



# **Vermont Pension Investment Committee**

Fourth Quarter 2014 Investment
Performance Analysis
(Part I - Total Fund Performance)

Richard M. Charlton, Chairman and CEO Christopher Levell, ASA, CFA, CAIA, Partner Douglas Moseley, Partner Benjamin Pittsley, Analyst

# Table of Contents

NEPC Update	1
2015 Observations & Actions	2
State Teachers' Retirement System	3
State Employees' Retirement System	4
State Municipal Employees' Retirement System	5
City of Burlington	6
VPIC Allocation Comparison	7
Manager Characteristics	8
Appendix	9





# Highlights of Fourth Quarter Happenings at NEPC

# NEPC Research Recent White Papers Posted

- Improving Asset Allocation with Factor Analysis (November 2014) - Mark Cintolo, CAIA, Research Consultant
- Improving Governance Under an OCIO Structure (October 2014) - Steven Charlton, CFA, Director of Consulting Services
- NEPC 2014 Defined Contribution Plan & Fee Survey: What Plan Sponsors Are Doing Now (October 2014) - Ross Bremen, CFA, Partner; Dan Beaton, Senior Analyst



### **Professional Staff Updates**

- New Partner: Sean Ruhmann, Partner, Director of Real Assets Research
- New Principals: Jeffrey Mitchell, CFA, CAIA, Principal, Senior Consultant; Terri Sacramone, SPHR, Principal, Senior Human Resources Manager; and Michael Sullivan, Principal, Senior Consultant
- We are also please to announch that Daniel Hennessy has joined NEPC as a Senior Consultant located in our Redwood City, CA office. Daniel will be focusing on Taft-Hartley and Public Funds in the West.

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

- 2015 Market Outlook Webinar—January 22, 2015 at 3:00 PM EST
- NEPC's 20th Annual Client Conference—May 19-20, 2015 in Boston at the Boston Convention & Exhibition Center (BCEC)

#### **NEPC Gives Back**

A team of NEPC employees participated in Movember once again this year. Movember is a global men's health charity requiring each 'Mo Bro' to sport a well-groomed mustache during the entire month of November to raise funds and awareness for men's prostate cancer, testicular cancer, and mental health. The team raised about \$20,000 this year and ranked #49 nationally! Additionally, NEPC employees participated in Lee National Denim Day once again this year and raised \$1,745. Lee National Denim Day is a fundraiser that takes place in October and was created by Lee Jeans to support the American Cancer Society's breast cancer programs.

#### **NEPC Client Recognitions**

Several of NEPC's clients were recognized by CIO Magazine recently. First, the October 2014 issue of CIO Magazine ranked the Power 100 CIOs, which included Tim Barrett, CIO of Texas Tech University System (#59), and Don Pierce, CIO of San Bernardino County Employees' Retirement Association (#61). Next, several NEPC clients were nominated for the CIO 2014 Industry Innovation Awards. Additionally, NEPC's client SBCERA was nominated for an Investor Intelligence Award in 'Portfolio Design'.



# 2015 Observations & Actions



## NEPC 2015 Focused Actions for Public Funds

# Rethink fixed income portfolio structure in light of current market environment

- Use of an unconstrained/multi-sector fixed income portfolio may provide sound diversification and enhanced liquidity
- Examine if alternatives are available to traditional portfolio positions (e.g., combining cash and long treasuries vs. holding core bond portfolio)

## Review inflation hedging allocations in light of recent market action

Some areas have likely sold off more than is warranted

## Consider market weight or slightly over-weighted target allocation to developed non-U.S. equity

 Consider reducing the risk of the position by allocating to a currency hedged portfolio or implementing a currency hedge overlay

## Remain committed to emerging markets

- Establish (at least) a market weight long-term target allocation (equity and debt) and rebalance toward targets
- High conviction, active managers will be essential for successful implementation



## NEPC 2015 Capital Market Observations

#### Protracted bull market, slow growth, and low interest rates persist

- Cautious optimism for US economy, but length and strength of rally warrants inquiry
- Negative real interest rates have supported elevated valuations and low volatility
- Investor complacency, coupled with lower liquidity, may leave market more vulnerable

## Global monetary policies and capital markets continue to diverge

- The US successfully navigated the end of quantitative easing in 2014, while Europe pondered and Japan pursued further aggressive monetary policy
- Regional equity market valuation divergence grew as US P/E ratios expanded

## The US economy shows strength relative to other developed markets

- Improving labor markets, increasing confidence, and expected rise in interest rates are supportive of a stronger dollar, which has been a headwind for foreign exposures
- Meaningful structural reform and continued aggressive monetary policy are required in Europe & Japan to propel assets higher

## Fed rate hikes are on the horizon but markets expect a slow pace

- High US growth may spur accelerated hike, decoupling rates from market expectations
- Fed tightening is a first step in a multi-year policy normalization process

## Emerging Market fatigue tangible; low valuations cannot be ignored

- Short- and medium-term challenges camouflage long-term economic growth prospects
- Plummeting energy prices have potential to create challenges for certain economies



## NEPC 2015 General Actions for Clients

## Confirm alignment of portfolio positioning with long-term objectives

- Recognize investment program's tolerance to withstand short-term volatility
- Some traditional approaches, such as core bonds, suboptimal in current environment

## Balance desire for increased return with recognition of downside risks

- Barbell portfolio risk with defensive allocations to withstand range of outcomes
- Shift judiciously across and within asset classes
  - Stretched liquid credit markets make equities relatively more attractive
  - Recognize potential for non-US developed markets to react to QE programs, both continued (Bank of Japan) and potential (European Central Bank)

## Evaluate impact of expected US dollar strength on non-US allocations

- Consider strategic developed market currency hedging program to mitigate risk
- Scrutinize allocation to and implementation within emerging markets
  - Attractive fundamentals and secular trends warrant market weight at a minimum
  - Challenging country specific conditions support pursuit of bold active management

## Remain committed to high conviction active manager exposures

- Passive trends and market complacency may ignite dormant alpha opportunities
- Use non-traditional strategies with reduced constraints across markets to capitalize
  - Global equity, tactical credit strategies, GAA, liquid alternative beta, global macro

## Seek niche private strategies to mitigate challenge of high valuations

 Energy, European Real Estate, sector-focused growth equity, Asia-focused managers and select direct lending markets all provide compelling opportunities



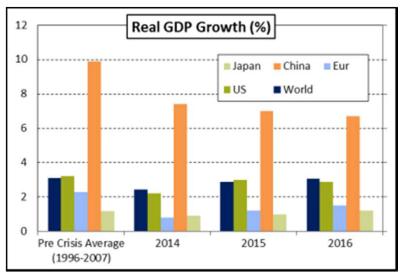
# 5-7 Year Returns Commensurate with Growth; Near-Term Strength Can Persist

## Global growth forecasts low but approaching pre-crisis levels with less reliance on China

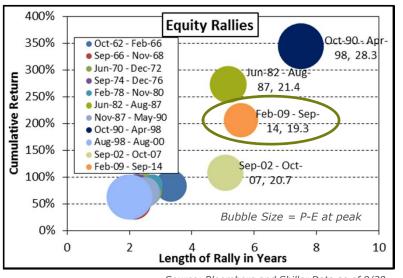
- Absolute figures projected to improve for the US and World
- Europe joins Japan as a drag on global growth
- China expectations compress but remain quite high

## S&P rally unlikely to persist for another 5-7 years

- Low-for-longer interest rates may provide near term support for higher valuations
- Tepid growth levels challenge ability to extend outsized returns over this horizon as stimulus wanes
- While perceived tail-ends of bull markets can be false signs, the current length and magnitude is only outpaced by `82-`87 and `90-`98



Source: Bloomberg as of 11/30



Source: Bloomberg and Shiller Data as of 9/30



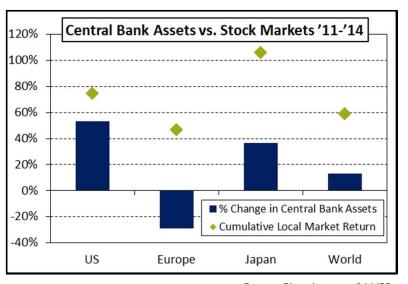
# Policy and Market Divergences Continue to Develop

## Central bank stimulus has been a key driver of market returns

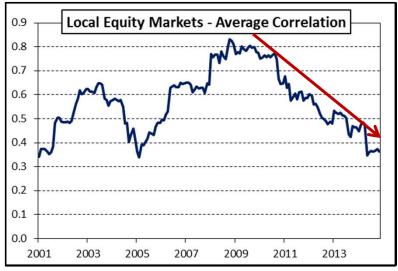
- Post crisis monetary policy was first highly stimulative, waned in 2010-2011, then resumed unevenly
- Greater stimulus led to strong *local* market returns
- Continued stimulus in Japan and Europe should be incorporated into outlook but hedging developed market currency exposure is prudent

# Policy responses have been key driver of capital market results

- Distinct economic environments across countries leads to differentiation in market returns
- Evolving monetary policies continue to diverge and likely lead to more independent capital market outcomes among countries



Source: Bloomberg as of 11/30



Source: Bloomberg as of 11/30 - Local indices consist of Australia, Europe, UK, Emerging Markets, Japan, New Zealand, US, and Canada



## Conditions Present for Elevated Growth in US; Challenges Abroad

## Fundamental growth prospects more attractive in US and China than Europe and Japan

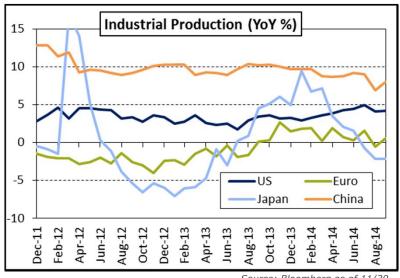
- China continues to remain elevated
- Euro zone may benefit from recent decline in the Euro and Oil

## Confidence has improved in US due to a variety of factors

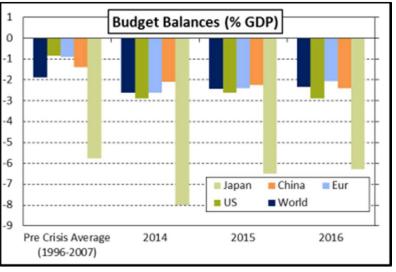
Improved job market, decline in oil and low inflation

## Fiscal situation is diverse but all major players remain more stimulative than recent history

- Japan attacking deflation from all angles; heightened fiscal spending in conjunction with monetary stimulus
- Europe, notably, expected to further shrink deficits
  - Driven by Germany (not shown) which projects a surplus
- European policy makers may need to do more



Source: Bloomberg as of 11/30



Source: Bloomberg as of 11/30



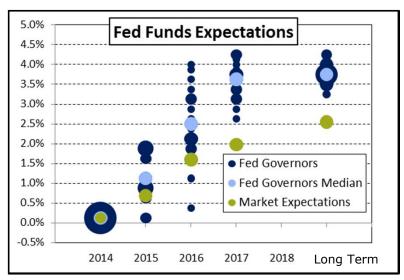
# Fed Rate Hikes Expected in 2015; Timing and Pace Are Uncertain

# Fed governors (blue dots) project higher rates over the next few years

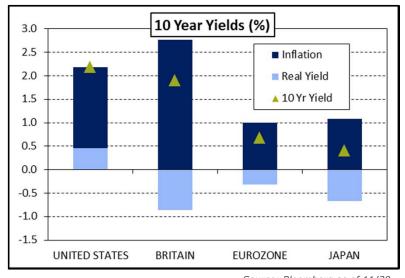
- Market expectations (green dots) are less ambitious with reality likely in-between
- Upside surprise to pace or level of interest rates supportive of higher USD; negative for US risk assets

# Low real rates suppressed by central banks, squeeze expectations for future returns

- UK, Europe & Japan all with negative 10 year real yields
- US bonds look relatively attractive in this context
- Real rates moving lower toward peers is bullish for risk assets
- Long-term normalized monetary policy could reverse the trend



Source: Bloomberg and Federal Open Market Committee as of 11/30

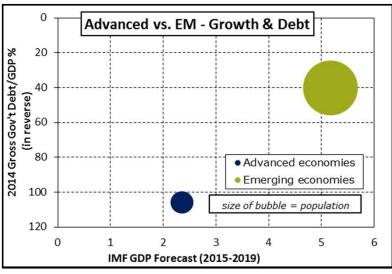


Source: Bloomberg as of 11/30

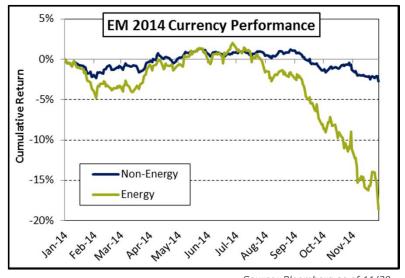


# Structural Long-Term Positives of Emerging Markets Remain; So Do Idiosyncratic Risks

- Emerging markets have higher growth and lower debt levels vs. developed markets
  - Near term risks are present as both China and commodity cycle slows
  - Strong dollar will hurt some currencies but will also aid exporters, helping EM growth
- Local currency debt offers a compelling yield but paired with heightened volatility
- Both exogenous and internal factors can drive major shifts across countries
  - Drop in energy prices in 2014 is a recent structural shift that will have a major impact on certain countries
  - Venezuela, Nigeria, Russia and several frontier countries



Source: IMF as of 10/31



Source: Bloomberg as of 11/30



# Investment Market Update: As of January 31, 2015

#### PERFORMANCE THROUGH 1/31/2015

<u>Sector</u>	<u>Index</u>	<u>2008</u>	2009	<u>2010</u>	<u>2011</u>	2012	2013	2014	<u>JAN</u>	<u>YTD</u>
Treasury STRIPS	Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	13.8%	13.8%
REITS	Wilshire US REIT	-39.2%	28.6%	28.6%	9.2%	17.6%	1.9%	31.8%	6.5%	6.5%
Long Govt/Credit	Barclays US Govt/Credit Long	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	19.3%	6.4%	6.4%
Long Credit	Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	5.2%	5.2%
Core Bonds	Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	2.1%	2.1%
Muni Bonds	Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	1.8%	1.8%
Interm Govt/Credit	Barclays US Govt/Credit Interm	5.1%	5.2%	5.9%	5.8%	3.9%	-0.9%	3.1%	1.7%	1.7%
Interm Core Bonds	Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.4%	1.4%
Govt/Credit	Barclays Govt/Credit 1-5 Yr	5.1%	4.6%	4.1%	3.1%	2.2%	0.3%	1.4%	1.0%	1.0%
High Yield	Barclays US Corp HY	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	0.7%	0.7%
Emerging Equities	MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	0.6%	0.6%
EMD USD	Barclays EM USD Agg	-14.7%	34.2%	12.8%	7.0%	17.9%	-4.1%	4.8%	0.5%	0.5%
Govt/Credit	Barclays US Govt/Credit 1-3 Yr	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.5%	0.5%
Int'l Developed	MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	0.5%	0.5%
EMD Loc	JPM GBI EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	0.3%	0.3%
Global Bonds	Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-4.0%	-0.5%	-0.3%	-0.3%
Diversified	Diversified*	-24.5%	24.1%	13.5%	1.3%	12.7%	17.6%	7.8%	-0.4%	-0.4%
Large Cap Growth	Russell 1000 Growth	-38.4%	37.2%	16.7%	2.6%	15.3%	33.5%	13.0%	-1.5%	-1.5%
SMID Cap	Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.0%	-2.0%
Small Cap Growth	Russell 2000 Growth	-38.5%	34.5%	29.1%	-2.9%	14.6%	43.3%	5.6%	-2.3%	-2.3%
Large Cap	Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	-2.7%	-2.7%
Large Cap	S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	-3.0%	-3.0%
Small Cap	Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-3.2%	-3.2%
Commodities	Bloomberg Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-3.3%	-3.3%
Large Cap Value	Russell 1000 Value	-36.8%	19.7%	15.5%	0.4%	17.5%	32.5%	13.5%	-4.0%	-4.0%
Small Cap Value	Russell 2000 Value	-28.9%	20.6%	24.5%	-5.5%	18.1%	34.5%	4.2%	-4.2%	-4.2%

\* 35% LC, 10% SC, 12% Intl Equity, 3% Emerging Equity, 25% Core Bonds, 5% HY, 5% Global Bonds, 5% REITS



# **State Municipal Employees' Retirement System**



# Total Fund Performance Summary

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
Municipal Composite	\$530,781,809	-0.1%	95	-2.2%	97	4.4%	80	8.8%	88	8.6%	68
Policy Index		0.3%	93	-1.7%	95	3.5%	95	7.9%	95	7.1%	95
Allocation Index		0.4%	90	-1.7%	95	3.3%	96	8.0%	94	7.2%	94
InvestorForce Public DB Gross Median		1.9%		0.6%		5.8%		11.0%		9.2%	

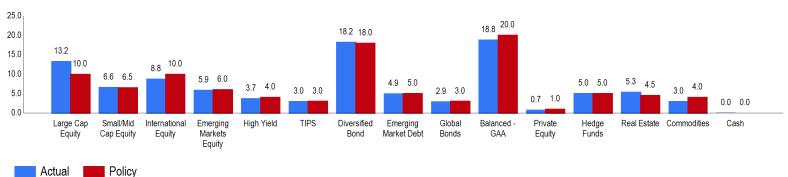
#### 3 Years Ending December 31, 2014

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	8.78%	88	6.08%	51	1.44	95	2.40	76
Policy Index	7.91%	95	5.56%	29	1.41	97	2.08	96
Allocation Index	7.97%	94	5.63%	32	1.41	97	2.01	97

#### 5 Years Ending December 31, 2014

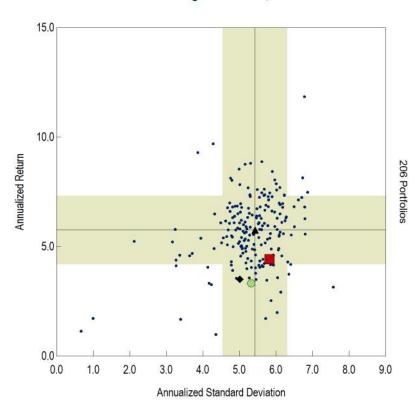
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Municipal Composite	8.62%	68	7.67%	44	1.12	67	1.78	55
Policy Index	7.15%	95	7.35%	35	0.96	93	1.56	87
Allocation Index	7 20%	94	7 46%	37	0.96	94	1.53	89

#### Actual vs Target Allocation (%)









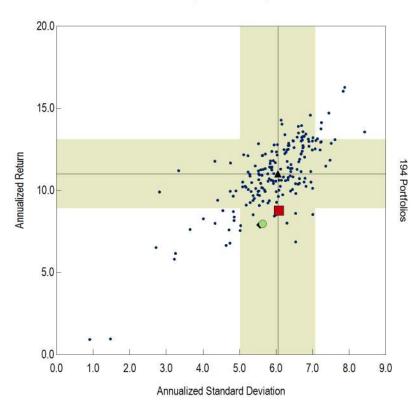
#### Municipal Composite

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

#### 1 Year Ending December 31, 2014

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	4.43%	80	5.82%	72	0.76	87
Policy Index	3.51%	95	5.01%	27	0.70	93
S&P 500	13.69%	1	8.26%		1.65	6
60% MSCI ACWI (Net)/40% CITI WGBI	2.35%	98	6.36%	94	0.37	99
Citi WGBI	-0.48%		4.50%	11	-0.11	
MSCI ACWI	4.16%	87	8.79%		0.47	98
MSCI ACWI ex USA	-3.87%		10.05%		-0.39	
InvestorForce Public DB Gross Median	5.77%		5.43%		1.09	

#### 3 Years Ending December 31, 2014

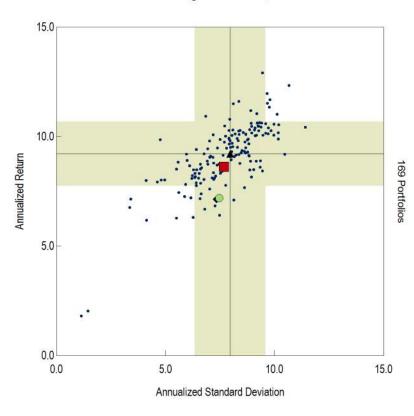


- Municipal Composite
- Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

#### 3 Years Ending December 31, 2014

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	8.78%	88	6.08%	51	1.44	95
Policy Index	7.91%	95	5.56%	29	1.41	97
S&P 500	20.41%	1	9.10%		2.24	5
60% MSCI ACWI (Net)/40% CITI WGBI	7.96%	94	7.22%	95	1.10	99
Citi WGBI	-0.97%		4.34%	6	-0.24	
MSCI ACWI	14.10%	3	10.64%		1.32	98
MSCI ACWI ex USA	9.00%	87	12.99%		0.69	
InvestorForce Public DB Gross Median	11.02%		6.05%		1.84	



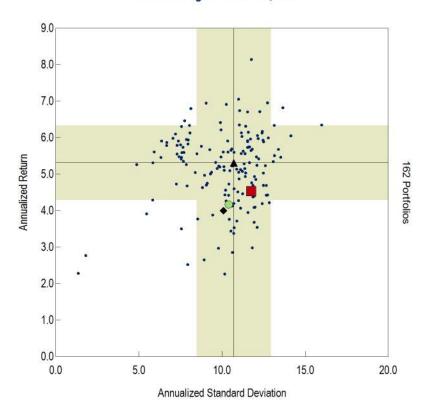


5 Years	<b>Ending</b>	<b>December</b>	31,	2014
---------	---------------	-----------------	-----	------

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	8.62%	68	7.67%	44	1.12	67
Policy Index	7.15%	95	7.35%	35	0.96	93
S&P 500	15.45%	1	13.00%		1.18	44
60% MSCI ACWI (Net)/40% CITI WGBI	6.35%	98	9.69%	92	0.65	
Citi WGBI	1.67%		5.31%	6	0.30	
MSCI ACWI	9.17%	53	14.57%		0.62	
MSCI ACWI ex USA	4.43%		16.51%		0.26	
InvestorForce Public DB Gross Median	9.22%		7.96%		1.16	

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

#### 7 Years Ending December 31, 2014

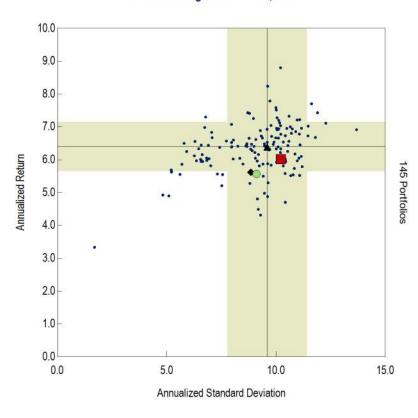


- Municipal Composite
- Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

#### 7 Years Ending December 31, 2014

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	4.54%	76	11.74%	75	0.36	84
Policy Index	4.00%	88	10.08%	37	0.37	82
S&P 500	7.27%	1	16.82%		0.42	68
60% MSCI ACWI (Net)/40% CITI WGBI	3.27%	96	12.51%	91	0.24	99
Citi WGBI	3.07%	96	7.05%	7	0.40	73
MSCI ACWI	2.72%	98	18.90%		0.13	-
MSCI ACWI ex USA	-0.63%		21.26%		-0.04	
InvestorForce Public DB Gross Median	5.32%		10.70%		0.48	





10	Years	Ending	December	31, 2014
----	-------	--------	----------	----------

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Municipal Composite	6.02%	69	10.21%	72	0.45	82
Policy Index	5.62%	87	8.85%	35	0.47	75
S&P 500	7.67%	3	14.67%		0.43	89
60% MSCI ACWI (Net)/40% CITI WGBI	5.22%	94	10.92%	89	0.35	99
Citi WGBI	3.08%		6.61%	12	0.25	
MSCI ACWI	6.09%	64	16.53%		0.28	
MSCI ACWI ex USA	5.13%	94	18.83%		0.20	
InvestorForce Public DB Gross Median	6.39%		9.59%		0.54	

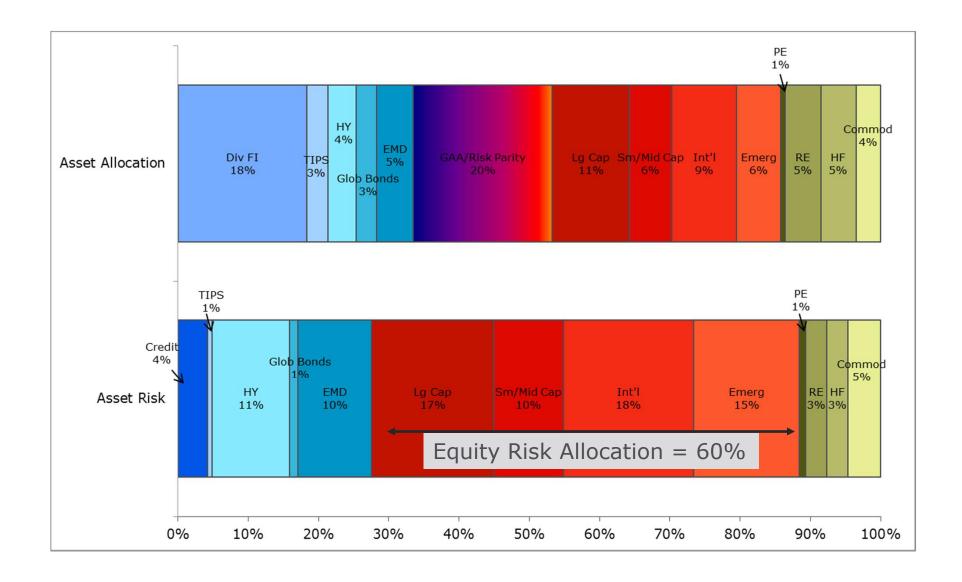
- Municipal Composite
- Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

# Total Fund Asset Allocation vs. Policy Targets

Policy	Current	Actual	A	sset Allocation vs. Target			
				Current	Policy	Current	Difference*
10.0%		40.00	Large Cap Equity	\$70,291,210	10.00%	13.24%	3.24%
10.00	13.2%	13.8%	Small/Mid Cap Equity	\$34,788,592	6.50%	6.55%	0.05%
			International Equity	\$46,456,186	10.00%	8.75%	-1.25%
6.5%		6.6%	Emerging Markets Equity	\$31,081,641	6.00%	5.86%	-0.14%
	6.6%		High Yield	\$19,745,537	4.00%	3.72%	-0.28%
10.0%		11.0%	TIPS	\$15,694,587	3.00%	2.96%	-0.04%
10.070	8.8%	11.576	Diversified Bond	\$96,832,465	18.00%	18.24%	0.24%
-			Emerging Market Debt	\$26,247,206	5.00%	4.95%	-0.05%
6.0%	5.9%	7.5%	Global Bonds	\$15,167,450	3.00%	2.86%	-0.14%
4.0%		4.5%	Balanced - GAA	\$99,600,191	20.00%	18.76%	-1.24%
3.0%	3.7%	4.1%	Private Equity	\$3,819,651	1.00%	0.72%	-0.28%
0.070	3.0%	11.170	Hedge Funds	\$26,620,775	5.00%	5.02%	0.02%
			Real Estate	\$28,373,328	4.50%	5.35%	0.85%
18.0%			Commodities	\$15,878,462	4.00%	2.99%	-1.01%
18.0%	18.2%	22.8%	Cash	\$184,529		0.03%	0.03%
			Total	\$530,781,809	100.00%	100.00%	
			*Difference between Policy and Current Allocation				
5.0%	4.9%	6.3%					
3.0%	302-012-02	5.575					
	2.9%	5.9%					
		0.7%					
		7.0%					
20.0%	18.8%	5.4%					
		4.2%					
		0.0%					
1.0%	0.7%						
5.0%	5.0%						
4.5%	5.3%						
4.0%	3.0% 0.0%						
	0.070						



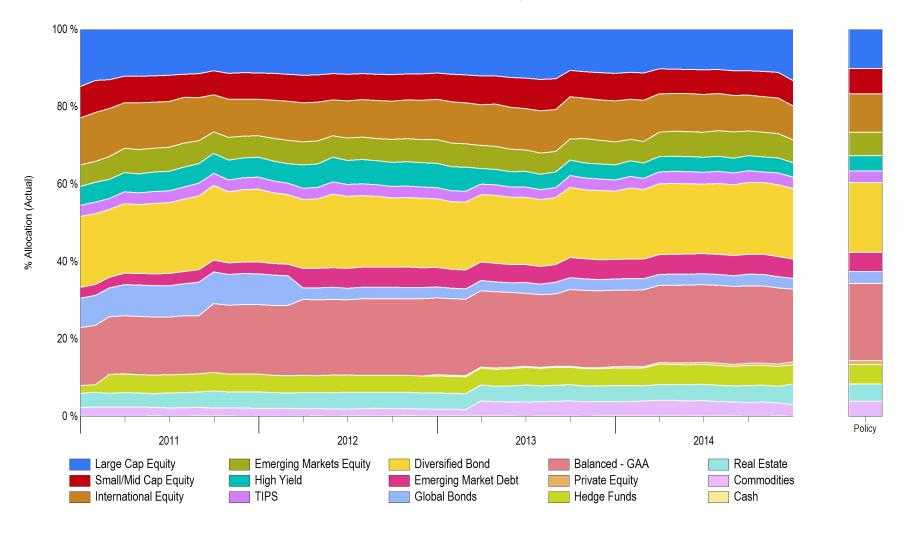
# Total Plan Performance Analysis





# Total Fund Asset Allocation History

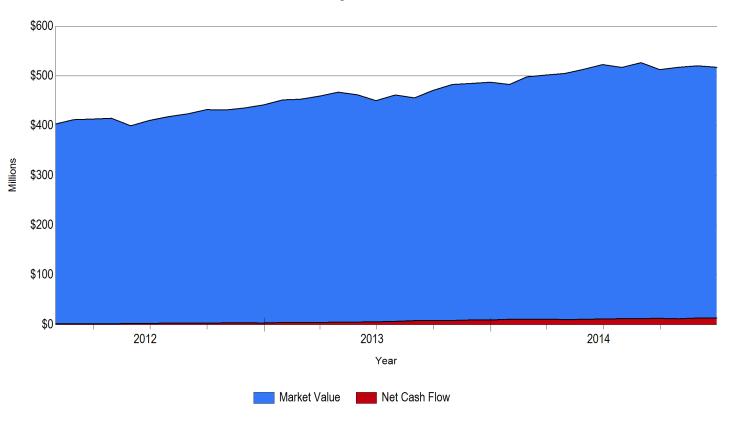
#### **Asset Allocation History**





# Total Fund Asset Growth Summary

3 Years Ending December 31, 2014



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$512,639,692	\$522,918,152	\$487,442,451	\$387,418,022
- Withdrawals	-\$19,520,794	-\$21,911,621	-\$37,489,814	-\$135,273,037
+ Contributions	\$20,163,056	\$23,546,227	\$41,380,184	\$148,458,170
= Net Cash Flow	\$642,262	\$1,634,606	\$3,890,370	\$13,185,132
+ Net Investment Change	\$4,156,998	-\$7,113,806	\$26,106,131	\$116,835,798
= Ending Market Value	\$517,438,952	\$517,438,952	\$517,438,952	\$517,438,952



