

QUARTERLY PERFORMANCE REPORT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

May 18, 2020

Allan Martin, Partner

Anthony Ferrara, CAIA, Consultant

Michael Miranda, CFA, Senior Consulting Analyst



VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



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MARKET ENVIRONMENT UPDATE & OUTLOOK

NEPC, LLC

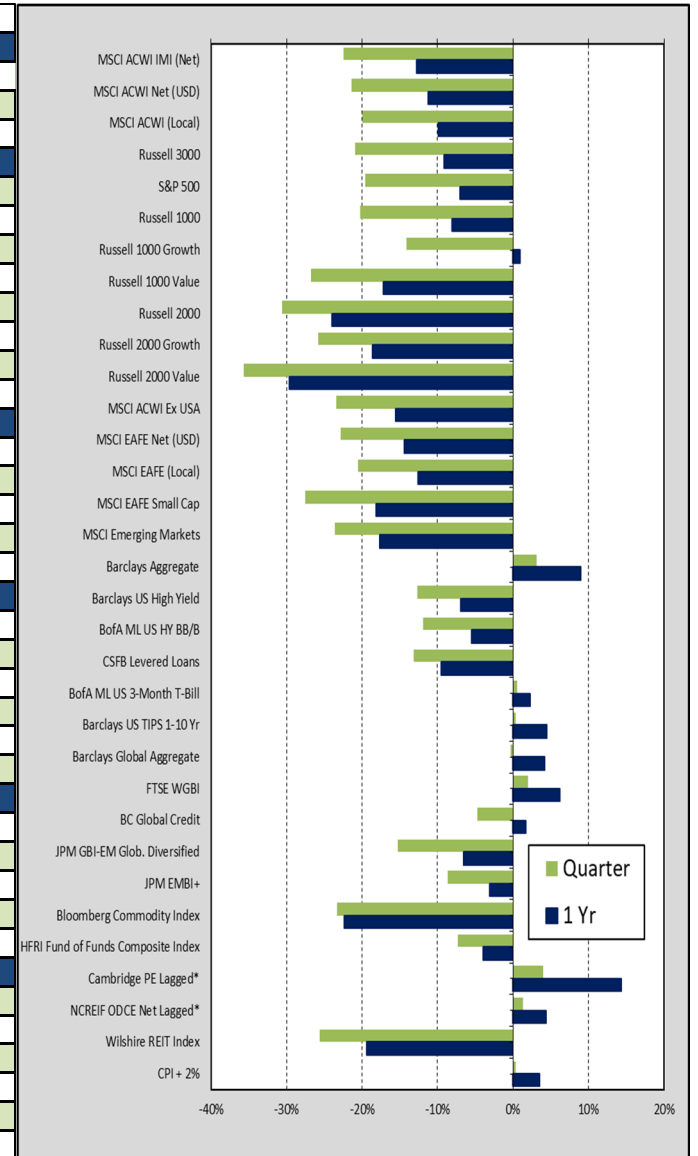
ECONOMIC ENVIRONMENT

- **Q1 Real GDP (advance estimate) decreased at an annual rate of 4.8%.**
 - Retail sales ended January at +4.5% on a YoY basis. In the same period last year the YoY growth rate was 1.9%.
 - Corporate profits (ended September) as a percent of GDP increased to 8.8% from 8.5% (in June) and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended January flat at 1.4 from December levels and has remained relatively constant since early 2010.
 - The U.S. trade deficit fell ended January (-6.7%) as imports fell and exports fell due to the coronavirus.
- **The unemployment rate ticked up to 4.4% ended March, up from 3.6% in Q4; U-6, a broader measure of unemployment, increased to 8.7% in Q1 from 6.7% in Q4.**
- **The Case-Shiller Home Price Index (ended February) increased to 213.2 from 212.4 (in December) 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 1.52% in Q1 from 2.29% ended Q4; Capacity Utilization decreased to 72.7% from 77.1% in Q1.**
- **Fed Funds rate was cut 1.50% to a targeted range of 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q1 down to 0.9% from 1.9%.**
- **The Fed announced an unlimited expansion of the balance sheet to support the US economy. This move expanded on previous announcements for smaller QE denominations**
- **S&P valuations decreased in Q1 to 24.9x, and is lower than the 10-year average of 25.8x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.7x



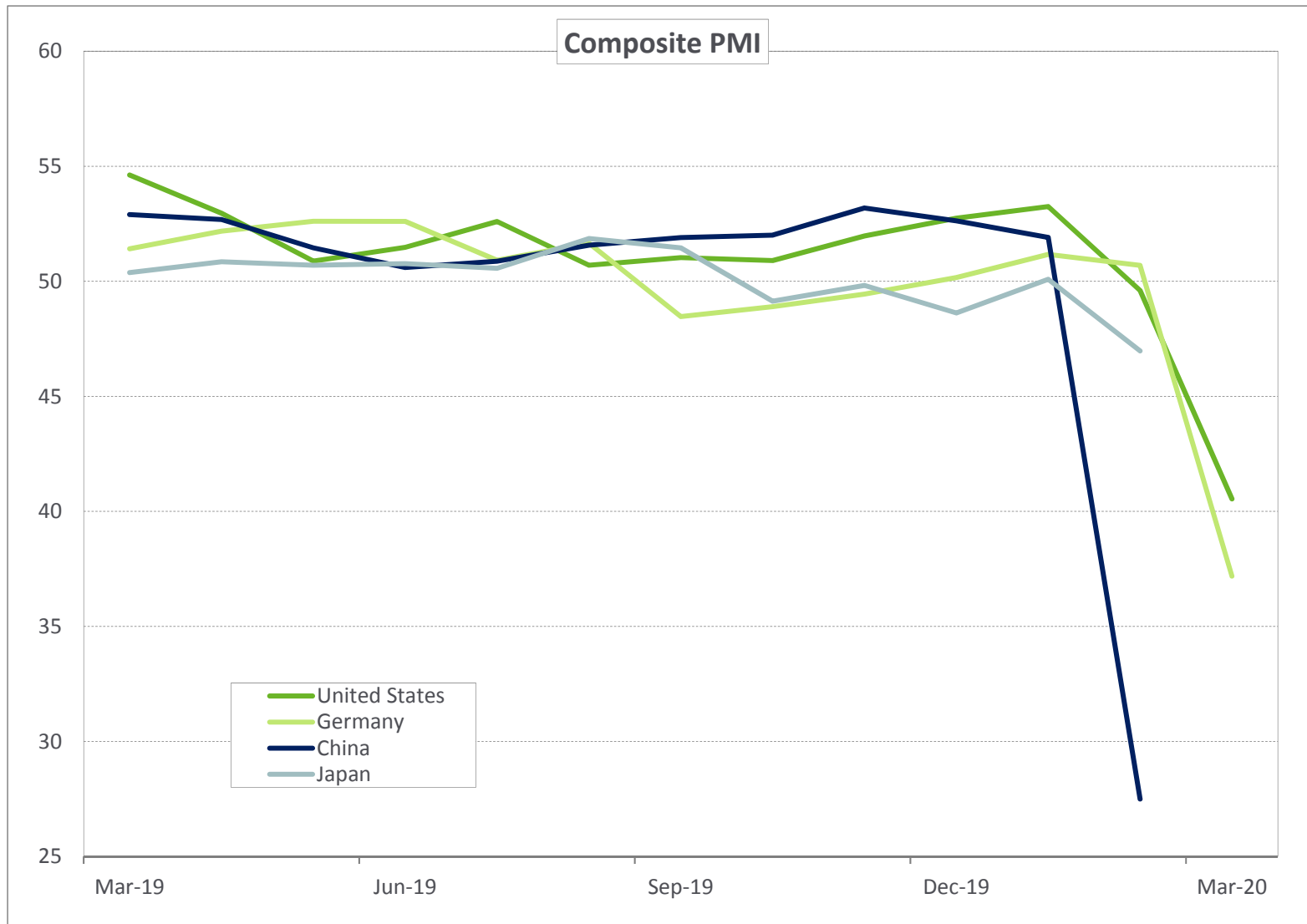
MARKET ENVIRONMENT – Q1 2020 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	-22.44%	-12.73%	0.76%	2.45%	5.80%
MSCI ACWI Net (USD)	World W/O Small Cap	-21.37%	-11.26%	1.50%	2.85%	5.88%
MSCI ACWI (Local)	World (Local Currency)	-19.97%	-9.87%	1.69%	3.14%	6.80%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	-20.90%	-9.13%	4.00%	5.77%	10.15%
S&P 500	Large Core	-19.60%	-6.98%	5.10%	6.73%	10.53%
Russell 1000	Large Core	-20.22%	-8.03%	4.64%	6.22%	10.39%
Russell 1000 Growth	Large Growth	-14.10%	0.91%	11.32%	10.36%	12.97%
Russell 1000 Value	Large Value	-26.73%	-17.17%	-2.18%	1.90%	7.67%
Russell 2000	Small Core	-30.61%	-23.99%	-4.64%	-0.25%	6.90%
Russell 2000 Growth	Small Growth	-25.77%	-18.58%	0.10%	1.70%	8.89%
Russell 2000 Value	Small Value	-35.66%	-29.64%	-9.51%	-2.42%	4.79%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	-23.36%	-15.57%	-1.96%	-0.64%	2.05%
MSCI EAFE Net (USD)	Int'l Developed	-22.83%	-14.38%	-1.82%	-0.62%	2.72%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	-20.55%	-12.58%	-1.80%	-0.15%	4.36%
MSCI EAFE Small Cap	Small Cap Int'l	-27.52%	-18.15%	-2.88%	0.97%	4.81%
MSCI Emerging Markets	Emerging Equity	-23.60%	-17.69%	-1.62%	-0.37%	0.68%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	3.15%	8.93%	4.82%	3.36%	3.88%
Barclays US High Yield	High Yield	-12.69%	-6.94%	0.76%	2.78%	5.64%
BofA ML US HY BB/B	High Yield	-11.88%	-5.46%	1.31%	2.92%	5.63%
CSFB Levered Loans	Bank Loans	-13.19%	-9.51%	-0.73%	1.21%	3.26%
BofA ML US 3-Month T-Bill	Cash	0.57%	2.26%	1.83%	1.19%	0.64%
Barclays US TIPS 1-10 Yr	Inflation	0.31%	4.50%	2.54%	2.18%	2.52%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	-0.33%	4.20%	3.55%	2.64%	2.47%
FTSE WGBI	World Gov. Bonds	2.00%	6.17%	4.27%	2.96%	2.19%
BC Global Credit	Global Bonds	-4.68%	1.67%	3.09%	2.42%	3.39%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	-15.21%	-6.52%	-0.80%	0.25%	0.49%
JPM EMBI+	Em. Mkt. Bonds	-8.67%	-3.13%	0.53%	2.93%	4.77%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	-23.29%	-22.31%	-8.61%	-7.76%	-6.74%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	-7.30%	-3.94%	0.50%	0.33%	1.91%
Cambridge PE Lagged*	Private Equity	4.03%	14.33%	14.07%	12.14%	13.81%
NCREIF ODCE Net Lagged*	Real Estate	1.27%	4.39%	6.13%	7.99%	10.39%
Wilshire REIT Index	REIT	-25.63%	-19.39%	-2.50%	-0.19%	7.66%
CPI + 2%	Inflation/Real Assets	0.31%	3.55%	3.96%	3.84%	3.76%



* As of 12/31/2019

GLOBAL ECONOMY EXPECTED TO CONTRACT



Source: Markit, FactSet



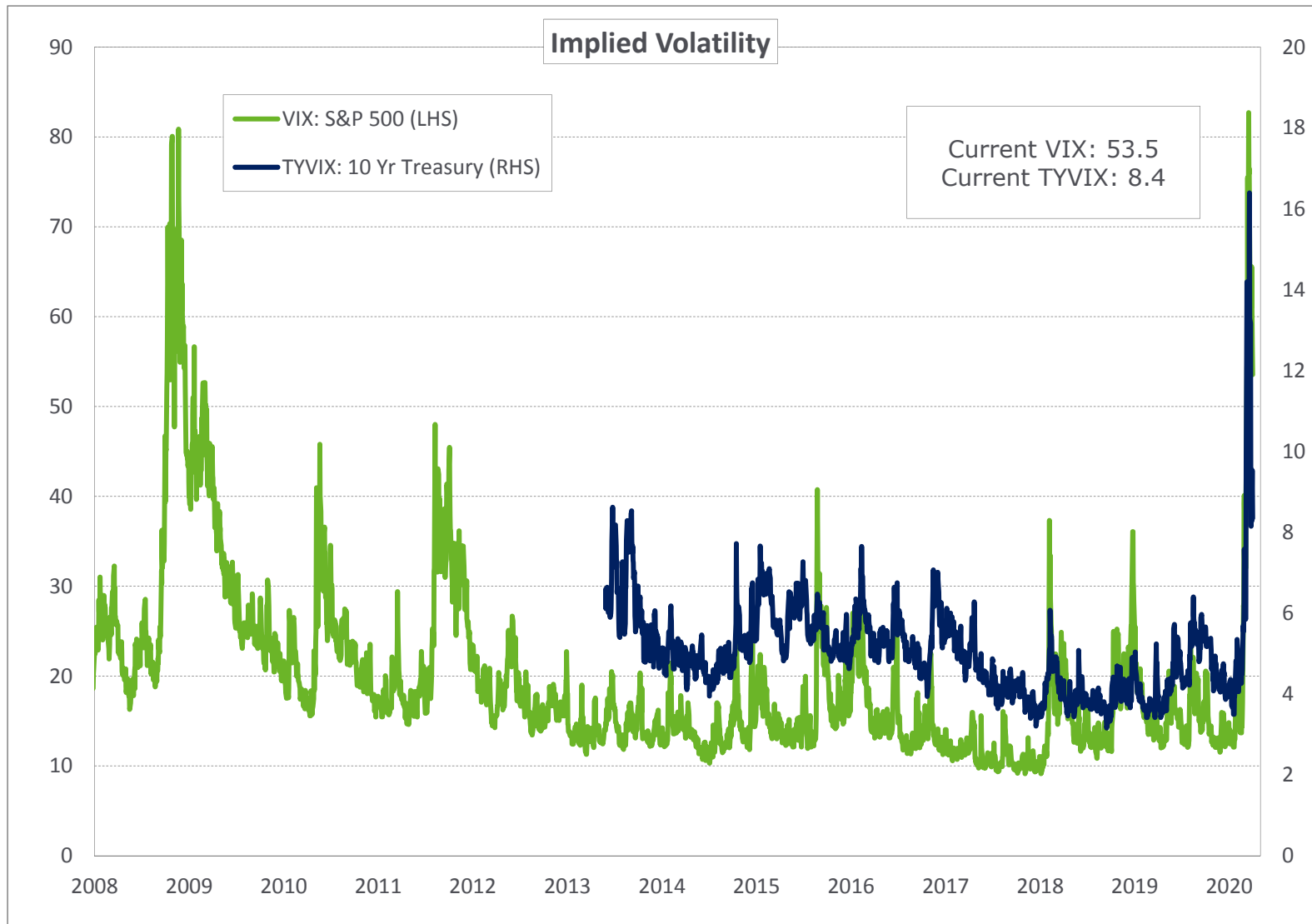
MONETARY AND FISCAL RESPONSES

Fed Action	Description
Fed Rate Cuts	The Fed cut rates in two emergency sessions by a total of 1.50% to a range of 0.00% - 0.25%.
Balance Sheet Expansion	The Fed announced an unlimited expansion of the balance sheet to support the US economy. This move expanded on previous announcements for smaller QE denominations
Liquidity Support Facilities	The Fed announced additional measures to ensure market liquidity, including facilities to support money market funds, commercial paper, and broad credit support systems
Credit Support Facilities	The Fed established programs aimed at supporting consumers and businesses, such as the Term Asset-Backed Securities Loan Facility (TALF) and a Main Street Business Lending Program. These programs provide preferential borrower agreements, such as deferred interest and principal payments, for consumers and small businesses.

US Government Action	Description
Families First Coronavirus Response Act	The bill was passed to provide sick leave, expand food assistance and unemployment benefits, and provide additional protection for health care employees
Fiscal Stimulus Package	Congress is finalizing a \$2 trillion economic stimulus package aimed at providing direct financial assistance, expanded benefits programs, and loans to individuals, small businesses, and industries impacted by COVID-19



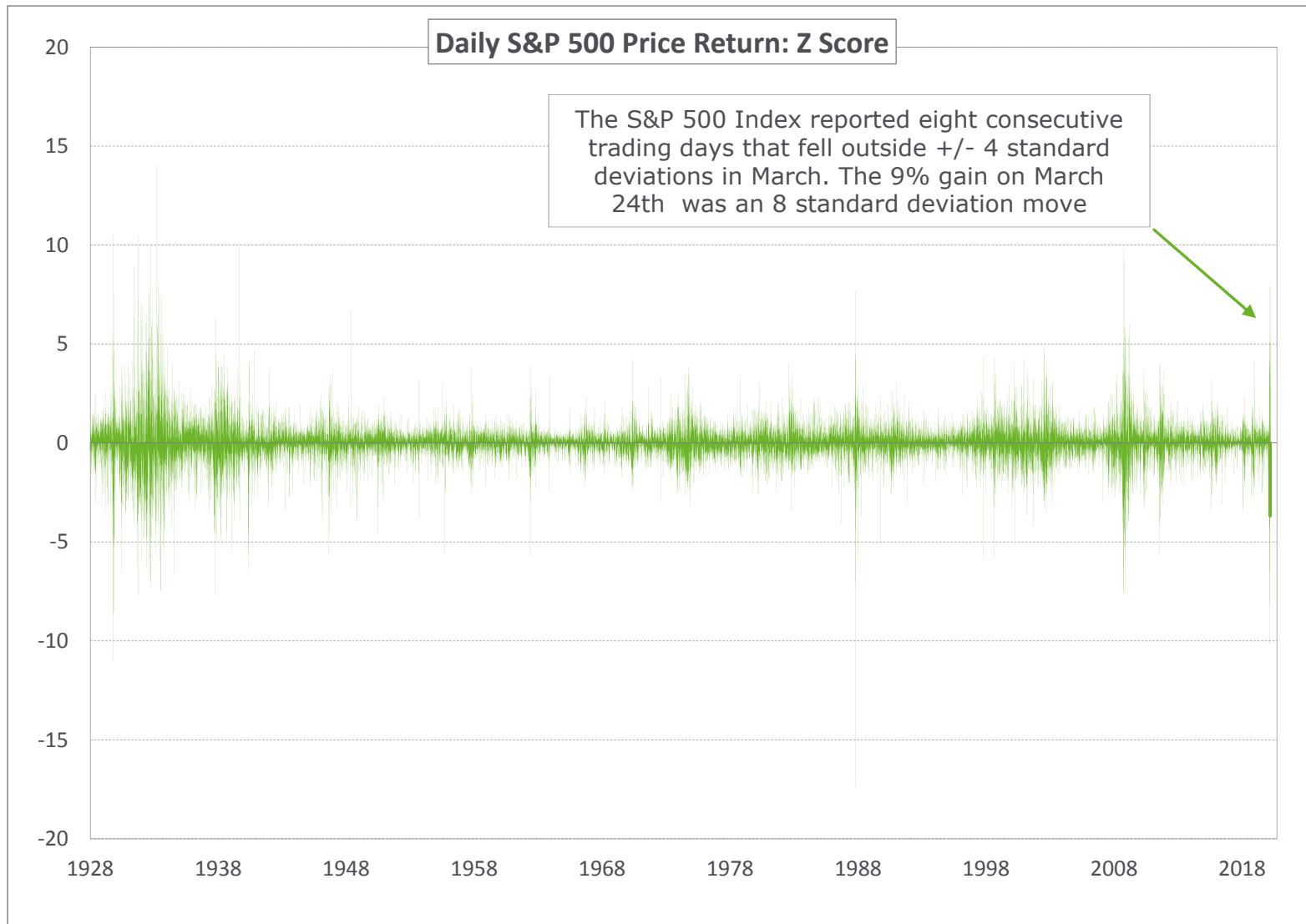
CORRELATIONS AND VOLATILITY ARE ELEVATED



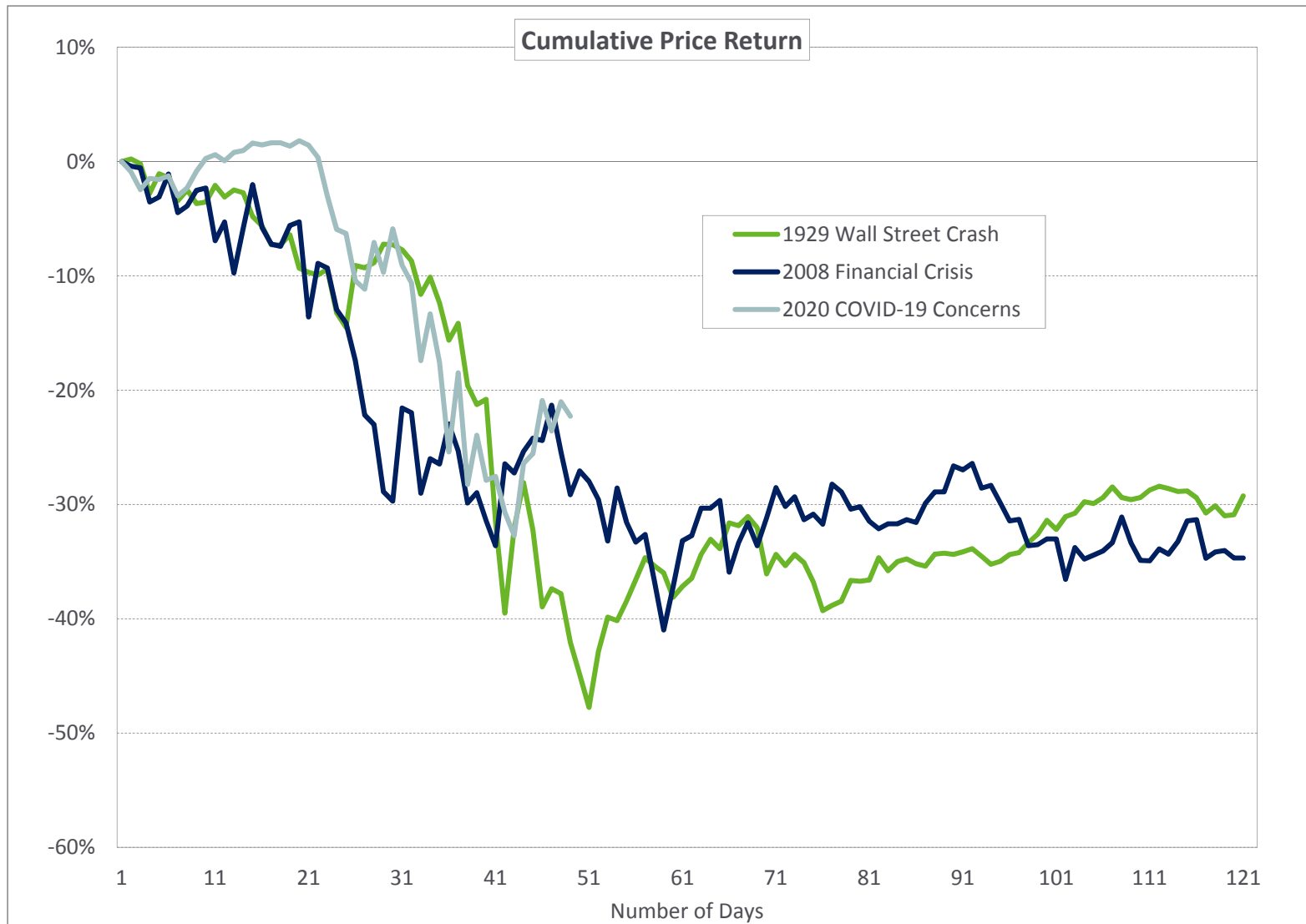
Source: CBOE, FactSet
Data as of 3/31/2020



ABNORMALLY LARGE PRICE MOVEMENTS



US EQUITY DURING MARKET DELEVERAGING

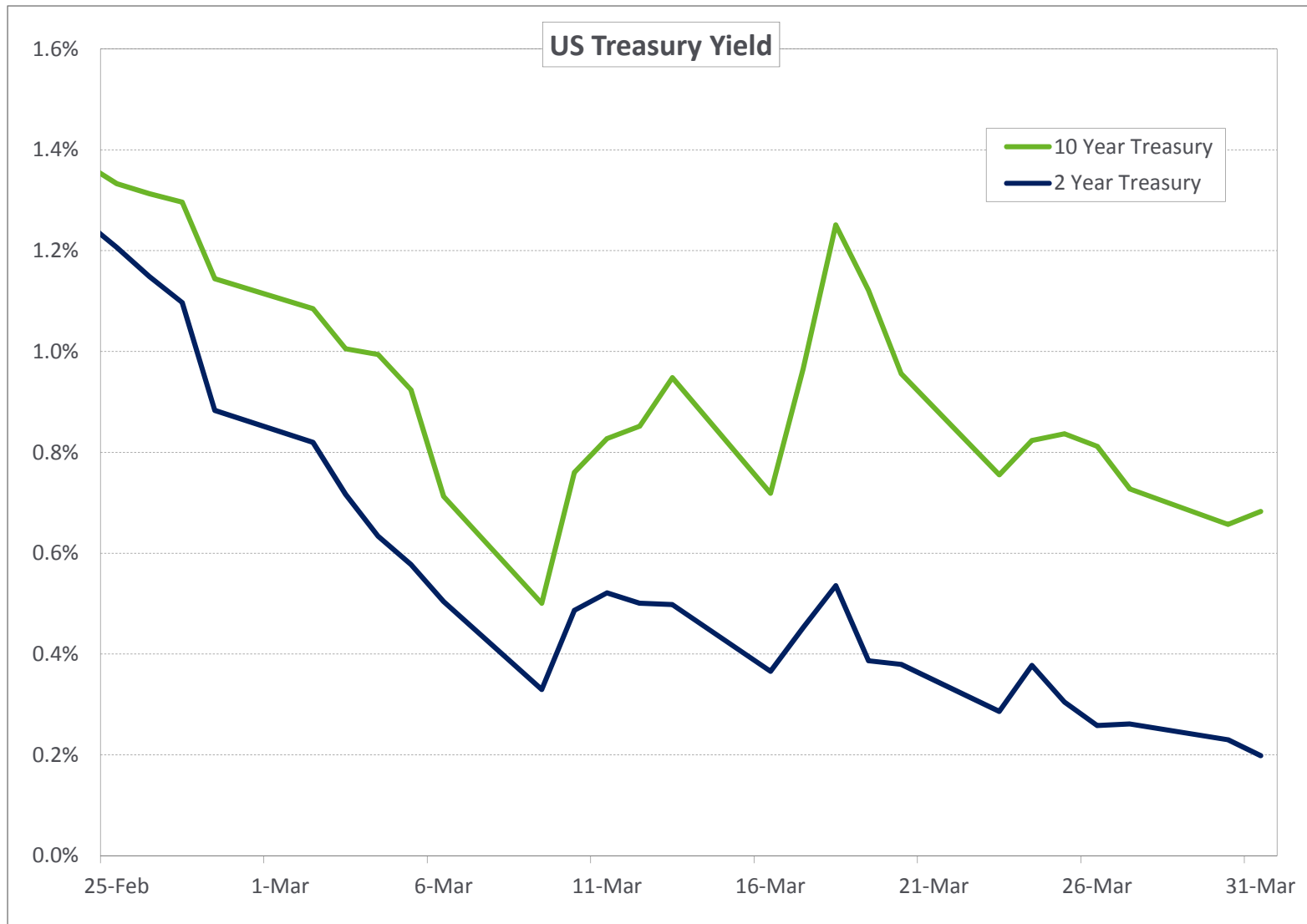


Source: S&P, Dow Jones, FactSet

Financial Crisis represents S&P returns from 9/1/2008 – 3/9/2009; Wall Street Crash represents Dow Jones returns from 8/30/1929 – 2/26/1930; COVID-19 represents S&P returns from 1/23/2020 (representing the start of the Wuhan, China lockdown) – 3/31/2020



