

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

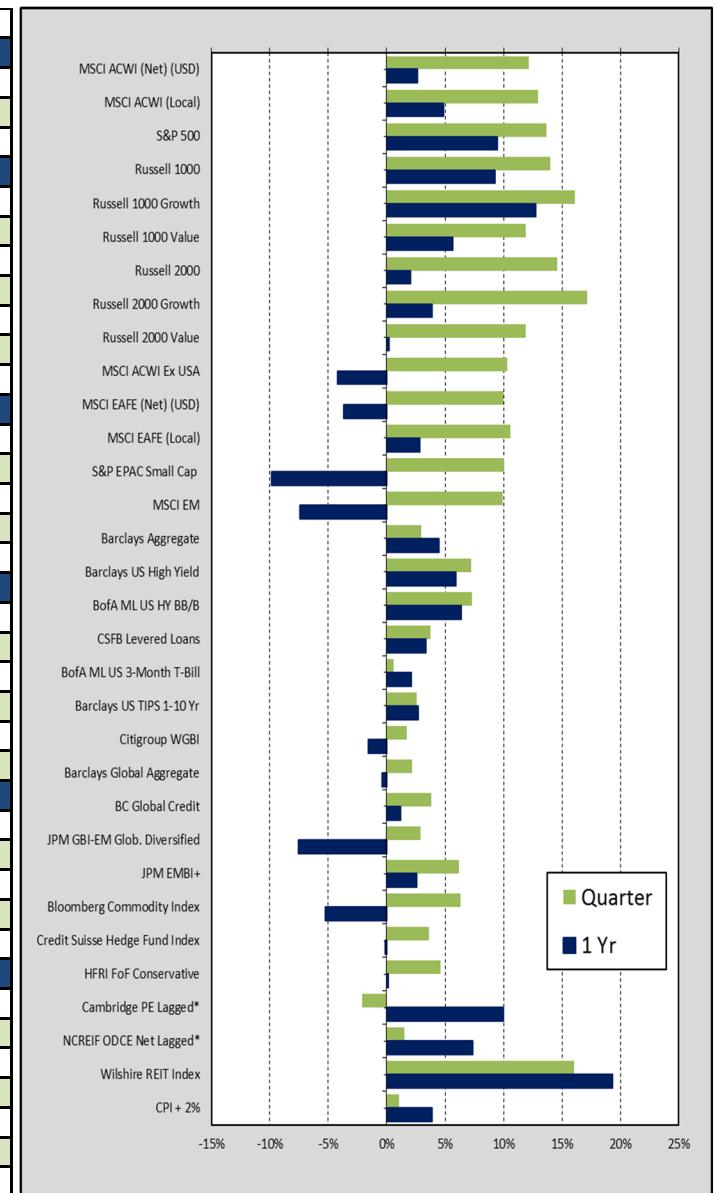
ECONOMIC ENVIRONMENT

- **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

		<u>Qtr.</u>	<u>1 Yr.</u>	<u>3 Yr.</u>	<u>5 Yr.</u>	<u>10 Yr.</u>
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%

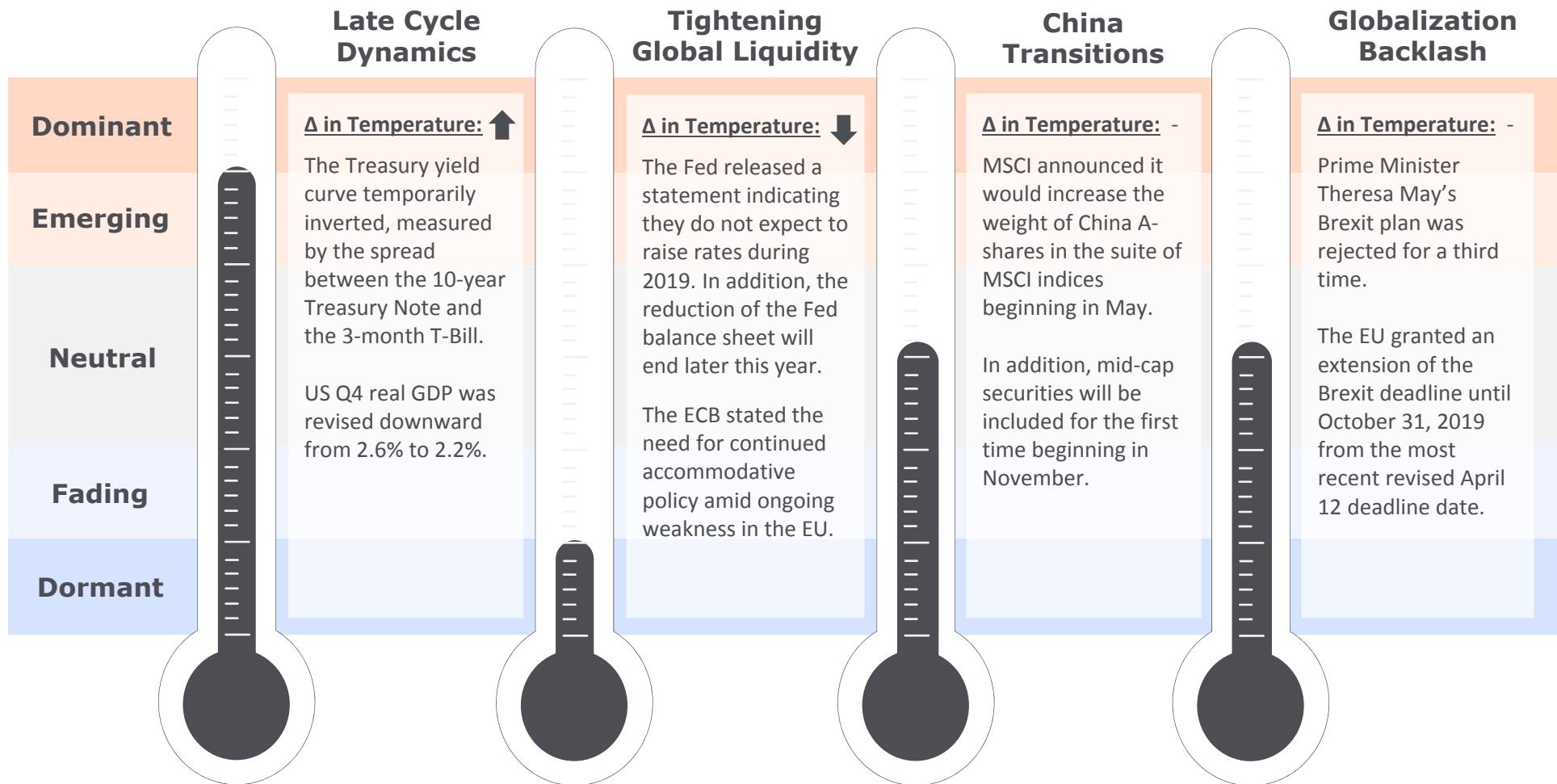


* As of 9/30/2018



ASSESSING THE KEY MARKET THEMES

Current Temperature



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

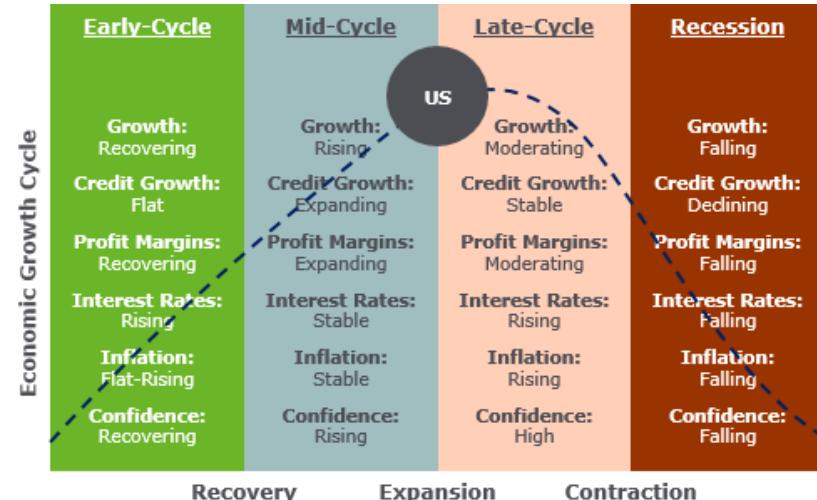
Positive economic data can support continued US economic expansion and further equity gains

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.

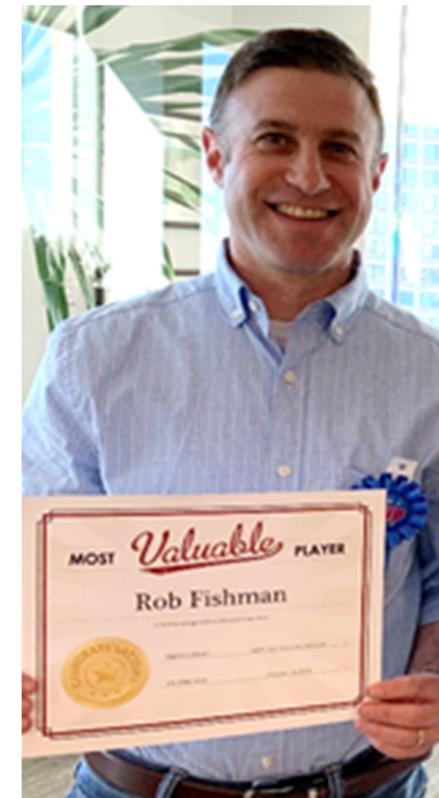
Rob left behind a close-knit community of current and former NEPC co-workers, long-time clients and industry colleagues who are profoundly grateful that they had the opportunity to know Rob. Below is a celebration of his life and career.

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

NEPC, LLC

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	4.6%	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%	

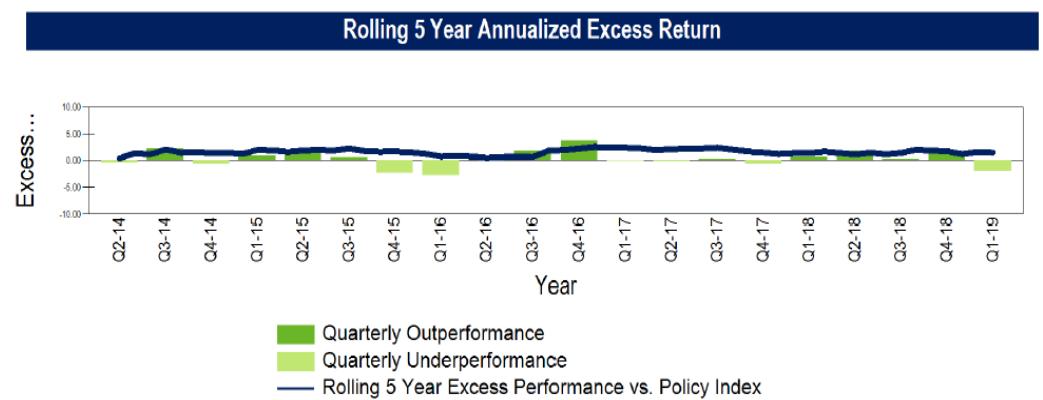
In the year ended March 31, 2019 the Fund return of 4.6% ranked in the 18th percentile of Public Funds > \$1 Billion and underperformed the actuarial assumed rate of 7.25%. The Fund's assets totaled \$10.3 billion, an increase of \$443.2 million from a year ago.

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.



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	--

San Bernardino County Employees' Retirement Association

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	--	

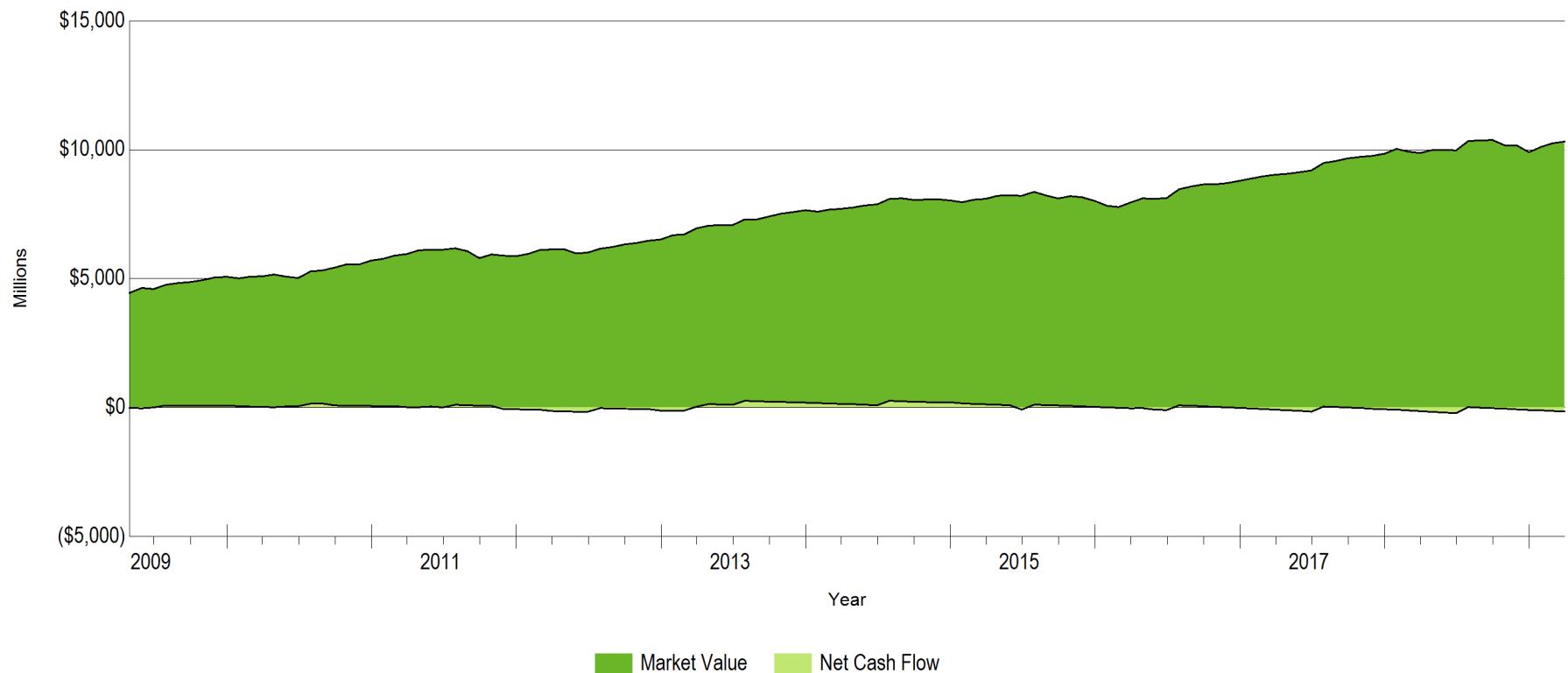
Sortino Ratio requires at least two negative points during the time period in order to calculate



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TOTAL FUND ASSET GROWTH SUMMARY

10 Years Ending March 31, 2019

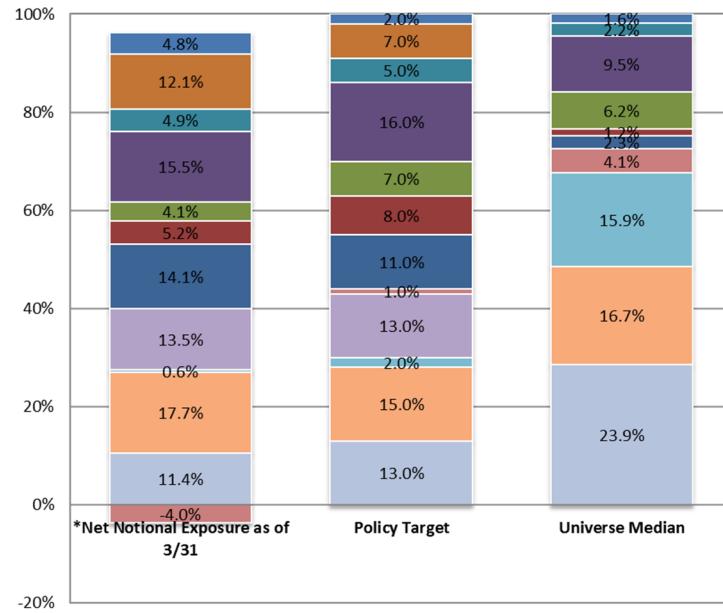


	Last Three Months	Fiscal Year-To-Date	One Year	Five Years	Ten Years
Beginning Market Value	\$9,902,558,228	\$9,972,950,140	\$9,872,639,719	\$7,708,807,419	\$4,376,991,231
Net Cash Flow	-\$60,584,863	\$64,957,965	-\$15,601,582	-\$297,132,126	-\$143,534,272
Net Investment Change	\$473,859,022	\$277,924,283	\$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%						

█ US Equities █ Int'l Equities █ U.S. Core
█ US Credit █ Non-US Core Fixed Income █ Non-US Credit
█ Emerging Market Debt █ Real Estate █ Private Equity
█ Real Assets █ Absolute Return █ Cash



San Bernardino County Employees' Retirement Association

TOTAL FUND PERFORMANCE SUMMARY

<u>Asset Class</u>			<u>Delta Adjusted</u>									
	<u>Physical Exposure</u>		<u>Synthetic Exposure</u>		<u>Net Position</u>		<u>Overlay Target</u>		<u>Policy Target</u>			
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%		

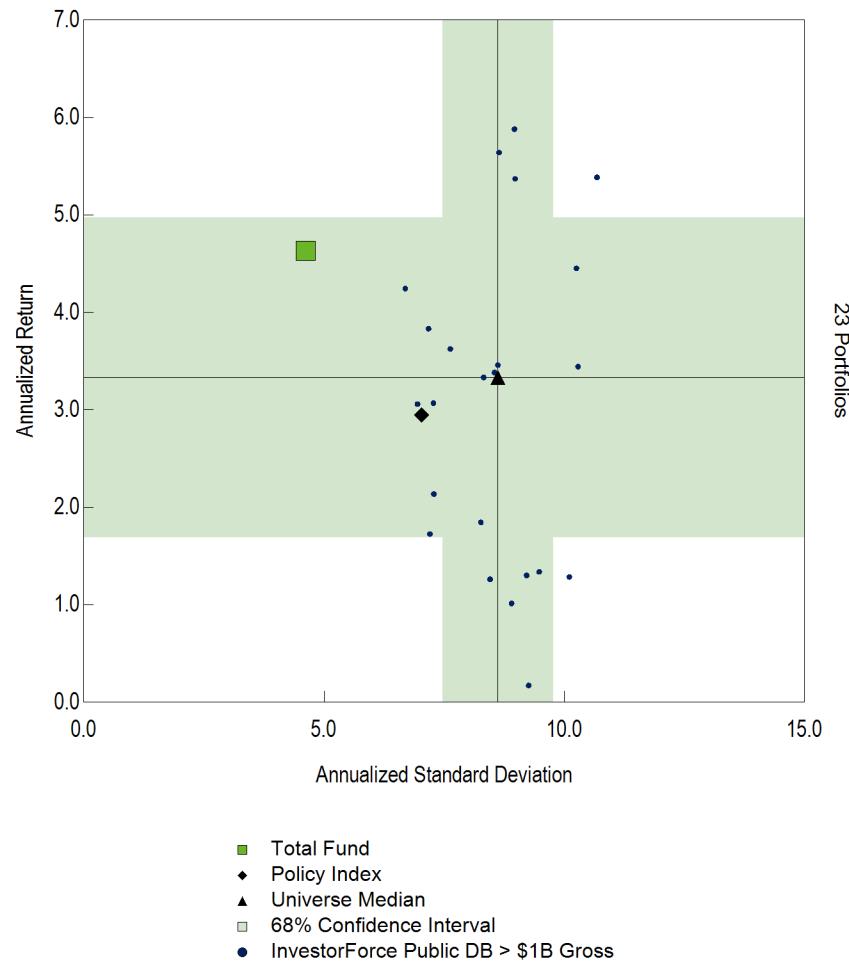
Source: Russell Investments



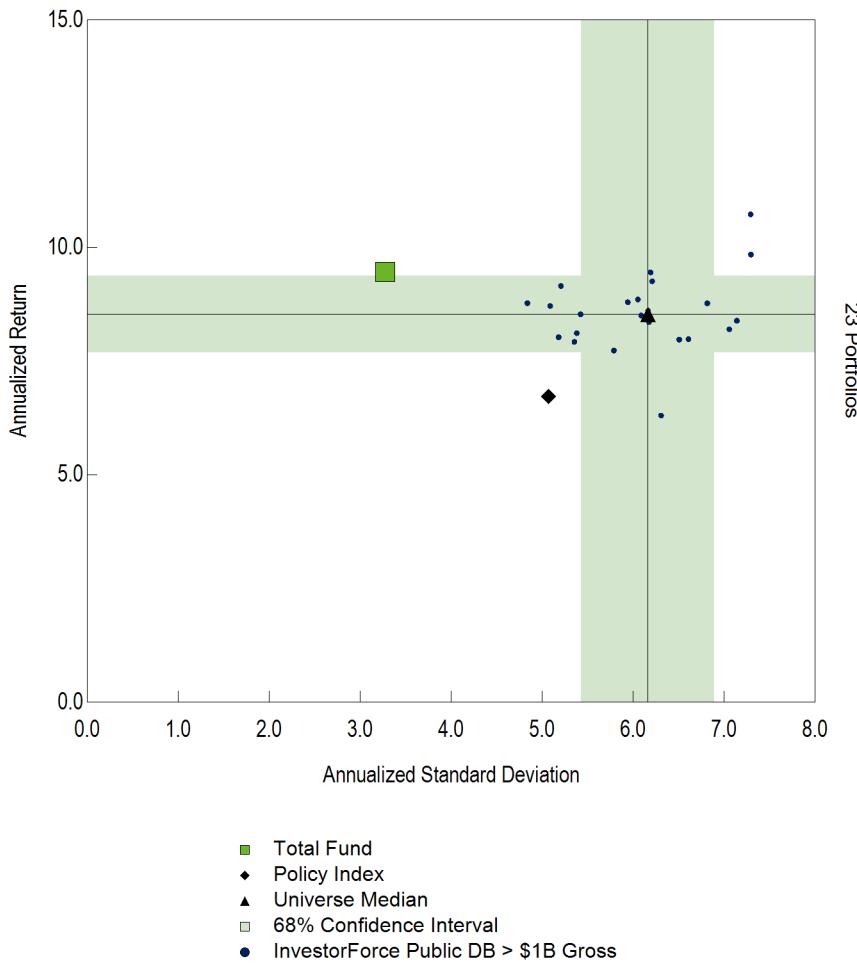
San Bernardino County Employees' Retirement Association

