



# Vermont Pension Investment Committee

# Third Quarter **State Teachers** Investment Performance Analysis

November 24th, 2015

Douglas W. Moseley, Partner Christopher Levell, ASA, CFA, CAIA, Partner Richard M. Charlton, Chairman Nedelina Petkova, Analyst



# NEPC Updates

**September 30, 2015** 

#### **Highlights of Third Quarter Happenings at NEPC**



#### **NEPC Recognitions**

Two of NEPC's Partners were named on the Chief Investment Officer magazine's (CIO) annual ranking of the world's most influential investment consultants. NEPC's Chief Investment Officer, Tim McCusker, was named the most influential general consultant on the 2015 list of Knowledge Brokers. KC Connors, Head of NEPC's Philanthropic Practice Team, ranked 10th on the 2015 Knowledge Brokers – Specialist list. The lists are CIO's annual rankings of the most influential investment consultants worldwide<sup>1</sup>.



#### **NEPC Research**

#### **Recent White Papers**

- Best Practices: Managing Risk in Corporate VEBA and SERP Plans (October 2015) - Mike Valchine, CAIA, CIPM, Senior Consultant
- NEPC's 2015 Defined Contribution Plan & Fee Survey: What a
   Difference a Decade Makes (October 2015) Ross Bremen, CFA,
   Partner
- Market Chatter Has the China Bubble Burst? (July 2015)
- Market Chatter China's Devaluation of the Yuan (August 2015)
- 2015 Third Quarter Market Thoughts

#### **NEPC Client Recognitions**

Two of our clients were recognized for their work in the healthcare industry by
 *Institutional Investor* on October 7th. Mary O'Reilly, Director, Treasury and
 Investments at Rochester Health, received the II Investor Intelligence Award for
 Asset Allocation, and Joshua Rabuck, Executive Director, Investments at Indiana
 University Health, was accorded the II Investor Intelligence Award for Risk
 Management.

#### **Upcoming/Recent Events**

- Healthcare Defined Contribution Fee Survey
  Results Tuesday, November 3, 2015, 3:00 to 4:00
  p.m. (EST)
- NEPC's 2015 Defined Benefit Plan Trends Webinar Wednesday, October 21, 2015, 2:00 - 3:00 p.m. (EST)
- NEPC, Newton Capital Management, and the Centre for Endowment Asset Management are hosting a special event that delves into the influence of British economist John Maynard Keynes on the U.S. Endowment Model on October 15, 2015 in Boston, MA.

<sup>1</sup>CIO Magazine interviews pension and non-profit CIOs, asset managers and former consultants, to approximate what it calls "the hierarchy of today's institutional consultant industry." The results should not be considered a recommendation of any specific firm or individual consultant. For more information, please visit CIO Magazine's web site at <a href="http://www.ai-cio.com/2015-knowledge-brokers/">http://www.ai-cio.com/2015-knowledge-brokers/</a>. Past performance is no guarantee of future results





#### Third Quarter 2015 Market Observations

#### A wave of volatility spread across global markets during the quarter

- Concerns of an economic slowdown in China sparked a rapid decline in global risk assets with commodities and emerging markets suffering the most
- A severe global growth downturn remains a low probability tail-risk for capital markets

### US economy continues to expand albeit at a slow pace

- Overall conditions are supportive for growth but a strong US dollar creates challenges
- Benefits of low oil prices slowly compound for US consumers

#### Fed Funds rate increase...

- Timing is less relevant, of importance is the path of Fed policy tightening relative to expectations and long-term policy (L-T policy rate of 2% or 4%)
- Current Fed willingness to tighten monetary policy balanced between disruptive effects of a stronger dollar and inflation conditions of US economy

## Accommodative global monetary policies flow through to markets

- QE continues to support improving economic conditions in Europe and Japan
- China policy responses broadly simulative with plenty of dry powder for further easing

## Cyclical weak growth is not a financial crisis for the emerging markets

- Negative returns in EM reflect the economic rebalances and adjustments necessary to generate sustainable growth and economic success
- Political and economic reform initiatives drive the outlook for improved economic and earnings growth for countries willing to reform



#### Third Quarter 2015 Market Actions

#### Risk-return profile of US high yield is attractive relative to US equities

- High yield credit spreads now exceed long-term averages with yields near 2012 levels
- Make use of dynamic credit strategies as disruptions in credit markets move rapidly
- Dollar strength is a headwind for equity earnings growth and profit margin expansion

### Recommend an overweight exposure to developed market equities

- Suggest investors opportunistically exploit potential volatility to add to the overweight
- Long-term opportunity remains as earnings improve off cyclical lows in Europe/Japan
- Offers a more favorable return outlook with superior valuations relative to US equities

#### Recommend at minimum a market weight exposure to EM equities

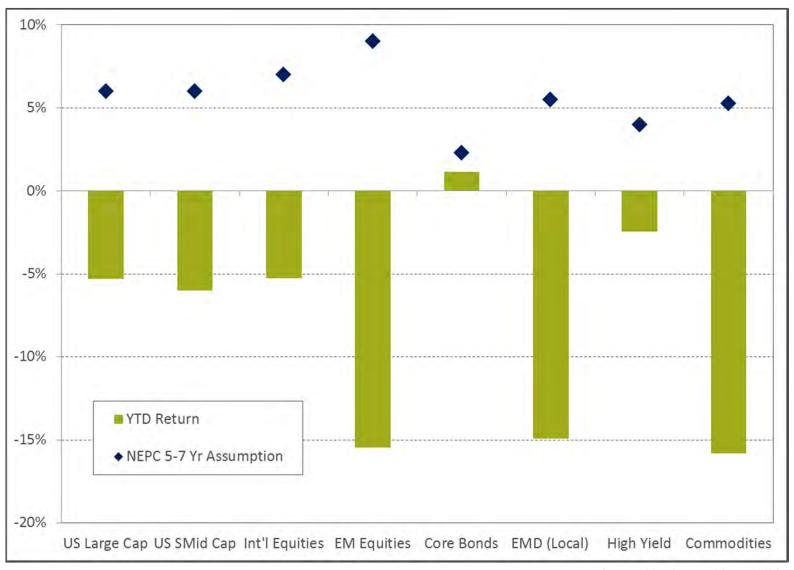
- Reasonable equity valuations, depressed currencies, and the attractiveness of longterm fundamentals represent a solid investment foundation
- Volatility likely to continue as falling commodity prices, trade linkages to China, and external debt levels pose idiosyncratic country risks
- Encourage the use of benchmark agnostic strategies with a bias towards small-cap and consumer focused strategies

### Inflation expectations at historical lows but value opportunities can be found in inflation-sensitive assets

- Encourage patience as volatility and opportunities evolve in commodity markets
- Private strategies are evolving but provide compelling return opportunities



## Year to Date Performance – Few Places to Hide



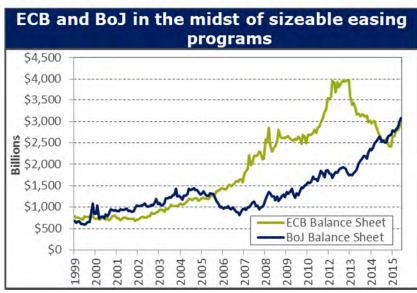
Source: Morningstar Direct, NEPC



#### Global Risks are Diverse and Unique





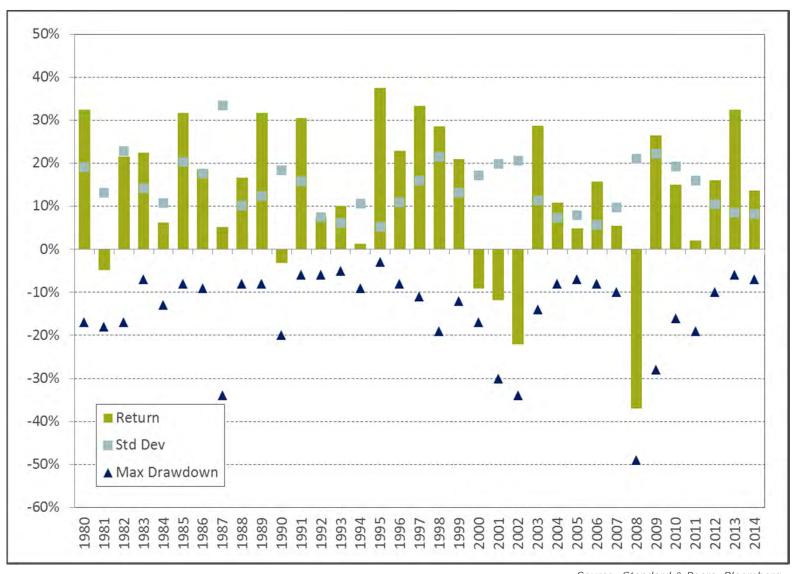




Sources: Standard & Poors, The Federal Reserve, ECB, BoJ, Bloomberg Energy, Bloomberg



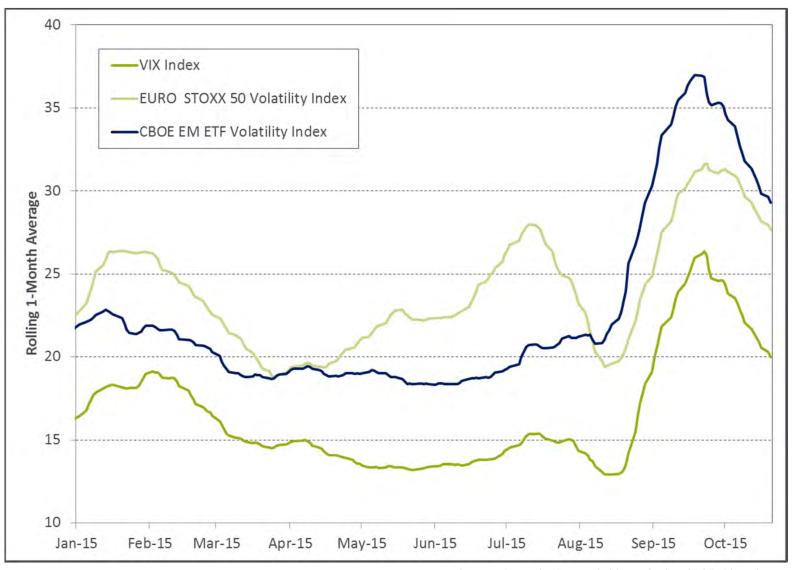
## S&P 500 Intra-Year Drawdowns of Current Magnitude Relatively Common



Source: Standard & Poors, Bloomberg



# Increase in Global Volatility Finally Caught Up with Equities



Source: Deutsche Borse, Goldman Sachs, CBOE, Bloomberg



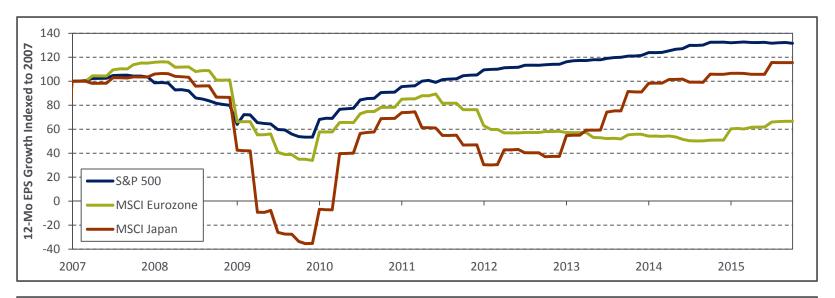
## High Yield Issues Now Yielding >7% in Otherwise Low Yield World



Source: Barclays, Standard & Poors, Bloomberg



## Japan Earnings Recovery is Well Underway, Conditions Supportive for Improvement in Europe





Sources: Standard & Poors, MSCI, Bloomberg



## Near Term Inflation Expectations Have Declined as a Rate Hike Has Been Pushed Further Out



Source: Bloomberg



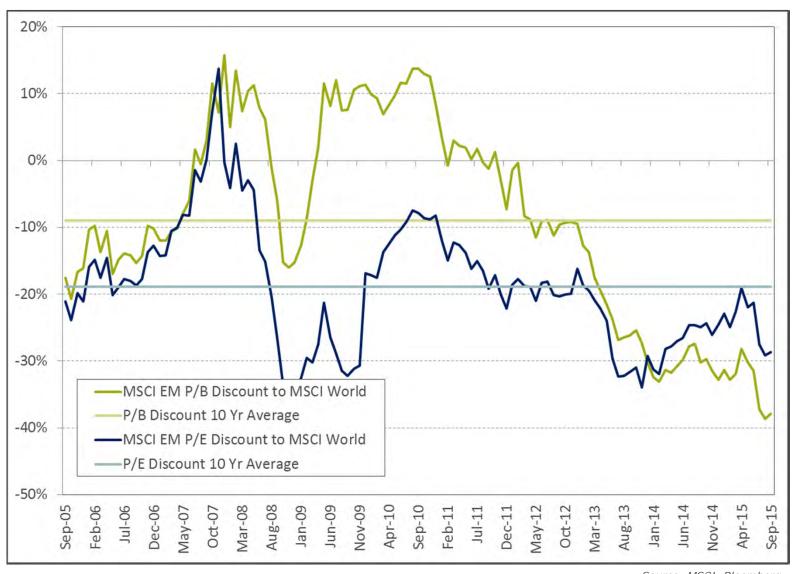
## Commodity Price Weakness Has Been Challenging for EM Currencies



Source: MSCI, Bloomberg



## EM Equities Trading at Large Discounts Relative to Developed Equities



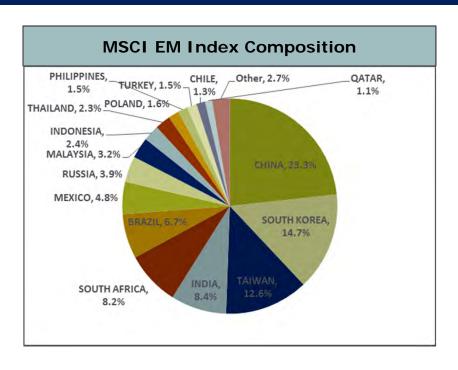
Source: MSCI, Bloomberg

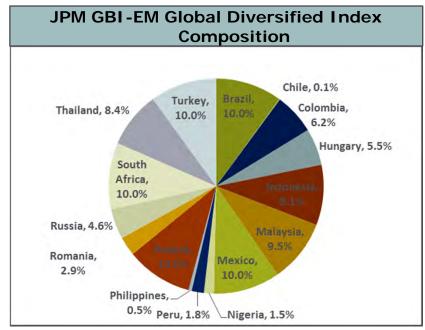


Market Focus: Emerging Market Currencies



## Currency Risks are Not Only Unique by Country but also Vary Across Indices





#### MSCI EM Index dominated by Asia

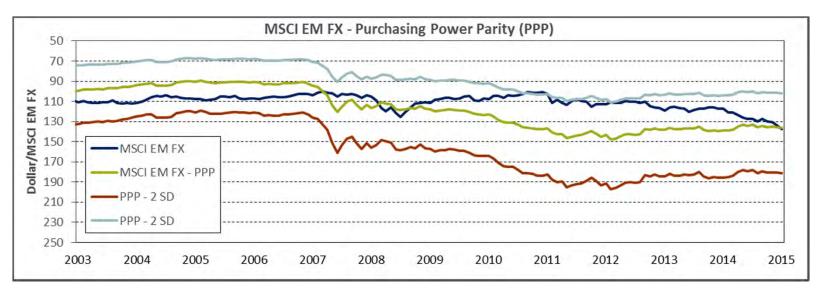
- Lots of countries with sensitivity to Chinese growth and competitiveness
- Despite possibility for further depreciation, most currencies appear cheap or reasonably valued

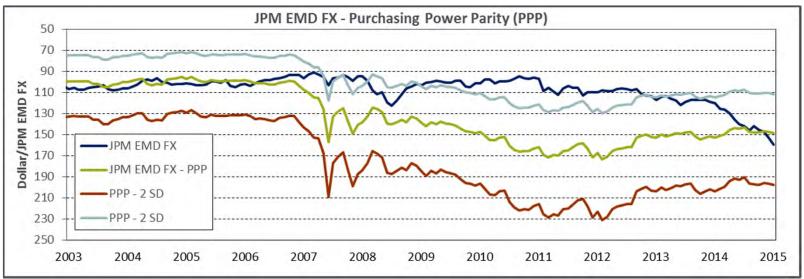
## Debt indices more concentrated in Latin/South America with exposure to balance of payments challenged countries

- Currencies of major commodity exporters are sensitive to oil and other commodity price weakness but also stand to benefit from a rebound
- Structural issues in Turkey and Brazil pose significant challenges but with less contagion risk



## Local Currency FX Valuation at Cheapest Levels in Over 10 Years

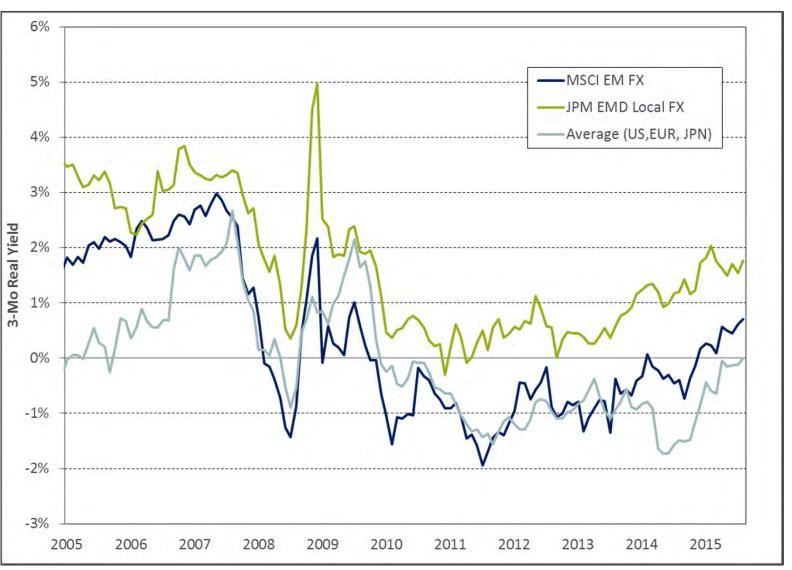




Source: MSCI, JP Morgan, Bloomberg



# Higher Real Rates Provide a Foundation for Currency Returns



Source: MSCI, JP Morgan, Bloomberg



## Risk of Further Devaluation of Chinese Yuan Remains



Source: Bank for International Settlements, Bloomberg



# Index Performance Summary as of 10/31/2015

	2008	2009	2010	2011	2012	2013	2014	Q1	Q2	Q3	ОСТ	YTD
S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.0%	0.3%	-6.4%	8.4%	2.7%
JPM EMBI Glob Div	-12.0%	29.8%	12.2%	7.4%	17.4%	-5.3%	7.4%	2.0%	-0.3%	-1.7%	2.7%	2.7%
Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	1.6%	0.1%	-6.8%	8.1%	2.4%
Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	1.0%	-0.9%	1.7%	0.4%	2.2%
MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	4.9%	0.6%	-10.2%	7.8%	2.1%
FTSE NAREIT Equity REITs	-37.7%	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	4.8%	-10.0%	2.0%	5.9%	1.9%
Barclays US Agg Interm	4.9%	6.5%	6.2%	6.0%	3.6%	-1.0%	4.1%	1.3%	-0.7%	1.1%	-0.1%	1.7%
Credit Suisse Lev Loan	-28.8%	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	2.1%	0.8%	-1.2%	-0.1%	1.5%
Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	1.6%	-1.7%	1.2%	0.0%	1.1%
Barclays US Gov/Cred 1-3Yr	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.6%	0.1%	0.3%	0.0%	1.0%
MSCI ACWI	-42.2%	34.6%	12.7%	-7.4%	16.1%	22.8%	4.2%	2.3%	0.4%	-9.5%	7.9%	0.3%
Barclays US Corp High Yield	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	2.5%	0.0%	-4.9%	2.8%	0.2%
Credit Suisse Hedge Fund	-19.1%	18.6%	11.0%	-2.5%	7.7%	9.7%	4.1%	2.5%	-0.5%	-2.5%	N/A	-0.6%
Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	5.2%	-0.3%	-10.3%	5.6%	-0.7%
Barclays US Gov/Cred Long	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	3.4%	-7.6%	2.2%	0.4%	-2.0%
Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.7%	-4.0%	-0.5%	-2.5%	-1.6%	1.7%	0.0%	-2.4%
Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.4%	38.8%	4.9%	4.3%	0.4%	-11.9%	5.6%	-2.5%
Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	3.1%	-7.3%	0.5%	1.0%	-3.0%
Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	5.5%	-14.3%	7.6%	-0.3%	-3.0%
MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	2.2%	0.7%	-17.9%	7.1%	-9.5%
JPM GBI-EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-4.0%	-1.0%	-10.5%	4.5%	-11.1%
Bloomberg Commodity	-35.7%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-5.9%	4.7%	-14.5%	-0.5%	-16.2%
Alerian MLP	-36.9%	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-5.2%	-6.1%	-22.1%	9.7%	-24.0%

Source: Morningstar Direct



# **State Teachers' Retirement System**



# Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
Teachers Composite	\$1,598,628,275	-5.0%	51	-2.8%	56	-3.0%	88	3.9%	95	5.9%	91
Policy Index		-4.4%	27	-2.7%	51	-2.4%	82	3.9%	94	5.2%	95
Allocation Index		-4.9%	44	-3.2%	69	-2.8%	86	3.7%	96	5.0%	95
InvestorForce Public DB Gross Median		-5.0%		-2.6%		-0.6%		6.9%		7.5%	

#### 3 Years Ending September 30, 2015

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Teachers Composite	3.89%	95	5.61%	33	0.69	95	1.16	92
Policy Index	3.91%	94	5.11%	11	0.76	92	1.34	88
Allocation Index	3.66%	96	5.17%	14	0.70	94	1.17	92

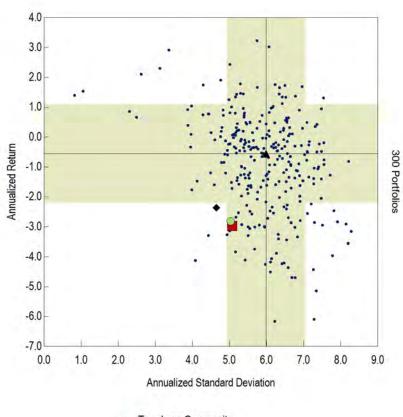
#### 5 Years Ending September 30, 2015

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	
Teachers Composite	5.88%	91	6.80%	30	0.86	85	1.33	71	
Policy Index	5.16%	95	6.52%	23	0.78	91	1.20	87	
Allocation Index	5.00%	95	6.65%	24	0.75	93	1.11	91	





#### 1 Year Ending September 30, 2015

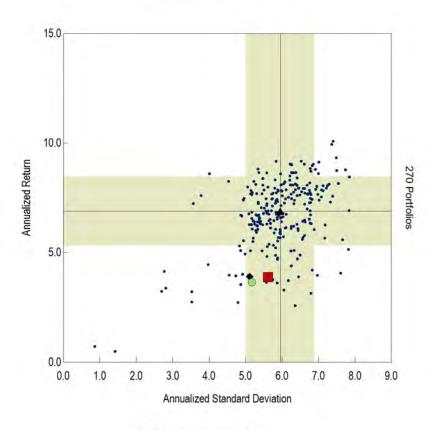


1	Year	<b>Ending</b>	September	30, 2015
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	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Teachers Composite	-2.98%	88	5.07%	17	-0.59	92
Policy Index	-2.37%	82	4.65%	8	-0.51	90
S&P 500	-0.61%	52	11.01%	99	-0.06	42
60% MSCI ACWI (Net)/40% CITI WGBI	-5.37%	99	6.54%	74	-0.82	99
Citi WGBI	-3.83%	94	3.30%	2	-1.16	99
MSCI ACWI	-6.66%	99	11.17%	99	-0.60	92
MSCI ACWI ex USA	-12.16%	99	12.76%	99	-0.95	99
InvestorForce Public DB Gross Median	-0.55%		5.99%		-0.10	-

- Policy Index
- Allocation Index
- Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

3 Years Ending September 30, 2015

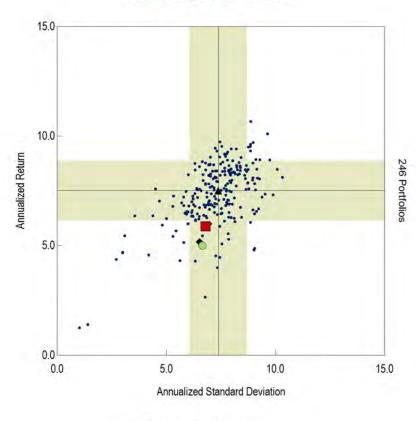


## 3 Years Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Teachers Composite	3.89%	95	5.61%	33	0.69	95
Policy Index	3.91%	94	5.11%	11	0.76	92
S&P 500	12.40%	1	9.74%	99	1.27	28
60% MSCI ACWI (Net)/40% CITI WGBI	3.04%	99	6.68%	80	0.45	99
Citi WGBI	-2.85%	99	4.29%	4	-0.67	99
MSCI ACWI	6.95%	49	10.03%	99	0.69	95
MSCI ACWI ex USA	2.34%	99	11.61%	99	0.20	99
InvestorForce Public DB Gross Median	6.90%		5.95%		1.16	

- Teachers Composite
- Policy Index
- Allocation Index
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- InvestorForce Public DB Gross





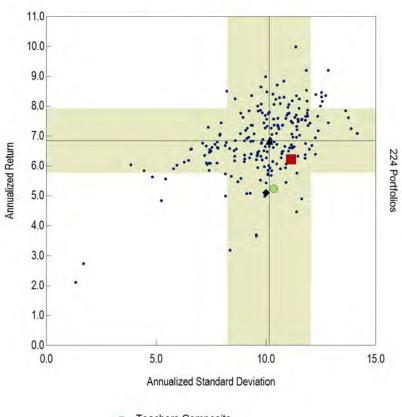
#### 5 Years Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Teachers Composite	5.88%	91	6.80%	30	0.86	85
Policy Index	5.16%	95	6.52%	23	0.78	91
S&P 500	13.34%	1	11.51%	99	1.16	22
60% MSCI ACWI (Net)/40% CITI WGBI	4.16%	99	8.65%	85	0.48	99
Citi WGBI	-0.19%	99	4.96%	5	-0.05	99
MSCI ACWI	6.82%	70	13.08%	99	0.52	99
MSCI ACWI ex USA	1.82%	99	15.13%	99	0.12	99
InvestorForce Public DB Gross Median	7.51%		7.38%		1.02	

- Teachers Composite
- Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross





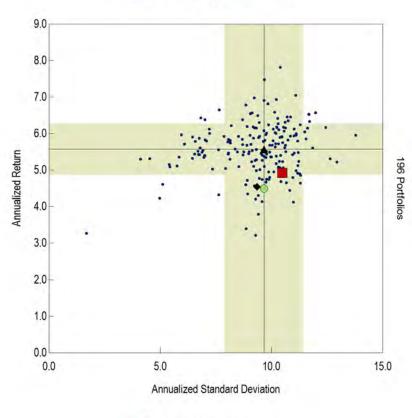


7 Years Ending S	September 30, 2015
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Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
6.22%	77	11.13%	74	0.55	89
5.10%	96	10.00%	45	0.50	97
9.75%	1	16.16%	99	0.60	78
4.93%	97	12.04%	93	0.40	99
2.43%	99	6.67%	6	0.35	99
6.03%	84	17.92%	99	0.33	99
3.20%	99	20.07%	99	0.16	99
6.84%		10.15%	-	0.68	-
	Return 6.22% 5.10% 9.75% 4.93% 2.43% 6.03% 3.20%	Anizd Return Rank  6.22% 77  5.10% 96  9.75% 1  4.93% 97  2.43% 99  6.03% 84  3.20% 99	Anizd Return         Return Rank         Standard Deviation           6.22%         77         11.13%           5.10%         96         10.00%           9.75%         1         16.16%           4.93%         97         12.04%           2.43%         99         6.67%           6.03%         84         17.92%           3.20%         99         20.07%	Anizd Return         Anizd Return Rank         Anizd Standard Deviation Standard Deviation Rank         Standard Deviation Rank           6.22%         77         11.13%         74           5.10%         96         10.00%         45           9.75%         1         16.16%         99           4.93%         97         12.04%         93           2.43%         99         6.67%         6           6.03%         84         17.92%         99           3.20%         99         20.07%         99	Anizd Return         Anizd Return Rank         Anizd Standard Deviation Poviation Rank         Standard Deviation Rank         Standard Deviation Rank           6.22%         77         11.13%         74         0.55           5.10%         96         10.00%         45         0.50           9.75%         1         16.16%         99         0.60           4.93%         97         12.04%         93         0.40           2.43%         99         6.67%         6         0.35           6.03%         84         17.92%         99         0.33           3.20%         99         20.07%         99         0.16

- Policy Index
- Allocation Index
- Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross





#### 10 Years Ending September 30, 2015

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Teachers Composite	4.92%	86	10.49%	76	0.35	89
Policy Index	4.54%	94	9.35%	42	0.36	89
S&P 500	6.80%	4	14.90%	99	0.38	83
60% MSCI ACWI (Net)/40% CITI WGBI	4.44%	95	11.04%	88	0.29	99
Citi WGBI	3.37%	99	6.54%	7	0.33	93
MSCI ACWI	4.58%	94	16.75%	99	0.20	99
MSCI ACWI ex USA	3.03%	99	19.03%	99	0.10	99
InvestorForce Public DB Gross Median	5.57%		9.66%		0.47	

- Teachers Composite
- Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross



# Total Fund Asset Allocation vs. Policy Targets

6.9%

6.3%

Policy	Current	Target		Asset Allocation vs. Target			
				Current	Policy	Current	Difference*
11.0%	10.9%	- 2 - 50	Large Cap Equity	\$173,499,723	11.0%	10.9%	-0.1%
11.0%	10.9%	11.3%	Small/Mid Cap Equity	\$73,033,075	5.0%	4.6%	-0.4%
			International Equity	\$160,477,076	10.0%	10.0%	0.0%
5.0%	4.6%	4.7%	Emerging Markets Equity	\$86,044,765	6.0%	5.4%	-0.6%
			High Yield	\$66,282,840	4.0%	4.1%	0.1%
10.0%	10.0%	11.5%	TIPS	\$49,062,335	3.0%	3.1%	0.1%
		11.5%	Diversified Bond	\$350,637,962	20.0%	21.9%	1.9%
	5.4%		Emerging Market Debt	\$84,897,612	5.0%	5.3%	0.3%
6.0%	5.470	6.4%	Global Bonds	\$53,974,849	3.0%	3.4%	0.4%
4.0%	4.1%	B12000	Balanced - GAA	\$247,905,067	16.0%	15.5%	-0.5%
3.0%	3.1%	5.2%	Private Equity	\$16,390,531	3.0%	1.0%	-2.0%
		4.2%	Hedge Funds	\$84,705,321	5.0%	5.3%	0.3%
		1000000	Real Estate	\$108,767,793	6.0%	6.8%	0.8%
G/1 700	1000		Commodities	\$42,632,245	3.0%	2.7%	-0.3%
20.0%	21.9%		Cash	\$317,083		0.0%	0.0%
		Telluma.	Total	\$1,598,628,275	100.0%	100.0%	
		24.5%	*Difference between Policy and Current Allocation				
5.0%	CONTRACTOR OF THE PARTY OF THE		Emergines services in emergines and eartest values and				
	5.3%						
3.0%	3.4%						



16.0%

3.0%

5.0%

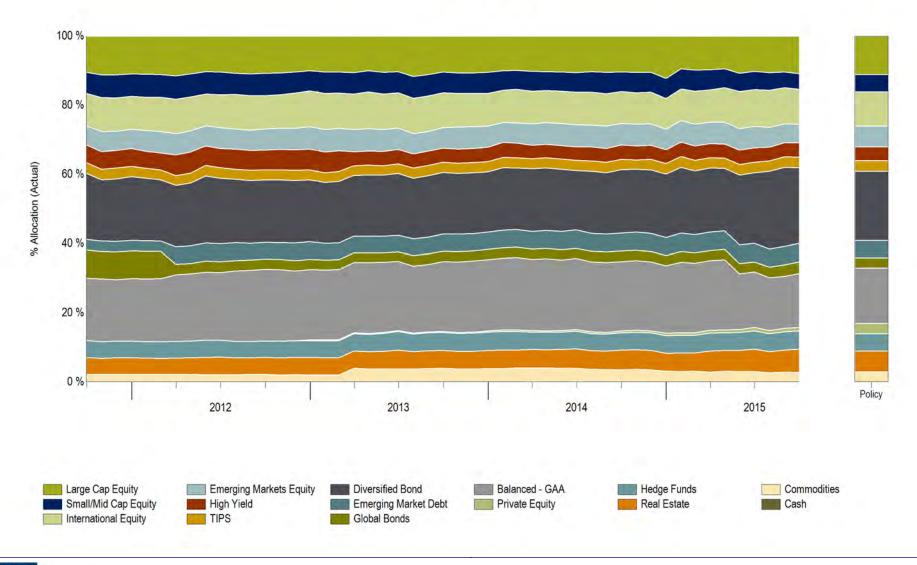
3.0%

15.5%

5.3%

# Total Fund Asset Allocation History

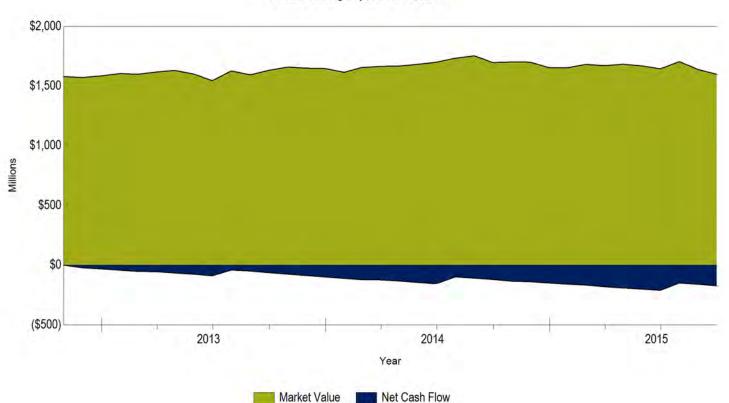
#### **Asset Allocation History**





# Total Fund Asset Growth Summary

3 Years Ending September 30, 2015



	Last Three Months	Year-To-Date	One Year	Three Years
Beginning Market Value	\$1,644,493,199	\$1,653,682,205	\$1,697,054,148	\$1,583,520,994
- Withdrawals	-\$49,637,919	-\$325,515,796	-\$408,774,453	-\$812,074,859
+ Contributions	\$87,129,860	\$301,892,689	\$355,177,712	\$638,440,043
= Net Cash Flow	\$37,491,941	-\$23,623,107	-\$53,596,741	-\$173,634,816
+ Net Investment Change	-\$83,356,866	-\$31,430,823	-\$44,829,132	\$188,742,097
= Ending Market Value	\$1,598,628,275	\$1,598,628,275	\$1,598,628,275	\$1,598,628,275



