

QUARTERLY PERFORMANCE REPORT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

September 28, 2020

Allan Martin, Partner

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VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

MARKET ENVIRONMENT UPDATE & OUTLOOK

NEPC, LLC

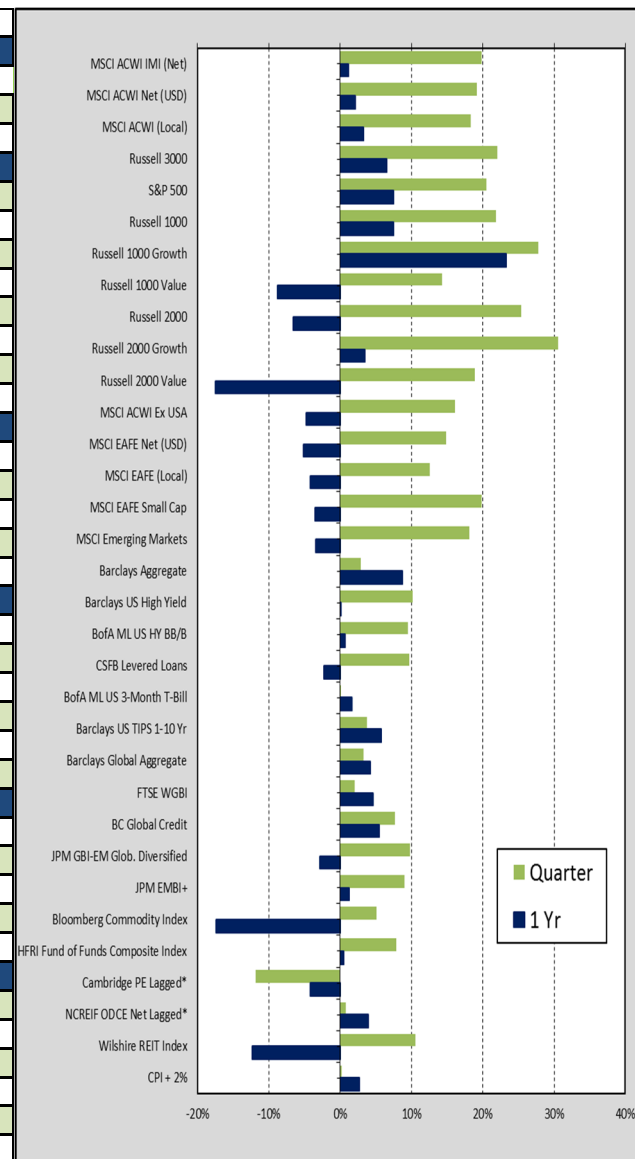
ECONOMIC ENVIRONMENT

- **Q2 Real GDP (advance estimate) plunged at an annual rate of -32.9%.**
 - Retail sales ended May at -1.3% on a YoY basis (April retail sales were down 15.5% YoY). In the same period last year the YoY growth rate was 5.7%.
 - Corporate profits (ended January) as a percent of GDP decreased to 7.6% from 8.7% (in October) and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended May at 1.5 up from 1.4 in December. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April.
 - The U.S. trade deficit widened (ended May) as the value of exports decreased by 4.4%.
- **The unemployment rate spiked up to 11.1% ended June, up from 4.4% in Q1; U-6, a broader measure of unemployment, increased to 18.0% in Q2 from 8.7% in Q1.**
- **The Case-Shiller Home Price Index (ended May) increased to 218.9 from 215.2 (in March) and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI saw a down-tick to 0.71% in Q2 from 1.52% ended Q1; Capacity Utilization decreased to 68.6 in Q2 from 73.5% in Q1.**
- **Fed Funds rate remains at a targeted range of 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q2 down to 0.7% from 0.9% in Q1.**
- **The Fed remains committed to continuing stimulative action as needed to support the US economy. The Fed's balance sheet continues to grow in wake of the pandemic.**
- **S&P valuations increased in Q2 to 29.96x, and is higher than the 10-year average of 25.9x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.7x



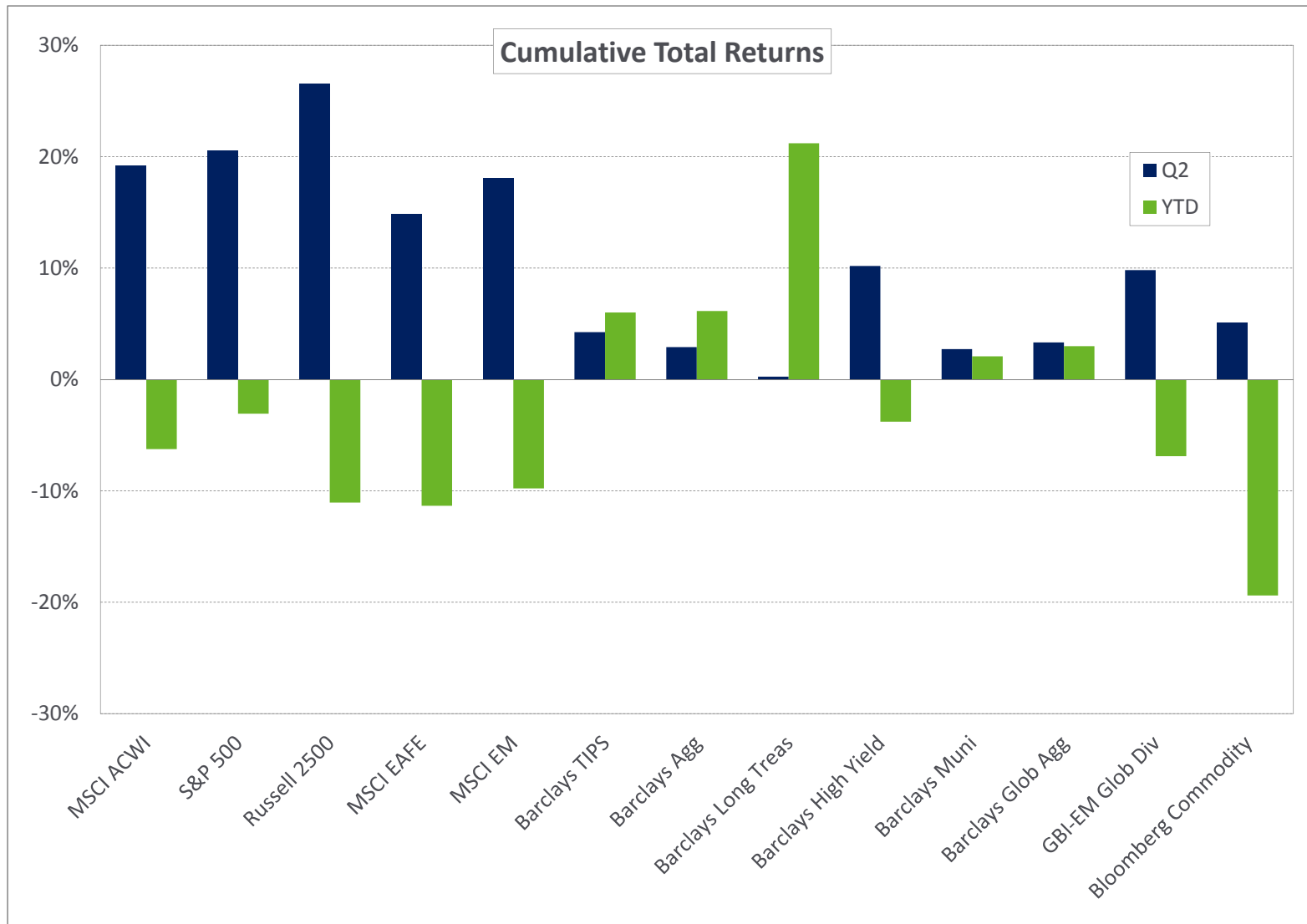
MARKET ENVIRONMENT – Q2 2020 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	19.83%	1.17%	5.55%	6.11%	9.10%
MSCI ACWI Net (USD)	World W/O Small Cap	19.22%	2.11%	6.14%	6.46%	9.16%
MSCI ACWI (Local)	World (Local Currency)	18.27%	3.27%	6.45%	6.78%	9.82%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	22.03%	6.53%	10.04%	10.03%	13.72%
S&P 500	Large Core	20.54%	7.50%	10.73%	10.73%	13.99%
Russell 1000	Large Core	21.82%	7.48%	10.64%	10.47%	13.97%
Russell 1000 Growth	Large Growth	27.84%	23.28%	18.99%	15.89%	17.23%
Russell 1000 Value	Large Value	14.29%	-8.84%	1.82%	4.64%	10.41%
Russell 2000	Small Core	25.42%	-6.63%	2.01%	4.29%	10.50%
Russell 2000 Growth	Small Growth	30.58%	3.48%	7.86%	6.86%	12.92%
Russell 2000 Value	Small Value	18.91%	-17.48%	-4.35%	1.26%	7.82%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	16.12%	-4.80%	1.13%	2.26%	4.97%
MSCI EAFE Net (USD)	Int'l Developed	14.88%	-5.13%	0.81%	2.05%	5.73%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	12.60%	-4.24%	1.26%	2.63%	6.86%
MSCI EAFE Small Cap	Small Cap Int'l	19.88%	-3.52%	0.53%	3.81%	8.02%
MSCI Emerging Markets	Emerging Equity	18.08%	-3.39%	1.90%	2.86%	3.27%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	2.90%	8.74%	5.32%	4.30%	3.82%
Barclays US High Yield	High Yield	10.18%	0.03%	3.33%	4.79%	6.68%
BofA ML US HY BB/B	High Yield	9.52%	0.69%	3.67%	4.81%	6.57%
CSFB Levered Loans	Bank Loans	9.71%	-2.27%	2.13%	2.94%	4.33%
BofA ML US 3-Month T-Bill	Cash	0.02%	1.63%	1.77%	1.19%	0.64%
Barclays US TIPS 1-10 Yr	Inflation	3.76%	5.75%	3.94%	2.97%	2.66%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	3.32%	4.22%	3.79%	3.55%	2.81%
FTSE WGBI	World Gov. Bonds	2.04%	4.60%	3.98%	3.70%	2.37%
BC Global Credit	Global Bonds	7.68%	5.49%	4.49%	4.23%	4.26%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	9.82%	-2.82%	1.14%	2.34%	1.64%
JPM EMBI+	Em. Mkt. Bonds	9.06%	1.23%	2.66%	4.91%	5.53%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	5.08%	-17.38%	-6.14%	-7.69%	-5.82%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	7.90%	0.49%	2.26%	1.50%	2.79%
Cambridge PE Lagged*	Private Equity	-11.88%	-4.18%	7.89%	8.72%	11.88%
NCREIF ODCE Net Lagged*	Real Estate	0.75%	3.93%	5.85%	7.48%	10.42%
Wishire REIT Index	REIT	10.56%	-12.31%	0.23%	3.98%	9.22%
CPI + 2%	Inflation/Real Assets	0.21%	2.72%	3.81%	3.63%	3.74%



* As of 3/31/2020

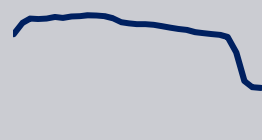


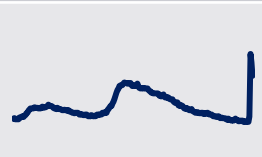

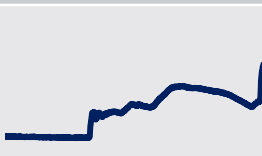
RISK ASSETS RALLIED SIGNIFICANTLY IN Q2



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



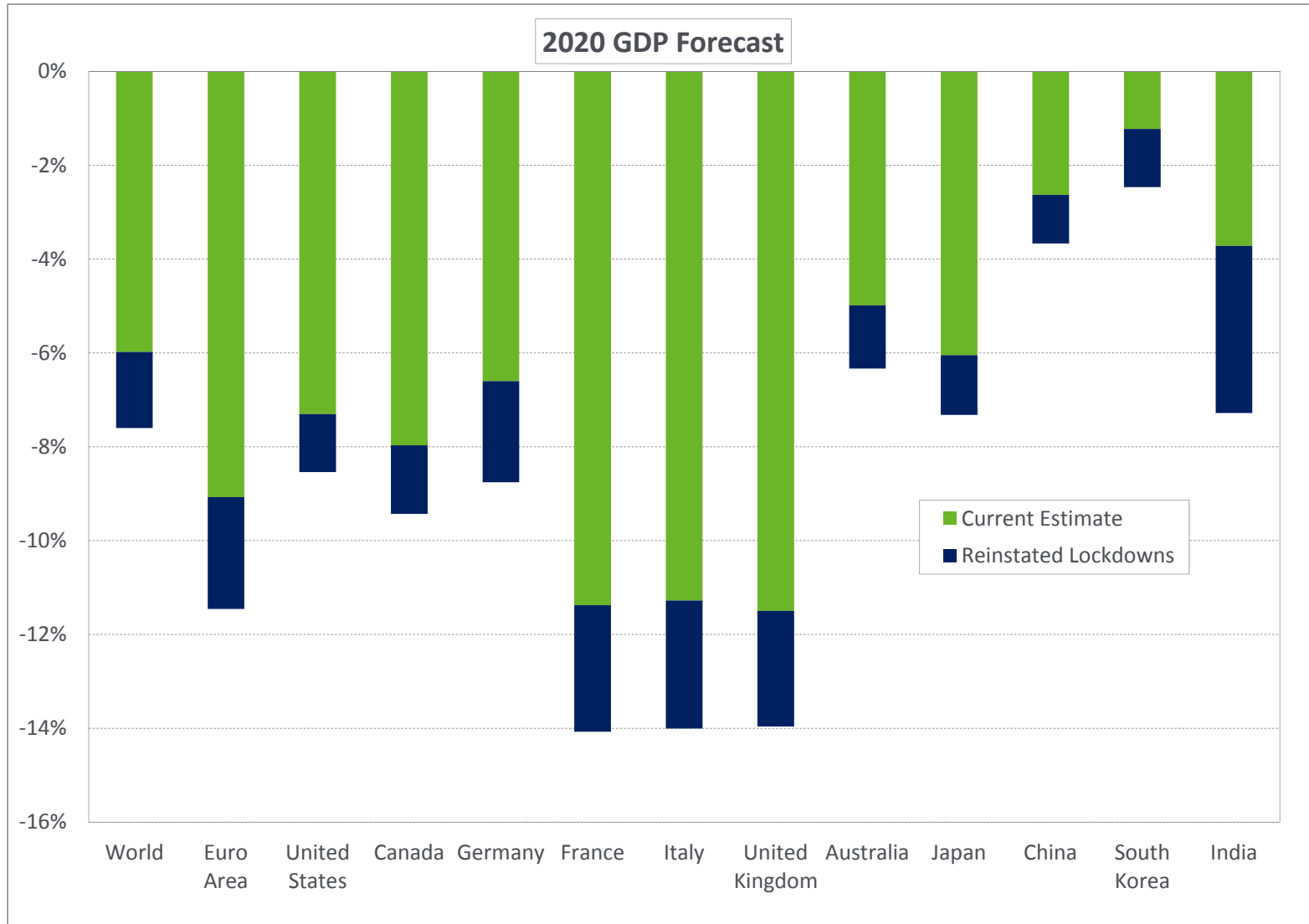
THE ECONOMIC BACKDROP IS CHALLENGED

Metric	12/31/19	03/31/20	06/30/20	Trend
S&P 500 CY 2020 Earnings Estimate	\$177.81	\$160.40	\$126.89	
US Real GDP (QoQ%)	2.1%	-5.0%	-33.4%*	
US CY 2020 Real GDP Growth Consensus	1.8%	-0.7%	-5.2%	
US Unemployment Rate	3.5%	4.4%	11.1%	
Continued Claims for Unemployment	1.7M	3.5M	19.1M	
Federal Reserve Balance Sheet as % of Nominal GDP	19.2%	24.4%	32.9%	

Source: US Bureau of Labor Statistics, Federal Reserve, FactSet, NEPC
 *The 06/30/20 real GDP figure represents the consensus estimate from FactSet



COVID WEIGHS ON GROWTH FORECASTS

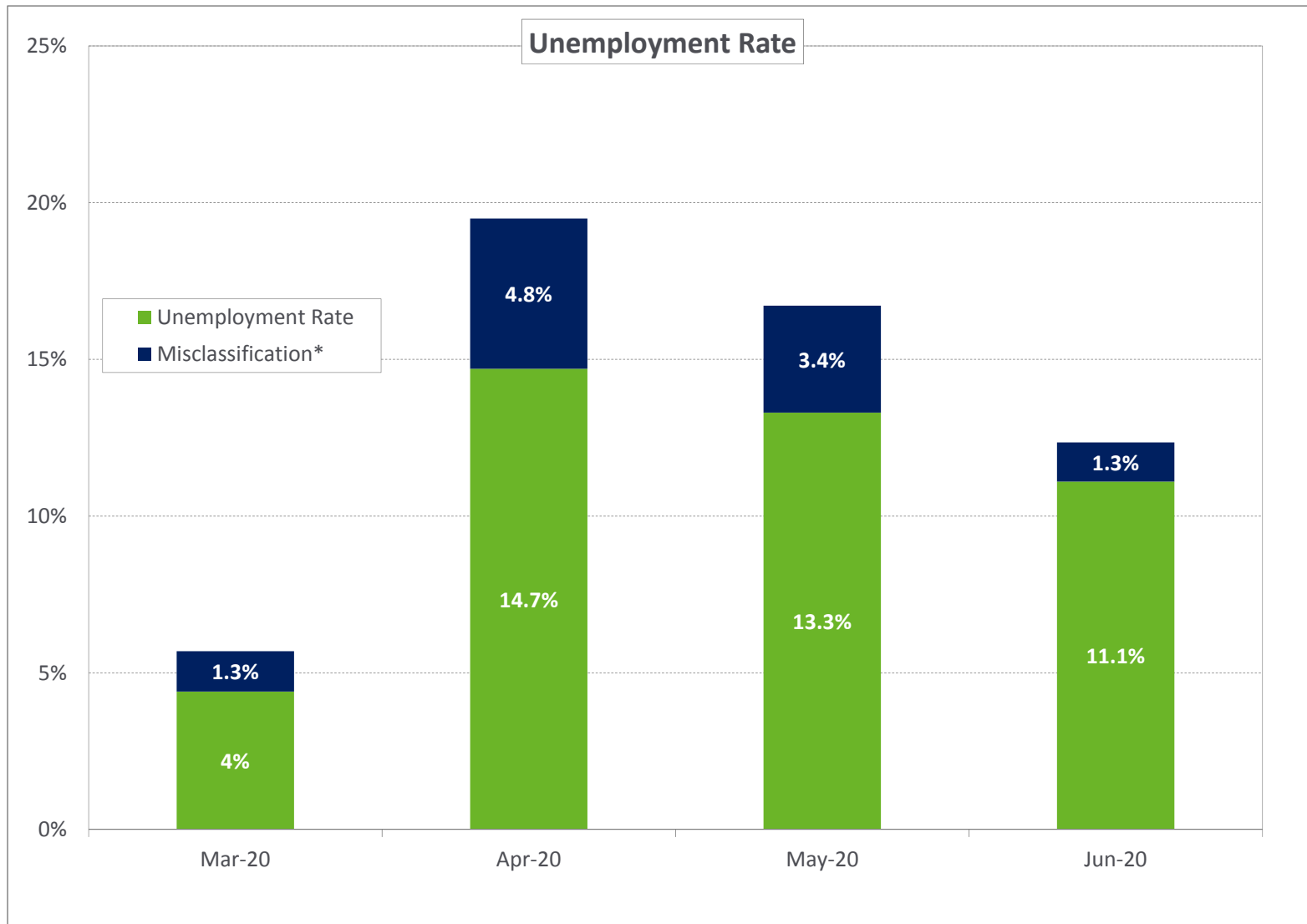


Source: OECD

The additional decline in economic growth from reinstated lockdowns represents a renewed outbreak of infections that forces economies to re-implement restrictions.



UNEMPLOYMENT MAY BE WORSE THAN REPORTED

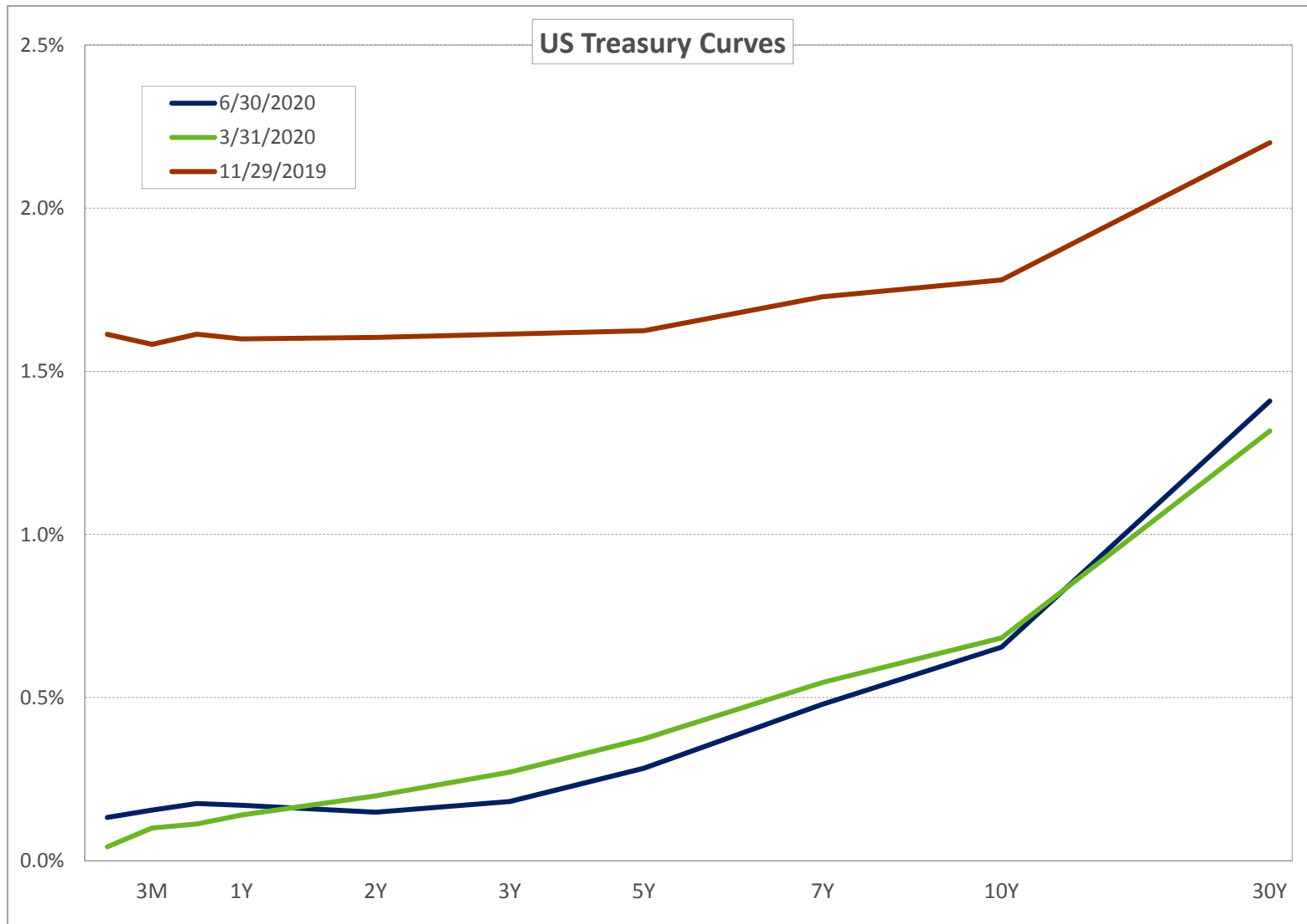


Source: Department of Labor

Misclassification* represents an estimate of "unemployed on temporary leave" mislabeled as "employed but absent from work"



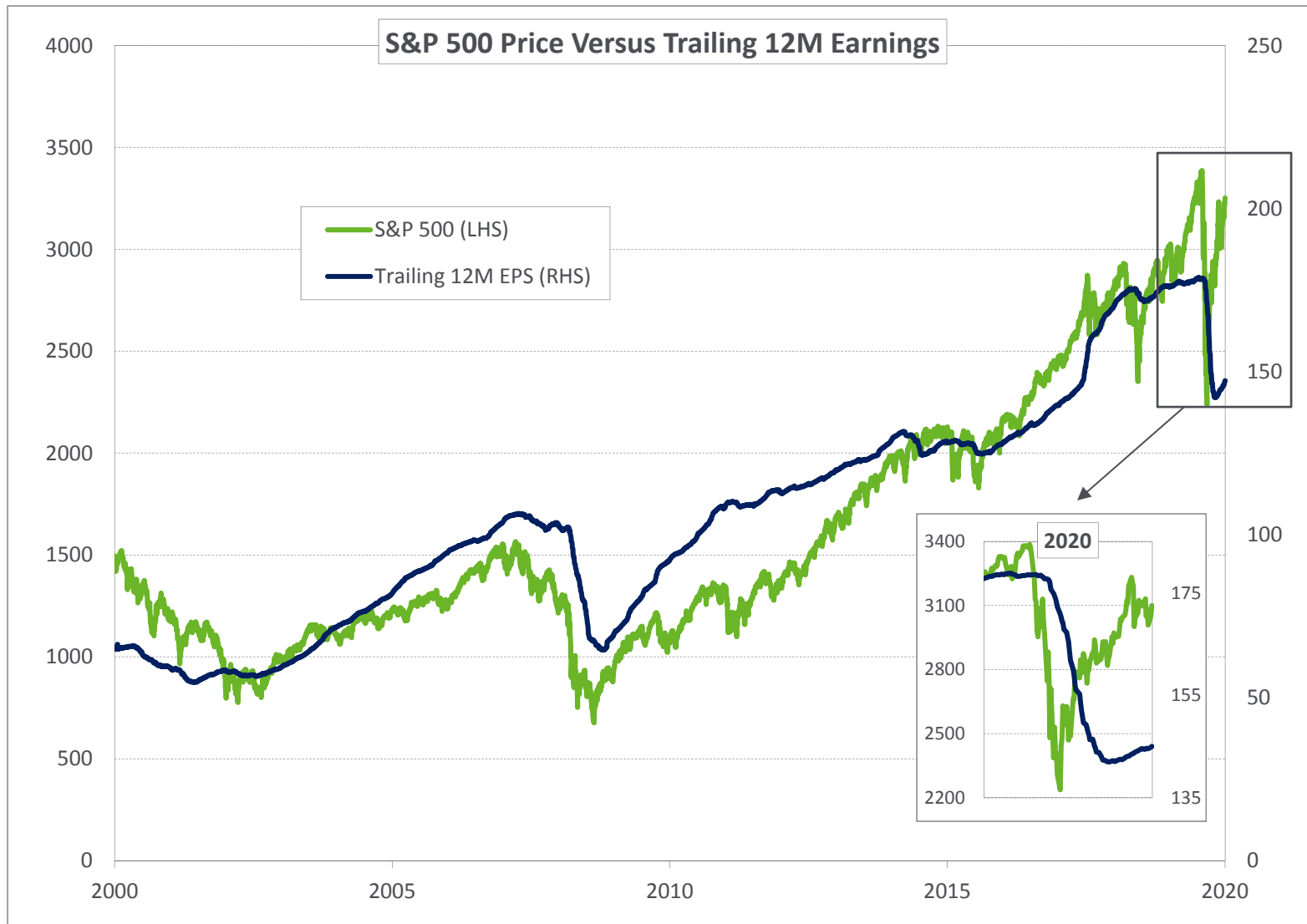
INTEREST RATES REFLECT ECONOMIC CONCERNS



Source: FactSet



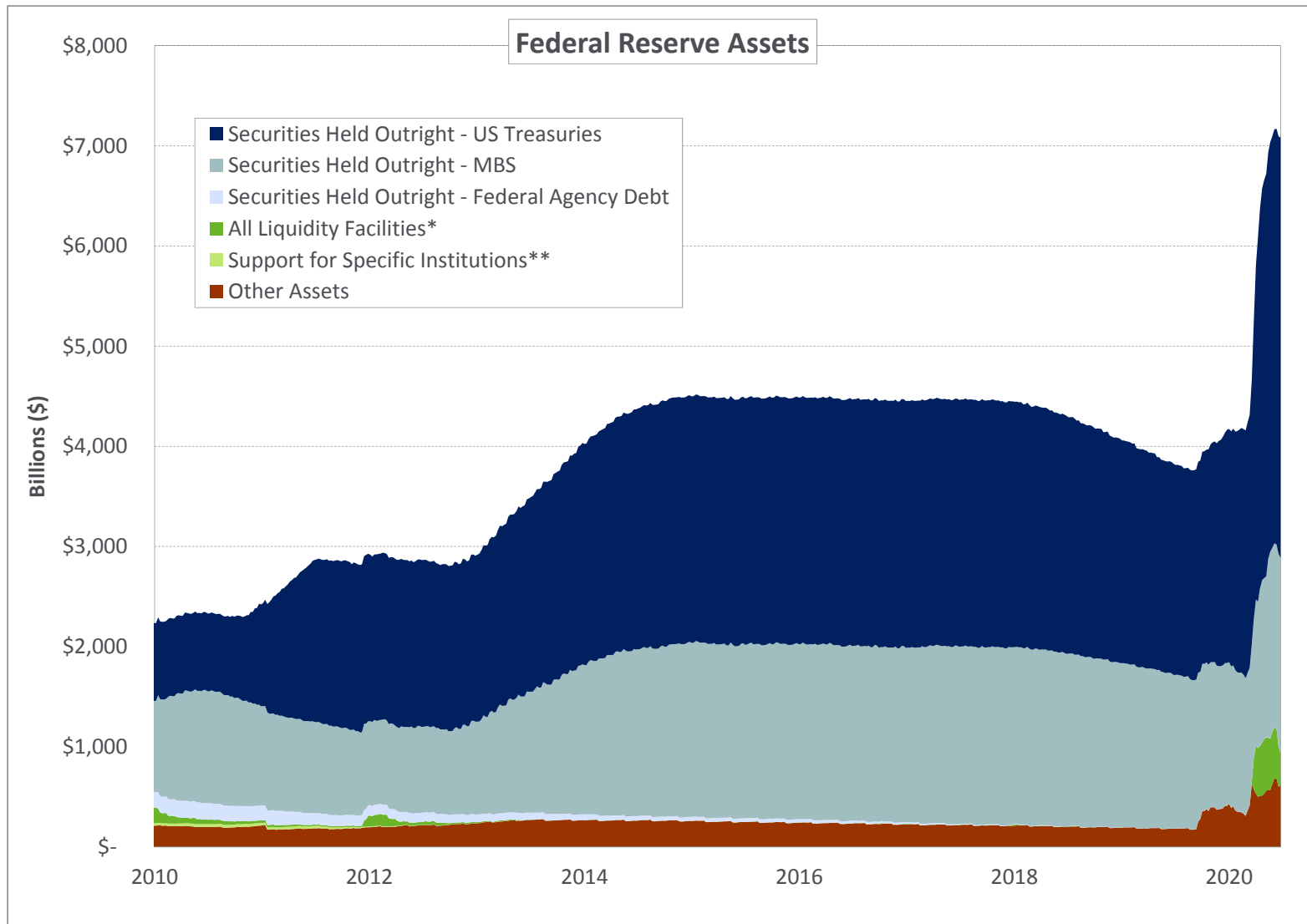
EQUITY PRICES DETACHED FROM FUNDAMENTALS



Source: S&P, FactSet
Data as of 7/20/2020



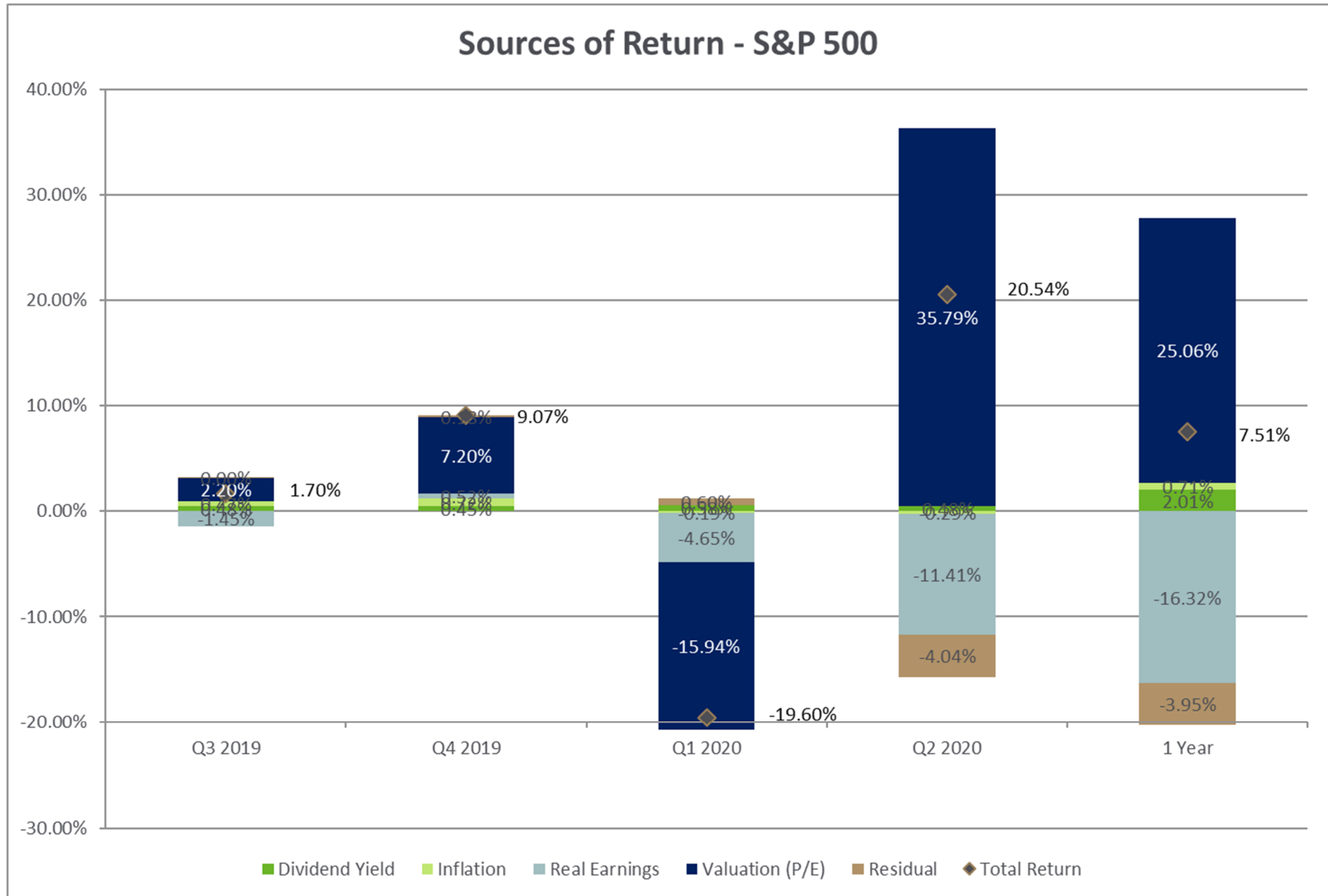
FED BALANCE SHEET GROWTH



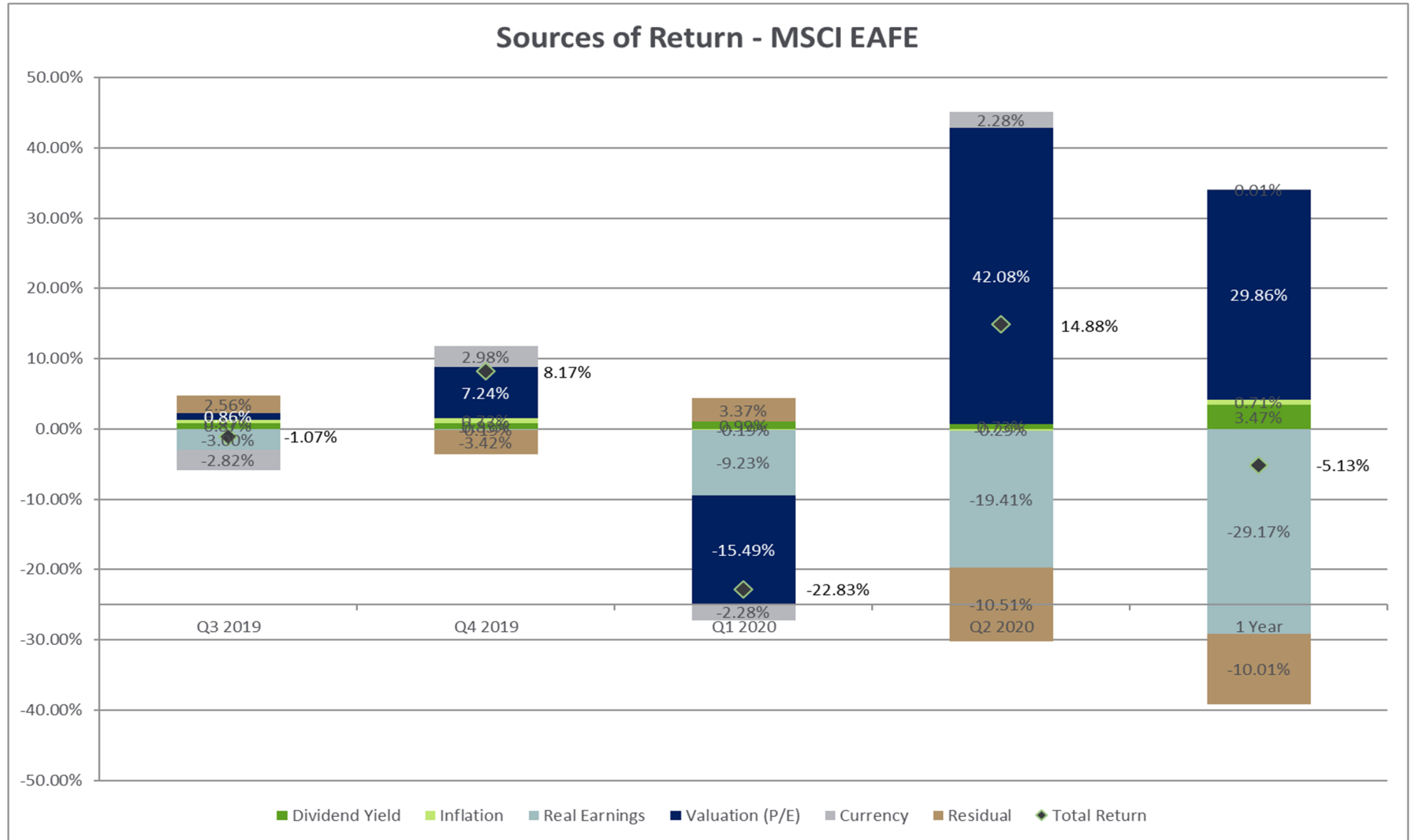
Sources: Federal Reserve, FactSet, NEPC; *All Liquidity Facilities includes term auction credit, primary credit, secondary credit, seasonal credit, Primary Dealer Credit Facility, Asset-Backed Commercial Paper, Money Market Mutual Fund Liquidity Facility, and central bank liquidity swaps; **Support for Specific Institutions includes credit extended to AIG and Maiden Lane LLCs



