

**INVESTMENT PERFORMANCE ANALYSIS FOR  
PERIOD ENDING SEPTEMBER 30, 2020**

# **NEW MEXICO EDUCATIONAL RETIREMENT BOARD**

**November 19, 2020**

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# **MARKET ENVIRONMENT UPDATE & OUTLOOK**

NEPC, LLC

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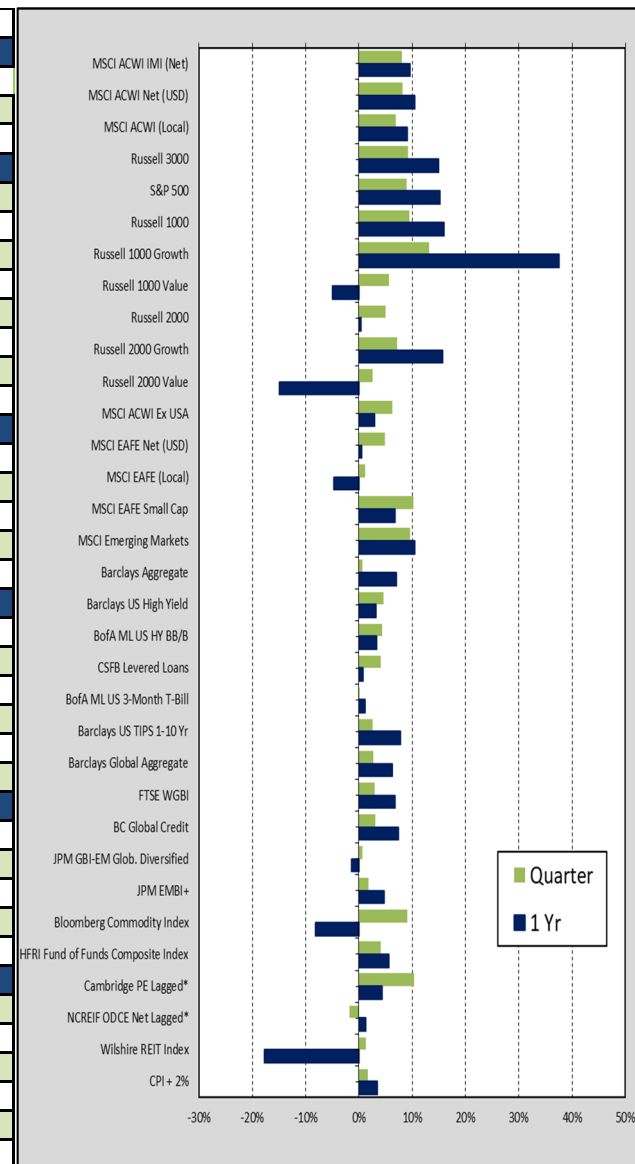
# ECONOMIC ENVIRONMENT

- **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

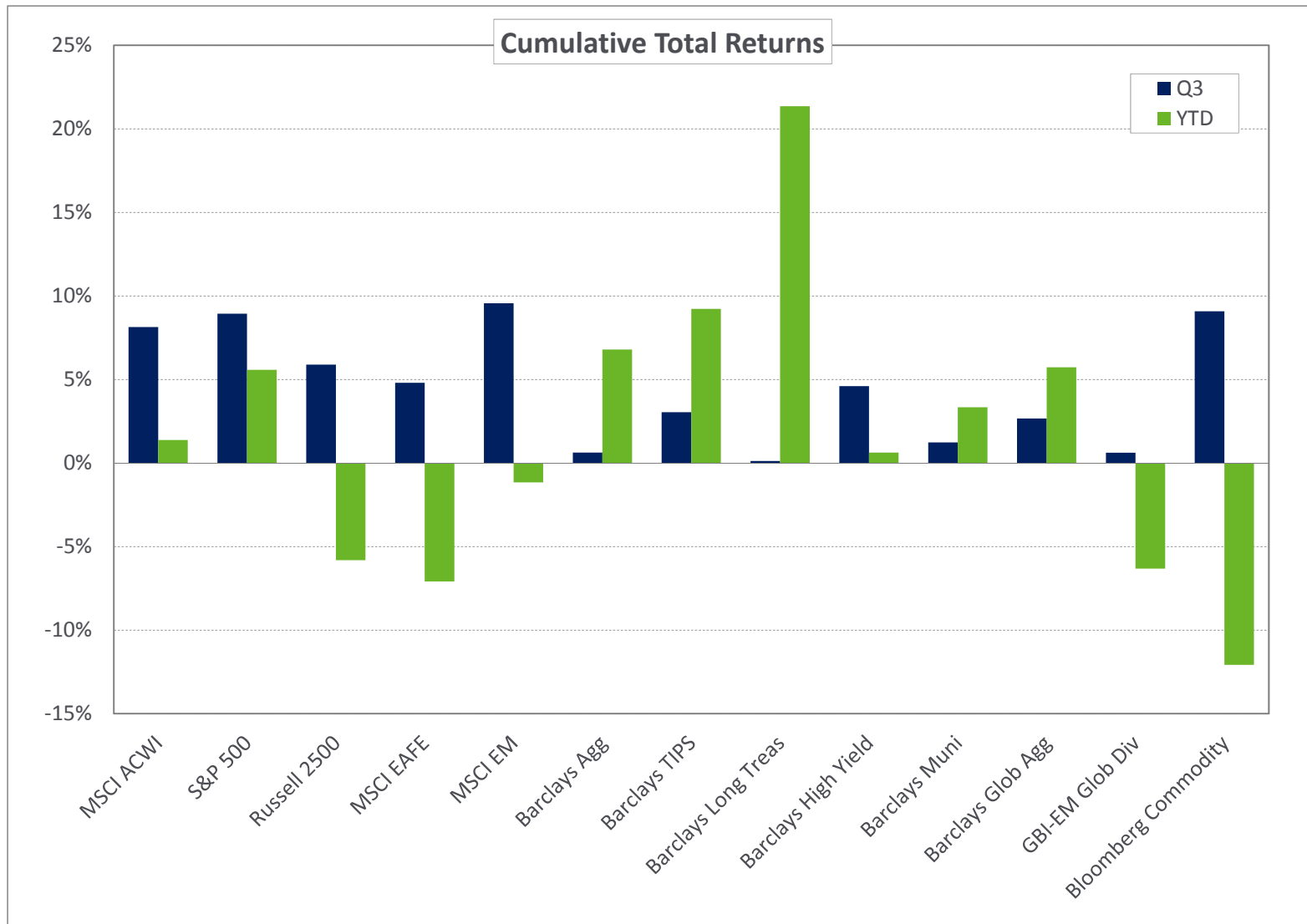
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI IMI (Net)	World with Small Cap	8.11%	9.57%	6.47%	9.97%	8.47%
MSCI ACWI Net (USD)	World W/O Small Cap	8.13%	10.44%	7.12%	10.30%	8.55%
MSCI ACWI (Local)	World (Local Currency)	6.94%	9.05%	7.32%	10.09%	9.54%
<b>Domestic Equity Benchmarks</b>						
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%
<b>International Equity Benchmarks</b>						
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%
<b>Domestic Fixed Income Benchmarks</b>						
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%
<b>Global Fixed Income Benchmarks</b>						
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%
<b>Alternative Benchmarks</b>						
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

September 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% <sup>1</sup>	
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 <sup>2</sup>	
Federal Reserve Balance Sheet as % of Nominal GDP	19.2%	36.3%	32.9%	

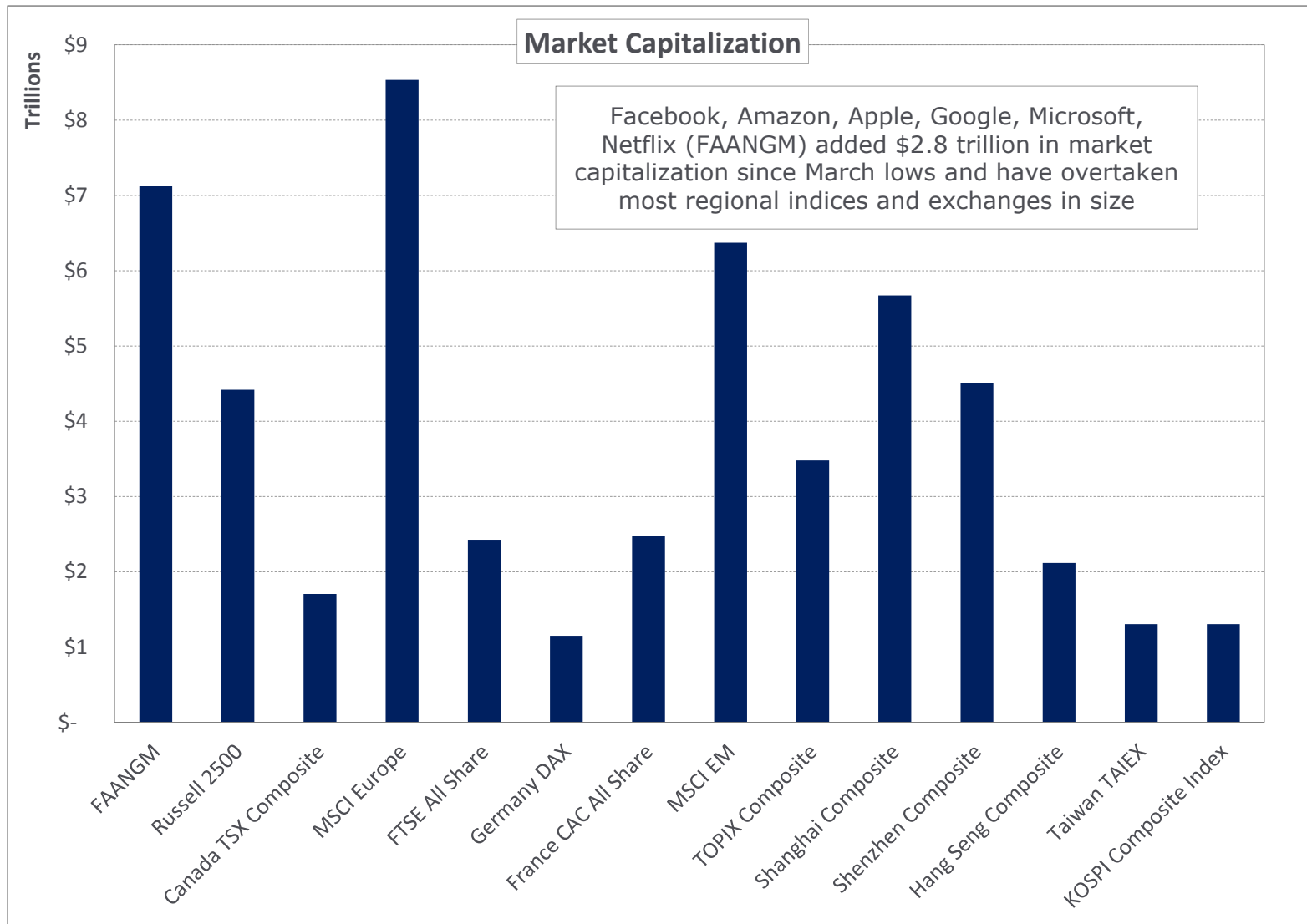
Source: US Bureau of Labor Statistics, Federal Reserve, FactSet, NEPC  
NTM represents next 12 months

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

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



# FAANGM NOW LARGER THAN MOST INDICES

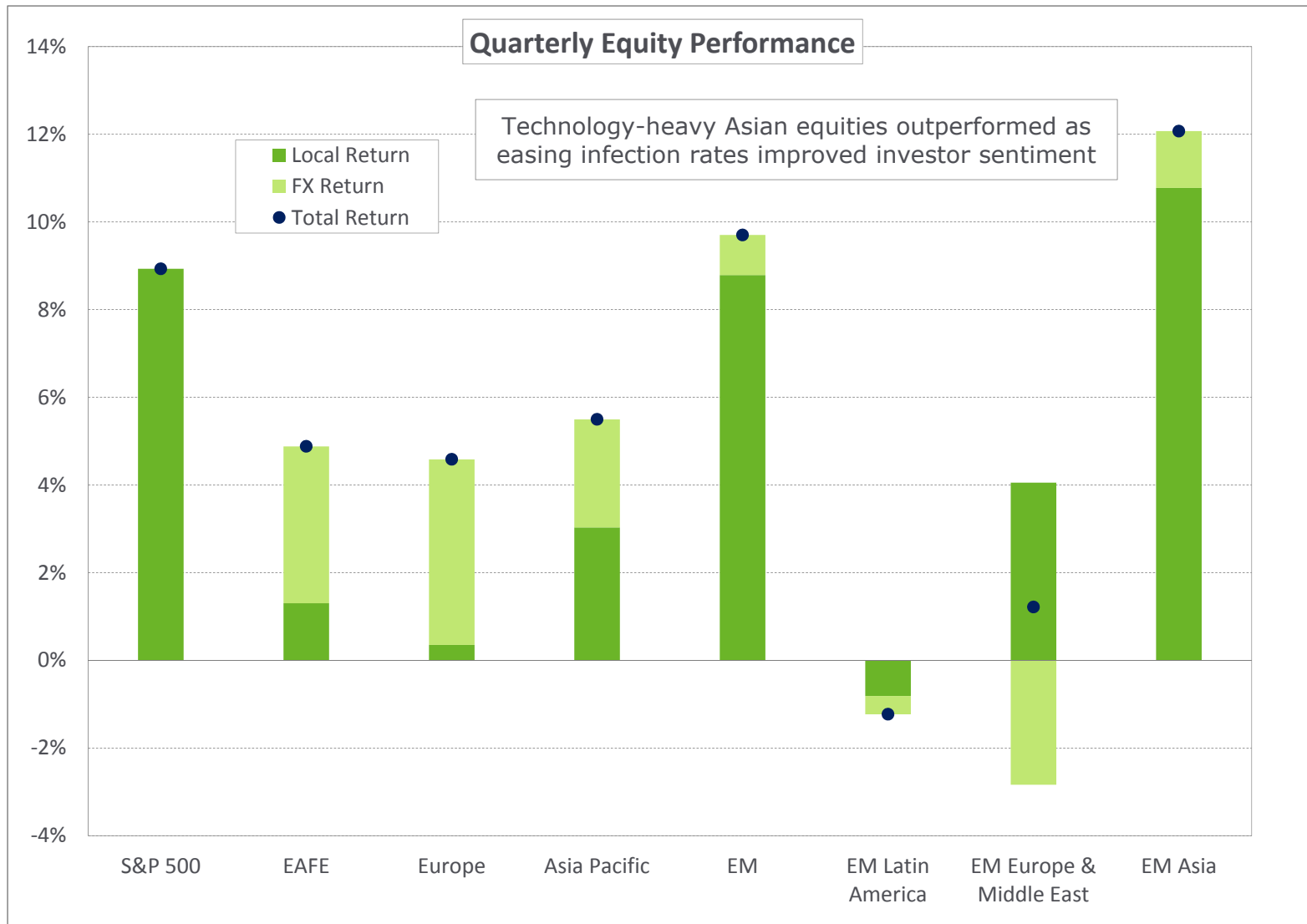


Source: MSCI, S&P, Russell, FTSE, DAX, CAC, TOPIX, SSE, SZSE, Hang Seng, TAIEX, KOSPI, FactSet  
 FAANGM represents 25.5% of the S&P 500





# DOLLAR WEAKNESS BOLSTERED NON-US ASSETS



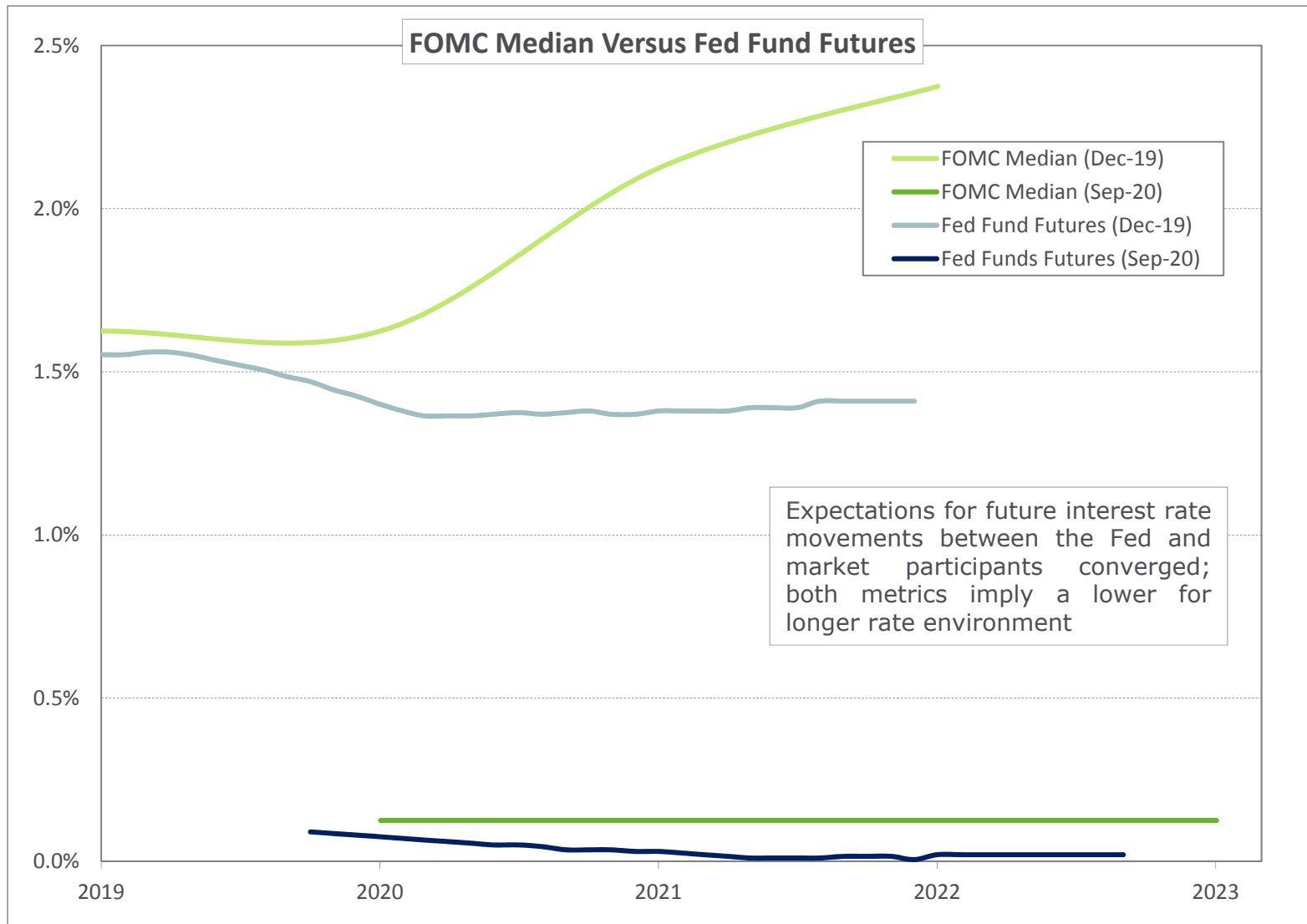
Source: S&P, MSCI, FactSet

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



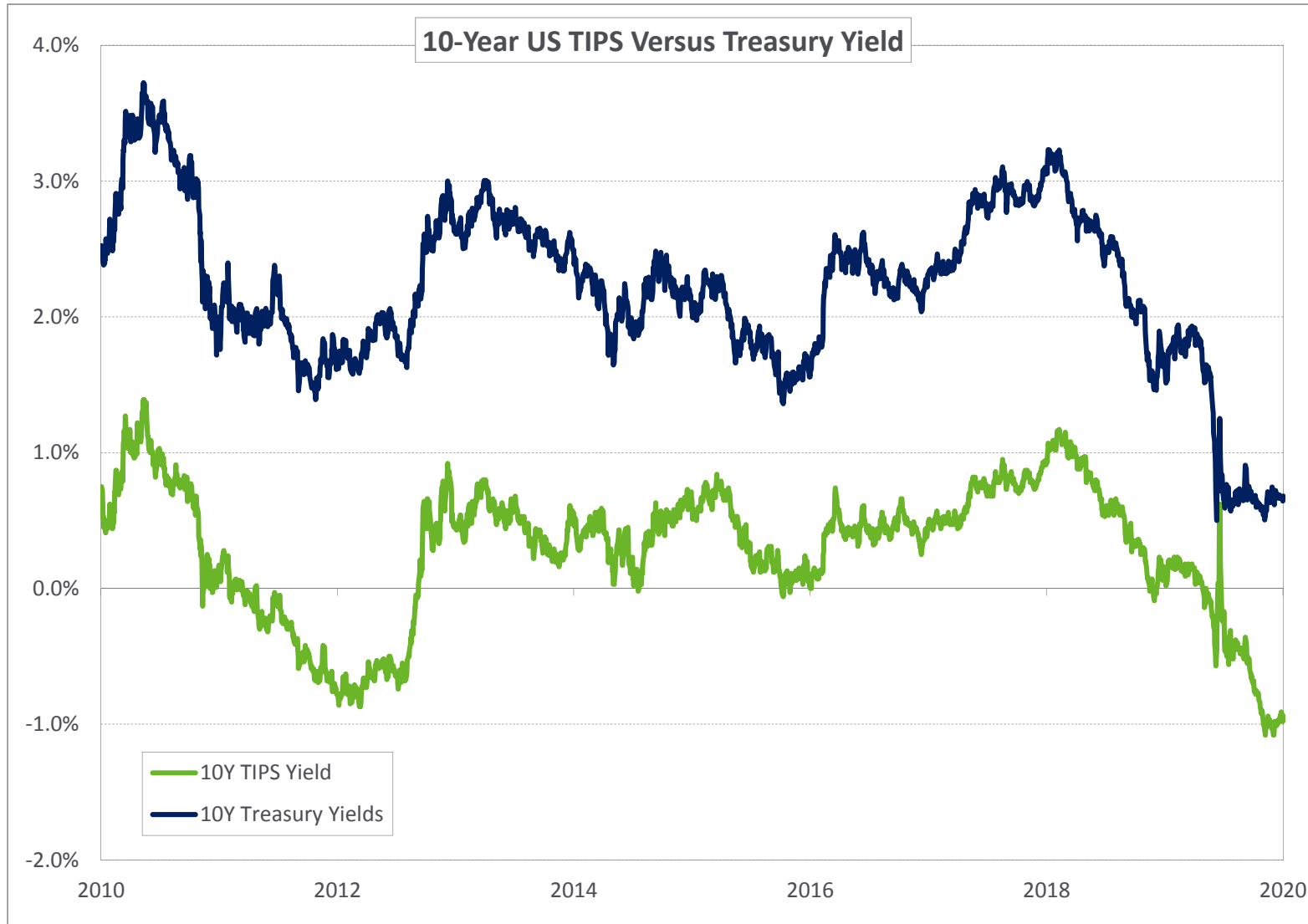
# FED FUNDS RATE EXPECTED TO REMAIN LOW



Source: Federal Reserve, FactSet



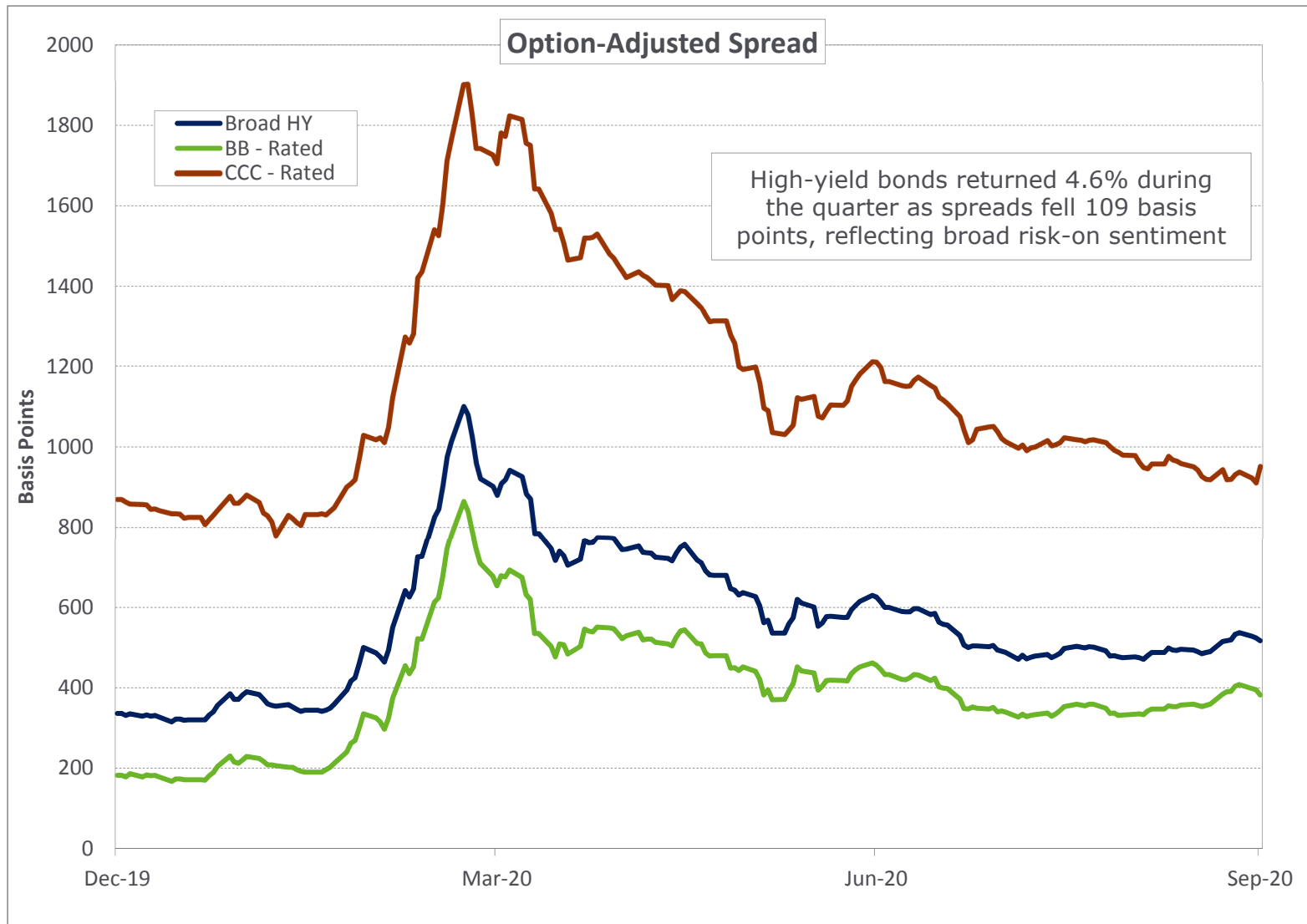
# TREASURY YIELDS FELL TO HISTORICAL LOWS



Source: FactSet



# US SPREADS CONTINUED TO TIGHTEN



High-yield bonds returned 4.6% during the quarter as spreads fell 109 basis points, reflecting broad risk-on sentiment

Source: Bloomberg, FactSet



# THIRD PARTY PLACEMENT AGENT DISCLOSURE

The New Mexico Educational Retirement Board Policy Regarding Placement Agent Disclosures requires that quarterly performance reports to the Board include information regarding any third-party marketers that were used by recipients of investments including any fee, commission or retainer paid by the hired fund to the third-party marketer for services rendered. These fees are not paid by NMERB but are paid by the hired funds for marketing services to the third-party.

The following investments were approved by the NMERB Investment Committee during the quarter, with disclosures made under the policy:

## **TPG Growth V**

The investment was approved for a \$60 million commitment on July 16, 2020 as part of the Fund's allocation to Private Equity.

TPG has provided documentation confirming no placement agent was used in connection with NMERB's investment.

Additionally, TPG has completed the ERB Campaign Contribution Disclosure and reports no applicable campaign contributions.

## **Harvest Fund Advisors**

The contract extension was approved on September 17, 2020 as part of the Fund's allocation to Real Assets.

Harvest has provided documentation confirming no placement agent was used in connection with NMERB's investment.

Additionally, Harvest has completed the ERB Campaign Contribution Disclosure and reports no applicable campaign contributions.

## **OrbiMed Private Investments VIII**

The investment was approved for a \$50 million commitment on September 17, 2020 as part of the Fund's allocation to Private Equity.

OrbiMed has provided documentation confirming no placement agent was used in connection with NMERB's investment.

Additionally, OrbiMed has completed the ERB Campaign Contribution Disclosure and reports no applicable campaign contributions.



## New Mexico Educational Retirement Board

# TOTAL FUND PERFORMANCE SUMMARY (NET)

	Market Value	3 Mo Rank	YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank	15 Yrs Rank	20 Yrs Rank	30 Yrs Rank	Inception	Inception Date									
<b>Total Fund</b>	<b>\$13,205,852,432</b>	<b>4.64%</b>	<b>66</b>	<b>-1.50%</b>	<b>83</b>	<b>2.44%</b>	<b>93</b>	<b>5.31%</b>	<b>58</b>	<b>7.43%</b>	<b>53</b>	<b>7.38%</b>	<b>56</b>	<b>6.37%</b>	<b>32</b>	<b>5.34%</b>	<b>72</b>	<b>8.32%</b>	<b>25</b>	<b>8.82%</b>	<b>Jul-83</b>
Policy Index		5.15%	45	1.80%	36	5.97%	51	6.50%	27	8.18%	31	7.40%	51	6.13%	44	5.58%	57	7.57%	84	--	Jul-83
60% MSCI ACWI (Net) / 40% FTSE WGBI		6.09%	8	4.20%	6	9.58%	6	6.38%	31	8.01%	39	6.07%	98	5.61%	84	5.25%	84	7.26%	89	--	Jul-83
S&P 500		8.93%	1	5.57%	1	15.15%	1	12.28%	1	14.15%	1	13.74%	1	9.19%	1	6.42%	16	10.59%	1	11.02%	Jul-83
BBgBarc US Aggregate TR		0.62%	99	6.79%	1	6.98%	38	5.24%	60	4.18%	99	3.63%	99	4.48%	99	5.01%	88	6.02%	93	7.06%	Jul-83
InvMetrics Public DB > \$1B Net Median		5.03%		0.77%		5.98%		5.48%		7.49%		7.42%		5.98%		5.77%		8.16%		8.29%	Jul-83

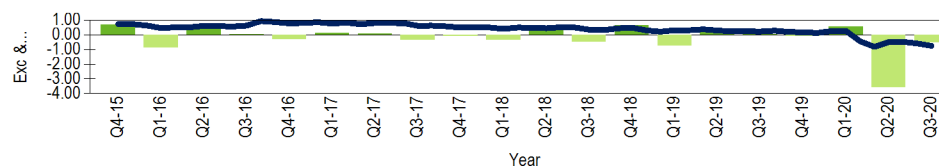
Over the past five years, the Fund returned 7.4% per annum, underperforming the policy index by 75 basis points and ranking in the 53<sup>rd</sup> percentile of the Investment Metrics Public Funds > \$1 Billion universe and outperforming the actuarial assumed rate of 7.00%. The Fund's volatility was 5.9%, which ranks in the 6<sup>th</sup> percentile of its peers over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the 6<sup>th</sup> percentile of its peers.

Over the past three years, the Fund returned 5.3% per annum, underperforming the policy index by 119 basis points and ranking in the 58<sup>th</sup> percentile of its peer group. Over the same period, the Fund's volatility ranks in the 4<sup>th</sup> percentile of its peers, resulting in a three-year Sharpe Ratio of 0.6, which ranks in the 16<sup>th</sup> percentile.

For the year ending September 30, 2020, the Fund experienced a net investment gain of \$330.5 million, which includes a net investment gain of \$592.2 million during the quarter. Assets decreased from \$13.3 billion twelve months ago, to \$13.2 billion on September 30, 2020, with \$470.5 million in net distributions during the year. The Fund returned 2.4%, underperforming the policy index by 353 basis points and ranking in the 93<sup>rd</sup> percentile of its peers.

The InvMetrics Public Funds > \$1 Billion Net Universe contains 77 observations for the period ending September 30, 2020, with total assets of \$591.4 billion.

