



NEPC, LLC

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## Vermont Pension Investment Committee

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### **First Fiscal Quarter 2017 Preliminary Investment Performance Analysis**

November 29<sup>th</sup>, 2016

Christopher Levell, ASA, CFA, CAIA, Partner  
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# NEPC Update



# Highlights of Third Quarter Happenings at NEPC

September 30, 2016

## NEPC Insights

### Recent White Papers

- “DC Governance: Slaying the Hydra” (August)
- “Nonprofit Annual Audit Survival Guide” (August)
- “Class is in Session: Lawsuits Against Higher Education Retirement Plans” (September)
- Market Chatter: “NEPC’s Summer Travel: Perspectives on China” (September )
- NEPC’s 11<sup>th</sup> Annual Defined Contribution Plan & Fee Survey

### Webinar

- “2016 Defined Contribution Plan & Fee Survey Webinar” (September); Panel reviewed key findings from our 11th annual NEPC 2016 Defined Contribution Plan & Fee Survey.

### Video Series

- “Five Questions with Jeff Roberts on Healthcare Strategic Private Equity Investing” (July)
- “Five Questions with Richard M. Charlton” (July)
- “Discussing Pension Risk Transfers with Chris Levell and Craig Svendsen” (August)

## NEPC Recognitions

We are pleased to announce that *Chief Investment Officer* published their fifth annual list of the world’s most influential investment consultants featuring NEPC’s **Tim McCusker, FSA, CFA, CAIA, CIO, Partner**, and **Scott Perry, CAIA, Partner**.



## Upcoming Events

The 8<sup>th</sup> Annual NEPC, LLC Public Fund Workshop will be held January 23-24, 2017 in Tempe, Arizona at the Tempe Mission Palms.

NEPC’s 22<sup>nd</sup> Annual Investment Conference will be held on May 9-10, 2017 at the InterContinental Hotel in Boston, MA.

## ESG – Clearing Up The Confusion Webinar (Coming in December)

NEPC is hosting a webinar to continue the conversation around Environmental, Social and Governance integration (ESG). We aim to help clear up the confusion around what ESG represents and why it has become a growing topic of interest. NEPC will be joined by investment managers from different asset classes who will offer their insights into how they are implementing ESG into their investment portfolios.

## NEPC Gives Back

- NEPC employees went “sock-less” and participated in the *Sox for Socks* drive to support the Boston Health Care for the Homeless Program, which provides socks for the homeless men and women of Boston.
- Eighteen NEPC employees volunteered to work with Habitat for Humanity Greater Boston, stepping up to help build new homes for low-income families in need of decent and affordable housing.

# Market Environment

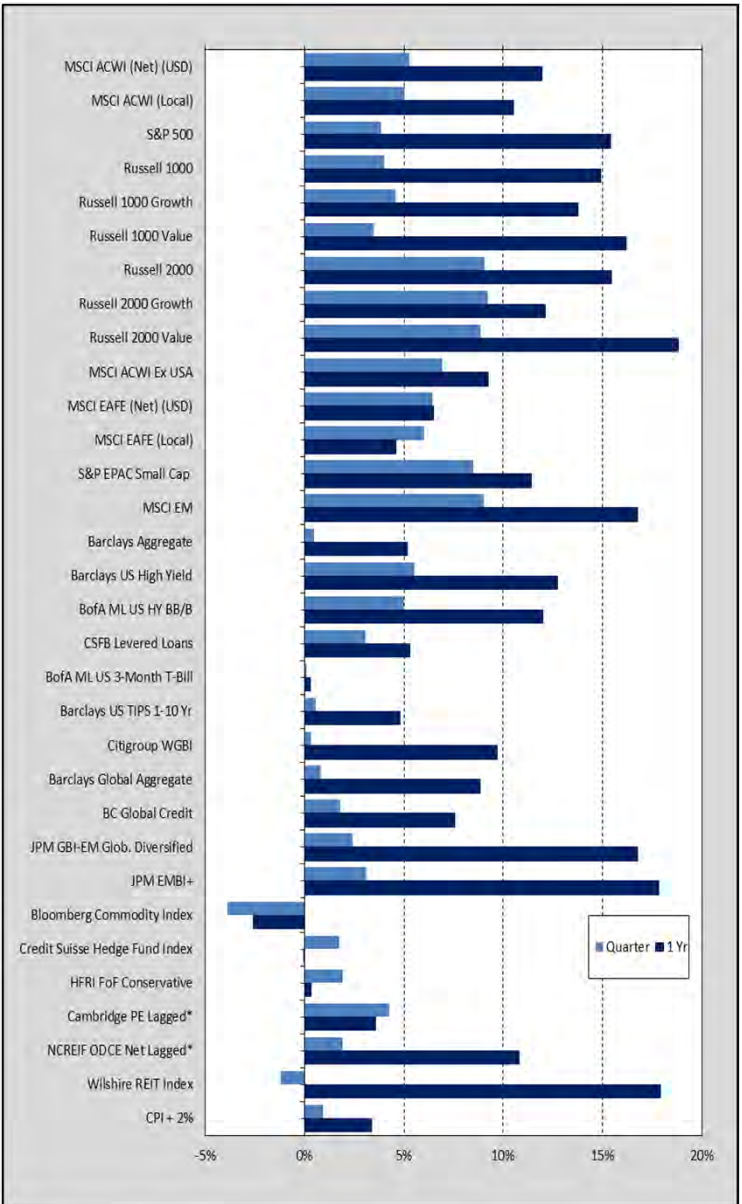
- **US economic expansion can persist: Growth cycles don't die of old age**
  - Health of US consumers remain supportive for an extended growth cycle
  - US corporate earnings under pressure from profit margin declines and dollar strength
  - Continued growth supports positive returns in a low expected return environment
- **Low expectation of interest rate increases from the Federal Reserve**
  - Risks are asymmetric for a negative Fed surprise with muted rate hike outlook
  - A surprise Fed rate increase poses risk to both US equities and interest rate exposure
  - US dollar strength is interconnected with pace of US Federal Reserve policy
- **Central Banks continue to dictate the global investment outlook**
  - Fed balancing current policy and the disruptive effects of a strong dollar on global markets
  - ECB and BoJ likely to maintain and adjust accommodative monetary policies
  - Easing in China is broadly stimulative in the near term but currency policy is unpredictable
- **Improved emerging vs developed world economic growth differential**
  - Large currency adjustments across most emerging countries have provided a foundation to support improved capital market returns
  - Continued political and economic reform is needed to benefit economic growth profile
  - Chinese Yuan devaluation has been incremental; Rapid fall of Yuan remains a global tail-risk

## General Actions for Clients

- **Trim US equity exposure as US markets have rebounded significantly**
  - Remain disciplined and look for rebalancing opportunities should equity markets decline
  - Use tactical strategies to capture pockets of value in US high yield as spreads compress
- **Maintain overweight exposure to non-US developed market equities**
  - Central bank support and dollar strength provide a positive economic backdrop
  - Small-cap equity and global equity are preferred implementation approaches
    - These strategies offer the best opportunity to exploit valuation discrepancies among stocks
- **Emerging Markets offer the most attractive total return opportunity for investors in public markets**
  - China uncertainty, dollar pressure and idiosyncratic country risks temper excitement
  - Overweight small-cap and consumer focused strategies relative to broad mandates
- **Developed market duration exposure is generally unattractive**
  - Preserve US duration exposure with a bias towards TIPS over core bonds
  - Rebalance long treasuries, long credit, and risk parity following recent gains
  - Look to eliminate WGBI focused global bond strategies with yields at historic lows
- **Embrace illiquidity in opportunistic credit and private credit strategies**
  - Stressed credit liquidity magnifies the scale of price movements in traditional credit assets
  - Credit markets ability to absorb an exodus from crowded positions is challenged

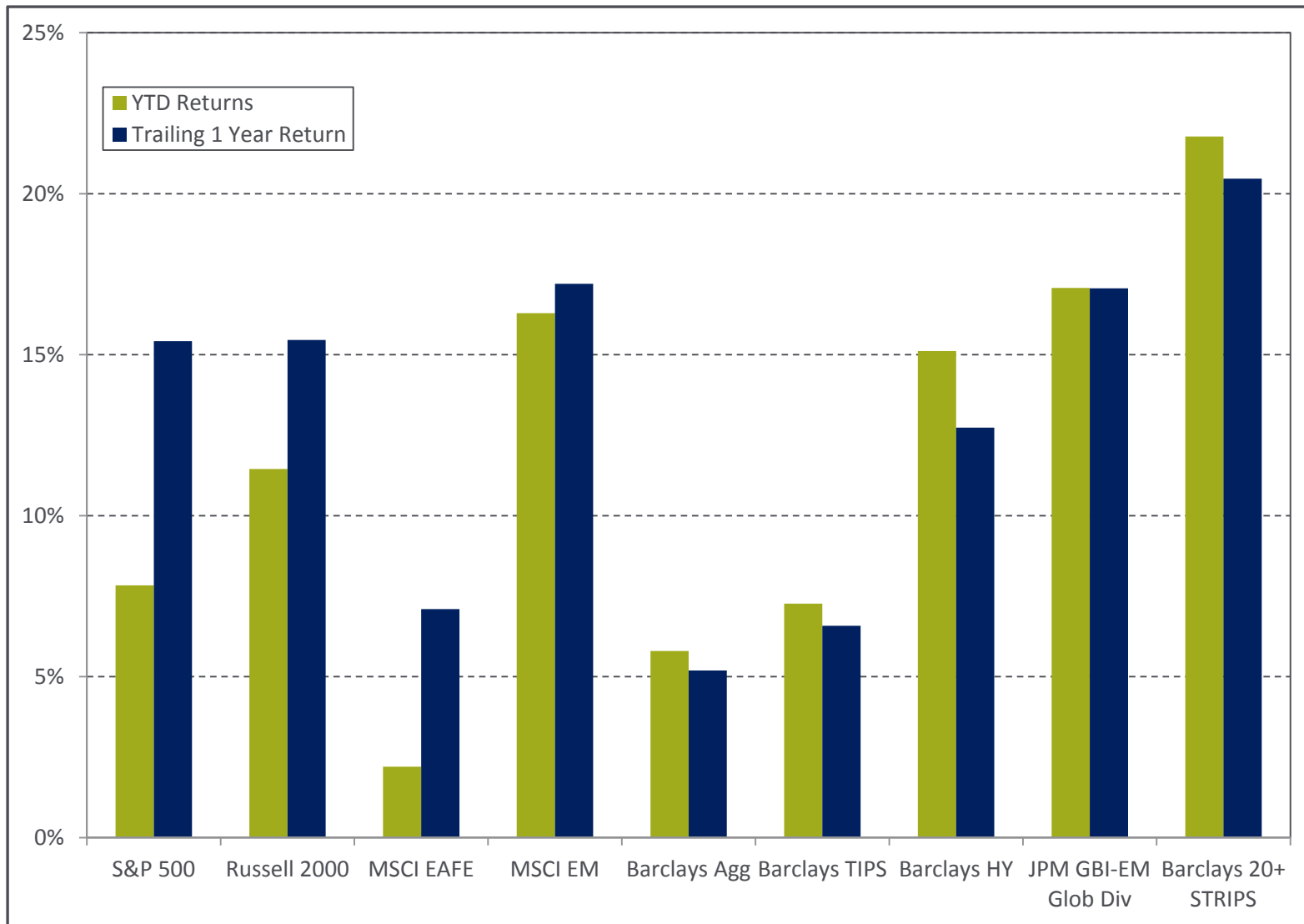
# Market Environment – Q3 2016 Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
<b>World Equity Benchmarks</b>						
MSCI ACWI (Net) (USD)	World	5.3%	12.0%	5.2%	10.6%	4.3%
MSCI ACWI (Local)	World (Local Currency)	5.1%	10.5%	7.7%	12.6%	4.6%
<b>Domestic Equity Benchmarks</b>						
S&P 500	Large Core	3.9%	15.4%	11.2%	16.4%	7.2%
Russell 1000	Large Core	4.0%	14.9%	10.8%	16.4%	7.4%
Russell 1000 Growth	Large Growth	4.6%	13.8%	11.8%	16.6%	8.8%
Russell 1000 Value	Large Value	3.5%	16.2%	9.7%	16.2%	5.9%
Russell 2000	Small Core	9.0%	15.5%	6.7%	15.8%	7.1%
Russell 2000 Growth	Small Growth	9.2%	12.1%	6.6%	16.1%	8.3%
Russell 2000 Value	Small Value	8.9%	18.8%	6.8%	15.4%	5.8%
<b>International Equity Benchmarks</b>						
MSCI ACWI Ex USA	World ex-US	6.9%	9.3%	0.2%	6.0%	2.2%
MSCI EAFE (Net) (USD)	Int'l Developed	6.4%	6.5%	0.5%	7.4%	1.8%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	6.0%	4.6%	5.3%	11.2%	2.2%
S&P EPAC Small Cap	Small Cap Int'l	8.5%	11.4%	5.6%	11.5%	4.8%
MSCI EM	Emerging Equity	9.0%	16.8%	-0.6%	3.0%	3.9%
<b>Domestic Fixed Income Benchmarks</b>						
Barclays Aggregate	Core Bonds	0.5%	5.2%	4.0%	3.1%	4.8%
Barclays US High Yield	High Yield	5.6%	12.7%	5.3%	8.3%	7.7%
BofA ML US HY BB/B	High Yield	5.0%	12.0%	5.6%	8.0%	7.1%
CSFB Levered Loans	Bank Loans	3.1%	5.3%	3.6%	5.4%	4.3%
BofA ML US 3-Month T-Bill	Cash	0.1%	0.3%	0.1%	0.1%	0.9%
Barclays US TIPS 1-10 Yr	Inflation	0.6%	4.8%	1.5%	1.3%	3.8%
<b>Global Fixed Income Benchmarks</b>						
Citigroup WGBI	World Gov. Bonds	0.3%	9.7%	1.8%	0.8%	4.1%
Barclays Global Aggregate	Global Core Bonds	0.8%	8.8%	2.1%	1.7%	4.3%
BC Global Credit	Global Bonds	1.8%	7.6%	2.9%	3.7%	4.6%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	2.4%	16.8%	-2.7%	0.0%	5.5%
JPM EMBI+	Em. Mkt. Bonds	3.1%	17.8%	8.0%	7.3%	7.6%
<b>Alternative Benchmarks</b>						
Bloomberg Commodity Index	Commodity	-3.9%	-2.6%	-12.3%	-9.4%	-5.3%
Credit Suisse Hedge Fund Index	Hedge Fund	1.8%	-0.0%	2.6%	4.3%	4.2%
HFRI FoF Conservative	Fund of Hedge Funds	1.9%	0.3%	2.2%	3.1%	1.5%
Cambridge PE Lagged*	Private Equity	4.2%	3.6%	11.3%	11.3%	10.8%
NCREIF ODCE Net Lagged*	Real Estate	1.9%	10.8%	12.0%	11.7%	5.2%
Wilshire REIT Index	REIT	-1.2%	17.9%	14.3%	15.8%	5.9%
CPI + 2%	Inflation/Real Assets	0.9%	3.4%	3.0%	3.2%	3.8%



\* As of 6/30/2016

# Year to Date Performance: All Assets Have Moved Higher



Source: Bloomberg  
As of 09/30/2016



# Returns for Key Indices Ranked in Order of Performance

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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
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 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 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 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 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 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
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 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 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

QTD	1 Year	3 year	5 Year	10 Year
RUSSELL 2000 GROWTH 9.22	RUSSELL 2000 VALUE 18.81	RUSSELL 1000 GROWTH 11.83	RUSSELL 1000 GROWTH 16.60	RUSSELL 1000 GROWTH 8.85
RUSSELL 2000 9.05	MSCI EMERGING MARKETS 16.78	S&P 500 11.16	RUSSELL 1000 16.41	RUSSELL 2000 GROWTH 8.29
MSCI EMERGING MARKETS 9.03	RUSSELL 1000 VALUE 16.20	RUSSELL 1000 10.78	S&P 500 16.37	RUSSELL 1000 7.40
RUSSELL 2000 VALUE 8.87	RUSSELL 2000 15.47	RUSSELL 1000 VALUE 9.70	RUSSELL 1000 VALUE 16.15	S&P 500 7.24
MSCI EAFE 6.43	S&P 500 15.43	RUSSELL 2000 VALUE 6.77	RUSSELL 2000 GROWTH 16.15	RUSSELL 2000 7.07
RUSSELL 1000 GROWTH 4.58	RUSSELL 1000 14.93	RUSSELL 2000 6.71	RUSSELL 2000 15.82	RUSSELL 1000 VALUE 5.85
RUSSELL 1000 4.03	RUSSELL 1000 GROWTH 13.76	RUSSELL 2000 GROWTH 6.58	RUSSELL 2000 VALUE 15.45	RUSSELL 2000 VALUE 5.78
S&P 500 3.85	RUSSELL 2000 GROWTH 12.12	BC AGGREGATE 4.03	MSCI EAFE 7.39	BC AGGREGATE 4.79
RUSSELL 1000 VALUE 3.48	MSCI EAFE 6.52	MSCI EAFE 0.48	BC AGGREGATE 3.08	MSCI EMERGING MARKETS 3.95
BC AGGREGATE 0.46	BC AGGREGATE 5.19	MSCI EMERGING MARKETS -0.56	MSCI EMERGING MARKETS 3.03	MSCI EAFE 1.82

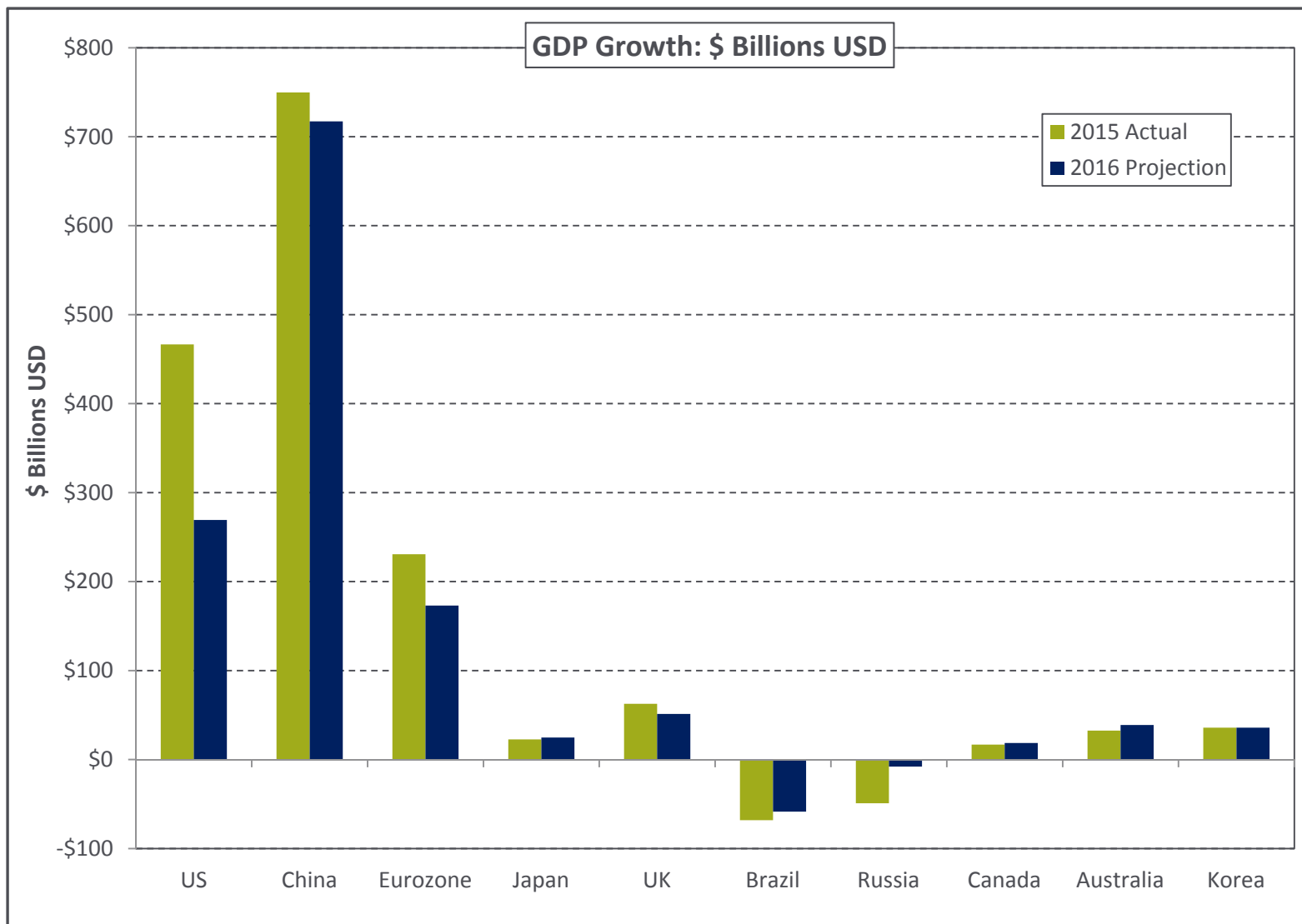
## Third Quarter 2016 Performance Update

Hedge Fund Industry Performance Overview	Q3 2016	YTD	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Trailing 10 Yrs
<b>Composite</b>						
Credit Suisse Hedge Fund Composite	1.7%	0.1%	0.0%	2.5%	4.3%	4.2%
<b>Credit</b>						
Credit Suisse Convertible Arbitrage	3.8%	6.2%	5.5%	2.1%	4.0%	4.0%
Credit Suisse Fixed Income Arbitrage	2.6%	2.4%	2.4%	2.9%	4.6%	3.5%
Credit Suisse Equity Market Neutral	1.6%	-2.0%	-2.0%	1.2%	2.1%	-2.5%
Credit Suisse Multi-Strategy	2.6%	3.2%	3.7%	5.9%	7.3%	5.7%
<b>Event Driven</b>						
Credit Suisse Event Driven	3.0%	0.4%	-1.9%	0.1%	4.2%	4.0%
Credit Suisse Event Driven - Distressed	2.8%	2.7%	0.9%	1.6%	5.4%	4.2%
Credit Suisse Event Driven - Risk Arbitrage	2.3%	5.1%	5.9%	1.7%	2.6%	3.6%
Credit Suisse Event Driven - Multi-Strategy	3.1%	-0.5%	-3.0%	-0.6%	3.7%	4.1%
<b>Equity</b>						
Credit Suisse Long-Short Equity	1.9%	-3.2%	-1.7%	4.0%	6.6%	4.8%
Credit Suisse Emerging Markets	4.2%	4.7%	7.7%	3.5%	5.0%	4.6%
Credit Suisse Dedicated Short Bias	-12.1%	-18.4%	-21.9%	-8.8%	-15.4%	-10.9%
<b>Macro</b>						
Credit Suisse Global Macro	0.6%	-1.0%	-0.4%	1.7%	2.3%	5.8%
Credit Suisse Managed Futures	-3.2%	-1.3%	-2.3%	6.8%	1.0%	4.1%
<b>Traditional Markets</b>						
S&P 500 TR	3.9%	7.8%	15.4%	11.2%	16.4%	7.2%
Barclays Aggregate Bond Index	0.5%	5.8%	5.2%	4.0%	3.1%	4.8%

Source: Credit Suisse, PerTrac

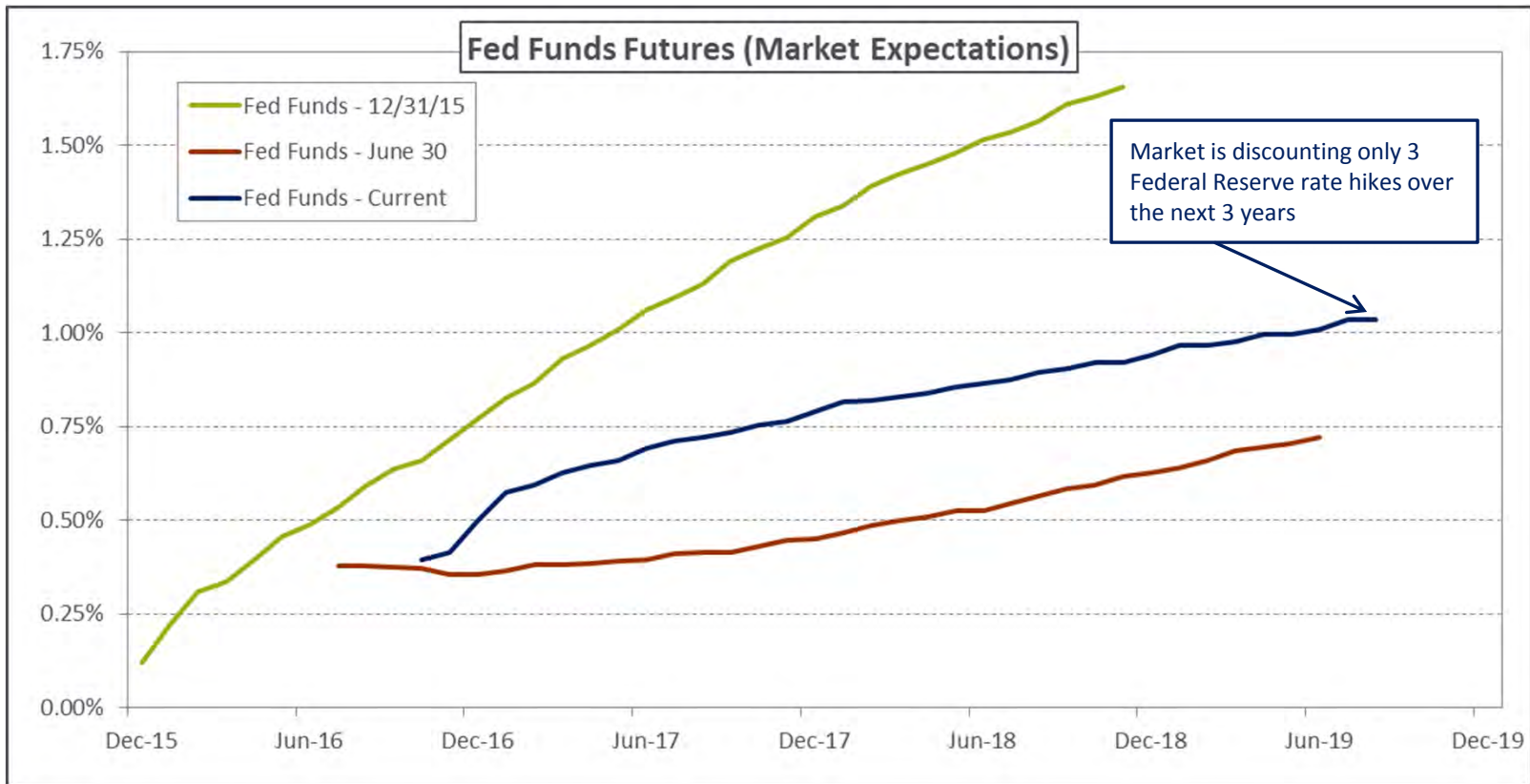
- **Hedge funds had positive results in the third quarter as risk assets continued to rally**
  - Credit Suisse Hedge Fund Composite was up 1.7%
  - HFRI Fund Weighted Composite was up 2.9%
- **Strategy performance more positive**
  - Credit and event driven strategies also outperformed peers (+3.8% and +3.0% respectively)
  - Equity and macro positive but performance was muted compared to other strategies

# Subdued Global Growth and China Remains the Growth Engine



Source: Bloomberg  
As of 09/30/2016

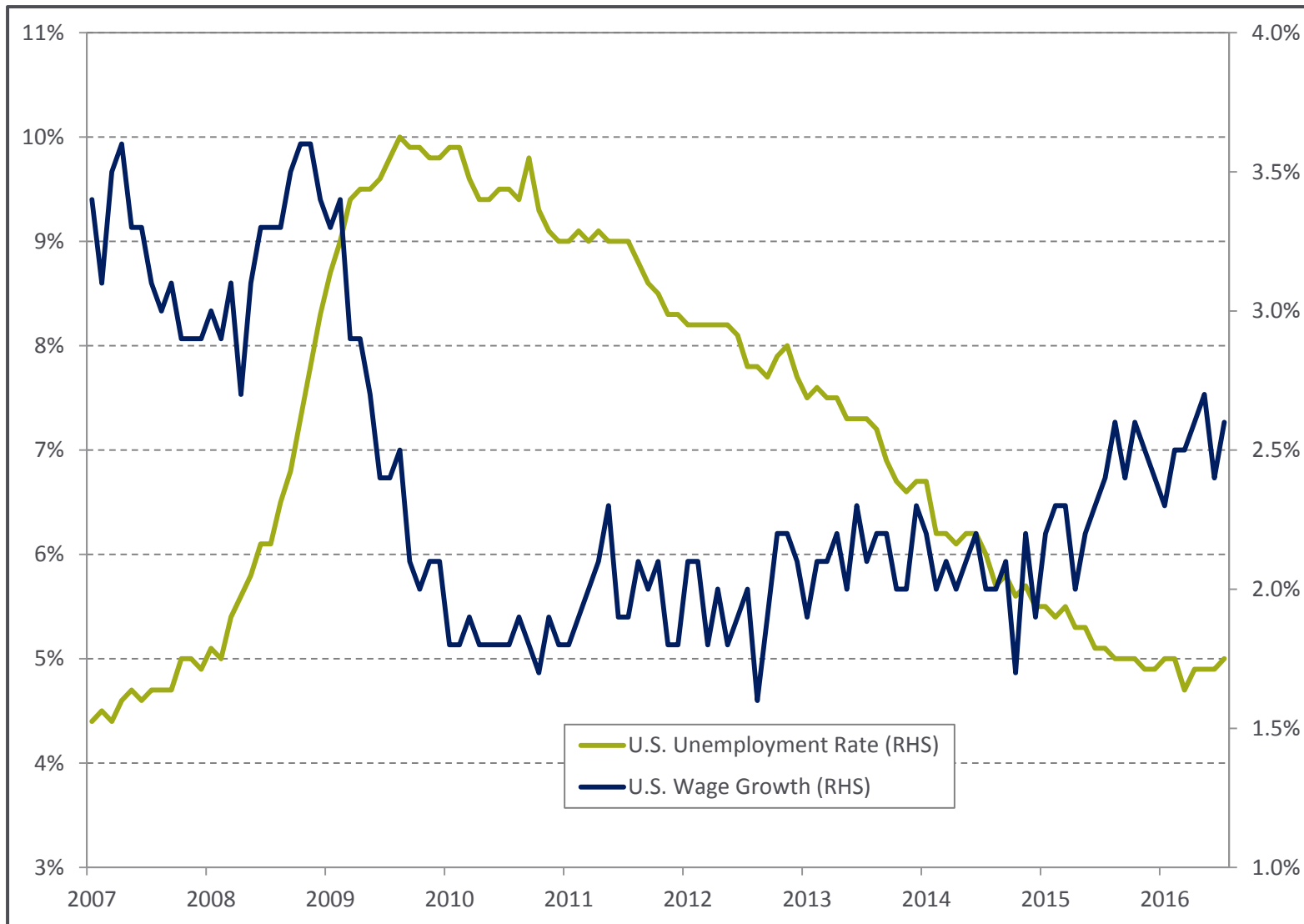
## Expectations of Federal Reserve Action Have Decreased Considerably



Source: Bloomberg

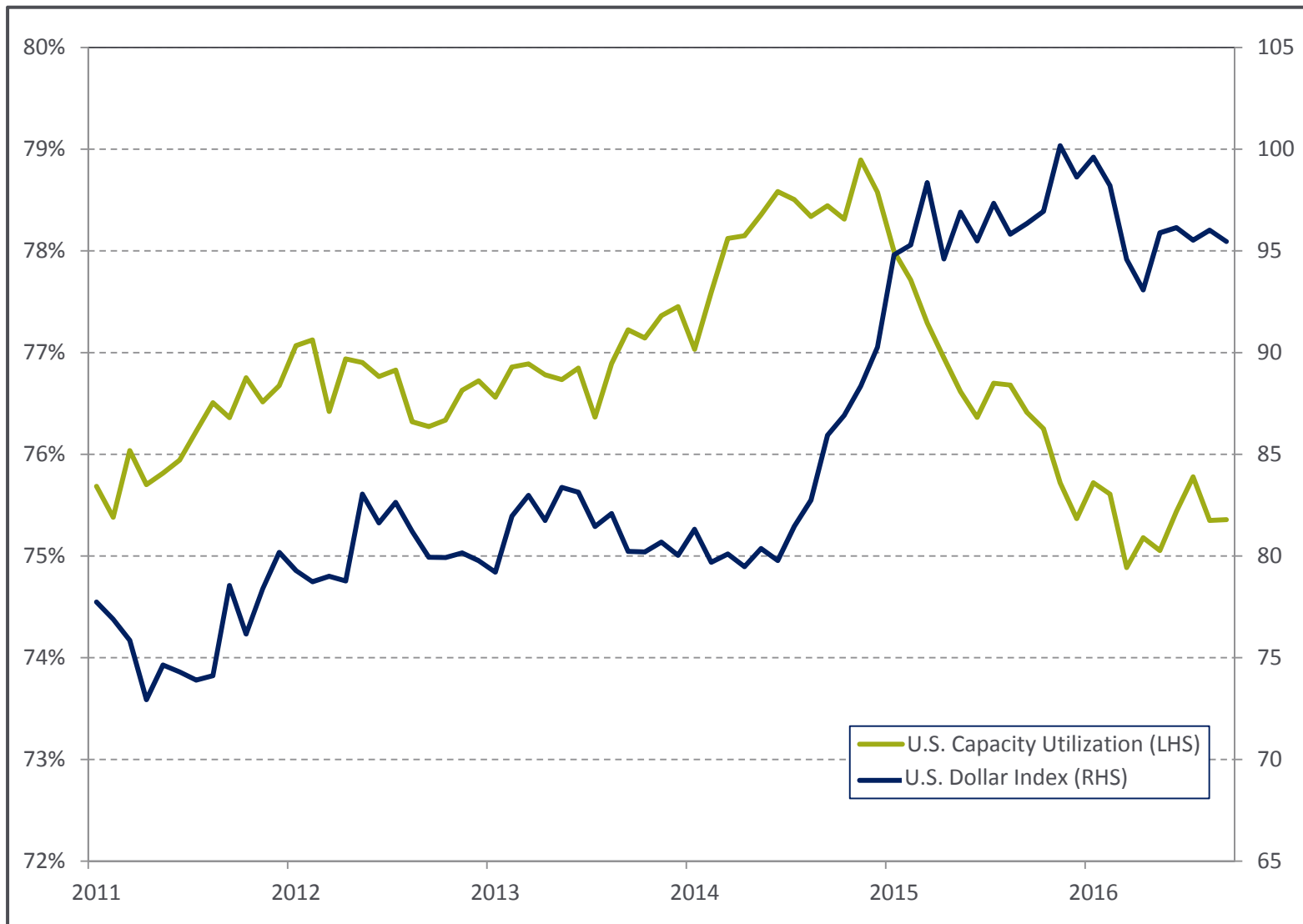
- **Muted, but consistent, US economic growth gives the Fed flexibility to move slowly with policy tightening**
- **Markets discounting a more muted pace increases potential for a negative Fed surprise**

# Labor Market Tightness is Beginning to Influence Wage Inflation



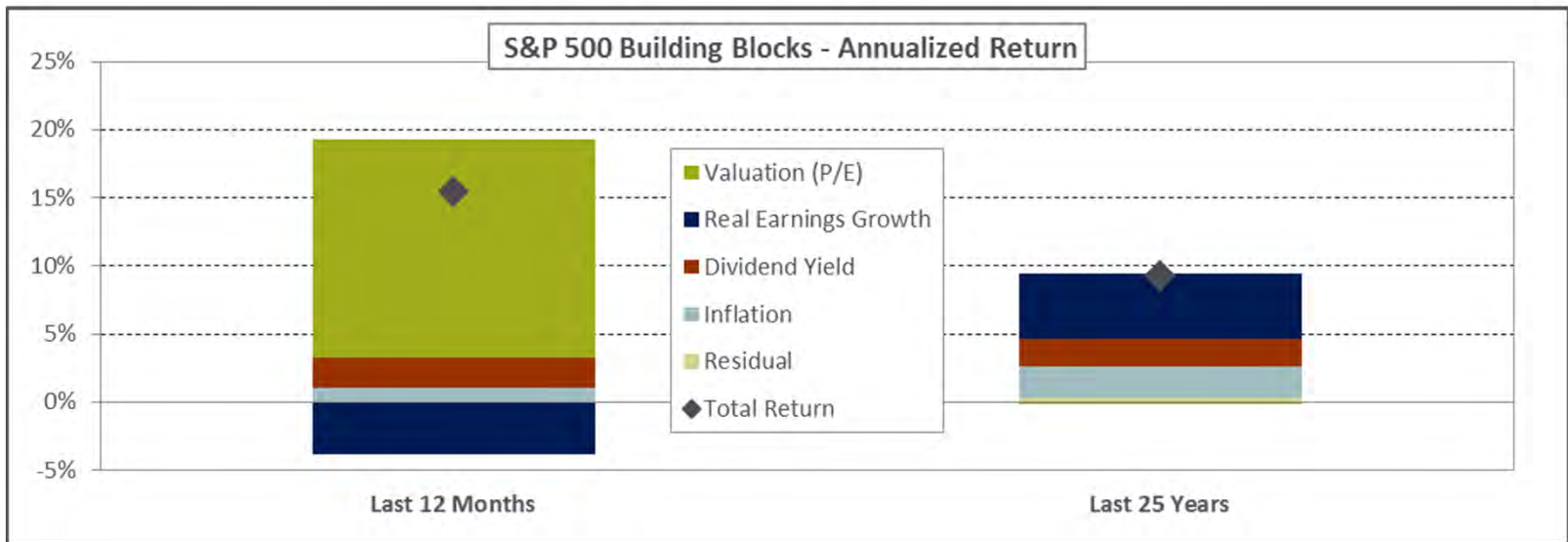
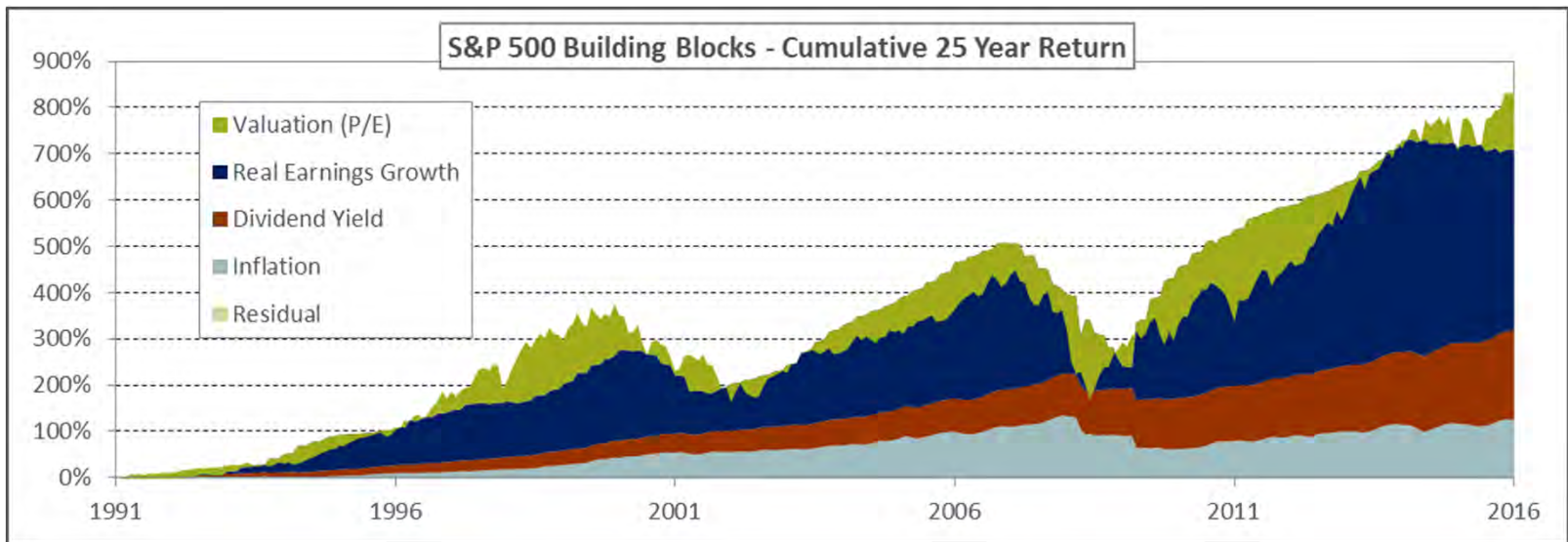
Source: Bloomberg  
As of 09/30/2016

# Strength of US Dollar Exerts Deflationary Pressure on Economy



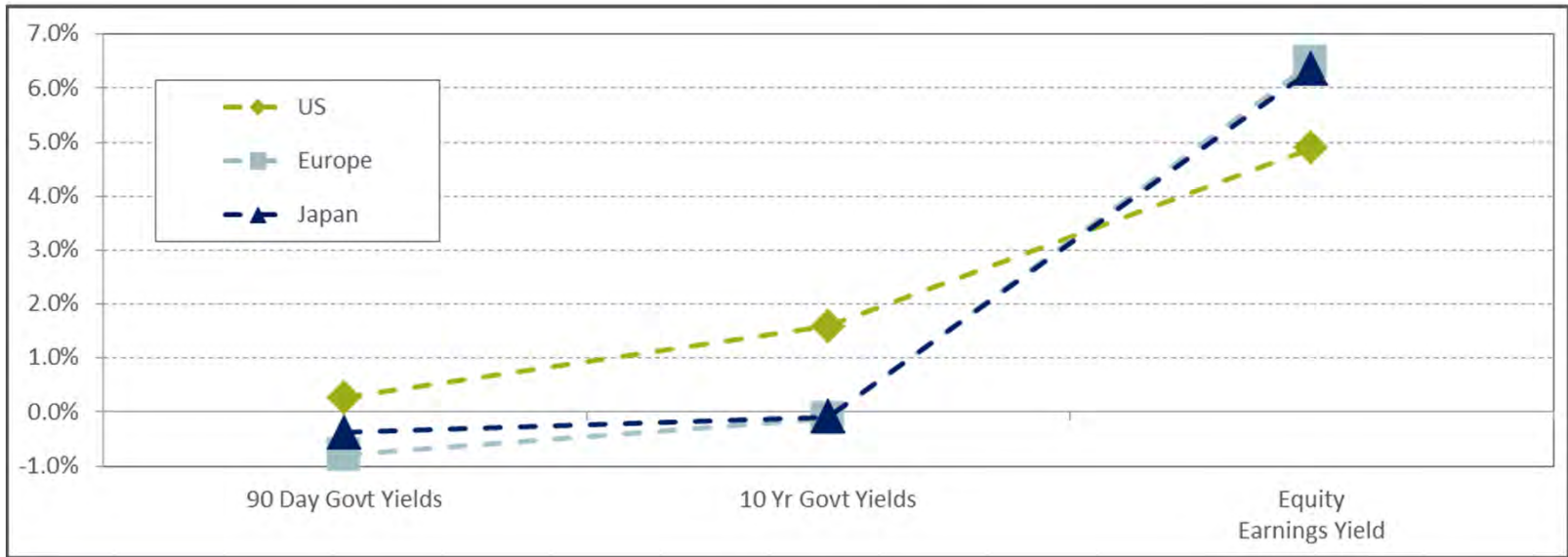
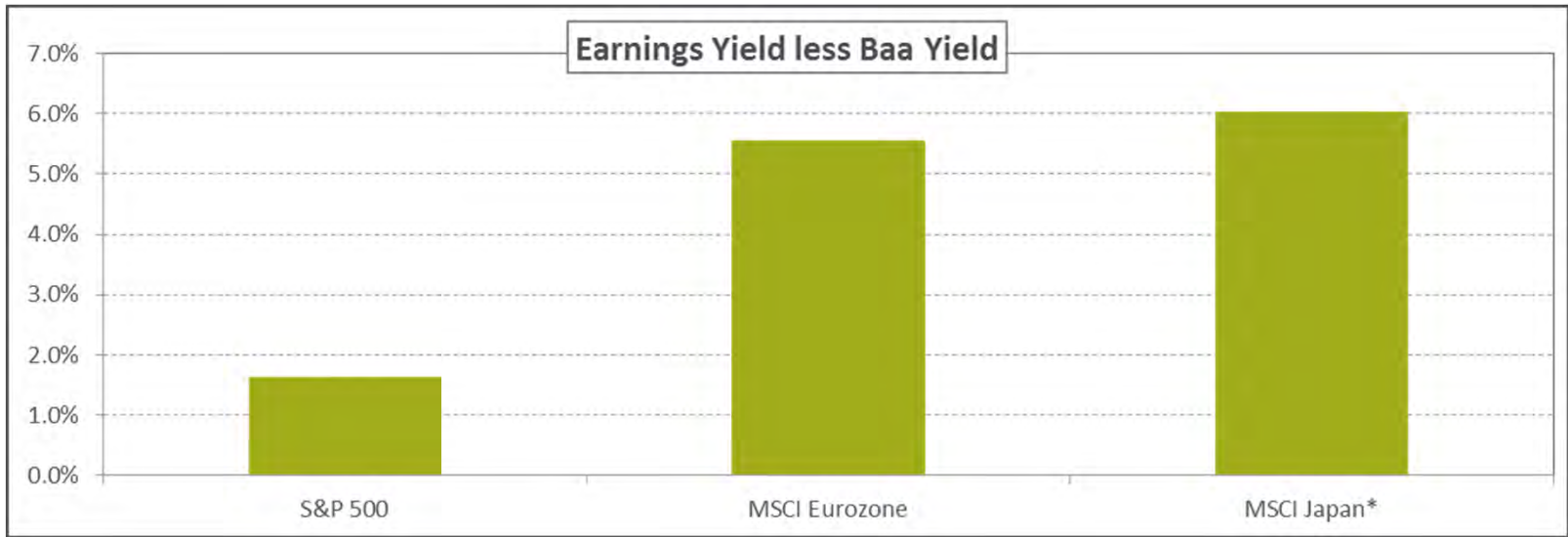
Source: Bloomberg

# S&P Earnings Weakness has been Overlooked as Expanding Valuations Drive Recent Returns



Source: Bloomberg, NEPC

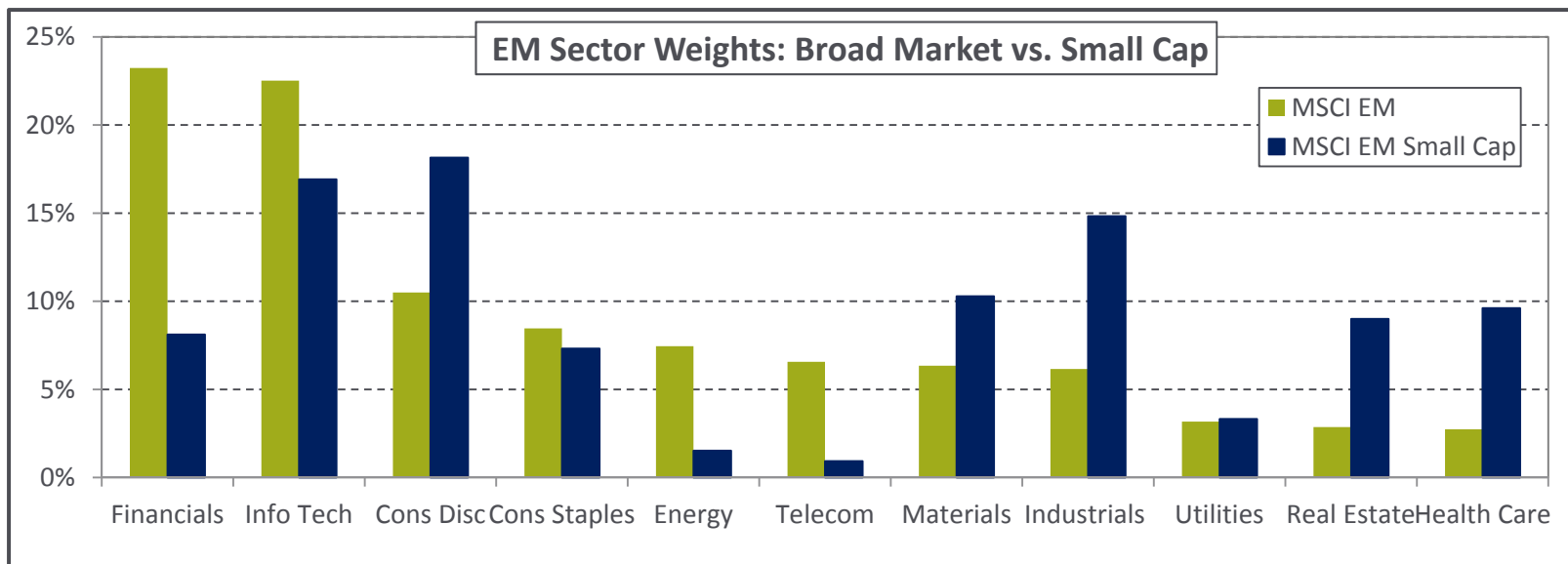
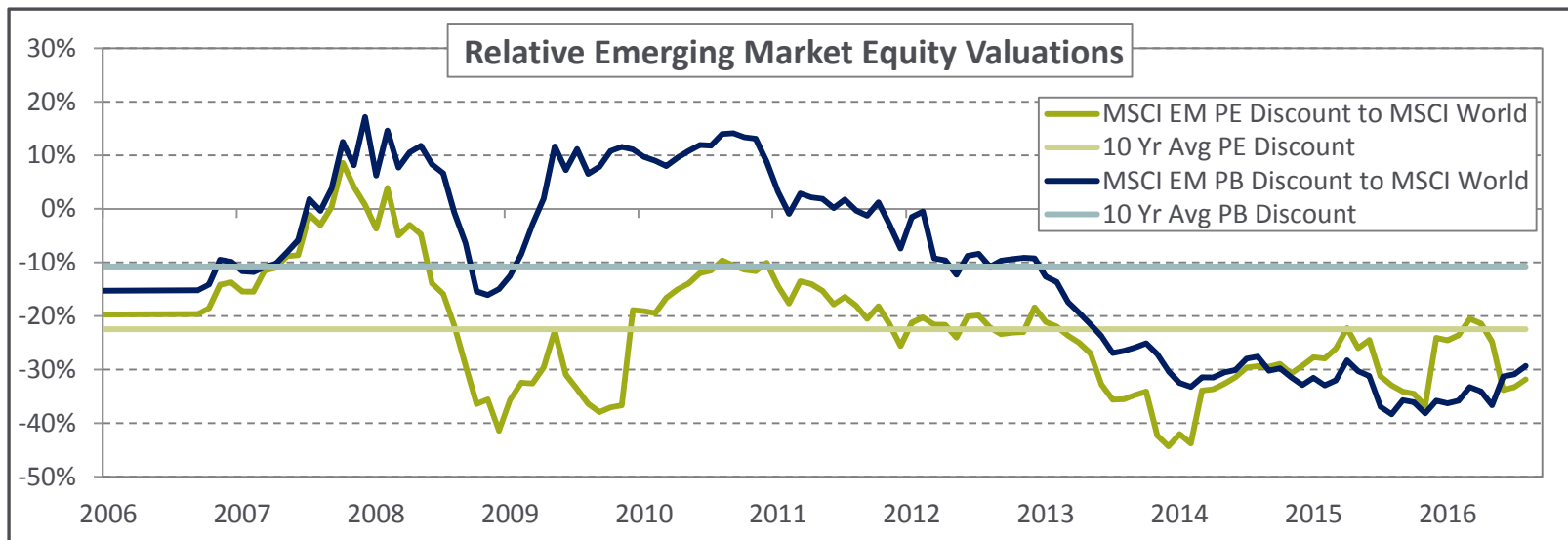
# Europe and Japan Equity Markets Carry Risks but Offer a Meaningful Return Opportunity



