QUARTERLY PERFORMANCE REPORT

SAN BERNARDINO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

March 31, 2019

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

MARKET ENVIRONMENT UPDATE AND OUTLOOK

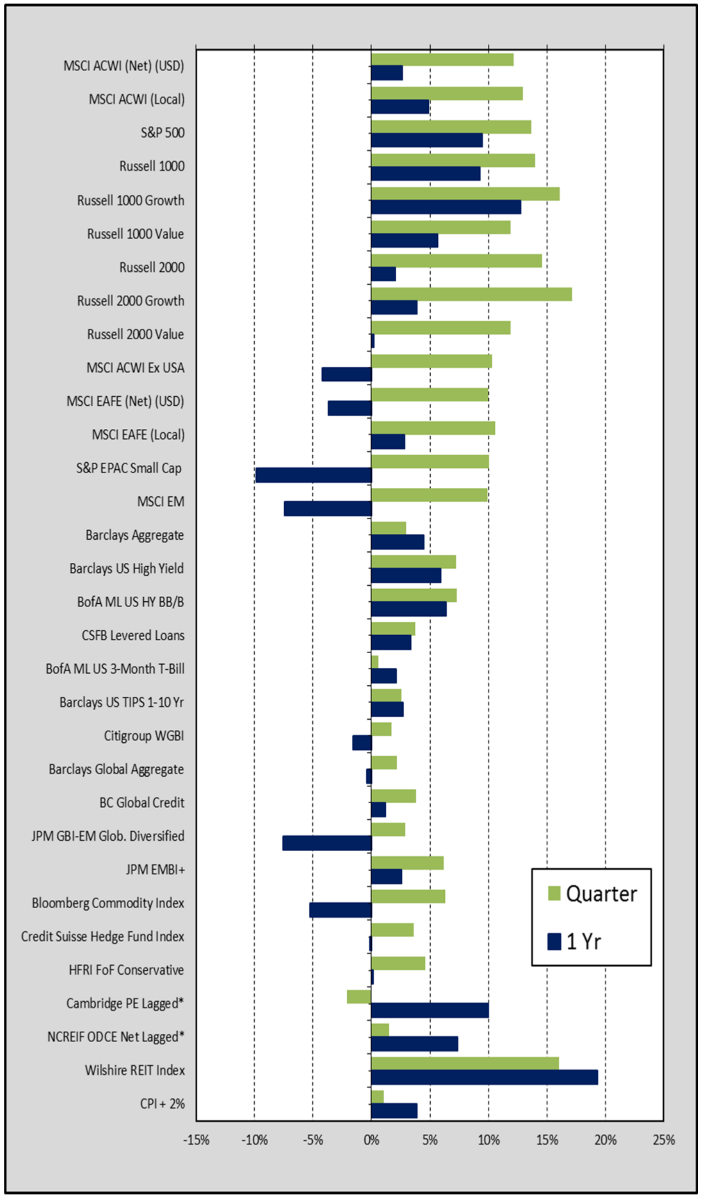
NEPC, LLC

ECONOMIC ENVIRONMENT

- **Real GDP (fourth quarter) increased at an annual rate of 2.2%.**
  - Retail sales ended February at +1.8% on a YoY basis. In the same period last year the YoY growth rate was 5.1%.
  - Corporate profits (ended October) as a percent of GDP decreased to 9.33% from 9.59% (in July) and remain elevated relative to historical levels.
  - The inventory-to-sales ratio ended February flat at 1.4 from December levels and has remained relatively constant since early 2010.
  - The U.S. trade deficit narrowed ended February as exports increased at a greater pace than imports amidst China trade tensions
- **The unemployment rate decreased slightly to 3.8% from 3.9% ended Q1; U-6, a broader measure of unemployment, decreased to 7.3% from 7.6% during the first quarter.**
- **The Case-Shiller Home Price Index (ended January) decreased to 204.7 from 205.1 and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI saw a down-tick to 1.87% from 1.94% ended Q1; Capacity Utilization decreased to 78.8% from 79.5% in Q1.**
- **Fed Funds rate remained unchanged at a targeted range of 2.25% -to- 2.50%. The 10-year Treasury Yield (constant maturity) finished Q1 down to 2.6% from 2.8%.**
- **The Fed continues its planned reduction in balance sheet size, while the European Central Bank balance sheet continues to grow.**
  - ECB held its benchmark refinance rate at 0%, deposit rates -0.4%.
- **S&P valuations decreased in Q1, remaining above the 10-year and long-term averages.**
  - Cyclically adjusted Shiller PE ratio (29.91x) is above the long-term average of 16.6x and above the 10-year average of 24.7x.

MARKET ENVIRONMENT – Q1 2019 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI (Net) (USD)	World w/o Small Cap	12.2%	2.6%	10.7%	6.5%	12.0%
MSCI ACWI (Local)	World (Local Currency)	12.9%	4.9%	10.9%	8.0%	12.2%
MSCI ACWI IMI (Net)	World with Small Cap	12.3%	1.9%	10.6%	6.3%	12.3%
Domestic Equity Benchmarks						
S&P 500	Large Core	13.7%	9.5%	13.5%	10.9%	15.9%
Russell 1000	Large Core	14.0%	9.3%	13.5%	10.6%	16.1%
Russell 1000 Growth	Large Growth	16.1%	12.8%	16.5%	13.5%	17.5%
Russell 1000 Value	Large Value	11.9%	5.7%	10.5%	7.7%	14.5%
Russell 2000	Small Core	14.6%	2.1%	12.9%	7.1%	15.4%
Russell 2000 Growth	Small Growth	17.1%	3.9%	14.9%	8.4%	16.5%
Russell 2000 Value	Small Value	11.9%	0.2%	10.9%	5.6%	14.1%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	10.3%	-4.2%	8.1%	2.6%	8.9%
MSCI EAFE (Net) (USD)	Int'l Developed	10.0%	-3.7%	7.3%	2.3%	9.0%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	10.6%	2.8%	8.5%	6.0%	9.8%
S&P EPAC Small Cap	Small Cap Int'l	10.0%	-9.9%	7.2%	4.5%	12.6%
MSCI EM	Emerging Equity	9.9%	-7.4%	10.7%	3.7%	8.9%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	2.9%	4.5%	2.0%	2.7%	3.8%
Barclays US High Yield	High Yield	7.3%	5.9%	8.6%	4.7%	11.3%
BofA ML US HY BB/B	High Yield	7.3%	6.4%	7.8%	4.7%	10.1%
CSFB Levered Loans	Bank Loans	3.8%	3.3%	5.9%	3.8%	8.0%
BofA ML US 3-Month T-Bill	Cash	0.6%	2.1%	1.2%	0.7%	0.4%
Barclays US TIPS 1-10 Yr	Inflation	2.6%	2.7%	1.5%	1.5%	2.7%
Global Fixed Income Benchmarks						
Citigroup WGBI	World Gov. Bonds	1.7%	-1.6%	1.0%	0.6%	2.2%
Barclays Global Aggregate	Global Core Bonds	2.2%	-0.4%	1.5%	1.0%	3.1%
BC Global Credit	Global Bonds	3.8%	1.2%	2.8%	1.9%	5.2%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	2.9%	-7.6%	3.3%	-0.8%	4.4%
JPM EMBI+	Em. Mkt. Bonds	6.2%	2.6%	4.0%	4.5%	7.7%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	6.3%	-5.3%	2.2%	-8.9%	-2.6%
Credit Suisse Hedge Fund Index	Hedge Fund	3.6%	-0.2%	3.6%	2.2%	5.4%
HFRI FoF Conservative	Fund of Hedge Funds	4.6%	0.1%	3.9%	2.2%	3.5%
Cambridge PE Lagged*	Private Equity	-2.1%	10.0%	13.5%	11.4%	13.7%
NCREIF ODCE Net Lagged*	Real Estate	1.5%	7.4%	7.3%	9.4%	6.0%
Wilshire REIT Index	REIT	16.0%	19.3%	5.5%	9.0%	18.7%
CPI + 2%	Inflation/Real Assets	1.1%	3.9%	4.3%	3.5%	3.8%



* As of 9/30/2018

ASSESSING THE KEY MARKET THEMES

Current Temperature

Dominant

Emerging

Neutral

Fading

Dormant

Late Cycle Dynamics

Δ in Temperature: ↑

The Treasury yield curve temporarily inverted, measured by the spread between the 10-year Treasury Note and the 3-month T-Bill.

US Q4 real GDP was revised downward from 2.6% to 2.2%.

Tightening Global Liquidity

Δ in Temperature: ↓

The Fed released a statement indicating they do not expect to raise rates during 2019. In addition, the reduction of the Fed balance sheet will end later this year.

The ECB stated the need for continued accommodative policy amid ongoing weakness in the EU.

China Transitions

Δ in Temperature: -

MSCI announced it would increase the weight of China A-shares in the suite of MSCI indices beginning in May.

In addition, mid-cap securities will be included for the first time beginning in November.

Globalization Backlash

Δ in Temperature: -

Prime Minister Theresa May’s Brexit plan was rejected for a third time.

The EU granted an extension of the Brexit deadline until October 31, 2019 from the most recent revised April 12 deadline date.

KEY MARKET THEMES

Late Cycle Dynamics

The US economy has transitioned from a mid- to late-cycle environment

Late-cycle does not mean end of cycle; equity markets can offer strong returns and abandoning risk assets early may detract from long-term results

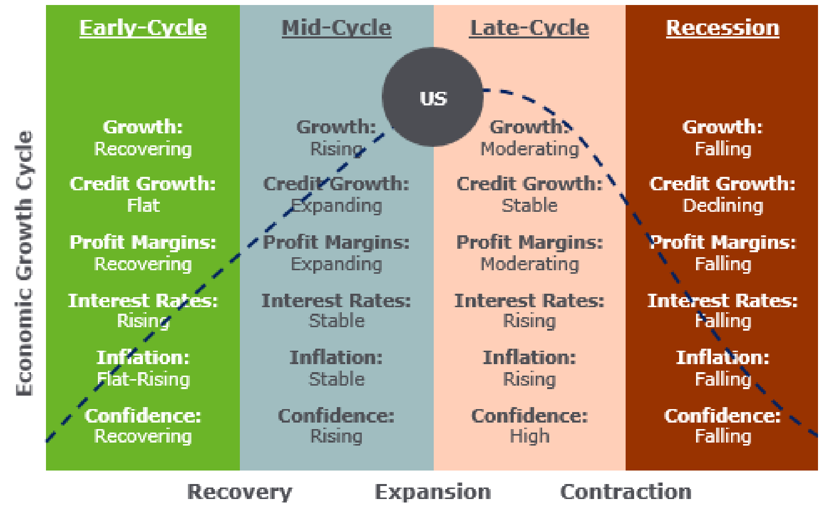
Positive economic data can support continued US economic expansion and further equity gains

However, moving into a late cycle negatively skews the range of outcomes and our investment outlook reflects a more risk-averse posture with a bias toward selling low-quality credit and increasing safe-haven fixed income exposure

Trends among key indicators suggest a transition to late-cycle has occurred

These indicators provide a useful guide to recognize changes in the economic cycle

Despite the recent trend, there is minimal evidence in economic/financial indicators to suggest that a US recession is imminent



US Indicators	Late-Cycle Trend	Current Trend*
Equities	Peaking	Rising
Interest Rates	Rising	Rising
Yield Curve	Flattening	Flattening
Inflation	Rising	Falling
GDP Growth	Moderating	Rising
Credit Spreads	Stable/Rising	Rising
Output Gap	Near/Above Potential	Rising
Unemployment	Falling/Bottoming	Falling

Source: (Top) NEPC

*Source: (Bottom) NEPC; *Trend represents changes over the previous two quarters*

HIGHLIGHTS OF 2019 FIRST QUARTER HAPPENINGS AT NEPC

NEPC INSIGHTS

- Taking Stock: Munis Offer Sweet Spot and Flattening Yield Curve
- NEPC's 2019 Asset Allocation Letter: Winter is Coming, But When?
- Private Wealth Investment Policy Statements: A Roadmap for Uncertain Times
- 2018 Fourth Quarter Market Thoughts
- 2019 Investment Outlook: Q4 Market Thoughts, Webinar Replay & AA Letter
- Corporate Pension Plans: NEPC's Key Themes for 2019
- Taking Stock: The Importance of De-Risking Pension Plans and Q4 Liability Performance
- Taking Stock: Should Corporate Pensions Go on the Defense?
- Direct Investments (Part I): Trends and Motivations
- Taking Stock: A is for Access, MSCI Ups Local China Shares in Indexes
- Register Now: NEPC's 24th Annual Investment Conference
- Taking Stock: What is the Yield Curve Signaling?
- Taking Stock: Picking the Right Interest Credit Option for Your Cash Balance Plan

WEBINAR REPLAYS

- NEPC's 2019 Market Outlook Webinar

To download NEPC's recent insights and webinar replays, visit: www.NEPC.com/insights

IN MEMORY OF ROB FISHMAN

On March 10, 2019 we tragically lost a friend, colleague and leader at NEPC, Rob Fishman. Rob passed away quietly in his sleep with no known illnesses. He is survived by his wife of 19 years, Lisa, son Daniel (15), daughter Sarah (12) and the newest addition to their family, Mookie, a dog they rescued in October. Rob was just 46 years old.

Rob left behind a close-knit community of current and former NEPC co-workers, long-time clients and industry colleagues who are profoundly grateful that they had the opportunity to know Rob. Below is a celebration of his life and career.

Rob was an amazingly positive person, with a warm smile and kind words for everyone. He was witty, smart, quick to laugh and had a very dry sense of humor that we all loved. He was a brilliant fantasy football player, an okay golfer, a connoisseur of local micro-brews and really disliked long meetings. Every office has a "go-to person" that people seek for advice. That was Rob. He was loaded with random yet pertinent knowledge and you could bet that he'd seen it, done it, or was willing to learn about it.

Rob began his investment career in 1995 and joined NEPC in 1999. He took great pride in working his way from analyst to Partner in under eight years. This June would have marked his 20th anniversary with the company, a milestone we would have recognized at our annual January offsite.

Rob was a great consultant and decisive investor. During his tenure at NEPC Rob touched the lives of hundreds of thousands of beneficiaries through his roles on the Defined Contribution and Discretionary Teams. He designed and monitored participants' retirement investment options on an advisory basis, and managed investment portfolios on a discretionary basis. Rob also managed our own retirement plans at NEPC, which we are very thankful for. It saddens us greatly that he did not get to enjoy the secure retirement that he worked so hard to provide for us.

Rob loved everything about NEPC, but most of all, the people; his wife communicated that to us. As heart-warming as that was to hear, we will never be able to express to Rob just how much we appreciated him and everything he did for us over the years. A hallmark of NEPC is our values and culture. Rob embodied those traits and we will honor his memory by continuing to live those values in support of each other and our clients.

TOTAL FUND PERFORMANCE

TOTAL FUND PERFORMANCE SUMMARY (GROSS)

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
Total Fund	**$10,315,832,387**	**4.8%**	**99**	**2.7%**	**27**	**4.6%**	**18**	**9.5%**	**9**	**6.4%**	**41**	**9.2%**	**87**
Policy Index		*6.8%*	*85*	*2.9%*	*21*	*2.9%*	*60*	*6.7%*	*99*	*4.9%*	*97*	*8.9%*	*89*
S&P 500		*13.6%*	*1*	*5.9%*	*1*	*9.5%*	*1*	*13.5%*	*1*	*10.9%*	*1*	*15.9%*	*1*
BBgBarc US Aggregate TR		*2.9%*	*99*	*4.6%*	*1*	*4.5%*	*19*	*2.0%*	*99*	*2.7%*	*99*	*3.8%*	*99*
60% MSCI ACWI (Net) / 40% FTSE WGBI		*7.9%*	*48*	*2.2%*	*49*	*1.2%*	*93*	*6.8%*	*99*	*4.2%*	*99*	*8.2%*	*96*
InvestorForce Public DB > $1B Gross Median		*7.9%*		*2.2%*		*3.3%*		*8.5%*		*6.2%*		*10.1%*	

In the year ended March 31, 2019 the Fund return of 4.6% ranked in the 18th percentile of Public Funds > $1 Billion and underperformed the actuarial assumed rate of 7.25%. The Fund's assets totaled $10.3 billion, an increase of $443.2 million from a year ago.

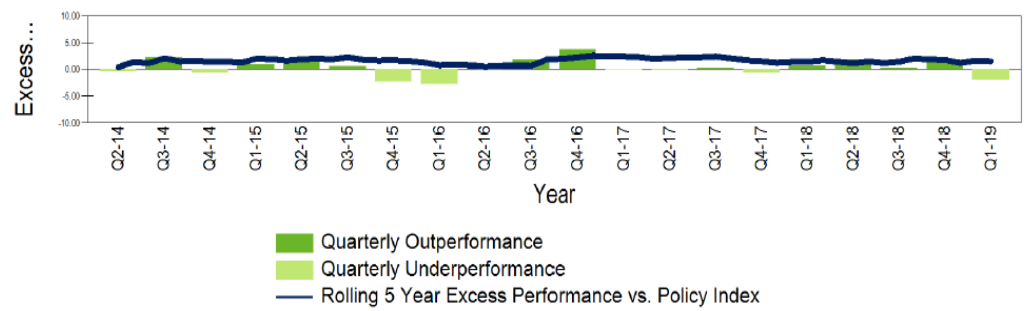
The Fund experienced a net investment gain of $458.8 million during the year including a net investment gain of $473.9 million in the first calendar quarter.

In the three–year period ended March 31, 2019 the Fund return of 9.5% ranked in the 9th percentile among its peers. The Sharpe Ratio over this period of 2.5 ranks in the 1st percentile, indicating that the Fund earned a higher rate of return for each incremental unit of risk taken during the period versus its peers.

In the five-year period ended March 31, 2019 the Fund return of 6.4% per annum ranked in the 41st percentile among its peers. On a risk adjusted basis the Fund's Sharpe and Sortino Ratios rank in the 1st percentile indicating both strong returns per unit of risk taken and strong returns per unit of downside risk experienced when compared to a universe of public fund peers >$1B.

Note: InvestorForce Public Funds >$1B Gross of Fee prelim universe contains 24 portfolios with $190 billion in assets.

Rolling 5 Year Annualized Excess Return



3 Years Ending March 31, 2019	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	2.5	1	2.8	1
InvestorForce Public DB > $1B Gross Median	1.3	--	1.3	--

5 Years Ending March 31, 2019	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	1.5	1	2.5	1
InvestorForce Public DB > $1B Gross Median	0.8	--	1.2	--

TOTAL FUND PERFORMANCE SUMMARY

Statistics Summary

1 Year Ending March 31, 2019

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	4.6%	18	4.6%	1	0.5	1	3.1	5
InvestorForce Public DB > $1B Gross Median	3.3%	--	8.6%	--	0.1	--	0.4	--

Statistics Summary

3 Years Ending March 31, 2019

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	9.5%	9	3.3%	1	2.5	1	2.8	1
InvestorForce Public DB > $1B Gross Median	8.5%	--	6.2%	--	1.3	--	1.3	--

Statistics Summary

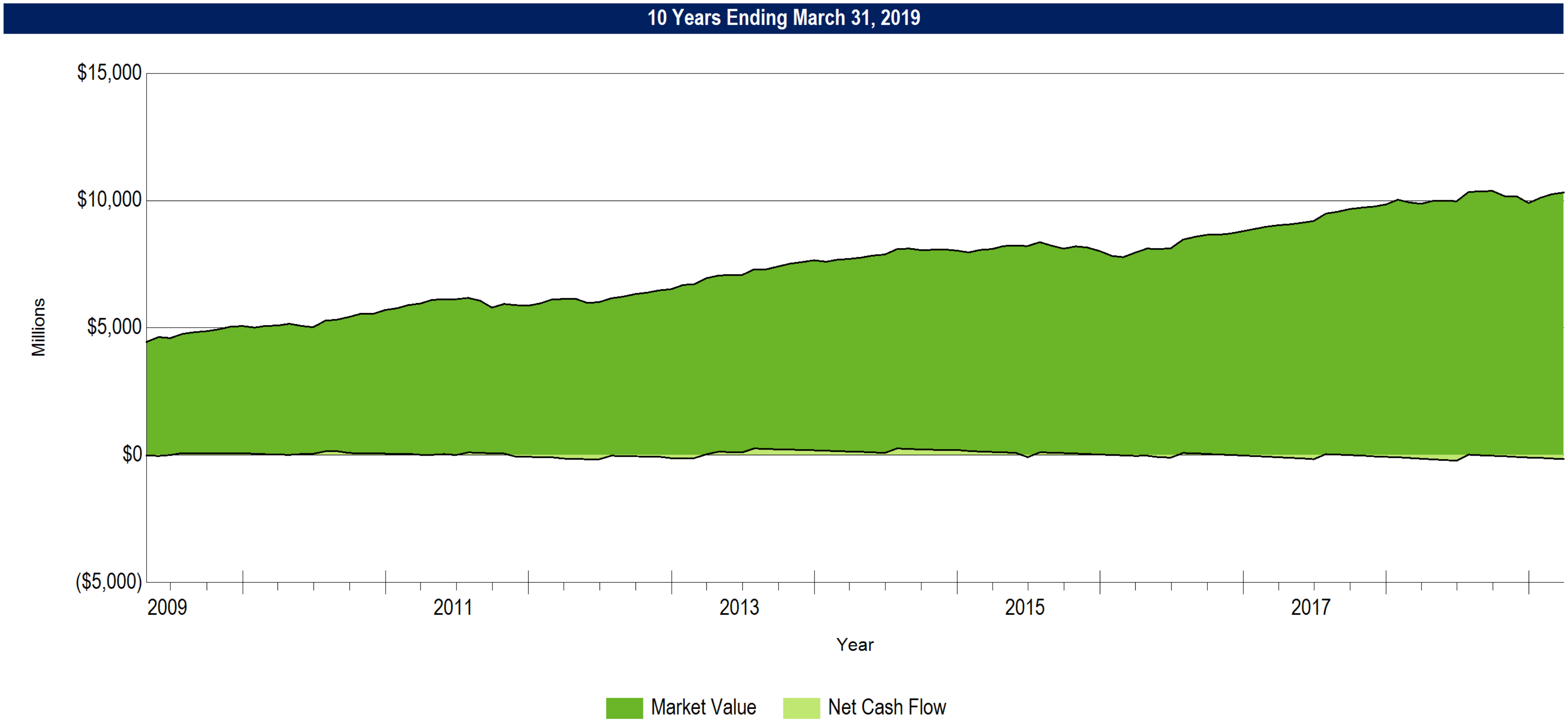
5 Years Ending March 31, 2019

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Sortino Ratio	Sortino Ratio Rank
Total Fund	6.4%	41	3.6%	1	1.5	1	2.5	1
InvestorForce Public DB > $1B Gross Median	6.2%	--	6.6%	--	0.8	--	1.2	--

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

San Bernardino County Employees' Retirement Association

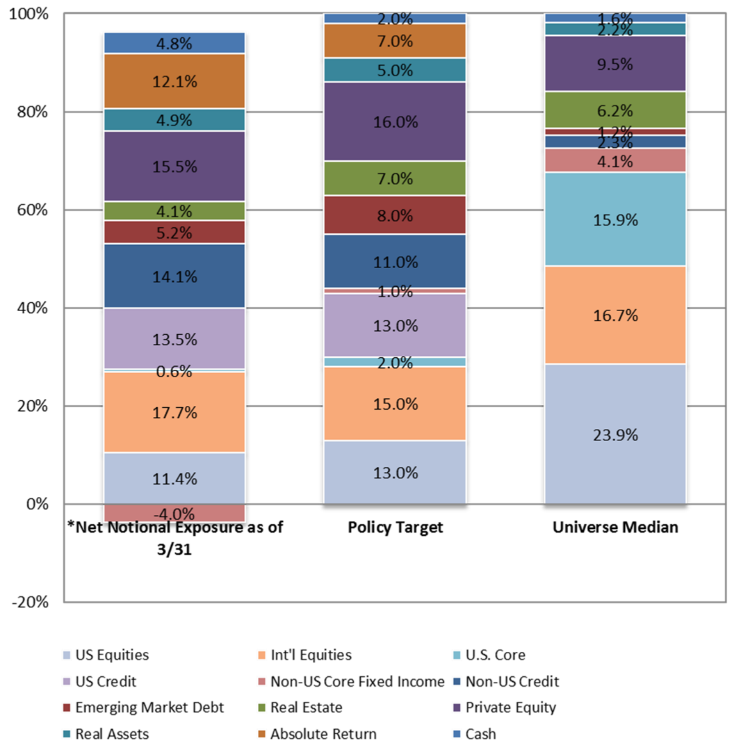
TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Fiscal Year-To-Date	One Year	Five Years	Ten Years
Beginning Market Value	$9,902,558,228	$9,972,950,140	$9,872,639,719	$7,708,807,419	$4,376,991,231
Net Cash Flow	-$60,584,863	$64,957,965	-$15,601,582	-$297,132,126	-$143,534,272
Net Investment Change	$473,859,022	$277,924,283	$458,794,250	$2,904,157,095	$6,082,375,428
Ending Market Value	$10,315,832,387	$10,315,832,387	$10,315,832,387	$10,315,832,387	$10,315,832,387

San Bernardino County Employees' Retirement Association

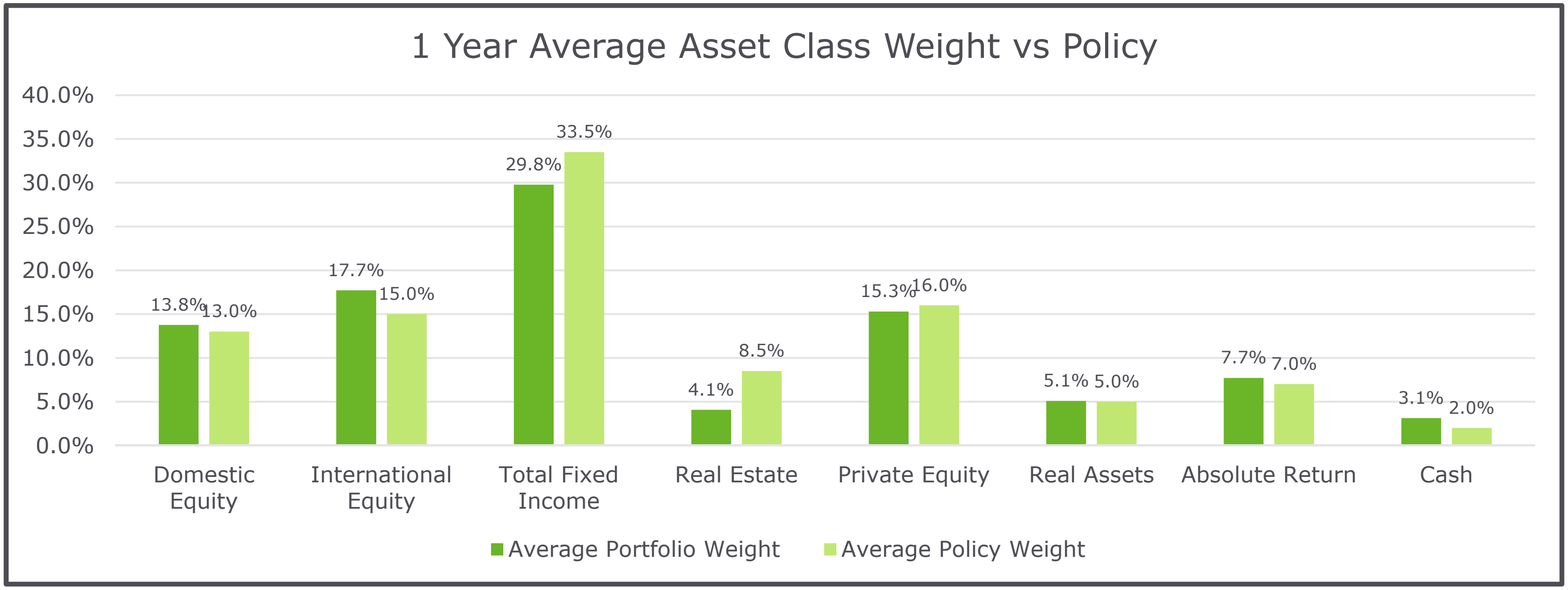
TOTAL FUND PERFORMANCE SUMMARY



	*Net Notional Exposure	*Net Notional Exposure as of 3/31	Policy Target	*Difference	Policy Ranges	Within Range
US Equities	1,179,130	**11.4%**	**13.0%**	**-1.6%**	**8%-18%**	**Yes**
Int'l Equities	1,821,837	**17.7%**	**15.0%**	**2.7%**	**10%-20%**	**Yes**
U.S. Core Fixed Income	63,600	**0.6%**	**2.0%**	**-1.4%**	**-3%-7%**	**Yes**
US Credit	1,394,054	**13.5%**	**13.0%**	**0.5%**	**8%-18%**	**Yes**
Non-US Core Fixed Income	(412,633)	**-4.0%**	**1.0%**	**-5.0%**	**-4%-6%**	**Yes**
Non-US Credit	1,454,048	**14.1%**	**11.0%**	**3.1%**	**6%-16%**	**Yes**
Emerging Market Debt	538,855	**5.2%**	**8.0%**	**-2.8%**	**3%-13%**	**Yes**
Real Estate	425,147	**4.1%**	**7.0%**	**-2.9%**	**0%-14%**	**Yes**
Private Equity	1,599,601	**15.5%**	**16.0%**	**-0.5%**	**6%-21%**	**Yes**
Real Assets	503,356	**4.9%**	**5.0%**	**-0.1%**	**0%-10%**	**Yes**
Absolute Return	1,251,558	**12.1%**	**7.0%**	**5.1%**	**0%-12%**	**Yes**
Cash	497,280	**4.8%**	**2.0%**	**2.8%**	**0%-10%**	**Yes**
	10,315,832	100.0%	100.0%			

BETA OVERLAY CONTRIBUTION TO RETURN

COMPOSITE	3 Months	1 Year	3 Years	5 Years
Total Plan *With* Beta Overlay	4.80	4.51	9.41	6.31
Total Plan *Without* Beta Overlay	3.87	5.13	8.64	6.19
Over/Under	*0.93*	*-0.62*	*0.77*	*0.12*



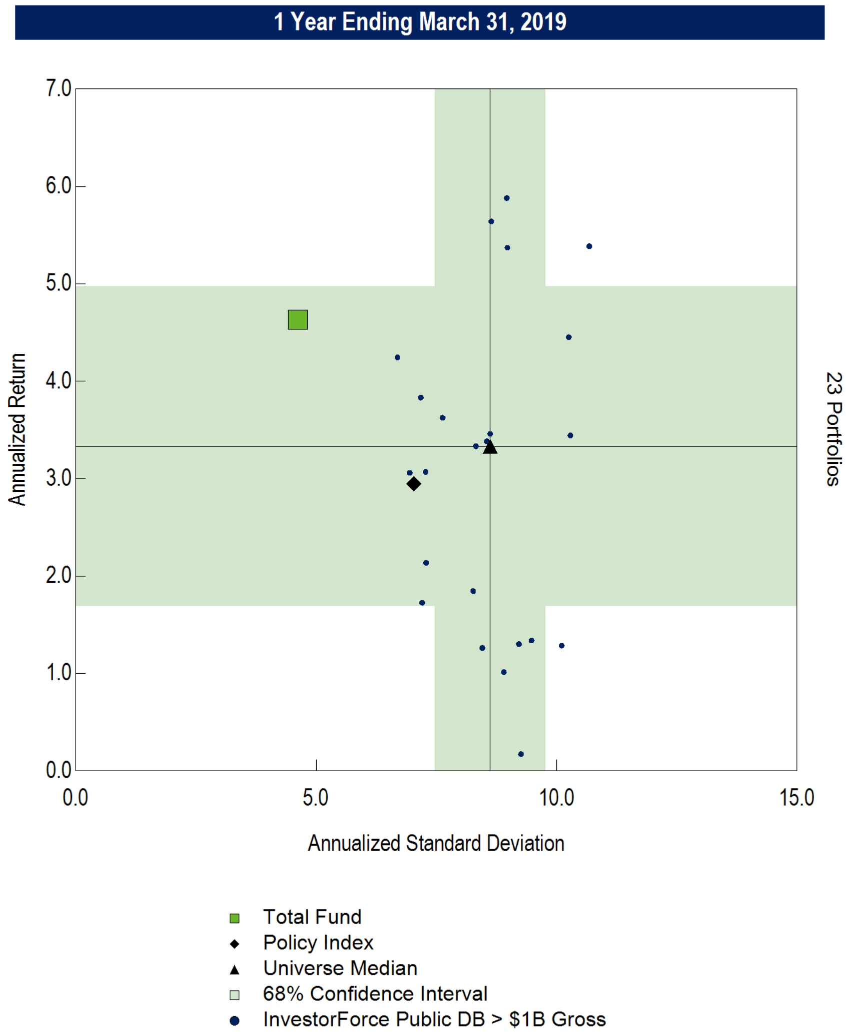
San Bernardino County Employees' Retirement Association