1 YEAR ATTRIBUTION OF S&P 500 RETURNS



1 YEAR ATTRIBUTION OF MSCI EAFE RETURNS



Spot Rates

1 USD = 0.917 Euro

1 USD = 0.891 Euro

1 USD = 0.901 Euro

1 USD = 0.890 Euro



TOTAL FUND PERFORMANCE SUMMARY

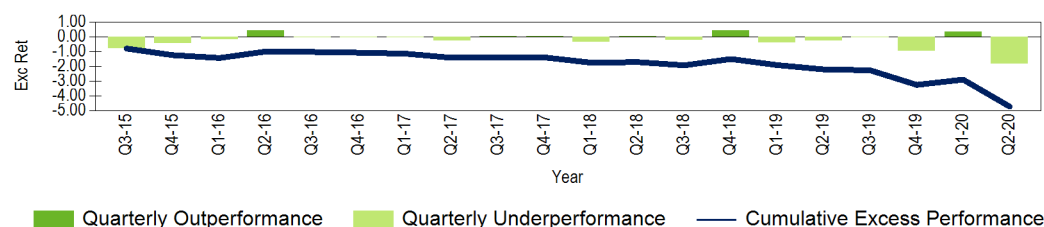
NEPC, LLC

Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE SUMMARY (NET)

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	Inception	Inception Date
Total Fund	\$5,829,965,697	11.8%	21	-3.3%	30	2.5%	29	6.1%	19	6.3%	18	8.9%	12	7.8%	Apr-94
<i>Policy Index</i>		13.6%	8	-2.1%	13	4.8%	2	7.1%	4	7.2%	3	9.2%	8	8.0%	Apr-94
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>		12.2%	16	-1.8%	10	3.7%	14	5.6%	26	5.6%	39	6.6%	96	6.3%	Apr-94
<i>60% S&P 500 / 40% BBgBarc Aggregate</i>		13.3%	9	1.0%	1	8.6%	1	8.9%	1	8.4%	1	10.1%	1	8.4%	Apr-94
<i>InvMetrics Public DB > \$1B Net Median</i>		10.1%		-4.3%		1.3%		5.0%		5.4%		7.8%		7.3%	Apr-94

Quarterly and Cumulative Excess Performance



- For the five year period ending June 30, 2020, the Fund returned 6.3% trailing the policy index by 0.9% and ranking in the 18th percentile of its peers and underperforming the actuarial assumed rate of 7.25%. The Fund's volatility, as measured by standard deviation, ranked in the 79th percentile of its peers, and the risk-adjusted return, or Sharpe Ratio, ranks in the 39th percentile. This means that the Fund has earned more return per unit of volatility taken than 61% of its peers.

- For the three-year period, the Fund returned 6.1%, underperforming the policy index and ranking in the 19th percentile of its peers. The Fund's volatility ranks in the 77th percentile of its peers over this period, with the Fund's Sharpe Ratio ranking in the 31st percentile.

- For the one-year period, the Fund returned 2.5%, underperforming the policy index by 2.3% and ranking in the 29th percentile of the Investment Metrics Public Funds > \$1 Billion Universe (Net of fees).

- For the one-year period, the Fund experienced a net investment gain of \$160.5 million which includes a net investment gain of \$620.6 million in the quarter. Assets increased from \$5.72 billion one year ago to \$5.83 billion.

3 Years Ending June 30, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	6.1%	19	10.3%	77	0.4	31	0.5	23
Policy Index	7.1%	4	10.8%	86	0.5	16	0.6	13
InvMetrics Public DB > \$1B Net Median	5.0%	--	9.3%	--	0.4	--	0.3	--

5 Years Ending June 30, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	6.3%	18	9.1%	79	0.6	39	0.6	35
Policy Index	7.2%	3	9.4%	83	0.6	23	0.7	19
InvMetrics Public DB > \$1B Net Median	5.4%	--	8.3%	--	0.5	--	0.5	--

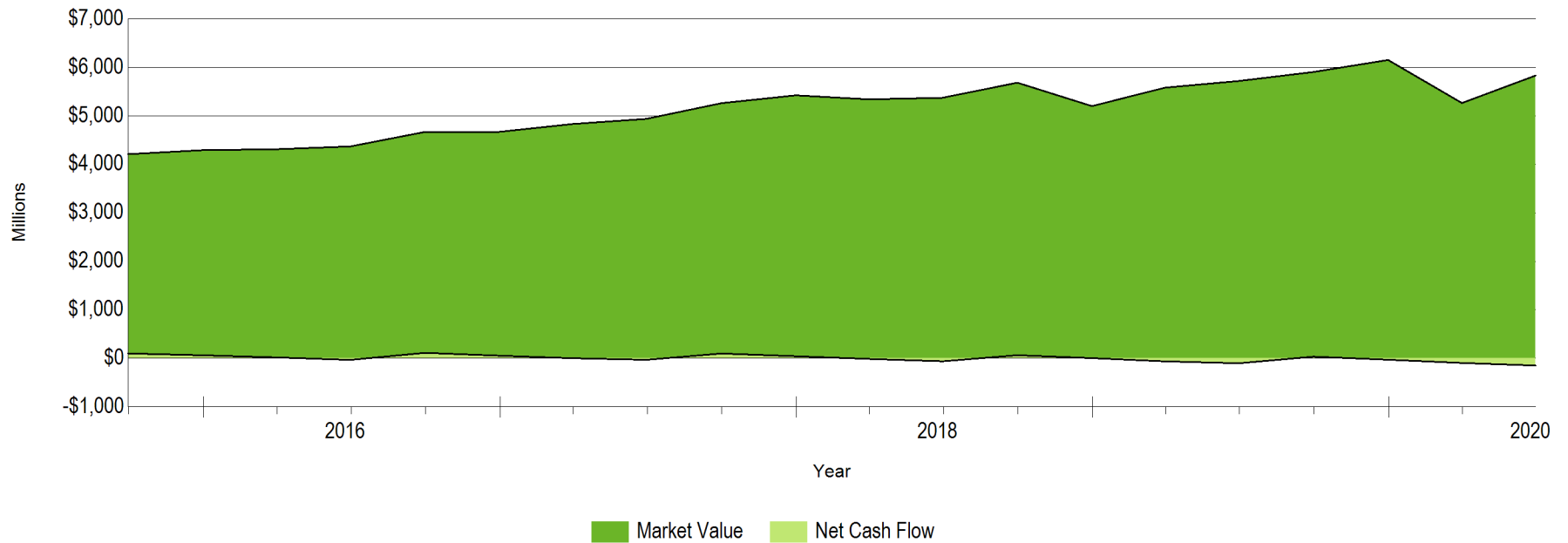
Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%.



Ventura County Employees' Retirement Association

TOTAL FUND ASSET GROWTH SUMMARY

Market Value History
5 Years Ending June 30, 2020

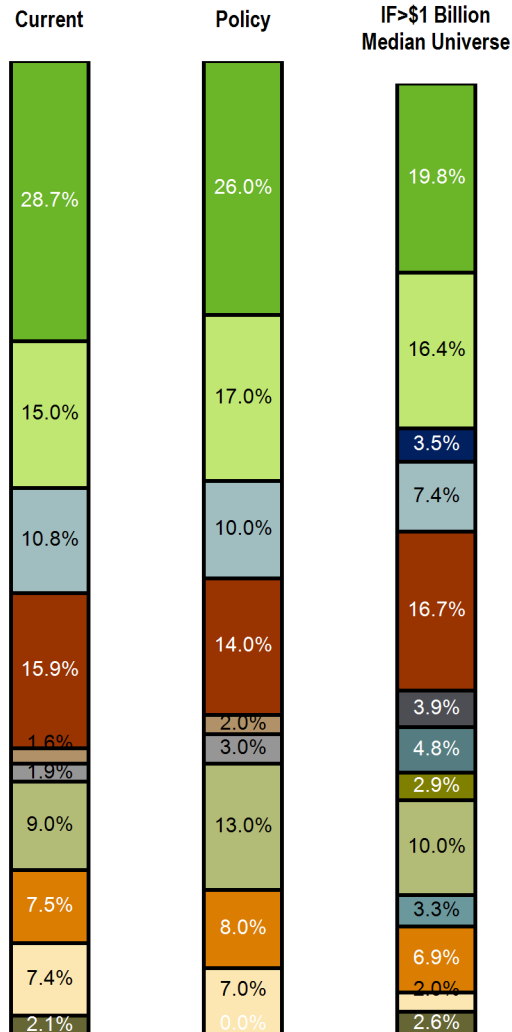


Summary of Cash Flows

	Last Three Months	One Year	Three Years	Five Years
Beginning Market Value	\$5,262,294,731	\$5,716,158,441	\$4,935,381,791	\$4,338,136,581
Net Cash Flow	-\$52,945,304	-\$46,718,386	-\$118,317,847	-\$147,979,152
Net Investment Change	\$620,616,270	\$160,525,642	\$1,012,901,754	\$1,639,808,269
Ending Market Value	\$5,829,965,697	\$5,829,965,697	\$5,829,965,697	\$5,829,965,697



ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target						
	Current	Current	Policy Difference*	Policy Range	Within Range	
U.S. Equity	\$1,670,991,770	28.7%	26.0%	2.7%	21.0% - 31.0%	Yes
Non-US Equity	\$876,973,762	15.0%	17.0%	-2.0%	13.0% - 21.0%	Yes
Emerging Markets Equity	--	--	--	0.0%		
Global Equity	\$628,815,808	10.8%	10.0%	0.8%	7.0% - 13.0%	Yes
U.S. Fixed Income	\$928,690,820	15.9%	14.0%	1.9%	14.0% - 22.0%	Yes
Treasury	\$93,528,297	1.6%	2.0%	-0.4%	0.0% - 5.0%	Yes
Fixed Income - Emerging	--	--	--	0.0%		
Fixed Income - Global	--	--	--	0.0%		
GAA/Risk Parity	--	--	--	0.0%		
Private Debt	\$107,878,106	1.9%	3.0%	-1.1%	0.0% - 5.0%	Yes
Private Equity	\$526,271,784	9.0%	13.0%	-4.0%	5.0% - 15.0%	Yes
Hedge Funds	--	--	--	0.0%		
Real Estate	\$438,755,747	7.5%	8.0%	-0.5%	0.0% - 9.0%	Yes
Real Assets	\$432,749,261	7.4%	7.0%	0.4%	0.0% - 9.0%	Yes
Cash	\$123,329,705	2.1%	0.0%	2.1%	0.0% - 3.0%	Yes
Total	\$5,827,985,060	100.0%	100.0%			

*Difference between Policy and Current Allocation

Cash represents assets in Parametric Overlay.

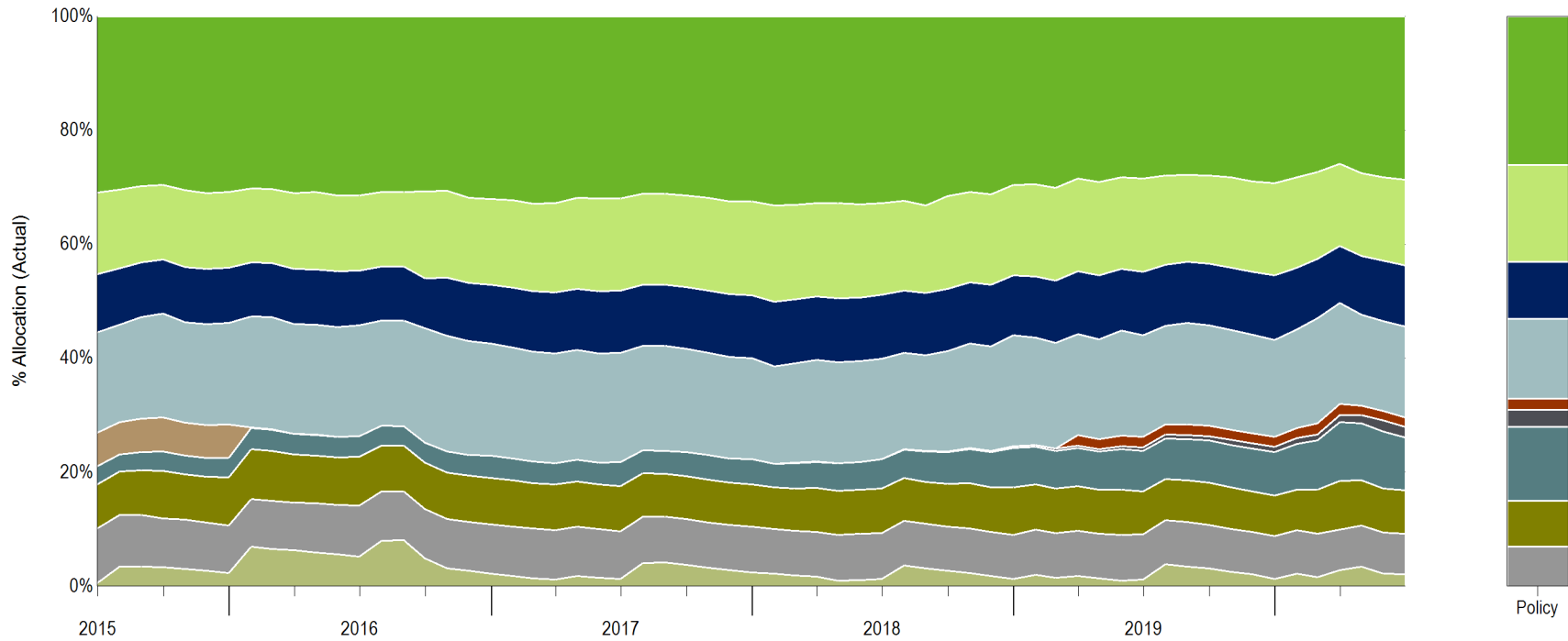
Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%.

Asset Allocation vs. Policy Targets chart does not reflect Overlay adjusted weights.



TOTAL FUND ALLOCATION HISTORY

Asset Allocation History
5 Years Ending June 30, 2020



- U.S. Equity
- Global Equity
- Treasury
- Private Debt
- Real Estate
- Real Assets
- Cash
- Non-US Equity
- U.S. Fixed Income
- Global Bonds
- Private Equity

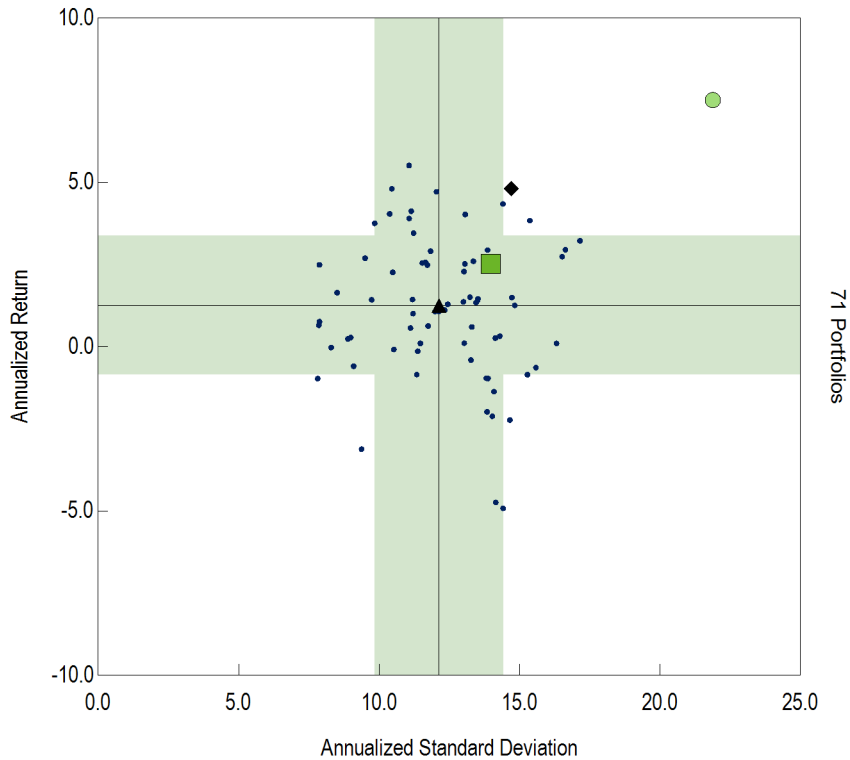
Policy Index shown is most recently approved index



Ventura County Employees' Retirement Association

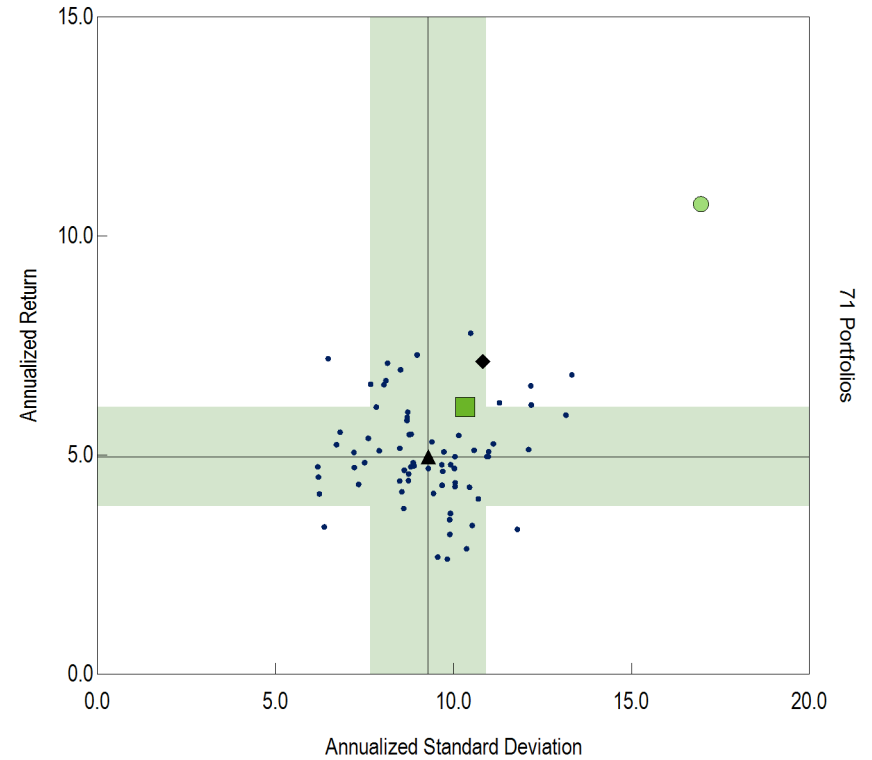
TOTAL FUND RISK/RETURN

1 Years Ending June 30, 2020



- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

3 Years Ending June 30, 2020



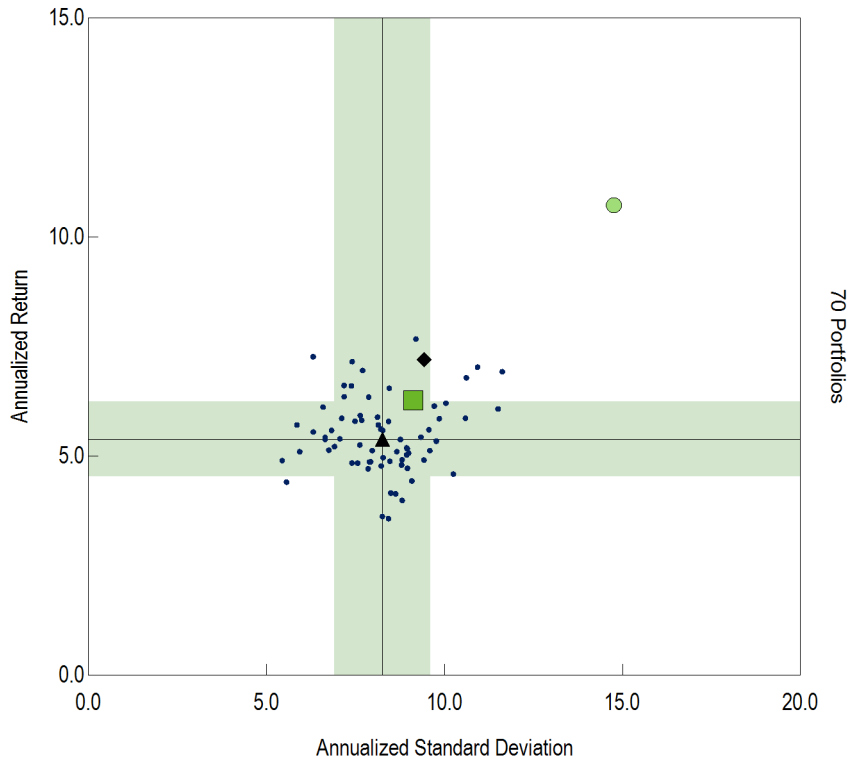
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



Ventura County Employees' Retirement Association

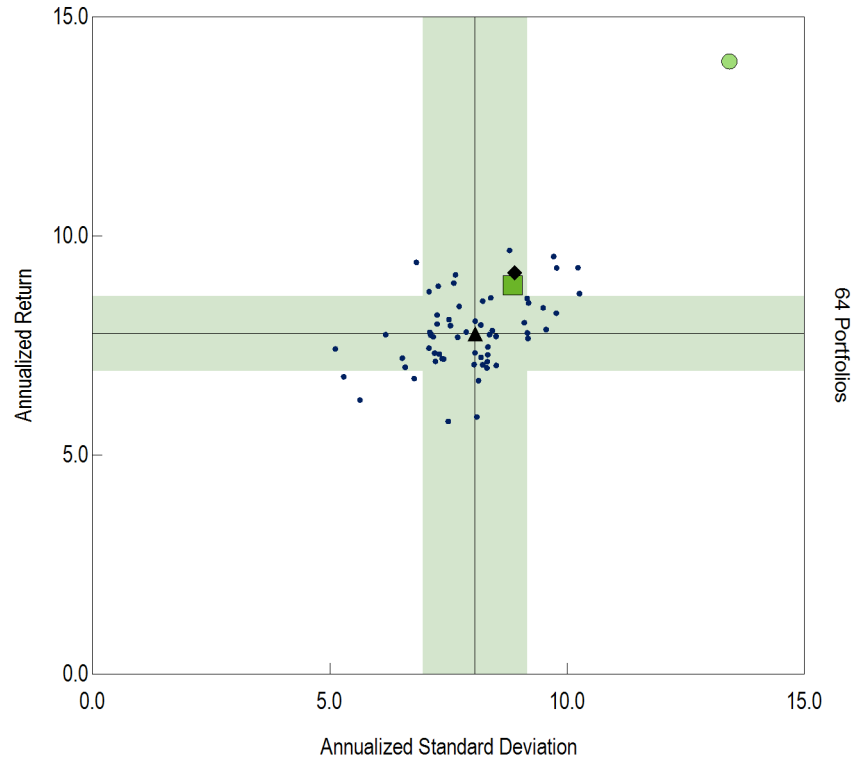
TOTAL FUND RISK/RETURN

5 Years Ending June 30, 2020



- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

10 Years Ending June 30, 2020



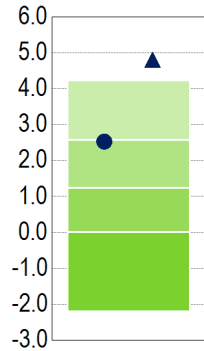
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

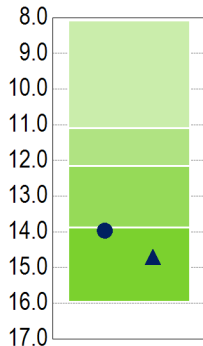
Anlzd Return



● Total Fund
Value 2.5
Rank 29
▲ Policy Index
Value 4.8
Rank 2

Universe
5th %tile 4.2
25th %tile 2.6
Median 1.3
75th %tile 0.0
95th %tile -2.2

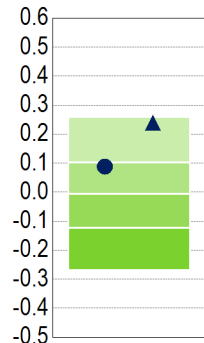
Anlzd Standard Deviation



● Total Fund
Value 14.0
Rank 77
▲ Policy Index
Value 14.7
Rank 89

Universe
5th %tile 8.1
25th %tile 11.1
Median 12.1
75th %tile 13.9
95th %tile 15.9

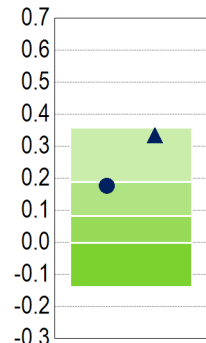
Sharpe Ratio



● Total Fund
Value 0.1
Rank 33
▲ Policy Index
Value 0.2
Rank 9

Universe
5th %tile 0.3
25th %tile 0.1
Median 0.0
75th %tile -0.1
95th %tile -0.3

Sortino Ratio



● Total Fund
Value 0.2
Rank 29
▲ Policy Index
Value 0.3
Rank 6

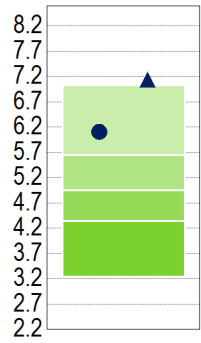
Universe
5th %tile 0.4
25th %tile 0.2
Median 0.1
75th %tile 0.0
95th %tile -0.1



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

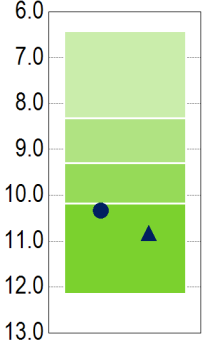
Anlzd Return



● Total Fund
Value 6.1
Rank 19
▲ Policy Index
Value 7.1
Rank 4

Universe
5th %tile 7.0
25th %tile 5.7
Median 5.0
75th %tile 4.4
95th %tile 3.2

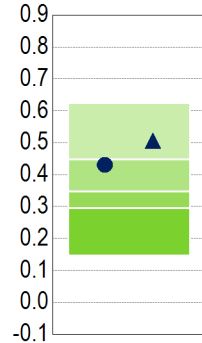
Anlzd Standard Deviation



● Total Fund
Value 10.3
Rank 77
▲ Policy Index
Value 10.8
Rank 86

Universe
5th %tile 6.4
25th %tile 8.3
Median 9.3
75th %tile 10.2
95th %tile 12.1

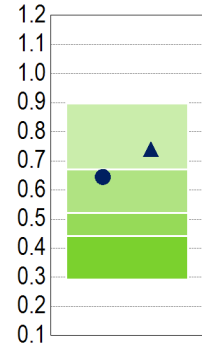
Sharpe Ratio



● Total Fund
Value 0.4
Rank 31
▲ Policy Index
Value 0.5
Rank 16

Universe
5th %tile 0.6
25th %tile 0.4
Median 0.4
75th %tile 0.3
95th %tile 0.1

Sortino Ratio



● Total Fund
Value 0.6
Rank 30
▲ Policy Index
Value 0.7
Rank 13

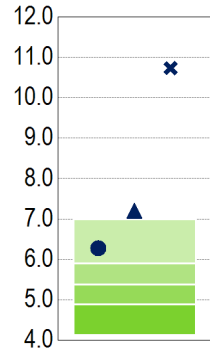
Universe
5th %tile 0.9
25th %tile 0.7
Median 0.5
75th %tile 0.4
95th %tile 0.3



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

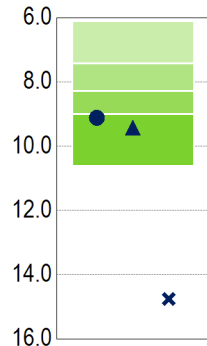
Anlzd Return



● Total Fund	
Value	6.3
Rank	18
▲ Policy Index	
Value	7.2
Rank	3
✕ S&P 500	
Value	10.7
Rank	1

Universe	
5th %tile	7.0
25th %tile	5.9
Median	5.4
75th %tile	4.9
95th %tile	4.2

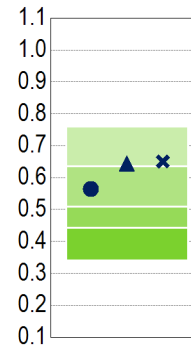
Anlzd Standard Deviation



● Total Fund	
Value	9.1
Rank	79
▲ Policy Index	
Value	9.4
Rank	83
✕ S&P 500	
Value	14.8
Rank	99

Universe	
5th %tile	6.1
25th %tile	7.4
Median	8.3
75th %tile	9.0
95th %tile	10.6

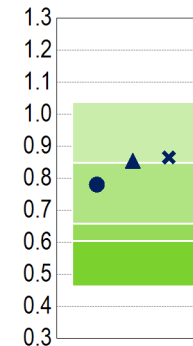
Sharpe Ratio



● Total Fund	
Value	0.6
Rank	39
▲ Policy Index	
Value	0.6
Rank	23
✕ S&P 500	
Value	0.7
Rank	21

Universe	
5th %tile	0.8
25th %tile	0.6
Median	0.5
75th %tile	0.4
95th %tile	0.3

Sortino Ratio



● Total Fund	
Value	0.8
Rank	37
▲ Policy Index	
Value	0.9
Rank	25
✕ S&P 500	
Value	0.9
Rank	24

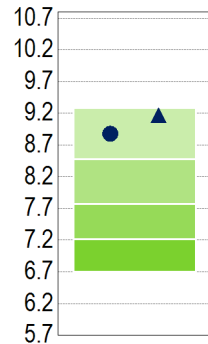
Universe	
5th %tile	1.0
25th %tile	0.9
Median	0.7
75th %tile	0.6
95th %tile	0.5



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

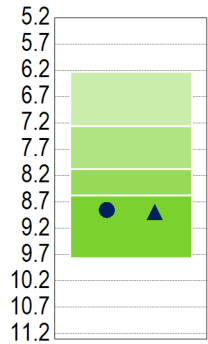
Total Fund vs. InvMetrics Public DB > \$1B Net 10 Years

Anlzd Return



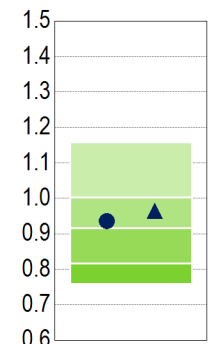
● Total Fund	
Value	8.9
Rank	12
▲ Policy Index	
Value	9.2
Rank	8
Universe	
5th %tile	9.3
25th %tile	8.5
Median	7.8
75th %tile	7.2
95th %tile	6.7

Anlzd Standard Deviation



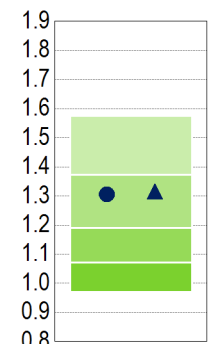
● Total Fund	
Value	8.9
Rank	80
▲ Policy Index	
Value	8.9
Rank	81
Universe	
5th %tile	6.2
25th %tile	7.3
Median	8.1
75th %tile	8.6
95th %tile	9.8

Sharpe Ratio



● Total Fund	
Value	0.9
Rank	40
▲ Policy Index	
Value	1.0
Rank	35
Universe	
5th %tile	1.2
25th %tile	1.0
Median	0.9
75th %tile	0.8
95th %tile	0.8

