14.6 %	2,005.2	14.5 %
US Small Cap	0.2	0.0 %	478.6	3.5 %	478.8	3.5 %	486.9	3.5 %	484.0	3.5 %
Fixed	4,168.4	30.1 %	-50.8	-0.4 %	4,117.6	29.8 %	4,194.1	30.3 %	4,169.4	30.1 %
EM High Yield CDX	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %
Global ex US Fixed Income	2,554.3	18.5 %	-423.8	-3.1 %	2,130.5	15.4 %	2,142.3	15.5 %	2,129.7	15.4 %
High Yield	1,260.5	9.1 %	0.0	0.0 %	1,260.5	9.1 %	1,321.5	9.6 %	1,313.8	9.5 %
US Fixed Income	353.6	2.6 %	373.0	2.7 %	726.7	5.3 %	730.3	5.3 %	726.0	5.2 %
Other	4,348.7	31.4 %	0.0	0.0 %	4,348.7	31.4 %	4,348.7	31.4 %	4,404.5	31.8 %
Alternatives	30.3	0.2 %	0.0	0.0 %	30.3	0.2 %	30.3	0.2 %	27.7	0.2 %
Commodities	395.9	2.9 %	0.0	0.0 %	395.9	2.9 %	395.9	2.9 %	387.2	2.8 %
Infrastructure	97.6	0.7 %	0.0	0.0 %	97.6	0.7 %	97.6	0.7 %	152.1	1.1 %
Private Equity	2,455.4	17.8 %	0.0	0.0 %	2,455.4	17.8 %	2,455.4	17.8 %	2,378.6	17.2 %
Real Estate	491.4	3.6 %	0.0	0.0 %	491.4	3.6 %	491.4	3.6 %	580.8	4.2 %
Tactical Cash	878.1	6.3 %	0.0	0.0 %	878.1	6.3 %	878.1	6.3 %	878.1	6.3 %

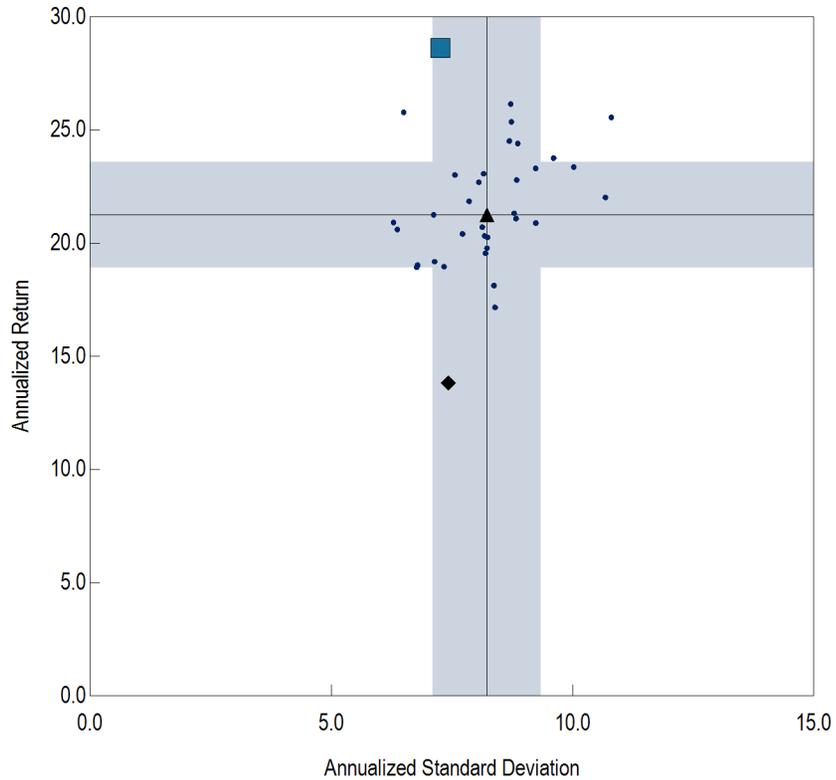


Source: Russell Investments

# San Bernardino County Employees' Retirement Association

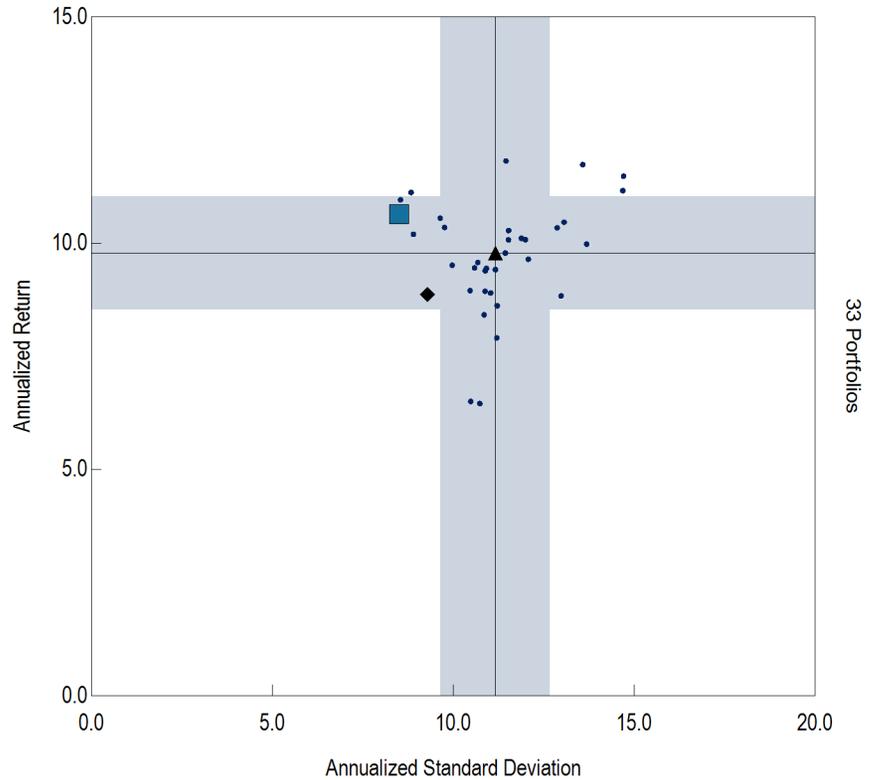
## TOTAL FUND RISK/RETURN

1 Year Ending September 30, 2021



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

3 Years Ending September 30, 2021

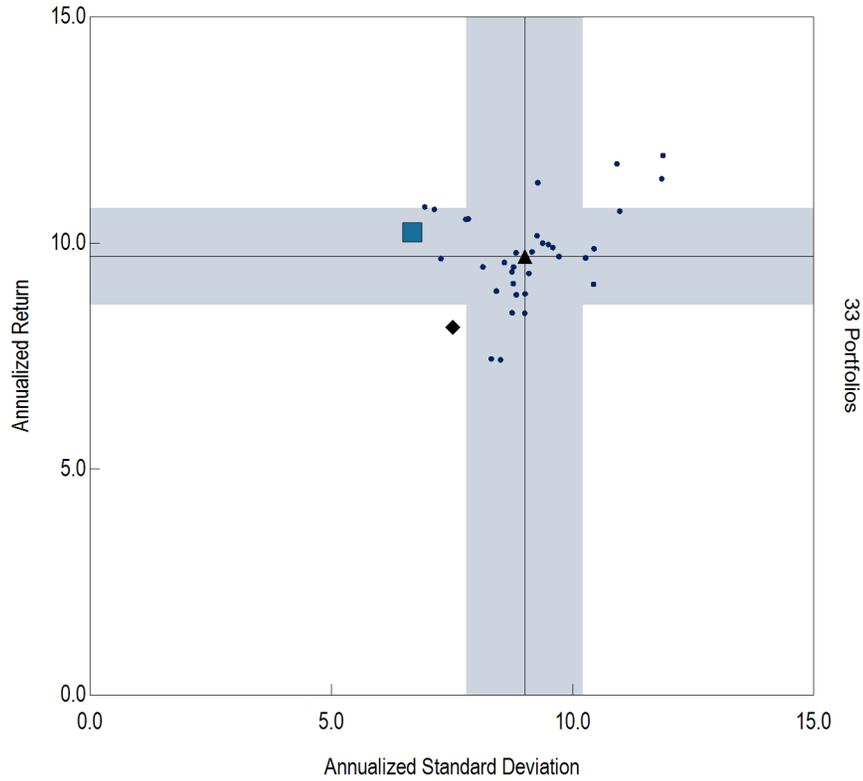


- Total Fund
- ◆ Policy Index
- ▲ Universe Median
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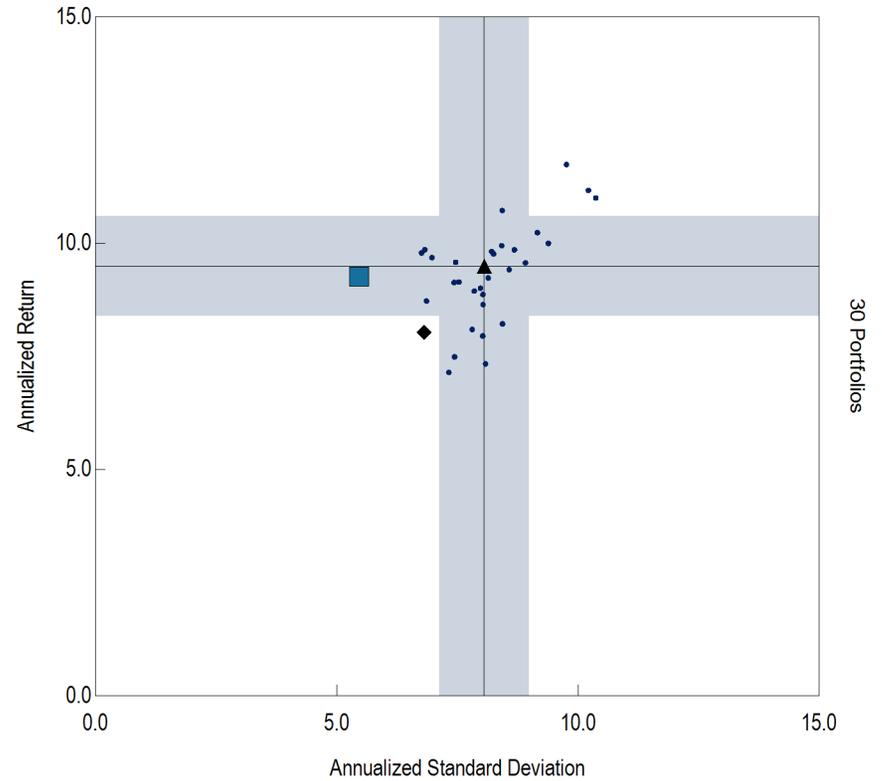
# San Bernardino County Employees' Retirement Association TOTAL FUND RISK/RETURN

5 Years Ending September 30, 2021



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

10 Years Ending September 30, 2021



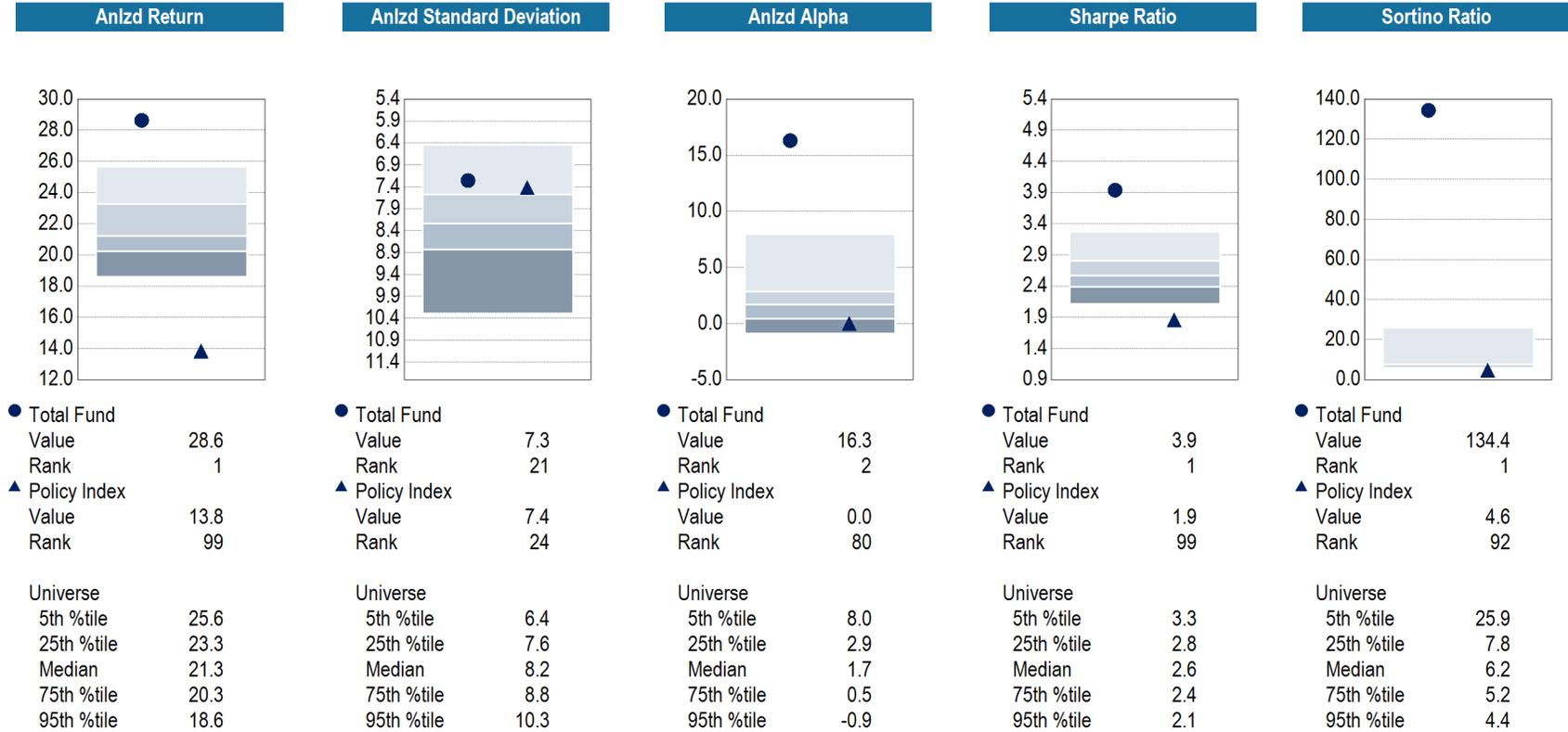
- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net (USD)  
1 Year



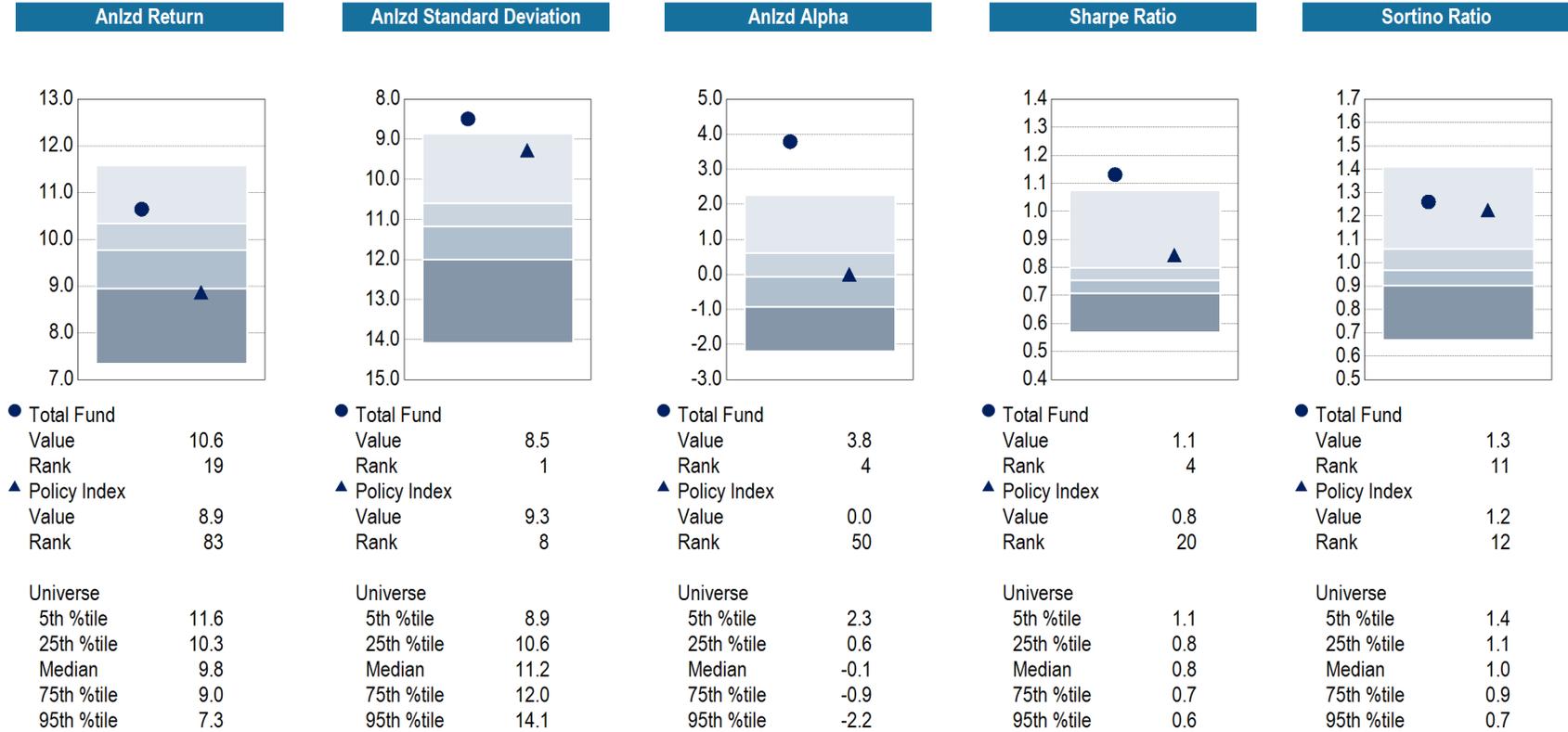
Sortino Ratio requires at least two negative points during the time period in order to calculate. Sample size is 33 Portfolios