# Total Fund Asset Growth Summary by Manager

#### Quarter Ending December 31, 2014

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Aberdeen	\$32,806,658	-\$63,736	\$63,736	\$0	-\$1,725,017	\$31,081,641
Acadian	\$19,716,189	-\$24,564	\$524,564	\$500,000	-\$561,281	\$19,654,908
Allianz Structured Alpha	\$13,395,910	-\$63,541	\$0	-\$63,541	\$692,400	\$14,024,769
AQR Global Risk Premium	\$41,367,175	-\$1,541,334	\$41,334	-\$1,500,000	-\$657,001	\$39,210,174
BlackRock TIPS	\$15,705,983	-\$1,503,051	\$1,503,051	\$0	-\$11,396	\$15,694,587
Champlain	\$10,685,004	-\$21,712	\$21,712	\$0	\$542,283	\$11,227,287
GAM	\$5,494,275	\$0	\$0	\$0	-\$12,248	\$5,482,027
Grosvenor	\$10,568,669	\$0	\$0	\$0	\$55,592	\$10,624,261
Guggenheim	\$15,232,590	-\$18,702	\$18,702	\$0	-\$235,558	\$14,997,033
Harbourvest Dover VIII Fund	\$1,203,842	\$0	\$322,634	\$322,634	\$91,897	\$1,618,373
Harbourvest Partners IX Buyout Fund	\$816,874	\$0	\$140,470	\$140,470	\$54,631	\$1,011,975
Harbourvest Partners IX Credit Opportunities	\$137,906	\$0	\$40,964	\$40,964	\$6,447	\$185,318
Harbourvest Partners IX Venture Fund	\$805,766	-\$41,881	\$103,477	\$61,597	\$68,338	\$935,701
HIPEP VII		\$0	\$68,284	\$68,284	\$0	\$68,284
KDP	\$4,763,058	-\$7,464	\$7,464	\$0	-\$14,553	\$4,748,505
Mellon Dynamic Growth	\$10,243,010	-\$17,178	\$17,178	\$0	\$541,376	\$10,784,386
Mondrian	\$20,586,052	-\$19,438	\$19,438	\$0	-\$907,473	\$19,678,580
Mondrian GFI	\$15,436,158	-\$12,141	\$12,141	\$0	-\$268,708	\$15,167,450
Morgan Stanley Prime Property	\$10,019,940	-\$33,919	\$0	-\$33,919	\$2,741,849	\$12,727,870
Permal	\$10,633,048	\$0	\$0	\$0	-\$118,561	\$10,514,487
PIMCO All Asset	\$30,884,189	-\$68,202	\$0	-\$68,202	-\$827,585	\$29,988,402
PIMCO Core Plus	\$33,960,406	-\$24,267	\$24,267	\$0	\$544,171	\$34,504,577
PIMCO Unconstrained	\$34,438,296	-\$50,703	\$50,703	\$0	-\$22,273	\$34,416,023
RREEF America REIT III	\$2,355,940	-\$86,349	\$0	-\$86,349	\$548,439	\$2,818,030
Schroder	\$18,076,835	\$0	\$1,500,000	\$1,500,000	-\$3,698,374	\$15,878,462



# Total Fund Asset Growth Summary by Manager

#### Quarter Ending December 31, 2014

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	Ending Market Value
Siguler Guff	\$1,513,296	\$0	\$311,125	\$311,125	-\$2,121	\$1,822,299
SSgA ACWI Ex US	\$7,406,267	-\$1,337	\$1,337	\$0	-\$283,569	\$7,122,699
SSgA Russell 2000 Growth	\$7,668,081	-\$1,752	\$1,752	\$0	\$772,571	\$8,440,652
SSgA S&P 400	\$3,648,531	-\$735	\$735	\$0	\$235,565	\$3,884,096
SSgA S&P 500 Cap-Wgt	\$25,463,228	-\$1,942	\$15,013,597	\$15,011,655	-\$406,732	\$40,068,152
SSgA S&P 500 Equal-Wgt	\$13,975,182	-\$2,056	\$2,056	\$0	\$843,788	\$14,818,970
T. Rowe	\$15,247,137	-\$15,625,418	\$13,762	-\$15,611,655	\$2,425,749	\$2,061,231
Transwestern / Aslan III	\$100,427	\$0	\$0	\$0	\$0	\$100,427
UBS Trumbull	\$8,685,798	-\$29,035	\$0	-\$29,035	\$2,247,938	\$10,904,701
Vermont Cash	\$106,293	-\$240,311	\$318,547	\$78,236	\$0	\$184,529
Wellington	\$10,028,322	-\$20,025	\$20,025	\$0	\$1,208,235	\$11,236,556
Wellington DAS	\$13,162,865	\$0	\$0	\$0	\$724,231	\$13,887,097
Wellington OIF	\$19,798,866	\$0	\$0	\$0	-\$181,637	\$19,617,229
Wellington Opportunistic EMD	\$26,501,623	\$0	\$0	\$0	-\$254,418	\$26,247,206
Total	\$512,639,692	-\$19,520,794	\$20,163,056	\$642,262	\$4,156,998	\$517,438,952



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Municipal Composite	530,781,809	100.0	100.0	-0.1	95	-2.2	97	4.4	80	8.8	88	8.6	68
Policy Index				0.3	93	-1.7	95	3.5	95	7.9	95	7.1	95
Allocation Index				0.4	90	-1.7	95	3.3	96	8.0	94	7.2	94
InvestorForce Public DB Gross Median				1.9		0.6		5.8		11.0		9.2	
Large Cap Comp	70,291,210	13.2	10.0	5.2	40	5.8	45	13.7	35	21.1	38	16.2	32
S&P 500				4.9	47	6.1	38	13.7	35	20.4	50	15.5	45
eA US Large Cap Equity Gross Median				4.8		5.4		12.5		20.4		15.2	
T. Rowe	15,404,088	2.9	3.0	4.9	47	5.6	48	13.1	44	20.9	43	15.4	46
SSgA S&P 500 Cap-Wgt	40,068,152	7.5	4.0	5.0	46	6.2	37	13.7	34	20.5	49		
S&P 500				4.9	47	6.1	38	13.7	35	20.4	50	15.5	45
SSgA S&P 500 Equal-Wgt	14,818,970	2.8	3.0	6.0	21	5.4	51	14.4	25	22.3	23	17.4	11
S&P 500 Equal Weighted				6.1	20	5.4	51	14.5	24	22.4	22	17.4	11
Small/Mid Cap Comp	34,788,592	6.6	6.5	8.6	14	3.9	22	7.9	37	19.9	45	17.2	37
Russell 2000				9.7	7	1.7	51	4.9	64	19.2	53	15.5	69
eA US Small-Mid Cap Equity Gross Median				6.5		1.9		6.5		19.3		16.3	
SSgA S&P 400	3,884,096	0.7	0.5	6.4	35	2.1	66	9.7	49	20.1	52		
S&P 400 MidCap				6.3	35	2.1	66	9.8	49	20.0	52	16.5	51
eA US Mid Cap Equity Gross Median				5.7		3.3		9.3		20.2		16.6	
Champlain	11,227,287	2.1	2.0	5.1	61	3.1	53	9.1	54	19.7	57	16.9	43
Russell 2500				6.8	27	1.1	80	7.1	71	20.0	52	16.4	54
eA US Mid Cap Equity Gross Median				5.7		3.3		9.3		20.2		16.6	
Wellington	11,236,556	2.1	2.0	12.0	3	5.9	1	8.0	27	19.4	59	17.3	30
Russell 2000 Value				9.4	22	0.0	52	4.2	68	18.3	67	14.3	78
eA US Small Cap Value Equity Gross Median				7.4		0.2		5.8		19.8		16.2	
SSgA Russell 2000 Growth	8,440,652	1.6	2.0	10.1	27	3.3	44	5.6	33	20.2	48	16.8	65
Russell 2000 Growth				10.1	27	3.3	44	5.6	32	20.1	48	16.8	65
eA US Small Cap Growth Equity Gross Median				8.5		2.8		3.9		20.0		17.7	

Fiscal Year End is 6/30

Report is Gross of manager fees, except where otherwise noted.



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Int'l Equity Comp	46,456,186	8.8	10.0	-3.7	71	-10.1	79	-2.3	32	11.3	73	6.5	69
MSCI EAFE				-3.6	68	-9.2	68	-4.9	70	11.1	77	5.3	88
eA All EAFE Equity Gross Median				-2.7		-8.3		-3.7		12.8		7.3	
Acadian	19,654,908	3.7	4.0	-2.8	53	-10.5	83	-2.7	36	13.1	46	7.6	46
Mondrian	19,678,580	3.7	4.0	-4.4	83	-10.1	79	-1.6	25	10.2	87	6.0	77
MSCI EAFE				-3.6	68	-9.2	68	-4.9	70	11.1	77	5.3	88
SSgA ACWI Ex US	7,122,699	1.3	2.0	-3.8	84	-8.9	78	-3.6	62	9.3	88		
MSCI ACWI ex USA				-3.9	85	-8.9	78	-3.9	66	9.0	90	4.4	97
eA ACWI ex-US All Cap Equity Gross Median				-1.6		-6.7		-2.0		11.7		7.6	
Emerging Market Comp	31,081,641	5.9	6.0	-5.3	78	-8.5	80	-1.1	59				
Aberdeen	31,081,641	5.9	6.0	-5.3	78	-8.5	80	-1.1	59	5.6	61	6.3	20
MSCI Emerging Markets				-4.5	67	-7.8	72	-2.2	74	4.0	80	1.8	76
eA Emg Mkts Equity Gross Median				-3.6		-6.6		-0.1		6.3		3.6	
US Fixed Income	132,272,589	24.9		1.3	37	1.3	40	6.2	29				
Barclays Aggregate				1.8	19	2.0	23	6.0	33	2.7	65	4.4	59
eA All US Fixed Inc Gross Median				0.8		0.9		4.2		3.5		5.0	
Diversified Fixed	96,832,465	18.2	18.0	2.0	11	2.5	13	7.3	18	4.0	44	6.0	35
Barclays Aggregate				1.8	19	2.0	23	6.0	33	2.7	65	4.4	59
eA All US Fixed Inc Gross Median				0.8		0.9		4.2		3.5		5.0	
Allianz Structured Alpha	14,024,769	2.6	2.0	5.2	1	7.7	1	17.3	1	9.3	1	9.6	1
Citigroup 10 Year Treasury				3.6	1	4.3	1	10.7	1	2.1	96	6.1	11
PIMCO Core Plus	34,504,577	6.5	6.5	1.6	49	1.4	75	5.4	75	3.4	53	5.3	33
Barclays Aggregate				1.8	29	2.0	36	6.0	52	2.7	83	4.4	80
PIMCO Unconstrained	34,416,023	6.5	6.5	-0.1	99	0.3	98	3.0	95	2.0	97		
25% HY, 25% EMD, 50% BC Agg				0.2	99	-0.6	99	5.0	83	4.8	9	6.3	9
3-Month Libor Total Return USD				0.1	99	0.1	99	0.2	99	0.3	99	0.3	99
Wellington DAS	13,887,097	2.6	3.0	5.5	1	5.7	1	14.0	1	5.9	4	8.7	1
Wellington Custom Benchmark				4.2	1	5.2	1	13.3	1	3.1	66	6.6	5

Allianz is Net of Fees from inception to Q3 2012, and Grossed up quarterly since. Wellington DAS is Net of Fees



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
High Yield Comp	19,745,537	3.7	4.0	-1.3	65	-1.7	31	2.9	43	8.4	52	8.9	57
Barclays High Yield				-1.0	57	-2.9	59	2.5	52	8.4	50	9.0	52
eA US High Yield Fixed Inc Gross Median				-0.8		-2.6		2.5		8.4		9.1	
KDP	4,748,505	0.9	1.0	-0.3	34	-1.6	30	2.8	44	6.8	86	7.7	91
Barclays High Yield				-1.0	57	-2.9	59	2.5	52	8.4	50	9.0	52
BofA Merrill Lynch US High Yield BB-B Rated				-0.4	36	-2.0	37	3.5	27	8.1	57	8.8	61
Guggenheim	14,997,033	2.8	3.0	-1.5	71	-1.7	32	2.9	43				
Barclays High Yield				-1.0	57	-2.9	59	2.5	52	8.4	50	9.0	52
eA US High Yield Fixed Inc Gross Median				-0.8		-2.6		2.5		8.4		9.1	
TIPS	15,694,587	3.0	3.0										
BlackRock TIPS	15,694,587	3.0	3.0	-0.1		-2.2		3.5	-	0.4		4.1	
Barclays US TIPS				0.0		-2.1		3.6		0.4		4.1	
Global Fixed Income Comp	15,167,450	2.9	3.0	-1.7	73	-4.5	73	-0.7	85	-1.1	99	2.8	85
Citi WGBI				-1.5	69	-5.2	79	-0.5	82	-1.0	98	1.7	96
eA All Global Fixed Inc Gross Median				-0.7		-2.7		2.5		4.7		5.2	
Mondrian GFI	15,167,450	2.9	3.0	-1.7	73	-4.5	73	-0.7	85	-1.6	99	1.8	95
Citi WGBI				-1.5	69	-5.2	79	-0.5	82	-1.0	98	1.7	96
Emerging Market Debt	26,247,206	4.9	5.0										
Wellington Opportunistic EMD	26,247,206	4.9	5.0	-1.0	15	-2.8	29	6.1	20	6.4	27	8.1	19
JP Morgan EMBI Global TR				-1.6	25	-3.3	32	5.5	27	5.3	45	7.3	41
eA All Emg Mkts Fixed Inc Gross Median				-3.5		-6.0		1.8		4.9		6.6	
Total Real Estate	28,373,328	5.3	4.5										
Morgan Stanley Prime Property	12,727,870	2.4	2.0	4.5		8.7		15.3		15.1		15.5	
UBS Trumbull	10,904,701	2.1	2.0	3.0		6.3		11.5		10.7		12.4	
RREEF America REIT III	2,818,030	0.5	0.5	2.5		8.3		27.6		22.6		25.6	
Transwestern / Aslan III	100,427	0.0	0.0	0.0		-3.7		1.9		20.5		-2.1	
NCREIF Property Index				3.0		5.7		11.8		11.1		12.1	
NCREIF ODCE				3.3		6.6		12.5		12.4		13.9	
Siguler Guff	1,822,299	0.3		-0.1		5.3							

Wellington Opportunistic EMD is Net of manager fees Real Estate is as of Q3 2014



# Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Hedge Fund Comp	26,620,775	5.0	5.0	-0.3	68	-0.8	70	2.4	60	8.5	35	-	
eV Alt Fund of Funds - Multi-Strategy Median				0.5		0.2		3.0		6.8		4.6	
Grosvenor	10,624,261	2.0	2.0	0.5	49	0.5	46	3.4	44	8.9	30		
GAM	5,482,027	1.0	1.0	-0.2	67	-0.3	63	1.6	68	7.8	39		
Permal	10,514,487	2.0	2.0	-1.1	79	-2.3	84	1.8	66	8.3	36	-	
HFRI Fund of Funds Composite Index				0.9	42	1.2	40	3.3	44	5.7	66	3.3	72
GAA Comp	99,600,191	18.8	20.0	-1.1	67	-3.8	67	4.8	32	7.6	44	8.2	25
eA Global TAA Gross Median				0.3		-1.1		2.7		7.1		5.9	
Mellon Dynamic Growth	10,784,386	2.0	2.5	5.3	1	7.2	1	6.8	12	10.1	15	9.3	16
Mellon Dynamic Growth Benchmark				0.0	53	-2.0	56	3.5	43	8.3	38	6.6	42
AQR Global Risk Premium	39,210,174	7.4	8.0	-1.6	74	-5.0	73	8.3	5	7.2	48	10.5	10
60% MSCI World / 40% CITI WGBI				0.1	52	-2.7	59	3.1	45	9.1	28	7.3	32
PIMCO All Asset	29,988,402	5.6	5.0	-2.7	81	-5.3	74	1.7	70	6.4	57	7.4	31
PIMCO All Asset Index				0.7	49	-0.1	41	4.9	30	4.4	67	5.8	52
CPI + 5% (Seasonally Adjusted)				0.6	49	1.8	21	5.7	21	6.4	57	6.7	41
Wellington OIF	19,617,229	3.7	4.5	-0.9	64	-4.2	71	1.5	71	9.2	28	5.7	54
65% MSCI ACWI (Net) / 35% BC Agg				0.9	48	-0.6	47	4.9	30	10.1	15	7.8	29
Commodities	15,878,462	3.0	4.0										
Schroder	15,878,462	3.0	4.0	-19.1		-28.5		-23.6		-11.1		-5.2	
Bloomberg Commodity Index				-12.1		-22.5		-17.0		-9.4		-5.5	
Cash	184,529	0.0	0.0										
Vermont Cash	184,529	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		0.1	
Private Equity	3,819,651	0.7	1.0										
Harbourvest Partners IX Credit Opportunities	185,318	0.0											
Harbourvest Partners IX Venture Fund	935,701	0.2											
Harbourvest Partners IX Buyout Fund	1,011,975	0.2											
Harbourvest Dover VIII Fund	1,618,373	0.3											
HIPEP VII	68,284	0.0											

Harbourvest is based on preliminary Q4 Capital Account Statement
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

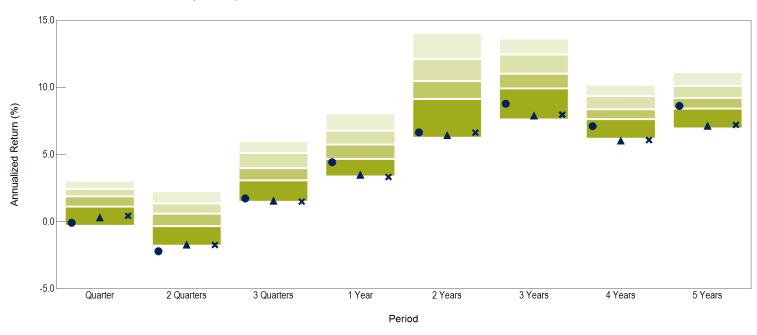
Hedge Fund Comp and Commodities are Net of Manager Fees

Wellington OIF is Net of Manager Fees



# Total Fund Return Summary vs. Peer Universe

#### Municipal Composite vs. InvestorForce Public DB Gross

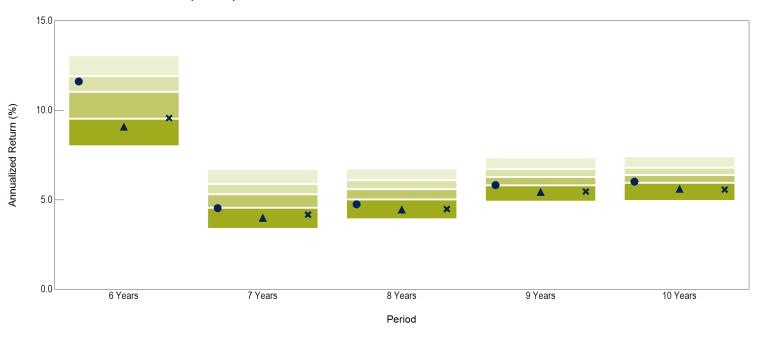


		Return (Rank)															
	5th Percentile	3.0		2.3		6.0		8.0		14.0		13.6		10.2		11.1	
	25th Percentile	2.4		1.4		5.1		6.8		12.1		12.5		9.4		10.1	
	Median	1.9		0.6		4.0		5.8		10.5		11.0		8.4		9.2	
	75th Percentile	1.1		-0.3		3.1		4.7		9.2		9.9		7.6		8.4	
	95th Percentile	-0.3		-1.8		1.5		3.4		6.3		7.6		6.2		7.0	
	# of Portfolios	215		212		211		206		202		194		176		169	
•	Municipal Composite	-0.1	(95)	-2.2	(97)	1.7	(94)	4.4	(80)	6.7	(93)	8.8	(88)	7.1	(87)	8.6	(68)
•	Policy Index	0.3	(93)	-1.7	(95)	1.6	(95)	3.5	(95)	6.4	(94)	7.9	(95)	6.0	(97)	7.1	(95)
×	Allocation Index	0.4	(90)	-1.7	(95)	1.5	(96)	3.3	(96)	6.6	(93)	8.0	(94)	6.1	(96)	7.2	(94)



# Total Fund Return Summary vs. Peer Universe

#### Municipal Composite vs. InvestorForce Public DB Gross

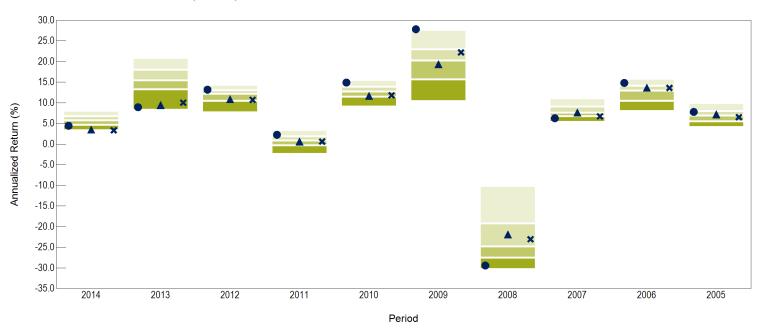


		Return (Rank)								
	5th Percentile	13.1		6.7		6.7	7.4		7.4	
	25th Percentile	11.9		5.9		6.1	6.7		6.8	
	Median	11.0		5.3		5.6	6.3		6.4	
	75th Percentile	9.5		4.6		5.0	5.8		6.0	
	95th Percentile	8.0		3.4		3.9	4.9		4.9	
	# of Portfolios	166		162		154	150		145	
•	Municipal Composite	11.6	(35)	4.5	(76)	4.8 (83	5.8	(76)	6.0	(69)
•	Policy Index	9.1	(82)	4.0	(88)	4.5 (90	5.4	(89)	5.6	(87)
×	Allocation Index	9.6	(75)	4.2	(85)	4.5 (90	) 5.5	(88)	5.6	(88)



# Total Fund Return Summary vs. Peer Universe

#### Municipal Composite vs. InvestorForce Public DB Gross

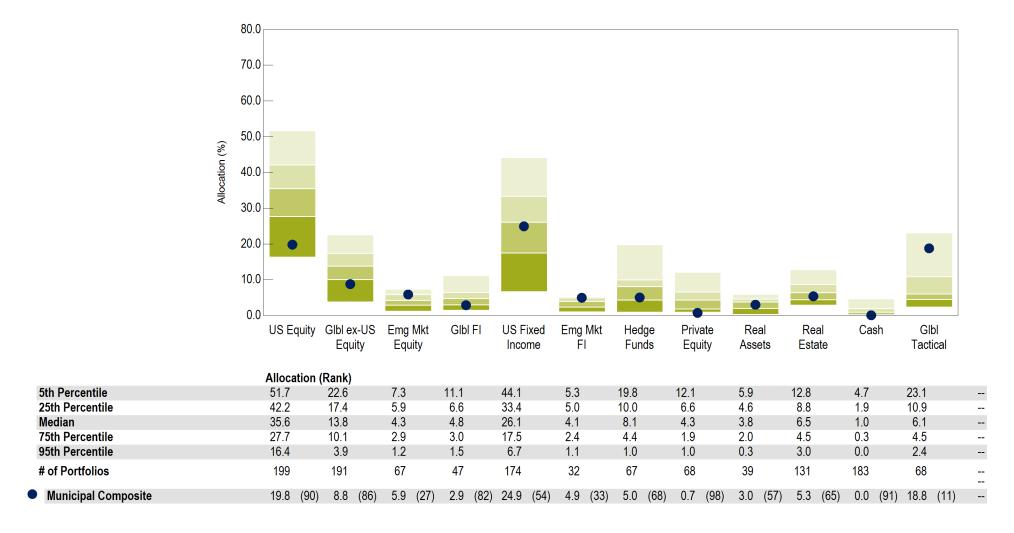


		Return (Ra	ank)																		
	5th Percentile	8.0		20.8		14.3		3.4		15.5		27.6		-10.2		11.1		15.8		9.9	
	25th Percentile	6.8		18.0		13.1		1.9		13.9		23.0		-19.2		9.1		14.2		8.1	
	Median	5.8		15.5		12.2		0.9		12.8		20.3		-24.7		7.7		13.0		6.9	
	75th Percentile	4.7		13.3		10.5		-0.3		11.5		15.7		-27.4		6.8		10.5		5.5	
	95th Percentile	3.4		8.4		7.7		-2.4		9.2		10.4		-30.2		5.4		8.0		4.2	
	# of Portfolios	206		212		192		162		154		152		149		146		136		131	
•	Municipal Composite	4.4	(80)	8.9	(93)	13.2	(24)	2.2	(17)	14.9	(12)	27.8	(5)	-29.4	(89)	6.3	(85)	14.8	(17)	7.8	(32)
<b>A</b>	Policy Index	3.5	(95)	9.5	(92)	10.9	(71)	0.6	(62)	11.7	(72)	19.3	(55)	-21.9	(35)	7.7	(51)	13.7	(35)	7.2	(47)
×	Allocation Index	3.3	(96)	10.0	(91)	10.7	(73)	0.6	(62)	11.8	(70)	22.2	(29)	-23.0	(41)	6.7	(79)	13.6	(37)	6.5	(57)



# Total Fund Allocation vs. Peer Universe

Total Plan Allocation vs. InvestorForce Public DB Gross
As of December 31, 2014



# Total Fund Risk Statistics vs. Peer Universe

#### Municipal Composite vs. IFx Public DB Gross 3 Years

# Anizd Return 15.0 14.0 13.0

12.0

11.0

10.0

9.0

8.0

7.0

Value

%tile

Value

%tile

Value

%tile

Universe

5th %tile

Median

25th %tile

75th %tile

95th %tile

Policy Index

× Allocation Index

Municipal Composite

8.78

7.91

7.97

13.64

12.47

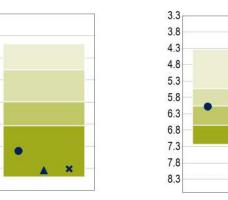
11.02

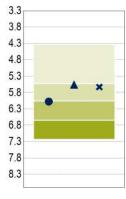
9.94

7.62

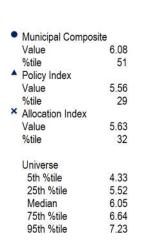
95

88

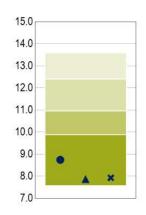




**Anizd Standard Deviation** 

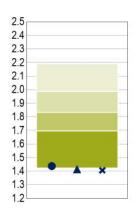


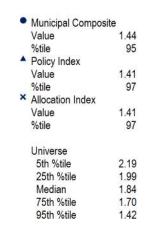
#### Ann Excess RF Return



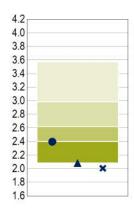


#### **Sharpe Ratio**





#### Sortino Ratio RF

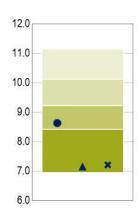


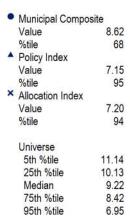
•	Municipal Composite	
	Value	2.40
	%tile	76
•	Policy Index	
		2.08
	%tile	96
×	Allocation Index	
	Value	2.01
	%tile	97
	Universe	
	5th %tile	3.57
	25th %tile	2.99
	Median	2.62
	75th %tile	2.40
	95th %tile	2.09
	Policy Index Value %tile Allocation Index Value %tile Universe 5th %tile 25th %tile Median 75th %tile	2.08 96 2.01 97 3.57 2.99 2.62 2.40

#### Total Fund Risk Statistics vs. Peer Universe

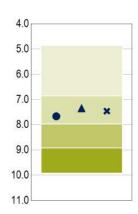
# Municipal Composite vs. IFx Public DB Gross 5 Years

#### Anizd Return



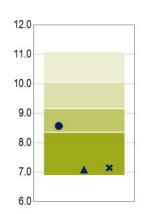


#### **Anizd Standard Deviation**



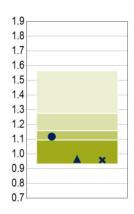
•	Municipal Composite	
	Value	7.67
	%tile	44
<b>A</b>	Policy Index	
	Value	7.35
	%tile	35
×	Allocation Index	
	Value	7.46
	%tile	37
	Universe	
	5th %tile	4.86
	25th %tile	6.84
	Median	7.96
	75th %tile	8.91
	95th %tile	9.92

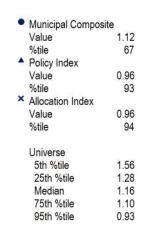
#### Ann Excess RF Return



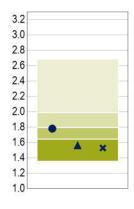
	Municipal Comp	osite
	Value	8.56
	%tile	68
•	Policy Index	
	Value	7.08
	%tile	95
×	Allocation Index	
	Value	7.14
	%tile	94
	Universe	
	5th %tile	11.08
	25th %tile	10.07
	Median	9.16
	75th %tile	8.36
	95th %tile	6.89

#### Sharpe Ratio





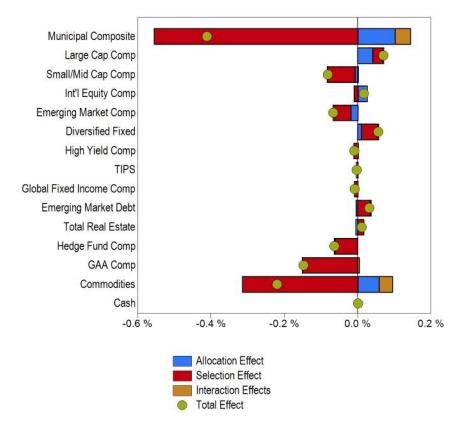
#### Sortino Ratio RF



•	Municipal Composite	
	Value	1.78
	%tile	55
•	Policy Index	
	Value	1.56
	%tile	87
×	Allocation Index	
	Value	1.53
	%tile	89
	Universe	
	5th %tile	2.68
	25th %tile	1.99
	Median	1.79
	75th %tile	1.65
	95th %tile	1.36

#### Total Fund Attribution Analysis

Attribution Effects Relative to Policy Index 3 Months Ending December 31, 2014



# Attribution Summary 3 Months Ending December 31, 2014

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	5.2%	4.9%	0.3%	0.0%	0.0%	0.0%	0.1%
Small/Mid Cap Comp	8.6%	9.7%	-1.2%	-0.1%	0.0%	0.0%	-0.1%
Int'l Equity Comp	-3.7%	-3.6%	-0.1%	0.0%	0.0%	0.0%	0.0%
<b>Emerging Market Comp</b>	-5.3%	-4.5%	-0.8%	0.0%	0.0%	0.0%	-0.1%
Diversified Fixed	2.0%	1.8%	0.2%	0.0%	0.0%	0.0%	0.1%
High Yield Comp	-1.3%	-1.0%	-0.2%	0.0%	0.0%	0.0%	0.0%
TIPS	-0.1%	0.0%	-0.1%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	-1.7%	-1.5%	-0.3%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	-1.0%	-1.6%	0.7%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	3.4%	3.0%	0.4%	0.0%	0.0%	0.0%	0.0%
Hedge Fund Comp	-0.3%	0.9%	-1.2%	-0.1%	0.0%	0.0%	-0.1%
GAA Comp	-1.1%	-0.3%	-0.8%	-0.2%	0.0%	0.0%	-0.1%
Commodities	-19.1%	-12.1%	-7.0%	-0.3%	0.1%	0.0%	-0.2%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-0.2%	0.2%	-0.4%	-0.6%	0.1%	0.0%	-0.4%

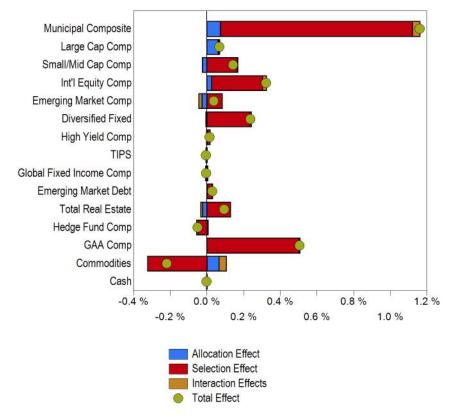
Note: Plan attribution calculations are returns based and the results shown reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance report. The target return shown for each composite is a custom index, based on aggregated policy indices. This policy index asset weights the underlying policy indices of each option in the plan and the respective benchmark. The allocation, selection, and interaction effects are calculated using the custom index described above along with the policy or target weight of each composite.