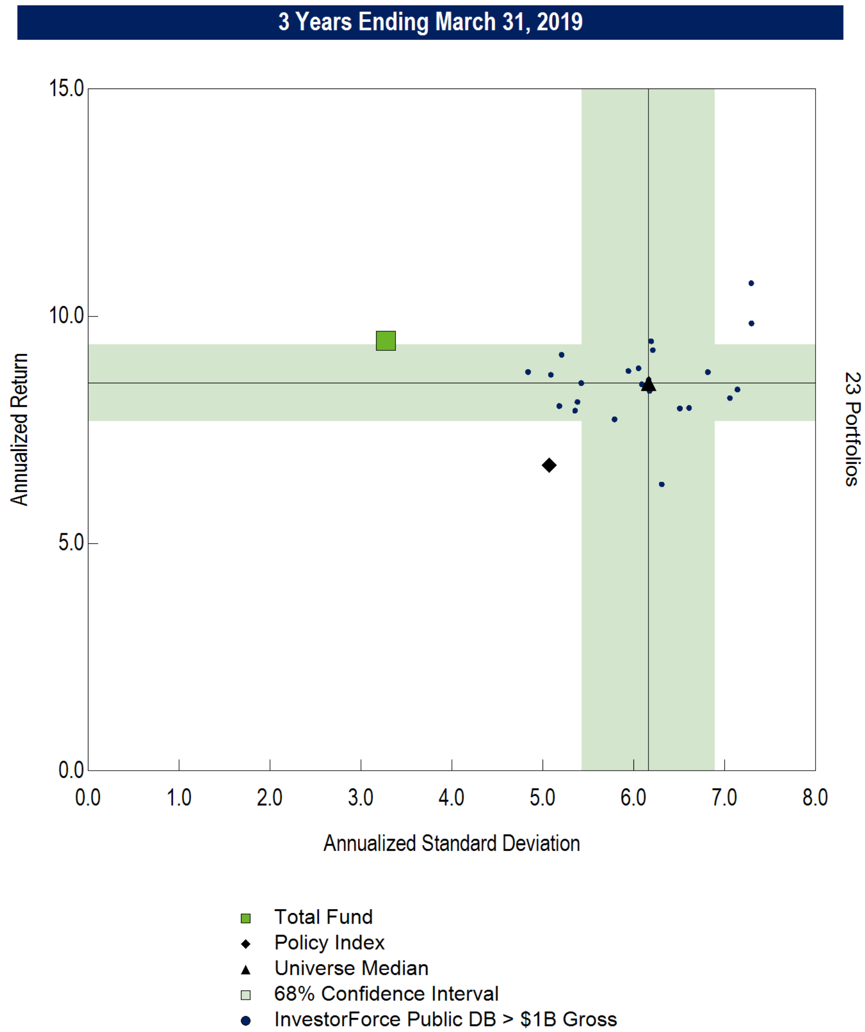
TOTAL FUND PERFORMANCE SUMMARY

Asset Class	Physical Exposure		Delta Adjusted Synthetic Exposure		Net Position		Overlay Target		Policy Target	
Total Market Value	**10,231.6**	**99.98%**	**0.0**	**0.0%**	**10,231.6**	**100.0%**	**10,234.1**	**100.0%**	**10,234.1**	**100.00%**
Cash	**684.4**	**6.69%**	**-678.2**	**-6.63%**	**6.2**	**0.06%**	**0.0**	**0.0%**	**0.0**	**0.00%**
Cash	684.4	6.69%	-678.2	-6.63%	6.2	0.06%	0.0	0.0%	0.0	0.00%
Equity	**1,620.0**	**15.83%**	**1,374.4**	**13.43%**	**2,994.4**	**29.27%**	**2,995.9**	**29.27%**	**3,019.1**	**29.50%**
Emerging Markets	443.7	4.34%	293.7	2.87%	737.5	7.21%	736.3	7.19%	742.0	7.25%
Equity Delta Hedge	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.00%
International Developed	53.4	0.52%	1,028.4	10.05%	1,081.8	10.57%	1,091.7	10.67%	1,100.2	10.75%
US Large Cap	1,122.6	10.97%	-144.8	-1.42%	977.8	9.56%	964.8	9.43%	972.2	9.50%
US Small Cap	0.2	0.0%	197.1	1.93%	197.4	1.93%	203.1	1.98%	204.7	2.00%
Fixed	**3,684.9**	**36.01%**	**-696.2**	**-6.8%**	**2,988.7**	**29.21%**	**2,995.9**	**29.27%**	**3,019.1**	**29.50%**
EM High Yield CDX	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.00%
Global ex US Fixed Income	2,267.7	22.16%	-759.8	-7.42%	1,507.9	14.74%	1,523.3	14.89%	1,535.1	15.00%
High Yield **	1,062.7	10.38%	0.0	0.0%	1,062.7	10.39%	939.4	9.18%	946.7	9.25%
US Fixed Income	354.5	3.46%	63.6	0.62%	418.1	4.09%	533.2	5.21%	537.3	5.25%
Other	**4,242.3**	**41.45%**	**0.0**	**0.0%**	**4,242.3**	**41.46%**	**4,242.3**	**41.45%**	**4,196.0**	**41.00%**
Alternatives	93.9	0.92%	0.0	0.0%	93.9	0.92%	93.9	0.92%	112.6	1.10%
Commodities	201.6	1.97%	0.0	0.0%	201.6	1.97%	201.6	1.97%	204.7	2.00%
Infrastructure	203.1	1.98%	0.0	0.0%	203.1	1.99%	203.1	1.98%	194.4	1.90%
Private Equity	1,576.3	15.4%	0.0	0.0%	1,576.3	15.41%	1,576.3	15.4%	1,535.1	15.00%
Real Estate	437.8	4.28%	0.0	0.0%	437.8	4.28%	437.8	4.28%	419.6	4.10%
Tactical Cash	1,729.6	16.9%	0.0	0.0%	1,729.6	16.9%	1,729.6	16.9%	1,729.6	16.90%

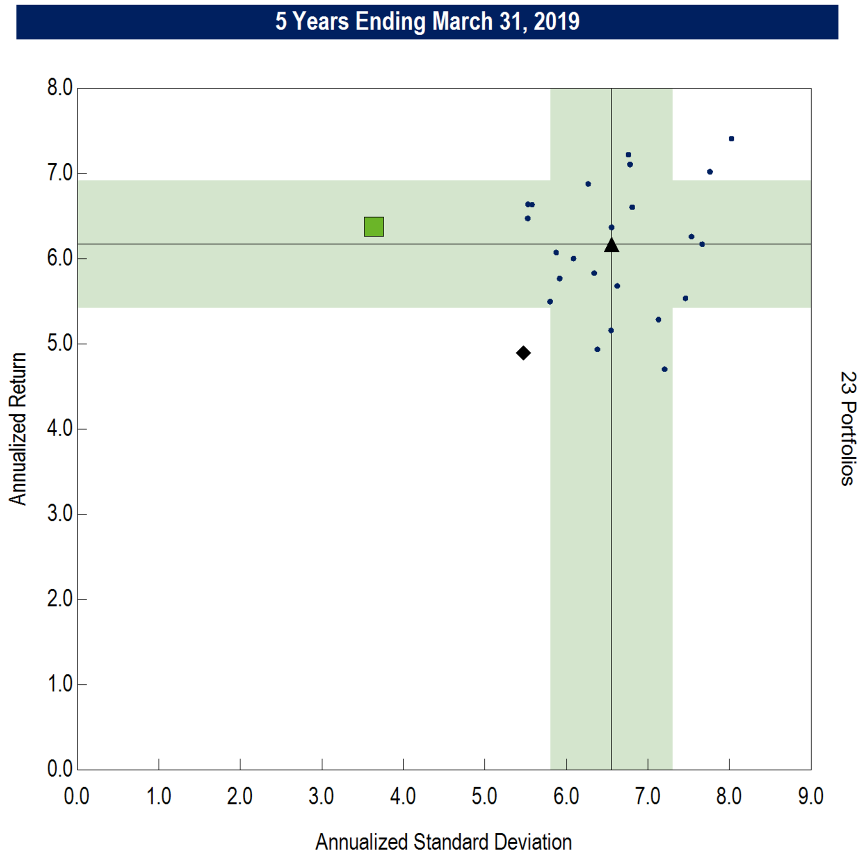
Source: Russell Investments

TOTAL FUND RISK/RETURN

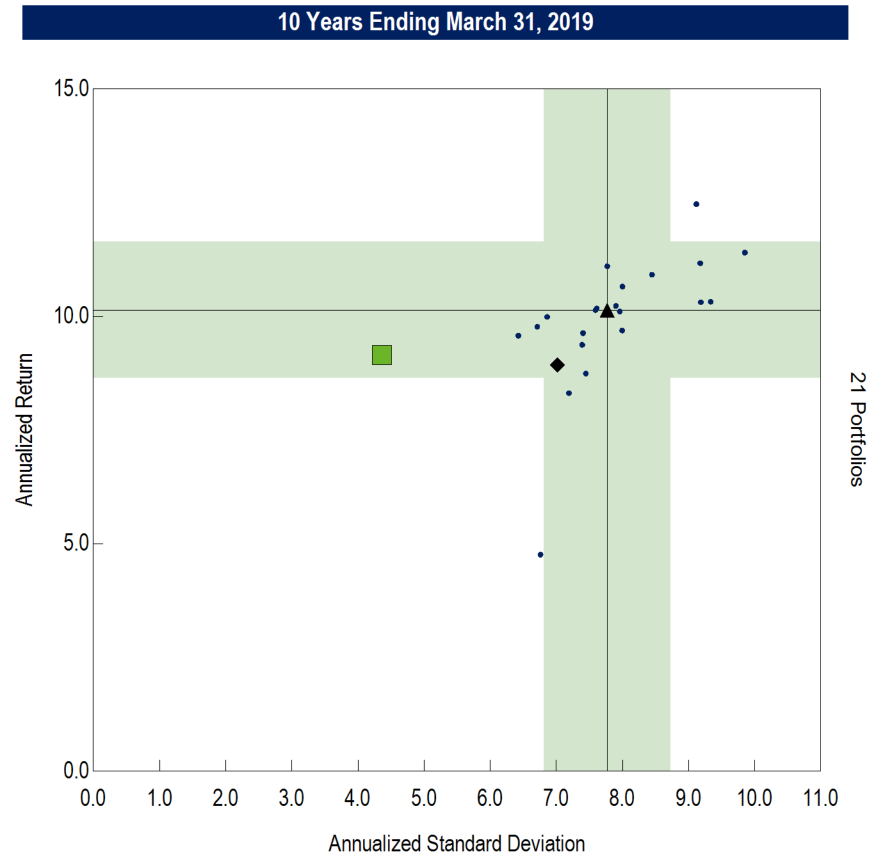




TOTAL FUND RISK/RETURN



- Total Fund
- Policy Index
- Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > $1B Gross



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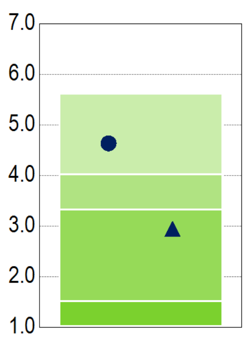
- 68% Confidence Interval
- InvestorForce Public DB > $1B Gross

San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

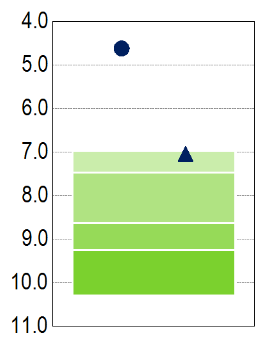
Total Fund vs. InvestorForce Public DB > $1B Gross (USD)
1 Year

Anlzd Return



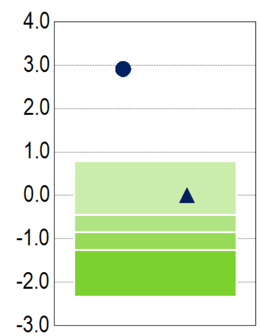
● Total Fund	
Value	4.6
Rank	18
▲ Policy Index	
Value	2.9
Rank	60
Universe	
5th %tile	5.6
25th %tile	4.0
Median	3.3
75th %tile	1.5
95th %tile	1.0

Anlzd Standard Deviation



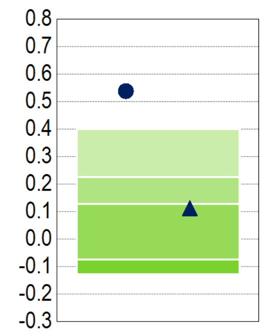
● Total Fund	
Value	4.6
Rank	1
▲ Policy Index	
Value	7.0
Rank	7
Universe	
5th %tile	7.0
25th %tile	7.5
Median	8.6
75th %tile	9.2
95th %tile	10.3

Anlzd Alpha



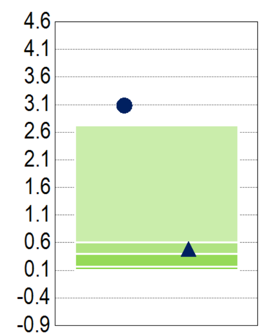
● Total Fund	
Value	2.9
Rank	1
▲ Policy Index	
Value	0.0
Rank	22
Universe	
5th %tile	0.8
25th %tile	-0.4
Median	-0.8
75th %tile	-1.2
95th %tile	-2.3

Sharpe Ratio



● Total Fund	
Value	0.5
Rank	1
▲ Policy Index	
Value	0.1
Rank	60
Universe	
5th %tile	0.4
25th %tile	0.2
Median	0.1
75th %tile	-0.1
95th %tile	-0.1

Sortino Ratio



● Total Fund	
Value	3.1
Rank	5
▲ Policy Index	
Value	0.5
Rank	35
Universe	
5th %tile	2.7
25th %tile	0.6
Median	0.4
75th %tile	0.2
95th %tile	0.1

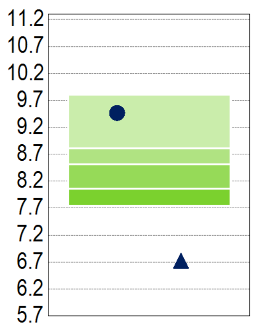
Sortino Ratio requires at least two negative points during the time period in order to calculate.
Sample size is 14 Portfolios

San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

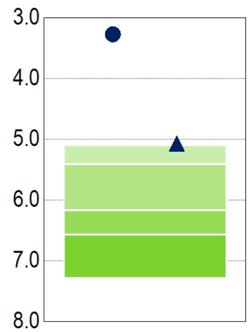
Total Fund vs. InvestorForce Public DB > $1B Gross (USD)
3 Years

Anlzd Return



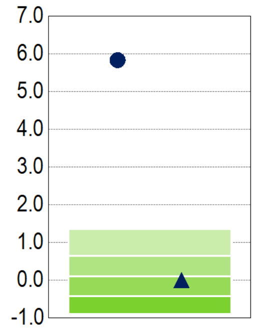
● Total Fund	
Value	9.5
Rank	9
▲ Policy Index	
Value	6.7
Rank	99
Universe	
5th %tile	9.8
25th %tile	8.8
Median	8.5
75th %tile	8.1
95th %tile	7.8

Anlzd Standard Deviation



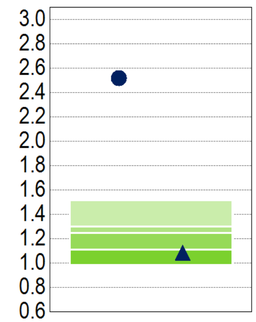
● Total Fund	
Value	3.3
Rank	1
▲ Policy Index	
Value	5.1
Rank	5
Universe	
5th %tile	5.1
25th %tile	5.4
Median	6.2
75th %tile	6.6
95th %tile	7.3

Anlzd Alpha



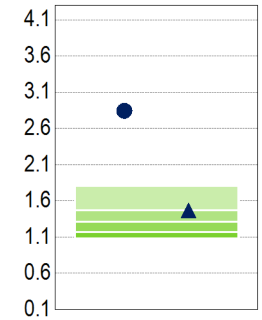
● Total Fund	
Value	5.8
Rank	1
▲ Policy Index	
Value	0.0
Rank	54
Universe	
5th %tile	1.4
25th %tile	0.7
Median	0.1
75th %tile	-0.4
95th %tile	-0.9

Sharpe Ratio



● Total Fund	
Value	2.5
Rank	1
▲ Policy Index	
Value	1.1
Rank	79
Universe	
5th %tile	1.5
25th %tile	1.3
Median	1.3
75th %tile	1.1
95th %tile	1.0

Sortino Ratio



● Total Fund	
Value	2.8
Rank	1
▲ Policy Index	
Value	1.5
Rank	29
Universe	
5th %tile	1.8
25th %tile	1.5
Median	1.3
75th %tile	1.2
95th %tile	1.1

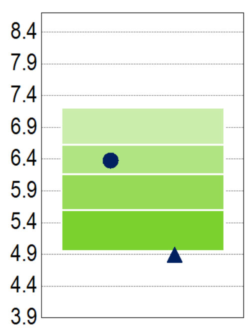
Sortino Ratio requires at least two negative points during the time period in order to calculate.
Sample size is 14 Portfolios

San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

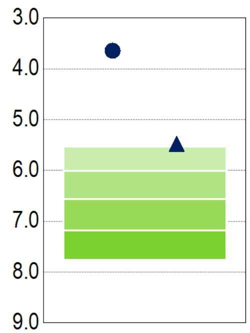
Total Fund vs. InvestorForce Public DB > $1B Gross (USD)
5 Years

Anlzd Return



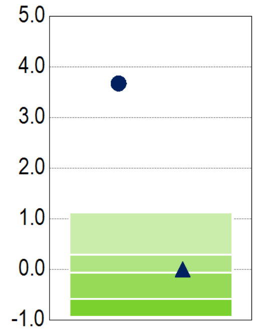
● Total Fund	
Value	6.4
Rank	41
▲ Policy Index	
Value	4.9
Rank	97
Universe	
5th %tile	7.2
25th %tile	6.6
Median	6.2
75th %tile	5.6
95th %tile	5.0

Anlzd Standard Deviation



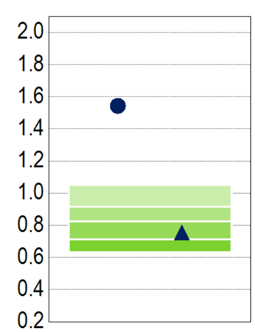
● Total Fund	
Value	3.6
Rank	1
▲ Policy Index	
Value	5.5
Rank	1
Universe	
5th %tile	5.5
25th %tile	6.0
Median	6.6
75th %tile	7.2
95th %tile	7.7

Anlzd Alpha



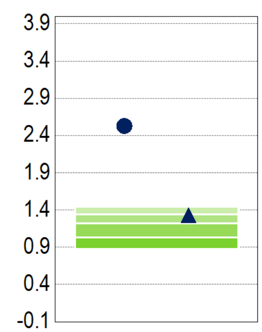
● Total Fund	
Value	3.7
Rank	1
▲ Policy Index	
Value	0.0
Rank	41
Universe	
5th %tile	1.1
25th %tile	0.3
Median	-0.1
75th %tile	-0.6
95th %tile	-0.9

Sharpe Ratio



● Total Fund	
Value	1.5
Rank	1
▲ Policy Index	
Value	0.8
Rank	68
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	2.5
Rank	1
▲ Policy Index	
Value	1.3
Rank	33
Universe	
5th %tile	1.4
25th %tile	1.3
Median	1.2
75th %tile	1.0
95th %tile	0.9

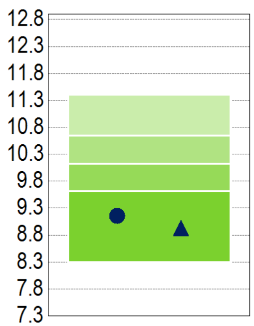
Sortino Ratio requires at least two negative points during the time period in order to calculate.
Sample size is 14 Portfolios

San Bernardino County Employees' Retirement Association

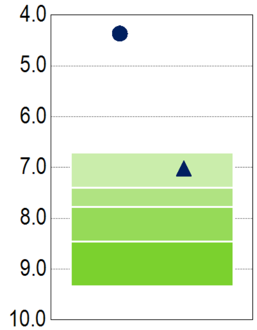
TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

Total Fund vs. InvestorForce Public DB > $1B Gross (USD)
10 Years

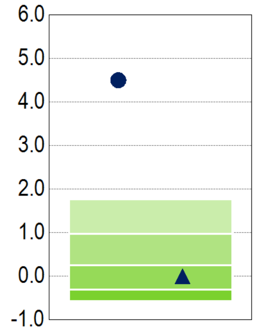
Anlzd Return



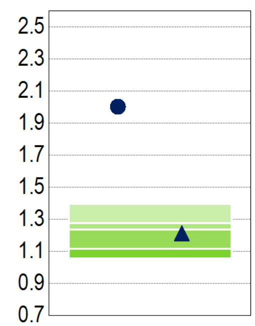
Anlzd Standard Deviation



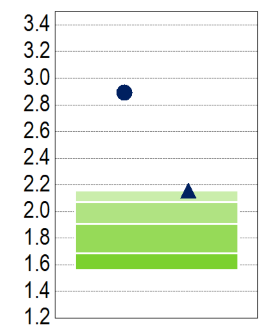
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



	Anlzd Return	Anlzd Standard Deviation	Anlzd Alpha	Sharpe Ratio	Sortino Ratio
● Total Fund					
Value	9.2	4.4	4.5	2.0	2.9
Rank	87	1	1	1	1
▲ Policy Index					
Value	8.9	7.0	0.0	1.2	2.2
Rank	89	18	59	59	6
Universe					
5th %tile	11.4	6.7	1.8	1.4	2.2
25th %tile	10.7	7.4	1.0	1.3	2.1
Median	10.1	7.8	0.3	1.2	1.9
75th %tile	9.6	8.4	-0.3	1.1	1.7
95th %tile	8.3	9.3	-0.6	1.1	1.6

Sortino Ratio requires at least two negative points during the time period in order to calculate.
Sample size is 14 Portfolios

San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

	1 Years Ending March 31, 2019							
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity	10.9%	6.9%	--	13.7%	--	4.1%	-0.5	--
Russell 3000	--	8.8%	--	16.7%	--	0.0%	--	--
International Developed	0.5%	-0.7%	10	9.0%	1	6.3%	0.5	30
MSCI EAFE	--	-3.7%	29	13.2%	28	0.0%	--	--
International Emerging	4.3%	-6.0%	--	13.6%	--	3.4%	0.4	--
MSCI Emerging Markets	--	-7.4%	--	15.4%	--	0.0%	--	--
U.S. Credit Strategies	13.7%	4.6%	42	4.1%	66	5.2%	0.0	41
50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index	--	4.8%	33	4.6%	78	0.0%	--	--
Non-U.S. Credit Composite	13.9%	4.4%	--	3.7%	--	8.5%	1.3	--
ICE BofAML Euro High Yield Constrained TR	--	-6.9%	--	7.4%	--	0.0%	--	--
Emerging Markets Debt Composite	8.6%	-2.0%	62	4.3%	11	8.4%	0.0	61
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	-1.8%	61	9.0%	65	0.0%	--	--
Alpha Pool Composite	15.6%	5.2%	1	3.1%	19	3.1%	0.0	40
91 Day T-Bill + 3%	--	5.2%	1	0.1%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	15.5%	12.8%	--	4.2%	--
Cambridge Associates Global All PE (Qtr Lag)	--	9.7%	--	6.0%	--
Real Estate Composite	4.1%	6.2%	92	1.7%	42
NCREIF Property Index 1 Qtr. Lag	--	6.7%	90	2.8%	59
Real Assets Composite	4.9%	8.3%	31	8.0%	63
Real Assets Custom Blend	--	-0.8%	83	5.2%	50

Percent of Total equals 92% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

TOTAL FUND RISK STATISTICS

3 Years Ending March 31, 2019	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity	10.9%	3.7%	--	8.5%	--	5.2%	-1.9	--
Russell 3000	--	13.5%	--	11.1%	--	0.0%	--	--
International Developed	0.5%	4.2%	99	7.0%	1	9.0%	-0.3	--
MSCI EAFE	--	7.3%	64	10.5%	49	0.0%	--	--
International Emerging	4.3%	8.0%	--	11.1%	--	3.4%	-0.8	--
MSCI Emerging Markets	--	10.7%	--	13.0%	--	0.0%	--	--
U.S. Credit Strategies	13.7%	9.0%	1	3.5%	43	4.1%	0.5	1
50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index	--	6.8%	2	3.3%	34	0.0%	--	--
Non-U.S. Credit Composite	13.9%	10.7%	--	3.6%	--	9.0%	0.7	--
ICE BofAML Euro High Yield Constrained TR	--	4.6%	--	8.0%	--	0.0%	--	--
Emerging Markets Debt Composite	8.6%	6.5%	36	5.4%	32	6.7%	0.3	53
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	4.6%	72	7.6%	66	0.0%	--	--
Alpha Pool Composite	15.6%	8.9%	1	2.9%	33	3.0%	1.5	1
91 Day T-Bill + 3%	--	4.3%	47	0.2%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	15.5%	13.2%	--	3.8%	--
Cambridge Associates Global All PE (Qtr Lag)	--	12.6%	--	6.0%	--
Real Estate Composite	4.1%	7.1%	91	2.8%	50
NCREIF Property Index 1 Qtr. Lag	--	7.2%	77	2.9%	52
Real Assets Composite	4.9%	4.5%	79	5.7%	30
Real Assets Custom Blend	--	2.9%	91	4.8%	9

Percent of Total equals 92% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS

	5 Years Ending March 31, 2019							
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Tracking Error	Info Ratio	Rank
Domestic Equity	10.9%	1.2%	--	7.4%	--	11.1%	-0.8	--
Russell 3000	--	10.4%	--	11.5%	--	0.0%	--	--
International Developed	0.5%	2.1%	51	18.7%	99	14.4%	0.0	48
MSCI EAFE	--	2.3%	49	11.8%	84	0.0%	--	--
International Emerging	4.3%	2.4%	--	12.4%	--	4.6%	-0.3	--
MSCI Emerging Markets	--	3.7%	--	15.3%	--	0.0%	--	--
U.S. Credit Strategies	13.7%	6.0%	1	3.3%	29	4.0%	0.4	1
50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index	--	4.3%	37	3.7%	41	0.0%	--	--
Non-U.S. Credit Composite	13.9%	6.5%	--	3.5%	--	9.7%	0.7	--
ICE BofAML Euro High Yield Constrained TR	--	-0.2%	--	9.4%	--	0.0%	--	--
Emerging Markets Debt Composite	8.6%	4.0%	52	5.4%	24	5.8%	0.3	55
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	--	2.4%	63	7.8%	62	0.0%	--	--
Alpha Pool Composite	15.6%	4.3%	6	3.3%	22	3.3%	0.2	27
91 Day T-Bill + 3%	--	3.8%	27	0.2%	1	0.0%	--	--

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank
Private Equity Composite	15.5%	13.1%	--	4.1%	--
Cambridge Associates Global All PE (Qtr Lag)	--	10.9%	--	5.8%	--
Real Estate Composite	4.1%	9.0%	92	3.0%	37
NCREIF Property Index 1 Qtr. Lag	--	9.3%	89	3.9%	54
Real Assets Composite	4.9%	1.3%	54	5.8%	3
Real Assets Custom Blend	--	-2.0%	63	5.9%	4

Percent of Total equals 92% because Beta Overlay is not included as these statistics are not relevant for alternative asset classes.