Source: Bloomberg

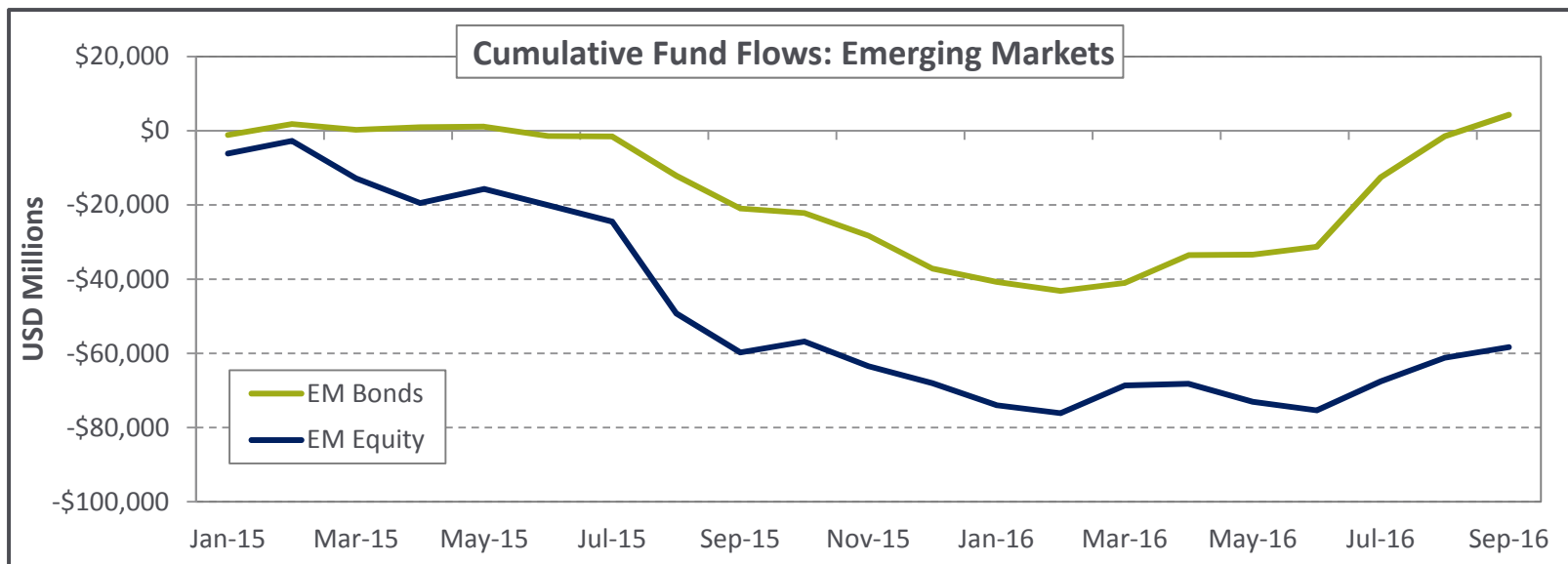
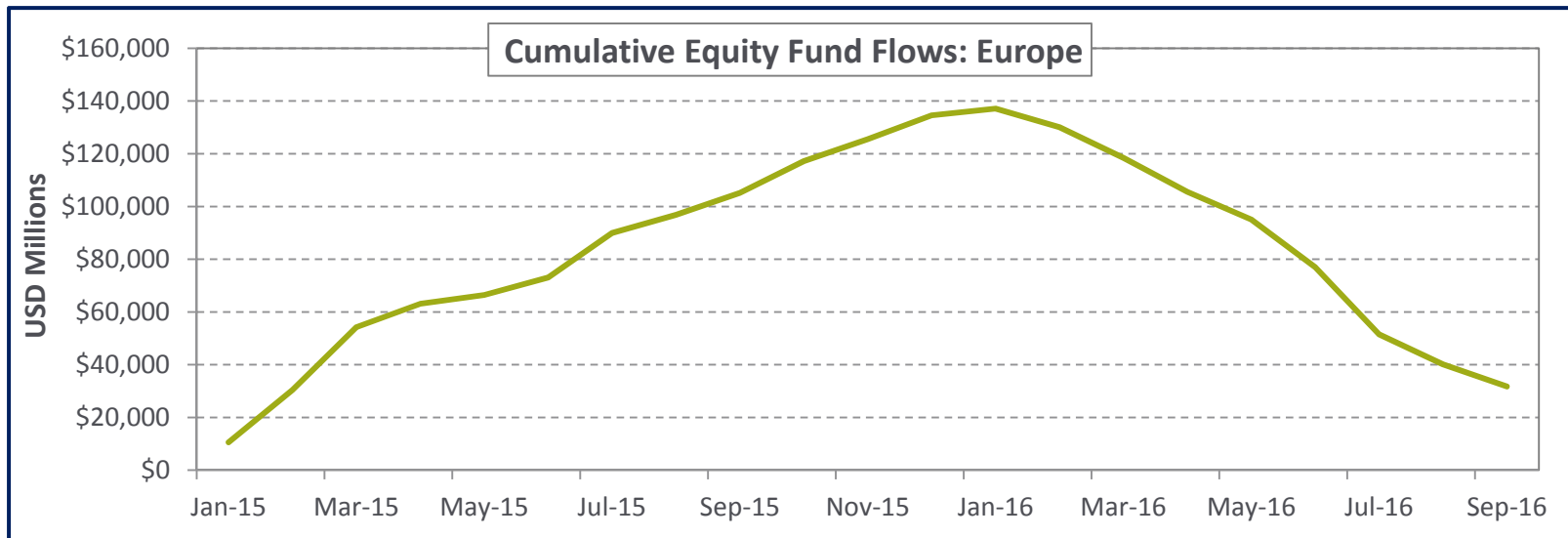


# EM Equities Remain a Compelling Return Opportunity but With Volatility



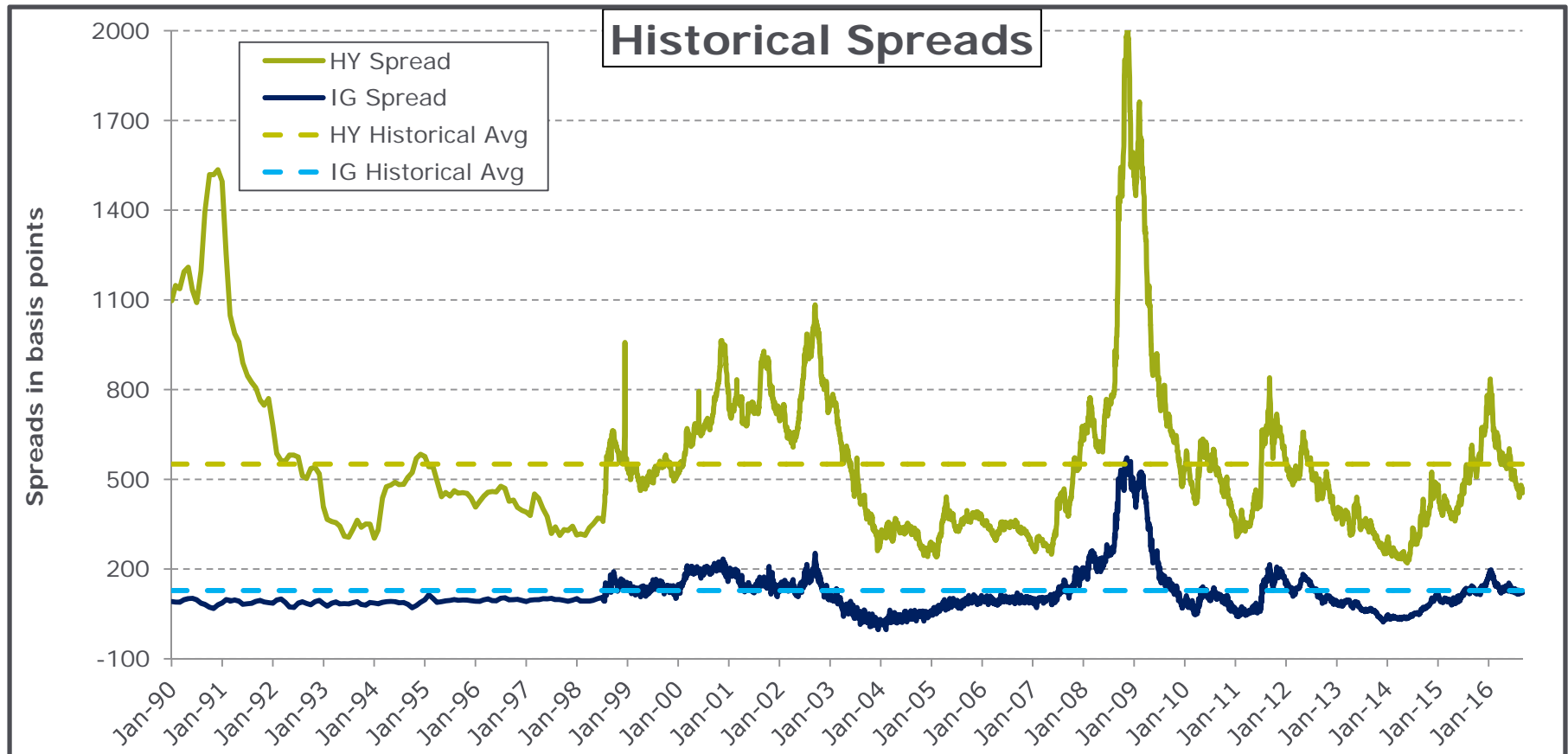
Source: Bloomberg  
As of 09/30/2016

# Investor Flows Materially Impact Short-Term Performance

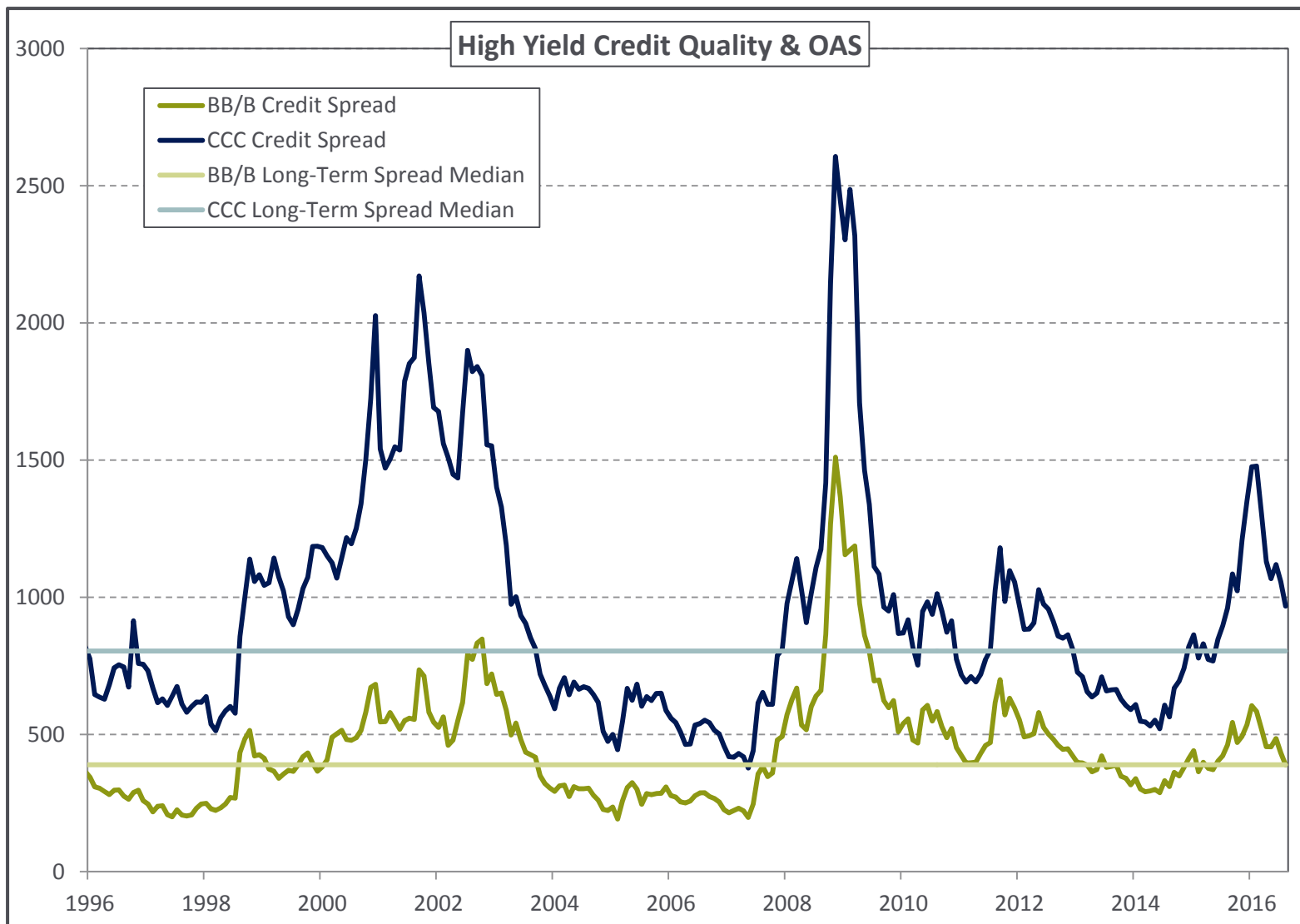


Source: EPFR  
As of 09/30/2016

- **IG and HY spreads are at or below historical averages**

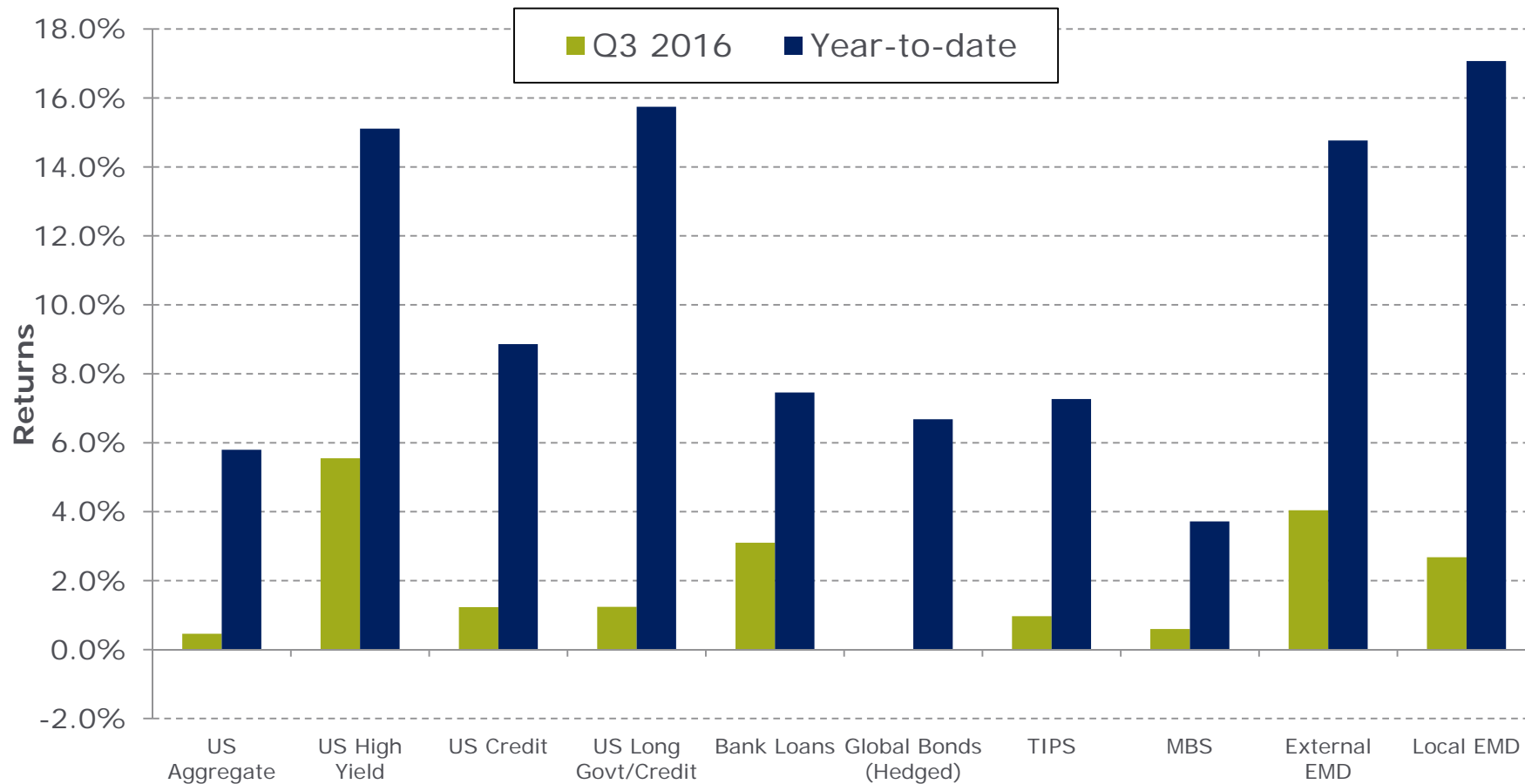


# Broad Outperformance of High Yield Increasingly Dependent on Lower Quality Sectors



Source: Bloomberg

# Fixed Income Sector Performance



Source: eVestment, as of 9/30/2016

## Index Performance Summary as of 10/31/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Oct	YTD
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	0.2%	16.3%
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%	16.1%
Barclays US Corporate HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.4%	15.6%
Barclays US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	-0.2%	-6.2%	14.3%
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%	14.1%
JPM EMBI Global Diversified	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	4.0%	-1.2%	13.3%
Barclays US Govt/Credit Long	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	1.2%	-2.8%	12.5%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	1.1%	-4.5%	10.8%
Bloomberg Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	-0.5%	8.3%
Credit Suisse Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	3.1%	0.8%	8.3%
Citi WGBI	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	-3.4%	7.3%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	-4.1%	6.3%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	9.0%	-4.8%	6.2%
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%	5.9%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	4.0%	-2.0%	5.8%
FTSE NAREIT Equity REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	-1.4%	-5.7%	5.4%
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%	5.0%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	5.3%	-1.7%	4.8%
Barclays US Agg Interm	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	-0.4%	3.7%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	-0.3%	-1.0%	2.9%
BC US Govt/Credit 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%	1.6%
Credit Suisse Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	1.7%	-	0.1%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	-2.0%	-0.4%

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

# State Municipal Employees' Retirement System

# Vermont Municipal Employees

## Total Fund Performance Summary - Net

	Market Value	Fiscal YTD	Rank	YTD Rank	1 Yr Rank	3 Yrs Rank	5 Yrs Rank	7 Yrs Rank	10 Yrs Rank						
<b>Municipal Composite</b>	<b>\$553,050,468</b>	<b>3.3%</b>	<b>57</b>	<b>9.1%</b>	<b>1</b>	<b>10.3%</b>	<b>17</b>	<b>4.5%</b>	<b>86</b>	<b>7.2%</b>	<b>91</b>	<b>7.1%</b>	<b>71</b>	<b>4.6%</b>	<b>85</b>
<i>Policy Index</i>		3.2%	62	8.1%	5	9.6%	40	4.6%	84	6.9%	94	6.4%	94	4.7%	82
<i>Allocation Index</i>		3.6%	43	8.4%	4	10.0%	28	4.4%	88	6.9%	94	6.4%	94	4.8%	82
<i>InvestorForce Public DB Net Median</i>		3.4%		6.5%		9.3%		5.6%		8.8%		7.7%		5.3%	

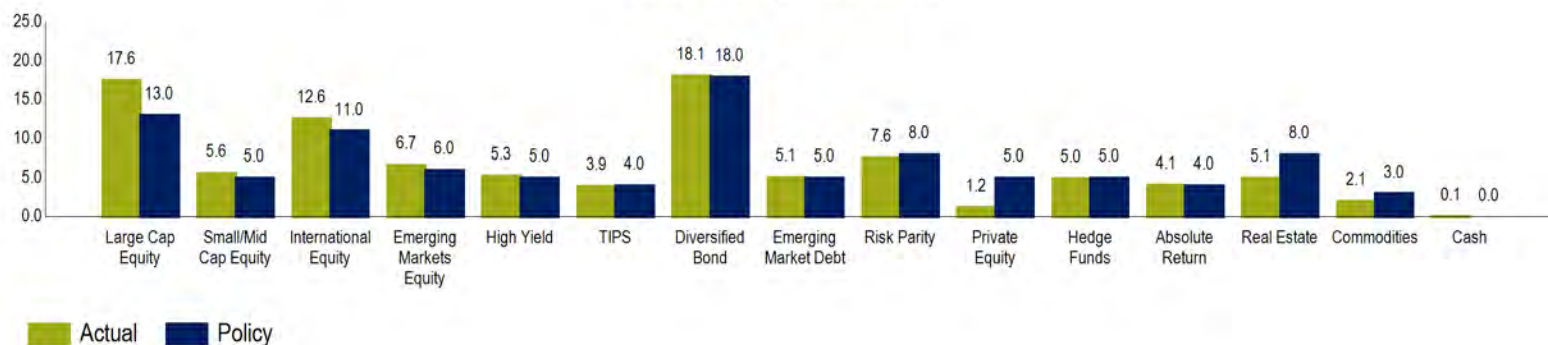
### 3 Years Ending September 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	4.45%	86	6.00%	31	0.73	75	1.31	59
Policy Index	4.56%	84	5.47%	10	0.82	59	1.48	40
Allocation Index	4.37%	88	5.69%	18	0.75	70	1.30	59

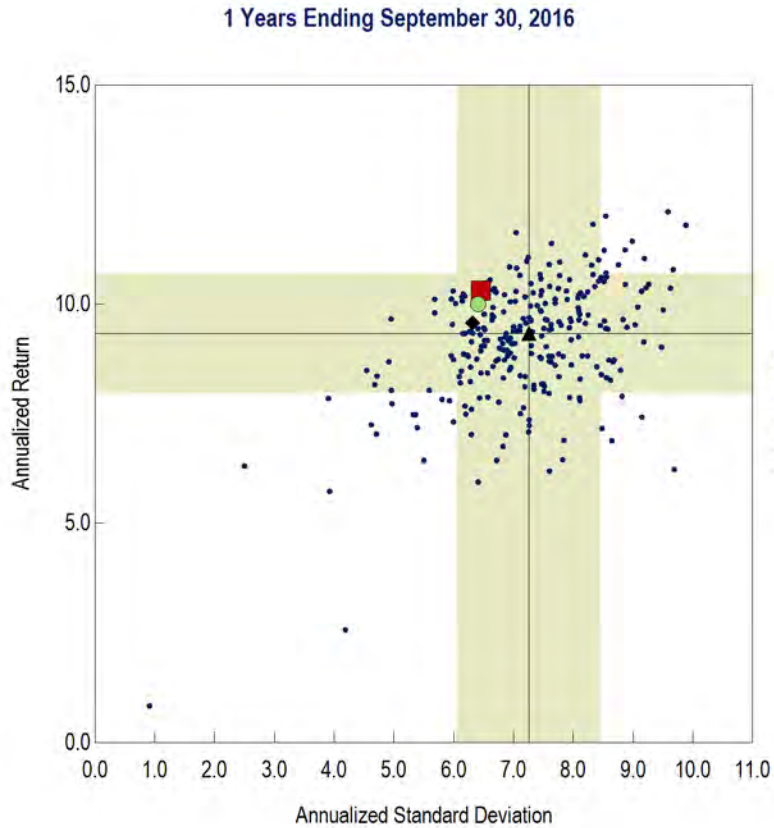
### 5 Years Ending September 30, 2016

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	7.16%	91	6.47%	33	1.10	86	1.97	66
Policy Index	6.93%	94	6.09%	22	1.12	79	1.95	67
Allocation Index	6.90%	94	6.15%	23	1.11	82	1.88	72

### Actual vs Target Allocation (%)







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

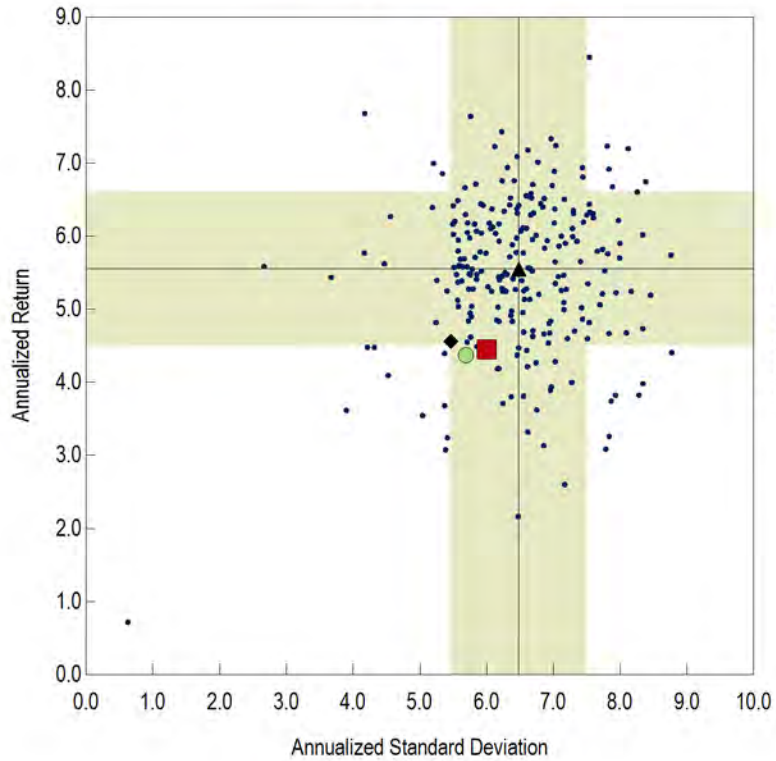
1 Year Ending September 30, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	10.32%	17	6.46%	23	1.56	8
Policy Index	9.57%	40	6.31%	20	1.48	13
S&P 500	15.43%	1	12.46%	99	1.22	59
Citi WGBI	9.71%	34	6.10%	12	1.56	9
MSCI ACWI	11.96%	1	13.48%	99	0.87	97
MSCI ACWI ex USA	9.26%	53	15.04%	99	0.60	99
InvestorForce Public DB Net Median	9.34%	--	7.26%	--	1.25	--

# Vermont Municipal Employees

## Total Fund Risk/Return - Net

3 Years Ending September 30, 2016



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

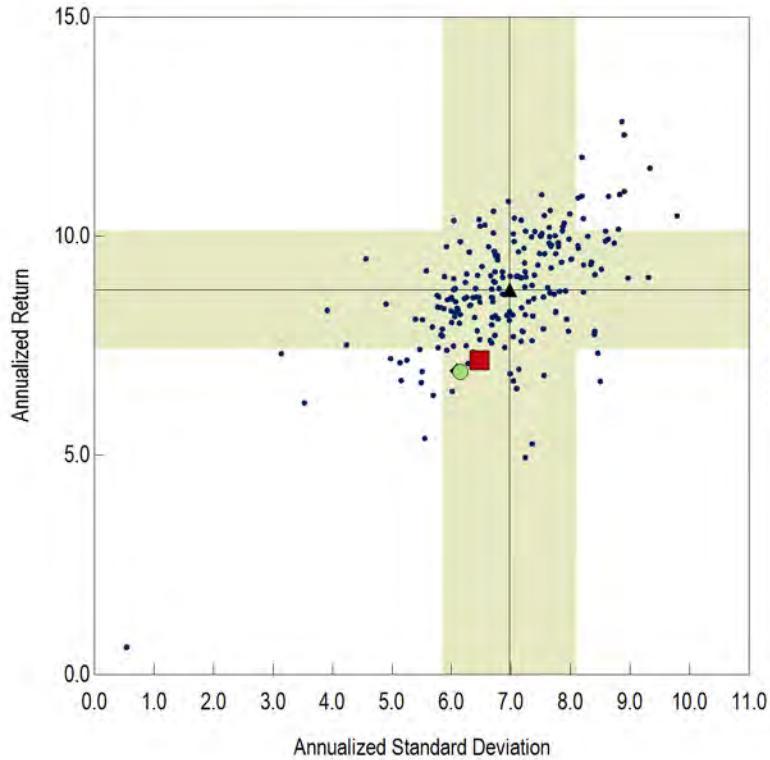
3 Years Ending September 30, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	4.45%	86	6.00%	31	0.73	75
Policy Index	4.56%	84	5.47%	10	0.82	59
S&P 500	11.16%	1	10.83%	99	1.02	16
Citi WGBI	1.78%	99	4.99%	5	0.34	99
MSCI ACWI	5.17%	69	11.34%	99	0.45	99
MSCI ACWI ex USA	0.18%	99	12.69%	99	0.01	99
InvestorForce Public DB Net Median	5.55%	--	6.48%	--	0.85	--

# Vermont Municipal Employees

## Total Fund Risk/Return - Net

5 Years Ending September 30, 2016



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

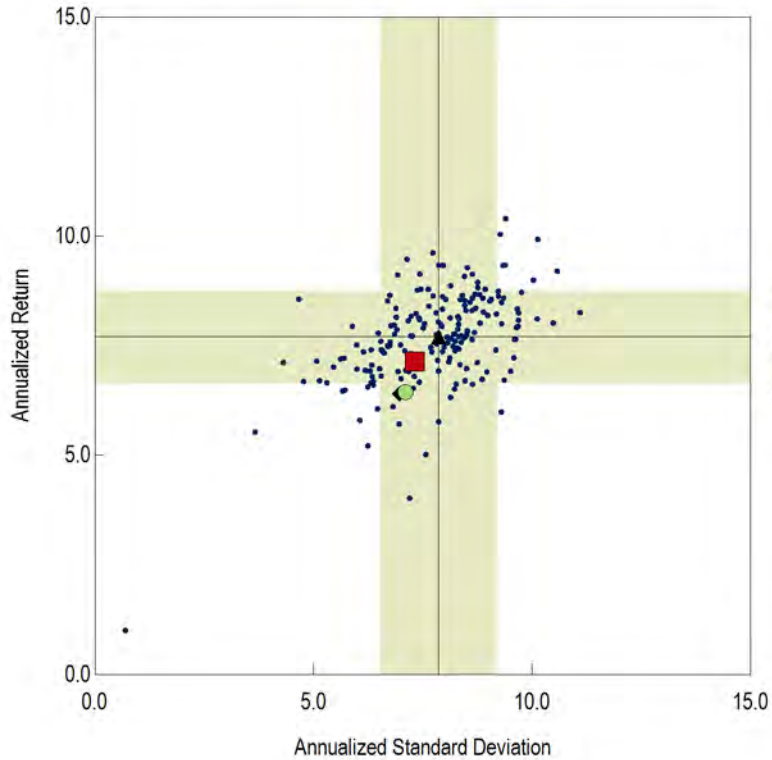
5 Years Ending September 30, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	7.16%	91	6.47%	33	1.10	86
Policy Index	6.93%	94	6.09%	22	1.12	79
S&P 500	16.37%	1	11.12%	99	1.47	11
Citi WGBI	0.77%	99	4.73%	3	0.15	99
MSCI ACWI	10.63%	5	12.29%	99	0.86	99
MSCI ACWI ex USA	6.04%	99	14.23%	99	0.42	99
InvestorForce Public DB Net Median	8.78%	--	6.98%	--	1.27	--

# Vermont Municipal Employees

## Total Fund Risk/Return - Net

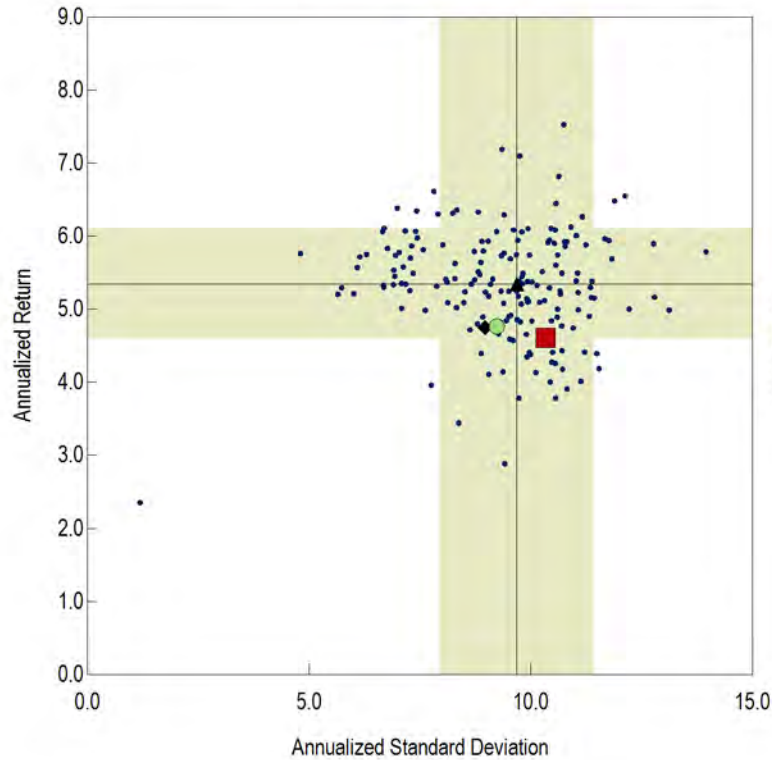
7 Years Ending September 30, 2016



7 Years Ending September 30, 2016

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	7.14%	71	7.31%	37	0.96	53
Policy Index	6.40%	94	6.97%	27	0.91	72
S&P 500	13.17%	1	12.77%	99	1.03	39
Citi WGBI	1.90%	99	5.70%	6	0.32	99
MSCI ACWI	7.77%	45	14.00%	99	0.55	99
MSCI ACWI ex USA	3.66%	99	15.75%	99	0.23	99
InvestorForce Public DB Net Median	7.71%	--	7.86%	--	0.97	--

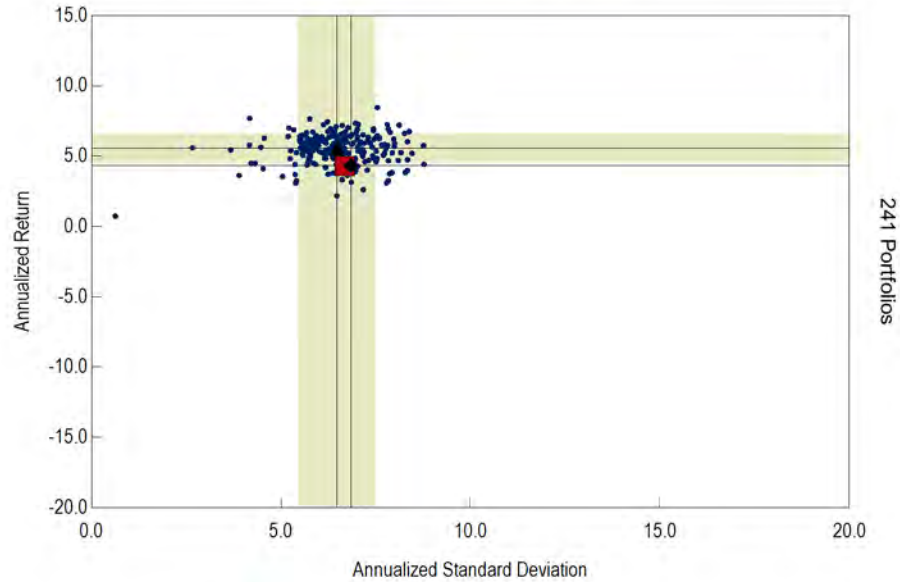
10 Years Ending September 30, 2016



10 Years Ending September 30, 2016

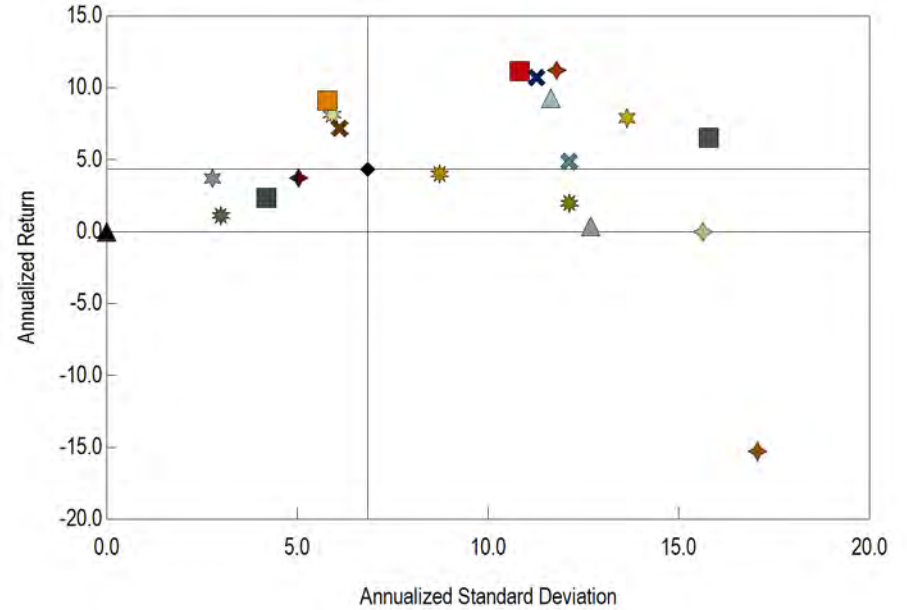
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	4.61%	85	10.33%	68	0.37	84
Policy Index	4.75%	82	8.96%	35	0.44	62
S&P 500	7.24%	1	15.25%	99	0.42	70
Citi WGBI	4.10%	95	6.66%	5	0.50	43
MSCI ACWI	4.34%	92	17.02%	99	0.21	99
MSCI ACWI ex USA	2.17%	99	19.19%	99	0.07	99
InvestorForce Public DB Net Median	5.35%	--	9.68%	--	0.48	--

Annualized Return vs. Annualized Standard Deviation  
3 Years Ending September 30, 2016



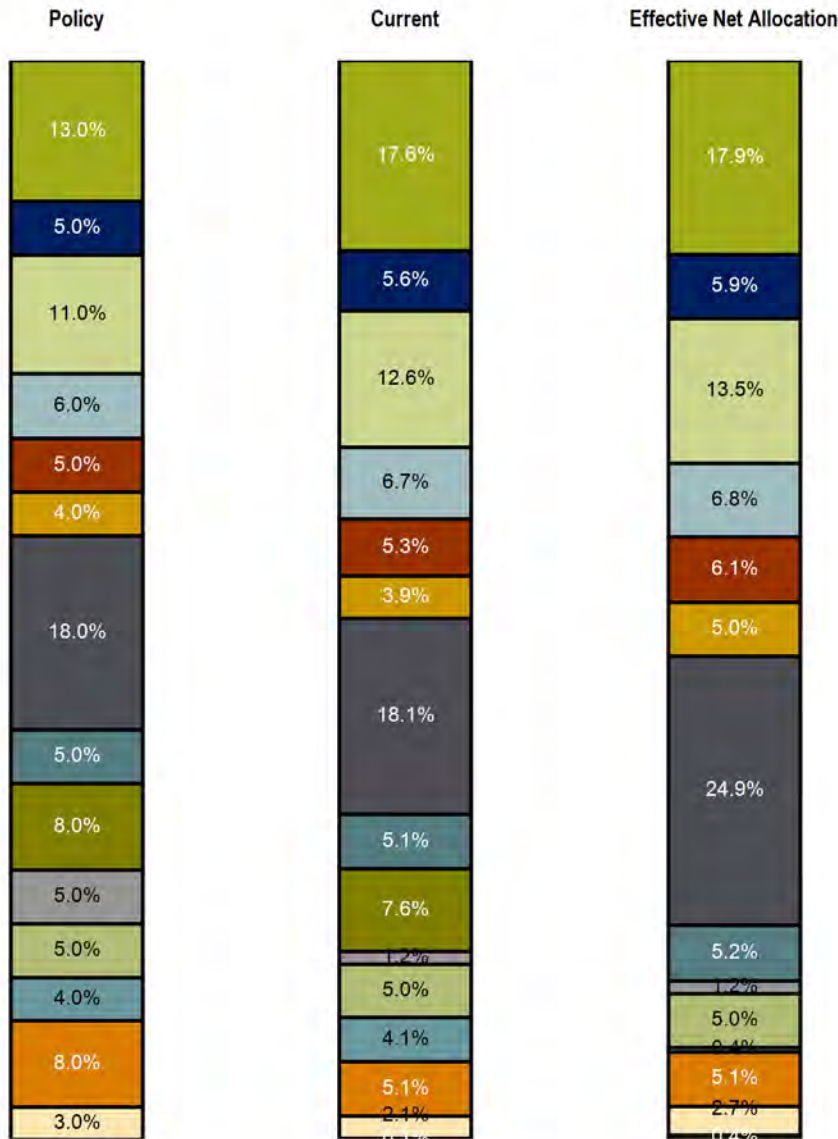
- Total Marketable Assets
- ◆ Total Marketable Assets Custom Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Net

Annualized Return vs. Annualized Standard Deviation  
3 Years Ending September 30, 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
- BlackRock TIPS
- \* Wellington Opportunistic EMD
- ◆ AQR Global Risk Premium
- ▲ Vermont Cash
- ◆ Schroder
- ◆ Total Marketable Assets Custom Index
- ▲ Universe Median
- 68% Confidence Interval

Total Fund Asset Allocation vs. Policy Targets

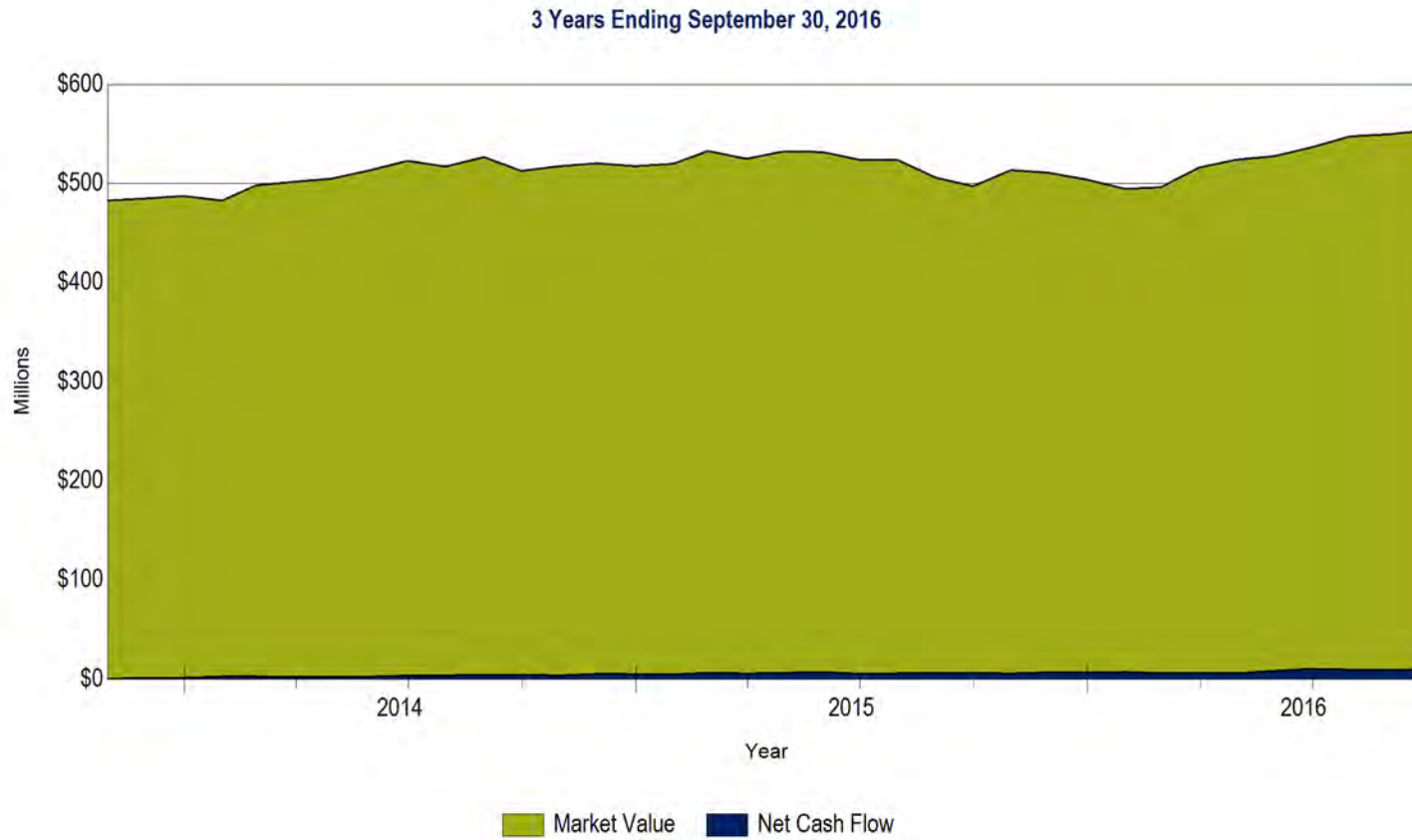


Asset Allocation vs. Target

	Policy	Current	Effective Net Allocation
Large Cap Equity	13.0%	18.0%	17.9%
Small/Mid Cap Equity	5.0%	5.7%	5.9%
International Equity	11.0%	12.9%	13.5%
Emerging Markets Equity	6.0%	6.8%	6.8%
High Yield	5.0%	5.4%	6.1%
TIPS	4.0%	4.0%	5.0%
Diversified Bond	18.0%	18.6%	24.9%
Emerging Market Debt	5.0%	5.2%	5.2%
Risk Parity	8.0%	7.8%	--
Private Equity	5.0%	1.2%	1.2%
Hedge Funds	5.0%	5.1%	5.0%
Absolute Return	4.0%	4.2%	0.4%
Real Estate	8.0%	2.8%	5.1%
Commodities	3.0%	2.1%	2.7%
Cash	--	0.1%	0.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Effective Net Allocation breaks out the exposure of GAA managers: AQR and Mellon.

