



NEPC, LLC

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Vermont Pension Investment Committee

Second Fiscal Quarter 2017 Preliminary Investment Performance Analysis

February 28th, 2016

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NEPC Update



Highlights of Fourth Quarter Happenings at NEPC

December 2016

NEPC Insights

- NEPC's Election Perspective: The Race to the Bottom (October 2016)
- Interest Rate Risk and Asset/Liability Management for Cash Balance Plans (October 2016)
- 2016 3rd Quarter Market Thoughts (October 2016)
- Behind The Curtain: Operational Capabilities Are A Must for OCIOs (November 2016)
- NEPC's 2016 Hedge Fund Operational Due Diligence Survey Results (November 2016)
- NEPC Market Chatter: To PE or not to PE... That is the Question (November 2016)
- Caution: Construction Ahead – Healthcare Organizations Use Private Equity Investments to Support Innovation (December 2016)

Webinar Replays

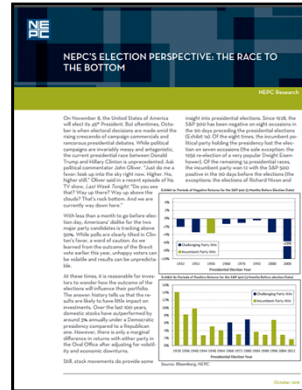
- Investor Insights – Perspectives on the 2016 US Election (November 2016)
- Defined Benefit Plan Trends Survey Results (December 2016)
- Digging Deeper on ESG (December 2016)

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

Client Awards

We'd like to congratulate the following clients for their recent award wins at *Chief Investment Officer's 7th Annual 2016 Industry Innovation Awards*:

- Texas Tech University System's CIO, Tim Barrett as 2016 recipient of the Endowment Award
- MoDot & Patrol Employees' Retirement System's CIO, Larry Krummen as the 2016 recipient of the Public Defined Benefit Plan Below \$15 Billion Award
- State of Wisconsin Investment Board's CIO, David Villa as the 2016 recipient of the Public Defined Benefit Plan Above \$100 Billion Award



Upcoming Events

NEPC's 22nd Annual Investment Conference will be held on May 9-10, 2017 at the InterContinental Hotel in Boston, MA. Details to come in the upcoming months!



NEPC Gives Back

- NEPC employees sorted and prepared 6,853 pounds of food during a volunteer day at the Greater Boston Food Bank, an organization that works to end hunger in the area by providing people in need with healthy food and resources.
- During the month of November, NEPC's November team raised over \$5,000 to support men's health research.
- In support of Breast Cancer Awareness Month, NEPC employees wore their favorite pair of jeans with a purpose and participated in the American Cancer Society Denim Day by sporting denim and the color pink. Together, we raised over \$2,500.
- As part of our Annual United Way campaign, over 50 NEPC employees assembled Literacy Kits for children during the holiday season. The kits were filled with developmental games, arts and crafts supplies, and reading materials.



MARK YOUR CALENDAR!

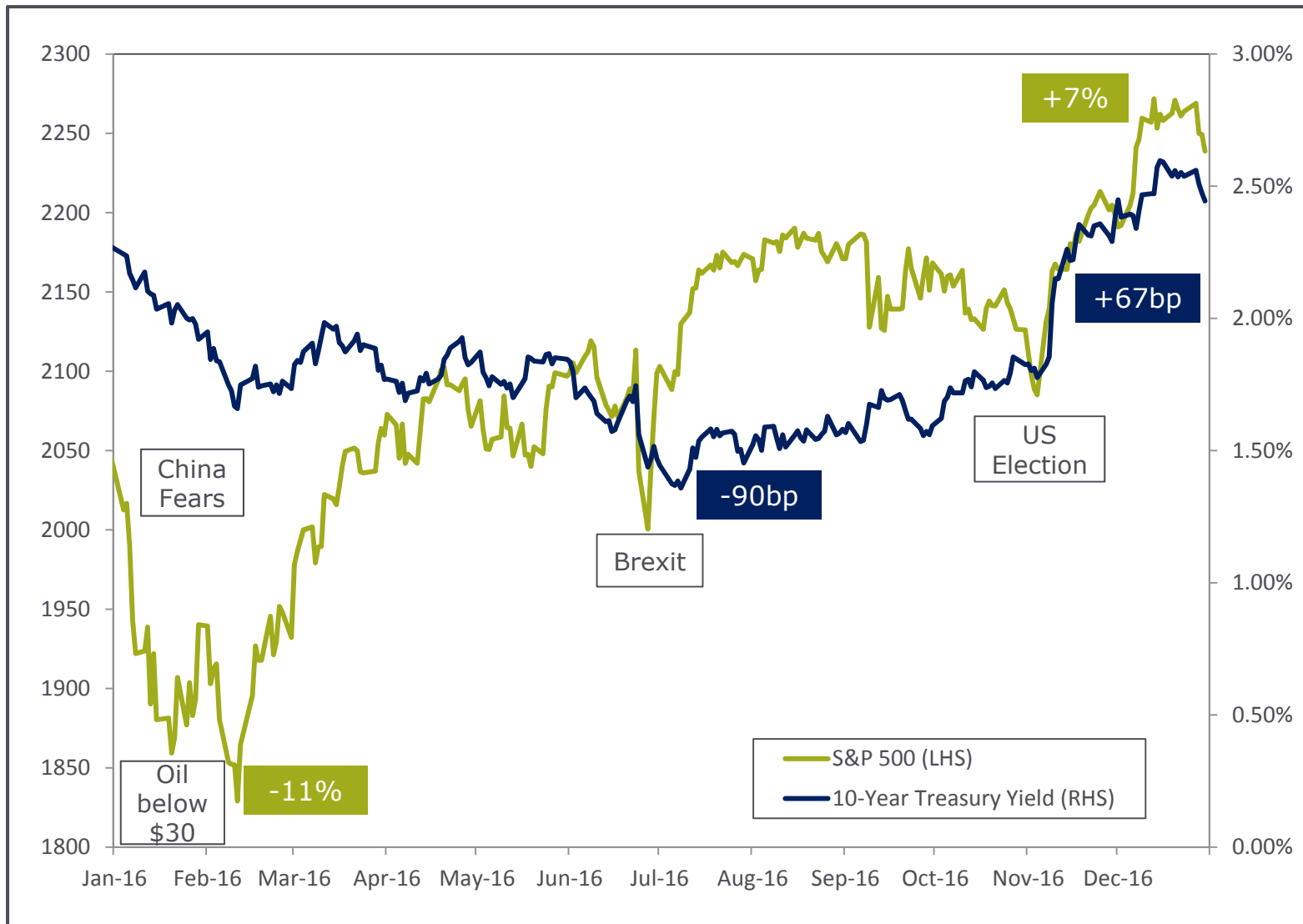
Market Environment



- **Domestic equity markets led the way in the fourth quarter, shrugging off the appreciating dollar and a rate hike from the Fed.**
 - Large Cap equities, measured by the S&P 500 index, gained 12% for the quarter and ended the year up 11.9%
 - Small Cap equities, measured by the Russell 2000 index, gained 8.8% for the quarter ending the year up 21.3%
 - Value significantly outperformed growth across the market cap spectrum
- **Non-U.S. equity markets suffered losses as investors determine the positives and negatives in potential change in trade policies.**
 - Developed market equities, measured by MSCI EAFE index, fell by -0.7% for the quarter and ending the year up 1%
 - Emerging market equities, measured by MSCI EM index, fell by -4.2% for the quarter and ending the year up 11.2%
 - On a size basis, smaller cap stocks outperformed their larger counterparts

- **Risk takers were rewarded as we saw a rapid narrowing of credit spreads during the year. Lower credit quality such as high yield, emerging market debt and leverage loans outperformed nominal bonds. Optimism for greater economic growth translated to higher interest rates and expectations of rising inflation.**
 - The 10-year treasury yield rose 17.3bps in 2016, the largest rise since 2013
 - High yield and investment grade corporate bonds spreads narrowed to their lowest levels in 10 years
- Barclays Aggregate Bond index fell by -2.9% for the quarter, ending the year up 2.7%
- Barclays TIPS index fell by -2.4% for the quarter, ending the year up 4.7%
- Barclays High Yield Bond index gained 1.8% for the quarter, ending the year up 17.1%
- JPM EMBI Global Diversified index fell by -4.0% for the quarter, ending the year up 10.2%

2016: A Rollercoaster of Geopolitical Events



Source: Bloomberg, NEPC

2016: A Strong Year for Risk Assets



*Private Equity and NCREIF Real Estate lagged one quarter
 Source: NEPC, Barclays, S&P, Bloomberg, JPM, Russell, MSCI, HFRI, InvestorForce

Extended US Economic Cycle

Federal Reserve Gradualism

China Transitions

Globalization Backlash

Returns for Key Indices Ranked in Order of Performance

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
MSCI EMERGING MARKETS 32.17	MSCI EMERGING MARKETS 39.39	BC AGGREGATE 5.24	MSCI EMERGING MARKETS 78.51	RUSSELL 2000 GROWTH 29.09	BC AGGREGATE 7.84	MSCI EMERGING MARKETS 18.22	RUSSELL 2000 GROWTH 43.30	S&P 500 13.69	RUSSELL 1000 GROWTH 5.67	RUSSELL 2000 VALUE 31.74
MSCI EAFE 26.34	RUSSELL 1000 GROWTH 11.81	RUSSELL 2000 VALUE -28.92	RUSSELL 1000 GROWTH 37.21	RUSSELL 2000 26.85	RUSSELL 1000 GROWTH 2.64	RUSSELL 2000 VALUE 18.05	RUSSELL 2000 38.82	RUSSELL 1000 VALUE 13.45	S&P 500 1.38	RUSSELL 2000 21.31
RUSSELL 1000 VALUE 22.25	MSCI EAFE 11.17	RUSSELL 2000 -33.79	RUSSELL 2000 GROWTH 34.47	RUSSELL 2000 VALUE 24.5	S&P 500 2.11	RUSSELL 1000 VALUE 17.51	RUSSELL 2000 VALUE 34.52	RUSSELL 1000 13.24	RUSSELL 1000 0.92	RUSSELL 1000 VALUE 17.34
RUSSELL 2000 VALUE 23.48	RUSSELL 2000 GROWTH 7.06	RUSSELL 1000 VALUE -36.85	MSCI EAFE 31.78	MSCI EMERGING MARKETS 18.88	RUSSELL 1000 1.50	MSCI EAFE 17.32	RUSSELL 1000 GROWTH 33.48	RUSSELL 1000 GROWTH 13.05	BC AGGREGATE 0.55	RUSSELL 1000 12.05
RUSSELL 2000 18.37	BC AGGREGATE 6.97	S&P 500 -37.0	RUSSELL 1000 28.43	RUSSELL 1000 GROWTH 16.71	RUSSELL 1000 VALUE 0.39	RUSSELL 1000 16.42	RUSSELL 1000 33.11	BC AGGREGATE 5.97	MSCI EAFE -0.81	S&P 500 11.96
S&P 500 15.8	RUSSELL 1000 5.77	RUSSELL 1000 -37.6	RUSSELL 2000 27.16	RUSSELL 1000 16.10	RUSSELL 2000 GROWTH -2.91	RUSSELL 2000 16.35	RUSSELL 1000 VALUE 32.53	RUSSELL 2000 GROWTH 5.60	RUSSELL 2000 GROWTH -1.38	RUSSELL 2000 GROWTH 11.32
RUSSELL 1000 15.46	S&P 500 5.49	RUSSELL 1000 GROWTH -38.44	S&P 500 26.46	RUSSELL 1000 VALUE 15.51	RUSSELL 2000 -4.18	S&P 500 16.00	S&P 500 32.39	RUSSELL 2000 4.89	RUSSELL 1000 VALUE -3.83	MSCI EMERGING MARKETS 11.19
RUSSELL 2000 GROWTH 13.35	RUSSELL 1000 VALUE -0.17	RUSSELL 2000 GROWTH -38.54	RUSSELL 2000 VALUE 20.58	S&P 500 15.06	RUSSELL 2000 VALUE -5.50	RUSSELL 1000 GROWTH 15.26	MSCI EAFE 22.78	RUSSELL 2000 VALUE 4.22	RUSSELL 2000 -4.41	RUSSELL 1000 GROWTH 7.08
RUSSELL 1000 GROWTH 9.07	RUSSELL 2000 -1.56	MSCI EAFE -43.38	RUSSELL 1000 VALUE 19.69	MSCI EAFE 7.75	MSCI EAFE -12.14	RUSSELL 2000 GROWTH 14.59	BC AGGREGATE -2.02	MSCI EMERGING MARKETS -2.19	RUSSELL 2000 VALUE -7.46	BC AGGREGATE 2.65
BC AGGREGATE 4.33	RUSSELL 2000 VALUE -9.78	MSCI EMERGING MARKETS -53.33	BC AGGREGATE 5.93	BC AGGREGATE 6.54	MSCI EMERGING MARKETS -18.42	BC AGGREGATE 4.21	MSCI EMERGING MARKETS -2.60	MSCI EAFE -4.90	MSCI EMERGING MARKETS -14.93	MSCI EAFE 1.00

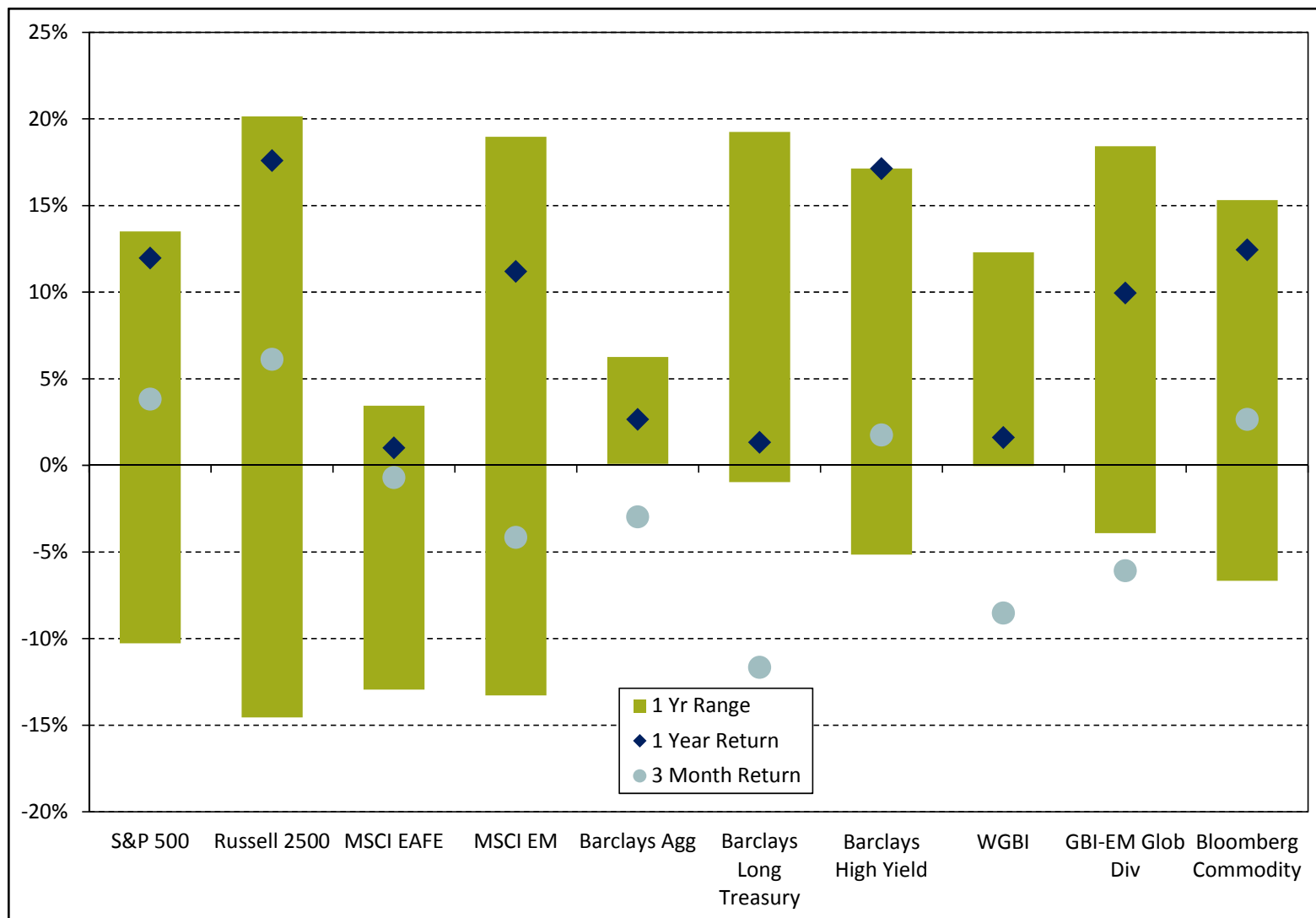
QTD	3 year	5 Year	10 Year
RUSSELL 2000 VALUE 14.07	S&P 500 8.87	RUSSELL 2000 VALUE 15.07	RUSSELL 1000 GROWTH 8.33
RUSSELL 2000 8.83	RUSSELL 1000 8.59	RUSSELL 1000 VALUE 14.80	RUSSELL 2000 GROWTH 7.76
RUSSELL 1000 VALUE 6.68	RUSSELL 1000 VALUE 8.59	RUSSELL 1000 14.69	RUSSELL 1000 7.08
RUSSELL 1000 3.83	RUSSELL 1000 GROWTH 8.55	S&P 500 14.66	RUSSELL 2000 7.07
S&P 500 3.82	RUSSELL 2000 VALUE 8.31	RUSSELL 2000 14.46	S&P 500 6.95
RUSSELL 2000 GROWTH 3.57	RUSSELL 2000 6.74	RUSSELL 1000 GROWTH 14.50	RUSSELL 2000 VALUE 6.26
RUSSELL 1000 GROWTH 1.01	RUSSELL 2000 GROWTH 5.05	RUSSELL 2000 GROWTH 13.74	RUSSELL 1000 VALUE 5.72
MSCI EAFE -0.71	BC AGGREGATE 3.03	MSCI EAFE 6.53	BC AGGREGATE 4.34
BC AGGREGATE -2.98	MSCI EAFE -1.60	BC AGGREGATE 2.23	MSCI EMERGING MARKETS 1.84
MSCI EMERGING MARKETS -4.16	MSCI EMERGING MARKETS -2.55	MSCI EMERGING MARKETS 1.28	MSCI EAFE 0.75

Index Performance Summary as of 12/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	9.0%	-4.8%	11.2%	2.8%	8.8%	21.3%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	1.1%	-4.5%	2.3%	4.4%	2.0%	18.3%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	8.5%	1.9%	6.1%	17.6%
Barclays US Corp HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	-0.5%	1.8%	1.8%	17.1%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	4.0%	-2.0%	3.9%	1.9%	3.8%	12.1%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	-1.8%	3.7%	2.0%	3.8%	12.0%
BBG Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	1.3%	1.8%	2.7%	11.8%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	-4.6%	0.2%	-4.2%	11.2%
Barclays US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	6.7%	2.3%	-2.1%	-4.9%	1.5%	-5.4%	10.2%
JPM EMBI Global Div	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	4.0%	-1.2%	-4.1%	1.3%	-4.0%	10.2%
JPM GBI-EM Global Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	2.7%	-0.8%	-7.0%	1.9%	-6.1%	9.9%
Credit Suisse Lev Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	3.1%	0.8%	0.3%	1.1%	2.3%	9.9%
FTSE NAREIT Eqy REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	-1.4%	-5.7%	-1.7%	4.7%	-2.9%	8.5%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	5.3%	-1.7%	0.8%	2.2%	1.2%	7.9%
BC Long US Govt/Credit	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	1.2%	-2.8%	-5.8%	0.7%	-7.8%	6.7%
Barclays US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.8%	-2.4%	0.1%	-3.0%	2.6%
Barclays US Agg Int.	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	-0.4%	-1.7%	0.0%	-2.0%	2.0%
Citi WGBI	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	-4.6%	-0.7%	-8.5%	1.6%
BC US STRIPS 20+	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	-0.2%	-6.2%	-10.5%	-0.9%	-16.7%	1.4%
BC US Gov/Cred 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.7%	0.0%	0.0%	-0.4%	0.1%	-0.4%	1.3%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-2.0%	3.4%	-0.7%	1.0%
CS Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	1.7%	-0.2%	-0.2%	-	0.2%	0.3%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	-0.3%	-1.0%	-3.7%	1.2%	-3.6%	0.2%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse

Near Term Broad Market Performance Summary as of 12/30/2016



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

State Municipal Employees' Retirement System

Vermont Municipal Employees

Total Fund Performance Summary - Net

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank
Municipal Composite	\$555,745,764	0.2%	81	3.5%	73	9.3%	3	3.5%	75	6.3%	91	6.7%	75	4.1%	84
<i>Policy Index</i>		-0.1%	89	3.3%	79	8.1%	25	3.4%	76	6.0%	95	6.0%	93	4.2%	80
<i>Allocation Index</i>		-0.1%	88	3.5%	75	8.4%	21	3.2%	81	6.0%	95	6.0%	93	4.2%	80
<i>InvestorForce Public DB Net Median</i>		0.7%		4.2%		7.4%		4.1%		7.8%		7.3%		4.9%	

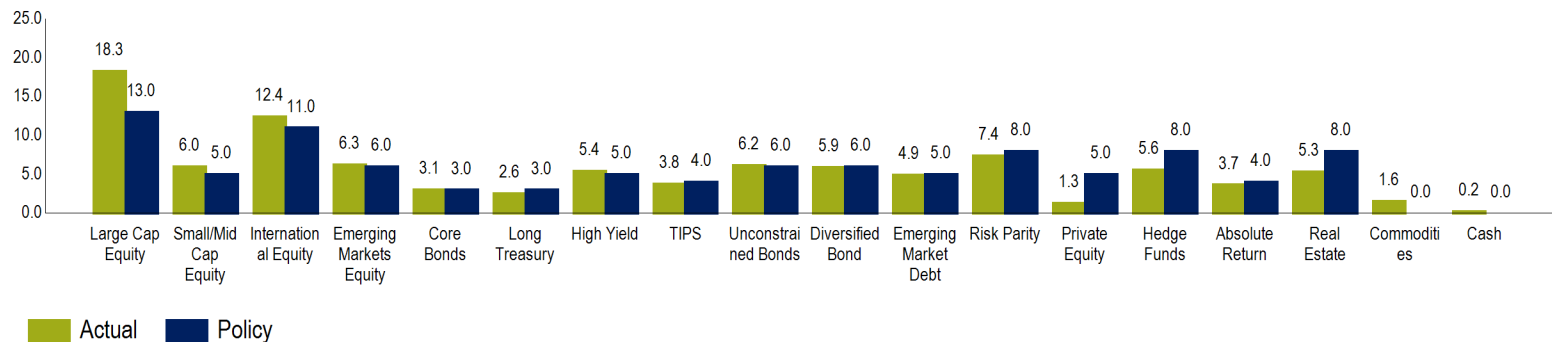
3 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	3.49%	75	5.97%	30	0.56	69	1.04	51
Policy Index	3.45%	76	5.46%	11	0.61	56	1.14	35
Allocation Index	3.22%	81	5.70%	21	0.54	71	0.97	63

5 Years Ending December 31, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	6.25%	91	6.10%	35	1.01	84	1.70	68
Policy Index	6.03%	95	5.67%	18	1.05	77	1.69	68
Allocation Index	6.02%	95	5.77%	22	1.03	81	1.63	76

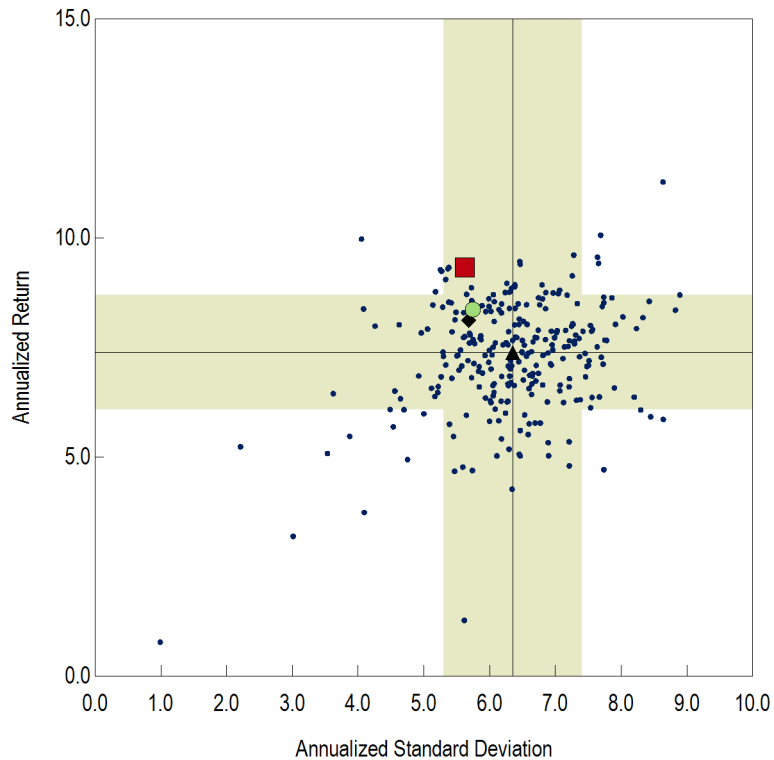
Actual vs Target Allocation (%)



Vermont Municipal Employees

Total Fund Risk/Return - Net

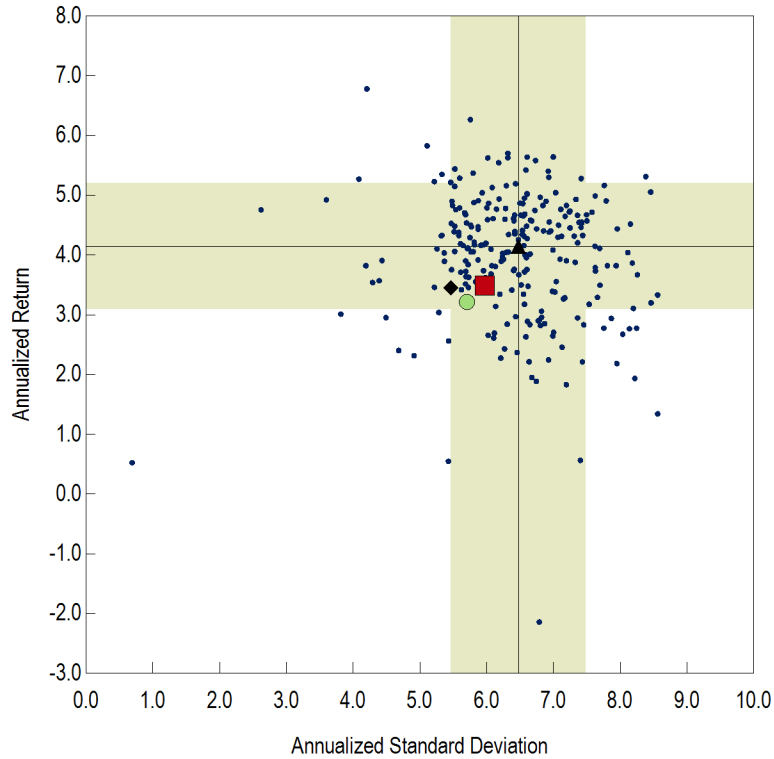
1 Years Ending December 31, 2016



1 Year Ending December 31, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	9.33%	3	5.62%	21	1.61	5
Policy Index	8.13%	25	5.68%	23	1.38	12
S&P 500	11.96%	1	10.29%	99	1.13	46
Citi WGBI	1.60%	99	8.73%	99	0.15	99
MSCI ACWI	7.86%	33	11.25%	99	0.67	98
MSCI ACWI ex USA	4.50%	99	13.37%	99	0.31	99
InvestorForce Public DB Net Median	7.39%	--	6.35%	--	1.09	--