### 5 Year Rolling Annualized Excess Performance



Quarterly Outperformance Quarterly Underperformance

5 Years Ending September 30, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
Total Fund	7.4%	53	5.9%	6	1.1	6	1.3	9
Policy Index	8.2%	31	6.5%	9	1.1	4	1.3	6
InvMetrics Public DB > \$1B Net Median	7.5%	--	8.3%	--	0.8	--	0.9	--

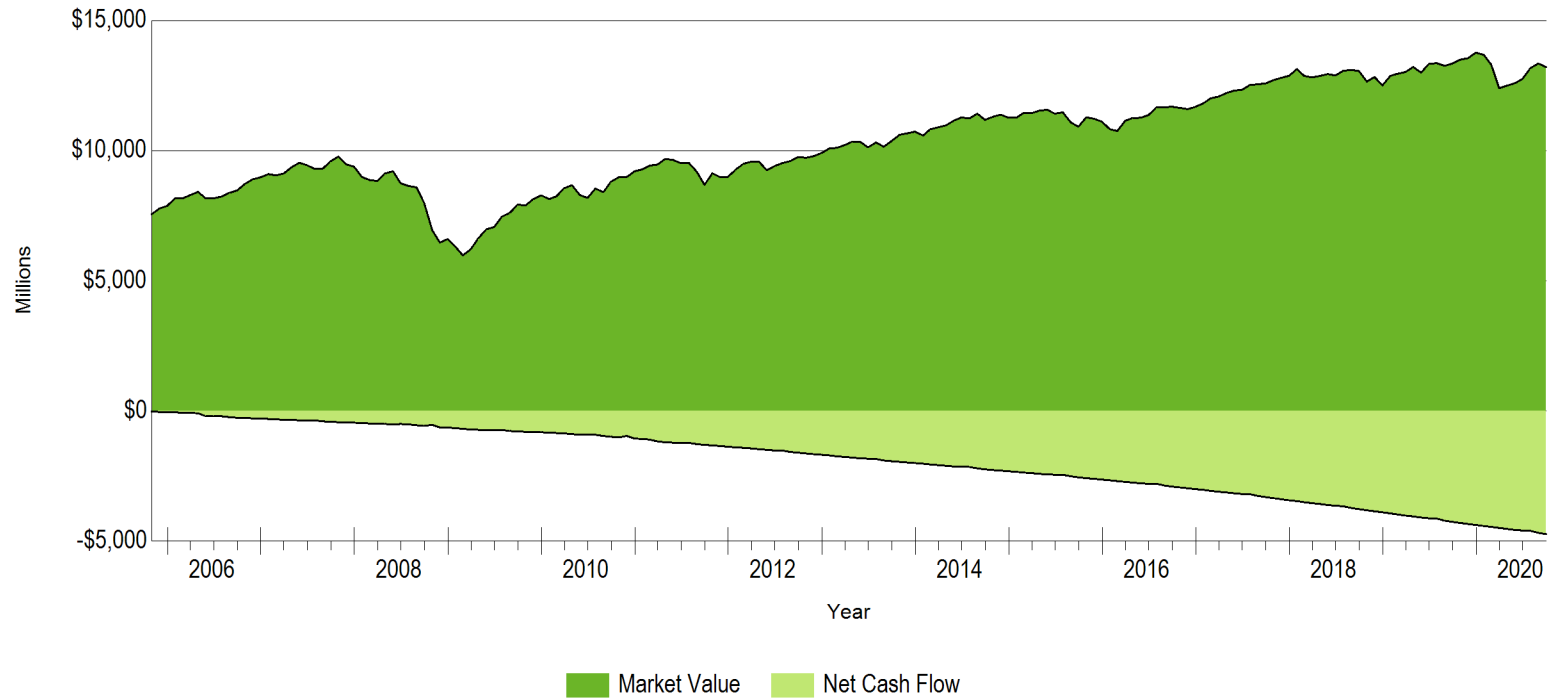
3 Years Ending September 30, 2020								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
Total Fund	5.3%	58	6.6%	4	0.6	16	0.8	26
Policy Index	6.5%	27	7.3%	9	0.7	8	0.9	9
InvMetrics Public DB > \$1B Net Median	5.5%	--	9.7%	--	0.4	--	0.6	--



## New Mexico Educational Retirement Board

# TOTAL FUND ASSET GROWTH SUMMARY

**Market Value History**  
Since NEPC began tracking performance, October 1, 2005 thru September 30, 2020



	Last Three Months	Year-To-Date	One Year	Three Years	Five Years	Since 10/1/05
Beginning Market Value	\$12,752,949,305	\$13,763,653,160	\$13,345,900,640	\$12,580,019,720	\$10,920,403,085	\$7,694,652,364
Net Cash Flow	-\$139,303,785	-\$352,404,893	-\$470,535,226	-\$1,425,346,535	-\$2,182,097,358	-\$4,720,719,645
Net Investment Change	\$592,206,912	-\$205,395,836	\$330,487,019	\$2,051,179,248	\$4,467,546,705	\$10,231,919,713
Ending Market Value	\$13,205,852,432	\$13,205,852,432	\$13,205,852,432	\$13,205,852,432	\$13,205,852,432	\$13,205,852,432



# TOTAL FUND ASSET ALLOCATION VS. POLICY

Current Allocation

Policy Target



	Current Mkt Value	Current Allocation	Policy Target <sup>1</sup>	Difference	Policy Range	Within Range
<b>Equity</b>	<b>\$3,932,009,300</b>	<b>29.8%</b>	<b>31.0%</b>	<b>-1.2%</b>	<b>15% - 55%</b>	<b>Yes</b>
<b>U.S. Equity</b>	<b>\$2,127,851,349</b>	<b>16.1%</b>	<b>17.0%</b>	<b>-0.9%</b>	<b>8% - 30%</b>	<b>Yes</b>
U.S. Large Cap Equity	\$1,788,722,080	13.5%	14.0%	-0.5%	7% - 25%	Yes
U.S. Small/Mid Cap Equity	\$339,129,269	2.6%	3.0%	-0.4%	0% - 5%	Yes
<b>Non-U.S. Equity</b>	<b>\$1,804,157,951</b>	<b>13.7%</b>	<b>14.0%</b>	<b>-0.3%</b>	<b>5% - 25%</b>	<b>Yes</b>
Non-U.S. Developed Mkts	\$633,895,252	4.8%	5.0%	-0.2%	0% - 10%	Yes
Non-U.S. Emerging Mkts	\$1,170,262,699	8.9%	9.0%	-0.1%	2% - 15%	Yes
<b>Fixed Income</b>	<b>\$3,419,578,913</b>	<b>25.9%</b>	<b>24.0%</b>	<b>1.9%</b>	<b>10% - 58%</b>	<b>Yes</b>
Core Fixed Income	\$780,810,022	5.9%	6.0%	-0.1%	0% - 20%	Yes
Opportunistic Credit	\$2,409,239,258	18.2%	16.0%	2.2%	0% - 30%	Yes
Emerging Mkts Debt	\$229,529,633	1.7%	2.0%	-0.3%	0% - 8%	Yes
<b>Alternatives</b>	<b>\$5,732,091,999</b>	<b>43.4%</b>	<b>44.0%</b>	<b>-0.6%</b>	<b>10% - 65%</b>	<b>Yes</b>
<b>Absolute Return</b>	<b>\$338,567</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0% - 10%</b>	<b>Yes</b>
<b>Diversifying Assets</b>	<b>\$1,633,822,906</b>	<b>12.4%</b>	<b>12.0%</b>	<b>0.4%</b>		
Global Asset Allocation	\$383,555,583	2.9%	2.0%	0.9%	0% - 6%	Yes
Risk Parity	\$770,765,587	5.8%	3.0%	2.8%	0% - 6%	Yes
Other Diversifying Assets	\$479,501,736	3.6%	7.0%	-3.4%	0% - 12%	Yes
<b>Real Estate</b>	<b>\$829,111,634</b>	<b>6.3%</b>	<b>8.0%</b>	<b>-1.7%</b>	<b>0% - 15%</b>	<b>Yes</b>
REITs	\$250,745,973	1.9%	2.0%	-0.1%		
Private Real Estate	\$578,365,661	4.4%	6.0%	-1.6%		
<b>Private Equity</b>	<b>\$2,167,976,500</b>	<b>16.4%</b>	<b>15.0%</b>	<b>1.4%</b>	<b>0% - 24%</b>	<b>Yes</b>
<b>Inflation-Linked Assets</b>	<b>\$1,100,842,392</b>	<b>8.3%</b>	<b>9.0%</b>	<b>-0.7%</b>	<b>0% - 16%</b>	<b>Yes</b>
<b>Cash</b>	<b>\$122,112,165</b>	<b>0.9%</b>	<b>1.0%</b>	<b>-0.1%</b>	<b>-20% - 15%</b>	<b>Yes</b>
<b>Total</b>	<b>\$13,205,852,432</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>		

<sup>1</sup>Long-Term Policy Target approved by the Board in August 2019.

Note: Allocations shown here include cash held in separately managed portfolios.

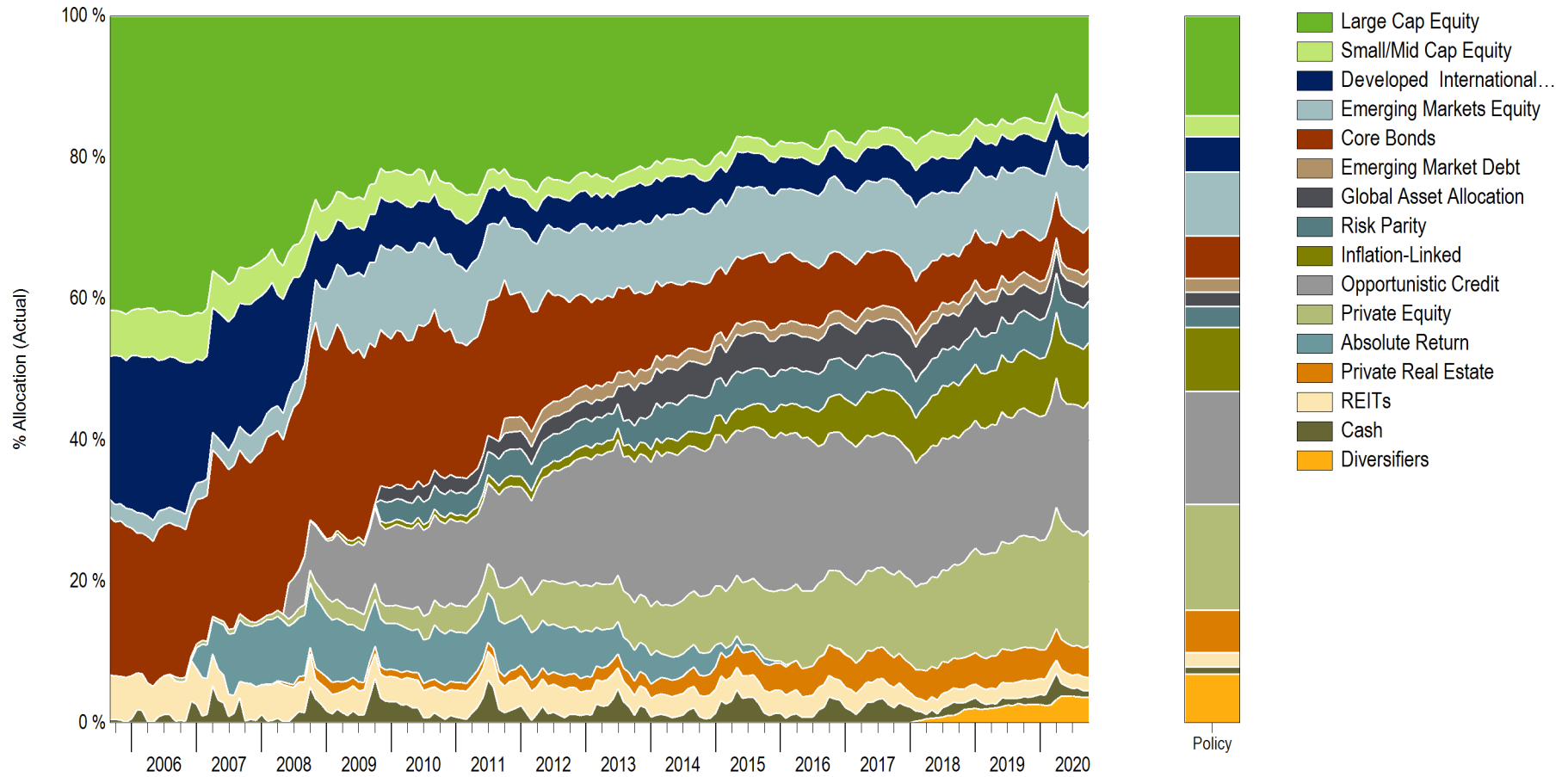
Totals may not add to 100% due to rounding. Total Plan includes Legacy Assets portfolio totaling \$60,055.





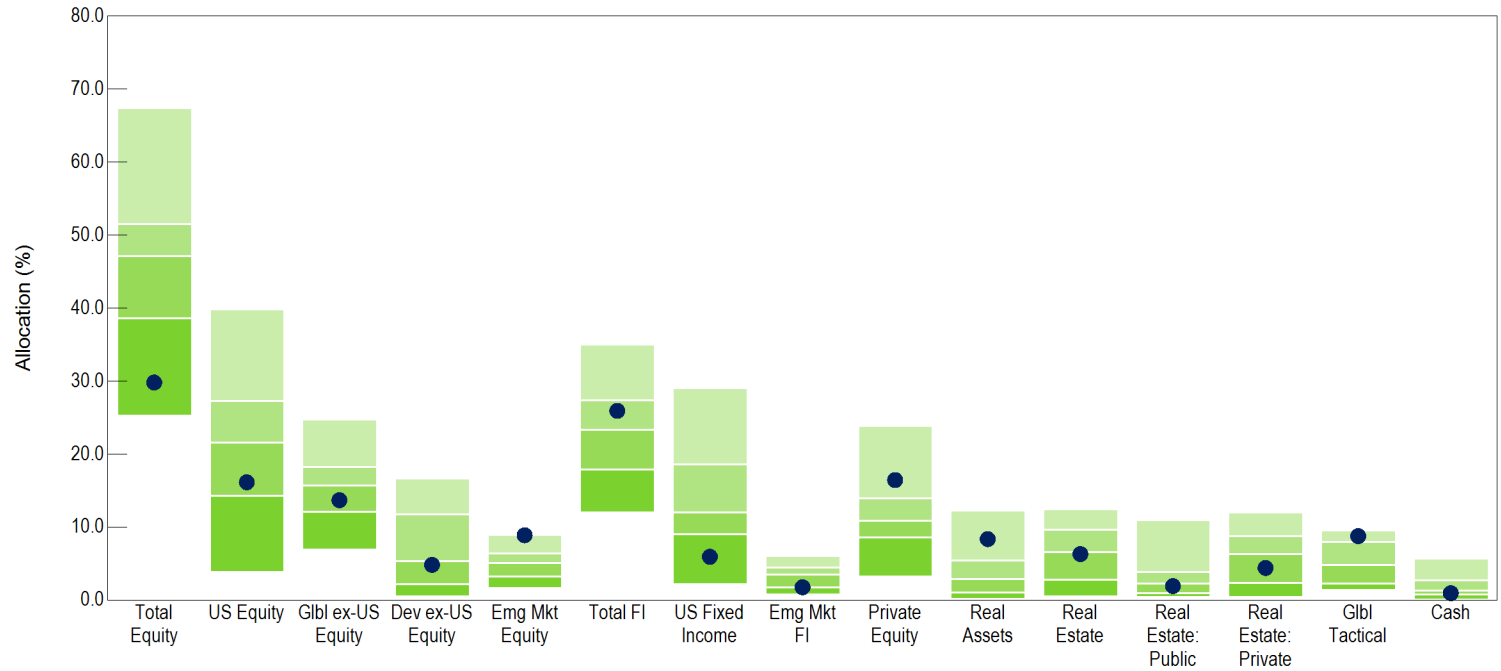
# TOTAL FUND ASSET ALLOCATION HISTORY

Quarterly Asset Allocation History  
September 2005 - Present



# TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

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

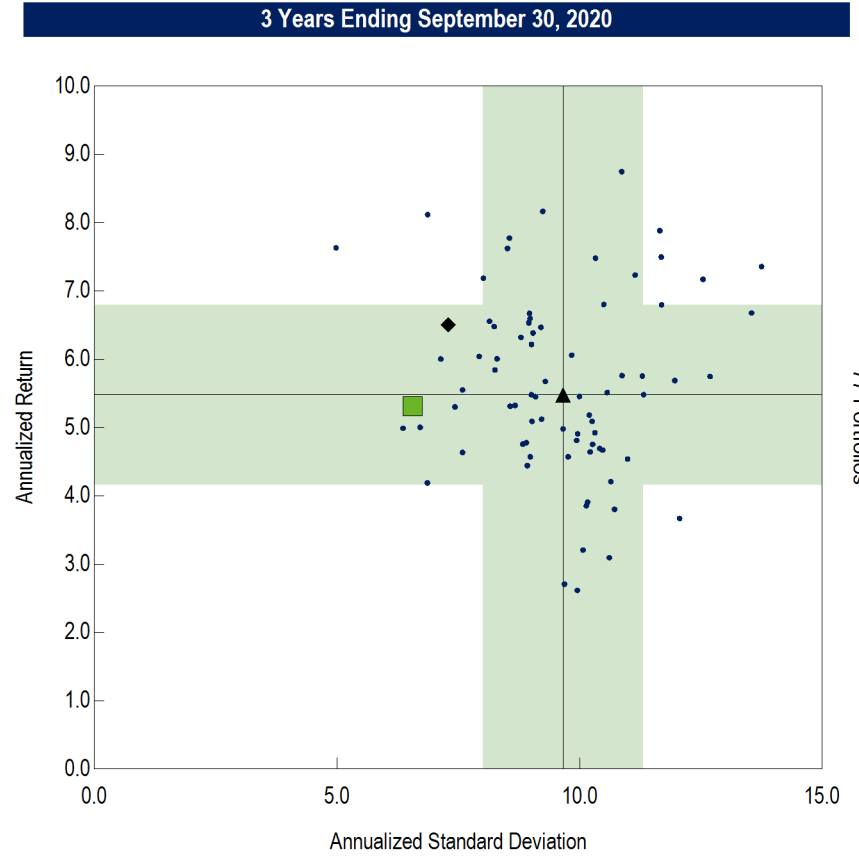
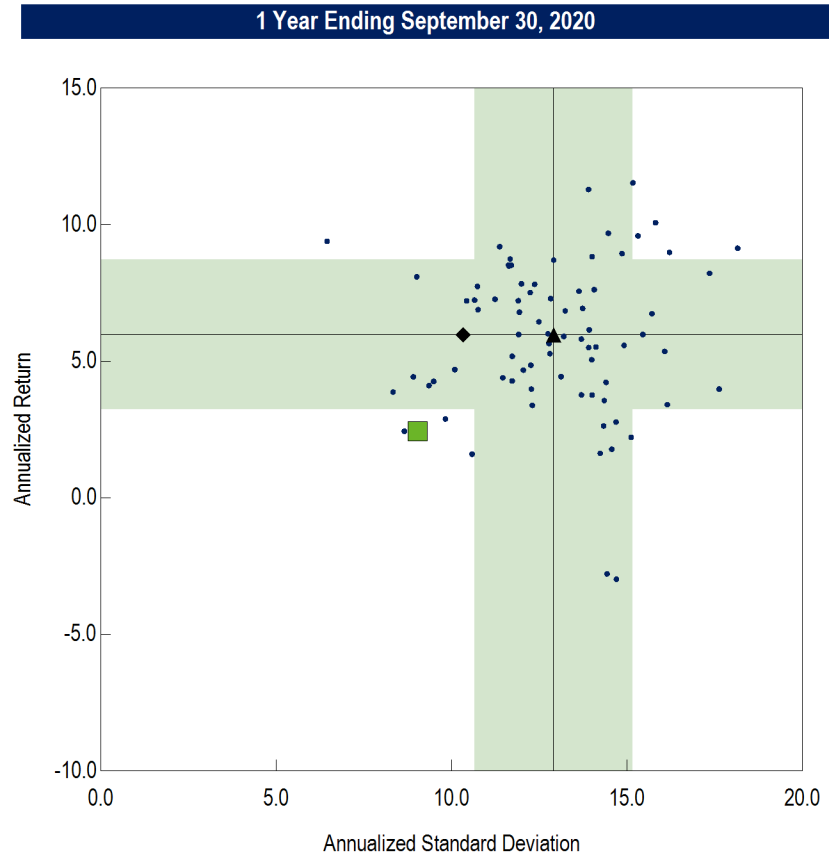


	Allocation (Rank)															
5th Percentile	67.4	39.8	24.7	16.6	8.9	34.9	29.0	6.0	23.9	12.3	12.4	11.0	12.0	9.5	5.7	--
25th Percentile	51.5	27.4	18.3	11.8	6.4	27.5	18.7	4.5	14.0	5.5	9.7	3.9	8.8	8.0	2.8	--
Median	47.1	21.7	15.8	5.4	5.2	23.4	12.1	3.5	11.0	2.9	6.6	2.3	6.3	4.8	1.4	--
75th Percentile	38.6	14.3	12.2	2.2	3.3	18.0	9.1	1.8	8.6	1.1	2.9	1.0	2.5	2.3	0.8	--
95th Percentile	25.3	3.9	7.0	0.6	1.8	12.1	2.2	0.8	3.3	0.2	0.6	0.5	0.5	1.5	0.1	--
# of Portfolios	55	42	52	30	39	55	40	28	49	30	50	17	44	10	55	--
● Total Fund	29.8 (89)	16.1 (74)	13.7 (67)	4.8 (54)	8.9 (6)	25.9 (34)	5.9 (84)	1.7 (76)	16.4 (16)	8.3 (16)	6.3 (56)	1.9 (63)	4.4 (68)	8.7 (23)	0.9 (69)	--



# New Mexico Educational Retirement Board

## TOTAL FUND RISK/RETURN



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

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

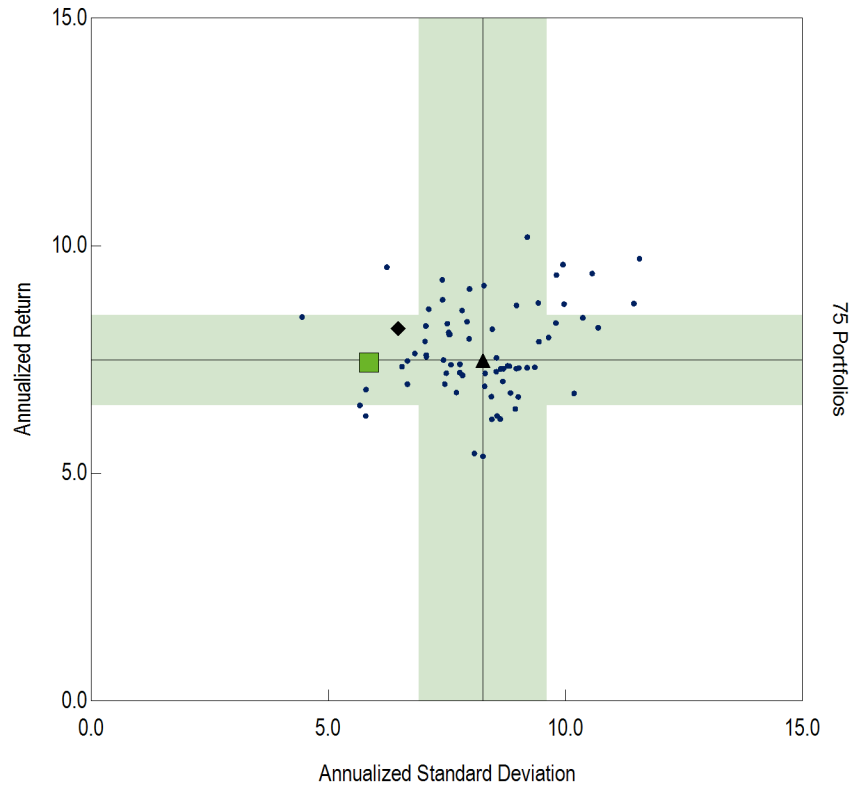
Note: Ranks are based on net returns.



# New Mexico Educational Retirement Board

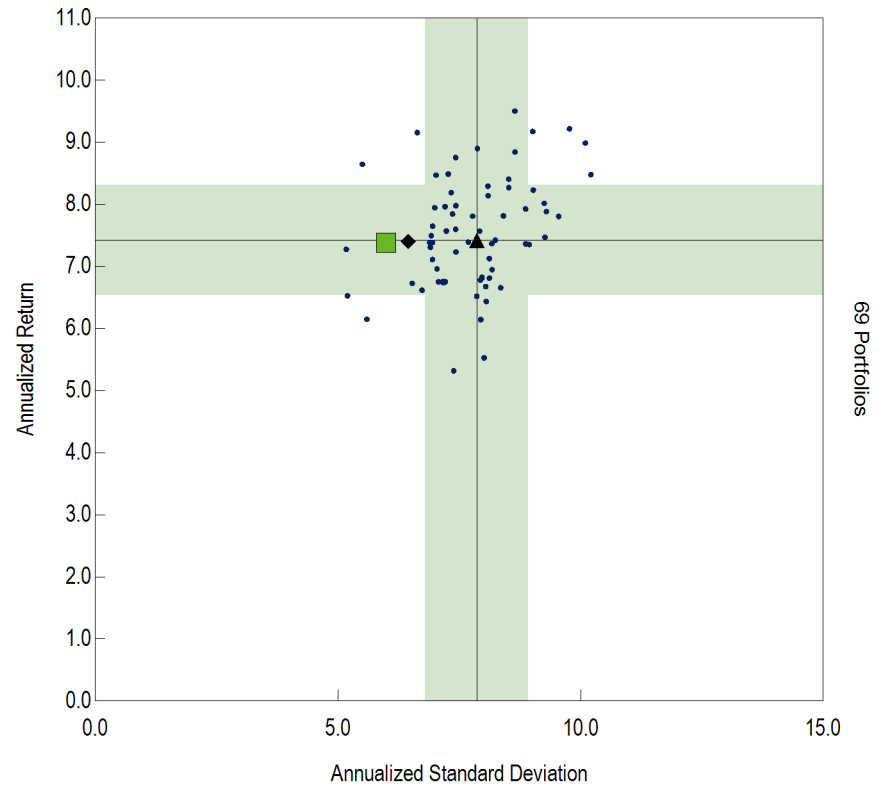
## TOTAL FUND RISK/RETURN

5 Years Ending September 30, 2020



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

10 Years Ending September 30, 2020



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

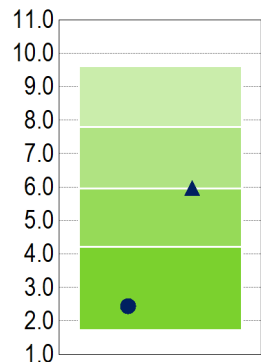
Note: Ranks are based on net returns.



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

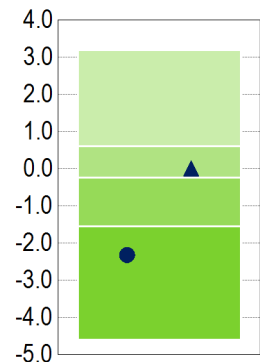
Total Fund vs. InvMetrics Public DB > \$1B Net (USD) (peer)  
1 Year

Anlzd Return



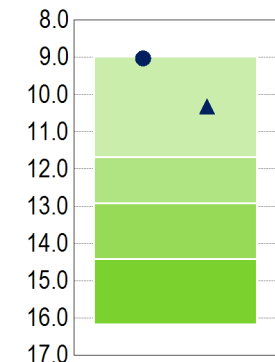
● Total Fund	
Value	2.4
Rank	93
▲ Policy Index	
Value	6.0
Rank	51
Universe	
5th %tile	9.6
25th %tile	7.8
Median	6.0
75th %tile	4.2
95th %tile	1.7

Anlzd Alpha



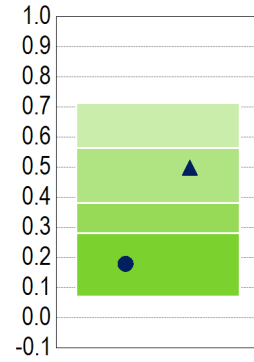
● Total Fund	
Value	-2.3
Rank	82
▲ Policy Index	
Value	0.0
Rank	37
Universe	
5th %tile	3.2
25th %tile	0.6
Median	-0.2
75th %tile	-1.5
95th %tile	-4.6

Anlzd Standard Deviation



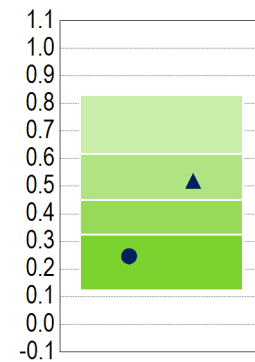
● Total Fund	
Value	9.0
Rank	6
▲ Policy Index	
Value	10.3
Rank	12
Universe	
5th %tile	9.0
25th %tile	11.7
Median	12.9
75th %tile	14.4
95th %tile	16.2

Sharpe Ratio



● Total Fund	
Value	0.2
Rank	89
▲ Policy Index	
Value	0.5
Rank	35
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	0.2
Rank	86
▲ Policy Index	
Value	0.5
Rank	43
Universe	
5th %tile	0.8
25th %tile	0.6
Median	0.5
75th %tile	0.3
95th %tile	0.1

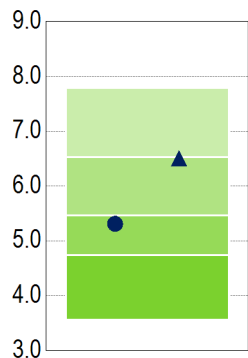
Note: Ranks are based on net returns. Universe contains 77 observations with total assets of \$591.4 billion. Sortino ratio needs two negative periods to populate.



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

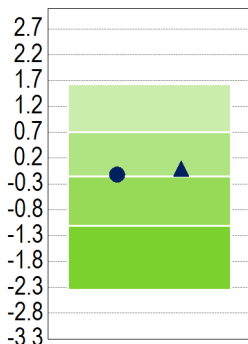
## Total Fund vs. InvMetrics Public DB > \$1B Net (USD) (peer) 3 Year

### Anlzd Return



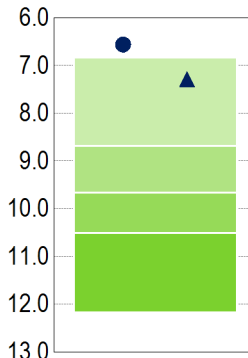
● Total Fund	
Value	5.3
Rank	58
▲ Policy Index	
Value	6.5
Rank	27
Universe	
5th %tile	7.8
25th %tile	6.5
Median	5.5
75th %tile	4.8
95th %tile	3.6

### Anlzd Alpha



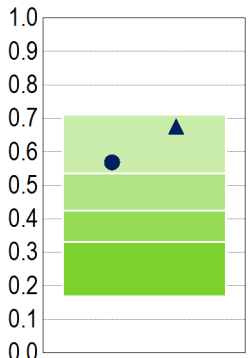
● Total Fund	
Value	-0.1
Rank	49
▲ Policy Index	
Value	0.0
Rank	44
Universe	
5th %tile	1.6
25th %tile	0.7
Median	-0.1
75th %tile	-1.1
95th %tile	-2.3

### Anlzd Standard Deviation



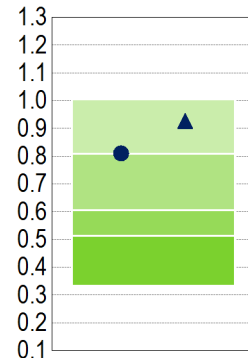
● Total Fund	
Value	6.6
Rank	4
▲ Policy Index	
Value	7.3
Rank	9
Universe	
5th %tile	6.8
25th %tile	8.7
Median	9.7
75th %tile	10.5
95th %tile	12.2

### Sharpe Ratio



● Total Fund	
Value	0.6
Rank	16
▲ Policy Index	
Value	0.7
Rank	8
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	0.8
Rank	26
▲ Policy Index	
Value	0.9
Rank	9
Universe	
5th %tile	1.0
25th %tile	0.8
Median	0.6
75th %tile	0.5
95th %tile	0.3

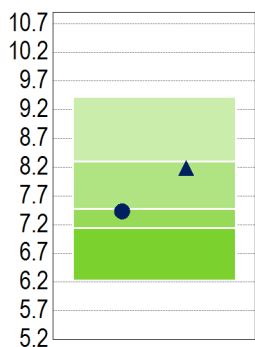
Note: Ranks are based on net returns. Universe contains 77 observations with total assets of \$591.4 billion. Sortino ratio needs two negative periods to populate.