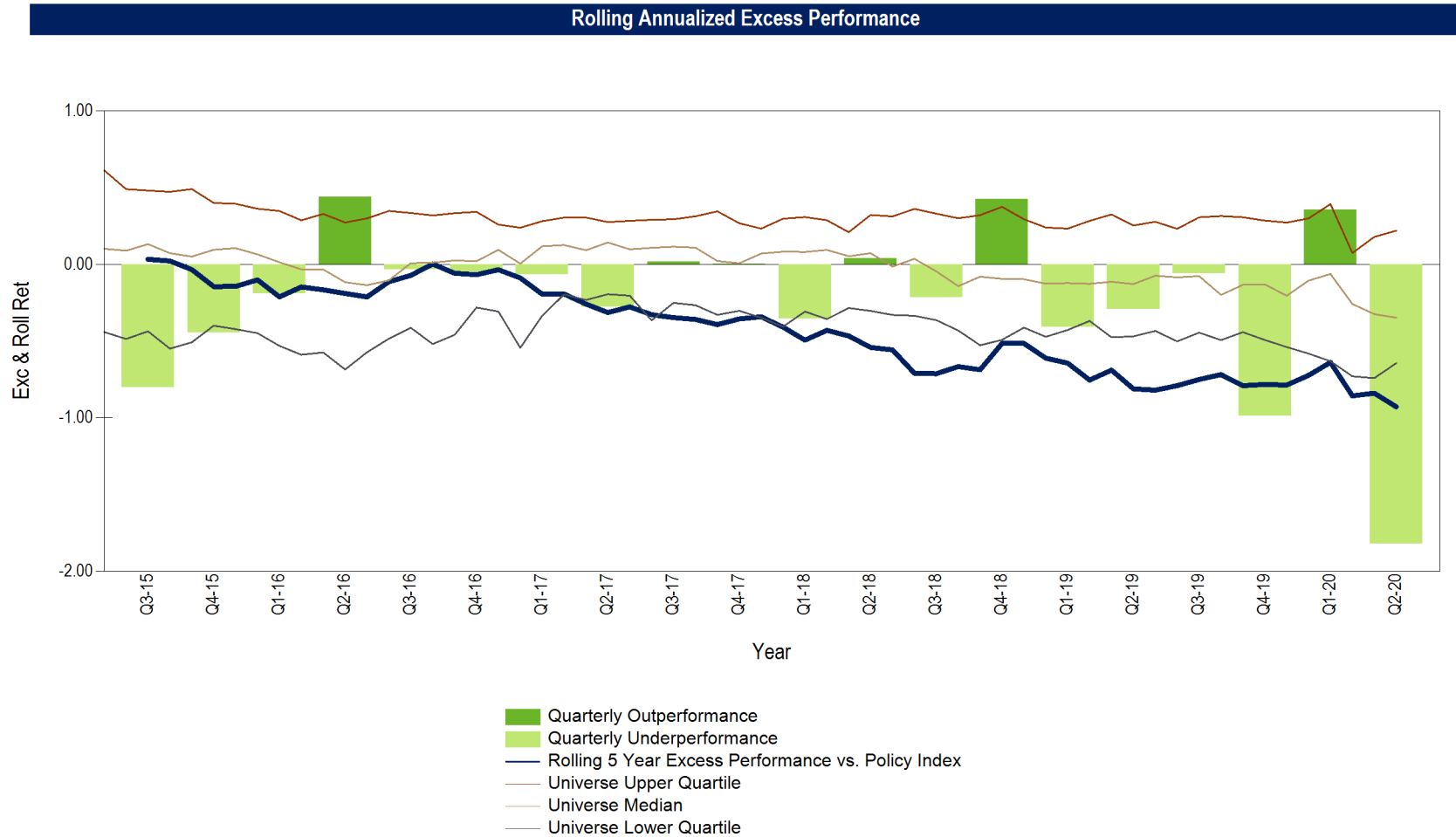
Sortino Ratio



● Total Fund	
Value	1.3
Rank	32
▲ Policy Index	
Value	1.3
Rank	29
Universe	
5th %tile	1.6
25th %tile	1.4
Median	1.2
75th %tile	1.1
95th %tile	1.0

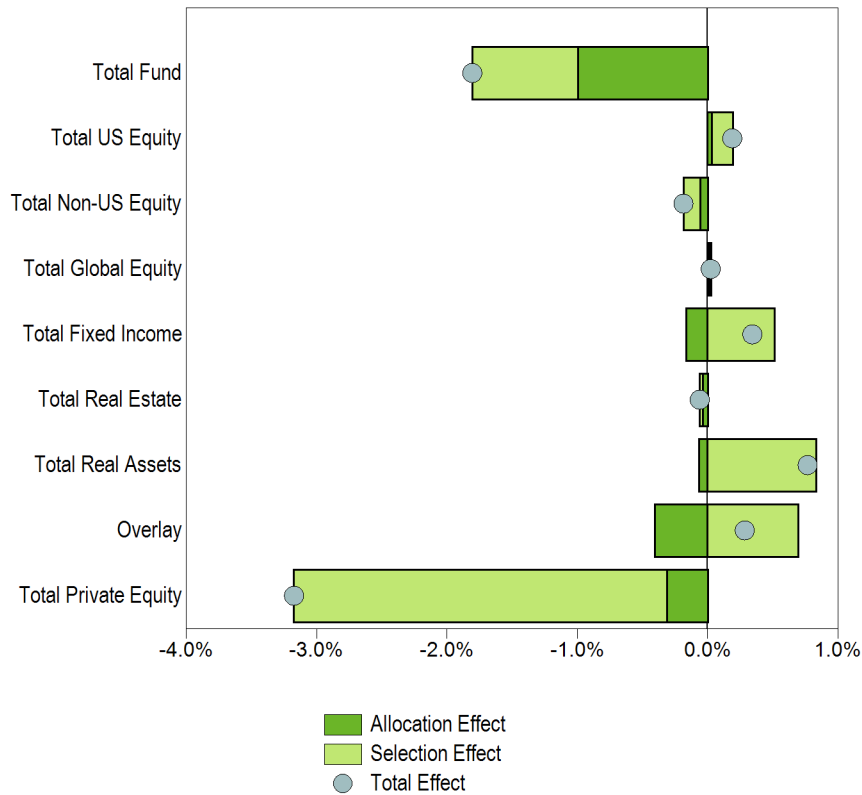


ROLLING 5 YEAR EXCESS RETURNS- NET OF FEES



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Months Ending June 30, 2020



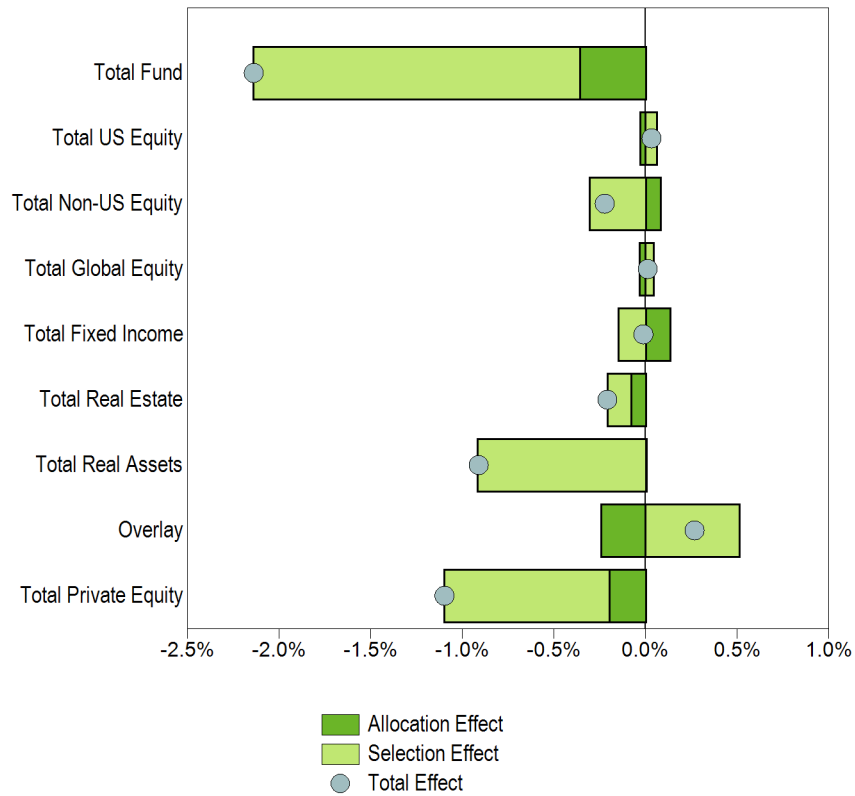
Attribution Summary						
3 Months Ending June 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	22.6%	22.0%	0.6%	0.2%	0.0%	0.2%
Total Non-US Equity	15.2%	16.1%	-0.9%	-0.1%	-0.1%	-0.2%
Total Global Equity	19.3%	19.2%	0.1%	0.0%	0.0%	0.0%
Total Fixed Income	5.3%	2.9%	2.4%	0.5%	-0.1%	0.4%
Total Real Estate	-2.0%	-1.8%	-0.3%	0.0%	0.0%	-0.1%
Total Real Assets	10.9%	0.4%	10.5%	0.8%	-0.1%	0.8%
Overlay	24.6%	0.0%	24.5%	0.7%	-0.4%	0.3%
Total Private Equity	-6.3%	22.9%	-29.1%	-2.9%	-0.3%	-3.2%
Total	11.8%	13.6%	-1.8%	-0.9%	-1.0%	-1.8%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
1 Year Ending June 30, 2020



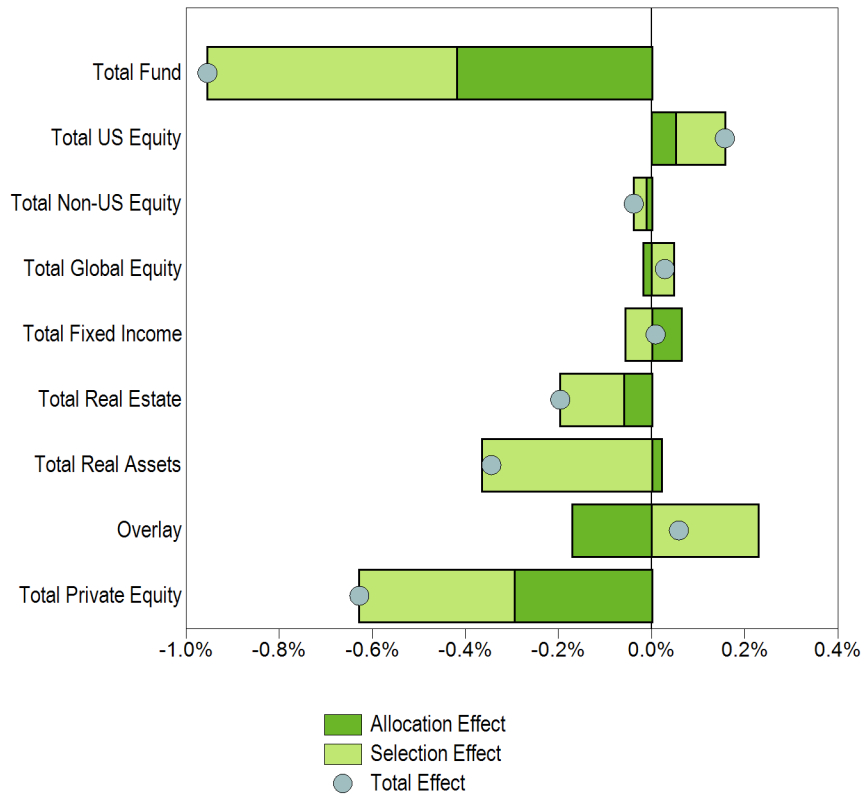
Attribution Summary						
1 Year Ending June 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	6.6%	6.5%	0.1%	0.1%	0.0%	0.0%
Total Non-US Equity	-6.6%	-4.8%	-1.8%	-0.3%	0.1%	-0.2%
Total Global Equity	2.5%	2.1%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	8.2%	8.7%	-0.6%	-0.1%	0.1%	0.0%
Total Real Estate	-0.4%	1.3%	-1.7%	-0.1%	-0.1%	-0.2%
Total Real Assets	-9.6%	2.7%	-12.3%	-0.9%	0.0%	-0.9%
Overlay	8.6%	1.3%	7.3%	0.4%	-0.2%	0.2%
Total Private Equity	3.2%	9.7%	-6.5%	-0.9%	-0.2%	-1.1%
Total	2.5%	4.8%	-2.3%	-2.0%	-0.3%	-2.3%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Years Ending June 30, 2020

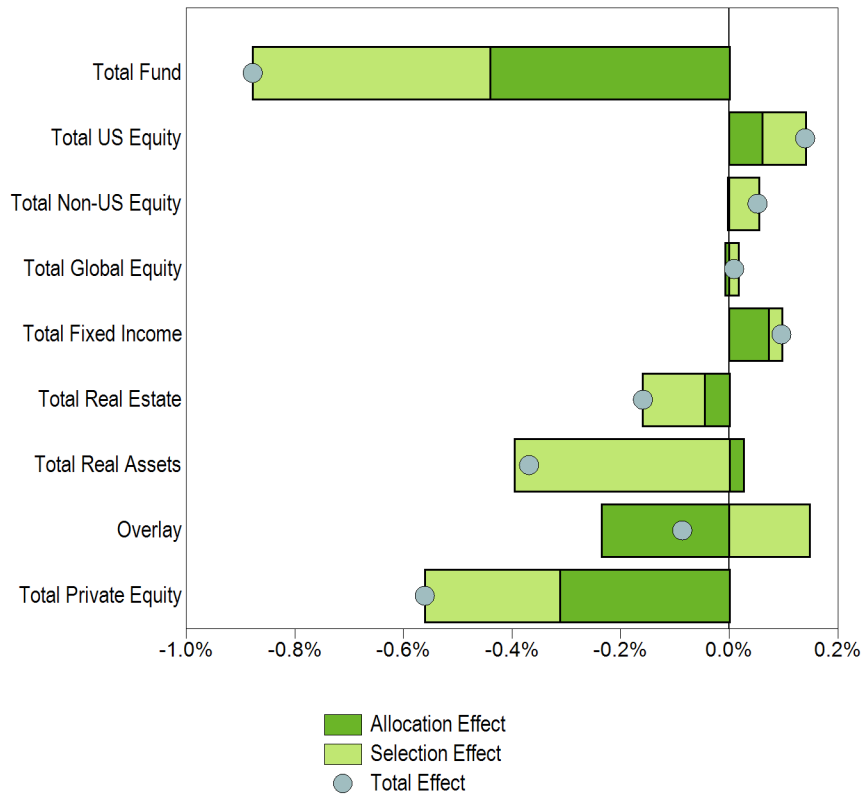


Attribution Summary						
3 Years Ending June 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	10.4%	10.0%	0.3%	0.1%	0.0%	0.1%
Total Non-US Equity	1.0%	1.1%	-0.2%	0.0%	0.0%	0.0%
Total Global Equity	6.6%	6.1%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	5.1%	5.3%	-0.2%	-0.1%	0.0%	0.0%
Total Real Estate	3.0%	4.7%	-1.7%	-0.1%	-0.1%	-0.2%
Total Real Assets	-0.2%	5.1%	-5.3%	-0.4%	0.0%	-0.3%
Overlay	10.1%	1.7%	8.4%	0.2%	-0.2%	0.0%
Total Private Equity	11.7%	13.3%	-1.6%	-0.3%	-0.3%	-0.6%
Total	6.1%	7.1%	-1.0%	-0.6%	-0.4%	-1.0%



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
5 Years Ending June 30, 2020



Attribution Summary						
5 Years Ending June 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	10.3%	10.0%	0.2%	0.1%	0.1%	0.1%
Total Non-US Equity	2.7%	2.3%	0.5%	0.1%	0.0%	0.1%
Total Global Equity	6.6%	6.5%	0.1%	0.0%	0.0%	0.0%
Total Fixed Income	4.5%	4.3%	0.2%	0.0%	0.1%	0.1%
Total Real Estate	4.9%	6.3%	-1.4%	-0.1%	0.0%	-0.2%
Total Real Assets	-0.1%	5.2%	-5.3%	-0.4%	0.0%	-0.4%
Overlay	6.6%	1.1%	5.4%	0.1%	-0.2%	-0.1%
Total Private Equity	12.0%	13.3%	-1.3%	-0.3%	-0.3%	-0.6%
Total	6.3%	7.2%	-0.9%	-0.5%	-0.4%	-0.9%



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

1 Year Ending June 30, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.5%	1.9%	35	22.4%	77	-0.3%	33	1.0%	13	-0.2	37	1.0
MSCI ACWI	--	2.1%	29	21.6%	49	0.0%	29	0.0%	1	--	--	1.0
Total US Equity	28.7%	6.6%	8	23.9%	76	0.0%	13	0.7%	7	0.2	12	1.0
Russell 3000	--	6.5%	9	23.3%	64	0.0%	12	0.0%	1	--	--	1.0
Total Non-US Equity	15.0%	-6.6%	86	21.3%	33	-1.8%	89	0.9%	4	-1.9	99	1.0
MSCI ACWI ex USA	--	-4.8%	73	21.3%	33	0.0%	75	0.0%	1	--	--	1.0
Total Global Equity	10.8%	2.5%	21	21.5%	78	0.4%	31	0.2%	1	2.2	3	1.0
MSCI ACWI	--	2.1%	38	21.6%	80	0.0%	46	0.0%	1	--	--	1.0
Total Fixed Income	19.7%	8.2%	21	4.6%	49	-0.9%	34	2.6%	53	-0.2	37	1.1
Total Fixed Income Policy Index	--	8.7%	13	3.7%	31	0.0%	22	0.0%	1	--	--	1.0
Total US Fixed Income	15.9%	8.9%	15	5.8%	81	-0.8%	39	4.2%	83	0.0	28	1.1
BBgBarc US Aggregate TR	--	8.7%	19	3.7%	42	0.0%	17	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-9.6%	--	19.5%	--	-7.7%	--	19.6%	--	-0.6	--	-2.4
Real Assets Index	--	2.7%	--	1.1%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.5%	-0.4%	79	2.4%	42
NCREIF ODCE Net	--	1.3%	46	2.6%	45
Total Private Equity	8.7%	3.2%	32	9.8%	57
Russell 3000 + 3%	--	9.7%	3	23.3%	99

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE.

Composite rankings are used for Total Equity (InvMetrics Public DB Total Eq consists of 91 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 168 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 114 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 45 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 92 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 99 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 55 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 46 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

3 Years Ending June 30, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.5%	6.9%	20	16.7%	61	0.7%	18	0.9%	8	0.9	11	1.0
MSCI ACWI	--	6.1%	48	16.3%	34	0.0%	36	0.0%	1	--	--	1.0
Total US Equity	28.7%	10.4%	8	17.9%	58	0.2%	8	0.5%	5	0.6	6	1.0
Russell 3000	--	10.0%	11	17.7%	42	0.0%	10	0.0%	1	--	--	1.0
Total Non-US Equity	15.0%	1.0%	53	15.7%	21	-0.2%	51	1.0%	5	-0.2	62	1.0
MSCI ACWI ex USA	--	1.1%	49	15.9%	28	0.0%	47	0.0%	1	--	--	1.0
Total Global Equity	10.8%	6.6%	3	16.2%	72	0.4%	9	0.1%	1	3.3	1	1.0
MSCI ACWI	--	6.1%	8	16.3%	73	0.0%	57	0.0%	1	--	--	1.0
Total Fixed Income	19.7%	5.1%	17	3.4%	42	0.1%	30	1.6%	38	-0.1	34	0.9
Total Fixed Income Policy Index	--	5.3%	10	3.3%	37	0.0%	36	0.0%	1	--	--	1.0
Total US Fixed Income	15.9%	5.3%	20	3.9%	81	0.2%	24	2.4%	79	0.0	31	1.0
BBgBarc US Aggregate TR	--	5.3%	21	3.3%	52	0.0%	37	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-0.2%	--	13.1%	--	-3.9%	--	13.1%	--	-0.4	--	0.6
Real Assets Index	--	5.1%	--	1.1%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.5%	3.0%	97	3.0%	52
NCREIF ODCE Net	--	4.7%	69	2.8%	48
Total Private Equity	8.7%	11.7%	27	7.2%	47
Russell 3000 + 3%	--	13.3%	24	17.7%	98

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE.

Composite rankings are used for Total Equity (InvMetrics Public DB Total Eq consists of 83 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 160 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 106 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 39 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 86 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 96 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 54 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 46 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

5 Years Ending June 30, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.5%	7.5%	21	14.7%	61	1.0%	19	1.1%	10	0.9	2	1.0
MSCI ACWI	--	6.5%	61	14.5%	50	0.0%	35	0.0%	1	--	--	1.0
Total US Equity	28.7%	10.3%	4	15.5%	53	0.1%	6	0.4%	3	0.6	2	1.0
Russell 3000	--	10.0%	8	15.4%	42	0.0%	8	0.0%	1	--	--	1.0
Total Non-US Equity	15.0%	2.7%	47	14.4%	20	0.5%	38	1.1%	4	0.4	22	1.0
MSCI ACWI ex USA	--	2.3%	60	14.8%	32	0.0%	57	0.0%	1	--	--	1.0
Total Global Equity	10.8%	6.6%	4	14.5%	65	0.2%	71	0.6%	1	0.2	8	1.0
MSCI ACWI	--	6.5%	18	14.5%	67	0.0%	75	0.0%	1	--	--	1.0
Total Fixed Income	19.7%	4.5%	21	3.1%	37	0.7%	24	1.7%	46	0.1	21	0.9
Total Fixed Income Policy Index	--	4.3%	32	3.1%	35	0.0%	54	0.0%	1	--	--	1.0
Total US Fixed Income	15.9%	4.7%	12	3.5%	79	0.7%	16	2.2%	77	0.2	22	0.9
BBgBarc US Aggregate TR	--	4.3%	25	3.1%	54	0.0%	63	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-0.1%	--	12.0%	--	-10.6%	--	11.9%	--	-0.4	--	2.3
Real Assets Index	--	5.2%	--	1.0%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.5%	4.9%	97	3.3%	43
NCREIF ODCE Net	--	6.3%	66	3.2%	43
Total Private Equity	8.7%	12.0%	29	6.9%	55
Russell 3000 + 3%	--	13.3%	19	15.4%	99

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE.

Composite rankings are used for Total Equity (InvMetrics Public DB Total Eq consists of 79 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 148 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 98 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 31 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 81 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 95 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 52 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 43 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fund	5,829,965,697	100.0	100.0	11.8	21	-3.3	30	2.5	29	6.1	19	6.3	18	8.9	12	7.8	Apr-94
Policy Index				13.6	8	-2.1	13	4.8	2	7.1	4	7.2	3	9.2	8	8.0	Apr-94
Over/Under				-1.8		-1.2		-2.3		-1.0		-0.9		-0.3		-0.2	
60% MSCI ACWI (Net) / 40% FTSE WGBI				12.2	16	-1.8	10	3.7	14	5.6	26	5.6	39	6.6	96	6.3	Apr-94
60% S&P 500 / 40% BBgBarc Aggregate				13.3	9	1.0	1	8.6	1	8.9	1	8.4	1	10.1	1	8.4	Apr-94
InvMetrics Public DB > \$1B Net Median				10.1		-4.3		1.3		5.0		5.4		7.8		7.3	Apr-94
Total Fund ex Parametric	5,732,683,708	98.3	--	11.1	--	-3.4	--	2.2	--	5.9	--	6.1	--	8.7	--	7.7	Apr-94
Total Fund ex Private Equity	5,323,245,438	91.3	--	13.8	7	-3.5	34	2.6	26	5.8	24	6.0	24	--	--	7.9	Jan-12
Policy Index				13.6	8	-2.1	13	4.8	2	7.1	4	7.2	3	9.2	8	8.8	Jan-12
Over/Under				0.2		-1.4		-2.2		-1.3		-1.2				-0.9	
InvMetrics Public DB > \$1B Net Median				10.1		-4.3		1.3		5.0		5.4		7.8		7.4	Jan-12
Total US Equity	1,670,991,770	28.7	26.0	22.6	23	-3.5	12	6.6	8	10.4	8	10.3	4	14.0	3	9.3	Dec-93
Russell 3000				22.0	36	-3.5	11	6.5	9	10.0	11	10.0	8	13.7	8	9.5	Dec-93
Over/Under				0.6		0.0		0.1		0.4		0.3		0.3		-0.2	
InvMetrics Public DB US Eq Net Median				21.2		-5.9		2.7		8.3		8.8		12.7		9.0	Dec-93
Western U.S. Index Plus	236,904,561	4.1		26.3	19	-5.7	51	5.0	45	10.4	37	10.7	31	14.8	24	6.2	May-07
S&P 500				20.5	45	-3.1	40	7.5	37	10.7	36	10.7	30	14.0	30	7.8	May-07
Over/Under				5.8		-2.6		-2.5		-0.3		0.0		0.8		-1.6	
eV US Large Cap Equity Net Median				19.8		-5.7		3.5		8.1		8.4		12.5		7.4	May-07
Blackrock Russell 1000 Index	1,371,279,117	23.5		21.8	37	-2.8	39	7.5	37	10.7	36	--	--	--	--	10.8	May-17
Russell 1000				21.8	37	-2.8	39	7.5	37	10.6	36	10.5	33	14.0	30	10.7	May-17
Over/Under				0.0		0.0		0.0		0.1						0.1	
eV US Large Cap Equity Net Median				19.8		-5.7		3.5		8.1		8.4		12.5		8.4	May-17
Blackrock Russell 2500 Index	62,808,092	1.1		26.6	42	-11.0	49	-4.6	46	4.1	49	--	--	--	--	4.3	May-17
Russell 2500				26.6	42	-11.1	49	-4.7	47	4.1	49	5.4	44	11.5	41	4.3	May-17
Over/Under				0.0		0.1		0.1		0.0						0.0	
eV US Small-Mid Cap Equity Net Median				24.4		-11.9		-5.6		3.5		4.4		10.8		4.2	May-17

Color Coding: PERFORMANCE: Green-Over performance, Red-Under performance / Color Coding: RANKS: 1 - 25 Green - Positive Result, 26 - 50 Yellow, 50 - 75 Orange, 76 - 100 Red - Negative Result.

Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%.

Total U.S. Equity Benchmark: Russell 3000 Index. Prior to January 2016, the Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Non-US Equity	876,973,762	15.0	17.0	15.2	93	-12.4	80	-6.6	86	1.0	53	2.7	47	5.4	62	5.8	Mar-94
MSCI ACWI ex USA				16.1	86	-11.0	68	-4.8	73	1.1	49	2.3	60	5.0	86	4.7	Mar-94
Over/Under				-0.9		-1.4		-1.8		-0.1		0.4		0.4		1.1	
MSCI EAFE				14.9	94	-11.3	69	-5.1	74	0.8	60	2.1	68	5.7	48	4.4	Mar-94
MSCI ACWI ex USA NR LCL				13.9	99	-9.0	26	-1.8	27	2.6	20	3.5	22	6.7	16	--	Mar-94
MSCI EAFE NR LCL				12.6	99	-10.5	53	-4.2	64	1.3	46	2.6	50	6.9	13	4.5	Mar-94
InvMetrics Public DB ex-US Eq Net Median				18.6		-10.5		-3.7		1.1		2.6		5.7		5.1	Mar-94
BlackRock ACWI ex-U.S. Index	454,051,476	7.8		17.1	60	-11.1	71	-4.6	72	1.2	71	2.5	72	5.3	77	2.1	Mar-07
MSCI ACWI ex USA IMI				17.0	63	-11.2	71	-4.7	72	1.0	72	2.3	73	5.1	79	1.9	Mar-07
Over/Under				0.1		0.1		0.1		0.2		0.2		0.2		0.2	
MSCI ACWI ex USA NR LCL				13.9	91	-9.0	63	-1.8	57	2.6	62	3.5	58	6.7	60	2.9	Mar-07
eV ACWI ex-US All Cap Equity Net Median				18.6		-7.7		0.0		3.8		3.9		7.3		3.6	Mar-07
Sprucegrove	190,997,295	3.3		11.9	99	-20.9	95	-17.8	97	-2.8	87	0.5	83	4.4	88	5.7	Mar-02
MSCI ACWI ex USA				16.1	73	-11.0	71	-4.8	72	1.1	71	2.3	73	5.0	82	5.7	Mar-02
Over/Under				-4.2		-9.9		-13.0		-3.9		-1.8		-0.6		0.0	
MSCI EAFE				14.9	83	-11.3	71	-5.1	72	0.8	72	2.1	74	5.7	72	5.2	Mar-02
MSCI ACWI ex USA NR LCL				13.9	91	-9.0	63	-1.8	57	2.6	62	3.5	58	6.7	60	4.9	Mar-02
MSCI EAFE NR LCL				12.6	96	-10.5	70	-4.2	70	1.3	69	2.6	69	6.9	59	4.0	Mar-02
eV ACWI ex-US All Cap Equity Net Median				18.6		-7.7		0.0		3.8		3.9		7.3		6.4	Mar-02
Hexavest	83,133,303	1.4		14.5	71	-15.7	79	-10.6	86	-2.7	82	0.2	77	--	--	2.3	Dec-10
MSCI EAFE				14.9	67	-11.3	59	-5.1	59	0.8	51	2.1	54	5.7	66	3.7	Dec-10
Over/Under				-0.4		-4.4		-5.5		-3.5		-1.9		--		-1.4	
MSCI EAFE NR LCL				12.6	84	-10.5	52	-4.2	51	1.3	43	2.6	48	6.9	47	5.9	Dec-10
eV EAFE All Cap Equity Net Median				16.1		-10.4		-4.1		0.8		2.2		6.6		4.5	Dec-10
Walter Scott	148,791,687	2.6		14.6	84	-0.8	25	7.7	25	8.9	12	8.4	9	--	--	6.6	Dec-10
MSCI ACWI ex USA				16.1	73	-11.0	71	-4.8	72	1.1	71	2.3	73	5.0	82	2.8	Dec-10
Over/Under				-1.5		10.2		12.5		7.8		6.1		3.8		3.8	
MSCI ACWI ex USA NR LCL				13.9	91	-9.0	63	-1.8	57	2.6	62	3.5	58	6.7	60	5.5	Dec-10
MSCI EAFE				14.9	83	-11.3	71	-5.1	72	0.8	72	2.1	74	5.7	72	3.7	Dec-10
eV ACWI ex-US All Cap Equity Net Median				18.6		-7.7		0.0		3.8		3.9		7.3		5.3	Dec-10



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Global Equity	628,815,808	10.8	10.0	19.3	23	-6.0	19	2.5	21	6.6	3	6.6	4	9.1	34	5.9	May-05
MSCI ACWI				19.2	32	-6.3	36	2.1	38	6.1	8	6.5	18	9.2	33	6.6	May-05
Over/Under				0.1		0.3		0.4		0.5		0.1		-0.1		-0.7	
InvMetrics Public DB Gbl Eq Net Median				18.8		-7.5		0.8		5.8		6.2		6.4		5.5	May-05
BlackRock MSCI ACWI Equity Index	628,815,808	10.8		19.3	49	-6.0	47	2.5	43	6.6	41	6.9	37	--	--	9.2	Aug-12
MSCI ACWI				19.2	51	-6.3	49	2.1	46	6.1	44	6.5	43	9.2	52	8.8	Aug-12
Over/Under				0.1		0.3		0.4		0.5		0.4				0.4	
eV All Global Equity Net Median				19.2		-6.6		0.7		5.2		5.5		9.2		8.5	Aug-12



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Private Equity	506,720,259	8.7	13.0	-6.3	49	0.3	9	3.2	32	11.7	27	12.0	29	--	--	13.2	Jan-12
<i>Russell 3000 + 3%</i>				<u>22.9</u>	1	<u>-2.0</u>	22	<u>9.7</u>	3	<u>13.3</u>	24	<u>13.3</u>	19	<u>17.1</u>	1	<u>16.6</u>	<i>Jan-12</i>
Over/Under				-29.2		2.3		-6.5		-1.6		-1.3				-3.4	
<i>CJA Global All PE (Qtr Lag)</i>				-8.9	89	-4.6	51	-0.6	69	9.2	57	9.2	61	11.4	48	11.1	<i>Jan-12</i>
<i>InvMetrics Public DB Private Eq Net Median</i>				-6.5		-4.2		2.1		10.2		10.3		11.3		11.5	<i>Jan-12</i>
Adams Street Global Fund Series	173,137,035	3.0		-8.8	--	2.5	--	1.6	--	11.1	--	10.4	--	--	--	12.0	Jan-12
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>16.6</u>	<i>Jan-12</i>
Over/Under				-31.7		4.5		-8.1		-2.2		-2.9				-4.6	
Harbourvest	98,518,821	1.7		-9.1	--	-4.6	--	0.6	--	12.9	--	14.4	--	--	--	16.4	Aug-13
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>14.3</u>	<i>Aug-13</i>
Over/Under				-32.0		-2.6		-9.1		-0.4		1.1				2.1	
Pantheon Global Secondary Funds	39,071,252	0.7		-8.2	--	-6.5	--	-2.7	--	6.0	--	11.8	--	--	--	10.0	Jan-12
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>16.6</u>	<i>Jan-12</i>
Over/Under				-31.1		-4.5		-12.4		-7.3		-1.5				-6.6	
Drive Capital Fund II	19,775,857	0.3		13.4	--	13.4	--	29.9	--	16.3	--	--	--	--	--	-5.8	Sep-16
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>14.8</u>	<i>Sep-16</i>
Over/Under				-9.5		15.4		20.2		3.0		--				-20.6	
Abbott Secondary Opportunities	18,771,095	0.3		3.7	--	11.7	--	12.5	--	--	--	--	--	--	--	18.7	Jan-18
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>10.7</u>	<i>Jan-18</i>
Over/Under				-19.2		13.7		2.8		--		--				8.0	
Clearlake Capital Partners V	9,567,807	0.2		-13.5	--	-2.7	--	20.1	--	--	--	--	--	--	--	31.5	Mar-18
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>10.6</u>	<i>Mar-18</i>
Over/Under				-36.4		-0.7		10.4		--		--				20.9	
Battery Ventures XII	12,977,483	0.2		-0.2	--	9.4	--	17.8	--	--	--	--	--	--	--	2.8	Apr-18
<i>Russell 3000 + 3%</i>				<u>22.9</u>	--	<u>-2.0</u>	--	<u>9.7</u>	--	<u>13.3</u>	--	<u>13.3</u>	--	<u>17.1</u>	--	<u>11.9</u>	<i>Apr-18</i>
Over/Under				-23.1		11.4		8.1		--		--				-9.1	

Private equity performance shown above is calculated using a time-weighted return methodology. Market values shown are cash-adjusted based on the current period's cash flows.

Adams Street Global Fund Series includes Adams Street 2010 U.S. Fund, 2010 Non-U.S. Developed Markets Fund, 2010 Non-U.S. Emerging Markets Fund, 2010 Direct Fund, 2013, and 2016 Global Fund.