3 Years Ending December 31, 2016



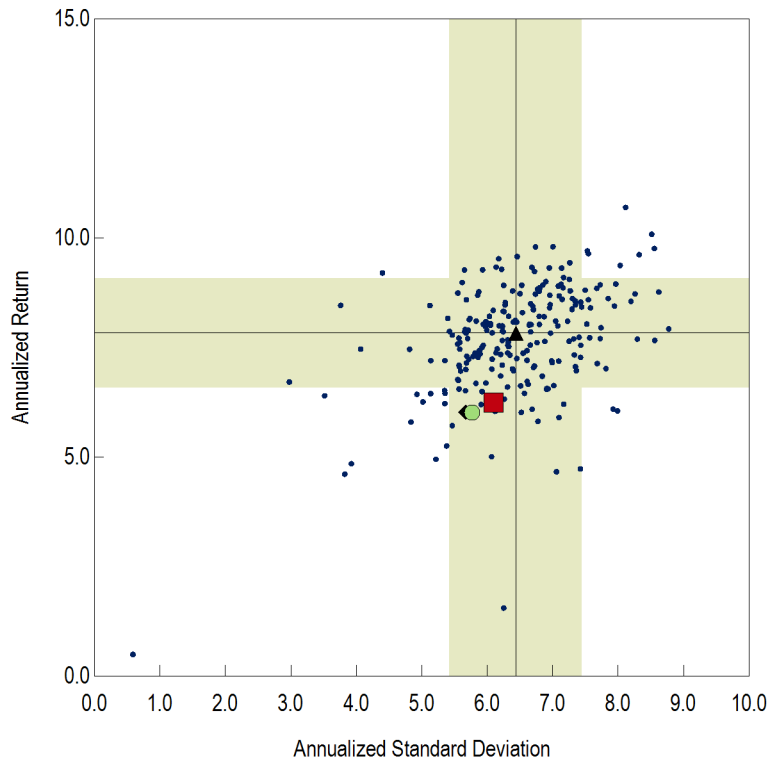
3 Years Ending December 31, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	3.49%	75	5.97%	30	0.56	69
Policy Index	3.45%	76	5.46%	11	0.61	56
S&P 500	8.87%	1	10.74%	99	0.81	11
Citi WGBI	-0.84%	99	5.98%	31	-0.16	99
MSCI ACWI	3.13%	82	11.21%	99	0.27	98
MSCI ACWI ex USA	-1.78%	99	12.69%	99	-0.15	99
InvestorForce Public DB Net Median	4.15%	--	6.48%	--	0.62	--

Vermont Municipal Employees

Total Fund Risk/Return - Net

5 Years Ending December 31, 2016



- Municipal Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Net

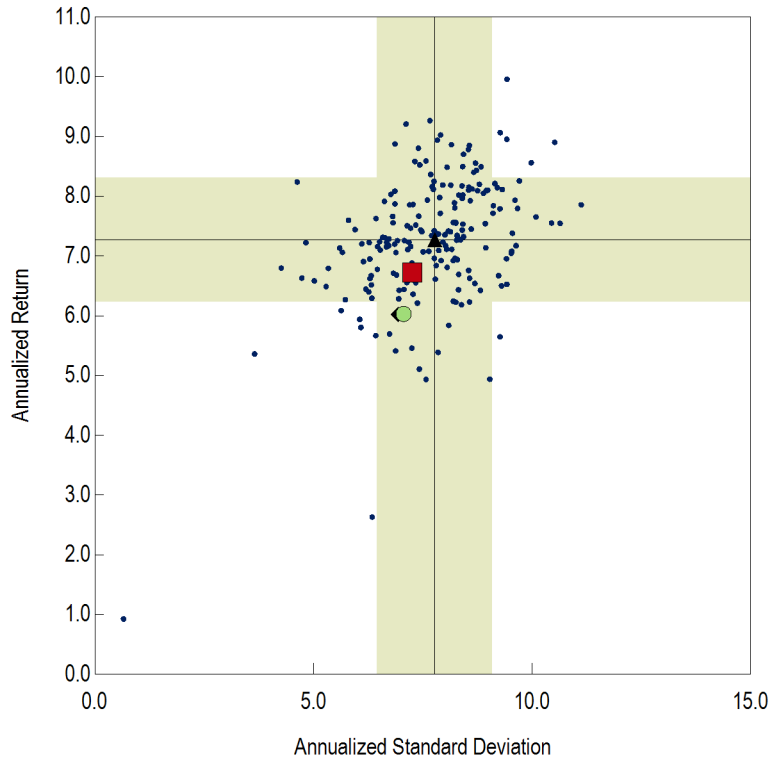
5 Years Ending December 31, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	6.25%	91	6.10%	35	1.01	84
Policy Index	6.03%	95	5.67%	18	1.05	77
S&P 500	14.66%	1	10.37%	99	1.40	11
Citi WGBI	-0.99%	99	5.34%	7	-0.20	99
MSCI ACWI	9.36%	5	11.39%	99	0.81	98
MSCI ACWI ex USA	5.00%	98	13.35%	99	0.37	99
InvestorForce Public DB Net Median	7.83%	--	6.44%	--	1.20	--

Vermont Municipal Employees

Total Fund Risk/Return - Net

7 Years Ending December 31, 2016



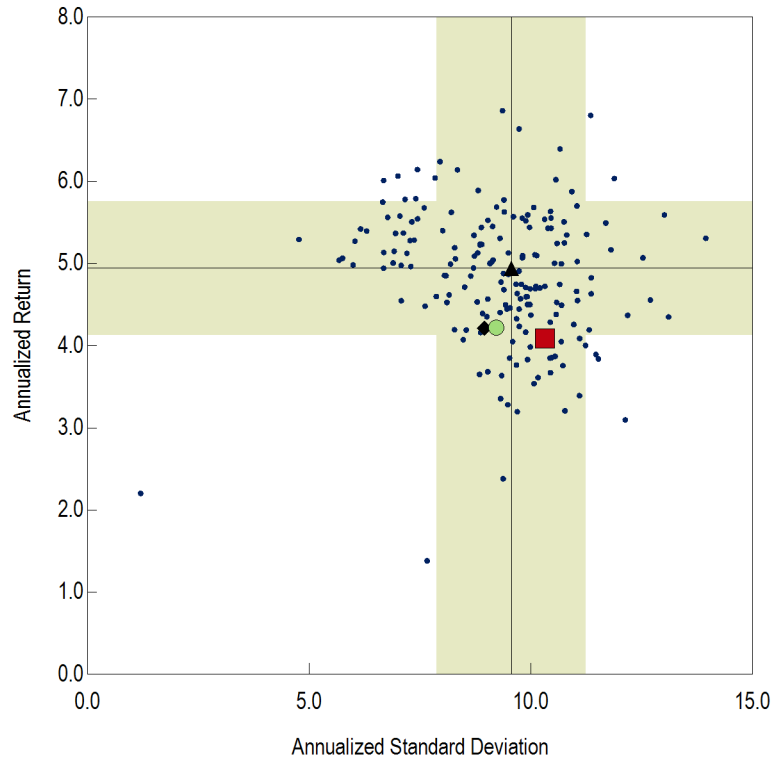
- Municipal Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Net

7 Years Ending December 31, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	6.73%	75	7.26%	36	0.91	58
Policy Index	6.02%	93	6.94%	27	0.85	77
S&P 500	12.83%	1	12.67%	99	1.01	36
Citi WGBI	0.89%	99	5.71%	6	0.14	99
MSCI ACWI	7.26%	53	13.95%	99	0.51	99
MSCI ACWI ex USA	2.93%	99	15.77%	99	0.18	99
InvestorForce Public DB Net Median	7.27%	--	7.77%	--	0.94	--

204 Portfolios

10 Years Ending December 31, 2016

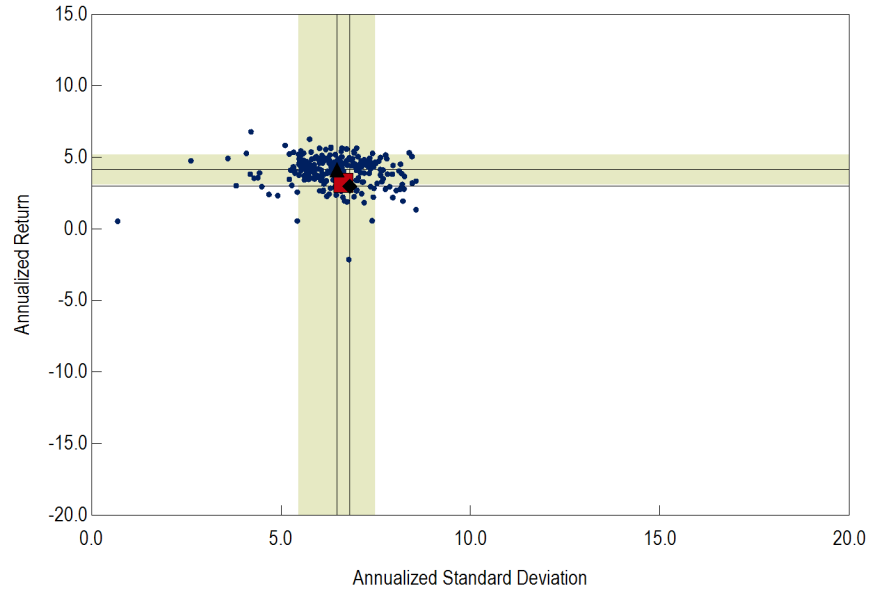


- Municipal Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Net

10 Years Ending December 31, 2016

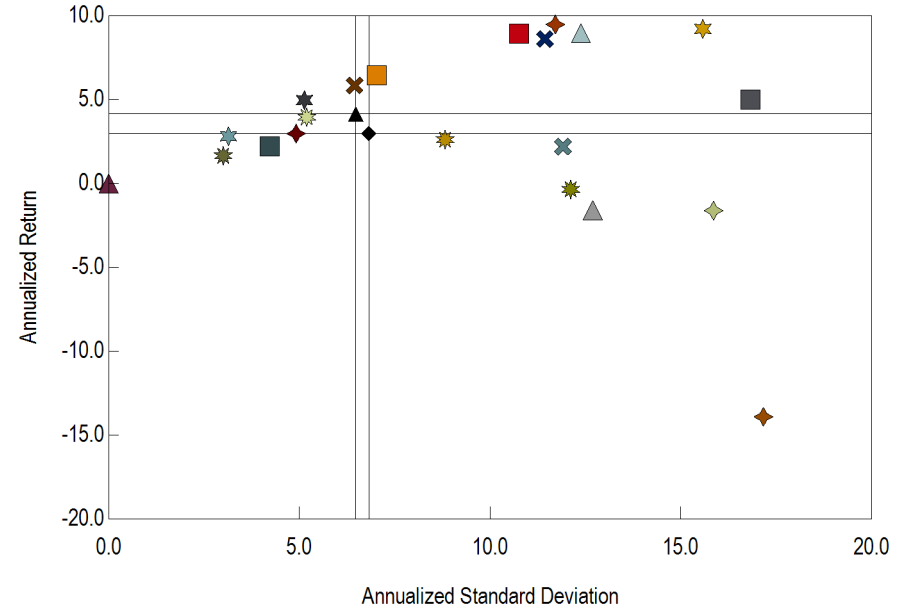
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	4.09%	84	10.31%	73	0.33	85
Policy Index	4.21%	80	8.94%	35	0.40	68
S&P 500	6.95%	1	15.28%	99	0.41	60
Citi WGBI	2.99%	99	6.87%	8	0.34	81
MSCI ACWI	3.56%	95	16.98%	99	0.17	99
MSCI ACWI ex USA	0.96%	99	19.14%	99	0.02	99
InvestorForce Public DB Net Median	4.94%	--	9.55%	--	0.44	--

Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2016



- Total Marketable Assets
- ◆ Total Marketable Assets Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Net

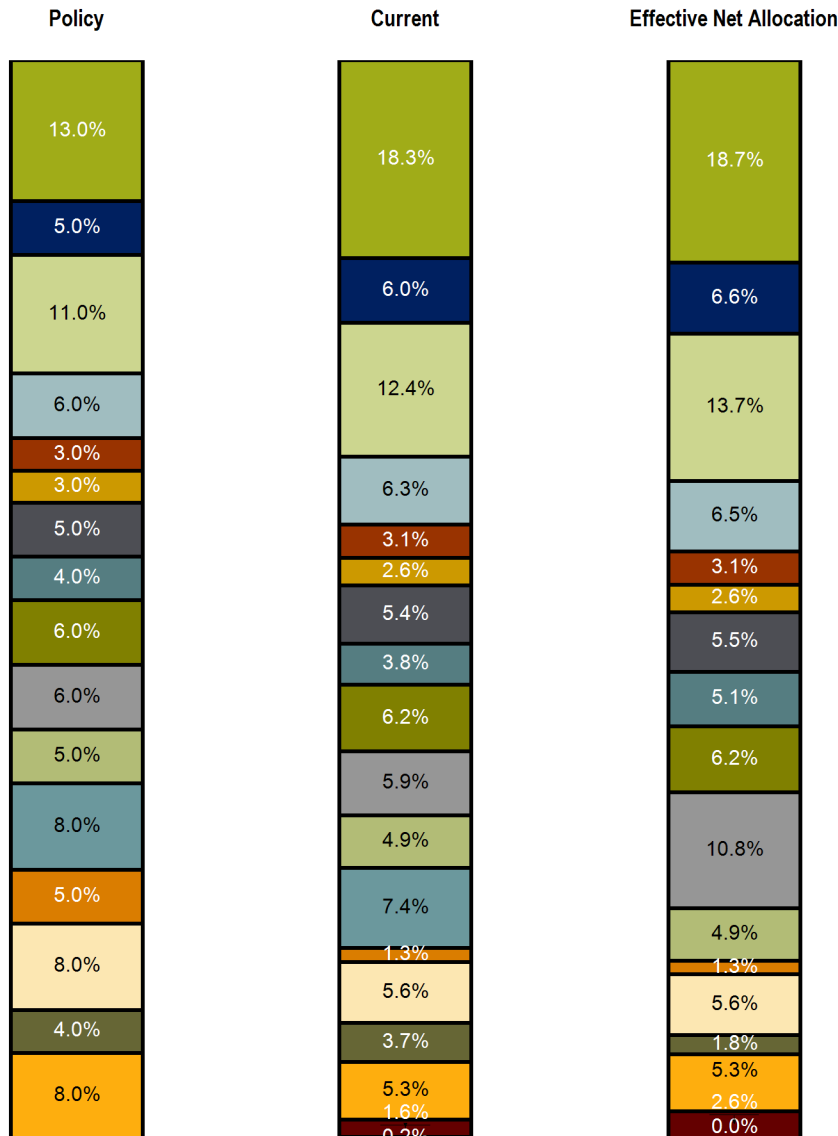
Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2016



- SSgA S&P 500 Cap-Wgt
- ◆ SSgA S&P 500 Equal-Wgt
- ▲ T. Rowe
- ▲ SSgA S&P 400
- ◆ Champlain
- ◆ Wellington
- SSgA Russell 2000 Growth
- ◆ Acadian
- ◆ Mondrian
- ▲ SSgA ACWI Ex US
- ◆ Aberdeen
- ◆ PIMCO Core Plus
- Wellington DAS
- ◆ PIMCO Unconstrained
- ◆ KDP
- ◆ Guggenheim
- BlackRock TIPS
- ◆ Wellington Opportunistic EMD
- ◆ AQR Global Risk Premium
- ▲ Vermont Cash
- ◆ Schroder
- ◆ Total Marketable Assets Custom Index
- ▲ Universe Median
- 68% Confidence Interval

Vermont Municipal Employees

Total Fund Asset Allocation vs. Policy Targets



Asset Allocation vs. Target

	Policy	Current	Effective Net Allocation
Large Cap Equity	13.0%	18.7%	18.7%
Small/Mid Cap Equity	5.0%	6.1%	6.6%
International Equity	11.0%	12.7%	13.7%
Emerging Markets Equity	6.0%	6.4%	6.5%
Core Bonds	3.0%	3.1%	3.1%
Long Treasury	3.0%	2.6%	2.6%
High Yield	5.0%	5.5%	5.5%
TIPS	4.0%	3.9%	5.1%
Unconstrained Bonds	6.0%	6.3%	6.2%
Diversified Bond	6.0%	6.0%	10.8%
Emerging Market Debt	5.0%	5.0%	4.9%
Risk Parity	8.0%	7.6%	--
Private Equity	5.0%	1.3%	1.3%
Hedge Funds	8.0%	5.8%	5.6%
Absolute Return	4.0%	3.7%	1.8%
Real Estate	8.0%	3.0%	5.3%
Commodities	--	1.6%	2.6%
Cash	--	0.2%	0.0%
Total	100.0%	100.0%	100.0%

Effective Net Allocation breaks out the exposures of AQR Global Risk Premium and Mellon Dynamic Growth.

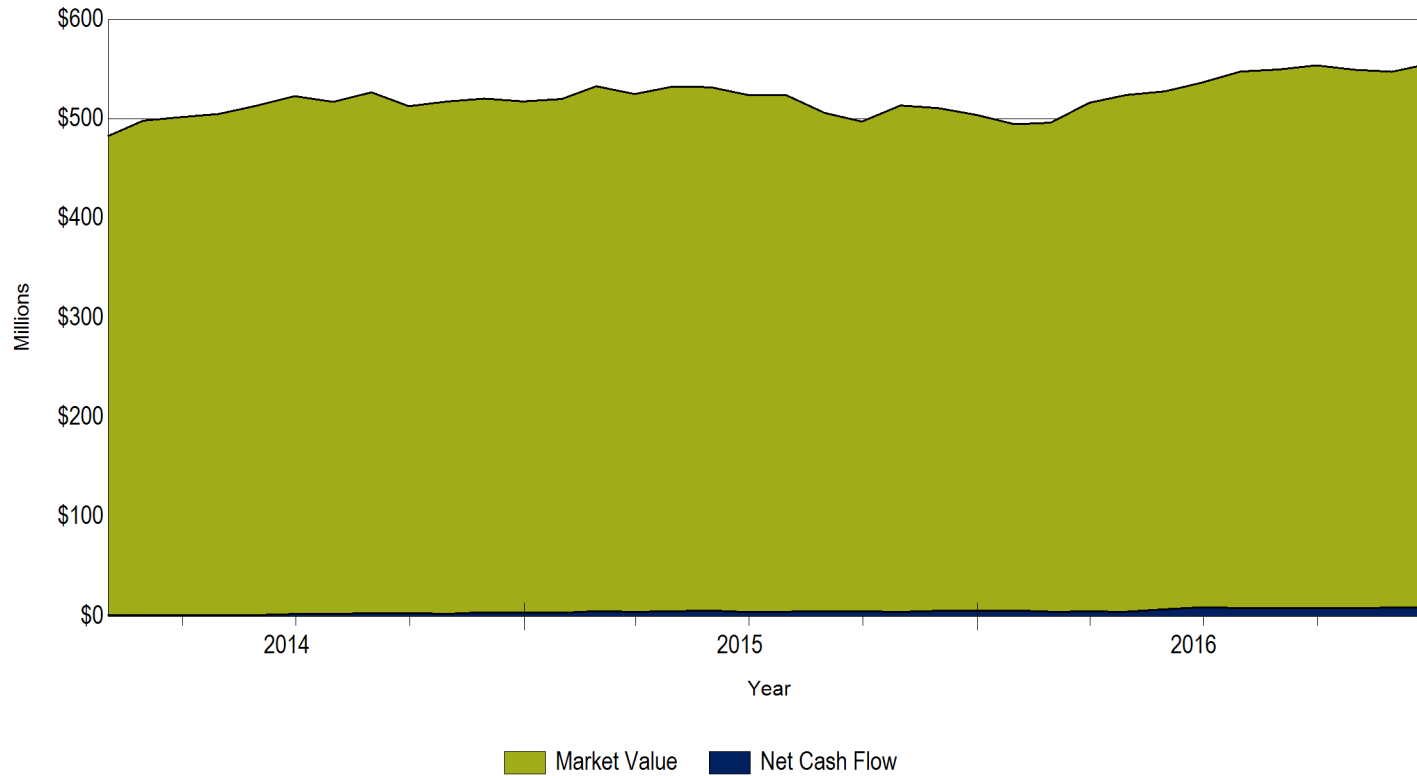
Hedge Funds include Grosvenor and Pinnacle Natural Resources, L.P.

Absolute Return includes Mellon Dynamic Growth and Allianz Structured Alpha.

Vermont Municipal Employees

Total Fund Asset Growth Summary

3 Years Ending December 31, 2016



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$553,870,927	\$536,594,955	\$504,075,697	\$487,442,451
Withdrawals	-\$5,906,761	-\$17,145,224	-\$111,302,834	-\$242,963,278
Contributions	\$6,350,971	\$16,604,143	\$114,382,769	\$251,467,102
Net Cash Flow	\$444,210	-\$541,081	\$3,079,935	\$8,503,823
Net Investment Change	\$1,430,627	\$19,691,890	\$48,590,132	\$59,799,490
Ending Market Value	\$555,745,764	\$555,745,764	\$555,745,764	\$555,745,764



Vermont Municipal Employees

Total Fund Asset Growth Summary by Manager

	Quarter Ending December 31, 2016					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Aberdeen	\$36,835,022	-\$68,291	\$68,291	\$0	-\$1,922,372	\$34,912,650
Acadian	\$24,125,648	-\$529,746	\$29,746	-\$500,000	\$80,804	\$23,706,452
Allianz Structured Alpha	\$9,936,133	-\$49,974	\$0	-\$49,974	\$186,833	\$10,072,992
AQR Global Risk Premium	\$42,099,072	-\$42,099	\$42,099	\$0	-\$960,573	\$41,138,499
BlackRock TIPS	\$21,751,437	-\$3,977	\$3,977	\$0	-\$520,086	\$21,231,351
Champlain	\$11,879,690	-\$24,171	\$24,171	\$0	\$506,901	\$12,386,591
GAM	\$56,902	\$0	\$0	\$0	\$0	\$56,902
GAM Unconstrained Bond	\$19,723,797	-\$15,880	\$15,880	\$0	\$227,905	\$19,951,702
Grosvenor	\$27,393,212	-\$1,931,665	\$0	-\$1,931,665	\$547,780	\$26,009,326
Guggenheim	\$22,509,045	-\$28,392	\$28,392	\$0	\$731,779	\$23,240,824
Harbourvest Dover VIII Fund	\$2,385,837	\$0	\$0	\$0	-\$113,171	\$2,272,666
Harbourvest Partners IX Buyout Fund	\$1,917,650	\$0	\$0	\$0	-\$26,548	\$1,891,103
Harbourvest Partners IX Credit Opportunities	\$263,684	\$0	\$0	\$0	\$16,823	\$280,507
Harbourvest Partners IX Venture Fund	\$1,405,068	\$0	\$0	\$0	\$50,670	\$1,455,738
Harbourvest Partners X Buyout Fund	\$355,561	\$0	\$220,766	\$220,766	-\$3,754	\$572,574
Harbourvest Partners X Venture Fund	\$180,332	\$0	\$81,098	\$81,098	-\$1,316	\$260,113
HIPEP VII	\$444,043	\$0	\$77,793	\$77,793	-\$13,857	\$507,979
KDP	\$6,701,740	-\$10,450	\$10,450	\$0	\$56,344	\$6,758,084
Mellon Dynamic Growth	\$10,417,963	-\$16,996	\$16,996	\$0	-\$147,125	\$10,270,838
Mondrian	\$22,474,075	-\$21,370	\$21,370	\$0	-\$105,389	\$22,368,686
Morgan Stanley Prime Property	\$12,930,615	-\$27,154	\$0	-\$27,154	\$337,745	\$13,241,205
PIMCO Core Plus	\$33,785,695	-\$24,594	\$24,594	\$0	-\$1,024,596	\$32,761,099
PIMCO Unconstrained	\$14,192,158	-\$21,371	\$21,371	\$0	\$223,785	\$14,415,943
Pinnacle Natural Resources, L.P.	\$2,262,043	\$0	\$2,803,806	\$2,803,806	\$171,356	\$5,237,205
RREEF America REIT III	\$58,156	-\$225	\$0	-\$225	\$20	\$57,951

Vermont Municipal Employees

Total Fund Asset Growth Summary by Manager

	Quarter Ending December 31, 2016					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Schroder	\$11,438,202	-\$2,803,806	\$0	-\$2,803,806	\$237,944	\$8,872,340
Siguler Guff	\$4,108,884	-\$2,699	\$1,238,591	\$1,235,893	\$0	\$5,344,777
SSgA ACWI Ex US	\$23,270,981	-\$2,977	\$2,977	\$0	-\$287,132	\$22,983,849
SSgA Barclays Aggregate Index	\$17,604,585	-\$1,931	\$1,931	\$0	-\$522,792	\$17,081,793
SSgA Russell 2000 Growth	\$4,053,859	-\$735	\$735	\$0	\$142,618	\$4,196,477
SSgA S&P 400	\$4,276,740	-\$710	\$710	\$0	\$315,972	\$4,592,711
SSgA S&P 500 Cap-Wgt	\$72,684,663	-\$5,061	\$705,061	\$700,000	\$2,836,289	\$76,220,952
SSgA S&P 500 Equal-Wgt	\$24,546,517	-\$2,521	\$2,521	\$0	\$902,310	\$25,448,827
T. Rowe	\$1,160	\$0	\$0	\$0	-\$19	\$1,141
Transwestern / Aslan III	\$28,766	\$0	\$0	\$0	\$0	\$28,766
UBS Trumbull	\$10,817,016	-\$22,352	\$0	-\$22,352	\$180,710	\$10,975,374
Vermont Cash	\$515,342	-\$226,190	\$886,222	\$660,032	\$0	\$1,175,374
Wellington	\$10,752,707	-\$21,424	\$21,424	\$0	\$1,386,316	\$12,139,023
Wellington DAS	\$15,564,364	\$0	\$0	\$0	-\$1,242,123	\$14,322,241
Wellington Opportunistic EMD	\$28,122,559	\$0	\$0	\$0	-\$819,423	\$27,303,136
Total	\$553,870,927	-\$5,906,761	\$6,350,971	\$444,210	\$1,430,627	\$555,745,764

Vermont Municipal Employees

Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Municipal Composite	555,745,764	100.0	100.0	0.2	81	3.5	73	9.3	3	3.5	75	6.3	91	4.1	84
<i>Policy Index</i>				-0.1	89	3.3	79	8.1	25	3.4	76	6.0	95	4.2	80
<i>Allocation Index</i>				-0.1	88	3.5	75	8.4	21	3.2	81	6.0	95	4.2	80
<i>InvestorForce Public DB Net Median</i>				0.7		4.2		7.4		4.1		7.8		4.9	
Total Marketable Assets	467,209,746	84.1	--	0.0	87	3.5	72	10.0	1	3.2	81	--	--	--	--
<i>Total Marketable Assets Custom Index</i>				-0.3	93	3.4	77	8.5	18	3.0	84	--	--	--	--
<i>InvestorForce Public DB Net Median</i>				0.7		4.2		7.4		4.1		7.8		4.9	
US Equity	134,985,722	24.3	18.0	4.7	46	9.3	51	14.5	38	8.5	25	--	--	--	--
<i>Russell 3000</i>				4.2	51	8.8	54	12.7	45	8.4	25	14.7	32	7.1	53
<i>eA All US Equity Net Median</i>				4.2		9.3		11.7		6.8		13.5		7.2	
Large Cap Comp	101,670,919	18.3	13.0	3.8	43	8.1	40	12.9	27	8.7	14	14.9	16	7.6	25
<i>S&P 500</i>				3.8	43	7.8	42	12.0	33	8.9	12	14.7	22	6.9	44
<i>eA US Large Cap Equity Net Median</i>				3.3		6.9		9.4		6.9		13.3		6.8	
SSgA S&P 500 Cap-Wgt	76,220,952	13.7	10.0	3.9	42	7.9	42	12.0	32	8.9	12	14.7	21	--	--
<i>S&P 500</i>				3.8	43	7.8	42	12.0	33	8.9	12	14.7	22	6.9	44
SSgA S&P 500 Equal-Wgt	25,448,827	4.6	3.0	3.7	45	8.6	35	15.2	17	8.6	16	15.4	9	8.1	16
<i>S&P 500 Equal Weighted</i>				3.8	43	8.5	36	14.8	18	8.7	14	15.5	8	8.4	11
T. Rowe	1,141	0.0	0.0												
Small/Mid Cap Comp	33,314,803	6.0	5.0	7.4	32	13.1	38	19.7	23	8.8	13	15.3	20	8.6	31
<i>Russell 2000</i>				8.8	22	18.7	12	21.3	15	6.7	37	14.5	28	7.1	65
<i>eA US Small-Mid Cap Equity Net Median</i>				5.3		11.2		15.1		5.7		13.4		7.7	
SSgA S&P 400	4,592,711	0.8	0.5	7.4	18	11.8	26	20.6	16	8.9	17	15.3	19	--	--
<i>S&P 400 MidCap</i>				7.4	17	11.9	26	20.7	15	9.0	17	15.3	18	9.2	16
<i>eA US Mid Cap Equity Net Median</i>				3.6		7.4		10.6		6.3		13.5		7.8	
Champlain	12,386,591	2.2	2.0	4.1	48	9.6	38	19.2	18	9.5	12	15.2	21	--	--
<i>Russell 2500</i>				6.1	28	13.1	18	17.6	21	6.9	45	14.5	31	7.7	58
<i>eA US Mid Cap Equity Net Median</i>				3.6		7.4		10.6		6.3		13.5		7.8	