# Total Fund Asset Growth Summary by Manager

#### Quarter Ending September 30, 2015

			3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Aberdeen	\$100,956,258	-\$193,438	\$193,438	\$0	-\$14,911,493	\$86,044,765
Acadian	\$67,125,704	-\$82,888	\$582,888	\$500,000	-\$5,211,796	\$62,413,909
Allianz Structured Alpha	\$47,264,698	-\$170,849	\$0	-\$170,849	\$768,129	\$47,861,978
AQR Global Risk Premium	\$132,850,384	-\$132,850	\$132,850	\$0	-\$10,097,588	\$122,752,797
BlackRock TIPS	\$49,666,248	-\$9,563	\$9,563	\$0	-\$603,914	\$49,062,335
Champlain	\$33,142,448	-\$67,247	\$67,247	\$0	-\$3,107,628	\$30,034,820
GAM	\$179,024	\$0	\$45,018	\$45,018	-\$14,260	\$209,783
GAM Unconstrained Bond	\$63,814,392	-\$8,509,477	\$20,009,477	\$11,500,000	-\$2,004,930	\$73,309,462
Grosvenor	\$86,690,234	\$0	\$0	\$0	-\$2,194,696	\$84,495,538
Guggenheim	\$50,921,705	-\$62,412	\$62,412	\$0	-\$1,897,144	\$49,024,561
Harbourvest Dover VIII Fund	\$6,917,642	\$0	\$0	\$0	-\$287,935	\$6,629,707
Harbourvest Partners IX Buyout Fund	\$4,462,210	\$0	\$261,346	\$261,346	-\$205,853	\$4,517,703
Harbourvest Partners IX Credit Opportunities	\$607,259	-\$63,667	\$0	-\$63,667	-\$4,199	\$539,394
Harbourvest Partners IX Venture Fund	\$3,694,357	\$0	\$234,236	\$234,236	\$11,687	\$3,940,280
HIPEP VII	\$574,164	\$0	\$191,290	\$191,290	-\$2,008	\$763,447
KDP	\$18,039,902	-\$28,142	\$28,142	\$0	-\$781,624	\$17,258,278
Mellon Dynamic Growth	\$33,421,519	-\$54,089	\$54,089	\$0	-\$2,177,204	\$31,244,315
Mondrian	\$66,049,683	-\$2,562,578	\$5,062,578	\$2,500,000	-\$7,214,009	\$61,335,674
Mondrian GFI	\$48,491,965	-\$38,871	\$5,038,871	\$5,000,000	\$482,884	\$53,974,849
Morgan Stanley Prime Property	\$48,746,778	\$0	\$0	\$0	\$1,746,151	\$50,492,929
PIMCO All Asset	\$97,241,439	-\$208,797	\$5,000,000	\$4,791,203	-\$8,124,828	\$93,907,814
PIMCO Core Plus	\$86,686,509	-\$22,063,792	\$20,063,792	-\$2,000,000	\$449,647	\$85,136,156
PIMCO Unconstrained	\$40,493,549	-\$127,064	\$5,127,064	\$5,000,000	-\$1,441,393	\$44,052,156
RREEF America REIT III	\$8,703,488	-\$2,657,390	\$0	-\$2,657,390	-\$291,468	\$5,754,629
Schroder	\$49,382,376	\$0	\$0	\$0	-\$6,750,131	\$42,632,245



# Total Fund Asset Growth Summary by Manager

#### Quarter Ending September 30, 2015

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Siguler Guff	\$7,112,486	\$0	\$2,639,570	\$2,639,570	-\$56,386	\$9,695,670
SSgA ACWI Ex US	\$41,792,711	-\$6,180	\$6,180	\$0	-\$5,065,217	\$36,727,494
SSgA Barclays Aggregate Index	\$51,302,797	-\$4,444	\$4,444	\$0	\$632,692	\$51,935,490
SSgA Russell 2000 Growth	\$12,109,087	-\$6,903,046	\$1,003,046	-\$5,900,000	-\$1,165,308	\$5,043,779
SSgA S&P 400	\$7,876,202	-\$1,577	\$1,577	\$0	-\$667,078	\$7,209,124
SSgA S&P 500 Cap-Wgt	\$124,958,721	-\$2,209,436	\$11,009,436	\$8,800,000	-\$7,631,200	\$126,127,521
SSgA S&P 500 Equal-Wgt	\$43,080,009	-\$3,006,457	\$10,006,457	\$7,000,000	-\$2,710,204	\$47,369,806
T. Rowe	\$2,397	\$0	\$0	\$0	\$0	\$2,397
Transwestern / Aslan III	\$420,525	-\$270,117	\$0	-\$270,117	\$3,147	\$153,555
UBS Trumbull	\$41,255,796	-\$113,109	\$113,109	\$0	\$1,415,215	\$42,671,010
Vermont Cash	\$225,783	-\$22,980	\$114,280	\$91,299	\$0	\$317,083
Wellington	\$34,255,637	-\$67,461	\$67,461	\$0	-\$3,510,285	\$30,745,352
Wellington DAS	\$46,042,251	\$0	\$0	\$0	\$2,300,469	\$48,342,721
Wellington OIF	\$142	\$0	\$0	\$0	\$0	\$142
Wellington Opportunistic EMD	\$87,934,720	\$0	\$0	\$0	-\$3,037,109	\$84,897,612
Total	\$1,644,493,199	-\$49,637,919	\$87,129,860	\$37,491,941	-\$83,356,866	\$1,598,628,275



## **Vermont State Teachers**

# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Teachers Composite	1,598,628,275	100.0	100.0	-5.0	51	-2.8	56	-3.0	88	3.9	95	5.9	91
Policy Index				-4.4	27	-2.7	51	-2.4	82	3.9	94	5.2	95
Allocation Index				-4.9	44	-3.2	69	-2.8	86	3.7	96	5.0	95
InvestorForce Public DB Gross Median				-5.0		-2.6		-0.6		6.9		7.5	
US Equity	246,532,798	15.4	15.0	<b>-</b> 7.8	45	-5.0	49	1.0	46			-	
Russell 3000				-7.2	37	-5.4	55	-0.5	59	12.5	56	13.3	51
eA All US Equity Gross Median				-8.2		-5.2		0.5		12.9		13.3	
Large Cap Comp	173,499,723	10.9	11.0	-6.7	43	-5.7	57	-0.8	53	13.0	48	13.5	43
S&P 500				-6.4	39	-5.3	53	-0.6	52	12.4	56	13.3	47
eA US Large Cap Equity Gross Median				-7.1		-5.1		-0.4		12.9		13.2	
SSgA S&P 500 Cap-Wgt	126,127,521	7.9	8.0	-6.4	38	-5.2	52	-0.5	52	12.5	56	13.4	47
S&P 500				-6.4	39	-5.3	53	-0.6	52	12.4	56	13.3	47
SSgA S&P 500 Equal-Wgt	47,369,806	3.0	3.0	-7.6	60	-6.9	70	-1.3	57	14.3	25	13.8	39
S&P 500 Equal Weighted				-7.5	59	-6.9	70	-1.2	56	14.3	26	13.8	38
T. Rowe	2,397	0.0	0.0										
Small/Mid Cap Comp	73,033,075	4.6	5.0	-9.8	48	-4.0	36	4.3	23	13.5	42	13.9	36
Russell 2000				-11.9	75	-7.7	77	1.2	50	11.0	73	11.7	74
eA US Small-Mid Cap Equity Gross Median				-10.0		-4.8		1.1		13.1		13.3	
SSgA S&P 400	7,209,124	0.5	0.5	-8.5	52	-4.6	56	1.4	51	13.2	62	-	
S&P 400 MidCap				-8.5	53	-4.7	56	1.4	51	13.1	63	12.9	60
eA US Mid Cap Equity Gross Median				-8.2		-4.0		1.6		13.8		13.4	
Champlain	30,034,820	1.9	2.0	-9.4	64	-3.1	41	1.8	47	14.2	44	14.1	39
Russell 2500				-10.3	80	-6.0	70	0.4	60	12.4	74	12.7	67
eA US Mid Cap Equity Gross Median				-8.2		-4.0		1.6		13.8		13.4	
Wellington	30,745,352	1.9	2.0	-10.2	58	-5.3	29	6.1	6	12.8	43	13.8	29
Russell 2000 Value				-10.7	67	-10.1	77	-1.6	64	9.2	83	10.2	83
eA US Small Cap Value Equity Gross Median				-9.8		-6.7		0.5		12.2		12.5	
SSgA Russell 2000 Growth	5,043,779	0.3	0.5	-13.0	67	-5.4	60	4.1	50	12.8	55	13.3	67
Russell 2000 Growth				-13.1	68	-5.5	60	4.0	51	12.8	55	13.3	67
eA US Small Cap Growth Equity Gross Median				-11.7		-3.8		4.1		13.4		14.3	

Fiscal Year End is 6/30 Report is Gross of manager fees, except where otherwise noted



#### **Vermont State Teachers**

#### Total Fund Performance Detail Market Value % of 3 Mo YTD 1 Yr 3 Yrs 5 Yrs Rank Rank Rank Policy % Rank Rank (\$) Portfolio (%)(%) (%) (%) (%) Int'l Equity Comp 160,477,076 10.0 10.0 -9.7 61 -5.0 74 -8.4 77 6.3 65 4.8 70 MSCI EAFE 72 -5.3 -8.7 79 -10.2 77 5.6 72 4.0 83 -9.2 -2.7 5.9 eA All EAFE Equity Gross Median -5.2 7.1 49 Acadian 62,413,909 3.9 4.0 -7.8 26 -2.6 47 -5.3 53 8.3 36 6.0 Mondrian 61,335,674 3.8 4.0 -10.2 -9.5 84 6.1 66 4.9 69 70 -5.3 77 MSCI FAFF -10.272 -5.3 77 -8.7 79 5.6 72 4.0 83 SSqA ACWI Ex US 36,727,494 2.3 2.0 -12.1 83 -8.5 88 -12.0 89 2.6 86 2.1 93 -12.2 -8.6 -12.2 2.3 MSCI ACWI ex USA 83 89 90 89 1.8 97 eA ACWI ex-US All Cap Equity Gross Median -10.7 -4.9 -6.1 5.7 5.2 **Emerging Market Comp** 86.044.765 5.4 6.0 -14.8 27 -13.8 47 -18.3 69 -5.1 79 5.4 6.0 -14.8 27 -13.8 47 69 -5.1 79 40 Aberdeen 86,044,765 -18.3 -0.8 MSCI Emerging Markets -17.9 81 -15.5 69 -19.3 73 -5.3 81 -3.6 83 -2.6 eA Emg Mkts Equity Gross Median -16.3-14.0 -16.8 -1.8 **US Fixed Income** 465,983,136 29.1 24.0 -0.5 80 0.8 61 2.1 51 --2.9 3.1 Barclays Aggregate 1.2 23 1.1 50 26 1.7 66 62 0.6 2.1 eA All US Fixed Inc Gross Median 1.1 2.1 3.6 **Diversified Fixed** 350,637,962 21.9 20.0 0.2 67 1.2 48 3.3 17 2.3 43 4.1 41 1.2 23 50 26 66 Barclays Aggregate 1.1 2.9 1.7 3.1 62 eA All US Fixed Inc Gross Median 0.6 1.1 2.1 2.1 3.6 3.0 2.0 6 8.3 Allianz Structured Alpha 47.861.978 1.6 5.2 1 10.6 1 7.4 1 Citigroup 10 Year Treasury 2.9 1 2.4 3 6.0 1 1.4 95 3.8 39 PIMCO Core Plus 85,136,156 5.3 5.0 0.1 97 1.1 68 2.7 65 1.5 95 3.4 67 2.9 54 82 1.2 37 1.1 66 1.7 79 3.1 Barclays Aggregate 2.5 -3.1 99 -2.8 -0.3 99 PIMCO Unconstrained 44,052,156 2.8 99 -2.7 99 -1.1 99 -0.1 99 0.1 99 1.9 65 4.2 12 25% HY, 25% EMD, 50% BC Agg 0.1 0.2 99 3-Month Libor Total Return USD 97 98 0.3 99 0.3 99 0.3 1 1 1 Wellington DAS 48,342,721 3.0 3.0 5.0 5.3 1 11.1 5.6 8.1 Wellington Custom Benchmark 3.6 1 3.3 1 7.7 1 2.5 20 6.0 SSgA Barclays Aggregate Index 51.935.490 3.2 3.0 1.2 37 --Barclavs Aggregate 1.2 37 1.1 66 2.9 54 1.7 79 3.1 82 0.1 97 0.2 99 0.3 99 0.3 99 3-Month Libor Total Return USD 98 0.3 3.0 eA US Core Fixed Inc Gross Median 1.1 1.3 2.0 3.6 4.5 -2.3 99 **GAM Unconstrained Bond** 73.309.462 4.6 --3-Month LIBOR + 3% 0.8 77 2.5 2 3.3 32 3.3 5 3.3 71 eA US Core Fixed Inc Gross Median 1.1 1.3 3.0 2.0 3.6

Wellington DAS is net of fees. Allianz is Net of Fees from inception to Q3 2012 and grossed up quarterly since GAM Unconstrained Bond was funded in June 2015



## **Vermont State Teachers**

# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
High Yield Comp	66,282,840	4.1	4.0	-3.9	47	-0.5	40	-1.7	47	4.3	38	6.6	40
Barclays High Yield				-4.9	71	-2.5	77	-3.4	73	3.5	67	6.1	64
eA US High Yield Fixed Inc Gross Median				-4.0		-0.9		-2.0		4.1		6.5	
KDP	17,258,278	1.1	1.0	-4.3	58	-1.7	63	-2.0	51	3.0	86	5.5	84
Barclays High Yield				-4.9	71	-2.5	77	-3.4	73	3.5	67	6.1	64
BofA Merrill Lynch US High Yield BB-B Rated				-4.3	58	-1.7	64	-2.1	52	3.7	62	6.0	68
Guggenheim	49,024,561	3.1	3.0	-3.7	45	-0.1	27	-1.6	47				
Barclays High Yield				-4.9	71	-2.5	77	-3.4	73	3.5	67	6.1	64
eA US High Yield Fixed Inc Gross Median				-4.0		-0.9		-2.0		4.1		6.5	
TIPS	49,062,335	3.1	3.0										
BlackRock TIPS	49,062,335	3.1	3.0	-1.2		-0.8		-0.9		-1.9		2.5	
Barclays US TIPS				-1.1		-0.8		-0.8		-1.8		2.5	
Global Fixed Income Comp	53,974,849	3.4	3.0	0.9	16	-1.3	42	-3.0	56	-3.7	96	0.3	91
Citi WGBI				1.7	6	-2.4	63	-3.8	67	-2.9	92	-0.2	95
eA All Global Fixed Inc Gross Median				-0.9		-1.9		-2.7		1.7		3.0	
Mondrian GFI	53,974,849	3.4	3.0	0.9	16	-1.3	42	-3.0	56	-3.7	96	-0.3	96
Citi WGBI				1.7	6	-2.4	63	-3.8	67	-2.9	92	-0.2	95
Emerging Market Debt	84,897,612	5.3	5.0										
Wellington Opportunistic EMD	84,897,612	5.3	5.0	-3.5	32	-2.8	47	-3.7	37	0.5	38	4.5	30
JP Morgan EMBI Global TR				-2.0	12	-0.3	17	-2.0	22	0.5	36	4.4	33
eA All Emg Mkts Fixed Inc Gross Median				-4.9		-3.5		-6.9		-0.8		3.1	
Total Real Estate	108,767,793	6.8	6.0	2.7		10.4		14.1		14.3			
NCREIF Property Index				3.1		10.1		13.5		11.9		12.5	
NCREIF ODCE				3.7		11.3		14.9		13.4		14.0	
Morgan Stanley Prime Property	50,492,929	3.2	2.0	3.6		11.7		16.8		16.0		15.9	
UBS Trumbull	42,671,010	2.7	2.0	3.4		9.6		12.9		11.3		11.8	
RREEF America REIT III	5,754,629	0.4	0.5	-4.8		7.8		10.5		18.1		25.4	
Transwestern / Aslan III	153,555	0.0	0.5	2.1		6.0		-6.7		17.3		3.2	
Siguler Guff	9,695,670	0.6	1.0	-0.6		6.8		6.6					

Wellington Opportunistic EMD is Net of manager fees Real Estate is updated through Q3 2015. Siguler Guff is based on preliminary data



### **Vermont State Teachers**

### Total Fund Performance Detail

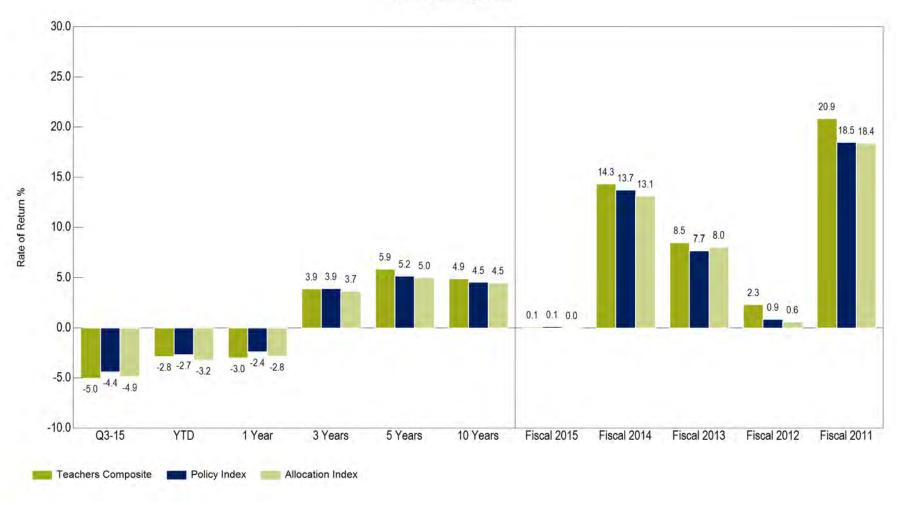
	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Hedge Fund Comp	84,705,321	5.3	5.0	-2.5	38	-0.6	43	-0.9	54	6.0	34	-	
eV Alt Fund of Funds - Multi-Strategy Median				-3.3		-1.1		-0.4		5.0		3.9	
Grosvenor	84,495,538	5.3	5.0	-2.5	38	-0.1	36	0.4	41	6.8	23		
GAM	209,783	0.0	0.0										
GAA Comp	247,905,067	15.5	16.0	-7.8	85	-6.0	77	-7.0	78	1.3	86	4.3	64
eA Global TAA Gross Median				-5.4		-4.3		-3.3		3.6		5.1	
Mellon Dynamic Growth	31,244,315	2.0	2.0	-6.5	68	-1.0	13	4.3	2	6.1	15	7.1	18
Mellon Dynamic Growth Benchmark				-5.5	54	-5.1	60	-5.1	64	3.4	58	4.6	62
AQR Global Risk Premium	122,752,797	7.7	8.0	-7.6	82	-6.4	79	-8.0	84	0.4	90	5.1	51
60% MSCI World / 40% CITI WGBI				-4.4	35	-4.2	49	-4.1	59	4.3	42	5.4	49
PIMCO All Asset	93,907,814	5.9	6.0	-8.4	89	-8.1	91	-10.5	96	-0.7	92	3.0	77
PIMCO All Asset Index				-1.0	9	-0.2	10	0.5	15	1.9	77	4.2	65
CPI + 5% (Seasonally Adjusted)				1.1	1	4.3	1	5.0	1	6.0	15	6.8	19
Wellington OIF	142	0.0	0.0	0.0	1	6.7	1	5.7	1	7.6	6	5.3	49
65% MSCI ACWI (Net) / 35% BC Agg				-5.8	58	-4.1	49	-3.2	50	5.2	28	5.7	33
Commodities	42,632,245	2.7	3.0										
Schroder	42,632,245	2.7	3.0	-13.7		-17.4	-	-33.2		-18.4	-	-8.9	
Bloomberg Commodity Index				-14.5		-15.8		-26.0		-16.0		-8.9	
Cash	317,083	0.0	0.0										
Vermont Cash	317,083	0.0	0.0	0.0		0.0	-	0.0		0.0	-	0.1	
91 Day T-Bills				0.0		0.0		0.0		0.0		0.0	
Private Equity	16,390,531	1.0	3.0	-2.8		8.2	-	16.7				-	
Cambridge Associates US All PE				0.0		6.5		7.4		14.2		14.5	
Harbourvest Partners IX Credit Opportunities	539,394	0.0											
Harbourvest Partners IX Venture Fund	3,940,280	0.2											
Harbourvest Partners IX Buyout Fund	4,517,703	0.3											
Harbourvest Dover VIII Fund	6,629,707	0.4											
HIPEP VII	763,447	0.0											

Harbourvest is based on estimated Capital Account Statements for Q3 2015
PIMCO All Asset Index: 40% BC Agg / 30% TIPS / 10% S&P500 / 10% BC HY / 10% JPM EMBI+
Mellon Dynamic Growth Benchmark: 60% MSCI All Country World Index IMI/ 40% Citigroup GDP Weighted
Hedge Fund Comp and Commodities are Net of Manager Fees
Wellington OIF is Net of Manager Fees



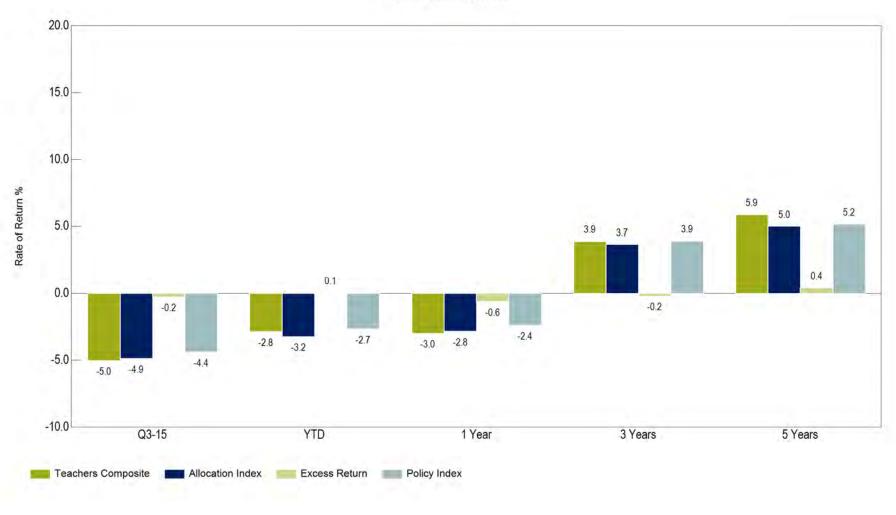
### Total Fund Return Summary





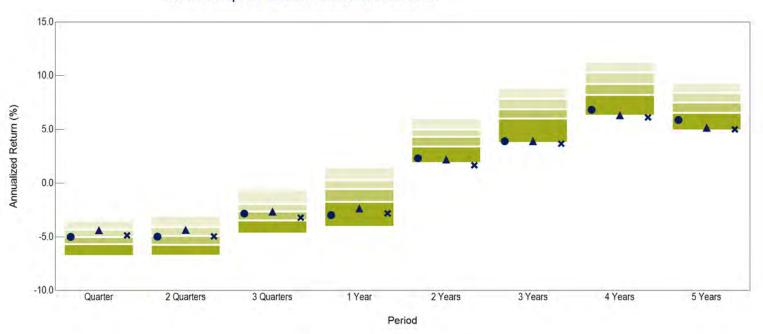
# Total Fund Return Summary







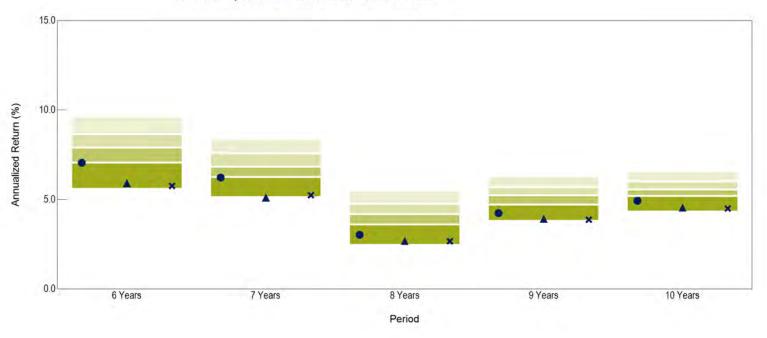
### Teachers Composite vs. InvestorForce Public DB Gross



	Return (Rank	()														
5th Percentile	-3.5		-3.0		-0.6		1.5		6.0		8.8		11.3		9.3	
25th Percentile	-4.3		-4.1		-1.9		0.3		5.0		7.9		10.3		8.4	
Median	-5.0		-4.9		-2.6		-0.6		4.3		6.9		9.2		7.5	
75th Percentile	-5.7		-5.7		-3.5		-1.7		3.4		6.0		8.2		6.6	
95th Percentile	-6.8		-6.8		-4.7		-4.1		1.9		3.8		6.3		4.9	
# of Portfolios	311		311		303		300		281		270		257		246	
Teachers Composite	-5.0	(51)	-5.0	(53)	-2.8	(56)	-3.0	(88)	2.3	(90)	3.9	(95)	6.8	(92)	5.9	(91)
Policy Index	-4.4	(27)	-4.4	(32)	-2.7	(51)	-2.4	(82)	2.2	(92)	3.9	(94)	6.3	(95)	5.2	(95)
Allocation Index	-4.9	(44)	-5.0	(53)	-3.2	(69)	-2.8	(86)	1.7	(96)	3.7	(96)	6.1	(96)	5.0	(95)



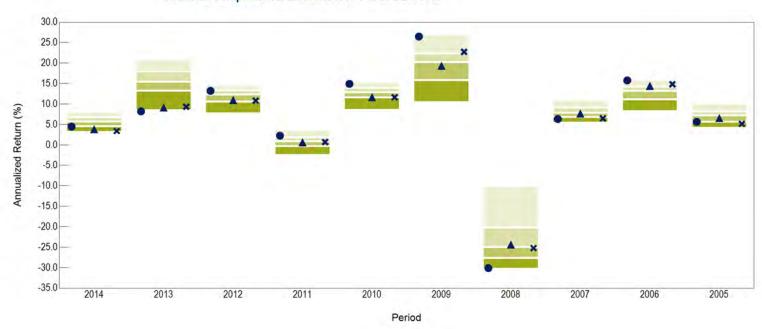
### Teachers Composite vs. InvestorForce Public DB Gross



	Return (Rank)									
5th Percentile	9.6		8.4		5.5		6.3		6.6	
25th Percentile	8.7		7.6		4.8		5.7		6.0	
Median	7.9		6.8		4.2		5.3		5.6	
75th Percentile	7.1		6.3		3.6		4.7		5.2	
95th Percentile	5.6		5.1		2.5		3.8		4.3	
# of Portfolios	226		224		211		203		196	
Teachers Composite	7.0	(76)	6.2	(77)	3.0	(88)	4.2	(89)	4.9	(86)
Policy Index	5.9	(95)	5.1	(96)	2.7	(94)	3.9	(94)	4.5	(94)
Allocation Index	5.8	(95)	5.2	(95)	2.7	(94)	3.9	(95)	4.5	(95)



### Teachers Composite vs. InvestorForce Public DB Gross

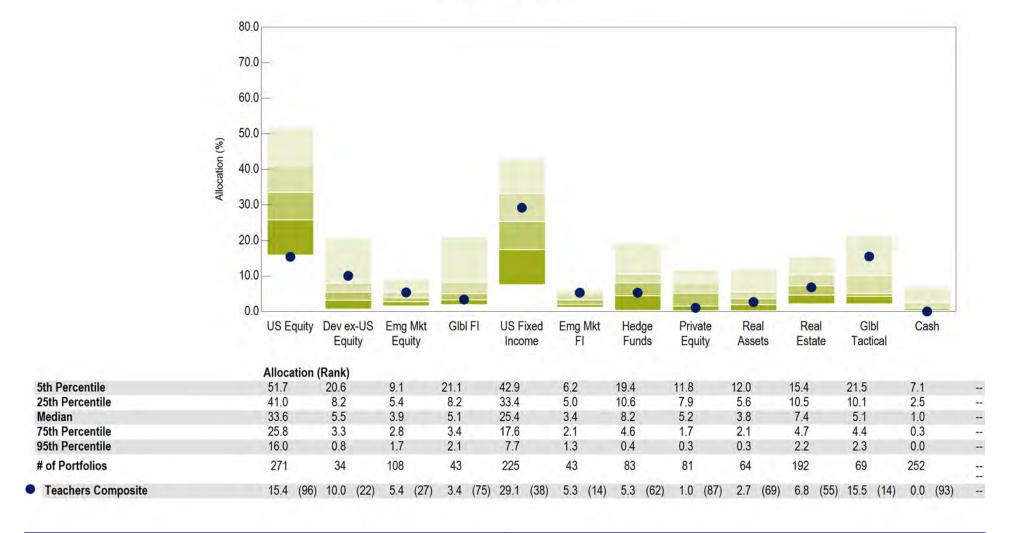


Return (R	lank)																		
8.0		20.8		14.6		3.6		15.4		27.0		-10.1		11.0		15.9		10.2	
6.8		18.0		13.4		1.9		14.0		22.4		-20.1		9.1		14.2		8.2	
5.8		15.5		12.4		0.9		12.9		20.2		-24.9		7.9		13.2		7.3	
4.6		13.3		10.7		-0.3		11.7		15.9		-27.6		6.9		11.2		5.7	
3.2		8.5		7.8		-2.5		8.6		10.5		-30.3		5.4		8.3		4.2	
248		231		236		206		188		184		181		177		171		158	
4.5	(80)	8.2	(96)	13.2	(27)	2.2	(17)	14.9	(12)	26.5	(7)	-30.1	(93)	6.3	(84)	15.7	(7)	5.6	(77)
3.8	(91)	9.1	(93)	10.9	(73)	0.6	(60)	11.7	(75)	19.3	(55)	-24.3	(45)	7.6	(54)	14.4	(23)	6.6	(60)
3.4	(94)	9.3	(93)	10.8	(74)	0.7	(60)	11.6	(77)	22.7	(24)	-25.2	(55)	6.5	(82)	14.8	(18)	5.1	(84)
	8.0 6.8 5.8 4.6 3.2 248 4.5 3.8	6.8 5.8 4.6 3.2 248 4.5 (80) 3.8 (91)	8.0 20.8 6.8 18.0 5.8 15.5 4.6 13.3 3.2 8.5 248 231 4.5 (80) 8.2 3.8 (91) 9.1	8.0 20.8 6.8 18.0 5.8 15.5 4.6 13.3 3.2 8.5 248 231 4.5 (80) 8.2 (96) 3.8 (91) 9.1 (93)	8.0 20.8 14.6 6.8 18.0 13.4 5.8 15.5 12.4 4.6 13.3 10.7 3.2 8.5 7.8 248 231 236 4.5 (80) 8.2 (96) 13.2 3.8 (91) 9.1 (93) 10.9	8.0 20.8 14.6 6.8 18.0 13.4 5.8 15.5 12.4 4.6 13.3 10.7 3.2 8.5 7.8 248 231 236 4.5 (80) 8.2 (96) 13.2 (27) 3.8 (91) 9.1 (93) 10.9 (73)	8.0     20.8     14.6     3.6       6.8     18.0     13.4     1.9       5.8     15.5     12.4     0.9       4.6     13.3     10.7     -0.3       3.2     8.5     7.8     -2.5       248     231     236     206       4.5     (80)     8.2     (96)     13.2     (27)     2.2       3.8     (91)     9.1     (93)     10.9     (73)     0.6	8.0 20.8 14.6 3.6 6.8 18.0 13.4 1.9 5.8 15.5 12.4 0.9 4.6 13.3 10.7 -0.3 3.2 8.5 7.8 -2.5 248 231 236 206 4.5 (80) 8.2 (96) 13.2 (27) 2.2 (17) 3.8 (91) 9.1 (93) 10.9 (73) 0.6 (60)	8.0     20.8     14.6     3.6     15.4       6.8     18.0     13.4     1.9     14.0       5.8     15.5     12.4     0.9     12.9       4.6     13.3     10.7     -0.3     11.7       3.2     8.5     7.8     -2.5     8.6       248     231     236     206     188       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7	8.0     20.8     14.6     3.6     15.4       6.8     18.0     13.4     1.9     14.0       5.8     15.5     12.4     0.9     12.9       4.6     13.3     10.7     -0.3     11.7       3.2     8.5     7.8     -2.5     8.6       248     231     236     206     188       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)	8.0     20.8     14.6     3.6     15.4     27.0       6.8     18.0     13.4     1.9     14.0     22.4       5.8     15.5     12.4     0.9     12.9     20.2       4.6     13.3     10.7     -0.3     11.7     15.9       3.2     8.5     7.8     -2.5     8.6     10.5       248     231     236     206     188     184       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3	8.0     20.8     14.6     3.6     15.4     27.0       6.8     18.0     13.4     1.9     14.0     22.4       5.8     15.5     12.4     0.9     12.9     20.2       4.6     13.3     10.7     -0.3     11.7     15.9       3.2     8.5     7.8     -2.5     8.6     10.5       248     231     236     206     188     184       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5     (7)       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3     (55)	8.0     20.8     14.6     3.6     15.4     27.0     -10.1       6.8     18.0     13.4     1.9     14.0     22.4     -20.1       5.8     15.5     12.4     0.9     12.9     20.2     -24.9       4.6     13.3     10.7     -0.3     11.7     15.9     -27.6       3.2     8.5     7.8     -2.5     8.6     10.5     -30.3       248     231     236     206     188     184     181       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5     (7)     -30.1       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3     (55)     -24.3	8.0     20.8     14.6     3.6     15.4     27.0     -10.1       6.8     18.0     13.4     1.9     14.0     22.4     -20.1       5.8     15.5     12.4     0.9     12.9     20.2     -24.9       4.6     13.3     10.7     -0.3     11.7     15.9     -27.6       3.2     8.5     7.8     -2.5     8.6     10.5     -30.3       248     231     236     206     188     184     181       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5     (7)     -30.1     (93)       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3     (55)     -24.3     (45)	8.0     20.8     14.6     3.6     15.4     27.0     -10.1     11.0       6.8     18.0     13.4     1.9     14.0     22.4     -20.1     9.1       5.8     15.5     12.4     0.9     12.9     20.2     -24.9     7.9       4.6     13.3     10.7     -0.3     11.7     15.9     -27.6     6.9       3.2     8.5     7.8     -2.5     8.6     10.5     -30.3     5.4       248     231     236     206     188     184     181     177       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5     (7)     -30.1     (93)     6.3       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3     (55)     -24.3     (45)     7.6	8.0     20.8     14.6     3.6     15.4     27.0     -10.1     11.0       6.8     18.0     13.4     1.9     14.0     22.4     -20.1     9.1       5.8     15.5     12.4     0.9     12.9     20.2     -24.9     7.9       4.6     13.3     10.7     -0.3     11.7     15.9     -27.6     6.9       3.2     8.5     7.8     -2.5     8.6     10.5     -30.3     5.4       248     231     236     206     188     184     181     177       4.5     (80)     8.2     (96)     13.2     (27)     2.2     (17)     14.9     (12)     26.5     (7)     -30.1     (93)     6.3     (84)       3.8     (91)     9.1     (93)     10.9     (73)     0.6     (60)     11.7     (75)     19.3     (55)     -24.3     (45)     7.6     (54)	8.0       20.8       14.6       3.6       15.4       27.0       -10.1       11.0       15.9         6.8       18.0       13.4       1.9       14.0       22.4       -20.1       9.1       14.2         5.8       15.5       12.4       0.9       12.9       20.2       -24.9       7.9       13.2         4.6       13.3       10.7       -0.3       11.7       15.9       -27.6       6.9       11.2         3.2       8.5       7.8       -2.5       8.6       10.5       -30.3       5.4       8.3         248       231       236       206       188       184       181       177       171         4.5       (80)       8.2       (96)       13.2       (27)       2.2       (17)       14.9       (12)       26.5       (7)       -30.1       (93)       6.3       (84)       15.7         3.8       (91)       9.1       (93)       10.9       (73)       0.6       (60)       11.7       (75)       19.3       (55)       -24.3       (45)       7.6       (54)       14.4	8.0       20.8       14.6       3.6       15.4       27.0       -10.1       11.0       15.9         6.8       18.0       13.4       1.9       14.0       22.4       -20.1       9.1       14.2         5.8       15.5       12.4       0.9       12.9       20.2       -24.9       7.9       13.2         4.6       13.3       10.7       -0.3       11.7       15.9       -27.6       6.9       11.2         3.2       8.5       7.8       -2.5       8.6       10.5       -30.3       5.4       8.3         248       231       236       206       188       184       181       177       171         4.5       (80)       8.2       (96)       13.2       (27)       2.2       (17)       14.9       (12)       26.5       (7)       -30.1       (93)       6.3       (84)       15.7       (7)         3.8       (91)       9.1       (93)       10.9       (73)       0.6       (60)       11.7       (75)       19.3       (55)       -24.3       (45)       7.6       (54)       14.4       (23)	8.0       20.8       14.6       3.6       15.4       27.0       -10.1       11.0       15.9       10.2         6.8       18.0       13.4       1.9       14.0       22.4       -20.1       9.1       14.2       8.2         5.8       15.5       12.4       0.9       12.9       20.2       -24.9       7.9       13.2       7.3         4.6       13.3       10.7       -0.3       11.7       15.9       -27.6       6.9       11.2       5.7         3.2       8.5       7.8       -2.5       8.6       10.5       -30.3       5.4       8.3       4.2         248       231       236       206       188       184       181       177       171       158         4.5       (80)       8.2       (96)       13.2       (27)       2.2       (17)       14.9       (12)       26.5       (7)       -30.1       (93)       6.3       (84)       15.7       (7)       5.6         3.8       (91)       9.1       (93)       10.9       (73)       0.6       (60)       11.7       (75)       19.3       (55)       -24.3       (45)       7.6       (54)       14.4



