

QUARTERLY PERFORMANCE REPORT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

November 23, 2020

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VCERA
VENTURA COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION



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MARKET ENVIRONMENT UPDATE & OUTLOOK

NEPC, LLC

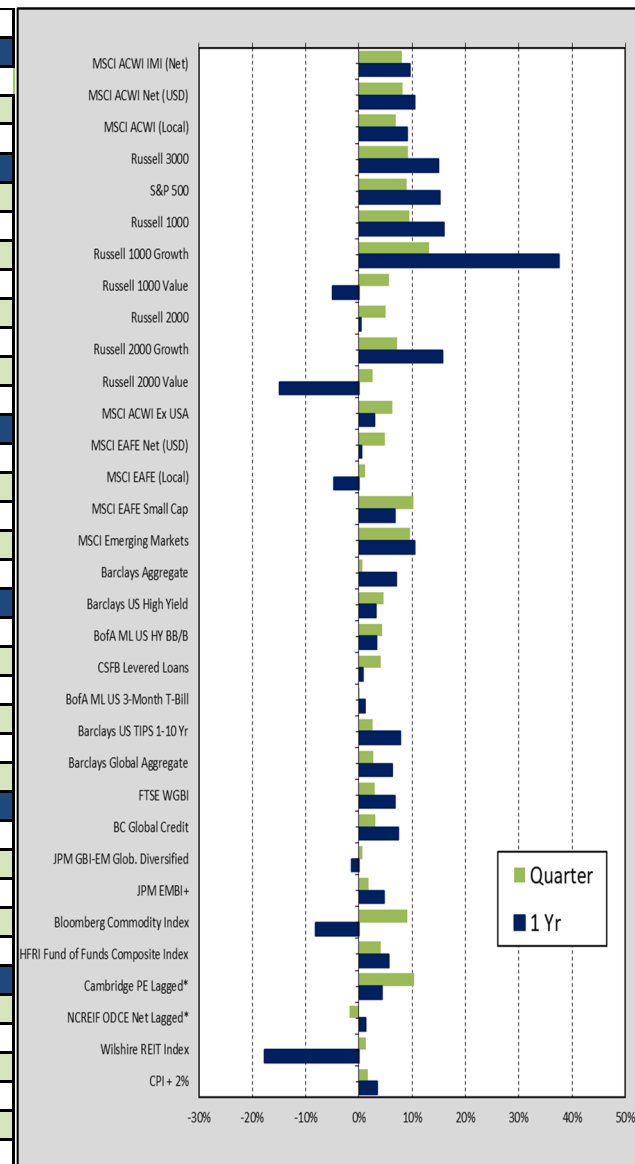
ECONOMIC ENVIRONMENT

- **Q3 Real GDP (advance estimate) grew at a rate of 33.1%. In the second quarter, real GDP decreased 31.4%.**
 - Retail sales ended August at +6.2% on a YoY basis. In the same period last year the YoY growth rate was 4.3%.
 - Corporate profits (ended April) as a percent of GDP decreased to 7.98% from 8.07% (in January) and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended August down to 1.3 from 1.4 in June. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April.
 - The U.S. trade deficit widened (ended July) and is the largest it has been in 12 years.
- **The unemployment rate was down to 7.9% ended in Q3 from 11.1%; U-6, a broader measure of unemployment, decreased to 12.8% in Q3 from 18.0%.**
 - The labor force participation rate ended Q3 at 61.4% after declining to 60.2% in April and is at levels below the 10 year pre-pandemic average of 63.2%.
- **The Case-Shiller Home Price Index (ended August) increased to 223.97 from 219.87 (in June) and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI saw an up-tick to 1.41% in Q3 from 0.71% ended Q2; Capacity Utilization increased to 71.5% in Q3 from 68.6% in Q2.**
- **Fed Funds rate remains at a targeted range of 0.00%-to-0.25%. The 10-year Treasury Yield (constant maturity) finished Q3 unchanged at 0.7%.**
- **The Fed remains committed to continuing stimulative action as needed to support the US economy. The Fed's balance sheet continues to grow in the wake of the pandemic.**
- **S&P valuations increased in Q3 to 30.8x, and is higher than the 10-year average of 26.2x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.74x



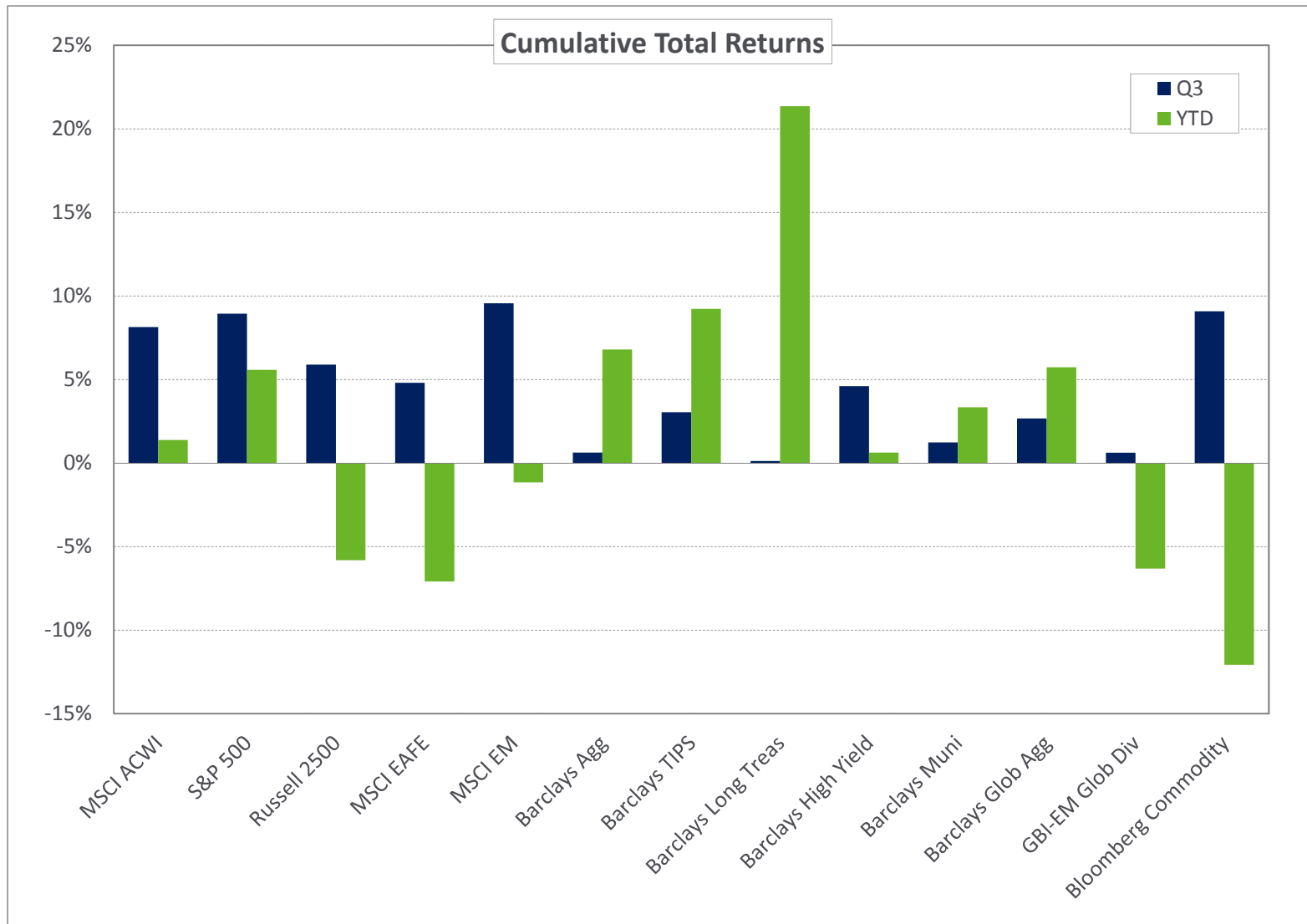
MARKET ENVIRONMENT – Q3 2020 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	8.11%	9.57%	6.47%	9.97%	8.47%
MSCI ACWI Net (USD)	World W/O Small Cap	8.13%	10.44%	7.12%	10.30%	8.55%
MSCI ACWI (Local)	World (Local Currency)	6.94%	9.05%	7.32%	10.09%	9.54%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	9.21%	15.00%	11.65%	13.69%	13.48%
S&P 500	Large Core	8.93%	15.15%	12.28%	14.15%	13.74%
Russell 1000	Large Core	9.47%	16.01%	12.38%	14.09%	13.76%
Russell 1000 Growth	Large Growth	13.22%	37.53%	21.67%	20.10%	17.25%
Russell 1000 Value	Large Value	5.59%	-5.03%	2.63%	7.66%	9.95%
Russell 2000	Small Core	4.93%	0.39%	1.77%	8.00%	9.85%
Russell 2000 Growth	Small Growth	7.16%	15.71%	8.18%	11.42%	12.34%
Russell 2000 Value	Small Value	2.56%	-14.88%	-5.13%	4.11%	7.09%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	6.25%	3.00%	1.16%	6.23%	4.00%
MSCI EAFE Net (USD)	Int'l Developed	4.80%	0.49%	0.62%	5.26%	4.62%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	1.22%	-4.74%	0.55%	4.83%	6.26%
MSCI EAFE Small Cap	Small Cap Int'l	10.25%	6.84%	1.40%	7.37%	7.33%
MSCI Emerging Markets	Emerging Equity	9.56%	10.54%	2.42%	8.97%	2.51%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	0.62%	6.98%	5.24%	4.18%	3.64%
Barclays US High Yield	High Yield	4.60%	3.25%	4.21%	6.79%	6.47%
BofAML US HY BB/B	High Yield	4.33%	3.28%	4.47%	6.63%	6.32%
CSFB Levered Loans	Bank Loans	4.13%	0.84%	3.16%	4.03%	4.44%
BofAML US 3-Month T-Bill	Cash	0.04%	1.10%	1.69%	1.20%	0.64%
Barclays US TIPS 1-10 Yr	Inflation	2.51%	7.75%	4.56%	3.66%	2.72%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	2.66%	6.24%	4.09%	3.92%	2.36%
FTSE WGBI	World Gov. Bonds	2.94%	6.76%	4.37%	3.95%	1.86%
BC Global Credit	Global Bonds	3.06%	7.47%	4.75%	4.90%	3.76%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	0.61%	-1.45%	0.17%	4.78%	0.52%
JPM EMBI+	Em. Mkt. Bonds	1.75%	4.76%	2.50%	5.47%	4.82%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	9.07%	-8.20%	-4.18%	-3.09%	-6.03%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	4.13%	5.59%	2.84%	3.06%	2.87%
Cambridge PE Lagged*	Private Equity	10.34%	4.29%	10.93%	10.50%	13.04%
NCREIF ODCE Net Lagged*	Real Estate	-1.75%	1.33%	4.72%	6.35%	9.78%
Wilshire REIT Index	REIT	1.26%	-17.69%	0.44%	3.65%	8.00%
CPI + 2%	Inflation/Real Assets	1.66%	3.44%	3.88%	3.89%	3.81%



* As of 6/30/2020







RISK ASSETS RALLIED



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



ECONOMIC DATA HAS SLOWLY IMPROVED

Metric	12/31/19	06/30/20	09/30/20	Trend
S&P 500 NTM Earnings Estimate	\$177.8	\$145.0	\$157.6	
US Real GDP (QoQ%)	2.4%	-31.4%	25.4% ¹	
US 10 Year Breakeven Inflation	1.8%	1.3%	1.6%	
US Unemployment Rate	3.5%	11.1%	7.9%	
Continued Claims for Unemployment	1.7M	19.0M	11.8M ²	
Federal Reserve Balance Sheet as % of Nominal GDP	19.2%	36.3%	32.9%	

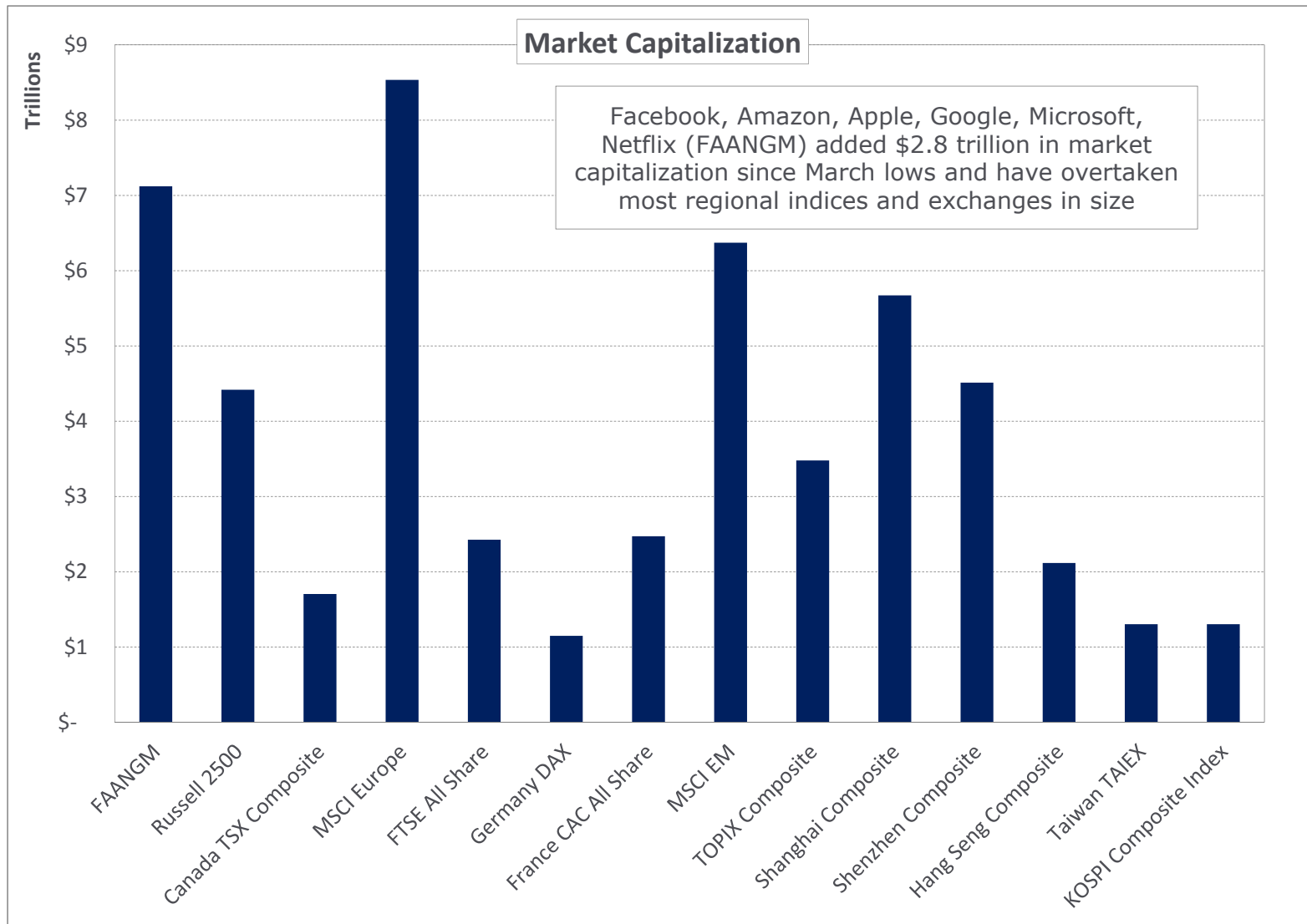
Source: US Bureau of Labor Statistics, Federal Reserve, FactSet, NEPC
 NTM represents next 12 months

¹The 09/30/20 real GDP figure represents the consensus estimate from FactSet

²The 09/30/20 Continued Claims represents data as of 9/18/2020



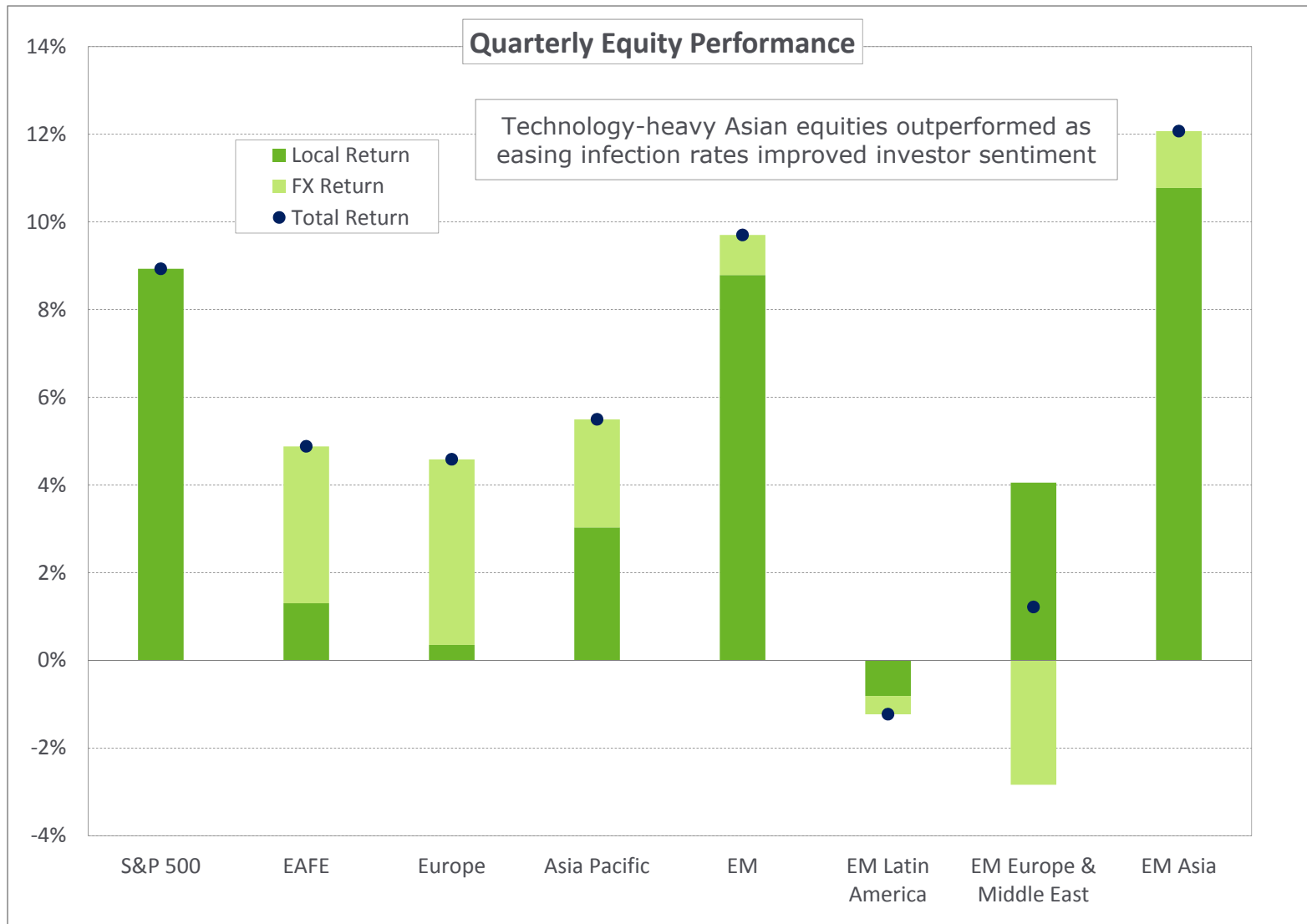
FAANGM NOW LARGER THAN MOST INDICES



Source: MSCI, S&P, Russell, FTSE, DAX, CAC, TOPIX, SSE, SZSE, Hang Seng, TAIEX, KOSPI, FactSet
 FAANGM represents 25.5% of the S&P 500



DOLLAR WEAKNESS BOLSTERED NON-US ASSETS

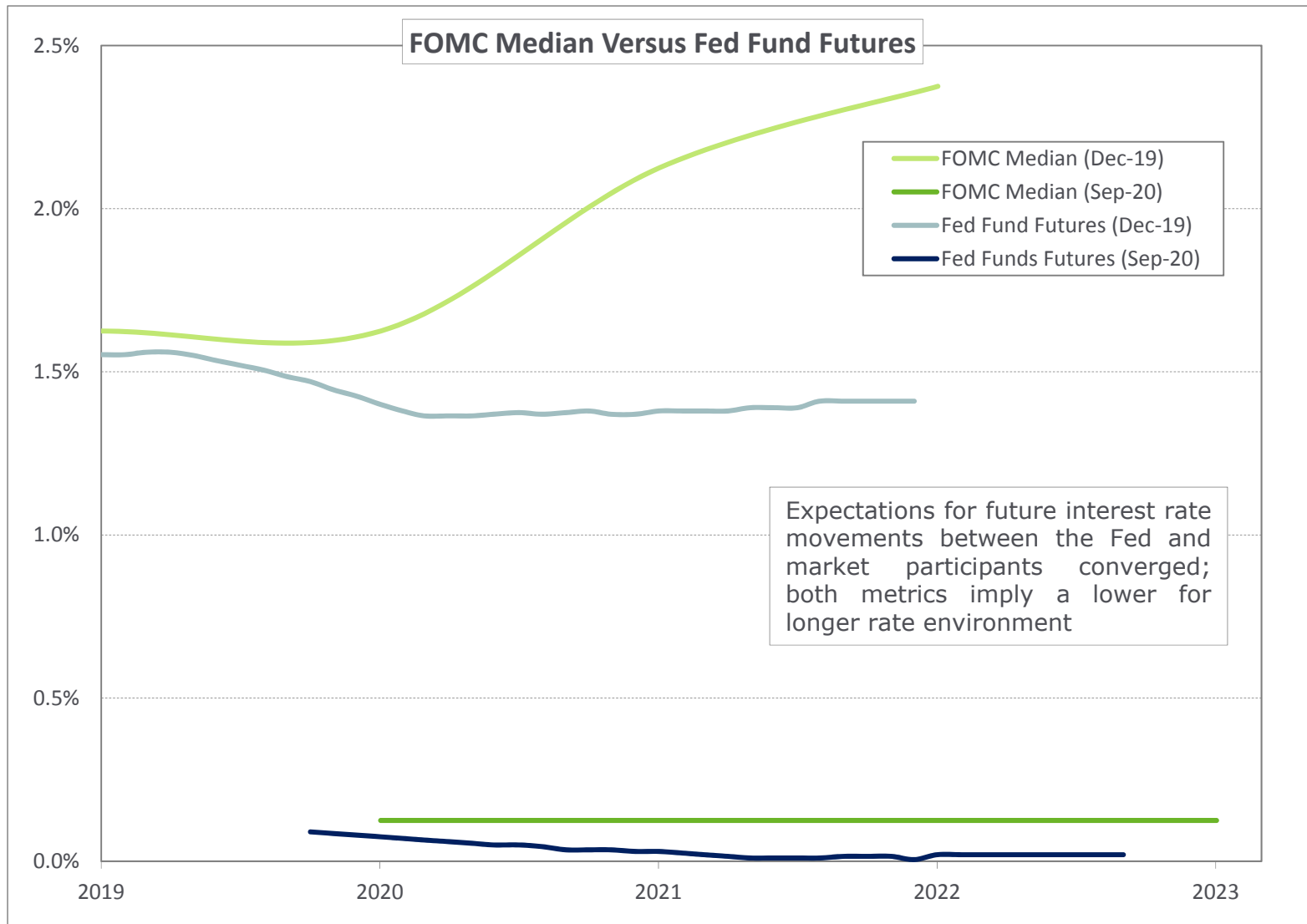


Source: S&P, MSCI, FactSet

Asia Pacific represents (from highest to lowest) Japan, China, Australia, Taiwan, South Korea, and Other
 EM Europe & Middle East represents (from highest to lowest) Russia, Saudi Arabia, Qatar, Poland, United Arab Emirates, and Other



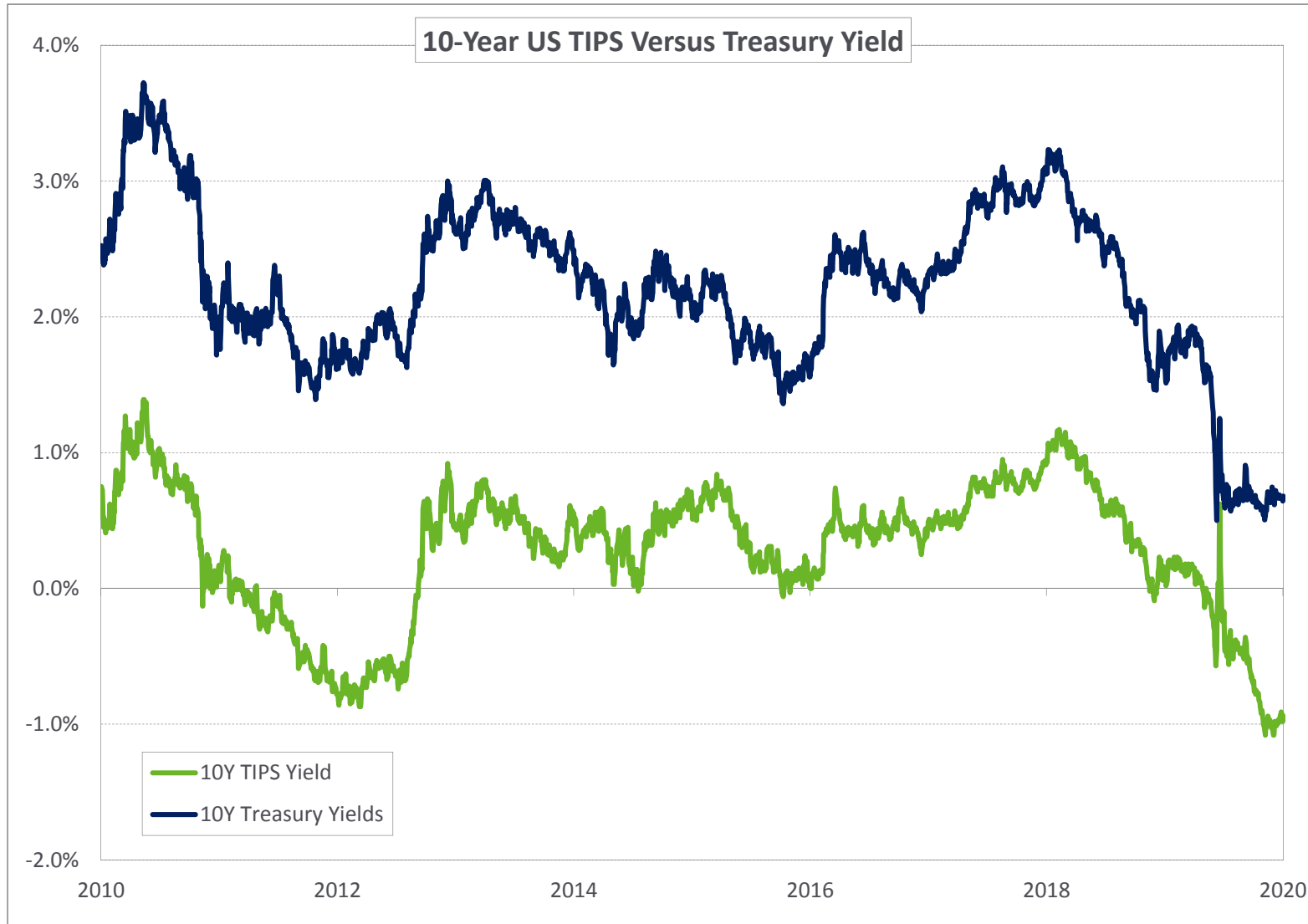
FED FUNDS RATE EXPECTED TO REMAIN LOW



Source: Federal Reserve, FactSet



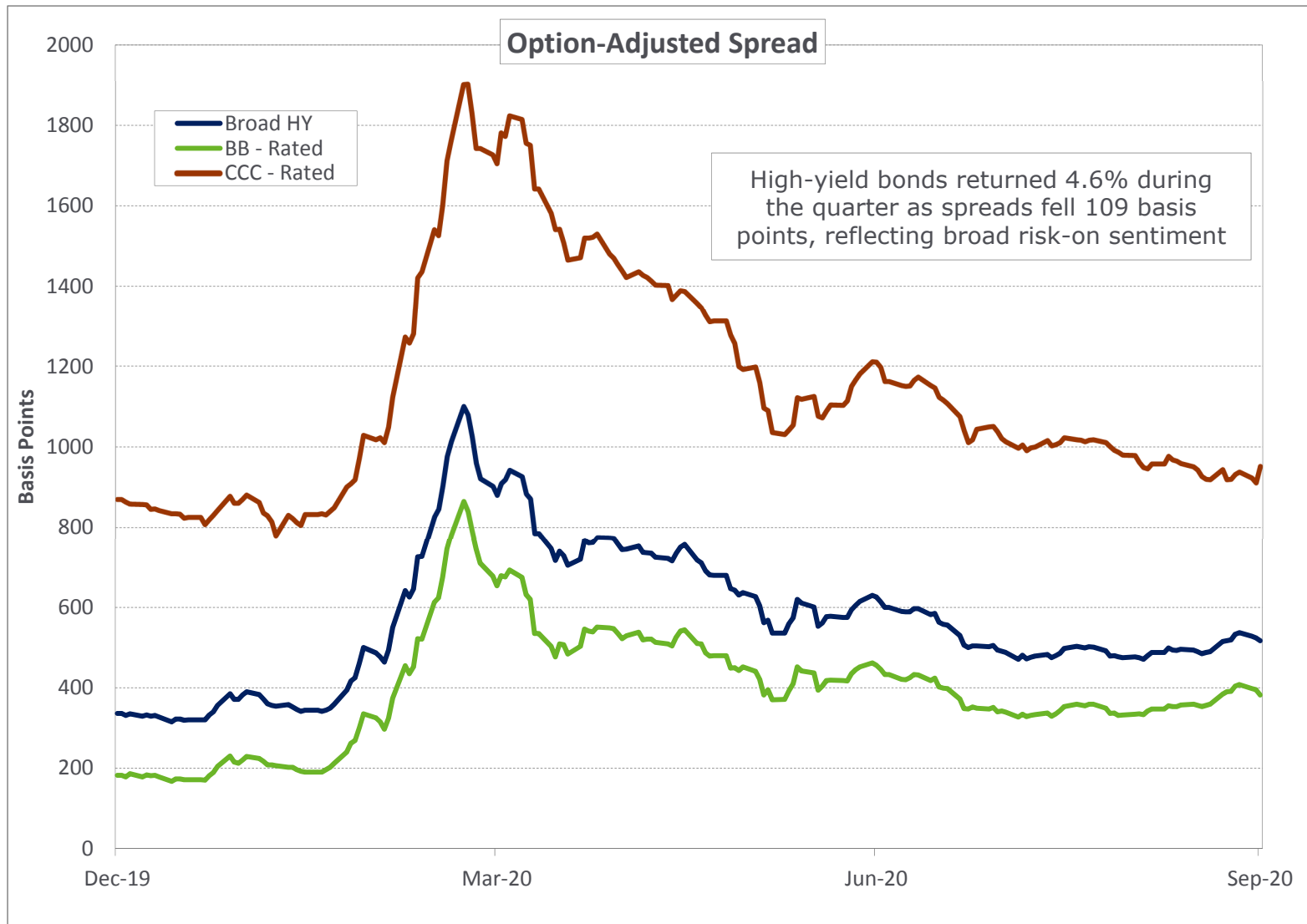
TREASURY YIELDS FELL TO HISTORICAL LOWS



Source: FactSet



US SPREADS CONTINUED TO TIGHTEN



Source: Bloomberg, FactSet



TOTAL FUND PERFORMANCE SUMMARY

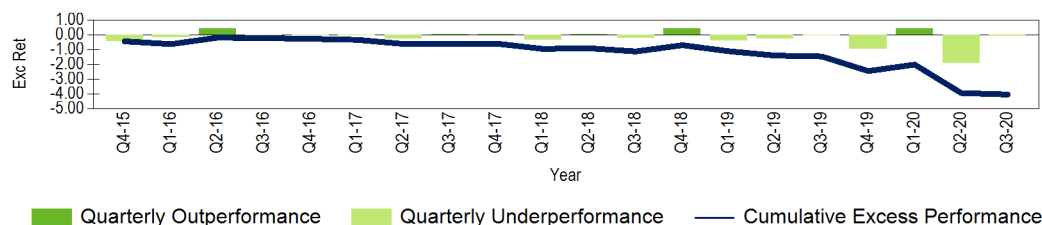
NEPC, LLC

Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE SUMMARY (NET)

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	Inception	Inception Date
Total Fund	\$6,276,976,535	5.8%	15	2.3%	32	7.6%	28	6.8%	18	8.7%	18	8.4%	18	7.9%	Apr-94
<i>Policy Index</i>		5.9%	12	3.6%	9	10.0%	3	7.9%	5	9.5%	5	8.8%	10	8.1%	Apr-94
<i>60% MSCI ACWI (Net) / 40% FTSE WGBI</i>		6.1%	8	4.2%	6	9.6%	6	6.4%	31	8.0%	39	6.1%	98	6.5%	Apr-94
<i>60% S&P 500 / 40% BBgBarc Aggregate</i>		5.6%	17	6.7%	1	12.5%	1	9.8%	1	10.4%	1	9.8%	1	8.5%	Apr-94
<i>InvMetrics Public DB > \$1B Net Median</i>		5.0%		0.8%		6.0%		5.5%		7.5%		7.4%		7.4%	Apr-94

Quarterly and Cumulative Excess Performance



- For the five year period ending September 30, 2020, the Fund returned 8.7% trailing the policy index by 0.8% and ranking in the 18th percentile of its peers and outperforming the actuarial assumed rate of 7.25%. The Fund's volatility, as measured by standard deviation, ranked in the 79th percentile of its peers, and the risk-adjusted return, or Sharpe Ratio, ranks in the 44th percentile. This means that the Fund has earned more return per unit of volatility taken than 56% of its peers.

