

# VERMONT PENSION INVESTMENT COMMITTEE



Presentation to City of Burlington

Tuesday, March 11, 2014

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Presentation to City of Burlington

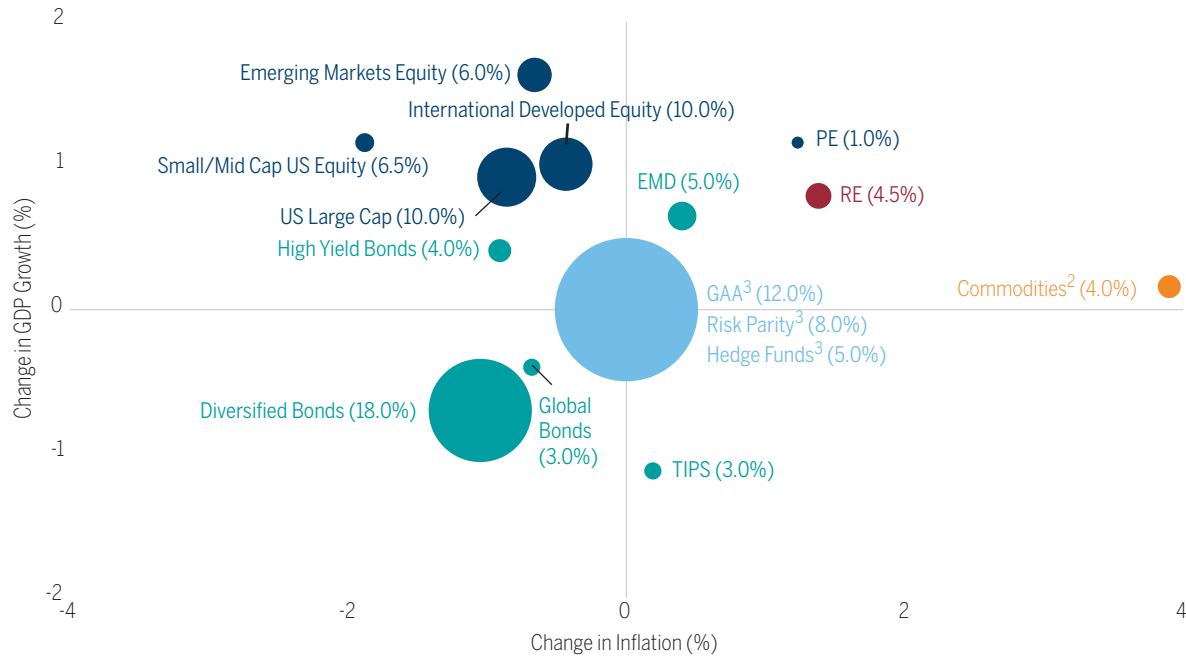
Tuesday, March 11, 2014

# Vermont Pension Investment Committee

## Asset Class Allocations and 12-Month Trailing Returns

### As of 31 December 2013

#### Asset Class Sensitivities to Change in US GDP Growth and Inflation, 1970 – 2012<sup>1</sup>



#### Multi Asset

**GAA**  
Mellon Global Expanded Alpha (12.2%)  
PIMCO All Asset (1.6%)  
Wellington Opportunistic (12.1%)

#### Risk Parity

AQR Global Risk Premium (-2.0%)

#### Hedge Funds

Grosvenor (15.2%)  
GAM (14.0%)  
Permal (13.0%)

#### Equities

##### Large Cap US

T.Rowe (33.7%)  
SSgA S&P 500 Cap-Wgt (32.4%)  
SSgA S&P 500 Equal-Wgt (36.0%)

##### Small/Mid Cap US

SSgA S&P 400 (33.7%)  
Champlain (39.2%)  
Wellington (34.9%)  
SSgA Russell 2000 Growth (43.3%)

##### International Developed

Acadian (27.1%)  
Mondrian (24.3%)  
SSgA ACWI Ex US (15.6%)

##### Emerging Markets

Aberdeen (-5.9%)

##### Private Equity

Harbourvest Partners IX Credit Opportunities NA

Harbourvest Partners IX Venture Fund NA  
Harbourvest Partners IX Buyout Fund NA  
Harbourvest Dover VIII Fund NA

#### Real Estate

Morgan Stanley Prime Property (13.4%)  
UBS Trumbull (8.0%)  
RREEF America REIT III (13.4%)  
Transwestern / Asian III (49.6%)

#### Fixed Income

##### High Yield Bonds

Post Advisory (7.5%)  
KDP (5.2%)  
Guggenheim NA

##### EMD

Wellington Opportunistic EMD (-5.1%)

##### Diversified Bonds

Allianz Structured Alpha (-2.5%)  
PIMCO Core Plus (-2.5%)  
PIMCO Unconstrained (-1.5%)  
Wellington DAS Long Bonds (-3.9%)

##### Global Bonds

Mondrian GFI (-6.2%)

##### TIPS

BlackRock TIPS (-8.6%)

##### Commodities

Schroder (-8.4%)

<sup>1</sup>Starting dates: 1970 for Large Cap (S&P 500), International (MSCI EAFE), Small Cap (Russell 2000 1978 – present, Ibbotson US Small Cap 1970 – 1977), High Yield Bonds (Barclays US High Yield: July 1983 – present, Ibbotson US High Yield: 1970 – June 1983), TIPS (Barclays US TIPS 1997 – present, Wellington Management simulation 1970 – 1996), Diversified Bonds (Barclays US Aggregate Bond 1976 – present, Barclays Government/Corporate 1973 – 1975, Ibbotson US Intm Govt Bond 1970 – 1972); 1972 for Mid Cap (Russell MidCap 1979 – present, S&P 500 1972 – 1978), Commodities (Eq-Wtd S&P/GSCI Commodity Index); 1978 for RE (NCREIF); 1986 for PE (Cambridge Associates Private Equity); 1985 for Global Bonds (CG WGBI, Hedged USD); 1988 for Emerging Markets (MSCI Emerging Markets); 1994 for EMD (JPM EMBI+) | GDP: US Bureau of Economic Analysis | Inflation: US Bureau of Labor Statistics | <sup>2</sup>Actual data point for inflation is 5.18% | <sup>3</sup>For simplicity, we show GAA, risk parity, and hedge funds in the “absolute return/active risk” bucket, although individual components in these categories may have sensitivities to rising or falling inflation or growth.

**Vermont Pension Investment Committee  
Allocations By Manager**

Asset Class	Asset Sub-Category	Allocation	Manager/ Fund Name	Manager Target	Actual on 1/31	Planned as of 2/28	
Equity	Large Cap	10.3%	T. Rowe Price	3.0%	3.2%	3.0%	
			SSgA Equal Wgt	2.7%	2.9%	2.8%	
			SSgA Cap Wgt	4.7%	4.9%	4.9%	
					10.3%	10.9%	10.7%
	Mid Cap	2.5%		Champlain Partners	2.0%	2.2%	2.2%
				SSgA S&P 400 Mid-Cap Index	0.5%	0.6%	0.6%
					2.5%	2.8%	2.9%
	Small Cap	3.3%		Wellington	2.0%	2.2%	2.1%
				SSgA Russell 2000 Gr	1.3%	1.4%	1.4%
					3.3%	3.7%	3.6%
	International	9.3%		Acadian	4.0%	4.3%	4.3%
				Mondrian	4.0%	4.1%	4.2%
				SSgA ACWI Ex-US	1.3%	1.5%	1.5%
					9.3%	10.9%	10.0%
	Emerging Market	6.0%		Aberdeen (hard close)	6.0%	6.1%	6.1%
					15.3%	16.0%	16.1%
<b>Total Equity</b>		<b>31.5%</b>		<b>31.5%</b>	<b>33.4%</b>	<b>33.2%</b>	
Fixed Income	Diversified Bonds	18.0%	PIMCO Core Plus	6.5%	6.3%	6.3%	
			PIMCO Unconstrained Bond	6.5%	6.3%	6.3%	
			Allianz	2.5%	2.4%	2.4%	
			Wellington DAS	2.5%	2.4%	2.4%	
					18.0%	17.4%	17.5%
	High Yield Bonds	4.0%		Guggenheim	3.0%	3.1%	3.1%
				KDP Asset Management	1.0%	1.0%	1.0%
					4.0%	4.1%	4.1%
	Global Bonds	3.0%		Mondrian GFI	3.0%	2.9%	3.0%
					3.0%	2.9%	3.0%
	Emerging Market Debt	5.0%		Wellington EMD (hard close)	5.0%	5.0%	5.0%
				5.0%	5.0%	5.0%	
TIPS	3.0%		Barclays TIPS	3.0%	2.9%	2.9%	
				3.0%	2.9%	2.9%	
<b>Total Fixed Income</b>		<b>33.0%</b>		<b>33.0%</b>	<b>32.4%</b>	<b>32.5%</b>	
Alternatives	Real Estate	4.5%	Various Managers	4.5%	4.7%	4.7%	
	Private Equity	2.0%	HarbourVest Partners IX: Credit Opportun	0.1%	0.0%	0.0%	
			HarbourVest Partners IX: Buyout	0.6%	0.1%	0.1%	
			HarbourVest Partners IX: Venture	0.3%	0.1%	0.1%	
			Dover VIII	0.7%	0.2%	0.2%	
			International HarbourVest	0.3%	0.0%	0.0%	
	Hedge Funds	5.0%		Grosvenor	2.0%	2.1%	2.1%
				Permal	2.0%	2.0%	2.0%
	Commodities	4.0%		GAM	1.0%	1.0%	1.0%
				Schroders	4.0%	3.7%	3.7%
				15.5%	13.9%	13.9%	
Multi-Strategy	Risk Parity	8.0%	AQR	8.0%	7.9%	8.0%	
	Global Asset Allocation	12.0%	PIMCO All Asset	6.0%	6.0%	6.0%	
			Wellington GAA	4.0%	4.2%	4.2%	
			Mellon GAA	2.0%	2.1%	2.1%	
<b>Total Multi-Strategy</b>		<b>20.0%</b>		<b>20.0%</b>	<b>20.3%</b>	<b>20.3%</b>	
<b>Cash</b>		<b>0.0%</b>		<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Grand Totals</b>		<b>100.0%</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	

\*\$65mm was allocated to Private Equity, as voted by the VPIC board on May 22, 2012. \$10mm will be allocated to an International HarbourVest fund in the near future, which is reflected as "International HarbourVest" above.



NEPC, LLC

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## Vermont Pension Investment Committee

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### Fourth Quarter Investment Performance Analysis

February 25, 2013

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

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# City of Burlington

# Total Fund Performance Summary

	Market Value	3 Mo	Rank	YTD	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank
<b>Burlington Composite</b>	<b>\$144,387,796</b>	<b>3.1%</b>	<b>93</b>	<b>8.4%</b>	<b>95</b>	<b>7.2%</b>	<b>93</b>	<b>8.4%</b>	<b>95</b>	<b>7.8%</b>	<b>87</b>	<b>12.8%</b>	<b>36</b>
<i>Policy Index</i>		3.3%	93	9.4%	93	7.7%	91	9.4%	93	6.9%	94	10.2%	83
<i>Allocation Index</i>		3.3%	93	9.5%	92	7.7%	91	9.5%	92	--	--	--	--
<i>IFx Public DB Gross Median</i>		5.0%		15.5%		10.1%		15.5%		9.5%		12.2%	

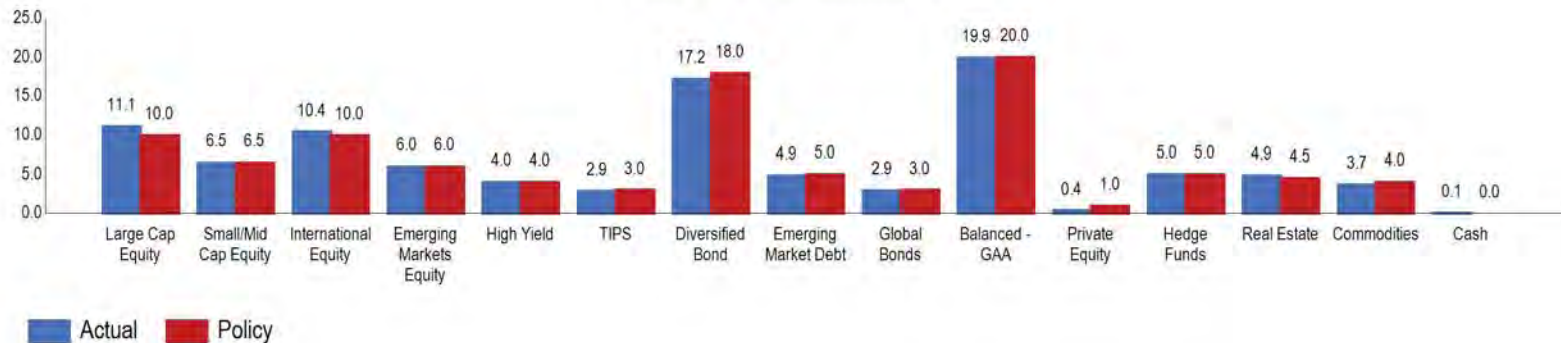
### 3 Years Ending December 31, 2013

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Burlington Composite	7.82%	87	7.26%	34	1.07	80	1.47	65
Policy Index	6.87%	94	7.01%	28	0.97	90	1.30	85

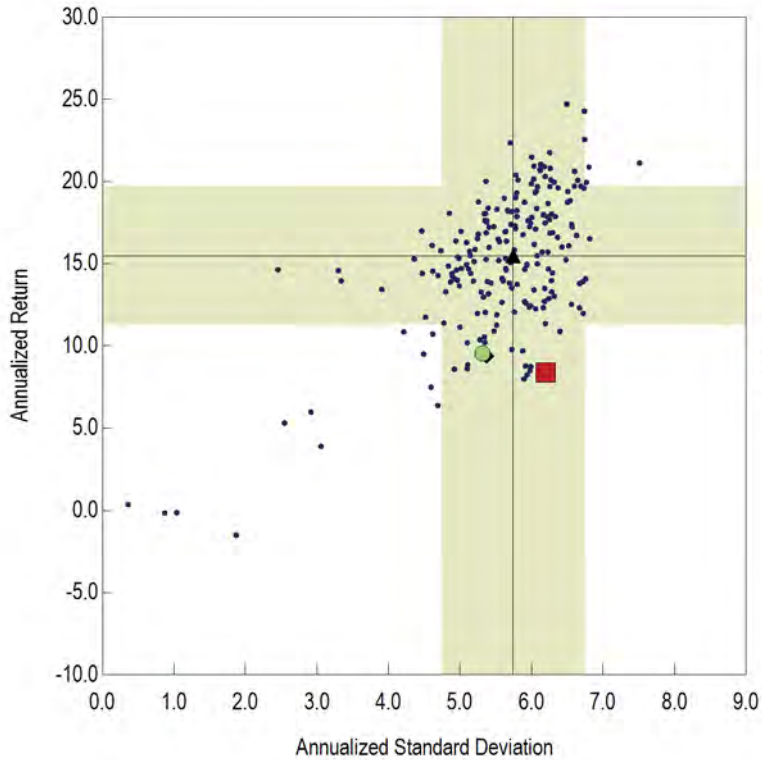
### 5 Years Ending December 31, 2013

	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
Burlington Composite	12.77%	36	10.14%	65	1.25	56	1.92	49
Policy Index	10.22%	83	9.49%	49	1.07	97	1.56	99

Actual vs Target Allocation (%)



1 Year Ending December 31, 2013



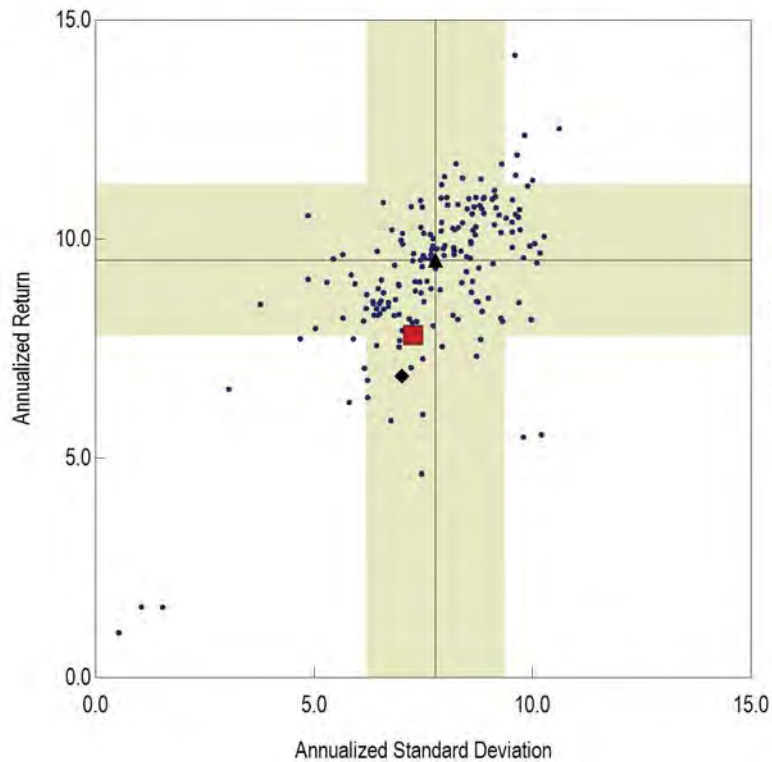
- Burlington Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB Gross

1 Year Ending December 31, 2013

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Burlington Composite	8.37%	95	6.20%	77	1.34	98
Policy Index	9.38%	93	5.37%	34	1.74	92
S&P 500	32.39%	1	8.48%	99	3.81	2
60% MSCI ACWI (Net)/40% CITI WGBI	11.42%	86	6.94%	99	1.64	95
Citi WGBI	-4.00%	99	5.13%	23	-0.79	99
MSCI ACWI	22.80%	1	9.30%	99	2.45	70
MSCI ACWI ex USA	15.29%	53	11.46%	99	1.33	98
IFx Public DB Gross Median	15.49%	--	5.75%	--	2.84	--



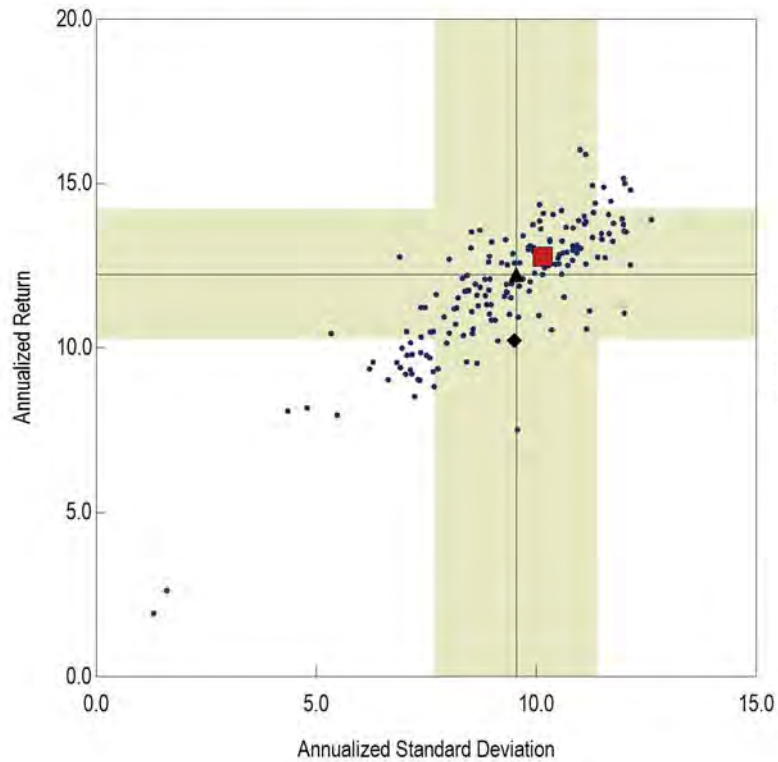
3 Years Ending December 31, 2013



3 Years Ending December 31, 2013

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Burlington Composite	7.82%	87	7.26%	34	1.07	80
Policy Index	6.88%	94	7.01%	28	0.97	90
S&P 500	16.18%	1	12.11%	99	1.33	21
60% MSCI ACWI (Net)/40% CITI WGBI	6.50%	95	9.15%	83	0.70	99
Citi WGBI	1.25%	99	4.66%	3	0.25	99
MSCI ACWI	9.73%	42	14.14%	99	0.68	99
MSCI ACWI ex USA	5.14%	99	16.46%	99	0.31	99
IFx Public DB Gross Median	9.53%	--	7.78%	--	1.21	--

5 Years Ending December 31, 2013

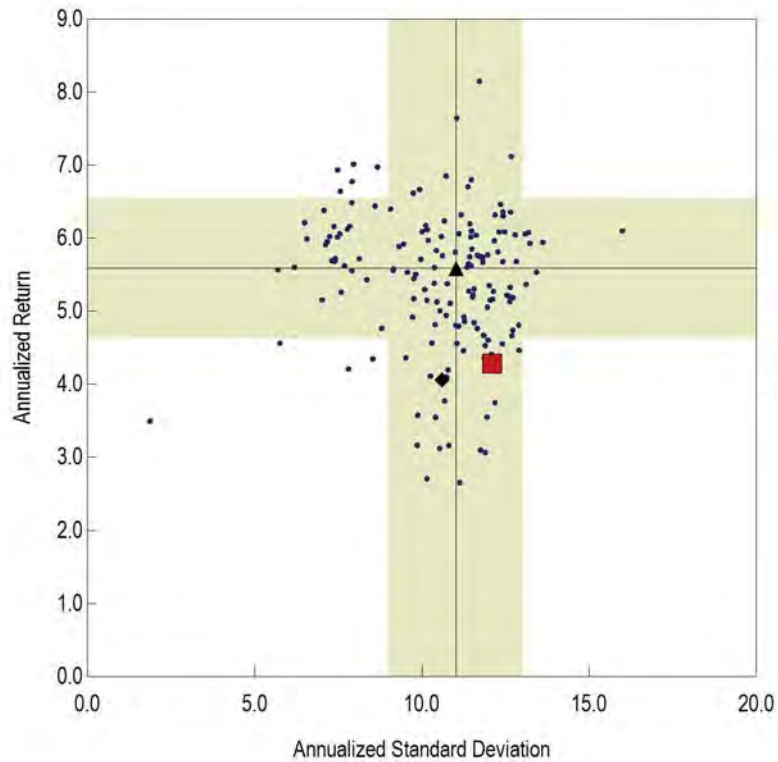


- Burlington Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB Gross

5 Years Ending December 31, 2013

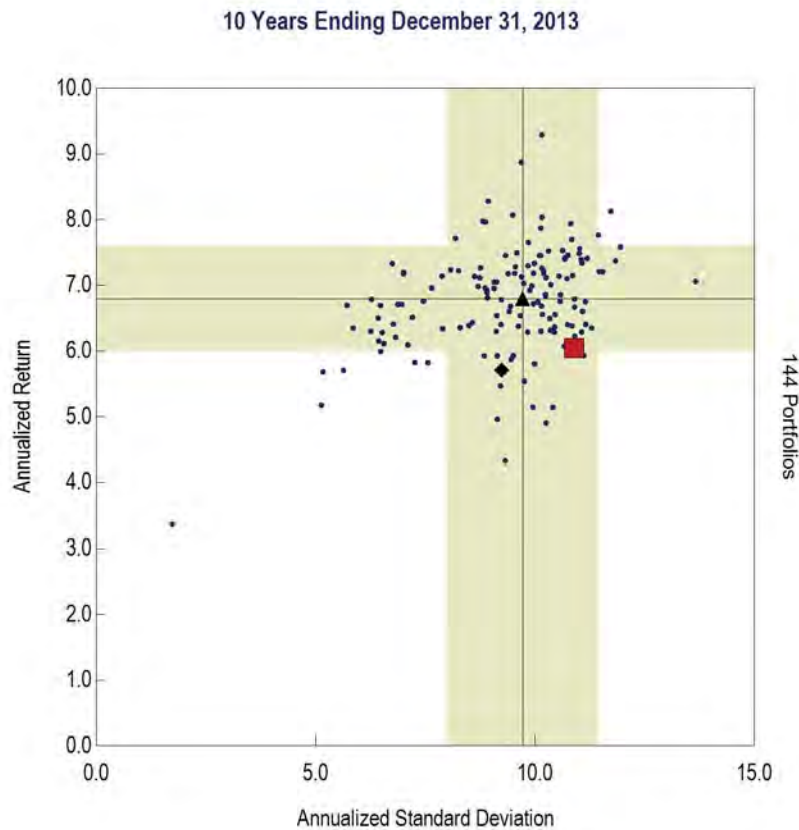
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Burlington Composite	12.77%	36	10.14%	65	1.25	56
Policy Index	10.22%	83	9.49%	49	1.07	97
S&P 500	17.94%	1	15.81%	99	1.13	90
60% MSCI ACWI (Net)/40% CITI WGBI	10.02%	85	12.00%	97	0.83	99
Citi WGBI	2.28%	99	6.56%	5	0.33	99
MSCI ACWI	14.92%	3	17.60%	99	0.84	99
MSCI ACWI ex USA	12.82%	35	19.80%	99	0.64	99
IFx Public DB Gross Median	12.24%	--	9.54%	--	1.26	--

7 Years Ending December 31, 2013



7 Years Ending December 31, 2013

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Burlington Composite	4.28%	90	12.10%	80	0.28	92
Policy Index	4.06%	92	10.61%	43	0.30	89
S&P 500	6.13%	19	16.91%	99	0.31	86
60% MSCI ACWI (Net)/40% CITI WGBI	4.55%	84	12.50%	88	0.29	90
Citi WGBI	4.68%	80	7.20%	6	0.53	25
MSCI ACWI	3.75%	94	18.99%	99	0.15	99
MSCI ACWI ex USA	2.16%	99	21.37%	99	0.06	99
IFx Public DB Gross Median	5.59%	--	11.02%	--	0.42	--

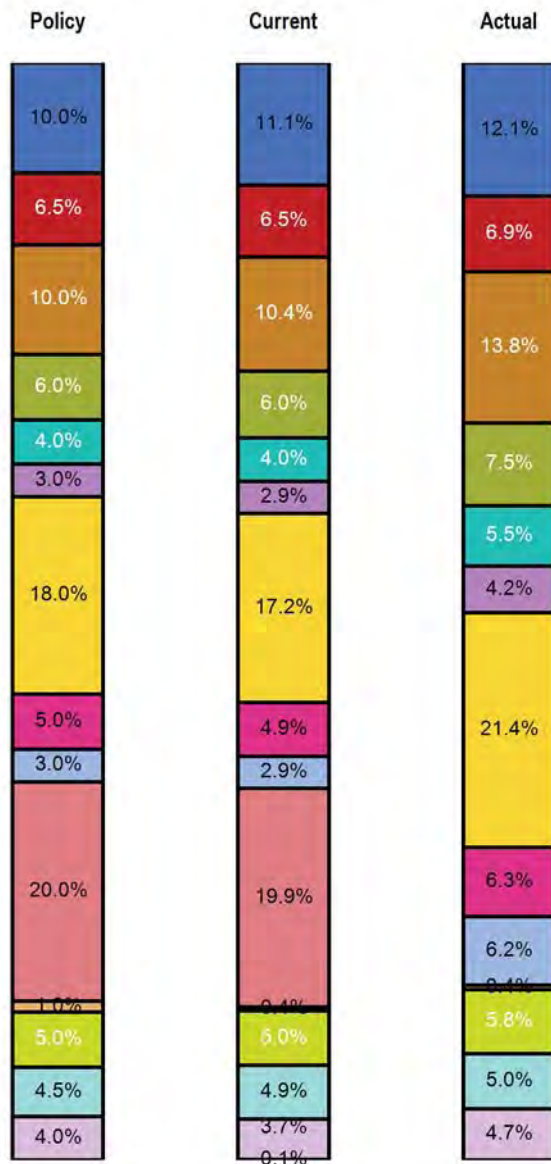


- Burlington Composite
- ◆ Policy Index
- Allocation Index
- ▲ Universe Median
- 68% Confidence Interval
- IFx Public DB Gross

10 Years Ending December 31, 2013

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Burlington Composite	6.05%	86	10.89%	86	0.41	95
Policy Index	5.71%	93	9.24%	40	0.45	89
S&P 500	7.41%	18	14.62%	99	0.40	97
60% MSCI ACWI (Net)/40% CITI WGBI	6.29%	79	10.98%	88	0.43	90
Citi WGBI	4.15%	99	6.83%	12	0.38	97
MSCI ACWI	7.17%	33	16.52%	99	0.34	99
MSCI ACWI ex USA	7.57%	11	18.82%	99	0.32	99
IFx Public DB Gross Median	6.80%	--	9.71%	--	0.56	--

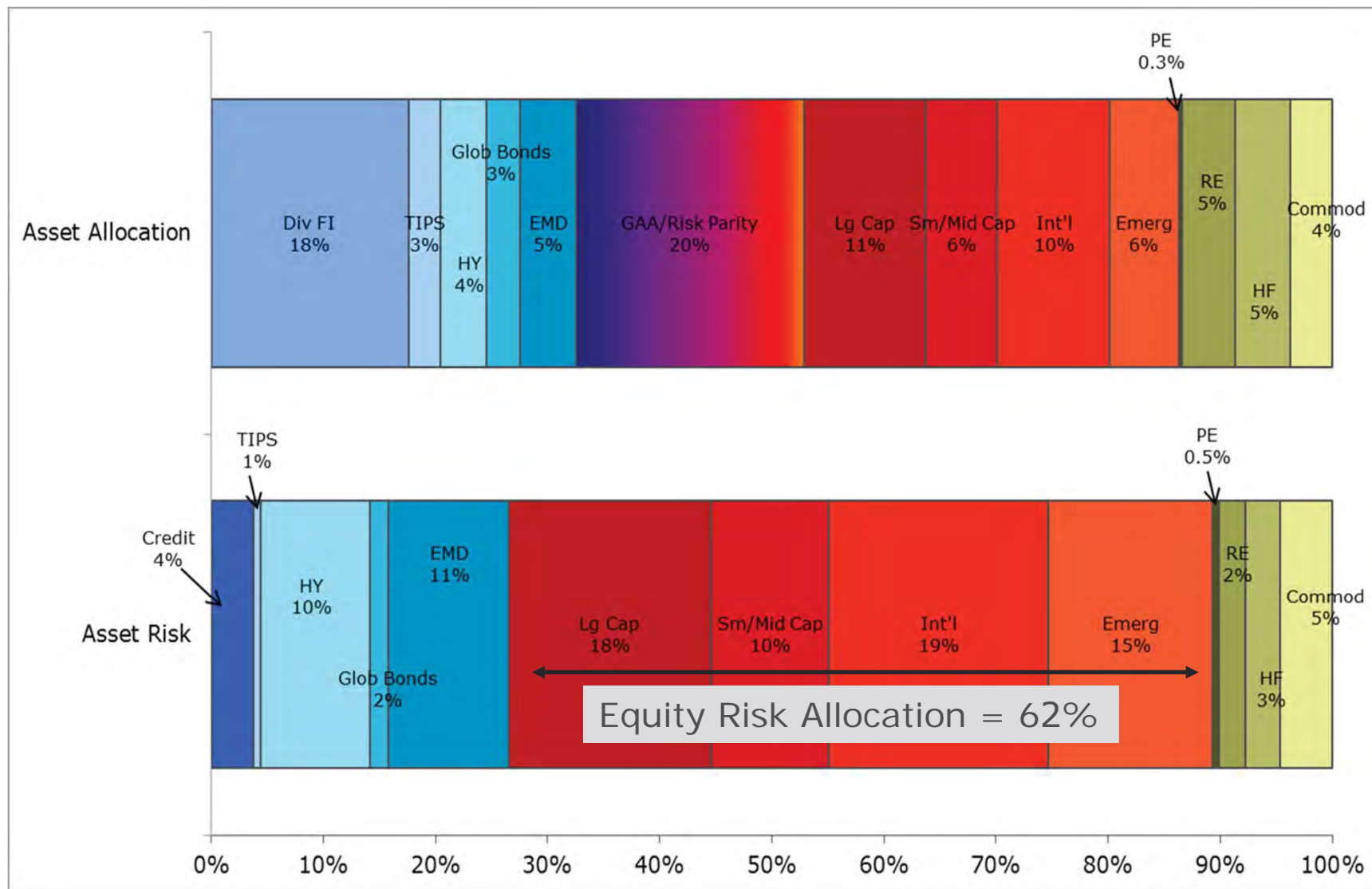
# Total Fund Asset Allocation vs. Policy Targets



