

THIRD FISCAL QUARTER 2018 INVESTMENT PERFORMANCE ANALYSIS VERMONT PENSION INVESTMENT COMMITTEE



May 22, 2018

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MARKET ENVIRONMENT

NEPC, LLC

PERFORMANCE OVERVIEW

Q1 Market Summary

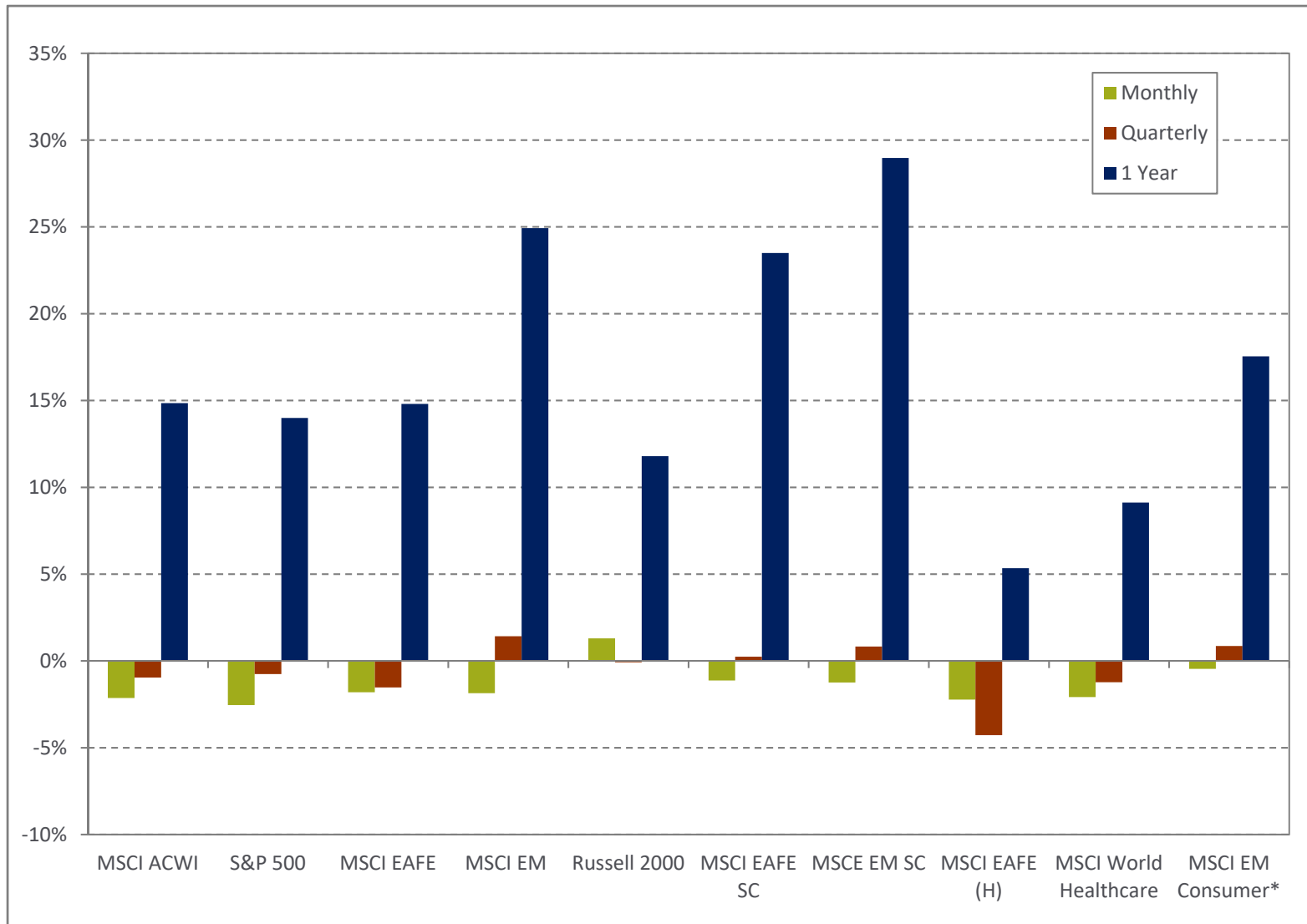
Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
											
-2.3%	8.9	33 bps	-0.8%	-1.5%	1.4%	-1.5%	-0.9%	-1.8%	7.5%	1.7%	-6.5%

- **After a strong year for equity markets in 2017, the first quarter of the year saw a spike in volatility – in part due to concerns over a potential trade war between the US and China**
- **After ending 2017 down over 10%, the US dollar continued to decline in Q1 relative to a basket of major currencies**
 - As a result, emerging market equities fared well throughout the quarter and are still supported by strong earnings and GDP growth
- **The US yield curve flattened as the Fed rate hike pushed short-term interest rates higher while long-term rates rose more modestly**

Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM Emerging Market Bond Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITs (NAREIT Composite Index).



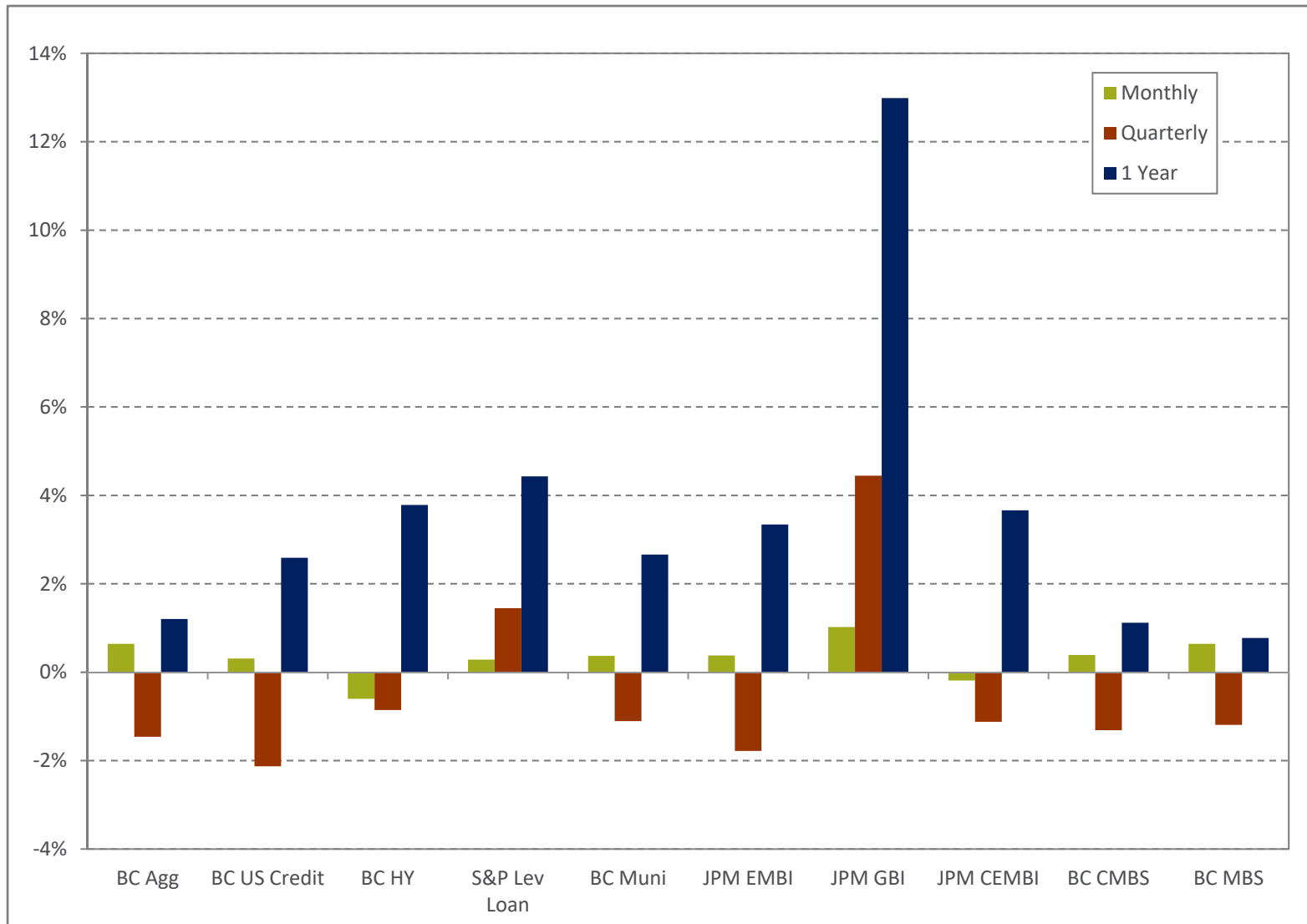
Q1 EQUITY INDEX RETURNS



**Equal weighted blend of EM Healthcare, Consumer Staples, Consumer Discretionary, and Consumer Durables Sectors
Source: Bloomberg*



Q1 CREDIT INDEX RETURNS



Source: Barclays, S&P, JPM, Bloomberg



STATE MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

NEPC, LLC

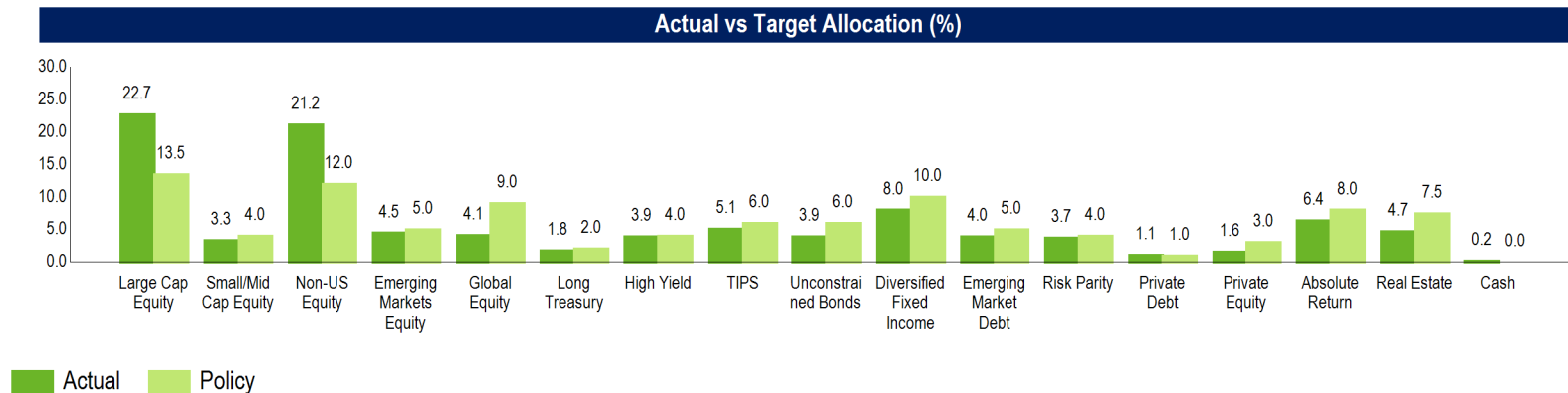
Vermont Municipal Employees

TOTAL FUND PERFORMANCE SUMMARY - NET

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	7 Yrs	Rank	10 Yrs	Rank
Total Municipal Composite	\$651,038,526	0.5%	14	7.3%	27	10.3%	36	6.2%	43	5.9%	88	6.3%	80	5.5%	73
<i>Allocation Index</i>		-0.6%	72	6.6%	50	9.5%	52	6.0%	58	5.9%	88	5.8%	90	5.3%	81
<i>Policy Index</i>		-0.4%	55	6.1%	69	8.9%	71	5.9%	66	5.8%	90	5.8%	91	5.2%	85
<i>InvMetrics Public DB < \$5 Billion Net Median</i>		-0.3%		6.6%		9.6%		6.1%		7.2%		7.0%		6.0%	

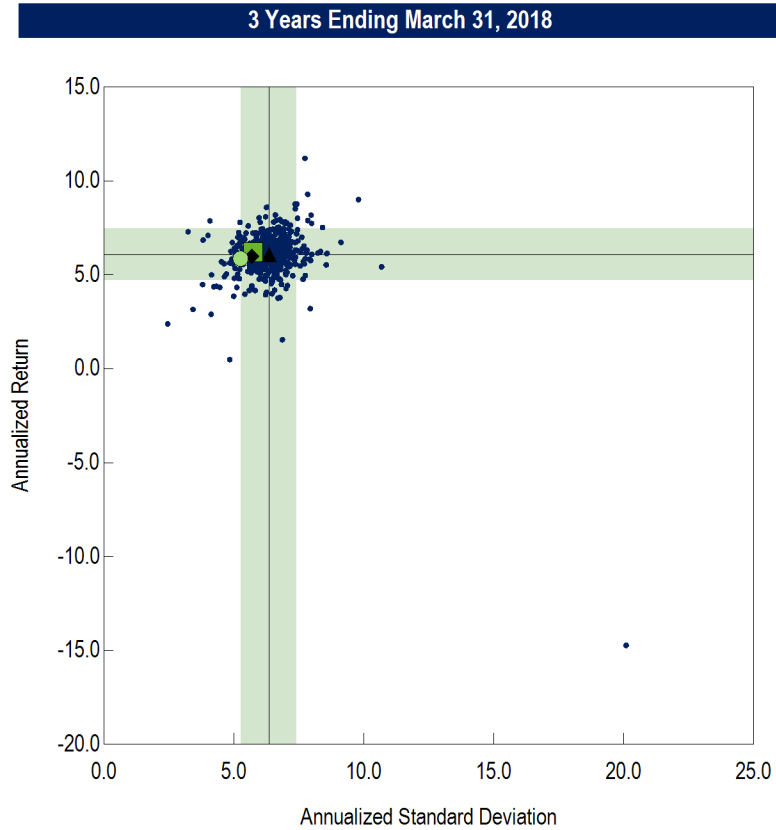
3 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Municipal Composite	6.22%	43	5.72%	22	0.99	27	1.77	9	
Allocation Index	5.99%	58	5.67%	20	0.96	31	1.68	14	
Policy Index	5.86%	66	5.25%	10	1.01	21	1.81	7	