PUBLIC EQUITY PORTFOLIO

Public Equity Portfolio (28% Target)	**US Equities (13% Target)**	**Large Cap (8%)**	Russell Investments (Russell1000 Index) StateStreet Global Advisors S&P500 Buy/Write Call Option Strategy TOBAM Anti-Benchmark US Equity Fund
		Small Cap (2%)	Russell Investments (Russell2000 Index)
		Volatility (3%)	Russell Investments (Russell1000 Index)
	International Equities (15% Target)	**Developed Markets (6%)**	Russell Investments (MSCI EAFE Index) TOBAM Anti-Benchmark World ex-US Fund
		Emerging Markets (6%)	Mondrian Emerging Markets Equity Fund LP Russell Investments (MSCI EM Index) TOBAM Anti-Benchmark EM Equity Fund
		Volatility (3%)	Russell Investments (MSCI EAFE Index)

GLOBAL EQUITY STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Equity	**1,624,152,924**	**15.7**	**11.3**	**99**	**1.9**	**72**	**2.6**	**78**	**5.9**	**99**	**2.5**	**99**	**8.4**	**99**
MSCI ACWI			*12.2*	*73*	*2.1*	*71*	*2.6*	*78*	*10.7*	*87*	*6.5*	*90*	*12.0*	*94*
Excess Return			-0.9		-0.2		0.0		-4.8		-4.0		-3.6	
InvestorForce Public DB Total Eq Gross Median			*12.6*		*2.8*		*4.4*		*11.5*		*8.1*		*13.5*	
Domestic Equity With Beta Overlay*	**1,239,662,799**	**12.0**	**11.4**	**99**	**0.7**	**98**	**4.9**	**96**	**7.4**	**99**	**--**	**--**	**--**	**--**
Russell 3000			*14.0*	*53*	*4.7*	*32*	*8.8*	*26*	*13.5*	*27*	*10.4*	*26*	*16.0*	*37*
Excess Return			-2.6		-4.0		-3.9		-6.1					
InvestorForce Public DB US Eq Gross Median			*14.1*		*4.2*		*7.8*		*13.1*		*9.9*		*15.8*	
Domestic Equity	**1,124,949,207**	**10.9**	**12.5**	**--**	**2.7**	**--**	**6.9**	**--**	**3.7**	**--**	**1.2**	**--**	**6.0**	**--**
Russell 3000			*14.0*	*--*	*4.7*	*--*	*8.8*	*--*	*13.5*	*--*	*10.4*	*--*	*16.0*	*--*
Excess Return			-1.5		-2.0		-1.9		-9.8		-9.2		-10.0	
Tobam AB US Equity	296,299,500	2.9	13.4	58	-2.9	76	1.5	75	--	--	--	--	--	--
Russell 3000			*14.0*	*48*	*4.7*	*35*	*8.8*	*36*	*13.5*	*38*	*10.4*	*33*	*16.0*	*55*
Excess Return			-0.6		-7.6		-7.3							
eV All US Equity Gross Median			*13.9*		*2.4*		*6.0*		*12.4*		*9.1*		*16.2*	
Large Cap Equity	**828,406,667**	**8.0**	**12.2**	**75**	**4.9**	**34**	**8.9**	**35**	**5.1**	**99**	**2.5**	**98**	**6.6**	**99**
S&P 500			*13.6*	*55*	*5.9*	*26*	*9.5*	*32*	*13.5*	*37*	*10.9*	*26*	*15.9*	*57*
Excess Return			-1.4		-1.0		-0.6		-8.4		-8.4		-9.3	
eV All US Equity Gross Median			*13.9*		*2.4*		*6.0*		*12.4*		*9.1*		*16.2*	
SsgA S&P500	825,307,502	8.0	12.2	74	4.9	33	9.1	35	8.4	90	6.5	82	9.2	99
S&P 500			*13.6*	*55*	*5.9*	*26*	*9.5*	*32*	*13.5*	*37*	*10.9*	*26*	*15.9*	*57*
Excess Return			-1.4		-1.0		-0.4		-5.1		-4.4		-6.7	
eV All US Equity Gross Median			*13.9*		*2.4*		*6.0*		*12.4*		*9.1*		*16.2*	
Russell US Large Cap Volatility	3,099,165	0.0												
Small Cap Equity	**243,041**	**0.0**												
Russell US Small Cap Volatility	243,041	0.0												

*Based on data provided by Russell Investment

GLOBAL EQUITY STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
International Equity With Beta Overlay*	**1,821,839,678**	**17.7**	**9.8**	**95**	**-1.2**	**87**	**-2.5**	**87**	**8.3**	**83**	**--**	**--**	**--**	**--**
MSCI ACWI ex USA Gross			*10.4*	*53*	*-1.4*	*87*	*-3.7*	*88*	*8.6*	*82*	*3.0*	*91*	*9.3*	*27*
Excess Return			-0.6		0.2		1.2		-0.3					
InvestorForce Public DB Glbl Eq Gross Median			*10.7*		*2.9*		*3.7*		*10.9*		*8.6*		*8.9*	
International Equity	**499,203,717**	**4.8**	**8.6**	**--**	**0.6**	**--**	**-4.5**	**--**	**8.0**	**--**	**3.2**	**--**	**10.1**	**--**
MSCI ACWI			*12.2*	*--*	*2.1*	*--*	*2.6*	*--*	*10.7*	*--*	*6.5*	*--*	*12.0*	*--*
Excess Return			-3.6		-1.5		-7.1		-2.7		-3.3		-1.9	
International Developed	**51,941,394**	**0.5**	**6.9**	**99**	**-0.2**	**20**	**-0.7**	**10**	**4.2**	**99**	**2.1**	**51**	**12.4**	**3**
MSCI EAFE			*10.0*	*70*	*-2.5*	*79*	*-3.7*	*29*	*7.3*	*64*	*2.3*	*49*	*9.0*	*46*
Excess Return			-3.1		2.3		3.0		-3.1		-0.2		3.4	
InvestorForce Public DB Dev Mkt ex-US Eq Gross Median			*10.3*		*-2.0*		*-5.5*		*7.6*		*2.2*		*8.8*	
Russell International Volatility	4,423,494	0.0												
Tobam AB World Ex-US Equity	47,517,900	0.5	7.5	94	-2.8	50	--	--	--	--	--	--	--	--
MSCI ACWI ex USA			*10.3*	*67*	*-1.6*	*35*	*-4.2*	*37*	*8.1*	*58*	*2.6*	*81*	*8.8*	*84*
Excess Return			-2.8		-1.2									
eV All ACWI ex-US Equity Gross Median			*11.2*		*-2.9*		*-5.2*		*8.4*		*4.0*		*11.4*	
International Emerging	**447,262,323**	**4.3**	**8.8**	**--**	**0.3**	**--**	**-6.0**	**--**	**8.0**	**--**	**2.4**	**--**	**8.3**	**--**
MSCI Emerging Markets			*9.9*	*--*	*0.6*	*--*	*-7.4*	*--*	*10.7*	*--*	*3.7*	*--*	*8.9*	*--*
Excess Return			-1.1		-0.3		1.4		-2.7		-1.3		-0.6	
Mondrian	143,748,304	1.4	10.2	53	5.2	9	-4.7	18	7.2	93	2.0	95	8.7	93
MSCI Emerging Markets			*9.9*	*59*	*0.6*	*48*	*-7.4*	*45*	*10.7*	*53*	*3.7*	*74*	*8.9*	*92*
Excess Return			0.3		4.6		2.7		-3.5		-1.7		-0.2	
eV Emg Mkts Equity Gross Median			*10.4*		*0.5*		*-7.8*		*10.8*		*4.6*		*10.6*	
Gramercy Emerging Market Equity	400,250	0.0	0.0	99	0.0	57	-1.8	6	13.8	15	6.9	14	--	--
MSCI Emerging Markets			*9.9*	*59*	*0.6*	*48*	*-7.4*	*45*	*10.7*	*53*	*3.7*	*74*	*8.9*	*92*
Excess Return			-9.9		-0.6		5.6		3.1		3.2			
eV Emg Mkts Equity Gross Median			*10.4*		*0.5*		*-7.8*		*10.8*		*4.6*		*10.6*	
Tobam	303,014,601	2.9	8.2	82	-1.9	74	-6.7	34	6.1	97	--	--	--	--
MSCI Emerging Markets			*9.9*	*59*	*0.6*	*48*	*-7.4*	*45*	*10.7*	*53*	*3.7*	*74*	*8.9*	*92*
Excess Return			-1.7		-2.5		0.7		-4.6					
eV Emg Mkts Equity Gross Median			*10.4*		*0.5*		*-7.8*		*10.8*		*4.6*		*10.6*	

*Based on data provided by Russell Investment

GLOBAL DEBT STRATEGIES

Global Debt Strategies (35% Target)	US Fixed Income (15% Target)	Core Fixed Income (2%)	Russell Investments (Bloomberg Barclays US Agg. Bond TR Index)
		Credit Strategies/ High Yield Strategies (13%)	Apollo Credit Strategies Fund LP (MCA) Beach Point Select Fund LP GoldenTree Credit Opportunities - Gold Coast X GoldenTree Distressed Debt Fund 2010 GoldenTree Asset Management SMA - Gold Coast X Halcyon Direct Portfolio (MCA) Halcyon Solutions Fund LP (MCA) MacKay Shields High Yield Bond Strategy - Gold Coast III Manulife Asset Management - Gold Coast IV Waterfall - Sutherland REIT Holdings LP (MCA) Waterfall Asset Management SMA (MCA) Waterfall Victoria Fund LP (MCA)
	Global Fixed Income (20% Target)	International Core (1%)	Russell Investments (Barclays Global Aggregate ex US Unhedged)
		International Credit (11%)	Alcentra Clareant European Direct Lending Fund - Kneiff Tower Alcentra Clareant Strategic Credit Fund - Kneiff Tower Alcentra Limited SMA - Kneiff Tower Alcentra Mezzanine III/Alcentra Capital Corp. - Kneiff Tower Alcentra Structured Credit Opportunity Fund III - Kneiff Tower Cairn Capital Limited SMA - Kneiff Tower Cairn European CLO Strategy - Kneiff Tower Cairn Loan Investments - Kneiff Tower Cairn Special Opportunities Credit Fund - Kneiff Tower Cairn Strata Credit Fund - Kneiff Tower Cairn Subordinated Financials Fund II - Kneiff Tower Halcyon European Credit Opportunities Fund Ltd. (MCA) Marathon Asset Management SMA - Gold Coast I Marathon CLO Equity Fund - Gold Coast I Marathon Distressed Debt Fund - Gold Coast I Marathon European Credit Opportunities Fund - Gold Coast I Marathon European Credit Opportunity Fund II - Gold Coast I Marathon European Credit Opportunity Fund III - Gold Coast I Marathon Loan Opportunities Fund - Gold Coast I Marathon Structured Product Strategies Fund - Gold Coast I York Global Credit Income Fund
		Emerging Market Debt (8%)	Ashmore Emerging Markets MCA Gramercy Capital Solutions Fund (MCA) Gramercy Distressed Argentina Fund III Private (MCA) Gramercy Distressed Opportunity Fund II (MCA) Gramercy Distressed Opportunity Fund III (MCA) Gramercy Emerging Markets Debt Allocation Fund (MCA) Gramercy Separate Account (MCA) Gramercy Venezuela Opportunity Fund (MCA) Marathon Global Emerging Markets Fund - Gold Coast I PGIM Emerging Market Debt Opportunities Fund

San Bernardino County Employees' Retirement Association

GLOBAL DEBT STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Global Fixed Income With Beta Overlay*	**3,023,310,248**	**29.3**	**2.1**	**--**	**0.8**	**--**	**0.9**	**--**	**2.1**	**--**	**--**	**--**	**--**	**--**
Total Fixed	**3,729,474,067**	**36.2**	**3.0**	**43**	**2.0**	**99**	**2.7**	**82**	**9.0**	**1**	**5.7**	**1**	**10.3**	**1**
InvestorForce Public DB Total Fix Inc Gross Median			*2.6*		*4.3*		*4.3*		*2.1*		*2.5*		*4.9*	
U.S. Credit Strategies	**1,409,314,495**	**13.7**	**2.8**	**84**	**2.4**	**88**	**4.6**	**42**	**9.0**	**1**	**6.0**	**1**	**11.6**	**1**
50% CS Leveraged Loan / 50% ICE BofA ML US HY BB-B Rated Constrained Index			*5.5*	*21*	*4.1*	*55*	*4.8*	*33*	*6.8*	*2*	*4.3*	*37*	*9.0*	*1*
Excess Return			-2.7		-1.7		-0.2		2.2		1.7		2.6	
ICE BofAML US High Yield TR			*7.4*	*1*	*4.9*	*43*	*6.0*	*3*	*8.7*	*1*	*4.7*	*17*	*11.2*	*1*
eV Global Credit Fixed Income Gross Median			*4.9*		*4.2*		*2.9*		*3.9*		*2.8*		*6.3*	
Golden Tree Asset Management	415,686,088	4.0	6.6	4	5.3	41	7.9	1	12.7	1	10.1	1	--	--
Beach Point Capital (Formerly Post)	156,872,996	1.5	1.4	99	2.0	91	3.1	50	10.1	1	6.5	1	10.1	1
Golden Tree Distressed Debt	21,611,376	0.2	-4.5	99	-8.2	99	-7.4	99	1.4	90	7.7	1	--	--
Mackay / Gold Coast	108,896,760	1.1	4.3	72	3.7	67	2.8	51	7.9	1	3.6	44	10.2	1
MD SASS Waterfall Victoria	28,152,310	0.3	5.6	--	6.2	--	9.9	--	10.2	--	--	--	--	--
Russell Interest Rate Hedging	15,260,013	0.1	-32.6	99	-35.1	99	-31.6	99	-17.7	99	-25.0	99	--	--
Stone Tower Credit (Apollo)	92,193,812	0.9	0.9	94	4.6	25	6.7	2	9.4	2	5.1	7	--	--
Gold Coast Capital IV	102,728,035	1.0	3.2	--	3.9	--	5.0	--	5.9	--	--	--	--	--
Waterfall Asset Management	57,813,052	0.6	7.4	--	2.0	--	11.2	--	14.9	--	--	--	--	--
Waterfall Victoria	50,067,977	0.5	2.0	--	5.0	--	9.1	--	9.5	--	--	--	--	--
Stone Tower Offshore Credit (Apollo)	359,959,825	3.5	1.0	--	1.7	--	2.3	--	8.1	--	4.9	--	11.4	--
AG Capital	4,509	0.0	0.0	99	12.3	1	1.4	66	-1.2	99	-1.4	95	7.0	24

*Based on data provided by Russell Investment

San Bernardino County Employees' Retirement Association

GLOBAL DEBT STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Non-U.S. Fixed Income Composite	**2,320,159,572**	**22.5**	**3.2**	**34**	**1.9**	**99**	**2.0**	**95**	**9.2**	**1**	**5.6**	**1**	**8.4**	**1**
BBgBarc Global Aggregate TR			*2.2*	*89*	*2.5*	*99*	*-0.4*	*99*	*1.5*	*95*	*1.0*	*99*	*3.0*	*89*
Excess Return			1.0		-0.6		2.4		7.7		4.6		5.4	
InvestorForce Public DB Total Fix Inc Gross Median			*2.6*		*4.3*		*4.3*		*2.1*		*2.5*		*4.9*	
Non-U.S. Credit Composite	**1,434,138,044**	**13.9**	**2.8**	**--**	**2.9**	**--**	**4.4**	**--**	**10.7**	**--**	**6.5**	**--**	**--**	**--**
ICE BofAML Euro High Yield Constrained TR			*3.4*	--	*-0.8*	--	*-6.9*	--	*4.6*	--	*-0.2*	--	*10.6*	--
Excess Return			-0.6		3.7		11.3		6.1		6.7			
Marathon/Gold Coast	240,778,394	2.3	3.1	82	7.6	1	10.4	1	12.6	1	8.2	1	--	--
Alcentra Core European Credit	521,568,462	5.1	-0.3	99	2.2	90	5.9	3	11.7	1	10.2	1	--	--
Halcyon Asset Management	187,236,160	1.8	-2.5	99	-3.7	99	4.6	42	9.4	1	--	--	--	--
ICE BofAML Euro High Yield Constrained TR			*3.4*	*80*	*-0.8*	*99*	*-6.9*	*99*	*4.6*	*37*	*-0.2*	*89*	*10.6*	*1*
Excess Return			-5.9		-2.9		11.5		4.8					
eV Global Credit Fixed Income Gross Median			*4.9*		*4.2*		*2.9*		*3.9*		*2.8*		*6.3*	
York Global Credit	79,156,103	0.8	1.4	98	2.5	85	2.2	56	10.5	1	5.9	1	--	--
ICE BofAML Euro High Yield Constrained TR			*3.4*	*80*	*-0.8*	*99*	*-6.9*	*99*	*4.6*	*37*	*-0.2*	*89*	*10.6*	*1*
Excess Return			-2.0		3.3		9.1		5.9		6.1			
eV Global Credit Fixed Income Gross Median			*4.9*		*4.2*		*2.9*		*3.9*		*2.8*		*6.3*	
Cairn Composite	405,398,925	3.9	10.2	1	5.0	43	1.5	63	12.0	1	5.6	3	--	--
ICE BofAML Euro High Yield Constrained TR			*3.4*	*80*	*-0.8*	*99*	*-6.9*	*99*	*4.6*	*37*	*-0.2*	*89*	*10.6*	*1*
Excess Return			6.8		5.8		8.4		7.4		5.8			
eV Global Credit Fixed Income Gross Median			*4.9*		*4.2*		*2.9*		*3.9*		*2.8*		*6.3*	

San Bernardino County Employees' Retirement Association

GLOBAL DEBT STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Emerging Markets Debt Composite	**886,021,528**	**8.6**	**3.7**	**72**	**0.4**	**98**	**-2.0**	**62**	**6.5**	**36**	**4.0**	**52**	**6.6**	**62**
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			*4.9*	*60*	*5.6*	*53*	*-1.8*	*61*	*4.6*	*72*	*2.4*	*63*	*6.5*	*62*
Excess Return			-1.2		-5.2		-0.2		1.9		1.6		0.1	
eV All Emg Mkts Fixed Inc Gross Median			*5.3*		*5.9*		*1.4*		*5.8*		*4.3*		*8.4*	
Ashmore Emerging Markets Liquid Investments	**153,659,615**	**1.5**	**4.9**	**60**	**5.6**	**53**	**-1.8**	**61**	**4.6**	**72**	**2.4**	**63**	**6.5**	**62**
JP Morgan GBI - EM Global Diversified Index			*2.9*	*92*	*3.2*	*83*	*-7.6*	*84*	*3.3*	*87*	*-0.8*	*91*	*4.4*	*91*
Excess Return			2.0		2.4		5.8		1.3		3.2		2.1	
eV All Emg Mkts Fixed Inc Gross Median			*5.3*		*5.9*		*1.4*		*5.8*		*4.3*		*8.4*	
Ashmore Local Currency	**113,235,008**	**1.1**	**3.2**	**58**	**4.9**	**22**	**-5.7**	**93**	**5.7**	**26**	**0.3**	**88**	**--**	**--**
JPM ELMI+ TR USD			*1.5*	*91*	*1.6*	*79*	*-4.3*	*89*	*2.4*	*69*	*-0.6*	*92*	*1.8*	*96*
Excess Return			1.7		3.3		-1.4		3.3		0.9			
JP Morgan EMBI Global Index			*6.6*	*11*	*7.3*	*1*	*3.5*	*37*	*5.2*	*30*	*4.8*	*12*	*8.1*	*22*
eV All Global Fixed Inc Gross Median			*3.6*		*3.3*		*1.9*		*3.5*		*2.6*		*5.3*	
Gramercy Funds Management LLC	519,164,906	5.0	2.2	97	-2.7	99	-1.2	59	5.4	58	6.0	9	--	--
JPM ELMI+ TR USD			*1.5*	*99*	*1.6*	*95*	*-4.3*	*71*	*2.4*	*96*	*-0.6*	*89*	*1.8*	*99*
Excess Return			0.7		-4.3		3.1		3.0		6.6			
JP Morgan EMBI Global Index			*6.6*	*23*	*7.3*	*27*	*3.5*	*31*	*5.2*	*61*	*4.8*	*42*	*8.1*	*53*
eV All Emg Mkts Fixed Inc Gross Median			*5.3*		*5.9*		*1.4*		*5.8*		*4.3*		*8.4*	
PGIM Fixed Income	99,962,000	1.0	9.6	1	4.1	72	-2.2	62	10.6	3	--	--	--	--
JPM ELMI+ TR USD			*1.5*	*99*	*1.6*	*95*	*-4.3*	*71*	*2.4*	*96*	*-0.6*	*89*	*1.8*	*99*
Excess Return			8.1		2.5		2.1		8.2					
JP Morgan EMBI Global Index			*6.6*	*23*	*7.3*	*27*	*3.5*	*31*	*5.2*	*61*	*4.8*	*42*	*8.1*	*53*
eV All Emg Mkts Fixed Inc Gross Median			*5.3*		*5.9*		*1.4*		*5.8*		*4.3*		*8.4*	

ABSOLUTE RETURN (ALPHA POOL)

Absolute Return (Alpha Pool) (7% Target)	**Core & Credit Strategies (7%)**	Apollo Accord Fund (MCA)
		Apollo Global SMA (MCA)
		Apollo MicCap Financial Holdings Trust (MCA)
		Apollo Offshore Credit Fund LTD (MCA)
		Ares Enhanced Credit Opportunites Master Fund II, LTD (MCA)
		Birch Grove Credit Strategies Fund
		Corrum Capital Global Credit Opportunities Fund
		Corrum Capital GCO Co-Invest Fund
		StateStreet Global Advisors Short Term Treasury Strategy SMA
		Zais Group SMA
		Zais Opportunity Fund, LTD
		Zais Zephyr A-6, LP

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ALPHA POOL STRATEGIES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Alpha Pool Composite	**1,611,991,357**	**15.6**	**3.7**	**40**	**3.4**	**2**	**5.2**	**1**	**8.9**	**1**	**4.3**	**6**	**9.2**	**1**
91 Day T-Bill + 3%			*1.3*	*89*	*4.0*	*1*	*5.2*	*1*	*4.3*	*47*	*3.8*	*27*	*3.4*	*91*
Excess Return			2.4		-0.6		0.0		4.6		0.5		5.8	
Alpha Liquidity (Ssga)	161,698,468	1.6	0.7	97	1.8	76	2.3	47	1.4	85	0.9	80	0.7	99
Apollo Global Management	70,807,294	0.7	8.4	1	10.3	1	21.7	1	22.1	1	--	--	--	--
Ares Eco Master Fund II	451,883,047	4.4	7.5	5	1.5	80	2.0	49	--	--	--	--	--	--
Birch Grove Credit Strategies	130,382,030	1.3	0.5	98	3.3	51	5.3	11	6.5	18	5.1	8	--	--
Sterling Stamos	267,071,906	2.6	0.0	99	3.3	51	9.8	1	8.7	4	6.1	2	6.2	42
Zais	135,659,048	1.3	0.8	96	0.9	86	1.2	56	12.3	1	5.0	9	26.0	1
Zais Group Invest Advisors	292,288,664	2.8	5.3	24	3.3	49	4.9	17	16.4	1	8.3	1	--	--
Zais Zephyr A 6 LP	74,343,375	0.7	5.7	--	10.7	--	13.8	--	15.1	--	--	--	--	--
Apollo Accord	2,483,839	0.0	-6.1	99	-2.8	99	-1.0	73	--	--	--	--	--	--

NEPC

PRIVATE ASSETS

Asset Class	Sub-Class	Strategy	Funds
Private Assets (16% Target)	Private Equity	Diversified	Partners Group SMA (MCA) Pathway Capital SMA (MCA) Pathway PE Fund VII LLC SL Capital European Strategic Partners 2004 SL Capital European Strategic Partners 2008
		Buyout Funds	Aurora Equity Partners IV Kayne Partners Fund IV LP (MCA) Partners Group Direct Equity 2016 (MCA) Partners Group Direct Investments 2012 LP (MCA) Partners Group European Buyout 2005 (A) LP (MCA) Waterfall Sentinel Fund (MCA)
		Venture Funds	Industry Ventures Direct LP (MCA) Industry Ventures Fund V LP (MCA) Industry Ventures Fund VI LP (MCA) Industry Ventures MCA Industry Ventures Partnership Holdings II LP (MCA) Industry Ventures Partnership Holdings III LP (MCA) Industry Ventures Partnership Holdings III-A LP (MCA) Industry Ventures Partnership Holdings IV LP (MCA) Industry Ventures Special Opportunities Fund II-A LP (MCA)
		Secondary Funds	Aberdeen Standard Secondary Opportunities Fund IV Industry Ventures Secondary VII LP (MCA) Industry Ventures Secondary VIII LP (MCA) Lexington Capital Partners VI Lexington Capital Partners VII Lexington Middle Market Investors I Lexington Middle Market Investors II Partners Group Secondary 2004 LP (MCA) Partners Group Secondary 2008 LP (MCA) SL Capital Secondary Opportunities Fund I SL Capital Secondary Opportunities Fund II SL Capital Secondary Opportunities Fund III
		Sector Specific Funds	Kayne Anderson Energy Fund VII LP (MCA) Tennenbaum Energy Opportunities Fund LP (MCA)
	Private Debt	Direct Lending	Ares Private Credit Solutions Fund (MCA) Tennenbaum Lending Fund VIII LLC (MCA) Tennenbaum Waterman Fund LP (MCA)
		Mezzanine Funds	Crescent Mezzanine Partners V
		Credit/Distressed/ Opportunistic/ Special Situations	Apollo Private Equity Fund VII Ares European Loan Funding LP (MCA) Ares ICOF II (MCA) Ares ICOF III (MCA) Ares SMA (MCA) Ares Special Situations Fund IV (MCA) Catalyst Fund LP II Crestline Portfolio Financing Fund Kayne Anderson Solutions Fund (MCA) Sigular Guff Distressed Opportunity Fund III LP Tennenbaum Co-Invest (MCA) Tennenbaum Opportunities Fund V LLC (MCA) Tennenbaum Opportunities Fund VI LLC (MCA) Tennenbaum Special Situations Fund IX LLC (MCA)

REAL ESTATE

Real Estate Portfolio (7% Target)	Core Real Estate (3.5%)	Core Real Estate	PRISA II
			348 West Hospitality
			Invesco Real Estate Asia Fund
			Kayne Anderson Real Estate Debt III (MCA)
			Marathon Real Estate Debt Fund
			Pramerica Real Estate Capital VI LP
	Non-Core Real Estate (3.5%)	Enhanced Real Estate/ High Return	Apollo Real Estate Fund II LP (MCA)
			Bryanston Retail Opportunity
			Fortress Japan Opportunity Fund II
			Kayne Anderson Real Estate Partners V LP (MCA)
			Morgan Stanley RE Fund V International
			Oaktree RE Opportunities Fund V
			PRISA III
			Starwood Global Opportunity Fund VII-A
			Starwood Opportunity Fund VII
			Walton Street Real Estate Fund V
		Real Estate Secondaries	Partners Group Real Estate Secondary 2013 A LP (MCA)
			Partners Group Real Estate Secondary 2017 A LP (MCA)

REAL ASSETS

Real Asset Portfolio (5% Target)	**Commodities (2% Target)**	Energy Spectrum Partners VI LP Pinnacle Natural Resources LP Pinnacle Physicals & Financing LTD Starwood Energy Infrastructure Fund
	Infrastructure (1% Target)	Fortress Worldwide Transportation & Infrastructure LP Highstar Capital III Kayne Anderson MLP Strategy (MCA)
	Timber (2% Target)	Hancock Timberland VII & VIII LP Timbervest Crossover Partners II LP Timbervest Partners II LP

San Bernardino County Employees' Retirement Association

ALTERNATIVES - GROSS

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Equity Composite	**1,599,600,785**	**15.5**	**-0.4**	**--**	**9.2**	**--**	**12.8**	**--**	**13.2**	**--**	**13.1**	**--**	**10.9**	**--**
Cambridge Associates Global All PE (Qtr Lag)			*-1.2*	--	*6.6*	--	*9.7*	--	*12.6*	--	*10.9*	--	*13.0*	--
Excess Return			0.8		2.6		3.1		0.6		2.2		-2.1	
Russell 3000			*14.0*	--	*4.7*	--	*8.8*	--	*13.5*	--	*10.4*	--	*16.0*	--
Cambridge Associates US All PE (1 Qtr Lag)			*-2.1*	--	*7.1*	--	*10.0*	--	*13.5*	--	*11.4*	--	*13.7*	--
Real Estate Composite	**425,147,079**	**4.1**	**2.1**	**36**	**4.6**	**76**	**6.2**	**92**	**7.1**	**91**	**9.0**	**92**	**5.2**	**99**
NCREIF Property Index 1 Qtr. Lag			*1.4*	*84*	*4.9*	*71*	*6.7*	*90*	*7.2*	*77*	*9.3*	*89*	*7.5*	*86*
Excess Return			0.7		-0.3		-0.5		-0.1		-0.3		-2.3	
InvestorForce Public DB Real Estate Pub+Priv Gross Median			*1.6*		*5.5*		*7.9*		*8.1*		*10.1*		*12.0*	
Real Assets Composite	**503,356,484**	**4.9**	**6.1**	**45**	**0.9**	**80**	**8.3**	**31**	**4.5**	**79**	**1.3**	**54**	**2.5**	**58**
Real Assets Custom Blend			*3.7*	*57*	*-1.5*	*83*	*-0.8*	*83*	*2.9*	*91*	*-2.0*	*63*	*0.9*	*85*
Excess Return			2.4		2.4		9.1		1.6		3.3		1.6	
NCREIF Timberland 1 Qtr. Lag			*1.0*	*82*	*2.5*	*74*	*3.4*	*74*	*3.3*	*88*	*5.0*	*23*	*3.8*	*36*
Timber	88,058,251	0.9	-6.2	--	-5.2	--	-2.5	--	-0.6	--	-0.1	--	0.8	--
NCREIF Timberland 1 Qtr. Lag			*1.0*	--	*2.5*	--	*3.4*	--	*3.3*	--	*5.0*	--	*3.8*	--
Excess Return			-7.2		-7.7		-5.9		-3.9		-5.1		-3.0	
Infrastructure	**207,737,809**	**2.0**	**16.1**	**--**	**-0.6**	**--**	**9.7**	**--**	**16.8**	**--**	**2.4**	**--**	**4.9**	**--**
Russell 3000			*14.0*	--	*4.7*	--	*8.8*	--	*13.5*	--	*10.4*	--	*16.0*	--
Excess Return			2.1		-5.3		0.9		3.3		-8.0		-11.1	
Commodities	**207,560,424**	**2.0**	**3.3**	**--**	**4.4**	**--**	**12.3**	**--**	**4.3**	**--**	**2.2**	**--**	**4.1**	**--**
Bloomberg Commodity Index			*6.3*	--	*-5.6*	--	*-5.3*	--	*2.2*	--	*-8.9*	--	*-2.6*	--
Excess Return			-3.0		10.0		17.6		2.1		11.1		6.7	

APPENDIX: PRIVATE EQUITY, REAL ESTATE AND REAL ASSETS PERFORMANCE

REAL ESTATE PERFORMANCE ENDED MARCH 31, 2019

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
American Realty Advisors	1996	128,009,773	128,009,773	278,401,963	0	2.18	6.89%
Tuckerman Multi-Family Development Fund III	2002	10,000,000	10,219,311	16,939,699	0	1.66	26.67%
CBRE Strategic Partners III	2003	10,000,000	10,000,000	12,698,783	0	1.27	8.02%
Prudential PRISA III	2003	75,000,000	54,806,772	46,339,270	50,386,355	1.65	18.20%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	15,939,604	78,323	1.64	10.74%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	18,828,095	8,497,338	3.32	70.79%
Prudential PRISA II	2004	140,000,000	140,000,000	44,634,748	168,789,816	1.46	8.21%
RREEF America REIT III	2004	20,000,000	20,539,309	23,658,675	0	1.15	3.00%
BlackRock Diamond Property Fund	2005	25,000,000	25,000,000	15,233,347	0	0.61	-9.31%
CBRE Strategic Partners IV	2005	40,000,000	40,000,000	2,609,685	0	0.07	-27.76%
INVESCO Real Estate Fund I	2005	10,000,000	9,248,390	10,015,656	0	1.08	1.54%
LaSalle Income & Growth Fund IV	2005	20,000,000	19,469,417	13,482,024	0	0.69	-5.51%
North Haven Real Estate Fund V International	2005	27,500,000	27,377,414	32,070,486	1,185,262	1.21	6.93%
Prologis Japan Fund	2005	25,290,819	25,290,819	33,126,118	0	1.31	4.81%
Tri Continental Capital VII	2005	23,000,000	22,277,928	2,764,047	779,737	0.16	-16.25%
American Realty Value Add	2006	13,125,215	13,125,215	32,080,321	0	2.44	10.92%
Beacon Capital Strategic Partners IV, L.P.	2006	38,000,000	38,000,000	31,424,699	0	0.83	-3.26%
Fillmore East Fund	2006	25,000,000	31,403,818	20,777,177	0	0.66	-9.78%
Starwood Capital Hospitality Fund I-2	2006	30,000,000	30,000,000	26,182,035	4,187,079	1.01	0.17%
Starwood Opportunity Fund VII - A	2006	25,000,000	25,000,000	18,224,737	1,862,608	0.80	-2.40%
Walton Street Real Estate Fund V, LP	2006	40,000,000	40,000,000	24,654,170	6,159,030	0.77	-2.88%
Beacon Capital Strategic Partners V, L.P.	2007	18,000,000	18,000,000	11,174,695	0	0.62	-7.87%
Invesco Asian Real Estate Partners II (USD), LP	2007	20,000,000	8,412,833	11,324,754	0	1.37	7.54%
Invesco High Yield Debt Fund I	2007	20,000,000	20,000,000	8,567,605	0	0.43	-35.57%
Square Mile Partners II	2007	19,831,232	19,831,232	5,311,330	0	0.27	-19.11%
Fillmore West Fund	2008	20,000,000	19,561,557	21,175,799	0	1.08	1.14%
Square Mile Partners III LP	2008	20,000,000	19,730,190	28,543,743	347,155	1.46	11.56%
Starwood Debt Fund II, LP	2008	20,000,000	17,599,882	21,912,511	0	1.25	6.45%
Structured Real Estate III, LP (Guggenheim)	2008	20,000,000	20,000,000	16,320,664	0	0.82	-4.99%
Bryanston Real Estate Opportunity Fund II, L.P.	2009	20,000,000	8,589,256	11,847,997	0	1.38	10.19%
Fortress Japan Opportunity Fund II	2012	21,739,130	3,398,962	19,086,960	8,033,447	7.43	26.21%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	37,421,185	2,525,292	1.57	13.18%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	9,619,994	62,579,401	1.36	7.25%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	18,625,904	53,418,352	1.46	16.71%
Apollo US Real Estate Fund II	2015	20,000,000	11,416,602	3,375,203	12,693,489	1.40	16.20%
Pramerica Real Estate Capital VI	2016	22,865,935	12,550,133	5,680,345	8,499,507	1.12	9.76%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	9,000,000	142,021	8,389,517	0.96	-4.98%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	22,530,341	118,130	24,419,733	1.09	13.17%
Kayne Anderson Real Estate Debt III	2018	20,000,000	4,497,732	889,296	3,972,299	1.08	6.65%
Total: San Bernardino		**1,254,094,605**	**1,069,160,031**	**951,223,477**	**426,803,741**	**1.28**	**4.14%**

Note: All metrics are calculated since inception

** Denotes cash adjusted*

REAL ASSETS PERFORMANCE ENDED MARCH 31, 2019

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Hancock Timberland VII	2005	90,000,000	90,000,000	77,327,100	0	1.16	1.34%
Hancock Timberland VIII	2006	40,000,000	40,000,000	7,145,925	29,868,438	0.93	-0.76%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	41,639,333	24,020,510	1.11	1.35%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	55,238,754	0	1.09	12.09%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	38,150,000	14,796,892	1.06	0.61%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	105,000,000	50,000,000	0	76,783,055	1.59	9.04
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	14,415,000	13,570,804	0.93	-1.09%
Pinnacle Physicals and Financing Master, Ltd	2009	200,000,000	100,815,984	2,018,221	158,406,160	1.09	12.09
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	12,339,031	45,697,148	1.28	8.53%
Total: San Bernardino		**670,403,354**	**515,338,457**	**248,273,364**	**363,124,786**	**1.11**	**2.86%**