### Total Fund Allocation vs. Peer Universe

Total Plan Allocation vs. InvestorForce Public DB Gross
As of September 30, 2015

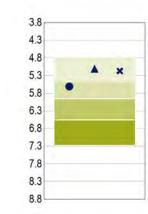




# Teachers Composite vs. IFx Public DB Gross 3 Years

# 10.0 9.0 8.0 7.0 6.0 5.0 4.0 3.0

Anizd Return



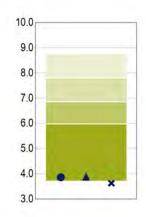
**Anizd Standard Deviation** 



7.27

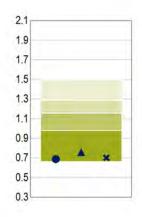
95th %tile

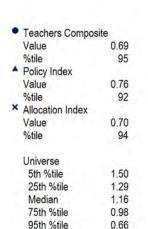
### Ann Excess RF Return



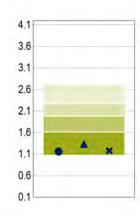
•	Teachers Compos	site
	Value	3.86
	%tile	95
•	Policy Index	
	Value	3.88
	%tile	94
×	Allocation Index	
	Value	3.63
	%tile	96
	Universe	
	5th %tile	8.77
	25th %tile	7.82
	Median	6.86
	75th %tile	5.99
	95th %tile	3.72

### Sharpe Ratio





### Sortino Ratio RF



• 1	eachers Com	posite
	/alue	1.16
9	6tile	92
A F	Policy Index	
	/alue	1.34
9	6tile	88
×	Allocation Index	X
V	/alue	1.17
9	%tile	92
L	Iniverse	
	5th %tile	2.72
	25th %tile	2.29
	Median	1.99
	75th %tile	1.62
	95th %tile	1.07

Teachers Composite

Value

%tile

Value

%tile

Value

%tile

Universe

5th %tile

Median

25th %tile

75th %tile

95th %tile

Policy Index

× Allocation Index

3.89

3.91

3.66

8.81

7.86

6.90

6.02

3.76

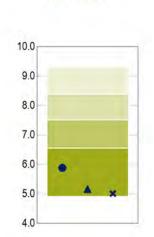
96

94

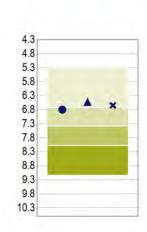
95

### Teachers Composite vs. IFx Public DB Gross 5 Years

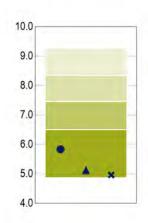
Ann Excess RF Return



Anizd Return



**Anizd Standard Deviation** 



5.83

5.12

4.95

9.26

8.35

7.47

6.51

4.87

95

95

91

Teachers Composite

Value

%tile

%tile

%tile

Universe 5th %tile

25th %tile

75th %tile

95th %tile

Median

Policy Index Value

× Allocation Index Value





1.6

1.5

1.4

1.3

1.2

1.1

1.0

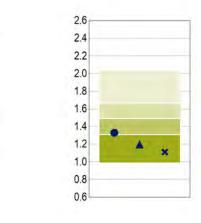
0.9

0.8

0.7

0.6

0.5



Sortino Ratio RF

•	Teachers Compo	osite
	Value	5.88
	%tile	91
•	Policy Index	
	Value	5.16
	%tile	95
×	Allocation Index	
	Value	5.00
	%tile	95
	Universe	
	5th %tile	9.31
	25th %tile	8.40
	Median	7.51
	75th %tile	6.56
	95th %tile	4.92

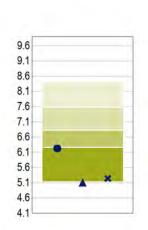
	Teachers Compos Value	6.80
	%tile	1157
		30
-	Policy Index	
	Value	6.52
ď	%tile	23
	Allocation Index	
	Value	6.65
	%tile	24
	Universe	
	5th %tile	5.30
	25th %tile	6.71
	Median	7.38
	75th %tile	8.07
	95th %tile	9.13

•	Teachers Compo	site
	Value	0.86
	%tile	85
•	Policy Index	
	Value	0.78
	%tile	91
×	Allocation Index	
	Value	0.75
	%tile	93
	Universe	
	5th %tile	1.31
	25th %tile	1.13
	Median	1.02
	75th %tile	0.91

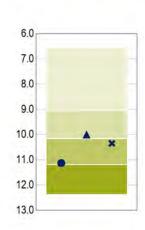
•	<b>Teachers Composite</b>	
	Value	1.33
	%tile	71
•	Policy Index	
	Value	1.20
	%tile	87
×	Allocation Index	
	Value	1.11
	%tile	91
	Universe	
	5th %tile	2.04
	25th %tile	1.67
	Median	1.50
	75th %tile	1.31
	95th %tile	0.99

# Teachers Composite vs. IFx Public DB Gross 7 Years

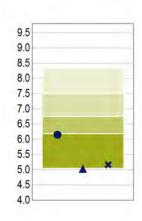
Ann Excess RF Return

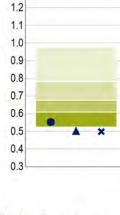


Anizd Return



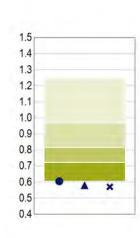
**Anizd Standard Deviation** 





Sharpe Ratio

1.3



Sortino Ratio RF

<ul> <li>Teachers Cor</li> </ul>	mnosite
Value	6.22
%tile	77
Policy Index	
Value	5.10
%tile	96
× Allocation Ind	ex
Value	5.24
%tile	95
Universe	
5th %tile	8.40
25th %tile	7.59
Median	6.84
75th %tile	6.27
95th %tile	5.14

	Value	11.13
	%tile	74
	Policy Index	/ 4
	Value	10.00
	%tile	45
×	Allocation Index	
	Value	10.35
	%tile	56
	Universe	
	5th %tile	6.57
	25th %tile	9.03
	Median	10.15
	75th %tile	11.18
	95th %tile	12.37

•	Teachers Compos	site
	Value	6.15
	%tile	77
٨	Policy Index	
	Value	5.03
	%tile	96
×	Allocation Index	
	Value	5.16
	%tile	95
	Universe	
	5th %tile	8.33
	25th %tile	7.52
	Median	6.76
	75th %tile	6.19
	95th %tile	5.06

•	Teachers Composite	
	Value	0.55
	%tile	89
•	Policy Index	
	Value	0.50
	%tile	97
×	Allocation Index	
	Value	0.50
	%tile	97
	Universe	
	5th %tile	0.98
	25th %tile	0.78
	Median	0.68
	75th %tile	0.61
	95th %tile	0.53

•	Teachers Compos	site
	Value	0.60
	%tile	96
٨	Policy Index	
	Value	0.58
	%tile	98
×	Allocation Index	
	Value	0.57
	%tile	98
	Universe	
	5th %tile	1.25
	25th %tile	0.97
	Median	0.82
	75th %tile	0.72
	95th %tile	0.61

# Teachers Composite vs. IFx Public DB Gross 10 Years

# Anizd Return 7.8 7.3

6.8

6.3

5.8

5.3

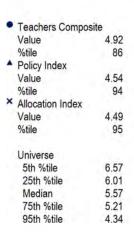
4.8

4.3

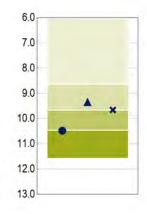
3.8

3.3



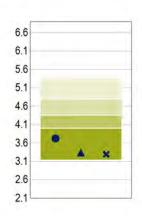


### **Anizd Standard Deviation**



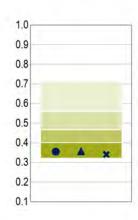
 Teachers Composite Value 10.49 %tile 76 Policy Index Value 9.35 42 %tile × Allocation Index Value 9.66 %tile 51 Universe 5th %tile 6.05 25th %tile 8.65 Median 9.66 10.46 75th %tile 95th %tile 11.57

### Ann Excess RF Return



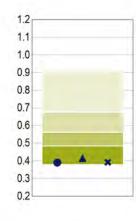
 Teachers Composite Value 3.72 %tile 86 Policy Index Value 3.34 %tile 94 × Allocation Index Value 3.29 %tile 95 Universe 5th %tile 5.37 25th %tile 4.81 Median 4.37 75th %tile 4.01 95th %tile 3.14

### Sharpe Ratio



 Teachers Composite Value 0.35 %tile 89 Policy Index Value 0.36 %tile 89 × Allocation Index Value 0.34 %tile 92 Universe 5th %tile 0.71 25th %tile 0.56 0.47 Median 75th %tile 0.40 95th %tile 0.32

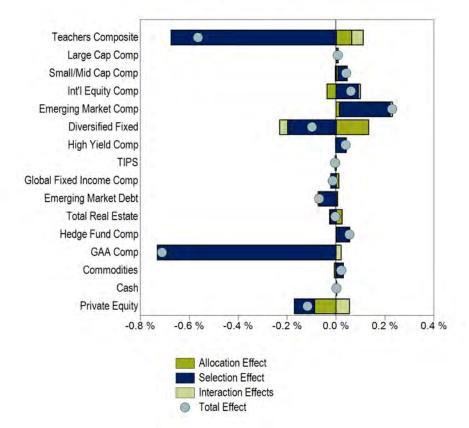
### Sortino Ratio RF



<ul> <li>Teachers Com</li> </ul>	posite
Value	0.39
%tile	94
Policy Index	
Value	0.41
%tile	89
× Allocation Inde	X
Value	0.39
%tile	94
Universe	
5th %tile	0.91
25th %tile	0.68
Median	0.56
75th %tile	0.49
95th %tile	0.38

### Total Fund Attribution Analysis

Attribution Effects Relative to Policy Index 3 Months Ending September 30, 2015



# Attribution Summary 3 Months Ending September 30, 2015

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	-6.7%	-6.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Small/Mid Cap Comp	-9.8%	-10.6%	0.7%	0.0%	0.0%	0.0%	0.0%
Int'l Equity Comp	-9.7%	-10.6%	0.9%	0.1%	0.0%	0.0%	0.1%
Emerging Market Comp	-14.8%	-17.9%	3.1%	0.2%	0.0%	0.0%	0.2%
Diversified Fixed	0.2%	1.2%	-1.0%	-0.2%	0.1%	0.0%	-0.1%
High Yield Comp	-3.9%	-4.9%	1.0%	0.0%	0.0%	0.0%	0.0%
TIPS	-1.2%	-1.1%	-0.1%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	0.9%	1.7%	-0.8%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-3.5%	-2.0%	-1.4%	-0.1%	0.0%	0.0%	-0.1%
Total Real Estate	2.7%	3.1%	-0.4%	0.0%	0.0%	0.0%	0.0%
Hedge Fund Comp	-2.5%	-3.6%	1.0%	0.1%	0.0%	0.0%	0.1%
GAA Comp	-7.8%	-3.2%	-4.5%	-0.7%	0.0%	0.0%	-0.7%
Commodities	-13.7%	-14.5%	0.8%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	-2.8%	0.0%	-2.8%	-0.1%	-0.1%	0.1%	-0.1%
Total	-5.0%	-4.5%	-0.6%	-0.7%	0.1%	0.0%	-0.6%

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 policyindex asset weights the underlying policy indices of each option in the plan and the respective benchmark.

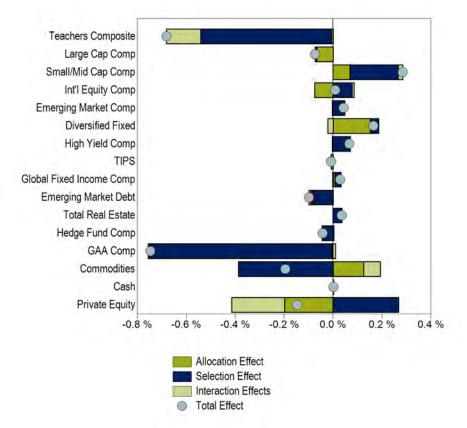
The allocation, selection, and interaction effects are calculated using the custom index described above alongwith the policy or target weight of each composite.

May not add up due to rounding.



### Total Fund Attribution Analysis

Attribution Effects Relative to Policy Index 1 Year Ending September 30, 2015



# Attribution Summary 1 Year Ending September 30, 2015

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	-0.8%	-0.7%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Small/Mid Cap Comp	4.3%	0.1%	4.2%	0.2%	0.1%	0.0%	0.3%
Int'l Equity Comp	-8.4%	-9.2%	0.8%	0.1%	-0.1%	0.0%	0.0%
<b>Emerging Market Comp</b>	-18.3%	-19.3%	1.0%	0.0%	0.0%	0.0%	0.0%
Diversified Fixed	3.3%	2.9%	0.3%	0.0%	0.2%	0.0%	0.2%
High Yield Comp	-1.7%	-3.4%	1.7%	0.1%	0.0%	0.0%	0.1%
TIPS	-0.9%	-0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	-3.0%	-3.8%	0.8%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-3.7%	-2.0%	-1.8%	-0.1%	0.0%	0.0%	-0.1%
Total Real Estate	14.1%	13.5%	0.6%	0.0%	0.0%	0.0%	0.0%
Hedge Fund Comp	-0.9%	0.0%	-0.9%	0.0%	0.0%	0.0%	0.0%
GAA Comp	-7.0%	-2.2%	-4.8%	-0.7%	0.0%	0.0%	-0.7%
Commodities	-33.2%	-26.0%	-7.2%	-0.4%	0.1%	0.1%	-0.2%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Private Equity	16.7%	7.4%	9.4%	0.3%	-0.2%	-0.2%	-0.1%
Total	-3.1%	-2.4%	-0.7%	-0.5%	0.0%	-0.1%	-0.7%

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 policyindex 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 alongwith the policy or target weight of each composite.

May not add up due to rounding.



# Total Fund Risk Statistics

### 3 Years Ending September 30, 2015

	5 rears Ending September 30, 2015												
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Teachers Composite	100.00%	3.89%	95	5.61%	33	-0.36%	80	0.69	95	1.16	92	0.86%	31
Policy Index		3.91%	94	5.11%	11	0.00%	61	0.76	92	1.34	88	0.00%	1
US Equity	15.42%												
Russell 3000		12.53%	56	9.93%	19	0.00%	52	1.26	35	2.42	33	0.00%	1
Large Cap Comp	10.85%	13.03%	48	9.81%	26	0.58%	46	1.33	34	2.66	23	0.72%	1
S&P 500		12.40%	56	9.74%	23	0.00%	58	1.27	45	2.43	37	0.00%	1
Small/Mid Cap Comp	4.57%	13.48%	42	11.84%	40	4.05%	46	1.14	38	2.69	13	3.02%	1
Russell 2000		11.02%	73	13.59%	82	0.00%	85	0.81	82	1.52	79	0.00%	1
Int'l Equity Comp	10.04%	6.27%	65	11.69%	67	0.83%	67	0.53	66	1.07	55	1.97%	9
MSCI EAFE		5.63%	72	11.94%	79	0.00%	78	0.47	75	0.84	74	0.00%	1
Emerging Market Comp	5.38%	-5.06%	79	13.74%	61	-0.20%	82	-0.37	78	-0.56	80	5.31%	70
MSCI Emerging Markets		-5.27%	81	13.75%	62	0.00%	79	-0.39	82	-0.58	81	0.00%	1
US Fixed Income	29.15%												
Barclays Aggregate		1.71%	66	2.90%	58	0.00%	83	0.58	81	0.95	75	0.00%	1
Diversified Fixed	21.93%	2.35%	43	3.39%	69	0.46%	63	0.68	70	1.08	64	1.09%	25
Barclays Aggregate		1.71%	66	2.90%	58	0.00%	83	0.58	81	0.95	75	0.00%	1
High Yield Comp	4.15%	4.32%	38	3.93%	19	1.47%	30	1.09	27	1.69	36	1.21%	55
Barclays High Yield		3.51%	67	4.75%	64	0.00%	75	0.73	73	1.29	68	0.00%	1
TIPS	3.07%	-1.87%	80	5.15%	81	-0.02%	65	-0.37	64	-0.48	68	0.18%	9
Barclays US TIPS		-1.83%	77	5.11%	78	0.00%	58	-0.37	55	-0.48	65	0.00%	1
Global Fixed Income Comp	3.38%	-3.70%	96	4.34%	53	-1.03%	96	-0.86	99	-1.30	99	1.63%	11
Citi WGBI		-2.85%	92	4.29%	51	0.00%	91	-0.67	95	-0.91	95	0.00%	1
Emerging Market Debt	5.31%	0.45%	38	6.58%	28	-0.03%	37	0.06	37	0.09	37	1.35%	12
JP Morgan EMBI Global TR		0.51%	36	6.87%	37	0.00%	36	0.07	36	0.10	36	0.00%	1
Total Real Estate	6.80%	14.29%		5.82%		0.26%		2.45		1,884.35		1.74%	
NCREIF Property Index		11.90%		4.76%		0.00%		2.49		1,568.72		0.00%	
Hedge Fund Comp	5.30%	6.00%	34	3.67%	41	1.94%	34	1.63	28	3.55	18	1.44%	7
HFRI Fund of Funds Composite Index		4.17%	67	3.47%	31	0.00%	65	1.19	52	2.01	49	0.00%	1
GAA Comp	15.51%	1.34%	86	7.56%	61	-1.71%	87	0.17	86	0.24	89	3.49%	34
60% MSCI ACWI (Net)/40% CITI WGBI		3.04%	63	6.68%	41	0.00%	66	0.45	60	0.95	50	0.00%	1



# Total Fund Risk Statistics

### 5 Years Ending September 30, 2015

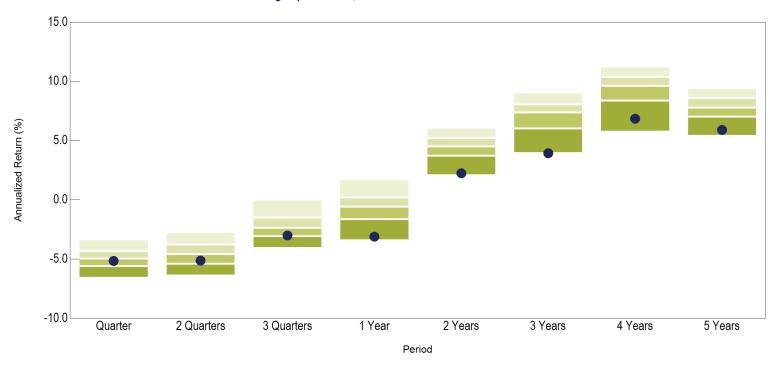
				0.1	cuis Liluii	ig ocpicinoci	00, 2010						
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Teachers Composite	100.00%	5.88%	91	6.80%	30	0.53%	26	0.86	85	1.33	71	0.79%	11
Policy Index		5.16%	95	6.52%	23	0.00%	58	0.78	91	1.20	87	0.00%	1
US Equity	15.42%												
Russell 3000		13.28%	51	11.94%	24	0.00%	42	1.11	30	1.77	29	0.00%	1
Large Cap Comp	10.85%	13.54%	43	12.03%	43	-0.36%	50	1.12	41	1.81	38	0.98%	1
S&P 500		13.34%	47	11.51%	25	0.00%	43	1.16	35	1.91	29	0.00%	1
Small/Mid Cap Comp	4.57%	13.91%	36	14.23%	33	3.56%	38	0.97	32	1.62	23	2.83%	1
Russell 2000		11.73%	74	15.96%	77	0.00%	86	0.73	80	1.18	72	0.00%	1
Int'l Equity Comp	10.04%	4.81%	70	14.30%	23	1.10%	67	0.33	66	0.50	62	2.08%	9
MSCI EAFE		3.98%	83	15.23%	65	0.00%	86	0.26	85	0.39	82	0.00%	1
Emerging Market Comp	5.38%												
MSCI Emerging Markets		-3.57%	83	17.78%	61	0.00%	83	-0.20	84	-0.30	86	0.00%	1
US Fixed Income	29.15%												
Barclays Aggregate		3.10%	62	2.77%	51	0.00%	85	1.10	74	1.84	66	0.00%	1
Diversified Fixed	21.93%	4.12%	41	3.22%	64	0.91%	47	1.27	54	2.13	45	1.43%	31
Barclays Aggregate		3.10%	62	2.77%	51	0.00%	85	1.10	74	1.84	66	0.00%	1
High Yield Comp	4.15%	6.65%	40	5.10%	22	1.52%	25	1.29	23	2.02	39	1.32%	50
Barclays High Yield		6.15%	64	6.04%	67	0.00%	74	1.01	71	1.72	67	0.00%	1
TIPS	3.07%												
Barclays US TIPS		2.55%	52	5.20%	77	0.00%	71	0.48	66	0.70	49	0.00%	1
Global Fixed Income Comp	3.38%	0.25%	91	5.18%	54	0.44%	90	0.04	90	0.06	90	1.85%	12
Citi WGBI		-0.19%	95	4.96%	44	0.00%	96	-0.05	96	-0.06	96	0.00%	1
Emerging Market Debt	5.31%												
JP Morgan EMBI Global TR		4.40%	33	7.11%	20	0.00%	30	0.61	26	0.89	23	0.00%	1
Total Real Estate	6.80%												
NCREIF Property Index		12.55%		5.06%		0.00%		2.47		1,111.45		0.00%	
Hedge Fund Comp	5.30%												
HFRI Fund of Funds Composite Index		2.69%	76	3.94%	39	0.00%	77	0.67	70	0.98	63	0.00%	1
GAA Comp	15.51%	4.30%	64	8.42%	54	0.55%	70	0.50	67	0.74	69	3.33%	16
60% MSCI ACWI (Net)/40% CITI WGBI	-	4.16%	65	8.65%	57	0.00%	72	0.48	69	0.73	69	0.00%	1
Commodities	2.67%												



# **VPIC Allocation Comparison**



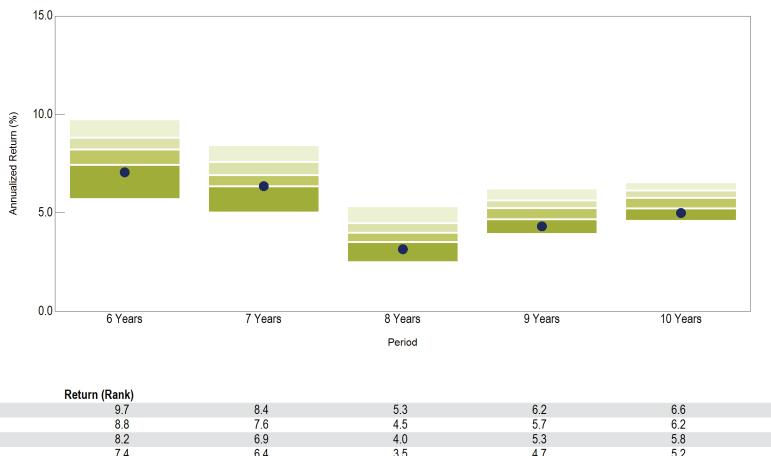
VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending September 30, 2015



	Return (Ra	nk)													
5th Percentile	-3.4		-2.7		0.0		1.7		6.1	9.0		11.2		9.4	
25th Percentile	-4.3		-3.8		-1.5		0.2		5.2	8.1		10.4		8.6	
Median	-4.9		-4.6		-2.3		-0.6		4.5	7.4		9.6		7.8	
75th Percentile	-5.6		-5.4		-3.0		-1.6		3.7	6.1		8.4		7.0	
95th Percentile	-6.6		-6.4		-4.0		-3.4		2.1	4.0		5.8		5.4	
# of Portfolios	93		93		87		87		84	82		81		80	
<ul><li>Composite</li></ul>	-5.2	(62)	-5.1	(65)	-3.0	(75)	-3.1	(91)	2.2	(92) 3.9	(96)	6.8	(92)	5.9	(91)



VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending September 30, 2015



	Return (Rank)				
5th Percentile	9.7	8.4	5.3	6.2	6.6
25th Percentile	8.8	7.6	4.5	5.7	6.2
Median	8.2	6.9	4.0	5.3	5.8
75th Percentile	7.4	6.4	3.5	4.7	5.2
95th Percentile	5.7	5.0	2.5	3.9	4.6
# of Portfolios	69	69	67	66	63
<ul><li>Composite</li></ul>	7.1 (85)	6.4 (76)	3.2 (82)	4.3 (90)	5.0 (81)



VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending September 30, 2015

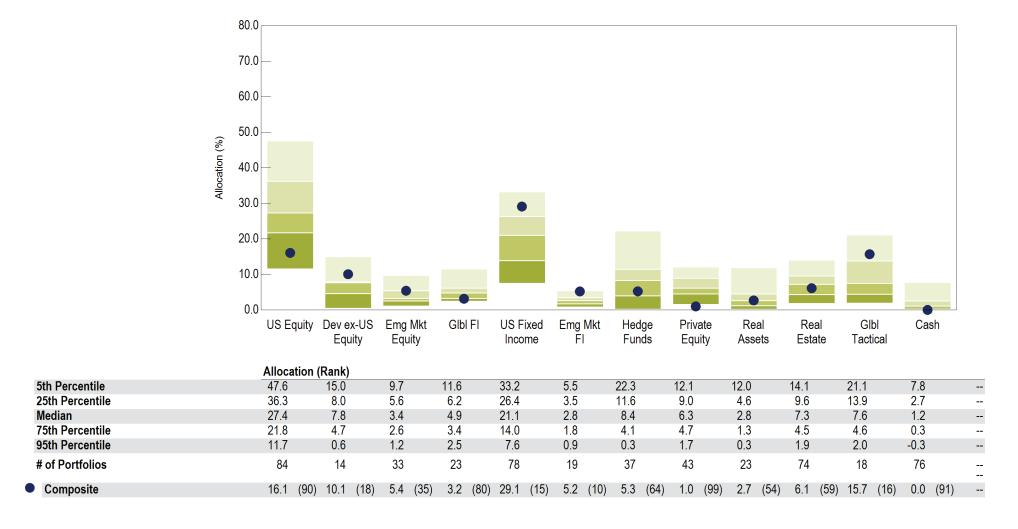


	Return (Rank	)								
5th Percentile	8.5	20.2	14.7	3.3	15.7	27.7	-21.0	11.0	16.6	11.2
25th Percentile	6.8	17.0	13.9	1.6	14.2	22.5	-24.9	9.5	15.0	8.8
Median	5.7	15.0	13.0	0.8	13.5	20.5	-26.7	8.6	13.9	7.9
75th Percentile	4.9	12.0	12.1	0.1	12.5	18.1	-28.3	7.4	12.9	7.3
95th Percentile	3.1	8.7	9.2	-0.9	10.2	13.4	-30.2	6.2	11.2	5.7
# of Portfolios	79	67	74	68	66	66	65	64	64	58
<ul><li>Composite</li></ul>	4.5 (82)	8.5 (96)	13.2 (43)	2.2 (12)	14.9 (14)	26.8 (8)	-29.8 (93)	6.3 (92)	15.3 (21)	6.2 (91)



### Total Fund Allocation vs. Peer Universe

VPIC Composite vs. InvestorForce Public DB > \$1B Gross
As of September 30, 2015





# Total Fund Performance - Gross

Ending	September	30.	2015

										Enai	ng Septer	mber 30	, 2015
	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Market Value (\$)
VPIC Composite	-5.2	62	-3.0	75	-3.1	91	3.9	96	5.9	91	5.0	81	3,765,715,652
60% MSCI World / 40% CITI WGBI	-4.4	27	-4.2	97	-4.1	99	4.3	91	5.4	96	4.9	86	
InvestorForce Public DB > \$1B Gross Median	-4.9		-2.3		-0.6		7.4		7.8		5.8		
Vermont State Teachers	-5.0	51	-2.8	56	-3.0	88	3.9	95	5.9	91	4.9	86	1,598,628,275
Allocation Index	-4.9	44	-3.2	69	-2.8	86	3.7	96	5.0	95	4.5	95	
Policy Index	-4.4	27	-2.7	51	-2.4	82	3.9	94	5.2	95	4.5	94	
InvestorForce Public DB Gross Median	-5.0		-2.6		-0.6		6.9		7.5		5.6		
Vermont State Employees	-5.3	61	-3.1	64	-3.2	91	4.0	94	5.9	90	5.1	81	1,523,737,201
Allocation Index	-4.9	44	-3.2	68	-2.8	85	3.8	95	5.1	95	4.7	92	
Policy Index	-4.5	31	-2.7	53	-2.4	82	3.9	95	5.1	95	4.7	90	
InvestorForce Public DB Gross Median	-5.0		-2.6		-0.6		6.9		7.5		5.6		
Vermont Municipal Employees	-5.3	61	-3.3	70	-3.3	93	4.0	93	5.9	90	5.2	76	497,513,227
Allocation Index	-4.9	44	-3.2	67	-2.8	85	3.9	95	5.1	95	4.7	89	
Policy Index	-4.5	31	-2.7	53	-2.4	82	3.9	95	5.1	95	4.8	88	
InvestorForce Public DB Gross Median	-5.0		-2.6		-0.6		6.9		7.5		5.6		
City of Burlington	-5.2	59	-3.0	60	-3.0	90	4.0	94	5.9	91	4.7	92	145,836,950
Allocation Index	-4.9	44	-3.2	69	-2.8	85	3.7	96					
Policy Index	-4.5	31	-2.7	53	-2.4	82	3.9	95	5.1	95	4.3	96	
60% MSCI World / 40% CITI WGBI	-4.4	26	-4.2	89	-4.1	96	4.3	90	5.4	94	4.9	87	
InvestorForce Public DB Gross Median	-5.0		-2.6		-0.6		6.9		7.5		5.6		



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Composite	3,765,715,652	100.0	100.0	-5.2	62	-3.0	75	-3.1	91	3.9	96	5.9	91
InvestorForce Public DB > \$1B Gross Median				-4.9		-2.3		-0.6		7.4		7.8	
Total Equity	1,189,650,728	31.6	32.0	-9.7	67	-6.8	73	-5.6	71				
MSCI ACWI				-9.4	64	-7.0	75	-6.7	76	7.0	77	6.8	78
eA All Global Equity Gross Median				-8.5		-4.6		-3.2		9.0		9.0	
US Equity	605,534,839	16.1	16.0	-7.9	46	-5.1	50	0.9	47	-			
Russell 3000				-7.2	37	-5.4	55	-0.5	59	12.5	56	13.3	51
eA All US Equity Gross Median				-8.2		-5.2		0.5		12.9		13.3	
Large Cap Comp	418,002,936	11.1	11.0	-6.7	44	-5.7	57	-0.8	53	13.0	48	13.5	43
S&P 500				-6.4	39	-5.3	53	-0.6	52	12.4	56	13.3	47
eA US Large Cap Equity Gross Median				-7.1		-5.1		-0.4		12.9		13.2	
SSgA S&P 500 Cap-Wgt	306,290,574	8.1	8.0	-6.4	38	-5.2	52	-0.5	52	12.5	56	13.4	47
S&P 500				-6.4	39	-5.3	53	-0.6	52	12.4	56	13.3	47
SSgA S&P 500 Equal-Wgt	111,705,555	3.0	3.0	-7.7	62	-7.1	71	-1.5	58	14.3	26	13.7	40
S&P 500 Equal Weighted				-7.5	59	-6.9	70	-1.2	56	14.3	26	13.8	38
T. Rowe	6,807	0.0	0.0										
S&P 500													

All sub-composite returns for the total plan are based off TRS returns up to 4/31/2012, and include all plans thereafter. Note: Returns are gross of manager fees except where noted. Results for periods longer than one year are annualized. Fiscal Year End is 6/30



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Small/Mid Cap Comp	187,531,903	5.0	5.0	-10.1	53	-4.2	41	4.0	26	13.5	42	13.9	36
Russell 2000				-11.9	75	-7.7	77	1.2	50	11.0	73	11.7	74
eA US Small-Mid Cap Equity Gross Median				-10.0		-4.8		1.1		13.1		13.3	
SSgA S&P 400	19,949,235	0.5	0.5	-8.5	52	-4.6	56	1.4	51	13.2	62		
S&P 400 MidCap				-8.5	53	-4.7	56	1.4	51	13.1	63	12.9	60
eA US Mid Cap Equity Gross Median				-8.2		-4.0		1.6		13.8		13.4	
Champlain	73,548,440	2.0	2.0	-9.4	64	-3.1	41	1.8	47	14.2	44	14.1	39
Russell 2500				-10.3	80	-6.0	70	0.4	60	12.4	74	12.7	67
eA US Mid Cap Equity Gross Median				-8.2		-4.0		1.6		13.8		13.4	
Wellington	76,719,756	2.0	2.0	-10.2	58	-5.3	29	6.1	6	12.8	43	13.8	29
Russell 2000 Value				-10.7	67	-10.1	77	-1.6	64	9.2	83	10.2	83
eA US Small Cap Value Equity Gross Median				-9.8		-6.7		0.5		12.2		12.5	
SSgA Russell 2000 Growth	17,314,472	0.5	0.5	-13.0	67	-5.4	60	4.1	50	12.8	55	13.3	67
Russell 2000 Growth				-13.1	68	-5.5	60	4.0	51	12.8	55	13.3	67
eA US Small Cap Growth Equity Gross Median				-11.7		-3.8		4.1		13.4		14.3	



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Int'l Equity Comp	379,720,531	10.1	10.0	-9.7	60	-5.0	73	-8.4	77	6.3	63	4.8	70
MSCI EAFE				-10.2	72	-5.3	77	-8.7	79	5.6	72	4.0	83
eA All EAFE Equity Gross Median				-9.2		-2.7		-5.2		7.1		5.9	
Acadian	147,297,668	3.9	4.0	-7.8	26	-2.6	47	-5.3	53	8.3	36	6.0	49
Mondrian	146,190,329	3.9	4.0	-10.2	70	-5.3	77	-9.5	84	6.1	66	4.9	69
MSCI EAFE				-10.2	72	-5.3	77	-8.7	79	5.6	72	4.0	83
S&P EPAC LargeMidCap				-10.4	74	-5.0	74	-8.7	79	5.7	72	4.3	79
SSgA ACWI Ex US	86,232,534	2.3	2.0	-12.1	83	-8.5	88	-12.0	89	2.6	86	2.1	93
MSCI ACWI ex USA				-12.2	83	-8.6	89	-12.2	90	2.3	89	1.8	97
eA ACWI ex-US All Cap Equity Gross Median				-10.7		-4.9		-6.1		5.7		5.2	
Emerging Market Comp	204,395,357	5.4	6.0										
eA Emg Mkts Equity Gross Median													
Aberdeen	204,395,357	5.4	6.0	-14.8	27	-13.8	47	-18.3	69	-5.1	79	-0.8	40
MSCI Emerging Markets				-17.9	81	-15.5	69	-19.3	73	-5.3	81	-3.6	83
eA Emg Mkts Equity Gross Median				-16.3		-14.0		-16.8		-2.6		-1.8	