Pantheon Global Secondary Funds includes Pantheon Global Secondary Fund IV and Global Secondary Fund V.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Insight Venture Partners X	27,239,866	0.5		-3.3	--	2.1	--	15.1	--	--	--	--	--	--	--	7.5	May-18
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	12.1	May-18
Over/Under				-26.2		4.1		5.4								-4.6	
GTCR Fund XII	11,684,214	0.2		0.0	--	4.9	--	-9.6	--	--	--	--	--	--	--	-28.8	Jun-18
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	11.0	Jun-18
Over/Under				-22.9		6.9		-19.3								-39.8	
Buenaventure One, LLC	41,501,276	0.7		-1.0	--	-0.4	--	-0.4	--	--	--	--	--	--	--	2.7	Jul-18
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	11.0	Jul-18
Over/Under				-23.9		1.6		-10.1								-8.3	
ECI 11	3,159,421	0.1		-4.7	--	-10.8	--	9.6	--	--	--	--	--	--	--	10.2	Dec-18
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	12.3	Dec-18
Over/Under				-27.6		-8.8		-0.1								-2.1	
The Resolute Fund IV L.P.	13,090,976	0.2		0.6	--	4.6	--	33.8	--	--	--	--	--	--	--	53.4	Jan-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	20.4	Jan-19
Over/Under				-22.3		6.6		24.1								33.0	
GGV Capital VII L.P.	4,327,589	0.1		-0.8	--	2.7	--	-20.8	--	--	--	--	--	--	--	-15.2	Feb-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	14.7	Feb-19
Over/Under				-23.7		4.7		-30.5								-29.9	
GGV Discovery II, L.P.	867,243	0.0		4.5	--	3.9	--	1.1	--	--	--	--	--	--	--	0.8	Feb-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	14.7	Feb-19
Over/Under				-18.4		5.9		-8.6								-13.9	
Drive Capital Overdrive Fund I	3,900,390	0.1		-1.9	--	-1.9	--	-5.4	--	--	--	--	--	--	--	-4.7	May-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	8.8	May-19
Over/Under				-24.8		0.1		-15.1								-13.5	
Riverside Micro Cap Fund V, LP	2,051,891	0.0		-14.9	--	-7.7	--	13.1	--	--	--	--	--	--	--	-30.0	May-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	8.8	May-19
Over/Under				-37.8		-5.7		3.4								-38.8	
GGV Capital VII Plus, LP	1,372,763	0.0		0.0	--	-0.1	--	0.2	--	--	--	--	--	--	--	0.2	Jun-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	16.2	Jun-19
Over/Under				-22.9		1.9		-9.5								-16.0	
Astorg VII L.P.	767,582	0.0		-12.4	--	-0.9	--	-46.3	--	--	--	--	--	--	--	-46.3	Jul-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	9.7	Jul-19
Over/Under				-35.3		1.1		-56.0								-56.0	

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Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
M/C Partners Fund VIII LP, Limited Partnership	2,429,580	0.0		-7.5	--	-40.6	--	-51.4	--	--	--	--	--	--	--	-51.4	Jul-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	9.7	Jul-19
Over/Under				-30.4		-38.6		-61.1								-61.1	
Genstar Capital Partners IX	1,646,247	0.0		-5.5	--	-0.2	--	--	--	--	--	--	--	--	--	--	Aug-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	7.8	Aug-19
Over/Under				-28.4		1.8											
Genstar IX Opportunities Fund I	745,218	0.0		-3.7	--	-0.6	--	--	--	--	--	--	--	--	--	-1.0	Aug-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	7.8	Aug-19
Over/Under				-26.6		1.4										-8.8	
ABRY Partners IX, LP	2,998,344	0.1		-32.1	--	-31.8	--	--	--	--	--	--	--	--	--	-42.1	Sep-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	9.8	Sep-19
Over/Under				-55.0		-29.8										-51.9	
Advent International GPE IX LP	2,219,416	0.0		-0.5	--	-3.0	--	--	--	--	--	--	--	--	--	-8.8	Nov-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	5.1	Nov-19
Over/Under				-23.4		-1.0										-13.9	
Drive Capital Fund III LP	462,383	0.0		-17.4	--	-17.4	--	--	--	--	--	--	--	--	--	-17.4	Dec-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	1.0	Dec-19
Over/Under				-40.3		-15.4										-18.4	
Oak HC/FT Partners III LP	3,286,914	0.1		-1.7	--	-11.3	--	--	--	--	--	--	--	--	--	-11.3	Dec-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	1.0	Dec-19
Over/Under				-24.6		-9.3										-12.3	
TA XIII A LP	1,257,899	0.0		-11.5	--	-16.1	--	--	--	--	--	--	--	--	--	-16.1	Dec-19
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	-2.0	Dec-19
Over/Under				-34.4		-14.1										-14.1	
Dover Street X, LP	3,883,548	0.1		-10.2	--	--	--	--	--	--	--	--	--	--	--	-11.0	Feb-20
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	-2.2	Feb-20
Over/Under				-33.1												-8.8	
Hellman & Friedman CP IX	3,489,306	0.1		-23.1	--	--	--	--	--	--	--	--	--	--	--	-23.1	Apr-20
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	22.9	Apr-20
Over/Under				-46.0												-46.0	
Clearlake Capital Partners VI	1,823,416	0.0		--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jun-20
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	2.5	Jun-20
Over/Under																-2.5	
Flexpoint Fund IV	276,167	0.0		--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jun-20
Russell 3000 + 3%				22.9	--	-2.0	--	9.7	--	13.3	--	13.3	--	17.1	--	2.5	Jun-20
Over/Under																-2.5	



VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

PRIVATE EQUITY LIMITED PARTNERSHIP PERFORMANCE

Fund Name	Vintage Year	Initial Investment Date	Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Add'l Fees ²	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
													Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
Abbott Secondary Opportunities, LP.	2017	12/21/2017	\$25,000,000	\$22,109,590	\$3,253,127	88%	--	\$8,125,000	\$18,798,266	\$26,923,266	\$4,813,676	16.9%	0.37x	1.22x
Abbott Secondary Opportunities II, LP.	2020	1/31/2020	\$25,000,000	--	\$25,000,000	--	--	--	--	--	--	--	--	--
ABRY Partners IX	2019	12/6/2018	\$10,600,000	\$4,296,903	\$6,303,097	41%	--	--	\$2,998,343	\$2,998,343	(\$1,298,560)	-48.8%	--	0.7x
Adams Street 2010 U.S. Fund	2010	5/21/2010	\$42,500,000	\$37,442,500	\$5,057,500	88%	\$15,213	\$38,957,294	\$27,948,803	\$66,906,097	\$29,448,384	13.3%	1.04x	1.79x
Adams Street 2010 Non-U.S. Dev. Mkts Fund	2010	5/21/2010	\$25,500,000	\$22,325,249	\$3,174,751	88%	\$1,589	\$21,963,688	\$13,081,691	\$35,045,379	\$12,718,541	11.0%	0.98x	1.57x
Adams Street 2010 Non-U.S. Emg Mkts Fund	2010	1/3/2011	\$8,500,000	\$7,633,000	\$867,000	90%	--	\$3,174,328	\$9,300,244	\$12,474,572	\$4,841,572	9.6%	0.42x	1.63x
Adams Street 2010 Direct Fund	2010	5/21/2010	\$8,500,000	\$8,168,500	\$331,500	96%	\$6,697	\$10,138,211	\$3,721,146	\$13,859,357	\$5,684,160	11.5%	1.24x	1.7x
Adams Street 2013 Global Fund	2013	6/27/2013	\$75,000,000	\$61,350,000	\$13,650,000	82%	\$10,728	\$18,266,197	\$17,119,205	\$89,385,402	\$28,024,674	9.8%	0.3x	1.46x
Adams Street 2016 Global Fund	2016	12/22/2016	\$60,000,000	\$37,380,000	\$22,620,000	62%	--	\$3,621,043	\$38,613,651	\$42,234,694	\$4,854,694	7.5%	0.1x	1.13x
Adams Street Co-Investment Fund IV A	2018	9/24/2018	\$30,000,000	\$9,844,931	\$20,250,000	33%	\$67,808	--	\$9,185,719	\$9,185,719	(\$727,020)	-5.8%	--	0.93x
Advent International GPE IX	2019	5/23/2019	\$10,000,000	\$2,450,000	\$7,550,000	25%	--	--	\$2,219,417	\$2,219,417	(\$230,583)	-18.4%	--	0.91x
Astorg VII	2019	12/17/2018	\$8,658,919	\$994,514	\$7,664,405	11%	--	--	\$683,419	\$683,419	(\$311,095)	-42.4%	--	0.69x
Battery Ventures XII	2018	2/1/2018	\$9,050,000	\$7,002,890	\$2,047,110	77%	--	--	\$7,711,711	\$7,711,711	\$708,821	8.3%	--	1.1x
Battery Ventures XII Side Fund	2018	2/1/2018	\$5,050,000	\$4,080,905	\$969,095	81%	--	--	\$4,872,330	\$4,872,330	\$791,425	14.7%	--	1.19x
Battery Ventures XIII	2020	2/11/2020	\$9,240,000	\$369,600	\$8,870,400	4%	--	--	\$336,984	\$336,984	(\$32,616)	-49.8%	--	0.91x
Battery Ventures XIII Side Fund	2020	2/11/2020	\$6,160,000	\$61,600	\$6,098,400	1%	--	--	\$56,459	\$56,459	(\$5,141)	-47.8%	--	0.92x
BuenaVenture One, LLC	2018	1/5/2018	\$140,134,500	\$40,630,590	\$99,503,910	29%	--	\$403,156	\$41,501,272	\$41,904,428	\$1,273,838	2.8%	0.01x	1.03x
CapVest Equity Partners IV	2019	7/11/2018	\$12,400,038	--	\$12,400,038	--	--	--	(\$229,137)	(\$229,137)	--	--	--	--
Clearlake Capital Partners V	2017	12/22/2017	\$9,950,000	\$9,163,056	\$2,180,279	92%	\$46,158	\$2,797,682	\$9,548,457	\$12,346,139	\$3,136,925	30.3%	0.31x	1.35x
Clearlake Capital Partners VI	2020	1/2/2020	\$18,700,000	\$1,824,076	\$16,875,924	10%	--	\$660	\$1,764,184	\$1,764,844	(\$59,232)	-26.6%	0x	0.97x
CVC Capital Partners VIII	2020	5/22/2020	\$20,694,848	--	\$20,694,848	--	--	--	--	--	--	--	--	--
Drive Capital Fund II	2016	9/1/2016	\$15,000,000	\$13,428,893	\$1,571,317	90%	\$3,210	--	\$19,775,858	\$19,775,858	\$6,343,755	24.0%	--	1.47x
Drive Capital Fund III	2019	4/5/2019	\$7,500,000	\$540,682	\$6,959,318	7%	--	--	\$462,383	\$462,383	(\$78,299)	-43.9%	--	0.86x
Drive Capital Overdrive Fund I	2019	4/5/2019	\$7,500,000	\$4,077,488	\$3,422,512	54%	--	--	\$3,900,389	\$3,900,389	(\$177,099)	-6.4%	--	0.96x
ECI 11	2018	7/5/2018	\$9,323,061	\$2,853,854	\$6,469,207	31%	--	--	\$2,556,993	\$2,556,993	(\$296,861)	-8.7%	--	0.9x
Flexpoint Fund IV-A	2019	7/2/2019	\$10,650,000	\$473,559	\$10,176,441	4%	--	--	\$276,167	\$276,167	(\$197,392)	-96.8%	--	0.58x
Flexpoint Overage Fund IV-A	2019	7/2/2019	\$3,550,000	--	\$3,550,000	--	--	--	--	--	--	--	--	--
Genstar Capital Partners IX	2019	2/21/2019	\$7,500,000	\$1,845,906	\$5,601,118	25%	--	\$147,024	\$1,646,247	\$1,793,271	(\$52,635)	-4.3%	0.08x	0.97x
Genstar Capital Partners IX Opportunities Program	2019	2/21/2019	\$2,500,000	\$751,515	\$1,748,485	30%	--	--	\$745,218	\$745,218	(\$6,297)	-1.2%	--	0.99x
GGV Capital VII	2019	8/15/2018	\$10,160,000	\$4,470,400	\$5,689,600	44%	--	--	\$4,327,588	\$4,327,588	(\$142,812)	-4.3%	--	0.97x
GGV Capital VII Plus	2019	8/15/2018	\$2,540,000	\$1,371,600	\$1,168,400	54%	--	--	\$1,372,763	\$1,372,763	\$1,163	0.2%	--	1x
GGV Discovery II	2019	8/15/2018	\$2,100,000	\$840,000	\$1,260,000	40%	--	--	\$867,243	\$867,243	\$27,243	4.4%	--	1.03x
Great Hill Equity Partners VII	2019	6/28/2019	\$8,900,000	--	\$8,900,000	--	--	--	(\$38,230)	(\$38,230)	--	--	--	--
Green Equity Investors VIII	2019	10/18/2019	\$15,000,000	--	\$15,000,000	--	--	--	--	--	--	--	--	--
GTCR Fund XII	2017	9/29/2017	\$30,000,000	\$13,815,000	\$16,185,000	46%	--	\$586,016	\$13,294,337	\$13,880,353	\$65,353	0.4%	0.04x	1x
HarbourVest - Dover Street VIII	2013	5/30/2013	\$67,500,000	\$61,509,954	\$6,075,000	91%	\$84,954	\$74,139,836	\$21,542,272	\$95,682,108	\$34,087,200	19.3%	1.21x	1.56x
HarbourVest - Dover Street IX	2016	12/16/2016	\$60,000,000	\$46,200,000	\$13,800,000	77%	--	\$18,530,164	\$42,106,607	\$60,636,771	\$14,436,771	20.9%	0.4x	1.31x
HarbourVest - Dover Street X	2019	5/31/2019	\$40,000,000	\$4,000,000	\$36,000,000	10%	--	--	\$3,911,712	\$3,911,712	-\$88,288	-9.0%	--	0.96x
HarbourVest - PRTNS CO INVEST IV L.P.	2017	6/2/2017	\$30,000,000	\$24,464,388	\$5,732,352	82%	--	\$4,951,347	\$24,247,694	\$29,199,041	\$4,734,653	7.8%	0.2x	1.19x
HarbourVest - PRTNS CO INVEST V L.P.	2019	7/31/2018	\$35,000,000	\$12,250,000	\$22,750,000	35%	--	--	\$11,139,496	\$11,139,496	(\$1,110,504)	-16.9%	--	0.91x
Hellman & Friedman Capital Partners IX	2019	9/28/2018	\$19,800,000	\$4,401,433	\$15,398,567	22%	--	--	\$3,489,306	\$3,489,306	(\$912,127)	-63.5%	--	0.79x
Insight Venture Partners X	2017	10/13/2017	\$25,000,000	\$23,450,000	\$1,550,000	94%	--	\$8,561	\$27,239,864	\$27,248,425	\$3,798,425	12.0%	0x	1.16x
M/C Partners VIII	2019	4/2/2018	\$10,000,000	\$3,080,253	\$6,919,747	31%	--	--	\$2,429,580	\$2,429,580	(\$650,673)	-51.0%	--	0.79x
Oak HC/FT Partners III	2019	7/31/2019	\$15,000,000	\$3,594,330	\$11,405,670	24%	--	--	\$3,286,915	\$3,286,915	(\$307,415)	-23.2%	--	0.91x
Pantheon Global Secondary Fund IV	2010	8/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	--	\$13,410,543	\$2,381,952	\$15,792,495	\$5,832,495	13.3%	1.35x	1.59x
Pantheon Global Secondary Fund V	2015	2/26/2015	\$50,000,000	\$35,366,509	\$14,633,491	71%	(\$162,514)	\$14,059,911	\$34,193,845	\$48,253,756	\$13,049,761	12.3%	0.4x	1.36x
Pantheon Global Secondary Fund VI	2018	2/24/2020	\$25,000,000	--	\$25,000,000	--	--	\$12,543	(\$12,543)	--	--	--	--	--
The Resolute Fund IV	2018	5/2/2018	\$20,000,000	\$11,898,922	\$9,430,721	59%	--	\$2,186,629	\$13,090,980	\$15,277,609	\$3,378,687	44.8%	0.18x	1.28x
Riverside Micro-Cap Fund V	2018	8/21/2018	\$10,000,000	\$2,497,676	\$7,502,324	25%	--	--	\$2,051,892	\$2,051,892	(\$445,784)	-21.4%	--	0.82x
TA XIII	2019	5/2/2019	\$10,000,000	\$1,500,000	\$8,500,000	15%	--	--	\$1,257,899	\$1,257,899	(\$242,101)	-27.8%	--	0.84x
Vitruvian Investment Partnership IV	2020	6/3/2020	\$20,694,848	--	\$20,694,848	--	--	--	--	--	--	--	--	--

Total VCERA Private Equity Program

-- 5/21/2010 \$1,145,856,214 \$655,770,266 \$583,698,502 49% \$73,843 \$235,479,833 \$504,776,591 \$740,256,424 \$174,679,682 12.2% 0.42x 1.31x

1. Includes recycled/recallable distributions received to date.

2. Add'l Fees represents notional interest paid/(received).

3. Add'l Fees for Pantheon Global Secondary Fund V includes notional interest paid/(received) and management fee rebates paid to VCERA.

Note: Private equity performance data is reported net of fees.

Performance shown is based on 6/30/2020 statement of investments produced by Abbott Capital.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total US Fixed Income	928,702,038	15.9	14.0	7.4	6	6.2	19	8.9	15	5.3	20	4.7	12	4.7	21	5.9	Feb-94
BBgBarc US Aggregate TR				2.9	92	6.1	20	8.7	19	5.3	21	4.3	25	3.8	45	5.4	Feb-94
Over/Under				4.5		0.1		0.2		0.0		0.4		0.9		0.5	
InvMetrics Public DB US Fix Inc Net Median				4.0		5.1		7.0		4.4		3.8		3.6		5.4	Feb-94
BlackRock U.S. Debt Fund	176,958,476	3.0		3.0	69	6.2	17	8.8	19	5.4	22	4.3	32	3.9	52	5.3	Nov-95
BBgBarc US Aggregate TR				2.9	70	6.1	18	8.7	20	5.3	23	4.3	33	3.8	53	5.3	Nov-95
Over/Under				0.1		0.1		0.1		0.1		0.0		0.1		0.0	
eV All US Fixed Inc Net Median				4.5		2.9		4.7		3.8		3.6		3.9		5.0	Nov-95
Western	296,949,710	5.1		7.5	28	6.6	13	9.9	13	6.1	14	5.4	15	5.4	25	6.2	Dec-96
BBgBarc US Aggregate TR				2.9	70	6.1	18	8.7	20	5.3	23	4.3	33	3.8	53	5.3	Dec-96
Over/Under				4.6		0.5		1.2		0.8		1.1		1.6		0.9	
eV All US Fixed Inc Net Median				4.5		2.9		4.7		3.8		3.6		3.9		5.1	Dec-96
Reams	325,503,048	5.6		8.8	21	6.1	19	8.4	22	4.6	35	4.2	38	4.2	45	5.4	Sep-01
Reams Custom Index				0.1	99	0.5	75	1.5	80	2.0	88	1.5	95	2.0	84	3.7	Sep-01
Over/Under				8.7		5.6		6.9		2.6		2.7		2.2		1.7	
BBgBarc US Aggregate TR				2.9	70	6.1	18	8.7	20	5.3	23	4.3	33	3.8	53	4.6	Sep-01
3-Month LIBOR + 3%				0.8	94	2.0	60	4.6	51	5.0	29	4.5	26	3.9	50	4.8	Sep-01
eV All US Fixed Inc Net Median				4.5		2.9		4.7		3.8		3.6		3.9		4.6	Sep-01
Loomis Strategic Alpha	44,703,299	0.8		8.7	22	2.7	53	3.3	63	3.2	62	2.9	68	--	--	2.8	Jul-13
BBgBarc US Aggregate TR				2.9	70	6.1	18	8.7	20	5.3	23	4.3	33	3.8	53	4.0	Jul-13
Over/Under				5.8		-3.4		-5.4		-2.1		-1.4				-1.2	
3-Month LIBOR + 3%				0.8	94	2.0	60	4.6	51	5.0	29	4.5	26	3.9	50	4.2	Jul-13
eV All US Fixed Inc Net Median				4.5		2.9		4.7		3.8		3.6		3.9		3.6	Jul-13
Loomis Sayles Multi Strategy	84,587,505	1.5		10.7	10	5.1	30	7.6	29	5.4	21	5.2	17	6.3	15	6.4	Jul-05
Loomis Custom Index				4.8	46	2.9	51	5.8	44	4.6	35	4.3	32	4.6	35	5.1	Jul-05
Over/Under				5.9		2.2		1.8		0.8		0.9		1.7		1.3	
BBgBarc US Govt/Credit TR				3.7	60	7.2	10	10.0	12	5.9	15	4.7	22	4.1	46	4.6	Jul-05
eV All US Fixed Inc Net Median				4.5		2.9		4.7		3.8		3.6		3.9		4.3	Jul-05

Reams Custom Index: Merrill Lynch 3 Month Libor Constant Maturity Index, prior to February 2013 the Barclays Aggregate

Loomis Custom Index: 65% Barclays Aggregate, 30% Citigroup High Yield Market Index and 5% JPM Non-US Hedged Bond Index

As of January 2016, Loomis Strategic Alpha was moved from the Total Global Fixed Income composite to the Total US Fixed Income composite.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Debt	127,429,631	2.2	3.0	-6.6	--	-5.1	--	-1.4	--	--	--	--	--	--	--	3.0	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>4.1</u>	<i>Jan-18</i>
Over/Under				-16.6		-1.6		-2.0								-1.1	
CVI Credit Value Fund	24,777,469	0.4		-14.1	--	-12.3	--	-9.4	--	--	--	--	--	--	--	-0.7	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>4.1</u>	<i>Jan-18</i>
Over/Under				-24.1		-8.8		-10.0								-4.8	
Monroe Capital Private Credit Fund III	16,921,809	0.3		-2.9	--	-0.2	--	4.8	--	--	--	--	--	--	--	6.8	Dec-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>4.5</u>	<i>Dec-18</i>
Over/Under				-12.9		3.3		4.2								2.3	
Bluebay Direct Lending Fund III	7,451,730	0.1		-0.7	--	0.0	--	6.1	--	--	--	--	--	--	--	6.2	Apr-19
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>2.6</u>	<i>Apr-19</i>
Over/Under				-10.7		3.5		5.5								3.6	
Pimco Private Income Fund	54,407,427	0.9		-1.3	--	0.3	--	--	--	--	--	--	--	--	--	0.3	Nov-19
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>-1.1</u>	<i>Nov-19</i>
Over/Under				-11.3		3.8										1.4	
Bridge Debt Strategies III Limited Partner	19,551,525	0.3		-11.8	--	-11.8	--	--	--	--	--	--	--	--	--	-11.8	Jan-20
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>-3.5</u>	<i>Jan-20</i>
Over/Under				-21.8		-8.3										-8.3	
PIMCO Corp Opps Fund III	4,319,672	0.1		--	--	--	--	--	--	--	--	--	--	--	--	15.5	May-20
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				<u>10.0</u>	--	<u>-3.5</u>	--	<u>0.6</u>	--	--	--	--	--	--	--	<u>5.4</u>	<i>May-20</i>
Over/Under																10.1	
Treasuries	93,528,297	1.6	2.0	0.4	--	12.7	--	14.9	--	--	--	--	--	--	--	14.8	Apr-19
Reams 10-Year Treasuries	93,528,297	1.6		0.4	--	12.7	--	14.9	--	--	--	--	--	--	--	14.8	Apr-19
BBgBarc US Treasury 7-10 Yr TR				<u>0.9</u>	--	<u>11.1</u>	--	<u>12.8</u>	--	<u>6.8</u>	--	<u>5.1</u>	--	<u>4.7</u>	--	<u>13.5</u>	<i>Apr-19</i>
Over/Under				-0.5		1.6		2.1								1.3	

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index.



VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION PRIVATE DEBT LIMITED PARTNERSHIP PERFORMANCE

Fund Name	Vintage Year	Initial Investment Date	Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
												Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
BlueBay Direct Lending III	2019	02/12/2019	\$25,000,000	\$9,353,314	\$15,646,686	37%	\$2,438,679	\$7,451,730	\$9,890,409	\$537,095	7.6%	0.26x	1.06x
Bridge Debt Strategies III	2019	12/20/2019	\$25,000,000	\$22,822,665	\$2,177,335	91%	\$659,816	\$19,551,525	\$20,211,341	-\$2,611,324	-14.2%	0.03x	0.89x
CVI Credit Value Fund IV	2017	12/31/2017	\$30,000,000	\$27,000,000	\$3,000,000	90%	\$6,147	\$24,777,469	\$24,783,616	-\$2,216,384	-6.9%	0x	0.92x
Monroe Capital Private Credit Fund III	2018	09/05/2018	\$25,000,000	\$17,652,142	\$7,347,858	71%	\$2,167,442	\$16,921,809	\$19,089,251	\$1,437,109	7.1%	0.12x	1.08x
PIMCO Corporate Opportunities Fund III	2020	01/26/2020	\$50,000,000	\$3,750,000	\$46,250,000	8%	\$12,092	\$4,319,672	\$4,331,764	\$581,764	15.5%	0x	1.16x
PIMCO Private Income Fund	2019	03/25/2019	\$55,000,000	\$55,000,000	\$0	100%	\$0	\$54,407,427	\$54,407,427	-\$592,573	-3.0%	0x	0.99x
Total VCERA Private Debt Program	--		\$210,000,000	\$135,578,121	\$74,421,879	65%	\$5,284,177	\$127,429,632	\$132,713,809	-\$2,864,313	-3.3%	0.04x	0.98x

1. Includes recycled/recallable distributions received to date.

Note: Private debt performance data is reported net of fees.

Performance shown is based on 6/30/2020 cash-adjusted market values.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Estate	439,528,090	7.5	8.0	-2.0	81	-1.7	64	-0.4	79	3.0	97	4.9	97	8.5	87	7.3	Mar-94
<i>NCREIF ODCE Net</i>				<i>-1.8</i>	<i>74</i>	<i>-1.0</i>	<i>36</i>	<i>1.3</i>	<i>46</i>	<i>4.7</i>	<i>69</i>	<i>6.3</i>	<i>66</i>	<i>9.8</i>	<i>71</i>	<i>7.7</i>	<i>Mar-94</i>
<i>Over/Under</i>				<i>-0.2</i>		<i>-0.7</i>		<i>-1.7</i>		<i>-1.7</i>		<i>-1.4</i>		<i>-1.3</i>		<i>-0.4</i>	
<i>InvMetrics Public DB Real Estate Pub+Priv Net Median</i>				<i>-1.0</i>		<i>-1.1</i>		<i>1.0</i>		<i>5.2</i>		<i>7.1</i>		<i>10.5</i>		<i>8.4</i>	<i>Mar-94</i>
Prudential Real Estate	166,104,605	2.8		-1.2	--	0.3	--	3.0	--	6.1	--	7.5	--	10.6	--	6.1	Jun-04
<i>NCREIF ODCE Net</i>				<i>-1.8</i>	<i>--</i>	<i>-1.0</i>	<i>--</i>	<i>1.3</i>	<i>--</i>	<i>4.7</i>	<i>--</i>	<i>6.3</i>	<i>--</i>	<i>9.8</i>	<i>--</i>	<i>6.6</i>	<i>Jun-04</i>
<i>Over/Under</i>				<i>0.6</i>		<i>1.3</i>		<i>1.7</i>		<i>1.4</i>		<i>1.2</i>		<i>0.8</i>		<i>-0.5</i>	
<i>NCREIF ODCE</i>				<i>-1.6</i>	<i>--</i>	<i>-0.6</i>	<i>--</i>	<i>2.2</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>7.3</i>	<i>--</i>	<i>10.8</i>	<i>--</i>	<i>7.6</i>	<i>Jun-04</i>
UBS Real Estate	260,349,135	4.5		-2.6	--	-2.4	--	-1.8	--	1.4	--	3.6	--	7.3	--	6.4	Mar-03
<i>NCREIF ODCE Net</i>				<i>-1.8</i>	<i>--</i>	<i>-1.0</i>	<i>--</i>	<i>1.3</i>	<i>--</i>	<i>4.7</i>	<i>--</i>	<i>6.3</i>	<i>--</i>	<i>9.8</i>	<i>--</i>	<i>6.9</i>	<i>Mar-03</i>
<i>Over/Under</i>				<i>-0.8</i>		<i>-1.4</i>		<i>-3.1</i>		<i>-3.3</i>		<i>-2.7</i>		<i>-2.5</i>		<i>-0.5</i>	
<i>NCREIF ODCE</i>				<i>-1.6</i>	<i>--</i>	<i>-0.6</i>	<i>--</i>	<i>2.2</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>7.3</i>	<i>--</i>	<i>10.8</i>	<i>--</i>	<i>7.8</i>	<i>Mar-03</i>
LaSalle Income + Growth VIII Limited Partnership	13,074,350	0.2		0.0	--	--	--	--	--	--	--	--	--	--	--	-13.0	Mar-20
<i>NCREIF ODCE Net</i>				<i>-1.8</i>	<i>--</i>	<i>-1.0</i>	<i>--</i>	<i>1.3</i>	<i>--</i>	<i>4.7</i>	<i>--</i>	<i>6.3</i>	<i>--</i>	<i>9.8</i>	<i>--</i>	<i>-1.0</i>	<i>Mar-20</i>
<i>Over/Under</i>				<i>1.8</i>												<i>-12.0</i>	
<i>NCREIF ODCE</i>				<i>-1.6</i>	<i>--</i>	<i>-0.6</i>	<i>--</i>	<i>2.2</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>7.3</i>	<i>--</i>	<i>10.8</i>	<i>--</i>	<i>-0.6</i>	<i>Mar-20</i>

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Assets	433,946,338	7.4	7.0	10.9	--	-10.5	--	-9.6	--	-0.2	--	-0.1	--	--	--	2.6	Apr-13
Real Assets Index				0.4	--	1.3	--	2.7	--	5.1	--	5.2	--	--	--	5.8	Apr-13
Over/Under				10.5		-11.8		-12.3		-5.3		-5.3				-3.2	
Bridgewater All Weather Fund	339,134,455	5.8		7.9	--	-2.7	--	1.4	--	5.1	--	4.2	--	--	--	4.8	Aug-13
CPI + 5% (Unadjusted)				1.1	--	2.8	--	5.7	--	6.8	--	6.6	--	--	--	6.5	Aug-13
Over/Under				6.8		-5.5		-4.3		-1.7		-2.4				-1.7	
Tortoise Energy Infrastructure	74,827,007	1.3		30.4	--	-33.8	--	-39.1	--	-15.5	--	-11.8	--	--	--	-5.7	Apr-13
Tortoise MLP Index				49.4	--	-35.4	--	-39.9	--	-15.6	--	-13.0	--	--	--	-8.3	Apr-13
Over/Under				-19.0		1.6		0.8		0.1		1.2				2.6	
Brookfield Infra Fund IV B LP	19,984,875	0.3		1.9	--	--	--	--	--	--	--	--	--	--	--	1.9	Apr-20
CPI + 2% (Unadjusted)				0.4	--	1.3	--	2.7	--	3.7	--	3.6	--	3.7	--	0.4	Apr-20
Over/Under				1.5												1.5	
Overlay	123,329,705	2.1	0.0														
Parametric	97,281,987	1.7															
Abbott Capital Cash	26,047,718	0.4															

Overlay performance is not applicable on an individual account level.

Color Coding: PERFORMANCE: Green-Over performance, Red-Under performance

Color Coding: RANKS: 1 - 25 Green - Positive Result, 26 - 50 Yellow, 50 - 75 Orange, 76 - 100 Red - Negative Result



MANAGER DUE DILIGENCE

NEPC, LLC

DUE DILIGENCE MONITOR

The items below summarize the recent quarter's performance and any changes or announcements from the Plan's managers/products. A "-" indicates there were no material announcements. A "Yes" indicates there was an announcement and a brief summary is provided on the following pages. NEPC's Due Diligence Committee meets every two weeks to review events as they relate to investment managers and determine if any action should be taken (by NEPC and/or by our clients). Events are rated: No Action, Watch, Hold, Client Review or Terminate. NEPC's recommendation in view of the recent quarter's developments (performance, manager events, and any of the longer-term trending data) is refreshed quarterly.

Investment Options	Performance (Recent Quarter)	Changes/Announcements (Recent Quarter)	NEPC DD Committee Rec.	Plan Rec.	Comments
BlackRock Russell 1000 Index	-	-	-	-	
Western U.S. Index Plus	Top Quartile	-	-	-	
BlackRock Russell 2500 Index	-	-	-	-	
BlackRock MSCI ACWI ex-U.S. Index	-	-	-	-	
Sprucegrove	Bottom Quartile	-	-	-	
Hexavest	-	-	-	Watch (Board Driven)	On Watch for Performance Issues
Walter Scott	Bottom Quartile	-	-	-	
BlackRock MSCI ACWI Index	-	-	-	-	
Adams Street	N/A	-	-	-	
HarbourVest	N/A	-	-	-	
Pantheon	N/A	-	-	-	
Drive	N/A	-	-	-	
Abbott Secondary Opps.	N/A	-	-	-	
Carval Credit Value	N/A	-	-	-	
PIMCO PIF	N/A	-	-	-	
Bridge Debt Strategies	N/A	-	-	-	
BlackRock U.S. Debt Fund	-	-	-	-	
Western	-	-	-	-	
Reams	Top Quartile	-	-	-	



DUE DILIGENCE MONITOR

	Performance (Recent Quarter)	Changes/ Announcements (Recent Quarter)	NEPC DD Committee Rec.	Plan Rec.	Comments
Loomis Sayles Strategic Alpha	Top Quartile	-	-	-	
Loomis Sayles Multi-Sector Full Discretion	Top Quartile	-	-	-	
Reams 10-Year Treasuries	-	-	-	-	
Monroe	-	-	-	-	
BlueBay	-	-	-	-	
Prudential	N/A	-	-	-	
UBS	N/A	Yes	Watch	Watch	
Bridgewater	N/A	-	-	-	
Tortoise	N/A	-	Watch	-	Acquisition of Advisory Research Team
Parametric/Clifton	N/A	-	-	-	

NEPC Due Diligence Committee Recommendation Key

No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot participate in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with an Investment Manager; manager cannot participate in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot participate in future searches unless a client specifically requests. Current clients must be advised to replace the manager.



DUE DILIGENCE MONITOR

The items below summarize any changes or announcements from your Plan managers/funds. A “Yes” indicates there was an announcement and a brief summary is provided separately. NEPC’s Due Diligence Committee meets every two weeks to review events as they relate to investment managers and determines if any action should be taken by NEPC and/or by our clients. They rate events: No Action, Watch, Hold, Client Review or Terminate. NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Investment Manager	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
Loomis Sayles – Multi Sector Full Discretion	Yes	No Action

Manager Changes/Announcements

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

John Devoy, Full Discretion team senior credit strategist, resigned from Loomis Sayles effective May 1st. He is going to a pre-launch hedge fund that focuses on distressed debt investing. John spent over half his career working at a hedge fund and has decided to return to this market. This change does not change the portfolio management level.

Peter Sheehan has been promoted to team credit strategist and will absorb John’s role and responsibilities. Peter has been the team’s convertible bond and special situation strategist since 2018. Peter joined Loomis Sayles in 2012 as an analyst on the credit research team. He moved to the convertibles and special situations team as an analyst in 2014.

A legend key to our recommendations is provided below.

NEPC Due Diligence Committee Recommendation Key	
No Action	Informational items have surfaced; no action is recommended.
Watch	Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues.
Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.



DUE DILIGENCE MONITOR

The items below summarize any changes or announcements from your Plan managers/funds. A “Yes” indicates there was an announcement and a brief summary is provided separately. NEPC’s Due Diligence Committee meets every two weeks to review events as they relate to investment managers and determines if any action should be taken by NEPC and/or by our clients. They rate events: No Action, Watch, Hold, Client Review or Terminate. NEPC considers ourselves to be a fiduciary, as ERISA defines the term in Section 3(21).

Investment Manager	Manager Changes/ Announcements (Recent Quarter)	NEPC Due Diligence Committee Recommendations
BlackRock	Yes	No Action

Manager Changes/Announcements

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

PNC Financial Services Group announced that they will be selling their investment in BlackRock, of which they are a 22.4% owner. They will be donating 500,000 shares to the PNC Foundation and selling the rest of their 34.8 million shares. The shares will be sold in a public secondary offer in which any Series B convertible shares will convert to common stock shares after sale. Underwriters will have a 30-day option to buy additional shares. Upon completion of the secondary offering, BlackRock plans to repurchase \$1.1 billion of its stock. BlackRock has a targeted level of share repurchases for 2020; once they complete these repurchases of approximately \$1.5 billion of its shares, they will have met their targeted level for the year.