May not add up due to rounding.



#### Total Fund Attribution Analysis

Attribution Effects Relative to Policy Index 1 Year Ending December 31, 2014



# Attribution Summary 1 Year Ending December 31, 2014

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	13.7%	13.7%	0.0%	0.0%	0.1%	0.0%	0.1%
Small/Mid Cap Comp	7.9%	4.9%	3.0%	0.2%	0.0%	0.0%	0.1%
Int'l Equity Comp	-2.3%	-4.9%	2.6%	0.3%	0.0%	0.0%	0.3%
<b>Emerging Market Comp</b>	-1.1%	-2.2%	1.1%	0.1%	0.0%	0.0%	0.0%
Diversified Fixed	7.3%	6.0%	1.4%	0.2%	0.0%	0.0%	0.2%
High Yield Comp	2.9%	2.5%	0.4%	0.0%	0.0%	0.0%	0.0%
TIPS	3.5%	3.6%	-0.1%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	-0.7%	-0.5%	-0.2%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	6.1%	5.5%	0.6%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	14.8%	11.8%	3.0%	0.1%	0.0%	0.0%	0.1%
Hedge Fund Comp	2.4%	3.3%	-1.0%	0.0%	0.0%	0.0%	-0.1%
GAA Comp	4.8%	2.3%	2.5%	0.5%	0.0%	0.0%	0.5%
Commodities	-23.6%	-17.0%	-6.6%	-0.3%	0.1%	0.0%	-0.2%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	4.3%	3.1%	1.2%	1.0%	0.1%	0.0%	1.2%

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

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

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

May not add up due to rounding.

# Total Fund Risk Statistics

#### 3 Years Ending December 31, 2014

5 Teals Eliding December 51, 2014													
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Municipal Composite	100.00%	8.78%	88	6.08%	51	0.21%	50	1.44	95	2.40	76	0.90%	37
Policy Index	-	7.91%	95	5.56%	29	0.00%	58	1.41	97	2.08	96	0.00%	1
US Equity	19.80%	20.62%	45	10.04%	33	-0.97%	47	2.05	33	3.40	18	1.62%	4
Russell 3000	-	20.51%	47	9.42%	20	0.00%	36	2.17	23	3.31	22	0.00%	1
Large Cap Comp	13.24%	21.07%	38	9.35%	31	0.18%	37	2.25	26	3.28	31	0.82%	1
S&P 500		20.41%	50	9.10%	23	0.00%	41	2.24	27	3.32	28	0.00%	1
Small/Mid Cap Comp	6.55%	19.89%	45	11.82%	44	3.12%	62	1.68	46	3.08	22	2.81%	1
Russell 2000	-	19.21%	53	13.31%	83	0.00%	87	1.44	77	2.44	60	0.00%	1
Int'l Equity Comp	8.75%	11.25%	73	12.76%	50	0.71%	75	0.88	74	1.15	71	2.17%	11
MSCI EAFE		11.06%	77	13.21%	72	0.00%	85	0.83	83	1.12	77	0.00%	1
Emerging Market Comp	5.86%	5.58%	61	15.62%	73	1.60%	62	0.35	66	0.49	62	4.54%	61
MSCI Emerging Markets		4.05%	80	15.21%	62	0.00%	81	0.26	81	0.37	78	0.00%	1
US Fixed Income	24.92%	4.49%	39	3.22%	68	1.42%	40	1.38	57	1.71	62	1.04%	24
Barclays Aggregate		2.66%	65	2.67%	52	0.00%	87	0.98	84	1.39	81	0.00%	1
Diversified Fixed	18.24%	4.05%	44	3.28%	69	0.89%	54	1.22	67	1.70	62	0.97%	21
Barclays Aggregate		2.66%	65	2.67%	52	0.00%	87	0.98	84	1.39	81	0.00%	1
High Yield Comp	3.72%	8.35%	52	3.72%	17	1.65%	18	2.23	17	3.52	28	1.29%	66
Barclays High Yield		8.43%	50	4.56%	57	0.00%	62	1.84	56	3.06	55	0.00%	1
TIPS	2.96%	0.38%	68	5.24%	80	-0.06%	69	0.06	70	0.08	69	0.12%	5
Barclays US TIPS	-	0.44%	61	5.22%	78	0.00%	61	0.07	61	0.09	60	0.00%	1
Global Fixed Income Comp	2.86%	-1.13%	99	4.71%	58	-0.16%	99	-0.25	99	-0.42	99	1.79%	11
Citi WGBI	-	-0.97%	98	4.34%	46	0.00%	98	-0.24	99	-0.33	99	0.00%	1
Emerging Market Debt	4.95%	6.45%	27	7.32%	28	1.43%	28	0.87	26	1.21	31	1.17%	7
JP Morgan EMBI Global TR	-	5.33%	45	7.70%	37	0.00%	47	0.69	45	1.05	39	0.00%	1
Total Real Estate	5.35%	14.30%		5.78%		0.17%		2.47		1,692.93		1.73%	
NCREIF Property Index	-	11.11%		4.44%		0.00%		2.49		1,314.12		0.00%	
Hedge Fund Comp	5.02%	8.46%	35	3.53%	32	2.59%	31	2.38	21	6.09	10	1.28%	3
HFRI Fund of Funds Composite Index		5.67%	66	3.18%	21	0.00%	62	1.77	49	3.44	39	0.00%	1
GAA Comp	18.76%	7.62%	44	7.69%	57	-0.13%	60	0.98	53	1.33	52	3.11%	32
60% MSCI ACWI (Net)/40% CITI WGBI		7.96%	40	7.22%	49	0.00%	59	1.10	49	1.47	46	0.00%	1
Commodities	2.99%	-11.06%		13.55%		-1.52%		-0.82		-1.17		4.39%	



# Total Fund Risk Statistics

#### 5 Years Ending December 31, 2014

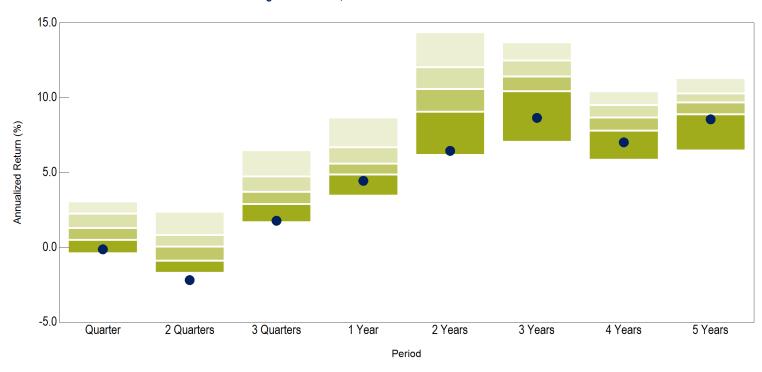
		5 . Gaille Entaining 2 Goodinast G. 1, 20											
	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Municipal Composite	100.00%	8.62%	68	7.67%	44	1.21%	11	1.12	67	1.78	55	0.91%	23
Policy Index		7.15%	95	7.35%	35	0.00%	62	0.96	93	1.56	87	0.00%	1
US Equity	19.80%												
Russell 3000		15.63%	58	13.55%	29	0.00%	46	1.15	35	1.82	38	0.00%	1
Large Cap Comp	13.24%	16.17%	32	13.63%	50	0.00%	44	1.18	36	1.83	41	1.11%	1
S&P 500		15.45%	45	13.00%	29	0.00%	44	1.18	36	1.88	35	0.00%	1
Small/Mid Cap Comp	6.55%	17.22%	37	15.82%	37	3.65%	37	1.08	35	1.87	26	3.07%	1
Russell 2000		15.55%	69	17.98%	80	0.00%	88	0.86	82	1.42	73	0.00%	1
Int'l Equity Comp	8.75%	6.46%	69	15.65%	22	1.50%	64	0.41	63	0.61	59	2.23%	10
MSCI EAFE	-	5.33%	88	16.73%	56	0.00%	88	0.32	87	0.48	87	0.00%	1
Emerging Market Comp	5.86%												
MSCI Emerging Markets		1.78%	76	18.55%	53	0.00%	77	0.09	76	0.14	75	0.00%	1
US Fixed Income	24.92%												
Barclays Aggregate		4.45%	59	2.69%	47	0.00%	85	1.63	64	2.53	61	0.00%	1
Diversified Fixed	18.24%	6.03%	35	3.27%	65	1.22%	41	1.82	46	2.90	40	1.52%	34
Barclays Aggregate		4.45%	59	2.69%	47	0.00%	85	1.63	64	2.53	61	0.00%	1
High Yield Comp	3.72%	8.90%	57	5.16%	18	1.61%	22	1.71	20	2.51	36	1.53%	64
Barclays High Yield		9.03%	52	6.30%	63	0.00%	69	1.42	66	2.19	64	0.00%	1
TIPS	2.96%												
Barclays US TIPS		4.11%	59	5.12%	73	0.00%	74	0.79	69	1.03	51	0.00%	1
Global Fixed Income Comp	2.86%	2.83%	85	5.64%	58	1.19%	85	0.49	84	0.80	73	2.12%	15
Citi WGBI		1.67%	96	5.31%	47	0.00%	97	0.30	95	0.42	95	0.00%	1
Emerging Market Debt	4.95%												
JP Morgan EMBI Global TR		7.27%	41	7.31%	13	0.00%	38	0.99	29	1.42	27	0.00%	1
Total Real Estate	5.35%												
NCREIF Property Index		12.13%		5.02%		0.00%		2.41		901.16		0.00%	
Hedge Fund Comp	5.02%												
HFRI Fund of Funds Composite Index		3.29%	72	4.02%	25	0.00%	63	0.80	56	1.14	56	0.00%	1
GAA Comp	18.76%	8.19%	25	8.45%	42	3.06%	36	0.96	37	1.40	43	3.72%	26
60% MSCI ACWI (Net)/40% CITI WGBI	-	6.35%	43	9.69%	65	0.00%	73	0.65	63	0.97	63	0.00%	1
Commodities	2.99%												



# **VPIC Allocation Comparison**

# Total Fund Return Summary vs. Peer Universe

VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending December 31, 2014

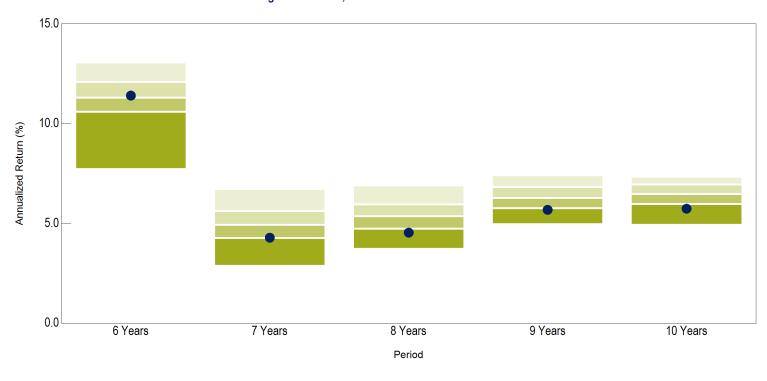


	Return (Rank)	)							
5th Percentile	3.1	2.4	6.5	8.7	14.4	13.7	10.4	11.3	
25th Percentile	2.3	0.8	4.7	6.7	12.0	12.5	9.5	10.3	
Median	1.3	0.1	3.7	5.6	10.6	11.4	8.7	9.7	
75th Percentile	0.5	-0.9	2.9	4.9	9.1	10.4	7.8	8.9	
95th Percentile	-0.4	-1.7	1.7	3.5	6.2	7.1	5.9	6.5	
# of Portfolios	67	67	67	67	66	66	66	65	
<ul><li>Composite</li></ul>	-0.1 (9	4) -2.2	(98) 1.8	(95) 4.4	(80) 6.4	(93) 8.6	(90) 7.0	(88) 8.5	(81)



# Total Fund Return Summary vs. Peer Universe

VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending December 31, 2014

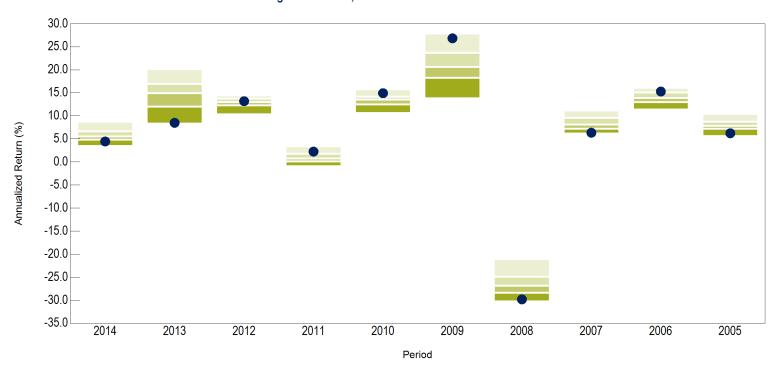


	Return (Rank)						
5th Percentile	13.1		6.7	6.9	7.4	7.3	
25th Percentile	12.1		5.6	6.0	6.8	7.0	
Median	11.3		4.9	5.4	6.3	6.5	
75th Percentile	10.6		4.3	4.7	5.8	6.0	
95th Percentile	7.7		2.9	3.7	5.0	4.9	
# of Portfolios	65		64	62	62	62	
<ul><li>Composite</li></ul>	11.4	(47)	4.3 (75)	4.5	(87) 5.7	(80) 5.7	(87)



# Total Fund Return Summary vs. Peer Universe

VPIC Composite vs. InvestorForce Public DB > \$1B Gross Ending December 31, 2014

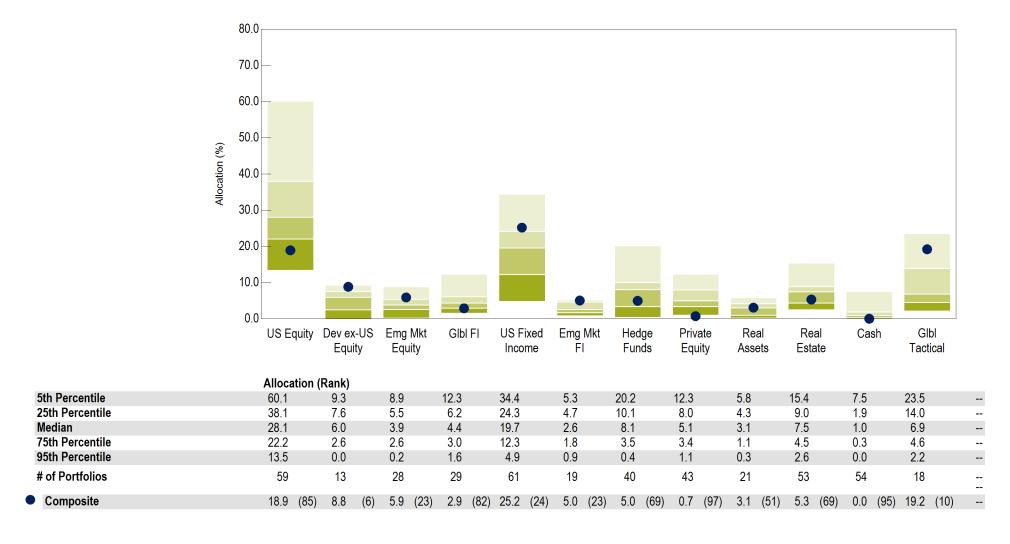


	Return (Rank	)								
5th Percentile	8.7	20.1	14.4	3.3	15.7	27.8	-21.2	11.1	16.1	10.4
25th Percentile	6.7	17.0	13.8	1.8	14.2	23.7	-24.9	9.6	15.1	8.8
Median	5.6	15.0	13.0	0.8	13.5	20.7	-26.8	8.1	13.9	7.9
75th Percentile	4.9	12.1	12.3	0.1	12.5	18.3	-28.3	7.2	13.0	7.2
95th Percentile	3.5	8.4	10.4	-0.9	10.6	13.9	-30.2	6.2	11.4	5.6
# of Portfolios	67	57	51	49	49	49	48	47	41	41
<ul><li>Composite</li></ul>	4.4 (80)	8.5 (95)	13.2 (40)	2.2 (14)	14.9 (14)	26.8 (10)	-29.8 (92)	6.3 (91)	15.3 (24)	6.2 (89)



#### Total Fund Allocation vs. Peer Universe

VPIC Composite vs. InvestorForce Public DB > \$1B Gross
As of December 31, 2014



# Total Fund Performance - Gross

#### **Ending December 31, 2014**

	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Market Value (\$)
VPIC Composite	-0.1	94	-2.2	98	4.4	80	8.6	90	8.5	81	5.7	87	4,026,183,856
InvestorForce Public DB > \$1B Gross Median	1.3		0.1		5.6		11.4		9.7		6.5		
Vermont State Teachers	-0.1	95	-2.2	97	4.4	80	8.5	90	8.5	74	5.6	87	1,695,169,789
Allocation Index	0.4	90	-1.7	95	3.4	95	7.8	95	7.1	95	5.2	94	
Policy Index	0.3	93	-1.7	95	3.5	95	7.9	95	7.2	95	5.3	93	
InvestorForce Public DB Gross Median	1.9		0.6		5.8		11.0		9.2		6.4		
Vermont State Employees	-0.1	95	-2.2	97	4.4	80	8.7	88	8.6	69	5.8	82	1,647,505,034
Allocation Index	0.4	90	-1.7	95	3.4	95	7.9	95	7.1	95	5.4	92	
Policy Index	0.3	93	-1.7	95	3.5	95	7.9	95	7.1	95	5.5	92	
InvestorForce Public DB Gross Median	1.9		0.6		5.8		11.0		9.2		6.4		
Vermont Municipal Employees	-0.1	95	-2.2	97	4.4	80	8.8	88	8.6	68	6.0	69	530,781,809
Allocation Index	0.4	90	-1.7	95	3.3	96	8.0	94	7.2	94	5.6	88	
Policy Index	0.3	93	-1.7	95	3.5	95	7.9	95	7.1	95	5.6	87	
InvestorForce Public DB Gross Median	1.9		0.6		5.8		11.0		9.2		6.4		
City of Burlington	-0.1	95	-2.2	97	4.4	80	8.6	89	8.5	71	5.5	90	152,727,225
Allocation Index	0.4	90	-1.7	95	3.4	95							
Policy Index	0.3	93	-1.7	95	3.5	95	7.9	95	7.1	95	5.0	95	
60% MSCI World / 40% CITI WGBI	0.1	95	-2.7	99	3.1	97	9.1	86	7.3	93	5.5	92	
InvestorForce Public DB Gross Median	1.9		0.6		5.8		11.0		9.2		6.4		



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Composite	4,026,183,856	100.0	100.0	-0.1	94	-2.2	98	4.4	80	8.6	90	8.5	81
InvestorForce Public DB > \$1B Gross Median				1.3		0.1		5.6		11.4		9.7	
Total Equity	1,353,955,778	33.6		1.2	53	-2.1	61	5.1	45	-	-		
MSCI ACWI				0.4	69	-1.9	59	4.2	54	14.1	72	9.2	75
eA All Global Equity Gross Median				1.3		-1.1		4.6		15.8		11.0	
US Equity	761,406,581	18.9		6.4	37	5.1	37	11.6	41				
Russell 3000				5.2	55	5.3	36	12.6	33	20.5	47	15.6	58
eA All US Equity Gross Median				5.5		4.0		10.3		20.3		16.0	
Large Cap Comp	519,425,944	12.9	10.0	5.2	40	5.8	46	13.7	35	21.1	38	16.2	32
S&P 500				4.9	47	6.1	38	13.7	35	20.4	50	15.5	45
eA US Large Cap Equity Gross Median				4.8		5.4		12.5		20.4		15.2	
T. Rowe	100,633,507	2.5	3.0	4.9	47	5.6	48	13.1	44	20.9	43	15.4	46
S&P 500				4.9	47	6.1	38	13.7	35	20.4	50	15.5	45
SSgA S&P 500 Cap-Wgt	300,633,717	7.5	4.0	5.0	46	6.2	37	13.7	34	20.5	49		
S&P 500				4.9	47	6.1	38	13.7	35	20.4	50	15.5	45
SSgA S&P 500 Equal-Wgt	118,158,720	2.9	3.0	6.0	21	5.3	51	14.4	25	22.3	23	17.4	11
S&P 500 Equal Weighted				6.1	20	5.4	51	14.5	24	22.4	22	17.4	11

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	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Small/Mid Cap Comp	241,980,637	6.0	6.5	8.6	14	4.0	22	7.9	37	19.8	46	17.2	38
Russell 2000				9.7	7	1.7	51	4.9	64	19.2	53	15.5	69
eA US Small-Mid Cap Equity Gross Median				6.5		1.9		6.5		19.3		16.3	
SSgA S&P 400	20,917,494	0.5	0.5	6.4	35	2.1	66	9.7	49	20.1	52		
S&P 400 MidCap				6.3	35	2.1	66	9.8	49	20.0	52	16.5	51
eA US Mid Cap Equity Gross Median				5.7		3.3		9.3		20.2		16.6	
Champlain	83,669,560	2.1	2.0	5.1	61	3.1	53	9.1	54	19.7	57	16.9	43
Russell 2500				6.8	27	1.1	80	7.1	71	20.0	52	16.4	54
eA US Mid Cap Equity Gross Median				5.7		3.3		9.3		20.2		16.6	
Wellington	80,989,220	2.0	2.0	12.0	3	5.9	1	8.0	27	19.4	59	17.3	30
Russell 2000 Value				9.4	22	0.0	52	4.2	68	18.3	67	14.3	78
eA US Small Cap Value Equity Gross Median				7.4		0.2		5.8		19.8		16.2	
SSgA Russell 2000 Growth	56,404,364	1.4	2.0	10.1	27	3.3	44	5.6	33	20.2	48	16.8	65
Russell 2000 Growth				10.1	27	3.3	44	5.6	32	20.1	48	16.8	65
eA US Small Cap Growth Equity Gross Median				8.5		2.8		3.9		20.0		17.7	



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Int'l Equity Comp	355,454,966	8.8	10.0	-3.7	71	-10.1	78	-2.3	32	11.2	73	6.5	69
MSCI EAFE				-3.6	68	-9.2	68	-4.9	70	11.1	77	5.3	88
eA All EAFE Equity Gross Median				-2.7		-8.3		-3.7		12.8		7.3	
Acadian	147,013,472	3.7	4.0	-2.8	53	-10.5	83	-2.7	36	13.1	46	7.6	46
Mondrian	151,805,802	3.8	4.0	-4.4	83	-10.1	79	-1.6	25	10.2	87	6.0	77
MSCI EAFE				-3.6	68	-9.2	68	-4.9	70	11.1	77	5.3	88
S&P EPAC LargeMidCap				-3.8	74	-9.3	69	-4.5	61	11.3	73	5.8	81
SSgA ACWI Ex US	56,635,691	1.4	2.0	-3.8	84	-8.9	78	-3.6	62	9.3	88		
MSCI ACWI ex USA				-3.9	85	-8.9	78	-3.9	66	9.0	90	4.4	97
eA ACWI ex-US All Cap Equity Gross Median				-1.6		-6.7		-2.0		11.7		7.6	
Emerging Market Comp	237,094,231	5.9	6.0										
eA Emg Mkts Equity Gross Median													
Aberdeen	237,094,231	5.9	6.0	-5.3	78	-8.5	80	-1.1	59	5.6	61	6.3	20
MSCI Emerging Markets				-4.5	67	-7.8	72	-2.2	74	4.0	80	1.8	76
eA Emg Mkts Equity Gross Median				-3.6		-6.6		-0.1		6.3		3.6	



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
US Fixed Income	1,013,735,055	25.2		1.3	37	1.3	41	6.1	30				
Barclays Aggregate				1.8	19	2.0	23	6.0	33	2.7	65	4.4	59
eA All US Fixed Inc Gross Median				0.8		0.9		4.2		3.5		5.0	
Diversified Fixed Income	734,950,013	18.3	18.0	2.1	11	2.5	13	7.3	18	4.1	44	6.0	35
Barclays Aggregate				1.8	19	2.0	23	6.0	33	2.7	65	4.4	59
eA All US Fixed Inc Gross Median				0.8		0.9		4.2		3.5		5.0	
Allianz Structured Alpha	107,230,330	2.7	2.0	5.2	1	7.7	1	17.3	1	9.3	1	9.6	1
Citigroup 10 Year Treasury				3.6	1	4.3	1	10.7	1	2.1	96	6.1	11
PIMCO Core Plus	263,158,162	6.5	6.5	1.6	49	1.4	75	5.4	75	3.4	53	5.3	33
Barclays Aggregate				1.8	29	2.0	36	6.0	52	2.7	83	4.4	80
PIMCO Unconstrained	258,420,534	6.4	6.5	-0.1	99	0.3	98	3.0	95	2.0	97		
25% HY, 25% EMD, 50% BC Agg				0.2	99	-0.6	99	5.0	83	4.8	9	6.3	9
3-Month Libor Total Return USD				0.1	99	0.1	99	0.2	99	0.3	99	0.3	99
Wellington DAS	106,140,987	2.6	3.0	5.5	1	5.7	1	14.0	1	5.9	4	8.7	1
Wellington Custom Benchmark				4.2	1	5.2	1	13.3	1	3.1	66	6.6	5
High Yield Comp	159,477,936	4.0	4.0	-1.2	64	-1.6	31	2.9	43	8.3	52	8.9	57
eA US High Yield Fixed Inc Gross Median				-0.8		-2.6		2.5		8.4		9.1	
KDP	39,814,970	1.0	1.0	-0.3	34	-1.6	30	2.8	44	6.8	86	7.7	91
Guggenheim	119,662,966	3.0	3.0	-1.5	71	-1.7	32	2.9	43				
Barclays High Yield				-1.0	57	-2.9	59	2.5	52	8.4	50	9.0	52
BofA Merrill Lynch US High Yield BB-B Rated				-0.4	36	-2.0	37	3.5	27	8.1	57	8.8	61
eA US High Yield Fixed Inc Gross Median				-0.8		-2.6		2.5		8.4		9.1	
TIPS	119,307,106	3.0	3.0										
eA TIPS / Infl Indexed Fixed Inc Gross Median													
BlackRock TIPS	119,307,106	3.0	3.0	-0.1		-2.2		3.5	-	0.4		4.1	
Barclays US TIPS				0.0		-2.1		3.6		0.4		4.1	

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 Wellington DAS is Net of Fees



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Global Fixed Income Comp	116,110,828	2.9	3.0	-1.7	73	-4.5	73	-0.7	85	-1.1	99	2.8	85
eA All Global Fixed Inc Gross Median				-0.7		-2.7		2.5		4.7		5.2	
Mondrian GFI	116,110,828	2.9	3.0	-1.7	73	-4.5	73	-0.7	85	-1.6	99	1.8	95
Citi WGBI				-1.5	69	-5.2	79	-0.5	82	-1.0	98	1.7	96
Emerging Market Debt	202,790,918	5.0	5.0										
eA All Emg Mkts Fixed Inc Gross Median													
Wellington Opportunistic EMD	202,790,918	5.0	5.0	-1.0	15	-2.8	29	6.1	20	6.4	27	8.1	19
JP Morgan EMBI Global TR				-1.6	25	-3.3	32	5.5	27	5.3	45	7.3	41
eA All Emg Mkts Fixed Inc Gross Median				-3.5		-6.0		1.8		4.9		6.6	
Total Real Estate	213,659,304	5.3	4.5	3.4		7.4		15.0					
Morgan Stanley Prime Property	95,570,107	2.4	2.0	4.5		8.7		15.5		15.2		15.6	
UBS Trumbull	81,880,428	2.0	2.0	3.0		6.3		11.7		10.8		12.5	
RREEF America REIT III	21,159,818	0.5	0.5	2.5		8.3		27.8		22.7		25.7	
Siguler Guff	14,129,981	0.4		-0.1		5.3							
Transwestern / Aslan III	918,970	0.0	0.0	0.0		-3.8		2.1		20.3		-2.3	
NCREIF Property Index				3.0		5.7		11.8		11.1		12.1	
NCREIF ODCE				3.3		6.6		12.5		12.4		13.9	

Wellington Opportunistic EMD is Net of manager fees Real Estate is as of Q3 2014



# Total Fund Performance Detail - Gross

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
Hedge Fund Comp	199,953,790	5.0	5.0	-0.3	68	-0.8	70	2.4	60	8.5	35		
eV Alt Fund of Funds - Multi-Strategy Median				0.5		0.2		3.0		6.8		4.6	
Grosvenor	81,120,505	2.0	2.0	0.5	49	0.5	46	3.4	44	8.9	30		
GAM	39,751,731	1.0	1.0	-0.2	67	-0.3	63	1.6	68	7.8	39		
Permal	79,081,554	2.0	2.0	-1.1	79	-2.3	84	1.8	66	8.3	36		
HFRI Fund of Funds Composite Index				0.9	42	1.2	40	3.3	44	5.7	66	3.3	72
GAA Comp	773,064,653	19.2	20.0	-1.1	67	-3.8	67	4.8	32	7.7	44	8.2	25
eA Global TAA Gross Median				0.3		-1.1		2.7		7.1		5.9	
Mellon Dynamic Growth	84,283,763	2.1	2.5	5.3	1	7.2	1	6.8	12	10.1	15	9.3	16
Mellon Dynamic Growth Benchmark				0.0	53	-2.0	56	3.5	43	8.3	38	6.6	42
AQR Global Risk Premium	306,092,493	7.6	8.0	-1.6	74	-5.0	73	8.3	5	7.2	48	10.5	10
60% MSCI World / 40% CITI WGBI				0.1	52	-2.7	59	3.1	45	9.1	28	7.3	32
PIMCO All Asset	229,939,638	5.7	5.0	-2.7	81	-5.3	74	1.7	70	6.4	57	7.4	31
PIMCO All Asset Index				0.7	49	-0.1	41	4.9	30	4.4	67	5.8	52
CPI + 5% (Seasonally Adjusted)				0.6	49	1.8	21	5.7	21	6.4	57	6.7	41
Wellington OIF	152,748,759	3.8	4.5	-0.9	64	-4.2	71	1.5	71	9.2	28	5.7	54
65% MSCI World (Net) /35% BC Agg				1.3	34	-0.1	41	5.4	23	11.0	7	8.4	21
Commodities	123,150,473	3.1	4.0										
Schroder	123,150,473	3.1	4.0	-19.1		-28.5		-23.6		-11.1		-5.1	
Bloomberg Commodity Index				-12.1		-22.5		-17.0		-9.4		-5.5	
Cash	623,151	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		0.1	
Private Equity	29,139,905	0.7	1.0										
Cambridge Associates US All PE													
Harbourvest Partners IX Credit Opportunities	1,413,624	0.0											
Harbourvest Partners IX Venture Fund	6,998,794	0.2											
Harbourvest Partners IX Buyout Fund	7,899,941	0.2											
Harbourvest Dover VIII Fund	12,302,546	0.3											
HIPEP VII	525,000	0.0											

Harbourvest is based on preliminary Capital Account Statements for Q4 2014
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 Performance - Net

					Ending Do	ecember 31	, 2014
	3 Mo Fi (%)	scal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Market Value (\$)
VPIC Composite	-0.2	-2.4	4.0	8.2	8.1	5.4	4,026,183,856
Vermont State Teachers	-0.3	-2.4	4.0	8.1	8.0	5.3	1,695,169,789
Allocation Index	0.4	-1.7	3.4	7.8	7.1	5.2	
Policy Index	0.3	-1.7	3.5	7.9	7.2	5.3	
Vermont State Employees	-0.2	-2.4	4.0	8.2	8.1	5.5	1,647,505,034
Allocation Index	0.4	-1.7	3.4	7.9	7.1	5.4	
Policy Index	0.3	-1.7	3.5	7.9	7.1	5.5	
Vermont Municipal Employees	-0.2	-2.4	4.0	8.3	8.2	5.7	530,781,809
Allocation Index	0.4	-1.7	3.3	8.0	7.2	5.6	
Policy Index	0.3	-1.7	3.5	7.9	7.1	5.6	
City of Burlington	-0.2	-2.4	4.0	8.1	8.1	5.3	152,727,225
Allocation Index	0.4	-1.7	3.4				
Policy Index	0.3	-1.7	3.5	7.9	7.1	5.0	
60% MSCI World / 40% CITI WGBI	0.1	-2.7	3.1	9.1	7.3	5.5	

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.



