

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



**May 22, 2018**

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# MARKET ENVIRONMENT

NEPC, LLC

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# PERFORMANCE OVERVIEW

## Q1 Market Summary

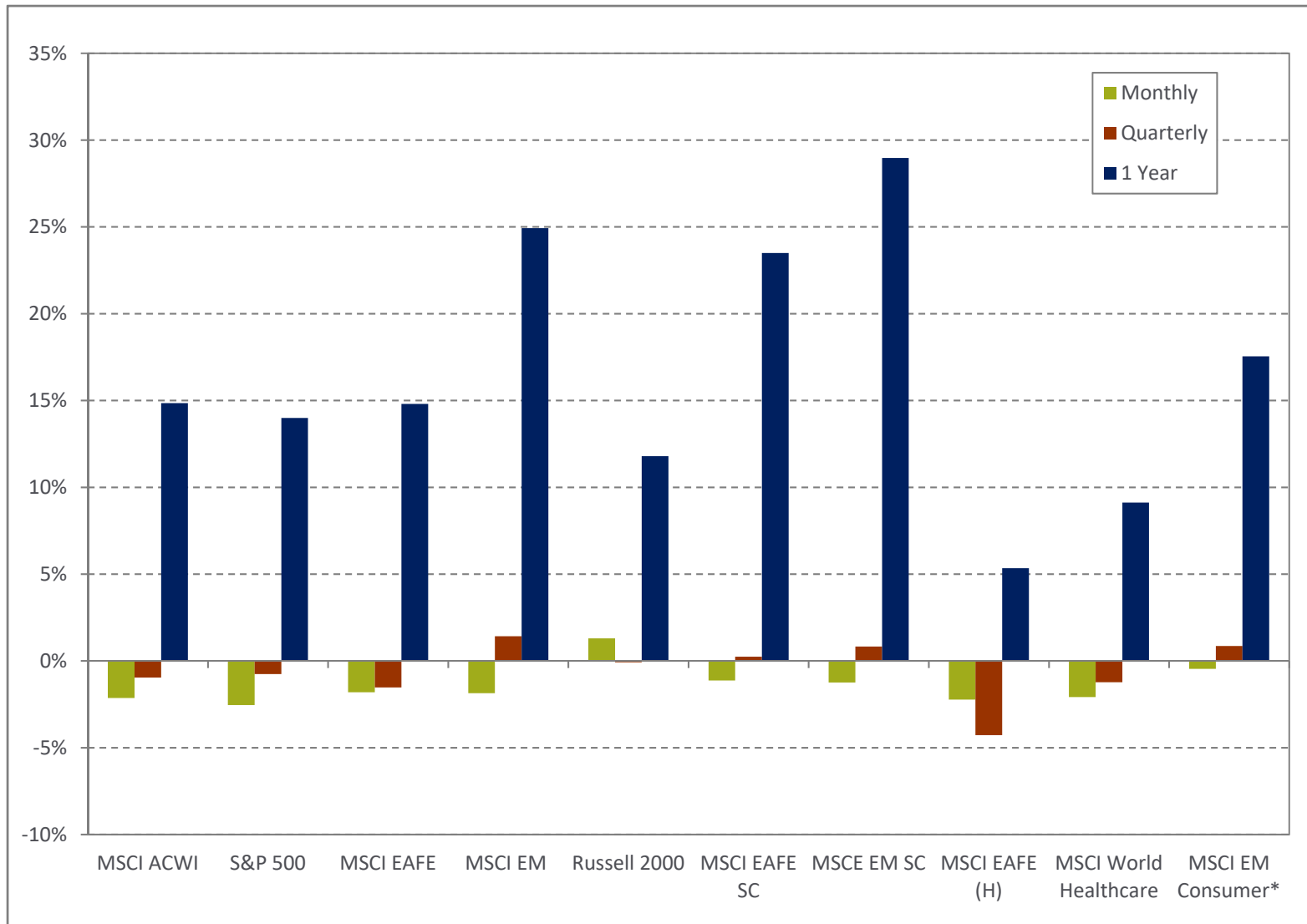
Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
											
-2.3%	8.9	33 bps	-0.8%	-1.5%	1.4%	-1.5%	-0.9%	-1.8%	7.5%	1.7%	-6.5%

- **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).



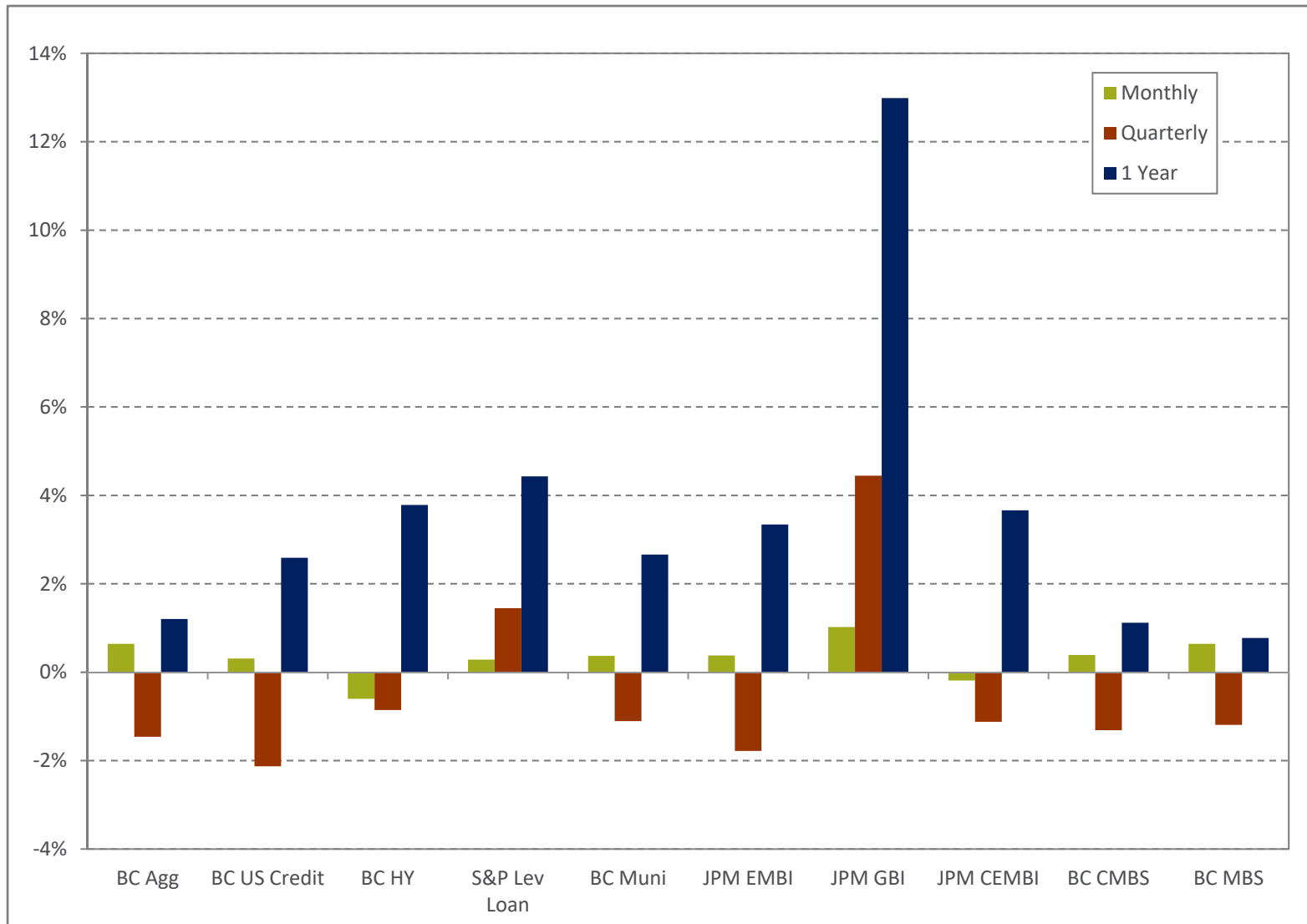
# Q1 EQUITY INDEX RETURNS



\*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 TEACHERS' RETIREMENT SYSTEM**

NEPC, LLC

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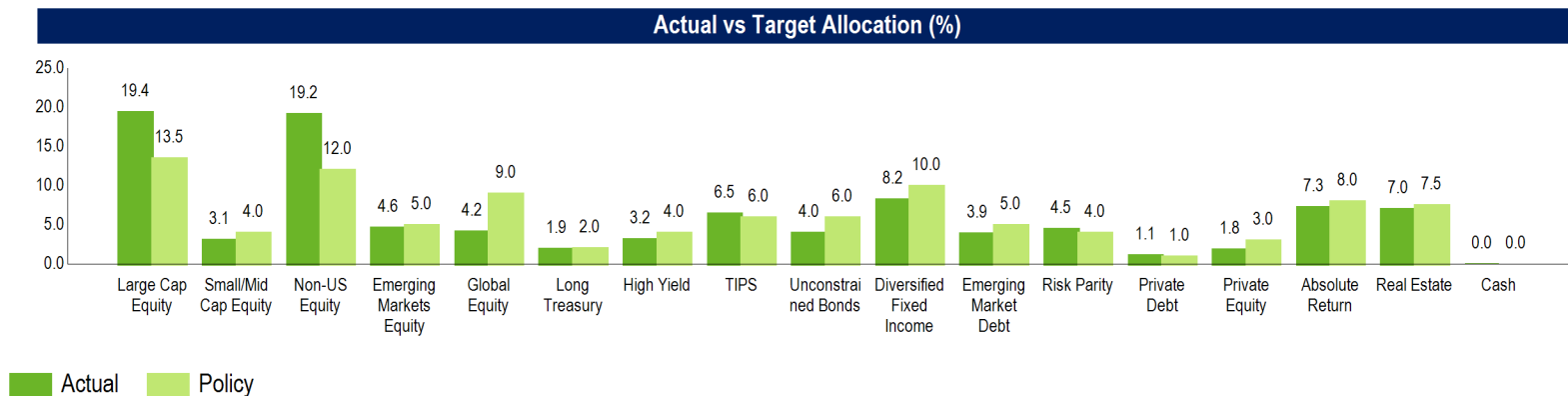
## Vermont State Teachers

# 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 Teachers Composite</b>	<b>\$1,819,434,163</b>	<b>0.7%</b>	<b>7</b>	<b>7.3%</b>	<b>29</b>	<b>10.1%</b>	<b>40</b>	<b>6.3%</b>	<b>40</b>	<b>5.9%</b>	<b>89</b>	<b>6.2%</b>	<b>82</b>	<b>5.3%</b>	<b>82</b>
Allocation Index		-0.5%	62	6.5%	54	9.4%	57	5.8%	67	5.8%	90	5.7%	94	5.0%	89
Policy Index		-0.4%	55	6.1%	69	8.9%	71	5.9%	66	5.8%	90	5.8%	91	4.9%	92
InvMetrics Public DB < \$5 Billion Net Median		-0.3%		6.6%		9.6%		6.1%		7.2%		7.0%		6.0%	

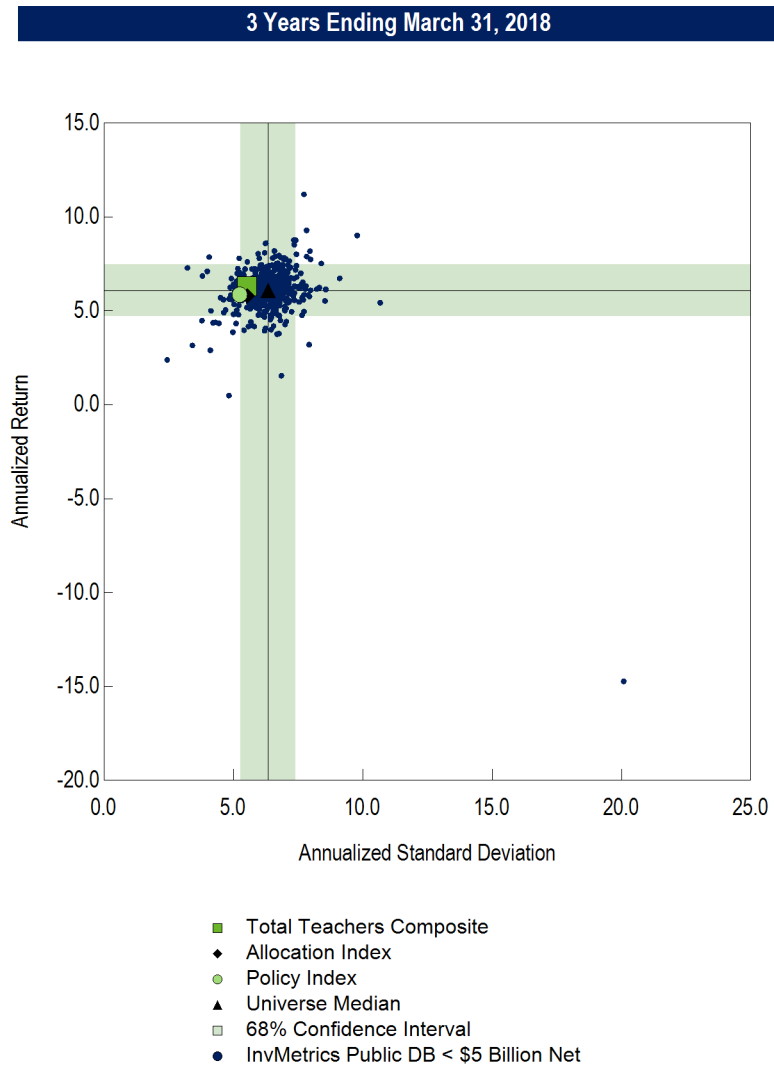
3 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Teachers Composite	6.30%	40	5.52%	16	1.04	17	1.89	5	
Allocation Index	5.81%	67	5.54%	16	0.95	33	1.67	15	
Policy Index	5.86%	66	5.25%	10	1.01	21	1.81	7	

5 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
Total Teachers Composite	5.85%	89	5.62%	19	0.98	88	1.90	60	
Allocation Index	5.75%	90	5.37%	14	1.01	83	1.92	58	
Policy Index	5.82%	90	5.23%	9	1.05	76	1.99	51	



## Vermont State Teachers

# TOTAL FUND RISK/RETURN - NET



3 Years Ending March 31, 2018

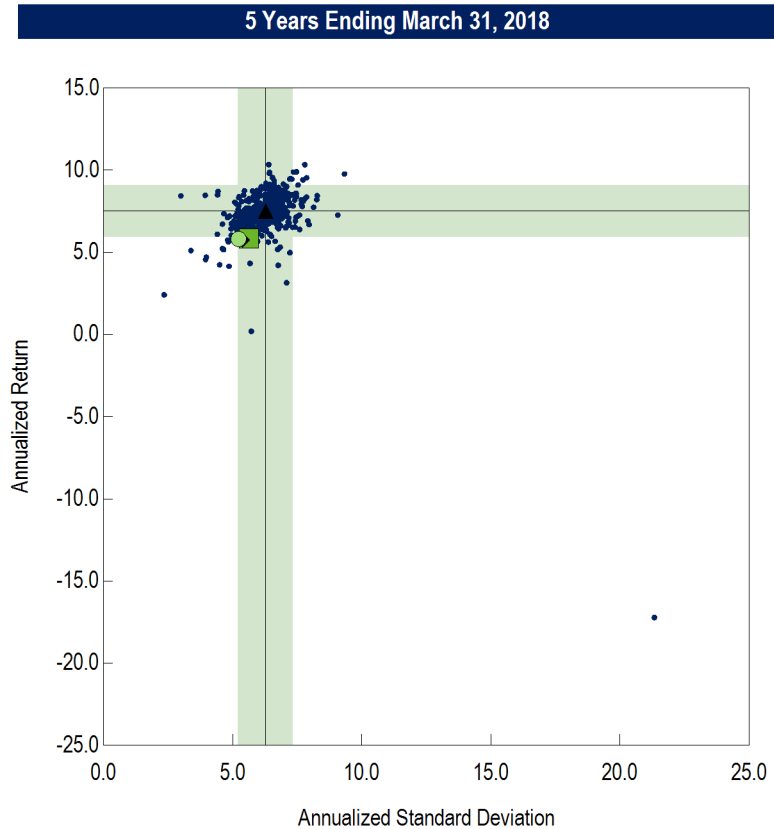
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Teachers Composite	6.3%	40	5.5%	16	1.0	17
Allocation Index	5.8%	67	5.5%	16	1.0	33
S&P 500	10.8%	1	10.3%	99	1.0	25
FTSE WGBI TR	3.5%	99	5.9%	26	0.5	99
MSCI ACWI	8.1%	2	10.9%	99	0.7	88
MSCI ACWI ex USA	6.2%	45	12.5%	99	0.5	99
InvMetrics Public DB < \$5 Billion Net Median	6.1%	--	6.3%	--	0.9	--





## Vermont State Teachers

# TOTAL FUND RISK/RETURN - NET



5 Years Ending March 31, 2018

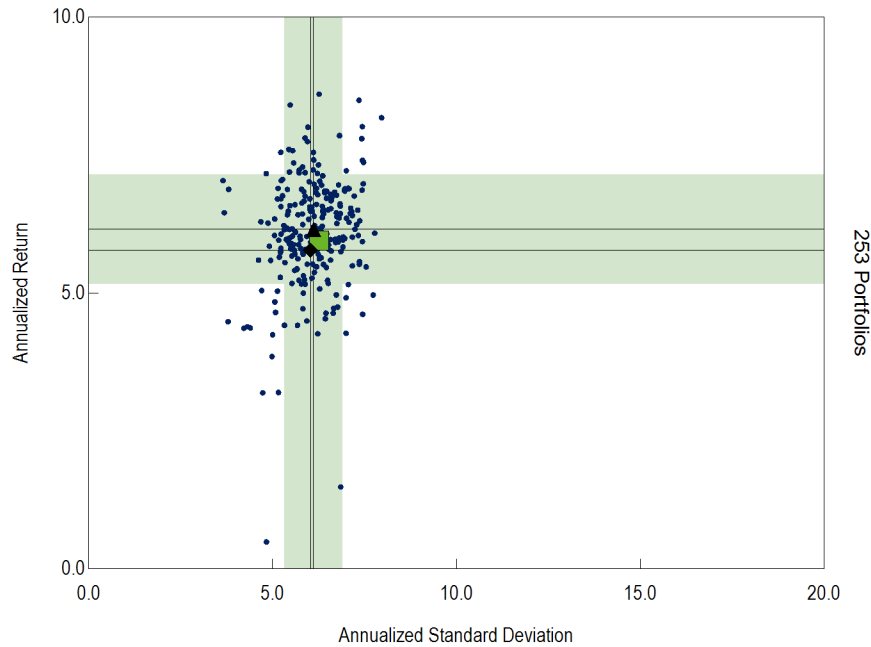
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Teachers Composite	5.9%	89	5.6%	19	1.0	88
Allocation Index	5.8%	90	5.4%	14	1.0	83
S&P 500	13.3%	1	9.9%	99	1.3	14
FTSE WGBI TR	1.2%	99	5.4%	15	0.2	99
MSCI ACWI	9.2%	2	10.3%	99	0.9	97
MSCI ACWI ex USA	5.9%	88	11.9%	99	0.5	99
InvMetrics Public DB < \$5 Billion Net Median	7.2%	--	6.3%	--	1.2	--



Vermont State Teachers

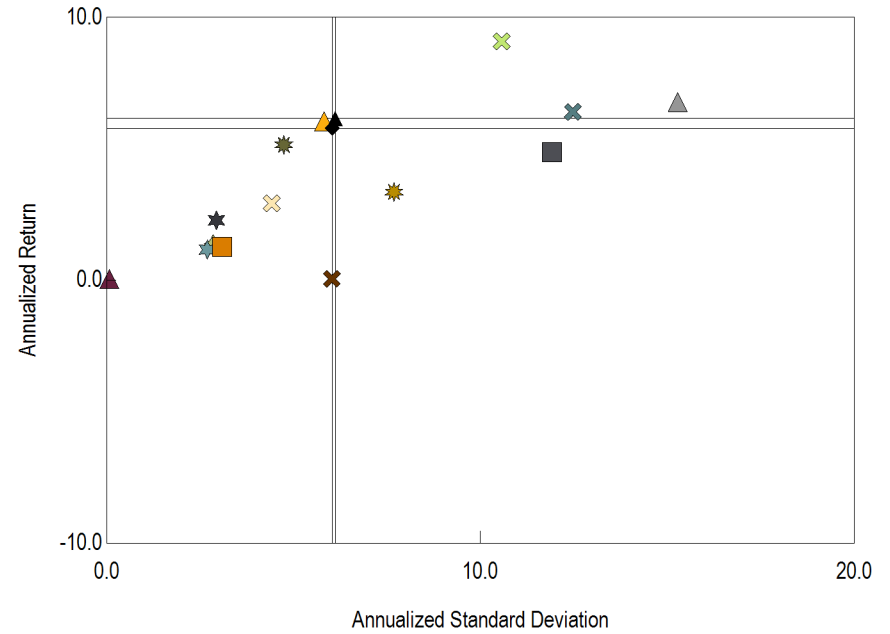
# TOTAL MARKETABLE ASSETS - NET

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

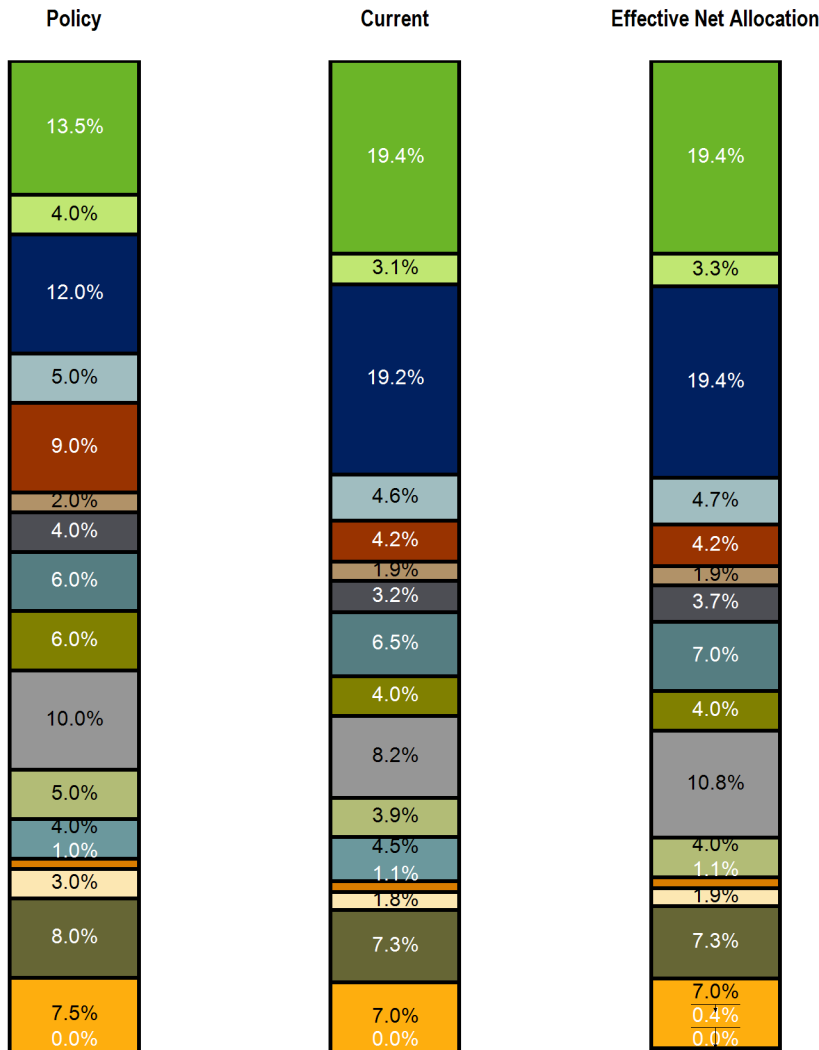


- SSgA S&P 500 Cap-Wgt
- ✖ SSgA S&P 500 Equal-Wgt
- \* T. Rowe
- ▲ Champlain
- ◆ Wellington
- \* Acadian
- Mondrian
- \* SSgA ACWI Ex US
- ▲ Aberdeen
- ◆ PIMCO Core Plus
- \* SSgA Barclays Aggregate Index
- BlackRock TIPS
- ✖ KDP
- \* Guggenheim
- ▲ Wellington Opportunistic EMD
- \* PIMCO Unconstrained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



Vermont State Teachers

# TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



Asset Allocation vs. Target			
	Policy	Current	Effective Net Allocation
Large Cap Equity	13.5%	19.4%	19.4%
Small/Mid Cap Equity	4.0%	3.1%	3.3%
Non-US Equity	12.0%	19.2%	19.4%
Emerging Markets Equity	5.0%	4.6%	4.7%
Global Equity	9.0%	4.2%	4.2%
Long Treasury	2.0%	1.9%	1.9%
High Yield	4.0%	3.2%	3.7%
TIPS	6.0%	6.5%	7.0%
Unconstrained Bonds	6.0%	4.0%	4.0%
Diversified Fixed Income	10.0%	8.2%	10.8%
Emerging Market Debt	5.0%	3.9%	4.0%
Risk Parity	4.0%	4.5%	--
Private Debt	1.0%	1.1%	1.1%
Private Equity	3.0%	1.8%	1.9%
Absolute Return	8.0%	7.3%	7.3%
Real Estate	7.5%	7.0%	7.0%
Commodities	--	--	0.4%
Cash	0.0%	0.0%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

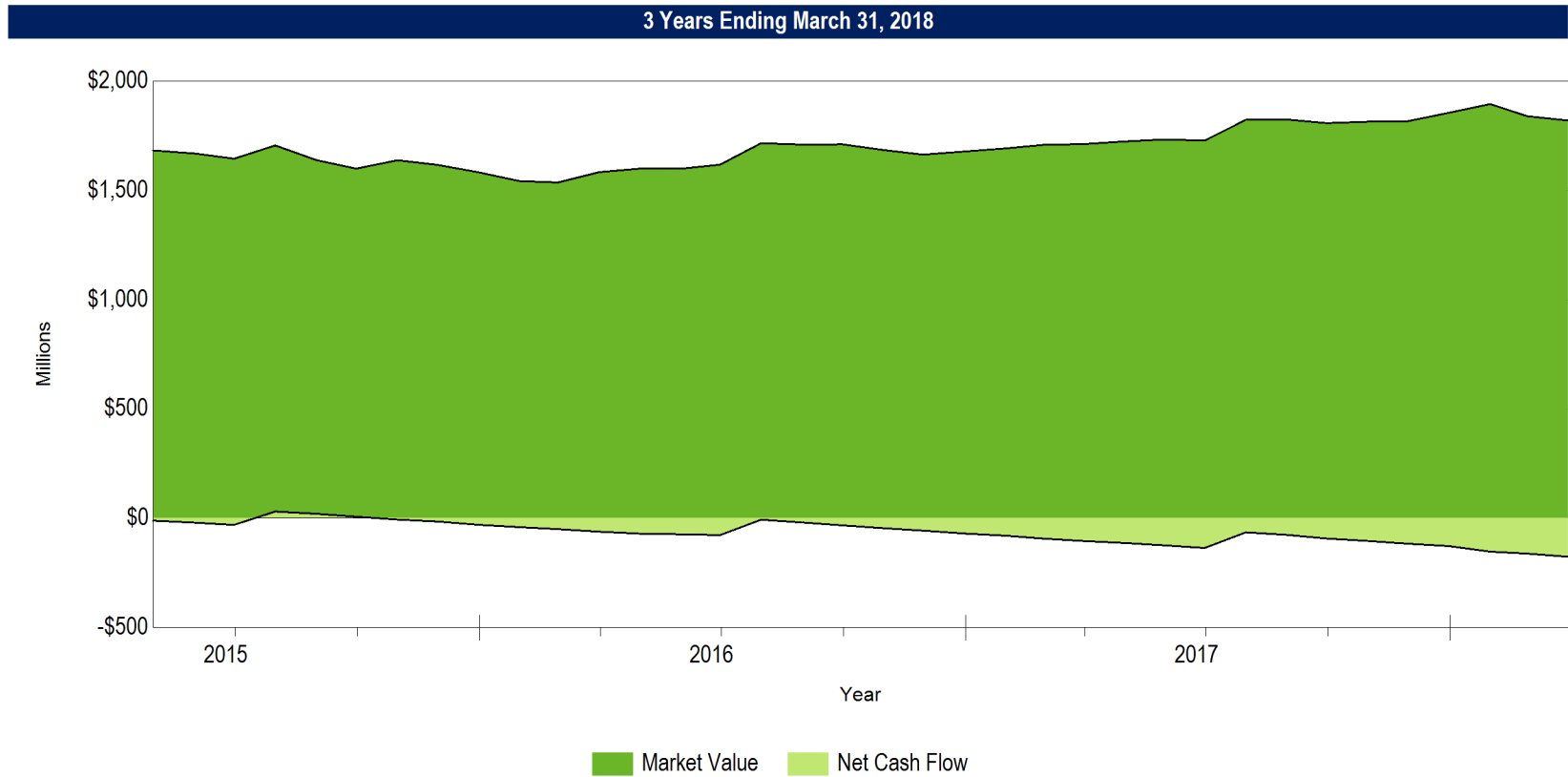
-Effective Net Allocation breaks out the exposure of AQR Global Risk Premium.

-Absolute Return includes Grosvenor, Pinnacle Natural Resources, L.P., and Allianz Structured Alpha.