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net (USD)  
3 Years



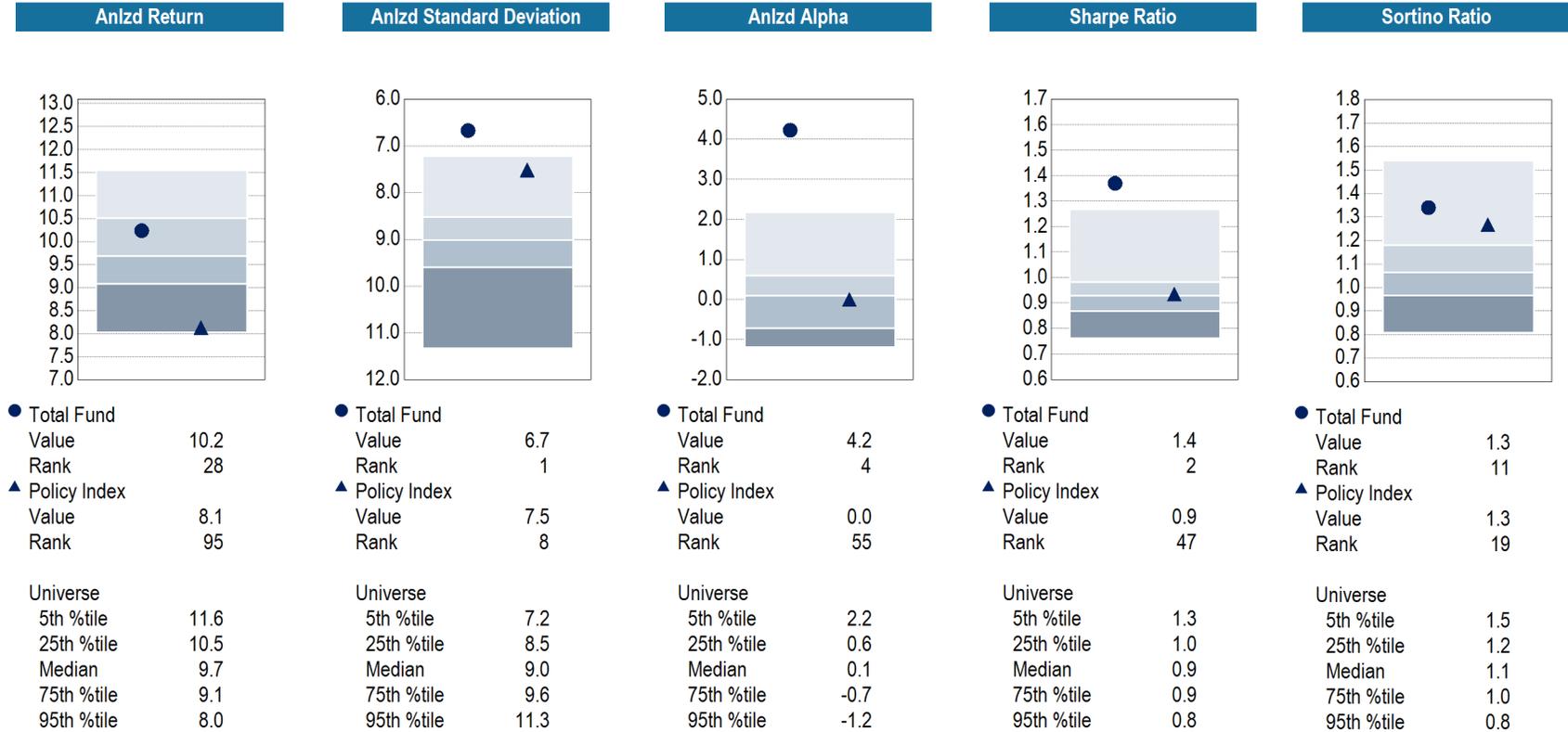
Sortino Ratio requires at least two negative points during the time period in order to calculate. Sample size is 33 Portfolios



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net (USD)  
5 Years



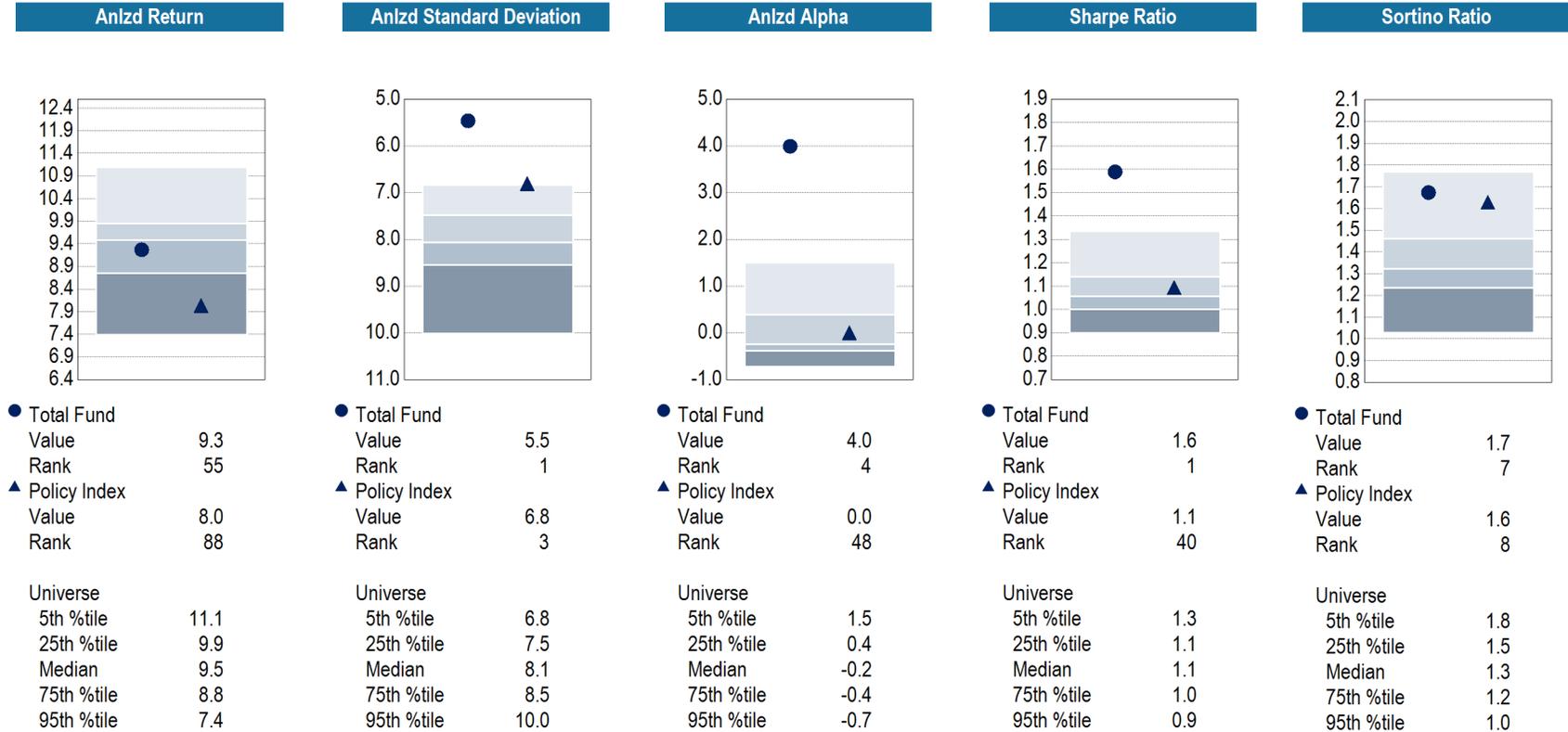
Sortino Ratio requires at least two negative points during the time period in order to calculate. Sample size is 33 Portfolios



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net (USD)  
10 Years



Sortino Ratio requires at least two negative points during the time period in order to calculate. Sample size is 33 Portfolios



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS

1 Years Ending September 30, 2021								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity With Beta Overlay	17.7%	29.1%	99	13.9%	66	3.1%	-0.9	92
Russell 3000	--	31.9%	86	14.4%	85	0.0%	--	--
International Equity With Beta Overlay	19.7%	24.0%	65	13.9%	36	3.7%	-0.1	70
MSCI ACWI ex USA Gross	--	24.4%	58	15.2%	71	0.0%	--	--
Global Fixed Income With Beta Overlay	29.8%	22.8%	--	3.9%	--	4.8%	4.9	--
Bloomberg Global Aggregate TR	--	-0.9%	--	4.8%	--	0.0%	--	--
U.S. Credit Strategies	11.6%	24.5%	1	5.5%	88	4.6%	3.4	1
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	9.1%	6	2.6%	1	0.0%	--	--
Non-U.S. Credit Composite	10.8%	27.3%	1	3.4%	80	10.6%	1.8	38
ICE BofA Euro High Yield Constrained TR	--	8.1%	1	9.6%	99	0.0%	--	--
Emerging Markets Debt Composite	7.8%	5.7%	44	3.6%	8	6.0%	0.4	64
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	3.5%	81	7.9%	69	0.0%	--	--
Alpha Pool Composite	12.3%	15.8%	56	5.8%	35	5.8%	2.2	10
91 Day T-Bill + 3%	--	3.0%	99	0.0%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	18.0%	51.5%	--	8.7%	--
CJA Global All PE (Qtr Lag)	--	55.1%	--	20.4%	--
Real Estate Composite	3.6%	10.1%	81	2.7%	45
NCREIF Property Index 1 Qtr. Lag	--	7.4%	91	3.8%	68
Real Assets Composite	3.7%	27.6%	7	7.1%	67
Real Assets Custom Blend	--	29.0%	7	6.9%	64

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



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS

3 Years Ending September 30, 2021								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity With Beta Overlay	17.7%	13.1%	82	19.8%	48	3.1%	-0.9	78
Russell 3000	--	16.0%	8	19.7%	45	0.0%	--	--
International Equity With Beta Overlay	19.7%	7.2%	91	16.7%	3	2.8%	-0.5	98
MSCI ACWI ex USA Gross	--	8.5%	54	17.7%	21	0.0%	--	--
Global Fixed Income With Beta Overlay	29.8%	6.9%	--	7.8%	--	8.4%	0.3	--
Bloomberg Global Aggregate TR	--	4.2%	--	4.6%	--	0.0%	--	--
U.S. Credit Strategies	11.6%	9.2%	2	8.4%	88	6.9%	0.5	5
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	5.5%	82	8.6%	88	0.0%	--	--
Non-U.S. Credit Composite	10.8%	5.4%	41	9.5%	99	11.5%	0.1	44
ICE BofA Euro High Yield Constrained TR	--	4.5%	76	12.7%	99	0.0%	--	--
Emerging Markets Debt Composite	7.8%	1.3%	99	6.9%	3	9.0%	-0.4	88
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	4.7%	66	10.8%	37	0.0%	--	--
Alpha Pool Composite	12.3%	4.9%	65	7.3%	23	7.4%	0.1	47
91 Day T-Bill + 3%	--	4.1%	73	0.3%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	18.0%	22.4%	--	9.6%	--
CJA Global All PE (Qtr Lag)	--	21.8%	--	15.4%	--
Real Estate Composite	3.6%	6.7%	32	2.6%	41
NCREIF Property Index 1 Qtr. Lag	--	5.5%	77	3.0%	45
Real Assets Composite	3.7%	8.0%	41	12.1%	75
Real Assets Custom Blend	--	7.3%	54	10.1%	54

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



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS

5 Years Ending September 30, 2021								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity	9.9%	10.8%	--	14.2%	--	4.0%	-1.5	--
Russell 3000	--	16.9%	--	15.8%	--	0.0%	--	--
International Developed	1.4%	2.4%	99	11.4%	1	7.6%	-0.8	99
MSCI EAFE	--	8.8%	93	14.6%	22	0.0%	--	--
International Emerging	3.7%	6.4%	--	16.5%	--	3.9%	-0.7	--
MSCI Emerging Markets	--	9.2%	--	16.7%	--	0.0%	--	--
U.S. Credit Strategies	11.6%	9.1%	1	6.7%	91	5.6%	0.7	1
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	5.4%	13	6.7%	91	0.0%	--	--
Non-U.S. Credit Composite	10.8%	7.6%	1	7.5%	99	10.5%	0.2	44
ICE BofA Euro High Yield Constrained TR	--	5.1%	2	11.1%	99	0.0%	--	--
Emerging Markets Debt Composite	7.8%	1.8%	87	6.1%	4	8.0%	-0.2	77
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	3.0%	68	9.5%	43	0.0%	--	--
Alpha Pool Composite	12.3%	5.8%	41	5.8%	21	5.8%	0.3	42
91 Day T-Bill + 3%	--	4.1%	84	0.2%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	18.0%	19.9%	--	7.8%	--
CJA Global All PE (Qtr Lag)	--	19.6%	--	12.6%	--
Real Estate Composite	3.6%	6.0%	87	2.8%	46
NCREIF Property Index 1 Qtr. Lag	--	6.1%	86	2.9%	52
Real Assets Composite	3.7%	6.4%	36	9.7%	58
Real Assets Custom Blend	--	5.3%	63	8.1%	30

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



# San Bernardino County Employees' Retirement Association

## TOTAL FUND RISK STATISTICS

10 Years Ending September 30, 2021								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity	9.9%	7.5%	--	10.7%	--	9.5%	-1.0	--
Russell 3000	--	16.6%	--	13.7%	--	0.0%	--	--
International Developed	1.4%	10.6%	42	18.7%	99	12.9%	0.2	68
MSCI EAFE	--	8.1%	77	14.4%	62	0.0%	--	--
International Emerging	3.7%	4.1%	--	15.8%	--	4.1%	-0.5	--
MSCI Emerging Markets	--	6.1%	--	17.0%	--	0.0%	--	--
U.S. Credit Strategies	11.6%	8.1%	4	5.4%	59	5.5%	0.4	5
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	6.1%	11	5.5%	62	0.0%	--	--
Non-U.S. Credit Composite	10.8%	7.4%	1	6.2%	99	11.1%	0.1	57
ICE BofA Euro High Yield Constrained TR	--	6.0%	1	12.0%	99	0.0%	--	--
Emerging Markets Debt Composite	7.8%	3.2%	65	6.6%	9	6.5%	0.0	65
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	3.5%	65	9.2%	50	0.0%	--	--
Alpha Pool Composite	12.3%	5.9%	19	4.6%	18	4.7%	0.5	22
91 Day T-Bill + 3%	--	3.6%	84	0.2%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	18.0%	15.6%	--	6.5%	--
CJA Global All PE (Qtr Lag)	--	14.7%	--	10.2%	--
Real Estate Composite	3.6%	8.1%	94	3.1%	20
NCREIF Property Index 1 Qtr. Lag	--	8.8%	86	3.9%	30
Real Assets Composite	3.7%	4.6%	74	7.8%	53
Real Assets Custom Blend	--	1.9%	99	7.7%	52



# INVESTMENT MANAGER TOP 10

ASSETS UNDER MANAGEMENT AS OF SEP. 30, 2021

Manager	Market Value	Portfolio %
Total Russell	1,247,211,802	8.95%
Total Tobam	980,009,118	7.03%
SSGA S&P500 Flagship Fund	943,307,628	6.77%
Total Pathway	826,342,810	5.93%
Total Ares	728,320,706	5.23%
Gramercy Funds Management	692,519,711	4.97%
Total Alcentra	638,344,977	4.58%
Total GoldenTree	610,412,587	4.38%
Total Zais	573,559,177	4.12%
Total Apollo	468,858,509	3.37%
<b>Total</b>	<b>7,708,887,025</b>	<b>55.34%</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	
	Small Cap (2%)	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		



# San Bernardino County Employees' Retirement Association

## GLOBAL EQUITY STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Total Equity</b>	<b>2,098,527,833</b>	<b>15.1</b>	<b>-3.3</b>	<b>99</b>	<b>6.8</b>	<b>99</b>	<b>21.3</b>	<b>99</b>	<b>11.6</b>	<b>82</b>	<b>9.6</b>	<b>99</b>	<b>8.0</b>	<b>99</b>
MSCI ACWI			-1.1	50	11.1	85	27.4	98	12.6	41	13.2	48	11.9	86
Excess Return			-2.2		-4.3		-6.1		-1.0		-3.6		-3.9	
InvMetrics Public DB Total Eq Net Median			-1.1		12.3		30.5		12.3		13.1		12.6	
<b>Domestic Equity With Beta Overlay</b>	<b>2,466,505,001</b>	<b>17.7</b>	<b>-1.7</b>	<b>98</b>	<b>11.4</b>	<b>99</b>	<b>29.1</b>	<b>99</b>	<b>13.1</b>	<b>82</b>	<b>12.1</b>	<b>99</b>	<b>--</b>	<b>--</b>
Russell 3000			-0.1	35	15.0	60	31.9	86	16.0	8	16.9	17	16.6	9
Excess Return			-1.6		-3.6		-2.8		-2.9		-4.8			
InvMetrics Public DB US Eq Net Median			-0.3		15.2		33.7		14.4		15.5		15.5	
<b>Domestic Equity</b>	<b>1,377,881,522</b>	<b>9.9</b>	<b>-1.1</b>	<b>--</b>	<b>12.7</b>	<b>--</b>	<b>25.9</b>	<b>--</b>	<b>14.7</b>	<b>--</b>	<b>10.8</b>	<b>--</b>	<b>7.5</b>	<b>--</b>
Russell 3000			-0.1	--	15.0	--	31.9	--	16.0	--	16.9	--	16.6	--
Excess Return			-1.0		-2.3		-6.0		-1.3		-6.1		-9.1	
Tobam AB US Equity	433,385,400	3.1	-4.6	95	6.2	95	19.1	98	11.7	60	--	--	--	--
Russell 3000			-0.1	42	15.0	55	31.9	61	16.0	34	16.9	34	16.6	30
Excess Return			-4.5		-8.8		-12.8		-4.3					
eV All US Equity Net Median			-0.5		15.5		35.5		13.1		14.5		15.0	
<b>Large Cap Equity</b>	<b>944,247,513</b>	<b>6.8</b>	<b>0.6</b>	<b>27</b>	<b>15.9</b>	<b>47</b>	<b>29.2</b>	<b>72</b>	<b>15.9</b>	<b>35</b>	<b>12.1</b>	<b>70</b>	<b>9.0</b>	<b>99</b>
S&P 500			0.6	26	15.9	47	30.0	69	16.0	34	16.9	33	16.6	30
Excess Return			0.0		0.0		-0.8		-0.1		-4.8		-7.6	
eV All US Equity Net Median			-0.5		15.5		35.5		13.1		14.5		15.0	
SSgA S&P500	943,307,628	6.8	0.6	27	15.9	47	30.0	69	16.5	31	13.8	56	11.8	91
S&P 500			0.6	26	15.9	47	30.0	69	16.0	34	16.9	33	16.6	30
Excess Return			0.0		0.0		0.0		0.5		-3.1		-4.8	
eV All US Equity Net Median			-0.5		15.5		35.5		13.1		14.5		15.0	
Russell US Large Cap Volatility	939,884	0.0												
<b>Small Cap Equity</b>	<b>248,610</b>	<b>0.0</b>												
Russell US Small Cap Volatility	248,610	0.0												