TOTAL FUND RISK/RETURN

1 Year Ending March 31, 2019

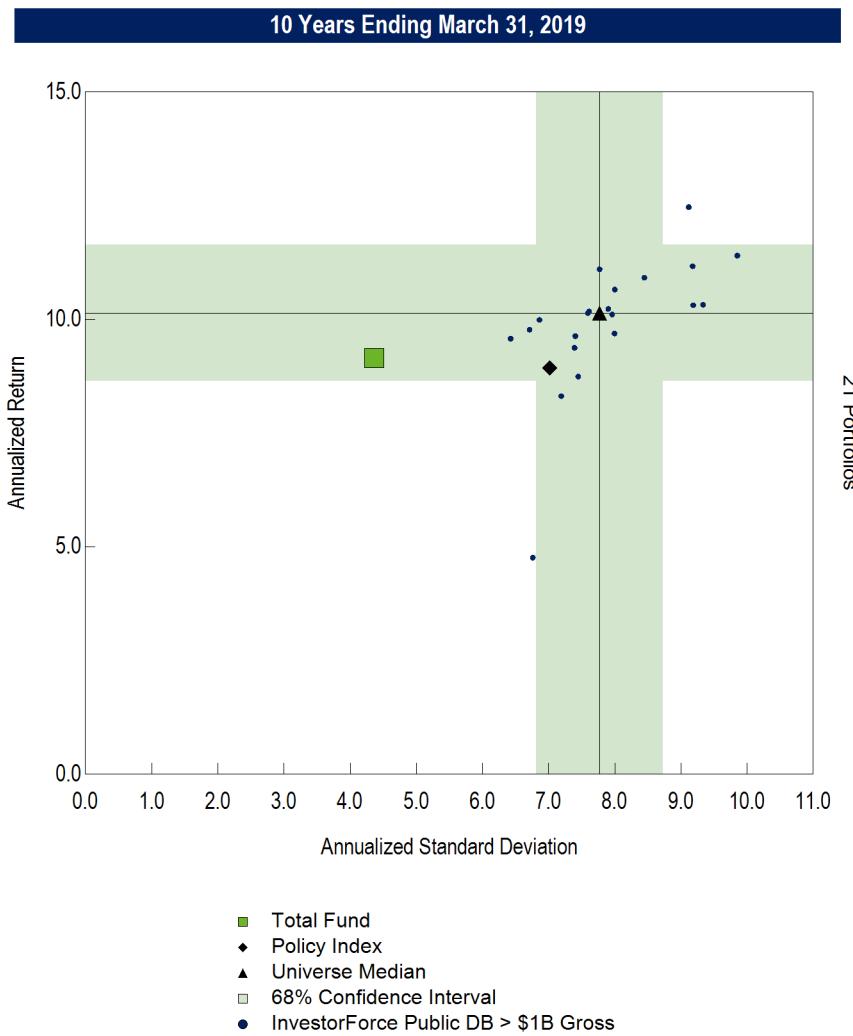
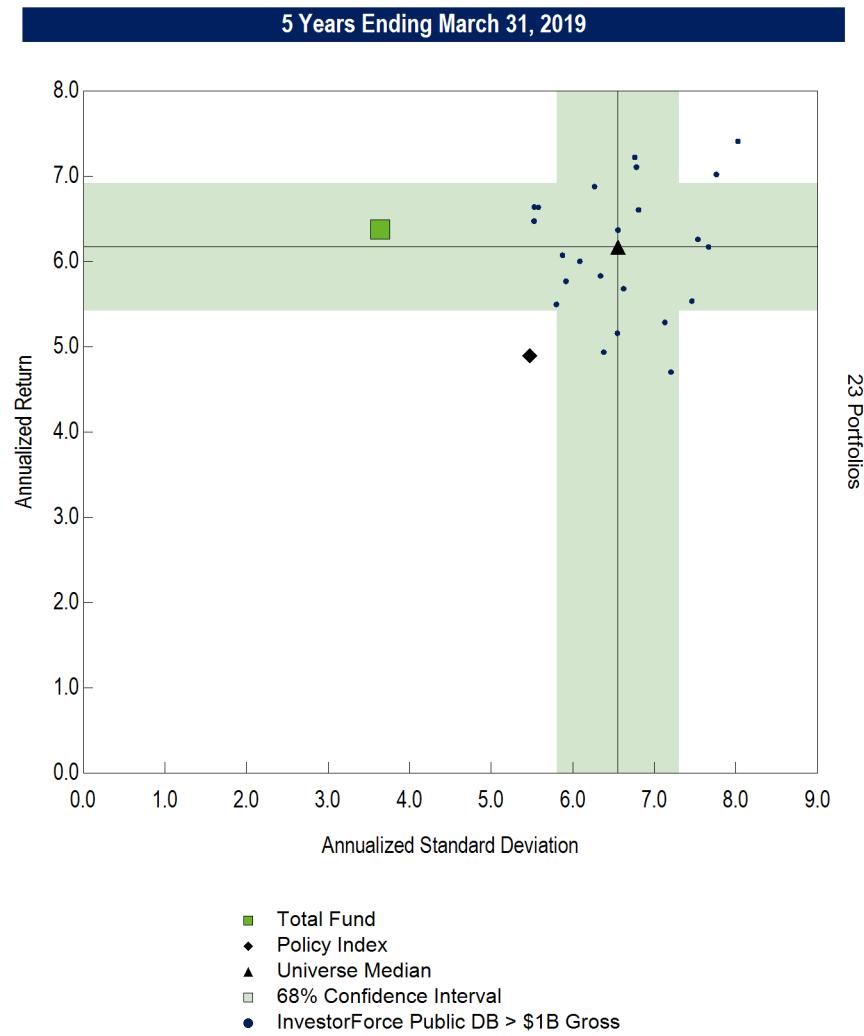


3 Years Ending March 31, 2019



San Bernardino County Employees' Retirement Association

TOTAL FUND RISK/RETURN



San Bernardino County Employees' Retirement Association

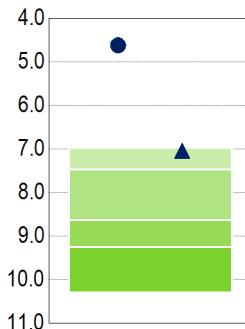
TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

Anlzd Return



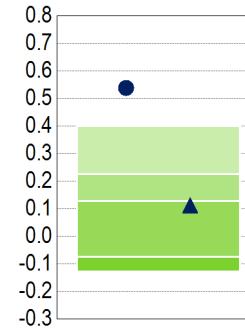
Anlzd Standard Deviation



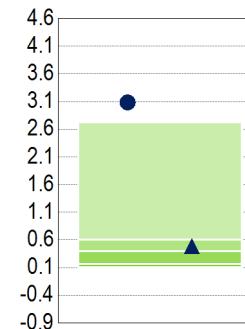
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



● 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

● 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

● 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

● 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

● 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

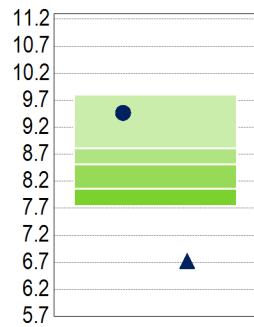


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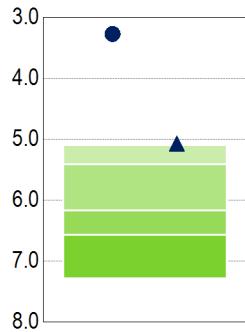
TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

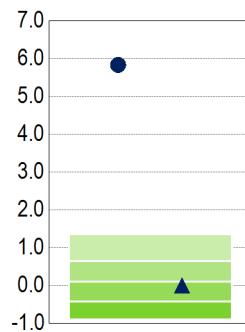
Anlzd Return



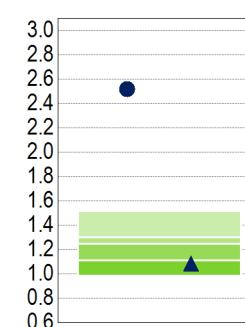
Anlzd Standard Deviation



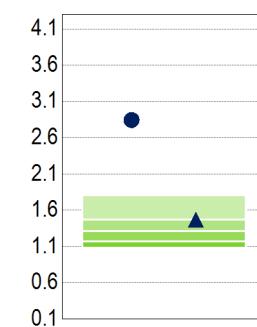
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



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



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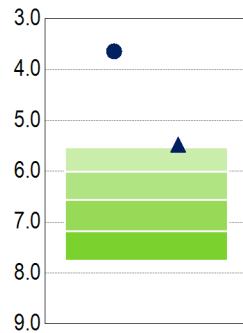
TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

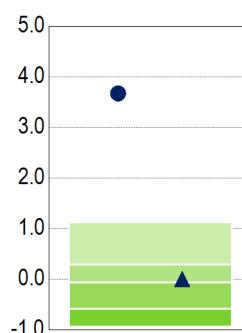
Anlzd Return



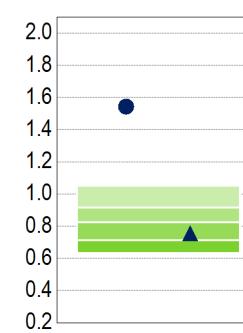
Anlzd Standard Deviation



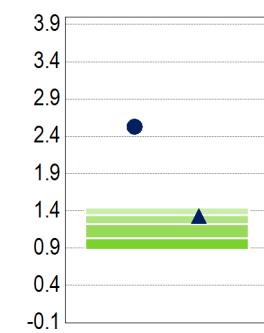
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



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

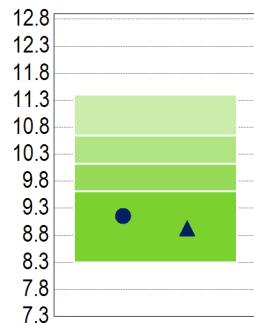
Sample size is 14 Portfolios



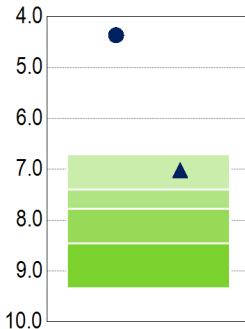
TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

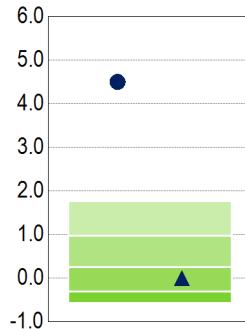
Anlzd Return



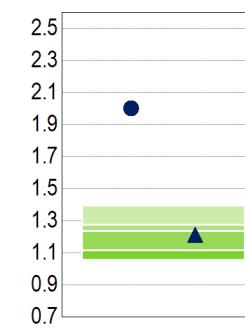
Anlzd Standard Deviation



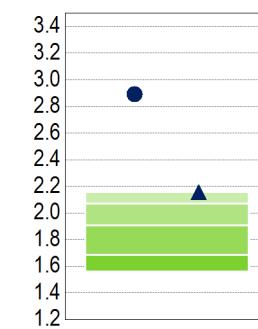
Anlzd Alpha



Sharpe Ratio



Sortino Ratio



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.



San Bernardino County Employees' Retirement Association

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)



San Bernardino County Employees' Retirement Association

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



San Bernardino County Employees' Retirement Association

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 ELM+ 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 ELM+ 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 ELM+ 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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San Bernardino County Employees' Retirement Association

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	--	--	--	--	--	--



PRIVATE ASSETS

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)
		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 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 <u>Kayne Anderson MLP Strategy (MCA)</u>
	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					1.6		5.5		7.9		8.1		10.1	
Gross Median														
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

NEPC, LLC

REAL ESTATE PERFORMANCE ENDED SEPT. 30, 2018

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	\$ 459,622	2.18	6.90%
American Realty Value Add	2006	\$ 13,125,215	\$ 13,125,215	\$ 32,080,321	\$ -	2.44	10.92%
Apollo US Real Estate Fund II	2015	\$ 20,000,000	\$ 8,463,110	\$ 2,813,583	\$ 10,152,059	1.53	18.38%
Beacon Capital Strategic Partners IV, L.P.	2006	\$ 39,000,000	\$ 38,000,000	\$ 31,402,655	\$ 14,450	0.83	-3.26%
Beacon Capital Strategic Partners V, L.P.	2007	\$ 20,000,000	\$ 18,000,000	\$ 11,167,865	\$ 7,355	0.62	-7.86%
BlackRock Diamond Property Fund	2005	\$ 25,000,000	\$ 25,000,000	\$ 15,216,267	\$ 19,682	0.61	-9.31%
Bryanston Real Estate Opportunity Fund II, L.P.	2009	\$ 20,000,000	\$ 8,589,256	\$ 11,842,516	\$ -	1.38	10.18%
Bryanston Retail Opportunity Fund, L.P.	2004	\$ 20,000,000	\$ 8,228,165	\$ 18,828,095	\$ 6,769,092	3.11	70.79%
CBRE Strategic Partners III	2003	\$ 10,000,000	\$ 10,000,000	\$ 12,698,783	\$ -	1.27	8.02%
CBRE Strategic Partners IV	2005	\$ 40,000,000	\$ 40,000,000	\$ 2,609,685	\$ -	0.07	-27.76%
Fillmore East Fund	2006	\$ 25,000,000	\$ 31,403,818	\$ 20,777,177	\$ -	0.66	-9.78%
Fillmore West Fund	2008	\$ 20,000,000	\$ 19,561,557	\$ 21,175,799	\$ -	1.08	1.14%
Fortress Japan Opportunity Fund II	2012	\$ 21,739,130	\$ 3,357,256	\$ 17,523,390	\$ 8,241,682	7.23	26.03%
Invesco Asian Real Estate Partners II (USD), LP	2007	\$ 20,000,000	\$ 8,412,833	\$ 11,324,754	\$ 146,631	1.37	7.55%
Invesco High Yield Debt Fund I	2007	\$ 20,000,000	\$ 20,000,000	\$ 8,567,605	\$ -	0.43	-35.57%
Invesco Real Estate Asia Fund	2014	\$ 51,732,500	\$ 51,732,500	\$ 7,802,194	\$ 61,814,279	1.32	7.14%
INVESCO Real Estate Fund I	2005	\$ 10,000,000	\$ 9,248,390	\$ 10,015,656	\$ -	1.08	1.54%
Kayne Anderson Real Estate Debt III	2018	\$ 20,000,000	\$ 3,780,000	\$ 328,964	\$ 3,681,671	1.06	4.14%
Kayne Anderson Real Estate Partners V	2017	\$ 10,000,000	\$ 7,000,000	\$ -	\$ 6,267,505	0.91	-17.19%
LaSalle Income & Growth Fund IV	2005	\$ 20,000,000	\$ 19,469,417	\$ 13,482,024	\$ -	0.69	-5.51%
North Haven Real Estate Fund V International	2005	\$ 27,500,000	\$ 27,377,414	\$ 31,921,668	\$ 1,346,785	1.21	6.97%
Oaktree Real Estate Opportunities V	2012	\$ 25,000,000	\$ 25,000,000	\$ 37,221,185	\$ 2,950,090	1.58	13.39%
Partners Group Project Camino	2016	\$ 8,415,776	\$ 5,652,121	\$ -	\$ 6,539,347	1.16	6.96%
Partners Group RE Secondary 2013 (USD) A	2014	\$ 65,000,000	\$ 49,541,590	\$ 18,625,904	\$ 51,089,254	1.42	17.92%
Partners Group RE Secondary 2017 (USD) A	2017	\$ 75,000,000	\$ 13,311,238	\$ 13,502	\$ 13,531,401	1.01	2.65%
Pramerica Real Estate Capital VI	2016	\$ 24,237,650	\$ 10,064,128	\$ 4,068,236	\$ 8,079,695	1.20	16.29%
Prologis Japan Fund	2005	\$ 25,290,819	\$ 25,290,819	\$ 33,126,118	\$ -	1.31	4.81%
Prudential PRISA II	2004	\$ 140,000,000	\$ 140,000,000	\$ 41,929,793	\$ 166,635,306	1.43	8.38%
Prudential PRISA III	2003	\$ 75,000,000	\$ 50,960,618	\$ 46,122,538	\$ 45,193,109	1.67	18.58%
RREEF America REIT III	2004	\$ 20,000,000	\$ 20,539,309	\$ 23,658,675	\$ -	1.15	3.00%
Square Mile Partners II	2007	\$ 20,000,000	\$ 19,831,232	\$ 5,311,330	\$ 29,255	0.27	-18.93%
Square Mile Partners III LP	2008	\$ 20,000,000	\$ 19,730,190	\$ 28,441,949	\$ 513,846	1.47	11.62%
Starwood Capital Hospitality Fund I-2	2006	\$ 30,000,000	\$ 30,000,000	\$ 26,182,035	\$ 3,555,957	0.99	-0.12%
Starwood Debt Fund II, LP	2008	\$ 20,000,000	\$ 17,599,882	\$ 21,912,511	\$ -	1.25	6.45%
Starwood Opportunity Fund VII - A	2006	\$ 25,000,000	\$ 25,000,000	\$ 18,224,737	\$ 1,719,097	0.80	-2.49%
Structured Real Estate III, LP (Guggenheim)	2008	\$ 20,000,000	\$ 20,000,000	\$ 16,320,664	\$ -	0.82	-4.99%
Tri Continental Capital VII	2005	\$ 23,000,000	\$ 22,277,928	\$ 2,696,824	\$ 796,961	0.16	-16.62%
Tuckerman Multi-Family Development Fund III	2002	\$ 10,000,000	\$ 10,219,311	\$ 16,939,699	\$ -	1.66	26.67%
Walton Street Real Estate Fund IV, LP	2003	\$ 10,000,000	\$ 9,770,890	\$ 15,885,696	\$ 135,086	1.64	10.74%
Walton Street Real Estate Fund V, LP	2006	\$ 40,000,000	\$ 40,000,000	\$ 22,399,244	\$ 9,067,721	0.79	-2.68%
Total: San Bernardino		\$ 1,257,050,864	\$ 1,053,547,960	\$ 939,061,607	\$ 408,756,939	1.27	4.07%

Note: All metrics are calculated since inception

* Denotes cash adjusted



REAL ASSETS PERFORMANCE ENDED SEPT. 30, 2018

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Fortress Transportation Infrastructure LLC	2015	\$ 45,403,354	\$ 45,403,354	\$ 10,576,313	\$ 48,554,889	1.30	10.66%
Hancock Timberland VII	2005	\$ 90,000,000	\$ 90,000,000	\$ 64,772,100	\$ 42,401,935	1.19	1.56%
Hancock Timberland VIII	2006	\$ 40,000,000	\$ 40,000,000	\$ 5,271,925	\$ 33,973,920	0.98	-0.20%
Highstar Capital III, L.P.	2007	\$ 60,000,000	\$ 59,119,119	\$ 37,729,377	\$ 28,331,593	1.12	1.46%
Timbervest Crossover Partners II, L.P.	2008	\$ 30,000,000	\$ 30,000,000	\$ 14,415,000	\$ 13,500,318	0.93	-1.18%
Timbervest Partners II, L.P.	2007	\$ 50,000,000	\$ 50,000,000	\$ 28,650,000	\$ 27,910,759	1.13	1.34%
Total: San Bernardino		\$ 315,403,354	\$ 314,522,473	\$ 161,414,715	\$ 194,673,414	1.13	1.48%

Note: All metrics are calculated since inception

* Denotes cash adjusted



PRIVATE EQUITY PERFORMANCE ENDED SEPT. 30, 2018

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Advent International GPE VIII, LP	2016	\$ 10,000,000	\$ 6,490,000	\$ -	\$ 7,528,363	1.16	16.14%
Apollo Accord Fund, LP	2017	\$ 30,000,000	\$ 7,500,000	\$ 5,511,478	\$ 2,644,628	1.09	8.06%
Apollo European Principal Finance Fund (Feeder), L	2009	\$ 54,054,969	\$ 46,373,293	\$ 68,835,428	\$ 496,553	1.49	11.81%
Apollo Investment Fund VII, L.P.	2008	\$ 10,000,000	\$ 8,573,628	\$ 15,290,251	\$ 2,240,196	2.05	23.41%
Apollo PCPL Webb V	2010	\$ 4,844,398	\$ 4,844,398	\$ 5,196,757	\$ 35,013	1.08	6.42%
Apollo PCPL Webb VIII	2010	\$ 4,734,303	\$ 4,734,303	\$ 12,146,258	\$ 2,407	2.57	46.47%
ARES European Loan Opp Fund	2015	\$ 15,000,000	\$ 8,413,136	\$ 7,613,498	\$ -	0.90	-6.02%
Ares Special Situations Fund IV, LP	2015	\$ 50,000,000	\$ 38,775,578	\$ 122,768	\$ 34,741,730	0.90	-6.10%
Aurora Equity Partners III, L.P.	2005	\$ 25,000,000	\$ 23,544,536	\$ 41,738,196	\$ 187,959	1.67	13.62%
Aurora Equity Partners IV, L.P.	2012	\$ 20,000,000	\$ 15,995,098	\$ 25,383,037	\$ 11,902,192	2.01	19.11%
Aurora Resurgence Fund, L.P.	2008	\$ 15,000,000	\$ 5,653,009	\$ 10,350,965	\$ -	1.82	17.60%
Baring Asia Private Equity Fund IV, L.P.	2015	\$ 2,931,918	\$ 2,591,669	\$ 3,221,120	\$ 221,067	1.33	11.49%
BNY Mellon - Alcentra Mezzanine III	2012	\$ 25,000,000	\$ 23,254,658	\$ 26,736,979	\$ -	1.15	12.73%
Catalyst Fund II, L.P.	2007	\$ 10,000,000	\$ 9,927,306	\$ 4,259,103	\$ 17,498,552	2.18	10.47%
Catalyst Fund LP IV, L.P.	2015	\$ 8,000,000	\$ 5,664,390	\$ -	\$ 7,210,610	1.27	12.51%
Charlesbank Equity Fund VIII	2015	\$ 7,500,000	\$ 6,469,593	\$ 3,117,539	\$ 6,380,375	1.47	19.88%
DRI II, L.P.	2009	\$ 20,000,000	\$ 19,917,669	\$ 26,302,807	\$ -	1.33	19.64%
European Strategic Partners 2004	2004	\$ 241,399,208	\$ 220,526,197	\$ 263,507,481	\$ 15,479,335	1.26	3.97%
European Strategic Partners 2008	2010	\$ 31,506,440	\$ 28,338,464	\$ 24,185,897	\$ 17,262,977	1.45	9.60%
Industry Ventures Direct, LP	2016	\$ 25,000,000	\$ 14,471,739	\$ 1,900,632	\$ 13,327,787	1.05	5.98%
Industry Ventures Fund V	2008	\$ 10,000,000	\$ 9,500,000	\$ 21,628,640	\$ 7,481,150	3.06	30.75%
Industry Ventures Fund VI	2011	\$ 20,000,000	\$ 18,400,000	\$ 14,730,140	\$ 9,754,002	1.33	8.57%
Industry Ventures Partnership Holdings Fund II, L.P.	2012	\$ 25,000,000	\$ 23,500,000	\$ 9,874,683	\$ 51,916,931	2.63	24.75%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	\$ 25,000,000	\$ 22,125,000	\$ 4,001,806	\$ 31,248,024	1.59	18.02%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	\$ 12,500,000	\$ 10,437,500	\$ 3,466,172	\$ 6,711,756	0.98	-0.96%
Industry Ventures Partnership Holdings IV, LP	2016	\$ 25,000,000	\$ 8,625,000	\$ 102,308	\$ 10,407,726	1.22	14.67%
Industry Ventures Secondary VII, L.P.	2013	\$ 25,000,000	\$ 22,500,000	\$ 9,192,279	\$ 23,037,917	1.43	13.86%
Industry Ventures Secondary VIII	2017	\$ 25,000,000	\$ 5,000,000	\$ 393,622	\$ 7,116,170	1.50	90.21%
Industry Ventures Special Opportunities II-A	2016	\$ 12,500,000	\$ 781,250	\$ -	\$ 1,234,840	1.58	64.50%
Insight Venture Partners III Co-Invest	2014	\$ 4,000,000	\$ 4,000,000	\$ 2,299,693	\$ 6,667,146	2.24	24.33%
Kayne Anderson Energy Fund VII, L.P.	2017	\$ 10,000,000	\$ 7,078,811	\$ 118,129	\$ 9,077,444	1.30	18.34%
Kayne Partners Fund IV (QP), LP	2017	\$ 20,000,000	\$ 6,296,085	\$ -	\$ 6,785,921	1.06	7.90%
Kayne Solutions Fund LP	2018	\$ 20,000,000	\$ 5,574,050	\$ 205,503	\$ 5,658,753	1.05	4.93%
Lexington Capital Partners VI-B	2006	\$ 25,000,000	\$ 24,591,319	\$ 31,944,462	\$ 3,017,033	1.42	6.97%
Lexington Capital Partners VII (Offshore)	2011	\$ 25,000,000	\$ 20,202,136	\$ 24,192,480	\$ 8,010,040	1.59	15.54%
Lexington Middle Market I	2005	\$ 25,000,000	\$ 24,771,942	\$ 36,867,713	\$ 3,918,630	1.65	11.76%
Lexington Middle Market II - Offshore	2008	\$ 10,000,000	\$ 9,773,736	\$ 11,693,049	\$ 4,213,345	1.62	14.16%
Madison Dearborn VII	2016	\$ 10,000,000	\$ 5,149,135	\$ 355,075	\$ 5,836,022	1.20	16.88%
NB Secondary Opportunities I, LP	2005	\$ 20,000,000	\$ 18,500,843	\$ 24,183,590	\$ 164,109	1.32	6.50%
NB Secondary Opportunities II, LP	2008	\$ 20,000,000	\$ 17,080,642	\$ 24,068,666	\$ 2,745,026	1.53	14.43%
Partners Group Access 216 LP	2017	\$ 7,210,957	\$ 8,498,837	\$ -	\$ 10,998,665	1.30	21.93%
Partners Group Access 384, L.P.	2017	\$ 8,360,000	\$ 8,360,000	\$ -	\$ 7,975,802	0.95	-2.72%
Partners Group Access 632, L.P.	2014	\$ 2,782,028	\$ 2,782,028	\$ 4,627,741	\$ 1	1.65	16.01%
Partners Group Access 648, L.P.	2014	\$ 4,404,548	\$ 4,843,537	\$ 19,449	\$ 3,607,327	0.75	-7.80%