Note: All metrics are calculated since inception

** Denotes cash adjusted*

PRIVATE EQUITY PERFORMANCE ENDED MARCH 31, 2019

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	240,707,853	220,679,633	265,791,019	14,161,247	1.27	4.00%
Partners Group MCA	2004	800,000,000	663,503,253	587,615,142	325,563,068	1.38	7.63%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	840,923,312	1,090,201,239	403,218,556	1.78	11.36%
Aurora Equity Partners III, L.P.	2005	25,000,000	23,544,536	41,738,196	0	1.67	13.61%
Lexington Middle Market I	2005	25,000,000	24,771,942	37,532,880	3,202,837	1.64	11.67%
NB Secondary Opportunities I, LP	2005	20,000,000	18,500,843	24,330,105	0	1.32	6.49%
Lexington Capital Partners VI-B	2006	25,000,000	24,591,319	32,509,048	2,413,212	1.42	6.91%
Siguler Guff DOF II	2006	30,000,000	30,000,000	42,439,151	0	1.42	8.69%
TCW/Crescent Mezzanine IV, L.P.	2006	40,000,000	39,590,976	44,955,179	0	1.14	3.03%
Catalyst Fund II, L.P.	2007	10,000,000	9,927,306	3,859,103	17,137,891	2.10	9.27%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	11,494,792	2,690,961	1.42	5.27%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,647,643	15,574,800	1,778,428	2.01	23.05%
Aurora Resurgence Fund, L.P.	2008	15,000,000	5,653,009	10,350,965	0	1.82	17.60%
Industry Ventures Fund V	2008	10,000,000	9,500,000	21,727,664	8,298,964	3.16	30.69%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	12,615,241	3,522,853	1.65	14.13%
NB Secondary Opportunities II, LP	2008	20,000,000	17,080,642	26,692,122	0	1.54	14.40%
Siguler Guff DOF III	2008	10,000,000	9,700,000	13,818,321	1,656,836	1.60	10.57%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	25,279,574	1,127,041	1.33	9.23%
Apollo European Principal Finance Fund (Feeder), LP	2009	53,800,255	46,373,293	68,835,428	504,621	1.49	11.80%
DRI II, L.P.	2009	20,000,000	19,917,669	26,302,807	0	1.33	19.64%
Apollo PCPL Webb V	2010	4,844,398	4,844,398	5,196,757	0	1.08	6.36%
Apollo PCPL Webb VIII	2010	4,734,303	4,734,303	12,146,258	0	2.57	46.47%
European Strategic Partners 2008	2010	31,400,182	28,273,807	26,378,700	14,771,387	1.45	9.08%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	17,592,304	6,730,662	1.32	8.01%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,409,757	25,234,101	7,090,157	1.58	15.05%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	12,181,132	11,278,455	7,722,123	1.56	7.55%
Aurora Equity Partners IV, L.P.	2012	20,000,000	15,995,098	30,861,074	6,559,099	2.02	18.82%
BNY Mellon - Alcentra Mezzanine III	2012	25,000,000	23,254,658	26,736,979	0	1.15	12.73%
Industry Ventures Partnership Holdings Fund II, L.P.	2012	25,000,000	23,500,000	10,575,000	55,528,273	2.81	24.15%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	41,386,234	70,699,598	1.60	11.25%

Note: All metrics are calculated since inception

** Denotes Cash adjusted value*

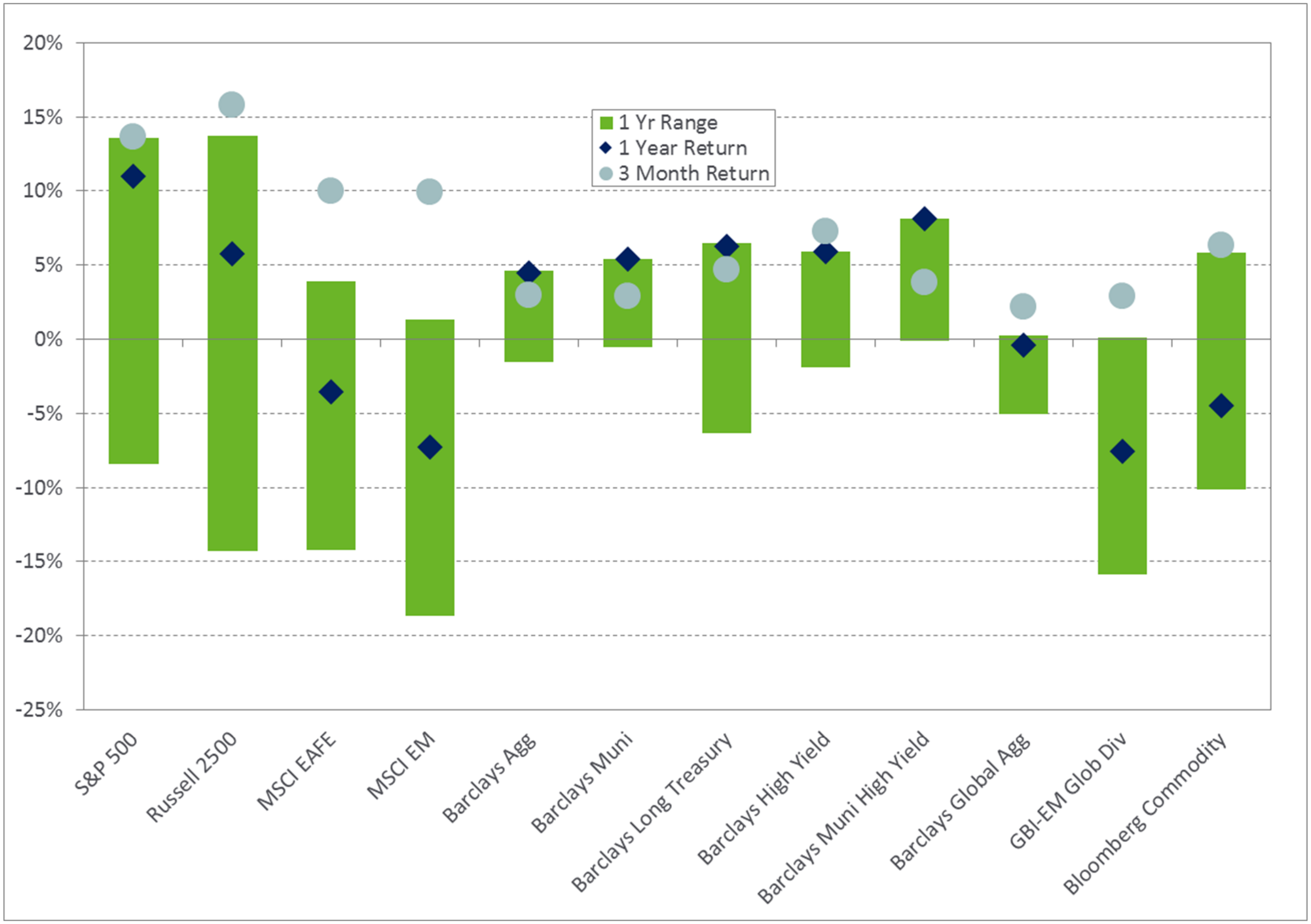
PRIVATE EQUITY PERFORMANCE ENDED MARCH 31, 2019

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	4,673,818	34,964,968	1.70	18.47%
Industry Ventures Secondary VII, L.P.	2013	25,000,000	22,500,000	14,165,315	20,576,755	1.54	14.94%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	10,793,396	3,582,626	6,533,461	0.94	-2.29%
Pathway SBCERA MCA	2014	250,000,000	175,872,815	6,662,500	255,918,803	1.49	19.11%
SL Capital SOF I LP	2014	25,000,000	20,721,610	15,791,950	12,072,122	1.34	11.71%
ARES European Loan Opp Fund	2015	15,000,000	8,413,136	7,613,498	0	0.90	-6.02%
Ares Special Situations Fund IV, LP	2015	50,000,000	43,726,073	199,120	38,362,263	0.88	-6.24%
Tennenbaum Special Situations Fund IX	2015	50,000,000	37,095,835	10,000,737	34,443,277	1.20	9.76%
Industry Ventures Direct, LP	2016	25,000,000	17,071,292	1,900,632	17,214,981	1.12	10.15%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	11,063,491	219,253	13,699,929	1.26	15.47%
Industry Ventures Special Opportunities II-A	2016	12,500,000	867,500	181,944	1,318,108	1.73	54.03%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	22,821,712	863,867	23,778,850	1.08	6.10%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	13,711,774	3,652,011	14,657,856	1.34	16.25%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	5,511,478	0	1.08	6.12%
Industry Ventures Secondary VIII	2017	25,000,000	10,000,000	2,748,194	12,352,742	1.51	73.04%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	7,278,811	215,495	8,460,329	1.19	9.20%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	8,896,086	0	9,586,900	1.06	6.76%
Kayne SBCERA MLP	2017	130,000,000	125,000,000	17,415	129,151,206	1.03	2.82%
SL Capital SOF III LP	2017	25,000,000	7,714,440	0	11,494,210	1.49	56.09%
Crestline Portfolio Financing Fund	2018	50,000,000	13,799,821	0	15,076,550	1.09	9.01%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	1,125,000	0	1,710,624	1.52	52.06%
Industry Ventures Tech Buyout LP	2018	50,000,000	3,418,023	0	3,064,477	0.90	-11.46%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	4,100,000	0	4,064,426	0.99	-0.87%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,600,000	200,000	6,397,972	1.00	-0.03%
Kayne SBCERA (D.I.)	2018	45,000,000	15,000,000	0	8,858,485	0.59	-40.94%
Kayne Solutions Fund LP	2018	20,000,000	5,953,490	513,108	6,057,163	1.10	11.36%
Kayne Renewable Opportnities Partners (TE), LP	2019	100,000,000	0	0		0.00	N/A
Waterfall Sentinel Co-Investments	2019	30,000,000	15,000,000	0	15,000,000	1.00	0.00%
Waterfall Sentinel Fund	2019	30,000,000	12,359,551	0	12,359,551	1.00	0.00%
Total: San Bernardino		**3,737,986,991**	**2,925,902,883**	**2,689,761,600**	**1,671,553,821**	**1.49**	**9.74%**

*Note: All metrics are calculated since inception. * Denotes Cash adjusted value*

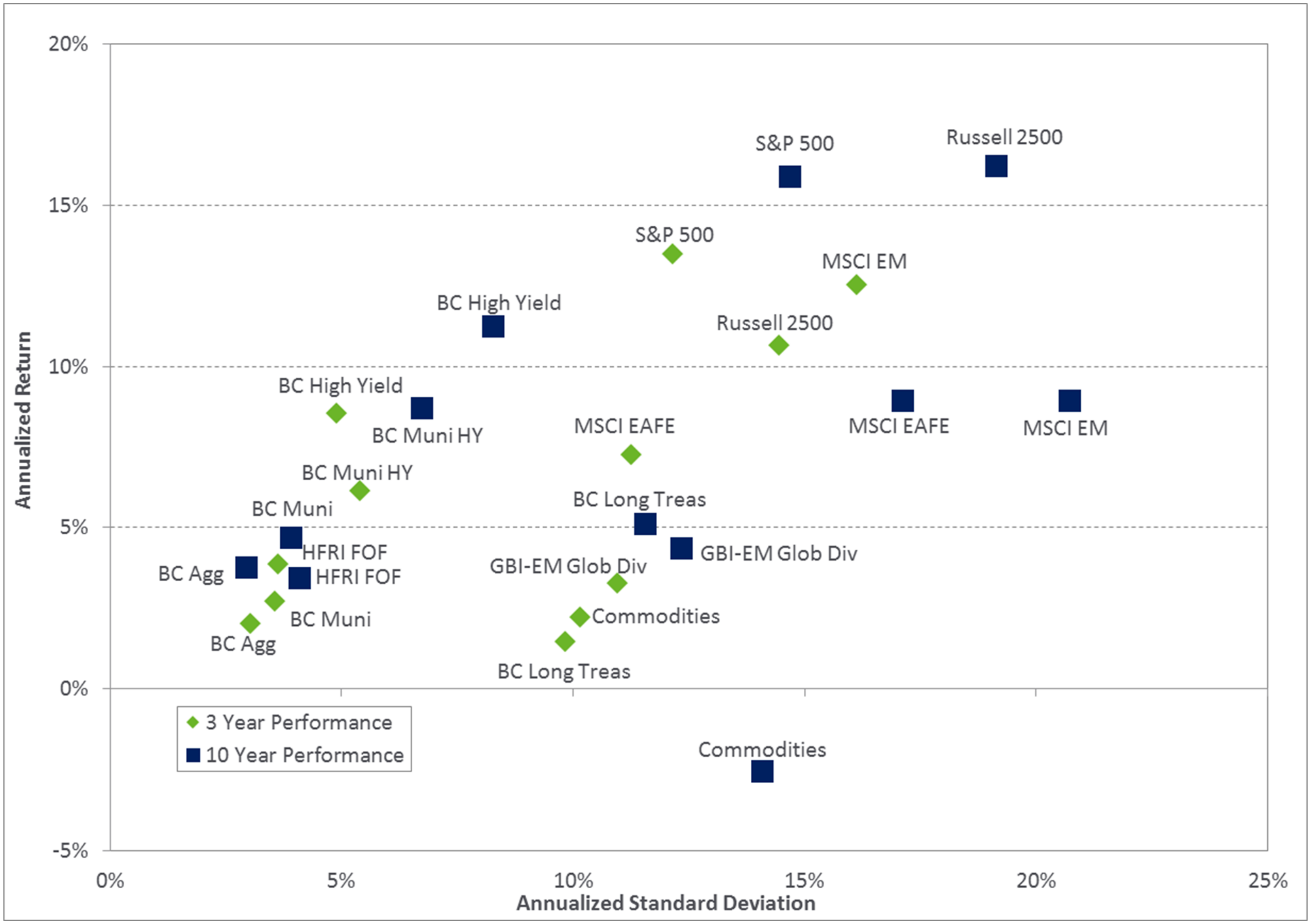
APPENDIX : MARKET OUTLOOK

SHORT-TERM PERFORMANCE SUMMARY



Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan
*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago

LONG-TERM PERFORMANCE SUMMARY

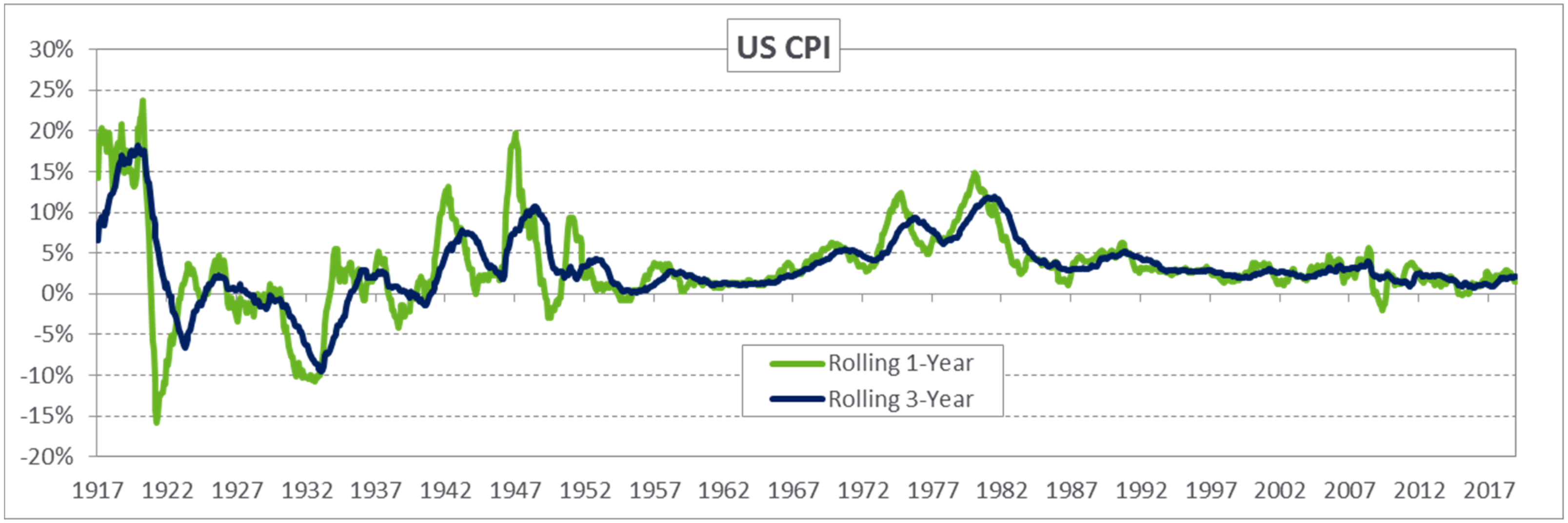


Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan

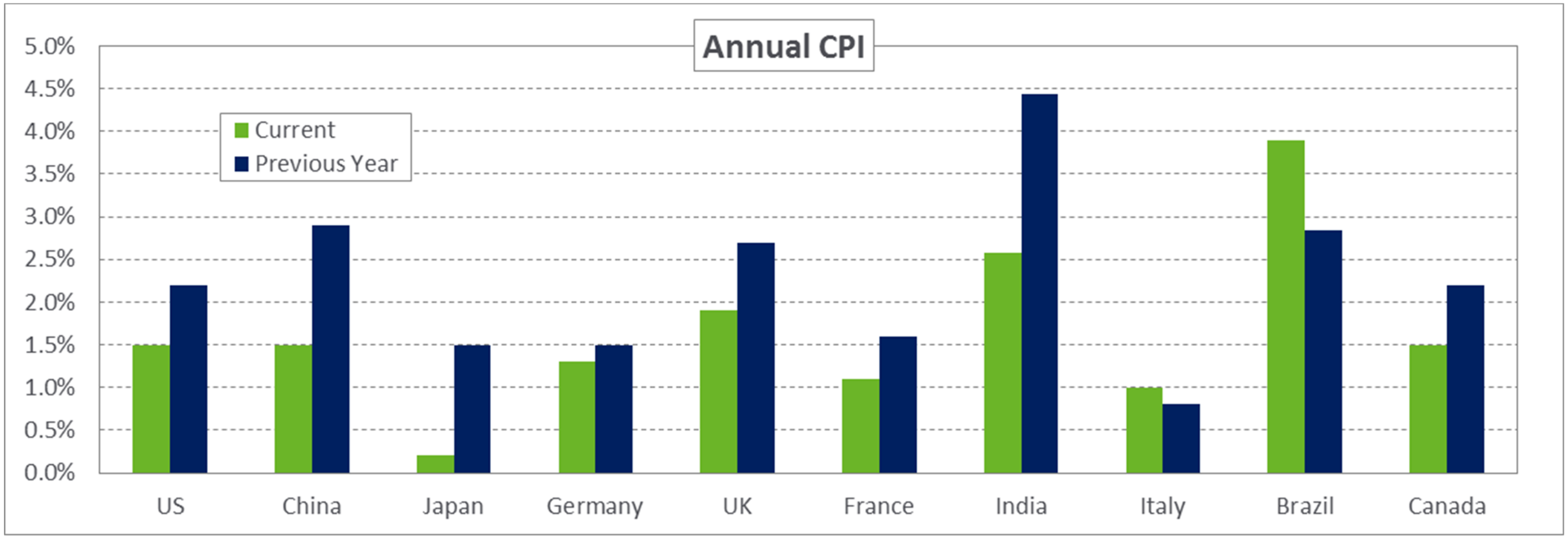
MACRO

NEPC, LLC

INFLATION



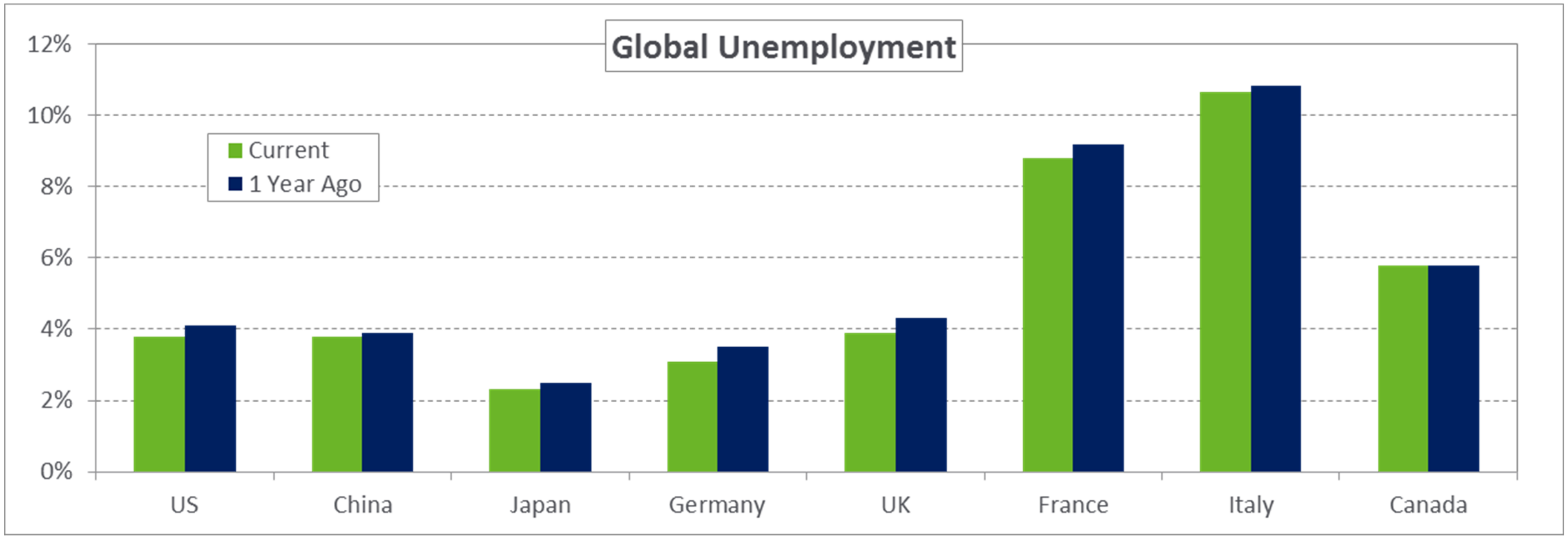
Source: Bureau of Labor Statistics, Bloomberg, NEPC



Source: Bureau of Labor Statistics, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, India Central Statistical Organization, ISTAT, IBGE, STCA, Bloomberg

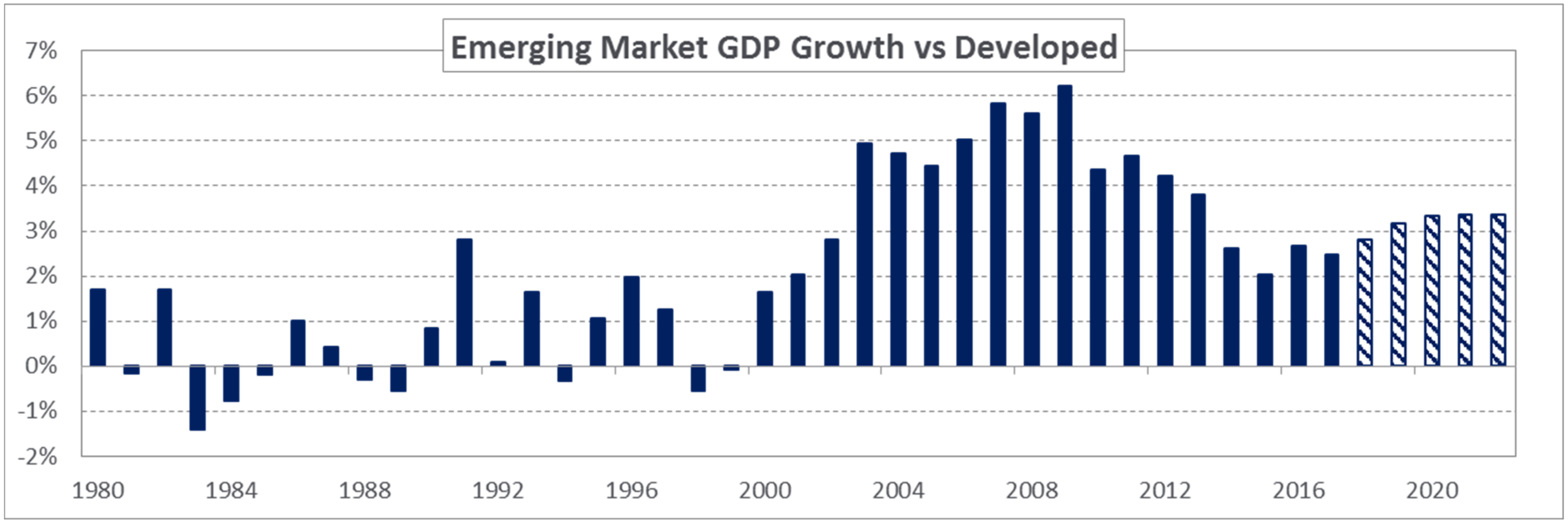
UNEMPLOYMENT

Source: Bureau of Labor Statistics, Bloomberg

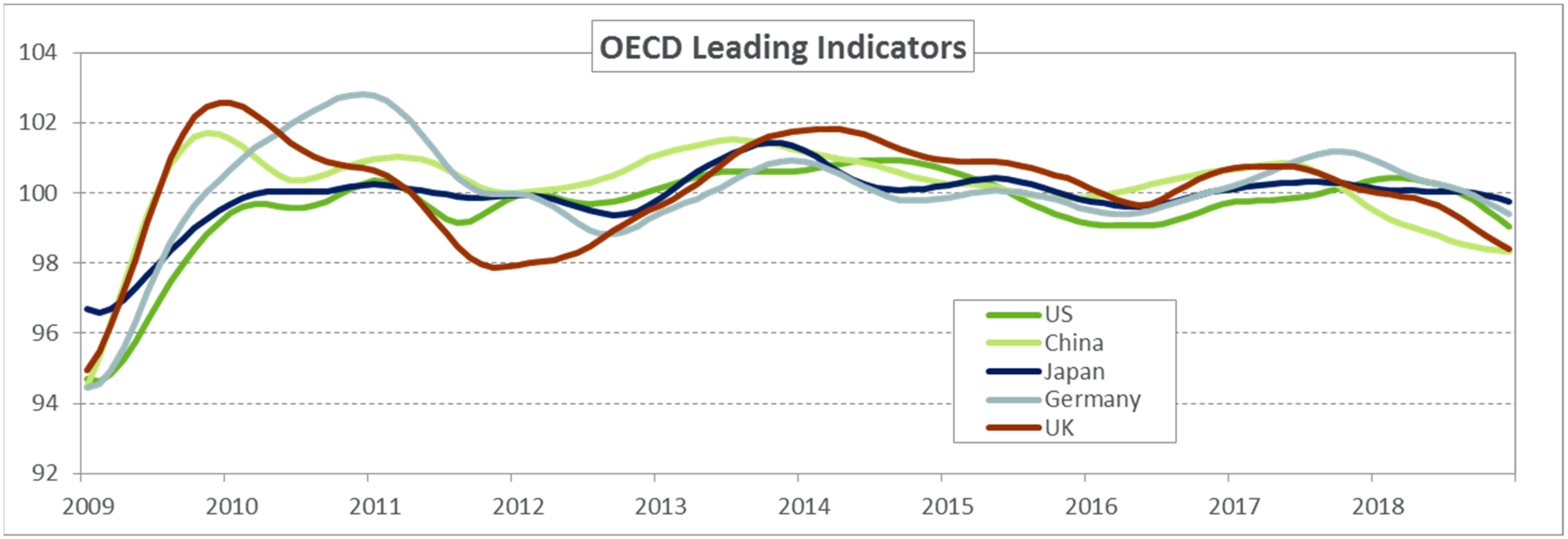


Source: Bureau of Labor Statistics, STA, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, ISTAT, IBGE, Bloomberg