	Current	Policy	Current	Difference*
Large Cap Equity	\$16,015,907	10.0%	11.1%	1.1%
Small/Mid Cap Equity	\$9,446,827	6.5%	6.5%	0.0%
International Equity	\$15,043,684	10.0%	10.4%	0.4%
Emerging Markets Equity	\$8,712,178	6.0%	6.0%	0.0%
High Yield	\$5,816,640	4.0%	4.0%	0.0%
TIPS	\$4,167,664	3.0%	2.9%	-0.1%
Diversified Bond	\$24,896,058	18.0%	17.2%	-0.8%
Emerging Market Debt	\$7,058,447	5.0%	4.9%	-0.1%
Global Bonds	\$4,241,829	3.0%	2.9%	-0.1%
Balanced - GAA	\$28,783,945	20.0%	19.9%	-0.1%
Private Equity	\$531,286	1.0%	0.4%	-0.6%
Hedge Funds	\$7,197,060	5.0%	5.0%	0.0%
Real Estate	\$7,056,075	4.5%	4.9%	0.4%
Commodities	\$5,329,856	4.0%	3.7%	-0.3%
Cash	\$90,340	--	0.1%	0.1%
<b>Total</b>	<b>\$144,387,796</b>	<b>100.0%</b>	<b>100.0%</b>	

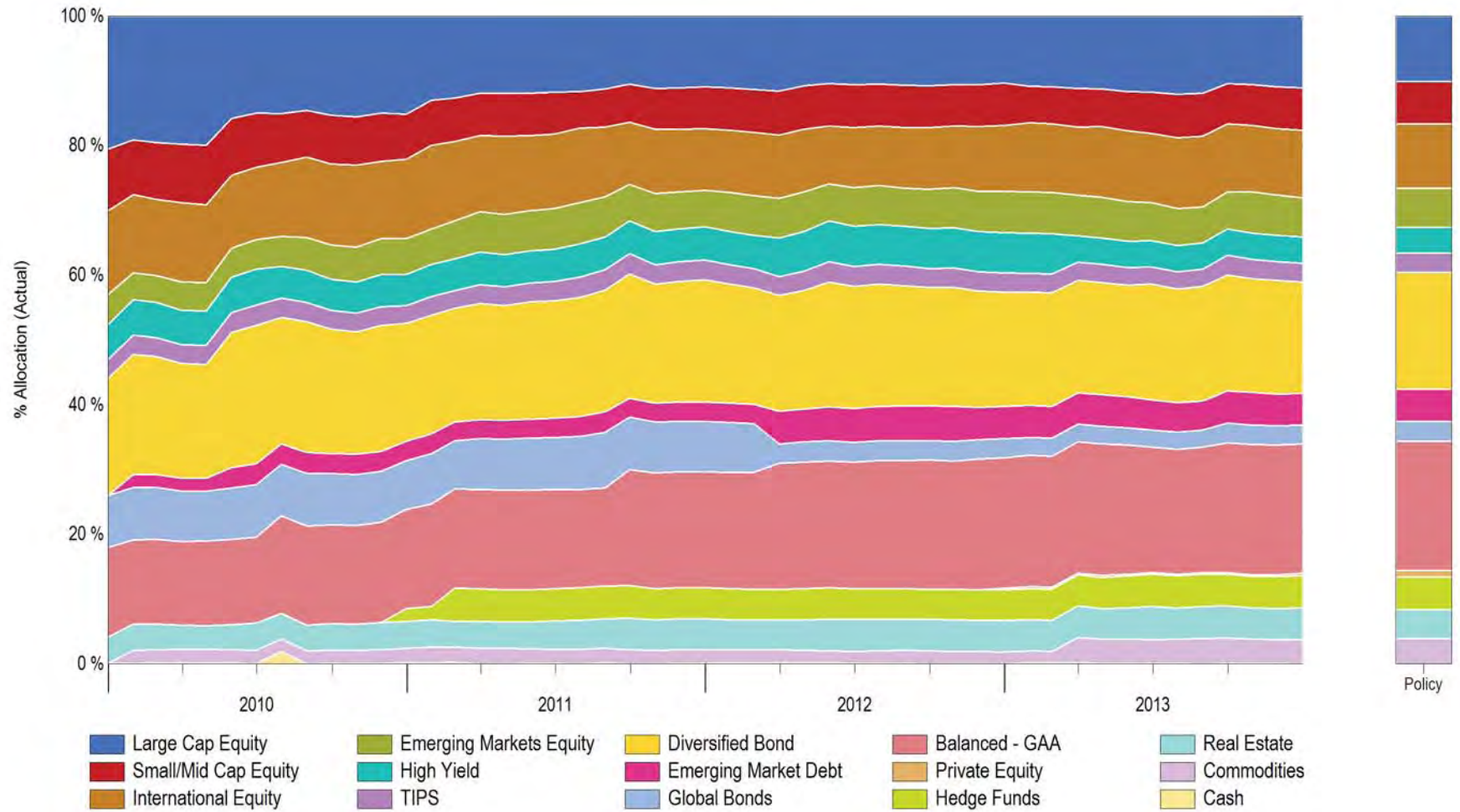
\*Difference between Policy and Current Allocation

Total Plan Performance

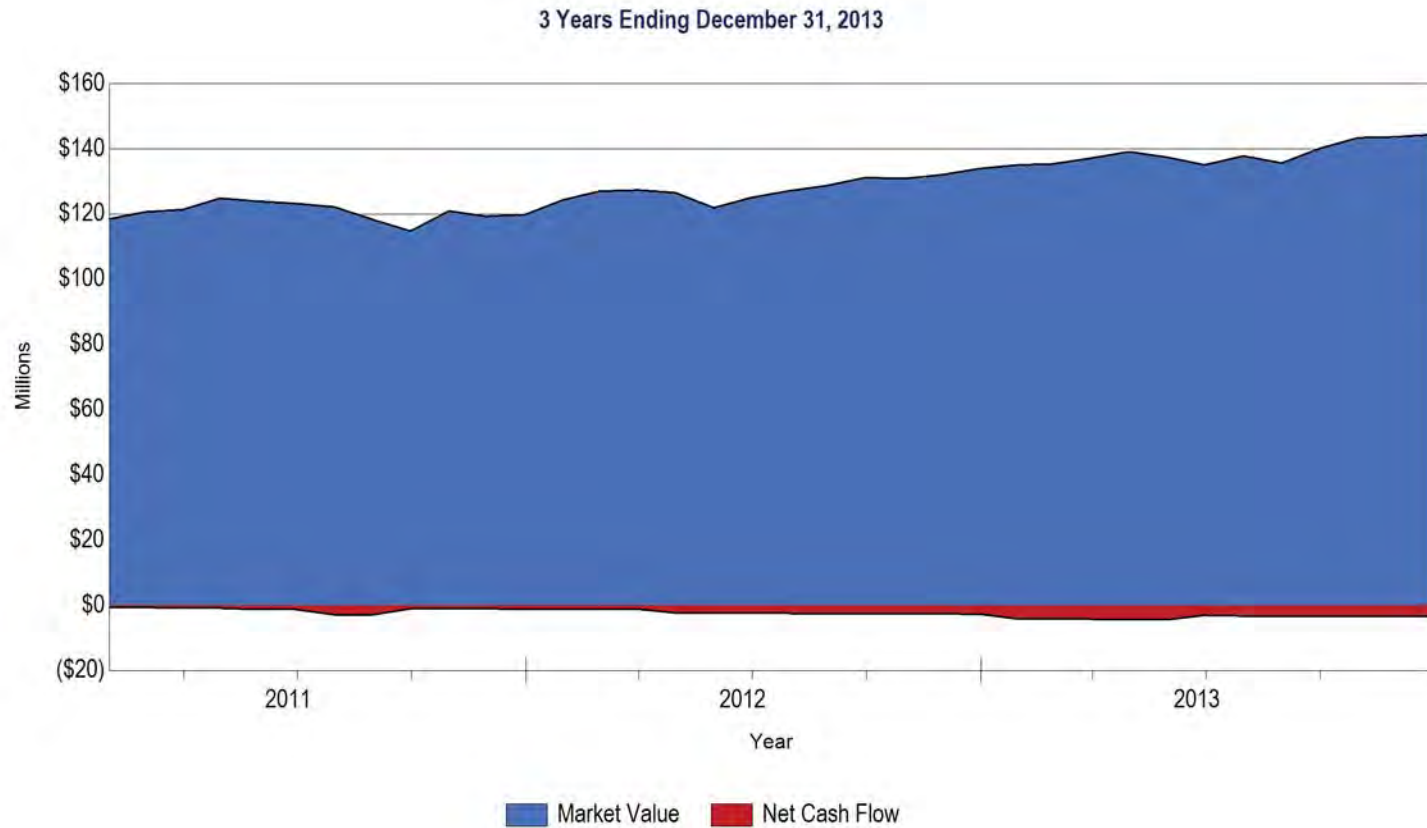




Asset Allocation History



**Total Fund Asset Growth Summary**



	Last Three Months	Year-To-Date	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$140,047,993	\$133,922,569	\$135,057,562	\$133,922,569	\$118,249,411
- Withdrawals	-\$5,216,673	-\$16,180,724	-\$9,667,078	-\$16,180,724	-\$50,250,887
+ Contributions	\$5,192,970	\$15,486,263	\$9,343,171	\$15,486,263	\$46,874,251
= Net Cash Flow	-\$23,703	-\$694,461	-\$323,907	-\$694,461	-\$3,376,636
+ Net Investment Change	\$4,363,506	\$11,159,688	\$9,654,141	\$11,159,688	\$29,515,021
= Ending Market Value	\$144,387,796	\$144,387,796	\$144,387,796	\$144,387,796	\$144,387,796



## Total Fund Asset Growth Summary by Manager

	Quarter Ending December 31, 2013					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
Aberdeen	\$8,079,528	\$0	\$700,000	\$700,000	-\$67,350	\$8,712,178
Acadian	\$5,938,908	\$0	\$0	\$0	\$499,131	\$6,438,039
Allianz Structured Alpha	\$3,486,091	\$0	\$0	\$0	-\$36,711	\$3,449,380
AQR Global Risk Premium	\$10,987,951	\$0	\$0	\$0	\$193,461	\$11,181,412
BlackRock TIPS	\$4,253,077	\$0	\$0	\$0	-\$85,413	\$4,167,664
Champlain	\$2,786,184	\$0	\$0	\$0	\$267,678	\$3,053,862
GAM	\$1,369,952	\$0	\$0	\$0	\$59,507	\$1,429,459
Grosvenor	\$2,817,156	\$0	\$0	\$0	\$117,025	\$2,934,181
Guggenheim	--	\$0	\$4,338,152	\$4,338,152	\$19,467	\$4,357,619
Harbourvest Dover VIII Fund	\$128,658	-\$8,066	\$96,818	\$88,752	\$10,336	\$227,745
Harbourvest Partners IX Buyout Fund	\$142,489	\$0	\$8,814	\$8,814	\$0	\$151,303
Harbourvest Partners IX Credit Opportunities	\$26,253	\$0	\$2,316	\$2,316	\$0	\$28,569
Harbourvest Partners IX Venture Fund	\$84,345	\$0	\$39,324	\$39,324	\$0	\$123,668
KDP	\$1,386,789	-\$1,520	\$0	-\$1,520	\$44,579	\$1,429,849
Mellon Global Expanded Alpha	\$2,842,873	\$0	\$0	\$0	\$128,873	\$2,971,746
Mondrian	\$6,018,046	\$0	\$0	\$0	\$404,780	\$6,422,826
Mondrian GFI	\$4,279,921	\$0	\$0	\$0	-\$38,092	\$4,241,829
Morgan Stanley Prime Property	\$3,108,956	\$0	\$0	\$0	\$111,922	\$3,220,879
Permal	\$2,712,048	\$0	\$0	\$0	\$121,373	\$2,833,421
PIMCO All Asset	\$8,554,191	-\$19,328	\$0	-\$19,328	\$130,491	\$8,665,354
PIMCO Core Plus	\$9,127,201	\$0	\$0	\$0	-\$52,829	\$9,074,372
PIMCO Unconstrained	\$8,897,016	\$0	\$0	\$0	-\$37,807	\$8,859,209
Post Advisory	\$4,242,020	-\$4,301,454	\$0	-\$4,301,454	\$88,605	\$29,172
RREEF America REIT III	\$988,021	-\$33,100	\$0	-\$33,100	\$28,730	\$983,651
Schroder	\$5,425,788	\$0	\$0	\$0	-\$95,932	\$5,329,856

## Total Fund Asset Growth Summary by Manager

	Quarter Ending December 31, 2013					Ending Market Value
	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Net Investment Change	
SSgA ACWI Ex US	\$2,781,552	-\$700,000	\$0	-\$700,000	\$101,268	\$2,182,819
SSgA Russell 2000 Growth	\$2,042,658	\$0	\$0	\$0	\$172,409	\$2,215,067
SSgA S&P 400	\$871,059	\$0	\$0	\$0	\$72,649	\$943,709
SSgA S&P 500 Cap-Wgt	\$6,635,609	\$0	\$0	\$0	\$697,859	\$7,333,468
SSgA S&P 500 Equal-Wgt	\$3,869,301	-\$41,633	\$0	-\$41,633	\$380,261	\$4,207,929
T. Rowe	\$4,037,429	\$0	\$0	\$0	\$437,080	\$4,474,510
Transwestern / Aslan III	\$38,167	-\$1,090	\$0	-\$1,090	\$69	\$37,146
UBS Trumbull	\$2,751,622	-\$7,545	\$7,545	\$0	\$62,777	\$2,814,399
Vermont Cash	\$193,276	-\$102,938	\$2	-\$102,936	\$0	\$90,340
Wellington	\$2,969,571	\$0	\$0	\$0	\$264,619	\$3,234,189
Wellington DAS	\$3,544,248	\$0	\$0	\$0	-\$31,151	\$3,513,097
Wellington OIF	\$5,630,889	\$0	\$0	\$0	\$334,545	\$5,965,434
Wellington Opportunistic EMD	\$6,999,150	\$0	\$0	\$0	\$59,297	\$7,058,447
<b>Total</b>	<b>\$140,047,993</b>	<b>-\$5,216,673</b>	<b>\$5,192,970</b>	<b>-\$23,703</b>	<b>\$4,363,506</b>	<b>\$144,387,796</b>

**Total Fund Performance Detail**

	Market Value (\$)	% of Portfolio	Policy %	2013 Q4 (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
<b>Burlington Composite</b>	<b>144,387,796</b>	<b>100.0</b>	<b>100.0</b>	<b>3.1</b>	<b>93</b>	<b>8.4</b>	<b>95</b>	<b>8.4</b>	<b>95</b>	<b>7.8</b>	<b>87</b>	<b>12.8</b>	<b>36</b>
<i>Policy Index</i>				3.3	93	9.4	93	9.4	93	6.9	94	10.2	83
<i>Allocation Index</i>				3.3	93	9.5	92	9.5	92	--	--	--	--
<i>IFx Public DB Gross Median</i>				5.0		15.5		15.5		9.5		12.2	
<b>Large Cap Comp</b>	<b>16,015,907</b>	<b>11.1</b>	<b>10.0</b>	<b>10.4</b>	<b>47</b>	<b>33.9</b>	<b>48</b>	<b>33.9</b>	<b>48</b>	<b>16.5</b>	<b>41</b>	<b>21.2</b>	<b>14</b>
<i>S&amp;P 500</i>				10.5	45	32.4	62	32.4	62	16.2	47	17.9	57
<i>eA US Large Cap Equity Gross Median</i>				10.3		33.6		33.6		16.0		18.2	
T. Rowe	4,474,510	3.1	3.0	10.8	38	33.7	49	33.7	49	16.7	39	18.8	41
SSgA S&P 500 Cap-Wgt	7,333,468	5.1	4.0	10.5	41	32.4	58	32.4	58	16.2	49	--	--
<i>S&amp;P 500</i>				10.5	41	32.4	58	32.4	58	16.2	50	17.9	50
SSgA S&P 500 Equal-Wgt	4,207,929	2.9	3.0	9.9	64	36.2	21	36.2	21	16.9	38	23.4	2
<i>S&amp;P 500 Equal Weighted</i>				9.9	65	36.2	21	36.2	21	17.0	37	23.3	2
<i>S&amp;P 500 ex Tobacco Equal Weighted</i>				9.9	64	36.4	19	36.4	19	17.0	37	23.4	2
<b>Small/Mid Cap Comp</b>	<b>9,446,827</b>	<b>6.5</b>	<b>6.5</b>	<b>8.9</b>	<b>48</b>	<b>37.9</b>	<b>52</b>	<b>37.9</b>	<b>52</b>	<b>17.0</b>	<b>42</b>	<b>22.1</b>	<b>61</b>
<i>Russell 2000</i>				8.7	52	38.8	45	38.8	45	15.7	60	20.1	83
<i>eA US Small-Mid Cap Equity Gross Median</i>				8.8		38.2		38.2		16.3		22.8	
SSgA S&P 400	943,709	0.7	0.5	8.3	64	33.7	68	33.7	68	--	--	--	--
<i>S&amp;P 400 MidCap</i>				8.3	64	33.5	70	33.5	70	15.6	57	21.9	54
<i>eA US Mid Cap Equity Gross Median</i>				8.8		35.8		35.8		16.0		22.0	
Champlain	3,053,862	2.1	2.0	9.6	34	39.2	26	39.2	26	17.7	27	--	--
<i>Russell 2500</i>				8.7	55	36.8	43	36.8	43	16.3	45	21.8	56
<i>eA US Mid Cap Equity Gross Median</i>				8.8		35.8		35.8		16.0		22.0	
Wellington	3,234,189	2.2	2.0	8.9	70	34.9	77	34.9	77	17.1	46	22.2	44
<i>Russell 2000 Value</i>				9.3	61	34.5	78	34.5	78	14.5	78	17.6	95
<i>eA US Small Cap Value Equity Gross Median</i>				9.8		38.1		38.1		16.8		21.6	
SSgA Russell 2000 Growth	2,215,067	1.5	2.0	8.2	60	43.3	70	43.3	70	16.8	73	22.6	76
<i>Russell 2000 Growth</i>				8.2	60	43.3	70	43.3	70	16.8	73	22.6	76
<i>eA US Small Cap Growth Equity Gross Median</i>				8.8		45.6		45.6		18.8		24.4	

**Total Fund Performance Detail**

	Market Value (\$)	% of Portfolio	Policy %	2013 Q4 (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
<b>Int'l Equity Comp</b>	<b>15,043,684</b>	<b>10.4</b>	<b>10.0</b>	<b>7.1</b>	<b>39</b>	<b>23.6</b>	<b>57</b>	<b>23.6</b>	<b>57</b>	<b>8.6</b>	<b>67</b>	<b>11.9</b>	<b>88</b>
MSCI EAFE				5.7	71	22.8	65	22.8	65	8.2	74	12.4	81
eA All EAFE Equity Gross Median				6.6		24.6		24.6		9.7		14.5	
Acadian	6,438,039	4.5	4.0	8.4	15	27.1	32	27.1	32	8.9	63	13.6	67
Mondrian	6,422,826	4.4	4.0	6.7	49	23.9	55	23.9	55	9.5	53	11.1	94
MSCI EAFE				5.7	71	22.8	65	22.8	65	8.2	74	12.4	81
SSgA ACWI Ex US	2,182,819	1.5	2.0	4.8	81	15.6	81	15.6	81	5.4	89	--	--
MSCI ACWI ex USA				4.8	81	15.3	83	15.3	83	5.1	92	12.8	84
eA ACWI ex-US All Cap Equity Gross Median				5.9		19.5		19.5		8.5		14.8	
<b>Emerging Market Comp</b>	<b>8,712,178</b>	<b>6.0</b>	<b>6.0</b>	<b>-0.5</b>	<b>95</b>	<b>-5.9</b>	<b>94</b>	<b>-5.9</b>	<b>94</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
eA Emg Mkts Equity Gross Median				2.8		1.0		1.0		-0.1		16.8	
Aberdeen	8,712,178	6.0	6.0	-0.5	95	-5.9	94	-5.9	94	2.1	22	20.1	14
MSCI Emerging Markets				1.8	70	-2.6	80	-2.6	80	-2.1	75	14.8	74
eA Emg Mkts Equity Gross Median				2.8		1.0		1.0		-0.1		16.8	
<b>Diversified Fixed</b>	<b>24,896,058</b>	<b>17.2</b>	<b>18.0</b>	<b>-0.6</b>	<b>96</b>	<b>-2.3</b>	<b>87</b>	<b>-2.3</b>	<b>87</b>	<b>4.3</b>	<b>46</b>	<b>8.6</b>	<b>28</b>
Barclays Aggregate				-0.1	88	-2.0	83	-2.0	83	3.3	68	4.4	71
eA All US Fixed Inc Gross Median				0.4		-0.3		-0.3		4.0		5.8	
Allianz Structured Alpha	3,449,380	2.4	2.0	-1.1	99	-2.5	95	-2.5	95	5.0	10	9.9	2
Citigroup 10 Year Treasury				-2.5	99	-7.8	99	-7.8	99	4.0	52	1.8	99
PIMCO Core Plus	9,074,372	6.3	6.5	-0.6	98	-2.5	95	-2.5	95	4.1	43	--	--
Barclays Aggregate				-0.1	84	-2.0	82	-2.0	82	3.3	88	4.4	87
PIMCO Unconstrained	8,859,209	6.1	6.5	-0.4	97	-1.5	55	-1.5	55	--	--	--	--
25% HY, 25% EMD, 50% BC Agg				1.1	5	-0.9	27	-0.9	27	5.6	2	9.8	2
3-Month Libor Total Return USD				0.1	61	0.3	6	0.3	6	0.4	99	0.4	99
Wellington DAS	3,513,097	2.4	3.0	-0.9	99	-3.9	99	-3.9	99	7.2	1	7.9	7
Wellington Custom Benchmark				-2.8	99	-11.7	99	-11.7	99	4.8	15	5.3	65

**Total Fund Performance Detail**

	Market Value (\$)	% of Portfolio	Policy %	2013 Q4 (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
<b>High Yield Comp</b>	<b>5,816,640</b>	<b>4.0</b>	<b>4.0</b>	<b>2.9</b>	<b>83</b>	<b>7.6</b>	<b>52</b>	<b>7.6</b>	<b>52</b>	<b>9.3</b>	<b>52</b>	<b>16.0</b>	<b>72</b>
Barclays High Yield				3.6	46	7.4	54	7.4	54	9.3	52	18.9	17
eA US High Yield Fixed Inc Gross Median				3.5		7.6		7.6		9.3		16.9	
Post Advisory	29,172	0.0	3.0										
KDP	1,429,849	1.0	1.0	3.1	77	5.2	93	5.2	93	8.1	87	--	--
Barclays High Yield				3.6	46	7.4	54	7.4	54	9.3	52	18.9	17
BofA Merrill Lynch US High Yield BB-B Rated				3.3	62	6.3	80	6.3	80	8.7	73	16.5	58
Guggenheim	4,357,619	3.0		--	--	--	--	--	--	--	--	--	--
eA US High Yield Fixed Inc Gross Median				3.5		7.6		7.6		9.3		16.9	
<b>TIPS</b>	<b>4,167,664</b>	<b>2.9</b>	<b>3.0</b>										
eA TIPS / Infl Indexed Fixed Inc Gross Median													
BlackRock TIPS	4,167,664	2.9	3.0	-2.0	--	-8.6	--	-8.6	--	3.5	--	--	--
Barclays US TIPS				-2.0	--	-8.6	--	-8.6	--	3.5	--	5.6	--
<b>Global Fixed Income Comp</b>	<b>4,241,829</b>	<b>2.9</b>	<b>3.0</b>	<b>-0.9</b>	<b>92</b>	<b>-6.2</b>	<b>97</b>	<b>-6.2</b>	<b>97</b>	<b>1.4</b>	<b>95</b>	<b>6.1</b>	<b>55</b>
Citi WGBI				-1.1	94	-4.0	86	-4.0	86	1.2	96	2.3	99
eA All Global Fixed Inc Gross Median				1.0		0.2		0.2		4.7		6.7	
Mondrian GFI	4,241,829	2.9	3.0	-0.9	92	-6.2	97	-6.2	97	0.4	99	3.7	90
Citi WGBI				-1.1	94	-4.0	86	-4.0	86	1.2	96	2.3	99
<b>Emerging Market Debt</b>	<b>7,058,447</b>	<b>4.9</b>	<b>5.0</b>										
eA All Emg Mkts Fixed Inc Gross Median													
Wellington Opportunistic EMD	7,058,447	4.9	5.0	0.8	49	-5.1	39	-5.1	39	6.9	16	--	--
JP Morgan EMBI Global TR				0.9	47	-6.6	61	-6.6	61	6.3	33	11.5	63
eA All Emg Mkts Fixed Inc Gross Median				0.8		-6.1		-6.1		5.0		12.5	
<b>Total Real Estate</b>	<b>7,056,075</b>	<b>4.9</b>	<b>4.5</b>	<b>3.0</b>	<b>--</b>	<b>14.7</b>	<b>--</b>	<b>14.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Morgan Stanley Prime Property	3,220,879	2.2	2.0	3.6	--	17.4	--	17.4	--	15.5	--	3.5	--
UBS Trumbull	2,814,399	1.9	2.0	2.3	--	10.4	--	10.4	--	11.3	--	4.6	--
RREEF America REIT III	983,651	0.7	0.5	3.0	--	16.8	--	16.8	--	30.8	--	-2.6	--
Transwestern / Aslan III	37,146	0.0	0.0	0.2	--	50.0	--	50.0	--	14.5	--	-36.0	--
NCREIF Property Index				2.5	--	11.0	--	11.0	--	11.9	--	5.7	--
NCREIF ODCE				3.2	--	14.0	--	14.0	--	13.6	--	3.7	--

Morgan Stanley Prime Property is estimated  
 Transwestern is based on preliminary manager statement  
 Post Advisory funds were invested into Guggenheim

City of Burlington

Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	Policy %	2013 Q4 (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank
<b>Hedge Fund Comp</b>	<b>7,197,060</b>	<b>5.0</b>	<b>5.0</b>	<b>4.3</b>	<b>35</b>	<b>14.1</b>	<b>22</b>	<b>14.1</b>	<b>22</b>	<b>6.2</b>	<b>31</b>	<b>--</b>	<b>--</b>
<i>eA HFN FOF - Multi-Strategy Net Median</i>				3.6		10.5		10.5		4.5		7.1	
Grosvenor	2,934,181	2.0	2.0	4.2	40	15.2	16	15.2	16	6.5	29	--	--
GAM	1,429,459	1.0	1.0	4.3	34	14.0	22	14.0	22	--	--	--	--
Permal	2,833,421	2.0	2.0	4.5	31	13.0	29	13.0	29	--	--	--	--
<i>HFRI Fund of Funds Composite Index</i>				3.5	55	8.7	60	8.7	60	2.4	76	4.8	78
<b>GAA Comp</b>	<b>28,783,945</b>	<b>19.9</b>	<b>20.0</b>	<b>2.8</b>	<b>62</b>	<b>3.2</b>	<b>69</b>	<b>3.2</b>	<b>69</b>	<b>6.2</b>	<b>47</b>	<b>13.1</b>	<b>12</b>
<i>eA Global TAA Gross Median</i>				3.7		7.7		7.7		6.0		10.3	
Mellon Global Expanded Alpha	2,971,746	2.1	2.5	4.5	32	12.2	31	12.2	31	8.0	26	14.0	10
<i>Mellon GA GEA Index</i>				3.6	51	10.3	40	10.3	40	6.9	40	9.3	62
AQR Global Risk Premium	11,181,412	7.7	8.0	1.8	84	-2.0	88	-2.0	88	6.7	42	--	--
<i>60% MSCI World / 40% CITI WGBI</i>				4.4	36	13.9	24	13.9	24	7.9	29	10.4	45
PIMCO All Asset	8,665,354	6.0	5.0	1.5	87	1.7	74	1.7	74	7.0	37	11.7	27
<i>PIMCO All Asset Index</i>				1.0	91	0.2	77	0.2	77	5.2	58	8.1	75
<i>CPI + 5%</i>				1.5	87	6.6	54	6.6	54	7.2	36	7.2	76
Wellington OIF	5,965,434	4.1	4.5	5.9	16	12.1	32	12.1	32	3.4	72	12.2	21
<i>65% MSCI ACWI (Net) / 35% BC Agg</i>				4.7	27	13.6	25	13.6	25	7.7	33	11.5	31
<b>Commodities</b>	<b>5,329,856</b>	<b>3.7</b>	<b>4.0</b>										
Schroder	5,329,856	3.7	4.0	-1.8	--	-8.5	--	-8.5	--	-5.0	--	--	--
<i>Dow Jones-UBS Commodity Index TR</i>				-1.1	--	-9.5	--	-9.5	--	-8.1	--	1.5	--
<b>Cash</b>	<b>90,340</b>	<b>0.1</b>	<b>0.0</b>										
Vermont Cash	90,340	0.1	0.0	0.0	--	0.0	--	0.0	--	0.1	--	0.2	--
<i>91 Day T-Bills</i>				0.0	--	0.0	--	0.0	--	0.1	--	0.1	--
<b>Private Equity</b>	<b>531,286</b>	<b>0.4</b>	<b>1.0</b>										
Harbourvest Partners IX Credit Opportunities	28,569	0.0											
Harbourvest Partners IX Venture Fund	123,668	0.1											
Harbourvest Partners IX Buyout Fund	151,303	0.1											
Harbourvest Dover VIII Fund	227,745	0.2											

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

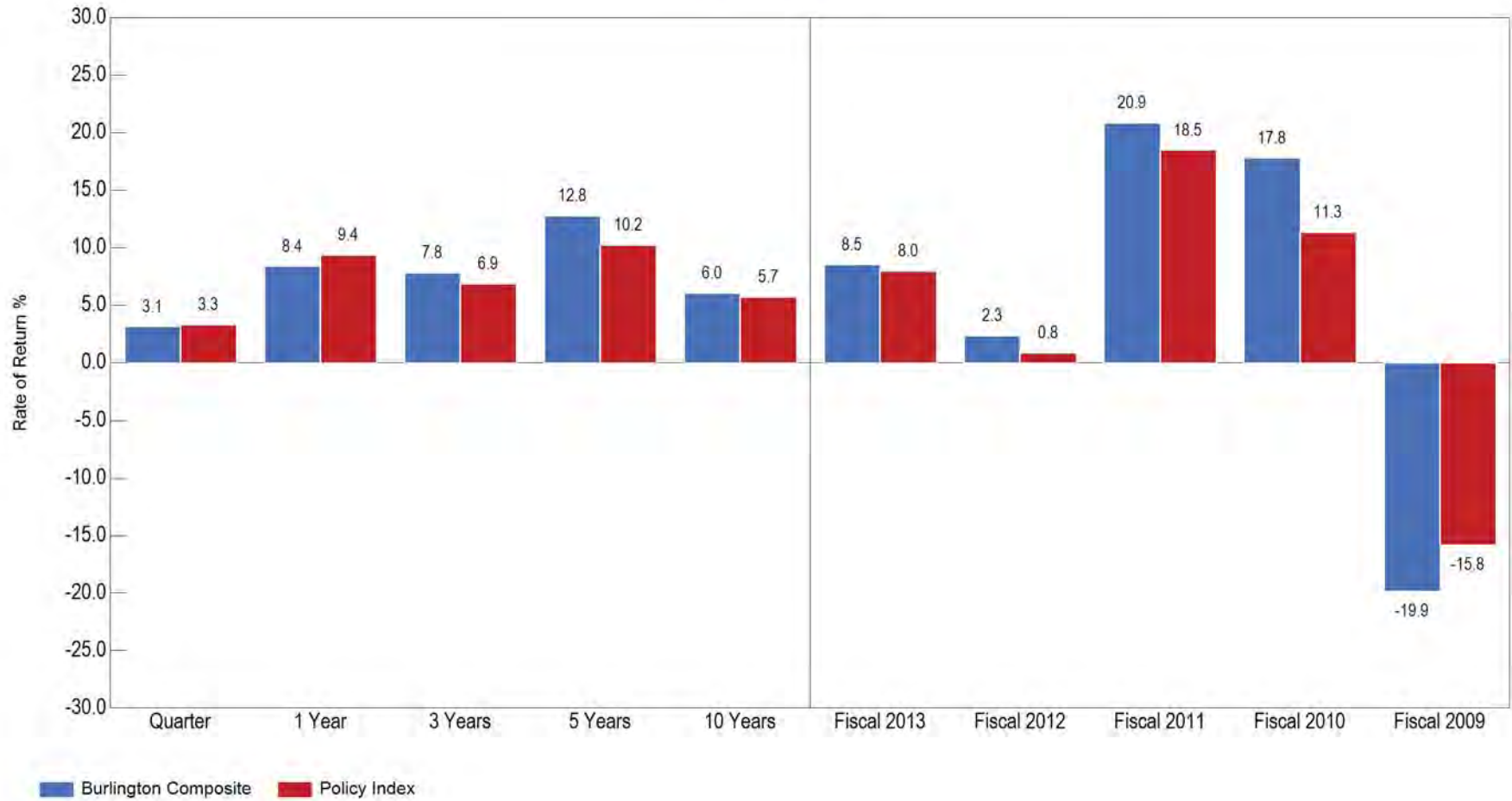
Mellon CF GEA Index: 50% MSCI ACWI / 25% CITI WGBI H/H / 10% BC Global Inflation Linked H/H / 5% BC US Interm. Credit / 5% DJ-UBS Commodity / 5% R2000.