- For the three-year period, the Fund returned 6.8%, underperforming the policy index and ranking in the 18th percentile of its peers. The Fund's volatility ranks in the 80th percentile of its peers over this period, with the Fund's Sharpe Ratio ranking in the 40th percentile.

- For the one-year period, the Fund returned 7.6%, underperforming the policy index by 2.4% and ranking in the 28th percentile of the Investment Metrics Public Funds > \$1 Billion Universe (Net of fees).

- For the one-year period, the Fund experienced a net investment gain of \$459.5 million which includes a net investment gain of \$347.4 million in the quarter. Assets increased from \$5.90 billion one year ago to \$6.28 billion.

3 Years Ending September 30, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	6.8%	18	10.6%	80	0.5	40	0.6	32
Policy Index	7.9%	5	11.3%	87	0.6	19	0.7	13
InvMetrics Public DB > \$1B Net Median	5.5%	--	9.7%	--	0.4	--	0.4	--

5 Years Ending September 30, 2020

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Total Fund	8.7%	18	9.0%	79	0.8	44	0.9	40
Policy Index	9.5%	5	9.5%	86	0.9	36	1.0	32
InvMetrics Public DB > \$1B Net Median	7.5%	--	8.3%	--	0.8	--	0.8	--

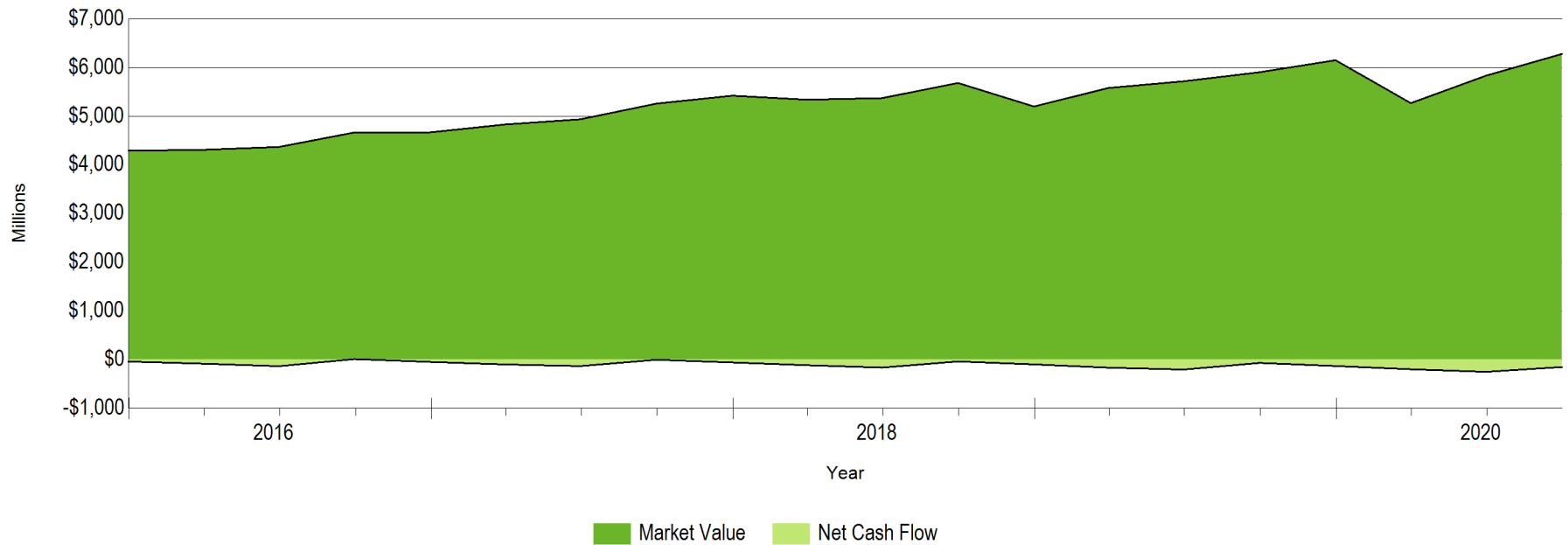
Policy Index as of July 2019: 26% Russell 3000 Index, 17% MSCI ACWI ex U.S., 10% MSCI ACWI, 13% Russell 3000 +3%, 19% BBgBarc US Aggregate, 8% NCREIF ODCE, 7% CPI +2%.



Ventura County Employees' Retirement Association

TOTAL FUND ASSET GROWTH SUMMARY

Market Value History
5 Years Ending September 30, 2020

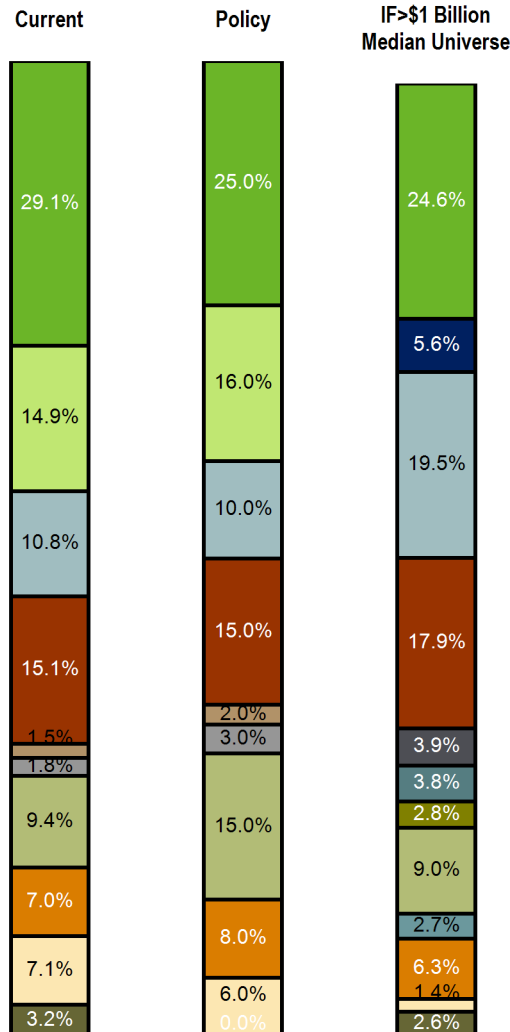


Summary of Cash Flows				
	Last Three Months	One Year	Three Years	Five Years
Beginning Market Value	\$5,830,640,053	\$5,901,631,997	\$5,257,900,164	\$4,208,105,148
Net Cash Flow	\$98,947,245	-\$84,139,758	-\$148,781,002	-\$150,645,527
Net Investment Change	\$347,389,237	\$459,484,295	\$1,167,857,372	\$2,219,516,914
Ending Market Value	\$6,276,976,535	\$6,276,976,535	\$6,276,976,535	\$6,276,976,535



Ventura County Employees' Retirement Association

ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target						
	Current	Current	Policy Difference*	Policy Range	Within Range	
U.S. Equity	\$1,828,652,243	29.1%	25.0%	4.1%	21.0% - 30.0%	Yes
Non-US Equity	\$935,529,593	14.9%	16.0%	-1.1%	12.0% - 20.0%	Yes
Emerging Markets Equity	--	--	--	0.0%		
Global Equity	\$680,378,741	10.8%	10.0%	0.8%	7.0% - 13.0%	Yes
U.S. Fixed Income	\$946,707,461	15.1%	15.0%	0.1%	14.0% - 22.0%	Yes
Treasury	\$94,100,803	1.5%	2.0%	-0.5%	0.0% - 5.0%	Yes
Fixed Income - Emerging	--	--	--	0.0%		
Fixed Income - Global	--	--	--	0.0%		
GAA/Risk Parity	--	--	--	0.0%		
Private Debt	\$113,796,910	1.8%	3.0%	-1.2%	0.0% - 5.0%	Yes
Private Equity	\$592,839,765	9.4%	15.0%	-5.6%	10.0% - 17.0%	Yes
Hedge Funds	--	--	--	0.0%		
Real Estate	\$440,162,625	7.0%	8.0%	-1.0%	0.0% - 12.0%	Yes
Real Assets	\$442,584,937	7.1%	6.0%	1.1%	0.0% - 8.0%	Yes
Cash	\$202,223,457	3.2%	0.0%	3.2%	0.0% - 3.0%	No
Total	\$6,276,976,535	100.0%	100.0%			

*Difference between Policy and Current Allocation

Cash represents assets in Parametric Overlay.

Policy Index as of July 2020: 25% Russell 3000 Index, 16% MSCI ACWI ex U.S., 10% MSCI ACWI, 15% Russell 3000 +3%, 20% BBgBarc US Aggregate, 8% NCREIF ODCE, 6% CPI +2%.

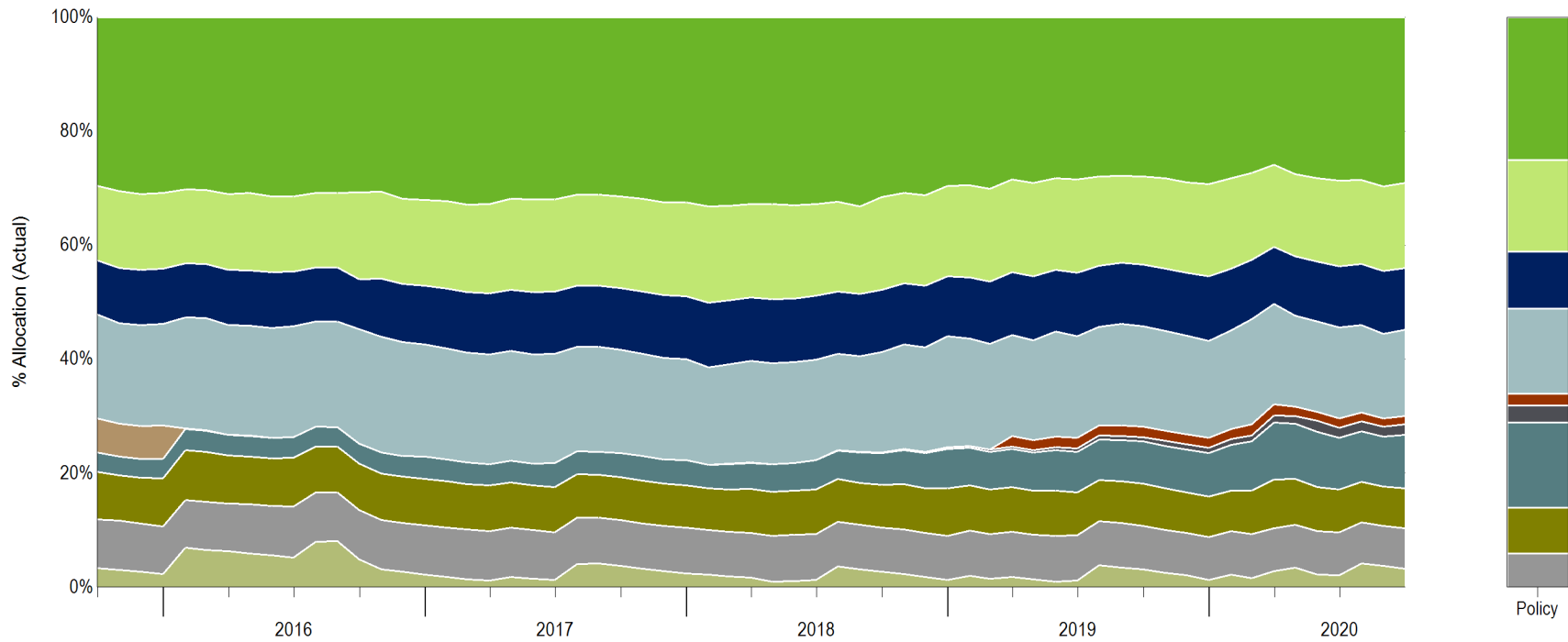
Asset Allocation vs. Policy Targets chart does not reflect Overlay adjusted weights.



Ventura County Employees' Retirement Association

TOTAL FUND ALLOCATION HISTORY

Asset Allocation History
5 Years Ending September 30, 2020



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

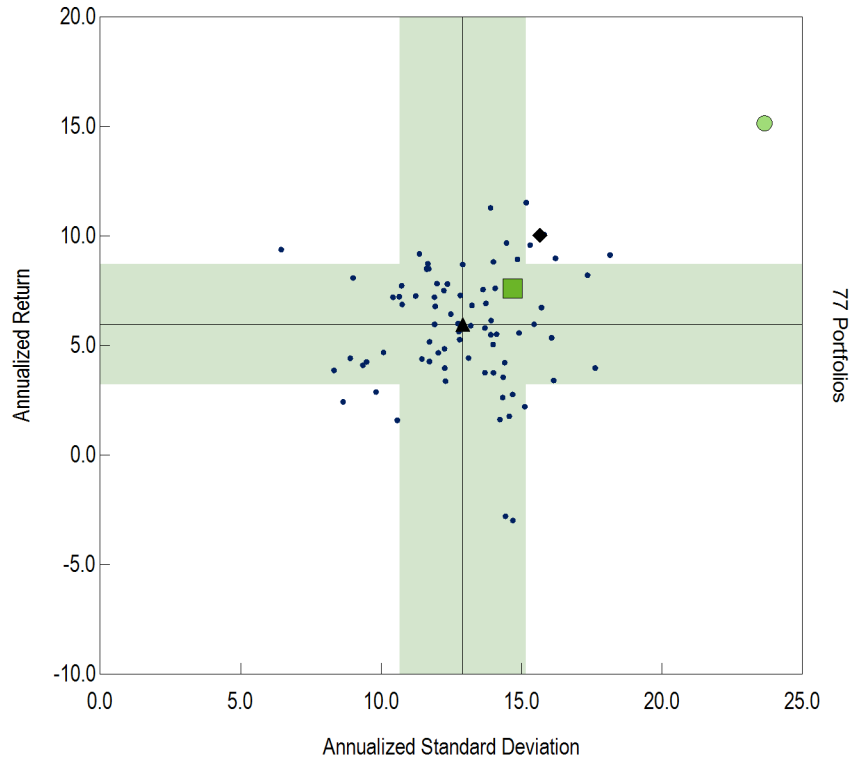
Policy Index shown is most recently approved index



Ventura County Employees' Retirement Association

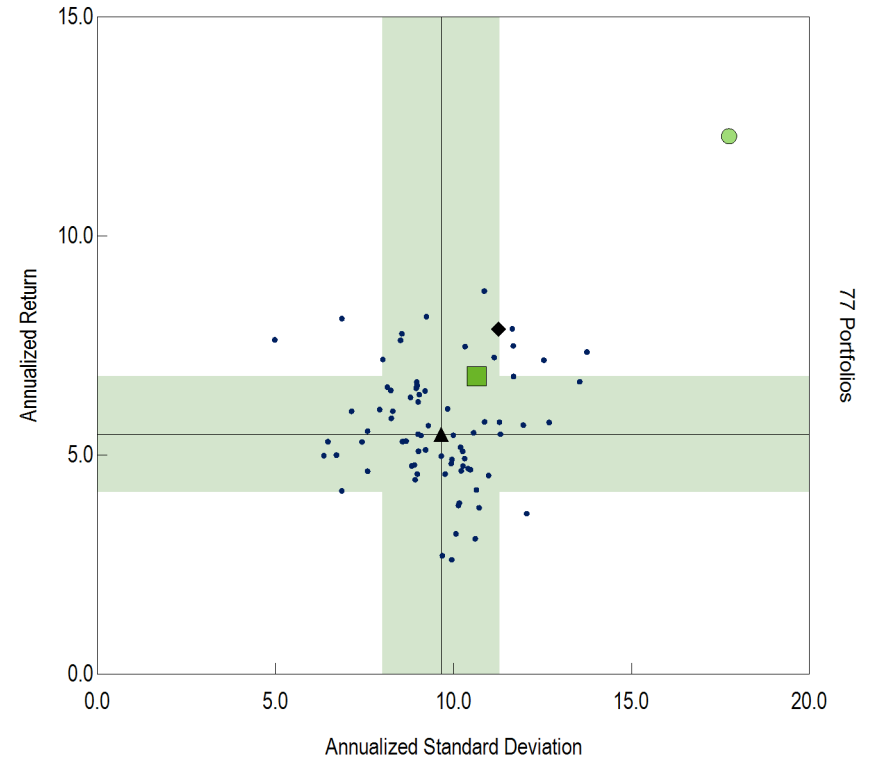
TOTAL FUND RISK/RETURN

1 Years Ending September 30, 2020



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

3 Years Ending September 30, 2020



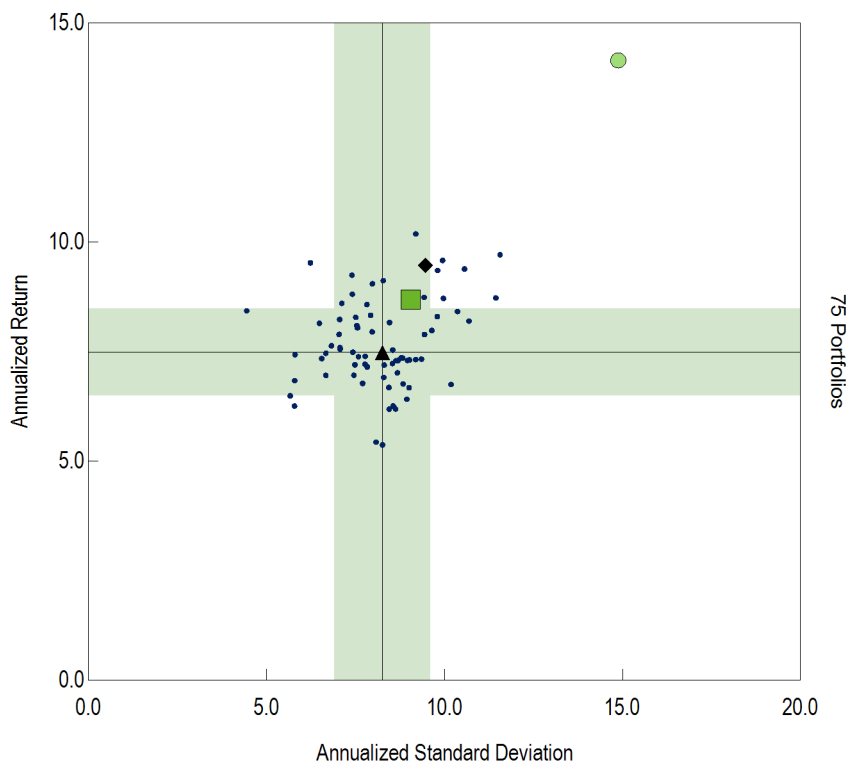
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



Ventura County Employees' Retirement Association

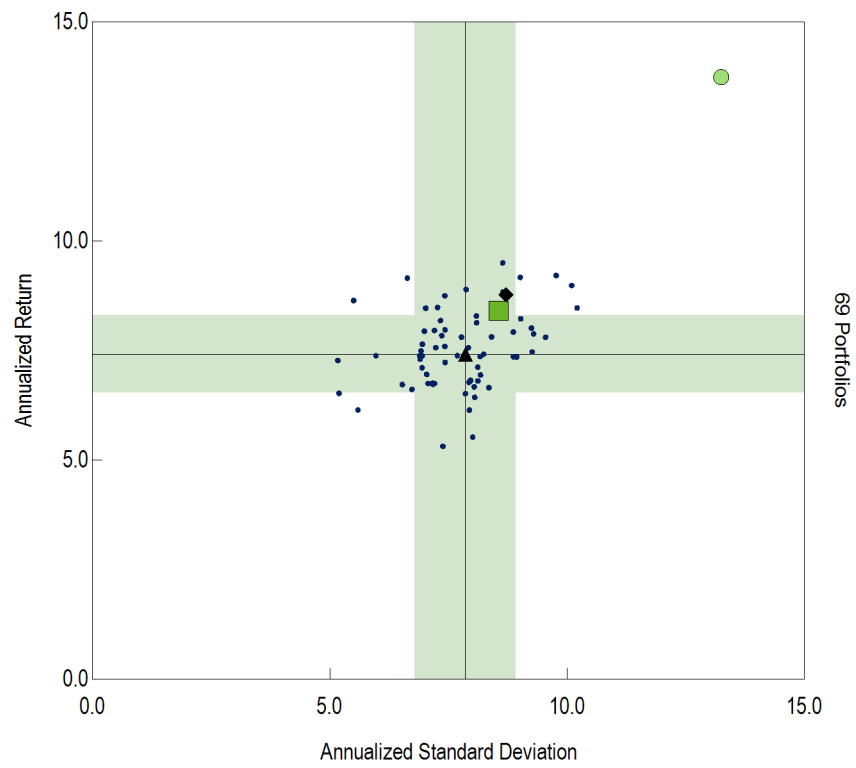
TOTAL FUND RISK/RETURN

5 Years Ending September 30, 2020



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

10 Years Ending September 30, 2020



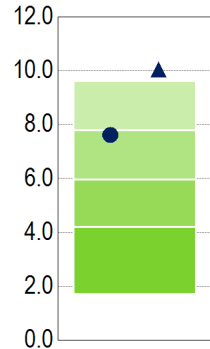
- Total Fund
- ◆ Policy Index
- S&P 500
- ▲ Universe Median
- ▭ 68% Confidence Interval
- InvMetrics Public DB > \$1B Net



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

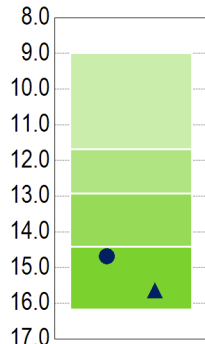
Anlzd Return



● Total Fund
Value 7.6
Rank 28
▲ Policy Index
Value 10.0
Rank 3

Universe
5th %tile 9.6
25th %tile 7.8
Median 6.0
75th %tile 4.2
95th %tile 1.7

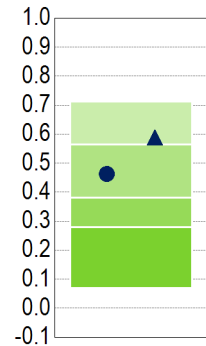
Anlzd Standard Deviation



● Total Fund
Value 14.7
Rank 81
▲ Policy Index
Value 15.6
Rank 91

Universe
5th %tile 9.0
25th %tile 11.7
Median 12.9
75th %tile 14.4
95th %tile 16.2

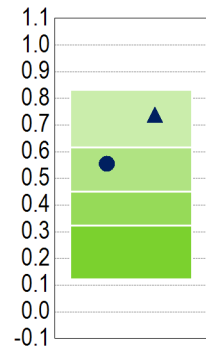
Sharpe Ratio



● Total Fund
Value 0.5
Rank 38
▲ Policy Index
Value 0.6
Rank 19

Universe
5th %tile 0.7
25th %tile 0.6
Median 0.4
75th %tile 0.3
95th %tile 0.1

Sortino Ratio



● Total Fund
Value 0.6
Rank 32
▲ Policy Index
Value 0.7
Rank 8

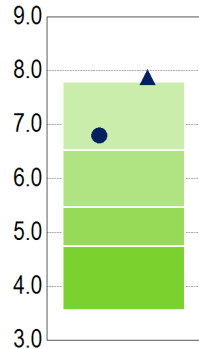
Universe
5th %tile 0.8
25th %tile 0.6
Median 0.5
75th %tile 0.3
95th %tile 0.1



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

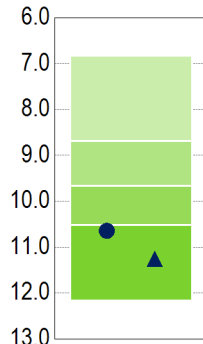
Anlzd Return



● Total Fund
Value 6.8
Rank 18
▲ Policy Index
Value 7.9
Rank 5

Universe
5th %tile 7.8
25th %tile 6.5
Median 5.5
75th %tile 4.8
95th %tile 3.6

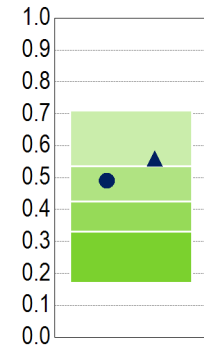
Anlzd Standard Deviation



● Total Fund
Value 10.6
Rank 80
▲ Policy Index
Value 11.3
Rank 87

Universe
5th %tile 6.8
25th %tile 8.7
Median 9.7
75th %tile 10.5
95th %tile 12.2

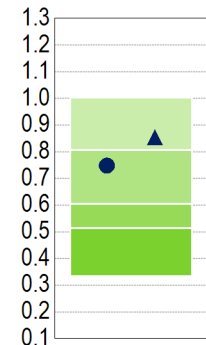
Sharpe Ratio



● Total Fund
Value 0.5
Rank 40
▲ Policy Index
Value 0.6
Rank 19

Universe
5th %tile 0.7
25th %tile 0.5
Median 0.4
75th %tile 0.3
95th %tile 0.2

Sortino Ratio



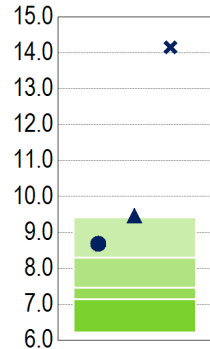
● Total Fund
Value 0.7
Rank 33
▲ Policy Index
Value 0.9
Rank 11

Universe
5th %tile 1.0
25th %tile 0.8
Median 0.6
75th %tile 0.5
95th %tile 0.3

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

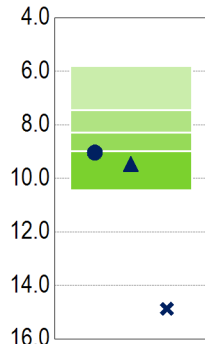
Anlzd Return



● Total Fund
Value 8.7
Rank 18
▲ Policy Index
Value 9.5
Rank 5
× S&P 500
Value 14.1
Rank 1