### Total Fund Performance Detail - Gross Market Value % of 3 Yrs 3 Mo YTD 1 Yr 5 Yrs Policy % Rank Rank Rank Rank Rank (%) (%) (%) (%) (%) (\$) Portfolio **US Fixed Income** 1,096,143,396 29.1 0.7 24.0 -0.5 80 62 2.0 52 --23 1.7 62 Barclays Aggregate 1.2 1.1 50 2.9 26 66 3.1 eA All US Fixed Inc Gross Median 0.6 1.1 2.1 2.1 3.6 20.0 0.2 65 48 43 41 **Diversified Fixed Income** 819,035,718 21.7 1.2 3.2 18 2.3 4.1 1.2 23 2.9 1.7 3.1 62 Barclays Aggregate 1.1 50 26 66 eA All US Fixed Inc Gross Median 0.6 1.1 2.1 2.1 3.6 2.0 1.6 Allianz Structured Alpha 111,024,579 2.9 6 5.2 1 10.7 7.4 8.3 1 Citigroup 10 Year Treasury 2.9 1 2.4 3 6.0 1 95 3.8 39 1.4 3.3 3.0 1.2 37 SSgA Barclays Aggregate Index 122.547.318 --Barclays Aggregate 1.2 37 1.1 66 2.9 54 1.7 79 3.1 82 3-Month Libor Total Return USD 0.1 97 0.2 98 0.3 99 0.3 99 0.3 99 2.0 3.6 eA US Core Fixed Inc Gross Median 1.1 1.3 3.0 PIMCO Core Plus 200.742.919 5.3 5.0 0.1 97 1.0 73 2.6 70 1.5 95 3.4 68 37 2.9 79 82 Barclays Aggregate 1.2 1.1 66 54 1.7 3.1 2.5 2.7 -3.1 99 -2.7 99 -2.8 99 -0.3 99 PIMCO Unconstrained 100,891,365 12 25% HY. 25% EMD. 50% BC Aga -1.1 99 -0.1 99 0.1 99 1.9 65 4.2 3-Month Libor Total Return USD 0.1 97 0.2 98 0.3 99 0.3 99 0.3 99 3.0 1 Wellington DAS 111,734,446 3.0 5.0 5.3 1 11.1 1 5.6 1 8.1 Wellington Custom Benchmark 3.6 1 3.3 1 7.7 1 2.5 20 6.0 1 4.6 4.5 99 **GAM Unconstrained Bond** 172.095.092 -2.3 3-Month LIBOR + 3% 0.8 77 2.5 2 3.3 32 3.3 5 3.3 71 3.0 2.0 eA US Core Fixed Inc Gross Median 1.1 1.3 3.6 **High Yield Comp** 158,712,794 4.2 4.0 -3.9 47 -0.5 38 -1.7 47 4.3 38 6.7 40 eA US High Yield Fixed Inc Gross Median -4.0 -0.9 -2.0 4.1 6.5 **KDP** 1.0 -4.3 58 -1.7 63 -2.0 3.0 84 39.143.817 1.0 51 86 5.5 Guggenheim 119,568,977 3.2 3.0 -3.7 45 -0.1 27 -1.6 47 ---4.9 -3.4 3.5 64 Barclays High Yield 71 -2.5 77 73 67 6.1 BofA Merrill Lynch US High Yield BB-B Rated -4.3 58 -1.7 64 -2.1 52 3.7 62 6.0 68 6.5 eA US High Yield Fixed Inc Gross Median -4.0 -0.9 -2.0 4.1 **TIPS** 118.394.884 3.1 3.0 eA TIPS / Infl Indexed Fixed Inc Gross Median BlackRock TIPS 118.394.884 3.1 3.0 -1.2 -0.8 -0.9 -1.9 2.5 -1.1 -0.8 -0.8 -1.8 2.5 Barclays US TIPS

Wellington DAS is Net of Fees. Allianz is Net of Fees from inception to Q3 2012, and Grossed up quarterly since Wellington Custom Benchmark: 5/1/2002 - 5/31/2011 is the Barclays Aggregate; 6/1/2011 - Present is the Citigroup US Strips Index GAM Unconstrained Bond was funded in June 2015



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Global Fixed Income Comp	119,557,282	3.2	3.0	0.9	16	-1.3	42	-3.0	56	-3.7	96	0.3	91
eA All Global Fixed Inc Gross Median				-0.9		-1.9		-2.7		1.7		3.0	
Mondrian GFI	119,557,282	3.2	3.0	0.9	16	-1.3	42	-3.0	56	-3.7	96	-0.3	96
Citi WGBI				1.7	6	-2.4	63	-3.8	67	-2.9	92	-0.2	95
Emerging Market Debt	197,134,335	5.2	5.0										
eA All Emg Mkts Fixed Inc Gross Median													
Wellington Opportunistic EMD	197,134,335	5.2	5.0	-3.5	32	-2.8	47	-3.7	37	0.5	38	4.5	30
JP Morgan EMBI Global TR				-2.0	12	-0.3	17	-2.0	22	0.5	36	4.4	33
eA All Emg Mkts Fixed Inc Gross Median				-4.9		-3.5		-6.9		-0.8		3.1	
Total Real Estate	231,208,047	6.1	6.0	2.7		10.6		14.3		14.3			
Morgan Stanley Prime Property	106,230,220	2.8	2.0	3.8		11.9		17.0		16.1		15.9	
UBS Trumbull	89,773,972	2.4	2.0	3.4		9.6		12.9		11.3		11.8	
RREEF America REIT III	12,106,952	0.3	0.5	-4.9		9.4		12.1		18.6		25.7	
Siguler Guff	22,773,844	0.6	1.0	-0.6		6.8		6.6					
Transwestern / Aslan III	323,059	0.0	0.5	2.1		6.0	-	6.1	-	22.3		5.7	
NCREIF Property Index				3.1		10.1		13.5		11.9		12.5	
NCREIF ODCE				3.7		11.3		14.9		13.4		14.0	
Hedge Fund Comp	198,291,079	5.3	5.0	-2.5	38	-0.6	43	-0.9	54	6.0	34	-	
eV Alt Fund of Funds - Multi-Strategy Median				-3.3		-1.1		-0.4		5.0		3.9	
Grosvenor	197,796,801	5.3	5.0	-2.5	38	-0.1	36	0.4	41	6.8	23		
GAM	494,278	0.0	0.0										

HFRI Fund of Funds Composite Index

Wellington Opportunistic EMD is Net of manager fees Real Estate is updated through Q2 2015. Siguler Guff data is preliminary Hedge Fund Comp and Commodities are Net of Manager Fees



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
GAA Comp	591,549,415	15.7	16.0	-7.7	85	-5.9	77	-7.0	78	1.3	86	4.3	64
eA Global TAA Gross Median				-5.4		-4.3		-3.3		3.6		5.1	
Mellon Dynamic Growth	80,204,024	2.1	2.0	-6.5	68	-1.0	13	4.3	2	6.1	15	7.1	18
Mellon Dynamic Growth Benchmark				-5.5	54	-5.1	60	-5.1	64	3.4	58	4.6	62
AQR Global Risk Premium	286,380,510	7.6	8.0	-7.6	82	-6.4	79	-8.0	84	0.4	90	5.1	51
60% MSCI World / 40% CITI WGBI				-4.4	35	-4.2	49	-4.1	59	4.3	42	5.4	49
PIMCO All Asset	224,964,454	6.0	6.0	-8.4	89	-8.1	91	-10.5	96	-0.7	92	3.0	77
PIMCO All Asset Index				-1.0	9	-0.2	10	0.5	15	1.9	77	4.2	65
CPI + 5% (Seasonally Adjusted)				1.1	1	4.3	1	5.0	1	6.0	15	6.8	19
Wellington OIF	426	0.0	0.0										
65% MSCI World (Net) /35% BC Agg													
Commodities	101,712,669	2.7	3.0										
Schroder	101,712,669	2.7	3.0	-13.7		-17.4	-	-33.2		-18.3		-8.9	
Bloomberg Commodity Index				-14.5		-15.8		-26.0		-16.0		-8.9	
Cash	1,558,131	0.0	0.0	0.0		0.0	-	0.0		0.0		0.1	
91 Day T-Bills				0.0		0.0		0.0		0.0		0.0	
Private Equity	38,910,571	1.0	3.0	-3.0		8.8		20.1					
Cambridge Associates US All PE				0.0		6.5		7.4		14.2		14.5	
Harbourvest Partners IX Credit Opportunities	1,281,305	0.0											
Harbourvest Partners IX Venture Fund	9,299,114	0.2											
Harbourvest Partners IX Buyout Fund	10,539,737	0.3											
Harbourvest Dover VIII Fund	15,998,492	0.4											
HIPEP VII	1,791,923	0.0											

Harbourvest is based on estimated Capital Account Statements for Q3 2015

PIMCO All Asset Index: 40% BC Agg / 30% TIPS / 10% S&P500 / 10% BC HY / 10% JPM EMBI+

Mellon Dynamic Growth Benchmark: 60% MSCI All Country World Index IMI / 40% Citigroup GDP Weighted Wellington OIF is Net of Manager Fees



# Total Fund Performance - Net

					Ending Se	eptember 3	0, 2015
	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Market Value (\$)
VPIC Composite	-5.3	-3.3	-3.5	3.5	5.5	4.7	3,765,715,652
Vermont State Teachers	-5.1	-3.2	-3.4	3.5	5.4	4.6	1,598,628,275
Allocation Index	-4.9	-3.2	-2.8	3.7	5.0	4.5	
Policy Index	-4.4	-2.7	-2.4	3.9	5.2	4.5	
Vermont State Employees	-5.4	-3.4	-3.6	3.5	5.5	4.7	1,523,737,201
Allocation Index	-4.9	-3.2	-2.8	3.8	5.1	4.7	
Policy Index	-4.5	-2.7	-2.4	3.9	5.1	4.7	
Vermont Municipal Employees	-5.4	-3.6	-3.7	3.5	5.5	4.8	497,513,227
Allocation Index	-4.9	-3.2	-2.8	3.9	5.1	4.7	
Policy Index	-4.5	-2.7	-2.4	3.9	5.1	4.8	
City of Burlington	-5.3	-3.3	-3.5	3.5	5.4	4.3	145,836,950
Allocation Index	-4.9	-3.2	-2.8	3.7			
Policy Index	-4.5	-2.7	-2.4	3.9	5.1	4.3	
60% MSCI World / 40% CITI WGBI	-4.4	-4.2	-4.1	4.3	5.4	4.9	

Net returns use one quarter lagged manager fees based on manager's invoices broken out using JPMorgan weights at the quarter end for which the fees were accrued. Net returns begin Q3 2012, and are gross before to inception except where otherwise noted.



	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Composite	3,765,715,652	100.0	100.0	-5.2	-3.0	-3.1	3.9	5.9
Total Equity	1,189,650,728	31.6	32.0	-9.7	-6.8	-5.6	-	
MSCI ACWI				-9.4	-7.0	-6.7	7.0	6.8
US Equity	605,534,839	16.1	16.0	-7.9	-5.1	0.9	-	
Russell 3000				-7.2	-5.4	-0.5	12.5	13.3
Large Cap Comp	418,002,936	11.1	11.0	-6.7	-5.7	-0.8	13.0	13.5
S&P 500				-6.4	-5.3	-0.6	12.4	13.3
SSgA S&P 500 Cap-Wgt	306,290,574	8.1	8.0	-6.4	-5.2	-0.5	12.5	13.4
S&P 500				-6.4	-5.3	-0.6	12.4	13.3
SSgA S&P 500 Equal-Wgt	111,705,555	3.0	3.0	-7.7	-7.1	-1.5	14.3	13.7
S&P 500 Equal Weighted				-7.5	-6.9	-1.2	14.3	13.8
T. Rowe	6,807	0.0	0.0					
S&P 500								
Small/Mid Cap Comp	187,531,903	5.0	5.0	-10.1	-4.2	4.0	13.5	13.9
Russell 2000				-11.9	-7.7	1.2	11.0	11.7
SSgA S&P 400	19,949,235	0.5	0.5	-8.5	-4.6	1.4	13.2	
S&P 400 MidCap				-8.5	-4.7	1.4	13.1	12.9
Champlain	73,548,440	2.0	2.0	-9.4	-3.1	1.8	14.2	14.1
Russell 2500				-10.3	-6.0	0.4	12.4	12.7
Wellington	76,719,756	2.0	2.0	-10.2	-5.3	6.1	12.8	13.8
Russell 2000 Value				-10.7	-10.1	-1.6	9.2	10.2
SSgA Russell 2000 Growth	17,314,472	0.5	0.5	-13.0	-5.4	4.1	12.8	13.3
Russell 2000 Growth				-13.1	-5.5	4.0	12.8	13.3

Fiscal Year End is 6/30 Report is Net of manager fees

Net returns use one quarter lagged manager fees based on manager's invoices broken out using JPMorgan weights at the quarter end for which the fees were accrued Net returns begin Q3 2012, and are gross before to inception except where otherwise noted



	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Int'l Equity Comp	379,720,531	10.1	10.0	-9.7	-5.0	-8.4	6.3	4.8
MSCI EAFE				-10.2	-5.3	-8.7	5.6	4.0
Acadian	147,297,668	3.9	4.0	-7.8	-2.6	-5.3	8.3	6.0
Mondrian	146,190,329	3.9	4.0	-10.2	-5.3	-9.5	6.1	4.9
MSCI EAFE				-10.2	-5.3	-8.7	5.6	4.0
S&P EPAC LargeMidCap				-10.4	-5.0	-8.7	5.7	4.3
SSgA ACWI Ex US	86,232,534	2.3	2.0	-12.1	-8.5	-12.0	2.6	2.1
MSCI ACWI ex USA				-12.2	-8.6	-12.2	2.3	1.8
Emerging Market Comp	204,395,357	5.4	6.0					
Aberdeen	204,395,357	5.4	6.0	-14.8	-13.8	-18.3	-5.1	-0.8
MSCI Emerging Markets				-17.9	-15.5	-19.3	-5.3	-3.6
US Fixed Income	1,096,143,396	29.1	24.0	-0.5	0.7	2.0		
Barclays Aggregate				1.2	1.1	2.9	1.7	3.1
Diversified Fixed Income	819,035,718	21.7	20.0	0.2	1.2	3.2	2.3	4.1
Barclays Aggregate				1.2	1.1	2.9	1.7	3.1
Allianz Structured Alpha	111,024,579	2.9	2.0	1.6	5.2	10.7	7.4	8.3
Citigroup 10 Year Treasury				2.9	2.4	6.0	1.4	3.8
SSgA Barclays Aggregate Index	122,547,318	3.3	3.0	1.2	-			
Barclays Aggregate				1.2	1.1	2.9	1.7	3.1
3-Month Libor Total Return USD				0.1	0.2	0.3	0.3	0.3
PIMCO Core Plus	200,742,919	5.3	5.0	0.1	1.0	2.6	1.5	3.4
Barclays Aggregate				1.2	1.1	2.9	1.7	3.1
PIMCO Unconstrained	100,891,365	2.7	2.5	-3.1	-2.7	-2.8	-0.3	
25% HY, 25% EMD, 50% BC Agg				-1.1	-0.1	0.1	1.9	4.2
3-Month Libor Total Return USD				0.1	0.2	0.3	0.3	0.3
Wellington DAS	111,734,446	3.0	3.0	5.0	5.3	11.1	5.6	8.1
Wellington Custom Benchmark				3.6	3.3	7.7	2.5	6.0
GAM Unconstrained Bond	172,095,092	4.6	4.5	-2.3				
3-Month LIBOR + 3%				0.8	2.5	3.3	3.3	3.3

Wellington Custom Benchmark: 5/1/2002 - 5/31/2011 is the Barclays Aggregate; 6/1/2011 - Present is the Citigroup US Strips Index GAM Unconstrained Bond was funded in June 2015



	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
High Yield Comp	158,712,794	4.2	4.0	-3.9	-0.5	-1.7	4.3	6.7
KDP	39,143,817	1.0	1.0	-4.3	-1.7	-2.0	3.0	5.5
Guggenheim	119,568,977	3.2	3.0	-3.7	-0.1	-1.6		
Barclays High Yield				-4.9	-2.5	-3.4	3.5	6.1
BofA Merrill Lynch US High Yield BB-B Rated				-4.3	-1.7	-2.1	3.7	6.0
TIPS	118,394,884	3.1	3.0					
BlackRock TIPS	118,394,884	3.1	3.0	-1.2	-0.8	-0.9	-1.9	2.5
Barclays US TIPS				-1.1	-0.8	-0.8	-1.8	2.5
Global Fixed Income Comp	119,557,282	3.2	3.0	0.9	-1.3	-3.0	-3.7	0.3
Mondrian GFI	119,557,282	3.2	3.0	0.9	-1.3	-3.0	-3.7	-0.3
Citi WGBI				1.7	-2.4	-3.8	-2.9	-0.2
Emerging Market Debt	197,134,335	5.2	5.0					
Wellington Opportunistic EMD	197,134,335	5.2	5.0	-3.5	-2.8	-3.7	0.5	4.5
JP Morgan EMBI Global TR				-2.0	-0.3	-2.0	0.5	4.4
Total Real Estate	231,208,047	6.1	6.0	2.7	10.6	14.3	14.3	
Morgan Stanley Prime Property	106,230,220	2.8	2.0	3.8	11.9	17.0	16.1	15.9
UBS Trumbull	89,773,972	2.4	2.0	3.4	9.6	12.9	11.3	11.8
RREEF America REIT III	12,106,952	0.3	0.5	-4.9	9.4	12.1	18.6	25.7
Siguler Guff	22,773,844	0.6	1.0	-0.6	6.8	6.6		
Transwestern / Aslan III	323,059	0.0	0.5	2.1	6.0	6.1	22.3	5.7
NCREIF Property Index				3.1	10.1	13.5	11.9	12.5
NCREIF ODCE				3.7	11.3	14.9	13.4	14.0

Real Estate is upated through Q3 2014. Siguler Guff data is preliminary



	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Hedge Fund Comp	198,291,079	5.3	5.0	-2.5	-0.6	-0.9	6.0	
Grosvenor	197,796,801	5.3	5.0	-2.5	-0.1	0.4	6.8	
GAM	494,278	0.0	0.0					
HFRI Fund of Funds Composite Index								
GAA Comp	591,549,415	15.7	16.0	-7.7	-5.9	-7.0	1.3	4.3
Mellon Dynamic Growth	80,204,024	2.1	2.0	-6.5	-1.0	4.3	6.1	7.1
Mellon Dynamic Growth Benchmark				-5.5	-5.1	-5.1	3.4	4.6
AQR Global Risk Premium	286,380,510	7.6	8.0	-7.6	-6.4	-8.0	0.4	5.1
60% MSCI World / 40% CITI WGBI				-4.4	-4.2	-4.1	4.3	5.4
PIMCO All Asset	224,964,454	6.0	6.0	-8.4	-8.1	-10.5	-0.7	3.0
PIMCO All Asset Index				-1.0	-0.2	0.5	1.9	4.2
CPI + 5% (Seasonally Adjusted)				1.1	4.3	5.0	6.0	6.8
Wellington OIF	426	0.0	0.0					
65% MSCI World (Net) /35% BC Agg								
Commodities	101,712,669	2.7	3.0					
Schroder	101,712,669	2.7	3.0	-13.7	-17.4	-33.2	-18.3	-8.9
Bloomberg Commodity Index				-14.5	-15.8	-26.0	-16.0	-8.9
Cash	1,558,131	0.0	0.0	0.0	0.0	0.0	0.0	0.1
91 Day T-Bills				0.0	0.0	0.0	0.0	0.0
Private Equity	38,910,571	1.0	3.0	-3.0	8.8	20.1	-	
Cambridge Associates US All PE				0.0	6.5	7.4	14.2	14.5
Harbourvest Partners IX Credit Opportunities	1,281,305	0.0						
Harbourvest Partners IX Venture Fund	9,299,114	0.2						
Harbourvest Partners IX Buyout Fund	10,539,737	0.3						
Harbourvest Dover VIII Fund	15,998,492	0.4						
HIPEP VII	1,791,923	0.0						

Harbourvest is based on estimated Capital Account Statements for Q3 2015 PIMCO All Asset Index: 40% BC Agg / 30% TIPS / 10% S&P500 / 10% BC HY / 10% JPM EMBI+ Mellon CF GEA Index: 60% MSCI All Country World Index IMI/ 40% Citigroup GDP Weighted



# Total Fund Yearly Performance - Gross

<b>Ending</b>	September	30	, 2015
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											Enaing September 30, 2015							
	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
VPIC Composite	4.5	82	8.5	96	13.2	43	2.2	12	14.9	14	26.8	8	-29.8	93	6.3	92	15.3	21
InvestorForce Public DB > \$1B Gross Median	5.7		15.0		13.0		0.8		13.5		20.5		-26.7		8.6		13.9	
Vermont State Teachers	4.5	80	8.2	96	13.2	27	2.2	17	14.9	12	26.5	7	-30.1	93	6.3	84	15.7	7
Allocation Index	3.4	94	9.3	93	10.8	74	0.7	60	11.6	77	22.7	24	-25.2	55	6.5	82	14.8	18
Policy Index	3.8	91	9.1	93	10.9	73	0.6	60	11.7	75	19.3	55	-24.3	45	7.6	54	14.4	23
InvestorForce Public DB Gross Median	5.8		15.5		12.4		0.9		12.9		20.2		-24.9		7.9		13.2	
Vermont State Employees	4.5	79	8.7	95	13.1	29	2.2	17	14.9	12	27.4	5	-29.6	90	6.4	83	14.9	17
Allocation Index	3.4	94	9.8	92	10.6	76	0.5	61	11.9	71	22.6	24	-23.9	42	6.6	81	14.1	28
Policy Index	3.8	91	9.1	93	10.9	73	0.6	60	11.7	75	19.5	54	-22.5	34	7.6	54	13.9	31
InvestorForce Public DB Gross Median	5.8		15.5		12.4		0.9		12.9		20.2		-24.9		7.9		13.2	
Vermont Municipal Employees	4.5	80	8.9	93	13.2	28	2.2	17	14.9	12	27.8	4	-29.4	89	6.3	87	14.8	18
Allocation Index	3.3	95	10.0	92	10.7	74	0.6	60	11.8	72	22.2	27	-23.0	37	6.7	81	13.6	40
Policy Index	3.8	91	9.1	93	10.9	73	0.6	60	11.7	75	19.3	55	-21.9	30	7.7	53	13.7	35
InvestorForce Public DB Gross Median	5.8		15.5		12.4		0.9		12.9		20.2		-24.9		7.9		13.2	
City of Burlington	4.5	78	8.4	96	13.1	29	2.2	17	14.9	12	26.6	6	-30.3	96	5.5	94	13.4	46
Policy Index	3.8	91	9.1	93	10.9	73	0.6	60	11.7	75	19.3	55	-24.3	45	7.4	61	12.6	58
60% MSCI World / 40% CITI WGBI	3.1	96	13.9	70	10.6	76	-0.3	77	9.8	92	19.2	56	-22.7	36	10.3	13	14.7	20
InvestorForce Public DB Gross Median	5.8		15.5		12.4		0.9		12.9		20.2		-24.9		7.9		13.2	



# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Composite	4.5	82	8.5	96	13.2	43	2.2	12	14.9	14	26.8	8	-29.8	93	6.3	92	15.3	21
InvestorForce Public DB > \$1B Gross Median	5.7		15.0		13.0		0.8		13.5		20.5		-26.7		8.6		13.9	
Total Equity	5.1	45	23.4	65							-							
MSCI ACWI	4.2	54	22.8	66	16.1	61	-7.3	53	12.7	65	34.6	44	-42.2	55	11.7	50	21.0	61
eA All Global Equity Gross Median	4.6		26.2		17.2		-7.0		14.3		33.3		-41.3		11.6		22.5	
US Equity	11.6	41									-							
Russell 3000	12.6	33	33.6	64	16.4	45	1.0	39	16.9	61	28.3	60	-37.3	54	5.1	60	15.7	46
eA All US Equity Gross Median	10.3		35.6		16.0		-0.4		19.6		30.9		-36.9		6.8		15.1	
Large Cap Comp	13.7	35	33.9	48	16.6	38	1.4	41	17.6	22	40.4	11	-40.3	81	4.6	74	16.2	40
S&P 500	13.7	35	32.4	62	16.0	45	2.1	34	15.1	47	26.5	56	-37.0	57	5.5	68	15.8	43
eA US Large Cap Equity Gross Median	12.5		33.6		15.6		0.4		14.8		28.0		-36.3		8.0		14.8	
SSgA S&P 500 Cap-Wgt	13.7	34	32.4	61	16.1	44	2.2	33			-							
S&P 500	13.7	35	32.4	62	16.0	45	2.1	34	15.1	47	26.5	56	-37.0	57	5.5	68	15.8	43
SSgA S&P 500 Equal-Wgt	14.4	25	36.2	29	17.5	29	-0.1	56	22.0	5	46.7	4	-40.6	83	0.5	90	15.9	42
S&P 500 Equal Weighted	14.5	24	36.2	29	17.7	27	-0.1	56	21.9	5	46.3	5	-39.7	78	1.5	87	15.8	43
T. Rowe																		

S&P 500

All sub-composite returns for the total plan are based off TRS returns up to 4/31/2012, and include all plans thereafter. Note: Returns are gross of manager fees. Results for periods longer than one year are annualized.



# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Small/Mid Cap Comp	7.9	37	38.4	49	15.2	59	0.9	31	27.3	48	33.1	60	-34.0	21	1.8	73	10.9	71
Russell 2000	4.9	64	38.8	45	16.3	49	-4.2	70	26.9	52	27.2	82	-33.8	21	-1.6	84	18.4	21
eA US Small-Mid Cap Equity Gross Median	6.5		38.2		16.0		-1.5		26.9		35.2		-38.1		8.8		13.9	
SSgA S&P 400	9.7	49	33.7	68	17.9	31					-							
S&P 400 MidCap	9.8	49	33.5	70	17.9	31	-1.7	52	26.6	33	37.4	53	-36.2	30	8.0	59	10.3	72
eA US Mid Cap Equity Gross Median	9.3		35.8		16.1		-1.4		24.5		37.9		-40.1		9.7		13.7	
Champlain	9.1	54	39.2	26	12.9	78	3.8	14	22.8	64		-						
Russell 2500	7.1	71	36.8	43	17.9	31	-2.5	60	26.7	33	34.4	66	-36.8	34	1.4	85	16.2	31
eA US Mid Cap Equity Gross Median	9.3		35.8		16.1		-1.4		24.5		37.9		-40.1		9.7		13.7	
Wellington	8.0	27	34.9	77	16.9	51	1.8	16	28.3	39	32.6	50	-26.5	15	-2.1	45	20.5	33
Russell 2000 Value	4.2	68	34.5	78	18.0	43	-5.5	69	24.5	72	20.6	85	-28.9	27	-9.8	82	23.5	14
eA US Small Cap Value Equity Gross Median	5.8		38.1		16.9		-3.3		26.9		32.0		-32.3		-2.9		18.7	
SSgA Russell 2000 Growth	5.6	33	43.3	70	14.7	47	-3.0	61	29.2	44	34.2	60	-38.4	26				
Russell 2000 Growth	5.6	32	43.3	70	14.6	48	-2.9	60	29.1	46	34.5	59	-38.5	26	7.0	64	13.3	40
eA US Small Cap Growth Equity Gross Median	3.9		45.6		14.3		-1.5		28.6		36.5		-41.5		11.0		12.3	
Int'l Equity Comp	-2.3	32	23.6	57	14.0	92	-9.2	22	9.4	71	25.4	92	-42.0	33	10.9	64	33.7	11
MSCI EAFE	-4.9	70	22.8	65	17.3	77	-12.1	53	7.8	83	31.8	69	-43.4	45	11.2	62	26.3	61
eA All EAFE Equity Gross Median	-3.7		24.6		20.4		-12.0		11.7		36.5		-44.1		13.2		27.3	
Acadian	-2.7	36	27.2	31	17.0	82	-13.0	60	14.6	34	27.7	85	-49.0	85	8.7	78	37.4	3
Mondrian	-1.6	25	23.9	55	9.8	99	-3.5	3	3.6	97	24.4	94	-37.1	11	12.4	55	31.1	22
MSCI EAFE	-4.9	70	22.8	65	17.3	77	-12.1	53	7.8	83	31.8	69	-43.4	45	11.2	62	26.3	61
S&P EPAC LargeMidCap	-4.5	61	22.2	69	18.1	70	-11.7	47	9.2	73	34.3	59	-43.3	44	12.9	52	25.2	74
SSgA ACWI Ex US	-3.6	62	15.5	82	17.2	75	-13.5	73	-		-		-		-		-	
MSCI ACWI ex USA	-3.9	66	15.3	83	16.8	77	-13.7	73	11.2	75	41.4	41	-45.5	58	16.7	63	26.7	70
eA ACWI ex-US All Cap Equity Gross Median	-2.0		19.5		19.6		-11.5		15.0		38.7		-45.2		17.4		28.6	



# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Emerging Market Comp																		
eA Emg Mkts Equity Gross Median																		
Aberdeen	-1.1	59	-5.9	94	26.4	11	-10.5	4	29.1	6	81.7	37						
MSCI Emerging Markets	-2.2	74	-2.6	80	18.2	68	-18.4	48	18.9	64	78.5	57	-53.3	42	39.4	60	32.2	70
eA Emg Mkts Equity Gross Median	-0.1		1.0		20.9		-18.6		20.1		79.5		-54.0		40.5		34.2	
US Fixed Income	6.1	30	-					-				-						
Barclays Aggregate	6.0	33	-2.0	83	4.2	70	7.8	32	6.5	57	5.9	73	5.2	27	7.0	33	4.3	72
eA All US Fixed Inc Gross Median	4.2		-0.3		6.1		6.5		6.9		9.3		2.4		6.2		4.7	
Diversified Fixed Income	7.3	18	-2.1	84	7.2	41	8.6	21	9.5	26	21.5	19	-14.9	87	4.4	79	-	
Barclays Aggregate	6.0	33	-2.0	83	4.2	70	7.8	32	6.5	57	5.9	73	5.2	27	7.0	33	4.3	72
eA All US Fixed Inc Gross Median	4.2		-0.3		6.1		6.5		6.9		9.3		2.4		6.2		4.7	
Allianz Structured Alpha	17.3	1	-0.5	18	11.8	1	7.3	67	12.7	1	22.6	2			-		-	
Citigroup 10 Year Treasury	10.7	1	-7.8	99	4.2	89	17.0	1	8.1	26	-9.9	99	20.3	1	9.8	1	1.4	99
SSgA Barclays Aggregate Index			-					-			-	-					-	
Barclays Aggregate	6.0	52	-2.0	82	4.2	90	7.8	46	6.5	76	5.9	80	5.2	37	7.0	47	4.3	69
3-Month Libor Total Return USD	0.2	99	0.3	6	0.4	99	0.3	99	0.3	99	0.8	99	3.2	56	5.5	87	5.4	3
eA US Core Fixed Inc Gross Median	6.0		-1.4		5.9		7.7		7.3		8.9		4.1		6.9		4.5	
PIMCO Core Plus	5.4	75	-2.5	95	7.4	20	7.7	52	9.1	9								
Barclays Aggregate	6.0	52	-2.0	82	4.2	90	7.8	46	6.5	76	5.9	80	5.2	37	7.0	47	4.3	69
PIMCO Unconstrained	3.0	95	-1.5	55	4.6	82												
25% HY, 25% EMD, 50% BC Agg	5.0	83	-0.9	27	10.6	2	7.4	63	10.1	6	23.1	2	-7.1	95	5.5	86	7.6	1
3-Month Libor Total Return USD	0.2	99	0.3	6	0.4	99	0.3	99	0.3	99	0.8	99	3.2	56	5.5	87	5.4	3
Wellington DAS	14.0	1	-3.9	99	8.5	8	18.3	1	7.9	29	9.8	43						
Wellington Custom Benchmark	13.3	1	-8.1	99	5.1	73	19.7	1	6.5	76	5.9	80	5.2	37	7.0	47	4.3	69
GAM Unconstrained Bond	-		-	-				-			-	-			-			
3-Month LIBOR + 3%	3.2	93	3.3	1	3.5	96	3.3	98	3.4	99	3.8	95	6.2	28	8.7	1	8.6	1
eA US Core Fixed Inc Gross Median	6.0		-1.4		5.9		7.7		7.3		8.9		4.1		6.9		4.5	

GAM Unconstrained Bond was funded in June 2015



## **VPIC Composite**

#### Total Fund Yearly Performance - Gross 2014 2013 2012 2006 2011 2010 2009 2008 2007 Rank Rank Rank Rank Rank Rank Rank Rank Rank (%) (%) (%) (%) (%) (%) (%) (%) (%) **High Yield Comp** 2.9 43 7.6 52 14.9 62 5.7 37 14.0 71 41.2 65 -19.0 29 4.7 11 eA US High Yield Fixed Inc Gross 2.5 15.5 4.9 14.9 45.0 -21.2 3.5 10.5 7.6 Median **KDP** 2.8 44 5.2 93 12.6 87 15 11.7 92 6.6 2.9 43 Guggenheim 28 Barclays High Yield 2.5 52 7.4 54 15.8 43 5.0 49 15.1 45 58.2 14 -26.2 81 1.9 89 11.8 BofA Merrill Lynch US High Yield 3.5 27 6.3 65 14.5 46.1 -23.7 70 2.7 49 80 14.7 5.4 45 64 49 72 10.7 BB-B Rated eA US High Yield Fixed Inc 2.5 7.6 15.5 4.9 14.9 45.0 -21.2 3.5 10.5 Gross Median **TIPS** eA TIPS / Infl Indexed Fixed Inc Gross Median BlackRock TIPS 3.5 13.6 -8.6 7.0 6.4 Barclays US TIPS 3.6 -8.6 7.0 13.6 6.3 -2.4 11.6 11.4 0.4 --\_\_ ------------**Global Fixed Income Comp** -0.7 85 -6.2 97 3.7 90 7.3 21 10.9 21 16.0 32 0.3 57 11.2 15 eA All Global Fixed Inc Gross 2.5 0.2 9.5 5.0 7.3 10.6 1.4 8.7 6.1 Median -0.7 -6.2 97 8.6 11 64 **Mondrian GFI** 85 2.1 97 5.8 38 33 8.8 59 10.2 11.5 13 5.5 Citi WGBI -0.5 82 -4.0 86 1.6 98 6.4 33 5.2 85 2.6 97 10.9 9 11.0 17 6.1 51 **Emerging Market Debt** eA All Ema Mkts Fixed Inc Gross Median **Wellington Opportunistic EMD** 6.1 20 39 19.9 35 16 13.7 70 -5.1 7.6 JP Morgan EMBI Global TR 27 59 8.5 7 12.0 -10.9 52 6.3 73 9.9 95 5.5 -6.6 61 18.5 87 28.2 65 eA All Emg Mkts Fixed Inc Gross 1.8 -6.1 19.1 2.6 14.5 30.7 -10.8 7.7 12.3 Median



## **VPIC Composite**

# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Total Real Estate	15.0		14.7								-	-						
Morgan Stanley Prime Property	15.5		17.4	-	12.6		16.8		15.8		-33.7	-	-4.7		16.2		18.4	
UBS Trumbull	11.7		10.4	-	10.2		13.2		16.9		-22.3	-	-7.5		13.9		16.6	
RREEF America REIT III	27.8		16.9		23.8		55.4		9.1		-64.1		-41.7		18.1			
Siguler Guff																		
Transwestern / Aslan III	2.2		49.9		13.8		-11.8		-41.9		-87.7		-26.0		3.5		-16.3	
NCREIF Property Index	11.8		11.0		10.5		14.3		13.1		-16.9		-6.5		15.8		16.6	
NCREIF ODCE	12.5		13.9		10.9		16.0		16.4		-29.8		-10.0		16.0		16.3	
Hedge Fund Comp	2.4	60	14.1	22	9.3	24	-3.8	46			-							
eV Alt Fund of Funds - Multi- Strategy Median	3.0		10.5		6.5		-4.0		6.1		13.9		-20.2		11.2		10.8	
Grosvenor	3.4	44	15.2	16	8.5	29	-3.4	42			-							
GAM																		
HFRI Fund of Funds Composite Index																		
GAA Comp	4.8	32	3.2	69	15.3	2	0.8	34	18.0	19	31.0	21	-26.3	61	5.7	87		
eA Global TAA Gross Median	2.7		7.7		10.6		-0.8		14.6		23.4		-25.5		11.0		14.3	
Mellon Dynamic Growth	6.8	12	12.2	31	11.3	40	1.0	34	16.1	29	31.4	17	-36.0	92	1.7	95		
Mellon Dynamic Growth Benchmark	3.5	43	10.3	40	11.5	37	-0.6	50	8.8	86	17.4	79	-22.4	46	7.9	60		
AQR Global Risk Premium	8.3	5	-2.0	88	16.0	1	7.0	12	25.1	5	-	-						
60% MSCI World / 40% CITI WGBI	3.1	45	13.9	24	10.6	51	-0.3	43	9.8	83	19.2	78	-22.7	46	10.3	52	14.7	47
PIMCO All Asset	1.7	70	1.7	74	16.5	1	3.4	17	14.7	50	24.1	44	-14.8	24	9.6	53		
PIMCO All Asset Index	4.9	30	0.2	77	8.1	62	7.6	11	8.5	87	16.5	80	-6.7	14	7.7	61	6.0	99
CPI + 5% (Seasonally Adjusted)	5.7	21	6.6	54	6.9	69	8.2	11	6.5	94	8.0	92	5.0	1	9.3	53	7.6	99

Real Estate performance reported on a quarterly basis. NCREIF Property is available 25 days after quarter end PIMCO All Asset Index: 40% BC Agg / 30% TIPS / 10% S&P500 / 10% BC HY / 10% JPM EMBI+ Mellon Dynamic Growth Benchmark: 60% MSCI All Country World Index IMI/ 40% Citigroup GDP Weighted



# VPIC Composite

# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Wellington OIF																		
65% MSCI World (Net) /35% BC Agg																		
Commodities																		
Schroder	-23.6		-8.4		0.5		-6.8	99	17.1	53		-						
Bloomberg Commodity Index	-17.0		-9.5		-1.1		-13.3	99	16.8	55	18.9	67	-35.6	30	16.2	94	2.1	56
Cash	0.0		0.0		0.1		0.2		0.3		0.6		2.4		6.4		5.2	
91 Day T-Bills	0.0		0.0		0.1		0.0		0.1		0.1		1.3		4.4		5.0	
Private Equity	24.9		9.0															
Cambridge Associates US All PE	11.1		21.3		14.2		11.0		20.4		13.4		-22.4		19.7		28.7	
Harbourvest Partners IX Credit Opportunities Harbourvest Partners IX Venture Fund Harbourvest Partners IX Buyout Fund																		



# Private Equity Performance Analysis (as of 6/30/2015)

Investment	Vintage Year	Commitment	Qtr TD	YTD	1 Year	3 Year	5 Year	Inception
HarbourVest HIPEP VII	2014	15,000,000	3.67	-1.00	N/A	N/A	N/A	9.52
HarbourVest Partners Dover Street VIII	2012	25,000,000	11.70	12.21	28.81	N/A	N/A	42.20
HarbourVest Partners IX-Buyout	2012	24,000,000	5.28	7.15	17.55	N/A	N/A	16.25
HarbourVest Partners IX-Credit Opportunities	2012	4,000,000	7.24	4.34	12.91	N/A	N/A	19.33
HarbourVest Partners IX-Venture	2012	12,000,000	6.60	10.61	29.12	N/A	N/A	26.33
Total: State of Vermont	_	80,000,000	8.26	9.74	24.84	N/A	N/A	28.09

Pa	artnership Name	Vintage Year	Commitment	Paid In Capital	Capital To Be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
1	HarbourVest HIPEP VII	2014	15,000,000	1,275,000	13,725,000	0	0	1,347,649	1,347,649	72,649	9 %	0.00	1.06	9.52 %
2	HarbourVest Partners Dover Street V	2012	25,000,000	15,000,000	10,000,000	0	4,412,647	16,693,324	21,105,971	6,105,971	60 %	0.29	1.41	42.20 %
3	HarbourVest Partners IX-Buyout	2012	24,000,000	10,020,000	13,980,000	47,188	1,796,646	10,410,272	12,206,918	2,139,730	42 %	0.18	1.21	16.25 %
4	HarbourVest Partners IX-Credit Oppo	2012	4,000,000	1,460,000	2,540,000	10,265	422,812	1,442,516	1,865,328	395,063	37 %	0.29	1.27	19.33 %
5	HarbourVest Partners IX-Venture	2012	12,000,000	7,380,000	4,620,000	37,671	1,305,237	8,789,045	10,094,282	2,676,611	62 %	0.18	1.36	26.33 %
	5 Total Partnerships		80,000,000	35,135,000	44,865,000	95,124	7,937,342	38,682,806	46,620,148	11,390,024	44 %	0.23	1.32	28.09 %

<sup>\*</sup>Total Commitments do not include \$50 million commitment to HarbourVest Fund X approved in 1Q 2015 but not yet called.