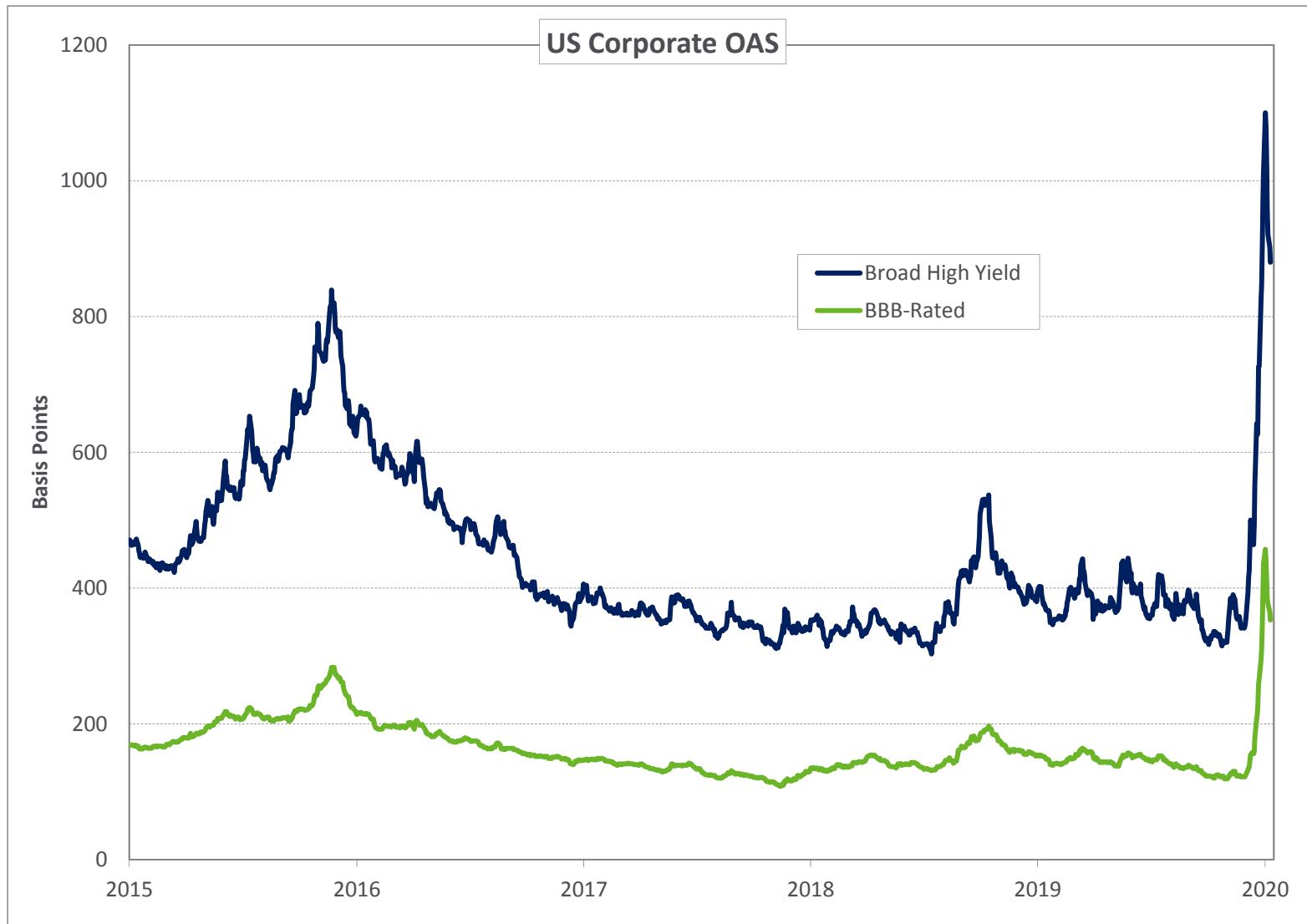
U.S. TREASURY YIELDS ARE STRESSED



Source: FactSet
Data as of 3/31/2020



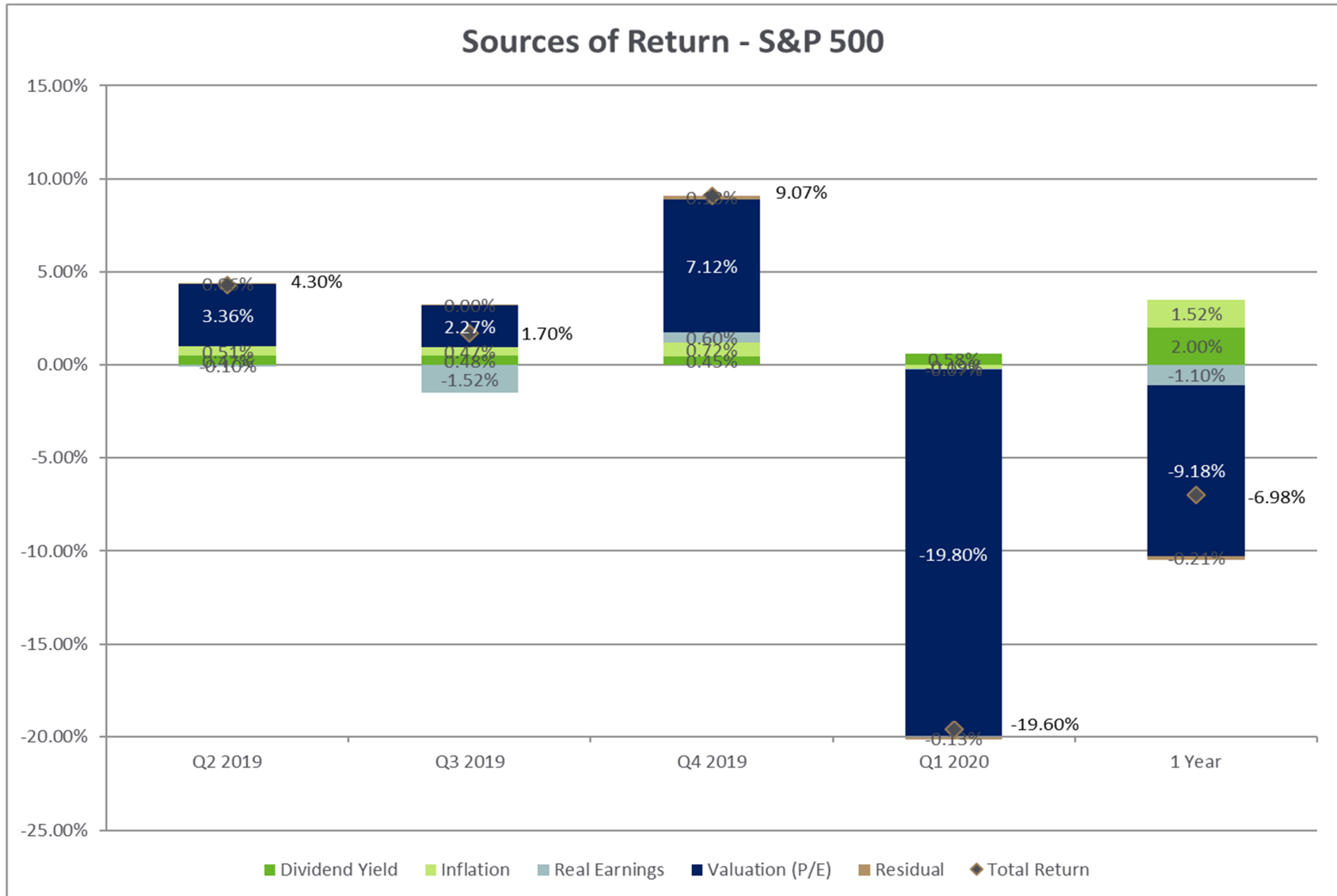
CREDIT SPREADS HAVE WIDENED



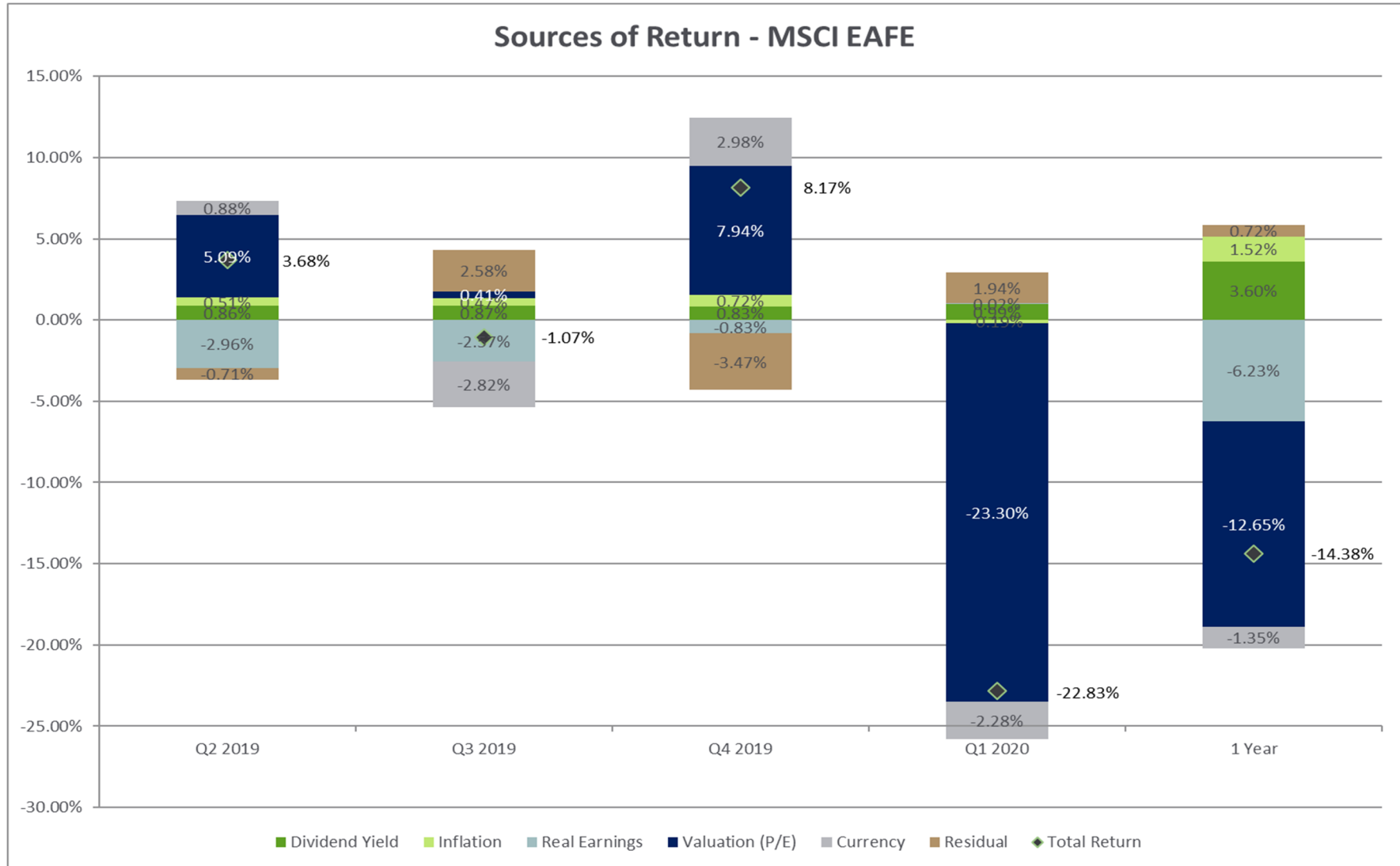
Source: Bloomberg, FactSet
Data as of 3/31/2020



1 YEAR ATTRIBUTION OF S&P 500 RETURNS



1 YEAR ATTRIBUTION OF MSCI EAFE RETURNS



Spot Rates

1 USD = 0.880 Euro

1 USD = 0.917 Euro

1 USD = 0.891 Euro

1 USD = 0.901 Euro



TOTAL FUND PERFORMANCE SUMMARY

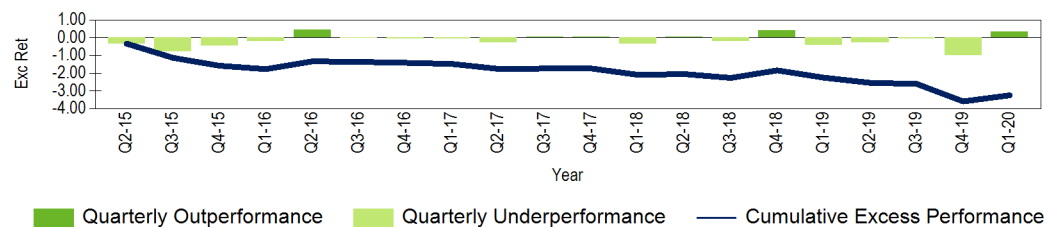
NEPC, LLC

Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE SUMMARY (NET)

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	Inception	Inception Date
Total Fund	\$5,261,562,080	-13.5%	61	-8.3%	61	-5.4%	58	3.2%	41	3.9%	38	7.0%	25	7.4%	Apr-94
<i>Policy Index</i>		-13.8%	66	-7.7%	47	-4.6%	45	3.7%	25	4.6%	14	7.1%	20	7.5%	Apr-94
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>		-12.4%	43	-7.6%	44	-4.1%	40	2.9%	48	3.2%	64	4.6%	97	5.9%	Apr-94
<i>60% S&P 500 / 40% BBgBarc Aggregate</i>		-10.9%	23	-4.2%	8	-0.4%	5	5.3%	4	5.6%	3	8.1%	2	7.9%	Apr-94
<i>InvMetrics Public DB > \$1B Net Median</i>		-12.6%		-8.0%		-5.0%		2.8%		3.7%		6.4%		7.0%	Apr-94

Quarterly and Cumulative Excess Performance



- For the five year period ending March 31, 2020, the Fund returned 3.9% trailing the policy index by 0.7% and ranking in the 38th 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 82nd percentile of its peers, and the risk-adjusted return, or Sharpe Ratio, ranks in the 49th percentile. This means that the Fund has earned more return per unit of volatility taken than 51% of its peers.

- For the three-year period, the Fund returned 3.2%, underperforming the policy index and ranking in the 41st percentile of its peers. The Fund's volatility ranks in the 79th percentile of its peers over this period, with the Fund's Sharpe Ratio ranking in the 47th percentile.

- For the one-year period, the Fund returned -5.4%, underperforming the policy index by 0.8% and ranking in the 58th percentile of the Investment Metrics Public Funds > \$1 Billion Universe (Net of fees).

- For the one-year period, the Fund experienced a net investment loss of \$284.2 million which includes a net investment loss of \$820.2 million in the quarter. Assets decreased from \$5.58billion one year ago to \$5.26 billion.

3 Years Ending March 31, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	3.2%	41	9.4%	79	0.2	47	0.1	45
Policy Index	3.7%	25	9.8%	83	0.2	36	0.2	32
InvMetrics Public DB > \$1B Net Median	2.8%	--	8.5%	--	0.1	--	0.1	--

5 Years Ending March 31, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	3.9%	38	8.6%	82	0.3	49	0.3	47
Policy Index	4.6%	14	8.7%	84	0.4	34	0.4	34
InvMetrics Public DB > \$1B Net Median	3.7%	--	7.8%	--	0.3	--	0.3	--

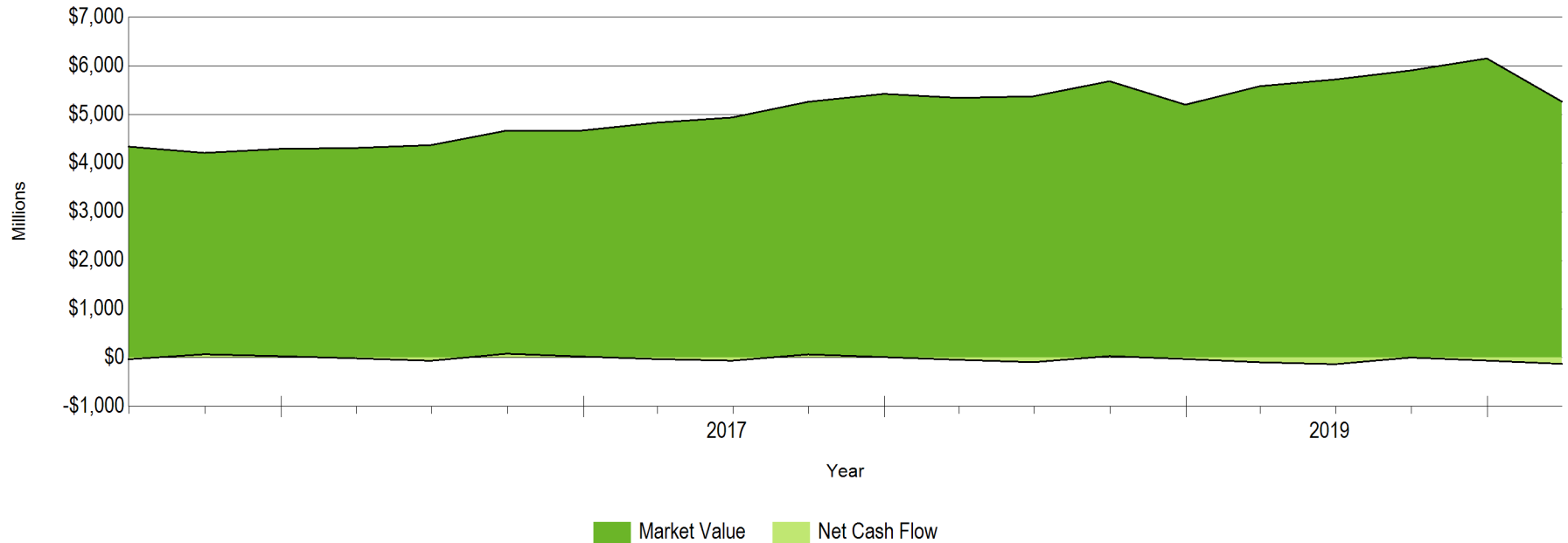
Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%.



Ventura County Employees' Retirement Association

TOTAL FUND ASSET GROWTH SUMMARY

Market Value History
5 Years Ending March 31, 2020



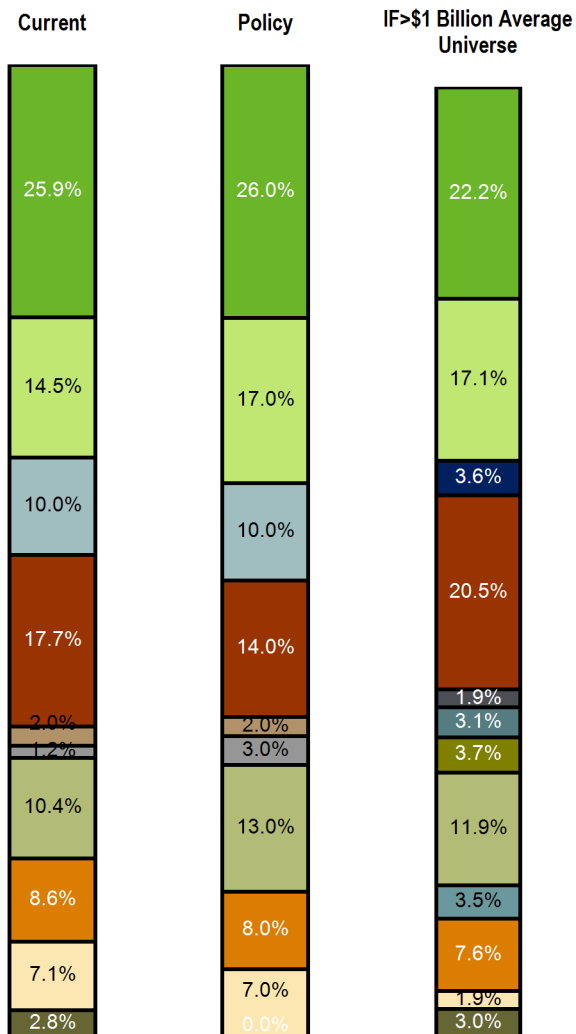
Summary of Cash Flows

	Last Three Months	Fiscal Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$6,148,524,885	\$5,716,158,441	\$5,578,640,723	\$4,829,813,958	\$4,365,835,058
Net Cash Flow	-\$66,716,823	\$6,417,458	-\$32,846,462	-\$97,921,684	-\$125,254,115
Net Investment Change	-\$820,245,982	-\$461,013,819	-\$284,232,181	\$529,669,805	\$1,020,981,137
Ending Market Value	\$5,261,562,080	\$5,261,562,080	\$5,261,562,080	\$5,261,562,080	\$5,261,562,080



Ventura County Employees' Retirement Association

TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target							
	Current	Current	Policy	Difference*	Policy Range	Within Range	
U.S. Equity	\$1,362,560,305	25.9%	26.0%	-0.1%	21.0% - 31.0%	Yes	
Non-US Equity	\$760,388,262	14.5%	17.0%	-2.5%	13.0% - 21.0%	Yes	
Emerging Markets Equity	--	--	--	0.0%		--	
Global Equity	\$526,816,628	10.0%	10.0%	0.0%	7.0% - 13.0%	Yes	
U.S. Fixed Income	\$929,780,649	17.7%	14.0%	3.7%	14.0% - 22.0%	Yes	
Treasury	\$103,124,269	2.0%	2.0%	0.0%	0.0% - 5.0%	Yes	
Fixed Income - Emerging	--	--	--	0.0%		--	
Fixed Income - Global	--	--	--	0.0%		--	
GAA/Risk Parity	--	--	--	0.0%		--	
Private Debt	\$65,100,163	1.2%	3.0%	-1.8%	0.0% - 5.0%	Yes	
Private Equity	\$545,128,364	10.4%	13.0%	-2.6%	5.0% - 15.0%	Yes	
Hedge Funds	--	--	--	0.0%		--	
Real Estate	\$450,253,689	8.6%	8.0%	0.6%	0.0% - 9.0%	Yes	
Real Assets	\$371,492,807	7.1%	7.0%	0.1%	0.0% - 9.0%	Yes	
Cash	\$146,916,945	2.8%	0.0%	2.8%	0.0% - 3.0%	Yes	
Total	\$5,261,562,080	100.0%	100.0%				

Cash represents assets in Parametric Overlay

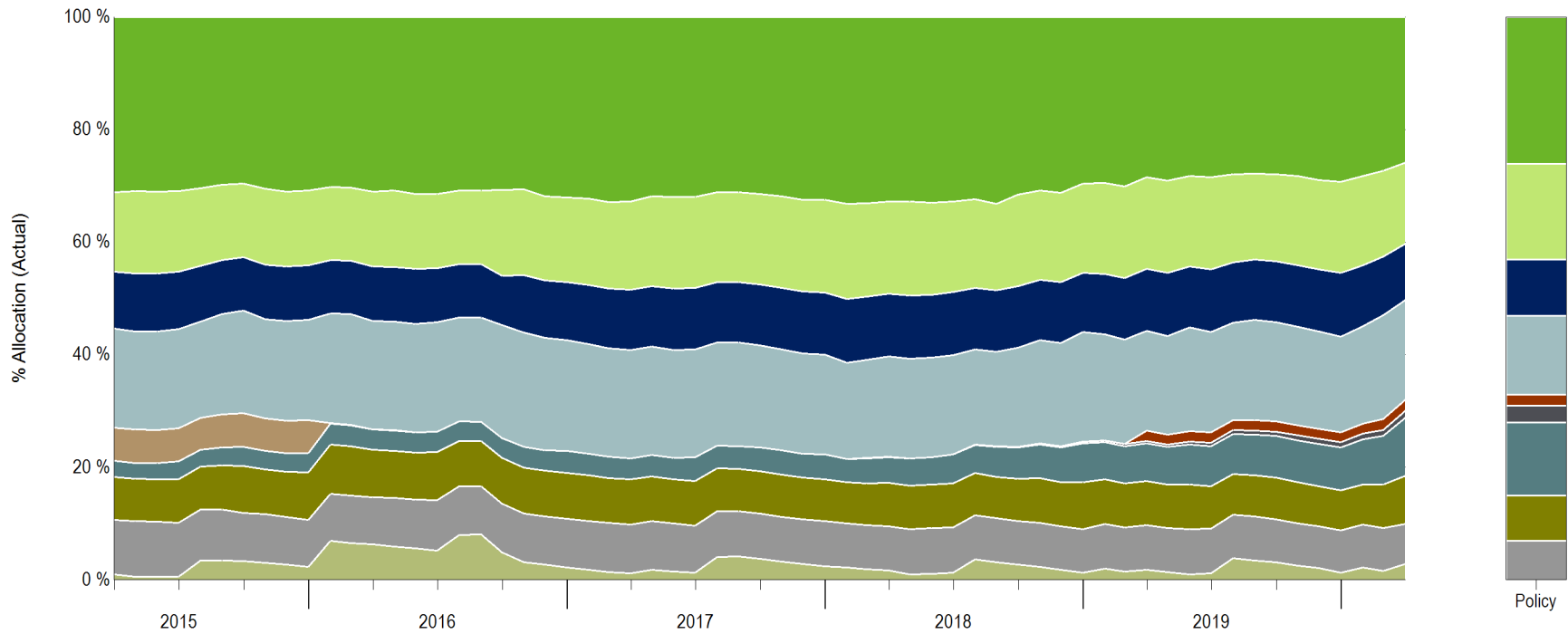
Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%



Ventura County Employees' Retirement Association

TOTAL FUND ALLOCATION HISTORY

Asset Allocation History
5 Years Ending March 31, 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

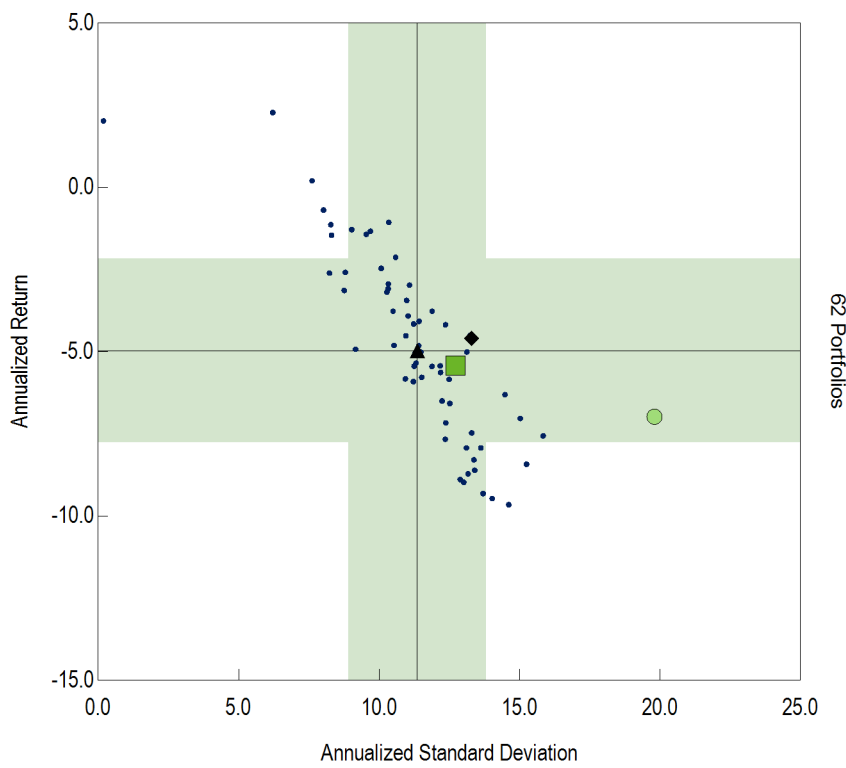
Policy Index shown is most recently approved index



Ventura County Employees' Retirement Association

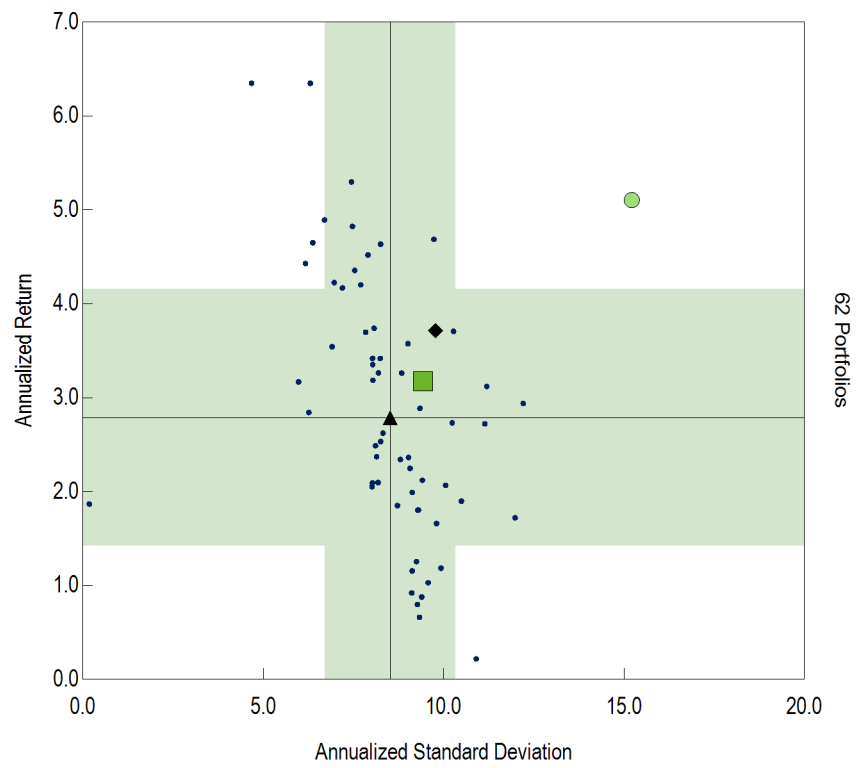
TOTAL FUND RISK/RETURN

1 Years Ending March 31, 2020



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

3 Years Ending March 31, 2020



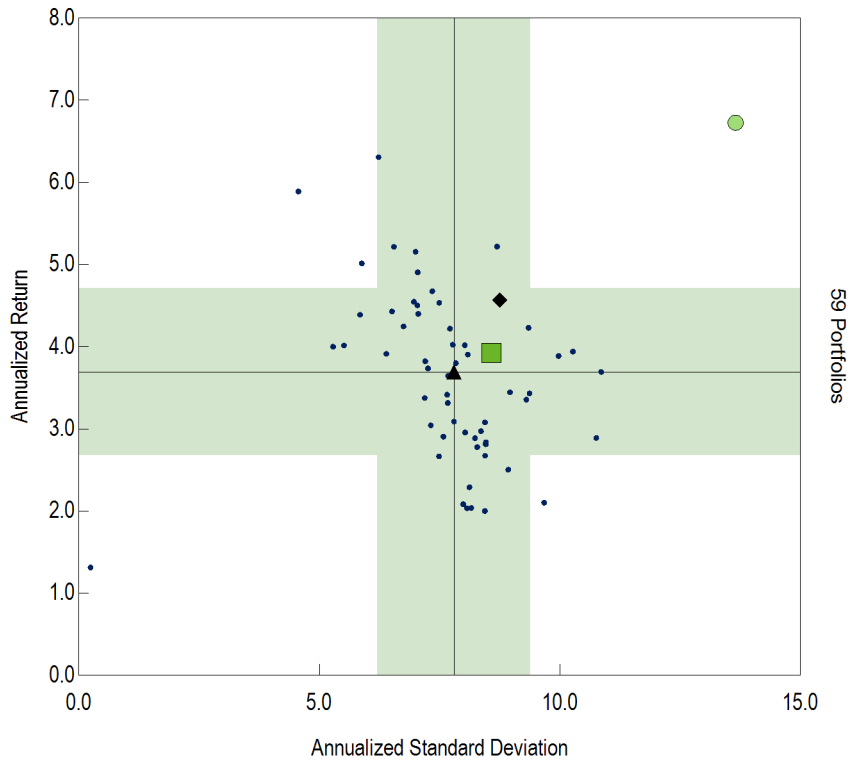
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



Ventura County Employees' Retirement Association

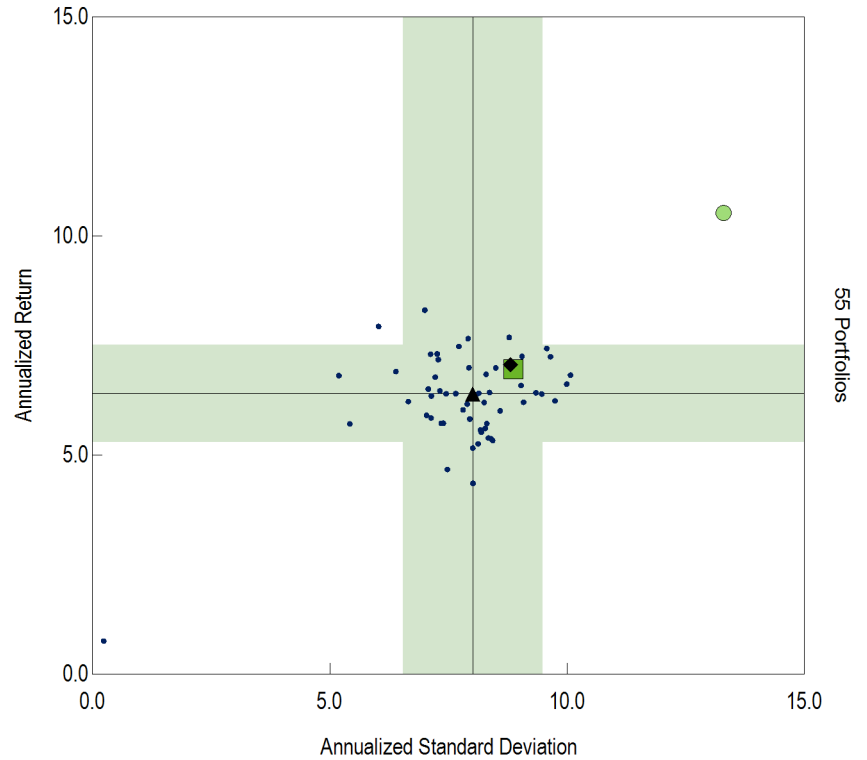
TOTAL FUND RISK/RETURN

5 Years Ending March 31, 2020



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

10 Years Ending March 31, 2020



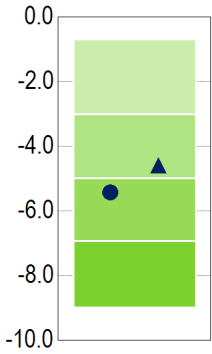
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

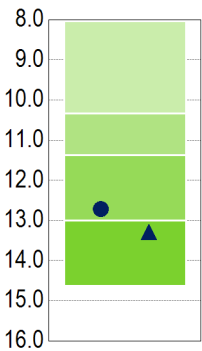
Total Fund vs. InvMetrics Public DB > \$1B Net
1 Year

Anlzd Return



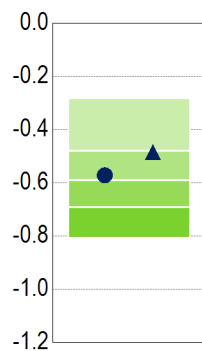
● Total Fund	
Value	-5.4
Rank	58
▲ Policy Index	
Value	-4.6
Rank	45
Universe	
5th %tile	-0.7
25th %tile	-3.0
Median	-5.0
75th %tile	-6.9
95th %tile	-9.0