# San Bernardino County Employees' Retirement Association

## GLOBAL EQUITY STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>International Equity With Beta Overlay</b>	<b>2,749,991,333</b>	<b>19.7</b>	<b>-3.0</b>	<b>71</b>	<b>7.9</b>	<b>16</b>	<b>24.0</b>	<b>65</b>	<b>7.2</b>	<b>91</b>	<b>8.1</b>	<b>93</b>	<b>--</b>	<b>--</b>
MSCI ACWI ex USA Gross			-2.9	68	6.3	59	24.4	58	8.5	54	9.4	39	8.0	73
Excess Return			-0.1		1.6		-0.4		-1.3		-1.3			
InvMetrics Public DB ex-US Eq Net Median			-2.6		6.5		25.1		8.6		9.2		8.6	
<b>International Equity</b>	<b>720,646,311</b>	<b>5.2</b>	<b>-7.2</b>	<b>--</b>	<b>-3.1</b>	<b>--</b>	<b>14.1</b>	<b>--</b>	<b>5.4</b>	<b>--</b>	<b>5.9</b>	<b>--</b>	<b>7.4</b>	<b>--</b>
MSCI ACWI			-1.1	--	11.1	--	27.4	--	12.6	--	13.2	--	11.9	--
Excess Return			-6.1		-14.2		-13.3		-7.2		-7.3		-4.5	
<b>International Developed</b>	<b>198,925,027</b>	<b>1.4</b>	<b>-3.4</b>	<b>78</b>	<b>-1.1</b>	<b>89</b>	<b>8.9</b>	<b>99</b>	<b>3.7</b>	<b>99</b>	<b>2.4</b>	<b>99</b>	<b>10.6</b>	<b>42</b>
MSCI EAFE			-0.4	21	8.3	27	25.7	42	7.6	94	8.8	93	8.1	77
Excess Return			-3.0		-9.4		-16.8		-3.9		-6.4		2.5	
InvMetrics Public DB Dev Mkt ex-US Eq Net Median			-1.4		6.1		22.4		11.0		11.6		9.7	
Russell International Volatility	16,451	0.0												
Tobam AB World Ex-US Equity	198,908,575	1.4	-3.4	83	-1.1	97	8.9	98	2.4	98	--	--	--	--
MSCI ACWI ex USA			-3.0	77	5.9	72	23.9	64	8.0	69	8.9	70	7.5	85
Excess Return			-0.4		-7.0		-15.0		-5.6					
eV All ACWI ex-US Equity Net Median			-1.7		8.2		26.5		10.7		11.1		10.2	
<b>International Emerging</b>	<b>521,721,284</b>	<b>3.7</b>	<b>-8.5</b>	<b>--</b>	<b>-3.9</b>	<b>--</b>	<b>13.8</b>	<b>--</b>	<b>5.3</b>	<b>--</b>	<b>6.4</b>	<b>--</b>	<b>4.1</b>	<b>--</b>
MSCI Emerging Markets			-8.1	--	-1.2	--	18.2	--	8.6	--	9.2	--	6.1	--
Excess Return			-0.4		-2.7		-4.4		-3.3		-2.8		-2.0	
Mondrian	174,006,141	1.2	-9.9	86	-3.8	80	16.3	73	7.7	74	6.4	88	4.8	91
MSCI Emerging Markets			-8.1	66	-1.2	68	18.2	68	8.6	63	9.2	55	6.1	70
Excess Return			-1.8		-2.6		-1.9		-0.9		-2.8		-1.3	
eV Emg Mkts Equity Net Median			-6.8		1.9		21.7		9.6		9.5		6.7	
Tobam	347,715,143	2.5	-7.8	64	-4.0	80	12.6	87	4.2	99	6.0	92	--	--
MSCI Emerging Markets			-8.1	66	-1.2	68	18.2	68	8.6	63	9.2	55	6.1	70
Excess Return			0.3		-2.8		-5.6		-4.4		-3.2			
eV Emg Mkts Equity Net Median			-6.8		1.9		21.7		9.6		9.5		6.7	



# 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.



# San Bernardino County Employees' Retirement Association

## GLOBAL DEBT STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Global Fixed Income With Beta Overlay</b>	<b>4,151,910,754</b>	<b>29.8</b>	<b>3.1</b>	<b>--</b>	<b>14.5</b>	<b>--</b>	<b>22.8</b>	<b>--</b>	<b>6.9</b>	<b>--</b>	<b>5.2</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Bloomberg Global Aggregate TR</i>			<i>-0.9</i>	<i>--</i>	<i>-4.1</i>	<i>--</i>	<i>-0.9</i>	<i>--</i>	<i>4.2</i>	<i>--</i>	<i>2.0</i>	<i>--</i>	<i>1.9</i>	<i>--</i>
Excess Return			4.0		18.6		23.7		2.7		3.2			
<b>Total Fixed</b>	<b>4,202,710,755</b>	<b>30.2</b>	<b>3.1</b>	<b>1</b>	<b>13.1</b>	<b>1</b>	<b>20.2</b>	<b>1</b>	<b>5.7</b>	<b>30</b>	<b>6.7</b>	<b>1</b>	<b>6.8</b>	<b>1</b>
<i>InvMetrics Public DB Total Fix Inc Net Median</i>			<i>0.0</i>		<i>-0.8</i>		<i>0.4</i>		<i>5.3</i>		<i>3.2</i>		<i>3.5</i>	
<b>U.S. Credit Strategies</b>	<b>1,612,912,296</b>	<b>11.6</b>	<b>2.0</b>	<b>1</b>	<b>13.7</b>	<b>1</b>	<b>24.5</b>	<b>1</b>	<b>9.2</b>	<b>2</b>	<b>9.1</b>	<b>1</b>	<b>8.1</b>	<b>4</b>
<i>50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index</i>			<i>1.0</i>	<i>1</i>	<i>4.3</i>	<i>3</i>	<i>9.1</i>	<i>6</i>	<i>5.5</i>	<i>82</i>	<i>5.4</i>	<i>13</i>	<i>6.1</i>	<i>11</i>
Excess Return			1.0		9.4		15.4		3.7		3.7		2.0	
<i>ICE BofA US High Yield TR</i>			<i>0.9</i>	<i>2</i>	<i>4.7</i>	<i>2</i>	<i>11.5</i>	<i>3</i>	<i>6.6</i>	<i>56</i>	<i>6.4</i>	<i>6</i>	<i>7.3</i>	<i>6</i>
<i>eV Global Credit Fixed Inc Net Median</i>			<i>-0.1</i>		<i>-1.0</i>		<i>2.6</i>		<i>6.8</i>		<i>4.7</i>		<i>4.9</i>	
Stone Tower Offshore Credit (Apollo)	312,415,449	2.2	3.9	--	10.7	--	15.8	--	6.8	--	6.3	--	7.6	--
Beach Point Capital (Formerly Post)	208,115,154	1.5	2.3	1	13.3	1	21.3	1	9.9	1	9.6	1	9.8	1
Mackay / Gold Coast	82,231,396	0.6	0.6	4	3.9	4	10.5	5	7.3	40	6.3	6	6.3	9
Stone Tower Credit (Apollo)	128,924,496	0.9	2.2	1	9.9	1	13.2	5	12.6	1	10.9	1	--	--
Gold Coast Capital IV	99,603,042	0.7	0.4	--	6.6	--	11.4	--	5.7	--	5.4	--	--	--
Waterfall Asset Management	35,934,091	0.3	-5.2	--	22.4	--	45.2	--	9.2	--	12.8	--	--	--
Waterfall Victoria	59,270,626	0.4	2.5	--	11.8	--	14.7	--	7.0	--	7.9	--	--	--
KAYNE ANDERSON BDC, LLC	42,806,588	0.3	2.8	--	--	--	--	--	--	--	--	--	--	--
MD SASS Waterfall Victoria	26,199,140	0.2	-6.4	--	26.3	--	92.7	--	7.1	--	8.2	--	--	--
Golden Tree Distressed Debt	16,476,255	0.1	2.6	1	30.4	1	33.3	1	-2.6	99	0.7	99	6.7	8
AG Capital	6,350	0.0	-2.1	88	-5.5	95	-7.2	99	13.1	1	4.5	59	4.8	55
Golden Tree Asset Management	593,936,332	4.3	1.8	1	18.1	1	37.7	1	13.5	1	12.6	1	12.4	1
Russell Interest Rate Hedging	6,993,378	0.1	2.5	1	41.3	1	37.3	1	-34.4	99	-20.7	99	-24.0	99



# San Bernardino County Employees' Retirement Association

## GLOBAL DEBT STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Non-U.S. Fixed Income Composite</b>	<b>2,589,798,458</b>	<b>18.6</b>	<b>3.8</b>	<b>1</b>	<b>12.7</b>	<b>1</b>	<b>17.3</b>	<b>1</b>	<b>3.6</b>	<b>98</b>	<b>5.3</b>	<b>1</b>	<b>5.9</b>	<b>1</b>
<i>Bloomberg Global Aggregate ex US TR</i>			<u>-1.6</u>	99	<u>-5.9</u>	99	<u>-1.2</u>	99	<u>3.2</u>	99	<u>1.2</u>	99	<u>0.9</u>	99
Excess Return			5.4		18.6		18.5		0.4		4.1		5.0	
<i>InvMetrics Public DB Total Fix Inc Net Median</i>			0.0		-0.8		0.4		5.3		3.2		3.5	
<b>Non-U.S. Credit Composite</b>	<b>1,502,077,566</b>	<b>10.8</b>	<b>7.0</b>	<b>1</b>	<b>21.4</b>	<b>1</b>	<b>27.3</b>	<b>1</b>	<b>5.4</b>	<b>41</b>	<b>7.6</b>	<b>1</b>	<b>7.4</b>	<b>1</b>
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	99	<u>-1.8</u>	95	<u>8.1</u>	1	<u>4.5</u>	76	<u>5.1</u>	2	<u>6.0</u>	1
Excess Return			8.6		23.2		19.2		0.9		2.5		1.4	
Marathon/Gold Coast	275,572,622	2.0	5.2	1	11.4	1	15.4	1	9.7	1	11.2	1	8.9	3
Halcyon Asset Management	236,370,806	1.7	27.8	1	51.7	1	52.6	1	4.5	98	6.2	7	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	87	<u>-1.8</u>	62	<u>8.1</u>	8	<u>4.5</u>	98	<u>5.1</u>	26	<u>6.0</u>	13
Excess Return			29.4		53.5		44.5		0.0		1.1		--	--
<i>eV Global Credit Fixed Inc Net Median</i>			-0.1		-1.0		2.6		6.8		4.7		4.9	
Cairn Composite	351,789,161	2.5	1.7	1	10.8	1	13.3	1	5.4	83	6.8	4	5.2	37
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	87	<u>-1.8</u>	62	<u>8.1</u>	8	<u>4.5</u>	98	<u>5.1</u>	26	<u>6.0</u>	13
Excess Return			3.3		12.6		5.2		0.9		1.7		-0.8	
<i>eV Global Credit Fixed Inc Net Median</i>			-0.1		-1.0		2.6		6.8		4.7		4.9	
Alcentra - KT1	490,329,195	3.5	4.7	--	24.7	--	37.2	--	4.8	--	9.1	--	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	--	<u>-1.8</u>	--	<u>8.1</u>	--	<u>4.5</u>	--	<u>5.1</u>	--	<u>6.0</u>	--
Excess Return			6.3		26.5		29.1		0.3		4.0		--	--
Alcentra SP1 - KT1	677,301	0.0	0.0	--	4.0	--	4.6	--	-28.6	--	--	--	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	--	<u>-1.8</u>	--	<u>8.1</u>	--	<u>4.5</u>	--	<u>5.1</u>	--	<u>6.0</u>	--
Excess Return			1.6		5.8		-3.5		-33.1		--		--	--
Alcentra SP2 - KT1	16,163,774	0.1	-2.0	--	22.4	--	21.1	--	-8.9	--	--	--	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	--	<u>-1.8</u>	--	<u>8.1</u>	--	<u>4.5</u>	--	<u>5.1</u>	--	<u>6.0</u>	--
Excess Return			-0.4		24.2		13.0		-13.4		--		--	--
Alcentra SP3 - KT1	55,087,402	0.4	6.0	--	36.2	--	49.8	--	8.9	--	8.6	--	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	--	<u>-1.8</u>	--	<u>8.1</u>	--	<u>4.5</u>	--	<u>5.1</u>	--	<u>6.0</u>	--
Excess Return			7.6		38.0		41.7		4.4		3.5		--	--
Alcentra SP4 - KT1	76,087,305	0.5	2.7	--	9.9	--	14.9	--	--	--	--	--	--	--
<i>ICE BofA Euro High Yield Constrained TR</i>			<u>-1.6</u>	--	<u>-1.8</u>	--	<u>8.1</u>	--	<u>4.5</u>	--	<u>5.1</u>	--	<u>6.0</u>	--
Excess Return			4.3		11.7		6.8		--		--		--	--



# San Bernardino County Employees' Retirement Association

## GLOBAL DEBT STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Emerging Markets Debt Composite</b>	<b>1,087,720,892</b>	<b>7.8</b>	<b>-0.2</b>	<b>23</b>	<b>2.4</b>	<b>9</b>	<b>5.7</b>	<b>44</b>	<b>1.3</b>	<b>99</b>	<b>1.8</b>	<b>87</b>	<b>3.2</b>	<b>65</b>
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			-1.9	70	-3.9	74	3.5	81	4.7	66	3.0	68	3.5	65
Excess Return			1.7		6.3		2.2		-3.4		-1.2		-0.3	
eV All Emg Mkts Fixed Inc Net Median			-0.9		-1.6		5.3		5.7		3.9		4.9	
<b>Ashmore Emerging Markets Liquid Investments</b>	<b>204,981,164</b>	<b>1.5</b>	<b>-1.9</b>	<b>70</b>	<b>-3.9</b>	<b>74</b>	<b>3.5</b>	<b>81</b>	<b>4.7</b>	<b>66</b>	<b>3.0</b>	<b>68</b>	<b>--</b>	<b>--</b>
JP Morgan GBI - EM Global Diversified Index			-3.1	88	-6.4	88	2.6	88	3.7	81	2.1	84	1.1	84
Excess Return			1.2		2.5		0.9		1.0		0.9			
eV All Emg Mkts Fixed Inc Net Median			-0.9		-1.6		5.3		5.7		3.9		4.9	
<b>Ashmore Local Currency</b>	<b>67,520,978</b>	<b>0.5</b>	<b>-3.2</b>	<b>97</b>	<b>-6.6</b>	<b>95</b>	<b>4.5</b>	<b>45</b>	<b>0.4</b>	<b>99</b>	<b>1.2</b>	<b>96</b>	<b>0.2</b>	<b>99</b>
JP Morgan ELM+ TR USD			-1.6	84	-2.2	65	3.7	49	1.9	98	1.7	89	0.5	99
Excess Return			-1.6		-4.4		0.8		-1.5		-0.5		-0.3	
JP Morgan EMBI Global Index			-0.5	60	-1.5	62	3.9	48	5.6	49	3.6	59	--	--
eV All Global Fixed Inc Net Median			-0.1		-0.5		3.6		5.5		4.1		3.8	
Gramercy Funds Management LLC	692,519,711	5.0	0.9	3	4.1	3	3.8	78	-0.8	99	0.1	99	--	--
JP Morgan ELM+ TR USD			-1.6	66	-2.2	62	3.7	78	1.9	97	1.7	87	0.5	95
Excess Return			2.5		6.3		0.1		-2.7		-1.6			
JP Morgan EMBI Global Index			-0.5	39	-1.5	50	3.9	78	5.6	52	3.6	62	--	--
eV All Emg Mkts Fixed Inc Net Median			-0.9		-1.6		5.3		5.7		3.9		4.9	
PGIM Fixed Income	122,699,040	0.9	-0.1	22	8.6	1	15.7	2	11.0	1	6.9	5	--	--
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-1.9	70	-3.9	74	3.5	81	4.7	66	3.0	68	3.5	65
Excess Return			1.8		12.5		12.2		6.3		3.9			
JP Morgan EMBI Global Index			-0.5	39	-1.5	50	3.9	78	5.6	52	3.6	62	--	--
eV All Emg Mkts Fixed Inc Net Median			-0.9		-1.6		5.3		5.7		3.9		4.9	



# ABSOLUTE RETURN (ALPHA POOL)

<p style="text-align: center;">Absolute Return (Alpha Pool) (7% Target)</p>	<p style="text-align: center;"><b>Core &amp; Credit Strategies (7%)</b></p>	Apollo Global SMA (MCA)	Credit focused separate account investing in bespoke credit opportunities
		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
		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
		StateStreet 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-6, LP	Closed-end risk retention vehicle (effectively closed)
		Zais Zephyr A-7, LP	Closed-end fund with trigger to opportunistically invest in CLO mezzanine and equity during market distress
Zais Zephyr A-8, LP	Closed-end fund focused on CLO equity post risk retention requirements		



# San Bernardino County Employees' Retirement Association

## ALPHA POOL STRATEGIES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Alpha Pool Composite</b>	<b>1,708,791,793</b>	<b>12.3</b>	<b>1.4</b>	<b>30</b>	<b>6.4</b>	<b>79</b>	<b>15.8</b>	<b>56</b>	<b>4.9</b>	<b>65</b>	<b>5.8</b>	<b>41</b>	<b>5.9</b>	<b>19</b>
91 Day T-Bill + 3%			0.8	38	2.3	94	3.0	99	4.1	73	4.1	84	3.6	84
Excess Return			0.6		4.1		12.8		0.8		1.7		2.3	
Alpha Liquidity (Ssga)	206,556,226	1.5	0.0	44	0.1	43	0.1	80	1.5	99	1.4	93	0.8	99
Apollo Global Management	12,560,697	0.1	1.4	3	-12.1	99	-4.3	99	12.5	1	17.0	1	--	--
Ares Eco Master Fund II	544,201,434	3.9	1.5	3	7.1	2	14.8	3	6.6	22	6.2	12	--	--
Birch Grove Credit Strategies	167,137,278	1.2	1.3	3	13.7	1	22.8	1	9.1	3	7.9	4	--	--
Corrum Capital	204,776,981	1.5	0.0	46	-4.4	81	0.9	75	-4.4	99	1.0	97	1.9	83
Zais	143,117,843	1.0	3.0	1	11.7	1	32.8	1	2.1	97	4.2	46	6.9	12
Zais Group Invest Advisors	363,559,791	2.6	2.3	1	12.0	1	29.8	1	7.1	15	9.0	2	--	--
Zais Zephyr A 6 LP	0	0.0	0.0	46	18.7	1	73.5	1	11.2	2	12.0	1	--	--
Zais Zephyr 8	44,408,032	0.3	2.1	1	10.9	1	22.3	1	--	--	--	--	--	--
Zais Zephyr 7	22,473,511	0.2	1.4	3	10.4	1	7.6	29	--	--	--	--	--	--