Harbourvest is based on preliminary manager statement for Q4 2013

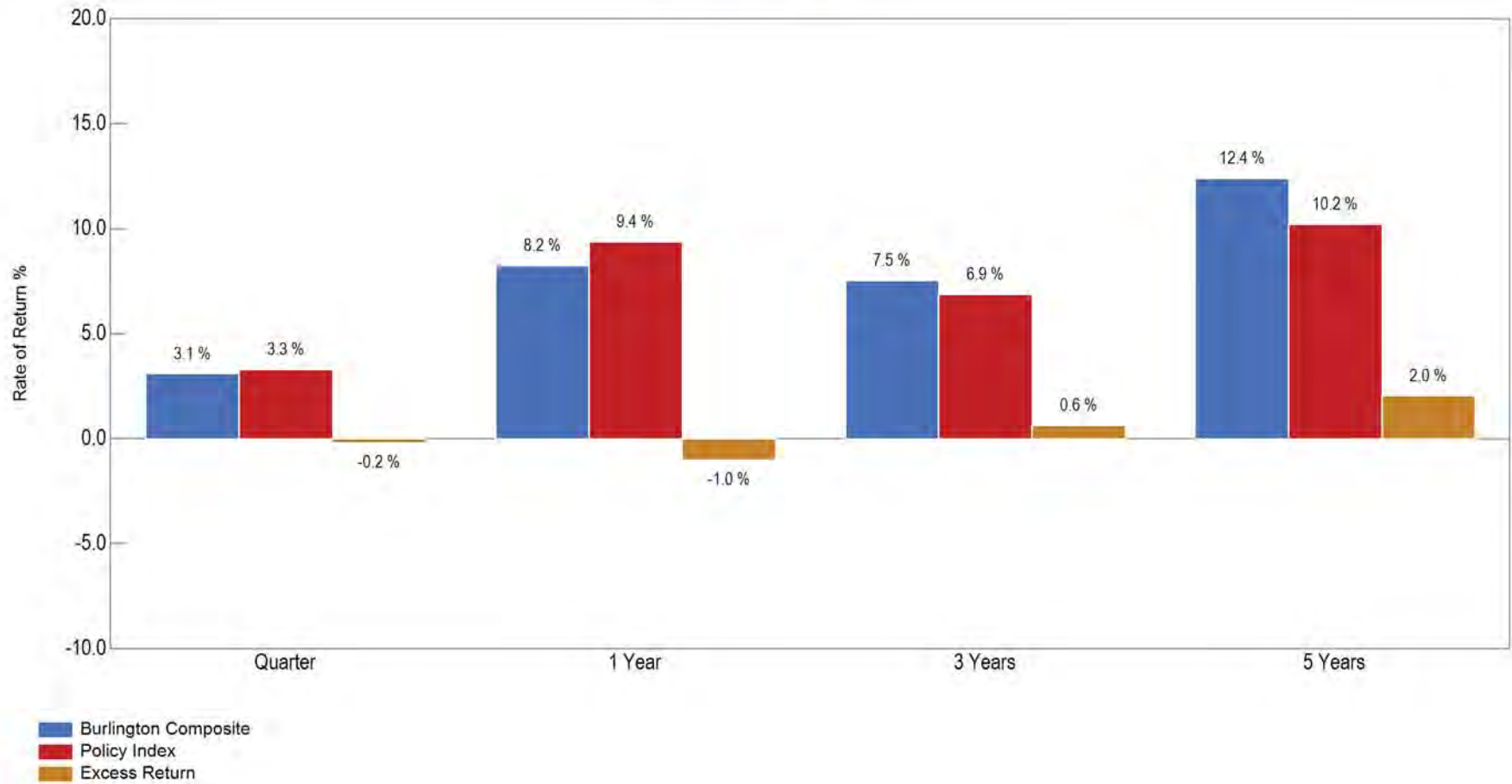
Schroder is net of fee



Return Summary Gross

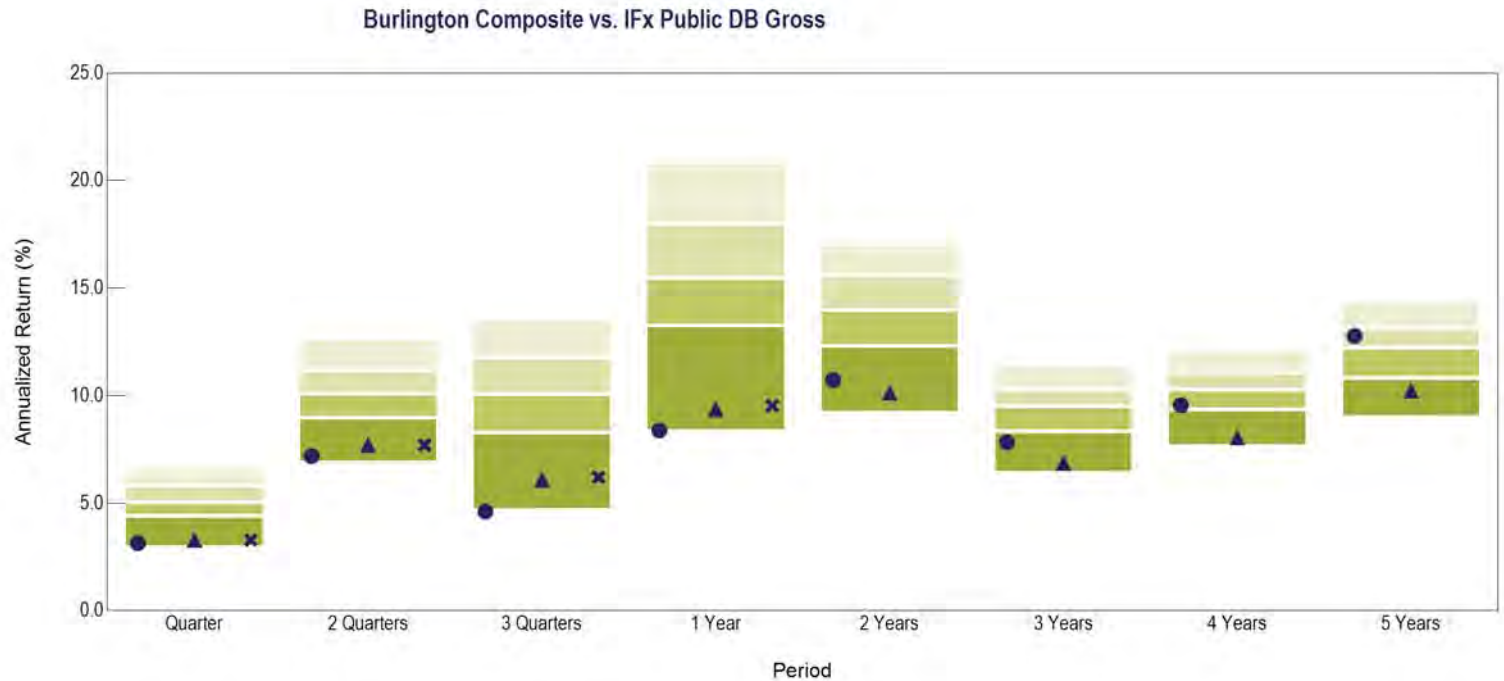


Return Summary  
 Ending December 31, 2013



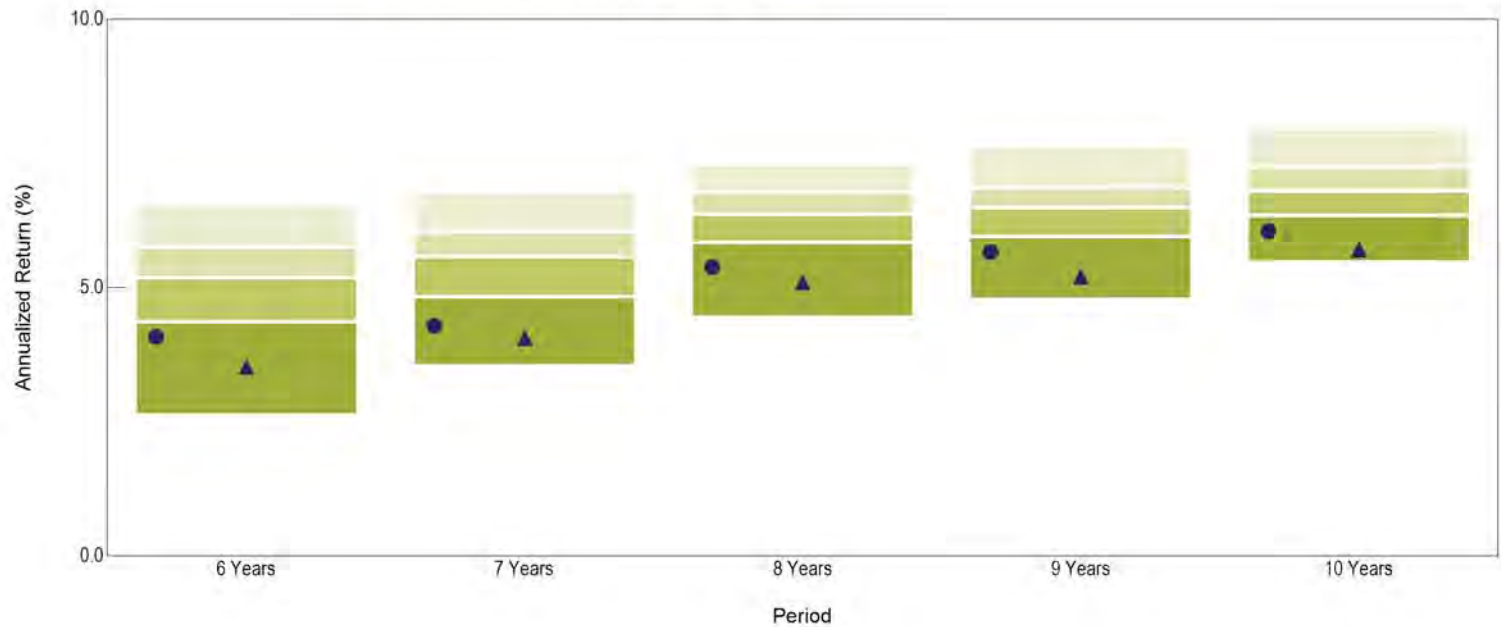


Total Fund Return Summary vs. Peer Universe



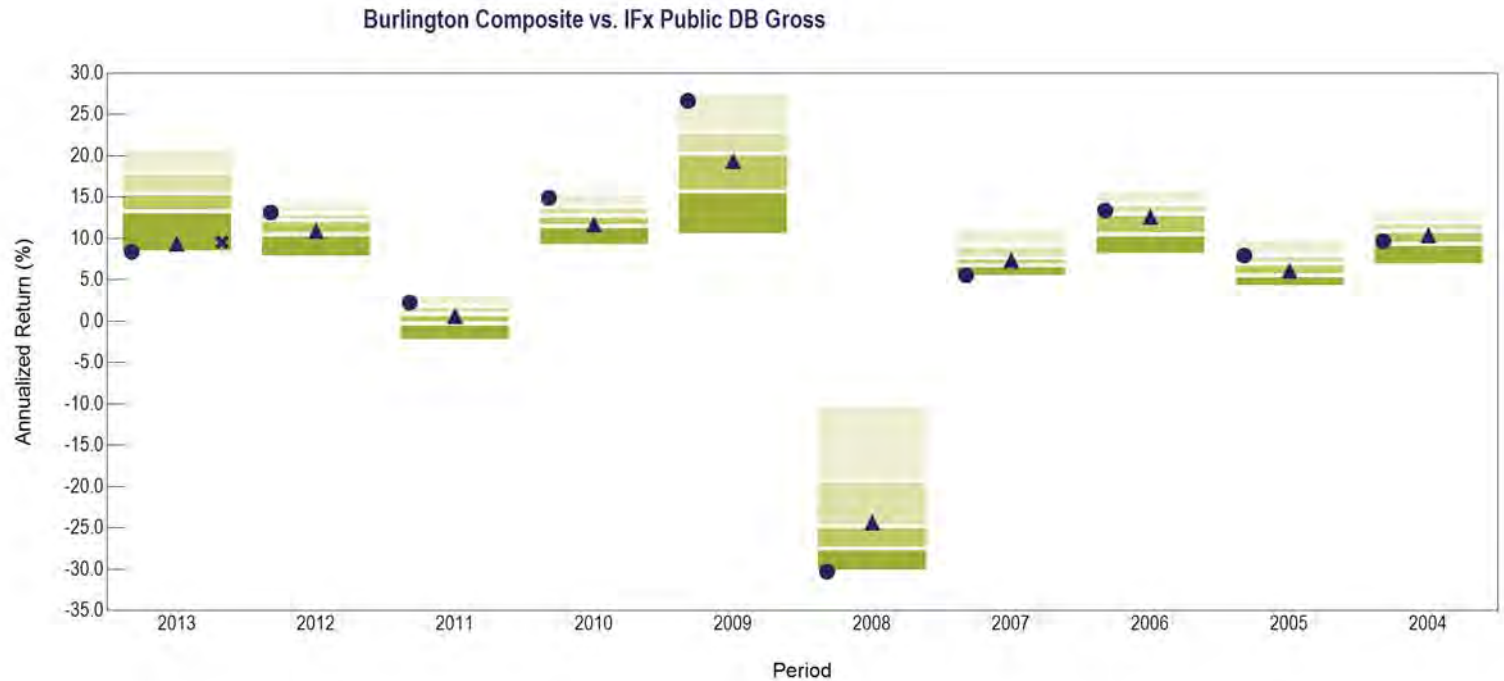
	Return (Rank)															
5th Percentile	6.6	12.7	13.6	20.8	17.0	11.4	12.1	14.4								
25th Percentile	5.8	11.2	11.8	18.0	15.6	10.3	11.1	13.1								
Median	5.0	10.1	10.1	15.5	14.0	9.5	10.3	12.2								
75th Percentile	4.4	9.0	8.3	13.3	12.3	8.4	9.4	10.8								
95th Percentile	3.0	6.9	4.7	8.4	9.2	6.4	7.7	9.0								
# of Portfolios	212	212	212	212	205	185	178	174								
● Burlington Composite	3.1	(93)	7.2	(93)	4.6	(96)	8.4	(95)	10.7	(91)	7.8	(87)	9.5	(68)	12.8	(36)
▲ Policy Index	3.3	(93)	7.7	(91)	6.1	(92)	9.4	(93)	10.1	(93)	6.9	(94)	8.1	(94)	10.2	(83)
× Allocation Index	3.3	(93)	7.7	(91)	6.2	(91)	9.5	(92)	--	(--)	--	(--)	--	(--)	--	(--)

Burlington Composite vs. IFx Public DB Gross



	6 Years		7 Years		8 Years		9 Years		10 Years	
5th Percentile	6.5		6.8		7.3		7.6		8.0	
25th Percentile	5.8		6.1		6.8		6.9		7.2	
Median	5.2		5.6		6.4		6.5		6.8	
75th Percentile	4.4		4.8		5.8		6.0		6.3	
95th Percentile	2.6		3.5		4.4		4.8		5.5	
# of Portfolios	170		160		156		148		144	
● Burlington Composite	4.1	(81)	4.3	(90)	5.4	(88)	5.7	(86)	6.0	(86)
▲ Policy Index	3.5	(89)	4.1	(92)	5.1	(92)	5.2	(94)	5.7	(93)
× Allocation Index	-	(-)	-	(-)	-	(-)	-	(-)	-	(-)

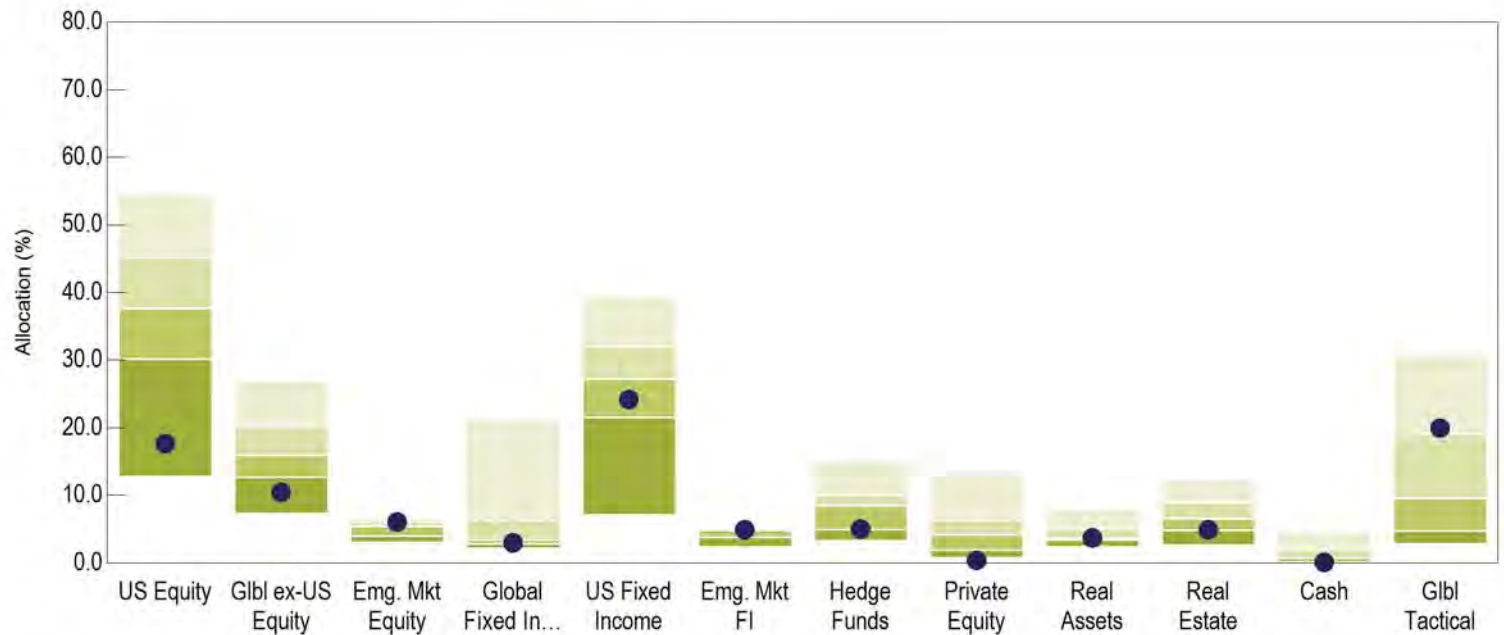
Total Fund Return Summary vs. Peer Universe



	Return (Rank)																				
5th Percentile	20.8	14.3	3.4	15.5	27.6	-10.2	11.1	15.8	9.9	13.2											
25th Percentile	18.0	13.1	1.9	13.9	23.0	-19.2	9.1	14.2	8.1	12.0											
Median	15.5	12.2	0.9	12.8	20.3	-24.7	7.7	13.0	6.9	10.9											
75th Percentile	13.3	10.5	-0.3	11.5	15.7	-27.4	6.8	10.5	5.5	9.4											
95th Percentile	8.4	7.7	-2.4	9.2	10.4	-30.2	5.4	8.0	4.2	6.8											
# of Portfolios	212	192	162	154	152	149	146	136	131	125											
● Burlington Composite	8.4 (95)	13.1 (25)	2.2 (17)	14.9 (12)	26.6 (7)	-30.3 (96)	5.5 (93)	13.4 (43)	7.9 (27)	9.6 (71)											
▲ Policy Index	9.4 (93)	10.9 (71)	0.6 (62)	11.7 (72)	19.3 (55)	-24.3 (49)	7.4 (58)	12.6 (55)	6.1 (66)	10.4 (59)											
× Allocation Index	9.5 (92)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)											

Total Plan Allocation vs. Peer Universe

Total Plan Allocation vs. IFx Public DB Gross  
As of December 31, 2013

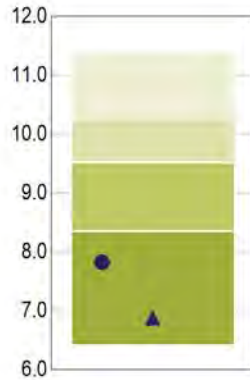


Allocation (Rank)

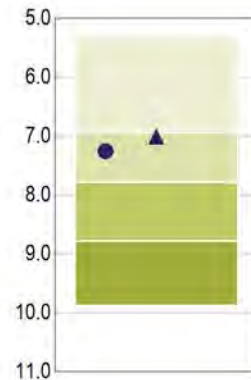
5th Percentile	54.5	27.0	6.7	21.4	39.6	5.2	15.1	13.7	7.9	12.3	4.6	30.9	--
25th Percentile	45.2	20.2	6.1	6.4	32.1	5.0	10.2	6.4	5.0	9.0	2.0	19.1	--
Median	37.7	16.0	5.4	3.5	27.2	4.9	8.5	4.3	3.8	6.6	0.8	9.7	--
75th Percentile	30.2	12.8	4.1	2.9	21.6	3.9	5.0	1.9	3.5	4.9	0.2	4.8	--
95th Percentile	12.9	7.3	3.1	2.2	7.1	2.5	3.4	0.8	2.5	2.7	0.0	2.9	--
# of Portfolios	130	125	18	14	96	11	40	29	23	88	95	39	--
● City of Burlington	17.6 (92)	10.4 (91)	6.0 (36)	2.9 (73)	24.2 (68)	4.9 (61)	5.0 (75)	0.4 (99)	3.7 (69)	4.9 (75)	0.1 (86)	19.9 (22)	--

Burlington Composite vs. IFx Public DB Gross  
3 Years

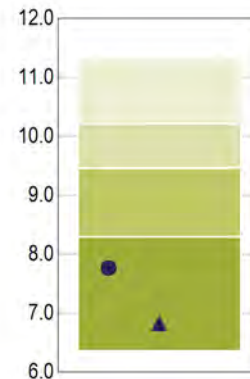
Anlzd Return



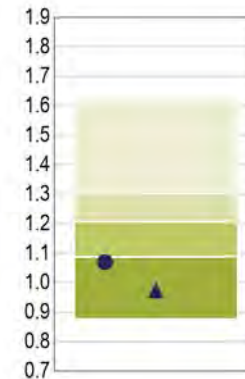
Anlzd Standard Deviation



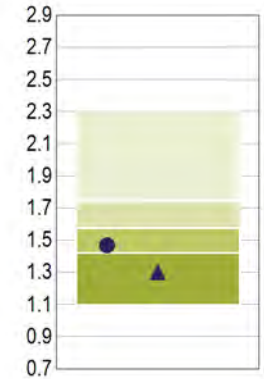
Ann Excess RF Return



Sharpe Ratio



Sortino Ratio RF



● Burlington Composite	
Value	7.82
%tile	87
▲ Policy Index	
Value	6.87
%tile	94
× Allocation Index	
Value	--
%tile	--
Universe	
5th %tile	11.37
25th %tile	10.28
Median	9.53
75th %tile	8.35
95th %tile	6.42

● Burlington Composite	
Value	7.26
%tile	34
▲ Policy Index	
Value	7.01
%tile	28
× Allocation Index	
Value	--
%tile	--
Universe	
5th %tile	5.32
25th %tile	6.94
Median	7.78
75th %tile	8.77
95th %tile	9.87

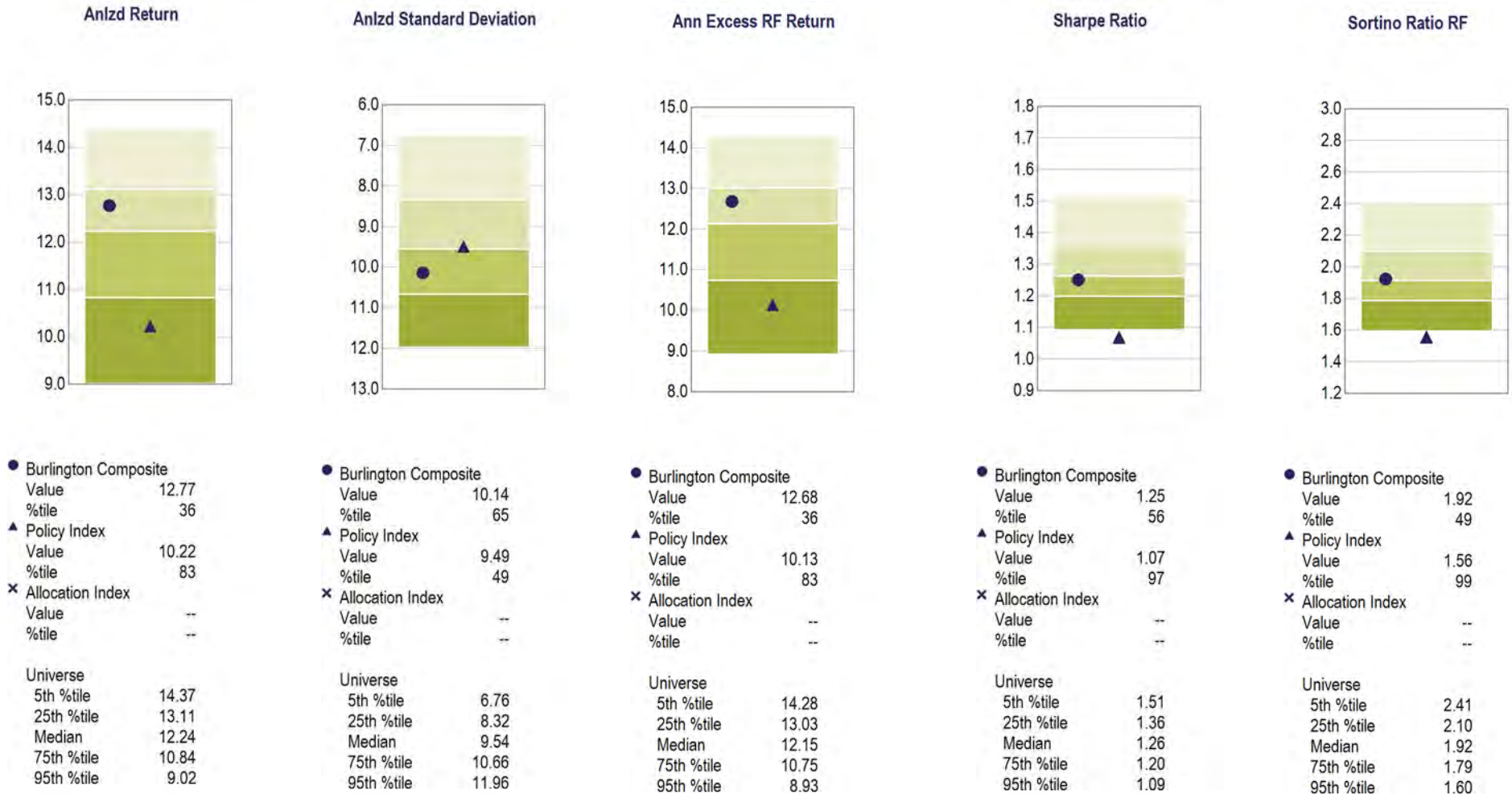
● Burlington Composite	
Value	7.76
%tile	87
▲ Policy Index	
Value	6.82
%tile	94
× Allocation Index	
Value	--
%tile	--
Universe	
5th %tile	11.31
25th %tile	10.23
Median	9.47
75th %tile	8.30
95th %tile	6.37

● Burlington Composite	
Value	1.07
%tile	80
▲ Policy Index	
Value	0.97
%tile	90
× Allocation Index	
Value	--
%tile	--
Universe	
5th %tile	1.62
25th %tile	1.30
Median	1.21
75th %tile	1.09
95th %tile	0.88