Note: All metrics are calculated since inception

* Denotes Cash adjusted value



PRIVATE EQUITY PERFORMANCE ENDED SEPT. 30, 2018

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Partners Group Access 680 L.P.	2015	\$ 7,278,375	\$ 7,202,719	\$ -	\$ 13,074,202	1.82	23.59%
Partners Group Access 906, L.P.	2017	\$ 15,000,000	\$ 15,000,000	\$ 17,269	\$ 16,551,079	1.10	10.45%
Partners Group CA Infrastructure, LP Inc	2016	\$ 6,246,500	\$ 2,630,627	\$ -	\$ 3,060,322	1.16	13.46%
Partners Group Client Access 8 LP	2014	\$ 5,531,585	\$ 5,531,585	\$ 30,646,223	\$ 52,166	5.55	69.65%
Partners Group Direct Equity 2016 USD A	2016	\$ 20,000,000	\$ 11,005,566	\$ 3,277	\$ 15,187,313	1.40	24.21%
Partners Group Direct Investment 2012, L.P.	2013	\$ 18,222,819	\$ 16,509,621	\$ 13,841,499	\$ 15,763,171	1.79	19.85%
Partners Group European Mandate, L.P.	2004	\$ 239,170,339	\$ 196,155,787	\$ 247,457,434	\$ 18,333,841	1.37	5.75%
Partners Group European Mezzanine 2005	2005	\$ 101,076,654	\$ 101,076,654	\$ 121,118,042	\$ 991,555	1.21	3.08%
Partners Group Global Opp Limited	2017	\$ 4,001,119	\$ 4,001,119	\$ 888,306	\$ 5,511,143	1.60	45.56%
Partners Group Princess Learning IC LTD	2014	\$ 9,031,620	\$ 4,511,879	\$ -	\$ 10,584,989	2.35	29.33%
Partners Group Seabras Holdings, LLC	2015	\$ 4,660,000	\$ 3,332,156	\$ -	\$ 3,455,037	1.04	1.39%
Partners Group Secondary 2006 LP	2006	\$ 54,552,244	\$ 51,077,528	\$ 55,468,290	\$ 4,881,389	1.18	3.43%
Partners Group Secondary 2008, L.P.	2009	\$ 26,722,110	\$ 23,690,725	\$ 31,763,966	\$ 3,685,191	1.49	9.12%
Partners Group Starfrost Limited	2014	\$ 6,342,571	\$ 3,736,806	\$ 1,880,411	\$ 4,008,084	1.58	11.39%
Pathway Private Equity Fund VII, L.P.	2004	\$ 904,500,000	\$ 812,500,146	\$ 992,331,259	\$ 419,035,699	1.70	10.51%
Quad-C Partners IX, LP	2017	\$ 8,000,000	\$ 2,086,840	\$ 1,773	\$ 2,129,466	1.02	2.73%
Quantum Energy Partners IV, L.P.	2014	\$ 2,907,301	\$ 2,359,080	\$ 1,153,386	\$ 574,830	0.64	-15.75%
Quantum Energy Partners VI, L.P.	2015	\$ 8,000,000	\$ 4,688,480	\$ 1,766,985	\$ 7,048,257	1.88	45.64%
Quantum Energy Partners VII Co-Investment Fund, LP	2017	\$ 1,300,000	\$ 386,462	\$ 525	\$ 382,995	0.99	-0.98%
Quantum Energy Partners VII, LP	2017	\$ 6,700,000	\$ 2,300,564	\$ 109,137	\$ 2,172,201	0.99	-1.30%
Quantum Parallel Partners VI-C, LP	2015	\$ 3,290,000	\$ 1,778,996	\$ 215,034	\$ 2,523,971	1.54	38.81%
Siguler Guff DOF II	2006	\$ 30,000,000	\$ 30,000,000	\$ 42,308,298	\$ 320,352	1.43	8.73%
Siguler Guff DOF III	2008	\$ 10,000,000	\$ 9,700,000	\$ 13,738,513	\$ 1,769,965	1.60	10.69%
SL Capital SOF I LP	2014	\$ 25,000,000	\$ 20,293,684	\$ 13,050,451	\$ 14,332,644	1.35	12.72%
SL Capital SOF III LP	2017	\$ 25,000,000	\$ 4,874,450	\$ -	\$ 7,721,313	1.58	86.31%
TCP Direct Lending Fund VIII-L, LLC	2016	\$ 40,000,000	\$ 13,220,417	\$ -	\$ 14,436,105	1.09	5.78%
TCV IX, L.P.	2016	\$ 10,000,000	\$ 3,981,000	\$ -	\$ 4,063,201	1.02	2.50%
TCW/Crescent Mezzanine IV, L.P.	2006	\$ 40,000,000	\$ 39,590,976	\$ 44,955,179	\$ 101,146	1.14	3.03%
TCW/Crescent Mezzanine V, L.P.	2008	\$ 20,000,000	\$ 19,949,723	\$ 25,279,574	\$ 1,425,239	1.34	9.52%
Tennenbaum Energy Opportunities Fund, LP	2016	\$ 20,000,000	\$ 15,903,555	\$ 3,162,610	\$ 16,563,772	1.24	18.10%
Tennenbaum Opportunities Fund V, L.P.	2007	\$ 10,000,000	\$ 10,000,000	\$ 11,224,122	\$ 3,258,668	1.45	5.61%
Tennenbaum Opportunities Fund VI, L.P.	2011	\$ 20,000,000	\$ 12,332,075	\$ 10,725,321	\$ 9,188,444	1.61	8.50%
Tennenbaum Special Situations Fund IX	2015	\$ 50,000,000	\$ 31,128,271	\$ 8,402,055	\$ 29,411,690	1.21	11.16%
Tennenbaum Waterman Fund, LP	2012	\$ 70,000,000	\$ 70,000,000	\$ 37,137,234	\$ 70,958,404	1.54	11.22%
The Huron Fund V	2017	\$ 10,000,000	\$ 1,075,000	\$ -	\$ 837,170	0.78	-22.12%
The Resolute Fund II - Secondary	2016	\$ 1,720,184	\$ 7,760,939	\$ 664,794	\$ 7,107,954	1.00	0.35%
The Resolute Fund III	2014	\$ 8,000,000	\$ 7,232,375	\$ 2,079,561	\$ 8,275,253	1.43	21.36%
The Resolute Fund IV, L.P.	2018	\$ 6,000,000	\$ -	\$ -	\$ -	0.00	N/A
Thoma Bravo Discover Fund I	2015	\$ 3,000,000	\$ 2,243,313	\$ 315,308	\$ 3,103,305	1.52	26.80%
Thoma Bravo XI	2014	\$ 8,000,000	\$ 7,086,492	\$ 3,338,830	\$ 12,364,190	2.22	26.43%
Thoma Bravo XII	2016	\$ 10,000,000	\$ 8,854,355	\$ -	\$ 9,714,318	1.10	8.66%
Towerbrook III 2ndry	2017	\$ 1,520,778	\$ 383,292	\$ 248,474	\$ 238,226	1.25	23.93%
Towerbrook IV (OS) 2ndry	2017	\$ 760,389	\$ 401,349	\$ 19,863	\$ 513,896	1.33	29.01%
Vista Foundation Fund III	2016	\$ 10,000,000	\$ 4,977,037	\$ -	\$ 5,199,415	1.04	4.27%
Total: San Bernardino		\$ 2,883,263,356	\$ 2,382,982,156	\$ 2,484,698,396	\$ 1,134,655,095	1.50	8.98%

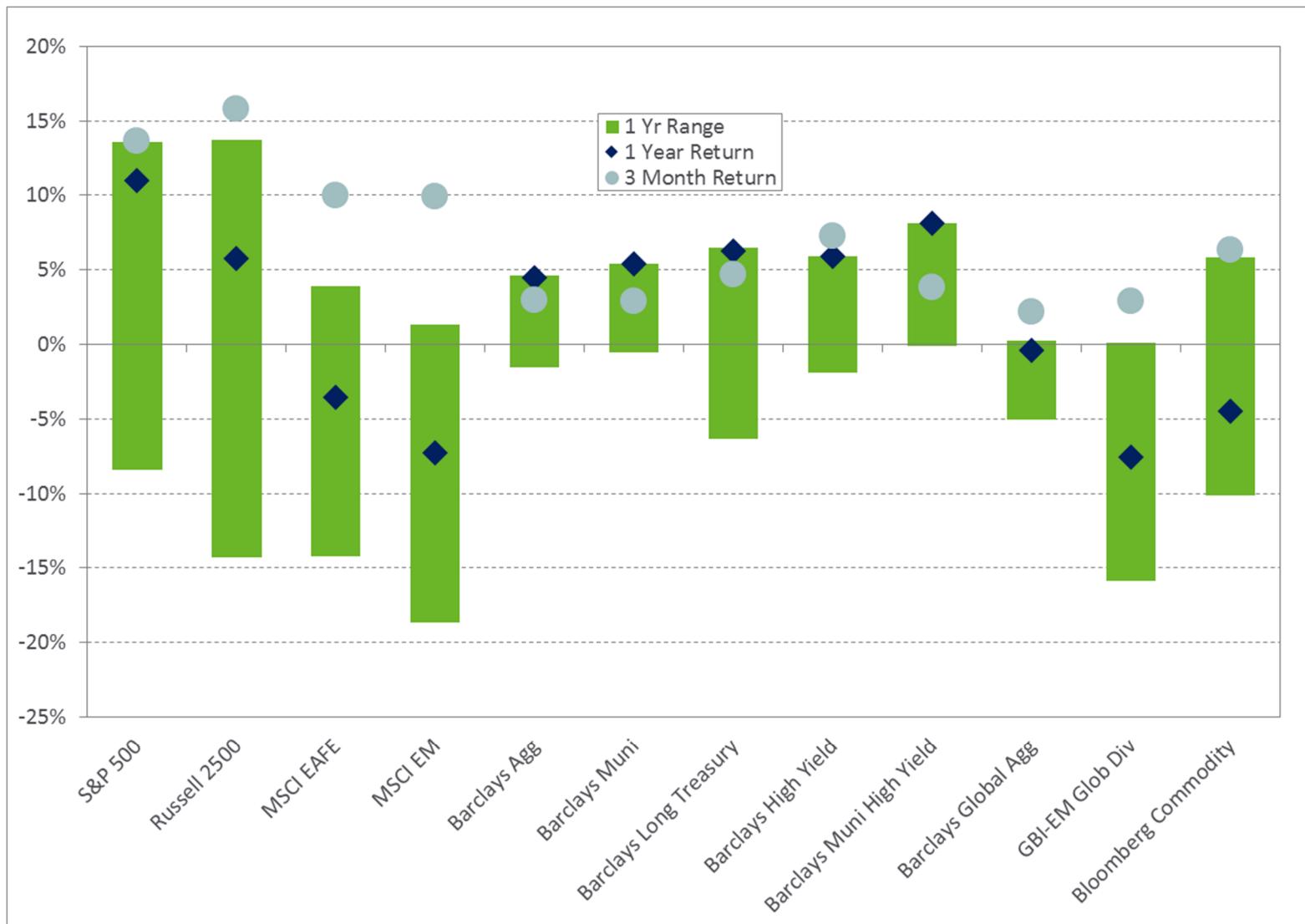
Note: All metrics are calculated since inception. * Denotes Cash adjusted value



APPENDIX : MARKET OUTLOOK

NEPC, LLC

SHORT-TERM PERFORMANCE SUMMARY

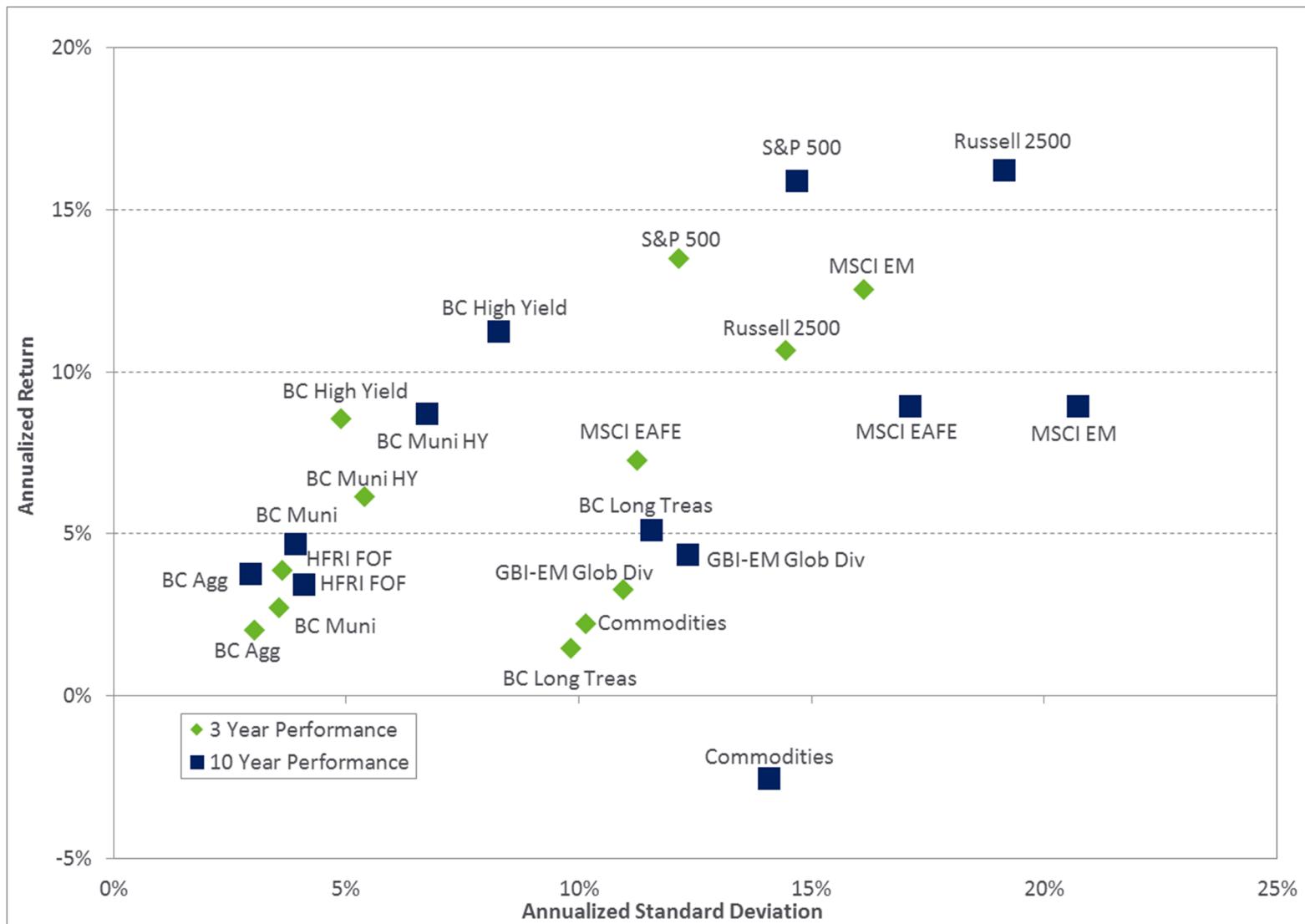


Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan

*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago



LONG-TERM PERFORMANCE SUMMARY



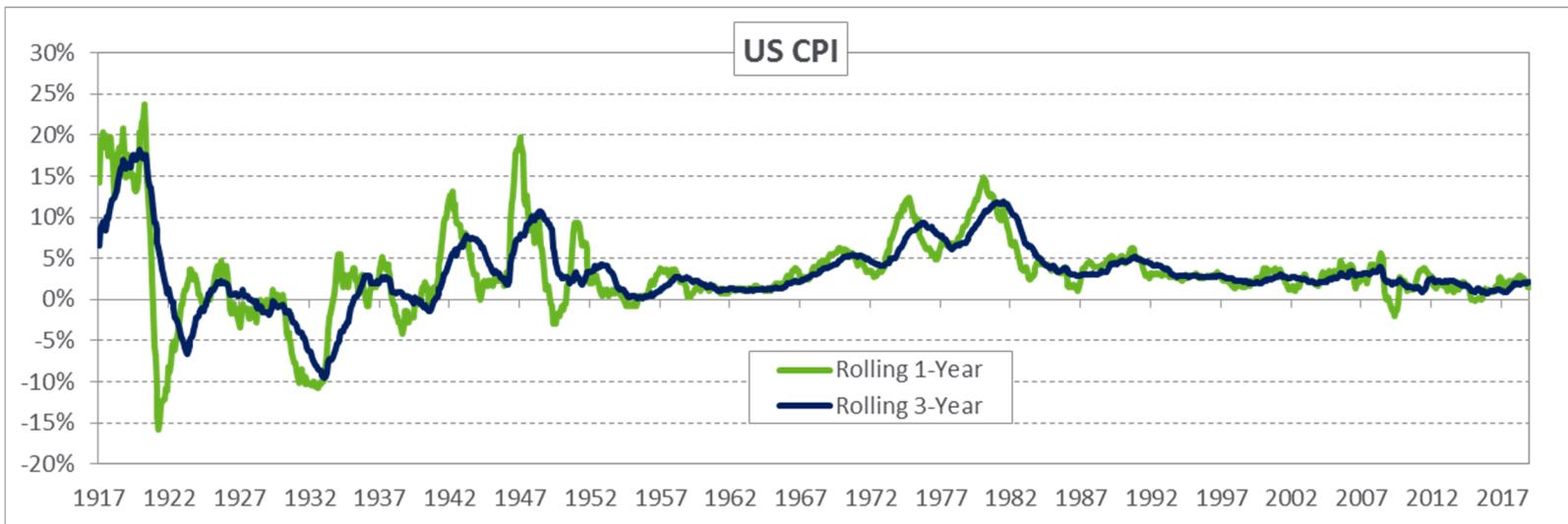
Source: Bloomberg, Standard and Poor's, Russell, MSCI, Barclays, JP Morgan



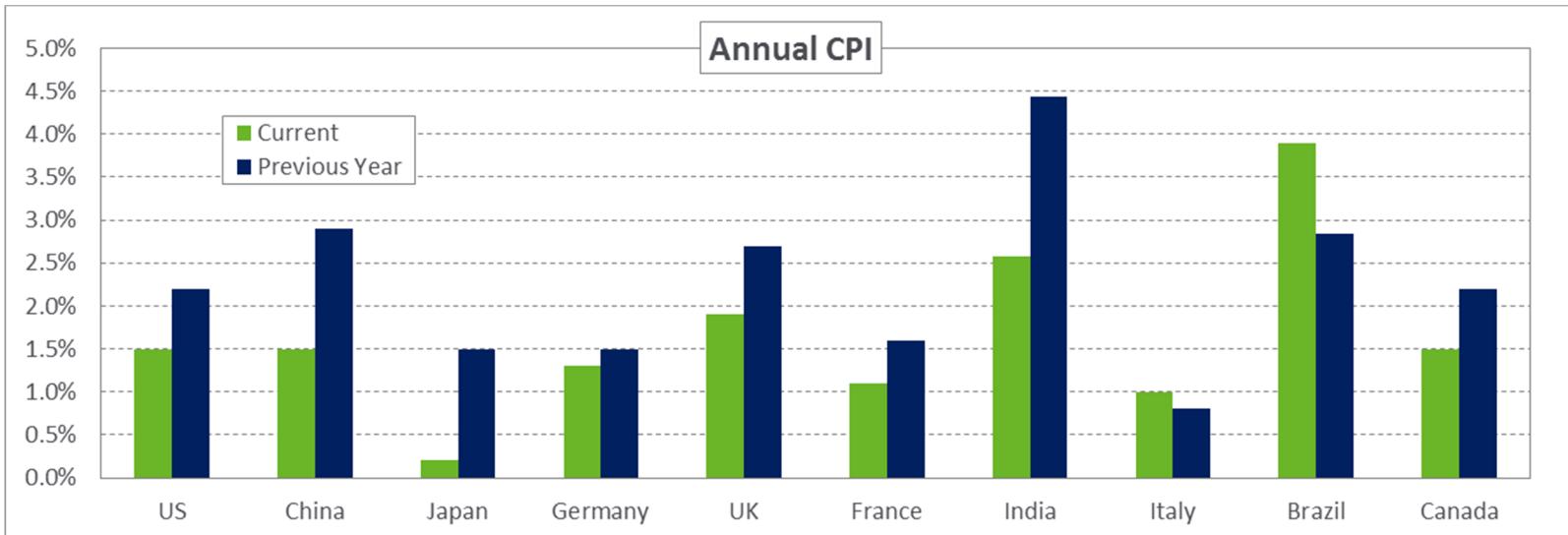
MACRO

NEPC, LLC

INFLATION



Source: Bureau of Labor Statistics, Bloomberg, NEPC



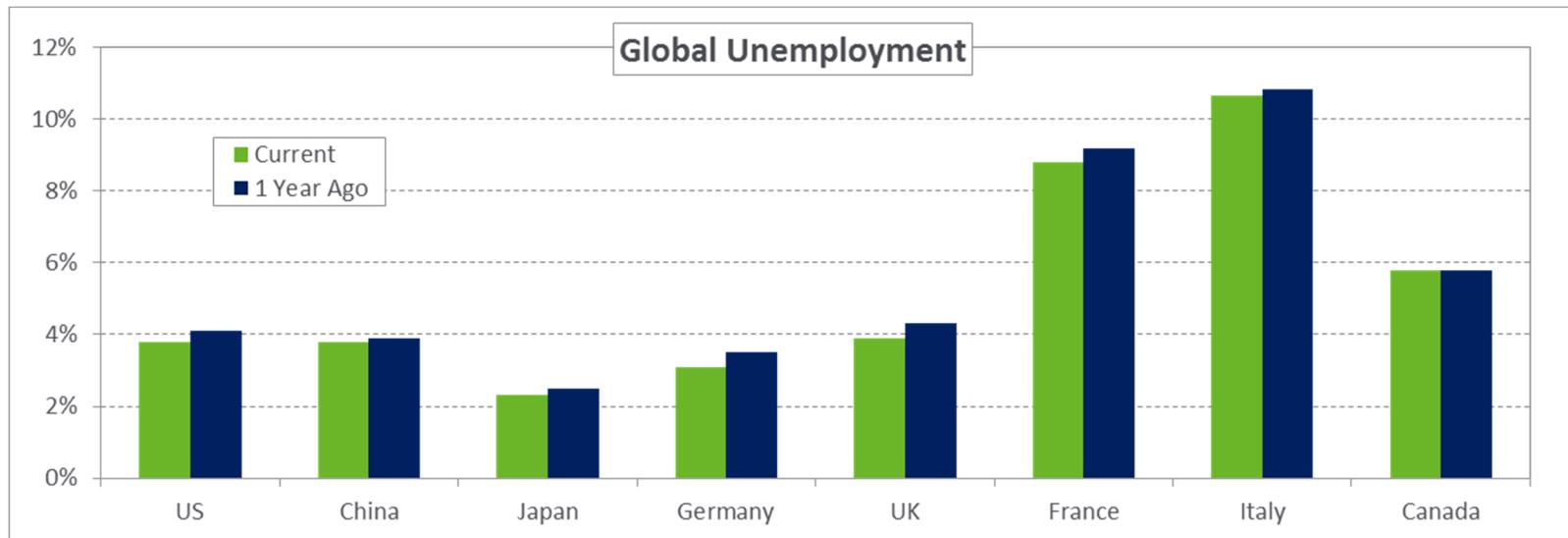
Source: Bureau of Labor Statistics, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, India Central Statistical Organization, ISTAT, IBGE, STCA, Bloomberg