# Total Fund Performance Detail – Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Composite	4,026,183,856	100.0	100.0	-0.1	-2.2	4.4	8.6	8.5
Total Equity	1,353,955,778	33.6		1.2	-2.1	5.1	-	
MSCI ACWI				0.4	-1.9	4.2	14.1	9.2
US Equity	761,406,581	18.9		6.4	5.1	11.6	-	
Russell 3000				5.2	5.3	12.6	20.5	15.6
Large Cap Comp	519,425,944	12.9	10.0	5.2	5.8	13.7	21.1	16.2
S&P 500				4.9	6.1	13.7	20.4	15.5
T. Rowe	100,633,507	2.5	3.0	4.9	5.6	13.1	20.9	15.4
S&P 500				4.9	6.1	13.7	20.4	15.5
SSgA S&P 500 Cap-Wgt	300,633,717	7.5	4.0	5.0	6.2	13.7	20.5	
S&P 500				4.9	6.1	13.7	20.4	15.5
SSgA S&P 500 Equal-Wgt	118,158,720	2.9	3.0	6.0	5.3	14.4	22.3	17.4
S&P 500 Equal Weighted				6.1	5.4	14.5	22.4	17.4
Small/Mid Cap Comp	241,980,637	6.0	6.5	8.6	4.0	7.9	19.8	17.2
Russell 2000				9.7	1.7	4.9	19.2	15.5
SSgA S&P 400	20,917,494	0.5	0.5	6.4	2.1	9.7	20.1	
S&P 400 MidCap				6.3	2.1	9.8	20.0	16.5
Champlain	83,669,560	2.1	2.0	5.1	3.1	9.1	19.7	16.9
Russell 2500				6.8	1.1	7.1	20.0	16.4
Wellington	80,989,220	2.0	2.0	12.0	5.9	8.0	19.4	17.3
Russell 2000 Value				9.4	0.0	4.2	18.3	14.3
SSgA Russell 2000 Growth	56,404,364	1.4	2.0	10.1	3.3	5.6	20.2	16.8
Russell 2000 Growth				10.1	3.3	5.6	20.1	16.8

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.



# Total Fund Performance Detail – Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Int'l Equity Comp	355,454,966	8.8	10.0	-3.7	-10.1	-2.3	11.2	6.5
MSCI EAFE				-3.6	-9.2	-4.9	11.1	5.3
Acadian	147,013,472	3.7	4.0	-2.8	-10.5	-2.7	13.1	7.6
Mondrian	151,805,802	3.8	4.0	-4.4	-10.1	-1.6	10.2	6.0
MSCI EAFE				-3.6	-9.2	-4.9	11.1	5.3
S&P EPAC LargeMidCap				-3.8	-9.3	-4.5	11.3	5.8
SSgA ACWI Ex US	56,635,691	1.4	2.0	-3.8	-8.9	-3.6	9.3	
MSCI ACWI ex USA				-3.9	-8.9	-3.9	9.0	4.4
Emerging Market Comp	237,094,231	5.9	6.0					
Aberdeen	237,094,231	5.9	6.0	-5.3	-8.5	-1.1	5.6	6.3
MSCI Emerging Markets				-4.5	-7.8	-2.2	4.0	1.8
US Fixed Income	1,013,735,055	25.2		1.3	1.3	6.1		
Barclays Aggregate				1.8	2.0	6.0	2.7	4.4
Diversified Fixed Income	734,950,013	18.3	18.0	2.1	2.5	7.3	4.1	6.0
Barclays Aggregate				1.8	2.0	6.0	2.7	4.4
Allianz Structured Alpha	107,230,330	2.7	2.0	5.2	7.7	17.3	9.3	9.6
Citigroup 10 Year Treasury				3.6	4.3	10.7	2.1	6.1
PIMCO Core Plus	263,158,162	6.5	6.5	1.6	1.4	5.4	3.4	5.3
Barclays Aggregate				1.8	2.0	6.0	2.7	4.4
PIMCO Unconstrained	258,420,534	6.4	6.5	-0.1	0.3	3.0	2.0	
25% HY, 25% EMD, 50% BC Agg				0.2	-0.6	5.0	4.8	6.3
3-Month Libor Total Return USD				0.1	0.1	0.2	0.3	0.3
Wellington DAS	106,140,987	2.6	3.0	5.5	5.7	14.0	5.9	8.7
Wellington Custom Benchmark				4.2	5.2	13.3	3.1	6.6

Wellington Custom Benchmark: 5/1/2002 - 5/31/2011 is the Barclays Aggregate; 6/1/2011 - Present is the Citigroup US Strips Index



# Total Fund Performance Detail – Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo F (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
High Yield Comp	159,477,936	4.0	4.0	-1.2	-1.6	2.9	8.3	8.9
KDP	39,814,970	1.0	1.0	-0.3	-1.6	2.8	6.8	7.7
Guggenheim	119,662,966	3.0	3.0	-1.5	-1.7	2.9	-	
Barclays High Yield				-1.0	-2.9	2.5	8.4	9.0
BofA Merrill Lynch US High Yield BB-B Rated				-0.4	-2.0	3.5	8.1	8.8
TIPS	119,307,106	3.0	3.0					
BlackRock TIPS	119,307,106	3.0	3.0	-0.1	-2.2	3.5	0.4	4.1
Barclays US TIPS				0.0	-2.1	3.6	0.4	4.1
Global Fixed Income Comp	116,110,828	2.9	3.0	-1.7	-4.5	-0.7	-1.1	2.8
Mondrian GFI	116,110,828	2.9	3.0	-1.7	-4.5	-0.7	-1.6	1.8
Citi WGBI				-1.5	-5.2	-0.5	-1.0	1.7
Emerging Market Debt	202,790,918	5.0	5.0					
Wellington Opportunistic EMD	202,790,918	5.0	5.0	-1.0	-2.8	6.1	6.4	8.1
JP Morgan EMBI Global TR				-1.6	-3.3	5.5	5.3	7.3
Total Real Estate	213,659,304	5.3	4.5	3.4	7.4	15.0		
Morgan Stanley Prime Property	95,570,107	2.4	2.0	4.5	8.7	15.5	15.2	15.6
UBS Trumbull	81,880,428	2.0	2.0	3.0	6.3	11.7	10.8	12.5
RREEF America REIT III	21,159,818	0.5	0.5	2.5	8.3	27.8	22.7	25.7
Siguler Guff	14,129,981	0.4		-0.1	5.3			
Transwestern / Aslan III	918,970	0.0	0.0	0.0	-3.8	2.1	20.3	-2.3
NCREIF Property Index				3.0	5.7	11.8	11.1	12.1
NCREIF ODCE				3.3	6.6	12.5	12.4	13.9

Real Estate is as of Q3 2014



# Total Fund Performance Detail – Net

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Hedge Fund Comp	199,953,790	5.0	5.0	-0.3	-0.8	2.4	8.5	
Grosvenor	81,120,505	2.0	2.0	0.5	0.5	3.4	8.9	
GAM	39,751,731	1.0	1.0	-0.2	-0.3	1.6	7.8	
Permal	79,081,554	2.0	2.0	-1.1	-2.3	1.8	8.3	
HFRI Fund of Funds Composite Index				0.9	1.2	3.3	5.7	3.3
GAA Comp	773,064,653	19.2	20.0	-1.1	-3.8	4.8	7.7	8.2
Mellon Dynamic Growth	84,283,763	2.1	2.5	5.3	7.2	6.8	10.1	9.3
Mellon Dynamic Growth Benchmark				0.0	-2.0	3.5	8.3	6.6
AQR Global Risk Premium	306,092,493	7.6	8.0	-1.6	-5.0	8.3	7.2	10.5
60% MSCI World / 40% CITI WGBI				0.1	-2.7	3.1	9.1	7.3
PIMCO All Asset	229,939,638	5.7	5.0	-2.7	-5.3	1.7	6.4	7.4
PIMCO All Asset Index				0.7	-0.1	4.9	4.4	5.8
CPI + 5% (Seasonally Adjusted)				0.6	1.8	5.7	6.4	6.7
Wellington OIF	152,748,759	3.8	4.5	-0.9	-4.2	1.5	9.2	5.7
65% MSCI World (Net) /35% BC Agg				1.3	-0.1	5.4	11.0	8.4
Commodities	123,150,473	3.1	4.0					
Schroder	123,150,473	3.1	4.0	-19.1	-28.5	-23.6	-11.1	-5.1
Bloomberg Commodity Index				-12.1	-22.5	-17.0	-9.4	-5.5
Cash	623,151	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	0.1
Private Equity	29,139,905	0.7	1.0					
Cambridge Associates US All PE								
Harbourvest Partners IX Credit Opportunities	1,413,624	0.0						
Harbourvest Partners IX Venture Fund	6,998,794	0.2						
Harbourvest Partners IX Buyout Fund	7,899,941	0.2						
Harbourvest Dover VIII Fund	12,302,546	0.3						
HIPEP VII	525,000	0.0						

Harbourvest is based on preliminary Capital Account Statements for Q4 2014

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

Mellon Dynamic Growth Benchmark: 60% MSCI All Country World Index IMI/ 40% Citigroup GDP Weighted



Ending	<b>December</b>	31,	2014
--------	-----------------	-----	------

														9		,		
	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
VPIC Composite	4.4	80	8.5	95	13.2	40	2.2	14	14.9	14	26.8	10	-29.8	92	6.3	91	15.3	24
InvestorForce Public DB > \$1B Gross Median	5.6		15.0		13.0		0.8		13.5		20.7		-26.8		8.1		13.9	
Vermont State Teachers	4.4	80	8.2	96	13.2	23	2.2	17	14.9	12	26.5	9	-30.1	94	6.3	83	15.7	6
Allocation Index	3.4	95	9.3	93	10.8	72	0.7	62	11.6	74	22.7	26	-25.2	57	6.5	80	14.8	17
Policy Index	3.5	95	9.5	92	10.9	71	0.6	62	11.7	72	19.3	55	-24.3	49	7.6	52	14.4	20
InvestorForce Public DB Gross Median	5.8		15.5		12.2		0.9		12.8		20.3		-24.7		7.7		13.0	
Vermont Municipal Employees	4.4	80	8.9	93	13.2	24	2.2	17	14.9	12	27.8	5	-29.4	89	6.3	85	14.8	17
Allocation Index	3.3	96	10.0	91	10.7	73	0.6	62	11.8	70	22.2	29	-23.0	41	6.7	79	13.6	37
Policy Index	3.5	95	9.5	92	10.9	71	0.6	62	11.7	72	19.3	55	-21.9	35	7.7	51	13.7	35
InvestorForce Public DB Gross Median	5.8		15.5		12.2		0.9		12.8		20.3		-24.7		7.7		13.0	
Vermont State Employees	4.4	80	8.7	94	13.1	24	2.2	17	14.9	12	27.4	6	-29.6	90	6.4	81	14.9	16
Allocation Index	3.4	95	9.8	91	10.6	74	0.5	63	11.9	69	22.6	26	-23.9	46	6.6	79	14.1	27
Policy Index	3.5	95	9.5	92	10.9	71	0.6	62	11.7	72	19.5	53	-22.5	39	7.6	52	13.9	31
InvestorForce Public DB Gross Median	5.8		15.5		12.2		0.9		12.8		20.3		-24.7		7.7		13.0	
City of Burlington	4.4	80	8.4	95	13.1	24	2.2	17	14.9	12	26.6	7	-30.3	96	5.5	93	13.4	43
Policy Index	3.5	95	9.5	92	10.9	71	0.6	62	11.7	72	19.3	55	-24.3	49	7.4	58	12.6	55
60% MSCI World / 40% CITI WGBI	3.1	97	13.9	69	10.6	75	-0.3	78	9.8	93	19.2	56	-22.7	41	10.3	14	14.7	18
InvestorForce Public DB Gross Median	5.8		15.5		12.2		0.9		12.8		20.3		-24.7		7.7		13.0	



# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Composite	4.4	80	8.5	95	13.2	40	2.2	14	14.9	14	26.8	10	-29.8	92	6.3	91	15.3	24
InvestorForce Public DB > \$1B Gross Median	5.6		15.0		13.0		0.8		13.5		20.7		-26.8		8.1		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	
T. Rowe	13.1	44	33.7	49	16.8	35	1.8	37	14.0	61	30.4	41	-36.0	49	6.2	62	16.9	36
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 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

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.



December 31, 2014

	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	



	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
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	18.0	1	6.5	76	5.9	80	5.2	37	7.0	47	4.3	69
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 Median	2.5		7.6		15.5		4.9		14.9		45.0		-21.2		3.5		10.5	
KDP	2.8	44	5.2	93	12.6	87	6.6	15	11.7	92								
Guggenheim	2.9	43	-									-						
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	28
BofA Merrill Lynch US High Yield BB-B Rated	3.5	27	6.3	80	14.7	65	5.4	45	14.5	64	46.1	49	-23.7	70	2.7	72	10.7	49
eA US High Yield Fixed Inc Gross Median	2.5		7.6		15.5		4.9		14.9		45.0		-21.2		3.5		10.5	



	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
TIPS																		
eA TIPS / Infl Indexed Fixed Inc Gross Median																		
BlackRock TIPS	3.5		-8.6	-	7.0		13.6		6.4		-							
Barclays US TIPS	3.6		-8.6		7.0		13.6		6.3		11.4		-2.4		11.6		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 Median	2.5		0.2		9.5		5.0		7.3		10.6		1.4		8.7		6.1	
Mondrian GFI	-0.7	85	-6.2	97	2.1	97	5.8	38	8.6	33	8.8	59	10.2	11	11.5	13	5.5	64
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
<b>Emerging Market Debt</b>																		
eA All Emg Mkts Fixed Inc Gross Median																		
Wellington Opportunistic EMD	6.1	20	-5.1	39	19.9	35	7.6	16	13.7	70	-							
JP Morgan EMBI Global TR	5.5	27	-6.6	61	18.5	59	8.5	7	12.0	87	28.2	65	-10.9	52	6.3	73	9.9	95
eA All Emg Mkts Fixed Inc Gross Median	1.8		-6.1		19.1		2.6		14.5		30.7		-10.8		7.7		12.3	
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	2.1		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	



# Total Fund Yearly Performance - Gross

	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
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	1.6	68	14.0	22	8.3	31	-3.5	43										
Permal	1.8	66	13.0	29	10.5	14	-5.5	66			-							
HFRI Fund of Funds Composite Index	3.3	44	9.0	60	4.8	71	-5.7	68	5.7	55	11.5	62	-21.4	57	10.3	56	10.4	56
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	6.8	69	8.2	11	6.5	94	8.0	92	5.0	1	9.3	53	7.6	99
Wellington OIF	1.5	71	12.1	32	14.3	11	-13.8	98	17.8	20	36.8	14						
65% MSCI World (Net) /35% BC Agg	5.4	23	15.9	15	11.9	29	-0.7	50	10.5	81	21.6	62	-26.9	64	8.4	55	14.4	48

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



	2014 (%)	Rank	2013 (%)	Rank	2012 (%)	Rank	2011 (%)	Rank	2010 (%)	Rank	2009 (%)	Rank	2008 (%)	Rank	2007 (%)	Rank	2006 (%)	Rank
Commodities									4- 4									
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																		
Cambridge Associates US All PE																		
Harbourvest Partners IX Credit Opportunities																		
Harbourvest Partners IX Venture																		
Fund																		
Harbourvest Partners IX Buyout																		
Fund																		
Harbourvest Dover VIII Fund																		
HIPEP VII																		







# **Vermont Pension Investment Committee**

Fourth Quarter 2014 Investment Performance Analysis (Manager Pages)

Richard M. Charlton, Chairman and CEO Christopher Levell, ASA, CFA, CAIA, Partner Douglas Moseley, Partner Benjamin Pittsley, Analyst

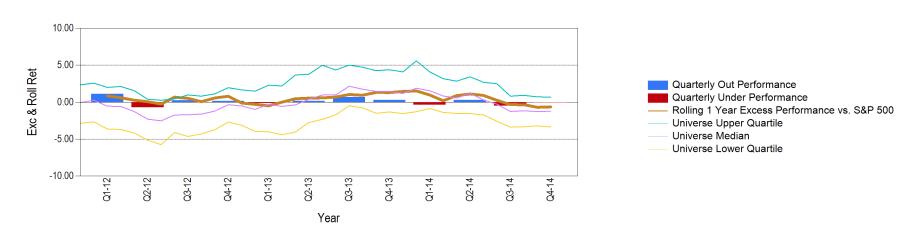
# Manager Characteristics

#### T. Rowe

T. Rowe Price employs a fundamental, bottom-up approach to investing in equity assets. The strategy delivers a research portfolio managed by the firm's industry analysts and representing their best ideas. The Structured Research Strategy seeks to provide superior long-term returns and capture the style of the S&P 500 Stock Index by combining analyst-driven research and security selection with the benefits of disciplined portfolio construction. T. Rowe Price's approach results in an industry and sector neutral portfolio that aims to consistently and reliably provide alpha through bottom-up, fundamental research and stock selection, consistent excess returns, index like return volatility, low tracking error (below 175bps), and a high information ratio.



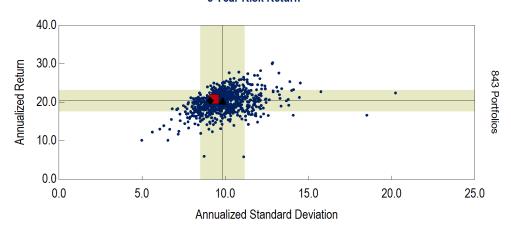
#### **Annualized Excess Performance**





#### T. Rowe

#### 3 Year Risk Return

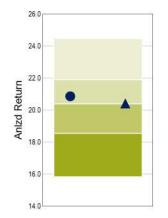


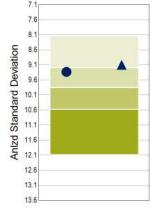
- T. Rowe
- ◆ S&P 500
- Universe Median
- 68% Confidence Interval
- eA US Large Cap Equity Gross

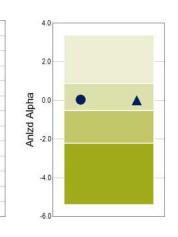
#### Characteristics

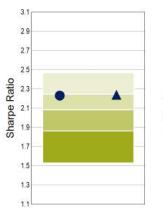
	Portfolio	S&P 500
Number of Holdings	230	502
Weighted Avg. Market Cap. (\$B)	123.8	125.0
Median Market Cap. (\$B)	29.9	18.4
Price To Earnings	24.2	21.5
Price To Book	4.7	4.3
Price To Sales	3.3	2.7
Return on Equity (%)	20.8	19.6
Yield (%)	1.8	2.0
Beta	1.0	1.0
R-Squared	1.0	1.0

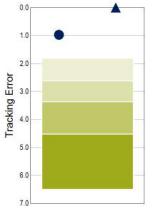
#### **3 Year Risk Statistics**

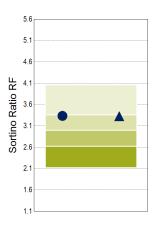














#### SSgA S&P 500 Cap-Wgt

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	503	502
Weighted Avg. Market Cap. (\$B)	125.0	125.0
Median Market Cap. (\$B)	18.4	18.4
Price To Earnings	22.7	21.5
Price To Book	4.5	4.3
Price To Sales	3.0	2.7
Return on Equity (%)	20.9	19.6
Yield (%)	2.0	2.0
Beta	1.0	1.0
R-Squared	1.0	1.0

#### eA US Large Cap Equity Gross Accounts



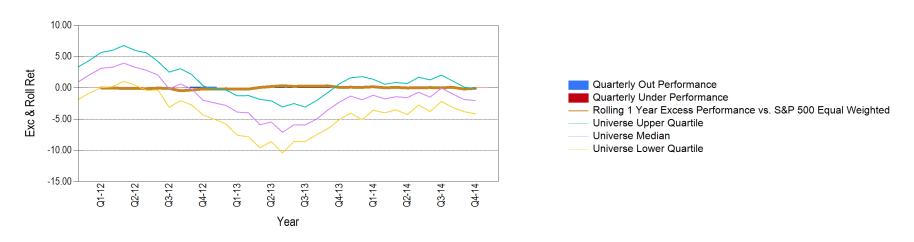


#### SSgA S&P 500 Equal-Wgt

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, SSqA 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.

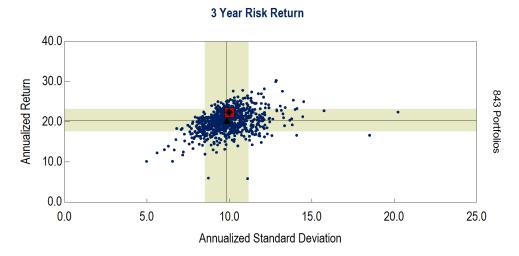


#### **Annualized Excess Performance**





#### SSgA S&P 500 Equal-Wgt

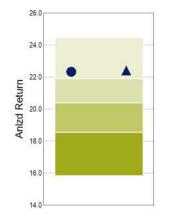


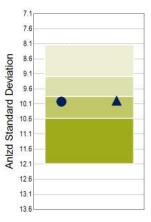
#### **Characteristics**

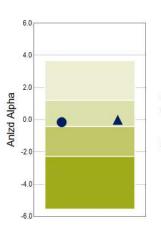
	Portfolio	S&P 500
Number of Holdings	450	502
Weighted Avg. Market Cap. (\$B)	35.3	125.0
Median Market Cap. (\$B)	17.7	18.4
Price To Earnings	24.2	21.5
Price To Book	4.2	4.3
Price To Sales	2.8	2.7
Return on Equity (%)	19.0	19.6
Yield (%)	1.9	2.0
Beta	1.1	1.0
R-Squared	0.9	1.0

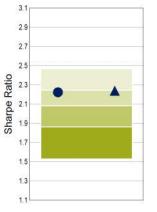
- SSgA S&P 500 Equal-Wgt S&P 500 Equal Weighted
- Universe Median
- 68% Confidence Interval
- eA US Large Cap Equity Gross

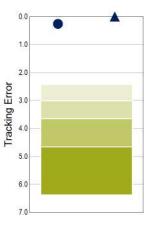
#### **3 Year Risk Statistics**

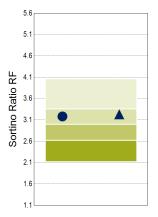














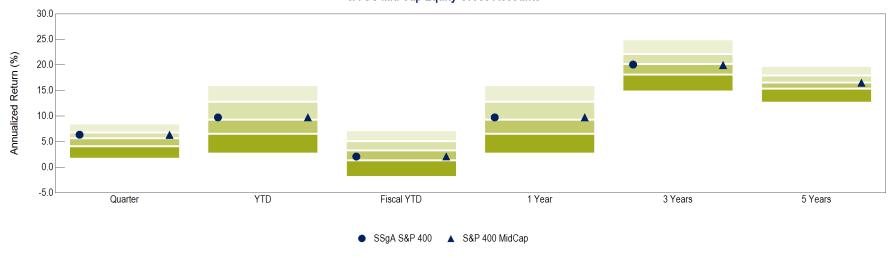
## SSgA S&P 400

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSqA attempts to match, before expenses, the performance of the Index. 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. 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	0	400
Weighted Avg. Market Cap. (\$B)		5.4
Median Market Cap. (\$B)		3.8
Price To Earnings		25.5
Price To Book		3.3
Price To Sales		2.7
Return on Equity (%)		13.9
Yield (%)		1.5
Beta	1.0	1.0
R-Squared	1.0	1.0

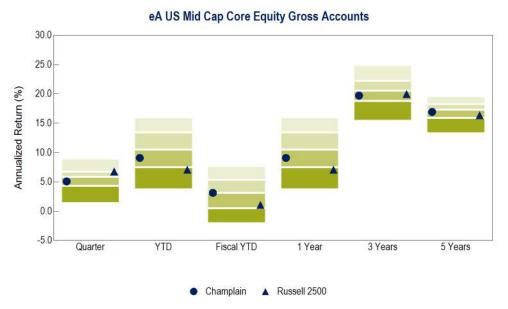
### eA US Mid Cap Equity Gross Accounts

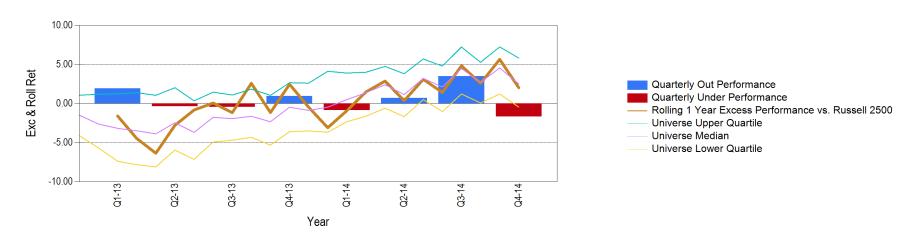




## Champlain

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.

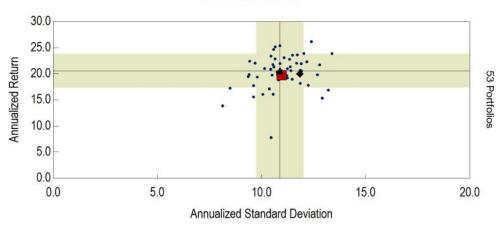






# Champlain

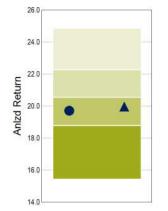


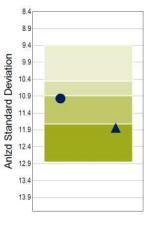


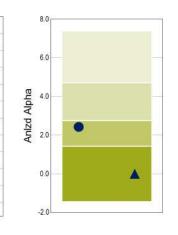
- Champlain
- Russell 2500
- ▲ Universe Median
- 68% Confidence Interval
- eA US Mid Cap Core Equity Gross

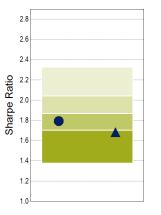
### **Characteristics**

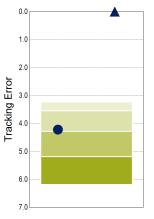
	Portfolio	Russell 2500
Number of Holdings	56	2,541
Weighted Avg. Market Cap. (\$B)	8.5	4.1
Median Market Cap. (\$B)	5.6	1.0
Price To Earnings	24.1	24.7
Price To Book	4.7	3.3
Price To Sales	3.6	2.7
Return on Equity (%)	19.9	12.6
Yield (%)	1.4	1.3
Beta		1.0
R-Squared		1.0

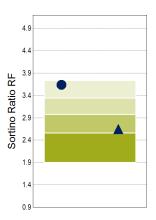










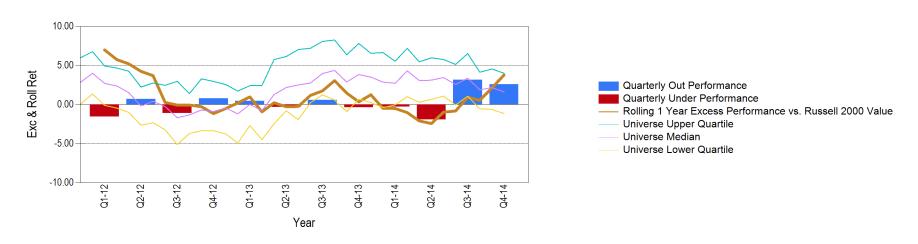




## Wellington

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.