ECONOMIC INDICATORS



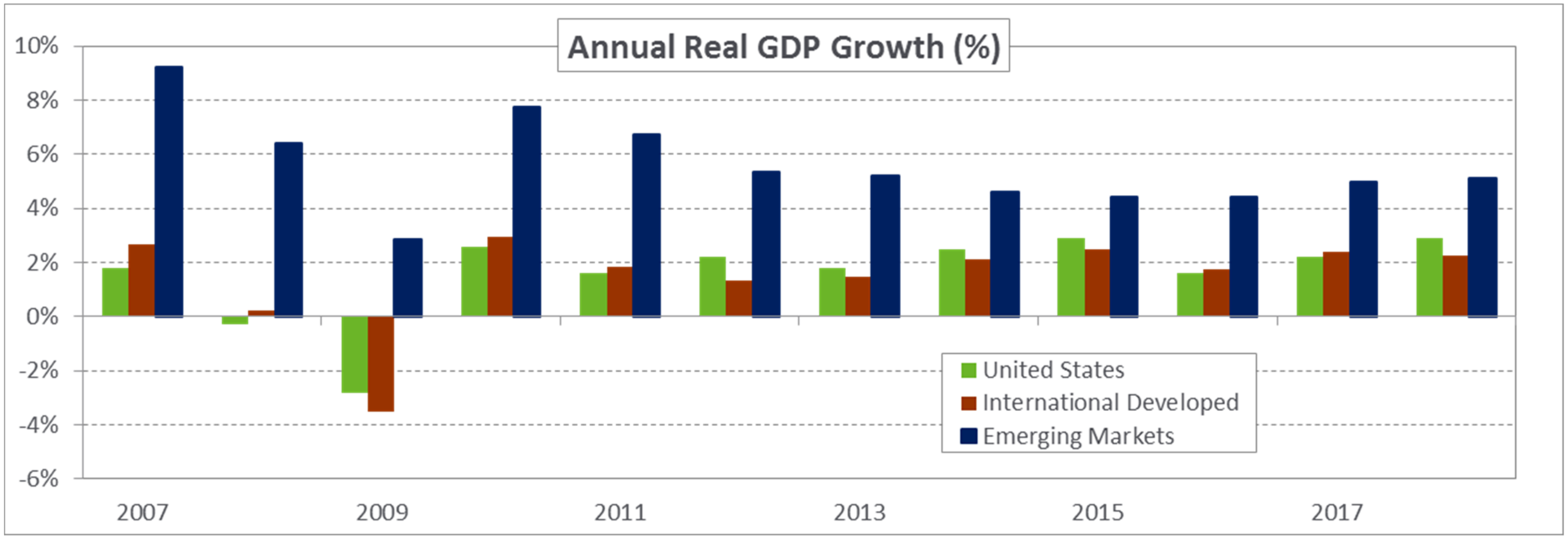
Source: IMF



Source: OECD, Bloomberg

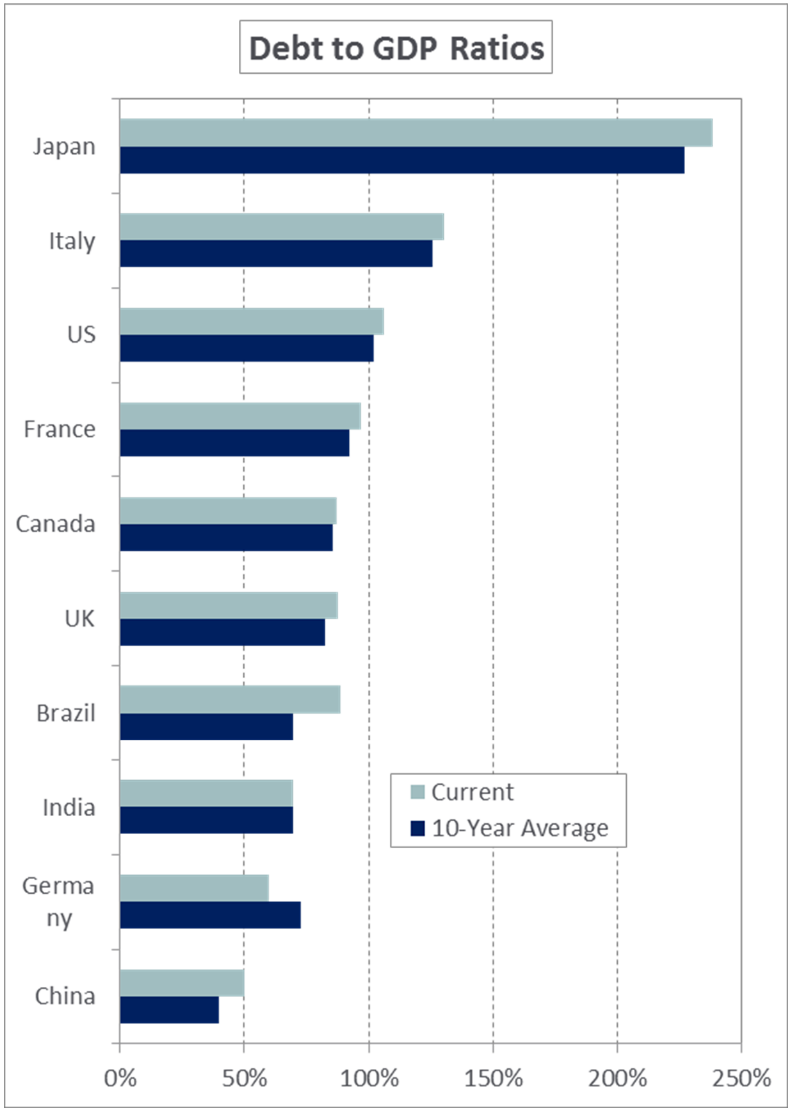
GROSS DOMESTIC PRODUCT

Source: Bloomberg

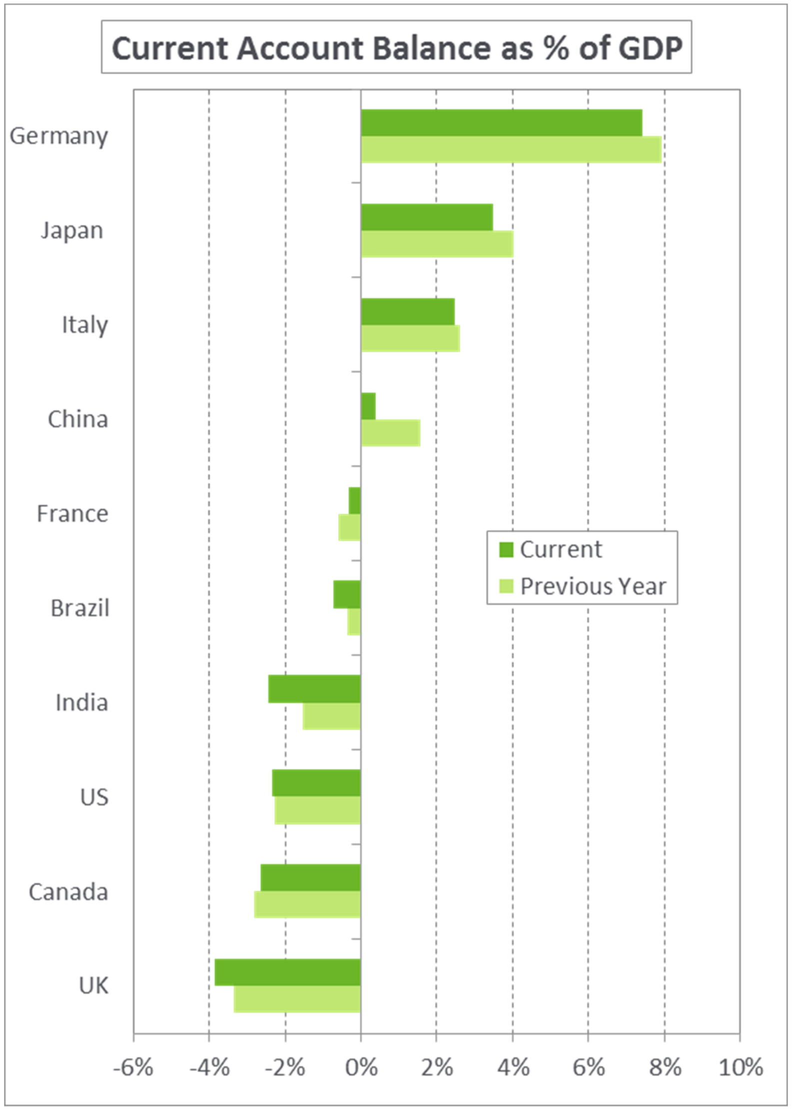


Source: Bloomberg

GROSS DOMESTIC PRODUCT METRICS

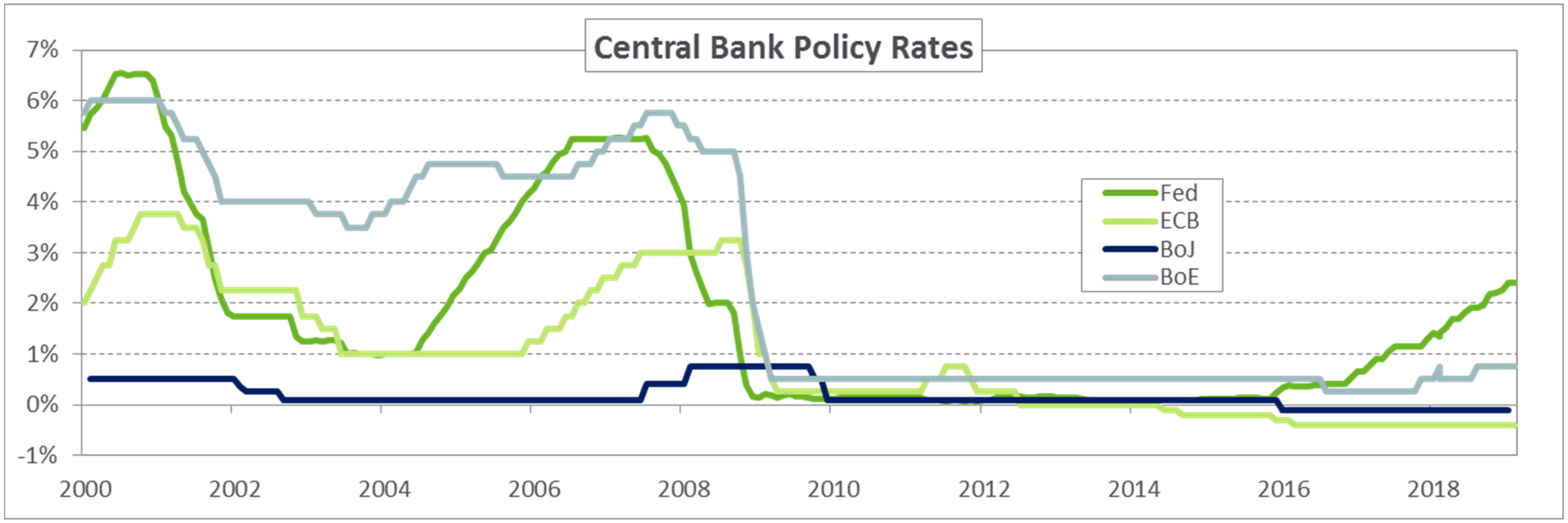


Source: IMF, Bloomberg

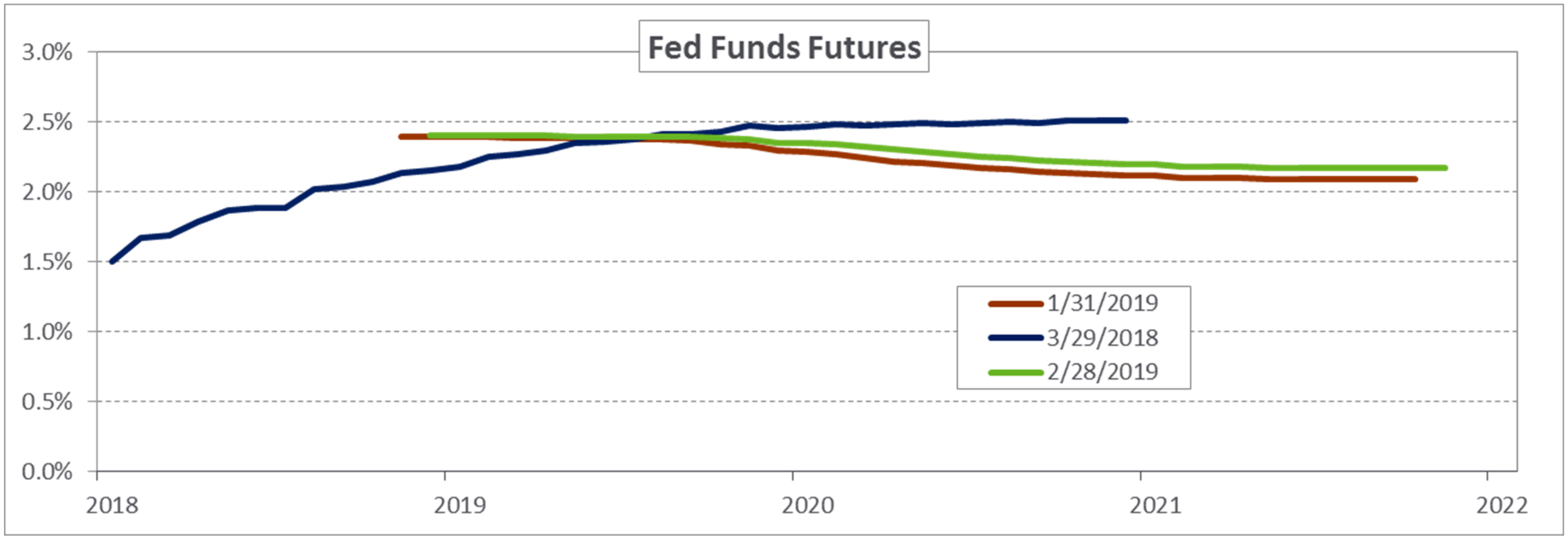


Source: Bloomberg

CENTRAL BANK RATES

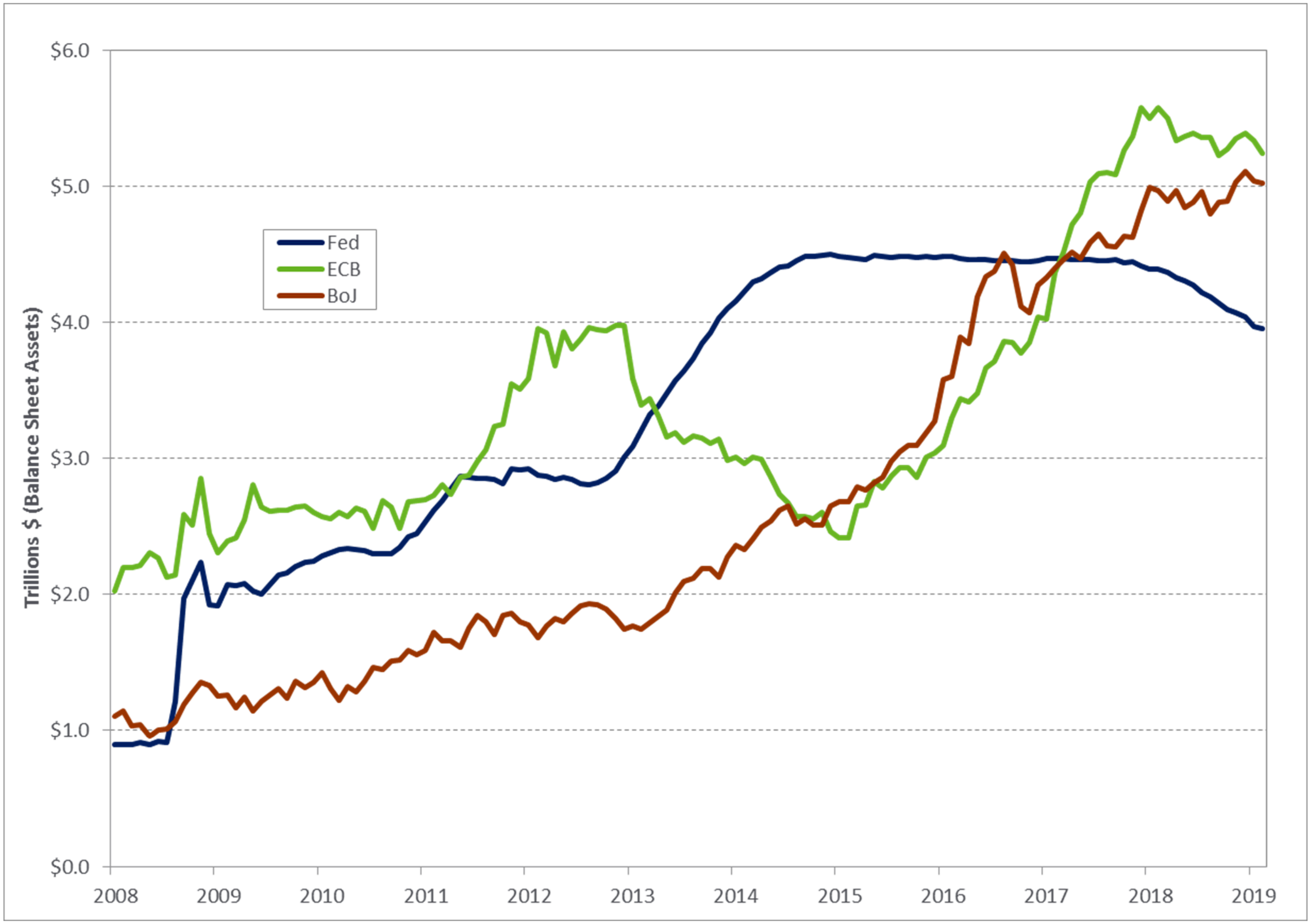


Source: Federal Reserve, ECB, Bank of Japan, Bank of England, Bloomberg



Source: Bloomberg

CENTRAL BANK BALANCE SHEETS

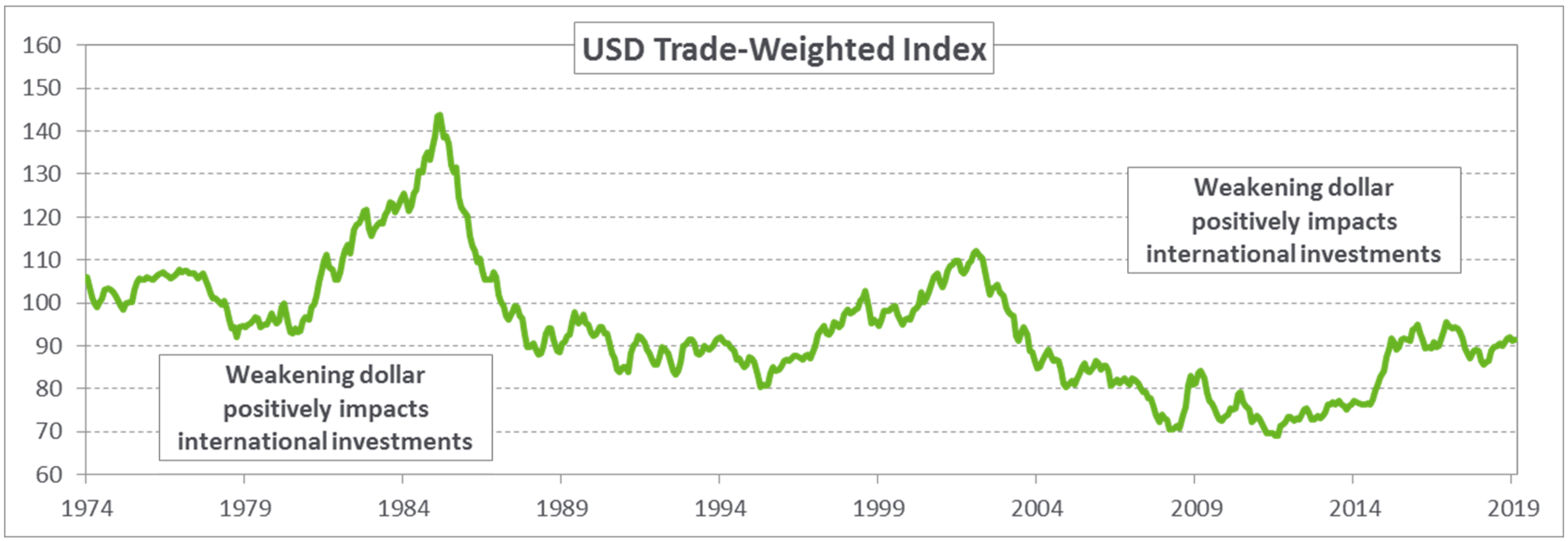


Source: Federal Reserve, Bank of Japan, ECB, Bloomberg, NEPC

CURRENCIES

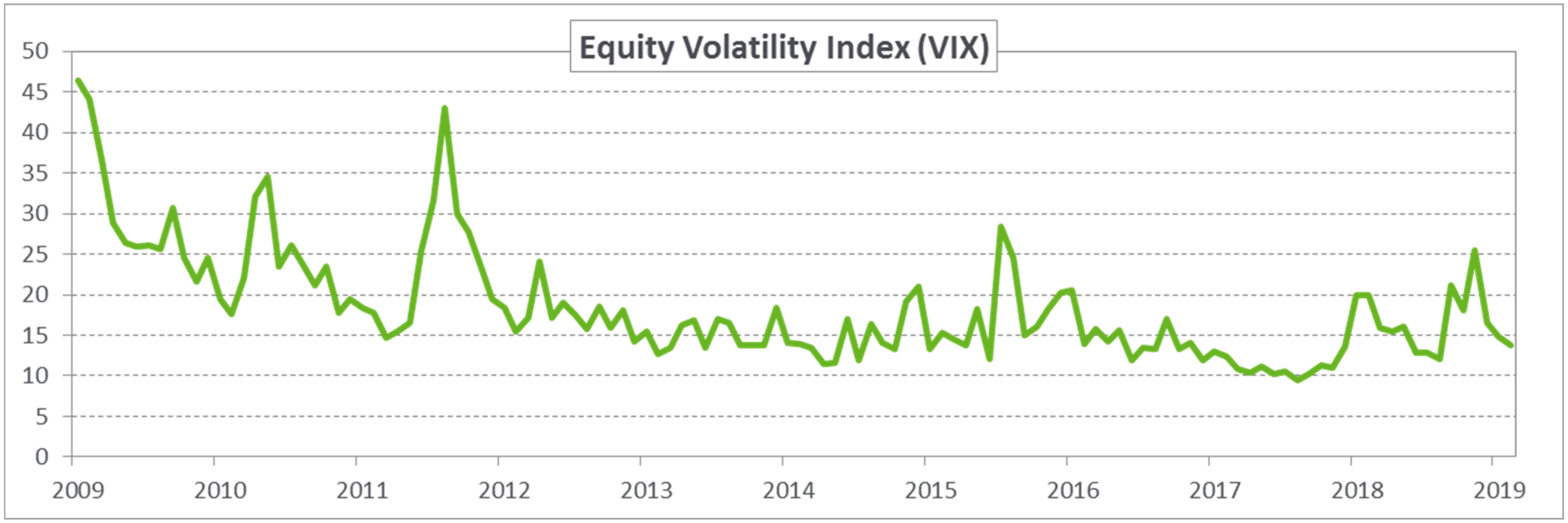
		% Change Relative to USD		
Currencies	**Spot**	**1 Month**	**YTD**	**1 Year**
Euro	1.12	-1.3%	-2.2%	-9.0%
British Pound	1.30	-1.7%	2.2%	-7.0%
Japanese Yen	110.86	0.5%	-1.1%	-4.1%
Swiss Franc	1.00	0.3%	-1.3%	-4.1%
Australian Dollar	0.71	0.0%	0.7%	-7.6%
Chinese Yuan	6.71	-0.3%	2.5%	-6.5%
Brazilian Real	3.92	-4.2%	-1.2%	-15.7%
Russian Ruble	65.63	0.4%	6.2%	-13.0%
Indian Rupee	69.15	2.3%	0.9%	-5.7%
Mexican Peso	19.43	-0.8%	1.1%	-6.4%
South African Rand	14.50	-2.9%	-1.1%	-18.3%

Source: Bloomberg

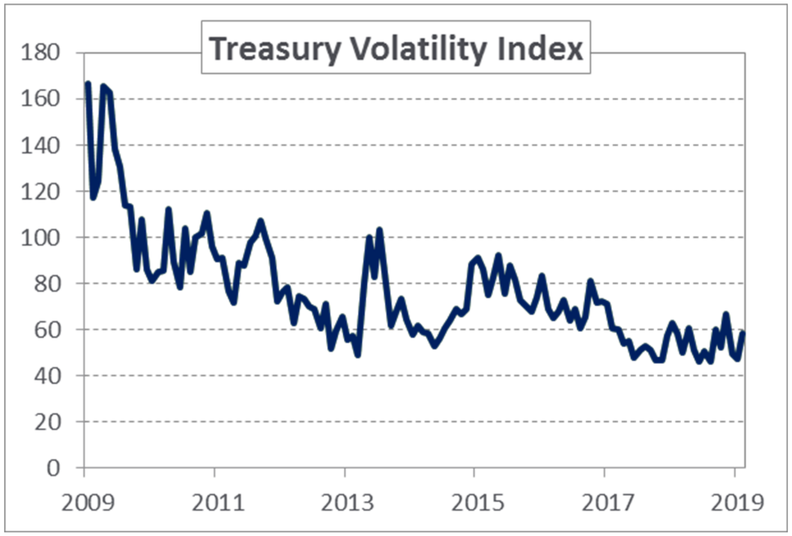


Source: Bloomberg

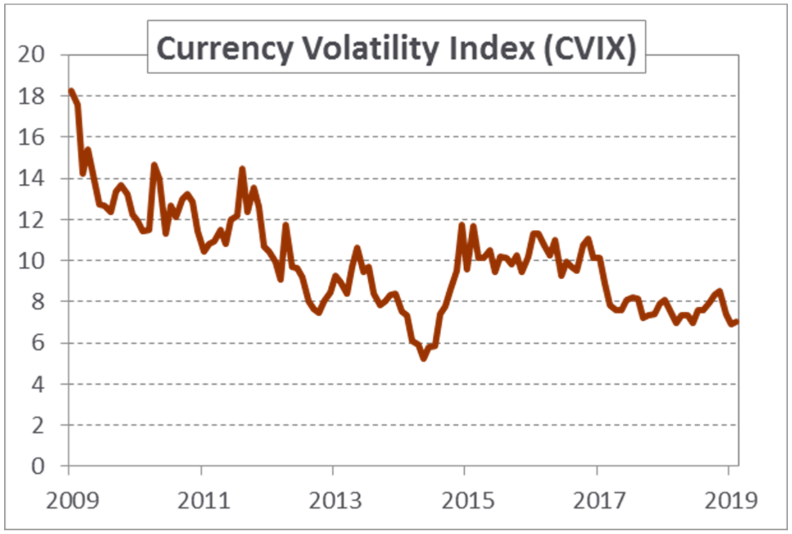
VOLATILITY



Source: CBOE, Bloomberg



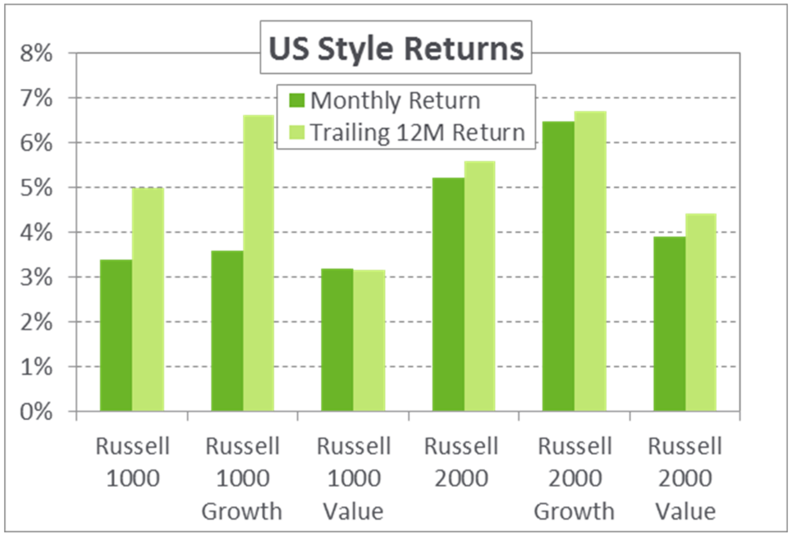
Source: Merrill Lynch, Bloomberg



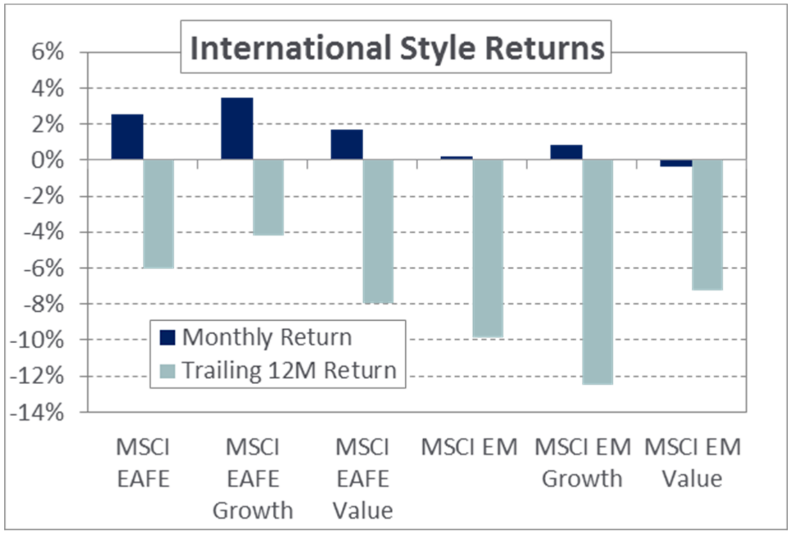
Source: Deutsche Bank, Bloomberg

EQUITY

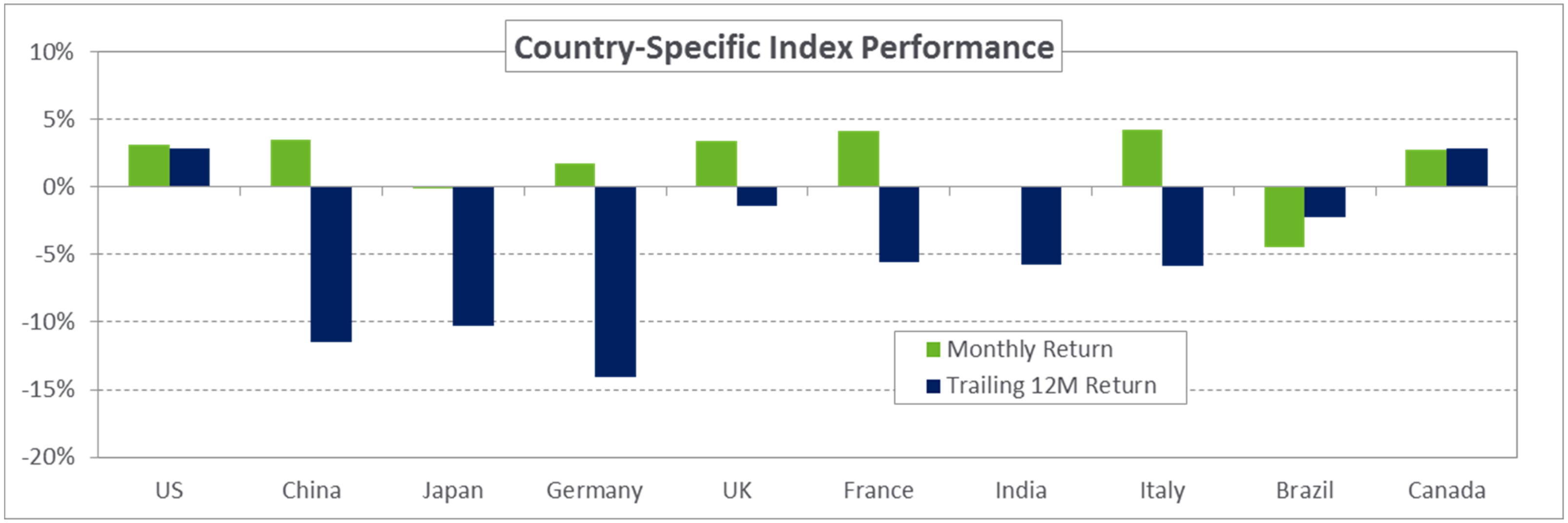
EQUITY INDEX PERFORMANCE



Source: Russell, Bloomberg



Source: MSCI, Bloomberg



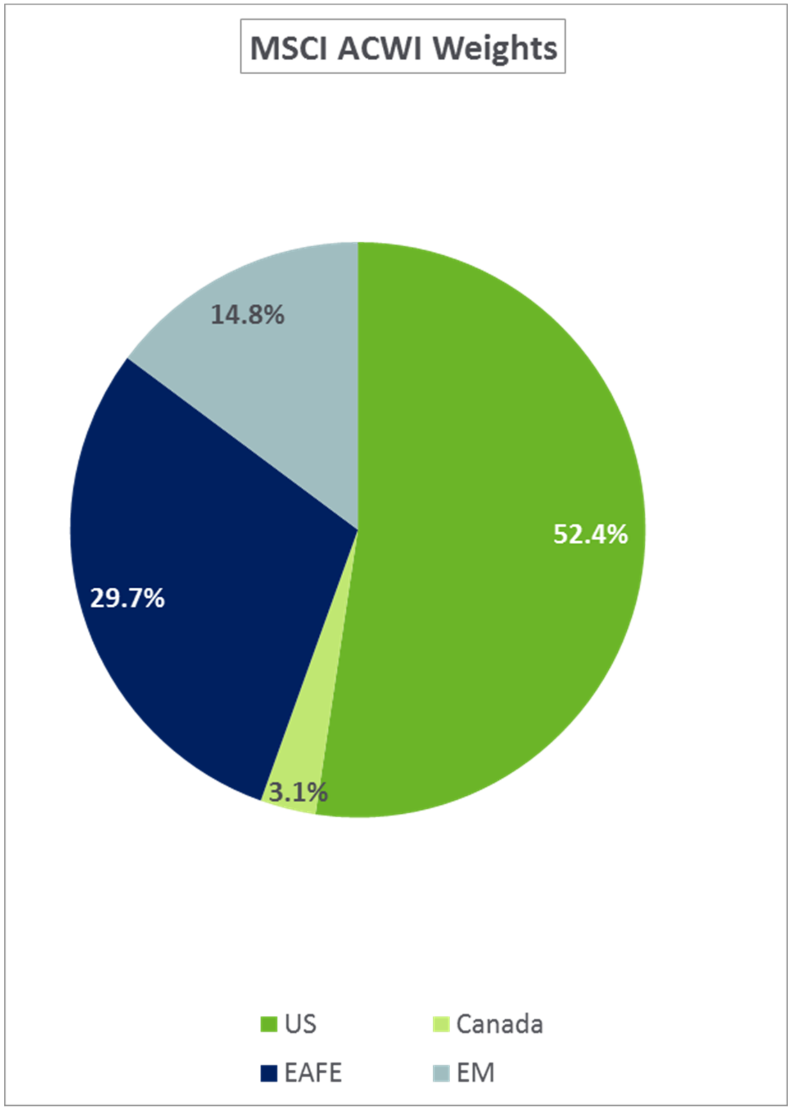
Source: MSCI, Bloomberg
Represents returns in USD

INDEX COMPOSITION

	MTD	QTD	YTD	Index Weight
S&P 500	**3.2%**	**11.5%**	**11.5%**	**100%**
Cons Disc	0.7%	11.1%	11.1%	10.0%
Cons Staples	2.2%	7.5%	7.5%	7.3%
Energy	2.4%	13.8%	13.8%	5.5%
Financials	2.3%	11.3%	11.3%	12.7%
Health Care	1.1%	6.0%	6.0%	15.0%
Industrials	6.3%	18.4%	18.4%	9.9%
Info Tech	6.8%	14.2%	14.2%	20.4%
Materials	3.2%	8.9%	8.9%	2.7%
Real Estate	1.0%	11.9%	11.9%	3.0%
Telecom	0.8%	11.2%	11.2%	10.2%
Utilities	4.0%	7.5%	7.5%	3.3%