5 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Municipal Composite	5.90%	88	5.78%	24	0.96	90	1.85	68	
Allocation Index	5.94%	88	5.50%	17	1.02	82	1.88	63	
Policy Index	5.82%	90	5.23%	9	1.05	76	1.99	51	



Vermont Municipal Employees

TOTAL FUND RISK/RETURN - NET



- Total Municipal Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB < \$5 Billion Net

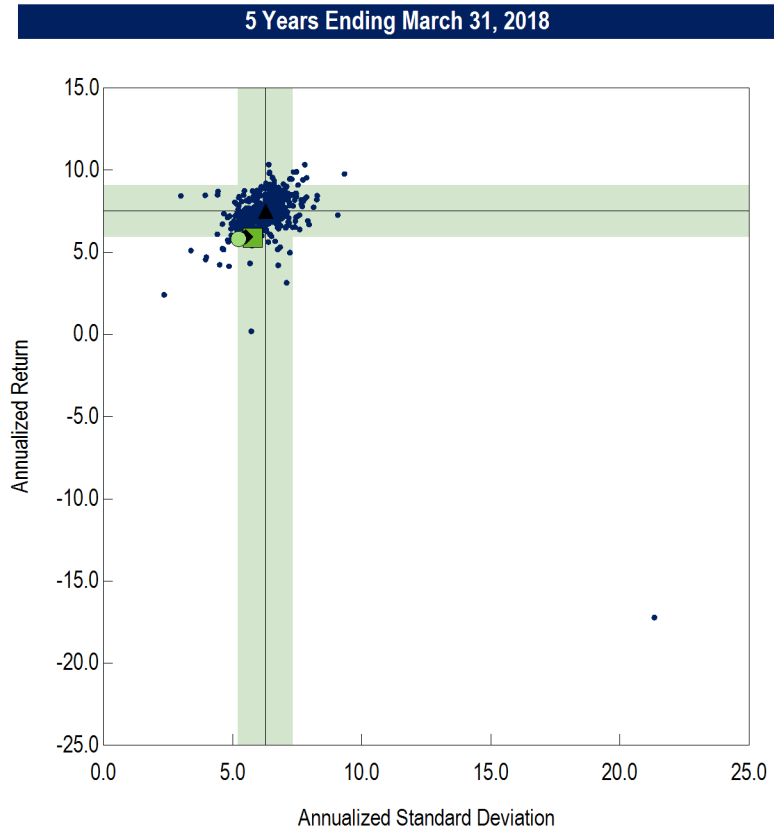
3 Years Ending March 31, 2018

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Municipal Composite	6.22%	43	5.72%	22	0.99	27
Allocation Index	5.99%	58	5.67%	20	0.96	31
S&P 500	10.78%	1	10.26%	99	1.00	25
FTSE WGBI TR	3.45%	99	5.85%	26	0.50	99
MSCI ACWI	8.12%	2	10.88%	99	0.70	88
MSCI ACWI ex USA	6.18%	45	12.47%	99	0.45	99
InvMetrics Public DB < \$5 Billion Net Median	6.13%	--	6.35%	--	0.88	--



Vermont Municipal Employees

TOTAL FUND RISK/RETURN - NET



- Total Municipal Composite
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5 Years Ending March 31, 2018

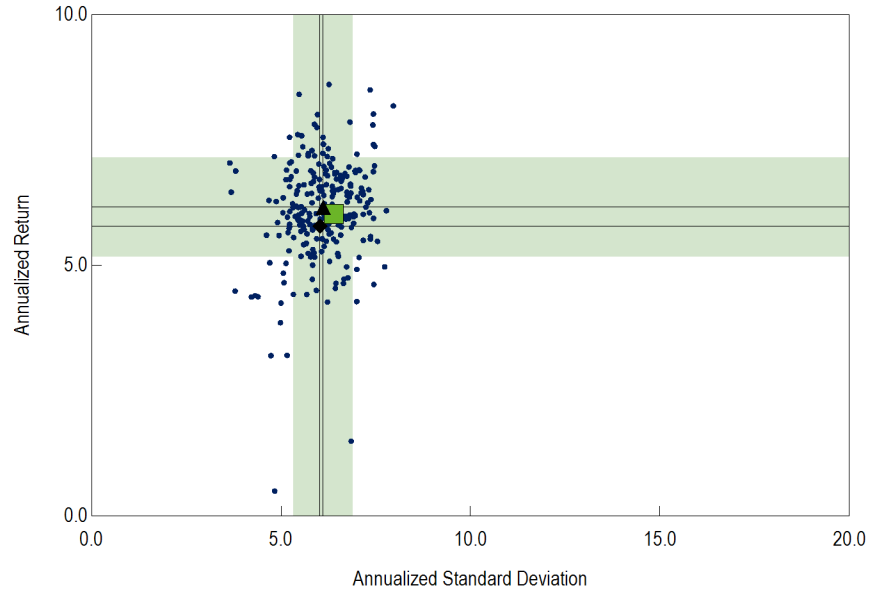
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Municipal Composite	5.90%	88	5.78%	24	0.96	90
Allocation Index	5.94%	88	5.50%	17	1.02	82
S&P 500	13.31%	1	9.87%	99	1.31	14
FTSE WGBI TR	1.18%	99	5.44%	15	0.16	99
MSCI ACWI	9.20%	2	10.35%	99	0.86	97
MSCI ACWI ex USA	5.89%	88	11.88%	99	0.47	99
InvMetrics Public DB < \$5 Billion Net Median	7.22%	--	6.28%	--	1.16	--



Vermont Municipal Employees

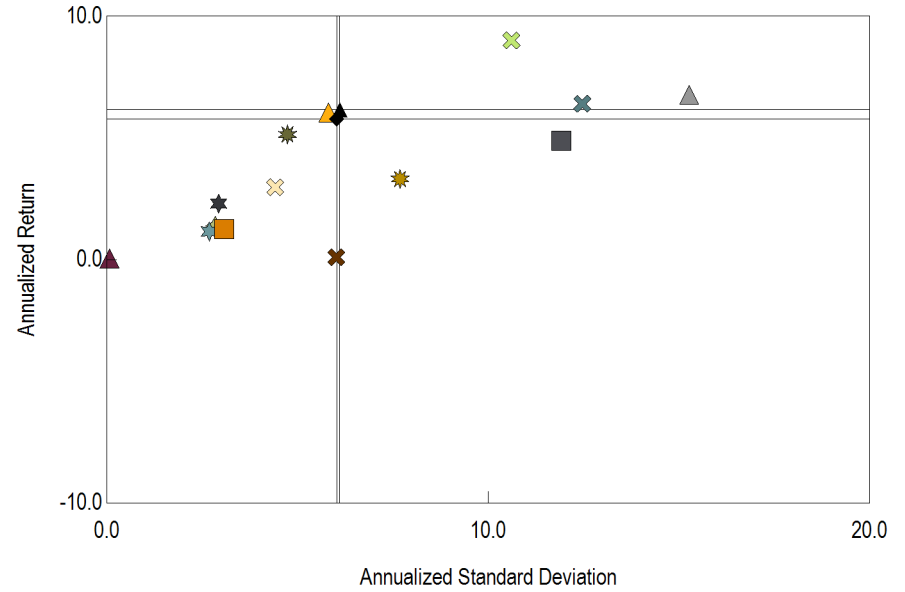
TOTAL MARKETABLE ASSETS - NET

Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2018



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

Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2018

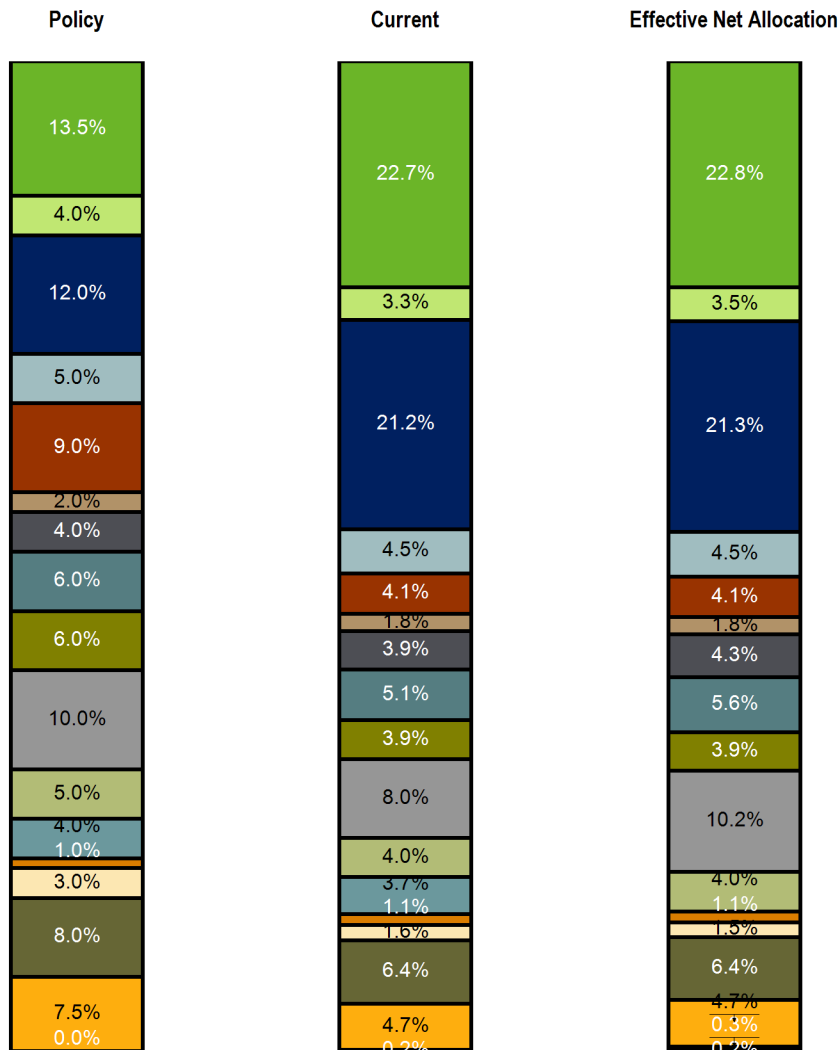


- SSgA S&P 500 Cap-Wgt
- ✖ SSgA S&P 500 Equal-Wgt
- T. Rowe
- ▲ Champlain
- ◆ Wellington
- * Acadian
- Mondrian
- * SSgA ACWI Ex US
- ▲ Aberdeen
- ◇ PIMCO Core Plus
- * SSgA Barclays Aggregate Index
- BlackRock TIPS
- ✖ KDP
- * Guggenheim
- ▲ Wellington Opportunistic EMD
- * PIMCO Unconstrained
- * Mellon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



Vermont Municipal Employees

TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



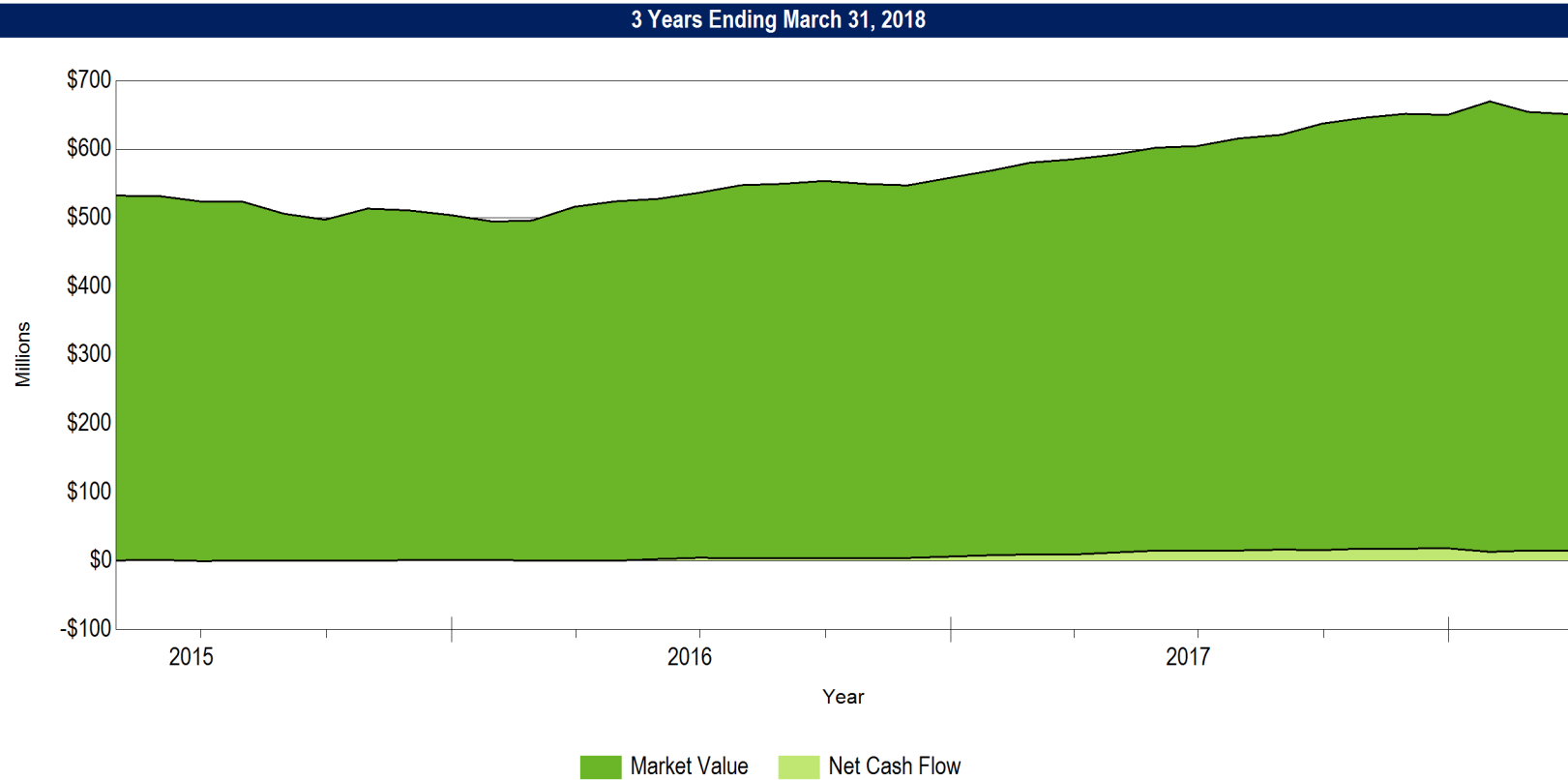
Asset Allocation vs. Target			
	Policy	Current	Effective Net Allocation
Large Cap Equity	13.5%	22.7%	22.8%
Small/Mid Cap Equity	4.0%	3.3%	3.5%
Non-US Equity	12.0%	21.2%	21.3%
Emerging Markets Equity	5.0%	4.5%	4.5%
Global Equity	9.0%	4.1%	4.1%
Long Treasury	2.0%	1.8%	1.8%
High Yield	4.0%	3.9%	4.3%
TIPS	6.0%	5.1%	5.6%
Unconstrained Bonds	6.0%	3.9%	3.9%
Diversified Fixed Income	10.0%	8.0%	10.2%
Emerging Market Debt	5.0%	4.0%	4.0%
Risk Parity	4.0%	3.7%	--
Private Debt	1.0%	1.1%	1.1%
Private Equity	3.0%	1.6%	1.5%
Absolute Return	8.0%	6.4%	6.4%
Real Estate	7.5%	4.7%	4.7%
Commodities	--	--	0.3%
Cash	0.0%	0.2%	0.2%
Total	100.0%	100.0%	100.0%