UNEMPLOYMENT



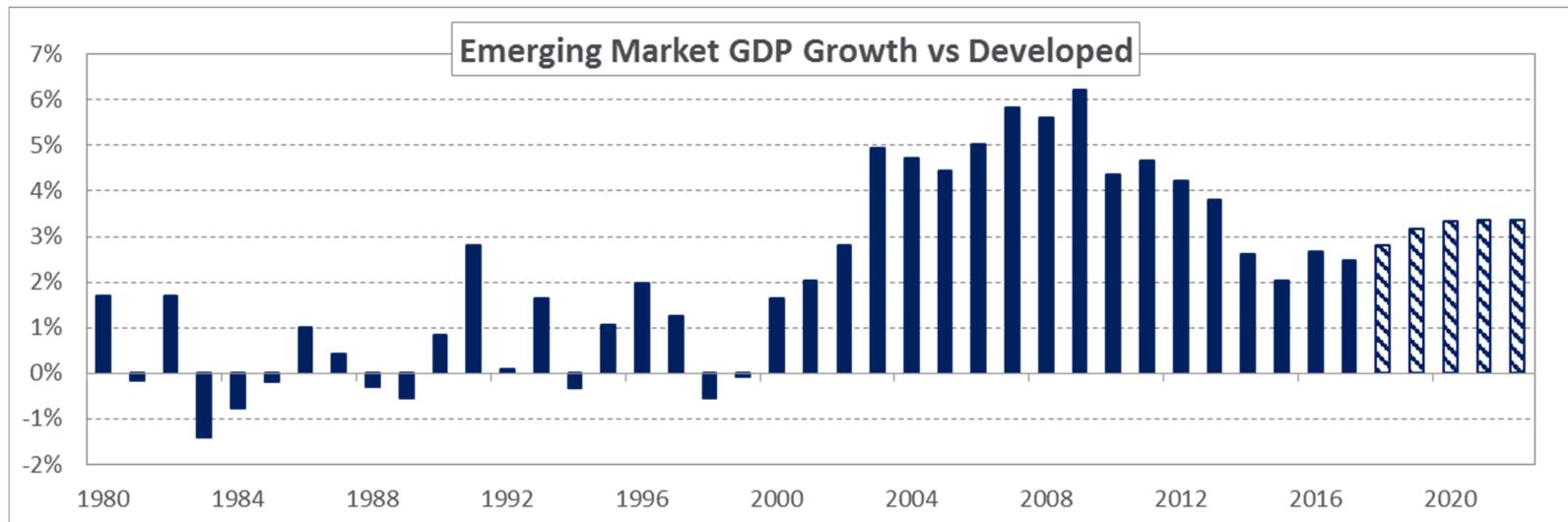
Source: Bureau of Labor Statistics, Bloomberg



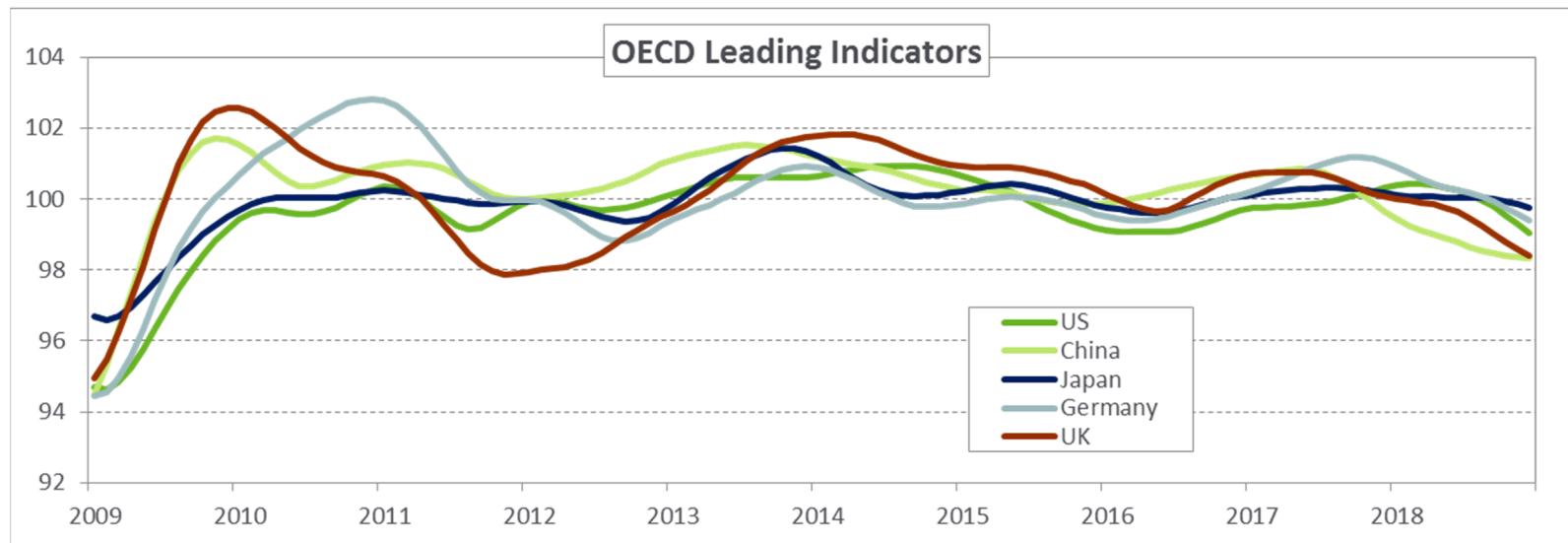
Source: Bureau of Labor Statistics, STA, National Bureau of Statistics of China, Ministry of Internal Affairs and Communications (Japan), German Federal Statistics Office, UK Office for National Statistics, National Statistics Office of France, ISTAT, IBGE, Bloomberg



ECONOMIC INDICATORS



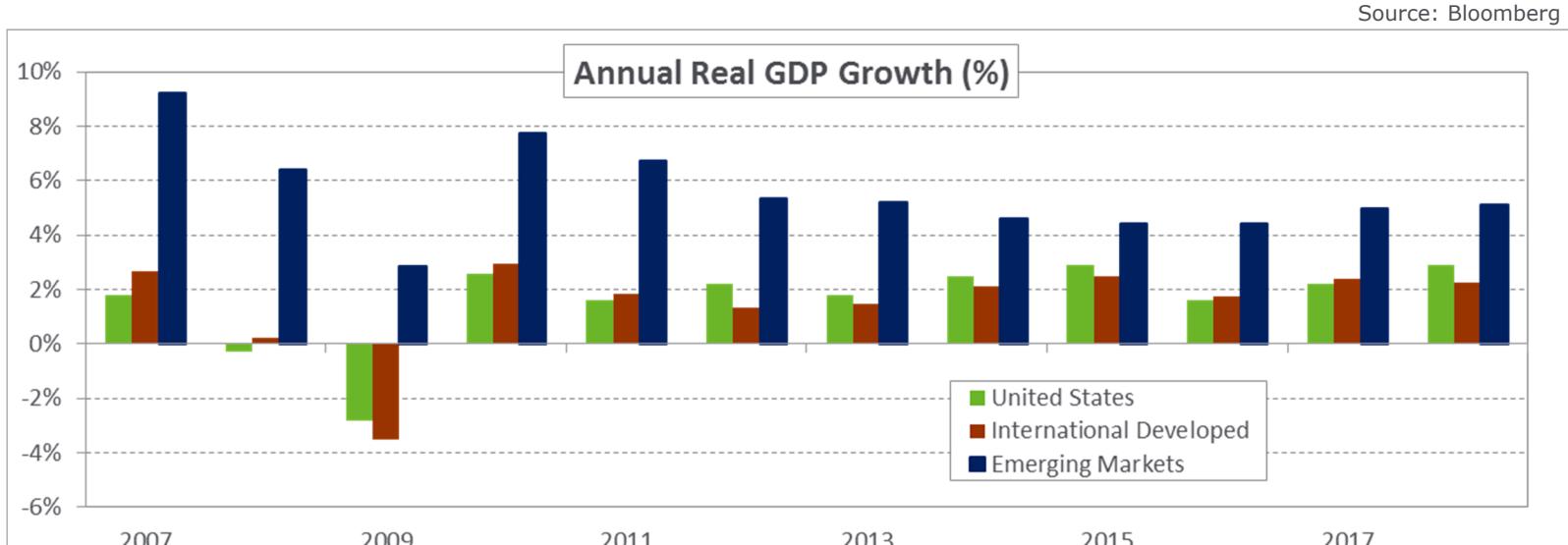
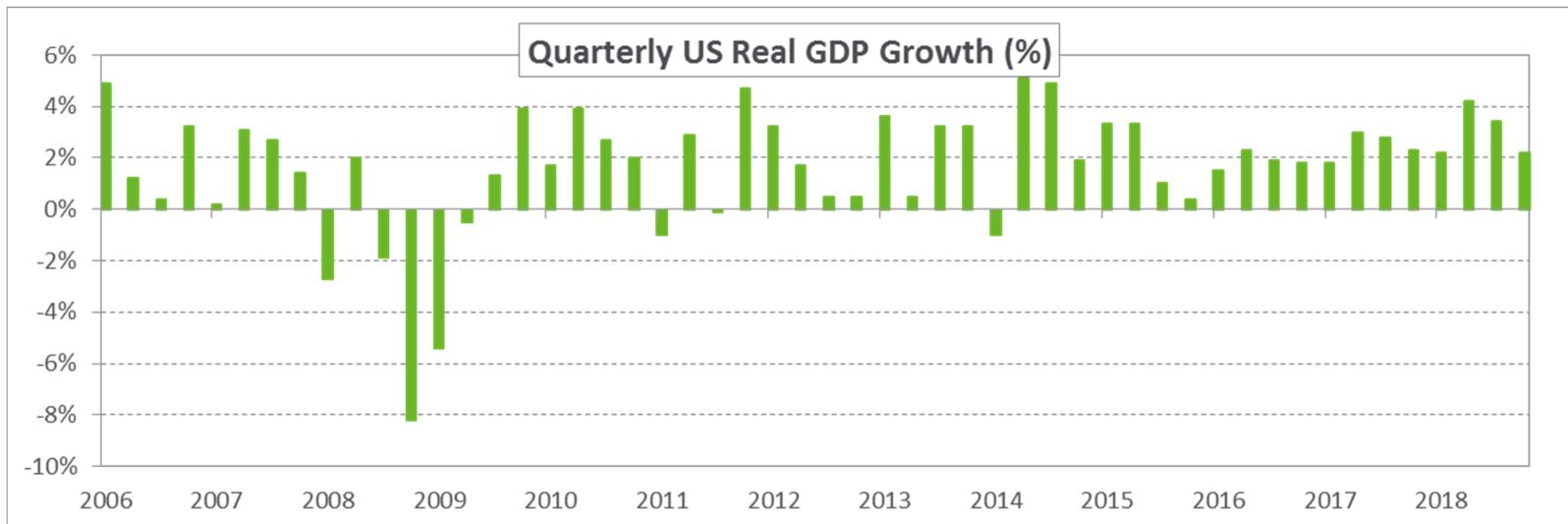
Source: IMF



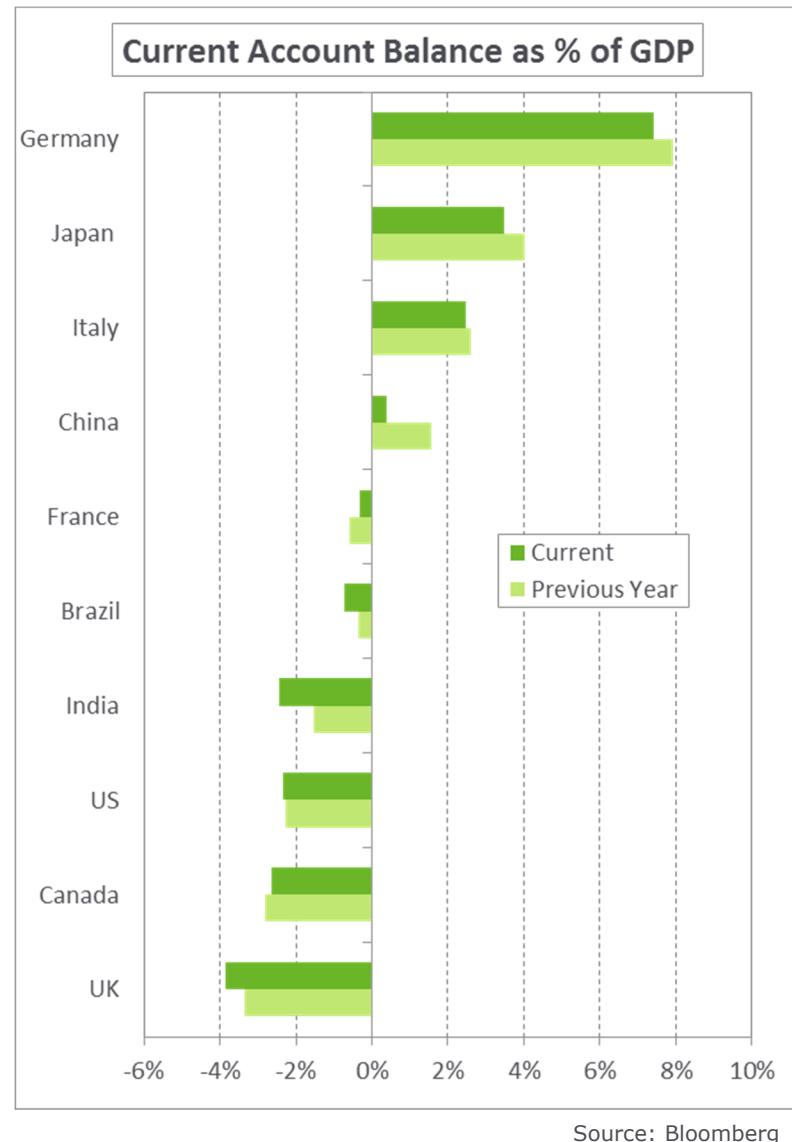
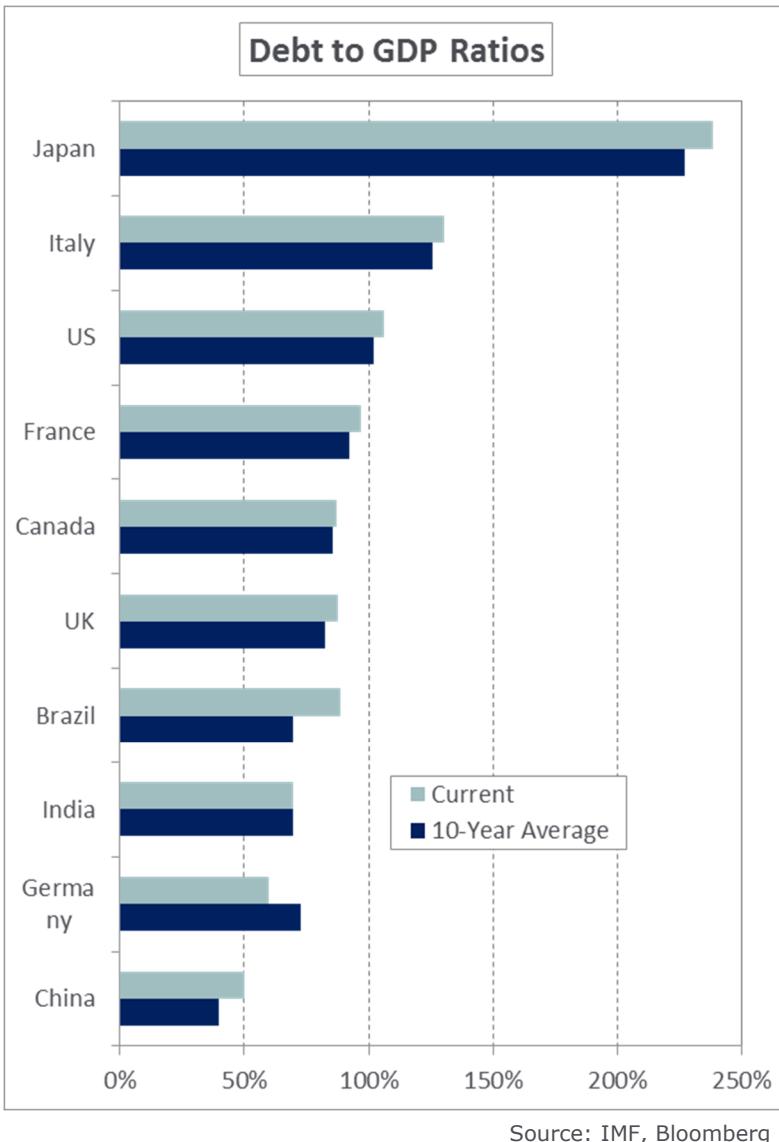
Source: OECD, Bloomberg



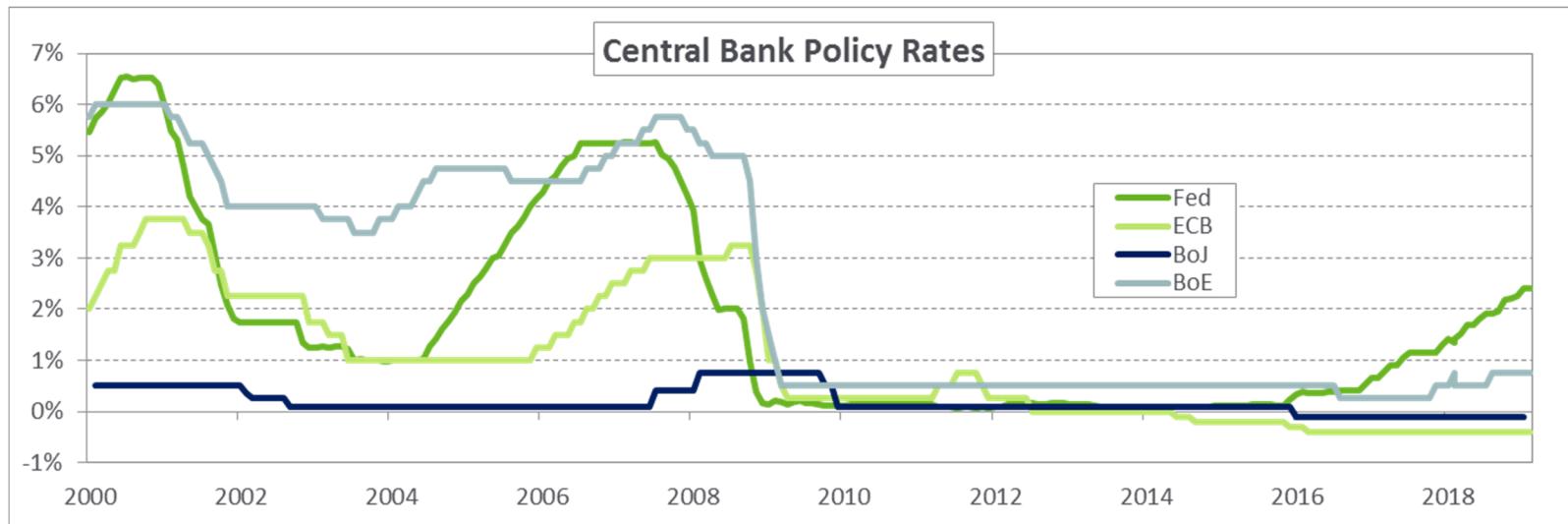
GROSS DOMESTIC PRODUCT



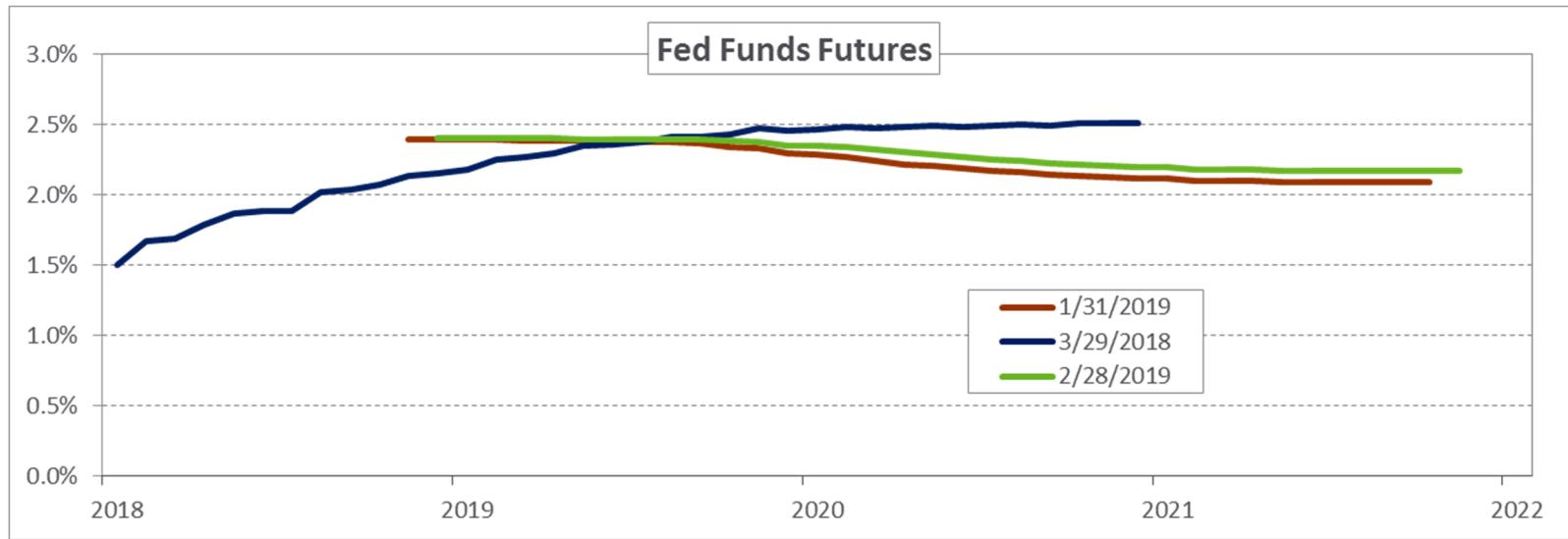
GROSS DOMESTIC PRODUCT METRICS



CENTRAL BANK RATES



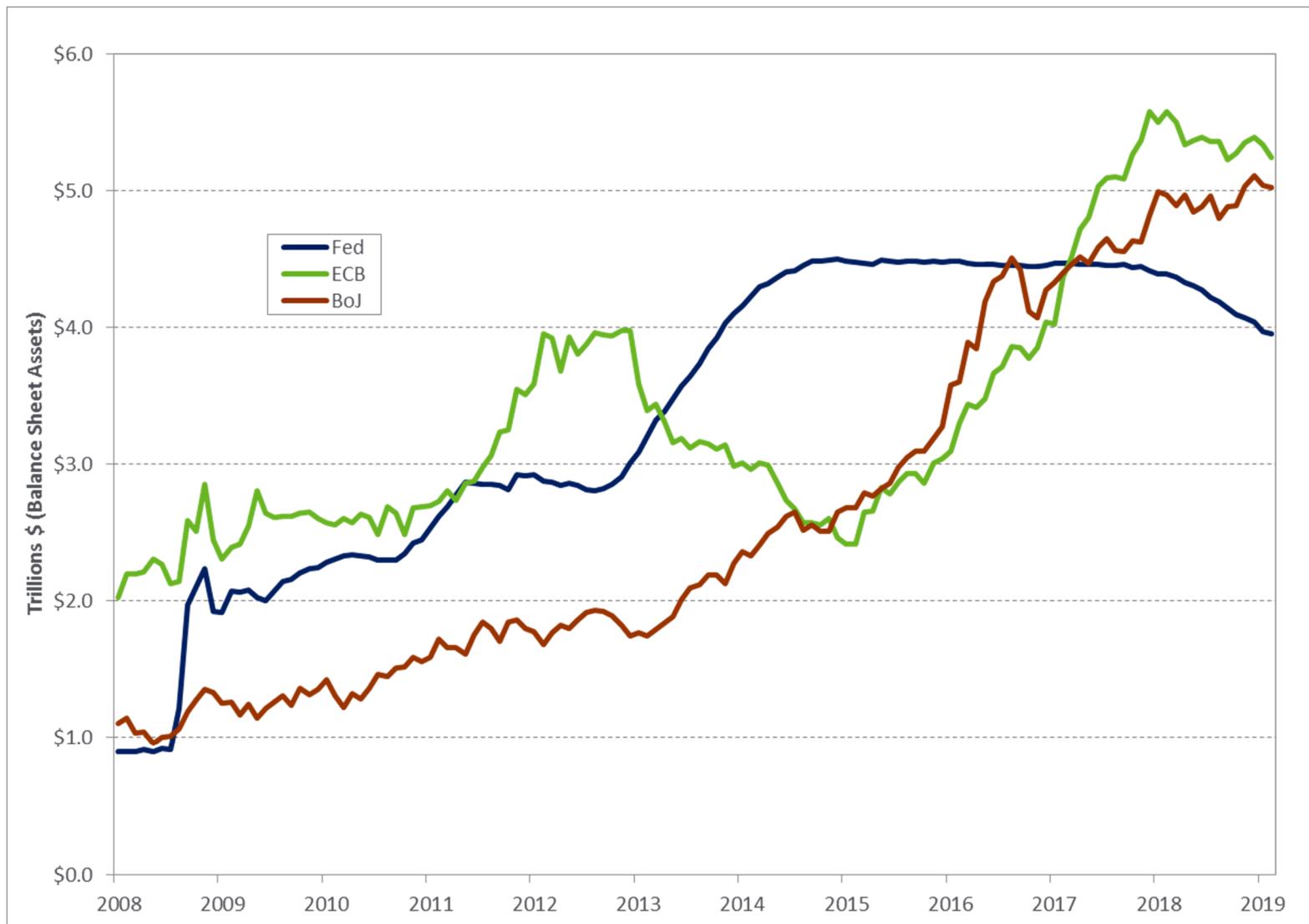
Source: Federal Reserve, ECB, Bank of Japan, Bank of England, Bloomberg



