

# **THIRD FISCAL QUARTER 2018 INVESTMENT PERFORMANCE ANALYSIS VERMONT PENSION INVESTMENT COMMITTEE**



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# MARKET ENVIRONMENT

NEPC, LLC

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# PERFORMANCE OVERVIEW

## Q1 Market Summary

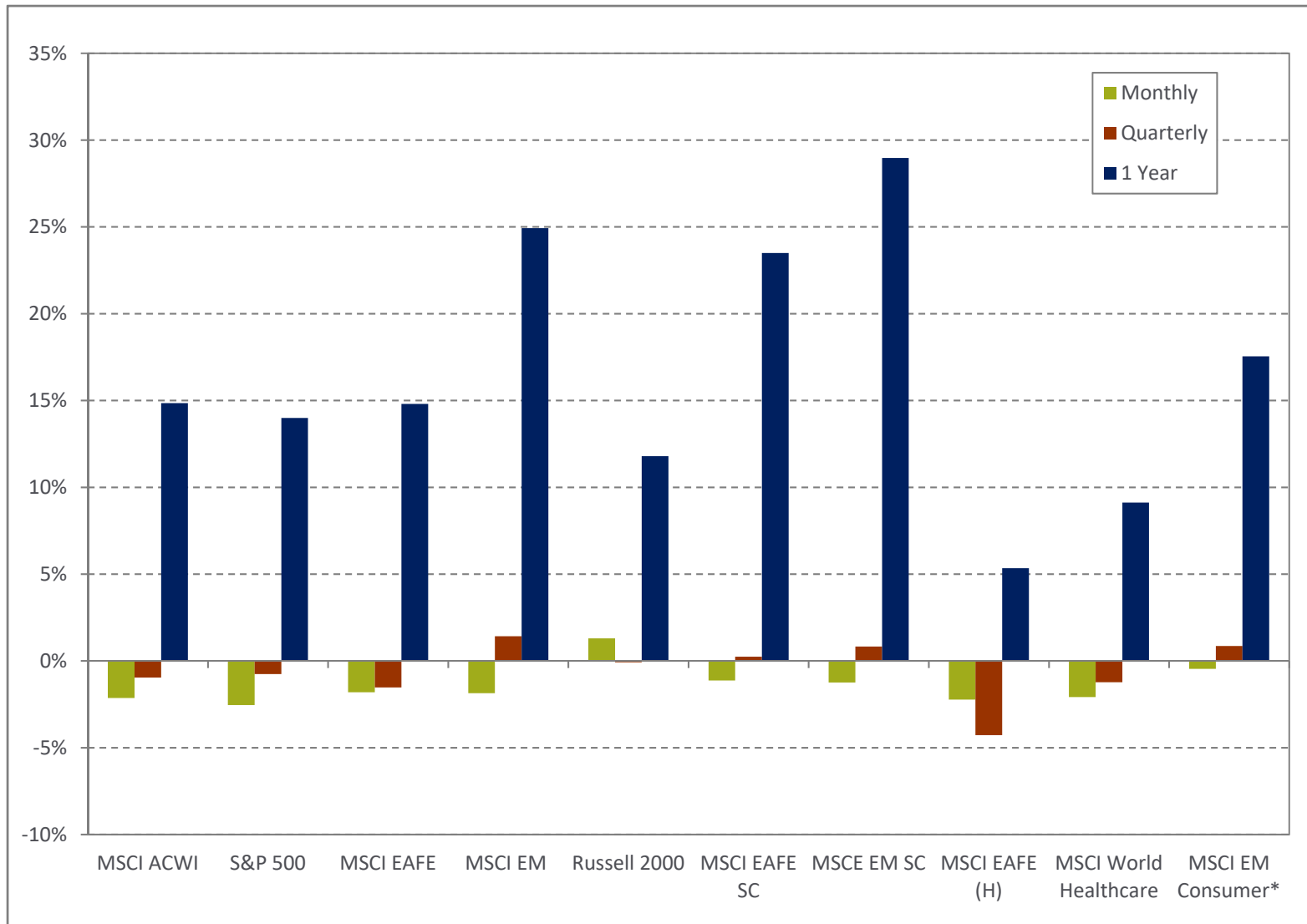
Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
											
-2.3%	8.9	33 bps	-0.8%	-1.5%	1.4%	-1.5%	-0.9%	-1.8%	7.5%	1.7%	-6.5%

- **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).



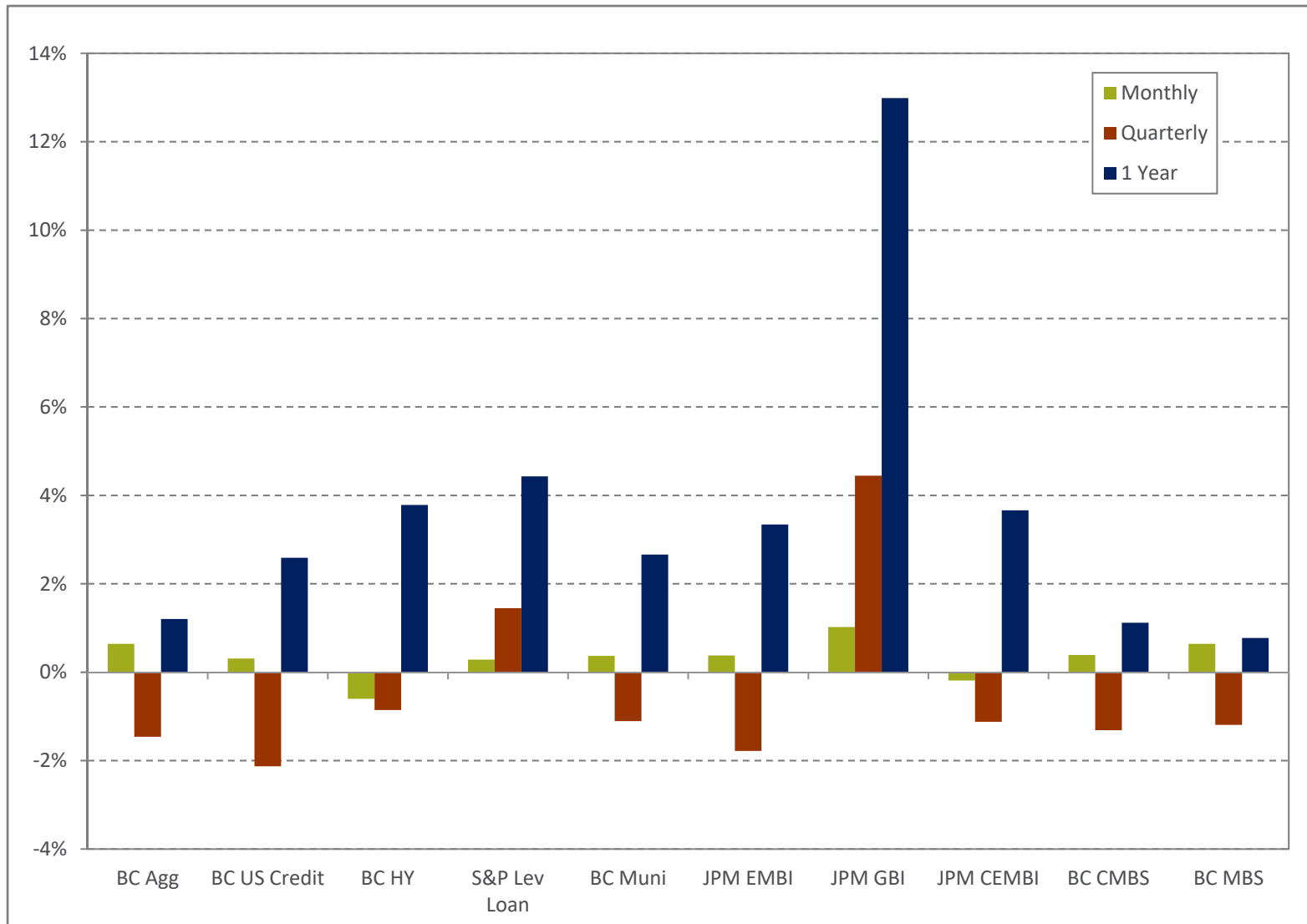
# Q1 EQUITY INDEX RETURNS



*\*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 EMPLOYEES' RETIREMENT SYSTEM

NEPC, LLC

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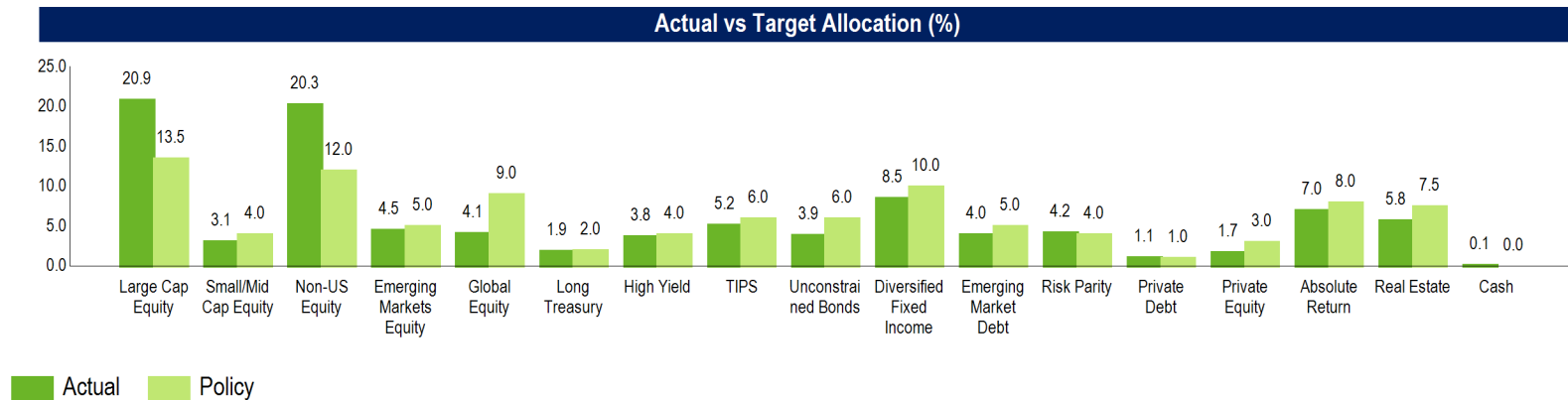
## Vermont State Employees

# 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
<b>Total Employees Composite</b>	<b>\$1,831,060,596</b>	<b>0.6%</b>	<b>9</b>	<b>7.3%</b>	<b>28</b>	<b>10.2%</b>	<b>38</b>	<b>6.2%</b>	<b>42</b>	<b>5.9%</b>	<b>88</b>	<b>6.3%</b>	<b>81</b>	<b>5.5%</b>	<b>75</b>
Allocation Index		-0.5%	66	6.6%	50	9.5%	52	5.9%	63	5.9%	88	5.8%	92	5.2%	84
Policy Index		-0.4%	55	6.1%	69	8.9%	71	5.9%	66	5.8%	90	5.8%	91	5.1%	86
InvMetrics Public DB < \$5 Billion Net Median		-0.3%		6.6%		9.6%		6.1%		7.2%		7.0%		6.0%	