Universe
5th %tile 9.4
25th %tile 8.3
Median 7.5
75th %tile 7.2
95th %tile 6.2

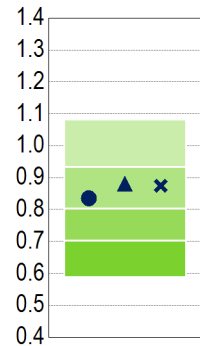
Anlzd Standard Deviation



● Total Fund
Value 9.0
Rank 79
▲ Policy Index
Value 9.5
Rank 86
× S&P 500
Value 14.9
Rank 99

Universe
5th %tile 5.8
25th %tile 7.4
Median 8.3
75th %tile 9.0
95th %tile 10.4

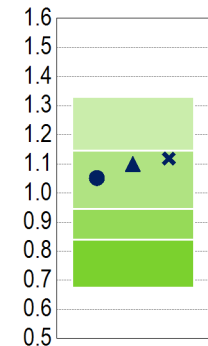
Sharpe Ratio



● Total Fund
Value 0.8
Rank 44
▲ Policy Index
Value 0.9
Rank 36
× S&P 500
Value 0.9
Rank 37

Universe
5th %tile 1.1
25th %tile 0.9
Median 0.8
75th %tile 0.7
95th %tile 0.6

Sortino Ratio



● Total Fund
Value 1.1
Rank 40
▲ Policy Index
Value 1.1
Rank 35
× S&P 500
Value 1.1
Rank 32

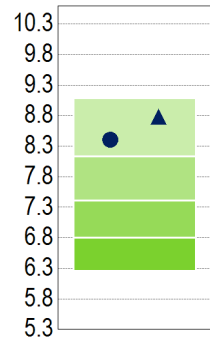
Universe
5th %tile 1.3
25th %tile 1.1
Median 0.9
75th %tile 0.8
95th %tile 0.7



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

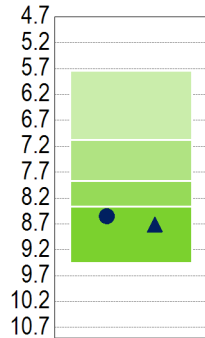
Total Fund vs. InvMetrics Public DB > \$1B Net 10 Years

Anlzd Return



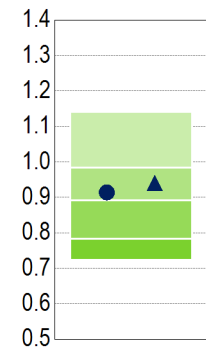
● Total Fund	
Value	8.4
Rank	18
▲ Policy Index	
Value	8.8
Rank	10
Universe	
5th %tile	9.1
25th %tile	8.1
Median	7.4
75th %tile	6.8
95th %tile	6.3

Anlzd Standard Deviation



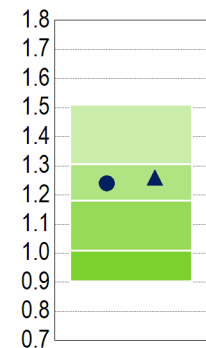
● Total Fund	
Value	8.6
Rank	80
▲ Policy Index	
Value	8.7
Rank	83
Universe	
5th %tile	5.7
25th %tile	7.1
Median	7.9
75th %tile	8.3
95th %tile	9.4

Sharpe Ratio



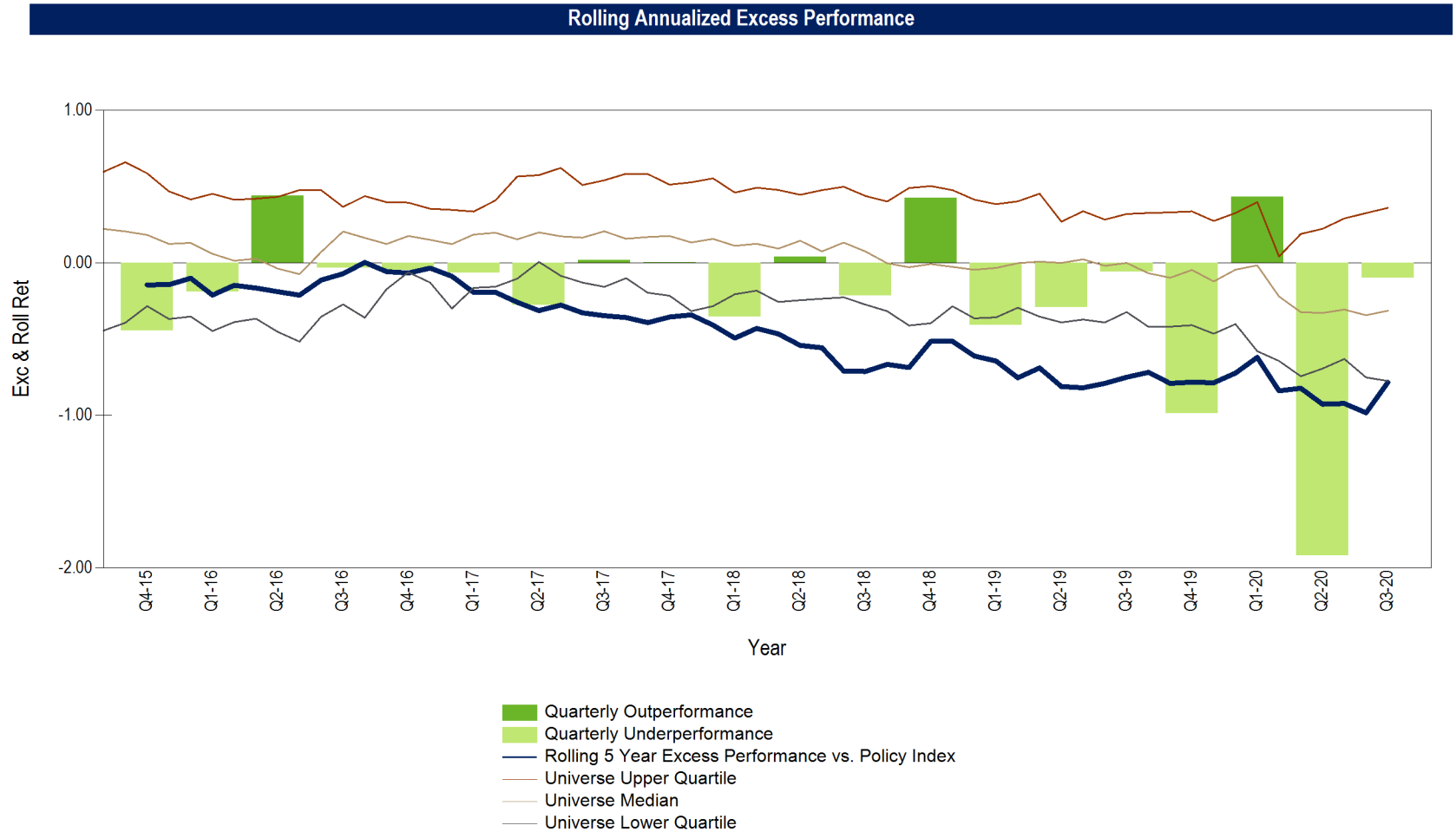
● Total Fund	
Value	0.9
Rank	45
▲ Policy Index	
Value	0.9
Rank	39
Universe	
5th %tile	1.1
25th %tile	1.0
Median	0.9
75th %tile	0.8
95th %tile	0.7

Sortino Ratio



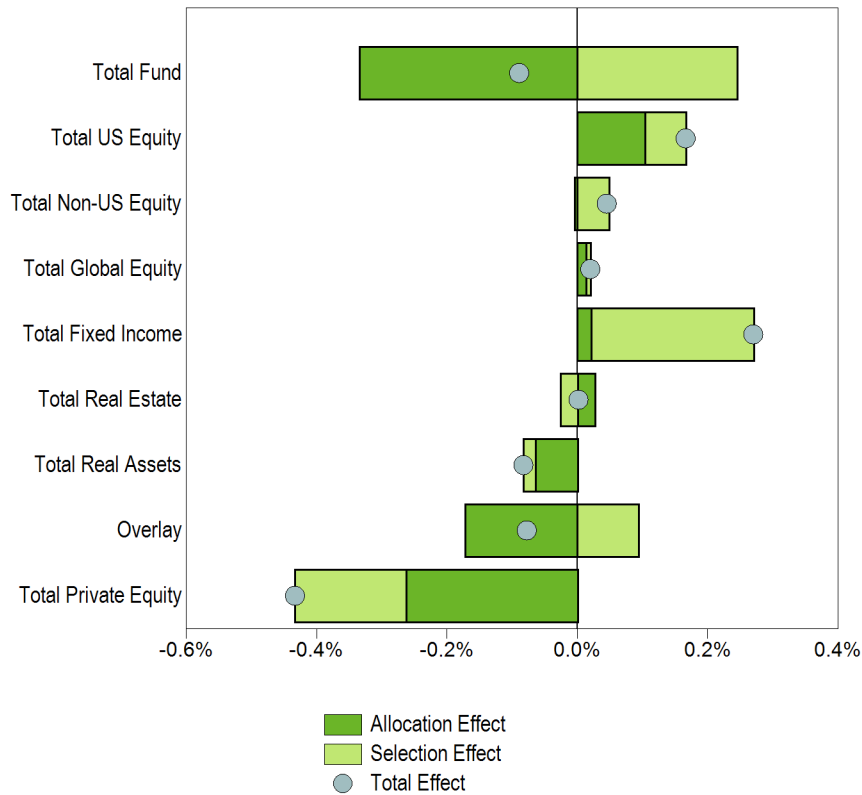
● Total Fund	
Value	1.2
Rank	39
▲ Policy Index	
Value	1.3
Rank	35
Universe	
5th %tile	1.5
25th %tile	1.3
Median	1.2
75th %tile	1.0
95th %tile	0.9

ROLLING 5 YEAR EXCESS RETURNS- NET OF FEES



TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Months Ending September 30, 2020



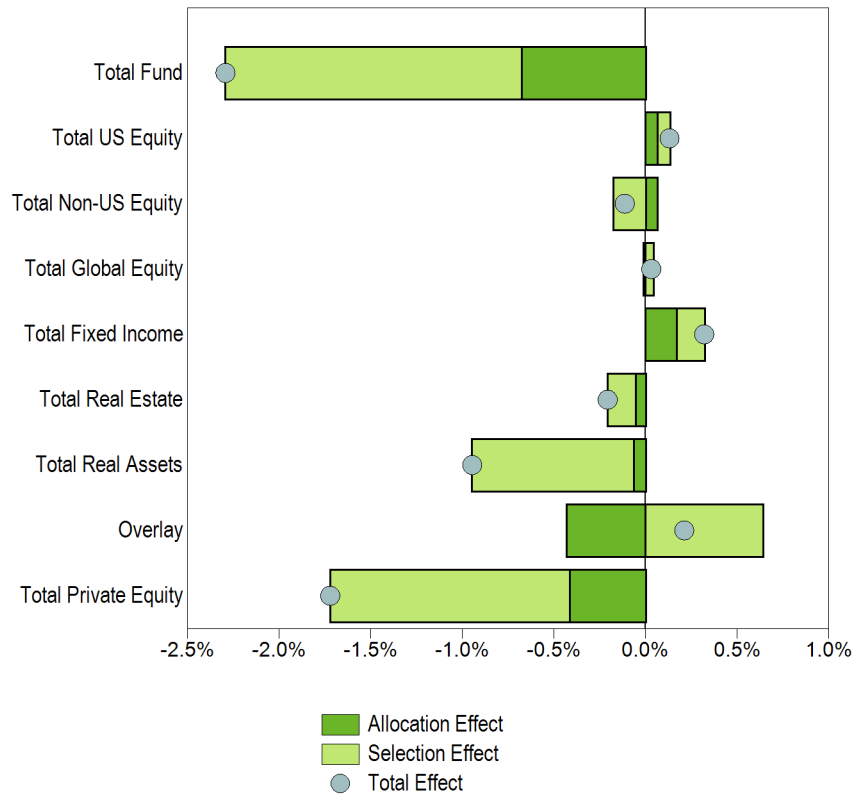
Attribution Summary						
3 Months Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	9.4%	9.2%	0.2%	0.1%	0.1%	0.2%
Total Non-US Equity	6.6%	6.3%	0.3%	0.1%	0.0%	0.0%
Total Global Equity	8.2%	8.1%	0.1%	0.0%	0.0%	0.0%
Total Fixed Income	1.9%	0.6%	1.3%	0.2%	0.0%	0.3%
Total Real Estate	-0.1%	0.3%	-0.3%	0.0%	0.0%	0.0%
Total Real Assets	1.2%	1.5%	-0.3%	0.0%	-0.1%	-0.1%
Overlay	3.7%	0.0%	3.7%	0.1%	-0.2%	-0.1%
Total Private Equity	7.9%	10.0%	-2.1%	-0.2%	-0.3%	-0.4%
Total	5.8%	5.9%	-0.1%	0.3%	-0.4%	-0.1%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects 1 Year Ending September 30, 2020



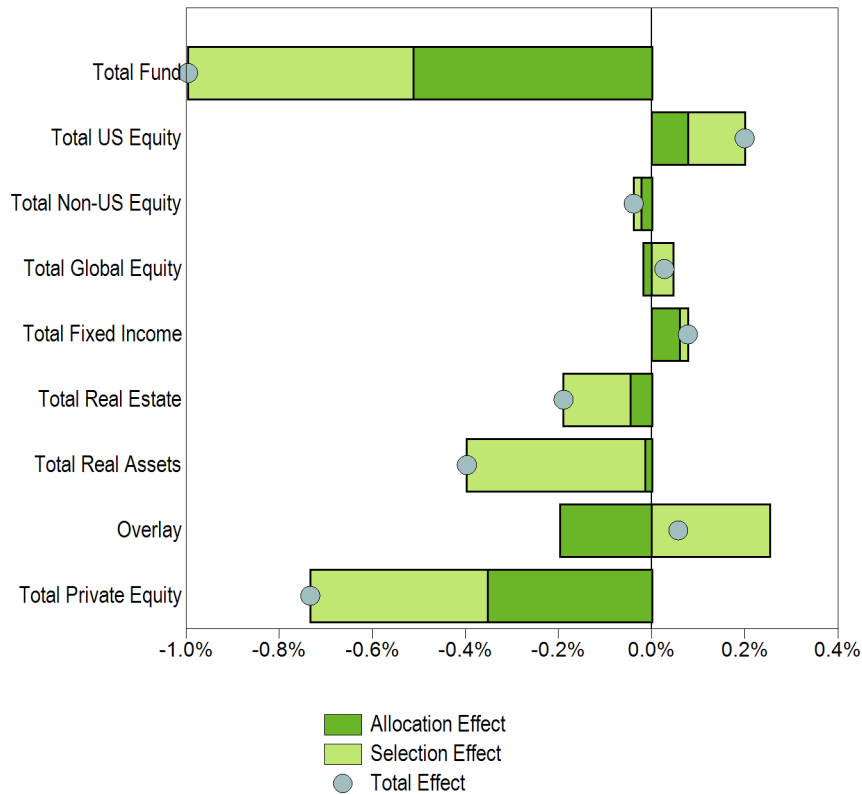
Attribution Summary 1 Year Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	15.1%	15.0%	0.1%	0.1%	0.1%	0.1%
Total Non-US Equity	1.9%	3.0%	-1.1%	-0.2%	0.1%	-0.1%
Total Global Equity	10.9%	10.4%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	8.0%	7.0%	1.0%	0.2%	0.1%	0.3%
Total Real Estate	-1.4%	0.5%	-1.9%	-0.2%	0.0%	-0.2%
Total Real Assets	-8.1%	3.4%	-11.5%	-0.9%	-0.1%	-0.9%
Overlay	15.7%	0.8%	14.9%	0.6%	-0.4%	0.1%
Total Private Equity	6.6%	18.4%	-11.9%	-1.3%	-0.4%	-1.8%
Total	7.6%	10.0%	-2.4%	-1.7%	-0.7%	-2.4%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
3 Years Ending September 30, 2020



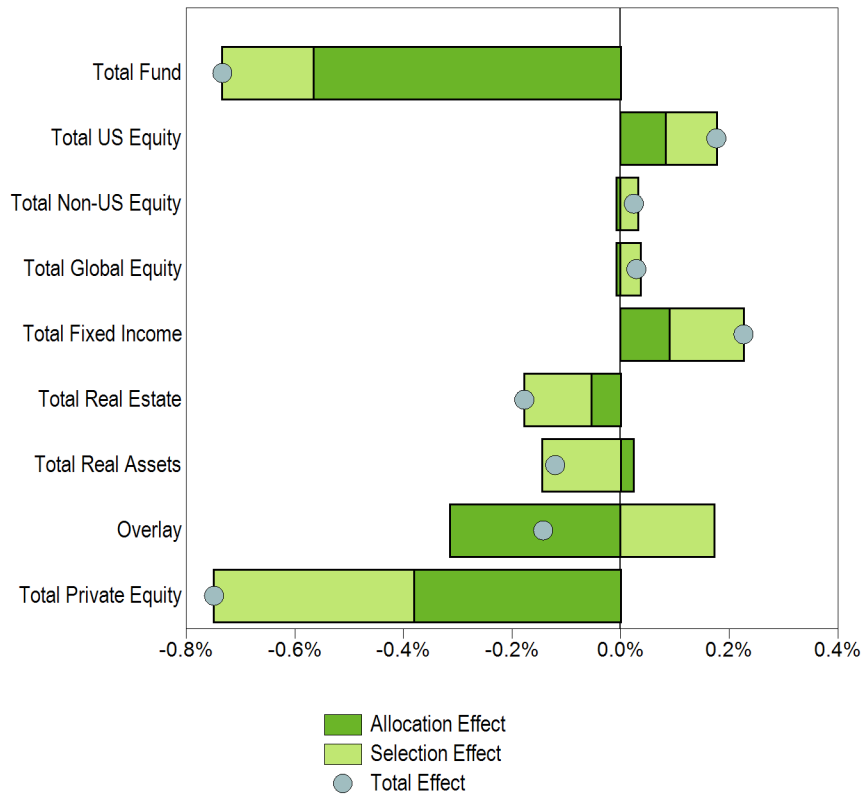
Attribution Summary						
3 Years Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	12.0%	11.6%	0.4%	0.1%	0.1%	0.2%
Total Non-US Equity	1.1%	1.2%	-0.1%	0.0%	0.0%	0.0%
Total Global Equity	7.5%	7.1%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	5.4%	5.2%	0.2%	0.0%	0.0%	0.1%
Total Real Estate	2.4%	4.3%	-1.8%	-0.1%	0.0%	-0.2%
Total Real Assets	-0.4%	5.0%	-5.4%	-0.4%	0.0%	-0.4%
Overlay	10.9%	1.6%	9.3%	0.2%	-0.2%	0.0%
Total Private Equity	12.8%	15.0%	-2.1%	-0.4%	-0.3%	-0.7%
Total	6.8%	7.9%	-1.1%	-0.5%	-0.5%	-1.1%



Ventura County Employees' Retirement Association

TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects
5 Years Ending September 30, 2020



Attribution Summary						
5 Years Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Total US Equity	14.0%	13.7%	0.3%	0.1%	0.1%	0.2%
Total Non-US Equity	6.5%	6.2%	0.3%	0.0%	0.0%	0.0%
Total Global Equity	10.7%	10.3%	0.4%	0.0%	0.0%	0.0%
Total Fixed Income	4.9%	4.2%	0.8%	0.1%	0.1%	0.2%
Total Real Estate	4.2%	5.7%	-1.5%	-0.1%	-0.1%	-0.2%
Total Real Assets	2.8%	5.4%	-2.5%	-0.1%	0.0%	-0.1%
Overlay	7.4%	1.1%	6.3%	0.1%	-0.3%	-0.2%
Total Private Equity	12.4%	17.1%	-4.7%	-0.4%	-0.4%	-0.7%
Total	8.7%	9.5%	-0.8%	-0.2%	-0.6%	-0.8%



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

1 Year Ending September 30, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.9%	10.4%	18	23.7%	88	-0.4%	24	1.0%	10	0.0	24	1.0
MSCI ACWI	--	10.4%	17	22.9%	72	0.0%	21	0.0%	1	--	--	1.0
Total US Equity	29.1%	15.1%	5	25.5%	86	-0.2%	14	0.7%	7	0.2	9	1.0
Russell 3000	--	15.0%	7	24.9%	77	0.0%	11	0.0%	1	--	--	1.0
Total Non-US Equity	14.9%	1.9%	84	21.8%	27	-1.1%	86	1.4%	11	-0.8	96	1.0
MSCI ACWI ex USA	--	3.0%	80	21.9%	28	0.0%	75	0.0%	1	--	--	1.0
Total Global Equity	10.8%	10.9%	9	22.9%	85	0.4%	19	0.2%	1	2.2	5	1.0
MSCI ACWI	--	10.4%	13	22.9%	86	0.0%	23	0.0%	1	--	--	1.0
Total Fixed Income	18.7%	8.0%	7	4.5%	50	0.5%	18	2.7%	55	0.4	27	1.1
Total Fixed Income Policy Index	--	7.0%	35	3.3%	29	0.0%	31	0.0%	1	--	--	1.0
Total US Fixed Income	15.1%	8.9%	7	5.9%	86	0.2%	19	4.2%	85	0.5	22	1.3
BBgBarc US Aggregate TR	--	7.0%	32	3.3%	43	0.0%	25	0.0%	1	--	--	1.0
Total Real Assets	7.1%	-8.1%	--	19.3%	--	-6.0%	--	19.5%	--	-0.6	--	-1.1
Real Assets Index	--	3.4%	--	1.2%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.0%	-1.4%	66	2.6%	42
NCREIF ODCE Net	--	0.5%	27	2.4%	36
Total Private Equity	9.1%	6.6%	41	10.1%	35
Russell 3000 + 3%	--	18.4%	9	24.9%	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 89 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 164 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 110 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 48 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 91 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 96 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 54 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 45 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

3 Years Ending September 30, 2020												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.9%	8.0%	22	17.3%	67	0.8%	15	0.9%	10	1.0	7	1.0
MSCI ACWI	--	7.1%	49	16.9%	50	0.0%	27	0.0%	1	--	--	1.0
Total US Equity	29.1%	12.0%	7	18.7%	65	0.3%	7	0.5%	5	0.8	4	1.0
Russell 3000	--	11.6%	10	18.4%	56	0.0%	10	0.0%	1	--	--	1.0
Total Non-US Equity	14.9%	1.1%	63	15.9%	19	-0.1%	59	1.1%	7	-0.1	68	1.0
MSCI ACWI ex USA	--	1.2%	61	16.2%	27	0.0%	58	0.0%	1	--	--	1.0
Total Global Equity	10.8%	7.5%	8	16.9%	77	0.4%	37	0.1%	1	3.2	1	1.0
MSCI ACWI	--	7.1%	26	16.9%	77	0.0%	62	0.0%	1	--	--	1.0
Total Fixed Income	18.7%	5.4%	15	3.5%	41	0.5%	19	1.6%	44	0.1	24	0.9
Total Fixed Income Policy Index	--	5.2%	24	3.4%	34	0.0%	55	0.0%	1	--	--	1.0
Total US Fixed Income	15.1%	5.6%	11	4.1%	84	0.5%	14	2.5%	84	0.2	27	1.0
BBgBarc US Aggregate TR	--	5.2%	27	3.4%	56	0.0%	53	0.0%	1	--	--	1.0
Total Real Assets	7.1%	-0.4%	--	13.0%	--	-4.9%	--	13.0%	--	-0.4	--	0.9
Real Assets Index	--	5.0%	--	1.0%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.0%	2.4%	94	3.0%	53
NCREIF ODCE Net	--	4.3%	66	2.6%	41
Total Private Equity	9.1%	12.8%	37	7.2%	33
Russell 3000 + 3%	--	15.0%	31	18.4%	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 86 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 161 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 106 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 42 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 89 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 94 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 45 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

5 Years Ending September 30, 2020

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Tracking Error	Rank	Info Ratio	Rank	Beta
Total Equity	54.9%	11.3%	12	14.6%	64	0.9%	12	1.1%	11	0.9	2	1.0
MSCI ACWI	--	10.3%	45	14.4%	53	0.0%	32	0.0%	1	--	--	1.0
Total US Equity	29.1%	14.0%	7	15.6%	57	0.2%	5	0.4%	3	0.7	2	1.0
Russell 3000	--	13.7%	8	15.5%	49	0.0%	6	0.0%	1	--	--	1.0
Total Non-US Equity	14.9%	6.5%	55	14.1%	20	0.4%	42	1.1%	6	0.3	38	1.0
MSCI ACWI ex USA	--	6.2%	69	14.5%	30	0.0%	57	0.0%	1	--	--	1.0
Total Global Equity	10.8%	10.7%	3	14.4%	73	0.4%	61	0.5%	1	0.7	7	1.0
MSCI ACWI	--	10.3%	9	14.4%	77	0.0%	78	0.0%	1	--	--	1.0
Total Fixed Income	18.7%	4.9%	31	3.2%	36	1.2%	28	1.7%	45	0.5	14	0.9
Total Fixed Income Policy Index	--	4.2%	60	3.2%	35	0.0%	75	0.0%	1	--	--	1.0
Total US Fixed Income	15.1%	5.1%	13	3.6%	83	1.2%	13	2.2%	84	0.4	21	0.9
BBgBarc US Aggregate TR	--	4.2%	44	3.2%	60	0.0%	74	0.0%	1	--	--	1.0
Total Real Assets	7.1%	2.8%	--	11.3%	--	-5.8%	--	11.2%	--	-0.2	--	1.8
Real Assets Index	--	5.4%	--	1.0%	--	0.0%	--	0.0%	--	--	--	1.0

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Total Real Estate	7.0%	4.2%	95	3.0%	43
NCREIF ODCE Net	--	5.7%	75	3.0%	42
Total Private Equity	9.1%	12.4%	37	6.4%	32
Russell 3000 + 3%	--	17.1%	15	15.5%	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 79 portfolios), Total US Equity (InvMetrics Public DB US Eq consists of 149 portfolios), Total Non-US Equity (InvMetrics Public DB ex-US Eq consists of 98 portfolios), Total Global Equity (InvMetrics Public DB Gbl Eq consists of 35 portfolios), Total Fixed Income (InvMetrics Public DB Total Fix Inc consists of 83 portfolios), Total US Fixed Income (InvMetrics Public DB US Fix Inc consists of 92 portfolios), Total Real Estate (InvMetrics Public DB Real Estate Pub+Priv consists of 52 portfolios) and Total Private Equity (InvMetrics Public DB Private Eq consists of 42 portfolios).