Anlzd Standard Deviation



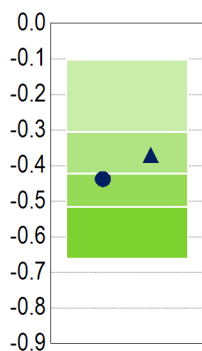
● Total Fund	
Value	12.7
Rank	74
▲ Policy Index	
Value	13.3
Rank	84
Universe	
5th %tile	8.0
25th %tile	10.3
Median	11.4
75th %tile	13.0
95th %tile	14.6

Sharpe Ratio



● Total Fund	
Value	-0.6
Rank	47
▲ Policy Index	
Value	-0.5
Rank	29
Universe	
5th %tile	-0.3
25th %tile	-0.5
Median	-0.6
75th %tile	-0.7
95th %tile	-0.8

Sortino Ratio



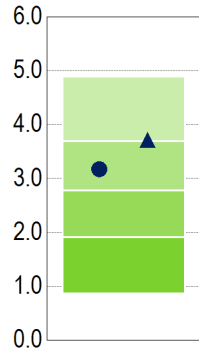
● Total Fund	
Value	-0.4
Rank	59
▲ Policy Index	
Value	-0.4
Rank	41
Universe	
5th %tile	-0.1
25th %tile	-0.3
Median	-0.4
75th %tile	-0.5
95th %tile	-0.7



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

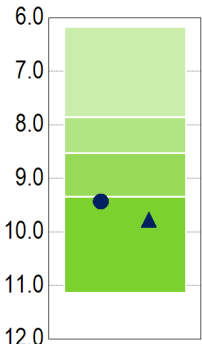
**Total Fund vs. InvMetrics Public DB > \$1B Net
3 Years**

Anlzd Return



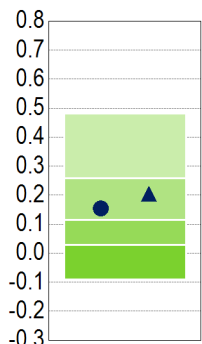
● Total Fund	
Value	3.2
Rank	41
▲ Policy Index	
Value	3.7
Rank	25
Universe	
5th %tile	4.9
25th %tile	3.7
Median	2.8
75th %tile	1.9
95th %tile	0.9

Anlzd Standard Deviation



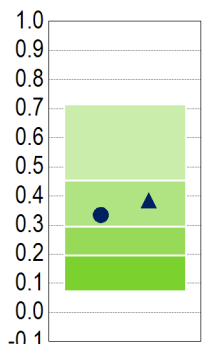
● Total Fund	
Value	9.4
Rank	79
▲ Policy Index	
Value	9.8
Rank	83
Universe	
5th %tile	6.2
25th %tile	7.9
Median	8.5
75th %tile	9.3
95th %tile	11.1

Sharpe Ratio



● Total Fund	
Value	0.2
Rank	47
▲ Policy Index	
Value	0.2
Rank	36
Universe	
5th %tile	0.5
25th %tile	0.3
Median	0.1
75th %tile	0.0
95th %tile	-0.1

Sortino Ratio



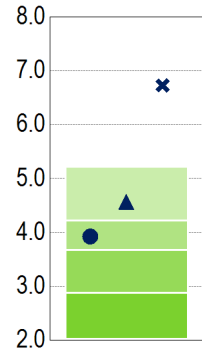
● Total Fund	
Value	0.3
Rank	44
▲ Policy Index	
Value	0.4
Rank	36
Universe	
5th %tile	0.7
25th %tile	0.5
Median	0.3
75th %tile	0.2
95th %tile	0.1



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

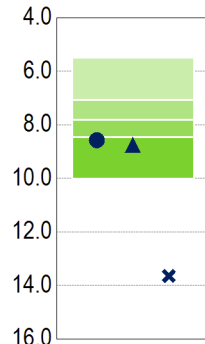
Anlzd Return



● Total Fund
Value 3.9
Rank 38
▲ Policy Index
Value 4.6
Rank 14
× S&P 500
Value 6.7
Rank 1

Universe
5th %tile 5.2
25th %tile 4.2
Median 3.7
75th %tile 2.9
95th %tile 2.0

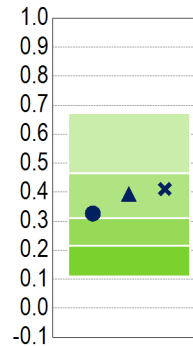
Anlzd Standard Deviation



● Total Fund
Value 8.6
Rank 82
▲ Policy Index
Value 8.7
Rank 84
× S&P 500
Value 13.7
Rank 99

Universe
5th %tile 5.5
25th %tile 7.0
Median 7.8
75th %tile 8.4
95th %tile 10.0

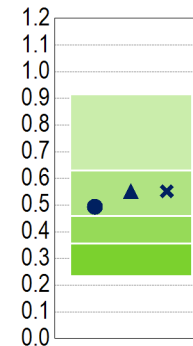
Sharpe Ratio



● Total Fund
Value 0.3
Rank 49
▲ Policy Index
Value 0.4
Rank 34
× S&P 500
Value 0.4
Rank 33

Universe
5th %tile 0.7
25th %tile 0.5
Median 0.3
75th %tile 0.2
95th %tile 0.1

Sortino Ratio



● Total Fund
Value 0.5
Rank 46
▲ Policy Index
Value 0.6
Rank 38
× S&P 500
Value 0.6
Rank 38

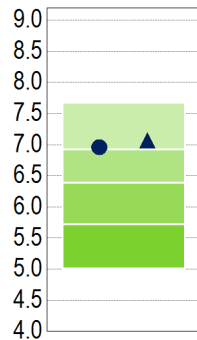
Universe
5th %tile 0.9
25th %tile 0.6
Median 0.5
75th %tile 0.4
95th %tile 0.2



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

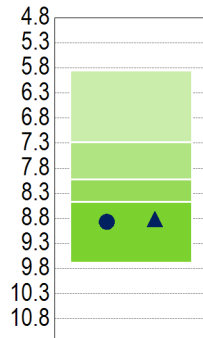
Total Fund vs. InvMetrics Public DB > \$1B Net 10 Years

Anlzd Return



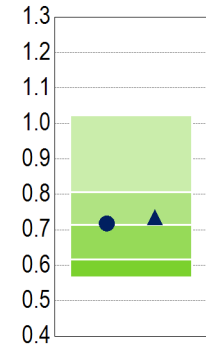
● Total Fund	
Value	7.0
Rank	25
▲ Policy Index	
Value	7.1
Rank	20
Universe	
5th %tile	7.7
25th %tile	6.9
Median	6.4
75th %tile	5.7
95th %tile	5.0

Anlzd Standard Deviation



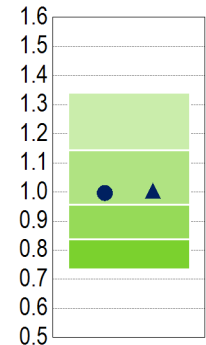
● Total Fund	
Value	8.9
Rank	82
▲ Policy Index	
Value	8.8
Rank	81
Universe	
5th %tile	5.8
25th %tile	7.3
Median	8.0
75th %tile	8.5
95th %tile	9.7

Sharpe Ratio



● Total Fund	
Value	0.7
Rank	48
▲ Policy Index	
Value	0.7
Rank	43
Universe	
5th %tile	1.0
25th %tile	0.8
Median	0.7
75th %tile	0.6
95th %tile	0.6

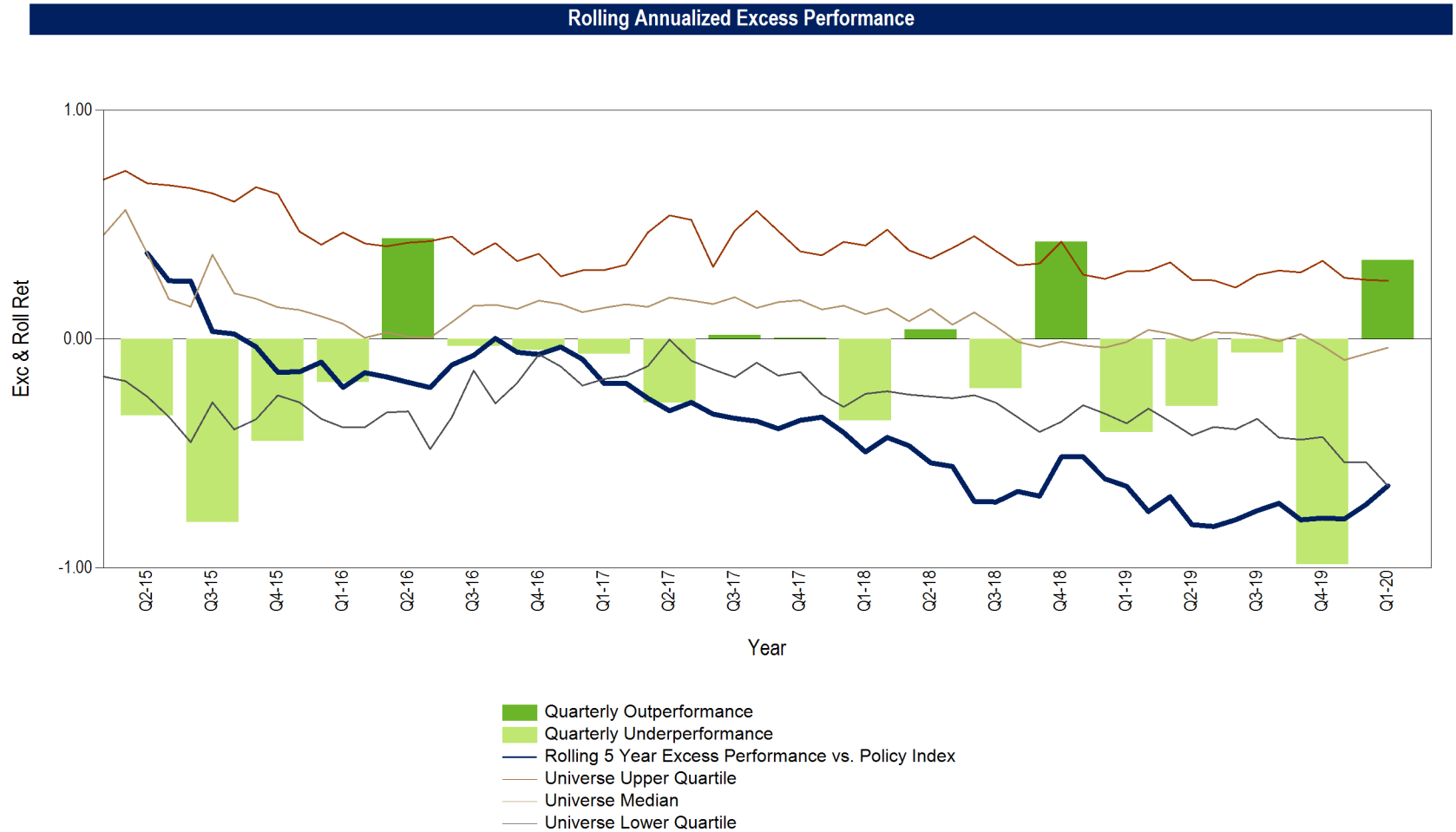
Sortino Ratio



● Total Fund	
Value	1.0
Rank	44
▲ Policy Index	
Value	1.0
Rank	42
Universe	
5th %tile	1.3
25th %tile	1.1
Median	1.0
75th %tile	0.8
95th %tile	0.7

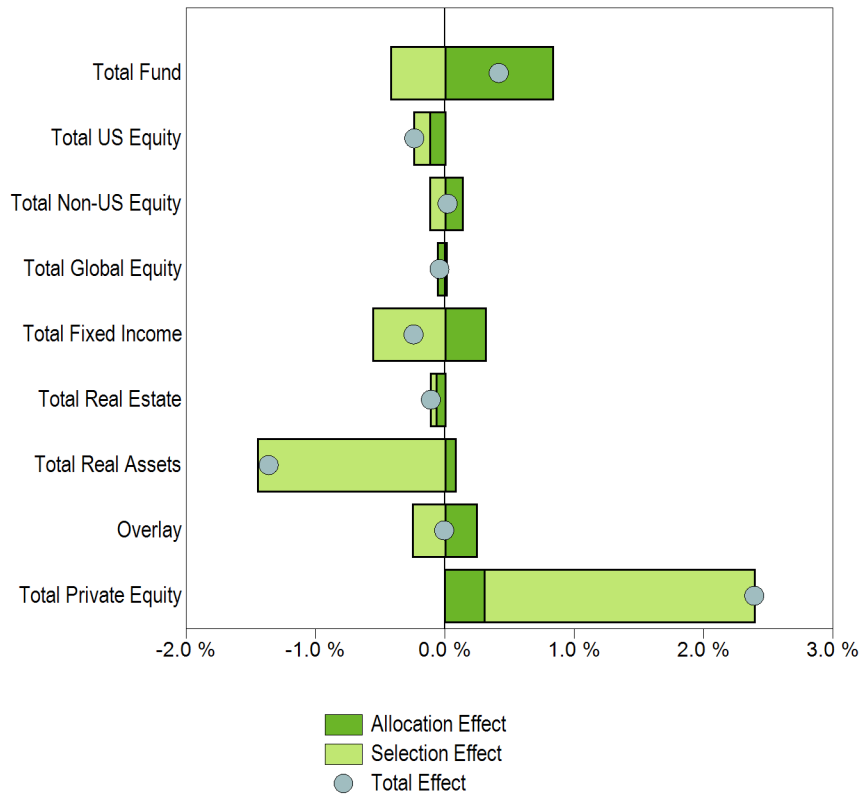


ROLLING 5 YEAR EXCESS RETURNS- NET OF FEES



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Months Ending March 31, 2020

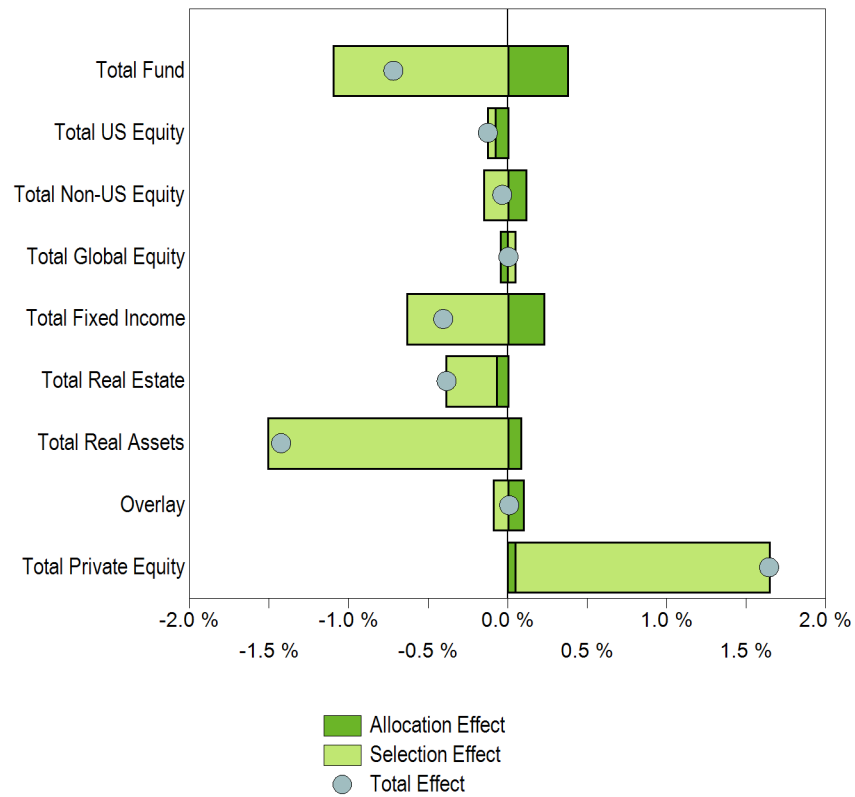


Attribution Summary						
3 Months Ending March 31, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	-21.3%	-20.9%	-0.4%	-0.1%	-0.1%	-0.2%
Total Non-US Equity	-24.0%	-23.4%	-0.6%	-0.1%	0.1%	0.0%
Total Global Equity	-21.3%	-21.4%	0.1%	0.0%	-0.1%	0.0%
Total Fixed Income	0.2%	3.1%	-2.9%	-0.5%	0.3%	-0.3%
Total Real Estate	0.2%	0.8%	-0.6%	0.0%	-0.1%	-0.1%
Total Real Assets	-19.3%	0.9%	-20.3%	-1.5%	0.1%	-1.4%
Overlay	-16.3%	0.4%	-16.7%	-0.3%	0.3%	0.0%
Total Private Equity	7.0%	-20.3%	27.3%	2.1%	0.3%	2.4%
Total	-13.5%	-13.8%	0.3%	-0.5%	0.8%	0.3%



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects 1 Year Ending March 31, 2020



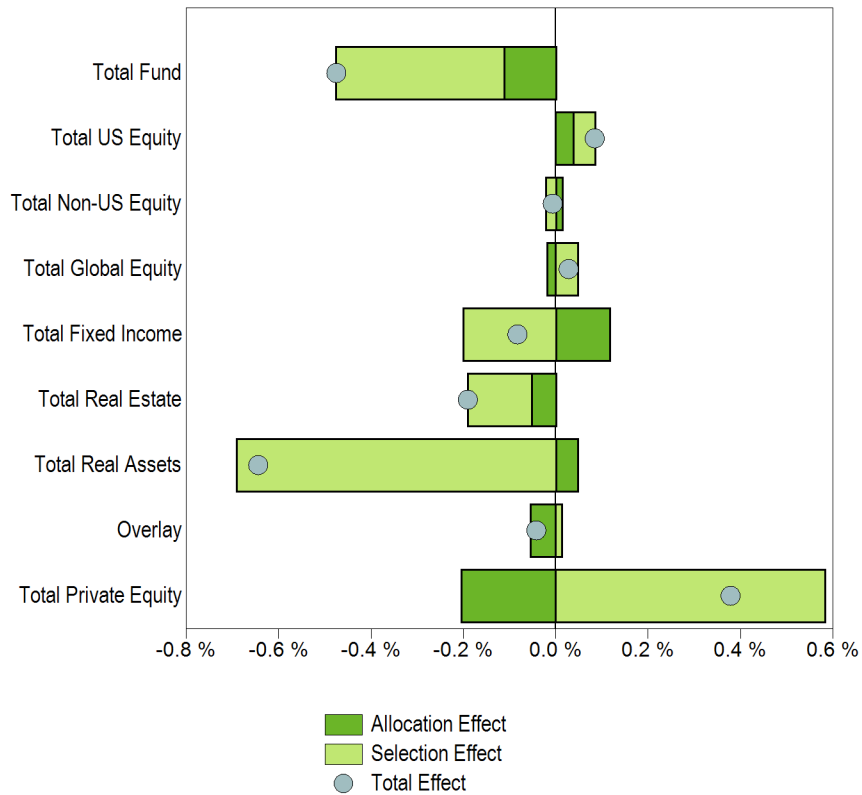
Attribution Summary 1 Year Ending March 31, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	-9.4%	-9.1%	-0.2%	0.0%	-0.1%	-0.1%
Total Non-US Equity	-16.4%	-15.6%	-0.8%	-0.1%	0.1%	0.0%
Total Global Equity	-10.9%	-11.3%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	5.6%	8.9%	-3.3%	-0.6%	0.2%	-0.4%
Total Real Estate	-0.5%	3.9%	-4.4%	-0.3%	-0.1%	-0.4%
Total Real Assets	-16.5%	4.1%	-20.6%	-1.5%	0.1%	-1.4%
Overlay	-9.5%	1.9%	-11.4%	-0.2%	0.1%	-0.1%
Total Private Equity	15.3%	-6.4%	21.7%	1.6%	0.1%	1.6%
Total	-5.4%	-4.6%	-0.8%	-1.2%	0.4%	-0.8%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Years Ending March 31, 2020

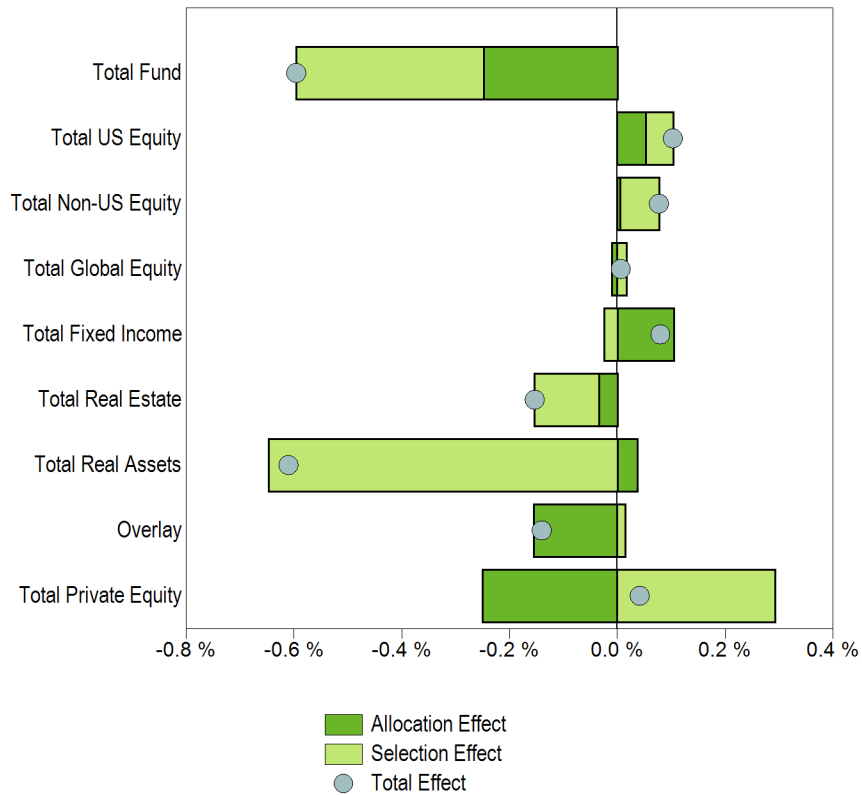


Attribution Summary						
3 Years Ending March 31, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	4.1%	4.0%	0.1%	0.0%	0.0%	0.1%
Total Non-US Equity	-2.1%	-2.0%	-0.1%	0.0%	0.0%	0.0%
Total Global Equity	1.9%	1.5%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	3.9%	4.8%	-0.9%	-0.2%	0.1%	-0.1%
Total Real Estate	4.0%	5.9%	-1.8%	-0.1%	-0.1%	-0.2%
Total Real Assets	-4.0%	5.5%	-9.5%	-0.7%	0.0%	-0.6%
Overlay	2.6%	1.7%	0.9%	0.0%	0.0%	-0.1%
Total Private Equity	16.3%	7.1%	9.2%	0.6%	-0.2%	0.4%
Total	3.2%	3.7%	-0.5%	-0.4%	-0.1%	-0.5%



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
5 Years Ending March 31, 2020



Attribution Summary						
5 Years Ending March 31, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	5.9%	5.7%	0.1%	0.0%	0.0%	0.1%
Total Non-US Equity	-0.1%	-0.6%	0.6%	0.1%	0.0%	0.1%
Total Global Equity	3.0%	2.8%	0.1%	0.0%	0.0%	0.0%
Total Fixed Income	3.3%	3.4%	0.0%	0.0%	0.1%	0.1%
Total Real Estate	5.9%	7.5%	-1.6%	-0.1%	0.0%	-0.2%
Total Real Assets	-2.8%	5.6%	-8.3%	-0.6%	0.0%	-0.6%
Overlay	2.0%	1.1%	0.9%	0.0%	-0.1%	-0.2%
Total Private Equity	13.7%	8.9%	4.8%	0.3%	-0.2%	0.0%
Total	3.9%	4.6%	-0.6%	-0.4%	-0.3%	-0.6%



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

1 Year Ending March 31, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	50.4%	-11.8%	34	20.6%	82	-0.1%	27	0.8%	5	-0.7	54	1.0
MSCI ACWI	--	-11.3%	22	20.0%	65	0.0%	24	0.0%	1	--	--	1.0
Total US Equity	25.9%	-9.4%	13	21.2%	69	0.0%	12	0.6%	5	-0.4	16	1.0
Russell 3000	--	-9.1%	10	20.8%	58	0.0%	11	0.0%	1	--	--	1.0
Total Non-US Equity	14.5%	-16.4%	53	20.5%	50	-0.8%	68	0.8%	8	-1.1	94	1.0
MSCI ACWI ex USA	--	-15.6%	37	20.4%	48	0.0%	46	0.0%	1	--	--	1.0
Total Global Equity	10.0%	-10.9%	49	19.9%	78	0.4%	14	0.1%	1	4.4	1	1.0
MSCI ACWI	--	-11.3%	60	20.0%	78	0.0%	16	0.0%	1	--	--	1.0
Total Fixed Income	21.2%	5.6%	47	4.1%	40	-3.1%	59	1.9%	42	-1.7	92	1.0
Total Fixed Income Policy Index	--	8.9%	2	3.8%	32	0.0%	17	0.0%	1	--	--	1.0
Total US Fixed Income	17.7%	4.2%	79	4.6%	70	-4.4%	78	2.9%	75	-1.6	87	1.0
BBgBarc US Aggregate TR	--	8.9%	6	3.8%	49	0.0%	10	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-16.5%	--	17.5%	--	-34.7%	--	17.2%	--	-1.2	--	7.4
Real Assets Index	--	4.1%	--	0.9%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.6%	-0.5%	88	2.3%	56
NCREIF ODCE Net	--	3.9%	45	1.7%	41
Total Private Equity	9.7%	15.3%	29	6.7%	62
Russell 3000 + 3%	--	-6.4%	98	20.8%	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 87 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 167 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 115 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 46 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 87 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 103 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 57 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 47 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

3 Years Ending March 31, 2020

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	50.4%	1.9%	27	15.2%	66	0.4%	23	0.9%	10	0.5	10	1.0
MSCI ACWI	--	1.5%	46	14.9%	41	0.0%	31	0.0%	1	--	--	1.0
Total US Equity	25.9%	4.1%	12	16.0%	48	0.1%	12	0.5%	3	0.2	10	1.0
Russell 3000	--	4.0%	14	15.8%	38	0.0%	14	0.0%	1	--	--	1.0
Total Non-US Equity	14.5%	-2.1%	39	15.0%	22	-0.2%	41	1.0%	5	-0.1	41	1.0
MSCI ACWI ex USA	--	-2.0%	37	15.1%	30	0.0%	38	0.0%	1	--	--	1.0
Total Global Equity	10.0%	1.9%	35	14.9%	73	0.4%	40	0.1%	1	4.6	1	1.0
MSCI ACWI	--	1.5%	51	14.9%	73	0.0%	60	0.0%	1	--	--	1.0
Total Fixed Income	21.2%	3.9%	25	3.0%	37	-0.5%	52	1.3%	37	-0.7	78	0.9
Total Fixed Income Policy Index	--	4.8%	5	3.2%	42	0.0%	17	0.0%	1	--	--	1.0
Total US Fixed Income	17.7%	3.4%	58	3.2%	67	-0.9%	82	1.8%	72	-0.8	83	0.8
BBgBarc US Aggregate TR	--	4.8%	5	3.2%	65	0.0%	18	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-4.0%	--	12.2%	--	-21.8%	--	12.0%	--	-0.8	--	4.3
Real Assets Index	--	5.5%	--	0.9%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.6%	4.0%	89	2.7%	51
NCREIF ODCE Net	--	5.9%	57	2.5%	48
Total Private Equity	9.7%	16.3%	28	5.9%	49
Russell 3000 + 3%	--	7.1%	95	15.8%	95

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 81 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 104 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 42 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 82 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 100 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 56 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 45 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