● Burlington Composite	
Value	1.47
%tile	65
▲ Policy Index	
Value	1.30
%tile	85
× Allocation Index	
Value	--
%tile	--
Universe	
5th %tile	2.31
25th %tile	1.75
Median	1.58
75th %tile	1.43
95th %tile	1.10

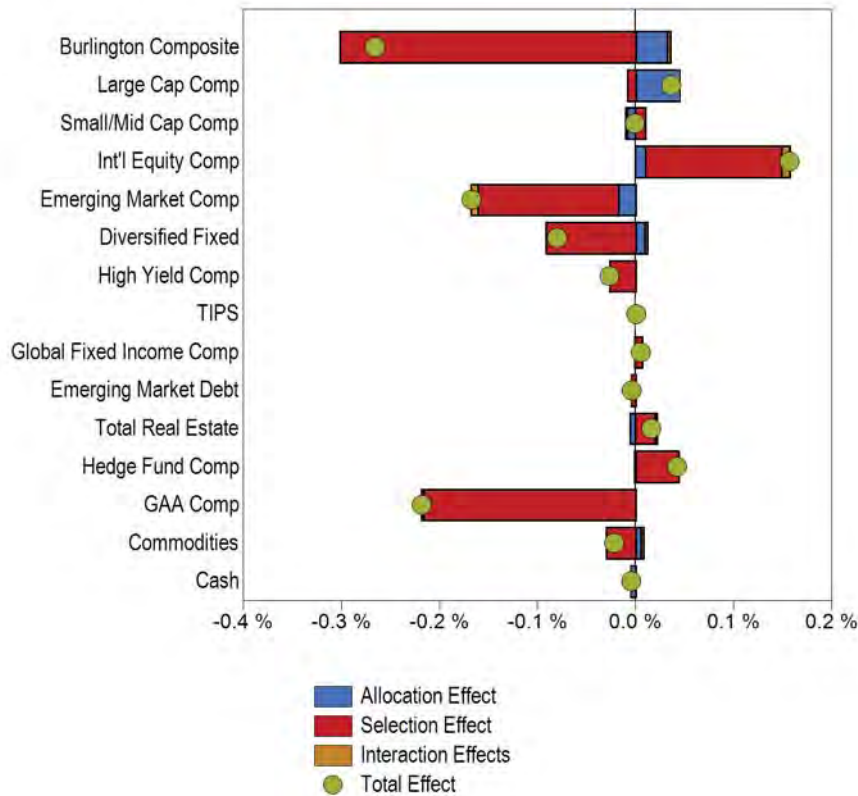


Burlington Composite vs. IFx Public DB Gross  
5 Years



**Total Fund Attribution Analysis**

**Attribution Effects Relative to Policy Index  
3 Months Ending December 31, 2013**



**Attribution Summary  
3 Months Ending December 31, 2013**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	10.4%	10.5%	-0.1%	0.0%	0.0%	0.0%	0.0%
Small/Mid Cap Comp	8.9%	8.7%	0.2%	0.0%	0.0%	0.0%	0.0%
Int'l Equity Comp	7.1%	5.7%	1.4%	0.1%	0.0%	0.0%	0.2%
Emerging Market Comp	-0.5%	1.8%	-2.4%	-0.1%	0.0%	0.0%	-0.2%
Diversified Fixed	-0.6%	-0.1%	-0.5%	-0.1%	0.0%	0.0%	-0.1%
High Yield Comp	2.9%	3.6%	-0.7%	0.0%	0.0%	0.0%	0.0%
TIPS	-2.0%	-2.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	-0.9%	-1.1%	0.2%	0.0%	0.0%	0.0%	0.0%
Emerging Market Debt	0.8%	0.9%	-0.1%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	3.0%	2.5%	0.4%	0.0%	0.0%	0.0%	0.0%
Hedge Fund Comp	4.3%	3.5%	0.9%	0.0%	0.0%	0.0%	0.0%
GAA Comp	2.8%	3.9%	-1.1%	-0.2%	0.0%	0.0%	-0.2%
Commodities	-1.8%	-1.1%	-0.7%	0.0%	0.0%	0.0%	0.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>3.1%</b>	<b>3.4%</b>	<b>-0.2%</b>	<b>-0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>-0.3%</b>

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

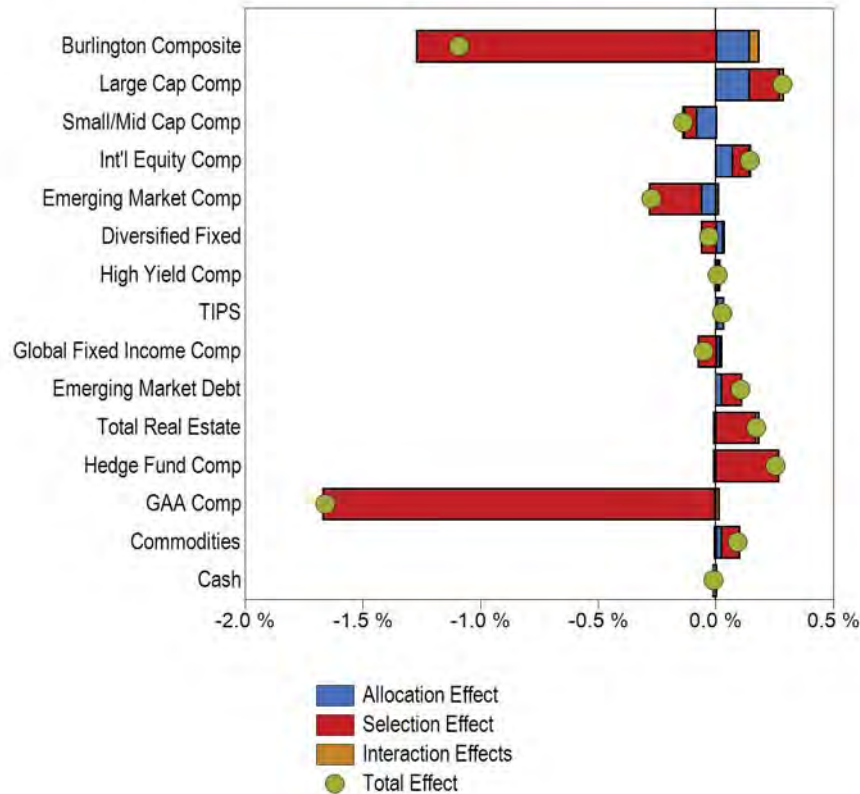
The target return shown for each composite is a custom index, based on aggregated policy indices. This policy index asset weights the underlying policy indices of each option in the plan and the respective benchmark.

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

May not add up due to rounding.

**Total Fund Attribution Analysis**

**Attribution Effects Relative to Policy Index  
1 Year Ending December 31, 2013**



**Attribution Summary  
1 Year Ending December 31, 2013**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Large Cap Comp	33.9%	32.4%	1.5%	0.1%	0.1%	0.0%	0.3%
Small/Mid Cap Comp	37.9%	38.8%	-1.0%	-0.1%	-0.1%	0.0%	-0.1%
Int'l Equity Comp	23.6%	22.8%	0.9%	0.1%	0.1%	0.0%	0.1%
Emerging Market Comp	-5.9%	-2.6%	-3.3%	-0.2%	-0.1%	0.0%	-0.3%
Diversified Fixed	-2.3%	-2.0%	-0.3%	-0.1%	0.0%	0.0%	0.0%
High Yield Comp	7.6%	7.4%	0.2%	0.0%	0.0%	0.0%	0.0%
TIPS	-8.6%	-8.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Global Fixed Income Comp	-6.2%	-4.0%	-2.2%	-0.1%	0.0%	0.0%	-0.1%
Emerging Market Debt	-5.1%	-6.6%	1.4%	0.1%	0.0%	0.0%	0.1%
Total Real Estate	14.7%	11.0%	3.7%	0.2%	0.0%	0.0%	0.2%
Hedge Fund Comp	14.1%	8.7%	5.4%	0.3%	0.0%	0.0%	0.3%
GAA Comp	3.2%	11.4%	-8.2%	-1.7%	0.0%	0.0%	-1.7%
Commodities	-8.4%	-9.5%	1.1%	0.1%	0.0%	0.0%	0.1%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total</b>	<b>8.4%</b>	<b>9.4%</b>	<b>-1.0%</b>	<b>-1.3%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>-1.1%</b>

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

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

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

May not add up due to rounding.



**Total Fund Risk Statistics**

**3 Years Ending December 31, 2013**

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Burlington Composite	100.00%	7.82%	87	7.26%	34	0.75%	26	1.07	80	1.47	65	0.83%	10
Policy Index	--	6.87%	94	7.01%	28	0.00%	50	0.97	90	1.30	85	0.00%	1
US Equity	17.63%	16.74%	46	13.62%	42	-0.58%	47	1.22	41	1.71	41	1.58%	3
Russell 3000	--	16.24%	53	12.71%	28	0.00%	41	1.27	35	1.84	32	0.00%	1
Large Cap Comp	11.09%	16.53%	41	12.87%	50	-0.63%	50	1.28	46	1.85	43	1.13%	1
S&P 500	--	16.18%	47	12.11%	31	0.00%	42	1.33	38	2.00	31	0.00%	1
Small/Mid Cap Comp	6.54%	17.01%	42	15.25%	35	2.81%	43	1.11	39	1.56	32	2.59%	1
Russell 2000	--	15.67%	60	16.68%	68	0.00%	73	0.94	67	1.34	60	0.00%	1
Int'l Equity Comp	10.42%	8.58%	67	15.20%	25	1.10%	61	0.56	60	0.73	56	2.30%	11
MSCI EAFE	--	8.17%	74	16.48%	61	0.00%	76	0.49	74	0.67	69	0.00%	1
Emerging Market Comp	6.03%	2.13%	22	17.60%	19	3.93%	22	0.12	20	0.17	19	5.14%	69
MSCI Emerging Markets	--	-2.06%	75	19.31%	58	0.00%	76	-0.11	76	-0.16	78	0.00%	1
US Fixed Income	24.16%	5.19%	35	3.39%	65	2.01%	29	1.52	49	1.88	63	2.08%	46
Barclays Aggregate	--	3.26%	68	2.75%	49	0.00%	87	1.17	82	1.62	77	0.00%	1
Diversified Fixed	17.24%	4.31%	46	3.32%	64	0.90%	59	1.28	73	1.74	71	1.66%	37
Barclays Aggregate	--	3.26%	68	2.75%	49	0.00%	87	1.17	82	1.62	77	0.00%	1
High Yield Comp	4.03%	9.32%	52	5.53%	27	1.46%	30	1.67	29	2.29	42	1.29%	52
Barclays High Yield	--	9.32%	52	6.50%	70	0.00%	73	1.42	74	2.00	71	0.00%	1
TIPS	2.89%	3.53%	69	5.42%	79	-0.01%	84	0.64	88	0.75	72	0.11%	1
Barclays US TIPS	--	3.55%	65	5.43%	79	0.00%	84	0.64	85	0.76	68	0.00%	1
Global Fixed Income Comp	2.94%	1.44%	95	5.52%	51	0.06%	96	0.25	96	0.45	94	1.91%	10
Citi WGBI	--	1.25%	96	4.66%	29	0.00%	96	0.25	96	0.43	95	0.00%	1
Emerging Market Debt	4.89%	6.94%	16	7.73%	14	0.79%	15	0.89	10	1.16	14	1.22%	8
JP Morgan EMBI Global TR	--	6.30%	33	7.81%	17	0.00%	32	0.80	23	1.09	20	0.00%	1
Total Real Estate	4.89%	15.95%	--	6.87%	--	-0.28%	--	2.31	--	1,518.25	--	2.67%	--
NCREIF Property Index	--	11.92%	--	4.81%	--	0.00%	--	2.46	--	1,132.78	--	0.00%	--
Hedge Fund Comp	4.98%	6.25%	31	4.44%	52	3.72%	34	1.39	29	1.83	31	1.15%	1
HFRI Fund of Funds Composite Index	--	2.41%	76	4.09%	40	0.00%	76	0.58	70	0.78	70	0.00%	1
GAA Comp	19.94%	6.24%	47	8.74%	44	0.41%	57	0.71	53	0.92	53	3.15%	18
60% MSCI ACWI (Net)/40% CITI WGBI	--	6.50%	46	9.15%	53	0.00%	61	0.70	54	0.92	53	0.00%	1
Commodities	3.69%	-4.99%	--	13.17%	--	1.74%	--	-0.38	--	-0.55	--	5.29%	--

## Total Fund Risk Statistics

## 5 Years Ending December 31, 2013

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Burlington Composite	100.00%	12.77%	36	10.14%	65	1.96%	20	1.25	56	1.92	49	1.56%	45
Policy Index	--	10.22%	83	9.49%	49	0.00%	89	1.07	97	1.56	99	0.00%	1
US Equity	17.63%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	18.71%	65	16.32%	37	0.00%	66	1.14	58	1.75	58	0.00%	1
Large Cap Comp	11.09%	21.19%	14	16.83%	73	2.19%	30	1.25	26	1.95	32	1.92%	2
S&P 500	--	17.94%	57	15.81%	47	0.00%	63	1.13	57	1.69	56	0.00%	1
Small/Mid Cap Comp	6.54%	22.10%	61	19.05%	55	3.93%	69	1.16	62	1.84	63	2.93%	1
Russell 2000	--	20.08%	83	20.93%	82	0.00%	95	0.96	91	1.47	93	0.00%	1
Int'l Equity Comp	10.42%	11.92%	88	18.29%	22	0.44%	81	0.65	80	0.95	85	2.42%	9
MSCI EAFE	--	12.44%	81	19.71%	63	0.00%	88	0.63	87	0.95	84	0.00%	1
Emerging Market Comp	6.03%	--	--	--	--	--	--	--	--	--	--	--	--
MSCI Emerging Markets	--	14.79%	74	22.59%	53	0.00%	77	0.65	75	1.19	62	0.00%	1
US Fixed Income	24.16%	--	--	--	--	--	--	--	--	--	--	--	--
Barclays Aggregate	--	4.44%	71	2.88%	41	0.00%	89	1.51	78	2.32	80	0.00%	1
Diversified Fixed	17.24%	8.58%	28	4.30%	68	3.33%	32	1.98	50	4.01	26	2.67%	53
Barclays Aggregate	--	4.44%	71	2.88%	41	0.00%	89	1.51	78	2.32	80	0.00%	1
High Yield Comp	4.03%	16.03%	72	6.50%	15	3.41%	17	2.45	16	4.17	39	3.75%	73
Barclays High Yield	--	18.93%	17	9.24%	88	0.00%	86	2.04	76	4.09	42	0.00%	1
TIPS	2.89%	--	--	--	--	--	--	--	--	--	--	--	--
Barclays US TIPS	--	5.63%	52	5.91%	77	0.00%	72	0.94	72	1.43	57	0.00%	1
Global Fixed Income Comp	2.94%	6.07%	55	7.25%	56	3.78%	61	0.83	67	1.43	56	3.00%	25
Citi WGBI	--	2.28%	99	6.56%	44	0.00%	99	0.33	99	0.43	99	0.00%	1
Emerging Market Debt	4.89%	--	--	--	--	--	--	--	--	--	--	--	--
JP Morgan EMBI Global TR	--	11.52%	63	7.66%	9	0.00%	51	1.49	47	2.16	41	0.00%	1
Total Real Estate	4.89%	--	--	--	--	--	--	--	--	--	--	--	--
NCREIF Property Index	--	5.68%	--	6.85%	--	0.00%	--	0.82	--	1.12	--	0.00%	--
Hedge Fund Comp	4.98%	--	--	--	--	--	--	--	--	--	--	--	--
HFRI Fund of Funds Composite Index	--	4.82%	78	4.18%	35	0.00%	78	1.13	68	1.54	70	0.00%	1
GAA Comp	19.94%	13.14%	12	10.21%	54	5.02%	16	1.28	19	2.00	19	3.93%	25
60% MSCI ACWI (Net)/40% Citi WGBI	--	10.02%	54	12.00%	80	0.00%	86	0.83	81	1.23	77	0.00%	1
Commodities	3.69%	--	--	--	--	--	--	--	--	--	--	--	--

## Glossary of Investment Terminology

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

## Glossary of Investment Terminology

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

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

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

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

*Formula:*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Glossary of Investment Terminology

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

## 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:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Benchmark}) / \text{Annualized Standard Deviation}(\text{Period Portfolio Return} - \text{Period Benchmark Return})$ . 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:*  
 $\text{Calculation Average } (X-Y) / \text{Downside Deviation } (X-Y) * 2$   
Where X=Return Series 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:*  
 $(\text{Annualized Return of Portfolio} - \text{Annualized Return of Risk Free}) / \text{Annualized Standard Deviation (Portfolio Returns)}$

**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:*  
 $\text{Tracking Error} = \text{Standard Deviation } (X-Y) * \sqrt{(\# \text{ of periods per year})}$   
Where X = periods portfolio return and Y = the period's benchmark return  
For 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:*  
 $(\text{Portfolio Average Return} - \text{Average Return of Risk-Free Rate}) / \text{Portfolio Beta}$

**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.

$\text{Upside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return})$  when Period Benchmark Return is  $> = 0$

$\text{Downside Capture} = \text{Total Return}(\text{Fund Returns}) / \text{Total Returns}(\text{BM Return})$  when Benchmark  $< 0$

Data Source: InvestorForce

- **Past performance is no guarantee of future results.**
- **NEPC relies on the plan's custodian bank for portfolio pricing, calculation of accruals, and transaction information. 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.**
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NEPC, LLC

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## Vermont Pension Investment Committee

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### Asset Allocation Review & Discussion

February 25, 2014

Christopher Levell, ASA, CFA, CAIA, Partner  
Douglas Moseley, Partner

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- **Discuss impact of 2013 market performance on the attractiveness of VPIC Policy portfolio components**
  - Assess which risk asset exposures should be trimmed or maintained
  - May not be additional changes that will significantly impact overall risk/return profile
- **Assess the expected return and risk characteristics of the VPIC portfolio given NEPC's lower return expectations for 2014**
- **Review VPIC Policy portfolio vs. other public funds**
- **Discuss alternative Policy portfolios and long-term positioning**

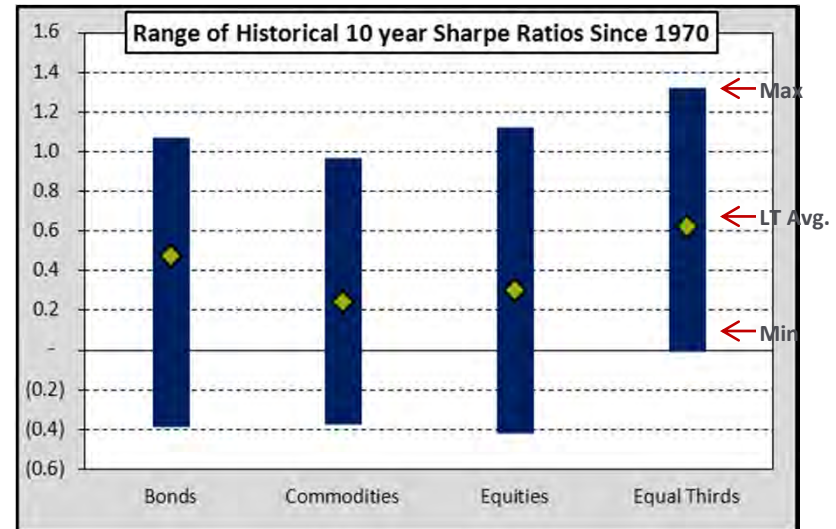
# Observations & General Actions

- **Diversification still matters, especially after a period when not rewarded**
  - The discipline of long-term strategy allows for participation in rising markets, while maintaining a defensive position when markets correct
- **Divergence in economic conditions broadens range of outcomes by country**
  - Differences reflect each country's policy response since Financial Crisis
  - Market risks continue to simmer beneath strong equity returns
- **Developed world growth outlook has improved despite fiscal drag**
  - Impact of fiscal tightening is likely to subside and be less of a hindrance going forward
  - Inaction on fiscal concerns may lead to difficult long-term consequences
  - Lack of proactive fiscal response is in stark contrast to audacious moves of central banks
- **US Fed taper will occur throughout 2014 with global implications**
  - Growth and inflation outcomes will dictate any change to path (timing and scale) of tapering
  - Methodical approach to taper means policy should remain accommodative
  - Ability to support risky assets could wane over time
- **Upward pressure on interest rates may have subsided**
  - Markets have absorbed increase in rates, though elevated future volatility is likely
  - Further increase in interest rates must harmonize with stronger economic growth
  - Higher rates and slowing growth could perpetuate currency crisis for some EM countries

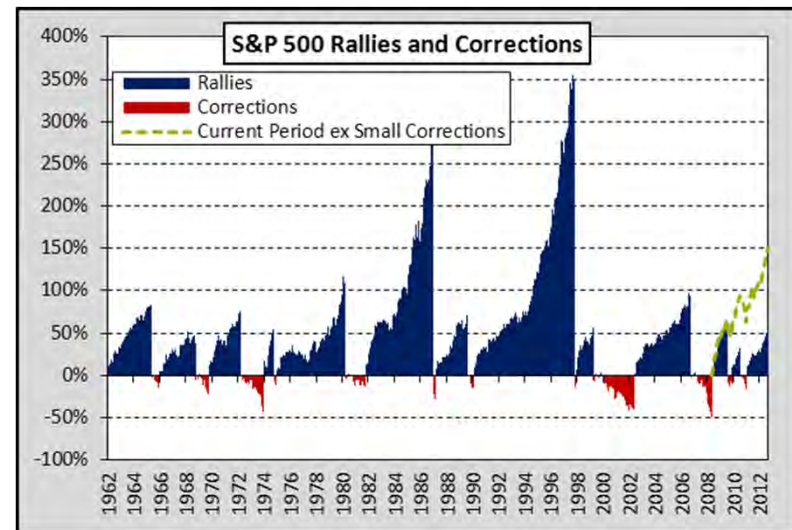
- **Remain disciplined and rebalance after strong market run**
  - Resist the temptation to chase returns – focus on your goals and objectives
  - A balanced allocation through the taper allows assessment of opportunities afterward
    - Much more difficult to time a move away from risky assets
- **Take gains in US equities, allocating to underperforming asset classes**
  - US equity risk premium has decreased, as recent performance suppresses future returns
  - In the short-term, US stocks could outperform further due to continued monetary support
  - With improvement off low levels, Europe is positioned for some outperformance
- **Maintain long-term commitment to emerging markets**
  - In the short-term, emerging world faces distinctive conditions in each country
  - Long-term secular outlook of stronger growth and continued development remains in place
  - Use active management to navigate potential macroeconomic and currency issues
- **Assess credit exposure and consider a more dynamic approach**
  - Narrow spreads and constrained liquidity expose investors to potential downside risks
  - Though spreads are tight, overall rates appear more attractive after increase in yields
  - Strategic exposure to interest rates remains an important element of diversification
- **Employ private markets to boost return outlook**
  - European illiquid opportunities from debt to real estate remain compelling
  - Senior lending continues to offer attractive yields, though pricing has compressed
  - Consider increasing strategic inflation hedging through private strategies
    - Inflation is a developing concern but expectations for liquid real assets remain muted

## Diversification Wins In The Long Run

- **Historically strong performance for one asset class does not signal the ruin of diversification**
  - In fact, periods following these runs are often when diversification is most rewarded
- **Discipline of diversification requires a long-term focus to withstand concentrated results**
  - Both good (US Equities in 2013)...
  - And bad (2008)
- **Over the long term, diversified portfolios will likely produce better risk-adjusted returns than concentrated ones**
- **Concentrated portfolios will correct after long bull runs**



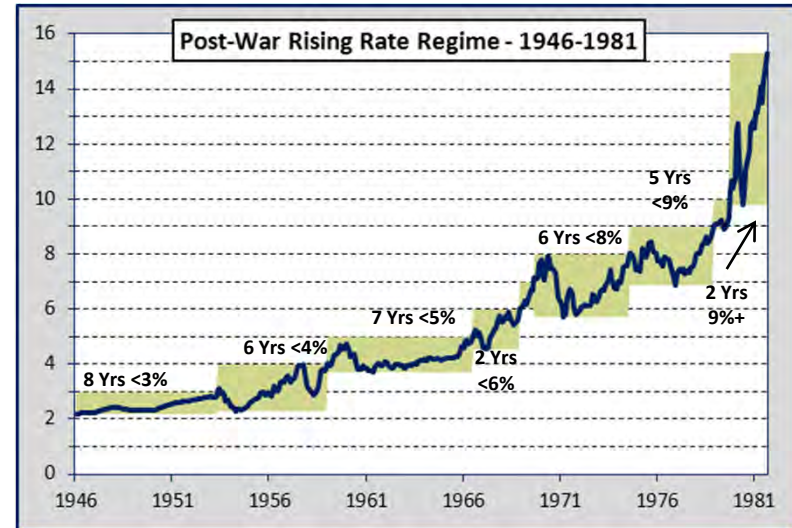
Source: Bloomberg, NEPC



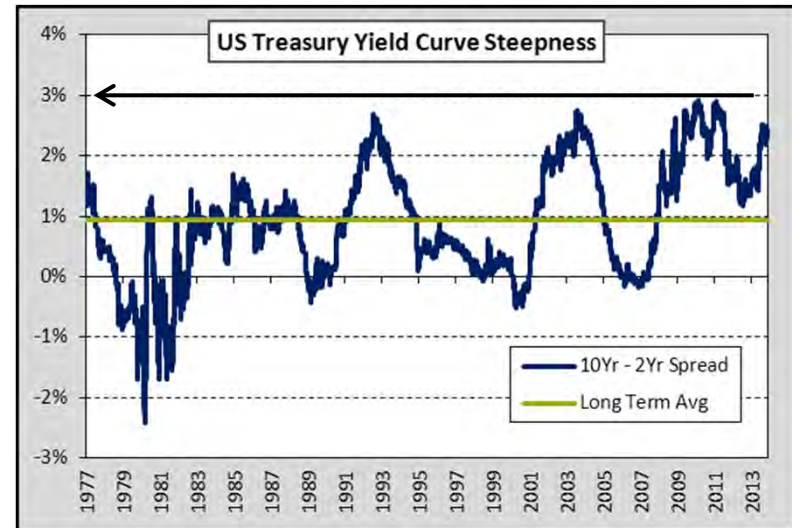
Source: Morningstar as of 10/31

## Economic Conditions Determine How Far Rates Can Increase

- **In 2013, global markets reacted sharply to potential monetary policy shift**
  - Rates rose and markets sold off
  - Markets have stabilized since the brief period of volatility in May/June
- **Uptick in rates could occur through different factors**
  - Stronger economic growth
  - Higher inflation
  - Aggressive monetary tightening
- **Historical yield curve steepness indicates short-term rates have increased before long-term rates rise**
  - Yet economy activity remains subdued
  - Slower growth and muted inflation likely extend cycle for rate increases
  - Fed has indicated rates will remain low even after QE ends
- **Rate cycles are long (30+ years)**
  - 1946-1981 (up for 35 years)
  - 1981-2012 (down for 31 years)
  - 2012-????