Effective Net Allocation breaks out the exposure of AQR Global Risk Premium. Absolute Return includes Grosvenor, Pinnacle Natural Resources, L.P., and Allianz Structured Alpha.



Vermont Municipal Employees

TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Year-To-Date	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$650,132,477	\$650,132,477	\$604,639,581	\$585,346,171	\$525,007,084
Net Cash Flow	-\$3,014,732	-\$3,014,732	\$1,444,022	\$7,440,545	\$20,679,222
Net Investment Change	\$3,920,780	\$3,920,780	\$44,954,922	\$58,251,809	\$105,352,219
Ending Market Value	\$651,038,526	\$651,038,526	\$651,038,526	\$651,038,526	\$651,038,526



Vermont Municipal Employees

TOTAL FUND ASSET GROWTH SUMMARY BY MANAGER

Cash Flow Summary							
Quarter Ending March 31, 2018							
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Aberdeen Partial Return	\$45,783,089	\$68,807	-\$18,000,000	-\$17,931,193	-\$68,807	\$1,104,938	\$28,956,833
Acadian	\$23,304,904	\$29,869	\$0	\$29,869	-\$29,869	-\$300,751	\$23,034,023
Allianz Structured Alpha	\$10,593,094	\$0	\$0	\$0	\$0	-\$230,803	\$10,362,290
Benefit Street Partners	\$4,147,421	\$2,665,537	\$0	\$2,665,537	\$0	\$128,224	\$6,941,182
BlackRock TIPS	\$33,548,063	\$5,575	\$0	\$5,575	-\$5,575	-\$265,577	\$33,288,061
Champlain	\$21,498,382	\$41,033	-\$724,457	-\$683,424	-\$41,033	\$721,738	\$21,536,697
GAM Unconstrained Bond	\$12,634,359	\$0	\$0	\$0	-\$16,648	\$90,775	\$12,725,134
Grosvenor	\$16,914,828	\$0	\$0	\$0	\$0	\$286,097	\$17,200,925
Guggenheim	\$24,868,876	\$26,236	-\$6,503,679	-\$6,477,443	-\$26,236	-\$223,634	\$18,167,799
Harbourvest Dover IX Fund	\$1,099,118	\$260,620	-\$41,680	\$218,940	\$0	\$294,692	\$1,612,749
Harbourvest Dover VIII Fund	\$2,048,410	\$0	-\$635,280	-\$635,280	\$0	\$23,507	\$1,436,636
Harbourvest Partners IX Buyout Fund	\$2,064,990	\$79,741	\$0	\$79,741	\$0	\$74,156	\$2,218,887
Harbourvest Partners IX Credit Opportunities	\$302,141	\$418	\$0	\$418	\$0	\$7,802	\$310,361
Harbourvest Partners IX Venture Fund	\$1,527,364	\$20,662	\$0	\$20,662	\$0	\$73,465	\$1,621,491
Harbourvest Partners X Buyout Fund	\$1,246,138	\$126,152	\$0	\$126,152	\$0	\$69,054	\$1,441,344
Harbourvest Partners X Venture Fund	\$817,855	\$135,163	\$0	\$135,163	\$0	\$55,782	\$1,008,800
HIPEP VII	\$851,315	\$0	\$0	\$0	\$0	\$112,391	\$963,706
HIPEP VIII	--	\$770,261	\$0	\$770,261	\$0	\$115,826	\$886,086
Hosking Global Equity	\$0	\$28,349,653	\$0	\$28,349,653	-\$17,584	-\$1,742,056	\$26,607,596
KDP	\$7,133,955	\$10,964	\$0	\$10,964	-\$10,964	-\$40,141	\$7,104,778
Mondrian	\$23,192,442	\$21,803	\$0	\$21,803	-\$21,803	-\$412,856	\$22,801,389
Mondrian GFI	--	--	--	--	--	--	--
PIMCO Core Plus	\$42,984,541	\$4,032,477	\$0	\$4,032,477	-\$32,477	-\$580,663	\$46,436,355
PIMCO Unconstrained	\$12,684,486	\$19,156	\$0	\$19,156	-\$19,156	\$21,166	\$12,724,808



Vermont Municipal Employees

TOTAL FUND ASSET GROWTH SUMMARY BY MANAGER

	Quarter Ending March 31, 2018						Ending Market Value
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	
Pinnacle Natural Resources, L.P.	\$13,488,440	\$0	\$0	\$0	\$0	\$383,529	\$13,871,969
Siguler Guff DREOF II	\$4,732,595	\$0	-\$228,735	-\$228,735	\$0	\$318,833	\$4,822,693
Siguler Guff DREOF II Co-Investment	\$1,701,173	\$232,980	\$0	\$232,980	\$0	\$33,085	\$1,967,237
SSgA ACWI Ex US Partial Return*	\$88,645,855	\$3,791,308	\$0	\$3,791,308	-\$15,920	-\$718,320	\$91,718,843
SSgA Barclays Aggregate Index Partial Return*	\$5,601,983	\$2,757	\$0	\$2,757	-\$2,757	-\$83,492	\$5,521,248
SSgA Russell 2000 Growth	--	--	--	--	--	--	--
SSgA S&P 500 Cap-Wgt Partial Return*	\$123,116,642	\$16,233,735	-\$28,449,225	-\$12,215,489	-\$9,123	\$5,683,073	\$116,584,225
SSgA S&P 500 Equal-Wgt Partial Return*	\$31,408,504	\$3,227	\$0	\$3,227	-\$3,227	-\$317,861	\$31,093,869
T. Rowe	\$642	\$0	\$0	\$0	\$0	\$0	\$642
Transwestern / Aslan III	\$28,766	\$0	\$0	\$0	\$0	\$0	\$28,766
UBS Trumbull	\$23,164,887	\$42,639	\$0	\$42,639	-\$42,639	\$394,171	\$23,601,698
Vermont Cash	\$2,337,931	\$0	-\$1,343,257	-\$1,343,257	\$0	\$2,864	\$997,537
Wellington Opportunistic EMD	\$30,186,204	\$0	-\$4,000,000	-\$4,000,000	\$0	-\$472,574	\$25,713,630
Wellington Small Cap Equity	\$12,110	\$0	-\$11,261	-\$11,261	\$0	\$36	\$885
Z-Terminated AQR Global Risk Premium	\$24,570,273	\$24,295	\$0	\$24,295	-\$24,295	-\$298,566	\$24,296,003
Z-Terminated GAM	\$64,184	\$0	-\$57,265	-\$57,265	\$0	\$3,048	\$9,968
Z-Terminated Mellon Dynamic Growth	\$16,074	\$0	-\$16,090	-\$16,090	\$0	\$21	\$6
Z-Terminated State Street Long U.S. Treasury Index	\$11,810,443	\$1,131	\$0	\$1,131	-\$1,131	-\$390,197	\$11,421,377
Total	\$650,132,477	\$56,996,197	-\$60,010,928	-\$3,014,732	-\$389,244	\$3,920,780	\$651,038,526



Vermont Municipal Employees

TOTAL FUND PERFORMANCE DETAIL - NET

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Municipal Composite	649,595,456	100.0	100.0	0.5	14	7.3	27	10.3	36	6.2	43	5.9	88	5.5	73
<i>Policy Index</i>				-0.6	72	6.6	50	9.5	52	6.0	58	5.9	88	5.3	81
<i>Allocation Index</i>				-0.4	55	6.1	69	8.9	71	5.9	66	5.8	90	5.2	85
<i>InvestorForce Public DB < \$5 Billion Net Median</i>				-0.3		6.6		9.6		6.1		7.2		6.0	
Total Marketable Assets	560,718,042	86.3	80.5	-0.9	91	6.1	73	9.4	59	6.0	58	5.6	94	--	--
<i>Total Marketable Assets Custom Index</i>				-0.9	89	6.1	72	9.1	66	5.8	71	5.7	92	--	--
<i>InvestorForce Public DB Net Median</i>				-0.3		6.6		9.7		6.2		7.3		6.0	
Total Domestic Equity	169,216,318	26.0	17.5	-0.3	43	9.7	51	12.6	50	9.9	32	--	--	--	--
<i>Russell 3000</i>				-0.6	49	10.5	43	13.8	43	10.2	27	13.0	30	9.6	50
<i>eV All US Equity Net Median</i>				-0.8		9.7		12.5		8.6		11.9		9.6	
Total Large Cap Equities	147,678,737	22.7	13.5	-0.8	50	10.2	53	13.4	50	10.4	29	13.2	33	10.1	28
<i>S&P 500</i>				-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	9.5	43
<i>eV US Large Cap Equity Net Median</i>				-0.9		10.4		13.3		9.1		12.3		9.1	
<i>SSgA S&P 500 Cap-Wgt</i>	116,584,225	17.9	10.0	-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	--	--
<i>S&P 500</i>				-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	9.5	43
<i>SSgA S&P 500 Equal-Wgt</i>	31,093,869	4.8	3.5	-1.0	53	9.1	63	11.9	63	9.0	52	12.8	41	10.8	16
<i>S&P 500 Equal Weighted</i>				-1.0	53	8.9	64	11.7	64	9.1	50	12.9	40	11.0	14
Total Small/Mid Cap Equities	21,537,582	3.3	4.0	3.4	17	8.5	61	10.3	67	9.1	31	12.2	30	11.0	31
<i>eV US Small-Mid Cap Equity Net Median</i>				0.0		10.0		12.7		7.8		11.2		10.2	
<i>Champlain</i>	21,536,697	3.3	4.0	3.4	17	9.7	47	15.0	41	12.3	5	13.9	13	--	--
<i>Custom SMID Cap Equity Index</i>				-0.2	45	9.1	55	11.4	55	7.9	51	11.4	59	10.2	52
<i>eV US Mid Cap Equity Net Median</i>				-0.5		9.3		12.3		7.9		11.7		10.3	



Vermont Municipal Employees

TOTAL FUND PERFORMANCE DETAIL - NET

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Non US Equity	193,104,988	29.7	26.0	-1.1	73	9.5	69	17.0	69	7.7	50	6.5	72	--	--
MSCI EAFE				-1.5	83	8.2	84	14.8	83	5.6	81	6.5	73	2.7	86
MSCI ACWI ex USA				-1.2	75	10.2	64	16.5	72	6.2	73	5.9	82	2.7	87
eV All ACWI ex-US Equity Net Median				0.0		11.7		19.4		7.6		7.7		4.3	
Total Core Non US Equity	137,540,559	21.2	12.0	-1.3	57	9.8	47	17.6	43	8.3	29	8.6	34	3.3	68
MSCI EAFE				-1.5	64	8.2	65	14.8	68	5.6	72	6.5	72	2.7	86
eV All EAFE Equity Net Median				-1.0		9.6		16.4		6.7		7.5		4.1	
Acadian	23,020,327	3.5	3.0	-1.5	63	10.6	37	22.4	22	12.5	11	11.1	14	4.0	51
Mondrian	22,801,389	3.5	3.0	-1.8	71	7.0	77	11.6	90	4.9	86	7.0	65	3.0	76
MSCI EAFE				-1.5	64	8.2	65	14.8	68	5.6	72	6.5	72	2.7	86
SSgA ACWI Ex US	91,718,843	14.1	6.0	-1.1	78	10.3	66	16.8	70	6.4	66	6.1	78	--	--
MSCI ACWI ex USA				-1.2	78	10.2	67	16.5	71	6.2	68	5.9	80	2.7	82
eV ACWI ex-US All Cap Equity Net Median				-0.1		11.6		19.2		7.6		7.9		4.3	
Total Global Equity	26,607,596	4.1	9.0	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI				-1.0	50	10.1	44	14.8	46	8.1	44	9.2	54	5.6	63
eV All Global Equity Net Median				-1.0		9.4		14.2		7.7		9.4		6.3	
Hosking Global Equity	26,607,596	4.1	9.0	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI				-1.0	50	10.1	44	14.8	46	8.1	44	9.2	54	5.6	63
eV All Global Equity Net Median				-1.0		9.4		14.2		7.7		9.4		6.3	
Total Emerging Market Equity	28,956,833	4.5	5.0	-0.8	92	8.7	93	15.7	91	6.8	83	2.8	91	--	--
Aberdeen	28,956,833	4.5	5.0	-0.8	92	8.7	93	15.7	91	6.8	83	2.8	91	6.2	13
MSCI Emerging Markets				1.4	50	17.6	45	24.9	42	8.8	54	5.0	59	3.0	75
eV Emg Mkts Equity Net Median				1.4		17.0		24.0		9.0		5.3		3.9	