## Vermont State Teachers

# TOTAL FUND ASSET GROWTH SUMMARY



	Last Three Months	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$1,855,036,357	\$1,727,857,427	\$1,711,975,873	\$1,671,328,249
Net Cash Flow	-\$47,715,303	-\$36,462,650	-\$66,924,412	-\$157,955,532
Net Investment Change	\$12,113,109	\$128,039,385	\$174,382,703	\$306,061,447
Ending Market Value	\$1,819,434,163	\$1,819,434,163	\$1,819,434,163	\$1,819,434,163



**Vermont State Teachers**

# 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	\$140,755,974	\$200,010	-\$60,500,000	-\$60,299,990	-\$200,010	\$3,716,560	\$84,172,543
Acadian	\$68,915,147	\$74,164	-\$11,500,000	-\$11,425,836	-\$74,164	-\$295,719	\$57,193,592
Allianz Structured Alpha	\$32,653,510	\$0	\$0	\$0	\$0	-\$711,458	\$31,942,051
Benefit Street Partners	\$11,911,634	\$7,655,576	\$0	\$7,655,576	\$0	\$368,268	\$19,935,478
BlackRock TIPS	\$118,172,203	\$19,638	\$0	\$19,638	-\$19,638	-\$935,489	\$117,256,351
Champlain	\$56,161,419	\$107,192	-\$1,892,538	-\$1,785,346	-\$107,192	\$1,885,437	\$56,261,511
GAM Unconstrained Bond	\$36,100,683	\$0	\$0	\$0	-\$47,569	\$259,375	\$36,360,058
Grosvenor	\$54,340,273	\$0	\$0	\$0	\$0	\$919,109	\$55,259,382
Guggenheim	\$54,994,740	\$55,962	-\$15,832,802	-\$15,776,840	-\$55,962	-\$465,228	\$38,752,672
Harbourvest Dover IX Fund	\$3,371,265	\$799,385	-\$127,843	\$671,542	\$0	\$903,892	\$4,946,699
Harbourvest Dover VIII Fund	\$7,095,536	\$0	-\$2,200,563	-\$2,200,563	\$0	\$81,425	\$4,976,399
Harbourvest Partners IX Buyout Fund	\$7,235,561	\$279,404	\$0	\$279,404	\$0	\$259,841	\$7,774,806
Harbourvest Partners IX Credit Opportunities	\$1,058,479	\$1,685	\$0	\$1,685	\$0	\$27,536	\$1,087,699
Harbourvest Partners IX Venture Fund	\$5,294,971	\$71,630	\$0	\$71,630	\$0	\$254,686	\$5,621,287
Harbourvest Partners X Buyout Fund	\$3,943,669	\$399,234	\$0	\$399,234	\$0	\$218,536	\$4,561,440
Harbourvest Partners X Venture Fund	\$2,588,277	\$427,751	\$0	\$427,751	\$0	\$176,534	\$3,192,562
HIPEP VII	\$3,269,579	\$0	\$0	\$0	\$0	\$431,652	\$3,701,230
HIPEP VIII	--	\$2,164,548	\$0	\$2,164,548	\$0	\$325,478	\$2,490,026
Hosking Global Equity	\$0	\$80,848,373	\$0	\$80,848,373	-\$50,146	-\$4,968,048	\$75,880,325
KDP	\$18,823,360	\$28,929	\$0	\$28,929	-\$28,929	-\$105,914	\$18,746,376
Mondrian	\$64,637,559	\$60,765	\$0	\$60,765	-\$60,765	-\$1,150,633	\$63,547,690
Mondrian GFI	--	--	--	--	--	--	--
PIMCO Core Plus	\$125,940,146	\$8,092,549	\$0	\$8,092,549	-\$92,549	-\$1,702,237	\$132,330,458
PIMCO Unconstrained	\$36,194,916	\$54,661	\$0	\$54,661	-\$54,661	\$60,397	\$36,309,974



**Vermont State Teachers**

# 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.	\$43,837,812	\$0	\$0	\$0	\$0	\$1,246,480	\$45,084,292
Siguler Guff DREOF II	\$15,626,586	\$0	-\$755,262	-\$755,262	\$0	\$1,052,757	\$15,924,081
Siguler Guff DREOF II Co-Investment	\$5,290,261	\$724,515	\$0	\$724,515	\$0	\$102,886	\$6,117,662
SSgA ACWI Ex US Partial Return*	\$209,856,297	\$19,973,340	\$0	\$19,973,340	-\$39,508	-\$2,214,345	\$227,615,292
SSgA Barclays Aggregate Index Partial Return*	\$17,544,281	\$8,636	\$0	\$8,636	-\$8,636	-\$261,482	\$17,291,435
SSgA Russell 2000 Growth	--	--	--	--	--	--	--
SSgA S&P 500 Cap-Wgt Partial Return*	\$316,423,974	\$40,587,976	-\$93,632,336	-\$53,044,360	-\$21,808	\$15,288,679	\$278,668,292
SSgA S&P 500 Equal-Wgt Partial Return*	\$73,934,015	\$7,596	\$0	\$7,596	-\$7,596	-\$748,229	\$73,193,382
T. Rowe	\$1,390	\$0	\$0	\$0	\$0	\$0	\$1,390
Transwestern / Aslan III	\$128,447	\$0	\$0	\$0	\$0	\$0	\$128,447
UBS Trumbull	\$103,436,184	\$190,394	\$0	\$190,394	-\$190,394	\$1,760,059	\$105,386,637
Vermont Cash	\$2,112,642	\$1,653,287	-\$3,590,537	-\$1,937,250	\$0	\$2,797	\$178,189
Wellington Opportunistic EMD	\$94,605,848	\$0	-\$22,000,000	-\$22,000,000	\$0	-\$1,482,161	\$71,123,687
Wellington Small Cap Equity	\$29,670	\$0	-\$27,589	-\$27,589	\$0	\$87	\$2,167
Z-Terminated AQR Global Risk Premium	\$82,215,145	\$81,295	\$0	\$81,295	-\$81,295	-\$999,037	\$81,297,403
Z-Terminated GAM	\$197,484	\$0	-\$176,193	-\$176,193	\$0	\$9,378	\$30,668
Z-Terminated Mellon Dynamic Growth	\$51,563	\$0	-\$51,611	-\$51,611	\$0	\$67	\$19
Z-Terminated State Street Long U.S. Treasury Index	\$36,285,858	\$3,476	\$0	\$3,476	-\$3,476	-\$1,198,824	\$35,090,510
<b>Total</b>	<b>\$1,855,036,357</b>	<b>\$164,571,971</b>	<b>-\$212,287,274</b>	<b>-\$47,715,303</b>	<b>-\$1,144,297</b>	<b>\$12,113,109</b>	<b>\$1,819,434,163</b>



## Vermont State Teachers

# 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 Teachers Composite</b>	<b>1,814,159,758</b>	<b>100.0</b>	<b>100.0</b>	<b>0.7</b>	<b>7</b>	<b>7.3</b>	<b>29</b>	<b>10.1</b>	<b>40</b>	<b>6.3</b>	<b>40</b>	<b>5.9</b>	<b>89</b>	<b>5.3</b>	<b>82</b>
<i>Policy Index</i>				-0.5	62	6.5	54	9.4	57	5.8	67	5.8	90	5.0	89
<i>Allocation Index</i>				-0.4	55	6.1	69	8.9	71	5.9	66	5.8	90	4.9	92
<i>InvestorForce Public DB &lt; \$5 Billion Net Median</i>				-0.3		6.6		9.6		6.1		7.2		6.0	
<b>Total Marketable Assets</b>	<b>1,501,239,311</b>	<b>82.8</b>	<b>80.5</b>	<b>-0.9</b>	<b>90</b>	<b>5.9</b>	<b>79</b>	<b>9.2</b>	<b>64</b>	<b>5.9</b>	<b>63</b>	<b>5.4</b>	<b>95</b>	<b>--</b>	<b>--</b>
<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	
<b>Total Domestic Equity</b>	<b>408,126,743</b>	<b>22.5</b>	<b>17.5</b>	<b>-0.2</b>	<b>43</b>	<b>9.7</b>	<b>50</b>	<b>12.7</b>	<b>50</b>	<b>10.0</b>	<b>30</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<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	
<b>Total Large Cap Equities</b>	<b>351,863,064</b>	<b>19.4</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>29</b>
<i>S&amp;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&amp;P 500 Cap-Wgt</i>	278,668,292	15.4	10.0	-0.8	48	10.6	49	14.0	48	10.8	24	13.3	32	--	--
<i>S&amp;P 500</i>				-0.8	48	10.6	49	14.0	47	10.8	24	13.3	32	9.5	43
<i>SSgA S&amp;P 500 Equal-Wgt</i>	73,193,382	4.0	3.5	-1.0	53	9.1	63	11.8	63	9.1	50	12.8	40	10.8	16
<i>S&amp;P 500 Equal Weighted</i>				-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>56,263,678</b>	<b>3.1</b>	<b>4.0</b>	<b>3.4</b>	<b>17</b>	<b>8.5</b>	<b>61</b>	<b>10.5</b>	<b>66</b>	<b>9.4</b>	<b>27</b>	<b>12.4</b>	<b>29</b>	<b>11.0</b>	<b>29</b>
<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>	56,261,511	3.1	4.0	3.4	17	9.6	48	14.9	42	12.3	5	13.9	14	--	--
<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	

Fiscal Year End is 6/30.

Total Marketable Assets Custom Index mirrors the Plan Policy Index, while excluding Absolute Return, Real Estate, Private Debt and Private Equity.

Custom SMID Cap Equity Index is 50% Russell 2500 and 50% Russell 2000 starting 10/1/2017, and 100% Russell 2500 prior, corresponding to the change in strategy.



## Vermont State Teachers

# 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>508,375,437</b>	<b>28.0</b>	<b>26.0</b>	<b>-1.0</b>	<b>73</b>	<b>9.4</b>	<b>72</b>	<b>16.7</b>	<b>70</b>	<b>7.6</b>	<b>50</b>	<b>6.3</b>	<b>76</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>348,322,569</b>	<b>19.2</b>	<b>12.0</b>	<b>-1.4</b>	<b>57</b>	<b>9.7</b>	<b>49</b>	<b>17.2</b>	<b>44</b>	<b>8.2</b>	<b>30</b>	<b>8.5</b>	<b>35</b>	<b>3.4</b>	<b>66</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	57,159,586	3.2	3.0	-1.5	63	10.6	37	22.4	22	12.5	11	11.1	14	4.0	51
Mondrian	63,547,690	3.5	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	227,615,292	12.5	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>75,880,325</b>	<b>4.2</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	75,880,325	4.2	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>84,172,543</b>	<b>4.6</b>	<b>5.0</b>	<b>-0.8</b>	<b>92</b>	<b>8.7</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	84,172,543	4.6	5.0	-0.8	92	8.7	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 Teachers

# 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>503,261,520</b>	<b>27.7</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>
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	
<b>Total Diversified Fixed Income</b>	<b>149,621,893</b>	<b>8.2</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>47</b>	<b>2.7</b>	<b>39</b>	<b>4.3</b>	<b>45</b>
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	132,330,458	7.3	7.0	-1.5	62	-0.1	43	1.6	33	1.4	52	1.6	78	--	--
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	17,291,435	1.0	3.0	-1.5	61	-0.3	67	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	
<b>Total TIPS</b>	<b>117,256,351</b>	<b>6.5</b>	<b>6.0</b>	<b>-0.8</b>	<b>49</b>	<b>1.3</b>	<b>53</b>	<b>0.9</b>	<b>54</b>	<b>1.3</b>	<b>37</b>	<b>0.0</b>	<b>47</b>	<b>--</b>	<b>--</b>
BlackRock TIPS	117,256,351	6.5	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	--
<b>Total High Yield Bonds</b>	<b>57,499,048</b>	<b>3.2</b>	<b>4.0</b>	<b>-0.7</b>	<b>54</b>	<b>1.6</b>	<b>47</b>	<b>3.3</b>	<b>63</b>	<b>4.7</b>	<b>45</b>	<b>4.7</b>	<b>38</b>	<b>7.5</b>	<b>49</b>
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	18,746,376	1.0	1.0	-0.6	44	0.9	83	2.5	90	2.9	95	3.2	94	--	--
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	38,752,672	2.1	3.0	-0.9	56	1.8	40	3.5	58	5.1	25	--	--	--	--
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 State Teachers

# 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>71,123,687</b>	<b>3.9</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>	--	--
Wellington Opportunistic EMD	71,123,687	3.9	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>35,090,510</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	35,090,510	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>72,670,032</b>	<b>4.0</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	36,309,974	2.0	2.5	0.2	68	1.8	76	2.7	85	2.3	85	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	36,360,058	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>81,297,422</b>	<b>4.5</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>8.0</b>	<b>30</b>	<b>9.4</b>	<b>44</b>	<b>3.4</b>	<b>58</b>	<b>3.5</b>	<b>59</b>	<b>5.0</b>	<b>57</b>
<b>Total Risk Parity</b>	<b>81,297,403</b>	<b>4.5</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>8.0</b>	<b>29</b>	<b>9.5</b>	<b>43</b>	<b>3.4</b>	<b>59</b>	<b>2.9</b>	<b>69</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	81,297,403	4.5	4.0	-1.2	69	8.0	29	9.5	43	3.4	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>178,189</b>	<b>0.0</b>	<b>0.0</b>												
Vermont Cash	178,189	0.0	0.0												



## Vermont State Teachers

# 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>127,185,088</b>	<b>7.0</b>	<b>7.5</b>	<b>2.1</b>	--	<b>8.4</b>	--	<b>9.3</b>	--	<b>9.8</b>	--	<b>11.4</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>105,515,084</b>	<b>5.8</b>	<b>6.0</b>	<b>1.7</b>	--	<b>5.2</b>	--	<b>5.6</b>	--	<b>8.5</b>	--	<b>10.7</b>	--	--	--
UBS Trumbull	105,386,637	5.8	6.0	1.7	--	5.2	--	6.2	--	7.9	--	9.0	--	4.6	--
Transwestern / Aslan III	128,447	0.0		0.0	--	0.0	--	0.0	--	1.9	--	0.7	--	-23.1	--
<b>Total Real Estate Non-Core</b>	<b>21,670,004</b>	<b>1.2</b>	<b>1.5</b>	<b>3.8</b>	--	<b>25.1</b>	--	<b>29.1</b>	--	<b>16.3</b>	--	--	--	--	--
Siguler Guff DREOF II	15,565,519	0.9	1.0	4.7	--	31.4	--	36.1	--	18.3	--	--	--	--	--
Siguler Guff DREOF II Co-Investment	6,104,485	0.3	0.5	1.5	--	7.0	--	9.4	--	--	--	--	--	--	--
<b>Total Absolute Return</b>	<b>132,316,394</b>	<b>7.3</b>	<b>8.0</b>	<b>1.1</b>	<b>44</b>	<b>5.3</b>	<b>43</b>	<b>5.1</b>	<b>56</b>	<b>1.6</b>	<b>68</b>	<b>3.4</b>	<b>71</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	55,259,382	3.0	3.0	1.7	31	5.8	37	6.3	44	2.9	46	4.7	46	--	--
Allianz Structured Alpha	31,942,051	1.8	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.	45,084,292	2.5	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>19,862,454</b>	<b>1.1</b>	<b>1.0</b>	<b>19.4</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	19,862,454	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>33,556,511</b>	<b>1.8</b>	<b>3.0</b>	<b>0.0</b>	--	<b>7.4</b>	--	<b>13.9</b>	--	<b>14.4</b>	--	<b>14.2</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.

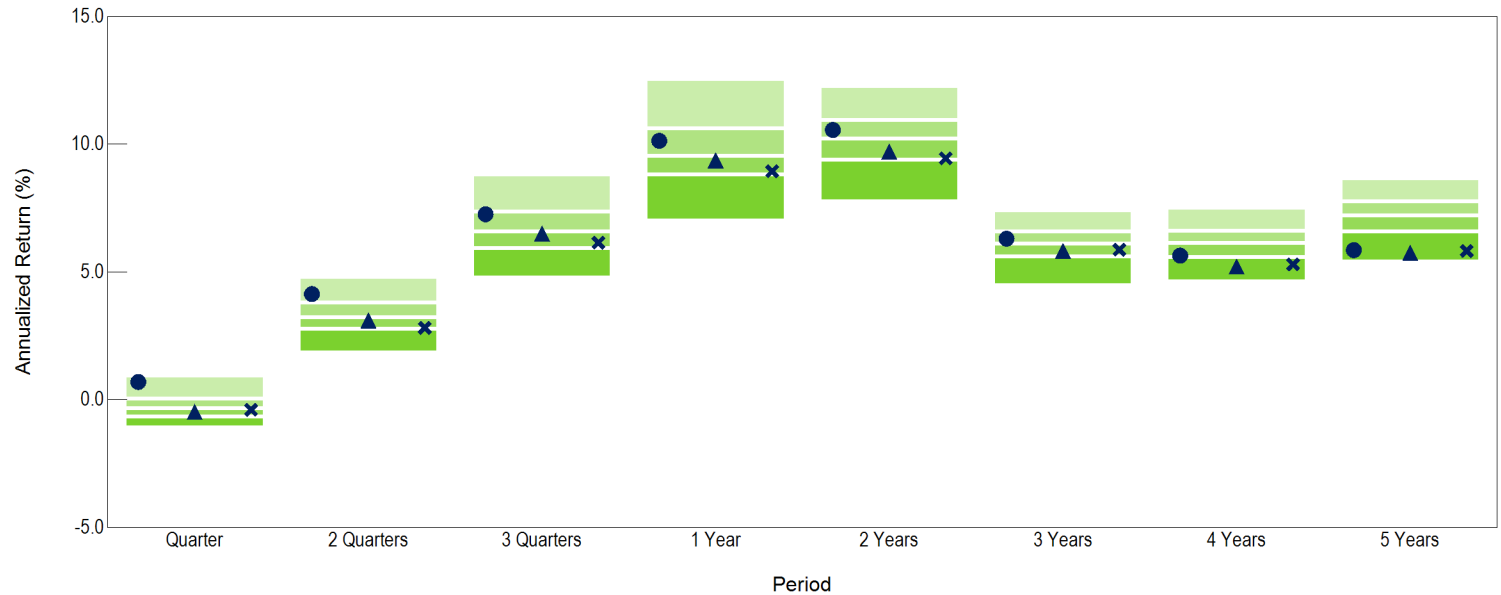
Harbourvest values based on final Capital Account Statements for Q4 2017, and cash adjusted through Q1 2018.



Vermont State Teachers

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



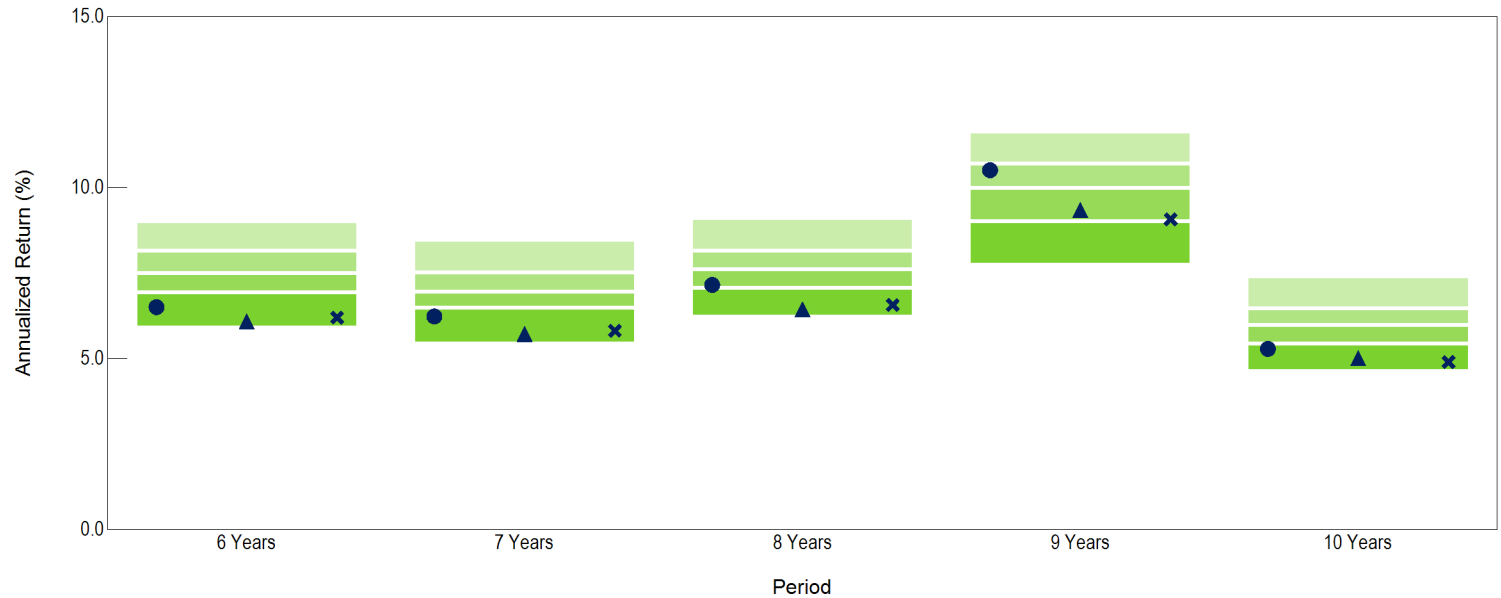
	Return (Rank)															
5th Percentile	0.9		4.8		8.8		12.5		12.3		7.4		7.5		8.7	
25th Percentile	0.1		3.8		7.4		10.6		11.0		6.6		6.6		7.8	
Median	-0.3		3.2		6.6		9.6		10.2		6.1		6.1		7.2	
75th Percentile	-0.7		2.8		6.0		8.8		9.4		5.6		5.6		6.6	
95th Percentile	-1.1		1.8		4.8		7.0		7.8		4.5		4.7		5.4	
# of Portfolios	239		239		238		238		233		229		219		208	
● Total Teachers Composite	0.7	(7)	4.1	(13)	7.3	(29)	10.1	(40)	10.6	(38)	6.3	(40)	5.6	(74)	5.9	(89)
▲ Allocation Index	-0.5	(62)	3.1	(57)	6.5	(54)	9.4	(57)	9.7	(67)	5.8	(67)	5.2	(87)	5.8	(90)
× 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 Teachers

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



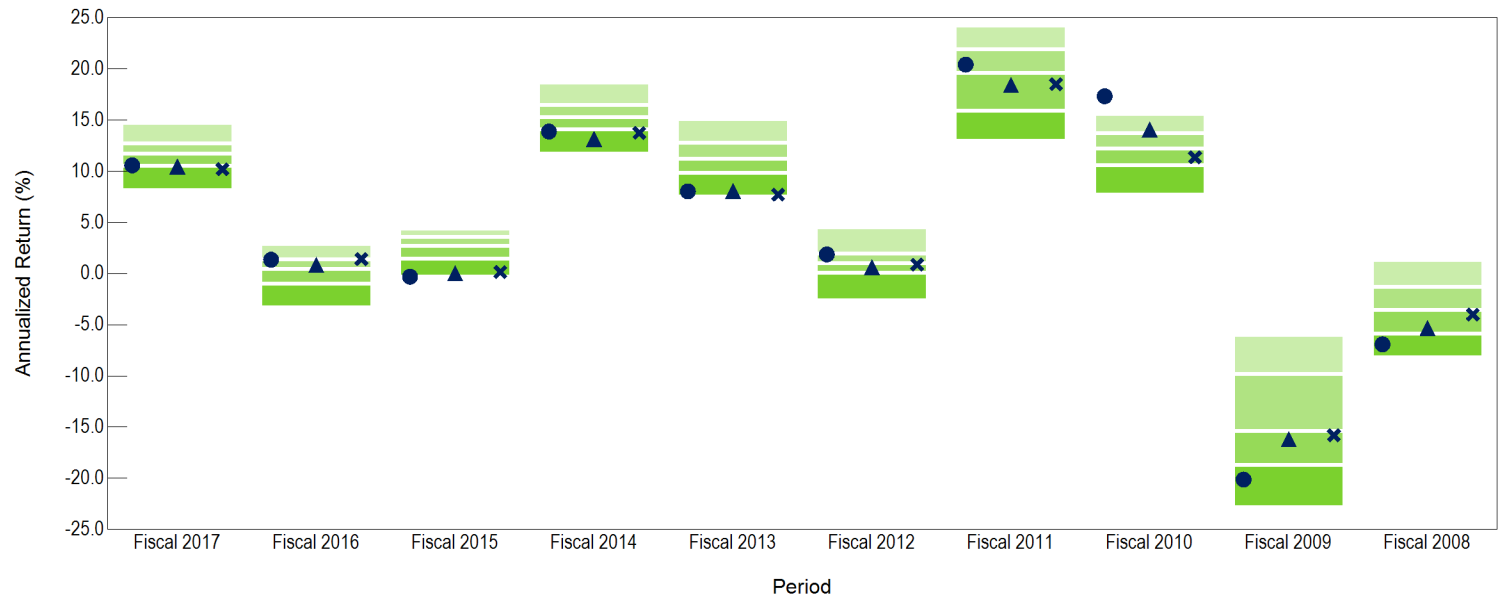
	Return (Rank)									
5th Percentile	9.0		8.5		9.1		11.6		7.4	
25th Percentile	8.2		7.5		8.2		10.7		6.5	
Median	7.5		7.0		7.6		10.0		6.0	
75th Percentile	7.0		6.5		7.1		9.0		5.5	
95th Percentile	5.9		5.4		6.2		7.8		4.6	
# of Portfolios	197		178		172		161		159	
● Total Teachers Composite	6.5	(86)	6.2	(82)	7.2	(71)	10.5	(34)	5.3	(82)
▲ Allocation Index	6.1	(94)	5.7	(94)	6.4	(94)	9.3	(67)	5.0	(89)
x Policy Index	6.2	(93)	5.8	(91)	6.6	(92)	9.1	(74)	4.9	(92)



Vermont State Teachers

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



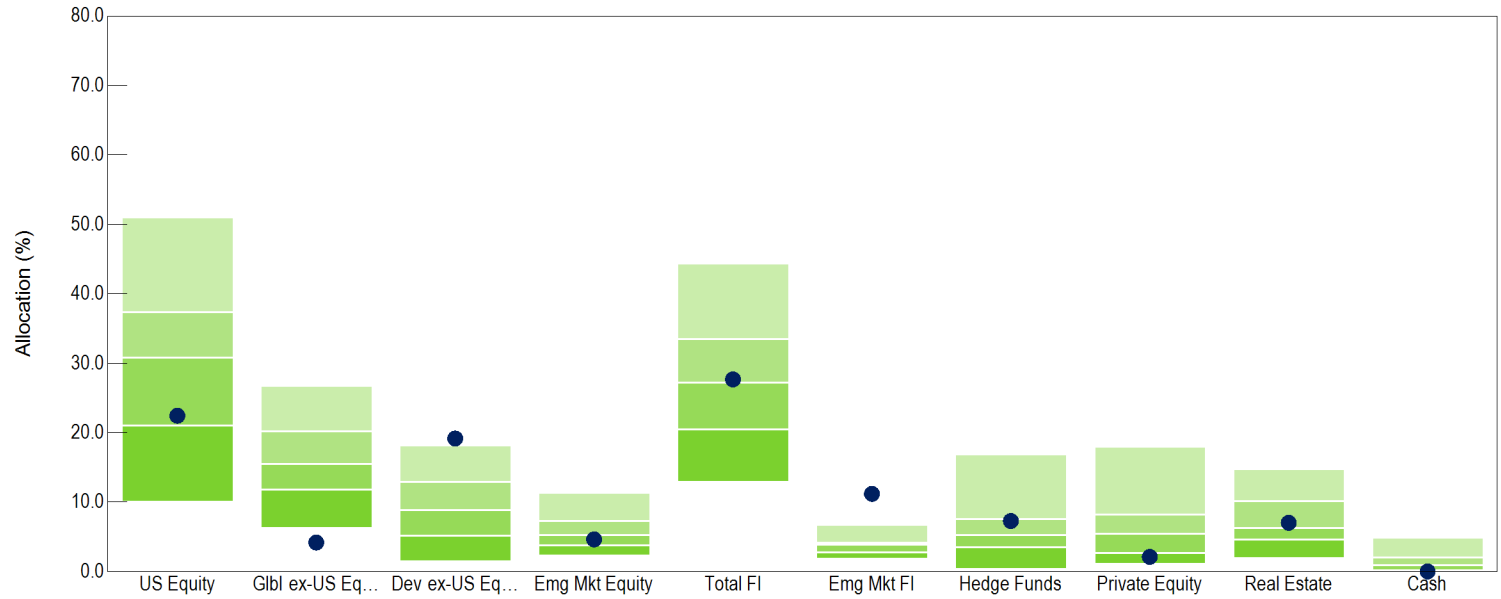
	Return (Rank)										
	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	
5th Percentile	14.7	2.8	4.4	18.6	15.1	4.5	24.2	15.5	-6.0	1.3	
25th Percentile	12.8	1.4	3.6	16.5	12.8	2.0	21.9	13.7	-9.8	-1.3	
Median	11.7	0.5	2.7	15.3	11.2	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 Teachers Composite	10.6 (75)	1.3 (27)	-0.3 (96)	13.9 (82)	8.0 (95)	1.9 (29)	20.4 (39)	17.3 (1)	-20.1 (85)	-6.9 (84)	
▲ Allocation Index	10.4 (78)	0.8 (38)	0.0 (95)	13.1 (91)	8.0 (95)	0.6 (62)	18.4 (62)	14.0 (18)	-16.2 (56)	-5.3 (72)	
× Policy Index	10.2 (81)	1.4 (25)	0.1 (94)	13.7 (83)	7.7 (95)	0.9 (55)	18.5 (60)	11.3 (65)	-15.8 (54)	-4.0 (56)	



## Vermont State Teachers

# TOTAL FUND ALLOCATION VS. PEER UNIVERSE - NET

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

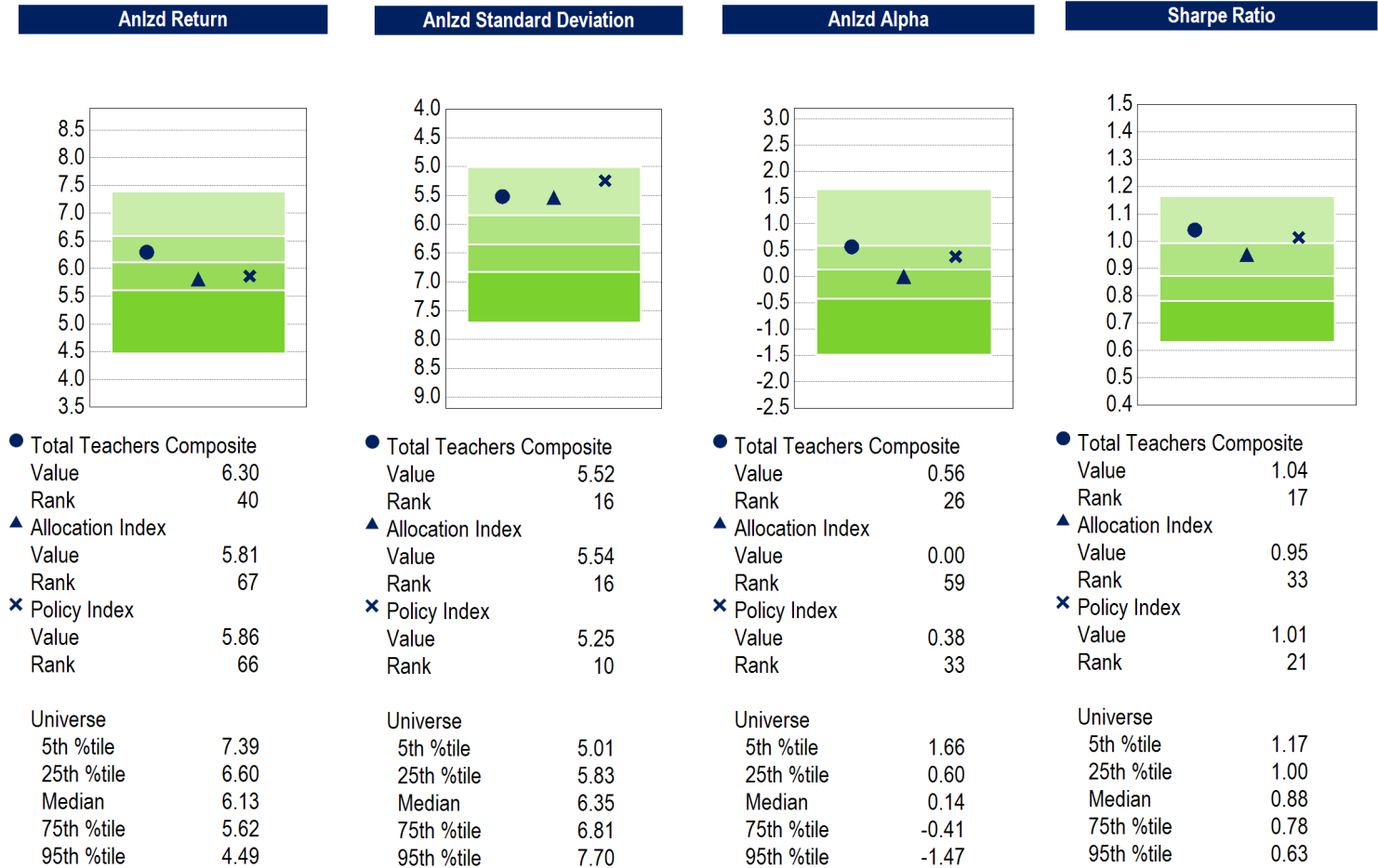


	Allocation (Rank)																			
5th Percentile	51.0	26.7	18.2	11.3	44.3	6.8	16.9	17.9	14.8	4.9	-	-	-	-	-	-				
25th Percentile	37.5	20.3	13.0	7.3	33.5	4.2	7.6	8.3	10.2	2.2	-	-	-	-	-	-				
Median	30.9	15.6	9.0	5.4	27.3	4.0	5.4	5.5	6.4	1.0	-	-	-	-	-	-				
75th Percentile	21.1	11.9	5.3	3.9	20.6	2.9	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 Teachers Composite	22.4	(72)	4.2	(99)	19.1	(4)	4.6	(68)	27.7	(48)	11.2	(1)	7.3	(31)	2.1	(79)	7.0	(45)	0.0	(96)



# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

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



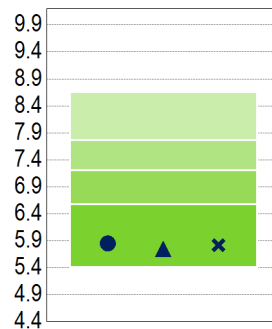


## Vermont State Teachers

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

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

#### Anlzd Return



- Total Teachers Composite

Value 5.85  
Rank 89

- ▲ Allocation Index

Value 5.75  
Rank 90

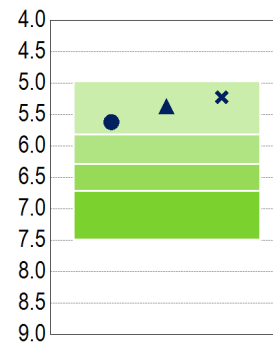
- × Policy Index

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 Teachers Composite

Value 5.62  
Rank 19

- ▲ Allocation Index

Value 5.37  
Rank 14

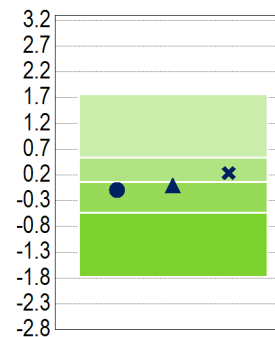
- × Policy Index

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 Teachers Composite

Value -0.09  
Rank 61

- ▲ Allocation Index

Value 0.00  
Rank 55

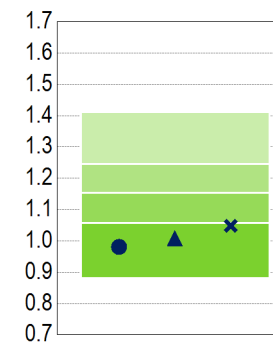
- × Policy Index

Value 0.24  
Rank 42

Universe

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

#### Sharpe Ratio



- Total Teachers Composite

Value 0.98  
Rank 88

- ▲ Allocation Index

Value 1.01  
Rank 83

- × Policy Index

Value 1.05  
Rank 76

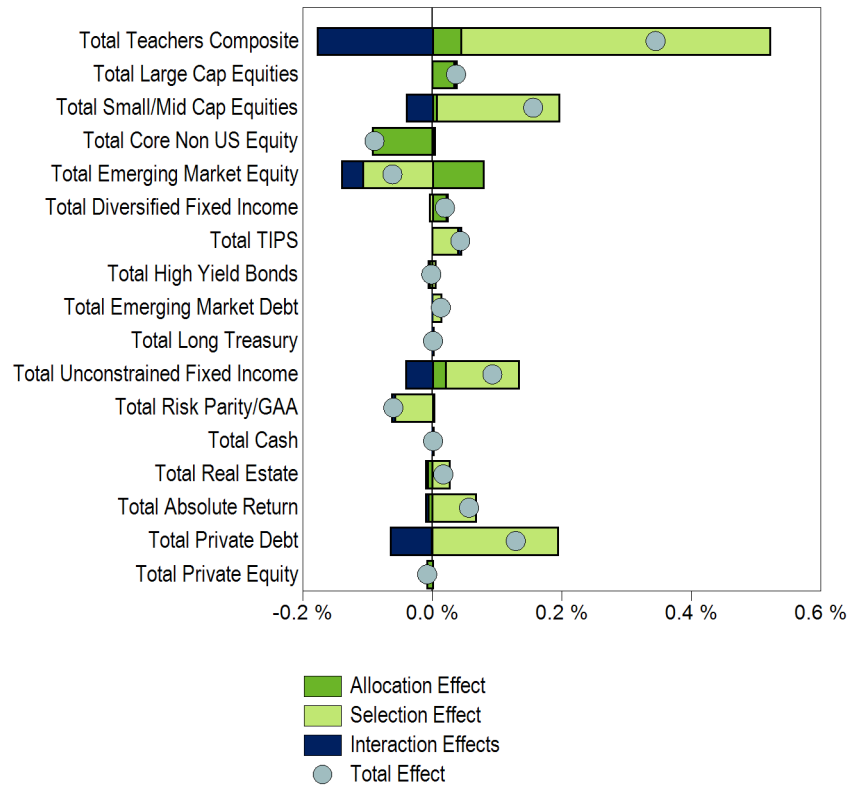
Universe

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



# 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	-1.4%	-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	-0.7%	-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>-0.5%</b>	<b>0.3%</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 policyindex asset weights the underlying policy indices of each option in the plan and the respective benchmark.

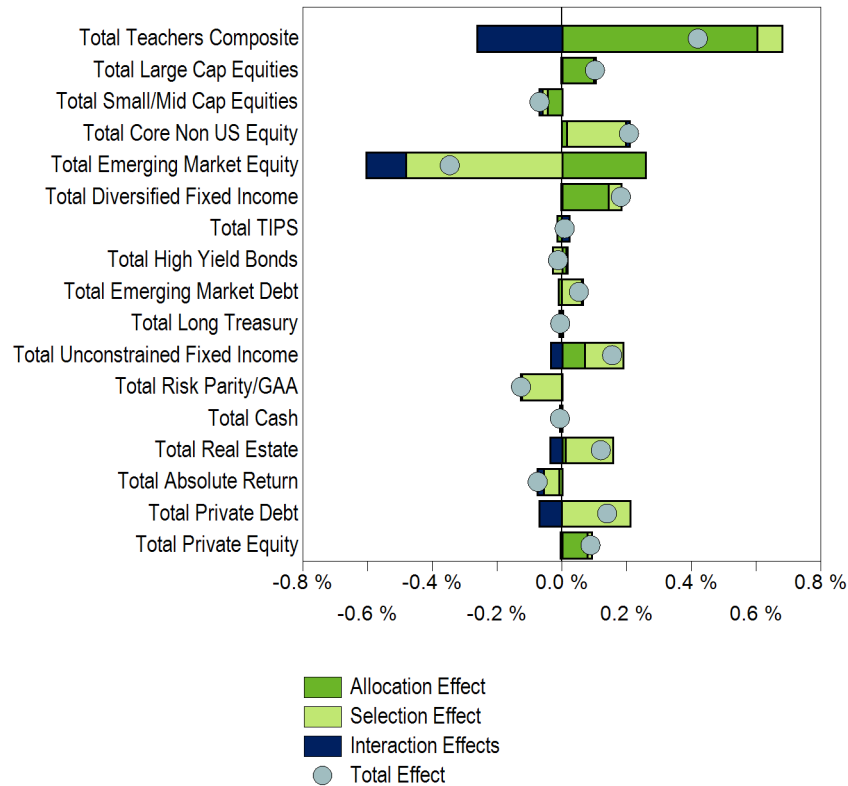
The allocation, selection, and interaction effects are calculated using the custom index described above alongwith the policy or target weight of each composite.

May not add up due to rounding.



# TOTAL FUND ATTRIBUTION ANALYSIS - NET

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



**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	10.5%	8.9%	1.6%	0.0%	0.0%	0.0%	-0.1%
Total Core Non US Equity	17.2%	15.6%	1.6%	0.2%	0.0%	0.0%	0.2%
Total Emerging Market Equity	15.7%	24.9%	-9.2%	-0.5%	0.3%	-0.1%	-0.3%
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%	0.0%	0.0%	0.0%
Total High Yield Bonds	3.3%	3.8%	-0.5%	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	9.4%	11.6%	-2.2%	-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	9.3%	7.1%	2.1%	0.1%	0.0%	0.0%	0.1%
Total Absolute Return	5.1%	5.7%	-0.5%	0.0%	0.0%	0.0%	-0.1%
Total Private Debt	--	--	--	0.2%	0.0%	-0.1%	0.1%
Total Private Equity	13.9%	13.2%	0.7%	0.0%	0.1%	0.0%	0.1%
<b>Total</b>	<b>9.2%</b>	<b>8.8%</b>	<b>0.4%</b>	<b>0.1%</b>	<b>0.6%</b>	<b>-0.3%</b>	<b>0.4%</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 policyindex asset weights the underlying policy indices of each option in the plan and the respective benchmark.

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

May not add up due to rounding.

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



# **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 Teachers

# 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 Teachers Composite	100.00%	5.97%	61	5.45%	21	-0.01%	52	0.99	31	1.58	16	0.71%	16
Policy Index	--	5.82%	69	5.25%	15	0.00%	51	1.00	29	1.61	13	0.00%	1
Total Domestic Equity	22.50%	9.99%	30	10.29%	23	-0.10%	33	0.92	22	1.39	25	1.26%	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	19.40%	10.37%	29	10.28%	36	-0.40%	33	0.96	25	1.58	18	0.76%	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	3.10%	9.43%	27	11.16%	26	2.83%	28	0.80	24	1.34	14	4.04%	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	19.20%	8.15%	30	11.58%	44	2.93%	32	0.66	32	1.04	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	4.64%	6.77%	82	15.27%	54	-1.02%	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	27.74%	3.27%	24	3.02%	66	2.12%	24	0.90	22	1.29	25	1.75%	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	8.25%	1.82%	47	3.51%	72	0.45%	53	0.36	60	0.43	63	1.16%	26
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	4.01%	--	--	--	--	--	--	--	--	--	--	--	--
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	3.17%	4.71%	45	4.63%	46	0.42%	45	0.90	47	1.47	53	1.42%	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	6.46%	1.27%	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	3.92%	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	7.01%	9.78%	--	4.47%	--	0.18%	--	2.07	--	67.60	--	1.87%	--
NCREIF Property Index	--	8.73%	--	3.68%	--	0.00%	--	2.22	--	59.89	--	0.00%	--
Total Absolute Return	7.29%	1.60%	68	3.36%	30	-0.01%	68	0.31	64	0.36	68	1.87%	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	4.48%	3.44%	58	7.13%	58	-1.74%	59	0.40	57	0.64	50	4.62%	57
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 Teachers

# 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 Teachers Composite	100.00%	5.66%	93	5.58%	29	-0.44%	68	0.95	86	1.70	71	0.84%	27
Policy Index	--	5.79%	90	5.23%	14	0.00%	47	1.04	74	1.85	55	0.00%	1
Total Domestic Equity	22.50%	--	--	--	--	--	--	--	--	--	--	--	--
Russell 3000	--	13.03%	30	10.00%	18	0.00%	31	1.27	16	2.25	16	0.00%	1
Total Large Cap Equities	19.40%	13.20%	33	9.91%	28	-0.13%	37	1.30	22	2.43	18	0.70%	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	3.10%	12.37%	29	11.48%	31	--	--	1.05	25	2.02	10	--	--
Small/Mid Cap Index	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Core Non US Equity	19.20%	8.49%	35	11.51%	47	2.28%	36	0.71	33	1.33	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	4.64%	2.78%	91	14.90%	71	-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	27.74%	--	--	--	--	--	--	--	--	--	--	--	--
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	8.25%	2.74%	39	4.28%	78	0.29%	57	0.56	63	0.79	60	1.59%	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	4.01%	--	--	--	--	--	--	--	--	--	--	--	--
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	3.17%	4.69%	38	4.35%	28	0.59%	34	1.00	36	1.61	50	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	6.46%	-0.01%	47	4.55%	71	-0.06%	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	3.92%	4.30%	21	6.53%	35	0.54%	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	7.01%	11.45%	--	4.98%	--	0.23%	--	2.23	--	87.95	--	1.77%	--
NCREIF Property Index	--	10.00%	--	4.16%	--	0.00%	--	2.32	--	76.49	--	0.00%	--
Total Absolute Return	7.29%	3.45%	71	3.45%	33	0.40%	67	0.90	58	1.31	57	1.70%	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	4.48%	3.54%	59	7.36%	60	-2.01%	82	0.43	70	0.66	67	4.44%	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



# STATE EMPLOYEES' RETIREMENT SYSTEM

NEPC, LLC

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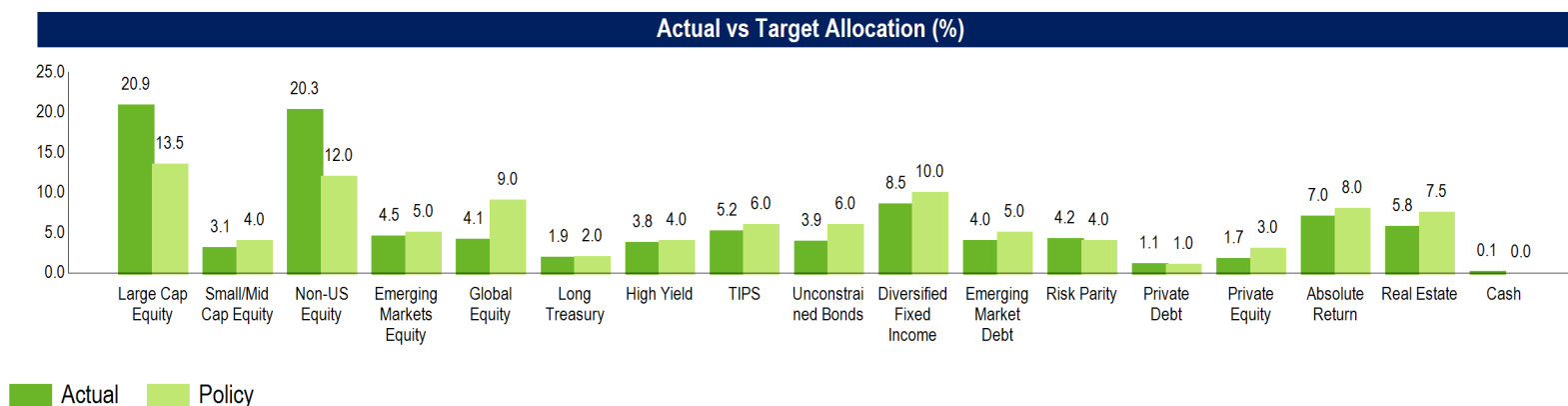
## Vermont State Employees

# 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

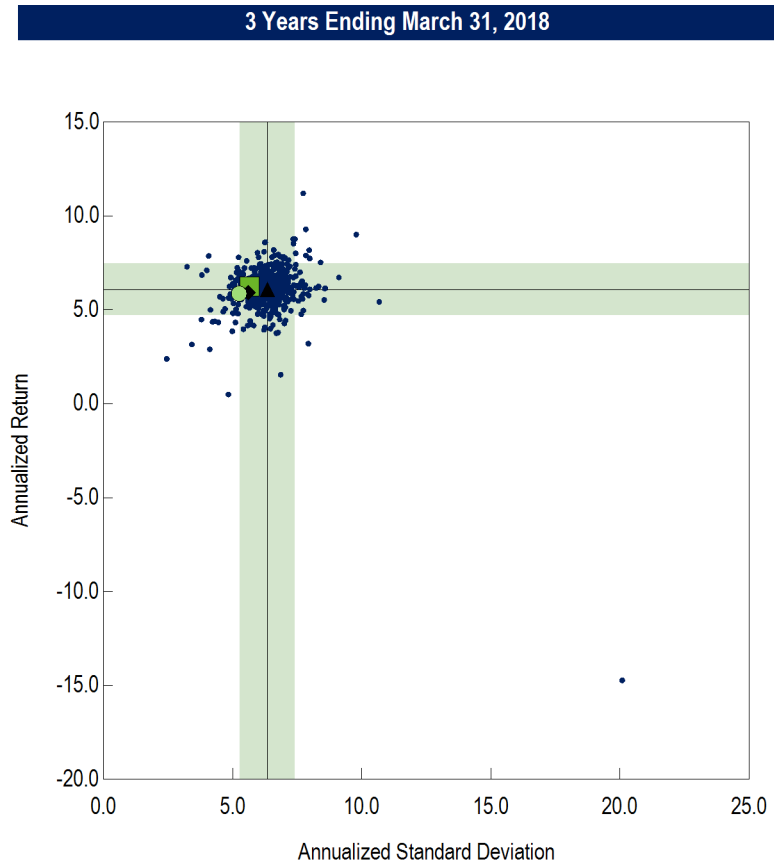
5 Years Ending March 31, 2018								
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank
Total Employees Composite	5.89%	88	5.74%	23	0.97	90	1.86	66
Allocation Index	5.87%	88	5.45%	15	1.01	83	1.89	62
Policy Index	5.82%	90	5.23%	9	1.05	76	1.99	51





# 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

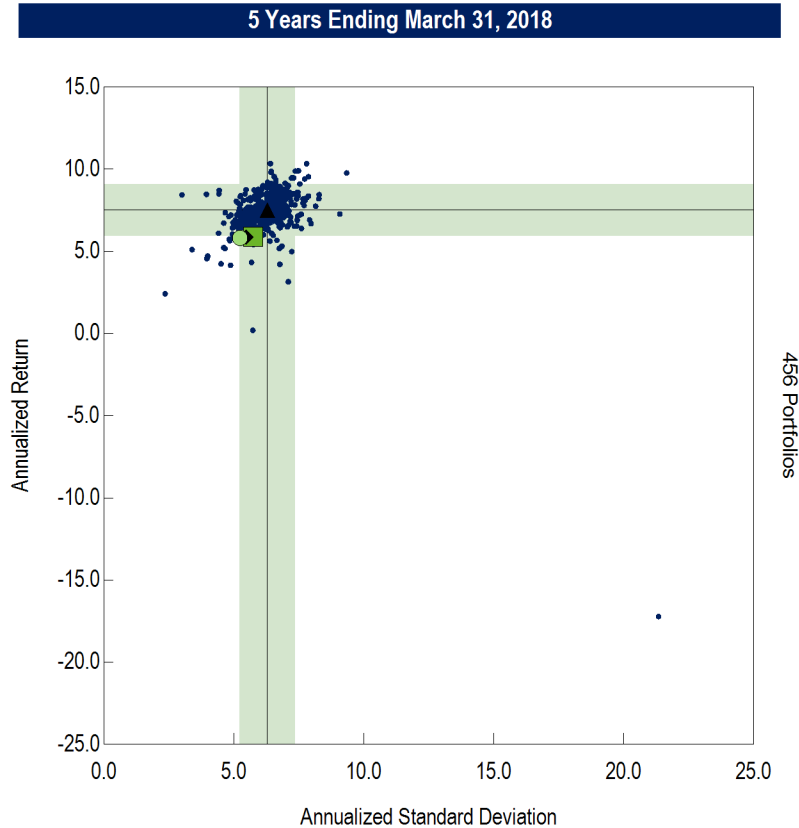
3 Years Ending March 31, 2018

	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

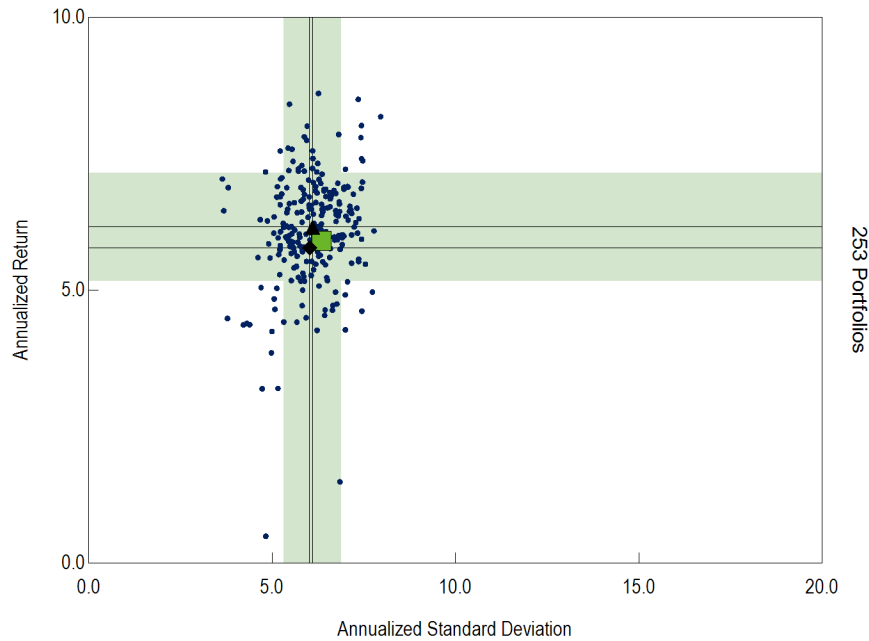
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Employees Composite	5.89%	88	5.74%	23	0.97	90
Allocation Index	5.87%	88	5.45%	15	1.01	83
S&P 500	13.31%	1	9.87%	99	1.31	14
FTSE WGBI TR	1.18%	99	5.44%	15	0.16	99
MSCI ACWI	9.20%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

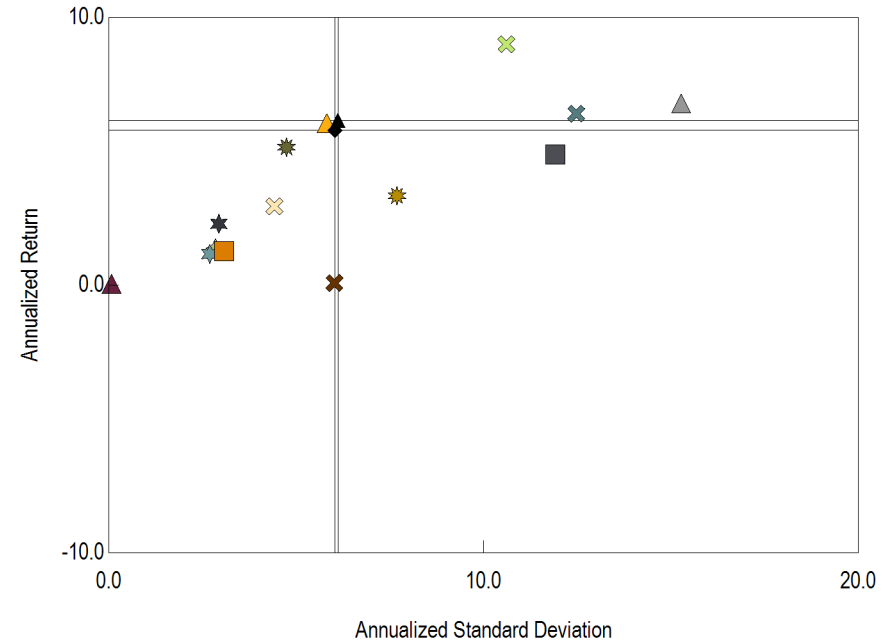
## TOTAL MARKETABLE ASSETS - NET

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

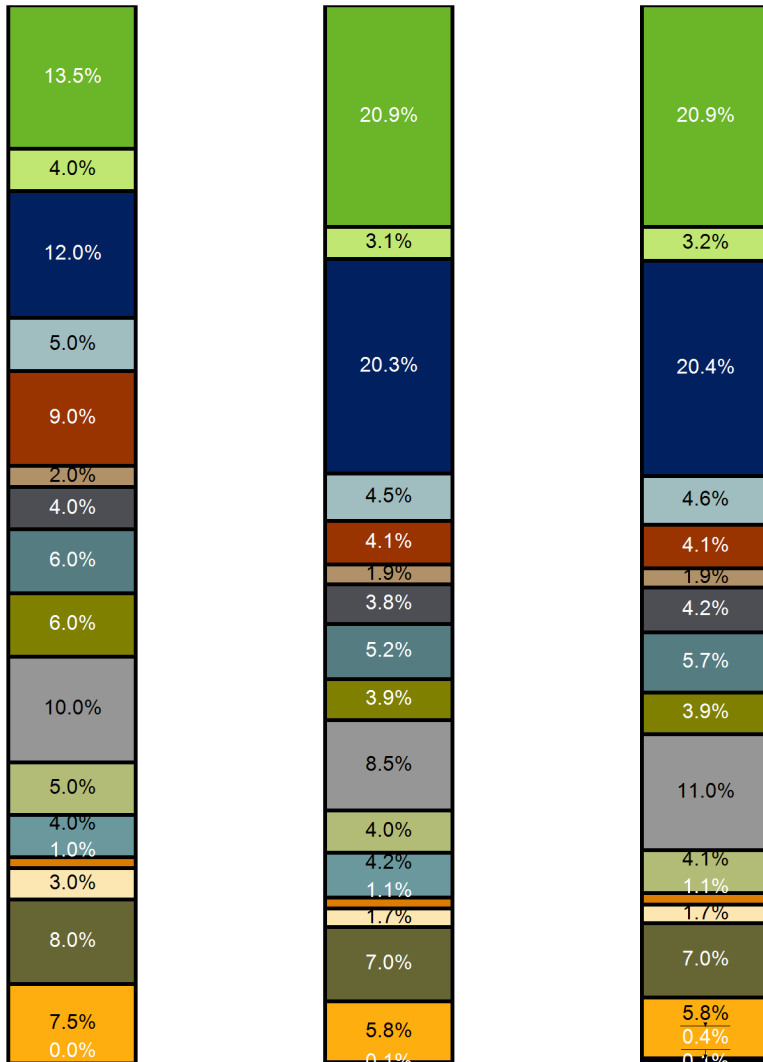


- SSgA S&P 500 Cap-Wgt
- ◆ SSgA S&P 500 Equal-Wgt
- ▲ T. Rowe
- ▲ Champlain
- ◆ Wellington
- \* Acadian
- Mondrian
- \* SSgA ACWI Ex US
- ▲ Aberdeen
- ◆ PIMCO Core Plus
- \* SSgA Barclays Aggregate Index
- BlackRock TIPS
- ◆ KDP
- \* Guggenheim
- ▲ Wellington Opportunistic EMD
- \* PIMCO Unconstrained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



## Vermont State Employees

# TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



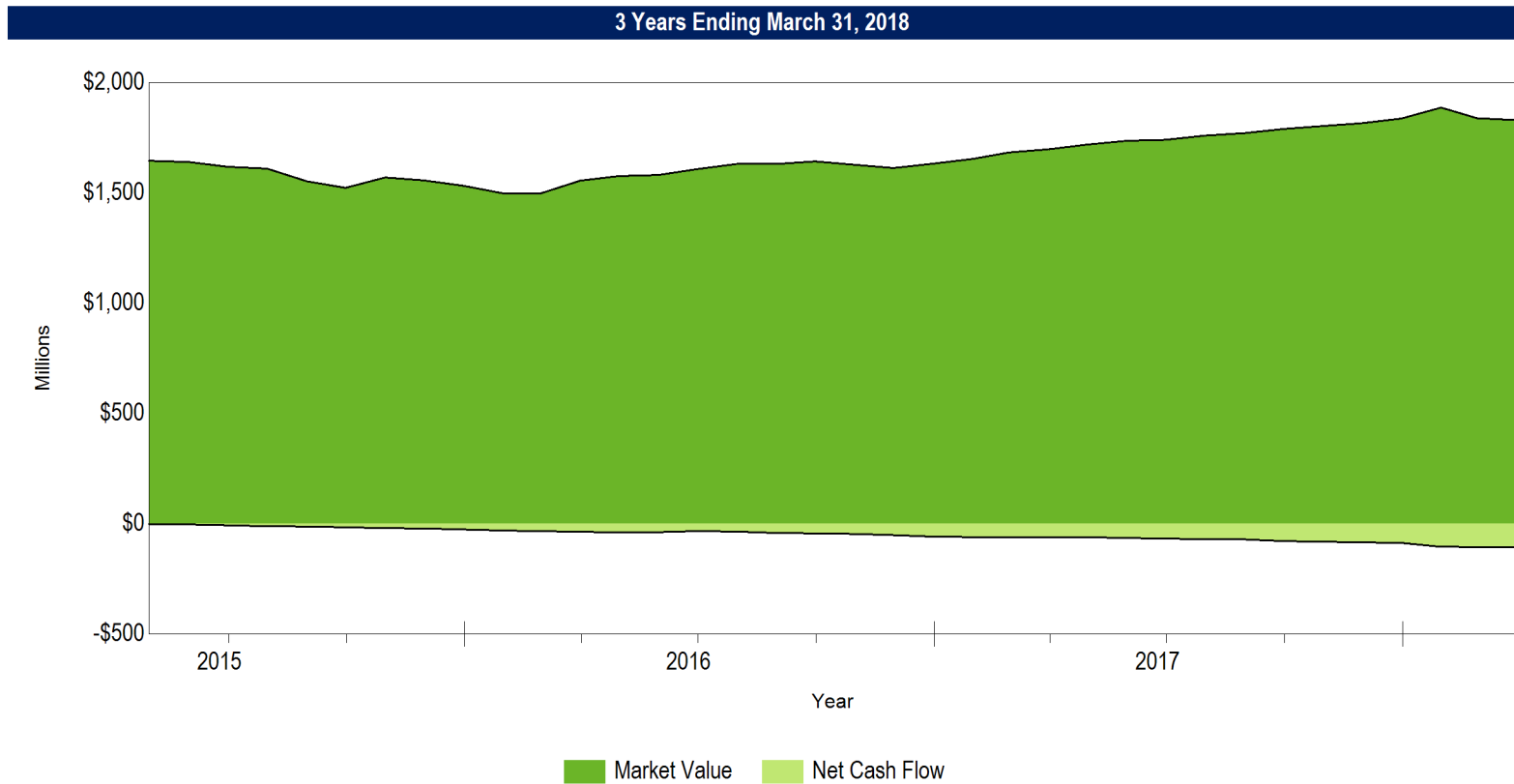
	Policy	Current	Effective Net Allocation
Large Cap Equity	13.5%	20.9%	20.9%
Small/Mid Cap Equity	4.0%	3.1%	3.2%
Non-US Equity	12.0%	20.3%	20.4%
Emerging Markets Equity	5.0%	4.5%	4.6%
Global Equity	9.0%	4.1%	4.1%
Long Treasury	2.0%	1.9%	1.9%
High Yield	4.0%	3.8%	4.2%
TIPS	6.0%	5.2%	5.7%
Unconstrained Bonds	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	Contributions	Withdrawals	Quarter Ending March 31, 2018			Ending Market Value
				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.