Vermont Municipal Employees

Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Wellington	12,139,023	2.2	2.0	12.7	45	17.4	76	22.4	71	9.2	28	15.1	49	9.2	13
<i>Russell 2000 Value</i>				14.1	28	24.2	17	31.7	15	8.3	44	15.1	49	6.3	84
<i>eA US Small Cap Value Equity Net Median</i>				12.0		20.6		26.2		8.0		14.9		7.6	
SSgA Russell 2000 Growth	4,196,477	0.8	0.5	3.5	36	13.2	35	11.3	44	5.0	44	13.7	41	7.5	53
<i>Russell 2000 Growth</i>				3.6	36	13.1	36	11.3	44	5.1	43	13.7	40	7.8	45
<i>eA US Small Cap Growth Equity Net Median</i>				2.7		11.4		10.4		4.0		12.8		7.5	
Int'l Equity Comp	69,058,988	12.4	11.0	-0.5	27	5.6	39	5.5	12	0.4	33	7.2	57	0.8	75
<i>MSCI EAFE</i>				-0.7	30	5.7	36	1.0	44	-1.6	65	6.5	69	0.7	77
<i>eA All EAFE Equity Net Median</i>				-2.3		4.6		0.6		-0.6		7.6		1.8	
Acadian	23,706,452	4.3	4.0	0.2	19	7.6	17	7.5	5	2.2	13	9.5	23	0.7	77
Mondrian	22,368,686	4.0	4.0	-0.6	28	3.5	59	4.4	16	-0.4	42	6.0	84	1.4	63
<i>MSCI EAFE</i>				-0.7	30	5.7	36	1.0	44	-1.6	65	6.5	69	0.7	77
SSgA ACWI Ex US	22,983,849	4.1	3.0	-1.2	25	5.6	27	4.7	24	-1.6	56	5.2	84	--	--
<i>MSCI ACWI ex USA</i>				-1.3	25	5.6	27	4.5	24	-1.8	58	5.0	85	1.0	71
<i>eA ACWI ex-US All Cap Equity Net Median</i>				-3.5		2.7		1.7		-0.7		7.1		1.8	
Emerging Market Comp	34,912,650	6.3	6.0	-5.4	53	-0.1	75	12.5	26	-1.6	40	--	--	--	--
Aberdeen	34,912,650	6.3	6.0	-5.4	53	-0.1	75	12.5	26	-1.6	40	2.2	61	--	--
<i>MSCI Emerging Markets</i>				-4.2	35	4.5	33	11.2	34	-2.6	61	1.3	79	1.8	68
<i>eA Emg Mkts Equity Net Median</i>				-5.2		2.5		8.2		-2.0		2.5		2.6	
US Fixed Income	149,763,037	26.9	27.0	-1.4	46	0.4	28	6.0	31	3.9	30	--	--	--	--
<i>BBgBarc US Aggregate TR</i>				-3.0	80	-2.5	81	2.6	57	3.0	50	2.2	64	4.3	54
<i>eA All US Fixed Inc Net Median</i>				-1.8		-1.0		3.3		3.0		2.9		4.4	
Diversified Fixed	98,532,778	17.7	18.0	-2.4	65	-1.2	55	3.7	46	3.8	31	3.0	50	3.7	67
<i>BBgBarc US Aggregate TR</i>				-3.0	80	-2.5	81	2.6	57	3.0	50	2.2	64	4.3	54
<i>eA All US Fixed Inc Net Median</i>				-1.8		-1.0		3.3		3.0		2.9		4.4	
PIMCO Core Plus	32,761,099	5.9	6.0	-3.1	84	-2.1	44	2.6	75	2.8	76	2.5	62	--	--
<i>BBgBarc US Aggregate TR</i>				-3.0	71	-2.5	74	2.6	71	3.0	60	2.2	79	4.3	78
Wellington DAS	14,322,241	2.6	3.0	-8.0	99	-7.8	99	-0.1	99	6.4	1	4.6	4	--	--
<i>Wellington Custom Benchmark*</i>				-7.2	99	-7.8	99	1.7	95	5.5	2	2.5	55	5.6	8

*Wellington Custom Benchmark is comprised of equal weighted zero coupon bonds targeting a 10 year duration. Instruments include swaps from 7/1/07 thru 12/18/08, swaps and US Treasury STRIPS from 12/19/08 thru 12/29/08, and US Treasury STRIPS since 12/30/08.

Vermont Municipal Employees

Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
SSgA Barclays Aggregate Index	17,081,793	3.1	3.0	-3.0	71	-2.5	76	2.6	72	--	--	--	--	--	--
BBgBarc US Aggregate TR				-3.0	71	-2.5	74	2.6	71	3.0	60	2.2	79	4.3	78
3-Month Libor Total Return USD				0.2	1	0.4	2	0.7	99	0.4	99	0.4	99	1.2	99
eA US Core Fixed Inc Net Median				-2.8		-2.1		3.1		3.1		2.7		4.6	
Unconstrained Fixed Income	34,367,645	6.2	6.0	1.2	27	3.4	33	5.9	43	--	--	--	--	--	--
25% HY, 25% EMD, 50% BC Agg				-2.1	85	0.4	79	8.1	26	4.1	10	4.3	45	5.8	18
BBgBarc Global Aggregate TR				-7.1	99	-6.3	99	2.1	90	-0.2	88	0.2	95	3.3	89
eA Global Unconstrained Fixed Inc Net Median				0.2		2.9		5.4		2.5		3.8		5.0	
PIMCO Unconstrained	14,415,943	2.6	2.5	1.3	24	3.9	23	5.3	60	1.6	69	1.3	91	--	--
25% HY, 25% EMD, 50% BC Agg				-2.1	85	0.4	79	8.1	26	4.1	10	4.3	45	5.8	18
3-Month Libor Total Return USD				0.2	51	0.4	78	0.7	92	0.4	84	0.4	95	1.2	99
GAM Unconstrained Bond	19,951,702	3.6	3.5	1.1	28	3.1	47	6.3	39	--	--	--	--	--	--
3-Month LIBOR + 3%				1.0	30	1.9	62	3.8	85	3.4	22	3.4	67	4.2	70
eA Global Unconstrained Fixed Inc Net Median				0.2		2.9		5.4		2.5		3.8		5.0	
High Yield Comp	29,998,908	5.4	5.0	2.6	20	7.6	27	15.1	31	4.5	33	7.0	32	7.1	35
BBgBarc US High Yield TR				1.8	46	7.4	31	17.1	12	4.7	26	7.4	24	7.5	17
eA US High Yield Fixed Inc Net Median				1.6		6.6		13.5		4.0		6.6		6.7	
KDP	6,758,084	1.2	1.0	0.7	89	4.3	82	11.0	76	3.0	80	5.0	92	--	--
BBgBarc US High Yield TR				1.8	46	7.4	31	17.1	12	4.7	26	7.4	24	7.5	17
BofA Merrill Lynch US High Yield BB-B Rated				1.3	67	6.3	58	14.7	39	4.9	23	7.1	31	6.9	36
Guggenheim	23,240,824	4.2	4.0	3.1	10	8.6	16	16.4	17	5.0	20	--	--	--	--
BBgBarc US High Yield TR				1.8	46	7.4	31	17.1	12	4.7	26	7.4	24	7.5	17
eA US High Yield Fixed Inc Net Median				1.6		6.6		13.5		4.0		6.6		6.7	

Vermont Municipal Employees

Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
TIPS	21,231,351	3.8	4.0												
BlackRock TIPS	21,231,351	3.8	4.0	-2.4	--	-1.5	--	4.7	--	2.2	--	0.8	--	--	--
BBgBarc US TIPS TR				-2.4	--	-1.5	--	4.7	--	2.3	--	0.9	--	4.4	--
Emerging Market Debt	27,303,136	4.9	5.0												
Wellington Opportunistic EMD	27,303,136	4.9	5.0	-2.9	34	2.0	14	12.8	18	5.8	5	6.1	18	--	--
JP Morgan EMBI Global TR				-4.2	60	-0.6	56	10.2	51	5.6	8	5.4	23	6.8	32
eA All Emg Mkts Fixed Inc Net Median				-4.0		-0.2		10.2		3.5		4.0		5.9	
Risk Parity/GAA	41,138,499	7.4	8.0	-2.4	78	-0.2	74	8.4	19	1.7	46	4.4	49	3.9	58
Risk Parity	41,138,499	7.4	8.0	-2.4	78	-0.2	74	10.5	5	2.6	22	4.0	53	--	--
eA Global TAA Net Median				-0.8		2.1		3.4		1.4		4.3		4.2	
AQR Global Risk Premium	41,138,499	7.4	8.0	-2.4	78	-0.2	74	10.5	5	2.6	22	4.0	53	--	--
60% MSCI World (Net) / 40% CITI WGBI				-2.4	78	0.6	69	5.3	37	2.1	31	5.9	23	3.8	59
Cash	1,175,374	0.2	0.0												
Vermont Cash	1,175,374	0.2	0.0	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	1.0	--
91 Day T-Bills				0.1	--	0.2	--	0.3	--	0.1	--	0.1	--	0.7	--
Commodities	8,872,340	1.6	3.0												
Schroder	8,872,340	1.6	3.0	2.8	--	0.6	--	16.8	--	-13.9	--	-10.4	--	--	--
Bloomberg Commodity Index				2.7	--	-1.3	--	11.8	--	-11.3	--	-9.0	--	-5.6	--
Total Real Estate	29,648,074	5.3	8.0	1.6	--	3.7	--	7.9	--	10.6	--	--	--	--	--
NCREIF Property Index				1.7	--	3.5	--	8.0	--	11.0	--	10.9	--	6.9	--
NCREIF ODCE				2.1	--	4.2	--	8.8	--	12.1	--	12.2	--	5.8	--
Morgan Stanley Prime Property	13,241,205	2.4		2.4	--	4.7	--	9.2	--	11.6	--	12.5	--	5.8	--
UBS Trumbull	10,975,374	2.0		1.5	--	3.2	--	7.2	--	8.8	--	8.9	--	5.0	--
RREEF America REIT III	57,951	0.0		-0.4	--	-13.2	--	-16.8	--	4.0	--	9.8	--	-4.4	--
Transwestern / Aslan III	28,766	0.0		0.0	--	0.0	--	0.0	--	8.3	--	16.1	--	-20.6	--
Siguler Guff	5,344,777	1.0		0.0	--	4.0	--	8.7	--	--	--	--	--	--	--

Risk Parity Composite formerly shown as Risk Parity/GAA.

Real Estate performance reported on a quarterly basis. NCREIF Property is available 25 days after quarter end.

Real Estate values are finalized as of 12/31/2016, except for Siguler Guff, it is preliminary.

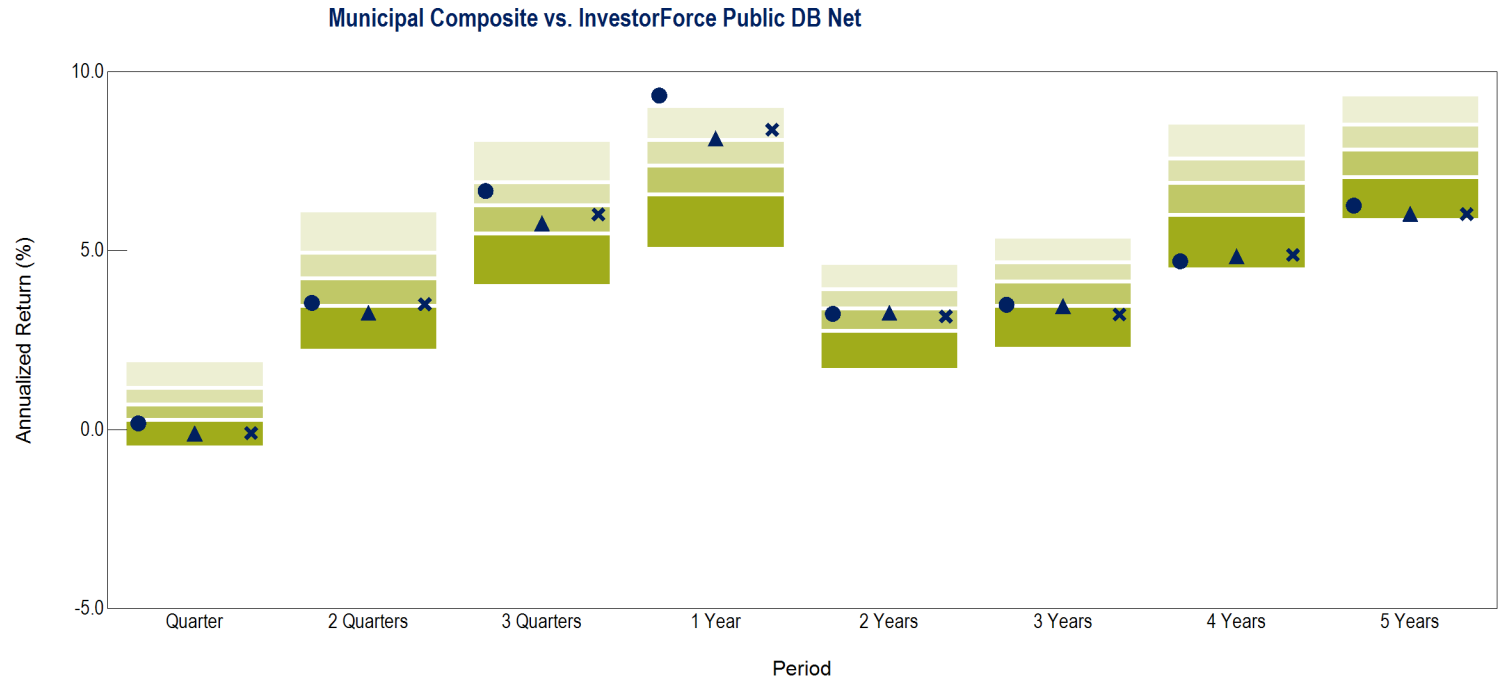
Vermont Municipal Employees

Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Absolute Return	51,647,264	9.3	9.0	1.4	47	3.3	56	0.8	56	0.9	66	5.1	48	--	--
<i>HFRI Fund of Funds Composite Index</i>				0.9	61	3.2	57	0.5	59	1.2	57	3.4	77	1.3	92
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.2		3.7		1.3		1.6		4.9		3.3	
Grosvenor	26,009,326	4.7	5.0	2.1	28	5.0	34	2.3	39	1.9	46	5.8	33	--	--
Mellon Dynamic Growth	10,270,838	1.8	2.0	-1.6	91	-0.7	91	0.2	61	3.1	32	6.2	23	2.7	66
<i>Mellon Dynamic Growth Benchmark</i>				-2.1	92	1.2	80	5.5	13	2.0	45	5.4	39	3.3	48
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.2		3.7		1.3		1.6		4.9		3.3	
Allianz Structured Alpha	10,072,992	1.8	2.0	1.4	47	2.7	64	9.9	4	10.1	3	7.5	14	--	--
<i>91 Day T-Bills</i>				0.1	75	0.2	88	0.3	61	0.1	79	0.1	99	0.7	97
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				1.2		3.7		1.3		1.6		4.9		3.3	
Pinnacle Natural Resources, L.P.	5,237,205	0.9		3.4	--	1.7	--	--	--	--	--	--	--	--	--
<i>Bloomberg Commodity Index</i>				2.7	--	-1.3	--	11.8	--	-11.3	--	-9.0	--	-5.6	--
<i>eA Commodities Net Median</i>				--		--		--		--		--		--	
GAM	56,902	0.0	0.0												
Private Equity	7,240,680	1.3	5.0	-1.2	--	4.0	--	10.3	--	17.3	--	--	--	--	--
<i>Cambridge Associates US All PE</i>				0.0	--	3.8	--	8.1	--	8.2	--	11.9	--	9.5	--
Harbourvest Partners IX Credit Opportunities	280,507	0.1													
Harbourvest Partners IX Venture Fund	1,455,738	0.3													
Harbourvest Partners IX Buyout Fund	1,891,103	0.3													
Harbourvest Partners X Venture Fund	260,113	0.0													
Harbourvest Partners X Buyout Fund	572,574	0.1													
Harbourvest Dover VIII Fund	2,272,666	0.4													
HIPEP VII	507,979	0.1													

Absolute Return composite formerly shown as Hedge Funds composite. As of 04/01/2016, Absolute Return includes Mellon Dynamic Growth and Allianz Structured Alpha. Mellon Dynamic Growth was included in Risk Parity/GAA composite prior to 04/01/2016. Allianz Structured Alpha was included Diversified Fixed income composite prior to 04/01/2016. Mellon Dynamic Growth Benchmark: 60% MSCI All Country World Index IMI / 40% Citigroup GDP Weighted. Harbourvest values based on final Capital Account Statements for Q3, and preliminary values for Q4.

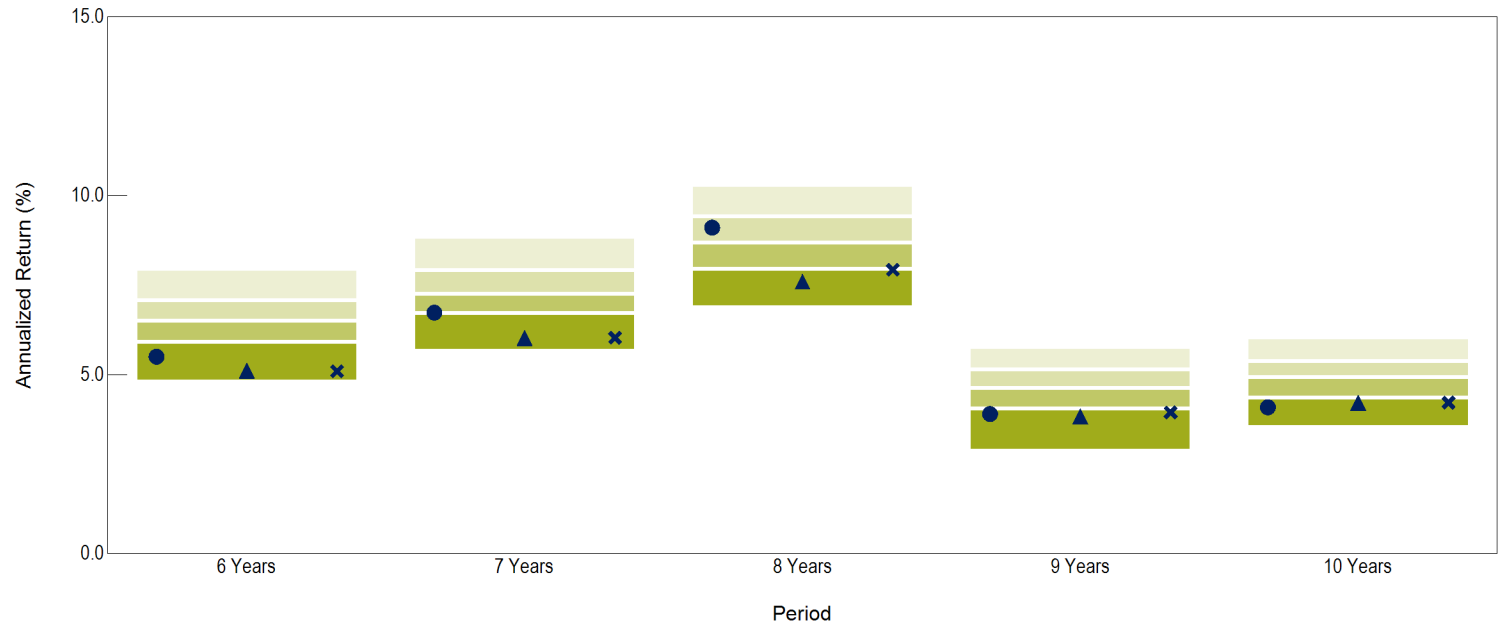
Total Fund Return Summary vs. Peer Universe - Net



	Return (Rank)													
5th Percentile	1.9	6.1	8.1	9.0	4.7	5.4	8.6	9.4						
25th Percentile	1.2	5.0	6.9	8.1	3.9	4.7	7.6	8.5						
Median	0.7	4.2	6.3	7.4	3.4	4.1	6.9	7.8						
75th Percentile	0.3	3.5	5.5	6.6	2.8	3.5	6.0	7.1						
95th Percentile	-0.5	2.2	4.0	5.0	1.7	2.3	4.5	5.9						
# of Portfolios	270	270	269	269	264	253	241	232						
● Municipal Composite	0.2 (81)	3.5 (73)	6.7 (35)	9.3 (3)	3.2 (58)	3.5 (75)	4.7 (93)	6.3 (91)						
▲ Policy Index	-0.1 (89)	3.3 (79)	5.8 (65)	8.1 (25)	3.3 (56)	3.4 (76)	4.8 (93)	6.0 (95)						
× Allocation Index	-0.1 (88)	3.5 (75)	6.0 (56)	8.4 (21)	3.2 (63)	3.2 (81)	4.9 (93)	6.0 (95)						

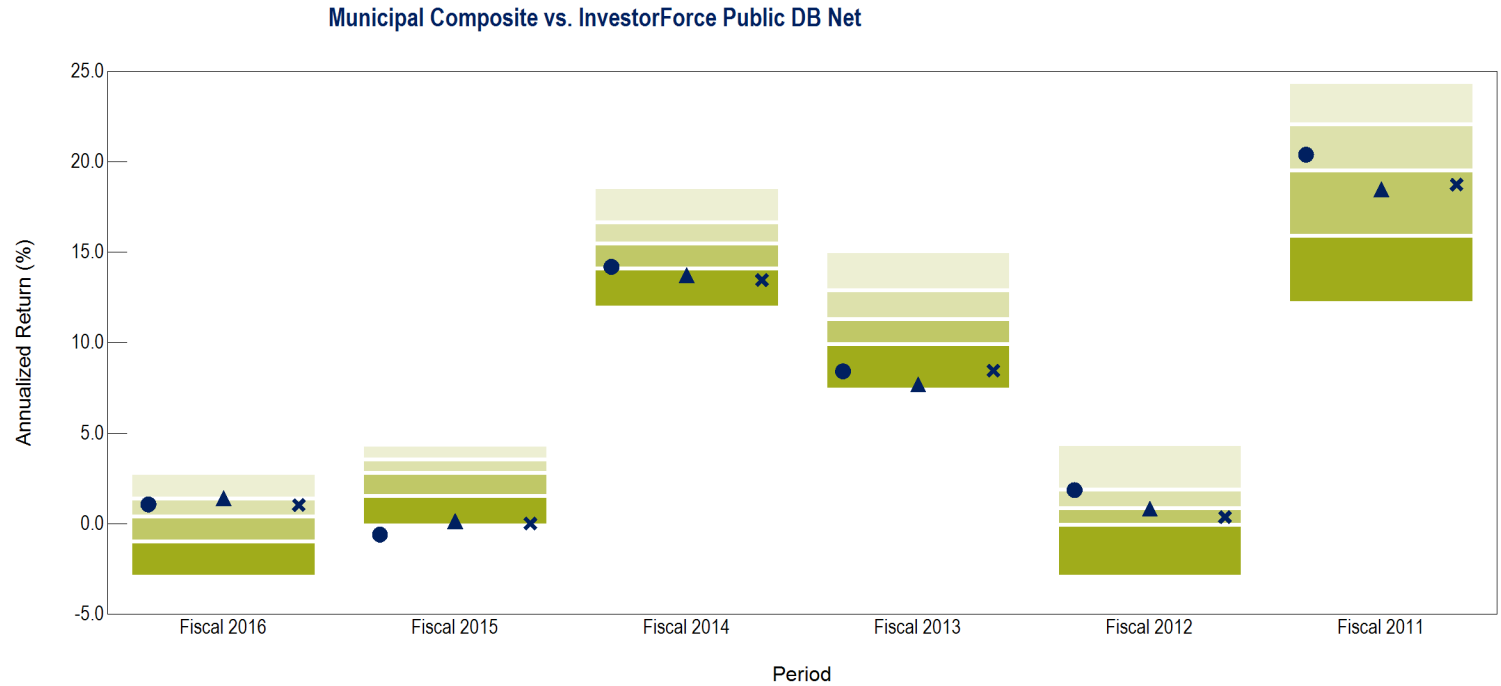
Total Fund Return Summary vs. Peer Universe - Net

Municipal Composite vs. InvestorForce Public DB Net



	Return (Rank)									
5th Percentile	8.0		8.8		10.3		5.8		6.0	
25th Percentile	7.1		7.9		9.4		5.1		5.4	
Median	6.5		7.3		8.7		4.6		4.9	
75th Percentile	5.9		6.7		8.0		4.1		4.4	
95th Percentile	4.8		5.7		6.9		2.9		3.5	
# of Portfolios	214		204		196		191		184	
● Municipal Composite	5.5	(85)	6.7	(75)	9.1	(38)	3.9	(78)	4.1	(84)
▲ Policy Index	5.1	(93)	6.0	(93)	7.6	(83)	3.8	(80)	4.2	(80)
× Allocation Index	5.1	(93)	6.0	(93)	7.9	(76)	3.9	(77)	4.2	(80)