Source: Bloomberg



CENTRAL BANK BALANCE SHEETS



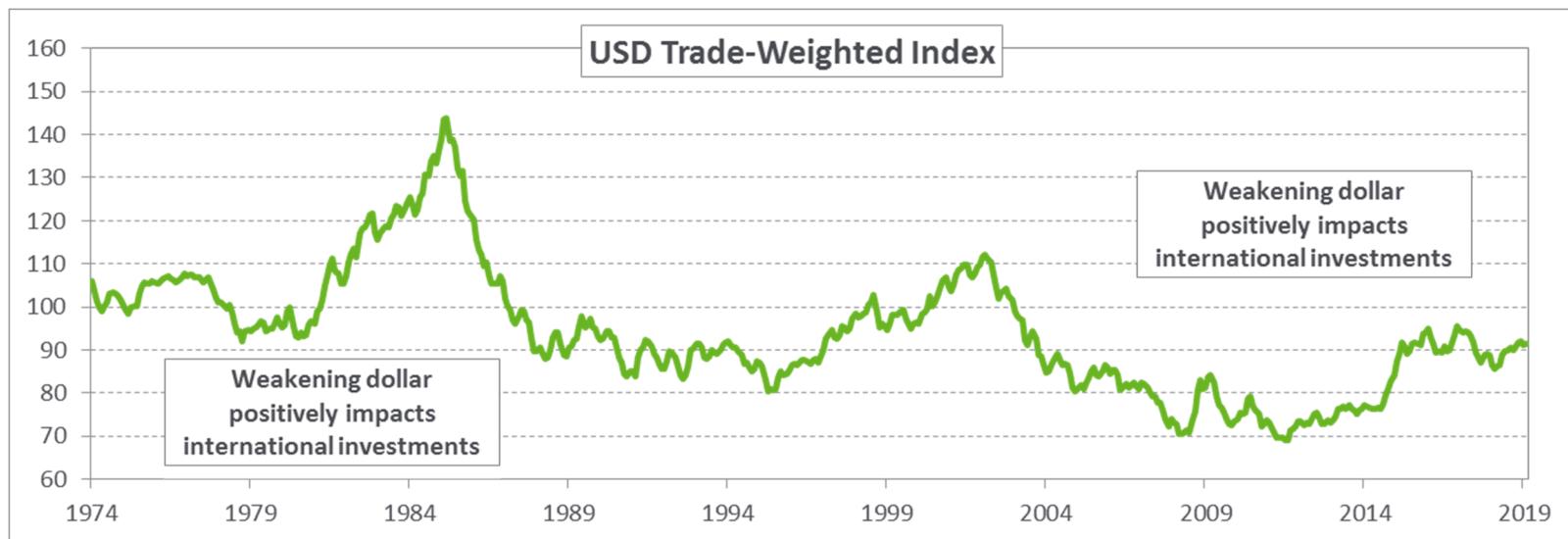
Source: Federal Reserve, Bank of Japan, ECB, Bloomberg, NEPC



CURRENCIES

Currencies	Spot	% Change Relative to USD		
		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%

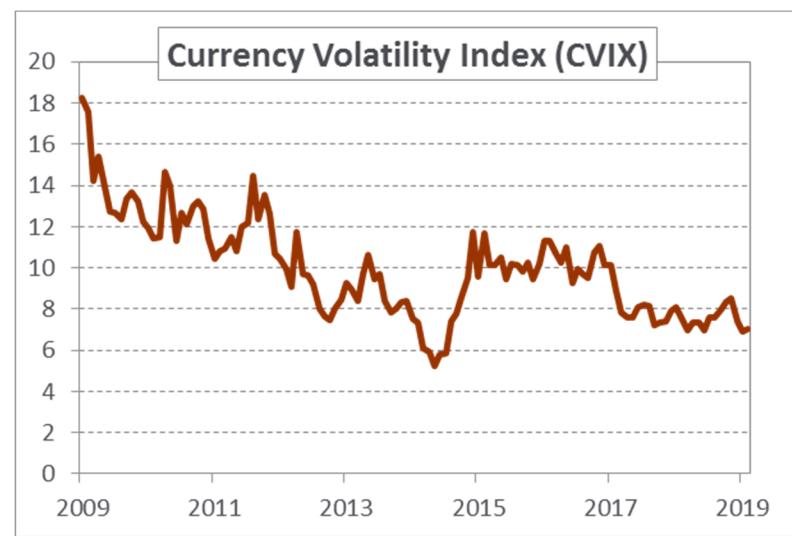
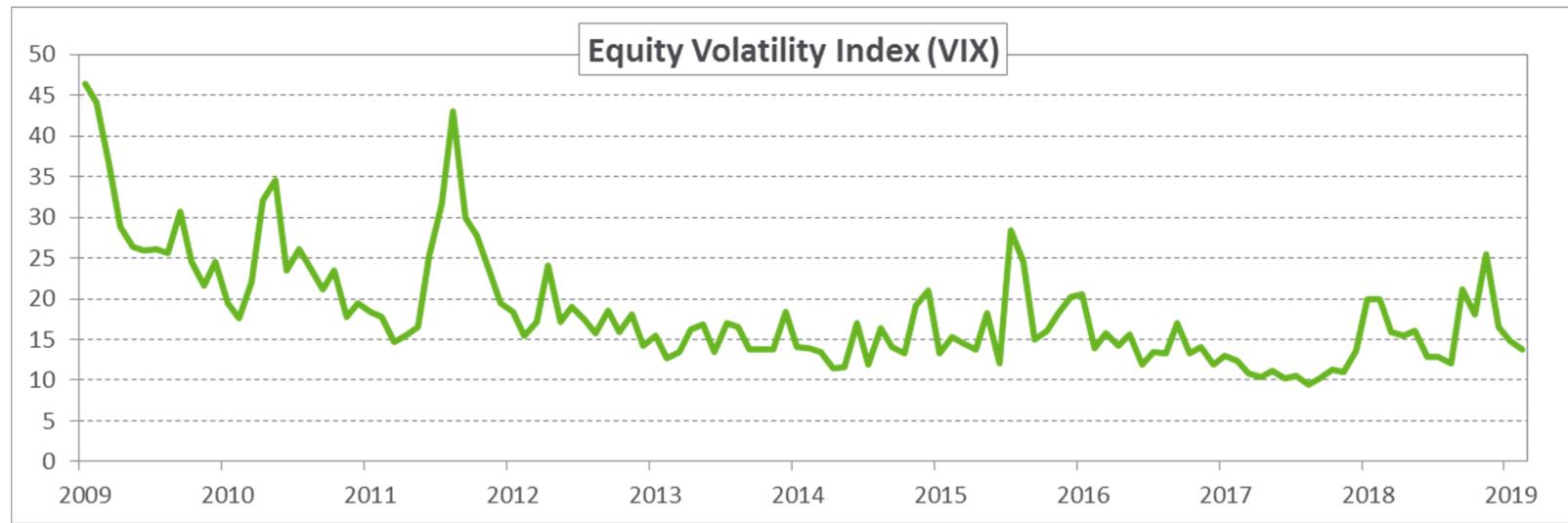
Source: Bloomberg



Source: Bloomberg



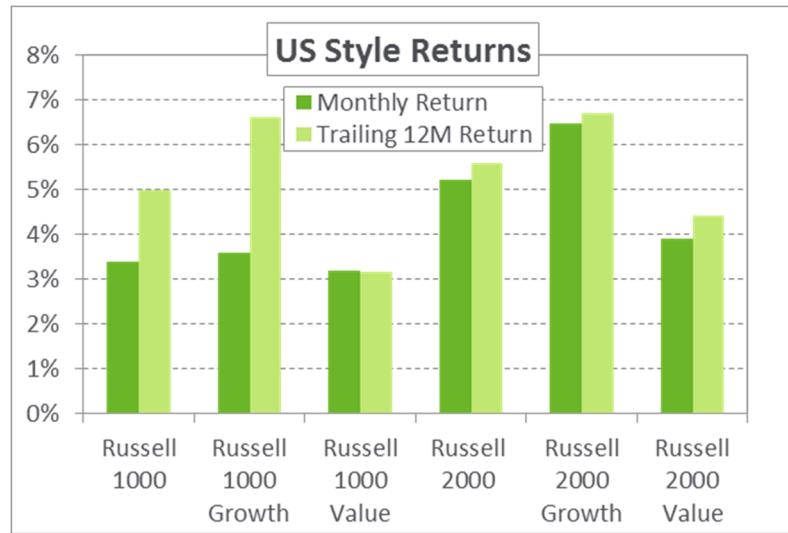
VOLATILITY



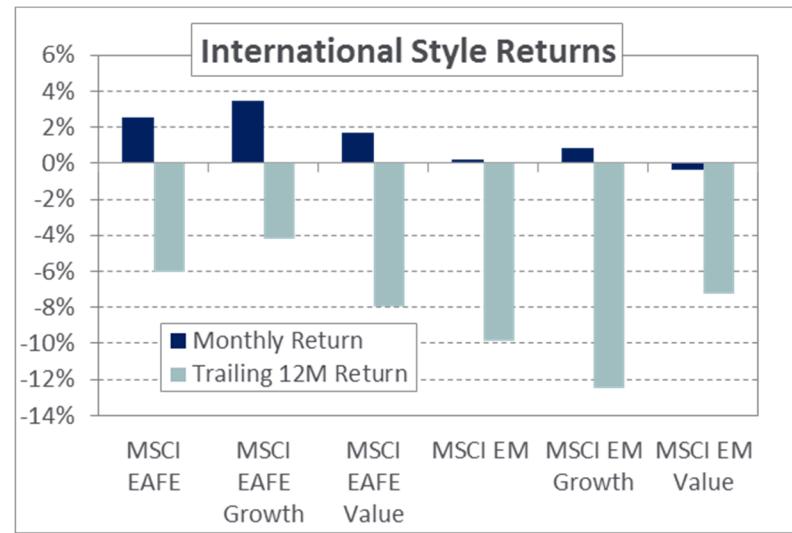
EQUITY

NEPC, LLC

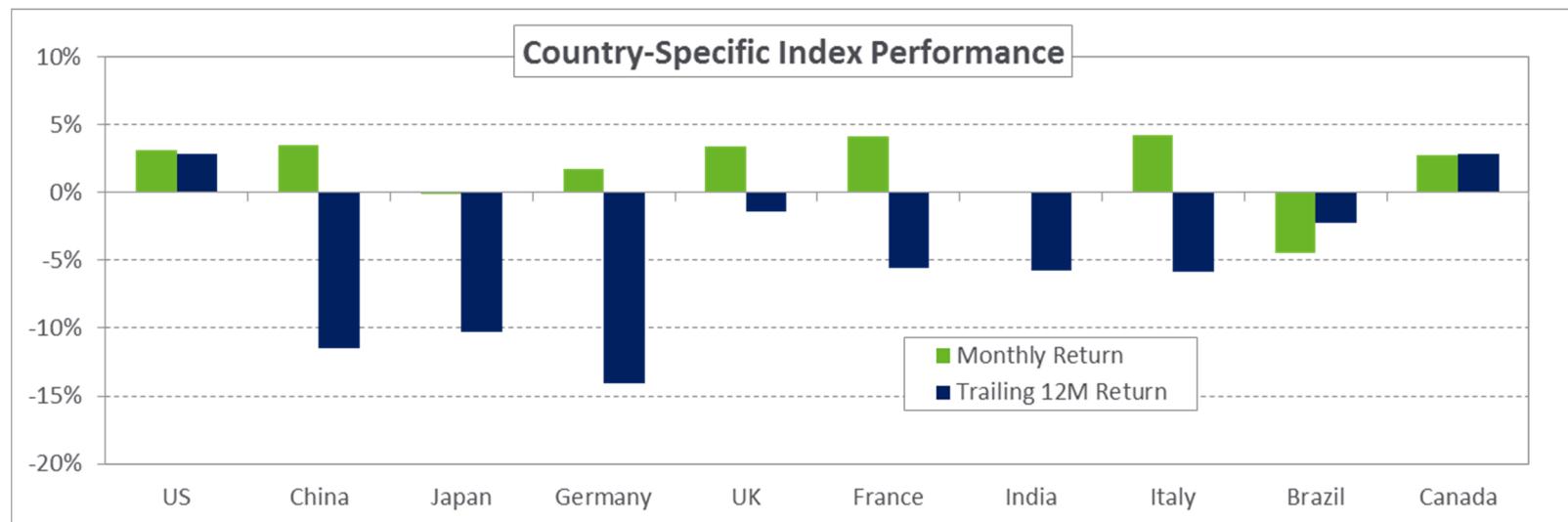
EQUITY INDEX PERFORMANCE



Source: Russell, Bloomberg



Source: MSCI, Bloomberg



Source: MSCI, Bloomberg
Represents returns in USD

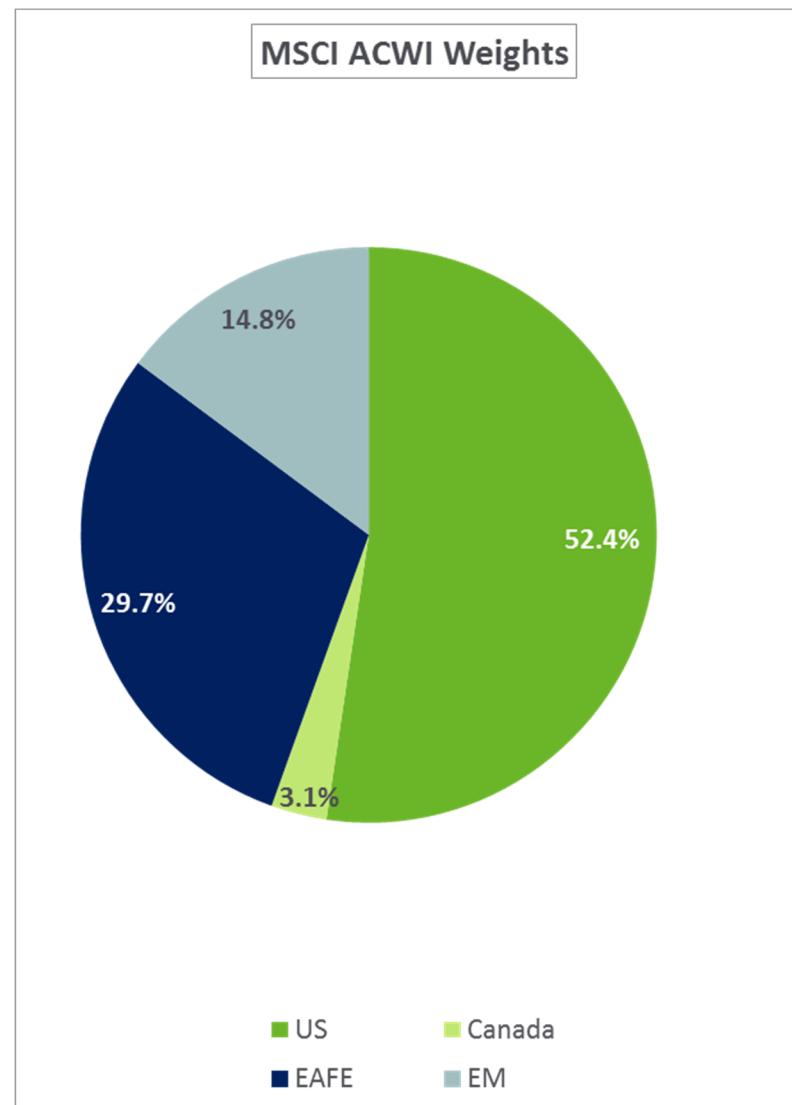


INDEX COMPOSITION

	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%

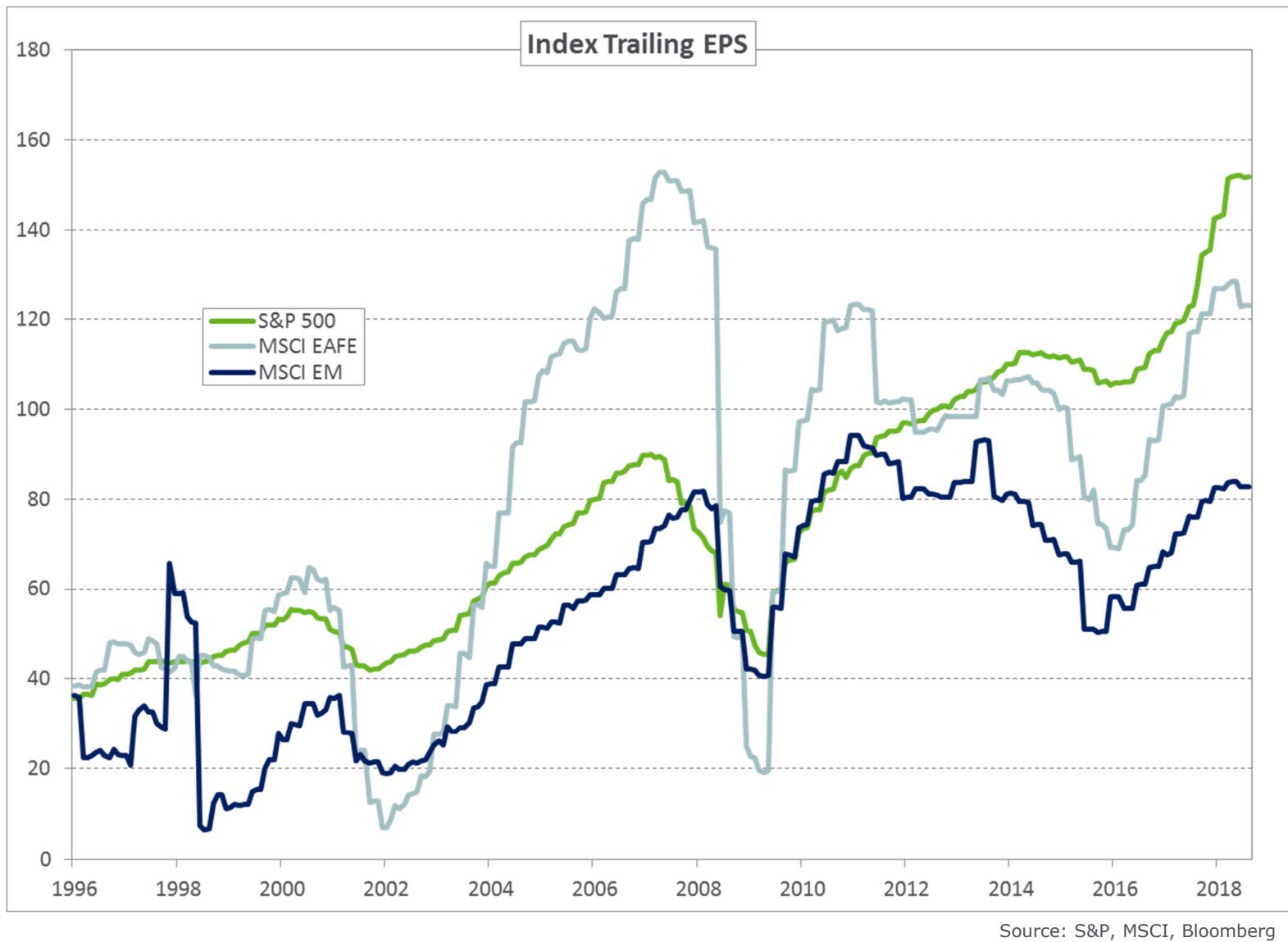
Source: S&P, MSCI, Bloomberg



Source: MSCI, Bloomberg



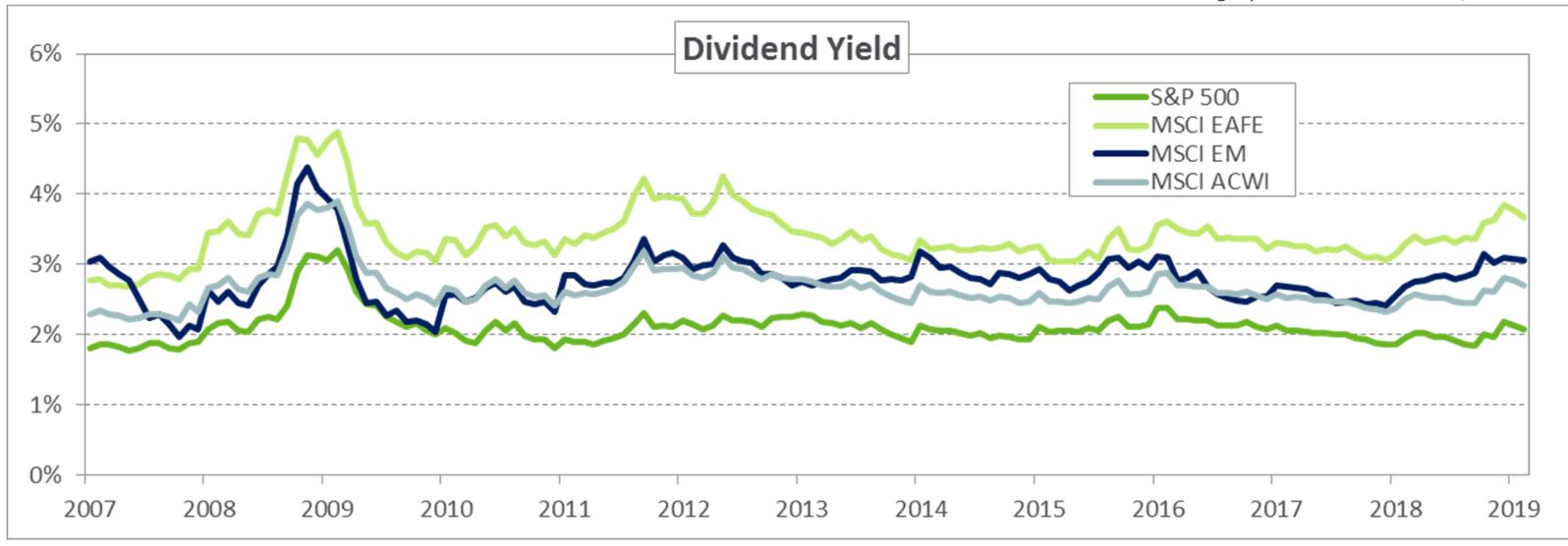
EARNINGS



YIELDS



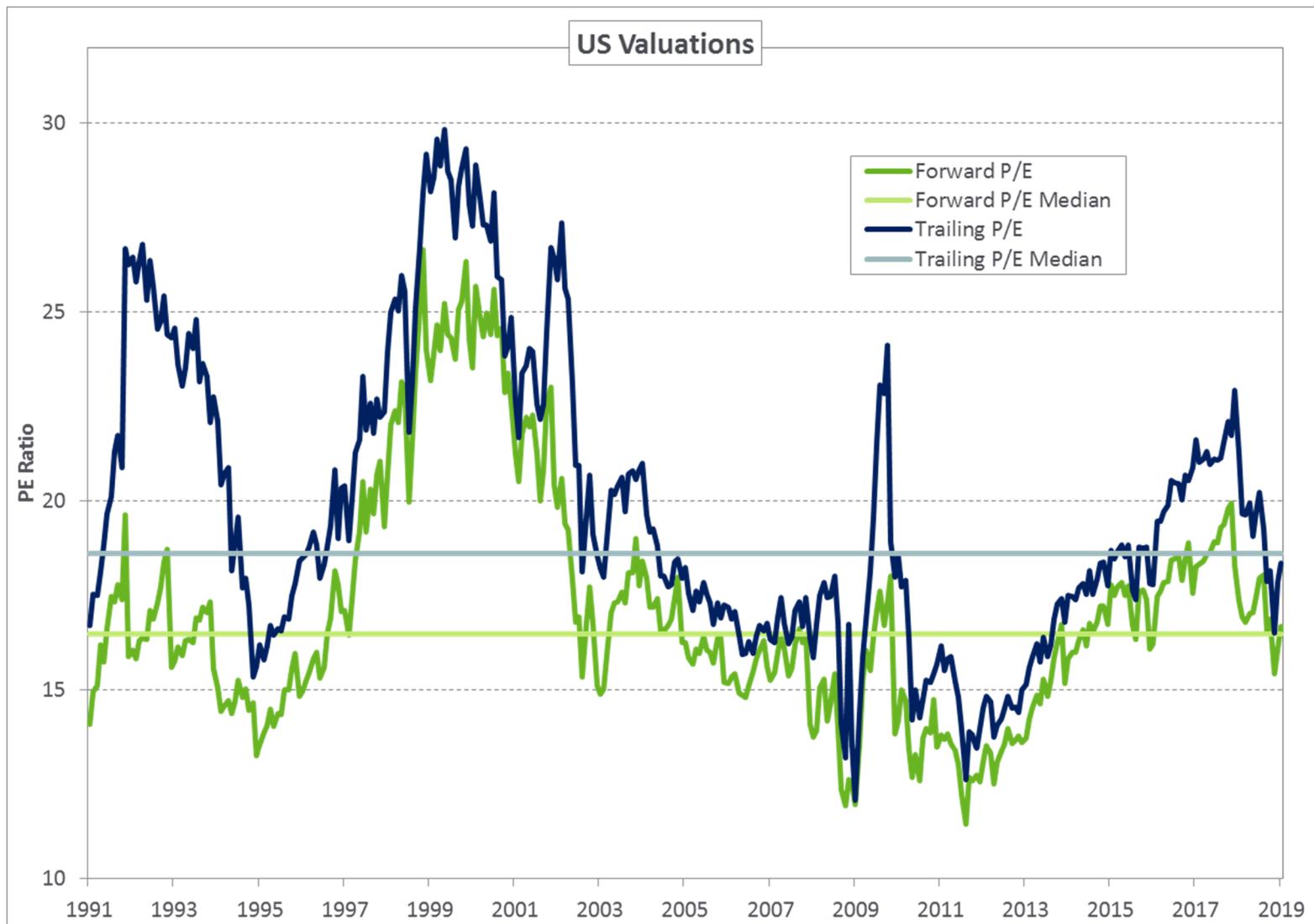
Source: S&P, MSCI, Bloomberg
Earnings yield calculated as 1/PE Ratio