**Total Fund Asset Growth Summary**



	Last Three Months	Year-To-Date	One Year	Three Years
Beginning Market Value	\$536,594,955	\$504,075,697	\$497,337,019	\$471,040,034
Withdrawals	-\$11,238,463	-\$105,396,073	-\$114,707,961	-\$255,350,856
Contributions	\$10,328,098	\$108,180,673	\$117,913,535	\$264,946,527
Net Cash Flow	-\$910,365	\$2,784,600	\$3,205,574	\$9,595,671
Net Investment Change	\$17,860,557	\$46,684,851	\$53,002,555	\$72,909,443
Ending Market Value	\$553,545,148	\$553,545,148	\$553,545,148	\$553,545,148



## Vermont Municipal Employees

### Total Fund Asset Growth Summary by Manager

	Quarter Ending September 30, 2016					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Aberdeen	\$34,815,467	-\$63,230	\$63,230	\$0	\$2,019,555	\$36,835,022
Acadian	\$20,572,249	-\$27,676	\$2,027,676	\$2,000,000	\$1,553,399	\$24,125,648
Allianz Structured Alpha	\$9,810,102	-\$74,926	\$74,926	\$0	\$126,032	\$9,936,133
AQR Global Risk Premium	\$41,141,563	-\$42,643	\$42,643	\$0	\$957,509	\$42,099,072
BlackRock TIPS	\$20,552,762	-\$3,702	\$1,003,702	\$1,000,000	\$198,676	\$21,751,437
Champlain	\$12,236,413	-\$1,021,341	\$21,341	-\$1,000,000	\$643,278	\$11,879,690
GAM	\$64,905	\$0	\$0	\$0	-\$8,003	\$56,902
GAM Unconstrained Bond	\$19,324,543	-\$15,365	\$15,365	\$0	\$399,254	\$19,723,797
Grosvenor	\$26,635,895	\$0	\$0	\$0	\$757,317	\$27,393,212
Guggenheim	\$20,924,856	-\$62,828	\$526,828	\$464,000	\$1,120,189	\$22,509,045
Harbourvest Dover VIII Fund	\$2,248,908	\$0	\$0	\$0	\$0	\$2,248,908
Harbourvest Partners IX Buyout Fund	\$1,764,033	\$0	\$0	\$0	\$0	\$1,764,033
Harbourvest Partners IX Credit Opportunities	\$267,185	\$0	\$0	\$0	\$0	\$267,185
Harbourvest Partners IX Venture Fund	\$1,365,590	\$0	\$0	\$0	\$0	\$1,365,590
Harbourvest Partners X Buyout Fund	\$338,630	\$0	\$0	\$0	\$0	\$338,630
Harbourvest Partners X Venture Fund	\$177,470	\$0	\$0	\$0	\$0	\$177,470
HIPEP VII	\$373,774	\$0	\$68,069	\$68,069	\$0	\$441,843
KDP	\$6,458,281	-\$8,615	\$8,615	\$0	\$243,459	\$6,701,740
Mellon Dynamic Growth	\$12,298,895	-\$2,015,785	\$15,785	-\$2,000,000	\$119,068	\$10,417,963
Mondrian	\$21,573,121	-\$18,656	\$18,656	\$0	\$900,955	\$22,474,075
Morgan Stanley Prime Property	\$12,644,647	-\$34,340	\$0	-\$34,340	\$320,308	\$12,930,615
PIMCO Core Plus	\$31,441,454	-\$22,880	\$1,997,880	\$1,975,000	\$369,242	\$33,785,695
PIMCO Unconstrained	\$13,406,422	-\$19,532	\$519,532	\$500,000	\$285,737	\$14,192,158
Pinnacle Natural Resources, L.P.	\$2,300,000	\$0	\$0	\$0	-\$37,957	\$2,262,043
RREEF America REIT III	\$366,790	-\$263,092	\$0	-\$263,092	-\$45,541	\$58,156

## Vermont Municipal Employees

### Total Fund Asset Growth Summary by Manager

	Quarter Ending September 30, 2016					
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Schroder	\$13,994,565	-\$2,300,000	\$0	-\$2,300,000	-\$256,362	\$11,438,202
Siguler Guff	\$3,816,950	-\$2,699	\$137,317	\$134,618	\$180,053	\$4,131,622
SSgA ACWI Ex US	\$21,758,223	-\$3,113	\$3,113	\$0	\$1,512,758	\$23,270,981
SSgA Barclays Aggregate Index	\$17,029,612	-\$1,931	\$2,001,931	\$2,000,000	-\$1,425,027	\$17,604,585
SSgA Russell 2000 Growth	\$2,706,582	-\$500,376	\$1,500,376	\$1,000,000	\$347,277	\$4,053,859
SSgA S&P 400	\$4,107,035	-\$487	\$487	\$0	\$169,704	\$4,276,740
SSgA S&P 500 Cap-Wgt	\$70,471,796	-\$2,004,609	\$4,609	-\$2,000,000	\$4,212,867	\$72,684,663
SSgA S&P 500 Equal-Wgt	\$23,914,363	-\$502,446	\$2,446	-\$500,000	\$1,132,154	\$24,546,517
T. Rowe	\$1,160	\$0	\$0	\$0	\$0	\$1,160
Transwestern / Aslan III	\$28,766	\$0	\$0	\$0	\$0	\$28,766
UBS Trumbull	\$10,636,384	\$0	\$0	\$0	\$180,632	\$10,817,016
Vermont Cash	\$469,961	-\$203,905	\$249,286	\$45,381	\$0	\$515,342
Wellington	\$12,274,505	-\$2,024,286	\$24,286	-\$2,000,000	\$478,202	\$10,752,707
Wellington DAS	\$15,525,594	\$0	\$0	\$0	\$38,770	\$15,564,364
Wellington Opportunistic EMD	\$26,755,506	\$0	\$0	\$0	\$1,367,053	\$28,122,559
<b>Total</b>	<b>\$536,594,955</b>	<b>-\$11,238,463</b>	<b>\$10,328,098</b>	<b>-\$910,365</b>	<b>\$17,860,557</b>	<b>\$553,545,148</b>

# Vermont Municipal Employees

## Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Municipal Composite</b>	<b>553,050,468</b>	<b>100.0</b>	<b>100.0</b>	<b>3.3</b>	<b>57</b>	<b>9.1</b>	<b>1</b>	<b>10.3</b>	<b>17</b>	<b>4.5</b>	<b>86</b>	<b>7.2</b>	<b>91</b>	<b>4.6</b>	<b>85</b>
<i>Policy Index</i>				3.2	62	8.1	5	9.6	40	4.6	84	6.9	94	4.7	82
<i>Allocation Index</i>				3.6	43	8.4	4	10.0	28	4.4	88	6.9	94	4.8	82
<i>InvestorForce Public DB Net Median</i>				3.4		6.5		9.3		5.6		8.8		5.3	
<b>Total Marketable Assets</b>	<b>468,414,380</b>	<b>84.7</b>	<b>78.0</b>	<b>3.6</b>	<b>42</b>	<b>10.1</b>	<b>1</b>	<b>11.3</b>	<b>3</b>	<b>4.3</b>	<b>89</b>	--	--	--	--
<i>Total Marketable Assets Custom Index</i>				3.7	37	8.8	3	10.6	11	4.3	89	--	--	--	--
<i>InvestorForce Public DB Net Median</i>				3.4		6.5		9.3		5.6		8.8		5.3	
<b>US Equity</b>	<b>128,195,336</b>	<b>23.2</b>	<b>18.0</b>	<b>4.4</b>	<b>62</b>	<b>9.3</b>	<b>33</b>	<b>15.8</b>	<b>23</b>	<b>10.2</b>	<b>23</b>	--	--	--	--
<i>Russell 3000</i>				4.4	61	8.2	42	15.0	28	10.4	20	16.4	30	7.4	52
<i>eA All US Equity Net Median</i>				5.1		7.3		12.1		8.4		15.3		7.4	
<b>Large Cap Comp</b>	<b>97,232,340</b>	<b>17.6</b>	<b>13.0</b>	<b>4.1</b>	<b>54</b>	<b>8.7</b>	<b>19</b>	<b>15.7</b>	<b>15</b>	<b>11.0</b>	<b>19</b>	<b>16.7</b>	<b>17</b>	<b>7.9</b>	<b>31</b>
<i>S&amp;P 500</i>				3.9	58	7.8	27	15.4	17	11.2	18	16.4	23	7.2	47
<i>eA US Large Cap Equity Net Median</i>				4.2		5.5		11.5		9.3		15.0		7.1	
<i>SSgA S&amp;P 500 Cap-Wgt</i>	72,684,663	13.1	10.0	3.9	58	7.8	27	15.4	17	11.2	17	16.4	22	--	--
<i>S&amp;P 500</i>				3.9	58	7.8	27	15.4	17	11.2	18	16.4	23	7.2	47
<i>SSgA S&amp;P 500 Equal-Wgt</i>	24,546,517	4.4	3.0	4.8	40	11.1	7	16.4	12	10.7	23	17.3	8	8.4	20
<i>S&amp;P 500 Equal Weighted</i>				4.5	44	10.6	10	16.1	14	10.8	22	17.4	7	8.8	14
<i>T. Rowe</i>	1,160	0.0	0.0												
<b>Small/Mid Cap Comp</b>	<b>30,962,996</b>	<b>5.6</b>	<b>5.0</b>	<b>5.2</b>	<b>61</b>	<b>11.3</b>	<b>23</b>	<b>16.9</b>	<b>11</b>	<b>9.2</b>	<b>19</b>	<b>16.8</b>	<b>20</b>	<b>8.6</b>	<b>35</b>
<i>Russell 2000</i>				9.0	13	11.5	22	15.5	20	6.7	46	15.8	31	7.1	72
<i>eA US Small-Mid Cap Equity Net Median</i>				5.9		8.5		11.2		6.4		14.9		7.9	
<i>SSgA S&amp;P 400</i>	4,276,740	0.8	0.5	4.1	60	12.3	17	15.2	22	9.3	29	16.5	26	--	--
<i>S&amp;P 400 MidCap</i>				4.1	60	12.4	17	15.3	21	9.4	26	16.5	25	9.1	20
<i>eA US Mid Cap Equity Net Median</i>				4.5		7.0		10.7		8.3		15.3		8.2	
<b>Champlain</b>	<b>11,879,690</b>	<b>2.1</b>	<b>2.0</b>	<b>5.1</b>	<b>35</b>	<b>14.3</b>	<b>10</b>	<b>20.6</b>	<b>2</b>	<b>11.2</b>	<b>8</b>	<b>16.8</b>	<b>20</b>	--	--
<i>Russell 2500</i>				6.6	14	10.8	23	14.4	25	7.8	59	16.3	31	7.9	57
<i>eA US Mid Cap Equity Net Median</i>				4.5		7.0		10.7		8.3		15.3		8.2	
<b>Wellington</b>	<b>10,752,707</b>	<b>1.9</b>	<b>2.0</b>	<b>4.2</b>	<b>94</b>	<b>8.6</b>	<b>85</b>	<b>14.6</b>	<b>54</b>	<b>7.9</b>	<b>34</b>	<b>16.1</b>	<b>44</b>	<b>8.8</b>	<b>11</b>
<i>Russell 2000 Value</i>				8.9	23	15.5	17	18.8	20	6.8	52	15.4	57	5.8	87
<i>eA US Small Cap Value Equity Net Median</i>				7.3		12.1		15.0		6.8		15.7		7.4	

# Vermont Municipal Employees

## Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
SSgA Russell 2000 Growth	4,053,859	0.7	0.5	9.4	34	7.5	47	12.1	44	6.5	43	16.1	43	--	--
<i>Russell 2000 Growth</i>				9.2	35	7.5	47	12.1	44	6.6	42	16.1	42	8.3	49
<i>eA US Small Cap Growth Equity Net Median</i>				8.2		7.2		11.3		6.0		15.7		8.2	
<b>Int'l Equity Comp</b>	<b>69,870,704</b>	<b>12.6</b>	<b>11.0</b>	<b>6.1</b>	<b>62</b>	<b>6.1</b>	<b>18</b>	<b>10.2</b>	<b>28</b>	<b>2.8</b>	<b>34</b>	<b>7.9</b>	<b>65</b>	<b>1.9</b>	<b>75</b>
<i>MSCI EAFE</i>				6.4	51	1.7	59	6.5	57	0.5	73	7.4	73	1.8	80
<i>eA All EAFE Equity Net Median</i>				6.5		2.6		6.9		1.9		9.0		2.9	
Acadian	24,125,648	4.4	4.0	7.3	33	7.2	12	13.3	10	4.9	17	9.9	34	1.9	77
Mondrian	22,474,075	4.1	4.0	4.1	89	5.0	28	7.5	47	2.0	50	6.8	87	2.4	60
<i>MSCI EAFE</i>				6.4	51	1.7	59	6.5	57	0.5	73	7.4	73	1.8	80
SSgA ACWI Ex US	23,270,981	4.2	3.0	6.9	40	6.0	34	9.5	48	0.4	82	6.2	89	--	--
<i>MSCI ACWI ex USA</i>				6.9	40	5.8	34	9.3	49	0.2	82	6.0	90	2.2	78
<i>eA ACWI ex-US All Cap Equity Net Median</i>				6.6		3.8		9.0		2.8		8.6		3.4	
<b>Emerging Market Comp</b>	<b>36,835,022</b>	<b>6.7</b>	<b>6.0</b>	<b>5.6</b>	<b>88</b>	<b>18.9</b>	<b>19</b>	<b>19.6</b>	<b>30</b>	<b>0.0</b>	<b>59</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Aberdeen	36,835,022	6.7	6.0	5.6	88	18.9	19	19.6	30	0.0	59	4.4	45	--	--
<i>MSCI Emerging Markets</i>				9.0	40	16.0	38	16.8	46	-0.6	68	3.0	76	3.9	69
<i>eA Emg Mkts Equity Net Median</i>				8.5		14.5		16.1		0.3		4.2		4.7	
<b>US Fixed Income</b>	<b>151,338,143</b>	<b>27.4</b>	<b>27.0</b>	<b>1.9</b>	<b>27</b>	<b>7.6</b>	<b>31</b>	<b>7.3</b>	<b>31</b>	<b>4.3</b>	<b>39</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Barclays Aggregate</i>				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50
<i>eA All US Fixed Inc Net Median</i>				0.8		5.6		5.2		3.8		3.7		4.8	
<b>Diversified Fixed</b>	<b>100,375,920</b>	<b>18.1</b>	<b>18.0</b>	<b>1.2</b>	<b>39</b>	<b>6.4</b>	<b>42</b>	<b>6.6</b>	<b>35</b>	<b>4.4</b>	<b>36</b>	<b>4.0</b>	<b>46</b>	<b>4.1</b>	<b>66</b>
<i>Barclays Aggregate</i>				0.5	63	5.8	49	5.2	50	4.0	45	3.1	60	4.8	50
<i>eA All US Fixed Inc Net Median</i>				0.8		5.6		5.2		3.8		3.7		4.8	
PIMCO Core Plus	33,785,695	6.1	6.0	1.1	15	6.0	57	6.0	27	3.7	80	3.5	53	--	--
<i>Barclays Aggregate</i>				0.5	72	5.8	64	5.2	68	4.0	61	3.1	79	4.8	78
Wellington DAS	15,564,364	2.8	3.0	0.2	84	8.6	3	9.3	2	9.1	1	6.5	1	--	--
<i>Wellington Custom Benchmark*</i>				-0.6	99	9.6	1	8.0	2	7.3	1	4.4	13	6.5	3

\*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 %	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
SSgA Barclays Aggregate Index	17,604,585	3.2	3.0	0.4	73	5.8	67	5.2	68	--	--	--	--	--	--
<i>Barclays Aggregate</i>				0.5	72	5.8	64	5.2	68	4.0	61	3.1	79	4.8	78
<i>3-Month Libor Total Return USD</i>				0.2	90	0.5	99	0.6	99	0.4	99	0.4	99	1.3	99
<i>eA US Core Fixed Inc Net Median</i>				0.7		6.1		5.5		4.1		3.5		5.1	
<b>Unconstrained Fixed Income</b>	<b>33,421,276</b>	<b>6.0</b>	<b>6.0</b>	<b>2.2</b>	<b>66</b>	<b>4.8</b>	<b>70</b>	<b>4.7</b>	<b>73</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>25% HY, 25% EMD, 50% BC Agg</i>				2.5	58	10.4	19	9.9	19	5.2	9	5.5	38	6.3	26
<i>Barclays Global Aggregate</i>				0.8	97	9.9	24	8.8	28	2.1	70	1.7	91	4.3	73
<i>eA Global Unconstrained Fixed Inc Net Median</i>				2.7		6.6		6.6		3.4		4.6		5.6	
PIMCO Unconstrained	13,697,479	2.5	2.5	2.5	58	4.2	78	5.2	66	1.1	87	1.4	96	--	--
<i>25% HY, 25% EMD, 50% BC Agg</i>				2.5	58	10.4	19	9.9	19	5.2	9	5.5	38	6.3	26
<i>3-Month Libor Total Return USD</i>				0.2	99	0.5	97	0.6	99	0.4	96	0.4	99	1.3	99
GAM Unconstrained Bond	19,723,797	3.6	3.5	2.0	71	5.1	63	4.5	75	--	--	--	--	--	--
<i>3-Month LIBOR + 3%</i>				1.0	94	2.8	88	3.6	86	3.4	51	3.4	77	4.4	73
<i>eA Global Unconstrained Fixed Inc Net Median</i>				2.7		6.6		6.6		3.4		4.6		5.6	
<b>High Yield Comp</b>	<b>29,210,785</b>	<b>5.3</b>	<b>5.0</b>	<b>4.9</b>	<b>46</b>	<b>12.2</b>	<b>44</b>	<b>9.6</b>	<b>63</b>	<b>4.6</b>	<b>47</b>	<b>7.6</b>	<b>50</b>	<b>7.1</b>	<b>37</b>
<i>Barclays High Yield</i>				5.6	22	15.1	9	12.7	5	5.3	28	8.3	21	7.7	15
<i>eA US High Yield Fixed Inc Net Median</i>				4.8		11.9		10.1		4.6		7.6		7.0	
KDP	6,701,740	1.2	1.0	3.6	83	10.2	73	8.5	78	3.7	75	6.1	88	--	--
<i>Barclays High Yield</i>				5.6	22	15.1	9	12.7	5	5.3	28	8.3	21	7.7	15
<i>BofA Merrill Lynch US High Yield BB-B Rated</i>				5.0	42	13.3	28	12.0	11	5.6	18	8.0	30	7.1	36
Guggenheim	22,509,045	4.1	4.0	5.3	31	12.9	34	10.0	55	--	--	--	--	--	--
<i>Barclays High Yield</i>				5.6	22	15.1	9	12.7	5	5.3	28	8.3	21	7.7	15
<i>eA US High Yield Fixed Inc Net Median</i>				4.8		11.9		10.1		4.6		7.6		7.0	
<b>TIPS</b>	<b>21,751,437</b>	<b>3.9</b>	<b>4.0</b>												
BlackRock TIPS	21,751,437	3.9	4.0	1.0	--	7.2	--	6.6	--	2.3	--	1.8	--	--	--
Barclays US TIPS				1.0	--	7.3	--	6.6	--	2.4	--	1.9	--	4.5	--

# Vermont Municipal Employees

## Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
<b>Emerging Market Debt</b>	<b>28,122,559</b>	<b>5.1</b>	<b>5.0</b>												
Wellington Opportunistic EMD	28,122,559	5.1	5.0	5.1	10	16.2	41	18.4	15	7.2	10	7.6	21	--	--
JP Morgan EMBI Global TR				3.7	41	15.0	55	16.8	35	7.4	7	7.4	25	7.6	35
eA All Emg Mkts Fixed Inc Net Median				3.3		15.4		15.8		5.1		5.7		7.2	
<b>Risk Parity</b>	<b>42,099,072</b>	<b>7.6</b>	<b>8.0</b>	<b>2.2</b>	<b>56</b>	<b>11.1</b>	<b>12</b>	<b>10.3</b>	<b>18</b>	<b>3.4</b>	<b>47</b>	<b>5.8</b>	<b>46</b>	<b>4.8</b>	<b>60</b>
eA Global TAA Net Median				2.6		5.9		8.1		3.2		5.6		5.0	
AQR Global Risk Premium	42,099,072	7.6	8.0	2.2	56	13.2	3	10.0	20	4.0	32	5.5	51	--	--
60% MSCI World (Net) / 40% CITI WGBI				3.0	40	7.9	28	11.0	17	4.4	27	7.3	30	4.7	67
<b>Cash</b>	<b>515,342</b>	<b>0.1</b>	<b>0.0</b>												
Vermont Cash	515,342	0.1	0.0	0.0	--	0.0	--	0.0	--	0.0	--	0.0	--	1.1	--
91 Day T-Bills				0.1	--	0.2	--	0.2	--	0.1	--	0.1	--	0.8	--
<b>Commodities</b>	<b>11,438,202</b>	<b>2.1</b>	<b>3.0</b>												
Schroder	11,438,202	2.1	3.0	-2.2	--	13.6	--	-0.1	--	-15.3	--	-10.7	--	--	--
Bloomberg Commodity Index				-3.9	--	8.9	--	-2.6	--	-12.3	--	-9.4	--	-5.3	--
<b>Total Real Estate</b>	<b>27,966,175</b>	<b>5.1</b>	<b>8.0</b>	<b>2.2</b>	<b>--</b>	<b>6.2</b>	<b>--</b>	<b>9.1</b>	<b>--</b>	<b>11.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
NCREIF Property Index				1.8	--	6.1	--	9.2	--	11.3	--	11.2	--	7.2	--
NCREIF ODCE				2.1	--	6.5	--	10.1	--	12.4	--	12.4	--	6.0	--
Morgan Stanley Prime Property	12,930,615	2.3		2.3	--	6.7	--	10.1	--	12.0	--	12.7	--	6.0	--
UBS Trumbull	10,817,016	2.0		1.7	--	5.6	--	8.7	--	9.0	--	9.1	--	5.4	--
RREEF America REIT III	58,156	0.0		-12.9	--	-16.5	--	-17.3	--	5.1	--	10.1	--	-3.9	--
Transwestern / Aslan III	28,766	0.0		0.0	--	0.0	--	0.0	--	8.2	--	13.8	--	-21.2	--
Siguler Guff	4,131,622	0.7		4.6	--	9.3	--	10.5	--	--	--	--	--	--	--
<b>Absolute Return</b>	<b>50,066,253</b>	<b>9.1</b>	<b>9.0</b>	<b>1.8</b>	<b>69</b>	<b>-0.9</b>	<b>58</b>	<b>-0.7</b>	<b>62</b>	<b>1.8</b>	<b>64</b>	<b>4.8</b>	<b>51</b>	<b>--</b>	<b>--</b>
HFRI Fund of Funds Composite Index				2.4	59	-0.2	51	0.5	41	2.2	53	3.2	76	1.8	92
eV Alt Fund of Funds - Multi-Strategy Median				2.8		0.0		0.0		2.3		4.9		3.6	
Grosvenor	27,393,212	5.0	5.0	2.8	49	0.2	47	0.3	44	2.6	47	5.4	39	--	--

Absolute Return composite formerly shown as Hedge Funds composite. As of 04/01/2016, Absolute Return includes Mellon Dynamic Growth and Allianz Structured Alpha.

Risk Parity Composite formerly shown as GAA/Risk Parity.

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.

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

Real Estate values are finalized as of 9/30/2016, except for Siguler Guff and Morgan Stanley, they are both preliminary.

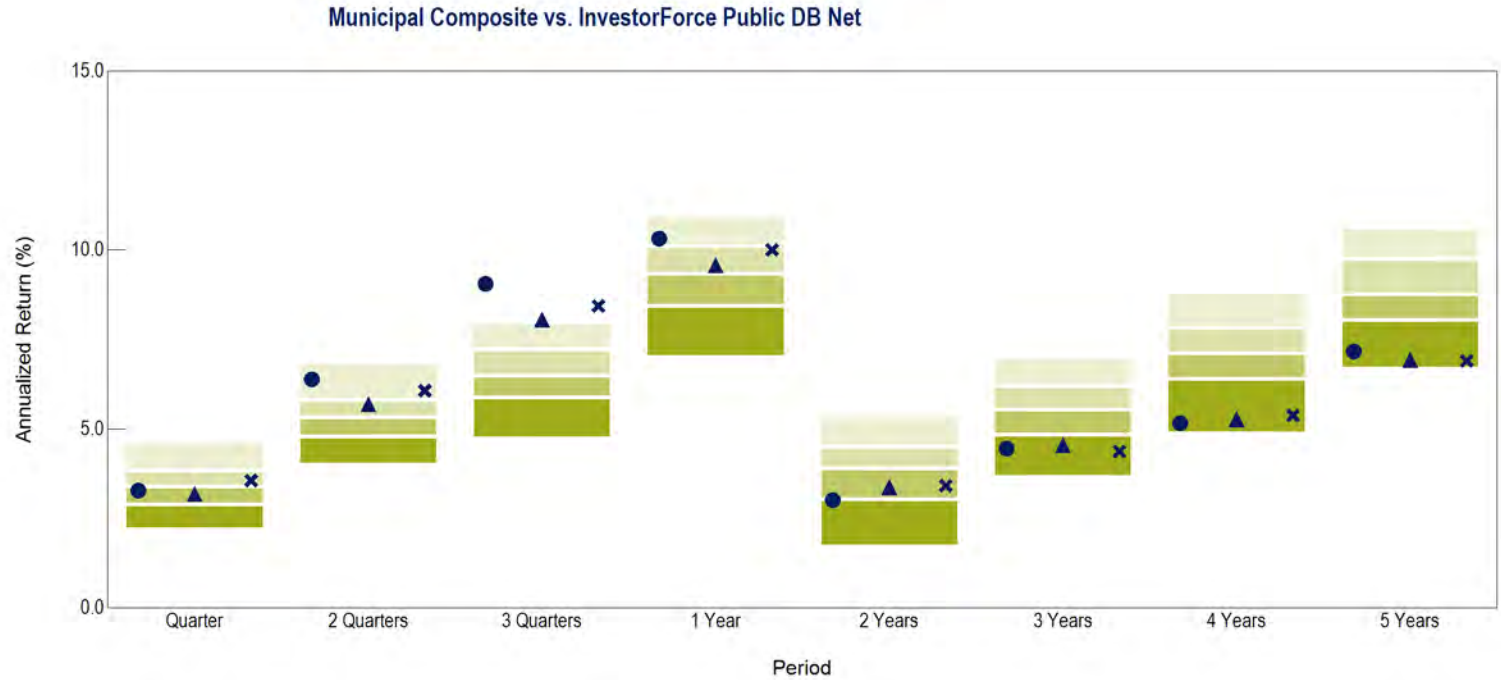
## Vermont Municipal Employees

### Total Fund Performance Detail - Net

	Market Value (\$)	% of Portfolio	Policy %	Fiscal YTD (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Mellon Dynamic Growth	10,417,963	1.9	2.0	0.9	86	1.8	27	6.4	7	5.1	14	7.8	9	3.6	51
<i>Mellon Dynamic Growth Benchmark</i>				3.4	31	7.8	2	10.4	2	4.0	25	6.9	14	4.1	37
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				2.8		0.0		0.0		2.3		4.9		3.6	
Allianz Structured Alpha	9,936,133	1.8	2.0	0.5	89	6.7	5	8.4	3	8.6	5	9.3	5	--	--
<i>91 Day T-Bills</i>				0.1	93	0.2	47	0.2	47	0.1	88	0.1	97	0.8	98
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				2.8		0.0		0.0		2.3		4.9		3.6	
Pinnacle Natural Resources, L.P.	2,262,043	0.4		-1.7	--	--	--	--	--	--	--	--	--	--	--
<i>Bloomberg Commodity Index</i>				-3.9	--	8.9	--	-2.6	--	-12.3	--	-9.4	--	-5.3	--
<i>eA Commodities Net Median</i>				--		--		--		--		--		--	
GAM	56,902	0.0	0.0												
<b>Private Equity</b>	<b>6,603,659</b>	<b>1.2</b>	<b>5.0</b>	<b>0.0</b>	<b>--</b>	<b>6.1</b>	<b>--</b>	<b>8.6</b>	<b>--</b>	<b>18.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>Cambridge Associates US All PE</i>				0.0	--	4.2	--	4.7	--	9.4	--	12.3	--	10.4	--
Harbourvest Partners IX Credit Opportunities	267,185	0.0													
Harbourvest Partners IX Venture Fund	1,365,590	0.2													
Harbourvest Partners IX Buyout Fund	1,764,033	0.3													
Harbourvest Partners X Venture Fund	177,470	0.0													
Harbourvest Partners X Buyout Fund	338,630	0.1													
Harbourvest Dover VIII Fund	2,248,908	0.4													
HIPEP VII	441,843	0.1													

Harbourvest is based on final Capital Account Statements for Q2 2016, and cash adjusted through Q3.

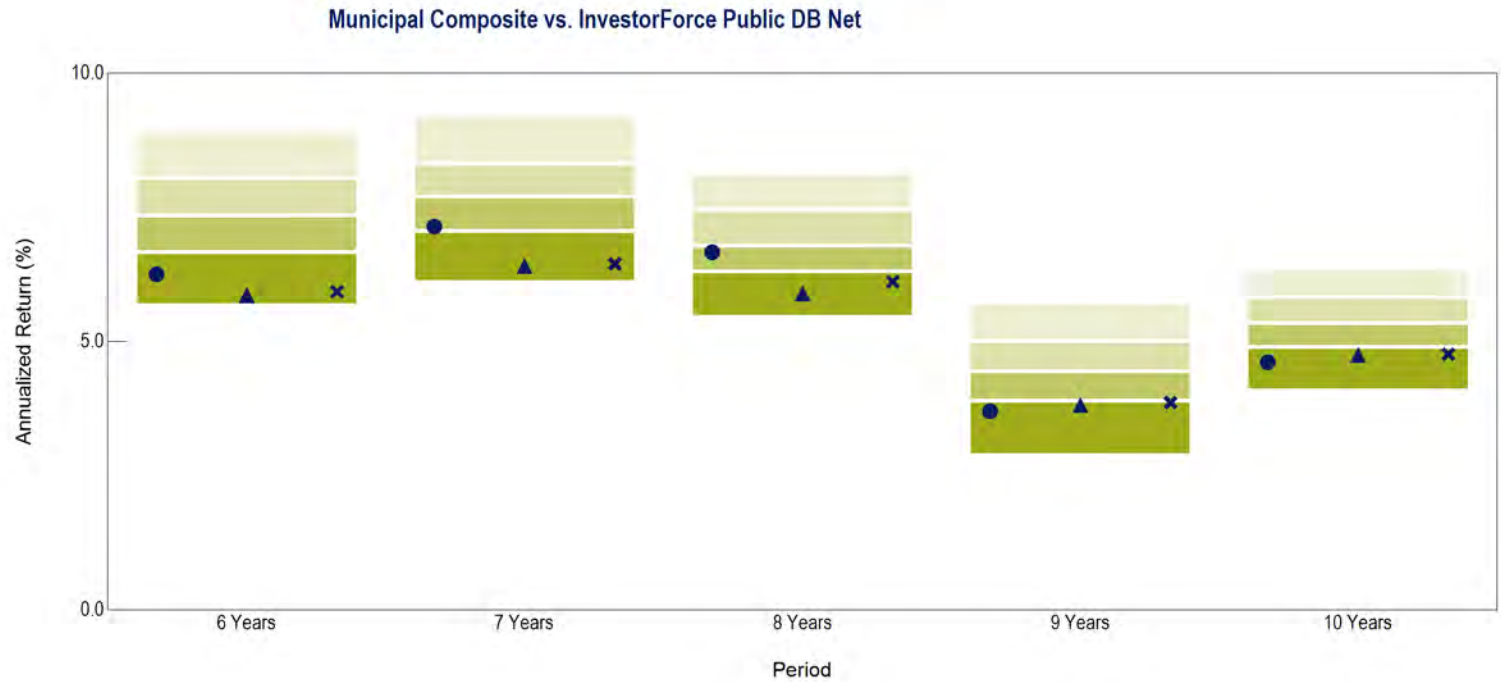
Total Fund Return Summary vs. Peer Universe - Net



	Return (Rank)															
5th Percentile	4.6	6.9	8.0	11.0	5.4	7.0	8.8	10.6								
25th Percentile	3.9	5.8	7.2	10.1	4.5	6.2	7.8	9.7								
Median	3.4	5.3	6.5	9.3	3.9	5.6	7.1	8.8								
75th Percentile	2.9	4.8	5.9	8.4	3.0	4.9	6.4	8.1								
95th Percentile	2.2	4.0	4.7	7.0	1.7	3.7	4.9	6.7								
# of Portfolios	270	269	268	266	259	241	232	219								
● Municipal Composite	3.3	(57)	6.4	(12)	9.1	(1)	10.3	(17)	3.0	(77)	4.5	(86)	5.2	(92)	7.2	(91)
▲ Policy Index	3.2	(62)	5.7	(30)	8.1	(5)	9.6	(40)	3.4	(66)	4.6	(84)	5.3	(92)	6.9	(94)
× Allocation Index	3.6	(43)	6.1	(19)	8.4	(4)	10.0	(28)	3.4	(64)	4.4	(88)	5.4	(91)	6.9	(94)

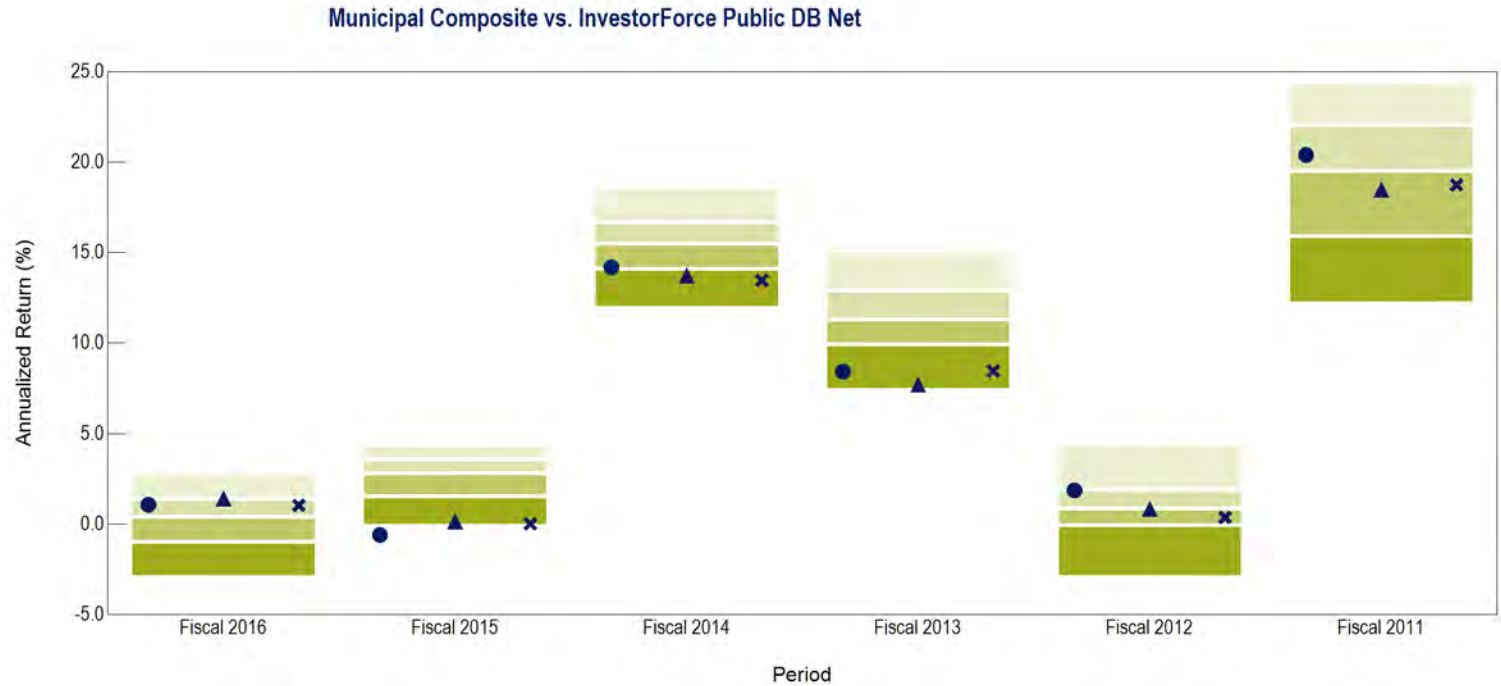


Total Fund Return Summary vs. Peer Universe - Net



	Return (Rank)									
5th Percentile	8.9		9.2		8.1		5.7		6.4	
25th Percentile	8.1		8.3		7.5		5.0		5.8	
Median	7.4		7.7		6.8		4.4		5.3	
75th Percentile	6.7		7.1		6.3		3.9		4.9	
95th Percentile	5.7		6.1		5.5		2.9		4.1	
# of Portfolios	210		199		191		184		178	
● Municipal Composite	6.2	(88)	7.1	(71)	6.7	(57)	3.7	(80)	4.6	(85)
▲ Policy Index	5.9	(95)	6.4	(94)	5.9	(89)	3.8	(78)	4.7	(82)
× Allocation Index	5.9	(94)	6.4	(94)	6.1	(85)	3.9	(78)	4.8	(82)

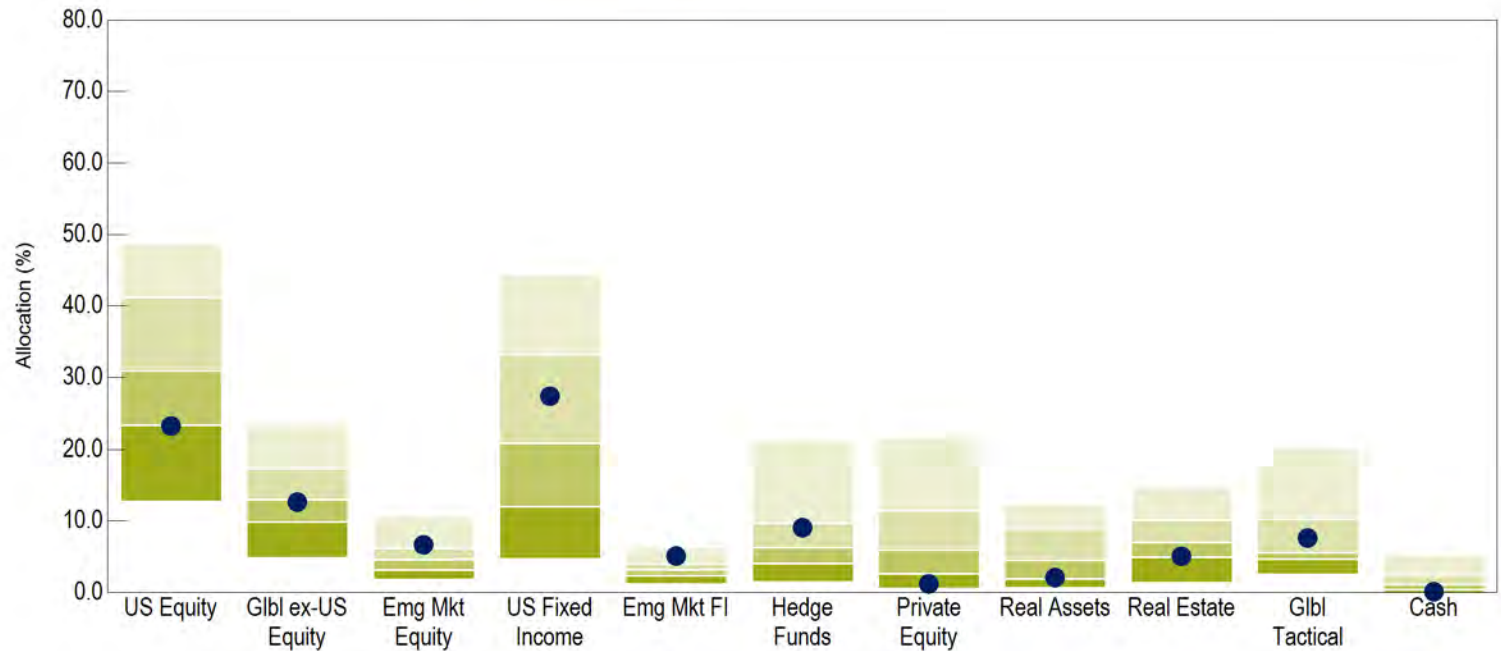
Total Fund Return Summary vs. Peer Universe - Net



	Return (Rank)									
5th Percentile	2.8	(33)	4.4	(97)	18.6	(73)	15.0	(92)	4.4	(26)
25th Percentile	1.4	(25)	3.6	(94)	16.7	(84)	12.9	(94)	1.9	(52)
Median	0.4	(33)	2.8	(95)	15.5	(89)	11.3	(92)	0.9	(66)
75th Percentile	-0.9	(33)	1.6	(95)	14.1	(89)	9.9	(92)	0.0	(66)
95th Percentile	-2.9	(33)	-0.1	(95)	11.9	(89)	7.4	(92)	-2.9	(66)
# of Portfolios	258		231		173		192		147	
● Municipal Composite	1.1	(33)	-0.6	(97)	14.2	(73)	8.4	(92)	1.9	(26)
▲ Policy Index	1.4	(25)	0.1	(94)	13.7	(84)	7.7	(94)	0.8	(52)
× Allocation Index	1.0	(33)	0.0	(95)	13.5	(89)	8.5	(92)	0.4	(66)

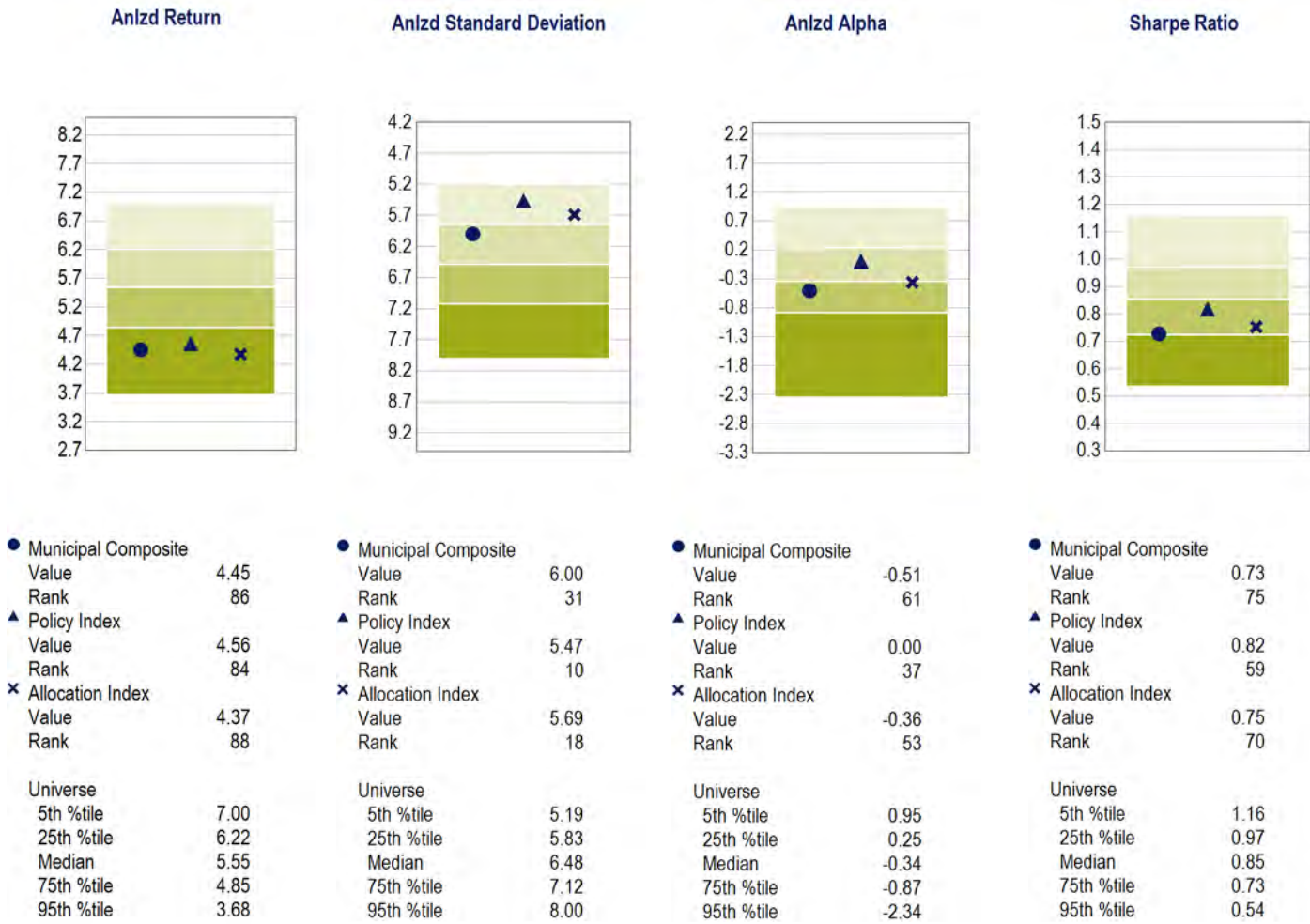
Total Fund Allocation vs. Peer Universe - Net

Total Plan Allocation vs. InvestorForce Public DB Net  
As of September 30, 2016



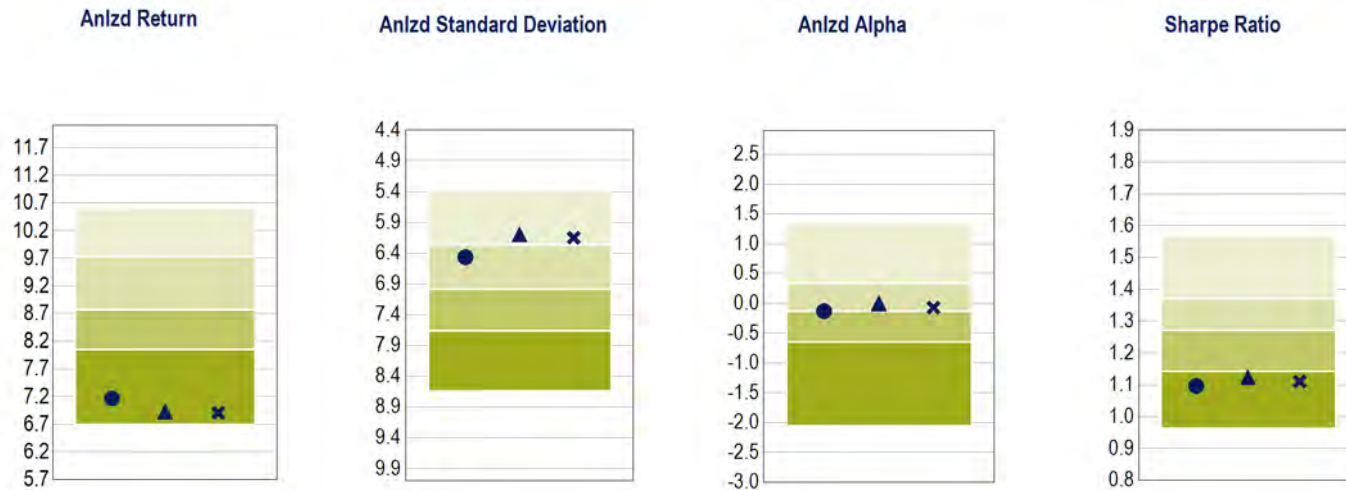
	Allocation (Rank)											
5th Percentile	48.8	23.4	10.7	44.3	6.2	21.2	21.7	12.3	14.8	20.4	5.3	--
25th Percentile	41.3	17.4	6.3	33.2	4.1	9.8	11.6	8.9	10.2	10.3	2.4	--
Median	31.0	13.1	4.6	20.9	3.2	6.4	6.0	4.6	7.0	5.7	1.2	--
75th Percentile	23.4	9.9	3.2	12.1	2.4	4.1	2.7	2.0	5.0	4.7	0.4	--
95th Percentile	12.8	4.9	1.8	4.8	1.2	1.5	0.6	0.7	1.4	2.6	0.0	--
# of Portfolios	220	221	125	178	43	91	118	71	152	76	230	--
● Municipal Composite	23.2 (76)	12.6 (55)	6.7 (22)	27.4 (35)	5.1 (20)	9.1 (31)	1.2 (92)	2.1 (74)	5.1 (73)	7.6 (43)	0.1 (89)	--

Municipal Composite vs. IFx Public DB Net  
3 Years



Total Fund Risk Statistics vs. Peer Universe - Net

Municipal Composite vs. IFx Public DB Net  
5 Years



● Municipal Composite	
Value	7.16
Rank	91
▲ Policy Index	
Value	6.93
Rank	94
✕ Allocation Index	
Value	6.90
Rank	94

Universe	
5th %tile	10.61
25th %tile	9.75
Median	8.78
75th %tile	8.06
95th %tile	6.70

● Municipal Composite	
Value	6.47
Rank	33
▲ Policy Index	
Value	6.09
Rank	22
✕ Allocation Index	
Value	6.15
Rank	23

Universe	
5th %tile	5.38
25th %tile	6.25
Median	6.98
75th %tile	7.66
95th %tile	8.63

● Municipal Composite	
Value	-0.13
Rank	51
▲ Policy Index	
Value	0.00
Rank	43
✕ Allocation Index	
Value	-0.07
Rank	47

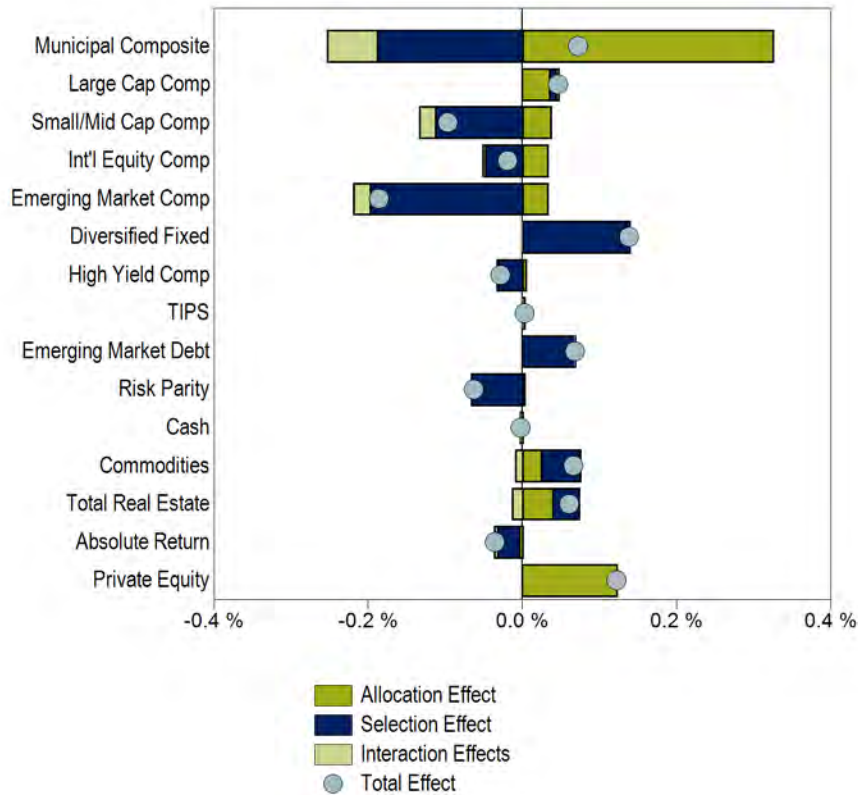
Universe	
5th %tile	1.36
25th %tile	0.34
Median	-0.12
75th %tile	-0.64
95th %tile	-2.05

● Municipal Composite	
Value	1.10
Rank	86
▲ Policy Index	
Value	1.12
Rank	79
✕ Allocation Index	
Value	1.11
Rank	82

Universe	
5th %tile	1.57
25th %tile	1.37
Median	1.27
75th %tile	1.14
95th %tile	0.97

Total Fund Attribution Analysis - Net

Attribution Effects Relative to Policy Index  
3 Months Ending September 30, 2016



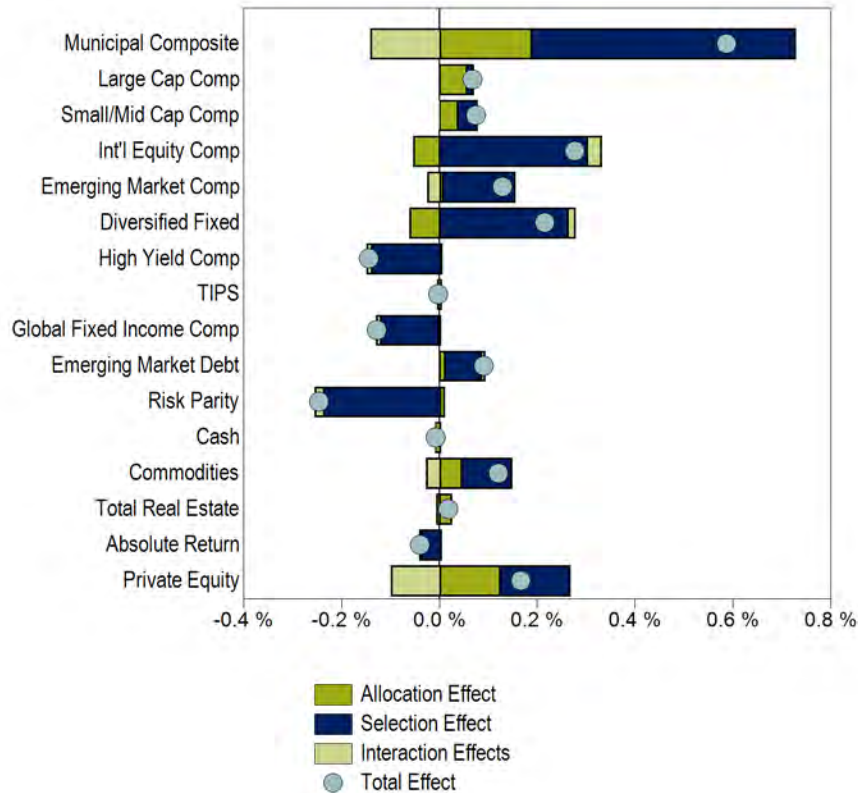
Attribution Summary  
3 Months Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	4.1%	4.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Small/Mid Cap Comp	5.2%	7.5%	-2.3%	-0.1%	0.0%	0.0%	-0.1%
Int'l Equity Comp	6.1%	6.5%	-0.4%	0.0%	0.0%	0.0%	0.0%
Emerging Market Comp	5.6%	9.0%	-3.4%	-0.2%	0.0%	0.0%	-0.2%
Diversified Fixed	1.2%	0.5%	0.8%	0.1%	0.0%	0.0%	0.1%
High Yield Comp	4.9%	5.6%	-0.6%	0.0%	0.0%	0.0%	0.0%
TIPS	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	5.1%	3.7%	1.4%	0.1%	0.0%	0.0%	0.1%
Risk Parity	2.2%	3.0%	-0.8%	-0.1%	0.0%	0.0%	-0.1%
Cash	0.0%	0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%
Commodities	-2.2%	-3.9%	1.7%	0.1%	0.0%	0.0%	0.1%
Total Real Estate	2.2%	1.8%	0.4%	0.0%	0.0%	0.0%	0.1%
Absolute Return	1.8%	2.1%	-0.3%	0.0%	0.0%	0.0%	0.0%
Private Equity	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
<b>Total</b>	<b>3.3%</b>	<b>3.2%</b>	<b>0.1%</b>	<b>-0.2%</b>	<b>0.3%</b>	<b>-0.1%</b>	<b>0.1%</b>

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 September 30, 2016



Attribution Summary  
1 Year Ending September 30, 2016

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	15.7%	15.6%	0.1%	0.0%	0.1%	0.0%	0.1%
Small/Mid Cap Comp	16.9%	16.0%	0.9%	0.0%	0.0%	0.0%	0.1%
Int'l Equity Comp	10.2%	7.1%	3.1%	0.3%	-0.1%	0.0%	0.3%
Emerging Market Comp	19.6%	16.8%	2.8%	0.1%	0.0%	0.0%	0.1%
Diversified Fixed	6.6%	5.2%	1.4%	0.3%	-0.1%	0.0%	0.2%
High Yield Comp	9.6%	12.7%	-3.1%	-0.1%	0.0%	0.0%	-0.1%
TIPS	6.6%	6.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	--	5.8%	--	-0.1%	0.0%	0.0%	-0.1%
Emerging Market Debt	18.4%	16.8%	1.6%	0.1%	0.0%	0.0%	0.1%
Risk Parity	10.3%	10.3%	0.1%	-0.2%	0.0%	0.0%	-0.2%
Cash	0.0%	0.2%	-0.2%	0.0%	0.0%	0.0%	0.0%
Commodities	-0.1%	-2.6%	2.5%	0.1%	0.0%	0.0%	0.1%
Total Real Estate	9.1%	9.2%	-0.1%	0.0%	0.0%	0.0%	0.0%
Absolute Return	-0.7%	0.4%	-1.1%	0.0%	0.0%	0.0%	0.0%
Private Equity	8.6%	4.7%	3.9%	0.1%	0.1%	-0.1%	0.2%
<b>Total</b>	<b>10.2%</b>	<b>9.6%</b>	<b>0.6%</b>	<b>0.5%</b>	<b>0.2%</b>	<b>-0.1%</b>	<b>0.6%</b>

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 an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is overweighted in a sector that outperforms the benchmark. Negative allocation occurs when the portfolio is overweighted in a sector that underperforms the benchmark and underweighted in a sector that outperforms the benchmark.