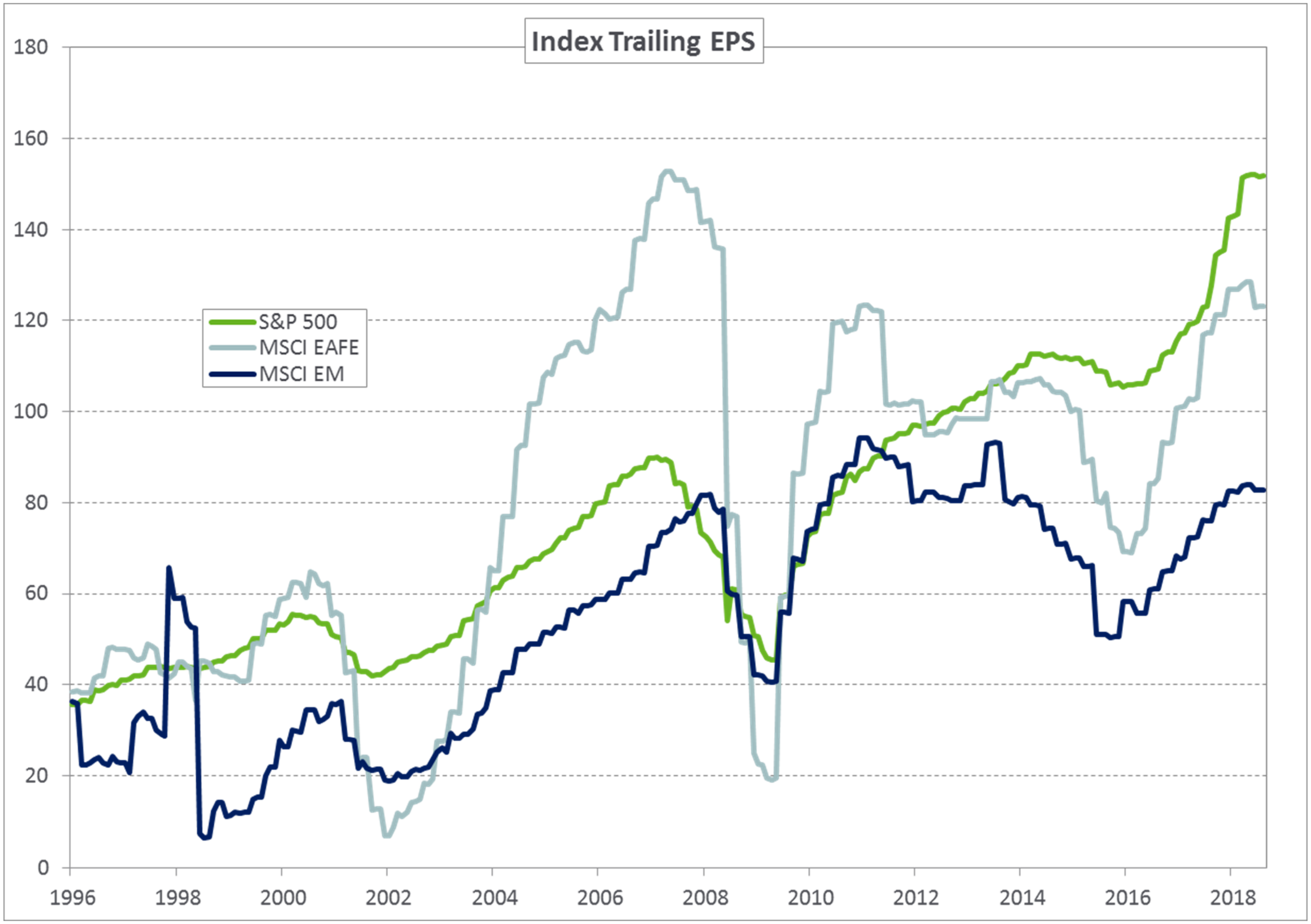
	MTD	QTD	YTD	Index Weight
MSCI ACWI	**2.7%**	**10.9%**	**10.9%**	**100%**
Cons Disc	1.6%	11.4%	11.4%	11.1%
Cons Staples	1.9%	7.1%	7.1%	8.1%
Energy	2.2%	12.8%	12.8%	6.1%
Financials	2.4%	10.8%	10.8%	17.7%
Health Care	1.9%	7.1%	7.1%	11.4%
Industrials	4.4%	14.2%	14.2%	10.9%
Info Tech	6.0%	14.3%	14.3%	14.5%
Materials	2.4%	10.0%	10.0%	4.9%
Real Estate	0.0%	10.5%	10.5%	3.3%
Telecom	0.3%	8.9%	8.9%	8.7%
Utilities	2.2%	7.5%	7.5%	3.3%

Source: S&P, MSCI, Bloomberg



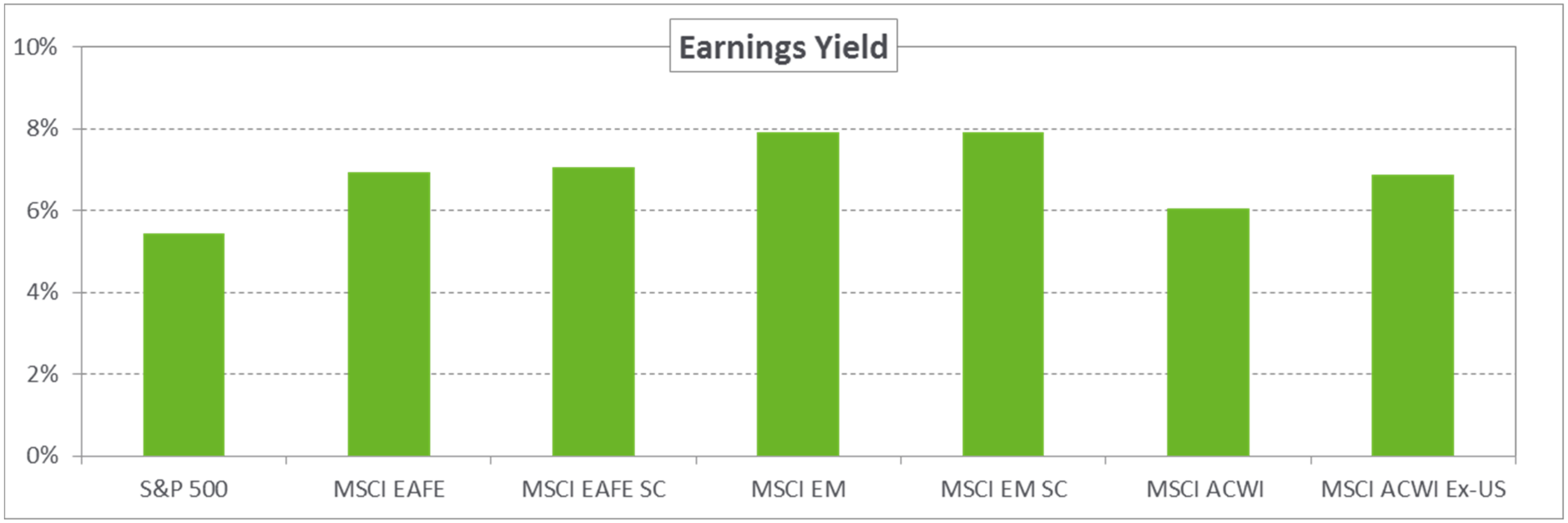
Source: MSCI, Bloomberg

EARNINGS

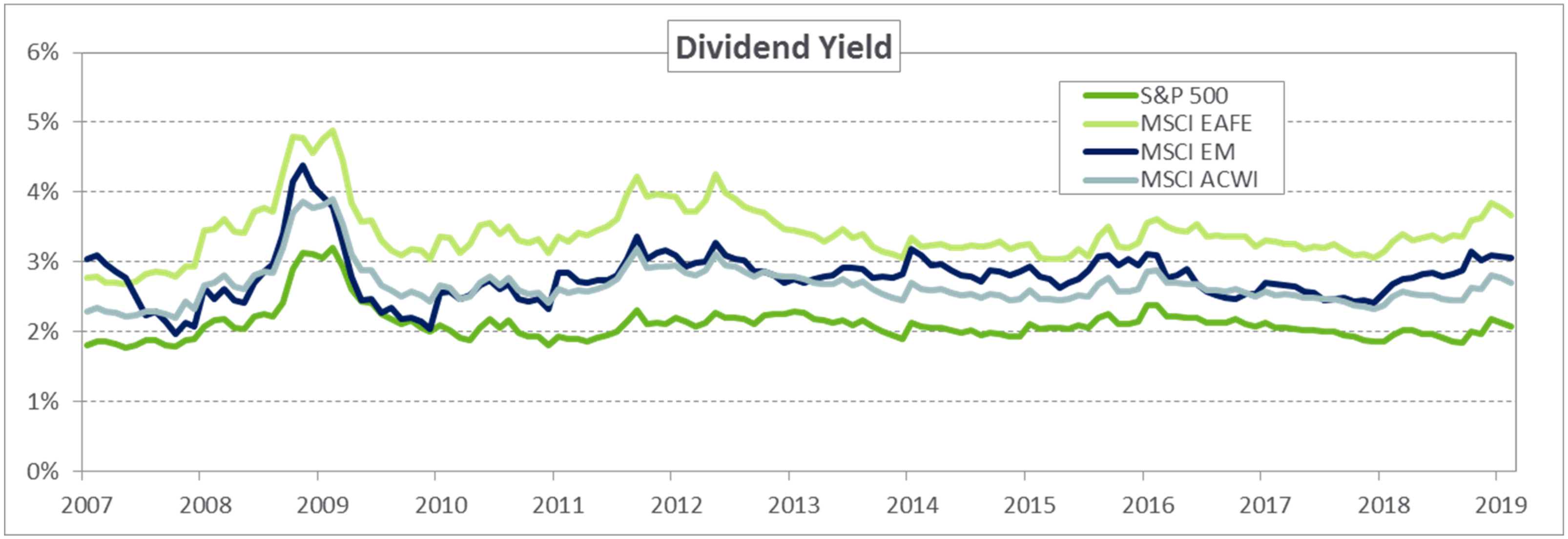


Source: S&P, MSCI, Bloomberg

YIELDS

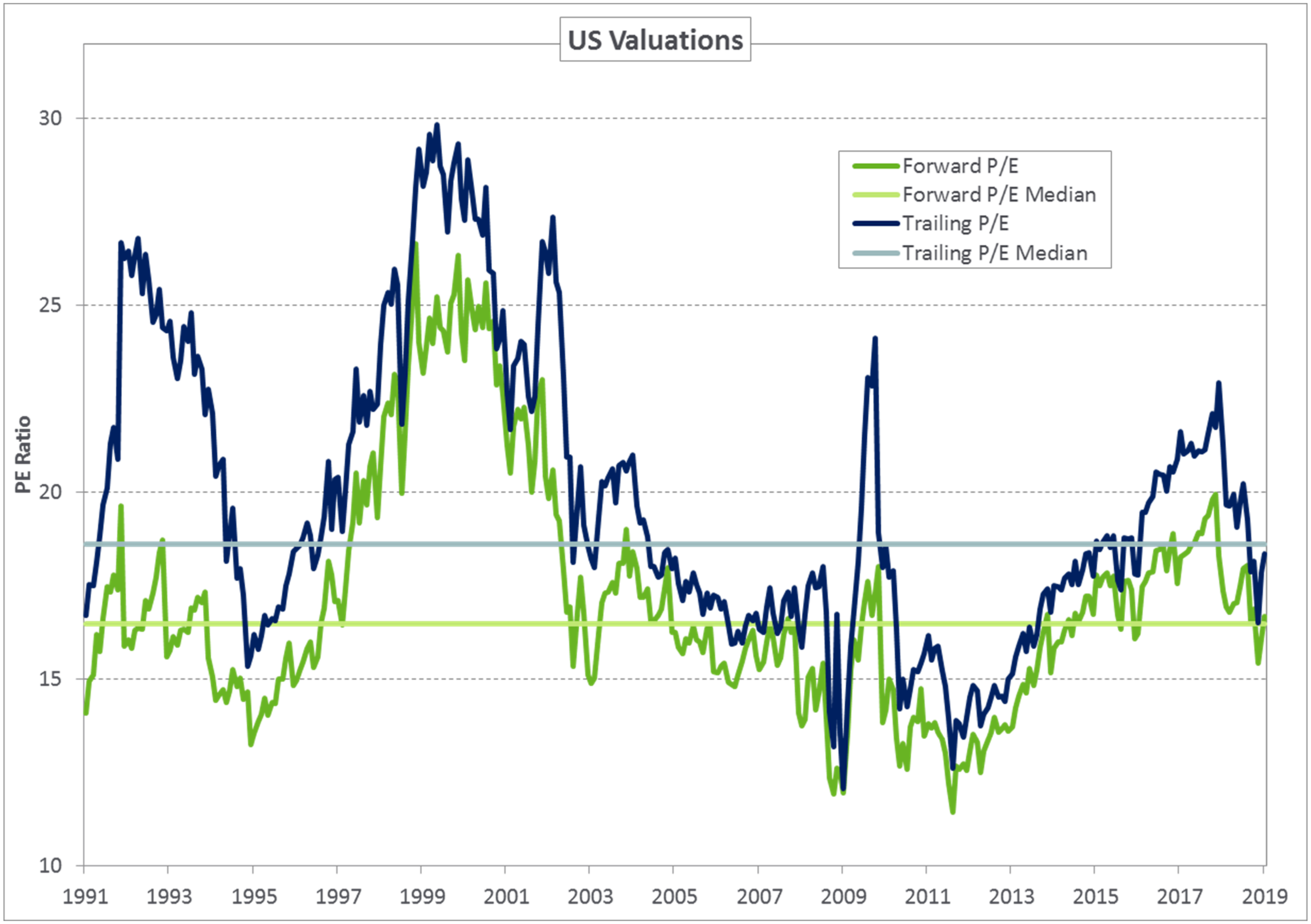


Source: S&P, MSCI, Bloomberg
Earnings yield calculated as 1/PE Ratio



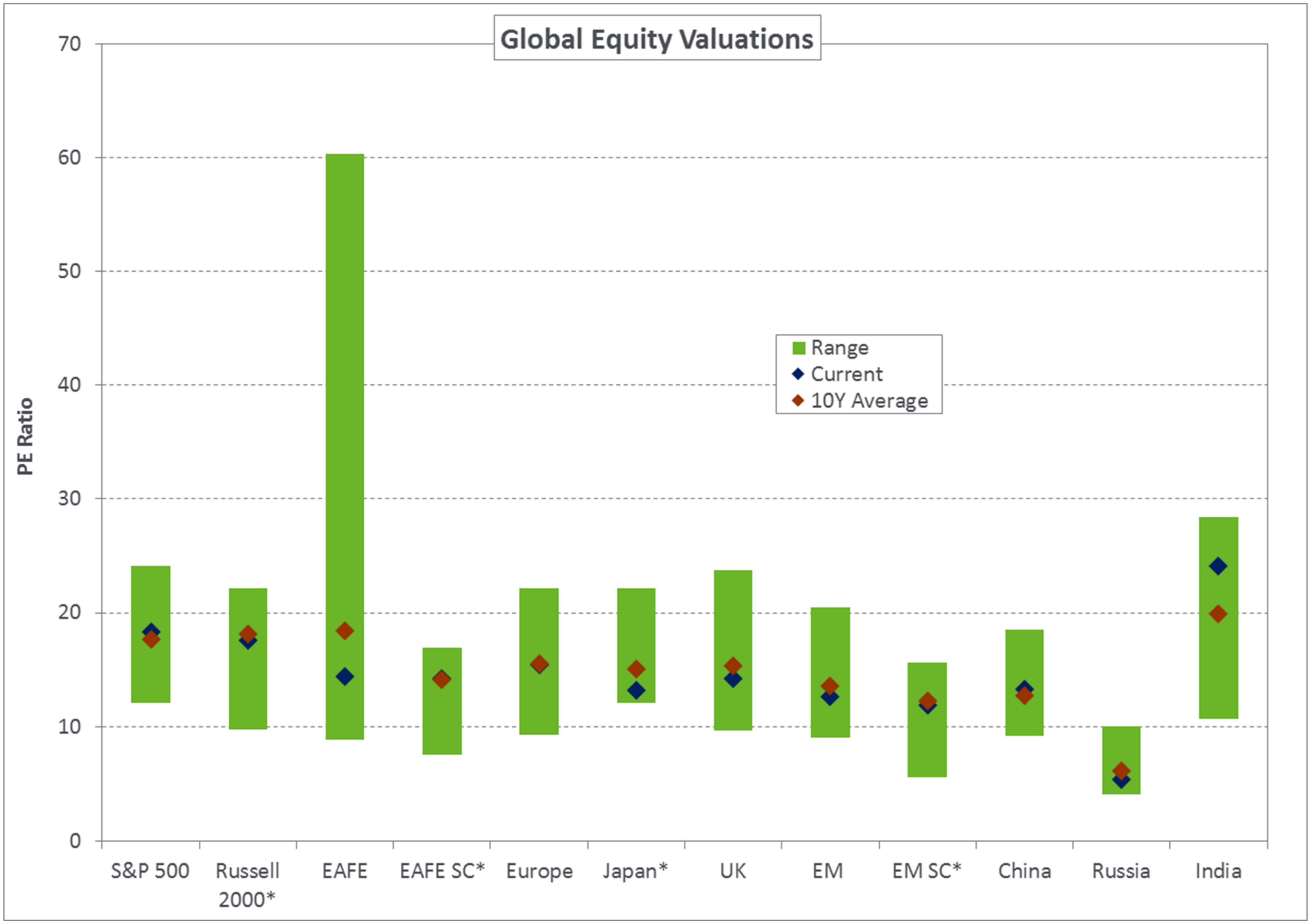
Source: S&P, MSCI, Bloomberg

US EQUITY VALUATIONS



Source: S&P, Bloomberg
Medians calculated as of 01/31/1990

GLOBAL EQUITY VALUATIONS



Source: S&P, Russell, MSCI, Bloomberg, NEPC
*Denotes the use of index-adjusted positive PE ratio
Ranges calculated using trailing 10-year figures

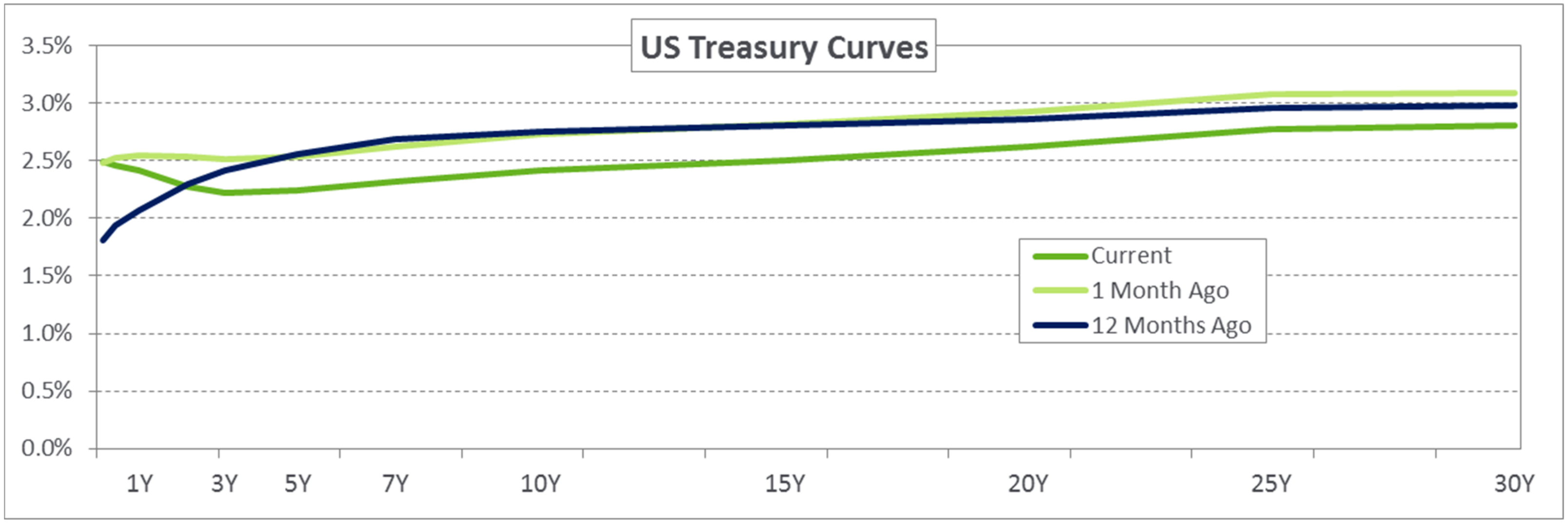
CREDIT

FIXED INCOME CHARACTERISTICS

	Averages			Total Returns (%)		
	Yield to Worst	Spread (bps)	Duration (Years)	1-Month	YTD	1-Year
Barclays Aggregate	2.9%	44	5.8	1.9%	2.9%	4.5%
Barclays Treasury	2.4%	-	6.2	1.9%	2.1%	4.2%
Barclays Agency	2.5%	13	4.1	1.4%	1.8%	3.7%
Barclays MBS	3.1%	35	4.0	1.5%	2.2%	4.4%
Barclays ABS	2.6%	33	2.4	0.7%	1.5%	3.7%
Barclays CMBS	3.0%	69	5.3	1.8%	3.2%	5.4%
Barclays Corp IG	3.6%	119	7.4	2.5%	5.1%	4.9%
Barclays Muni	2.3%	-	5.8	1.6%	2.9%	5.4%
Barclays HY Muni	4.7%	-	8.8	2.6%	3.8%	8.1%
Barclays TIPS	2.6%	-	5.2	1.8%	3.2%	2.7%
Barclays HY	6.4%	391	3.4	0.9%	7.3%	5.9%
Barclays Global Agg	1.8%	48	7.0	1.3%	2.2%	-0.4%
JPM EMBI Glob Div	6.1%	372.77	7.4	1.4%	7.0%	4.2%
JPM CEMBI Broad	4.5%	282.7	4.5	1.3%	5.2%	4.6%
JPM GBI - EM	6.2%	-	5.2	-1.3%	2.9%	-7.6%

Source: Barclays, JPM, Bloomberg

TREASURIES

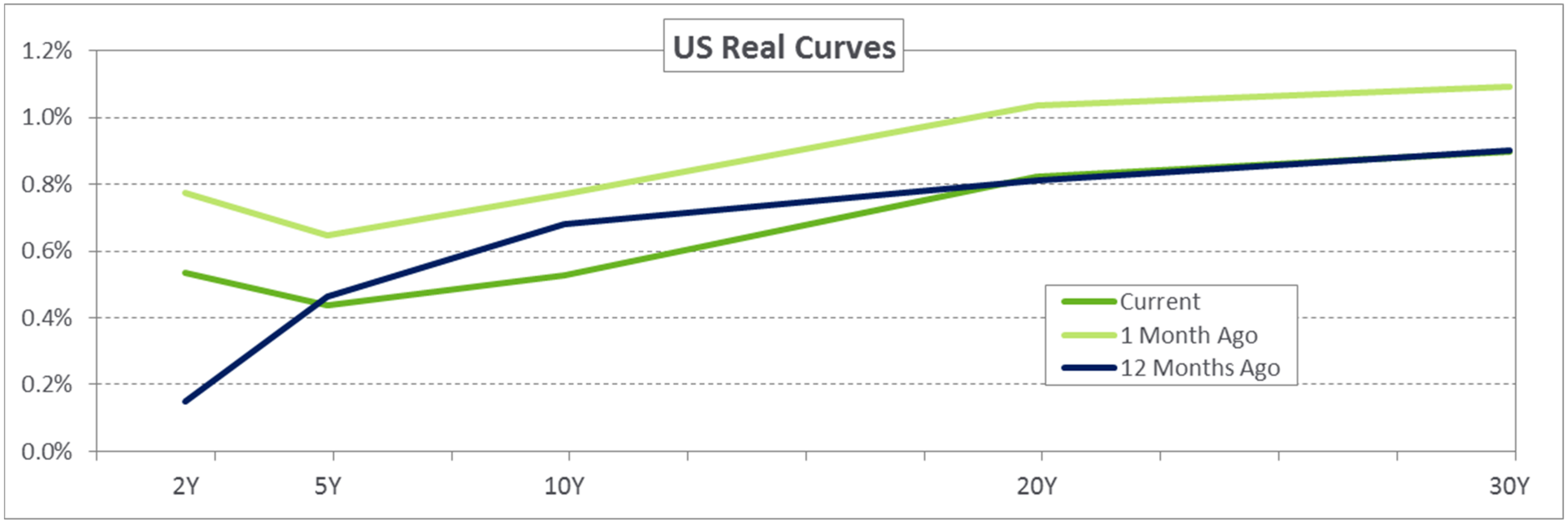


Source: Bloomberg

	Yield (%)			Total Return (%)	
	Current	1 Month Ago	12 Months Ago	1 Month	12 Months
3M Treasury	2.49%	2.49%	1.81%	0.21%	2.09%
6M Treasury	2.46%	2.52%	1.94%	0.23%	2.22%
2Y Treasury	2.28%	2.54%	2.30%	0.63%	2.56%
5Y Treasury	2.24%	2.54%	2.56%	1.49%	4.37%
10Y Treasury	2.41%	2.73%	2.75%	2.84%	5.60%
30Y Treasury	2.81%	3.09%	2.98%	5.60%	6.26%

Source: Barclays, Bloomberg

REAL YIELDS

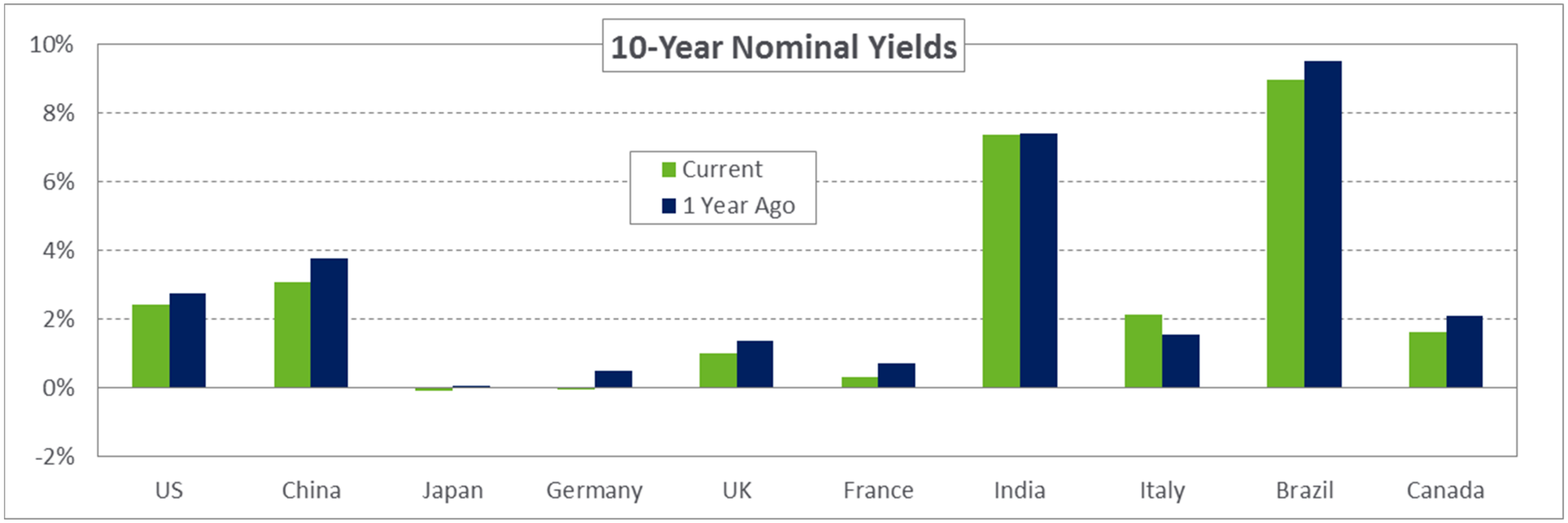


Source: Bloomberg

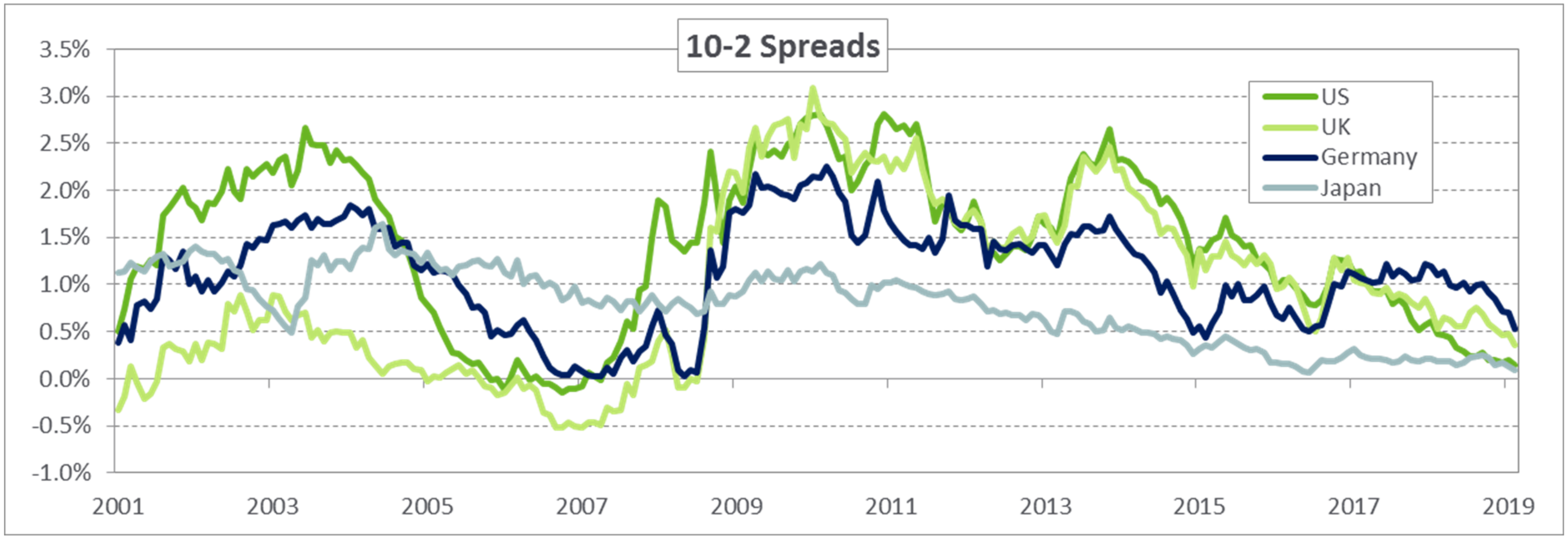
	Real Rates			Breakeven Rates	
	Current	1 Month Ago	12 Months Ago	Current	12 Months Ago
2Y Treasury	0.53%	0.78%	0.15%	1.83%	1.98%
5Y Treasury	0.44%	0.65%	0.47%	1.79%	2.04%
10Y Treasury	0.53%	0.77%	0.68%	1.87%	2.06%
20Y Treasury	0.82%	1.04%	0.81%	1.85%	2.00%
30Y Treasury	0.90%	1.09%	0.90%	1.92%	2.07%