Source: St. Louis Fed

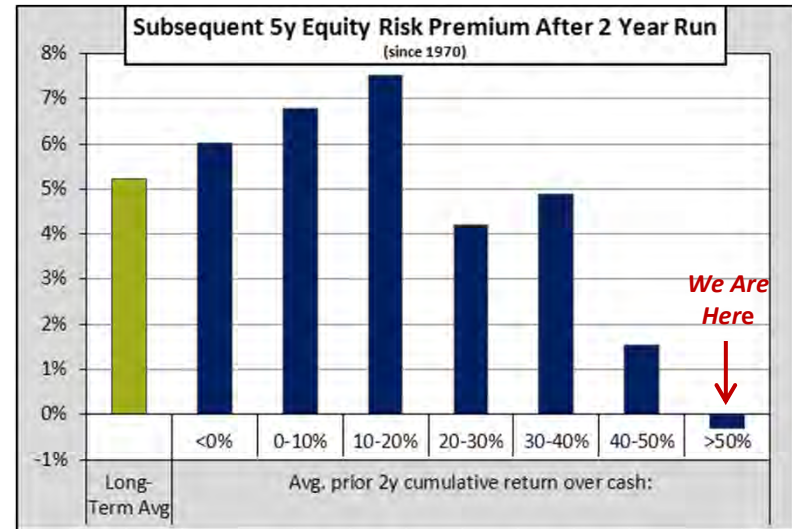


Source: Bloomberg as of 11/30

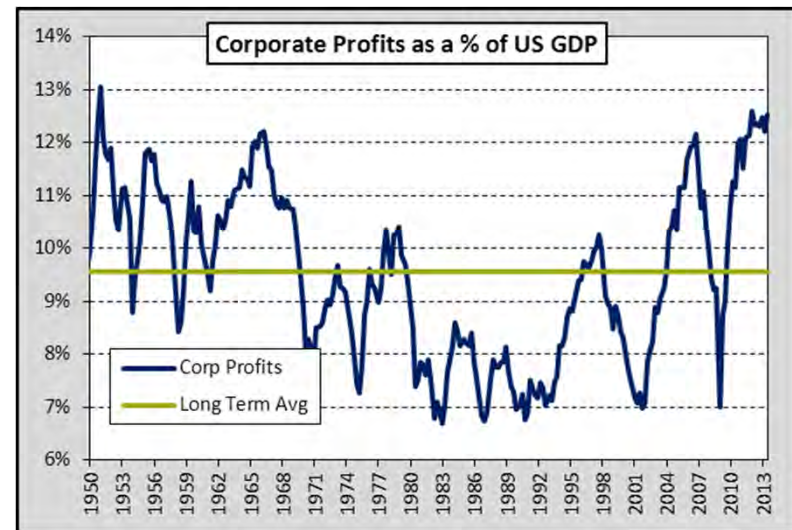


## How Much Further Can US Equities Run?

- **S&P 500 has gained almost 54% cumulatively over the last two years**
  - Historically, this has led to subdued performance looking forward
- **With accommodative monetary policy, US stock market could continue to grind higher**
  - Further upside (likely driven by more valuation expansion) seems unsustainable given how far markets have run
- **Strength of corporate profits has supported equity rally**
  - Corporate profits have historically shown mean reversion
    - Supported in the short-term by low financing costs for corporations



(Eq. Risk Premium is over cash) Source: Bloomberg, NEPC

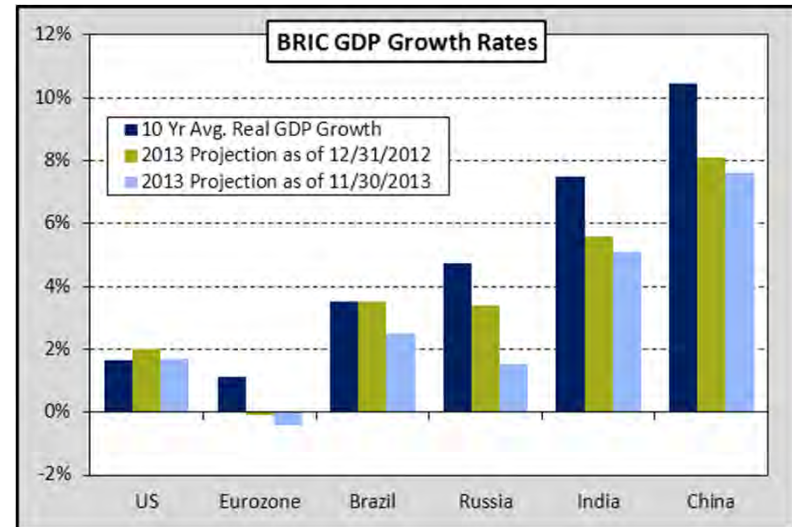


Source: Bloomberg as of 6/30

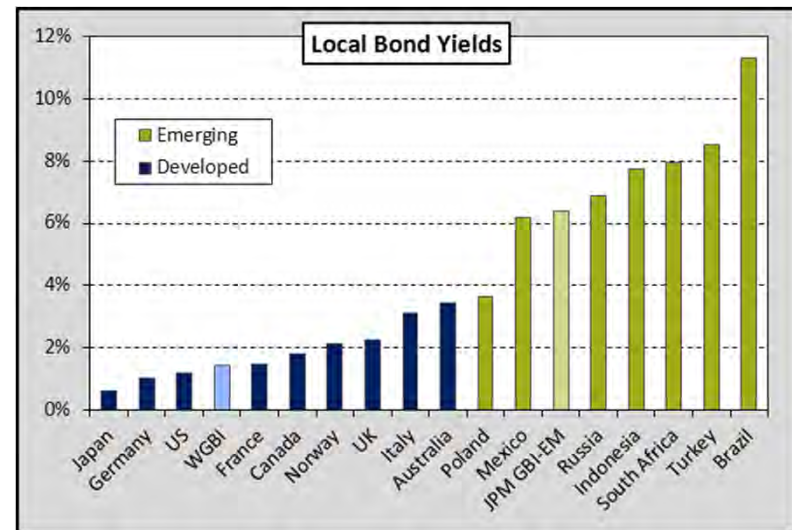


## Emerging Markets – Challenges and Opportunities

- **EM output has moderated after decade-long boom**
  - Still positive and expected to exceed developed world growth
  - Emerging world likely to continue to grow in global economic importance
- **Recent weakness offers an opportunity to build positions for those investors with below-market exposure to EM**
  - Valuation and yield levels offer some compensation for current uncertainty
  - Active implementation can facilitate management around volatility at country and security level
- **Credit and liquidity have become constrained in certain countries**
  - Countries reliant on inflows to finance current account deficits now face currency challenges
  - Adjustment in yields (higher) and currencies (lower) in these countries has brought some short-term stability
    - Potential for balance of payment crisis remains elevated in certain countries



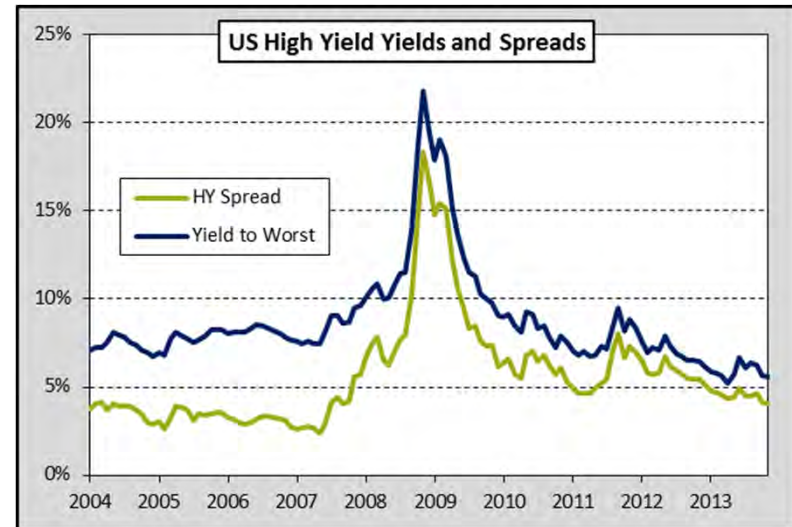
Source: Bloomberg as of 11/30



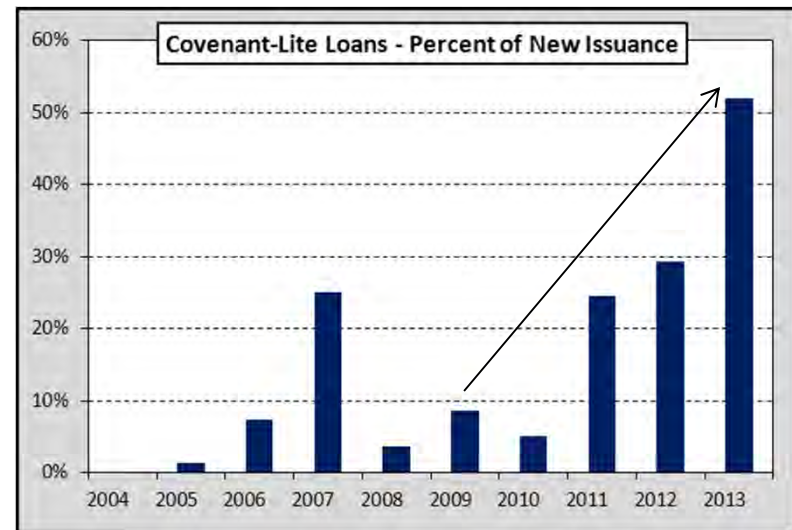
Source: Bloomberg as of 11/30

## US Credit Market Conditions Are Concerning

- **Global monetary policy and low interest rate environment force investors to search for yield**
- **Demand for higher return has led to significant flows into credit markets**
  - Yields and spreads have compressed across credit markets
  - High yield and investment grade total yields are near all-time lows
- **New issuance reflects the demand for yield**
  - Relaxed credit standards in loan market suggest early warning signs of less discipline in lending and credit analysis

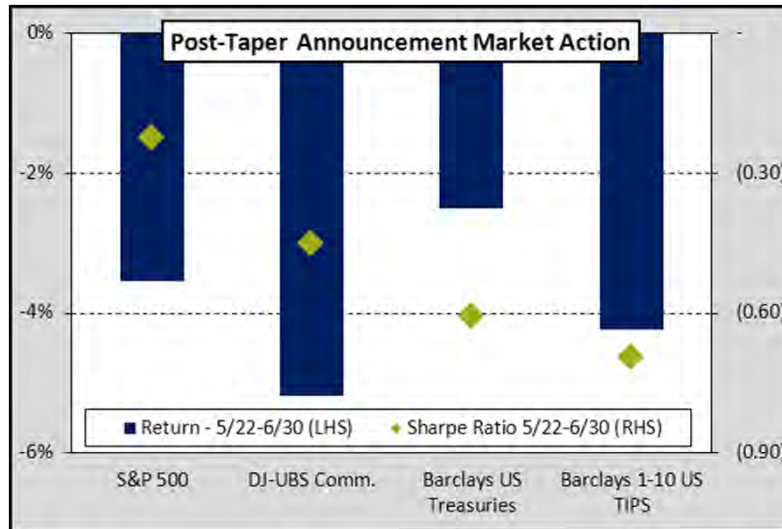


Source: Barclays Live as of 11/30

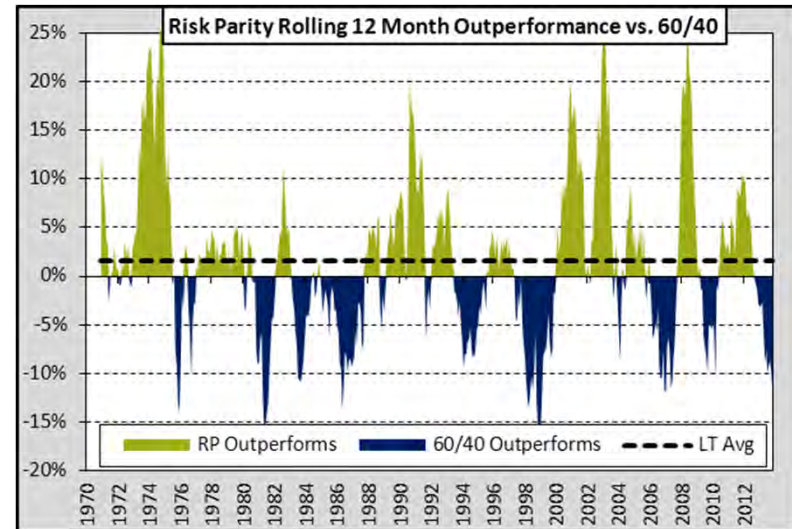


Source: Standard and Poors

## Risk Parity – Remain Balanced



Source: Bloomberg, NEPC

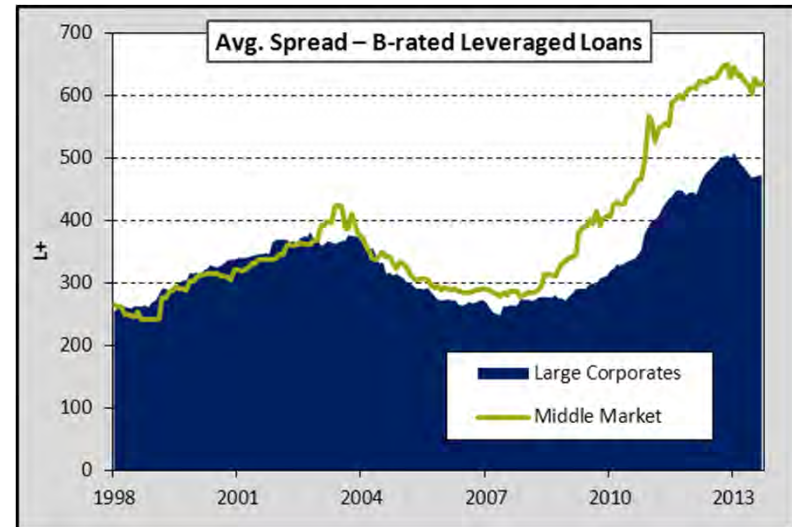


Source: Bloomberg, NEPC

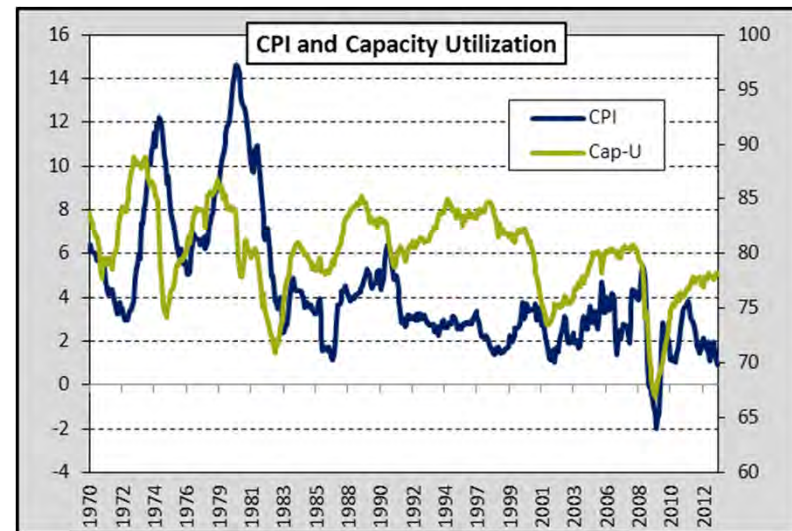
- **Risk Parity performance disappointed in 2013 (but within expectations)**
  - Hurt in second quarter of 2013 due to taper effect as all markets sold off
  - Lagged robust returns of portfolios concentrated in developed equity risk (60/40)
- **Risk Parity remains an appropriate starting point for asset allocation**
  - Risk balance provides broad diversification, minimizing drawdowns from any single exposure
- **It is still about balance - not just bonds**
  - Concerns about rising rates should be tempered in the short-term
- **Risk Parity has never been a panacea**
  - An approach to efficiently take market risk – not an absolute return strategy
  - Compressed return expectations across asset classes flow through to Risk Parity
  - Like all asset allocation approaches, it will likely perform better or worse in certain regimes

## Private Market Investment Opportunities

- **Private investments can offer an illiquidity premium and higher return expectations than subdued outlook of liquid markets**
  - Driven by the same forces as public markets and subject to the same building of excesses and loose standards over a cycle
  - Strategy and pacing remain critically important
- **As banks continue to move towards tighter regulatory framework of Basel III, lending opportunities remain attractive**
  - Spreads are less compelling than a year ago
  - European direct lending and real estate appear most interesting now
- **Private exposure to inflation sensitive assets may be a better way to get real assets exposure in near term**
  - Though with spike in real yields, Inflation-Linked bond pricing has improved



Source: S&P Capital IQ LCD and S&P/LSTA Leveraged Loan Index as of 9/30



Source: St. Louis Fed

# 2014 Asset Class Assumptions



## Themes for 2014 Asset Class Assumptions

- **5-7 year return expectations diverge relative to prior year**
  - Broad expected return outlook remains subdued
  - Strong performance of developed equity markets leads to reduction in expectations
    - Despite underperformance, EM equities reduced modestly to reflect lower growth
  - Higher yields relative to prior year boost bond market forecasts
  - Increase in expectations for credit markets is more muted due to further spread compression
  - Alternative asset classes generally lower in line with liquid risky asset adjustments
- **30-year returns have similar themes to 5-7 year forecasts**
  - Yield increases flow through to longer-term returns in fixed income
  - US equity markets reduced modestly
- **Volatility expectations reduced incrementally in certain asset classes**

## 2014 5-to-7 Year Return Forecasts

<b>Geometric Expected Return</b>			
<b>Asset Class</b>	<b>2013</b>	<b>2014</b>	<b>2014-2013</b>
Cash	0.75%	1.50%	0.75%
Treasuries	1.00%	2.00%	1.00%
IG Corp Credit	3.00%	3.50%	0.50%
MBS	2.50%	2.25%	-0.25%
<i>Core Bonds*</i>	<i>2.04%</i>	<i>2.53%</i>	<i>0.49%</i>
TIPS	1.50%	2.50%	1.00%
High-Yield Bonds	5.00%	4.50%	-0.50%
Bank Loans	5.00%	5.00%	
Global Bonds (Unhedged)	0.75%	1.25%	0.50%
Global Bonds (Hedged)	0.93%	1.38%	0.45%
EMD External	4.00%	5.00%	1.00%
EMD Local Currency	5.00%	5.75%	0.75%
Large Cap Equities	6.75%	6.25%	-0.50%
Small/Mid Cap Equities	7.00%	6.25%	-0.75%
Int'l Equities (Unhedged)	7.75%	7.25%	-0.50%
Int'l Equities (Hedged)	8.00%	7.50%	-0.50%
Emerging Int'l Equities	9.75%	9.50%	-0.25%
Private Equity	9.00%	8.75%	-0.25%
Private Debt	8.50%	8.00%	-0.50%
Private Real Assets	8.00%	7.75%	-0.25%
Real Estate (Core)	6.00%	6.25%	0.25%
Commodities	5.00%	5.00%	
Hedge Funds	n/a	5.50%	

\* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).



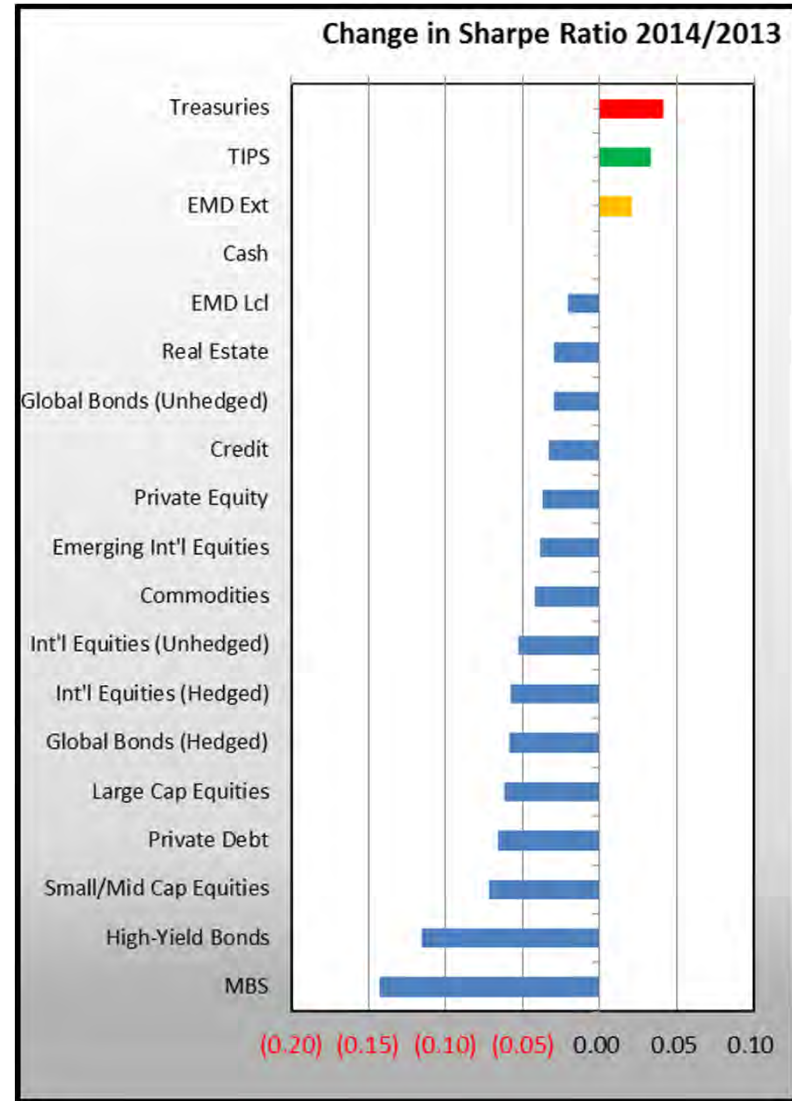
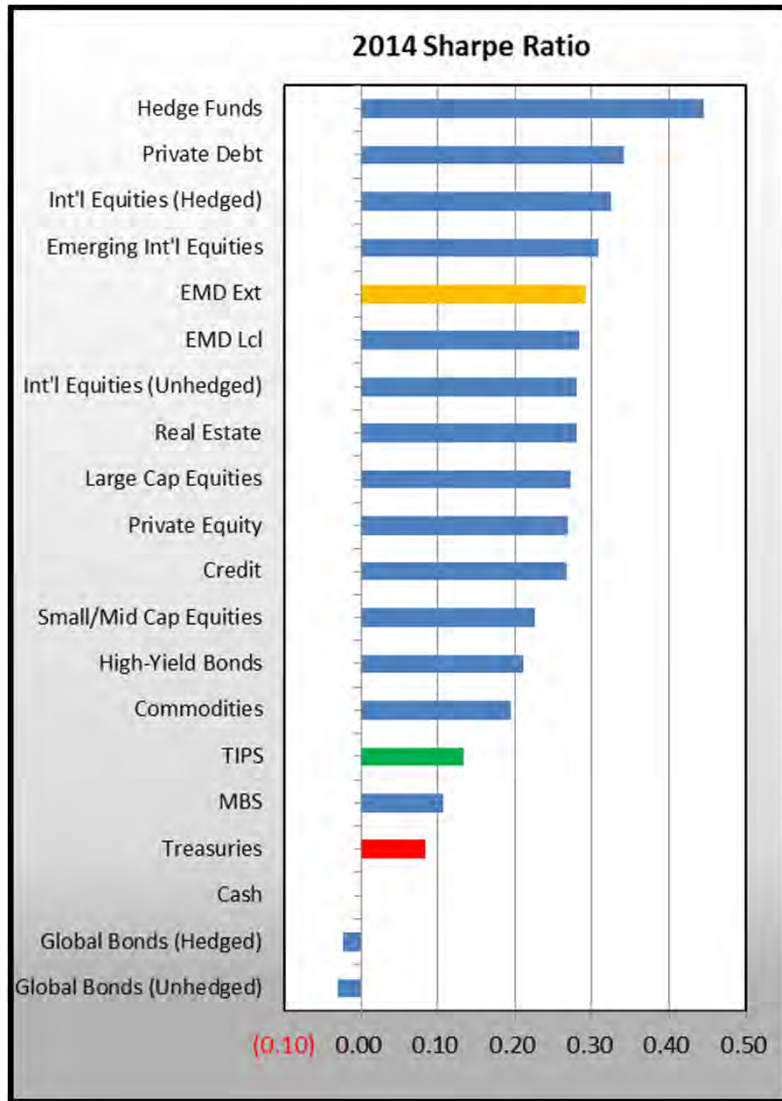
## 2014 Volatility Forecasts

<b>Volatility</b>			
<b>Asset Class</b>	<b>2013</b>	<b>2014</b>	<b>2014-2013</b>
Cash	1.00%	1.00%	
Treasuries	6.00%	6.00%	
IG Corp Credit	7.50%	7.50%	
MBS	7.00%	7.00%	
<i>Core Bonds*</i>	<i>6.31%</i>	<i>6.32%</i>	<i>0.01%</i>
TIPS	7.50%	7.50%	
High-Yield Bonds	13.00%	13.00%	
Bank Loans	6.50%	8.00%	1.50%
Global Bonds (Unhedged)	9.00%	8.50%	-0.50%
Global Bonds (Hedged)	5.00%	5.00%	
EMD External	12.00%	12.00%	
EMD Local Currency	14.00%	15.00%	1.00%
Large Cap Equities	18.00%	17.50%	-0.50%
Small/Mid Cap Equities	21.00%	21.00%	
Int'l Equities (Unhedged)	21.00%	20.50%	-0.50%
Int'l Equities (Hedged)	19.00%	18.50%	-0.50%
Emerging Int'l Equities	26.00%	26.00%	
Private Equity	27.00%	27.00%	
Private Debt	19.00%	19.00%	
Private Real Assets	24.00%	23.00%	-1.00%
Real Estate (Core)	17.00%	17.00%	
Commodities	18.00%	18.00%	
Hedge Funds	n/a	9.00%	

Volatility defined as standard deviation of investment returns.

\* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).

# Relative Asset Class Attractiveness



Sharpe Ratio defined as the excess return over cash, divided by the standard deviation.

## 2014 30-Year Return Forecasts

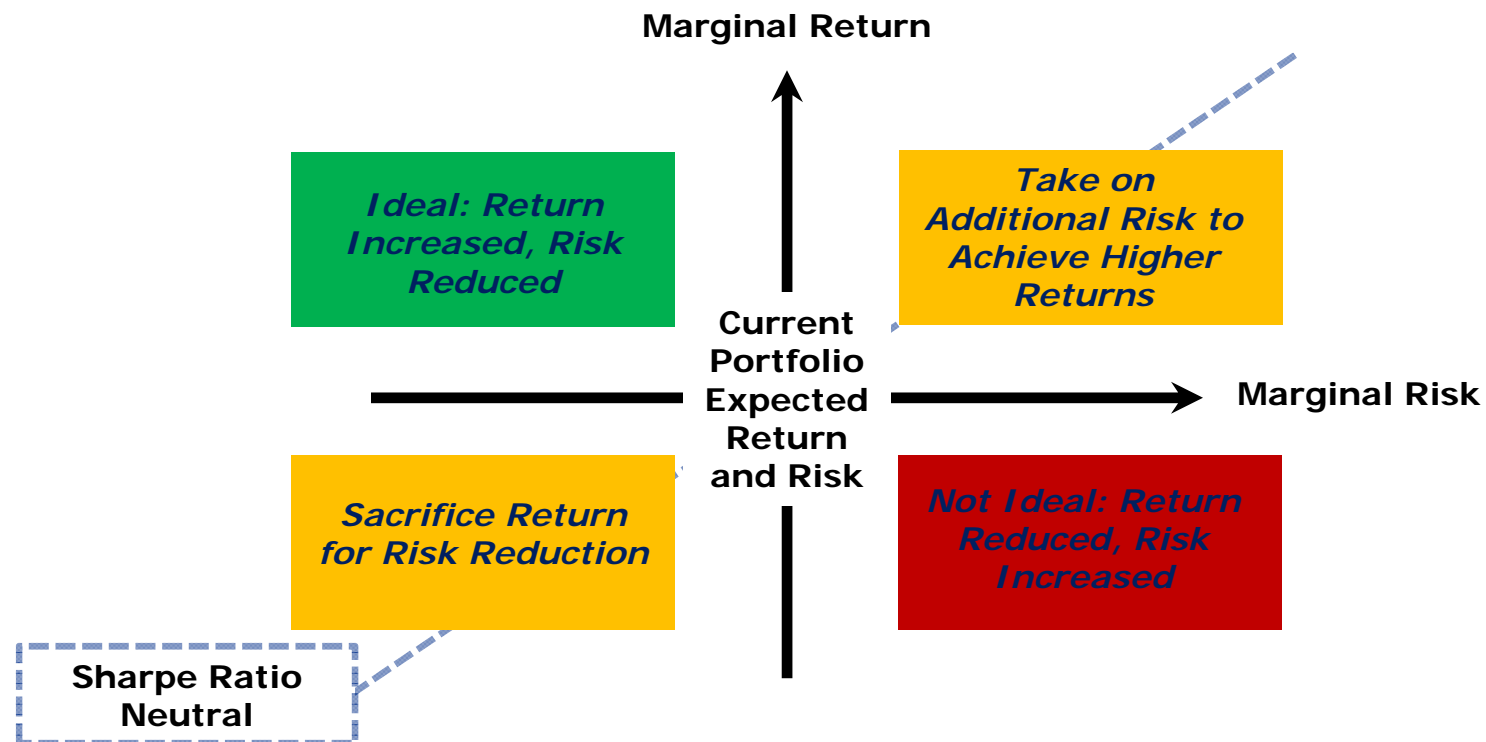
<b>Geometric Expected Return</b>			
<b>Asset Class</b>	<b>2013</b>	<b>2014</b>	<b>2014-2013</b>
Cash	3.00%	3.75%	0.75%
Treasuries	3.00%	4.00%	1.00%
Credit	4.25%	5.25%	1.00%
MBS	4.50%	4.25%	-0.25%
<i>Core Bonds*</i>	<i>3.84%</i>	<i>4.46%</i>	<i>0.62%</i>
TIPS	3.25%	4.50%	1.25%
High-Yield Bonds	5.25%	6.00%	0.75%
Bank Loans	5.50%	6.25%	0.75%
Global Bonds (Unhedged)	2.50%	3.00%	0.50%
Global Bonds (Hedged)	2.67%	3.13%	0.46%
EMD External	6.00%	7.00%	1.00%
EMD Local Currency	6.25%	7.25%	1.00%
Large Cap Equities	8.00%	7.75%	-0.25%
Small/Mid Cap Equities	8.25%	8.00%	-0.25%
Int'l Equities (Unhedged)	8.25%	8.25%	
Int'l Equities (Hedged)	8.50%	8.48%	-0.02%
Emerging Int'l Equities	9.50%	9.50%	
Private Equity	10.00%	9.75%	-0.25%
Private Debt	8.00%	8.25%	0.25%
Private Real Assets	8.00%	7.75%	-0.25%
Real Estate (Core)	6.00%	6.50%	0.50%
Commodities	5.50%	6.00%	0.50%
Hedge Funds	n/a	7.00%	

\* Core Bonds assumption based on market weighted blend of components of Aggregate Index (Treasuries, IG Corp Credit, and MBS).