5 Years Ending March 31, 2020

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	50.4%	3.7%	22	13.8%	61	0.9%	16	1.1%	21	0.8	1	1.0
MSCI ACWI	--	2.8%	57	13.7%	60	0.0%	33	0.0%	1	--	--	1.0
Total US Equity	25.9%	5.9%	9	14.3%	45	0.1%	9	0.4%	1	0.3	3	1.0
Russell 3000	--	5.7%	10	14.2%	38	0.0%	12	0.0%	1	--	--	1.0
Total Non-US Equity	14.5%	-0.1%	32	14.2%	25	0.5%	32	1.1%	4	0.5	15	1.0
MSCI ACWI ex USA	--	-0.6%	56	14.5%	46	0.0%	51	0.0%	1	--	--	1.0
Total Global Equity	10.0%	3.0%	30	13.7%	65	0.1%	54	0.7%	1	0.2	8	1.0
MSCI ACWI	--	2.8%	45	13.7%	66	0.0%	66	0.0%	1	--	--	1.0
Total Fixed Income	21.2%	3.3%	18	2.9%	37	0.4%	22	1.6%	45	0.0	22	0.8
Total Fixed Income Policy Index	--	3.4%	15	3.1%	44	0.0%	42	0.0%	1	--	--	1.0
Total US Fixed Income	17.7%	3.1%	26	3.1%	61	0.2%	19	1.9%	73	-0.1	34	0.8
BBgBarc US Aggregate TR	--	3.4%	17	3.1%	64	0.0%	39	0.0%	1	--	--	1.0
Total Real Assets	7.4%	-2.8%	--	11.7%	--	-23.8%	--	11.4%	--	-0.7	--	4.5
Real Assets Index	--	5.6%	--	0.9%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	8.6%	5.9%	83	3.3%	44
NCREIF ODCE Net	--	7.5%	48	3.4%	46
Total Private Equity	9.7%	13.7%	27	6.0%	53
Russell 3000 + 3%	--	8.9%	80	14.2%	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 75 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 99 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 32 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 76 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 53 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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fund	5,261,562,080	100.0	100.0	-13.5	61	-8.3	61	-5.4	58	3.2	41	3.9	38	7.0	25	7.4	Apr-94
Policy Index				-13.8	66	-7.7	47	-4.6	45	3.7	25	4.6	14	7.1	20	7.5	Apr-94
Over/Under				0.3		-0.6		-0.8		-0.5		-0.7		-0.1		-0.1	
60% MSCI ACWI (Net) / 40% FTSE WGBI				-12.4	43	-7.6	44	-4.1	40	2.9	48	3.2	64	4.6	97	5.9	Apr-94
60% S&P 500 / 40% BBgBarc Aggregate				-10.9	23	-4.2	8	-0.4	5	5.3	4	5.6	3	8.1	2	7.9	Apr-94
InvMetrics Public DB > \$1B Net Median				-12.6		-8.0		-5.0		2.8		3.7		6.4		7.0	Apr-94
Total Fund ex Parametric*	5,168,152,963	98.2	--	-13.0	--	-8.0	--	-5.2	--	3.2	--	3.9	--	6.9	--	7.4	Apr-94
Total Fund ex Private Equity	4,751,122,051	90.3	--	-15.2	78	-9.9	77	-7.2	78	2.3	64	3.3	63	--	--	6.4	Jan-12
Policy Index				-13.8	66	-7.7	47	-4.6	45	3.7	25	4.6	14	7.1	20	7.4	Jan-12
Over/Under				-1.4		-2.2		-2.6		-1.4		-1.3				-1.0	
InvMetrics Public DB > \$1B Net Median				-12.6		-8.0		-5.0		2.8		3.7		6.4		6.6	Jan-12
Total US Equity	1,362,560,305	25.9	26.0	-21.3	21	-13.0	12	-9.4	13	4.1	12	5.9	9	10.4	6	8.5	Dec-93
Russell 3000				-20.9	13	-12.7	10	-9.1	10	4.0	14	5.7	10	10.2	10	8.8	Dec-93
Over/Under				-0.4		-0.3		-0.3		0.1		0.2		0.2		-0.3	
InvMetrics Public DB US Eq Net Median				-22.4		-15.1		-11.5		2.7		4.6		9.3		8.3	Dec-93
Western U.S. Index Plus	187,420,311	3.6		-25.4	73	-16.9	67	-13.2	65	3.0	50	5.6	39	10.9	26	4.4	May-07
S&P 500				-19.6	42	-10.8	37	-7.0	38	5.1	35	6.7	28	10.5	30	6.4	May-07
Over/Under				-5.8		-6.1		-6.2		-2.1		-1.1		0.4		-2.0	
eV US Large Cap Equity Net Median				-20.9		-13.1		-9.5		2.9		4.7		9.3		5.9	May-07
Blackrock Russell 1000 Index	1,125,520,807	21.4		-20.2	47	-11.8	43	-8.0	44	--	--	--	--	--	--	4.4	May-17
Russell 1000				-20.2	47	-11.8	43	-8.0	44	4.6	37	6.2	33	10.4	31	4.4	May-17
Over/Under				0.0		0.0		0.0								0.0	
eV US Large Cap Equity Net Median				-20.9		-13.1		-9.5		2.9		4.7		9.3		2.8	May-17
Blackrock Russell 2500 Index	49,619,186	0.9		-29.7	56	-24.7	58	-22.4	58	--	--	--	--	--	--	-3.4	May-17
Russell 2500				-29.7	56	-24.7	58	-22.5	58	-3.1	53	0.5	45	7.7	44	-3.4	May-17
Over/Under				0.0		0.0		0.1								0.0	
eV US Small-Mid Cap Equity Net Median				-28.3		-23.7		-20.3		-2.6		-0.2		7.0		-3.0	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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Non-US Equity	760,388,262	14.5	17.0	-24.0	41	-19.0	60	-16.4	53	-2.1	39	-0.1	32	2.7	51	5.3	Mar-94
MSCI ACWI ex USA				-23.4	30	-18.0	35	-15.6	37	-2.0	37	-0.6	56	2.1	75	4.2	Mar-94
Over/Under				-0.6		-1.0		-0.8		-0.1		0.5		0.6		1.1	
MSCI EAFE				-22.8	18	-17.4	26	-14.4	22	-1.8	34	-0.6	56	2.7	46	3.9	Mar-94
MSCI ACWI ex USA NR LCL				-20.1	6	-13.8	6	-11.9	9	-0.7	16	0.6	16	4.3	6	--	Mar-94
MSCI EAFE NR LCL				-20.5	6	-15.0	9	-12.6	14	-1.8	34	-0.1	37	4.4	5	4.0	Mar-94
InvMetrics Public DB ex-US Eq Net Median				-24.3		-18.7		-16.4		-2.5		-0.5		2.7		4.7	Mar-94
BlackRock ACWI ex-U.S. Index	387,771,075	7.4		-24.1	68	-18.5	70	-16.1	70	-2.1	74	-0.5	73	2.3	84	0.9	Mar-07
MSCI ACWI ex USA IMI				-24.1	69	-18.5	70	-16.3	72	-2.3	75	-0.7	74	2.1	85	0.7	Mar-07
Over/Under				0.0		0.0		0.2		0.2		0.2		0.2		0.2	
MSCI ACWI ex USA NR LCL				-20.1	42	-13.8	37	-11.9	51	-0.7	59	0.6	49	4.3	49	2.0	Mar-07
eV ACWI ex-US All Cap Equity Net Median				-21.2		-15.4		-11.8		0.2		0.6		4.1		1.9	Mar-07
Sprucegrove	170,475,881	3.2		-29.3	91	-26.5	97	-24.3	95	-5.5	88	-1.9	84	2.2	84	5.1	Mar-02
MSCI ACWI ex USA				-23.4	66	-18.0	68	-15.6	69	-2.0	73	-0.6	74	2.1	85	4.9	Mar-02
Over/Under				-5.9		-8.5		-8.7		-3.5		-1.3		0.1		0.2	
MSCI EAFE				-22.8	64	-17.4	65	-14.4	65	-1.8	72	-0.6	74	2.7	82	4.4	Mar-02
MSCI ACWI ex USA NR LCL				-20.1	42	-13.8	37	-11.9	51	-0.7	59	0.6	49	4.3	49	4.2	Mar-02
MSCI EAFE NR LCL				-20.5	44	-15.0	44	-12.6	57	-1.8	72	-0.1	68	4.4	48	3.4	Mar-02
eV ACWI ex-US All Cap Equity Net Median				-21.2		-15.4		-11.8		0.2		0.6		4.1		5.5	Mar-02
Hexavest	72,504,508	1.4		-26.4	79	-21.9	85	-20.7	85	-5.5	79	-2.5	80	--	--	0.8	Dec-10
MSCI EAFE				-22.8	55	-17.4	48	-14.4	48	-1.8	51	-0.6	54	2.7	68	2.2	Dec-10
Over/Under				-3.6		-4.5		-6.3		-3.7		-1.9				-1.4	
MSCI EAFE NR LCL				-20.5	33	-15.0	34	-12.6	38	-1.8	50	-0.1	45	4.4	30	4.7	Dec-10
eV EAFE All Cap Equity Net Median				-22.6		-17.5		-14.6		-1.8		-0.6		3.9		2.9	Dec-10
Walter Scott	129,636,799	2.5		-13.4	3	-6.0	4	-0.8	4	6.5	7	5.6	7	--	--	5.2	Dec-10
MSCI ACWI ex USA				-23.4	66	-18.0	68	-15.6	69	-2.0	73	-0.6	74	2.1	85	1.2	Dec-10
Over/Under				10.0		12.0		14.8		8.5		6.2				4.0	
MSCI ACWI ex USA NR LCL				-20.1	42	-13.8	37	-11.9	51	-0.7	59	0.6	49	4.3	49	4.2	Dec-10
MSCI EAFE				-22.8	64	-17.4	65	-14.4	65	-1.8	72	-0.6	74	2.7	82	2.2	Dec-10
eV ACWI ex-US All Cap Equity Net Median				-21.2		-15.4		-11.8		0.2		0.6		4.1		3.3	Dec-10



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Global Equity	526,816,628	10.0	10.0	-21.3	56	-14.1	47	-10.9	49	1.9	35	3.0	30	5.9	38	4.8	May-05
MSCI ACWI				-21.4	60	-14.3	61	-11.3	60	1.5	51	2.8	45	5.9	37	5.4	May-05
Over/Under				0.1		0.2		0.4		0.4		0.2		0.0		-0.6	
InvMetrics Public DB Glbl Eq Net Median				-21.2		-14.1		-10.9		1.5		2.7		3.3		4.0	May-05
BlackRock MSCI ACWI Equity Index	526,816,628	10.0		-21.3	50	-14.1	44	-10.9	43	1.9	42	3.3	40	--	--	7.0	Aug-12
MSCI ACWI				-21.4	51	-14.3	46	-11.3	47	1.5	45	2.8	45	5.9	57	6.6	Aug-12
Over/Under				0.1		0.2		0.4		0.4		0.5				0.4	
eV All Global Equity Net Median				-21.3		-15.2		-11.9		0.9		2.2		6.2		6.4	Aug-12



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Private Equity	510,440,029	9.7	13.0	7.0	3	10.1	27	15.3	29	16.3	28	13.7	27	--	--	14.6	Jan-12
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	99	<i>-10.7</i>	98	<i>-6.4</i>	98	<i>7.1</i>	95	<i>8.9</i>	80	<i>13.4</i>	29	<i>14.3</i>	<i>Jan-12</i>
Over/Under				27.3		20.8		21.7		9.2		4.8				0.3	
<i>Cambridge Associates Global All PE (Qtr Lag)</i>				<i>4.7</i>	10	<i>9.1</i>	39	<i>14.2</i>	36	<i>14.0</i>	40	<i>11.6</i>	51	<i>12.8</i>	39	<i>12.7</i>	<i>Jan-12</i>
<i>InvMetrics Public DB Private Eq Net Median</i>				<i>2.3</i>		<i>7.6</i>		<i>13.1</i>		<i>13.2</i>		<i>11.6</i>		<i>12.3</i>		<i>12.7</i>	<i>Jan-12</i>
Adams Street Global Fund Series	194,157,079	3.7		12.3	--	11.4	--	15.3	--	15.9	--	12.6	--	--	--	13.6	Jan-12
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>14.3</i>	<i>Jan-12</i>
Over/Under				32.6		22.1		21.7		8.8		3.7				-0.7	
Harbourvest	103,590,994	2.0		4.9	--	10.7	--	18.6	--	19.4	--	17.7	--	--	--	18.8	Aug-13
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>11.4</i>	<i>Aug-13</i>
Over/Under				25.2		21.4		25.0		12.3		8.8				7.4	
Pantheon Global Secondary Funds	38,187,485	0.7		1.9	--	6.0	--	3.9	--	13.9	--	12.2	--	--	--	11.5	Jan-12
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>14.3</i>	<i>Jan-12</i>
Over/Under				22.2		16.7		10.3		6.8		3.3				-2.8	
Drive Capital Fund II	17,115,665	0.3		0.0	--	14.5	--	54.9	--	6.8	--	--	--	--	--	-9.5	Sep-16
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>9.4</i>	<i>Sep-16</i>
Over/Under				20.3		25.2		61.3		-0.3						-18.9	
Abbott Secondary Opportunities	17,373,266	0.3		7.7	--	8.5	--	18.1	--	--	--	--	--	--	--	19.0	Jan-18
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>2.2</i>	<i>Jan-18</i>
Over/Under				28.0		19.2		24.5								16.8	
Clearlake Capital Partners V	9,716,155	0.2		12.5	--	38.8	--	69.0	--	--	--	--	--	--	--	45.7	Mar-18
<i>Russell 3000 + 3%</i>				<i>-20.3</i>	--	<i>-10.7</i>	--	<i>-6.4</i>	--	<i>7.1</i>	--	<i>8.9</i>	--	<i>13.4</i>	--	<i>1.4</i>	<i>Mar-18</i>
Over/Under				32.8		49.5		75.4								44.3	

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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Battery Ventures XII	12,046,946	0.2		9.7	--	18.1	--	18.3	--	--	--	--	--	--	--	3.3	Apr-18
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	2.4	Apr-18
Over/Under				30.0		28.8		24.7								0.9	
Insight Venture Partners X	27,149,069	0.5		5.6	--	19.0	--	24.1	--	--	--	--	--	--	--	10.4	May-18
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	2.2	May-18
Over/Under				25.9		29.7		30.5								8.2	
GTCR Fund XII	10,934,213	0.2		4.9	--	-9.6	--	-12.0	--	--	--	--	--	--	--	-32.0	Jun-18
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	0.6	Jun-18
Over/Under				25.2		1.1		-5.6								-32.6	
Buenaventure One, LLC	39,142,479	0.7		0.7	--	0.6	--	3.9	--	--	--	--	--	--	--	3.7	Jul-18
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	0.1	Jul-18
Over/Under				21.0		11.3		10.3								3.6	
ECI 11	3,315,932	0.1		-6.4	--	15.0	--	0.0	--	--	--	--	--	--	--	16.4	Dec-18
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-1.7	Dec-18
Over/Under				13.9		25.7		6.4								18.1	
The Resolute Fund IV L.P.	12,065,005	0.2		4.0	--	33.0	--	52.2	--	--	--	--	--	--	--	66.3	Jan-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	6.0	Jan-19
Over/Under				24.3		43.7		58.6								60.3	
GGV Capital VII L.P.	3,646,604	0.1		3.5	--	-20.2	--	-20.2	--	--	--	--	--	--	--	-17.6	Feb-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-1.0	Feb-19
Over/Under				23.8		-9.5		-13.8								-16.6	
GGV Discovery II, L.P.	737,012	0.0		-0.6	--	-3.2	--	-3.2	--	--	--	--	--	--	--	-2.7	Feb-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-1.0	Feb-19
Over/Under				19.7		7.5		3.2								-1.7	
Drive Capital Overdrive Fund I	2,766,681	0.1		0.0	--	-3.6	--	--	--	--	--	--	--	--	--	-3.6	May-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-10.2	May-19
Over/Under				20.3		7.1										6.6	
Riverside Micro Cap Fund V, LP	1,932,311	0.0		8.5	--	33.0	--	--	--	--	--	--	--	--	--	-22.5	May-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-10.2	May-19
Over/Under				28.8		43.7										-12.3	

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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
GGV Capital VII Plus, LP	851,855	0.0		-0.1		0.2		--		--		--		--		0.2	Jun-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-4.2	Jun-19
Over/Under				20.2		10.9										4.4	
Astorg VII L.P.	789,664	0.0		13.1	--	-38.7	--	--	--	--	--	--	--	--	--	-38.7	Jul-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-10.7	Jul-19
Over/Under				33.4		-28.0										-28.0	
M/C Partners Fund VIII LP. Limited Partnership	643,212	0.0		-35.8	--	-47.5	--	--	--	--	--	--	--	--	--	-47.5	Jul-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-10.7	Jul-19
Over/Under				-15.5		-36.8										-36.8	
Genstar Capital Partners IX	1,789,406	0.0		5.7	--	--	--	--	--	--	--	--	--	--	--	--	Aug-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-12.2	Aug-19
Over/Under				26.0													
Genstar IX Opportunities Fund I	771,621	0.0		3.1	--	--	--	--	--	--	--	--	--	--	--	2.8	Aug-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-12.2	Aug-19
Over/Under				23.4												15.0	
ABRY Partners IX, LP	3,177,970	0.1		0.4	--	--	--	--	--	--	--	--	--	--	--	-14.8	Sep-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-10.6	Sep-19
Over/Under				20.7												-4.2	
Advent International GPE IX LP	1,980,587	0.0		-2.5	--	--	--	--	--	--	--	--	--	--	--	-8.3	Nov-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-14.4	Nov-19
Over/Under				17.8												6.1	
Drive Capital Fund III LP	111,720	0.0		0.0	--	--	--	--	--	--	--	--	--	--	--	0.0	Dec-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-17.8	Dec-19
Over/Under				20.3												17.8	
Oak HC/FT Partners III LP	2,433,471	0.0		-9.7	--	--	--	--	--	--	--	--	--	--	--	-9.7	Dec-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-17.8	Dec-19
Over/Under				10.6												8.1	
TA XIII A LP	1,420,892	0.0		-5.3	--	--	--	--	--	--	--	--	--	--	--	-5.3	Dec-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-20.3	Dec-19
Over/Under				15.0												15.0	
Dover Street X, LP	2,211,342	0.0		--	--	--	--	--	--	--	--	--	--	--	--	-0.9	Feb-20
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-20.4	Feb-20
Over/Under																19.5	



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	\$19,108,507	\$6,254,210	76%	--	\$5,875,000	\$17,373,267	\$23,248,267	\$4,139,760	16.9%	0.31x	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	\$3,342,603	\$7,257,397	32%	--	--	\$3,177,970	\$3,177,970	(\$164,633)	-10.5%	--	0.95x
Adams Street 2010 U.S. Fund	2010	5/21/2010	\$42,500,000	\$37,442,500	\$5,057,500	88%	\$15,213	\$35,812,083	\$33,683,983	\$69,496,066	\$32,038,353	14.3%	0.96x	1.86x
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	\$19,845,682	\$17,046,092	\$36,891,774	\$14,564,936	12.3%	0.89x	1.65x
Adams Street 2010 Non-U.S. Emg Mkts Fund	2010	1/3/2011	\$8,500,000	\$7,633,000	\$867,000	90%	--	\$2,734,134	\$10,413,460	\$13,147,594	\$5,514,594	11.0%	0.36x	1.72x
Adams Street 2010 Direct Fund	2010	5/21/2010	\$8,500,000	\$8,066,500	\$433,500	95%	\$6,697	\$9,748,384	\$4,927,964	\$14,676,348	\$6,603,151	12.7%	1.21x	1.82x
Adams Street 2013 Global Fund	2013	6/27/2013	\$75,000,000	\$61,350,000	\$13,650,000	82%	\$10,728	\$15,450,212	\$79,464,799	\$94,915,011	\$33,554,283	11.9%	0.25x	1.55x
Adams Street 2016 Global Fund	2016	12/22/2016	\$60,000,000	\$32,880,000	\$27,120,000	55%	--	\$3,621,043	\$38,423,156	\$42,044,199	\$9,164,199	15.8%	0.11x	1.28x
Adams Street Co-Investment Fund IV A	2018	9/24/2018	\$30,000,000	\$9,844,931	\$20,250,000	33%	\$67,808	--	\$10,564,666	\$10,564,666	\$651,927	7.8%	--	1.07x
Advent International GPE IX	2019	5/23/2019	\$10,000,000	\$2,200,000	\$7,800,000	--	--	--	\$1,980,588	\$1,980,588	(\$219,412)	-31.5%	--	0.9x
Astorg VII	2019	12/17/2018	\$8,528,026	\$908,094	\$7,619,932	11%	--	--	\$719,675	\$719,675	(\$188,419)	-36.5%	--	0.79x
Battery Ventures XII	2018	2/1/2018	\$9,050,000	\$6,527,765	\$2,522,235	72%	--	--	\$7,341,054	\$7,341,054	\$813,289	12.0%	--	1.12x
Battery Ventures XII Side Fund	2018	2/1/2018	\$5,050,000	\$4,025,355	\$1,024,645	80%	--	--	\$4,705,894	\$4,705,894	\$680,539	15.9%	--	1.17x
Battery Ventures XIII	2020	2/11/2020	\$9,240,000	--	\$9,240,000	--	--	--	--	--	--	--	--	--
Battery Ventures XIII Side Fund	2020	2/11/2020	\$6,160,000	--	\$6,160,000	--	--	--	--	--	--	--	--	--
Buenaventure One, LLC	2018	1/5/2018	\$112,216,500	\$38,155,590	\$74,060,910	34%	--	\$403,156	\$39,142,466	\$39,545,622	\$1,390,032	3.9%	0.01x	1.04x
CapVest Equity Partners IV	2019	7/11/2018	\$12,190,343	--	\$12,190,343	--	--	--	(\$225,262)	(\$225,262)	--	--	--	--
Clearlake Capital Partners V	2017	12/22/2017	\$9,950,000	\$7,912,531	\$3,430,645	80%	\$46,158	\$2,796,429	\$8,943,097	\$11,739,526	\$3,780,837	43.1%	0.35x	1.48x
Clearlake Capital Partners VI	2020	1/2/2020	\$18,700,000	--	\$18,700,000	--	--	--	--	--	--	--	--	--
Drive Capital Fund II	2016	9/1/2016	\$15,000,000	\$13,110,587	\$1,892,623	87%	\$3,210	--	\$19,495,396	\$19,495,396	\$6,381,599	28.2%	--	1.49x
Drive Capital Fund III	2019	4/5/2019	\$7,500,000	\$111,720	\$7,388,280	1%	--	--	\$72,703	\$72,703	(\$39,017)	-81.3%	--	0.65x
Drive Capital Overdrive Fund I	2019	4/5/2019	\$7,500,000	\$2,866,353	\$4,633,647	38%	--	--	\$2,724,666	\$2,724,666	(\$141,687)	-7.9%	--	0.95x
ECI 11	2018	7/5/2018	\$9,359,969	\$2,853,854	\$6,506,115	30%	--	--	\$2,674,246	\$2,674,246	(\$179,608)	-6.6%	--	0.94x
Flexpoint Fund IV-A	2019	7/2/2019	\$10,650,000	--	\$10,650,000	--	--	--	--	--	--	--	--	--
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	\$5,756,731	25%	--	\$102,637	\$1,789,407	\$1,892,044	\$46,138	6.1%	--	1.02x
Genstar Capital Partners IX Opportunities Program	2019	2/21/2019	\$2,500,000	\$749,672	\$1,750,328	30%	--	--	\$771,621	\$771,621	\$21,949	6.2%	--	1.03x
GGV Capital VII	2019	8/15/2018	\$10,160,000	\$3,759,200	\$6,400,800	37%	--	--	\$3,646,604	\$3,646,604	(\$112,596)	-4.9%	--	0.97x
GGV Capital VII Plus	2019	8/15/2018	\$2,540,000	\$850,900	\$1,689,100	34%	--	--	\$851,855	\$851,855	\$955	0.2%	--	1x
GGV Discovery II	2019	8/15/2018	\$2,100,000	\$745,500	\$1,354,500	36%	--	--	\$737,012	\$737,012	(\$8,488)	-2.0%	--	0.99x
Great Hill Equity Partners VII	2019	6/28/2019	\$8,900,000	--	\$8,900,000	--	--	--	(\$24,715)	(\$24,715)	--	--	--	--
Green Equity Investors VIII	2019	10/18/2019	\$15,000,000	--	\$15,000,000	--	--	--	--	--	--	--	--	--
GTCR Fund XII	2017	9/29/2017	\$30,000,000	\$13,065,000	\$16,935,000	44%	--	\$586,016	\$13,301,346	\$13,887,362	\$822,362	6.9%	0.04x	1.06x
HarbourVest - Dover Street VIII	2013	5/30/2013	\$67,500,000	\$61,509,954	\$6,075,000	91%	\$84,954	\$73,012,162	\$25,404,454	\$98,416,616	\$36,821,708	20.5%	1.19x	1.6x
HarbourVest - Dover Street IX	2016	12/16/2016	\$60,000,000	\$43,200,000	\$16,800,000	72%	--	\$15,641,322	\$44,751,818	\$60,393,140	\$17,193,140	27.5%	0.36x	1.4x
HarbourVest - Dover Street X	2019	5/31/2019	\$40,000,000	\$2,000,000	\$38,000,000	5%	--	--	\$2,231,069	\$2,231,069	\$231,069	66.8%	--	1.12x
HarbourVest - PRTNS CO INVEST IV L.P.	2017	6/2/2017	\$30,000,000	\$24,464,388	\$5,732,352	82%	--	\$4,951,347	\$27,479,488	\$32,430,835	\$7,966,447	13.8%	0.2x	1.33x
HarbourVest - PRTNS CO INVEST V L.P.	2019	7/31/2018	\$35,000,000	\$8,750,000	\$26,250,000	--	--	--	\$8,290,219	\$8,290,219	(\$459,781)	-12.0%	--	0.95x
Hellman & Friedman Capital Partners IX	2019	9/28/2018	\$19,800,000	--	\$19,800,000	--	--	--	(\$182,204)	(\$182,204)	--	--	--	--
Insight Venture Partners X	2017	10/13/2017	\$25,000,000	\$22,450,000	\$2,550,000	90%	--	\$8,561	\$27,149,077	\$27,157,638	\$4,707,638	18.2%	0x	1.21x
M/C Partners VIII	2019	4/2/2018	\$10,000,000	\$1,194,964	\$8,805,036	12%	--	--	\$643,211	\$643,211	(\$551,753)	-71.2%	--	0.54x
Oak HC/FT Partners III	2019	7/31/2019	\$15,000,000	\$2,697,195	\$12,302,805	18%	--	--	\$2,433,472	\$2,433,472	(\$263,723)	-39.3%	--	0.9x
Pantheon Global Secondary Fund IV	2010	8/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	--	\$13,140,543	\$2,596,999	\$15,737,542	\$5,777,542	13.3%	1.32x	1.58x
Pantheon Global Secondary Fund V	2015	2/26/2015	\$50,000,000	\$35,116,509	\$14,883,491	70%	(\$162,514)	\$12,598,723	\$34,348,178	\$46,946,901	\$11,992,906	12.3%	0.36x	1.34x
Pantheon Global Secondary Fund VI	2018	2/24/2020	\$25,000,000	--	\$25,000,000	--	--	--	--	--	--	--	--	--
The Resolute Fund IV	2018	5/2/2018	\$20,000,000	\$10,951,572	\$10,378,071	55%	--	\$2,186,629	\$12,065,007	\$14,251,636	\$3,300,064	66.4%	0.2x	1.3x
Riverside Micro-Cap Fund V	2018	8/21/2018	\$10,000,000	\$2,020,662	\$7,979,338	20%	--	--	\$1,932,310	\$1,932,310	(\$88,352)	-6.0%	--	0.96x
TA XIII	2019	5/2/2019	\$10,000,000	\$1,500,000	\$8,500,000	15%	--	--	\$1,420,892	\$1,420,892	(\$79,108)	-17.0%	--	0.95x
Total VCERA Private Equity Program	--	5/21/2010	\$1,076,244,838	\$527,496,561	\$552,316,285	49%	\$73,843	\$218,514,063	\$514,287,000	\$732,801,063	\$205,662,840	14.6%	0.41x	1.39x

1. Includes recycled/recallable distributions received to date.

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

2. 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 3/31/2020 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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total US Fixed Income	929,780,649	17.7	14.0	-1.1	81	1.4	77	4.2	79	3.4	58	3.1	26	4.3	26	5.7	Feb-94
BBgBarc US Aggregate TR				3.1	8	5.7	7	8.9	6	4.8	5	3.4	17	3.9	38	5.4	Feb-94
Over/Under				-4.2		-4.3		-4.7		-1.4		-0.3		0.4		0.3	
InvMetrics Public DB US Fix Inc Net Median				1.0		3.0		5.7		3.6		2.7		3.6		5.5	Feb-94
BlackRock U.S. Debt Fund	201,782,934	3.8		3.1	8	5.7	8	8.9	10	4.9	12	3.4	19	3.9	44	5.2	Nov-95
BBgBarc US Aggregate TR				3.1	8	5.7	8	8.9	10	4.8	12	3.4	19	3.9	46	5.2	Nov-95
Over/Under				0.0		0.0		0.0		0.1		0.0		0.0		0.0	
eV All US Fixed Inc Net Median				-0.5		1.3		3.2		2.9		2.5		3.7		5.0	Nov-95
Western	296,443,808	5.6		-0.9	54	2.2	36	5.8	29	4.4	19	3.5	16	5.0	22	6.0	Dec-96
BBgBarc US Aggregate TR				3.1	8	5.7	8	8.9	10	4.8	12	3.4	19	3.9	46	5.2	Dec-96
Over/Under				-4.0		-3.5		-3.1		-0.4		0.1		1.1		0.8	
eV All US Fixed Inc Net Median				-0.5		1.3		3.2		2.9		2.5		3.7		5.0	Dec-96
Reams	309,144,182	5.9		-2.5	63	-0.3	67	1.6	68	2.1	66	2.8	39	3.7	52	5.0	Sep-01
Reams Custom Index				0.4	35	1.4	48	2.1	63	2.1	67	1.5	83	2.4	79	3.7	Sep-01
Over/Under				-2.9		-1.7		-0.5		0.0		1.3		1.3		1.3	
BBgBarc US Aggregate TR				3.1	8	5.7	8	8.9	10	4.8	12	3.4	19	3.9	46	4.5	Sep-01
3-Month LIBOR + 3%				1.1	25	3.7	21	5.1	33	5.1	10	4.5	8	3.9	45	4.8	Sep-01
eV All US Fixed Inc Net Median				-0.5		1.3		3.2		2.9		2.5		3.7		4.5	Sep-01
Loomis Strategic Alpha	46,094,642	0.9		-5.5	75	-4.9	80	-3.4	81	0.4	89	1.1	92	--	--	1.7	Jul-13
BBgBarc US Aggregate TR				3.1	8	5.7	8	8.9	10	4.8	12	3.4	19	3.9	46	3.7	Jul-13
Over/Under				-8.6		-10.6		-12.3		-4.4		-2.3				-2.0	
3-Month LIBOR + 3%				1.1	25	3.7	21	5.1	33	5.1	10	4.5	8	3.9	45	4.2	Jul-13
eV All US Fixed Inc Net Median				-0.5		1.3		3.2		2.9		2.5		3.7		3.0	Jul-13
Loomis Sayles Multi Strategy	76,315,082	1.5		-5.1	74	-2.8	76	0.0	74	2.8	53	2.9	35	5.4	17	5.8	Jul-05
Loomis Custom Index				-1.9	60	0.9	56	3.8	45	3.5	37	3.1	28	4.3	35	4.9	Jul-05
Over/Under				-3.2		-3.7		-3.8		-0.7		-0.2		1.1		0.9	
BBgBarc US Govt/Credit TR				3.4	7	6.1	6	9.8	8	5.2	10	3.5	15	4.1	39	4.4	Jul-05
eV All US Fixed Inc Net Median				-0.5		1.3		3.2		2.9		2.5		3.7		4.2	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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Debt	80,172,200	1.5	3.0	1.4	--	5.4	--	7.8	--	--	--	--	--	--	--	6.4	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				-12.2	--	-8.5	--	-6.1	--	--	--	--	--	--	--	0.2	Jan-18
Over/Under				13.6		13.9		13.9								6.2	
CVI Credit Value Fund	28,836,940	0.5		2.0	--	5.4	--	7.7	--	--	--	--	--	--	--	6.1	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				-12.2	--	-8.5	--	-6.1	--	--	--	--	--	--	--	0.2	Jan-18
Over/Under				14.2		13.9		13.8								5.9	
Monroe Capital Private Credit Fund III	18,215,769	0.3		2.8	--	7.9	--	10.7	--	--	--	--	--	--	--	10.5	Dec-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				-12.2	--	-8.5	--	-6.1	--	--	--	--	--	--	--	-1.9	Dec-18
Over/Under				15.0		16.4		16.8								12.4	
Bluebay Direct Lending Fund III	9,797,454	0.2		0.7	--	6.8	--	8.6	--	--	--	--	--	--	--	8.6	Apr-19
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				-12.2	--	-8.5	--	-6.1	--	--	--	--	--	--	--	-6.1	Apr-19
Over/Under				12.9		15.3		14.7								14.7	
Pimco Private Income Fund	8,250,000	0.2		0.0	--	--	--	--	--	--	--	--	--	--	--	0.0	Nov-19
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-14.4	Nov-19
Over/Under				20.3												14.4	
Bridge Debt Strategies III Limited Partner	15,072,038	0.3		0.0	--	--	--	--	--	--	--	--	--	--	--	0.0	Jan-20
Russell 3000 + 3%				-20.3	--	-10.7	--	-6.4	--	7.1	--	8.9	--	13.4	--	-20.3	Jan-20
Over/Under				20.3												20.3	
Treasuries	103,124,269	2.0	2.0	12.3	--	14.4	--	18.3	--	--	--	--	--	--	--	18.3	Apr-19
Reams 10-Year Treasuries	103,124,269	2.0		12.3	--	14.4	--	18.3	--	--	--	--	--	--	--	18.3	Apr-19
BBgBarc US Treasury 7-10 Yr TR				10.1	--	11.8	--	16.2	--	7.0	--	4.4	--	5.4	--	16.2	Apr-19
Over/Under				2.2		2.6		2.1								2.1	

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	2/12/2019	\$25,000,000	\$9,250,678	\$15,749,322	37%	\$49,774	\$9,797,454	\$9,847,228	\$596,550	8.9%	0.01x	1.06x
Bridge Debt Strategies III	2019	12/20/2019	\$25,000,000	\$15,318,397	\$9,681,603	61%	\$246,350	\$15,072,038	\$15,318,388	-\$9	0.0%	0.02x	1x
CVI Credit Value Fund IV	2017	12/31/2017	\$30,000,000	\$27,000,000	\$3,000,000	90%	\$6,147	\$28,836,940	\$28,843,087	\$1,843,087	6.9%	0x	1.07x
Monroe Capital Private Credit Fund III	2018	9/5/2018	\$25,000,000	\$17,652,142	\$7,347,858	71%	\$1,273,921	\$18,215,769	\$19,489,690	\$1,837,548	11.3%	0.07x	1.1x
PIMCO Private Income Fund	2019	3/25/2019	\$55,000,000	\$8,250,000	\$46,750,000	15%	\$0	\$8,250,000	\$8,250,000	\$0	0.0%	0x	1x
Total VCERA Private Debt Program	-		\$160,000,000	\$77,471,217	\$82,528,783	48%	\$1,576,192	\$80,172,201	\$81,748,393	\$4,277,176	7.5%	0.02x	1.06x

1. Includes recycled/recallable distributions received to date.

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

Performance shown is based on 3/31/2020 cash-adjusted market values.