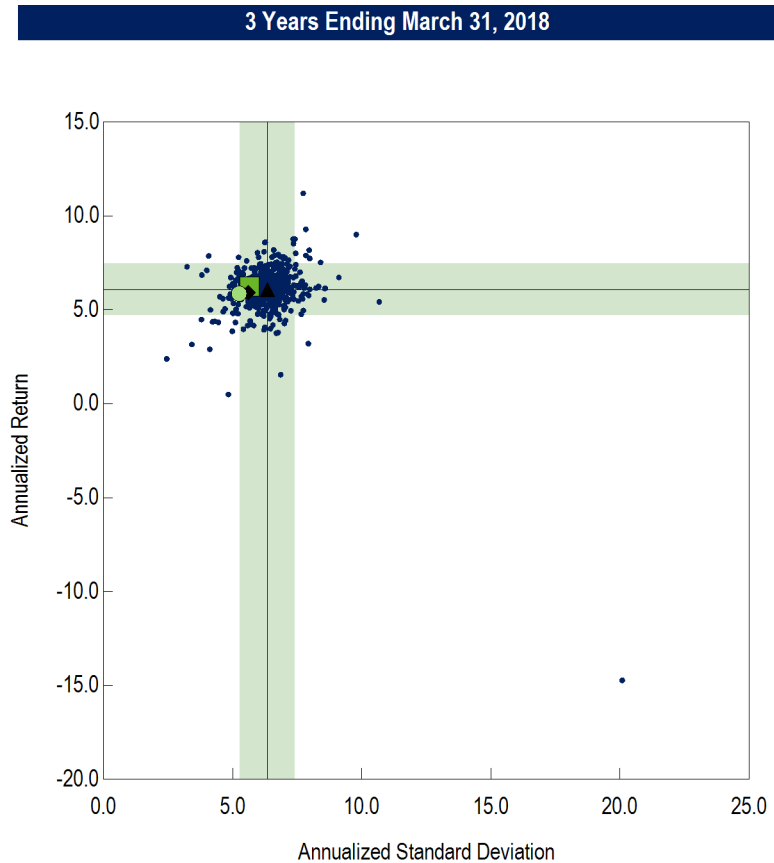
3 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Employees Composite	6.24%	42	5.66%	19	1.01	22	1.79		8
Allocation Index	5.90%	63	5.60%	18	0.96	32	1.69		14
Policy Index	5.86%	66	5.25%	10	1.01	21	1.81		7

5 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Employees Composite	5.89%	88	5.74%	23	0.97	90	1.86		66
Allocation Index	5.87%	88	5.45%	15	1.01	83	1.89		62
Policy Index	5.82%	90	5.23%	9	1.05	76	1.99		51



# Vermont State Employees

## TOTAL FUND RISK/RETURN - NET



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

3 Years Ending March 31, 2018

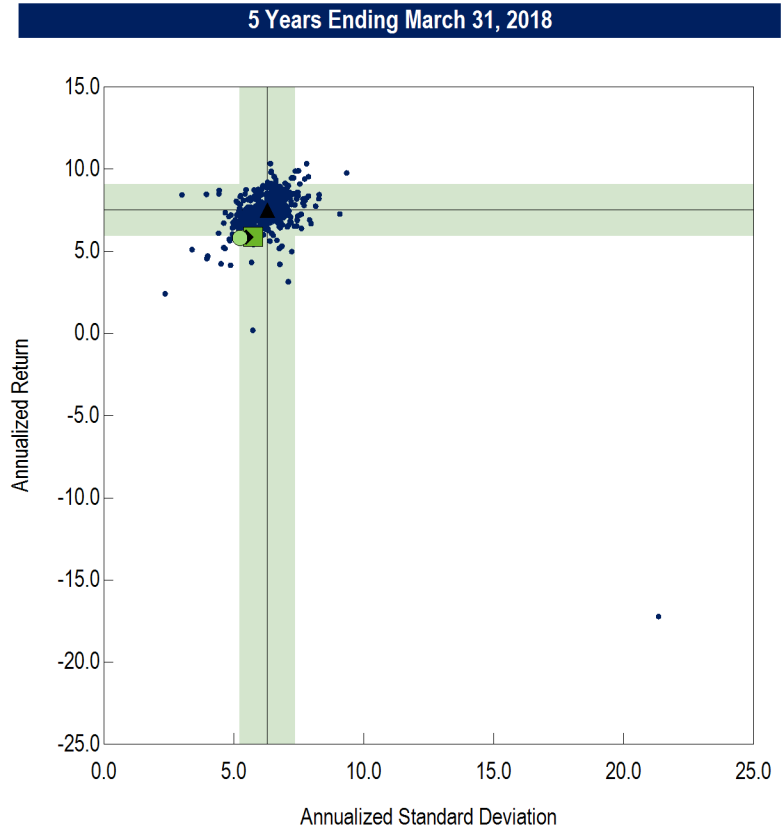
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Employees Composite	6.24%	42	5.66%	19	1.01	22
Allocation Index	5.90%	63	5.60%	18	0.96	32
S&P 500	10.78%	1	10.26%	99	1.00	25
FTSE WGBI TR	3.45%	99	5.85%	26	0.50	99
MSCI ACWI	8.12%	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 State Employees

## TOTAL FUND RISK/RETURN - NET



5 Years Ending March 31, 2018

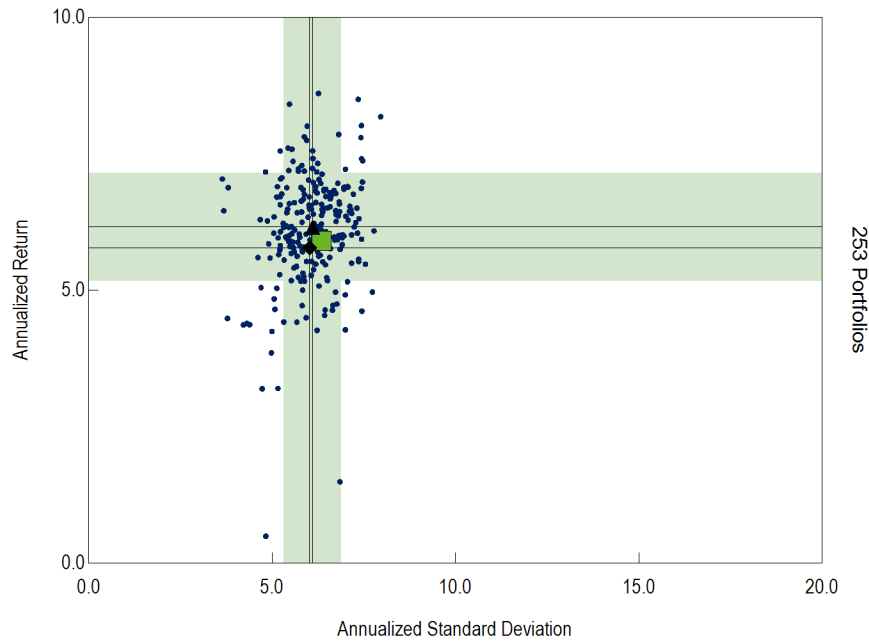
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Employees Composite	5.89%	88	5.74%	23	0.97	90
Allocation Index	5.87%	88	5.45%	15	1.01	83
S&P 500	13.31%	1	9.87%	99	1.31	14
FTSE WGBI TR	1.18%	99	5.44%	15	0.16	99
MSCI ACWI	9.20%	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 State Employees

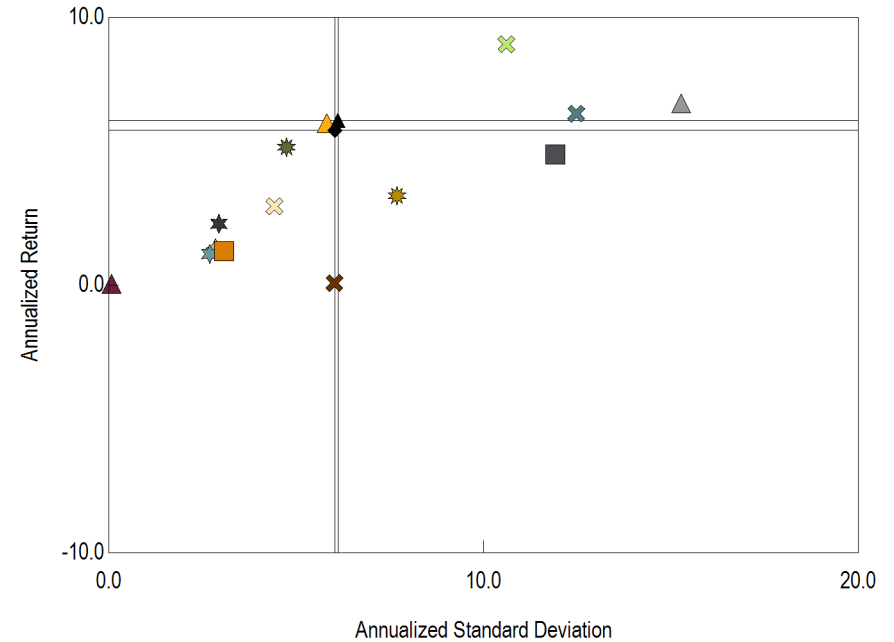
## TOTAL MARKETABLE ASSETS - NET

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

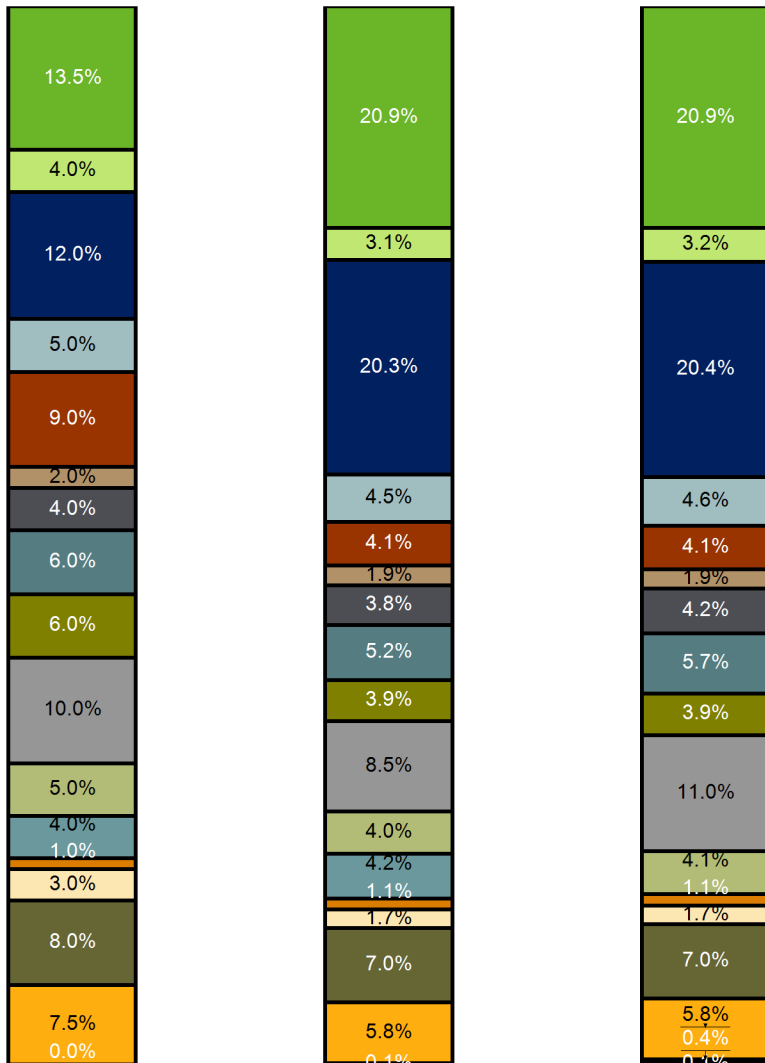


- |                                 |  |
|---------------------------------|--|
| ■ SSgA S&P 500 Cap-Wgt          | ■ BlackRock TIPS                       |
| ⊗ SSgA S&P 500 Equal-Wgt        | ⊗ KDP                                  |
| * T. Rowe                       | * Guggenheim                  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