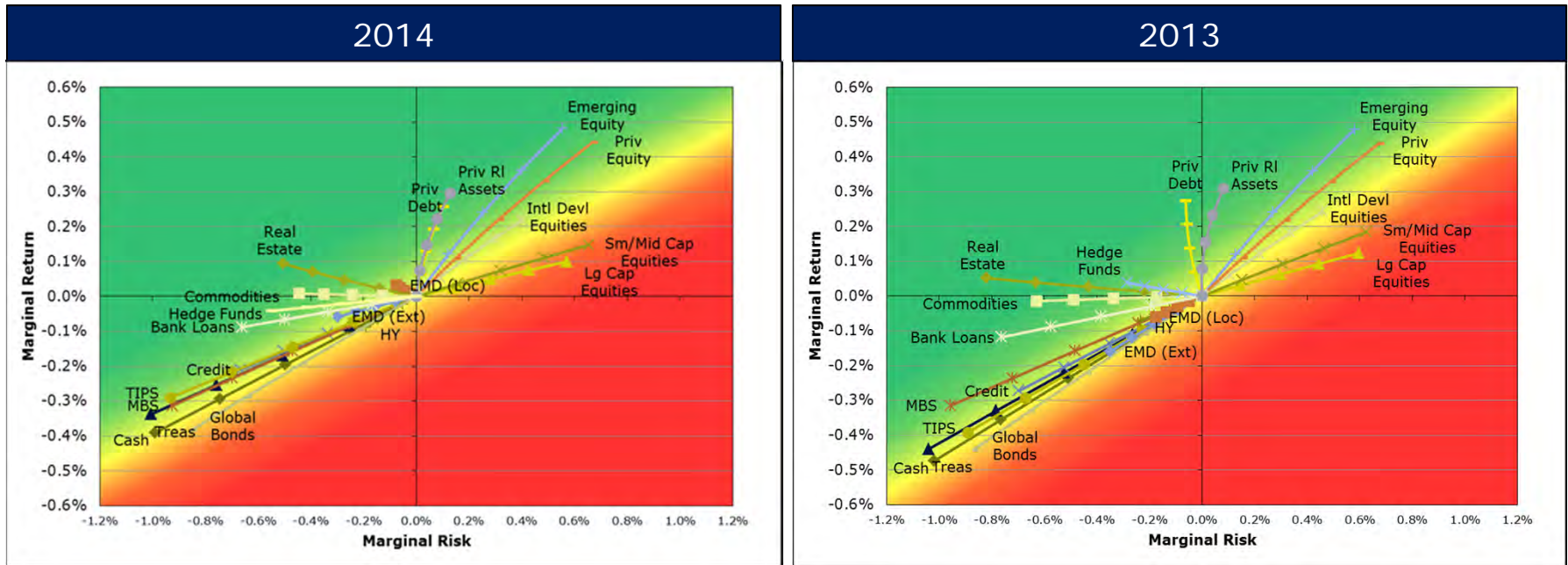
# 2014 Assumptions & Alternative Portfolios

## Portfolio Efficiency: Marginal Risk and Return

- **Thinking about the marginal impact on risk and return from each asset class can be useful in evaluating asset allocation decisions**
  - In the analysis that follows, the marginal impact of increasing an allocation to a given asset class is plotted for a progressive portfolio and a traditional 65/35 allocation
- **Utilizes mean-variance assumptions**
  - Certain limitations (particularly liquidity) should be considered outside of this framework



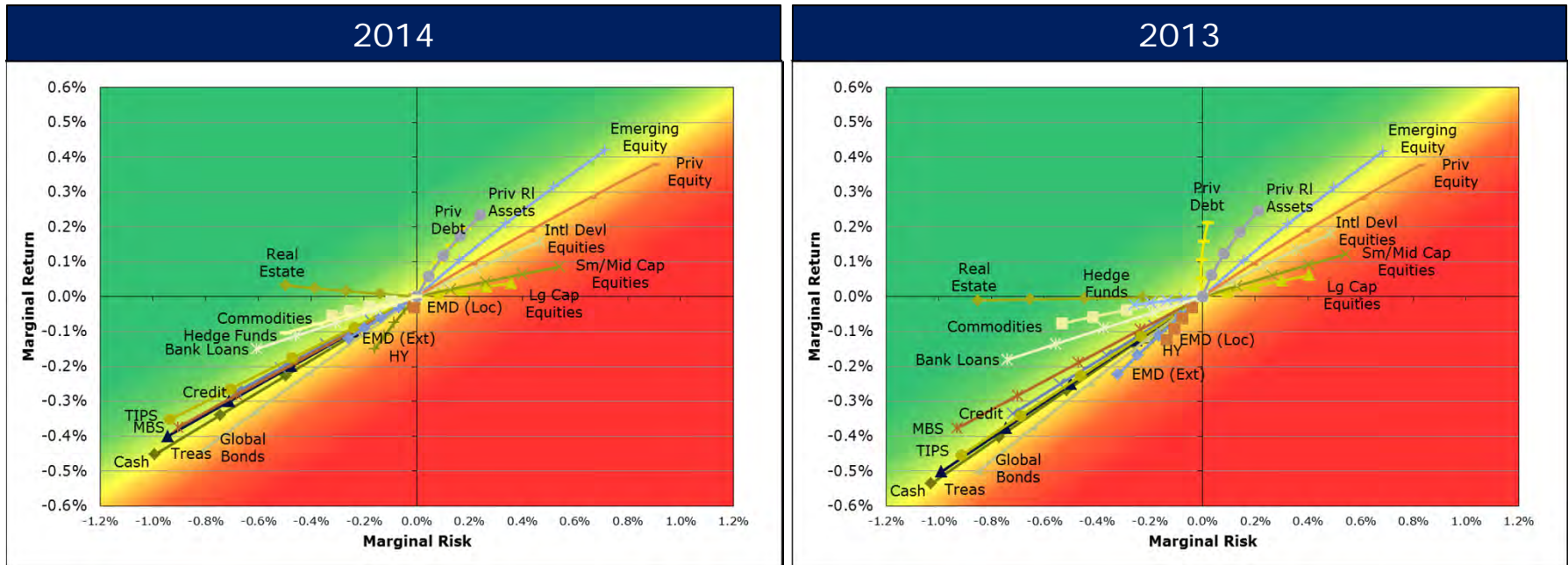
## 2014 vs. 2013 (65/35 Allocation; 2% Increments)



- **Lower Sharpe ratio of 65/35 means a flatter diagonal**
  - Easier to make improvements from a lower starting point
- **More dispersion around diagonal = larger opportunity set for improving efficiency**
  - More balanced (and smaller) equity allocation
  - Real assets could pick up commodity exposure for inflation protection
  - If appropriate, could increase return through illiquid alternatives program
  - GAA or Risk Parity manager could add efficient diversification with exposure to multiple asset classes



## 2014 vs. 2013 (Progressive Allocation; 2% Increments)

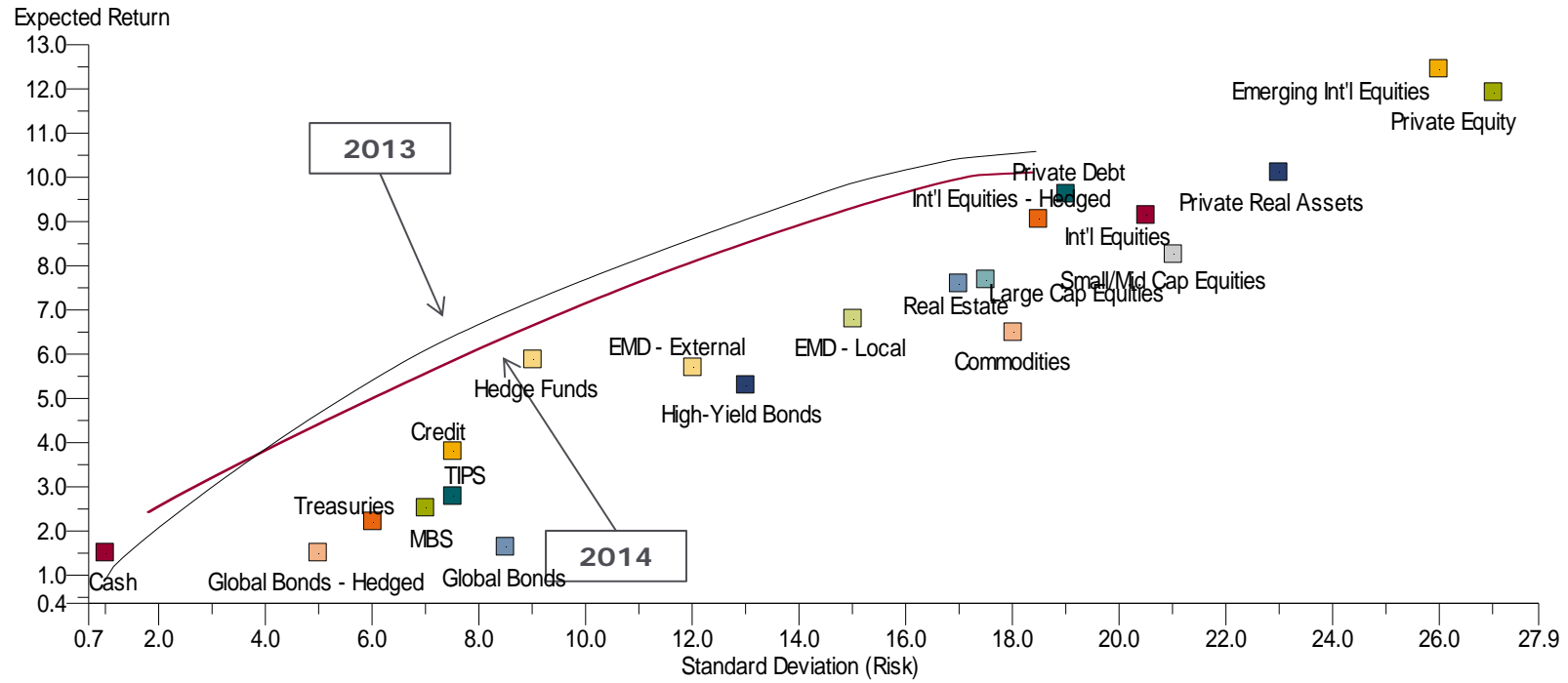


- **General takeaways for this portfolio**

- Emerging equities and commodities are the most attractive liquid asset classes on the margin
- Consider private debt or private real assets to complement existing private equity program
- Real estate most efficiently lowers expected volatility



# Efficient Frontier Comparison



## Diversified Portfolio Return/Risk Comparison (2012 – 2014)

	65/35	Risk Parity <sup>1</sup>	Progressive Allocation
Large Cap Equities	35%	0%	15%
Small/Mid Cap Equities	15%	0%	5%
Int'l Equities (Unhedged)	12%	0%	10%
Emerging Int'l Equities	3%	0%	5%
<b>Total Equity</b>	<b>65%</b>	<b>0%</b>	<b>35%</b>
Core Bonds	25%	0%	15%
High-Yield Bonds	5%	0%	5%
Global Bonds (Unhedged)	5%	0%	0%
EMD (Local Currency)	0%	0%	5%
<b>Total Fixed Income</b>	<b>35%</b>	<b>0%</b>	<b>25%</b>
Private Equity	0%	0%	10%
Hedge Funds	0%	0%	10%
<b>Total Alternatives</b>	<b>0%</b>	<b>0%</b>	<b>20%</b>
Global Asset Allocation	0%	0%	10%
Risk Parity	0%	100%	10%
<b>Total Other</b>	<b>0%</b>	<b>100%</b>	<b>20%</b>

<b>2012 5-7 Year Return</b>	<b>6.5%</b>	<b>5.5%</b>	<b>7.3%</b>
<b>2012 30 Year Return</b>	<b>7.5%</b>	<b>6.3%</b>	<b>8.0%</b>
<b>2012 Standard Dev</b>	<b>12.9%</b>	<b>11.1%</b>	<b>12.3%</b>

<b>2013 5-7 Year Return</b>	<b>5.9%</b>	<b>5.9%</b>	<b>6.5%</b>
<b>2013 30 Year Return</b>	<b>7.2%</b>	<b>6.2%</b>	<b>7.6%</b>
<b>2013 Standard Dev</b>	<b>12.7%</b>	<b>12.3%</b>	<b>12.4%</b>

<b>2014 5-7 Year Return</b>	<b>5.7%</b>	<b>5.6%</b>	<b>6.5%</b>
<b>2014 30 Year Return</b>	<b>7.2%</b>	<b>6.4%</b>	<b>7.6%</b>
<b>2014 Standard Dev</b>	<b>12.4%</b>	<b>12.5%</b>	<b>12.2%</b>

\*Geometric returns

<sup>1</sup>Risk Parity portfolio consists of an equal weight blend of risk parity managers

## 2014 Efficient Portfolios: 10% Risk Level (Standard Deviation)

	Constrained	Unconstrained
Int'l Equities (Hedged)	2%	0%
Emerging Int'l Equities	16%	18%
<b>Total Equity</b>	<b>18%</b>	<b>18%</b>
Credit	25%	12%
TIPS	20%	26%
<b>Total Fixed Income</b>	<b>46%</b>	<b>38%</b>
Real Estate (Core)	10%	25%
Private Equity	9%	7%
Private Debt	10%	13%
Private Real Assets (Illiquid)	5%	0%
<b>Total Alternatives</b>	<b>34%</b>	<b>44%</b>
Commodities	2%	0%
<b>Total Other</b>	<b>2%</b>	<b>0%</b>

<i>2014 Expected Return 5-7 yr</i>	<i>6.7%</i>	<i>6.8%</i>
<i>2014 Expected Return 30 yr</i>	<i>7.7%</i>	<i>7.7%</i>
<i>2014 Volatility</i>	<i>10.0%</i>	<i>10.0%</i>

# Review of Peer Group Policy Allocations

- **Public Fund peer group maintained median allocation to public equities above 55%**
  - NEPC examined peer group of public funds > \$1 billion and range was 19-65%
- **When combined with alternative asset exposure many public funds maintain Policy targets of 65-80% to equity-oriented categories**
  - NEPC examined peer group of public funds > \$1 billion and range was 47-81%
  - Real Estate Policy allocations ranged between 0-22%
  - Hedge Funds Policy allocations ranged between 0-15%
  - Private Equity Policy allocations ranged between 0-22%
- **NEPC has generally recommended that clients maintain lower allocations to public equities than peers**
  - Typically target allocations below 50%
- **NEPC has generally recommended clients consider allocations to private markets (RE & PE) of 10-15%**
- **NEPC has also recommended that clients include economic hedges to inflationary environments and more liability sensitive fixed income**
  - TIPS and Commodities
  - Long Bonds
  - Risk Parity

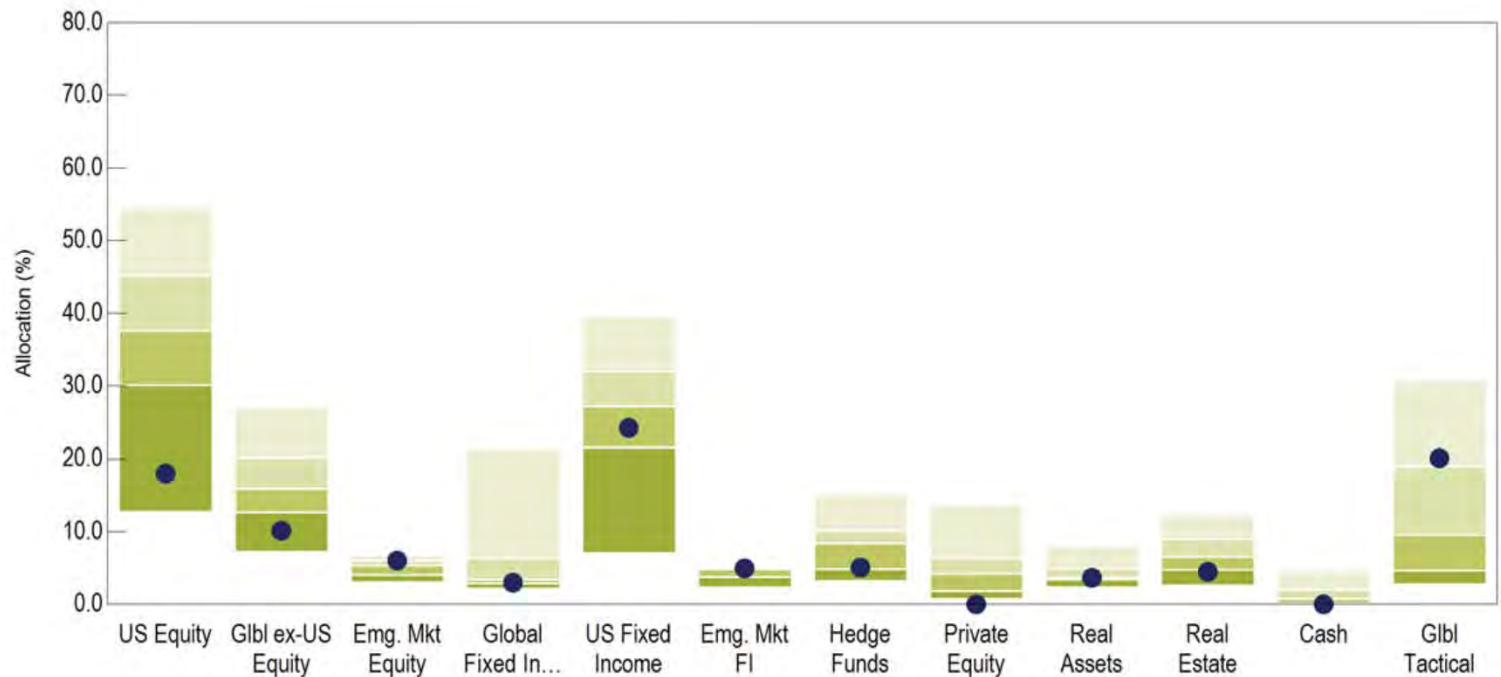
## VPIC Policy Allocation vs. Peer Universe in 2013 Market Environment

Category	Public Equities	Alternative Investments	Fixed & Inflation Sensitive
2013 Market Returns	S&P 500 +32.4% Russell 2000 +38.8% MSCI EAFE +22.8% MSCI EME -2.6%	NCREIF ODCE 14.0% Camb. All Priv. Equity + 17.0% HFRI FOF 8.7%	BC Aggregate -2.0% BC Long Gov/Credit -8.8% BC High Yield +7.4% BC US TIPS -8.6% Citi WGBI -4.0% JPM EMBI Global -6.6% DJ UBS Commodity Index -9.5%
Public Fund Peer Group Policy Ranges	US Equities 12-55% Developed Markets 7-27% Emerging Markets 3-7%  Median Combined 52-60%	Real Estate 3-15% Private Equity 0-15% Hedge Funds 0-15%  Median Combined 16-20%	Diversified Fixed / Credit 7-30% Global / EMD 2-10% TIPS & Commodities 0-8%  Median Combined 25-30
VPIC Policy*	US Equities 19.5% Developed Markets 13% Emerging Markets 7%  Combined 38-40%	Real Estate 4.5% Private Equity 1% Hedge Funds 7%  Combined 12%	Diversified Fixed / Credit 32% Global / EMD 10% TIPS & Commodities 9%  Combined 48-50%

\* Includes assumed break-out of GAA & Risk Parity as follows: 3% US equity, 3% Developed equity, 1% EME, 9% Diversified Fixed/Credit, 2% HF, 2% TIPS & Commodities

# Total Plan Allocation vs. Peer Universe

Total Plan Allocation vs. IFlx Public DB Gross  
As of December 31, 2013



	Allocation (Rank)												
5th Percentile	54.5	27.0	6.7	21.4	39.6	5.2	15.1	13.7	7.9	12.3	4.6	30.9	--
25th Percentile	45.2	20.2	6.1	6.4	32.1	5.0	10.2	6.4	5.0	9.0	2.0	19.1	--
Median	37.7	16.0	5.4	3.5	27.2	4.9	8.5	4.3	3.8	6.6	0.8	9.7	--
75th Percentile	30.2	12.8	4.1	2.9	21.6	3.9	5.0	1.9	3.5	4.9	0.2	4.8	--
95th Percentile	12.9	7.3	3.1	2.2	7.1	2.5	3.4	0.8	2.5	2.7	0.0	2.9	--
# of Portfolios	130	125	18	14	96	11	40	29	23	88	95	39	--
● Employees Composite	18.0 (91)	10.1 (93)	6.0 (36)	3.0 (63)	24.2 (67)	5.0 (42)	5.1 (70)	0.0 (99)	3.6 (73)	4.5 (83)	0.0 (95)	20.1 (19)	--



## Asset Allocation – Public Fund Peer Group

### U.S. Public Funds' Institutional Asset Allocation of Defined Benefit Plan Assets

	Public Funds				Over \$5 billion				\$1 — \$5 billion			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Total Institutions	201	176	161	145	63	57	51	46	59	50	47	47
U.S. Equity — Active	16.2%	18.9%	15.6%	16.8%	15.1%	18.1%	14.8%	16.2%	25.1%	27.0%	24.9%	20.4%
U.S. Equity — Passive	15.3%	12.5%	14.2%	10.4%	15.9%	12.8%	14.5%	10.4%	9.3%	8.2%	9.0%	10.0%
Company's Own Securities *	*	0.8%	*	0.1%	*	0.8%	*	0.1%	*	*	*	0.7%
Total U.S. Equity	31.5%	32.2%	29.8%	27.3%	31.0%	31.8%	29.3%	26.8%	34.4%	35.2%	33.9%	31.1%
International Equity — Active	14.7%	13.4%	16.5%	10.4%	14.7%	13.2%	16.6%	10.2%	16.0%	16.2%	16.0%	12.0%
International Equity — Passive	3.9%	5.1%	5.2%	4.0%	4.2%	5.4%	5.4%	3.9%	1.0%	1.7%	3.4%	4.8%
Global Equity — Active	*	*	*	3.6%	*	*	*	3.8%	*	*	*	1.7%
Emerging Market Equity — Active	*	*	*	3.7%	*	*	*	3.9%	*	*	*	1.9%
Total International Equity	18.6%	18.4%	21.8%	21.6%	18.8%	18.5%	22.0%	21.8%	17.0%	17.9%	19.4%	20.5%
U.S. Fixed Income — Active	28.5%	27.3%	26.7%	22.2%	28.6%	27.4%	26.8%	22.5%	27.0%	24.9%	24.2%	18.8%
U.S. Fixed Income — Passive	*	*	*	3.5%	*	*	*	3.5%	*	*	*	2.6%
International Fixed Income	1.2%	1.7%	1.5%	0.4%	1.0%	1.5%	1.3%	0.3%	3.3%	4.7%	2.7%	1.6%
Global Fixed Income — Active	*	*	*	0.5%	*	*	*	0.4%	*	*	*	2.4%
Emerging Market Debt — Active	*	*	*	0.7%	*	*	*	0.7%	*	*	*	0.7%
Total Fixed Income	29.7%	29.0%	28.1%	27.3%	29.6%	28.9%	28.1%	27.4%	30.2%	29.6%	26.9%	26.1%
Equity Real Estate	7.3%	6.3%	5.7%	5.8%	7.5%	6.4%	5.8%	5.9%	6.8%	5.1%	5.1%	5.5%
REITs	*	*	0.9%	1.2%	*	*	0.9%	1.1%	*	*	0.5%	2.0%
Private Equity	7.8%	7.3%	8.1%	7.1%	8.2%	7.6%	8.4%	7.4%	4.4%	4.1%	5.5%	4.4%
Hedge Fund	2.1%	3.6%	2.3%	3.6%	2.0%	3.6%	2.1%	3.6%	2.9%	4.2%	4.9%	4.9%
Commodities	*	*	*	0.8%	*	*	*	0.8%	*	*	*	0.7%
Money Market	*	*	0.8%	1.4%	*	*	0.8%	1.4%	*	*	1.0%	1.4%
Other	3.0%	3.2%	2.6%	3.8%	2.9%	3.1%	2.6%	3.9%	4.4%	4.0%	2.7%	3.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Percentages are weighted in U.S. dollars.  
Results are for public fund defined benefit plan assets.

Source: Greenwich Associates

# VPIC Policy Portfolio

- **February 2013 Asset Allocation Review**
  - Reduced High Yield in favor of small increase to Commodity target
  - Discussed increase to Real Estate pending implementation decisions
- **February – March 2012 Asset Allocation Review**
  - Reviewed alternative Policy mixes that considered the following
    - Increases to High Yield & EMD Policy target
    - Reduction to the Global Fixed Income Policy target
    - Introduction of new Policy target to Private Equity
    - Alternative Policy portfolios that would roll the TIPS, GFI and Commodity targets into GAA and Risk Parity targets
  - Reviewed NEPC Liquidity study to assess ability of VPIC plans to adopt larger allocations to illiquid asset classes
  - VPIC approved new Policy target that included the following changes
    - Increased High Yield from 5 to 6% (+1%)
    - Increased EMD from 3 to 5% (+2%)
    - Reduced Global Bond from 8 to 3% (-5%)
    - Increased GAA from 10 to 12% (+2%)
- **September 2012 Real Estate portfolio discussion**
  - Reviewed additional Policy mixes with larger allocation to real estate
    - Larger allocations to Real Estate (8 or 10%) offered opportunities to further reduce portfolio risk while maintaining similar return profile
  - Discussed implementation options

## Expected Return & Volatility – Current Policy Targets

	Current	Current Policy
<b>Cash</b>	0.0%	0.0%
Large Cap Equities	10.9%	10.0%
Small/Mid Cap Equities	6.4%	5.5%
Int'l Equities (Unhedged)	10.0%	9.0%
Emerging Int'l Equities	6.2%	6.0%
<b>Total Equity</b>	<b>33.5%</b>	<b>30.5%</b>
High-Yield Bonds	4.1%	4.0%
Global Bonds (Unhedged)	3.0%	3.0%
EMD (External)	2.5%	2.5%
EMD (Local Currency)	2.5%	2.5%
TIPS	2.9%	3.0%
Diversified Fixed Income	17.6%	18.0%
<b>Total Fixed Income</b>	<b>32.6%</b>	<b>33.0%</b>
Private Equity	0.3%	3.0%
Real Estate (Core)	4.7%	4.5%
Hedge Funds	5.0%	5.0%
<b>Total Alternatives</b>	<b>10.0%</b>	<b>12.5%</b>
Global Asset Allocation	12.3%	12.0%
Risk Parity	8.0%	8.0%
Commodities	3.7%	4.0%
<b>Total Other</b>	<b>24.0%</b>	<b>24.0%</b>

5-7 yr Return & Risk	<i>Expected Return (Geo)</i>	6.2%	6.2%
	<i>Asset Volatility</i>	11.4%	11.4%
	<i>Sharpe Ratio</i>	0.41	0.41

30 yr Return	<i>Geometric Expected Return</i>	7.4%	7.5%
	<i>Sharpe Ratio</i>	0.32	0.33

### Comments on Current Target

- **Equity**

- Low equity exposure (40% with GAA) but still most significant component of risk budget
- Good emerging equity exposure
- Good mix between domestic and int'l

- **Fixed Income**

- Good exposure to most of the fixed income diversifying asset classes
- Economic hedges positioned with Long-duration & TIPS

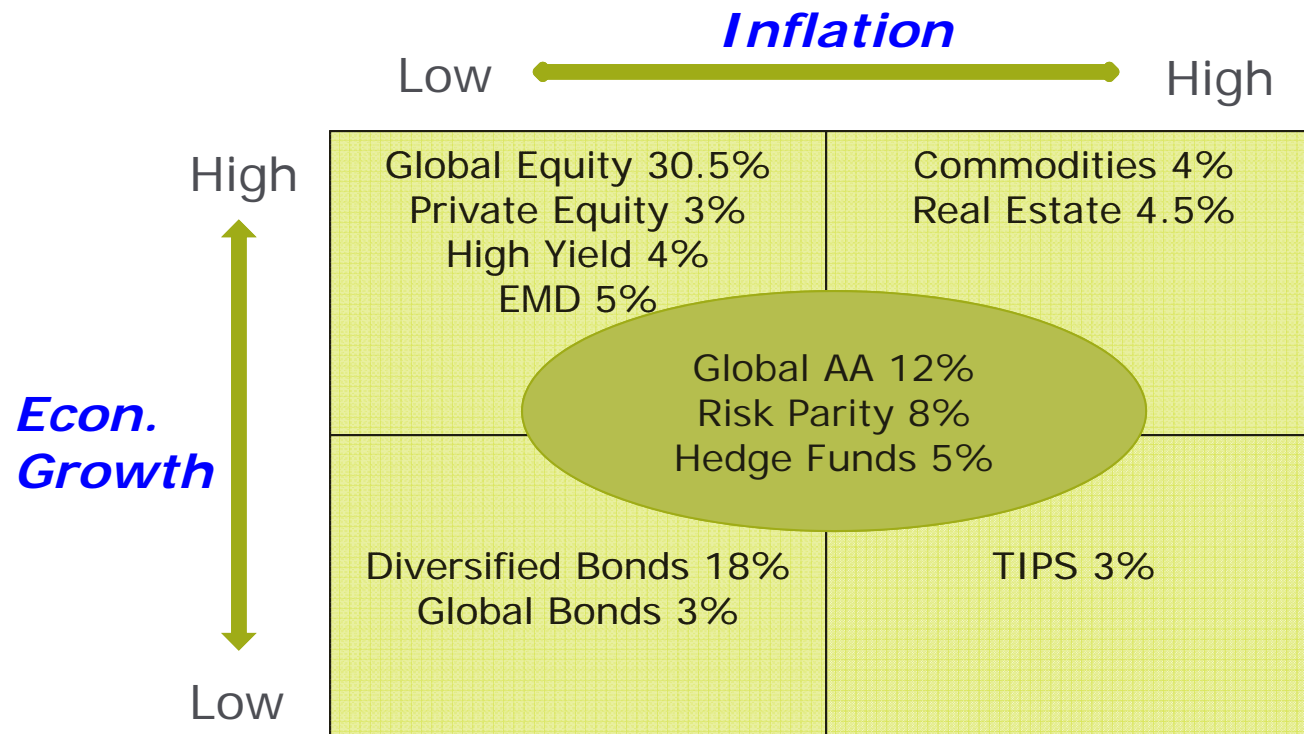
- **Good diversification through GAA**

- Included are bullish strategies along with risk parity and a CPI Plus focused mandate

- **Low allocation to illiquid asset classes**

## Policy Allocation Positioning vs. Key Economic Scenarios

- **Risk Parity & Hedge Fund strategies provide balanced exposure**
- **Portfolio still favors higher growth & lower inflation**
  - What is “high” economic growth under the “New Normal”?