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Fund	6,276,976,535	100.0	100.0	5.8	15	2.3	32	7.6	28	6.8	18	8.7	18	8.4	18	7.9	Apr-94
Policy Index				5.9	12	3.6	9	10.0	3	7.9	5	9.5	5	8.8	10	8.1	Apr-94
Over/Under				-0.1		-1.3		-2.4		-1.1		-0.8		-0.4		-0.2	
60% MSCI ACWI (Net) / 40% FTSE WGBI				6.1	8	4.2	6	9.6	6	6.4	31	8.0	39	6.1	98	6.5	Apr-94
60% S&P 500 / 40% BBgBarc Aggregate				5.6	17	6.7	1	12.5	1	9.8	1	10.4	1	9.8	1	8.5	Apr-94
InvMetrics Public DB > \$1B Net Median				5.0		0.8		6.0		5.5		7.5		7.4		7.4	Apr-94
Total Fund ex Parametric	6,171,683,367	98.3	--	5.6	--	1.9	--	7.1	--	6.5	--	8.5	--	8.3	--	7.9	Apr-94
Total Fund ex Private Equity	5,704,240,023	90.9	--	5.6	21	1.9	36	7.7	27	6.5	29	8.5	22	--	--	8.3	Jan-12
Policy Index				5.9	12	3.6	9	10.0	3	7.9	5	9.5	5	8.8	10	9.2	Jan-12
Over/Under				-0.3		-1.7		-2.3		-1.4		-1.0		-0.9		-0.9	
InvMetrics Public DB > \$1B Net Median				5.0		0.8		6.0		5.5		7.5		7.4		7.8	Jan-12
Total US Equity	1,828,652,243	29.1	25.0	9.4	3	5.5	6	15.1	5	12.0	7	14.0	7	13.7	5	9.5	Dec-93
Russell 3000				9.2	4	5.4	8	15.0	7	11.6	10	13.7	8	13.5	6	9.8	Dec-93
Over/Under				0.2		0.1		0.1		0.4		0.3		0.2		-0.3	
InvMetrics Public DB US Eq Net Median				7.9		1.5		9.8		9.7		12.3		12.4		9.3	Dec-93
Western U.S. Index Plus	260,993,898	4.2		10.1	27	3.8	44	13.5	40	11.9	37	14.4	28	14.4	27	6.8	May-07
S&P 500				8.9	40	5.6	39	15.1	37	12.3	36	14.1	30	13.7	31	8.3	May-07
Over/Under				1.2		-1.8		-1.6		-0.4		0.3		0.7		-1.5	
eV US Large Cap Equity Net Median				7.8		1.5		9.6		9.4		11.5		12.2		7.8	May-07
Blackrock Russell 1000 Index	1,501,161,703	23.9		9.5	33	6.4	36	16.0	36	12.4	35	--	--	--	--	12.9	May-17
Russell 1000				9.5	33	6.4	36	16.0	36	12.4	36	14.1	30	13.8	31	12.9	May-17
Over/Under				0.0		0.0		0.0		0.0						0.0	
eV US Large Cap Equity Net Median				7.8		1.5		9.6		9.4		11.5		12.2		10.1	May-17
Blackrock Russell 2500 Index	66,496,641	1.1		5.9	49	-5.8	48	2.2	46	4.5	51	--	--	--	--	5.8	May-17
Russell 2500				5.9	49	-5.8	48	2.2	46	4.5	51	9.0	43	10.8	41	5.7	May-17
Over/Under				0.0		0.0		0.0		0.0						0.1	
eV US Small-Mid Cap Equity Net Median				5.4		-7.0		-0.2		4.7		8.0		10.1		5.8	May-17

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

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

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



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Non-US Equity	935,529,593	14.9	16.0	6.6	77	-6.6	85	1.9	84	1.1	63	6.5	55	4.5	64	6.0	Mar-94
MSCI ACWI ex USA				6.3	85	-5.4	74	3.0	80	1.2	61	6.2	69	4.0	87	4.9	Mar-94
Over/Under				0.3		-1.2		-1.1		-0.1		0.3		0.5		1.1	
MSCI EAFE				4.8	98	-7.1	89	0.5	90	0.6	79	5.3	89	4.6	57	4.5	Mar-94
MSCI ACWI ex USA NR LCL				3.5	99	-5.8	76	0.0	94	2.3	27	6.4	62	6.2	12	--	Mar-94
MSCI EAFE NR LCL				1.2	99	-9.4	97	-4.7	99	0.6	80	4.8	96	6.3	8	4.5	Mar-94
InvMetrics Public DB ex-US Eq Net Median				7.4		-4.1		5.4		1.5		6.6		4.7		5.6	Mar-94
BlackRock ACWI ex-U.S. Index	484,930,595	7.7		6.8	69	-5.1	72	3.6	70	1.3	70	6.5	71	4.4	80	2.6	Mar-07
MSCI ACWI ex USA IMI				6.8	68	-5.2	72	3.5	70	1.1	70	6.3	72	4.2	85	2.3	Mar-07
Over/Under				0.0		0.1		0.1		0.2		0.2		0.2		0.3	
MSCI ACWI ex USA NR LCL				3.5	88	-5.8	73	0.0	75	2.3	66	6.4	71	6.2	58	3.2	Mar-07
eV ACWI ex-US All Cap Equity Net Median				9.1		1.3		11.7		5.0		8.7		6.7		4.3	Mar-07
Sprucegrove	201,835,645	3.2		5.6	78	-16.4	94	-8.1	94	-3.7	88	4.2	83	3.6	88	6.0	Mar-02
MSCI ACWI ex USA				6.3	73	-5.4	73	3.0	71	1.2	70	6.2	73	4.0	86	5.9	Mar-02
Over/Under				-0.7		-11.0		-11.1		-4.9		-2.0		-0.4		0.1	
MSCI EAFE				4.8	83	-7.1	75	0.5	75	0.6	74	5.3	76	4.6	79	5.4	Mar-02
MSCI ACWI ex USA NR LCL				3.5	88	-5.8	73	0.0	75	2.3	66	6.4	71	6.2	58	5.0	Mar-02
MSCI EAFE NR LCL				1.2	99	-9.4	79	-4.7	87	0.6	74	4.8	78	6.3	55	4.0	Mar-02
eV ACWI ex-US All Cap Equity Net Median				9.1		1.3		11.7		5.0		8.7		6.7		6.8	Mar-02
Hexavest	86,219,259	1.4		3.6	76	-12.7	79	-6.4	86	-2.6	75	2.4	81	--	--	2.6	Dec-10
MSCI EAFE				4.8	66	-7.1	67	0.5	65	0.6	58	5.3	55	4.6	74	4.1	Dec-10
Over/Under				-1.2		-5.6		-6.9		-3.2		-2.9				-1.5	
MSCI EAFE NR LCL				1.2	98	-9.4	72	-4.7	77	0.6	59	4.8	62	6.3	41	5.8	Dec-10
eV EAFE All Cap Equity Net Median				6.0		-4.7		3.5		1.3		5.9		5.9		5.1	Dec-10
Walter Scott	162,544,093	2.6		9.0	51	8.2	29	17.5	31	10.4	11	12.7	14	--	--	7.4	Dec-10
MSCI ACWI ex USA				6.3	73	-5.4	73	3.0	71	1.2	70	6.2	73	4.0	86	3.4	Dec-10
Over/Under				2.7		13.6		14.5		9.2		6.5				4.0	
MSCI ACWI ex USA NR LCL				3.5	88	-5.8	73	0.0	75	2.3	66	6.4	71	6.2	58	5.7	Dec-10
MSCI EAFE				4.8	83	-7.1	75	0.5	75	0.6	74	5.3	76	4.6	79	4.1	Dec-10
eV ACWI ex-US All Cap Equity Net Median				9.1		1.3		11.7		5.0		8.7		6.7		6.0	Dec-10



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Global Equity	680,378,741	10.8	10.0	8.2	13	1.7	11	10.9	9	7.5	8	10.7	3	8.5	34	6.4	May-05
MSCI ACWI				8.1	14	1.4	15	10.4	13	7.1	26	10.3	9	8.5	32	7.0	May-05
Over/Under				0.1		0.3		0.5		0.4		0.4		0.0		-0.6	
InvMetrics Public DB Gbl Eq Net Median				7.3		-0.6		7.4		6.8		9.5		5.6		5.9	May-05
BlackRock MSCI ACWI Equity Index	680,378,741	10.8		8.2	44	1.7	47	10.9	45	7.5	43	10.8	37	--	--	10.0	Aug-12
MSCI ACWI				8.1	45	1.4	49	10.4	47	7.1	46	10.3	41	8.5	56	9.5	Aug-12
Over/Under				0.1		0.3		0.5		0.4		0.5		0.5		0.5	
eV All Global Equity Net Median				7.6		0.8		9.2		6.1		9.1		8.8		9.5	Aug-12



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Private Equity	572,736,512	9.1	15.0	7.9	46	8.4	21	6.6	41	12.8	37	12.4	37	--	--	13.8	Jan-12
<i>Russell 3000 + 3%</i>				<u>10.0</u>	36	<u>7.8</u>	24	<u>18.4</u>	9	<u>15.0</u>	31	<u>17.1</u>	15	<u>16.9</u>	3	<u>17.4</u>	<i>Jan-12</i>
Over/Under				-2.1		0.6		-11.8		-2.2		-4.7				-3.6	
<i>CJA Global All PE (Qtr Lag)</i>				10.1	36	5.0	39	5.5	46	11.1	52	10.3	54	12.5	39	12.0	<i>Jan-12</i>
<i>InvMetrics Public DB Private Eq Net Median</i>				7.1		2.9		5.0		11.3		11.3		11.2		11.6	<i>Jan-12</i>
Adams Street Global Fund Series	189,816,647	3.0		11.4	--	14.1	--	7.8	--	14.1	--	12.1	--	--	--	13.0	Jan-12
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>17.4</u>	<i>Jan-12</i>
Over/Under				1.4		6.3		-10.6		-0.9		-5.0				-4.4	
Harbourvest	103,795,471	1.7		2.4	--	-2.4	--	-2.6	--	10.7	--	12.6	--	--	--	16.2	Aug-13
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>15.3</u>	<i>Aug-13</i>
Over/Under				-7.6		-10.2		-21.0		-4.3		-4.5				0.9	
Pantheon Global Secondary Funds	42,649,069	0.7		3.8	--	-3.0	--	-2.6	--	5.1	--	9.9	--	--	--	10.2	Jan-12
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>17.4</u>	<i>Jan-12</i>
Over/Under				-6.2		-10.8		-21.0		-9.9		-7.2				-7.2	
Drive Capital Fund II	19,869,229	0.3		-1.1	--	12.2	--	14.7	--	17.6	--	--	--	--	--	-5.7	Sep-16
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>16.5</u>	<i>Sep-16</i>
Over/Under				-11.1		4.4		-3.7		2.6						-22.2	
Abbott Secondary Opportunities	18,221,037	0.3		16.9	--	30.6	--	28.3	--	--	--	--	--	--	--	23.7	Jan-18
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>13.6</u>	<i>Jan-18</i>
Over/Under				6.9		22.8		9.9								10.1	
Clearlake Capital Partners V	11,054,580	0.2		15.5	--	12.4	--	28.0	--	--	--	--	--	--	--	35.5	Mar-18
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>13.7</u>	<i>Mar-18</i>
Over/Under				5.5		4.6		9.6								21.8	
Battery Ventures XII	14,808,493	0.2		1.3	--	10.9	--	12.0	--	--	--	--	--	--	--	3.0	Apr-18
<i>Russell 3000 + 3%</i>				<u>10.0</u>	--	<u>7.8</u>	--	<u>18.4</u>	--	<u>15.0</u>	--	<u>17.1</u>	--	<u>16.9</u>	--	<u>15.0</u>	<i>Apr-18</i>
Over/Under				-8.7		3.1		-6.4								-12.0	

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

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

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



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Insight Venture Partners X	30,583,389	0.5		12.3	--	14.7	--	23.1	--	--	--	--	--	--	--	11.9	May-18
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	15.2	May-18
Over/Under				2.3		6.9		4.7								-3.3	
GTCR Fund XII	19,418,236	0.3		27.3	--	33.6	--	15.1	--	--	--	--	--	--	--	-18.1	Jun-18
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	14.3	Jun-18
Over/Under				17.3		25.8		-3.3								-32.4	
Buenaventure One, LLC	50,710,625	0.8		3.7	--	4.3	--	4.5	--	--	--	--	--	--	--	4.5	Jul-18
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	14.4	Jul-18
Over/Under				-6.3		-3.5		-13.9								-9.9	
ECI 11	4,471,106	0.1		20.2	--	7.2	--	21.1	--	--	--	--	--	--	--	20.2	Dec-18
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	16.4	Dec-18
Over/Under				10.2		-0.6		2.7								3.8	
The Resolute Fund IV L.P.	14,443,184	0.2		10.8	--	15.9	--	39.6	--	--	--	--	--	--	--	53.0	Jan-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	23.8	Jan-19
Over/Under				0.8		8.1		21.2								29.2	
GGV Capital VII L.P.	5,064,958	0.1		2.9	--	5.7	--	-13.0	--	--	--	--	--	--	--	-11.6	Feb-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	19.0	Feb-19
Over/Under				-7.1		-2.1		-31.4								-30.6	
GGV Discovery II, L.P.	1,052,191	0.0		3.8	--	7.8	--	11.5	--	--	--	--	--	--	--	3.0	Feb-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	19.0	Feb-19
Over/Under				-6.2		0.0		-6.9								-16.0	
Drive Capital Overdrive Fund I	3,900,390	0.1		0.0	--	-1.9	--	-5.4	--	--	--	--	--	--	--	-3.9	May-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	14.7	May-19
Over/Under				-10.0		-9.7		-23.8								-18.6	
Riverside Micro Cap Fund V, LP	2,923,546	0.0		-1.0	--	-8.6	--	-7.7	--	--	--	--	--	--	--	-26.0	May-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	14.7	May-19
Over/Under				-11.0		-16.4		-26.1								-40.7	
GGV Capital VII Plus, LP	1,435,002	0.0		4.5	--	4.4	--	4.8	--	--	--	--	--	--	--	3.6	Jun-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	21.4	Jun-19
Over/Under				-5.5		-3.4		-13.6								-17.8	
Astorg VII L.P.	983,147	0.0		28.1	--	26.9	--	0.9	--	--	--	--	--	--	--	-25.8	Jul-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	16.2	Jul-19
Over/Under				18.1		19.1		-17.5								-42.0	

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Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
M/C Partners Fund VIII LP, Limited Partnership	2,705,599	0.0		11.4	--	-33.8	--	-43.8	--	--	--	--	--	--	--	-38.8	Jul-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	16.2	Jul-19
Over/Under				1.4		-41.6		-62.2								-55.0	
Genstar Capital Partners IX	2,886,819	0.0		10.6	--	10.4	--	12.9	--	--	--	--	--	--	--	--	Aug-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	15.8	Aug-19
Over/Under				0.6		2.6		-5.5									
Genstar IX Opportunities Fund I	1,517,085	0.0		6.9	--	6.2	--	5.9	--	--	--	--	--	--	--	5.0	Aug-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	15.8	Aug-19
Over/Under				-3.1		-1.6		-12.5								-10.8	
ABRY Partners IX, LP	4,601,974	0.1		13.8	--	-22.4	--	-17.1	--	--	--	--	--	--	--	-32.0	Sep-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	19.0	Sep-19
Over/Under				3.8		-30.2		-35.5								-51.0	
Advent International GPE IX LP	3,847,073	0.1		19.9	--	16.3	--	-25.0	--	--	--	--	--	--	--	9.3	Nov-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	15.6	Nov-19
Over/Under				9.9		8.5		-43.4								-6.3	
Drive Capital Fund III LP	532,664	0.0		0.0	--	-17.4	--	--	--	--	--	--	--	--	--	-17.4	Dec-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	11.1	Dec-19
Over/Under				-10.0		-25.2		--								-28.5	
Oak HC/FT Partners III LP	6,011,983	0.1		-2.0	--	-13.0	--	--	--	--	--	--	--	--	--	-13.0	Dec-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	11.1	Dec-19
Over/Under				-12.0		-20.8		--								-24.1	
TA XIII A LP	3,977,916	0.1		15.2	--	-3.4	--	--	--	--	--	--	--	--	--	-3.4	Dec-19
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	7.8	Dec-19
Over/Under				5.2		-11.2		--								-11.2	
Dover Street X, LP	3,868,260	0.1		-0.4	--	--	--	--	--	--	--	--	--	--	--	-11.4	Feb-20
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	7.6	Feb-20
Over/Under				-10.4		--		--								-19.0	
Hellman & Friedman CP IX	4,178,368	0.1		19.7	--	--	--	--	--	--	--	--	--	--	--	-7.9	Apr-20
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	35.2	Apr-20
Over/Under				9.7		--		--								-43.1	
Clearlake Capital Partners VI	2,545,879	0.0		0.0	--	--	--	--	--	--	--	--	--	--	--	0.0	Jun-20
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	12.8	Jun-20
Over/Under				-10.0		--		--								-12.8	
Flexpoint Fund IV	350,363	0.0		26.9	--	--	--	--	--	--	--	--	--	--	--	26.9	Jun-20
Russell 3000 + 3%				10.0	--	7.8	--	18.4	--	15.0	--	17.1	--	16.9	--	12.8	Jun-20
Over/Under				16.9		--		--								14.1	



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total US Fixed Income	946,707,461	15.1	15.0	1.9	15	8.2	9	8.9	7	5.6	11	5.1	13	4.5	22	5.9	Feb-94
BBgBarc US Aggregate TR				0.6	87	6.8	31	7.0	32	5.2	27	4.2	44	3.6	49	5.4	Feb-94
Over/Under				1.3		1.4		1.9		0.4		0.9		0.9		0.5	
InvMetrics Public DB US Fix Inc Net Median				0.9		6.1		6.5		4.6		3.9		3.5		5.7	Feb-94
BlackRock U.S. Debt Fund	178,123,052	2.8		0.6	76	6.9	23	7.1	27	5.3	26	4.2	45	3.7	53	5.3	Nov-95
BBgBarc US Aggregate TR				0.6	77	6.8	24	7.0	27	5.2	27	4.2	46	3.6	54	5.2	Nov-95
Over/Under				0.0		0.1		0.1		0.1		0.0		0.1		0.1	
eV All US Fixed Inc Net Median				1.3		3.8		4.6		4.1		4.0		3.8		5.0	Nov-95
Western	302,547,579	4.8		1.8	34	8.5	12	9.1	12	6.3	14	5.6	23	5.1	27	6.2	Dec-96
BBgBarc US Aggregate TR				0.6	77	6.8	24	7.0	27	5.2	27	4.2	46	3.6	54	5.2	Dec-96
Over/Under				1.2		1.7		2.1		1.1		1.4		1.5		1.0	
eV All US Fixed Inc Net Median				1.3		3.8		4.6		4.1		4.0		3.8		5.1	Dec-96
Reams	332,910,745	5.3		2.2	28	8.4	12	9.4	11	5.2	29	4.7	33	4.0	44	5.4	Sep-01
Reams Custom Index				0.1	97	0.6	85	1.0	90	1.9	94	1.5	95	1.8	86	3.6	Sep-01
Over/Under				2.1		7.8		8.4		3.3		3.2		2.2		1.8	
BBgBarc US Aggregate TR				0.6	77	6.8	24	7.0	27	5.2	27	4.2	46	3.6	54	4.6	Sep-01
3-Month LIBOR + 3%				0.8	69	2.8	63	4.1	56	4.9	33	4.5	38	3.9	47	4.8	Sep-01
eV All US Fixed Inc Net Median				1.3		3.8		4.6		4.1		4.0		3.8		4.6	Sep-01
Loomis Strategic Alpha	46,185,548	0.7		3.2	19	6.0	34	6.8	30	3.8	56	3.9	52	--	--	3.2	Jul-13
BBgBarc US Aggregate TR				0.6	77	6.8	24	7.0	27	5.2	27	4.2	46	3.6	54	3.9	Jul-13
Over/Under				2.6		-0.8		-0.2		-1.4		-0.3				-0.7	
3-Month LIBOR + 3%				0.8	69	2.8	63	4.1	56	4.9	33	4.5	38	3.9	47	4.1	Jul-13
eV All US Fixed Inc Net Median				1.3		3.8		4.6		4.1		4.0		3.8		3.7	Jul-13
Loomis Sayles Multi Strategy	86,940,537	1.4		2.7	23	7.9	14	9.4	11	5.7	20	6.3	15	6.0	17	6.5	Jul-05
Loomis Custom Index				1.9	33	4.8	44	5.8	40	4.9	34	4.9	31	4.4	36	5.2	Jul-05
Over/Under				0.8		3.1		3.6		0.8		1.4		1.6		1.3	
BBgBarc US Govt/Credit TR				0.8	70	8.0	14	8.0	17	5.9	17	4.7	35	3.9	49	4.6	Jul-05
eV All US Fixed Inc Net Median				1.3		3.8		4.6		4.1		4.0		3.8		4.4	Jul-05

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

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

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



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Treasuries	94,100,803	1.5	2.0	0.6	--	13.4	--	10.9	--	--	--	--	--	--	--	12.7	Apr-19
Reams 10-Year Treasuries	94,100,803	1.5		0.6	--	13.4	--	10.9	--	--	--	--	--	--	--	12.7	Apr-19
BBgBarc US Treasury 7-10 Yr TR				0.3	--	11.4	--	10.1	--	6.8	--	4.5	--	4.2	--	11.4	Apr-19
Over/Under				0.3		2.0		0.8								1.3	
Private Debt	133,900,162	2.1	3.0	2.9	--	-2.4	--	-0.3	--	--	--	--	--	--	--	3.8	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	5.4	Jan-18
Over/Under				-1.7		-3.4		-3.8								-1.6	
CVI Credit Value Fund	29,920,090	0.5		11.9	--	-1.9	--	0.0	--	--	--	--	--	--	--	3.5	Jan-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	5.4	Jan-18
Over/Under				7.3		-2.9		-3.5								-1.9	
Monroe Capital Private Credit Fund III	17,370,090	0.3		6.1	--	5.9	--	8.8	--	--	--	--	--	--	--	9.3	Dec-18
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	6.5	Dec-18
Over/Under				1.5		4.9		5.3								2.8	
Bluebay Direct Lending Fund III	7,804,729	0.1		4.7	--	4.7	--	9.0	--	--	--	--	--	--	--	8.5	Apr-19
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	5.3	Apr-19
Over/Under				0.1		3.7		5.5								3.2	
Pimco Private Income Fund	54,407,427	0.9		0.0	--	0.3	--	0.3	--	--	--	--	--	--	--	0.3	Nov-19
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	3.5	Nov-19
Over/Under				-4.6		-0.7		-3.2								-3.2	
Bridge Debt Strategies III Limited Partner	20,103,252	0.3		-3.4	--	-14.7	--	--	--	--	--	--	--	--	--	-14.7	Jan-20
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	1.0	Jan-20
Over/Under				-8.0		-15.7		--								-15.7	
PIMCO Corp Opps Fund III	4,294,574	0.1		0.0	--	--	--	--	--	--	--	--	--	--	--	15.5	May-20
50% BofA ML US HY BB-B Constrained Index/ 50% Credit Suisse Leveraged Loan Index +150bps				4.6	--	1.0	--	3.5	--	--	--	--	--	--	--	10.3	May-20
Over/Under				-4.6		--		--								5.2	



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Estate	440,162,625	7.0	8.0	-0.1	74	-1.8	58	-1.4	66	2.4	94	4.2	95	8.0	86	7.2	Mar-94
<i>NCREIF ODCE Net</i>				<i>0.3</i>	<i>32</i>	<i>-0.7</i>	<i>22</i>	<i>0.5</i>	<i>27</i>	<i>4.3</i>	<i>66</i>	<i>5.7</i>	<i>75</i>	<i>9.3</i>	<i>59</i>	<i>7.7</i>	<i>Mar-94</i>
<i>Over/Under</i>				<i>-0.4</i>		<i>-1.1</i>		<i>-1.9</i>		<i>-1.9</i>		<i>-1.5</i>		<i>-1.3</i>		<i>-0.5</i>	
<i>InvMetrics Public DB Real Estate Pub+Priv Net Median</i>				<i>0.1</i>		<i>-1.2</i>		<i>0.1</i>		<i>4.7</i>		<i>6.4</i>		<i>9.6</i>		<i>8.4</i>	<i>Mar-94</i>
Prudential Real Estate	166,741,842	2.7		0.4	--	0.7	--	1.9	--	5.5	--	6.6	--	10.3	--	6.0	Jun-04
<i>NCREIF ODCE Net</i>				<i>0.3</i>	<i>--</i>	<i>-0.7</i>	<i>--</i>	<i>0.5</i>	<i>--</i>	<i>4.3</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>9.3</i>	<i>--</i>	<i>6.6</i>	<i>Jun-04</i>
<i>Over/Under</i>				<i>0.1</i>		<i>1.4</i>		<i>1.4</i>		<i>1.2</i>		<i>0.9</i>		<i>1.0</i>		<i>-0.6</i>	
<i>NCREIF ODCE</i>				<i>0.5</i>	<i>--</i>	<i>-0.1</i>	<i>--</i>	<i>1.4</i>	<i>--</i>	<i>5.2</i>	<i>--</i>	<i>6.6</i>	<i>--</i>	<i>10.3</i>	<i>--</i>	<i>7.5</i>	<i>Jun-04</i>
UBS Real Estate	257,860,678	4.1		-0.4	--	-2.7	--	-2.8	--	0.8	--	2.9	--	6.7	--	6.2	Mar-03
<i>NCREIF ODCE Net</i>				<i>0.3</i>	<i>--</i>	<i>-0.7</i>	<i>--</i>	<i>0.5</i>	<i>--</i>	<i>4.3</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>9.3</i>	<i>--</i>	<i>6.8</i>	<i>Mar-03</i>
<i>Over/Under</i>				<i>-0.7</i>		<i>-2.0</i>		<i>-3.3</i>		<i>-3.5</i>		<i>-2.8</i>		<i>-2.6</i>		<i>-0.6</i>	
<i>NCREIF ODCE</i>				<i>0.5</i>	<i>--</i>	<i>-0.1</i>	<i>--</i>	<i>1.4</i>	<i>--</i>	<i>5.2</i>	<i>--</i>	<i>6.6</i>	<i>--</i>	<i>10.3</i>	<i>--</i>	<i>7.8</i>	<i>Mar-03</i>
LaSalle Income + Growth VIII Limited Partnership	15,560,105	0.2		0.0	--	--	--	--	--	--	--	--	--	--	--	-13.0	Mar-20
<i>NCREIF ODCE Net</i>				<i>0.3</i>	<i>--</i>	<i>-0.7</i>	<i>--</i>	<i>0.5</i>	<i>--</i>	<i>4.3</i>	<i>--</i>	<i>5.7</i>	<i>--</i>	<i>9.3</i>	<i>--</i>	<i>-0.7</i>	<i>Mar-20</i>
<i>Over/Under</i>				<i>-0.3</i>		<i>-0.3</i>		<i>-0.3</i>		<i>-0.3</i>		<i>-0.3</i>		<i>-0.3</i>		<i>-12.3</i>	
<i>NCREIF ODCE</i>				<i>0.5</i>	<i>--</i>	<i>-0.1</i>	<i>--</i>	<i>1.4</i>	<i>--</i>	<i>5.2</i>	<i>--</i>	<i>6.6</i>	<i>--</i>	<i>10.3</i>	<i>--</i>	<i>-0.1</i>	<i>Mar-20</i>

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



Ventura County Employees' Retirement Association

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Real Assets	442,584,937	7.1	6.0	1.2	--	-9.4	--	-8.1	--	-0.4	--	2.8	--	--	--	2.6	Apr-13
Real Assets Index				1.5	--	2.8	--	3.4	--	5.0	--	5.4	--	--	--	5.8	Apr-13
Over/Under				-0.3		-12.2		-11.5		-5.4		-2.6				-3.2	
Bridgewater All Weather Fund	353,219,025	5.6		4.2	--	1.3	--	3.9	--	5.4	--	6.5	--	--	--	5.2	Aug-13
CPI + 5% (Unadjusted)				2.2	--	5.1	--	6.4	--	6.9	--	6.9	--	--	--	6.6	Aug-13
Over/Under				2.0		-3.8		-2.5		-1.5		-0.4			-1.4		
Tortoise Energy Infrastructure	63,189,379	1.0		-15.7	--	-44.2	--	-45.2	--	-19.7	--	-9.8	--	--	--	-7.7	Apr-13
Tortoise MLP Index				-13.8	--	-44.3	--	-46.0	--	-19.1	--	-10.7	--	--	--	-9.9	Apr-13
Over/Under				-1.9		0.1		0.8		-0.6		0.9			2.2		
Brookfield Infra Fund IV B LP	21,536,425	0.3		-5.6	--	--	--	--	--	--	--	--	--	--	--	-5.6	Apr-20
CPI + 2% (Unadjusted)				1.5	--	2.8	--	3.4	--	3.8	--	3.8	--	3.8	--	1.8	Apr-20
Over/Under				-7.1											-7.4		
Harbourvest Real Assets Fund IV L.P.	4,640,108	0.1															
CPI + 2% (Unadjusted)				1.5	--	2.8	--	3.4	--	3.8	--	3.8	--	3.8	--	3.4	Sep-19
Over/Under																	
Overlay	202,223,457	3.2	0.0														
Parametric	105,293,167	1.7															
Abbott Capital Cash	96,930,289	1.5															