Vermont Municipal Employees

TOTAL FUND PERFORMANCE DETAIL - NET

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fixed Income	173,103,190	26.6	33.0	-1.1	57	1.0	32	2.5	40	3.2	24	--	--	--	--
BBgBarc US Aggregate TR				-1.5	76	-0.2	80	1.2	64	1.2	65	1.8	57	3.6	59
eV All US Fixed Inc Net Median				-0.9		0.4		1.7		1.7		2.1		4.0	
Total Diversified Fixed Income	51,957,603	8.0	10.0	-1.5	78	-0.1	75	1.5	55	1.8	48	2.7	39	4.2	46
BBgBarc US Aggregate TR				-1.5	76	-0.2	80	1.2	64	1.2	65	1.8	57	3.6	59
eV All US Fixed Inc Net Median				-0.9		0.4		1.7		1.7		2.1		4.0	
PIMCO Core Plus	46,436,355	7.1	7.0	-1.5	62	-0.1	41	1.6	32	1.4	51	1.6	79	--	--
BBgBarc US Aggregate TR				-1.5	57	-0.2	61	1.2	66	1.2	71	1.8	61	3.6	80
SSgA Barclays Aggregate Index	5,521,248	0.8	3.0	-1.5	61	-0.3	68	1.1	70	1.2	76	--	--	--	--
BBgBarc US Aggregate TR				-1.5	57	-0.2	61	1.2	66	1.2	71	1.8	61	3.6	80
3-Month Libor Total Return USD				0.5	1	1.2	4	1.5	39	0.9	89	0.7	99	0.7	99
eV US Core Fixed Inc Net Median				-1.4		-0.1		1.4		1.4		1.9		4.0	
Total TIPS	33,288,061	5.1	6.0	-0.8	49	1.3	54	0.9	55	1.3	37	0.0	47	--	--
BlackRock TIPS	33,288,061	5.1	6.0	-0.8	--	1.3	--	0.9	--	1.3	--	0.0	--	--	--
BBgBarc US TIPS TR				-0.8	--	1.3	--	0.9	--	1.3	--	0.0	--	2.9	--
Total High Yield Bonds	25,272,577	3.9	4.0	-0.8	54	1.6	47	3.3	59	4.7	46	4.7	39	7.5	49
BBgBarc US High Yield TR				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
eV US High Yield Fixed Inc Net Median				-0.7		1.5		3.6		4.5		4.4		7.5	
KDP	7,104,778	1.1	1.0	-0.6	44	0.9	82	2.6	87	3.0	94	3.2	93	--	--
BBgBarc US High Yield TR				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
ICE BofAML BB-B US High Yield TR				-1.1	72	1.2	73	3.4	58	4.7	45	4.8	33	7.4	52
Guggenheim	18,167,799	2.8	3.0	-0.9	56	1.8	40	3.5	57	5.1	26	--	--	--	--
BBgBarc US High Yield TR				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
eV US High Yield Fixed Inc Net Median				-0.7		1.5		3.6		4.5		4.4		7.5	



Vermont Municipal Employees

TOTAL FUND PERFORMANCE DETAIL - NET

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Emerging Market Debt	25,713,630	4.0	5.0	-1.5	89	2.0	89	4.5	81	6.0	46	4.3	21	--	--
Wellington Opportunistic EMD	25,713,630	4.0	5.0	-1.5	89	2.0	89	4.5	81	6.0	46	4.3	21	--	--
JP Morgan EMBI Global Index				-1.8	96	1.1	96	3.3	96	5.5	59	3.9	33	6.8	35
eV All Emg Mkts Fixed Inc Net Median				-0.2		4.3		6.7		5.7		2.9		6.2	
Total Long Treasury	11,421,377	1.8	2.0	-3.3	--	-0.5	--	--	--	--	--	--	--	--	--
State Street Long U.S. Treasury Index	11,421,377	1.8	2.0	-3.3	--	-0.5	--	--	--	--	--	--	--	--	--
BBgBarc US Treasury Long TR				-3.3	--	-0.4	--	3.5	--	0.4	--	3.3	--	5.8	--
Total Unconstrained Fixed Income	25,449,942	3.9	6.0	0.4	60	1.6	80	3.1	79	--	--	--	--	--	--
25% HY, 25% EMD, 50% BC Agg				-1.4	93	0.6	94	2.4	86	3.3	53	3.2	42	5.7	11
BBgBarc Global Aggregate TR				1.4	20	4.3	22	7.0	21	3.1	56	1.5	86	2.6	99
eV Global Unconstrained Fixed Inc Net Median				0.6		3.1		4.6		3.4		2.6		4.4	
PIMCO Unconstrained	12,724,808	2.0	2.5	0.2	68	1.8	75	2.8	84	2.3	84	1.4	87	--	--
25% HY, 25% EMD, 50% BC Agg				-1.4	93	0.6	94	2.4	86	3.3	53	3.2	42	5.7	11
3-Month Libor Total Return USD				0.5	59	1.2	87	1.5	90	0.9	99	0.7	94	0.7	99
GAM Unconstrained Bond	12,725,134	2.0	3.5	0.7	43	1.4	84	3.4	72	--	--	--	--	--	--
3-Month LIBOR + 3%				1.2	25	3.5	38	4.6	51	4.0	30	3.7	34	3.8	66
eV Global Unconstrained Fixed Inc Net Median				0.6		3.1		4.6		3.4		2.6		4.4	
Total Risk Parity/GAA	24,296,009	3.7	4.0	-1.2	69	7.9	30	9.3	44	3.4	58	3.5	60	5.1	55
Total Risk Parity	24,296,003	3.7	4.0	-1.2	69	7.9	30	9.4	44	3.3	59	2.9	70	--	--
eV Global TAA Net Median				-0.7		6.1		8.7		3.9		4.1		5.2	
AQR Global Risk Premium	24,296,003	3.7	4.0	-1.2	69	7.9	30	9.4	44	3.3	59	2.9	70	--	--
60% MSCI World (Net) / 40% CITI WGBI				0.3	26	7.8	33	11.6	30	6.3	12	6.4	21	4.6	63
Total Cash	997,537	0.2	0.0												
Vermont Cash	997,537	0.2	0.0												



Vermont Municipal Employees

TOTAL FUND PERFORMANCE DETAIL - NET

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Real Estate	30,307,564	4.7	7.5	2.1	--	-2.1	--	-1.0	--	5.1	--	8.6	--	--	--
<i>NCREIF Property Index</i>				1.7	--	5.3	--	7.1	--	8.7	--	10.0	--	6.1	--
Total Real Estate Core	23,630,464	3.6	6.0	1.7	--	5.2	--	5.6	--	7.4	--	10.0	--	--	--
UBS Trumbull	23,601,698	3.6		1.7	--	5.2	--	6.2	--	6.5	--	8.1	--	4.1	--
Transwestern / Aslan III	28,766	0.0		0.0	--	0.0	--	0.0	--	1.0	--	6.9	--	-20.8	--
Total Real Estate Non-Core	6,677,101	1.0	1.5	3.8	--	-27.9	--	-25.5	--	-4.3	--	--	--	--	--
Siguler Guff DREOF II	4,714,101	0.7	1.0	4.7	--	-34.1	--	-31.8	--	-6.9	--	--	--	--	--
Siguler Guff DREOF II Co-Investment	1,963,000	0.3	0.5	1.5	--	7.9	--	10.4	--	--	--	--	--	--	--
Total Absolute Return	41,445,151	6.4	8.0	1.1	44	5.3	44	5.1	57	1.6	68	3.4	71	--	--
<i>HFRI Fund of Funds Composite Index</i>				0.3	65	4.7	52	5.6	53	1.9	64	3.4	73	1.6	88
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				0.9		4.8		5.9		2.8		4.5		3.4	
Grosvenor	17,200,925	2.6	3.0	1.7	31	5.8	37	6.3	44	2.9	46	4.7	46	--	--
Allianz Structured Alpha	10,362,290	1.6	2.0	-2.2	92	0.6	94	1.9	89	4.3	24	5.7	33	6.6	14
<i>91 Day T-Bills</i>				0.4	62	0.9	91	1.2	92	0.5	81	0.3	97	0.3	96
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>				0.9		4.8		5.9		2.8		4.5		3.4	
Pinnacle Natural Resources, L.P.	13,871,969	2.1	3.0	2.8	--	8.2	--	4.9	--	--	--	--	--	--	--
<i>Bloomberg Commodity Index</i>				-0.4	--	6.9	--	3.7	--	-3.2	--	-8.3	--	-7.7	--
Total Private Debt	6,915,757	1.1	1.0	19.4	--	--	--	--	--	--	--	--	--	--	--
<i>S&P/LSTA Leveraged Loan TR</i>				1.4	--	3.6	--	4.4	--	4.2	--	3.9	--	5.6	--
Benefit Street Partners	6,915,757	1.1	1.0	19.4	--	--	--	--	--	--	--	--	--	--	--
<i>Cambridge Associates US All PE (1 Qtr Lag)</i>				5.3	--	13.2	--	17.6	--	12.0	--	13.6	--	9.8	--
Total Private Equity	10,208,942	1.6	3.0	0.0	--	7.3	--	14.3	--	11.6	--	16.1	--	--	--
<i>Cambridge Associates US All PE</i>				0.0	--	9.3	--	13.2	--	11.0	--	12.6	--	10.0	--

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

Real Estate values are preliminary as of 03/31/2018.

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

Allianz Structured Alpha was included Diversified Fixed income composite prior to 04/01/2016.

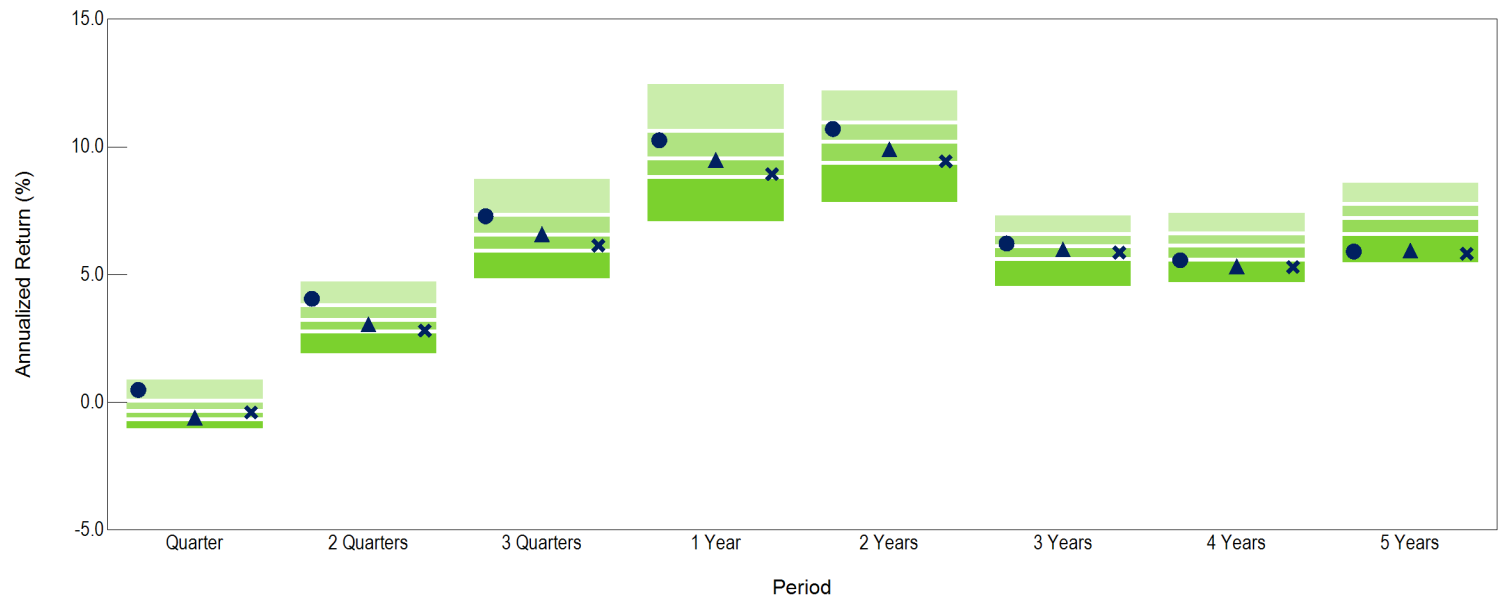
Harbourvest values based on final market values for Q4 2017 and cash adjusted through Q1 2018.