# 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



# San Bernardino County Employees' Retirement Association

## ALTERNATIVES - NET

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Private Equity Composite</b>	<b>2,503,971,674</b>	<b>18.0</b>	<b>10.6</b>	--	<b>38.2</b>	--	<b>51.5</b>	--	<b>22.4</b>	--	<b>19.9</b>	--	<b>15.6</b>	--
<i>C A Global All PE (Qtr Lag)</i>			<u>11.4</u>	--	<u>41.0</u>	--	<u>55.1</u>	--	<u>21.8</u>	--	<u>19.6</u>	--	<u>14.7</u>	--
Excess Return			-0.8		-2.8		-3.6		0.6		0.3		0.9	
<i>Russell 3000</i>			-0.1	--	15.0	--	31.9	--	16.0	--	16.9	--	16.6	--
<i>C A US All PE (1 Qtr Lag)</i>			13.5	--	39.5	--	53.9	--	20.8	--	19.5	--	15.3	--
<b>Real Estate Composite</b>	<b>506,897,094</b>	<b>3.6</b>	<b>3.3</b>	<b>73</b>	<b>8.4</b>	<b>81</b>	<b>10.1</b>	<b>81</b>	<b>6.7</b>	<b>32</b>	<b>6.0</b>	<b>87</b>	<b>8.1</b>	<b>94</b>
<i>NCREIF Property Index 1 Qtr. Lag</i>			<u>3.6</u>	65	<u>6.6</u>	87	<u>7.4</u>	91	<u>5.5</u>	77	<u>6.1</u>	86	<u>8.8</u>	86
Excess Return			-0.3		1.8		2.7		1.2		-0.1		-0.7	
<i>InvMetrics Public DB Real Estate Pub+Priv Net Median</i>			4.2		11.4		13.2		6.3		7.2		9.6	
<b>Real Assets Composite</b>	<b>519,183,361</b>	<b>3.7</b>	<b>2.8</b>	<b>26</b>	<b>15.3</b>	<b>7</b>	<b>27.6</b>	<b>7</b>	<b>8.0</b>	<b>41</b>	<b>6.4</b>	<b>36</b>	<b>4.6</b>	<b>74</b>
<i>Real Assets Custom Blend</i>			<u>5.0</u>	11	<u>20.2</u>	5	<u>29.0</u>	7	<u>7.3</u>	54	<u>5.3</u>	63	<u>1.9</u>	99
Excess Return			-2.2		-4.9		-1.4		0.7		1.1		2.7	
<i>67% Bloomberg Commodity/ 33% Barclays US TIPS</i>			5.0	11	20.2	5	29.0	7	7.3	54	4.7	73	-0.6	99
<b>Timber</b>	<b>30,285,919</b>	<b>0.2</b>	<b>-1.7</b>	--	<b>-4.6</b>	--	<b>-3.1</b>	--	<b>-4.7</b>	--	<b>-3.2</b>	--	<b>0.8</b>	--
<i>NCREIF Timberland 1 Qtr. Lag</i>			<u>1.7</u>	--	<u>3.1</u>	--	<u>3.1</u>	--	<u>2.1</u>	--	<u>2.7</u>	--	<u>4.7</u>	--
Excess Return			-3.4		-7.7		-6.2		-6.8		-5.9		-3.9	
<b>Infrastructure</b>	<b>82,199,071</b>	<b>0.6</b>	<b>-2.9</b>	--	<b>25.2</b>	--	<b>71.7</b>	--	<b>7.4</b>	--	<b>10.3</b>	--	<b>4.3</b>	--
<i>Russell 3000</i>			<u>-0.1</u>	--	<u>15.0</u>	--	<u>31.9</u>	--	<u>16.0</u>	--	<u>16.9</u>	--	<u>16.6</u>	--
Excess Return			-2.8		10.2		39.8		-8.6		-6.6		-12.3	
<b>Commodities</b>	<b>406,698,371</b>	<b>2.9</b>	<b>4.7</b>	--	<b>12.9</b>	--	<b>13.4</b>	--	<b>12.6</b>	--	<b>9.5</b>	--	<b>5.8</b>	--
<i>Bloomberg Commodity Index</i>			<u>6.6</u>	--	<u>29.1</u>	--	<u>42.3</u>	--	<u>6.9</u>	--	<u>4.5</u>	--	<u>-2.7</u>	--
Excess Return			-1.9		-16.2		-28.9		5.7		5.0		8.5	





# APPENDIX: PERFORMANCE SUMMARY

Real Estate

Real Assets

Private Equity



# REAL ESTATE PERFORMANCE

AS OF JUNE 30, 2021

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	63,058,273	11,941,727	53,533,571	65,215,531	1.78	17.26%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	229,110	15,939,604	66,256	1.64	10.72%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	11,771,835	22,451,678	12,205,504	4.21	70.75%
Prudential PRISA II	2004	140,000,000	140,000,000	0	56,734,444	175,456,612	1.59	7.45%
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	1,137,143	1.21	6.78%
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	3,075,156	445,990	0.16	-15.52%
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	2,495,367	1.01	0.16%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	0	19,517,190	622,985	0.81	-2.34%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	0	26,758,768	2,759,942	0.74	-3.28%
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	1,569,056	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	53,891	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	3,608,784	9.20	25.63%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	38,293,074	1,495,027	1.56	12.83%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	14,037,368	70,573,401	1.56	7.46%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	24,769,953	44,021,459	1.40	9.19%
Apollo US Real Estate Fund II	2015	20,000,000	15,542,308	4,457,692	4,987,840	15,394,516	1.31	9.04%
Pramerica Real Estate Capital VI	2016	25,383,664	24,459,070	924,594	8,232,815	14,641,087	0.93	-3.81%
Kayne Anderson Real Estate Partners V	2017	20,000,000	16,425,000	3,575,000	1,193,140	21,450,442	1.39	16.27%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	42,071,273	32,928,727	118,130	50,227,162	1.20	8.63%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,828,428	171,572	6,732,851	16,309,410	1.16	9.68%
<b>Total: San Bernardino</b>		<b>1,256,612,333</b>	<b>1,135,058,351</b>	<b>103,166,812</b>	<b>1,007,222,208</b>	<b>498,180,508</b>	<b>1.31</b>	<b>4.24%</b>



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

# REAL ASSETS PERFORMANCE

AS OF JUNE 30, 2021

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	20,771,925	19,519,835	1.01	0.06%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	880,881	63,076,794	237,033	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	49,225,000	2,726,270	1.04	0.40%
Timbervest Crossover Partners II, L.P.	2008	30,000,000	30,000,000	0	18,014,831	8,814,794	0.89	-1.54%
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>365,403,354</b>	<b>364,522,473</b>	<b>880,881</b>	<b>349,373,086</b>	<b>31,297,932</b>	<b>1.04</b>	<b>0.52%</b>



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

# PRIVATE EQUITY PERFORMANCE

## AS OF JUNE 30, 2021

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	238,620,736	221,331,191	17,289,545	277,541,806	3,237,931	1.27	3.97%
Partners Group MCA	2004	800,000,000	828,208,797	-28,208,797	652,167,539	624,149,811	1.54	9.24%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	856,209,992	48,290,008	1,310,938,658	376,081,156	1.97	11.99%
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	38,606,676	2,180,719	1.65	11.48%
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	34,003,106	1,299,939	1.44	6.95%
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	409,024	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	33,950,522	3.77	13.21%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	12,412,318	2,261,903	1.47	5.43%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	16,721,096	1,041,701	2.02	22.77%
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	27,196,010	326,212	2.90	29.33%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	14,584,152	3,180,516	1.81	14.75%
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	14,232,279	1,851,598	1.66	10.76%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	27,301,678	152,299	1.38	9.82%
Apollo European Principal Finance Fund (Feeder), LP	2009	53,001,432	46,434,825	6,566,607	69,228,391	246,082	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	31,159,085	29,160,276	1,998,809	33,227,881	10,295,160	1.48	8.71%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	24,410,738	986,974	1.38	8.27%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,409,757	4,590,243	28,866,662	5,328,515	1.67	15.01%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	9,501,887	10,498,113	12,531,656	7,654,191	2.12	9.27%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	36,915,470	4,010,692	2.06	18.52%
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	32,790,204	82,796,846	4.92	27.46%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	61,329,234	69,279,155	1.87	11.47%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	33,063,312	57,105,960	3.87	30.33%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	30,077,480	19,248,464	2.13	19.48%



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

# PRIVATE EQUITY PERFORMANCE

## AS OF JUNE 30, 2021

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	11,087,500	1,412,500	6,369,499	6,862,590	1.19	4.27%
Pathway SBCERA MCA	2014	250,000,000	234,012,065	15,987,935	65,711,500	515,066,106	2.48	26.21%
SL Capital SOF I LP	2014	25,000,000	21,362,512	3,637,488	23,569,114	7,615,437	1.46	11.88%
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	14,194,003	47,442,414	1.29	6.46%
Tennenbaum Special Situations Fund IX	2015	50,000,000	36,349,480	13,650,520	23,960,830	40,555,986	1.77	15.64%
Industry Ventures Direct, LP	2016	25,000,000	22,745,425	2,254,575	6,820,948	41,644,412	2.13	29.85%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	21,500,000	3,500,000	3,835,128	40,930,677	2.08	29.70%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,618,222	10,881,778	1,045,940	4,326,494	3.32	64.31%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	35,477,991	4,522,009	16,611,370	26,564,495	1.21	7.27%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	9,670,678	10,329,322	8,202,237	5,892,605	1.46	9.54%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	22,500,000	8,310,474	0	1.11	7.44%
Industry Ventures Secondary VIII	2017	25,000,000	22,525,000	2,475,000	11,149,082	50,372,823	2.73	66.58%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,614,431	1,385,569	312,921	3,717,515	0.47	-19.72%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	17,285,246	2,714,754	3,663,417	24,339,405	1.61	22.06%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	36,875,705	97,566,970	1.07	1.88%
SL Capital SOF III LP	2017	25,000,000	16,322,191	8,677,809	3,376,275	25,120,538	1.75	27.50%
Crestline Portfolio Financing Fund	2018	50,000,000	36,161,186	13,838,814	12,076,918	34,047,732	1.28	13.53%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	17,250,000	7,750,000	437,267	28,897,222	1.70	59.08%
Industry Ventures Tech Buyout LP	2018	50,000,000	29,406,108	20,593,892	0	36,340,718	1.24	33.03%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	3,880,000	16,120,000	1,825,911	6,543,092	2.16	41.55%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,400,000	1,600,000	3,227,873	12,812,739	2.51	49.17%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	43,663,344	7,552,557	1.26	23.55%
Kayne Solutions Fund LP	2018	20,000,000	9,603,281	10,396,719	10,700,561	5,072,309	1.64	38.54%
Industry Ventures Direct II, LP	2019	50,000,000	23,954,121	26,045,879	0	29,884,037	1.25	31.58%
Kayne Renewable Opportunities Partners (TE), LP	2019	100,000,000	12,799,504	87,200,496	6,545,066	13,749,526	1.59	25.16%
Waterfall Sentinel Co-Investments	2019	30,000,000	23,484,161	6,515,840	0	34,262,580	1.45	21.87%
Waterfall Sentinel Fund	2019	30,000,000	17,744,263	12,255,737	757,172	22,661,834	1.32	14.25%
Adams Street SBCERA	2020	50,000,000	33,121,446	16,878,554	0	49,157,207	1.48	91.52%
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	39,503,858	10,496,142	17,744,802	27,681,345	1.15	22.83%
<b>Total: San Bernardino</b>		<b>3,914,859,955</b>	<b>3,473,388,973</b>	<b>417,835,474</b>	<b>3,437,069,743</b>	<b>2,553,347,711</b>	<b>1.72</b>	<b>9.49%</b>