<sup>\*</sup>IRR performance numbers are as of 6/30/2015

# 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.

#### **Characteristics**

	Portfolio	S&P 500
Number of Holdings	507	505
Weighted Avg. Market Cap. (\$B)	119.1	119.2
Median Market Cap. (\$B)	16.6	16.6
Price To Earnings	22.2	20.9
Price To Book	4.7	4.1
Price To Sales	3.3	3.0
Return on Equity (%)	19.0	18.3
Yield (%)	2.3	2.3
Beta	1.0	1.0
R-Squared	1.0	1.0

#### eA US Large Cap Equity Gross Accounts

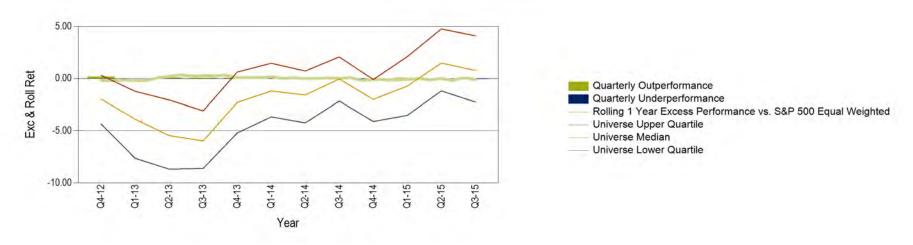




## SSgA S&P 500 Equal-Wgt

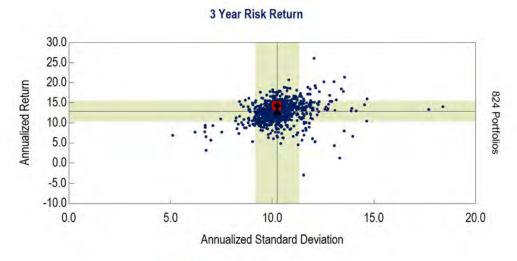
The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSqA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some 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.







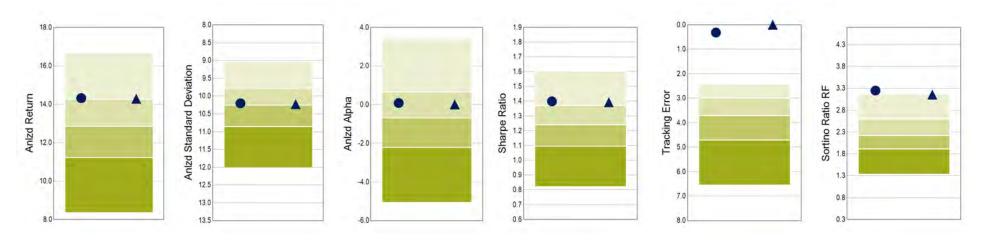
# SSgA S&P 500 Equal-Wgt



## **Characteristics**

Portfolio	S&P 500
503	505
119.2	119.2
16.5	16.6
22.2	20.9
4.7	4.1
3.3	3.0
19.1	18.3
2.3	2.3
1.0	1.0
0.9	1.0
	503 119.2 16.5 22.2 4.7 3.3 19.1 2.3 1.0

- SSgA S&P 500 Equal-Wgt S&P 500 Equal Weighted
- Universe Median
- 68% Confidence Interval
- eA US Large Cap Equity Gross





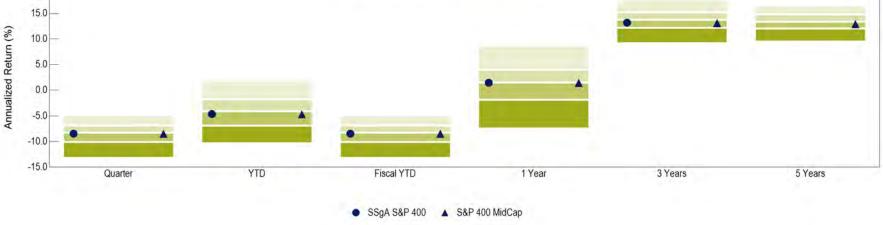
## SSgA S&P 400

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSqA 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. SSqA 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.

#### **Characteristics**

	Portfolio	S&P 400 MidCap
Number of Holdings	400	400
Weighted Avg. Market Cap. (\$B)	4.8	4.9
Median Market Cap. (\$B)	3.4	3.4
Price To Earnings	24.6	23.1
Price To Book	3.7	3.2
Price To Sales	2.9	2.7
Return on Equity (%)	15.8	14.3
Yield (%)	1.8	1.7
Beta	1.0	1.0
R-Squared	1.0	1.0



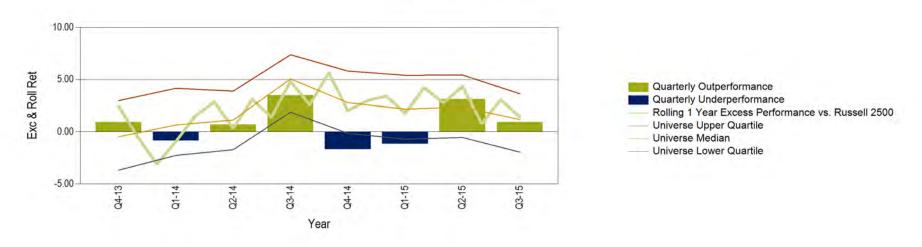




## Champlain

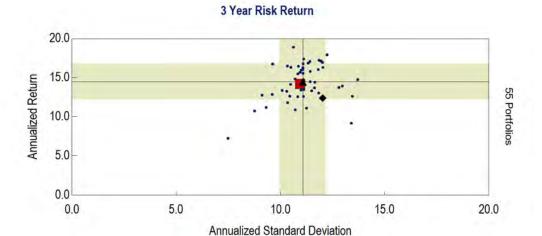
Champlain employs a fundamental, bottom-up approach to investing in equity assets. They believe that superior companies purchased at attractive valuations have the highest probability to wealth creation. Champlain seeks strong businesses with credible and sincere management and aims to buy shares of their stock at discounts to fair or intrinsic value. Portfolio construction applies sector weight quidelines 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.







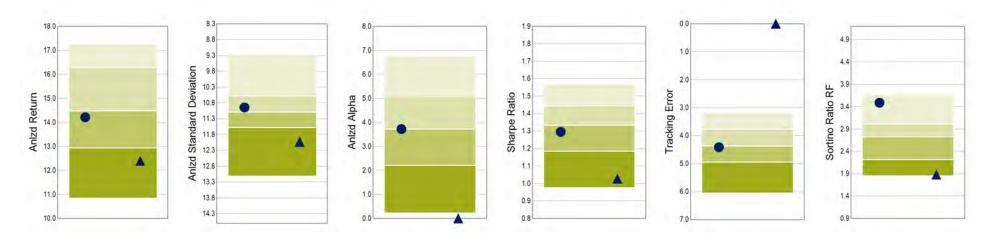
# Champlain



## **Characteristics**

	Portfolio	Russell 2500
Number of Holdings	59	2,476
Weighted Avg. Market Cap. (\$B)	7.7	3.9
Median Market Cap. (\$B)	5.4	1.0
Price To Earnings	24.7	23.0
Price To Book	4.1	3.1
Price To Sales	3.6	2.8
Return on Equity (%)	15.7	12.7
Yield (%)	1.4	1.5
Beta		1.0
R-Squared		1.0

- Champlain
- Russell 2500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Mid Cap Core Equity Gross

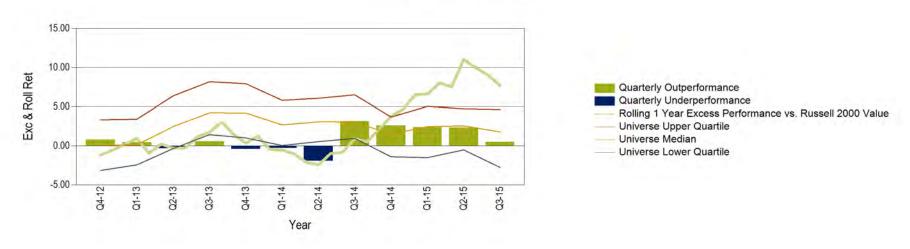




## Wellington

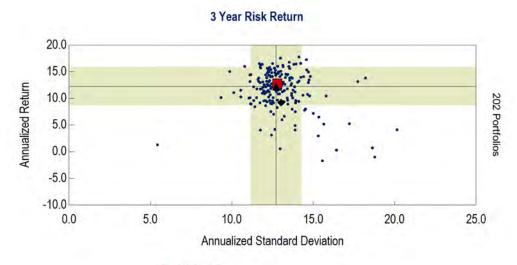
Wellington's investment objective is to seek long-term total returns in excess of the Russell 2000 Value Index by investing in conservatively-valued securities of high-quality, small cap companies. Wellington employ a bottom-up stock selection process that utilizes Wellington Management's proprietary, 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.







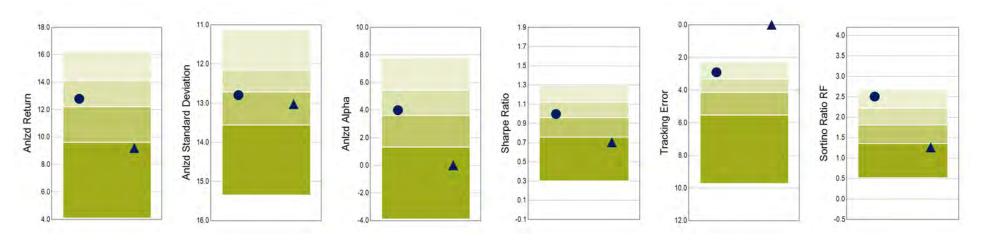
# Wellington



#### Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	79	1,308
Weighted Avg. Market Cap. (\$B)	1.7	1.6
Median Market Cap. (\$B)	1.2	0.6
Price To Earnings	22.3	18.6
Price To Book	2.0	1.6
Price To Sales	1.9	2.6
Return on Equity (%)	9.0	7.7
Yield (%)	1.7	2.1
Beta		1.0
R-Squared		1.0

- Wellington
- Russell 2000 Value
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small Cap Value Equity Gross

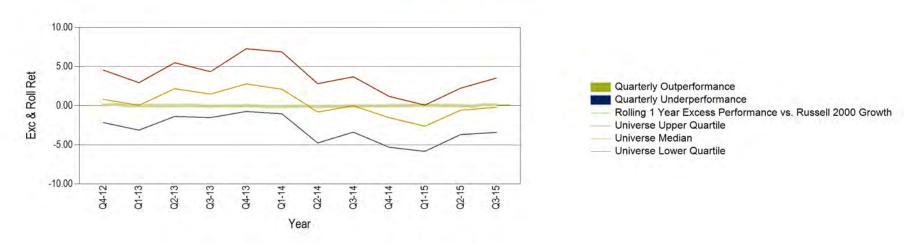




## SSgA Russell 2000 Growth

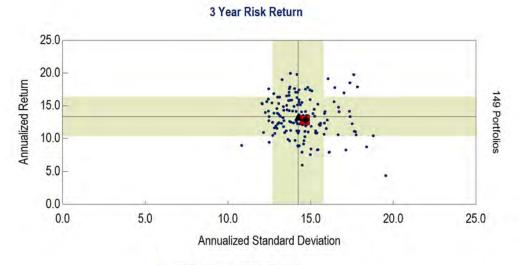
The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some 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. SSaA 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.







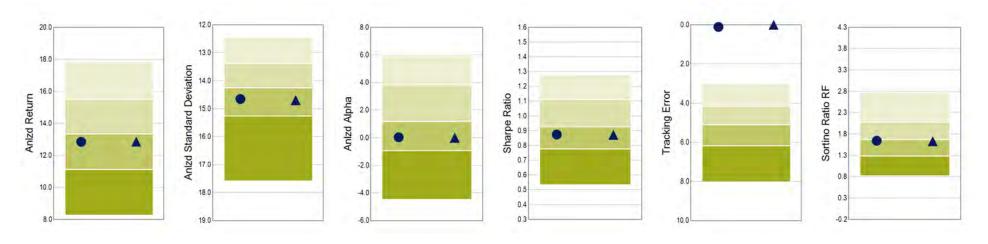
# SSgA Russell 2000 Growth



## **Characteristics**

	Portfolio	Russell 2000 Growth
Number of Holdings	1,070	1,155
Weighted Avg. Market Cap. (\$B)	1.9	2.0
Median Market Cap. (\$B)	0.8	0.7
Price To Earnings	28.6	27.8
Price To Book	5.7	5.0
Price To Sales	3.6	3.3
Return on Equity (%)	17.4	16.2
Yield (%)	0.8	0.5
Beta		1.0
R-Squared		1.0

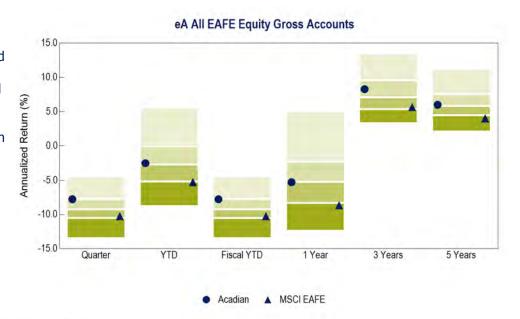
- SSgA Russell 2000 Growth
- · Russell 2000 Growth
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small Cap Growth Equity Gross

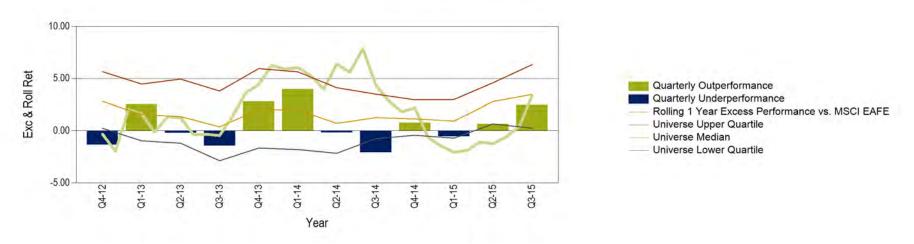




## Acadian

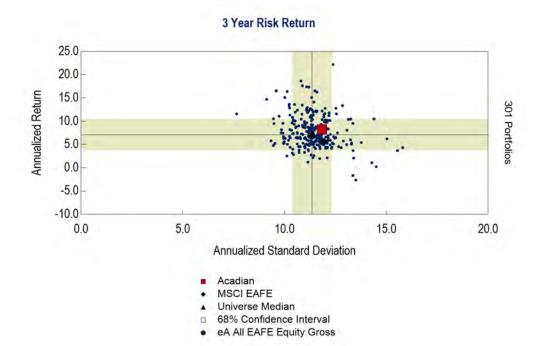
Acadian believes that the larger the pool of potential investments, the greater the potential opportunity an active manager has to add value. They believe that stocks and markets have many attributes that are related to potential outperformance, and that a successful investment approach must be multi-faceted 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.





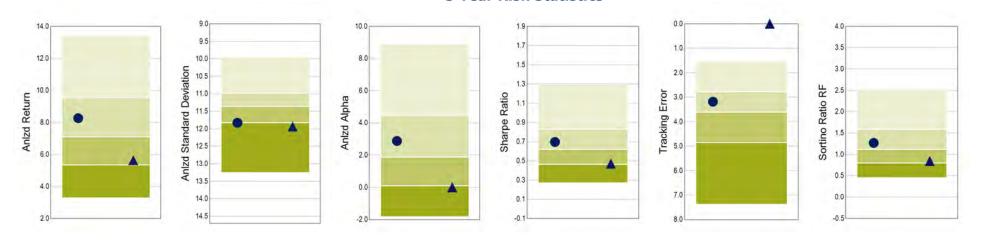


# Acadian



## Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	476	913
Weighted Avg. Market Cap. (\$B)	16.0	52.8
Median Market Cap. (\$B)	0.7	8.1
Price To Earnings	18.6	18.3
Price To Book	2.5	2.3
Price To Sales	1.5	2.1
Return on Equity (%)	15.0	14.5
Yield (%)	2.5	3.2
Beta		1.0
R-Squared		1.0





# Acadian

	Country A	Illocation		
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
Americas				
Brazil*	2.7%	0.0%	-28.7%	-33.6%
Canada	5.0%	0.0%	-12.8%	-14.1%
Mexico*	0.5%	0.0%	9.6%	-12.0%
United States	0.0%	0.0%	-2.3%	-6.9%
Total-Americas	8.1%	0.0%	-16.6%	
Europe				
Austria	0.9%	0.2%	-9.4%	-8.9%
Belgium	1.0%	1.3%	2.1%	-7.9%
Denmark	0.3%	1.7%	2.9%	-2.4%
Finland	3.2%	0.8%	-16.5%	-5.5%
France	3.4%	9.7%	-4.4%	-6.4%
Germany	8.8%	8.9%	-3.0%	-11.4%
Greece*	0.1%	0.0%	27.3%	-35.8%
Ireland	1.7%	0.4%	5.5%	-3.1%
Italy	2.1%	2.4%	-1.7%	-4.3%
Netherlands	6.0%	2.8%	-13.7%	-8.8%
Norway	1.7%	0.6%	-14.4%	-19.1%
Poland*	0.6%	0.0%	-6.3%	-10.8%
Portugal	0.2%	0.2%	-6.6%	-11.4%
Spain	0.8%	3.5%	-4.7%	-11.1%
Sweden	5.1%	2.9%	-6.0%	-9.1%
Switzerland	3.8%	9.2%	-3.4%	-6.7%
United Kingdom	12.2%	20.3%	-8.5%	-10.0%

51.7%

64.8%

-6.9%

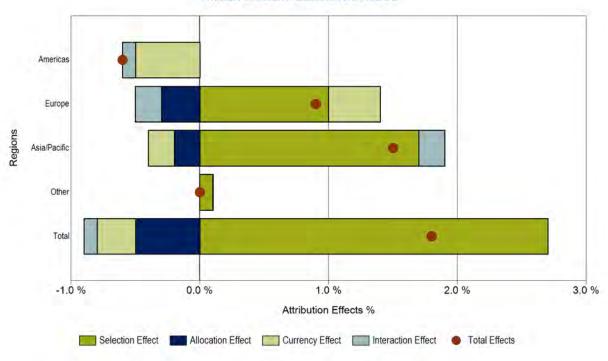
	Country A	Allocation		
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
AsiaPacific				
Australia	8.3%	6.9%	1.6%	-15.3%
Hong Kong	0.2%	3.3%	-11.2%	-16.2%
Japan	24.9%	22.9%	2.7%	-11.8%
Korea*	2.5%	0.0%	-13.8%	-8.0%
Malaysia*	0.0%	0.0%	7.1%	-0.4%
New Zealand	0.2%	0.1%	3.4%	-6.9%
Singapore	2.9%	1.4%	-2.2%	-19.4%
Taiwan*	0.6%	0.0%	-8.5%	-7.3%
Thailand*	0.1%	0.0%	-6.7%	-7.7%
Total-AsiaPacific	39.8%	34.6%	0.8%	-13.2%
Other				
Israel	0.3%	0.6%	1.3%	-5.4%
Turkey*	0.1%	0.0%	-1.5%	-5.7%
Total-Other	0.4%	0.6%	0.8%	-5.4%
Totals				
Developed	92.9%	100.0%	2.5%	-10.3%
Emeraina*	7.1%	0.0%	-8.9%	



Total-Europe

-8.7%

#### Acadian Performance Attribution vs. MSCI EAFE

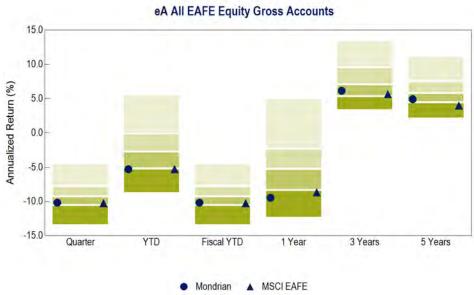


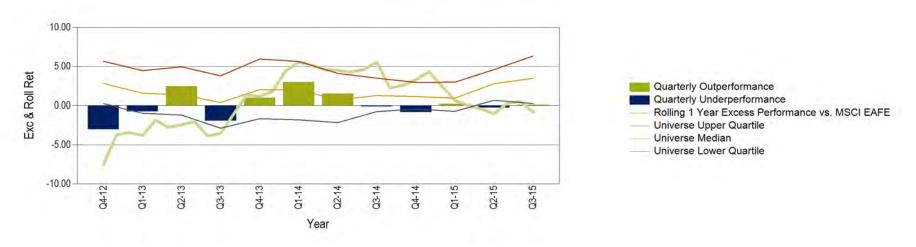
	Returns and Weights				Attribution Effects				
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects
Totals									
Americas	-16.6%		8.1%	0.0%	0.0%	0.0%	-0.5%	-0.1%	-0.6%
Europe	-6.9%	-8.7%	51.7%	64.8%	1.0%	-0.3%	0.4%	-0.2%	0.9%
Asia/Pacific	-8.9%	-13.2%	39.8%	34.6%	1.7%	-0.2%	-0.2%	0.2%	1.5%
Other	4.2%	-5.4%	0.4%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%
Total	-8.4%	-10.2%	100.0%	100.0%	2.7%	-0.5%	-0.3%	-0.1%	1.8%
Totals									
Developed	-7.7%	-10.2%	92.9%	100.0%	2.5%	0.0%	0.1%	-0.2%	2.5%
Emerging*	-17.9%		7.1%	0.0%	0.0%	0.0%	-0.4%	-0.2%	-0.6%



## Mondrian

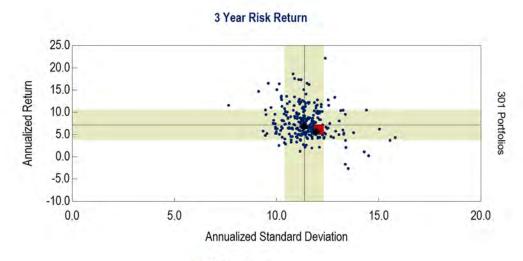
The firm is an active value-oriented defensive manager. The firm's value driven investment philosophy is based on the belief that investments need to be evaluated in terms of their fundamental long-term value. The firm believes that the value of a company lies in its future income stream as dividends 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.







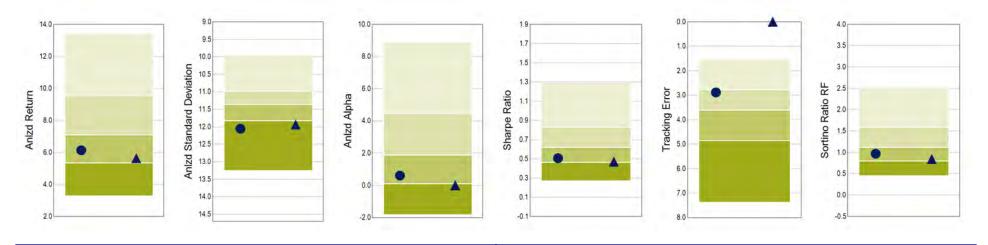
# Mondrian



## **Characteristics**

	Portfolio	MSCI EAFE
Number of Holdings	55	913
Weighted Avg. Market Cap. (\$B)	59.6	52.8
Median Market Cap. (\$B)	36.8	8.1
Price To Earnings	17.1	18.3
Price To Book	2.4	2.3
Price To Sales	1.6	2.1
Return on Equity (%)	12.1	14.5
Yield (%)	4.2	3.2
Beta		1.0
R-Squared		1.0

- Mondrian
- MSCI EAFE
- ▲ Universe Median
- 68% Confidence Interval
- · eA All EAFE Equity Gross



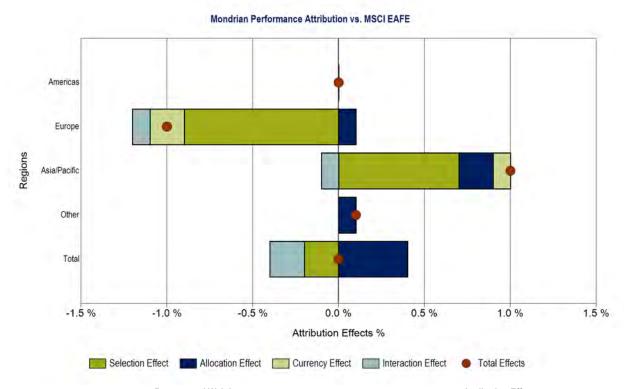


# Mondrian

Country Allocation								
	Manager	Index	Manager	Index				
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)				
Europe								
Denmark	0.1%	1.7%	0.5%	-2.4%				
France	8.0%	9.7%	-8.2%	-6.4%				
Germany	8.6%	8.9%	-16.9%	-11.4%				
Italy	2.4%	2.4%	-9.1%	-4.3%				
Netherlands	5.3%	2.8%	-3.5%	-8.8%				
Norway	0.4%	0.6%	-9.1%	-19.1%				
Spain	6.7%	3.5%	-8.5%	-11.1%				
Sweden	3.7%	2.9%	-7.6%	-9.1%				
Switzerland	13.4%	9.2%	-12.4%	-6.7%				
United Kingdom	21.3%	20.3%	-9.6%	-10.0%				
Total-Europe	70.1%	64.8%	-10.2%	-8.7%				

Country Allocation								
	Manager	Index	Manager	Index				
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)				
AsiaPacific								
Australia	1.3%	6.9%	-12.5%	-15.3%				
Hong Kong	1.7%	3.3%	-5.9%	-16.2%				
Japan	18.1%	22.9%	-8.6%	-11.8%				
Singapore	5.8%	1.4%	-18.2%	-19.5%				
Taiwan*	1.1%	0.0%	-13.3%	-16.9%				
Total-AsiaPacific	28.1%	34.6%	-10.8%	-13.2%				
Other								
Israel	1.9%	0.6%	-4.0%	-5.4%				
Total-Other	1.9%	0.6%	-4.0%	-5.4%				
Totals								
Developed	98.9%	100.0%	-10.2%	-10.2%				
Emerging*	1.1%	0.0%	-13.3%					



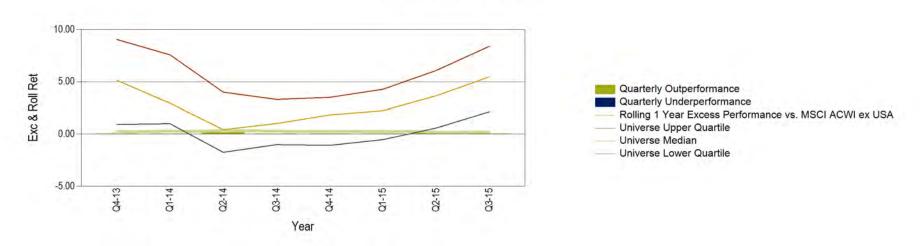


	Returns and Weights			Attribution Effects					
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects
Totals									
Americas			0.0%	0.0%		0.0%	0.0%		0.0%
Europe	-10.2%	-8.7%	70.1%	64.8%	-0.9%	0.1%	-0.2%	-0.1%	-1.0%
Asia/Pacific	-10.8%	-13.2%	28.1%	34.6%	0.7%	0.2%	0.1%	-0.1%	1.0%
Other	-4.0%	-5.4%	1.9%	0.6%	0.0%	0.1%	0.0%	0.0%	0.1%
Total	-10.2%	-10.2%	100.0%	100.0%	-0.2%	0.4%	0.0%	-0.2%	0.0%
Totals									
Developed	-10.2%	-10.2%	98.9%	100.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Emerging*	-13.3%		1.1%	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%

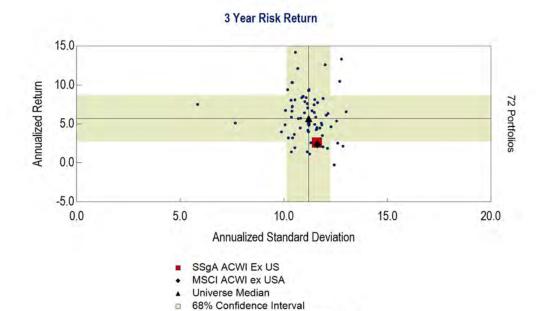


The MSCI ACWI ex US Index Strategy tends to hold each security that is held in the benchmark index, but the strategy will not be perfectly weighted in every index constituent on a daily basis. Holding securities in the perfect weights would require increased trading and therefore would incur costs. Thus, there will be securities in the fund that are either overor 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.





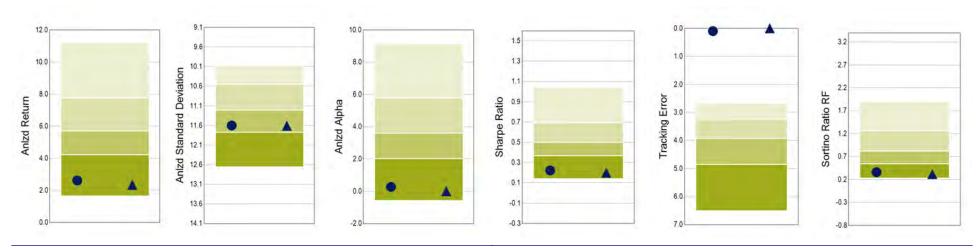




eA ACWI ex-US All Cap Equity Gross

#### **Characteristics**

	Portfolio	MSCI ACWI ex USA
Number of Holdings	1,891	1,843
Weighted Avg. Market Cap. (\$B)	47.6	47.5
Median Market Cap. (\$B)	6.1	6.2
Price To Earnings	18.8	18.0
Price To Book	2.9	2.3
Price To Sales	2.5	2.2
Return on Equity (%)	16.2	15.2
Yield (%)	3.2	3.2
Beta		1.0
R-Squared		1.0





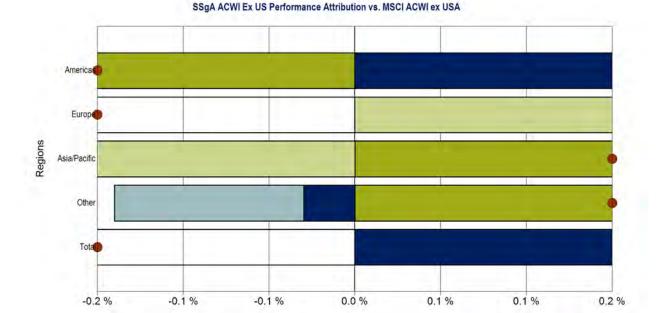
## **Country Allocation**

	Manager Allocation (USD) A	Index	Manager Return (USD)	Index Return (USD)
	Allocation (USD) A	Allocation (USD)	Return (USD)	Retuil (USD)
Americas				
Canada	0.5%	6.6%	-16.8%	-14.0%
Chile*	4.2%	0.3%	-15.2%	-13.6%
Colombia*	5.2%	0.1%	-13.0%	-23.2%
Peru*	2.6%	0.1%	-42.6%	-21.5%
United States	24.4%	0.0%	-14.8%	-6.9%
Total-Americas	36.9%	9.7%	-16.6%	-17.3%
Europe				
Ireland	1.1%	0.3%	9.7%	-3.1%
Poland*	2.3%	0.3%	1.4%	-10.5%
Russia*	31.2%	0.8%	-21.3%	-14.2%
Total-Europe	34.6%	47.7%	-18.8%	-8.8%

## **Country Allocation**

	Manager		Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
AsiaPacific				
China*	3.6%	5.4%	-32.4%	-22.0%
India*	11.6%	1.7%	-7.0%	-6.6%
Malaysia*	2.0%	0.7%	-13.6%	-18.2%
Taiwan*	9.6%	2.8%	-18.3%	-16.5%
Total-AsiaPacific	26.7%	39.7%	-14.9%	-14.5%
Other				
South Africa*	1.8%	1.7%	-9.3%	-18.6%
Total-Other	1.8%	2.9%	-9.3%	-15.3%
Totals				
Developed	26.0%	78.1%	-13.7%	-10.5%
Emerging*	74.0%	21.9%	-17.8%	-17.6%





#### **Returns and Weights Attribution Effects** Index Allocation Currency Total Manager Manager Index Selection Interaction Return Return Weight Weight Effect Effect Effect Effect Effects **Totals** -16.6% -17.3% 36.9% 9.7% -0.5% 0.2% -0.3% -1.3% -1.9% Americas -18.8% -8.8% 34.6% 47.7% 0.9% 1.5% -3.5% Europe -5.6% -0.3% Asia/Pacific -14.9% -14.5% 26.7% 39.7% 0.4% -0.5% -0.3% 0.5% 0.8% Other -9.3% -15.3% 1.8% 2.9% 0.3% 0.0% 0.0% -0.1% 0.2% Total -16.8% -12.1% 100.0% 100.0% -4.9% 0.3% 0.1% -0.1% -4.7% **Totals** 2.5% -0.2% Developed -13.7% -10.5% 26.0% 78.1% -3.8% -0.3% 1.3% 21.9% -1.4% Emerging\* -17.8% -17.6% 74.0% -0.6% -1.2% -1.3% -4.4%

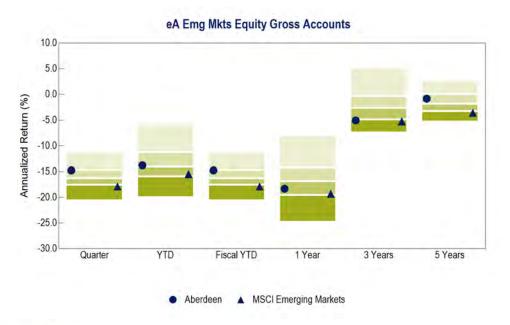
Attribution Effects %

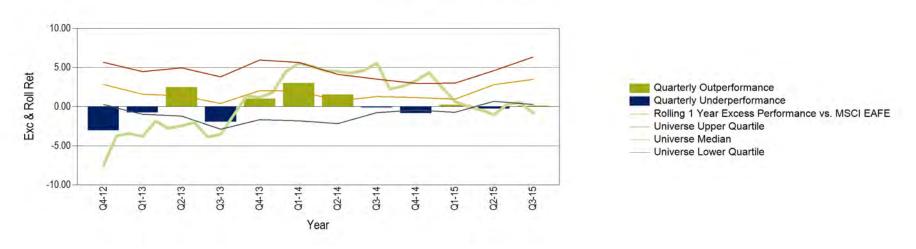
Total Effects

Selection Effect Allocation Effect Currency Effect Interaction Effect

## Aberdeen

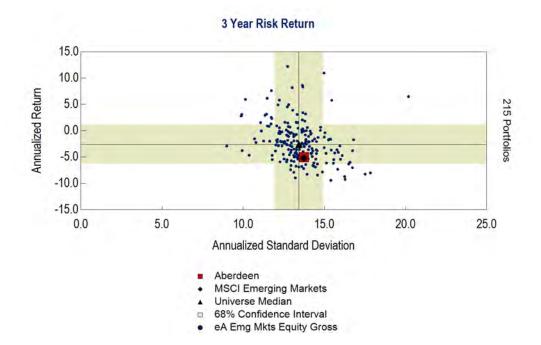
Aberdeen believes, given the inefficiency of markets, that competitive long-term returns are achieved by identifying high quality stocks at attractive valuations and holding for the long term. It is their belief that sound fundamentals drive stock prices over time. They employ a fundamental bottom-up 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.