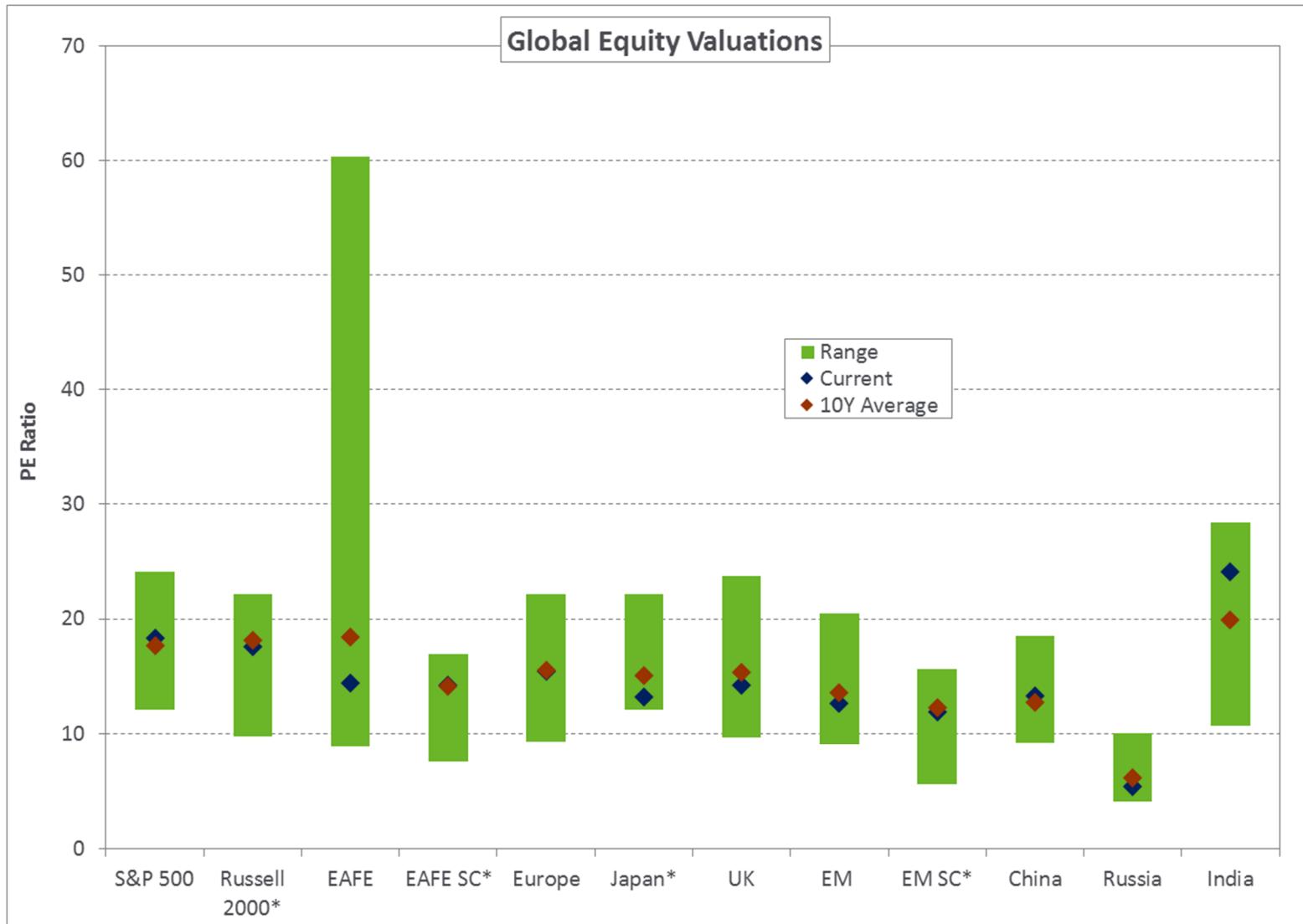
Source: S&P, MSCI, Bloomberg



US EQUITY VALUATIONS



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

NEPC, LLC

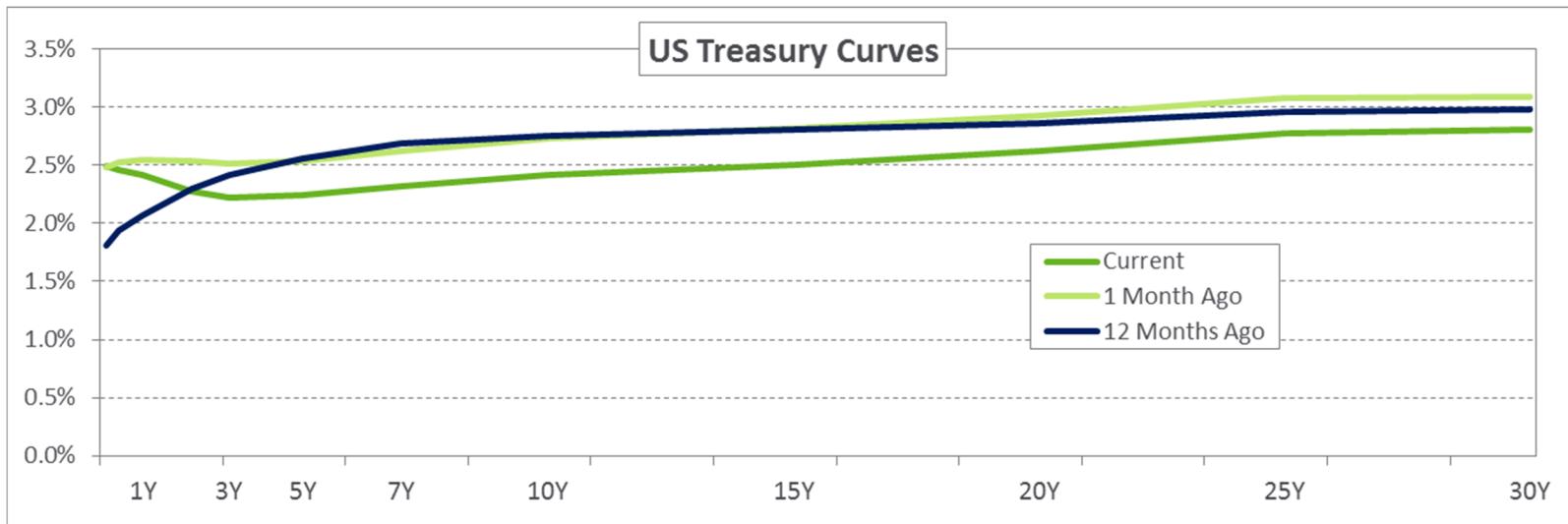
FIXED INCOME CHARACTERISTICS

	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



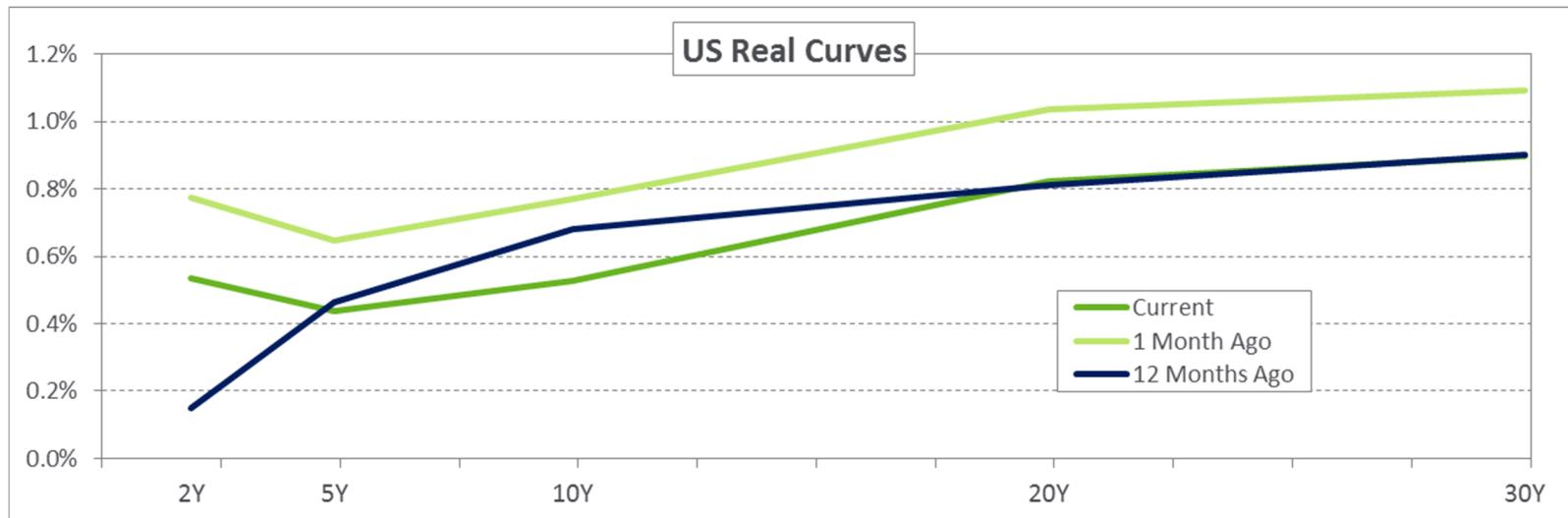
Source: Bloomberg

	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



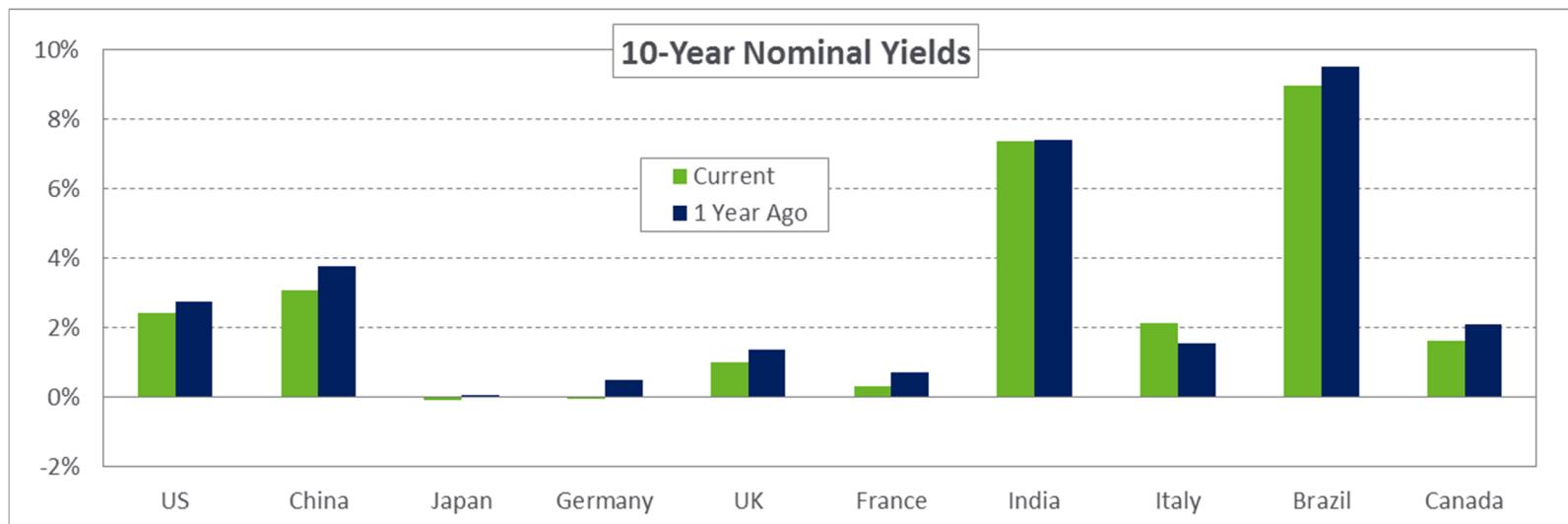
Source: Bloomberg

	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%

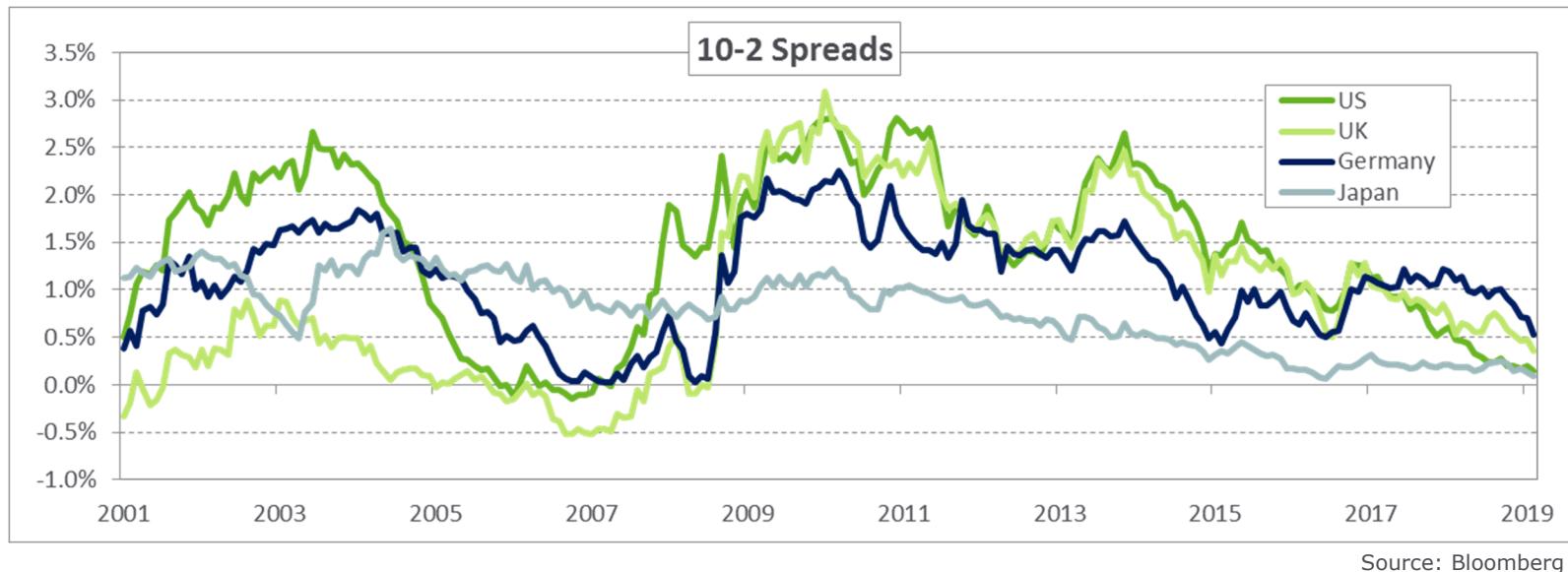
Source: Barclays, Bloomberg



NOMINAL YIELDS



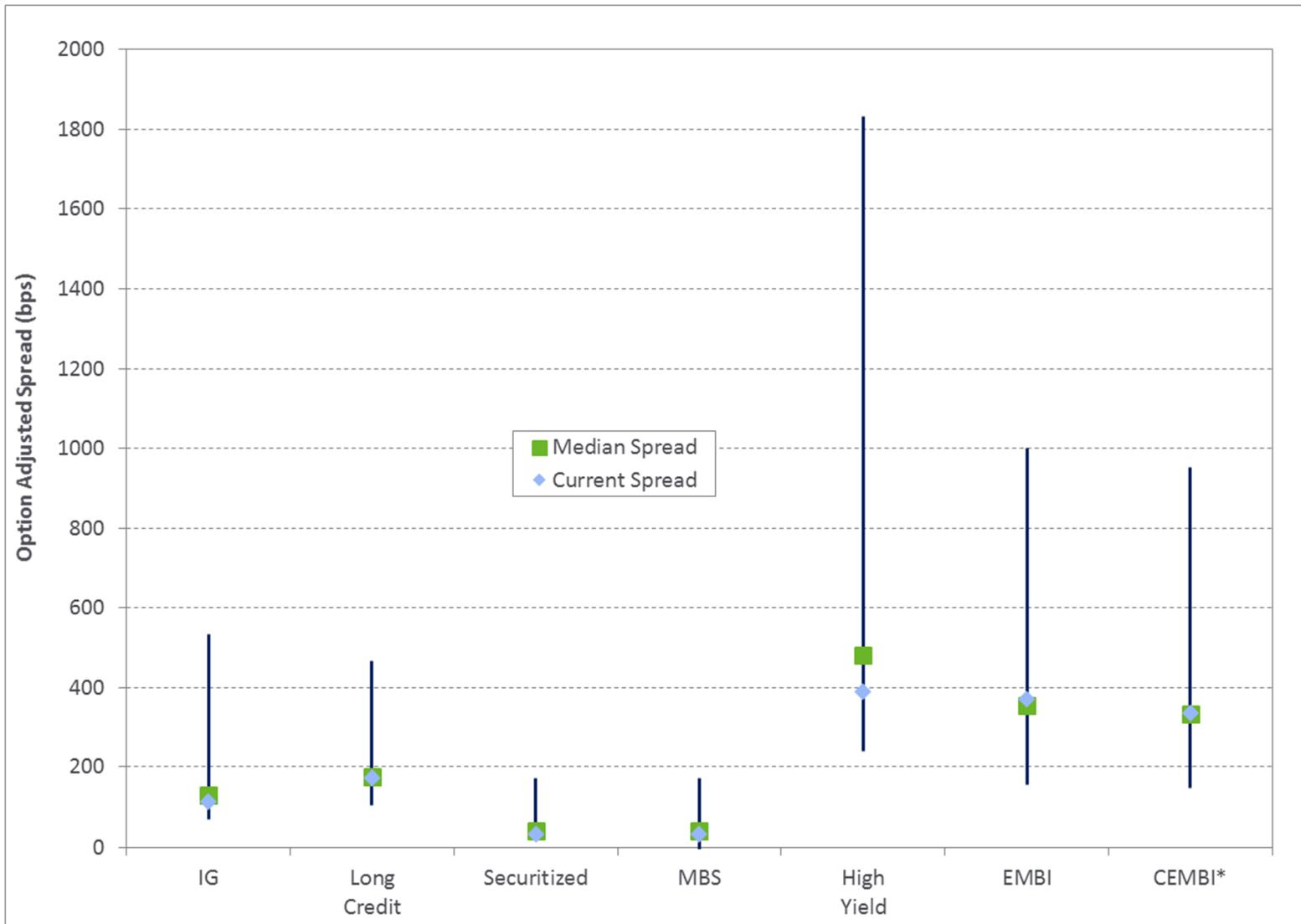
Source: Bloomberg



Source: Bloomberg



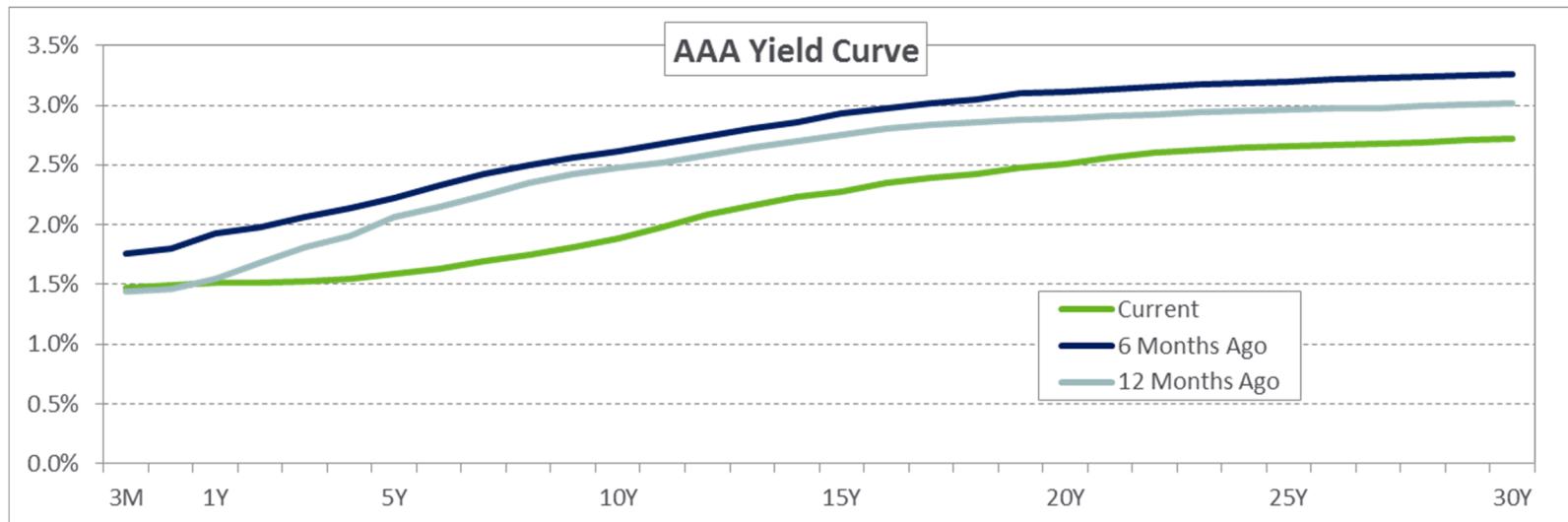
CREDIT SPREADS



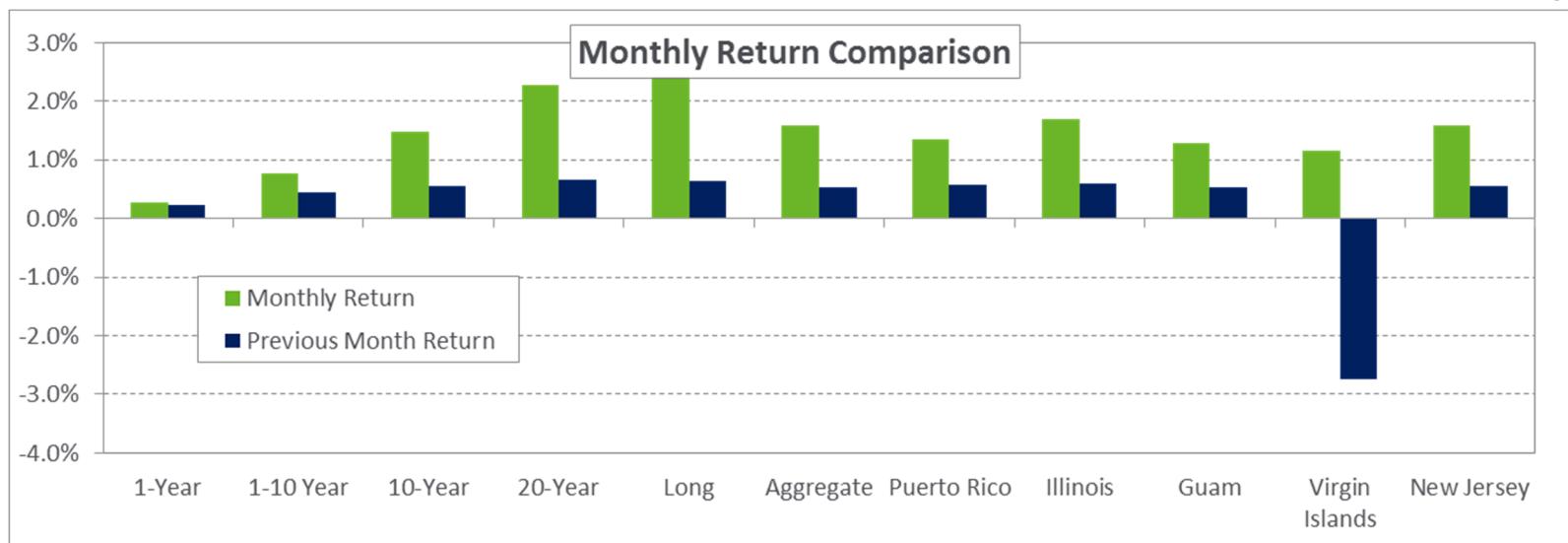
Source: Barclays, JPM, Bloomberg
Data range: 01/31/2000 through month-end
*JPM CEMBI calculated since 12/31/2001