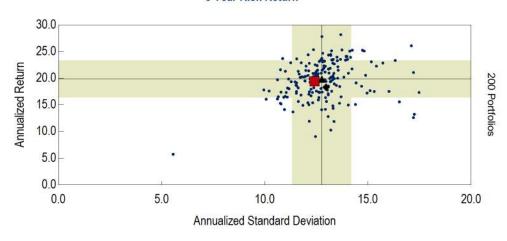






# Wellington

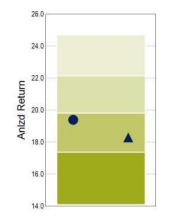
### 3 Year Risk Return

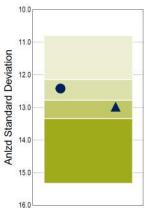


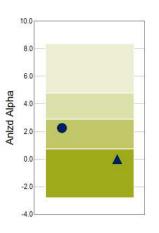
C	ha	ra	ct	eri	st	ics
•	ш	·ч	v	•		

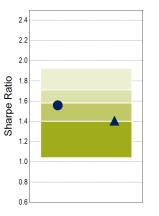
	Portfolio Russell 2000 Value
Number of Holdings	0 1,377
Weighted Avg. Market Cap. (\$B)	1.7
Median Market Cap. (\$B)	0.6
Price To Earnings	21.7
Price To Book	1.8
Price To Sales	2.4
Return on Equity (%)	7.6
Yield (%)	1.7
Beta	1.0
R-Squared	1.0

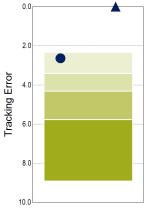
- Wellington
- Russell 2000 Value
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small Cap Value Equity Gross

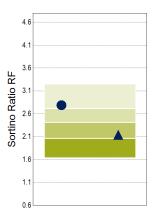










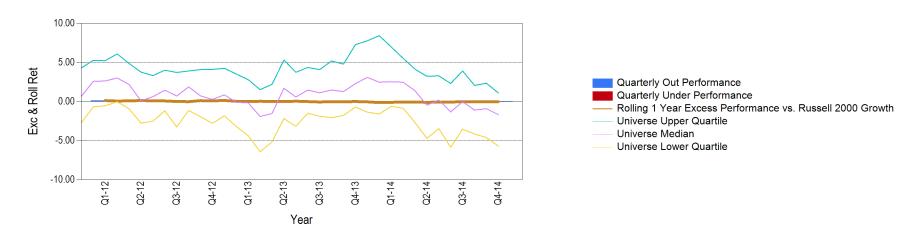




## SSgA Russell 2000 Growth

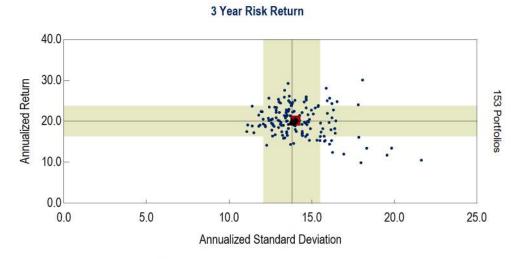
The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some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







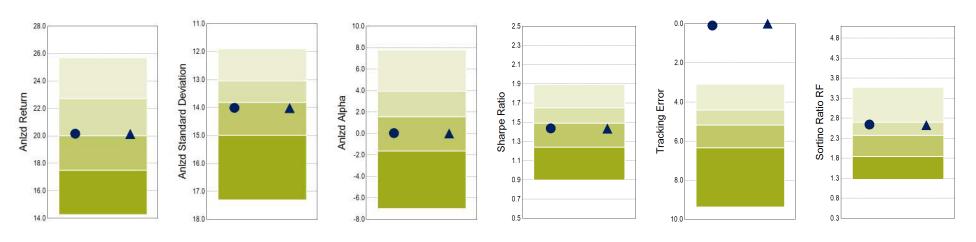
# SSgA Russell 2000 Growth



### **Characteristics**

	Portfolio	Russell 2000 Growth
Number of Holdings	1,141	1,205
Weighted Avg. Market Cap. (\$B)	2.1	2.1
Median Market Cap. (\$B)	0.8	0.8
Price To Earnings	29.4	29.1
Price To Book	5.8	5.3
Price To Sales	4.3	3.4
Return on Equity (%)	17.4	15.5
Yield (%)	0.6	0.4
Beta		1.0
R-Squared		1.0

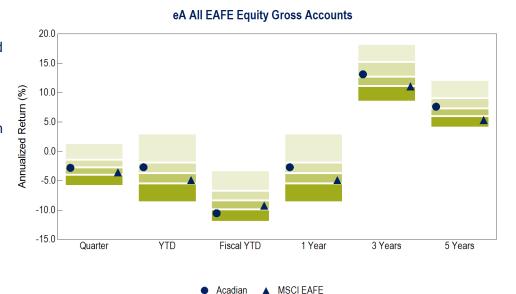
- SSgA Russell 2000 Growth
- · Russell 2000 Growth
- ▲ Universe Median
- 68% Confidence Interval
- eA US Small Cap Growth Equity Gross

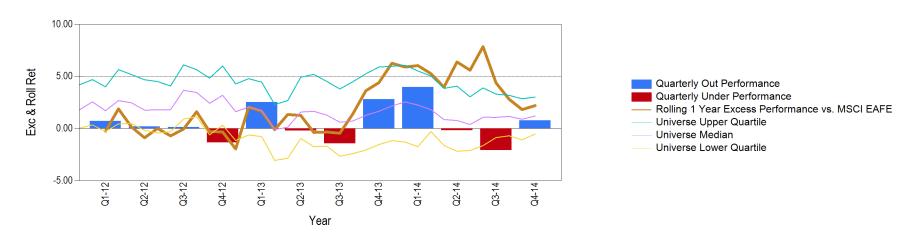




## Acadian

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.

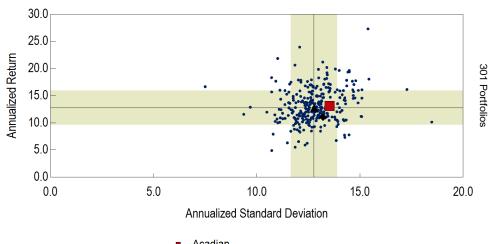






# Acadian

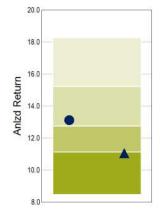


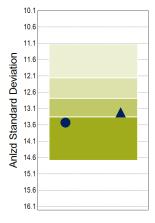


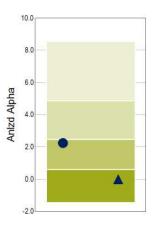
### Characteristics

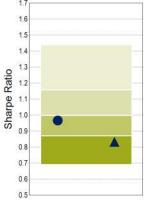
	Portfolio	MSCI EAFE
Number of Holdings	441	910
Weighted Avg. Market Cap. (\$B)	19.6	57.3
Median Market Cap. (\$B)	0.7	8.7
Price To Earnings	18.8	18.8
Price To Book	2.3	2.4
Price To Sales	1.1	1.9
Return on Equity (%)	13.9	13.6
Yield (%)	2.5	3.0
Beta		1.0
R-Squared		1.0

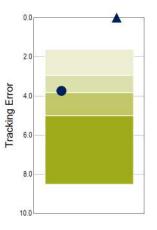
- Acadian
- MSCI EAFE
- Universe Median
- 68% Confidence Interval
- eA All EAFE Equity Gross

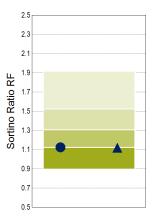














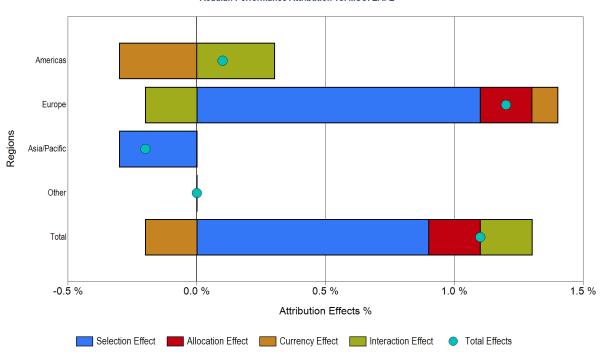
# Acadian

	Country A	Allocation		
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
Americas				
Brazil*	2.8%	0.0%	-8.3%	-14.9%
Canada	5.7%	0.0%	9.3%	-4.8%
Mexico*	0.4%	0.0%	-3.4%	-12.3%
United States	0.5%	0.0%	-7.0%	4.6%
Total-Americas	9.5%	0.0%	2.6%	
Europe				
Austria	1.3%	0.2%	-19.2%	-7.4%
Belgium	1.3%	1.3%	-4.8%	0.6%
Denmark	2.4%	1.6%	-12.4%	-7.9%
Finland	1.7%	0.9%	6.7%	-2.0%
France	5.8%	9.9%	-1.7%	-5.9%
Germany	9.2%	8.8%	2.0%	0.0%
Ireland	0.1%	0.3%	4.7%	1.9%
Italy	2.2%	2.5%	3.6%	-13.4%
Luxembourg	0.1%	0.0%	-26.7%	-3.6%
Netherlands	4.8%	2.7%	-10.6%	-0.4%
Norway	3.6%	0.8%	-28.6%	-24.8%
Poland*	0.1%	0.0%	-12.5%	-13.9%
Portugal	0.3%	0.2%	-6.9%	-23.0%
Spain	1.7%	3.6%	-8.6%	-8.2%
Sweden	5.5%	3.1%	2.6%	-3.5%
Switzerland	3.8%	9.2%	-0.3%	-2.4%
United Kingdom	12.3%	21.3%	0.6%	-4.3%
Total-Europe	56.2%	66.4%	-3.3%	-4.3%

Country Allocation						
	Manager	Index	Manager	Index		
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)		
AsiaPacific						
Australia	2.4%	7.5%	2.6%	-3.5%		
Hong Kong	0.1%	2.9%	5.4%	3.2%		
India*	1.4%	0.0%	7.3%	4.0%		
Japan	23.6%	21.0%	-1.7%	-2.4%		
Korea*	3.1%	0.0%	-1.1%	-3.2%		
Malaysia*	0.1%	0.0%	-6.8%	0.2%		
New Zealand	0.3%	0.1%	8.1%	2.5%		
Singapore	2.3%	1.5%	-0.1%	-0.5%		
Taiwan*	0.6%	0.0%	9.2%	2.5%		
Thailand*	0.1%	0.0%	3.6%	-0.5%		
Total-AsiaPacific	33.9%	33.1%	-0.6%	-2.1%		
Other						
Israel	0.3%	0.6%	3.1%	1.3%		
South Africa*	0.1%	0.0%	9.6%	6.6%		
Turkey*	0.0%	0.0%	1.6%	10.5%		
Total-Other	0.4%	0.6%	4.2%	1.3%		
Totals						
Developed	91.2%	100.0%	-1.4%	-3.5%		
Emerging*	8.8%	0.0%	1.6%			



### Acadian Performance Attribution vs. MSCI EAFE

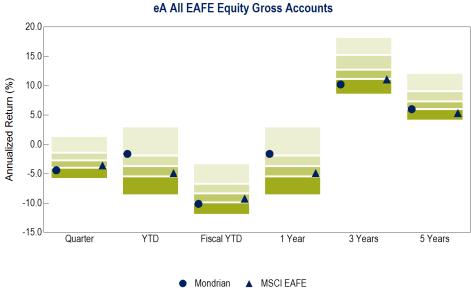


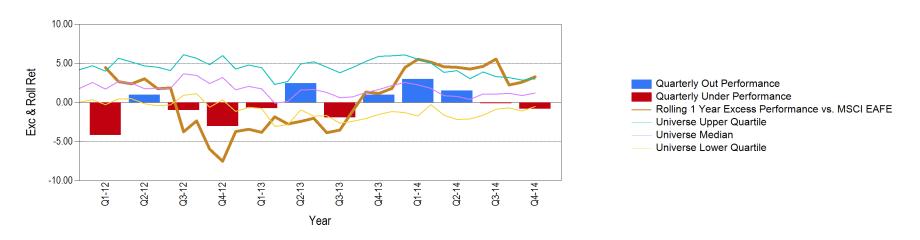
	Returns and Weights			Attribution Effects					
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Totals									
Americas	2.6%		9.5%	0.0%	0.0%	0.0%	-0.3%	0.3%	0.1%
Europe	-3.3%	-4.3%	56.2%	66.4%	1.1%	0.2%	0.1%	-0.2%	1.2%
Asia/Pacific	-2.6%	-2.1%	33.9%	33.1%	-0.3%	0.0%	0.0%	0.0%	-0.2%
Other	2.3%	1.4%	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-2.5%	-3.6%	100.0%	100.0%	0.9%	0.2%	-0.2%	0.2%	1.1%
Totals									
Developed	-2.5%	-3.6%	91.3%	100.0%	1.6%	0.0%	0.0%	-0.1%	1.4%
Emerging*	-2.3%		8.7%	0.0%	0.0%	0.0%	-0.1%	-0.2%	-0.4%



## 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 of a company. This methodology is applied consistently to individual securities of across all markets and industries. The universe spans markets covered in the MSCI Indices and those developing markets with adequate investor protection of the markets with a market with 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.

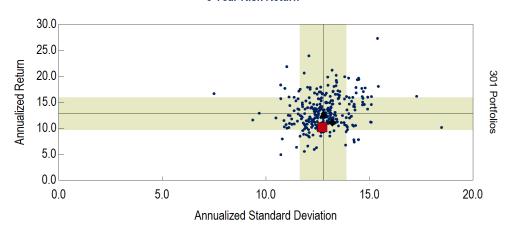






# Mondrian

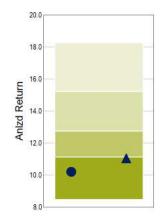
### 3 Year Risk Return

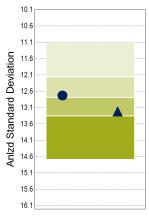


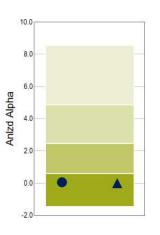
- Mondrian
- ◆ MSCI EAFE
- Universe Median
- 68% Confidence Interval
- eA All EAFE Equity Gross

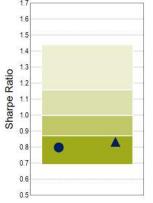
### **Characteristics**

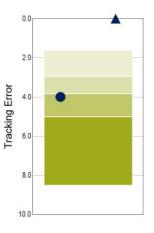
	Portfolio	MSCI EAFE
Number of Holdings	32	910
Weighted Avg. Market Cap. (\$B)	69.1	57.3
Median Market Cap. (\$B)	44.8	8.7
Price To Earnings	19.1	18.8
Price To Book	2.4	2.4
Price To Sales	1.5	1.9
Return on Equity (%)	14.8	13.6
Yield (%)	3.8	3.0
Beta		1.0
R-Squared		1.0

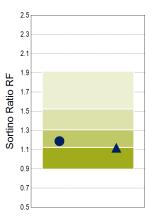














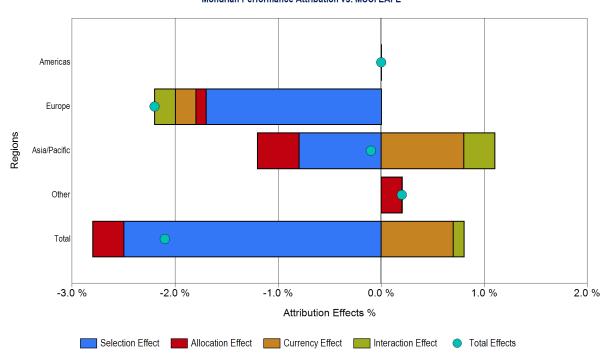
# Mondrian

	Country A	Allocation		
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
Europe				
France	10.3%	9.9%	-22.4%	-5.9%
Germany	10.0%	8.8%	-1.5%	0.0%
Italy	3.9%	2.5%	-26.3%	-13.4%
Netherlands	7.7%	2.7%	-1.1%	-0.4%
Spain	5.4%	3.6%	-3.3%	-8.2%
Sweden	3.6%	3.1%	-6.0%	-3.5%
Switzerland	15.1%	9.2%	0.1%	-2.4%
United Kingdom	18.0%	21.3%	-5.9%	-4.3%
Total-Europe	73.9%	66.4%	-6.8%	-4.3%

	Country A	Allocation		
	Manager	Index		
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
AsiaPacific				
China*	2.4%	0.0%	1.0%	7.2%
Japan	17.7%	21.0%	-4.0%	-2.4%
Singapore	1.7%	1.5%	-17.3%	-0.5%
Total-AsiaPacific	21.9%	33.1%	-4.5%	-2.1%
Other				
Israel	4.2%	0.6%	7.6%	1.4%
Total-Other	4.2%	0.6%	7.6%	1.4%
Totals				
Developed	97.6%	100.0%	-5.8%	-3.6%
Emerging*	2.4%	0.0%	1.0%	



### Mondrian Performance Attribution vs. MSCI EAFE

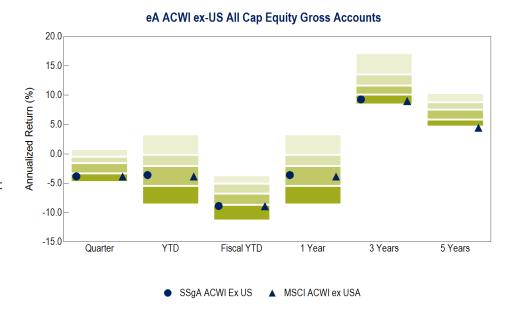


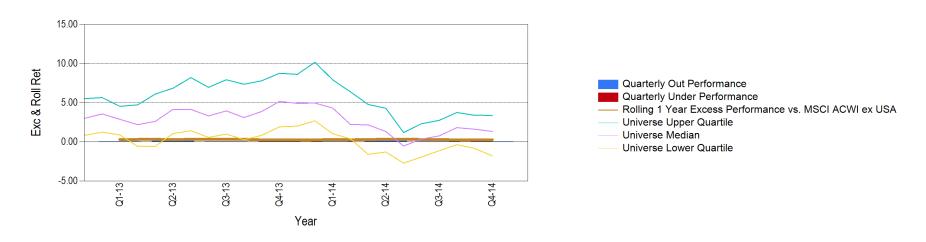
	Returns and Weights				Attribution Effects				
	Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total
	Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects
Totals									
Americas			0.0%	0.0%		0.0%	0.0%		0.0%
Europe	-6.8%	-4.3%	73.9%	66.4%	-1.7%	-0.1%	-0.2%	-0.2%	-2.2%
Asia/Pacific	-4.5%	-2.1%	21.9%	33.1%	-0.8%	-0.4%	0.8%	0.3%	-0.1%
Other	7.6%	1.4%	4.2%	0.6%	0.0%	0.2%	0.0%	0.0%	0.2%
Total	-5.7%	-3.6%	100.0%	100.0%	-2.5%	-0.3%	0.7%	0.1%	-2.1%
Totals									
Developed	-5.8%	-3.6%	97.6%	100.0%	-2.8%	0.0%	0.7%	0.1%	-2.1%
Emerging*	1.0%		2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



## SSgA ACWI Ex US

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.

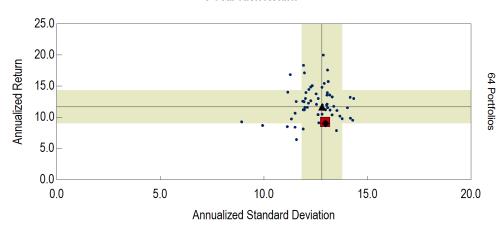






# SSgA ACWI Ex US

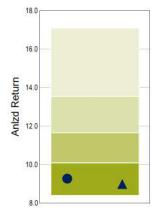
### 3 Year Risk Return

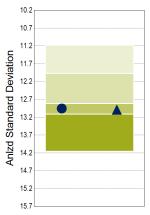


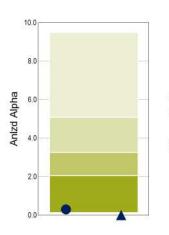
- SSgA ACWI Ex US
- MSCI ACWI ex USA
- ▲ Universe Median
- 68% Confidence Interval
- eA ACWI ex-US All Cap Equity Gross

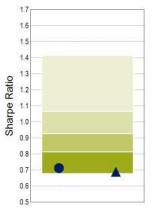
### **Characteristics**

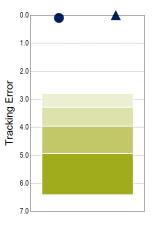
	D (6.11	MSCI
	Portfolio	ACWI ex
		USA
Number of Holdings	1,916	1,839
Weighted Avg. Market Cap. (\$B)	51.1	51.2
Median Market Cap. (\$B)	6.8	6.7
Price To Earnings	19.9	18.5
Price To Book	3.0	2.5
Price To Sales	2.3	2.0
Return on Equity (%)	16.4	14.9
Yield (%)	2.9	2.9
Beta		1.0
R-Squared		1.0

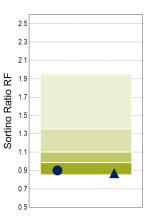












# SSgA ACWI Ex US

# Country Allocation Manager Index Manager Index

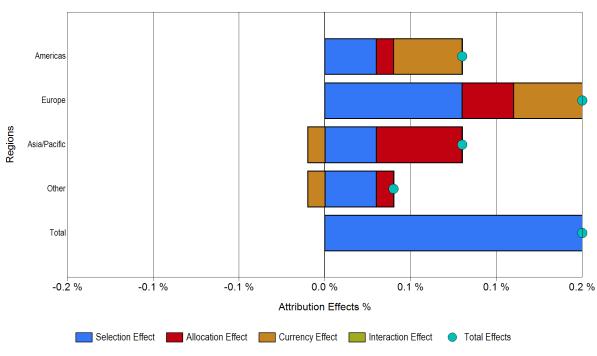
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
Americas				
Brazil*	2.3%	2.2%	-13.6%	-14.8%
Canada	7.3%	7.6%	-3.9%	-4.7%
Chile*	0.3%	0.3%	-5.0%	-5.2%
Colombia*	0.2%	0.2%	-22.3%	-22.9%
Mexico*	1.2%	1.2%	-12.0%	-12.2%
Peru*	0.1%	0.1%	-0.2%	-0.8%
United States	0.1%	0.0%	-41.1%	4.6%
Total-Americas	11.5%	11.6%	-7.2%	-7.8%
Europe				
Austria	0.2%	0.2%	-6.8%	-7.4%
Belgium	0.9%	0.9%	0.8%	0.6%
Czech Republic*	0.1%	0.1%	-15.2%	-15.4%
Denmark	1.0%	1.1%	-7.7%	-7.9%
Finland	0.6%	0.6%	-1.5%	-2.0%
France	6.7%	7.0%	-5.3%	-5.9%
Germany	6.1%	6.2%	0.2%	0.0%
Greece*	0.1%	0.1%	-28.3%	-28.7%
Hungary*	0.0%	0.0%	-12.8%	-12.8%
Ireland	0.1%	0.2%	-0.5%	1.9%
Italy	1.7%	1.8%	-11.7%	-13.4%
Luxembourg	0.2%	0.0%	-8.5%	-3.8%
Netherlands	2.6%	1.9%	-3.4%	-0.4%
Norway	0.6%	0.6%	-23.7%	-24.8%
Poland*	0.4%	0.4%	-13.7%	-13.9%
Portugal	0.1%	0.1%	-22.6%	-23.0%
Russia*	1.0%	1.0%	-30.3%	-32.4%
Spain	2.4%	2.6%	-8.4%	-8.2%
Sweden	2.1%	2.2%	-3.3%	-3.5%
Switzerland	6.4%	6.5%	-2.0%	-2.4%
United Kingdom	13.0%	15.1%	-3.2%	-4.3%
Total-Europe	46.2%	48.6%	-4.6%	-5.1%

## **Country Allocation**

	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
AsiaPacific				
Australia	5.6%	5.3%	-3.2%	-3.5%
China*	4.4%	4.2%	8.0%	7.3%
Hong Kong	3.3%	2.1%	0.2%	3.2%
India*	1.6%	1.5%	-0.3%	-0.7%
Indonesia*	0.6%	0.6%	1.1%	0.7%
Japan	14.7%	14.9%	-2.2%	-2.4%
Korea*	3.2%	3.2%	-7.1%	-8.0%
Malaysia*	0.9%	0.9%	-10.0%	-10.5%
New Zealand	0.1%	0.1%	3.2%	2.6%
Philippines*	0.3%	0.3%	0.9%	0.7%
Singapore	1.0%	1.1%	-0.6%	-0.5%
Taiwan*	2.7%	2.6%	2.1%	1.7%
Thailand*	0.5%	0.5%	-4.8%	-6.3%
Total-AsiaPacific	38.9%	37.1%	-1.1%	-1.4%
Other				
Egypt*	0.1%	0.1%	-8.4%	-8.6%
Israel	0.4%	0.4%	1.9%	1.4%
Qatar*	0.1%	0.1%	-6.5%	-8.3%
South Africa*	1.7%	1.6%	4.1%	3.0%
Turkey*	0.4%	0.3%	11.9%	11.6%
United Arab Emirates*	0.1%	0.1%	-19.4%	-20.9%
Total-Other	2.8%	2.7%	3.1%	1.8%
Totals				
Developed	77.1%	78.3%	-3.3%	-3.7%
Emerging*	22.3%	21.7%	-3.4%	-4.5%
Cash	0.6%		0.0%	



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



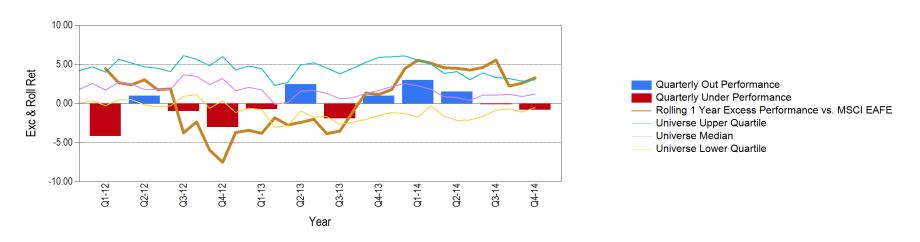
	Returns and Weights				Attribution Effects				
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	Total Effects
Totals									
Americas	-7.2%	-7.8%	11.5%	11.6%	0.0%	0.0%	0.0%	0.0%	0.1%
Europe	-4.6%	-5.1%	46.2%	48.6%	0.1%	0.0%	0.3%	0.0%	0.4%
Asia/Pacific	-1.1%	-1.4%	38.9%	37.1%	0.0%	0.1%	0.0%	0.0%	0.1%
Other	3.1%	1.8%	2.8%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%		0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-3.3%	-3.8%	100.0%	100.0%	0.2%	0.1%	0.3%	0.0%	0.6%
Totals									
Developed	-3.3%	-3.7%	77.1%	78.3%	0.2%	0.0%	0.1%	0.0%	0.4%
Emerging*	-3.4%	-4.5%	22.3%	21.7%	0.0%	0.0%	0.2%	0.0%	0.2%
Cash	0.0%		0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



## 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.







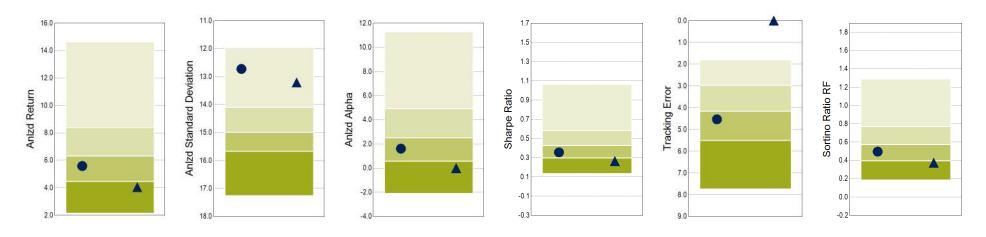
# Aberdeen



· eA Emg Mkts Equity Gross

### Characteristics

	Portfolio	MSCI Emerging Markets
N. I. CHIE	0.4	
Number of Holdings	61	834
Weighted Avg. Market Cap. (\$B)	32.7	36.0
Median Market Cap. (\$B)	15.0	4.9
Price To Earnings	18.5	17.3
Price To Book	3.5	2.7
Price To Sales	2.8	2.2
Return on Equity (%)	19.0	17.8
Yield (%)	3.1	2.6
Beta		1.0
R-Squared		1.0





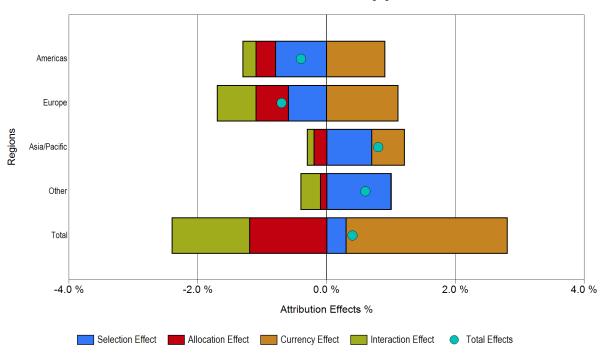
# Aberdeen

Country Allocation								
	Manager	Index	Manager	Index				
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)				
Americas								
Brazil*	13.3%	10.3%	-16.9%	-14.8%				
Chile*	1.3%	1.5%	-10.7%	-5.2%				
Mexico*	7.3%	5.4%	-7.2%	-12.2%				
United States	1.2%	0.0%	1.8%	4.6%				
Total-Americas	23.1%	18.7%	-12.5%	-13.4%				
Europe								
Hungary*	1.2%	0.2%	-13.5%	-12.8%				
Luxembourg	2.5%	0.0%	-33.1%	-4.5%				
Poland*	2.0%	1.7%	-14.4%	-13.9%				
Portugal	1.0%	0.0%	-8.4%	-23.0%				
Russia*	2.8%	4.7%	-22.0%	-32.4%				
United Kingdom	5.4%	0.0%	-14.4%	-4.2%				
Total-Europe	14.8%	7.5%	-18.5%	-26.7%				