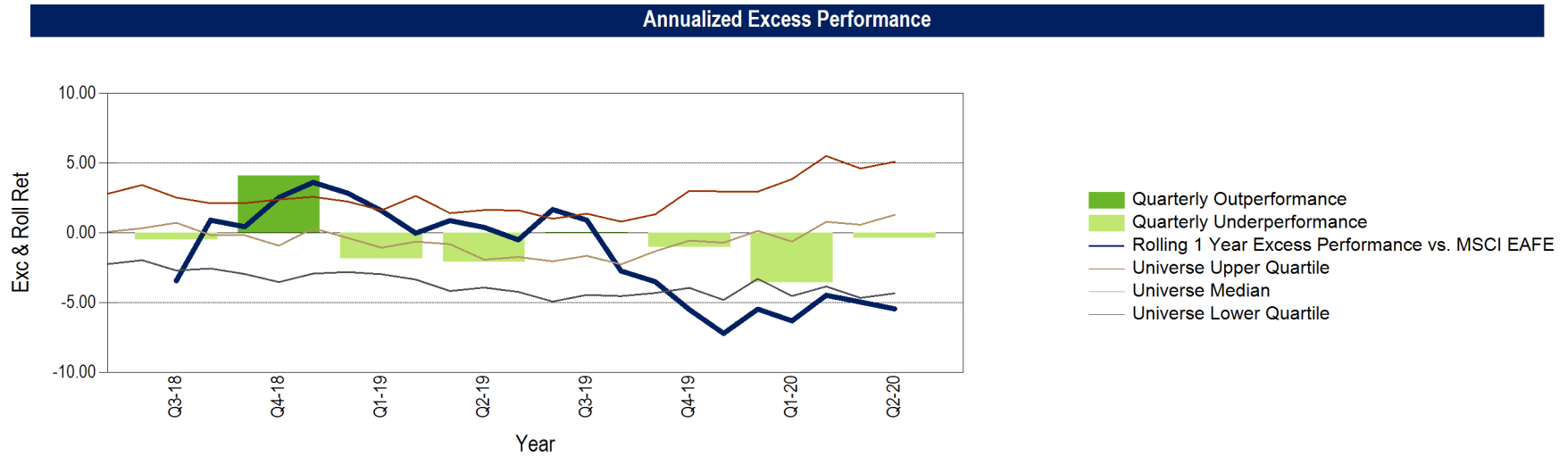
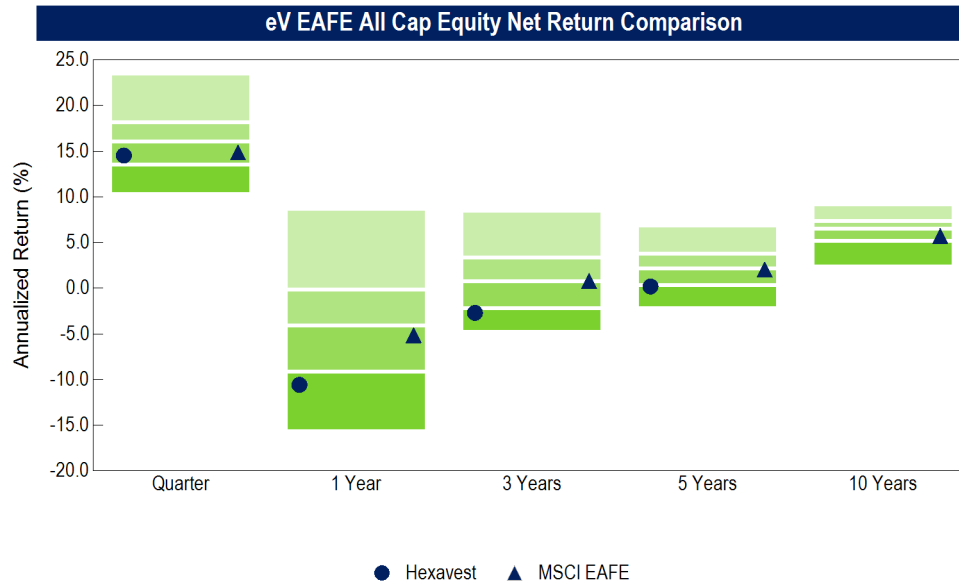
A legend key to our recommendations is provided below.

NEPC Due Diligence Committee Recommendation Key	
No Action	Informational items have surfaced; no action is recommended.
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Hold	Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues.
Client Review	Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager.
Terminate	We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager.



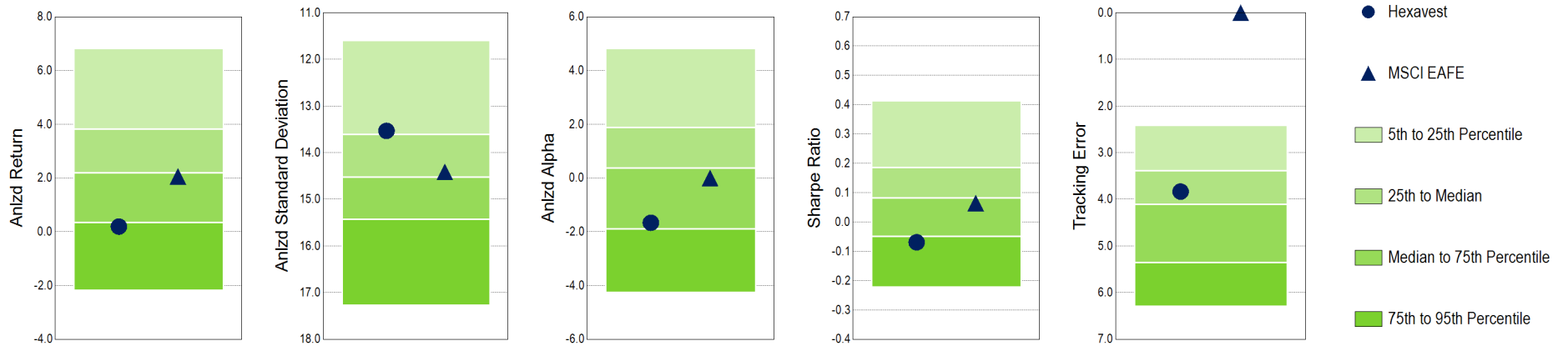
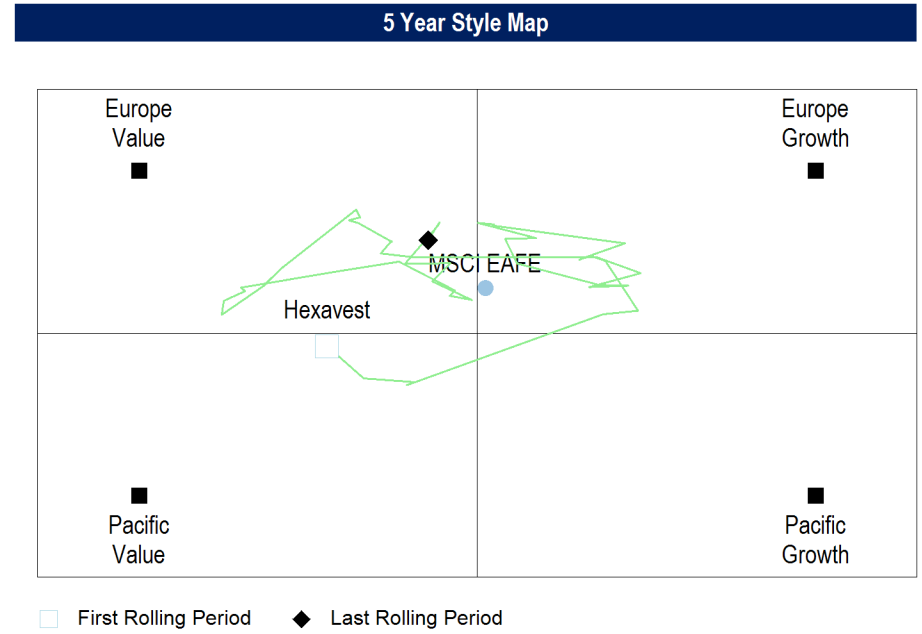
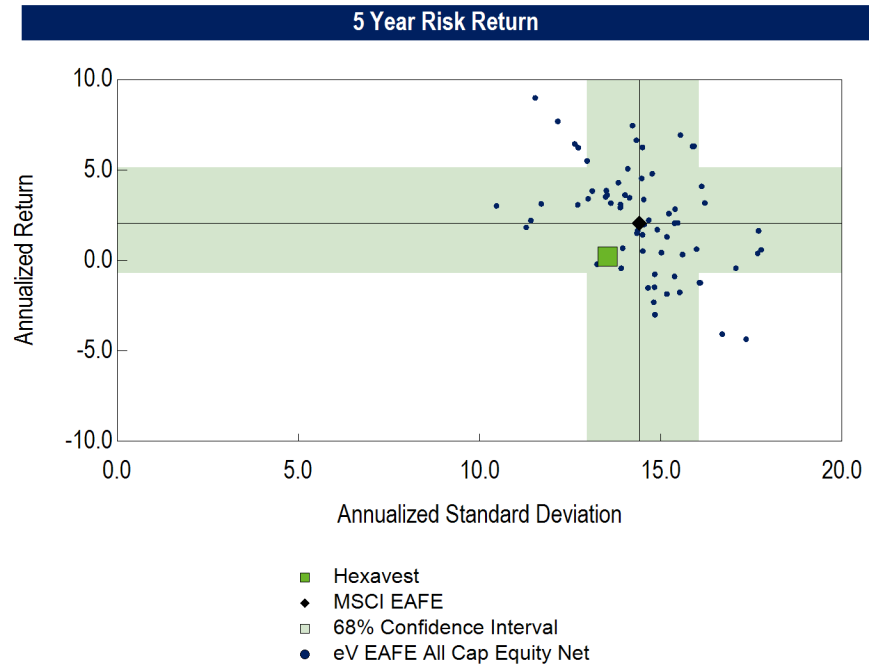
Ventura County Employees' Retirement Association

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Ventura County Employees' Retirement Association

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Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Fund	18.7	-3.6	16.0	8.6	-0.9	6.3	18.1	14.0	0.3	15.1	24.2
Policy Index	20.7	-3.6	16.3	8.4	0.8	6.8	17.2	12.9	0.5	13.2	21.0
Over/Under	-2.0	0.0	-0.3	0.2	-1.7	-0.5	0.9	1.1	-0.2	1.9	3.2
60% MSCI ACWI (Net) / 40% FTSE WGBI	18.2	-5.8	17.1	5.5	-2.6	2.3	11.4	10.3	-1.8	10.0	21.3
60% S&P 500 / 40% BBgBarc Aggregate	22.2	-2.3	14.2	8.3	1.3	10.6	17.6	11.3	4.7	12.1	18.4
Total Fund ex Parametric*	18.4	-3.7	15.9	8.6	-0.9	6.3	17.8	13.7	0.6	14.5	23.3
Total Fund ex Private Equity	19.6	-4.8	15.9	8.6	-1.4	6.1	16.2	13.3	--	--	--
Policy Index	20.7	-3.6	16.3	8.4	0.8	6.8	17.2	12.9	0.5	13.2	21.0
Over/Under	-1.1	-1.2	-0.4	0.2	-2.2	-0.7	-1.0	0.4			
Total US Equity	31.6	-5.0	21.4	13.0	0.5	12.5	34.0	16.9	0.9	18.5	29.2
Russell 3000	31.0	-5.2	21.1	12.7	0.4	12.4	33.5	16.4	1.1	17.5	28.6
Over/Under	0.6	0.2	0.3	0.3	0.1	0.1	0.5	0.5	-0.2	1.0	0.6
Western U.S. Index Plus	33.5	-5.3	22.7	13.8	1.1	14.2	32.9	20.7	1.0	24.7	42.6
S&P 500	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0	2.1	15.1	26.5
Over/Under	2.0	-0.9	0.9	1.8	-0.3	0.5	0.5	4.7	-1.1	9.6	16.1
Blackrock Russell 1000 Index	31.4	-4.7	--	--	--	--	--	--	--	--	--
Russell 1000	31.4	-4.8	21.7	12.1	0.9	13.2	33.1	16.4	1.5	16.1	28.4
Over/Under	0.0	0.1									
Blackrock Russell 2500 Index	27.8	-9.9	--	--	--	--	--	--	--	--	--
Russell 2500	27.8	-10.0	16.8	17.6	-2.9	7.1	36.8	17.9	-2.5	26.7	34.4
Over/Under	0.0	0.1									



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Non-US Equity	21.0	-13.0	26.5	6.6	-4.8	-3.6	16.3	17.9	-13.6	13.5	37.4
<i>MSCI ACWI ex USA</i>	<i>21.5</i>	<i>-14.2</i>	<i>27.2</i>	<i>4.5</i>	<i>-5.7</i>	<i>-3.9</i>	<i>15.3</i>	<i>16.8</i>	<i>-13.7</i>	<i>11.2</i>	<i>41.4</i>
Over/Under	<i>-0.5</i>	<i>1.2</i>	<i>-0.7</i>	<i>2.1</i>	<i>0.9</i>	<i>0.3</i>	<i>1.0</i>	<i>1.1</i>	<i>0.1</i>	<i>2.3</i>	<i>-4.0</i>
<i>MSCI EAFE</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>	<i>7.8</i>	<i>31.8</i>
<i>MSCI ACWI ex USA NR LCL</i>	<i>22.2</i>	<i>-10.6</i>	<i>18.2</i>	<i>7.0</i>	<i>1.9</i>	<i>6.0</i>	<i>20.1</i>	<i>16.3</i>	<i>-12.2</i>	<i>7.6</i>	<i>31.7</i>
<i>MSCI EAFE NR LCL</i>	<i>21.7</i>	<i>-11.0</i>	<i>15.2</i>	<i>5.3</i>	<i>5.3</i>	<i>5.9</i>	<i>26.9</i>	<i>17.3</i>	<i>-12.2</i>	<i>4.8</i>	<i>24.7</i>
BlackRock ACWI ex-U.S. Index	21.9	-14.6	28.1	4.7	-4.5	-3.8	16.0	17.2	-14.1	12.8	43.1
<i>MSCI ACWI ex USA IMI</i>	<i>21.6</i>	<i>-14.8</i>	<i>27.8</i>	<i>4.4</i>	<i>-4.6</i>	<i>-3.9</i>	<i>15.8</i>	<i>17.0</i>	<i>-14.3</i>	<i>12.7</i>	<i>43.6</i>
Over/Under	<i>0.3</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.1</i>	<i>-0.5</i>
<i>MSCI ACWI ex USA NR LCL</i>	<i>22.2</i>	<i>-10.6</i>	<i>18.2</i>	<i>7.0</i>	<i>1.9</i>	<i>6.0</i>	<i>20.1</i>	<i>16.3</i>	<i>-12.2</i>	<i>7.6</i>	<i>31.7</i>
Sprucegrove	17.3	-13.8	27.5	11.9	-9.1	-3.2	17.1	17.2	-10.7	18.8	36.2
<i>MSCI ACWI ex USA</i>	<i>21.5</i>	<i>-14.2</i>	<i>27.2</i>	<i>4.5</i>	<i>-5.7</i>	<i>-3.9</i>	<i>15.3</i>	<i>16.8</i>	<i>-13.7</i>	<i>11.2</i>	<i>41.4</i>
Over/Under	<i>-4.2</i>	<i>0.4</i>	<i>0.3</i>	<i>7.4</i>	<i>-3.4</i>	<i>0.7</i>	<i>1.8</i>	<i>0.4</i>	<i>3.0</i>	<i>7.6</i>	<i>-5.2</i>
<i>MSCI EAFE</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>	<i>7.8</i>	<i>31.8</i>
<i>MSCI ACWI ex USA NR LCL</i>	<i>22.2</i>	<i>-10.6</i>	<i>18.2</i>	<i>7.0</i>	<i>1.9</i>	<i>6.0</i>	<i>20.1</i>	<i>16.3</i>	<i>-12.2</i>	<i>7.6</i>	<i>31.7</i>
<i>MSCI EAFE NR LCL</i>	<i>21.7</i>	<i>-11.0</i>	<i>15.2</i>	<i>5.3</i>	<i>5.3</i>	<i>5.9</i>	<i>26.9</i>	<i>17.3</i>	<i>-12.2</i>	<i>4.8</i>	<i>24.7</i>
Hexavest	16.5	-11.3	17.4	3.8	-1.4	-4.3	20.2	13.7	-9.6	--	--
<i>MSCI EAFE</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>	<i>7.8</i>	<i>31.8</i>
Over/Under	<i>-5.5</i>	<i>2.5</i>	<i>-7.6</i>	<i>2.8</i>	<i>-0.6</i>	<i>0.6</i>	<i>-2.6</i>	<i>-3.6</i>	<i>2.5</i>	--	--
<i>MSCI EAFE NR LCL</i>	<i>21.7</i>	<i>-11.0</i>	<i>15.2</i>	<i>5.3</i>	<i>5.3</i>	<i>5.9</i>	<i>26.9</i>	<i>17.3</i>	<i>-12.2</i>	<i>4.8</i>	<i>24.7</i>
Walter Scott	27.5	-7.1	26.6	5.1	-0.4	-3.5	11.8	20.4	-9.3	--	--
<i>MSCI ACWI ex USA</i>	<i>21.5</i>	<i>-14.2</i>	<i>27.2</i>	<i>4.5</i>	<i>-5.7</i>	<i>-3.9</i>	<i>15.3</i>	<i>16.8</i>	<i>-13.7</i>	<i>11.2</i>	<i>41.4</i>
Over/Under	<i>6.0</i>	<i>7.1</i>	<i>-0.6</i>	<i>0.6</i>	<i>5.3</i>	<i>0.4</i>	<i>-3.5</i>	<i>3.6</i>	<i>4.4</i>	--	--
<i>MSCI ACWI ex USA NR LCL</i>	<i>22.2</i>	<i>-10.6</i>	<i>18.2</i>	<i>7.0</i>	<i>1.9</i>	<i>6.0</i>	<i>20.1</i>	<i>16.3</i>	<i>-12.2</i>	<i>7.6</i>	<i>31.7</i>
<i>MSCI EAFE</i>	<i>22.0</i>	<i>-13.8</i>	<i>25.0</i>	<i>1.0</i>	<i>-0.8</i>	<i>-4.9</i>	<i>22.8</i>	<i>17.3</i>	<i>-12.1</i>	<i>7.8</i>	<i>31.8</i>
Total Global Equity	27.1	-9.0	24.5	9.0	-3.8	1.9	22.0	14.4	-3.9	11.4	17.8
<i>MSCI ACWI</i>	<i>26.6</i>	<i>-9.4</i>	<i>24.0</i>	<i>7.9</i>	<i>-2.4</i>	<i>4.2</i>	<i>22.8</i>	<i>16.1</i>	<i>-7.3</i>	<i>12.7</i>	<i>34.6</i>
Over/Under	<i>0.5</i>	<i>0.4</i>	<i>0.5</i>	<i>1.1</i>	<i>-1.4</i>	<i>-2.3</i>	<i>-0.8</i>	<i>-1.7</i>	<i>3.4</i>	<i>-1.3</i>	<i>-16.8</i>
BlackRock MSCI ACWI Equity Index	27.1	-9.0	24.5	8.4	-2.0	4.6	23.2	--	--	--	--
<i>MSCI ACWI</i>	<i>26.6</i>	<i>-9.4</i>	<i>24.0</i>	<i>7.9</i>	<i>-2.4</i>	<i>4.2</i>	<i>22.8</i>	<i>16.1</i>	<i>-7.3</i>	<i>12.7</i>	<i>34.6</i>
Over/Under	<i>0.5</i>	<i>0.4</i>	<i>0.5</i>	<i>0.5</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	--	--	--	--



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Private Equity	8.3	18.7	16.9	7.6	14.7	19.0	17.9	10.3	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-26.6	21.1	-7.8	-8.5	11.2	3.1	-19.6	-9.6			
CJA Global All PE (Qtr Lag)	7.8	16.4	15.9	8.5	7.0	16.3	15.9	13.0	12.6	17.1	-9.3
Adams Street Global Fund Series	4.1	19.6	13.4	7.1	10.3	19.6	15.7	10.8	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-30.8	22.0	-11.3	-9.0	6.8	3.7	-21.8	-9.1			
Harbourvest	12.2	22.7	23.2	6.7	28.5	18.5	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-22.7	25.1	-1.5	-9.4	25.0	2.6					
Pantheon Global Secondary Funds	-0.4	17.3	24.1	15.5	6.4	16.7	14.9	0.9	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-35.3	19.7	-0.6	-0.6	2.9	0.8	-22.6	-19.0			
Drive Capital Fund II	53.0	-2.5	-33.7	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	18.1	-0.1	-58.4								
Abbott Secondary Opportunities	8.9	26.0	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-26.0	28.4									
Clearlake Capital Partners V	50.2	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	15.3										
Battery Ventures XII	5.7	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-29.2										
Insight Venture Partners X	21.4	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-13.5										
GTCR Fund XII	-18.8	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-53.7										
Buenaventure One, LLC	6.7	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-28.2										
ECI 11	34.2	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	-0.7										



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
The Resolute Fund IV L.P.	81.6	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under	46.7										
GGV Capital VII L.P.	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
GGV Discovery II, L.P.	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Drive Capital Overdrive Fund I	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Riverside Micro Cap Fund V, LP	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
GGV Capital VII Plus, LP	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Astorg VII L.P.	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
M/C Partners Fund VIII LP. Limited Partnership	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Genstar Capital Partners IX	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Genstar IX Opportunities Fund I	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
ABRY Partners IX, LP	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											
Advent International GPE IX LP	--	--	--	--	--	--	--	--	--	--	--
Russell 3000 + 3%	34.9	-2.4	24.7	16.1	3.5	15.9	37.5	19.9	4.1	20.4	32.1
Over/Under											



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Drive Capital Fund III LP	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
Oak HC/FT Partners III LP	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
TA XIII A LP	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
Dover Street X, LP	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
Hellman & Friedman CP IX	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
Clearlake Capital Partners VI	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											
Flexpoint Fund IV	--	--	--	--	--	--	--	--	--	--	--
<i>Russell 3000 + 3%</i>	<u>34.9</u>	<u>-2.4</u>	<u>24.7</u>	<u>16.1</u>	<u>3.5</u>	<u>15.9</u>	<u>37.5</u>	<u>19.9</u>	<u>4.1</u>	<u>20.4</u>	<u>32.1</u>
Over/Under											



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total US Fixed Income	8.5	0.0	4.4	4.9	0.3	3.0	-0.1	9.6	7.3	10.6	25.6
<i>BBgBarc US Aggregate TR</i>	<u>8.7</u>	<u>0.0</u>	<u>3.5</u>	<u>2.6</u>	<u>0.5</u>	<u>6.0</u>	<u>-2.0</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
Over/Under	-0.2	0.0	0.9	2.3	-0.2	-3.0	1.9	5.4	-0.5	4.1	19.7
BlackRock U.S. Debt Fund	8.7	0.0	3.6	2.7	0.6	6.2	-2.0	4.3	7.9	6.7	6.0
<i>BBgBarc US Aggregate TR</i>	<u>8.7</u>	<u>0.0</u>	<u>3.5</u>	<u>2.6</u>	<u>0.5</u>	<u>6.0</u>	<u>-2.0</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
Over/Under	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.2	0.1
Western	10.6	-0.6	6.0	4.1	0.9	7.4	-1.2	9.7	7.3	11.3	18.9
<i>BBgBarc US Aggregate TR</i>	<u>8.7</u>	<u>0.0</u>	<u>3.5</u>	<u>2.6</u>	<u>0.5</u>	<u>6.0</u>	<u>-2.0</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
Over/Under	1.9	-0.6	2.5	1.5	0.4	1.4	0.8	5.5	-0.5	4.8	13.0
Reams	6.6	0.7	2.5	6.0	0.3	-3.6	2.5	10.0	8.4	10.0	33.6
<i>Reams Custom Index</i>	<u>2.4</u>	<u>2.4</u>	<u>1.3</u>	<u>0.7</u>	<u>0.3</u>	<u>0.2</u>	<u>-0.5</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
Over/Under	4.2	-1.7	1.2	5.3	0.0	-3.8	3.0	5.8	0.6	3.5	27.7
<i>BBgBarc US Aggregate TR</i>	<u>8.7</u>	<u>0.0</u>	<u>3.5</u>	<u>2.6</u>	<u>0.5</u>	<u>6.0</u>	<u>-2.0</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
3-Month LIBOR + 3%	5.4	5.4	4.4	3.8	3.3	3.2	3.3	3.5	3.3	3.4	3.8
Loomis Strategic Alpha	4.3	0.6	3.3	6.1	-1.0	2.4	--	--	--	--	--
<i>BBgBarc US Aggregate TR</i>	<u>8.7</u>	<u>0.0</u>	<u>3.5</u>	<u>2.6</u>	<u>0.5</u>	<u>6.0</u>	<u>-2.0</u>	<u>4.2</u>	<u>7.8</u>	<u>6.5</u>	<u>5.9</u>
Over/Under	-4.4	0.6	-0.2	3.5	-1.5	-3.6	--	--	--	--	--
3-Month LIBOR + 3%	5.4	5.4	4.4	3.8	3.3	3.2	3.3	3.5	3.3	3.4	3.8
Loomis Sayles Multi Strategy	9.4	-0.8	8.4	8.2	-2.3	6.8	1.4	16.7	4.2	13.6	37.6
<i>Loomis Custom Index</i>	<u>10.2</u>	<u>-0.6</u>	<u>4.5</u>	<u>7.0</u>	<u>-1.2</u>	<u>4.6</u>	<u>0.8</u>	<u>7.5</u>	<u>7.1</u>	<u>8.7</u>	<u>18.8</u>
Over/Under	-0.8	-0.2	3.9	1.2	-1.1	2.2	0.6	9.2	-2.9	4.9	18.8
<i>BBgBarc US Govt/Credit TR</i>	<u>9.7</u>	<u>-0.4</u>	<u>4.0</u>	<u>3.0</u>	<u>0.1</u>	<u>6.0</u>	<u>-2.4</u>	<u>4.8</u>	<u>8.7</u>	<u>6.6</u>	<u>4.5</u>



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Private Debt	8.4	4.7	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under	-4.9	3.6									
CVI Credit Value Fund	7.1	4.6	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under	-6.2	3.5									
Monroe Capital Private Credit Fund III	11.2	--	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under	-2.1										
Bluebay Direct Lending Fund III	--	--	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under											
Pimco Private Income Fund	--	--	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under											
Bridge Debt Strategies III Limited Partner	--	--	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under											
PIMCO Corp Opps Fund III	--	--	--	--	--	--	--	--	--	--	--
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps	<u>13.3</u>	<u>1.1</u>	--	--	--	--	--	--	--	--	--
Over/Under											
Treasuries	--	--	--	--	--	--	--	--	--	--	--
Reams 10-Year Treasuries	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Treasury 7-10 Yr TR	<u>8.5</u>	<u>0.9</u>	<u>2.6</u>	<u>1.1</u>	<u>1.6</u>	<u>9.0</u>	<u>-6.0</u>	<u>4.2</u>	<u>15.6</u>	<u>9.4</u>	<u>-6.0</u>
Over/Under											



Ventura County Employees' Retirement Association

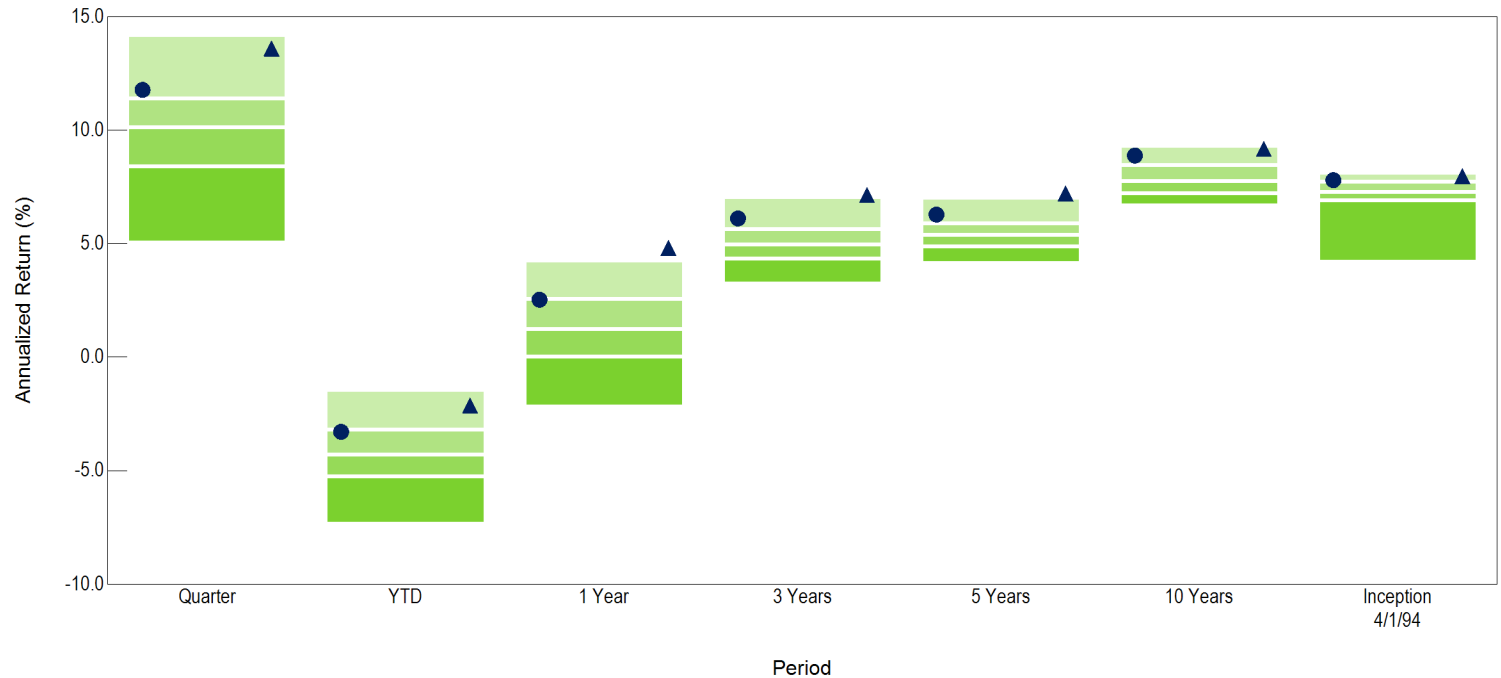
TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)	2009 (%)
Total Real Estate	0.3	6.9	5.9	6.8	12.8	11.6	10.6	9.1	14.4	15.4	-31.2
NCREIF ODCE Net	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Over/Under	-4.1	-0.5	-0.8	-1.0	-1.2	0.1	-2.3	-0.7	-0.6	0.1	-0.8
Prudential Real Estate	5.9	8.2	7.0	8.2	14.5	12.5	13.8	8.8	18.0	17.2	-34.8
NCREIF ODCE Net	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Over/Under	1.5	0.8	0.3	0.4	0.5	1.0	0.9	-1.0	3.0	1.9	-4.4
NCREIF ODCE	5.3	8.3	7.6	8.8	15.0	12.5	13.9	10.9	16.0	16.4	-29.8
UBS Real Estate	-2.8	6.2	5.4	6.2	11.9	10.6	9.3	9.0	12.1	15.9	-22.9
NCREIF ODCE Net	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Over/Under	-7.2	-1.2	-1.3	-1.6	-2.1	-0.9	-3.6	-0.8	-2.9	0.6	7.5
NCREIF ODCE	5.3	8.3	7.6	8.8	15.0	12.5	13.9	10.9	16.0	16.4	-29.8
LaSalle Income + Growth VIII Limited Partnership	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE Net	4.4	7.4	6.7	7.8	14.0	11.5	12.9	9.8	15.0	15.3	-30.4
Over/Under											
NCREIF ODCE	5.3	8.3	7.6	8.8	15.0	12.5	13.9	10.9	16.0	16.4	-29.8
Total Real Assets	14.4	-7.3	7.2	11.7	-13.8	10.2	--	--	--	--	--
Real Assets Index	5.3	6.0	6.2	6.2	4.8	4.8	28.8	5.4	8.8	--	--
Over/Under	9.1	-13.3	1.0	5.5	-18.6	5.4					
Bridgewater All Weather Fund	16.7	-5.0	11.9	10.0	-6.8	7.6	--	--	--	--	--
CPI + 5% (Unadjusted)	7.4	7.0	7.2	7.2	5.8	5.8	--	--	--	--	--
Over/Under	9.3	-12.0	4.7	2.8	-12.6	1.8					
Tortoise Energy Infrastructure	8.0	-13.3	-3.5	15.9	-27.1	15.7	--	--	--	--	--
Tortoise MLP Index	10.9	-13.7	-5.7	21.0	-34.1	8.0	28.8	5.4	8.8	--	--
Over/Under	-2.9	0.4	2.2	-5.1	7.0	7.7					
Brookfield Infra Fund IV B LP	--	--	--	--	--	--	--	--	--	--	--
CPI + 2% (Unadjusted)	4.3	3.9	4.1	4.1	2.7	2.8	3.5	3.8	5.0	3.5	4.8
Over/Under											
Overlay											
Parametric											
Abbott Capital Cash											