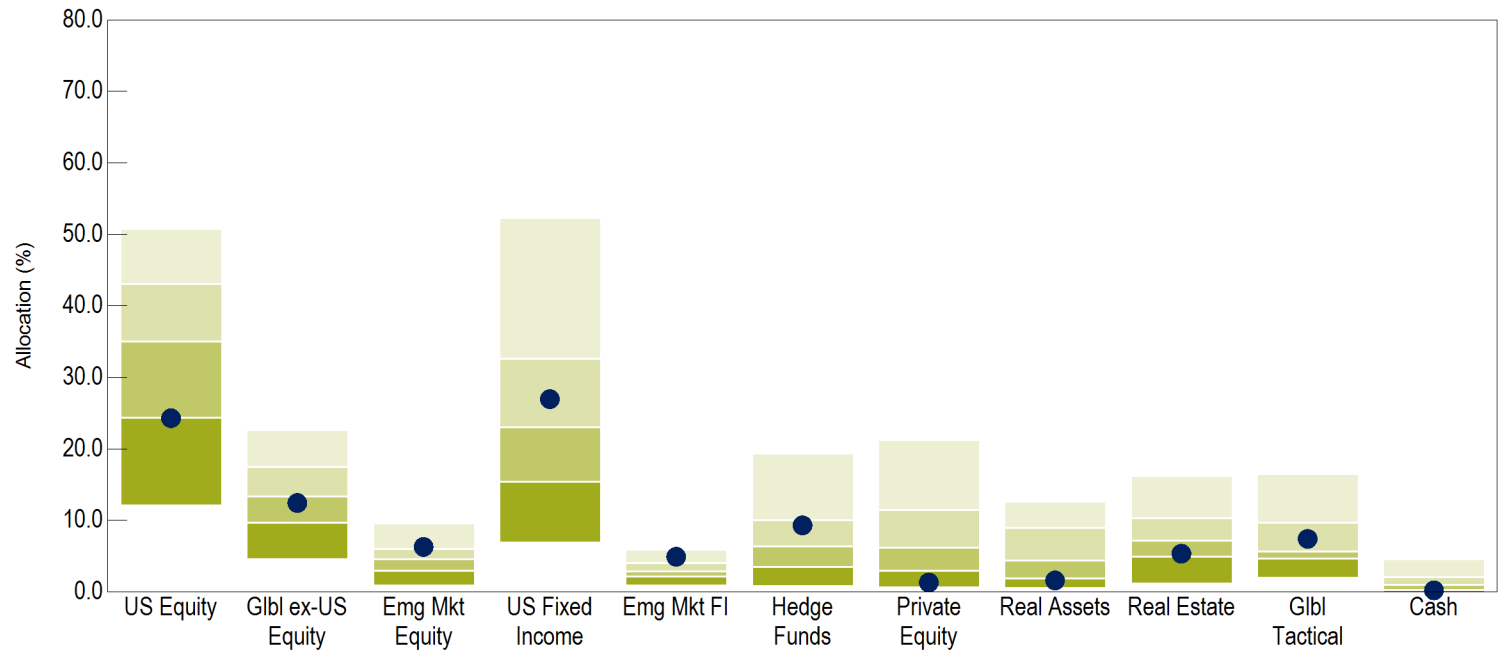
Total Fund Return Summary vs. Peer Universe - Net



	Fiscal 2016		Fiscal 2015		Fiscal 2014		Fiscal 2013		Fiscal 2012		Fiscal 2011	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	2.8		4.4		18.6		15.0		4.4		24.4	
25th Percentile	1.4		3.6		16.7		12.9		1.9		22.1	
Median	0.4		2.8		15.5		11.3		0.9		19.5	
75th Percentile	-0.9		1.6		14.1		9.9		0.0		15.9	
95th Percentile	-2.9		-0.1		11.9		7.4		-2.9		12.2	
# of Portfolios	258		231		173		192		147		137	
● Municipal Composite	1.1	(33)	-0.6	(97)	14.2	(73)	8.4	(92)	1.9	(26)	20.4	(39)
▲ Policy Index	1.4	(25)	0.1	(94)	13.7	(84)	7.7	(94)	0.8	(52)	18.5	(61)
× Allocation Index	1.0	(33)	0.0	(95)	13.5	(89)	8.5	(92)	0.4	(66)	18.7	(59)

Total Fund Allocation vs. Peer Universe - Net

Total Plan Allocation vs. InvestorForce Public DB Net
As of December 31, 2016

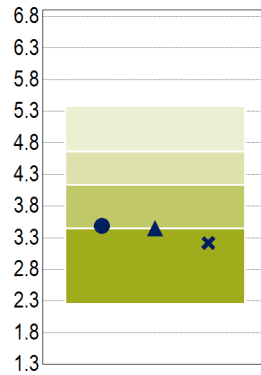


	Allocation (Rank)											
5th Percentile	50.8	22.6	9.5	52.3	5.9	19.3	21.2	12.7	16.2	16.5	4.6	--
25th Percentile	43.2	17.5	6.1	32.7	4.1	10.1	11.5	9.0	10.4	9.8	2.2	--
Median	35.1	13.5	4.6	23.1	2.9	6.4	6.3	4.4	7.3	5.7	1.1	--
75th Percentile	24.5	9.8	3.0	15.4	2.3	3.6	3.0	2.0	5.0	4.8	0.3	--
95th Percentile	12.1	4.7	1.0	6.9	1.0	0.9	0.7	0.6	1.3	2.1	0.0	--
# of Portfolios	227	217	127	230	46	92	123	69	160	69	232	--
● Municipal Composite	24.3 (76)	12.4 (57)	6.3 (22)	26.9 (38)	4.9 (18)	9.3 (29)	1.3 (92)	1.6 (87)	5.3 (66)	7.4 (43)	0.2 (80)	--

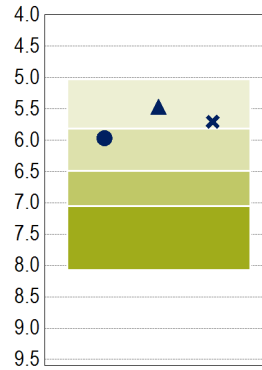
Total Fund Risk Statistics vs. Peer Universe - Net

Municipal Composite vs. IFx Public DB Net
3 Years

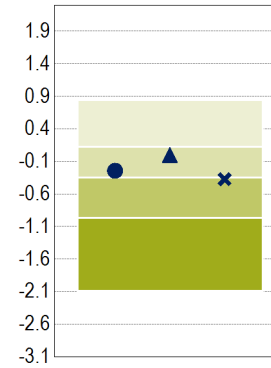
Anlzd Return



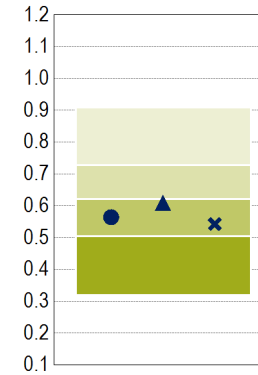
Anlzd Standard Deviation



Anlzd Alpha



Sharpe Ratio



● Municipal Composite

Value	3.49
Rank	75
▲ Policy Index	
Value	3.45
Rank	76
✕ Allocation Index	
Value	3.22
Rank	81

Universe

5th %tile	5.38
25th %tile	4.67
Median	4.15
75th %tile	3.46
95th %tile	2.26

● Municipal Composite

Value	5.97
Rank	30
▲ Policy Index	
Value	5.46
Rank	11
✕ Allocation Index	
Value	5.70
Rank	21

Universe

5th %tile	5.03
25th %tile	5.81
Median	6.48
75th %tile	7.04
95th %tile	8.07

● Municipal Composite

Value	-0.24
Rank	44
▲ Policy Index	
Value	0.00
Rank	32
✕ Allocation Index	
Value	-0.37
Rank	53

Universe

5th %tile	0.84
25th %tile	0.13
Median	-0.34
75th %tile	-0.95
95th %tile	-2.08

● Municipal Composite

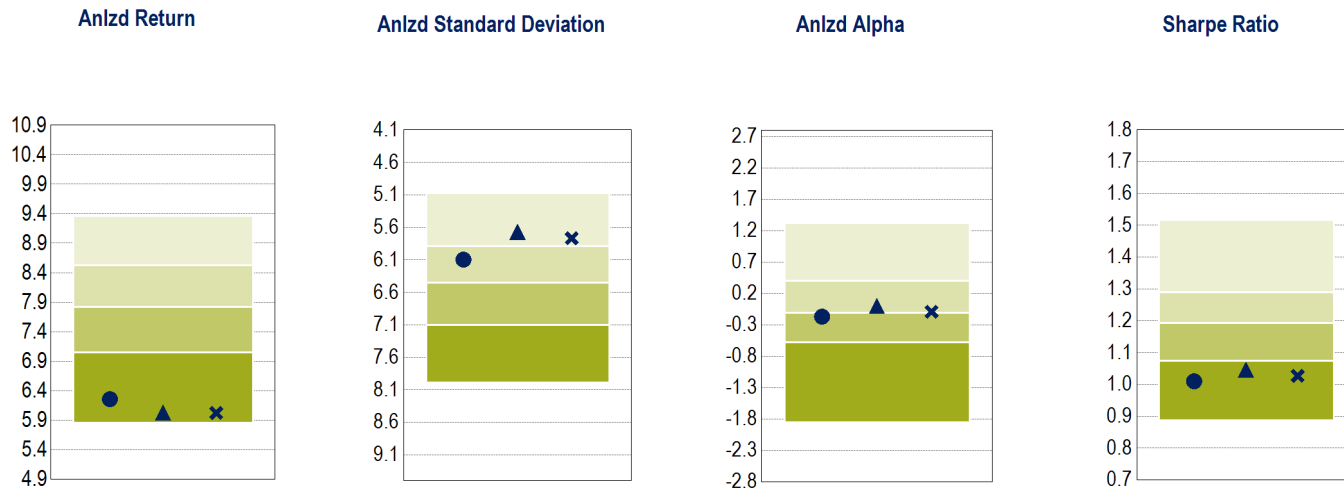
Value	0.56
Rank	69
▲ Policy Index	
Value	0.61
Rank	56
✕ Allocation Index	
Value	0.54
Rank	71

Universe

5th %tile	0.91
25th %tile	0.73
Median	0.62
75th %tile	0.51
95th %tile	0.32

Total Fund Risk Statistics vs. Peer Universe - Net

Municipal Composite vs. IFx Public DB Net
5 Years



● Municipal Composite

Value	6.25
Rank	91
▲ Policy Index	
Value	6.03
Rank	95
✕ Allocation Index	
Value	6.02
Rank	95

Universe	
5th %tile	9.36
25th %tile	8.53
Median	7.83
75th %tile	7.06
95th %tile	5.87

● Municipal Composite

Value	6.10
Rank	35
▲ Policy Index	
Value	5.67
Rank	18
✕ Allocation Index	
Value	5.77
Rank	22

Universe	
5th %tile	5.08
25th %tile	5.88
Median	6.44
75th %tile	7.09
95th %tile	7.98

● Municipal Composite

Value	-0.17
Rank	54
▲ Policy Index	
Value	0.00
Rank	43
✕ Allocation Index	
Value	-0.09
Rank	49

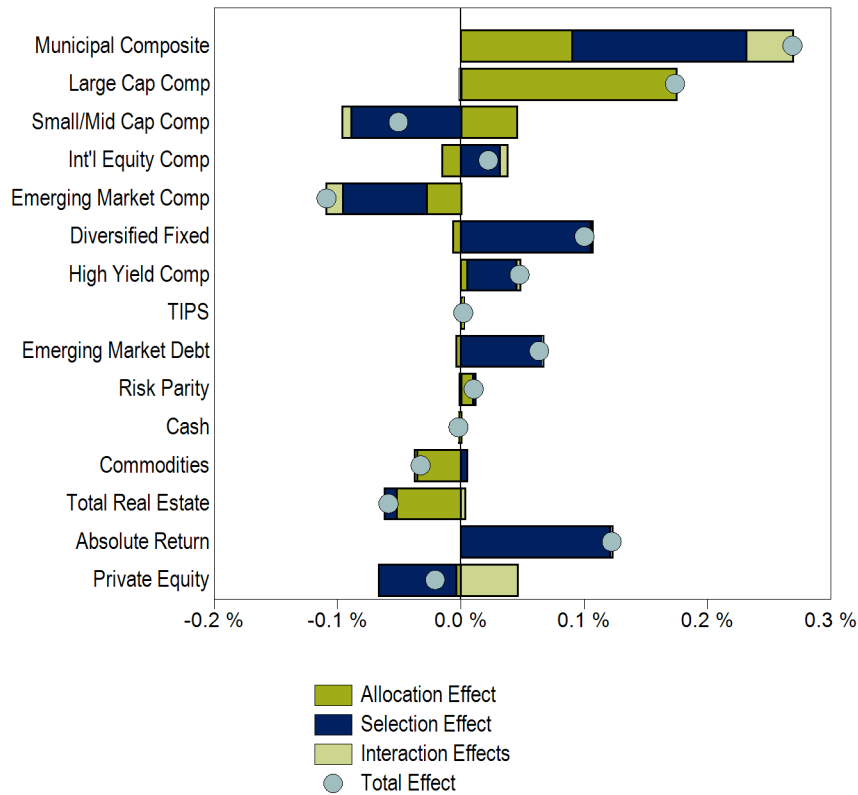
Universe	
5th %tile	1.32
25th %tile	0.41
Median	-0.10
75th %tile	-0.57
95th %tile	-1.85

● Municipal Composite

Value	1.01
Rank	84
▲ Policy Index	
Value	1.05
Rank	77
✕ Allocation Index	
Value	1.03
Rank	81

Universe	
5th %tile	1.52
25th %tile	1.29
Median	1.20
75th %tile	1.08
95th %tile	0.89

Attribution Effects Relative to Policy Index
3 Months Ending December 31, 2016



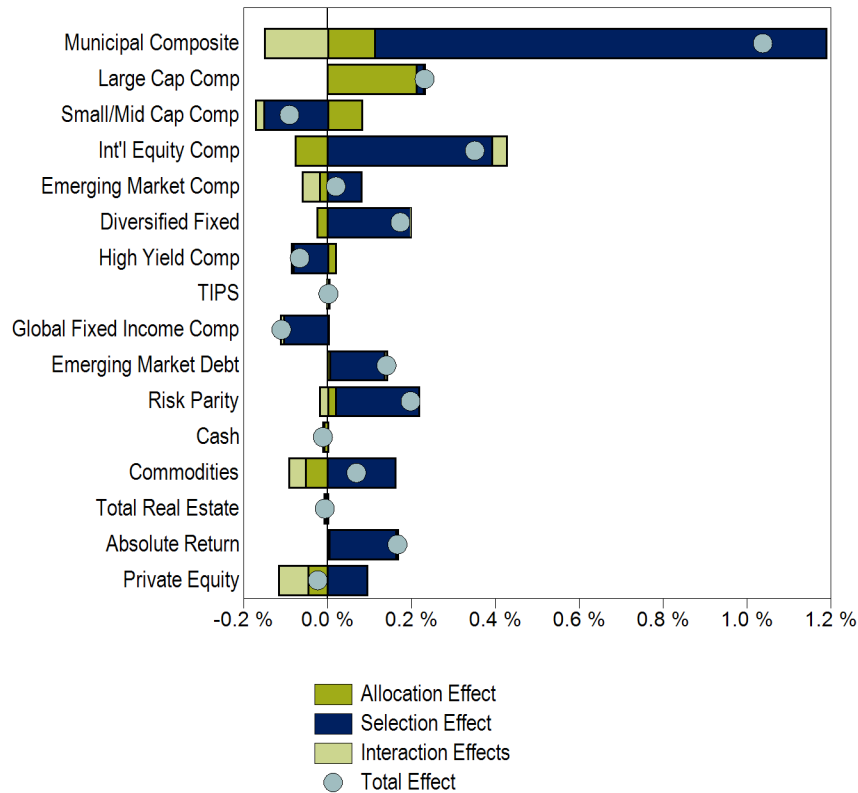
Attribution Summary
3 Months Ending December 31, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	3.8%	3.8%	0.0%	0.0%	0.2%	0.0%	0.2%
Small/Mid Cap Comp	7.4%	9.1%	-1.7%	-0.1%	0.0%	0.0%	-0.1%
Int'l Equity Comp	-0.5%	-0.8%	0.3%	0.0%	0.0%	0.0%	0.0%
Emerging Market Comp	-5.4%	-4.2%	-1.2%	-0.1%	0.0%	0.0%	-0.1%
Diversified Fixed	-2.4%	-3.0%	0.6%	0.1%	0.0%	0.0%	0.1%
High Yield Comp	2.6%	1.8%	0.8%	0.0%	0.0%	0.0%	0.0%
TIPS	-2.4%	-2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-2.9%	-4.2%	1.3%	0.1%	0.0%	0.0%	0.1%
Risk Parity	-2.4%	-2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%	0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%
Commodities	2.8%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	1.6%	1.7%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Absolute Return	1.4%	0.0%	1.4%	0.1%	0.0%	0.0%	0.1%
Private Equity	-1.2%	0.0%	-1.2%	-0.1%	0.0%	0.0%	0.0%
Total	0.2%	-0.1%	0.3%	0.1%	0.1%	0.0%	0.3%

Note: Plan attribution calculations are returns based and the results shown reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance report. The target return shown for each composite is a custom index, based on aggregated policy indices. This policy index asset weights the underlying policy indices of each option in the plan and the respective benchmark. The allocation, selection, and interaction effects are calculated using the custom index described above along with the policy or target weight of each composite. May not add up due to rounding.

Absolute Return's Wtd. index Return is calculated using a weighting of the respective benchmarks for each underlying strategy part of the composite.

Attribution Effects Relative to Policy Index
1 Year Ending December 31, 2016



Attribution Summary
1 Year Ending December 31, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	12.9%	12.7%	0.1%	0.0%	0.2%	0.0%	0.2%
Small/Mid Cap Comp	19.7%	22.8%	-3.0%	-0.2%	0.1%	0.0%	-0.1%
Int'l Equity Comp	5.5%	1.7%	3.8%	0.4%	-0.1%	0.0%	0.4%
Emerging Market Comp	12.5%	11.2%	1.3%	0.1%	0.0%	0.0%	0.0%
Diversified Fixed	3.7%	2.6%	1.1%	0.2%	0.0%	0.0%	0.2%
High Yield Comp	15.1%	17.1%	-2.0%	-0.1%	0.0%	0.0%	-0.1%
TIPS	4.7%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	--	7.1%	--	-0.1%	0.0%	0.0%	-0.1%
Emerging Market Debt	12.8%	10.2%	2.7%	0.1%	0.0%	0.0%	0.1%
Risk Parity	8.4%	5.7%	2.7%	0.2%	0.0%	0.0%	0.2%
Cash	0.0%	0.3%	-0.3%	0.0%	0.0%	0.0%	0.0%
Commodities	16.8%	11.8%	5.0%	0.2%	-0.1%	0.0%	0.1%
Total Real Estate	7.9%	8.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Absolute Return	0.8%	-0.4%	1.2%	0.2%	0.0%	0.0%	0.2%
Private Equity	10.3%	8.1%	2.2%	0.1%	0.0%	-0.1%	0.0%
Total	9.2%	8.1%	1.0%	1.1%	0.1%	-0.2%	1.0%

Note: Plan attribution calculations are returns based and the results shown reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance report.

The target return shown for each composite is a custom index, based on aggregated policy indices. This policy index asset weights the underlying policy indices of each option in the plan and the respective benchmark.

The allocation, selection, and interaction effects are calculated using the custom index described above along with the policy or target weight of each composite.

May not add up due to rounding.

Absolute Return's Wtd. index Return is calculated using a weighting of the respective benchmarks for each underlying strategy part of the composite.

Asset Allocation Effect - Measures VPIC's ability to effectively allocate their portfolio's assets to various asset classes. The allocation effect determines whether the overweighting or underweighting of asset classes relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is overweighted in an asset class that outperforms the benchmark. Negative allocation occurs when the portfolio is overweighted in an asset class that underperforms the benchmark and underweighted in an asset class that outperforms the benchmark.

Selection Effect - Measures VPIC's ability to select managers within a given asset class relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by VPIC's allocation to the asset class. The weight of the manager in the portfolio determines the size of the effect -- the larger the manager, the larger the effect is, positive or negative.

Interaction Effect - The interaction effect measures the combined impact of VPIC's manager selection and manager allocation decisions within an asset class. For example, if VPIC had superior manager selection and overweighted that particular asset class, the interaction effect is positive. If VPIC had superior manager selection, but underweighted that asset class, the interaction effect is negative. In this case, VPIC did not take advantage of the superior manager selection by allocating more assets to that asset class.

Vermont Municipal Employees

Risk Statistics - 3 Years Ending December 31, 2016 - Net

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Municipal Composite	100.00%	3.49%	75	5.97%	30	-0.23%	44	0.56	69	1.04	51	0.93%	32
Policy Index	--	3.45%	76	5.46%	11	0.00%	32	0.61	56	1.14	35	0.00%	1
US Equity	24.29%	8.46%	25	11.35%	31	-0.13%	27	0.73	20	1.39	20	1.61%	2
Russell 3000	--	8.43%	25	11.04%	23	0.00%	25	0.75	18	1.33	23	0.00%	1
Large Cap Comp	18.29%	8.74%	14	10.88%	37	-0.23%	19	0.79	15	1.54	11	0.74%	1
S&P 500	--	8.87%	12	10.74%	30	0.00%	16	0.81	13	1.44	15	0.00%	1
Small/Mid Cap Comp	5.99%	8.75%	13	13.41%	47	3.19%	14	0.64	16	1.36	12	3.93%	2
Russell 2000	--	6.74%	37	15.99%	92	0.00%	53	0.41	51	0.74	50	0.00%	1
Int'l Equity Comp	12.43%	0.37%	33	11.90%	44	1.85%	30	0.02	33	0.04	33	2.21%	7
MSCI EAFE	--	-1.60%	65	12.64%	83	0.00%	65	-0.14	66	-0.24	65	0.00%	1
Emerging Market Comp	6.28%	-1.62%	40	15.86%	69	0.71%	40	-0.11	40	-0.22	47	5.37%	57
MSCI Emerging Markets	--	-2.55%	61	16.30%	81	0.00%	58	-0.16	59	-0.31	63	0.00%	1
US Fixed Income	26.95%	3.86%	30	3.10%	61	1.20%	30	1.21	29	1.86	29	1.67%	35
BBgBarc US Aggregate TR	--	3.03%	50	3.02%	59	0.00%	74	0.96	56	1.36	65	0.00%	1
Diversified Fixed	17.73%	3.78%	31	3.16%	62	0.84%	37	1.16	33	1.58	48	1.21%	24
BBgBarc US Aggregate TR	--	3.03%	50	3.02%	59	0.00%	74	0.96	56	1.36	65	0.00%	1
High Yield Comp	5.40%	4.49%	33	5.03%	41	0.72%	39	0.87	38	1.60	48	1.64%	36
BBgBarc US High Yield TR	--	4.66%	26	6.09%	82	0.00%	63	0.75	60	1.77	35	0.00%	1
TIPS	3.82%	2.19%	38	4.21%	70	-0.10%	30	0.49	31	0.93	22	0.18%	3
BBgBarc US TIPS TR	--	2.26%	30	4.14%	65	0.00%	23	0.52	26	0.98	19	0.00%	1
Emerging Market Debt	4.91%	5.84%	5	6.45%	29	0.34%	15	0.89	15	1.48	13	1.33%	7
JP Morgan EMBI Global TR	--	5.59%	8	6.42%	29	0.00%	20	0.85	16	1.36	18	0.00%	1
Total Real Estate	5.33%	10.57%	--	4.41%	--	0.21%	--	2.37	--	274.13	--	1.18%	--
NCREIF Property Index	--	11.01%	--	4.53%	--	0.00%	--	2.40	--	285.71	--	0.00%	--
Absolute Return	9.29%	0.92%	66	3.39%	28	-0.17%	62	0.24	57	0.30	61	1.26%	1
HFRI Fund of Funds Composite Index	--	1.20%	57	3.49%	31	0.00%	58	0.31	51	0.41	54	0.00%	1
Risk Parity	7.40%	1.73%	46	7.64%	63	-0.11%	44	0.21	44	0.37	46	4.43%	38
60% MSCI World (Net) / 40% CITI WGBI	--	2.10%	31	7.24%	50	0.00%	41	0.27	40	0.58	29	0.00%	1

Vermont Municipal Employees

Risk Statistics - 5 Years Ending December 31, 2016 - Net

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Municipal Composite	100.00%	6.25%	91	6.10%	35	-0.17%	54	1.01	84	1.70	68	0.87%	23
Policy Index	--	6.03%	95	5.67%	18	0.00%	43	1.05	77	1.69	68	0.00%	1
US Equity	24.29%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	14.67%	32	10.65%	20	0.00%	26	1.37	13	2.27	17	0.00%	1
Large Cap Comp	18.29%	14.89%	16	10.55%	31	0.01%	19	1.40	11	2.43	10	0.79%	1
S&P 500	--	14.66%	22	10.37%	25	0.00%	19	1.40	10	2.34	14	0.00%	1
Small/Mid Cap Comp	5.99%	15.25%	20	12.67%	46	2.97%	28	1.20	21	2.27	10	3.40%	1
Russell 2000	--	14.46%	28	14.61%	85	0.00%	75	0.98	62	1.66	54	0.00%	1
Int'l Equity Comp	12.43%	7.18%	57	12.74%	40	1.09%	59	0.56	57	0.85	55	2.20%	6
MSCI EAFE	--	6.53%	69	13.51%	77	0.00%	80	0.48	77	0.73	73	0.00%	1
Emerging Market Comp	6.28%	--	--	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets	--	1.28%	79	16.16%	71	0.00%	80	0.07	80	0.12	78	0.00%	1
US Fixed Income	26.95%	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	--	2.23%	64	2.91%	51	0.00%	83	0.73	78	1.03	76	0.00%	1
Diversified Fixed	17.73%	3.01%	50	3.31%	64	0.64%	56	0.88	65	1.20	65	1.17%	23
BBgBarc US Aggregate TR	--	2.23%	64	2.91%	51	0.00%	83	0.73	78	1.03	76	0.00%	1
High Yield Comp	5.40%	7.04%	32	4.57%	29	1.07%	28	1.52	26	2.59	42	1.43%	39
BBgBarc US High Yield TR	--	7.36%	24	5.52%	72	0.00%	65	1.32	59	2.60	42	0.00%	1
TIPS	3.82%	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US TIPS TR	--	0.89%	45	4.76%	68	0.00%	47	0.17	46	0.23	44	0.00%	1
Emerging Market Debt	4.91%	--	--	--	--	--	--	--	--	--	--	--	--
JP Morgan EMBI Global TR	--	5.44%	23	7.16%	31	0.00%	30	0.75	27	1.11	28	0.00%	1
Total Real Estate	5.33%	--	--	--	--	--	--	--	--	--	--	--	--
NCREIF Property Index	--	10.91%	--	4.41%	--	0.00%	--	2.45	--	355.30	--	0.00%	--
Absolute Return	9.29%	5.08%	48	3.66%	39	1.73%	46	1.36	30	2.04	31	1.34%	1
HFRI Fund of Funds Composite Index	--	3.42%	77	3.48%	34	0.00%	73	0.96	57	1.37	55	0.00%	1
Risk Parity	7.40%	4.37%	49	7.74%	66	-0.90%	79	0.55	76	0.85	72	4.17%	40
60% MSCI World (Net) / 40% CITI WGBI	--	5.88%	23	7.35%	56	0.00%	55	0.79	28	1.35	19	0.00%	1

Appendix



Index Performance Summary as of 12/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
US Small/Mid Cap	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	8.5%	1.9%	6.1%	17.6%
US High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	-0.5%	1.8%	1.8%	17.1%
EM Equity	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	-4.6%	0.2%	-4.2%	11.2%
US Large Cap	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	-1.8%	3.7%	2.0%	3.8%	12.0%
Commodities	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	1.3%	1.8%	2.7%	11.8%
EM Local Credit	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	2.7%	-0.8%	-7.0%	1.9%	-6.1%	9.9%
US Credit	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.8%	-2.4%	0.1%	-3.0%	2.6%
Global Credit	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	-4.6%	-0.7%	-8.5%	1.6%
US Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	8.2%	6.4%	-0.4%	-4.1%	-7.4%	-0.5%	-11.7%	1.3%
Int'l Developed Equity	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-2.0%	3.4%	-0.7%	1.0%

S&P 500 = US Large Cap
 Russell 2500 = US Small/Mid Cap
 MSCI EAFE = International Developed Equity
 MSCI EM = Emerging Market Equity
 Barclays Agg = US Credit
 Barclays Long Treasury = US Long Treasuries
 Barclays High Yield = US HY
 WGBI = Global Credit
 GBI-EM Global Diversified = EM Local Credit
 Bloomberg Commodity = Commodities