## Vermont State Employees

# TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



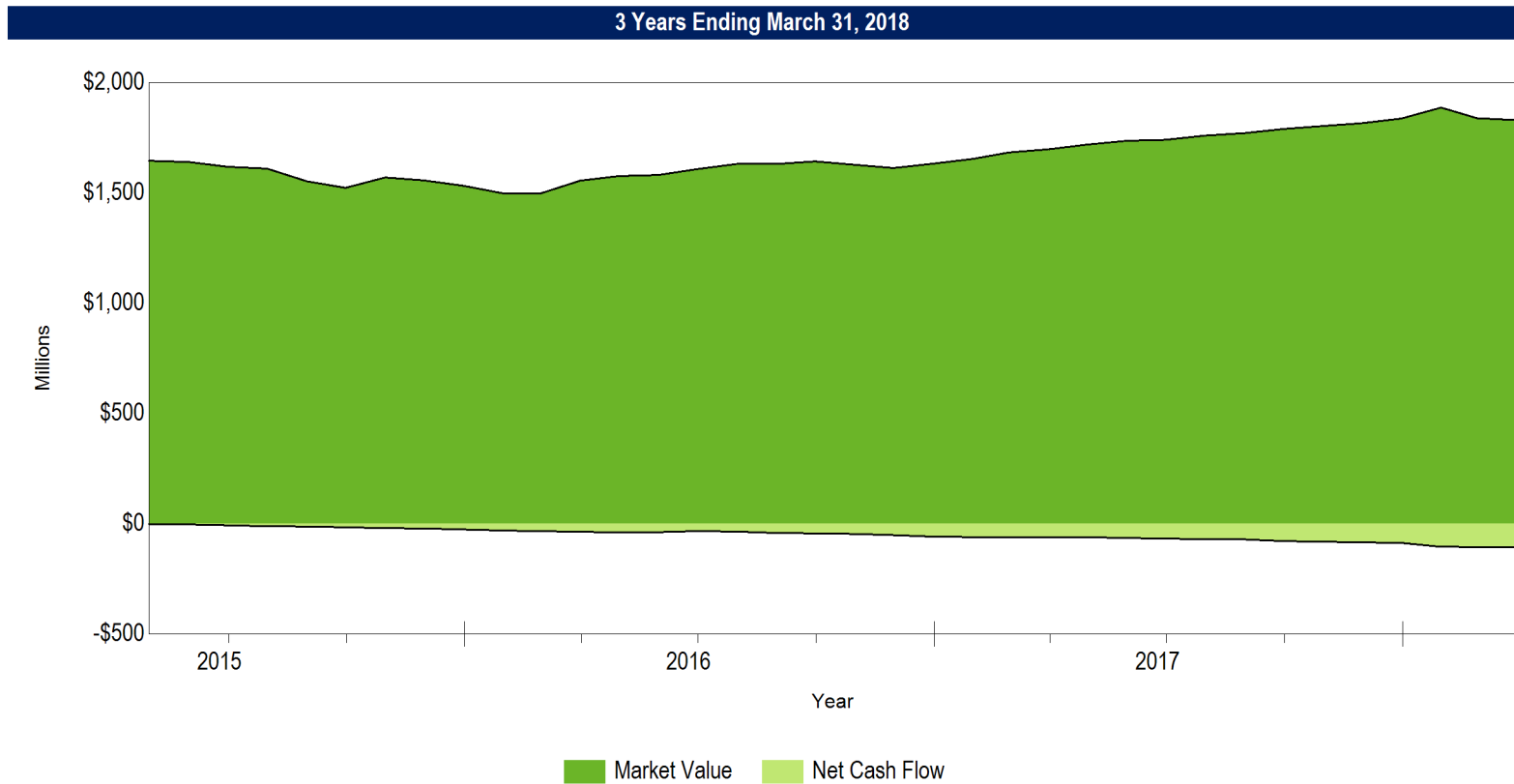
	Policy	Current	Effective Net Allocation
Large Cap Equity	13.5%	20.9%	20.9%
Small/Mid Cap Equity	4.0%	3.1%	3.2%
Non-US Equity	12.0%	20.3%	20.4%
Emerging Markets Equity	5.0%	4.5%	4.6%
Global Equity	9.0%	4.1%	4.1%
Long Treasury	2.0%	1.9%	1.9%
High Yield	4.0%	3.8%	4.2%
TIPS	6.0%	5.2%	5.7%
Unconstrained Bonds	6.0%	3.9%	3.9%
Diversified Fixed Income	10.0%	8.5%	11.0%
Emerging Market Debt	5.0%	4.0%	4.1%
Risk Parity	4.0%	4.2%	--
Private Debt	1.0%	1.1%	1.1%
Private Equity	3.0%	1.7%	1.7%
Absolute Return	8.0%	7.0%	7.0%
Real Estate	7.5%	5.8%	5.8%
Commodities	--	--	0.4%
Cash	0.0%	0.1%	0.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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 State Employees

# TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$1,838,225,379	\$1,741,704,933	\$1,698,806,153	\$1,626,745,343
Net Cash Flow	-\$18,553,924	-\$35,643,084	-\$40,733,740	-\$88,959,020
Net Investment Change	\$11,389,141	\$124,998,747	\$172,988,182	\$293,274,272
Ending Market Value	\$1,831,060,596	\$1,831,060,596	\$1,831,060,596	\$1,831,060,596



## Vermont State Employees

# TOTAL FUND ASSET GROWTH SUMMARY BY MANAGER

	Cash Flow Summary						
	Beginning Market Value	Quarter Ending March 31, 2018					Ending Market Value
		Contributions	Withdrawals	Net Cash Flow	Fees	Net Investment Change	
Aberdeen Partial Return	\$138,462,591	\$195,665	-\$60,000,000	-\$59,804,335	-\$195,665	\$3,686,081	\$82,344,337
Acadian	\$67,108,424	\$81,699	-\$3,500,000	-\$3,418,301	-\$81,699	-\$685,366	\$63,004,758
Allianz Structured Alpha	\$32,397,913	\$0	\$0	\$0	\$0	-\$705,889	\$31,692,023
Benefit Street Partners	\$11,750,462	\$7,551,991	\$0	\$7,551,991	\$0	\$363,285	\$19,665,738
BlackRock TIPS	\$95,594,232	\$15,886	\$0	\$15,886	-\$15,886	-\$756,755	\$94,853,364
Champlain	\$55,878,531	\$106,652	-\$1,883,005	-\$1,776,353	-\$106,652	\$1,875,940	\$55,978,118
GAM Unconstrained Bond	\$35,569,805	\$0	\$0	\$0	-\$46,870	\$255,561	\$35,825,366
Grosvenor	\$51,302,936	\$0	\$0	\$0	\$0	\$867,736	\$52,170,672
Guggenheim	\$69,288,597	\$73,744	-\$17,663,519	-\$17,589,775	-\$73,744	-\$632,309	\$51,066,514
Harbourvest Dover IX Fund	\$3,257,989	\$772,526	-\$123,548	\$648,978	\$0	\$873,521	\$4,780,488
Harbourvest Dover VIII Fund	\$6,593,453	\$0	-\$2,044,850	-\$2,044,850	\$0	\$75,664	\$4,624,267
Harbourvest Partners IX Buyout Fund	\$6,697,759	\$258,637	\$0	\$258,637	\$0	\$240,527	\$7,196,923
Harbourvest Partners IX Credit Opportunities	\$979,866	\$1,568	\$0	\$1,568	\$0	\$25,355	\$1,006,788
Harbourvest Partners IX Venture Fund	\$4,927,533	\$66,660	\$0	\$66,660	\$0	\$237,012	\$5,231,205
Harbourvest Partners X Buyout Fund	\$3,799,246	\$384,614	\$0	\$384,614	\$0	\$210,533	\$4,394,393
Harbourvest Partners X Venture Fund	\$2,493,490	\$412,086	\$0	\$412,086	\$0	\$170,069	\$3,075,645
HIPEP VII	\$3,087,019	\$0	\$0	\$0	\$0	\$407,550	\$3,494,569
HIPEP VIII	--	\$2,165,192	\$0	\$2,165,192	\$0	\$325,575	\$2,490,766
Hosking Global Equity	\$0	\$80,136,975	\$0	\$80,136,975	-\$49,705	-\$4,924,333	\$75,212,642
KDP	\$17,728,086	\$27,246	\$0	\$27,246	-\$27,246	-\$99,751	\$17,655,581
Mondrian	\$66,767,273	\$62,767	\$0	\$62,767	-\$62,767	-\$1,188,545	\$65,641,495
Mondrian GFI	--	--	--	--	--	--	--
PIMCO Core Plus	\$122,473,147	\$17,096,457	\$0	\$17,096,457	-\$96,457	-\$1,653,008	\$137,916,597
PIMCO Unconstrained	\$35,370,300	\$53,416	\$0	\$53,416	-\$53,416	\$59,021	\$35,482,736



## Vermont State 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.	\$43,267,460	\$0	\$0	\$0	\$0	\$1,230,263	\$44,497,723
Siguler Guff DREOF II	\$14,951,730	\$0	-\$722,645	-\$722,645	\$0	\$1,007,292	\$15,236,377
Siguler Guff DREOF II Co-Investment	\$5,056,530	\$692,505	\$0	\$692,505	\$0	\$98,340	\$5,847,376
SSgA ACWI Ex US Partial Return*	\$224,072,868	\$19,832,717	\$0	\$19,832,717	-\$41,937	-\$2,294,569	\$241,611,016
SSgA Barclays Aggregate Index Partial Return*	\$17,895,216	\$8,808	\$0	\$8,808	-\$8,808	-\$266,712	\$17,637,312
SSgA Russell 2000 Growth	--	--	--	--	--	--	--
SSgA S&P 500 Cap-Wgt Partial Return*	\$329,116,345	\$40,232,773	-\$83,918,439	-\$43,685,666	-\$23,553	\$15,543,636	\$300,974,315
SSgA S&P 500 Equal-Wgt Partial Return*	\$80,600,698	\$8,281	\$0	\$8,281	-\$8,281	-\$815,697	\$79,793,282
T. Rowe	\$1,737	\$0	\$0	\$0	\$0	\$0	\$1,737
Transwestern / Aslan III	\$102,653	\$0	\$0	\$0	\$0	\$0	\$102,653
UBS Trumbull	\$82,663,439	\$152,158	\$0	\$152,158	-\$152,158	\$1,406,592	\$84,222,190
Vermont Cash	\$3,068,620	\$1,434,672	-\$2,356,365	-\$921,692	\$0	\$3,700	\$2,150,627
Wellington Opportunistic EMD	\$92,639,028	\$0	-\$18,000,000	-\$18,000,000	\$0	-\$1,450,944	\$73,188,084
Wellington Small Cap Equity	\$33,199	\$0	-\$30,871	-\$30,871	\$0	\$97	\$2,425
Z-Terminated AQR Global Risk Premium	\$77,740,628	\$76,871	\$0	\$76,871	-\$76,871	-\$944,665	\$76,872,834
Z-Terminated GAM	\$186,666	\$0	-\$166,542	-\$166,542	\$0	\$8,864	\$28,988
Z-Terminated Mellon Dynamic Growth	\$50,035	\$0	-\$50,082	-\$50,082	\$0	\$65	\$19
Z-Terminated State Street Long U.S. Treasury Index	\$35,249,873	\$3,376	\$0	\$3,376	-\$3,376	-\$1,164,596	\$34,088,653
<b>Total</b>	<b>\$1,838,225,379</b>	<b>\$171,905,941</b>	<b>-\$190,459,866</b>	<b>-\$18,553,924</b>	<b>-\$1,125,092</b>	<b>\$11,389,141</b>	<b>\$1,831,060,596</b>