	Country A	Allocation		
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
AsiaPacific				
China*	2.3%	19.2%	-13.5%	7.3%
Hong Kong	11.7%	0.0%	0.1%	3.1%
India*	14.3%	7.1%	4.0%	-0.7%
Indonesia*	2.7%	2.7%	4.7%	0.7%
Korea*	5.3%	14.9%	4.3%	-8.0%
Malaysia*	2.3%	3.9%	-16.5%	-10.5%
Philippines*	3.7%	1.2%	0.8%	0.7%
Taiwan*	4.9%	12.0%	12.1%	1.7%
Thailand*	5.0%	2.4%	-4.4%	-6.3%
Total-AsiaPacific	52.2%	63.4%	1.2%	-0.3%
Other				
South Africa*	2.6%	7.4%	12.1%	3.0%
Turkey*	4.9%	1.6%	10.9%	11.6%
Total-Other	7.5%	10.5%	11.3%	1.9%
Totals				
Developed	21.8%	0.0%	-7.5%	
Emerging*	75.9%	100.0%	-3.3%	-4.5%
Cash	2.3%		0.0%	



### Aberdeen Performance Attribution vs. MSCI Emerging Markets



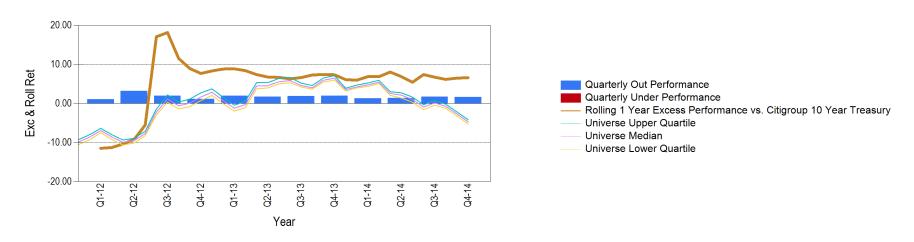
Returns and Weights				Attribution Effects				
Manager	Index	Manager	Index	Selection	Allocation	Currency	Interaction	Total
Return	Return	Weight	Weight	Effect	Effect	Effect	Effect	Effects
-12.5%	-13.4%	23.1%	18.7%	-0.8%	-0.3%	0.9%	-0.2%	-0.4%
-18.5%	-26.7%	14.8%	7.5%	-0.6%	-0.5%	1.1%	-0.6%	-0.7%
1.2%	-0.3%	52.2%	63.4%	0.7%	-0.2%	0.5%	-0.1%	0.8%
11.3%	1.9%	7.5%	10.5%	1.0%	-0.1%	0.0%	-0.3%	0.6%
0.0%	-	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
-4.1%	-4.5%	100.0%	100.0%	0.3%	-1.2%	2.5%	-1.2%	0.4%
-7.5%		21.8%	0.0%	0.0%	0.0%	-0.2%	-1.5%	-1.7%
-3.3%	-4.5%	75.9%	100.0%	-0.9%	0.0%	2.7%	0.2%	2.0%
0.0%	-	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Manager Return  -12.5% -18.5% 1.2% 11.3% 0.0% -4.1%  -7.5% -3.3%	Manager Return Return  -12.5% -13.4% -18.5% -26.7% 1.2% -0.3% 11.3% 1.9% 0.0%4.1% -4.5%	Manager Return         Index Return         Manager Weight           -12.5%         -13.4%         23.1%           -18.5%         -26.7%         14.8%           1.2%         -0.3%         52.2%           11.3%         1.9%         7.5%           0.0%          2.3%           -4.1%         -4.5%         100.0%           -7.5%          21.8%           -3.3%         -4.5%         75.9%	Manager Return         Index Paturn         Manager Weight         Index Weight           -12.5%         -13.4%         23.1%         18.7%           -18.5%         -26.7%         14.8%         7.5%           1.2%         -0.3%         52.2%         63.4%           11.3%         1.9%         7.5%         10.5%           0.0%          2.3%         0.0%           -4.1%         -4.5%         100.0%         100.0%           -7.5%          21.8%         0.0%           -3.3%         -4.5%         75.9%         100.0%	Manager Return         Index Return         Manager Weight         Index Weight         Selection Effect           -12.5%         -13.4%         23.1%         18.7%         -0.8%           -18.5%         -26.7%         14.8%         7.5%         -0.6%           1.2%         -0.3%         52.2%         63.4%         0.7%           11.3%         1.9%         7.5%         10.5%         1.0%           0.0%          2.3%         0.0%         0.0%           -4.1%         -4.5%         100.0%         100.0%         0.0%           -7.5%          21.8%         0.0%         0.0%           -3.3%         -4.5%         75.9%         100.0%         -0.9%	Manager Return         Index Return         Manager Weight         Index Weight         Selection Effect         Allocation Effect           -12.5%         -13.4%         23.1%         18.7%         -0.8%         -0.3%           -18.5%         -26.7%         14.8%         7.5%         -0.6%         -0.5%           1.2%         -0.3%         52.2%         63.4%         0.7%         -0.2%           11.3%         1.9%         7.5%         10.5%         1.0%         -0.1%           0.0%         -         2.3%         0.0%         0.0%         0.0%           -4.1%         -4.5%         100.0%         100.0%         0.0%         0.0%           -7.5%         -         21.8%         0.0%         0.0%         0.0%           -3.3%         -4.5%         75.9%         100.0%         -0.9%         0.0%	Manager Return         Index Return         Manager Weight         Index Weight         Selection Effect         Allocation Effect         Currency Effect           -12.5%         -13.4%         23.1%         18.7%         -0.8%         -0.3%         0.9%           -18.5%         -26.7%         14.8%         7.5%         -0.6%         -0.5%         1.1%           1.2%         -0.3%         52.2%         63.4%         0.7%         -0.2%         0.5%           11.3%         1.9%         7.5%         10.5%         1.0%         -0.1%         0.0%           0.0%         -         2.3%         0.0%         0.0%         0.0%         0.0%           -4.1%         -4.5%         100.0%         100.0%         0.0%         0.0%         -0.2%           -7.5%         -         21.8%         0.0%         0.0%         0.0%         -0.2%           -3.3%         -4.5%         75.9%         100.0%         -0.9%         0.0%         2.7%	Manager Return         Index Return         Manager Weight         Index Weight         Selection Effect         Allocation Effect         Currency Effect         Interaction Effect           -12.5%         -13.4%         23.1%         18.7%         -0.8%         -0.3%         0.9%         -0.2%           -18.5%         -26.7%         14.8%         7.5%         -0.6%         -0.5%         1.1%         -0.6%           1.2%         -0.3%         52.2%         63.4%         0.7%         -0.2%         0.5%         -0.1%           11.3%         1.9%         7.5%         10.5%         1.0%         -0.1%         0.0%         -0.3%           0.0%          2.3%         0.0%         0.0%         0.0%         0.0%         0.0%           -4.1%         -4.5%         100.0%         100.0%         0.0%         0.0%         -0.2%         -1.5%           -3.3%         -4.5%         75.9%         100.0%         -0.9%         0.0%         2.7%         0.2%



## 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.

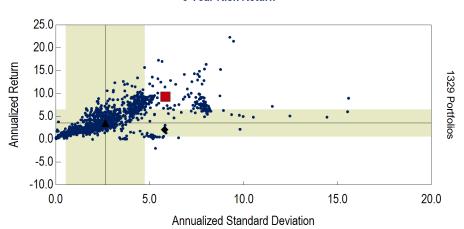




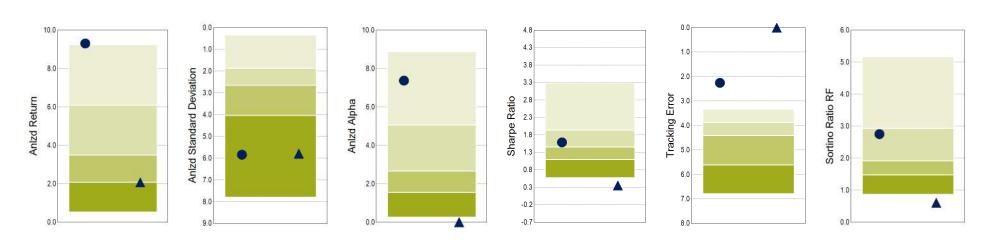


# Allianz Structured Alpha

### 3 Year Risk Return



- Allianz Structured Alpha
- Citigroup 10 Year Treasury
- ▲ Universe Median
- 68% Confidence Interval
- eA All US Fixed Inc Gross

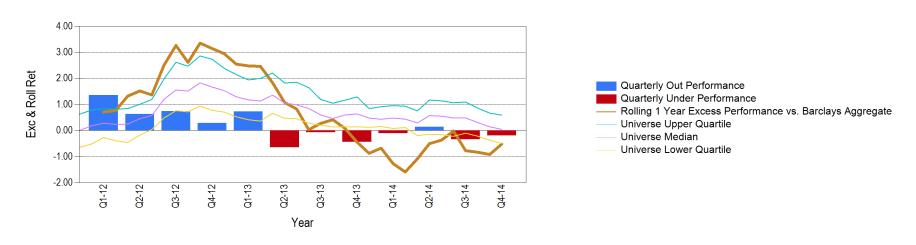




## PIMCO Core Plus

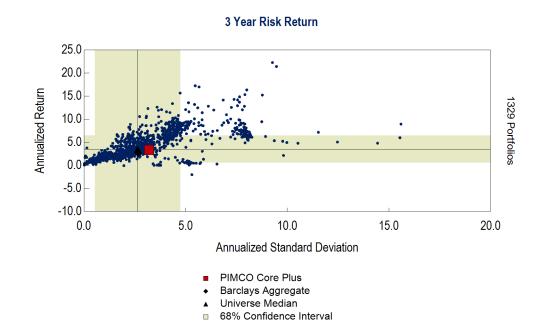
PIMCO's investment process expects to generate above-benchmark returns by building diversified, risk-averse portfolios based upon their long-term secular outlook. This is achieved by analyzing fundamental global trends in such areas as political factors, inflation, volatility, growth, and currency, amongst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



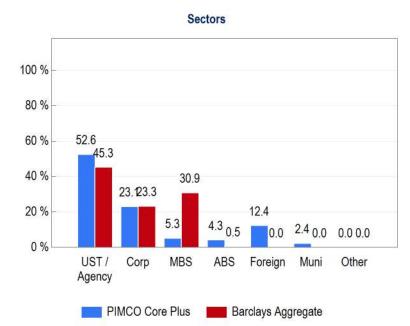


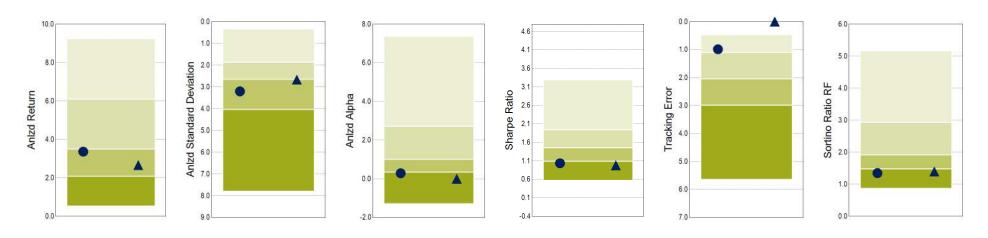


# PIMCO Core Plus



eA All US Fixed Inc Gross

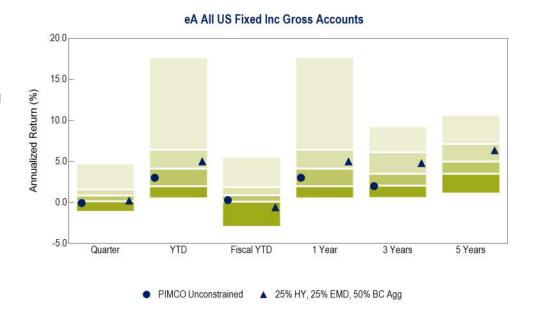


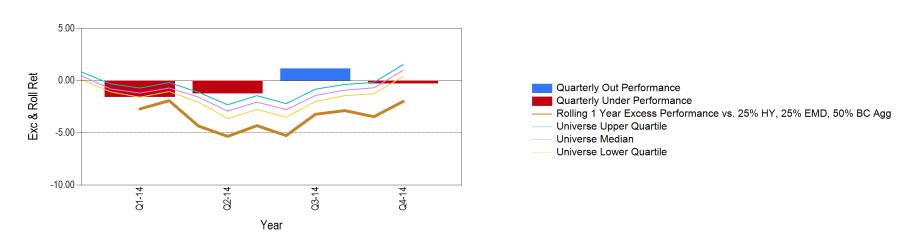




## PIMCO Unconstrained

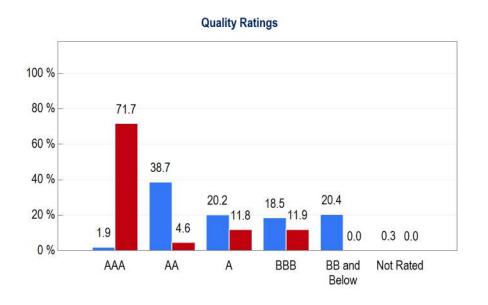
The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that embodies PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy 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.

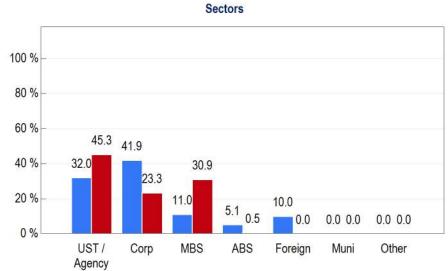






## PIMCO Unconstrained



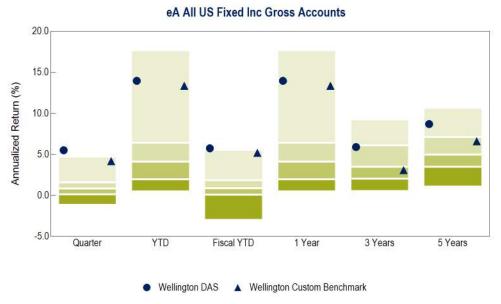


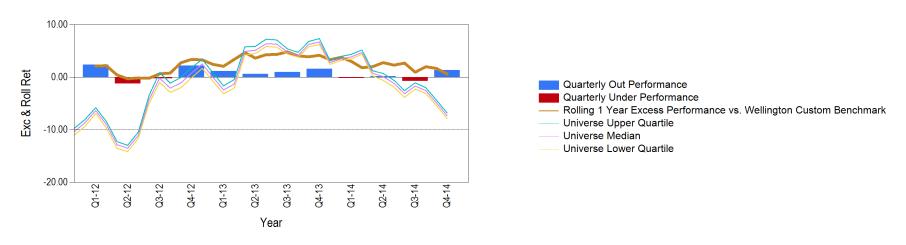
PIMCO Unconstrained

Barclays Aggregate

## 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.

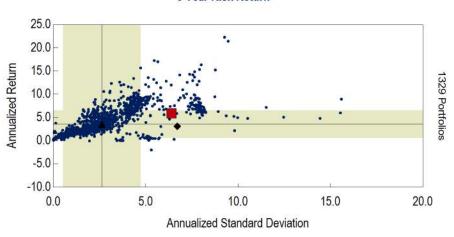




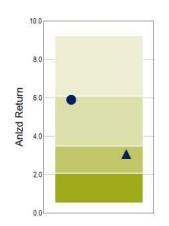


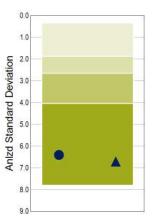
# Wellington DAS

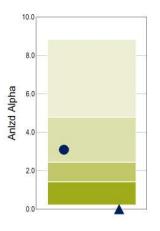


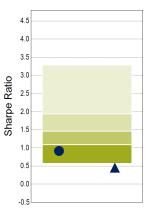


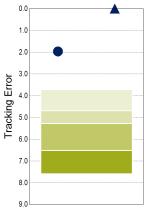
- Wellington DAS
- Wellington Custom Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- eA All US Fixed Inc Gross

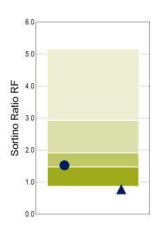










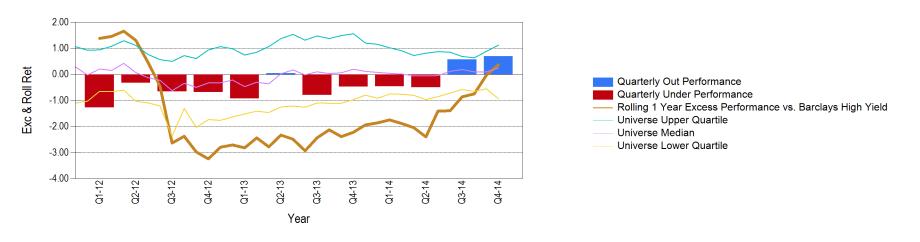




### **KDP**

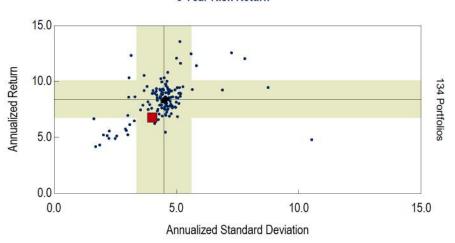
KDP believes that the key to delivering superior risk-adjusted returns lies in controlling credit risk. To do this the firm combines rigorous, bottom-up credit analysis with an active, top-down management approach that ensures a strong overall credit profile and broad portfolio diversification. KDP employs 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.



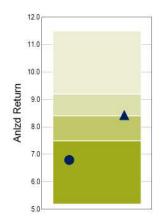


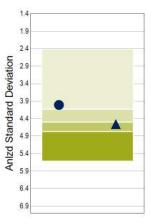


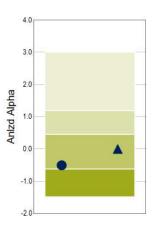
### 3 Year Risk Return

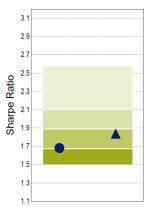


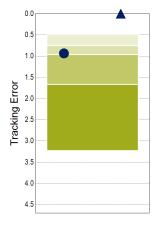
- KDP
- Barclays High Yield
- ▲ Universe Median
- 68% Confidence Interval
- eA US High Yield Fixed Inc Gross

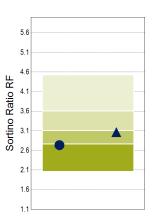




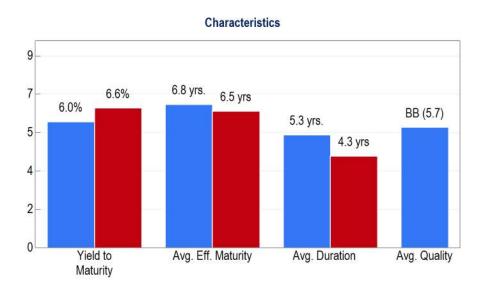


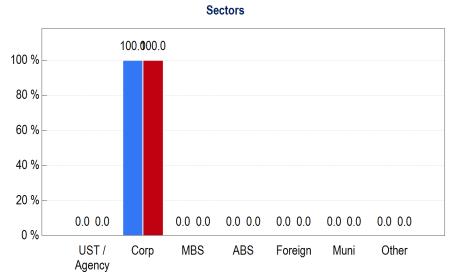










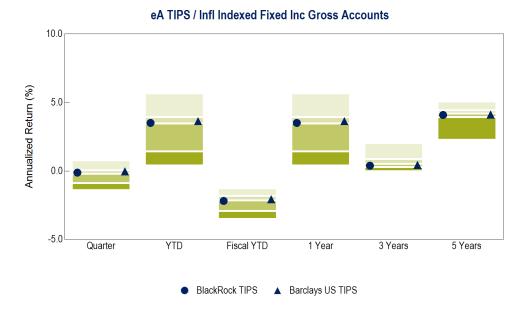


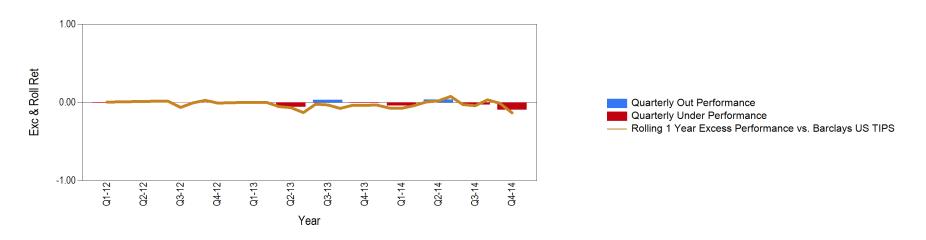
KDP Barclays High Yield



## BlackRock TIPS

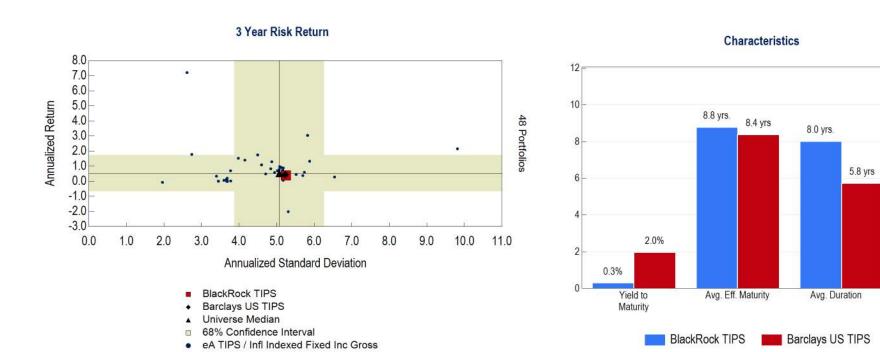
In the management of an inflation-linked bond portfolio, BlackRock will utilize multiple strategies to outperform the index. These include: duration and yield curve positioning, technical supply/demand anomalies related primarily to the ILB auction cycle, seasonal factors related to non-seasonally adjusted 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%.



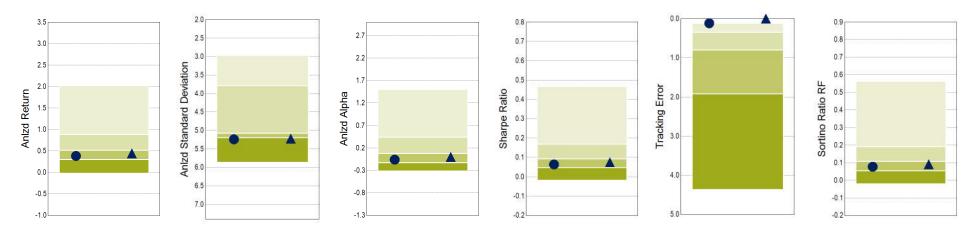




## BlackRock TIPS



### **3 Year Risk Statistics**





AA (9.1)

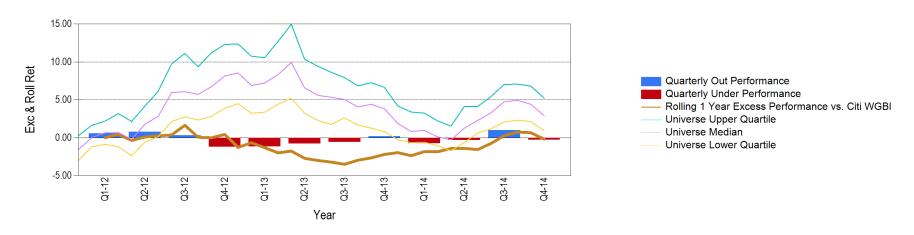
Avg. Quality

# 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.

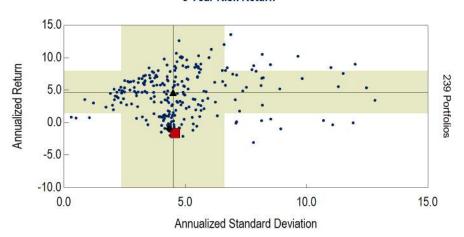


#### **Annualized Excess Performance**



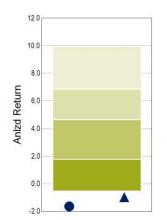


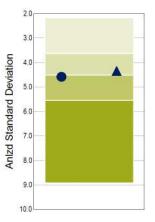
#### 3 Year Risk Return

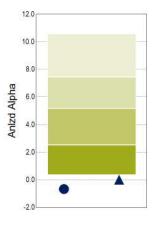


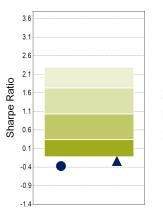
- Mondrian GFI
- Citi WGBI
- ▲ Universe Median
- 68% Confidence Interval
- eA All Global Fixed Inc Gross

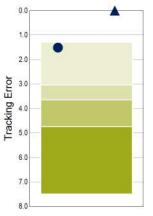
#### **3 Year Risk Statistics**

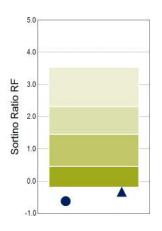




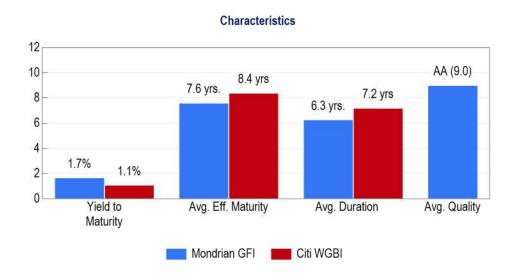


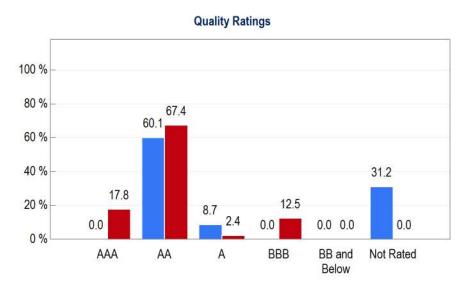


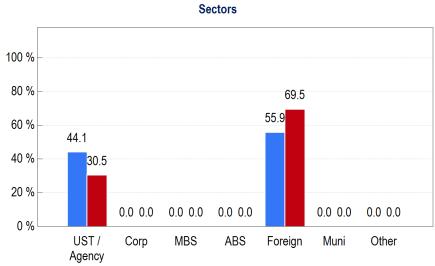




# Mondrian GFI



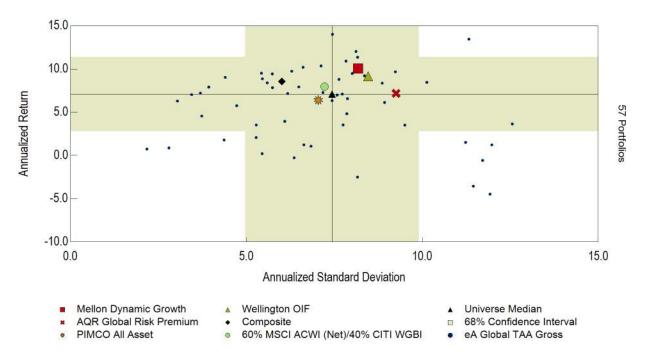






# Total Global Asset Allocation/Better Beta

#### Annualized Return vs. Annualized Standard Deviation 3 Years Ending December 31, 2014



#### **Statistics Summary**

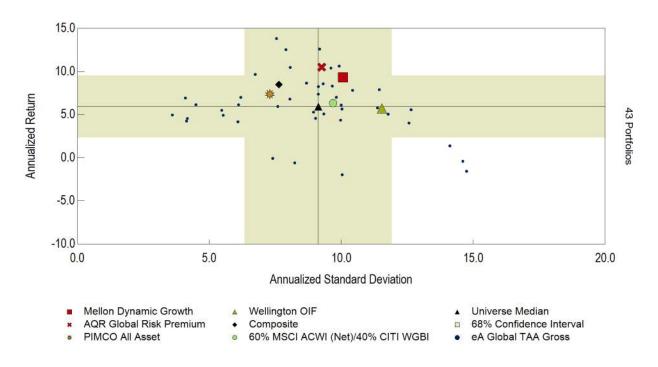
#### 3 Years Ending December 31, 2014

	Anizd Return	Anizd Standard Deviation
GAA Comp	7.67%	7.70%
Mellon Dynamic Growth	10.06%	8.18%
AQR Global Risk Premium	7.18%	9.25%
PIMCO All Asset	6.39%	7.04%
Wellington OIF	9.15%	8.46%
Composite	8.55%	6.01%



# Total Global Asset Allocation/Better Beta

#### Annualized Return vs. Annualized Standard Deviation 5 Years Ending December 31, 2014



# Statistics Summary 5 Years Ending December 31, 2014

	Anlzd Return	AnIzd Standard Deviation
GAA Comp	8.22%	8.45%
Mellon Dynamic Growth	9.33%	10.07%
AQR Global Risk Premium	10.50%	9.26%
PIMCO All Asset	7.37%	7.29%
Wellington OIF	5.72%	11.54%
Composite	8.48%	7.64%

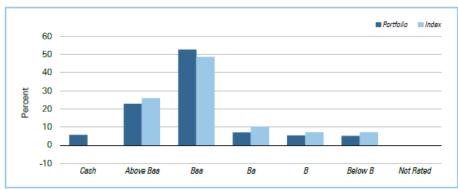


# Wellington Opportunistic Emerging Market Debt

#### **PORTFOLIO STATISTICS**

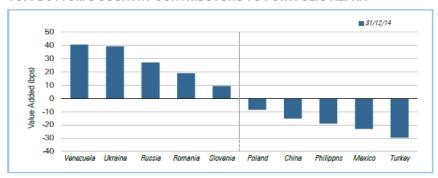
	Portfolio	Index
Yield	5.11%	6.09%
Effective Duration	6.67 Yrs	6.91 Yrs
Spread Duration	6.65 Yrs	6.93 Yrs
Corporate Exposure	3.29%	_
EM Local Market Exposure	15.33%	_
EM Currency Exposure	4.85%	_
Average Quality	Baa2	Baa3

#### **QUALITY DISTRIBUTION**

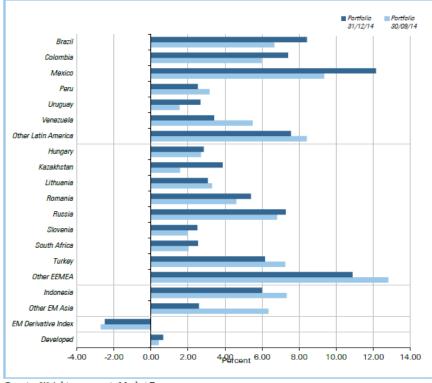


May not add to 100% due to derivative positions in portfolios that permit the use of such instruments Quality ratings are based on the highest of Fitch, Moody or S&P.