Source: Barclays, Bloomberg

NOMINAL YIELDS

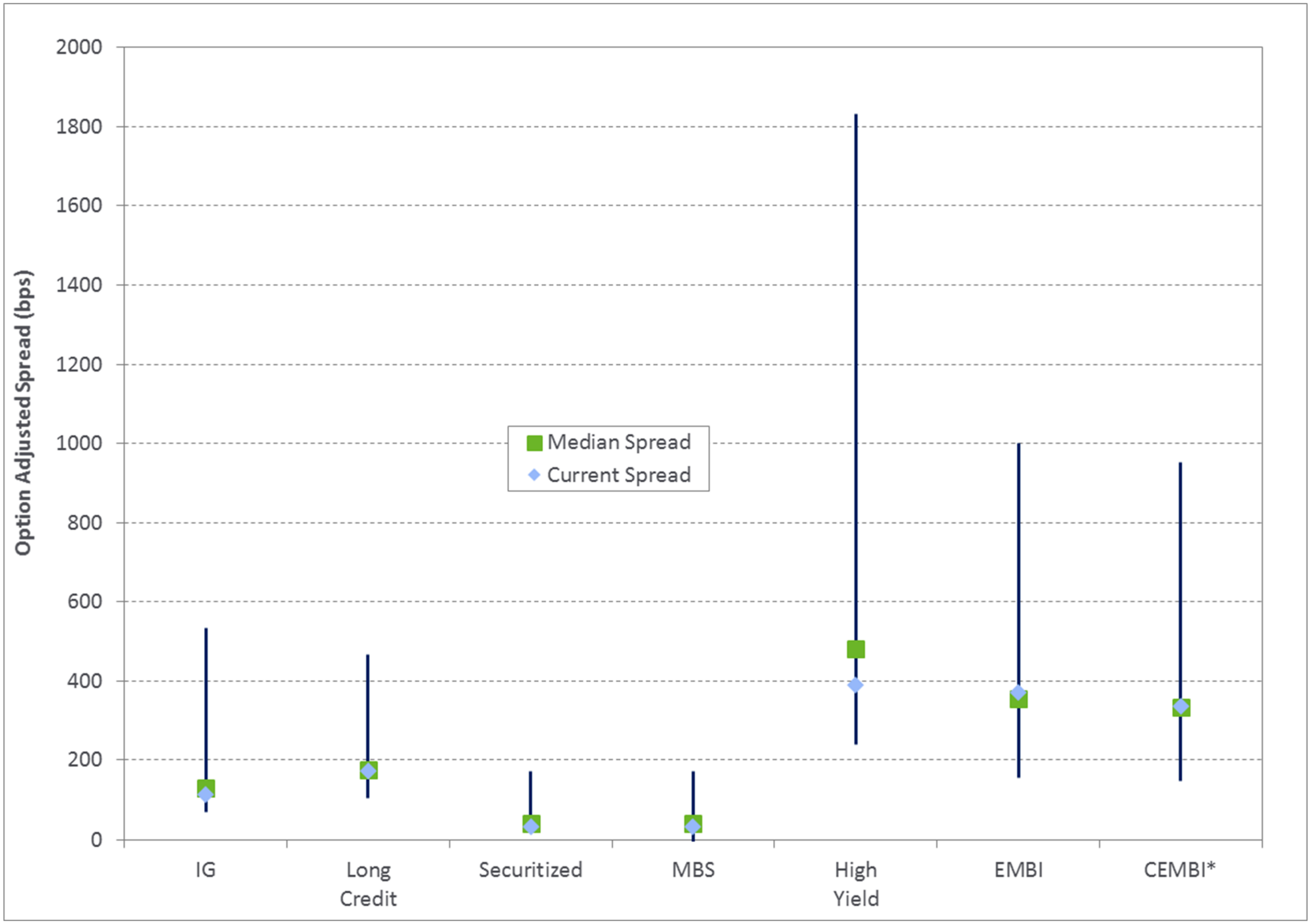


Source: Bloomberg



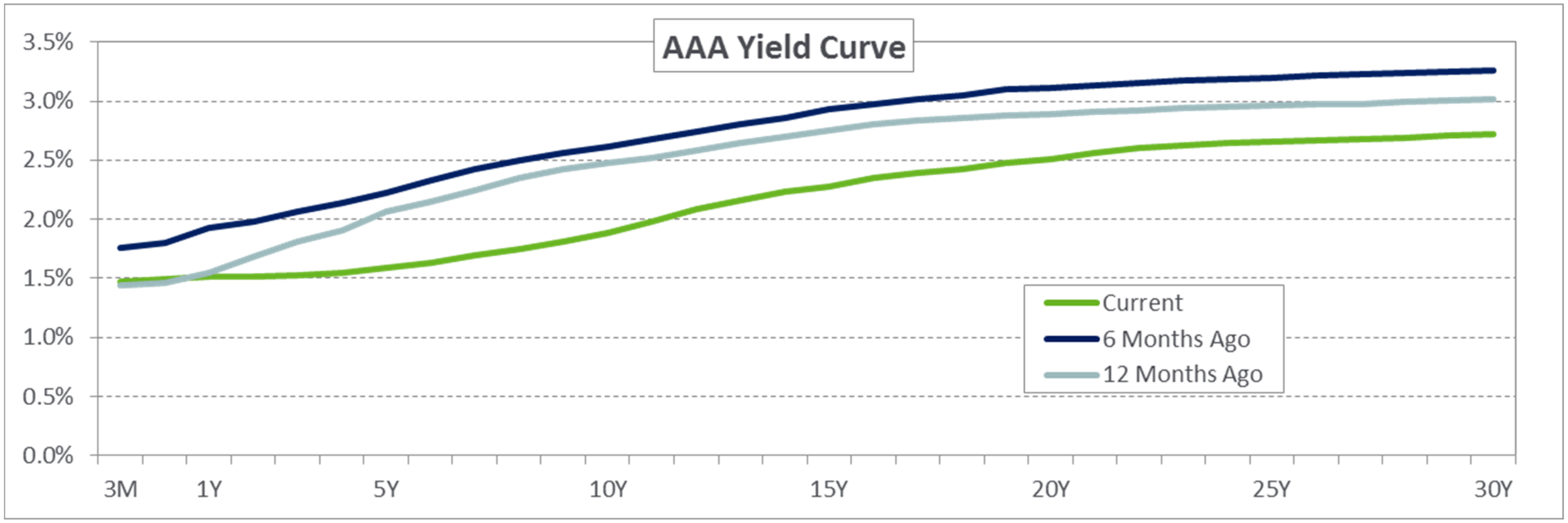
Source: Bloomberg

CREDIT SPREADS

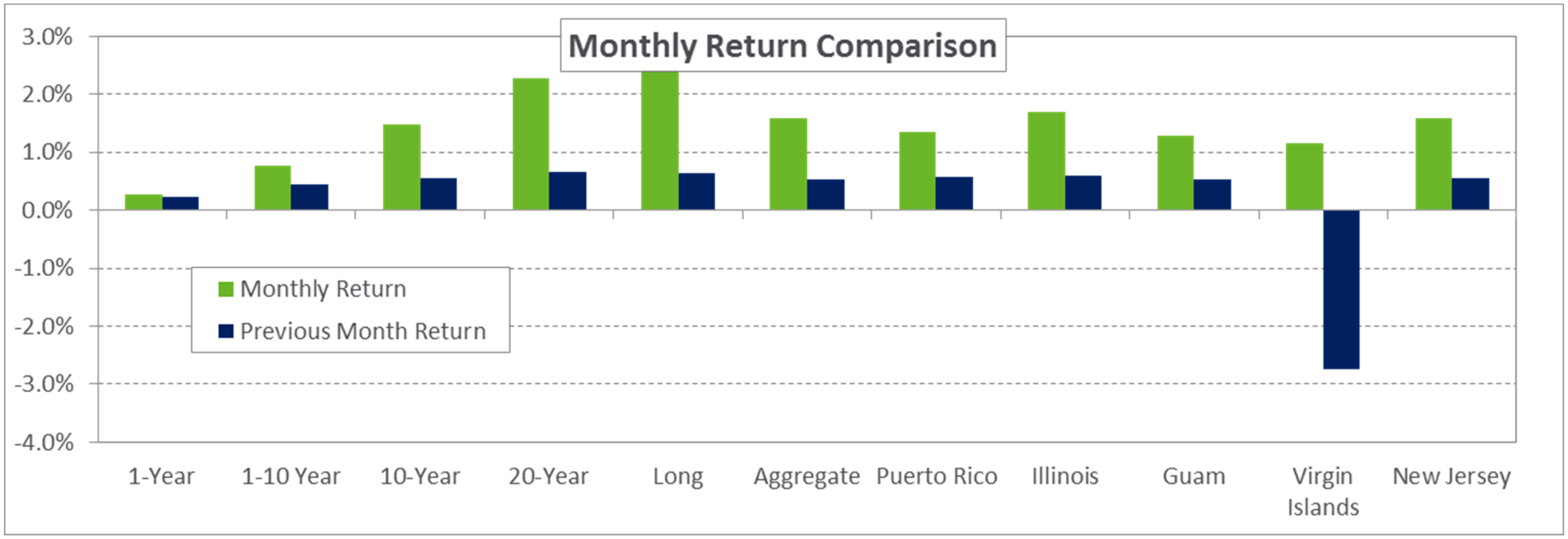


Source: Barclays, JPM, Bloomberg
Data range: 01/31/2000 through month-end
*JPM CEMBI calculated since 12/31/2001

MUNICIPAL BONDS

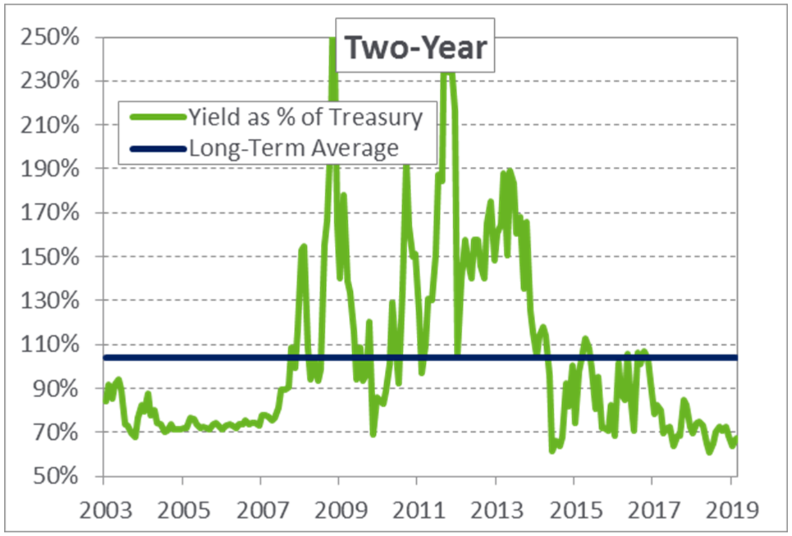


Source: Bloomberg

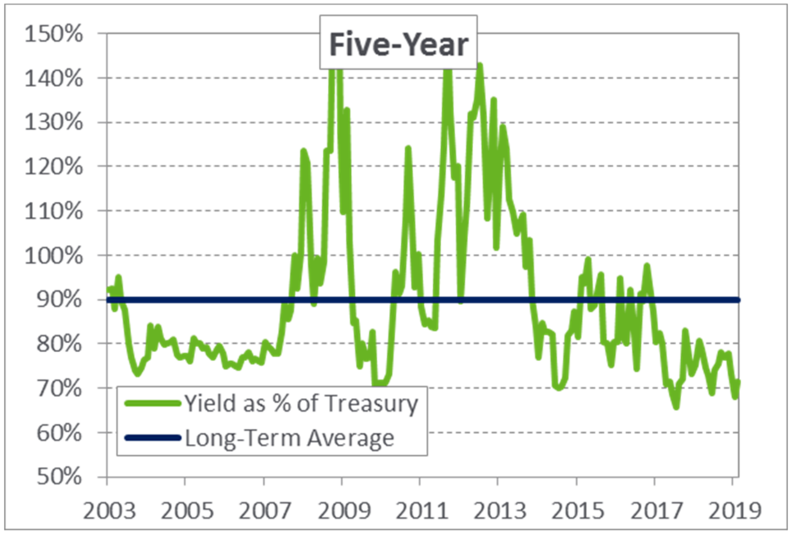


Source: Barclays, Bloomberg

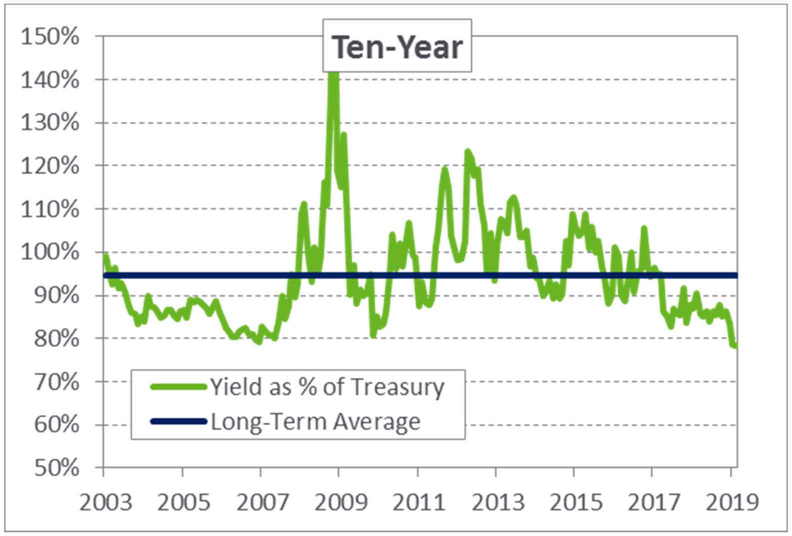
MUNICIPAL BOND YIELDS



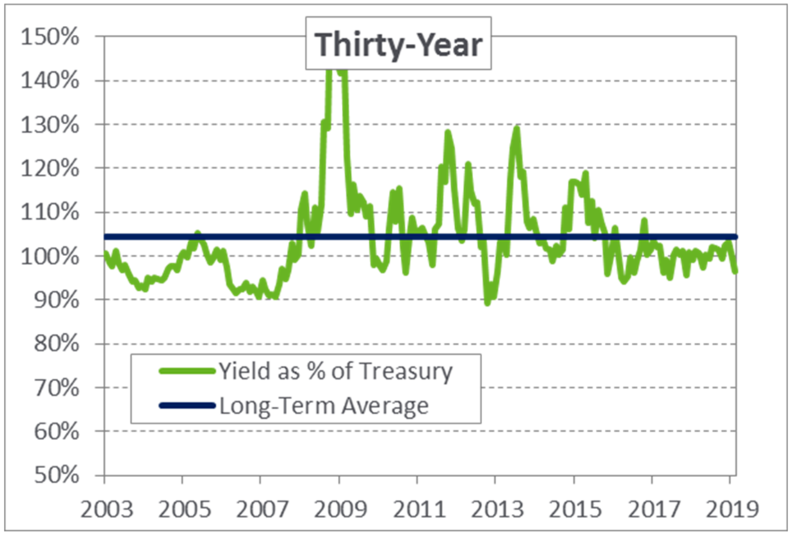
Source: Bloomberg
Long-term average calculated since 2/28/2003



Source: Bloomberg
Long-term average calculated since 2/28/2003

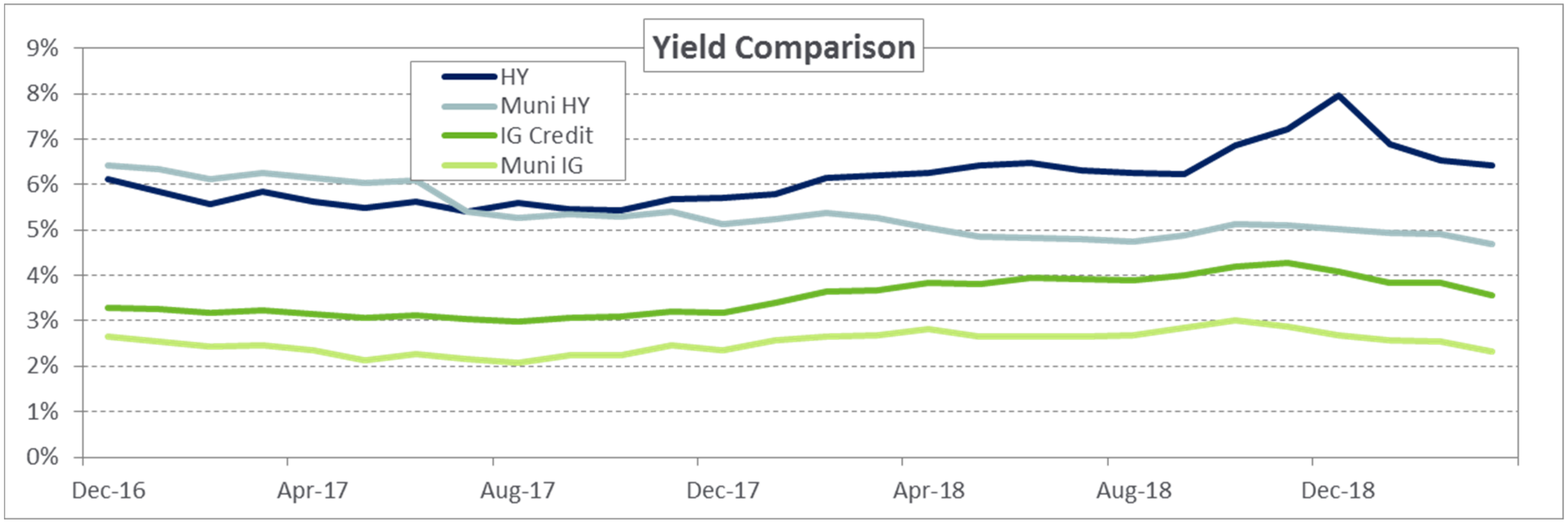


Source: Bloomberg
Long-term average calculated since 2/28/2003

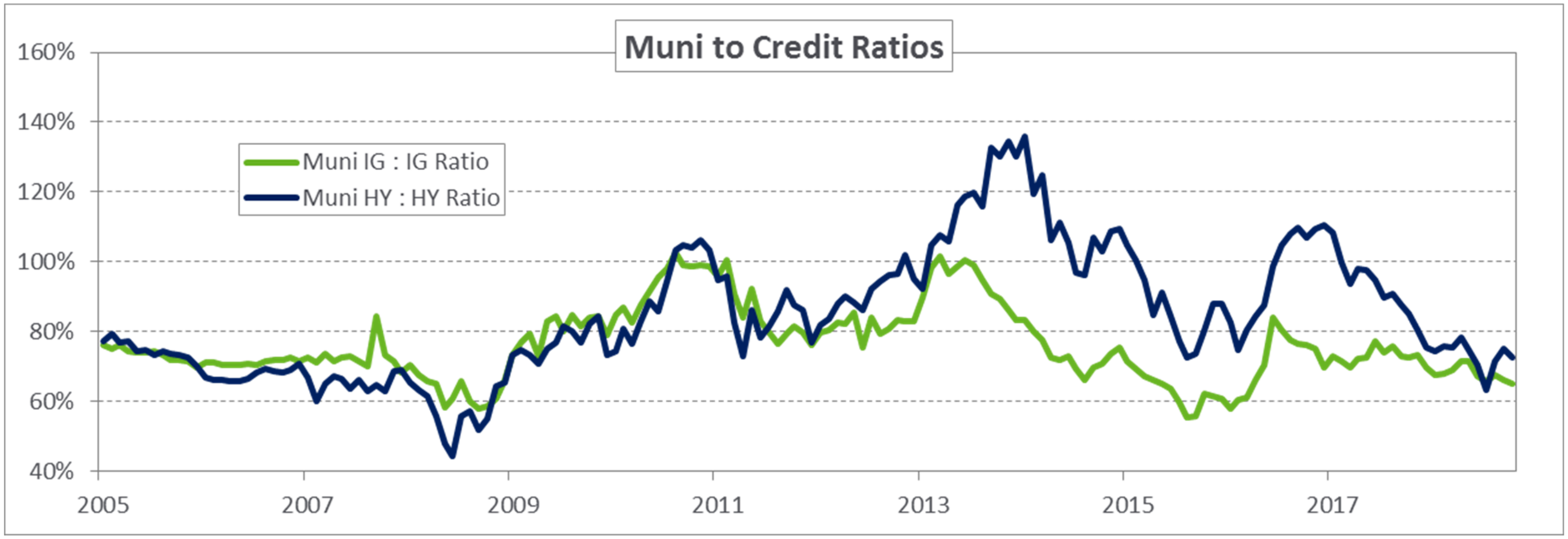


Source: Bloomberg
Long-term average calculated since 2/28/2003

MUNICIPAL BOND RATIOS

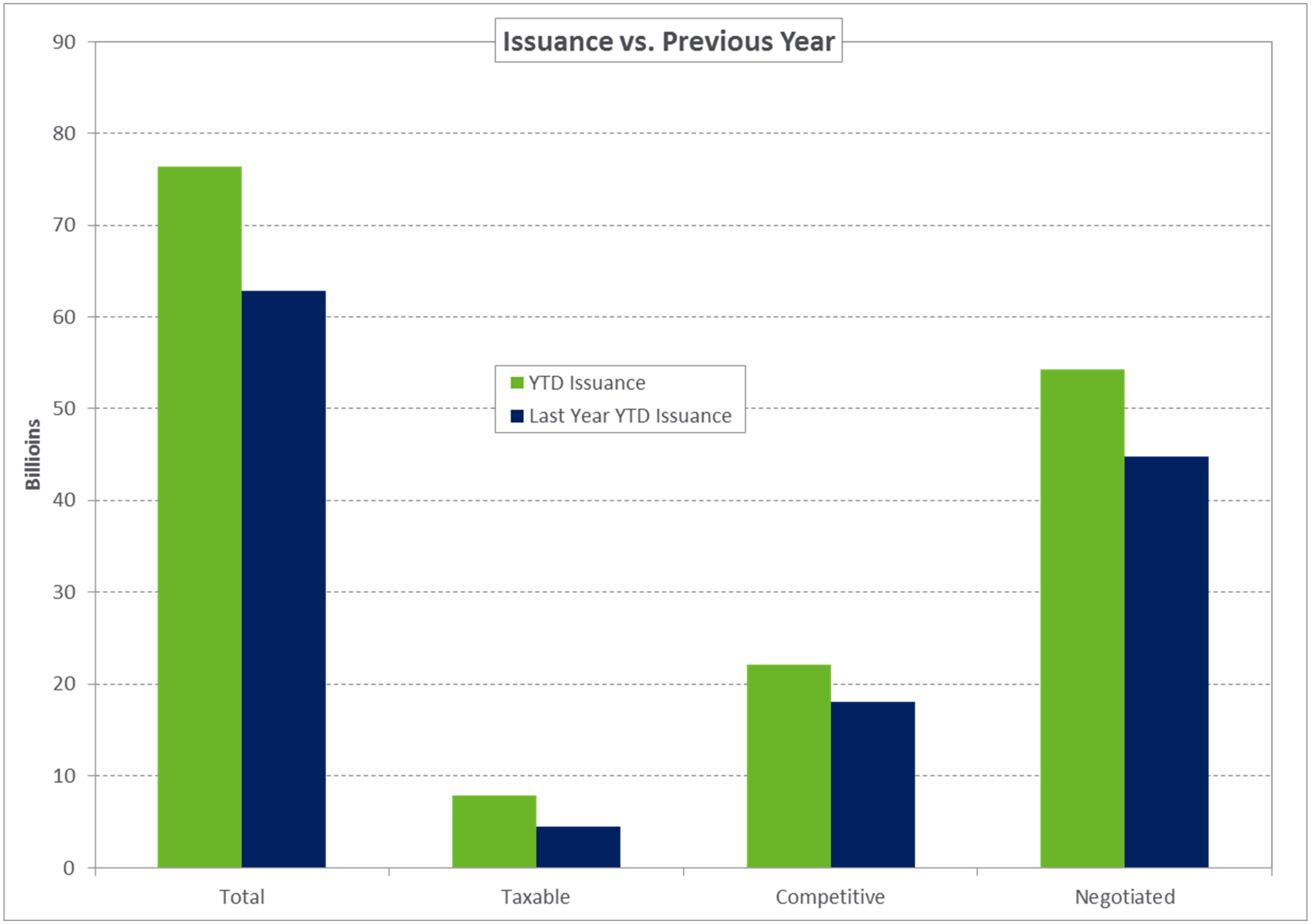


Source: Barclays, Bloomberg



Source: Barclays, Bloomberg, NEPC

MUNICIPAL BOND ISSUANCE

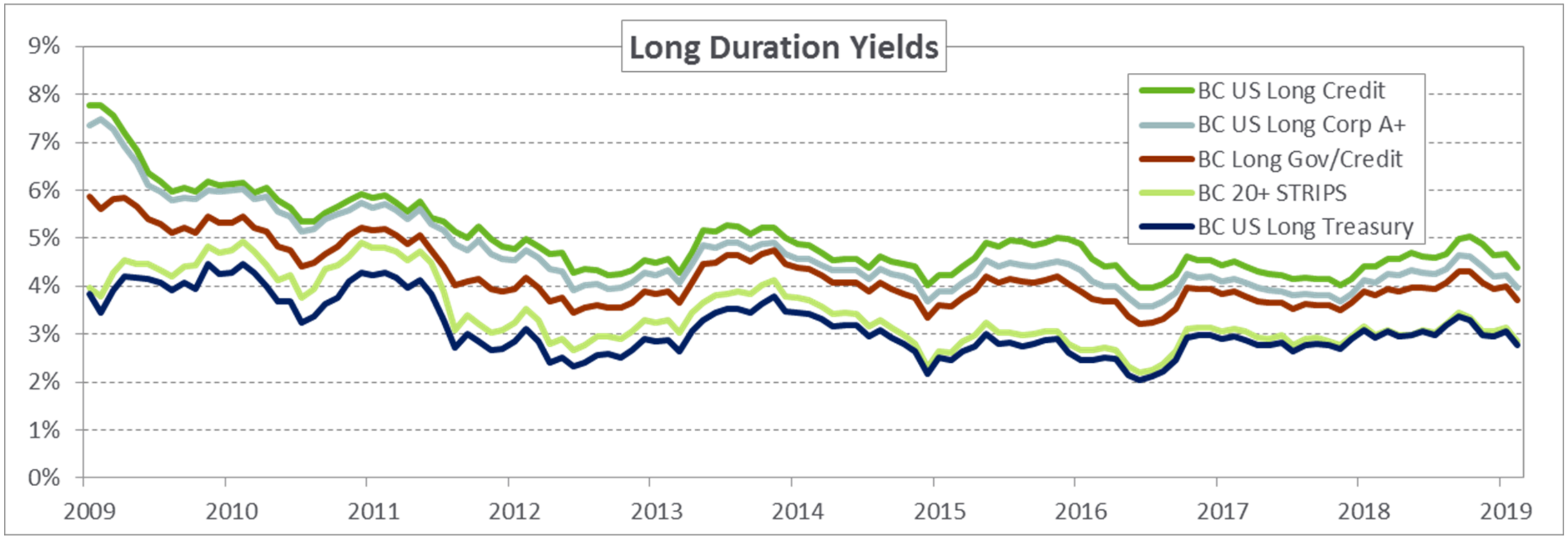


Source: Bloomberg

LONG DURATION

Index	Month-End Yield	1 Month Prior Yield	1 Year Prior Yield	Duration
Barclays Long Treasury	2.8%	3.1%	2.9%	17.7
Barclays 20+ STRIPS	2.9%	3.1%	3.0%	25.9
Barclays Long Gov/Credit	3.7%	4.0%	3.8%	15.3
Barclays Long Credit	4.4%	4.7%	4.4%	13.7
Barclays Long Corp A+	4.0%	4.2%	4.1%	14.5

Source: Barclays, Bloomberg



Source: Barclays, Bloomberg

REAL ASSETS

NEPC, LLC

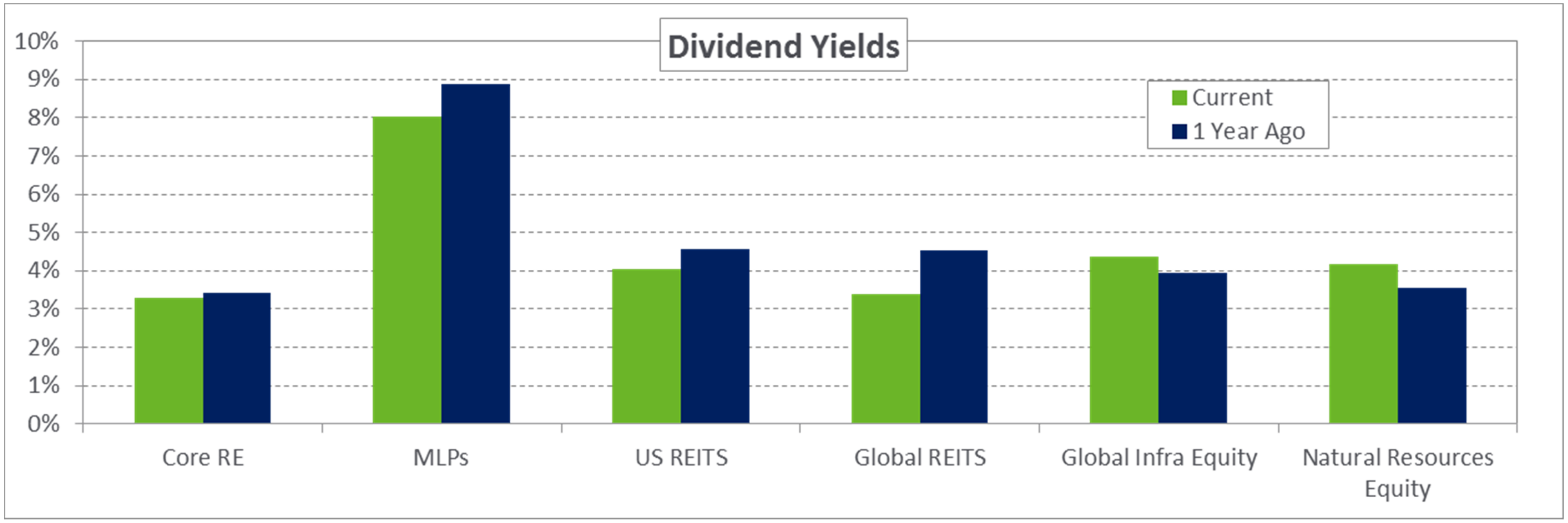
REAL ASSETS INDEX PERFORMANCE

Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	**-0.2%**	**6.3%**	**6.3%**	**-5.3%**	**2.2%**	**-8.9%**
Bloomberg Sub Agriculture Index	**-2.2%**	**-3.2%**	**-3.2%**	**-16.3%**	**-8.0%**	**-12.4%**
Coffee	-3.8%	-9.5%	-9.5%	-28.0%	-17.7%	-19.9%
Corn	-3.7%	-6.3%	-6.3%	-17.8%	-9.8%	-15.8%
Cotton	6.8%	6.2%	6.2%	-4.0%	10.2%	-2.0%
Soybean	-2.9%	-2.7%	-2.7%	-21.6%	-5.8%	-9.2%
Soybean Oil	-6.2%	0.7%	0.7%	-16.2%	-10.7%	-10.9%
Sugar	-1.8%	5.8%	5.8%	-4.8%	-10.9%	-15.0%
Wheat	-0.2%	-9.0%	-9.0%	-8.7%	-14.4%	-17.5%
Bloomberg Sub Energy	**0.7%**	**15.9%**	**15.9%**	**-0.5%**	**7.5%**	**-16.7%**
Brent Crude	1.9%	25.2%	25.2%	1.1%	15.3%	-15.0%
Heating Oil	-2.3%	19.3%	19.3%	0.9%	15.3%	-11.2%
Natural Gas	-5.5%	-7.9%	-7.9%	-1.3%	-6.2%	-24.8%
Unleaded Gas	6.8%	26.7%	26.7%	-9.9%	4.1%	-13.1%
WTI Crude Oil	4.6%	30.2%	30.2%	-4.9%	9.6%	-18.4%
Bloomberg Sub Industrial Metals	**0.9%**	**12.8%**	**12.8%**	**-3.1%**	**11.3%**	**0.1%**
Aluminum	-0.2%	3.2%	3.2%	-2.5%	7.3%	-1.0%
Copper	-0.2%	12.0%	12.0%	-3.6%	8.9%	-1.6%
Nickel	-0.5%	21.5%	21.5%	-2.5%	14.2%	-5.1%
Zinc	6.1%	20.6%	20.6%	-4.4%	19.9%	8.5%
Bloomberg Sub Precious Metals	**-2.0%**	**0.0%**	**0.0%**	**-4.0%**	**0.2%**	**-1.9%**
Gold	-1.6%	0.9%	0.9%	-2.8%	0.8%	-0.4%
Silver	-3.2%	-2.8%	-2.8%	-7.9%	-2.0%	-6.4%
Bloomberg Sub Livestock	**6.3%**	**4.7%**	**4.7%**	**14.4%**	**0.7%**	**-4.3%**
Lean Hogs	23.7%	6.8%	6.8%	6.5%	-4.0%	-12.6%
Live Cattle	-1.9%	2.4%	2.4%	17.2%	2.8%	0.7%