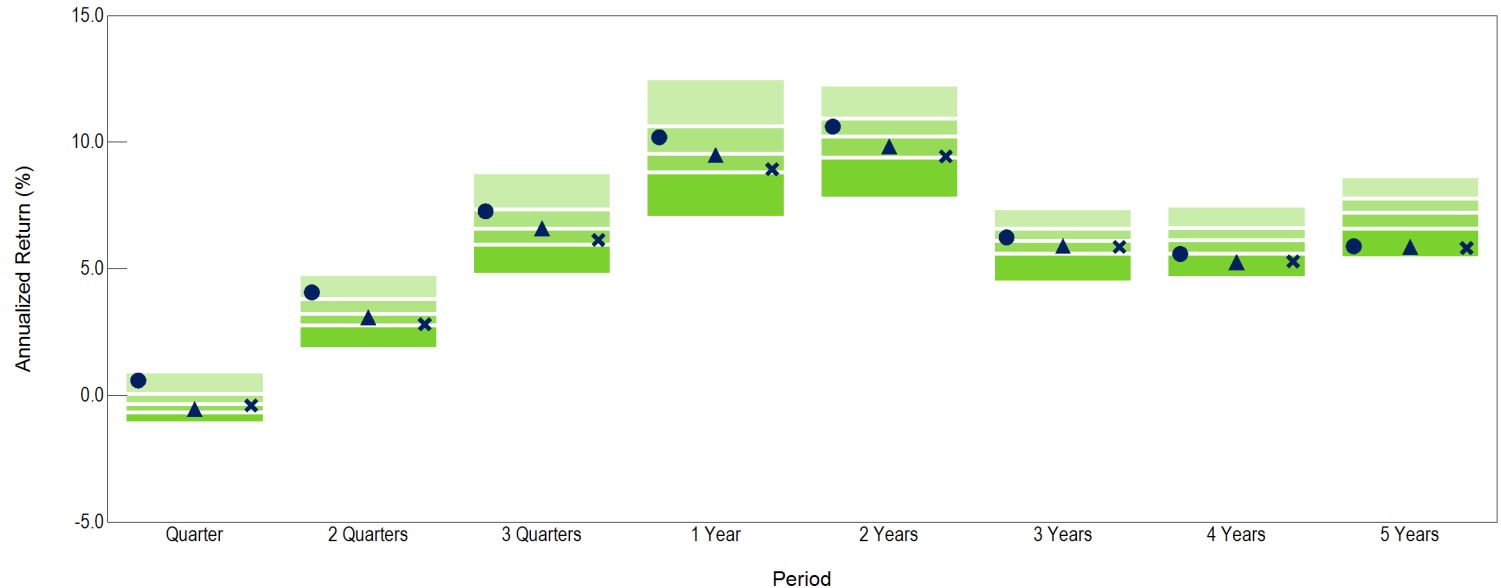
Harbourvest values based on final Capital Account Statements for Q4 2017, and cash adjusted through Q1 2018.



## Vermont State Employees

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



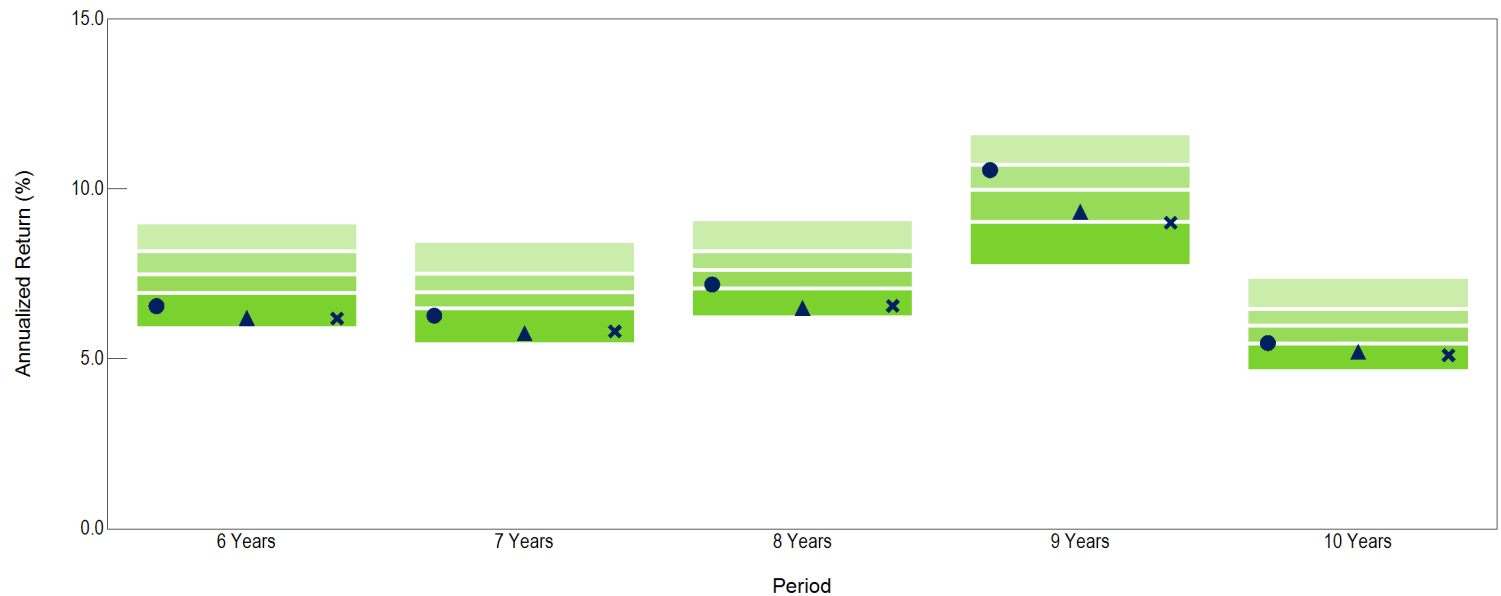
	Return (Rank)													
5th Percentile	0.9	4.8	8.8	12.5	12.3	7.4	7.5	8.7						
25th Percentile	0.1	3.8	7.4	10.6	11.0	6.6	6.6	7.8						
Median	-0.3	3.2	6.6	9.6	10.2	6.1	6.1	7.2						
75th Percentile	-0.7	2.8	6.0	8.8	9.4	5.6	5.6	6.6						
95th Percentile	-1.1	1.8	4.8	7.0	7.8	4.5	4.7	5.4						
# of Portfolios	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



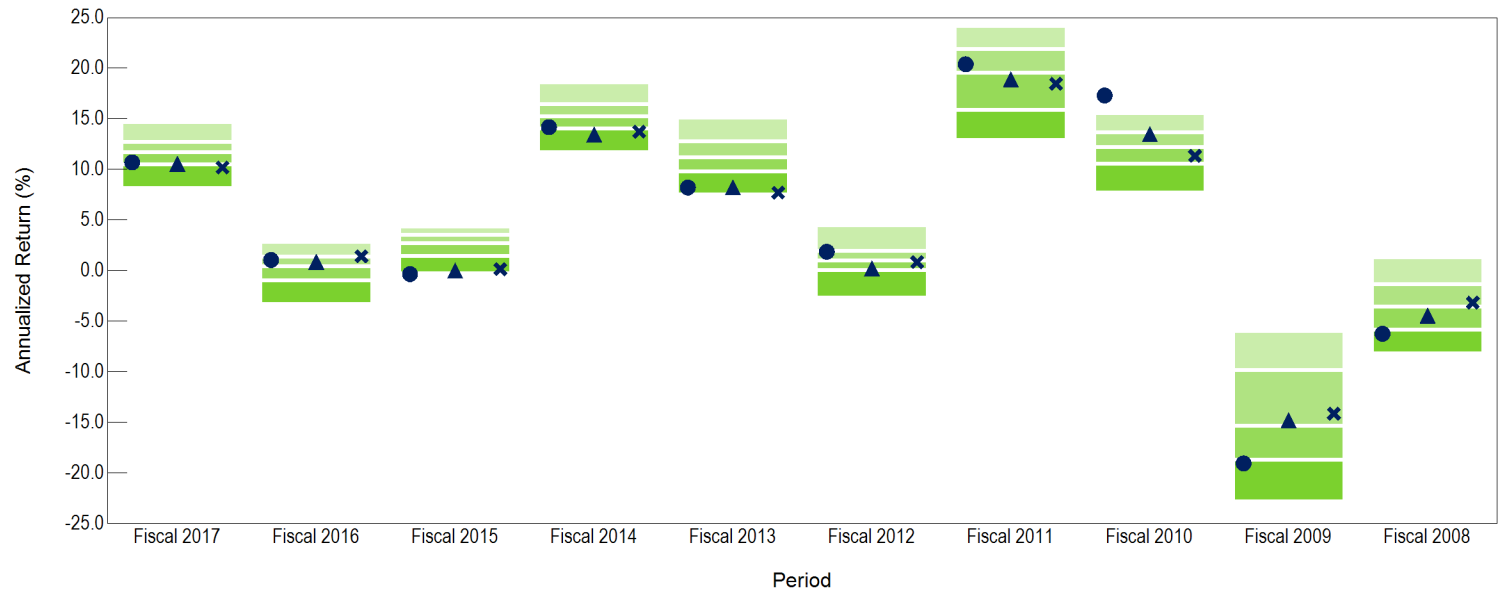
	Return (Rank)									
5th Percentile	9.0		8.5		9.1		11.6		7.4	
25th Percentile	8.2		7.5		8.2		10.7		6.5	
Median	7.5		7.0		7.6		10.0		6.0	
75th Percentile	7.0		6.5		7.1		9.0		5.5	
95th Percentile	5.9		5.4		6.2		7.8		4.6	
# of Portfolios	197		178		172		161		159	
● Total Employees Composite	6.6	(85)	6.3	(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



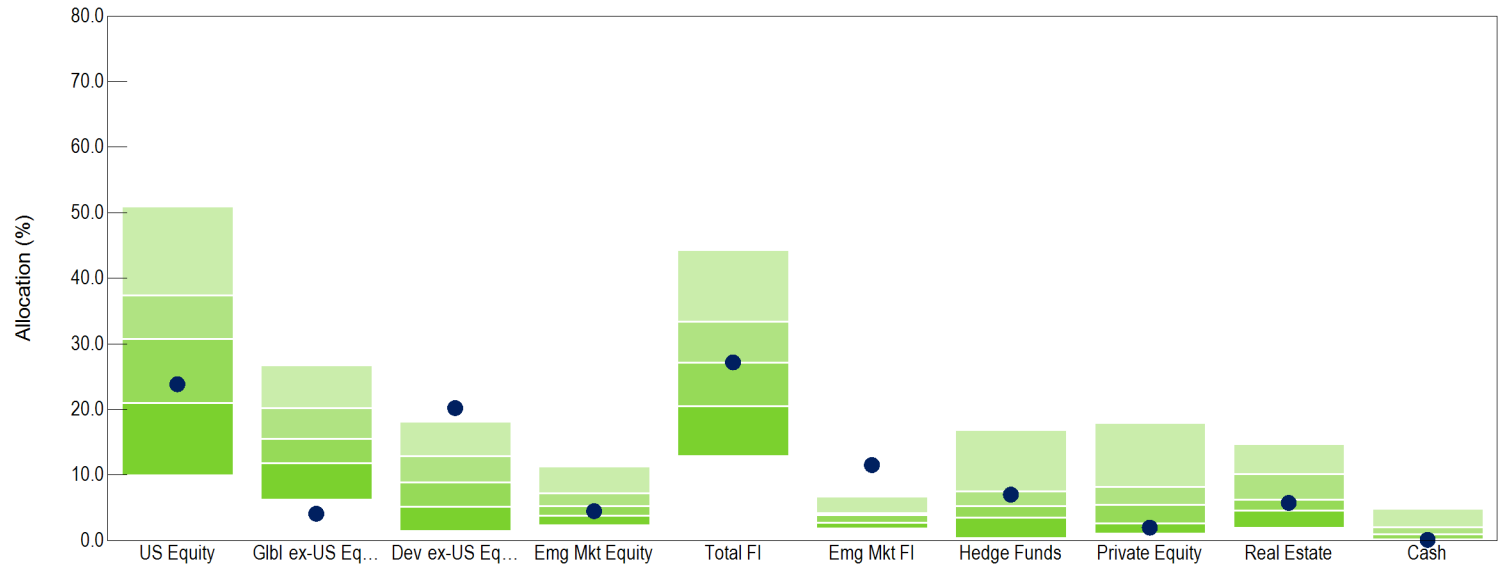
	Return (Rank)									
	Fiscal 2017	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
5th Percentile	14.7	2.8	4.4	18.6	15.1	4.5	24.2	15.5	-6.0	1.3
25th Percentile	12.8	1.4	3.6	16.5	12.8	2.0	21.9	13.7	-9.8	-1.3
Median	11.7	0.5	2.7	15.3	11.2	1.0	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



	US Equity		Gbl ex-US Eq...		Dev ex-US Eq...		Emg Mkt Equity		Total FI		Emg Mkt FI		Hedge Funds		Private Equity		Real Estate		Cash	
<b>Allocation (Rank)</b>																				
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										
<b>Total Employees Composite</b>	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)										

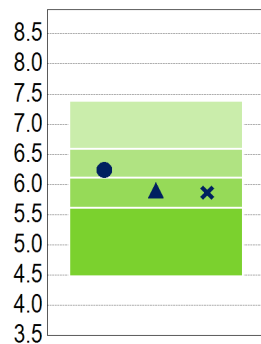




# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

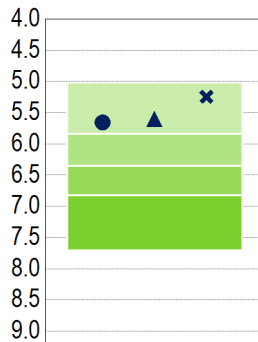
## Employees Composite vs. InvMetrics Public DB < \$5 Billion Net 3 Years

Anlzd Return      Anlzd Standard Deviation      Anlzd Alpha      Sharpe Ratio



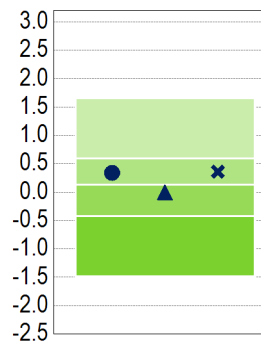
● Total Employees Composite	
Value	6.24
Rank	42
▲ Allocation Index	
Value	5.90
Rank	63
× Policy Index	
Value	5.86
Rank	66

Universe	
5th %tile	7.39
25th %tile	6.60
Median	6.13
75th %tile	5.62
95th %tile	4.49



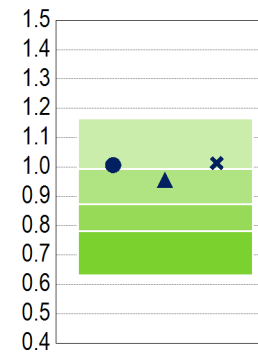
● Total Employees Composite	
Value	5.66
Rank	19
▲ Allocation Index	
Value	5.60
Rank	18
× Policy Index	
Value	5.25
Rank	10

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

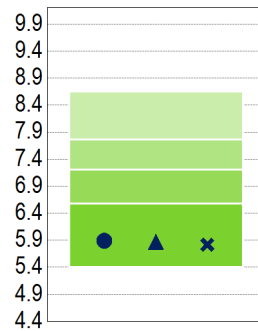


## Vermont State Employees

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

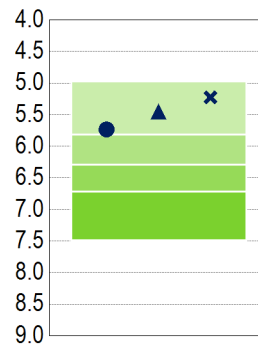
### Employees Composite vs. InvMetrics Public DB < \$5 Billion Net 5 Years

#### Anlzd Return



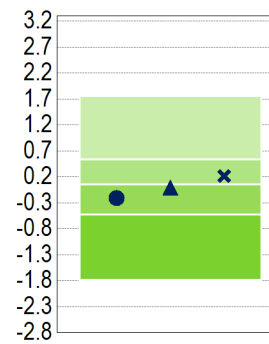
● Total Employees Composite	
Value	5.89
Rank	88
▲ Allocation Index	
Value	5.87
Rank	88
× Policy Index	
Value	5.82
Rank	90
Universe	
5th %tile	8.65
25th %tile	7.78
Median	7.22
75th %tile	6.59
95th %tile	5.42

#### Anlzd Standard Deviation



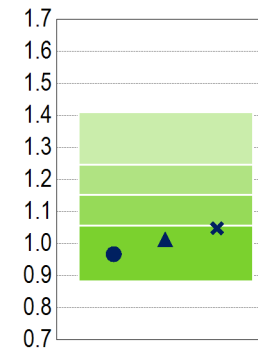
● Total Employees Composite	
Value	5.74
Rank	23
▲ Allocation Index	
Value	5.45
Rank	15
× Policy Index	
Value	5.23
Rank	9
Universe	
5th %tile	4.97
25th %tile	5.80
Median	6.28
75th %tile	6.70
95th %tile	7.48

#### 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



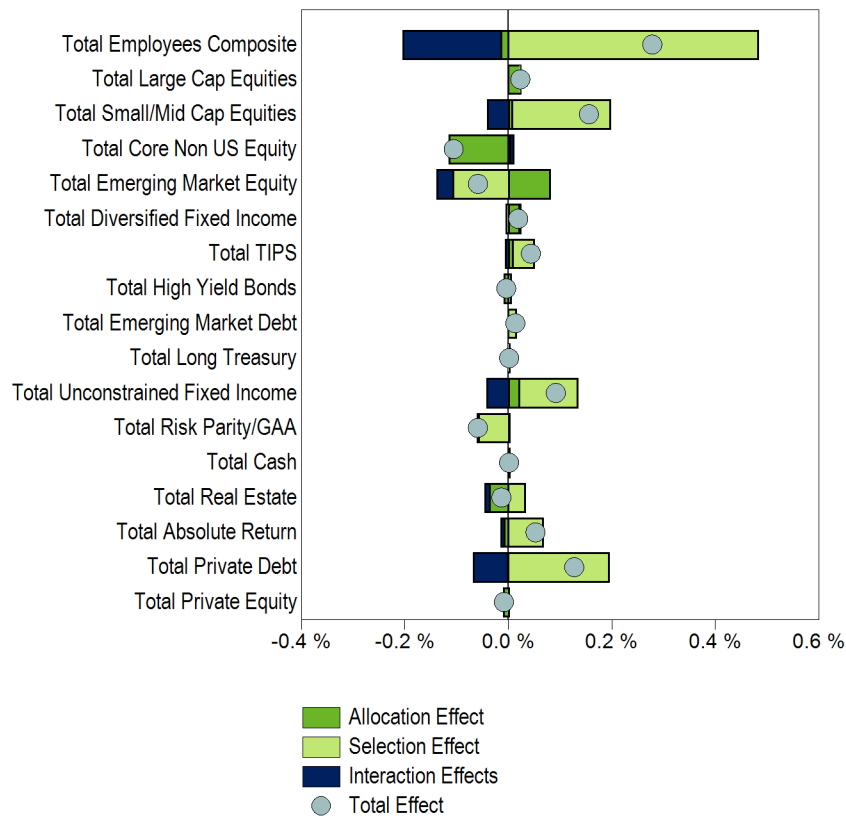
● Total Employees Composite	
Value	0.97
Rank	90
▲ Allocation Index	
Value	1.01
Rank	83
× Policy Index	
Value	1.05
Rank	76
Universe	
5th %tile	1.41
25th %tile	1.25
Median	1.16
75th %tile	1.06
95th %tile	0.88



## 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.

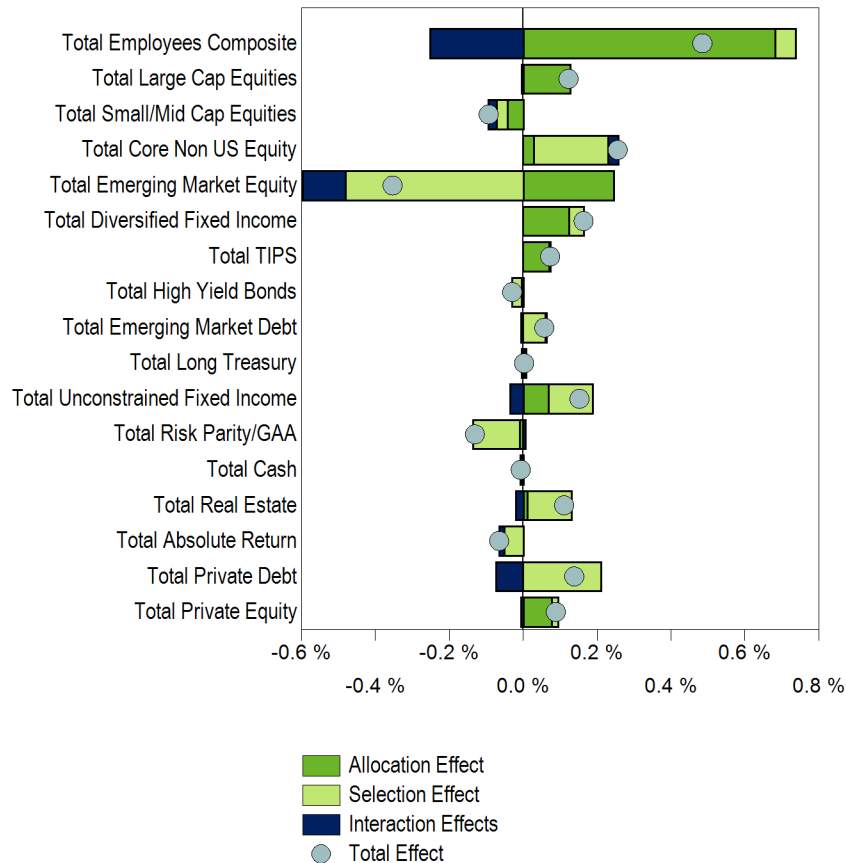
Absolute Return's Wtd. index Return is calculated using a weighting of the respective benchmarks for each underlying strategy part of the composite.



## Vermont State Employees

# TOTAL FUND ATTRIBUTION ANALYSIS - NET

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



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.

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



# **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



# **STATE MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM**

NEPC, LLC

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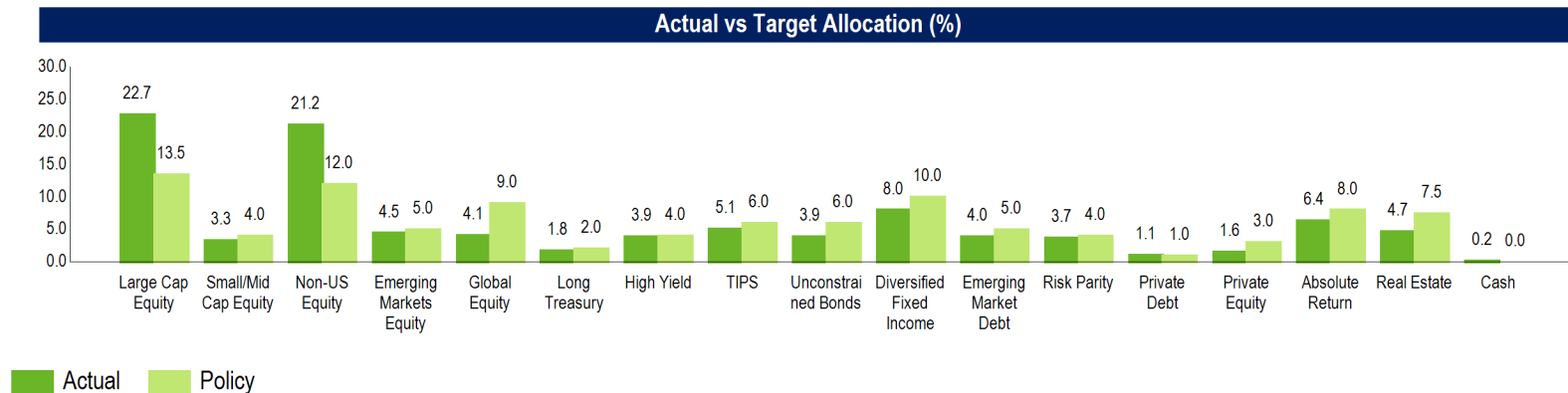
## Vermont Municipal Employees

# 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
<b>Total Municipal Composite</b>	<b>\$651,038,526</b>	<b>0.5%</b>	<b>14</b>	<b>7.3%</b>	<b>27</b>	<b>10.3%</b>	<b>36</b>	<b>6.2%</b>	<b>43</b>	<b>5.9%</b>	<b>88</b>	<b>6.3%</b>	<b>80</b>	<b>5.5%</b>	<b>73</b>
<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 &lt; \$5 Billion Net Median</i>		-0.3%		6.6%		9.6%		6.1%		7.2%		7.0%		6.0%	

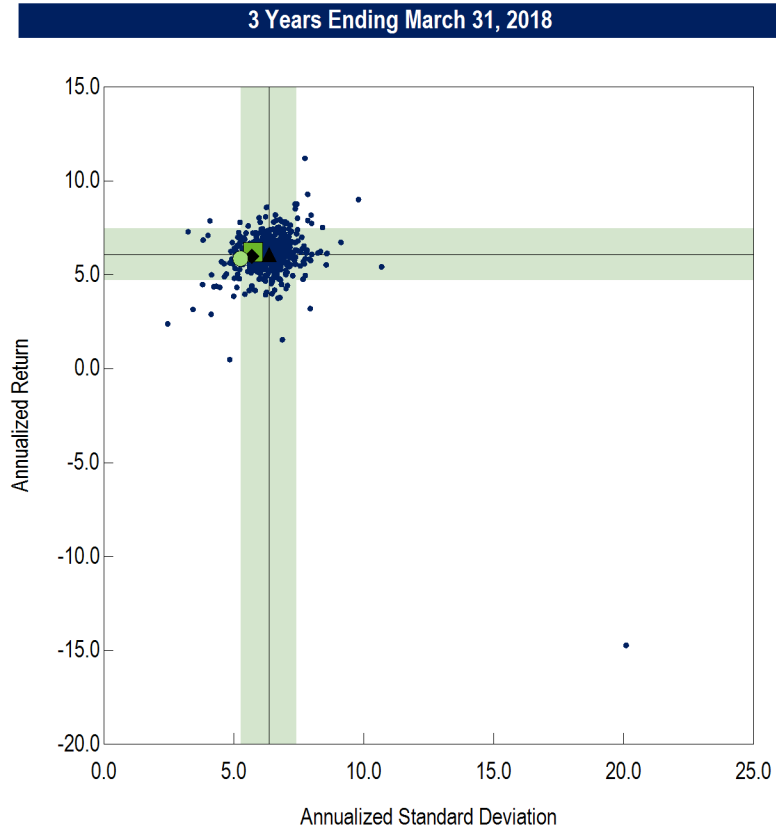
3 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	Rank
Total Municipal Composite	6.22%	43	5.72%	22	0.99	27	1.77	9	
Allocation Index	5.99%	58	5.67%	20	0.96	31	1.68	14	
Policy Index	5.86%	66	5.25%	10	1.01	21	1.81	7	

5 Years Ending March 31, 2018									
	Anlzd Ret	Rank	Anlzd Std Dev	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	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

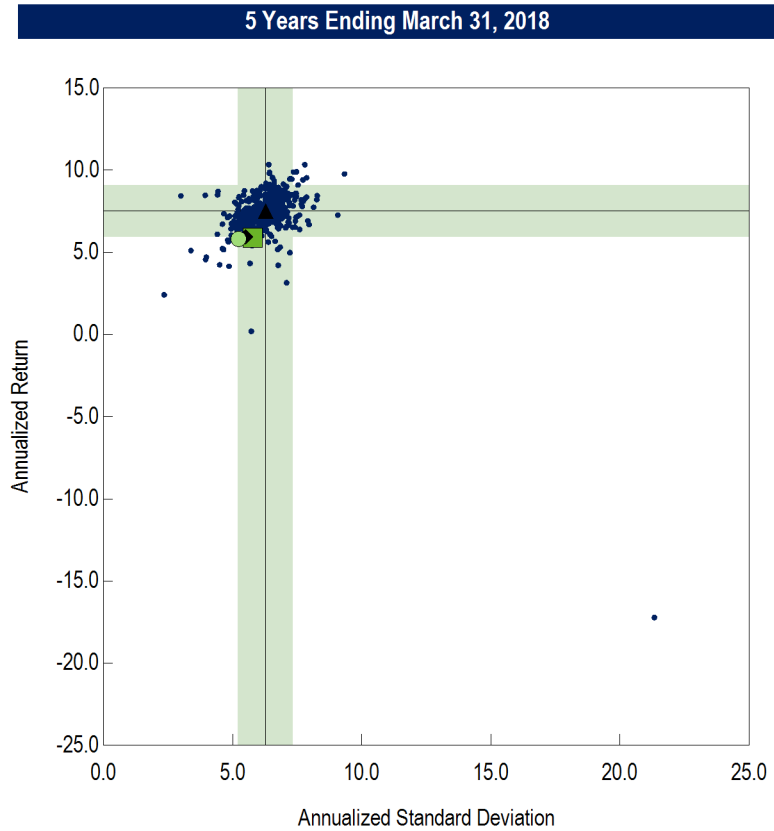
3 Years Ending March 31, 2018

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

5 Years Ending March 31, 2018

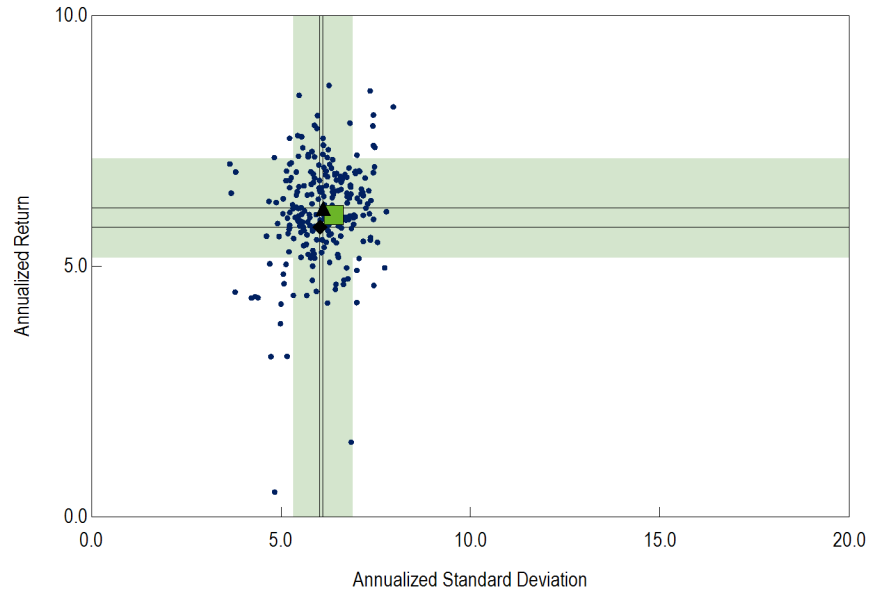
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Municipal Composite	5.90%	88	5.78%	24	0.96	90
Allocation Index	5.94%	88	5.50%	17	1.02	82
S&P 500	13.31%	1	9.87%	99	1.31	14
FTSE WGBI TR	1.18%	99	5.44%	15	0.16	99
MSCI ACWI	9.20%	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