#### TOP/BOTTOM 5 COUNTRY CONTRIBUTORS TO PORTFOLIO ALPHA



#### COMPARATIVE COUNTRY WEIGHTS



Country Weights represents Market Exposure





# 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 Global Expanded Alpha I (Global Asset Allocation)

The core philosophy behind Mellon's Global Expanded Alpha strategy is that global capital markets are an orderly and mostly rational structure

over the long term and that prices reflect expected

returns based on fundamentals. However while equilibrium exists there are factors in the capital

markets which cause prices to deviate from the equilibrium. Mellon seeks to diversify  $\,$ 

investment exposure across many asset classes. Global

Stocks, Global Bonds and Currencies are the broad

asset classes in which Global Alpha 1 is exposed.

determines expected returns, risks, and correlations

for each asset class in the twelve major capital markets (Australia, Canada, France, Germany, Hong

Kong, Italy, Japan, the Netherlands, Spain, Switzerland, the U.K., and the U.S.) where they actively allocate assets. Model has been expanded

to new alpha sources: emerging markets and commodities. Alpha in the emerging market is extracted through both emerging market equities

and currencies. Emerging market equity and currency models rely on similar signals to those employed in developed equities and currencies models. Relative Valuation is the basis for asset class investment decisions. Investment instruments

used include Futures, Forwards, Options and Asset

Class Funds. Mellon is capable of taking Long/Short

positions in any instruments but must be Net Long

Stocks and Bonds.

		country	Current month /
		Australia	3.1
		Canada	2.9
		France	3.0
		Germany	8.0
		Hong Kong	5.0
	Developed ex-U.S. Equity	Italy	1.7
	39.3%	Japan	14.1
		Netherlands	5.5
		Spain	-1.1
		Switzerland	-0.7
		United Kingdom	-2.9
Growth 70.7%		Other	0.8
Growth 70.7%	U.S. Equity 22.1%	United States	22.1
		Brazil	-0.1
		China	0.1
		India	-0.1
		Mexico	0.0
		Poland	0.1
	EM Equity 4.2%	So. Africa	-0.1
		So. Korea	0.1
		Taiwan	0.0
		Turkey	0.0
		Other	4.2
	High Yield Bonds 5.0%		5.0
Hedging 16.5%	Government Bonds <sup>2</sup> 16.5%		16.5
Real 12.8%	Commodity 7.9%		7.9
Real 12.0%	Inflation-Linked Bonds 4.9%		4.9

Country

**Current Month %** 

		Country	Current Worth /6
	U.S. 113.6%	United States	113.6
		Australia	-2.4
		Canada	1.4
		Denmark	-0.1
		Euro	-18.0
		Hong Kong	0.0
	Developed ex-U.S.	Japan	8.8
	-17.7%	New Zealand	8.9
		Norway	-1.4
		Sweden	-0.6
		Switzerland	0.1
		United Kingdom	-14.6
Currency 100 09/		Other	0.3
Currency 100.0%		Brazil	0.1
		Chile	-0.1
		India	0.1
		Indonesia	-0.1
		Israel	-0.1
		Mexico	0.0
	Emerging Markets	Poland	0.0
	4.2 /0	Russia	0.1
		So. Africa	-0.1
		So. Korea	0.1
		Taiwan	0.2
		Turkey	-0.1
		Other	4.2

Country

**Current Month %** 

Source: Mellon Capital Management
\*Index is 50% MSCI ACWI IMI (HH), 20% Citi WGBI GDP (HH), 10% BC Global Inflation Linked (HH), 5% BC US Intermediate Credit, 5% BC US Corp HY, 5% JPM GBI EM Local Debt, 5% DJ-UBS Commodity.
Returns are net of fee.



# Mellon Global Expanded Alpha I (Global Asset Allocation)

		Growth			Hedging			Real		_			
	Fund Return %	Developed ex-U.S. Equity	U.S. Equity	EM Equity	High Yield Bonds	EM Debt	Government Bonds ex-U.S.	U.S. Bonds	IG Corporates	Commodity	Inflation - Linked Bonds	Diversifying Strategies	Total Attribution
Month-to-Date	0.28	-0.57	-0.02	-0.16	-0.08	0.00	-0.38	0.06	0.00	0.80	-0.06	0.69	0.28
Quarter-to-Date	5.29	1.31	1.43	-0.14	-0.05	0.00	-0.38	1.79	0.00	0.75	-0.01	0.58	5.29
Year-to-Date	6.77	2.16	2.66	-0.05	0.12	0.02	-2.35	1.99	0.17	0.67	0.50	0.88	6.77
1 Year	6.77	2.16	2.66	-0.05	0.12	0.02	-2.35	1.99	0.17	0.67	0.50	0.88	6.77
3 Year	10.07	3.95	5.01	0.18	0.22	-0.07	0.17	0.67	0.18	0.28	0.29	-0.81	10.07
5 Year	-	-	-	-	-	-	•	-	-	-	-	-	-
10 Year	-	-	-	-	-	-	-	-	-	-	-	-	-
Since Inception <sup>2</sup>	8.53	1.88	3.73	0.02	0.14	-0.05	0.86	0.56	0.22	0.23	0.49	0.45	8.54

Source: Mellon Capital Management



# PIMCO All Asset

Total Fund Net Assets (\$US MM)	31,322.0 6/30/2012	9/30/2012	12/31/2012	3/31/2013	6/30/2013	9/30/2013	12/31/2013	3/31/2014	6/30/2014	9/30/2014	10/31/2014	11/30/2014	12/31/20
hort-Term Strategies:	0.1%	0.3%	0.0%	0.2%	-0.2%	0.8%	0.6%	0.6%	1.1%	0.3%	1.3%	0.9%	1.5%
Low Duration Fund	0.0%	0.2%	0.0%	0.0%	-	0.8%	0.6%	0.6%	0.9%	0.3%			
Low Duration Exchange Traded Fund	_	_	-	-	-	-	-	_	0.2%	0.2%			
Short Term Fund	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
Net Short Duration Instruments	-	0.0%	0.0%	0.2%	-0.2%	0.0%	0.1%	0.0%	0.0%	-0.2%			
S Core and Long Maturity Bond Strategies:	5.2%	5.8%	10.8%	11.3%	10.4%	8.3%	4.8%	4.8%	7.9%	15.3%	12.4%	12.2%	12.39
GNMA Fund	5.2 /6	3.0 /0	-	11.570	-	0.370	4.070	4.0 /0	7.570	13.370	12.4 /0	12.2 /0	12.3
Investment Grade Corporate Bond Fund	2.0%	1.2%	2.8%	3.1%	2.6%	0.9%	0.3%	0.0%	0.0%	2.0%			
		0.1%		3.2%	3.1%	2.2%	0.1%	0.0%	0.4%	1.8%			
Long Duration Total Return Fund	0.1%		1.8%										
Long Term Credit Fund	2.9%	2.8%	3.7%	3.6%	3.8%	3.8%	3.8%	4.1%	4.2%	3.4%			
Long-Term US Government Fund	0.0%	0.0%	1.0%	0.7%	0.7%	0.5%	0.1%	0.1%	0.3%	5.8%			
Mortgage-Backed Securities Fund	-	-	-	-	-	-	-	-	-	-			
Total Return Fund	0.1%	1.7%	1.5%	0.7%	0.2%	0.9%	0.5%	0.6%	3.1%	2.4%			
M and Global Bond Strategies:	31.0%	30.8%	28.7%	26.9%	26.8%	25.0%	24.5%	24.4%	24.3%	20.8%	20.6%	20.0%	19.3
Diversified Income Fund	4.2%	4.4%	4.3%	4.0%	3.6%	3.6%	3.6%	3.5%	3.2%	0.1%			
Emerging Local Bond Fund	8.0%	7.9%	7.4%	7.0%	7.1%	7.4%	7.2%	7.3%	7.4%	9.5%			
Emerging Markets Bond Fund	4.5%	4.0%	3.4%	3.1%	3.1%	3.5%	3.7%	4.0%	3.9%	1.9%			
Emerging Markets Corporate Bond Fund	-	0.4%	0.8%	0.7%	0.7%	1.0%	1.4%	1.4%	1.4%	0.6%			
Emerging Markets Currency Fund	8.0%	8.0%	7.0%	6.6%	6.8%	7.2%	7.4%	7.2%	7.1%	8.3%			
Foreign Bond Fund (Unhedged)	2.8%	2.9%	2.7%	2.4%	2.4%	0.7%	0.1%	0.1%	0.3%	0.3%			
Global Advantage Strategy Bond Fund	3.4%	3.3%	3.2%	3.0%	3.0%	1.8%	1.0%	0.1%	0.9%	0.5%			
Global Bond Fund (Unhedged)	5.4%	3.3%	5.2%	3.0%	5.0%	1.6%	1.0%	0.9%	0.9%	0.0%			
	-	-	-	-	-	-	-	-	-	-			
redit Strategies:	29.8%	30.4%	29.5%	29.1%	29.3%	26.1%	23.9%	23.4%	18.6%	11.5%	11.5%	12.2%	14.1
Convertible Fund	3.0%	2.1%	0.7%	0.3%	0.1%	-	-	-	-	-			
Floating Income Fund	6.7%	6.7%	6.6%	6.2%	5.4%	3.3%	2.0%	1.9%	1.8%	0.3%			
High Yield Fund	7.9%	8.1%	6.2%	6.0%	6.3%	5.5%	4.8%	4.6%	1.1%	0.4%			
High Yield Spectrum Fund	2.5%	2.6%	3.0%	3.7%	4.1%	4.2%	4.3%	4.5%	3.7%	2.7%			
Income Fund	8.7%	8.8%	10.3%	10.0%	10.3%	10.5%	10.7%	10.5%	10.3%	6.5%			
Senior Floating Rate Fund	0.9%	2.1%	2.6%	2.8%	3.1%	2.5%	2.2%	1.9%	1.8%	1.6%			
flation Related Strategies:	12.6%	8.0%	2.5%	2.0%	2.1%	5.2%	8.3%	8.9%	9.7%	10.9%	12.6%	12.9%	12.69
CommoditiesPLUS™ Strategy Fund	6.3%	5.4%	2.4%	1.8%	1.8%	2.1%	2.8%	2.9%	3.0%	3.6%	12.070	12.5 /0	12.0
CommodityRealReturn Strategy Fund®	1.9%	1.8%	0.1%	0.1%	0.1%	0.8%	1.4%	1.5%	1.7%	3.0%			
	1.976	1.070	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%			
Global Advantage® Inflation-Linked Bond Exchange-Traded Fund	4.00/												
Real Return Asset Fund	1.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	0.4%	0.5%	1.3%			
Real Return Fund	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.2%	0.3%	1.2%			
RealEstateRealReturn Strategy Fund	3.5%	0.8%	-	-	0.2%	1.6%	3.4%	3.9%	4.1%	1.6%			
S Equity Strategies:	1.0%	0.9%	0.9%	1.0%	1.0%	1.1%	1.2%	1.2%	1.1%	2.4%	3.7%	3.9%	4.09
Fundamental IndexPLUS®	-	-	-	-	-	-	-	-	-	-			
Fundamental IndexPLUS® AR	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%			
Low Volatility RAFI®-PLUS AR Fund	-	-	-	-	-	-	0.0%	0.2%	0.4%	1.7%			
Small Cap StocksPLUS® AR Strategy	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.0%	0.0%			
Small Company Fundamental IndexPLUS® AR Strategy	0.6%	0.6%	0.6%	0.6%	0.7%	0.7%	0.8%	0.8%	0.7%	0.6%			
StocksPLUS® Fund	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
StocksPLUS® Absolute Return Fund	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%			
lobal Equity Strategies:	18.2%	18.4%	17.8%	16.8%	16.4%	19.7%	23.2%	22.9%	23.9%	24.0%	22.69/	23.6%	10.9
											23.070	23.076	19.0
EM Fundamental IndexPLUS® AR Strategy Fund	9.8%	10.1%	9.7%	8.9%	8.3%	10.0%	11.6%	7.3%	6.0%	4.7%			
EMG Intl Low Volatility RAFI®-PLUS AR Fund	-			-	-	-	0.0%	4.0%	6.8%	8.3%			
EqS Dividend Fund	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%			
EqS Emerging Markets Fund	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%			
EqS Pathfinder Fund	1.9%	1.8%	1.8%	1.8%	1.8%	2.3%	3.5%	3.3%	2.2%	2.2%			
International Fundamental IndexPLUS® AR Strategy Fund	5.4%	5.4%	5.3%	5.1%	5.3%	6.3%	6.9%	4.0%	3.2%	3.1%			
International StocksPLUS@ AR Strategy Fund (U.S. Dollar Hedged)	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%			
International StocksPLUS® AR Strategy Fund (Unhedged)	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.5%	0.0%	0.0%			
Intl Low Volatility RAFI®-PLUS AR Fund	0.570	0.370	0.070	0.070	0.070	0.070	0.0%	3.2%	5.7%	5.7%			
Iternative Strategies:	2.2%	5.4%	9.6%	12.7%	14.2%	13.7%	13.5%	13.8%	13.3%	14.9%	14.2%	14.3%	16.2
Credit Absolute Return Fund	0.2%	0.2%	0.5%	0.5%	1.0%	2.0%	2.0%	3.0%	2.8%	1.1%	14.276	14.3 76	16.3
EqS Long/Short Fund	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%			
Fundamental Advantage Absolute Return Strategy Fund	1.2%	2.8%	4.1%	2.8%	2.9%	1.5%	2.3%	2.4%	2.6%	4.9%			
Mortgage Opportunities Fund	-	-	-	-	0.1%	0.5%	0.5%	0.6%	0.5%	0.6%			
TRENDS Managed Futures Strategy Fund	-	-	-	-	-	-	-	0.2%	0.2%	0.2%			
Unconstrained Bond Fund	0.4%	2.0%	3.8%	5.3%	6.2%	5.4%	3.8%	2.8%	2.5%	2.2%			
			0.8%	3.7%	3.7%	3.9%	4.3%	4.4%	4.2%	5.5%			

Source: PIMCO



December 31, 2014

#### 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.

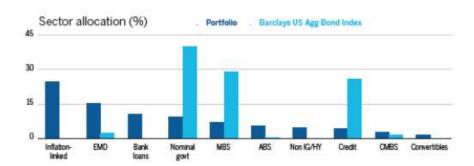


# Wellington Opportunistic Fixed Income

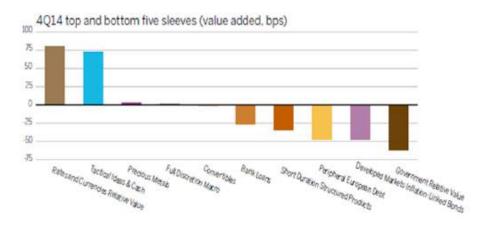
#### **Characteristics**

# Portfolio Benchmark Yield to worst % 2.5 2.0 OAS (bps) 172 44 Duration – effective 4.7 5.1 Convexity - effective 0.7 -0.1

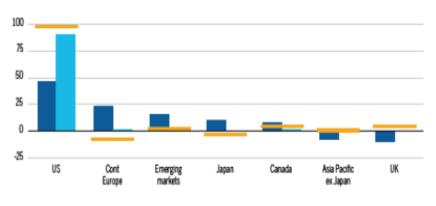
#### **Sector Allocation**



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



#### **Regional Allocation**



Source: Wellington



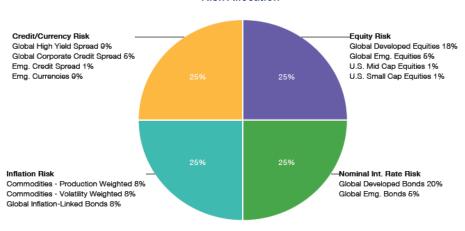
# Wellington OIF

- -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)		Long Exposure (% of NAV)
Equity Risk		Equity Market Exposures	
Global Developed Equities	20%	Americas	16%
Global Emerging Equities	5%	Europe	5%
U.S. Mid Cap Equities	1%	Asia ex-Japan	5%
U.S. Small Cap Equities	1%	Japan	2%
Total Equity Risk	27%	Total Equity Market Exposures	27%
Nominal Interest Rate Risk		Bond Market Exposures - Nominal and Inflation-Lin	ked
Global Developed Bonds	93%	Americas	65%
Global Emerging Bonds	21%	Europe	58%
Total Nominal Interest Rate Risk	114%	Asia	27%
Inflation Risk		Total Bond Market Exposures	149%
Commodities - Production Weighted	7%	Emerging Currency Exposures	
Commodities - Volatility Weighted	13%	Asia	4%
Global Inflation-Linked Bonds	35%	Europe	9%
Total Inflation Risk	56%	Latin America	6%
Credit/Currency Biok		Dollar Block ex-U.S.	2%
Credit/Currency Risk	23%	Total Emerging Currency Exposures	20%
Global High Yield Spread Global Corporate Credit Spread	51%		
	2%		
Emerging Credit Spread	· ·		
Emerging Currencies	23%		
Total Credit/Currency Risk	99%		
Total Fund Exposures	296%		





# 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.

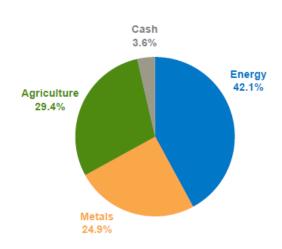


# Schroder Commodity

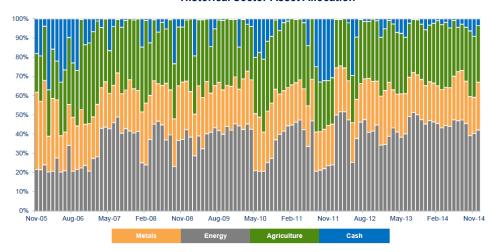
#### **Sector Exposure**

		Futures	Equities	Other*	Total Exposure	Benchmark†	Difference
Energy 42.1%	Crude Oil Gas Oil Gasoline Heating Oil Natural Gas	25.3 1.2 3.4 4.3 7.0	0.8		25.3 1.2 3.4 4.3 7.8	25.4 2.1 3.8 3.8 5.5	-0.1 -0.9 -0.4 +0.5 +2.3
Metals 24.9%	Aluminium Copper Gold Lead Nickel Palladium Platinum Silver Tin Zinc	3.3 3.0 4.5 0.6 3.5 1.1 3.2	0.9	3.7	3.3 3.0 9.1 0.6 3.5 1.1 3.2	4.7 5.4 6.9 0.6 1.4 0.1 0.5 2.3 0.3 1.5	-1.4 -2.4 +2.2 0.0 +2.1 -0.1 +0.7 +0.9 -0.3 -0.4
	Cocoa Com Coffee Cotton Feeder Cattle	6.5 2.8			6.5 2.8	1.6 5.8 3.0 2.9 0.3	-1.6 +0.6 -0.2 -2.9 -0.3
Agriculture 29.4%	Lean Hogs Live Cattle Lumber Oats Orange Juice Rapeseed Rough Rice Rubber	1.6 4.5			1.6 4.5	1.6 4.5 0.3 0.1 0.4 0.3 0.2	0.0 0.0 -0.3 -0.1 -0.4 -0.3 -0.2 -0.3
	Soybeans Soybean Meal Soybean Oil Sugar Wheat	1.1 0.7 2.2 3.3 4.5		2.3	1.1 0.7 2.2 5.6 4.5	4.5 0.9 1.2 3.3 4.6	-3.5 -0.2 +0.9 +2.3 0.0
Cash 3.6%	Cash				3.6		3.6
3.0 /0	TOTAL	88.6	1.8	6.0	100	100	0

#### **Current Asset Allocation**



#### **Historical Sector Asset Allocation**



Source: Schroder



December 31, 2014

# 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

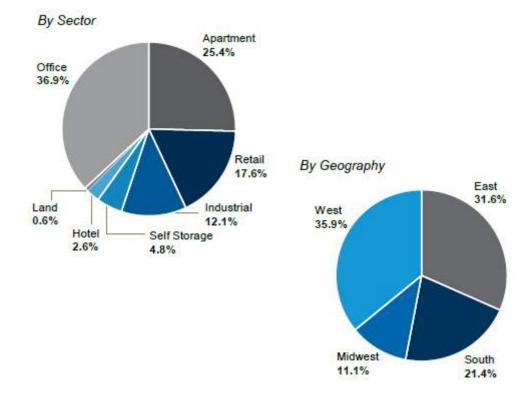
- -The Sponsor, on behalf of the Prime Property Fund, will endeavor to maintain a diversified investment in core U.S. real estate that offers stable, highly predictable cash flow returns. The focus is on high quality office buildings, Class A multifamily communities, warehouse distribution and storage facilities, and top tier super regional malls and shopping centers in targeted primary markets. The Sponsor favors investing in major metropolitan markets and selectively invests in secondary markets that are expected to achieve above-average economic performance. The Sponsor believes that these cities offer better liquidity, more diverse tenant bases and stronger resilience to market cycles.
- -The Sponsor maintains a strong research orientation and utilizes research as a risk mitigation tool. Research is used to assist in market selection, product selection and disposition, and portfolio weightings.
- -Although the methodologies used to determine strategies have remained constant over time, the investment strategy guidelines developed for PRIME have been modified from time to time over the past five years to reflect changes in market conditions and future market expectations.
- -Employment of these strategies have helped PRIME deliver strong relative returns including outperforming the NFI-ODCE benchmark over the trailing 1-year, 3-year, 5-year and 10-year periods

#### Property Sector Returns(4)

	FOURTH QUARTER					
%	INCOME	APPRECIATION	TOTAL			
Office	1.2	2.2	3.4			
Retail	1.2	2.0	3.2			
Industrial	1.4	4.8	6.2			
Self Storage	1.3	5.6	6.9			
Apartment	0.9	3.0	3.9			
Hotel	2.5	8.9	11.7			

#### Geographic Region Returns(4)

	FOURTH QUARTER					
%	INCOME	APPRECIATION	TOTAL			
East	1.4	3.3	4.7			
Midwest	1.1	4.4	5.5			
South	1.0	2.9	4.0			
West	1.1	2.6	3.7			

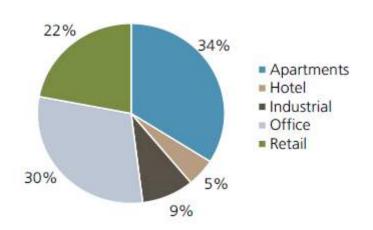




# **UBS Trumbull Property Fund**

The UBS Trumbull Property Fund (UBS-TPF) is an actively managed core portfolio of equity real estate. The Fund seeks to provide attractive returns while limiting downside risk. The Fund has both relative and real return objectives. Its relative performance objective is to outperform the NFI-ODCE index over any given three-to five-year period. The Fund's real return performance objective is to achieve at least a 5% real rate of return (i.e., inflation-adjusted return), before advisory fees, over any given three- to five-year period.

#### Portfolio Distribution by Property Type



#### **Key Statistics**

Gross asset value	USD 19.0 bn	Quarterly returns
(GAV)		Income
Net asset value (NAV)	USD 16.1 bn	Appreciation
Cash as a % of GAV	2.2%	Total (before fees
Debt as % of GAV	13.9%	Total (after fees)
Number of investments	200	One-year rolling ret
Number of investors	418	Income
		Appreciation
Deposits <sup>2</sup>	USD 68.9 m	Total (before fees
Redemptions <sup>2</sup>	USD 18.1 m	Total (after fees)

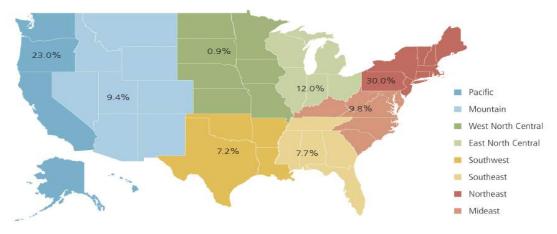
# (%)eturns 1.27

Appreciation	1.73
Total (before fees)	3.02
Total (after fees)	2.76

One-year rolling retur	ns (%)
Income	5.16
Appreciation	6.29
Total (before fees)	11 69

10.56

#### **Distribution by Geographic Division**



Source: UBS Realty Investors



# Real Estate - RREEF America REIT III

RREEF America III is an open-end, value-add fund with the objective of generating returns of 300-500 BPS above a core unlevered real estate portfolio. The fund aims to achieve these returns by upgrading the physical condition, occupancy and operating characteristics of the properties in which it invests. RREEF III will invest across all property types focusing on major metropolitan markets in the United

# **Investment Summary**

Net Asset Value <sup>1</sup>	\$569,488,414
Number of Shares Outstanding	16,109,897
Net Asset Value Per Share	\$35.35
Cash Balance of Fund	\$199,991,491
Debt <sup>2</sup>	\$472,904,000
Inception Date <sup>3</sup>	March 31, 2003
Redemption Shares Outstanding	5,654,868
Institutional Investors	117

# **Adjusted Share Price**

#### Share price gross of distributions

	Adjusted Share Price
December 31, 2014	\$78.18
December 31, 2012	\$59.48

# **Property Information**

#### **Diversification/Occupancy**

	Real Estate Investments	Gross Real Estate Value (millions)	Percent of Value	Quarter-end Occupancy <sup>4</sup>
Retail	4	\$169.0	18%	87%
Office	23	532.2	57%	83%
Industrial	14	128.0	14%	84%
Development/ Land/Other	7	99.3	11%	N/A
Total	48	\$928.5	100%	84%

# West 20% Midwest 2% East 38% South 40%

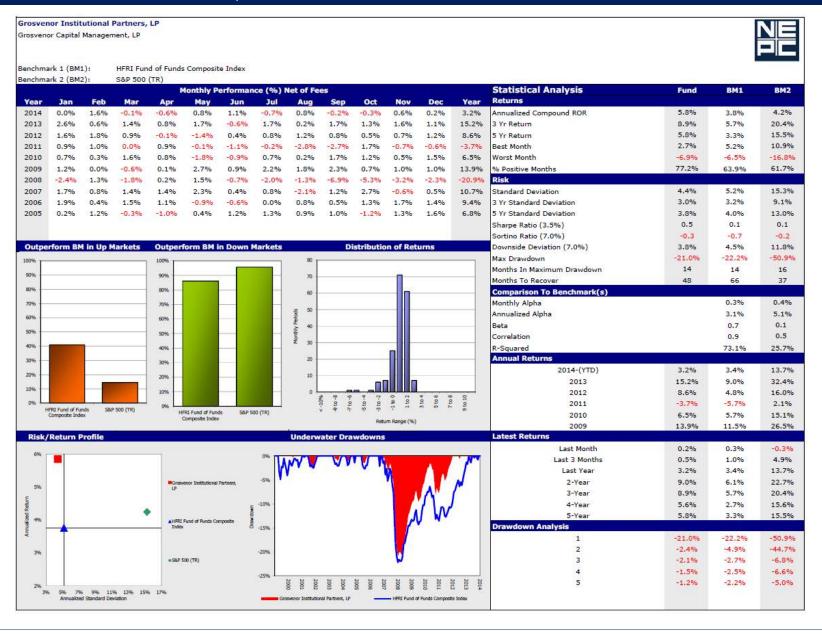
# Grosvenor Institutional Partners, LP

-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





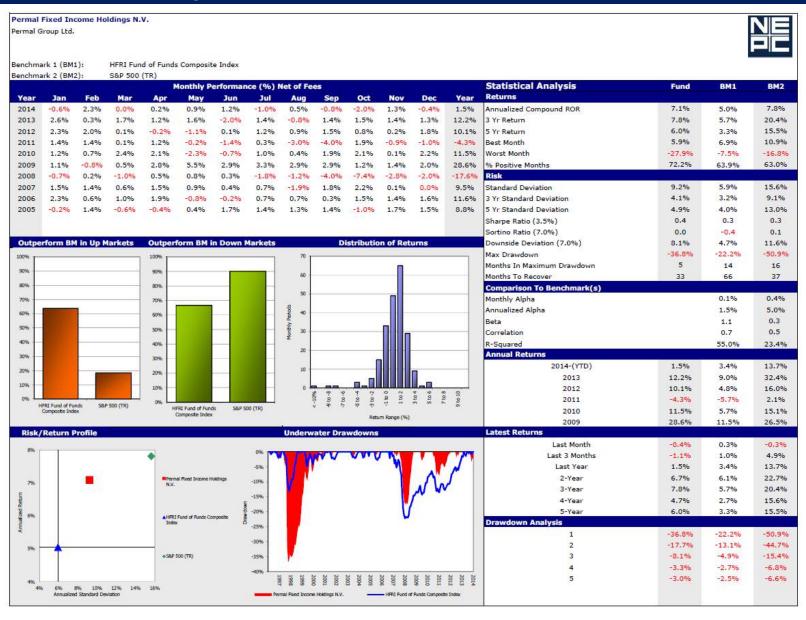
# Permal Fixed Income Holdings

-PFIH is a global, multi-manager, multi-strategy diversified fixed income portfolio. Assets are invested in both credit (57%) and non-credit (41%) spread related strategies. Strategies in the credit spread portion are Developed Markets Fixed Income, Emerging Markets Fixed Income, and Hedged Fixed Income (managers that employ short positions). Strategies in the non-credit portion are Relative Value Arbitrage, Event-Driven, and Global Macro.

-The objective of PFIH is to deliver returns of 8-12% returns with 5-7% volatility. The fund typically invests with about 55-65 managers. Turnover is about 15%/year. This is lower (about 10%) within the group of established managers, and higher (30-35%) among new managers. Three of Permal's overriding philosophies are start small, diversify, and focus time and effort on existing positions.