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

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



## Vermont Municipal Employees

### Risk Statistics - 3 Years Ending September 30, 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%	4.45%	86	6.00%	31	-0.50%	61	0.73	75	1.31	59	0.92%	33
Policy Index	--	4.56%	84	5.47%	10	0.00%	37	0.82	59	1.48	40	0.00%	1
US Equity	23.18%	10.17%	23	11.19%	28	-0.37%	26	0.90	21	1.61	21	1.58%	2
Russell 3000	--	10.44%	20	10.98%	23	0.00%	22	0.94	16	1.59	23	0.00%	1
Large Cap Comp	17.58%	10.99%	19	10.91%	36	-0.24%	22	1.00	16	1.87	15	0.70%	1
S&P 500	--	11.16%	18	10.83%	34	0.00%	17	1.02	13	1.76	20	0.00%	1
Small/Mid Cap Comp	5.60%	9.17%	19	12.64%	43	3.47%	24	0.72	23	1.37	14	3.52%	1
Russell 2000	--	6.71%	46	14.55%	85	0.00%	64	0.45	58	0.72	60	0.00%	1
Int'l Equity Comp	12.63%	2.84%	34	12.01%	49	2.39%	33	0.23	34	0.42	33	2.28%	9
MSCI EAFE	--	0.48%	73	12.56%	76	0.00%	73	0.03	73	0.05	72	0.00%	1
Emerging Market Comp	6.66%	-0.02%	59	15.63%	62	0.48%	60	-0.01	59	-0.01	60	5.21%	57
MSCI Emerging Markets	--	-0.56%	68	16.37%	80	0.00%	68	-0.04	68	-0.07	68	0.00%	1
US Fixed Income	27.36%	4.28%	39	2.95%	67	0.45%	56	1.42	57	2.88	67	1.60%	39
Barclays Aggregate	--	4.03%	45	2.61%	57	0.00%	77	1.51	51	3.69	45	0.00%	1
Diversified Fixed	18.15%	4.40%	36	2.87%	66	0.38%	58	1.50	51	3.19	58	1.21%	26
Barclays Aggregate	--	4.03%	45	2.61%	57	0.00%	77	1.51	51	3.69	45	0.00%	1
High Yield Comp	5.28%	4.60%	47	5.07%	34	0.31%	53	0.89	51	1.71	55	1.61%	43
Barclays High Yield	--	5.28%	28	6.13%	80	0.00%	57	0.85	54	2.11	32	0.00%	1
TIPS	3.93%	2.32%	35	4.20%	66	-0.11%	42	0.53	31	1.12	19	0.18%	1
Barclays US TIPS	--	2.40%	26	4.13%	58	0.00%	32	0.56	20	1.19	14	0.00%	1
Emerging Market Debt	5.08%	7.19%	10	6.10%	30	-0.20%	17	1.16	12	2.29	13	1.25%	6
JP Morgan EMBI Global TR	--	7.44%	7	6.02%	29	0.00%	16	1.22	9	2.33	13	0.00%	1
Total Real Estate	5.06%	11.00%	--	4.53%	--	0.26%	--	2.41	--	356.80	--	1.19%	--
NCREIF Property Index	--	11.30%	--	4.60%	--	0.00%	--	2.43	--	366.66	--	0.00%	--
Absolute Return	9.05%	1.80%	64	3.58%	30	-0.23%	57	0.48	50	0.65	53	1.23%	1
HFRI Fund of Funds Composite Index	--	2.17%	53	3.62%	31	0.00%	50	0.57	37	0.79	42	0.00%	1
Risk Parity	7.61%	3.45%	47	7.44%	60	-0.32%	44	0.45	54	0.70	49	4.34%	44
60% MSCI World (Net) / 40% CITI WGBI	--	4.37%	27	7.15%	48	0.00%	40	0.60	31	1.22	19	0.00%	1

## Vermont Municipal Employees

### Risk Statistics - 5 Years Ending September 30, 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%	7.16%	91	6.47%	33	-0.13%	51	1.10	86	1.97	66	0.85%	15
Policy Index	--	6.93%	94	6.09%	22	0.00%	43	1.12	79	1.95	67	0.00%	1
US Equity	23.18%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	16.36%	30	11.43%	20	0.00%	23	1.42	13	2.45	18	0.00%	1
Large Cap Comp	17.58%	16.65%	17	11.44%	36	-0.15%	19	1.45	13	2.63	13	0.88%	1
S&P 500	--	16.37%	23	11.12%	26	0.00%	17	1.47	12	2.54	17	0.00%	1
Small/Mid Cap Comp	5.60%	16.75%	20	13.41%	42	2.85%	26	1.24	18	2.43	9	3.07%	1
Russell 2000	--	15.82%	31	15.02%	79	0.00%	74	1.05	61	1.78	57	0.00%	1
Int'l Equity Comp	12.63%	7.94%	65	13.28%	34	1.10%	66	0.59	64	0.93	63	2.26%	5
MSCI EAFE	--	7.39%	73	14.19%	80	0.00%	83	0.52	80	0.82	79	0.00%	1
Emerging Market Comp	6.66%	--	--	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets	--	3.03%	76	17.34%	70	0.00%	79	0.17	79	0.30	77	0.00%	1
US Fixed Income	27.36%	--	--	--	--	--	--	--	--	--	--	--	--
Barclays Aggregate	--	3.08%	60	2.66%	47	0.00%	84	1.13	72	1.84	69	0.00%	1
Diversified Fixed	18.15%	4.05%	46	3.13%	62	0.69%	55	1.27	57	1.88	66	1.19%	22
Barclays Aggregate	--	3.08%	60	2.66%	47	0.00%	84	1.13	72	1.84	69	0.00%	1
High Yield Comp	5.28%	7.61%	50	5.14%	28	0.77%	35	1.46	35	2.86	43	1.47%	40
Barclays High Yield	--	8.34%	21	6.18%	72	0.00%	61	1.34	55	2.99	38	0.00%	1
TIPS	3.93%	--	--	--	--	--	--	--	--	--	--	--	--
Barclays US TIPS	--	1.92%	34	4.74%	69	0.00%	30	0.39	27	0.52	27	0.00%	1
Emerging Market Debt	5.08%	--	--	--	--	--	--	--	--	--	--	--	--
JP Morgan EMBI Global TR	--	7.42%	25	7.03%	26	0.00%	26	1.05	21	1.60	33	0.00%	1
Total Real Estate	5.06%	--	--	--	--	--	--	--	--	--	--	--	--
NCREIF Property Index	--	11.18%	--	4.50%	--	0.00%	--	2.47	--	453.66	--	0.00%	--
Absolute Return	9.05%	4.80%	51	3.74%	37	1.67%	44	1.26	30	2.04	24	1.33%	1
HFRI Fund of Funds Composite Index	--	3.17%	76	3.54%	33	0.00%	77	0.87	59	1.32	58	0.00%	1
Risk Parity	7.61%	5.75%	46	7.88%	58	-0.70%	70	0.72	73	1.11	78	4.12%	43
60% MSCI World (Net) / 40% CITI WGBI	--	7.35%	30	7.74%	54	0.00%	47	0.94	28	1.69	21	0.00%	1

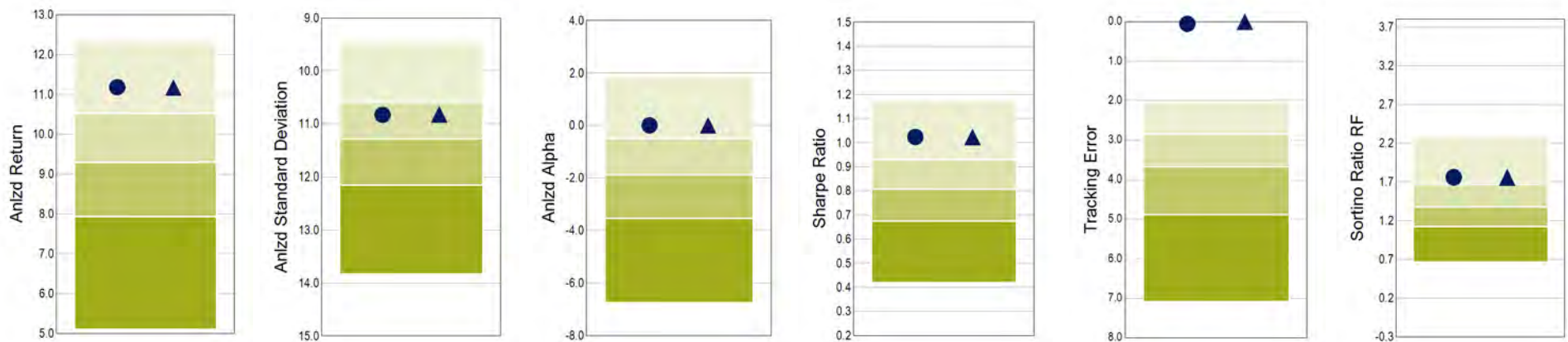
# Manager Characteristics

# SSgA S&P 500 Cap-Wgt

Using a replication process, we purchase each security for the Strategy in the same capitalization weight as it appears in the S&P 500 Index. Replication results in low turnover, accurate tracking, and low costs. SSgA's internal liquidity has allowed the firm to acquire many of the benchmark constituents for free. These free trading opportunities have allowed SSgA to gradually reduce security-level misweights while avoiding the open market. This process has resulted in portfolios that look and behave like the benchmark, and do so at a very low cost. SSgA's passive equity process objective is to remain fully invested in the equity market at all times. To accomplish this, it holds a small amount of unleveraged exchange-traded S&P 500® futures contracts to maintain full exposure. SSgA tends to hold approximately 1-3% of the strategy's value in suitable CFTC approved index futures contracts. This position in futures also allows the firm to accommodate cash flows into and out of the portfolio on a daily basis and to equitize dividend receivables to achieve closer tracking.



## 3 Year Risk Statistics



# SSgA S&P 500 Cap-Wgt

## Top Positive Contributors

## Top Negative Contributors

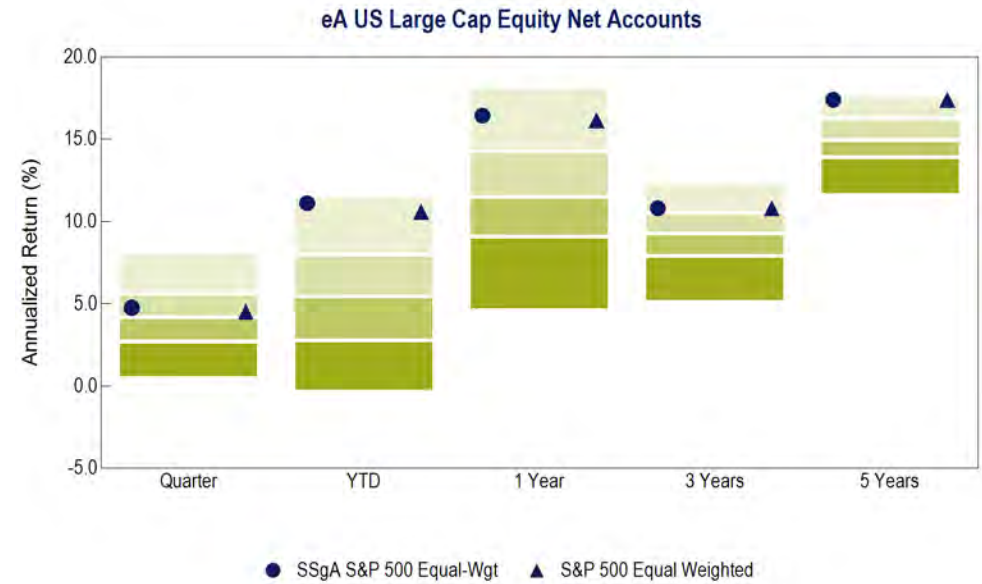
Characteristics	Portfolio	S&P 500	Top Positive Contributors		Top Negative Contributors			
			Relative Contribution %	Return %	Relative Contribution %	Return %		
Number of Holdings	505	505	WELLS FARGO & CO (WFC)	0.1%	-5.7%	EBAY (EBAY)	-0.1%	40.5%
Weighted Avg. Market Cap. (\$B)	134.8	134.7	STRYKER (SYK)	0.0%	-2.5%	US BANCORP (USB)	0.0%	7.0%
Median Market Cap. (\$B)	18.9	18.9	WAL MART STORES (WMT)	0.0%	-0.6%	BLACKROCK (BLK)	0.0%	6.5%
Price To Earnings	23.2	22.7	QUALCOMM	0.0%	28.9%	DELTA AIR LINES (DAL)	0.0%	8.6%
Price To Book	4.7	4.5	APPLE	0.0%	18.9%	CHESAPEAKE ENERGY	0.0%	46.5%
Price To Sales	3.5	3.1	MYLAN (MYL)	0.0%	-11.8%	ZIMMER BIOMET HDG.	0.0%	8.2%
Return on Equity (%)	18.8	18.8	CAMPBELL SOUP (CPB)	0.0%	-17.4%	DEVON ENERGY (DVN)	0.0%	21.9%
Yield (%)	2.1	2.1	NETAPP (NTAP)	0.0%	46.8%	SPECTRA ENERGY (SE)	0.0%	18.0%
Beta	1.0	1.0	STATE STREET	0.0%	29.9%	WESTERN DIGITAL	0.0%	24.8%
R-Squared	1.0	1.0	MICROSOFT (MSFT)	0.0%	13.3%	DOLLAR GENERAL	0.0%	-25.3%

## SSgA S&P 500 Cap-Wgt Performance Attribution vs. S&P 500

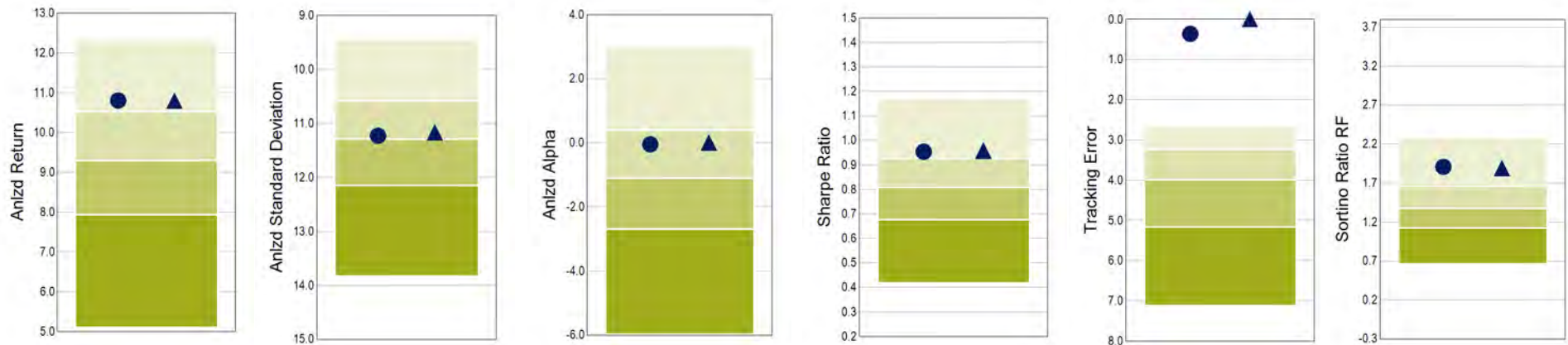
	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	2.2%	2.2%	7.4%	7.5%			
Materials	0.0%	0.0%	0.0%	0.0%	3.6%	3.6%	2.8%	2.9%			
Industrials	0.0%	0.0%	0.0%	0.0%	3.9%	3.9%	10.2%	10.3%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	12.3%	12.4%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	-2.6%	-2.6%	10.6%	10.8%			
Health Care	0.0%	0.0%	0.0%	0.0%	1.0%	1.0%	14.8%	15.0%			
Financials	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	15.8%	16.0%			
Information Technology	0.1%	0.0%	0.1%	0.0%	12.9%	12.8%	19.7%	18.7%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-5.6%	-5.6%	2.9%	3.0%			
Utilities	0.0%	0.0%	0.0%	0.0%	-5.9%	-5.9%	3.5%	3.6%			
Real Estate	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>0.1%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>0.0%</b>	<b>3.9%</b>	<b>3.7%</b>	<b>100.0%</b>	<b>100.0%</b>

# SSgA S&P 500 Equal-Wgt

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question. From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, in anticipation of their removal from or addition to the Index. The Strategy may at times purchase or sell futures contracts on the Index, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index.



## 3 Year Risk Statistics



# SSg S&P 500 Equal-Wgt

## Top Positive Contributors

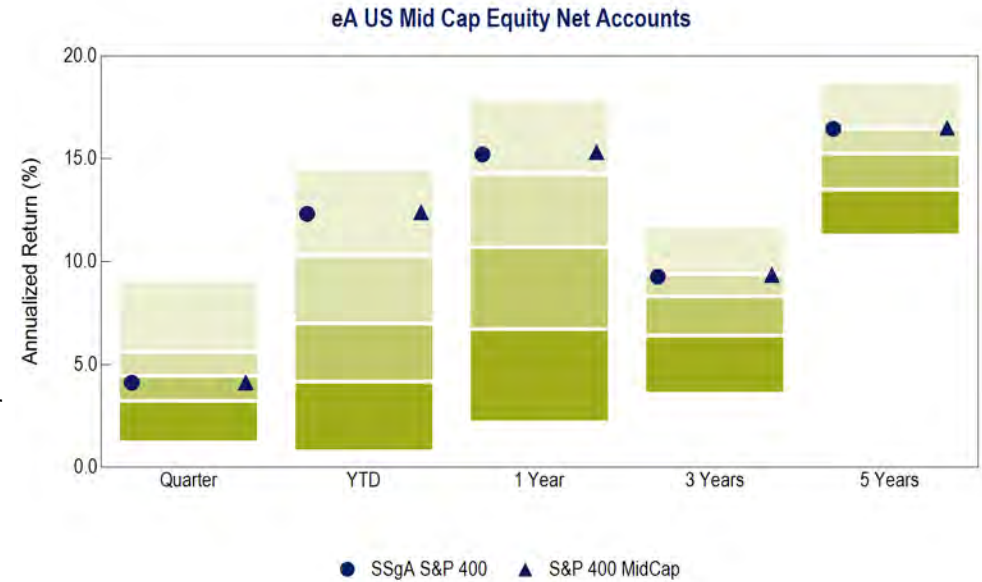
## Top Negative Contributors

Characteristics	Portfolio		Relative Contribution %		Return %			
	Portfolio	S&P 500	Contribution %	Return %	Contribution %	Return %		
Number of Holdings	505	505	BRISTOL MYERS SQUIBB	0.1%	-26.7%	APPLE	-0.5%	18.9%
Weighted Avg. Market Cap. (\$B)	38.6	134.7	EXXON MOBIL	0.1%	-6.1%	MICROSOFT (MSFT)	-0.3%	13.3%
Median Market Cap. (\$B)	18.9	18.9	SEAGATE TECH.	0.1%	61.0%	AMAZON.COM (AMZN)	-0.2%	17.0%
Price To Earnings	23.0	22.7	CHESAPEAKE ENERGY (CHK)	0.1%	46.5%	FACEBOOK CLASS A	-0.2%	12.2%
Price To Book	4.2	4.5	NETAPP (NTAP)	0.1%	46.8%	ALPHABET 'A'	-0.1%	14.3%
Price To Sales	3.0	3.1	GENERAL ELECTRIC (GE)	0.1%	-5.2%	ALPHABET 'C'	-0.1%	12.3%
Return on Equity (%)	18.0	18.8	NORDSTROM (JWN)	0.1%	37.3%	BANK OF AMERICA (BAC)	-0.1%	18.5%
Yield (%)	1.9	2.1	VERIZON COMMUNICATIONS	0.1%	-6.0%	INTEL (INTC)	-0.1%	16.0%
Beta	1.0	1.0	AT&T (T)	0.1%	-5.0%	BIODERIV (BIIB)	-0.1%	29.4%
R-Squared	1.0	1.0	WELLS FARGO & CO (WFC)	0.1%	-5.7%	JP MORGAN CHASE & CO.	-0.1%	8.0%

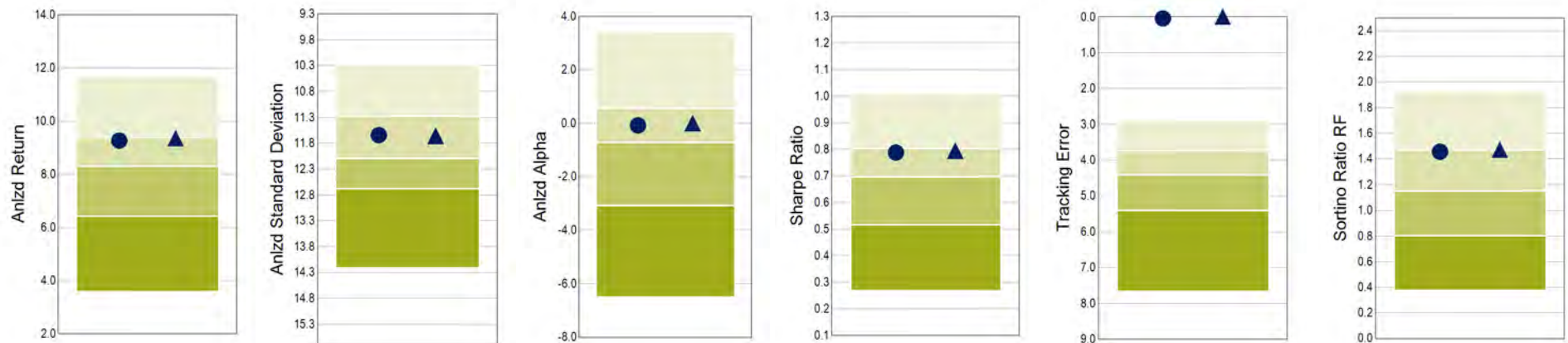
## SSg S&P 500 Equal-Wgt Performance Attribution vs. S&P 500

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.4%	0.3%	0.0%	0.0%	6.9%	2.2%	7.6%	7.5%			
Materials	0.1%	0.0%	0.1%	0.0%	3.8%	3.6%	5.1%	2.9%			
Industrials	0.4%	0.2%	0.1%	0.1%	6.3%	3.9%	13.3%	10.3%			
Consumer Discretionary	0.3%	0.1%	0.1%	0.0%	3.9%	3.0%	16.4%	12.4%			
Consumer Staples	-0.1%	-0.2%	0.1%	0.1%	-4.6%	-2.6%	7.8%	10.8%			
Health Care	0.2%	0.3%	0.0%	-0.1%	3.1%	1.0%	11.4%	15.0%			
Financials	0.2%	0.1%	0.1%	0.0%	5.5%	5.0%	18.0%	16.0%			
Information Technology	-0.7%	0.0%	-0.7%	0.0%	12.7%	12.8%	13.4%	18.7%			
Telecommunication Services	0.1%	-0.1%	0.1%	0.0%	-7.4%	-5.6%	1.0%	3.0%			
Utilities	-0.2%	0.0%	-0.1%	0.0%	-6.4%	-5.9%	6.0%	3.6%			
Real Estate	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>0.7%</b>	<b>=</b>	<b>0.8%</b>	<b>+</b>	<b>-0.3%</b>	<b>+</b>	<b>0.1%</b>	<b>4.4%</b>	<b>3.7%</b>	<b>100.0%</b>	<b>100.0%</b>

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question. From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, in anticipation of their removal from or addition to the Index. The Strategy may at times purchase or sell futures contracts on the Index, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index.



### 3 Year Risk Statistics





## Top Positive Contributors

## Top Negative Contributors

Characteristics	Portfolio	S&P 400 MidCap	Top Positive Contributors		Top Negative Contributors			
			Relative Contribution %	Return %	Relative Contribution %	Return %		
Number of Holdings	400	400	RACKSPACE HOSTING (RAX)	0.0%	51.9%	MICROSEMI (MSCC)	0.0%	28.5%
Weighted Avg. Market Cap. (\$B)	4.9	4.9	CORRECTIONS AMER NEW (CXW)	0.0%	-58.8%	CARTER'S (CRI)	0.0%	-18.3%
Median Market Cap. (\$B)	3.5	3.5	TRINITY INDUSTRIES (TRN)	0.0%	30.9%	FLOWERS FOODS	0.0%	-18.5%
Price To Earnings	24.3	23.2	DICK'S SPORTING GOODS (DKS)	0.0%	26.2%	LEIDOS HOLDINGS	0.0%	23.4%
Price To Book	3.5	3.2	SOVRAN SELF STORAGE (LSI)	0.0%	-14.5%	INTERSIL 'A' (ISIL)	0.0%	63.2%
Price To Sales	2.8	2.6	DANA HOLDING (DAN)	0.0%	48.3%	SM ENERGY (SM)	0.0%	42.9%
Return on Equity (%)	14.9	13.7	METTLER TOLEDO INTL. (MTD)	0.0%	15.0%	ADVANCED MICRO DEVC. (AMD)	0.0%	34.4%
Yield (%)	1.7	1.6	COMMVAULT SYSTEMS	0.0%	23.0%	COGNEX	0.0%	22.8%
Beta	1.0	1.0	UNITED NATURAL FOODS (UNFI)	0.0%	-14.4%	JABIL CIRCUIT	0.0%	18.6%
R-Squared	1.0	1.0	AMSURG (AMSG)	0.0%	-13.5%	WEX (WEX)	0.0%	21.9%

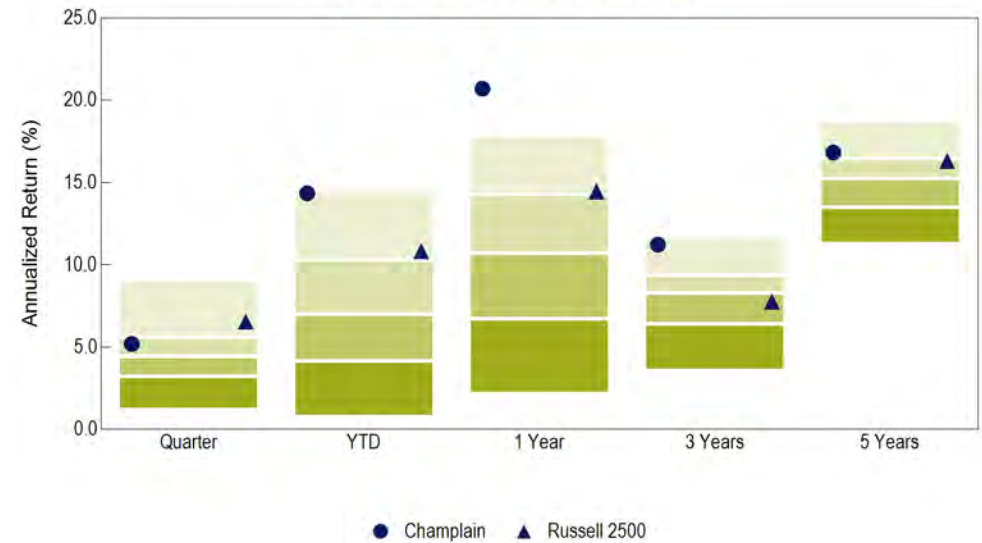
## SSgA S&P 400 Performance Attribution vs. S&P 400 MidCap

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	3.7%	3.7%			
Materials	0.0%	0.0%	0.0%	0.0%	5.7%	5.7%	7.8%	7.8%			
Industrials	0.0%	0.0%	0.0%	0.0%	6.6%	6.6%	13.4%	13.4%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	2.6%	2.6%	11.8%	11.7%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	-3.7%	-3.7%	4.7%	4.7%			
Health Care	0.0%	0.0%	0.0%	0.0%	5.1%	5.1%	9.1%	9.1%			
Financials	0.0%	0.0%	0.0%	0.0%	2.7%	2.6%	25.4%	26.4%			
Information Technology	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	16.9%	16.8%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-7.9%	-7.9%	0.2%	0.2%			
Utilities	0.0%	0.0%	0.0%	0.0%	-4.5%	-4.5%	6.1%	6.2%			
Real Estate	0.0%	0.0%	0.0%	0.0%	1.8%	1.8%	0.9%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>4.3%</b>	<b>4.2%</b>	<b>100.0%</b>	<b>100.0%</b>

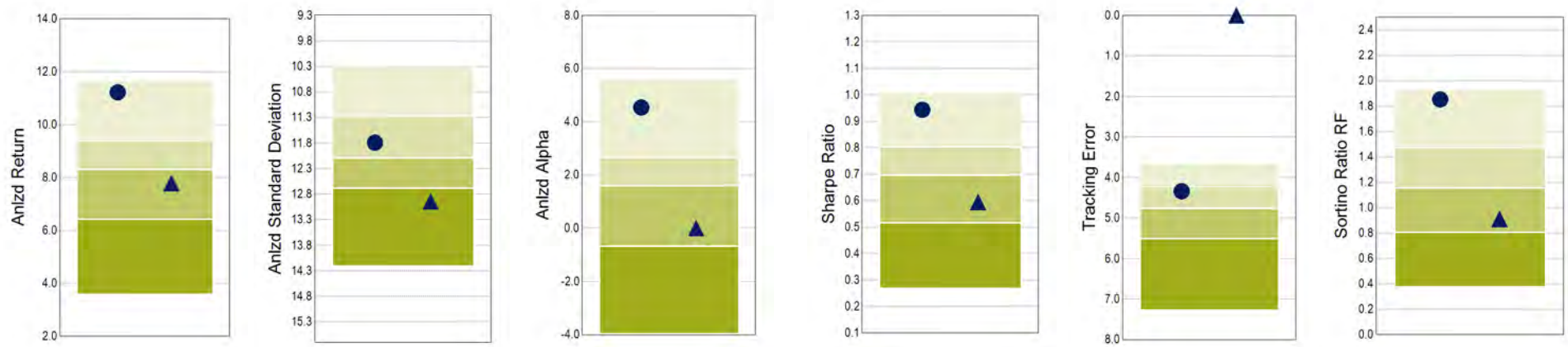
# Champlain

Champlain employs a fundamental, bottom-up approach to investing in equity assets. They believe that superior companies purchased at attractive valuations have the highest probability to wealth creation. Champlain seeks strong businesses with credible and sincere management and aims to buy shares of their stock at discounts to fair or intrinsic value. Portfolio construction applies sector weight guidelines and position size rules to manage risk. The portfolio will have some exposure to at least seven out of the eight largest sectors of the S&P 400, with a maximum weighting on 25% in any one sector. Individual positions will not represent more than 2% of the respective companies' outstanding shares and are limited to no more than 5% of assets under management. The portfolio typically holds 50-75 securities with average position sizes of 2%. The strategy's minimum market cap is \$1.5 billion at purchase and a maximum market cap of \$15 billion. In general, no more than 10% of portfolio in stocks with a market cap below \$2B and no more than 5% of portfolio in companies with market cap above \$20B.

eA US Mid Cap Equity Net Accounts



## 3 Year Risk Statistics



## Top Positive Contributors

## Top Negative Contributors

Characteristics	Russell 2500		Relative Contribution %		Relative Return %			
	Portfolio	Russell 2500						
Number of Holdings	62	2,459	CEPHEID	1.2%	71.3%	FLOWERS FOODS (FLO)	-0.5%	-18.5%
Weighted Avg. Market Cap. (\$B)	8.7	4.0	WEX (WEX)	0.5%	21.9%	TREEHOUSE FOODS (THS)	-0.3%	-15.1%
Median Market Cap. (\$B)	7.1	1.0	PALO ALTO NETWORKS (PANW)	0.5%	29.9%	SALLY BEAUTY HOLDINGS (SBH)	-0.2%	-12.7%
Price To Earnings	28.8	23.0	PTC (PTC)	0.4%	17.9%	WHOLE FOODS MARKET	-0.2%	-11.0%
Price To Book	5.0	3.1	WORKDAY CLASS A (WDAY)	0.4%	22.8%	MEAD JOHNSON NUTRITION	-0.2%	-12.5%
Price To Sales	3.5	2.8	ALLIED WORLD ASR.CO.HDG.	0.4%	15.8%	J M SMUCKER (SJM)	-0.2%	-10.6%
Return on Equity (%)	13.0	12.0	CULLEN FO.BANKERS (CFR)	0.3%	13.7%	ADV.AUTO PARTS (AAP)	-0.2%	-7.7%
Yield (%)	1.1	1.4	RED HAT (RHT)	0.3%	11.3%	CORE LABORATORIES (CLB)	-0.1%	-8.9%
Beta	0.9	1.0	PARKER-HANNIFIN	0.2%	16.8%	DENTSPLY INTL.	-0.1%	-4.1%
R-Squared	0.9	1.0	IDEX (IEX)	0.2%	14.4%	C R BARD (BCR)	-0.1%	-4.5%

## Champlain Performance Attribution vs. Russell 2500

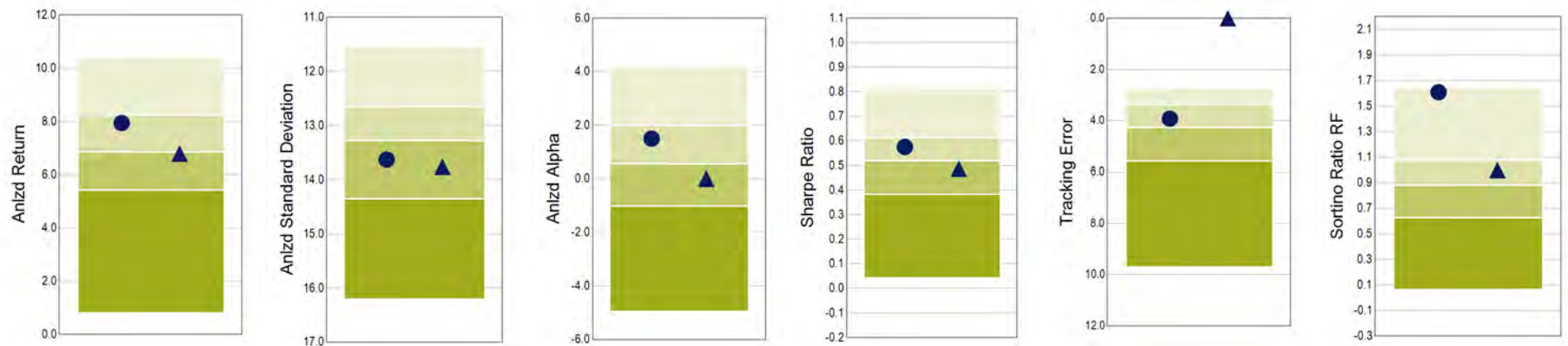
	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.6%	-0.8%	-0.2%	0.4%	-9.3%	7.7%	2.2%	4.5%			
Materials	-0.5%	-0.6%	-0.3%	0.4%	-1.8%	7.7%	1.4%	5.9%			
Industrials	0.1%	0.0%	0.1%	0.0%	7.2%	7.4%	16.2%	14.8%			
Consumer Discretionary	-0.6%	-0.6%	-0.2%	0.2%	-0.9%	4.0%	8.5%	13.3%			
Consumer Staples	-1.3%	-0.4%	0.0%	-1.0%	-9.9%	0.4%	13.5%	3.6%			
Health Care	1.2%	0.0%	1.2%	0.0%	10.4%	10.4%	23.2%	11.5%			
Financials	-0.1%	0.6%	-0.5%	-0.2%	7.4%	5.2%	16.8%	26.3%			
Information Technology	0.7%	0.3%	0.4%	0.1%	14.2%	12.5%	18.2%	14.7%			
Telecommunication Services	0.0%	--	0.0%	--	--	-5.3%	0.0%	0.8%			
Utilities	0.2%	--	0.2%	--	--	-5.1%	0.0%	4.6%			
Real Estate	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.8%</b>	<b>=</b>	<b>-1.5%</b>	<b>+</b>	<b>0.9%</b>	<b>+</b>	<b>-0.1%</b>	<b>5.7%</b>	<b>6.5%</b>	<b>100.0%</b>	<b>100.0%</b>

Wellington's investment objective is to seek long-term total returns in excess of the Russell 2000 Value Index by investing in conservatively-valued securities of high-quality, small cap companies. Wellington employ a bottom-up stock selection process that utilizes Wellington Management's proprietary, fundamental research to identify undervalued companies that have the potential for significant longer-term rewards. The investment universe consists of all stocks generally between US\$100 million and US\$2 billion in market capitalization. These stocks are reviewed for certain financial and valuation requirements that correspond with our investment process and philosophy. The Small Cap Value Team conducts their own proprietary research and leverages the broader research of the firm as appropriate. The Portfolio is expected to have a lower P/E ratio and other value-oriented characteristics relative to the overall small cap market, with a similar market capitalization. The return on equity is expected to be higher than the small cap value indexes, consistent with the high-quality focus.

eA US Small Cap Value Equity Net Accounts



### 3 Year Risk Statistics



Characteristics	Top Positive Contributors				Top Negative Contributors			
	Portfolio	Russell 2000 Value		Relative Contribution %	Return %		Relative Contribution %	Return %
Number of Holdings	77	1,338	G & K SERVICES 'A'	0.6%	25.2%	FRED'S 'A'	-0.6%	-43.5%
Weighted Avg. Market Cap. (\$B)	1.7	1.7	GREIF 'A'	0.4%	34.2%	ESSENDANT (ESND)	-0.5%	-32.4%
Median Market Cap. (\$B)	1.3	0.6	BELDEN	0.4%	14.4%	CATO 'A'	-0.2%	-11.9%
Price To Earnings	23.6	17.9	HAEMONETICS	0.3%	24.9%	ASCENA RETAIL GROUP	-0.2%	-20.0%
Price To Book	2.2	1.6	HANCOCK HOLDING	0.3%	25.1%	HELEN OF TROY (HELE)	-0.1%	-16.2%
Price To Sales	1.8	2.3	CUBIC	0.3%	16.9%	ACCO BRANDS	-0.1%	-6.7%
Return on Equity (%)	8.7	7.1	INTERNATIONAL BCSH.	0.3%	15.3%	SMART & FINAL STORES (SFS)	-0.1%	-14.2%
Yield (%)	1.8	1.9	WEBSTER FINANCIAL (WBS)	0.2%	12.7%	WGL HOLDINGS (WGL)	-0.1%	-10.8%
Beta	0.9	1.0	PHIBRO ANIMAL HLTH.CL.A (PAHC)	0.2%	46.2%	CORVEL	-0.1%	-11.1%
R-Squared	0.9	1.0	ESCO TECHS. (ESE)	0.2%	16.4%	PRIMERICA	-0.1%	-7.1%

## Wellington Performance Attribution vs. Russell 2000 Value

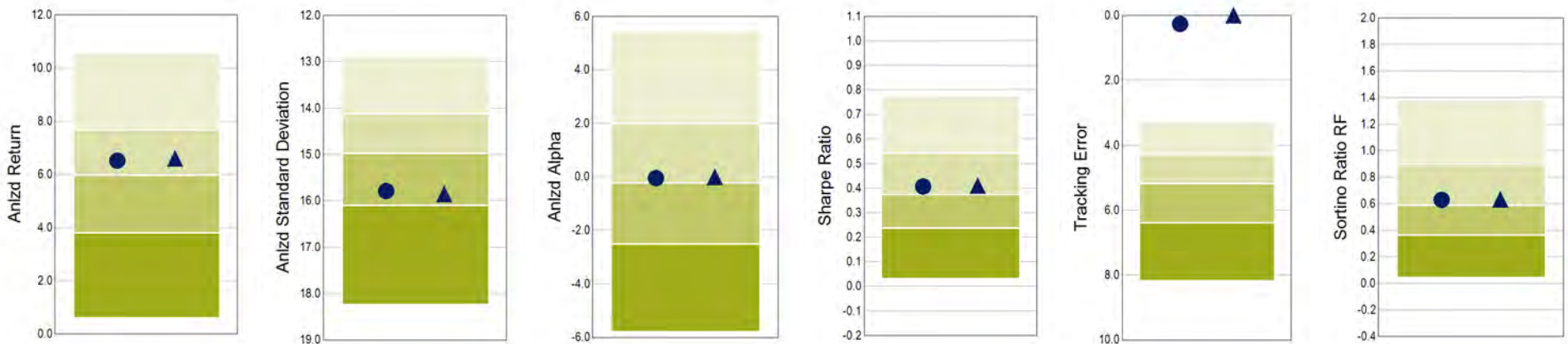
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	-0.1%	0.0%	0.0%	5.6%	7.6%	5.1%	5.2%			
Materials	0.1%	0.0%	0.1%	0.0%	12.9%	13.4%	5.1%	4.3%			
Industrials	0.2%	-0.9%	2.6%	-1.6%	5.0%	12.3%	33.4%	12.2%			
Consumer Discretionary	-1.8%	-2.7%	-0.3%	1.2%	-18.6%	6.4%	6.1%	11.0%			
Consumer Staples	-0.1%	0.0%	0.0%	0.0%	3.1%	5.4%	3.5%	3.0%			
Health Care	-0.1%	-0.3%	0.4%	-0.2%	8.1%	13.9%	7.3%	4.7%			
Financials	-1.6%	-0.1%	-1.6%	0.0%	8.3%	8.4%	22.3%	41.1%			
Information Technology	-1.1%	-1.0%	-0.1%	0.1%	7.8%	18.4%	9.0%	9.8%			
Telecommunication Services	0.0%	--	0.0%	--	--	-1.1%	0.0%	0.8%			
Utilities	0.0%	-0.5%	0.2%	0.3%	-11.1%	-5.3%	3.4%	7.9%			
Real Estate	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	4.9%	0.0%			
<b>Portfolio</b>	<b>-4.5%</b>	<b>=</b>	<b>-5.6%</b>	<b>+</b>	<b>1.3%</b>	<b>+</b>	<b>-0.2%</b>	<b>4.4%</b>	<b>8.8%</b>	<b>100.0%</b>	<b>100.0%</b>

# SSgA Russell 2000 Growth

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question. From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, in anticipation of their removal from or addition to the Index. The Strategy may at times purchase or sell futures contracts on the Index, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index.



## 3 Year Risk Statistics



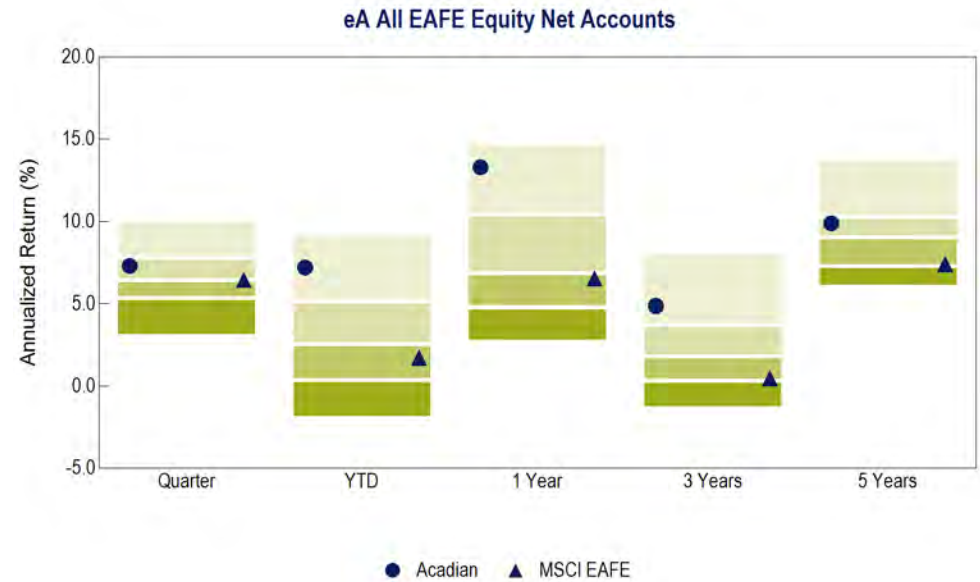
# SSgA Russell 2000 Growth

Characteristics			Top Positive Contributors			Top Negative Contributors		
	Portfolio	Russell 2000 Growth		Relative Contribution %	Return %		Relative Contribution %	Return %
Number of Holdings	1,956	1,154	NOVAVAX (NVAX)	0.1%	-71.4%	SAREPTA THERAPEUTICS (SRPT)	-0.1%	222.0%
Weighted Avg. Market Cap. (\$B)	1.8	2.0	FINISAR (FNSR)	0.1%	70.2%	CEPHEID	-0.1%	71.3%
Median Market Cap. (\$B)	0.7	0.8	GENWORTH FINANCIAL CL.A (GNW)	0.1%	92.2%	CAVIUM	-0.1%	50.8%
Price To Earnings	23.8	28.7	INTERSIL 'A'	0.1%	63.2%	MICROSEMI	-0.1%	28.5%
Price To Book	3.3	4.7	XPO LOGISTICS	0.1%	39.6%	ARIAD PHARMS.	-0.1%	85.3%
Price To Sales	3.1	3.2	INTRA CELLULAR THERAPIES (ITCI)	0.0%	-60.7%	GRUBHUB	-0.1%	38.4%
Return on Equity (%)	11.6	14.8	DANA HOLDING	0.0%	48.3%	CHEMOURS	-0.1%	94.7%
Yield (%)	1.5	0.6	WRIGHT MEDICAL GROUP (WMGI)	0.0%	41.2%	PUMA BIOTECHNOLOGY	-0.1%	125.1%
Beta	1.0	1.0	MGIC INVESTMENT (MTG)	0.0%	34.5%	CIRRUS LOGIC (CRUS)	-0.1%	37.0%
R-Squared	1.0	1.0	MYRIAD GENETICS (MYGN)	0.0%	-32.7%	PROTHENA	-0.1%	71.5%

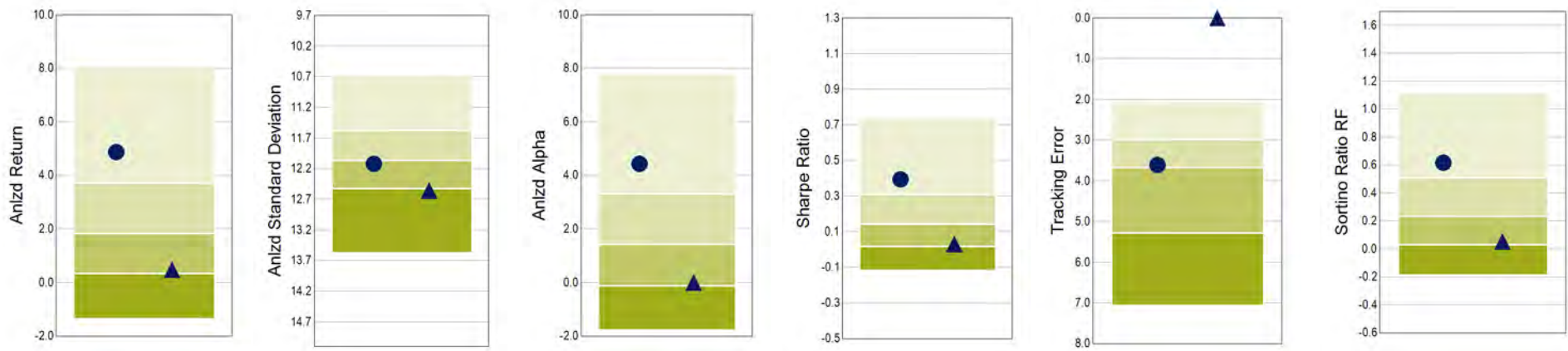
## SSgA Russell 2000 Growth Performance Attribution vs. Russell 2000 Growth

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.2%	0.5%	-0.3%	9.7%	24.0%	3.1%	1.1%			
Materials	0.0%	0.0%	0.0%	0.0%	12.6%	11.9%	4.6%	4.7%			
Industrials	0.2%	0.4%	-0.1%	0.0%	9.2%	6.8%	14.2%	16.0%			
Consumer Discretionary	0.2%	0.3%	-0.1%	0.0%	4.0%	2.3%	13.6%	16.1%			
Consumer Staples	0.1%	0.1%	0.0%	0.0%	2.2%	-0.4%	3.2%	3.4%			
Health Care	-1.3%	-0.2%	-1.2%	0.1%	12.5%	13.3%	13.5%	22.5%			
Financials	1.5%	0.5%	0.4%	0.6%	7.6%	3.3%	24.4%	10.6%			
Information Technology	-1.0%	0.2%	-1.1%	0.0%	16.6%	15.9%	16.6%	23.5%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-5.1%	-7.6%	1.0%	1.2%			
Utilities	-0.2%	0.0%	-0.2%	0.0%	-5.1%	-5.0%	4.4%	0.9%			
Real Estate	0.1%	0.0%	0.1%	0.0%	3.7%	3.7%	1.4%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>1.1%</b>	<b>+</b>	<b>-1.6%</b>	<b>+</b>	<b>0.2%</b>	<b>8.9%</b>	<b>9.2%</b>	<b>100.0%</b>	<b>100.0%</b>

Acadian believes that the larger the pool of potential investments, the greater the potential opportunity an active manager has to add value. They believe that stocks and markets have many attributes that are related to potential outperformance, and that a successful investment approach must be multi-faceted and highly adaptable. They believe that objectivity is crucial to investment success. Acadian's quantitative process and extensive database allows them to apply their valuation techniques to over 40,000 stocks worldwide. They do not limit the universe other than to employ screens based on invest-ability and availability of data. For example, they only evaluate stocks that have sufficient daily trading volume to be appropriate for institutional investment. Other than these practical considerations, they consider our investment universe to encompass all institutionally investable stocks in the world.