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

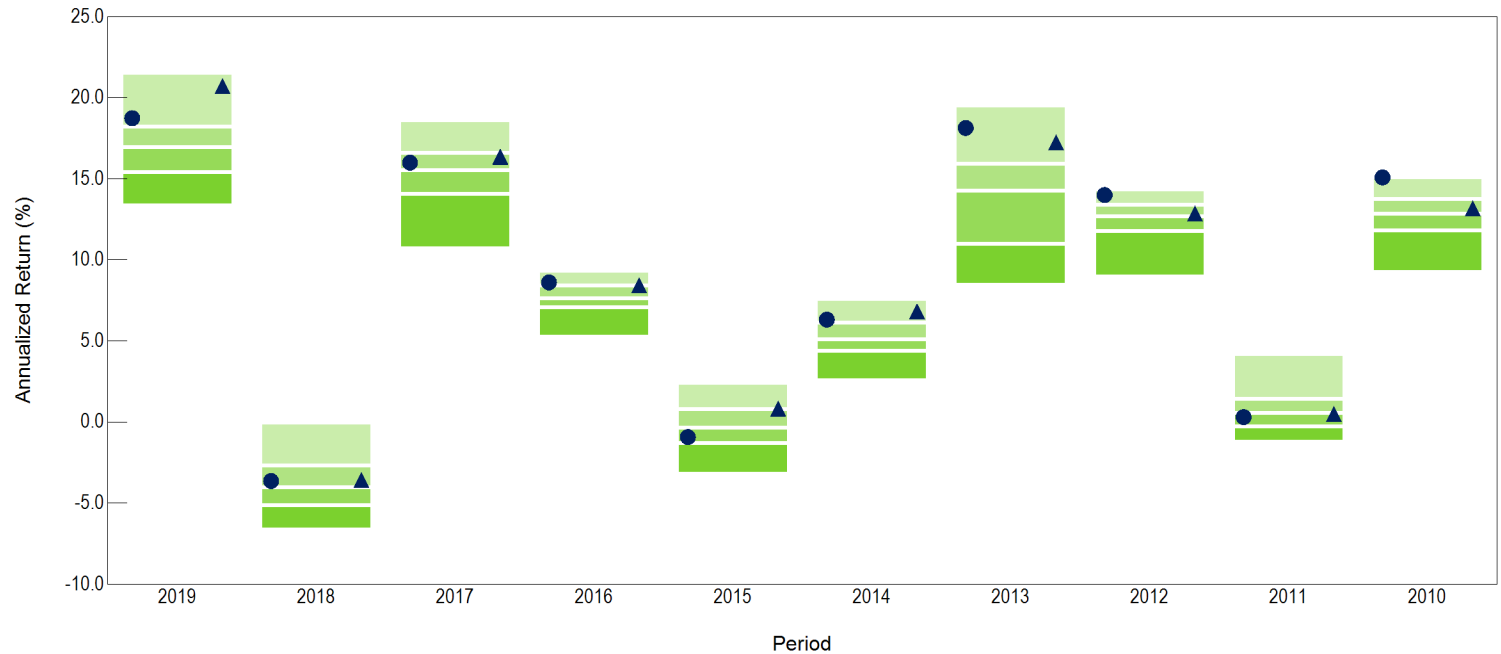


	Return (Rank)													
5th Percentile	14.2		-1.5		4.2		7.0		7.0		9.3		8.1	
25th Percentile	11.4		-3.2		2.6		5.7		5.9		8.5		7.7	
Median	10.1		-4.3		1.3		5.0		5.4		7.8		7.3	
75th Percentile	8.4		-5.2		0.0		4.4		4.9		7.2		6.9	
95th Percentile	5.0		-7.3		-2.2		3.2		4.2		6.7		4.2	
# of Portfolios	71		71		71		71		70		64		36	
● Total Fund	11.8	(21)	-3.3	(30)	2.5	(29)	6.1	(19)	6.3	(18)	8.9	(12)	7.8	(23)
▲ Policy Index	13.6	(8)	-2.1	(13)	4.8	(2)	7.1	(4)	7.2	(3)	9.2	(8)	8.0	(13)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

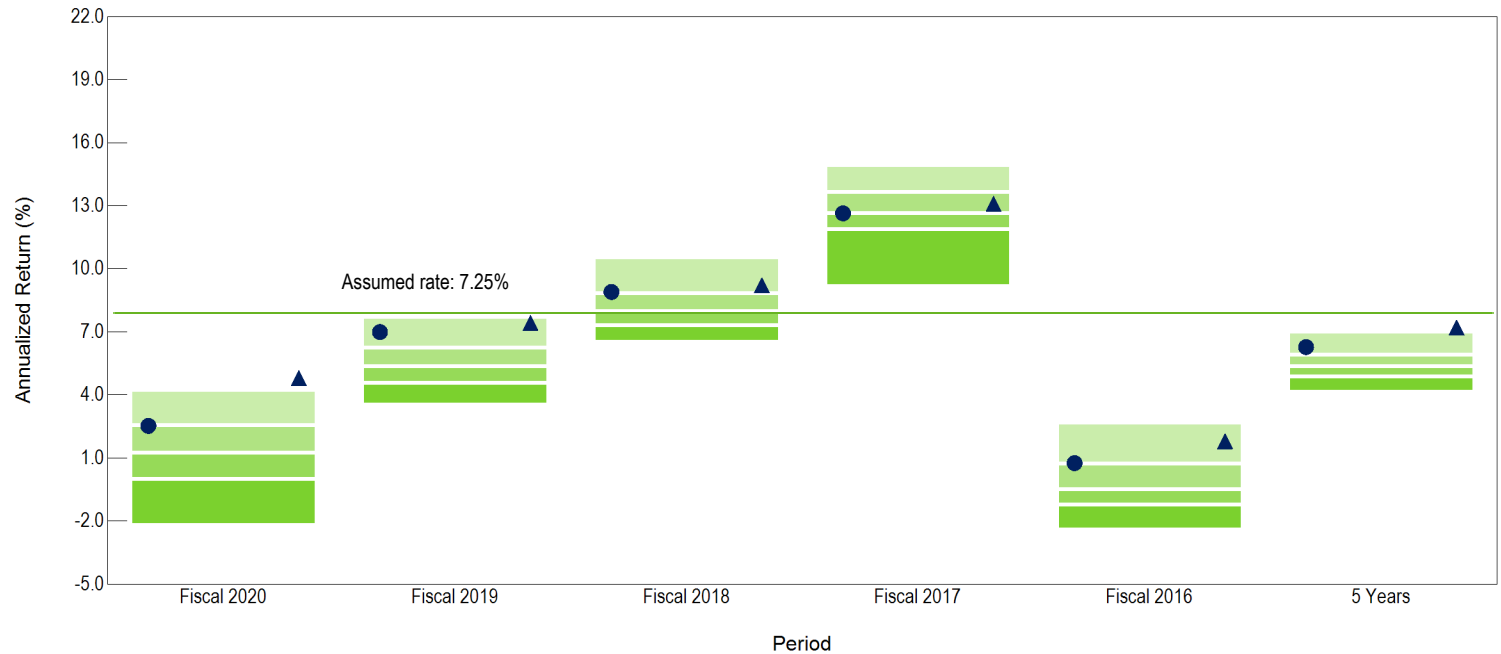


	Return (Rank)																			
5th Percentile	21.5	-0.1	18.6	9.3	2.4	7.6	19.5	14.3	4.2	15.1										
25th Percentile	18.2	-2.7	16.6	8.4	0.8	6.1	16.0	13.4	1.5	13.8										
Median	17.0	-4.0	15.6	7.7	-0.4	5.1	14.3	12.7	0.6	12.8										
75th Percentile	15.4	-5.1	14.1	7.1	-1.3	4.4	11.0	11.8	-0.3	11.8										
95th Percentile	13.4	-6.6	10.7	5.3	-3.2	2.6	8.5	9.0	-1.2	9.3										
# of Portfolios	69	63	61	62	57	55	48	44	42	41										
● Total Fund	18.7	(17)	-3.6	(42)	16.0	(37)	8.6	(15)	-0.9	(65)	6.3	(20)	18.1	(10)	14.0	(15)	0.3	(61)	15.1	(6)
▲ Policy Index	20.7	(9)	-3.6	(41)	16.3	(29)	8.4	(25)	0.8	(25)	6.8	(12)	17.2	(14)	12.9	(41)	0.5	(55)	13.2	(44)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

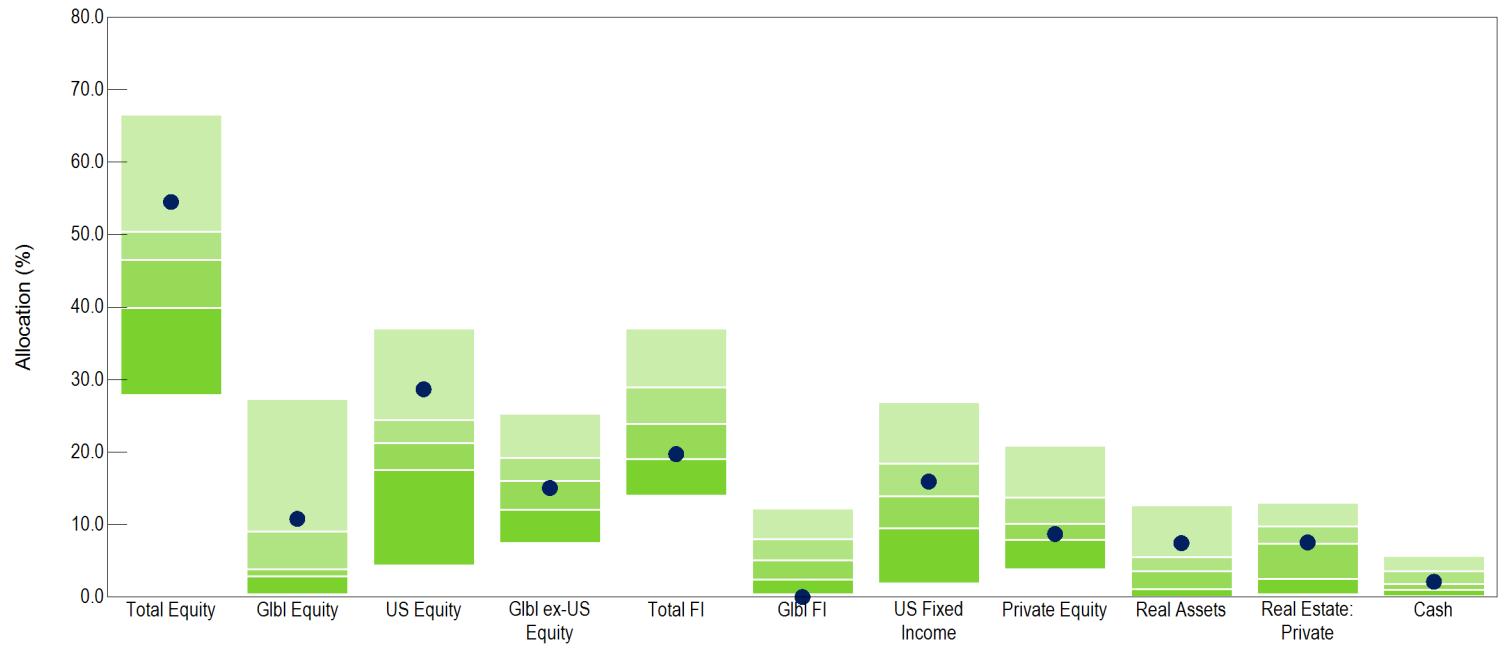


	Return (Rank)											
5th Percentile	4.2		7.7		10.5		14.9		2.7		7.0	
25th Percentile	2.6		6.3		8.8		13.7		0.8		5.9	
Median	1.3		5.4		8.0		12.7		-0.5		5.4	
75th Percentile	0.0		4.6		7.3		11.9		-1.2		4.9	
95th Percentile	-2.2		3.5		6.5		9.2		-2.4		4.2	
# of Portfolios	71		77		51		65		55		70	
● Total Fund	2.5	(29)	7.0	(15)	8.9	(23)	12.6	(53)	0.8	(26)	6.3	(18)
▲ Policy Index	4.8	(2)	7.4	(7)	9.2	(13)	13.1	(37)	1.8	(9)	7.2	(3)



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

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



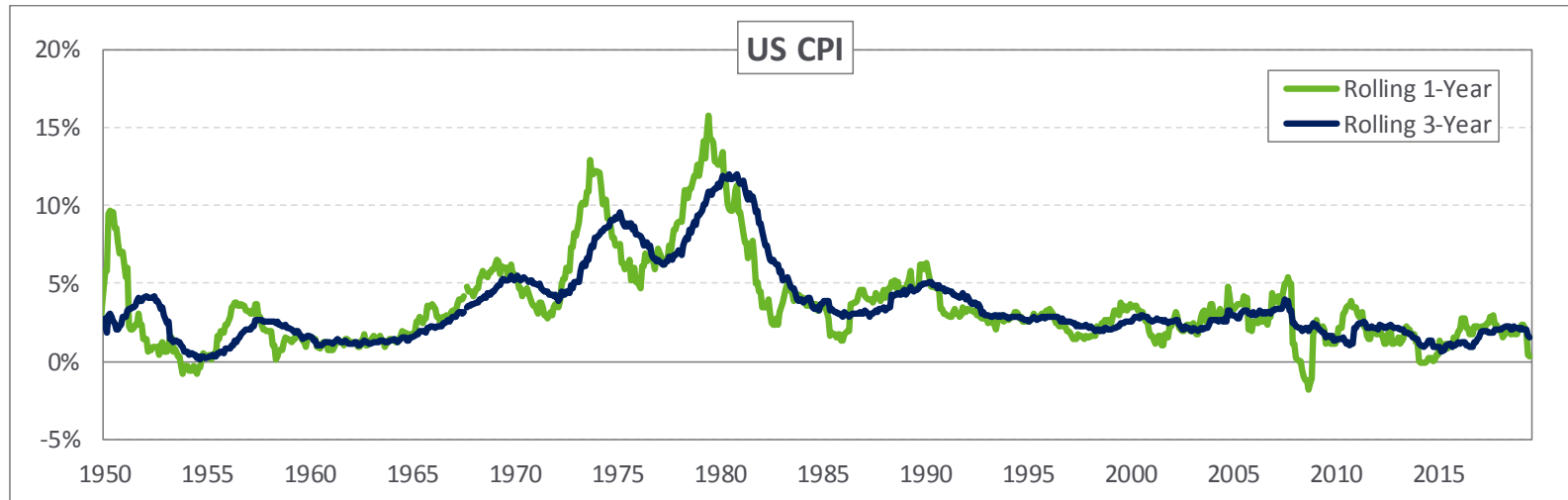
	Allocation (Rank)																						
5th Percentile	66.5	27.4	37.1	25.3	37.1	12.2	26.9	20.8	12.7	13.0	5.7	--											
25th Percentile	50.5	9.1	24.5	19.3	29.0	8.1	18.5	13.8	5.6	9.9	3.6	--											
Median	46.6	3.9	21.3	16.1	24.0	5.2	14.0	10.2	3.6	7.5	1.9	--											
75th Percentile	39.9	2.9	17.6	12.1	19.1	2.5	9.6	8.0	1.1	2.6	1.1	--											
95th Percentile	27.9	0.5	4.4	7.5	14.1	0.5	2.0	3.9	0.1	0.5	0.2	--											
# of Portfolios	50	25	40	49	50	22	41	46	27	43	50	--											
• Total Fund	54.5	(14)	10.8	(13)	28.7	(17)	15.0	(57)	19.7	(71)	0.0	(99)	15.9	(41)	8.7	(68)	7.4	(17)	7.5	(46)	2.1	(45)	--



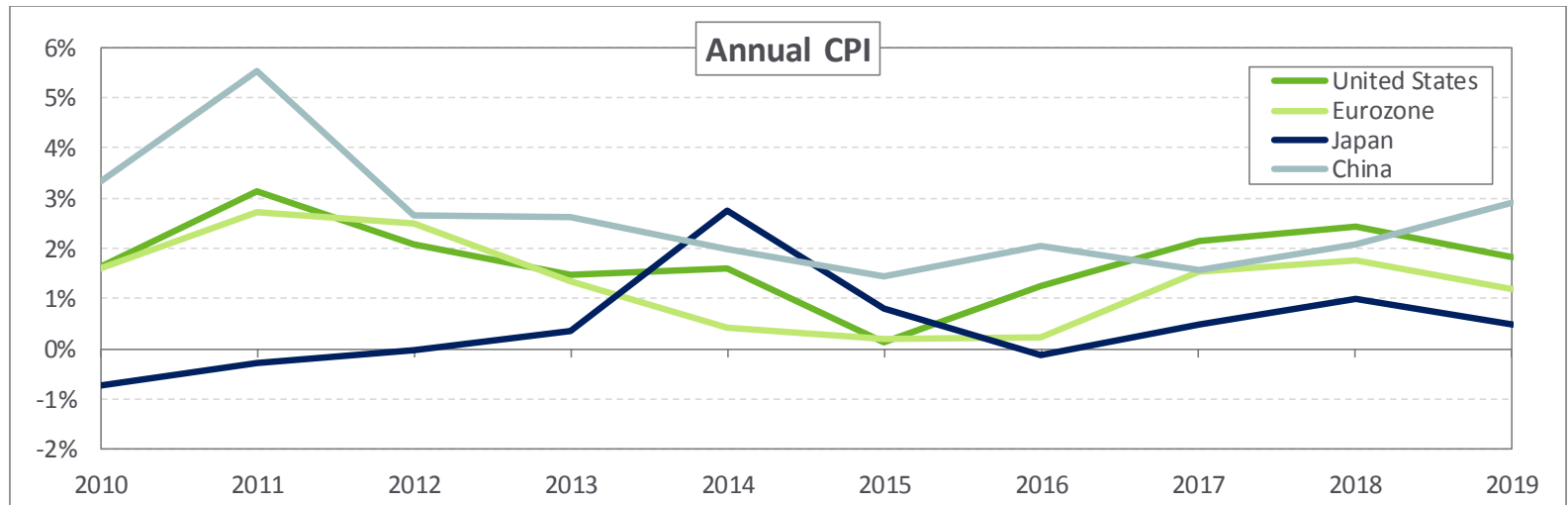
MACRO

NEPC, LLC

INFLATION



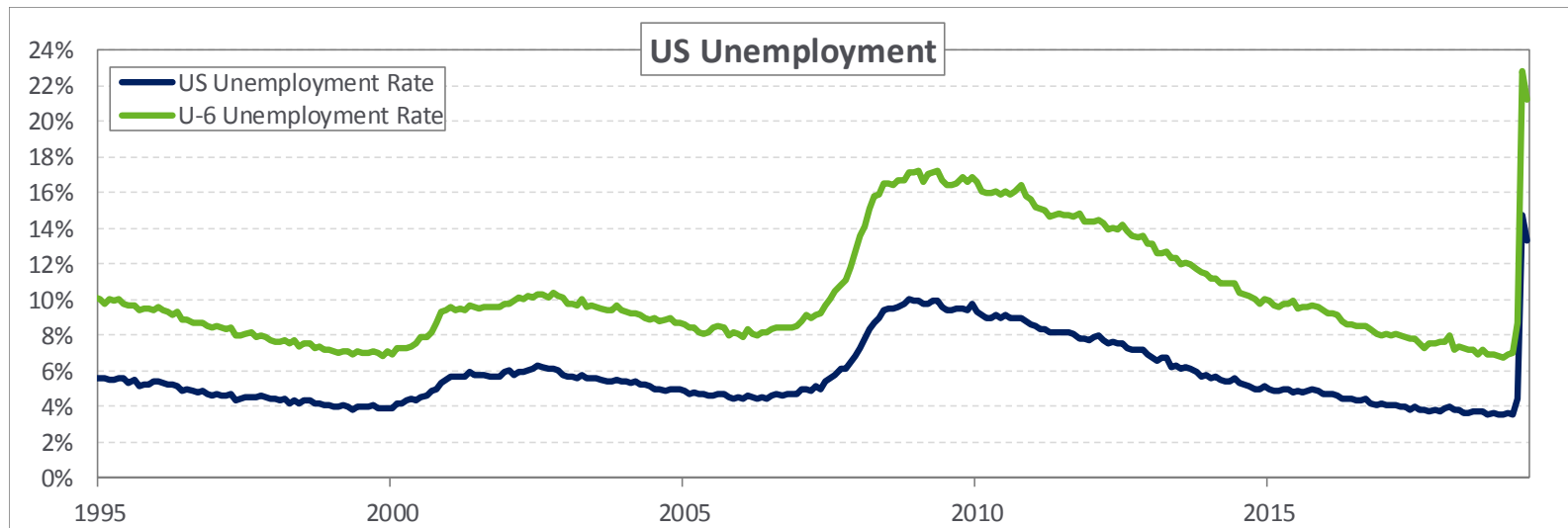
Source: Bureau of Labor Statistics, FactSet



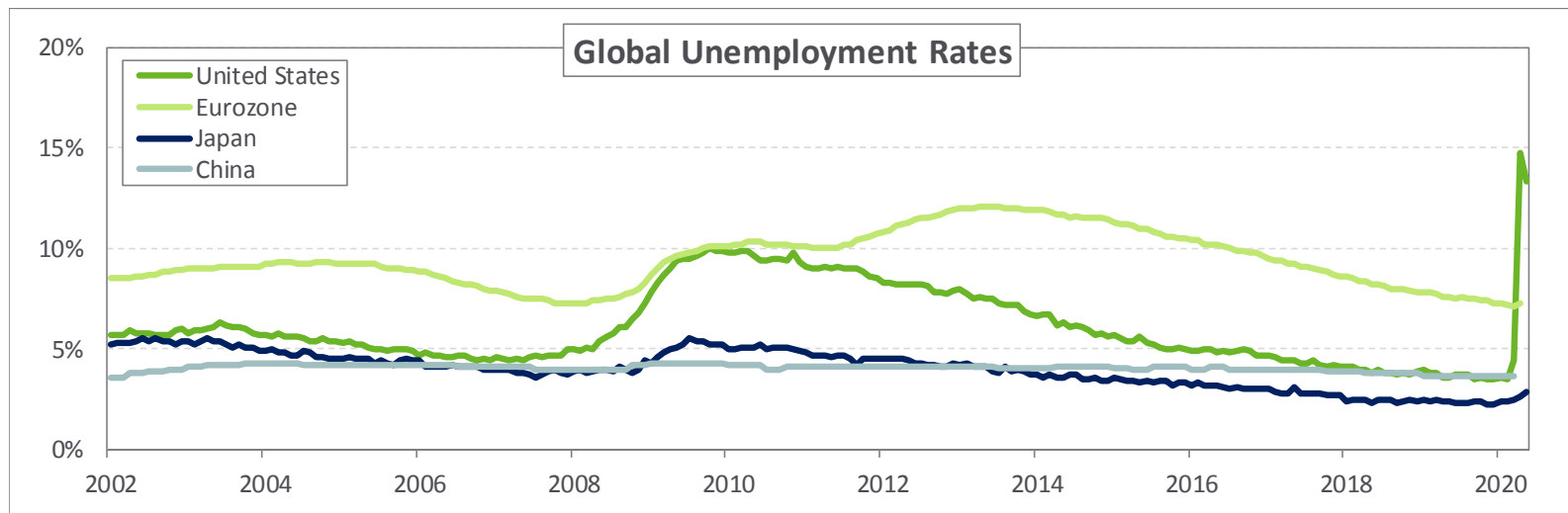
Source: FactSet



UNEMPLOYMENT



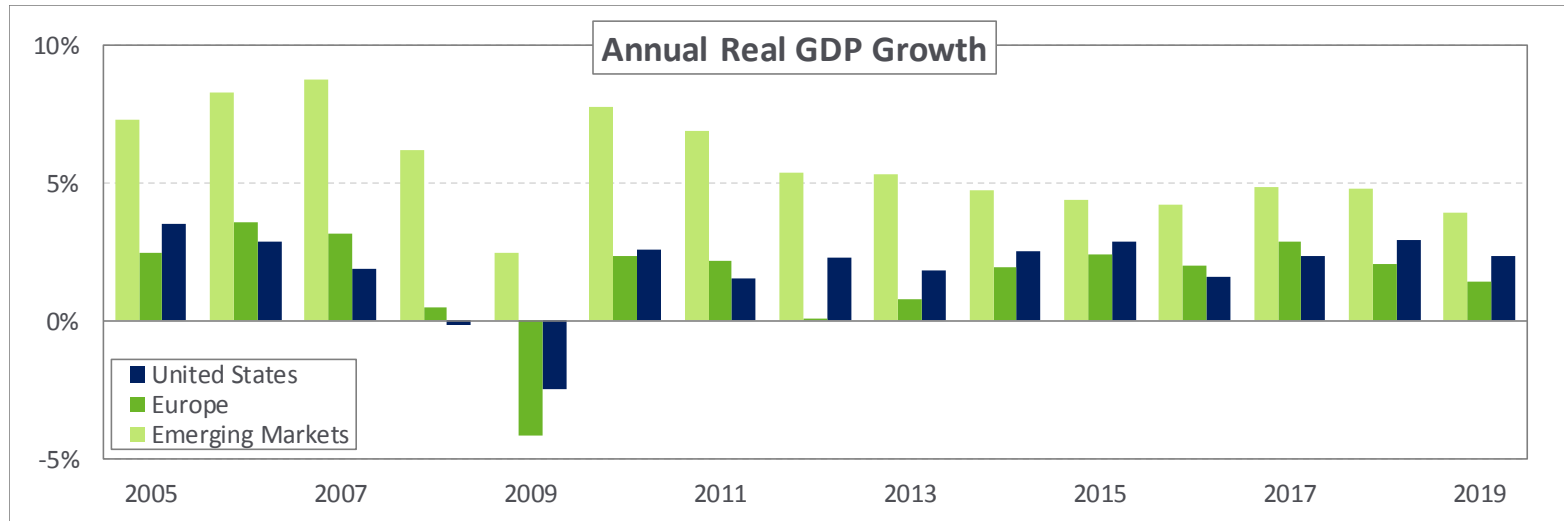
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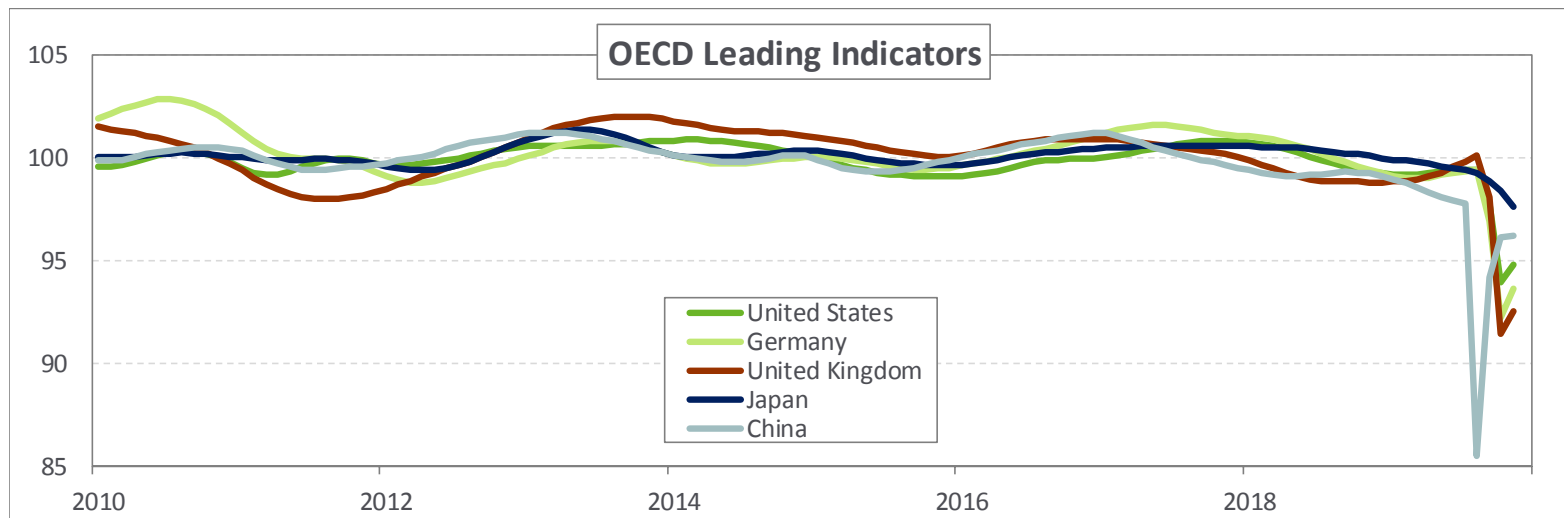
Source: FactSet



ECONOMIC INDICATORS



Source: Bureau of Economic Analysis, Oxford Economics, FactSet



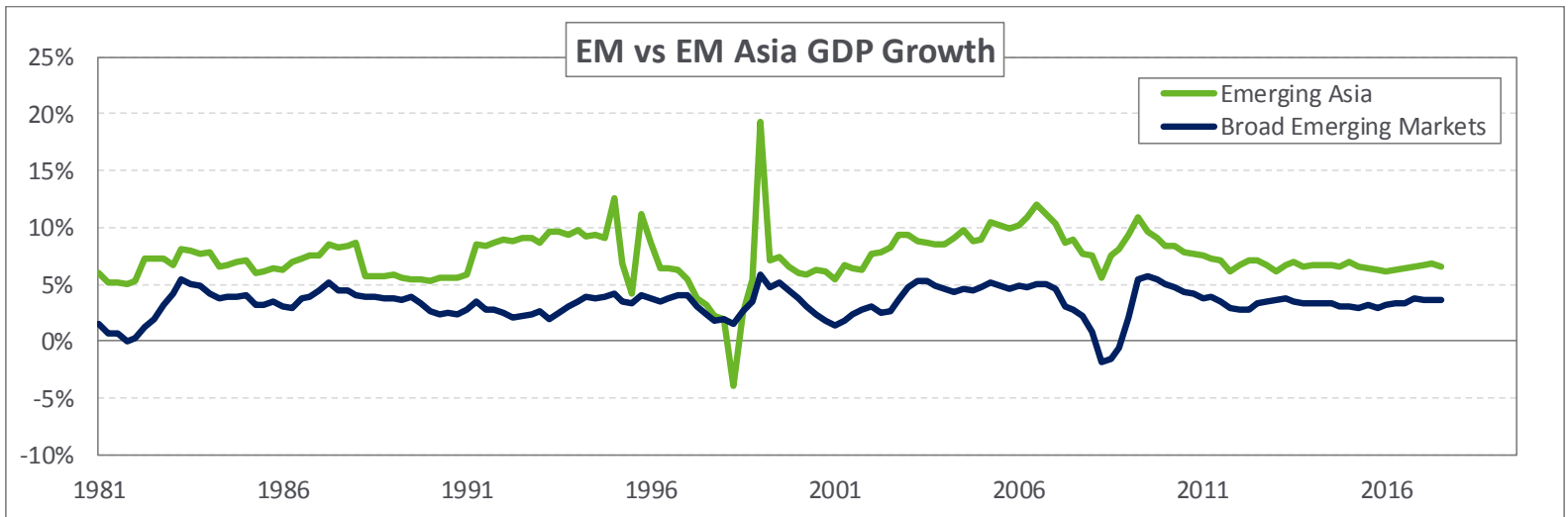
Source: OECD, FactSet



GROSS DOMESTIC PRODUCT



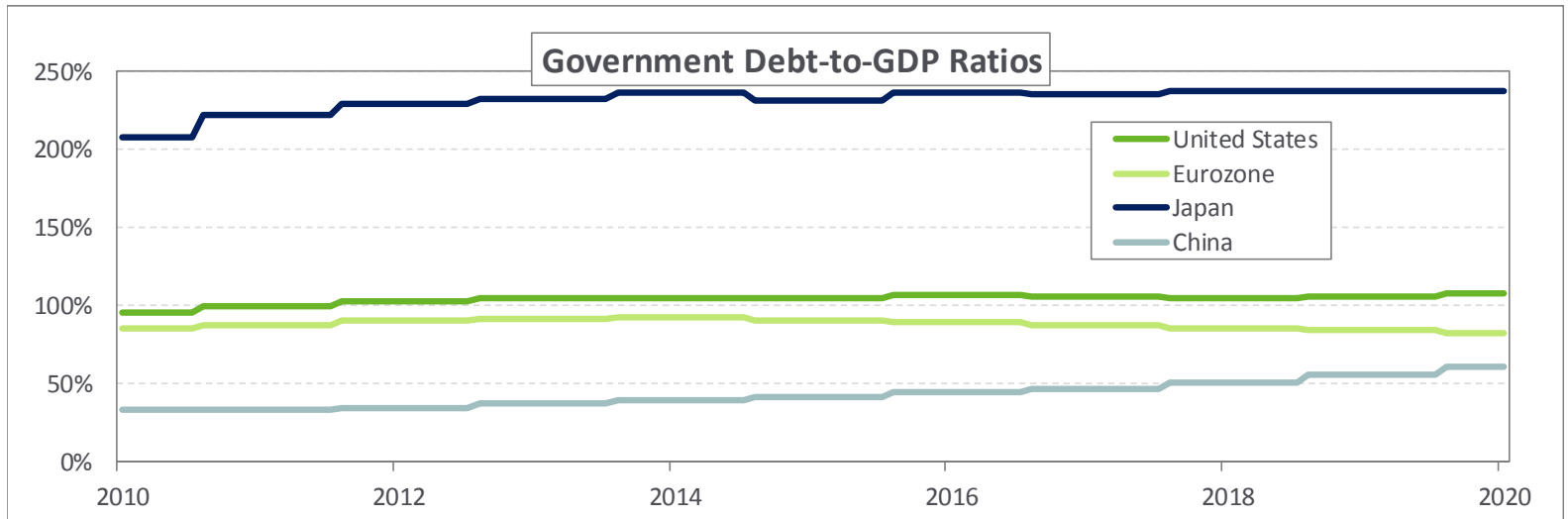
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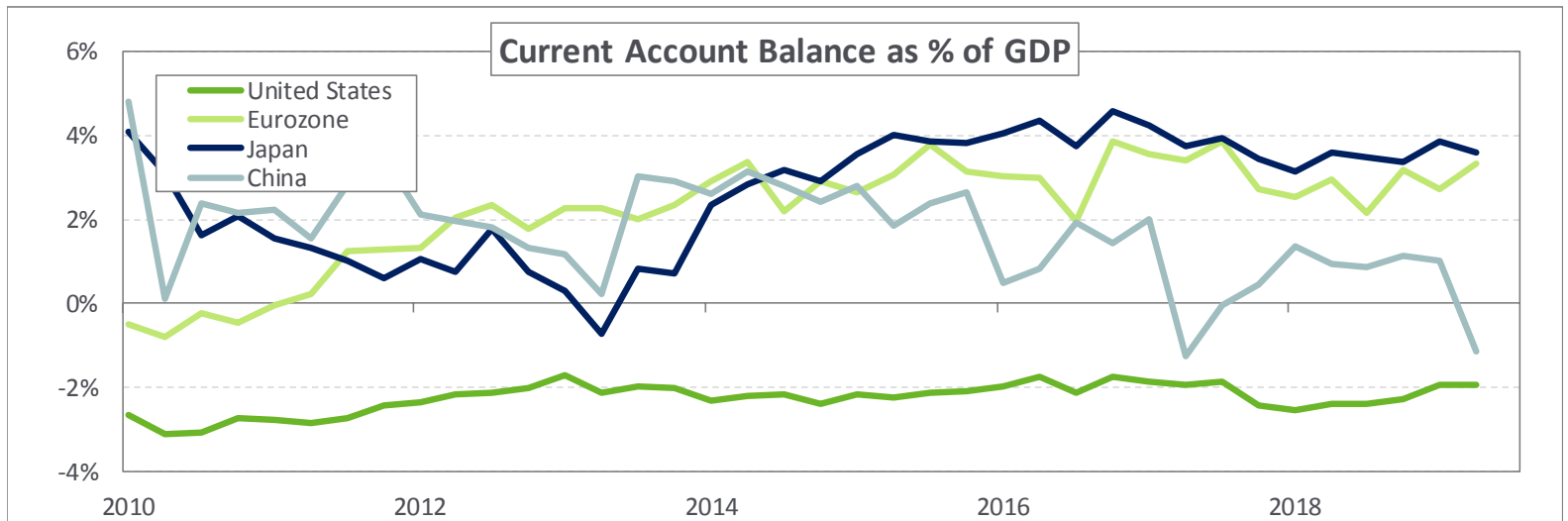
Source: IMF, FactSet