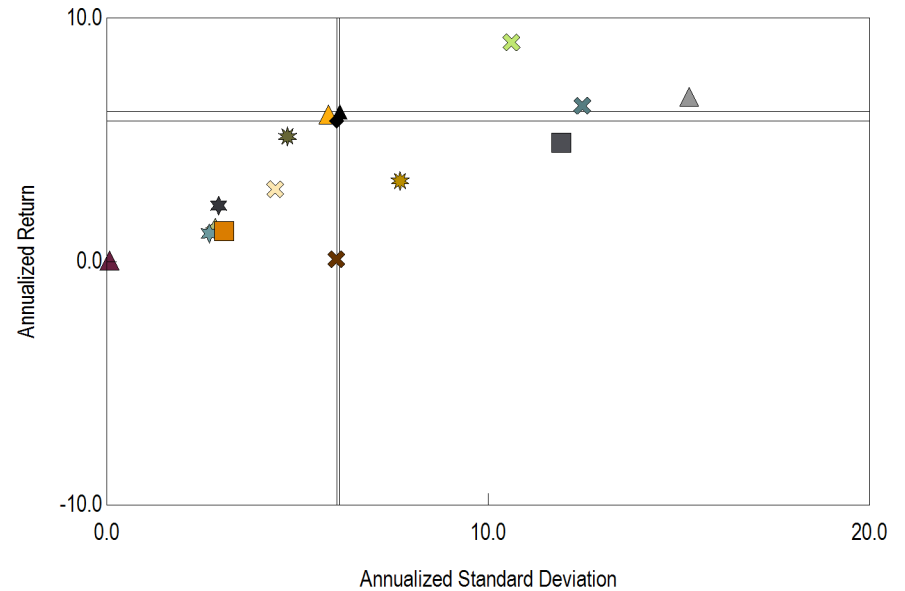
## TOTAL MARKETABLE ASSETS - NET

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

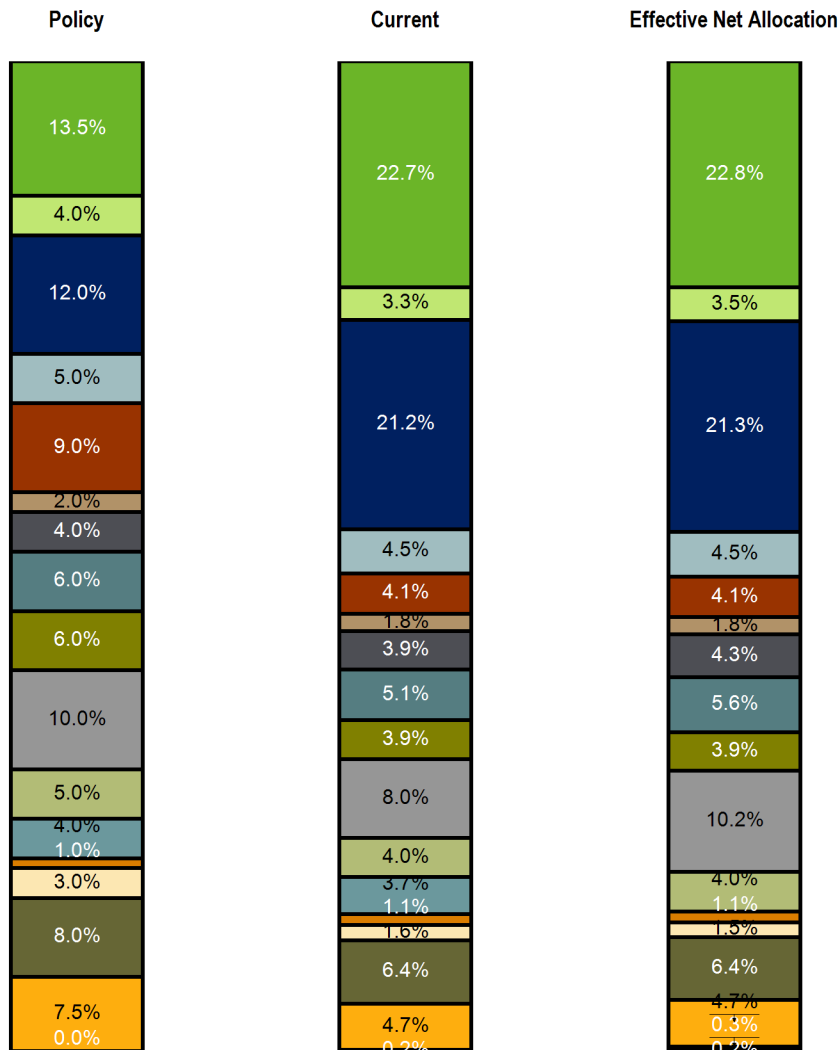


- |                                 |  |
|---------------------------------|--|
| ■ SSgA S&P 500 Cap-Wgt          | ■ BlackRock TIPS                       |
| ⊗ SSgA S&P 500 Equal-Wgt        | ⊗ KDP                                  |
| ● T. Rowe                       | ● Guggenheim                           |
| ▲ 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 Municipal Employees

## TOTAL FUND ASSET ALLOCATION VS. POLICY TARGETS



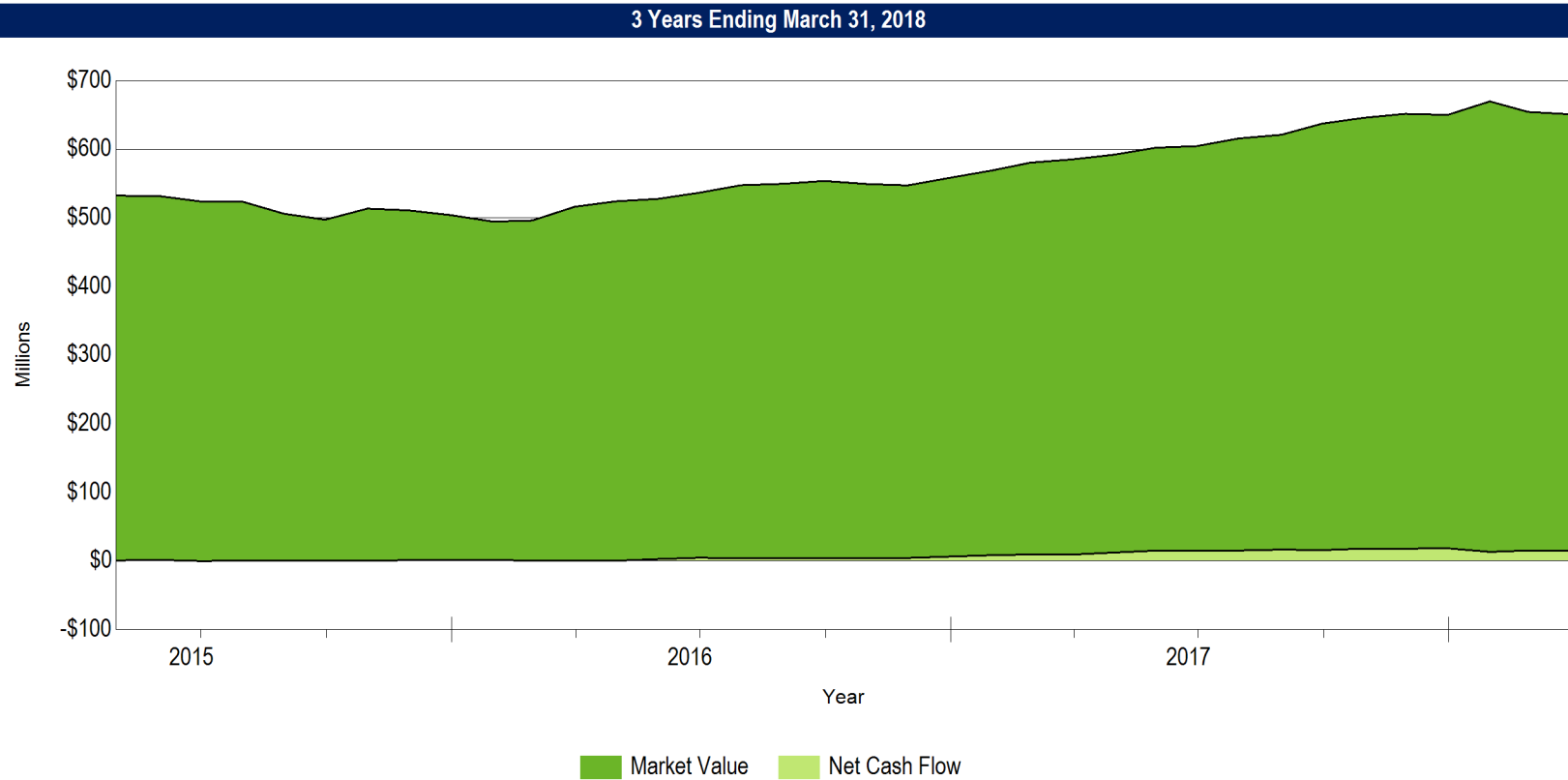
Asset Allocation vs. Target			
	Policy	Current	Effective Net Allocation
Large Cap Equity	13.5%	22.7%	22.8%
Small/Mid Cap Equity	4.0%	3.3%	3.5%
Non-US Equity	12.0%	21.2%	21.3%
Emerging Markets Equity	5.0%	4.5%	4.5%
Global Equity	9.0%	4.1%	4.1%
Long Treasury	2.0%	1.8%	1.8%
High Yield	4.0%	3.9%	4.3%
TIPS	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%
<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 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
<b>Total</b>	<b>\$650,132,477</b>	<b>\$56,996,197</b>	<b>-\$60,010,928</b>	<b>-\$3,014,732</b>	<b>-\$389,244</b>	<b>\$3,920,780</b>	<b>\$651,038,526</b>





## 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
<b>Total Municipal Composite</b>	<b>649,595,456</b>	<b>100.0</b>	<b>100.0</b>	<b>0.5</b>	<b>14</b>	<b>7.3</b>	<b>27</b>	<b>10.3</b>	<b>36</b>	<b>6.2</b>	<b>43</b>	<b>5.9</b>	<b>88</b>	<b>5.5</b>	<b>73</b>
Policy Index				-0.6	72	6.6	50	9.5	52	6.0	58	5.9	88	5.3	81
Allocation Index				-0.4	55	6.1	69	8.9	71	5.9	66	5.8	90	5.2	85
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>560,718,042</b>	<b>86.3</b>	<b>80.5</b>	<b>-0.9</b>	<b>91</b>	<b>6.1</b>	<b>73</b>	<b>9.4</b>	<b>59</b>	<b>6.0</b>	<b>58</b>	<b>5.6</b>	<b>94</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>169,216,318</b>	<b>26.0</b>	<b>17.5</b>	<b>-0.3</b>	<b>43</b>	<b>9.7</b>	<b>51</b>	<b>12.6</b>	<b>50</b>	<b>9.9</b>	<b>32</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>147,678,737</b>	<b>22.7</b>	<b>13.5</b>	<b>-0.8</b>	<b>50</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	116,584,225	17.9	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	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
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>21,537,582</b>	<b>3.3</b>	<b>4.0</b>	<b>3.4</b>	<b>17</b>	<b>8.5</b>	<b>61</b>	<b>10.3</b>	<b>67</b>	<b>9.1</b>	<b>31</b>	<b>12.2</b>	<b>30</b>	<b>11.0</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	21,536,697	3.3	4.0	3.4	17	9.7	47	15.0	41	12.3	5	13.9	13	--	--
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 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
<b>Total Non US Equity</b>	<b>193,104,988</b>	<b>29.7</b>	<b>26.0</b>	<b>-1.1</b>	<b>73</b>	<b>9.5</b>	<b>69</b>	<b>17.0</b>	<b>69</b>	<b>7.7</b>	<b>50</b>	<b>6.5</b>	<b>72</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>137,540,559</b>	<b>21.2</b>	<b>12.0</b>	<b>-1.3</b>	<b>57</b>	<b>9.8</b>	<b>47</b>	<b>17.6</b>	<b>43</b>	<b>8.3</b>	<b>29</b>	<b>8.6</b>	<b>34</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	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	
<b>Total Global Equity</b>	<b>26,607,596</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	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	
<b>Total Emerging Market Equity</b>	<b>28,956,833</b>	<b>4.5</b>	<b>5.0</b>	<b>-0.8</b>	<b>92</b>	<b>8.7</b>	<b>93</b>	<b>15.7</b>	<b>91</b>	<b>6.8</b>	<b>83</b>	<b>2.8</b>	<b>91</b>	<b>--</b>	<b>--</b>
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
<b>Total Fixed Income</b>	<b>173,103,190</b>	<b>26.6</b>	<b>33.0</b>	<b>-1.1</b>	<b>57</b>	<b>1.0</b>	<b>32</b>	<b>2.5</b>	<b>40</b>	<b>3.2</b>	<b>24</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
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	
<b>Total Diversified Fixed Income</b>	<b>51,957,603</b>	<b>8.0</b>	<b>10.0</b>	<b>-1.5</b>	<b>78</b>	<b>-0.1</b>	<b>75</b>	<b>1.5</b>	<b>55</b>	<b>1.8</b>	<b>48</b>	<b>2.7</b>	<b>39</b>	<b>4.2</b>	<b>46</b>
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	
<b>Total TIPS</b>	<b>33,288,061</b>	<b>5.1</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	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	--
<b>Total High Yield Bonds</b>	<b>25,272,577</b>	<b>3.9</b>	<b>4.0</b>	<b>-0.8</b>	<b>54</b>	<b>1.6</b>	<b>47</b>	<b>3.3</b>	<b>59</b>	<b>4.7</b>	<b>46</b>	<b>4.7</b>	<b>39</b>	<b>7.5</b>	<b>49</b>
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
<b>Total Emerging Market Debt</b>	<b>25,713,630</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	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	
<b>Total Long Treasury</b>	<b>11,421,377</b>	<b>1.8</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	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	--
<b>Total Unconstrained Fixed Income</b>	<b>25,449,942</b>	<b>3.9</b>	<b>6.0</b>	<b>0.4</b>	<b>60</b>	<b>1.6</b>	<b>80</b>	<b>3.1</b>	<b>79</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	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	
<b>Total Risk Parity/GAA</b>	<b>24,296,009</b>	<b>3.7</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>7.9</b>	<b>30</b>	<b>9.3</b>	<b>44</b>	<b>3.4</b>	<b>58</b>	<b>3.5</b>	<b>60</b>	<b>5.1</b>	<b>55</b>
<b>Total Risk Parity</b>	<b>24,296,003</b>	<b>3.7</b>	<b>4.0</b>	<b>-1.2</b>	<b>69</b>	<b>7.9</b>	<b>30</b>	<b>9.4</b>	<b>44</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	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
<b>Total Cash</b>	<b>997,537</b>	<b>0.2</b>	<b>0.0</b>												
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
<b>Total Real Estate</b>	<b>30,307,564</b>	<b>4.7</b>	<b>7.5</b>	<b>2.1</b>	--	<b>-2.1</b>	--	<b>-1.0</b>	--	<b>5.1</b>	--	<b>8.6</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>23,630,464</b>	<b>3.6</b>	<b>6.0</b>	<b>1.7</b>	--	<b>5.2</b>	--	<b>5.6</b>	--	<b>7.4</b>	--	<b>10.0</b>	--	--	--
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	--
<b>Total Real Estate Non-Core</b>	<b>6,677,101</b>	<b>1.0</b>	<b>1.5</b>	<b>3.8</b>	--	<b>-27.9</b>	--	<b>-25.5</b>	--	<b>-4.3</b>	--	--	--	--	--
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	--	--	--	--	--	--	--
<b>Total Absolute Return</b>	<b>41,445,151</b>	<b>6.4</b>	<b>8.0</b>	<b>1.1</b>	<b>44</b>	<b>5.3</b>	<b>44</b>	<b>5.1</b>	<b>57</b>	<b>1.6</b>	<b>68</b>	<b>3.4</b>	<b>71</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	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	--
<b>Total Private Debt</b>	<b>6,915,757</b>	<b>1.1</b>	<b>1.0</b>	<b>19.4</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	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	--
<b>Total Private Equity</b>	<b>10,208,942</b>	<b>1.6</b>	<b>3.0</b>	<b>0.0</b>	--	<b>7.3</b>	--	<b>14.3</b>	--	<b>11.6</b>	--	<b>16.1</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.

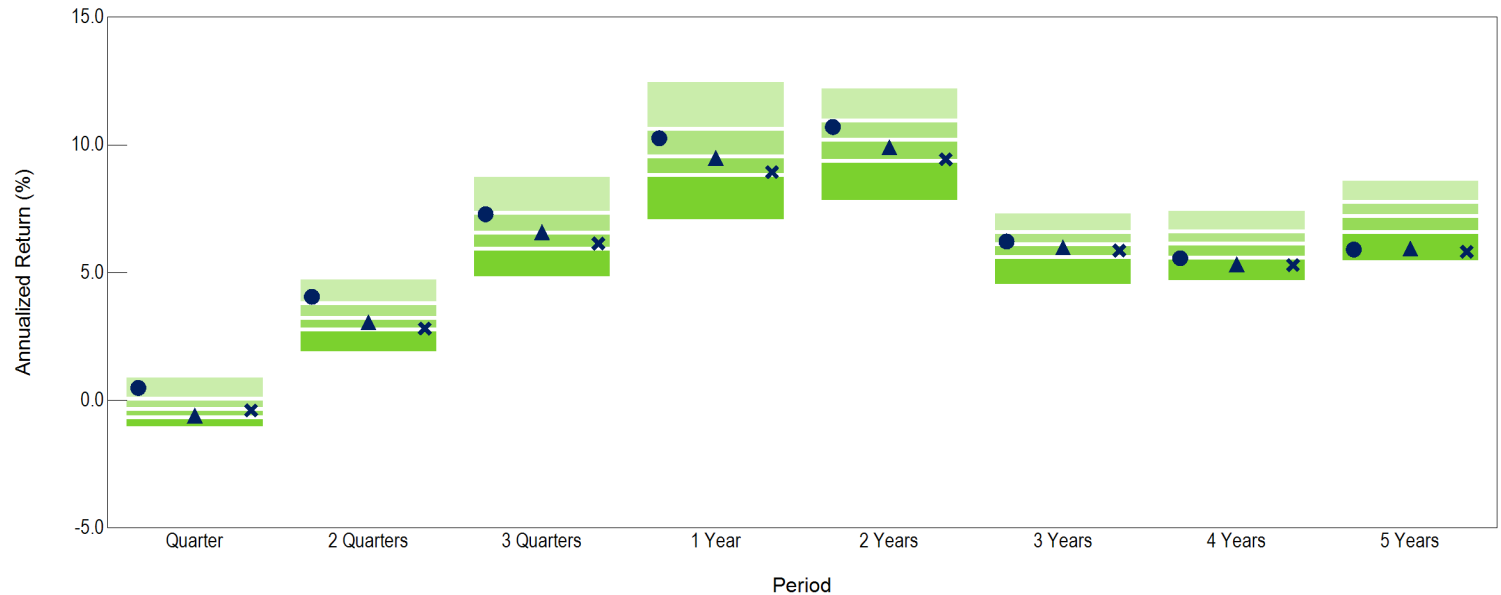
Harbourvest values based on final market values for Q4 2017 and cash adjusted through Q1 2018.



## Vermont Municipal Employees

# TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE - NET

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



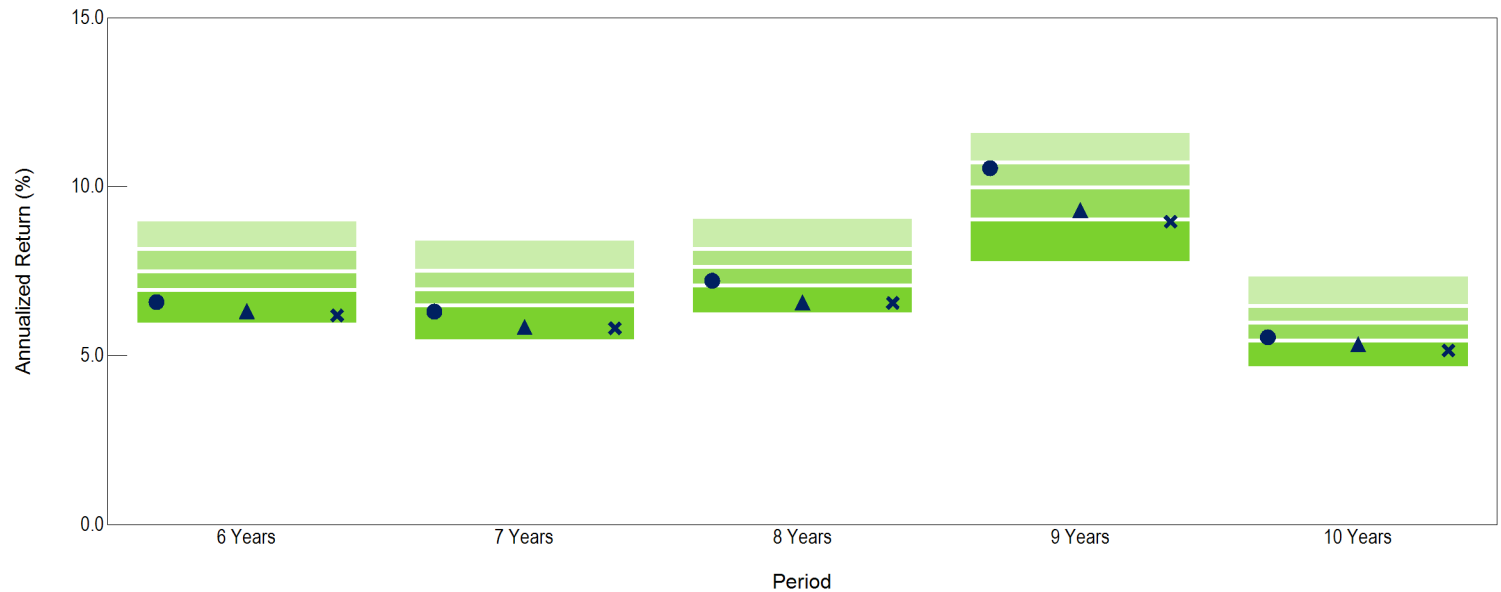
	Return (Rank)															
5th Percentile	0.9		4.8		8.8		12.5		12.3		7.4		7.5		8.7	
25th Percentile	0.1		3.8		7.4		10.6		11.0		6.6		6.6		7.8	
Median	-0.3		3.2		6.6		9.6		10.2		6.1		6.1		7.2	
75th Percentile	-0.7		2.8		6.0		8.8		9.4		5.6		5.6		6.6	
95th Percentile	-1.1		1.8		4.8		7.0		7.8		4.5		4.7		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



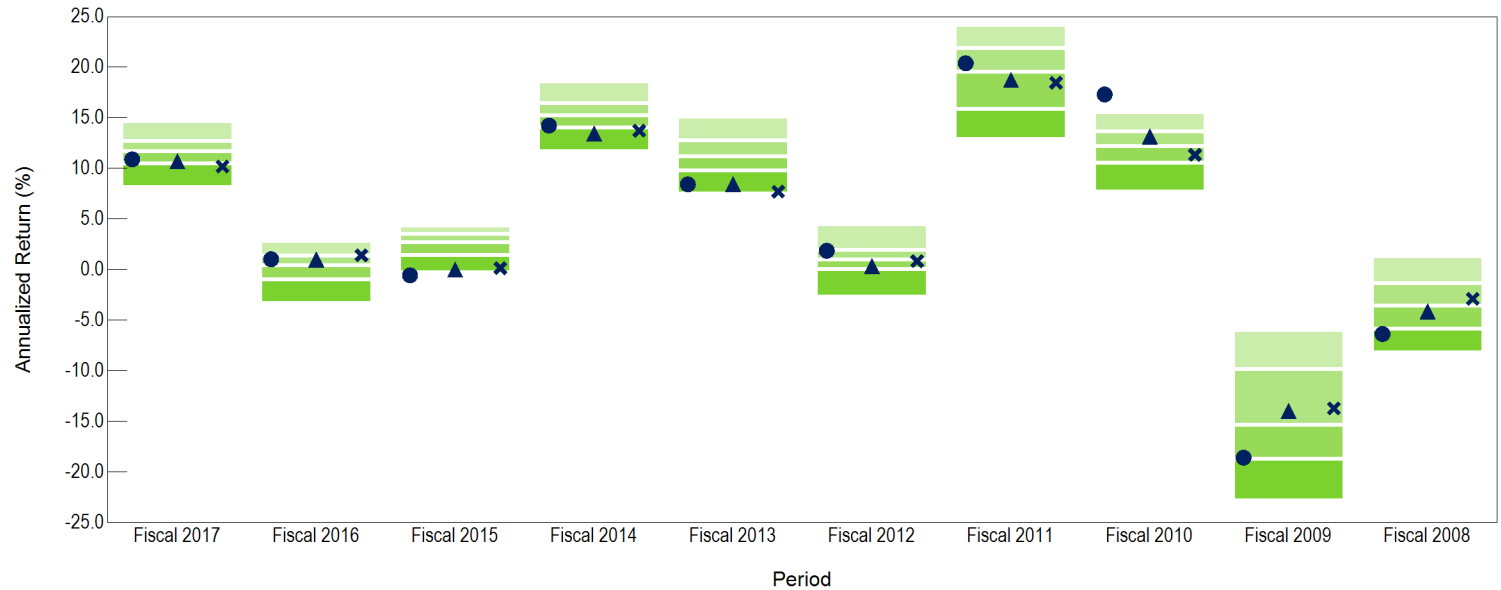
	Return (Rank)									
5th Percentile	9.0		8.5		9.1		11.6		7.4	
25th Percentile	8.2		7.5		8.2		10.7		6.5	
Median	7.5		7.0		7.6		10.0		6.0	
75th Percentile	7.0		6.5		7.1		9.0		5.5	
95th Percentile	5.9		5.4		6.2		7.8		4.6	
# of Portfolios	197		178		172		161		159	
● Total Municipal Composite	6.6	(84)	6.3	(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)		

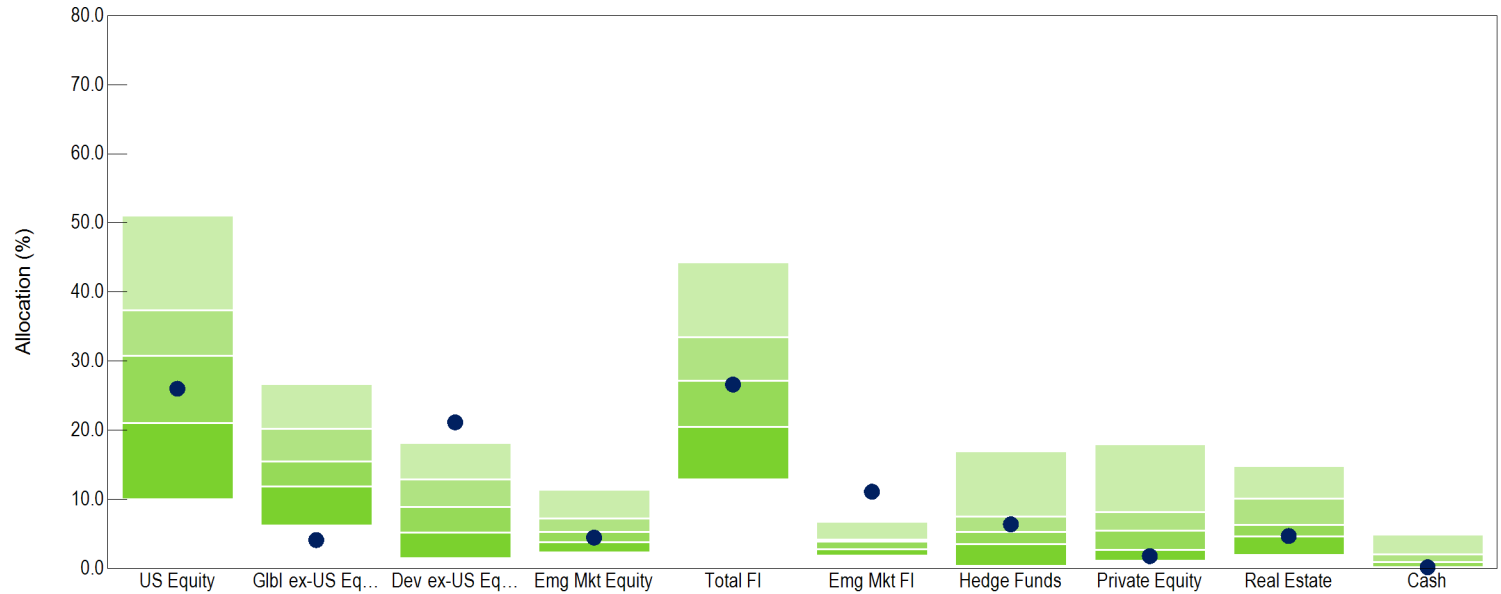




## Vermont Municipal Employees

# 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)

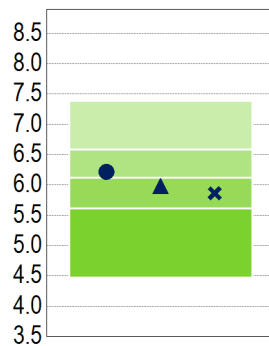


## Vermont Municipal Employees

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

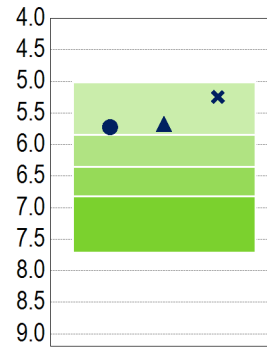
Municipal Composite vs. InvMetrics Public DB < \$5 Billion Net  
3 Years

Anlzd Return



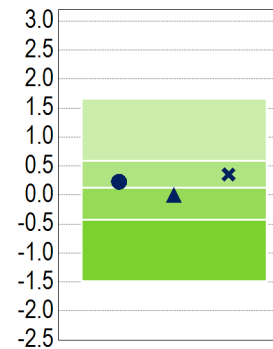
● Total Municipal Composite	
Value	6.22
Rank	43
▲ Allocation Index	
Value	5.99
Rank	58
✕ Policy Index	
Value	5.86
Rank	66
Universe	
5th %tile	7.39
25th %tile	6.60
Median	6.13
75th %tile	5.62
95th %tile	4.49

Anlzd Standard Deviation



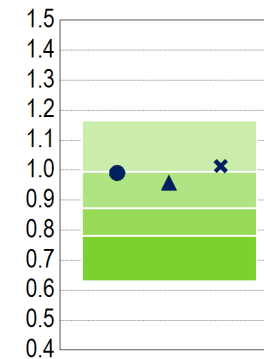
● Total Municipal Composite	
Value	5.72
Rank	22
▲ Allocation Index	
Value	5.67
Rank	20
✕ Policy Index	
Value	5.25
Rank	10
Universe	
5th %tile	5.01
25th %tile	5.83
Median	6.35
75th %tile	6.81
95th %tile	7.70

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

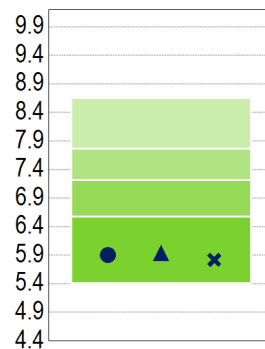


## Vermont Municipal Employees

# TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE - NET

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

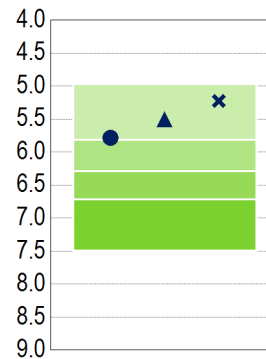
#### Anlzd Return



● 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

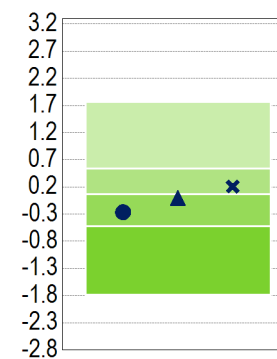
#### Anlzd Standard Deviation



● 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

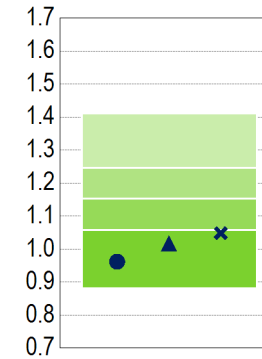
#### Anlzd Alpha



● 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

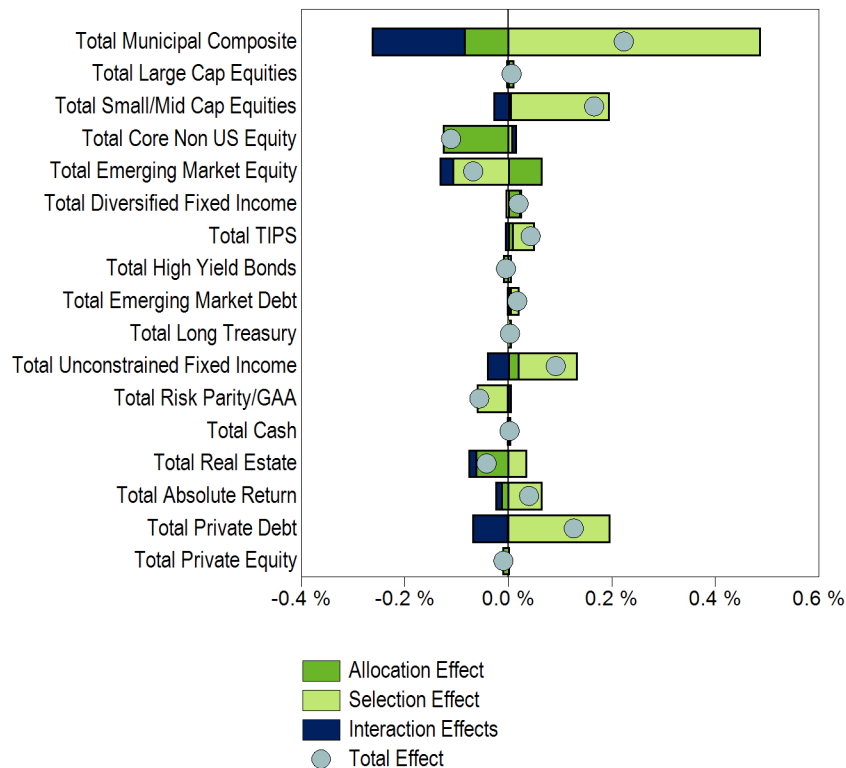
Universe	
5th %tile	1.41
25th %tile	1.25
Median	1.16
75th %tile	1.06
95th %tile	0.88



## 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%
<b>Total</b>	<b>-0.4%</b>	<b>-0.6%</b>	<b>0.2%</b>	<b>0.5%</b>	<b>-0.1%</b>	<b>-0.2%</b>	<b>0.2%</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.