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

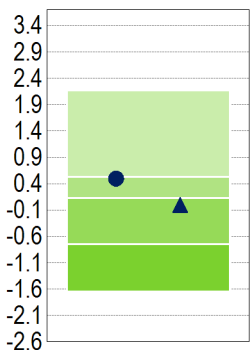
## Total Fund vs. InvMetrics Public DB > \$1B Net (USD) (peer) 5 Year

### Anlzd Return



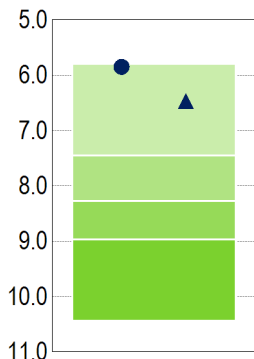
● Total Fund	
Value	7.4
Rank	53
▲ Policy Index	
Value	8.2
Rank	31
Universe	
5th %tile	9.4
25th %tile	8.3
Median	7.5
75th %tile	7.2
95th %tile	6.2

### Anlzd Alpha



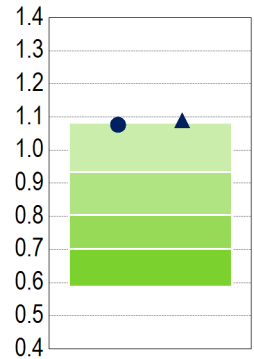
● Total Fund	
Value	0.5
Rank	28
▲ Policy Index	
Value	0.0
Rank	53
Universe	
5th %tile	2.2
25th %tile	0.5
Median	0.1
75th %tile	-0.7
95th %tile	-1.6

### Anlzd Standard Deviation



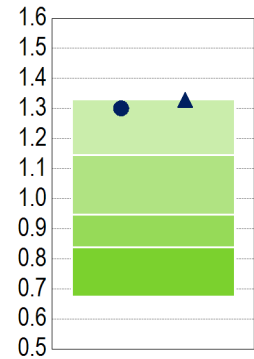
● Total Fund	
Value	5.9
Rank	6
▲ Policy Index	
Value	6.5
Rank	9
Universe	
5th %tile	5.8
25th %tile	7.4
Median	8.3
75th %tile	9.0
95th %tile	10.4

### Sharpe Ratio



● Total Fund	
Value	1.1
Rank	6
▲ Policy Index	
Value	1.1
Rank	4
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	1.3
Rank	9
▲ Policy Index	
Value	1.3
Rank	6
Universe	
5th %tile	1.3
25th %tile	1.1
Median	0.9
75th %tile	0.8
95th %tile	0.7

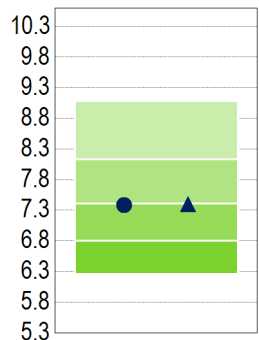
Note: Ranks are based on net returns. Universe contains 77 observations with total assets of \$591.4 billion. Sortino ratio needs two negative periods to populate.



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

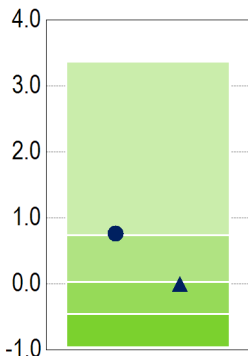
### Anlzd Return



● Total Fund	
Value	7.4
Rank	56
▲ Policy Index	
Value	7.4
Rank	51

Universe	
5th %tile	9.1
25th %tile	8.1
Median	7.4
75th %tile	6.8
95th %tile	6.3

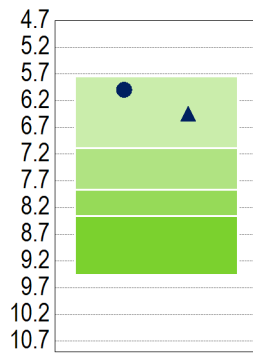
### Anlzd Alpha



● Total Fund	
Value	0.8
Rank	25
▲ Policy Index	
Value	0.0
Rank	54

Universe	
5th %tile	3.4
25th %tile	0.8
Median	0.0
75th %tile	-0.4
95th %tile	-0.9

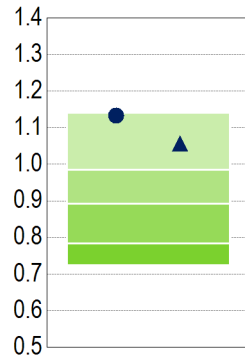
### Anlzd Standard Deviation



● Total Fund	
Value	6.0
Rank	6
▲ Policy Index	
Value	6.4
Rank	8

Universe	
5th %tile	5.7
25th %tile	7.1
Median	7.9
75th %tile	8.3
95th %tile	9.4

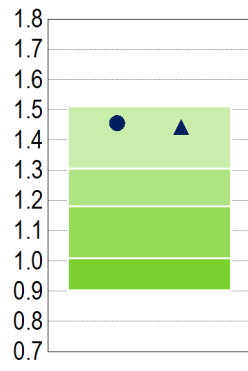
### Sharpe Ratio



● Total Fund	
Value	1.1
Rank	7
▲ Policy Index	
Value	1.1
Rank	12

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	1.5
Rank	9
▲ Policy Index	
Value	1.4
Rank	11

Universe	
5th %tile	1.5
25th %tile	1.3
Median	1.2
75th %tile	1.0
95th %tile	0.9

Note: Ranks are based on net returns. Universe contains 77 observations with total assets of \$591.4 billion. Sortino ratio needs two negative periods to populate.





# New Mexico Educational Retirement Board

## 3 YEAR RISK/RETURN PROFILE

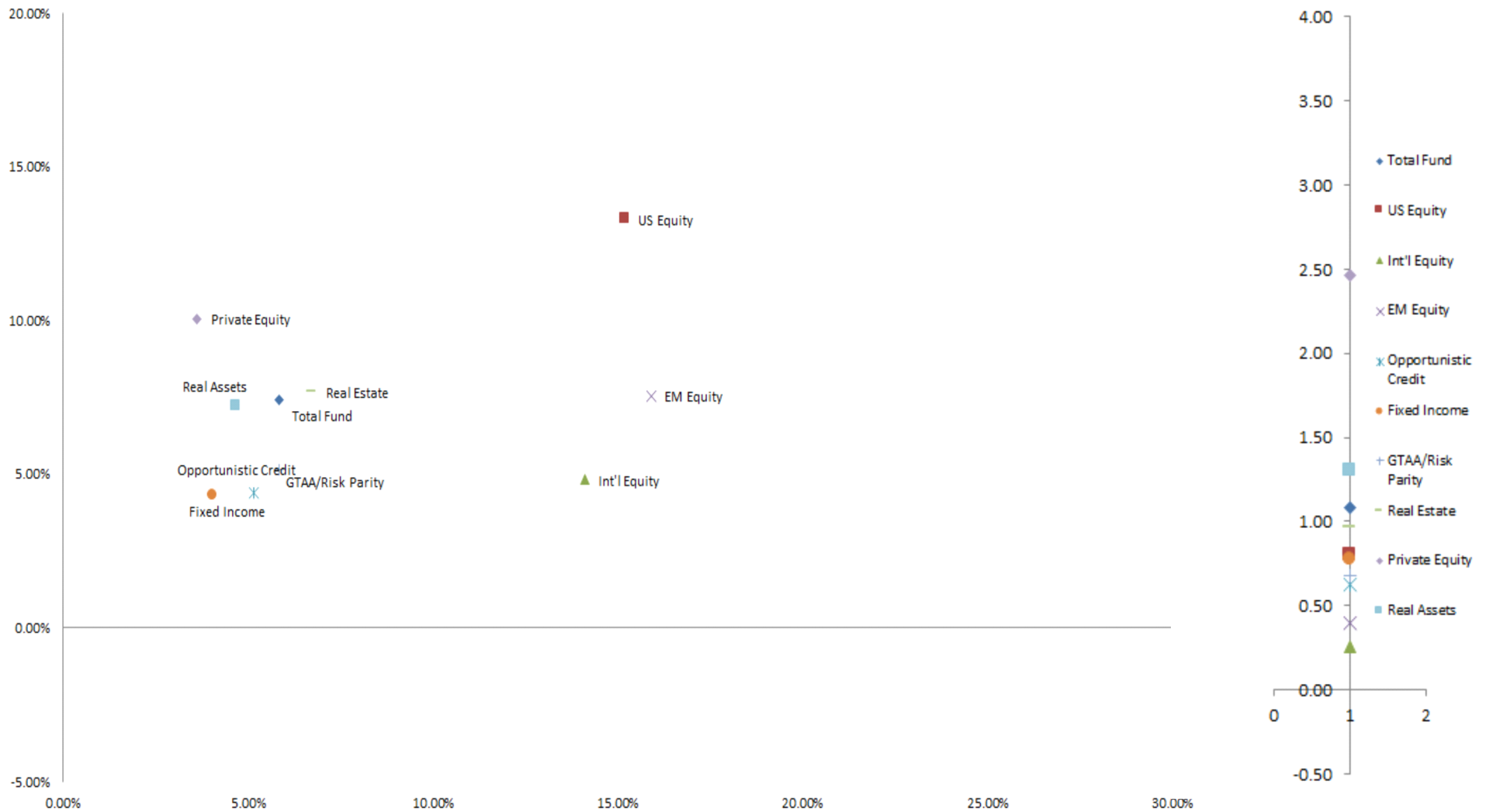


Note: Returns are net of fees. The graph on the right side shows composite level sharpe ratios.



# New Mexico Educational Retirement Board

## 5 YEAR RISK/RETURN PROFILE



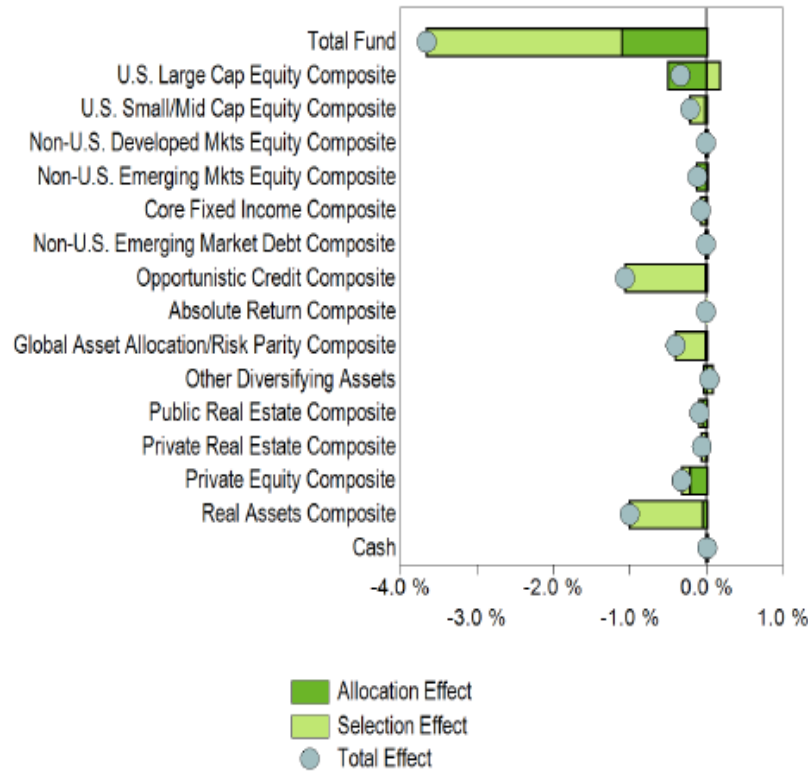
Note: Returns are net of fees. The graph on the right side shows composite level sharpe ratios.



# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects  
1 Year Ending September 30, 2020

**1 Year Excess Return: -3.52%**



- Allocation Effect: -0.92%
  - Public Real Estate overweight (-0.05%)
  - Non-U.S. Emerging Markets Equity underweight (-0.11%)
  - Private Equity overweight (-0.23%)
  - U.S. Large Cap Equity underweight (-0.41%)
- Manager Selection Effect: -2.60%
  - U.S. Large Cap Equity outperformed (+0.16%)
  - Other Diversifying Assets outperformed (+0.08%)
  - Private Real Estate underperformed (-0.05%)
  - Core Fixed Income underperformed (-0.06%)
  - Private Equity underperformed (-0.13%)
  - U.S. Small/Mid Cap Equity underperformed (-0.19%)
  - Global Asset Allocation/Risk Parity underperformed (-0.39%)
  - Real Assets underperformed (-0.95%)
  - Opportunistic Credit underperformed (-1.06%)
- Residual: 0.00%

**The Brinson-Fachler Attribution model explains excess return by identifying the size of contributors or detractors from excess return based on the three effects defined below:**

**Allocation Effect:** Measures the impact of the decision to over/under weight asset classes relative to Interim SAAP benchmark weights.  $(\text{Return Asset Class Index} - \text{Total Interim Policy Index Return}) \times (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Interim Policy Index})$ .

**Manager Selection Effect:** Measures the impact of over/under performance of asset classes in the portfolio relative to the asset class benchmarks in the Interim SAAP benchmark.  $[\text{Weight Asset Class Benchmark} \times (\text{Return Portfolio Asset Class} - \text{Return Asset Class in Interim Policy Index})] + \text{Interaction Effect}$ : Measures the impact of over/under weighting decisions and over/under performance.  $(\text{Return Asset Class Portfolio} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Policy Index})) - (\text{Return Asset Class Index} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Index}))$ .

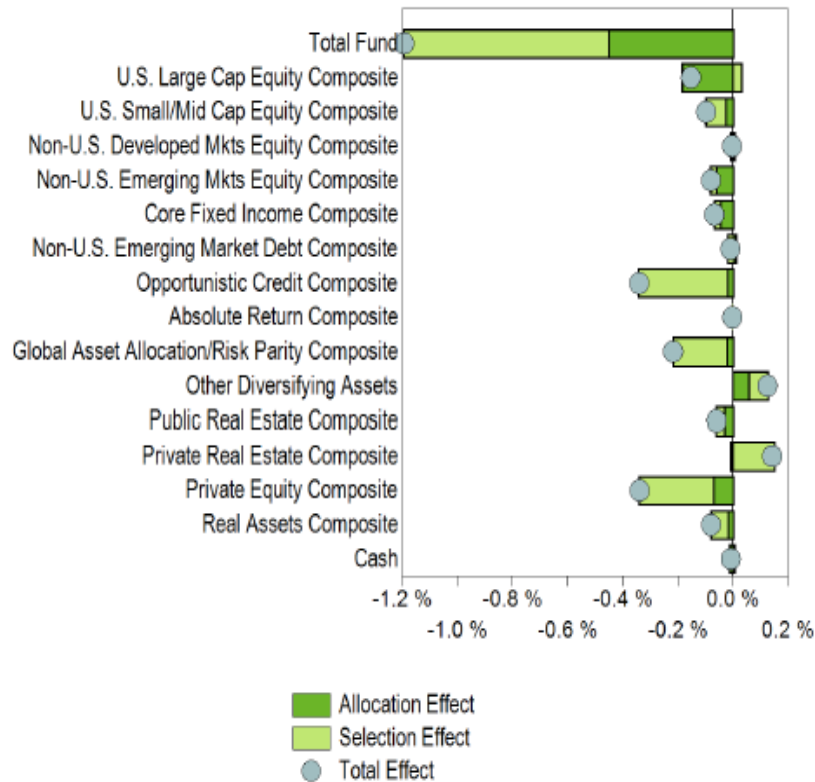
**Residual:** Contribution to excess return not captured in Allocation Effect and Manager Selection Effect.



# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects  
3 Years Ending September 30, 2020

**3 Year Excess Return: -1.19%**



- Allocation Effect: -0.45%
  - Other Diversifying Assets underweight (+0.06%)
  - Non U.S. Emerging Markets Equity overweight (-0.06%)
  - Private Equity underweight (-0.07%)
  - U.S. Large Cap Equity underweight (-0.18%)
- Manager Selection Effect: -0.74%
  - Private Real Estate outperformed (+0.15%)
  - Other Diversifying Assets outperformed (+0.07%)
  - Real Assets underperformed (-0.06%)
  - U.S. Small/Mid Cap Equity underperformed (-0.07%)
  - Global Asset Allocation/Risk Parity underperformed (-0.19%)
  - Private Equity underperformed (-0.27%)
  - Opportunistic Credit underperformed (-0.32%)
- Residual: 0.00%

**The Brinson-Fachler Attribution model explains excess return by identifying the size of contributors or detractors from excess return based on the three effects defined below:**

**Allocation Effect:** Measures the impact of the decision to over/under weight asset classes relative to Interim SAAP benchmark weights.  $(\text{Return Asset Class Index} - \text{Total Interim Policy Index Return}) \times (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Interim Policy Index})$ .

**Manager Selection Effect:** Measures the impact of over/under performance of asset classes in the portfolio relative to the asset class benchmarks in the Interim SAAP benchmark.  $[\text{Weight Asset Class Benchmark} \times (\text{Return Portfolio Asset Class} - \text{Return Asset Class in Interim Policy Index})]$  + **Interaction Effect:** Measures the impact of over/under weighting decisions and over/under performance.  $(\text{Return Asset Class Portfolio} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Policy Index})) - (\text{Return Asset Class Index} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Index}))$ .

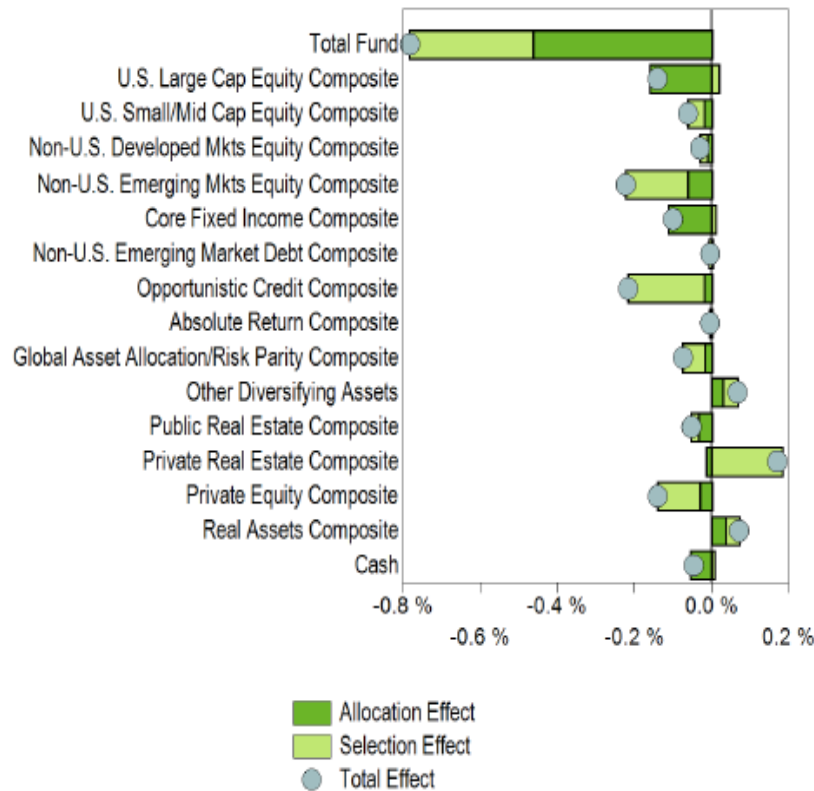
**Residual:** Contribution to excess return not captured in Allocation Effect and Manager Selection Effect.



# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Effects  
5 Years Ending September 30, 2020

**5 Year Excess Return: -0.75%**



- Allocation Effect: -0.43%
  - Cash overweight (-0.06%)
  - Non-U.S. Emerging Mkts Equity underweight (-0.06%)
  - Core Fixed Income overweight (-0.11%)
  - U.S. Large Cap Equity underweight (-0.13%)
- Manager Selection Effect: -0.32%
  - Private Real Estate outperformed (+0.18%)
  - Global Asset Allocation/Risk Parity underperformed (-0.06%)
  - Private Equity underperformed (-0.11%)
  - Non U.S. Emerging Mkts Equity underperformed (-0.16%)
  - Opportunistic Credit underperformed (-0.20%)
- Residual: 0.00%

**The Brinson-Fachler Attribution model explains excess return by identifying the size of contributors or detractors from excess return based on the three effects defined below:**

**Allocation Effect:** Measures the impact of the decision to over/under weight asset classes relative to Interim SAAP benchmark weights.  $(\text{Return Asset Class Index} - \text{Total Interim Policy Index Return}) \times (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Interim Policy Index})$ .

**Manager Selection Effect:** Measures the impact of over/under performance of asset classes in the portfolio relative to the asset class benchmarks in the Interim SAAP benchmark.  $[\text{Weight Asset Class Benchmark} \times (\text{Return Portfolio Asset Class} - \text{Return Asset Class in Interim Policy Index})]$  + **Interaction Effect:** Measures the impact of over/under weighting decisions and over/under performance.  $(\text{Return Asset Class Portfolio} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Policy Index})) - (\text{Return Asset Class Index} (\text{Weight Asset Class Portfolio} - \text{Weight Asset Class Index}))$ .

**Residual:** Contribution to excess return not captured in Allocation Effect and Manager Selection Effect.



## New Mexico Educational Retirement Board

# 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
U.S. Large Cap Equity Composite	13.5%	12.6%	5	17.4%	2	0.5%	12	0.6%	7	0.5	14	1.0
S&P 500	--	12.3%	7	17.7%	3	0.0%	17	0.0%	1	--	--	1.0
U.S. Small/Mid Cap Equity Composite	2.6%	2.2%	99	22.5%	99	-2.3%	64	2.9%	72	-0.8	--	1.0
NMERB Small/Mid Cap Equity Blended Index	--	4.5%	99	22.5%	99	0.0%	17	0.0%	1	--	--	1.0
Non-U.S. Developed Mkts Equity Composite	4.8%	0.6%	74	15.9%	35	0.1%	67	1.1%	12	0.0	73	1.0
MSCI EAFE	--	0.6%	78	15.4%	10	0.0%	73	0.0%	1	--	--	1.0
Non-U.S. Emerging Mkts Equity Composite	8.9%	2.4%	16	17.7%	2	0.0%	17	3.0%	28	0.0	17	0.9
MSCI Emerging Markets	--	2.4%	16	18.9%	62	0.0%	18	0.0%	1	--	--	1.0
Core Fixed Income Composite	5.9%	4.9%	55	4.1%	60	-0.8%	96	1.7%	46	-0.2	--	1.1
BBgBarc US Aggregate TR	--	5.2%	47	3.4%	15	0.0%	51	0.0%	1	--	--	1.0
Non-U.S. Emerging Market Debt Composite	1.7%	0.8%	48	11.0%	45	-1.1%	37	2.6%	32	-0.4	--	1.0
Non-U.S. EMD Custom Benchmark	--	1.9%	31	10.8%	43	0.0%	7	0.0%	1	--	--	1.0
Opportunistic Credit Composite	18.2%	2.2%	--	6.3%	--	0.0%	--	8.4%	--	-0.2	--	0.3
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	3.8%	--	8.5%	--	0.0%	--	0.0%	--	--	--	1.0
Global Asset Allocation/Risk Parity Composite	8.7%	2.8%	54	8.2%	18	0.2%	24	8.2%	77	-0.3	--	0.3
GAA/Risk Parity Custom Index	--	4.9%	23	1.0%	1	0.0%	31	0.0%	1	--	--	1.0

3 Years Ending September 30, 2020								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	
Real Estate Composite	6.3%	5.2%	50	6.8%	98	3.7%	10	
NCREIF Property Index	--	5.1%	53	2.6%	27	0.0%	69	
Private Equity Composite	16.4%	9.1%	62	3.9%	1	6.9%	46	
CJA US All PE (1 Qtr Lag)	--	10.6%	49	10.3%	81	0.0%	74	
Real Assets Composite	8.3%	5.6%	22	5.3%	30	-1.7%	80	
CPI + 4% (Seasonally Adjusted)	--	5.9%	18	0.8%	1	0.0%	66	

1 - Performance for Equity, Fixed Income, and Emerging Mkt Debt, Opportunistic Credit and GAA/Risk Parity composites are net of fees.

Note: Percent of Total equals 95.3% because Absolute Return Composite, Diversifying Assets Composite, and Cash Composite are not included.



## New Mexico Educational Retirement Board

# 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
U.S. Large Cap Equity Composite	13.5%	14.4%	8	14.7%	2	0.4%	11	0.5%	6	0.4	14	1.0
S&P 500	--	14.1%	9	14.9%	3	0.0%	15	0.0%	1	--	--	1.0
U.S. Small/Mid Cap Equity Composite	2.6%	7.4%	99	19.0%	99	-1.4%	56	3.3%	86	-0.5	--	1.0
NMERB Small/Mid Cap Equity Blended Index	--	9.0%	96	19.1%	99	0.0%	15	0.0%	1	--	--	1.0
Non-U.S. Developed Mkts Equity Composite	4.8%	4.8%	95	14.1%	24	-0.5%	84	1.2%	12	-0.4	--	1.0
MSCI EAFE	--	5.3%	84	14.0%	19	0.0%	70	0.0%	1	--	--	1.0
Non-U.S. Emerging Mkts Equity Composite	8.9%	7.5%	34	15.9%	3	-0.7%	24	3.1%	36	-0.5	--	0.9
MSCI Emerging Markets	--	9.0%	17	17.4%	66	0.0%	18	0.0%	1	--	--	1.0
Core Fixed Income Composite	5.9%	4.2%	79	3.7%	61	-0.2%	96	1.4%	40	0.0	87	1.1
BBgBarc US Aggregate TR	--	4.2%	87	3.2%	16	0.0%	91	0.0%	1	--	--	1.0
Non-U.S. Emerging Market Debt Composite	1.7%	5.1%	58	9.4%	44	0.0%	34	2.8%	45	-0.1	--	0.9
Non-U.S. EMD Custom Benchmark	--	5.5%	45	10.0%	46	0.0%	35	0.0%	1	--	--	1.0
Opportunistic Credit Composite	18.2%	4.4%	--	5.2%	--	1.9%	--	6.7%	--	-0.1	--	0.3
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	--	5.3%	--	7.0%	--	0.0%	--	0.0%	--	--	--	1.0
Global Asset Allocation/Risk Parity Composite	8.7%	4.7%	75	7.0%	10	0.5%	17	6.9%	84	-0.3	--	0.5
GAA/Risk Parity Custom Index	--	7.0%	9	4.2%	1	0.0%	27	0.0%	1	--	--	1.0

5 Years Ending September 30, 2020								
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	
Real Estate Composite	6.3%	7.7%	23	6.7%	99	5.1%	10	
NCREIF Property Index	--	6.3%	63	2.9%	37	0.0%	76	
Private Equity Composite	16.4%	10.1%	52	3.6%	1	8.7%	44	
CJA US All PE (1 Qtr Lag)	--	10.3%	49	8.7%	82	0.0%	76	
Real Assets Composite	8.3%	7.2%	5	4.7%	20	0.2%	78	
CPI + 4% (Seasonally Adjusted)	--	5.9%	17	0.8%	1	0.0%	82	

1 - Performance for Equity, Fixed Income, and Emerging Mkt Debt, Opportunistic Credit and GAA/Risk Parity composites are net of fees.  
 Note: Percent of Total equals 95.3% because Absolute Return Composite, Diversifying Assets Composite, and Cash Composite are not included.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - TOTAL FUND & U.S. EQUITY

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Fund</b>	<b>13,205,852,432</b>	<b>100.0</b>	<b>4.6</b>	<b>66</b>	<b>-1.5</b>	<b>83</b>	<b>2.4</b>	<b>93</b>	<b>5.3</b>	<b>58</b>	<b>7.4</b>	<b>53</b>	<b>7.4</b>	<b>56</b>	<b>8.8</b>	<b>Jul-83</b>
Policy Index			5.1	45	1.8	36	6.0	51	6.5	27	8.2	31	7.4	51	--	Jul-83
Over/Under			-0.5		-3.3		-3.6		-1.2		-0.8		0.0			
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	--	Jul-83
InvMetrics Public DB > \$1B Net Median			5.0		0.8		6.0		5.5		7.5		7.4		8.3	Jul-83
<b>U.S. Equity Composite</b>	<b>2,127,851,349</b>	<b>16.1</b>	<b>8.2</b>	<b>56</b>	<b>3.9</b>	<b>27</b>	<b>13.1</b>	<b>32</b>	<b>10.9</b>	<b>25</b>	<b>13.3</b>	<b>21</b>	<b>13.2</b>	<b>24</b>	<b>11.3</b>	<b>Jan-85</b>
Russell 3000			9.2	7	5.4	12	15.0	11	11.6	14	13.7	16	13.5	12	11.2	Jan-85
Over/Under			-1.0		-1.5		-1.9		-0.7		-0.4		-0.3		0.1	
InvMetrics Public DB > \$1 Billion US Equity Net Median			8.3		2.7		11.5		10.0		12.5		12.9		11.5	Jan-85
<b>U.S. Large Cap Equity Composite</b>	<b>1,788,722,080</b>	<b>13.5</b>	<b>8.9</b>	<b>19</b>	<b>7.1</b>	<b>7</b>	<b>16.7</b>	<b>8</b>	<b>12.6</b>	<b>5</b>	<b>14.4</b>	<b>8</b>	<b>13.8</b>	<b>7</b>	<b>7.1</b>	<b>Aug-99</b>
S&P 500			8.9	17	5.6	11	15.1	9	12.3	7	14.1	9	13.7	8	6.5	Aug-99
Over/Under			0.0		1.5		1.6		0.3		0.3		0.1		0.6	
InvMetrics Public DB > \$1 Billion US Equity Net Median			8.3		2.7		11.5		10.0		12.5		12.9		6.6	Aug-99
S&P 500 Index Fund	1,788,722,080	13.5	8.9	34	7.1	23	16.7	19	12.6	18	14.4	9	13.8	12	6.1	Jan-00
S&P 500			8.9	33	5.6	30	15.1	25	12.3	21	14.1	13	13.7	13	6.1	Jan-00
Over/Under			0.0		1.5		1.6		0.3		0.3		0.1		0.0	
eV US Large Cap Core Equity Net Median			7.8		2.6		10.5		9.9		12.0		12.5		6.9	Jan-00
<b>U.S. Small/Mid Cap Equity Composite</b>	<b>339,129,269</b>	<b>2.6</b>	<b>4.6</b>	<b>99</b>	<b>-11.7</b>	<b>99</b>	<b>-4.6</b>	<b>99</b>	<b>2.2</b>	<b>99</b>	<b>7.4</b>	<b>99</b>	<b>9.6</b>	<b>98</b>	<b>6.7</b>	<b>Aug-99</b>
NMERB Small/Mid Cap Equity Blended Index			5.9	95	-5.8	94	2.2	93	4.5	99	9.0	96	10.7	90	7.8	Aug-99
Over/Under			-1.3		-5.9		-6.8		-2.3		-1.6		-1.1		-1.1	
InvMetrics Public DB > \$1 Billion US Equity Net Median			8.3		2.7		11.5		10.0		12.5		12.9		6.6	Aug-99
S&P 400 Mid-Cap	339,129,269	2.6	4.6	78	-11.7	68	-4.6	65	--	--	--	--	--	--	1.7	Nov-17
Russell 2500			5.9	60	-5.8	55	2.2	54	4.5	58	9.0	54	10.8	56	4.0	Nov-17
Over/Under			-1.3		-5.9		-6.8								-2.3	
eV US Mid Cap Equity Net Median			6.9		-2.3		4.3		7.0		9.7		11.5		6.2	Nov-17

1 - U.S. Small/Mid Cap Equity Composite includes the performance history of the U.S. Small Cap Equity Composite through November 2011.

2 - NMERB Small/Mid Cap Equity Blended Benchmark is the Russell 2000 Index through November 2011 and the Russell 2500 Index from December 2011 - forward.

3 - Total Fund market value includes \$60,054.71 from Legacy Assets.

Note: Performance shown is net of fees. Fiscal year ends June 30.





## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - NON-U.S. EQUITY

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Non-U.S. Equity Composite</b>	<b>1,804,157,951</b>	<b>13.7</b>	<b>7.7</b>	<b>46</b>	<b>-3.0</b>	<b>43</b>	<b>7.0</b>	<b>41</b>	<b>1.8</b>	<b>49</b>	<b>6.6</b>	<b>61</b>	<b>2.3</b>	<b>99</b>	<b>6.1</b>	<b>Jul-95</b>
MSCI ACWI ex USA			<u>6.3</u>	82	<u>-5.4</u>	69	<u>3.0</u>	78	<u>1.2</u>	66	<u>6.2</u>	72	<u>4.0</u>	92	<u>5.1</u>	Jul-95
Over/Under			1.4		2.4		4.0		0.6		0.4		-1.7		1.0	
InvMetrics Public DB > \$1 Billion Global ex-US Equity Net Median			7.5		-3.9		5.4		1.8		6.9		4.7		5.6	Jul-95
<b>Non-U.S. Developed Mkts Equity Composite</b>	<b>633,895,252</b>	<b>4.8</b>	<b>5.6</b>	<b>90</b>	<b>-7.3</b>	<b>79</b>	<b>0.5</b>	<b>85</b>	<b>0.6</b>	<b>74</b>	<b>4.8</b>	<b>95</b>	<b>4.2</b>	<b>99</b>	<b>5.7</b>	<b>Sep-95</b>
MSCI EAFE			<u>4.8</u>	99	<u>-7.1</u>	78	<u>0.5</u>	85	<u>0.6</u>	78	<u>5.3</u>	84	<u>4.6</u>	83	<u>4.6</u>	Sep-95
Over/Under			0.8		-0.2		0.0		0.0		-0.5		-0.4		1.1	
InvMetrics Public DB > \$1 Billion Dev Mkt ex-US Eq Net Median			7.0		-4.4		4.3		1.4		6.6		5.6		5.7	Sep-95
BlackRock MSCI EAFE	512,970,087	3.9	4.8	74	-6.9	57	0.5	62	0.9	50	5.6	50	--	--	4.1	Aug-13
MSCI EAFE			<u>4.8</u>	74	<u>-7.1</u>	60	<u>0.5</u>	62	<u>0.6</u>	53	<u>5.3</u>	56	<u>4.6</u>	73	<u>3.8</u>	Aug-13
Over/Under			0.0		0.2		0.0		0.3		0.3		0.3		0.3	
eV All EAFE Equity Net Median			6.6		-6.0		2.9		0.8		5.6		5.7		4.5	Aug-13
Global Alpha International Small Cap	120,925,165	0.9	9.0	26	-9.1	73	--	--	--	--	--	--	--	--	-5.0	Dec-19
MSCI EAFE			<u>4.8</u>	74	<u>-7.1</u>	60	<u>0.5</u>	62	<u>0.6</u>	53	<u>5.3</u>	56	<u>4.6</u>	73	<u>-4.1</u>	Dec-19
Over/Under			4.2		-2.0										-0.9	
MSCI EAFE Small Cap			10.3	15	-4.2	42	6.8	33	1.4	45	7.4	26	7.3	24	0.0	Dec-19
eV All EAFE Equity Net Median			6.6		-6.0		2.9		0.8		5.6		5.7		-2.4	Dec-19

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - EMERGING MARKET EQUITY

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Non-U.S. Emerging Mkts Equity Composite</b>	<b>1,170,262,699</b>	<b>8.9</b>	<b>8.8</b>	<b>58</b>	<b>-0.6</b>	<b>22</b>	<b>10.7</b>	<b>16</b>	<b>2.4</b>	<b>16</b>	<b>7.5</b>	<b>34</b>	<b>1.2</b>	<b>70</b>	<b>6.3</b>	<b>Sep-00</b>
MSCI Emerging Markets			<u>9.6</u>	35	<u>-1.2</u>	26	<u>10.5</u>	18	<u>2.4</u>	16	<u>9.0</u>	17	<u>2.5</u>	16	<u>7.3</u>	Sep-00
Over/Under			<b>-0.8</b>		0.6		0.2		0.0		<b>-1.5</b>		<b>-1.3</b>		<b>-1.0</b>	
InvMetrics Public DB > \$1 Billion Emg Mkt Eq Net Median			9.2		-2.5		8.9		1.1		7.0		1.6		6.3	Sep-00
<b>Neuberger Berman Emerging Markets</b>	<b>404,449,012</b>	<b>3.1</b>	<b>8.1</b>	<b>70</b>	<b>-2.4</b>	<b>58</b>	<b>7.0</b>	<b>63</b>	<b>1.0</b>	<b>60</b>	<b>9.3</b>	<b>41</b>	<b>--</b>	<b>--</b>	<b>4.6</b>	<b>Aug-13</b>
MSCI Emerging Markets			<u>9.6</u>	53	<u>-1.2</u>	49	<u>10.5</u>	48	<u>2.4</u>	43	<u>9.0</u>	44	<u>2.5</u>	58	<u>4.3</u>	Aug-13
Over/Under			<b>-1.5</b>		<b>-1.2</b>		<b>-3.5</b>		<b>-1.4</b>		0.3				0.3	
eV Emg Mkts Equity Net Median			9.7		-1.4		10.3		1.9		8.4		2.7		4.3	Aug-13
<b>State Street Bank + Trust Co</b>	<b>1,964</b>	<b>0.0</b>	<b>0.0</b>	<b>--</b>	<b>6.1</b>	<b>--</b>	<b>6.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.4</b>	<b>Jun-19</b>
MSCI Emerging Markets			<u>9.6</u>	--	<u>-1.2</u>	--	<u>10.5</u>	--	<u>2.4</u>	--	<u>9.0</u>	--	<u>2.5</u>	--	<u>9.2</u>	Jun-19
Over/Under			<b>-9.6</b>		7.3		<b>-3.9</b>								<b>-3.8</b>	
<b>RBC GAM EME Fund</b>	<b>358,176,748</b>	<b>2.7</b>	<b>9.5</b>	<b>53</b>	<b>-1.2</b>	<b>49</b>	<b>8.8</b>	<b>57</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.6</b>	<b>Aug-19</b>
MSCI Emerging Markets			<u>9.6</u>	53	<u>-1.2</u>	49	<u>10.5</u>	48	<u>2.4</u>	43	<u>9.0</u>	44	<u>2.5</u>	58	<u>6.1</u>	Aug-19
Over/Under			<b>-0.1</b>		0.0		<b>-1.7</b>								<b>-2.5</b>	
eV Emg Mkts Equity Net Median			9.7		-1.4		10.3		1.9		8.4		2.7		6.2	Aug-19
<b>UBS Emerging Markets EQ OPP</b>	<b>407,630,284</b>	<b>3.1</b>	<b>9.0</b>	<b>61</b>	<b>1.3</b>	<b>35</b>	<b>15.8</b>	<b>27</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>15.3</b>	<b>Aug-19</b>
MSCI Emerging Markets			<u>9.6</u>	53	<u>-1.2</u>	49	<u>10.5</u>	48	<u>2.4</u>	43	<u>9.0</u>	44	<u>2.5</u>	58	<u>6.1</u>	Aug-19
Over/Under			<b>-0.6</b>		2.5		5.3								9.2	
eV Emg Mkts Equity Net Median			9.7		-1.4		10.3		1.9		8.4		2.7		6.2	Aug-19

1 - State Street Bank + Trust Co was funded with \$1.5M in June 2019.

2 - RBC GAM EME fund was funded with \$285M in July 2019.

3 - UBS Emerging Markets EQ OPP funded with \$95M in July 2019.

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - TOTAL FI AND CORE FI

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Fixed Income Composite</b>	<b>3,419,578,913</b>	<b>25.9</b>	<b>4.0</b>	<b>1</b>	<b>-2.0</b>	<b>98</b>	<b>-0.9</b>	<b>98</b>	<b>2.8</b>	<b>98</b>	<b>4.3</b>	<b>80</b>	<b>5.3</b>	<b>4</b>	<b>3.0</b>	<b>Jan-85</b>
<i>BBgBarc US Aggregate TR</i>			<u>0.6</u>	99	<u>6.8</u>	20	<u>7.0</u>	36	<u>5.2</u>	23	<u>4.2</u>	87	<u>3.6</u>	80	<u>6.9</u>	<i>Jan-85</i>
Over/Under			3.4		-8.8		-7.9		-2.4		0.1		1.7		-3.9	
<i>InvMetrics Public DB &gt; \$1 Billion Fixed Income Net Median</i>			1.9		5.3		6.4		4.8		5.0		4.3		5.3	<i>Jan-85</i>
<b>Core Fixed Income Composite</b>	<b>780,810,022</b>	<b>5.9</b>	<b>1.2</b>	<b>65</b>	<b>5.4</b>	<b>65</b>	<b>5.9</b>	<b>72</b>	<b>4.9</b>	<b>55</b>	<b>4.2</b>	<b>79</b>	<b>4.1</b>	<b>64</b>	<b>5.3</b>	<b>Dec-99</b>
<i>BBgBarc US Aggregate TR</i>			<u>0.6</u>	93	<u>6.8</u>	42	<u>7.0</u>	50	<u>5.2</u>	47	<u>4.2</u>	87	<u>3.6</u>	82	<u>5.1</u>	<i>Dec-99</i>
Over/Under			0.6		-1.4		-1.1		-0.3		0.0		0.5		0.2	
<i>InvMetrics Public DB &gt; \$1 Billion US Fixed Income Net Median</i>			1.5		6.3		7.0		5.1		4.6		4.2		5.3	<i>Dec-99</i>
<b>Core Fixed Income</b>	<b>780,810,022</b>	<b>5.9</b>	<b>1.2</b>	<b>37</b>	<b>5.4</b>	<b>93</b>	<b>5.9</b>	<b>89</b>	<b>4.9</b>	<b>89</b>	<b>4.2</b>	<b>66</b>	<b>--</b>	<b>--</b>	<b>3.7</b>	<b>Apr-15</b>
<i>BBgBarc US Aggregate TR</i>			<u>0.6</u>	88	<u>6.8</u>	63	<u>7.0</u>	62	<u>5.2</u>	61	<u>4.2</u>	71	<u>3.6</u>	72	<u>3.7</u>	<i>Apr-15</i>
Over/Under			0.6		-1.4		-1.1		-0.3		0.0		0.0		0.0	
<i>eV US Core Fixed Inc Net Median</i>			1.1		7.2		7.2		5.4		4.4		3.9		3.9	<i>Apr-15</i>

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - EMERGING MARKET DEBT

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Non-U.S. Emerging Market Debt Composite</b>	<b>229,529,633</b>	<b>1.7</b>	<b>1.1</b>	<b>75</b>	<b>-3.9</b>	<b>45</b>	<b>-1.0</b>	<b>51</b>	<b>0.8</b>	<b>48</b>	<b>5.1</b>	<b>58</b>	<b>--</b>	<b>--</b>	<b>1.7</b>	<b>Sep-11</b>
<i>Non-U.S. EMD Custom Benchmark</i>			<u>1.5</u>	66	<u>-3.4</u>	37	<u>0.0</u>	41	<u>1.9</u>	31	<u>5.5</u>	45	--	--	<u>0.1</u>	Sep-11
Over/Under			-0.4		-0.5		-1.0		-1.1		-0.4				1.6	
<i>InvMetrics All DB Emg Mkt Fix Inc Net Median</i>			1.9		-4.4		-1.0		0.6		5.2		2.6		1.8	Sep-11
<b>EMSO</b>	<b>105,176,077</b>	<b>0.8</b>	<b>0.3</b>	<b>95</b>	<b>-1.9</b>	<b>52</b>	<b>0.1</b>	<b>64</b>	<b>0.4</b>	<b>69</b>	<b>4.5</b>	<b>79</b>	<b>--</b>	<b>--</b>	<b>3.8</b>	<b>Sep-11</b>
<i>JP Morgan GBI - EM Global Diversified Index</i>			<u>0.6</u>	89	<u>-6.3</u>	83	<u>-1.4</u>	79	<u>0.2</u>	74	<u>4.8</u>	73	<u>0.5</u>	79	<u>-0.3</u>	Sep-11
Over/Under			-0.3		4.4		1.5		0.2		-0.3				4.1	
<i>eV All Emg Mkts Fixed Inc Net Median</i>			2.5		-1.7		1.5		2.1		5.7		4.2		4.2	Sep-11
<b>Prudential</b>	<b>124,335,917</b>	<b>0.9</b>	<b>1.8</b>	<b>71</b>	<b>-5.6</b>	<b>75</b>	<b>-2.0</b>	<b>84</b>	<b>1.2</b>	<b>63</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>6.1</b>	<b>Feb-16</b>
<i>50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified</i>			<u>1.5</u>	76	<u>-3.4</u>	66	<u>0.0</u>	64	<u>1.9</u>	56	<u>5.5</u>	56	<u>3.0</u>	65	<u>5.8</u>	Feb-16
Over/Under			0.3		-2.2		-2.0		-0.7						0.3	
<i>eV All Emg Mkts Fixed Inc Net Median</i>			2.5		-1.7		1.5		2.1		5.7		4.2		6.1	Feb-16

1 - Non-U.S. Emerging Market Debt Composite market value includes \$17,639 in terminated manager account.

2 - InvMetrics Public DB > \$1B Emerging Mkt Fixed Income unavailable, universe includes all DB plans.

3 - Non-U.S. EMD Custom Benchmark Composition from 9/1/2011-1/31/2016: JP Morgan GBI-EM Diversified. 2/1/2016 - Current: 50% JPM EMBI Global Diversified / 50% JPM GBI-EM Global Diversified.

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - OPPORTUNISTIC FI

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Opportunistic Credit Composite</b>	<b>2,409,239,258</b>	<b>18.2</b>	<b>5.2</b>	--	<b>-4.4</b>	--	<b>-3.2</b>	--	<b>2.2</b>	--	<b>4.4</b>	--	<b>6.3</b>	--	<b>7.2</b>	<b>May-08</b>
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.7	May-08
Over/Under			1.0		-4.3		-5.2		-1.6		-0.9		0.9		1.5	
ICE BofA BB-B US High Yield Constrained TR			4.3	--	0.6	--	3.1	--	4.4	--	6.6	--	6.3	--	6.8	May-08
<b>Beachpoint Combined</b>	<b>487,210,470</b>	<b>3.7</b>	<b>7.1</b>	--	<b>-1.3</b>	--	<b>2.0</b>	--	<b>4.3</b>	--	<b>5.7</b>	--	<b>6.5</b>	--	<b>6.5</b>	<b>Mar-04</b>
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.5	Mar-04
Over/Under			2.9		-1.2		0.0		0.5		0.4		1.1		1.0	
Beachpoint Total Return	487,210,470	3.7	7.1	--	-1.3	--	2.0	--	4.3	--	5.7	--	6.5	--	6.6	Jun-08
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.7	Jun-08
Over/Under			2.9		-1.2		0.0		0.5		0.4		1.1		0.9	
<b>Pimco Disco Combined</b>	<b>124,011,636</b>	<b>0.9</b>	<b>3.1</b>	--	<b>2.5</b>	--	<b>5.2</b>	--	<b>5.8</b>	--	<b>8.4</b>	--	<b>9.3</b>	--	<b>10.9</b>	<b>Jul-08</b>
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.9	Jul-08
Over/Under			-1.1		2.6		3.2		2.0		3.1		3.9		5.0	
Pimco Disco II	124,011,636	0.9	3.1	--	2.5	--	5.2	--	5.8	--	8.4	--	--	--	11.7	Oct-11
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.7	Oct-11
Over/Under			-1.1		2.6		3.2		2.0		3.1		--		6.0	
<b>GoldenTree Combined</b>	<b>197,756,480</b>	<b>1.5</b>	<b>3.3</b>	--	<b>0.8</b>	--	<b>1.3</b>	--	<b>3.6</b>	--	<b>4.5</b>	--	<b>7.1</b>	--	<b>7.8</b>	<b>Oct-09</b>
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	6.1	Oct-09
Over/Under			-0.9		0.9		-0.7		-0.2		-0.8		1.7		1.7	
Goldentree II	197,756,480	1.5	3.3	--	0.8	--	1.3	--	3.6	--	4.5	--	--	--	7.2	Sep-11
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.5	Sep-11
Over/Under			-0.9		0.9		-0.7		-0.2		-0.8		--		1.7	
Medley Capital	38,923,924	0.3	-2.8	--	-11.7	--	-17.3	--	-13.8	--	-6.6	--	--	--	0.0	Aug-11
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.0	Aug-11
Over/Under			-7.0		-11.6		-19.3		-17.6		-11.9		--		-5.0	

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - OPPORTUNISTIC FI

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Waterfall - Eden	289,712,922	2.2	6.5	--	-8.2	--	-6.6	--	2.1	--	3.6	--	--	--	7.4	Aug-11
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.0	Aug-11
Over/Under			2.3		-8.1		-8.6		-1.7		-1.7				2.4	
Waterfall - Victoria	90,560,178	0.7	3.3	--	-5.2	--	-2.0	--	5.8	--	8.5	--	--	--	8.9	Aug-11
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.0	Aug-11
Over/Under			-0.9		-5.1		-4.0		2.0		3.2				3.9	
Gramercy Distressed Opp II	66,833,479	0.5	-2.0	--	-11.4	--	-18.4	--	-12.4	--	-6.7	--	--	--	-1.8	Jul-12
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.1	Jul-12
Over/Under			-6.2		-11.3		-20.4		-16.2		-12.0				-6.9	
ICE Canyon	643,870	0.0	-34.1	--	-33.4	--	-31.3	--	-13.2	--	-3.9	--	--	--	-2.7	Jun-12
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	5.2	Jun-12
Over/Under			-38.3		-33.3		-33.3		-17.0		-9.2				-7.9	
Lone Star VIII	17,470,715	0.1	4.1	--	-19.3	--	-20.7	--	-9.5	--	-6.7	--	--	--	2.9	Oct-13
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.6	Oct-13
Over/Under			-0.1		-19.2		-22.7		-13.3		-12.0				-1.7	
Marathon European Credit Opportunity II	32,744,738	0.2	-4.9	--	-2.6	--	-3.2	--	7.5	--	7.6	--	--	--	6.9	Mar-14
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.2	Mar-14
Over/Under			-9.1		-2.5		-5.2		3.7		2.3				2.7	
Lone Star IX	34,768,757	0.3	24.2	--	-11.5	--	-14.6	--	-1.0	--	8.4	--	--	--	-13.2	Apr-15
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.4	Apr-15
Over/Under			20.0		-11.4		-16.6		-4.8		3.1				-17.6	
Kildare European Partners I LP	9,029,989	0.1	16.1	--	-26.7	--	-24.8	--	1.0	--	6.8	--	--	--	5.9	May-14
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.1	May-14
Over/Under			11.9		-26.6		-26.8		-2.8		1.5				1.8	

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - OPPORTUNISTIC FI

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Black Forest	43,028,266	0.3	0.2	--	-9.8	--	-7.4	--	2.0	--	5.5	--	--	--	5.1	Aug-14
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.2	Aug-14
Over/Under			-4.0		-9.7		-9.4		-1.8		0.2				0.9	
Gramercy Distressed Opp III	78,522,484	0.6	2.9	--	-5.0	--	-7.9	--	-6.7	--	--	--	--	--	-4.4	Jan-16
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	6.0	Jan-16
Over/Under			-1.3		-4.9		-9.9		-10.5						-10.4	
GSO Capital Opp III	65,140,359	0.5	7.2	--	0.3	--	2.4	--	8.8	--	--	--	--	--	7.2	Oct-16
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.5	Oct-16
Over/Under			3.0		0.4		0.4		5.0						2.7	
Cross Ocean ESS II	52,192,481	0.4	3.6	--	-0.4	--	1.6	--	4.6	--	--	--	--	--	8.2	May-17
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.0	May-17
Over/Under			-0.6		-0.3		-0.4		0.8						4.2	
OWS CREDIT OPPORTUNITY FD	113,498,200	0.9	3.4	--	-6.6	--	-5.1	--	4.0	--	--	--	--	--	4.0	Jul-17
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.0	Jul-17
Over/Under			-0.8		-6.5		-7.1		0.2						0.0	
TAIGA SPECIAL OPP DAC LP	185,879,260	1.4	3.8	--	-4.6	--	-3.4	--	5.4	--	--	--	--	--	6.4	Aug-17
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	3.8	Aug-17
Over/Under			-0.4		-4.5		-5.4		1.6						2.6	
Sutherland Asset Management	47,967,811	0.4	33.1	--	-22.0	--	-22.5	--	-1.3	--	--	--	--	--	-3.8	Jul-17
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	4.0	Jul-17
Over/Under			28.9		-21.9		-24.5		-5.1						-7.8	
OHA Strategic Credit II	51,382,450	0.4	9.7	--	-6.1	--	-7.3	--	--	--	--	--	--	--	12.0	Dec-17
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	3.9	Dec-17
Over/Under			5.5		-6.0		-9.3								8.1	
Lone Star X	70,168,116	0.5	12.7	--	-8.3	--	-6.0	--	--	--	--	--	--	--	-18.1	Jan-18
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			4.2	--	-0.1	--	2.0	--	3.8	--	5.3	--	5.4	--	3.9	Jan-18
Over/Under			8.5		-8.2		-8.0								-22.0	

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - OPPORTUNISTIC FI

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Kildare European Partners II LP	36,033,297	0.3	-0.1	--	6.5	--	9.1	--	--	--	--	--	--	--	6.0	Nov-18
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>4.3</u>	Nov-18
Rated Constrained Index																
Over/Under			<b>-4.3</b>		6.6		7.1								1.7	
Riverstone Credit Partners II	51,257,734	0.4	0.9	--	-10.4	--	-8.8	--	--	--	--	--	--	--	-5.4	Dec-18
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>4.9</u>	Dec-18
Rated Constrained Index																
Over/Under			<b>-3.3</b>		<b>-10.3</b>		<b>-10.8</b>								<b>-10.3</b>	
RCP II N Strategic Credit	15,227,043	0.1	4.1	--	4.7	--	8.9	--	--	--	--	--	--	--	9.6	Jan-19
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>6.4</u>	Jan-19
Rated Constrained Index																
Over/Under			<b>-0.1</b>		4.8		6.9								3.2	
OLEA SPECIAL OPPS OFFSHORE I	58,878,200	0.4	1.5	--	8.0	--	17.7	--	--	--	--	--	--	--	18.6	Jun-19
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>3.6</u>	Jun-19
Rated Constrained Index																
Over/Under			<b>-2.7</b>		8.1		15.7								15.0	
Cross Ocean USD ESS III	66,788,487	0.5	3.1	--	5.2	--	--	--	--	--	--	--	--	--	4.1	Nov-19
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>2.1</u>	Nov-19
Rated Constrained Index																
Over/Under			<b>-1.1</b>		5.3										2.0	
The Varde Fund XIII, L.P.	53,551,000	0.4	8.5	--	8.8	--	--	--	--	--	--	--	--	--	8.8	Jan-20
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>-0.1</u>	Jan-20
Rated Constrained Index																
Over/Under			4.3		8.9										8.9	
PIMCO Corp Opps Fund III	13,716,855	0.1	6.1	--	--	--	--	--	--	--	--	--	--	--	6.4	May-20
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>9.6</u>	May-20
Rated Constrained Index																
Over/Under			1.9												<b>-3.2</b>	
BPC Tactical Fund LP	16,340,057	0.1	1.9	--	--	--	--	--	--	--	--	--	--	--	1.9	Jul-20
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B			<u>4.2</u>	--	<u>-0.1</u>	--	<u>2.0</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>5.4</u>	--	<u>4.2</u>	Jul-20
Rated Constrained Index																
Over/Under			<b>-2.3</b>												<b>-2.3</b>	

Note: Performance shown is net of fees. Fiscal year ends June 30.

Cross Ocean US ESS III funded 10/17/2019.

The Varde Fund XIII, L.P. funded 12/31/2019.

PIMCO Corp Opps Fund III funded 4/9/2020.

BPC Tactical Fund LP funded 6/16/2020.





## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - GAA/RISK PARITY

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Absolute Return Composite</b>	<b>338,567</b>	<b>0.0</b>														
<b>GAA, Risk Parity, and Other Diversifying Assets</b>	<b>1,633,822,906</b>	<b>12.4</b>	<b>2.3</b>		<b>-2.1</b>		<b>0.0</b>		<b>3.5</b>		<b>5.1</b>		<b>5.1</b>		<b>6.5</b>	<b>Oct-09</b>
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>2.9</u>	Oct-09
Over/Under			1.7		-4.2		-3.1		-0.4		1.6		2.2		3.6	
<b>Global Asset Allocation/Risk Parity Composite</b>	<b>1,154,321,170</b>	<b>8.7</b>	<b>3.1</b>	<b>70</b>	<b>-3.4</b>	<b>77</b>	<b>-1.2</b>	<b>85</b>	<b>2.8</b>	<b>54</b>	<b>4.7</b>	<b>75</b>	<b>4.9</b>	<b>51</b>	<b>6.3</b>	<b>Oct-09</b>
GAA/Risk Parity Custom Index			<u>0.6</u>	89	<u>2.1</u>	11	<u>3.1</u>	33	<u>4.9</u>	23	<u>7.0</u>	9	<u>6.1</u>	20	<u>6.2</u>	Oct-09
Over/Under			2.5		-5.5		-4.3		-2.1		-2.3		-1.2		0.1	
InvMetrics Public DB > \$1 Billion Global Tactical Net Median			3.5		-1.8		1.8		3.5		5.7		4.9		6.4	Oct-09
<b>Global Asset Allocation Composite</b>	<b>383,555,583</b>	<b>2.9</b>	<b>0.4</b>	<b>90</b>	<b>-12.2</b>	<b>99</b>	<b>-9.4</b>	<b>99</b>	<b>-1.7</b>	<b>99</b>	<b>1.5</b>	<b>99</b>	<b>--</b>	<b>--</b>	<b>0.7</b>	<b>Nov-12</b>
Credit Suisse Hedge Global Macro			<u>4.6</u>	27	<u>0.5</u>	33	<u>1.3</u>	64	<u>4.1</u>	46	<u>3.4</u>	92	<u>3.9</u>	99	<u>3.3</u>	Nov-12
Over/Under			-4.2		-12.7		-10.7		-5.8		-1.9		-2.6		-2.6	
Bridgewater Pure Alpha	275,680,234	2.1	0.1	96	-13.3	97	-10.8	98	-0.3	86	0.3	94	3.2	83	4.5	Oct-09
Credit Suisse Hedge Global Macro			<u>4.6</u>	50	<u>0.5</u>	45	<u>1.3</u>	62	<u>4.1</u>	38	<u>3.4</u>	71	<u>3.9</u>	77	<u>4.6</u>	Oct-09
Over/Under			-4.5		-13.8		-12.1		-4.4		-3.1		-0.7		-0.1	
eV Global TAA Net Median			4.5		-0.8		4.1		2.9		5.4		5.3		5.5	Oct-09
PIMCO All Asset All Authority	107,875,349	0.8	1.4	92	-8.2	88	-4.8	88	-1.8	95	3.1	75	--	--	0.3	Jul-13
Credit Suisse Hedge Global Macro			<u>4.6</u>	50	<u>0.5</u>	45	<u>1.3</u>	62	<u>4.1</u>	38	<u>3.4</u>	71	<u>3.9</u>	77	<u>3.1</u>	Jul-13
Over/Under			-3.2		-8.7		-6.1		-5.9		-0.3		-2.8		-2.8	
eV Global TAA Net Median			4.5		-0.8		4.1		2.9		5.4		5.3		4.6	Jul-13
<b>Risk Parity</b>	<b>770,765,587</b>	<b>5.8</b>	<b>4.4</b>	<b>29</b>	<b>2.1</b>	<b>11</b>	<b>3.8</b>	<b>30</b>	<b>5.9</b>	<b>15</b>	<b>7.1</b>	<b>8</b>	<b>--</b>	<b>--</b>	<b>4.8</b>	<b>Nov-12</b>
GAA/Risk Parity Custom Index			<u>0.6</u>	89	<u>2.1</u>	11	<u>3.1</u>	33	<u>4.9</u>	23	<u>7.0</u>	9	<u>6.1</u>	20	<u>6.2</u>	Nov-12
Over/Under			3.8		0.0		0.7		1.0		0.1		-1.4		-1.4	
Bridgewater All Weather	509,839,678	3.9	4.2	58	1.3	41	4.0	51	5.4	18	6.5	33	6.1	35	7.4	Oct-09
60% MSCI World (Gross) / 40% FTSE WGBI			<u>6.1</u>	30	<u>4.7</u>	19	<u>9.9</u>	15	<u>7.1</u>	12	<u>8.5</u>	12	<u>6.9</u>	20	<u>6.9</u>	Oct-09
Over/Under			-1.9		-3.4		-5.9		-1.7		-2.0		-0.8		0.5	
eV Global TAA Net Median			4.5		-0.8		4.1		2.9		5.4		5.3		5.5	Oct-09
PanAgora	260,925,909	2.0	4.9	44	3.6	23	3.4	54	6.9	12	8.4	12	--	--	8.0	Dec-13
GAA/Risk Parity Custom Index			<u>0.6</u>	94	<u>2.1</u>	35	<u>3.1</u>	55	<u>4.9</u>	21	<u>7.0</u>	21	<u>6.1</u>	33	<u>4.9</u>	Dec-13
Over/Under			4.3		1.5		0.3		2.0		1.4		3.1		3.1	
eV Global TAA Net Median			4.5		-0.8		4.1		2.9		5.4		5.3		3.6	Dec-13

1 - Absolute Return Composite includes \$338,345 in liquidating assets.

2 - GAA/Risk Parity Custom Index: 60% MSCI World Half Hedged/ 40% CITI WGBI Half Hedged Inception - 6/30/2014; 60% MSCI World/ 40% CITI WGBI from 7/1/2014 - 6/30/2018; LIBOR + 2% from 7/1/2018 - present.