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



# APPENDIX: MACRO MARKET ENVIRONMENT

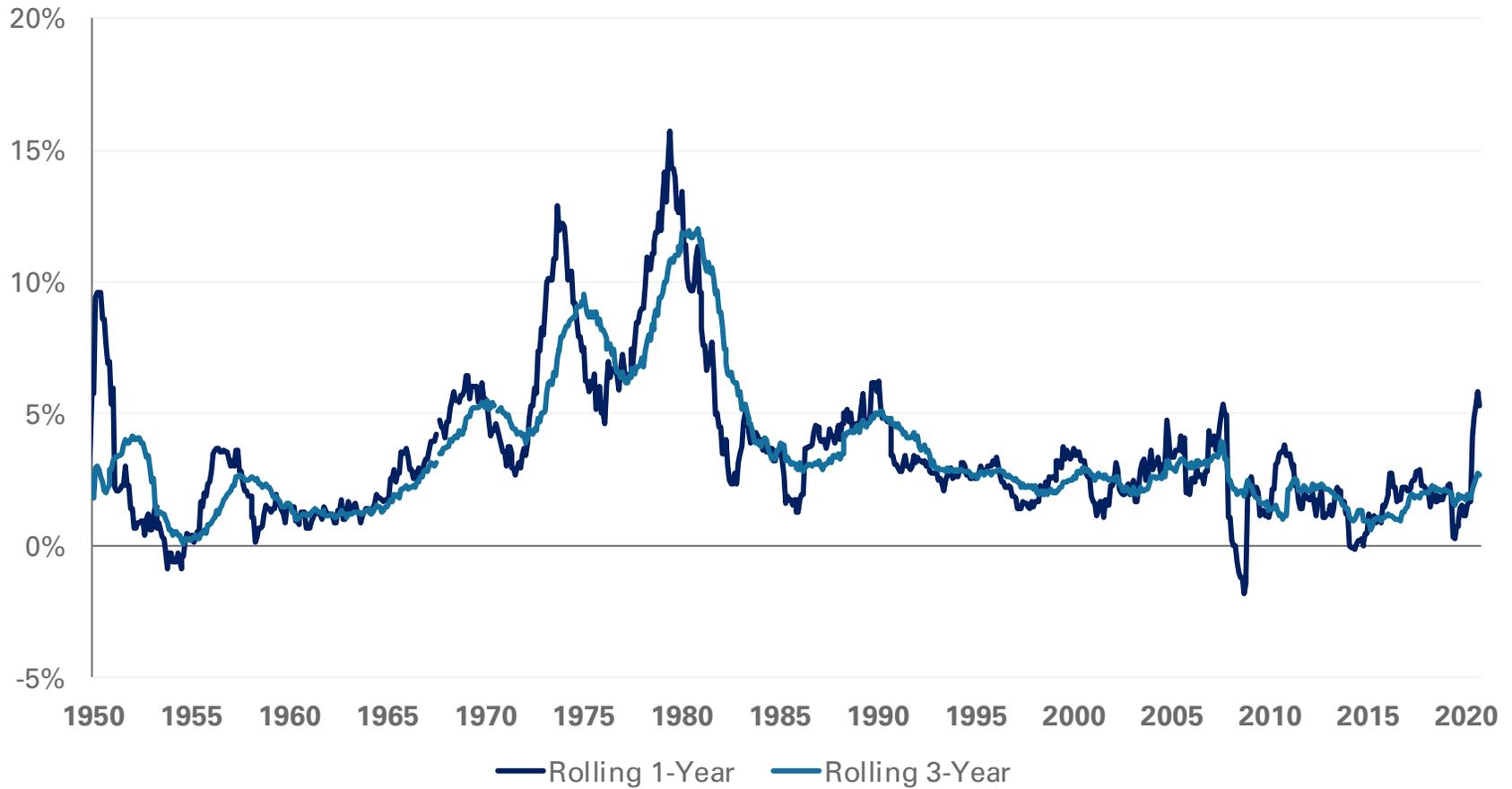


**MACRO**



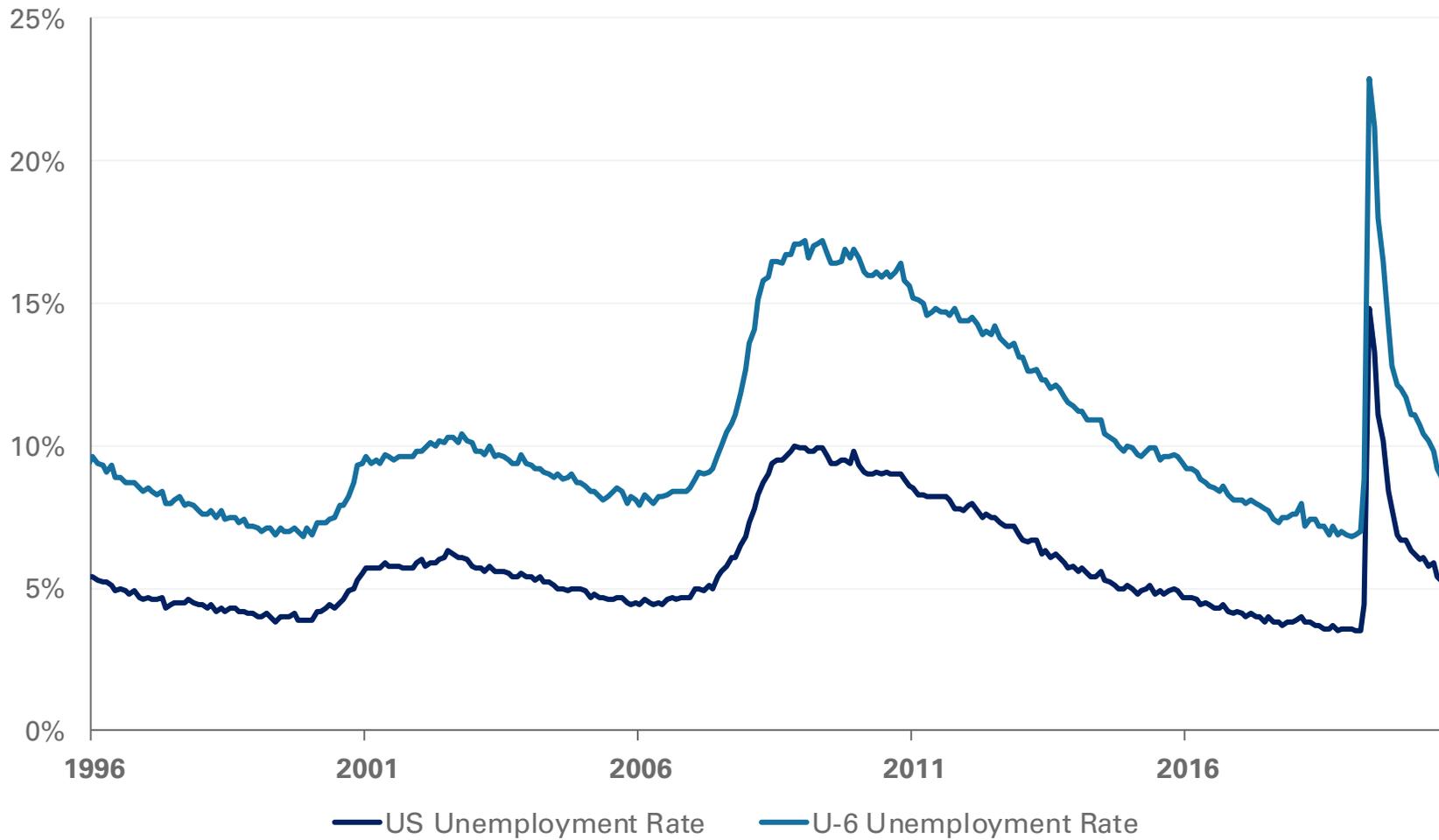
# INFLATION

## U.S. CONSUMER PRICE INDEX



Source: Bureau of Labor Statistics, FactSet

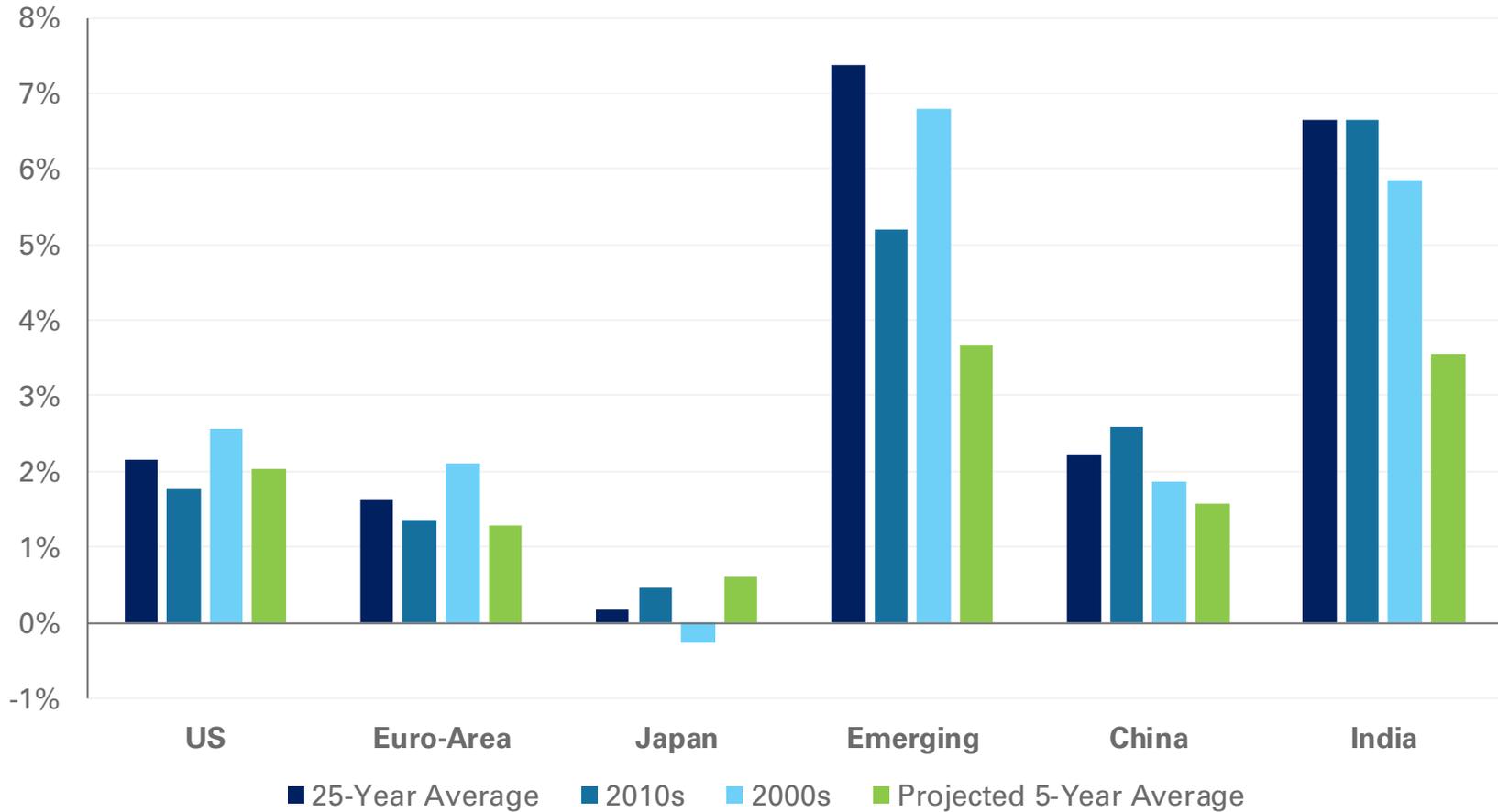
# U.S. UNEMPLOYMENT RATES



Source: FactSet

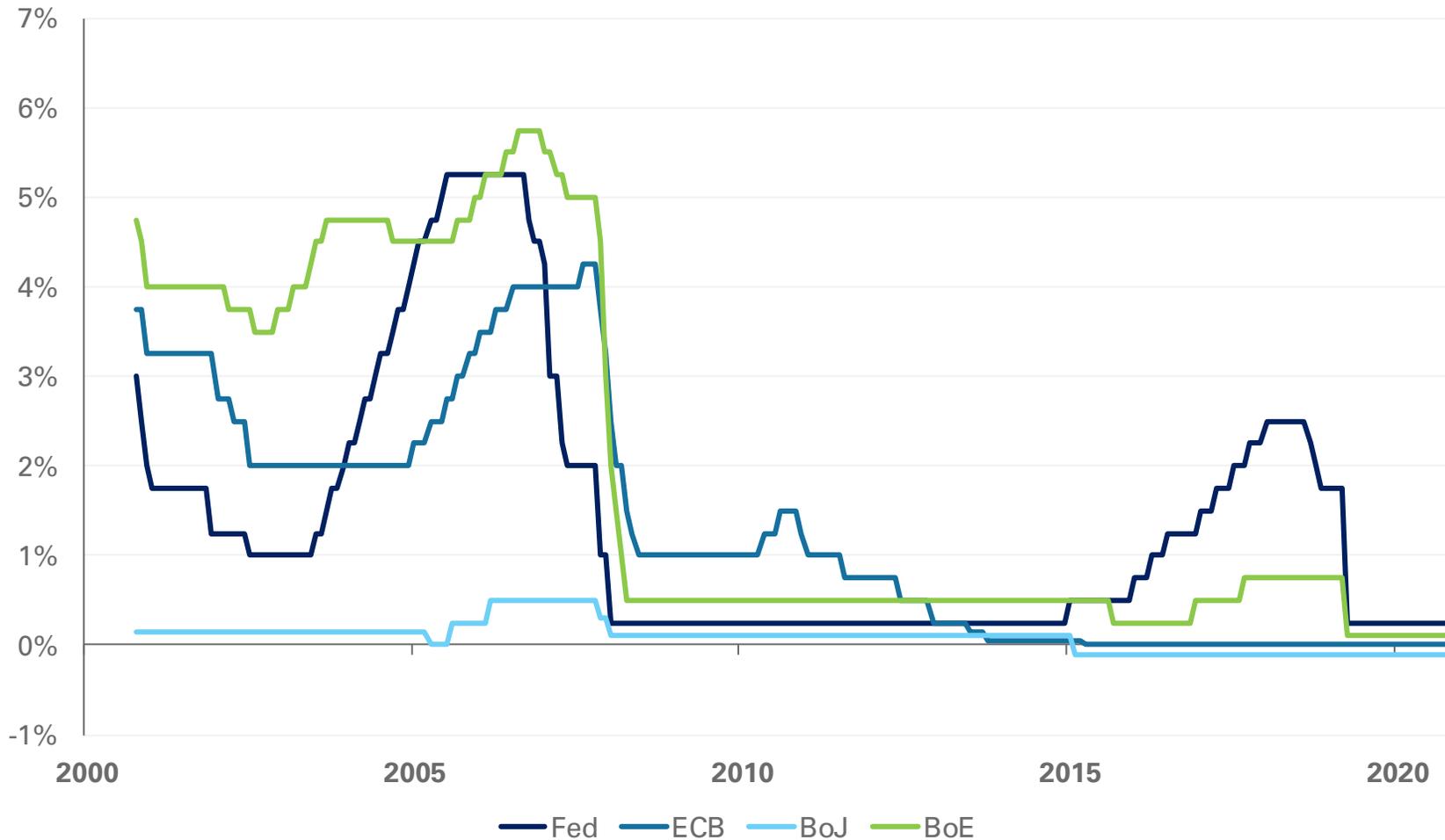
# HISTORICAL INFLATION

## IMF PROJECTIONS



Source: IMF, FactSet

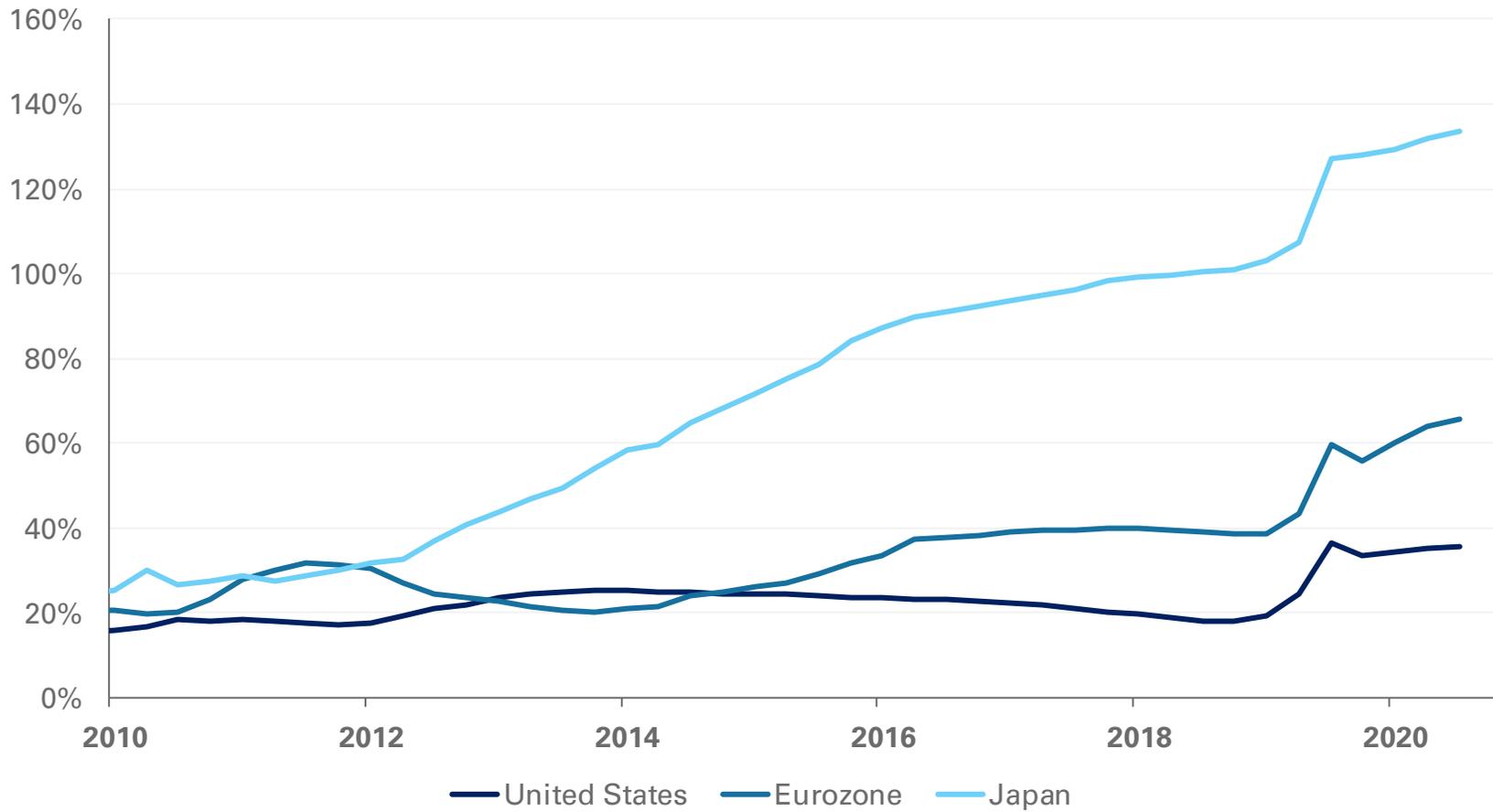
# CENTRAL BANK POLICY RATES



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>1.16</b>	-1.8%	-5.3%	-1.2%
<b>British Pound</b>	<b>1.35</b>	-2.0%	-1.4%	4.3%
<b>Japanese Yen</b>	<b>111.58</b>	-1.5%	-7.5%	-5.4%
<b>Swiss Franc</b>	<b>0.93</b>	-1.8%	-5.2%	-1.5%
<b>Australian Dollar</b>	<b>0.72</b>	-1.2%	-6.4%	0.8%
<b>New Zealand Dollar</b>	<b>1.45</b>	-2.0%	-4.2%	4.4%
<b>Canadian Dollar</b>	<b>1.27</b>	-0.3%	0.6%	5.4%
<b>Chinese Yuan</b>	<b>6.46</b>	0.0%	1.2%	5.4%
<b>Taiwanese Dollar</b>	<b>27.86</b>	-0.5%	0.9%	4.0%
<b>Korean Won</b>	<b>1184</b>	-2.1%	-8.3%	-1.2%
<b>Vietnamese Dong</b>	<b>22760</b>	0.1%	1.4%	1.9%
<b>Thai Baht</b>	<b>33.84</b>	-4.7%	-11.5%	-6.3%
<b>Philippines Peso</b>	<b>51.01</b>	-2.5%	-5.9%	-5.0%
<b>Indian Rupee</b>	<b>74.23</b>	-1.6%	-1.6%	-0.6%
<b>Russian Ruble</b>	<b>72.79</b>	0.6%	1.6%	6.6%
<b>Mexican Peso</b>	<b>20.54</b>	-2.5%	-3.0%	7.5%
<b>Brazilian Real</b>	<b>5.45</b>	-6.0%	-4.7%	3.4%
<b>Chilean Peso</b>	<b>0.03</b>	-2.7%	-9.0%	1.7%
<b>Argentine Peso</b>	<b>98.75</b>	-1.0%	-14.9%	-22.9%
<b>South African Rand</b>	<b>15.05</b>	-3.9%	-2.4%	10.9%