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



VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION PRIVATE EQUITY LIMITED PARTNERSHIP PERFORMANCE

Fund Name	Vintage Year	Initial Investment Date	Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Add'l Fees ²	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
													Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
Abbott Secondary Opportunities, LP.	2017	12/21/2017	\$25,000,000	\$22,922,933	\$2,439,784	92%	--	\$12,125,000	\$18,221,039	\$30,346,039	\$7,423,106	22.1%	0.53x	1.32x
Abbott Secondary Opportunities II, LP.	2020	01/31/2020	\$25,000,000	--	\$25,000,000	--	--	--	--	--	--	--	--	--
ABRY Partners IX	2019	12/06/2018	\$10,600,000	\$5,421,607	\$5,178,393	51%	--	--	\$4,601,972	\$4,601,972	(\$819,635)	-22.2%	--	0.85x
Adams Street 2010 U.S. Fund	2010	05/21/2010	\$42,500,000	\$37,442,500	\$5,057,500	88%	\$15,213	\$40,599,892	\$29,961,943	\$70,561,835	\$33,104,122	14.0%	1.08x	1.88x
Adams Street 2010 Non-U.S. Dev. Mkts Fund	2010	05/21/2010	\$25,500,000	\$22,325,249	\$3,174,751	88%	\$1,589	\$21,963,688	\$15,135,062	\$37,098,750	\$14,771,912	11.9%	0.98x	1.66x
Adams Street 2010 Non-U.S. Emg Mkts Fund	2010	01/03/2011	\$8,500,000	\$7,633,000	\$867,000	90%	--	\$3,564,439	\$9,598,597	\$13,163,036	\$5,530,036	10.3%	0.47x	1.72x
Adams Street 2010 Direct Fund	2010	05/21/2010	\$8,500,000	\$8,168,500	\$331,500	96%	\$6,897	\$10,372,022	\$4,015,478	\$14,387,500	\$6,212,303	12.0%	1.27x	1.76x
Adams Street 2013 Global Fund	2013	06/27/2013	\$75,000,000	\$61,350,000	\$13,650,000	82%	\$10,728	\$20,799,168	\$75,750,503	\$96,549,671	\$35,188,943	11.2%	0.34x	1.57x
Adams Street 2016 Global Fund	2016	12/22/2016	\$60,000,000	\$37,380,000	\$22,620,000	62%	--	\$4,801,064	\$41,494,405	\$46,295,469	\$8,915,469	11.7%	0.13x	1.24x
Adams Street Co-Investment Fund IV A	2018	09/24/2018	\$30,000,000	\$12,814,931	\$17,280,000	43%	\$67,808	--	\$13,892,837	\$13,892,837	\$1,010,098	7.2%	--	1.08x
Advent International GPE IX	2019	05/23/2019	\$10,000,000	\$3,525,001	\$6,474,999	35%	--	--	\$3,847,075	\$3,847,075	\$322,074	16.9%	--	1.09x
Astorg VII	2019	12/17/2018	\$8,971,023	\$994,514	\$7,976,509	11%	--	--	\$838,398	\$838,398	(\$156,116)	-16.4%	--	0.84x
Battery Ventures XII	2018	02/01/2018	\$9,050,000	\$7,337,740	\$1,712,260	81%	--	--	\$8,161,041	\$8,161,041	\$823,301	7.8%	--	1.11x
Battery Ventures XII Side Fund	2018	02/01/2018	\$5,050,000	\$4,318,255	\$731,745	86%	--	--	\$5,247,613	\$5,247,613	\$929,358	14.1%	--	1.22x
Battery Ventures XIII	2020	02/11/2020	\$9,240,000	\$1,053,360	\$8,186,640	11%	--	--	\$969,396	\$969,396	(\$83,964)	-26.4%	--	0.92x
Battery Ventures XIII Side Fund	2020	02/11/2020	\$6,160,000	\$441,056	\$5,718,944	7%	--	--	\$430,443	\$430,443	(\$10,613)	-9.8%	--	0.98x
Buenaventure One, LLC	2018	01/05/2018	\$140,134,500	\$48,055,590	\$92,078,910	34%	--	\$403,156	\$50,710,636	\$51,113,792	\$3,058,202	5.3%	0.01x	1.06x
CapVest Equity Partners IV	2019	07/11/2018	\$12,904,983	--	\$12,904,983	--	--	--	(\$238,468)	(\$238,468)	--	--	--	--
Clearlake Capital Partners V	2017	12/22/2017	\$9,950,000	\$9,163,056	\$2,180,279	92%	\$46,158	\$2,797,682	\$11,054,583	\$13,852,265	\$4,643,051	36.1%	0.31x	1.51x
Clearlake Capital Partners VI	2020	01/02/2020	\$18,700,000	\$2,567,768	\$16,133,244	14%	--	\$21,889	\$2,481,882	\$2,503,771	(\$63,997)	-11.3%	0.01x	0.98x
CRV XVIII	2020	07/02/2020	\$15,000,000	--	\$15,000,000	--	--	--	--	--	--	--	--	--
CVC Capital Partners VIII	2020	05/22/2020	\$21,537,568	--	\$21,537,568	--	--	--	--	--	--	--	--	--
Drive Capital Fund II	2016	09/01/2016	\$15,000,000	\$13,745,372	\$1,257,838	92%	\$3,210	--	\$19,869,234	\$19,869,234	\$6,120,652	20.2%	--	1.45x
Drive Capital Fund III	2019	04/05/2019	\$7,500,000	\$6,100,963	\$6,889,037	8%	--	--	\$493,726	\$493,726	(\$117,237)	-35.5%	--	0.81x
Drive Capital Overdrive Fund I	2019	04/05/2019	\$7,500,000	\$4,077,488	\$3,422,512	54%	--	--	\$3,939,187	\$3,939,187	(\$138,301)	-3.7%	--	0.97x
ECJ 11	2018	07/05/2018	\$9,597,809	\$3,715,640	\$5,882,169	39%	--	--	\$3,458,468	\$3,458,468	(\$257,172)	-6.3%	--	0.93x
Flexpoint Fund IV-A	2019	07/02/2019	\$10,650,000	\$473,559	\$10,176,441	4%	--	--	\$350,363	\$350,363	(\$123,196)	-52.2%	--	0.74x
Flexpoint Overage Fund IV-A	2019	07/02/2019	\$3,550,000	--	\$3,550,000	--	--	--	(\$4,471)	(\$4,471)	--	--	--	--
Genstar Capital Partners IX	2019	02/21/2019	\$7,500,000	\$2,860,529	\$4,786,495	38%	--	\$147,024	\$2,886,819	\$3,033,843	\$173,314	10.0%	0.05x	1.06x
Genstar Capital Partners IX Opportunities Program	2019	02/21/2019	\$2,500,000	\$1,456,888	\$1,043,312	58%	--	--	\$1,517,086	\$1,517,086	\$60,398	7.6%	--	1.04x
GGV Capital VII	2019	08/15/2018	\$10,160,000	\$5,080,000	\$5,080,000	50%	--	--	\$5,064,960	\$5,064,960	(\$15,040)	-0.3%	--	1x
GGV Capital VII Plus	2019	08/15/2018	\$2,540,000	\$1,371,600	\$1,168,400	54%	--	--	\$1,435,002	\$1,435,002	\$63,402	5.7%	--	1.05x
GGV Discovery II	2019	08/15/2018	\$2,100,000	\$987,000	\$1,113,000	47%	--	--	\$1,052,191	\$1,052,191	\$65,191	7.6%	--	1.07x
Great Hill Equity Partners VII	2019	06/28/2019	\$8,900,000	--	\$8,900,000	--	--	--	\$790,109	\$790,109	--	--	--	--
Green Equity Investors VIII	2019	10/18/2019	\$15,000,000	--	\$15,000,000	--	--	--	--	--	--	--	--	--
GTCR Fund XII	2017	09/29/2017	\$30,000,000	\$17,730,000	\$12,270,000	59%	--	\$695,414	\$19,418,232	\$20,113,646	\$2,383,646	12.0%	0.04x	1.13x
HarbourVest - Dover Street VIII	2013	05/30/2013	\$67,500,000	\$61,509,954	\$6,075,000	91%	\$84,954	\$75,342,689	\$22,814,453	\$98,157,142	\$36,562,234	19.7%	1.22x	1.6x
HarbourVest - Dover Street IX	2016	12/16/2016	\$60,000,000	\$47,400,000	\$12,600,000	79%	--	\$19,158,174	\$46,638,405	\$65,796,579	\$18,396,579	23.0%	0.4x	1.39x
HarbourVest - Dover Street X	2019	05/31/2019	\$40,000,000	\$4,000,000	\$36,000,000	10%	--	--	\$5,794,949	\$5,794,949	\$1,794,949	106.9%	--	1.45x
HarbourVest - PRINS CO INVEST IV L.P.	2017	06/02/2017	\$30,000,000	\$24,464,388	\$5,732,352	82%	--	\$4,951,347	\$27,438,976	\$32,390,323	\$7,925,935	11.5%	0.2x	1.32x
HarbourVest - PRINS CO INVEST V L.P.	2019	07/31/2018	\$35,000,000	\$15,750,000	\$19,250,000	45%	--	--	\$17,768,776	\$17,768,776	\$2,018,776	20.0%	--	1.13x
Heilman & Friedman Capital Partners IX	2019	09/28/2018	\$19,800,000	\$4,401,433	\$15,398,567	22%	--	--	\$4,178,369	\$4,178,369	(\$223,064)	-10.2%	--	0.95x
Insight Venture Partners X	2017	10/13/2017	\$25,000,000	\$23,450,000	\$1,550,000	94%	--	\$8,561	\$30,583,384	\$30,591,945	\$7,141,945	18.2%	0x	1.3x
M/C Partners VIII	2019	04/02/2018	\$10,000,000	\$3,080,253	\$6,919,747	31%	--	--	\$2,705,598	\$2,705,598	(\$374,655)	-19.0%	--	0.88x
Oak HC/FT Partners III	2019	07/31/2019	\$15,000,000	\$6,396,040	\$8,603,960	43%	--	--	\$6,011,985	\$6,011,985	(\$384,055)	-15.6%	--	0.94x
Pantheon Global Secondary Fund IV	2010	08/20/2010	\$15,000,000	\$9,960,000	\$5,040,000	66%	--	\$13,410,543	\$2,147,882	\$15,558,425	\$5,598,425	12.9%	1.35x	1.56x
Pantheon Global Secondary Fund V	2015	02/26/2015	\$50,000,000	\$35,616,509	\$14,383,491	71%	(\$162,514)	\$14,671,223	\$32,151,436	\$46,822,659	\$11,368,664	10.3%	0.41x	1.31x
Pantheon Global Secondary Fund VI	2018	02/24/2020	\$25,000,000	--	\$25,000,000	--	--	\$14,114	\$6,444,989	\$6,459,103	--	--	--	--
The Resolute Fund IV	2018	05/02/2018	\$20,000,000	\$11,898,922	\$9,474,798	59%	--	\$2,243,703	\$14,443,187	\$16,686,890	\$4,787,968	46.0%	0.19x	1.4x
Riverside Micro-Cap Fund V	2018	08/21/2018	\$10,000,000	\$3,390,672	\$6,609,328	34%	--	--	\$2,923,545	\$2,923,545	(\$467,127)	-17.6%	--	0.86x
TA XIII	2019	05/02/2019	\$10,000,000	\$4,000,000	\$6,000,000	40%	--	--	\$3,977,917	\$3,977,917	(\$22,083)	-1.7%	--	0.99x
Vitruvian Investment Partnership IV	2020	06/03/2020	\$21,537,568	--	\$21,537,568	--	--	--	--	--	--	--	--	--
Total VCERA Private Equity Program	--	05/21/2010	\$1,163,633,451	\$600,342,070	\$566,949,024	52%	\$73,843	\$248,090,792	\$582,469,192	\$830,559,984	\$223,137,798	14.0%	0.41x	1.38x

1. Includes recycled/recallable distributions received to date.

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

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

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

Performance shown is based on 9/30/2020 statement of investments produced by Abbott Capital.



VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION PRIVATE DEBT LIMITED PARTNERSHIP PERFORMANCE

Fund Name	Vintage Year	Initial Investment Date	Commitment	Capital Called to Date ¹	Outstanding Commitment ¹	Call Ratio	Distributions to Date	Valuation	Total Value	Net Benefit	IRR	Since Inception	
												Distributions to Paid In Multiple (DPI)	Total Value to Paid In Multiple (TVPI)
BlueBay Direct Lending III	2019	02/12/2019	\$25,000,000	\$9,353,314	\$15,646,686	37%	\$2,438,679	\$7,804,729	\$10,243,408	\$890,094	12.6%	0.26x	1.1x
Bridge Debt Strategies III	2019	12/20/2019	\$25,000,000	\$24,072,665	\$927,335	96%	\$659,816	\$20,103,252	\$20,763,069	-\$3,309,596	-16.5%	0.03x	0.86x
CVI Credit Value Fund IV	2017	12/31/2017	\$30,000,000	\$29,100,000	\$900,000	97%	\$6,147	\$29,920,090	\$29,926,237	\$826,237	2.0%	0x	1.03x
Monroe Capital Private Credit Fund III	2018	09/05/2018	\$25,000,000	\$17,652,142	\$7,347,858	71%	\$2,735,617	\$17,370,090	\$20,105,707	\$2,453,565	10.0%	0.15x	1.14x
PIMCO Corporate Opportunities Fund III	2020	01/26/2020	\$50,000,000	\$3,750,000	\$46,250,000	8%	\$37,190	\$4,294,574	\$4,331,764	\$581,764	15.5%	0.01x	1.16x
PIMCO Private Income Fund	2019	03/25/2019	\$55,000,000	\$55,000,000	\$0	100%	\$0	\$54,407,427	\$54,407,427	-\$592,573	-2.1%	0x	0.99x
Total VCERA Private Debt Program	--		\$210,000,000	\$138,928,121	\$71,071,879	66%	\$5,877,450	\$133,900,163	\$139,777,612	\$849,491	0.7%	0.04x	1.01x

1. Includes recycled/recallable distributions received to date.

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

Performance shown is based on 9/30/2020 cash-adjusted market values.



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	Yes	-	Watch (Board Driven)	On Watch for Performance Issues
Walter Scott	-	-	-	-	
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	Bottom Quartile	-	-	-	
Western	-	-	-	-	
Reams	-	-	-	-	



DUE DILIGENCE MONITOR

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

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
Parametric – Overlay	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.

Morgan Stanley has entered into an agreement to acquire Eaton Vance for approximately \$7 billion in equity value. The deal will combine Morgan Stanley Investment Management (“MSIM”) with Eaton Vance and its subsidiaries: Parametric, Calvert, Hexavest, Atlanta Capital. The deal is expected to close in the 1st quarter of 2021.

A legend key to our recommendations is provided below.

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

TOTAL FUND CALENDAR YEAR RETURN SUMMARY

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



Ventura County Employees' Retirement Association

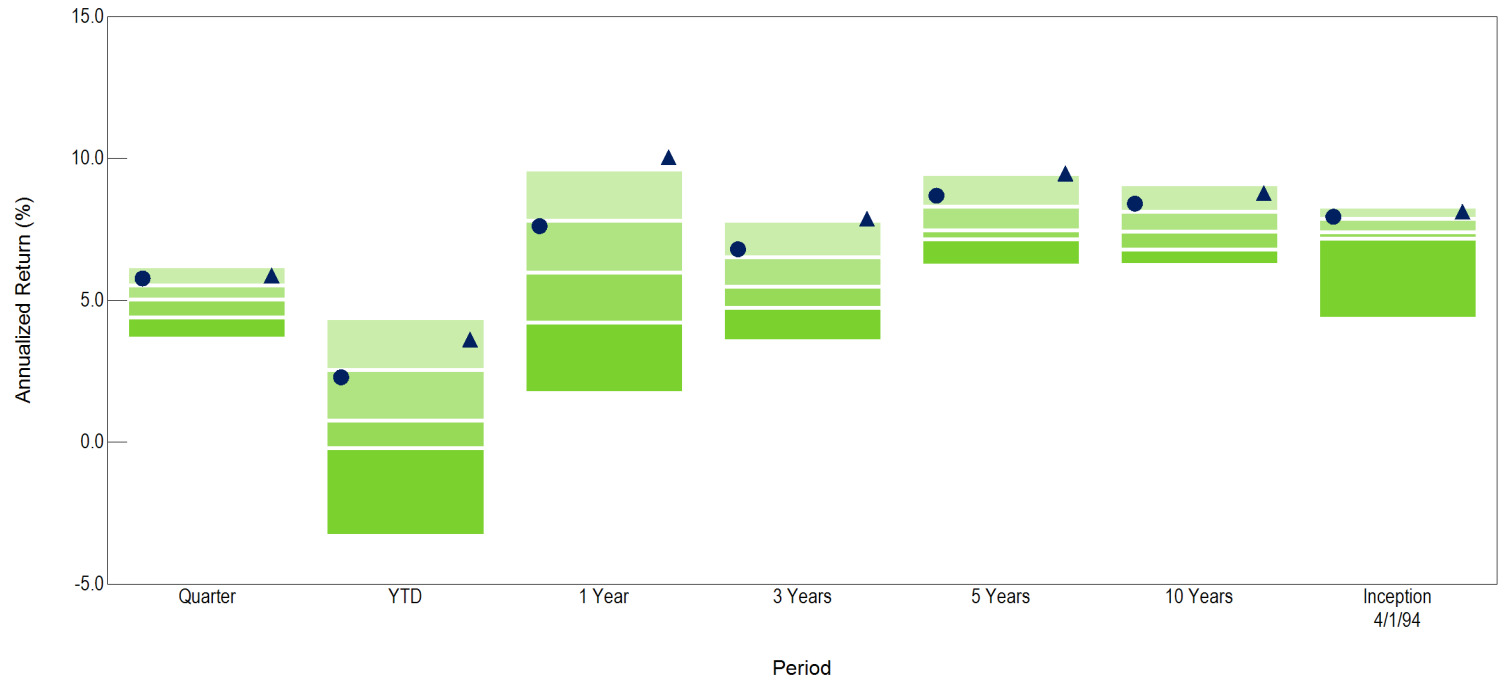
TOTAL FUND CALENDAR YEAR RETURN SUMMARY

	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											
Harbourvest Real Assets Fund IV L.P.											
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

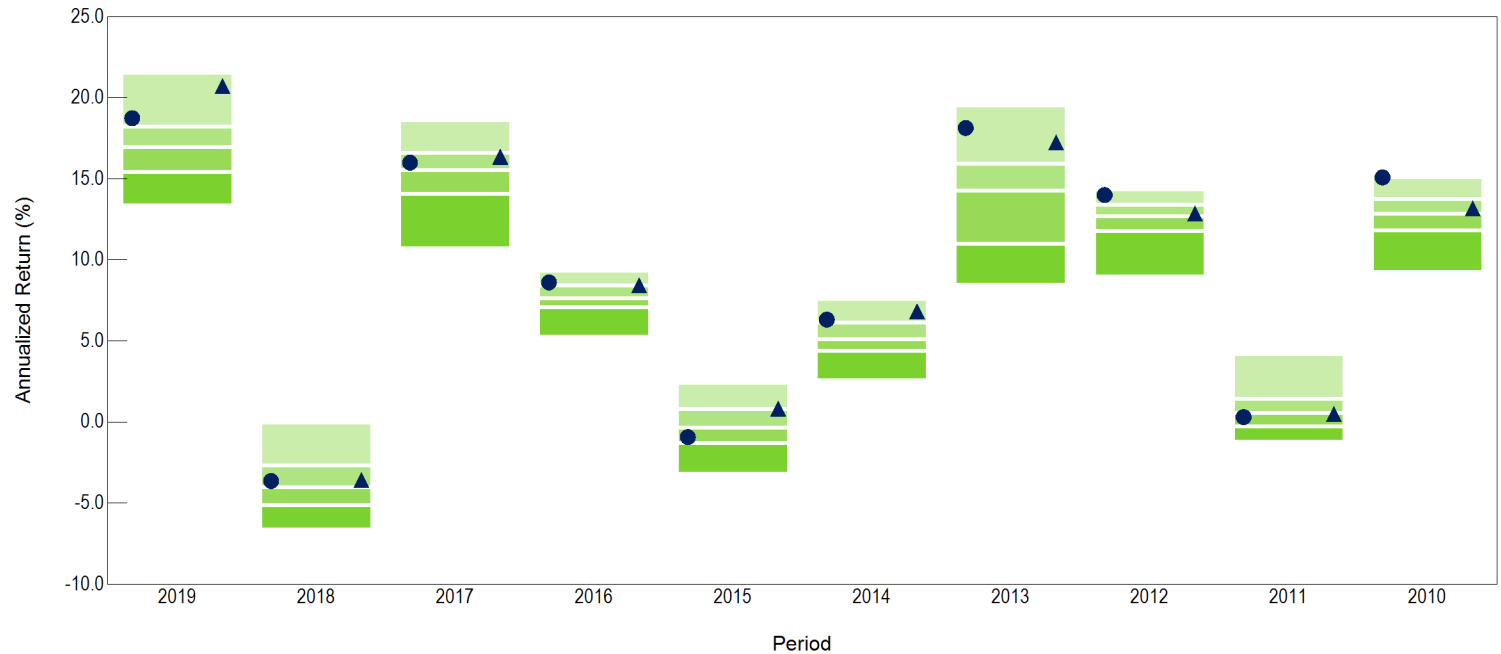


	Return (Rank)													
5th Percentile	6.2	4.4	9.6	7.8	9.4	9.1	8.3							
25th Percentile	5.5	2.6	7.8	6.5	8.3	8.1	7.9							
Median	5.0	0.8	6.0	5.5	7.5	7.4	7.4							
75th Percentile	4.4	-0.2	4.2	4.8	7.2	6.8	7.2							
95th Percentile	3.7	-3.3	1.7	3.6	6.2	6.3	4.4							
# of Portfolios	77	77	77	77	75	69	34							
● Total Fund	5.8	(15)	2.3	(32)	7.6	(28)	6.8	(18)	8.7	(18)	8.4	(18)	7.9	(22)
▲ Policy Index	5.9	(12)	3.6	(9)	10.0	(3)	7.9	(5)	9.5	(5)	8.8	(10)	8.1	(13)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



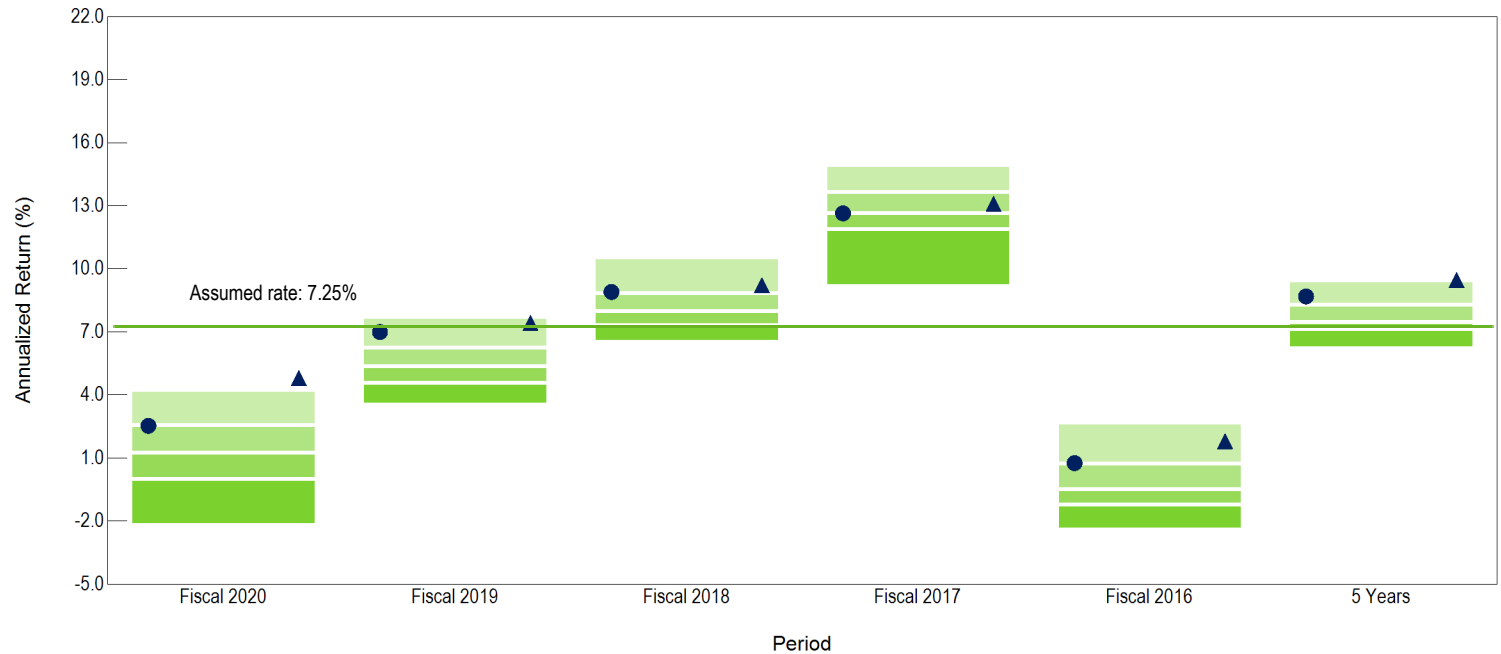
	Return (Rank)																			
5th Percentile	21.5	-0.1	18.6	9.3	2.4	7.6	19.5	14.3	4.2	15.1										
25th Percentile	18.2	-2.7	16.6	8.4	0.8	6.1	16.0	13.4	1.5	13.8										
Median	17.0	-4.0	15.6	7.7	-0.4	5.1	14.3	12.7	0.6	12.8										
75th Percentile	15.4	-5.1	14.1	7.1	-1.3	4.4	11.0	11.8	-0.3	11.8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



Ventura County Employees' Retirement Association

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

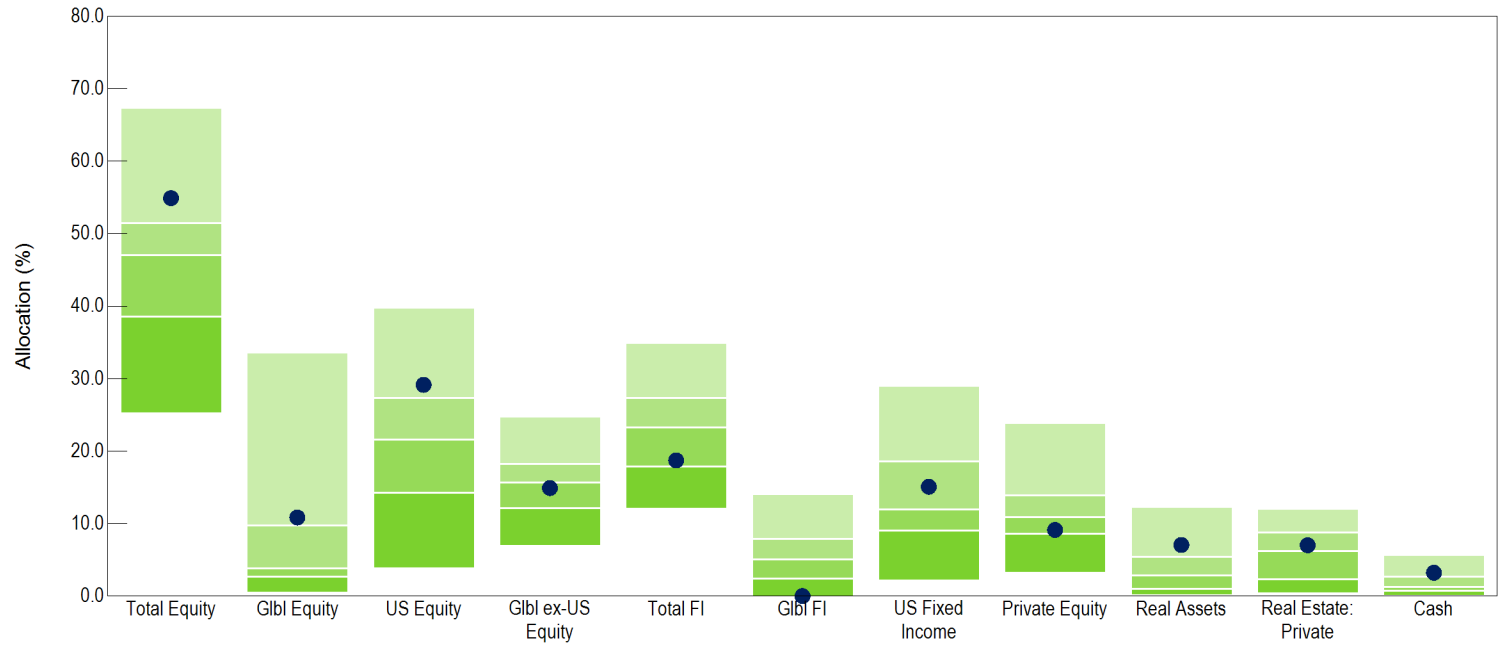


	Fiscal 2020		Fiscal 2019		Fiscal 2018		Fiscal 2017		Fiscal 2016		5 Years	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	4.2		7.7		10.5		14.9		2.7		9.4	
25th Percentile	2.6		6.3		8.8		13.7		0.8		8.3	
Median	1.3		5.4		8.0		12.7		-0.5		7.5	
75th Percentile	0.0		4.6		7.3		11.9		-1.2		7.2	
95th Percentile	-2.2		3.5		6.5		9.2		-2.4		6.2	
# of Portfolios	71		77		51		65		55		75	
● Total Fund	2.5	(29)	7.0	(15)	8.9	(23)	12.6	(53)	0.8	(26)	8.7	(18)
▲ Policy Index	4.8	(2)	7.4	(7)	9.2	(13)	13.1	(37)	1.8	(9)	9.5	(5)



TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

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



	Allocation (Rank)																						
5th Percentile	67.4	33.6	39.8	24.7	34.9	14.1	29.0	23.9	12.3	12.0	5.7	--											
25th Percentile	51.5	9.8	27.4	18.3	27.5	8.0	18.7	14.0	5.5	8.8	2.8	--											
Median	47.1	4.0	21.7	15.8	23.4	5.1	12.1	11.0	2.9	6.3	1.4	--											
75th Percentile	38.6	2.7	14.3	12.2	18.0	2.5	9.1	8.6	1.1	2.5	0.8	--											
95th Percentile	25.3	0.6	3.9	7.0	12.1	0.0	2.2	3.3	0.2	0.5	0.1	--											
# of Portfolios	55	29	42	52	55	21	40	49	30	44	55	--											
• Total Fund	54.9	(18)	10.8	(18)	29.1	(20)	14.9	(57)	18.7	(71)	0.0	(95)	15.1	(44)	9.1	(68)	7.1	(19)	7.0	(47)	3.2	(23)	--



APPENDIX

NEPC, LLC

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

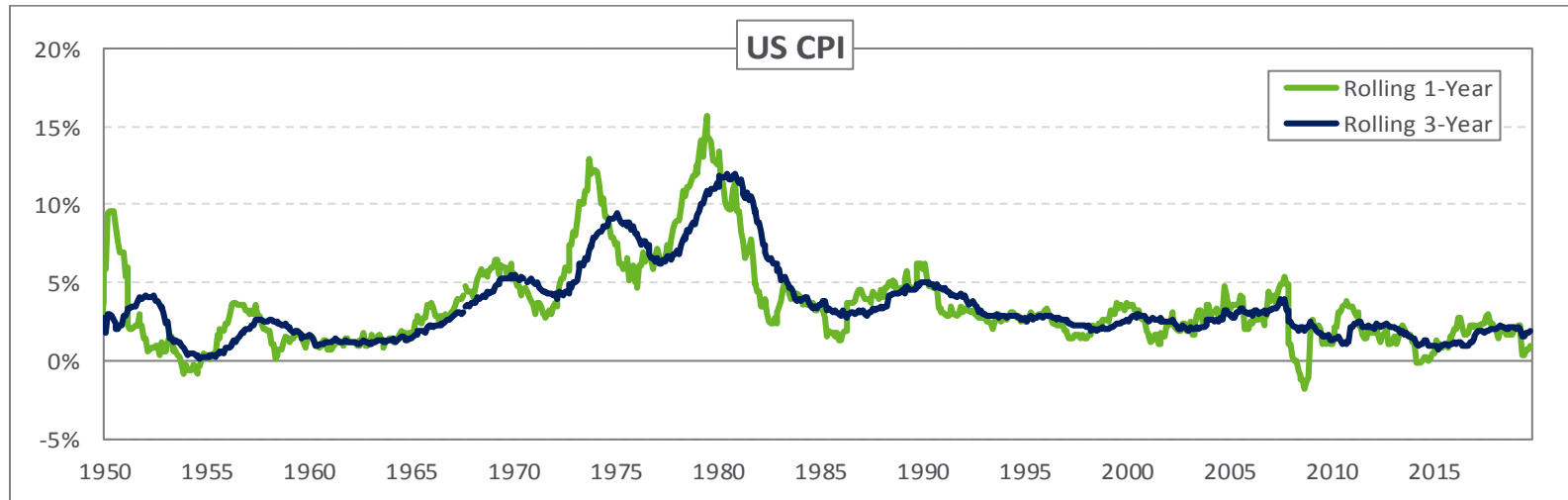
- **PGIM Real Estate Property Investment Separate Account**
 - PRISA is a broadly diversified equity real estate portfolio that invests primarily in existing, income-producing properties with strong cash flow that is expected to increase over time and thereby provide the potential for capital appreciation. 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.