Source: Bloomberg, Barclays, S&P, Russell, MSCI, JP Morgan, Credit Suisse



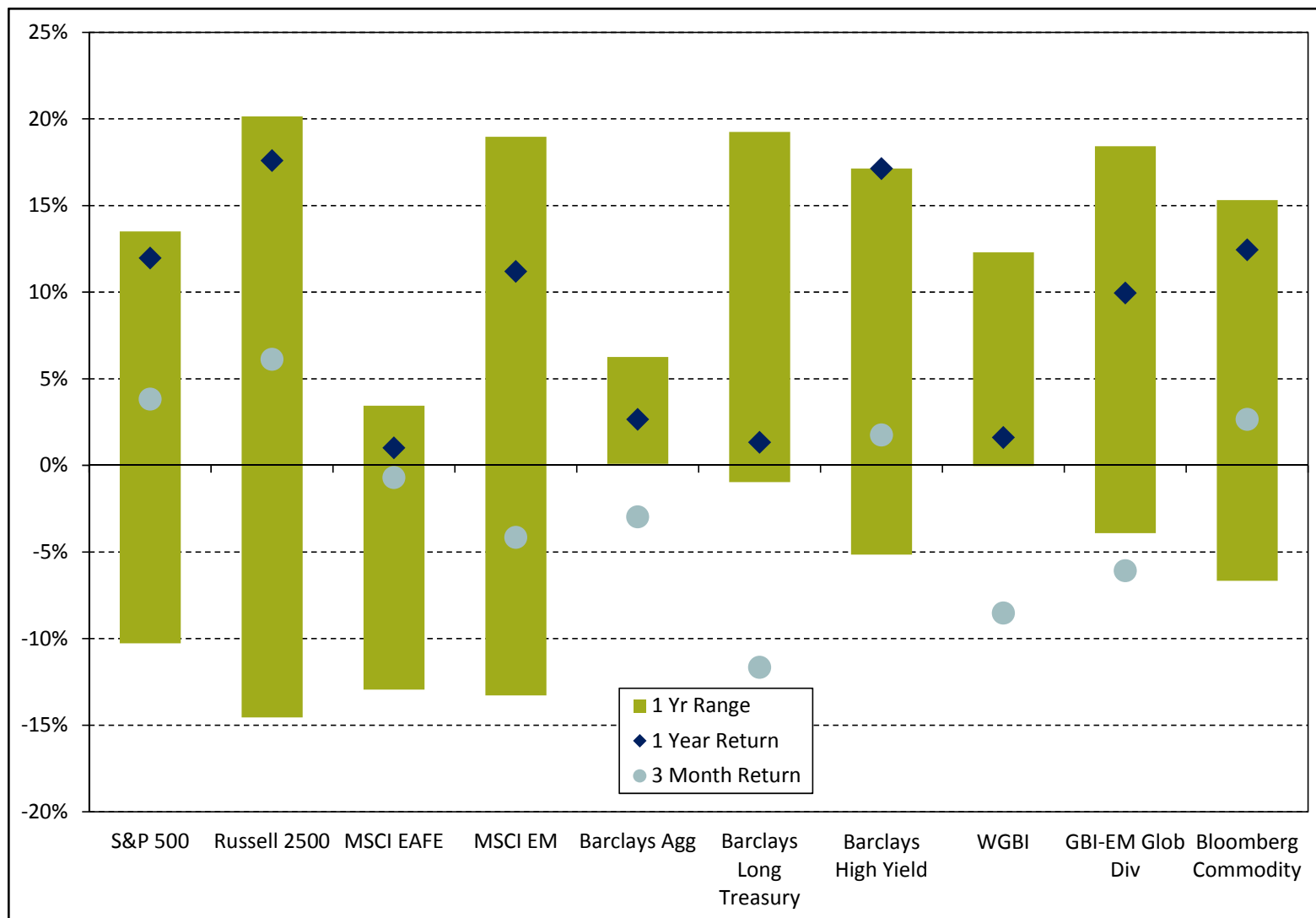
NEPC, LLC

Index Performance Summary as of 12/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	Nov	Dec	Q4	YTD
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	9.0%	-4.8%	11.2%	2.8%	8.8%	21.3%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	1.1%	-4.5%	2.3%	4.4%	2.0%	18.3%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	8.5%	1.9%	6.1%	17.6%
Barclays US Corp HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	-0.5%	1.8%	1.8%	17.1%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	4.0%	-2.0%	3.9%	1.9%	3.8%	12.1%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	-1.8%	3.7%	2.0%	3.8%	12.0%
BBG Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	1.3%	1.8%	2.7%	11.8%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	-4.6%	0.2%	-4.2%	11.2%
Barclays US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	6.7%	2.3%	-2.1%	-4.9%	1.5%	-5.4%	10.2%
JPM EMBI Global Div	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	4.0%	-1.2%	-4.1%	1.3%	-4.0%	10.2%
JPM GBI-EM Global Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	11.0%	2.7%	2.7%	-0.8%	-7.0%	1.9%	-6.1%	9.9%
Credit Suisse Lev Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	3.1%	0.8%	0.3%	1.1%	2.3%	9.9%
FTSE NAREIT Eqy REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	-1.4%	-5.7%	-1.7%	4.7%	-2.9%	8.5%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	5.3%	-1.7%	0.8%	2.2%	1.2%	7.9%
BC Long US Govt/Credit	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	1.2%	-2.8%	-5.8%	0.7%	-7.8%	6.7%
Barclays US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.8%	-2.4%	0.1%	-3.0%	2.6%
Barclays US Agg Int.	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	-0.4%	-1.7%	0.0%	-2.0%	2.0%
Citi WGBI	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	-4.6%	-0.7%	-8.5%	1.6%
BC US STRIPS 20+	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	-0.2%	-6.2%	-10.5%	-0.9%	-16.7%	1.4%
BC US Gov/Cred 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.7%	0.0%	0.0%	-0.4%	0.1%	-0.4%	1.3%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-2.0%	3.4%	-0.7%	1.0%
CS Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	1.7%	-0.2%	-0.2%	-	0.2%	0.3%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	-0.3%	-1.0%	-3.7%	1.2%	-3.6%	0.2%

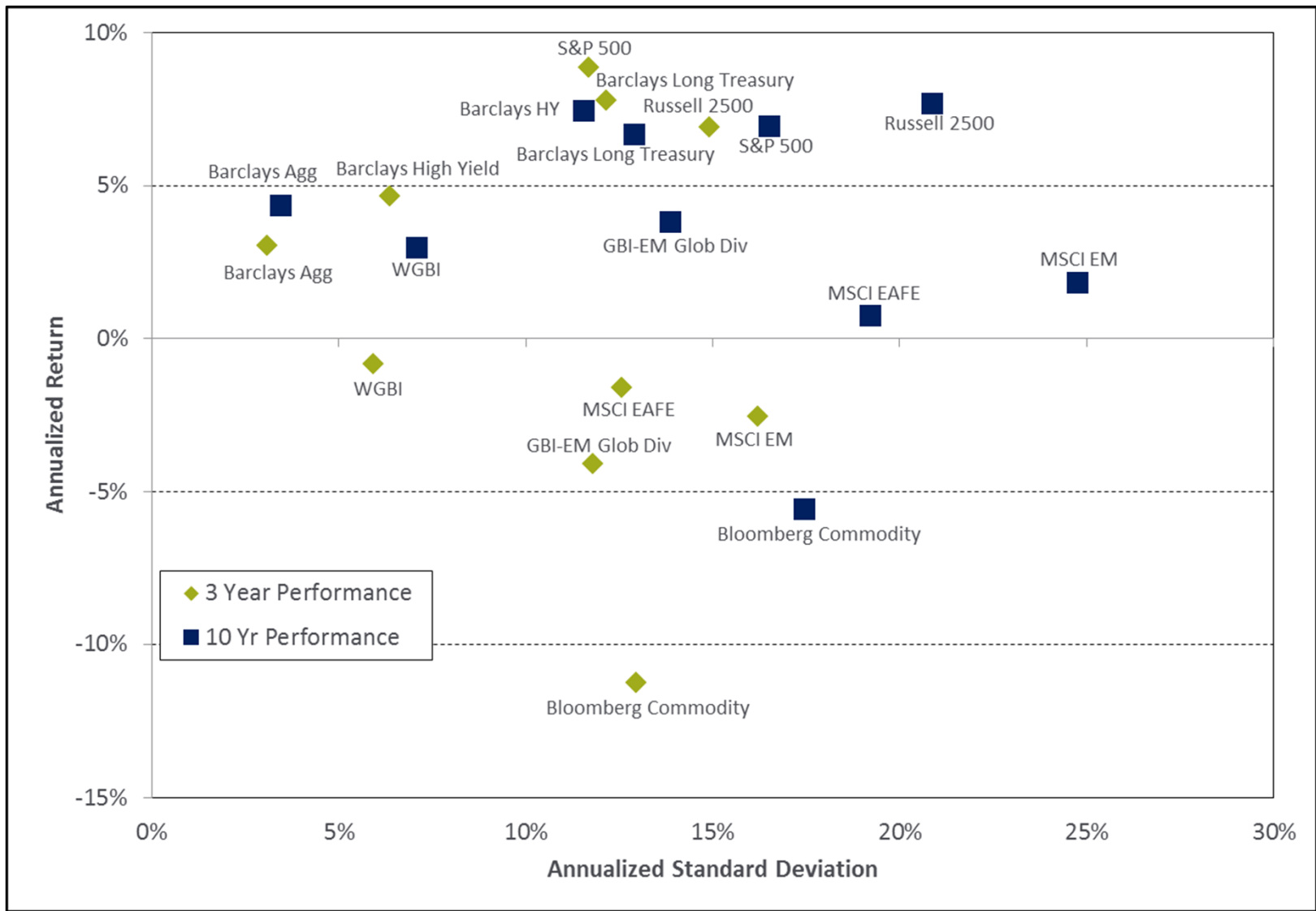
Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse

Near Term Broad Market Performance Summary as of 12/30/2016



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

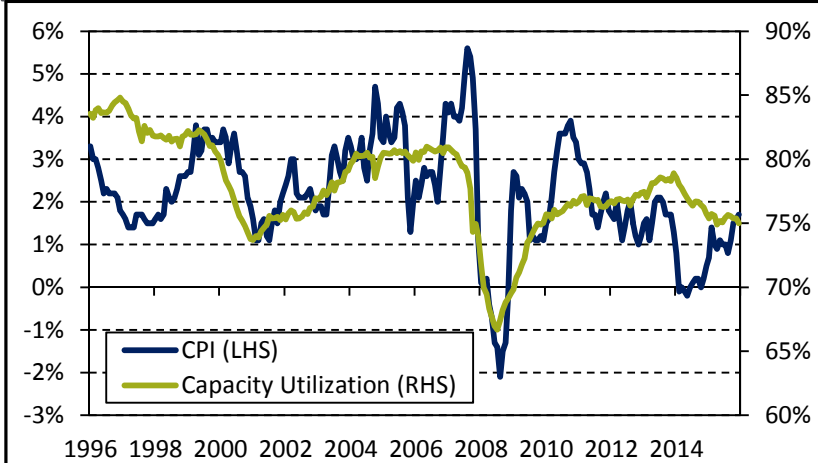
Long Term Broad Market Performance Summary as of 12/30/2016



Source: Bloomberg, Standard and Poors, Russell, MSCI, Barclays, Citigroup, JP Morgan

US Economic Indicators

Inflation continues rising



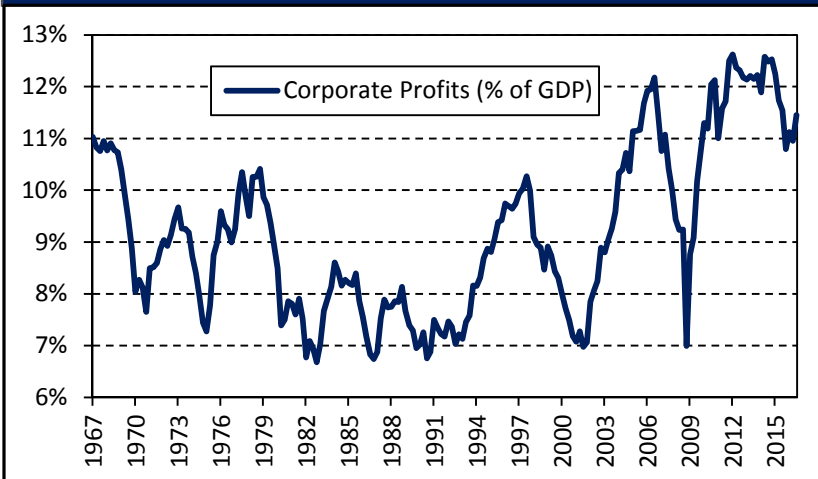
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

Unemployment has steadied



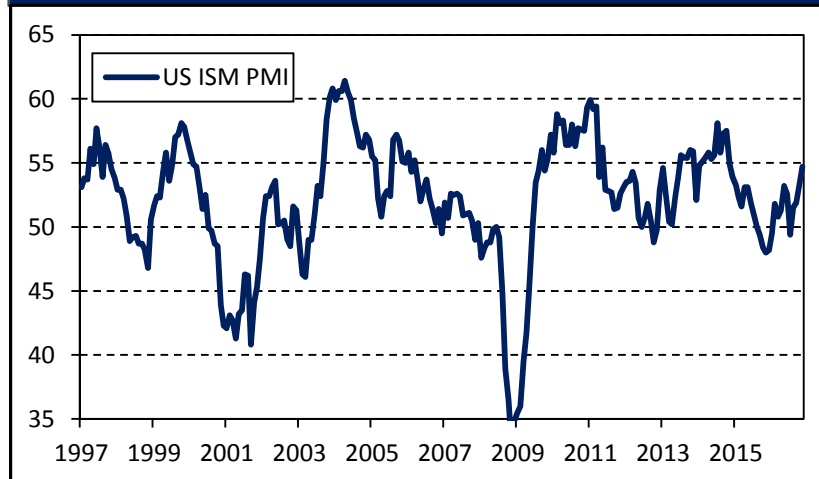
Source: Bloomberg, Bureau of Labor Statistics

Corporate profits experience an uptick



Source: Bloomberg, Bureau of Economic Analysis

Manufacturing shows modest strength

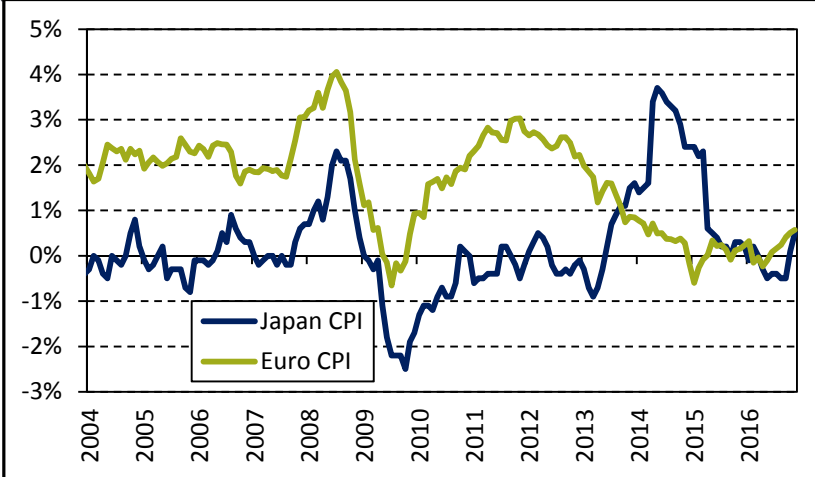


Source: Bloomberg, Institute for Supply Management



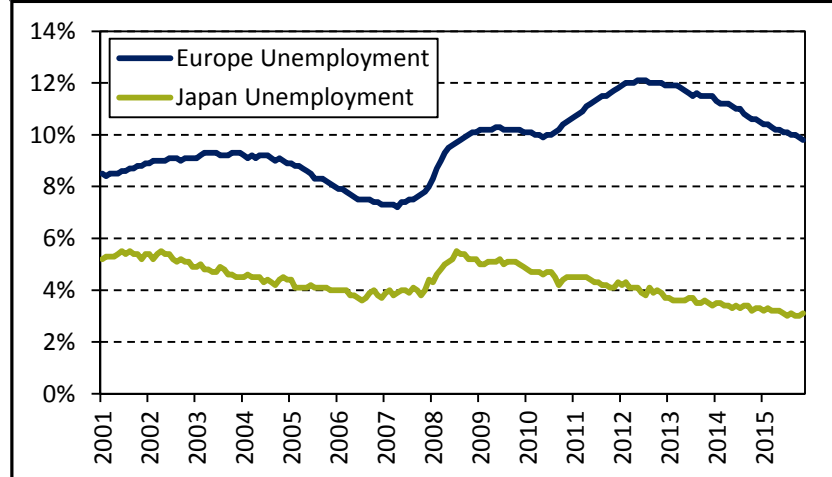
International Economic Indicators

Inflation has increased



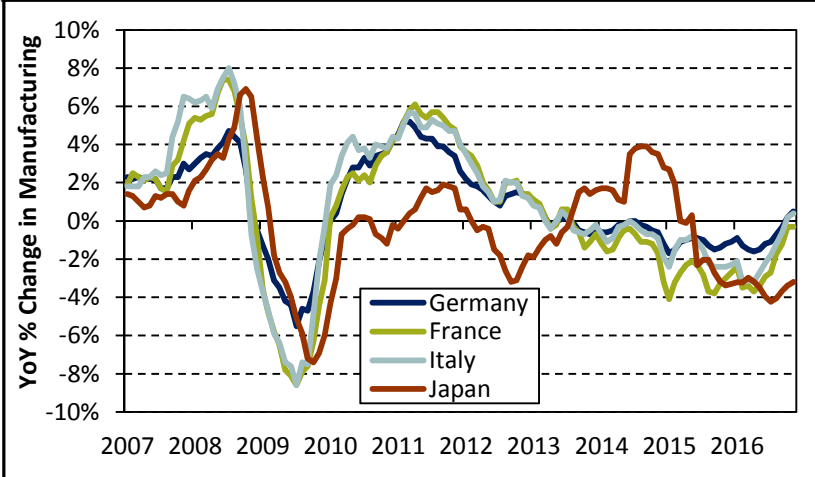
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Europe unemployment edges lower



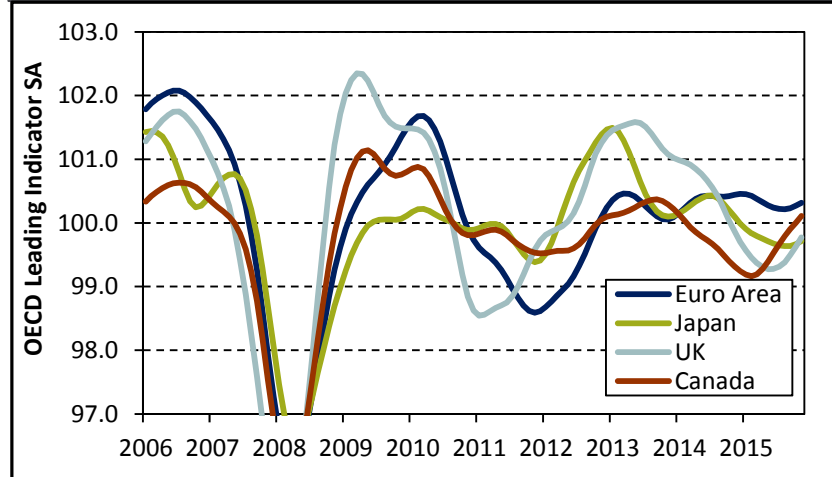
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