## Vermont State 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
<b>Total Employees Composite</b>	<b>1,826,053,775</b>	<b>100.0</b>	<b>100.0</b>	<b>0.6</b>	<b>9</b>	<b>7.3</b>	<b>28</b>	<b>10.2</b>	<b>38</b>	<b>6.2</b>	<b>42</b>	<b>5.9</b>	<b>88</b>	<b>5.5</b>	<b>75</b>
Policy Index				-0.5	66	6.6	50	9.5	52	5.9	63	5.9	88	5.2	84
Allocation Index				-0.4	55	6.1	69	8.9	71	5.9	66	5.8	90	5.1	86
InvestorForce Public DB < \$5 Billion Net Median				-0.3		6.6		9.6		6.1		7.2		6.0	
<b>Total Marketable Assets</b>	<b>1,541,264,351</b>	<b>84.4</b>	<b>80.5</b>	<b>-1.1</b>	<b>96</b>	<b>5.8</b>	<b>80</b>	<b>9.1</b>	<b>66</b>	<b>5.9</b>	<b>66</b>	<b>5.5</b>	<b>95</b>	<b>--</b>	<b>--</b>
Total Marketable Assets Custom Index				-0.9	89	6.1	72	9.1	66	5.8	71	5.7	92	--	--
InvestorForce Public DB Net Median				-0.3		6.6		9.7		6.2		7.3		6.0	
<b>Total Domestic Equity</b>	<b>436,749,878</b>	<b>23.9</b>	<b>17.5</b>	<b>-0.2</b>	<b>43</b>	<b>9.6</b>	<b>51</b>	<b>12.5</b>	<b>51</b>	<b>9.8</b>	<b>33</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Russell 3000				-0.6	49	10.5	43	13.8	43	10.2	27	13.0	30	9.6	50
eV All US Equity Net Median				-0.8		9.7		12.5		8.6		11.9		9.6	
<b>Total Large Cap Equities</b>	<b>380,769,334</b>	<b>20.9</b>	<b>13.5</b>	<b>-0.8</b>	<b>49</b>	<b>10.2</b>	<b>53</b>	<b>13.4</b>	<b>50</b>	<b>10.4</b>	<b>29</b>	<b>13.2</b>	<b>33</b>	<b>10.1</b>	<b>28</b>
S&P 500				-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	9.5	43
eV US Large Cap Equity Net Median				-0.9		10.4		13.3		9.1		12.3		9.1	
SSgA S&P 500 Cap-Wgt	300,974,315	16.5	10.0	-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	--	--
S&P 500				-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	9.5	43
SSgA S&P 500 Equal-Wgt	79,793,282	4.4	3.5	-1.0	53	9.1	63	11.8	63	9.0	52	12.8	41	10.8	16
S&P 500 Equal Weighted				-1.0	53	8.9	64	11.7	64	9.1	50	12.9	40	11.0	14
<b>Total Small/Mid Cap Equities</b>	<b>55,980,544</b>	<b>3.1</b>	<b>4.0</b>	<b>3.4</b>	<b>17</b>	<b>8.4</b>	<b>62</b>	<b>10.2</b>	<b>67</b>	<b>9.0</b>	<b>32</b>	<b>12.2</b>	<b>31</b>	<b>10.9</b>	<b>31</b>
eV US Small-Mid Cap Equity Net Median				0.0		10.0		12.7		7.8		11.2		10.2	
Champlain	55,978,118	3.1	4.0	3.4	17	9.7	47	15.0	42	12.3	5	13.9	14	--	--
Custom SMID Cap Equity Index				-0.2	45	9.1	55	11.4	55	7.9	51	11.4	59	10.2	52
eV US Mid Cap Equity Net Median				-0.5		9.3		12.3		7.9		11.7		10.3	



## Vermont State 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
<b>Total Non US Equity</b>	<b>527,776,787</b>	<b>28.9</b>	<b>26.0</b>	<b>-1.8</b>	<b>89</b>	<b>8.7</b>	<b>80</b>	<b>16.0</b>	<b>75</b>	<b>7.4</b>	<b>55</b>	<b>6.3</b>	<b>77</b>	<b>--</b>	<b>--</b>
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	
<b>Total Core Non US Equity</b>	<b>370,219,809</b>	<b>20.3</b>	<b>12.0</b>	<b>-1.3</b>	<b>57</b>	<b>9.7</b>	<b>48</b>	<b>17.4</b>	<b>43</b>	<b>8.2</b>	<b>30</b>	<b>8.6</b>	<b>35</b>	<b>3.3</b>	<b>68</b>
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	62,967,297	3.4	3.0	-1.5	63	10.6	37	22.4	22	12.5	11	11.1	14	4.0	51
Mondrian	65,641,495	3.6	3.0	-1.8	71	7.0	78	11.6	90	4.9	86	7.0	65	3.0	77
MSCI EAFE				-1.5	64	8.2	65	14.8	68	5.6	72	6.5	72	2.7	86
SSgA ACWI Ex US	241,611,016	13.2	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	
<b>Total Global Equity</b>	<b>75,212,642</b>	<b>4.1</b>	<b>9.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
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	75,212,642	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	
<b>Total Emerging Market Equity</b>	<b>82,344,337</b>	<b>4.5</b>	<b>5.0</b>	<b>-0.8</b>	<b>92</b>	<b>8.8</b>	<b>93</b>	<b>15.7</b>	<b>91</b>	<b>6.8</b>	<b>82</b>	<b>2.8</b>	<b>91</b>	<b>--</b>	<b>--</b>
Aberdeen	82,344,337	4.5	5.0	-0.8	92	8.8	93	15.7	91	6.8	82	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 State 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
<b>Total Fixed Income</b>	<b>497,714,206</b>	<b>27.3</b>	<b>33.0</b>	<b>-1.1</b>	<b>58</b>	<b>1.0</b>	<b>32</b>	<b>2.5</b>	<b>40</b>	<b>3.3</b>	<b>24</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>BBgBarc US Aggregate TR</i>				-1.5	76	-0.2	80	1.2	64	1.2	65	1.8	57	3.6	59
<i>eV All US Fixed Inc Net Median</i>				-0.9		0.4		1.7		1.7		2.1		4.0	
<b>Total Diversified Fixed Income</b>	<b>155,553,909</b>	<b>8.5</b>	<b>10.0</b>	<b>-1.5</b>	<b>78</b>	<b>-0.1</b>	<b>76</b>	<b>1.5</b>	<b>56</b>	<b>1.8</b>	<b>48</b>	<b>2.7</b>	<b>39</b>	<b>4.2</b>	<b>45</b>
<i>BBgBarc US Aggregate TR</i>				-1.5	76	-0.2	80	1.2	64	1.2	65	1.8	57	3.6	59
<i>eV All US Fixed Inc Net Median</i>				-0.9		0.4		1.7		1.7		2.1		4.0	
PIMCO Core Plus	137,916,597	7.6	7.0	-1.5	62	-0.1	43	1.6	33	1.4	52	1.6	79	--	--
<i>BBgBarc US Aggregate TR</i>				-1.5	57	-0.2	61	1.2	66	1.2	71	1.8	61	3.6	80
SSgA Barclays Aggregate Index	17,637,312	1.0	3.0	-1.5	61	-0.3	67	1.1	70	1.2	75	--	--	--	--
<i>BBgBarc US Aggregate TR</i>				-1.5	57	-0.2	61	1.2	66	1.2	71	1.8	61	3.6	80
<i>3-Month Libor Total Return USD</i>				0.5	1	1.2	4	1.5	39	0.9	89	0.7	99	0.7	99
<i>eV US Core Fixed Inc Net Median</i>				-1.4		-0.1		1.4		1.4		1.9		4.0	
<b>Total TIPS</b>	<b>94,853,364</b>	<b>5.2</b>	<b>6.0</b>	<b>-0.8</b>	<b>49</b>	<b>1.3</b>	<b>54</b>	<b>0.9</b>	<b>55</b>	<b>1.3</b>	<b>37</b>	<b>0.0</b>	<b>47</b>	<b>--</b>	<b>--</b>
BlackRock TIPS	94,853,364	5.2	6.0	-0.8	--	1.3	--	0.9	--	1.3	--	0.0	--	--	--
<i>BBgBarc US TIPS TR</i>				-0.8	--	1.3	--	0.9	--	1.3	--	0.0	--	2.9	--
<b>Total High Yield Bonds</b>	<b>68,722,094</b>	<b>3.8</b>	<b>4.0</b>	<b>-0.8</b>	<b>54</b>	<b>1.7</b>	<b>44</b>	<b>3.4</b>	<b>59</b>	<b>4.7</b>	<b>45</b>	<b>4.7</b>	<b>38</b>	<b>7.5</b>	<b>47</b>
<i>BBgBarc US High Yield TR</i>				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
<i>eV US High Yield Fixed Inc Net Median</i>				-0.7		1.5		3.6		4.5		4.4		7.5	
KDP	17,655,581	1.0	1.0	-0.6	44	0.9	82	2.6	90	2.9	95	3.2	94	--	--
<i>BBgBarc US High Yield TR</i>				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
<i>ICE BofAML BB-B US High Yield TR</i>				-1.1	72	1.2	73	3.4	58	4.7	45	4.8	33	7.4	52
Guggenheim	51,066,514	2.8	3.0	-0.9	56	1.8	40	3.5	57	5.1	25	--	--	--	--
<i>BBgBarc US High Yield TR</i>				-0.9	56	1.6	49	3.8	44	5.2	24	5.0	26	8.3	13
<i>eV US High Yield Fixed Inc Net Median</i>				-0.7		1.5		3.6		4.5		4.4		7.5	



## Vermont State 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
<b>Total Emerging Market Debt</b>	<b>73,188,084</b>	<b>4.0</b>	<b>5.0</b>	<b>-1.5</b>	<b>89</b>	<b>2.0</b>	<b>89</b>	<b>4.5</b>	<b>81</b>	<b>6.0</b>	<b>46</b>	<b>4.3</b>	<b>21</b>	<b>--</b>	<b>--</b>
Wellington Opportunistic EMD	73,188,084	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	
<b>Total Long Treasury</b>	<b>34,088,653</b>	<b>1.9</b>	<b>2.0</b>	<b>-3.3</b>	<b>--</b>	<b>-0.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
State Street Long U.S. Treasury Index	34,088,653	1.9	2.0	-3.3	--	-0.5	--	--	--	--	--	--	--	--	--
BBgBarc US Treasury Long TR				-3.3	--	-0.4	--	3.5	--	0.4	--	3.3	--	5.8	--
<b>Total Unconstrained Fixed Income</b>	<b>71,308,102</b>	<b>3.9</b>	<b>6.0</b>	<b>0.4</b>	<b>60</b>	<b>1.5</b>	<b>81</b>	<b>3.1</b>	<b>80</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
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	35,482,736	1.9	2.5	0.2	68	1.8	75	2.7	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	35,825,366	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	
<b>Total Risk Parity/GAA</b>	<b>76,872,852</b>	<b>4.2</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>8.0</b>	<b>30</b>	<b>9.3</b>	<b>44</b>	<b>3.5</b>	<b>57</b>	<b>3.6</b>	<b>59</b>	<b>5.0</b>	<b>56</b>
<b>Total Risk Parity</b>	<b>76,872,834</b>	<b>4.2</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>8.0</b>	<b>30</b>	<b>9.4</b>	<b>43</b>	<b>3.3</b>	<b>59</b>	<b>2.9</b>	<b>70</b>	<b>--</b>	<b>--</b>
eV Global TAA Net Median				-0.7		6.1		8.7		3.9		4.1		5.2	
AQR Global Risk Premium	76,872,834	4.2	4.0	-1.2	69	8.0	30	9.4	43	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
<b>Total Cash</b>	<b>2,150,627</b>	<b>0.1</b>	<b>0.0</b>												
Vermont Cash	2,150,627	0.1													