Vermont Municipal Employees

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

Total Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net



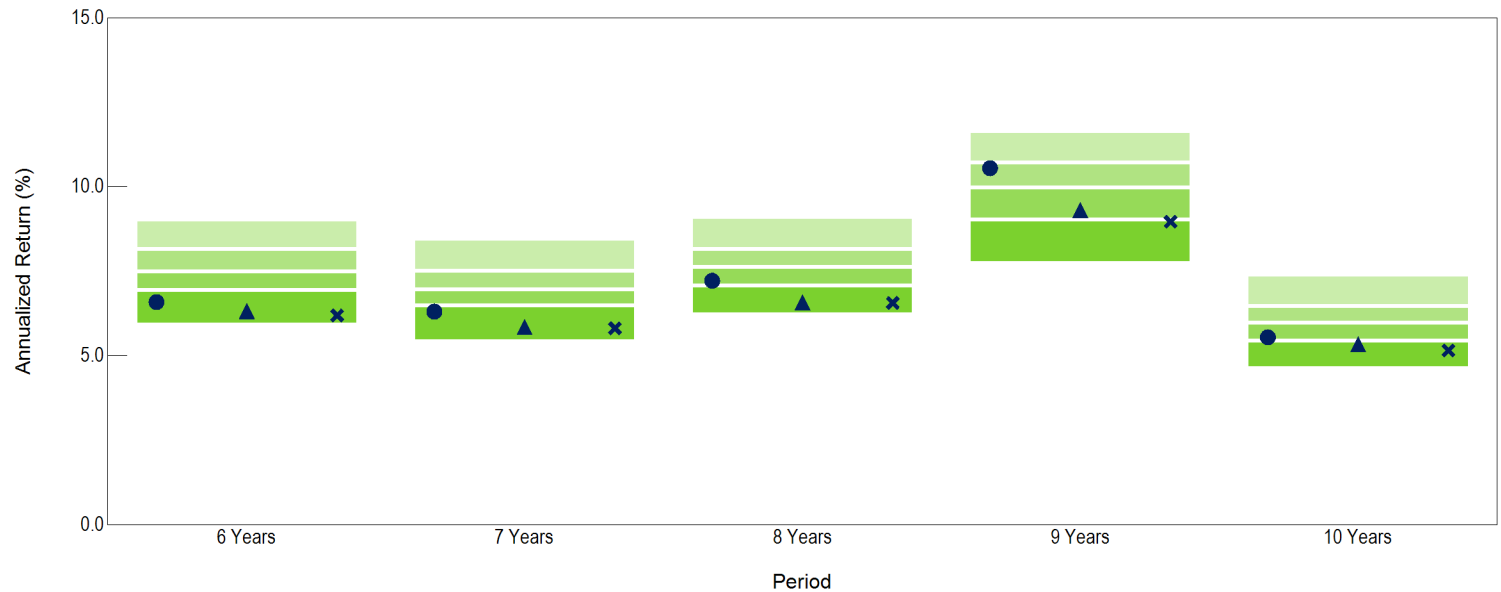
	Return (Rank)															
5th Percentile	0.9		4.8		8.8		12.5		12.3		7.4		7.5		8.7	
25th Percentile	0.1		3.8		7.4		10.6		11.0		6.6		6.6		7.8	
Median	-0.3		3.2		6.6		9.6		10.2		6.1		6.1		7.2	
75th Percentile	-0.7		2.8		6.0		8.8		9.4		5.6		5.6		6.6	
95th Percentile	-1.1		1.8		4.8		7.0		7.8		4.5		4.7		5.4	
# of Portfolios	239		239		238		238		233		229		219		208	
● Total Municipal Composite	0.5	(14)	4.1	(16)	7.3	(27)	10.3	(36)	10.7	(33)	6.2	(43)	5.6	(77)	5.9	(88)
▲ Allocation Index	-0.6	(72)	3.1	(60)	6.6	(50)	9.5	(52)	9.9	(61)	6.0	(58)	5.3	(84)	5.9	(88)
× Policy Index	-0.4	(55)	2.8	(75)	6.1	(69)	8.9	(71)	9.4	(74)	5.9	(66)	5.3	(85)	5.8	(90)



Vermont Municipal Employees

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

Total Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net



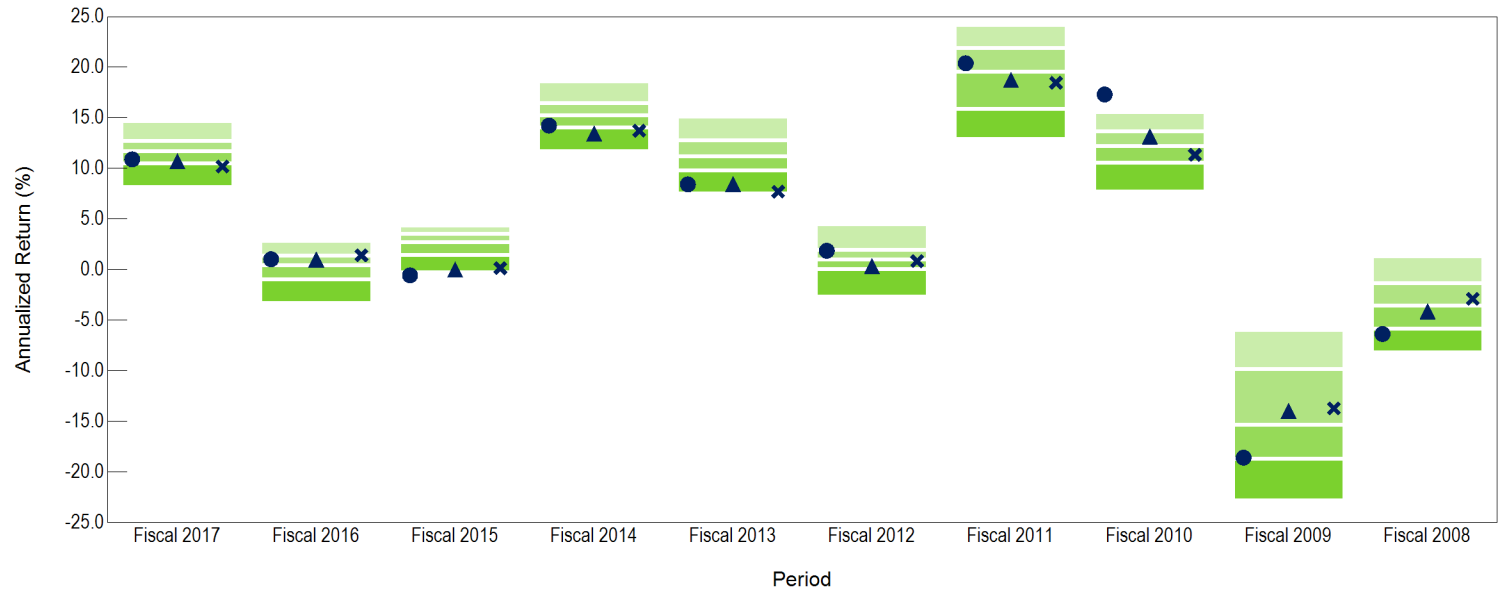
	Return (Rank)									
	6 Years		7 Years		8 Years		9 Years		10 Years	
5th Percentile	9.0		8.5		9.1		11.6		7.4	
25th Percentile	8.2		7.5		8.2		10.7		6.5	
Median	7.5		7.0		7.6		10.0		6.0	
75th Percentile	7.0		6.5		7.1		9.0		5.5	
95th Percentile	5.9		5.4		6.2		7.8		4.6	
# of Portfolios	197		178		172		161		159	
● Total Municipal Composite	6.6	(84)	6.3	(80)	7.2	(70)	10.5	(33)	5.5	(73)
▲ Allocation Index	6.3	(91)	5.8	(90)	6.6	(92)	9.3	(68)	5.3	(81)
× Policy Index	6.2	(93)	5.8	(91)	6.6	(92)	9.0	(78)	5.2	(85)



Vermont Municipal Employees

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

Total Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net



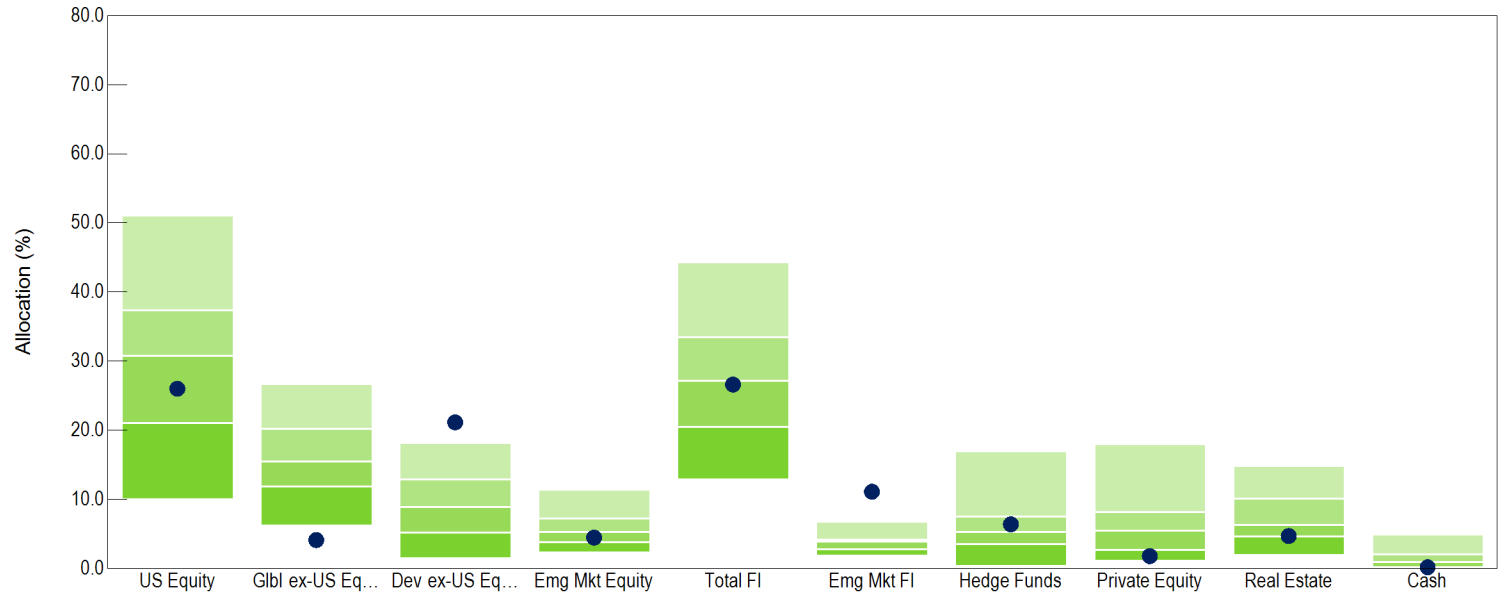
	Return (Rank)																					
5th Percentile	14.7	2.8	4.4	18.6	15.1	4.5	24.2	15.5	-6.0	1.3												
25th Percentile	12.8	1.4	3.6	16.5	12.8	2.0	21.9	13.7	-9.8	-1.3												
Median	11.7	0.5	2.7	15.3	11.2	1.0	19.6	12.3	-15.3	-3.5												
75th Percentile	10.6	-0.9	1.5	14.1	9.9	0.1	15.9	10.6	-18.7	-5.8												
95th Percentile	8.2	-3.3	-0.2	11.7	7.5	-2.6	13.0	7.7	-22.8	-8.2												
# of Portfolios	259	239	212	156	139	132	124	116	113	109												
● Total Municipal Composite	10.9	(64)	1.0	(34)	-0.6	(97)	14.2	(70)	8.4	(93)	1.9	(29)	20.4	(39)	17.3	(1)	-18.6	(73)	-6.4	(78)		
▲ Allocation Index	10.7	(71)	1.0	(35)	0.0	(95)	13.5	(89)	8.5	(93)	0.4	(68)	18.7	(58)	13.2	(37)	-14.0	(43)	-4.1	(57)		
× Policy Index	10.2	(81)	1.4	(25)	0.1	(94)	13.7	(83)	7.7	(95)	0.8	(55)	18.5	(60)	11.3	(65)	-13.7	(42)	-2.9	(45)		



Vermont Municipal Employees

TOTAL FUND ALLOCATION VS. PEER UNIVERSE - NET

Total Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net
As of March 31, 2018



	Allocation (Rank)																			
5th Percentile	51.0	26.7	18.2	11.3	44.3	6.8	16.9	17.9	14.8	4.9	-	-	-	-	-	-				
25th Percentile	37.5	20.3	13.0	7.3	33.5	4.2	7.6	8.3	10.2	2.2	-	-	-	-	-	-				
Median	30.9	15.6	9.0	5.4	27.3	4.0	5.4	5.5	6.4	1.0	-	-	-	-	-	-				
75th Percentile	21.1	11.9	5.3	3.9	20.6	2.9	3.6	2.7	4.7	0.3	-	-	-	-	-	-				
95th Percentile	10.1	6.3	1.6	2.4	13.0	1.9	0.5	1.2	2.0	0.0	-	-	-	-	-	-				
# of Portfolios	163	183	100	114	223	31	69	92	138	207	-	-	-	-	-	-				
• Total Municipal Composite	26.0	(62)	4.1	(99)	21.1	(3)	4.4	(70)	26.6	(53)	11.1	(1)	6.4	(40)	1.8	(86)	4.7	(76)	0.2	(80)