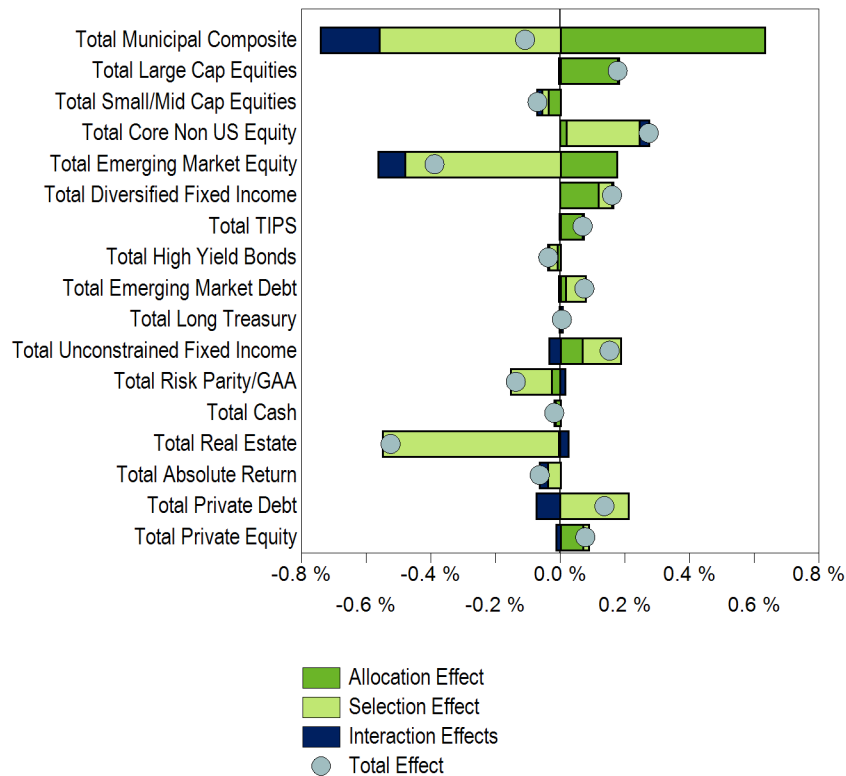
May not add up due to rounding.



## 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%
<b>Total</b>	<b>8.7%</b>	<b>8.8%</b>	<b>-0.1%</b>	<b>-0.6%</b>	<b>0.6%</b>	<b>-0.2%</b>	<b>-0.1%</b>

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

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

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

May not add up due to rounding.



# **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





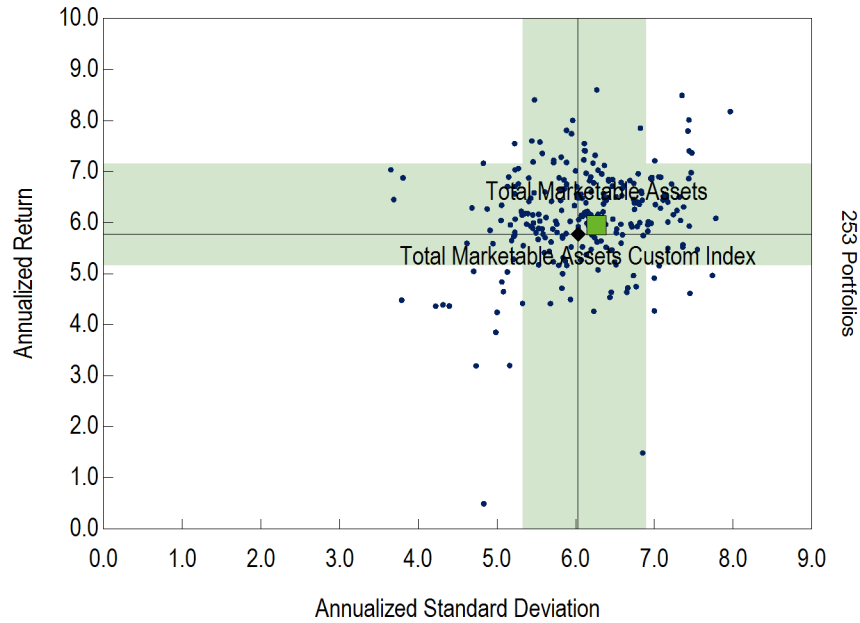
# MANAGER CHARACTERISTICS

NEPC, LLC

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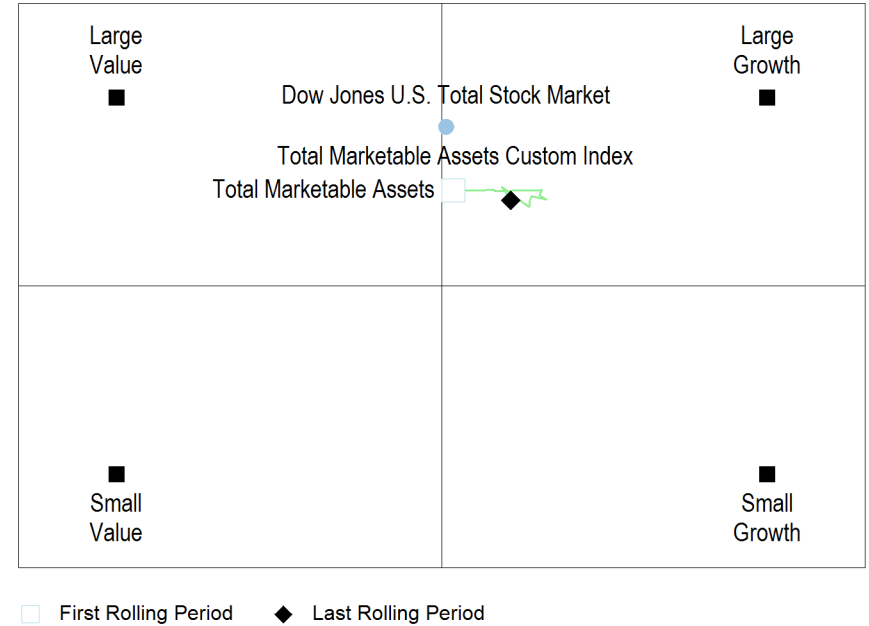
# TOTAL MARKETABLE ASSETS

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



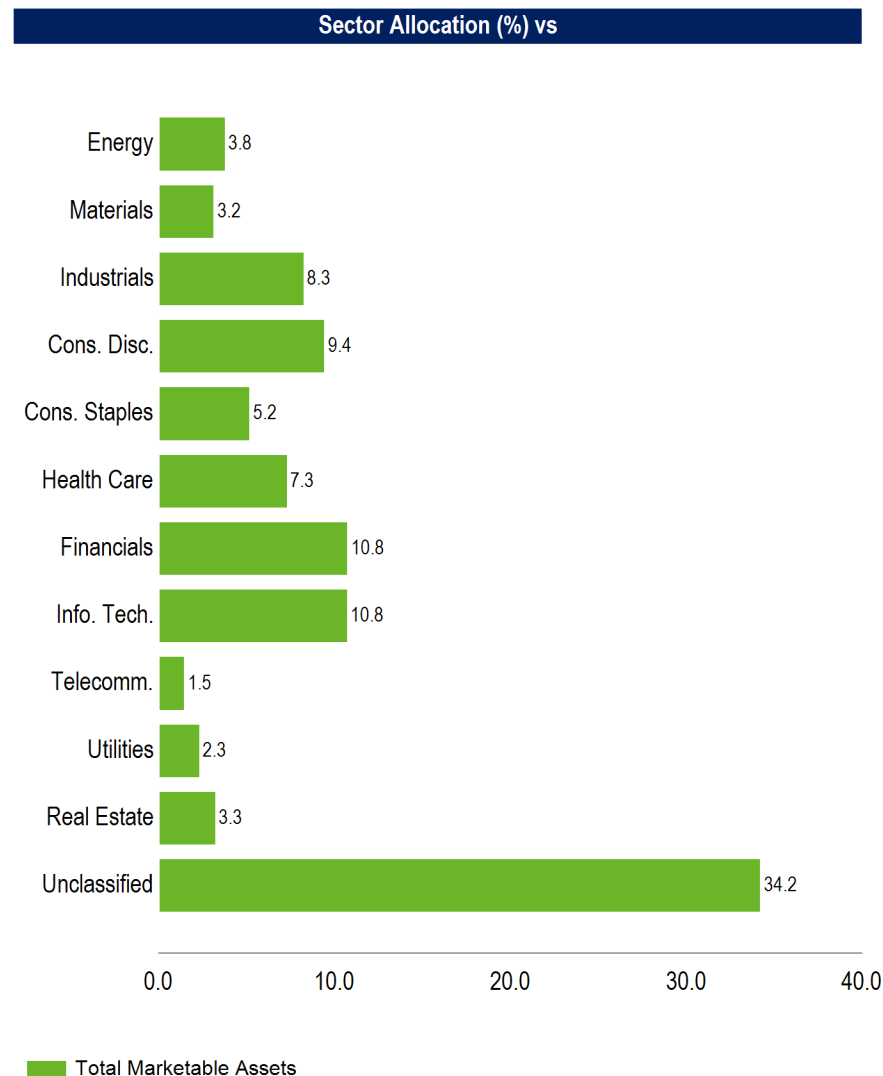
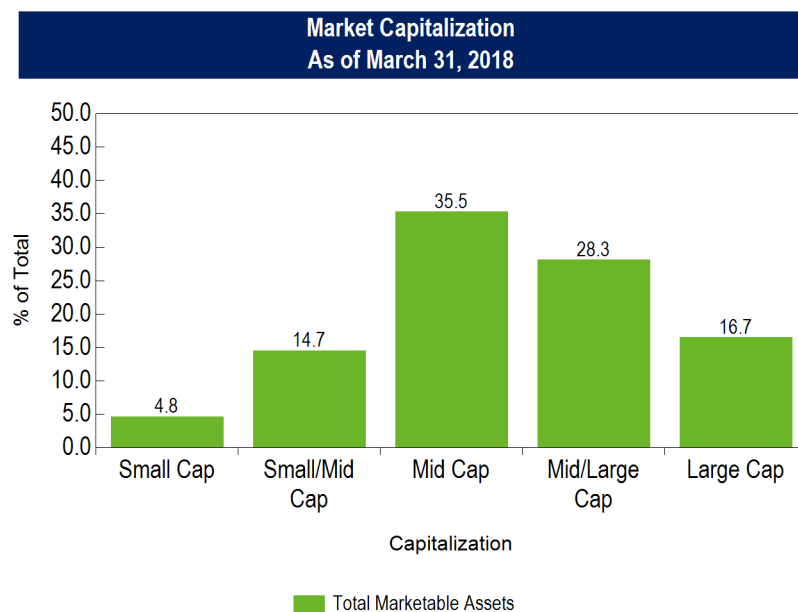
- Total Marketable Assets
- ◆ Total Marketable Assets Custom Index
- 68% Confidence Interval
- InvestorForce Public DB Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018



# TOTAL MARKETABLE ASSETS

Characteristics	
	Portfolio
Number of Holdings	10,085
Weighted Avg. Market Cap. (\$B)	61.56
Median Market Cap. (\$B)	13.92
Price To Earnings	23.98
Price To Book	4.33
Price To Sales	3.42
Return on Equity (%)	19.06
Yield (%)	2.15



# TOTAL MARKETABLE ASSETS

Top Ten Holdings	
FED NATL MTG ASSN (FNCL 3.5 N MAY)	1.5%
UST 2.750 02/15/24	1.0%
UST 0.125 04/15/19	0.8%
UST 2.000 10/31/22 When Iss	0.7%
UST 0.125 04/15/20	0.6%
UNITED STATES TREASURY	0.6%
UNITED STATES TREASURY	0.6%
UST 0.250 01/15/25	0.6%
UNITED STATES TREASURY	0.6%
TAIWAN SEMICON.MNFG.	0.6%

Top Positive Contributors		
	Relative Contribution %	Return %
AMAZON.COM	0.2%	23.8%
NETFLIX	0.1%	53.9%
TAIWAN SEMICON.MNFG.	0.1%	9.4%
MICROSOFT	0.1%	7.2%
BNC.BRADESCO PF.SPN.ADR 1:1	0.1%	16.1%
TRUWORTHS INTL.	0.1%	22.0%
INTEL	0.0%	13.6%
MASSMART	0.0%	23.3%
PUBLIC BANK	0.0%	22.6%
CISCO SYSTEMS	0.0%	12.8%

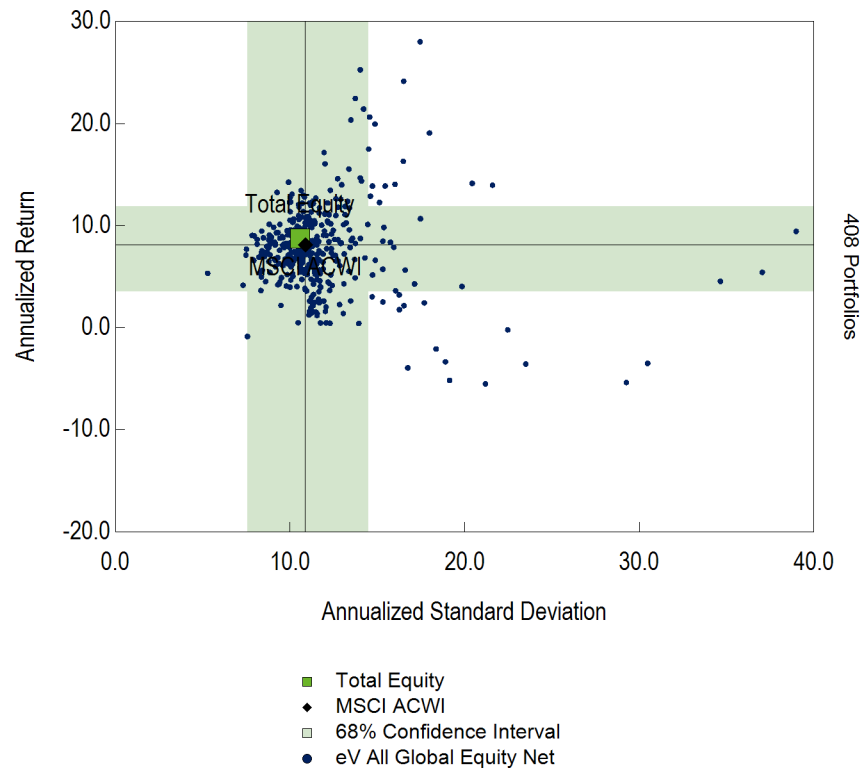
Top Negative Contributors		
	Relative Contribution %	Return %
FACEBOOK CLASS A	-0.1%	-9.4%
MAGNIT	-0.1%	-26.1%
WELLS FARGO & CO	-0.1%	-13.1%
EXXON MOBIL	-0.1%	-9.9%
GENERAL ELECTRIC	-0.1%	-22.1%
BRF BRASIL FOODS ON	-0.1%	-37.7%
CHINA MOBILE	-0.1%	-9.6%
ICT.TUNGGAL PRAKARSA	-0.1%	-28.2%
ASTRA INTERNATIONAL	-0.1%	-13.3%
PROCTER & GAMBLE	-0.1%	-13.1%

	Equity Sector Attribution								Portfolio	Benchmark	Portfolio	Benchmark	
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights					
			Allocation Effect	Interaction Effects									
Energy	0.0%	--	--	--	--	-3.7%	--	5.9%	0.0%				
Materials	0.0%	--	--	--	--	-5.5%	--	4.7%	0.0%				
Industrials	0.0%	--	--	--	--	-2.3%	--	10.4%	0.0%				
Consumer Discretionary	0.0%	--	--	--	--	0.7%	--	12.4%	0.0%				
Consumer Staples	0.0%	--	--	--	--	-4.9%	--	9.2%	0.0%				
Health Care	0.0%	--	--	--	--	-0.8%	--	11.0%	0.0%				
Financials	0.0%	--	--	--	--	1.2%	--	17.3%	0.0%				
Information Technology	0.0%	--	--	--	--	3.8%	--	19.0%	0.0%				
Telecommunication Services	0.0%	--	--	--	--	-6.0%	--	2.8%	0.0%				
Utilities	0.0%	--	--	--	--	-2.7%	--	2.5%	0.0%				
Real Estate	-0.2%	0.0%	-0.2%	0.0%	0.0%	-4.9%	-4.9%	3.8%	0.0%				
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	--	0.8%	0.0%				
<b>Portfolio</b>	<b>-0.2%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>-0.2%</b>	<b>+</b>	<b>0.0%</b>	<b>-0.7%</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>		

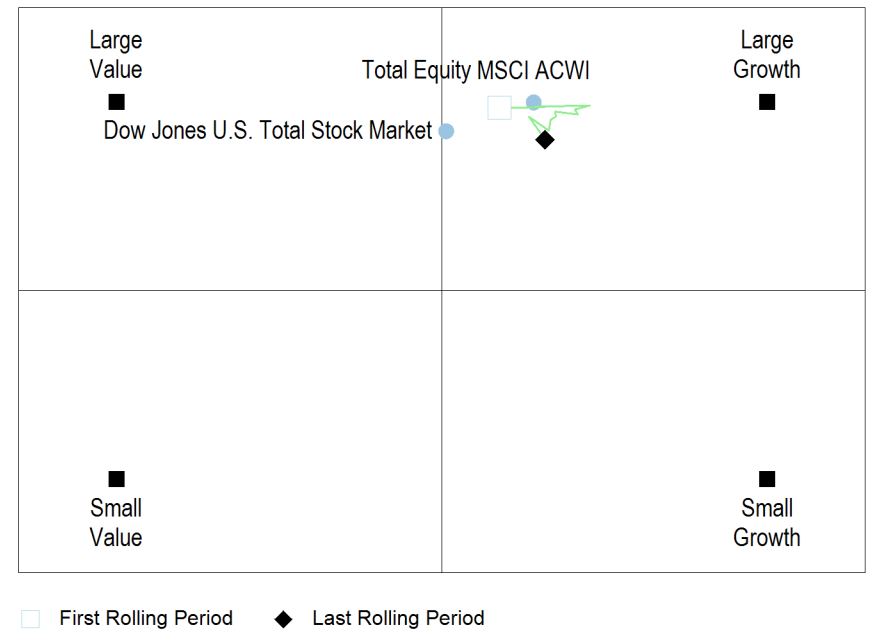


# TOTAL EQUITY COMPOSITE

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

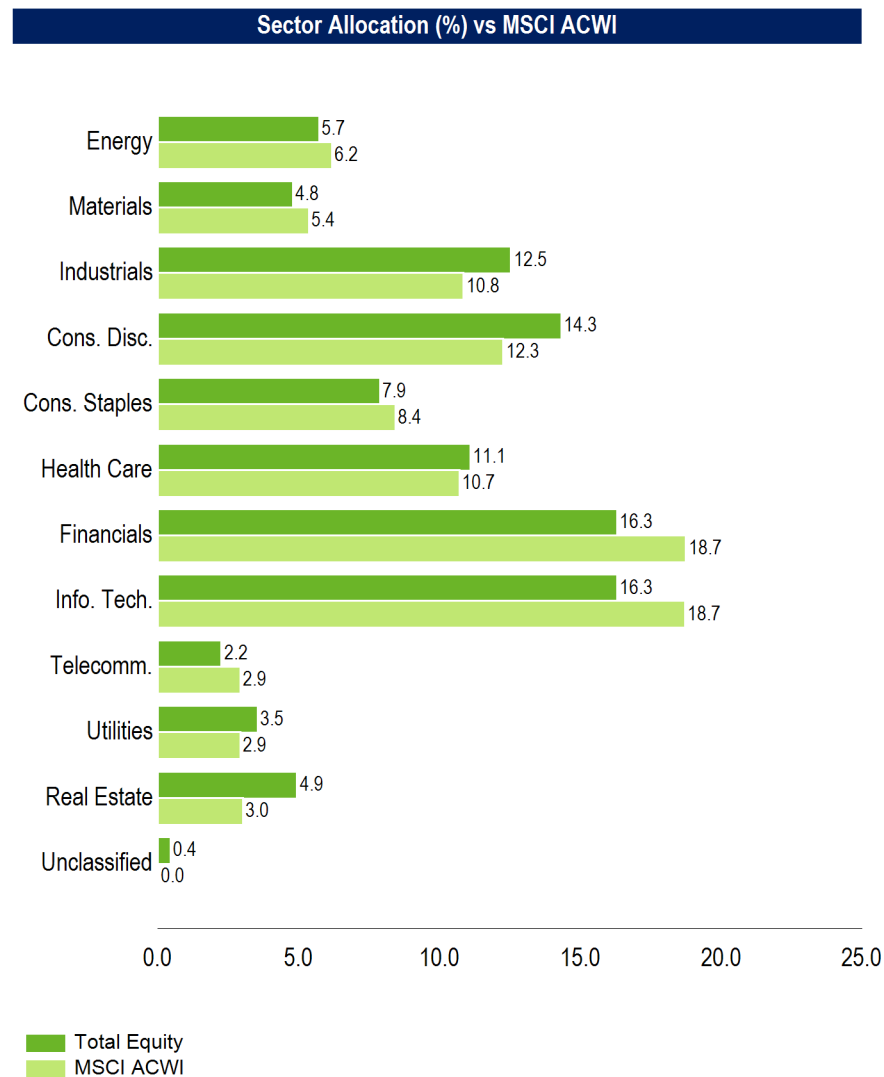
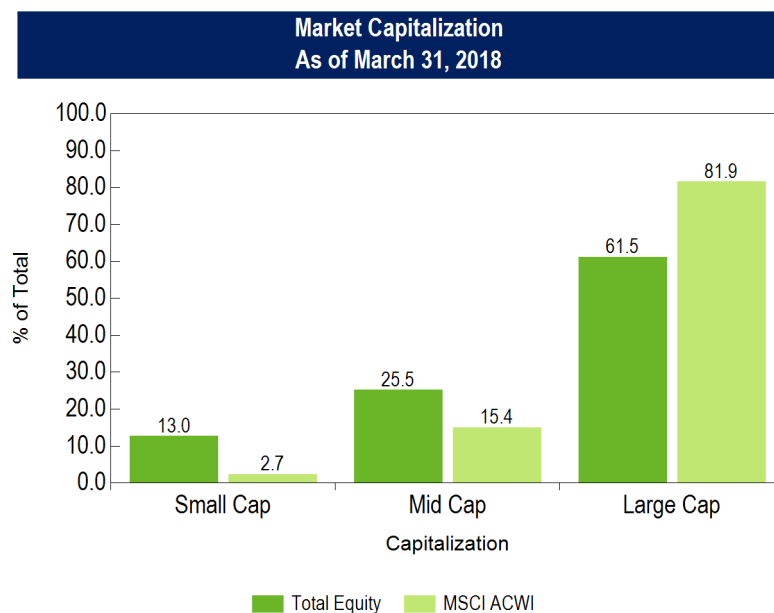


U.S. Effective Style Map  
3 Years Ending March 31, 2018



# TOTAL EQUITY COMPOSITE

Characteristics		
	Portfolio	MSCI ACWI
Number of Holdings	1,141	2,495
Weighted Avg. Market Cap. (\$B)	61.56	121.31
Median Market Cap. (\$B)	14.06	10.49
Price To Earnings	23.98	21.44
Price To Book	4.33	3.49
Price To Sales	3.42	3.08
Return on Equity (%)	19.06	17.43
Yield (%)	2.15	2.41
Beta	0.96	1.00
R-Squared	0.98	1.00



# TOTAL EQUITY COMPOSITE

Top Ten Holdings	
TAIWAN SEMICON.MNFG.	0.9%
SAMSUNG ELTN.PREF.	0.8%
TENCENT HOLDINGS	0.7%
CHINA MOBILE	0.6%
HOUSING DEVELOPMENT FIN.	0.5%
MICROSOFT	0.5%
APPLE	0.5%
BNC.BRADESCO PF.SPN.ADR 1:1	0.4%
CASH - USD	0.4%
ROYAL DUTCH SHELL B	0.4%

Top Positive Contributors		
	Relative Contribution %	Return %
BNC.BRADESCO PF.SPN.ADR 1:1	0.1%	16.1%
TRUWORTHS INTL.	0.1%	22.0%
TAIWAN SEMICON.MNFG.	0.1%	9.4%
MASSMART	0.1%	23.3%
PUBLIC BANK	0.0%	22.6%
PJSC LUKOIL SPON (LON) ADR	0.0%	20.4%
CHINA RESOURCES LAND	0.0%	23.6%
AMBEV ON	0.0%	13.2%
OKTA CLA	0.0%	55.6%
GPO FINANCE BANORTE	0.0%	10.5%

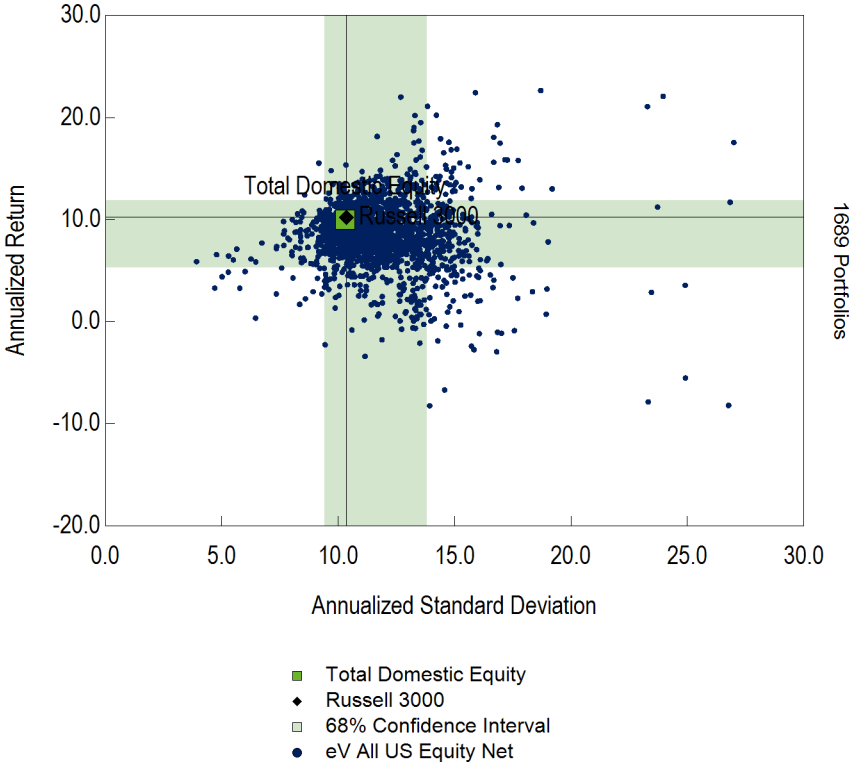
Top Negative Contributors		
	Relative Contribution %	Return %
MAGNIT	-0.1%	-26.1%
ICT.TUNGGAL PRAKARSA	-0.1%	-28.2%
BRF BRASIL FOODS ON	-0.1%	-37.7%
ASTRA INTERNATIONAL	-0.1%	-13.3%
CHINA MOBILE	-0.1%	-9.6%
AIR FRANCE-KLM	0.0%	-32.0%
NORSK HYDRO	0.0%	-23.2%
RICHTER GEDEON	0.0%	-20.4%
AYALA LAND	0.0%	-11.3%
AMAZON.COM	0.0%	23.8%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.0%	0.0%	0.0%	0.0%	0.0%	-3.7%	-3.6%	6.0%	6.4%		
Materials	-0.1%	-0.1%	0.0%	0.0%	0.0%	-5.5%	-3.6%	4.7%	5.4%		
Industrials	-0.1%	0.0%	0.0%	-0.1%	0.0%	-2.3%	-1.4%	10.4%	10.9%		
Consumer Discretionary	0.0%	0.0%	0.0%	-0.1%	0.0%	0.7%	1.1%	12.4%	12.1%		
Consumer Staples	0.0%	0.1%	0.0%	-0.1%	0.0%	-4.9%	-4.8%	9.3%	8.7%		
Health Care	0.0%	0.0%	0.0%	0.0%	0.0%	-0.8%	-0.8%	11.0%	10.7%		
Financials	0.4%	0.5%	0.0%	-0.1%	0.0%	1.2%	-0.9%	17.3%	18.8%		
Information Technology	0.2%	0.1%	0.0%	0.0%	0.0%	3.8%	3.2%	19.1%	18.1%		
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	0.0%	-6.0%	-5.3%	2.9%	3.0%		
Utilities	0.0%	0.0%	0.0%	0.0%	0.0%	-2.7%	-1.0%	2.5%	2.9%		
Real Estate	-0.1%	0.0%	0.0%	0.0%	0.0%	-4.9%	-3.4%	3.8%	3.0%		
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	--	0.6%	0.0%		
<b>Portfolio</b>	<b>0.2%</b>	<b>=</b>	<b>0.6%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>-0.5%</b>	<b>-0.7%</b>	<b>-0.8%</b>	<b>100.0%</b>	<b>100.0%</b>