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Estate	450,253,689	8.6	8.0	0.2	65	1.5	72	-0.5	88	4.0	89	5.9	83	9.3	84	7.4	Mar-94
<i>NCREIF ODCE Net</i>				<u>0.8</u>	42	<u>3.1</u>	46	<u>3.9</u>	45	<u>5.9</u>	57	<u>7.5</u>	48	<u>10.4</u>	52	<u>7.9</u>	<i>Mar-94</i>
Over/Under				-0.6		-1.6		-4.4		-1.9		-1.6		-1.1		-0.5	
<i>InvMetrics Public DB Real Estate Pub+Priv Net Median</i>				0.4		2.8		3.7		6.3		7.4		10.5		8.3	<i>Mar-94</i>
Prudential Real Estate	165,564,252	3.1		0.0	--	2.7	--	4.1	--	6.5	--	8.1	--	11.4	--	6.2	Jun-04
<i>NCREIF ODCE Net</i>				<u>0.8</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>5.9</u>	--	<u>7.5</u>	--	<u>10.4</u>	--	<u>6.9</u>	<i>Jun-04</i>
Over/Under				-0.8		-0.4		0.2		0.6		0.6		1.0		-0.7	
<i>NCREIF ODCE</i>				1.0	--	3.8	--	4.9	--	6.8	--	8.5	--	11.4	--	7.9	<i>Jun-04</i>
UBS Real Estate	269,658,435	5.1		0.3	--	0.8	--	-3.0	--	2.6	--	4.7	--	8.1	--	6.6	Mar-03
<i>NCREIF ODCE Net</i>				<u>0.8</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>5.9</u>	--	<u>7.5</u>	--	<u>10.4</u>	--	<u>7.1</u>	<i>Mar-03</i>
Over/Under				-0.5		-2.3		-6.9		-3.3		-2.8		-2.3		-0.5	
<i>NCREIF ODCE</i>				1.0	--	3.8	--	4.9	--	6.8	--	8.5	--	11.4	--	8.1	<i>Mar-03</i>
LaSalle Income + Growth VIII Limited Partnership	15,031,002	0.3		--	--	--	--	--	--	--	--	--	--	--	--	0.0	Mar-20
<i>NCREIF ODCE Net</i>				<u>0.8</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>5.9</u>	--	<u>7.5</u>	--	<u>10.4</u>	--	<u>0.8</u>	<i>Mar-20</i>
Over/Under																-0.8	
<i>NCREIF ODCE</i>				1.0	--	3.8	--	4.9	--	6.8	--	8.5	--	11.4	--	1.0	<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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Assets	391,109,105	7.4	7.0	-19.3	--	-18.5	--	-16.5	--	-4.0	--	-2.8	--	--	--	1.1	Apr-13
Real Assets Index				<u>0.9</u>	--	<u>2.3</u>	--	<u>4.1</u>	--	<u>5.5</u>	--	<u>5.6</u>	--	--	--	<u>5.9</u>	<i>Apr-13</i>
Over/Under				-20.2		-20.8		-20.6		-9.5		-8.4				-4.8	
Bridgewater All Weather Fund	314,191,012	6.0		-9.9	--	-6.1	--	-2.6	--	2.7	--	2.0	--	--	--	3.8	Aug-13
CPI + 5% (Unadjusted)				<u>1.7</u>	--	<u>4.5</u>	--	<u>6.6</u>	--	<u>7.0</u>	--	<u>6.9</u>	--	--	--	<u>6.6</u>	<i>Aug-13</i>
Over/Under				-11.6		-10.6		-9.2		-4.3		-4.9				-2.8	
Tortoise Energy Infrastructure	57,301,795	1.1		-49.3	--	-53.3	--	-53.6	--	-24.1	--	-16.9	--	--	--	-9.4	Apr-13
Tortoise MLP Index				<u>-56.8</u>	--	<u>-59.8</u>	--	<u>-59.2</u>	--	<u>-27.8</u>	--	<u>-20.4</u>	--	--	--	<u>-13.7</u>	<i>Apr-13</i>
Over/Under				<u>7.5</u>		<u>6.5</u>		<u>5.6</u>		<u>3.7</u>		<u>3.5</u>				<u>4.3</u>	
Brookfield Infra Fund IV B LP	19,616,298	0.4		--	--	--	--	--	--	--	--	--	--	--	--	--	Apr-20
CPI + 2% (Unadjusted)				<u>0.9</u>	--	<u>2.3</u>	--	<u>3.6</u>	--	<u>4.0</u>	--	<u>3.8</u>	--	<u>3.8</u>	--	--	<i>Apr-20</i>
Over/Under																	
Overlay	146,916,945	2.8	0.0														
Parametric	93,409,117	1.8															
Abbott Capital Cash	53,507,828	1.0															

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	-	-	-	-	
BlackRock Russell 2500 Index	-	-	-	-	
BlackRock MSCI ACWI ex-U.S. Index	-	-	-	-	
Sprucegrove	Bottom Quartile	-	-	-	
Hexavest	Bottom Quartile	-	-	Watch (Board Driven)	On Watch for Performance Issues
Walter Scott	Top 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	Top Quartile	-	-	-	
Western	-	-	-	-	
Reams	-	-	-	-	



DUE DILIGENCE MONITOR

	Performance (Recent Quarter)	Changes/ Announcements (Recent Quarter)	NEPC DD Committee Rec.	Plan Rec.	Comments
Loomis Sayles Strategic Alpha	-	-	-	-	
Loomis Sayles Multi-Sector Full Discretion	-	-	-	-	
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
Hexavest – International Equity	Yes	Client Review

Manager Changes/Announcements

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

Hexavest informed NEPC Research of their strategic reorganization of the investment team to address disappointing investment results. They are eliminating the co-chief investment officer Vincent Delisle, three portfolio managers for both Asia and North America, and an analyst covering Europe. They have been adding talents and diversity to the team to try to address upside capture, but unfortunately that tempered with their capital preservation DNA. They are hoping to come back to their roots, downsizing the team to improve accountability and getting back to being purely top down (founder-Chairman-CIO Vital Proulx indicated that the departing individuals have deviated from the firm’s DNA, being more return seeking and too stock-selection oriented over the years). Both Mr. Delisle and Mr. Durocher-Dumais are shareholders of the firm; their shares will be bought back using the company’s retained dividends. Taking a step back, the team’s leadership has changed materially since 2017, and is changing significantly now. Out of the original six founders only two are left including Chairman-CIO Vital Proulx: one founder retired in 2017, one left in 2018 and one is currently progressively moving towards retirement. There is no clear succession planning for Mr. Proulx. We are concerned with inconsistent performance track record, ongoing outflows due to poor performance, material changes with the team and the strategy, and the lack of succession planning which heightens key man risk. Therefore we are putting CLIENT REVIEW status on Hexavest as a firm.

A legend key to our recommendations is provided below.

NEPC Due Diligence Committee Recommendation Key	
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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
Tortoise	Yes	Hold

Manager Changes/Announcements

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

NEPC Research was informed that Tortoise will be laying off roughly 20% of their staff in response to the drastic downturn in the energy sector. Tortoise has communicated that the decision was made by Tortoise’s Investment Committee and the decision was not influenced by private equity partner Lovell Minnick who owns a 69% stake in the firm. The personnel let go totaled 41 people with an additional 3 people resigning. The 44 people exiting the firm consist of primarily “non-essential” investment staff members, which includes cuts to the distribution, marketing, and sales teams. Although a few investment staff members on the MLP strategies have been let go, including PMs Brett Jergens and Adam Peltzer and Research Analysts, Richard Hield and Nicholas Hense. As it relates to coverage Brett and Adam were responsible for 5 names each in the MLP portfolio’s and those names will now be assumed by senior level PM’s Rob Thummel and Brian Kessens. The Tortoise platform is still one of the biggest in the MLP space but these drastic cost cutting measures are a significant step to preserve their bottom line. As of 3/20/2020 firm assets sit at \$10 billion down from over \$21 billion at the end of 2019. The firm has experienced \$1 billion in outflows with performance making up a majority of the drop in assets. Based on the extreme volatility seen in the energy space leading to substantial layoffs and the concern that the MLP investment thesis may be broken, NEPC Research is recommending a HOLD rating at the firm level for Tortoise.

A legend key to our recommendations is provided below.

NEPC Due Diligence Committee Recommendation Key	
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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
Western Asset Management	Yes	Watch

Manager Changes/Announcements

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

Franklin Resources (“FT”) announced on February 18, 2020 that it has entered into an agreement to acquire Legg Mason (“LT”) for \$4.5 billion in an all cash deal. As part of the transaction FT will assume \$2 billion in debt and gain ownership of Legg Mason’s eight remaining affiliates. Entrust Global will be executing a management buyout of the subsidiary from Legg Mason/ Franklin Resources. The remaining eight affiliates include: Brandywine Global, Clarion Partners, ClearBridge Investments, Martin Currie, QS Investors, Royce Investment Partners, and Western Asset. All affiliate agreements with Legg Mason will transfer over to FT.

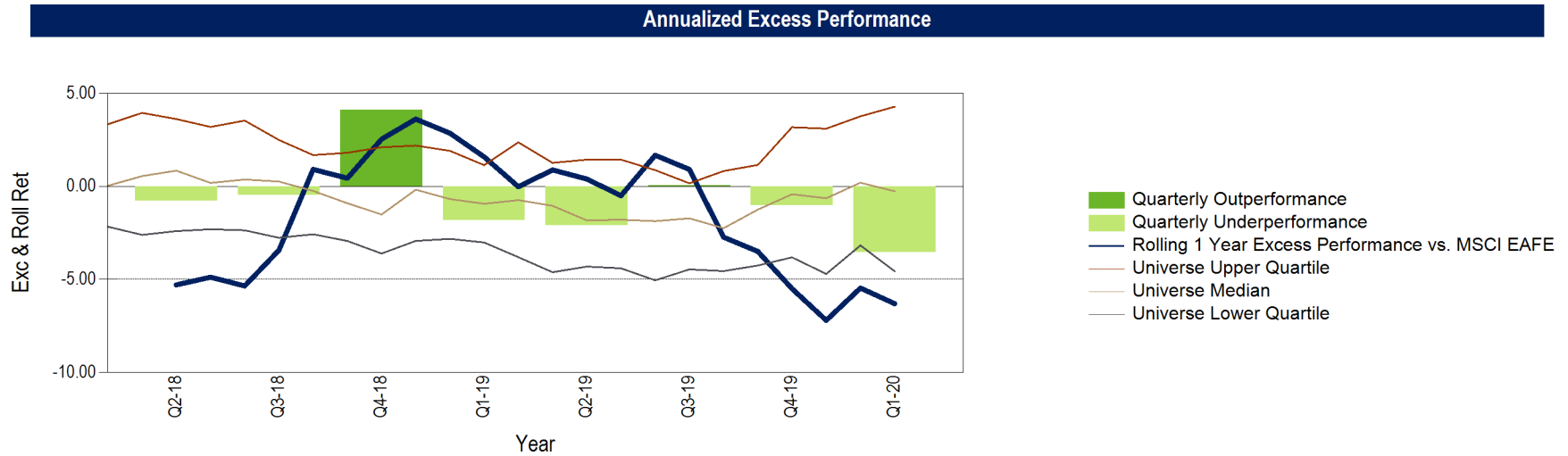
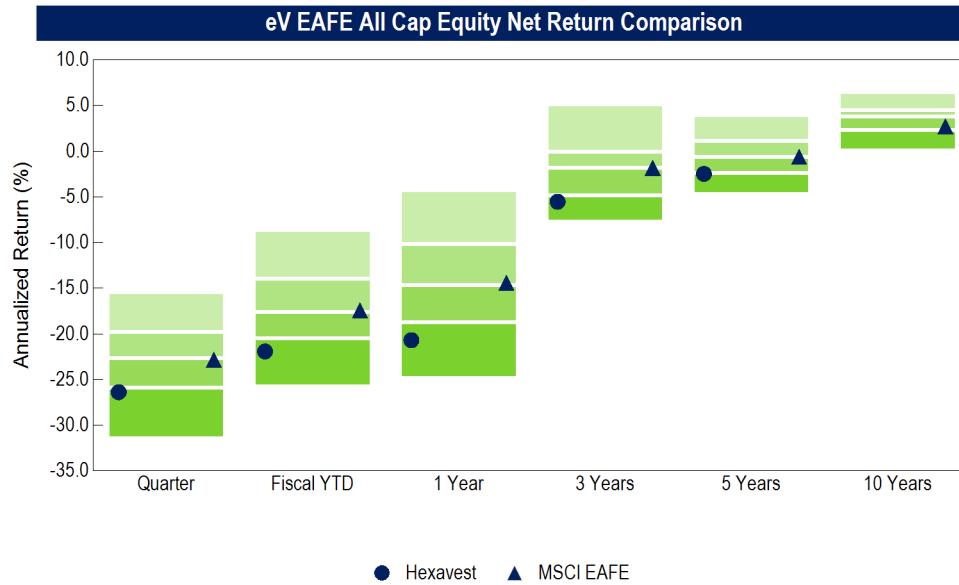
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NEPC Due Diligence Committee Recommendation Key	
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Ventura County Employees' Retirement Association

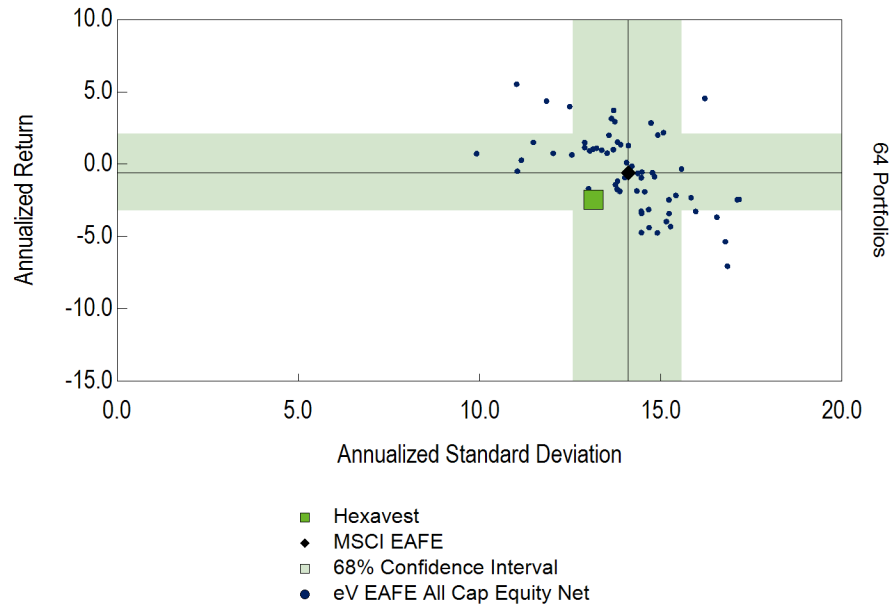
HEXAVEST



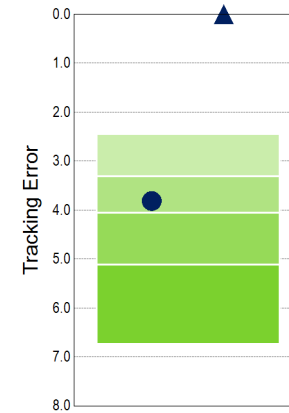
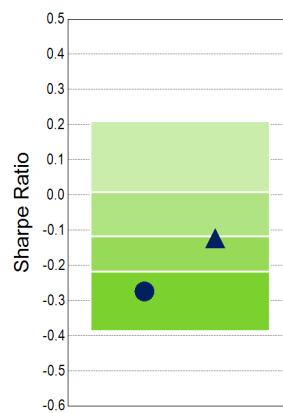
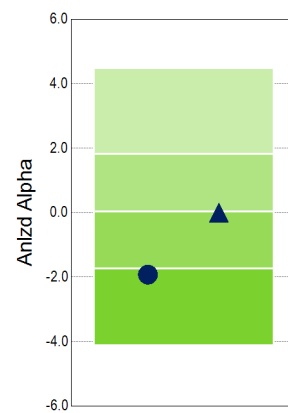
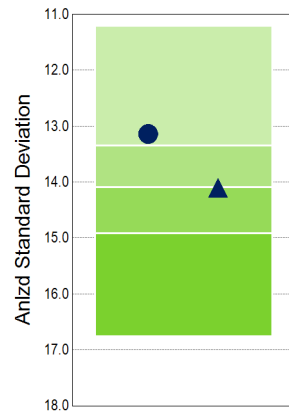
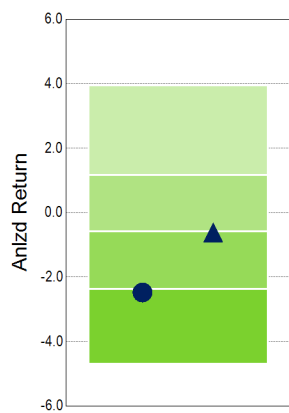
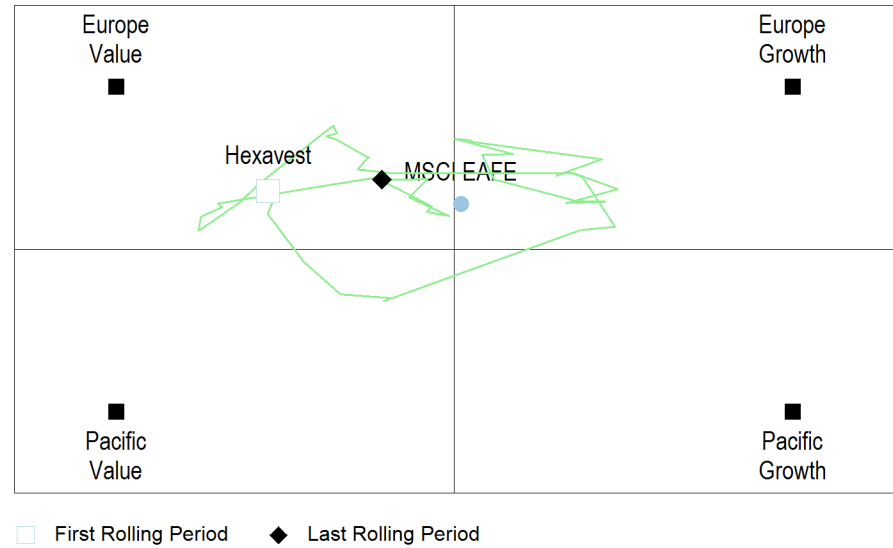
Ventura County Employees' Retirement Association

HEXAVEST

5 Year Risk Return



5 Year Style Map



- Hexavest
- MSCI EAFE
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



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			
Cambridge Associates 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											



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
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
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
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
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
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
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
Reams Custom Index	2.4	2.4	1.3	0.7	0.3	0.2	-0.5	4.2	7.8	6.5	5.9
Over/Under	4.2	-1.7	1.2	5.3	0.0	-3.8	3.0	5.8	0.6	3.5	27.7
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
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	--	--	--	--	--
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5	5.9
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
Loomis Custom Index	10.2	-0.6	4.5	7.0	-1.2	4.6	0.8	7.5	7.1	8.7	18.8
Over/Under	-0.8	-0.2	3.9	1.2	-1.1	2.2	0.6	9.2	-2.9	4.9	18.8
BBgBarc US Govt/Credit TR	9.7	-0.4	4.0	3.0	0.1	6.0	-2.4	4.8	8.7	6.6	4.5



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	13.3	1.1	--	--	--	--	--	--	--	--	--
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	13.3	1.1	--	--	--	--	--	--	--	--	--
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	13.3	1.1	--	--	--	--	--	--	--	--	--
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	13.3	1.1	--	--	--	--	--	--	--	--	--
Over/Under											
Pimco Private Income Fund	--	--	--	--	--	--	--	--	--	--	--
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											
Bridge Debt Strategies III Limited Partner	--	--	--	--	--	--	--	--	--	--	--
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											
Treasuries	--	--	--	--	--	--	--	--	--	--	--
Reams 10-Year Treasuries	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Treasury 7-10 Yr TR	8.5	0.9	2.6	1.1	1.6	9.0	-6.0	4.2	15.6	9.4	-6.0
Over/Under											



Ventura County Employees' Retirement Association

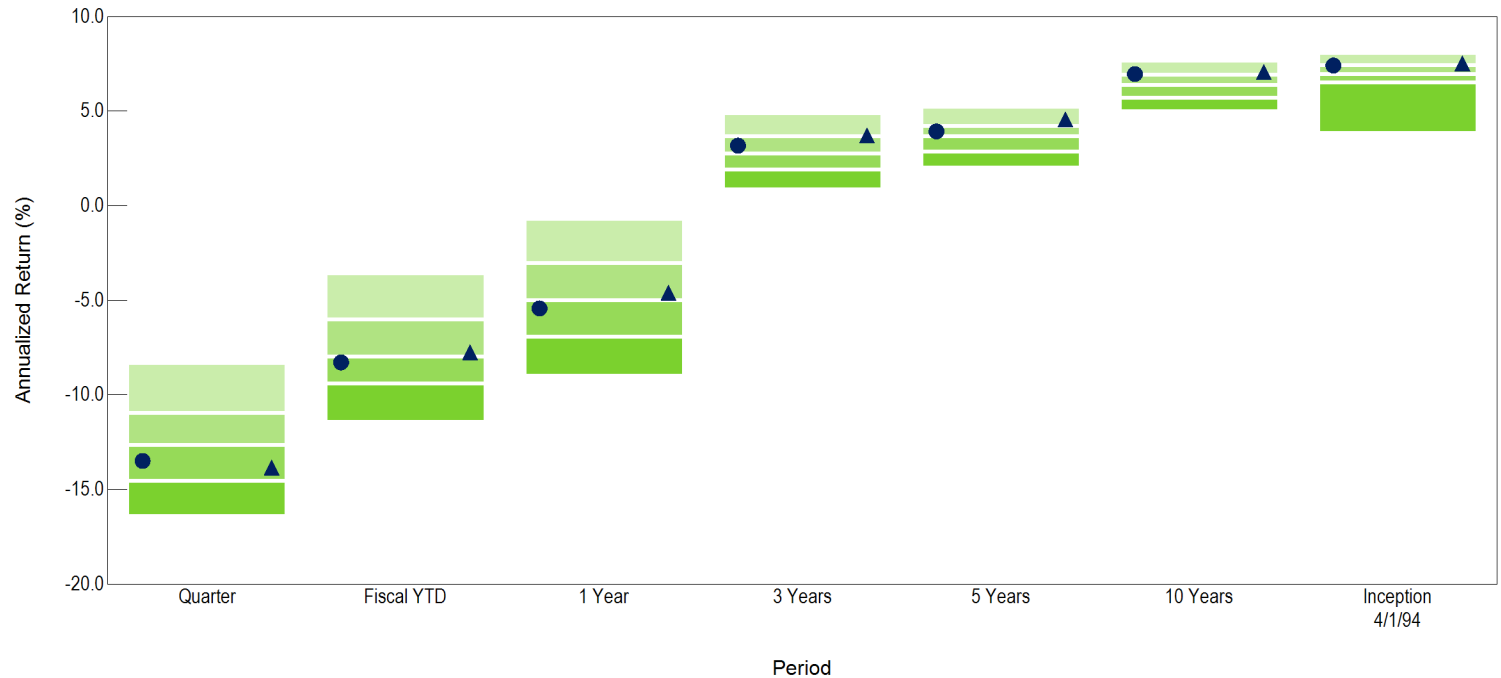
TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	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

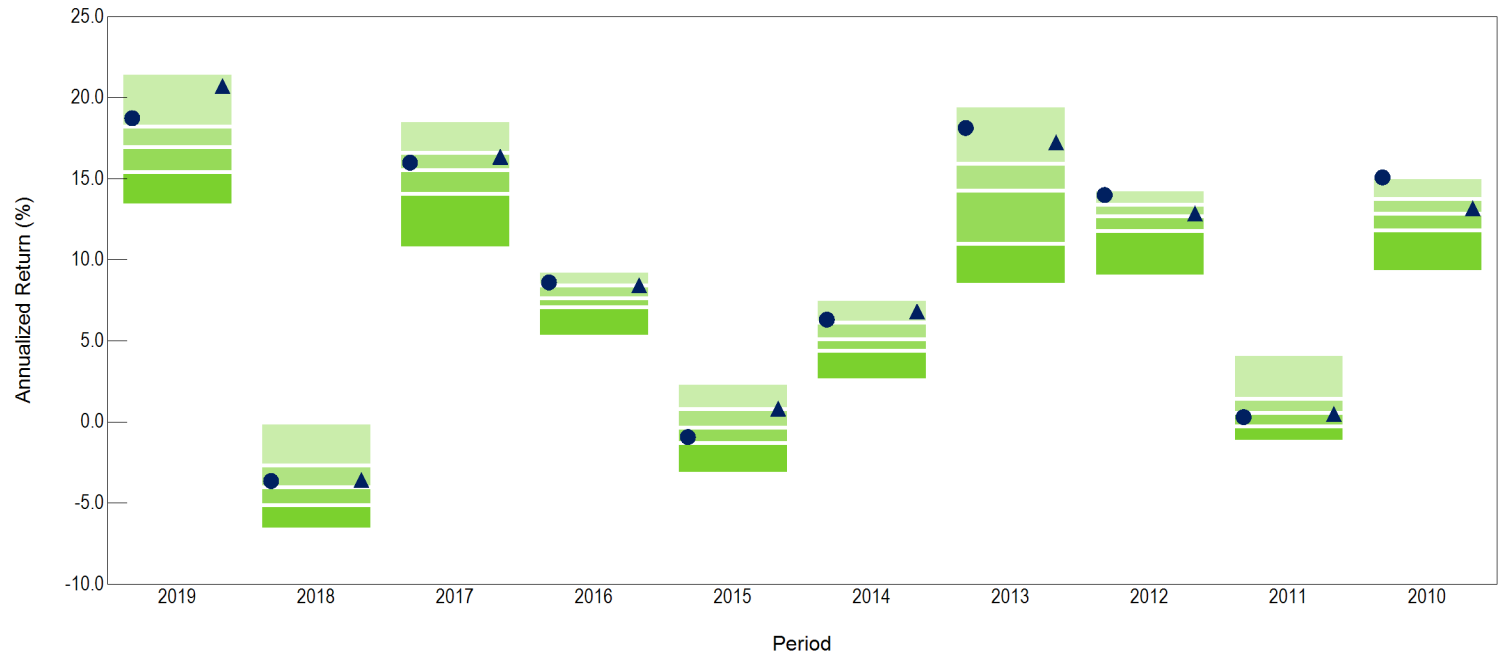


	Return (Rank)													
5th Percentile	-8.3	-3.6	-0.7	4.9	5.2	7.7	8.1							
25th Percentile	-10.9	-6.0	-3.0	3.7	4.2	6.9	7.4							
Median	-12.6	-8.0	-5.0	2.8	3.7	6.4	7.0							
75th Percentile	-14.5	-9.4	-6.9	1.9	2.9	5.7	6.5							
95th Percentile	-16.4	-11.4	-9.0	0.9	2.0	5.0	3.9							
# of Portfolios	62	62	62	62	59	55	32							
● Total Fund	-13.5	(61)	-8.3	(61)	-5.4	(58)	3.2	(41)	3.9	(38)	7.0	(25)	7.4	(26)
▲ Policy Index	-13.8	(66)	-7.7	(47)	-4.6	(45)	3.7	(25)	4.6	(14)	7.1	(20)	7.5	(24)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

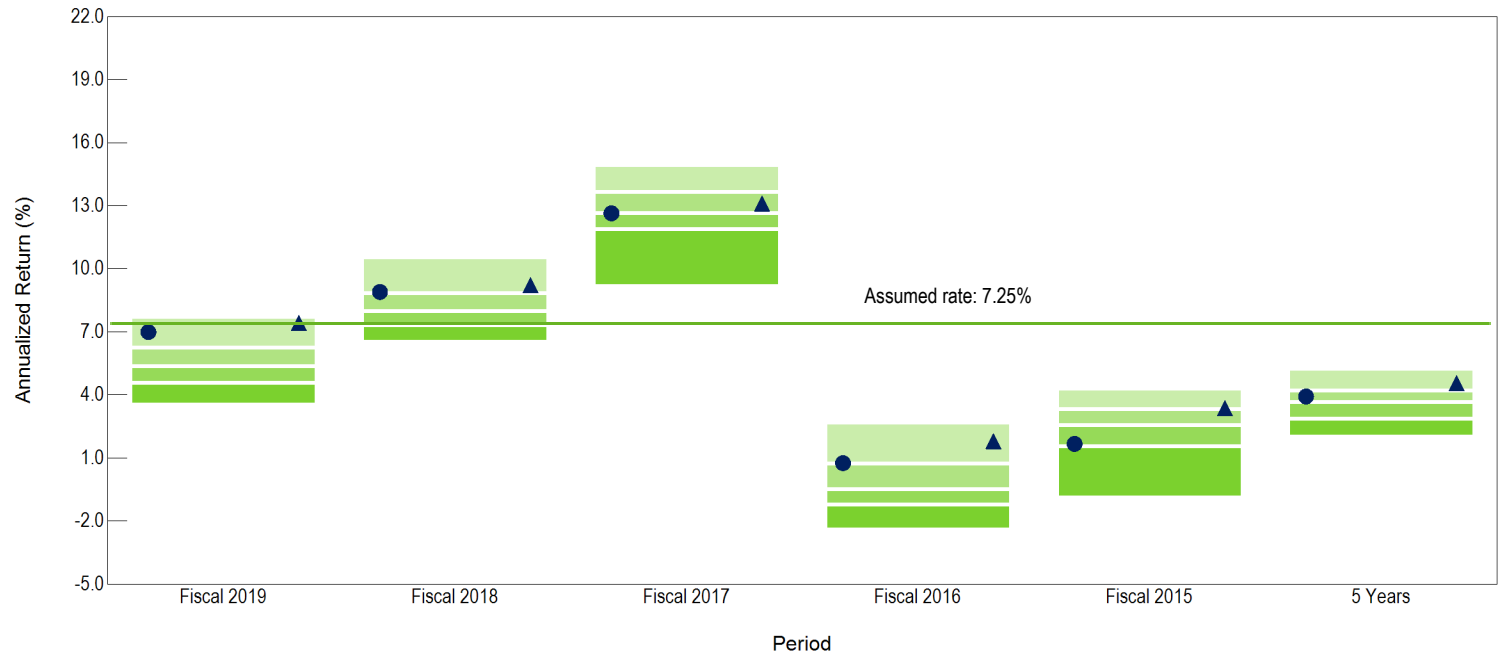


	Return (Rank)																			
5th Percentile	21.5	-0.1	18.6	9.3	2.4	7.6	19.5	14.3	4.2	15.1										
25th Percentile	18.2	-2.7	16.6	8.4	0.8	6.1	16.0	13.4	1.5	13.8										
Median	17.0	-4.0	15.6	7.7	-0.4	5.1	14.3	12.7	0.6	12.8										
75th Percentile	15.4	-5.1	14.1	7.1	-1.3	4.4	11.0	11.8	-0.3	11.8										
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