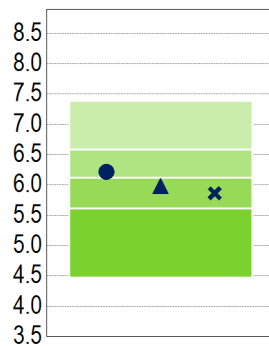


Vermont Municipal Employees

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

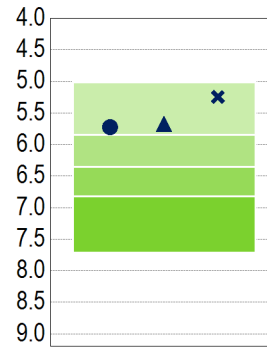
Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net
3 Years

Anlzd Return



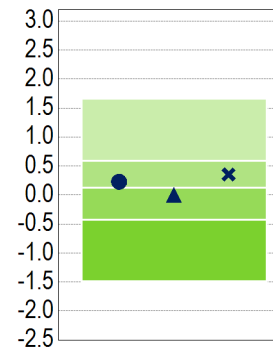
● Total Municipal Composite	
Value	6.22
Rank	43
▲ Allocation Index	
Value	5.99
Rank	58
✕ Policy Index	
Value	5.86
Rank	66
Universe	
5th %tile	7.39
25th %tile	6.60
Median	6.13
75th %tile	5.62
95th %tile	4.49

Anlzd Standard Deviation



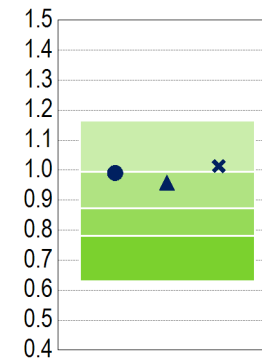
● Total Municipal Composite	
Value	5.72
Rank	22
▲ Allocation Index	
Value	5.67
Rank	20
✕ Policy Index	
Value	5.25
Rank	10
Universe	
5th %tile	5.01
25th %tile	5.83
Median	6.35
75th %tile	6.81
95th %tile	7.70

Anlzd Alpha



● Total Municipal Composite	
Value	0.23
Rank	44
▲ Allocation Index	
Value	0.00
Rank	59
✕ Policy Index	
Value	0.35
Rank	36
Universe	
5th %tile	1.66
25th %tile	0.60
Median	0.14
75th %tile	-0.41
95th %tile	-1.47

Sharpe Ratio



● Total Municipal Composite	
Value	0.99
Rank	27
▲ Allocation Index	
Value	0.96
Rank	31
✕ Policy Index	
Value	1.01
Rank	21
Universe	
5th %tile	1.17
25th %tile	1.00
Median	0.88
75th %tile	0.78
95th %tile	0.63

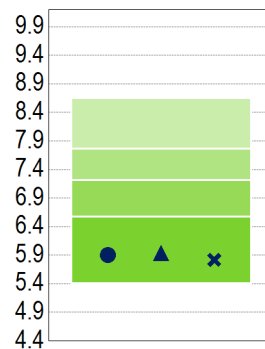


Vermont Municipal Employees

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net 5 Years

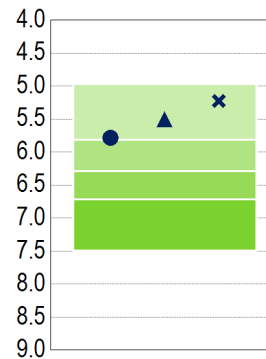
Anlzd Return



● Total Municipal Composite	
Value	5.90
Rank	88
▲ Allocation Index	
Value	5.94
Rank	88
× Policy Index	
Value	5.82
Rank	90

Universe	
5th %tile	8.65
25th %tile	7.78
Median	7.22
75th %tile	6.59
95th %tile	5.42

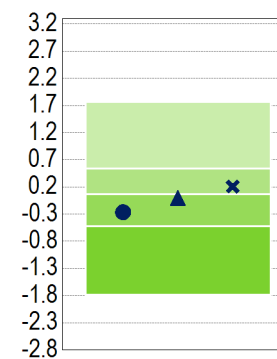
Anlzd Standard Deviation



● Total Municipal Composite	
Value	5.78
Rank	24
▲ Allocation Index	
Value	5.50
Rank	17
× Policy Index	
Value	5.23
Rank	9

Universe	
5th %tile	4.97
25th %tile	5.80
Median	6.28
75th %tile	6.70
95th %tile	7.48

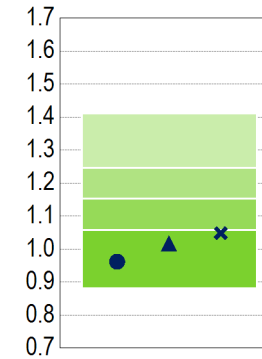
Anlzd Alpha



● Total Municipal Composite	
Value	-0.27
Rank	68
▲ Allocation Index	
Value	0.00
Rank	55
× Policy Index	
Value	0.21
Rank	44

Universe	
5th %tile	1.76
25th %tile	0.55
Median	0.07
75th %tile	-0.52
95th %tile	-1.77

Sharpe Ratio



● Total Municipal Composite	
Value	0.96
Rank	90
▲ Allocation Index	
Value	1.02
Rank	82
× Policy Index	
Value	1.05
Rank	76

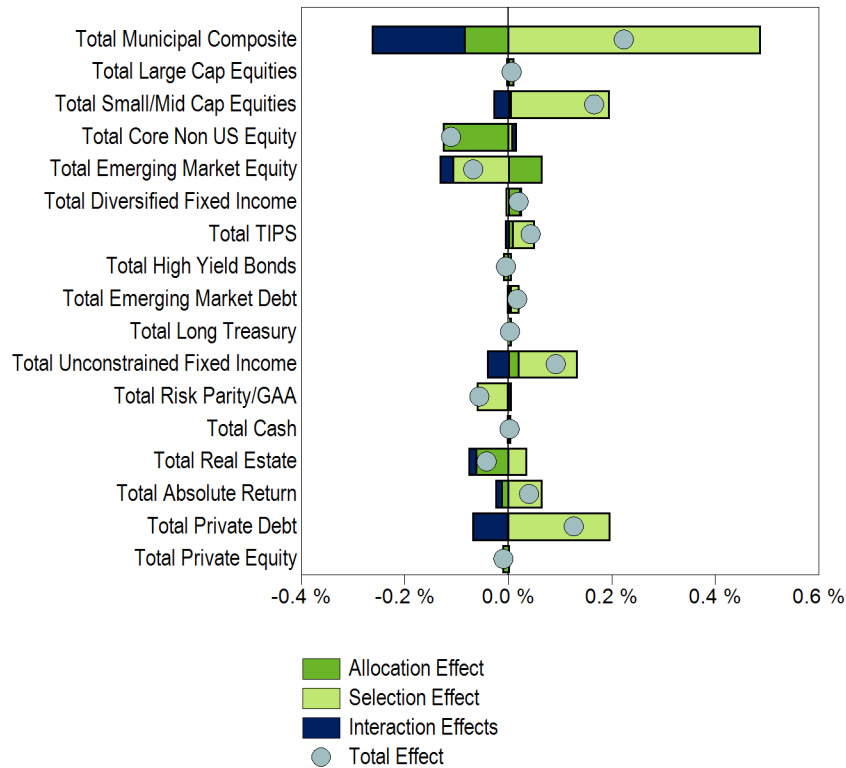
Universe	
5th %tile	1.41
25th %tile	1.25
Median	1.16
75th %tile	1.06
95th %tile	0.88



Vermont Municipal Employees

TOTAL FUND ATTRIBUTION ANALYSIS - NET

Attribution Effects Relative to Policy Index
3 Months Ending March 31, 2018



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

Attribution Summary
3 Months Ending March 31, 2018

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Large Cap Equities	-0.8%	-0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Small/Mid Cap Equities	3.4%	-1.4%	4.8%	0.2%	0.0%	0.0%	0.2%
Total Core Non US Equity	-1.3%	-1.4%	0.1%	0.0%	-0.1%	0.0%	-0.1%
Total Emerging Market Equity	-0.8%	1.4%	-2.2%	-0.1%	0.1%	0.0%	-0.1%
Total Diversified Fixed Income	-1.5%	-1.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Total TIPS	-0.8%	-1.5%	0.7%	0.0%	0.0%	0.0%	0.0%
Total High Yield Bonds	-0.8%	-0.9%	0.1%	0.0%	0.0%	0.0%	0.0%
Total Emerging Market Debt	-1.5%	-1.8%	0.3%	0.0%	0.0%	0.0%	0.0%
Total Long Treasury	-3.3%	-3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Unconstrained Fixed Income	0.4%	-1.5%	1.9%	0.1%	0.0%	0.0%	0.1%
Total Risk Parity/GAA	-1.2%	0.3%	-1.5%	-0.1%	0.0%	0.0%	-0.1%
Total Cash	0.1%	0.4%	-0.3%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	2.1%	1.7%	0.4%	0.0%	-0.1%	0.0%	0.0%
Total Absolute Return	1.1%	0.3%	0.8%	0.1%	0.0%	0.0%	0.0%
Total Private Debt	19.4%	0.0%	19.4%	0.2%	0.0%	-0.1%	0.1%
Total Private Equity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-0.4%	-0.6%	0.2%	0.5%	-0.1%	-0.2%	0.2%

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

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

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

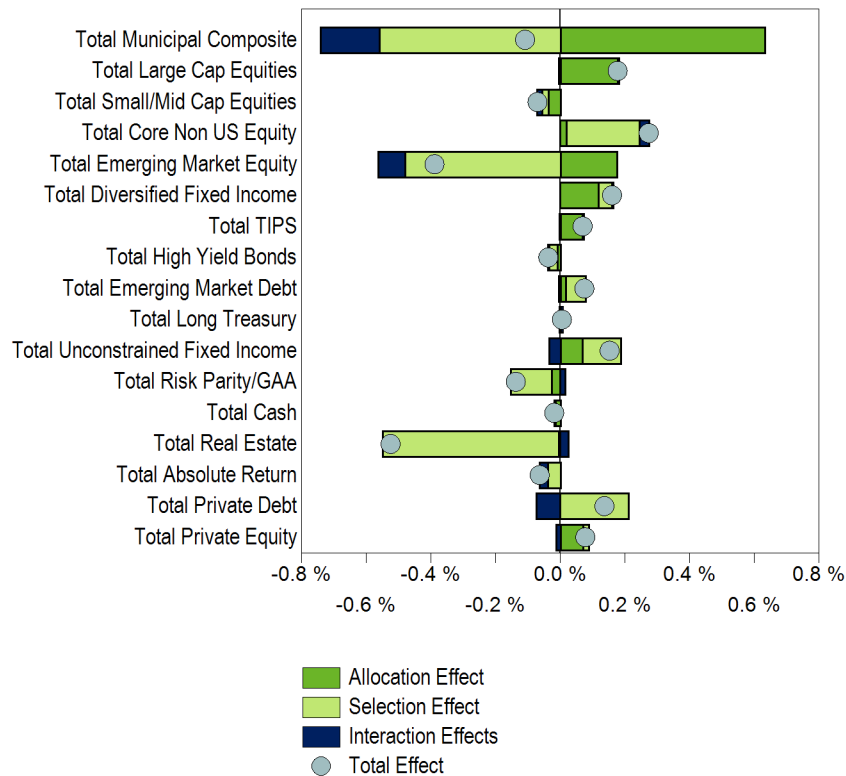
May not add up due to rounding.



Vermont Municipal Employees

TOTAL FUND ATTRIBUTION ANALYSIS - NET

Attribution Effects Relative to Policy Index
1 Year Ending March 31, 2018



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

Attribution Summary
1 Year Ending March 31, 2018

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Large Cap Equities	13.4%	13.4%	0.0%	0.0%	0.2%	0.0%	0.2%
Total Small/Mid Cap Equities	10.3%	8.9%	1.5%	0.0%	0.0%	0.0%	-0.1%
Total Core Non US Equity	17.6%	15.6%	2.0%	0.2%	0.0%	0.0%	0.3%
Total Emerging Market Equity	15.7%	24.9%	-9.2%	-0.5%	0.2%	-0.1%	-0.4%
Total Diversified Fixed Income	1.5%	1.2%	0.3%	0.0%	0.1%	0.0%	0.2%
Total TIPS	0.9%	1.2%	-0.3%	0.0%	0.1%	0.0%	0.1%
Total High Yield Bonds	3.3%	3.8%	-0.4%	0.0%	0.0%	0.0%	0.0%
Total Emerging Market Debt	4.5%	3.3%	1.2%	0.1%	0.0%	0.0%	0.1%
Total Long Treasury	--	--	--	0.0%	0.0%	0.0%	0.0%
Total Unconstrained Fixed Income	3.1%	1.2%	1.9%	0.1%	0.1%	0.0%	0.2%
Total Risk Parity/GAA	9.3%	11.6%	-2.3%	-0.1%	0.0%	0.0%	-0.1%
Total Cash	0.1%	1.2%	-1.0%	0.0%	0.0%	0.0%	0.0%
Total Real Estate	-1.0%	7.1%	-8.2%	-0.5%	0.0%	0.0%	-0.5%
Total Absolute Return	5.1%	5.7%	-0.6%	0.0%	0.0%	0.0%	-0.1%
Total Private Debt	--	--	--	0.2%	0.0%	-0.1%	0.1%
Total Private Equity	14.3%	13.2%	1.1%	0.0%	0.1%	0.0%	0.1%
Total	8.7%	8.8%	-0.1%	-0.6%	0.6%	-0.2%	-0.1%

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.