### 3 Year Risk Statistics





## Top Positive Contributors

## Top Negative Contributors

Characteristics	MSCI EAFE		Relative Contribution %		Relative Return %			
	Portfolio	MSCI EAFE						
Number of Holdings	491	927	FUJITSU	0.4%	47.4%	HSBC HDG. (ORD \$0.50) (UKIR:HSBA)	-0.2%	22.4%
Weighted Avg. Market Cap. (\$B)	23.9	52.2	SAMSUNG ELECTRONICS	0.3%	17.3%	ROYAL DUTCH SHELL A	-0.2%	-7.4%
Median Market Cap. (\$B)	0.8	8.9	VALEO (F:FR)	0.3%	30.9%	ADASTRIA	-0.1%	-41.1%
Price To Earnings	19.8	20.5	NESTE	0.3%	19.4%	H LUNDBECK	-0.1%	-12.2%
Price To Book	2.8	2.4	MYCRONIC	0.2%	68.6%	MIXI	-0.1%	-12.2%
Price To Sales	1.6	2.1	MONDI	0.2%	14.2%	ELECTROLUX 'B' (W:SE@G)	-0.1%	-6.9%
Return on Equity (%)	15.2	12.2	SWISS LIFE HOLDING	0.2%	12.9%	GLENCORE	-0.1%	34.9%
Yield (%)	2.6	3.2	HOCHTIEF	0.2%	12.6%	JAPAN AIRLINES	-0.1%	-8.9%
Beta	0.9	1.0	GERDAU PN SPN.ADR 1:1 (GGB)	0.2%	49.9%	TARO PHARM.INDS. (TARO)	-0.1%	-24.1%
R-Squared	0.9	1.0	LONZA GROUP (S:LONN)	0.2%	15.7%	DAIWA HOUSE INDUSTRY	-0.1%	-5.0%

## Acadian Performance Attribution vs. MSCI EAFE

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.2%	0.0%	0.0%	0.2%	1.6%	-1.3%	10.3%	5.2%			
Materials	0.4%	0.1%	0.4%	0.0%	15.8%	15.9%	9.2%	6.8%			
Industrials	0.1%	-0.1%	0.2%	0.0%	8.2%	8.7%	15.7%	13.3%			
Consumer Discretionary	-0.9%	-0.6%	-0.3%	0.1%	5.2%	10.8%	9.0%	12.3%			
Consumer Staples	-0.1%	0.0%	-0.2%	0.0%	2.5%	2.0%	5.7%	13.2%			
Health Care	1.2%	1.0%	-0.1%	0.3%	5.9%	-2.3%	16.1%	12.4%			
Financials	-1.2%	-0.7%	-0.6%	0.1%	6.4%	9.9%	15.6%	22.4%			
Information Technology	1.1%	0.1%	0.8%	0.2%	15.7%	13.4%	11.6%	5.2%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	0.6%	-0.3%	3.5%	5.2%			
Utilities	0.2%	0.2%	0.0%	-0.1%	5.8%	0.0%	3.2%	3.9%			
Real Estate	0.0%	0.0%	0.0%	0.0%	14.1%	14.1%	0.1%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>1.1%</b>	<b>=</b>	<b>0.1%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>0.9%</b>	<b>7.5%</b>	<b>6.4%</b>	<b>100.0%</b>	<b>100.0%</b>

## Country Allocation

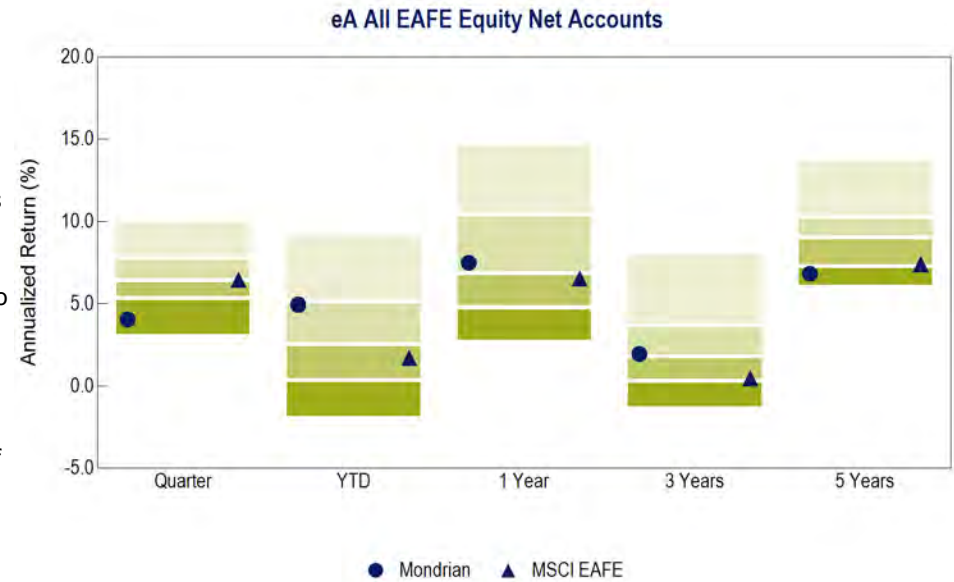
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Brazil*	2.6%	0.0%	16.2%	11.3%
Canada	5.2%	0.0%	5.7%	4.8%
Mexico*	0.1%	0.0%	3.5%	-2.2%
United States	0.0%	0.0%	0.3%	3.9%
<b>Total-Americas</b>	<b>8.0%</b>	<b>0.0%</b>	<b>9.1%</b>	<b>--</b>
<b>Europe</b>				
Austria	1.1%	0.2%	7.6%	16.9%
Belgium	0.7%	1.4%	5.5%	4.4%
Denmark	1.2%	2.0%	-9.5%	-6.1%
Finland	2.9%	1.0%	16.5%	7.4%
France	4.6%	9.6%	19.1%	6.4%
Germany	9.9%	8.7%	8.1%	9.9%
Greece*	0.1%	0.0%	3.3%	1.0%
Ireland	1.5%	0.5%	10.5%	7.5%
Italy	2.0%	2.0%	4.8%	2.3%
Luxembourg	0.1%	0.0%	3.0%	6.4%
Netherlands	5.4%	3.2%	-3.5%	9.6%
Norway	2.1%	0.6%	2.8%	6.4%
Poland*	0.0%	0.0%	15.4%	3.1%
Portugal	0.5%	0.1%	8.8%	6.5%
Spain	1.6%	3.0%	9.9%	9.4%
Sweden	6.1%	2.8%	10.9%	7.5%
Switzerland	4.1%	9.3%	10.4%	2.7%
United Kingdom	13.8%	19.4%	6.0%	3.6%
<b>Total-Europe</b>	<b>57.9%</b>	<b>63.6%</b>	<b>7.6%</b>	<b>5.3%</b>

## Country Allocation

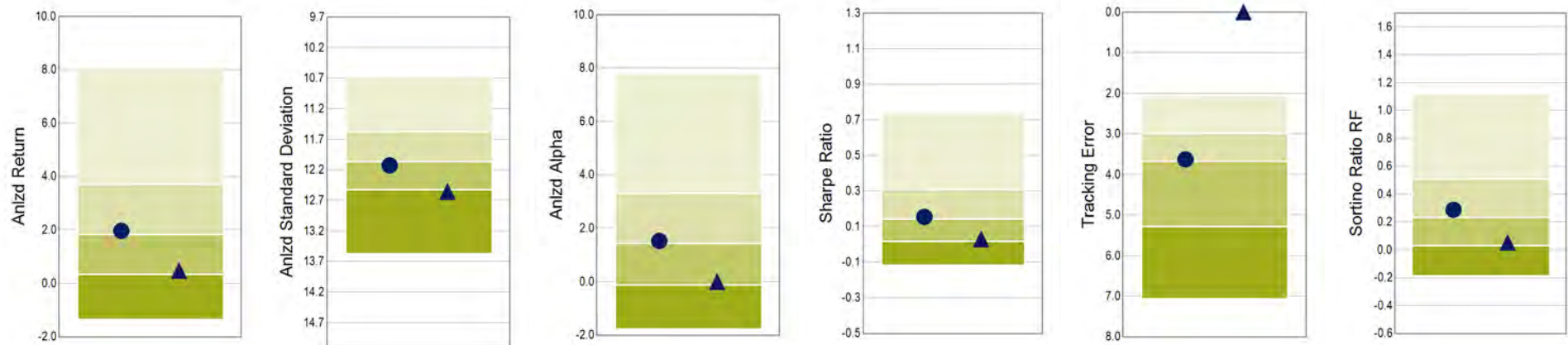
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	3.8%	7.2%	12.8%	8.0%
Hong Kong	0.5%	3.3%	2.5%	11.9%
Japan	21.1%	23.5%	3.1%	8.5%
Korea*	2.9%	0.0%	13.7%	6.1%
Malaysia*	0.1%	0.0%	-2.0%	-0.8%
New Zealand	0.6%	0.2%	5.9%	12.9%
Singapore	2.4%	1.3%	0.6%	-0.1%
Taiwan*	1.6%	0.0%	3.0%	6.6%
Thailand*	0.1%	0.0%	1.8%	7.3%
<b>Total-AsiaPacific</b>	<b>33.1%</b>	<b>35.5%</b>	<b>5.0%</b>	<b>8.4%</b>
<b>Other</b>				
Israel	0.4%	0.8%	0.7%	-2.2%
South Africa*	0.2%	0.0%	15.9%	8.8%
Turkey*	0.0%	0.0%	-12.4%	-5.8%
<b>Total-Other</b>	<b>0.7%</b>	<b>0.8%</b>	<b>5.1%</b>	<b>-2.2%</b>
<b>Totals</b>				
Developed	92.1%	100.0%	4.9%	6.4%
Emerging*	7.9%	0.0%	11.8%	--

# Mondrian

The firm is an active value-oriented defensive manager. The firm's value driven investment philosophy is based on the belief that investments need to be evaluated in terms of their fundamental long-term value. The firm believes that the value of a company lies in its future income stream as dividends represent the most direct form of cash flow to a shareholder. The firm uses an inflation adjusted dividend discount model to derive the underlying value of a company. This methodology is applied consistently to individual securities across all markets and industries. The universe spans markets covered in the MSCI Indices and those developing markets with adequate investor protection and good repatriation procedures. The firm will then narrow the universe to a list of more than 1000 securities on the basis of value criteria, and then further reduce this to a shorter list of approximately 250 securities annually, for detailed fundamental analysis. The screens include basic value characteristics such as price to book, price to cash flow ratio, price to earnings ratio, and yield, as well as liquidity considerations. A focus list of approximately 80 securities is then created from that list of approximately 250 through fundamental research and deliberations of the Equity Strategy Committee. It is this list of securities on which more detailed fundamental analysis and financial modeling is carried out utilizing the dividend discount model, which is based on an evaluation of a company's future income stream, which is then discounted in real terms.



## 3 Year Risk Statistics



## Top Positive Contributors

## Top Negative Contributors

Characteristics	Portfolio	MSCI EAFE	Top Positive Contributors		Top Negative Contributors			
			Relative Contribution %	Return %	Relative Contribution %	Return %		
Number of Holdings	53	927	ABB LTD N (S:ABB)	0.6%	19.2%	PEARSON (UKIR:PSON)	-0.3%	-22.8%
Weighted Avg. Market Cap. (\$B)	60.5	52.2	SAP (D:SAP)	0.5%	21.5%	SANOFI (F:SQ@F)	-0.2%	-8.7%
Median Market Cap. (\$B)	40.6	8.9	SYNGENTA	0.4%	14.2%	ENI	-0.2%	-7.9%
Price To Earnings	19.6	20.5	HONDA MOTOR	0.3%	14.6%	ROYAL DUTCH SHELL B	-0.1%	-4.2%
Price To Book	2.2	2.4	G4S	0.3%	22.9%	TELIASONERA	-0.1%	-4.3%
Price To Sales	1.5	2.1	TAKEDA PHARMACEUTICAL (J:TA@N)	0.3%	12.5%	NATIONAL GRID (UKIR:NG.)	-0.1%	-3.2%
Return on Equity (%)	9.2	12.2	TOKIO MARINE HOLDINGS (J:MIHO)	0.3%	17.3%	SEMBCORP INDUSTRIES (T:SEMB)	-0.1%	-8.0%
Yield (%)	4.1	3.2	DAIMLER (D:DAI)	0.3%	16.9%	QBE INSURANCE GROUP (A:QBEX)	-0.1%	-4.6%
Beta	0.9	1.0	TAIWAN SEMICON.MNFG. (TW:TSM)	0.2%	15.6%	ERICSSON 'B'	-0.1%	-4.7%
R-Squared	0.9	1.0	SAINT GOBAIN	0.2%	13.3%	KIRIN HOLDINGS (J:KB@N)	-0.1%	-1.7%

## Mondrian Performance Attribution vs. MSCI EAFE

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	0.0%	0.0%	-0.1%	-1.9%	-1.3%	10.1%	5.2%			
Materials	-0.5%	-0.1%	-0.5%	0.0%	14.9%	15.9%	3.7%	6.8%			
Industrials	0.3%	0.7%	-0.2%	-0.2%	13.2%	8.7%	10.8%	13.3%			
Consumer Discretionary	-0.7%	-0.2%	-0.5%	0.0%	7.8%	10.8%	7.5%	12.3%			
Consumer Staples	-0.1%	-0.1%	0.0%	-0.1%	1.0%	2.0%	13.6%	13.2%			
Health Care	0.4%	0.5%	0.0%	-0.1%	1.1%	-2.3%	12.2%	12.4%			
Financials	-1.5%	-1.0%	-0.8%	0.3%	5.1%	9.9%	14.3%	22.4%			
Information Technology	0.1%	-0.3%	0.5%	-0.1%	8.5%	13.4%	9.0%	5.2%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	0.2%	-0.3%	11.8%	5.2%			
Utilities	0.1%	0.1%	0.0%	0.0%	2.0%	0.0%	7.1%	3.9%			
Real Estate	0.0%	--	--	--	--	--	0.0%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-2.1%</b>	<b>=</b>	<b>-0.4%</b>	<b>+</b>	<b>-1.5%</b>	<b>+</b>	<b>-0.2%</b>	<b>4.3%</b>	<b>6.4%</b>	<b>100.0%</b>	<b>100.0%</b>

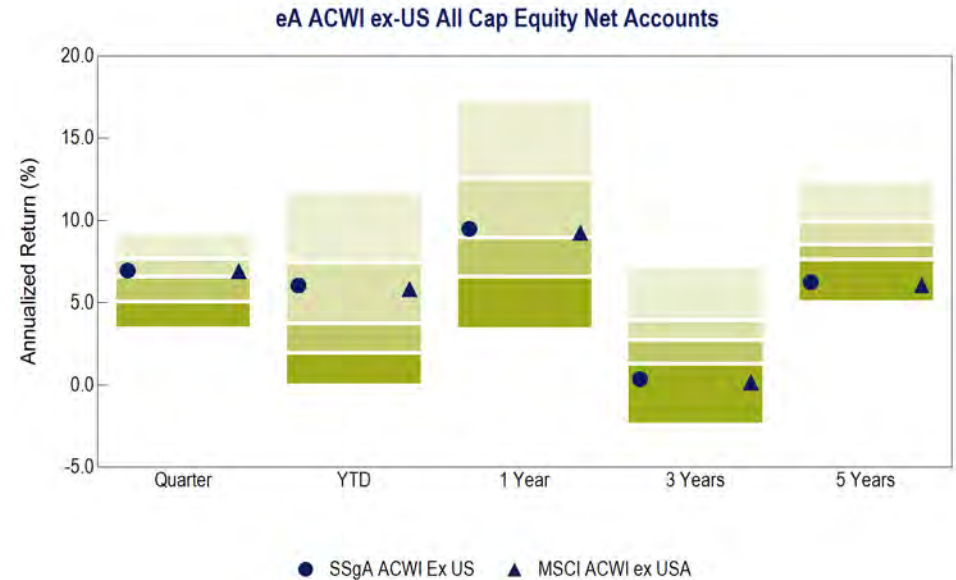
## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Europe</b>				
Denmark	0.9%	2.0%	10.7%	-6.1%
France	5.9%	9.6%	1.7%	6.4%
Germany	9.9%	8.7%	9.3%	9.9%
Italy	2.5%	2.0%	-7.9%	2.3%
Netherlands	2.6%	3.2%	2.8%	9.6%
Spain	5.2%	3.0%	6.3%	9.4%
Sweden	4.2%	2.8%	-4.5%	7.5%
Switzerland	14.1%	9.3%	8.5%	2.7%
United Kingdom	25.6%	19.4%	1.0%	3.6%
<b>Total-Europe</b>	<b>70.9%</b>	<b>63.6%</b>	<b>3.6%</b>	<b>5.3%</b>

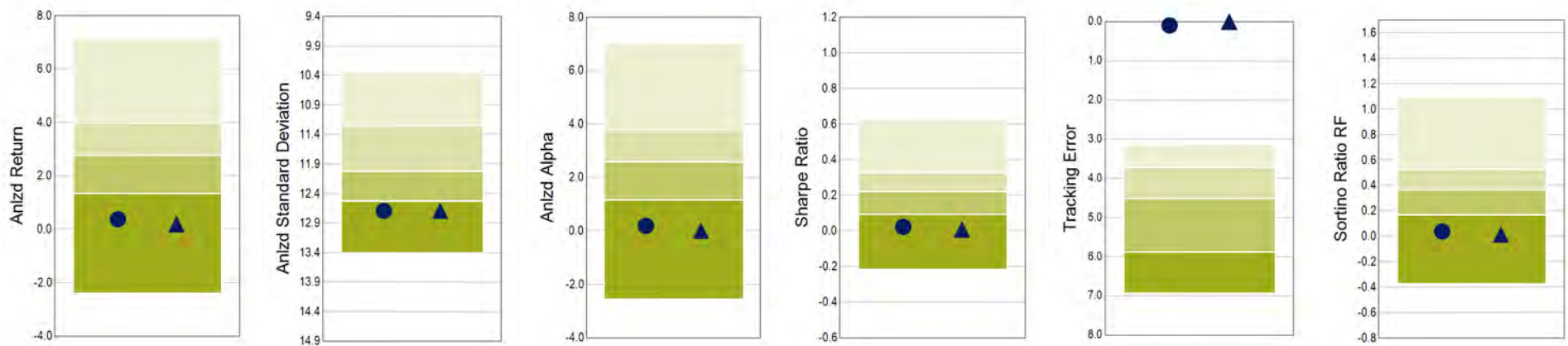
## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	1.3%	7.2%	-4.6%	8.0%
Hong Kong	1.6%	3.3%	7.6%	11.9%
Japan	17.8%	23.6%	7.9%	8.5%
Singapore	6.8%	1.4%	0.2%	-0.1%
Taiwan*	1.6%	0.0%	15.6%	11.7%
<b>Total-AsiaPacific</b>	<b>29.1%</b>	<b>35.6%</b>	<b>5.9%</b>	<b>8.4%</b>
<b>Totals</b>				
Developed	98.4%	100.0%	4.1%	6.4%
Emerging*	1.6%	0.0%	15.6%	--

The MSCI ACWI ex US Index Strategy tends to hold each security that is held in the benchmark index, but the strategy will not be perfectly weighted in every index constituent on a daily basis. Holding securities in the perfect weights would require increased trading and therefore would incur costs. Thus, there will be securities in the fund that are either over- or under-weighted relative to the benchmark. The individual security mis-weights are very minimal, usually within 1 basis point. However, in aggregate, these small mis-weights can add up and result in tracking error if the mis-weighted securities' performance is volatile. SSgA seek to replicate the index by attempting to hold every security in the fund in its appropriate index weight. SSgA trade only when there is a change to the Index, when we have participant cash flows, or when we receive significant dividend income into the fund.



### 3 Year Risk Statistics



# SSgA ACWI Ex US

Characteristics	Portfolio	MSCI ACWI ex USA	Top Positive Contributors			Top Negative Contributors		
				Relative Contribution %	Return %		Relative Contribution %	Return %
Number of Holdings	1,887	1,853	BANK CENTRAL ASIA	1.3%	19.3%	HSBC HDG. (ORD \$0.50) (UKIR:HSBA)	-0.2%	22.4%
Weighted Avg. Market Cap. (\$B)	31.8	51.2	SAMSUNG ELECTRONICS (KO:SGL)	0.9%	17.3%	ALIBABA GROUP HLDG.SPN. ADR 1:1	-0.2%	33.0%
Median Market Cap. (\$B)	6.8	6.8	ASTRA INTERNATIONAL (ID:ATA)	0.8%	13.6%	TENCENT HOLDINGS (K:TCNT)	-0.2%	21.0%
Price To Earnings	21.9	19.9	TELEKOMUNIKASI INDONESIA	0.8%	9.6%	XL AXIATA (ID:XCP)	-0.1%	-25.5%
Price To Book	3.4	2.6	BANK RAKYAT INDONESIA (ID:BRI)	0.7%	14.4%	MATAHARI DEPARTMENT SOE. (ID:MDS)	-0.1%	-6.5%
Price To Sales	2.7	2.2	BANK MANDIRI (ID:BKM)	0.7%	19.0%	GUDANG GARAM (ID:GUD)	-0.1%	-9.0%
Return on Equity (%)	16.8	13.5	INDOFOOD SUKSES MAKMUR	0.3%	21.5%	SURYA CITRA MEDIA (ID:SCM)	-0.1%	-14.1%
Yield (%)	2.0	3.0	PERUSAHAAN GAS NEGARA	0.3%	24.2%	LIPPO KARAWACI	-0.1%	-12.5%
Beta	1.0	1.0	UNITED TRACTORS	0.2%	22.0%	TAIWAN SEMICON.MNFG. (TW:TSM)	-0.1%	15.6%
R-Squared	1.0	1.0	NAVER	0.2%	30.1%	BHP BILLITON (A:BHPX)	-0.1%	24.5%

## SSgA ACWI Ex US Performance Attribution vs. MSCI ACWI ex USA

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.2%	0.9%	-0.1%	-0.6%	18.6%	2.3%	1.8%	6.9%			
Materials	-0.5%	-0.5%	-0.2%	0.2%	8.0%	12.7%	5.6%	7.1%			
Industrials	-0.2%	0.0%	-0.3%	0.1%	10.6%	8.4%	7.2%	11.2%			
Consumer Discretionary	-0.1%	-0.6%	0.4%	0.0%	6.7%	10.4%	16.2%	11.4%			
Consumer Staples	-0.1%	-0.3%	0.0%	0.2%	1.0%	2.0%	13.2%	11.6%			
Health Care	0.3%	0.5%	0.1%	-0.3%	5.0%	-1.9%	3.3%	9.4%			
Financials	1.4%	0.6%	0.2%	0.5%	13.5%	9.4%	27.2%	24.5%			
Information Technology	0.7%	-0.1%	0.4%	0.4%	16.7%	14.9%	11.9%	8.9%			
Telecommunication Services	0.7%	0.3%	0.0%	0.4%	6.3%	0.5%	10.8%	5.3%			
Utilities	0.2%	0.2%	0.0%	0.0%	7.2%	0.2%	2.6%	3.6%			
Real Estate	0.0%	0.0%	0.0%	0.0%	0.9%	0.9%	0.1%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>2.5%</b>	<b>=</b>	<b>1.1%</b>	<b>+</b>	<b>0.7%</b>	<b>+</b>	<b>0.8%</b>	<b>9.5%</b>	<b>6.9%</b>	<b>100.0%</b>	<b>100.0%</b>

## Country Allocation

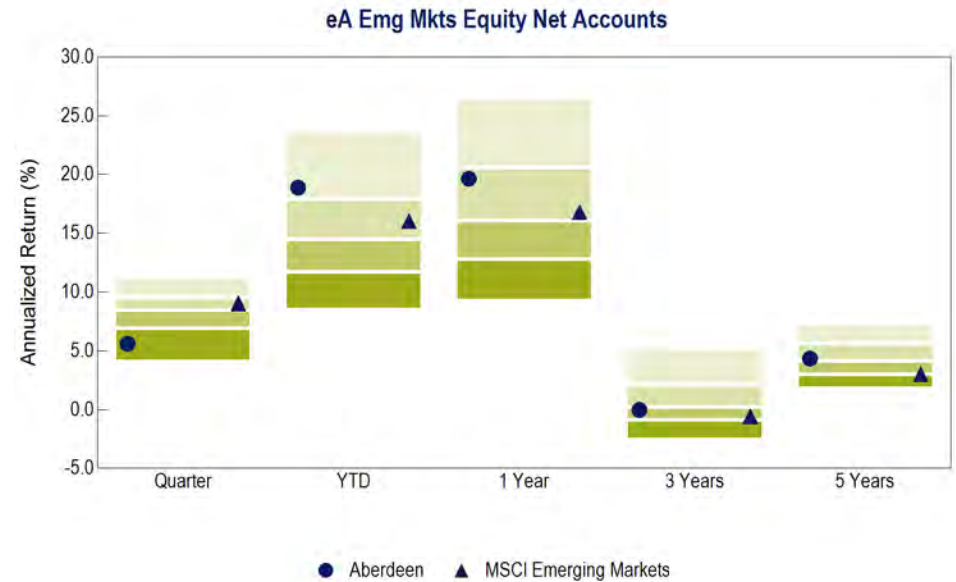
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Brazil*	0.0%	1.6%	11.4%	11.4%
Canada	0.1%	6.9%	5.0%	5.0%
Chile*	1.2%	0.3%	-2.0%	-1.9%
Colombia*	2.1%	0.1%	2.7%	2.7%
Mexico*	0.1%	0.9%	-2.2%	-2.3%
Peru*	0.0%	0.1%	1.7%	1.1%
United States	0.0%	0.0%	13.1%	3.9%
<b>Total-Americas</b>	<b>3.6%</b>	<b>9.9%</b>	<b>1.1%</b>	<b>5.1%</b>
<b>Europe</b>				
Austria	0.0%	0.1%	16.8%	16.9%
Belgium	0.0%	1.0%	4.3%	4.4%
Czech Republic*	0.0%	0.0%	-0.4%	-0.4%
Denmark	0.1%	1.4%	-6.1%	-6.1%
Finland	0.0%	0.7%	7.4%	7.4%
France	0.0%	6.8%	6.2%	6.4%
Germany	0.0%	6.1%	9.3%	9.9%
Greece*	0.0%	0.1%	1.0%	0.8%
Hungary*	0.1%	0.1%	10.8%	10.9%
Ireland	0.0%	0.3%	1.0%	7.5%
Italy	0.0%	1.4%	1.9%	2.3%
Luxembourg	0.0%	0.0%	-8.2%	6.9%
Netherlands	0.0%	2.2%	5.3%	9.6%
Norway	0.0%	0.5%	6.4%	6.4%
Poland*	0.0%	0.3%	4.2%	4.0%
Portugal	0.0%	0.1%	6.5%	6.5%
Russia*	0.0%	0.9%	9.9%	8.7%
Spain	0.0%	2.1%	9.3%	9.4%
Sweden	0.1%	1.9%	7.8%	7.5%
Switzerland	0.0%	6.6%	2.7%	2.7%
United Kingdom	0.1%	13.7%	4.3%	3.6%
<b>Total-Europe</b>	<b>0.6%</b>	<b>46.2%</b>	<b>5.6%</b>	<b>5.4%</b>

## Country Allocation

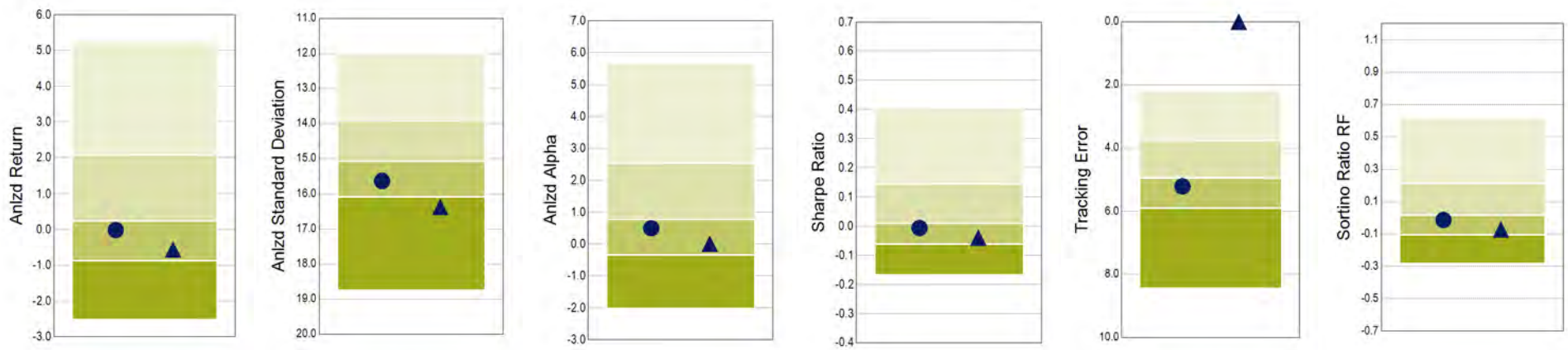
	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
Australia	0.0%	5.1%	7.7%	8.0%
China*	0.1%	5.7%	11.3%	13.9%
Hong Kong	0.2%	2.3%	12.4%	11.9%
India*	0.9%	1.9%	6.2%	6.2%
Indonesia*	55.5%	0.6%	9.5%	9.5%
Japan	11.6%	16.6%	8.6%	8.5%
Korea*	26.3%	3.3%	11.0%	11.0%
Malaysia*	0.0%	0.7%	-1.5%	-1.5%
New Zealand	0.0%	0.1%	12.9%	12.8%
Philippines*	0.1%	0.4%	-4.8%	-4.6%
Singapore	0.0%	1.0%	0.8%	-0.1%
Taiwan*	0.6%	2.7%	12.3%	12.3%
Thailand*	0.1%	0.5%	8.5%	7.3%
<b>Total-AsiaPacific</b>	<b>95.6%</b>	<b>40.9%</b>	<b>9.8%</b>	<b>9.3%</b>
<b>Other</b>				
Egypt*	0.0%	0.0%	21.6%	21.6%
Israel	0.0%	0.5%	-0.9%	-2.1%
Qatar*	0.0%	0.2%	6.6%	6.6%
South Africa*	0.2%	1.6%	6.6%	6.4%
Turkey*	0.0%	0.3%	-5.3%	-5.3%
United Arab Emirates*	0.0%	0.2%	5.6%	6.2%
<b>Total-Other</b>	<b>0.2%</b>	<b>2.9%</b>	<b>6.0%</b>	<b>3.8%</b>
<b>Totals</b>				
Developed	12.5%	77.5%	8.4%	6.3%
Emerging*	87.5%	22.5%	9.6%	9.1%



Aberdeen believes, given the inefficiency of markets, that competitive long-term returns are achieved by identifying high quality stocks at attractive valuations and holding for the long term. It is their belief that sound fundamentals drive stock prices over time. They employ a fundamental bottom-up investment approach based upon a rigorous and disciplined proprietary research effort which originates with direct company due diligence visits. Portfolios are constructed to maximize their level of exposure to the most attractive companies filtered from the stock selection process. They run a representative or model' unconstrained portfolio that contains approximately 30 - 70 stocks at any given time. Once a stock has received unanimous approval by the team, the senior investment team members then decide which portfolio category it should enter (i.e. country, regional, Global Emerging Markets) and at what weighting. The Head of Global Emerging Markets then has responsibility to ensure that the decision is implemented.



### 3 Year Risk Statistics



## Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	65	833
Weighted Avg. Market Cap. (\$B)	35.0	53.0
Median Market Cap. (\$B)	14.6	4.7
Price To Earnings	20.9	19.1
Price To Book	3.5	2.8
Price To Sales	2.7	2.3
Return on Equity (%)	17.6	16.9
Yield (%)	2.5	2.5
Beta	0.9	1.0
R-Squared	0.9	1.0

## Top Positive Contributors

	Relative Contribution %	Return %
SAMSUNG ELTN.PREF.	0.6%	14.0%
ASTRA INTERNATIONAL	0.4%	13.6%
AIA GROUP (K:AGP)	0.4%	11.7%
HANG LUNG GROUP (K:HLDV)	0.4%	27.8%
HOUSING DEVELOPMENT FIN.	0.4%	13.8%
LUKOIL OAO ADR. (LON)	0.4%	18.2%
BNC.BRADESCO PF.SPN.ADR 1:1 (BBD)	0.4%	16.4%
SIAM COML. BANK FB	0.3%	12.4%
SIAM CEMENT FB (Q:SCQF)	0.3%	12.2%
ULTRATECH CEMENT	0.2%	14.8%

## Top Negative Contributors

	Relative Contribution %	Return %
BIM BIRLESIK MAGAZALAR (TK:BMI)	-0.2%	-14.4%
INFOSYS (IN:INE)	-0.2%	-10.3%
TRUWORTHS INTL. (R:TRUJ)	-0.1%	-9.6%
GRUPO AEROPORTUARIO DEL SURESTE ADR 1:10	-0.1%	-8.2%
AKBANK	-0.1%	-6.4%
BANK POLSKA KASA OPIEKI	-0.1%	-6.6%
GPO FINANCE BANORTE (MX:GTB)	-0.1%	-3.9%
E-MART	0.0%	-4.8%
MTN GROUP	0.0%	-10.7%
PETROCHINA 'H' (K:PECH)	0.0%	-3.3%

## Aberdeen Performance Attribution vs. MSCI Emerging Markets

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.3%	-0.2%	0.0%	-0.1%	3.9%	8.2%	7.6%	7.5%			
Materials	0.3%	0.0%	0.2%	0.1%	11.3%	10.4%	8.4%	6.5%			
Industrials	-0.4%	-0.7%	-0.2%	0.5%	-8.2%	4.6%	1.7%	5.9%			
Consumer Discretionary	-0.3%	-0.1%	-0.1%	-0.1%	7.0%	9.6%	9.7%	10.5%			
Consumer Staples	0.0%	-0.1%	0.1%	0.1%	0.8%	1.3%	16.6%	8.5%			
Health Care	0.0%	-0.1%	0.0%	0.0%	1.9%	2.5%	1.1%	2.7%			
Financials	-0.2%	-0.4%	0.9%	-0.7%	6.8%	10.0%	35.5%	26.1%			
Information Technology	-2.4%	-1.6%	-1.5%	0.7%	10.2%	16.0%	11.8%	22.5%			
Telecommunication Services	0.1%	0.1%	0.0%	0.0%	3.9%	2.2%	5.2%	6.7%			
Utilities	0.0%	--	0.0%	--	--	1.0%	0.0%	3.2%			
Real Estate	0.0%	0.0%	0.0%	-0.1%	-1.3%	-1.3%	2.3%	0.0%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-3.4%</b>	<b>=</b>	<b>-3.1%</b>	<b>+</b>	<b>-0.6%</b>	<b>+</b>	<b>0.3%</b>	<b>5.7%</b>	<b>9.1%</b>	<b>100.0%</b>	<b>100.0%</b>

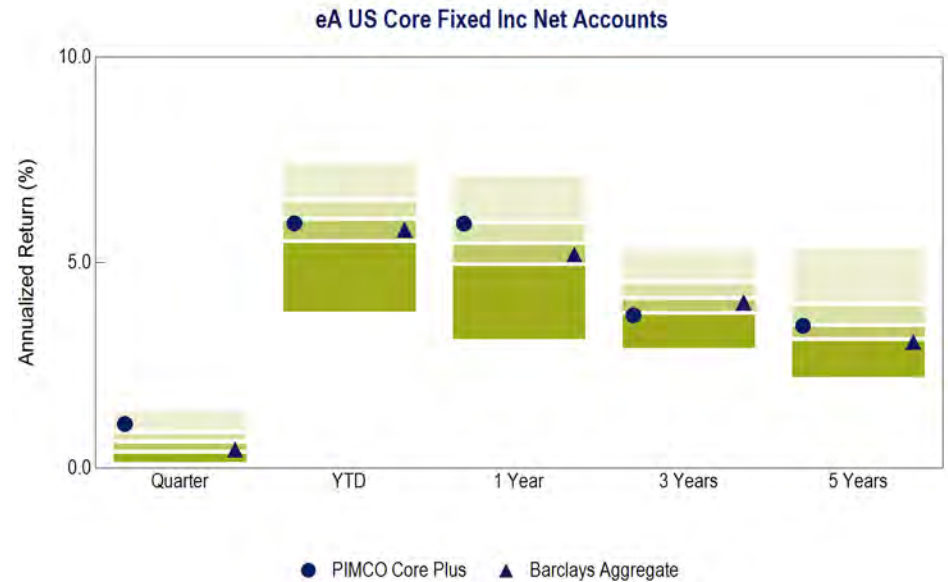
## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>Americas</b>				
Brazil*	9.7%	7.2%	8.6%	11.4%
Chile*	1.2%	1.2%	6.8%	-1.9%
Mexico*	8.1%	4.1%	-2.9%	-2.3%
United States	1.6%	0.0%	10.1%	3.9%
<b>Total-Americas</b>	<b>20.5%</b>	<b>13.5%</b>	<b>4.1%</b>	<b>5.4%</b>
<b>Europe</b>				
Hungary*	1.1%	0.3%	1.9%	10.9%
Luxembourg	1.6%	0.0%	-1.5%	9.1%
Poland*	1.7%	1.1%	-6.6%	4.0%
Portugal	1.6%	0.0%	10.3%	6.3%
Russia*	2.1%	3.8%	18.2%	8.7%
United Kingdom	4.0%	0.0%	6.9%	4.0%
<b>Total-Europe</b>	<b>12.1%</b>	<b>5.7%</b>	<b>5.8%</b>	<b>7.1%</b>

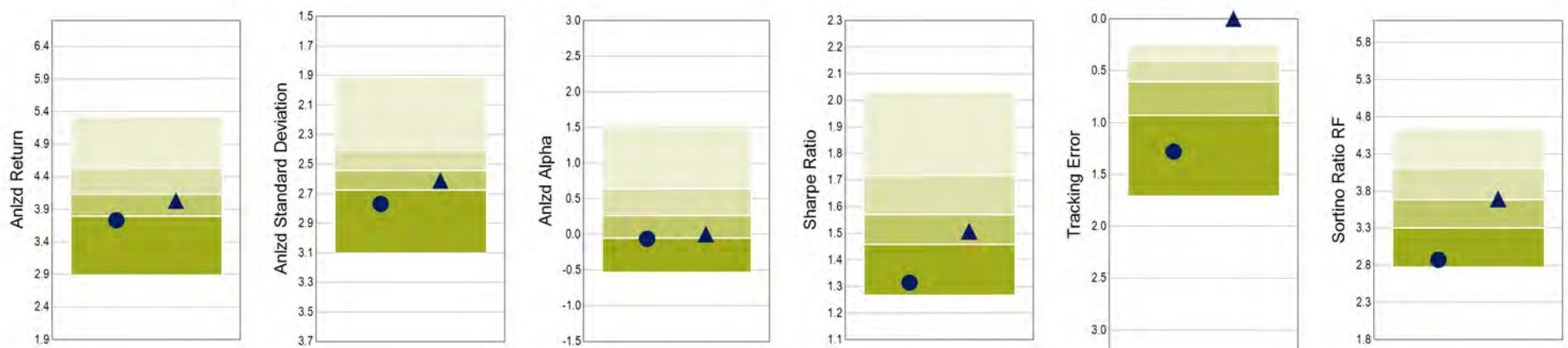
## Country Allocation

	Manager Allocation (USD)	Index Allocation (USD)	Manager Return (USD)	Index Return (USD)
<b>AsiaPacific</b>				
China*	1.4%	25.5%	-3.3%	13.9%
Hong Kong	12.1%	0.0%	10.5%	11.9%
India*	17.1%	8.4%	4.6%	6.2%
Indonesia*	4.9%	2.8%	11.2%	9.5%
Korea*	6.3%	14.6%	12.9%	11.0%
Malaysia*	1.9%	3.0%	3.5%	-1.5%
Philippines*	4.6%	1.6%	1.2%	-4.6%
Taiwan*	4.9%	12.1%	13.0%	12.3%
Thailand*	5.3%	2.3%	12.3%	7.3%
<b>Total-AsiaPacific</b>	<b>58.6%</b>	<b>70.2%</b>	<b>8.2%</b>	<b>10.6%</b>
<b>Other</b>				
South Africa*	3.3%	7.3%	-6.7%	6.4%
Turkey*	5.4%	1.4%	-6.6%	-5.3%
<b>Total-Other</b>	<b>8.8%</b>	<b>10.6%</b>	<b>-6.7%</b>	<b>5.2%</b>
<b>Totals</b>				
Developed	20.9%	0.0%	8.8%	--
Emerging*	79.1%	100.0%	4.9%	9.1%

PIMCO's investment process expects to generate above-benchmark returns by building diversified, risk-averse portfolios based upon their long-term secular outlook. This is achieved by analyzing fundamental global trends in such areas as political factors, inflation, volatility, growth, and currency, amongst others. The three to five-year secular outlook is the core element of their decision-making process, and serves as a framework for portfolio implementation. In applying the secular outlook to the portfolio, such tools as duration position, yield curve posture and sector allocation are expressed to best represent the firm's view on the macro-economic environment. Bottom-up analysis of specific securities is also an important part of the firm's philosophy. Bonds are evaluated on a rich/cheap basis and fundamental research determines strong portfolio candidates.

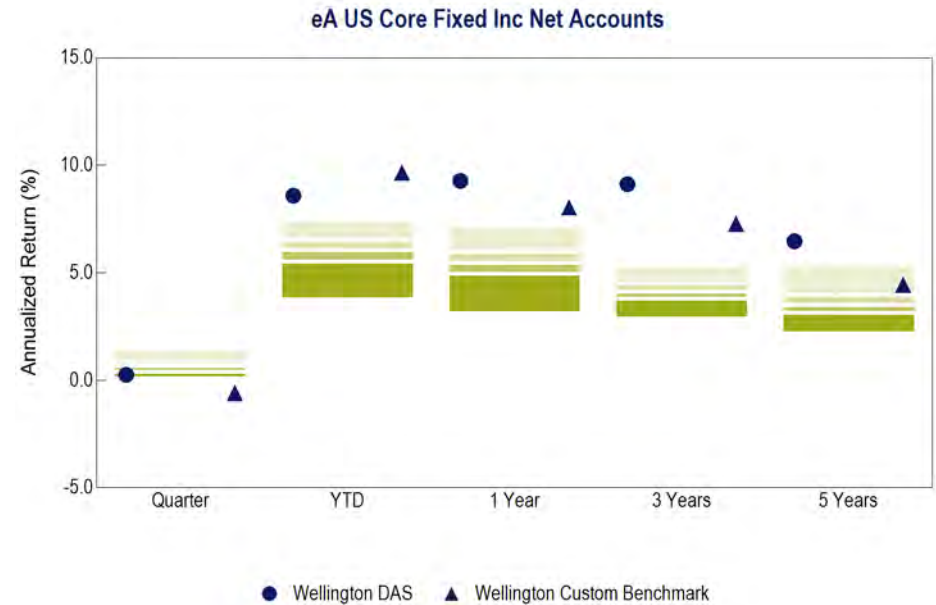


### 3 Year Risk Statistics

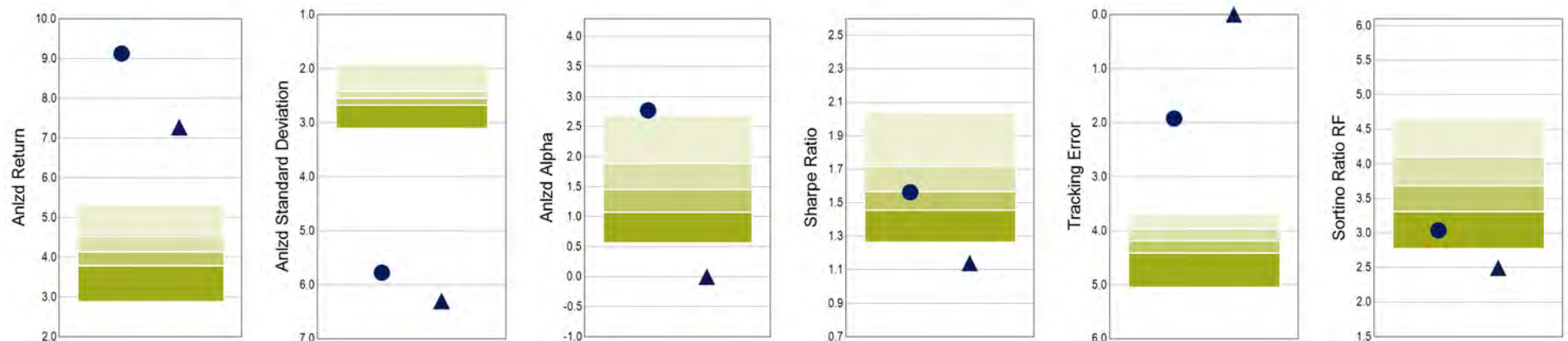


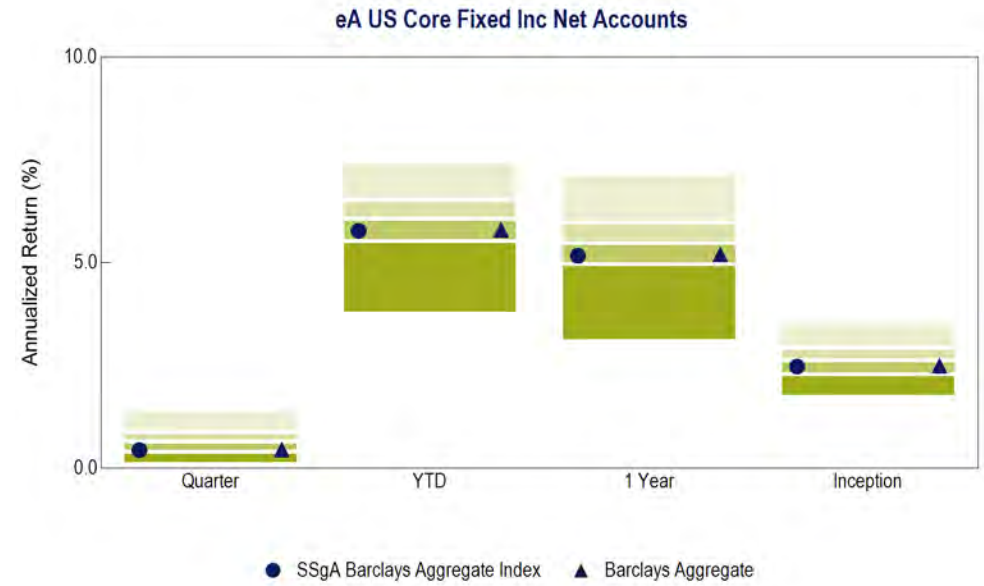
# Wellington DAS

The objective of the Diversified Alpha Strategies - Absolute Return (DAS) Portfolio is to provide positive absolute returns over cash or other market exposure (beta) over rolling 3-year periods with expected volatility of 3 to 6%. The DAS Portfolio aims to provide consistent returns by investing in diverse, market-neutral alpha sources that have low or negative correlations with each other. The mix of alpha sources is rebalanced periodically, and the target mix may change over time. The DAS Portfolio can be combined with desired market (beta) exposure through the use of derivative instruments. Drawing on a diversified basket of alpha sources from across a broad investment universe, rather than a single alpha source, should increase the efficiency of the return/risk ratio and increase the likelihood of achieving consistent returns. For this reason, the DAS Portfolio includes a variety of alpha sources: market neutral equity and fixed income strategies, overlay strategies (currency, fixed income, asset allocation), and long-only equity strategies from which they try to remove structural market risk through short equity index future or swap positions. The allocation to each alpha source is determined in a contribution to risk framework in the context of the expected aggregate DAS Portfolio characteristics. The target weights of the underlying alpha sources have been set using risk budgeting, with a goal of achieving a balanced contribution to risk across the alpha sources, rather than focusing only on the absolute or percent cash allocation.