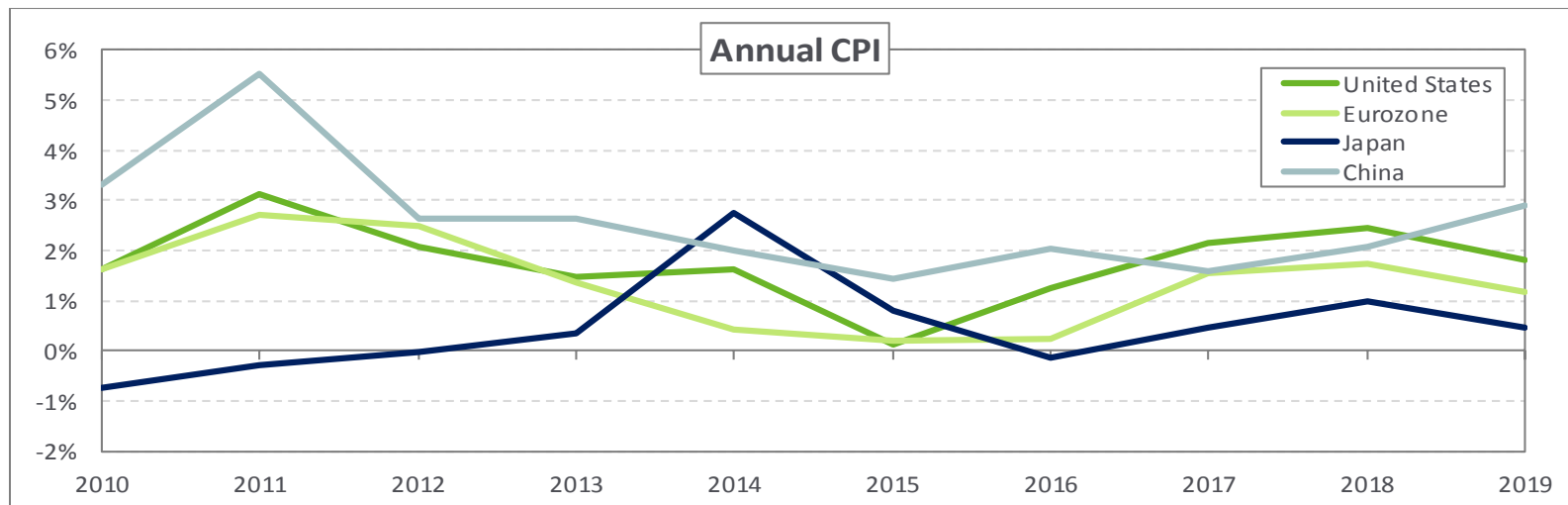
MACRO

NEPC, LLC

INFLATION



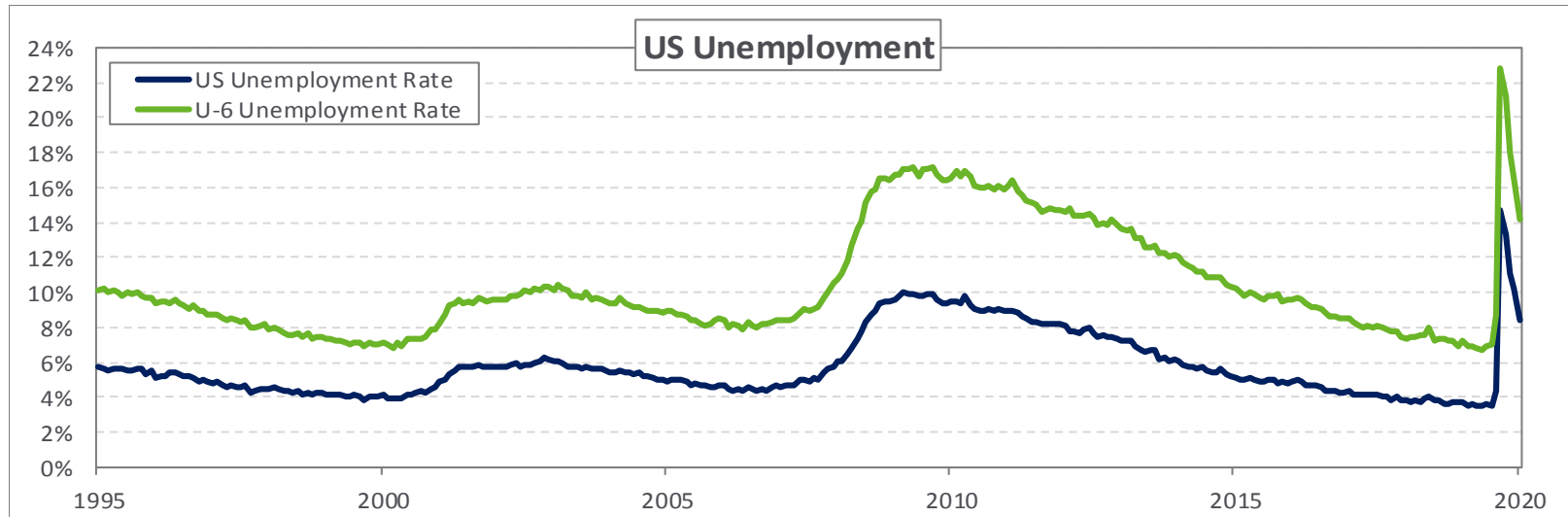
Source: Bureau of Labor Statistics, FactSet



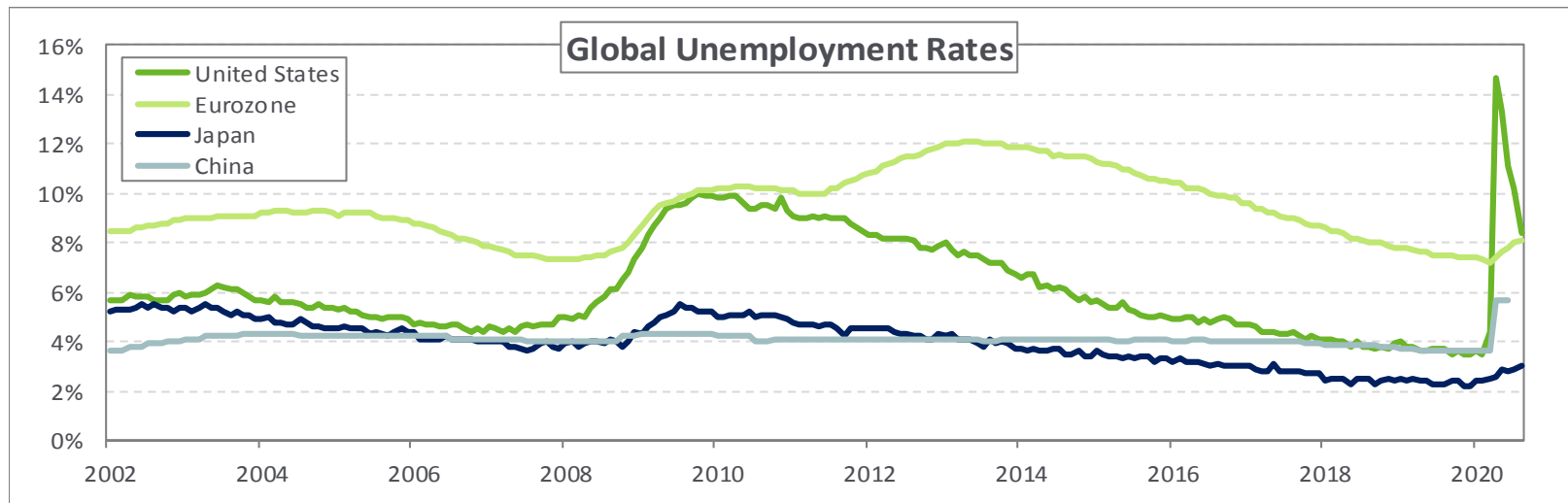
Source: FactSet



UNEMPLOYMENT



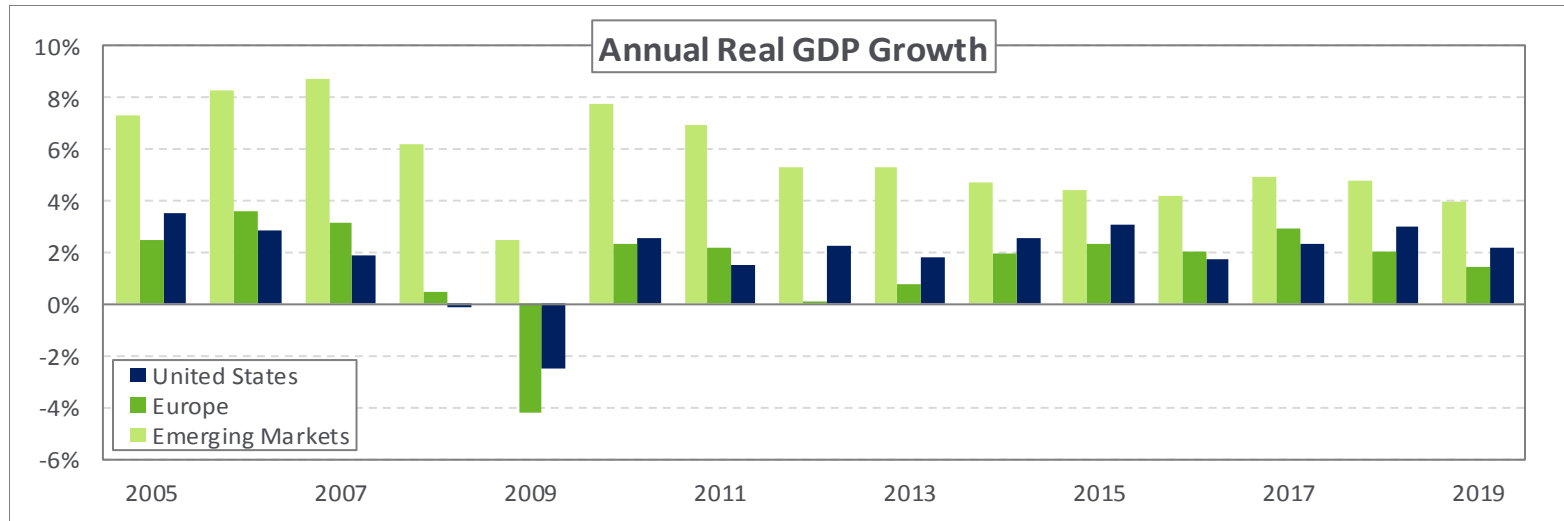
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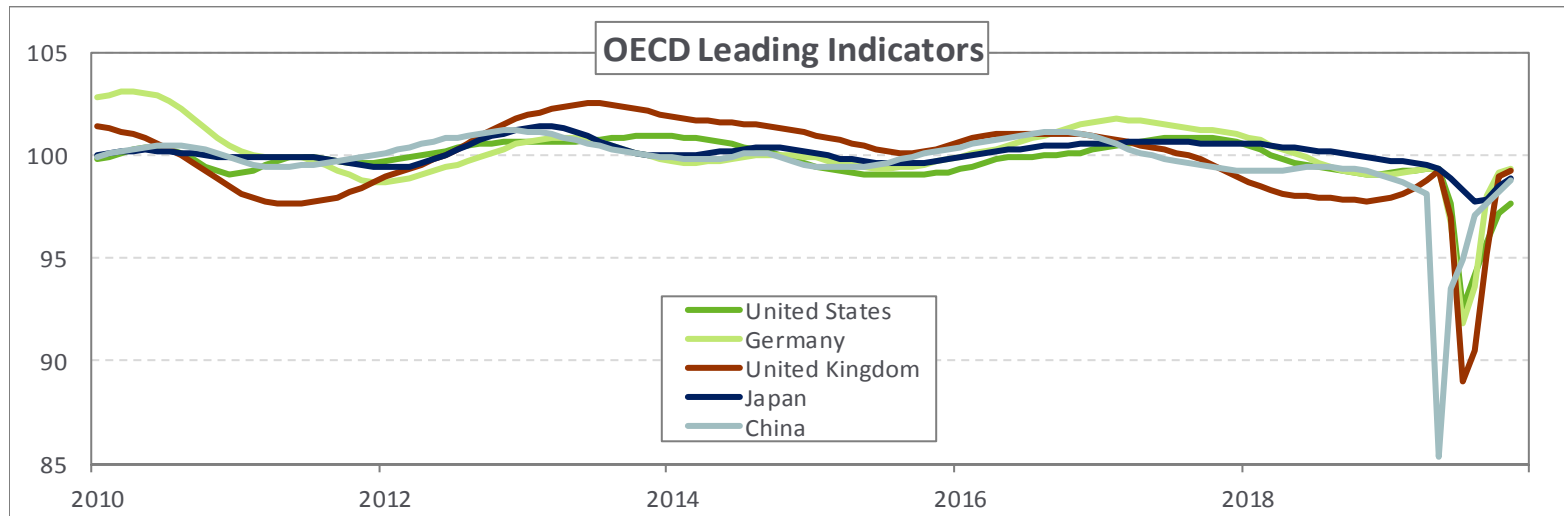
Source: FactSet



ECONOMIC INDICATORS



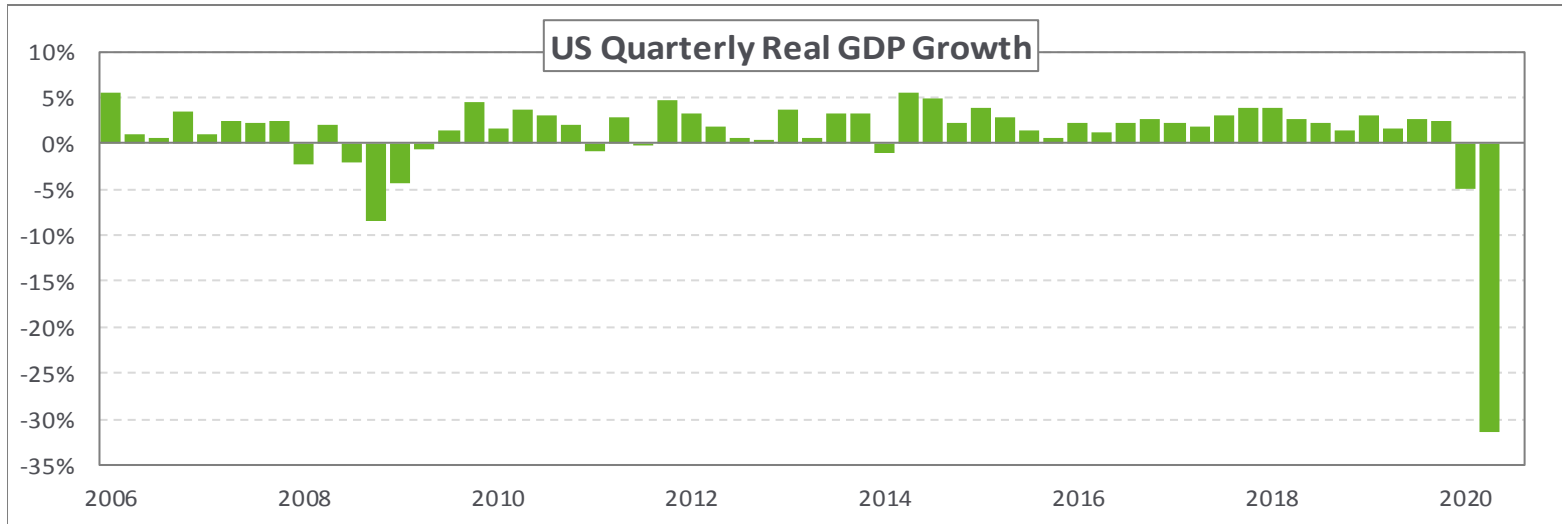
Source: Bureau of Economic Analysis, Oxford Economics, FactSet



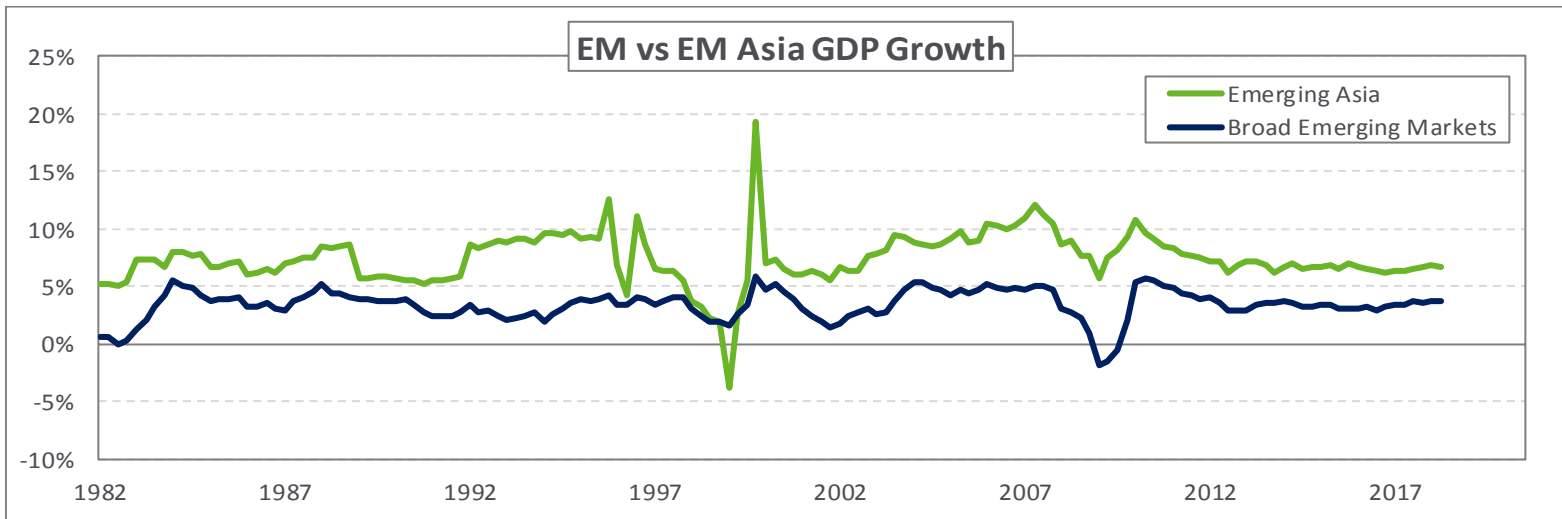
Source: OECD, FactSet



GROSS DOMESTIC PRODUCT



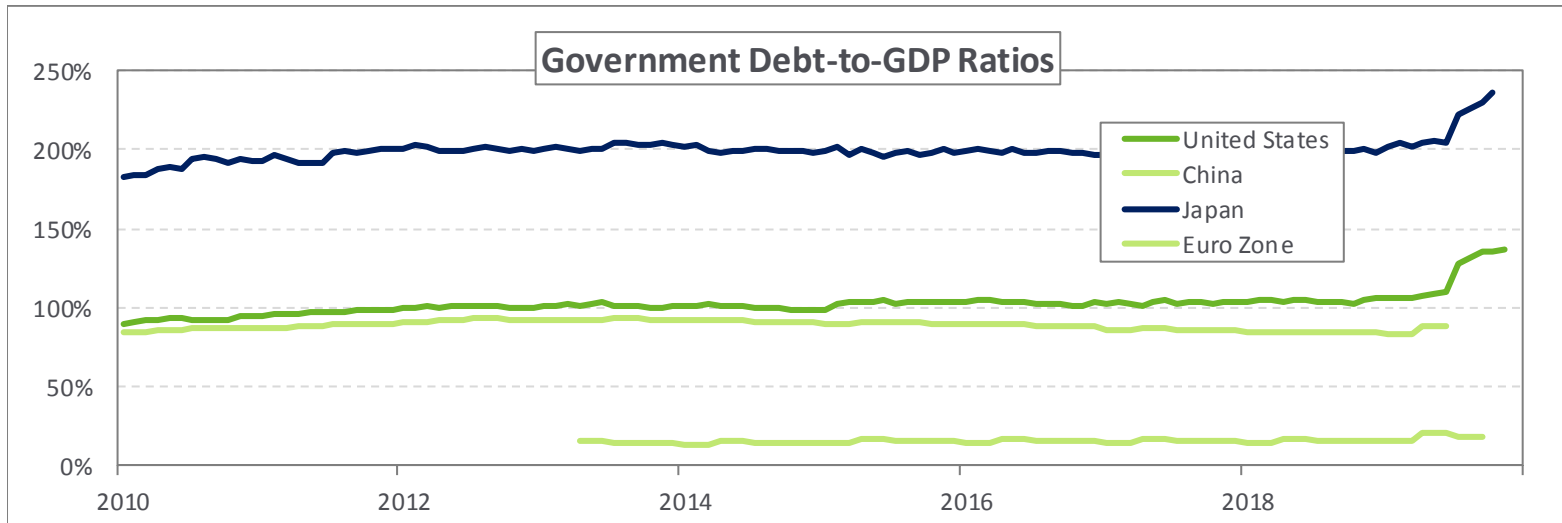
Source: Bureau of Economic Analysis, FactSet