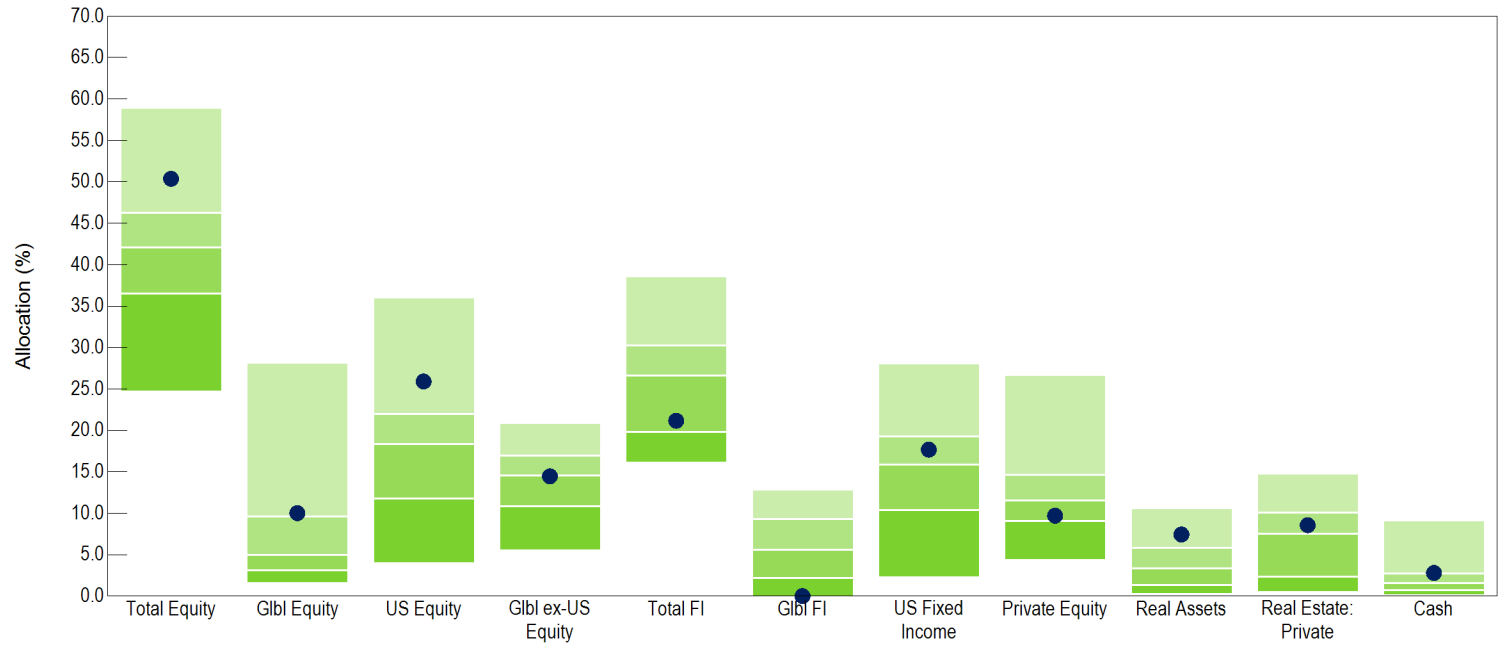


	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	7.7	(15)	10.5	(23)	14.9	(53)	2.7	(26)	4.3	(71)	5.2	(38)
25th Percentile	6.3	(7)	8.8	(13)	13.7	(37)	0.8	(9)	3.3	(25)	4.2	(14)
Median	5.4		8.0		12.7		-0.5		2.6		3.7	
75th Percentile	4.6		7.3		11.9		-1.2		1.6		2.9	
95th Percentile	3.5		6.5		9.2		-2.4		-0.9		2.0	
# of Portfolios	77		51		65		55		53		59	
● Total Fund	7.0	(15)	8.9	(23)	12.6	(53)	0.8	(26)	1.7	(71)	3.9	(38)
▲ Policy Index	7.4	(7)	9.2	(13)	13.1	(37)	1.8	(9)	3.4	(25)	4.6	(14)



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

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



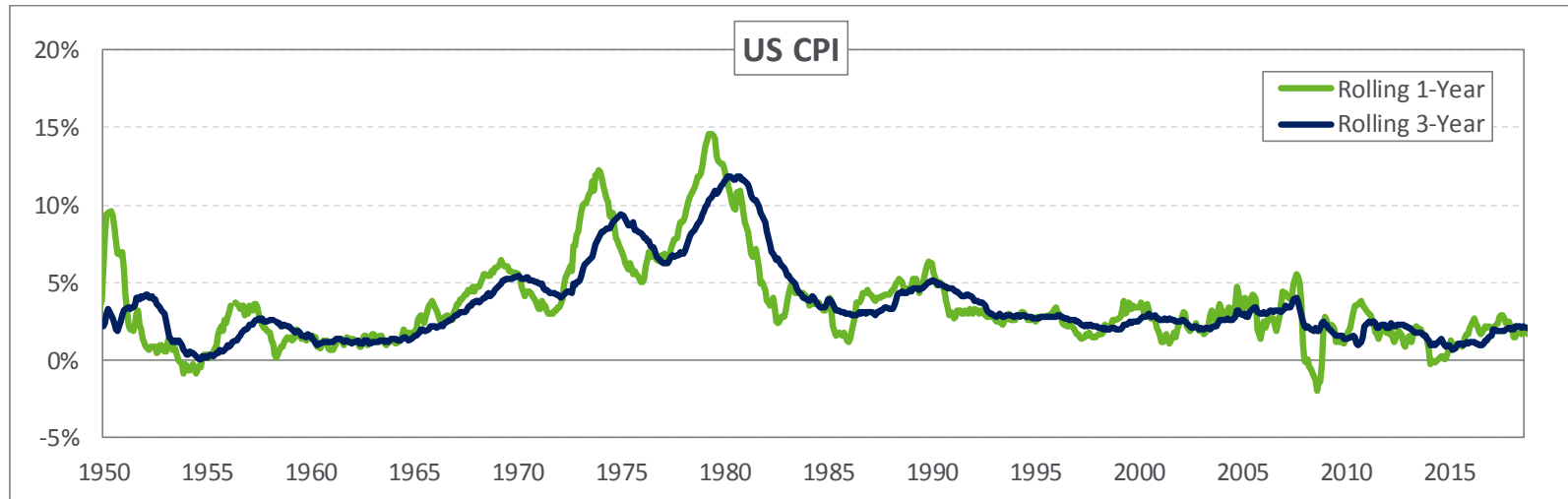
	Allocation (Rank)													
5th Percentile	58.9	28.1	36.1	20.9	38.6	12.8	28.1	26.7	10.6	14.8	9.1	--	--	
25th Percentile	46.3	9.7	22.1	17.0	30.3	9.4	19.4	14.7	5.9	10.2	2.8	--	--	
Median	42.2	5.0	18.5	14.7	26.7	5.7	16.0	11.6	3.4	7.6	1.7	--	--	
75th Percentile	36.6	3.2	11.8	10.9	19.9	2.3	10.5	9.1	1.4	2.4	0.8	--	--	
95th Percentile	24.8	1.6	4.1	5.6	16.2	0.0	2.3	4.4	0.3	0.6	0.2	--	--	
# of Portfolios	50	26	39	50	50	22	41	48	23	43	50	--	--	
• Total Fund	50.4	(13)	10.0	(24)	25.9	(17)	14.5	(52)	21.2	(70)	0.0	(96)	17.7	(38)
			9.7	(66)	7.4	(14)	8.6	(43)	2.8	(25)	--	--	--	



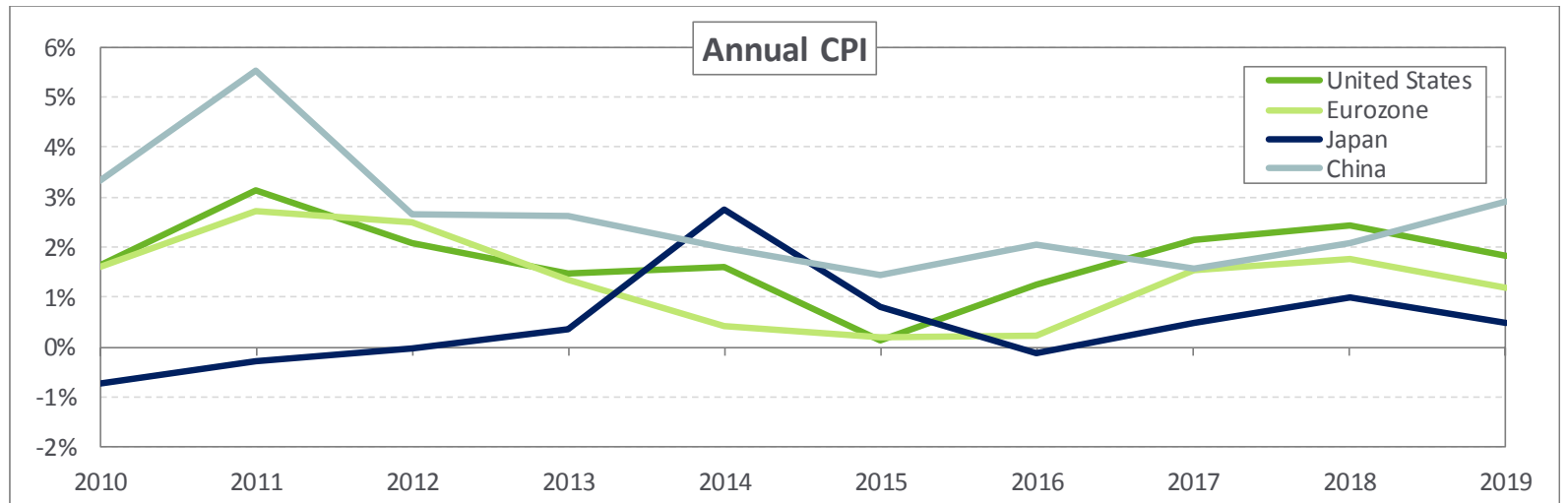
MACRO

NEPC, LLC

INFLATION



Source: Bureau of Labor Statistics, FactSet



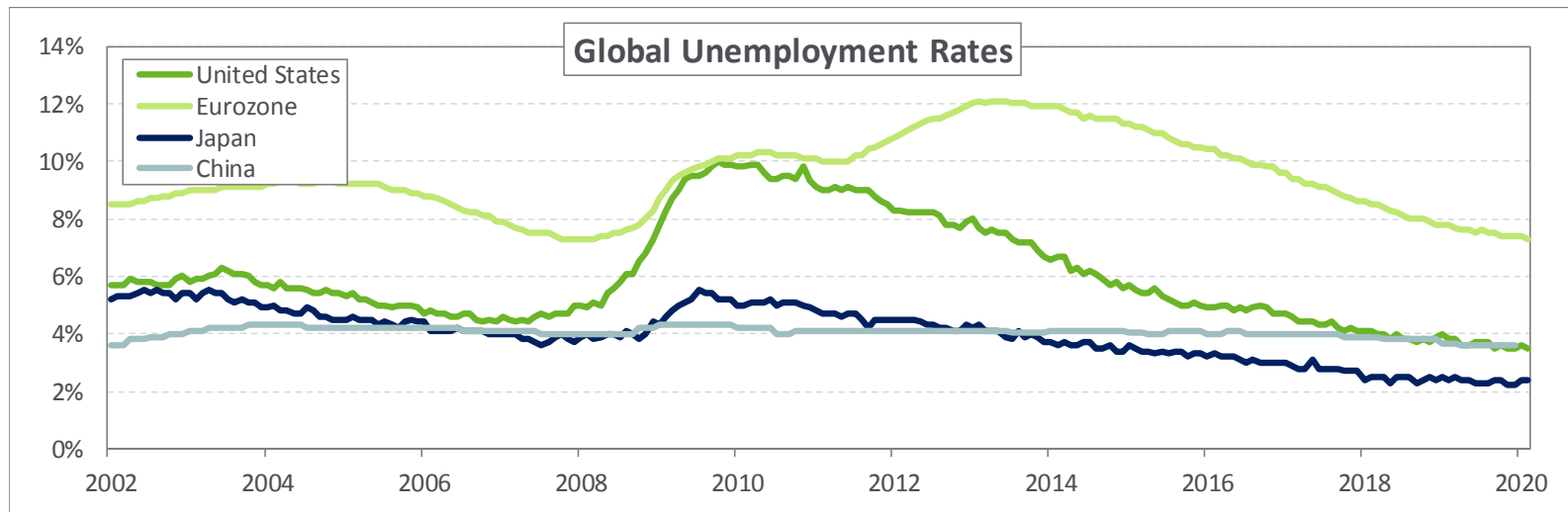
Source: FactSet



UNEMPLOYMENT



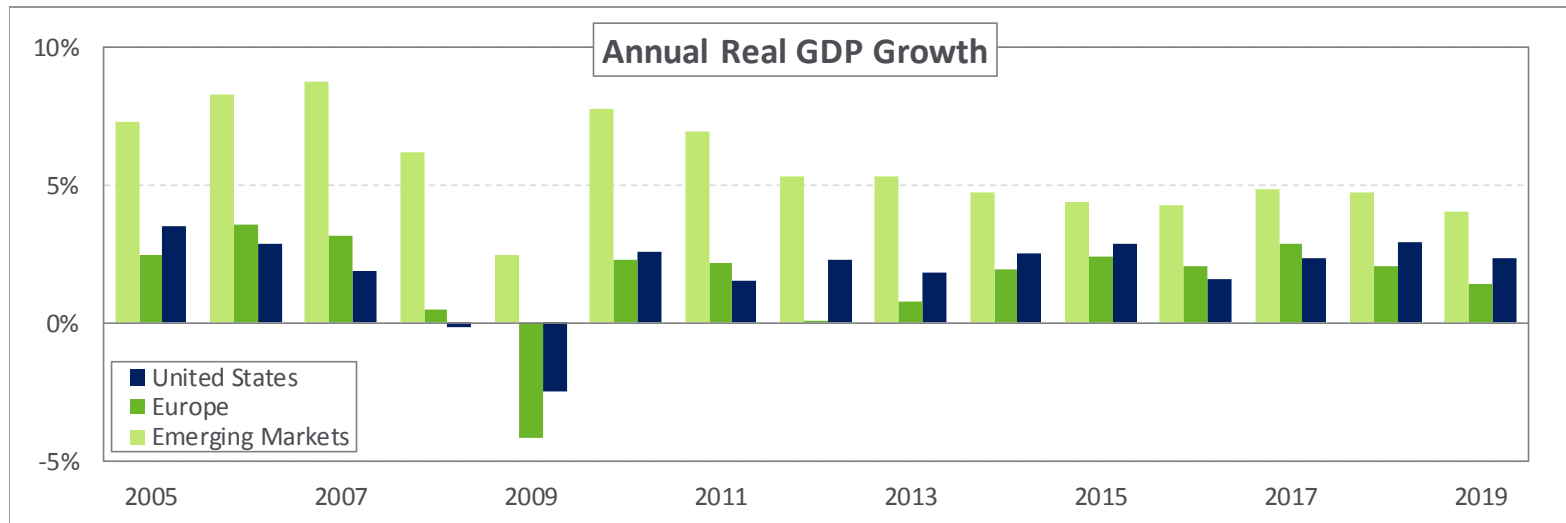
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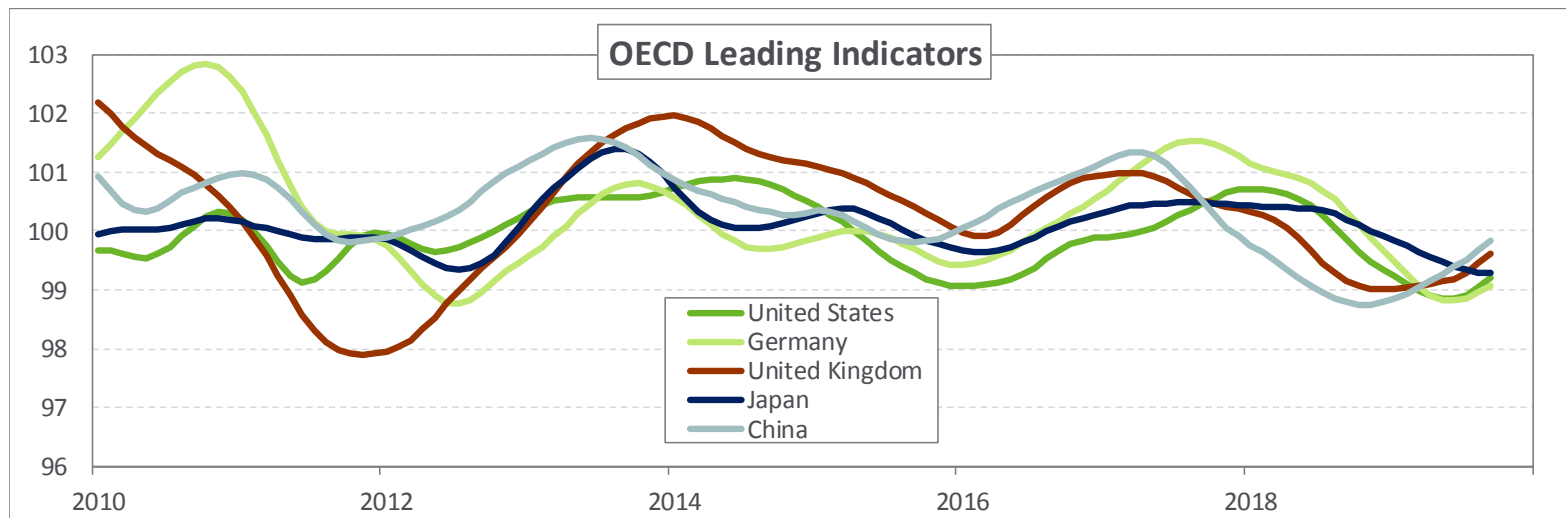
Source: FactSet



ECONOMIC INDICATORS



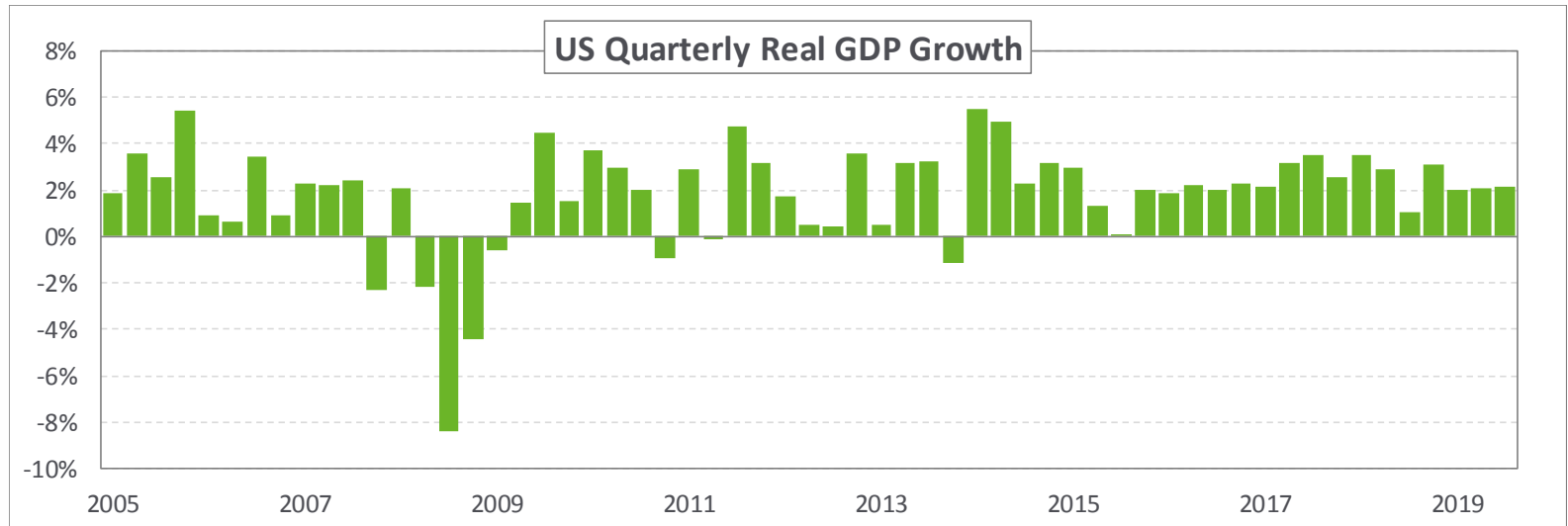
Source: Bureau of Economic Analysis, Oxford Economics, FactSet



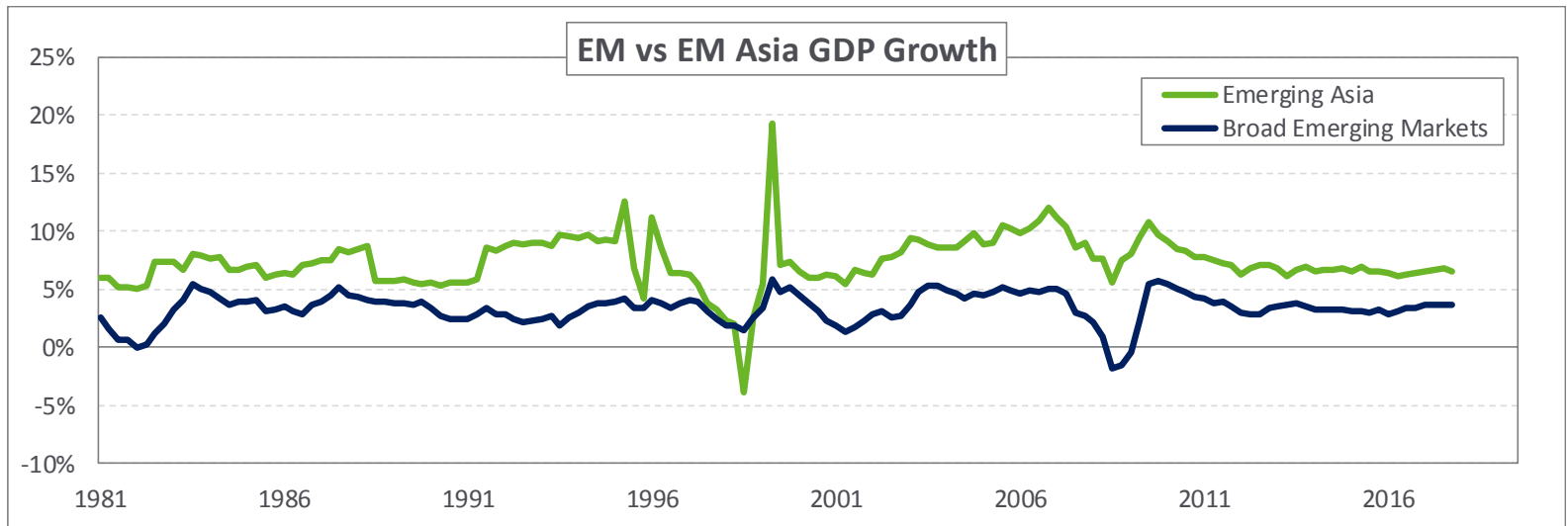
Source: OECD, FactSet



GROSS DOMESTIC PRODUCT



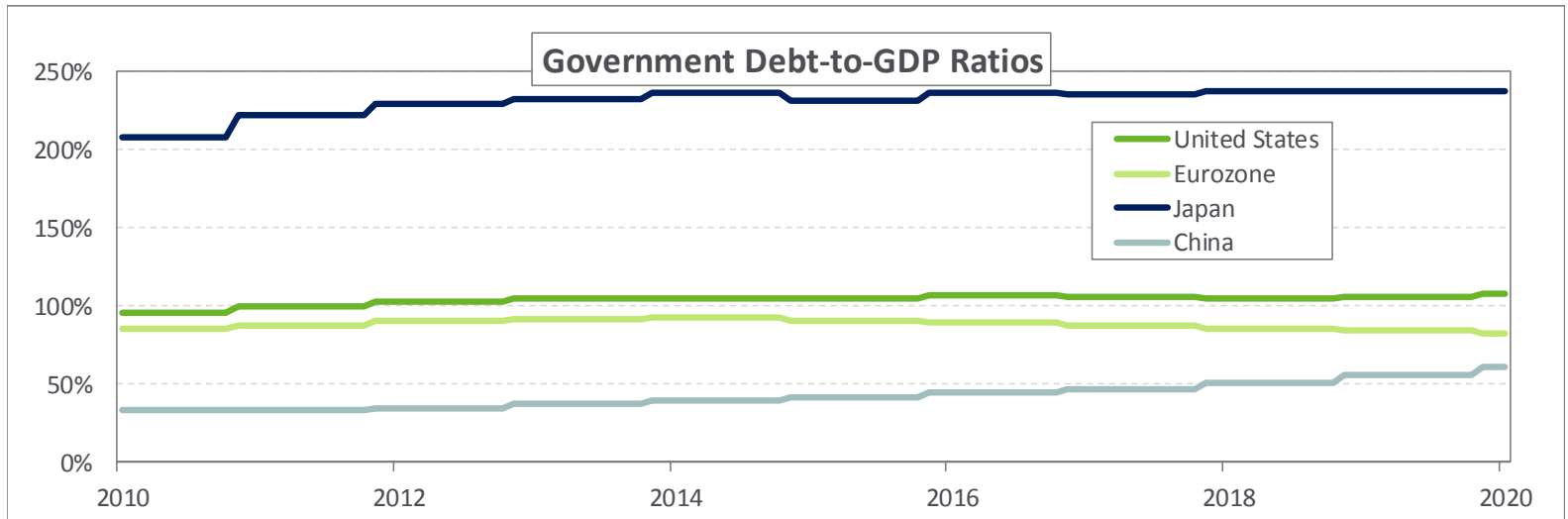
Source: Bureau of Economic Analysis, FactSet