ANALYTICS DEFINITIONS

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

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

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



Vermont Municipal Employees

RISK STATISTICS - 3 YEARS

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Total Municipal Composite	100.00%	5.71%	73	5.69%	28	-0.51%	77	0.91	53	1.40	31	0.82%	29
Policy Index	--	5.82%	67	5.25%	13	0.00%	51	1.00	25	1.61	9	0.00%	1
Total Domestic Equity	26.05%	9.88%	32	10.34%	24	-0.26%	35	0.90	24	1.35	30	1.24%	1
Russell 3000	--	10.22%	27	10.36%	24	0.00%	32	0.93	20	1.45	21	0.00%	1
Total Large Cap Equities	22.73%	10.37%	29	10.30%	37	-0.42%	33	0.95	26	1.56	20	0.73%	1
S&P 500	--	10.78%	24	10.26%	35	0.00%	28	1.00	19	1.53	23	0.00%	1
Total Small/Mid Cap Equities	3.32%	9.06%	31	11.20%	26	2.43%	31	0.76	29	1.22	19	4.00%	17
Small/Mid Cap Index	--	7.88%	50	12.90%	73	0.00%	64	0.57	55	0.92	49	0.00%	1
Total Core Non US Equity	21.17%	8.30%	29	11.58%	44	3.08%	31	0.67	32	1.06	30	1.94%	7
MSCI EAFE	--	5.55%	72	12.25%	73	0.00%	80	0.41	78	0.63	75	0.00%	1
Total Emerging Market Equity	4.46%	6.76%	83	15.27%	54	-1.03%	81	0.41	86	0.82	66	5.40%	66
MSCI Emerging Markets	--	8.81%	54	16.46%	82	0.00%	66	0.50	61	0.97	50	0.00%	1
Total Fixed Income	26.65%	3.24%	24	2.99%	65	2.11%	24	0.90	22	1.28	25	1.76%	41
BBgBarc US Aggregate TR	--	1.20%	65	2.69%	57	0.00%	77	0.24	74	0.31	75	0.00%	1
Total Diversified Fixed Income	8.00%	1.79%	48	3.48%	72	0.43%	54	0.36	61	0.43	64	1.13%	24
BBgBarc US Aggregate TR	--	1.20%	65	2.69%	57	0.00%	77	0.24	74	0.31	75	0.00%	1
Total High Yield Bonds	3.89%	4.67%	46	4.63%	46	0.38%	47	0.89	48	1.46	55	1.43%	30
BBgBarc US High Yield TR	--	5.17%	24	5.60%	85	0.00%	66	0.83	60	1.52	47	0.00%	1
Total TIPS	5.12%	1.26%	37	3.08%	56	-0.04%	41	0.23	42	0.44	37	0.14%	6
BBgBarc US TIPS TR	--	1.30%	34	3.08%	56	0.00%	39	0.24	40	0.46	34	0.00%	1
Total Emerging Market Debt	3.96%	6.04%	46	5.81%	33	0.53%	38	0.94	34	1.44	34	1.21%	6
JP Morgan EMBI Global Index	--	5.48%	59	5.65%	29	0.00%	48	0.87	42	1.30	40	0.00%	1
Total Real Estate	4.67%	5.15%	--	4.93%	--	-0.74%	--	0.93	--	1.12	--	4.49%	--
NCREIF Property Index	--	8.73%	--	3.68%	--	0.00%	--	2.22	--	59.89	--	0.00%	--
Total Absolute Return	6.38%	1.57%	68	3.35%	30	-0.04%	69	0.30	65	0.35	68	1.88%	14
HFRI Fund of Funds Composite Index	--	1.87%	64	3.58%	34	0.00%	67	0.37	59	0.45	63	0.00%	1
Total Risk Parity/GAA	3.74%	3.42%	58	7.11%	58	-1.76%	60	0.40	57	0.64	50	4.56%	56
60% MSCI World (Net) / 40% CITI WGBI	--	6.31%	12	6.98%	57	0.00%	16	0.83	9	1.46	4	0.00%	1



Vermont Municipal Employees

RISK STATISTICS - 5 YEARS

	% of Tot	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Anlzd AJ	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
Total Municipal Composite	100.00%	5.60%	94	5.76%	35	-0.70%	78	0.91	90	1.60	79	0.89%	33
Policy Index	--	5.79%	90	5.23%	11	0.00%	46	1.04	73	1.85	53	0.00%	1
Total Domestic Equity	26.05%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	13.03%	30	10.00%	18	0.00%	31	1.27	16	2.25	16	0.00%	1
Total Large Cap Equities	22.73%	13.21%	33	9.92%	28	-0.14%	37	1.30	23	2.41	18	0.69%	1
S&P 500	--	13.31%	32	9.87%	26	0.00%	34	1.31	20	2.33	22	0.00%	1
Total Small/Mid Cap Equities	3.32%	12.24%	30	11.53%	33	--	--	1.03	27	1.94	13	--	--
Small/Mid Cap Index	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Core Non US Equity	21.17%	8.59%	34	11.51%	47	2.38%	35	0.72	29	1.35	23	2.00%	7
MSCI EAFE	--	6.50%	72	11.91%	71	0.00%	81	0.52	75	0.92	73	0.00%	1
Total Emerging Market Equity	4.46%	2.78%	91	14.90%	70	-1.93%	91	0.16	91	0.32	88	4.95%	61
MSCI Emerging Markets	--	4.99%	59	14.97%	73	0.00%	67	0.31	61	0.55	53	0.00%	1
Total Fixed Income	26.65%	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc US Aggregate TR	--	1.82%	57	2.93%	55	0.00%	74	0.51	69	0.72	67	0.00%	1
Total Diversified Fixed Income	8.00%	2.71%	39	4.26%	78	0.26%	58	0.55	63	0.78	61	1.57%	36
BBgBarc US Aggregate TR	--	1.82%	57	2.93%	55	0.00%	74	0.51	69	0.72	67	0.00%	1
Total High Yield Bonds	3.89%	4.67%	39	4.35%	28	0.57%	35	1.00	36	1.60	50	1.39%	39
BBgBarc US High Yield TR	--	4.99%	26	5.25%	78	0.00%	63	0.89	58	1.64	48	0.00%	1
Total TIPS	5.12%	-0.01%	47	4.55%	71	-0.05%	41	-0.08	39	-0.10	40	0.17%	1
BBgBarc US TIPS TR	--	0.05%	41	4.51%	62	0.00%	36	-0.07	35	-0.08	36	0.00%	1
Total Emerging Market Debt	3.96%	4.30%	21	6.53%	35	0.53%	28	0.61	27	0.84	21	1.13%	5
JP Morgan EMBI Global Index	--	3.86%	33	6.61%	36	0.00%	36	0.53	33	0.72	38	0.00%	1
Total Real Estate	4.67%	8.55%	--	5.30%	--	-0.72%	--	1.55	--	2.56	--	3.66%	--
NCREIF Property Index	--	10.00%	--	4.16%	--	0.00%	--	2.32	--	76.49	--	0.00%	--
Total Absolute Return	6.38%	3.43%	71	3.45%	33	0.38%	67	0.90	59	1.30	58	1.71%	8
HFRI Fund of Funds Composite Index	--	3.38%	73	3.39%	33	0.00%	70	0.90	59	1.24	61	0.00%	1
Total Risk Parity/GAA	3.74%	3.52%	60	7.34%	59	-2.03%	83	0.43	70	0.65	67	4.40%	55
60% MSCI World (Net) / 40% CITI WGBI	--	6.36%	21	6.88%	53	0.00%	28	0.88	20	1.88	4	0.00%	1



PRIVATE EQUITY PERFORMANCE ANALYSIS (AS OF 12/31/2017)

State of Vermont Executive IRR Summary

12/31/2017

Investment Name	Commitment Year	Commitment Amount	QTD	YTD	1 Year	3 Year	5 Year	Inception
HarbourVest HIPEP VII	2014	15,000,000	5.54	24.98	24.98	14.18		15.34
HarbourVest HIPEP VIII	2017	60,000,000						
HarbourVest Partners Co-Investment Fund V	2018	25,000,000						
HarbourVest Partners Dover Street IX	2016	40,000,000	8.31	43.31	43.31			86.85
HarbourVest Partners Dover Street VIII	2012	25,000,000	4.27	20.20	20.20	14.01	16.00	22.29
HarbourVest Partners IX-Buyout	2012	24,000,000	6.48	22.92	22.92	17.35	16.93	17.19
HarbourVest Partners IX-Credit Opportunities	2012	4,000,000	4.95	20.95	20.95	12.39	13.51	15.29
HarbourVest Partners IX-Venture	2012	12,000,000	5.95	16.03	16.03	11.29	15.29	15.41
HarbourVest Partners X Buyout Fund	2015	45,500,000	4.50	38.53	38.53			35.27
HarbourVest Partners X Venture Fund	2015	19,500,000	5.91	34.26	34.26			30.59
HarbourVest Partners XI Buyout Fund	2018	75,000,000						
HarbourVest Partners XI Micro Buyout	2018	12,500,000						
HarbourVest Partners XI Venture Fund	2018	37,500,000						
Total: State of Vermont		395,000,000	5.69	24.47	24.47	17.15	18.06	20.31



PRIVATE EQUITY PERFORMANCE ANALYSIS (AS OF 12/31/2017)

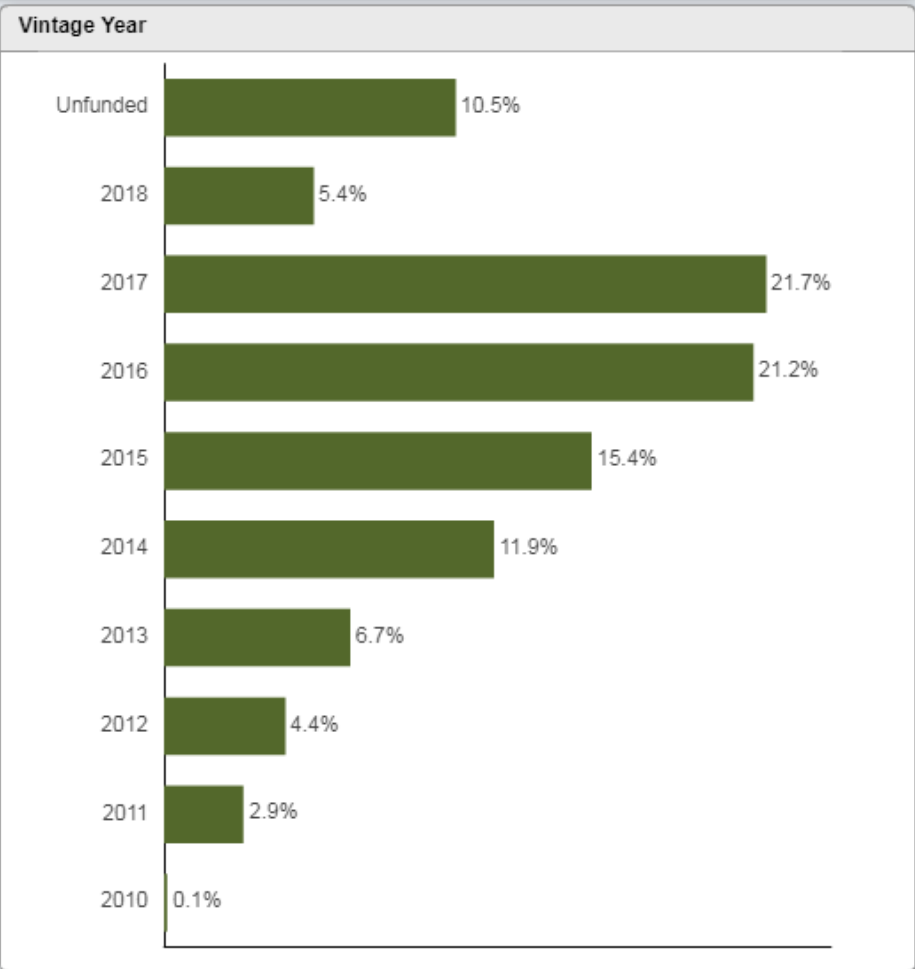
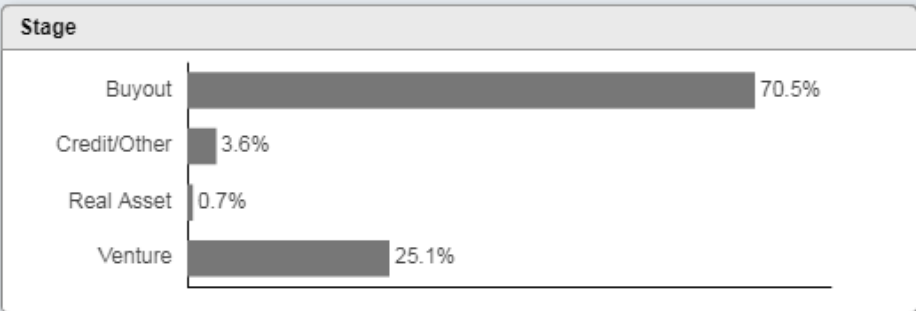
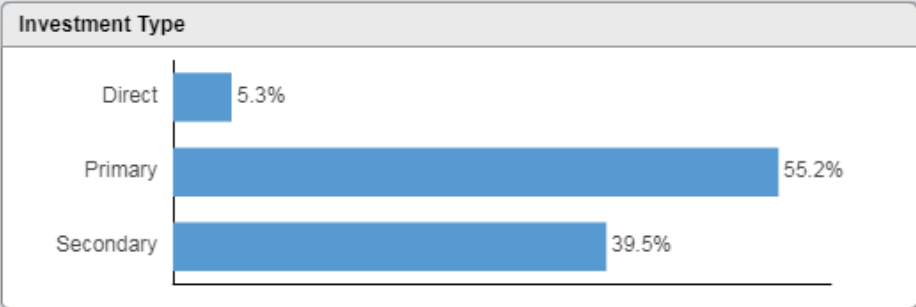
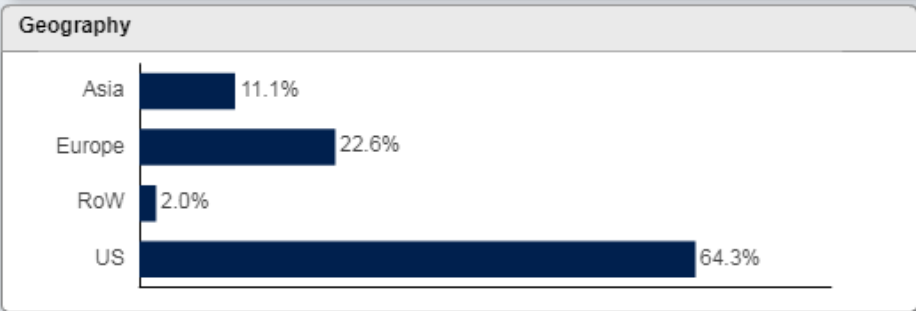
State of Vermont Performance Analysis