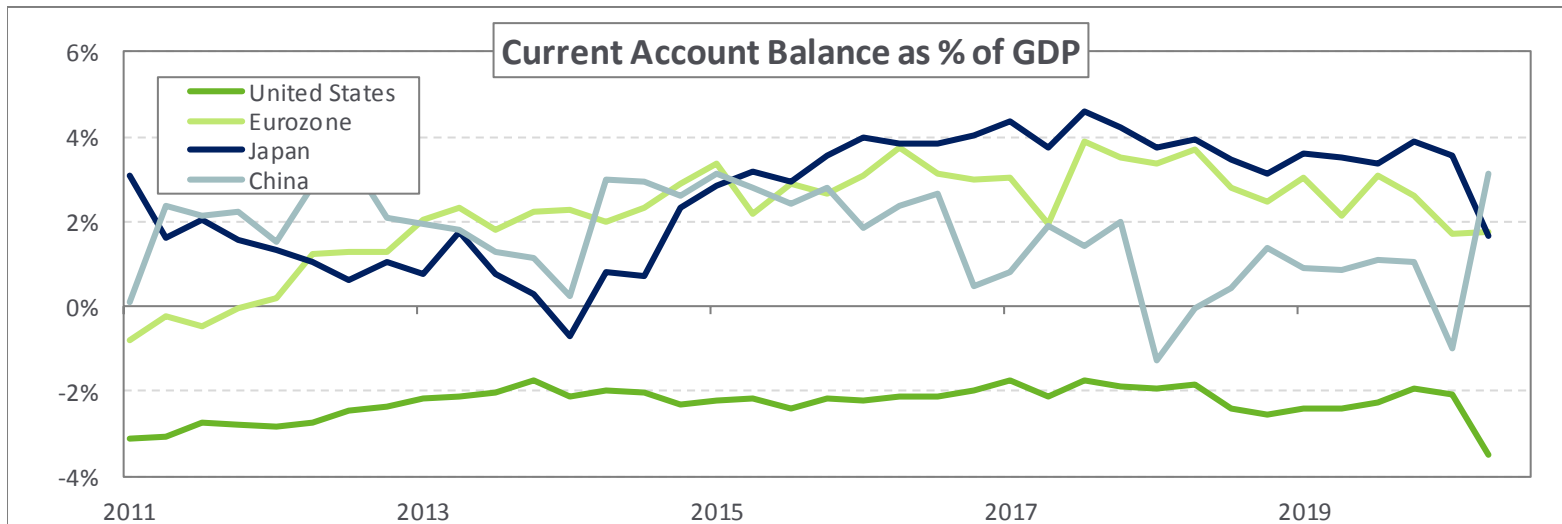
Source: IMF, FactSet



GROSS DOMESTIC PRODUCT METRICS



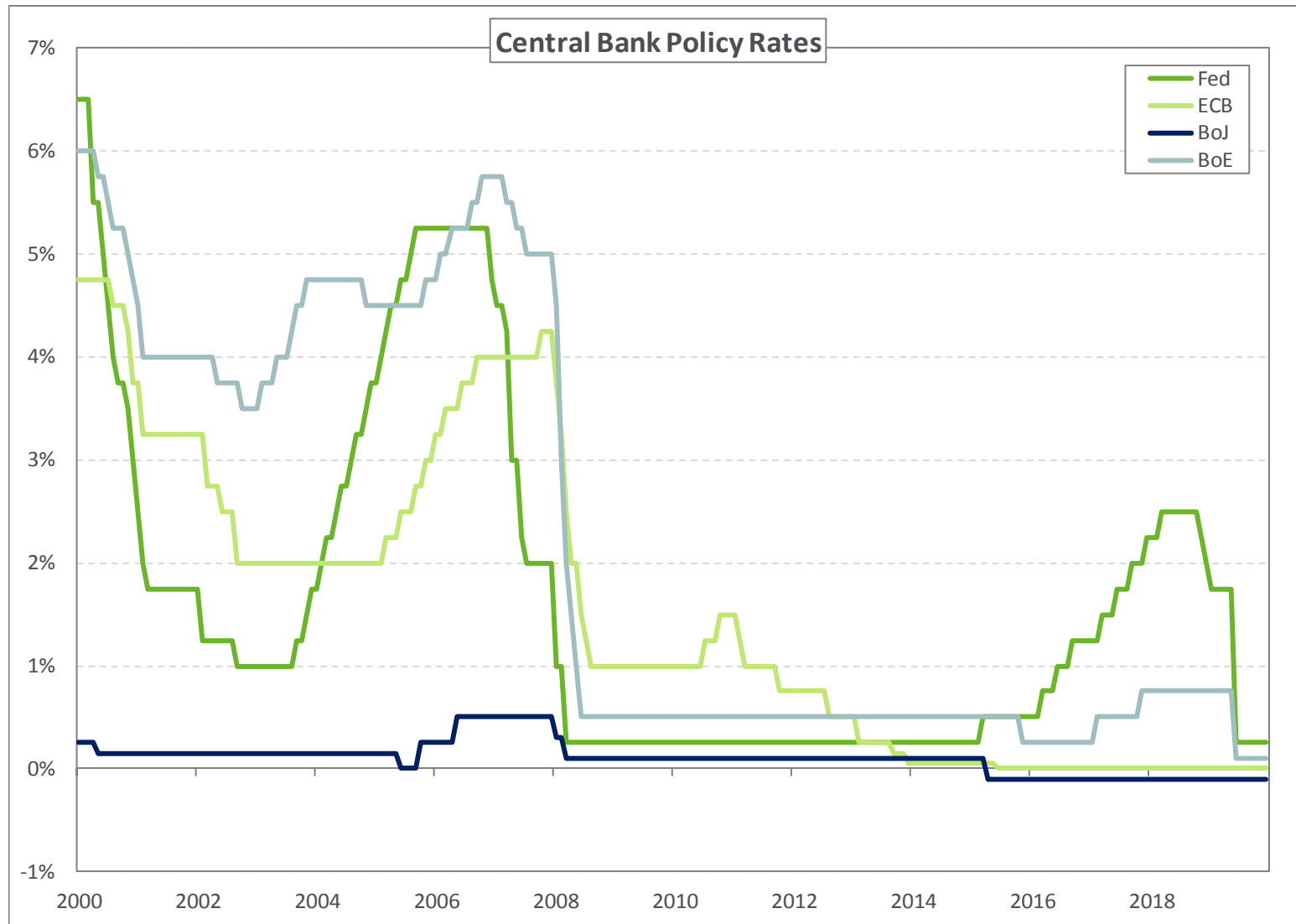
Source: IMF, FactSet



Source: FactSet



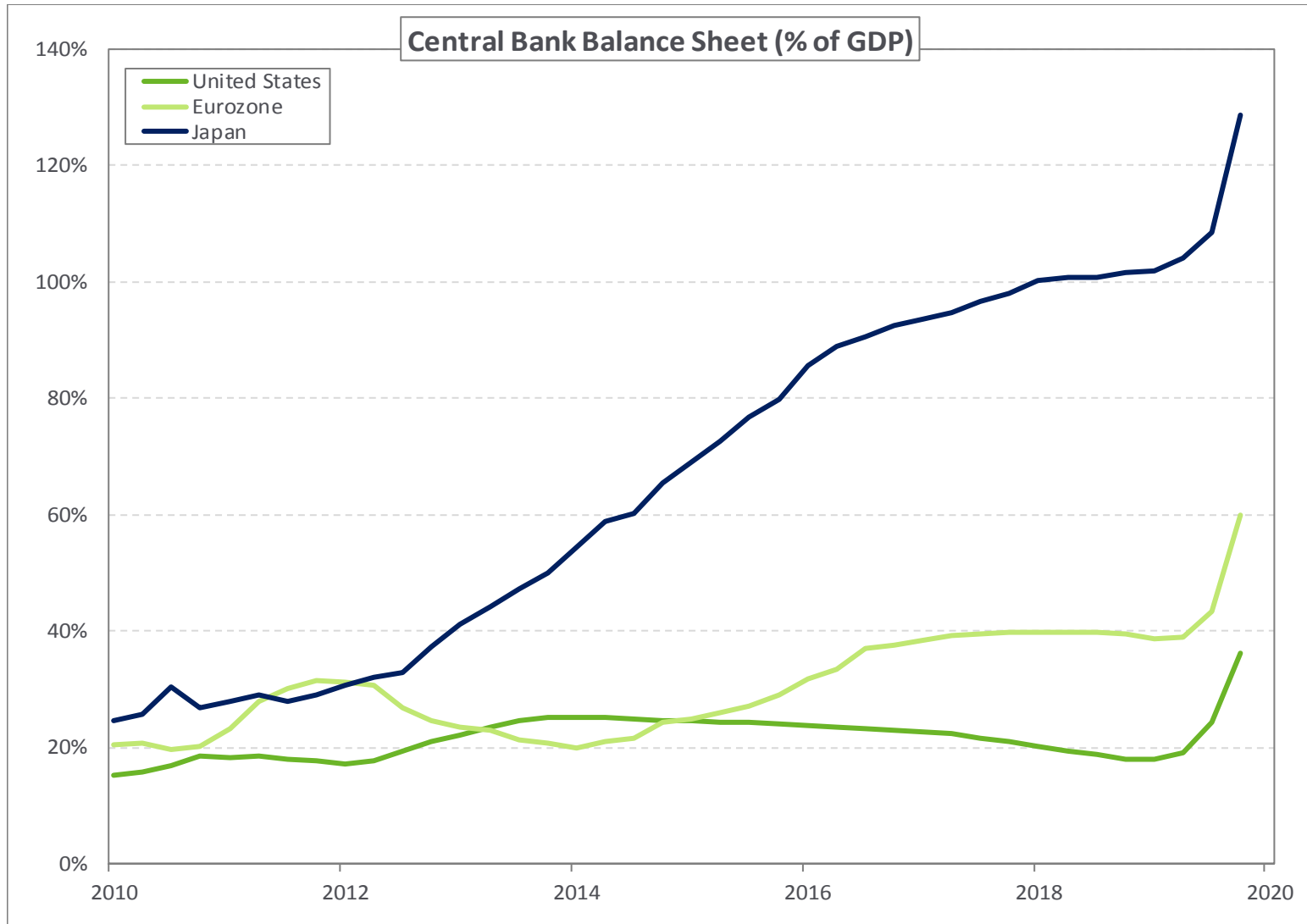
CENTRAL BANK RATES



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



CENTRAL BANK BALANCE SHEETS



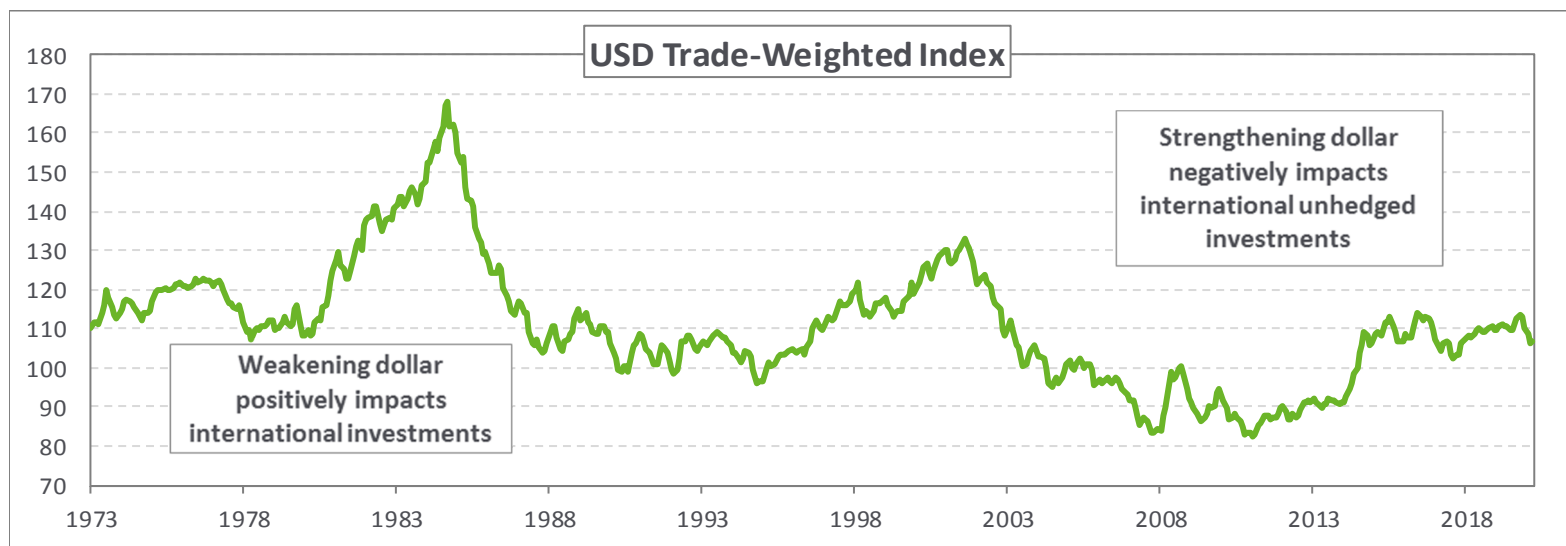
Source: FactSet



CURRENCIES

Currencies	% Change Relative to USD			
	Spot	1 Month	YTD	1 Year
Euro	1.17	-1.9%	4.5%	7.6%
British Pound	1.29	-3.4%	-2.4%	4.9%
Japanese Yen	105.53	0.5%	3.0%	2.4%
Swiss Franc	0.92	-2.0%	5.4%	8.5%
Australian Dollar	0.72	-3.1%	2.0%	6.3%
Chinese Yuan	6.81	0.6%	2.3%	4.8%
Brazilian Real	5.64	-2.7%	-28.6%	-26.1%
Russian Ruble	77.60	-4.5%	-20.0%	-16.4%
Indian Rupee	73.78	-0.2%	-3.3%	-3.9%
Mexican Peso	22.08	-0.9%	-14.5%	-10.6%
South African Rand	16.68	1.6%	-16.2%	-9.1%

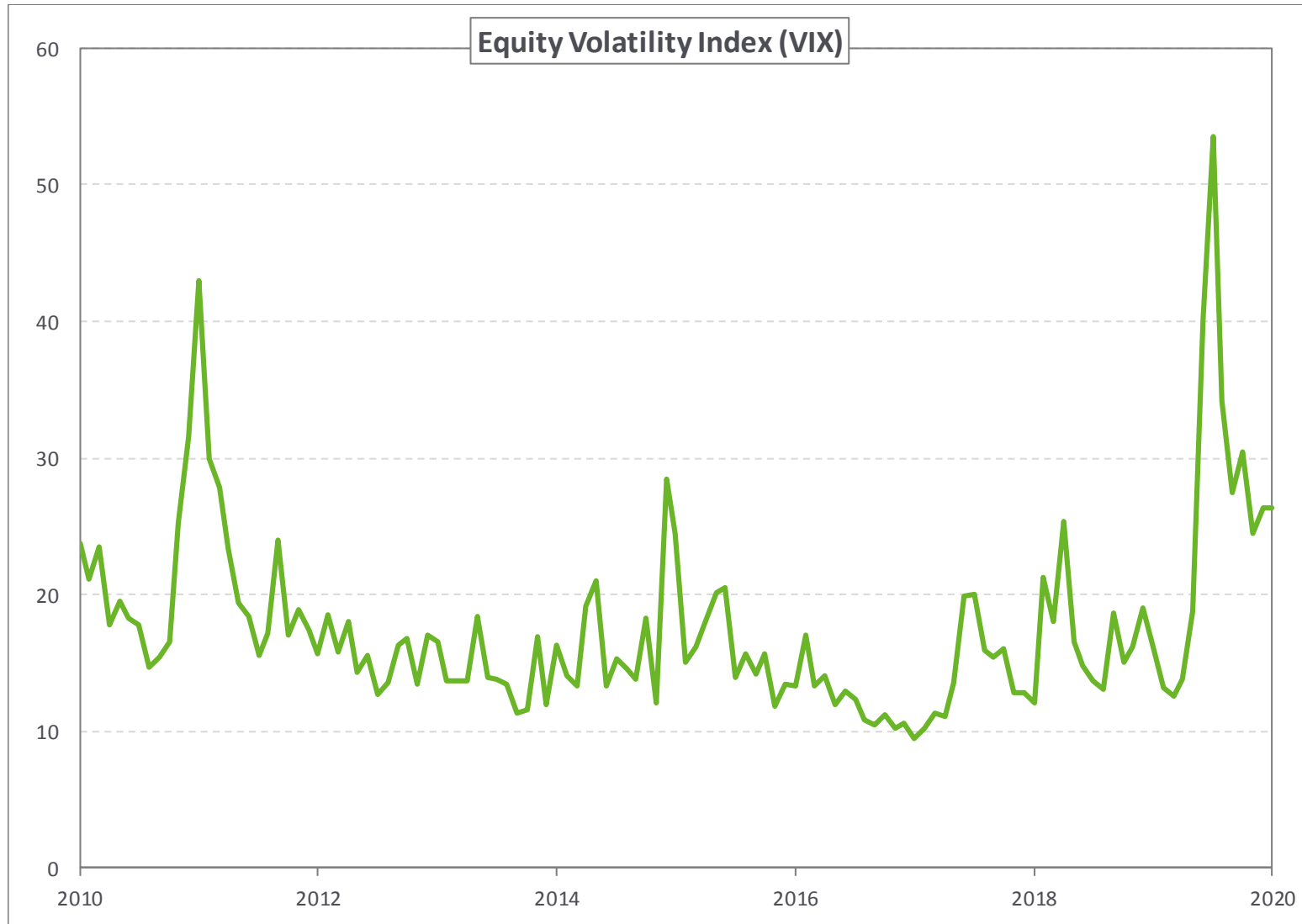
Source: FactSet



Source: FactSet



VOLATILITY



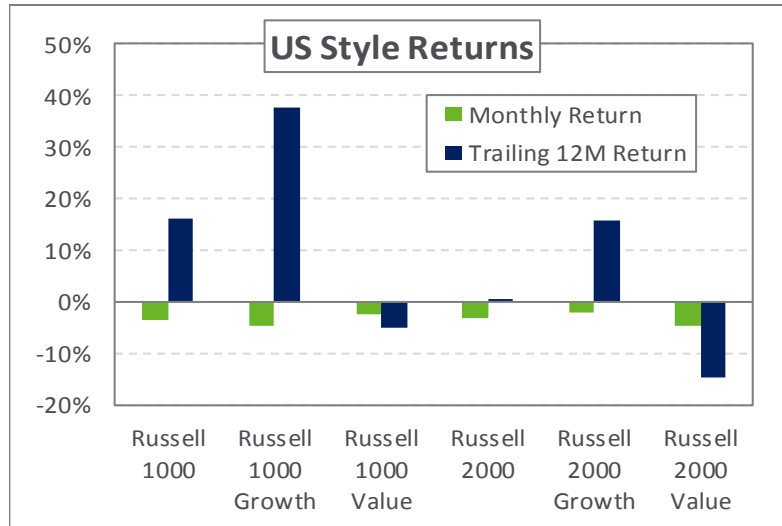
Source: CBOE, FactSet



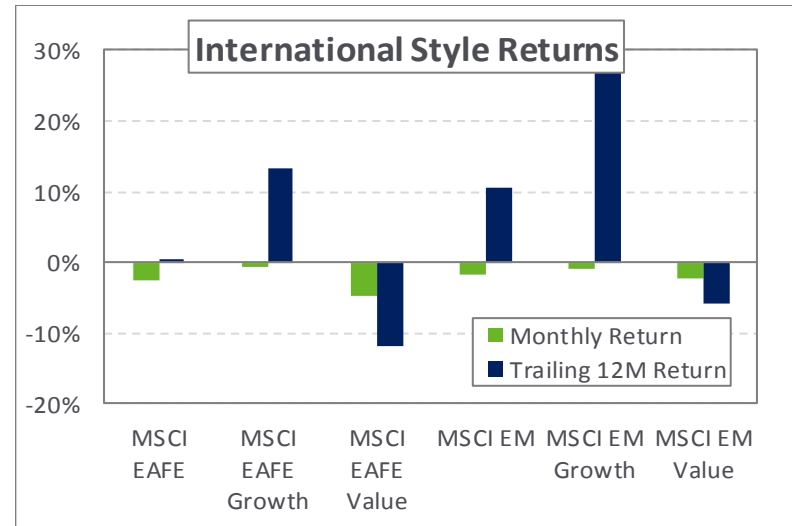
EQUITY

NEPC, LLC

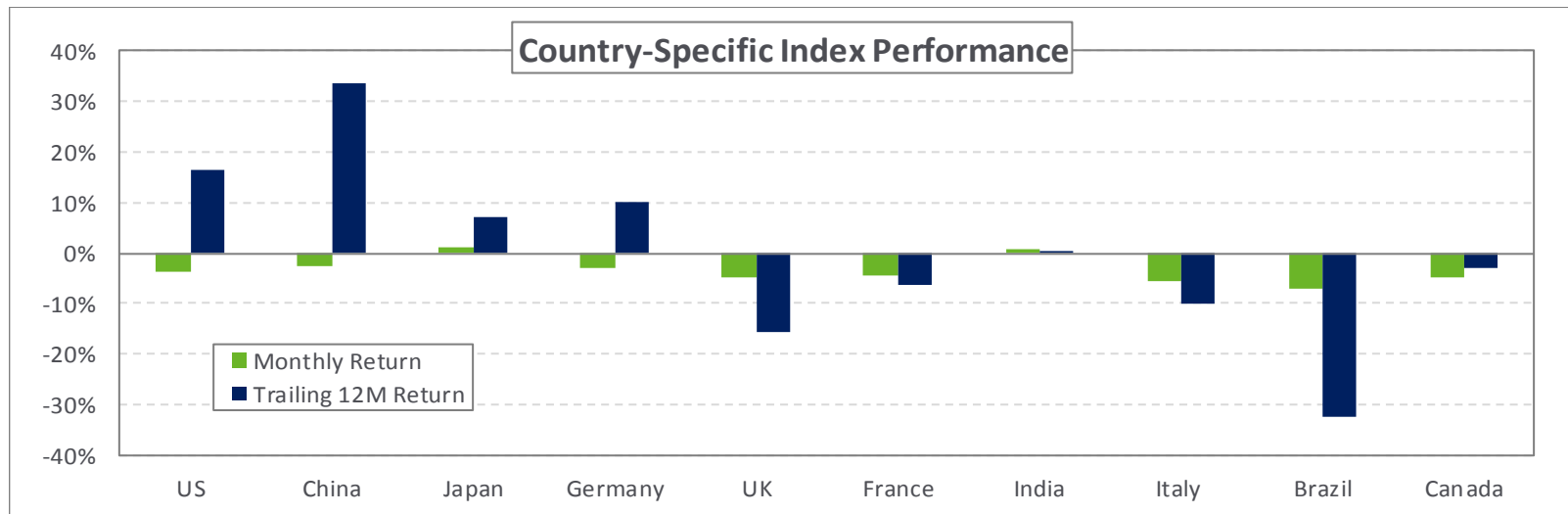
EQUITY INDEX PERFORMANCE



Source: Russell, FactSet



Source: MSCI, FactSet



Source: MSCI, FactSet
Represents returns in USD



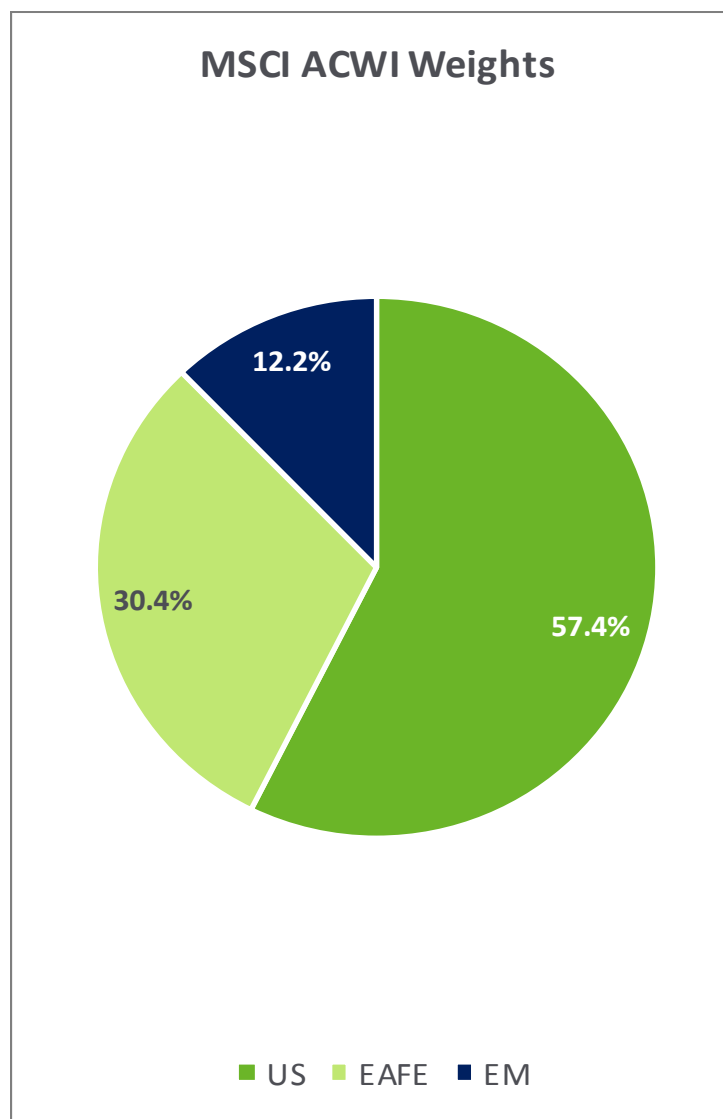
INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	-3.8%	8.9%	5.6%	100.0%
Communication Services	-0.7%	1.0%	1.0%	10.8%
Consumer Discretionary	-0.4%	1.6%	2.7%	11.6%
Consumer Staples	-0.1%	0.7%	0.1%	7.0%
Energy	-0.4%	-0.5%	-2.2%	2.1%
Financials	-0.4%	0.4%	-3.4%	9.7%
Health Care	-0.3%	0.9%	0.9%	14.2%
Industrials	-0.1%	1.0%	-0.6%	8.3%
Information Technology	-1.5%	3.3%	7.9%	28.2%
Materials	0.0%	0.3%	0.2%	2.6%
Real Estate	-0.1%	0.1%	-0.4%	2.6%
Utilities	0.0%	0.2%	-0.4%	3.0%

Source: S&P, FactSet

	MTD	QTD	YTD	Index Weight
MSCI ACWI	-3.2%	8.1%	1.4%	100.0%
Communication Services	-0.5%	0.7%	0.9%	9.3%
Consumer Discretionary	-0.3%	2.1%	2.5%	12.9%
Consumer Staples	-0.1%	0.6%	-0.1%	8.0%
Energy	-0.4%	-0.4%	-2.3%	2.8%
Financials	-0.7%	0.2%	-4.8%	12.5%
Health Care	-0.2%	0.6%	1.2%	12.6%
Industrials	-0.1%	1.0%	-0.6%	9.6%
Information Technology	-0.7%	2.6%	5.7%	21.7%
Materials	-0.1%	0.5%	0.2%	4.8%
Real Estate	-0.1%	0.1%	-0.8%	2.8%
Utilities	0.0%	0.1%	-0.4%	3.1%