Manufacturing steadies after showing modest improvement



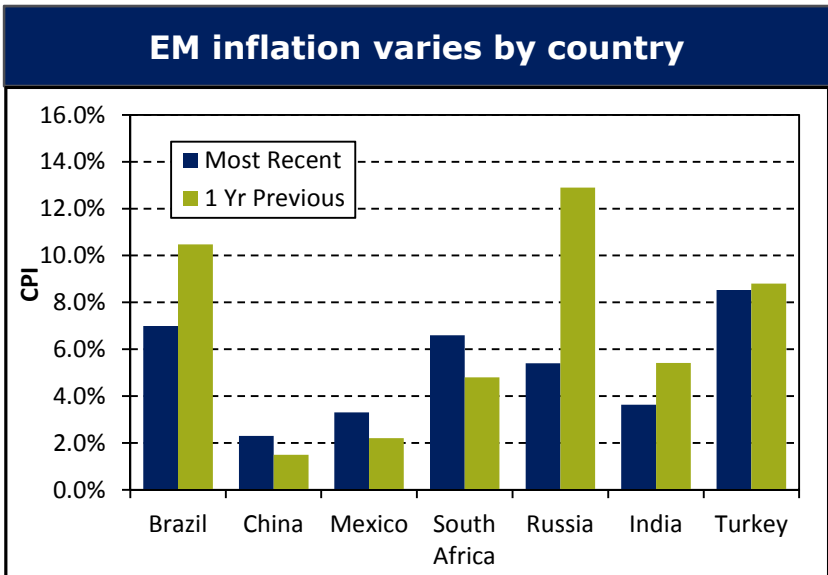
Source: Bloomberg, OECD, Eurostat

Leading indicators mostly trending higher

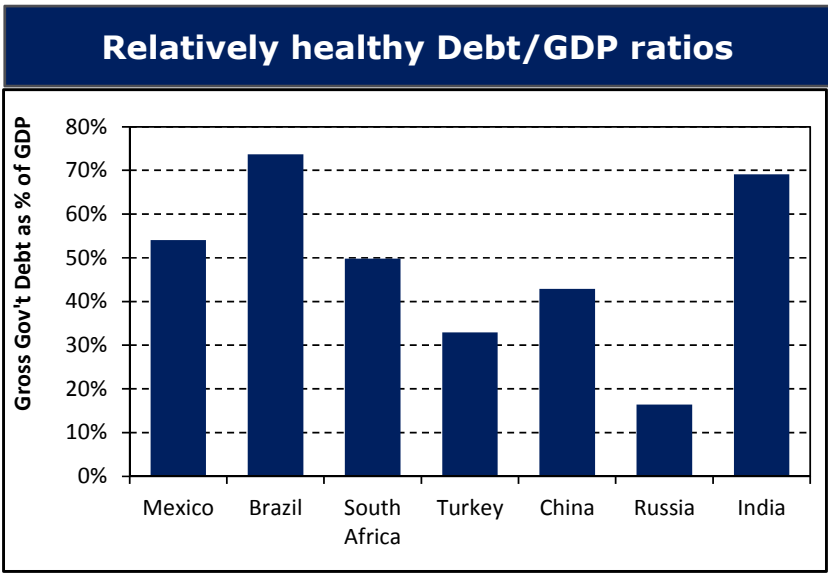


Source: Bloomberg, OECD

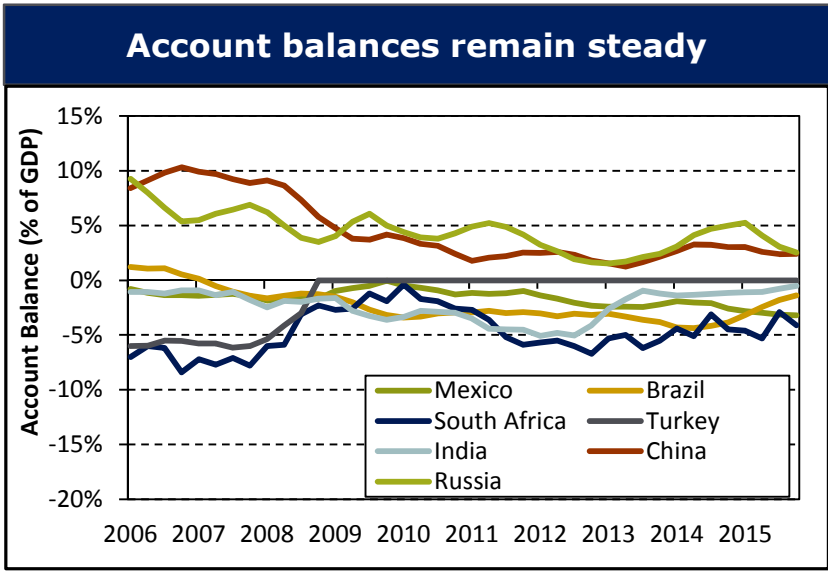
Emerging Market Economic Indicators



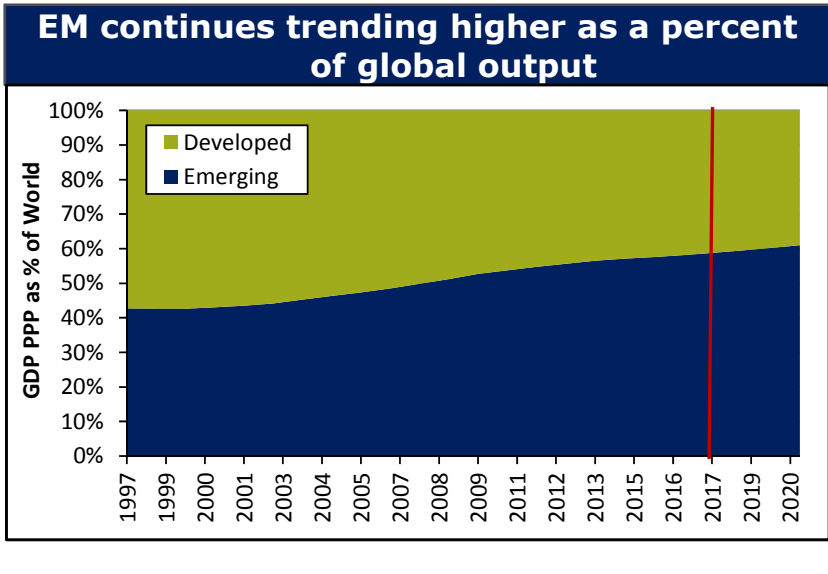
Source: Bloomberg



Source: Bloomberg, IMF



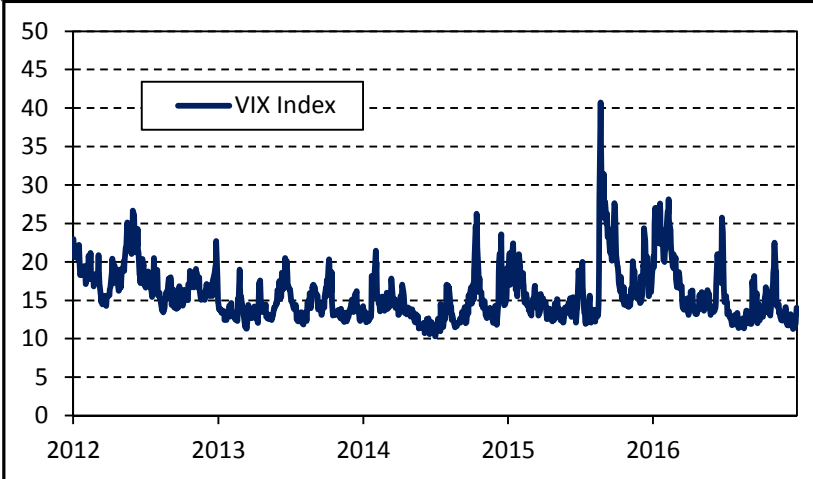
Source: Bloomberg



Source: Bloomberg, IMF

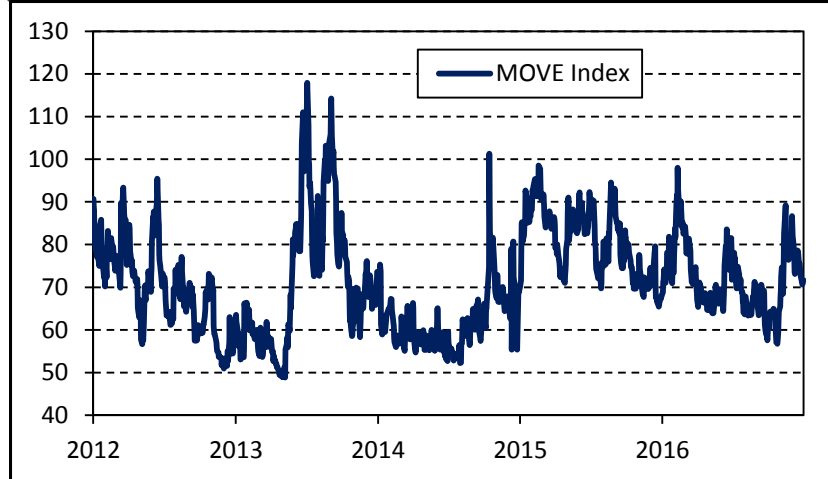
Volatility

Equity volatility remains low



Source: Bloomberg, CBOE

Treasury volatility continues to be elevated



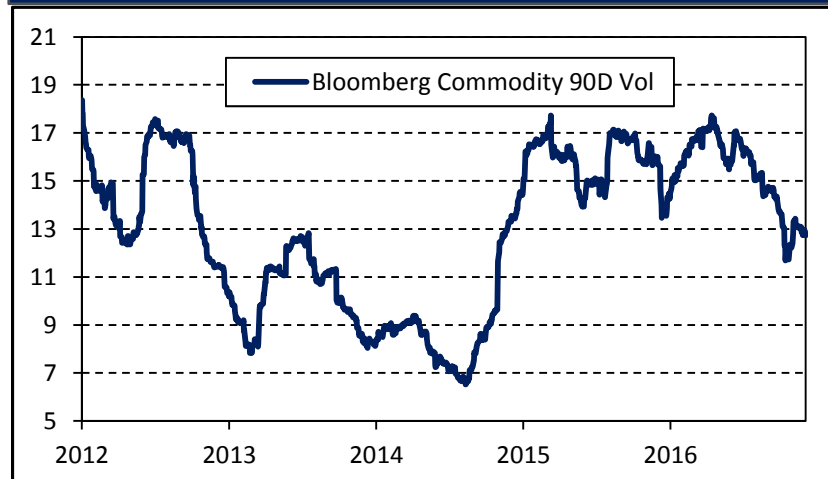
Source: Bloomberg, Merrill Lynch

Currency volatility increased



Source: Bloomberg, Deutsche Bank

Commodity volatility has subsided

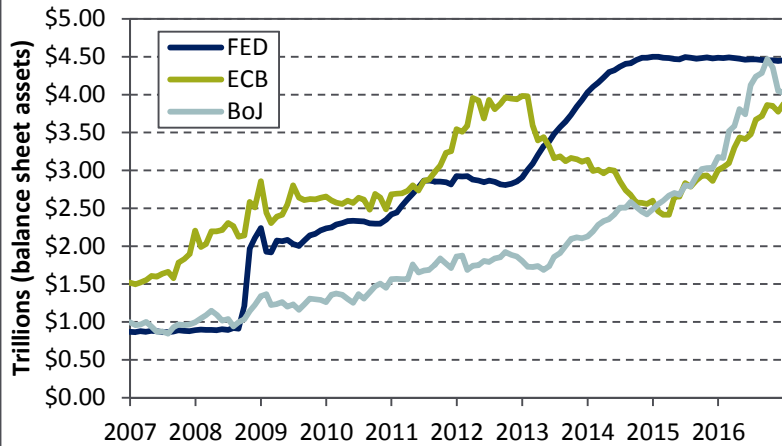


Source: Bloomberg, Merrill Lynch



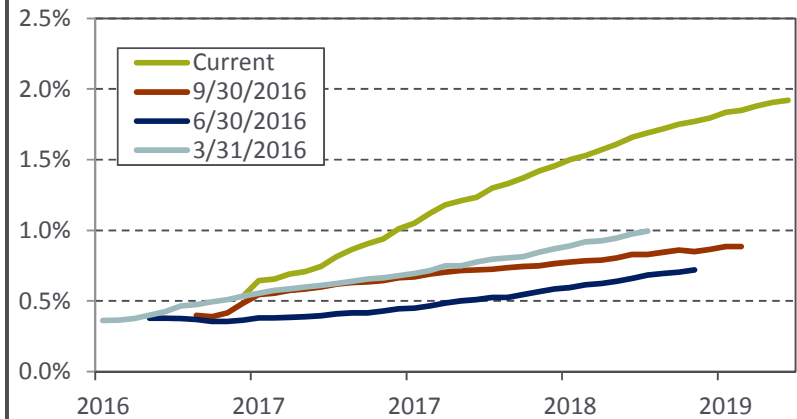
Central Banks

Yen depreciation has decreased the value of BoJ's balance sheet



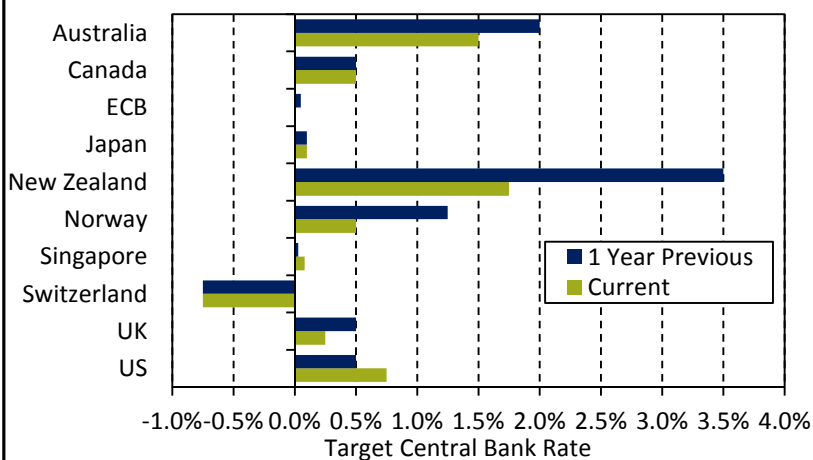
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

Market expectations for interest rates have increased dramatically post rate hike



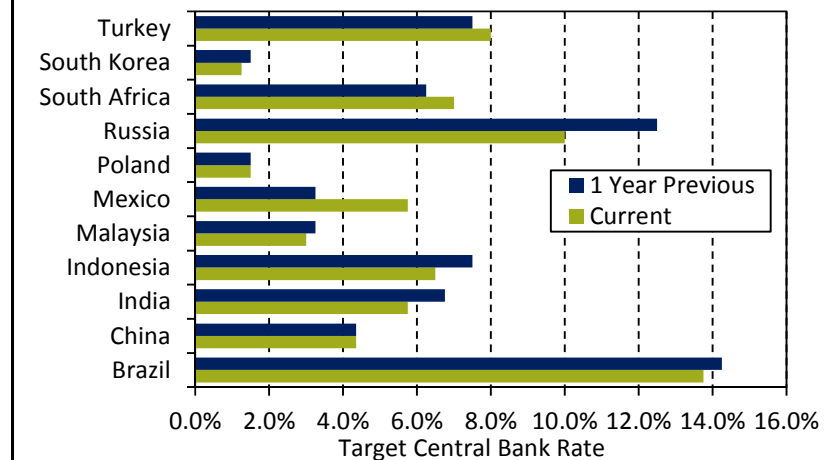
Source: Bloomberg, Federal Reserve

Developed market interest rates are mostly lower than the previous year



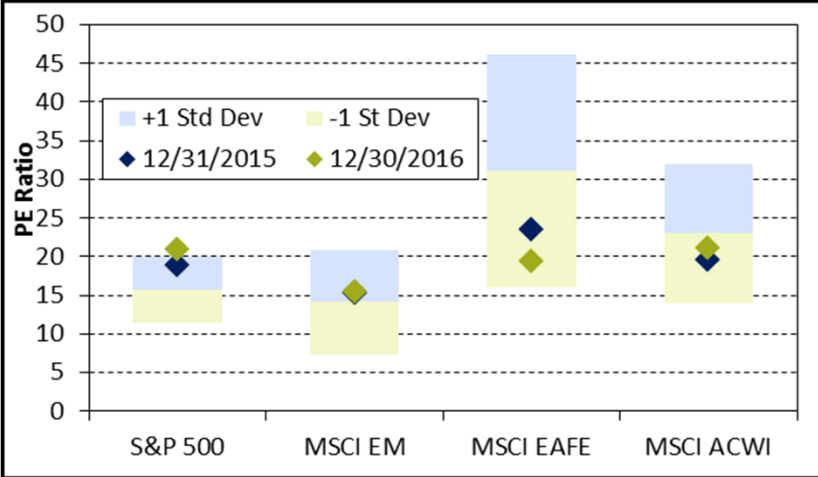
Source: Bloomberg

EM central bank policies vary by country-specific economic conditions



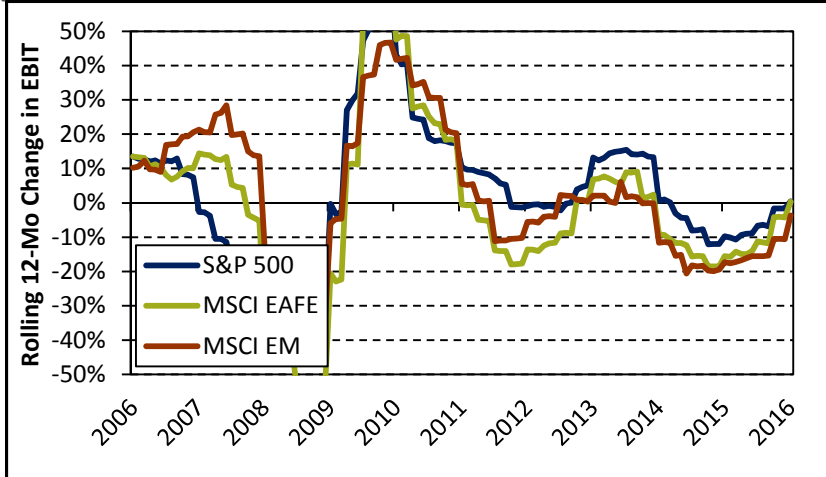
Source: Bloomberg

EAFE's current valuation is lower than the previous year



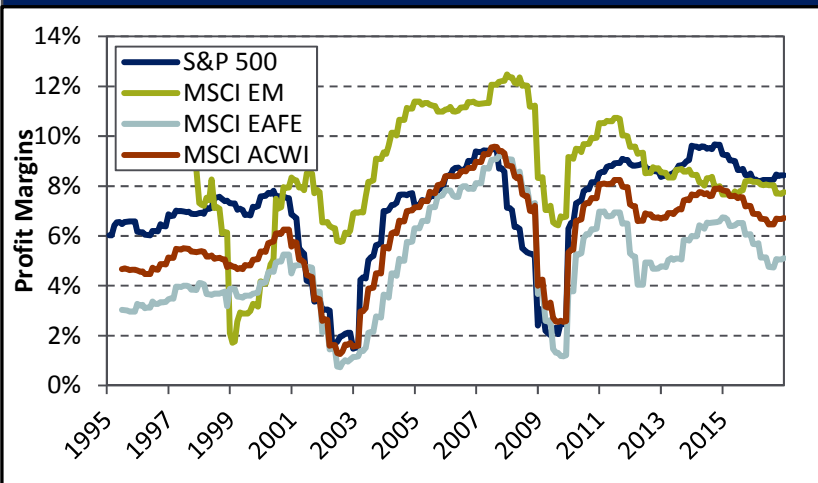
Source: Bloomberg, Standard and Poors, MSCI *MSCI EAFE is ex UK Telecom
*Standard deviation calculations on 20 years of data except S&P 500 (30 years)

Rolling annual earnings growth trending upwards off lows



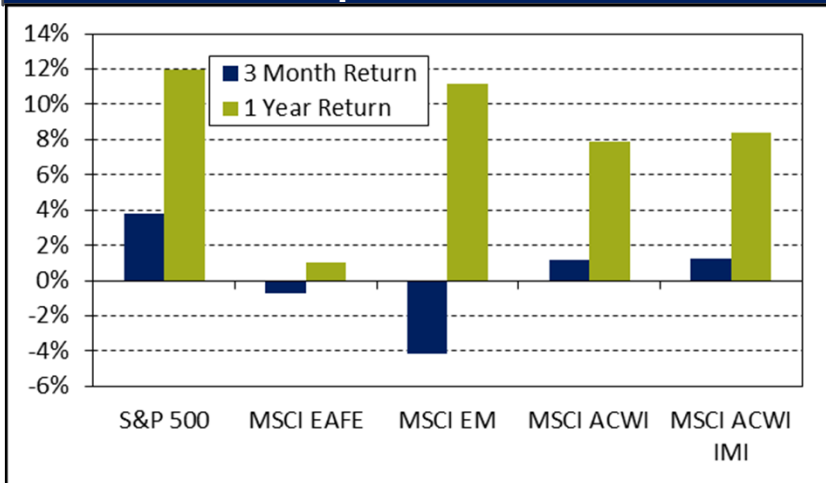
Source: Bloomberg, Standard and Poors, MSCI

Profit margins slightly increased



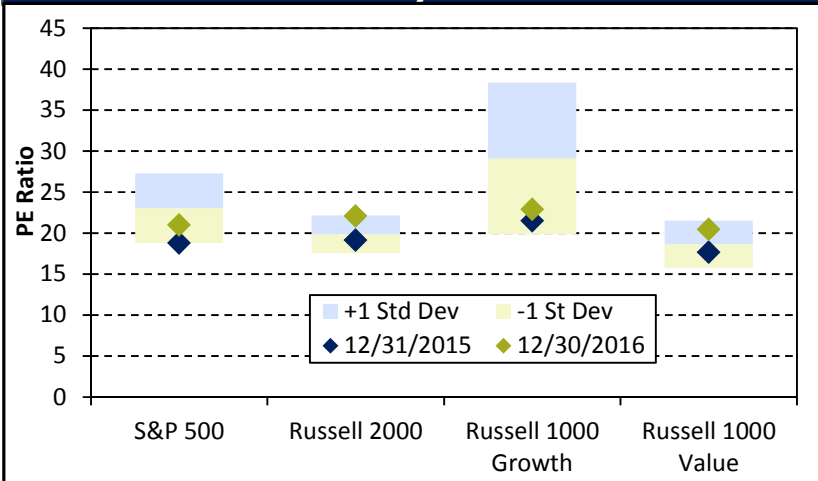
Source: Bloomberg, MSCI

EM has experienced lack-luster short-term performance



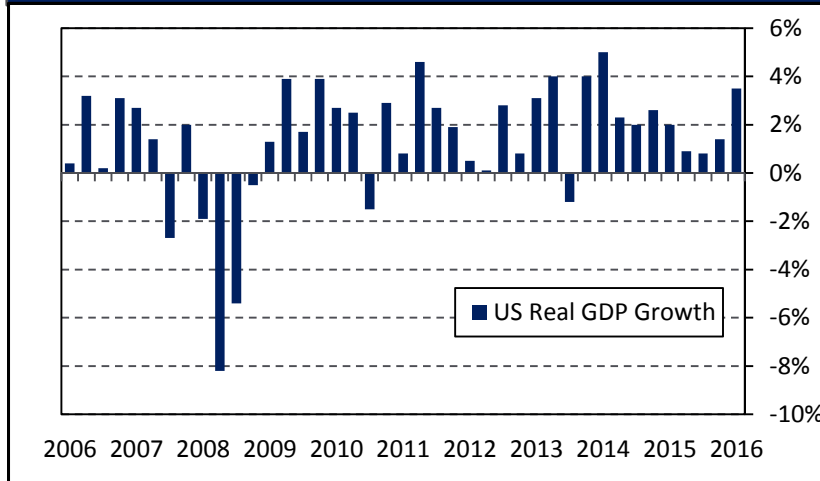
Source: Bloomberg, MSCI

US equity valuations are higher than last year



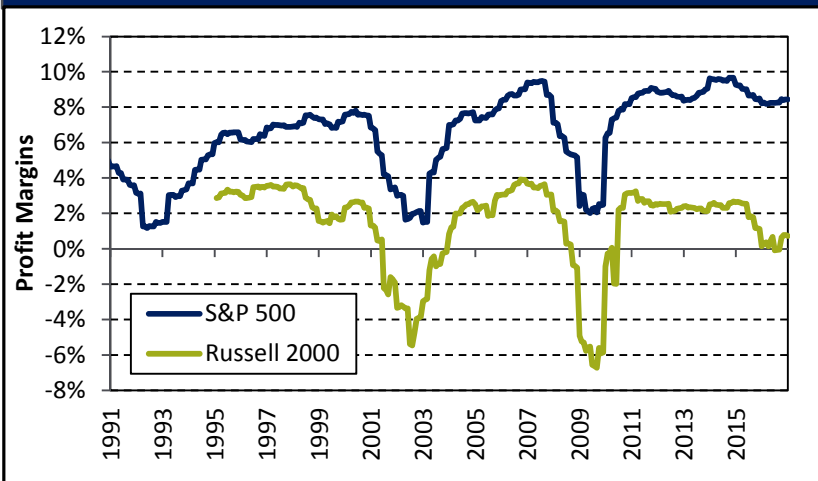
Source: Bloomberg, Standard and Poors, Russell *Russell 2000 PE is index adjusted positive* Standard deviation calculations based on 20 years of data

GDP growth remains strong



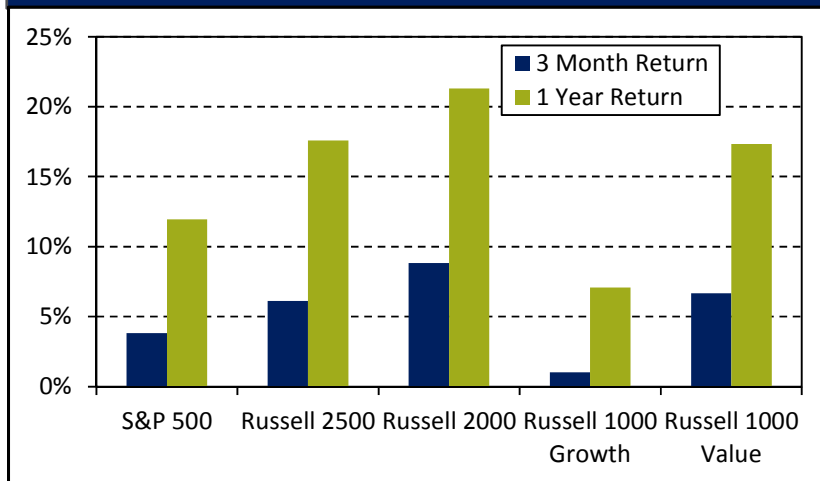
Source: Bloomberg, Bureau of Economic Analysis

Profit margins hold steady



Source: Bloomberg, Standard and Poors, Russell

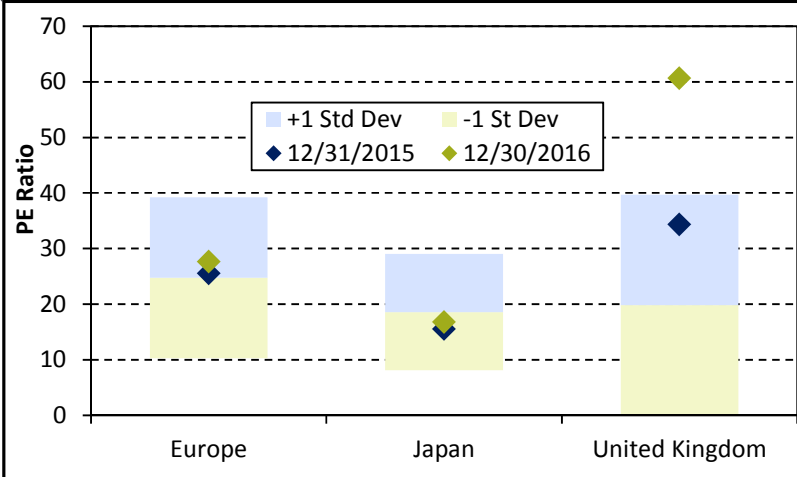
US equity posts positive short-term returns



Source: Bloomberg, Standard and Poors, Russell

International Equity

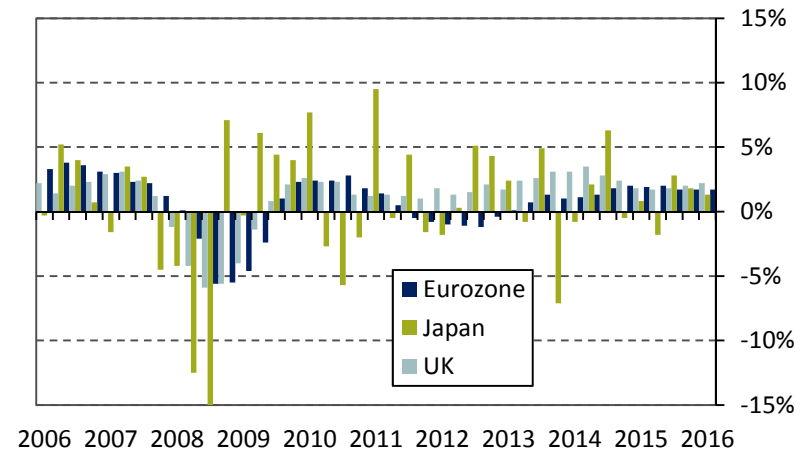
UK PE ratios remain elevated



Source: Bloomberg, MSCI, FTSE *UK represented by FTSE 100 Index

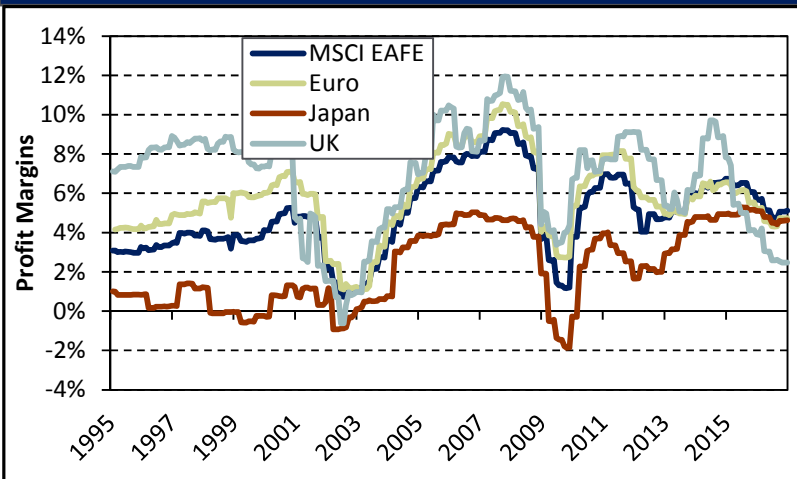
*Standard deviation calculations based on 20 years of data, with Europe since 12/1998

International growth steadies



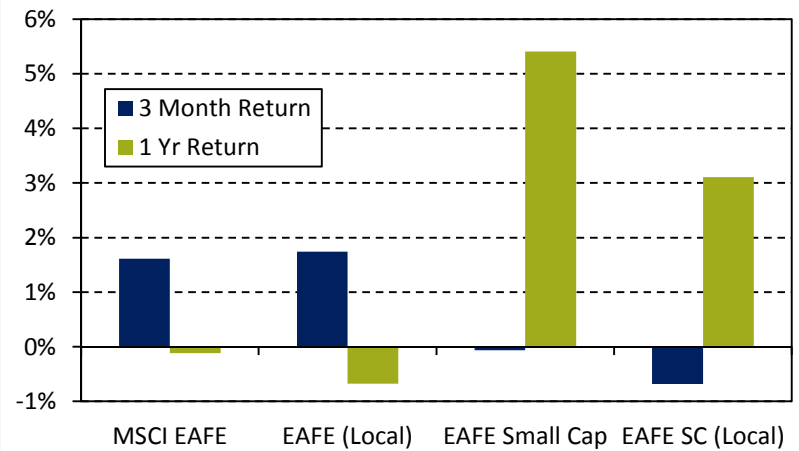
Source: Bloomberg

UK margins continue to decline



Source: Bloomberg, MSCI

Short-term small cap returns have been lack-luster

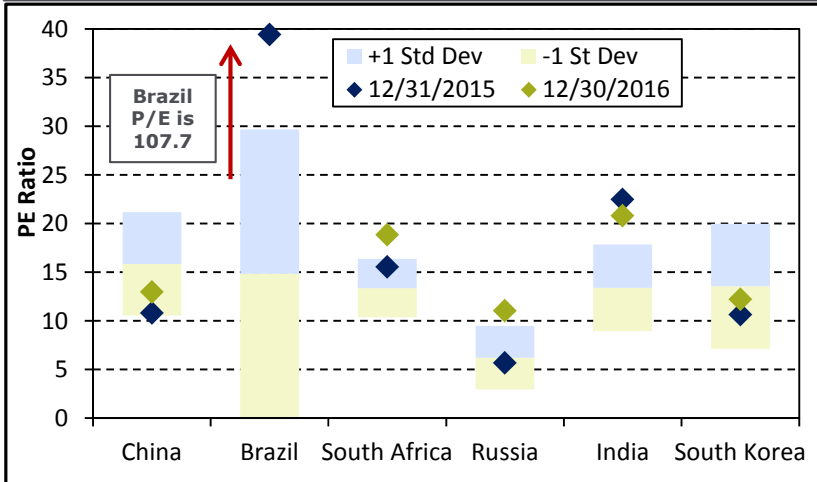


Source: Bloomberg, MSCI



Emerging Markets Equity

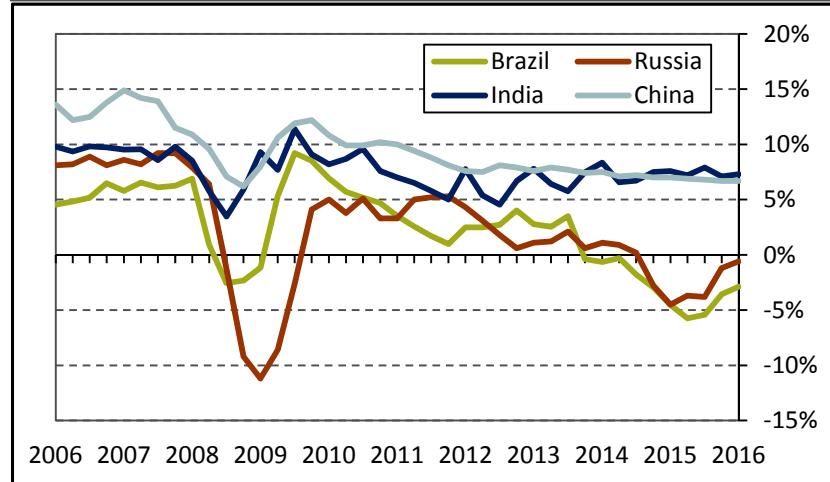
Regional valuations similar year over year with the exception of Brazil



Source: Bloomberg, MSCI

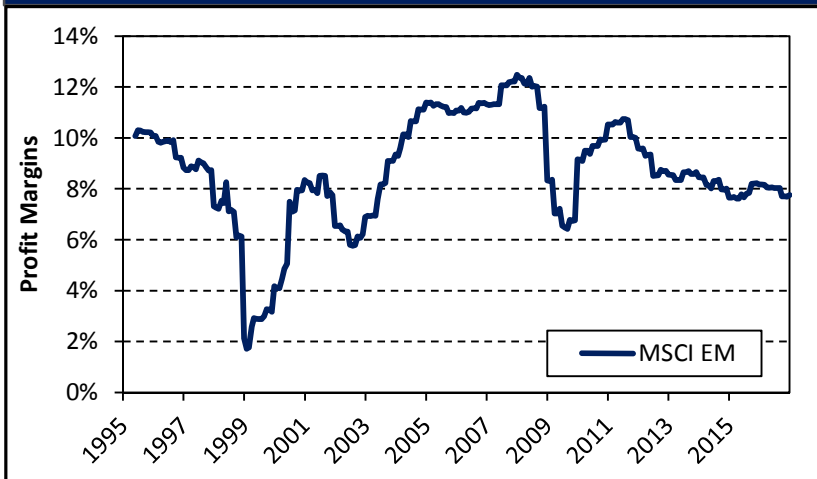
*Standard deviation calculations based on 20 years of data, with Russia since 01/1998