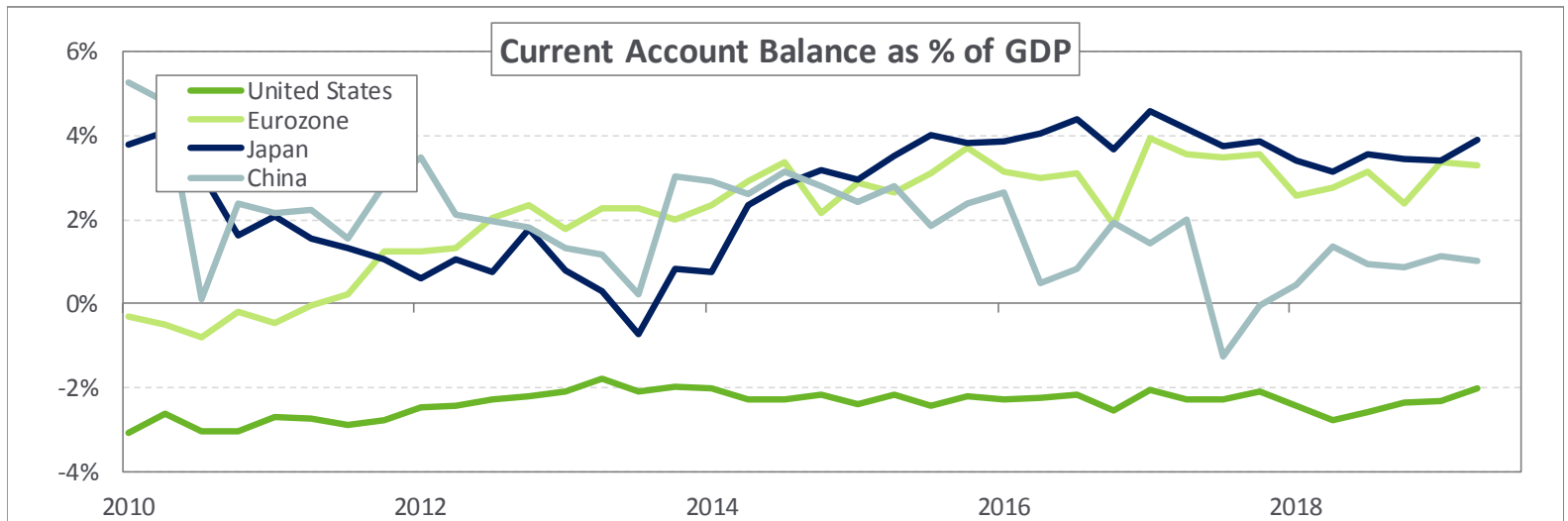
Source: IMF, FactSet



GROSS DOMESTIC PRODUCT METRICS



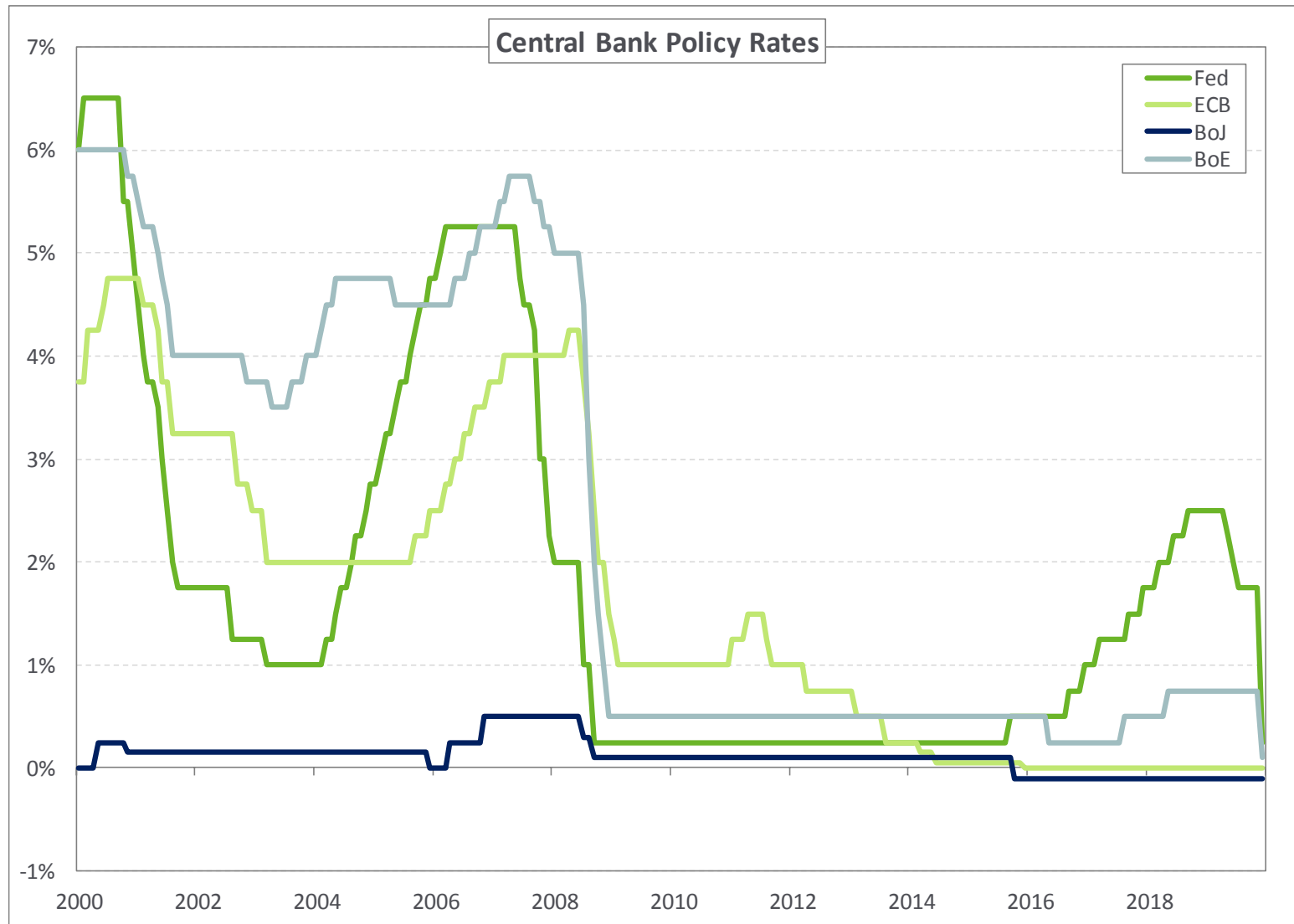
Source: IMF, FactSet



Source: FactSet



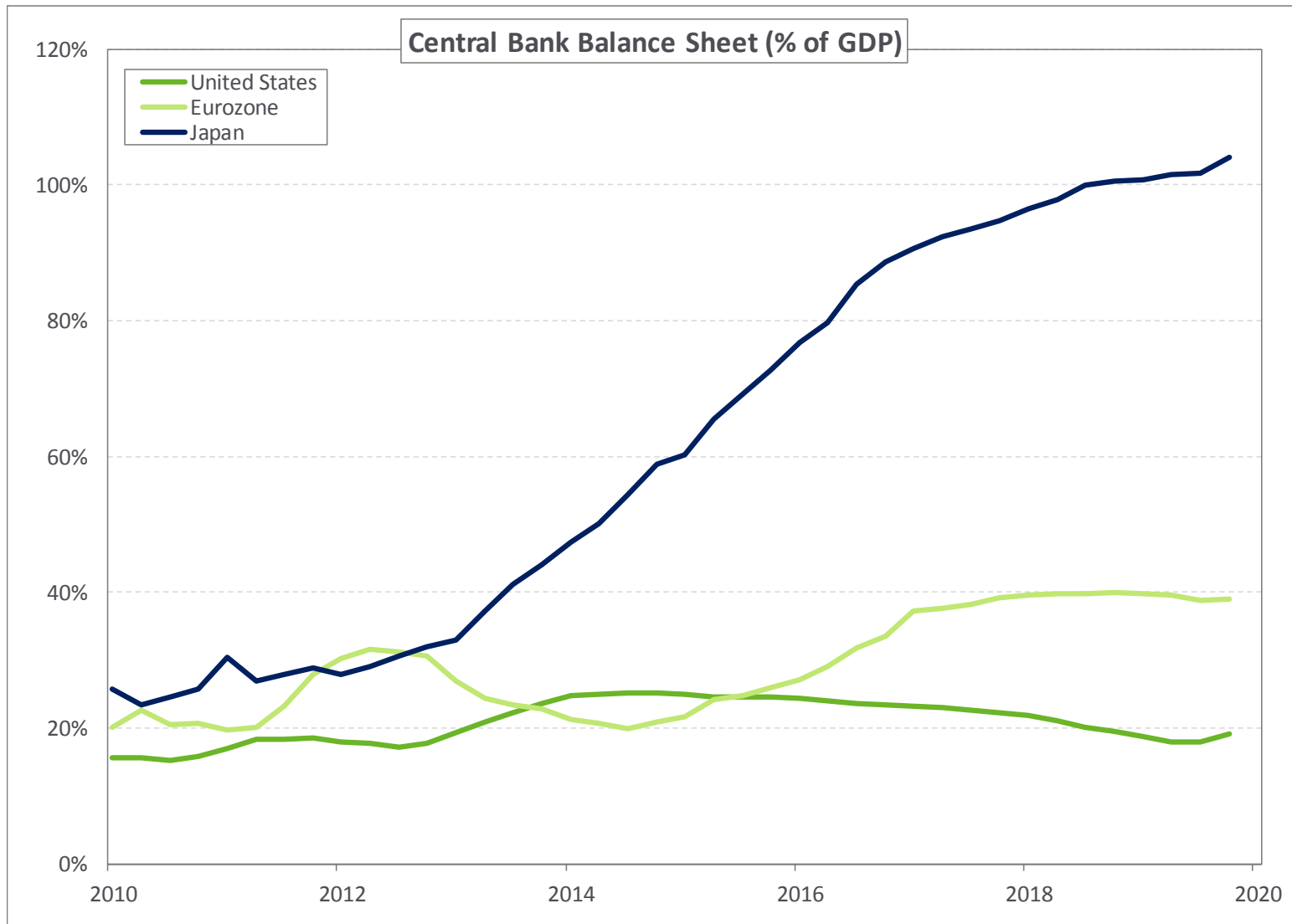
CENTRAL BANK RATES



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



CENTRAL BANK BALANCE SHEETS



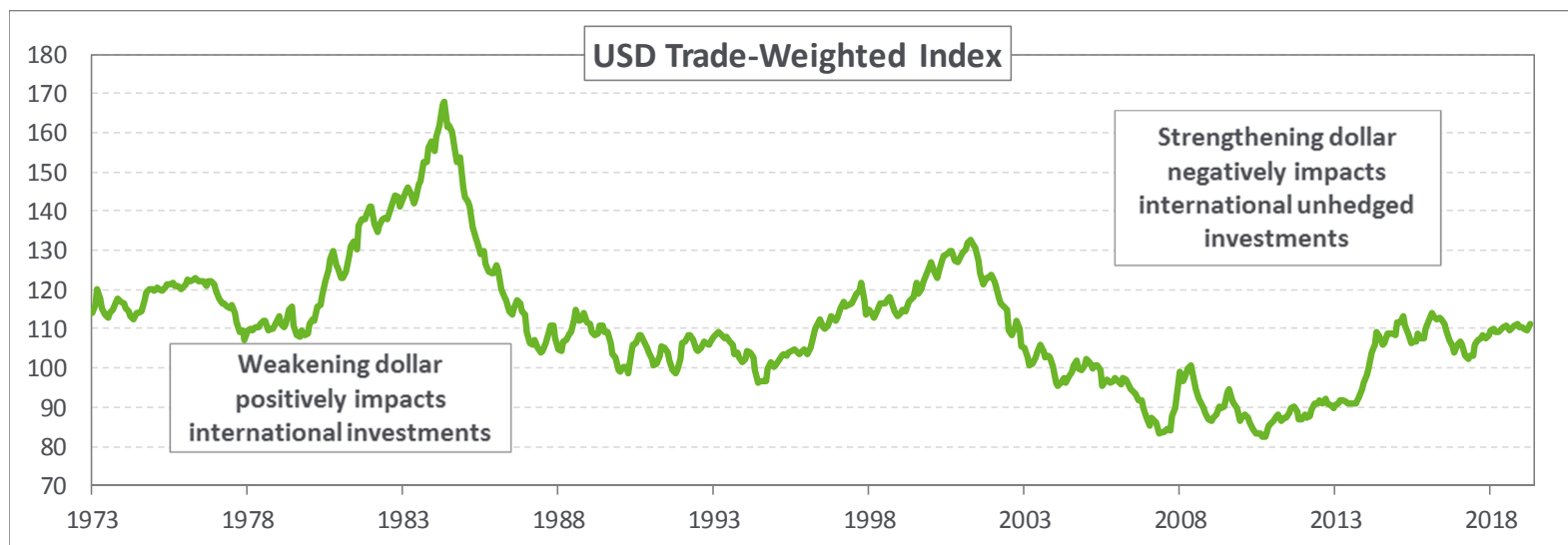
Source: FactSet



CURRENCIES

% Change Relative to USD				
Currencies	Spot	1 Month	YTD	1 Year
Euro	1.10	-0.11%	-2.25%	-2.28%
British Pound	1.24	-2.92%	-6.40%	-4.84%
Japanese Yen	107.96	0.08%	-0.66%	-2.47%
Swiss Franc	0.97	-0.04%	-0.08%	-2.85%
Australian Dollar	0.61	-5.07%	-12.93%	-13.84%
Chinese Yuan	7.09	1.47%	1.83%	5.55%
Brazilian Real	5.19	14.96%	28.93%	33.27%
Russian Ruble	78.13	16.27%	25.80%	18.93%
Indian Rupee	75.65	4.83%	5.99%	9.20%
Mexican Peso	23.46	18.50%	24.23%	20.94%
South African Rand	17.86	13.53%	27.72%	23.85%

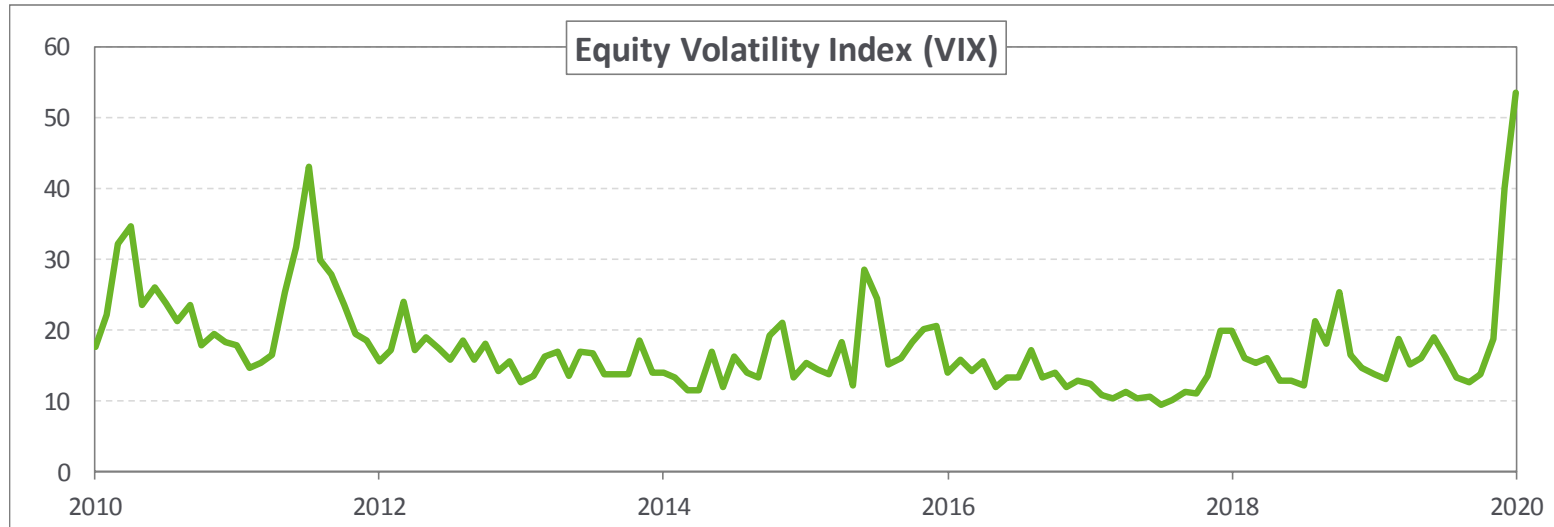
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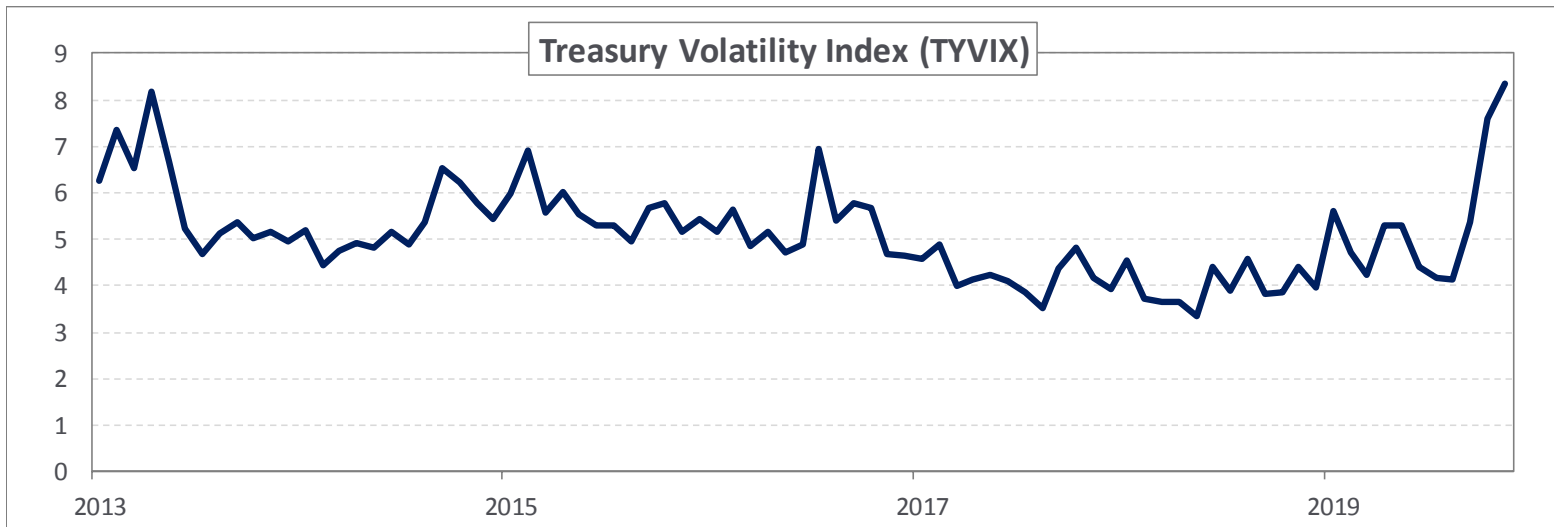
Source: FactSet



VOLATILITY



Source: CBOE, FactSet



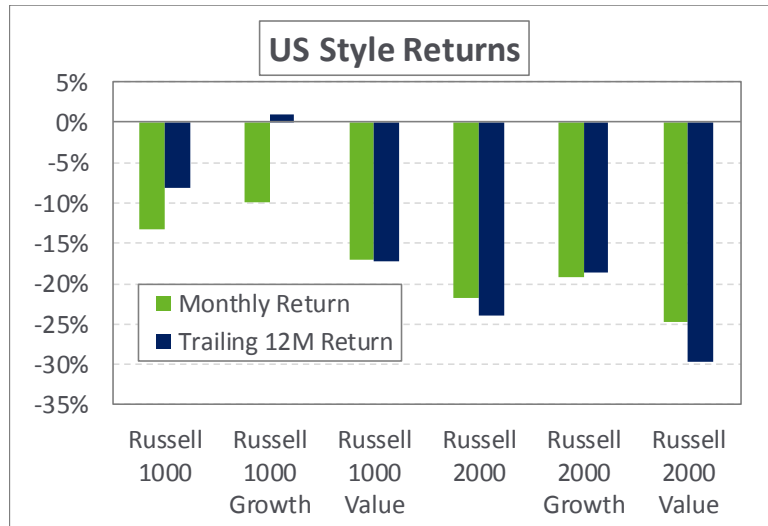
Source: CBOE, FactSet



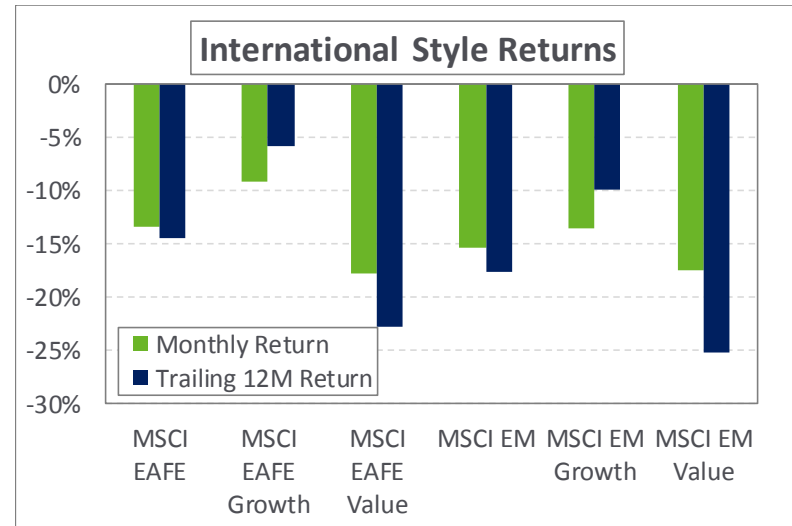
EQUITY

NEPC, LLC

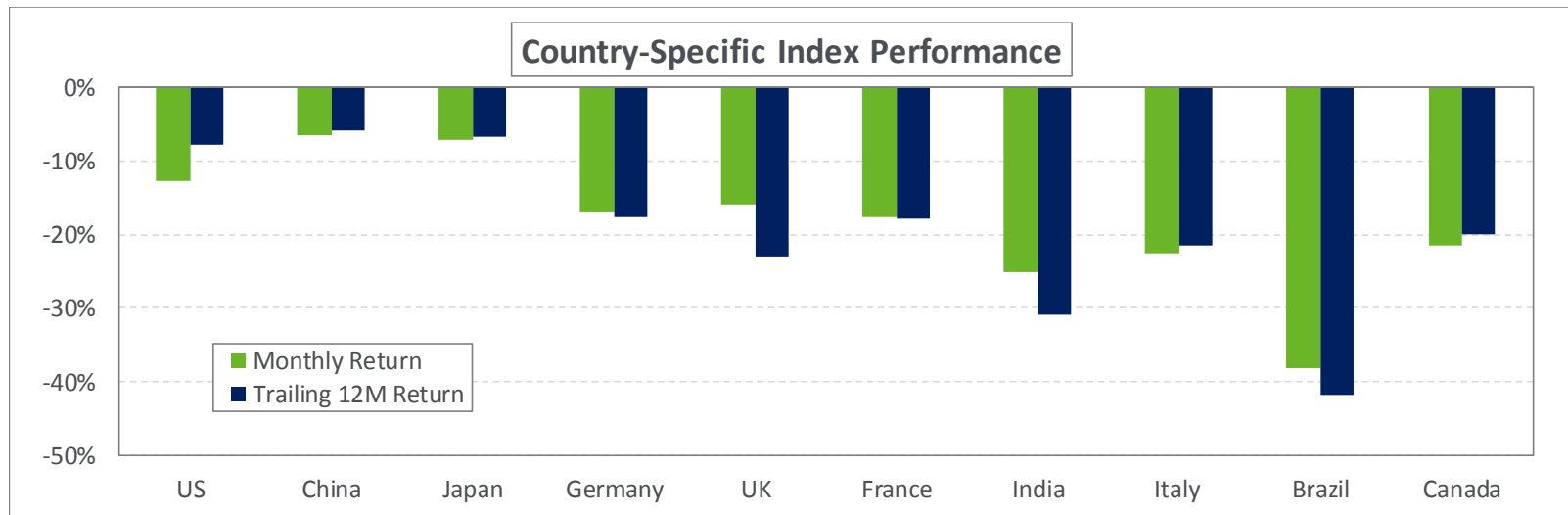
EQUITY INDEX PERFORMANCE



Source: Russell, FactSet



Source: MSCI, FactSet



Source: MSCI, FactSet
Represents returns in USD



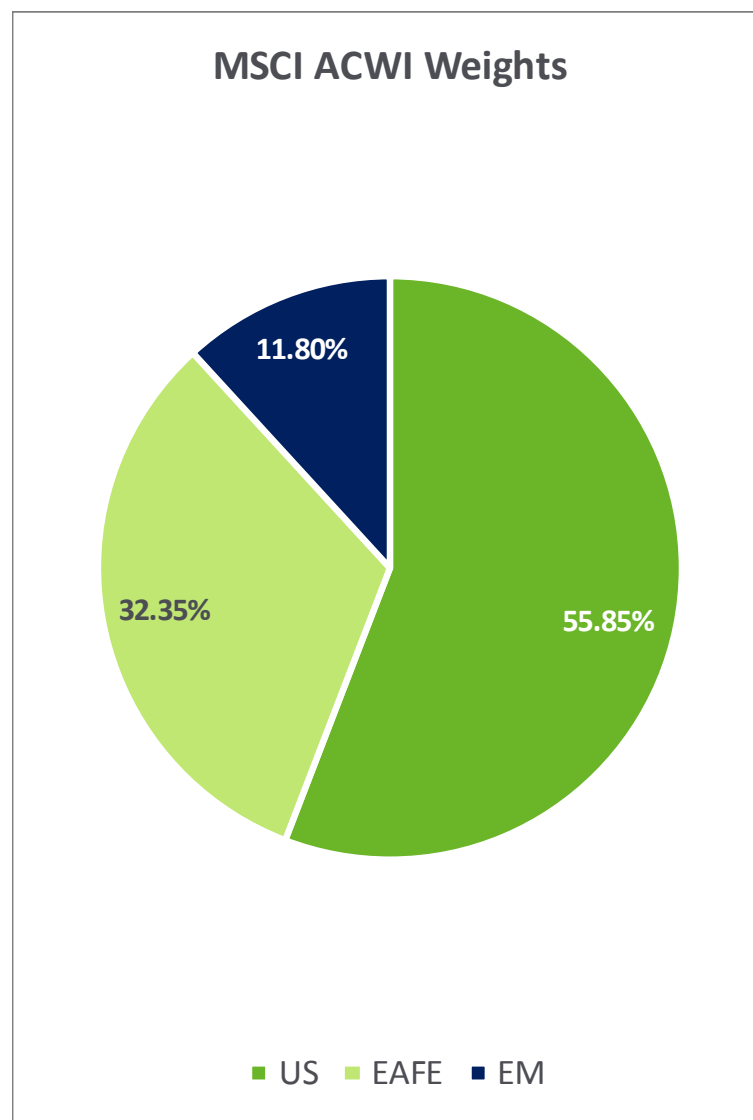
INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	-12.4%	-19.6%	-19.6%	100.0%
Communication Services	-1.3%	-1.8%	-1.8%	10.7%
Consumer Discretionary	-1.2%	-1.8%	-1.8%	9.8%
Consumer Staples	-0.6%	-1.1%	-1.1%	7.8%
Energy	-1.2%	-2.0%	-2.0%	2.6%
Financials	-2.5%	-4.0%	-4.0%	10.9%
Health Care	-0.8%	-1.9%	-1.9%	15.4%
Industrials	-1.7%	-2.4%	-2.4%	8.2%
Information Technology	-1.9%	-2.7%	-2.7%	25.5%
Materials	-0.3%	-0.7%	-0.7%	2.4%
Real Estate	-0.6%	-0.7%	-0.7%	3.0%
Utilities	-0.4%	-0.6%	-0.6%	3.6%

Source: S&P, FactSet

	MTD	QTD	YTD	Index Weight
MSCI ACWI	-13.5%	-21.4%	-21.4%	100.0%
Communication Services	-1.0%	-1.4%	-1.4%	9.3%
Consumer Discretionary	-1.4%	-2.2%	-2.2%	10.8%
Consumer Staples	-0.6%	-1.2%	-1.2%	8.8%
Energy	-1.2%	-2.1%	-2.1%	3.7%
Financials	-3.6%	-5.3%	-5.3%	14.4%
Health Care	-0.5%	-1.4%	-1.4%	13.3%
Industrials	-1.8%	-2.7%	-2.7%	9.6%
Information Technology	-1.6%	-2.3%	-2.3%	18.8%
Materials	-0.6%	-1.2%	-1.2%	4.4%
Real Estate	-0.7%	-0.9%	-0.9%	3.1%
Utilities	-0.5%	-0.6%	-0.6%	3.6%