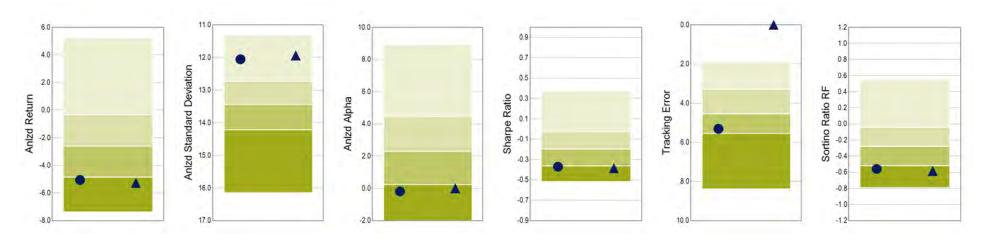


# Aberdeen



## **Characteristics**

	Portfolio	MSCI Emerging Markets
Number of Holdings	60	837
Weighted Avg. Market Cap. (\$B)	29.3	33.6
Median Market Cap. (\$B)	10.7	4.2
Price To Earnings	18.8	17.0
Price To Book	3.4	2.3
Price To Sales	2.8	2.5
Return on Equity (%)	19.2	17.2
Yield (%)	3.2	3.0
Beta		1.0
R-Squared		1.0





## Aberdeen

Country Allocation								
	Manager	Index	Manager	Index				
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)				
Americas								
Brazil*	10.9%	7.6%	-29.3%	-33.6%				
Chile*	1.1%	1.2%	-10.0%	-13.6%				
Mexico*	7.9%	4.5%	-2.8%	-11.9%				
United States	1.5%	0.0%	-10.8%	-6.9%				
Total-Americas	21.3%	14.3%	-17.2%	-24.2%				
Europe								
Hungary*	1.1%	0.2%	7.4%	-3.3%				
Luxembourg	1.4%	0.0%	-10.8%	-17.6%				
Poland*	1.7%	1.5%	-15.1%	-10.5%				
Portugal	1.1%	0.0%	4.9%	-11.5%				
Russia*	4.4%	3.8%	-18.0%	-14.2%				
United Kingdom	4.7%	0.0%	-14.7%	-10.0%				
Total-Europe	14.3%	6.0%	-12.2%	-13.9%				

#### **Country Allocation** Manager Index Manager Index Allocation (USD) Allocation (USD) Return (USD) Return (USD) AsiaPacific Australia 0.0% -29.5% -15.3% 0.0% China\* 1.8% 24.9% -37.1% -22.0% Hong Kong 10.7% -14.7% -16.2% 0.0% India\* 15.6% 7.7% -4.8% -6.6% Indonesia\* 3.8% 2.3% -31.1% -24.2% Korea\* 5.6% -11.4% 14.1% -11.7% 1.8% 3.2% -22.9% -18.2% Malaysia\* Philippines\* 1.4% -10.2% 3.8% -13.3% Taiwan\* 4.4% 12.7% -16.5% -12.2% Thailand\* 4.7% 2.3% -17.5% -26.8% 52.4% 68.5% -14.5% -16.6% Total-AsiaPacific Other South Africa\* 4.3% 7.9% -23.8% -18.6% Turkey\* 4.6% 1.5% -17.3% -19.5% **Total-Other** 11.3% -20.5% -17.0% 8.9% Totals Developed 19.4% 0.0% -13.1% Emerging\* 77.4% 100.0% -17.6% -15.8%

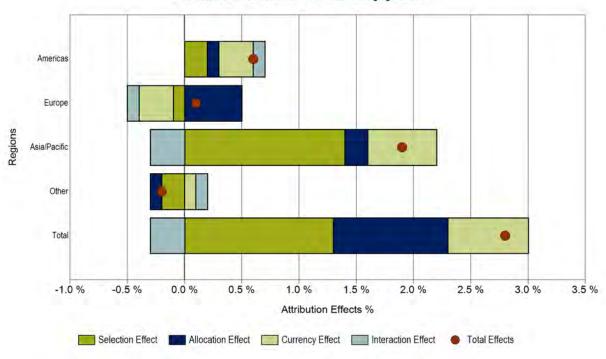
3.2%



0.0%

Cash

#### Aberdeen Performance Attribution vs. MSCI Emerging Markets



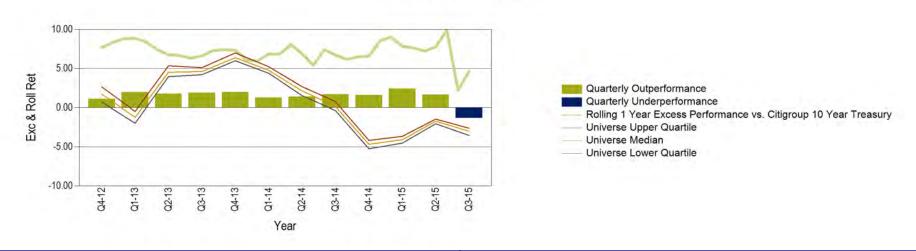
	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Totals									
Americas	-17.2%	-24.2%	21.3%	14.3%	0.2%	0.1%	0.3%	0.1%	0.6%
Europe	-12.2%	-13.9%	14.3%	6.0%	-0.1%	0.5%	-0.3%	-0.1%	0.1%
Asia/Pacific	-14.5%	-16.6%	52.4%	68.5%	1.4%	0.2%	0.6%	-0.3%	1.9%
Other	-20.5%	-17.0%	8.9%	11.3%	-0.2%	-0.1%	0.1%	0.1%	-0.2%
Cash	0.0%		3.2%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%
Total	-14.8%	-17.6%	100.0%	100.0%	1.3%	1.0%	0.7%	-0.3%	2.8%
Totals									
Developed	-13.1%	-	19.4%	0.0%	0.0%	0.0%	-0.4%	0.2%	-0.3%
Emerging*	-15.8%	-17.6%	77.4%	100.0%	2.0%	0.0%	1.2%	-0.4%	2.7%
Cash	0.0%	-	3.2%	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%



# Allianz Structured Alpha

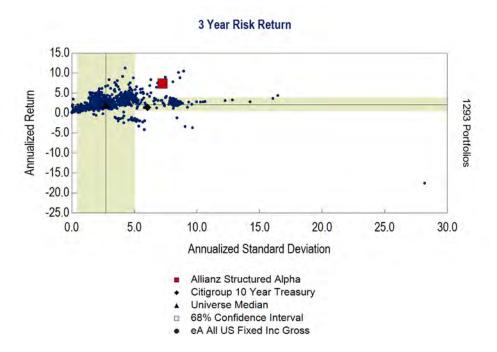
Allianz uses an alpha enhancement strategy that targets a return stream with low or no correlation with the underlying BC Aggregate benchmark. The objective of the fund seeks to deliver 5% net of fees annually on top of the benchmark with a tracking error of 2-4%. The strategy analyzes historical behavior of the S&P 500 Index and develops a distribution of expected returns, then the fund constructions profit zones using puts and calls which at expiration the underlying ends up in the profit zone. Strategies containing the buying or selling of options may produce losses and profits similar to leverage and may exposure the account to risk related to the underlying security and the option itself.

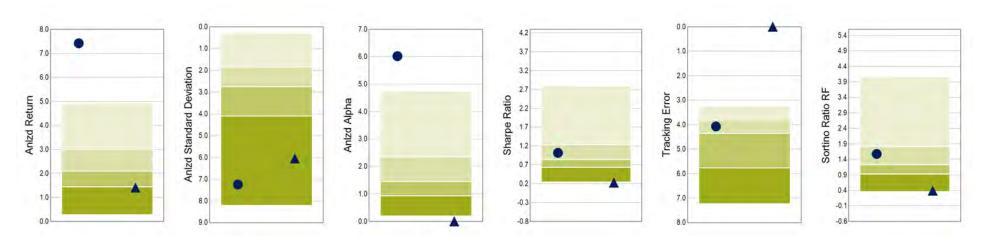






# Allianz Structured Alpha

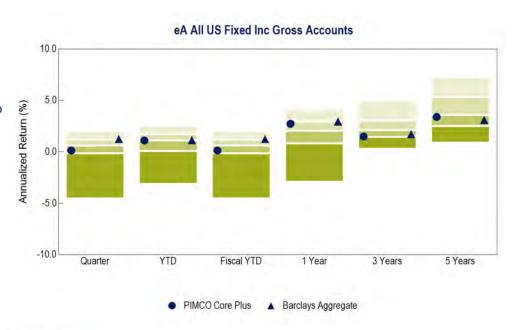


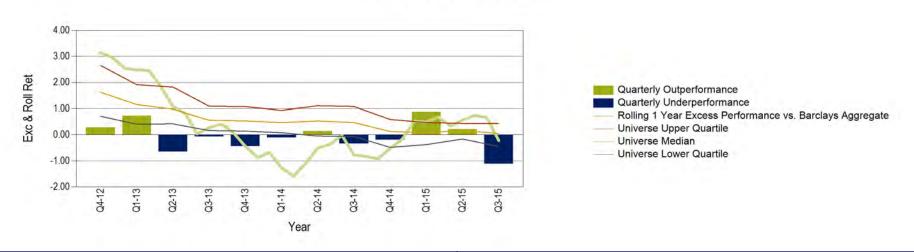




## PIMCO Core Plus

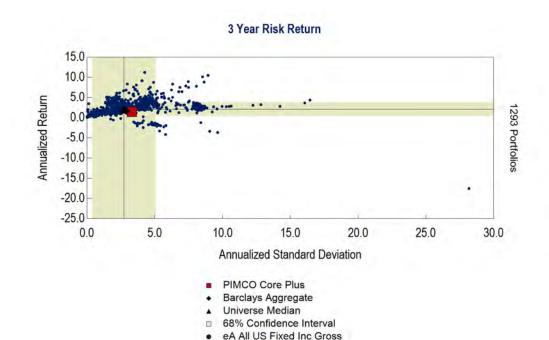
PIMCO's investment process expects to generate above-benchmark returns by building diversified, risk-averse portfolios based upon their long-term secular outlook. This is achieved by analyzing fundamental global trends in such areas as political factors, inflation, volatility, growth, and currency, amongst 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.

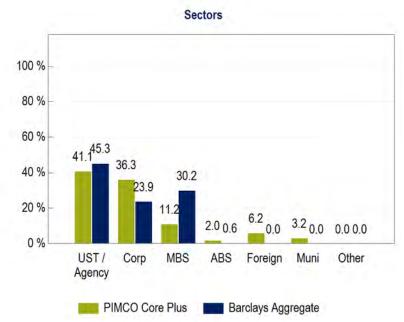


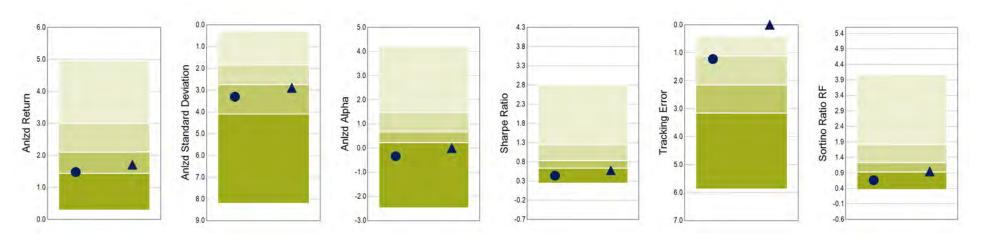




# PIMCO Core Plus



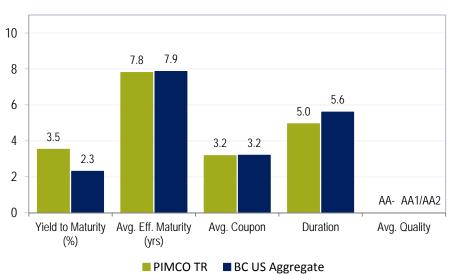




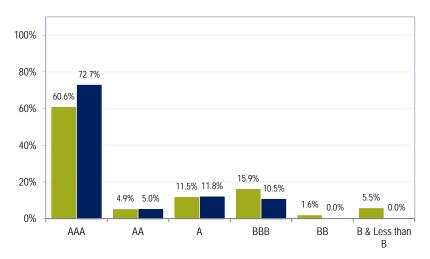


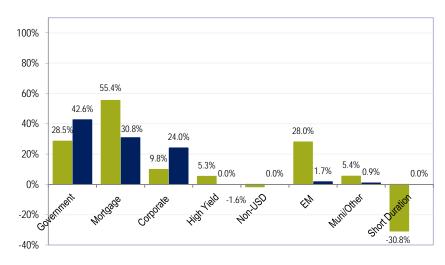
# PIMCO Core Plus

#### Characteristics



Quality Rating Sectors





Source: PIMCO

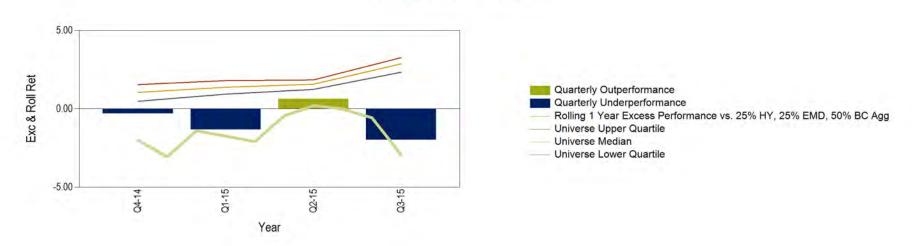


### PIMCO Unconstrained

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.



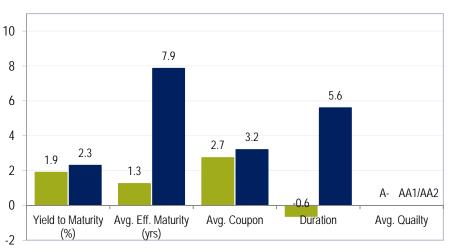
#### **Annualized Excess Performance**





## PIMCO Unconstrained

#### Characteristics



■ PIMCO Unconstrained

■ Barclays U.S. Agg Index

#### **Quality Rating**



#### Sectors

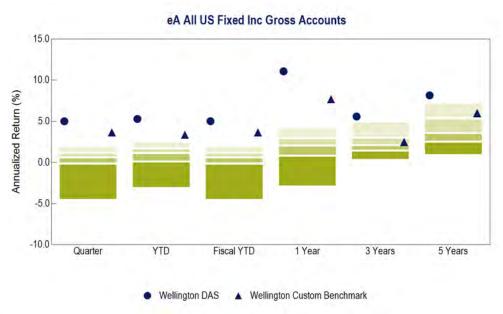


Source: PIMCO

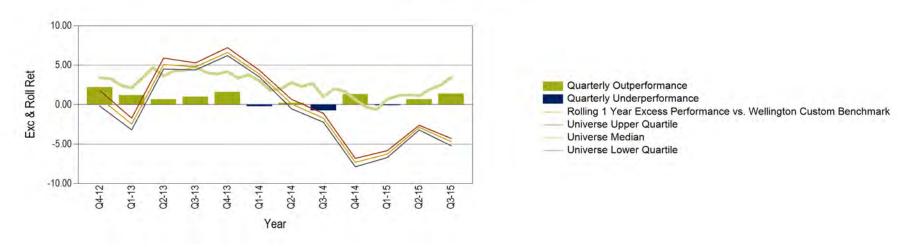


### Wellington DAS

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.



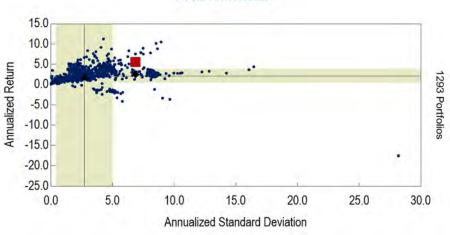
#### Annualized Excess Performance





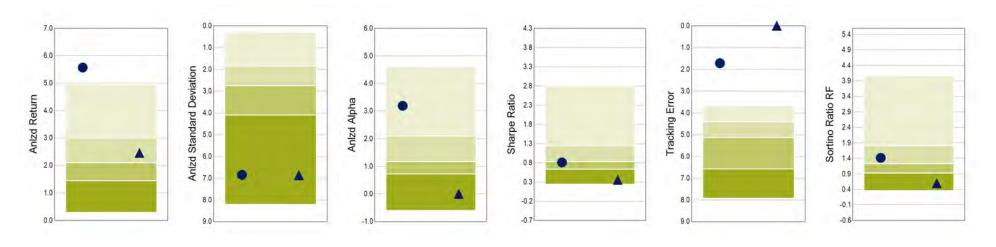
## Wellington DAS





- Wellington DAS
- · Wellington Custom Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- · eA All US Fixed Inc Gross

#### **3 Year Risk Statistics**



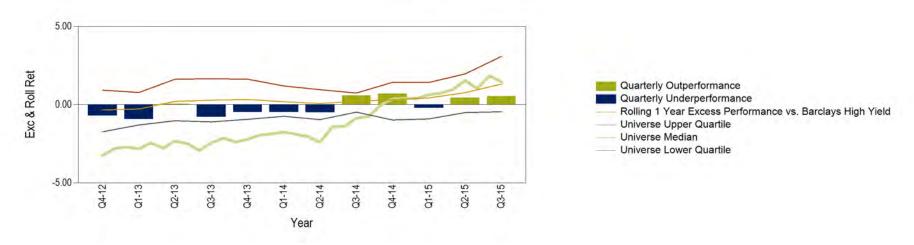


#### **KDP**

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.

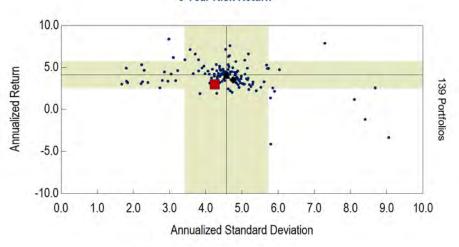


#### **Annualized Excess Performance**



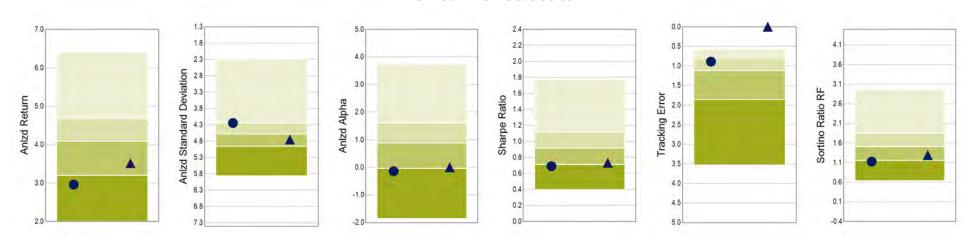


#### 3 Year Risk Return

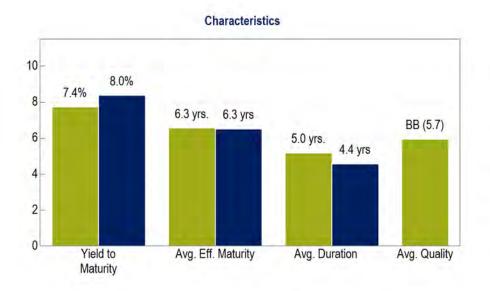


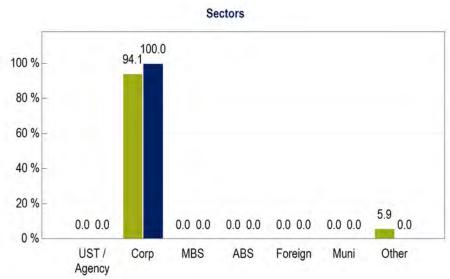
- KDF
- Barclays High Yield
- ▲ Universe Median
- 68% Confidence Interval
- eA US High Yield Fixed Inc Gross

#### **3 Year Risk Statistics**







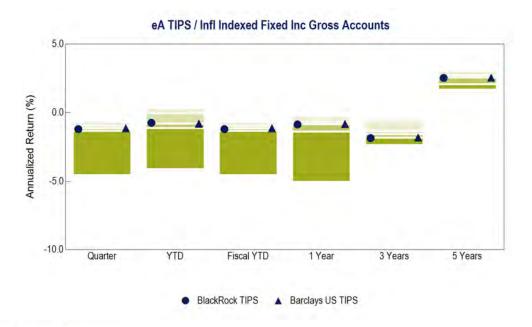


KDP Barclays High Yield

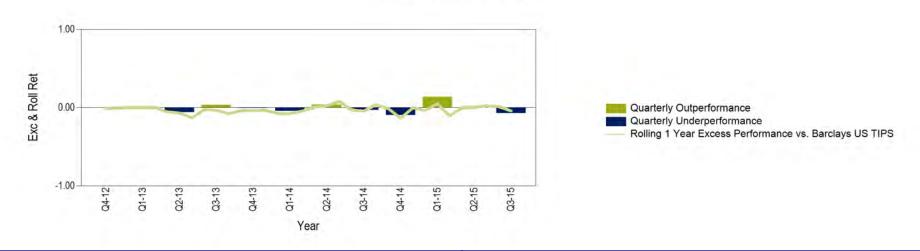


### BlackRock TIPS

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%.

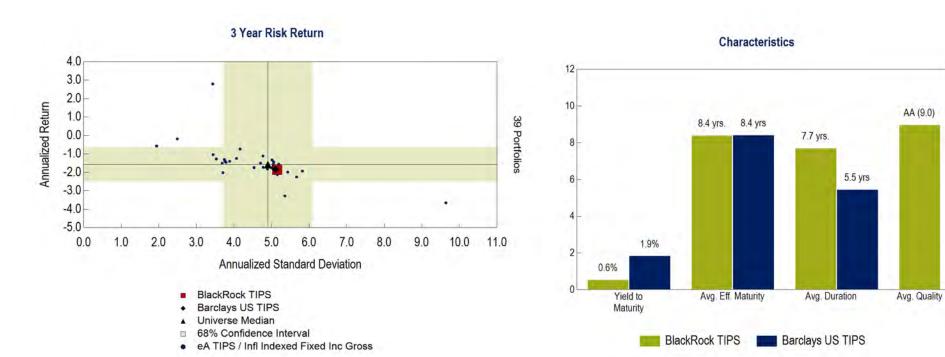


#### **Annualized Excess Performance**

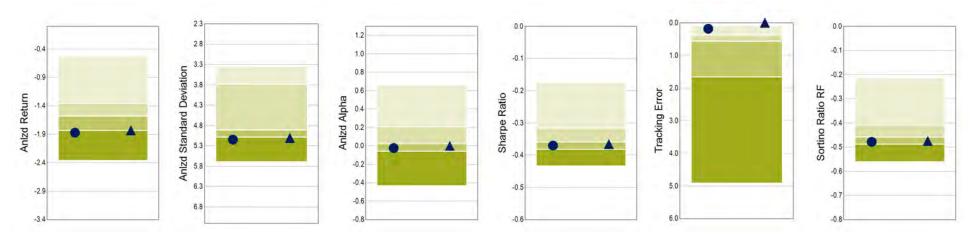




## BlackRock TIPS



#### **3 Year Risk Statistics**



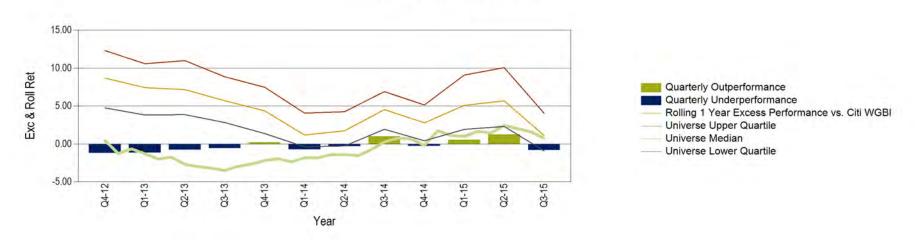


### Mondrian GFI

Bond yield for each market minus Mondrian's inflation forecast for that country. Mondrian will consider investing in the government debt of all countries within the Citigroup World Government Bond Index and other developed world bond markets. Within the emerging world most countries are researched and will include dollar denominated and local currency issuers. Mondrian's bond universe is constructed by selecting a range of bonds from the aforementioned regions at varying maturities, according to Mondrian's credit, liquidity and other specific criteria. A total of 150-200 issues are followed closely, although this list is not intended to be exhaustive. Mondrian bases its duration strategy on the size of potential long term "real" returns in a country's local market. This approach means that in practice, portfolio durations change gradually over time, and that Mondrian does not attempt to anticipate frequent interest rate changes. Mondrian's Credit Committee, chaired by John Kirk is responsible for sector recommendations in the various international markets. Each sector is assigned a prospective credit rating and current yield differentials where comparable government bonds are then assessed for their attractiveness. Mondrian seeks to add value through the use of non-governmental debt, although corporate bonds are a small part of the strategy and contribute a small portion to excess returns. Typically, sovereign and supranational issues comprise between 70% to 100% of a portfolio. High-quality foreign corporate debt is utilized, and may represent between 0% to 30% of a portfolio. In the case of corporate debt, the upper limit of 30% is strictly adhered to. A portfolio will typically hold between 30 and 40 securities.

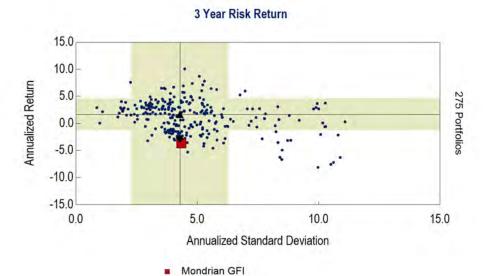


#### Annualized Excess Performance



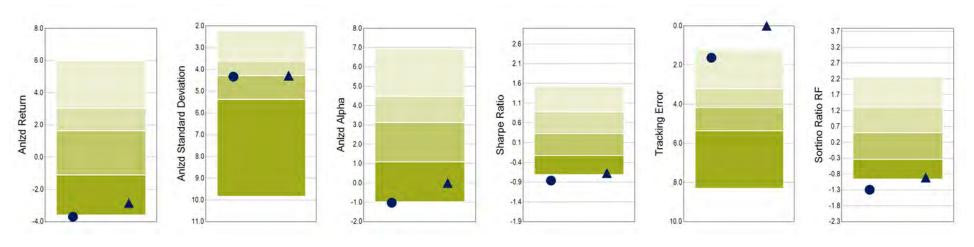


## Mondrian GFI



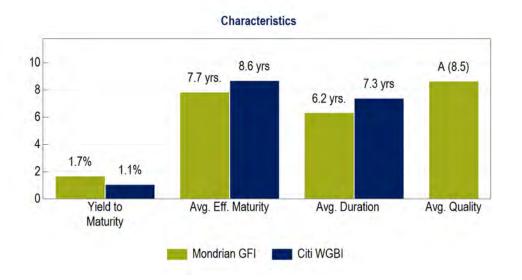
#### **3 Year Risk Statistics**

Citi WGBI Universe Median 68% Confidence Interval eA All Global Fixed Inc Gross

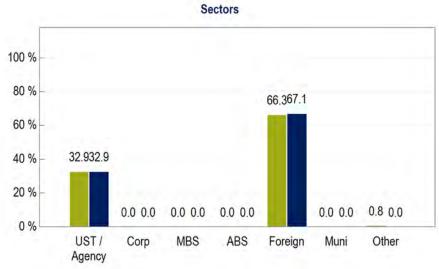




## Mondrian GFI



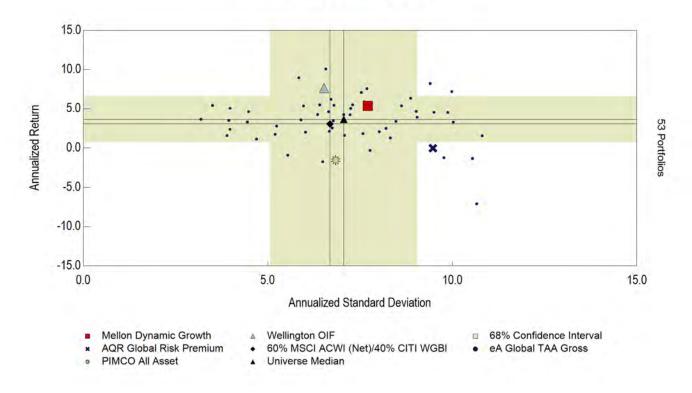






## Total Global Asset Allocation/Better Beta

#### Annualized Return vs. Annualized Standard Deviation 3 Years Ending September 30, 2015



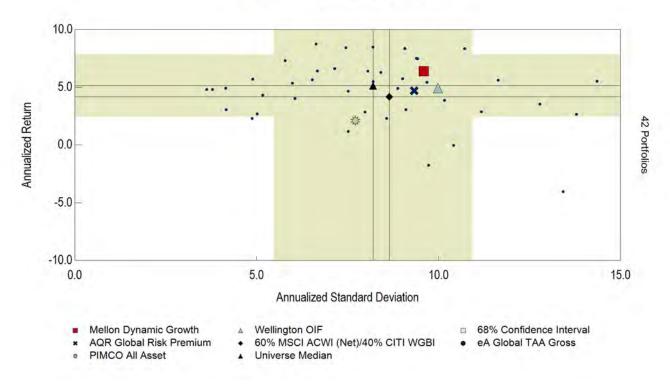
# Statistics Summary 3 Years Ending September 30, 2015

	Anlzd Return	Anlzd Standard Deviation
GAA Comp	0.82%	7.59%
Mellon Dynamic Growth	5.36%	7.71%
AQR Global Risk Premium	-0.05%	9.47%
PIMCO All Asset	-1.57%	6.84%
Wellington OIF	7.63%	6.52%



## Total Global Asset Allocation/Better Beta

#### Annualized Return vs. Annualized Standard Deviation 5 Years Ending September 30, 2015



### **Statistics Summary**

#### 5 Years Ending September 30, 2015

	Anlzd Return	AnIzd Standard Deviation
GAA Comp	3.70%	8.43%
Mellon Dynamic Growth	6.40%	9.59%
AQR Global Risk Premium	4.70%	9.33%
PIMCO All Asset	2.10%	7.71%
Wellington OIF	4.92%	9.98%

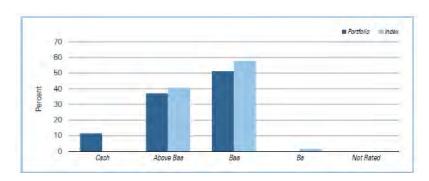


## Wellington Emerging Local Debt

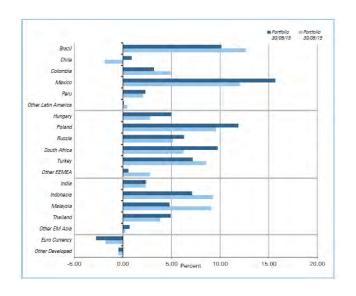
#### **Portfolio Statistics**

	Portfolio	Index	
Yield - Total	7.00%	7.13%	
Effective Duration	5.05 Yrs	4.89 Yrs	
Corporate Exposure	1.05%	-	
EM Currency Exposure	94.63%	100.00%	
Average Quality	A3	Baa1	

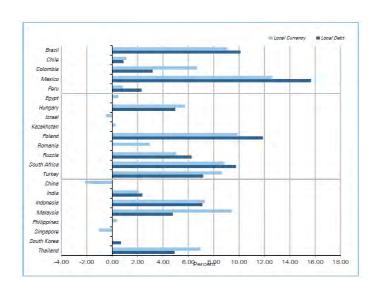
#### **Quality Distribution**



#### **Comparative Country Weights**



#### **EM Local Market Exposure**



Source: Wellington



### Wellington Opportunistic Emerging Market Debt

- -The Opportunistic Emerging Markets Debt investment approach seeks to generate attractive returns relative to an emerging markets debt benchmark such as the J.P. Morgan Emerging Markets Bond Index Global (EMBI Global), or similar, independent of traditional benchmark constraints.
- -Disciplined investment approach that integrates systematic research from both quantitative and fundamental perspective. Risk Management Due to the credit, currency, and local interest rate risks inherent in investing in these markets, and the structural complexity of some emerging markets debt instruments, a comprehensive system of risk controls is required to manage risks such as sovereign and corporate defaults, local currency volatility, and local debt yield curve inversions.
- -The investment process begins with a thorough assessment of global economic, liquidity, and market conditions. Wellington combines comprehensive top-down quantitative and macroeconomic analysis with bottom-up sovereign credit research to identify key global factors and to determine the potential impact on emerging markets debt. The resulting market outlook determines the overall risk level of the portfolio.
- -Opportunistic Emerging Markets Debt is an unconstrained, best ideas approach that takes advantage of investment opportunities in emerging markets sovereign, corporate, and local markets to generate attractive total returns. It is managed by the same team that has been responsible for the Emerging Markets Debt approach since its inception.