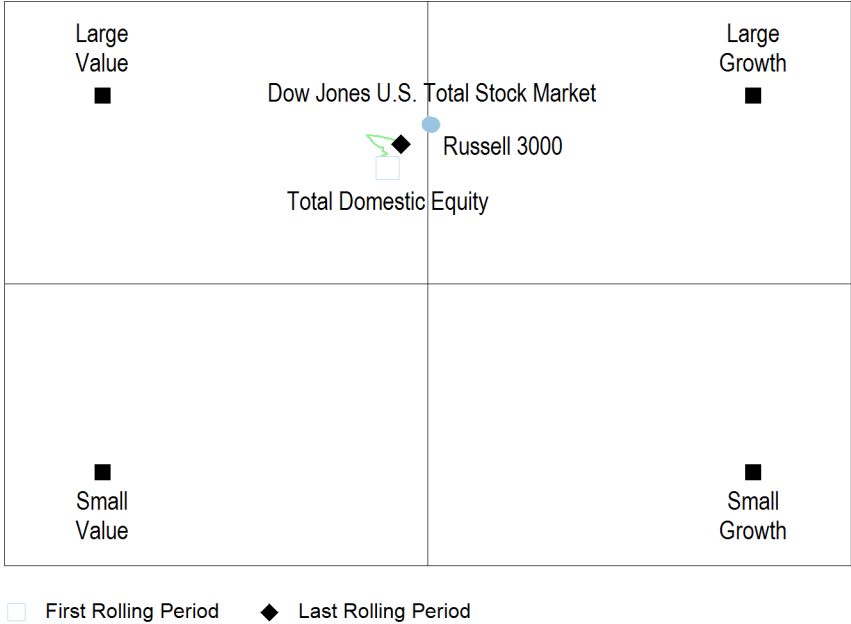


# DOMESTIC EQUITY COMPOSITE

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



**U.S. Effective Style Map  
3 Years Ending March 31, 2018**

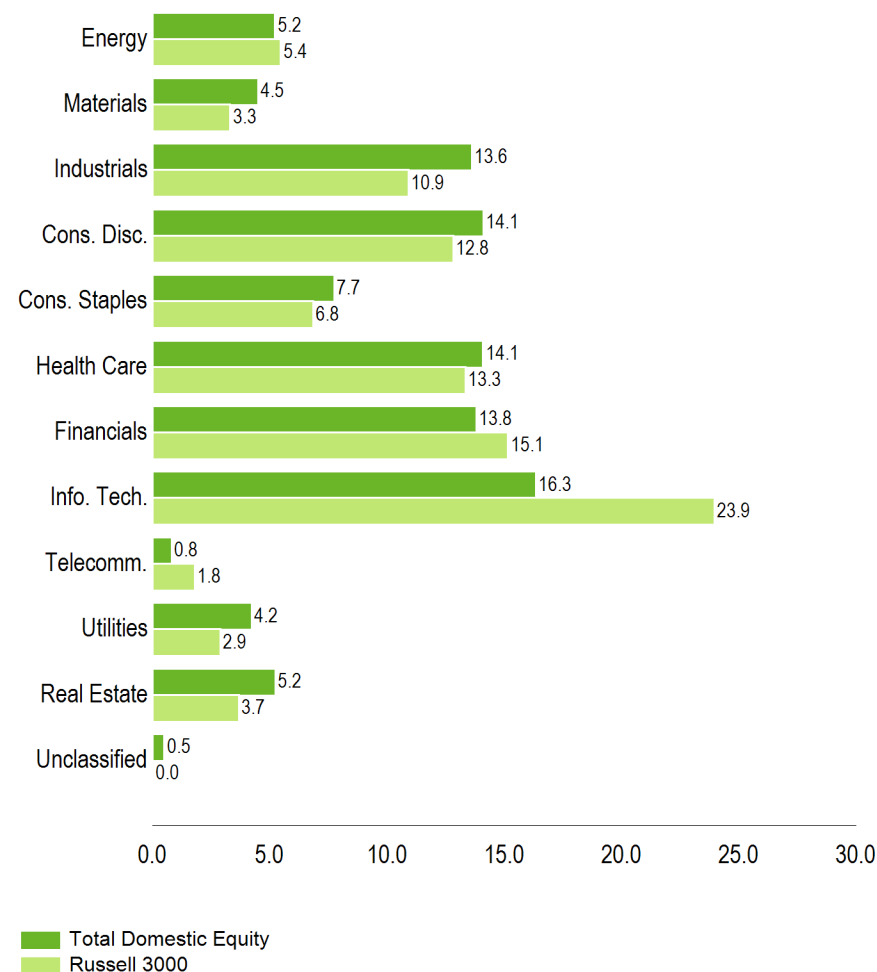




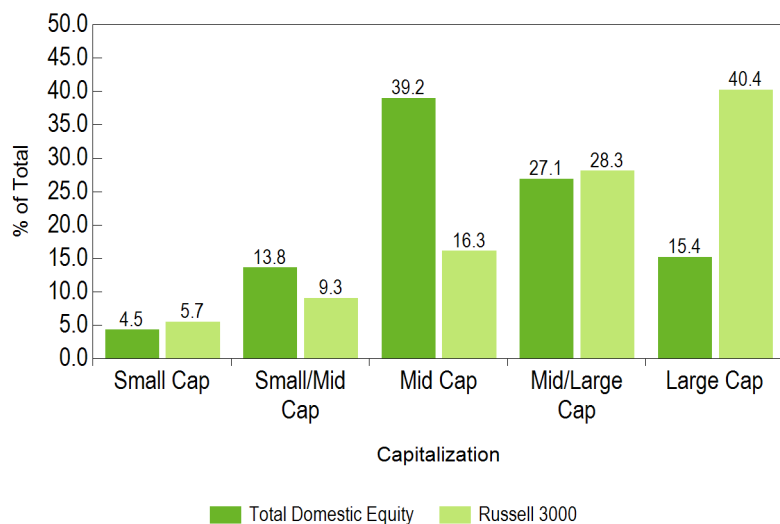
# DOMESTIC EQUITY COMPOSITE

Characteristics		
	Portfolio	Russell 3000
Number of Holdings	602	2,958
Weighted Avg. Market Cap. (\$B)	64.01	151.95
Median Market Cap. (\$B)	18.05	1.69
Price To Earnings	26.75	23.48
Price To Book	4.93	4.33
Price To Sales	3.76	3.97
Return on Equity (%)	19.62	19.01
Yield (%)	1.79	1.82
Beta	0.99	1.00
R-Squared	0.99	1.00

## Sector Allocation (%) vs Russell 3000



## Market Capitalization As of March 31, 2018



# DOMESTIC EQUITY COMPOSITE

Top Ten Holdings	
MICROSOFT	0.7%
APPLE	0.7%
AMAZON.COM	0.5%
CASH - USD	0.5%
FACEBOOK CLASS A	0.5%
JP MORGAN CHASE & CO.	0.5%
JOHNSON & JOHNSON	0.4%
INTEGRA LFSC.HDG.	0.4%
EXXON MOBIL	0.4%
RED HAT	0.4%

Top Positive Contributors		
	Relative Contribution %	Return %
TAIWAN SEMICON.MNFG.	0.1%	9.4%
FACEBOOK CLASS A	0.1%	-9.4%
EXXON MOBIL	0.1%	-9.9%
WELLS FARGO & CO	0.1%	-13.1%
BNC.BRADESCO PF.SPN.ADR 1:1	0.1%	16.1%
GENERAL ELECTRIC	0.1%	-22.1%
PROCTER & GAMBLE	0.1%	-13.1%
JOHNSON & JOHNSON	0.1%	-7.7%
COMCAST 'A'	0.1%	-14.4%
TRUWORTHS INTL.	0.1%	22.0%

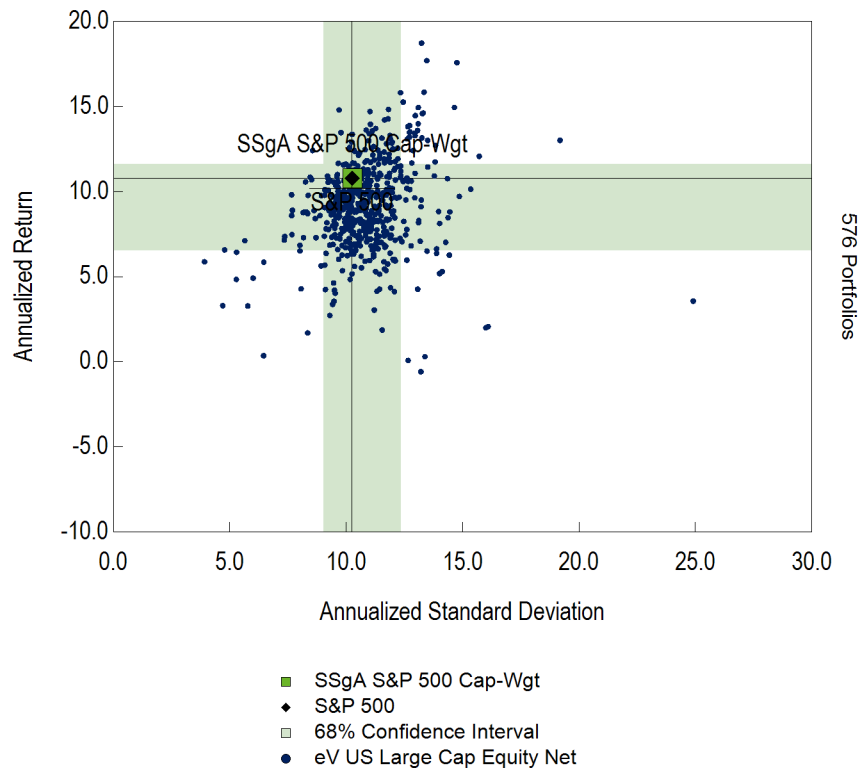
Top Negative Contributors		
	Relative Contribution %	Return %
AMAZON.COM	-0.2%	23.8%
MICROSOFT	-0.1%	7.2%
NETFLIX	-0.1%	53.9%
MAGNIT	-0.1%	-26.1%
INTEL	-0.1%	13.6%
BRF BRASIL FOODS ON	-0.1%	-37.7%
CHINA MOBILE	-0.1%	-9.6%
ICT.TUNGGAL PRAKARSA	-0.1%	-28.2%
ASTRA INTERNATIONAL	-0.1%	-13.3%
CISCO SYSTEMS	0.0%	12.8%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.1%	0.0%	0.1%	-3.7%	-6.0%	5.9%	5.8%			
Materials	-0.1%	0.0%	-0.1%	0.0%	-5.5%	-5.3%	4.7%	3.5%			
Industrials	-0.1%	-0.1%	0.0%	0.1%	-2.3%	-1.8%	10.4%	11.0%			
Consumer Discretionary	-0.2%	-0.2%	0.0%	0.1%	0.7%	2.0%	12.4%	12.4%			
Consumer Staples	0.1%	0.1%	-0.1%	0.1%	-4.9%	-6.8%	9.2%	7.3%			
Health Care	0.0%	-0.1%	0.0%	0.1%	-0.8%	-0.5%	11.0%	13.3%			
Financials	0.3%	0.2%	0.0%	0.1%	1.2%	-0.4%	17.3%	15.2%			
Information Technology	-0.2%	-0.1%	-0.2%	0.1%	3.8%	4.0%	19.0%	22.8%			
Telecommunication Services	0.0%	0.0%	-0.1%	0.0%	-6.0%	-7.3%	2.8%	1.9%			
Utilities	0.0%	0.0%	0.0%	0.0%	-2.7%	-3.4%	2.5%	3.0%			
Real Estate	0.1%	0.0%	0.0%	0.0%	-4.9%	-6.2%	3.8%	3.9%			
Cash	0.0%	0.0%	0.0%	0.0%	0.4%	--	0.8%	0.0%			
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>-0.2%</b>	<b>+</b>	<b>-0.4%</b>	<b>+</b>	<b>0.6%</b>	<b>-0.7%</b>	<b>-0.7%</b>	<b>100.0%</b>	<b>100.0%</b>

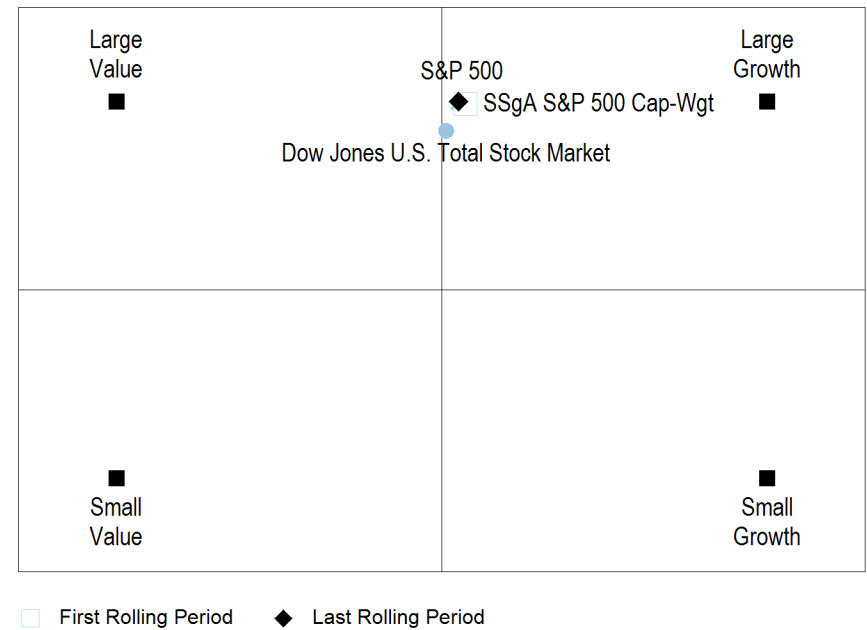


# SSGA S&P 500 CAP-WGT

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

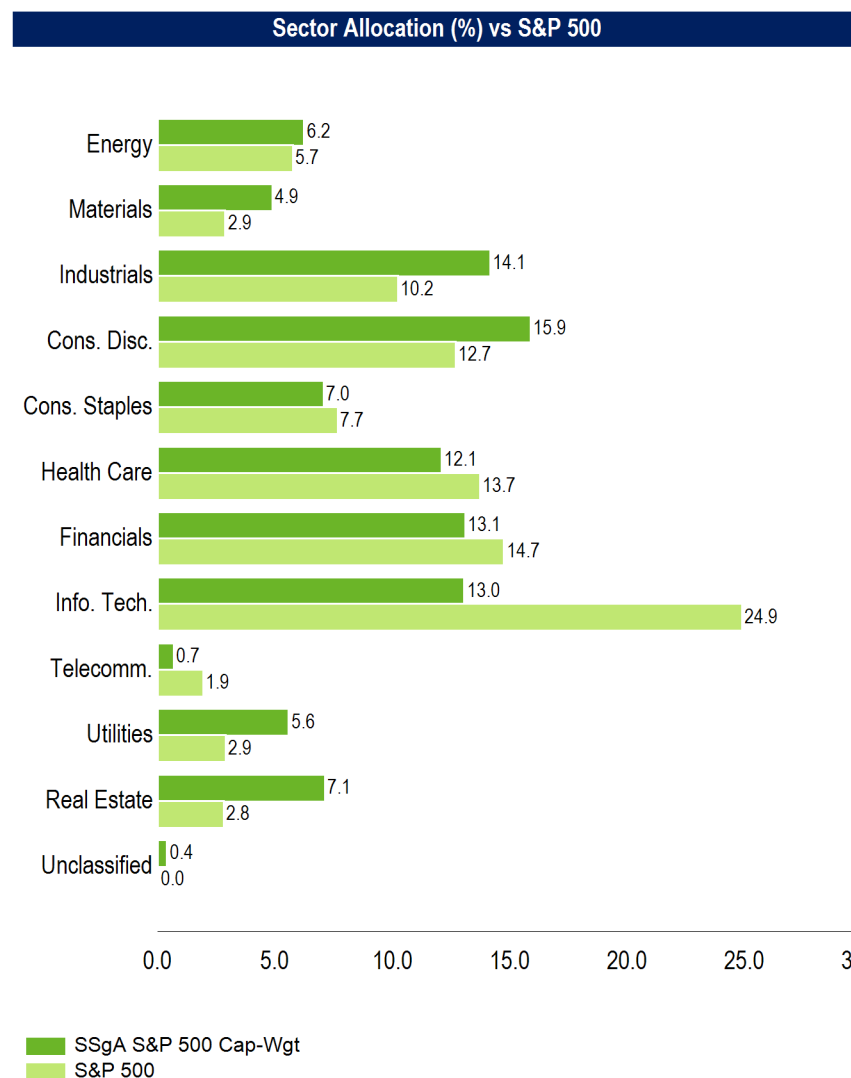
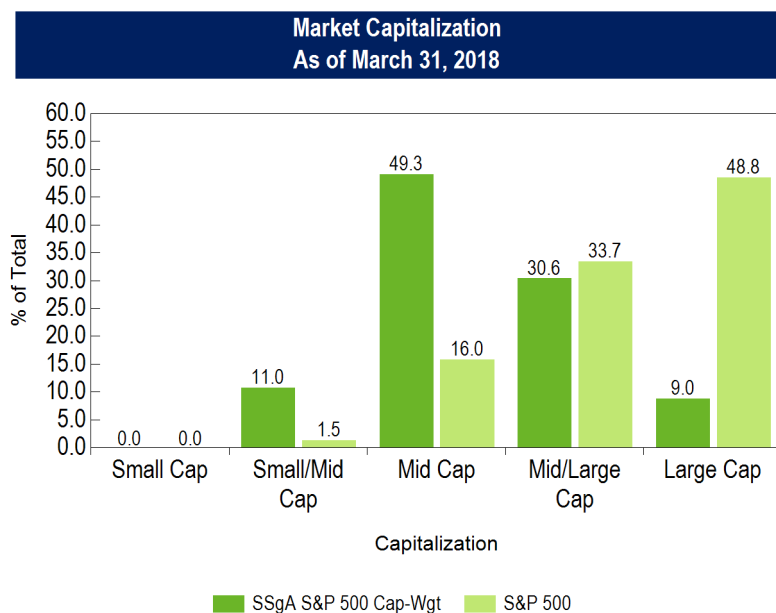


U.S. Effective Style Map  
3 Years Ending March 31, 2018



# SSGA S&P 500 CAP-WGT

Characteristics		
	Portfolio	S&P 500
Number of Holdings	451	505
Weighted Avg. Market Cap. (\$B)	41.95	182.24
Median Market Cap. (\$B)	19.87	20.73
Price To Earnings	26.23	24.22
Price To Book	4.45	4.61
Price To Sales	3.51	4.00
Return on Equity (%)	19.97	21.61
Yield (%)	1.95	1.95
Beta	1.00	1.00
R-Squared	1.00	1.00



# SSGA S&P 500 CAP-WGT

Top Ten Holdings	
CASH - USD	0.4%
MACY'S	0.3%
PVH	0.2%
CHURCH & DWIGHT CO.	0.2%
REGENERON PHARMS.	0.2%
DUKE REALTY	0.2%
EQUITY RESD.TST.PROPS. SHBI	0.2%
PG&E	0.2%
CMS ENERGY	0.2%
CONSTELLATION BRANDS 'A'	0.2%

Top Positive Contributors		
	Relative Contribution %	Return %
NETFLIX	0.0%	53.9%
BECTON DICKINSON	0.0%	1.6%
RANGE RES.	0.0%	-14.7%
CISCO SYSTEMS	0.0%	12.8%
CHESAPEAKE ENERGY	0.0%	-23.7%
NEWFIELD EXPLORATION	0.0%	-22.5%
ACUITY BRANDS	0.0%	-20.9%
IRON MOUNTAIN	0.0%	-11.4%
BOEING	0.0%	11.8%
BOOKING HOLDINGS	0.0%	19.7%

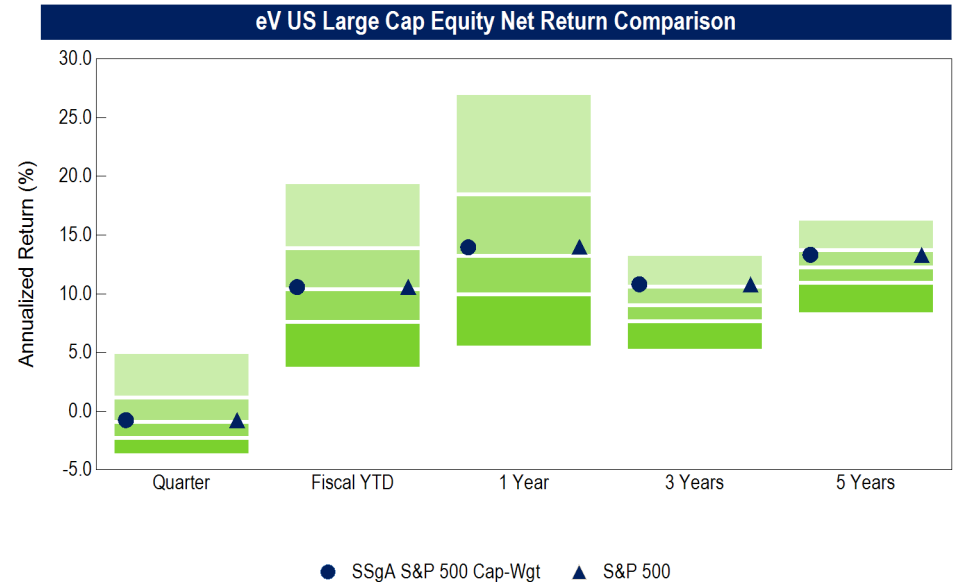
Top Negative Contributors		
	Relative Contribution %	Return %
XL GROUP	0.0%	57.8%
MICRON TECHNOLOGY	0.0%	26.8%
EXXON MOBIL	0.0%	-9.9%
GENERAL ELECTRIC	0.0%	-22.1%
JOHNSON & JOHNSON	0.0%	-7.7%
EDWARDS LIFESCIENCES	0.0%	23.8%
IDEXX LABORATORIES	0.0%	22.4%
KOHL'S	0.0%	21.9%
WW GRAINGER	0.0%	20.1%
CHEVRON	0.0%	-8.0%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	0.0%	-5.9%	-5.9%	6.1%	6.1%		
Materials	0.0%	0.0%	0.0%	0.0%	0.0%	-5.5%	-5.5%	3.0%	3.0%		
Industrials	0.0%	0.0%	0.0%	0.0%	0.0%	-1.6%	-1.6%	10.3%	10.3%		
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	3.1%	12.2%	12.2%		
Consumer Staples	0.0%	0.0%	0.0%	0.0%	0.0%	-7.1%	-7.1%	8.2%	8.2%		
Health Care	0.0%	0.0%	0.0%	0.0%	0.0%	-1.3%	-1.3%	13.8%	13.8%		
Financials	0.0%	0.0%	0.0%	0.0%	0.0%	-1.0%	-0.9%	14.8%	14.8%		
Information Technology	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%	23.8%	23.8%		
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	0.0%	-7.5%	-7.5%	2.1%	2.1%		
Utilities	0.0%	0.0%	0.0%	0.0%	0.0%	-3.3%	-3.3%	2.9%	2.9%		
Real Estate	0.0%	0.0%	0.0%	0.0%	0.0%	-5.0%	-5.0%	2.9%	2.9%		
Cash	0.0%	--	--	--	--	--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>-0.8%</b>	<b>-0.8%</b>	<b>100.0%</b>	<b>100.0%</b>

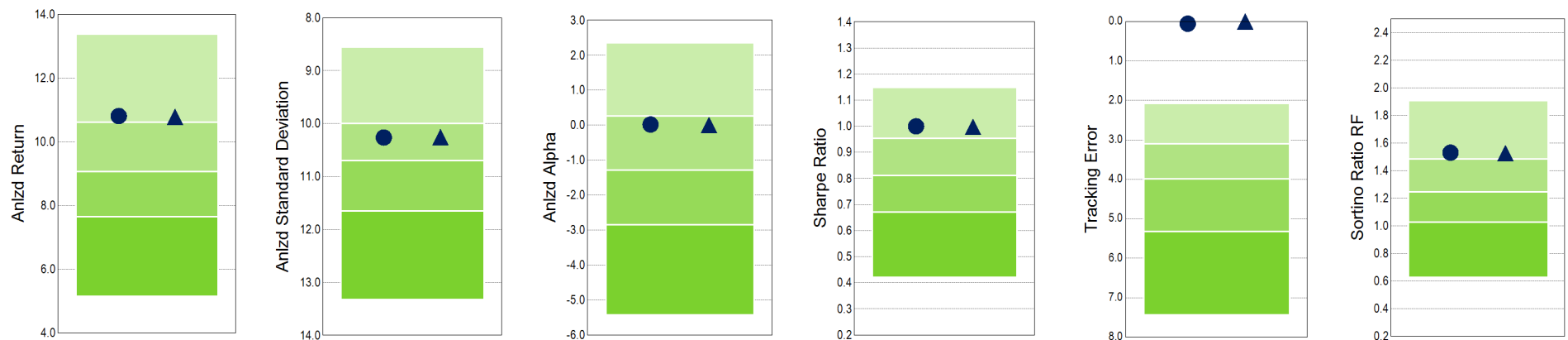


# SSGA S&P 500 CAP-WGT

Using a replication process, we purchase each security for the Strategy in the same capitalization weight as it appears in the S&P 500 Index. Replication results in low turnover, accurate tracking, and low costs. SSgA's internal liquidity has allowed the firm to acquire many of the benchmark constituents for free. These free trading opportunities have allowed SSgA to gradually reduce security-level misweights while avoiding the open market. This process has resulted in portfolios that look and behave like the benchmark, and do so at a very low cost. SSgA's passive equity process objective is to remain fully invested in the equity market at all times. To accomplish this, it holds a small amount of unleveraged exchange-traded S&P 500® futures contracts to maintain full exposure. SSgA tends to hold approximately 1-3% of the strategy's value in suitable CFTC approved index futures contracts. This position in futures also allows the firm to accommodate cash flows into and out of the portfolio on a daily basis and to equitize dividend receivables to achieve closer tracking.



## 3 Year Risk Statistics



# SSGA S&P 500 CAP-WGT

Characteristics		
	Portfolio	S&P 500
Number of Holdings	451	505
Weighted Avg. Market Cap. (\$B)	41.9	182.2
Median Market Cap. (\$B)	19.9	20.7
Price To Earnings	26.2	24.2
Price To Book	4.5	4.6
Price To Sales	3.5	4.0
Return on Equity (%)	20.0	21.6
Yield (%)	2.0	1.9
Beta	1.0	1.0
R-Squared	1.0	1.0

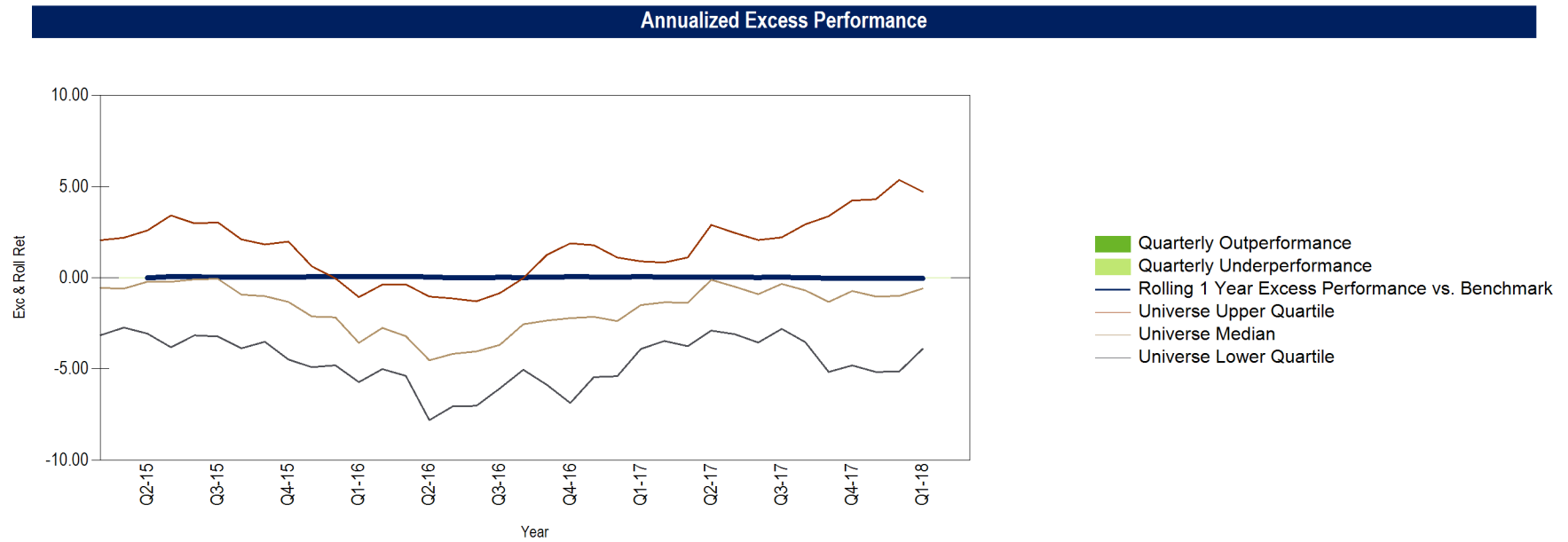
Top Positive Contributors		
	Relative Contribution %	Return %
NETFLIX (NFLX)	0.0%	53.9%
BECTON DICKINSON (BDX)	0.0%	1.6%
RANGE RES. (RRC)	0.0%	-14.7%
CISCO SYSTEMS (CSCO)	0.0%	12.8%
CHESAPEAKE ENERGY (CHK)	0.0%	-23.7%
NEWFIELD EXPLORATION (NFX)	0.0%	-22.5%
ACUITY BRANDS (AYI)	0.0%	-20.9%
IRON MOUNTAIN (IRM)	0.0%	-11.4%
BOEING (BA)	0.0%	11.8%
BOOKING HOLDINGS (BKNG)	0.0%	19.7%

Top Negative Contributors		
	Relative Contribution %	Return %
XL GROUP (XL)	0.0%	57.8%
MICRON TECHNOLOGY (MU)	0.0%	26.8%
EXXON MOBIL (XOM)	0.0%	-9.9%
GENERAL ELECTRIC (GE)	0.0%	-22.1%
JOHNSON & JOHNSON (JNJ)	0.0%	-7.7%
EDWARDS LIFESCIENCES (EW)	0.0%	23.8%
IDEXX LABORATORIES (IDXX)	0.0%	22.4%
KOHL'S (KSS)	0.0%	21.9%
WW GRAINGER (GWW)	0.0%	20.1%
CHEVRON (CVX)	0.0%	-8.0%

SSgA S&P 500 Cap-Wgt Performance Attribution vs. S&P 500											
	Attribution Effects				Returns			Sector Weights			
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-5.9%	-5.9%	6.1%	6.1%			
Materials	0.0%	0.0%	0.0%	0.0%	-5.5%	-5.5%	3.0%	3.0%			
Industrials	0.0%	0.0%	0.0%	0.0%	-1.6%	-1.6%	10.3%	10.3%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	3.1%	3.1%	12.2%	12.2%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	-7.1%	-7.1%	8.2%	8.2%			
Health Care	0.0%	0.0%	0.0%	0.0%	-1.3%	-1.3%	13.8%	13.8%			
Financials	0.0%	0.0%	0.0%	0.0%	-1.0%	-0.9%	14.8%	14.8%			
Information Technology	0.0%	0.0%	0.0%	0.0%	3.5%	3.5%	23.8%	23.8%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-7.5%	-7.5%	2.1%	2.1%			
Utilities	0.0%	0.0%	0.0%	0.0%	-3.3%	-3.3%	2.9%	2.9%			
Real Estate	0.0%	0.0%	0.0%	0.0%	-5.0%	-5.0%	2.9%	2.9%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>0.0%</b>	<b>=</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>+</b>	<b>0.0%</b>	<b>-0.8%</b>	<b>-0.8%</b>	<b>100.0%</b>	<b>100.0%</b>