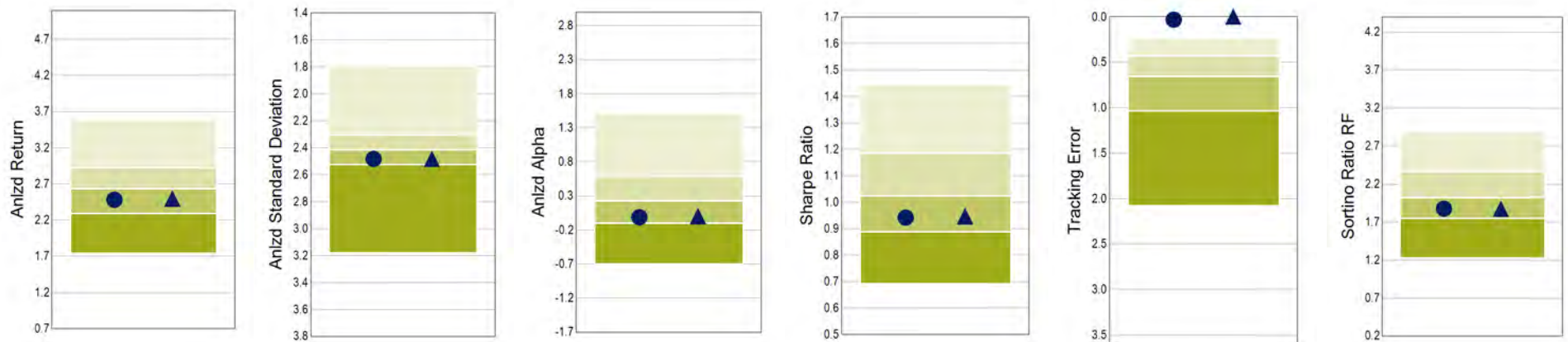


## 3 Year Risk Statistics

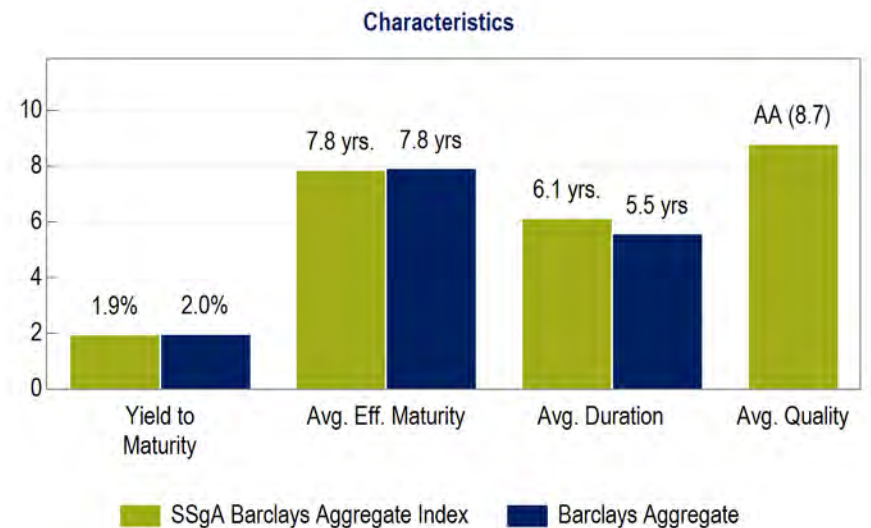
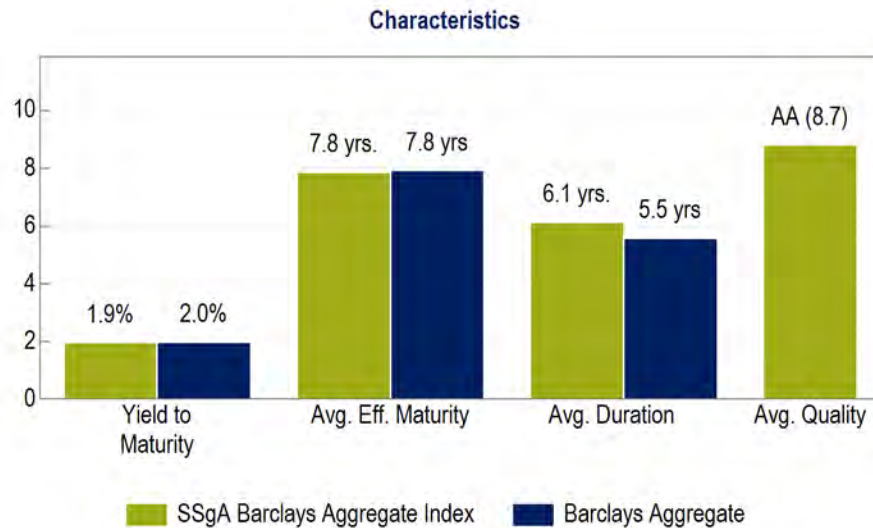
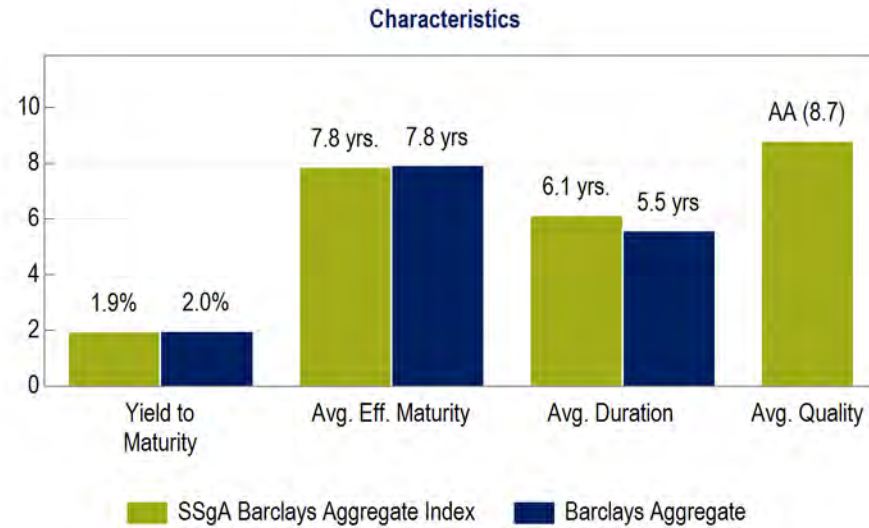




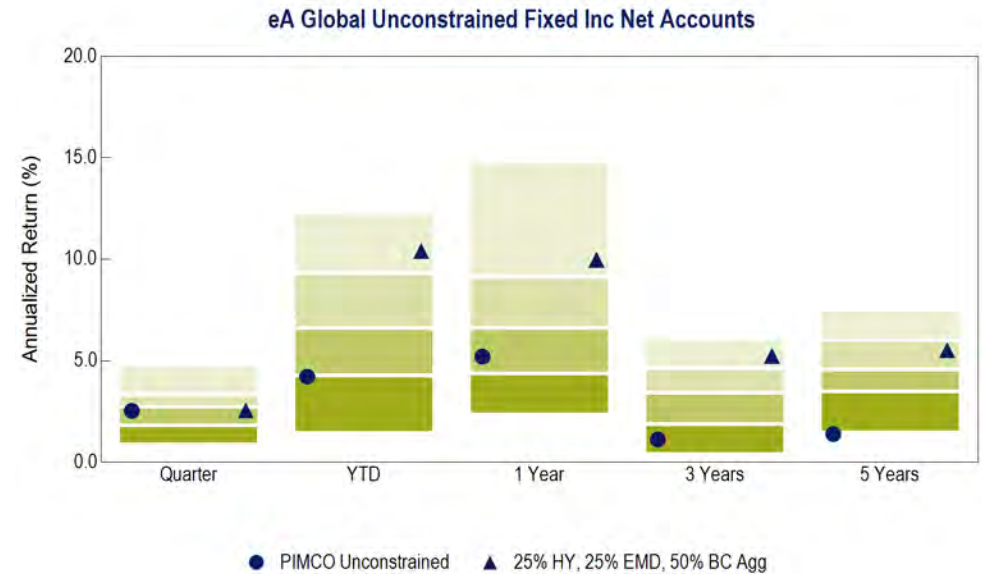
### Since Inception Risk Statistics



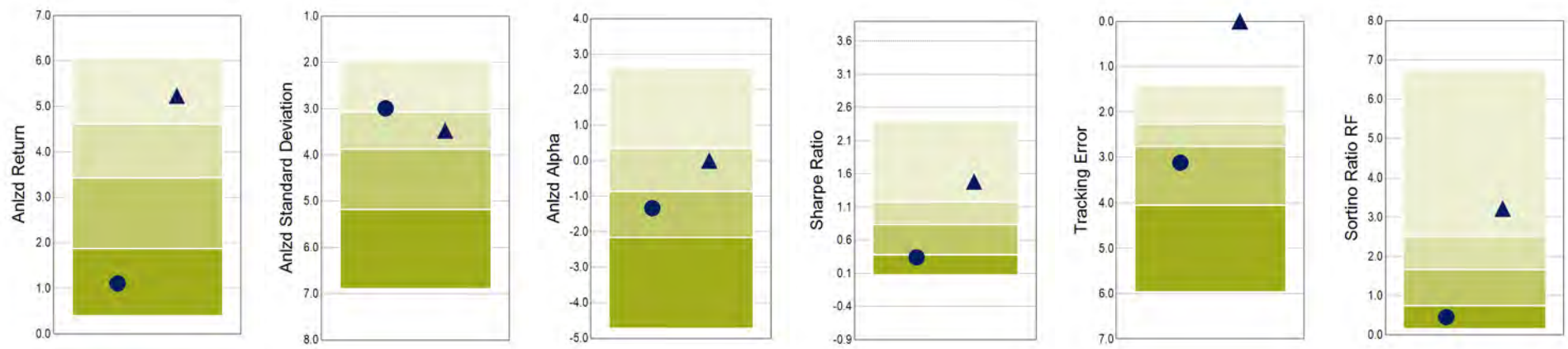
# SSgA Barclays Aggregate Index



The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that embodies PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy is designed to offer the traditional benefits of a core bond portfolio - seeks maximum long-term return consistent with capital preservation and prudent management- but with higher potential alpha and the potential to mitigate downside risk to a greater degree than what is reasonably possible from traditional active fixed income management approaches as the strategy allows for more manager discretion to adjust duration exposure, allocate across sectors and otherwise express the firm's active views. The strategy is governed by PIMCO's investment philosophy and unique, disciplined secular investment process, which focuses on long-term economic, social and political trends that may have lasting impacts on investment returns.

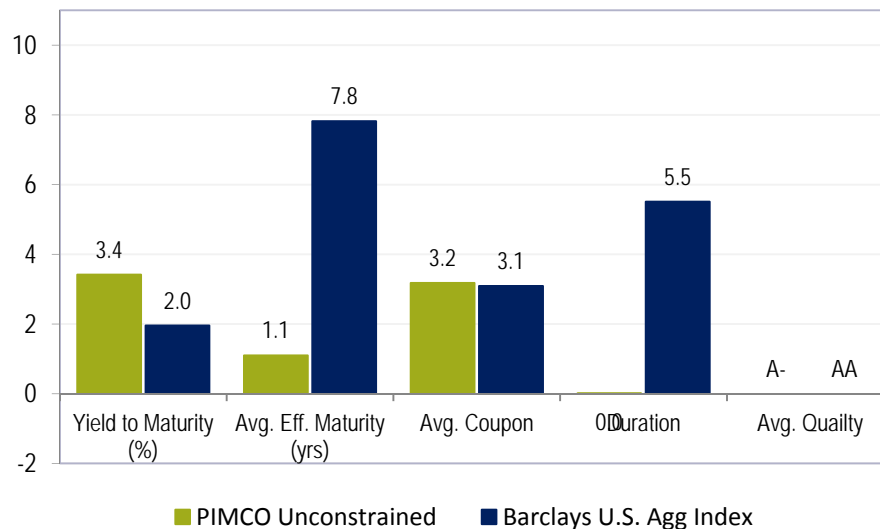


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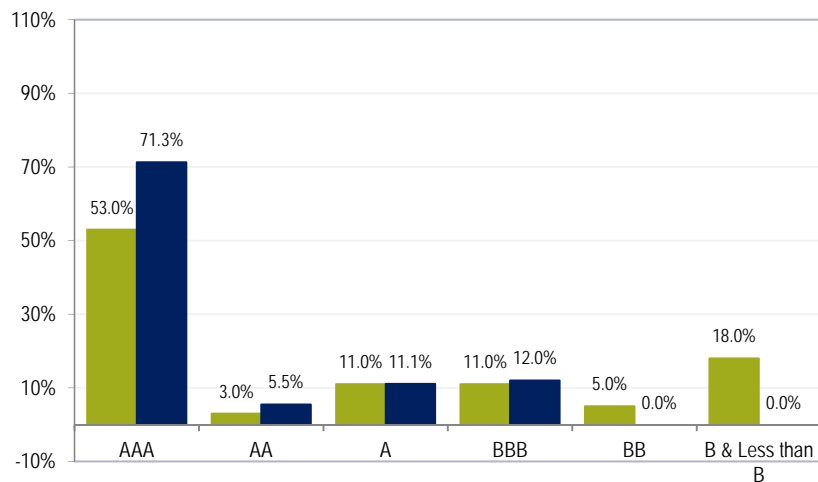




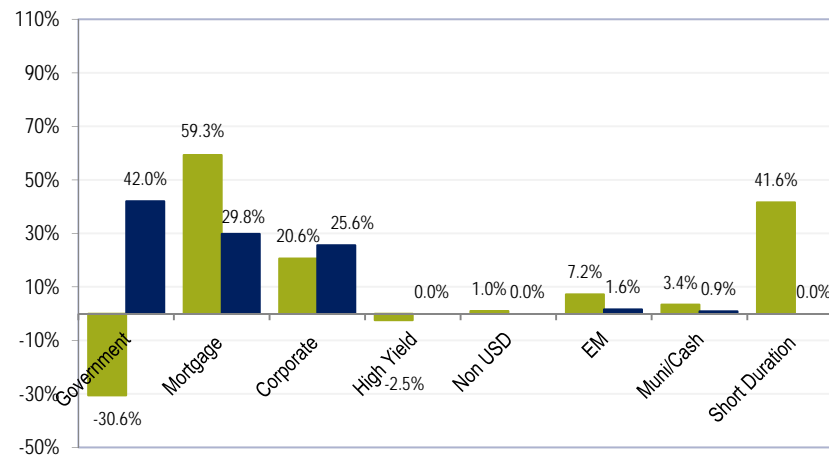
Characteristics



Quality Rating



Sectors



Source: PIMCO

## Portfolio Sensitivity

Investment strategy	Month end			
	Bond Weight (%)	Bonds Duration Contribution	Derivatives Duration Contribution	Total Duration Contribution
Developed Markets	80.7	4.21	-5.95	-1.74
Rates	24.9	2.34	-5.94	-3.60
Inv Grade Credit	31.6	1.29	0.00	1.29
High Yield Credit	13.4	0.37	0.00	0.37
Convertible	10.9	0.20	-0.01	0.20
Cash and FX	0.0	0.00	0.00	0.00
Emerging Markets	7.7	0.35	0.48	0.83
Rates	7.3	0.35	0.48	0.83
Inv Grade Credit	0.0	0.00	0.00	0.00
High Yield Credit	0.0	0.00	0.00	0.00
Convertible	0.3	0.00	0.00	0.00
Cash and FX	0.0	0.00	0.00	0.00
<b>Total</b>	<b>88.4</b>	<b>4.56</b>	<b>-5.47</b>	<b>-0.91</b>

## Characteristics

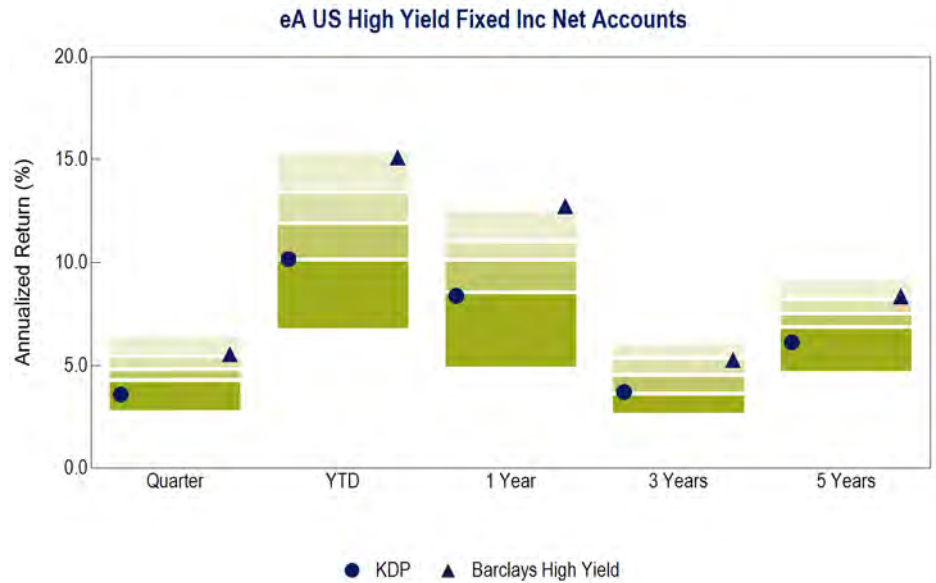
	Month end
	<b>GAM Unconstrained Bond Strategy*</b>
Value at Risk % (97.5%, 22 days)	<b>1.52</b>
Coupon %	<b>3.22</b>
Yield to Maturity %	<b>2.64</b>
Years to Maturity	<b>8.79</b>
Effective Duration	<b>-0.91</b>
Spread Duration	<b>2.30</b>
Equity Delta**	<b>0.95</b>
Currency Delta	<b>4.34</b>
Credit Quality***	<b>A</b>

Source: GAM

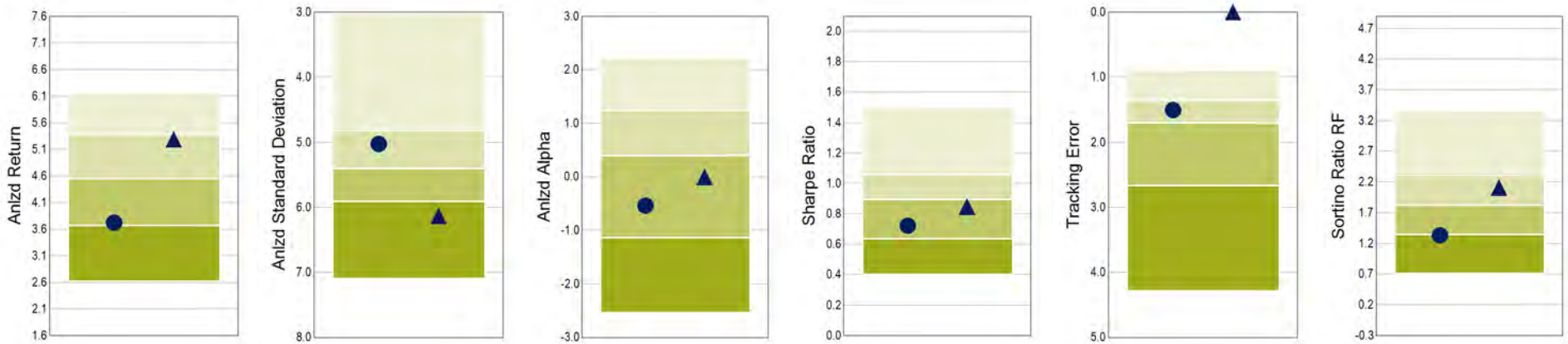
## Portfolio Overview

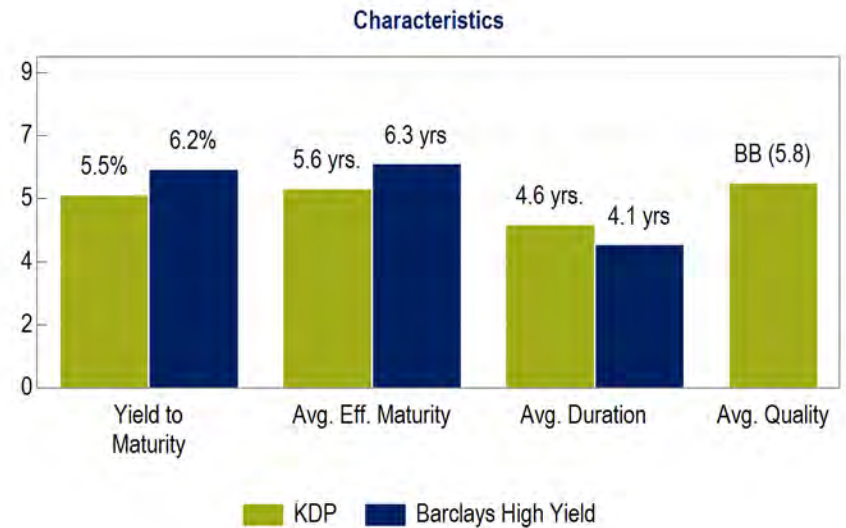
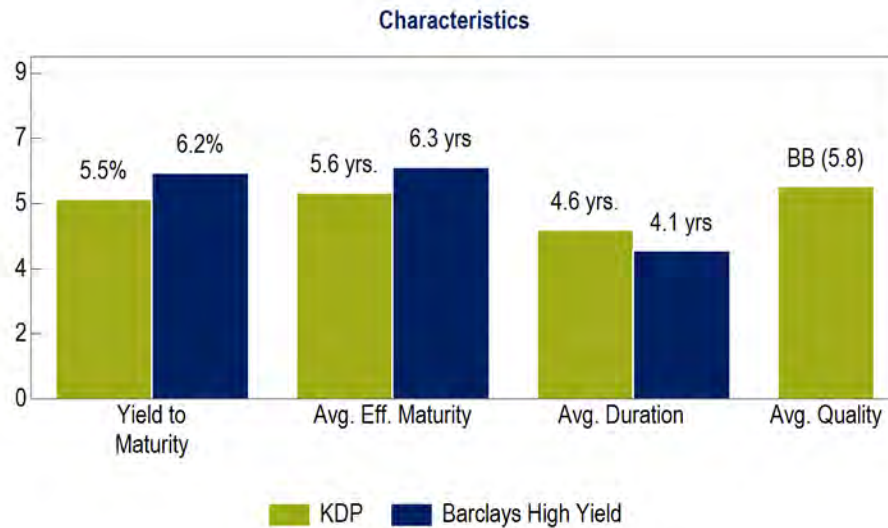
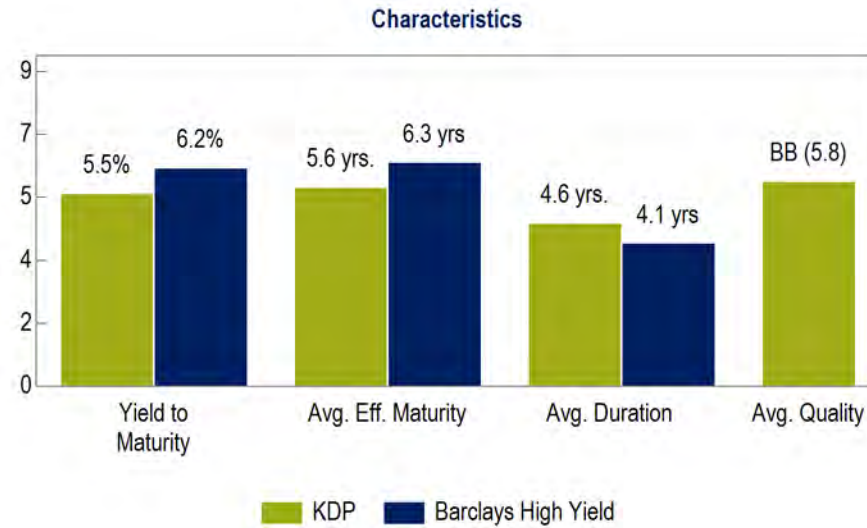


KDP believes that the key to delivering superior risk-adjusted returns lies in controlling credit risk. To do this the firm combines rigorous, bottom-up credit analysis with an active, top-down management approach that ensures a strong overall credit profile and broad portfolio diversification. KDP employs a value-oriented approach to investing that leverages our strong fundamental research capabilities, and seeks to take advantage of market inefficiencies and anomalies on an opportunistic basis in order to capture excess credit spread. KDP places a strong emphasis on issuer, industry and sector diversification, and tends to focus on larger companies, as they tend to be more resilient in times of difficulty and their securities tend to be more liquid. KDP uses a proprietary "Default Risk Ranking (DRR)" System to screen securities eligible for purchase in its portfolios. By assigning default risk probabilities to companies covered, the DRR system is used to identify securities that are overvalued or undervalued relative to the market. The firm minimizes portfolio volatility in part by investing in securities of companies that exhibit greater resilience in times of financial distress. KDP focuses on companies with good management, stable to improving earnings, good balance sheet liquidity and a strong competitive position in industries with favorable underlying fundamentals.

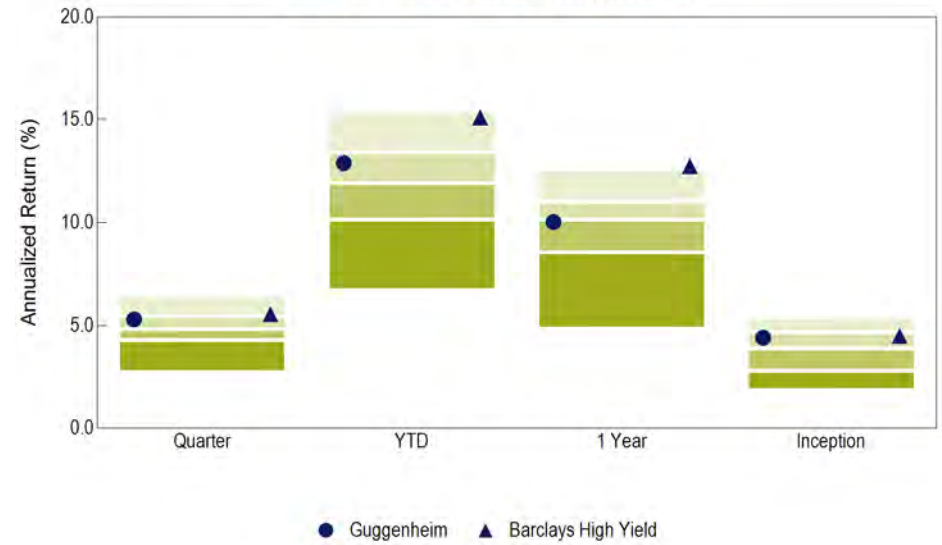


### 3 Year Risk Statistics

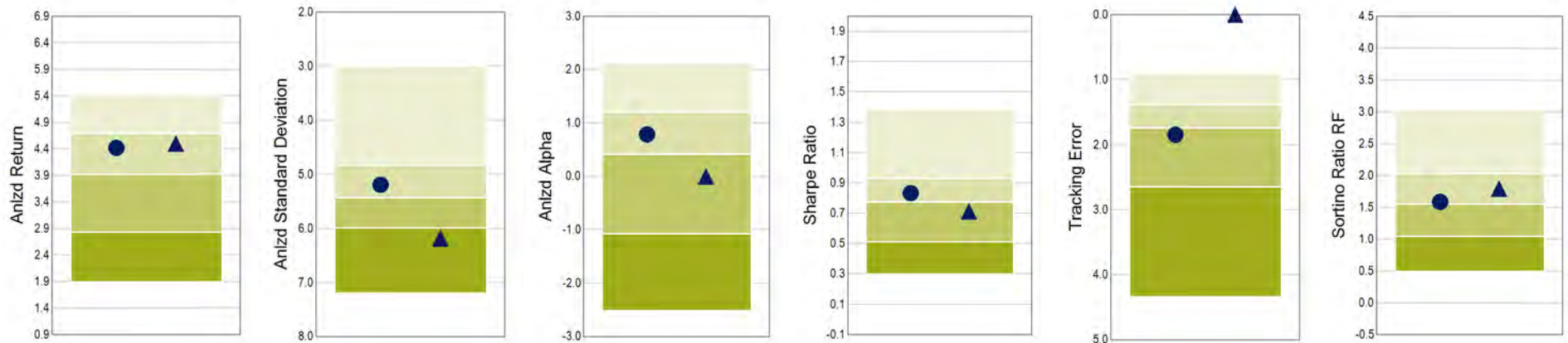




eA US High Yield Fixed Inc Net Accounts

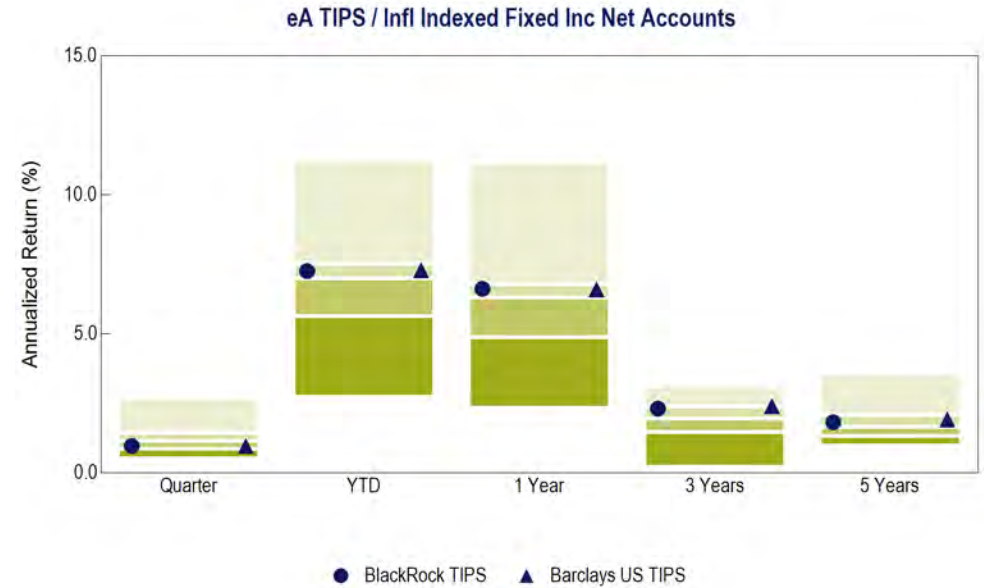


Since Inception Risk Statistics

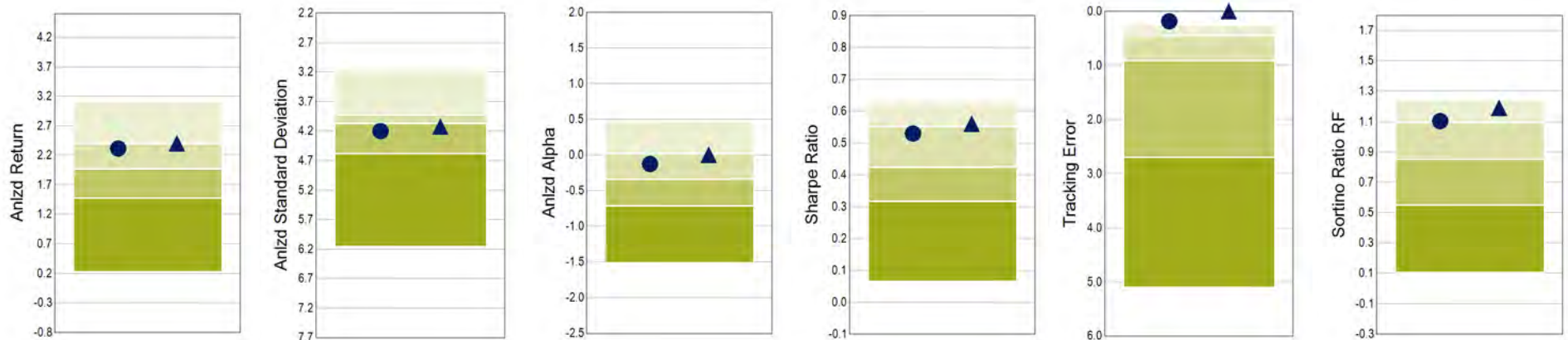


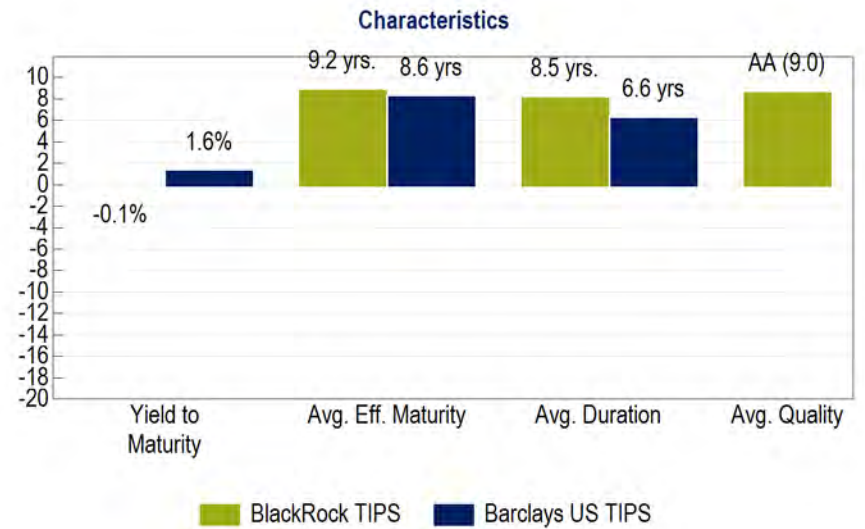
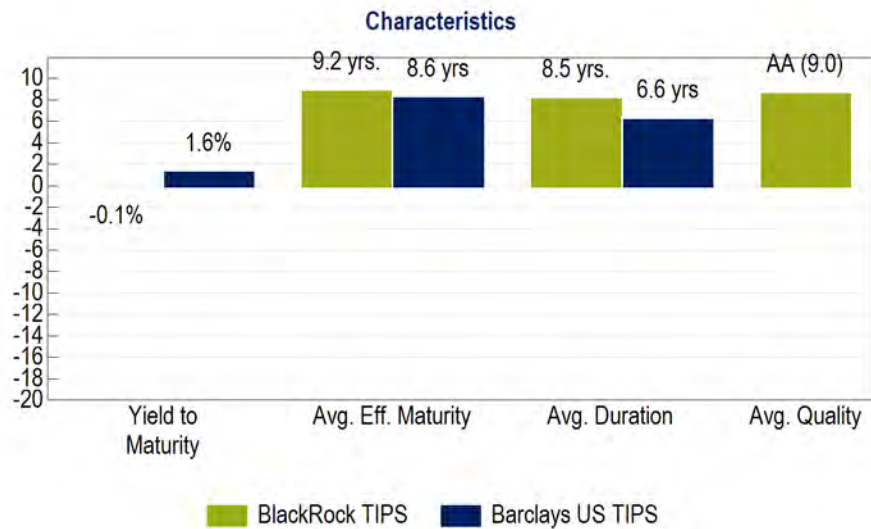
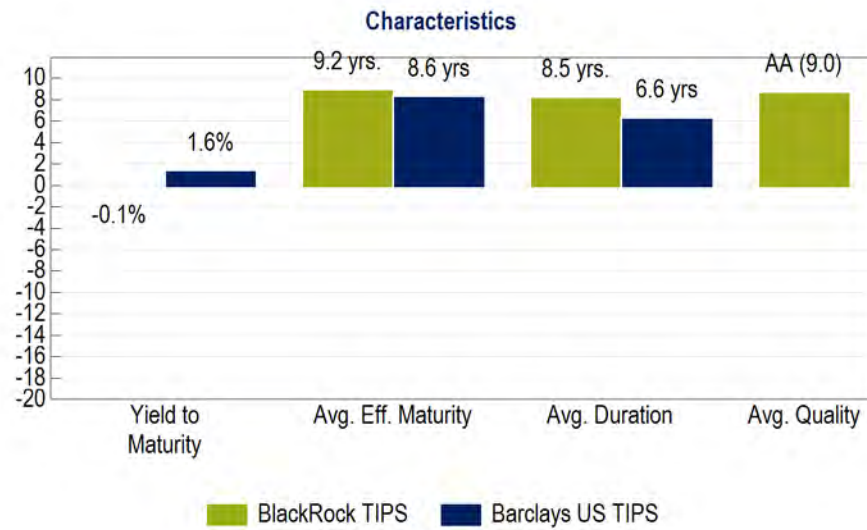
# BlackRock TIPS

In the management of an inflation-linked bond portfolio, BlackRock will utilize multiple strategies to outperform the index. These include: duration and yield curve positioning, technical supply/demand anomalies related primarily to the ILB auction cycle, seasonal factors related to non-seasonally adjusted inflation-linked indices, break-even spread between ILBs and nominal securities, and, if applicable, sector and country allocation. The team compares nominal yields with real yields and factor in their views on inflation. If the yield spread is less than the inflation rate, then ILBs are considered to trade cheaply to nominal bonds and have greater relative value. The portfolio currently holds about 31 positions, out of 27-29 issues in the benchmark. Turnover is moderate, at around 100-150%.

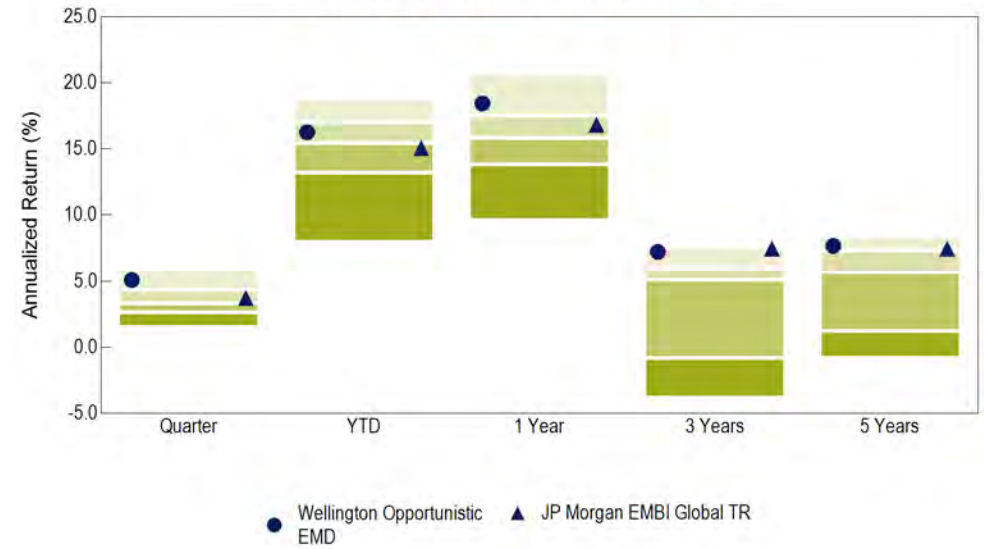


## 3 Year Risk Statistics

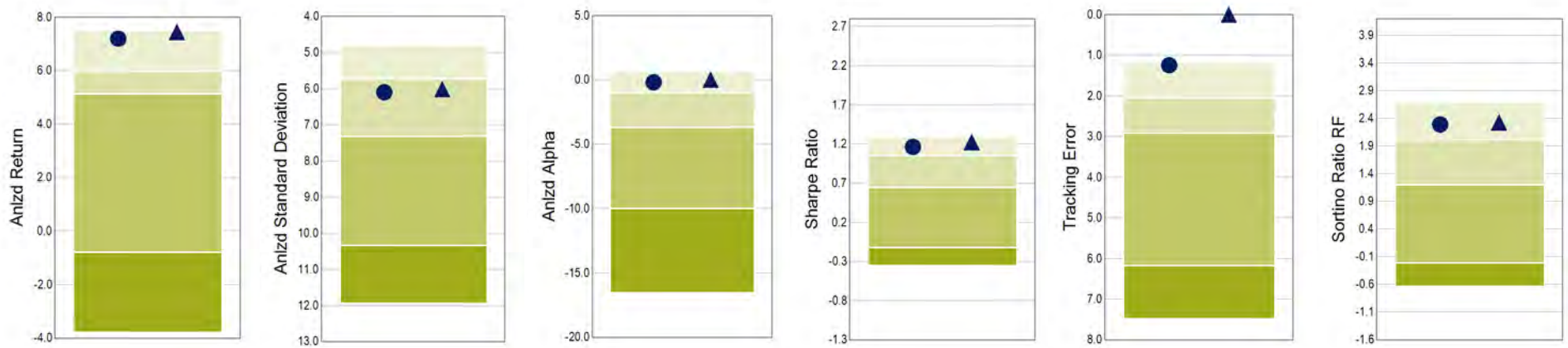




eA All Emg Mkts Fixed Inc Net Accounts

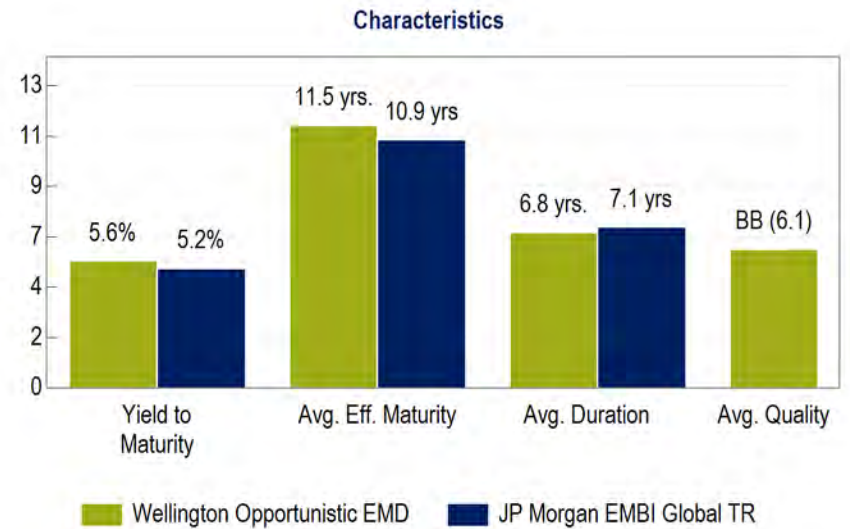
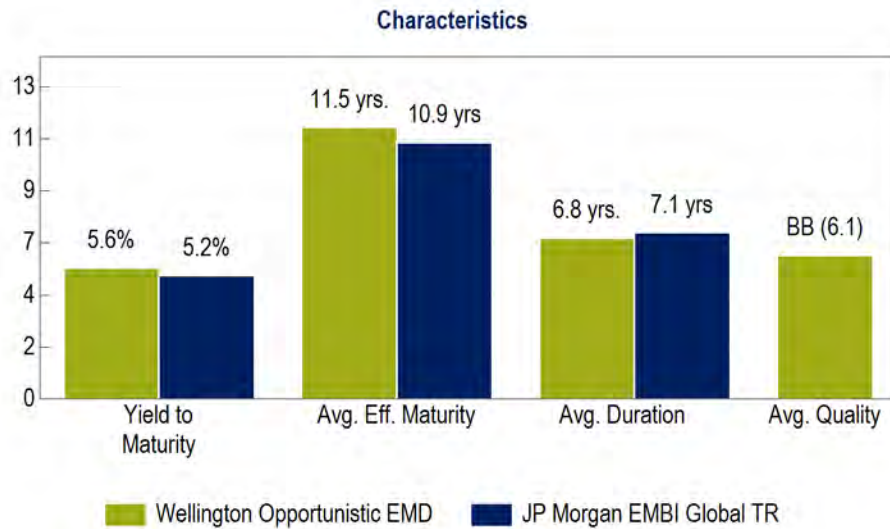
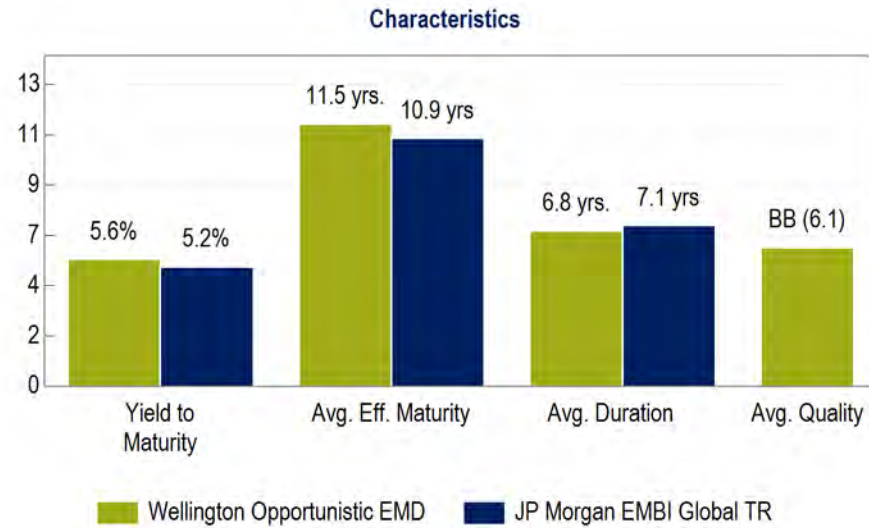


## 3 Year Risk Statistics





# Wellington Opportunistic EMD



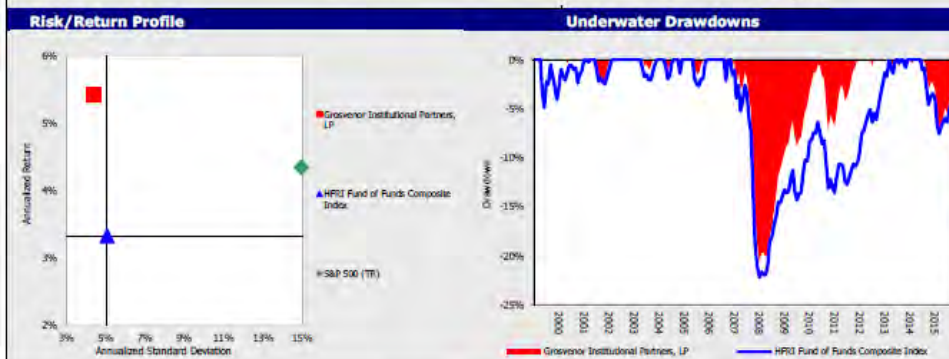
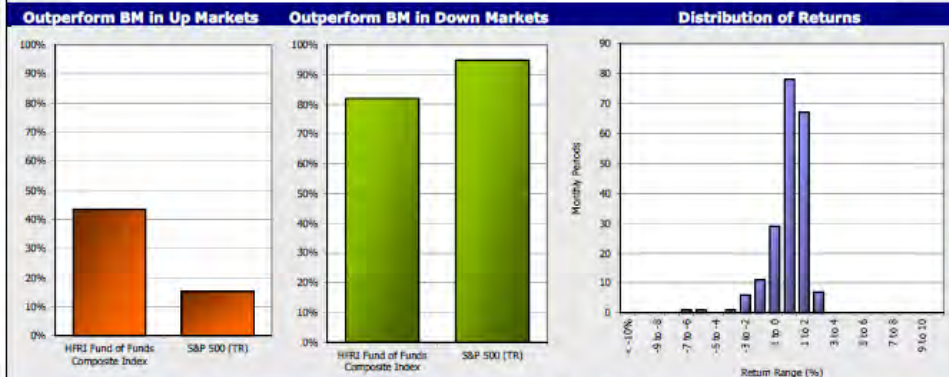
# Grosvenor Institutional Partners, LP



**Grosvenor Institutional Partners, LP**  
Grosvenor Capital Management, LP

Benchmark 1 (BM1): HFRI Fund of Funds Composite Index  
Benchmark 2 (BM2): S&P 500 (TR)

Monthly Performance (%) Net of Fees													Statistical Analysis				
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Returns	Fund	BM1	BM2
2016	-3.0%	-1.5%	0.4%	1.1%	1.1%	-0.7%	1.1%	1.5%	0.4%	1.5%	0.4%	0.3%	0.3%	Annualized Compound ROR	5.4%	3.3%	4.3%
2015	-0.4%	1.6%	0.5%	0.2%	0.9%	-0.5%	0.6%	-1.5%	-1.6%	0.6%	0.1%	-0.6%	-0.2%	3 Yr Return	2.5%	2.2%	11.2%
2014	0.0%	1.6%	-0.1%	-0.6%	0.8%	1.1%	-0.7%	0.8%	-0.2%	-0.3%	0.6%	0.3%	3.3%	5 Yr Return	5.4%	3.2%	16.4%
2013	2.6%	0.6%	1.4%	0.8%	1.7%	-0.6%	1.7%	0.2%	1.7%	1.3%	1.6%	1.1%	15.2%	Best Month	2.7%	5.2%	10.9%
2012	1.6%	1.8%	0.9%	-0.1%	-1.4%	0.4%	0.8%	1.2%	0.8%	0.5%	0.7%	1.2%	8.6%	Worst Month	-6.3%	-6.5%	-16.8%
2011	0.9%	1.0%	0.0%	0.9%	-0.1%	-1.1%	-0.2%	-2.8%	-2.7%	1.7%	-0.7%	-0.6%	-3.7%	% Positive Months	75.6%	64.2%	61.7%
2010	0.7%	0.3%	1.6%	0.9%	-1.8%	-0.9%	0.7%	0.3%	1.8%	1.2%	0.5%	1.5%	6.8%	<b>Risk</b>			
2009	1.2%	0.1%	-0.6%	0.1%	2.7%	0.9%	2.2%	1.8%	2.3%	0.7%	1.0%	1.1%	14.2%	Standard Deviation	4.4%	5.1%	15.0%
2008	-2.4%	1.4%	-1.7%	0.2%	1.5%	-0.6%	-2.0%	-1.3%	-6.9%	-5.3%	-3.2%	-2.2%	-20.6%	3 Yr Standard Deviation	3.6%	3.6%	10.8%
2007	1.7%	0.8%	1.4%	1.4%	2.3%	0.4%	0.8%	-2.1%	1.3%	2.7%	-0.6%	0.5%	11.1%	5 Yr Standard Deviation	3.6%	3.5%	11.1%
														Sharpe Ratio (3.5%)	0.4	0.0	0.1
														Sortino Ratio (7.0%)	-0.4	-0.8	-0.2
														Downside Deviation (7.0%)	3.8%	4.5%	11.5%
														Max Drawdown	-20.7%	-22.2%	-50.9%
														Months In Maximum Drawdown	14	14	16
														Months To Recover	47	66	37
<b>Comparison To Benchmark(s)</b>																	
														Monthly Alpha		0.2%	0.4%
														Annualized Alpha		2.9%	4.7%
														Beta		0.7	0.2
														Correlation		0.9	0.5
														R-Squared		74.1%	26.5%
<b>Annual Returns</b>																	
														2016-(YTD)	0.3%	-0.2%	7.8%
														2015	-0.2%	-0.3%	1.4%
														2014	3.3%	3.4%	13.7%
														2013	15.2%	9.0%	32.4%
														2012	8.6%	4.8%	16.0%
														2011	-3.7%	-5.7%	2.1%
<b>Latest Returns</b>																	
														Last Month	0.4%	0.4%	0.0%
														Last 3 Months	3.0%	2.4%	-3.9%
														Last Year	0.3%	0.5%	15.4%
														2-Year	0.4%	0.2%	7.1%
														3-Year	2.5%	2.2%	11.2%
														4-Year	5.1%	3.2%	13.2%
														5-Year	5.4%	3.2%	16.4%
<b>Drawdown Analysis</b>																	
														1	-20.7%	-22.2%	-50.9%
														2	-7.2%	-7.6%	-44.7%
														3	-2.4%	-4.9%	-8.4%
														4	-2.1%	-2.7%	-6.8%
														5	-1.4%	-2.5%	-6.6%



\*\*\*Past Performance is not indicative of future results. Ratios are calculated based on a risk-free rate of 3.6%. Actual ratios may vary depending on the actual risk-free rate and life of the fund\*\*\*