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - GAA/RISK PARITY

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Other Diversifying Assets</b>	<b>479,501,736</b>	<b>3.6</b>	<b>0.5</b>	--	<b>3.3</b>	--	<b>5.1</b>	--	--	--	--	--	--	--	<b>8.3</b>	<b>Feb-18</b>
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>4.0</u>	Feb-18
Over/Under			-0.1		1.2		2.0								4.3	
EIG Energy Fund XVII	40,764,749	0.3	1.8	--	-7.3	--	-4.0	--	--	--	--	--	--	--	4.2	Apr-18
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>4.0</u>	Apr-18
Over/Under			1.2		-9.4		-7.1								0.2	
The 1609 Fund LTD.	127,610,777	1.0	0.0	--	0.1	--	-5.6	--	--	--	--	--	--	--	1.9	Feb-18
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>4.0</u>	Feb-18
Over/Under			-0.6		-2.0		-8.7								-2.1	
OLEA SPECIAL OPPS OFFSHORE I	167,498,819	1.3	1.5	--	8.0	--	17.8	--	--	--	--	--	--	--	17.6	Oct-18
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>3.8</u>	Oct-18
Over/Under			0.9		5.9		14.7								13.8	
Orchard Liquid Credit Fund	109,164,800	0.8	-0.3	--	12.2	--	12.5	--	--	--	--	--	--	--	9.9	Oct-18
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>3.8</u>	Oct-18
Over/Under			-0.9		10.1		9.4								6.1	
Orbimed Royalty Credit Opp III	15,573,431	0.1	3.2	--	0.8	--	15.3	--	--	--	--	--	--	--	15.3	Oct-19
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>3.1</u>	Oct-19
Over/Under			2.6		-1.3		12.2								12.2	
AE Industrial Partners Aerospace	18,889,160	0.1	-5.6	--	--	--	--	--	--	--	--	--	--	--	-5.6	Apr-20
3-Month LIBOR + 2%			<u>0.6</u>	--	<u>2.1</u>	--	<u>3.1</u>	--	<u>3.9</u>	--	<u>3.5</u>	--	<u>2.9</u>	--	<u>1.2</u>	Apr-20
Over/Under			-6.2												-6.8	

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - REAL ESTATE

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Real Estate Composite</b>	<b>829,111,634</b>	<b>6.3</b>	<b>2.8</b>	<b>1</b>	<b>-8.7</b>	<b>96</b>	<b>-6.8</b>	<b>96</b>	<b>5.2</b>	<b>50</b>	<b>7.7</b>	<b>23</b>	<b>10.6</b>	<b>22</b>	<b>9.3</b>	<b>Dec-03</b>
<i>NCREIF Property Index</i>			<u>0.7</u>	25	<u>0.5</u>	23	<u>2.0</u>	26	<u>5.1</u>	53	<u>6.3</u>	63	<u>9.4</u>	64	<u>8.5</u>	<i>Dec-03</i>
Over/Under			2.1		-9.2		-8.8		0.1		1.4		1.2		0.8	
<i>Wilshire REIT</i>			1.3	12	-16.7	99	-17.7	99	0.4	99	3.7	99	8.0	92	7.8	<i>Dec-03</i>
<i>InvMetrics Public DB &gt; \$1 Billion Real Estate Net Median</i>			0.2		-1.0		0.3		5.2		6.8		9.7		7.4	<i>Dec-03</i>
<b>Public Real Estate Composite</b>	<b>250,745,973</b>	<b>1.9</b>	<b>1.5</b>	<b>8</b>	<b>-19.1</b>	<b>99</b>	<b>-19.5</b>	<b>99</b>	<b>-0.9</b>	<b>99</b>	<b>2.7</b>	<b>99</b>	<b>7.3</b>	<b>94</b>	<b>7.4</b>	<b>Dec-03</b>
<i>Wilshire REIT</i>			<u>1.3</u>	12	<u>-16.7</u>	99	<u>-17.7</u>	99	<u>0.4</u>	99	<u>3.7</u>	99	<u>8.0</u>	92	<u>7.8</u>	<i>Dec-03</i>
Over/Under			0.2		-2.4		-1.8		-1.3		-1.0		-0.7		-0.4	
<i>InvMetrics Public DB &gt; \$1 Billion Real Estate Net Median</i>			0.2		-1.0		0.3		5.2		6.8		9.7		7.4	<i>Dec-03</i>
Brookfield	250,745,973	1.9	1.5	61	-19.1	90	-19.5	90	-1.0	89	2.6	87	--	--	6.3	Jul-11
<i>MSCI US REIT</i>			<u>1.3</u>	69	<u>-17.9</u>	84	<u>-18.8</u>	88	<u>-1.0</u>	89	<u>2.7</u>	87	<u>6.6</u>	92	<u>5.3</u>	<i>Jul-11</i>
Over/Under			0.2		-1.2		-0.7		0.0		-0.1				1.0	
<i>eV US REIT Net Median</i>			1.9		-12.2		-12.5		2.5		5.0		8.6		7.3	<i>Jul-11</i>
<b>Private Real Estate Composite</b>	<b>578,365,661</b>	<b>4.4</b>	<b>3.3</b>	<b>1</b>	<b>-2.6</b>	<b>88</b>	<b>0.8</b>	<b>43</b>	<b>8.6</b>	<b>2</b>	<b>10.5</b>	<b>1</b>	<b>12.5</b>	<b>1</b>	<b>8.1</b>	<b>Jan-08</b>
<i>NCREIF Property Index</i>			<u>0.7</u>	13	<u>0.5</u>	2	<u>2.0</u>	6	<u>5.1</u>	20	<u>6.3</u>	59	<u>9.4</u>	39	<u>5.8</u>	<i>Jan-08</i>
Over/Under			2.6		-3.1		-1.2		3.5		4.2		3.1		2.3	
<i>InvMetrics Public DB Real Estate Priv Net Median</i>			0.0		-1.1		0.5		4.7		6.4		9.0		4.3	<i>Jan-08</i>
U.S. Private Real Estate	578,365,661	4.4	3.3	--	-2.6	--	0.8	--	8.5	--	10.5	--	12.7	--	8.6	Jan-08
<i>NCREIF Property Index</i>			<u>0.7</u>	--	<u>0.5</u>	--	<u>2.0</u>	--	<u>5.1</u>	--	<u>6.3</u>	--	<u>9.4</u>	--	<u>5.8</u>	<i>Jan-08</i>
Over/Under			2.6		-3.1		-1.2		3.4		4.2		3.3		2.8	

1 - InvMetrics Public DB > \$1B Real Estate Private is unavailable, universe includes all public funds.  
 Note: Performance is shown net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - PE & RA

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Private Equity Composite</b>	<b>2,167,976,500</b>	<b>16.4</b>	<b>3.7</b>	<b>71</b>	<b>1.2</b>	<b>62</b>	<b>3.4</b>	<b>68</b>	<b>9.1</b>	<b>62</b>	<b>10.1</b>	<b>52</b>	<b>12.5</b>	<b>32</b>	<b>7.0</b>	<b>Jun-06</b>
CJA US All PE (1 Qtr Lag)			<u>9.4</u>	30	<u>2.1</u>	50	<u>3.4</u>	68	<u>10.6</u>	49	<u>10.3</u>	49	<u>12.9</u>	24	<u>11.7</u>	Jun-06
Over/Under			-5.7		-0.9		0.0		-1.5		-0.2		-0.4		-4.7	
InvMetrics Public DB > \$1 Billion Private Equity Net Median			6.8		2.0		5.0		10.3		10.1		10.8		9.6	Jun-06
<b>Real Assets Composite</b>	<b>1,100,842,392</b>	<b>8.3</b>	<b>2.4</b>	<b>42</b>	<b>-5.7</b>	<b>55</b>	<b>-5.0</b>	<b>59</b>	<b>5.6</b>	<b>22</b>	<b>7.2</b>	<b>5</b>	<b>5.2</b>	<b>50</b>	<b>2.8</b>	<b>Jul-08</b>
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	45	<u>3.7</u>	4	<u>5.5</u>	9	<u>5.9</u>	18	<u>5.9</u>	17	<u>5.8</u>	40	<u>5.5</u>	Jul-08
Over/Under			0.2		-9.4		-10.5		-0.3		1.3		-0.6		-2.7	
InvMetrics Public DB > \$1 Billion Real Assets/Commodities Net Median			2.0		-5.4		-2.6		2.5		2.8		5.2		2.4	Jul-08
<b>Infrastructure Composite</b>	<b>447,807,083</b>	<b>3.4</b>	<b>2.5</b>	<b>--</b>	<b>0.5</b>	<b>--</b>	<b>2.8</b>	<b>--</b>	<b>6.3</b>	<b>--</b>	<b>8.2</b>	<b>--</b>	<b>5.7</b>	<b>--</b>	<b>3.6</b>	<b>Jul-08</b>
Infrastructure	437,659,522	3.3	<u>2.9</u>	--	<u>0.7</u>	--	<u>2.5</u>	--	<u>6.6</u>	--	<u>7.0</u>	--	<u>5.4</u>	--	<u>3.3</u>	Jul-08
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	--	<u>3.7</u>	--	<u>5.5</u>	--	<u>5.9</u>	--	<u>5.9</u>	--	<u>5.8</u>	--	<u>5.5</u>	Jul-08
Over/Under			0.7		-3.0		-3.0		0.7		1.1		-0.4		-2.2	
International Infrastructure	10,147,562	0.1	-13.0	--	-10.5	--	0.6	--	-0.1	--	24.9	--	--	--	-1.6	Jan-13
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	--	<u>3.7</u>	--	<u>5.5</u>	--	<u>5.9</u>	--	<u>5.9</u>	--	<u>5.8</u>	--	<u>5.6</u>	Jan-13
Over/Under			-15.2		-14.2		-4.9		-6.0		19.0		--		-7.2	
<b>Natural Resources</b>	<b>653,035,309</b>	<b>4.9</b>	<b>2.3</b>	<b>--</b>	<b>-9.7</b>	<b>--</b>	<b>-9.9</b>	<b>--</b>	<b>5.1</b>	<b>--</b>	<b>6.4</b>	<b>--</b>	<b>5.0</b>	<b>--</b>	<b>3.7</b>	<b>Mar-09</b>
Harvest Fund	30,116,580	0.2	-9.5	--	-38.6	--	-39.1	--	-15.7	--	--	--	--	--	-11.7	Aug-16
Alerian MLP Index			<u>-16.3</u>	--	<u>-46.2</u>	--	<u>-48.4</u>	--	<u>-20.8</u>	--	<u>-11.6</u>	--	<u>-4.2</u>	--	<u>-16.1</u>	Aug-16
Over/Under			6.8		7.6		9.3		5.1		--		--		4.4	
Energy	230,457,510	1.7	<u>5.7</u>	--	<u>-28.4</u>	--	<u>-30.0</u>	--	<u>7.1</u>	--	<u>10.1</u>	--	--	--	0.1	Jan-14
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	--	<u>3.7</u>	--	<u>5.5</u>	--	<u>5.9</u>	--	<u>5.9</u>	--	<u>5.8</u>	--	<u>5.6</u>	Jan-14
Over/Under			3.5		-32.1		-35.5		1.2		4.2		--		-5.5	
Agriculture Composite	159,694,529	1.2	<u>2.0</u>	--	<u>5.8</u>	--	<u>9.3</u>	--	<u>4.9</u>	--	<u>5.2</u>	--	--	--	4.6	Aug-12
NCREIF Farmland			<u>1.0</u>	--	<u>1.5</u>	--	<u>3.8</u>	--	<u>5.3</u>	--	<u>6.1</u>	--	<u>10.9</u>	--	<u>9.9</u>	Aug-12
Over/Under			1.0		4.3		5.5		-0.4		-0.9		--		-5.3	
Timber Composite	104,302,151	0.8	<u>0.7</u>	--	<u>0.6</u>	--	<u>1.6</u>	--	<u>4.6</u>	--	<u>4.6</u>	--	<u>5.2</u>	--	<u>3.8</u>	Mar-09
NCREIF Timberland Index			<u>0.0</u>	--	<u>0.2</u>	--	<u>0.2</u>	--	<u>2.1</u>	--	<u>2.6</u>	--	<u>4.4</u>	--	<u>3.4</u>	Mar-09
Over/Under			0.7		0.4		1.4		2.5		2.0		0.8		0.4	

1 - Energy composite includes Five Point Cap, Lime Rock, Enervest, BP Natural Gas, and Bluescape Energy.

2 - Agriculture Composite contains Halderman Farm Mgmt Services, Hancock Agriculture, and Blue Road Capital L.P.

3 - Timber Composite contains Brookfield Brazil Timber, Conservation Forestry II, Conservation Forestry IV, and ETO II Operating Partnership.

Note: Performance shown is net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# PERFORMANCE DETAIL - CASH

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Mitigation Banking	63,016,003	0.5	3.5	--	2.6	--	2.8	--	5.7	--	9.7	--	--	--	2.6	Mar-11
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	--	<u>3.7</u>	--	<u>5.5</u>	--	<u>5.9</u>	--	<u>5.9</u>	--	<u>5.8</u>	--	<u>5.7</u>	Mar-11
Over/Under			1.3		-1.1		-2.7		-0.2		3.8				-3.1	
Water Property Investor, L.P.	65,448,536	0.5	-0.5	--	44.4	--	42.6	--	12.2	--	7.1	--	--	--	8.6	Jan-15
CPI + 4% (Seasonally Adjusted)			<u>2.2</u>	--	<u>3.7</u>	--	<u>5.5</u>	--	<u>5.9</u>	--	<u>5.9</u>	--	<u>5.8</u>	--	<u>5.8</u>	Jan-15
Over/Under			-2.7		40.7		37.1		6.3		1.2				2.8	
<b>Cash</b>	<b>122,112,165</b>	<b>0.9</b>														
Cash	118,398,637	0.9	0.0	--	0.5	--	1.7	--	2.0	--	1.7	--	1.2	--	1.2	Dec-99
91 Day T-Bills			<u>0.0</u>	--	<u>0.4</u>	--	<u>0.8</u>	--	<u>1.6</u>	--	<u>1.1</u>	--	<u>0.6</u>	--	<u>1.6</u>	Dec-99
Over/Under			0.0		0.1		0.9		0.4		0.6		0.6		-0.4	
NM ERB Cash	3,607,259	0.0	0.0	--	-0.1	--	2.5	--	0.8	--	0.5	--	0.7	--	1.0	Jun-00
91 Day T-Bills			<u>0.0</u>	--	<u>0.4</u>	--	<u>0.8</u>	--	<u>1.6</u>	--	<u>1.1</u>	--	<u>0.6</u>	--	<u>1.5</u>	Jun-00
Over/Under			0.0		-0.5		1.7		-0.8		-0.6		0.1		-0.5	
Local Government Investment Pool (LGIP) at STO	106,269	0.0	0.1	--	0.7	--	1.1	--	1.6	--	1.1	--	--	--	1.0	Jul-15
91 Day T-Bills			<u>0.0</u>	--	<u>0.4</u>	--	<u>0.8</u>	--	<u>1.6</u>	--	<u>1.1</u>	--	<u>0.6</u>	--	<u>1.1</u>	Jul-15
Over/Under			0.1		0.3		0.3		0.0		0.0				-0.1	

Note: Performance is shown net of fees. Fiscal year ends June 30.



## New Mexico Educational Retirement Board

# OTHER DIVERSIFYING ASSETS PERFORMANCE

Vintage Year	Investment	Commitment	Paid In Capital	Current MV	Time Weighted Returns Since Inception	Inception Date
2017	EIG Energy Fund XVII	100,000,000	39,220,997	40,764,749	4.2	Apr-18
2017	1609 Fund	125,000,000	125,000,000	127,610,777	1.9	Feb-18
2018	Olea Special Opportunities Offshore Fund	135,000,000	135,000,000	167,498,819	17.6	Oct-18
2018	Orchard Liquid Credit Fund	100,000,000	100,000,000	109,164,800	9.9	Nov-18
2019	OrbiMed Royalty & Credit Opps. III	100,000,000	20,000,000	15,573,431	15.3	Oct-19
2019	AE Industrial AA	150,000,000	20,000,000	18,889,160	-5.6	Apr-20
2019	Cloverlay	150,000,000				
<b>Total</b>	<b>Other Diversifying Assets</b>	<b>860,000,000</b>	<b>419,220,997</b>	<b>479,501,736</b>	<b>8.3</b>	<b>Feb-18</b>

\*Market Values and Performance data are through 9/30/2020

### Correlation of Monthly Returns Since Inception

	Total Fund	U.S. Equity	Non U.S. Developed Markets Equity	Non U.S. Emerging Markets Equity	Core Fixed Income	Non U.S. Emerging Markets Debt	Opportunistic Credit	Real Estate	Private Equity	Real Assets	Other Diversifying Assets	EIG Energy Fund	1609 Fund	OLEA	Orchard	OrbiMed
<b>Other Diversifying Assets</b>	0.05	0.07	0.09	0.01	-0.12	-0.03	0.06	-0.12	-0.01	-0.05	1.00					
EIG Energy Fund	-0.27	-0.47	-0.38	-0.35	-0.28	-0.20	0.35	-0.27	0.46	0.14	0.17	1.00				
1609 Fund	-0.08	-0.05	-0.07	-0.18	-0.11	-0.06	0.01	0.05	0.08	0.09	0.43	-0.04	1.00			
OLEA	0.38	0.44	0.43	0.38	0.14	0.23	0.10	0.15	-0.29	-0.11	0.77	-0.28	-0.14	1.00		
Orchard	-0.73	-0.51	-0.62	-0.65	-0.57	-0.77	-0.61	-0.53	0.05	-0.19	0.13	-0.09	0.25	-0.17	1.00	
OrbiMed	0.38	0.29	0.38	0.39	-0.09	0.29	0.17	0.26	0.05	0.06	0.47	-0.07	-0.31	0.54	-0.20	1.00



New Mexico Educational Retirement Board

# PRIVATE MARKETS PERFORMANCE SUMMARY

Private Equity Dollar Weighted vs. Time Weighted Performance							
	3 Mo (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)	Inception (%)	Inception Date
<b>Dollar Weighted</b>							
Total Net IRR	4.5	12.4	12.0	12.3	13.5	12.4	Jun-06
<b>Time Weighted</b>							
Net Time Weighted Return	2.0	11.1	11.7	12.1	13.5	7.4	Jun-06

Real Estate Dollar Weighted vs. Time Weighted Performance							
	3 Mo (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)	Inception (%)	Inception Date
<b>Dollar Weighted</b>							
Total Net IRR	2.5	16.8	11.0	9.8	13.5	10.9	Jan-08
<b>Time Weighted</b>							
Net Time Weighted Return	4.7	13.6	14.5	13.7	14.2	9.1	Jan-08

Infrastructure Dollar Weighted vs. Time Weighted Performance							
	3 Mo (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)	Inception (%)	Inception Date
<b>Dollar Weighted</b>							
Total Net IRR						6.0	Jul-08
<b>Time Weighted</b>							
Net Time Weighted Return	-0.4	11.0	8.0	8.8	5.7	3.7	Jul-08

Natural Resources Dollar Weighted vs. Time Weighted Performance							
	3 Mo (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)	Inception (%)	Inception Date
<b>Dollar Weighted</b>							
Total Net IRR	1.6	7.4	10.4	10.1	9.3	9.2	Mar-09
<b>Time Weighted</b>							
Net Time Weighted Return	-1.5	6.5	9.9	9.0	6.3	4.7	Mar-09

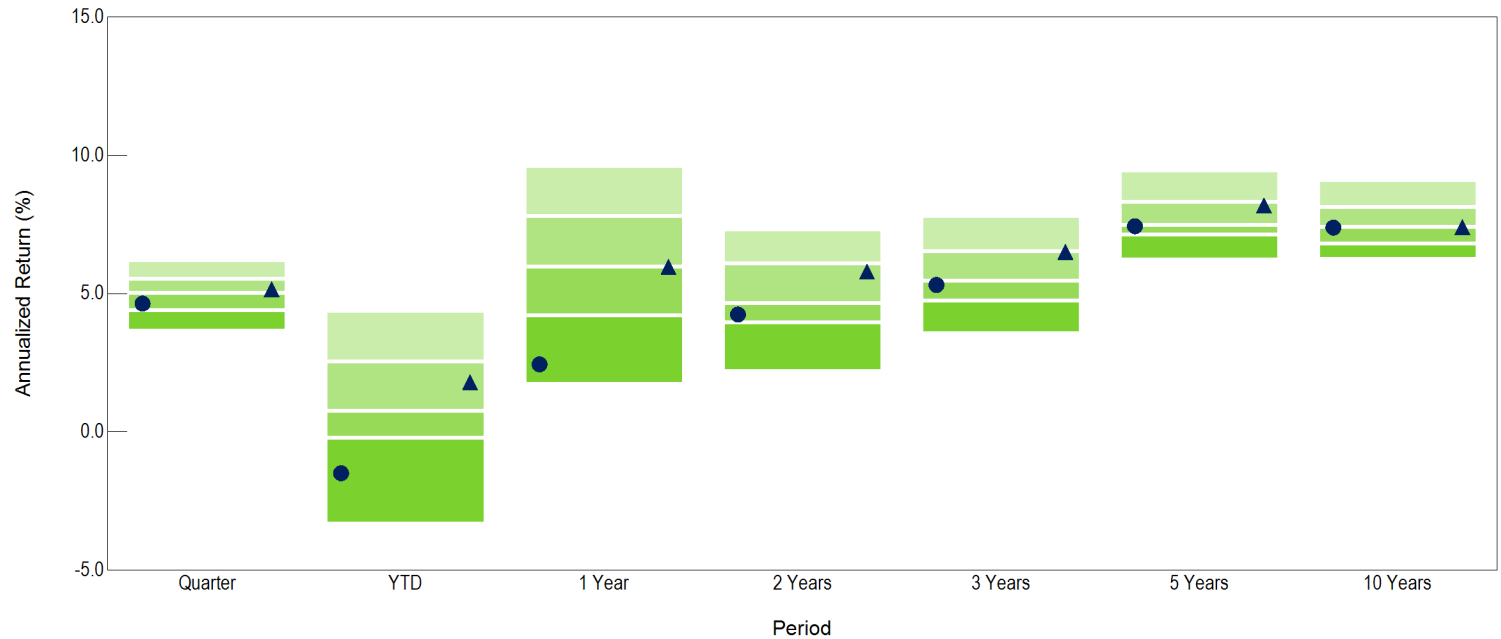
\*Time weighted performance as of 9/30/2020 except for Private Equity which is reported as of 6/30/2020

\*Dollar weighted performance is as of 6/30/2020 except for Private Equity which is reported as of 3/31/2020



# 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	7.3	7.8	9.4	9.1							
25th Percentile	5.5	2.6	7.8	6.1	6.5	8.3	8.1							
Median	5.0	0.8	6.0	4.7	5.5	7.5	7.4							
75th Percentile	4.4	-0.2	4.2	4.0	4.8	7.2	6.8							
95th Percentile	3.7	-3.3	1.7	2.2	3.6	6.2	6.3							
# of Portfolios	77	77	77	77	77	75	69							
● Total Fund	4.6	(66)	-1.5	(83)	2.4	(93)	4.2	(64)	5.3	(58)	7.4	(53)	7.4	(56)
▲ Policy Index	5.1	(45)	1.8	(36)	6.0	(51)	5.8	(32)	6.5	(27)	8.2	(31)	7.4	(51)

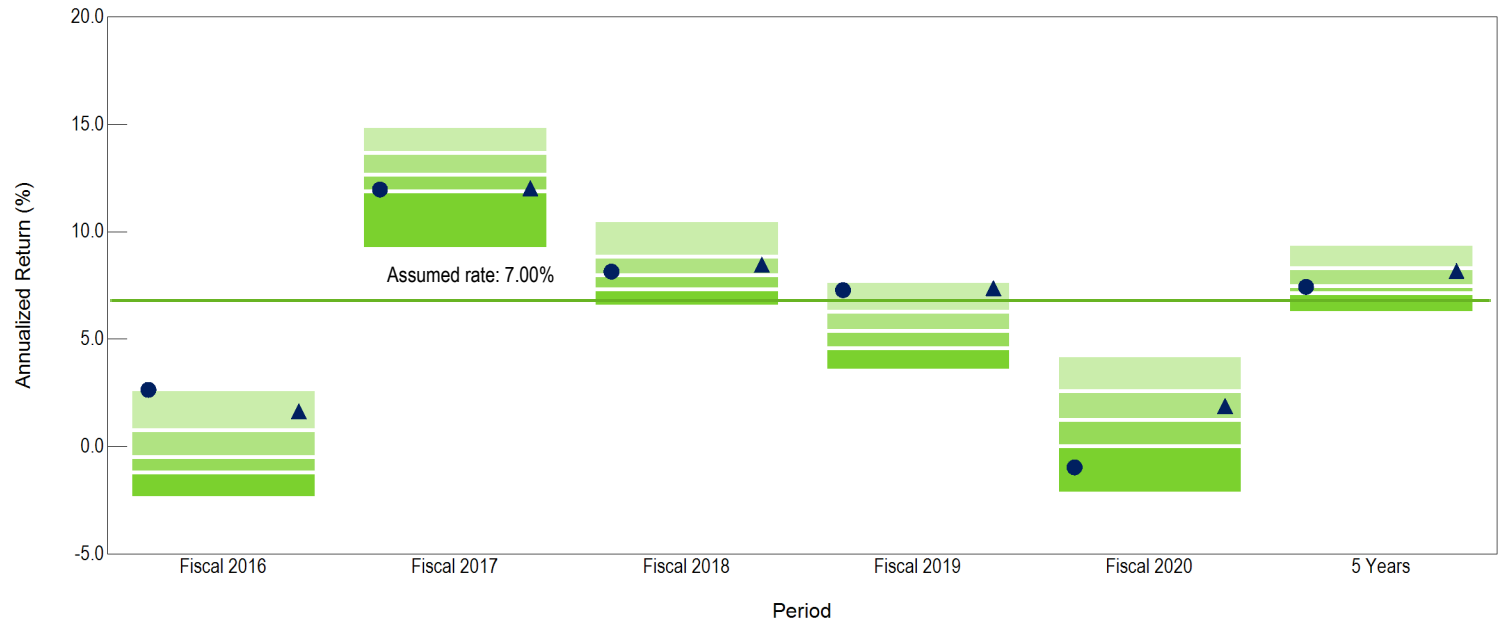
Note: Ranks are based on net returns.





# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



	Return (Rank)											
5th Percentile	2.7		14.9		10.5		7.7		4.2		9.4	
25th Percentile	0.8		13.7		8.8		6.3		2.6		8.3	
Median	-0.5		12.7		8.0		5.4		1.3		7.5	
75th Percentile	-1.2		11.9		7.3		4.6		0.0		7.2	
95th Percentile	-2.4		9.2		6.5		3.5		-2.2		6.2	
# of Portfolios	55		65		51		77		71		75	
● Total Fund	2.6	(6)	12.0	(71)	8.1	(46)	7.3	(9)	-1.0	(90)	7.4	(53)
▲ Policy Index	1.7	(9)	12.0	(68)	8.5	(33)	7.4	(7)	1.9	(36)	8.2	(31)

Note: Ranks are based on net returns.



## New Mexico Educational Retirement Board

# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Summary						
3 Months Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Large Cap Equity Composite	8.9%	8.9%	-0.1%	0.0%	-0.1%	-0.1%
U.S. Small/Mid Cap Equity Composite	4.6%	5.9%	-1.3%	0.0%	0.0%	0.0%
Non-U.S. Developed Mkts Equity Composite	5.6%	4.8%	0.8%	0.0%	0.0%	0.0%
Non-U.S. Emerging Mkts Equity Composite	8.8%	9.6%	-0.7%	-0.1%	0.0%	-0.1%
Core Fixed Income Composite	1.2%	0.6%	0.6%	0.0%	0.0%	0.0%
Non-U.S. Emerging Market Debt Composite	1.1%	1.5%	-0.4%	0.0%	0.0%	0.0%
Opportunistic Credit Composite	5.2%	4.2%	1.0%	0.2%	0.0%	0.2%
Absolute Return Composite	0.1%	0.5%	-0.5%	0.0%	0.0%	0.0%
Global Asset Allocation/Risk Parity Composite	3.1%	0.6%	2.5%	0.2%	-0.1%	0.1%
Other Diversifying Assets	0.5%	0.6%	-0.1%	0.0%	0.1%	0.1%
Public Real Estate Composite	1.5%	1.3%	0.3%	0.0%	0.0%	0.0%
Private Real Estate Composite	3.3%	0.7%	2.6%	0.1%	0.0%	0.1%
Private Equity Composite	3.7%	9.4%	-5.7%	-1.0%	0.1%	-0.8%
Real Assets Composite	2.4%	2.2%	0.2%	0.0%	0.0%	0.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>4.6%</b>	<b>5.1%</b>	<b>-0.5%</b>	<b>-0.5%</b>	<b>0.0%</b>	<b>-0.5%</b>

Attribution Summary						
YTD Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Large Cap Equity Composite	7.1%	5.6%	1.6%	0.2%	-0.3%	-0.1%
U.S. Small/Mid Cap Equity Composite	-11.7%	-5.8%	-5.9%	-0.2%	0.0%	-0.2%
Non-U.S. Developed Mkts Equity Composite	-7.3%	-7.1%	-0.2%	0.0%	0.0%	0.0%
Non-U.S. Emerging Mkts Equity Composite	-0.6%	-1.2%	0.6%	0.1%	-0.1%	0.0%
Core Fixed Income Composite	5.4%	6.8%	-1.4%	-0.1%	0.0%	-0.1%
Non-U.S. Emerging Market Debt Composite	-3.9%	-3.4%	-0.5%	0.0%	0.0%	0.0%
Opportunistic Credit Composite	-4.4%	-0.1%	-4.3%	-0.9%	0.0%	-0.9%
Absolute Return Composite	-4.8%	2.1%	-6.9%	0.0%	0.0%	0.0%
Global Asset Allocation/Risk Parity Composite	-3.4%	2.1%	-5.5%	-0.5%	0.1%	-0.4%
Other Diversifying Assets	3.3%	2.1%	1.3%	0.1%	-0.1%	0.0%
Public Real Estate Composite	-19.1%	-16.7%	-2.4%	-0.1%	0.0%	-0.1%
Private Real Estate Composite	-2.6%	0.5%	-3.0%	-0.1%	0.0%	-0.2%
Private Equity Composite	1.2%	2.1%	-0.9%	-0.3%	-0.1%	-0.4%
Real Assets Composite	-5.7%	3.7%	-9.4%	-0.8%	0.0%	-0.9%
Cash	0.4%	0.4%	0.0%	0.0%	0.1%	0.1%
<b>Total</b>	<b>-1.5%</b>	<b>1.8%</b>	<b>-3.3%</b>	<b>-2.6%</b>	<b>-0.7%</b>	<b>-3.3%</b>



## New Mexico Educational Retirement Board

# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Summary						
1 Year Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Large Cap Equity Composite	16.7%	15.1%	1.6%	0.2%	-0.4%	-0.2%
U.S. Small/Mid Cap Equity Composite	-4.6%	2.2%	-6.9%	-0.2%	0.0%	-0.2%
Non-U.S. Developed Mkts Equity Composite	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%
Non-U.S. Emerging Mkts Equity Composite	10.7%	10.5%	0.2%	0.0%	-0.1%	-0.1%
Core Fixed Income Composite	5.9%	7.0%	-1.1%	-0.1%	0.0%	-0.1%
Non-U.S. Emerging Market Debt Composite	-1.0%	0.0%	-1.0%	0.0%	0.0%	0.0%
Opportunistic Credit Composite	-3.2%	2.0%	-5.2%	-1.1%	0.0%	-1.1%
Absolute Return Composite	-4.9%	3.0%	-7.9%	0.0%	0.0%	0.0%
Global Asset Allocation/Risk Parity Composite	-1.2%	3.1%	-4.3%	-0.4%	0.0%	-0.4%
Other Diversifying Assets	5.1%	3.1%	2.0%	0.1%	0.0%	0.1%
Public Real Estate Composite	-19.5%	-17.7%	-1.9%	0.0%	-0.1%	-0.1%
Private Real Estate Composite	0.8%	2.0%	-1.2%	-0.1%	0.0%	-0.1%
Private Equity Composite	3.4%	3.4%	0.0%	-0.1%	-0.2%	-0.4%
Real Assets Composite	-5.0%	5.5%	-10.5%	-1.0%	0.0%	-1.0%
Cash	1.9%	0.8%	1.0%	0.0%	0.0%	0.1%
<b>Total</b>	<b>2.5%</b>	<b>6.0%</b>	<b>-3.5%</b>	<b>-2.6%</b>	<b>-0.9%</b>	<b>-3.5%</b>

Attribution Summary						
3 Years Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Large Cap Equity Composite	12.6%	12.3%	0.3%	0.0%	-0.2%	-0.2%
U.S. Small/Mid Cap Equity Composite	2.2%	4.5%	-2.3%	-0.1%	0.0%	-0.1%
Non-U.S. Developed Mkts Equity Composite	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%
Non-U.S. Emerging Mkts Equity Composite	2.4%	2.4%	0.0%	0.0%	-0.1%	-0.1%
Core Fixed Income Composite	4.9%	5.2%	-0.4%	0.0%	0.0%	-0.1%
Non-U.S. Emerging Market Debt Composite	0.8%	1.9%	-1.1%	0.0%	0.0%	0.0%
Opportunistic Credit Composite	2.2%	3.8%	-1.6%	-0.3%	0.0%	-0.3%
Absolute Return Composite	-3.0%	3.6%	-6.6%	0.0%	0.0%	0.0%
Global Asset Allocation/Risk Parity Composite	2.8%	4.9%	-2.1%	-0.2%	0.0%	-0.2%
Other Diversifying Assets	--	3.6%	--	0.1%	0.1%	0.1%
Public Real Estate Composite	-0.9%	0.4%	-1.4%	0.0%	0.0%	-0.1%
Private Real Estate Composite	8.6%	5.1%	3.4%	0.1%	0.0%	0.1%
Private Equity Composite	9.1%	10.6%	-1.5%	-0.3%	-0.1%	-0.3%
Real Assets Composite	5.6%	5.9%	-0.3%	-0.1%	0.0%	-0.1%
Cash	1.8%	1.6%	0.3%	0.0%	0.0%	0.0%
<b>Total</b>	<b>5.3%</b>	<b>6.5%</b>	<b>-1.2%</b>	<b>-0.7%</b>	<b>-0.5%</b>	<b>-1.2%</b>