## Alternative Policy Mixes (2014) – Long-term build out of private markets

	Current	Current Policy	Mix A	Mix B	Mix C	Mix D
<b>Cash</b>	0.0%	0.0%	0%	0%	0%	0%
Large Cap Equities	10.9%	10.0%	10%	10%	10%	10%
Small/Mid Cap Equities	6.4%	5.5%	5%	5%	5%	4%
Int'l Equities (Unhedged)	10.0%	9.0%	9%	9%	9%	9%
Emerging Int'l Equities	6.2%	6.0%	6%	6%	6%	6%
<b>Total Equity</b>	<b>33.5%</b>	<b>30.5%</b>	<b>30%</b>	<b>30%</b>	<b>30%</b>	<b>29%</b>
High-Yield Bonds	4.1%	4.0%	4%	4%	4%	4%
Global Bonds (Unhedged)	3.0%	3.0%	3%	3%	3%	3%
EMD (External)	2.5%	2.5%	3%	3%	3%	3%
EMD (Local Currency)	2.5%	2.5%	3%	3%	3%	3%
TIPS	2.9%	3.0%	3%	3%	3%	3%
Diversified Fixed Income	17.6%	18.0%	17%	16%	14%	14%
<b>Total Fixed Income</b>	<b>32.6%</b>	<b>33.0%</b>	<b>32%</b>	<b>31%</b>	<b>29%</b>	<b>29%</b>
Private Equity	0.3%	3.0%	3%	5%	7%	7%
Real Estate (Core)	4.7%	4.5%	6%	6%	8%	10%
Hedge Funds	5.0%	5.0%	5%	5%	5%	5%
<b>Total Alternatives</b>	<b>10.0%</b>	<b>12.5%</b>	<b>14%</b>	<b>16%</b>	<b>20%</b>	<b>22%</b>
Global Asset Allocation	12.3%	12.0%	12%	12%	10%	10%
Risk Parity	8.0%	8.0%	8%	7%	7%	7%
Commodities	3.7%	4.0%	4%	4%	4%	3%
<b>Total Other</b>	<b>24.0%</b>	<b>24.0%</b>	<b>24%</b>	<b>23%</b>	<b>21%</b>	<b>20%</b>

5-7 yr Return & Risk	<i>Expected Return (Geo)</i>	6.2%	6.2%	6.3%	6.4%	6.5%	6.5%
	<i>Asset Volatility</i>	11.4%	11.4%	11.4%	11.6%	11.8%	11.6%
	<i>Sharpe Ratio</i>	0.41	0.41	0.42	0.42	0.43	0.43

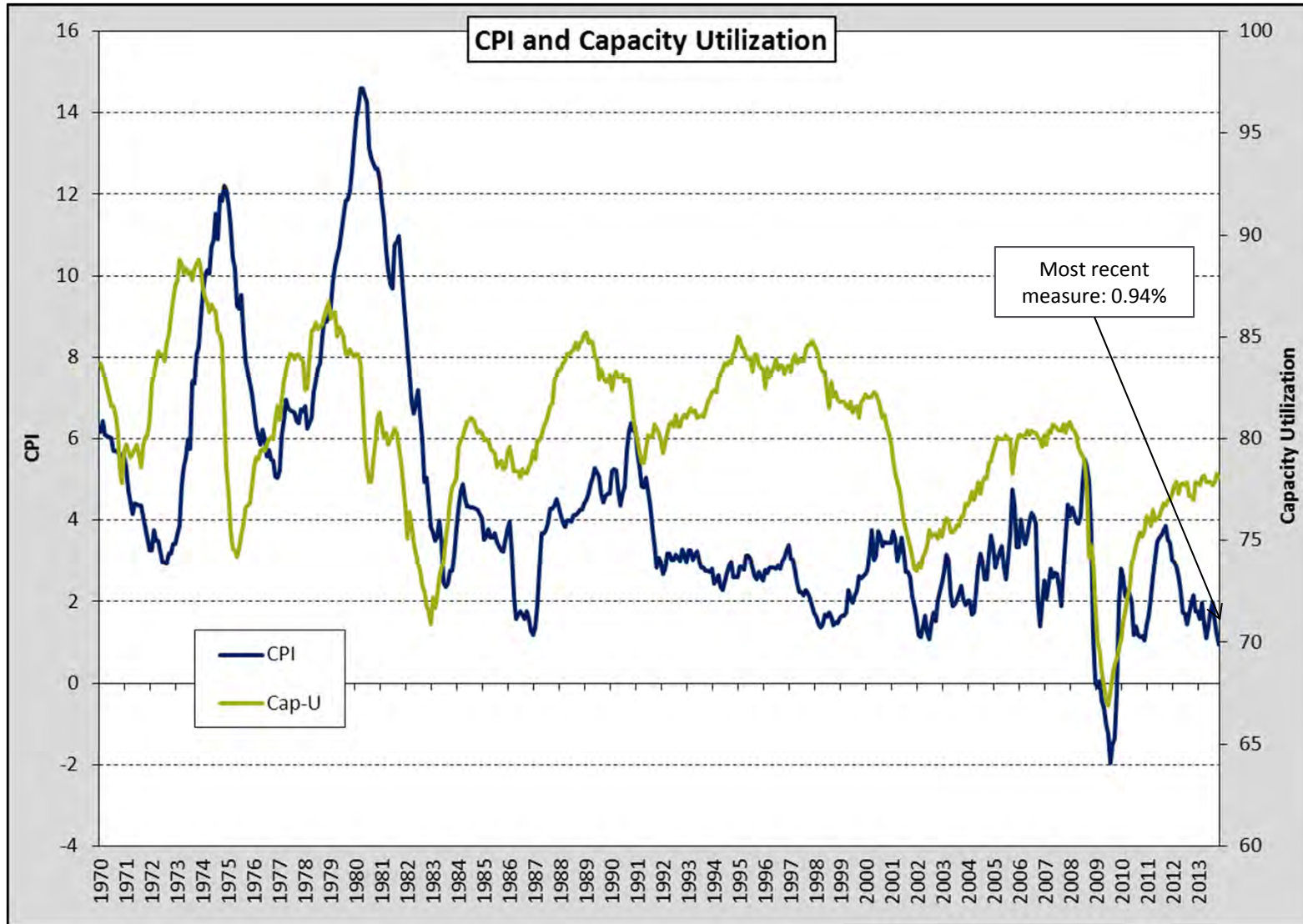
30 yr Return	<i>Geometric Expected Return</i>	7.4%	7.5%	7.5%	7.6%	7.7%	7.7%
	<i>Sharpe Ratio</i>	0.32	0.33	0.33	0.33	0.34	0.34

## Appendix: Inflation Assumption



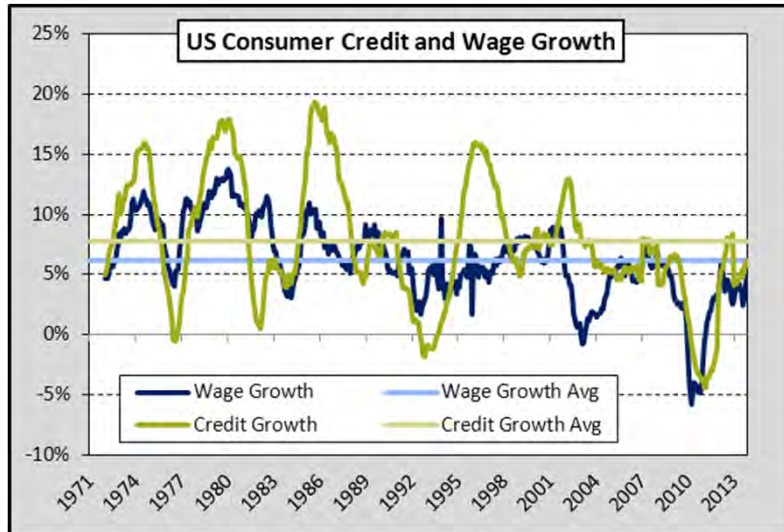
- **Inflation is an important component of our asset allocation assumptions**
  - An essential building block for projecting returns in stocks, bonds, and commodities
- **There are several measures of inflation used to inform our view (all of which have issues)**
  - Consumer Price Index
  - Producer Price Index
  - TIPS break-even inflation
- **We are projecting 3% inflation over the next 5-7 years**
  - This assumption represents the geometric mean of a time series
  - Inflation could take several different paths over 5-7 years to arrive at a 3% mean
  - Given the wide-ranging potential inflation paths (US 1970s or Japan 1990s), we continue to use an elevated estimate of inflation volatility
- **While muted credit growth leaves inflation expectations unchanged in the near term, pressures for higher long-term inflation continue to build**
  - Monetary stimulation continued in 2013
  - Taper in US throughout 2014 but still remain stimulative globally
- **Given increasing long-term inflation pressures, a modestly higher inflation assumption (3.25%) is utilized for determining 30 year return expectations**

# Inflation Has Stayed Low

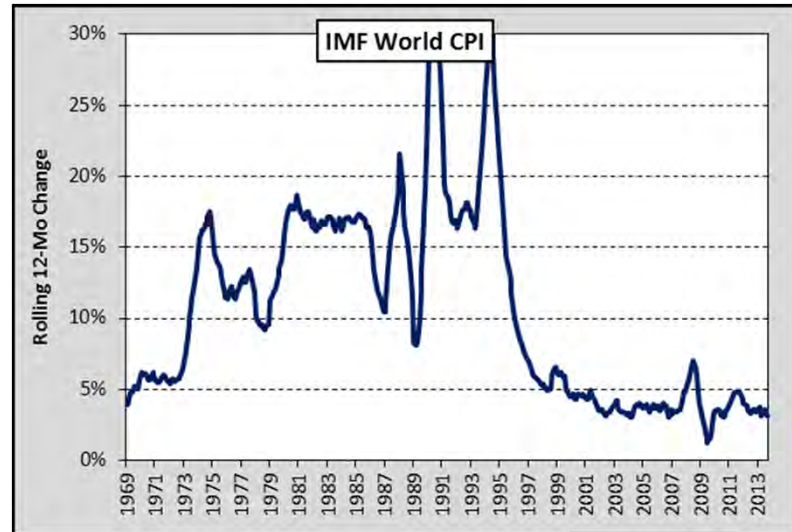


Source: St. Louis Fed as of 11/30

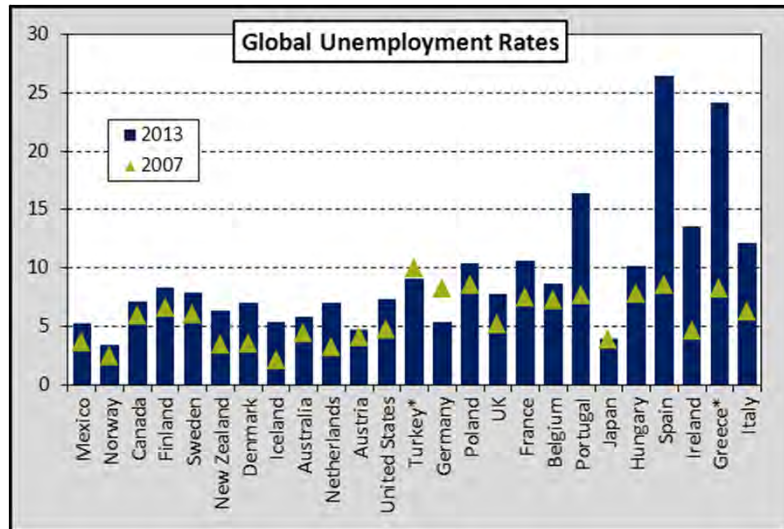
# Many Economic Factors Driving Inflation Remain Subdued



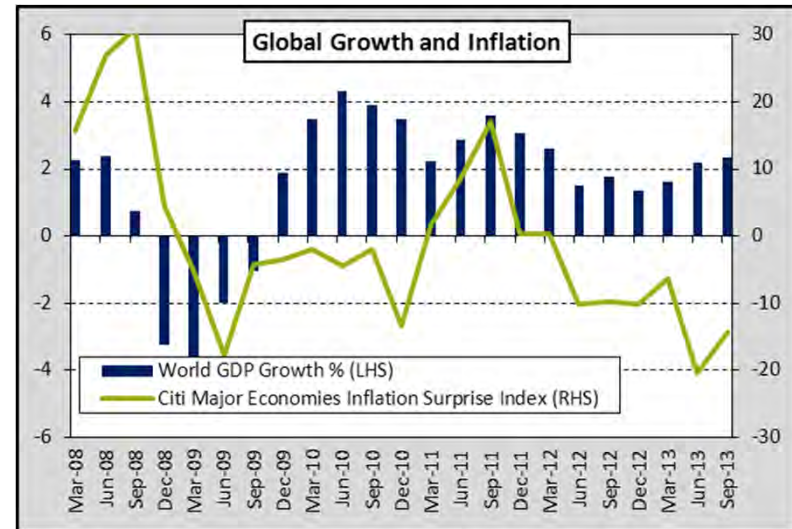
Source: Board of Governors of the Federal Reserve System as of 10/1



Source: Bloomberg as of 9/30

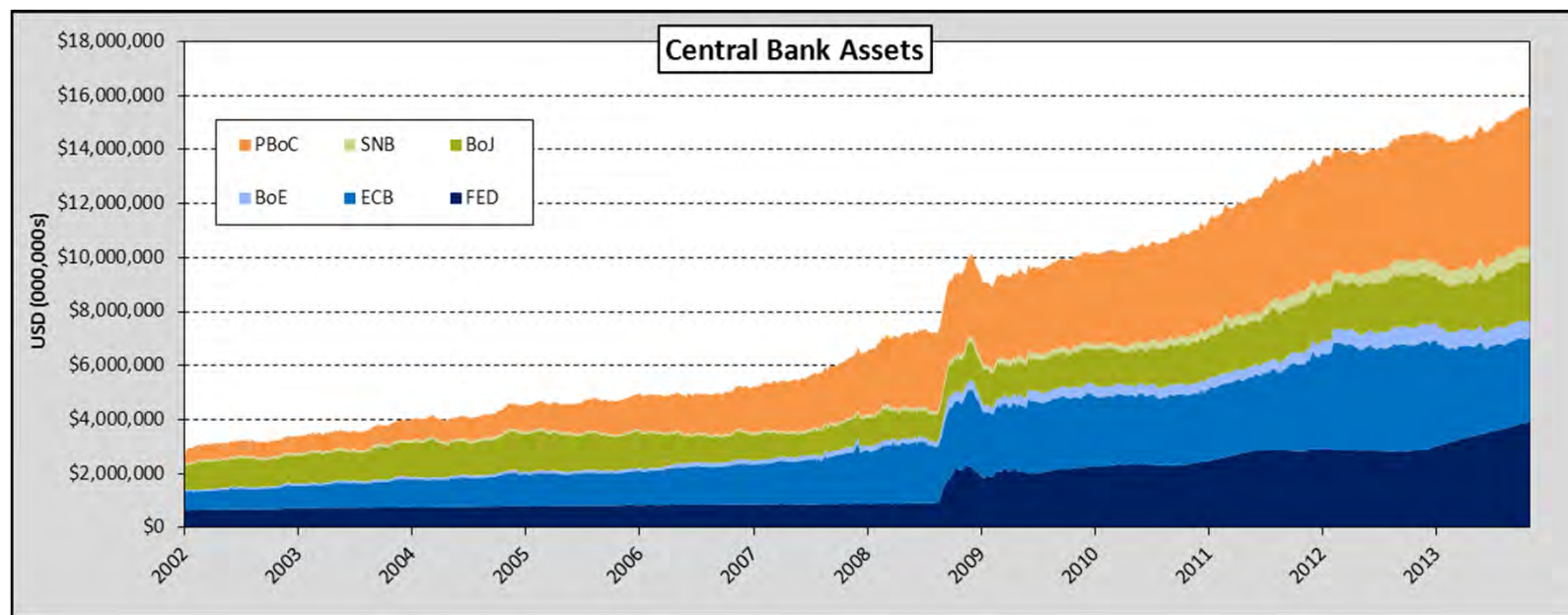


Source: Bloomberg as of 9/30 \*as of 12/31/2012



Source: Bloomberg as of 9/30

# Long-Term Inflation Pressures Continue to Build as Central Banks Stimulate



Source: Bloomberg as of 11/30

- **Major central bank balance sheets have grown by a 5.3x factor since February 2002 (when PBoC data begins)**
  - While not an apples to apples comparison, US Consumer prices have increased by 1.3x factor over this same time
- **Much of the increases come from the end of 2007 to the present, with very muted inflation**
  - Cumulative CPI increases are 1.1x in this period

# Appendix: Assumption Development



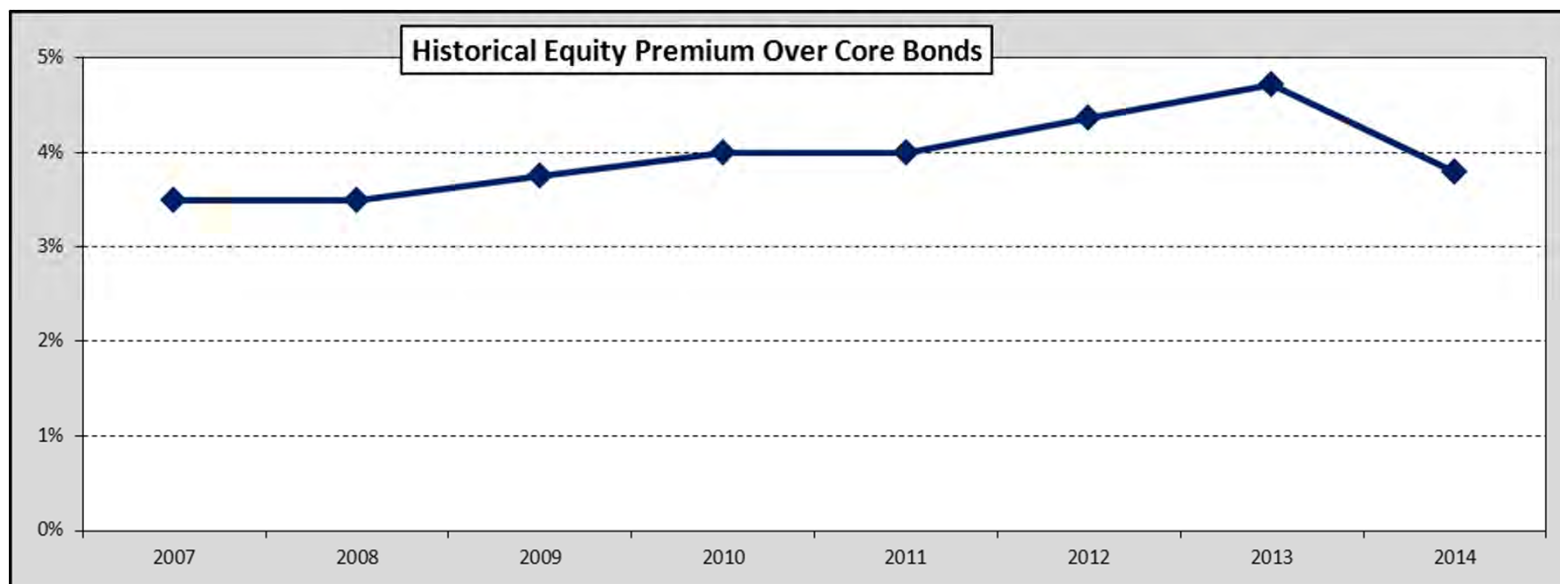
## 2014 Correlations

- Slight decrease in US vs. Non-US equities reflecting globally diverging economic condition/policies
- Several adjustments made to harmonize correlations across broad factors
  - Increasing Treasury correlations to EMD, HY, Munis
  - Decreasing TIPS correlations
  - Greater differentiation between EMD external and local
  - Broad increases in alternative/illiquid asset classes to risky assets

Asset Class	Cash	Treasuries	IG Corp Credit	MBS	TIPS	High-Yield Bonds	Global Bonds (Unhedged)	Global Bonds (Hedged)	EMD (External)	EMD (Local Currency)	Large Cap Equities	Small/Mid Cap Equities	Int'l Equities (Unhedged)	Int'l Equities (Hedged)	Emerging Int'l Equities	Private Equity	Private Debt	Private Real Assets	Real Estate (Core)	Commodities	Hedge Funds
Cash	1.00																				
Treasuries	0.20	1.00																			
IG Corp Credit	0.10	0.75	1.00																		
MBS	0.25	0.90	0.80	1.00																	
TIPS	0.00	0.75	0.60	0.70	1.00																
High-Yield Bonds	-0.05	0.30	0.55	0.30	0.20	1.00															
Global Bonds (Unhedged)	0.10	0.50	0.50	0.45	0.40	0.10	1.00														
Global Bonds (Hedged)	0.10	0.80	0.65	0.70	0.65	0.20	0.60	1.00													
EMD (External)	0.05	0.40	0.65	0.35	0.30	0.65	0.25	0.35	1.00												
EMD (Local Currency)	0.05	0.30	0.60	0.25	0.25	0.60	0.30	0.25	0.80	1.00											
Large Cap Equities	0.05	0.05	0.55	0.15	0.00	0.70	0.10	0.05	0.60	0.65	1.00										
Small/Mid Cap Equities	-0.05	-0.05	0.35	0.05	-0.10	0.70	0.00	-0.05	0.55	0.60	0.90	1.00									
Int'l Equities (Unhedged)	-0.10	0.00	0.30	0.05	-0.05	0.50	0.40	0.25	0.60	0.65	0.70	0.60	1.00								
Int'l Equities (Hedged)	-0.10	0.00	0.30	0.05	-0.05	0.50	0.30	0.40	0.60	0.65	0.75	0.65	0.90	1.00							
Emerging Int'l Equities	-0.10	-0.10	0.25	-0.10	-0.10	0.55	0.05	0.05	0.75	0.80	0.60	0.65	0.70	0.70	1.00						
Private Equity	-0.10	-0.05	0.20	0.00	-0.10	0.60	-0.10	-0.10	0.35	0.40	0.70	0.80	0.60	0.65	0.45	1.00					
Private Debt	0.00	-0.25	0.15	-0.15	-0.10	0.65	-0.10	-0.10	0.55	0.60	0.65	0.75	0.60	0.60	0.65	0.65	1.00				
Private Real Assets	0.15	-0.20	0.05	-0.15	0.00	0.40	-0.05	-0.05	0.40	0.40	0.55	0.60	0.50	0.50	0.50	0.65	0.60	1.00			
Real Estate (Core)	0.25	-0.05	0.05	-0.05	0.00	0.10	0.00	-0.05	0.10	0.10	0.35	0.25	0.30	0.30	0.15	0.35	0.25	0.40	1.00		
Commodities	0.10	-0.10	0.10	-0.10	0.30	0.20	0.10	0.10	0.35	0.45	0.30	0.30	0.35	0.35	0.40	0.25	0.30	0.45	0.30	1.00	
Hedge Funds	0.00	-0.20	0.35	-0.15	0.20	0.60	0.05	-0.30	0.55	0.60	0.60	0.65	0.70	0.65	0.70	0.75	0.80	0.65	0.25	0.50	1.00

# Major Asset Class Review (Geometric)

Asset Class	Historical Long Term Geometric Average <sup>1</sup>	5-to-7 Year NEPC Assumptions							
		2007	2008	2009	2010	2011	2012	2013	2014
Cash	3.5%	4.00%	4.00%	3.00%	2.00%	2.00%	1.25%	0.75%	1.50%
Core Bonds <sup>2</sup>	8.0%	5.00%	5.00%	5.50%	3.75%	3.00%	2.88%	2.03%	2.53%
Large Cap	10.1%	8.50%	8.50%	9.25%	7.75%	7.00%	7.25%	6.75%	6.25%
International <sup>3</sup>	9.3%	8.75%	9.00%	9.75%	8.00%	7.00%	7.75%	7.75%	7.25%
<i>US Equity Premium Over Core Bonds</i>		<i>3.50%</i>	<i>3.50%</i>	<i>3.75%</i>	<i>4.00%</i>	<i>4.00%</i>	<i>4.37%</i>	<i>4.72%</i>	<i>3.72%</i>



1. Reflects average since inception (1926 except as noted below) of the respective index through 11/30/2012
2. LB/BC Aggregate reflects average compound annual return since 1976
3. International reflects average annual return since 1970

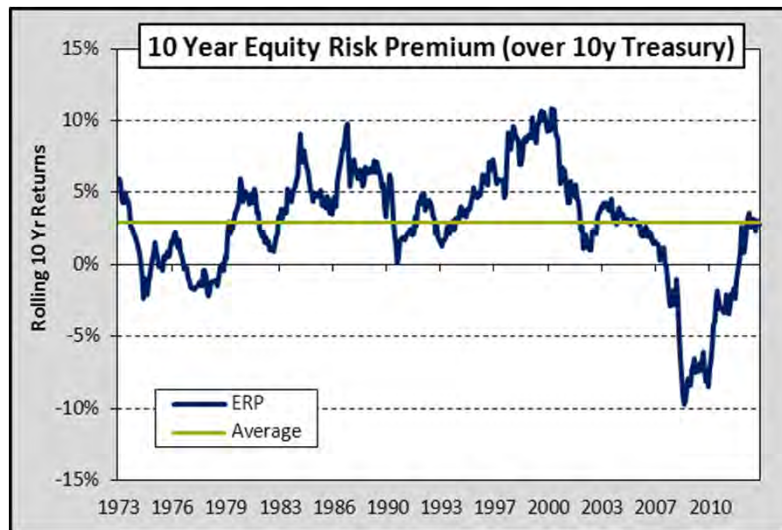


## Assumption Development – US Large Cap Equity

- **Sources of Return**

- Valuation
- Earnings growth
  - Adjusted for changes in margin
- Dividend yield
- Inflation

Return Source	Starting Value	Expected Forecast Values	Return Contribution
Real Earnings Growth	2.5%	2.5%	--
<i>Profit Margin Adjustment</i>		-1.0%	1.5%
Dividend Yield	2.0%	2.0%	2.0%
Inflation	3.0%	3.0%	3.0%
Valuation & Other*	16.3	16	-0.25%
		Total Expected Return	6.25%



Source: Ibbotson as of 11/30

\* - Valuation & Other incorporates adjustment for P-E ratios as well as other factors such as rounding, geometric compounding, etc.

- **Equity Risk Premium over 10 year Treasury is volatile**

- Long-term average of 2.9%
- Stock and bond forecasts imply an Equity Risk Premium of 4.25%
- While high relative to the long-term average, almost 40% of observations exceed this level over the last 50 years

- **Downward adjustment reflects higher but still low interest rates supportive of an elevated equity risk premium**

## Assumption Development – International Equities

### • Developed Markets

- Improving growth prospects
- Higher dividend yields
- Continued recovery after several years of poor returns
  - Still lagging US markets significantly over trailing 5 years
- *100 bps premium over US*

Return Source	Starting Value	Expected Forecast Values	Return Contribution
Real Earnings Growth	2.0%	2.0%	--
<i>Profit Margin Adjustment</i>		0.5%	2.5%
Dividend Yield	3.1%	3.0%	3.0%
Inflation	3.0%	3.0%	3.0%
Valuation & Other*	15.1	14	-1.25%
		Total Expected Return	7.25%

### • Emerging Markets

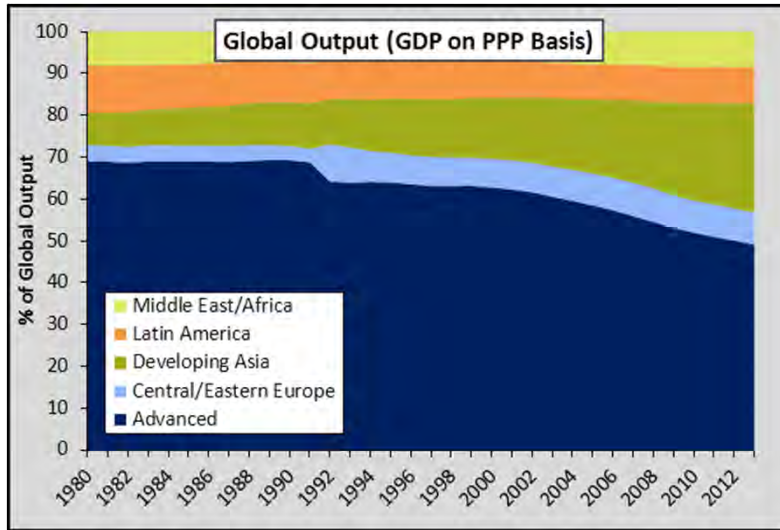
- Reasonable valuation
- Subdued growth prospects relative to last decade but still well above developed world
- Meaningful challenges and uncertainty ahead, particularly for countries with potential balance of payment challenges
- *325 bps premium over US*
- *225 bps premium over Intl Developed*

Return Source	Starting Value	Expected Forecast Values	Return Contribution
Real Earnings Growth	3.5%	3.5%	--
<i>Profit Margin Adjustment</i>		--	3.5%
Dividend Yield	2.6%	2.5%	2.5%
Inflation	3.0%	3.0%	3.0%
Valuation & Other*	11.9	12	0.5%
		Total Expected Return	9.50%

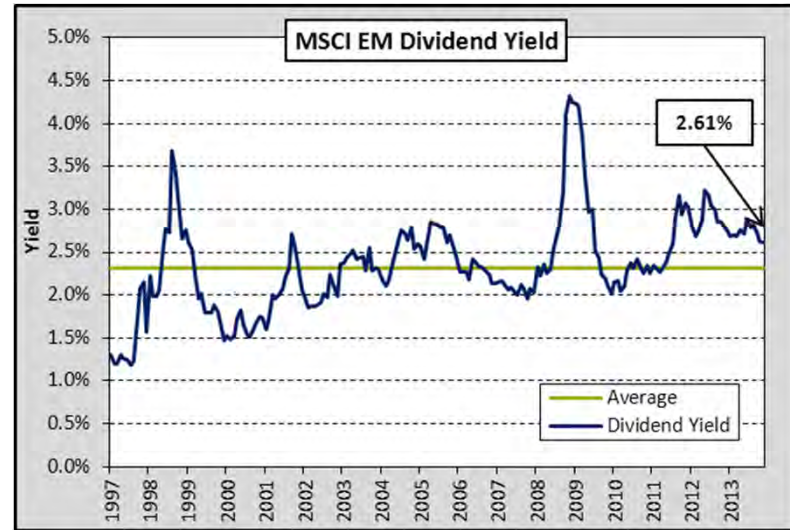
Source: Bloomberg, NEPC

\* - Valuation & Other incorporates adjustment for P-E ratios as well as other factors such as rounding, geometric compounding, etc.

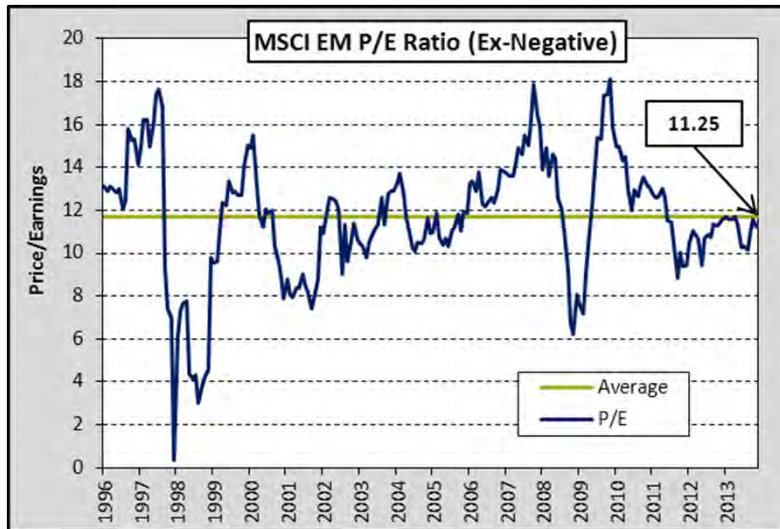
# Emerging Equity Building Blocks



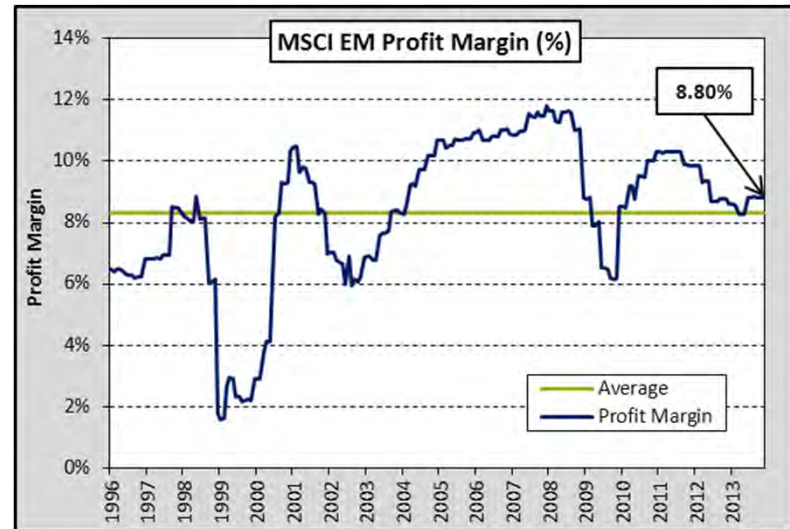
Source: IMF



Source: Bloomberg as of 11/30

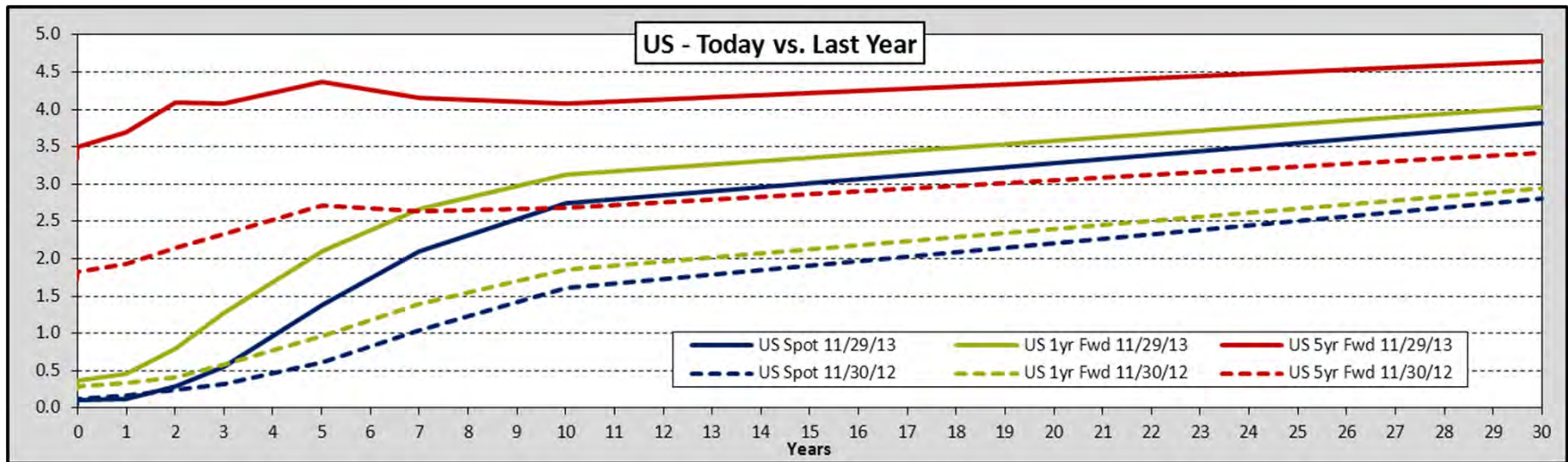


Source: Bloomberg as of 11/30

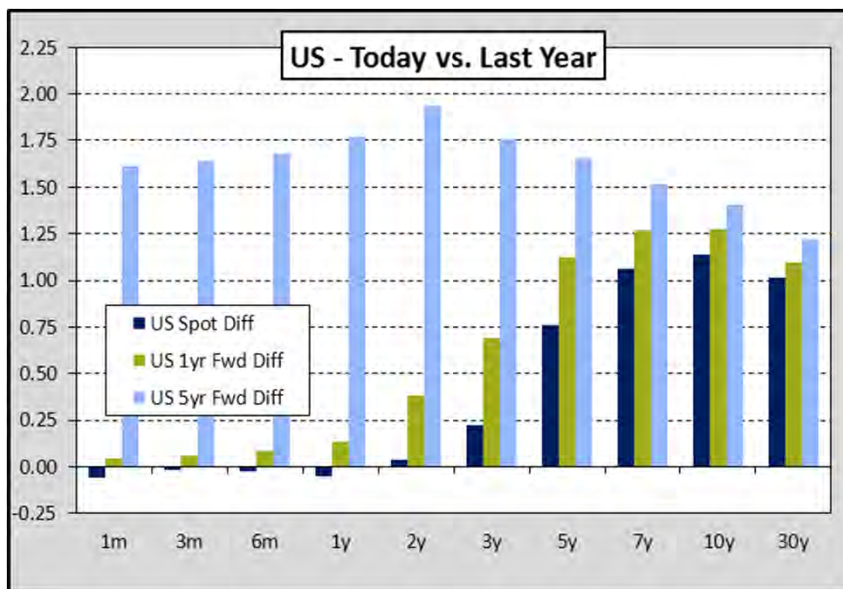


Source: Bloomberg as of 11/30

## US Spot and Forward Rates – Change from last year



Source: Bloomberg as of 11/30

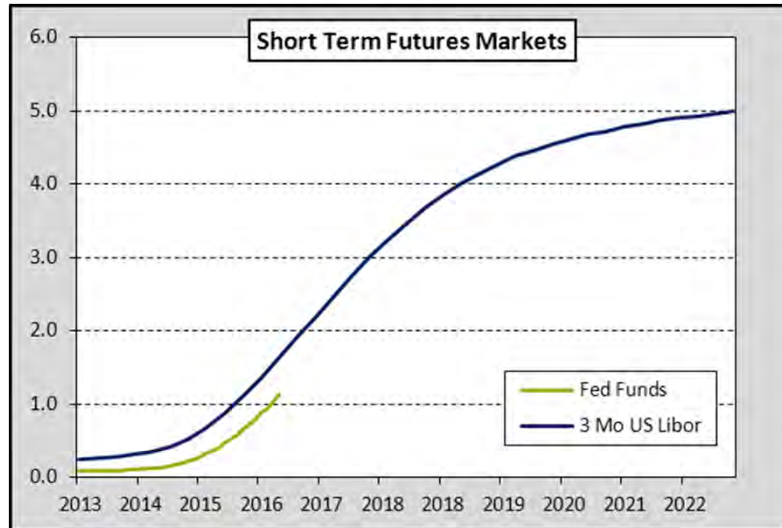


Source: Bloomberg as of 11/30

- **US Treasury market is elevated across the curve**
  - Most spot and forward rates are substantially higher than one year ago
- **Spot changes are muted on short end of the curve**
  - Up 75-125 bps beyond 5 years
- **1 year forward expectations up**
  - Muted on short end, but 25-150 bps beyond the 2 year point
- **5 year forward expectations have risen much more**
  - About 100-200bps across the curve