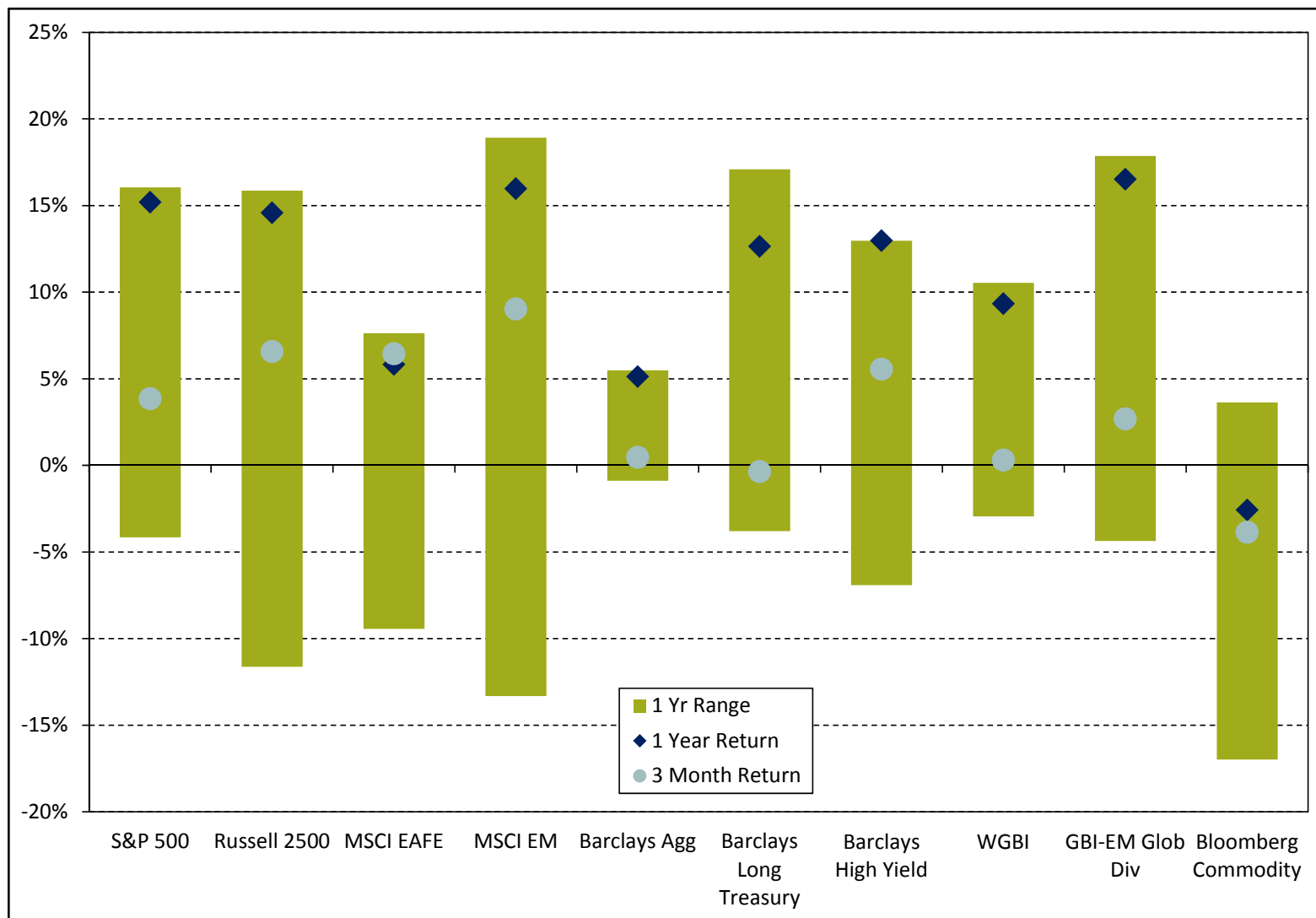
# Appendix

## Index Performance Summary as of 09/30/2016

	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Sept	YTD
Barclays US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	11.4%	9.6%	-0.2%	-2.8%	21.8%
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%	2.0%	17.1%
Barclays US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	6.8%	6.7%	2.3%	-1.1%	16.5%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	5.7%	0.7%	9.0%	1.3%	16.0%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	-4.2%	19.7%	1.1%	1.9%	15.9%
Barclays US Govt/Credit Long	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	-3.3%	7.3%	6.5%	1.2%	-1.3%	15.7%
Barclays US Corporate HY	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	3.4%	5.5%	5.6%	0.7%	15.1%
JPM EMBI Global Diversified	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	5.0%	5.0%	4.0%	0.4%	14.8%
FTSE NAREIT Equity REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	6.0%	7.0%	-1.4%	-1.8%	11.8%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	-1.5%	3.8%	9.0%	1.1%	11.5%
Citi WGBI	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-3.6%	7.1%	3.4%	0.3%	0.7%	11.1%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	0.4%	3.6%	6.6%	0.5%	10.8%
Bloomberg Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	0.4%	12.8%	-3.9%	3.1%	8.9%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	1.2%	2.5%	4.0%	0.1%	7.9%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	1.3%	2.5%	3.9%	0.0%	7.8%
Credit Suisse Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	1.3%	2.9%	3.1%	0.9%	7.5%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	0.2%	1.0%	5.3%	0.6%	6.6%
Barclays US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	3.0%	2.2%	0.5%	-0.1%	5.8%
Barclays US Agg Interm	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.3%	1.4%	0.3%	0.2%	4.1%
Barclays Municipal	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	1.7%	2.6%	-0.3%	-0.5%	4.0%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	-3.0%	-1.5%	6.4%	1.2%	1.7%
BC US Govt/Credit 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.0%	0.7%	0.0%	0.1%	1.7%
Credit Suisse Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	-2.2%	0.6%	1.6%	-	0.0%

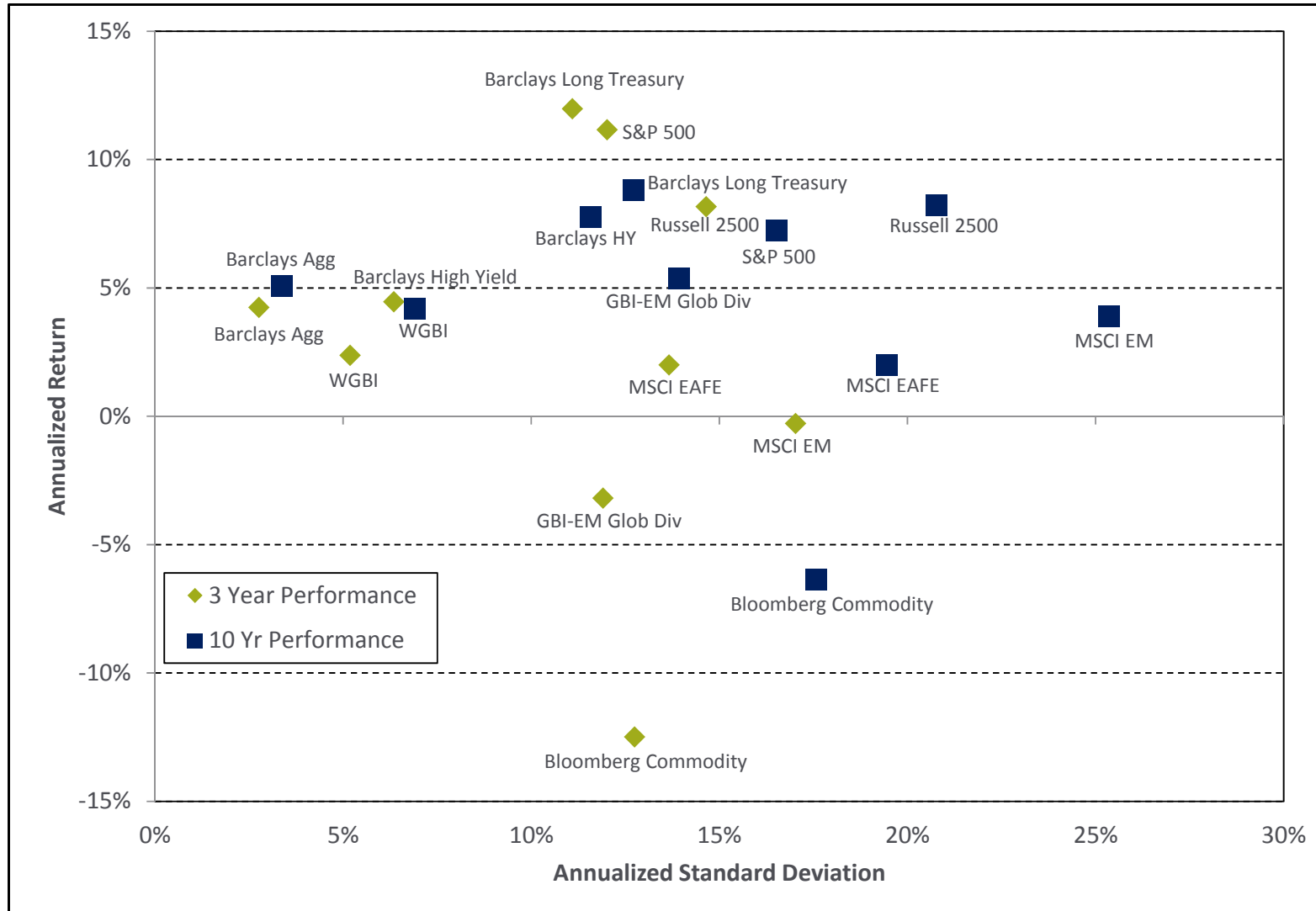
Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse

# Near Term Broad Market Performance Summary as of 09/30/2016



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

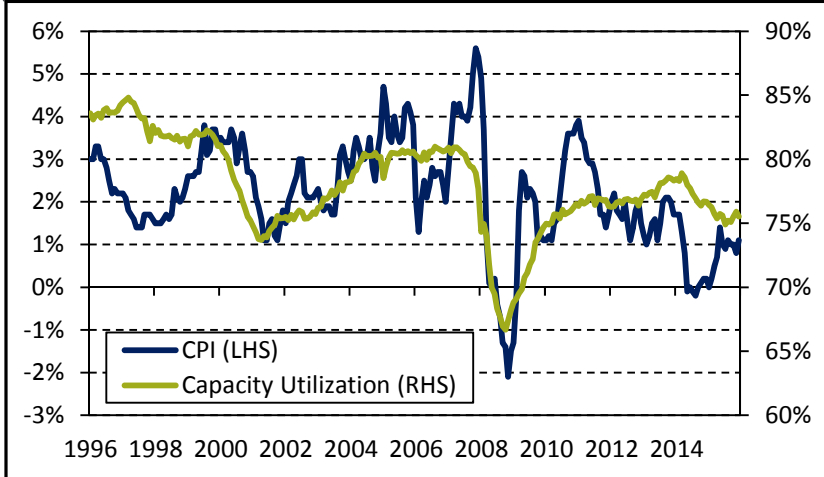
# Long Term Broad Market Performance Summary as of 09/30/2016



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

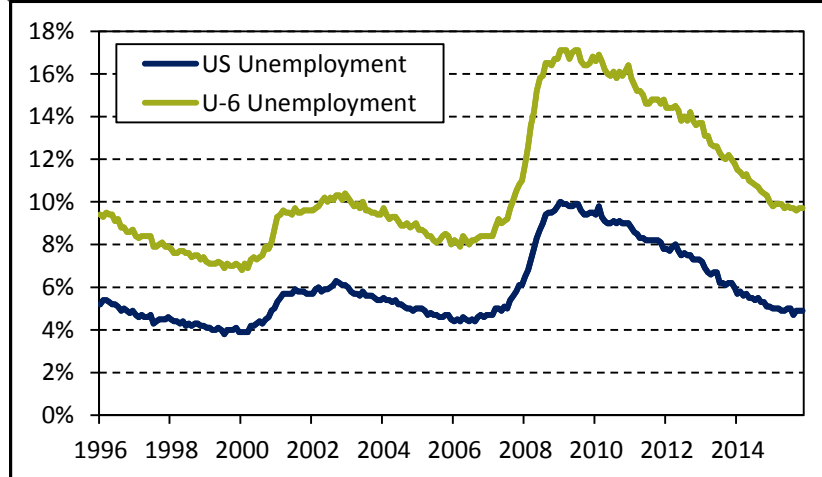
# US Economic Indicators

## Inflation experiences slight uptick



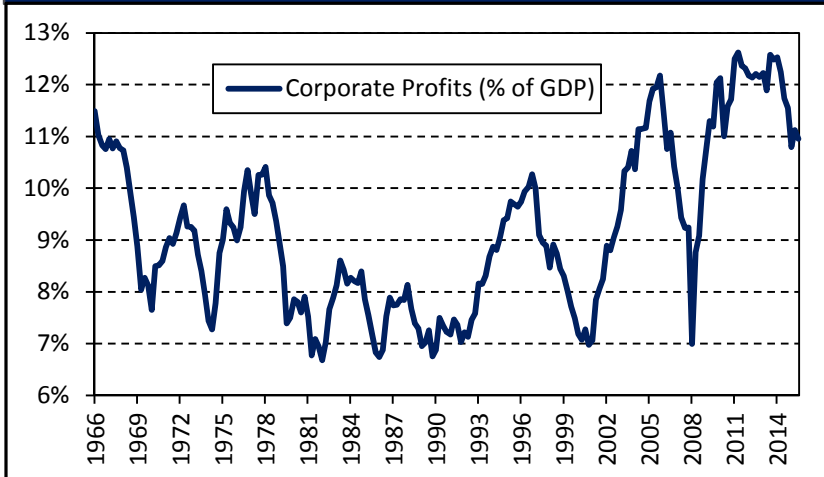
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics

## Unemployment remains steady



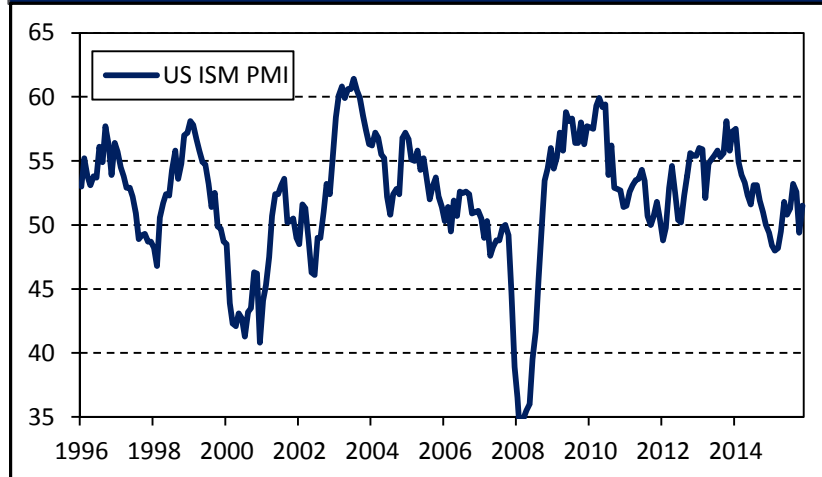
Source: Bloomberg, Bureau of Labor Statistics

## Corporate profits continue to decline



Source: Bloomberg, Bureau of Economic Analysis

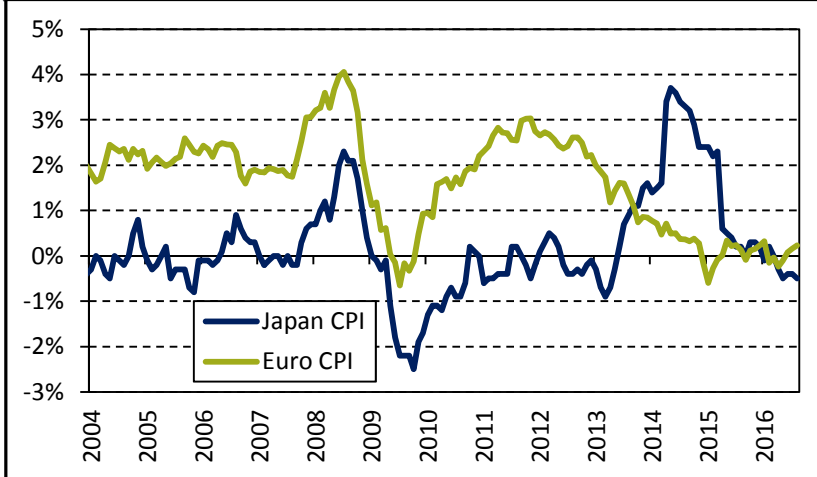
## Manufacturing is relatively neutral



Source: Bloomberg, Institute for Supply Management

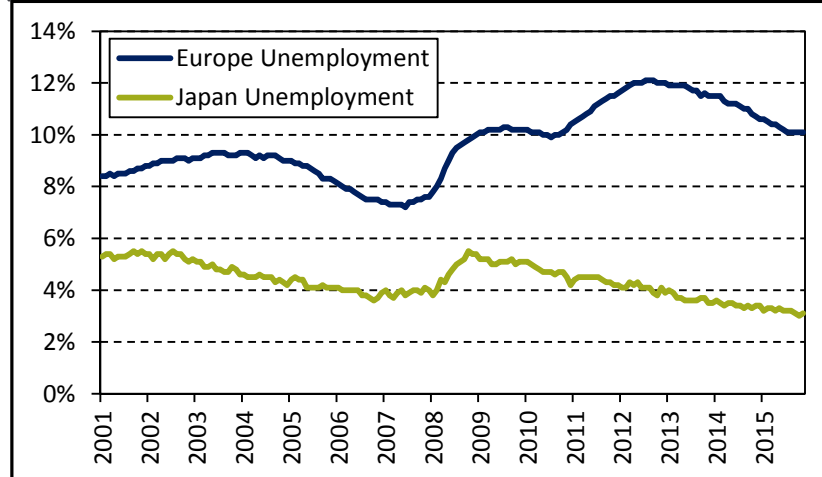
# International Economic Indicators

## Inflation in Europe experiences a slight uptick



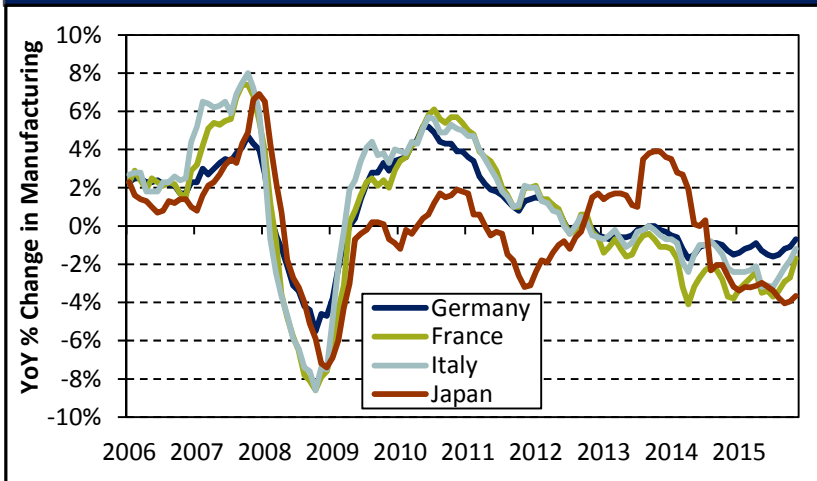
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

## Europe unemployment trending lower



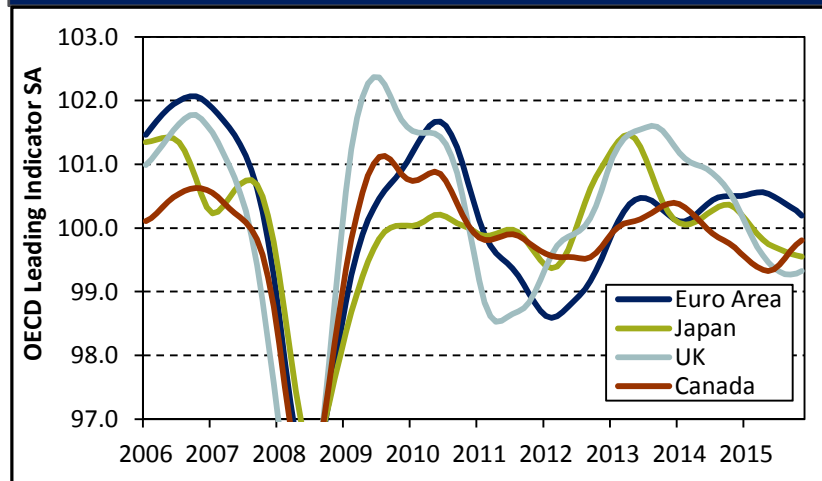
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat

## Manufacturing approaches neutral territory



Source: Bloomberg, OECD, Eurostat

## Euro Area and Japan leading indicators have declined

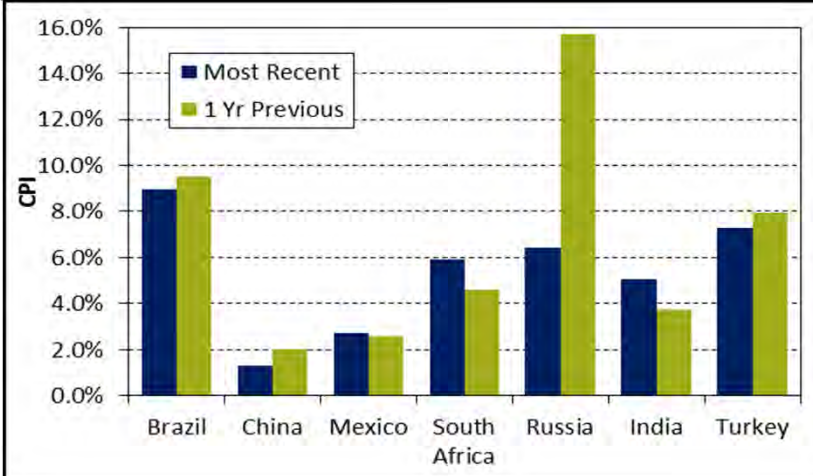


Source: Bloomberg, OECD



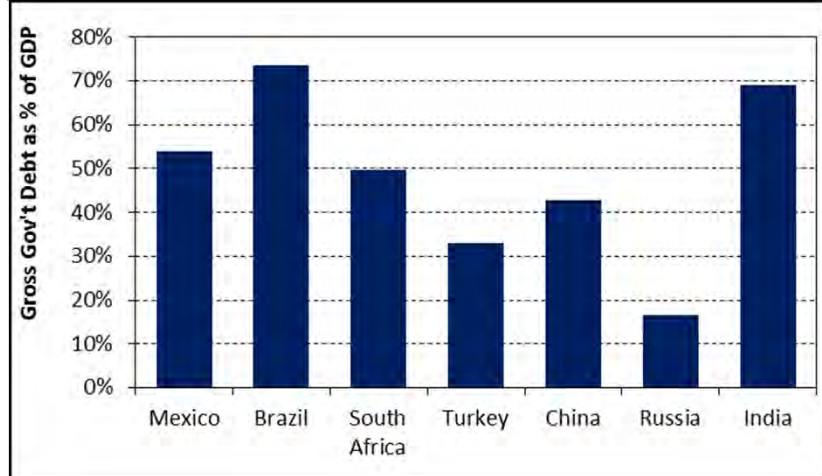
# Emerging Market Economic Indicators

## EM inflation varies by country



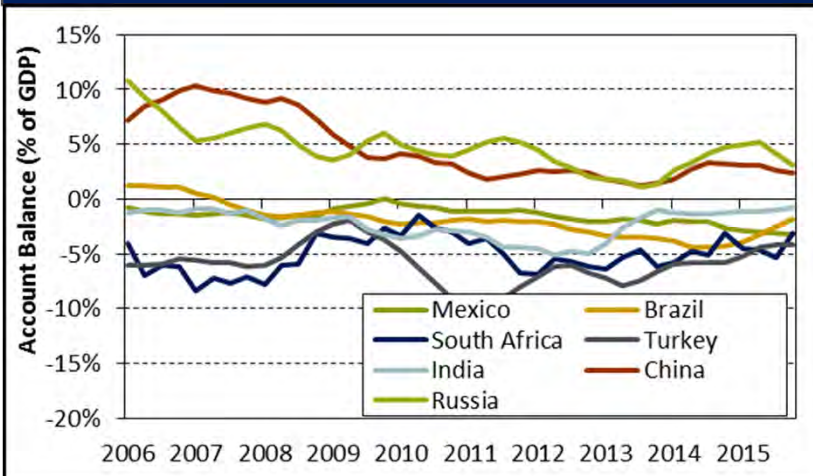
Source: Bloomberg

## Relatively healthy Debt/GDP ratios



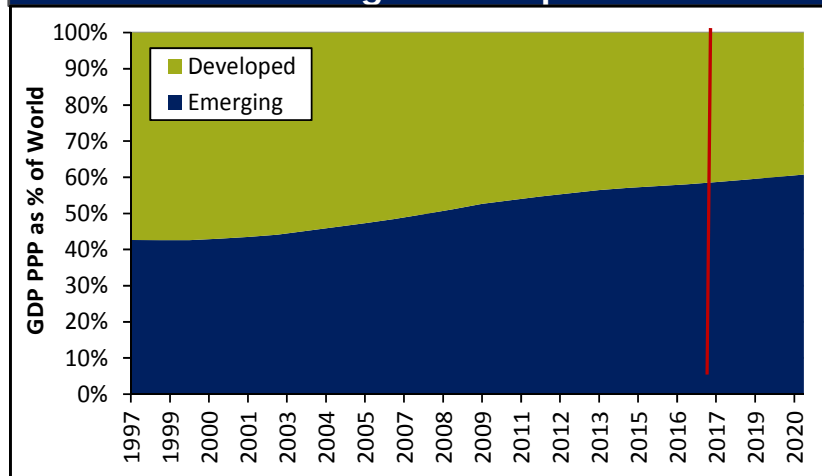
Source: Bloomberg, IMF

## Account balances remain steady



Source: Bloomberg

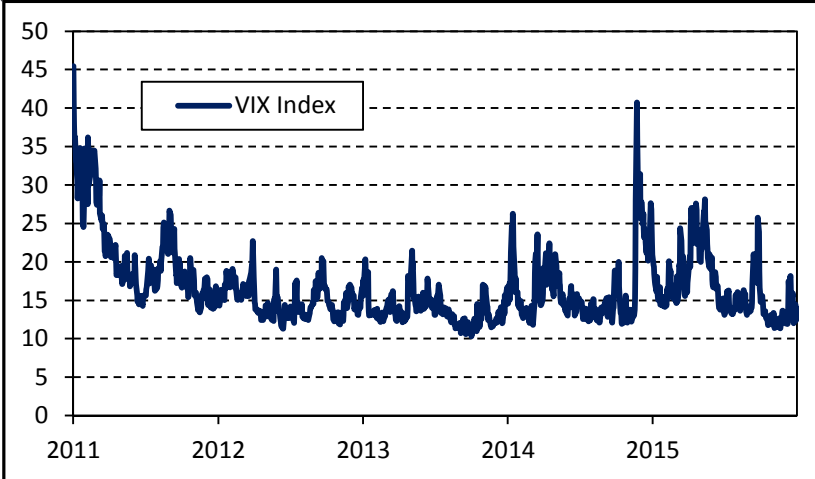
## EM continues trending higher as a percent of global output



Source: Bloomberg, IMF

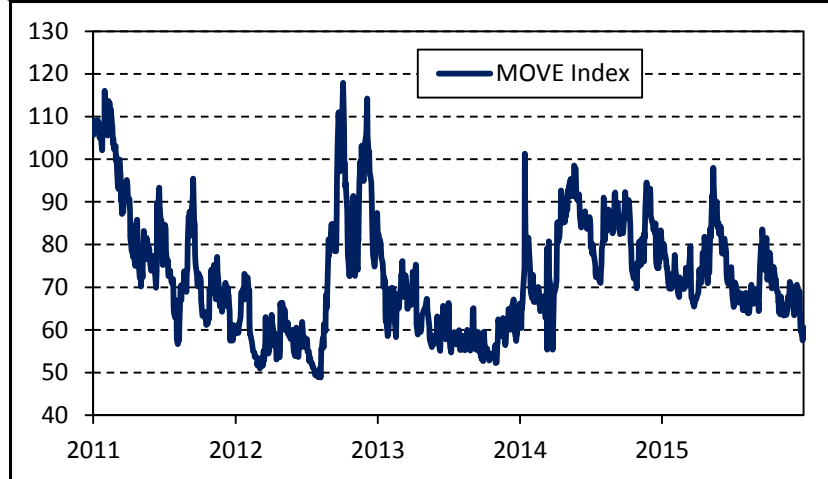
# Volatility

**Equity volatility seeing recent decrease**



Source: Bloomberg, CBOE

**Treasury volatility continues decreasing as a rate hike approaches**



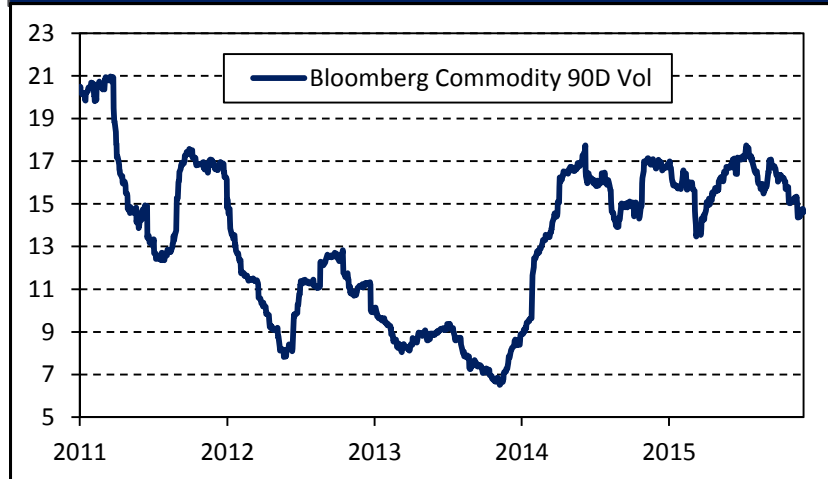
Source: Bloomberg, Merrill Lynch

**Currency volatility remains elevated**



Source: Bloomberg, Deutsche Bank

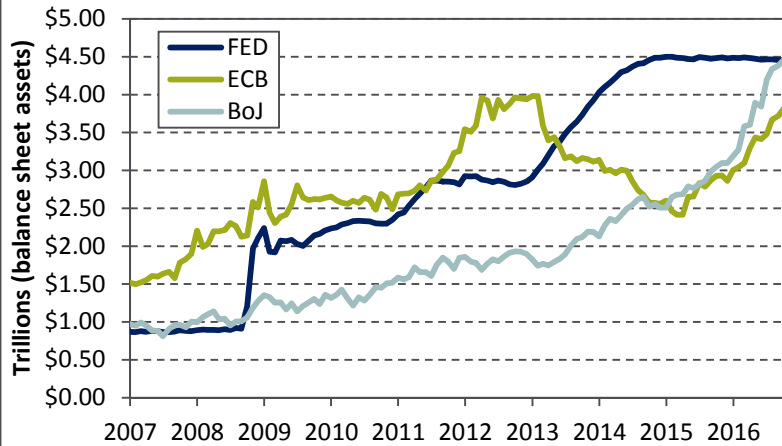
**Commodity volatility continues to decline**



Source: Bloomberg, Merrill Lynch

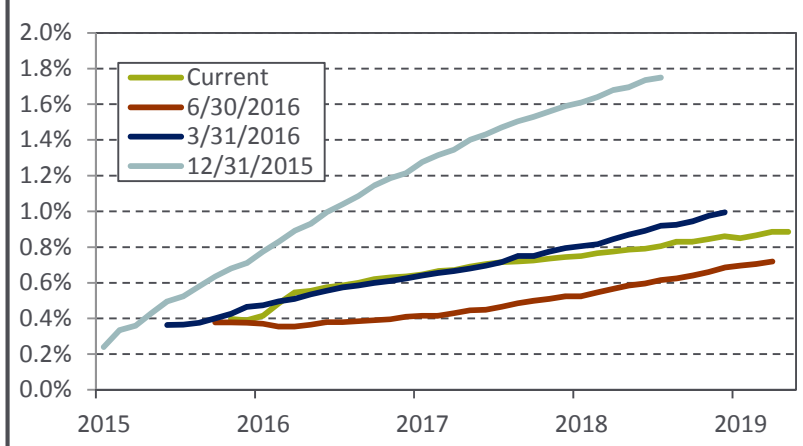
# Central Banks

## Central banks continue increasing balance sheet size



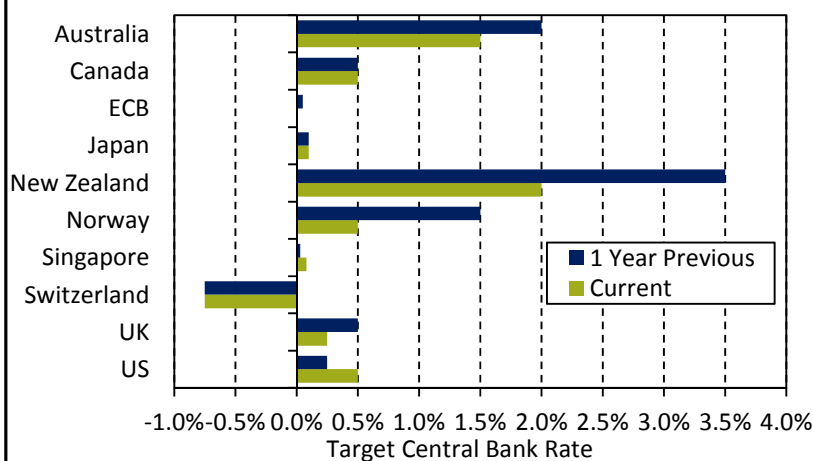
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC

## Market expectations for interest rates echo the lower for longer sentiment



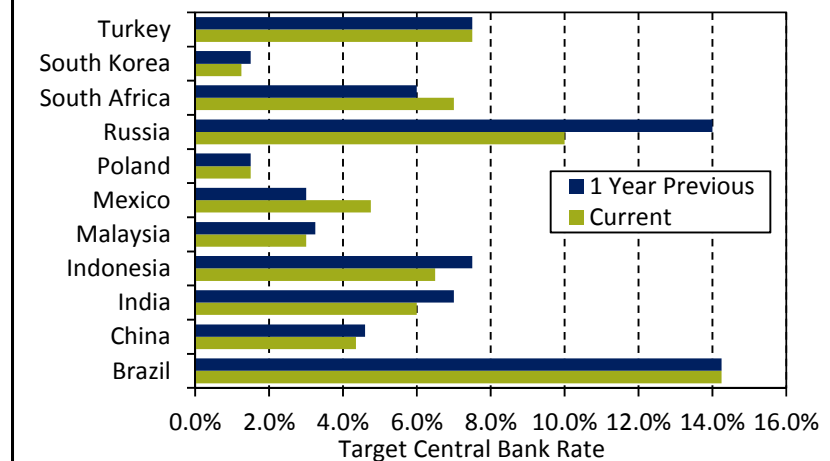
Source: Bloomberg, Federal Reserve

## Developed market interest rates are mostly lower than one year previous



Source: Bloomberg

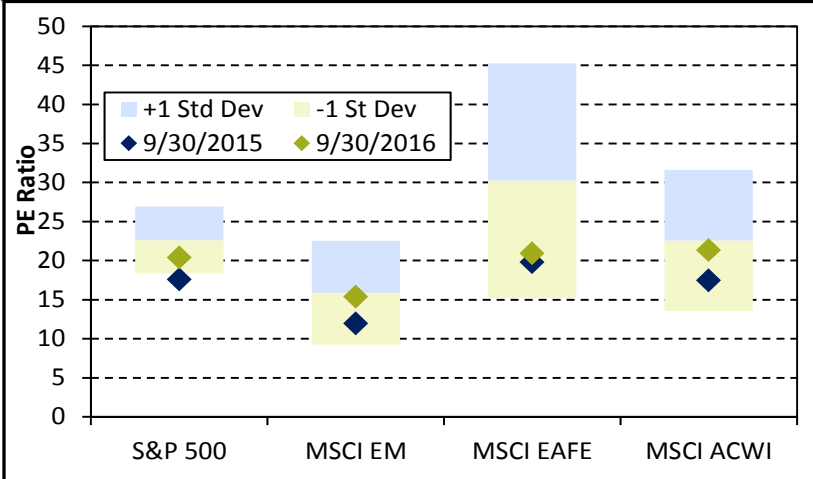
## EM central bank policies vary by country-specific economic conditions



Source: Bloomberg

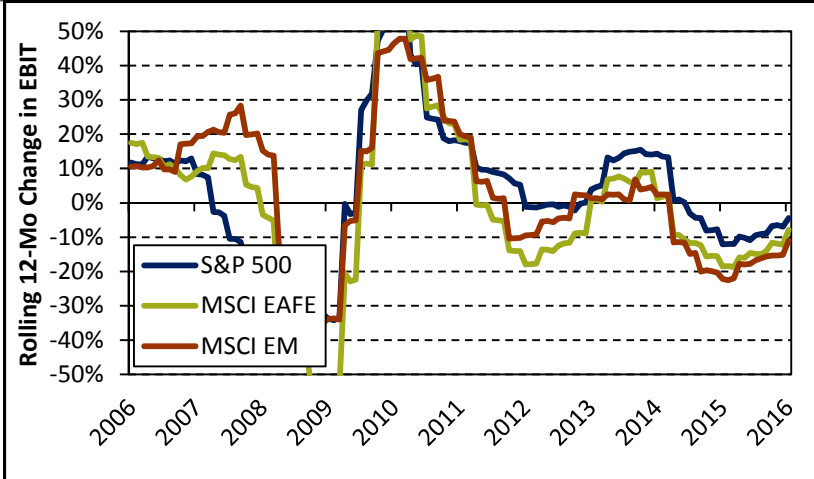
# Global Equity

## Global valuations increased over the year



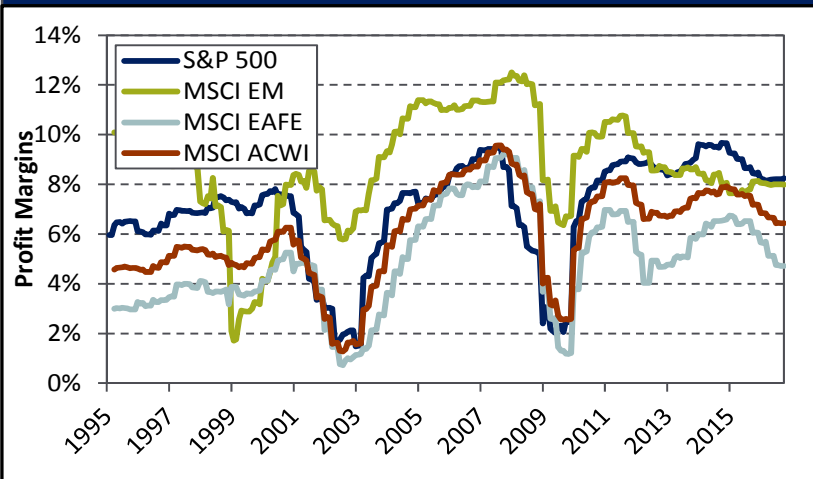
Source: Bloomberg, Standard and Poors, MSCI \*MSCI EAFE is ex UK Telecom  
\*Standard deviation calculations based on 20 years of data

## Earnings growth increases slightly



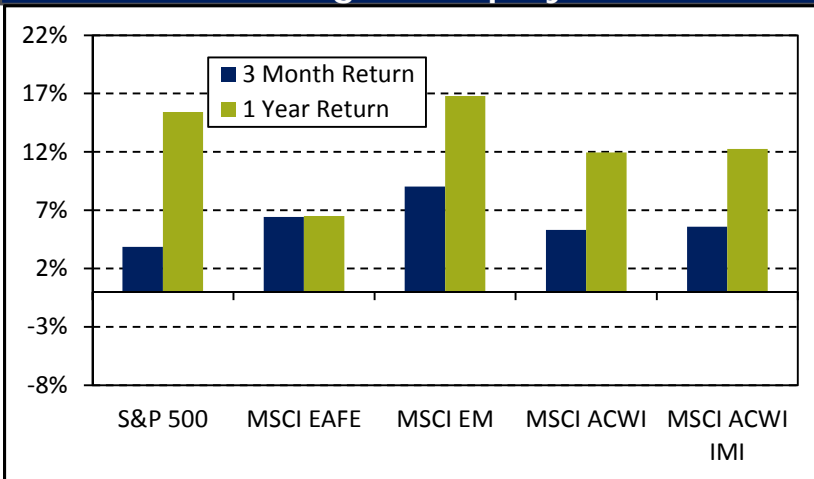
Source: Bloomberg, Standard and Poors, MSCI

## Profit margins continue to decline



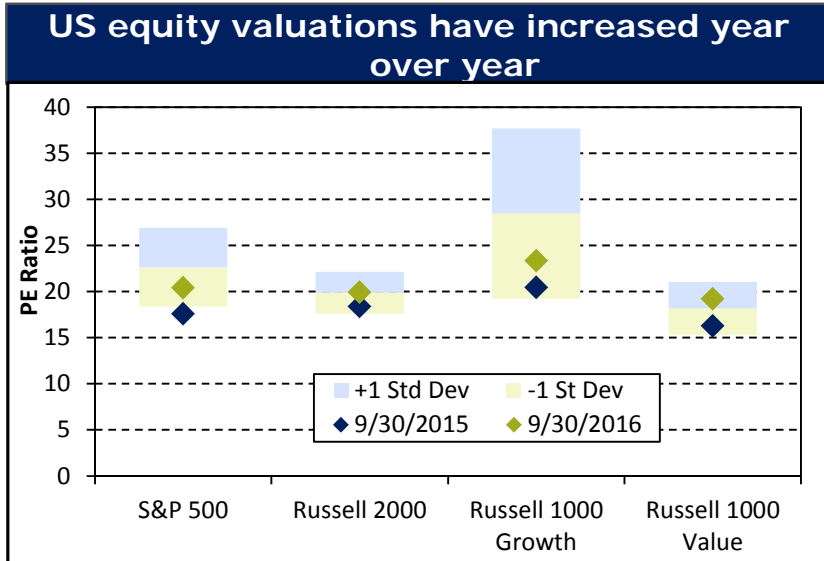
Source: Bloomberg, MSCI

## Broadly positive short-term returns for global equity

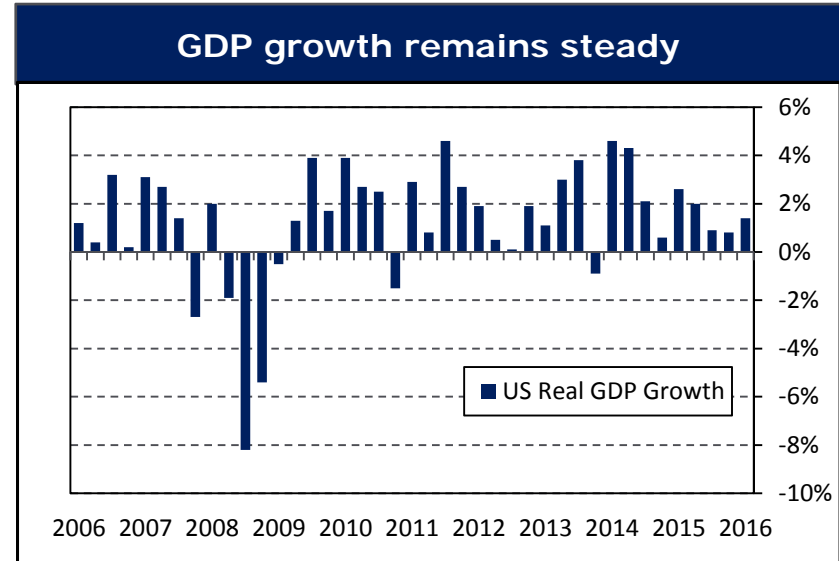


Source: Bloomberg, MSCI

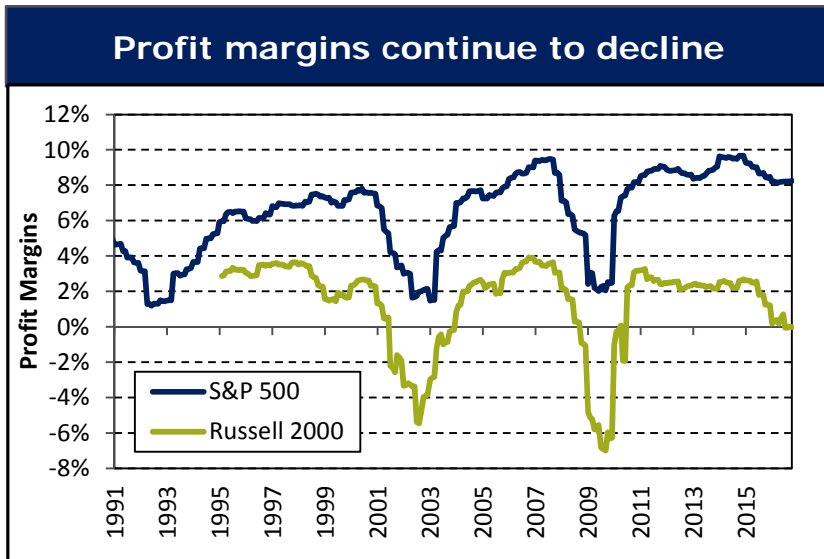
# US Equity



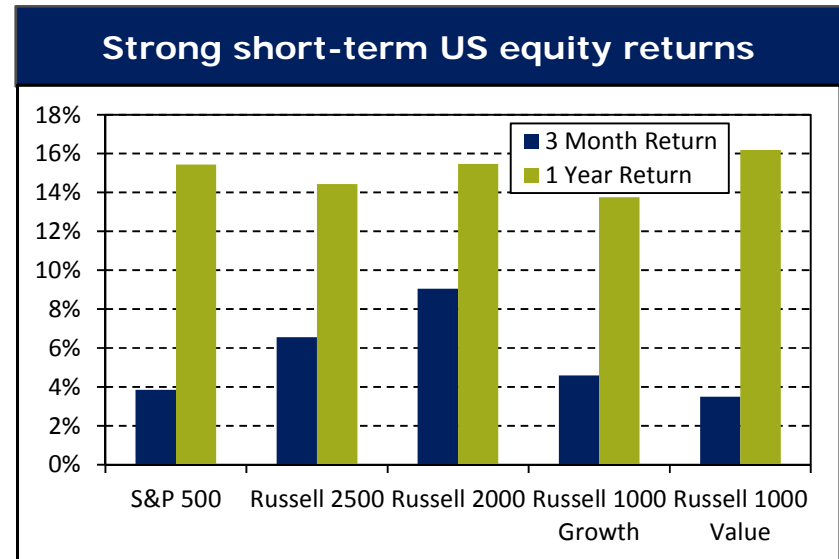
Source: Bloomberg, Standard and Poors, Russell \*Russell 2000 PE is index adjusted positive\* Standard deviation calculations based on 20 years of data



Source: Bloomberg, Bureau of Economic Analysis



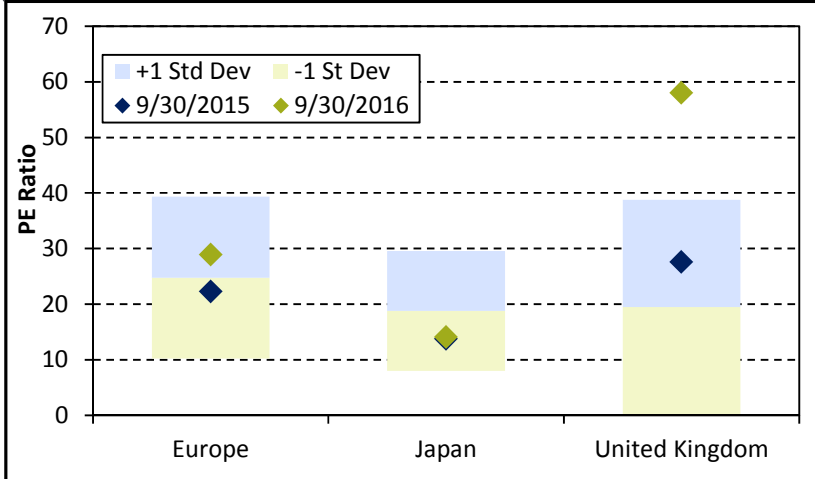
Source: Bloomberg, Standard and Poors, Russell



Source: Bloomberg, Standard and Poors, Russell

# International Equity

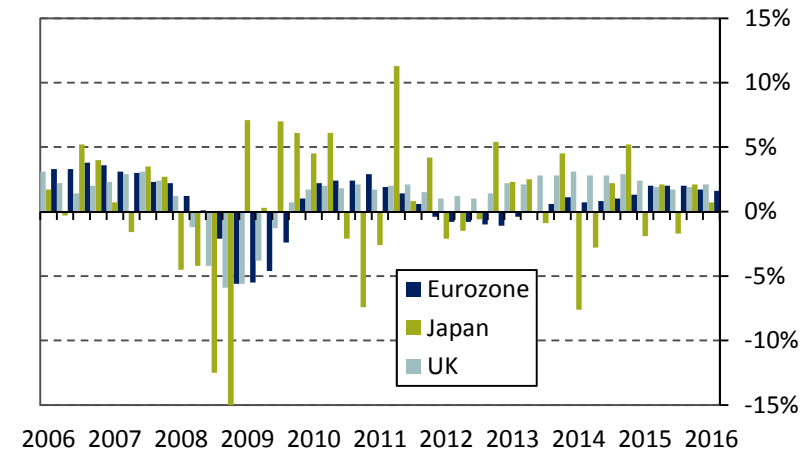
## UK PE ratio remains elevated



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

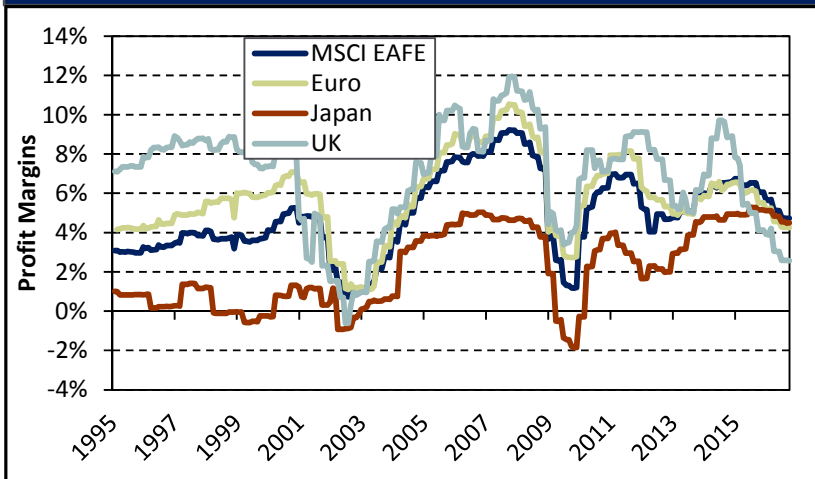
\*Standard deviation calculations based on 20 years of data, with Europe since 12/1998

## Global growth varies by country



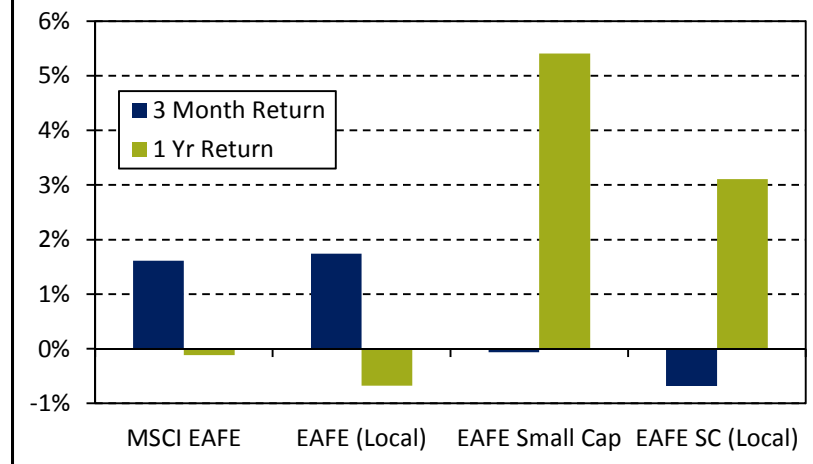
Source: Bloomberg

## Margins continue to decline, particularly in the UK



Source: Bloomberg, MSCI

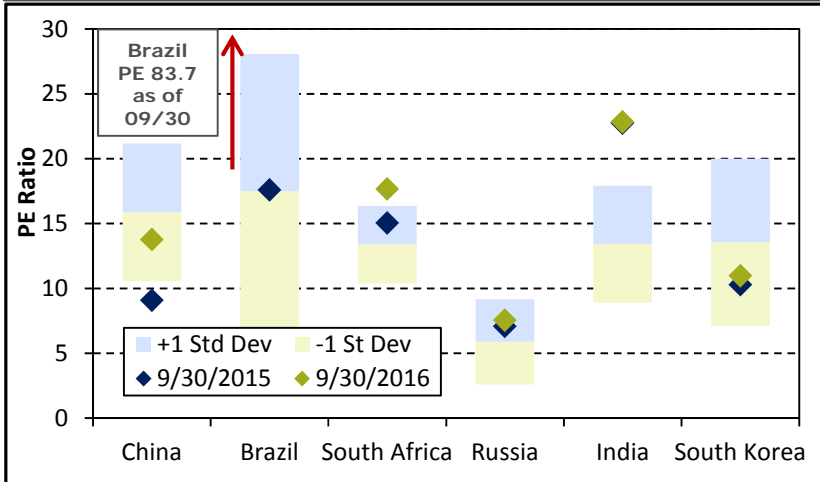
## EAFE small cap returns have struggled in recent months