## New Mexico Educational Retirement Board

# TOTAL FUND ATTRIBUTION ANALYSIS

Attribution Summary						
5 Years Ending September 30, 2020						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Large Cap Equity Composite	14.4%	14.1%	0.2%	0.0%	-0.2%	-0.1%
U.S. Small/Mid Cap Equity Composite	7.4%	9.0%	-1.5%	0.0%	0.0%	-0.1%
Non-U.S. Developed Mkts Equity Composite	4.8%	5.3%	-0.4%	0.0%	0.0%	0.0%
Non-U.S. Emerging Mkts Equity Composite	7.5%	9.0%	-1.4%	-0.2%	-0.1%	-0.2%
Core Fixed Income Composite	4.2%	4.2%	0.0%	0.0%	-0.1%	-0.1%
Non-U.S. Emerging Market Debt Composite	5.1%	5.5%	-0.4%	0.0%	0.0%	0.0%
Opportunistic Credit Composite	4.4%	5.3%	-0.9%	-0.2%	0.0%	-0.2%
Absolute Return Composite	-1.7%	3.2%	-4.9%	0.0%	0.0%	0.0%
Global Asset Allocation/Risk Parity Composite	4.7%	5.4%	-0.7%	-0.1%	0.0%	-0.1%
Other Diversifying Assets	--	--	--	0.0%	0.0%	0.1%
Public Real Estate Composite	2.7%	3.7%	-0.9%	0.0%	0.0%	-0.1%
Private Real Estate Composite	10.5%	6.3%	4.2%	0.2%	0.0%	0.2%
Private Equity Composite	10.1%	10.3%	-0.3%	-0.1%	0.0%	-0.1%
Real Assets Composite	7.2%	5.9%	1.3%	0.0%	0.0%	0.1%
Cash	1.5%	1.1%	0.3%	0.0%	-0.1%	0.0%
<b>Total</b>	<b>7.4%</b>	<b>8.2%</b>	<b>-0.8%</b>	<b>-0.3%</b>	<b>-0.5%</b>	<b>-0.8%</b>



# APPENDIX

NEPC, LLC

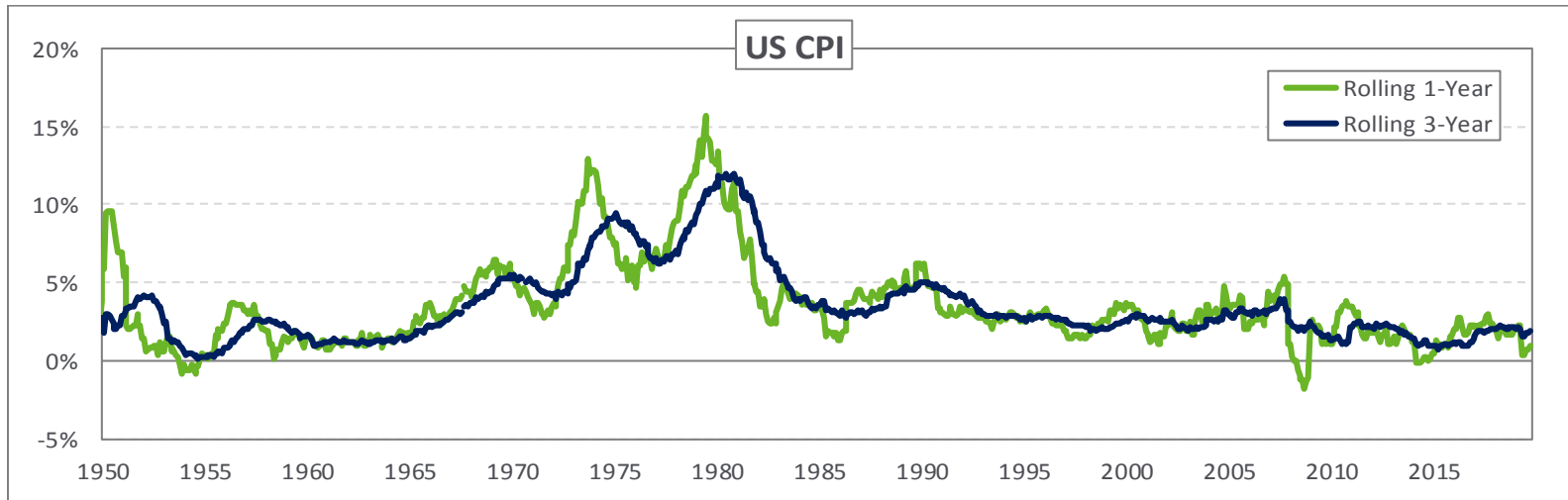
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# MACRO

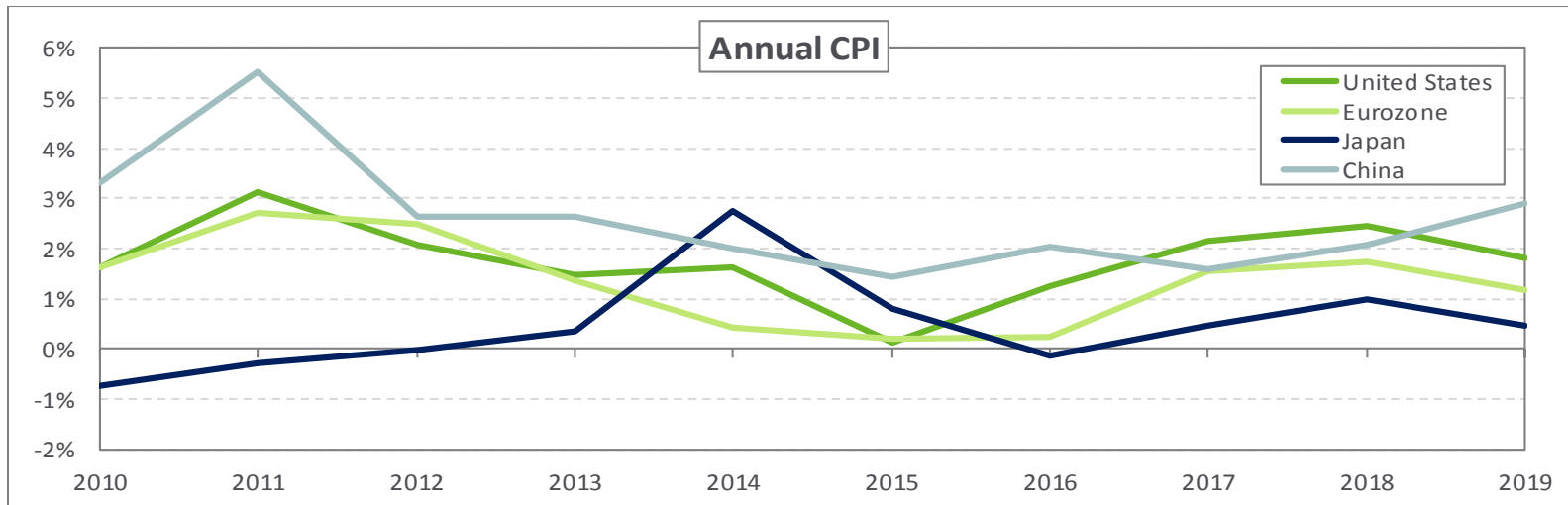
NEPC, LLC

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# INFLATION



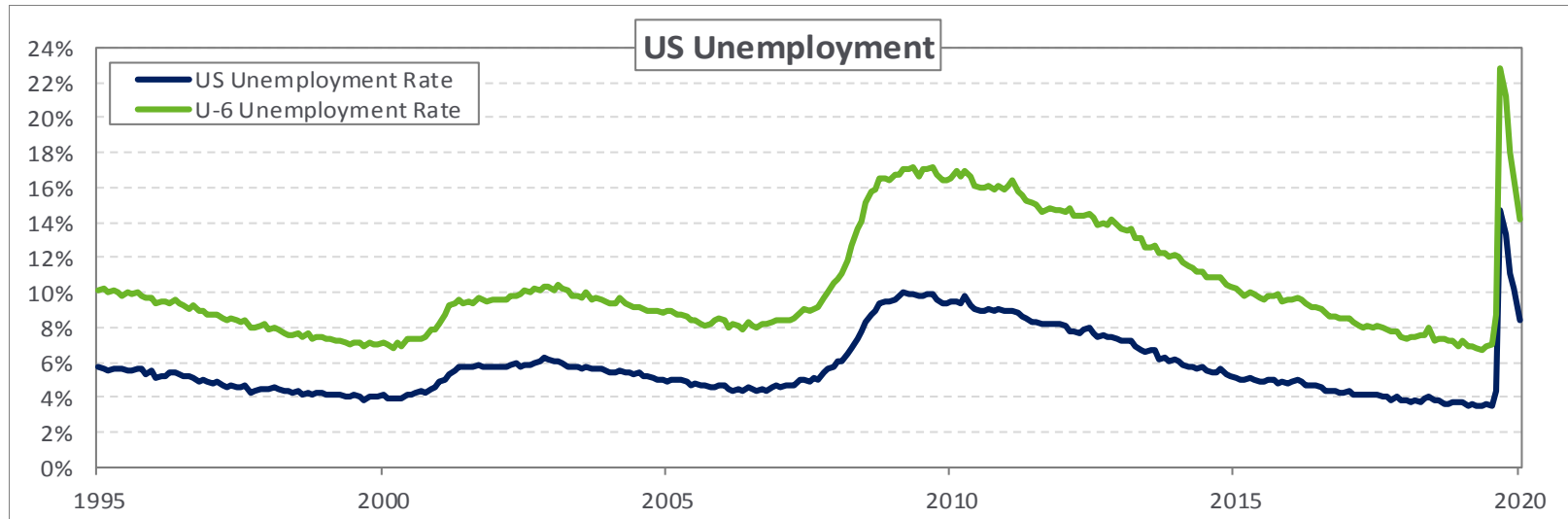
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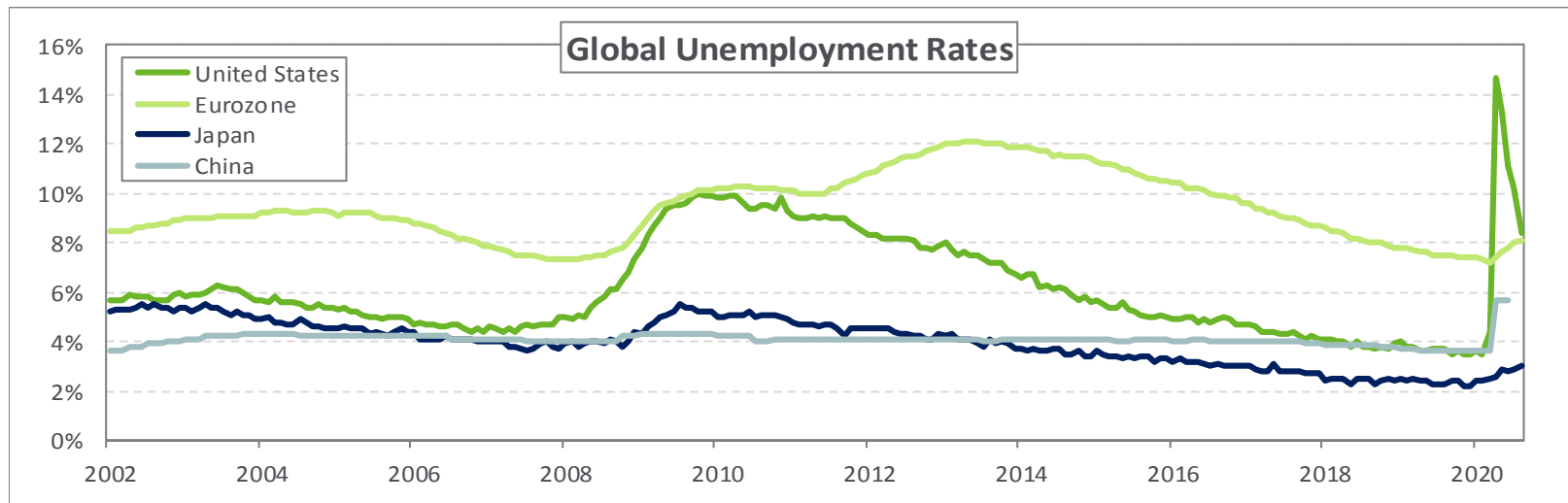
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# UNEMPLOYMENT



Source: FactSet

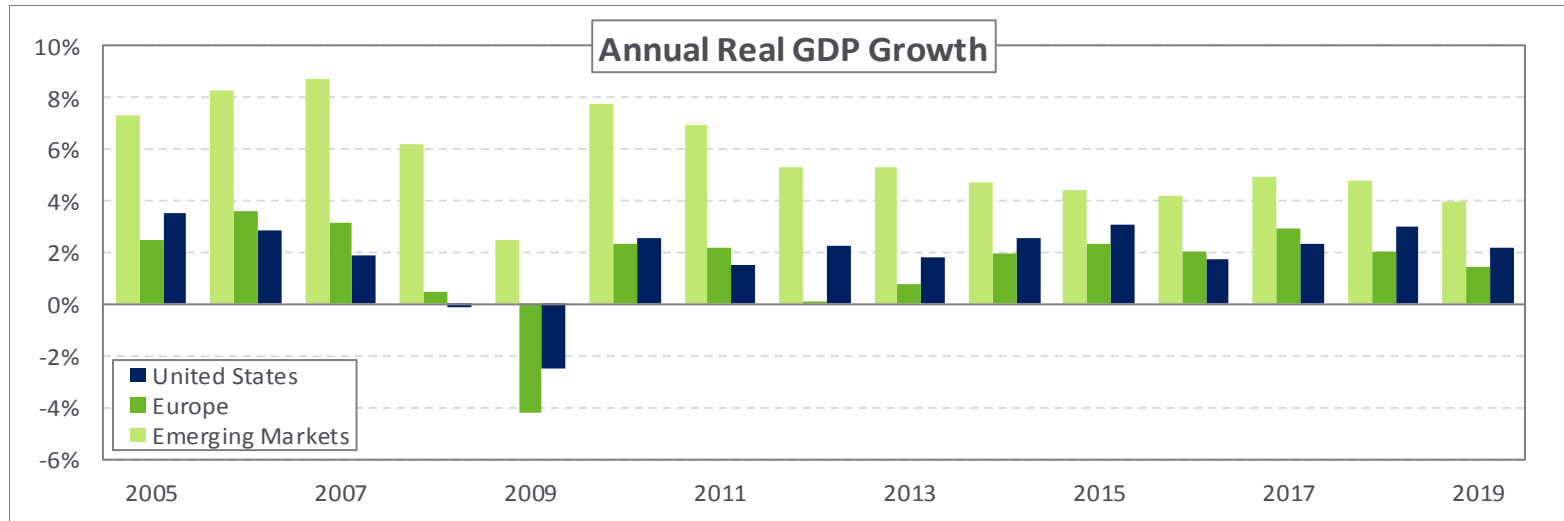


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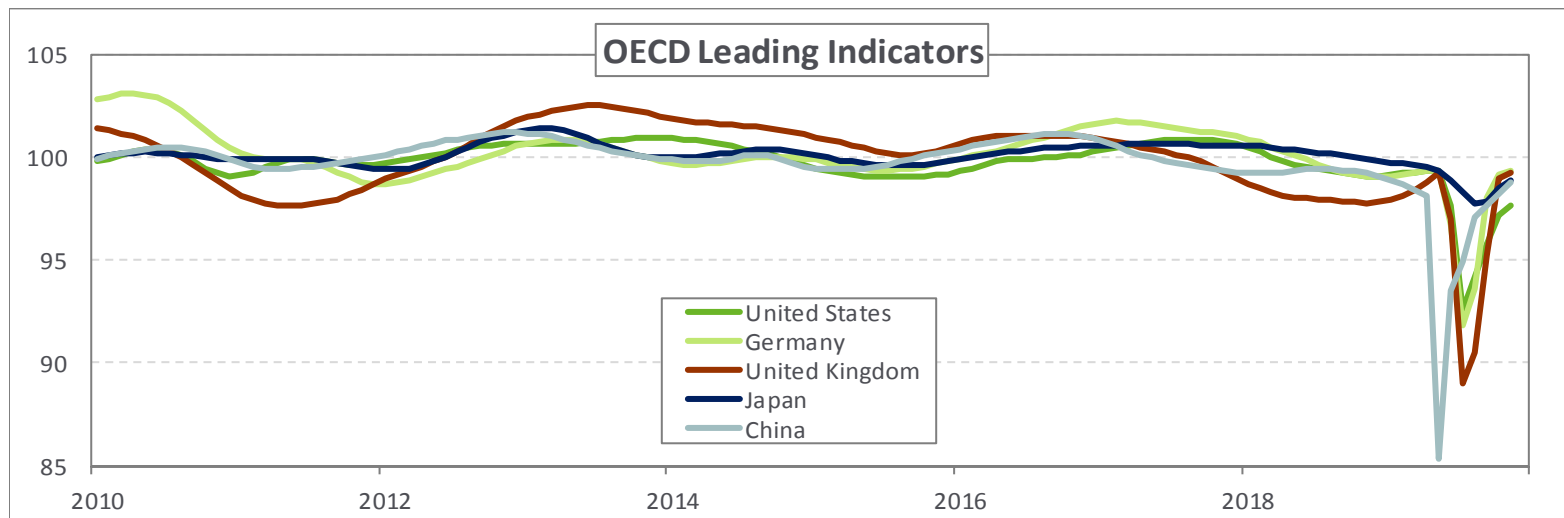




# ECONOMIC INDICATORS



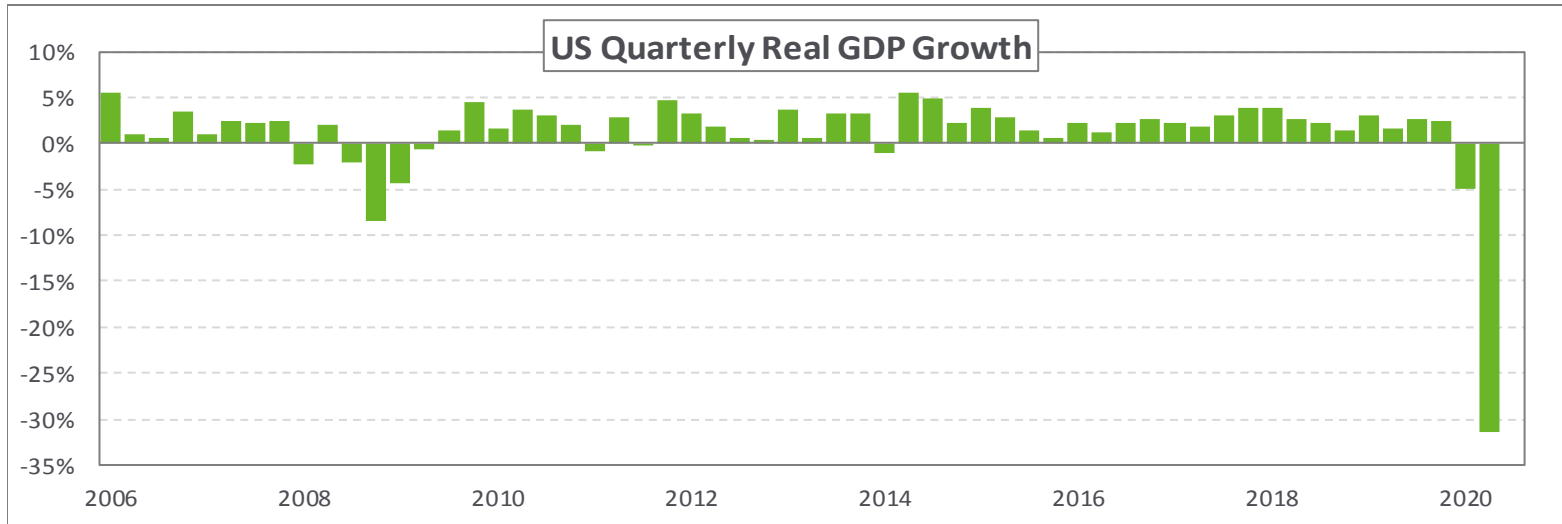
Source: Bureau of Economic Analysis, Oxford Economics, FactSet



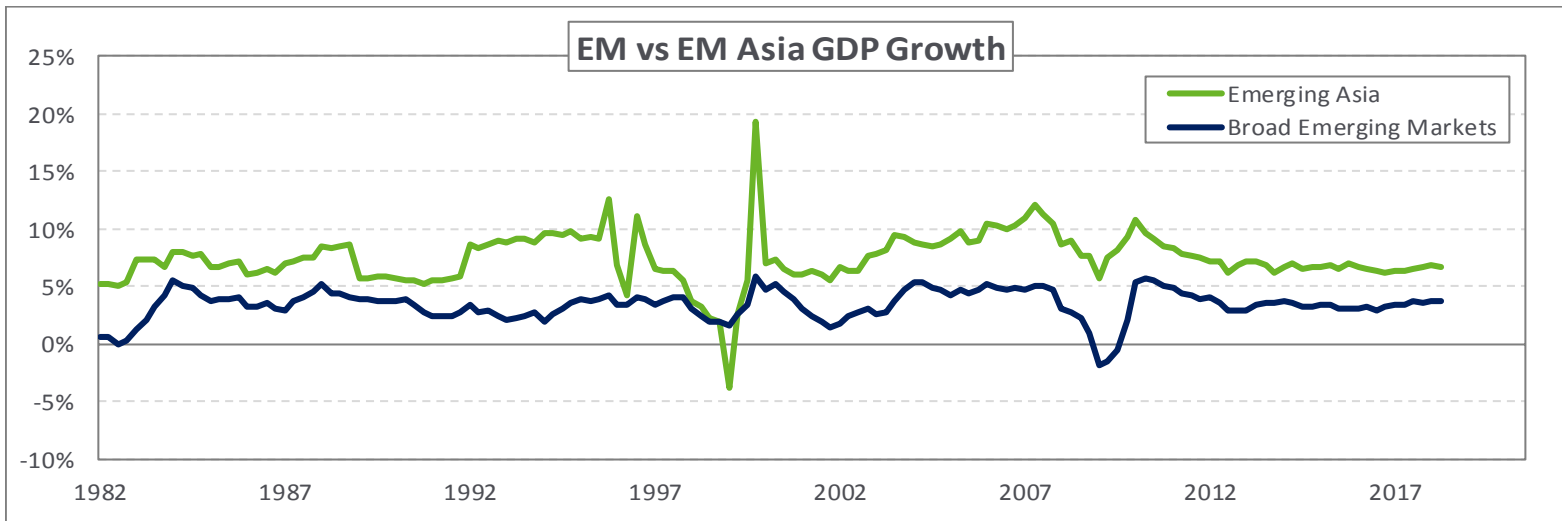
Source: OECD, FactSet



# GROSS DOMESTIC PRODUCT



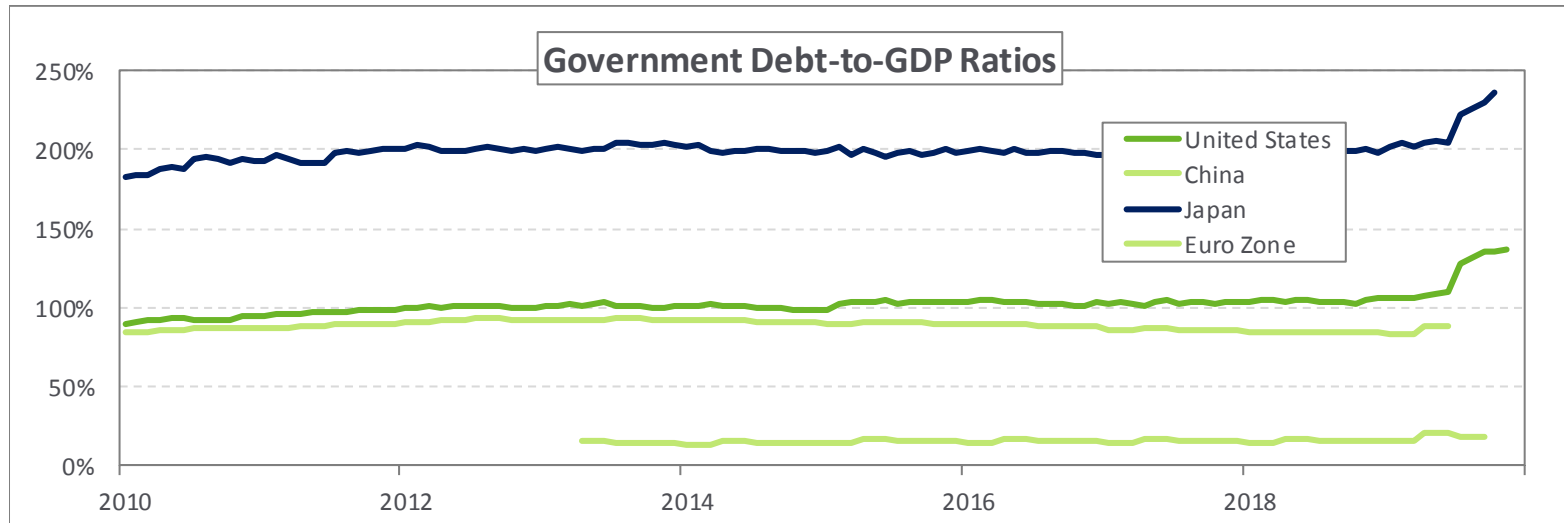
Source: Bureau of Economic Analysis, FactSet