## Vermont State 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
<b>Total Real Estate</b>	<b>105,052,924</b>	<b>5.8</b>	<b>7.5</b>	<b>2.1</b>	<b>--</b>	<b>7.9</b>	<b>--</b>	<b>8.8</b>	<b>--</b>	<b>9.7</b>	<b>--</b>	<b>11.4</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>NCREIF Property Index</i>				1.7	--	5.3	--	7.1	--	8.7	--	10.0	--	6.1	--
<b>Total Real Estate Core</b>	<b>84,324,843</b>	<b>4.6</b>	<b>6.0</b>	<b>1.7</b>	<b>--</b>	<b>5.2</b>	<b>--</b>	<b>5.6</b>	<b>--</b>	<b>8.6</b>	<b>--</b>	<b>10.7</b>	<b>--</b>	<b>--</b>	<b>--</b>
UBS Trumbull	84,222,190	4.6		1.7	--	5.2	--	6.2	--	7.6	--	8.8	--	4.5	--
Transwestern / Aslan III	102,653	0.0		0.0	--	0.0	--	0.0	--	2.1	--	5.3	--	-21.4	--
<b>Total Real Estate Non-Core</b>	<b>20,728,081</b>	<b>1.1</b>	<b>1.5</b>	<b>3.8</b>	<b>--</b>	<b>21.8</b>	<b>--</b>	<b>25.8</b>	<b>--</b>	<b>14.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Siguler Guff DREOF II	14,893,300	0.8	1.0	4.7	--	28.1	--	32.7	--	16.7	--	--	--	--	--
Siguler Guff DREOF II Co-Investment	5,834,781	0.3	0.5	1.5	--	3.9	--	6.3	--	--	--	--	--	--	--
<b>Total Absolute Return</b>	<b>128,389,406</b>	<b>7.0</b>	<b>8.0</b>	<b>1.1</b>	<b>44</b>	<b>5.3</b>	<b>43</b>	<b>5.1</b>	<b>57</b>	<b>1.6</b>	<b>68</b>	<b>3.4</b>	<b>71</b>	<b>--</b>	<b>--</b>
<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	52,170,672	2.9	3.0	1.7	31	5.8	37	6.3	44	2.9	46	4.7	46	--	--
Allianz Structured Alpha	31,692,023	1.7	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.	44,497,723	2.4	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	--
<b>Total Private Debt</b>	<b>19,593,702</b>	<b>1.1</b>	<b>1.0</b>	<b>19.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>S&amp;P/LSTA Leveraged Loan TR</i>				1.4	--	3.6	--	4.4	--	4.2	--	3.9	--	5.6	--
Benefit Street Partners	19,593,702	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	--
<b>Total Private Equity</b>	<b>31,753,392</b>	<b>1.7</b>	<b>3.0</b>	<b>0.0</b>	<b>--</b>	<b>7.4</b>	<b>--</b>	<b>14.2</b>	<b>--</b>	<b>12.9</b>	<b>--</b>	<b>15.6</b>	<b>--</b>	<b>--</b>	<b>--</b>
<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.

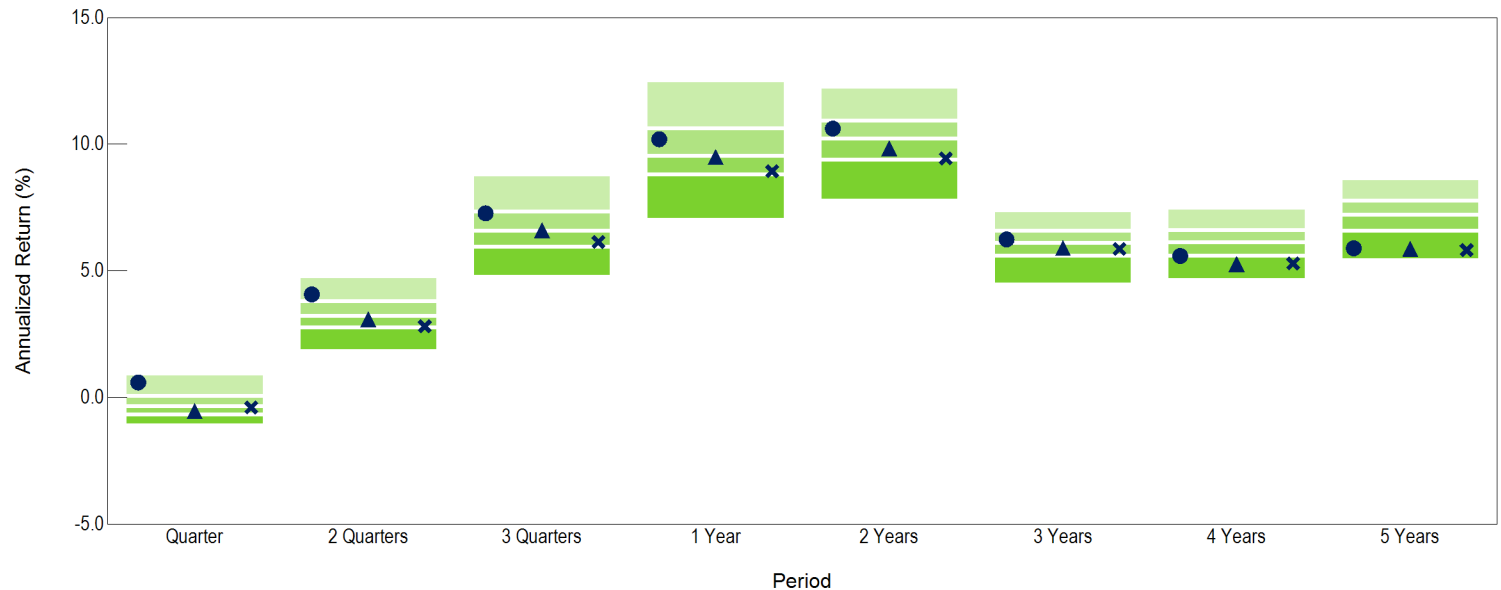
Harbourvest values based on final Capital Account Statements for Q4 2017, and cash adjusted through Q1 2018.



## Vermont State Employees

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



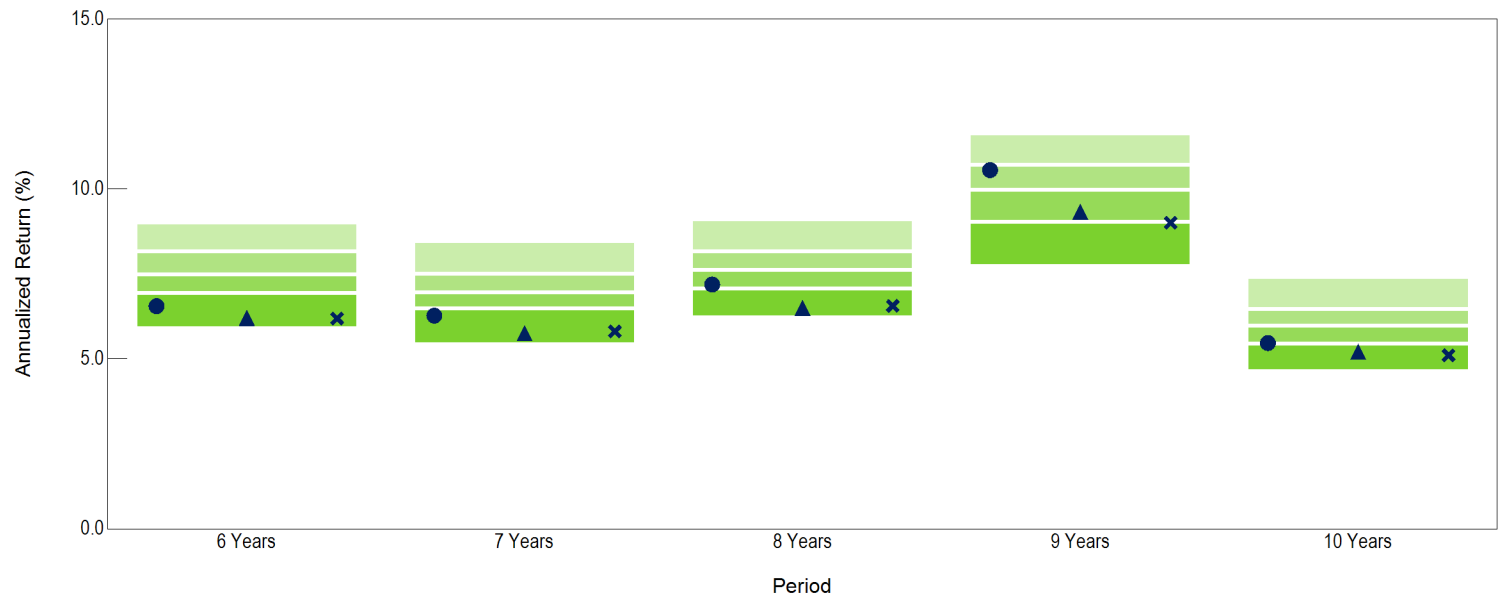
	Return (Rank)													
5th Percentile	0.9	4.8	8.8	12.5	12.3	7.4	7.5	8.7						
25th Percentile	0.1	3.8	7.4	10.6	11.0	6.6	6.6	7.8						
Median	-0.3	3.2	6.6	9.6	10.2	6.1	6.1	7.2						
75th Percentile	-0.7	2.8	6.0	8.8	9.4	5.6	5.6	6.6						
95th Percentile	-1.1	1.8	4.8	7.0	7.8	4.5	4.7	5.4						
# of Portfolios	239	239	238	238	233	229	219	208						
● Total Employees Composite	0.6	(9)	4.1 (15)	7.3 (28)	10.2 (38)	10.6 (36)	6.2 (42)	5.6 (76)	5.9 (88)					
▲ Allocation Index	-0.5	(66)	3.1 (58)	6.6 (50)	9.5 (52)	9.8 (64)	5.9 (63)	5.3 (85)	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 State Employees