Source: Bloomberg, MSCI

# Emerging Markets Equity

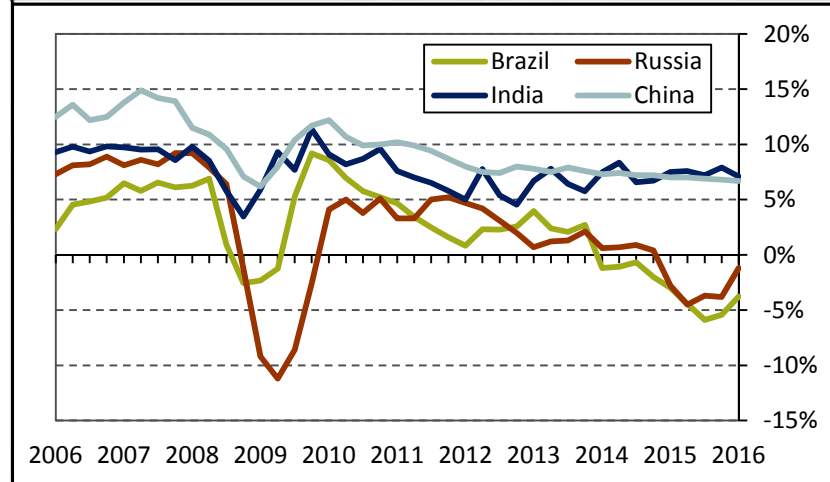
## Regional valuations similar year over year with the exception of Brazil



Source: Bloomberg, MSCI

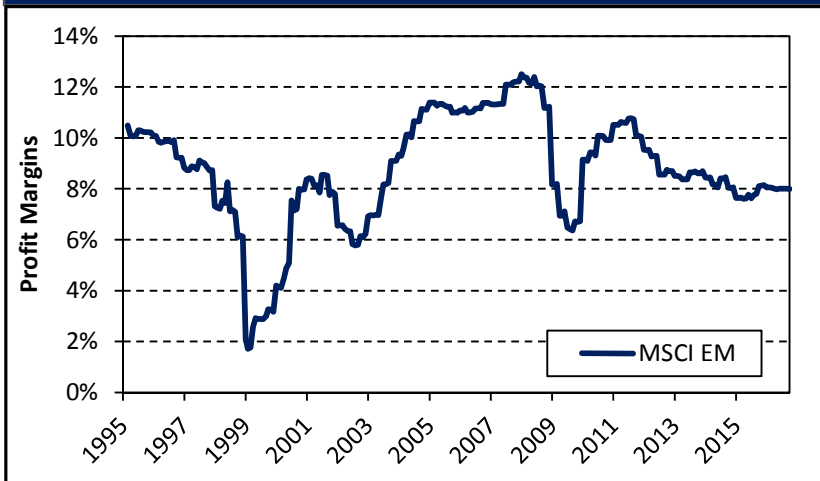
\*Standard deviation calculations based on 20 years of data, with Russia since 01/1998

## Russia and Brazil experience upward trends in growth



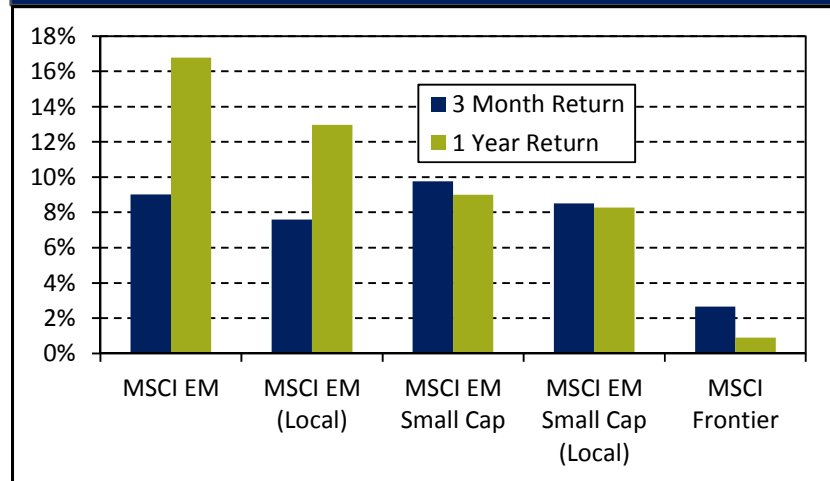
Source: Bloomberg

## Profit margins in line with history



Source: Bloomberg, MSCI

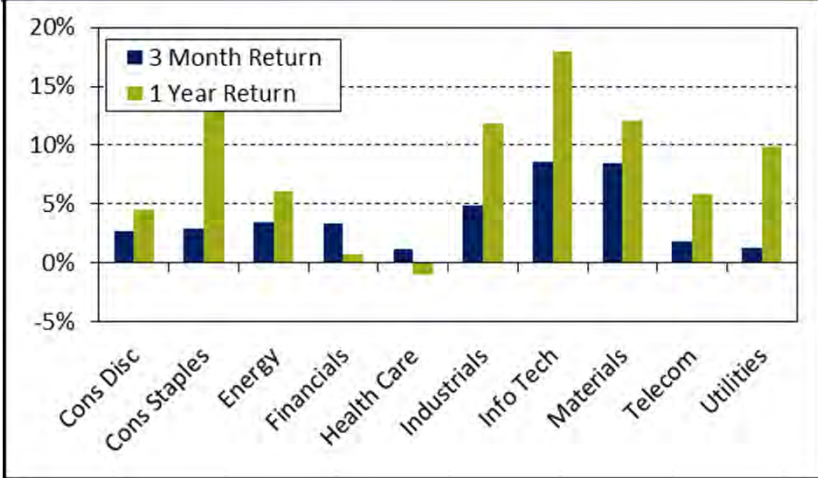
## Strong short-term returns for EM



Source: Bloomberg, MSCI

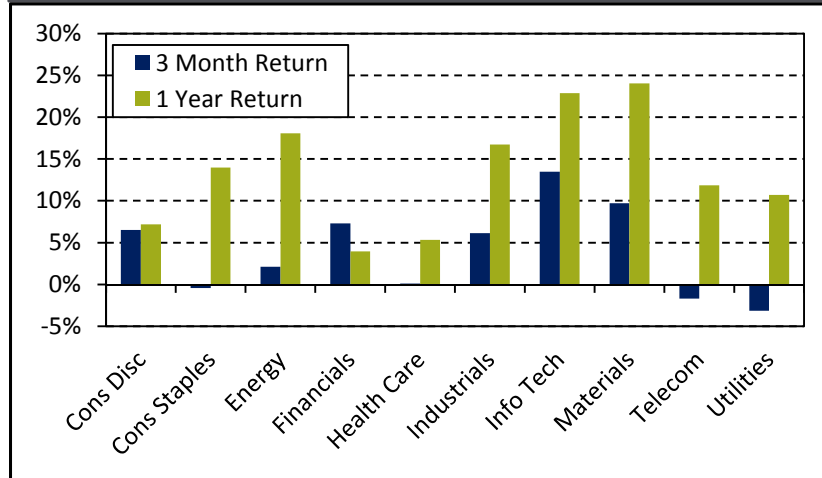
# Global Equity by Sector

## MSCI ACWI short-term returns driven by Info Tech and Materials



Source: Bloomberg, MSCI

## S&P 500 sectors post broadly positive short-term returns



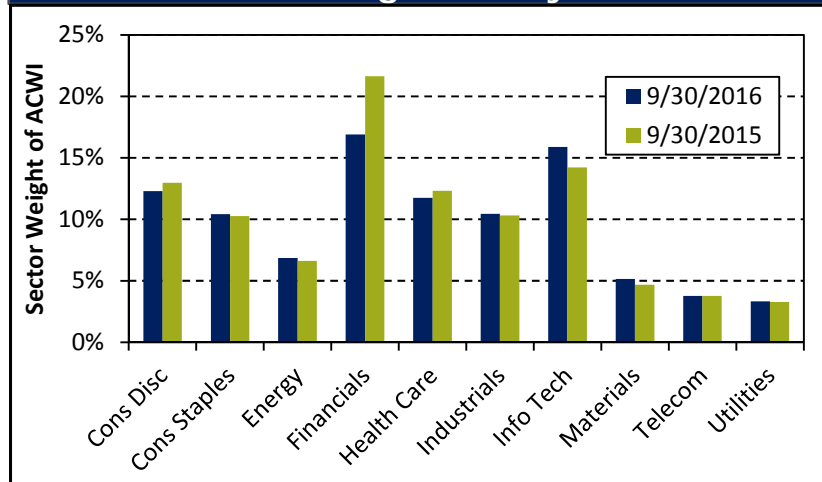
Source: Bloomberg, Standard and Poors

## EM sectors posting strong short-term returns



Source: Bloomberg, MSCI

## Financials sector weight has decreased significantly



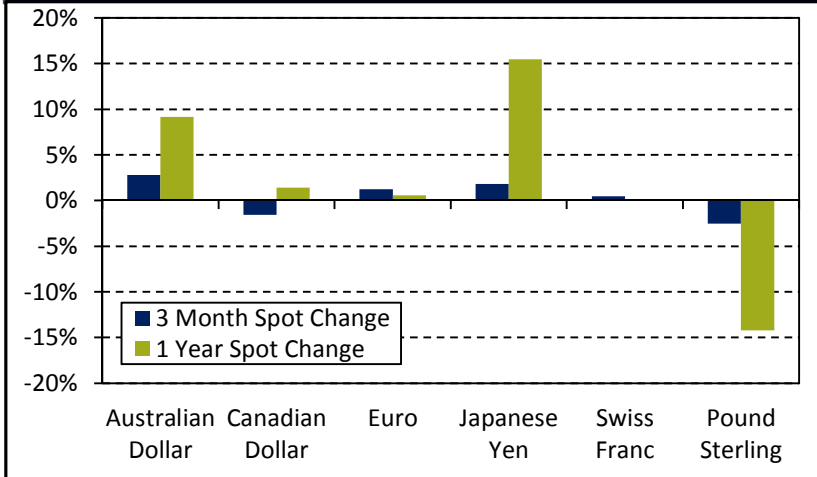
Source: Bloomberg, MSCI





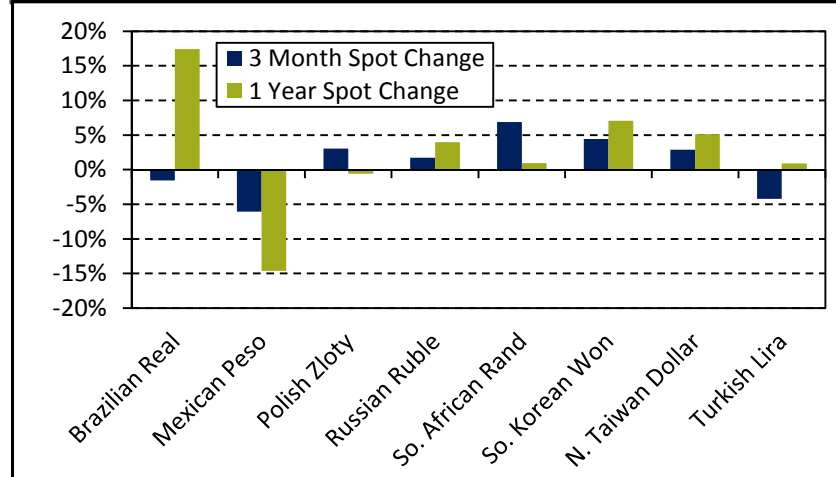
# Currencies

## Developed currencies experience mixed results versus the dollar



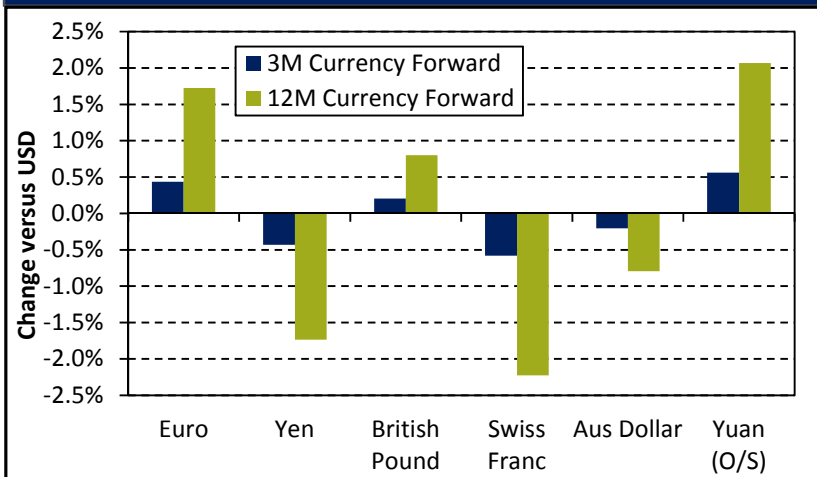
Source: Bloomberg

## Diverse EM currency performance versus the dollar



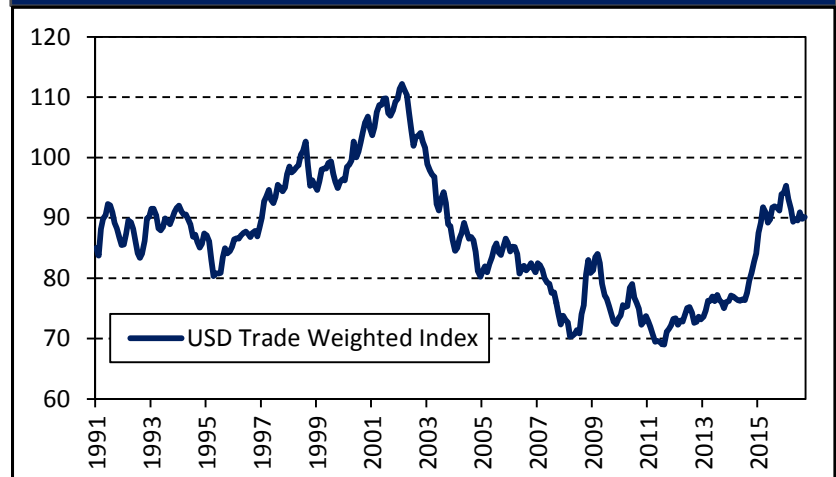
Source: Bloomberg

## USD expectations vary across developed markets



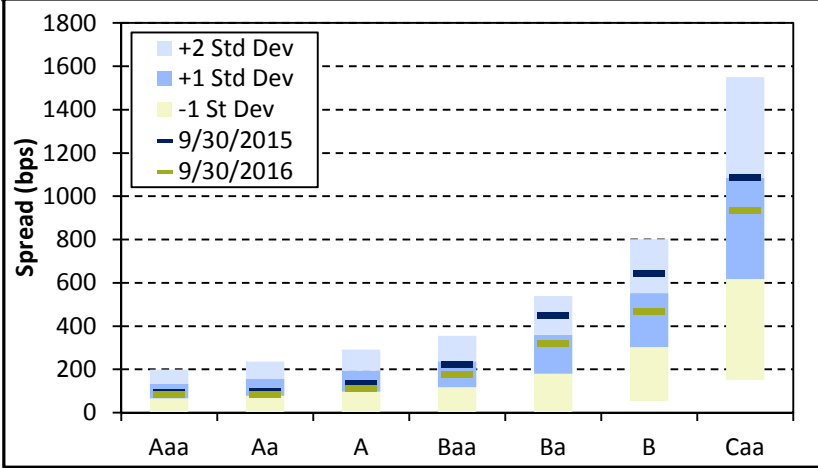
Source: Bloomberg

## Dollar strength retreated slightly off highs



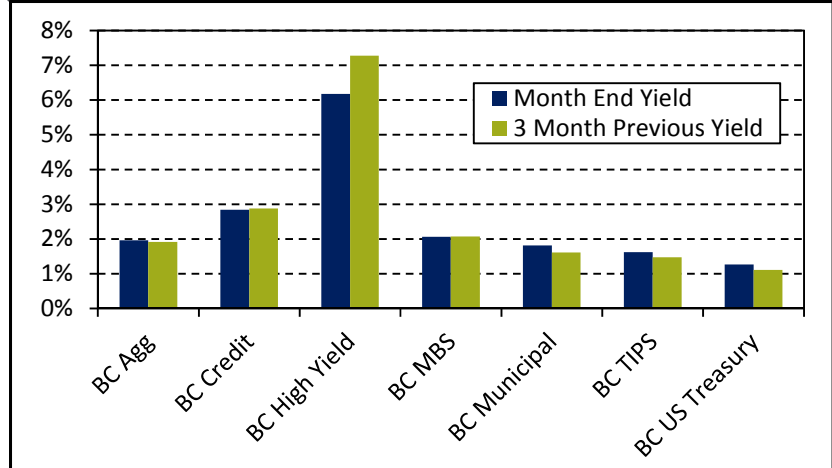
Source: Bloomberg, Federal Reserve

Spreads remain lower than the previous year



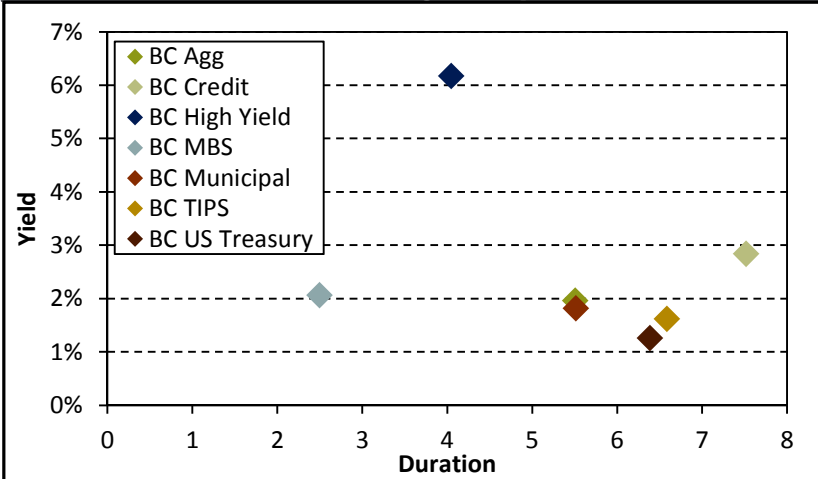
Source: Bloomberg, Barclays  
\*Standard deviation calculations based on 20 years of data

Except high yield, yields have remained similar over recent months



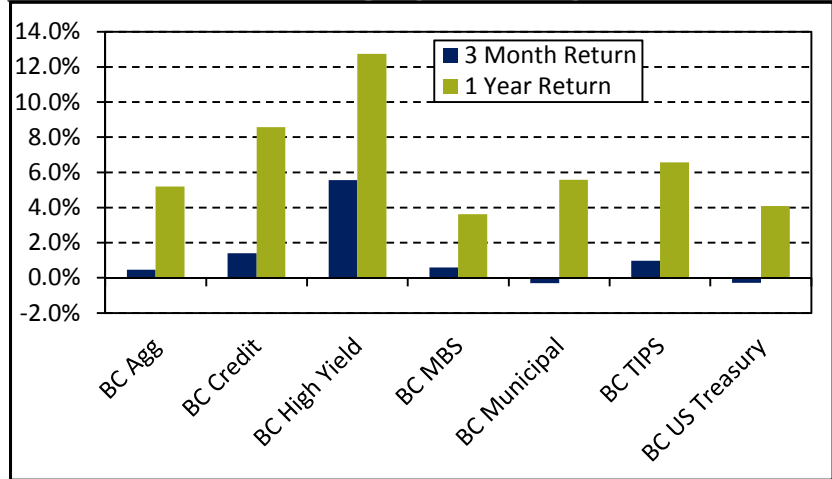
Source: Bloomberg, Barclays

TIPS look attractive among similar duration/yield profiles



Source: Bloomberg, Barclays

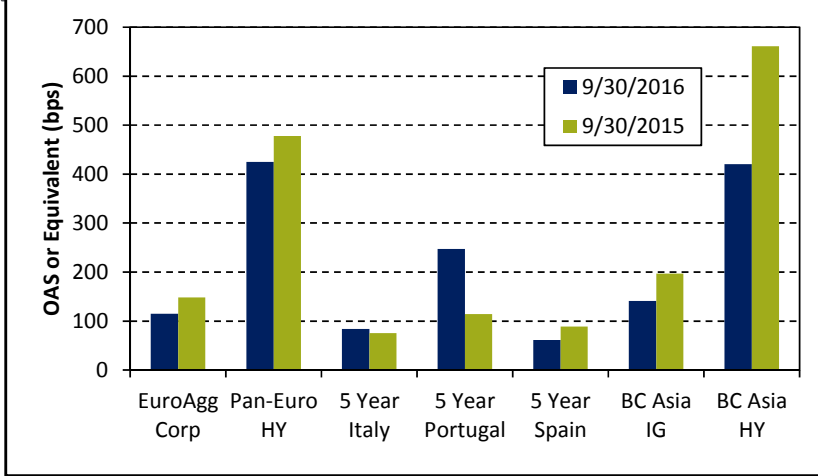
Relatively flat returns except the credit and high yield rally



Source: Bloomberg, Barclays

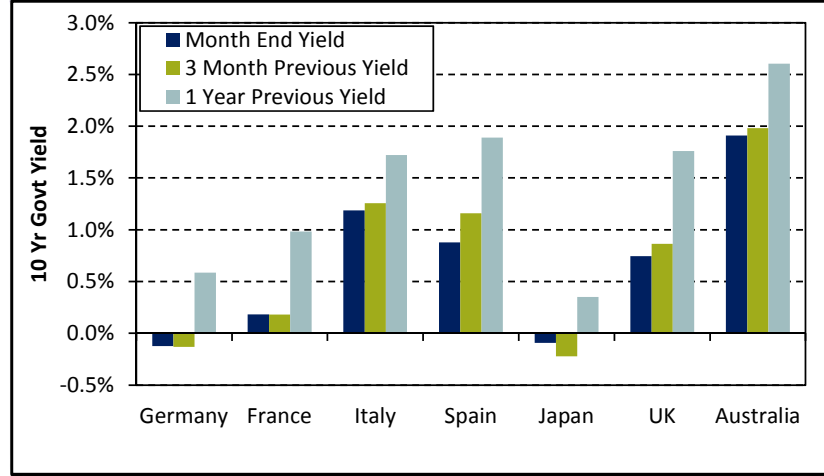
# International Developed Fixed Income

## European periphery yields vary relative to Germany



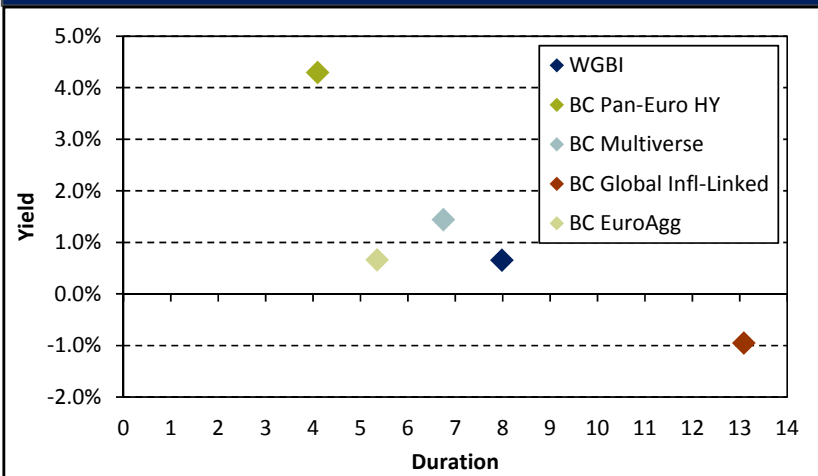
Source: Barclays, Bloomberg, \*European periphery spreads are over equivalent German Bund

## Global yields continue to fall with the exception of Japan



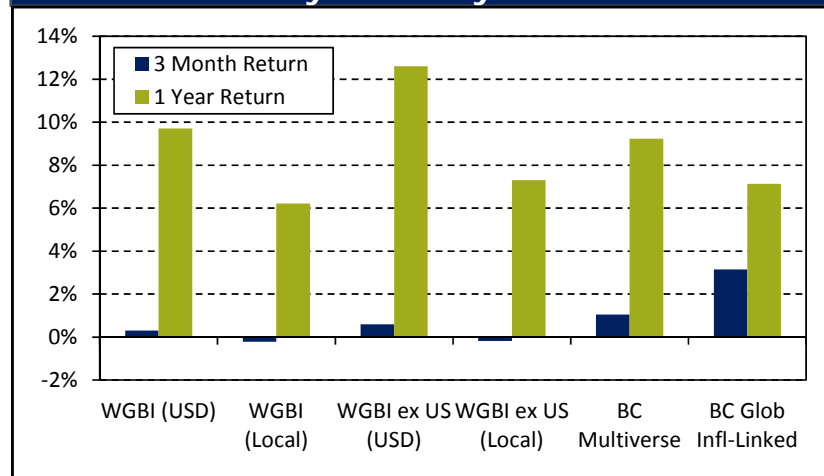
Source: Bloomberg

## Low global yields relative to duration



Source: Bloomberg, Citigroup, Barclays

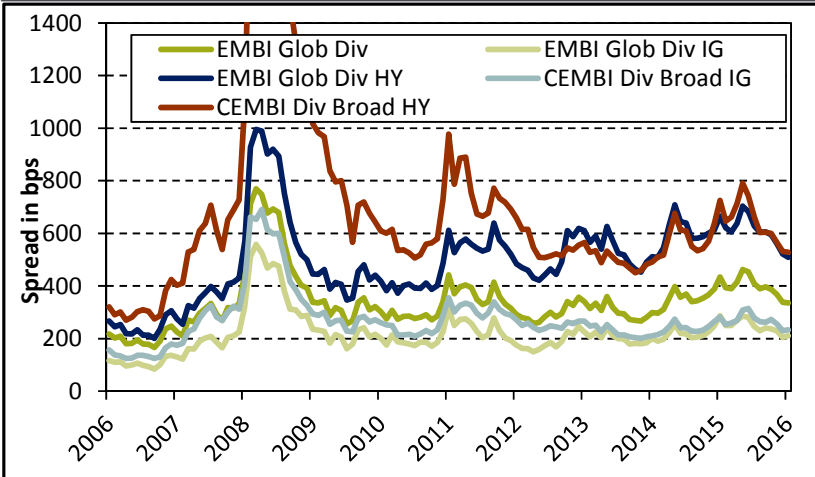
## Global bond returns are heavily influenced by currency returns



Source: Bloomberg, Citigroup, Barclays

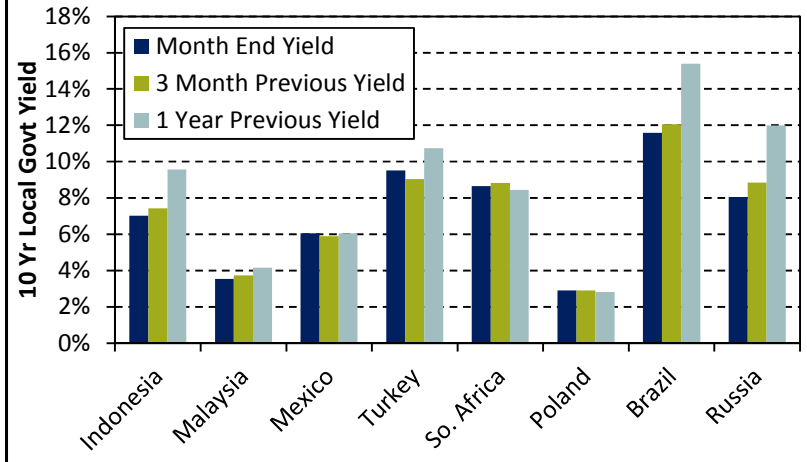
# Emerging Markets Fixed Income

## Spreads continue to decline



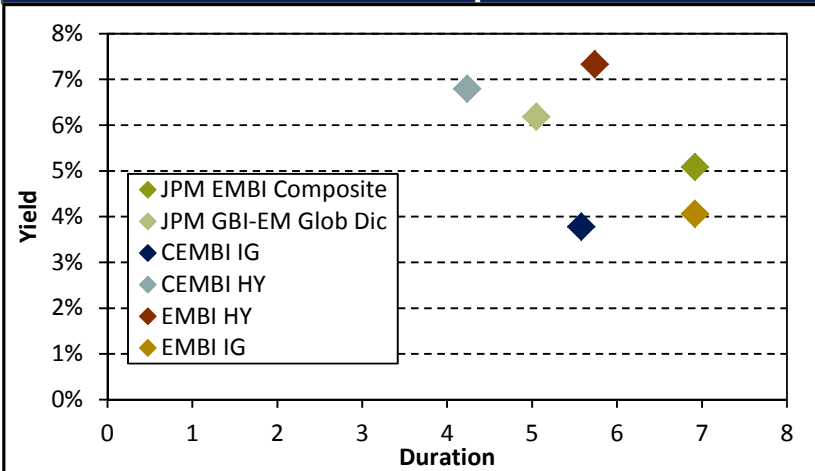
Source: Bloomberg, JP Morgan

## EM local bond yields have declined for more volatile markets



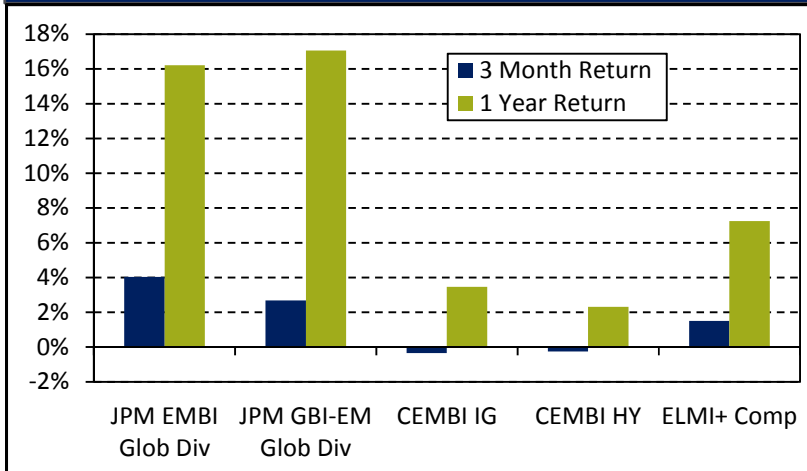
Source: Bloomberg

## EM yields remain attractive versus global counterparts



Source: Bloomberg, JP Morgan

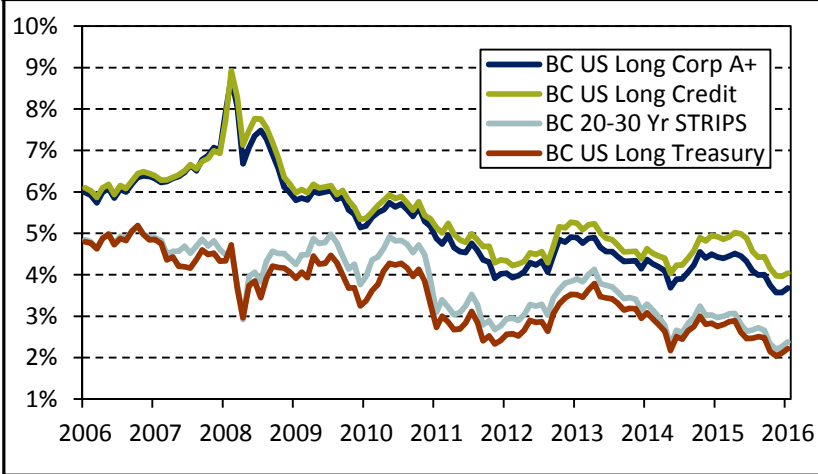
## EM debt continues to perform well



Source: Bloomberg, JP Morgan

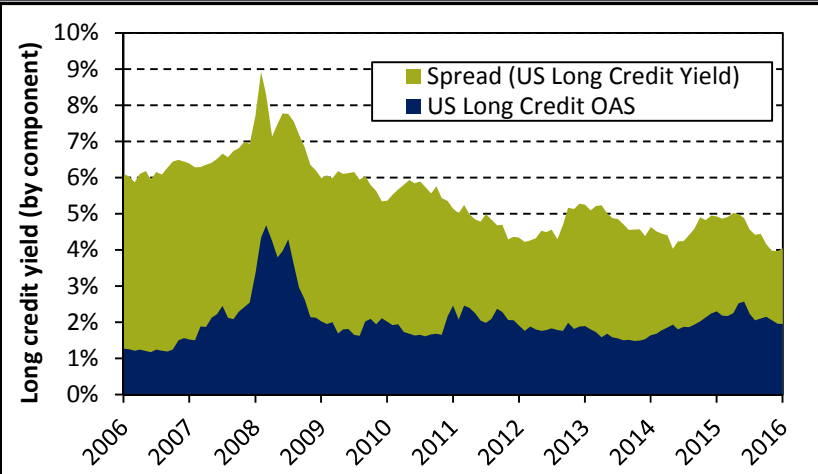
# Long Rates and Liability

## Long duration yields continue to decline



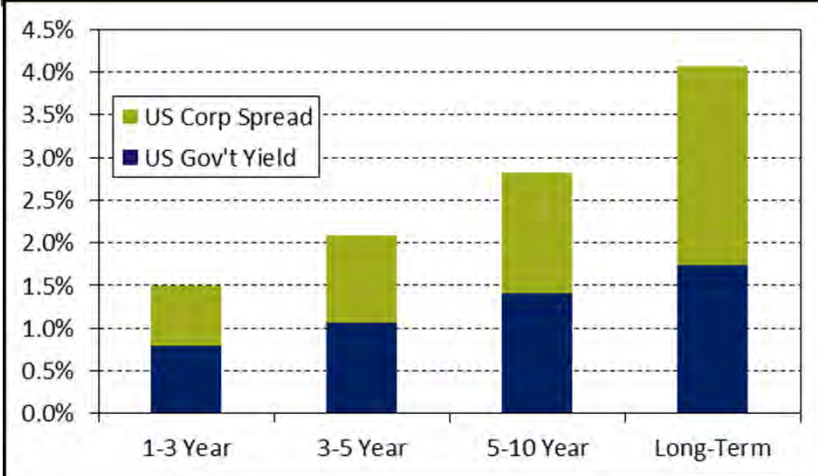
Source: Bloomberg, Citigroup, Barclays

## Lower yields driven by real rates



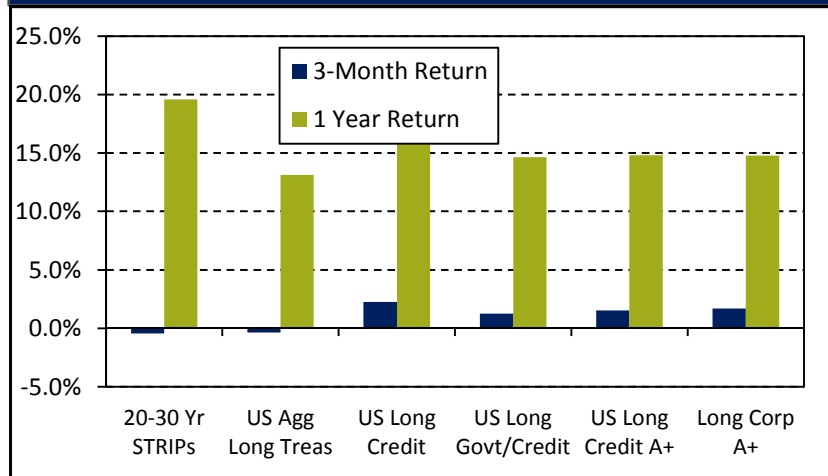
Source: Bloomberg, US Treasury, Barclays, NEPC

## Yield and spread components continue to offer modest returns



Source: Bloomberg, Barclays

## Long duration short-term returns are flat



Source: Bloomberg, Barclays

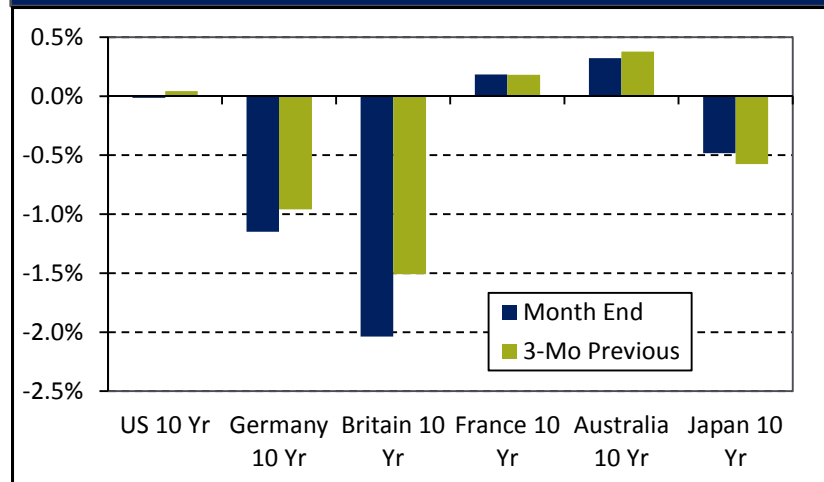
# Inflation and Real Rates

## US real yields have decreased



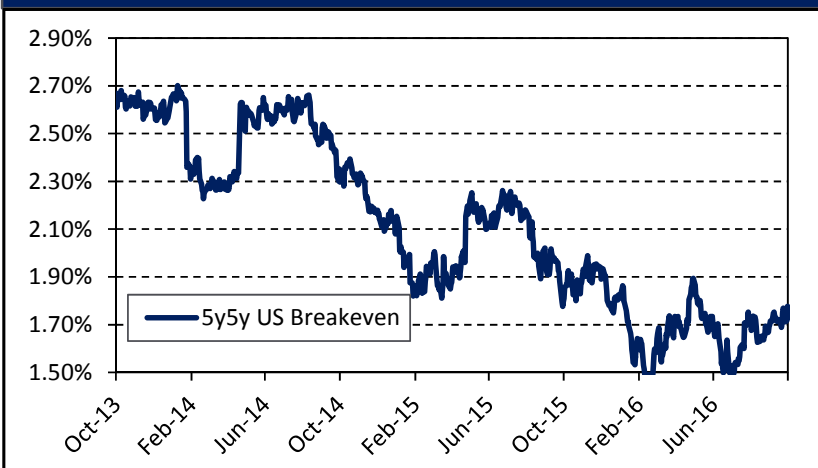
Source: Bloomberg

## Global real yields dip even lower



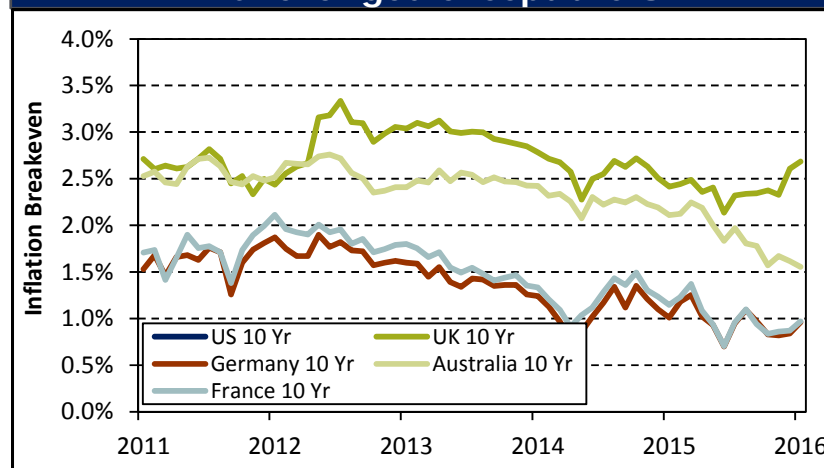
Source: Bloomberg

## US inflation expectations remain low



Source: Bloomberg

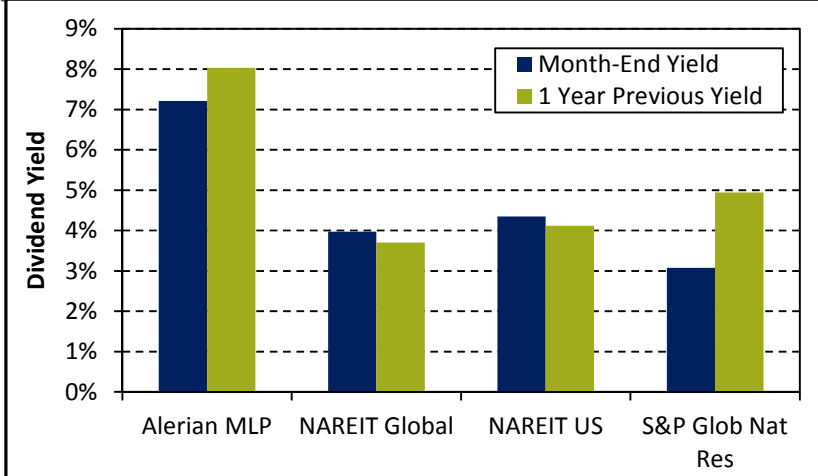
## Global inflation expectations remain mostly unchanged except the UK



Source: Bloomberg

# Inflation Sensitive Growth Assets

## Yields remain similar to the previous year



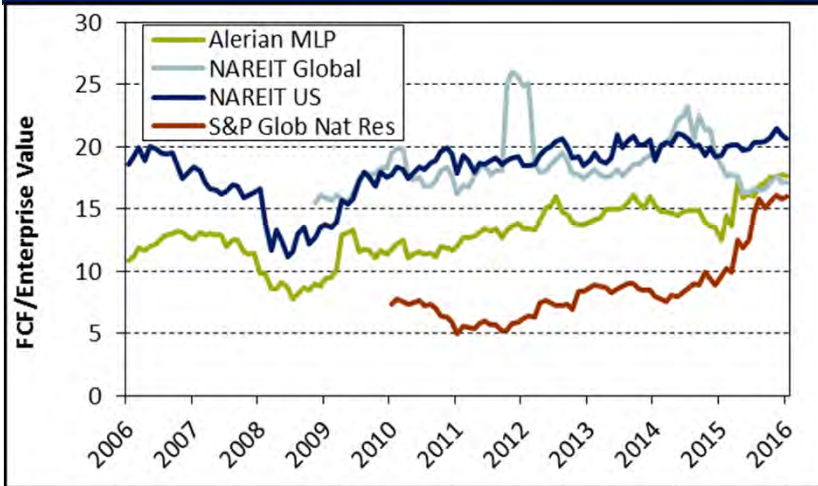
Source: Bloomberg, Alerian, Nareit, Standard and Poors

## Sustained recovery in commercial real estate occupancy rates



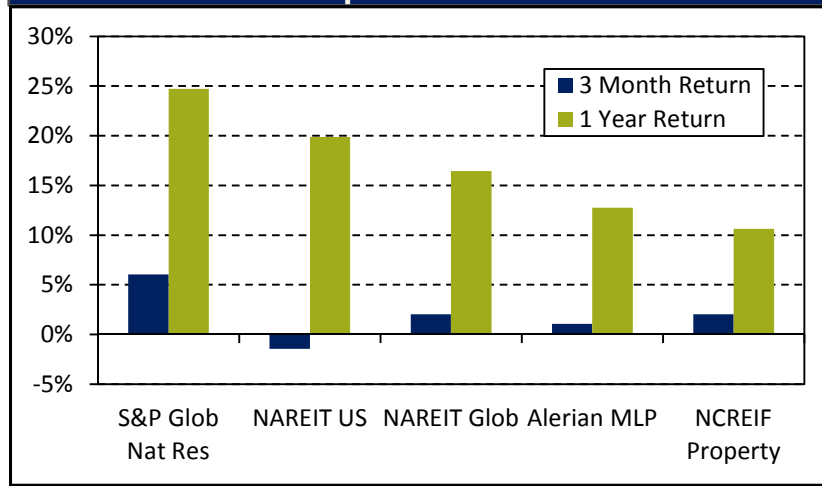
Source: NCREIF

## Valuations remain steady



Source: Bloomberg, US Census Bureau

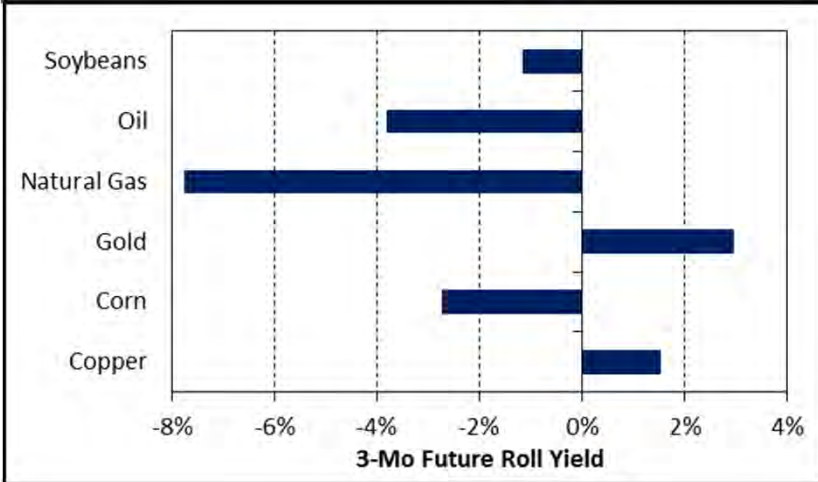
## REITs exhibit mixed short-term performance



Source: Bloomberg, Alerian, Nareit, Standard and Poors

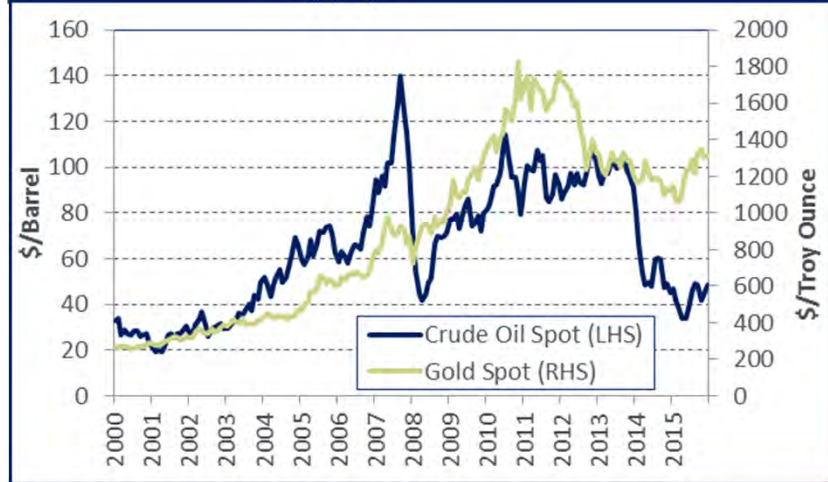
# Commodities

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



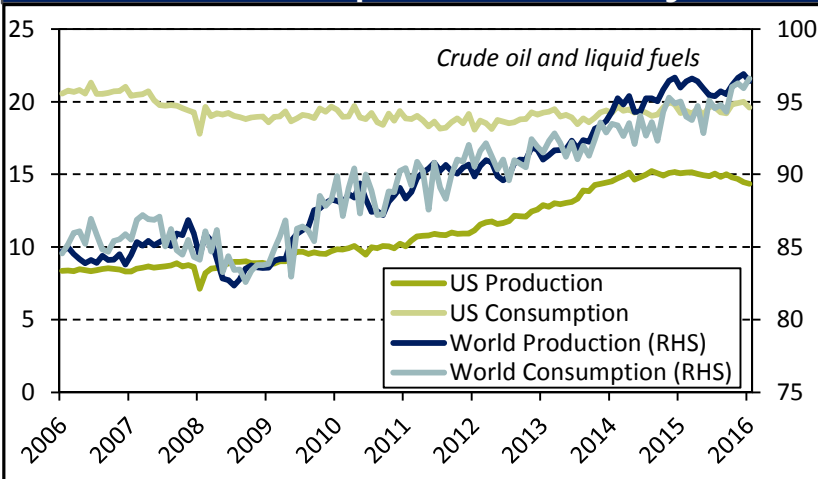
Source: Bloomberg

## Recent spike in gold and decline in oil as oversupply concerns continue



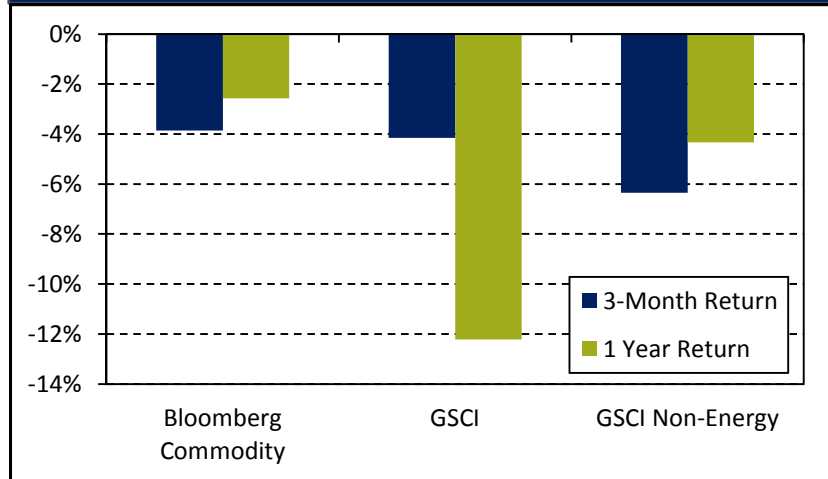
Source: Bloomberg

## Recent decline in world production as consumption holds steady



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

## Commodity indices continue to decline



Source: Bloomberg, Standard and Poors



## Glossary of Investment Terminology

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

Measurement	Description	Equation
<b>Policy Target</b>	Measures policy allocation decisions.	= TARGET ASSET WEIGHTS X INDEX RETURNS
<b>Allocation Index</b>	Measures actual allocation decisions. Deviations from the policy target can be derived. (Allocation Index – Policy Index)	= ACTUAL ASSET WEIGHTS X INDEX RETURNS
<b>Composite (Total Return)</b>	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
<b>Allocation Effect</b>	Measure the effects of overweighting or underweighting managers and asset classes.	= (ACTUAL MANAGER WEIGHT – POLICY TARGET WEIGHT) X POLICY INDEX RETURN
<b>Selection Effect</b>	Measures the managers' ability to add excess return relative to the policy index.	= (ACTUAL MANAGER RETURN – INDEX RETURN) X POLICY TARGET WEIGHT
<b>Interaction Effect</b>	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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