Russia and Brazil experience rebounds off earnings contractions



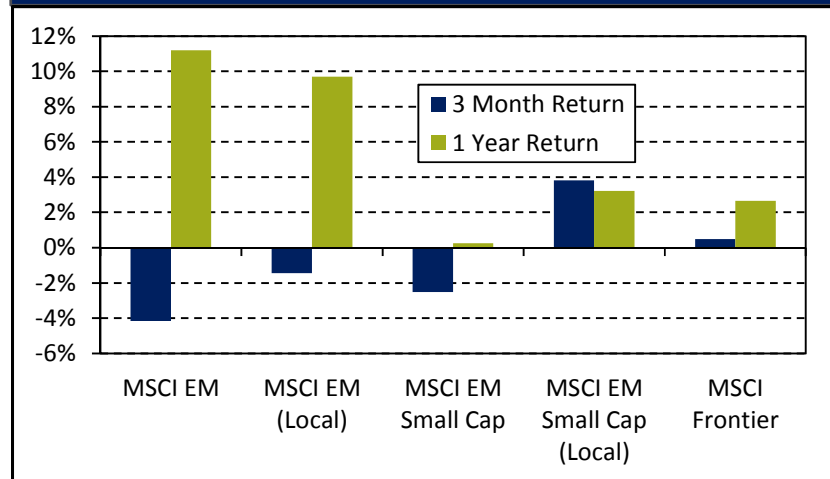
Source: Bloomberg

Profit margins in line with history



Source: Bloomberg, MSCI

EM local indices have outperformed dollar-denominated

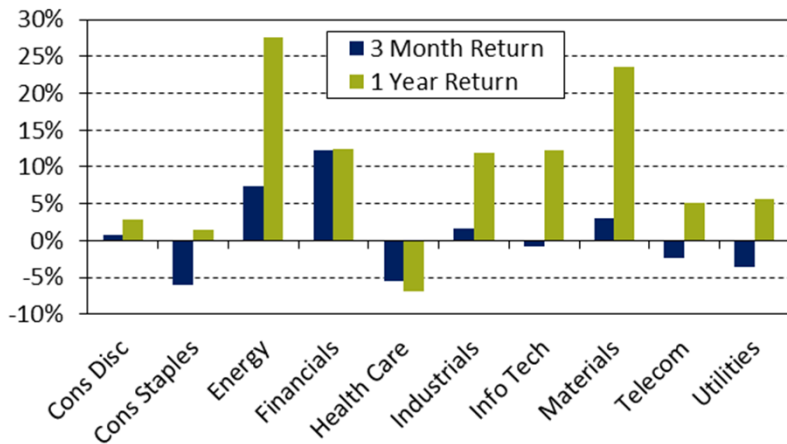


Source: Bloomberg, MSCI



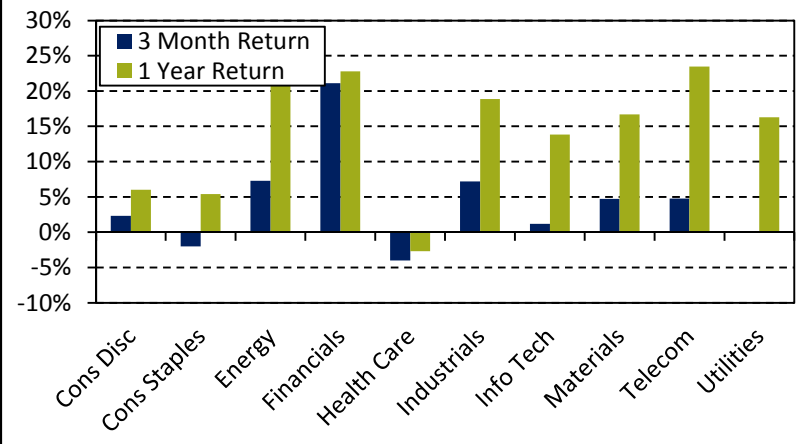
Global Equity by Sector

Energy and Financials lead MSCI ACWI short-term returns



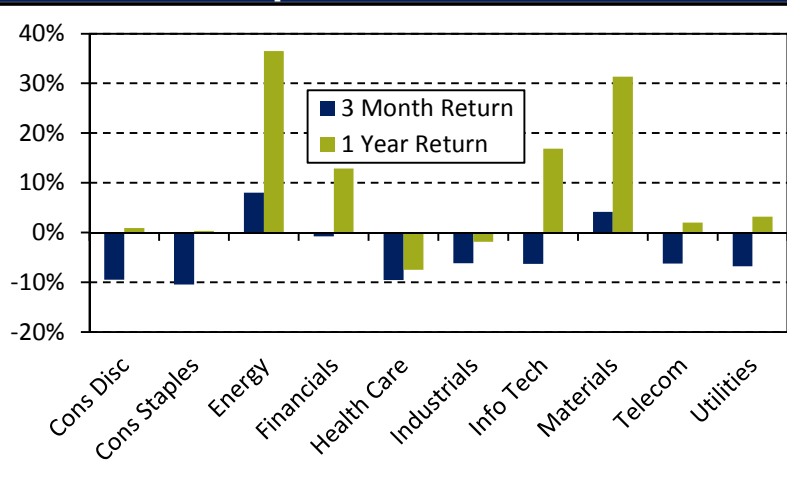
Source: Bloomberg, MSCI

Healthcare and Consumer Staples drag S&P 500 short-term returns



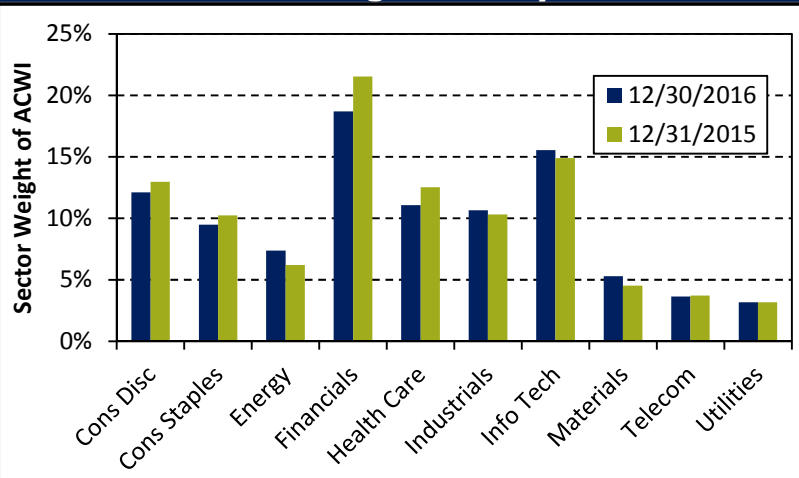
Source: Bloomberg, Standard and Poors

Energy and Materials continue their strong performance in EM



Source: Bloomberg, MSCI

Financials sector weight has decreased significantly

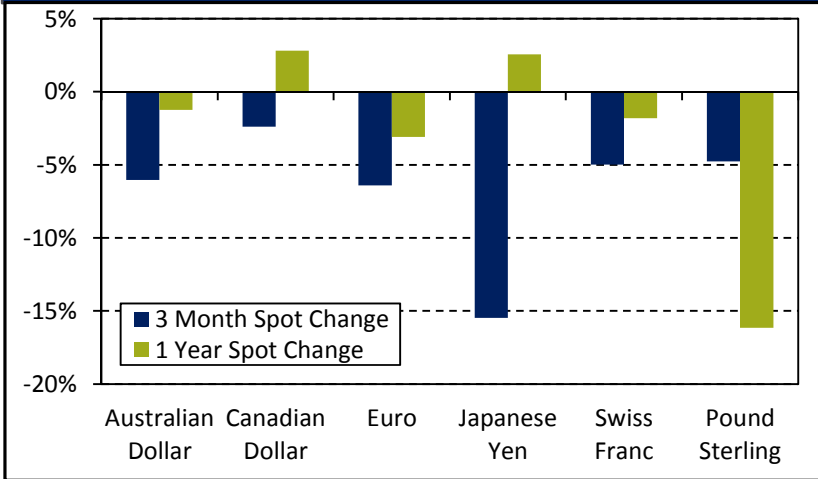


Source: Bloomberg, MSCI



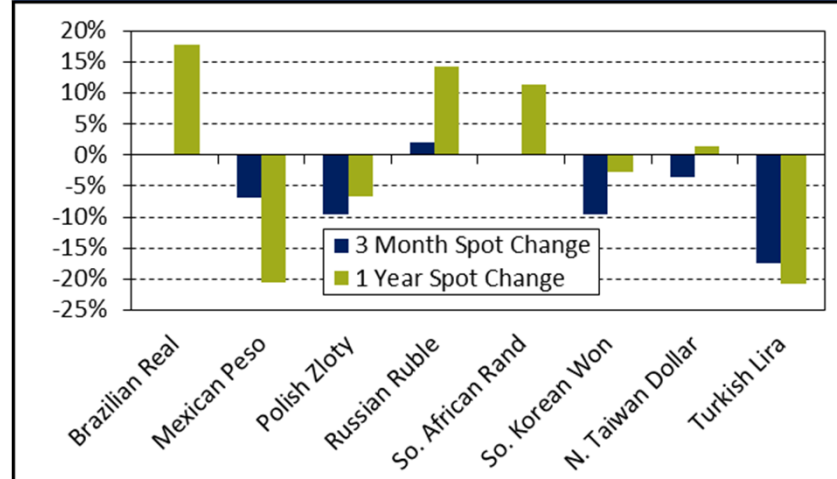
Currencies

Developed currencies have declined versus the dollar



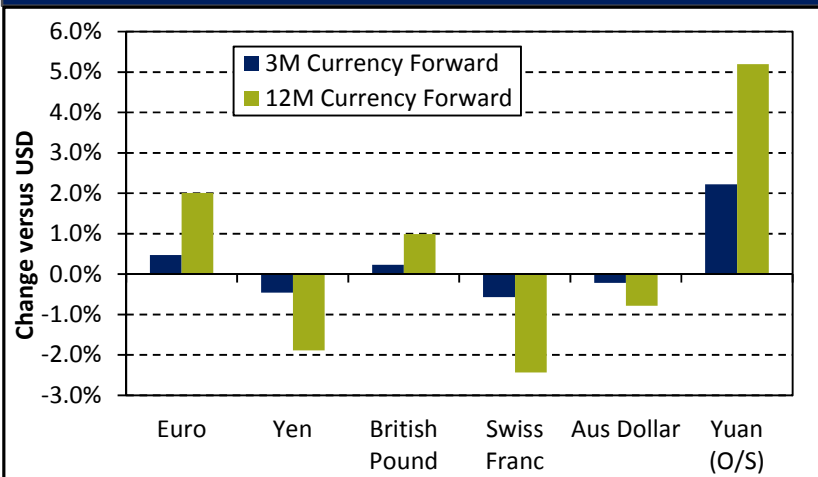
Source: Bloomberg

A number of currencies have experienced sharp depreciation



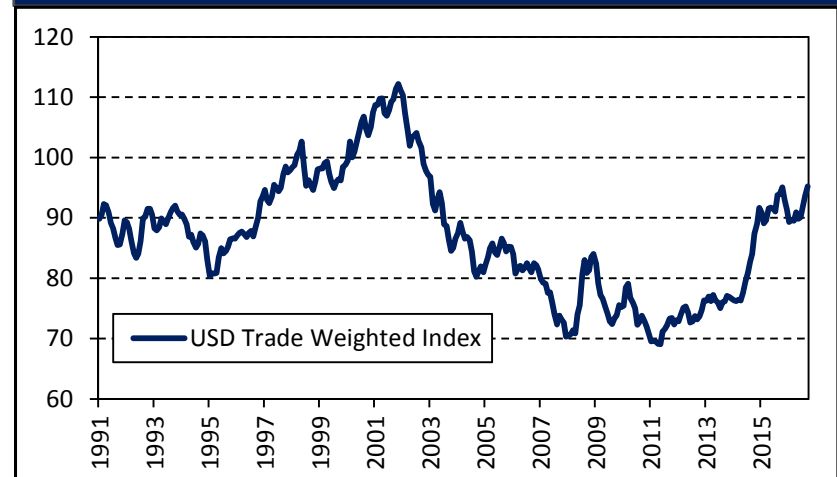
Source: Bloomberg

USD expectations vary across developed markets



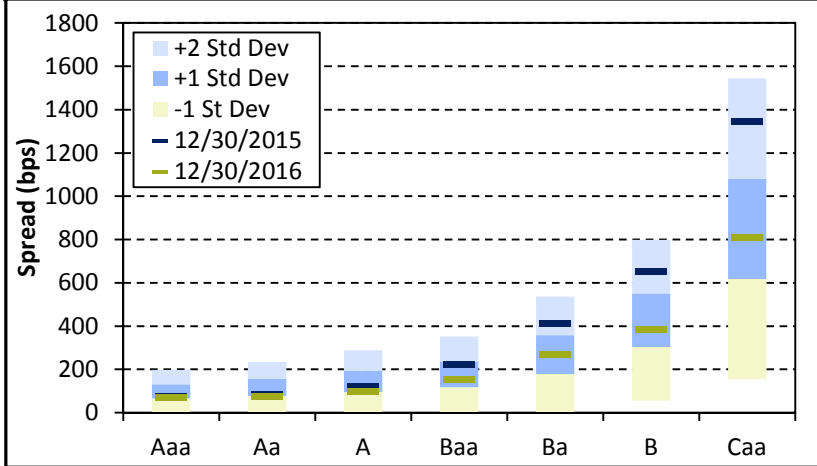
Source: Bloomberg

Dollar strength persists



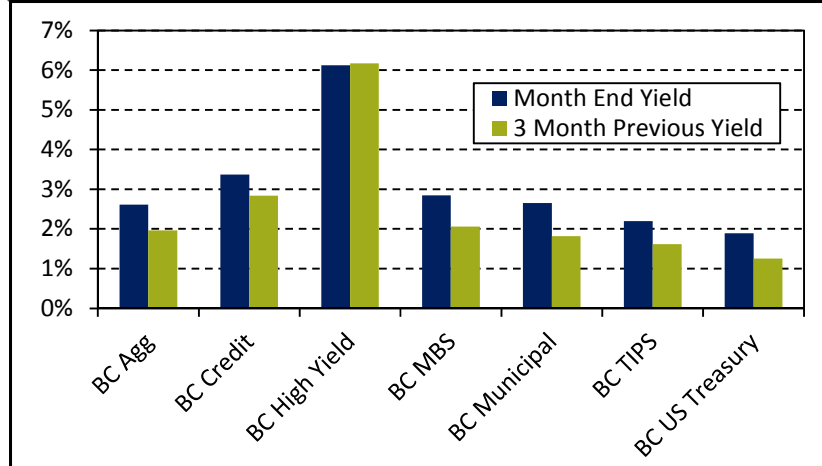
Source: Bloomberg, Federal Reserve

Spreads remain lower than the previous year



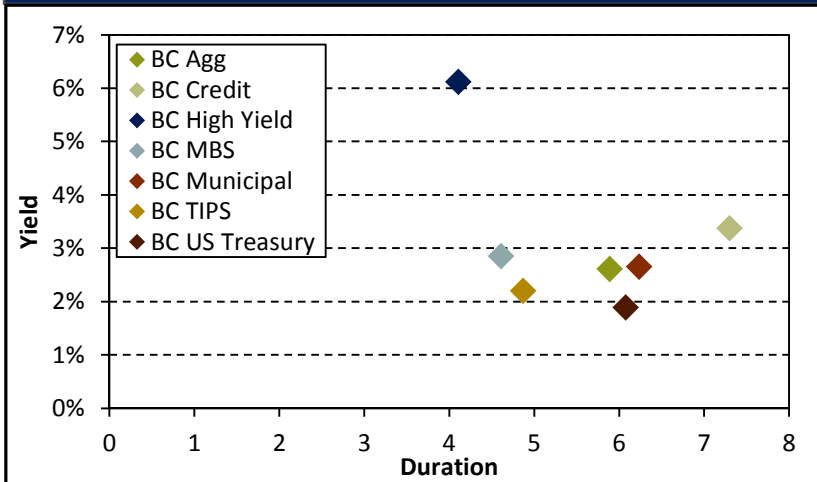
Source: Bloomberg, Barclays
*Standard deviation calculations based on 20 years of data

Fixed income yields have increased



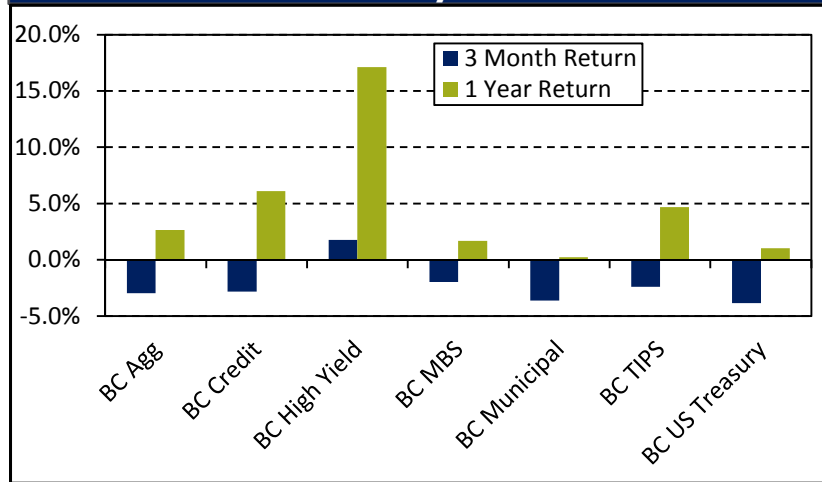
Source: Bloomberg, Barclays

Similar duration/yield profiles among core indices



Source: Bloomberg, Barclays

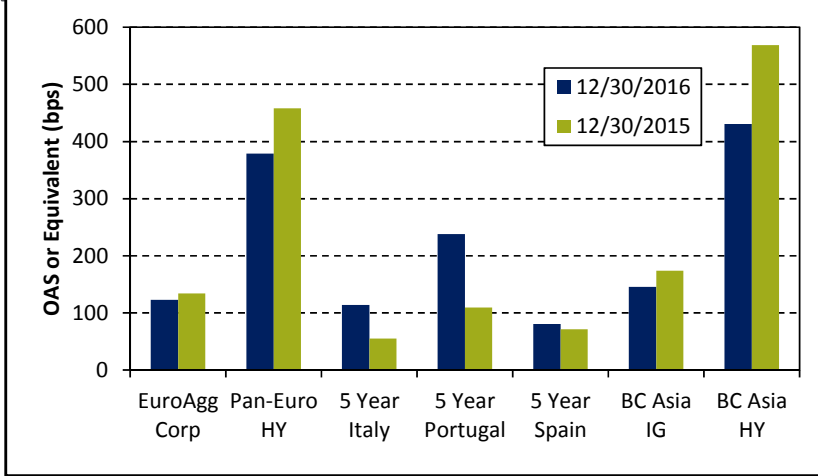
Fixed income returns have broadly declined with recent yield increases



Source: Bloomberg, Barclays

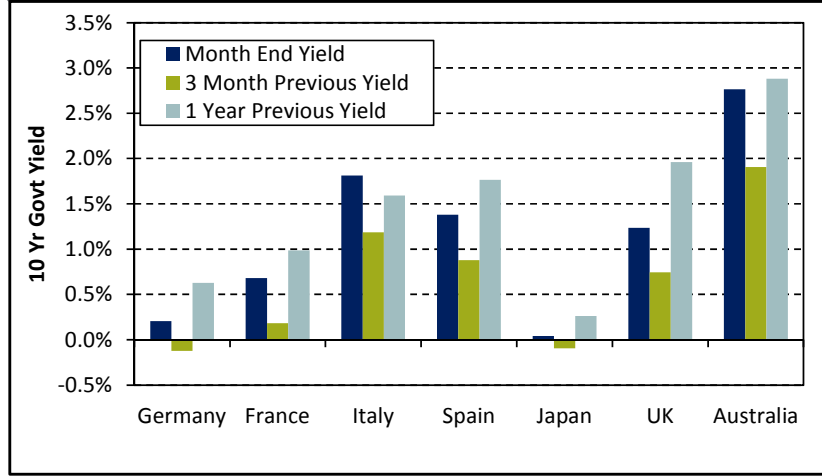
International Developed Fixed Income

European periphery yields vary relative to Germany



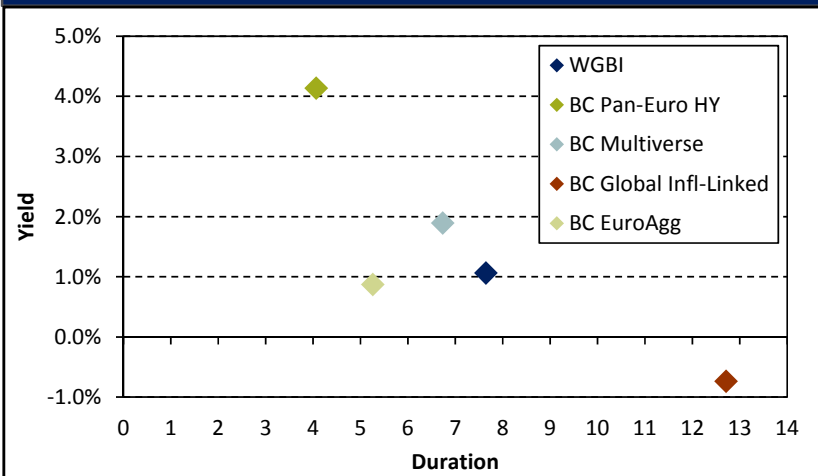
Source: Barclays, Bloomberg, *European periphery spreads are over equivalent German Bund

Global yields have increased post rate hike



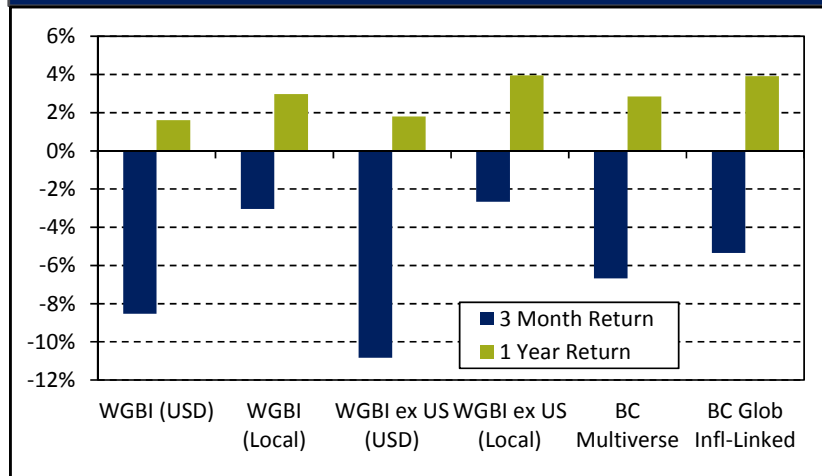
Source: Bloomberg

Low yields persist in global bond universe



Source: Bloomberg, Citigroup, Barclays

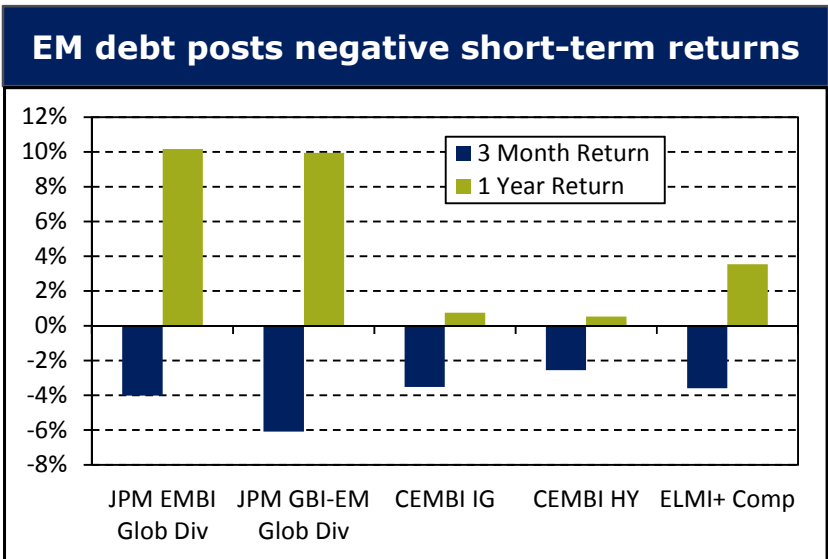
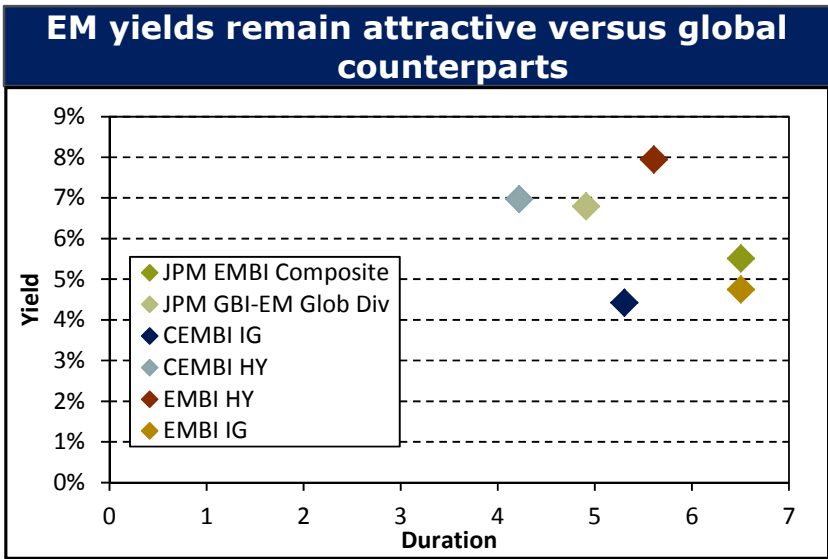
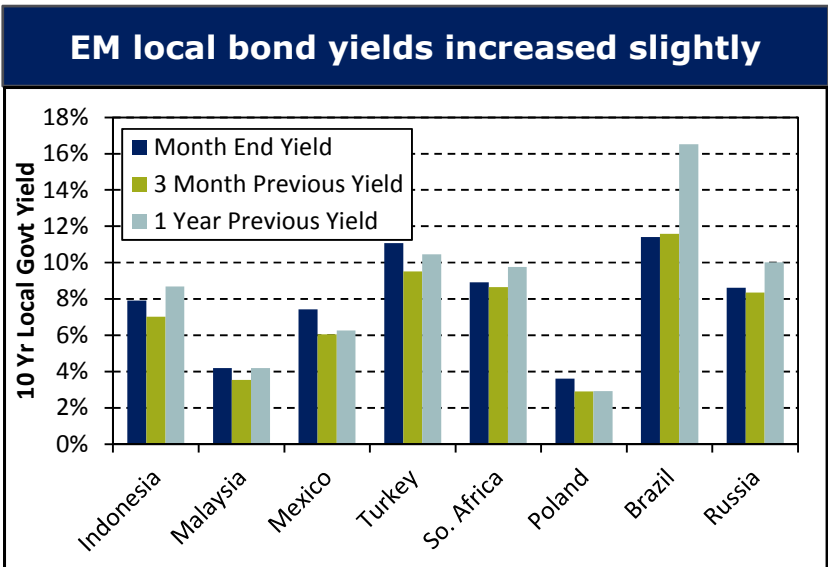
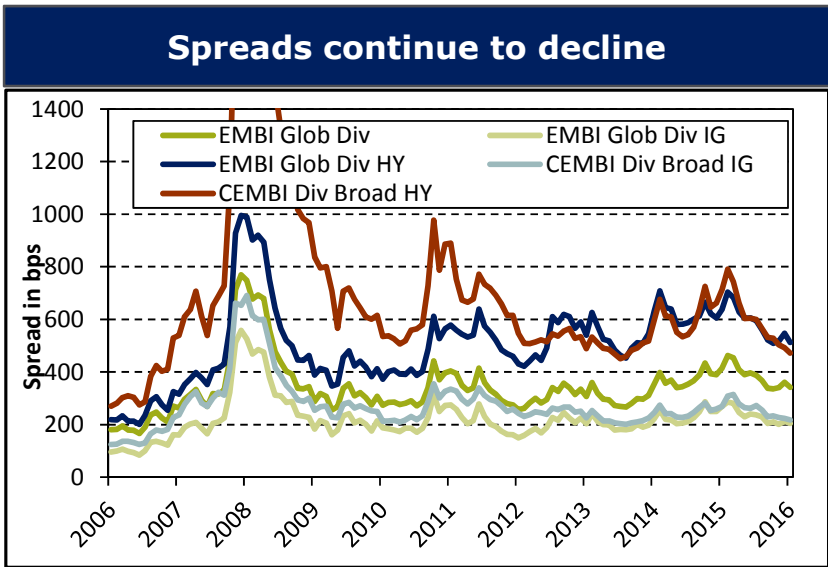
Global bond returns hurt by rising yields