## Mellon Capital Global Alpha I (Global Asset Allocation)

### **Equity Exposure**

### **Bond Exposure**

	Account/Fund	* Benchmark	Overweight/ (Underweight)		Account/Fund	* Benchmark	Overweight/ (Underweight)
Australia Canada France Germany Hong Kong Italy Japan Netherlands Spain Switzerland United Kingdom United States Other	1.0% 3.5% 5.7% 15.0% 4.4% -1.2% 13.8% 3.1% 4.0% 0.4% -12.5% 21.3% 60.9%	1.5% 2.0% 2.3% 2.0% 0.7% 0.6% 5.2% 0.6% 2.2% 4.7% 355.1% 2.4% 60.0%	-0.5% 1.5% 3.4% 13.0% 3.7% -1.8% 8.6% 2.5% 3.2% -1.8% -17.2% -13.7% 0.0%	Australia Canada Europe ex-UK Japan United Kingdom United States Other	-7.7% -3.7% -22.9% 14.8% 4.6% 46.6% 2.1% 33.7% 5.5%	1.3% 1.6% 13.4% 4.0% 2.6% 15.2% 2.0% 40.0% 0.0%	-8.9% -5.3% -36.2% 10.7% 2.0% 31.3% 0.1% -6.3% 5.5%

### **Currency Exposure**

	Account/Fund	* Benchmark	Overweight/ (Underweight)
Australia	8.6%	1.4%	7.3%
Canada	3.6%	1.8%	1.9%
Denmark	0.6%	0.4%	0.2%
Euro	-4.6%	9.0%	-13.6%
Japan	13.3%	4.6%	8.7%
New Zealand	-2.4%	0.0%	-2.5%
Norway	-10.0%	0.3%	-10.3%
Sweden	0.0%	0.6%	-0.5%
Switzerland	4.6%	1.4%	3.2%
United Kingdom	-7.0%	3.6%	-10.7%
United States	91.3%	75.1%	16.2%
Other	1.9%	1.8%	0.1%
	100.0%	100.0%	0.0%

Source: Mellon Capital Management

\*Benchmark is: 60% MSCI World Index Half-Hedged/ 40% Citi WGBI Half-Hedged



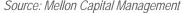
## Mellon Capital Global Alpha I (Global Asset Allocation)

#### Performance & Attribution – 2015 Q3

Period	Strategy^ Return	Benchmark**** Return	Alpha	Global Stock/Bond Allocation	Equity Country Allocation	Bond Country Allocation	Currency Allocation	Benchmark Implementation***	Misc.**	Total Alpha
July-2015	0.80%	1.60%	-0.79%	-65	6	-32	8	5	-2	-80
August-2015	-5.04%	-4.03%	-1.01%	-57	-53	52	-43	2	-3	-101
September-2015	-3.16%	-1.92%	-1.23%	-16	-131	-4	29	3	-6	-124

#### Performance & Attribution - Calendar Years & Annualized as of 09/30/2015

Period	Strategy^ Return	Benchmark**** Return	Alpha	Global Stock/Bond Allocation	Equity Country Allocation	Bond Country Allocation	Currency Allocation	Benchmark Implementation***	Misc.**	Total Alpha
Year to date 2015	-0.17%	-3.19%	3.02%	-112	245	263	-53	-3	-39	302
2014	6.53%	6.12%	0.41%	-18	-2	9	101	24	-74	41
2013	17.84%	15.12%	2.72%	334	-111	54	-54	5	45	272
2012	11.23%	11.17%	0.06%	-24	-46	216	-180	19	21	6
2011	0.86%	-0.75%	1.62%	-174	123	131	75	26	-20	161
2010	16.09%	8.78%	7.31%	-81	17	291	338	134	32	731
2009	31.42%	17.43%	13.99%	196	354	191	125	325	208	1399
2008	-36.00%	-22.36%	-13.64%	-970	-154	233	-421	-431	379	-1364
2007	1.63%	7.87%	-6.24%	108	-181	-208	-315	17	-44	-624
2006	20.79%	12.83%	7.95%	349	132	-32	225	38	84	796
2005	16.44%	7.14%	9.30%	298	398	140	-5	12	87	930
(Partial) 2004	14.41%	9.53%	4.88%	62	40	135	164	63	24	488
1 Year	3.86%	-1.63%	5.49%	-98	363	354	-29	6	-47	549
3 Years	8.10%	6.39%	1.71%	73	22	145	-57	10	-21	171
5 Years	8.26%	6.37%	1.90%	5	47	136	-3	15	-11	189
10 Years	5.85%	4.86%	0.99%	-30	52	115	-13	15	-40	99
Inception to date*	7.18%	5.41%	1.77%	-3	70	122	0	20	-32	177
Source: Mellon (	Canital Manag	amant								





## PIMCO All Asset

Fund Number	736											
Fund Name	All Asset											
	Fund											
Total Fund Net Assets (\$US MM)	23,923.1											
	6/30/2013	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	7/31/2015	8/31/2015	9/30/2015
Third Pillar	80.91%	80.25%	82.04%	82.03%	78.71%	71.02%	74.17%	85.29%	85.75%	85.00%	85.20%	85.46%
Emerging Markets Equities	8.45%	10.18%	11.86%	11.49%	12.81%	13.05%	11.83%	13.66%	13.67%	13.04%	12.35%	13.09%
RAE Fundamental PLUS EMG Fund	8.25%	9.98%	11.63%	7.33%	5.99%	4.69%	4.12%	4.75%	4.73%			
RAE Low Volatility PLUS EMG Fund	-	-	0.02%	3.97%	6.80%	8.34%	7.70%	8.92%	8.94%			
EqS Emerging Markets Fund	0.19%	0.20%	0.21%	0.19%	0.02%	0.02%	0.02%	-	-			
Commodities and REITs	2.01%	4.46%	7.58%	8.25%	8.76%	8.19%	9.89%	9.08%	6.36%	5.83%	5.95%	6.10%
CommoditiesPLUS™ Strategy Fund	1.77%	2.07%	2.79%	2.89%	3.03%	3.58%	3.06%	2.88%	2.19%			
CommodityRealReturn Strategy Fund®	0.06%	0.79%	1.35%	1.46%	1.66%	3.00%	3.97%	3.90%	2.18%			
RealEstateRealReturn Strategy Fund	0.18%	1.60%	3.45%	3.91%	4.06%	1.60%	2.86%	2.31%	1.99%			
Emerging Markets Bonds	17.81%	19.06%	19.81%	19.88%	19.86%	20.32%	18.83%	20.82%	22.45%	22.19%	22.33%	22.15%
Emerging Local Bond Fund	7.13%	7.35%	7.23%	7.27%	7.42%	9.50%	9.10%	9.00%	9.79%			
Emerging Markets Currency Fund	6.85%	7.22%	7.44%	7.22%	7.10%	8.33%	9.05%	11.50%	12.29%			
Emerging Markets Bond Fund	3.11%	3.48%	3.75%	3.96%	3.90%	1.92%	0.47%	0.24%	0.29%			
Emerging Markets Corporate Bond Fund	0.73%	1.00%	1.40%	1.44%	1.43%	0.57%	0.20%	0.07%	0.07%			
Credit	32.95%	29.64%	27.50%	26.91%	21.84%	11.58%	14.21%	14.96%	15.23%	15.45%	16.05%	16.08%
	6.27%	5.50%	4.76%	4.61%	1.11%	0.43%	2.64%	2.85%	2.88%	13.43 /6	10.03 /8	10.00 /8
High Yield Fund High Yield Spectrum Fund	4.11%	4.22%	4.76%	4.61%	3.69%	2.66%	2.90%	3.07%	3.20%			
Income Fund	10.29%	10.49%	10.66%	10.47%	10.28%	6.51%	6.21%	5.90%	6.01%			
Diversified Income Fund	3.62%	3.56%	3.59%	3.51%	3.21%	0.09%	0.10%	0.03%	0.21%			
Floating Income Fund	5.44%	3.34%	1.99%	1.92%	1.75%	0.09%	0.10%	0.03%	0.21%			
Senior Floating Rate Fund	3.08%	2.54%	2.19%	1.92%	1.75%	1.60%	2.30%	2.82%	2.61%			
Convertible Fund	0.13%	2.54%	2.1970	1.93%	1.7970	1.00%	2.30%	2.0270	2.0170			
European Convertible Fund	0.13%		-	-	-	-	-		-			
			4 070/							4 4004	4.400/	4.040/
Global Bonds	5.38%	2.41%	1.07%	0.99%	1.21%	0.34%	0.35%	0.53%	1.07%	1.10%	1.18%	1.24%
Foreign Bond Fund (Unhedged)	2.41%	0.65%	0.05%	0.05%	0.26%	0.29%	0.30%	0.30%	0.30%			
Global Advantage Strategy Fund	2.97%	1.76%	1.02%	0.94%	0.95%	0.04%	0.05%	0.23%	0.76%			
Global Bond Fund (Unhedged)	-	-	-	-	-	-	-	-	-			
Inflation-Linked Bonds	0.08%	0.76%	0.72%	0.68%	0.90%	2.67%	2.73%	7.87%	7.88%	7.99%	7.82%	7.68%
Real Return Fund	0.00%	0.32%	0.31%	0.24%	0.29%	1.24%	1.38%	1.31%	1.29%			
Real Return Asset Fund	0.00%	0.37%	0.34%	0.37%	0.53%	1.34%	1.27%	6.49%	6.50%			
Global Advantage® Inflation-Linked Bond ETF	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%			
Alternative Strategies	14.23%	13.74%	13.49%	13.81%	13.34%	14.87%	16.33%	18.36%	19.09%	19.39%	19.53%	19.12%
Unconstrained Bond Fund	6.16%	5.38%	3.84%	2.82%	2.53%	2.18%	1.79%	2.75%	2.44%			
Credit Absolute Return Fund	0.97%	2.01%	2.04%	2.96%	2.78%	1.10%	0.76%	0.52%	0.44%			
Mortgage Opportunities Fund	0.09%	0.54%	0.55%	0.56%	0.55%	0.57%	0.61%	0.65%	0.66%			
TRENDS Managed Futures Strategy Fund	-	-	-	0.15%	0.16%	0.18%	0.19%	0.20%	0.20%			
EqS Long/Short Fund	0.40%	0.43%	0.44%	0.46%	0.47%	0.47%	0.49%	0.36%	0.25%			
RAE Worldwide Long/Short PLUS Fund	-	-	-	-	-	-	3.08%	6.53%	7.49%			
RAE Fundamental Advantage PLUS Fund	2.85%	1.49%	2.28%	2.44%	2.62%	4.90%	4.84%	3.93%	3.75%			
RAE Worldwide Fundamental Adv PLUS Fund	3.75%	3.88%	4.34%	4.41%	4.24%	5.47%	4.57%	3.42%	3.86%			

Source: PIMCO



## PIMCO All Asset

	6/30/2013	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	12/31/2014	3/31/2015	6/30/2015	7/31/2015	8/31/2015	9/30/2015
Second Pillar	10.12%	9.07%	5.42%	5.42%	9.05%	15.65%	13.80%	4.95%	6.15%	6.61%	6.88%	6.81%
US Core Bonds	2.78%	1.73%	0.78%	0.62%	3.10%	4.39%	4.58%	2.91%	3.17%	3.42%	3.70%	3.78%
Total Return Fund	0.16%	0.86%	0.53%	0.62%	3.07%	2.37%	2.25%	1.04%	1.39%			
Investment Grade Corporate Bond Fund	2.62%	0.87%	0.25%	0.01%	0.02%	2.02%	2.34%	1.87%	1.78%			
Mortgage-Backed Securities Fund	-	-	-	-	-	-	-	-	-			
GNMA Fund	-	-	-	-	-	-	-	-	-			
US Long Maturity Bonds	7.59%	6.52%	4.01%	4.21%	4.82%	10.94%	7.70%	1.28%	1.52%	1.75%	1.79%	1.94%
Long-Term US Government Fund	0.66%	0.50%	0.05%	0.06%	0.27%	5.79%	3.91%	0.00%	0.00%			
Long Term Credit Fund	3.84%	3.85%	3.82%	4.11%	4.20%	3.35%	1.93%	0.50%	0.57%			
Long Duration Total Return Fund	3.08%	2.18%	0.14%	0.04%	0.35%	1.80%	1.86%	0.77%	0.95%			
Short-Term Bonds	-0.25%	0.82%	0.63%	0.59%	1.13%	0.32%	1.52%	0.77%	1.46%	1.45%	1.39%	1.09%
Low Duration Fund	-	0.83%	0.55%	0.61%	0.94%	0.26%	0.53%	0.24%	0.87%			
Low Duration Exchange Traded Fund	-	-	-	-	0.20%	0.21%	0.22%	0.23%	0.24%			
Short Term Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-			
Government Money Market Fund		-	-	-	-	-	0.80%	0.33%	0.35%			
Net Short Duration Instruments	-0.25%	-0.02%	0.08%	-0.02%	-0.01%	-0.16%	-0.02%	-0.03%	-0.01%			
First Pillar	8.97%	10.68%	12.54%	12.55%	12.24%	13.34%	12.03%	9.76%	8.10%	8.39%	7.92%	7.73%
US Equities	1.04%	1.14%	1.17%	1.16%	1.12%	2.41%	4.03%	2.78%	2.38%	2.37%	2.24%	2.17%
RAE Fundamental PLUS Fund	0.08%	0.09%	0.10%	0.08%	0.03%	0.03%	0.55%	0.20%	0.21%			
RAE Low Volatility PLUS Fund		-	0.02%	0.16%	0.41%	1.72%	2.70%	1.93%	1.74%			
RAE Fundamental PLUS Small Fund	0.67%	0.75%	0.82%	0.83%	0.65%	0.63%	0.74%	0.64%	0.43%			
StocksPLUS® Small Fund	0.15%	0.17%	0.11%	0.07%	0.02%	0.02%	0.02%	-	-			
Fundamental IndexPLUS™	-	-	-	-	-	-	0.00%	-	-			
StocksPLUS® Fund	0.01%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	-	-			
StocksPLUS® Absolute Return Fund	0.12%	0.13%	0.11%	0.01%	0.01%	0.01%	0.01%	-	-			
Developed ex-US Equities	7.92%	9.53%	11.37%	11.39%	11.12%	10.93%	8.00%	6.97%	5.73%	6.03%	5.68%	5.55%
RAE Fundamental PLUS Intl Fund	5.26%	6.28%	6.91%	4.01%	3.16%	3.07%	3.01%	1.71%	1.60%			
RAE Low Volatility PLUS Intl Fund	-	-	0.02%	3.22%	5.73%	5.65%	3.79%	4.22%	4.13%			
StocksPLUS® International Fund (USD-Hedged)	0.18%	0.19%	0.21%	0.20%	0.01%	0.01%	0.01%	-	-			
StocksPLUS® International Fund (Unhedged)	0.56%	0.63%	0.64%	0.51%	0.02%	0.02%	0.02%	-				
EqS Global Dividend Fund	0.10%	0.11%	0.11%	0.12%	0.01%	0.01%	0.01%	-	-			
EqS Pathfinder Fund	1.82%	2.32%	3.48%	3.34%	2.19%	2.18%	1.16%	1.04%				

Source: PIMCO



#### PIMCO All Asset

- -PIMCO's All Asset Fund uses a Fund of Mutual Funds approach. Investment funds are continuously reallocated between various PIMCO Mutual funds base on strategic allocation decisions made by the advisor to the investment manager.
- Because both by policy and practice fixed income related securities tend to dominate the All Asset Funds asset allocation, and also because historical risk return measures correlate highly to core fixed income portfolio's. This investment may be categorized as either global asset allocation or core fixed income.
- -The underlying funds may at times invest in derivatives. Use of these instruments may involve risks such as liquidity risk, interest rate risk, market risk, credit risk, management risk and the risk that a fund could not close out a position when it would be most advantageous to do so. Portfolios investing in derivatives can lose more than the principal amount invested.
- -Shares of mutual funds that invest in Treasuries, TIPS and Government Bonds do not have the same guarantees as direct investments in these securities. Mortgage-backed securities are subject to prepayment risk. With corporate bonds there is no assurance that issuers will meet their obligations. An investment in high-yield securities generally involves greater risk to principal than an investment in higher-rated bonds. Investing in non-U.S. securities may entail risk as a result of non-U.S. economic and political developments, which may be increased when investing in emerging markets.
- -No single fund may exceed 50% of the portfolio. There is a maximum exposure of 50% to StocksPLUS, StocksPLUS Total Return and International StocksPLUS TR Strategy Funds combined. There is a maximum exposure of 75% to CommodityRealReturn Strategy, Real Return, Real Return II, Real Return Asset and RealEstateRealReturn Strategy Funds combined.
- -Leverage is permitted but is not expected to be used. Possible investment instruments are Stocks, Bonds, Currency, Commodities, Futures, Options, Options on Futures, and Swaps.
- -The Fund is expected to outperform the Lehman Brothers U.S. TIPS 1-10 Year Index and CPI + 5% over a market cycle. The PIMCO All Asset Fund is a daily valued commingled fund.

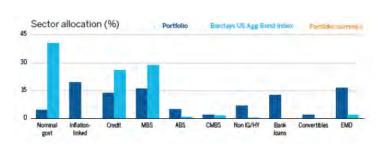


## Wellington Opportunistic Fixed Income

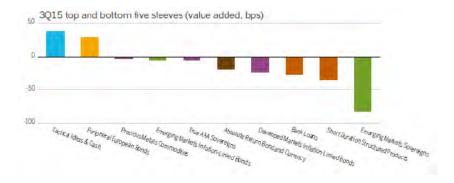
#### Characteristics

	Portfolio	Benchmark
Yield to worst %	4.0	2.2
OAS (bps)	276	62
Duration – effective	4.9	5.4
Convexity - effective	0.8	-0.1

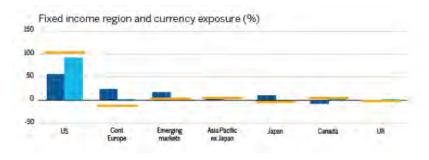
#### **Sector Allocation**



#### **Top Relative Contributors and Detractors**



#### **Regional Allocation**



Source: Wellington



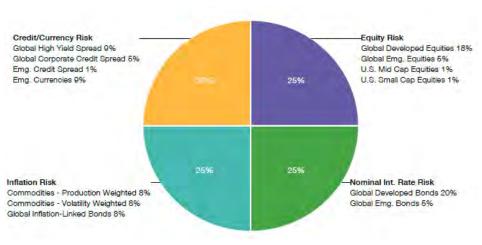
### Wellington OIF

- -The objective of the Opportunistic Investment Allocation approach is to outperform core markets by making timely investments in non-core areas that are attractively valued, have positive structural tailwinds, or are expected to benefit from the anticipated cyclical environment. Opportunistic Investment Allocation is an unconstrained, non-benchmark oriented investment approach.
- -The Opportunistic Investment Allocation approach provides exposure to a variety of investment approaches that focus on non-core areas, such as non-US small cap, emerging markets equity, and sector funds. Non-core areas are inherently interesting as they are typically less efficient sectors of the market where active managers have a history of strong value added. However, a drawback to these investment areas is their high level of volatility. One source of high volatility is structural change, which results in instability of long-term performance characteristics. When performance characteristics are unstable over time it is difficult to address the asset class in a static long-term asset allocation policy. Assuming that historical performance characteristics are representative of future results often leads institutional investors to either buy these niche areas at high valuations (after positive structural surprises) or ignore (sell) them when they are out of favor (after a negative structural surprise). For these reasons, Wellington believes that allocations to these areas should not be strategic, but opportunistic in nature.



## AQR Global Risk Premium Fund

#### **Risk Allocation**



#### **Estimated Exposure Breakdown**

	Long Exposure (% of NAV)	Lo	ong Exposure (% of NAV)
Equity Risk		Equity Market Exposures	
Global Developed Equities	9%	Americas	7%
Global Emerging Equities	3%	Europe	2%
U.S. Mid Cap Equities	1%	Asia ex-Japan	3%
U.S. Small Cap Equities	1%	Japan	1%
Total Equity Risk	13%	Total Equity Market Exposures	13%
Nominal Interest Rate Risk		Bond Market Exposures - Nominal and Inflation-Linked	
Global Developed Bonds	61%	Americas	43%
Global Emerging Bonds	18%	Europe	43%
Total Nominal Interest Rate Risk	80%	Asia	21%
Inflation Risk		Total Bond Market Exposures	107%
Commodities - Production Weighted	5%	Emerging Currency Exposures	
Commodities - Volatility Weighted	10%	Asia	5%
Global Inflation-Linked Bonds	27%	Europe	6%
Total Inflation Risk	42%	Latin America	4%
Credit/Currency Risk		Dollar Block ex-U.S.	0%
Global High Yield Spread	18%	Total Emerging Currency Exposures	14%
Global Corporate Credit Spread	39%		
Emerging Credit Spread	3%		
Emerging Currencies	14%		
Total Credit/Currency Risk	73%		
Total Fund Exposures	209%		

Source: AQR



### AQR Global Risk Premium Fund

- -The AQR Global Risk Premium Fund is equally risk weighted between four major asset classes or risk exposures: equities, interest rates, inflation, and alternative risk exposures almost entirely spread/credit.
- -By diversifying broadly & globally across the broadest possible set of liquid risk-bearing assets, diversifying risk rather than capital avoiding risk concentration by sizing broad risk exposures equally, the strategy develops a an efficient portfolio that is likely to outperform traditional asset allocations.
- -Individual exposures are implemented through a variety of instruments, including: stock index futures and swaps, bond futures, interest rate swaps, global inflation-linked bonds, currency forwards, credit derivatives, and commodity futures & swaps.
- -Implementation decisions include capital usage, liquidity, transaction costs, and counterparty exposure. Since the strategy is levered, there is limited available capital; therefore, derivative instruments such as swaps and futures, will be preferred to physical investment in a market, all else being equal.
- -The majority of exposures are accessed synthetically generally, over 70% of the funds capital is invested in cash funds through SSgA and Dreyfus. These are money market funds meant to preserve capital, not meant to chase a spread above LIBOR as an additional source of return.
- -The fund attempts to maintain a healthy liquidity profile, both from a risk management standpoint and in order to fulfill the promise of monthly liquidity to investors.
- -Implementation with the most liquid instruments will be preferred and will help in limiting transaction costs.
- -Swap agreements and forwards take on counterparty risk. Counterparties are chosen based on analysis from a separate counterparty committee who determine approved counterparties across AQR's, limitations to exposures to each counterparty, as well as presenting AQR's credit worthiness to counterparties. Counterparty exposure is spread across several firms in order to minimize this risk.

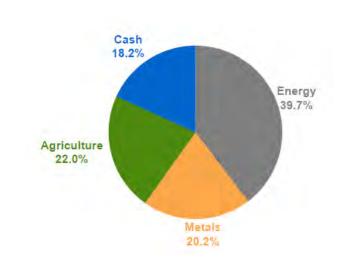


## Schroder Commodity

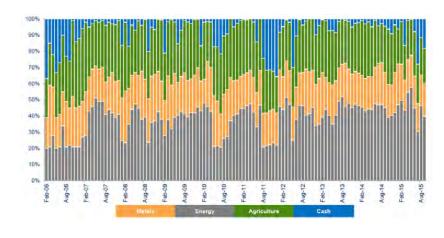
### Sector Exposure

		Futures	Equities	Other*	<b>Total Exposure</b>	Benchmark*	Difference
	Crude Oil	20.4	2.0		22.4	26.8	-4.4
	Gas Oil	2.0			2.0	2.0	0.1
Energy	Gasoline	4.1			4.1	4.3	-0.1
39.7%	Heating Oil	4.2			4.2	4.0	0.2
	Natural Gas Coal	5.9	1.1		7.0	5.7	1.2
	Aluminium	3.9			3.9	4.4	40,5
	Copper	3.2			3.2	5.3	-2.1
10.00	Gold	2.2	0.3	4.6	7.0	6.8	0.2
<b>Metals</b>	Lead	0.5			0.5	0.7	-0.1
20.2%	Nickel	1.3			1.3	1.1	0.2
	Palladium					0.1	-0,1
	Platinum	0.3			0.3	0.5	-0.2
	Silver	2.4			2.4	2.4	
	Tin					0.3	-0.3
	Zinc	1.6			1.6	1.3	0.3
	Canola	22			2.2		22
Cocoa Coffee	2.3			2.3	1.6	0.7	
	3.1			3.1	2.4	0.7	
	Com	3.9			3.9	6.0	-2.1
	Cotton	0.5			0.5	3.1	-2.6
	Feeder Cattle					0.3	-0.3
	Lean Hogs					1.6	-1.6
	Live Cattle	1.2			1.2	4.0	-2.8
lture	Lumber					0.3	-0.3
2.0%	Oats					0.1	-0.1
	Orange Juice	44			2.2	0.4	-0.4
	Palm Oil	1.4			1.4	0.0	1.4
	Rapeseed Rough Rice	1.5			1.5	0.3	1.2 -0.2
	Rubber	0.9			0.9	0.3	0.6
	Soybean Meal	U.S			0.9	0.9	-0.9
	Soybean Oil					1.2	-12
	Soybeans					4.6	4.6
	Sugar	3.0			3.0	3.2	-0.2
	Wheat	1.9			1.9	4.3	-24
Cash	Cash	1.0			18.2	1.0	18.2
8.2%	TOTAL	73.9	3.4	4.6	100.0	100.0	

#### **Current Asset Allocation**



**Historical Sector Asset Allocation** 



Source: Schroder



### Schroder Commodities

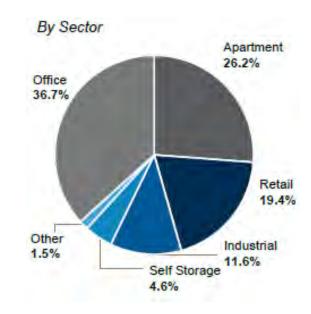
- -The objective of the Schroders Commodities strategy is to provide investors with a diversified exposure to the Commodities asset class, through investments in commodity futures and commodity related equities.
- -The strategy is a beta or beta-plus product and aims to use active management to exploit the inefficiencies inherent in the asset class.
- -Schroders uses an active, long-only approach to commodities management. No leverage is used and all futures positions are fully collateralized through investments in T-bills of less than one year maturity. As a result of this policy, cash and cash collateral are not subject to any duration or credit risk.
- -The strategy is benchmark unconstrained meaning investments are made based on in-house analysis and implemented when that analysis indicates an attractive risk/reward opportunity. Commodities are not included as a result of their weighting in an index. The focus of Schroders' fundamental commodity analysis is the determination of supply and demand and supply/demand balances and most importantly, how these balances may change in the future.
- -Quantitative, technical and sentiment analyses support the fundamental analysis in terms of the timing and sizing of positions.
- -The investment horizon for the strategy is three to 12 months.
- -Schroders utilize strict diversification rules. Commodities are reviewed on an ongoing basis. A commodity will not be held unless the fundamental analysis is positive.
- -The Schroders universe is comprised of over 60 commodities.
- -Most exposures are held through futures positions although equities may be purchased; typically whereby a commodity does not have an associated futures contract.



## Morgan Stanley Prime Property

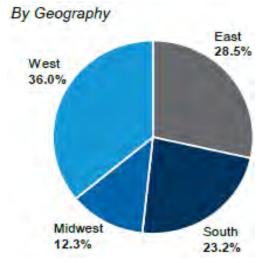
### **Property sector Returns**

	THIRD QUARTER							
%	INCOME	APPRECIATION	TOTAL					
Office	1.3	2.2	3.5					
Retail	1.1	2.3	3.4					
Industrial	1.3	1.7	3.0					
Self Storage	1.3	3.9	5.3					
Apartment	0.9	2.5	3.4					



## Geographic Region Returns

	THIRD QUARTER								
%	INCOME	APPRECIATION	TOTAL						
East	1.4	1.5	2.9						
Midwest	1.0	1.5	2.5						
South	1.0	3.0	4.0						
West	1.2	3.0	4.2						

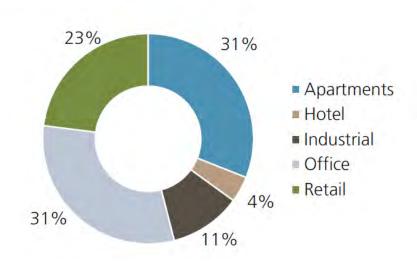


Source: Morgan Stanley



## UBS Trumbull Property Fund

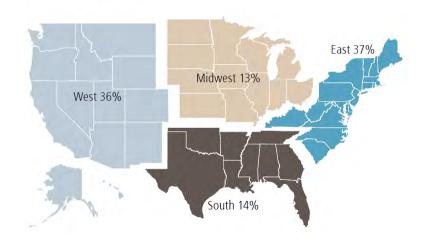
### Portfolio distribution by property type<sup>1</sup>



Key statistics	
Gross asset value (GAV)	USD 21.0 bn
Net asset value (NAV)	USD 17.8 bn
Cash as a % of GAV	1.6%
Debt as % of GAV	13.8%
Number of investments	214
Number of investors	419
Deposits <sup>2</sup>	USD 444.2 m
Redemptions <sup>2</sup>	USD 166.0 m

Returns (%)		
	Quarterly	One-year rolling
Income	1.20	5.04
Appreciation	2.23	7.62
Total (before fees)	3.43	12.94
Total (after fees)	3.17	11.83

#### Distribution by geographic division<sup>1</sup>





## RREEF America REIT III, Inc.

### **Investment Summary**

Net Asset Value <sup>2</sup>	\$208,059,270
Number of Shares Outstanding	16,109,897
Net Asset Value Per Share	\$12.91
Cash Balance of Fund	\$237,601,721
Debt <sup>3</sup>	\$214,280,897
Inception Date <sup>4</sup>	March 31, 2003
Redemption Shares Outstanding	5,654,868
Institutional Investors	117

### **Fund Performance**

#### **Total Fund Returns**

	Before Fees	After Fees
Third Quarter 2015	-5.0%	-5.3%
Trailing Four Quarters	12.0%	10.5%
Trailing Three Years	18.5%	17.1%
Return Since Inception	3.1%	1.7%

## **Property Information**

#### Diversification/Occupancy

	Real Estate Investments	Gross Real Estate Value (millions)	Percent of Value	Quarter-end Occupancy <sup>5</sup>
Retail	2	\$149.2	45%	97%
Office	11	127.4	38%	69%
Industrial	7	32.6	10%	88%
Development/ Land/Other	4	23.5	7%	N/A
Total	24	\$332.7	100%	81%

Note: Property diversification by type and geographic location based on gross real estate value and primary use of assets.



Source: Deutsche Asset & Wealth Management



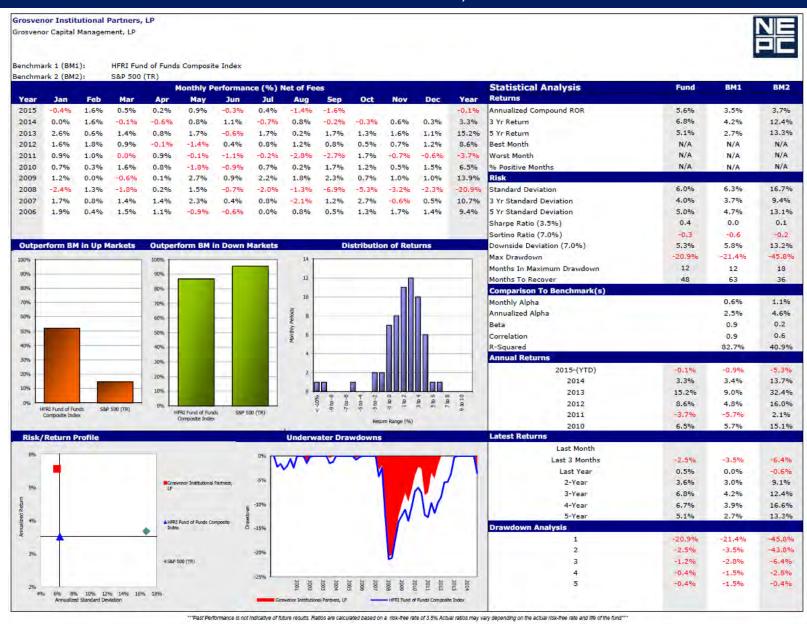
### Grosvenor Institutional Partners, LP

-Generating consistent returns with low volatility and avoiding capital losses and headline risk, is the overall investment philosophy duly embedded in the business ethos of the firm. In enacting this philosophy, Grosvenor consciously pursues proven fundamentally driven strategies that are relatively liquid and have historically maintained a low correlation to traditional markets. However, Grosvenor avoids Macro/CTAs and some leveraged strategies. Low correlation and low volatility would necessarily imply a low equity beta (currently 0.2) Returns are targeted at T bills +5-10% with volatility in 6-7% range. It fears posting mediocre returns of 2-3% suggesting that Grosvenor values top line performance as much as managing volatility.

-Broadly speaking, the GIP portfolio can be visualized as 45% Long/Short equity, 40% fixed income and 15% opportunistic. Currently, the strategy allocation stands as: Equity Hedge 44%, Long/Short credit (incl. structured credit and distressed) 32%, Relative Value/Arbitrage 7%, Risk Arbitrage & Diversified Event 6%, Macro-oriented/vol. arbitrage and tail risk strategies 3%, Cash 8%.

-Grosvenor follows a conventional portfolio construction process which begins by setting investment objectives -returns, volatility and correlation estimatesand strategy constraints and manager limits. Concurrently, the investment committee outlines its broad investment themes in the context of a bigger opportunity set.