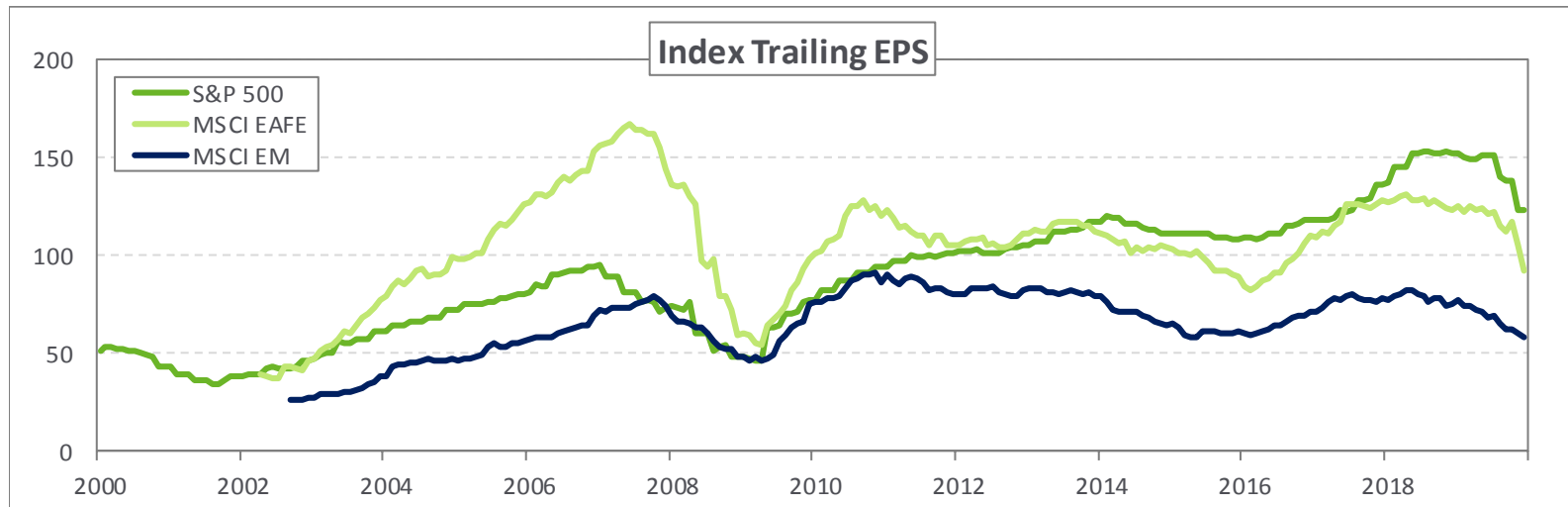
Source: MSCI, FactSet



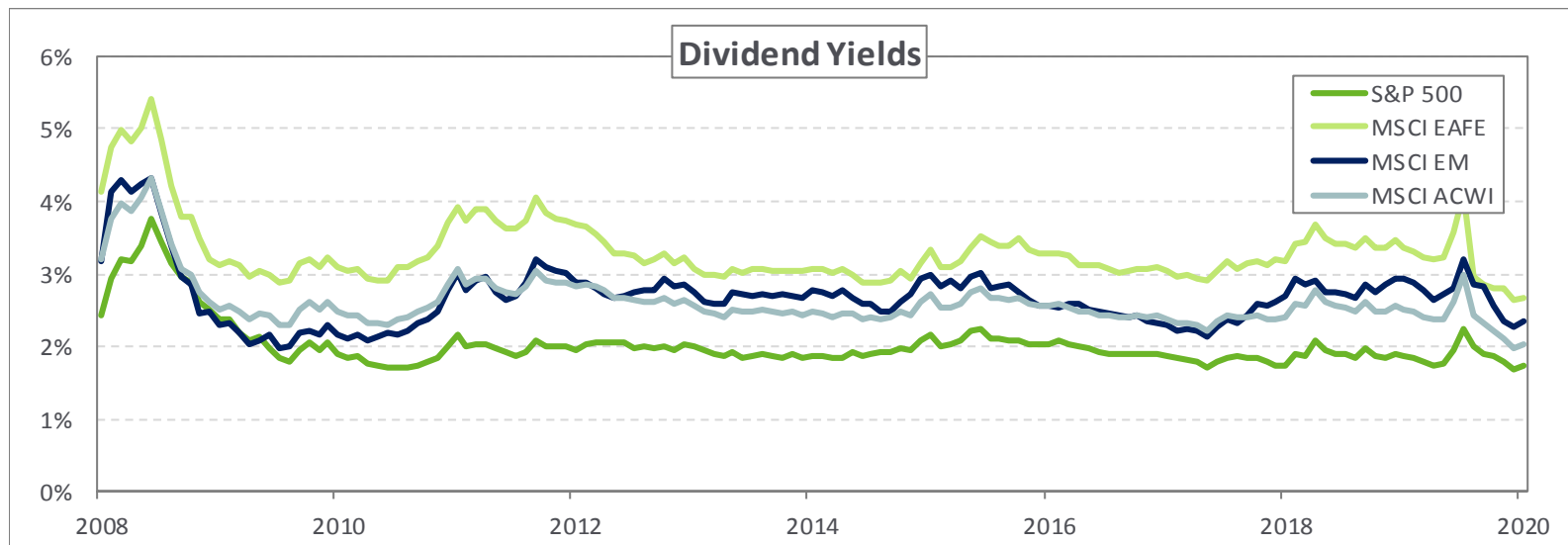
Source: MSCI, FactSet



EARNINGS & YIELDS



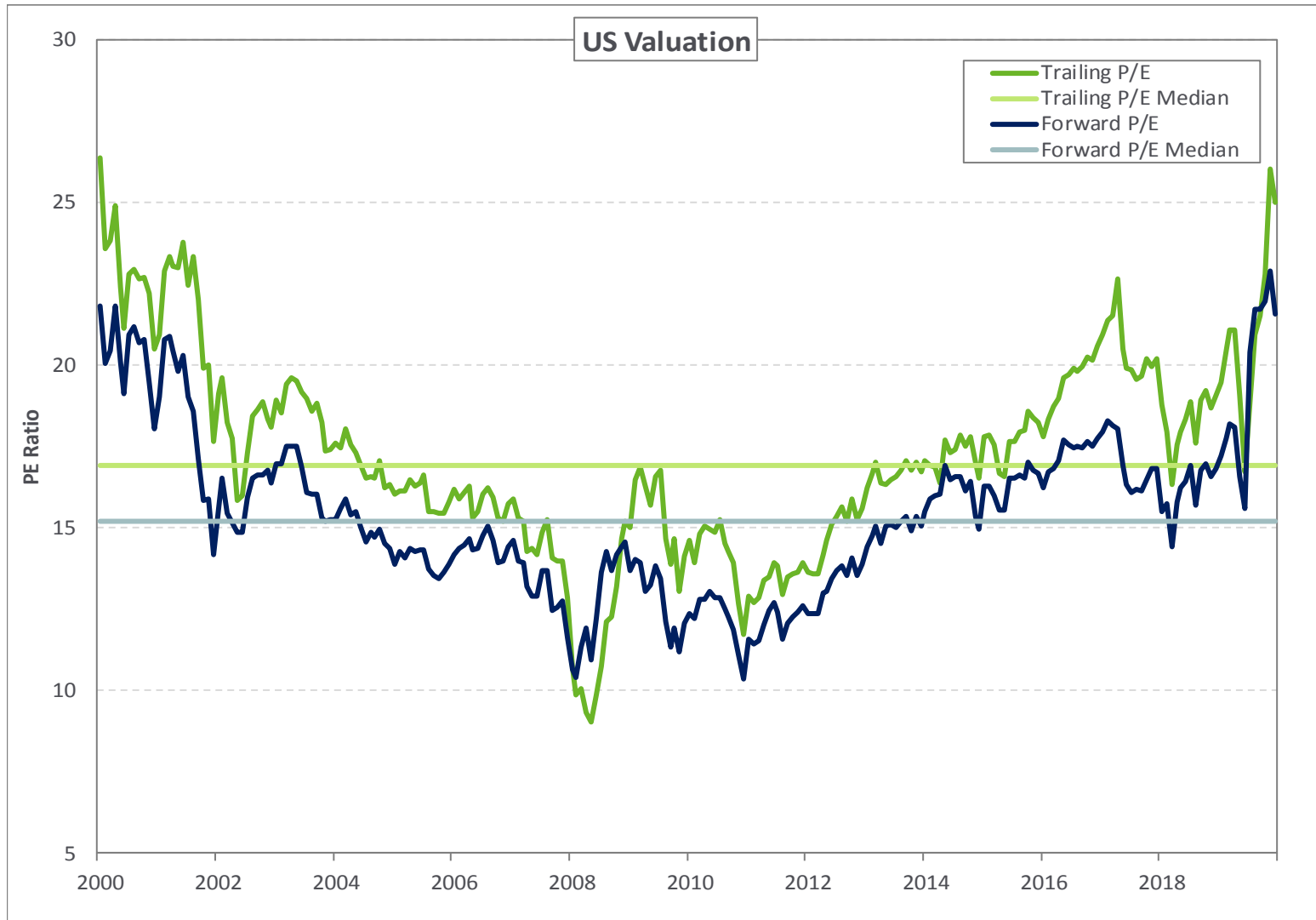
Source: FactSet



Source: FactSet



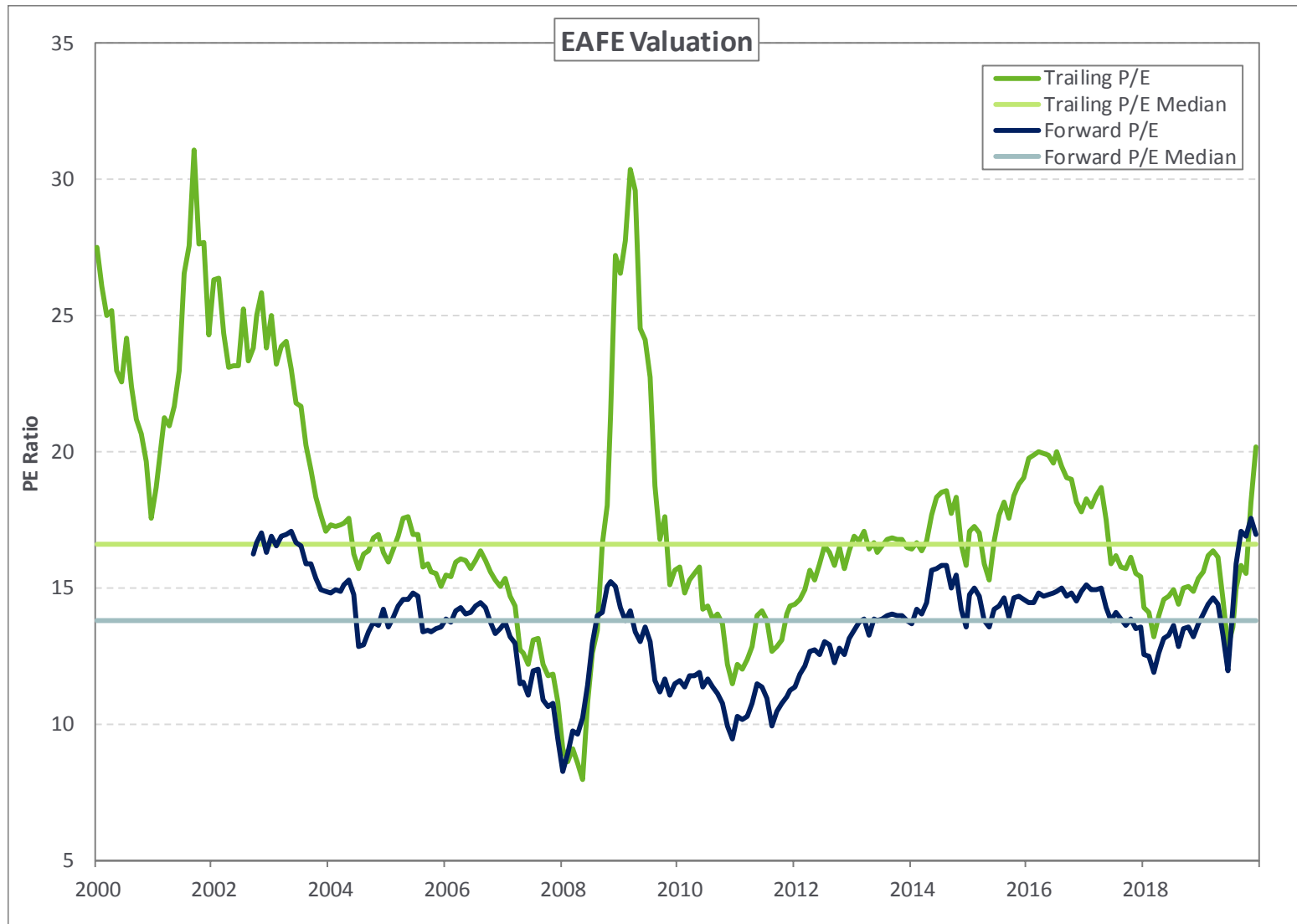
US EQUITY VALUATIONS



Source: S&P, FactSet



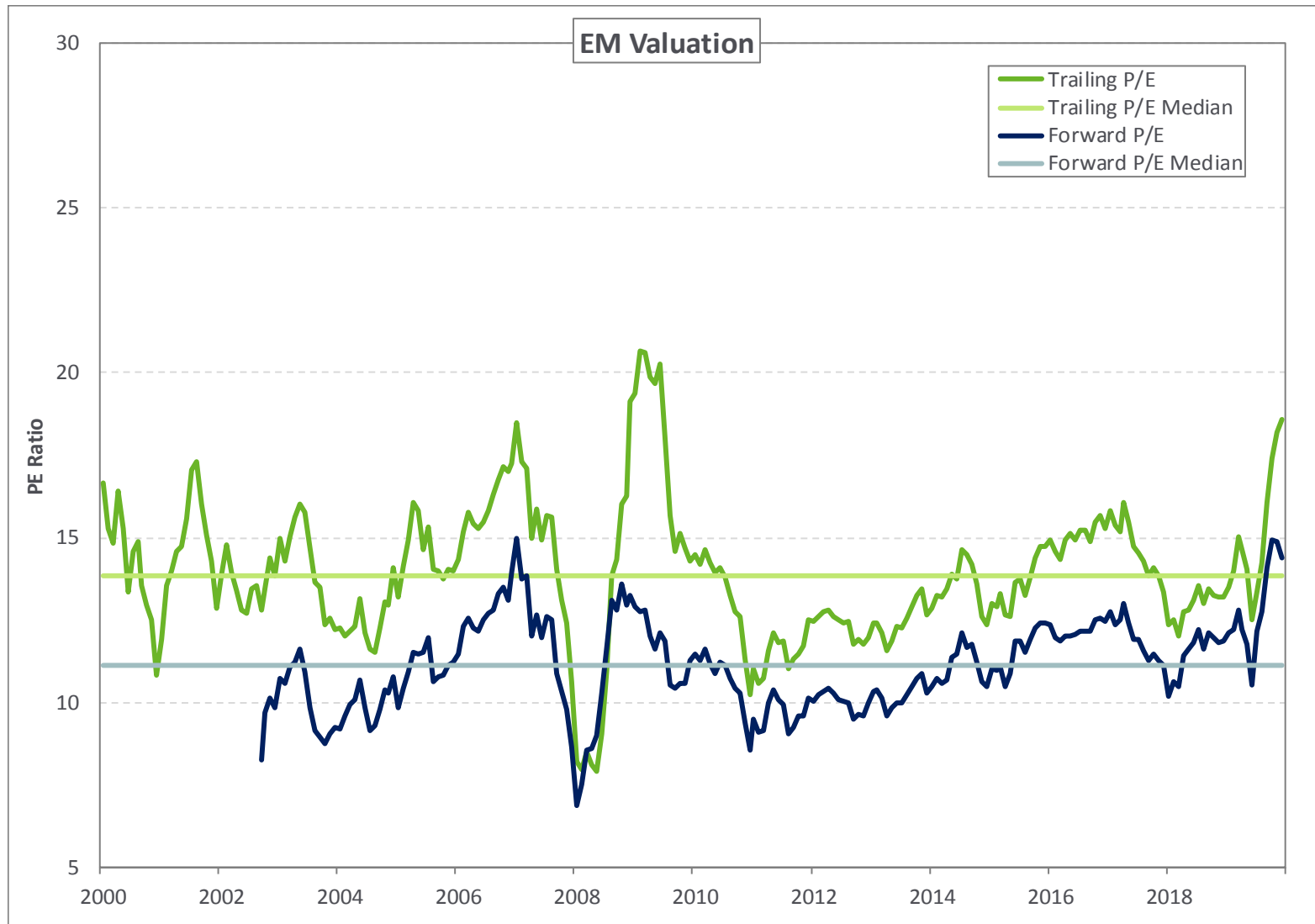
EAFE EQUITY VALUATIONS



Source: MSCI, FactSet



EM EQUITY VALUATIONS



Source: MSCI, FactSet



CREDIT

NEPC, LLC

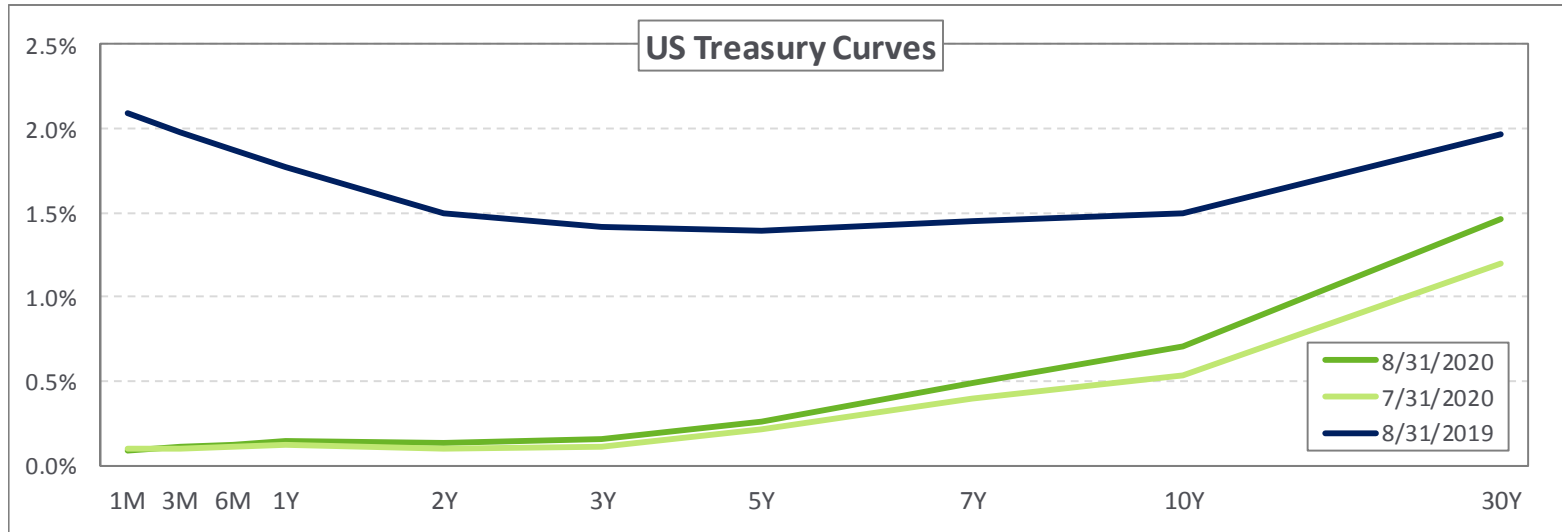
FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	1.18%	60	6.1	-0.1%	6.8%	6.9%
Barclays Treasury	0.48%	-	7.2	0.1%	8.9%	8.0%
Barclays Agency	0.49%	16	3.7	0.2%	5.4%	5.3%
Barclays MBS	1.29%	61	2.1	-0.1%	3.6%	4.3%
Barclays ABS	0.54%	41	2.1	0.1%	4.1%	4.5%
Barclays CMBS	1.08%	68	5.7	0.0%	8.3%	7.8%
Barclays Corp IG	2.01%	136	8.7	-0.3%	6.6%	7.8%
Barclays Muni	1.32%	-	5.4	0.0%	3.3%	4.1%
Barclays HY Muni	4.54%	-	9.0	0.1%	0.4%	1.3%
Barclays TIPS	0.68%	-	5.2	-0.4%	9.2%	10.0%
Barclays HY	5.77%	517	3.8	-1.0%	0.6%	3.2%
Barclays Global Agg	0.90%	50	7.4	-0.4%	5.7%	6.2%
JPM EMBI Glob Div	-	432	7.9	-1.9%	-0.5%	1.3%
JPM GBI - EM	4.48%	-	5.5	-2.0%	-6.3%	-1.4%

Source: Barclays, JP Morgan, FactSet



TREASURIES



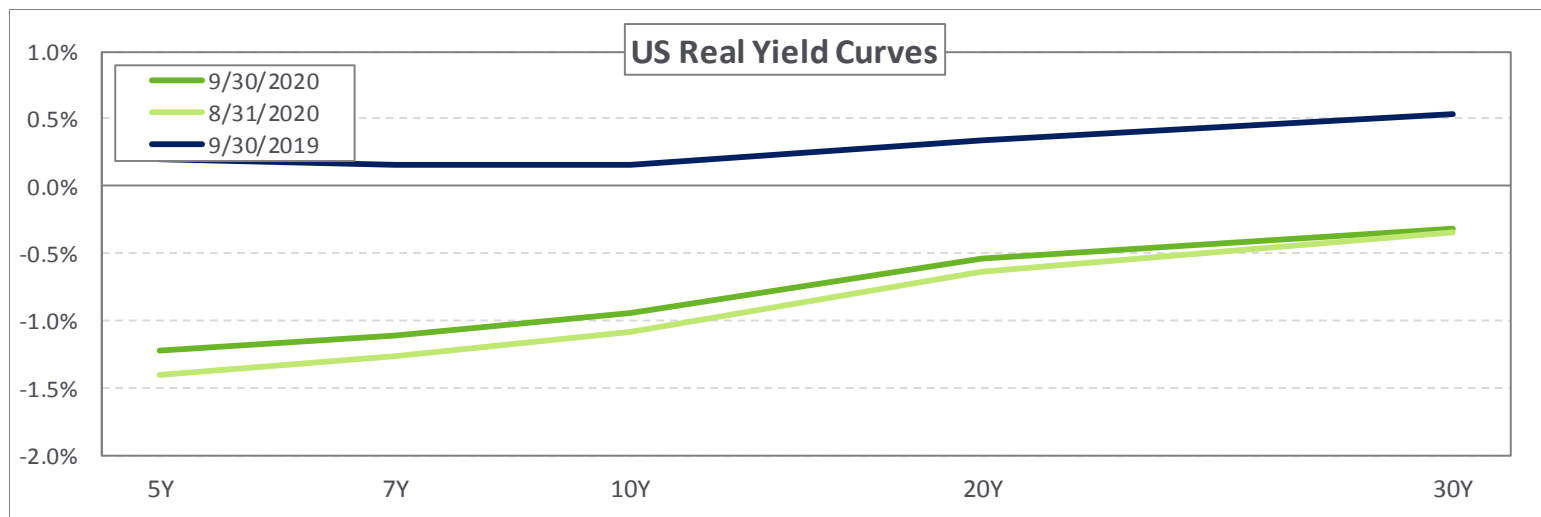
Source: FactSet

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	0.10%	0.11%	1.82%	0.01%	1.10%
6M Treasury	0.11%	0.13%	1.82%	0.02%	1.54%
2Y Treasury	0.13%	0.13%	1.62%	0.02%	3.43%
5Y Treasury	0.28%	0.26%	1.55%	0.01%	7.19%
10Y Treasury	0.68%	0.70%	1.68%	0.22%	10.74%
30Y Treasury	1.45%	1.46%	2.12%	0.13%	17.75%

Source: FactSet



REAL YIELDS



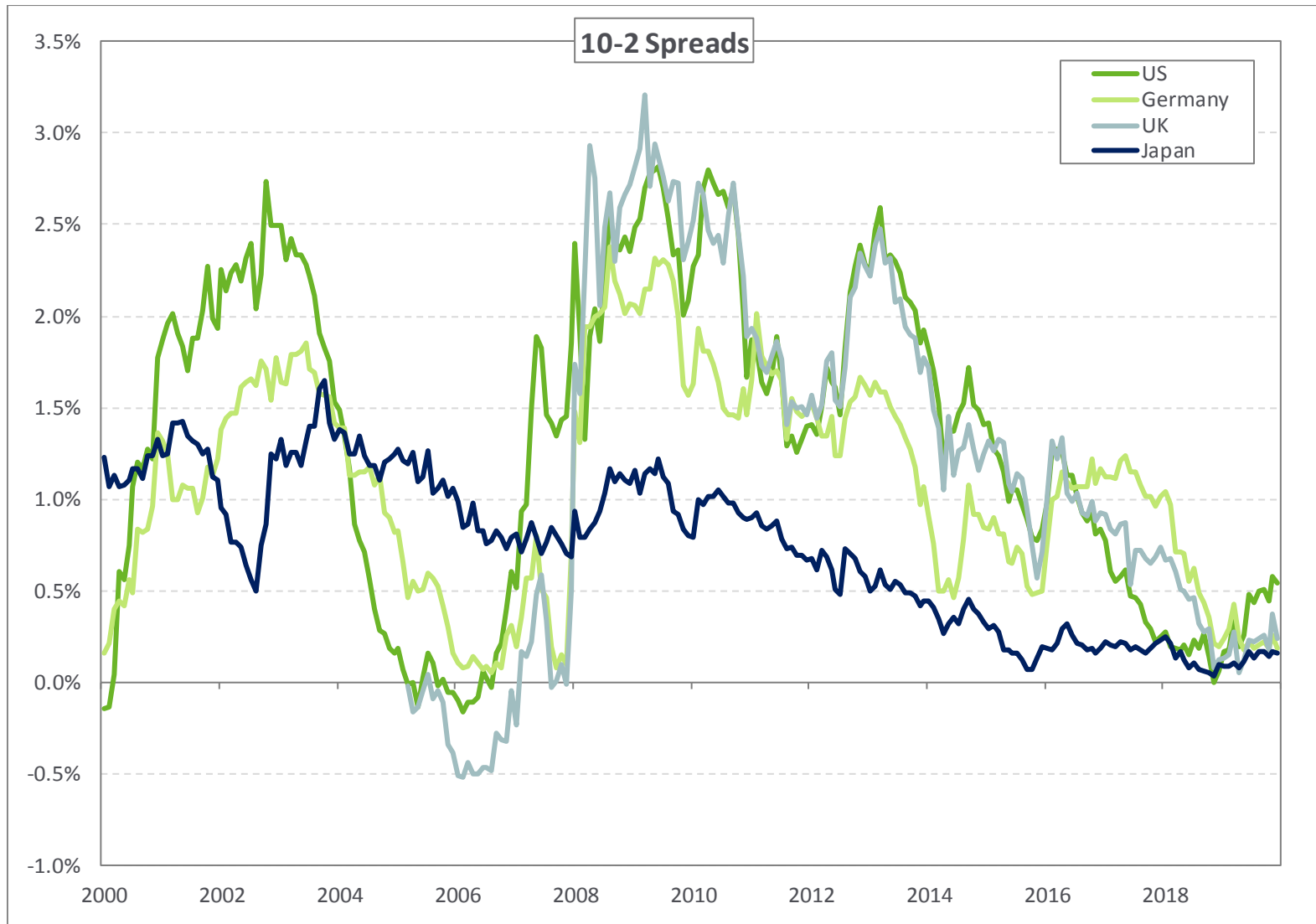
Source: FactSet

	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months
5-Year	-1.22%	-1.41%	0.20%	1.50%	1.35%
7-Year	-1.11%	-1.27%	0.16%	1.57%	1.46%
10-Year	-0.94%	-1.08%	0.15%	1.62%	1.53%
30-Year	-0.32%	-0.35%	0.53%	1.77%	1.59%

Source: FactSet



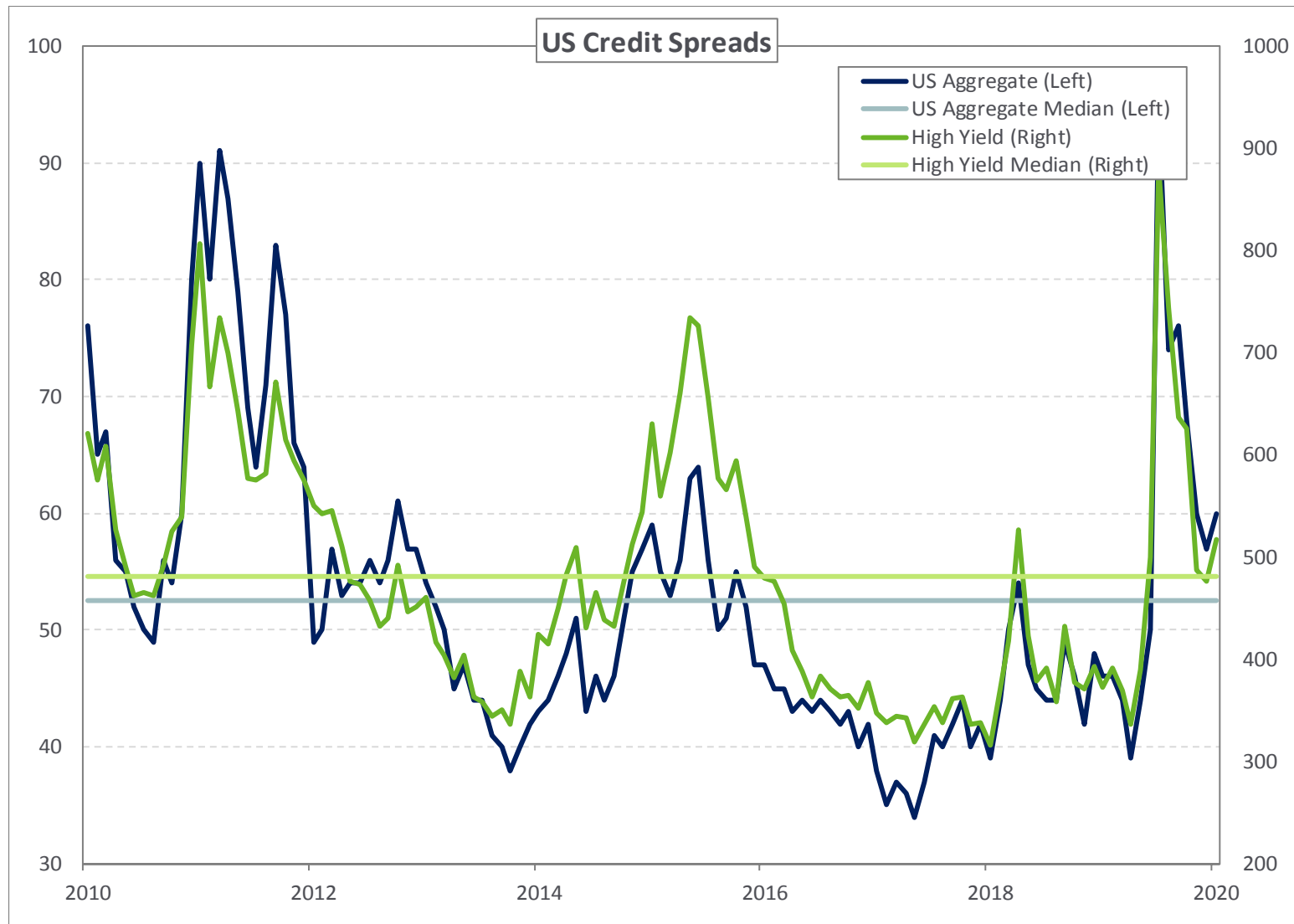
NOMINAL YIELDS



Source: FactSet



CREDIT SPREADS



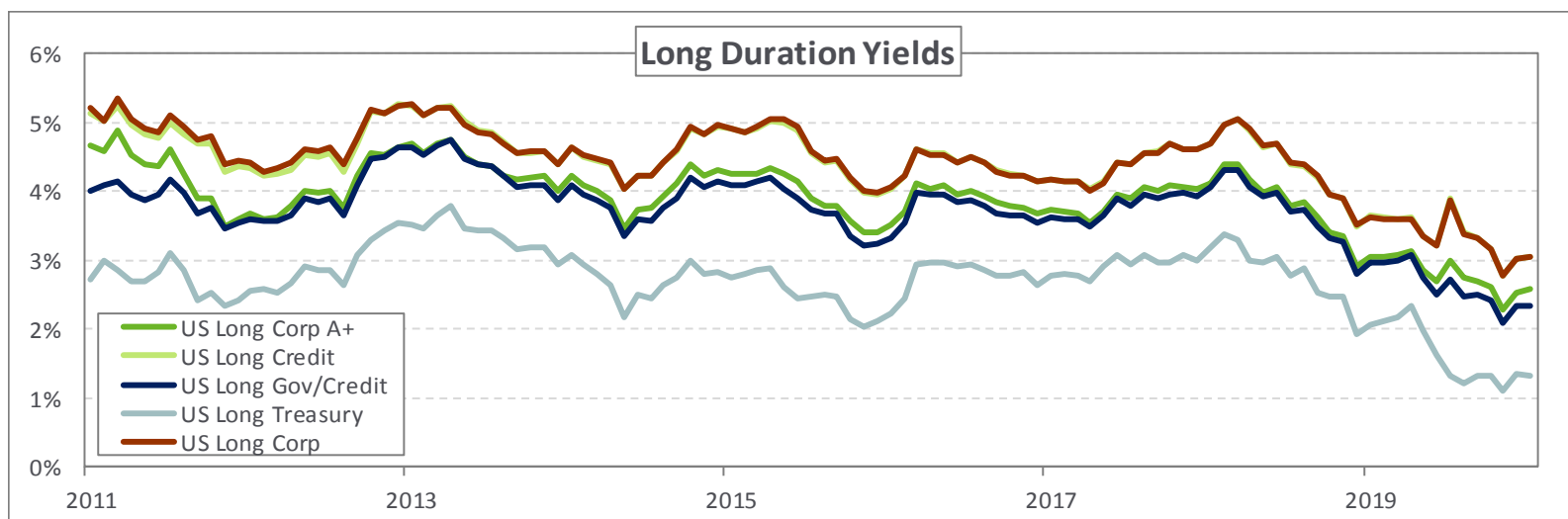
Source: Barclays, FactSet



LONG DURATION

Index	Current	1 Month Ago	12 Months Ago	Duration
Barclays Long Treasury	1.3%	1.3%	2.1%	19.4
Barclays 20+ STRIPS	1.5%	1.5%	2.2%	27.2
Barclays Long Credit	3.0%	3.0%	3.6%	15.1
Barclays Long Gov/Credit	2.4%	2.3%	3.0%	16.8
Barclays Long Corp A+	2.7%	2.7%	3.2%	16.0

Source: Barclays, FactSet



Source: Barclays, FactSet



REAL ASSETS

NEPC, LLC

REAL ASSETS INDEX PERFORMANCE

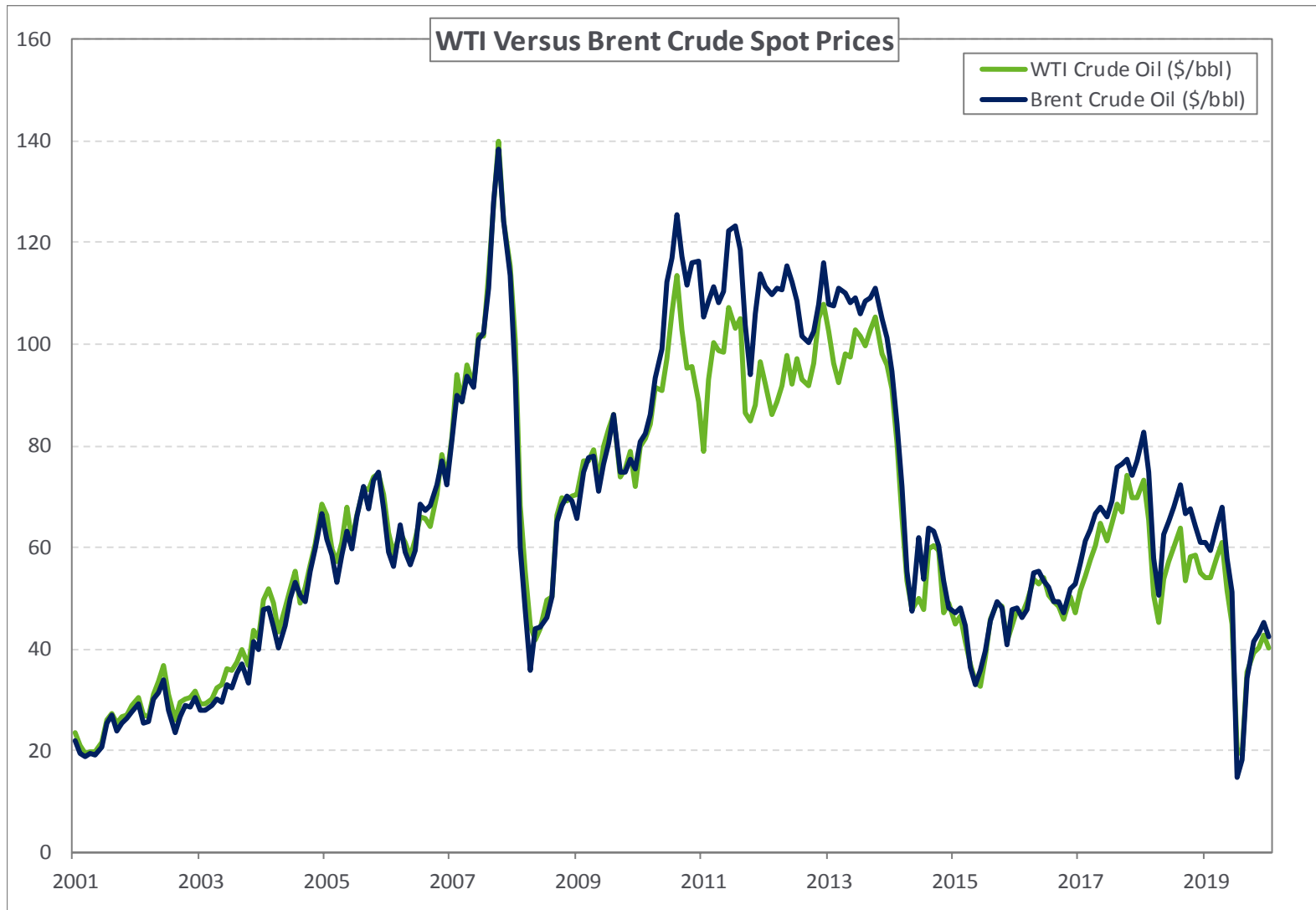
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-3.4%	9.1%	-12.1%	-8.1%	-4.2%	-3.1%
Bloomberg Sub Agriculture Index	3.4%	11.9%	-4.0%	2.8%	-5.1%	-5.0%
Coffee	-14.0%	7.7%	-19.8%	0.2%	-13.9%	-11.0%
Corn	5.9%	6.7%	-9.8%	-11.4%	-8.0%	-10.1%
Cotton	1.0%	8.1%	-4.9%	5.4%	-1.8%	1.4%
Soybean	7.4%	16.0%	3.7%	6.4%	-3.9%	-1.6%
Soybean Oil	0.8%	15.0%	-9.7%	6.6%	-4.2%	-0.7%
Sugar	1.0%	7.0%	-3.6%	2.7%	-7.8%	-4.6%
Wheat	4.7%	15.5%	0.8%	12.9%	1.6%	-7.1%
Bloomberg Sub Energy	-9.6%	4.3%	-44.0%	-40.5%	-15.8%	-14.0%
Brent Crude	-8.2%	-0.2%	-42.7%	-33.2%	-7.6%	-7.0%
Heating Oil	-7.1%	-7.5%	-50.8%	-46.1%	-16.2%	-11.4%
Natural Gas	-13.5%	15.0%	-28.5%	-40.6%	-26.5%	-24.4%
Unleaded Gas	-0.5%	5.6%	-42.9%	-35.0%	-12.3%	-9.9%
WTI Crude Oil	-6.2%	0.8%	-58.3%	-52.2%	-19.7%	-17.3%
Bloomberg Sub Industrial Metals	-2.8%	11.2%	1.8%	1.6%	-1.0%	4.5%
Aluminum	-2.5%	7.2%	-7.3%	-2.6%	-7.2%	0.2%
Copper	-0.9%	10.3%	6.5%	15.4%	0.0%	4.1%
Nickel	-5.6%	13.0%	2.2%	-15.7%	11.1%	6.1%
Zinc	-4.7%	16.7%	4.4%	0.1%	-4.9%	9.3%
Bloomberg Sub Precious Metals	-7.7%	7.8%	22.6%	27.0%	11.8%	9.5%
Gold	-4.2%	3.6%	21.4%	25.2%	12.3%	9.9%
Silver	-17.8%	25.1%	27.4%	33.5%	10.1%	8.3%
Bloomberg Sub Livestock	7.4%	13.8%	-25.2%	-25.0%	-10.6%	-7.7%
Lean Hogs	19.6%	30.8%	-37.0%	-46.2%	-21.2%	-17.1%
Live Cattle	2.4%	7.2%	-17.6%	-9.9%	-4.8%	-2.3%

Source: Bloomberg, FactSet

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



OIL MARKETS



Source: FactSet



Information Disclaimer

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- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
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Reporting Methodology

- 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.