GROSS DOMESTIC PRODUCT METRICS



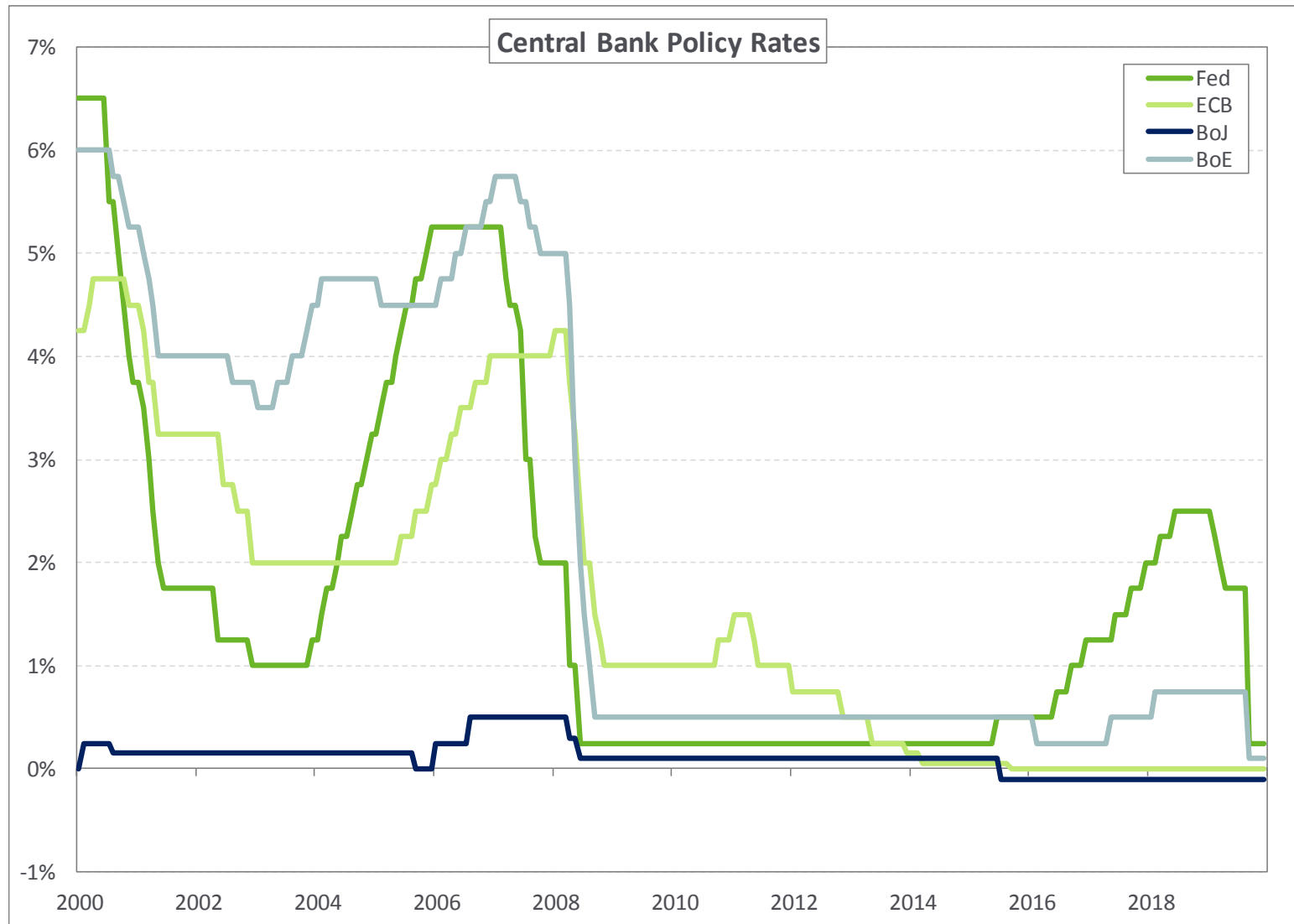
Source: IMF, FactSet



Source: FactSet



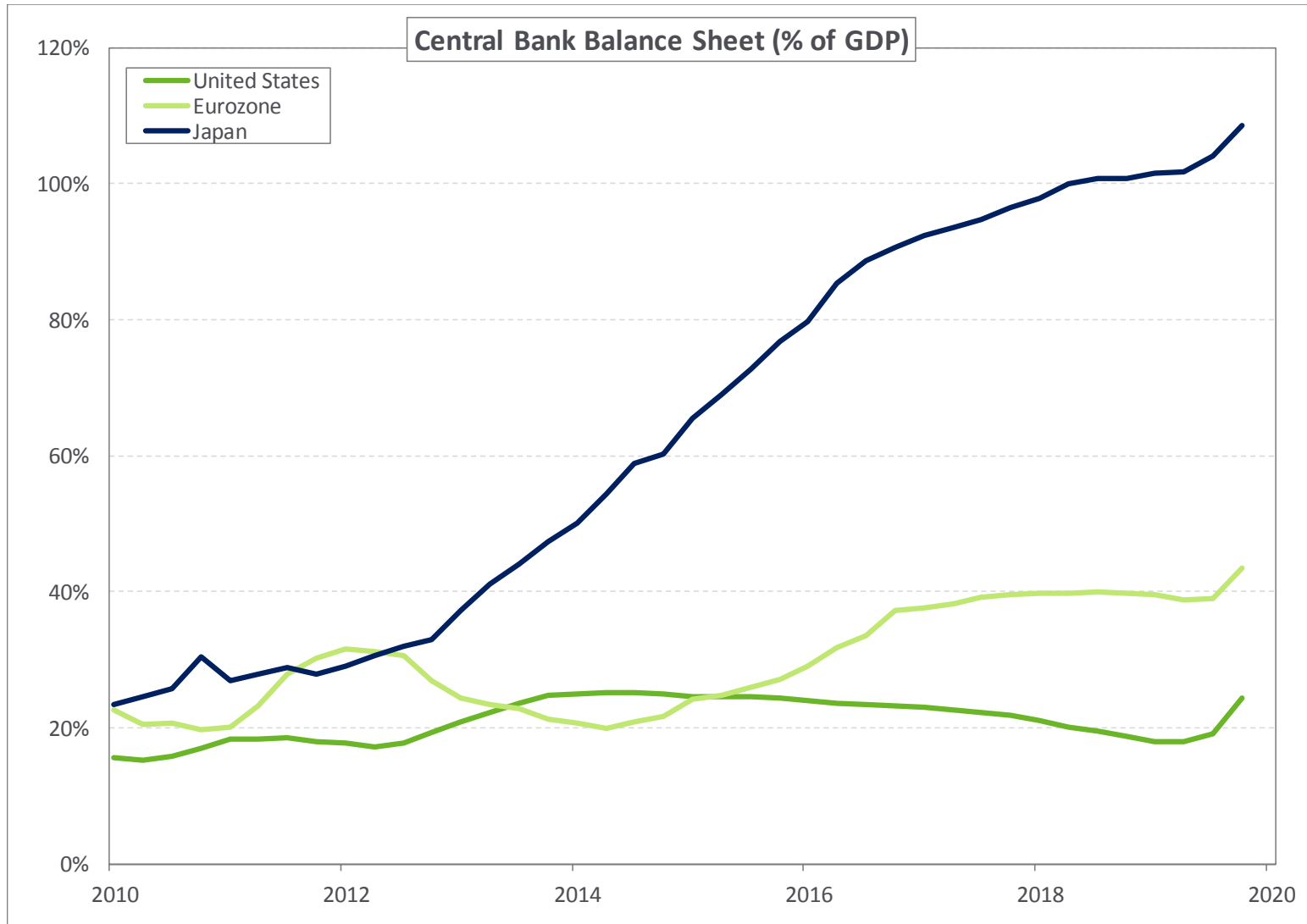
CENTRAL BANK RATES



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



CENTRAL BANK BALANCE SHEETS



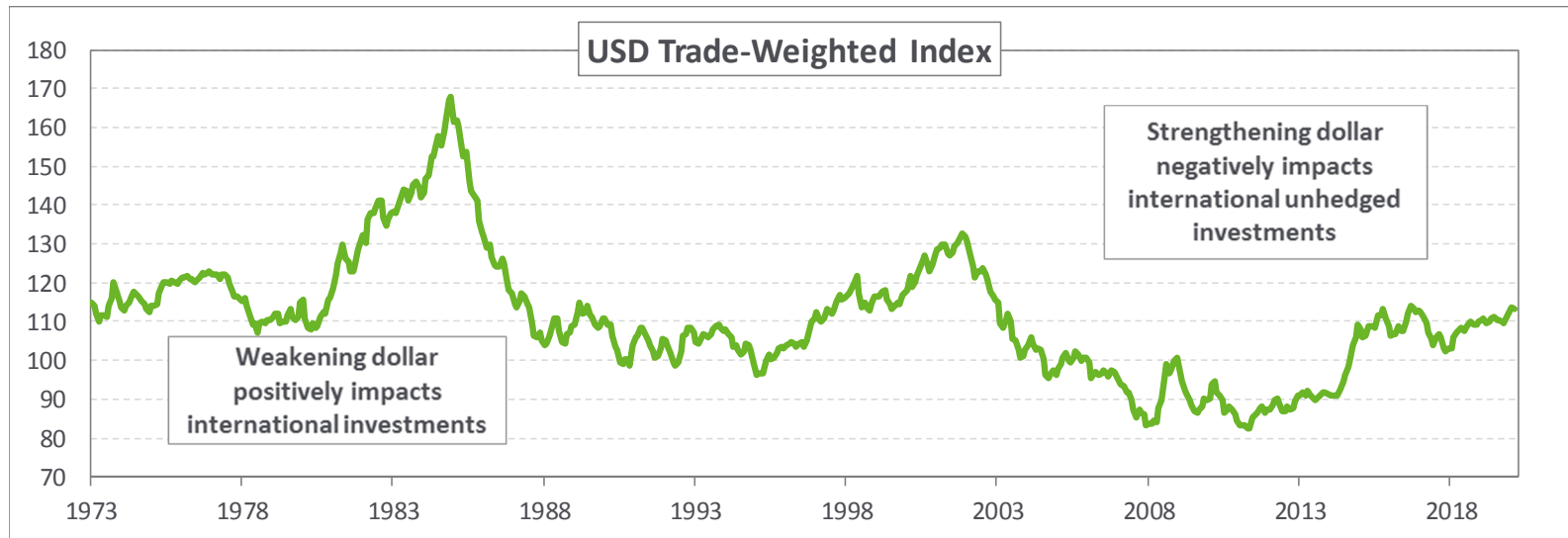
Source: FactSet



CURRENCIES

% Change Relative to USD				
Currencies	Spot	1 Month	YTD	1 Year
Euro	1.12	1.0%	0.1%	-1.4%
British Pound	1.24	-0.1%	-6.7%	-2.9%
Japanese Yen	107.89	-0.1%	0.7%	-0.1%
Swiss Franc	0.95	1.4%	2.2%	2.9%
Australian Dollar	0.69	3.7%	-2.1%	-1.9%
Chinese Yuan	7.07	1.0%	-1.5%	-2.9%
Brazilian Real	5.49	-1.1%	-26.7%	-30.2%
Russian Ruble	71.25	-0.9%	-12.8%	-11.5%
Indian Rupee	75.50	0.1%	-5.5%	-8.6%
Mexican Peso	23.11	-4.2%	-18.3%	-16.9%
South African Rand	17.38	1.5%	-19.5%	-18.8%

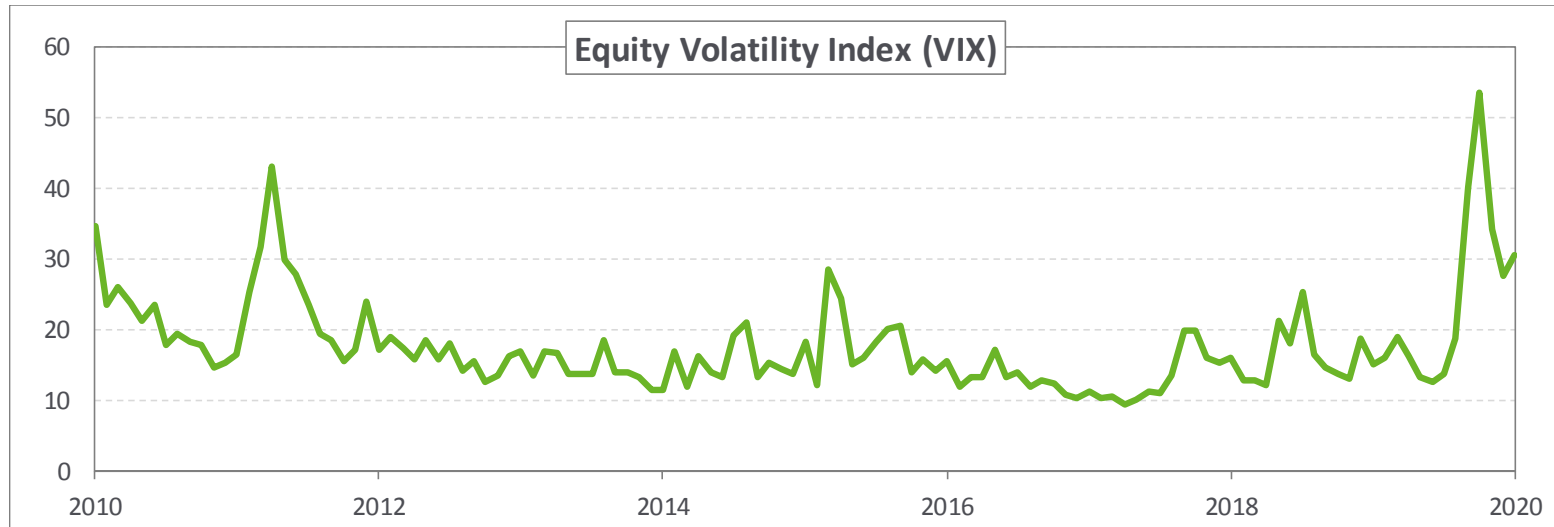
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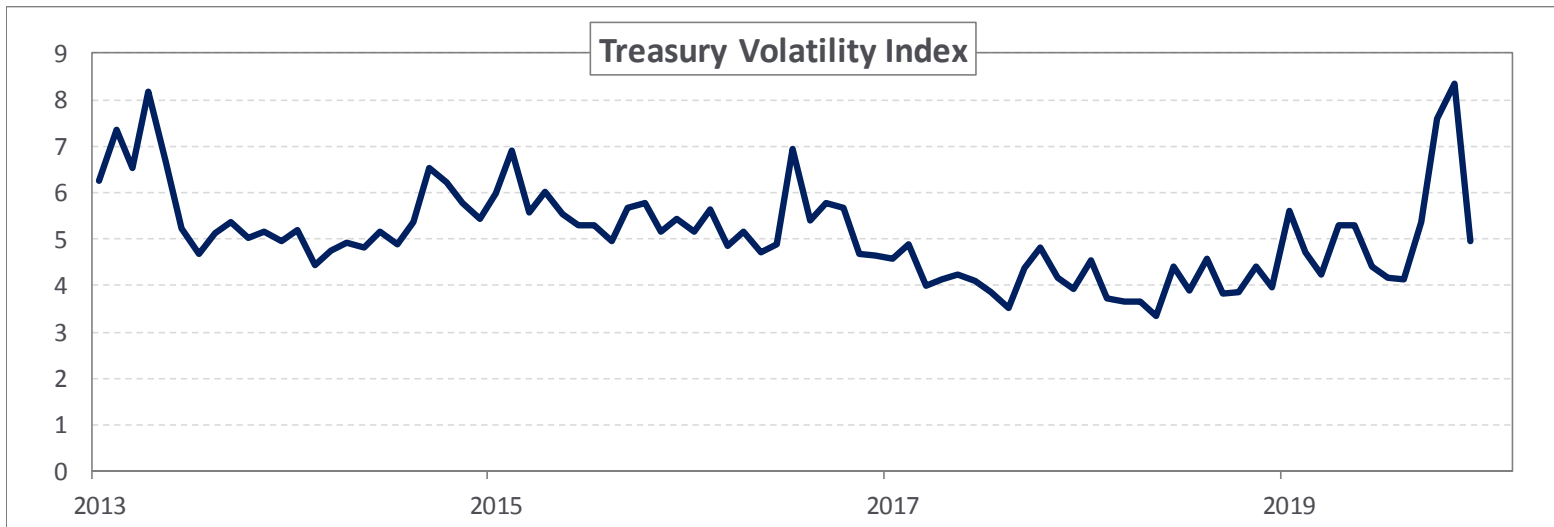
Source: FactSet



VOLATILITY



Source: CBOE, FactSet



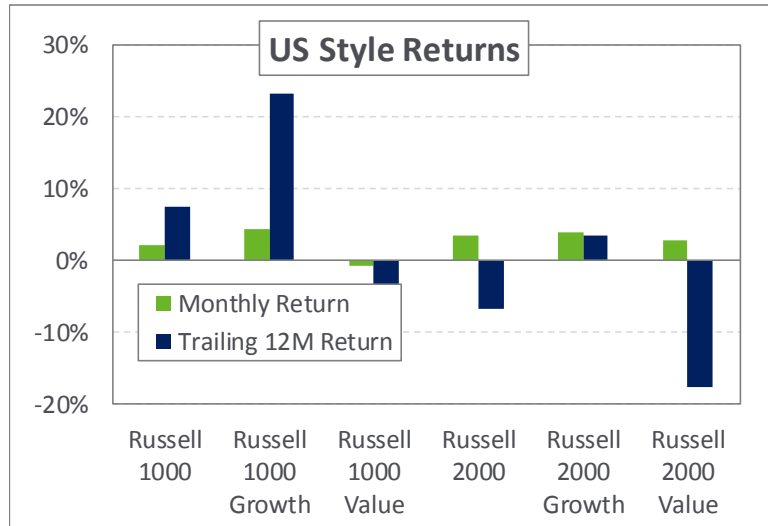
Source: Merrill Lynch, FactSet



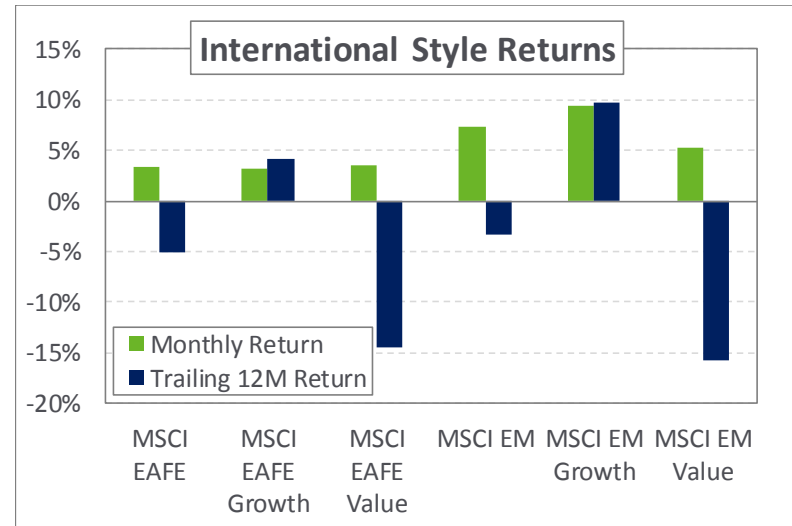
EQUITY

NEPC, LLC

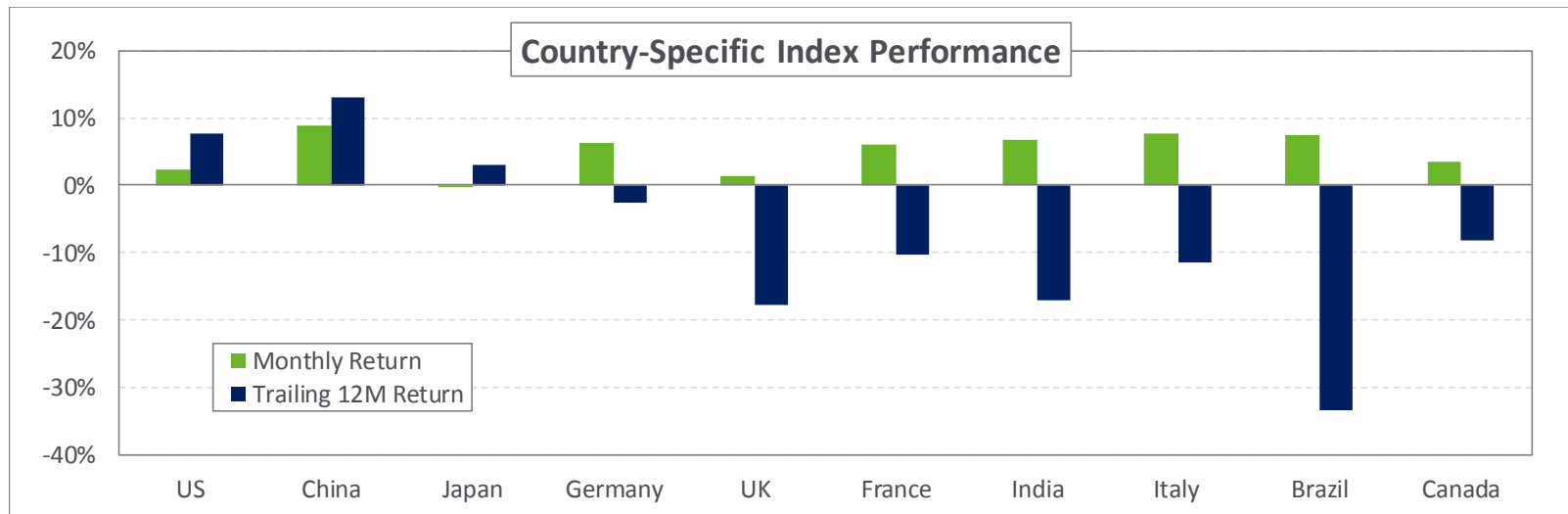
EQUITY INDEX PERFORMANCE



Source: Russell, FactSet



Source: MSCI, FactSet



Source: MSCI, FactSet
Represents returns in USD



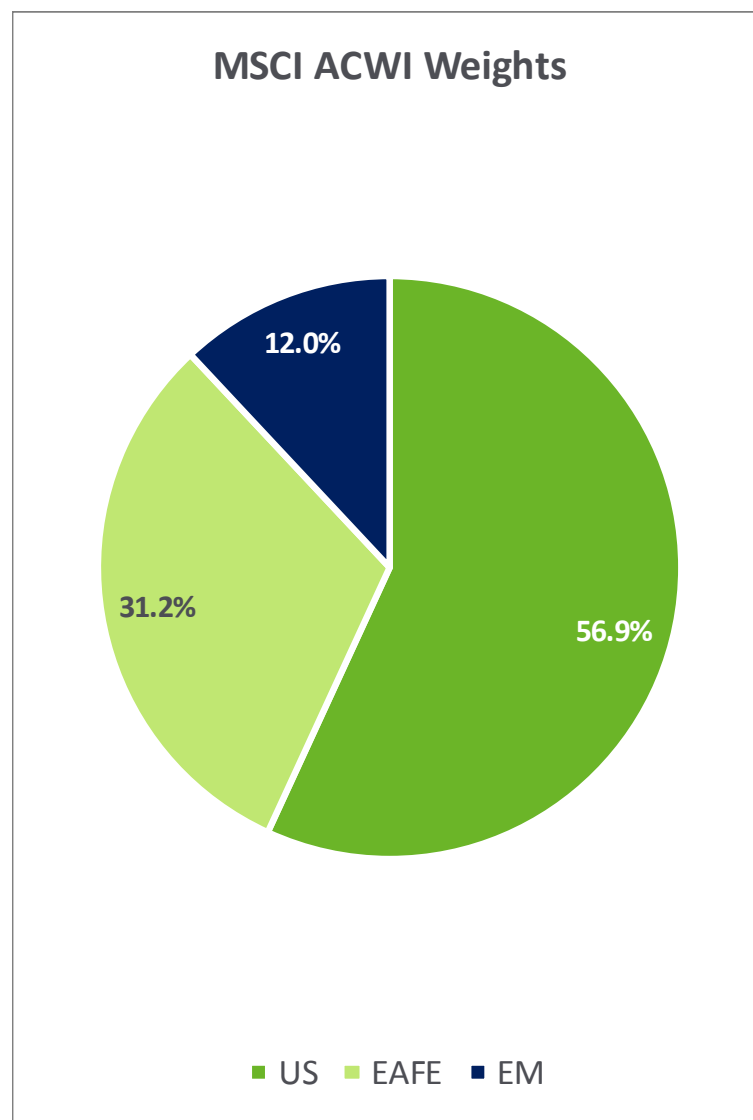
INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	2.0%	20.5%	-3.1%	100.0%
Communication Services	-0.1%	2.2%	0.0%	10.8%
Consumer Discretionary	0.5%	3.1%	1.0%	10.8%
Consumer Staples	0.0%	0.7%	-0.6%	7.0%
Energy	0.0%	0.9%	-1.5%	2.8%
Financials	0.0%	1.4%	-3.5%	10.1%
Health Care	-0.4%	2.2%	0.0%	14.6%
Industrials	0.2%	1.4%	-1.5%	8.0%
Information Technology	1.8%	7.5%	4.3%	27.5%
Materials	0.1%	0.6%	-0.2%	2.5%
Real Estate	0.0%	0.4%	-0.5%	2.8%
Utilities	-0.1%	0.1%	-0.6%	3.1%

Source: S&P, FactSet

	MTD	QTD	YTD	Index Weight
MSCI ACWI	3.2%	19.2%	-6.3%	100.0%
Communication Services	0.2%	1.9%	0.2%	9.4%
Consumer Discretionary	0.6%	3.1%	0.4%	11.8%
Consumer Staples	0.1%	0.8%	-0.6%	8.1%
Energy	0.0%	0.7%	-1.7%	3.6%
Financials	0.5%	1.6%	-4.7%	13.4%
Health Care	-0.1%	2.2%	0.5%	12.9%
Industrials	0.2%	1.6%	-1.5%	9.4%
Information Technology	1.5%	5.6%	2.8%	20.7%
Materials	0.2%	1.1%	-0.3%	4.6%
Real Estate	0.1%	0.4%	-0.8%	2.9%
Utilities	0.0%	0.2%	-0.5%	3.2%

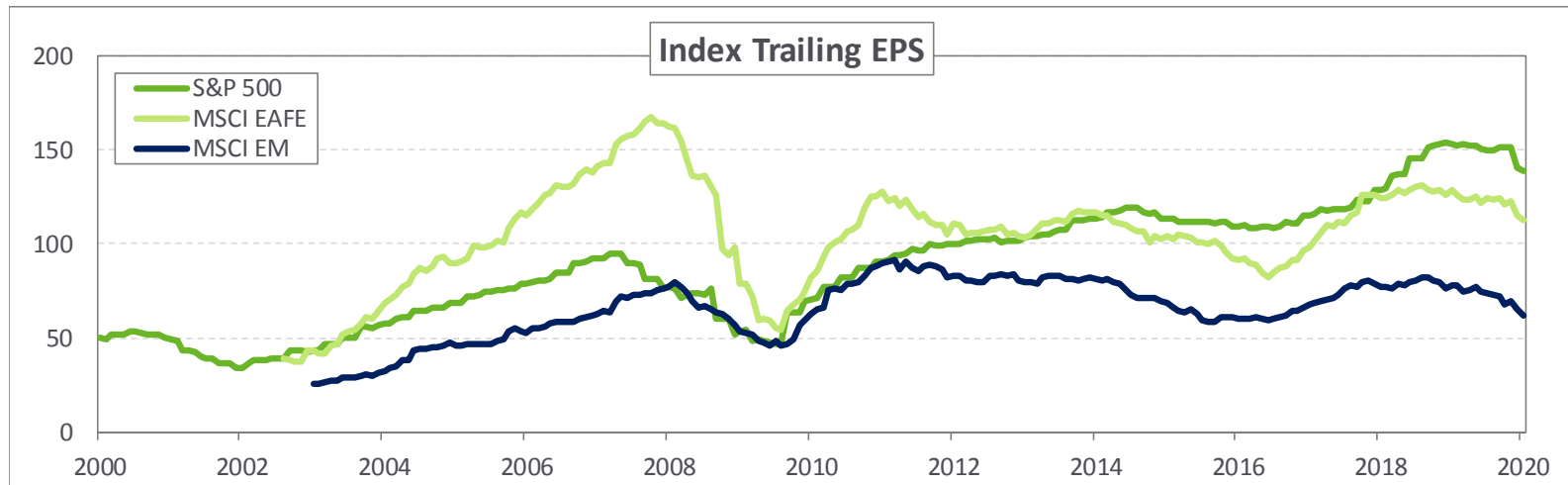
Source: MSCI, FactSet



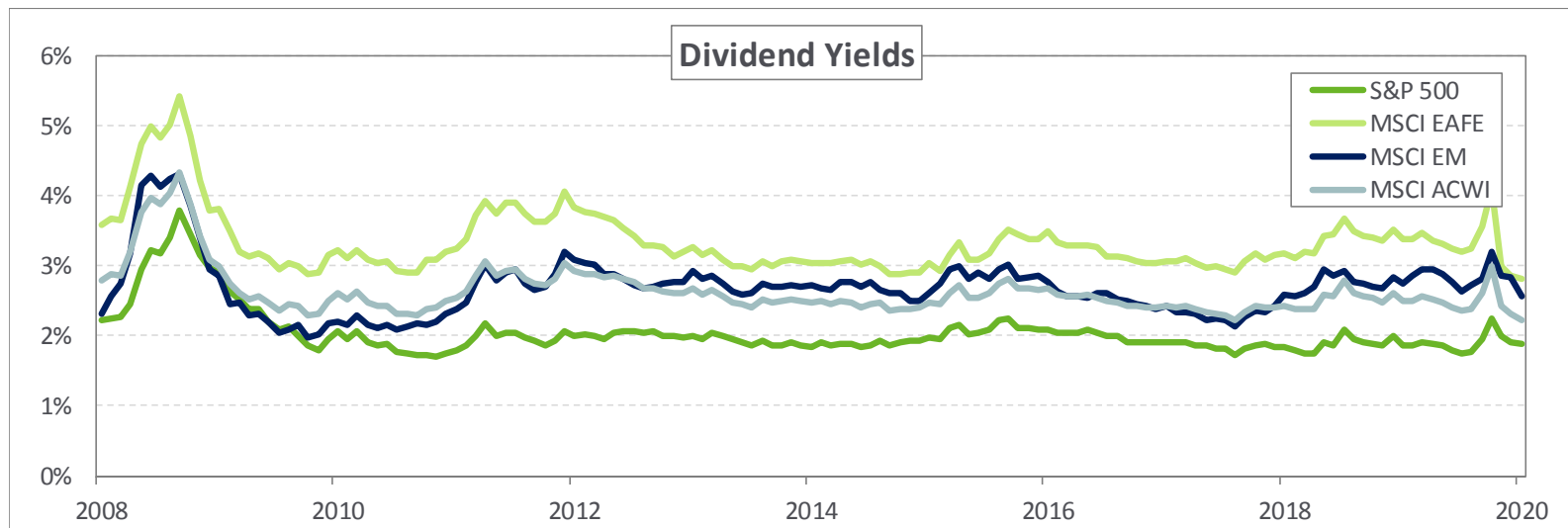
Source: MSCI, FactSet



EARNINGS & YIELDS



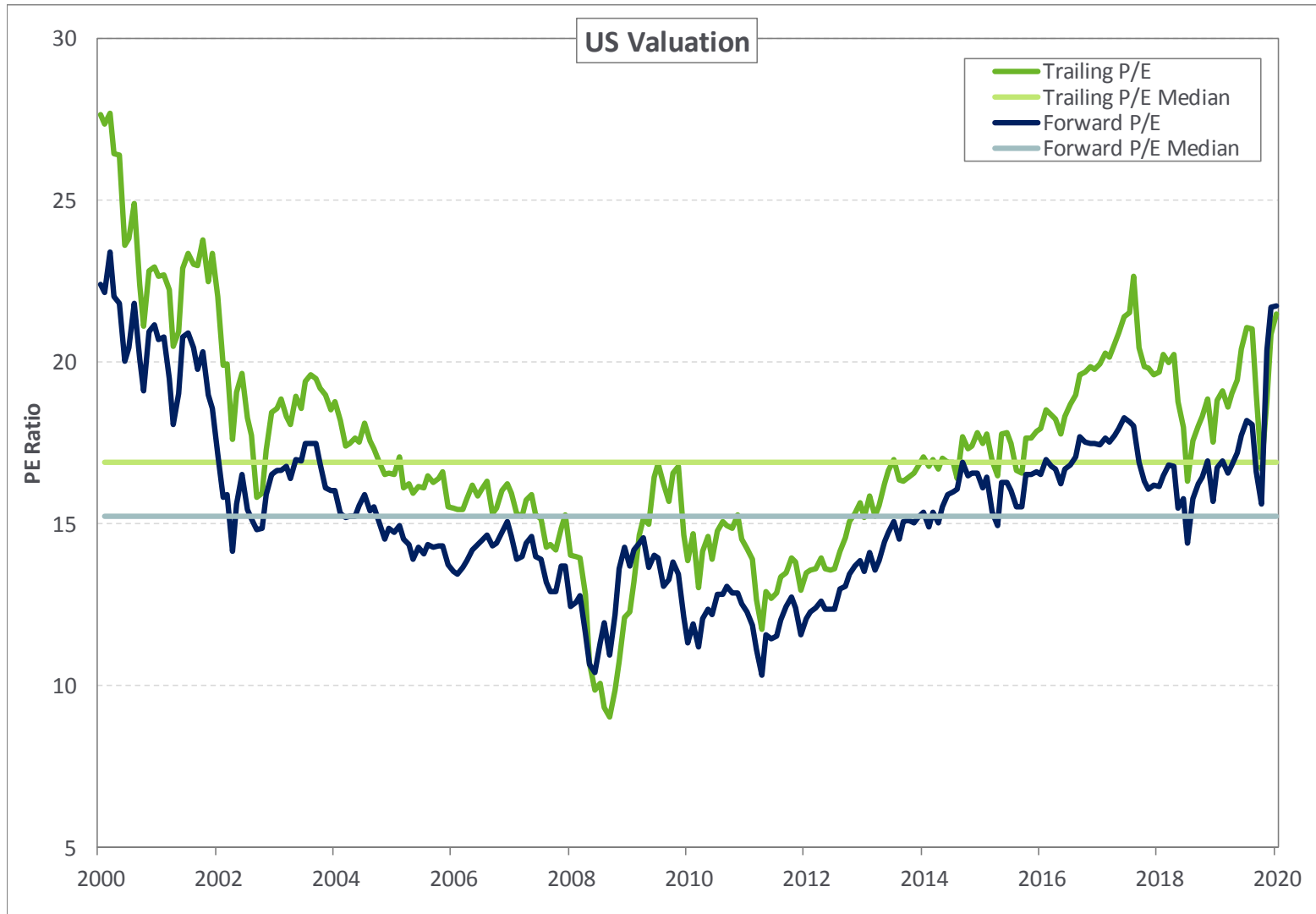
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Source: FactSet