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



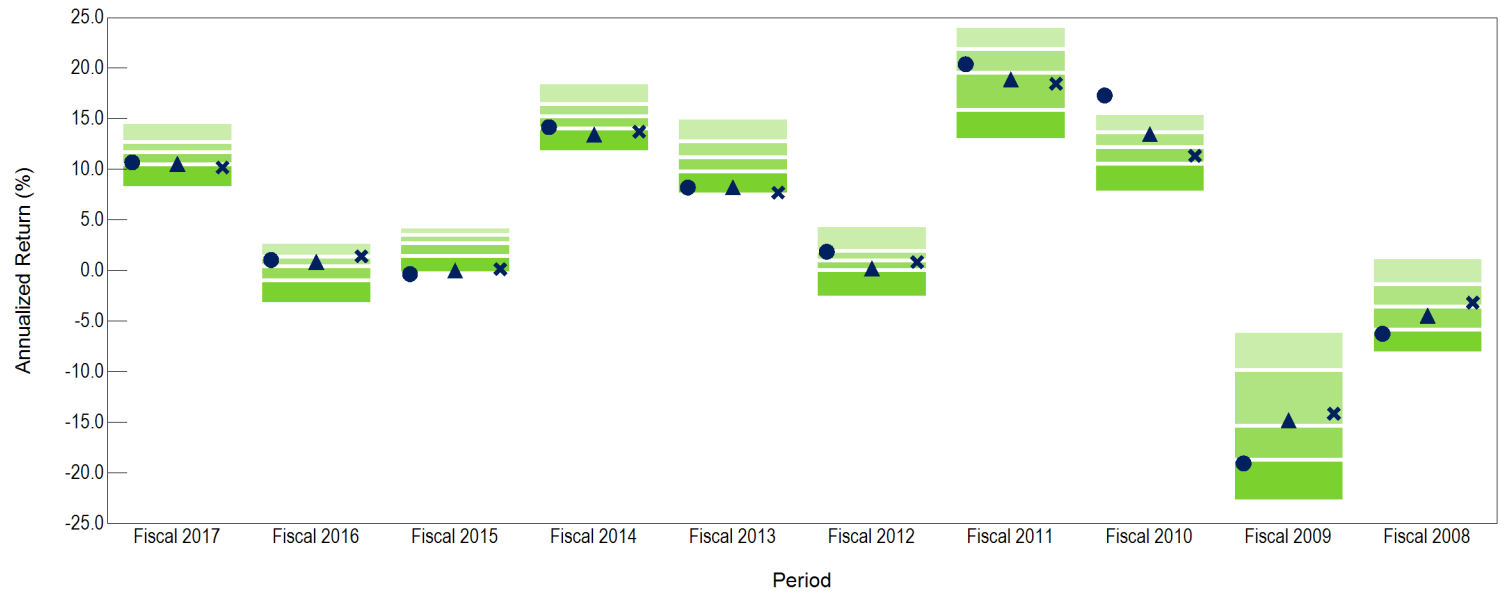
	Return (Rank)									
5th Percentile	9.0		8.5		9.1		11.6		7.4	
25th Percentile	8.2		7.5		8.2		10.7		6.5	
Median	7.5		7.0		7.6		10.0		6.0	
75th Percentile	7.0		6.5		7.1		9.0		5.5	
95th Percentile	5.9		5.4		6.2		7.8		4.6	
# of Portfolios	197		178		172		161		159	
● Total Employees Composite	6.6	(85)	6.3	(81)	7.2	(70)	10.6	(33)	5.5	(75)
▲ Allocation Index	6.2	(93)	5.8	(92)	6.5	(93)	9.3	(67)	5.2	(84)
× Policy Index	6.2	(93)	5.8	(91)	6.6	(92)	9.0	(76)	5.1	(86)



## Vermont State Employees

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



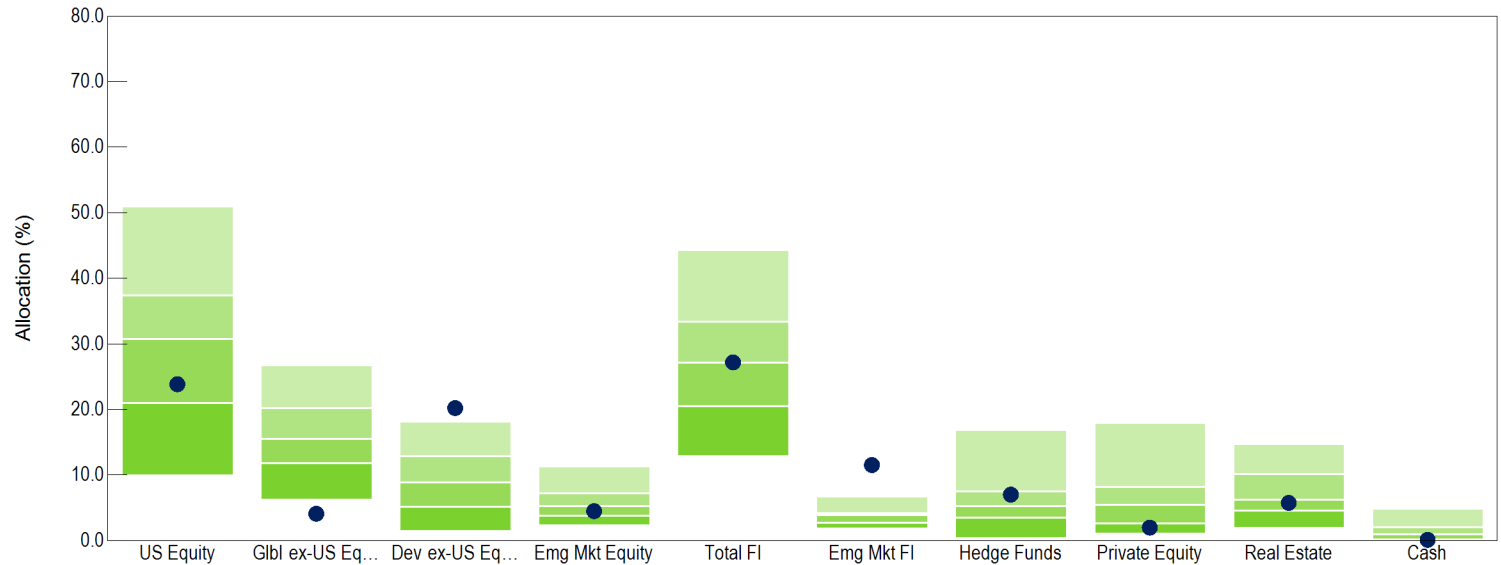
	Return (Rank)									
	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
5th Percentile	14.7	2.8	4.4	18.6	15.1	4.5	24.2	15.5	-6.0	1.3
25th Percentile	12.8	1.4	3.6	16.5	12.8	2.0	21.9	13.7	-9.8	-1.3
Median	11.7	0.5	2.7	15.3	11.2	1.0	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 Employees Composite	10.7 (71)	1.0 (34)	-0.3 (96)	14.2 (72)	8.2 (95)	1.9 (29)	20.4 (39)	17.3 (1)	-19.1 (78)	-6.3 (77)
▲ Allocation Index	10.5 (76)	0.9 (38)	0.0 (95)	13.4 (89)	8.2 (95)	0.2 (72)	18.9 (57)	13.5 (29)	-14.8 (47)	-4.5 (62)
× 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)	-14.1 (43)	-3.2 (47)



## Vermont State Employees

# TOTAL FUND ALLOCATION VS. PEER UNIVERSE - NET

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



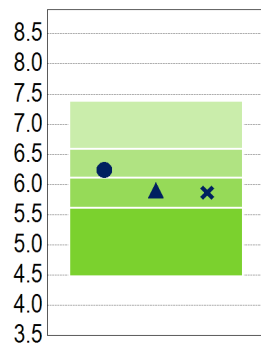
	Allocation (Rank)																			
5th Percentile	51.0	26.7	18.2	11.3	44.3	6.8	16.9	17.9	14.8	4.9	-	-	-	-	-	-				
25th Percentile	37.5	20.3	13.0	7.3	33.5	4.2	7.6	8.3	10.2	2.2	-	-	-	-	-	-				
Median	30.9	15.6	9.0	5.4	27.3	4.0	5.4	5.5	6.4	1.0	-	-	-	-	-	-				
75th Percentile	21.1	11.9	5.3	3.9	20.6	2.9	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 Employees Composite	23.9	(66)	4.1	(99)	20.2	(3)	4.5	(69)	27.2	(52)	11.5	(1)	7.0	(32)	2.0	(83)	5.8	(56)	0.1	(86)



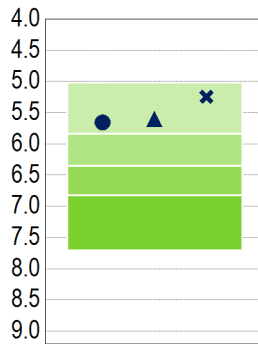
# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

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

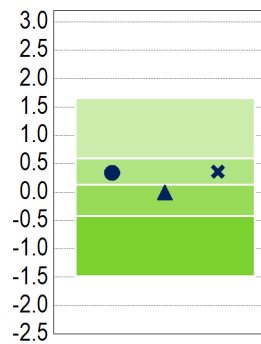
Anlzd Return      Anlzd Standard Deviation      Anlzd Alpha      Sharpe Ratio



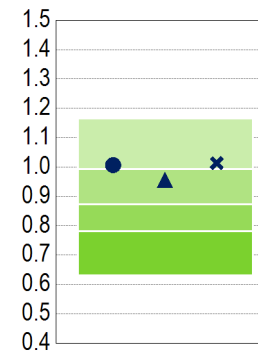
● Total Employees Composite	
Value	6.24
Rank	42
▲ Allocation Index	
Value	5.90
Rank	63
× Policy Index	
Value	5.86
Rank	66
Universe	
5th %tile	7.39
25th %tile	6.60
Median	6.13
75th %tile	5.62
95th %tile	4.49



● Total Employees Composite	
Value	5.66
Rank	19
▲ Allocation Index	
Value	5.60
Rank	18
× 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



● Total Employees Composite	
Value	0.34
Rank	37
▲ Allocation Index	
Value	0.00
Rank	59
× Policy Index	
Value	0.36
Rank	34
Universe	
5th %tile	1.66
25th %tile	0.60
Median	0.14
75th %tile	-0.41
95th %tile	-1.47



● Total Employees Composite	
Value	1.01
Rank	22
▲ Allocation Index	
Value	0.96
Rank	32
× 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



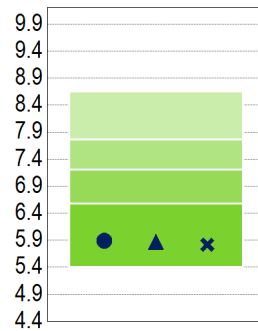


## Vermont State Employees

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

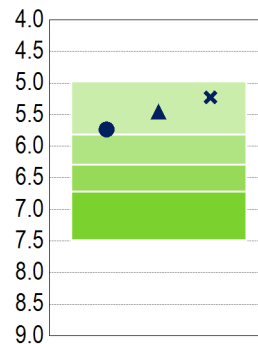
### Employees Composite vs. InvMetrics Public DB < \$5 Billion Net 5 Years

#### Anlzd Return



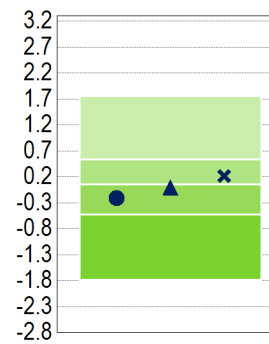
● Total Employees Composite	
Value	5.89
Rank	88
▲ Allocation Index	
Value	5.87
Rank	88
× Policy Index	
Value	5.82
Rank	90
Universe	
5th %tile	8.65
25th %tile	7.78
Median	7.22
75th %tile	6.59
95th %tile	5.42

#### Anlzd Standard Deviation



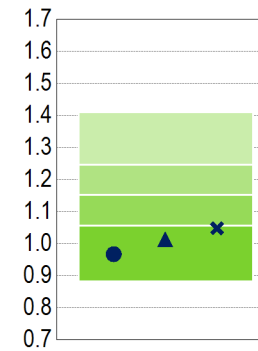
● Total Employees Composite	
Value	5.74
Rank	23
▲ Allocation Index	
Value	5.45
Rank	15
× Policy Index	
Value	5.23
Rank	9
Universe	
5th %tile	4.97
25th %tile	5.80
Median	6.28
75th %tile	6.70
95th %tile	7.48

#### Anlzd Alpha



● Total Employees Composite	
Value	-0.21
Rank	66
▲ Allocation Index	
Value	0.00
Rank	55
× Policy Index	
Value	0.22
Rank	43
Universe	
5th %tile	1.76
25th %tile	0.55
Median	0.07
75th %tile	-0.52
95th %tile	-1.77