## Assumption Development – Cash



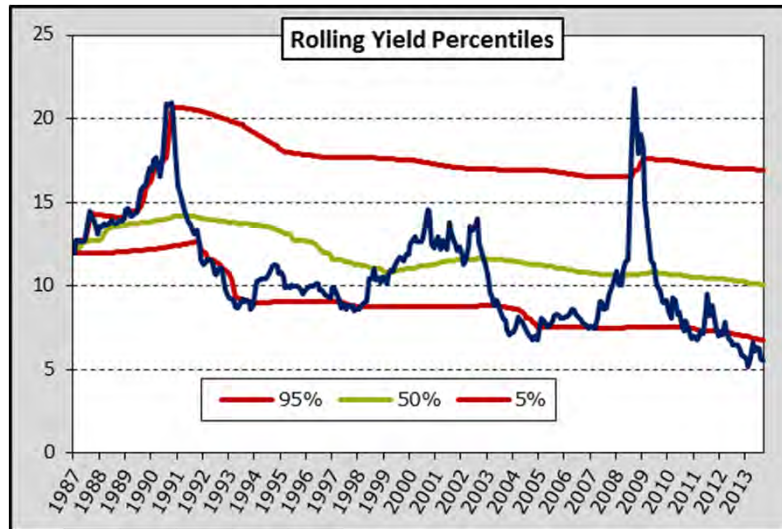
Source: Bloomberg, NEPC as of 11/30



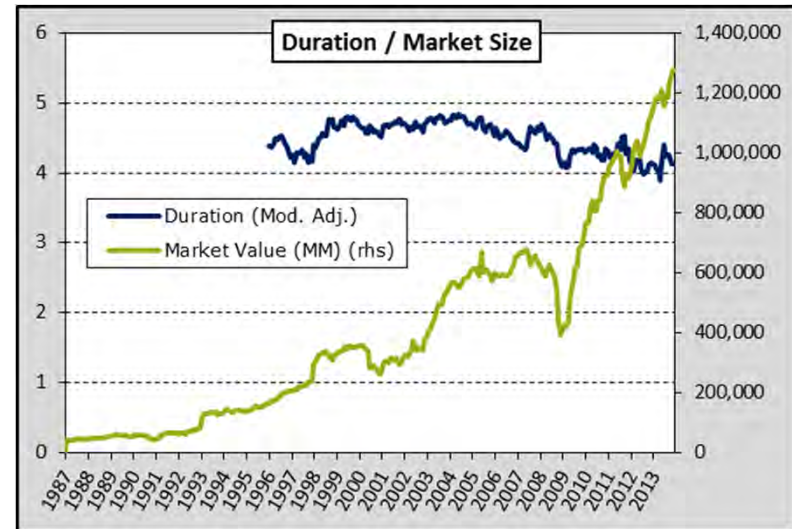
Source: BarCap Live as of 11/30

- **Cash markets expected to remain at extreme lows**
  - In 2012 the Fed renewed its pledge to keep rates low “at least through mid-2015”
  - Encouraging economic data has prompted speculation of a medium-term increase
- **Moving out on the “risk-free” curve does not offer relief for cash investors**
  - Short duration treasury yields remain near historic lows despite rate increases in 2013 further out on the yield curve

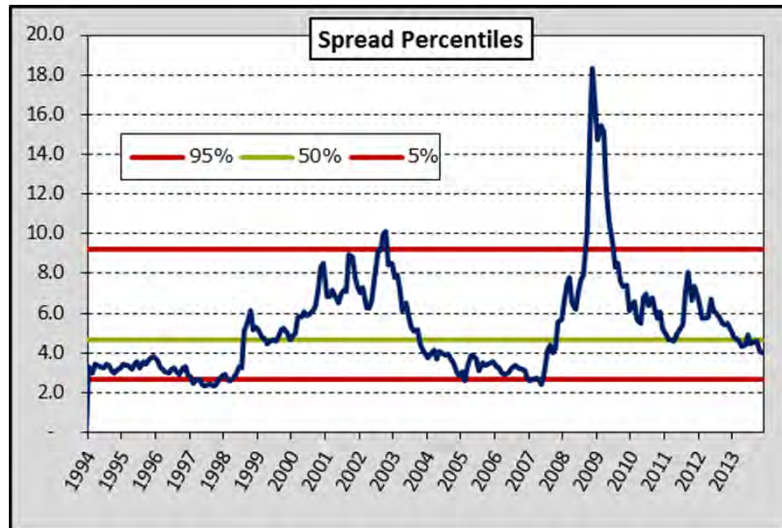
## Assumption Development – High Yield



Source: BarCap Live, NEPC as of 11/30



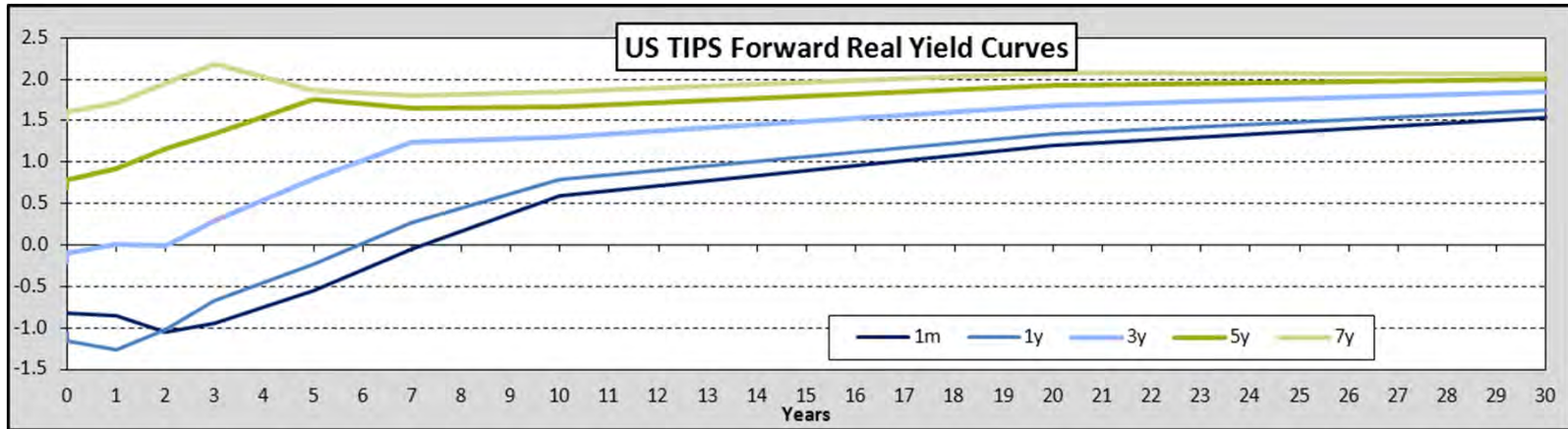
Source: BarCap Live as of 11/30



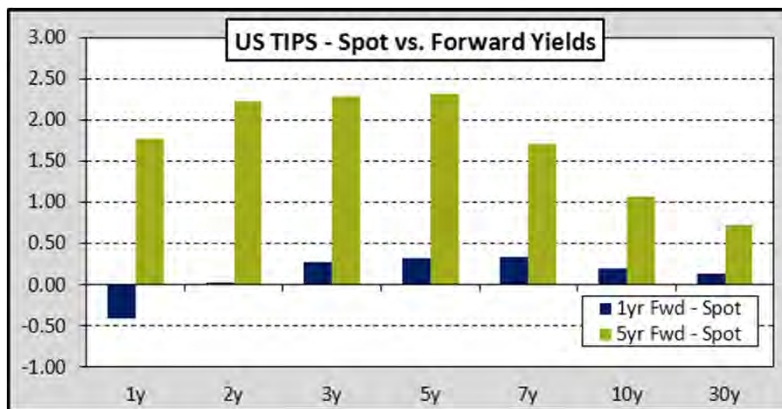
Source: BarCap Live, NEPC as of 11/30

- **Spreads compressed further in 2013, from 511 bps to 404 bps**
  - Below historical median of 469 bps
- **Investors in search of yield have supported continued robust issuance**
  - Still holds some relative attractiveness in fixed income but not as much as in recent years

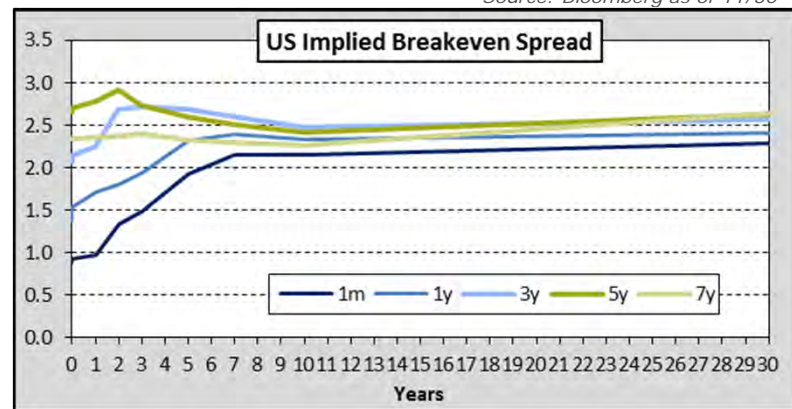
## US Spot and Forward Real Rates – Current



Source: Bloomberg as of 11/30



Source: Bloomberg as of 11/30

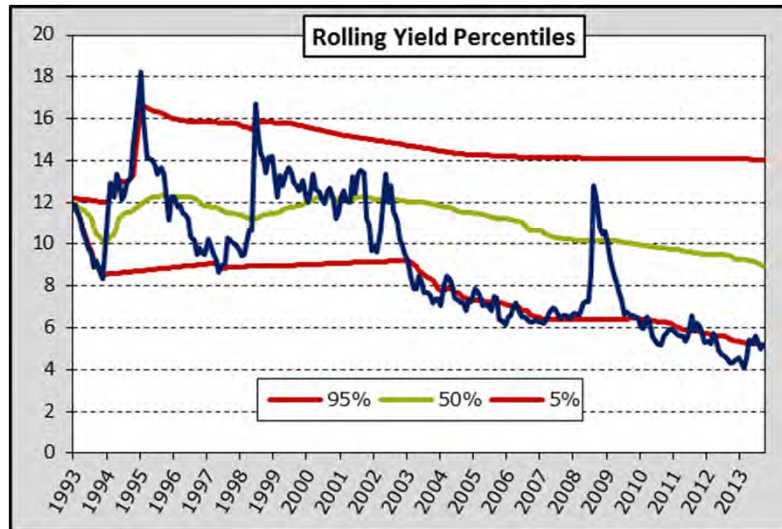


Source: Bloomberg as of 11/30

- **Real yields experienced a sharper increase than nominals in 2013 as breakeven spreads moved lower**
  - Curves have moved from mostly negative to mostly positive
- **Over the longer term, breakevens converge near a long term 2.5% expected inflation premium for TIPS**



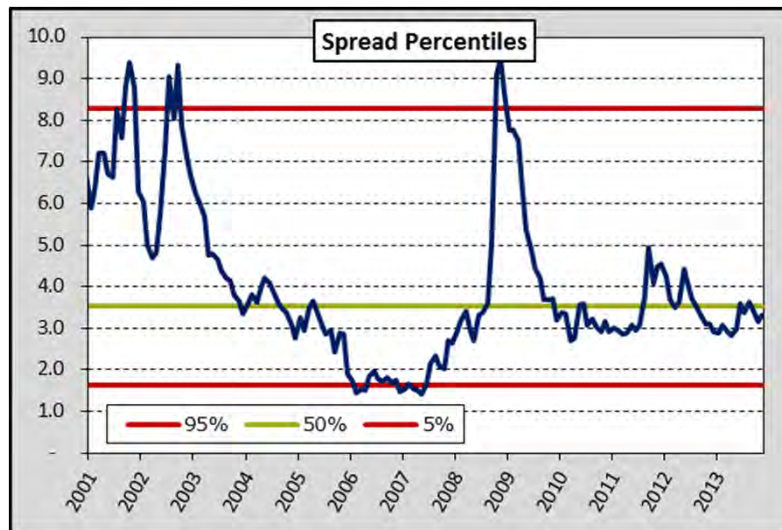
## Assumption Development – Emerging Markets Debt (USD)



Source: BarCap Live, NEPC as of 11/30



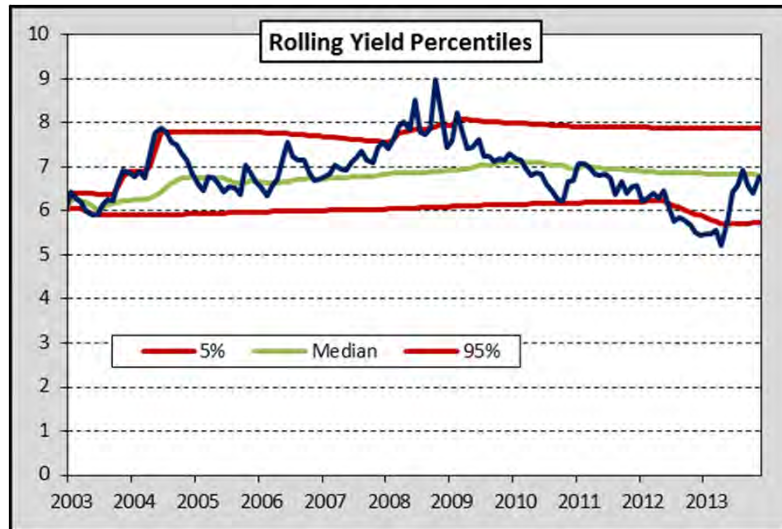
Source: BarCap Live as of 11/30



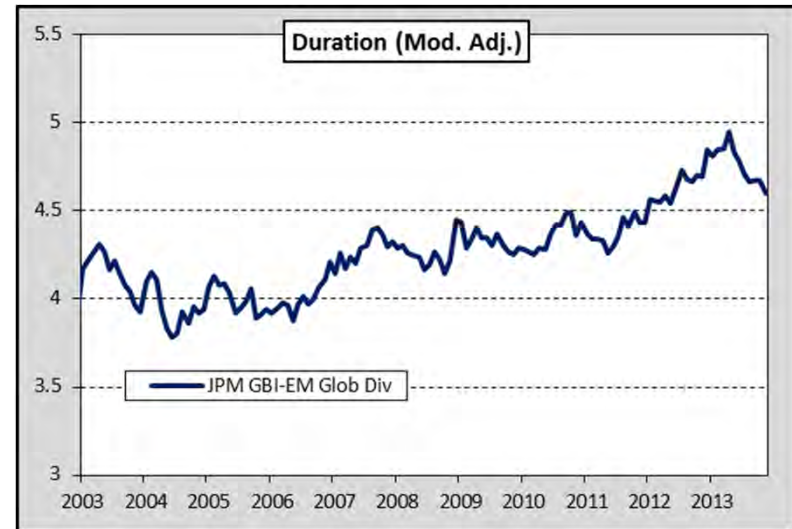
Source: BarCap Live, NEPC as of 11/30

- **EM External Debt yields remain low versus history**
- **OAS also remains below historical medians**
  - Compression likely to continue as credit quality is improving
    - Driving medians lower over time
- **Duration fell over a full year from year end 2012**

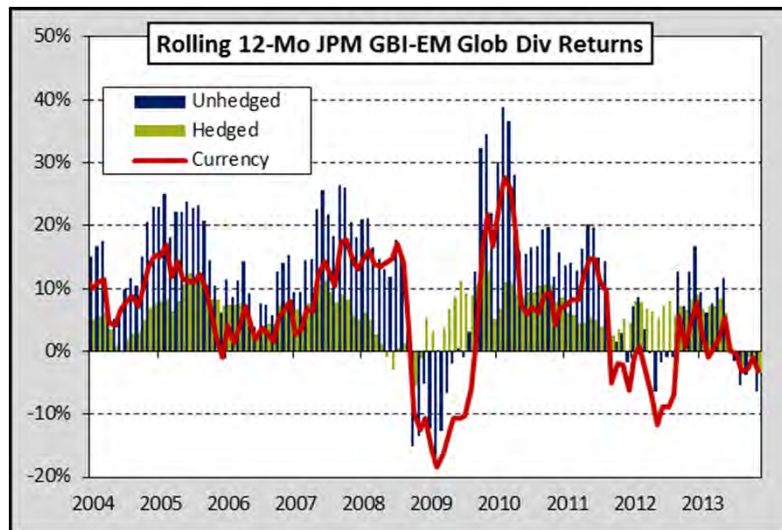
## Assumption Development – Emerging Markets Debt (Local)



Source: Bloomberg, NEPC as 11/30



Source: Bloomberg as of 11/30

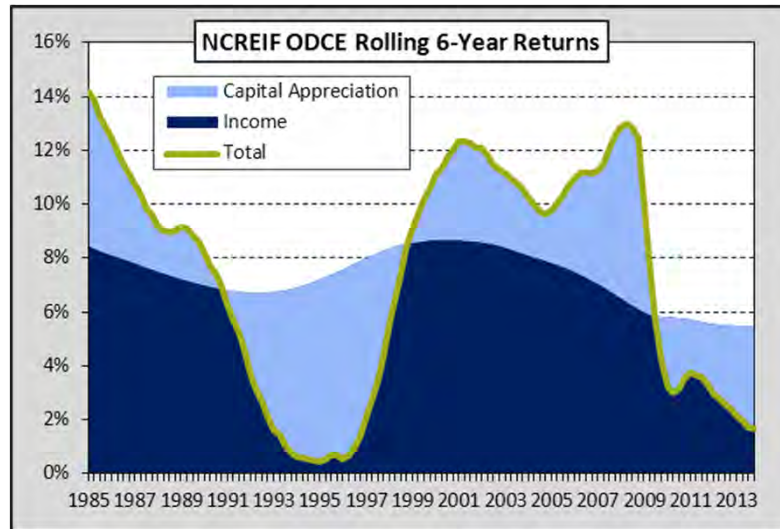


- **Local currency EMD remains attractive on a fundamental basis**
  - High yields and relatively low duration
- **Unresolved country by country issues could drive currency volatility**

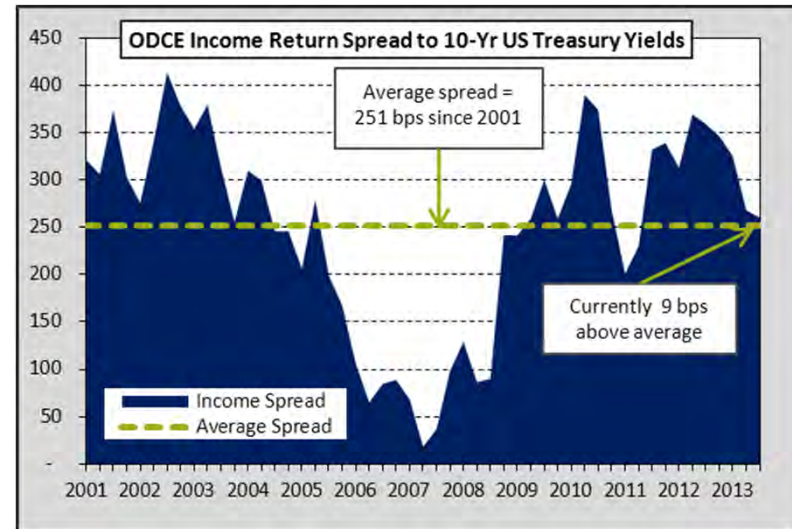
- **Hedge Fund assumption developed from building blocks of broad hedge fund categories**
  - Build up of 45% Equity, 45% Credit, and 10% Macro
  - Based on analysis of historical return, risk and correlation for underlying strategies and total universe
  - Use NEPC standard market betas as building blocks as well as a component of alpha
- **Hedge Fund assumptions for 2014**
  - Return – 5.5%
  - Volatility – 9.0%

	Hedge Funds	Equity Hedge Funds	Credit Hedge Funds	Macro Hedge Funds
Beta Exposure	0.5	0.5	0.5	0.5
Underlying Market Beta	Blended market betas from Equity, Credit/Event, Macro	Global Equity	Global Credit	Global Relative Value (Rates, Equities, Commodities)
<b>Total Return (5-7 yr)</b>	<b>5.5%</b>	<b>6%</b>	<b>5%</b>	<b>5.75%</b>
<b>Volatility Expectation</b>	<b>9%</b>	<b>11.5%</b>	<b>8%</b>	<b>9.5%</b>

## Assumption Development – Real Estate



Sources: NCREIF, US Department of Treasury as of 9/30



Sources: NCREIF as of 9/30

- **Core real estate assumption represented by NCREIF Open-End Diversified Core (ODCE)**
  - Our 5-7 year assumption is based on 5.25% income (2.75% treasury yield + 2.50% spread) + 1.00% capital appreciation = 6.25%
  - 17% volatility assumption is representative of underlying economics



## Alternative Policy Mixes (2013 Assumptions – Feb. 2013 VPIC Meeting)

	Current	Current Policy	Mix A	Mix B	Mix C	Mix D
<b>Cash</b>	0%	0%	0%	0%	0%	0%
Large Cap Equities	11.0%	10.0%	10.5%	10.0%	10.0%	10.0%
Small/Mid Cap Equities	6.5%	5.5%	5.5%	5.0%	5.0%	4.0%
Int'l Equities (Unhedged)	10%	9.0%	9.0%	9.0%	9.0%	9.0%
Emerging Int'l Equities	6%	6.0%	6.0%	6.0%	6.0%	6.0%
<b>Total Equity</b>	<b>33.5%</b>	<b>31%</b>	<b>31%</b>	<b>30%</b>	<b>30%</b>	<b>29%</b>
High-Yield Bonds	6%	6.0%	4.0%	4.0%	4.0%	4.0%
Global Bonds (Unhedged)	3%	3.0%	3.0%	3.0%	3.0%	3.0%
EMD (External)	3%	2.5%	2.5%	2.5%	2.5%	2.5%
EMD (Local Currency)	3%	2.5%	2.5%	2.5%	2.5%	2.5%
TIPS	3%	3.0%	3.0%	3.0%	3.0%	3.0%
Diversified Fixed Income	18%	18%	18%	17%	15%	13%
<b>Total Fixed Income</b>	<b>35%</b>	<b>35%</b>	<b>33%</b>	<b>32%</b>	<b>30%</b>	<b>28%</b>
Private Equity	0%	3.0%	3.0%	3.0%	3.0%	5.0%
Real Estate (Core)	4.5%	4.5%	6.0%	6.0%	6.0%	8.0%
Hedge Funds Low Vol	5%	5.0%	5.0%	5.0%	5.0%	5.0%
<b>Total Alternatives</b>	<b>9.5%</b>	<b>13%</b>	<b>14%</b>	<b>14%</b>	<b>14%</b>	<b>18%</b>
Global Asset Allocation	12%	12%	12%	12%	12%	12%
Risk Parity	8%	8.0%	8.0%	8.0%	10.0%	10.0%
Commodities	2%	2.0%	2.0%	4.0%	4.0%	3.0%
<b>Total Other</b>	<b>22%</b>	<b>22%</b>	<b>22%</b>	<b>24%</b>	<b>26%</b>	<b>25%</b>

- **Mix A – Reduce HY in favor of RE**
  - Adjust US Large
- **Mix B – Increase Commodities**
  - Trim US Large and Small/Mid Cap
- **Mix C – Increase Risk Parity**
  - Increase AQR to 10%
  - Further reduce Diversified Fixed Income
- **Mix D – Further increase Illiquids**
  - Designed to illustrate long-term path as private equity allocation funded
  - Increases private equity to 5%
  - Increases real estate to 8%
  - Diversified Fixed Income further reduced

5-7 yr Return & Risk	<i>Expected Return (Geo)</i>	6.2%	6.3%	6.3%	6.3%	6.4%	6.5%
	<i>Asset Volatility</i>	11.4%	11.4%	11.3%	11.2%	11.4%	11.4%
	<i>Sharpe Ratio</i>	0.48	0.48	0.49	0.50	0.50	0.51

30 yr Return	<i>Geometric Expected Return</i>	7.0%	7.1%	7.2%	7.2%	7.2%	7.3%
	<i>Sharpe Ratio</i>	0.36	0.36	0.37	0.37	0.37	0.38

- **Past performance is no guarantee of future results.**
- **Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **The goal of this report is to provide a basis for substantiating asset allocation recommendations.**
- **All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.**
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**STATE OF VERMONT**  
**OFFICE OF THE STATE TREASURER**

**City of Burlington Quarterly Fee Reconciliation**

<b>Investment Manager</b>	<b>2013 Q4 Fees</b>
VPIC ABERDEEN (International Equities)	\$ 16,685.62
VPIC ACADIAN (International Equity)	\$ 8,004.14
VPIC AQR (Global Asset Allocation)	\$ 11,176.25
VPIC BLACKROCK TIPS (Tips)	\$ 821.55
VPIC CHAMPLAIN (Domestic Small / Mid Cap)	\$ 6,125.36
VPIC GAM INSTITUTIONAL (Hedge Fund-of-Funds)	\$ -
VPIC GUGGENHEIM (High Yield)	\$ 3,577.42
VPIC GROSVENOR (Hedge Fund-of-Funds)	\$ -
VPIC KDP (Domestic Fixed Income)	\$ 2,256.55
VPIC MELLON ALPHA (Global Asset Allocation)	\$ 4,861.82
VPIC MONDRIAN (Global Fixed Income)	\$ 3,404.40
VPIC MONDRIAN (International Equity)	\$ 6,142.71
VPIC ALLIANZ (Domestic Fixed Income)	\$ -
VPIC PERMAL (Hedge Fund-of-Funds)	\$ -
VPIC PIMCO ALL ASSET (Global Asset Allocation)	\$ -
VPIC PIMCO CORE PLUS (Domestic Fixed Income)	\$ 6,558.47
VPIC PIMCO UNCONSTRAINED BOND	\$ 13,129.90
VPIC POST (Domestic Fixed Income)	\$ 1,581.98
VPIC REAL ESTATE ( Real Estate)	\$ 7,544.85
VPIC SCHRODER (COMMODITIES)	\$ 13,222.37
VPIC SSGA ACWI EX US INDEX	\$ 379.30
VPIC SSGA EQUAL-WEIGHTED (Domestic Large Cap Equity)	\$ 615.20
VPIC SSGA RUSSELL 2000 EX-TOBACCO (Domestic Small Cap Equity)	\$ 499.62
VPIC SSGA S&P 400 Mid Cap (Domestic Small Cap Equity)	\$ 183.87
VPIC SSGA S+P 500 CAP WT	\$ 543.69
VPIC T ROWE ENHANCED INDEX (Domestic Large Cap Equity)	\$ 3,964.54
VPIC UNITIZED CASH (STIF FUND)	\$ -
VPIC WELLINGTON (Domestic Small Cap Equity)	\$ 6,365.06
VPIC WELLINGTON (Global Asset Allocation)	\$ 16,193.43
VPIC WELLINGTON DAS (Domestic Fixed Income)	\$ 6,645.77
VPIC WELLINGTON EMERGING DEBT (Emerging Mkt)	\$ -
VPIC HARBOURVEST	\$ -
VPIC HARBOURVEST PARTNERS IX BUYOUT FUND	\$ -
VPIC HARBOURVEST PARTNERS IX VENTURE FUND	\$ -
VPIC HARBOURVEST DOVER VIII FUND	\$ -
<b>Total: Investment Management Fees</b>	<b>\$ 140,483.87</b>
ISS/RiskMetrics (proxy voting & terrorist monitoring services)	\$ 889.33
NEPC, LLC (Investment Consultant)	\$ 6,250.00
JPMorgan (Custodian)	\$ 3,750.00
Bloomberg	\$ 237.00
Miscellaneous - Conference reimbursement, printing, advertising	\$ 489.01
VPIC Chair Salary	\$ 287.81
Treasurer's Office Administration Fee	\$ 3,260.00
<b>Total: Other fees</b>	<b>\$ 15,163.15</b>
<b>TOTAL FEES DEDUCTED FROM CASH</b>	<b>\$ 155,647.02</b>