Source: Bloomberg, Citigroup, Barclays

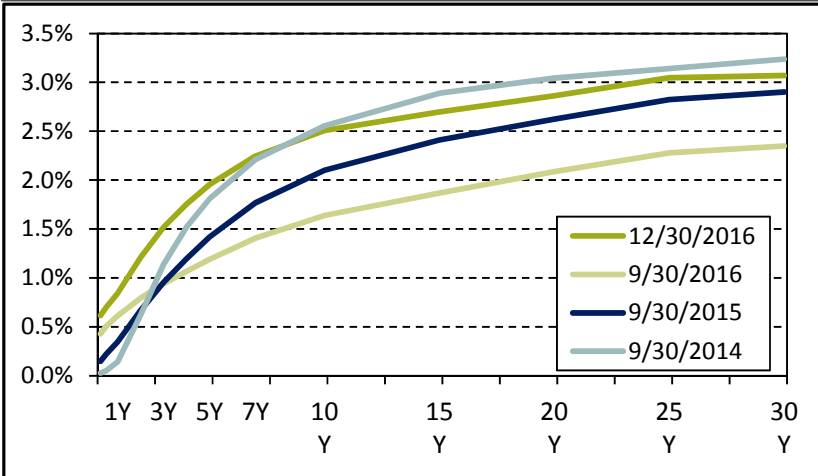


Emerging Markets Fixed Income



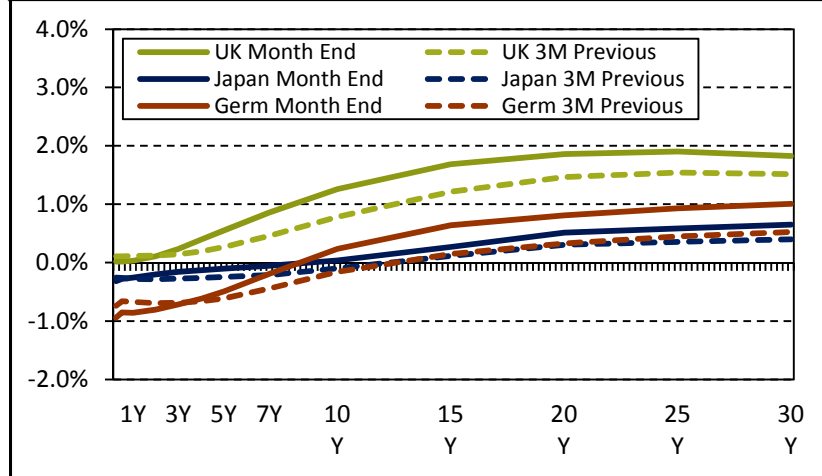
Rates

Rate expectations have increased relative to three months prior



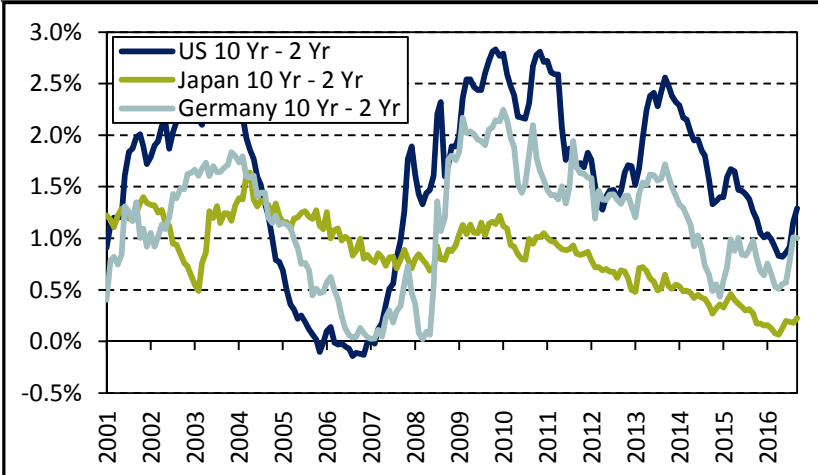
Source: Bloomberg

Interest rate expectations continue increasing



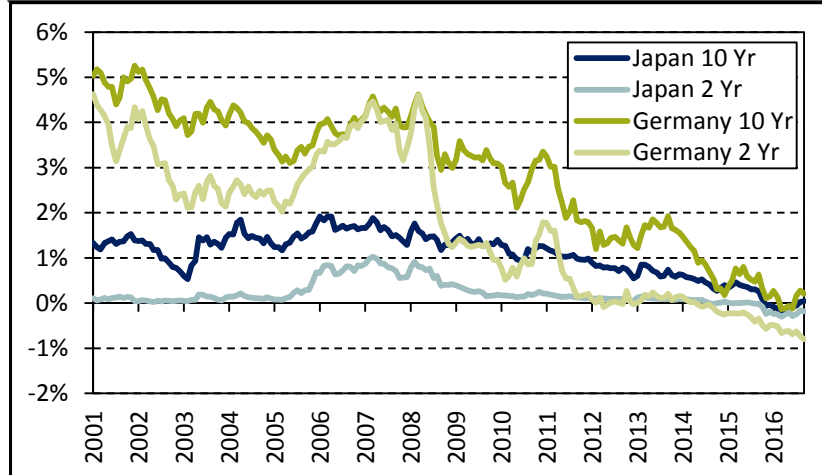
Source: Bloomberg

10-2 spreads spiked with recent increase in yield



Source: Bloomberg

Sovereign bond yields remain in negative or neutral territory

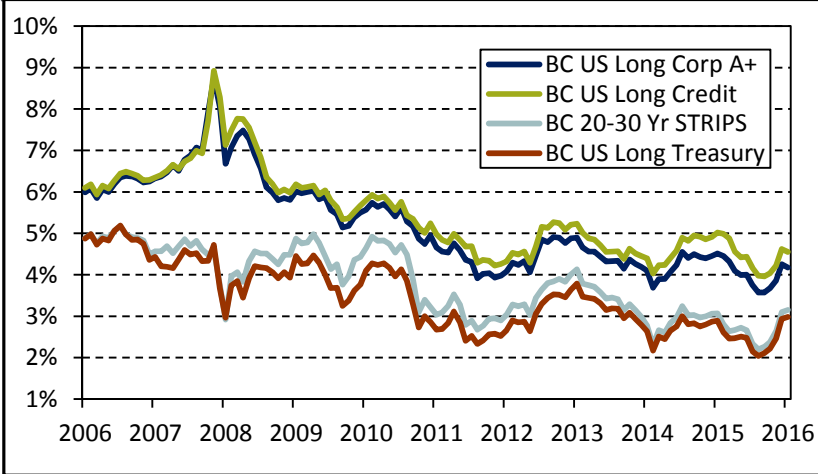


Source: Bloomberg



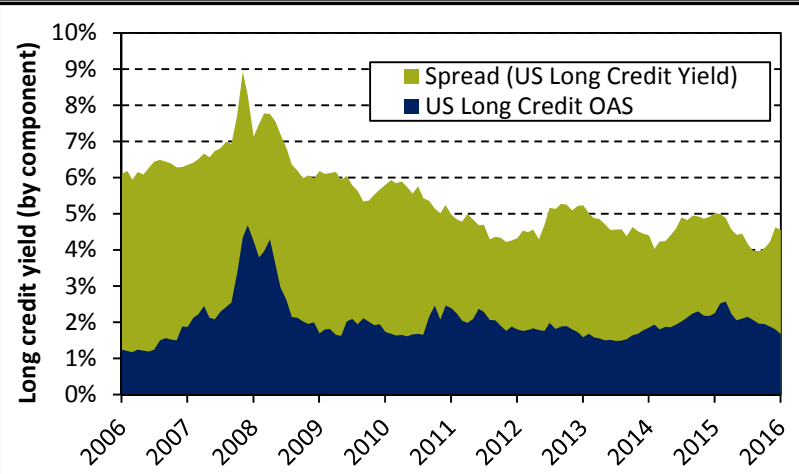
Long Rates and Liability

Long duration yields have steadied



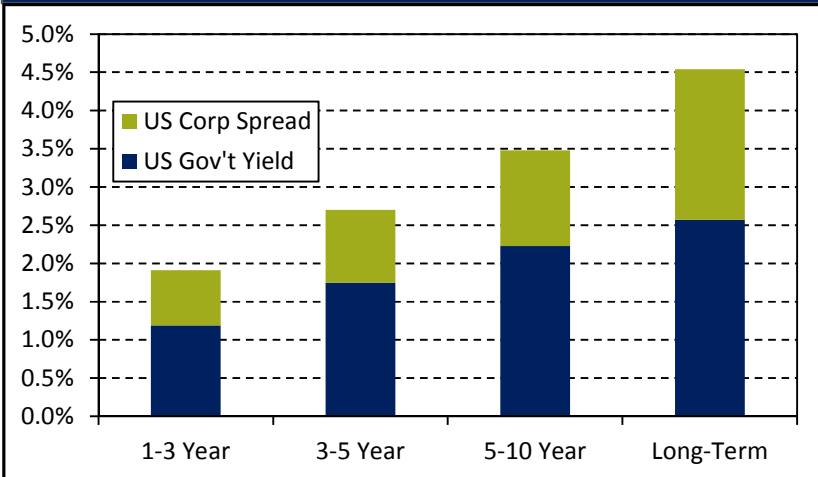
Source: Bloomberg, Citigroup, Barclays

Long credit yield increases



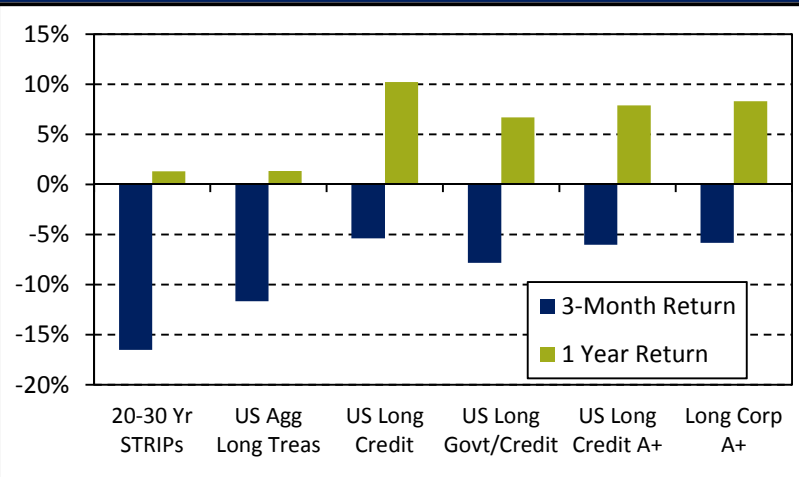
Source: Bloomberg, US Treasury, Barclays, NEPC

Yield and spread components continue to offer modest returns



Source: Bloomberg, Barclays

Long duration fixed income posted large short-term losses

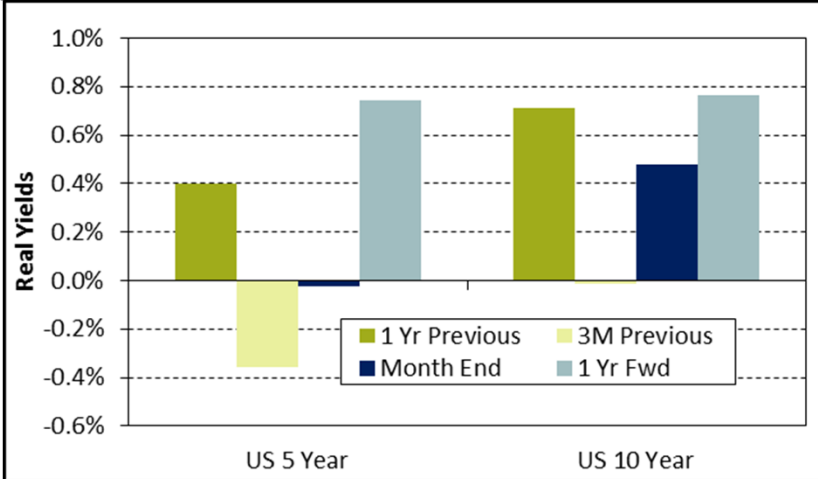


Source: Bloomberg, Barclays



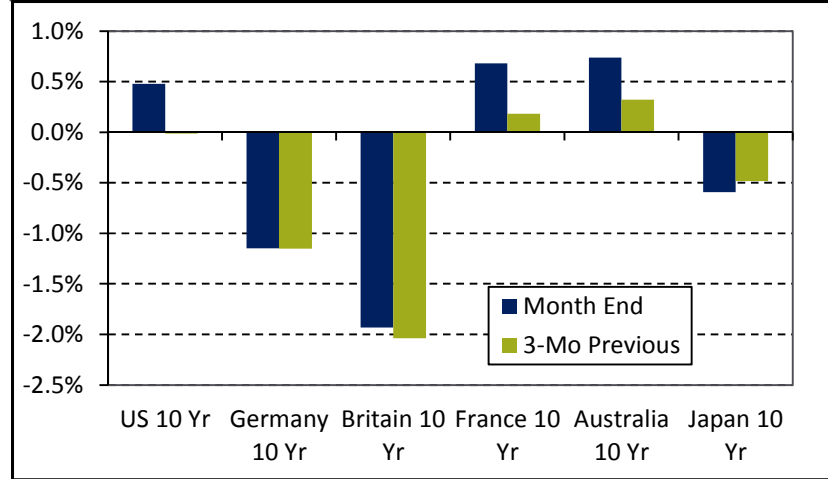
Inflation and Real Rates

US 10-year real yields increased from three months prior



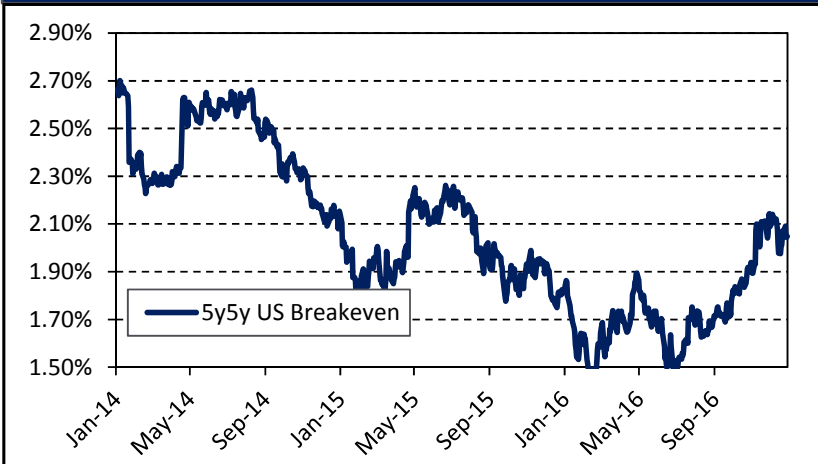
Source: Bloomberg

With the exception of Japan, global real yields have increased



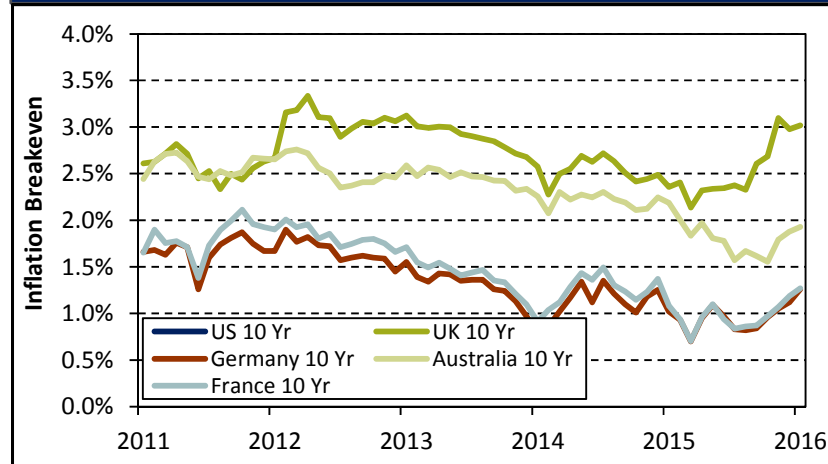
Source: Bloomberg

US inflation expectations have increased but remain low



Source: Bloomberg

Global inflation expectations continue to increase



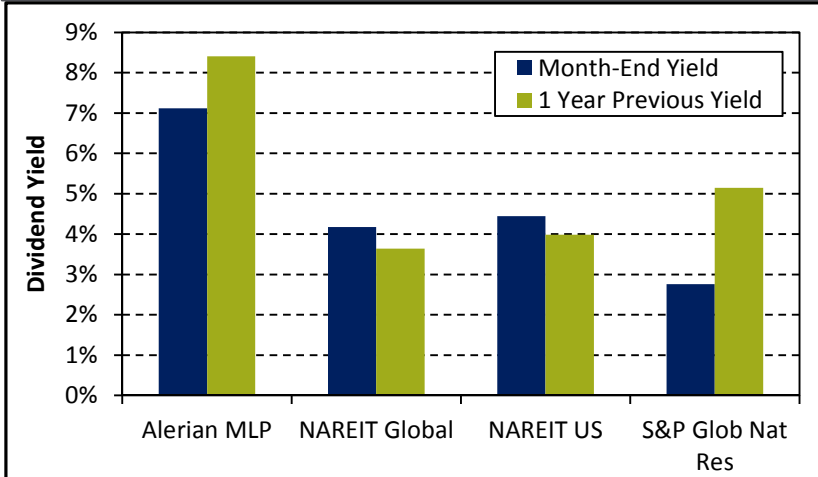
Source: Bloomberg



NEPC, LLC

Inflation Sensitive Growth Assets

REITs yields are higher than the previous year



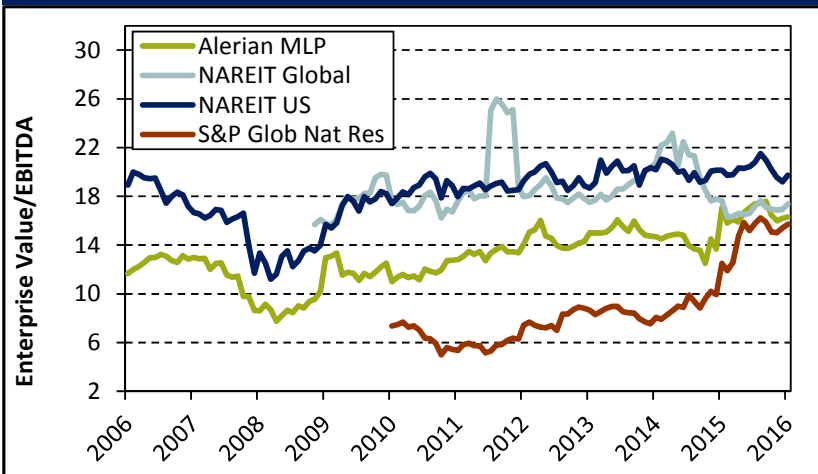
Source: Bloomberg, Alerian, Nareit, Standard and Poors

Sustained recovery in commercial real estate occupancy rates



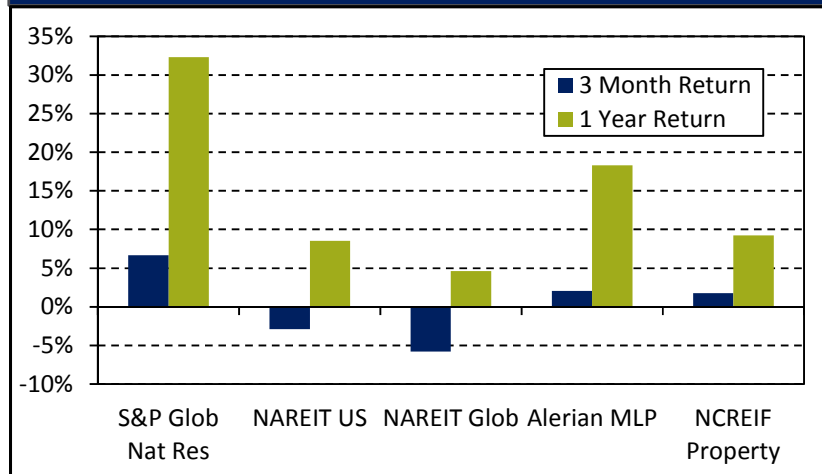
Source: NCREIF

US REIT valuations have steadied



Source: Bloomberg, US Census Bureau

REITs have underperformed in recent months

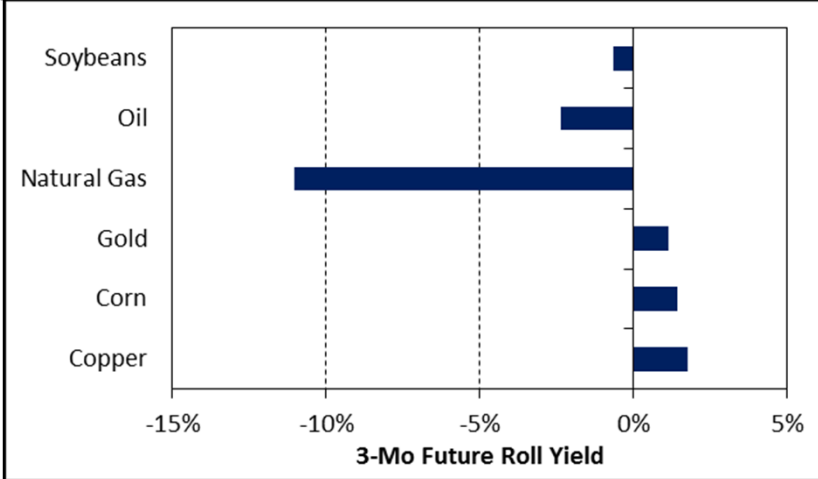


Source: Bloomberg, Alerian, Nareit, Standard and Poors



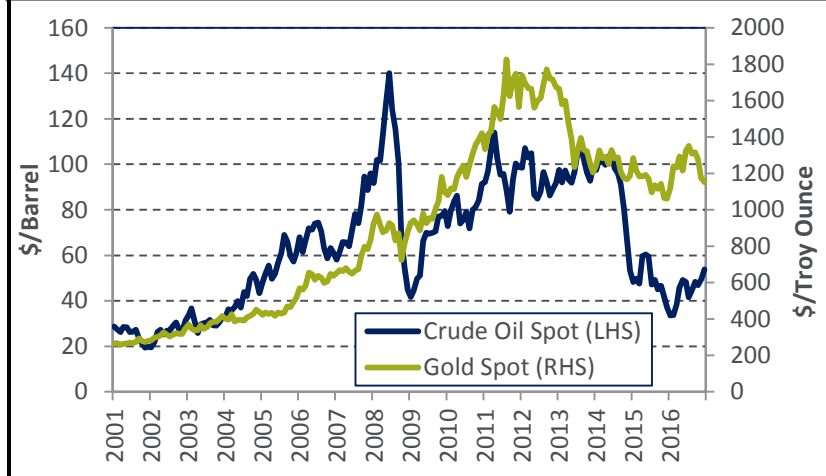
Commodities

Negative roll yields remain a hurdle for investing directly in oil and natural gas



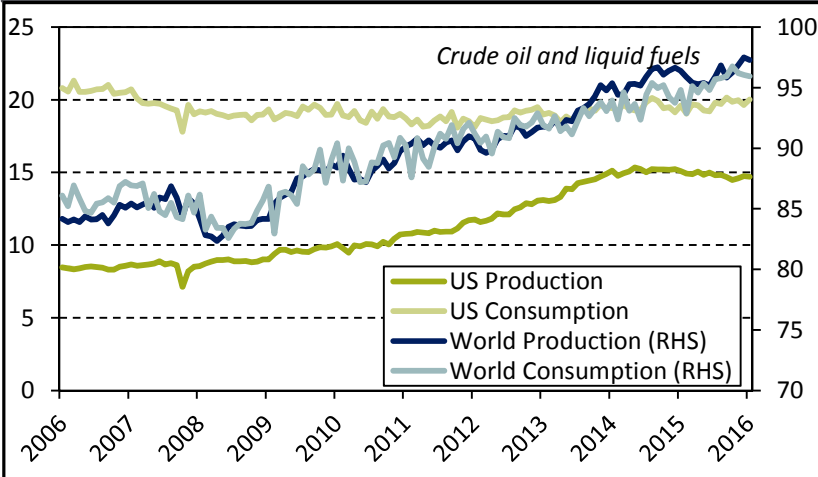
Source: Bloomberg

Gold continues to decline post-election



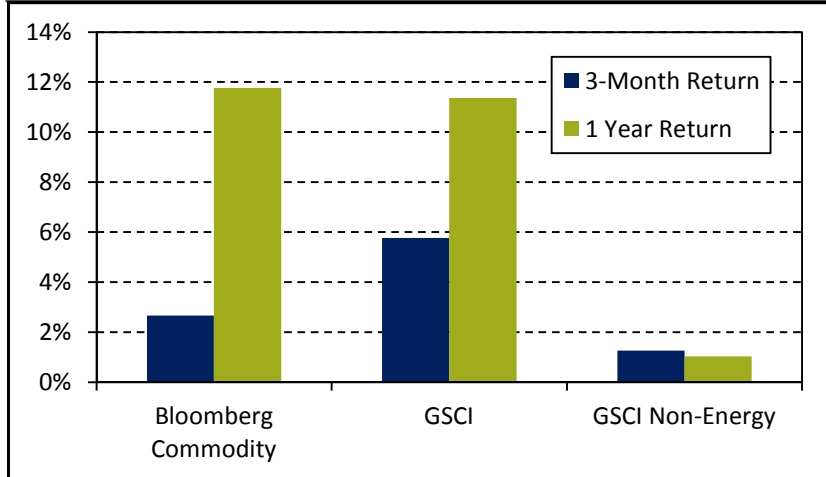
Source: Bloomberg

World production has slightly declined with recent OPEC agreement



Source: Bloomberg, US Department of Energy *Crude oil and liquid fuels

Commodities post strong short-term returns



Source: Bloomberg, Standard and Poors



Glossary of Investment Terminology

The calculation methodology for each measure of performance is outlined below.

Measurement	Description	Equation
Policy Target	Measures policy allocation decisions.	= TARGET ASSET WEIGHTS X INDEX RETURNS
Allocation Index	Measures actual allocation decisions. Deviations from the policy target can be derived. (Allocation Index – Policy Index)	= ACTUAL ASSET WEIGHTS X INDEX RETURNS
Composite (Total Return)	Measures actual performance and can derive active management decisions. (Composite – Allocation Index)	= ACTUAL ASSET WEIGHTS X ACTUAL RETURNS

The calculation methodology for each measure of attribution is outlined below.

Measurement	Description	Equation
Allocation Effect	Measure the effects of overweighting or underweighting managers and asset classes.	= (ACTUAL MANAGER WEIGHT – POLICY TARGET WEIGHT) X POLICY INDEX RETURN
Selection Effect	Measures the managers’ ability to add excess return relative to the policy index.	= (ACTUAL MANAGER RETURN – INDEX RETURN) X POLICY TARGET WEIGHT
Interaction Effect	Measures the cross correlation of both selection and allocation affects and is often referred to as an “error term”.	= (ACTUAL MANAGER RETURN X (ACTUAL MANAGER WEIGHT – POLICY TARGET WEIGHT)) – ((MANAGER WEIGHT – POLICY TARGET WEIGHT) X INDEX RETURN)

- **Past performance is no guarantee of future results.**
- **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.**
- **All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.**
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