MUNICIPAL BONDS



Source: Bloomberg



Source: Barclays, Bloomberg



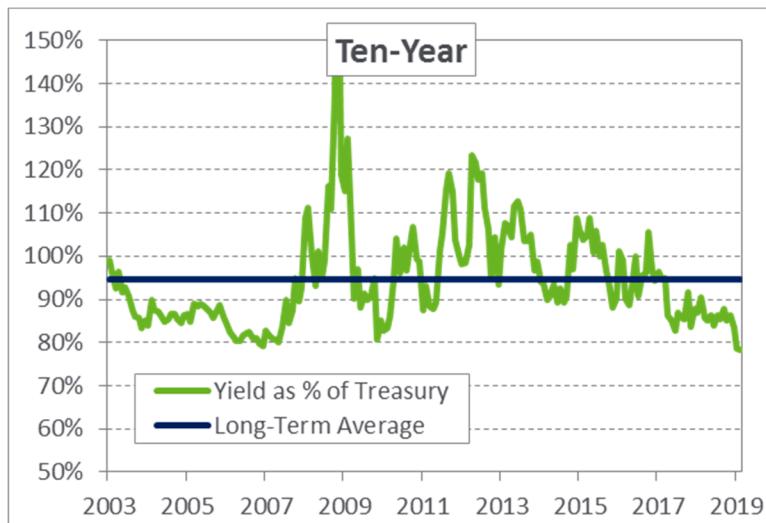
MUNICIPAL BOND YIELDS



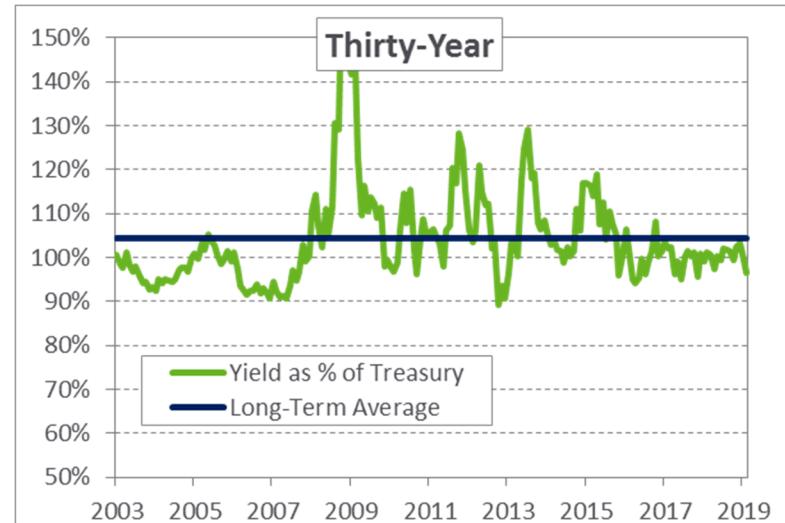
Source: Bloomberg
Long-term average calculated since 2/28/2003



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



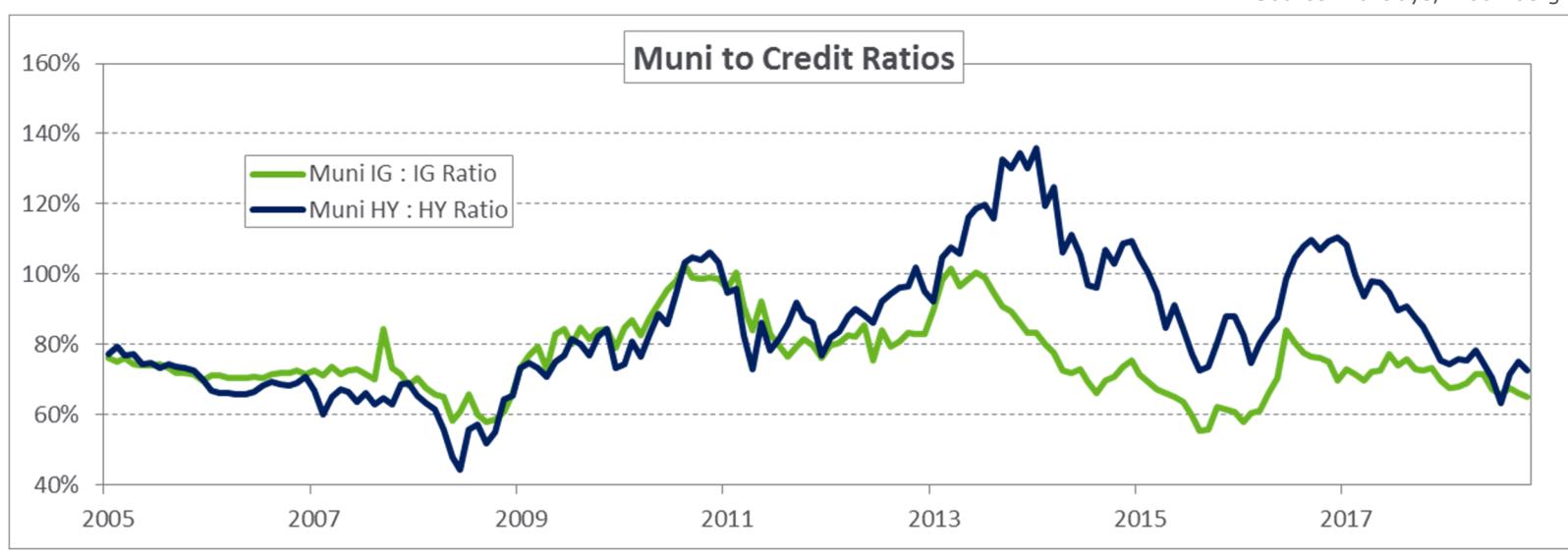
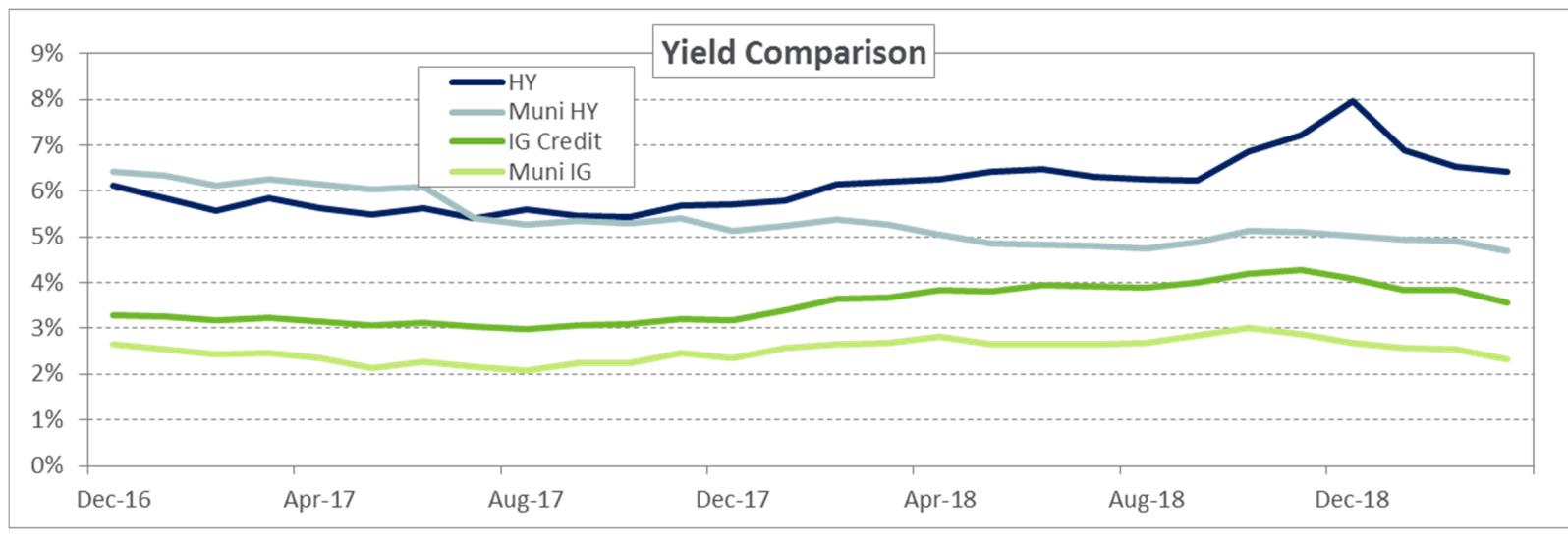
Source: Bloomberg
Long-term average calculated since 2/28/2003



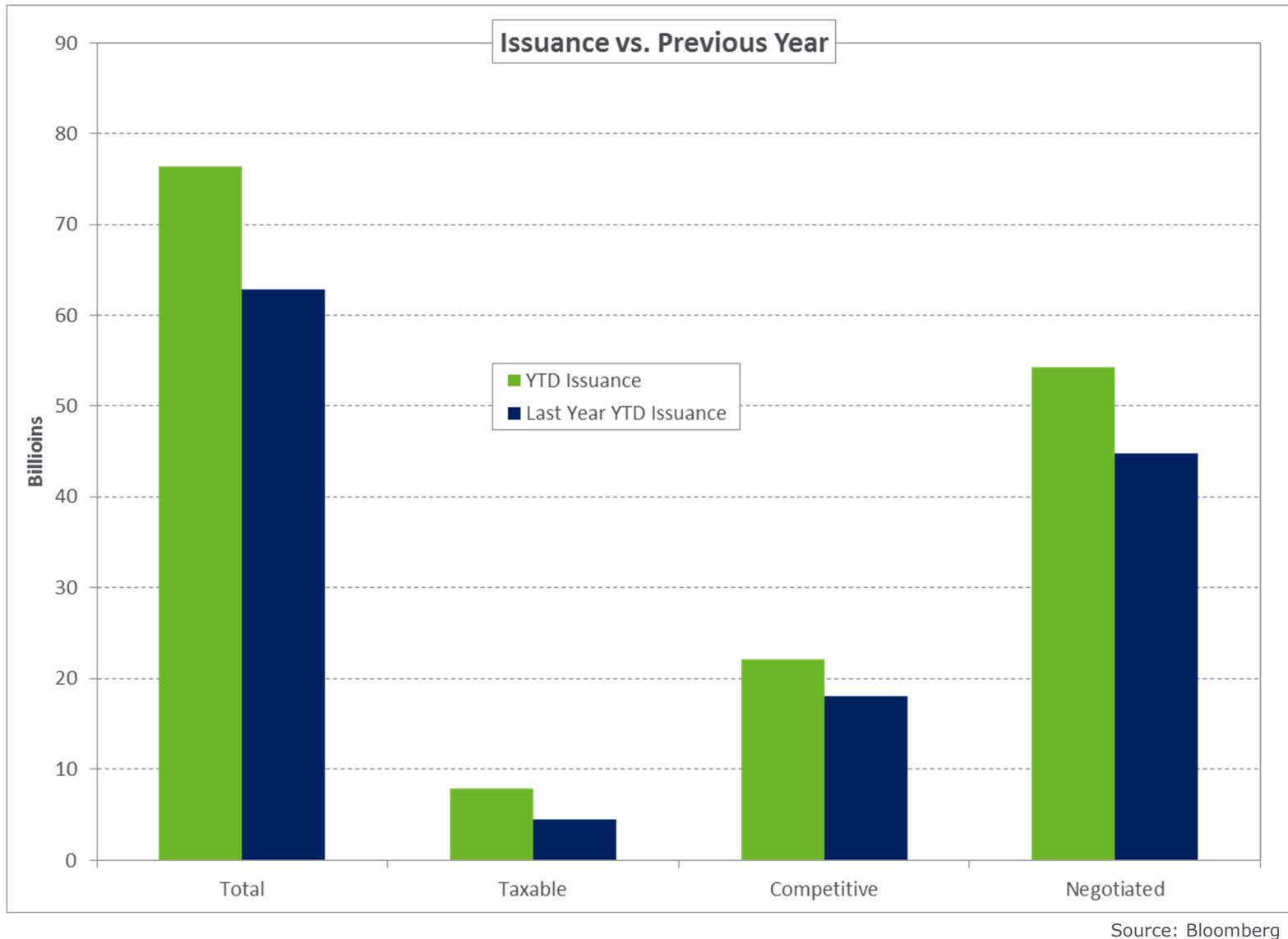
Source: Bloomberg
Long-term average calculated since 2/28/2003



MUNICIPAL BOND RATIOS



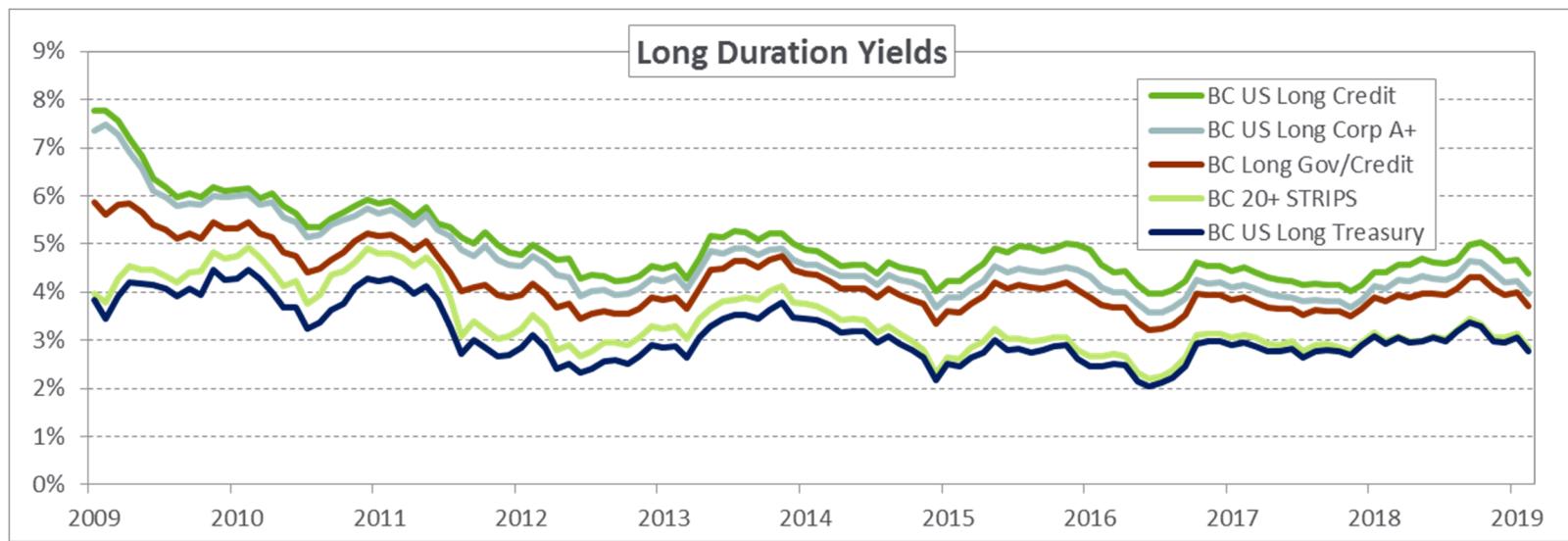
MUNICIPAL BOND ISSUANCE



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

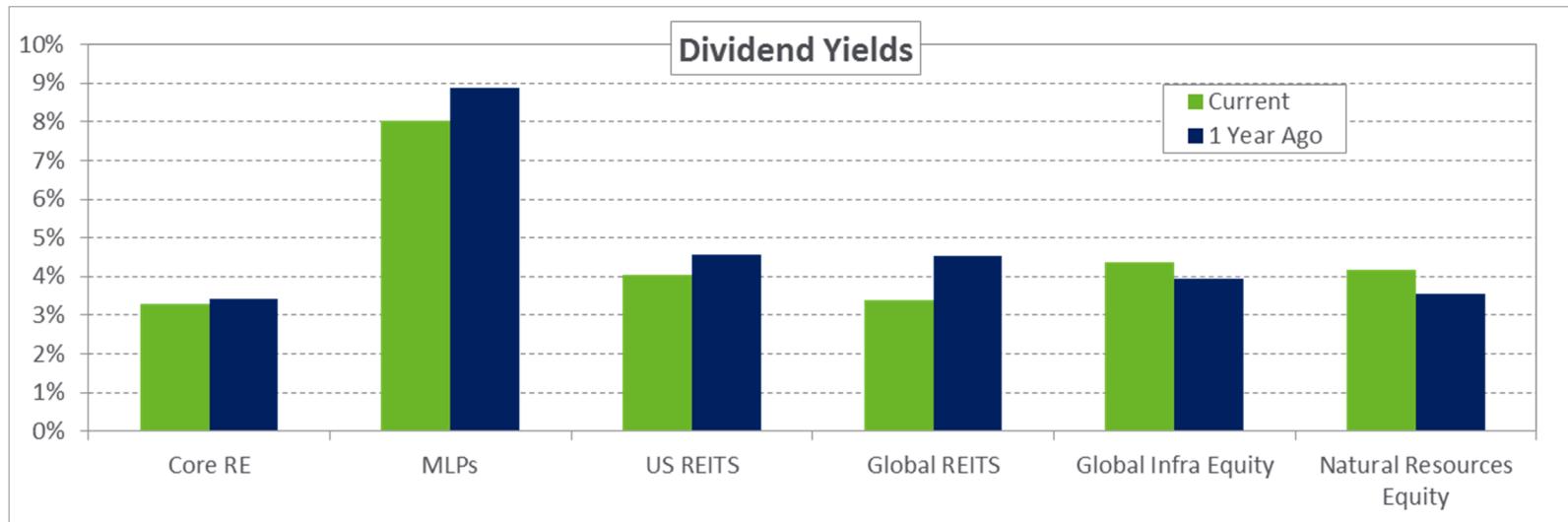
Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-0.2%	6.3%	6.3%	-5.3%	2.2%	-8.9%
Bloomberg Sub Agriculture Index	-2.2%	-3.2%	-3.2%	-16.3%	-8.0%	-12.4%
Coffee	-3.8%	-9.5%	-9.5%	-28.0%	-17.7%	-19.9%
Corn	-3.7%	-6.3%	-6.3%	-17.8%	-9.8%	-15.8%
Cotton	6.8%	6.2%	6.2%	-4.0%	10.2%	-2.0%
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

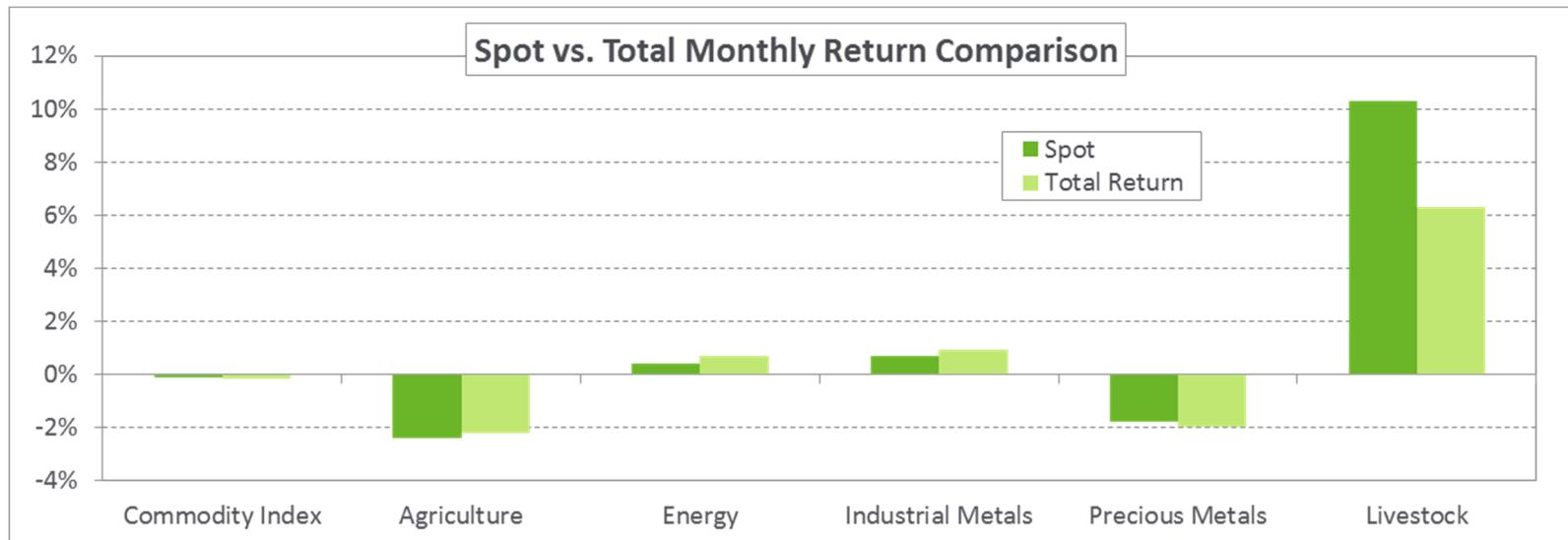
Bloomberg subindex total return indices reflects the return of the underlying one month commodity futures price movements