12/31/2017

Investment	Commitment Year	Commitment Amount	Paid in Capital	Capital to be Funded	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
State of Vermont													
1 HarbourVest HIPEP VII	2014	15,000,000	6,337,500	8,662,500	0	595,753	7,207,912	7,803,665	1,466,165	42%	0.09	1.23	15.34%
2 HarbourVest HIPEP VIII	2017	60,000,000	0	60,000,000	0	0	0	0	0	0%	0.00	0.00	N/A
3 HarbourVest Partners Co-Investment Fund V	2018	25,000,000	0	25,000,000	0	0	0	0	0	0%	0.00	0.00	N/A
4 HarbourVest Partners Dover Street IX	2016	40,000,000	8,400,000	31,600,000	0	2,258,907	9,066,206	11,325,113	2,925,113	21%	0.27	1.35	86.85%
5 HarbourVest Partners Dover Street VIII	2012	25,000,000	21,875,000	3,125,000	0	17,247,009	15,737,399	32,984,408	11,109,408	88%	0.79	1.51	22.29%
6 HarbourVest Partners IX-Buyout	2012	24,000,000	16,140,000	7,860,000	47,188	8,223,507	15,998,310	24,221,817	8,034,629	67%	0.51	1.50	17.19%
7 HarbourVest Partners IX-Credit Opportunities	2012	4,000,000	2,600,000	1,400,000	10,265	1,305,838	2,340,486	3,646,324	1,036,059	65%	0.50	1.40	15.29%
8 HarbourVest Partners IX-Venture	2012	12,000,000	10,620,000	1,380,000	37,671	4,056,676	11,749,868	15,806,544	5,148,873	89%	0.38	1.48	15.41%
9 HarbourVest Partners X Buyout Fund	2015	45,500,000	7,280,000	38,220,000	2,787	850,805	8,989,054	9,839,859	2,557,072	16%	0.12	1.35	35.27%
10 HarbourVest Partners X Venture Fund	2015	19,500,000	5,021,250	14,478,750	1,672	369,019	5,899,622	6,268,641	1,245,719	26%	0.07	1.25	30.59%
11 HarbourVest Partners XI Buyout Fund	2018	75,000,000	0	75,000,000	0	0	0	0	0	0%	0.00	0.00	N/A
12 HarbourVest Partners XI Micro Buyout	2018	12,500,000	0	12,500,000	0	0	0	0	0	0%	0.00	0.00	N/A
13 HarbourVest Partners XI Venture Fund	2018	37,500,000	0	37,500,000	0	0	0	0	0	0%	0.00	0.00	N/A
Subtotal: State of Vermont		395,000,000	78,273,750	316,726,250	99,583	34,907,514	76,988,857	111,896,371	33,523,038	20%	0.45	1.43	20.31%
Total : State of Vermont		395,000,000	78,273,750	316,726,250	99,583	34,907,514	76,988,857	111,896,371	33,523,038	20%	0.45	1.43	20.31%



PRIVATE EQUITY INVESTMENT DIVERSIFICATION AS OF 3/31/2018

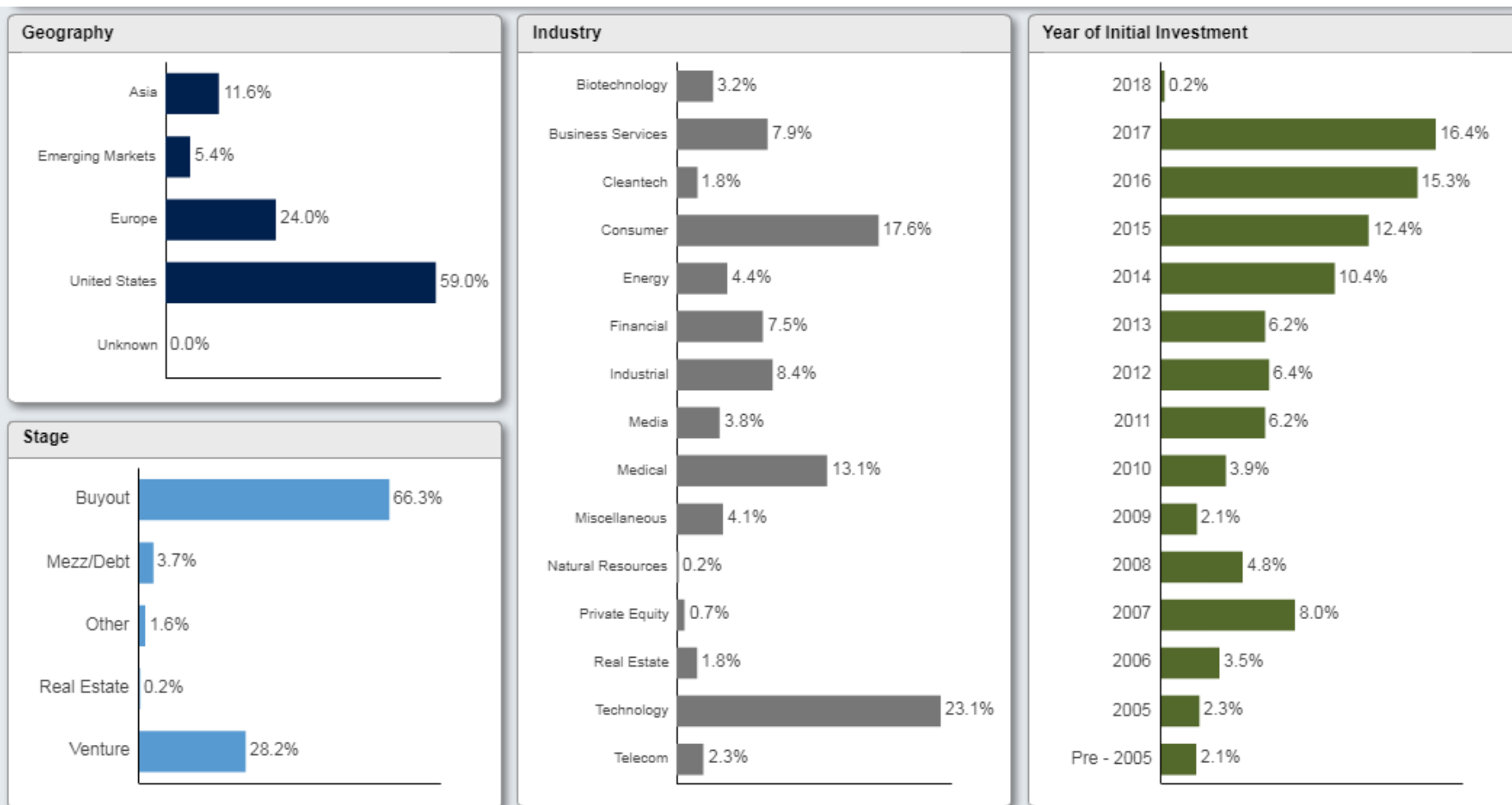


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 insight into your portfolio

For questions and additional information, please contact clientrelations@harbourvest.com.



PRIVATE EQUITY COMPANY DIVERSIFICATION AS OF 3/31/2018



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 insight into your portfolio

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REAL ESTATE PERFORMANCE ANALYSIS (AS OF 12/31/2017)

State of Vermont Executive IRR Summary

12/31/2017

Investment Name	Commitment Year	Commitment Amount	QTD	YTD	1 Year	3 Year	5 Year	Inception
Brookfield Strategic Real Estate Partners III, L.P.	2017	100,000,000						
RREEF America REIT III	2006	70,000,000	-2.55	-7.20	-7.20	6.42	17.55	-7.38
Siguler Guff Distressed Real Estate Opportunities II	2014	40,000,000	5.82	15.73	15.73	11.18		10.63
Siguler Guff DREOF II Co-Investment	2016	15,000,000	11.31	15.25	15.25			17.91
Transwestern Aslan Realty Partnership III	2005	5,000,000	0.02	12.46	12.46	9.25	21.98	-15.27
Total: State of Vermont		230,000,000	6.94	15.32	15.32	10.98	14.30	-3.60



REAL ESTATE PERFORMANCE ANALYSIS (AS OF 12/31/2017)

State of Vermont Performance Analysis 12/31/2017

Investment	Commitment Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	Total Value	Net Benefit	Call Ratio	DPI Ratio	TVPI Ratio	IRR
State of Vermont												
1 Brookfield Strategic Real Estate Partners III, L.P.	2017	100,000,000	0	100,000,000	0		0	0	0%	0.00	0.00	N/A
2 RREEF America REIT III	2006	70,000,000	70,000,000	0	40,783,431	0	40,783,431	-29,216,569	100%	0.58	0.58	-7.38%
3 Siguler Guff Distressed Real Estate Opportunities II	2014	40,000,000	32,620,000	7,380,000	6,496,650	35,310,911	41,807,561	9,187,561	82%	0.20	1.28	10.63%
4 Siguler Guff DREOF II Co-Investment	2016	15,000,000	10,260,217	4,739,783	0	12,047,964	12,047,964	1,787,747	68%	0.00	1.17	17.91%
5 Transwestern Aslan Realty Partnership III	2005	5,000,000	5,000,000	0	1,446,198	0	1,446,198	-3,553,802	100%	0.29	0.29	-15.27%
Subtotal: State of Vermont		230,000,000	117,880,217	112,119,783	48,726,278	47,358,875	96,085,153	-21,795,064	51%	0.41	0.82	-3.60%
Total : State of Vermont		230,000,000	117,880,217	112,119,783	48,726,278	47,358,875	96,085,153	-21,795,064	51%	0.41	0.82	-3.60%



APPENDIX

NEPC, LLC

CALENDAR YEAR INDEX PERFORMANCE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	Jan	Feb	Mar	Q1	YTD
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	5.7%	-3.7%	-2.5%	-0.8%	-0.8%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	5.5%	-3.7%	-2.3%	-0.7%	-0.7%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	2.6%	-3.9%	1.3%	-0.1%	-0.1%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	3.0%	-4.1%	1.0%	-0.2%	-0.2%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	5.0%	-4.5%	-1.8%	-1.5%	-1.5%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	8.3%	-4.6%	-1.9%	1.4%	1.4%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	5.6%	-4.2%	-2.1%	-1.0%	-1.0%
Private Equity*	13.7%	19.7%	7.9%	12.5%	20.6%	12.7%	9.6%	8.3%	13.7%*	-	-	-	-	-
BC TIPS	11.4%	6.3%	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-0.9%	-1.0%	1.1%	-0.8%	-0.8%
BC Municipal Bond	12.9%	2.4%	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	6.2%	-1.2%	-0.3%	0.4%	-1.1%	-1.1%
BC Muni High Yield	32.7%	7.8%	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	-0.9%	0.1%	1.5%	0.6%	0.6%
BC US Corp High Yield	58.2%	15.1%	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	0.6%	-0.8%	-0.6%	-0.9%	-0.9%
BC US Aggregate	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	4.2%	-1.2%	-0.9%	0.6%	-1.5%	-1.5%
BC Global Aggregate	-6.5%	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	7.4%	1.2%	-0.9%	1.1%	1.4%	1.4%
BC Long Treasuries	-12.9%	9.4%	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-3.2%	-3.0%	3.0%	-3.3%	-3.3%
BC US Long Credit	16.8%	10.7%	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	13.7%	-1.3%	-3.3%	0.7%	-3.8%	-3.8%
BC US STRIPS 20+ Yr	-36.0%	10.9%	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	10.7%	-4.2%	-4.6%	4.4%	-4.6%	-4.6%
JPM GBI-EM Glob Div	22.0%	15.7%	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	14.6%	4.5%	-1.0%	1.0%	4.4%	4.4%
JPM EMBI Glob Div	29.8%	12.2%	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	12.2%	0.0%	-2.0%	0.3%	-1.7%	-1.7%
CS Leveraged Loan	44.9%	10.0%	1.8%	9.4%	6.2%	2.1%	-0.4%	9.9%	5.2%	1.1%	0.2%	0.3%	1.6%	1.6%
CS Hedge Fund	18.6%	10.9%	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	2.7%	-2.1%	-	0.5%	0.5%
BBG Commodity	18.9%	16.8%	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	0.8%	2.0%	-1.7%	-0.6%	-0.4%	-0.4%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	5.8%	-9.7%	-6.9%	-11.1%	-11.1%
FTSE NAREIT Eqy REITs	28.0%	28.0%	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	3.5%	-4.2%	-7.7%	3.8%	-8.2%	-8.2%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse, Thomson One
 *Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



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