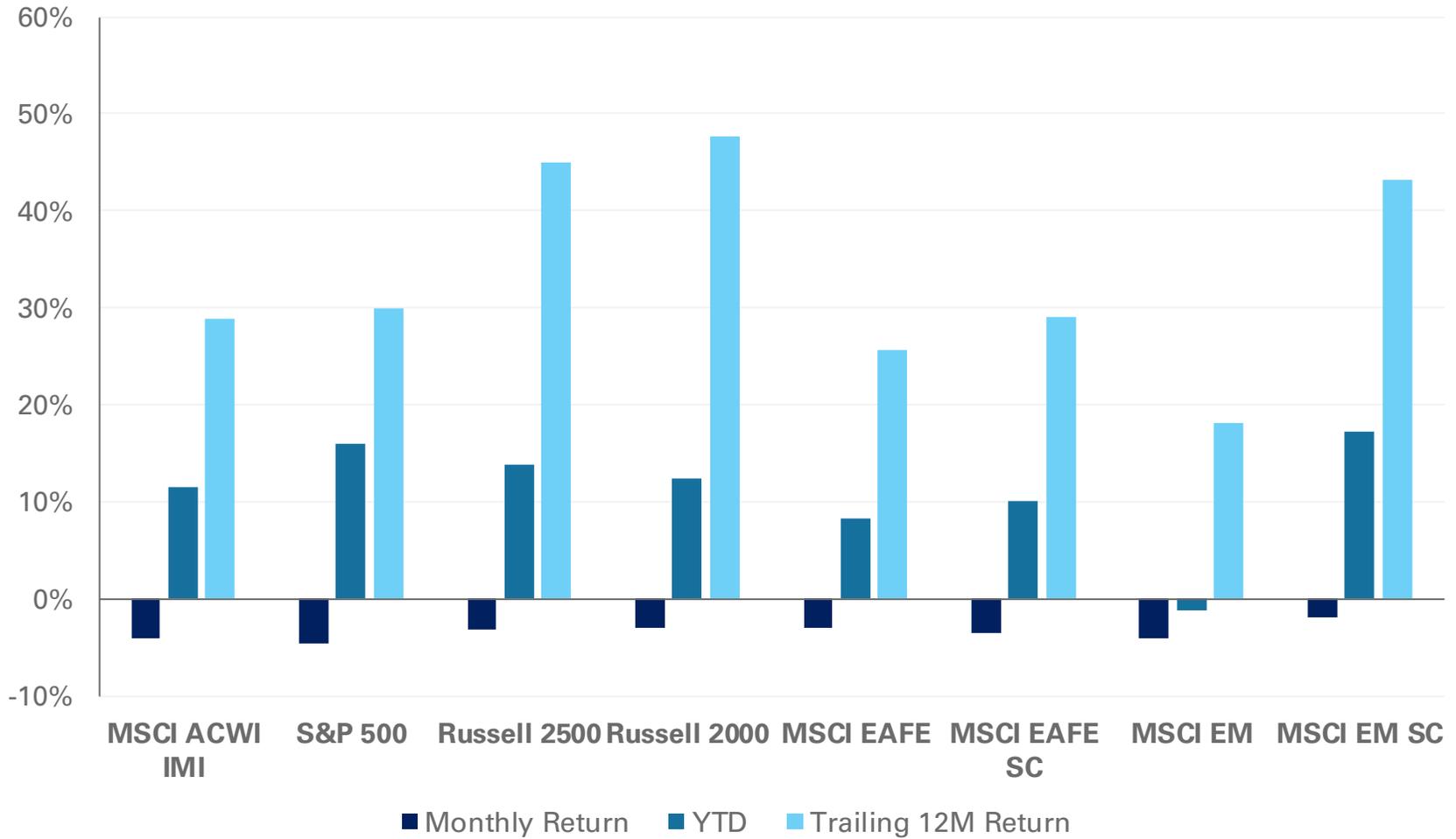
Source: FactSet



**EQUITY**

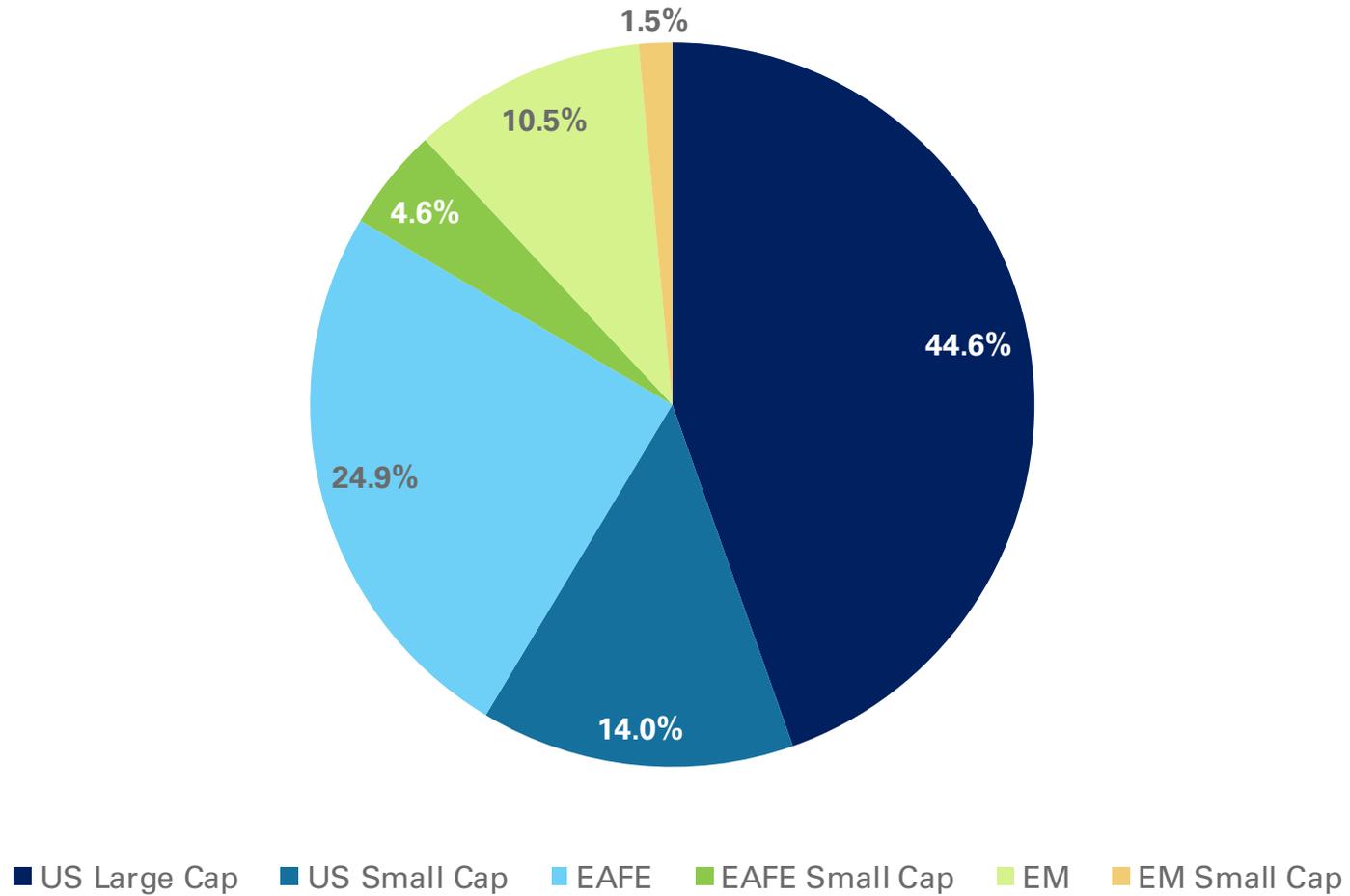


# EQUITY INDEX PERFORMANCE



Source: MSCI, S&P, Russell, FactSet

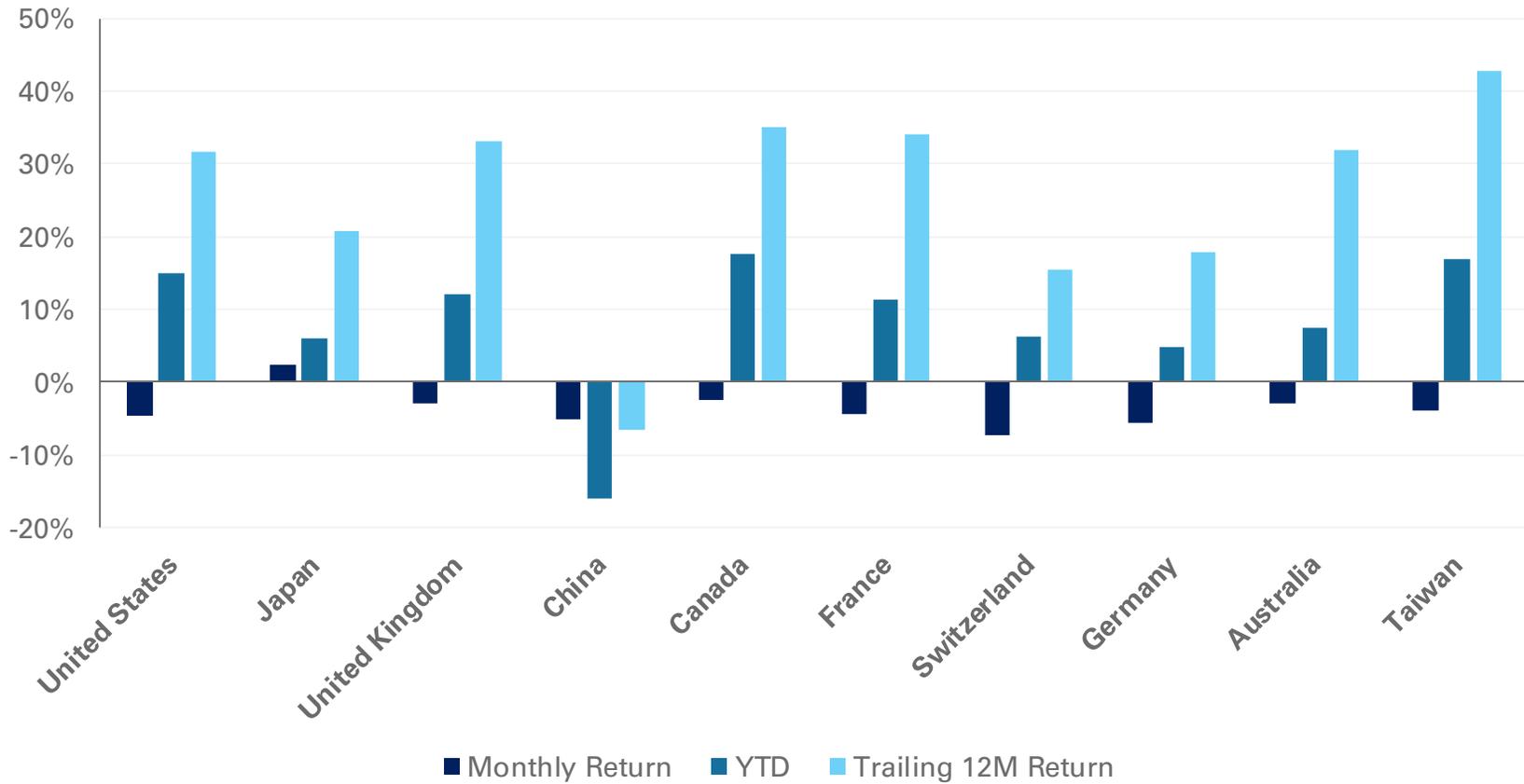
# MSCI ACWI IMI WEIGHTS



Source: MSCI, FactSet

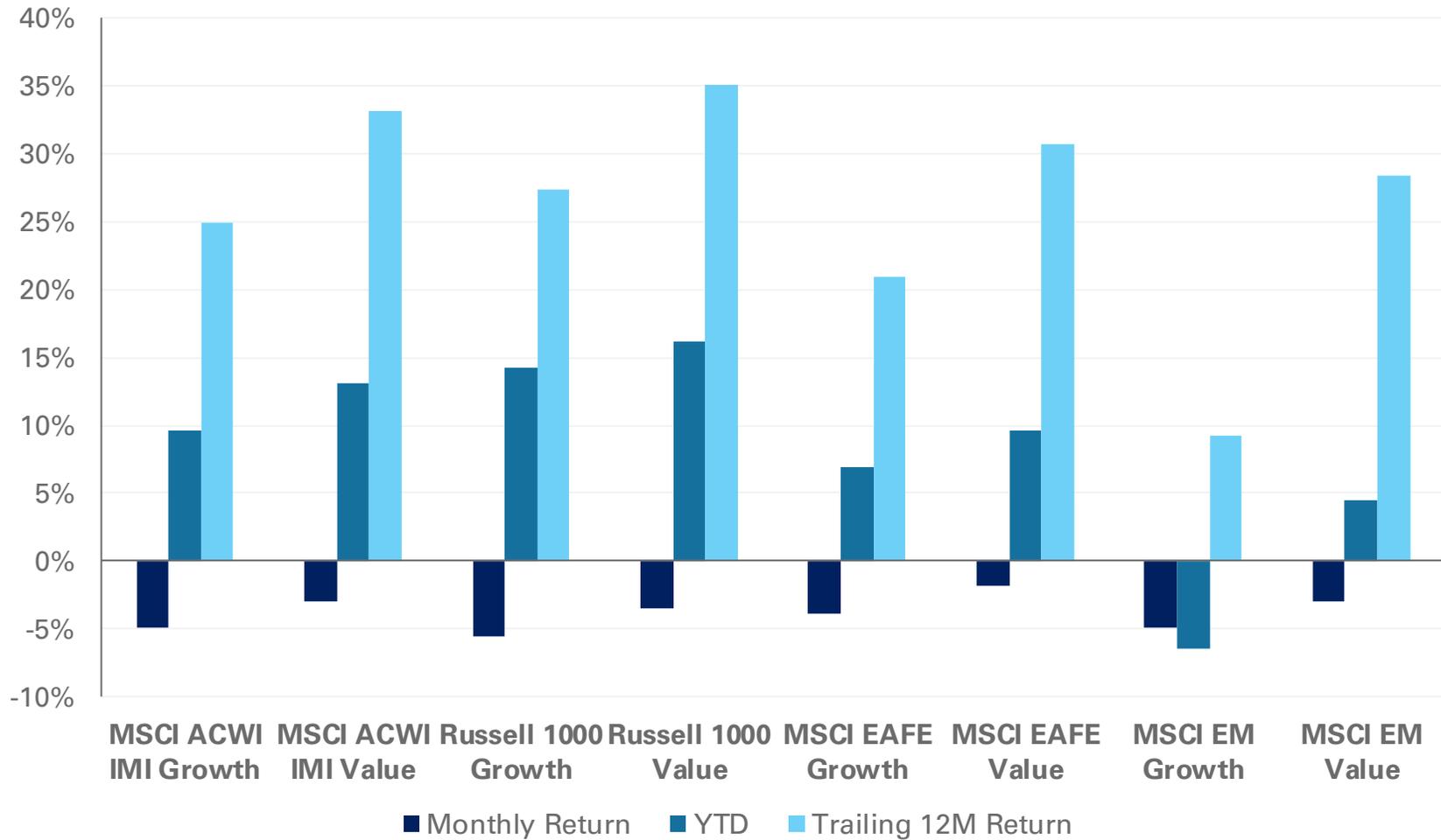
# EQUITY INDEX PERFORMANCE

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



Source: MSCI, FactSet

# STYLE INDEX PERFORMANCE



Source: MSCI, Russell, FactSet

# SECTOR INDEX PERFORMANCE

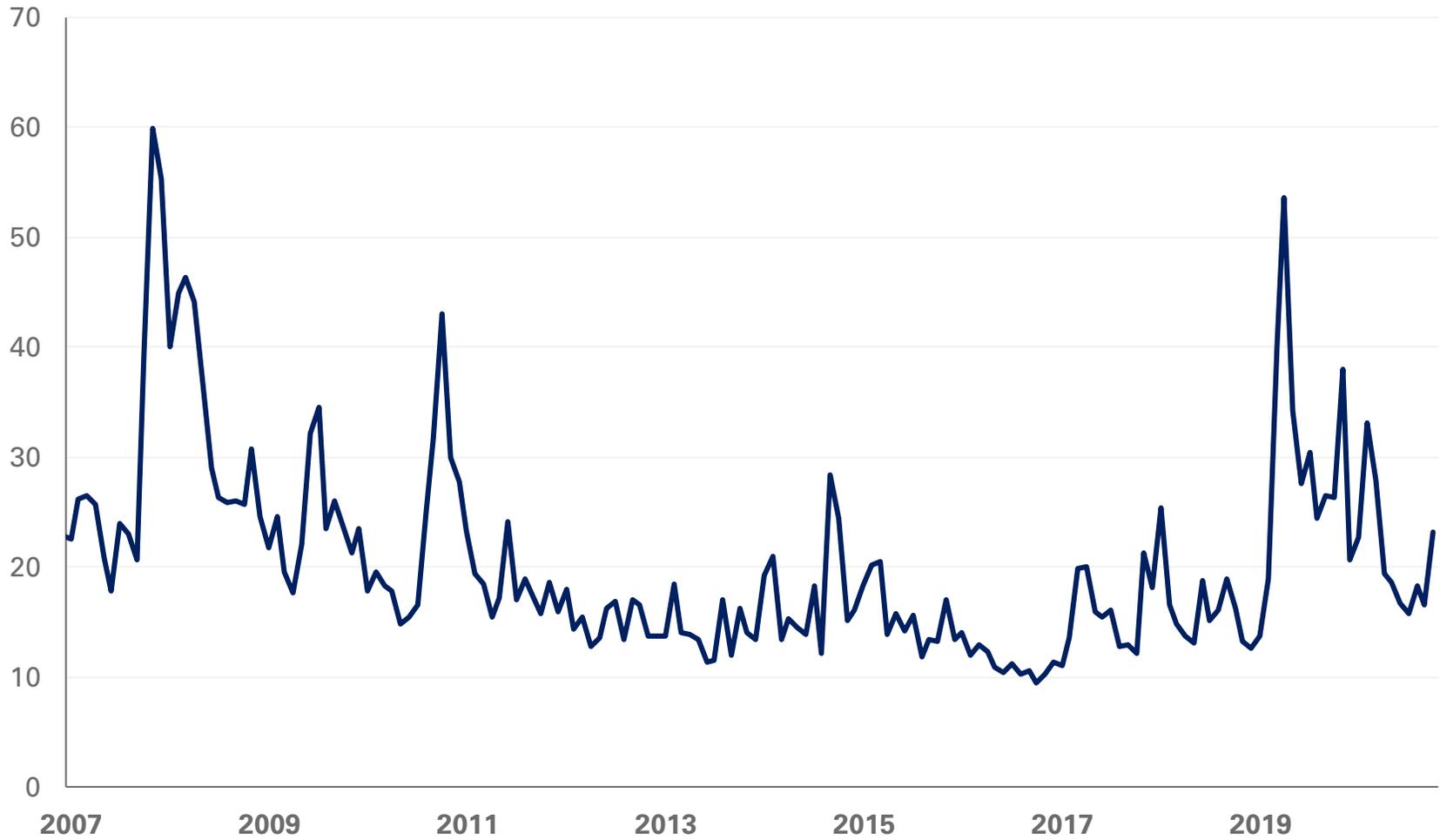
	Monthly Return	YTD	Trailing 12M Return	Index Weight
<b>MSCI ACWI IMI</b>	<b>-4.0%</b>	<b>11.4%</b>	<b>28.9%</b>	<b>100.0%</b>
Communication Services	-5.6%	12.1%	29.0%	8.5%
Consumer Discretionary	-3.4%	4.4%	20.5%	12.5%
Consumer Staples	-3.7%	2.8%	10.6%	6.5%
Energy	9.7%	34.3%	68.6%	3.5%
Financials	-1.4%	20.8%	50.7%	14.2%
Health Care	-5.1%	8.7%	18.2%	11.6%
Industrials	-4.4%	11.6%	31.1%	10.7%
Information Technology	-5.5%	12.9%	31.2%	21.2%
Materials	-6.7%	8.2%	29.4%	5.0%
Real Estate	-5.1%	12.9%	25.2%	3.5%
Utilities	-5.9%	0.6%	11.8%	2.6%

	Monthly Return	YTD	Trailing 12M Return	Index Weight
<b>S&amp;P 500</b>	<b>-4.7%</b>	<b>15.9%</b>	<b>30.0%</b>	<b>100.0%</b>
Communication Services	-6.6%	21.6%	38.4%	11.3%
Consumer Discretionary	-2.6%	10.3%	19.1%	12.4%
Consumer Staples	-4.1%	4.7%	11.3%	5.8%
Energy	9.4%	43.2%	83.0%	2.7%
Financials	-1.8%	29.1%	59.1%	11.4%
Health Care	-5.5%	13.5%	22.6%	13.3%
Industrials	-6.1%	11.5%	29.0%	8.0%
Information Technology	-5.8%	15.3%	28.9%	27.6%
Materials	-7.2%	10.5%	26.5%	2.5%
Real Estate	-6.2%	24.4%	30.5%	2.6%
Utilities	-6.2%	4.2%	11.0%	2.5%



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

# EQUITY VOLATILITY INDEX (VIX)



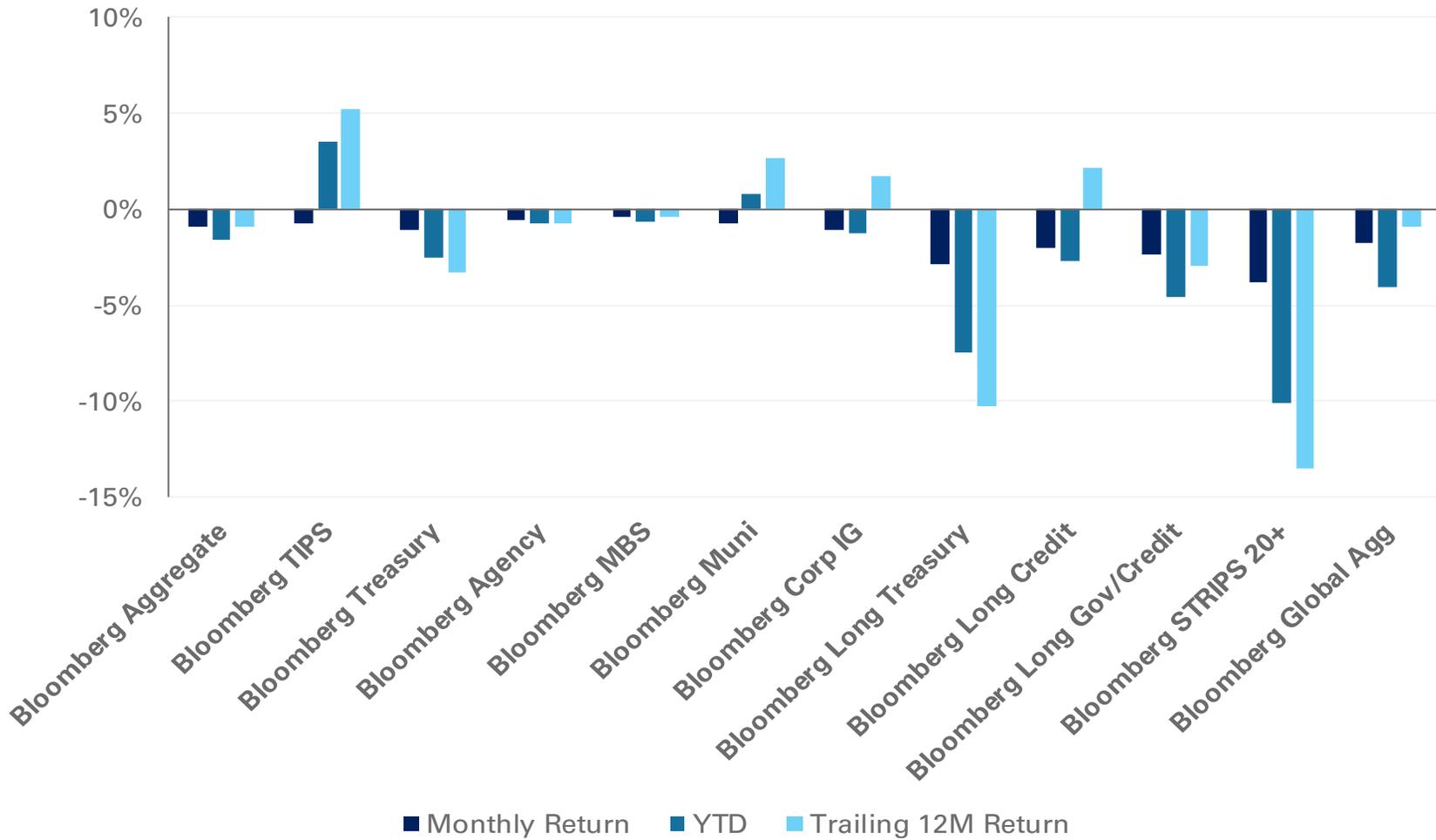
Source: CBOE, FactSet



# SAFE-HAVEN FIXED INCOME



# SAFE-HAVEN FIXED INCOME PERFORMANCE



Source: Bloomberg, FactSet

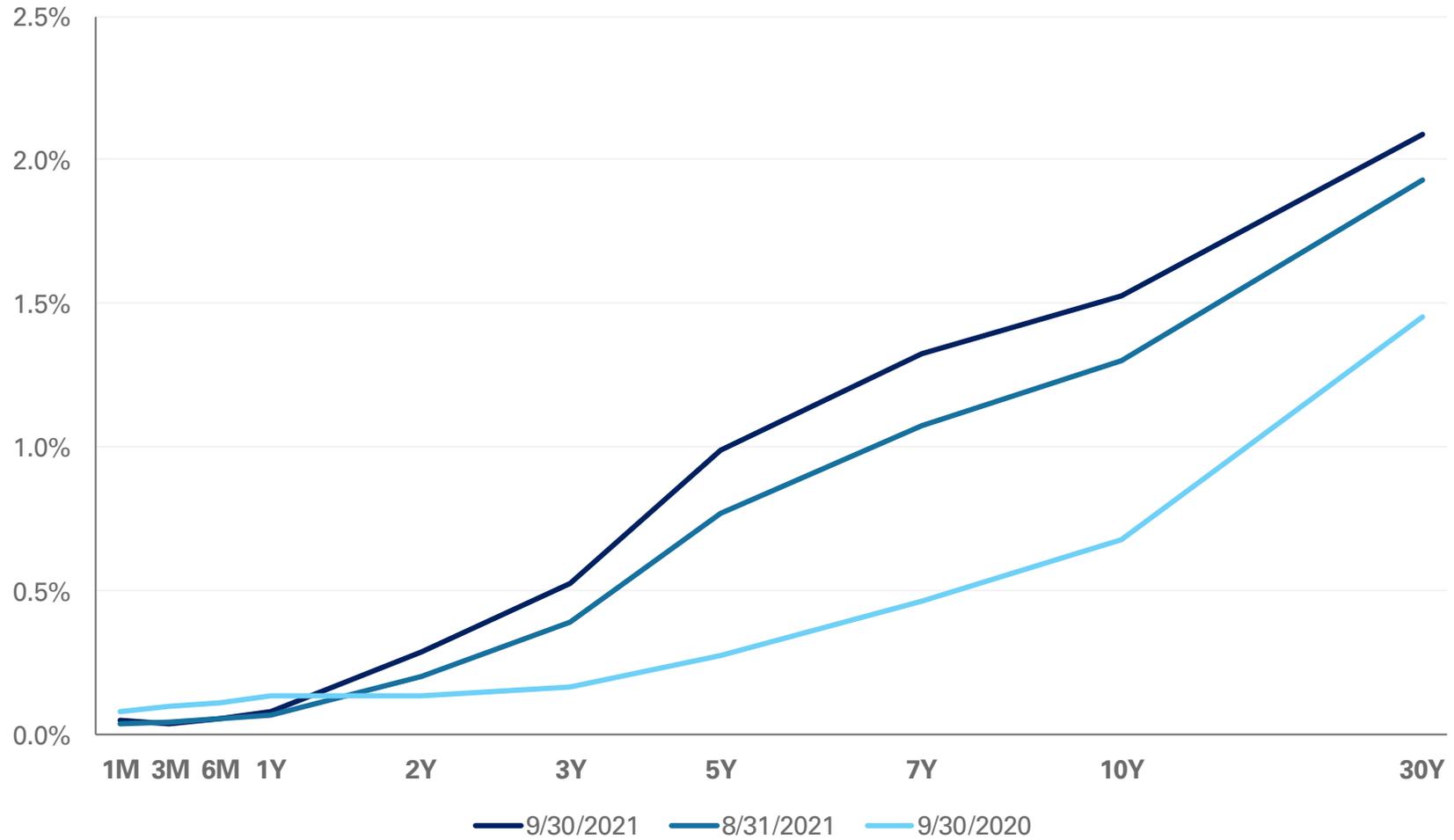
# FIXED INCOME CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg Aggregate</b>	1.56%	33	6.7
<b>Bloomberg TIPS</b>	1.17%	-	5.5
<b>Bloomberg Treasury</b>	1.01%	-	7.1
<b>Bloomberg Agency</b>	0.83%	3	3.9
<b>Bloomberg MBS</b>	1.83%	27	4.6
<b>Bloomberg Muni</b>	1.02%	-	5.1
<b>Bloomberg Corp IG</b>	2.13%	84	8.7
<b>Bloomberg Long Treasury</b>	2.03%	-	18.7
<b>Bloomberg Long Credit</b>	3.13%	123	15.1
<b>Bloomberg Long Gov/Credit</b>	2.68%	72	16.6
<b>Bloomberg STRIPS 20+</b>	2.13%	-	26.8
<b>Bloomberg Global Agg</b>	1.17%	33	7.5