INCOME YIELD



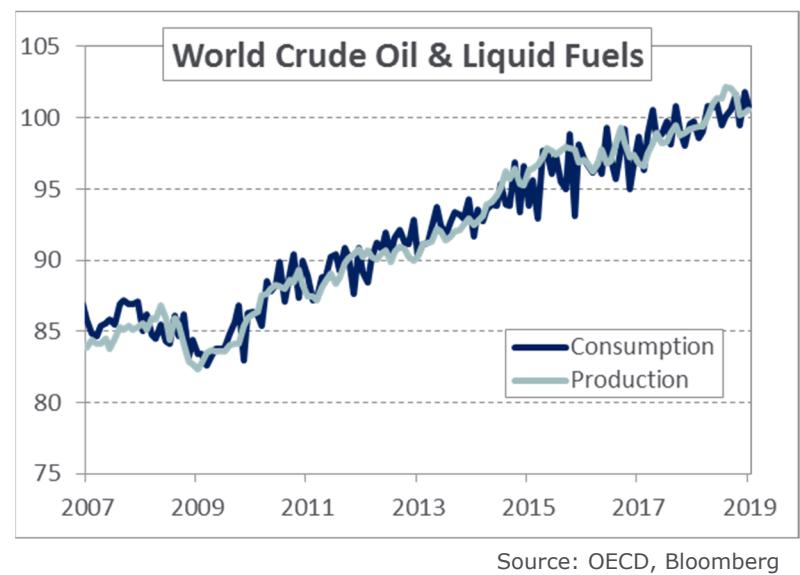
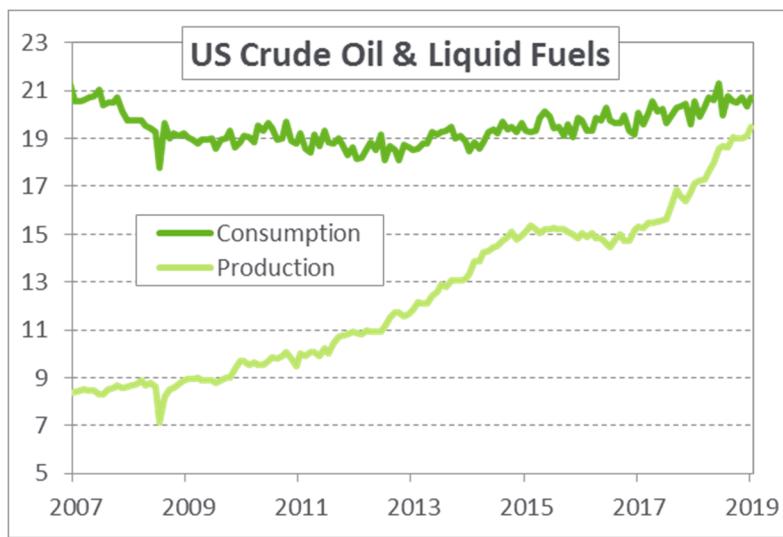
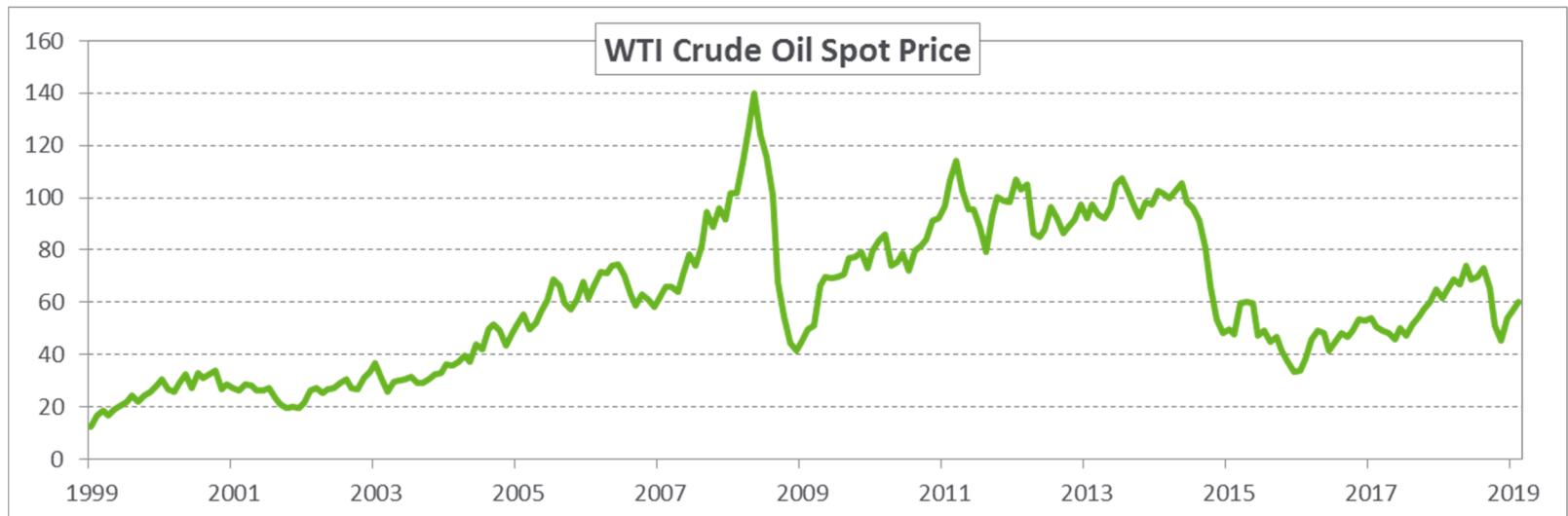
Source: Alerian, NAREIT, S&P, Bloomberg



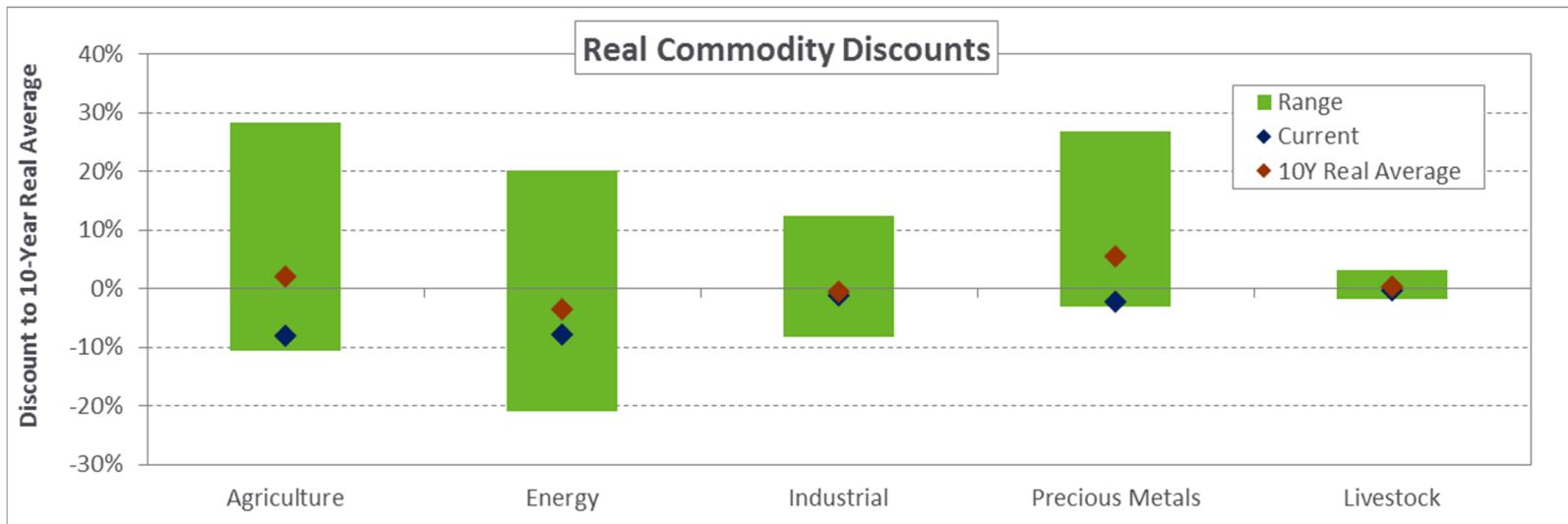
Source: Bloomberg, NEPC



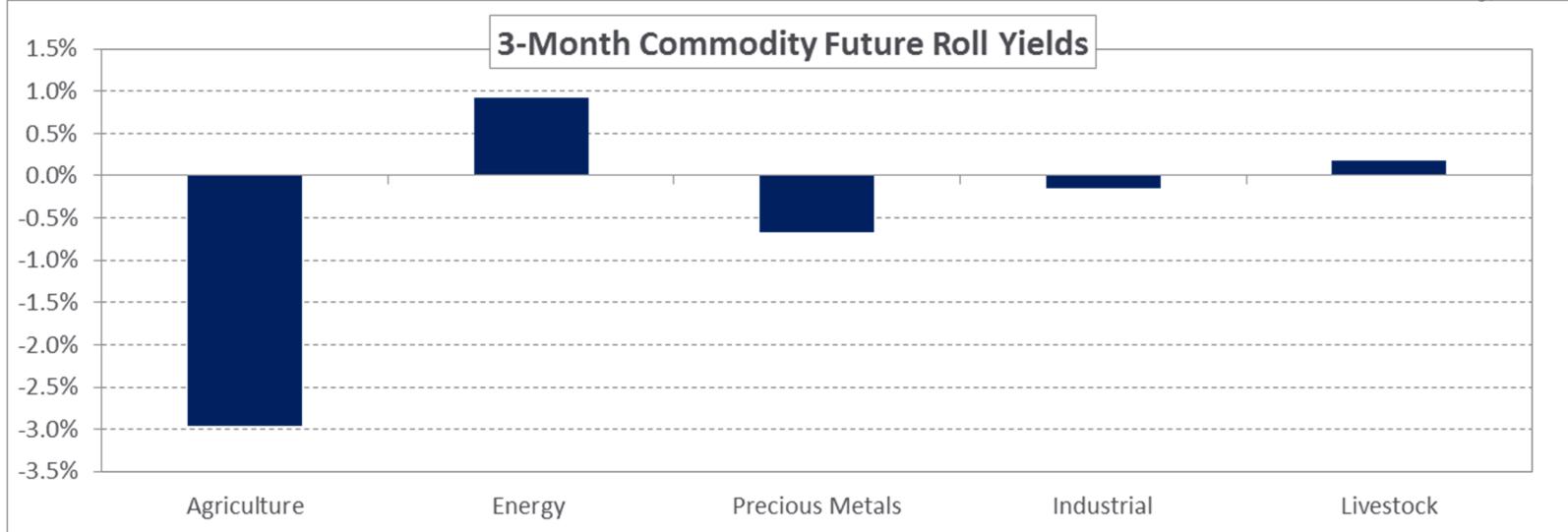
OIL MARKETS



VALUATIONS



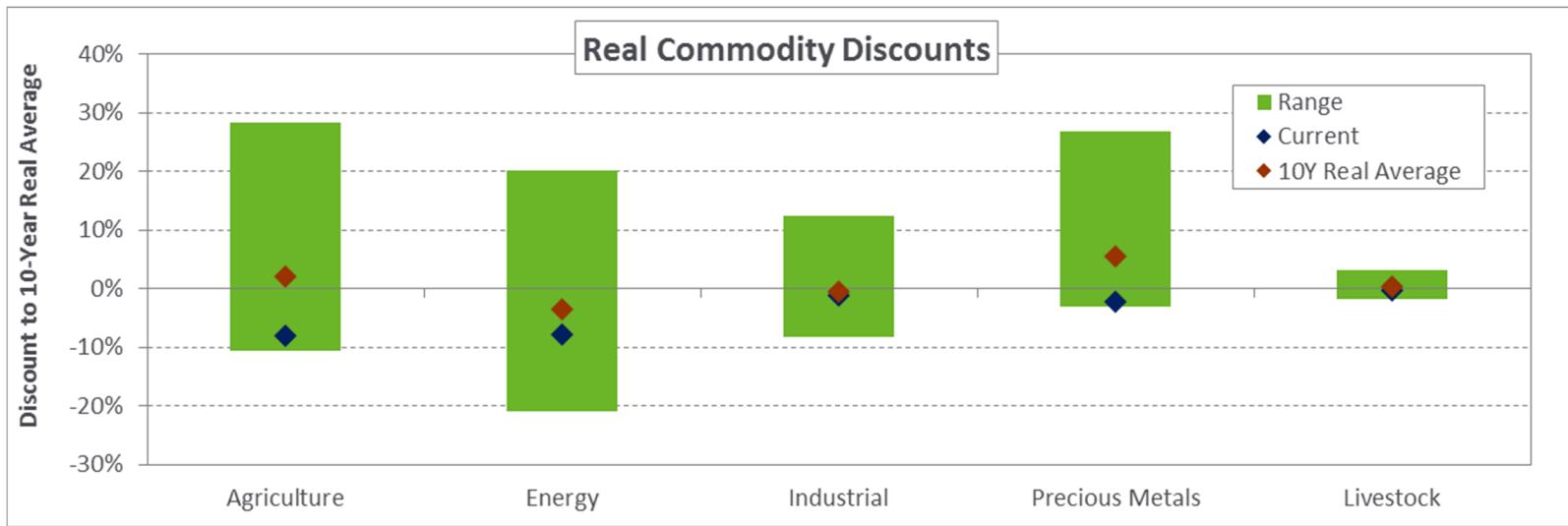
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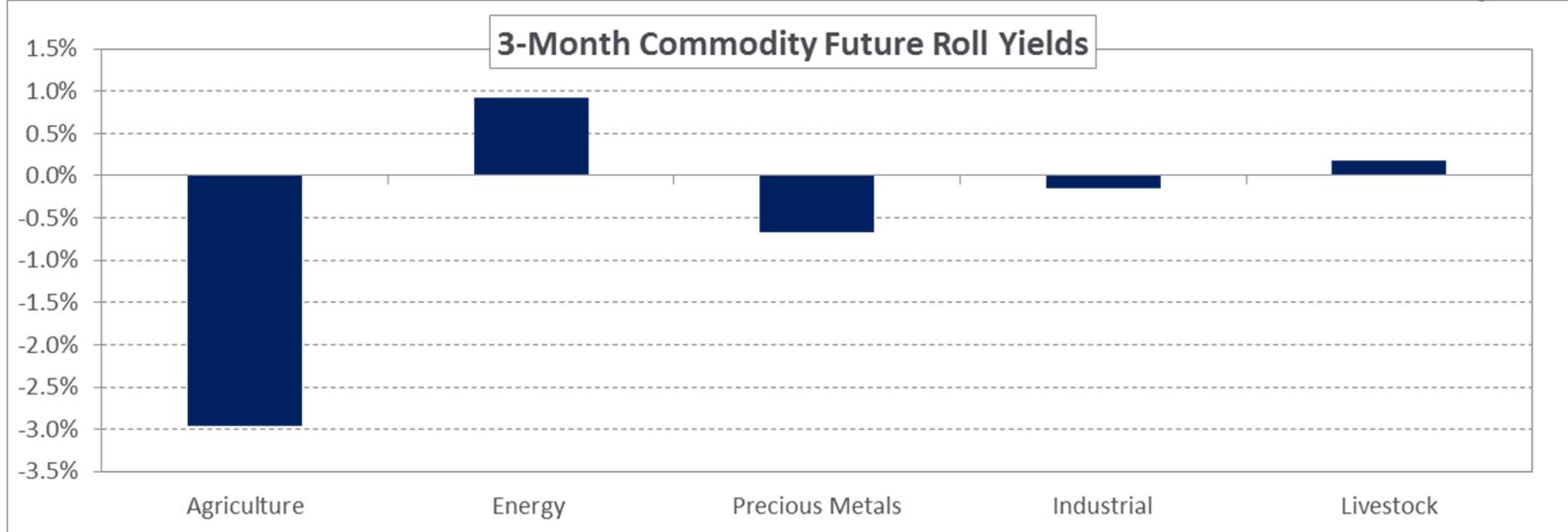
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VALUATIONS



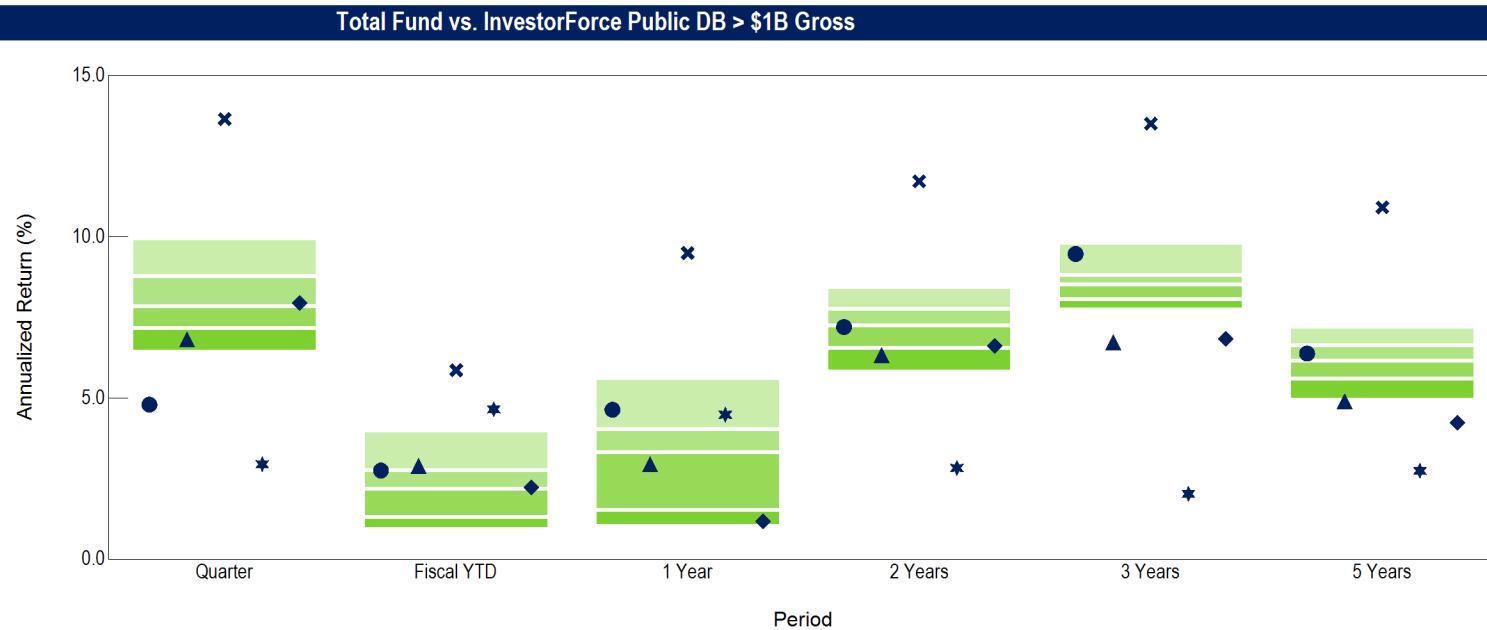
Source: Bloomberg, NEPC



Source: Bloomberg



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

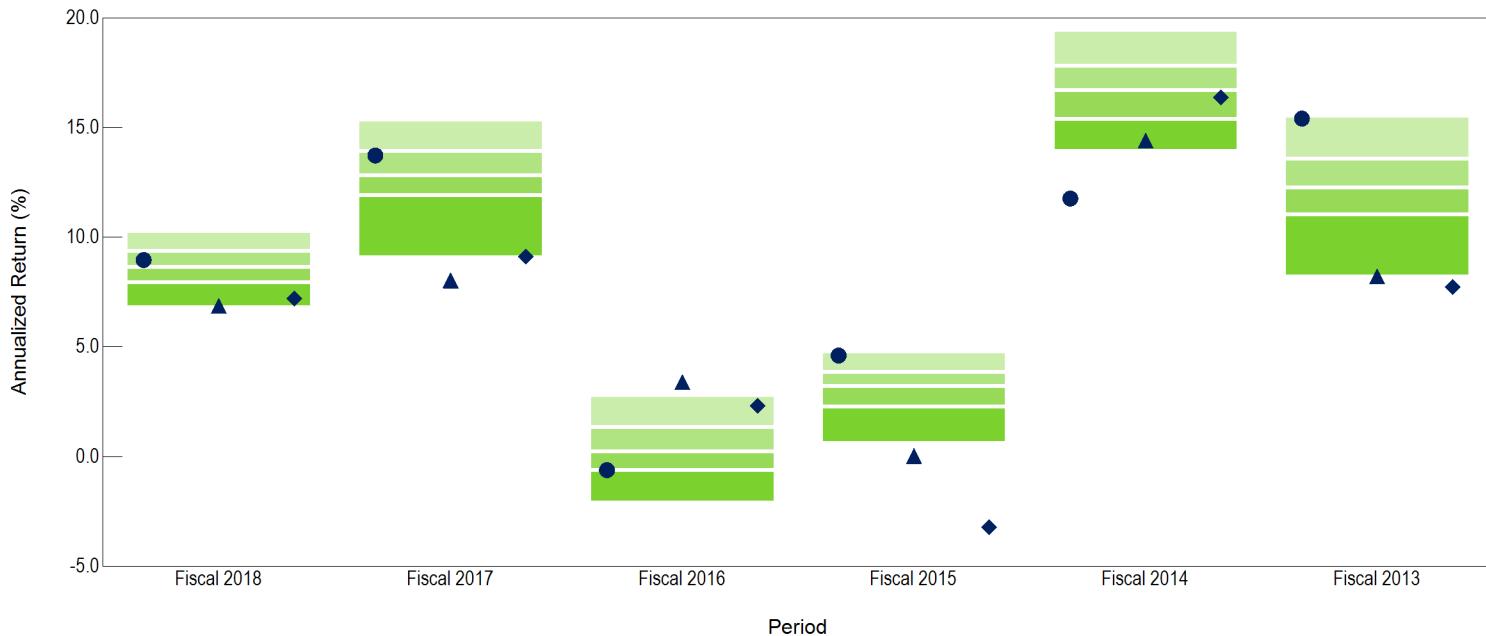


	Return (Rank)							
5th Percentile	9.9	4.0	5.6	8.4	9.8	7.2		
25th Percentile	8.8	2.8	4.0	7.8	8.8	6.6		
Median	7.9	2.2	3.3	7.3	8.5	6.2		
75th Percentile	7.2	1.3	1.5	6.6	8.1	5.6		
95th Percentile	6.4	0.9	1.0	5.8	7.8	5.0		
# of Portfolios	24	23	23	23	23	23		
● Total Fund	4.8 (99)	2.7 (27)	4.6 (18)	7.2 (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)		



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

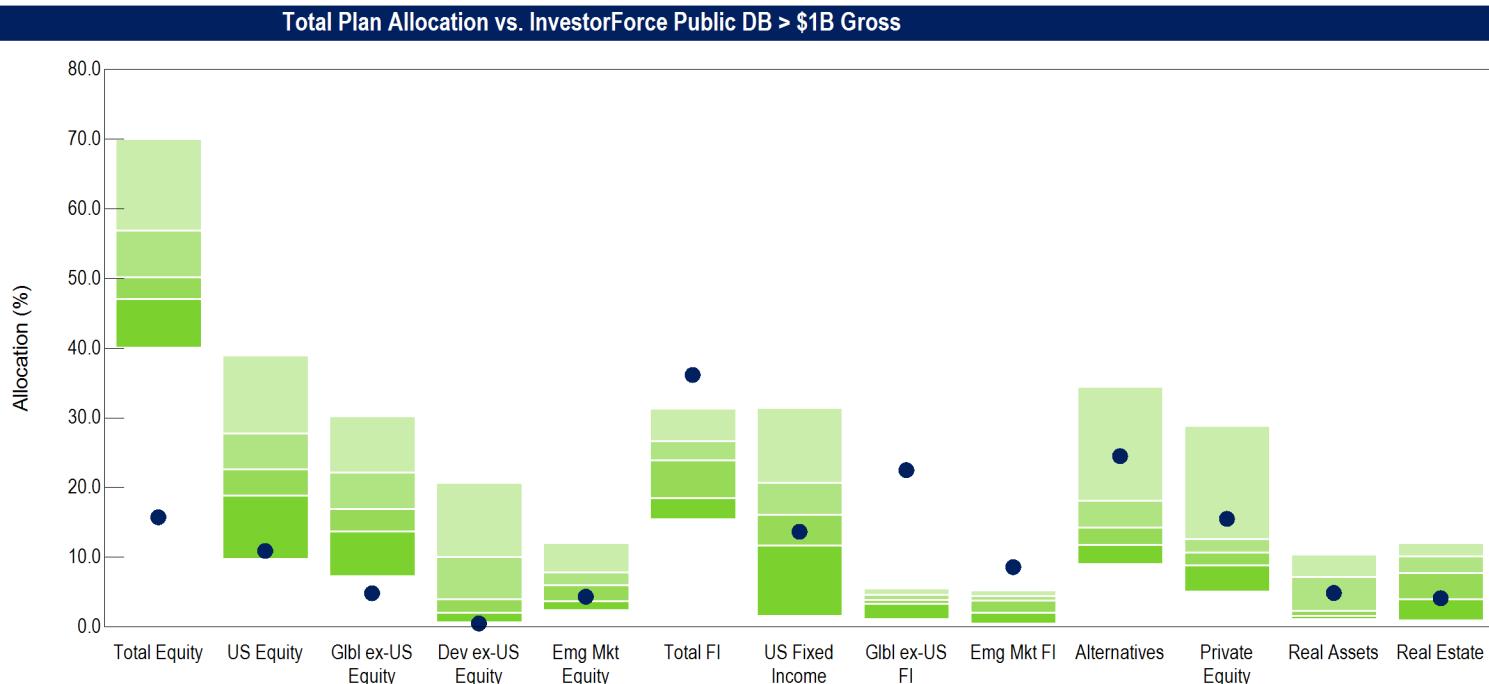


	Return (Rank)									
5th Percentile	10.3	15.3	2.8	4.8	19.4	15.5				
25th Percentile	9.4	14.0	1.4	3.9	17.8	13.6				
Median	8.7	12.9	0.3	3.2	16.7	12.3				
75th Percentile	8.0	11.9	-0.6	2.3	15.4	11.0				
95th Percentile	6.8	9.1	-2.1	0.6	13.9	8.2				
# of Portfolios	62	108	91	92	65	78				
● Total Fund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



San Bernardino County Employees' Retirement Association

TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE



	Allocation (Rank)														
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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- **The goal of this report is to provide a basis for monitoring financial markets. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
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