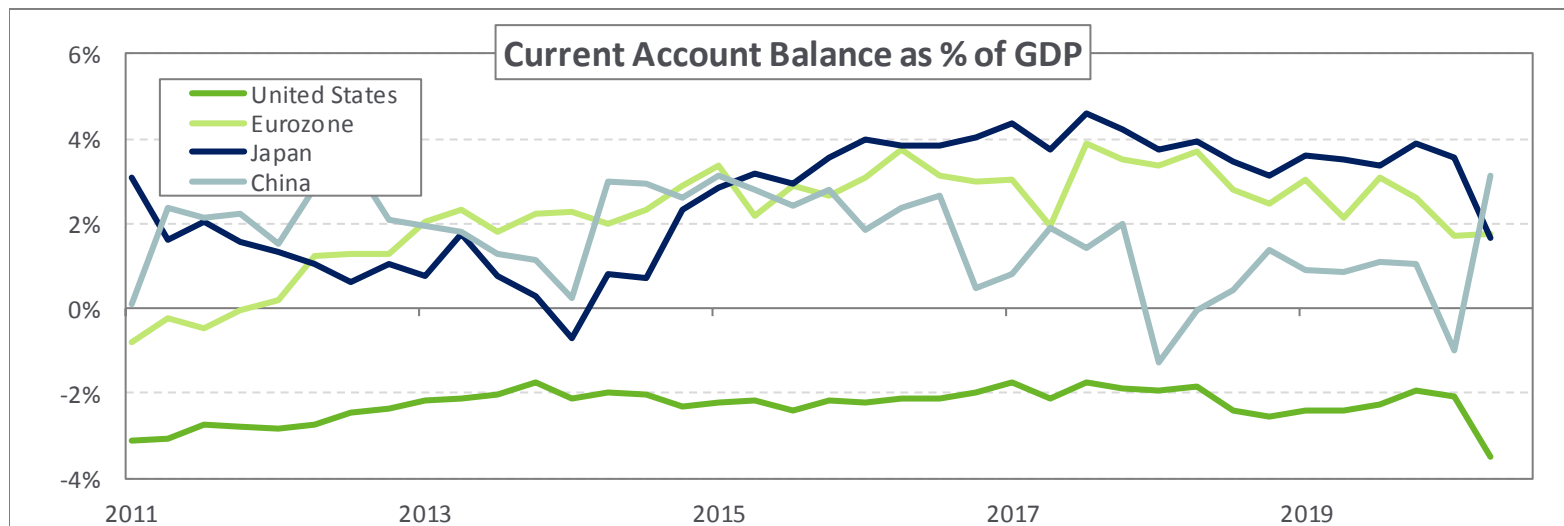
Source: IMF, FactSet



# GROSS DOMESTIC PRODUCT METRICS



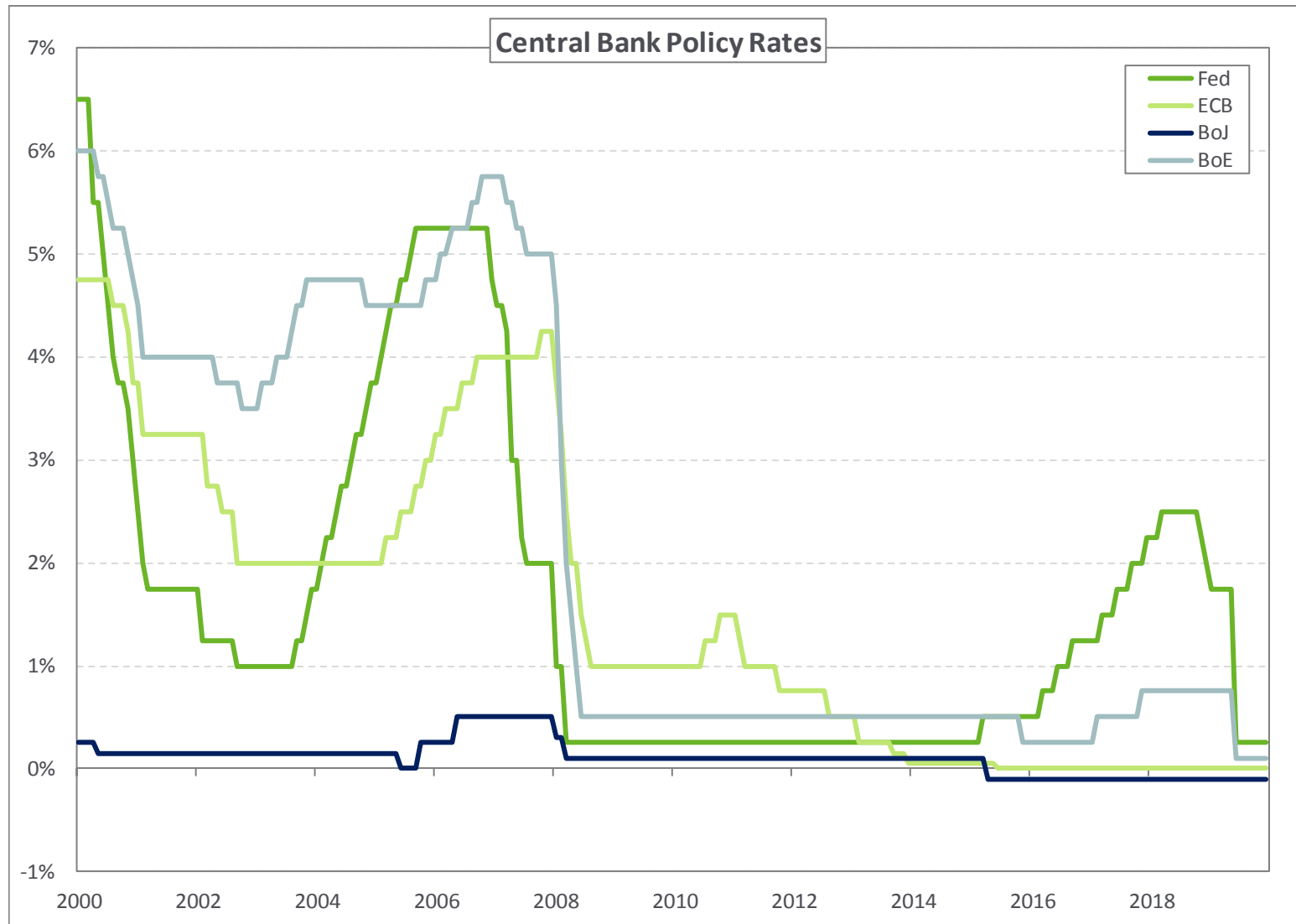
Source: IMF, FactSet



Source: FactSet



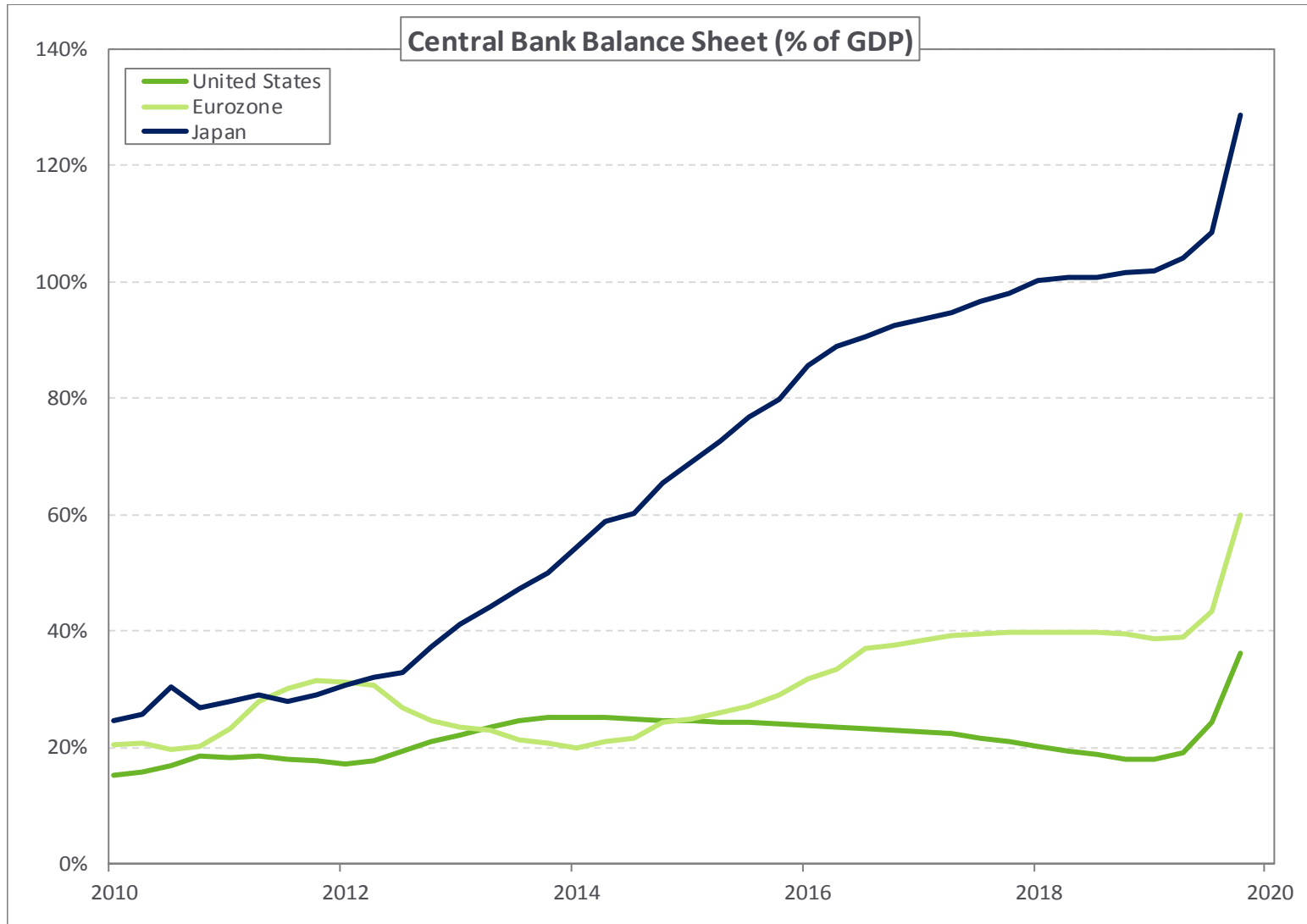
# CENTRAL BANK RATES



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



# CENTRAL BANK BALANCE SHEETS



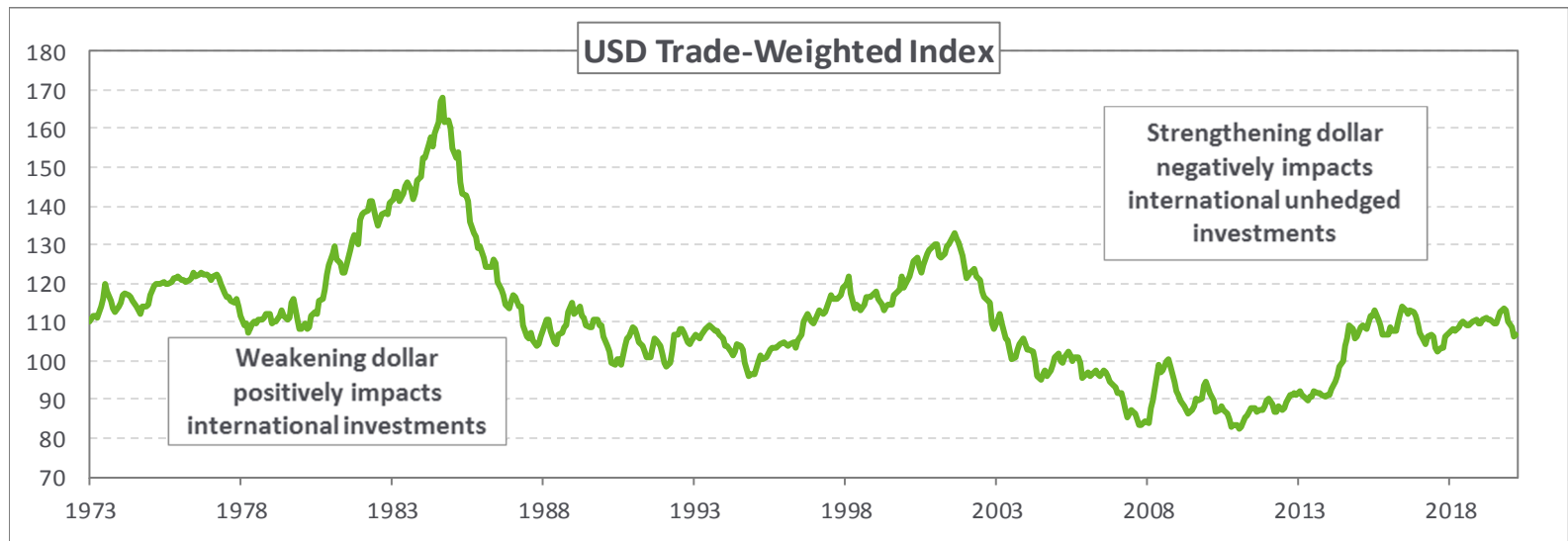
Source: FactSet



# CURRENCIES

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

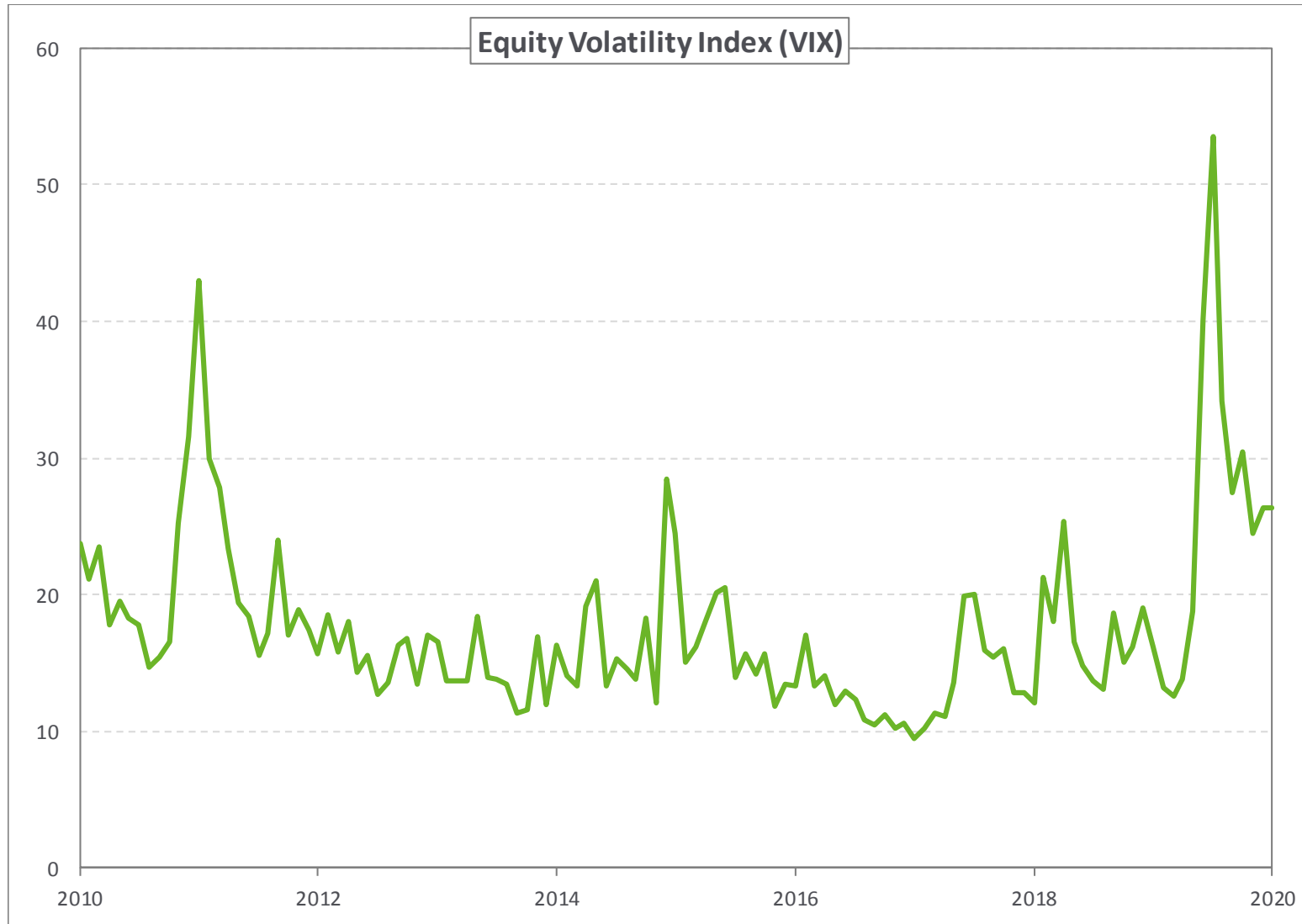
Source: FactSet



Source: FactSet



# VOLATILITY



Source: CBOE, FactSet



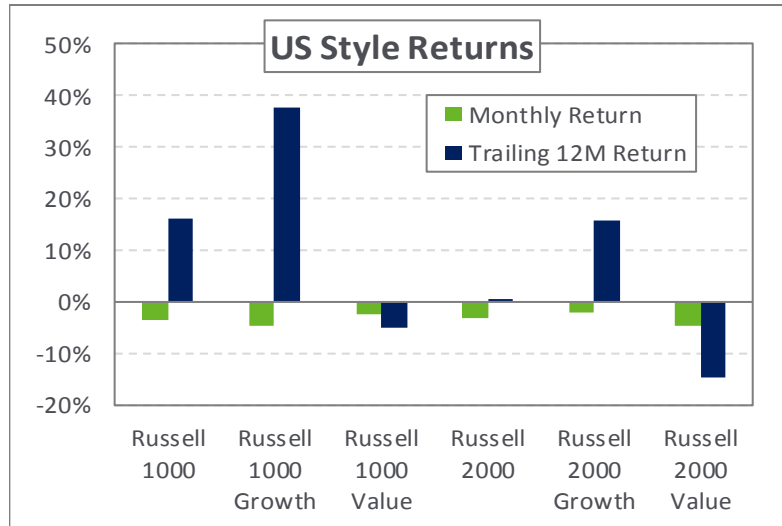
# EQUITY

NEPC, LLC

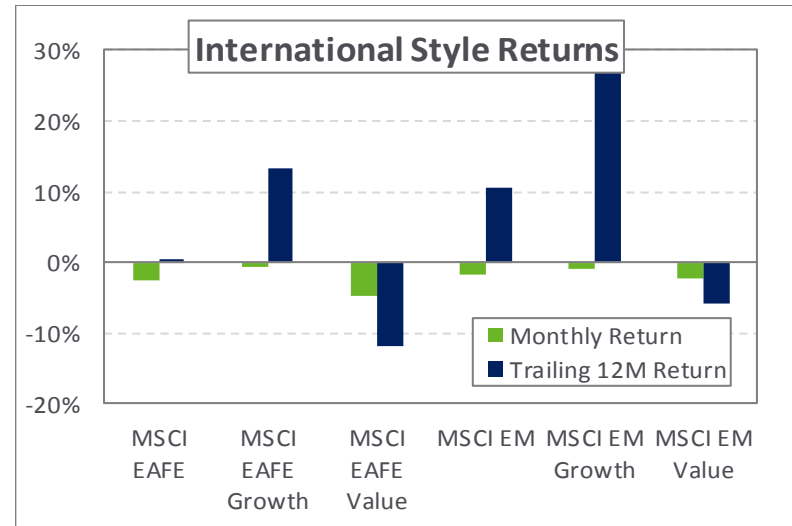
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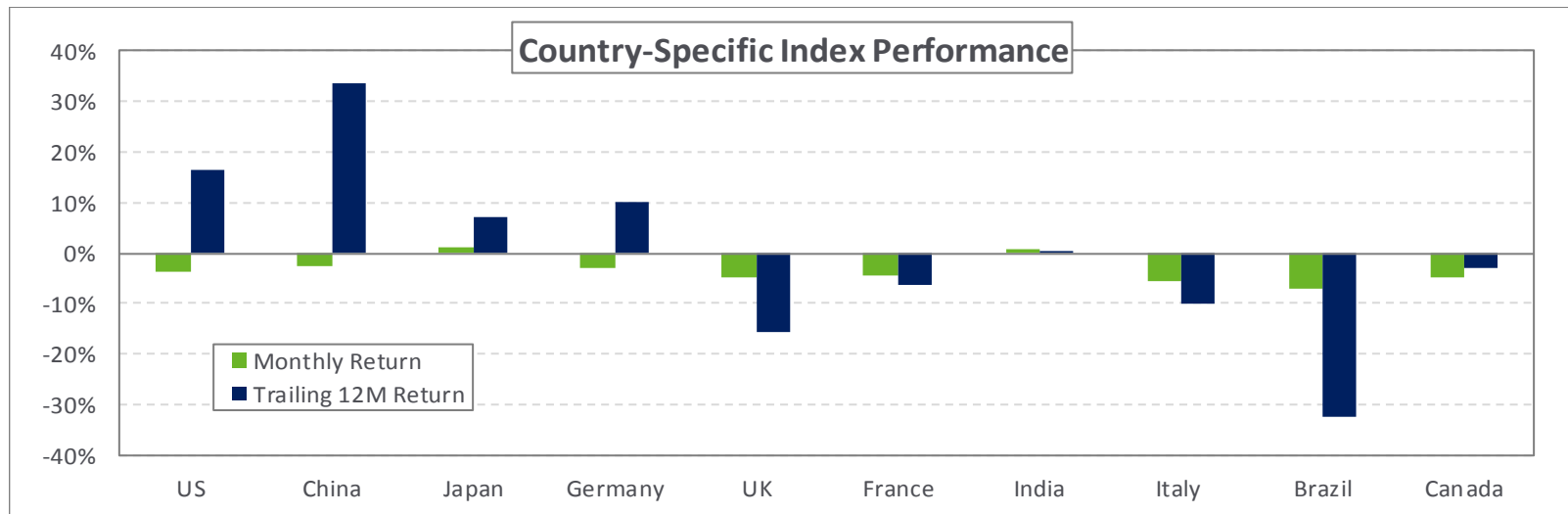
# EQUITY INDEX PERFORMANCE



Source: Russell, FactSet



Source: MSCI, FactSet



Source: MSCI, FactSet  
Represents returns in USD



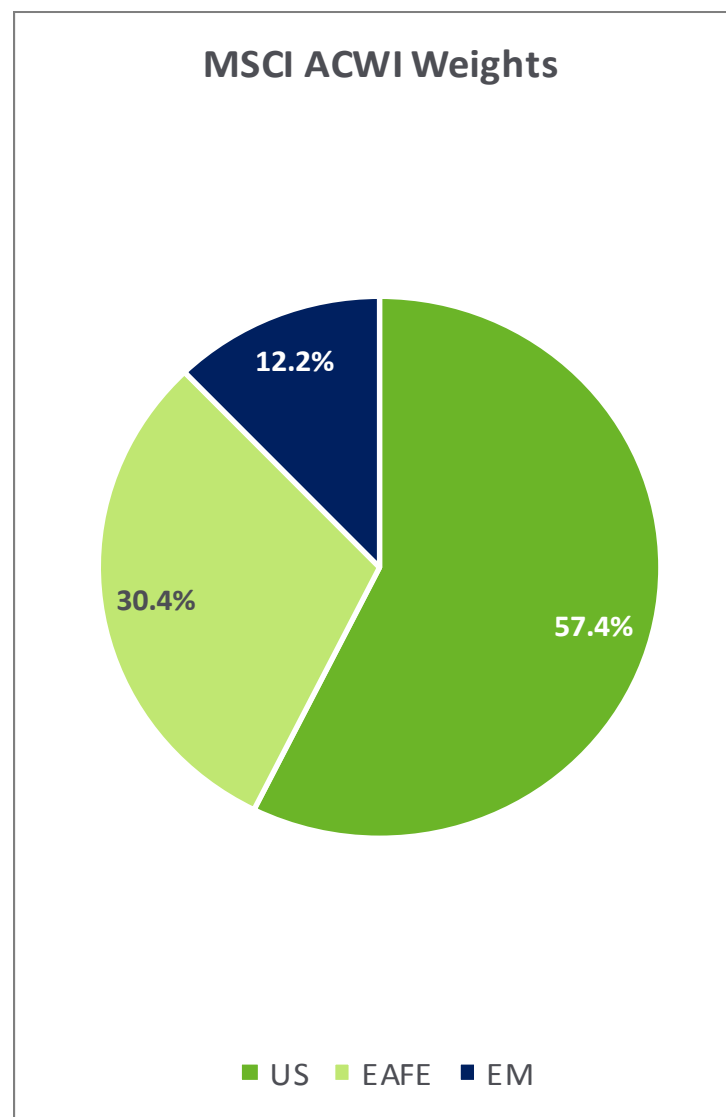
# INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
<b>S&amp;P 500</b>	<b>-3.8%</b>	<b>8.9%</b>	<b>5.6%</b>	<b>100.0%</b>
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
<b>MSCI ACWI</b>	<b>-3.2%</b>	<b>8.1%</b>	<b>1.4%</b>	<b>100.0%</b>
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%

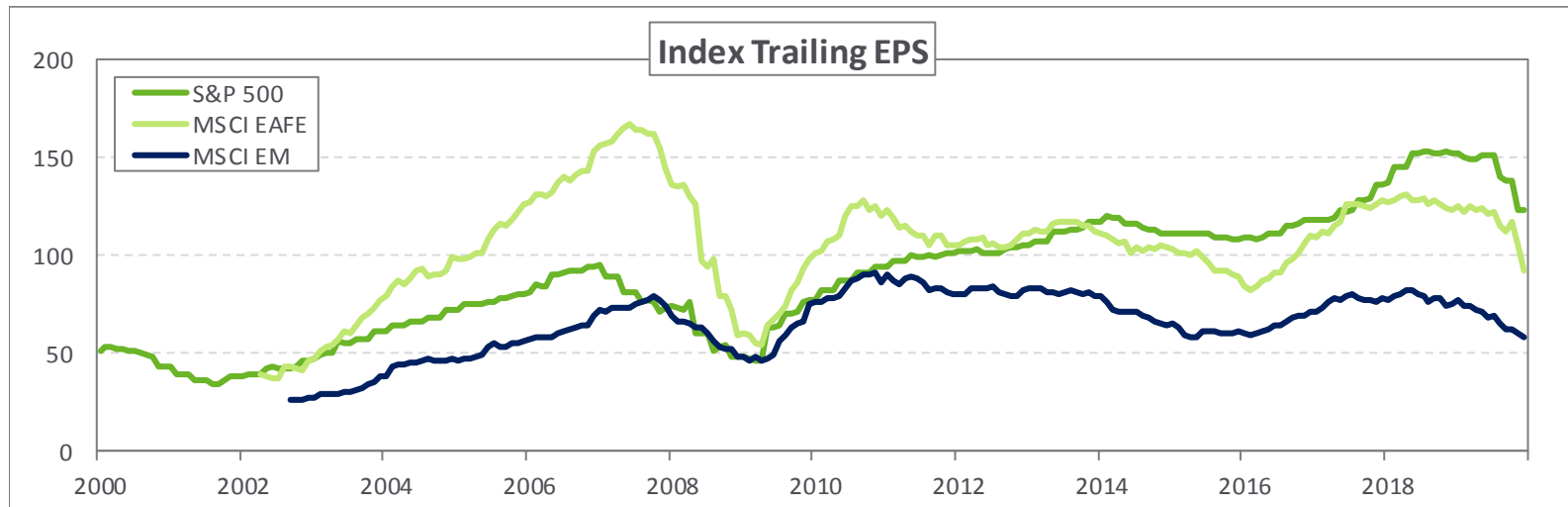
Source: MSCI, FactSet



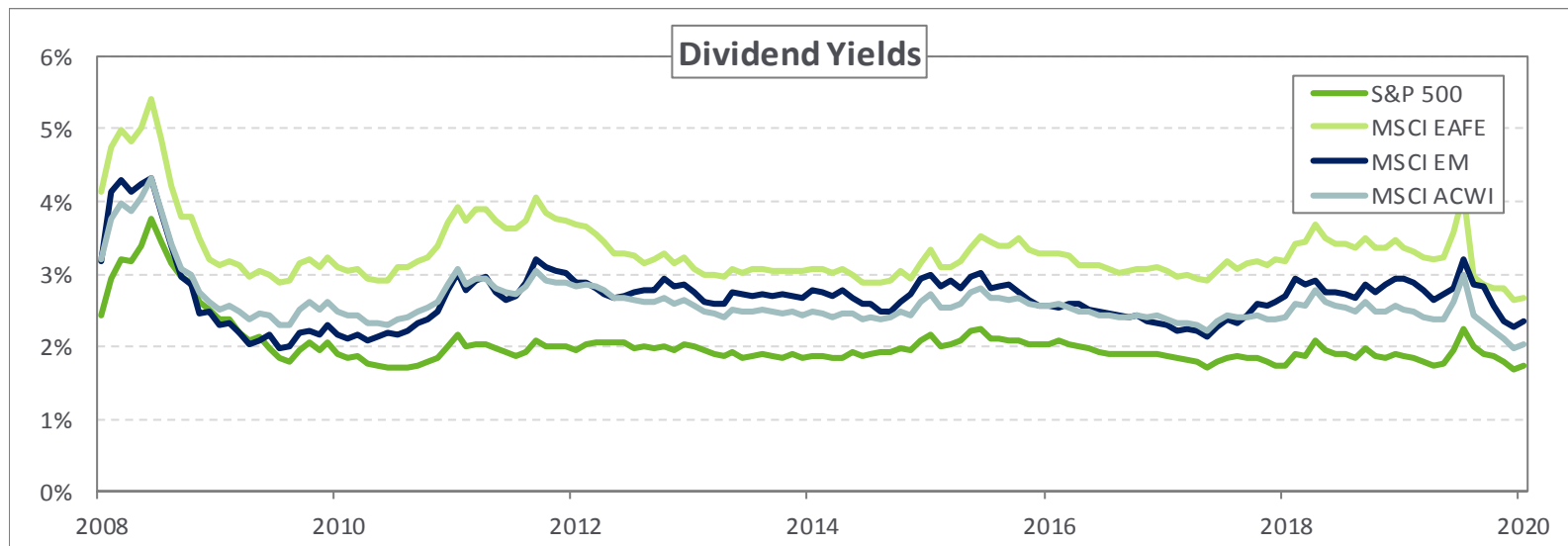
Source: MSCI, FactSet



# EARNINGS & YIELDS



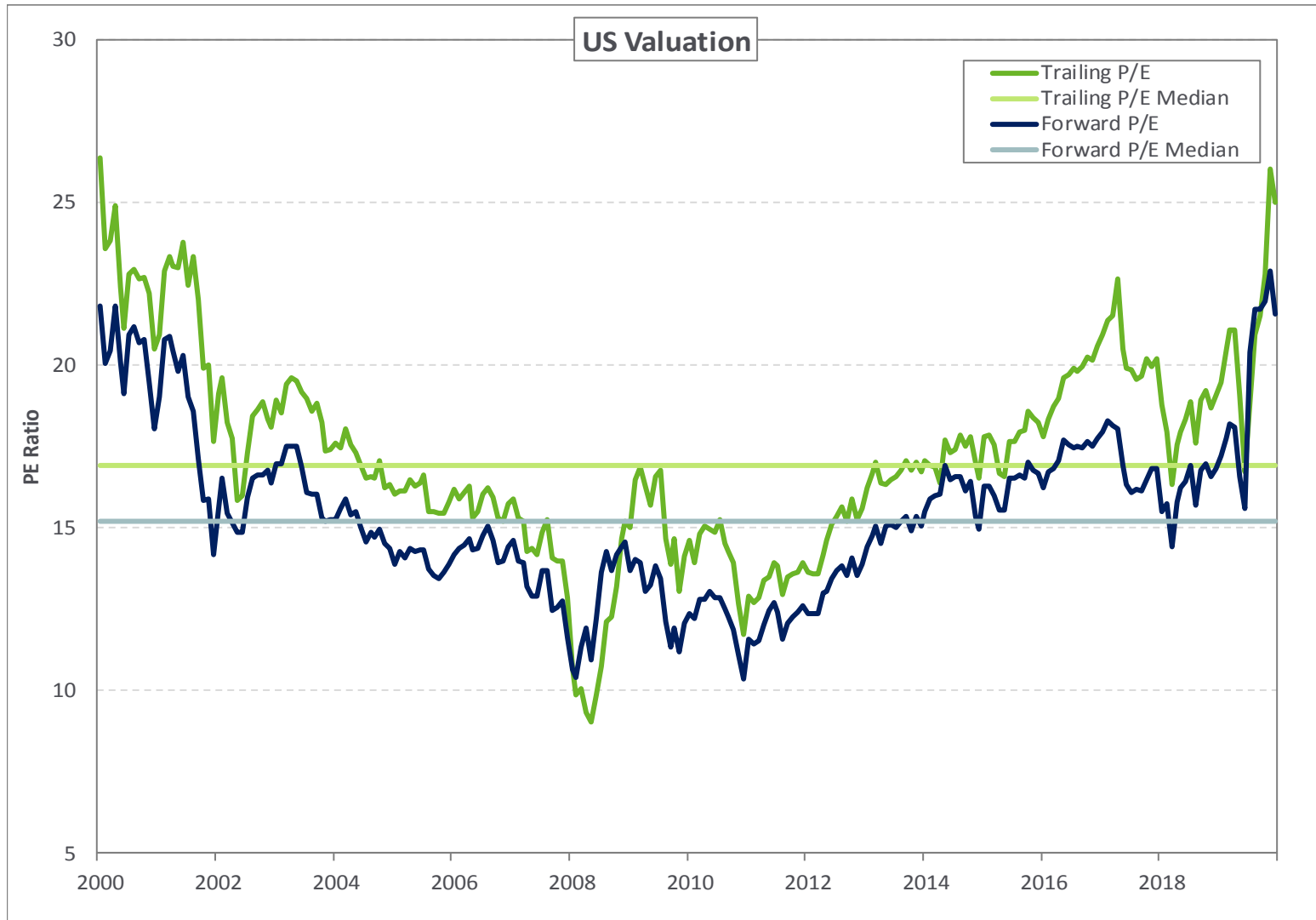
Source: FactSet



Source: FactSet



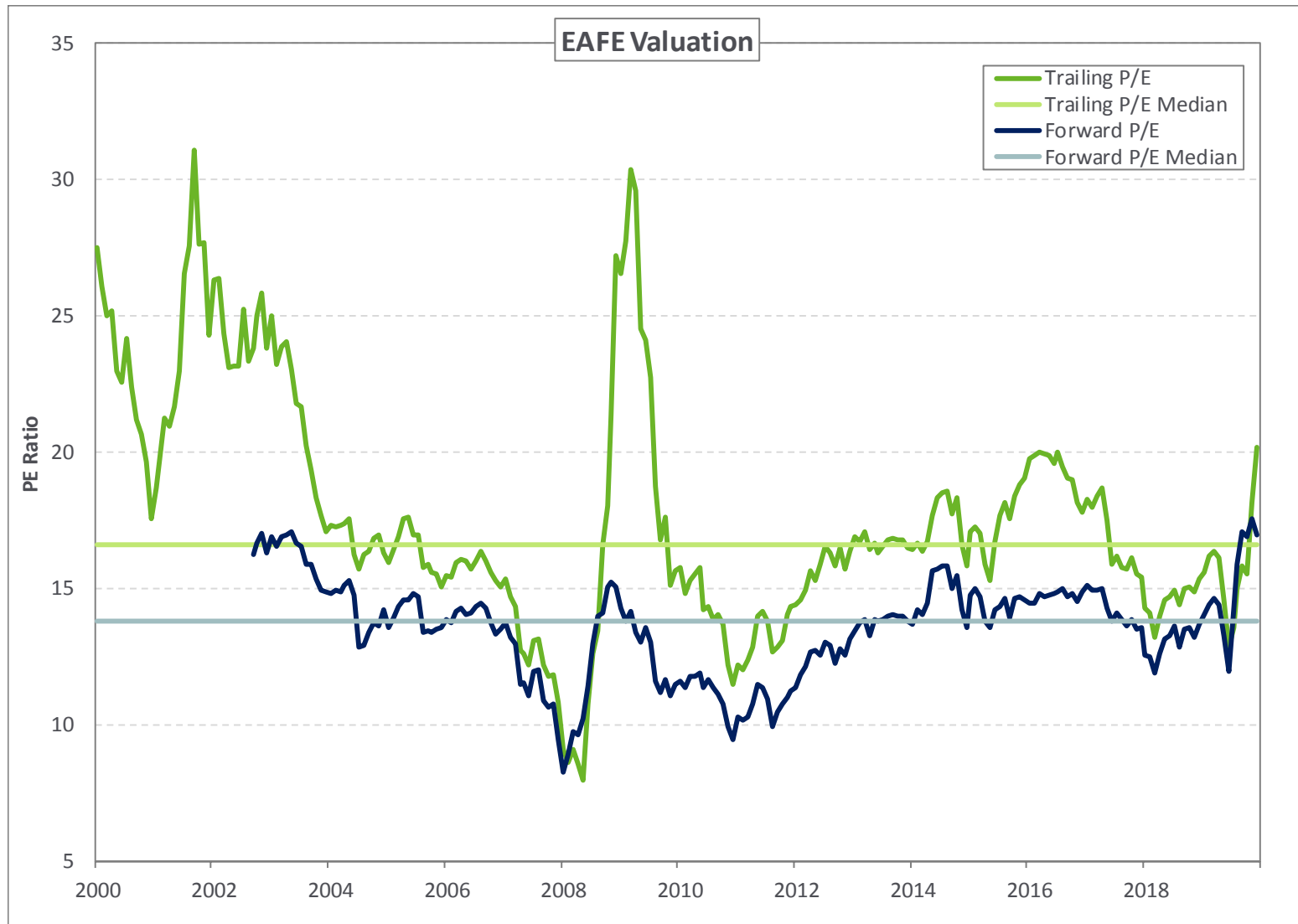
# US EQUITY VALUATIONS



Source: S&P, FactSet



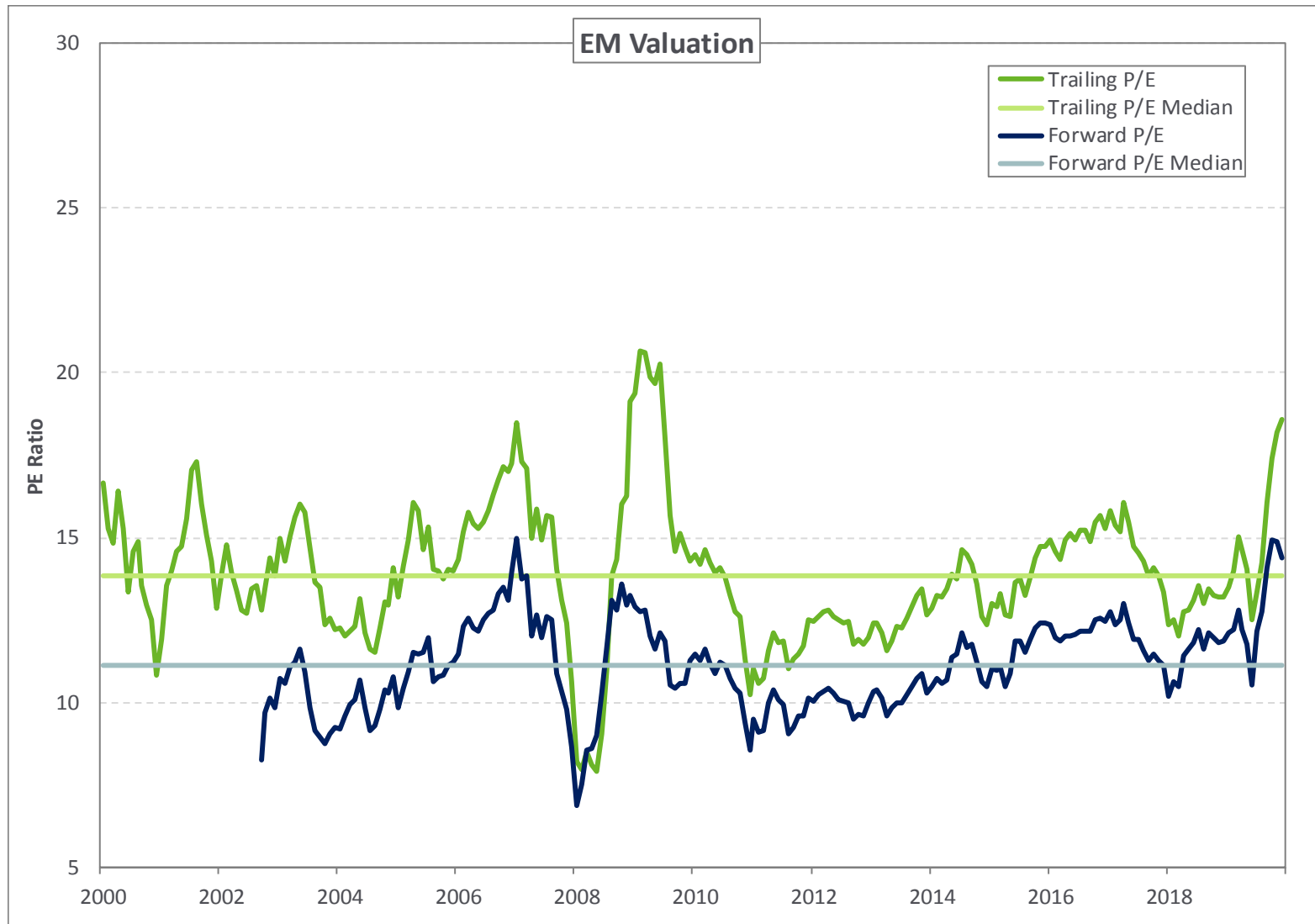
# EAFE EQUITY VALUATIONS



Source: MSCI, FactSet



# EM EQUITY VALUATIONS



Source: MSCI, FactSet



# CREDIT

NEPC, LLC

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# FIXED INCOME CHARACTERISTICS