### Grosvenor Institutional Partners, LP









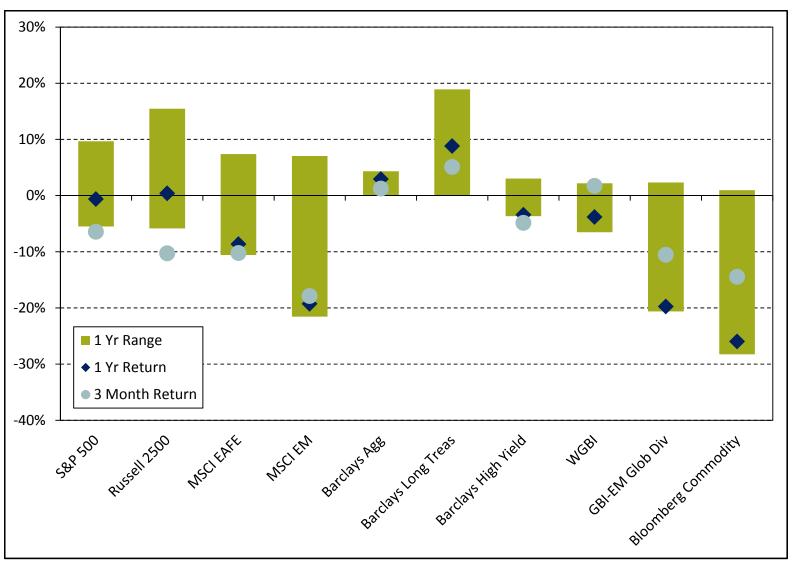
## Index Performance Summary as of 9/30/2015

	2008	2009	2010	2011	2012	2013	2014	Q1	Q2	JUL	AUG	SEPT	Q3	YTD
Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	1.0%	-0.9%	0.7%	0.2%	0.7%	1.7%	1.8%
Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.3%	-0.7%	0.5%	0.0%	0.7%	1.1%	1.7%
Credit Suisse Lev Loan	-28.8%	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	2.1%	0.8%	0.1%	-0.7%	-0.7%	-1.2%	1.6%
Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	1.6%	-1.7%	0.7%	-0.1%	0.7%	1.2%	1.1%
Barclays US Gov/Cred 1-3Yr	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.6%	0.1%	0.1%	-0.1%	0.3%	0.3%	1.0%
Credit Suisse Hedge Fund	-19.1%	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	2.5%	-0.5%	0.9%	-2.0%	-1.4%	-2.5%	-0.6%
JPM EMBI Glob Div	-12.0%	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	2.0%	-0.3%	0.5%	-0.9%	-1.3%	-1.7%	-0.1%
Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-2.5%	-1.5%	0.5%	0.5%	0.8%	1.7%	-2.4%
Barclays US Gov/Cred Long	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	3.4%	-7.6%	2.2%	-0.8%	0.8%	2.2%	-2.4%
Barclays US Corp High Yield	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	2.5%	0.0%	-0.6%	-1.7%	-2.6%	-4.9%	-2.5%
Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	5.5%	-14.3%	5.9%	0.1%	1.5%	7.6%	-2.7%
FTSE NAREIT Equity REITs	-37.7%	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	4.8%	-10.0%	5.6%	-6.2%	2.9%	2.0%	-3.8%
Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	3.1%	-7.3%	1.5%	-1.3%	0.4%	0.5%	-3.9%
Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	1.6%	0.1%	1.9%	-6.0%	-2.7%	-6.8%	-5.2%
MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	4.9%	0.6%	2.1%	-7.4%	-5.1%	-10.2%	-5.3%
S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.0%	0.3%	2.1%	-6.0%	-2.5%	-6.4%	-5.3%
Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	5.2%	-0.3%	-0.2%	-5.9%	-4.5%	-10.3%	-6.0%
MSCI ACWI	-42.2%	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	2.3%	0.3%	0.9%	-6.9%	-3.6%	-9.5%	-7.0%
Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	4.3%	0.4%	-1.2%	-6.3%	-4.9%	-11.9%	-7.7%
JPM GBI-EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-4.0%	-1.0%	-2.6%	-5.4%	-3.0%	-10.5%	-14.9%
MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	2.2%	0.7%	-6.9%	-9.0%	-3.0%	-17.9%	-15.5%
Bloomberg Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-5.9%	4.7%	-10.6%	-0.9%	-3.4%	-14.5%	-15.8%
Alerian MLP	-36.9%	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-5.2%	-6.1%	-3.2%	-5.0%	-15.3%	-22.1%	-30.7%

Source: Morningstar Direct



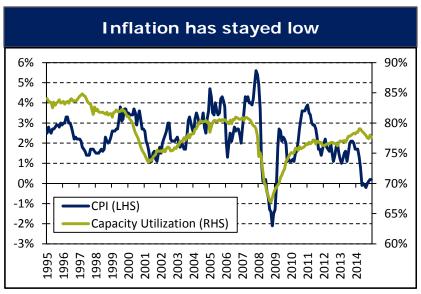
### Broad Market Performance Summary as of 9/30/2015



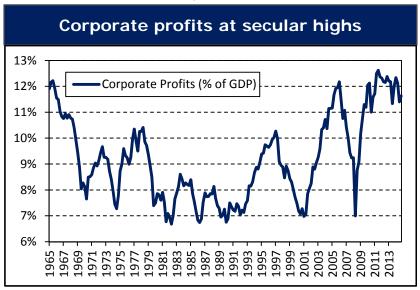
Source: Bloomberg, Standard and Poors, Russell, MSCI, Barclays, Citigroup, JP Morgan \*1 Yr Range: Represents range of cumulative high/low daily index returns for an investment made one year ago



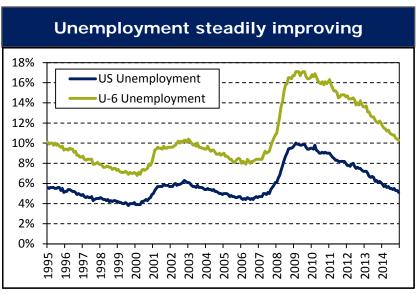
### **US** Economic Indicators



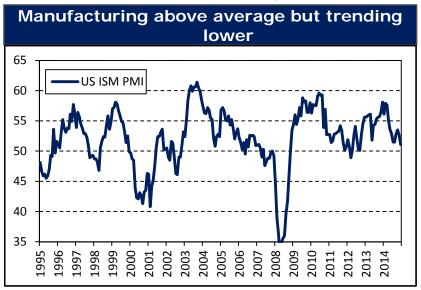
Source: Bloomberg, Federal Reserve, Bureau of Labor Statistics



Source: Bloomberg, Bureau of Economic Analysis



Source: Bloomberg, Bureau of Labor Statistics



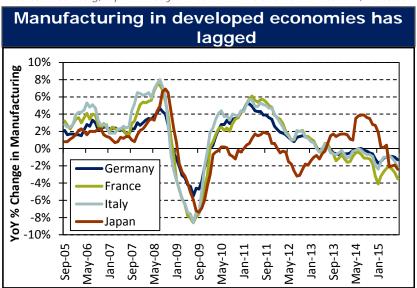
Source: Bloomberg, Institute for Supply Management



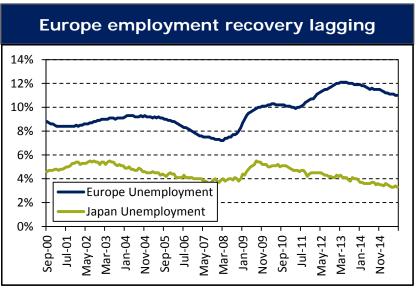
#### **International Economic Indicators**



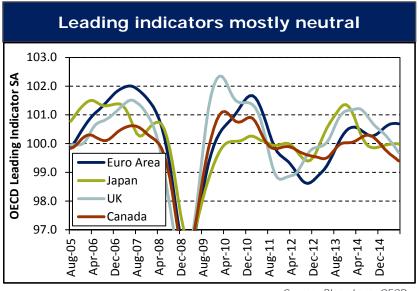
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat



Source: Bloomberg, OECD, Eurostat



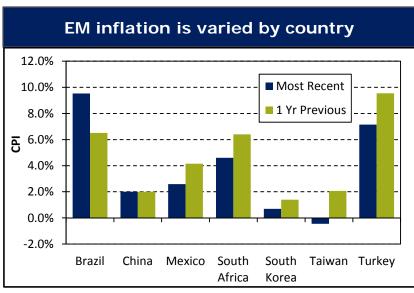
Source: Bloomberg, Japan Ministry of Internal Affairs and Communications, Eurostat



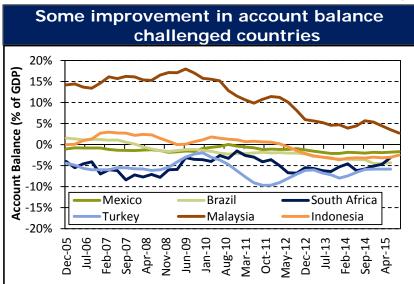
Source: Bloomberg, OECD



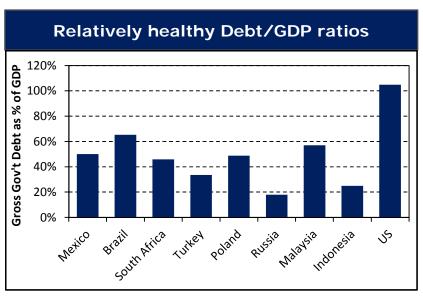
## **Emerging Market Economic Indicators**



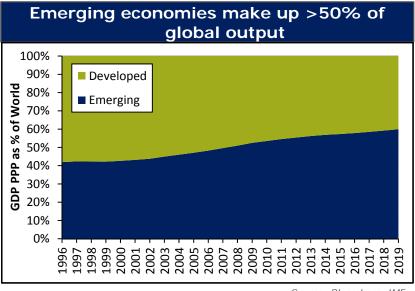
Source: Bloomberg



Source: Bloomberg



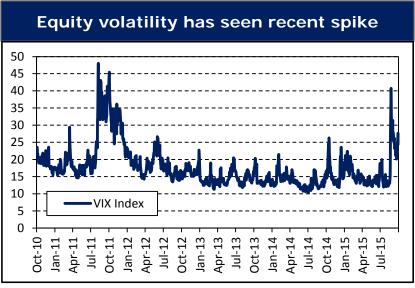
Source: Bloomberg, IMF



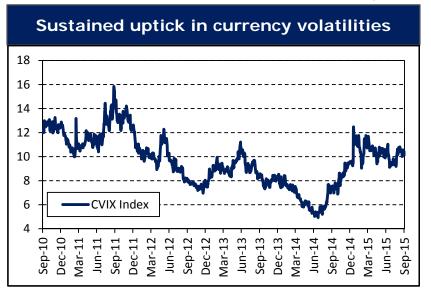
Source: Bloomberg, IMF



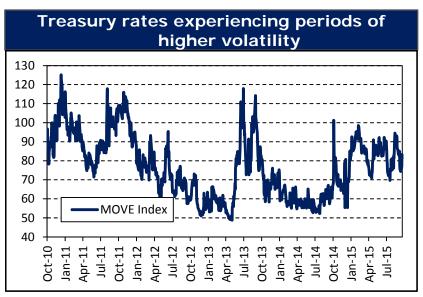
### Volatility



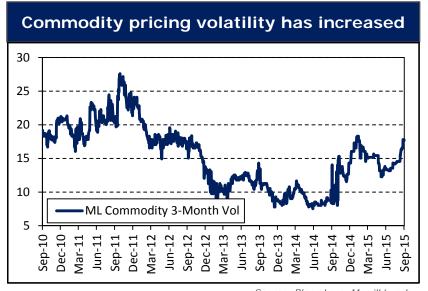




Source: Bloomberg, Deutsche Bank



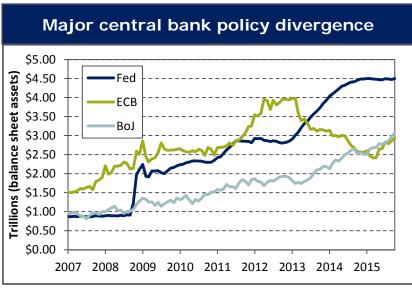
Source: Bloomberg, Merrill Lynch



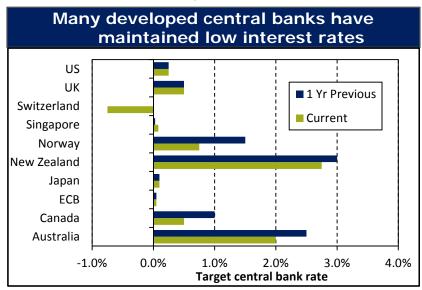
Source: Bloomberg, Merrill Lynch



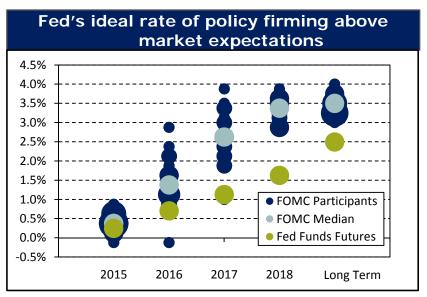
#### **Central Banks**



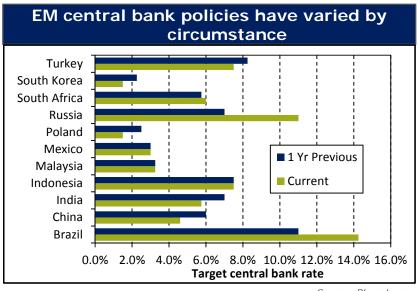
Source: Bloomberg, Federal Reserve, Bank of Japan, ECB, NEPC



Source: Bloomberg



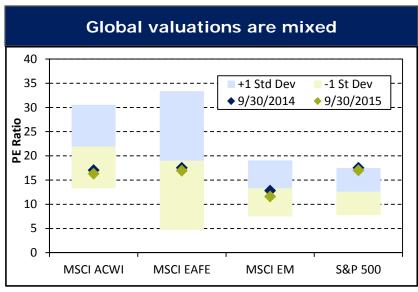
Source: Bloomberg, Federal Reserve, NEPC



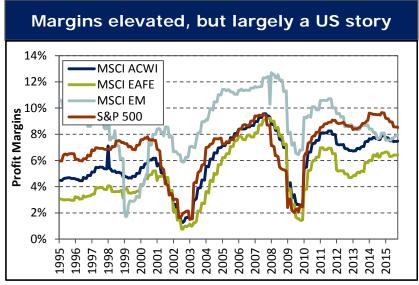
Source: Bloomberg



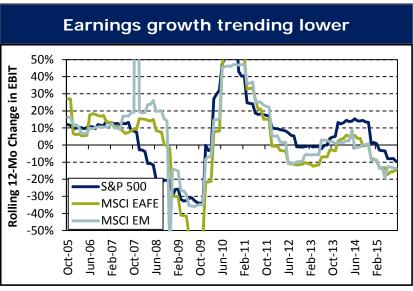
### **Global Equity**



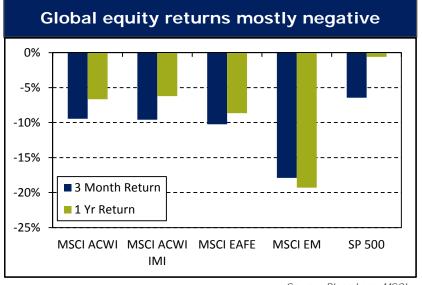
Source: Bloomberg, Standard and Poors, MSCI \*MSCI EAFE is ex UK Telecom



Source: Bloomberg, MSCI

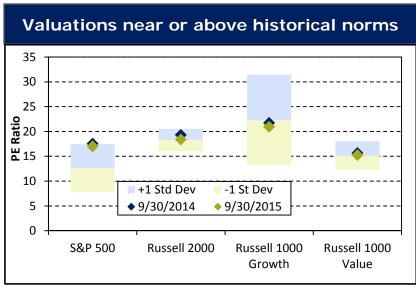


Source: Bloomberg, Standard and Poors, MSCI

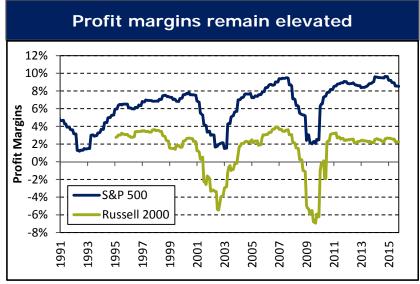


Source: Bloomberg, MSCI

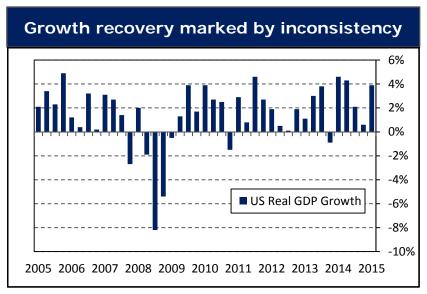




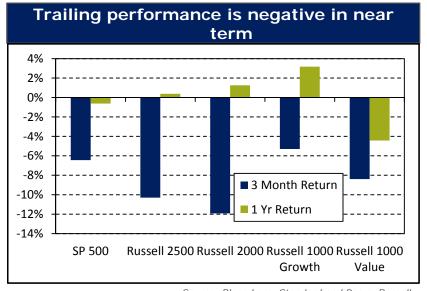
Source: Bloomberg, Standard and Poors, Russell \*Russell 2000 PE is index adjusted positive



Source: Bloomberg, Standard and Poors, Russell



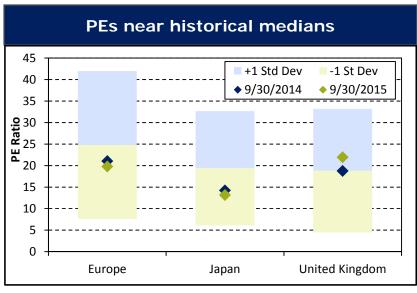
Source: Bloomberg, Bureau of Economic Analysis



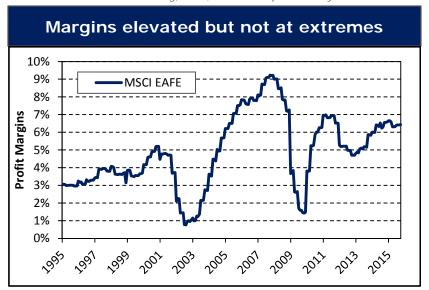
Source: Bloomberg, Standard and Poors, Russell



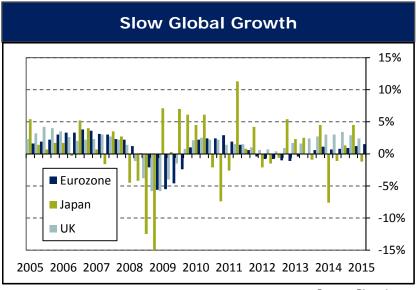
## **International Equity**



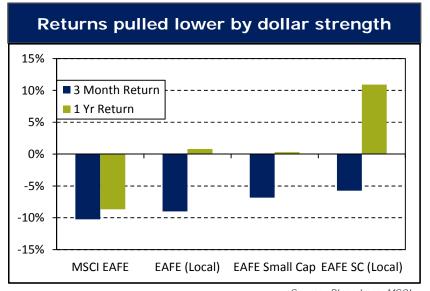








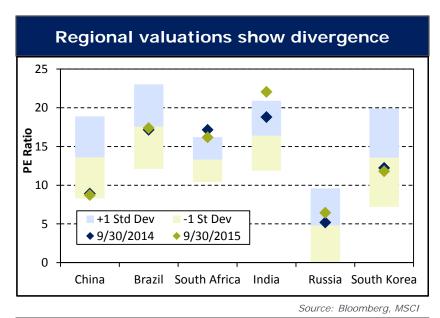
Source: Bloomberg

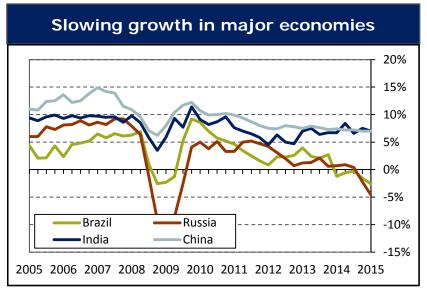


Source: Bloomberg, MSCI



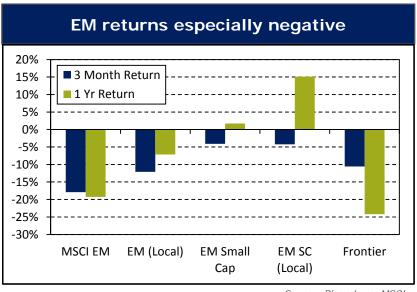
### **Emerging Markets Equity**





Source: Bloomberg

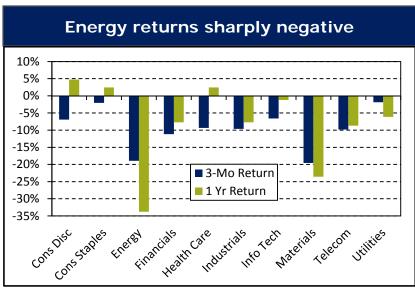




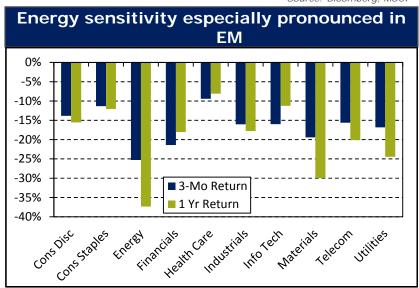
Source: Bloomberg, MSCI



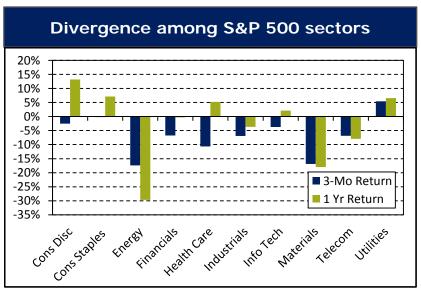
### **Global Equity by Sector**



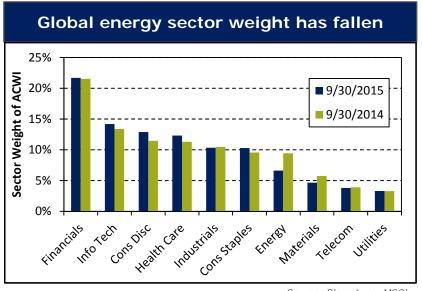




#### Source: Bloomberg, MSCI



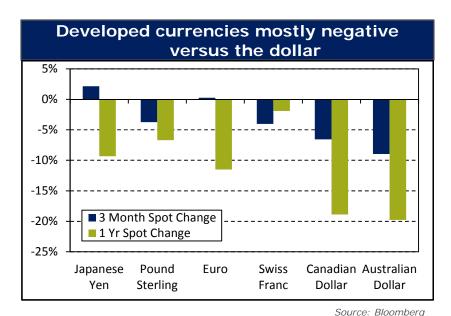
Source: Bloomberg, Standard and Poors

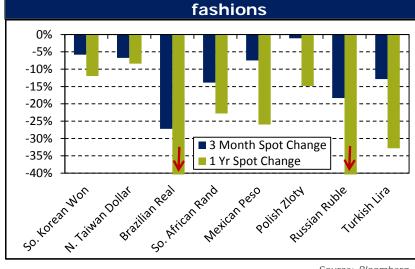


Source: Bloomberg, MSCI



#### Currencies

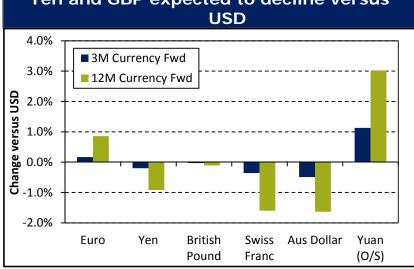




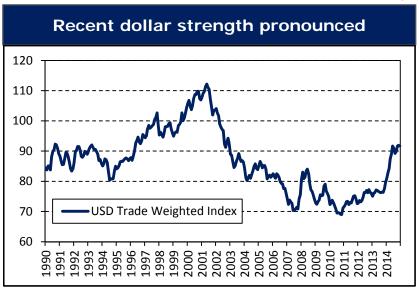
EM currencies have suffered in unique

Source: Bloombera





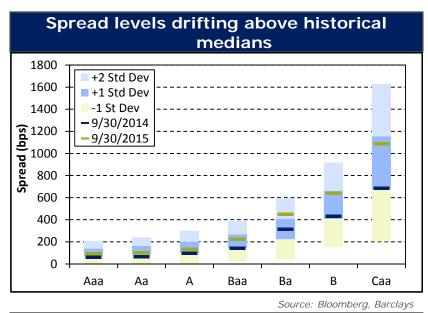
Source: Bloomberg

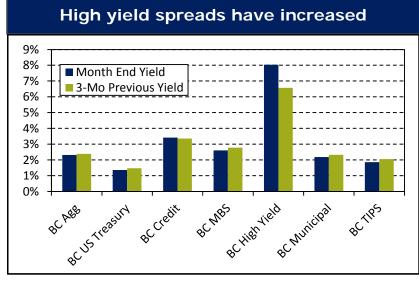


Source: Bloomberg, Federal Reserve



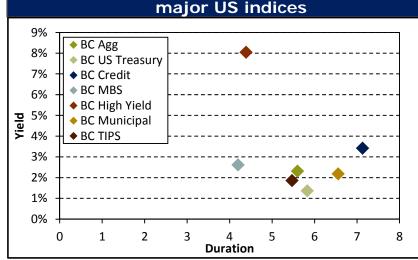
#### **US Fixed Income**



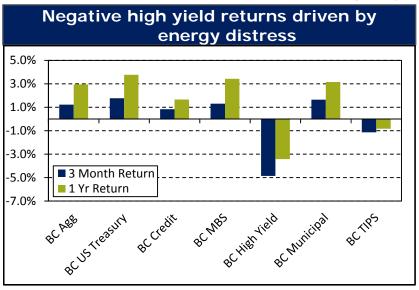


Source: Bloomberg, Barclays





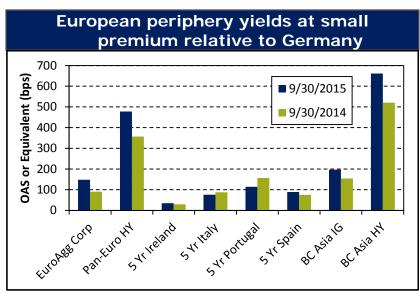




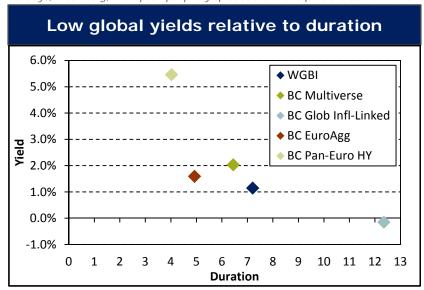
Source: Bloomberg, Barclays



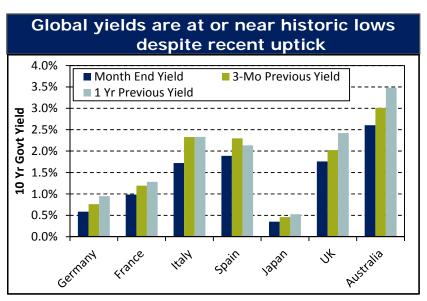
#### International Developed Fixed Income



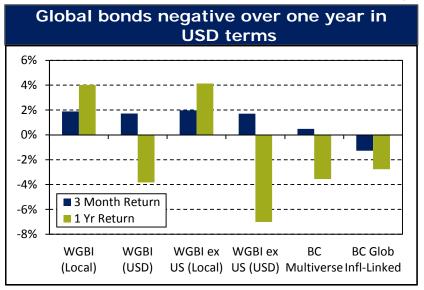




Source: Bloomberg, Citigroup, Barclays



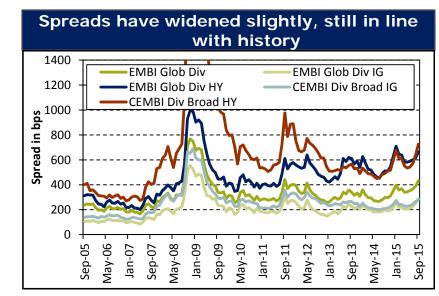
Source: Bloomberg



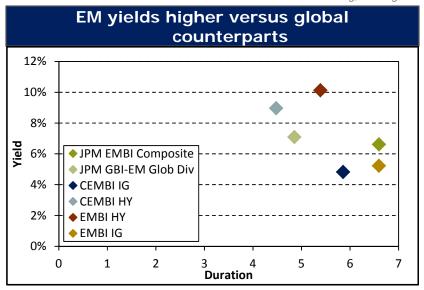
Source: Bloomberg, Citigroup, Barclays



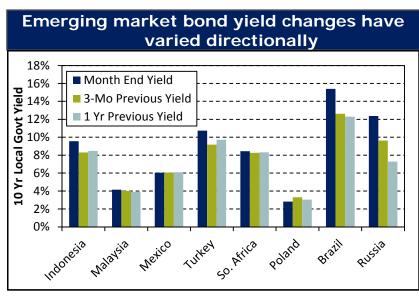
### **Emerging Markets Fixed Income**



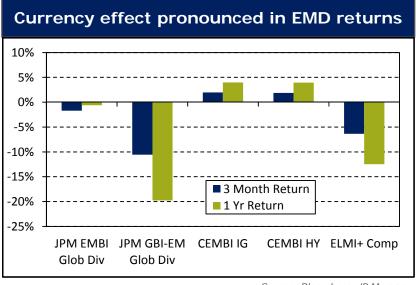




Source: Bloomberg, JP Morgan

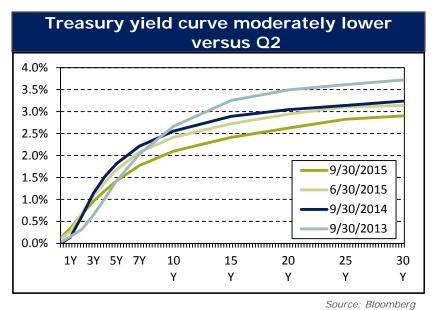


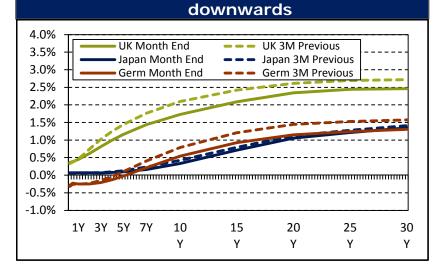
Source: Bloomberg



Source: Bloomberg, JP Morgan

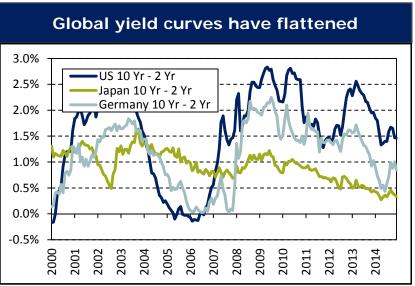


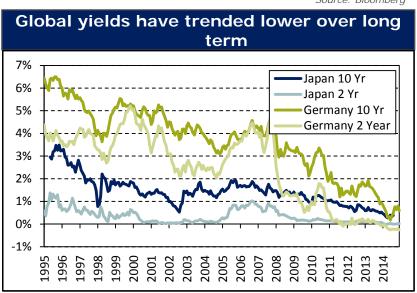




German and UK curves have shifted

Source: Bloomberg





Source: Bloomberg

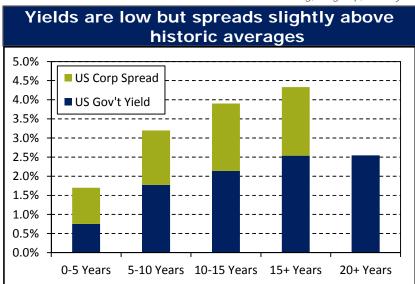


Source: Bloomberg

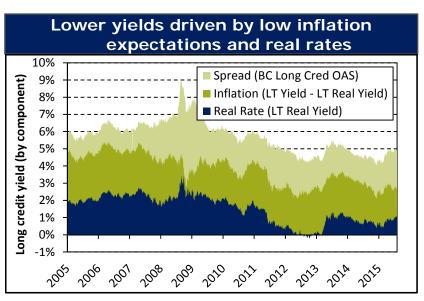
#### Long Rates and Liability

#### Long duration yields have fallen over last few years even with recent uptick 7% 6% 5% 4% 3% Citigroup Pension Liability Index 2% BC Long Credit BC 20-30 Yr STRIPS 1% Apr-13 Apr-11 Aug-11 Apr-12 **Dec-12**

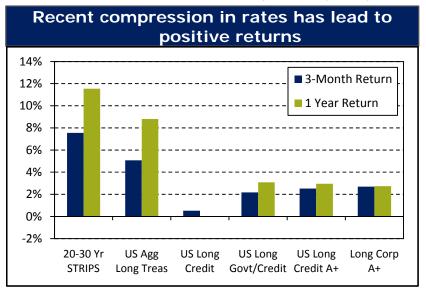
Source: Bloomberg, Citigroup, Barclays



Source: Bloomberg, BofA Merrill Lynch, Barclays \*No index for 20+ year corporate



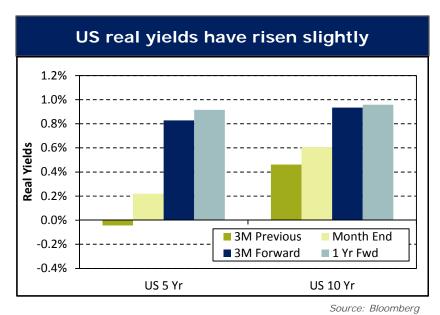
Source: Bloomberg, US Treasury, Barclays, NEPC

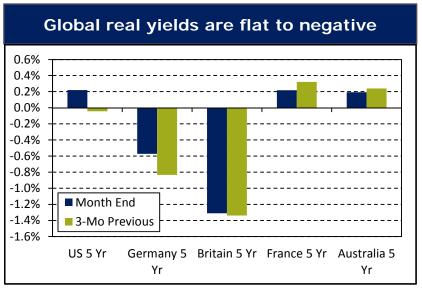


Source: Bloomberg, Barclays

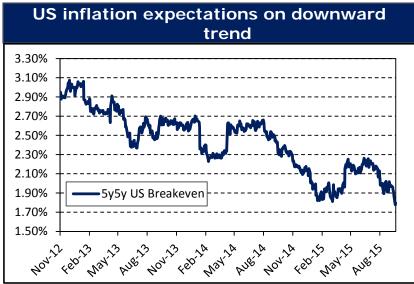


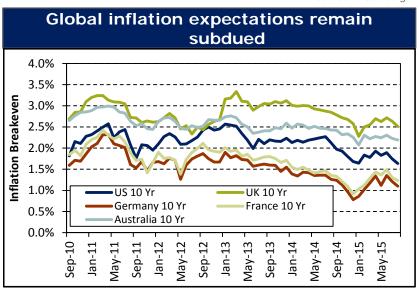
#### Inflation and Real Rates





Source: Bloomberg



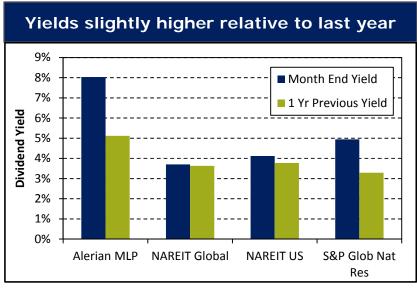


Source: Bloomberg

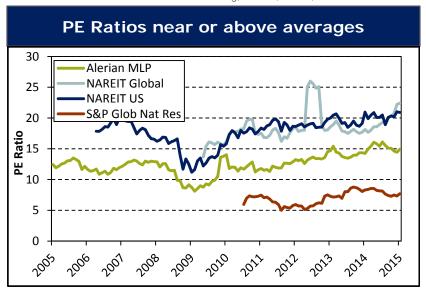


Source: Bloomberg

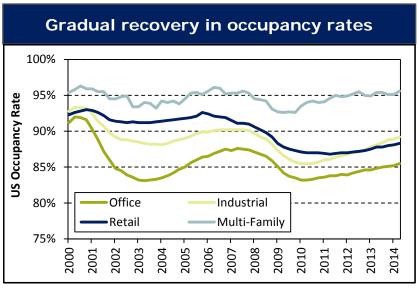
#### **Inflation Sensitive Growth Assets**



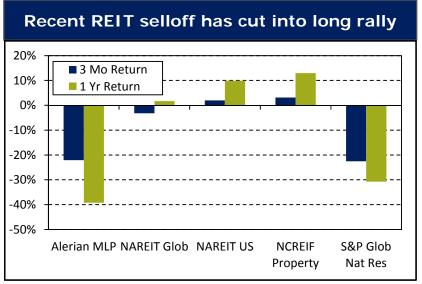




Source: Bloomberg, US Census Bureau



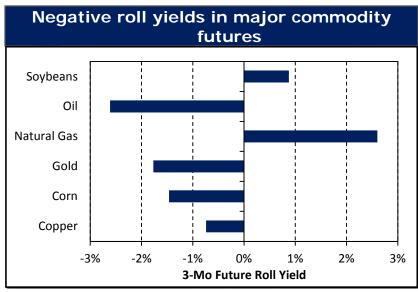
Source: Bloomberg, CB Richard Ellis



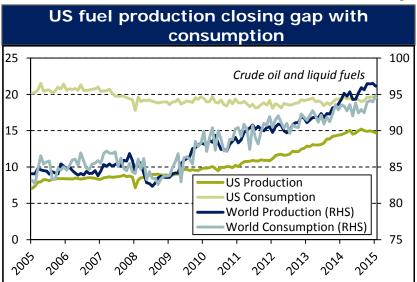
Source: Bloomberg, Alerian, Nareit, Standard and Poors



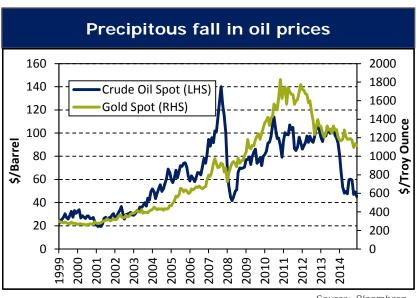
#### Commodities



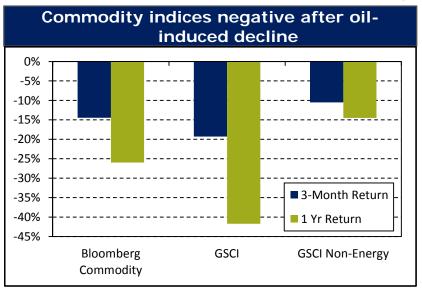




Source: Bloomberg, US Department of Energy \*Crude oil and liquid fuels



Source: Bloombera



Source: Bloomberg, Standard and Poors



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

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

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

Measurement	Description	Equation
Allocation Effect	Measure the effects of overweighting or underweighting managers and asset classes.	= (Actual Manager Weight - Policy Target Weight) X Policy Index Return
Selection Effect	Measures the managers' ability to add excess return relative to the policy index.	= (ACTUAL MANAGER RETURN -INDEX RETURN) X POLICY TARGET WEIGHT
Interaction Effect	Measures the cross correlation of both selection and allocation affects and is often referred to as an "error term".	= (ACTUAL MANAGER RETURN X (ACTUAL MANAGER WEIGHT - POLICY TARGET WEIGHT)) - ((MANAGER WEIGHT - POLICY TARGET WEIGHT) X INDEX RETURN)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

**Derivative Instrument**<sup>3</sup> - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

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

#### Formula:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



### Glossary of Investment Terminology—Risk Statistics

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

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

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

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

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

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

#### Formula:

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

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

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

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

#### Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) \* 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills) **Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

#### Formula:

(Annualized Return of Portfolio – Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)

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

#### Formula:

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

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

#### Formula:

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

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

 $\label{eq:upsideCapture} UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) \ when \ Period \ Benchmark \ Return \ is \ > \ = \ 0$ 

DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Benchmark <0

Data Source: InvestorForce



# Information Disclaimer and Reporting Methodology

#### **Information Disclaimer**

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to
  ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank.
   Information on market indices and security characteristics is received from other 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.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
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#### **Reporting Methodology**

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