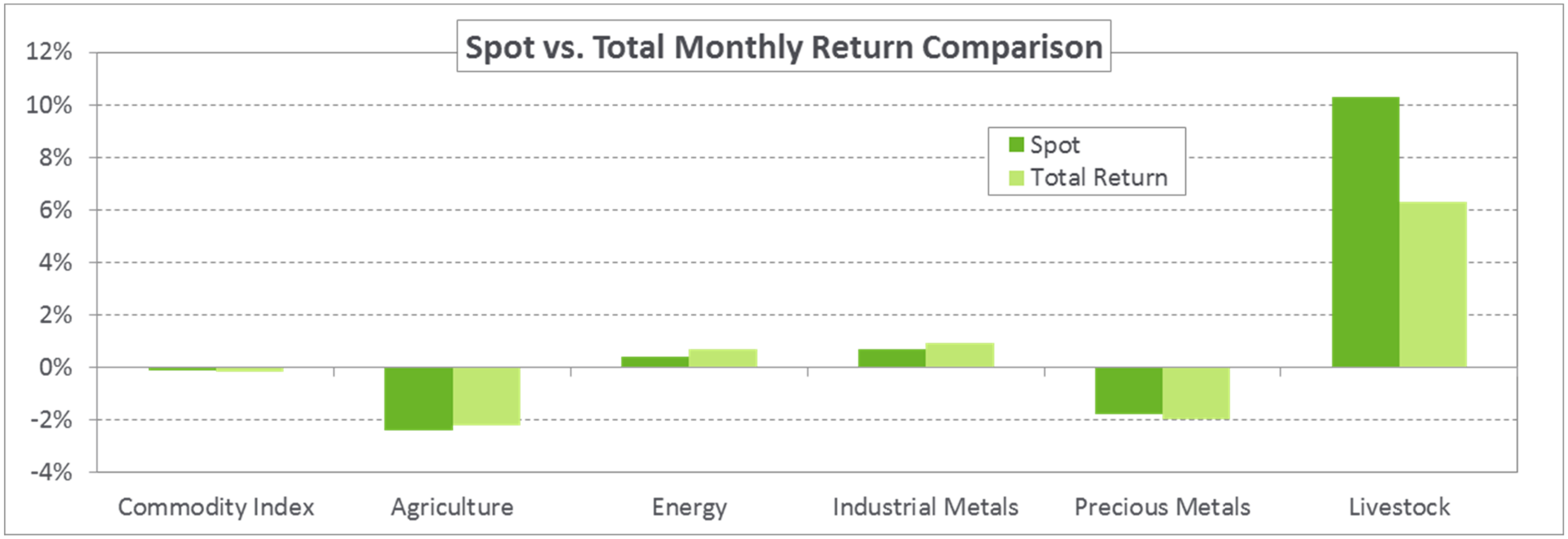
Source: Bloomberg

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

INCOME YIELD

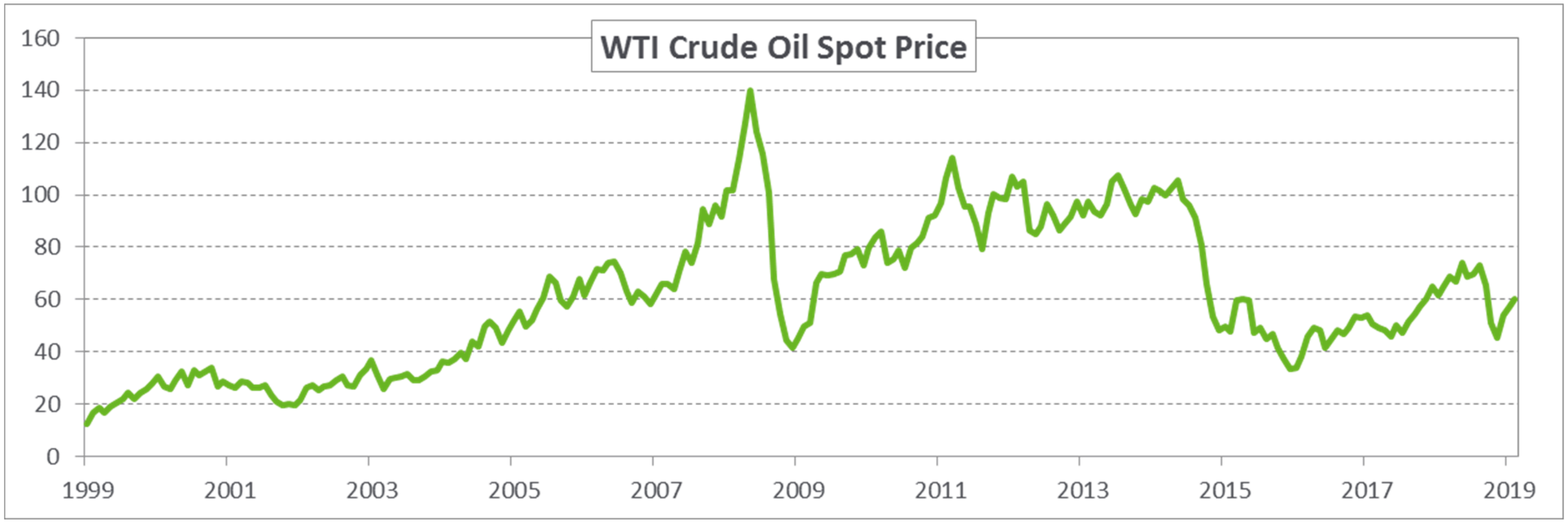


Source: Alerian, NAREIT, S&P, Bloomberg

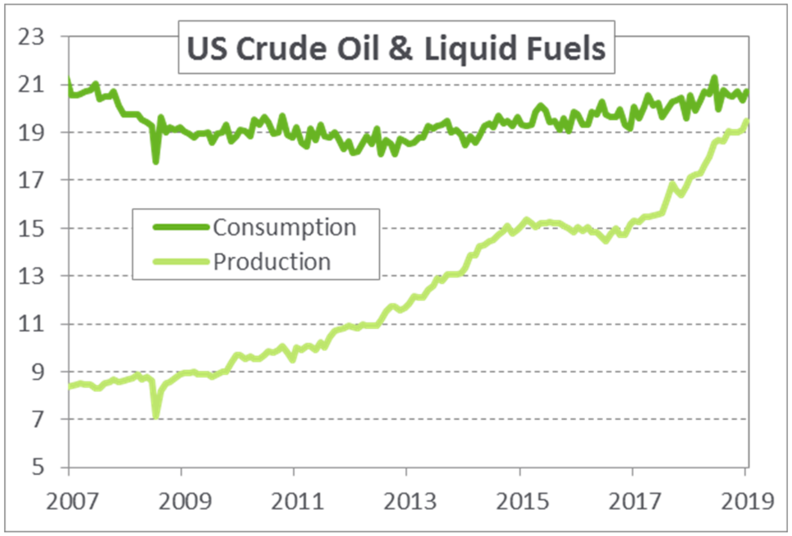


Source: Bloomberg, NEPC

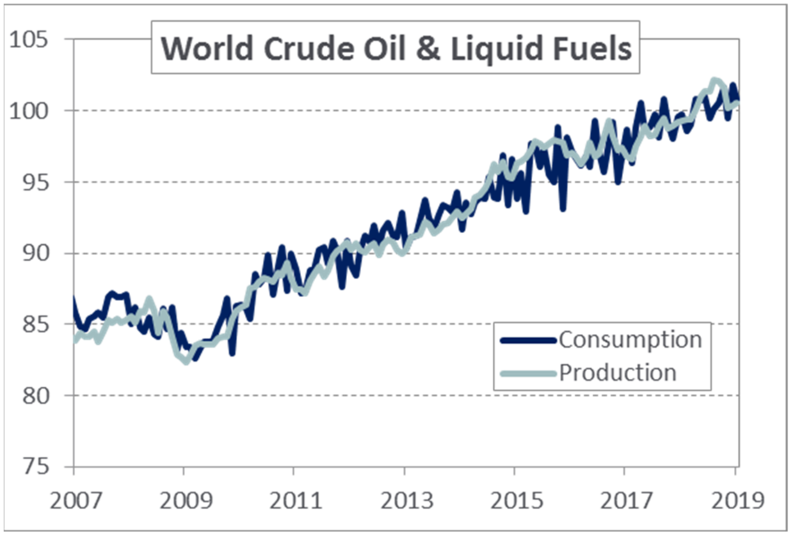
OIL MARKETS



Source: New York Mercantile Exchange, Bloomberg

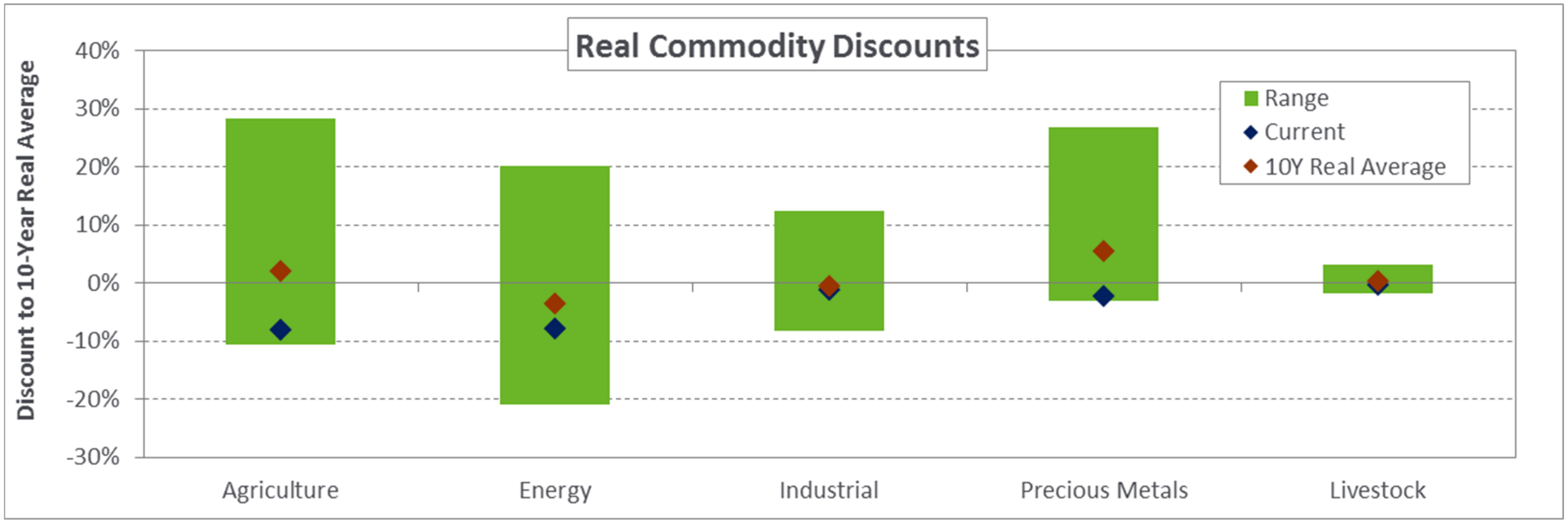


Source: US Department of Energy, Bloomberg

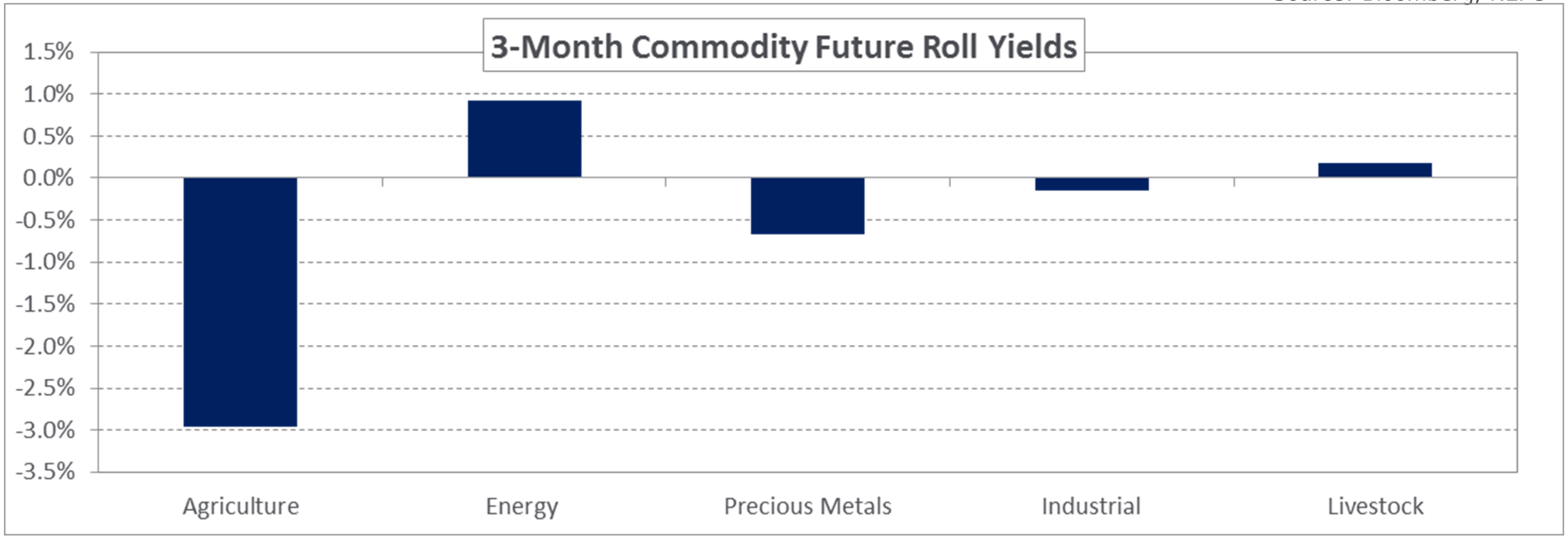


Source: OECD, Bloomberg

VALUATIONS

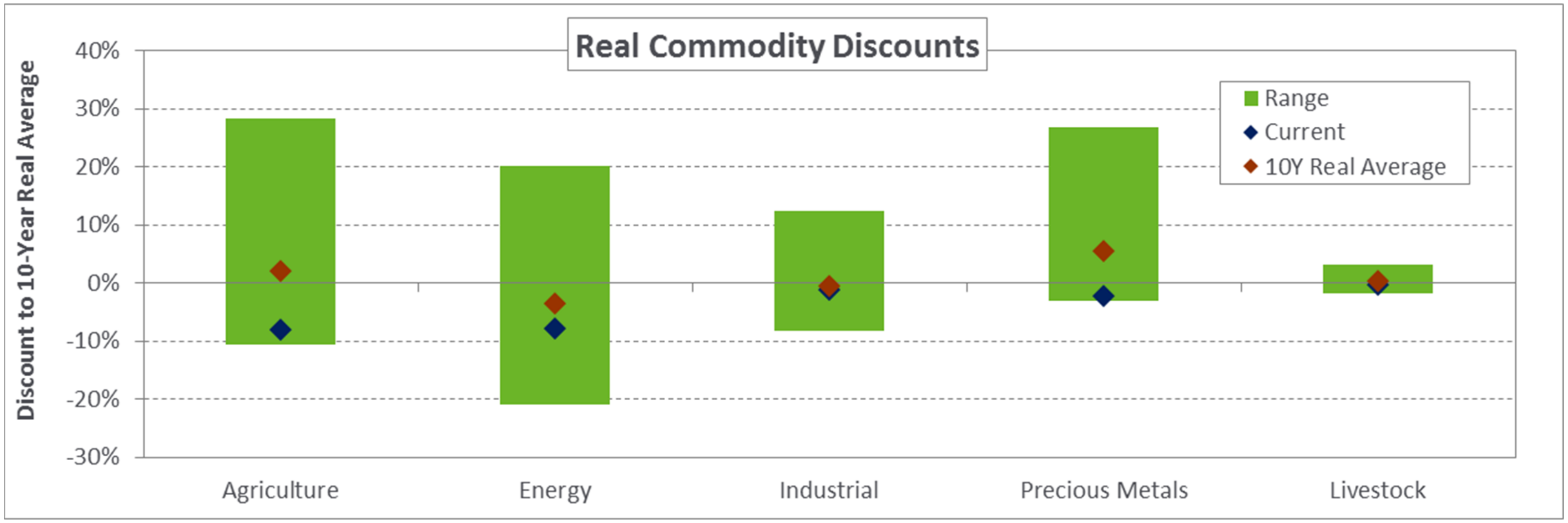


Source: Bloomberg, NEPC

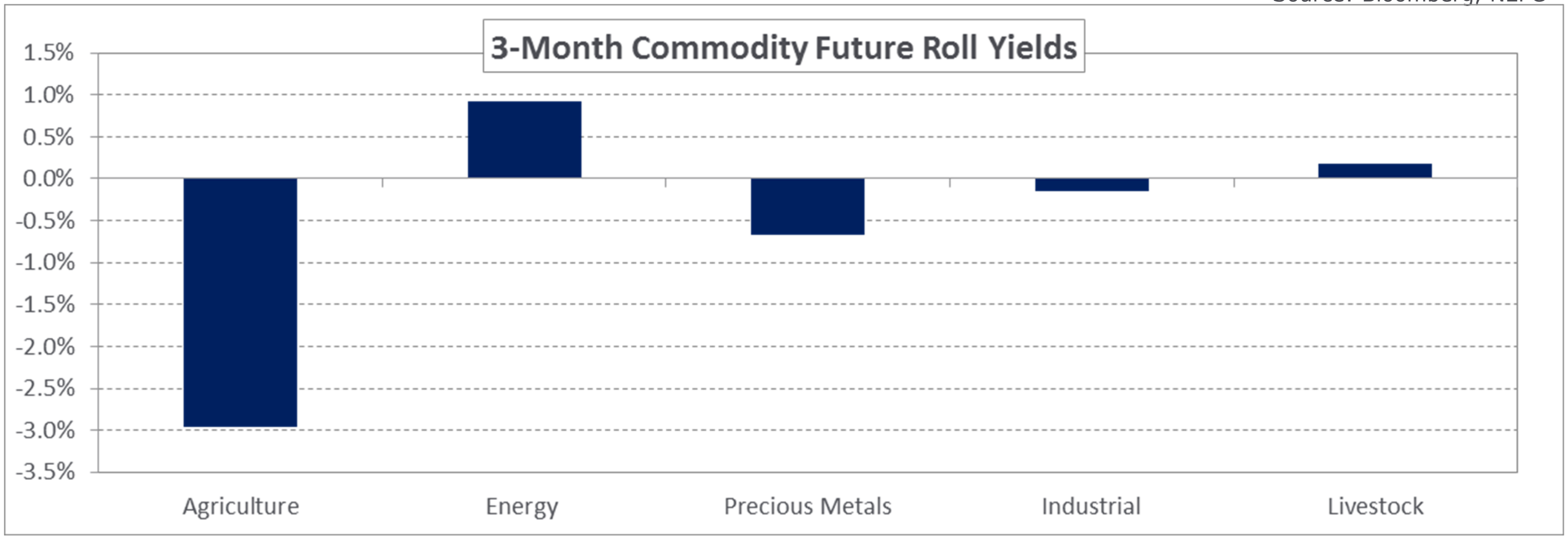


Source: Bloomberg

VALUATIONS



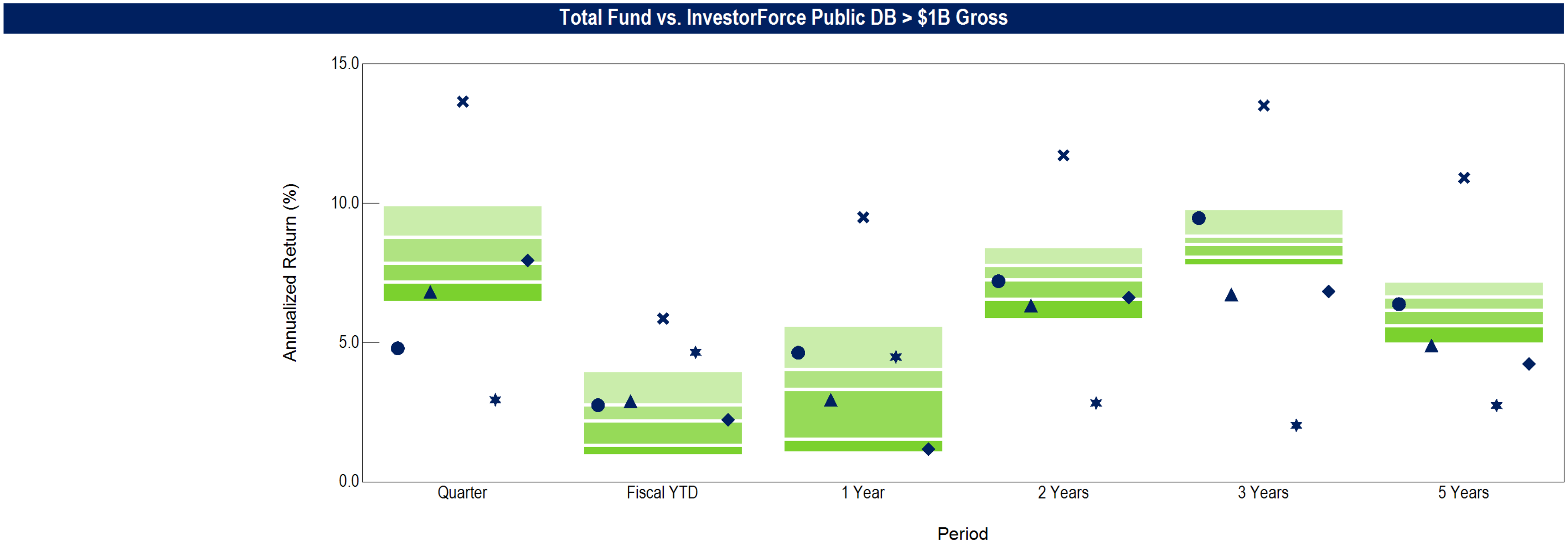
Source: Bloomberg, NEPC



Source: Bloomberg

San Bernardino County Employees' Retirement Association

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

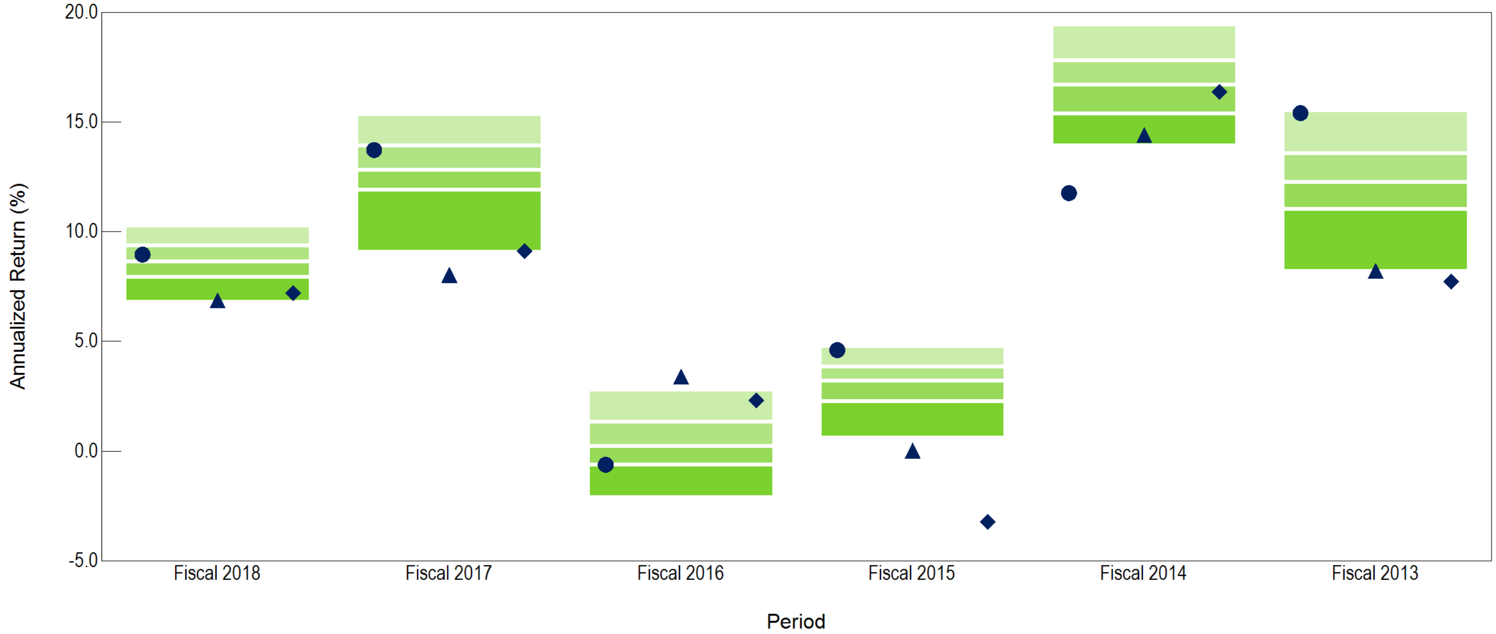


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years		5 Years	
5th Percentile	9.9		4.0		5.6		8.4		9.8		7.2	
25th Percentile	8.8		2.8		4.0		7.8		8.8		6.6	
Median	7.9		2.2		3.3		7.3		8.5		6.2	
75th Percentile	7.2		1.3		1.5		6.6		8.1		5.6	
95th Percentile	6.4		0.9		1.0		5.8		7.8		5.0	
# of Portfolios	24		23		23		23		23		23	
● Total Fund	4.8	(99)	2.7	(27)	4.6	(18)	7.2	(51)	9.5	(9)	6.4	(41)
▲ Policy Index	6.8	(85)	2.9	(21)	2.9	(60)	6.3	(80)	6.7	(99)	4.9	(97)
× S&P 500	13.6	(1)	5.9	(1)	9.5	(1)	11.7	(1)	13.5	(1)	10.9	(1)
✶ BBgBarc US Aggregate TR	2.9	(99)	4.6	(1)	4.5	(19)	2.8	(99)	2.0	(99)	2.7	(99)
◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI	7.9	(48)	2.2	(49)	1.2	(93)	6.6	(74)	6.8	(99)	4.2	(99)

San Bernardino County Employees' Retirement Association

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

Total Fund vs. InvestorForce Public DB > $1B Gross

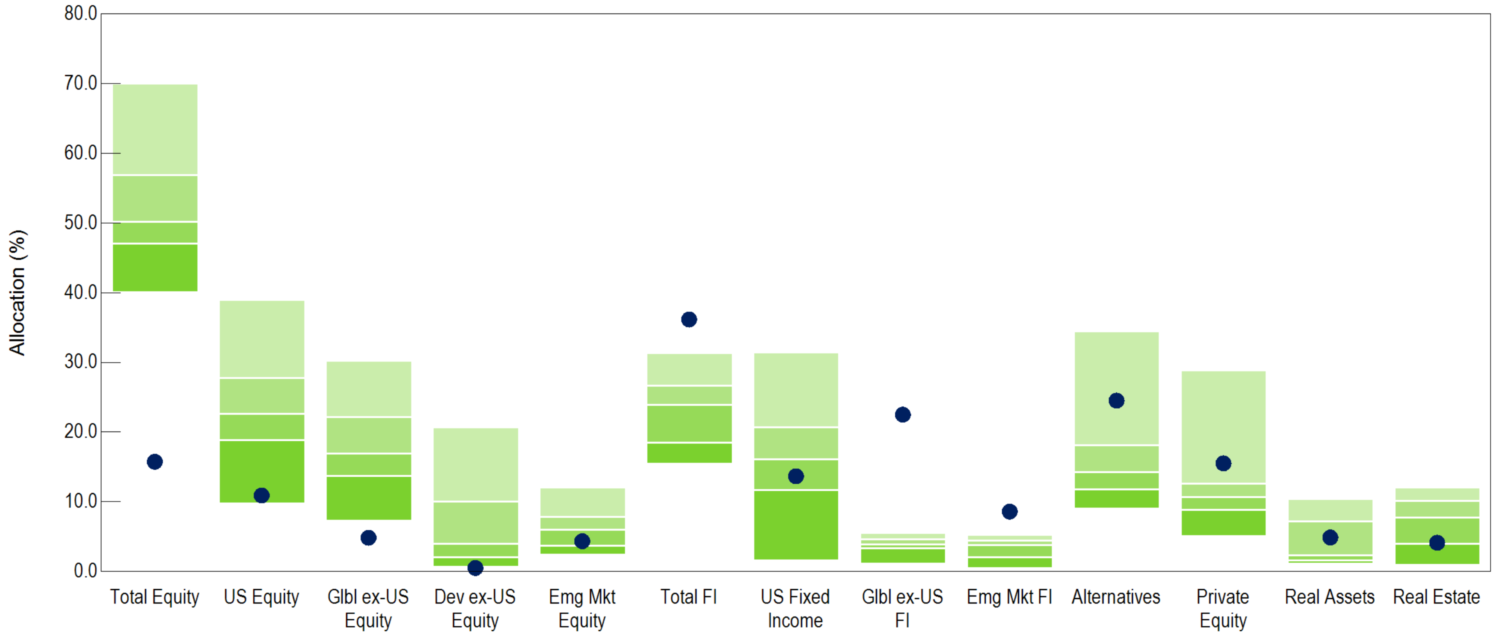


	Return (Rank)											
5th Percentile	10.3		15.3		2.8		4.8		19.4		15.5	
25th Percentile	9.4		14.0		1.4		3.9		17.8		13.6	
Median	8.7		12.9		0.3		3.2		16.7		12.3	
75th Percentile	8.0		11.9		-0.6		2.3		15.4		11.0	
95th Percentile	6.8		9.1		-2.1		0.6		13.9		8.2	
# of Portfolios	62		108		91		92		65		78	
● Total Fund	9.0	(38)	13.7	(29)	-0.6	(77)	4.6	(7)	11.8	(99)	15.4	(7)
▲ Policy Index	6.9	(94)	8.0	(97)	3.4	(3)	0.0	(97)	14.4	(87)	8.2	(96)
◆ 60% MSCI ACWI (Net) / 40% FTSE WGBI	7.2	(90)	9.1	(95)	2.3	(11)	-3.2	(99)	16.4	(58)	7.7	(97)

San Bernardino County Employees' Retirement Association

TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

Total Plan Allocation vs. InvestorForce Public DB > $1B Gross



Allocation (Rank)

	Total Equity	US Equity	Glbl ex-US Equity	Dev ex-US Equity	Emg Mkt Equity	Total FI	US Fixed Income	Glbl ex-US FI	Emg Mkt FI	Alternatives	Private Equity	Real Assets	Real Estate	
5th Percentile	70.0	39.0	30.2	20.7	12.1	31.3	31.5	5.5	5.3	34.5	28.8	10.4	12.1	--
25th Percentile	57.0	27.9	22.2	10.1	7.9	26.7	20.7	4.7	4.5	18.2	12.6	7.3	10.3	--
Median	50.3	22.7	17.0	4.1	6.1	24.0	16.2	4.0	3.9	14.3	10.7	2.4	7.8	--
75th Percentile	47.2	18.9	13.8	2.2	3.7	18.6	11.8	3.4	2.2	11.8	8.9	1.6	4.0	--
95th Percentile	40.1	9.9	7.4	0.8	2.5	15.5	1.7	1.3	0.6	9.2	5.1	1.2	1.0	--
# of Portfolios	20	17	19	8	16	20	16	10	9	17	16	7	18	-- --
● **Total Fund**	15.7 (99)	10.9 (88)	4.8 (99)	0.5 (99)	4.3 (68)	36.2 (1)	13.7 (69)	22.5 (1)	8.6 (1)	24.5 (12)	15.5 (10)	4.9 (38)	4.1 (75)	--

The Total Fund Asset Allocation universe comparison is as of 9/30/2018. Data as of 12/31/2018 is currently unavailable.

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