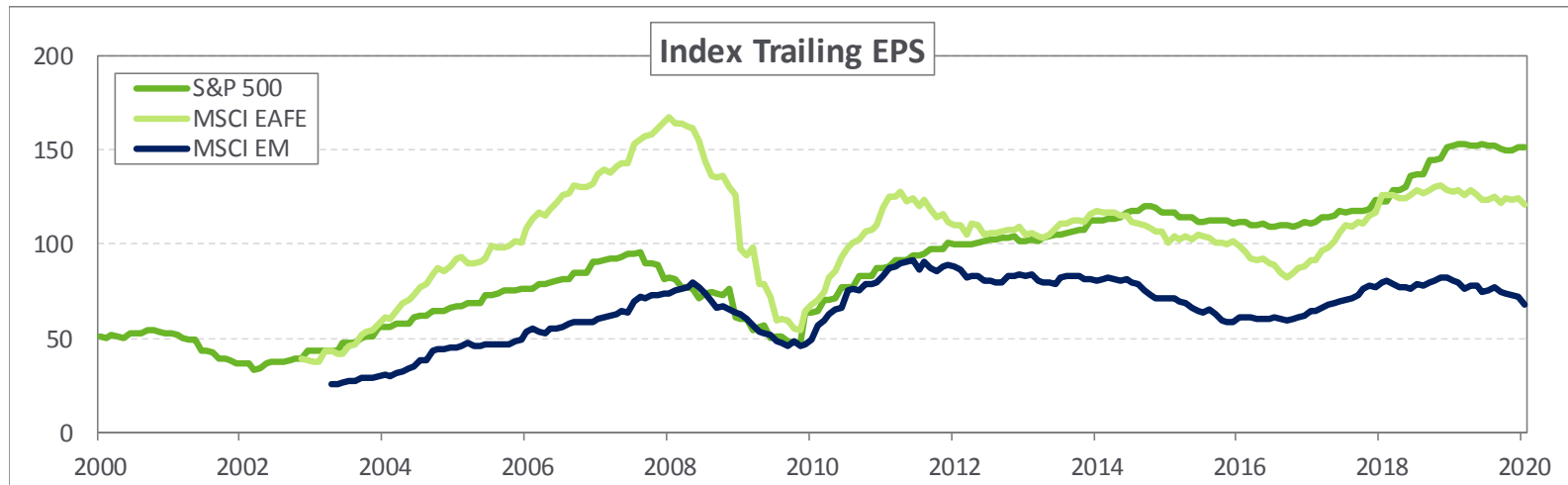
Source: MSCI, FactSet



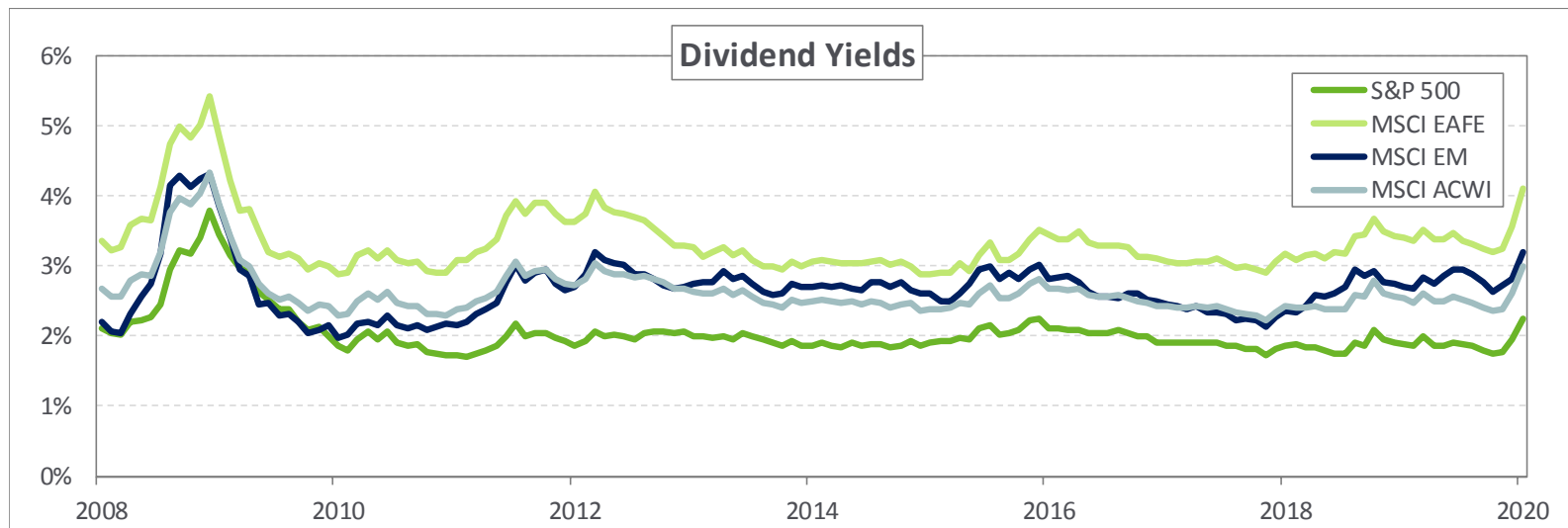
Source: MSCI, FactSet



EARNINGS & YIELDS



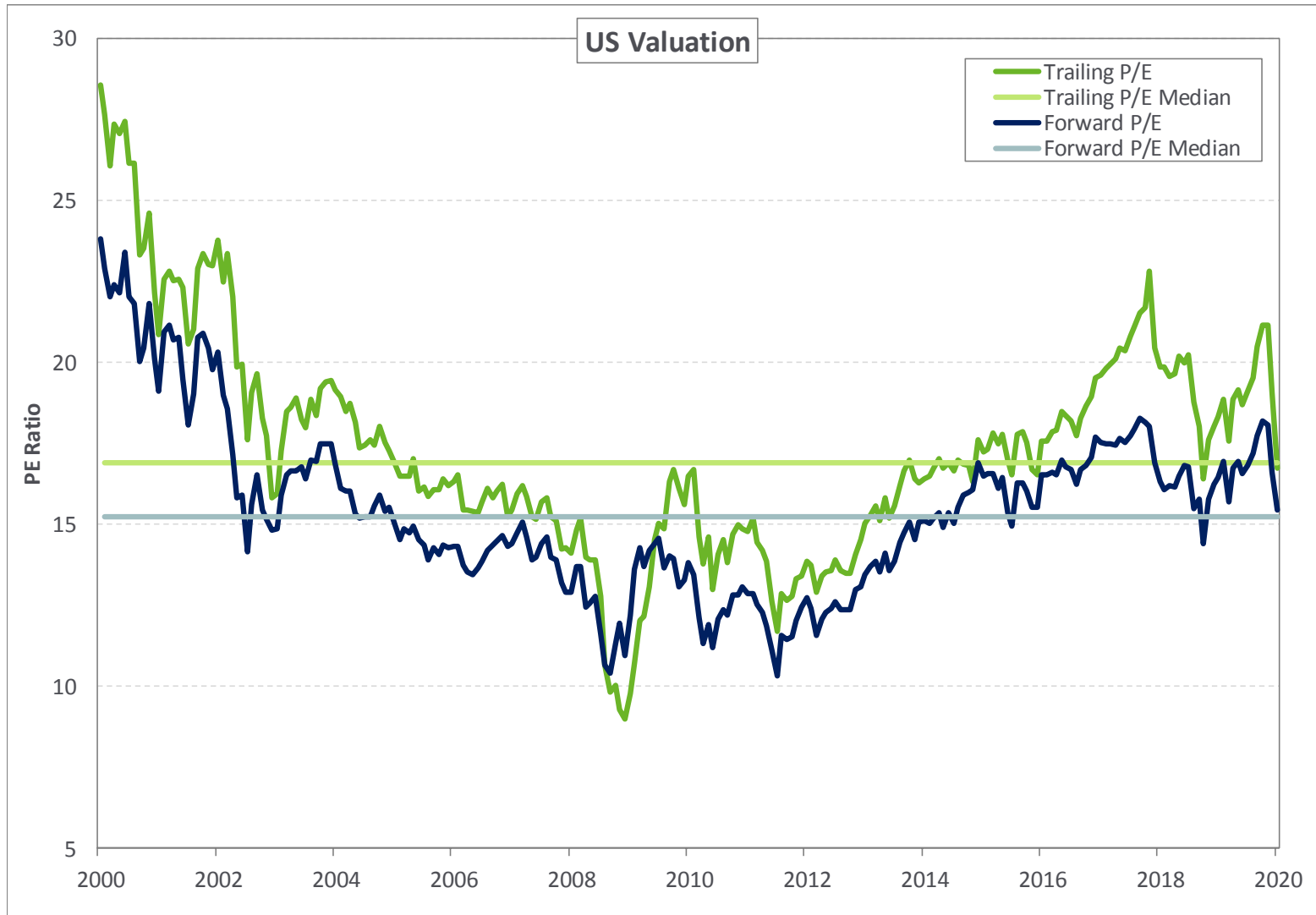
Source: FactSet



Source: FactSet



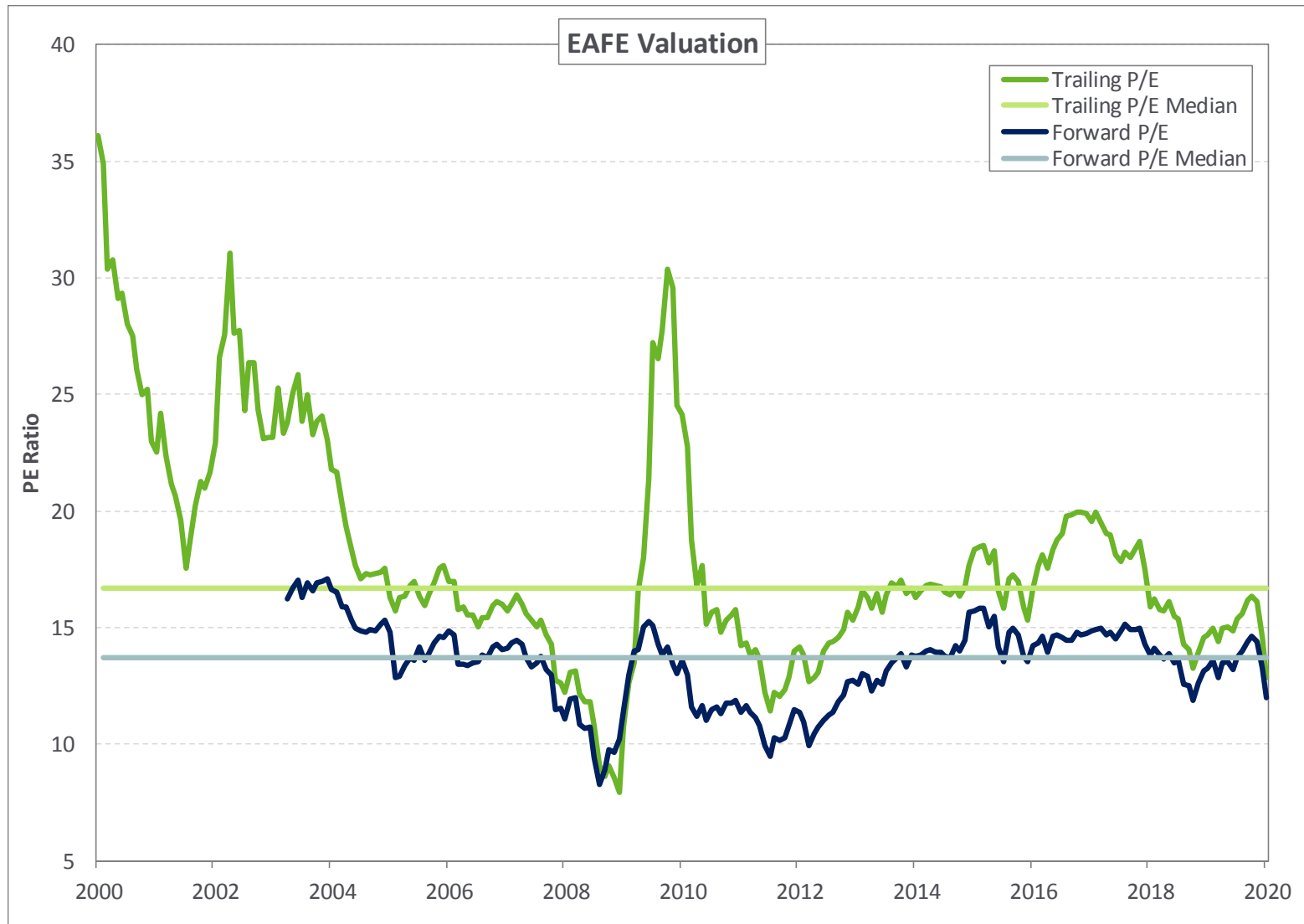
US EQUITY VALUATIONS



Source: S&P, FactSet



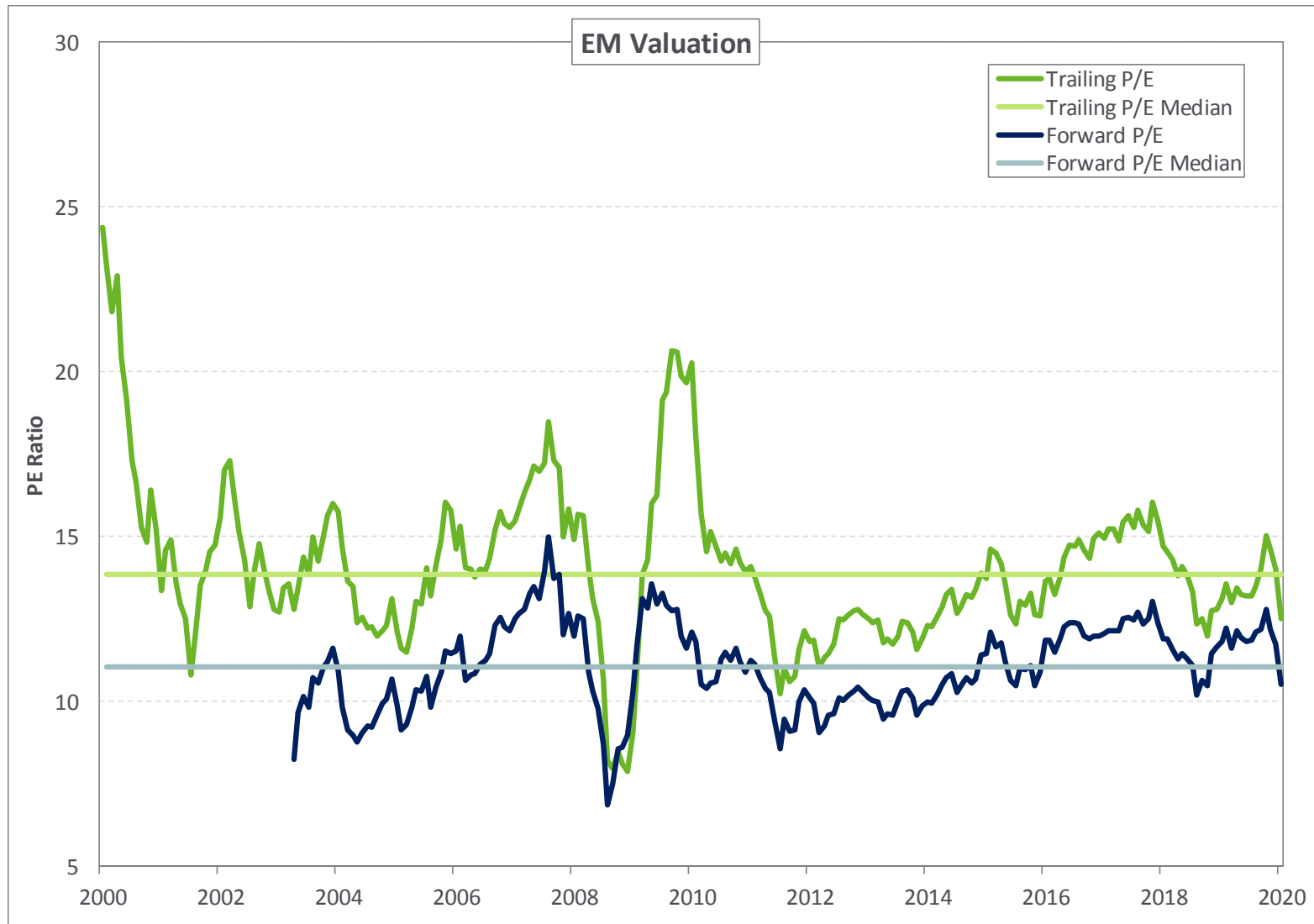
EAFE EQUITY VALUATIONS



Source: MSCI, FactSet



EM EQUITY VALUATIONS



Source: MSCI, FactSet



CREDIT

NEPC, LLC

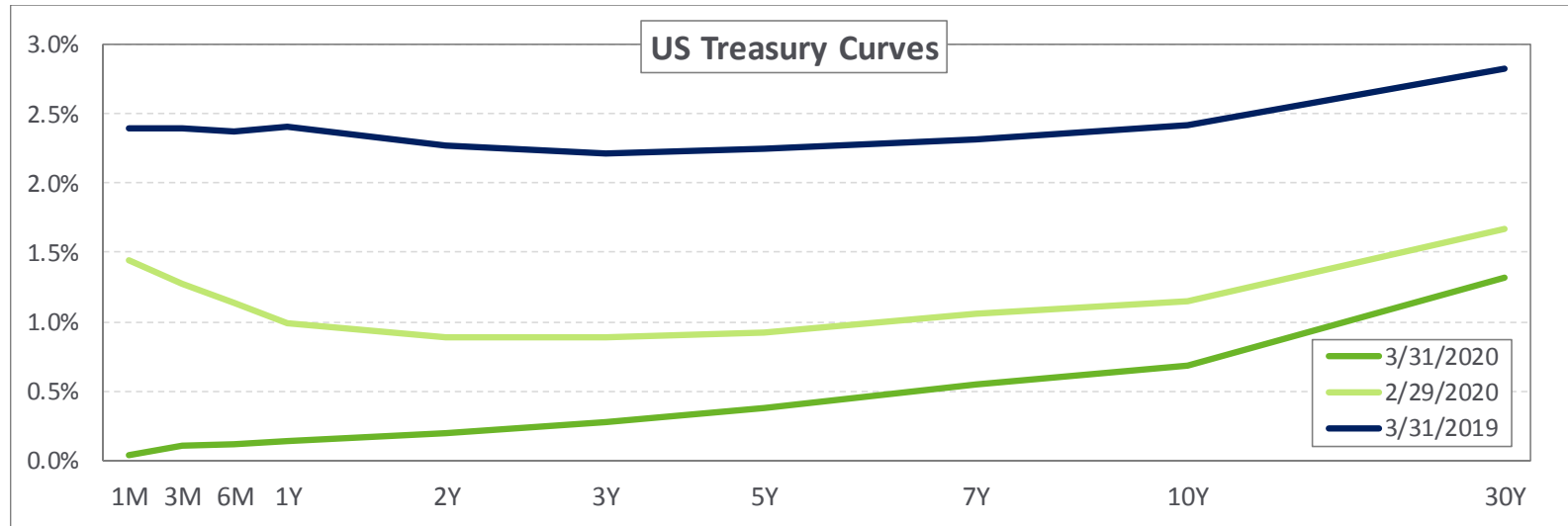
FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	1.59%	95	5.7	-0.6%	3.1%	8.9%
Barclays Treasury	0.58%	-	7.0	2.9%	8.2%	13.1%
Barclays Agency	0.94%	49	3.9	1.0%	4.1%	8.2%
Barclays MBS	1.34%	60	1.7	1.1%	2.8%	7.0%
Barclays ABS	2.40%	213	2.1	-2.1%	-0.2%	2.8%
Barclays CMBS	1.80%	130	5.6	-1.3%	3.6%	8.2%
Barclays Corp IG	3.43%	272	8.0	-7.1%	-3.6%	4.9%
Barclays Muni	2.01%	-	5.4	-3.6%	-0.6%	3.8%
Barclays HY Muni	5.24%	-	10.0	-11.0%	-6.9%	-0.7%
Barclays TIPS	0.93%	-	6.7	-1.8%	1.7%	6.8%
Barclays HY	9.44%	880	4.1	-11.5%	-12.7%	-6.9%
Barclays Global Agg	1.22%	82	7.0	-2.2%	-0.3%	4.2%
JPM EMBI Glob Div	-	627	7.1	-13.8%	-13.4%	-6.8%
JPM GBI - EM	4.61%	-	5.3	-11.1%	-15.2%	-6.5%

Source: Barclays, JP Morgan, FactSet



TREASURIES



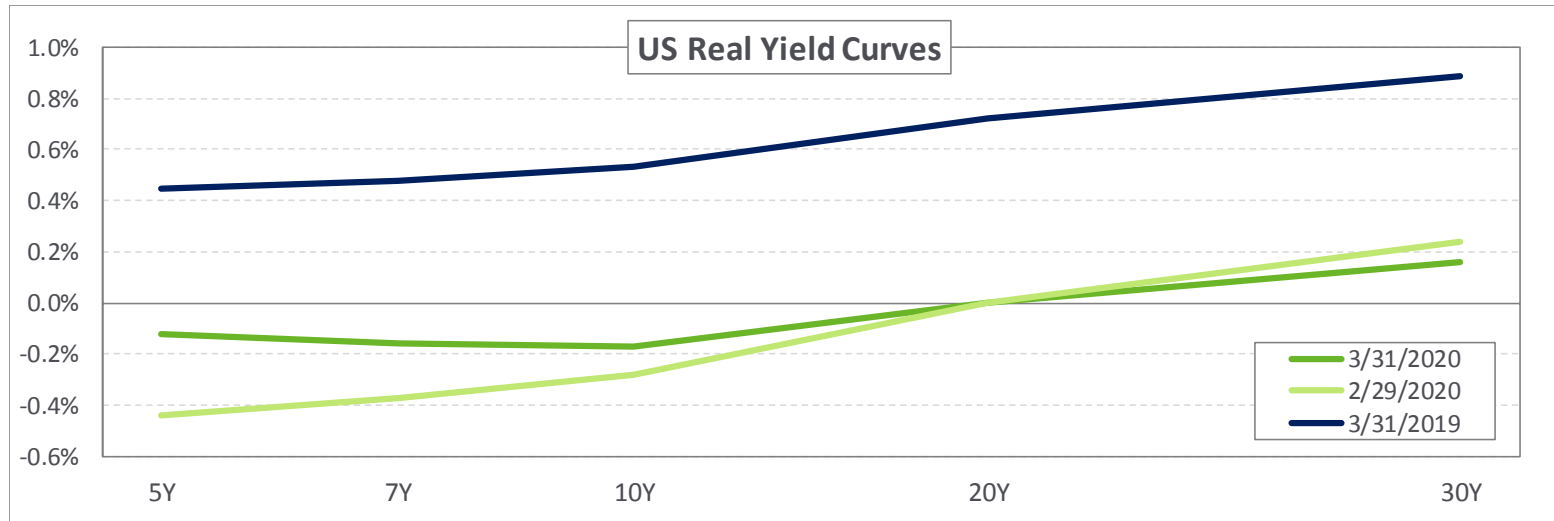
Source: FactSet

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	0.10%	1.27%	2.39%	0.29%	2.25%
6M Treasury	0.11%	1.14%	2.37%	0.52%	2.85%
2Y Treasury	0.20%	0.88%	2.27%	1.32%	5.38%
5Y Treasury	0.37%	0.92%	2.24%	2.62%	10.88%
10Y Treasury	0.68%	1.14%	2.42%	4.16%	18.25%
30Y Treasury	1.32%	1.67%	2.82%	7.57%	39.50%

Source: FactSet



REAL YIELDS



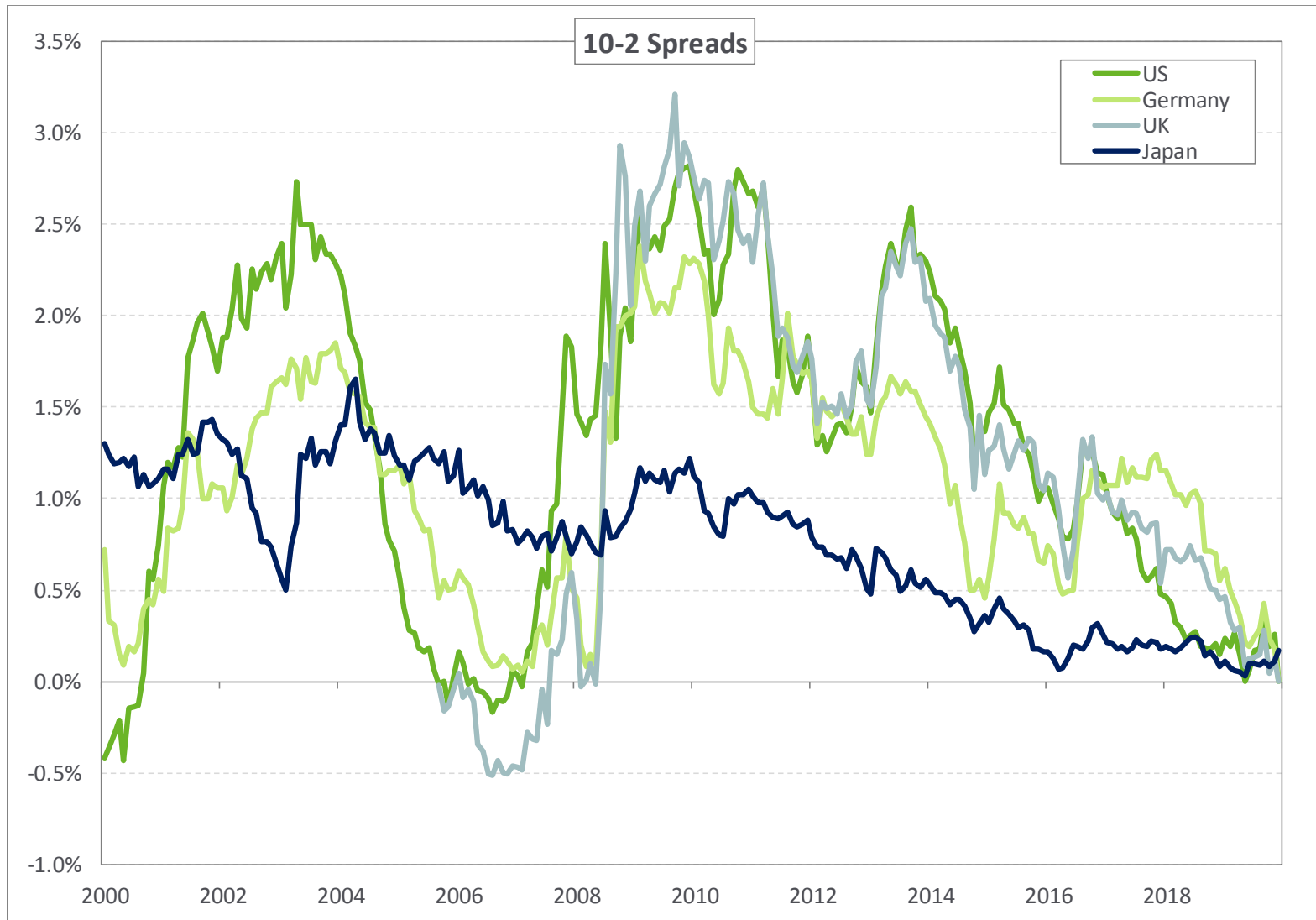
Source: FactSet

	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months
5-Year	-0.12%	-0.44%	0.45%	0.49%	1.79%
7-Year	-0.16%	-0.37%	0.48%	0.71%	1.84%
10-Year	-0.17%	-0.28%	0.53%	0.85%	1.89%
30-Year	0.16%	0.24%	0.89%	1.16%	1.93%

Source: FactSet



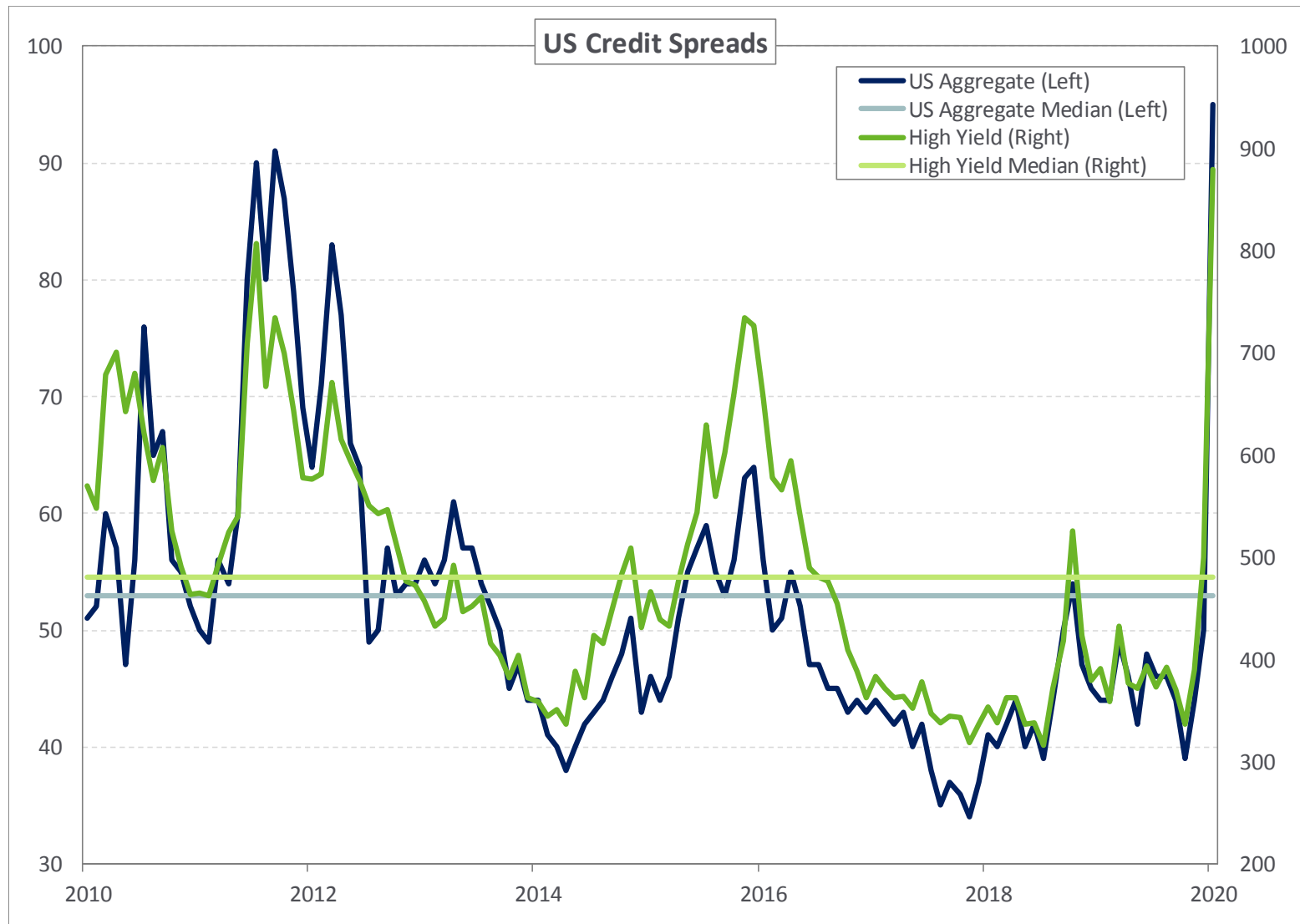
NOMINAL YIELDS



Source: FactSet



CREDIT SPREADS



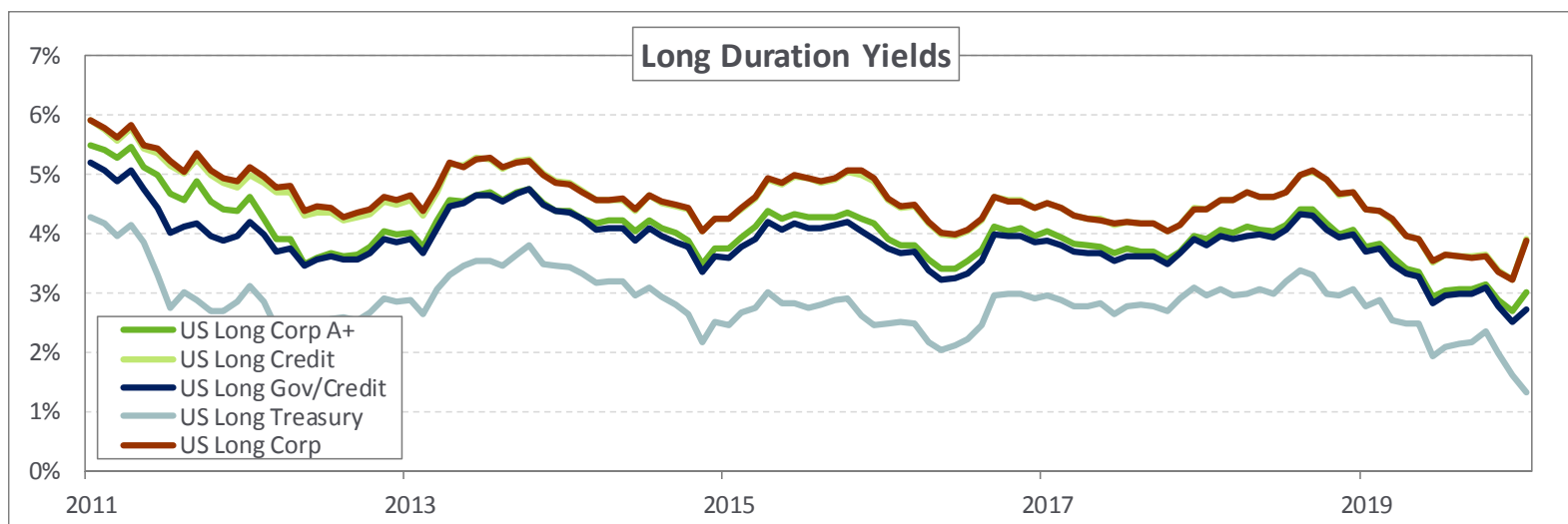
Source: Barclays, FactSet



LONG DURATION

Index	Current	1 Month Ago	12 Months Ago	Duration
Barclays Long Treasury	1.3%	1.6%	2.8%	19.0
Barclays 20+ STRIPS	1.4%	1.7%	2.8%	26.8
Barclays Long Credit	3.9%	3.2%	4.4%	14.1
Barclays Long Gov/Credit	2.7%	2.5%	3.7%	16.4
Barclays Long Corp A+	3.3%	2.8%	4.0%	15.2

Source: Barclays, FactSet



Source: Barclays, FactSet



REAL ASSETS

NEPC, LLC

REAL ASSETS INDEX PERFORMANCE

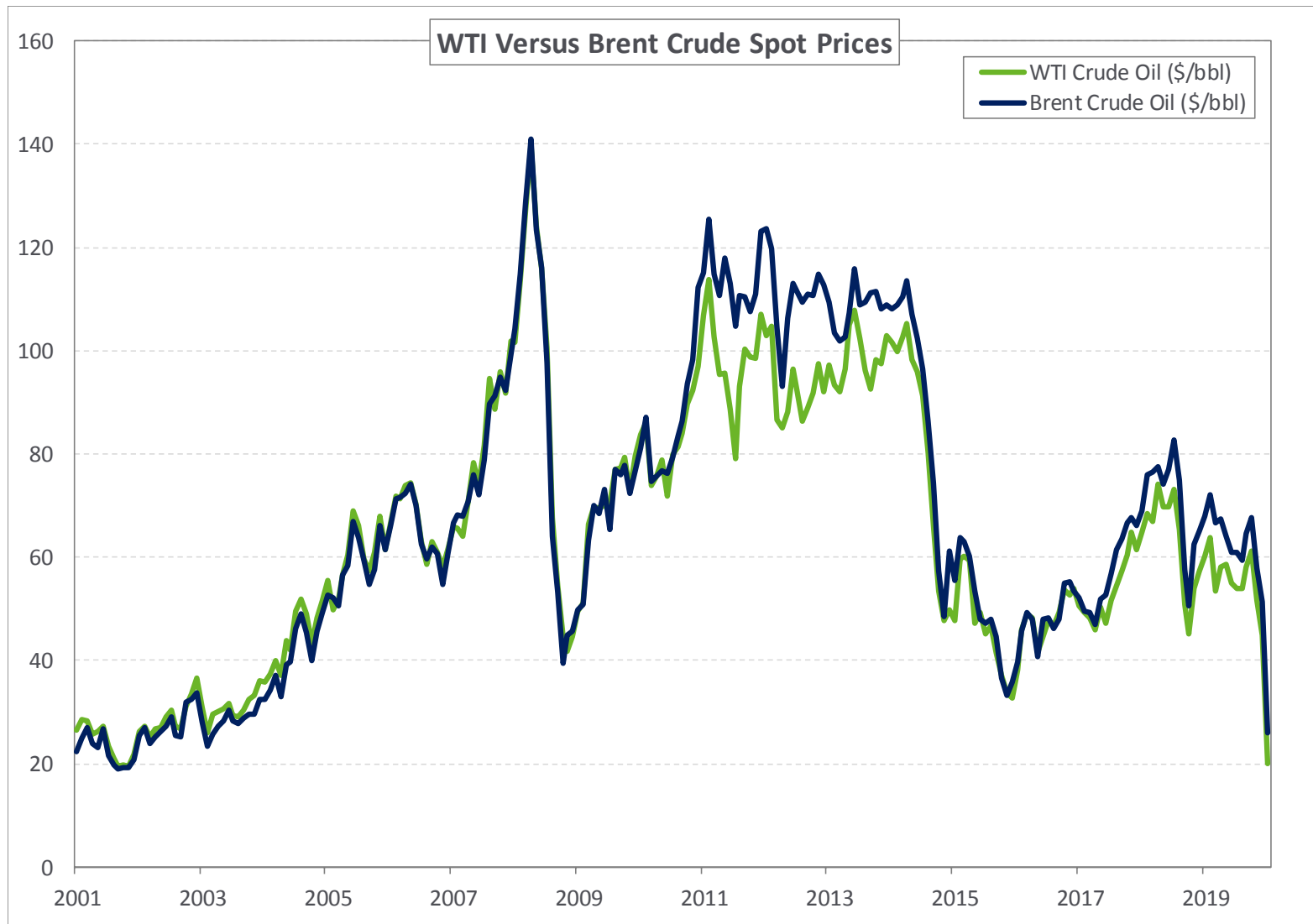
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-12.8%	-23.3%	-23.3%	-22.2%	-8.6%	-7.7%
Bloomberg Sub Agriculture Index	-3.3%	-9.9%	-9.9%	-5.3%	-9.1%	-7.2%
Coffee	7.4%	-9.4%	-9.4%	12.1%	-14.4%	-11.5%
Corn	-7.4%	-12.9%	-12.9%	-11.8%	-12.0%	-11.4%
Cotton	-16.8%	-26.4%	-26.4%	-35.0%	-12.6%	-4.7%
Soybean	-0.7%	-8.2%	-8.2%	-6.7%	-7.4%	-5.2%
Soybean Oil	-5.8%	-23.0%	-23.0%	-8.8%	-8.7%	-6.0%
Sugar	-26.3%	-20.0%	-20.0%	-22.8%	-19.4%	-8.5%
Wheat	8.4%	2.1%	2.1%	22.4%	-0.2%	-7.2%
Bloomberg Sub Energy	-35.1%	-51.1%	-51.1%	-52.6%	-19.8%	-18.7%
Brent Crude	-43.2%	-56.3%	-56.3%	-52.4%	-14.5%	-15.3%
Heating Oil	-32.0%	-50.0%	-50.0%	-47.6%	-12.4%	-13.6%
Natural Gas	-5.3%	-27.5%	-27.5%	-50.3%	-29.6%	-26.4%
Unleaded Gas	-59.9%	-68.1%	-68.1%	-63.3%	-27.1%	-20.7%
WTI Crude Oil	-54.4%	-66.5%	-66.5%	-65.1%	-25.5%	-23.3%
Bloomberg Sub Industrial Metals	-9.7%	-18.5%	-18.5%	-22.5%	-5.5%	-3.4%
Aluminum	-10.6%	-16.8%	-16.8%	-22.3%	-8.9%	-5.1%
Copper	-12.2%	-20.3%	-20.3%	-23.5%	-6.2%	-4.9%
Nickel	-6.4%	-18.4%	-18.4%	-10.8%	4.5%	-2.2%
Zinc	-5.9%	-16.2%	-16.2%	-31.2%	-7.7%	0.1%
Bloomberg Sub Precious Metals	-1.4%	-1.1%	-1.1%	15.6%	3.7%	3.2%
Gold	1.8%	4.5%	4.5%	22.1%	7.7%	5.4%
Silver	-13.9%	-21.1%	-21.1%	-7.6%	-9.2%	-4.4%
Bloomberg Sub Livestock	-13.5%	-28.1%	-28.1%	-35.3%	-11.0%	-9.7%
Lean Hogs	-19.9%	-36.8%	-36.8%	-51.9%	-20.4%	-15.1%
Live Cattle	-9.1%	-22.6%	-22.6%	-23.3%	-5.9%	-6.8%

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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- 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.