#### Sharpe Ratio



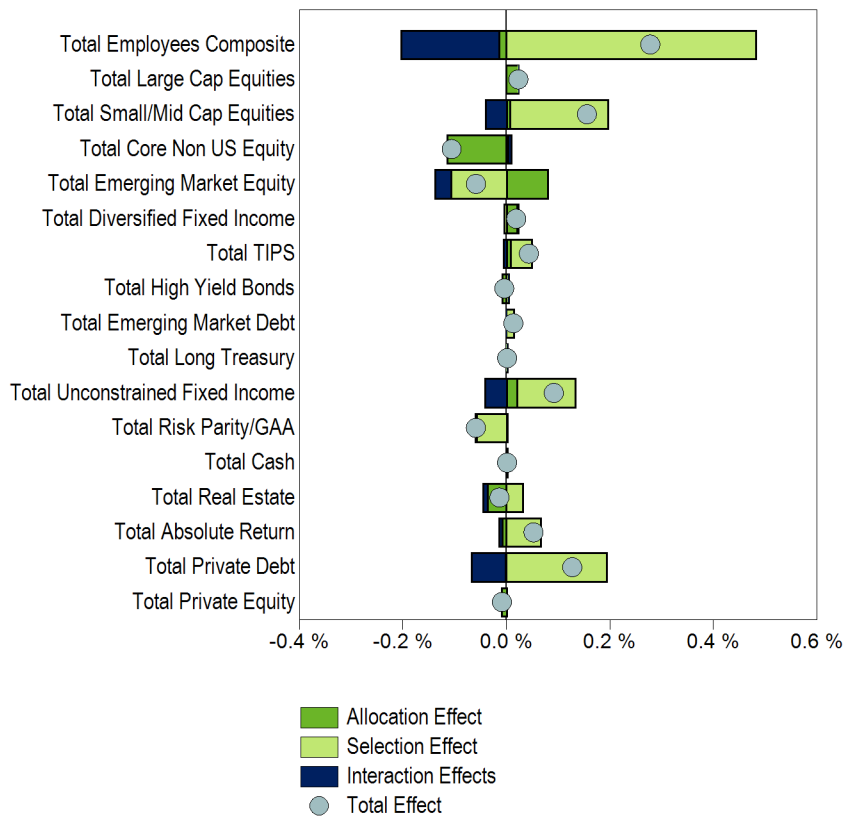
● Total Employees Composite	
Value	0.97
Rank	90
▲ Allocation Index	
Value	1.01
Rank	83
× Policy Index	
Value	1.05
Rank	76
Universe	
5th %tile	1.41
25th %tile	1.25
Median	1.16
75th %tile	1.06
95th %tile	0.88



## Vermont State Employees

# TOTAL FUND ATTRIBUTION ANALYSIS - NET

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



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%	0.0%	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%	0.0%	0.0%	0.0%
Total Absolute Return	1.1%	0.3%	0.8%	0.1%	0.0%	0.0%	0.1%
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%
<b>Total</b>	<b>-0.3%</b>	<b>-0.6%</b>	<b>0.2%</b>	<b>0.5%</b>	<b>0.0%</b>	<b>-0.2%</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.

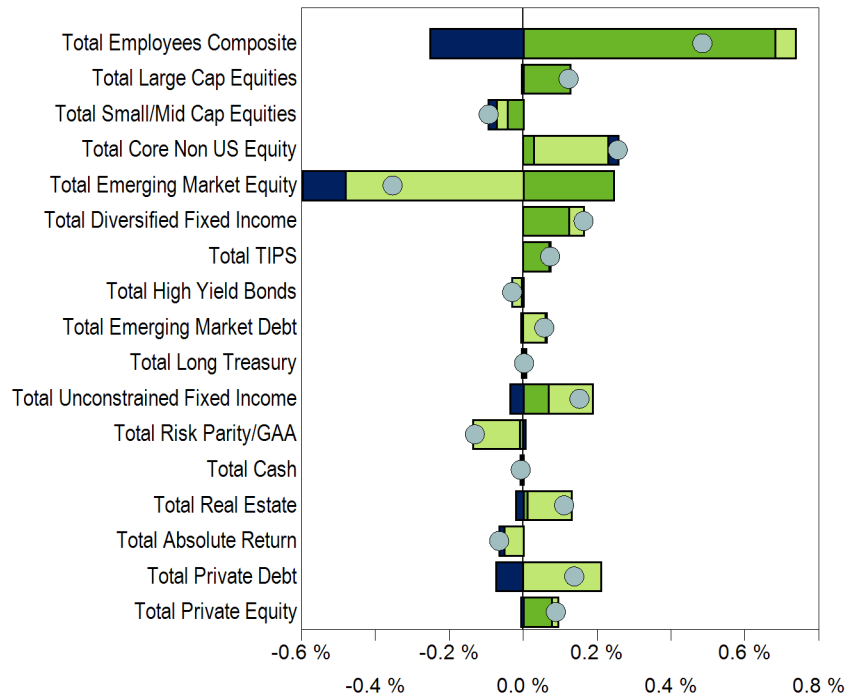
Absolute Return's Wtd. index Return is calculated using a weighting of the respective benchmarks for each underlying strategy part of the composite.



## Vermont State Employees

# TOTAL FUND ATTRIBUTION ANALYSIS - NET

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



■ Allocation Effect  
■ Selection Effect  
■ Interaction Effects  
● Total Effect

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%	0.1%	0.0%	0.1%
Total Small/Mid Cap Equities	10.2%	8.9%	1.3%	0.0%	0.0%	0.0%	-0.1%
Total Core Non US Equity	17.4%	15.6%	1.8%	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	3.4%	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	8.8%	7.1%	1.7%	0.1%	0.0%	0.0%	0.1%
Total Absolute Return	5.1%	5.7%	-0.6%	-0.1%	0.0%	0.0%	-0.1%
Total Private Debt	--	--	--	0.2%	0.0%	-0.1%	0.1%
Total Private Equity	14.2%	13.2%	1.0%	0.0%	0.1%	0.0%	0.1%
<b>Total</b>	<b>9.3%</b>	<b>8.8%</b>	<b>0.5%</b>	<b>0.1%</b>	<b>0.7%</b>	<b>-0.3%</b>	<b>0.5%</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.



# **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 State 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 Employees Composite	100.00%	5.89%	64	5.61%	25	-0.25%	63	0.95	38	1.47	25	0.77%	24
Policy Index	--	5.82%	67	5.25%	13	0.00%	51	1.00	25	1.61	9	0.00%	1
Total Domestic Equity	23.92%	9.81%	33	10.34%	24	-0.33%	36	0.90	25	1.34	30	1.25%	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	20.85%	10.35%	29	10.29%	37	-0.44%	34	0.95	26	1.57	19	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	3.07%	8.97%	32	11.29%	30	2.29%	32	0.75	30	1.22	19	3.98%	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	20.27%	8.22%	30	11.58%	44	3.00%	32	0.66	32	1.05	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	4.51%	6.78%	82	15.27%	54	-1.01%	80	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	27.26%	3.26%	24	3.01%	65	2.12%	24	0.90	22	1.27	25	1.77%	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	8.52%	1.79%	48	3.49%	72	0.43%	54	0.36	61	0.42	64	1.15%	25
BBgBarc US Aggregate TR	--	1.20%	65	2.69%	57	0.00%	77	0.24	74	0.31	75	0.00%	1
Total Unconstrained Fixed Income	3.91%	--	--	--	--	--	--	--	--	--	--	--	--
25% HY, 25% EMD, 50% BC Agg	--	3.28%	53	3.47%	48	0.00%	74	0.79	53	1.23	51	0.00%	1
Total High Yield Bonds	3.76%	4.74%	45	4.64%	46	0.44%	45	0.90	46	1.50	50	1.43%	29
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	5.19%	1.26%	37	3.08%	56	-0.04%	42	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	4.01%	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	5.75%	9.71%	--	4.45%	--	0.90%	--	0.40	--	0.36	--	1.81%	--
NCREIF Property Index	--	8.73%	--	3.68%	--	0.00%	--	0.21	--	0.16	--	0.00%	--
Total Absolute Return	7.03%	1.57%	68	3.36%	30	-0.03%	69	0.30	65	0.35	68	1.89%	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	4.21%	3.47%	57	7.13%	58	-1.71%	59	0.41	57	0.65	49	4.60%	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 State 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 Employees Composite	100.00%	5.68%	92	5.71%	33	-0.56%	74	0.94	86	1.64	74	0.86%	29
Policy Index	--	5.79%	90	5.23%	11	0.00%	46	1.04	73	1.85	53	0.00%	1
Total Domestic Equity	23.92%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	13.03%	30	10.00%	18	0.00%	31	1.27	16	2.25	16	0.00%	1
Total Large Cap Equities	20.85%	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	3.07%	12.16%	31	11.56%	35	--	--	1.02	28	1.94	13	--	--
Small/Mid Cap Index	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Core Non US Equity	20.27%	8.56%	35	11.51%	47	2.35%	35	0.71	31	1.35	23	1.99%	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	4.51%	2.79%	91	14.90%	71	-1.92%	91	0.16	91	0.32	87	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	27.26%	--	--	--	--	--	--	--	--	--	--	--	--
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	8.52%	2.70%	39	4.27%	78	0.26%	59	0.55	64	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 Unconstrained Fixed Income	3.91%	--	--	--	--	--	--	--	--	--	--	--	--
25% HY, 25% EMD, 50% BC Agg	--	3.16%	42	3.75%	58	0.00%	75	0.75	49	1.10	52	0.00%	1
Total High Yield Bonds	3.76%	4.70%	38	4.35%	28	0.60%	34	1.00	36	1.63	48	1.38%	38
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	5.19%	-0.01%	47	4.55%	71	-0.05%	42	-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	4.01%	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	5.75%	11.36%	--	4.95%	--	1.35%	--	0.30	--	0.33	--	1.71%	--
NCREIF Property Index	--	10.00%	--	4.16%	--	0.00%	--	0.03	--	0.03	--	0.00%	--
Total Absolute Return	7.03%	3.43%	71	3.45%	33	0.39%	67	0.90	59	1.30	57	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	4.21%	3.56%	59	7.36%	60	-1.98%	82	0.44	70	0.66	67	4.42%	56
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						
<b>Total: State of Vermont</b>		<b>395,000,000</b>	<b>5.69</b>	<b>24.47</b>	<b>24.47</b>	<b>17.15</b>	<b>18.06</b>	<b>20.31</b>