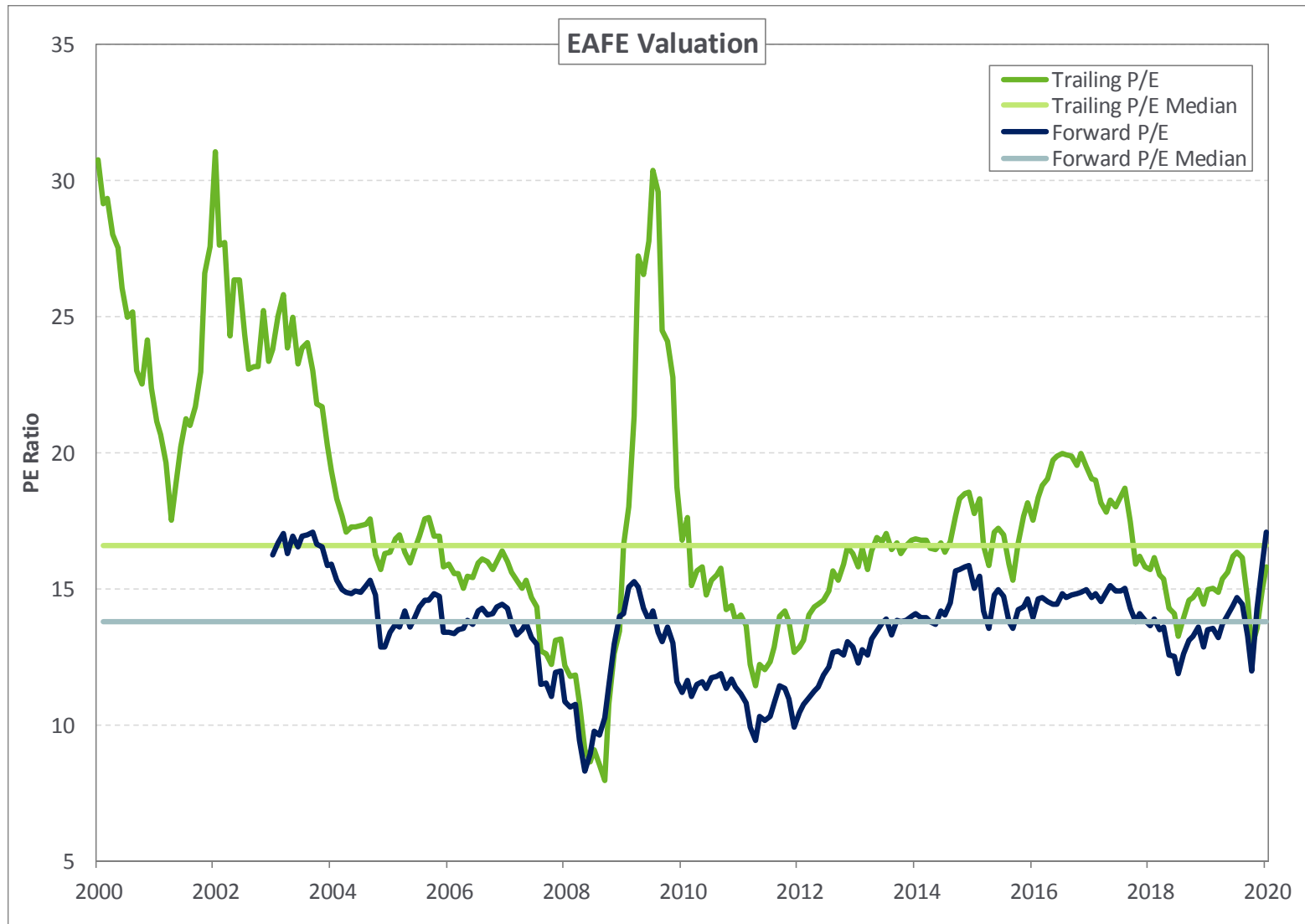
US EQUITY VALUATIONS



Source: S&P, FactSet



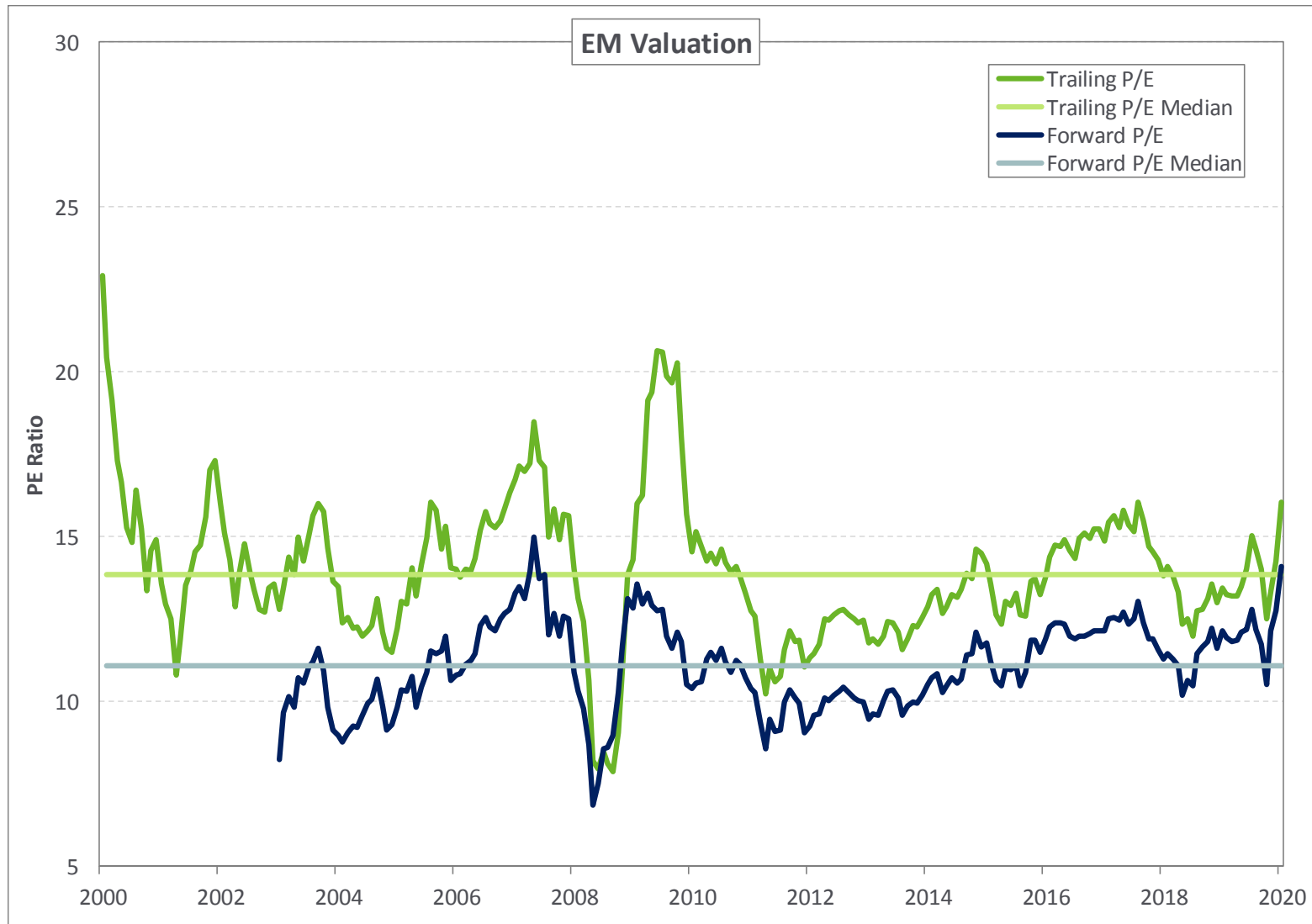
EAFE EQUITY VALUATIONS



Source: MSCI, FactSet



EM EQUITY VALUATIONS



Source: MSCI, FactSet



CREDIT

NEPC, LLC

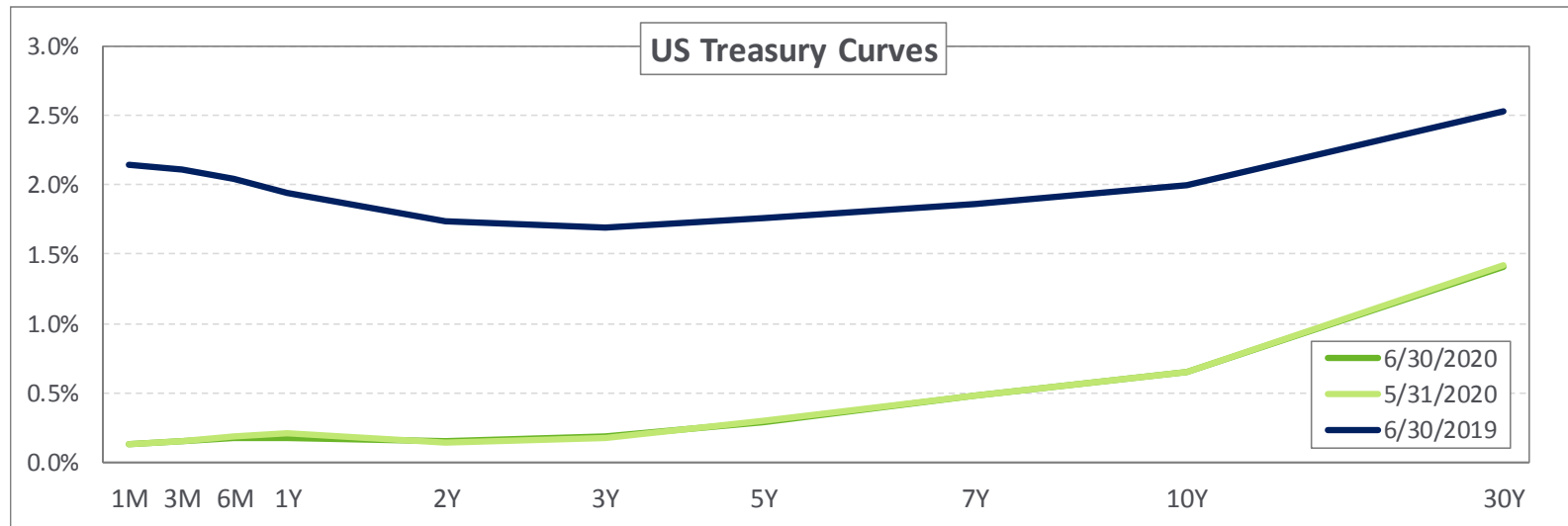
FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	1.25%	68	6.0	0.6%	6.1%	8.7%
Barclays Treasury	0.50%	-	7.2	0.1%	8.7%	10.4%
Barclays Agency	0.54%	21	3.7	0.2%	5.1%	6.7%
Barclays MBS	1.36%	70	2.1	-0.1%	3.5%	5.6%
Barclays ABS	0.85%	68	2.1	1.1%	3.3%	4.6%
Barclays CMBS	1.18%	77	5.7	1.1%	7.6%	9.0%
Barclays Corp IG	2.15%	150	8.5	2.0%	5.0%	9.4%
Barclays Muni	1.50%	-	5.4	0.8%	2.1%	4.4%
Barclays HY Muni	4.89%	-	9.5	4.0%	-2.6%	1.0%
Barclays TIPS	0.72%	-	4.4	1.1%	6.0%	8.2%
Barclays HY	6.87%	626	3.9	1.0%	-3.8%	0.0%
Barclays Global Agg	0.95%	58	7.3	0.9%	3.0%	4.2%
JPM EMBI Glob Div	-	474	7.7	3.5%	-2.8%	0.5%
JPM GBI - EM	4.29%	-	5.6	0.5%	-6.9%	-2.8%

Source: Barclays, JP Morgan, FactSet



TREASURIES



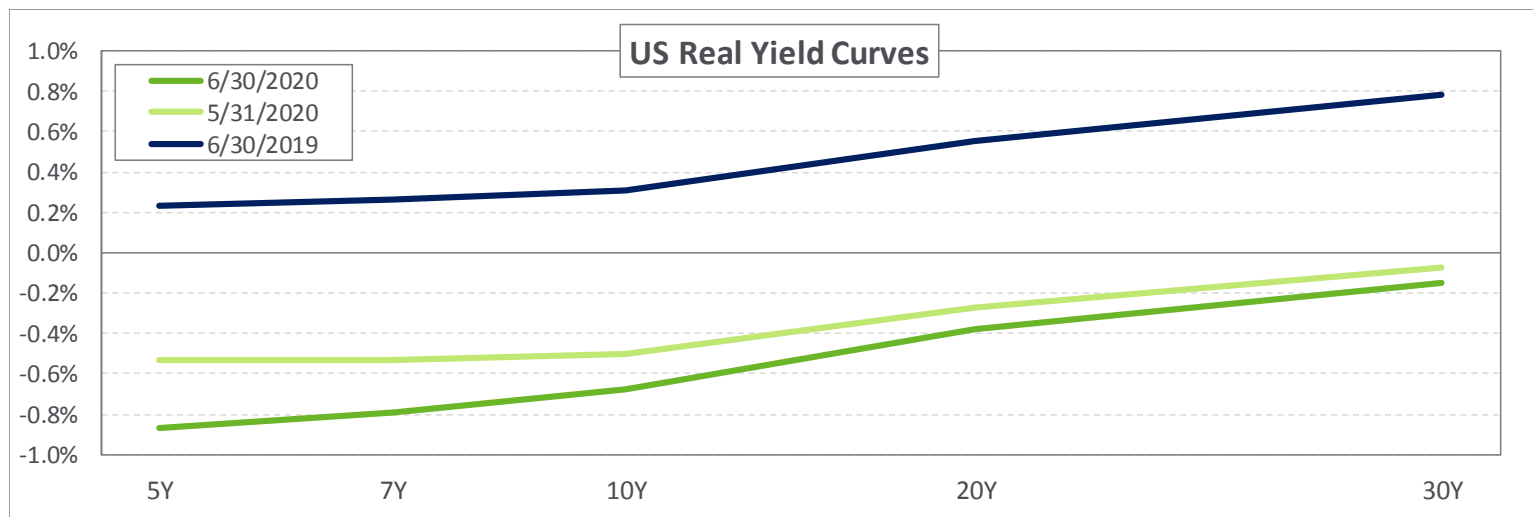
Source: FactSet

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	0.16%	0.15%	2.12%	0.01%	1.63%
6M Treasury	0.18%	0.18%	2.04%	0.02%	2.11%
2Y Treasury	0.15%	0.14%	1.73%	0.00%	3.96%
5Y Treasury	0.28%	0.30%	1.75%	0.17%	8.44%
10Y Treasury	0.65%	0.65%	2.00%	-0.01%	14.21%
30Y Treasury	1.41%	1.42%	2.53%	-0.04%	29.60%

Source: FactSet



REAL YIELDS



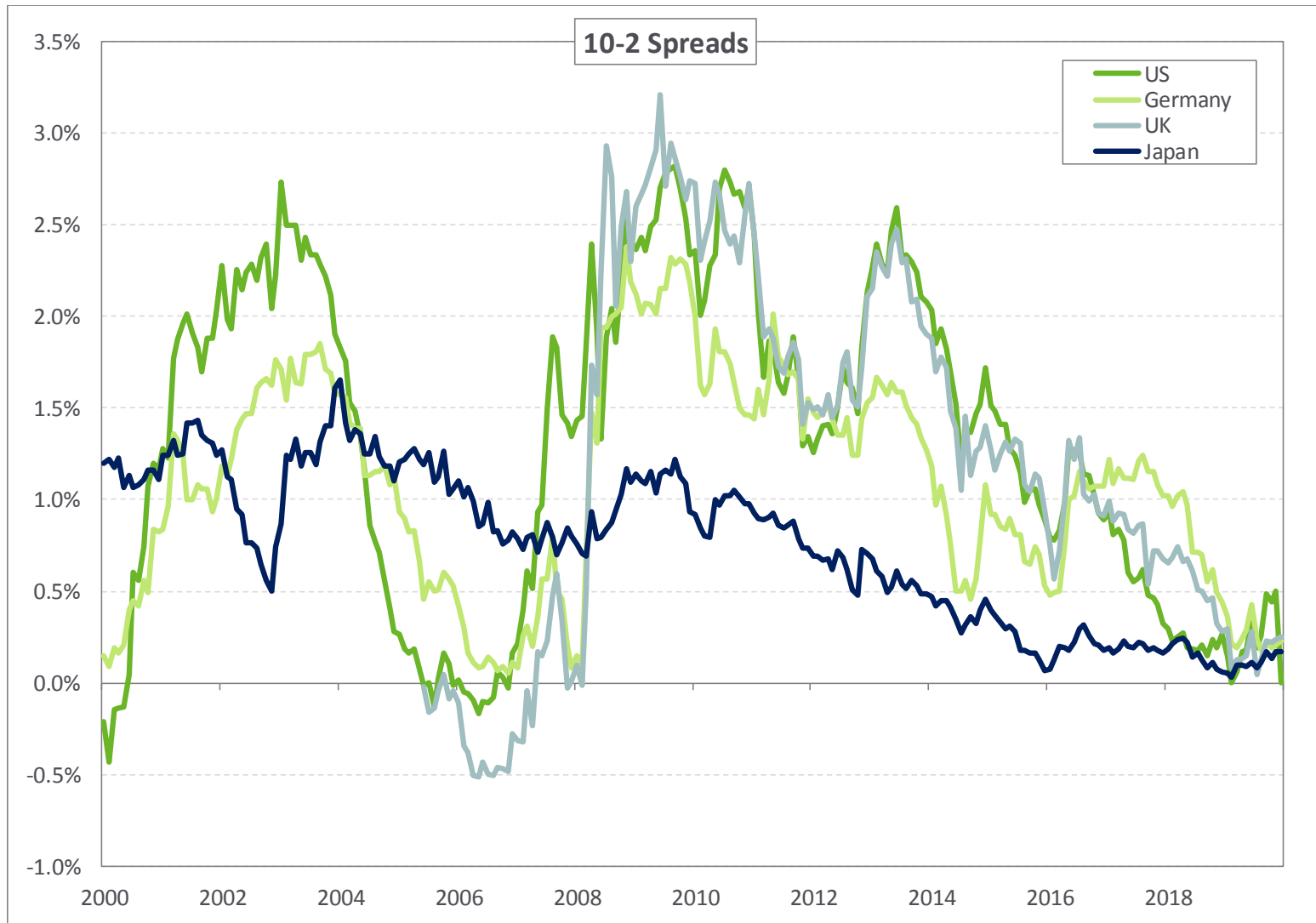
Source: FactSet

	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months
5-Year	-0.87%	-0.53%	0.23%	1.15%	1.52%
7-Year	-0.79%	-0.53%	0.26%	1.27%	1.61%
10-Year	-0.68%	-0.50%	0.31%	1.33%	1.69%
30-Year	-0.15%	-0.07%	0.78%	1.56%	1.75%

Source: FactSet



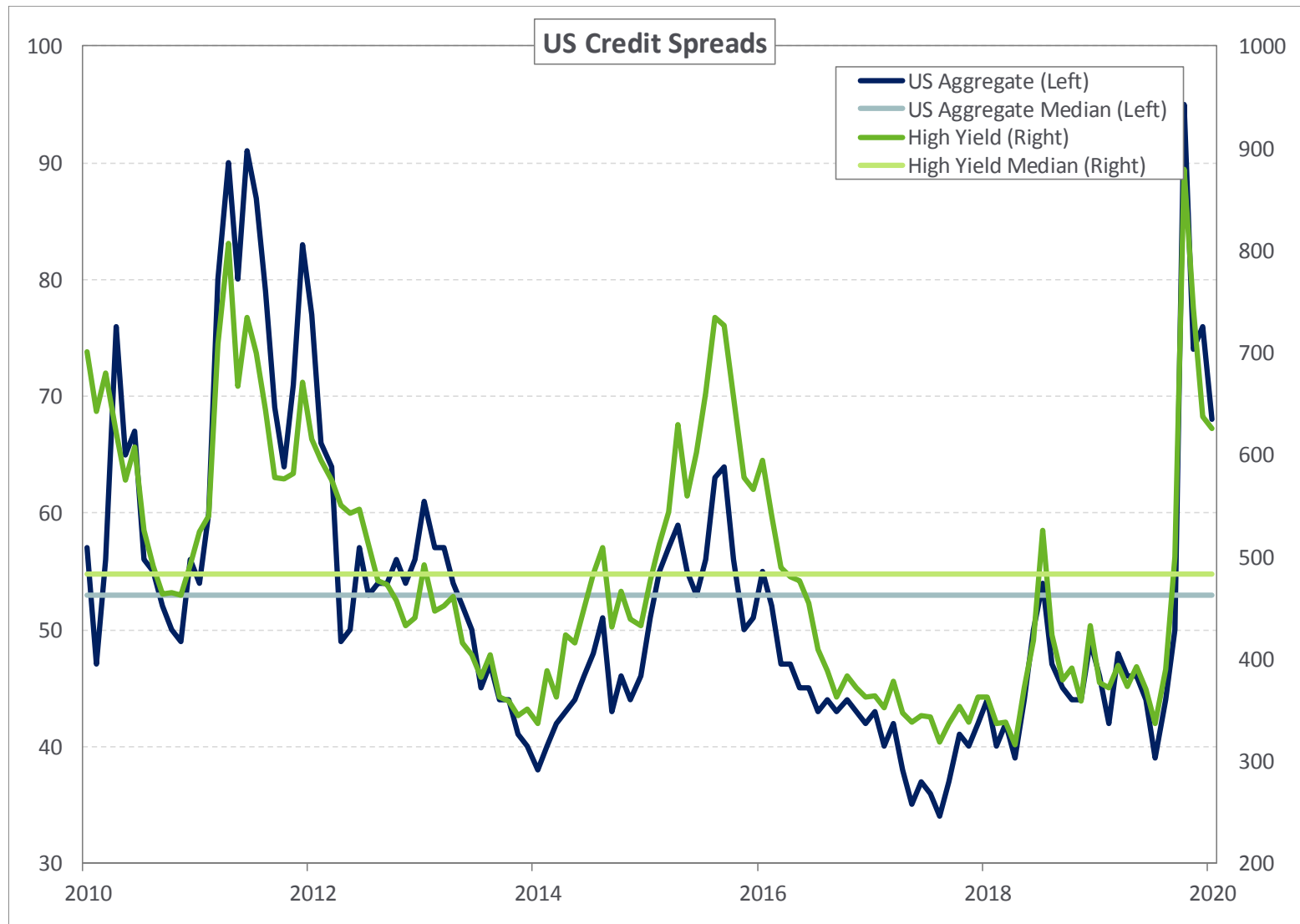
NOMINAL YIELDS



Source: FactSet



CREDIT SPREADS



Source: Barclays, FactSet



REAL ASSETS

NEPC, LLC

REAL ASSETS INDEX PERFORMANCE

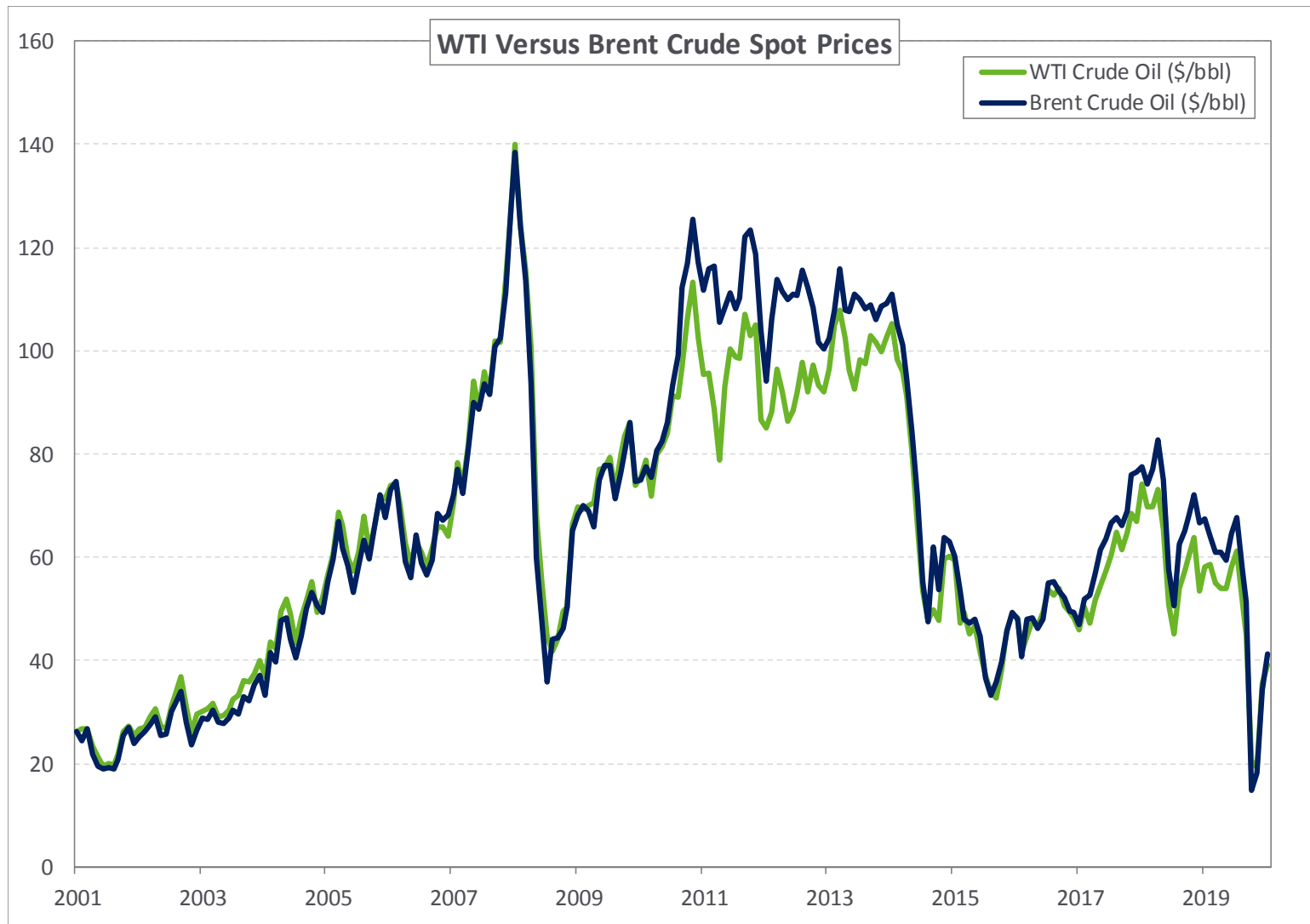
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	2.3%	5.1%	-19.4%	-17.3%	-6.1%	-7.7%
Bloomberg Sub Agriculture Index	1.8%	-4.8%	-14.2%	-13.7%	-10.5%	-9.6%
Coffee	3.0%	-17.8%	-25.5%	-16.4%	-16.1%	-14.2%
Corn	3.3%	-2.8%	-15.4%	-25.3%	-13.0%	-13.2%
Cotton	6.6%	19.5%	-12.0%	-9.6%	-4.3%	-2.5%
Soybean	3.5%	-2.6%	-10.6%	-9.4%	-8.0%	-7.3%
Soybean Oil	1.9%	1.9%	-21.5%	-6.0%	-8.9%	-7.6%
Sugar	8.5%	12.8%	-9.8%	-11.5%	-10.2%	-6.7%
Wheat	-6.6%	-14.5%	-12.7%	-8.0%	-9.9%	-13.1%
Bloomberg Sub Energy	2.2%	9.8%	-46.3%	-45.5%	-14.4%	-18.9%
Brent Crude	8.1%	31.3%	-42.6%	-37.0%	-3.0%	-12.4%
Heating Oil	11.1%	6.4%	-46.9%	-43.2%	-8.3%	-14.0%
Natural Gas	-10.8%	-14.2%	-37.8%	-49.1%	-30.8%	-28.8%
Unleaded Gas	9.1%	69.5%	-45.9%	-41.1%	-9.9%	-14.7%
WTI Crude Oil	8.7%	23.6%	-58.6%	-55.8%	-17.0%	-22.6%
Bloomberg Sub Industrial Metals	6.9%	12.3%	-8.4%	-6.4%	-1.4%	0.0%
Aluminum	4.0%	4.0%	-13.5%	-13.4%	-6.8%	-2.9%
Copper	11.9%	21.2%	-3.5%	-0.3%	-0.5%	-0.2%
Nickel	3.7%	10.8%	-9.6%	0.9%	10.6%	0.6%
Zinc	2.6%	6.8%	-10.6%	-16.7%	-5.4%	2.4%
Bloomberg Sub Precious Metals	2.2%	15.0%	13.8%	24.0%	9.8%	6.7%
Gold	2.8%	12.1%	17.1%	25.4%	12.1%	8.0%
Silver	-0.3%	29.2%	1.9%	18.0%	2.2%	2.0%
Bloomberg Sub Livestock	-8.5%	-8.6%	-34.3%	-33.5%	-16.6%	-11.0%
Lean Hogs	-19.1%	-23.9%	-51.9%	-57.4%	-30.6%	-19.4%
Live Cattle	-3.3%	-0.6%	-23.1%	-16.4%	-8.7%	-6.6%

Source: Bloomberg, FactSet

Bloomberg subindex total return indices reflects the return of the underlying one month commodity futures price movements



OIL MARKETS



Source: FactSet



INVESTMENT GUIDELINES

- **Blackrock Russell 1000 Index Fund**
 - The Blackrock Russell 1000 Index Fund shall be invested and reinvested primarily in a portfolio of Equity Securities with the objective of approximating as closely as practicable the capitalization weighted total rate of return of the Russell 1000 Index (large cap companies).
- **Blackrock Russell 2500 Index Fund**
 - The Blackrock Russell 2500 Index Fund shall be invested and reinvested primarily in a portfolio of Equity Securities with the objective of approximating as closely as practicable the capitalization weighted total rate of return of the Russell 2500 Index (mid and small cap companies).
- **Western Asset Management Index Plus Separate Account**
 - The objective of the Portfolio is to maximize the long term total return in the Portfolio while providing a core domestic equity exposure to the Standard & Poor's ("S&P") 500 Index and managing Portfolio risk. The Manager shall aim to exceed the total return of the S&P 500 index with all dividends reinvested in the index by 75 basis points on an annualized basis over a full market cycle.
- **Blackrock MSCI ACWI ex-U.S. IMI Index Fund**
 - The BlackRock MSCI ACWI ex-U.S. IMI Index Fund shall be invested and reinvested in a portfolio of International Equity Securities whose total rates of return will approximate as closely as practicable the capitalization-weighted total rates of return of the equity markets of selected non-U.S. developed and emerging countries.
- **Blackrock MSCI ACWI Equity Index Fund**
 - The BlackRock MSCI ACWI Equity Index Fund shall be invested and reinvested primarily in a portfolio of U.S. Equity Securities and International Equity Securities with the objective of approximating as closely as practicable the capitalization-weighted total rates of return of the equity markets of the U.S, non-U.S. developed and emerging countries.
- **Hexavest EAFE Equity Fund**
 - The Fund seeks to provide investors with capital appreciation and income generation by using a top-down approach and investing primarily in equity and quasi equity securities located in Europe, Australasia and the Far East ("EAFE") and which form part of the MSCI EAFE Index. The Fund seeks to achieve a rate of return that will exceed that of the index net of fees, and achieve a high ranking relative to similar funds over a full market cycle.



INVESTMENT GUIDELINES

- **Sprucegrove U.S. International Pooled Fund**
 - The Fund seeks to maximize the long-term rate of return while seeking to preserve investment capital by investing primarily in equity and quasi-equity securities of companies with more value characteristics located in developed markets in the Europe, Australasia and the Far East ("EAFE") Index and to outperform the index, net of fees and achieve a high ranking relative to similar funds over a full market cycle.
- **Walter Scott & Partners International Fund**
 - The Fund will invest in equity securities that meet certain quantitative and qualitative investment criteria and will seek long-term capital appreciation. The Fund will tend to focus on those industries or sectors with more growth characteristics and experiencing upper quartile economic growth and may avoid industries which are in secular economic decline. The Fund seeks to outperform the MSCI Europe, Australasia and the Far East ("EAFE") Index net of fees, and achieve a high ranking relative to similar funds over a full market cycle.
- **Blackrock U.S. Debt Index Fund**
 - The U.S. Debt Index Fund shall be invested and reinvested primarily in a portfolio of Debt Securities with the objective of approximating as closely as practicable the total rate of return of the market for Debt Securities as defined by the Bloomberg Barclays U.S. Aggregate Bond Index.
- **Western Asset Management Core Plus Fixed Income Separate Account**
 - The objective of the Portfolio is to provide above-average total return in a manner that is consistent with the typical rate-of-return volatility exhibited by broad market fixed income portfolios. The Fund will seek to outperform the Bloomberg Barclays U.S. Aggregate Index, net of fees, over a full market cycle.
- **Reams Unconstrained Fixed Income Separate Account**
 - The Portfolio will be broadly diversified across markets, sectors, securities, and maturities in a manner consistent with accepted standards of prudence. The objective of the Portfolio is to maximize risk-adjusted total return by systematically pursuing relative value opportunities throughout all sectors of the fixed income market. The Portfolio will seek returns in excess of the Bloomberg/Barclays U.S. Aggregate Bond Index and/or the three month London Interbank Offered Rate ("LIBOR") in U.S. dollars plus 3% net of fees with an expected risk volatility goal of approximately 4 to 6% over a full market cycle.



INVESTMENT GUIDELINES

- **Loomis, Sayles & Company Multisector Full Discretion Separate Account**
 - The fixed income portfolio should be broadly diversified across markets, sectors, securities, and maturities in a manner consistent with accepted standards of prudence. The objective of the Portfolio is to provide above-average total return in a manner that is consistent with the typical rate-of-return volatility exhibited by broad market fixed income portfolios. The return of the Manager should exceed that of the custom benchmark (30% of the rate of return of the Citigroup High-Yield Index, 5% of the rate of return of the J.P. Morgan Non-U.S. Hedged Bond Index and 65% of the rate of return of the Bloomberg Barclays U.S. Aggregate Bond Index), net of fees, over a full market cycle.
- **Loomis, Sayles & Company Strategic Alpha Fund**
 - The objective of the Fund is to provide absolute returns in excess of the Bloomberg/Barclays U.S. Aggregate Bond Index and/or the three month London Interbank Offered Rate (“LIBOR”) in U.S. dollars plus 3% net of fees with an expected risk volatility goal of approximately 4 to 6% over a full market cycle.
- **Reams 10-Year Treasuries**
 - The portfolio shall be invested in 10-Year U.S. Treasury Debt Securities with the objective of returning the rate of return on a 10-Year U.S. Treasury Debt Security.
- **Bridgewater Associates All Weather Portfolio**
 - The investment objective of the Fund is to seek to provide attractive returns with relatively limited risks, with no material bias to perform better or worse in any particular type of economic environment. In other words, the portfolio seeks to perform approximately as well in rising or falling inflation periods, or in periods of strong or weak economic growth. To achieve this objective, the Fund holds investments in different asset classes that have different biases to economic conditions. The Manager will seek to outperform the CPI + 4% (Unadjusted) benchmark net of fees over a full market cycle.
- **Tortoise Energy Infrastructure Master Limited Partnership**
 - The Manager will invest in master limited partnerships with an investment approach that emphasizes a long-term, buy-and-hold philosophy with low turnover in an effort to achieve a portfolio characterized by high current income, high growth and low volatility. The Manager invests primarily in long-haul pipelines and gathering & processing pipelines. The Manager will seek to outperform the Wells Fargo MLP Index net of fees over a full market cycle.



INVESTMENT GUIDELINES

- **PGIM Real Estate Property Investment Separate Account**
 - PRISA is a broadly diversified equity real estate portfolio that invests primarily in existing, income-producing properties with strong cash flow that is expected to increase over time and thereby provide the potential for capital appreciation. The Fund’s performance objective is to produce a total return each year that meets or exceeds the National Council of Real Estate Investment Fiduciaries Fund Index – Open-End Diversified Core Equity (“NCREIF-ODCE”) net of fees, while maintaining the benefits of a broadly diversified, core real estate portfolio.
- **UBS Realty Investors Trumbull Property Fund**
 - The Fund seeks to provide investors with strategic market access to high-quality private commercial real estate with the financial objective of providing superior risk-adjusted returns across the real estate cycles. Maximize the quality and growth of the Fund’s income by acquiring and aggressively managing high quality assets in major US metropolitan markets to minimize risk through diversification by property type, geographic location and economic sector. The Fund’s performance objective is to outperform the National Council of Real Estate Investment Fiduciaries Fund Index – Open-End Diversified Core Equity (“NCREIF-ODCE”) index net of fees, and a 5% real rate of return (inflation-adjusted return) over a full market cycle.



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- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
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- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