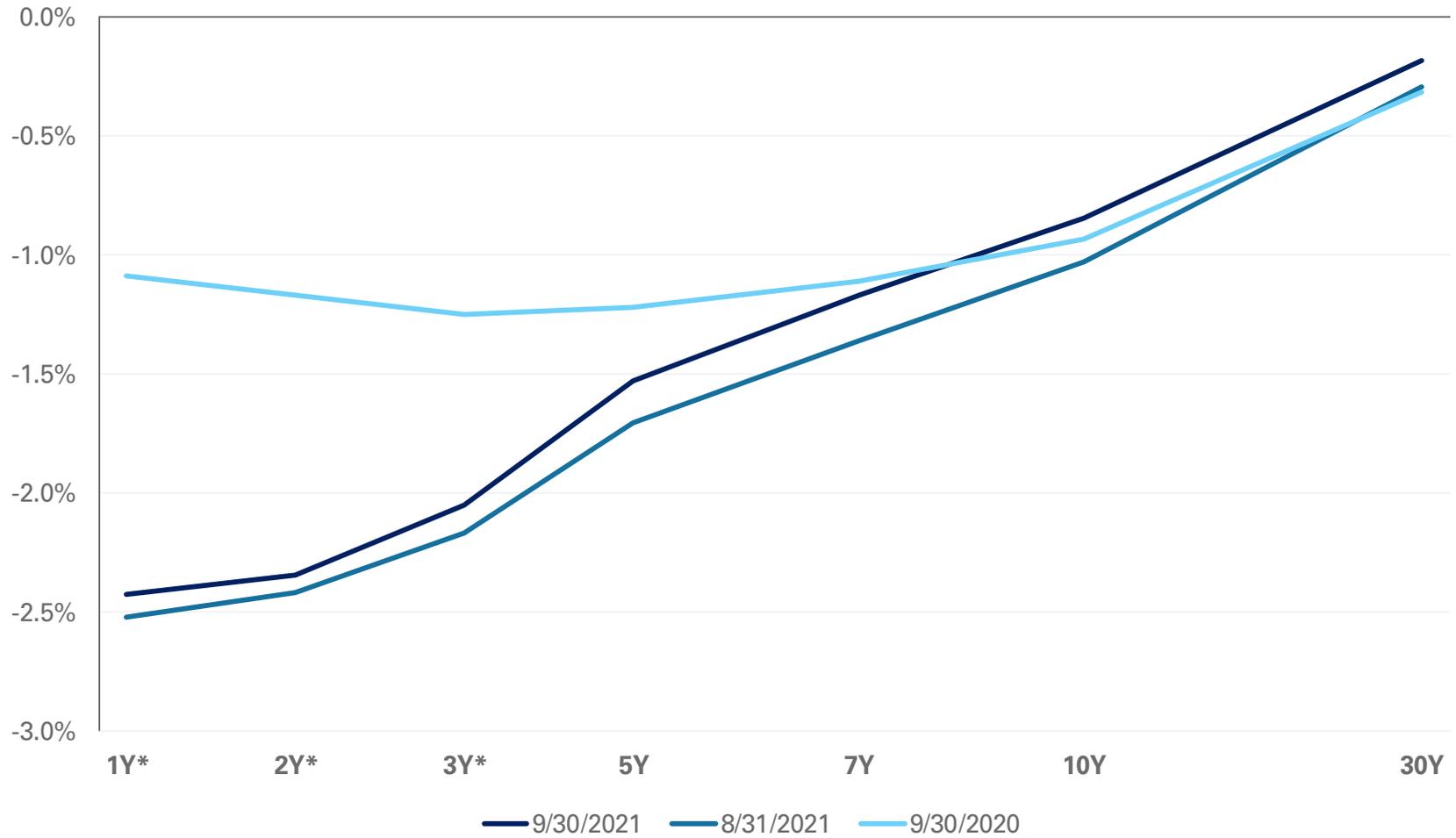
Source: Bloomberg, FactSet

# US TREASURY YIELD CURVE



Source: FactSet

# US TREASURY REAL YIELD CURVE



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



# LONG DURATION YIELDS



Source: Bloomberg, FactSet

# LONG DURATION CORPORATE SPREADS



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

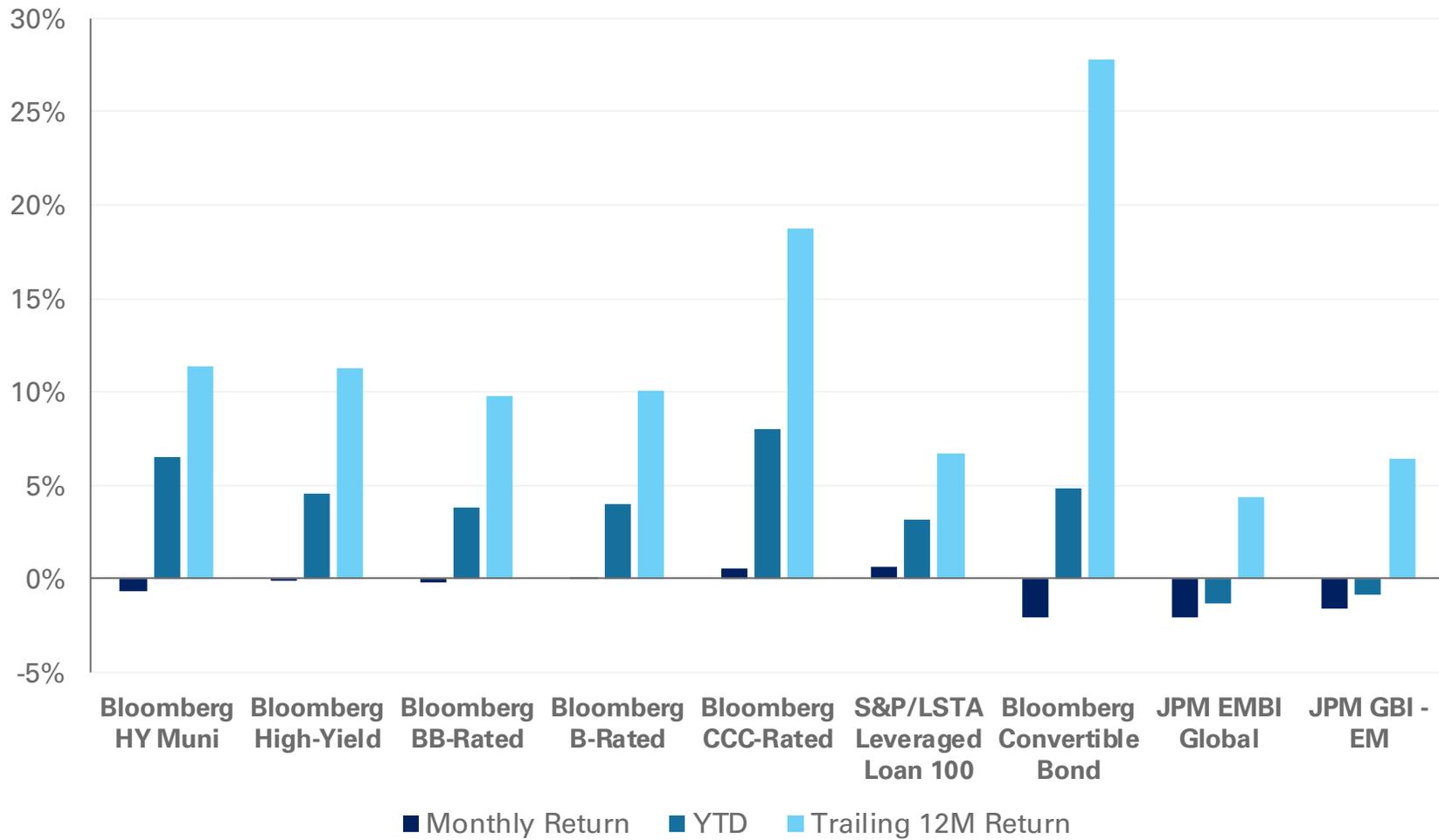




# RETURN-SEEKING CREDIT



# RETURN-SEEKING CREDIT INDEX PERFORMANCE



Source: Bloomberg, S&P, JPM, FactSet

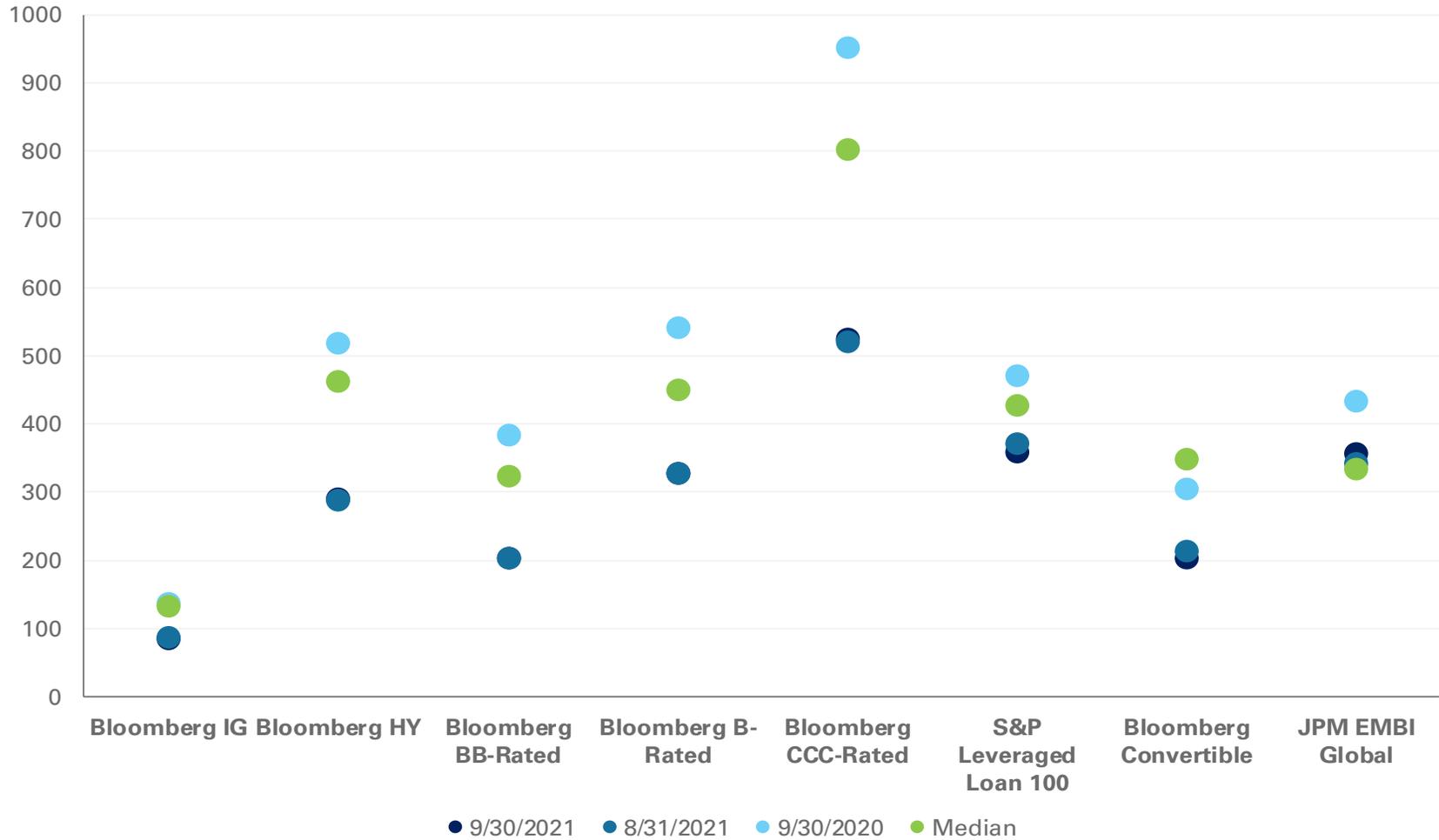
## RETURN-SEEKING CREDIT CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
<b>Bloomberg HY Muni</b>	3.11%	-	6.4
<b>Bloomberg High-Yield</b>	4.04%	289	4.0
<b>Bloomberg BB-Rated</b>	3.18%	203	4.8
<b>Bloomberg B-Rated</b>	4.47%	327	3.1
<b>Bloomberg CCC-Rated</b>	6.26%	524	2.8
<b>S&amp;P/LSTA Leveraged Loan 100</b>	3.71%	358	-
<b>Bloomberg Convertible Bond</b>	1.04%	202	1.9
<b>JPM EMBI Global</b>	5.13%	355	7.8
<b>JPM GBI - EM</b>	4.65%	-	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

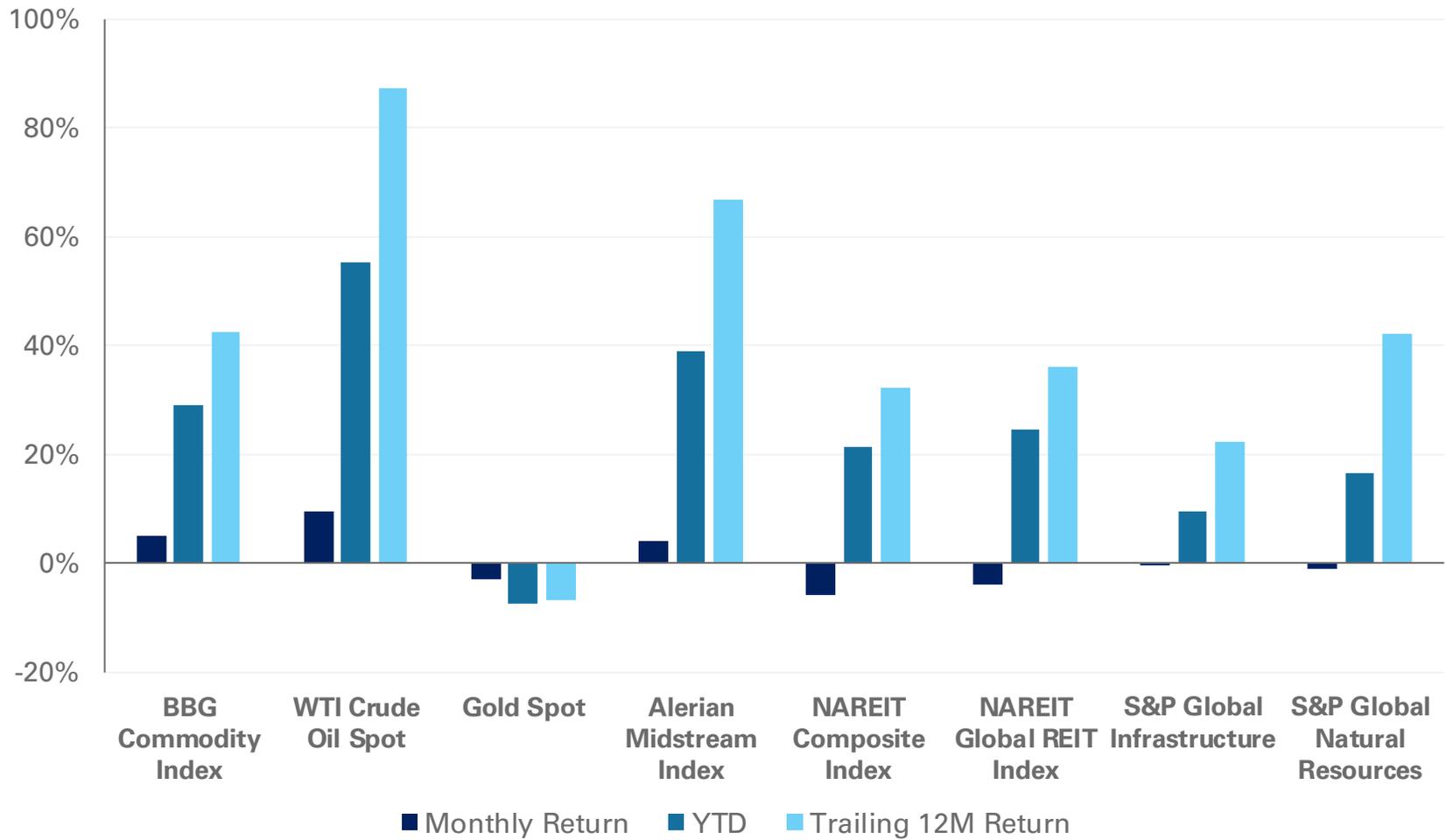




Source:



# REAL ASSETS INDEX PERFORMANCE



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

# REAL ASSETS INDEX PERFORMANCE

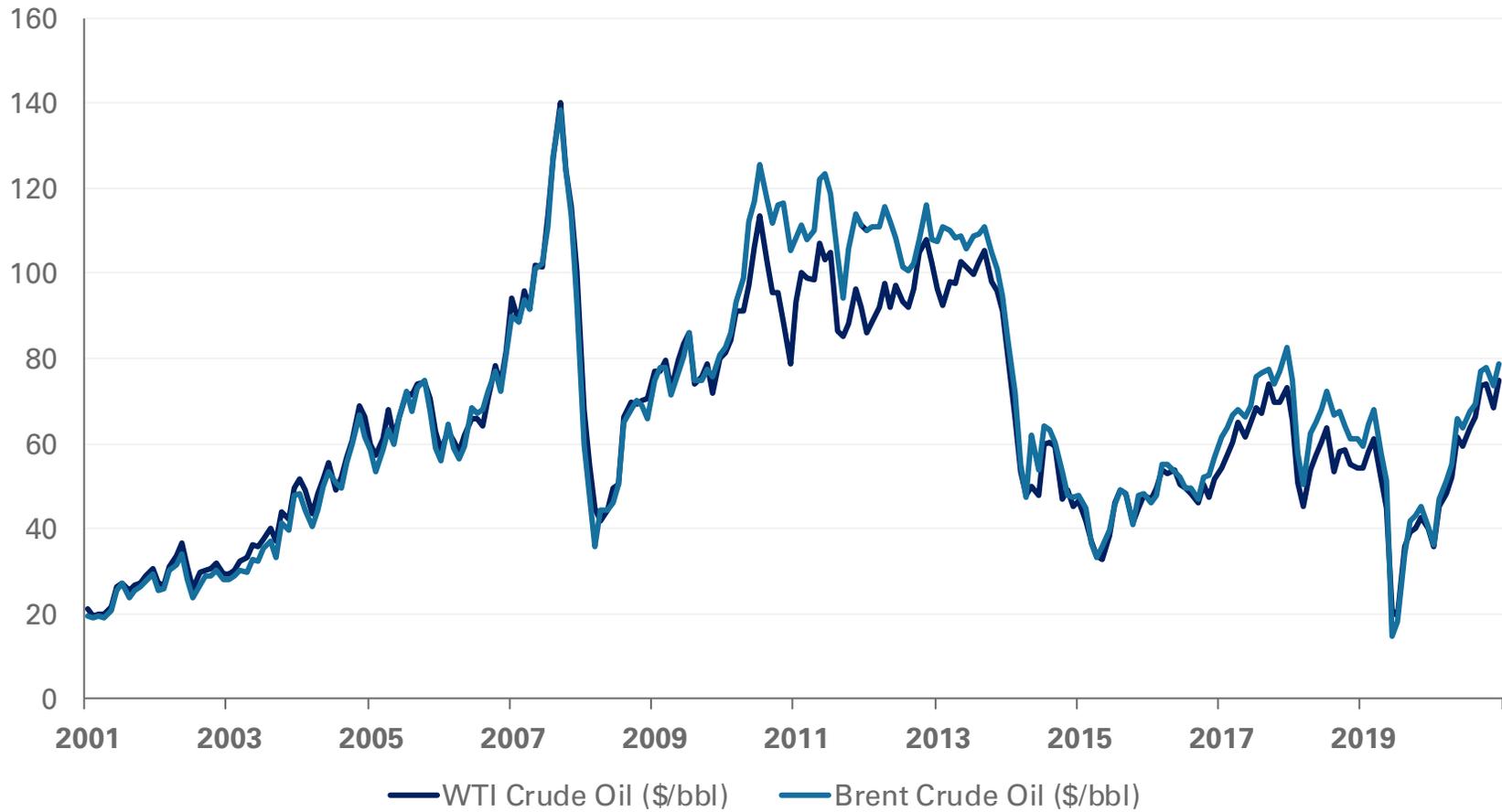
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
<b>Bloomberg Commodity Index</b>	<b>5.0%</b>	<b>6.6%</b>	<b>29.1%</b>	<b>42.1%</b>	<b>6.8%</b>	<b>4.5%</b>
<b>Bloomberg Sub Agriculture Index</b>	<b>-0.1%</b>	<b>-1.0%</b>	<b>19.2%</b>	<b>44.5%</b>	<b>12.2%</b>	<b>1.9%</b>
Coffee	-1.0%	19.4%	42.3%	60.2%	11.8%	-4.6%
Corn	0.5%	-11.0%	23.6%	54.5%	10.7%	2.5%
Cotton	14.3%	24.6%	29.9%	50.1%	7.5%	7.5%
Soybean	-2.8%	-10.2%	3.0%	31.2%	11.8%	2.6%
Soybean Oil	-0.1%	-6.5%	56.2%	100.1%	27.2%	10.7%
Sugar	-1.0%	9.8%	32.2%	51.3%	17.1%	-6.9%
Wheat	0.5%	4.9%	9.1%	19.2%	8.6%	3.0%
<b>Bloomberg Sub Energy</b>	<b>17.0%</b>	<b>21.0%</b>	<b>74.9%</b>	<b>78.4%</b>	<b>-5.9%</b>	<b>0.7%</b>
Brent Crude	10.2%	8.1%	60.9%	91.7%	-0.8%	9.3%
Heating Oil	10.1%	9.6%	57.5%	97.3%	-4.4%	5.1%
Natural Gas	32.6%	58.7%	112.9%	72.5%	-8.1%	-10.4%
Unleaded Gas	6.2%	8.6%	60.9%	94.3%	0.2%	5.9%
WTI Crude Oil	9.9%	4.0%	58.4%	86.7%	-13.0%	-1.2%
<b>Bloomberg Sub Industrial Metals</b>	<b>-2.2%</b>	<b>2.1%</b>	<b>20.0%</b>	<b>36.9%</b>	<b>10.8%</b>	<b>10.5%</b>
Aluminum	5.1%	13.0%	41.9%	58.7%	8.1%	9.3%
Copper	-6.5%	-4.5%	16.1%	34.3%	12.9%	12.0%
Nickel	-8.2%	-1.6%	7.5%	22.5%	12.1%	10.5%
Zinc	-0.7%	0.1%	7.0%	21.4%	6.4%	6.6%
<b>Bloomberg Sub Precious Metals</b>	<b>-4.4%</b>	<b>-4.6%</b>	<b>-10.0%</b>	<b>-7.8%</b>	<b>12.1%</b>	<b>3.8%</b>
Gold	-3.4%	-1.0%	-7.9%	-8.2%	12.1%	4.7%
Silver	-8.2%	-16.0%	-17.0%	-7.2%	12.3%	1.1%
<b>Bloomberg Sub Livestock</b>	<b>-1.9%</b>	<b>-2.0%</b>	<b>6.6%</b>	<b>9.2%</b>	<b>-8.2%</b>	<b>-0.6%</b>
Lean Hogs	5.0%	7.2%	37.0%	48.8%	-9.5%	-2.0%
Live Cattle	-4.9%	-6.3%	-6.8%	-7.1%	-7.5%	-0.1%



Source: Bloomberg, FactSet

# OIL MARKETS

## WTI VERSUS BRENT CRUDE SPOT PRICES



Source: WTI, Brent, FactSet

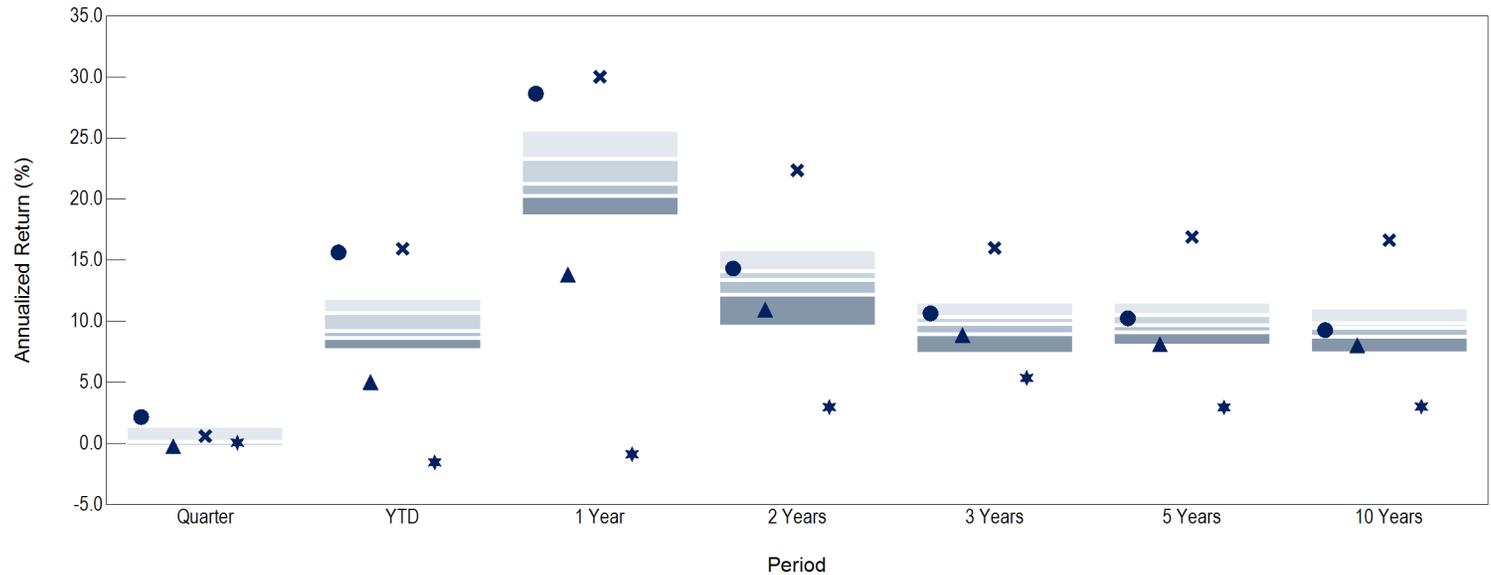
# GOLD SPOT PRICE



Source: FactSet

# San Bernardino County Employees' Retirement Association TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net

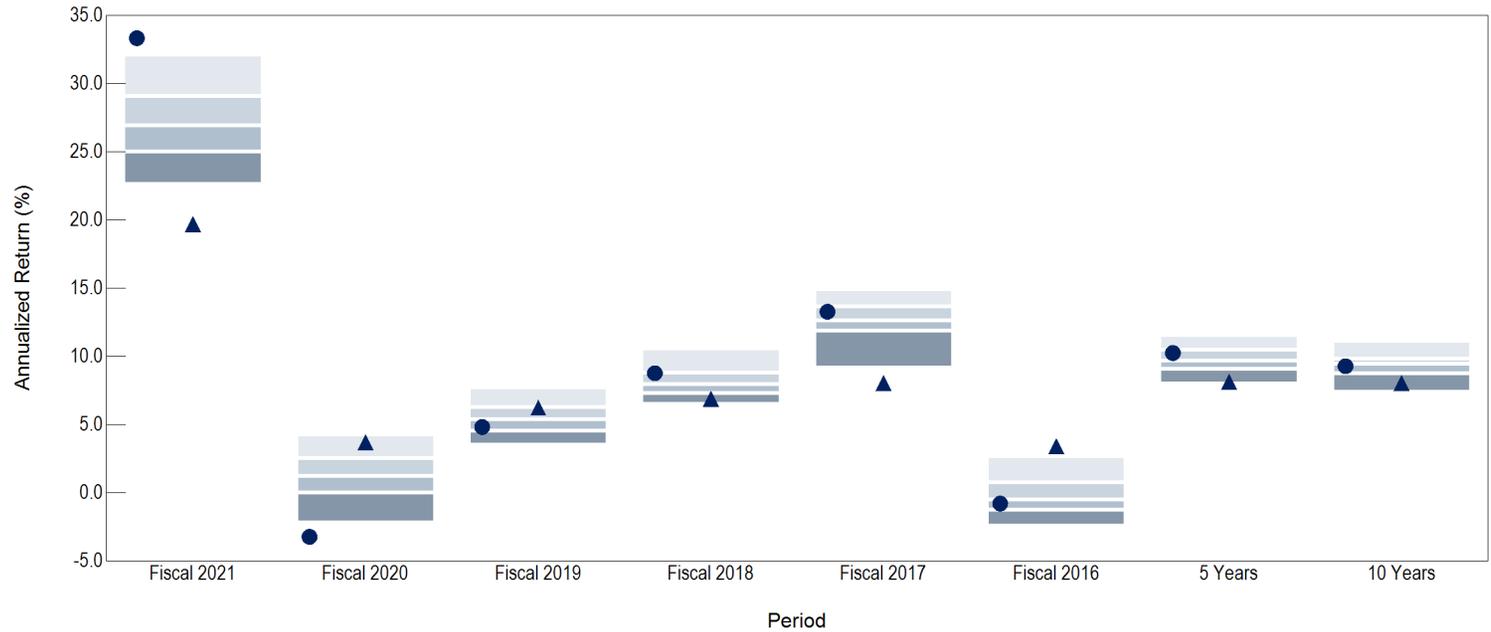


	Return (Rank)													
5th Percentile	1.4	11.9	25.6	15.8	11.6	11.6	11.1							
25th Percentile	0.1	10.7	23.3	14.1	10.3	10.5	9.9							
Median	-0.2	9.2	21.3	13.4	9.8	9.7	9.5							
75th Percentile	-0.6	8.7	20.3	12.2	9.0	9.1	8.8							
95th Percentile	-0.7	7.6	18.6	9.6	7.3	8.0	7.4							
# of Portfolios	33	33	33	33	33	33	30							
● Total Fund	2.2	(2)	15.6	(1)	28.6	(1)	14.3	(20)	10.6	(19)	10.2	(28)	9.3	(55)
▲ Policy Index	-0.2	(50)	5.0	(99)	13.8	(99)	10.9	(94)	8.9	(83)	8.1	(95)	8.0	(88)
× S&P 500	0.6	(15)	15.9	(1)	30.0	(1)	22.4	(1)	16.0	(1)	16.9	(1)	16.6	(1)
* Bloomberg US Aggregate TR	0.1	(31)	-1.6	(99)	-0.9	(99)	3.0	(99)	5.4	(99)	2.9	(99)	3.0	(99)
◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)



# San Bernardino County Employees' Retirement Association TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1B Net

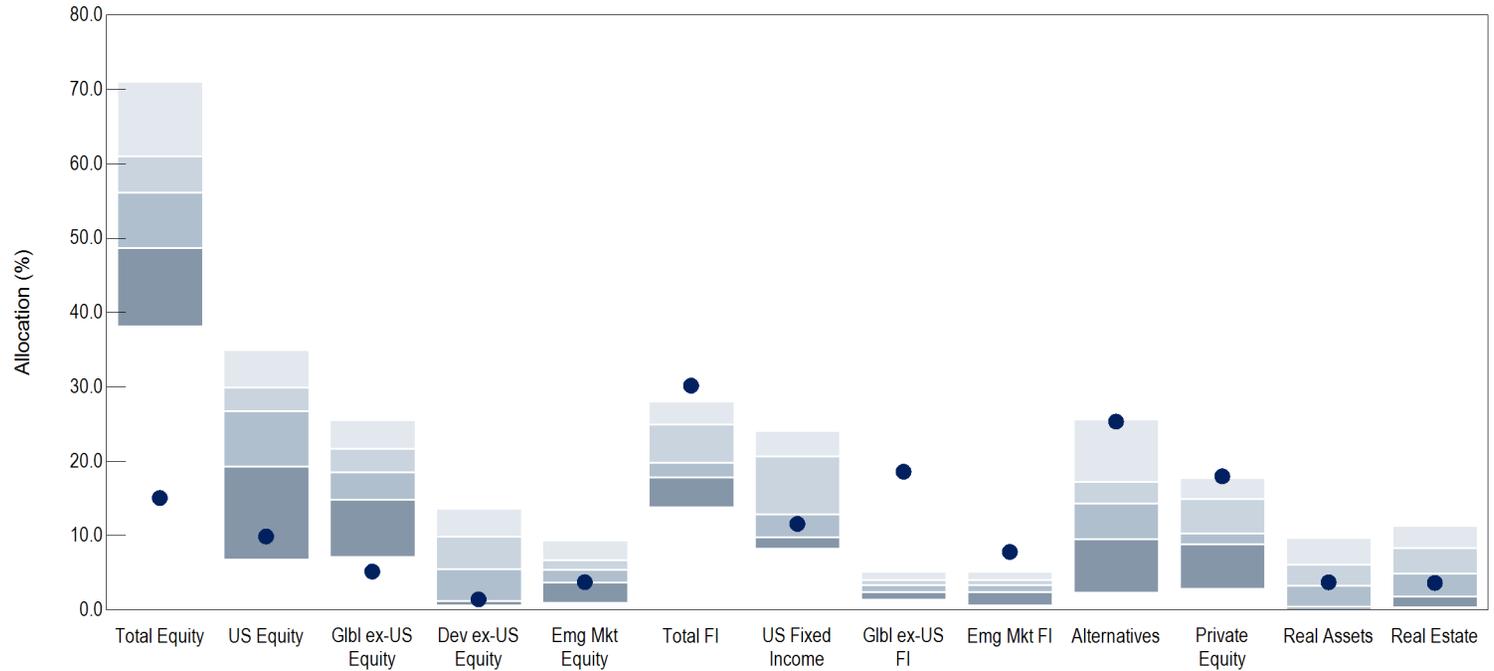


	Fiscal 2021		Fiscal 2020		Fiscal 2019		Fiscal 2018		Fiscal 2017		Fiscal 2016		5 Years		10 Years	
<b>Return (Rank)</b>																
5th Percentile	32.1		4.2		7.7		10.5		14.9		2.7		11.6		11.1	
25th Percentile	29.1		2.6		6.3		8.8		13.7		0.8		10.5		9.9	
Median	27.0		1.3		5.4		8.0		12.7		-0.5		9.7		9.5	
75th Percentile	25.1		0.0		4.6		7.3		11.9		-1.2		9.1		8.8	
95th Percentile	22.7		-2.2		3.5		6.5		9.2		-2.4		8.0		7.4	
# of Portfolios	77		71		77		51		65		55		33		30	
● Total Fund	33.3	(2)	-3.2	(98)	4.8	(69)	8.8	(29)	13.3	(33)	-0.8	(66)	10.2	(28)	9.3	(55)
▲ Policy Index	19.7	(99)	3.7	(14)	6.2	(27)	6.9	(91)	8.0	(96)	3.4	(1)	8.1	(95)	8.0	(88)
◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)



# San Bernardino County Employees' Retirement Association TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net



	Allocation (Rank)													
5th Percentile	71.0	35.0	25.5	13.6	9.4	28.0	24.1	5.2	5.2	25.6	17.7	9.7	11.3	--
25th Percentile	61.1	30.0	21.7	9.9	6.8	25.0	20.8	4.1	4.1	17.3	15.0	6.2	8.4	--
Median	56.2	26.8	18.6	5.6	5.5	19.9	12.9	3.4	3.4	14.4	10.3	3.3	5.0	--
75th Percentile	48.8	19.4	14.9	1.3	3.8	17.9	9.8	2.5	2.5	9.6	9.0	0.5	1.9	--
95th Percentile	38.2	6.9	7.2	0.7	1.0	13.9	8.3	1.5	0.7	2.4	2.9	0.1	0.4	--
# of Portfolios	26	19	22	11	19	26	19	12	12	25	21	14	22	--
● Total Fund	15.1 (99)	9.9 (83)	5.2 (99)	1.4 (73)	3.7 (78)	30.2 (1)	11.6 (59)	18.6 (1)	7.8 (1)	25.3 (7)	18.0 (5)	3.7 (49)	3.6 (61)	--



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

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