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

## State of Vermont Performance Analysis

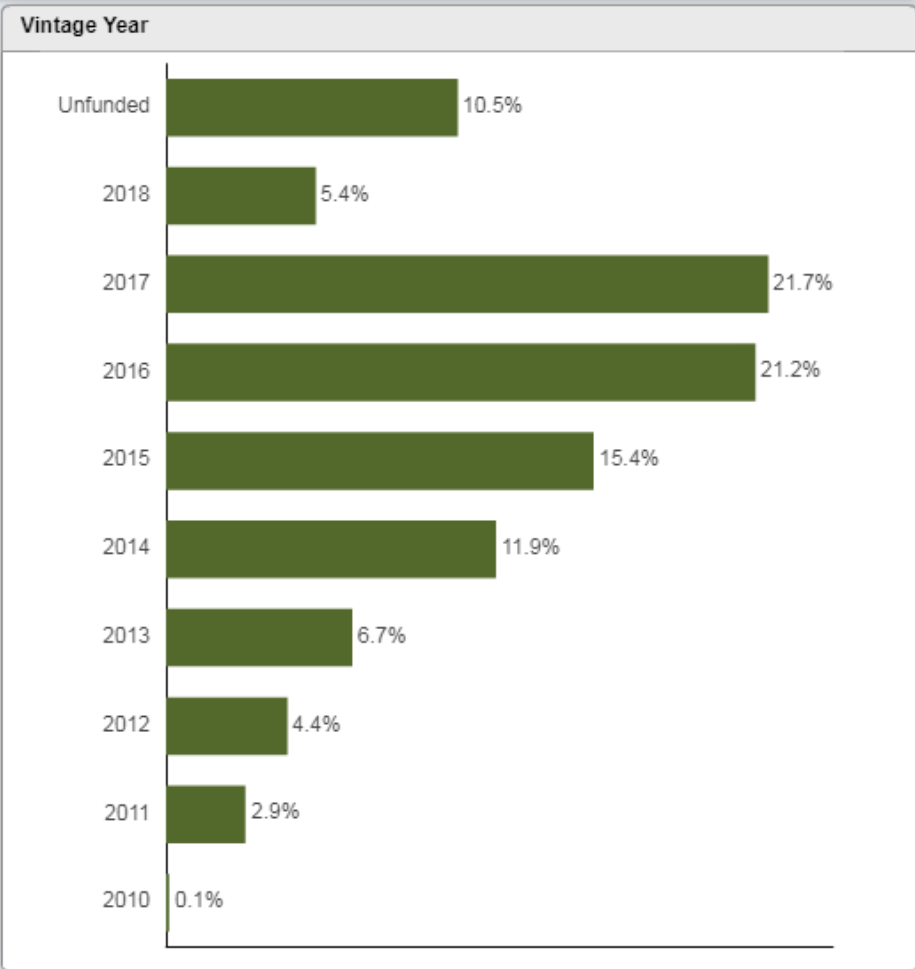
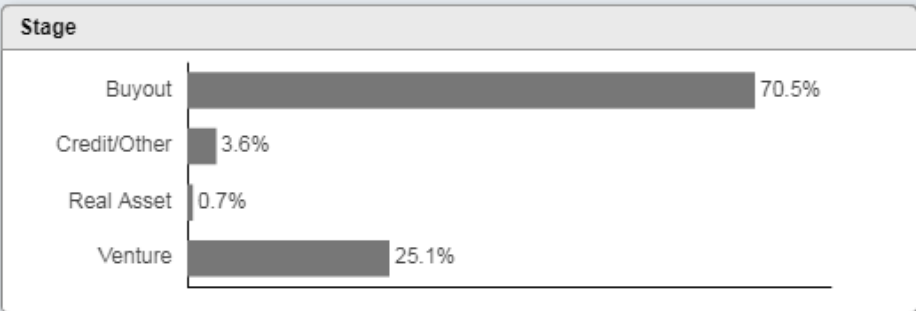
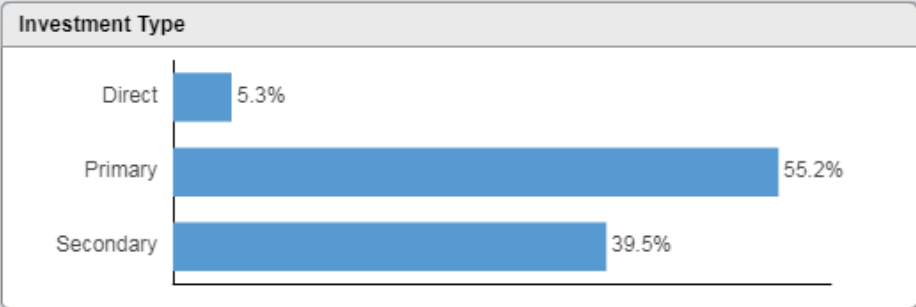
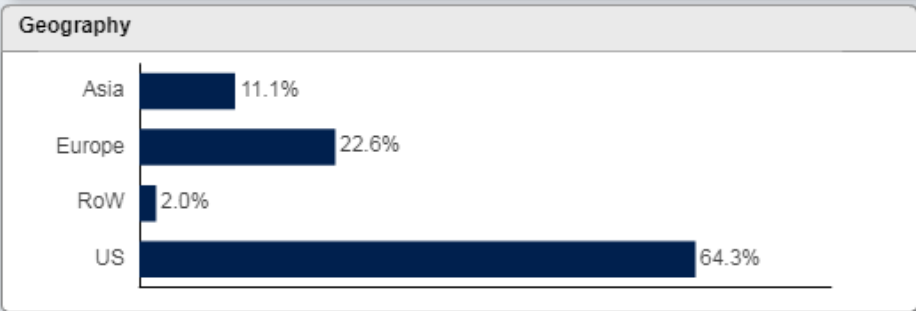
12/31/2017

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
<b>State of Vermont</b>													
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%	0.00	0.00	N/A
3 HarbourVest Partners Co-Investment Fund V	2018	25,000,000	0	25,000,000	0	0		0	0	0%	0.00	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%	0.00	0.00	N/A
12 HarbourVest Partners XI Micro Buyout	2018	12,500,000	0	12,500,000	0	0		0	0	0%	0.00	0.00	N/A
13 HarbourVest Partners XI Venture Fund	2018	37,500,000	0	37,500,000	0	0		0	0	0%	0.00	0.00	N/A
<b>Subtotal: State of Vermont</b>		<b>395,000,000</b>	<b>78,273,750</b>	<b>316,726,250</b>	<b>99,583</b>	<b>34,907,514</b>	<b>76,988,857</b>	<b>111,896,371</b>	<b>33,523,038</b>	<b>20%</b>	<b>0.45</b>	<b>1.43</b>	<b>20.31%</b>
<b>Total : State of Vermont</b>		<b>395,000,000</b>	<b>78,273,750</b>	<b>316,726,250</b>	<b>99,583</b>	<b>34,907,514</b>	<b>76,988,857</b>	<b>111,896,371</b>	<b>33,523,038</b>	<b>20%</b>	<b>0.45</b>	<b>1.43</b>	<b>20.31%</b>





# PRIVATE EQUITY INVESTMENT DIVERSIFICATION AS OF 3/31/2018

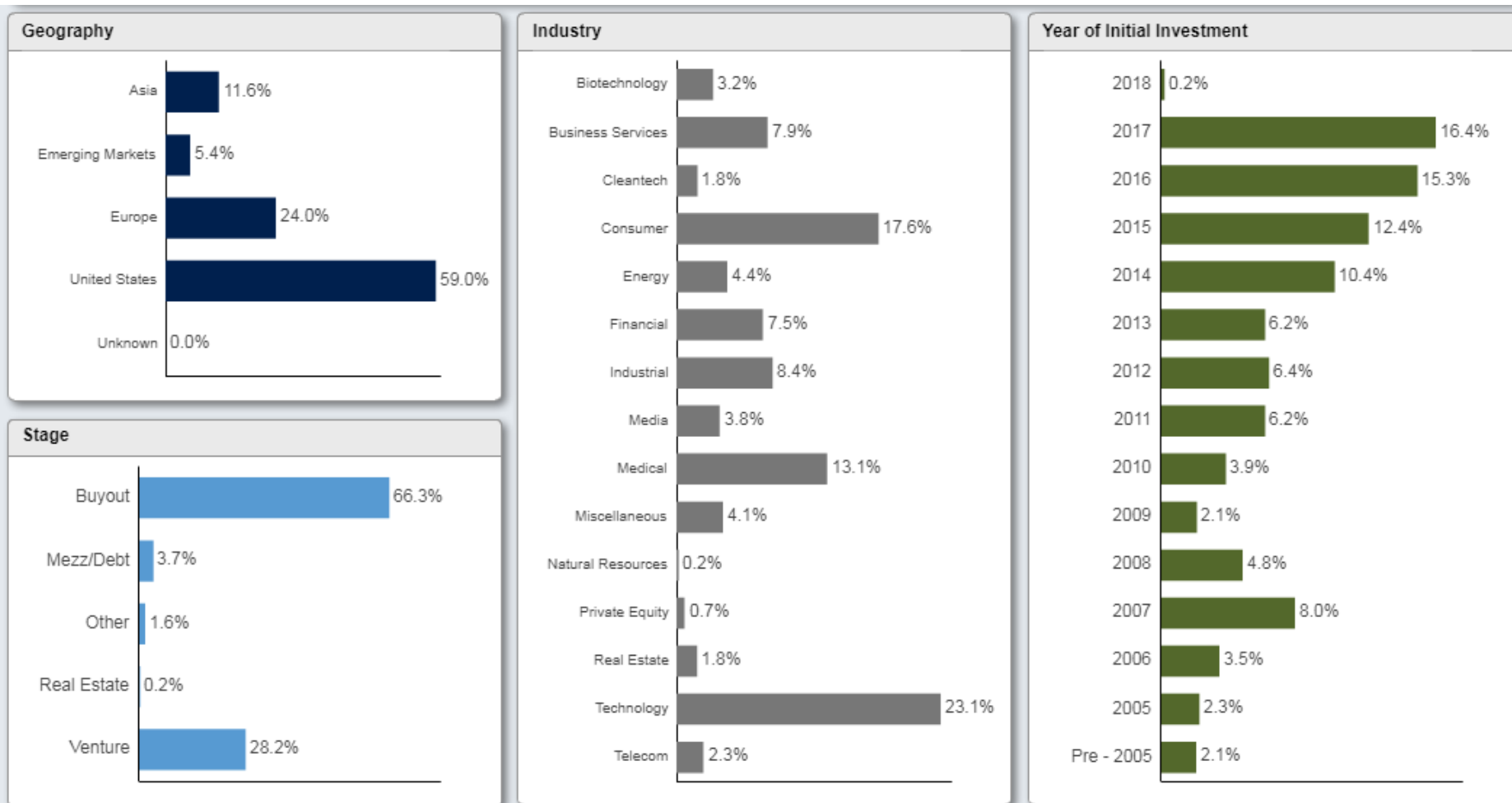


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# PRIVATE EQUITY COMPANY DIVERSIFICATION AS OF 3/31/2018



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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
<b>Total: State of Vermont</b>		<b>230,000,000</b>	<b>6.94</b>	<b>15.32</b>	<b>15.32</b>	<b>10.98</b>	<b>14.30</b>	<b>-3.60</b>



# 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
<b>State of Vermont</b>												
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%
<b>Subtotal: State of Vermont</b>		<b>230,000,000</b>	<b>117,880,217</b>	<b>112,119,783</b>	<b>48,726,278</b>	<b>47,358,875</b>	<b>96,085,153</b>	<b>-21,795,064</b>	<b>51%</b>	<b>0.41</b>	<b>0.82</b>	<b>-3.60%</b>
<b>Total : State of Vermont</b>		<b>230,000,000</b>	<b>117,880,217</b>	<b>112,119,783</b>	<b>48,726,278</b>	<b>47,358,875</b>	<b>96,085,153</b>	<b>-21,795,064</b>	<b>51%</b>	<b>0.41</b>	<b>0.82</b>	<b>-3.60%</b>



# APPENDIX

NEPC, LLC

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# CALENDAR YEAR INDEX PERFORMANCE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	Jan	Feb	Mar	Q1	YTD
<b>S&amp;P 500</b>	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%
<b>Russell 1000</b>	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%
<b>Russell 2000</b>	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%
<b>Russell 2500</b>	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%
<b>MSCI EAFE</b>	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%
<b>MSCI EM</b>	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%
<b>MSCI ACWI</b>	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%
<b>Private Equity*</b>	13.7%	19.7%	7.9%	12.5%	20.6%	12.7%	9.6%	8.3%	13.7%*	-	-	-	-	-
<b>BC TIPS</b>	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%
<b>BC Municipal Bond</b>	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%
<b>BC Muni High Yield</b>	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%
<b>BC US Corp High Yield</b>	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%
<b>BC US Aggregate</b>	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%
<b>BC Global Aggregate</b>	-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%
<b>BC Long Treasuries</b>	-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%
<b>BC US Long Credit</b>	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%
<b>BC US STRIPS 20+ Yr</b>	-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%
<b>JPM GBI-EM Glob Div</b>	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%
<b>JPM EMBI Glob Div</b>	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%
<b>CS Leveraged Loan</b>	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%
<b>CS Hedge Fund</b>	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%
<b>BBG Commodity</b>	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%
<b>Alerian MLP</b>	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%
<b>FTSE NAREIT Eqy REITs</b>	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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