# Permal Fixed Income Holdings N.V.

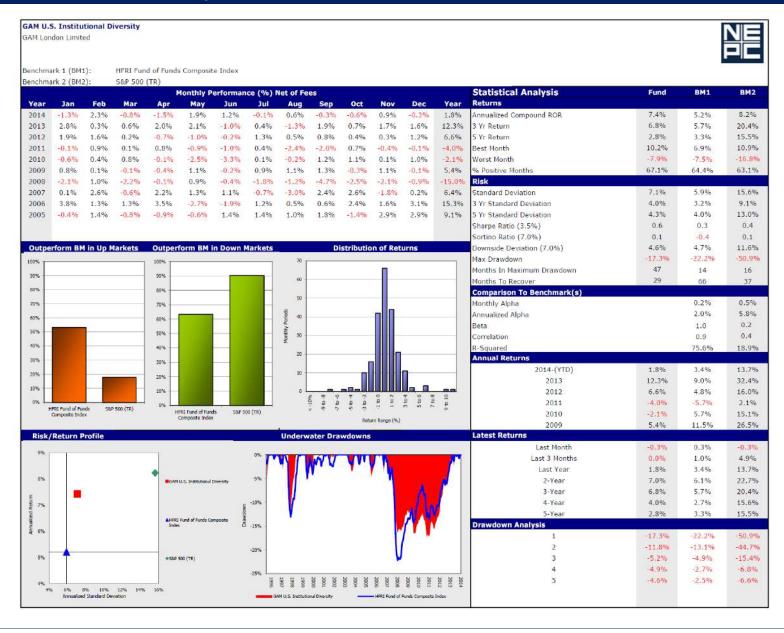




# GAM U.S. Institutional Diversity

- -The GAM Diversity strategy aims seeks to achieve absolute returns with diversification of risk and low correlation to traditional asset classes such as equities and bonds. GAM strategy targets net returns of 9-13% net per annum with 5-7% volatility and 0.2-0.6 correlation to the S&P 500 and 0.0-0.2 correlation to the Barclays Capital US Aggregate Bond Index.
- -The GAM portfolio construction process combines the structural discipline of clear return and risk targets with the bottom-up assessment of opportunity and risk across markets and strategies within a unified portfolio construction framework. GAM would not deviate from the portfolio construction process unless GAM felt the returns and risk characteristics being generated were not meeting GAM's expectations. If this were to happen GAM would take steps to reevaluate the process and make adjustments.
- -Asset allocation for GAM Multi-Manager's portfolios allows each investment manager to draw on the synthesized views of the specialist investment teams and apply them to his or her own portfolios as appropriate. The views of the specialist investment teams are formed and captured on a quarterly basis, when all senior Multi-Manager investment managers gather for the three-day Quarterly Investment Meeting (QIM). The purpose of the QIM is to review formally the prior quarter's investment results, assess opportunities and consider changes to strategic and tactical views.

# GAM U.S. Institutional Diversity









# Investment Market Update: As of December 31, 2014

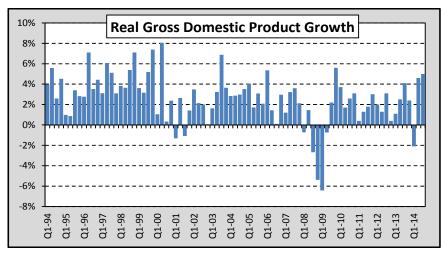
#### PERFORMANCE THROUGH 12/31/2014

<u>Sector</u>	<u>Index</u>	2008	2009	2010	2011	2012	2013	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>OCT</u>	NOV	DEC	<u>04</u>	2014
Treasury STRIPS	Barclays US Strips 20+ Yr	59.5%	-36.0%	10.9%	58.5%	3.0%	-21.0%	12.7%	7.8%	5.1%	4.2%	4.3%	5.5%	14.6%	46.4%
REITS	Wilshire US REIT	-39.2%	28.6%	28.6%	9.2%	17.6%	1.9%	10.1%	7.2%	-3.1%	10.7%	2.1%	1.9%	15.1%	31.8%
Long Govt/Credit	Barclays US Govt/Credit Long	8.4%	1.9%	10.2%	22.5%	8.8%	-8.8%	6.6%	4.9%	1.0%	2.2%	1.6%	1.6%	5.6%	19.3%
Long Credit	Barclays US Long Credit	-3.9%	16.8%	10.7%	17.1%	12.7%	-6.6%	6.3%	5.0%	0.2%	1.9%	1.0%	1.0%	4.1%	16.4%
Large Cap	S&P 500	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	1.8%	5.2%	1.1%	2.4%	2.7%	-0.3%	4.9%	13.7%
Large Cap Value	Russell 1000 Value	-36.8%	19.7%	15.5%	0.4%	17.5%	32.5%	3.0%	5.1%	-0.2%	2.2%	2.0%	0.6%	5.0%	13.5%
Large Cap	Russell 1000	-37.6%	28.4%	16.1%	1.5%	16.4%	33.1%	2.0%	5.1%	0.7%	2.4%	2.6%	-0.2%	4.8%	13.2%
Large Cap Growth	Russell 1000 Growth	-38.4%	37.2%	16.7%	2.6%	15.3%	33.5%	1.1%	5.1%	1.5%	2.6%	3.2%	-1.0%	4.9%	13.0%
Muni Bonds	Barclays Municipal	-2.5%	12.9%	2.4%	10.7%	6.8%	-2.6%	3.3%	2.6%	1.5%	0.7%	0.2%	0.5%	1.4%	9.1%
Diversified	Diversified*	-24.5%	24.1%	13.5%	1.3%	12.7%	17.6%	2.1%	3.8%	-1.5%	2.2%	1.3%	-0.3%	3.2%	7.9%
SMID Cap	Russell 2500	-36.8%	34.4%	26.7%	-2.5%	17.9%	36.8%	2.3%	3.6%	-5.3%	4.4%	0.9%	1.4%	6.8%	7.1%
Core Bonds	Barclays US Agg Bond	5.2%	5.9%	6.5%	7.8%	4.2%	-2.0%	1.8%	2.0%	0.2%	1.0%	0.7%	0.1%	1.8%	6.0%
Small Cap Growth	Russell 2000 Growth	-38.5%	34.5%	29.1%	-2.9%	14.6%	43.3%	0.5%	1.7%	-6.1%	6.2%	0.6%	3.0%	10.1%	5.6%
Small Cap	Russell 2000	-33.8%	27.2%	26.9%	-4.2%	16.3%	38.8%	1.1%	2.0%	-7.4%	6.6%	0.1%	2.9%	9.7%	4.9%
EMD USD	Barclays EM USD Agg	-14.7%	34.2%	12.8%	7.0%	17.9%	-4.1%	2.8%	4.5%	-0.8%	1.2%	-0.4%	-2.5%	-1.7%	4.8%
Small Cap Value	Russell 2000 Value	-28.9%	20.6%	24.5%	-5.5%	18.1%	34.5%	1.8%	2.4%	-8.6%	7.0%	-0.5%	2.7%	9.4%	4.2%
Interm Core Bonds	Barclays US Agg Interm	4.9%	6.5%	6.1%	6.0%	3.6%	-1.0%	1.2%	1.6%	0.0%	0.8%	0.6%	-0.2%	1.2%	4.1%
Interm Govt/Credit	Barclays US Govt/Credit Interm	5.1%	5.2%	5.9%	5.8%	3.9%	-0.9%	1.0%	1.2%	-0.0%	0.7%	0.5%	-0.3%	0.9%	3.1%
High Yield	Barclays US Corp HY	-26.2%	58.2%	15.1%	5.0%	15.8%	7.4%	3.0%	2.4%	-1.9%	1.2%	-0.7%	-1.4%	-1.0%	2.5%
Govt/Credit	Barclays Govt/Credit 1-5 Yr	5.1%	4.6%	4.1%	3.1%	2.2%	0.3%	0.4%	0.7%	-0.0%	0.5%	0.3%	-0.3%	0.4%	1.4%
Govt/Credit	Barclays US Govt/Credit 1-3 Yr	5.0%	3.8%	2.8%	1.6%	1.3%	0.6%	0.2%	0.3%	0.0%	0.3%	0.1%	-0.3%	0.2%	0.8%
Global Bonds	Citi WGBI	10.9%	2.6%	5.2%	6.4%	1.6%	-4.0%	2.7%	2.3%	-3.8%	-0.2%	-0.6%	-0.7%	-1.5%	-0.5%
Emerging Equities	MSCI EM	-53.3%	78.5%	18.9%	-18.4%	18.2%	-2.6%	-0.4%	6.6%	-3.5%	1.2%	-1.1%	-4.6%	-4.5%	-2.2%
Int'l Developed	MSCI EAFE	-43.4%	31.8%	7.8%	-12.1%	17.3%	22.8%	0.7%	4.1%	-5.9%	-1.5%	1.4%	-3.5%	-3.6%	-4.9%
EMD Loc	JPM GBI EM Glob Div	-5.2%	22.0%	15.7%	-1.8%	16.8%	-9.0%	1.9%	4.0%	-5.7%	1.6%	-1.3%	-5.9%	-5.7%	-5.7%
Commodities	Bloomberg Commodity	-35.6%	18.9%	16.8%	-13.3%	-1.1%	-9.5%	7.0%	0.1%	-11.8%	-0.8%	-4.1%	-7.6%	-12.1%	-17.0%

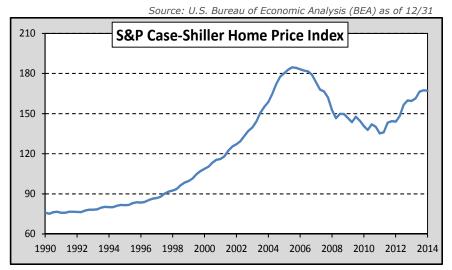
\* 35% LC, 10% SC, 12% Intl Equity, 3% Emerging Equity, 25% Core Bonds, 5% HY, 5% Global Bonds, 5% REITS Source: Morningstar Direct



# **US Economic Environment**

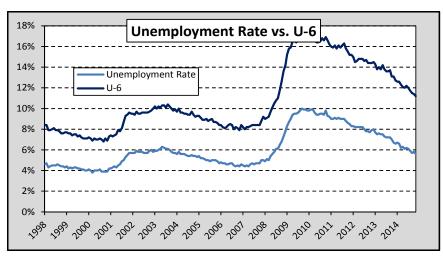


The GDP estimate for the third quarter of 2014 increased at an annual rate of 5.6 percent

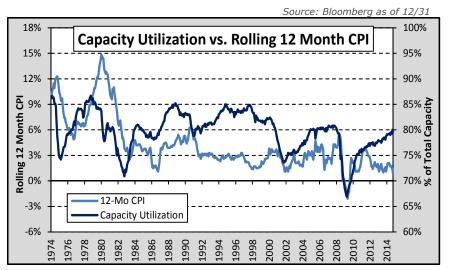


The Case-Shiller home price index (as of 12/31) dropped slightly to 167.11 by December end

Source: Bloomberg as of 12/31



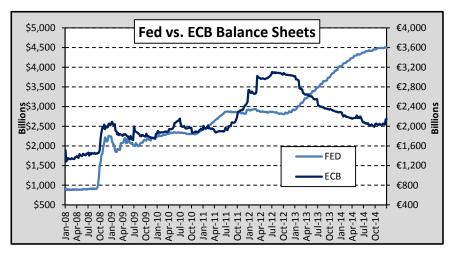
Unemployment declined slightly to 5.8% in December; while the U-6, dropped to 11.2%



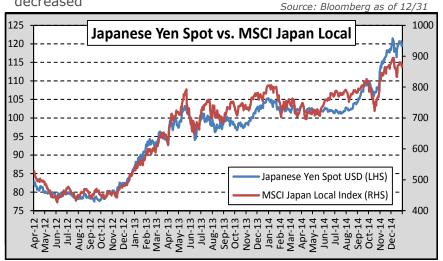
Rolling 12 month CPI dropped to 0.8% in December; capacity utilization dropped to 79.7% in the month



# Economic Environment – Monetary Policy and Banks

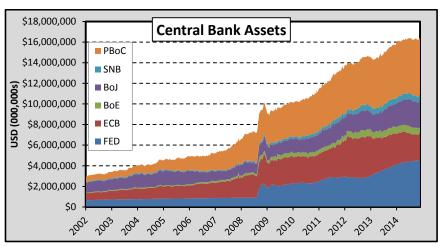


The Federal Reserve Bank balance sheet has increased in 2014 while the European Central Bank balance sheet has decreased

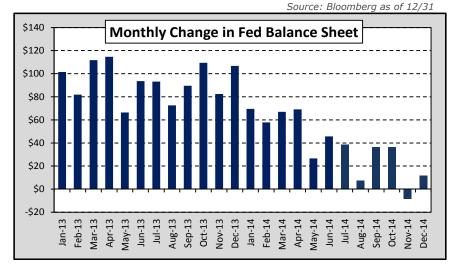


The Japanese Yen has weakened 17.4% relative to the US dollar in 2014; while the MSCI Japan TR Net Local Index returned 17.29%

Source: Bloomberg as of 12/31



Central bank assets worldwide have risen significantly since 2008

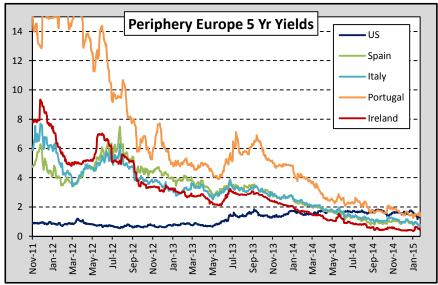


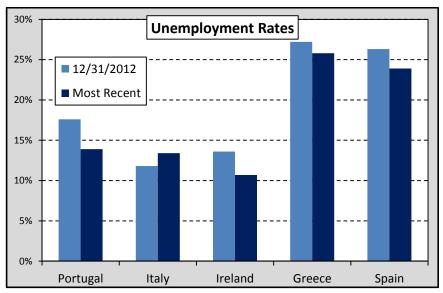
The Fed completed the taper as scheduled

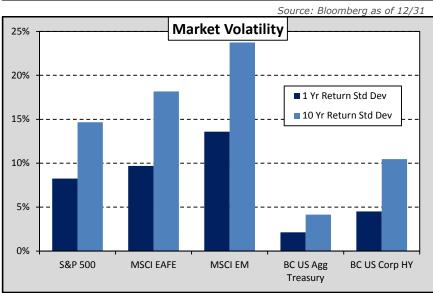
Source: Bloomberg as of 12/31, Values after 11/30 based on market projections



# Looming Macro Uncertainties





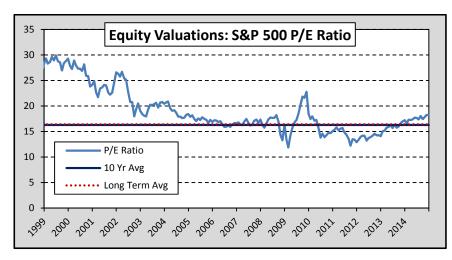




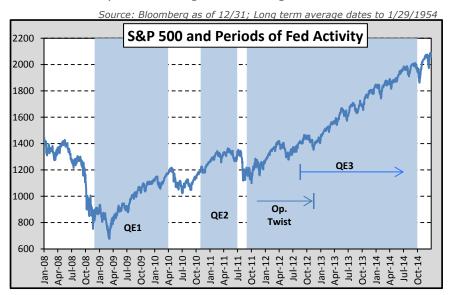
Source: Morningstar as of 12/31



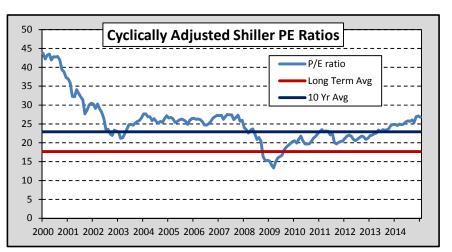
# Market Environment – US Equity



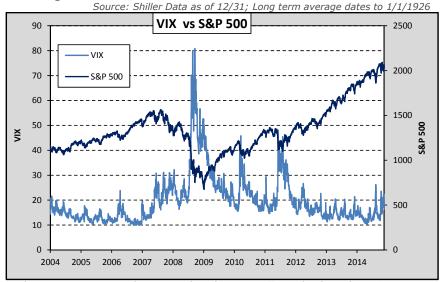
S&P valuations decreased slightly through December remaining above the 10 year and long term averages



Source: Bloomberg as of 12/31



...The cyclically adjusted Shiller PE Ratio, is above the long term average of 17.66 and slightly above the 10 year average of 22.91

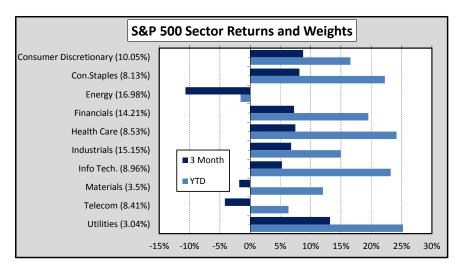


The VIX rose on the month; the S&P 500 declined -0.3% through December

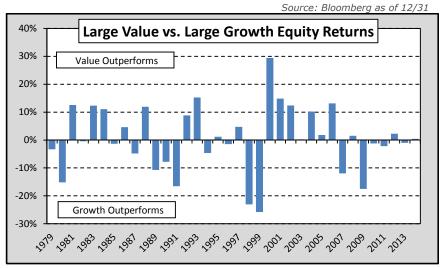
Source: Bloomberg as of 12/31



# US Stock Market Performance

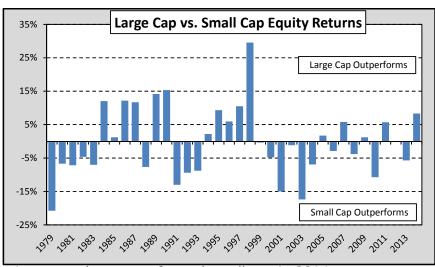


The energy sector was the greatest detractor in the S&P 500 in 2014 with utilities and healthcare providing the highest returns  $\frac{1}{2}$ 

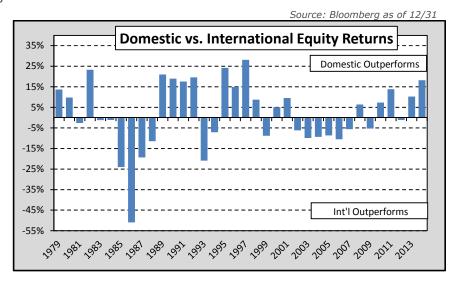


Large growth stocks have slightly outperformed large value in 2014

Source: Bloomberg as of 12/31



Large cap has outperformed small cap in 2014



Domestic equity has outperformed international equity in 2014

Source: Bloomberg as of 12/31

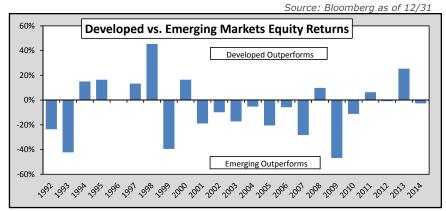


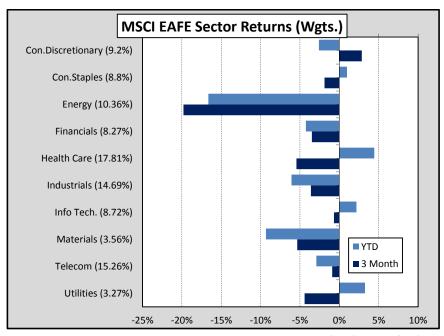
# Non-US Stock Performance

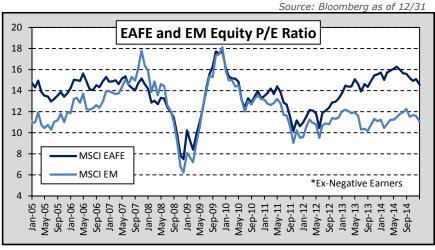
Developed Market Equity Returns (U.S. Dollars)						
	<u>YTD</u>	<u>3-Mo</u>	<u> 1 Yr.</u>	3 Yr. Ann.		
Europe ex UK	-8.5%	-4.5%	-8.5%	10.3%		
United Kingdom	-8.7%	-4.8%	-8.7%	5.5%		
Japan	-5.7%	-2.5%	-5.7%	7.6%		
Pacific Ex Japan	-4.3%	-2.2%	-4.3%	5.0%		
Canada	-0.6%	-5.3%	-0.6%	3.1%		
USA	11.1%	4.3%	11.1%	17.9%		

US Dollar Return vs. Major Foreign Currencies							
(Negative = Dollar Depreciate	(Negative = Dollar Depreciates, Positive = Dollar Appreciates)						
	<u>YTD</u>	<u>3-Mo</u>	<u> 1 Yr.</u>	3 Yr. Ann.			
Euro	12.0%	4.2%	12.0%	2.3%			
Japanese Yen	12.0%	8.4%	12.0%	13.7%			
British Pound	5.9%	3.9%	5.9%	-0.1%			
Canada	8.6%	3.6%	8.6%	4.2%			
Australia	8.4%	6.6%	8.4%	7.1%			

Currency Impact on Developed Mkt. Returns						
(Negative = Currency Hurt, Positive = Currency Helped)						
	YTD	<u>3-Mo</u>	<u> 1 Yr.</u>	3 Yr. Ann.		
MSCI EAFE (Local)	5.9%	1.8%	5.9%	16.4%		
MSCI EAFE (USD)	-4.9%	-3.6%	-4.9%	11.1%		
Currency Impact	-10.8%	-5.3%	-10.8%	-5.3%		



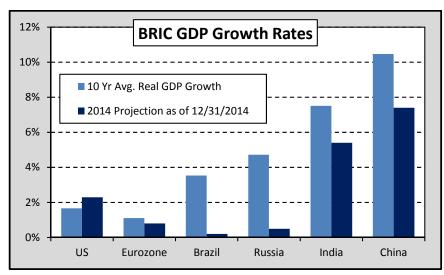




Source: Bloomberg as of 12/31

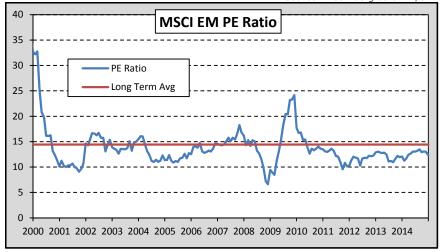


# Market Environment – Emerging Markets

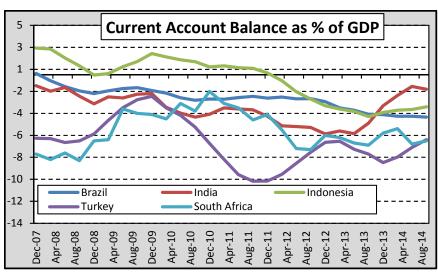


Projected GDP growth rates have declined in emerging market countries

Source: Bloomberg as of 12/31

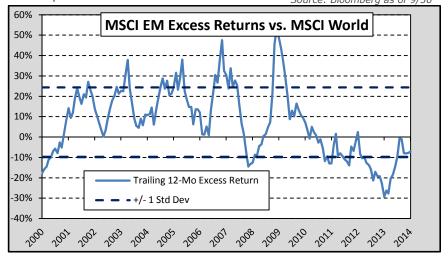


The MSCI EM PE Ratio remains below its long term average



Balance of payment challenged countries have shown signs of improvement

Source: Bloomberg as of 9/30

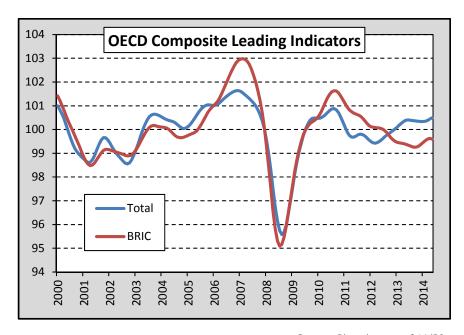


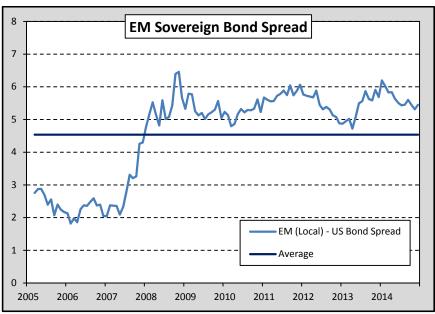
MSCI EM Rolling 12-Month excess returns relative to MSCI World have moved above the lower bound of the historical range

Source: Bloomberg as of 12/31



# **Emerging Markets**





Source: Bloomberg as of 11/30

Emerging Markets Valuation					
	MSCI EM	MSCI EM Small Cap			
PE Ratio	12.31	19.33			
PE Historical Avg	14.44	18.34			
PB Ratio	1.42	1.25			
Historical Avg	1.53	1.28			
PS Ratio	0.98	0.79			
Historical Avg	1.11	0.72			

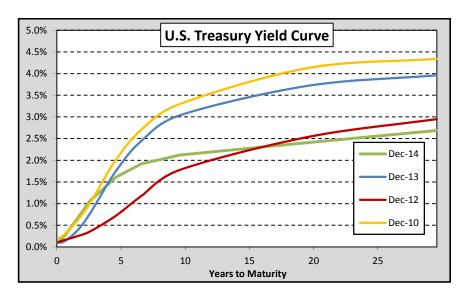
- The MSCI EM index's PE, PB, and PS ended December below their historical averages.
- The MSCI EM Small Cap PE and PS ratios are above historical averages while the PB ratio is below its historical average  ${\it Source: Bloomberg as of 12/31}}$

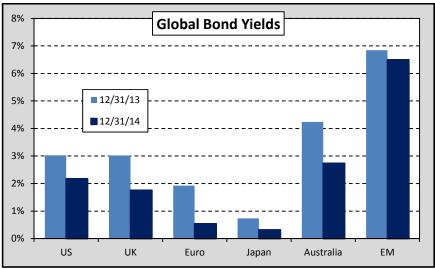
Source: Bloomberg as of 12/31

US Dollar Return vs. Major EM Currencies							
(Negative = Dollar Depreciates, Positive = Dollar Appreciates)							
	<u>YTD</u>	<u>3-Mo</u>	<u> 1 Yr.</u>	<u>3 Yr. Ann.</u>			
Brazilian Real	10.8%	7.8%	10.8%	11.1%			
Russian Ruble	43.3%	31.8%	43.3%	17.9%			
Indian Rupee	2.2%	2.1%	2.2%	5.6%			
Chinese Renminbi	2.4%	1.1%	2.4%	-0.5%			
Singapore Dollar	-0.9%	-0.2%	-0.9%	-0.9%			
Hungarian Forint	17.3%	5.9%	17.3%	2.4%			
Turkish Lira	7.9%	2.3%	7.9%	6.8%			
Mexican Peso	11.7%	9.0%	11.7%	1.8%			
So. African Rand	9.1%	2.4%	9.1%	11.3%			
So. Korean Won	3.7%	3.2%	3.7%	-2.0%			



# Market Environment – Interest Rates





Source: US Treasury as of 12/31 10% 10 Year Treasury vs. Fed Funds Rate 9% 8% 7% 6% 5% 4% 3% 10 YR Treasury 2% Fed Funds Rate 1% 2002 2003 2004 2005 2006 2007 2008 2009

Bond yields across the globe have mostly declined in 2014

Source: Bloomberg as of 12/31

**Citigroup Pension Liability Index** 



Fed Funds rate target remained at 0.25% while the 10 Yr. Treasury Yield finished December at 2.16%

Source: Bloomberg as of 12/31

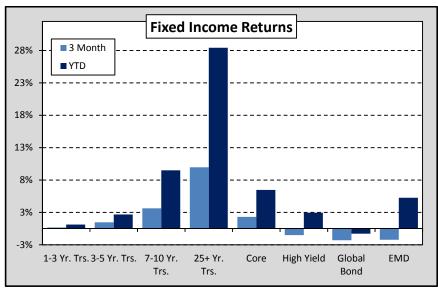
The Citi Pension discount rate decreased to 3.9% through December

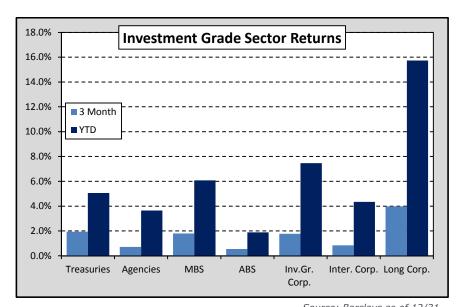
//31 Source: Citigroup as of 12/31

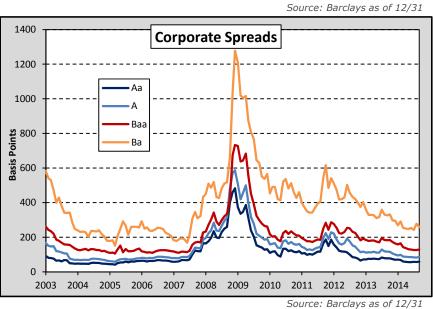


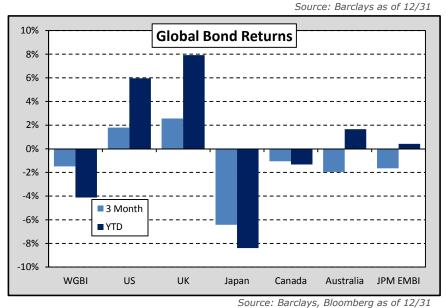
9%

# Fixed Income Performance



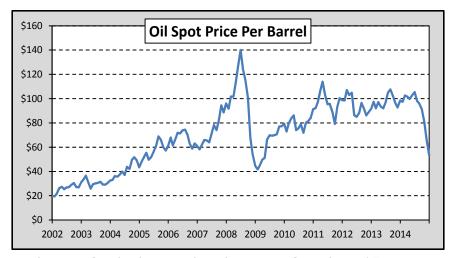






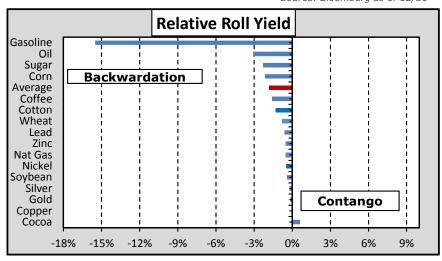
NEPC, LLC

# Market Environment - Commodities

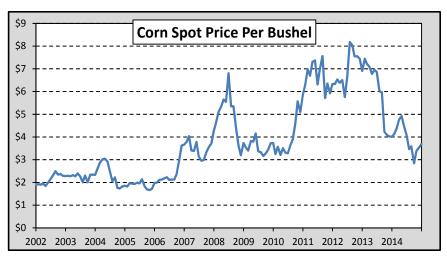


Oil prices finished December down significantly at \$53.27 per barrel

Source: Bloomberg as of 12/31



The backwardation in the gasoline market indicates that the expected future price will be lower than the current spot price.



Corn prices finished December up at \$3.68 per bushel





Gold prices finished December up at \$1,184.86 per ounce





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: 1 InvestorForce, 2 Interaction Effect Performance Attribution, 3 NEPC, LLC, 4 Investopedia, 5 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) \* 2Where 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.

UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0

 $Downside Capture = Total Return (Fund Returns) / Total Returns (BMR eturn) \ when Benchmark < 0$ 

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.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may not be available from the source or may be preliminary and subject to change.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodial 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.
- This report is provided as a management aid for the client's internal use only. Performance contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

#### **Reporting Methodology**

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC 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.