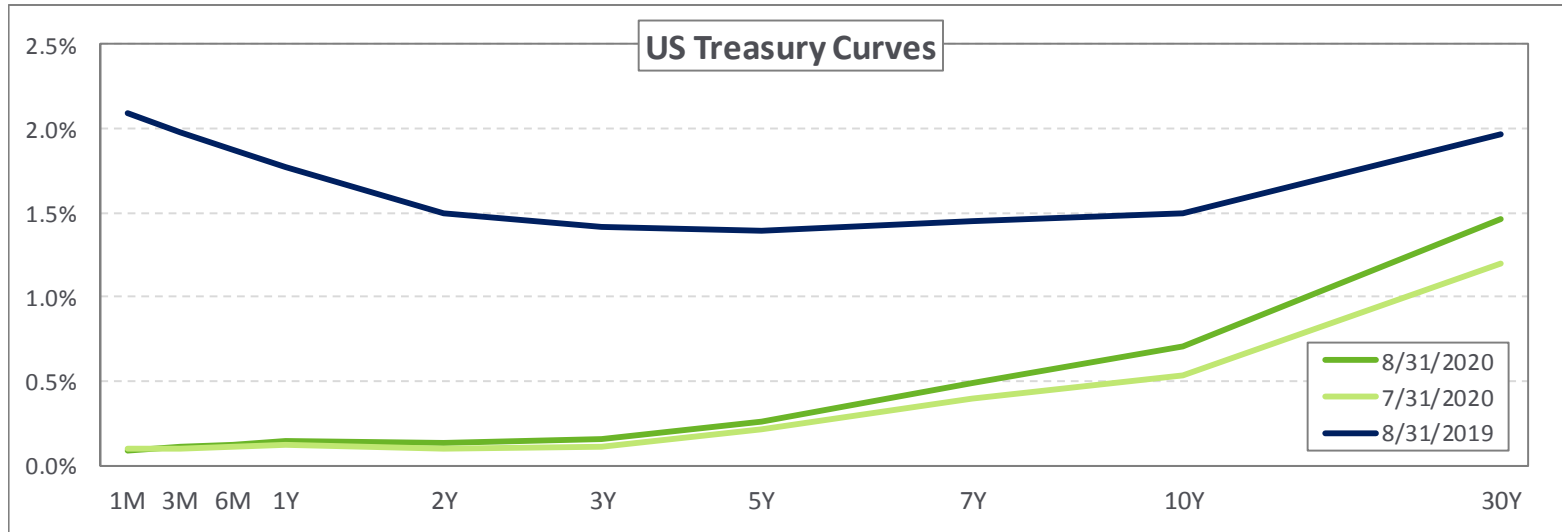
	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
<b>Barclays Aggregate</b>	1.18%	60	6.1	-0.1%	6.8%	6.9%
<b>Barclays Treasury</b>	0.48%	-	7.2	0.1%	8.9%	8.0%
<b>Barclays Agency</b>	0.49%	16	3.7	0.2%	5.4%	5.3%
<b>Barclays MBS</b>	1.29%	61	2.1	-0.1%	3.6%	4.3%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

Source: Barclays, JP Morgan, FactSet





# TREASURIES



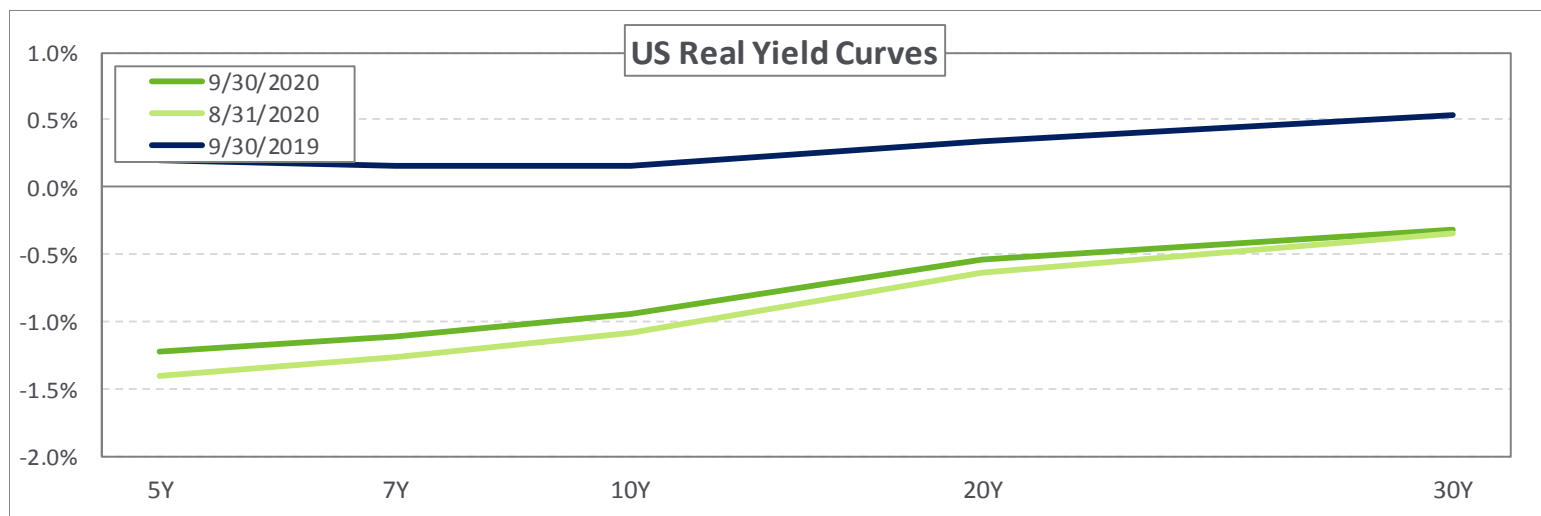
Source: FactSet

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

Source: FactSet



# REAL YIELDS



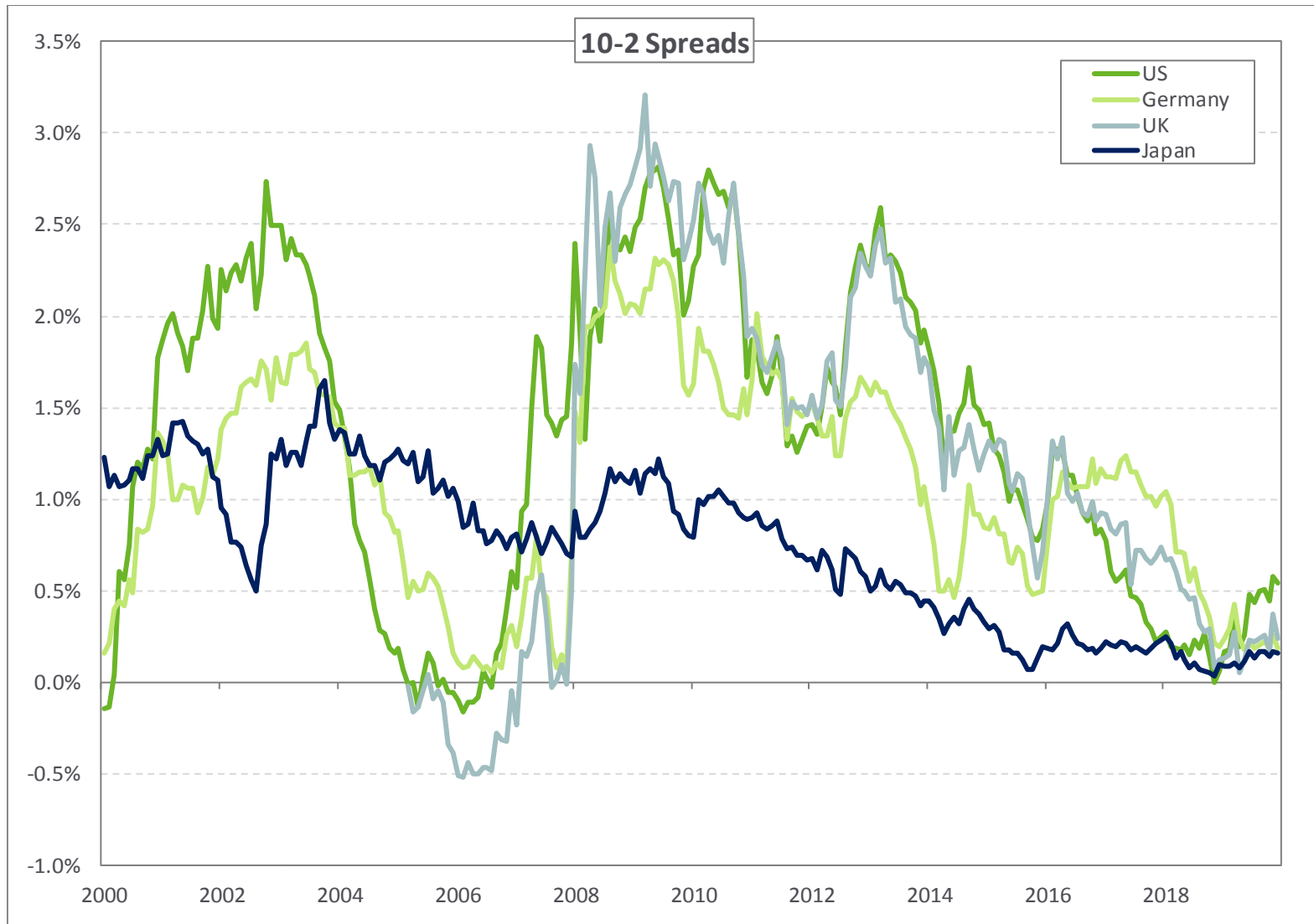
Source: FactSet

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

Source: FactSet



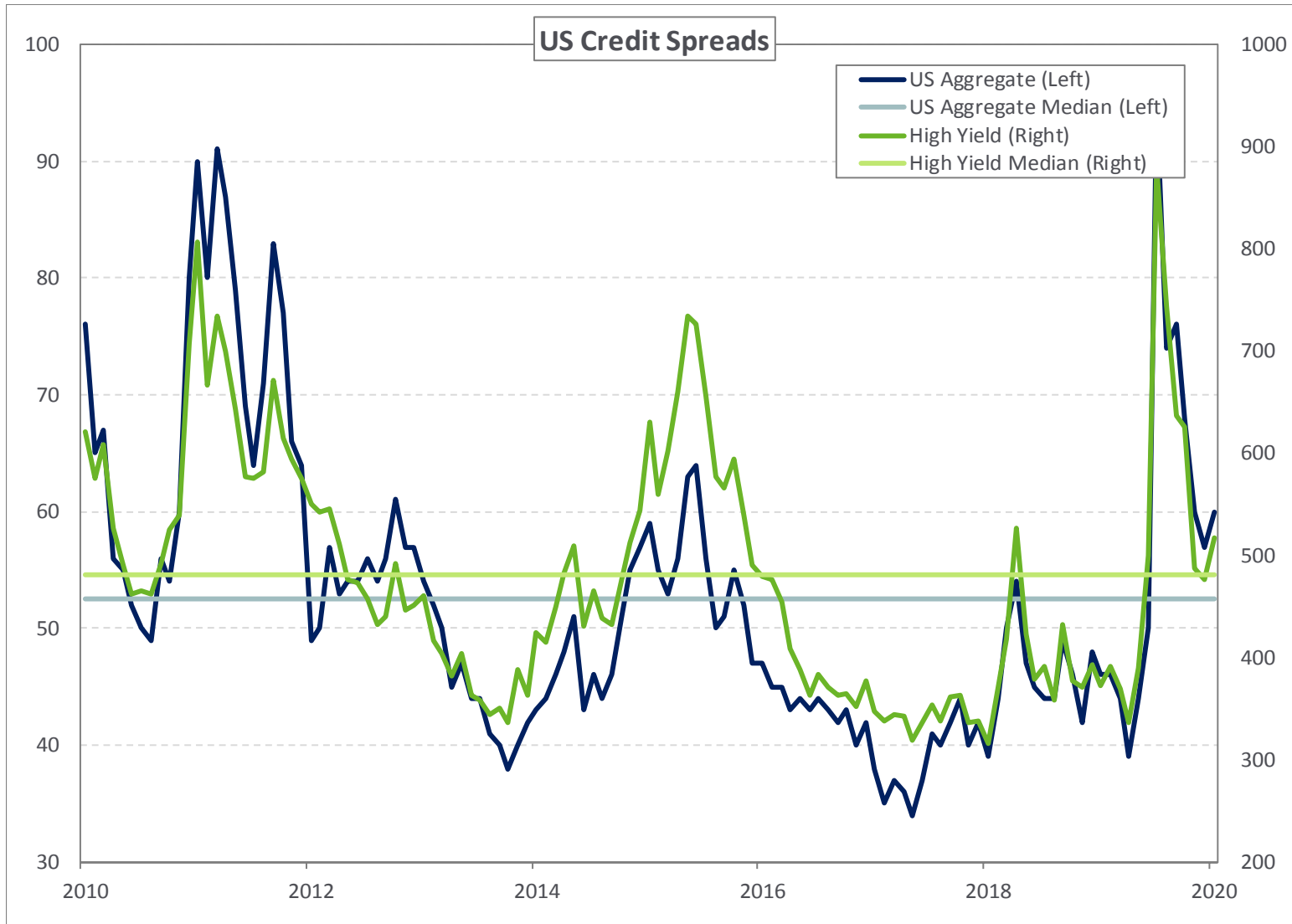
# NOMINAL YIELDS



Source: FactSet



# CREDIT SPREADS



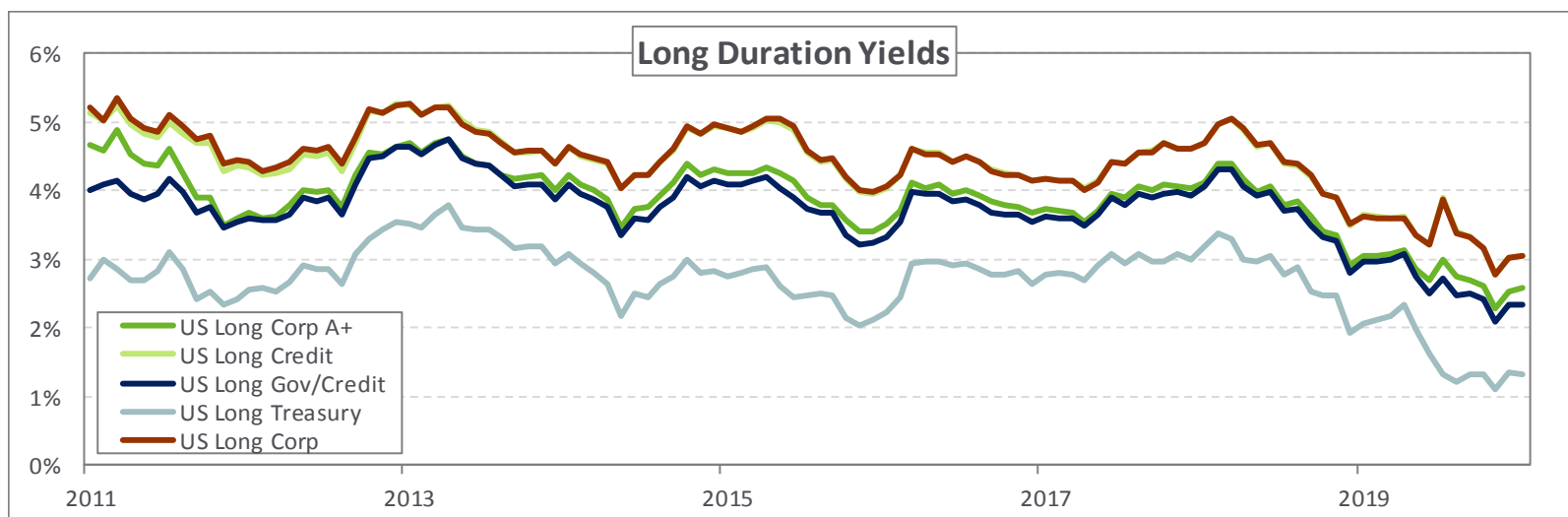
Source: Barclays, FactSet



# LONG DURATION

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

Source: Barclays, FactSet



Source: Barclays, FactSet



# REAL ASSETS

NEPC, LLC

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# REAL ASSETS INDEX PERFORMANCE

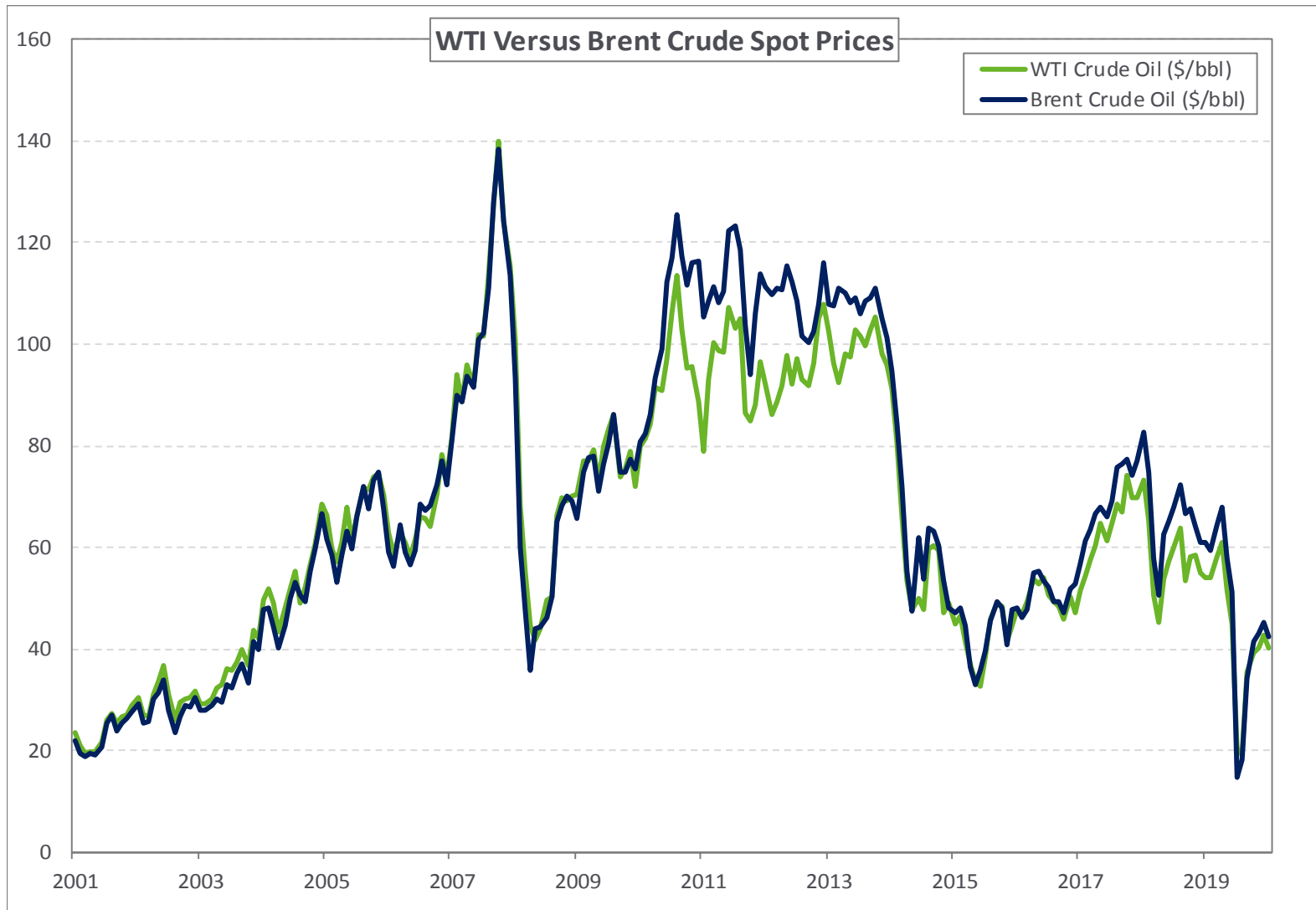
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
<b>Bloomberg Commodity Index</b>	<b>-3.4%</b>	<b>9.1%</b>	<b>-12.1%</b>	<b>-8.1%</b>	<b>-4.2%</b>	<b>-3.1%</b>
<b>Bloomberg Sub Agriculture Index</b>	<b>3.4%</b>	<b>11.9%</b>	<b>-4.0%</b>	<b>2.8%</b>	<b>-5.1%</b>	<b>-5.0%</b>
Coffee	-14.0%	7.7%	-19.8%	0.2%	-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%
<b>Bloomberg Sub Energy</b>	<b>-9.6%</b>	<b>4.3%</b>	<b>-44.0%</b>	<b>-40.5%</b>	<b>-15.8%</b>	<b>-14.0%</b>
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%
<b>Bloomberg Sub Industrial Metals</b>	<b>-2.8%</b>	<b>11.2%</b>	<b>1.8%</b>	<b>1.6%</b>	<b>-1.0%</b>	<b>4.5%</b>
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%
<b>Bloomberg Sub Precious Metals</b>	<b>-7.7%</b>	<b>7.8%</b>	<b>22.6%</b>	<b>27.0%</b>	<b>11.8%</b>	<b>9.5%</b>
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%
<b>Bloomberg Sub Livestock</b>	<b>7.4%</b>	<b>13.8%</b>	<b>-25.2%</b>	<b>-25.0%</b>	<b>-10.6%</b>	<b>-7.7%</b>
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





# POLICY INDEX HISTORY

- **4/1/2012 – 6/30/2012:** 23% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 18% Barclays Aggregate, 15% Bank of America Merrill Lynch US High BB-B Constrained Index, 2% JP Morgan GBI – EM Global Diversified Index, 5% (60% MSCI World HH / 40% CITI WGBI HH), 8% (90 Day T-Bill + 2%), 3% Wilshire REIT, 2% NCREIF Property Index, 5% Cambridge Associates US All PE 1 Quarter Lag, 1% (CPI + 4% Seasonally Adjusted), 1% 90 Day T-Bill.
- **7/1/2012 – 6/30/2013:** 23% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 18% Barclays Aggregate Index, 15% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 5% (60% MSCI World HH / 40% CITI WGBI HH), 3% Wilshire REIT, 2% NCREIF Property Index, 8% (91 Day T-Bill + 2% 1 month lag), 5% Cambridge Associates All US PE 1 Quarter Lag, 1% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **7/1/2013 – 6/30/2014:** 20% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 7% Barclays Aggregate Index, 20% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 5% (60% MSCI World HH / 40% CITI WGBI HH), 5% Credit Suisse Hedge Global Macro Index, 3% Wilshire REIT Index, 2% NCREIF Property Index, 3% (91 Day T-Bill + 2% 1 Month Lag), 8% Cambridge Associates US All PE 1 Quarter Lag, 7% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **7/1/2014 – 9/30/2014:** 20% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 7% Barclays Aggregate Index, 20% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 5% (60% MSCI World / 40% CITI WGBI), 5% Credit Suisse Hedge Global Macro Index, 3% Wilshire REIT Index, 2% NCREIF Property Index, 3% (91 Day T-Bill + 2% 1 Month Lag), 8% Cambridge Associates US All PE 1 Quarter Lag, 7% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.



# POLICY INDEX HISTORY

- **10/1/2014 – 1/31/2016:** 18% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 20% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 5% (60% MSCI World / 40% CITI WGBI), 5% Credit Suisse Hedge Global Macro Index, 4% Wilshire REIT Index, 3% NCREIF Property Index, 11% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **2/1/2016 – 12/31/2016:** 18% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 20% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% (50% JP Morgan EMBI Global Diversified Index / 50% JP Morgan GBI – EM Global Diversified Index), 5% (60% MSCI World / 40% CITI WGBI), 5% Credit Suisse Hedge Global Macro Index, 4% Wilshire REIT Index, 3% NCREIF Property Index, 11% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **1/1/2017 – 9/30/2017:** 18% S&P 500 Index, 2% Russell 2500 Index, 5% MSCI EAFE Index, 10% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 20% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% (50% JP Morgan EMBI Global Diversified Index / 50% JP Morgan GBI – EM Global Diversified Index), 5% (60% MSCI World / 40% CITI WGBI), 5% Credit Suisse Hedge Global Macro Index, 3% Wilshire REIT Index, 4% NCREIF Property Index, 11% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **10/1/2017 – 12/31/2017:** 16% S&P 500 Index, 3% Russell 2500 Index, 5% MSCI EAFE Index, 9% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 18% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 7% (60% MSCI World / 40% CITI WGBI), 5% Libor + 2%, 3% Wilshire REIT Index, 4% NCREIF Property Index, 13% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **1/1/2018 – 6/30/2019:** 16% S&P 500 Index, 3% Russell 2500 Index, 5% MSCI EAFE Index, 9% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 18% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 12% Libor + 2%, 3% Wilshire REIT Index, 4% NCREIF Property Index, 13% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.
- **7/1/2019 – Present:** 16% S&P 500 Index, 3% Russell 2500 Index, 5% MSCI EAFE Index, 9% MSCI Emerging Markets Index, 6% Barclays Aggregate Index, 18% (50% Credit Suisse Leveraged Loan Index / 50% Bank of America Merrill Lynch US HY BB-B Rated Constrained Index), 2% JP Morgan GBI – EM Global Diversified Index, 12% Libor + 2%, 2% Wilshire REIT Index, 5% NCREIF Property Index, 13% Cambridge Associates US All PE 1 Quarter Lag, 8% (CPI + 4% Seasonally Adjusted), 1% 91 Day T-Bill.



# GLOSSARY OF INVESTMENT TERMINOLOGY

**Alpha** - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

**Alpha Jensen** - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

**Annualized Excess Return over Benchmark** - Annualized fund return minus the annualized benchmark return for the calculated return.

**Annualized Return** - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

**Beta** - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

**Information Ratio** - A measure of the risk adjusted return of a financial security, asset, or portfolio.

*Formula: (Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return - Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.*

**R-Squared** - Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

**Sharpe Ratio** - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

**Sortino Ratio** - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

*Formula: Calculation Average (X-Y)/Downside Deviation (X-Y) \* 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)*

**Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

*Formula: (Annualized Return of Portfolio - Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)*

**Tracking Error** - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

*Formula: Tracking Error = Standard Deviation (X-Y) \*  $\sqrt{(\# \text{ of periods per year})}$  Where X = periods portfolio return and Y = the period's benchmark return For monthly returns, the periods per year = 12 For quarterly returns, the periods per year = 4*

**Treynor Ratio** - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

*Formula: (Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta*

**Up/Down Capture Ratio** - A measure of what percentage of a market's re-turns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

*UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0*

*UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0*



# GLOSSARY OF INVESTMENT TERMINOLOGY

**# Of Portfolios/Observations<sup>1</sup>** - The total number of data points that make up a specified universe

**Allocation Index<sup>3</sup>** - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

**Asset Allocation Effect<sup>2</sup>** - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

**Agency Bonds (Agencies)<sup>3</sup>** - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

**Asset Backed Securities (ABS)<sup>3</sup>** - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

**Attribution<sup>3</sup>** - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions.

**Average Effective Maturity<sup>4</sup>** - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

**Batting Average<sup>1</sup>** - A measurement representing an investment manager's ability to meet or beat an index.

*Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.*

**Brinson Fachler (BF) Attribution<sup>1</sup>** - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

**Brinson Hood Beebower (BHB) Attribution<sup>1</sup>** - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

**Corporate Bond (Corp)<sup>4</sup>** - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

**Correlation<sup>1</sup>** - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net



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**Coupon<sup>4</sup>** – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the “coupon rate” or “coupon percent rate.”

**Currency Effect<sup>1</sup>** – Is the effect that changes in currency exchange rates over time affect excess performance.

**Derivative Instrument<sup>2</sup>** – A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

**Downside Deviation<sup>1</sup>** – Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

*Formula:*

*Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.*

**Duration<sup>3</sup>** – Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond’s duration is inversely related to interest rates and directly related to time to maturity.

**Equity/Debt/Cash Ratio<sup>1</sup>** – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

**Foreign Bond<sup>3</sup>** – A bond that is issued in a domestic market by a foreign entity, in the domestic market’s currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm’s debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

**Hard Hurdle<sup>5</sup>** – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

**High-Water Mark<sup>4</sup>** – The highest peak in value that an investment fund/account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

**Hurdle Rate<sup>4</sup>** – The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

**Interaction Effects<sup>2</sup>** – The interaction effect measures the combined impact of an investment manager’s selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

**Median<sup>3</sup>** – The value (rate of return, market sensitivity, etc.) that exceeds one-half of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

**Modified Duration<sup>3</sup>** – The percentage change in the price of a fixed income security that results from a change in yield.

**Mortgage Backed Securities (MBS)<sup>3</sup>** – Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

**Municipal Bond (Muni)<sup>4</sup>** – A debt security issued by a state, municipality or county to finance its capital expenditures.

**Net Investment Change<sup>1</sup>** – Is the change in an investment after accounting for all Net Cash Flows.

**Performance Fee<sup>4</sup>** – A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

*Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net*



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**Policy Index<sup>3</sup>** - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

**Price to Book (P/B)<sup>4</sup>** - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

**Price to Earnings (P/E)<sup>3</sup>** - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

**Price to Sales (P/S)<sup>4</sup>** - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

**Return on Equity (ROE)<sup>4</sup>** - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

**Selection (or Manager) Effect<sup>2</sup>** - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

**Soft Hurdle rate<sup>5</sup>** - is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

**Tiered Fee<sup>1</sup>** - A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

**Total Effects<sup>2</sup>** - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

**Total Return<sup>1</sup>** - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

**Universe<sup>3</sup>** - The list of all assets eligible for inclusion in a portfolio.

**Upside Deviation<sup>1</sup>** - Standard Deviation of Positive Returns

**Weighted Avg. Market Cap.<sup>4</sup>** - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

**Yield (%)<sup>3</sup>** - The current yield of a security is the current indicated annual dividend rate divided by current price.

**Yield to Maturity<sup>3</sup>** - The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: <sup>1</sup>InvestorForce, <sup>2</sup>Interaction Effect Performance Attribution, <sup>3</sup>NEPC, LLC, <sup>4</sup>Investopedia, <sup>5</sup>Hedgeco.net



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- 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.
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