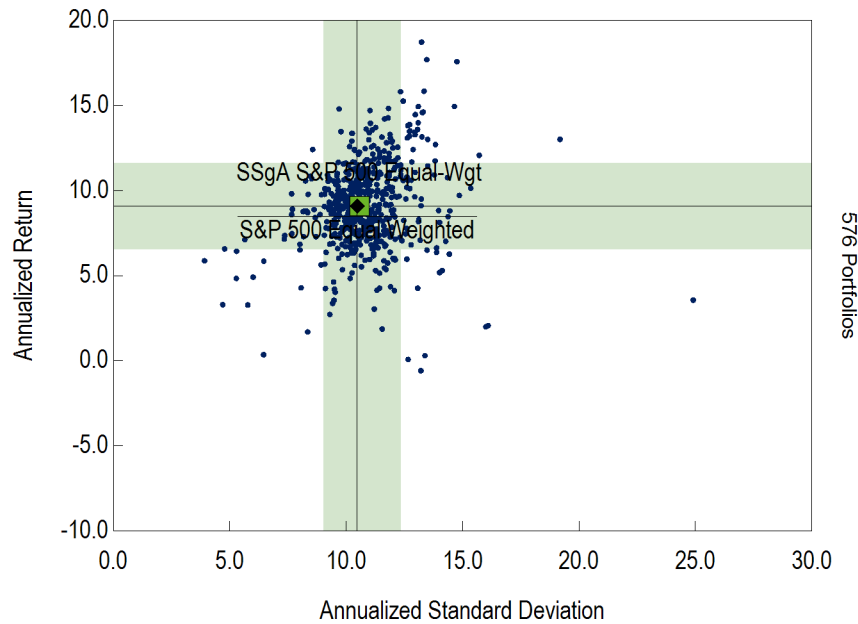
# SSGA S&P 500 CAP-WGT





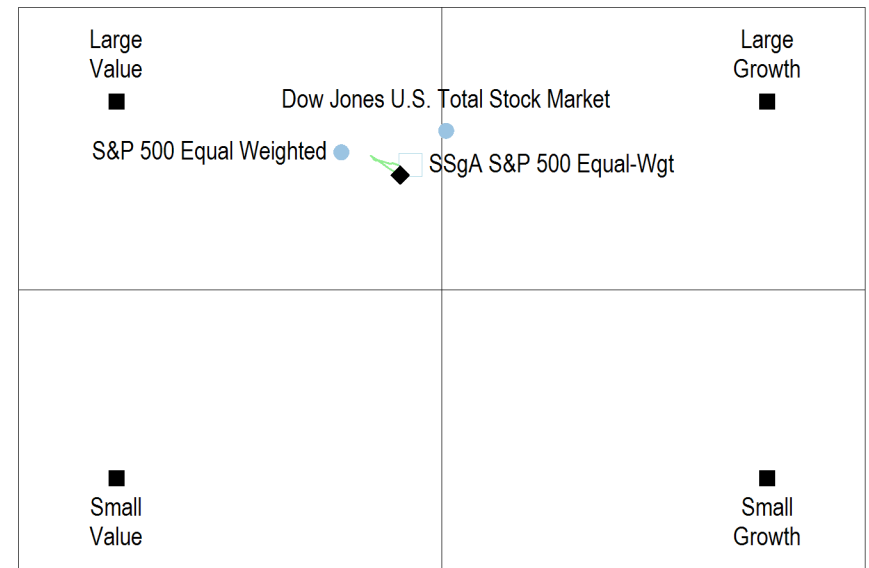
# SSGA S&P 500 EQUAL-WGT

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



- SSGA S&P 500 Equal-Wgt
- ◆ S&P 500 Equal Weighted
- 68% Confidence Interval
- eV US Large Cap Equity Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018



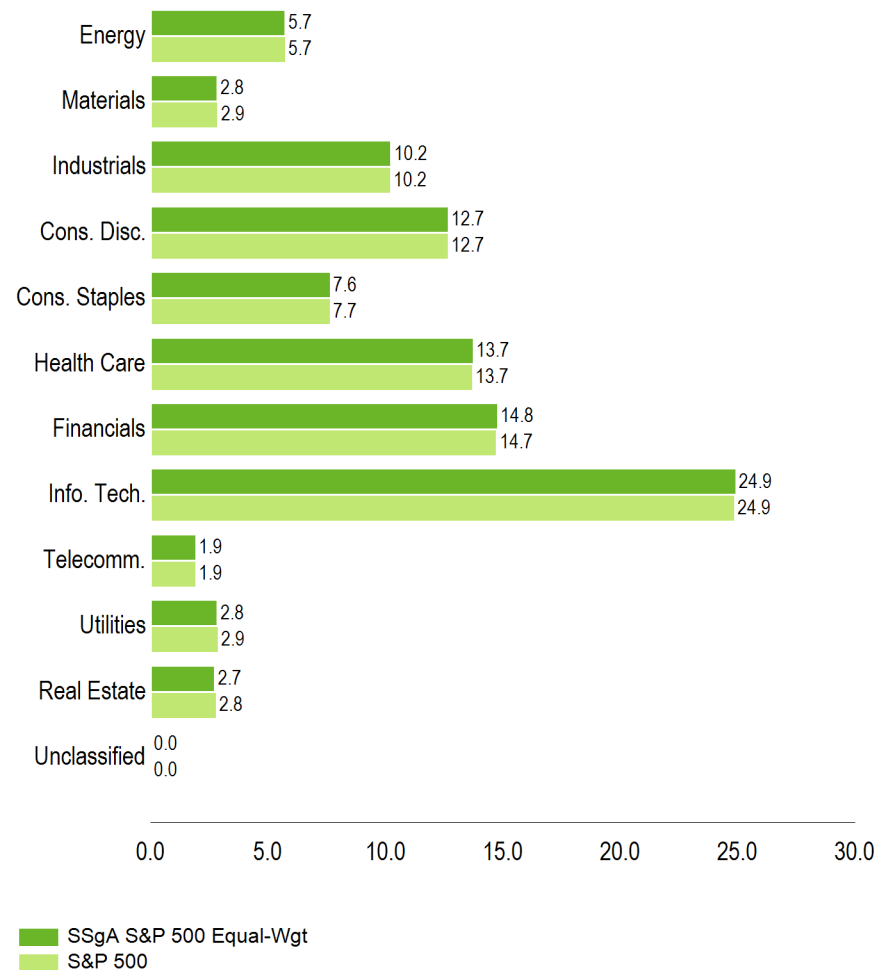
- First Rolling Period
- ◆ Last Rolling Period



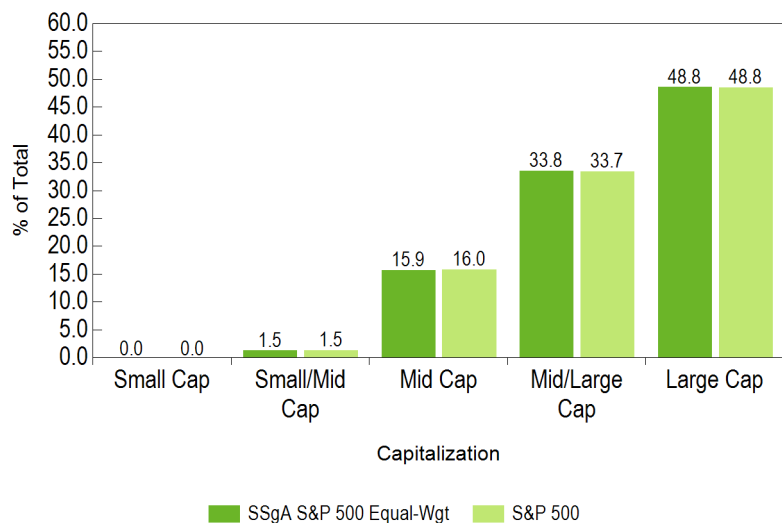
# SSGA S&P 500 EQUAL-WGT

Characteristics		
	Portfolio	S&P 500
Number of Holdings	505	505
Weighted Avg. Market Cap. (\$B)	182.51	182.24
Median Market Cap. (\$B)	20.73	20.73
Price To Earnings	26.53	24.22
Price To Book	5.46	4.61
Price To Sales	4.16	4.00
Return on Equity (%)	24.86	21.61
Yield (%)	1.95	1.95
Beta	0.99	1.00
R-Squared	0.92	1.00

## Sector Allocation (%) vs S&P 500



## Market Capitalization As of March 31, 2018



# SSGA S&P 500 EQUAL-WGT

Top Ten Holdings	
APPLE	3.8%
MICROSOFT	3.1%
AMAZON.COM	2.6%
BERKSHIRE HATHAWAY 'B'	1.7%
FACEBOOK CLASS A	1.7%
JP MORGAN CHASE & CO.	1.7%
JOHNSON & JOHNSON	1.5%
EXXON MOBIL	1.4%
ALPHABET 'C'	1.4%
ALPHABET A	1.4%

Top Positive Contributors		
	Relative Contribution %	Return %
FACEBOOK CLASS A	0.2%	-9.4%
EXXON MOBIL	0.1%	-9.9%
WELLS FARGO & CO	0.1%	-13.1%
JOHNSON & JOHNSON	0.1%	-7.7%
PROCTER & GAMBLE	0.1%	-13.1%
GENERAL ELECTRIC	0.1%	-22.1%
XL GROUP	0.1%	57.8%
COMCAST 'A'	0.1%	-14.4%
ALTRIA GROUP	0.1%	-11.8%
CHEVRON	0.1%	-8.0%

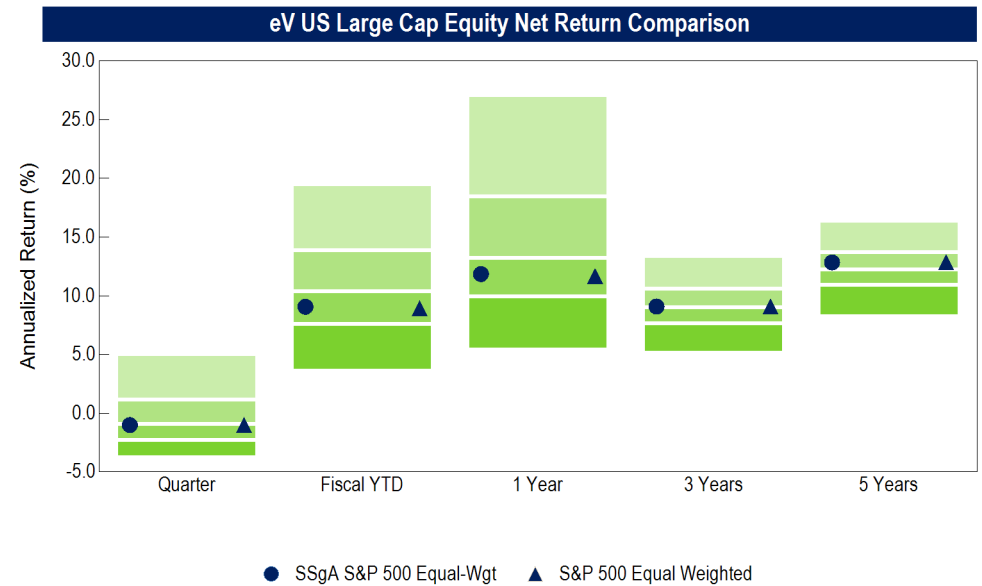
Top Negative Contributors		
	Relative Contribution %	Return %
AMAZON.COM	-0.4%	23.8%
MICROSOFT	-0.2%	7.2%
INTEL	-0.1%	13.6%
NETFLIX	-0.1%	53.9%
CISCO SYSTEMS	-0.1%	12.8%
PATTERSON COMPANIES	-0.1%	-38.0%
MASTERCARD	-0.1%	15.9%
NVIDIA	-0.1%	19.8%
SIGNET JEWELERS	-0.1%	-31.5%
BOEING	-0.1%	11.8%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.0%	0.0%	0.0%	0.0%	0.0%	-6.3%	-5.9%	6.4%	6.1%		
Materials	-0.1%	0.0%	-0.1%	0.0%	0.0%	-5.4%	-5.5%	5.1%	3.0%		
Industrials	0.1%	0.1%	0.0%	0.0%	0.0%	-1.0%	-1.6%	14.1%	10.3%		
Consumer Discretionary	-0.6%	-0.6%	0.1%	-0.2%	0.0%	-1.4%	3.1%	15.7%	12.2%		
Consumer Staples	0.3%	0.2%	0.1%	0.0%	0.0%	-4.5%	-7.1%	6.5%	8.2%		
Health Care	0.1%	0.2%	0.0%	0.0%	0.0%	-0.1%	-1.3%	12.3%	13.8%		
Financials	0.2%	0.2%	0.0%	0.0%	0.0%	0.3%	-0.9%	13.7%	14.8%		
Information Technology	-0.2%	0.5%	-0.5%	-0.2%	0.0%	5.7%	3.5%	13.2%	23.8%		
Telecommunication Services	0.1%	0.1%	0.1%	0.0%	0.0%	-4.9%	-7.5%	0.6%	2.1%		
Utilities	0.0%	0.0%	-0.1%	0.0%	0.0%	-2.7%	-3.3%	5.7%	2.9%		
Real Estate	-0.2%	0.0%	-0.2%	0.0%	0.0%	-6.2%	-5.0%	6.7%	2.9%		
Cash	0.0%	--	--	--	--	--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>-0.4%</b>	<b>=</b>	<b>0.6%</b>	<b>+</b>	<b>-0.5%</b>	<b>+</b>	<b>-0.5%</b>	<b>-1.1%</b>	<b>-0.8%</b>	<b>100.0%</b>	<b>100.0%</b>

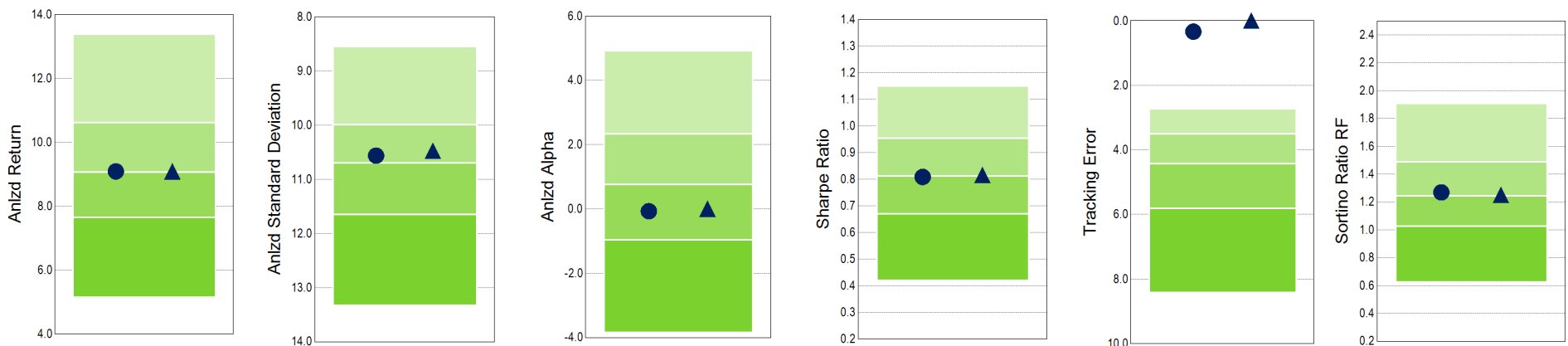


# SSGA S&P 500 EQUAL-WGT

The Strategy is managed using a "passive" or "indexing" investment approach, by which SSgA attempts to match, before expenses, the performance of the Index. SSgA will typically attempt to invest in the securities comprising the Index, in the same proportions as they are represented in the Index. In some cases, it may not be possible or practicable to purchase all of the securities comprising the Index, or to hold them in the same weightings as they represent in the Index. In those circumstances, SSgA may employ a sampling or optimization technique to construct the portfolio in question. From time to time securities are added to or removed from the Index. SSgA may sell securities that are represented in the Index, or purchase securities that are not yet represented in the Index, in anticipation of their removal from or addition to the Index. The Strategy may at times purchase or sell futures contracts on the Index, or options on those futures, or engage in other transactions involving the use of derivatives, in lieu of investment directly in the securities making up the Index or to enhance the Strategy's replication of the Index return. The Strategy's return may not match the return of the Index.



## 3 Year Risk Statistics



# SSGA S&P 500 EQUAL-WGT

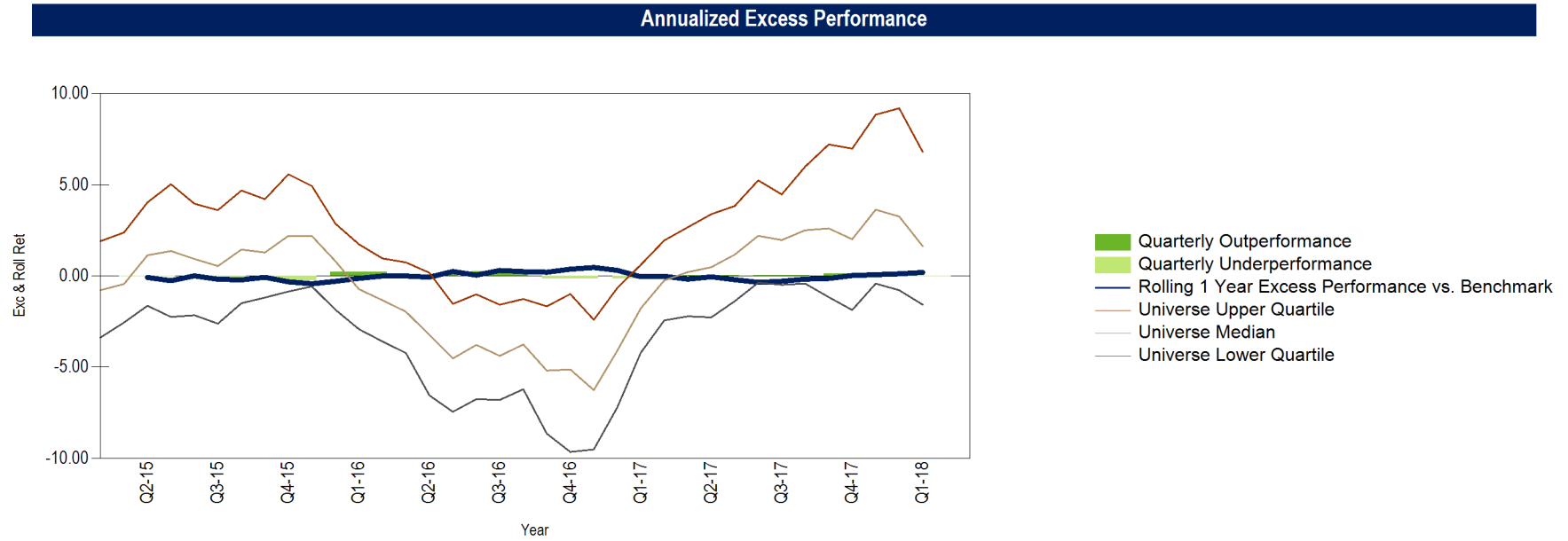
Characteristics			Top Positive Contributors			Top Negative Contributors		
	Portfolio	S&P 500		Relative Contribution %	Return %		Relative Contribution %	Return %
Number of Holdings	505	505	FACEBOOK CLASS A (FB)	0.2%	-9.4%	AMAZON.COM (AMZN)	-0.4%	23.8%
Weighted Avg. Market Cap. (\$B)	182.5	182.2	EXXON MOBIL (XOM)	0.1%	-9.9%	MICROSOFT (MSFT)	-0.2%	7.2%
Median Market Cap. (\$B)	20.7	20.7	WELLS FARGO & CO (WFC)	0.1%	-13.1%	INTEL (INTC)	-0.1%	13.6%
Price To Earnings	26.5	24.2	JOHNSON & JOHNSON (JNJ)	0.1%	-7.7%	NETFLIX (NFLX)	-0.1%	53.9%
Price To Book	5.5	4.6	PROCTER & GAMBLE (PG)	0.1%	-13.1%	CISCO SYSTEMS (CSCO)	-0.1%	12.8%
Price To Sales	4.2	4.0	GENERAL ELECTRIC (GE)	0.1%	-22.1%	PATTERSON COMPANIES (PDCO)	-0.1%	-38.0%
Return on Equity (%)	24.9	21.6	XL GROUP (XL)	0.1%	57.8%	MASTERCARD (MA)	-0.1%	15.9%
Yield (%)	2.0	1.9	COMCAST 'A' (CMCSA)	0.1%	-14.4%	NVIDIA (NVDA)	-0.1%	19.8%
Beta	1.0	1.0	ALTRIA GROUP (MO)	0.1%	-11.8%	SIGNET JEWELERS (SIG)	-0.1%	-31.5%
R-Squared	0.9	1.0	CHEVRON (CVX)	0.1%	-8.0%	BOEING (BA)	-0.1%	11.8%

## SSGA S&P 500 Equal-Wgt Performance Attribution vs. S&P 500

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-6.3%	-5.9%	6.4%	6.1%			
Materials	-0.1%	0.0%	-0.1%	0.0%	-5.4%	-5.5%	5.1%	3.0%			
Industrials	0.0%	0.1%	-0.1%	0.0%	-1.0%	-1.6%	14.1%	10.3%			
Consumer Discretionary	-0.6%	-0.6%	0.1%	-0.2%	-1.4%	3.1%	15.7%	12.2%			
Consumer Staples	0.3%	0.2%	0.1%	0.0%	-4.5%	-7.1%	6.5%	8.2%			
Health Care	0.2%	0.2%	0.0%	0.0%	-0.1%	-1.3%	12.3%	13.8%			
Financials	0.2%	0.2%	0.0%	0.0%	0.3%	-0.9%	13.7%	14.8%			
Information Technology	-0.1%	0.5%	-0.4%	-0.2%	5.7%	3.5%	13.2%	23.8%			
Telecommunication Services	0.1%	0.1%	0.1%	0.0%	-4.9%	-7.5%	0.6%	2.1%			
Utilities	-0.1%	0.0%	-0.1%	0.0%	-2.7%	-3.3%	5.7%	2.9%			
Real Estate	-0.3%	0.0%	-0.2%	0.0%	-6.2%	-5.0%	6.7%	2.9%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.4%</b>	<b>=</b>	<b>0.6%</b>	<b>+</b>	<b>-0.5%</b>	<b>+</b>	<b>-0.5%</b>	<b>-1.1%</b>	<b>-0.8%</b>	<b>100.0%</b>	<b>100.0%</b>

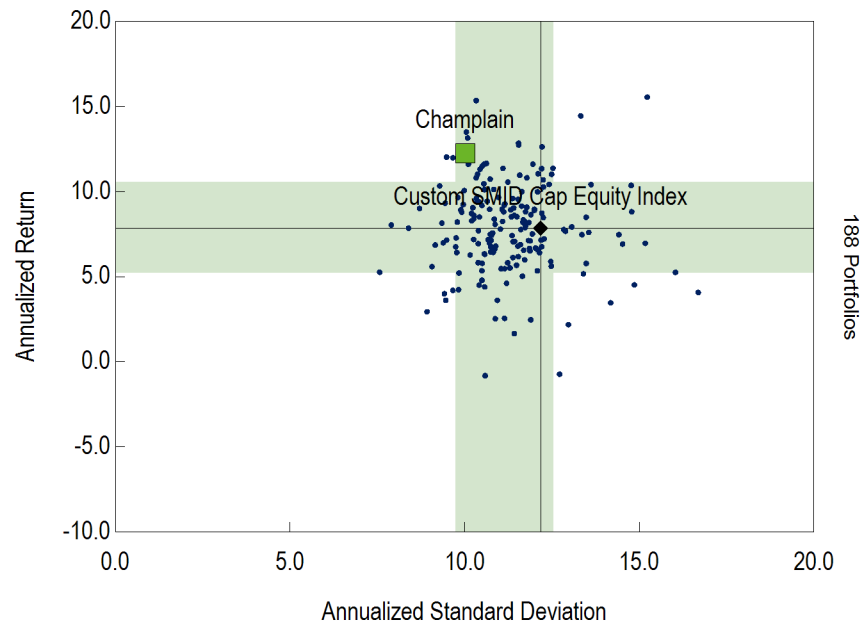


# SSGA S&P 500 EQUAL-WGT



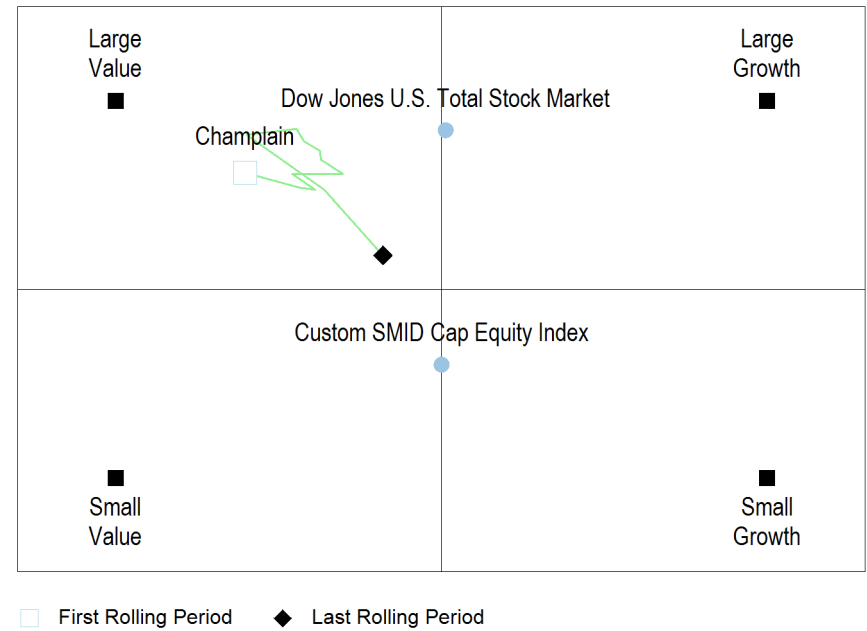
# CHAMPLAIN

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



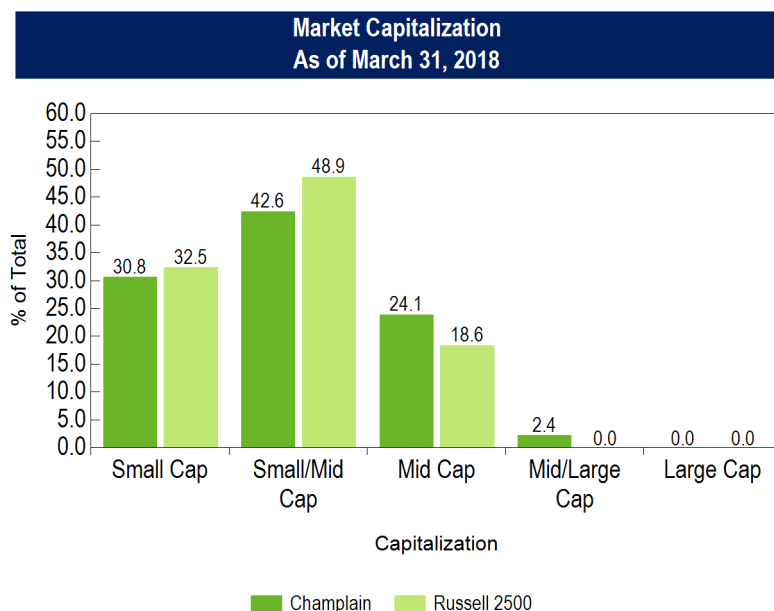
- Champlain
- ◆ Custom SMID Cap Equity Index
- 68% Confidence Interval
- eV US Mid Cap Equity Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018

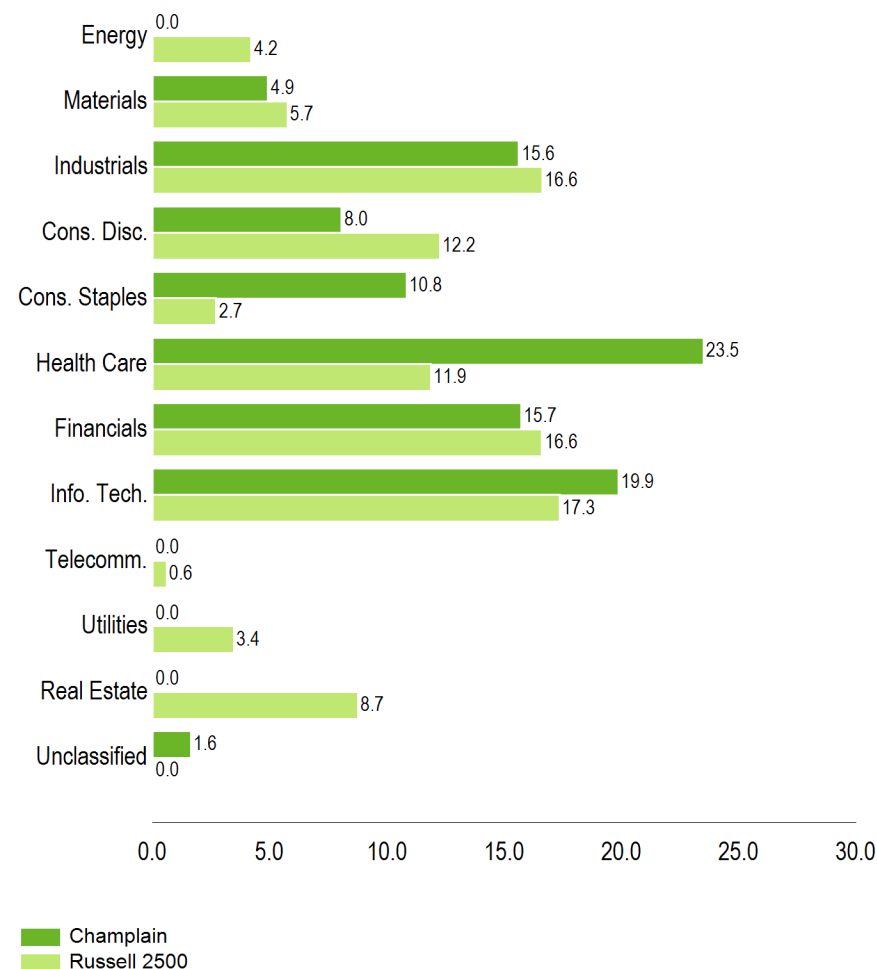


# CHAMPLAIN

Characteristics		
	Portfolio	Russell 2500
Number of Holdings	119	2,470
Weighted Avg. Market Cap. (\$B)	6.99	5.27
Median Market Cap. (\$B)	3.72	1.18
Price To Earnings	29.57	22.59
Price To Book	6.28	3.49
Price To Sales	4.29	3.43
Return on Equity (%)	11.12	11.74
Yield (%)	0.84	1.25
Beta	0.74	1.00
R-Squared	0.82	1.00



**Sector Allocation (%) vs Russell 2500**





# CHAMPLAIN

Top Ten Holdings	
INTEGRA LFSC.HDG.	3.0%
WILEY JOHN & SONS 'A'	2.3%
RITCHIE BROS.AUCTIONEERS (NYS)	2.1%
BLACKBAUD	2.1%
NUVASIVE	1.8%
LOGMEIN	1.7%
CATALENT	1.6%
CASH - USD	1.6%
RED HAT	1.6%
PROSPERITY BCSH.	1.6%

Top Positive Contributors		
	Relative Contribution %	Return %
OKTA CL.A	0.4%	55.6%
INTEGRA LFSC.HDG.	0.4%	15.6%
RED HAT	0.4%	24.5%
NEW RELIC	0.3%	28.3%
PALO ALTO NETWORKS	0.3%	25.2%
QUALYS	0.2%	22.6%
WORKDAY CLASS A	0.2%	24.9%
CONMED	0.2%	24.6%
SPLUNK	0.2%	18.8%
INSULET	0.2%	25.6%

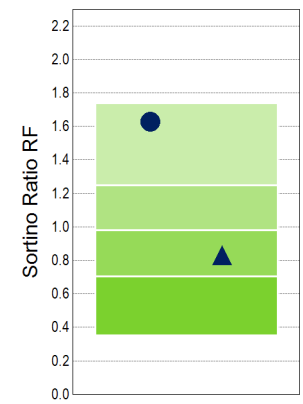
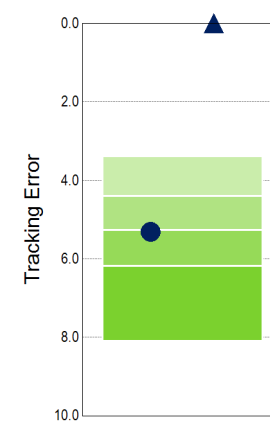
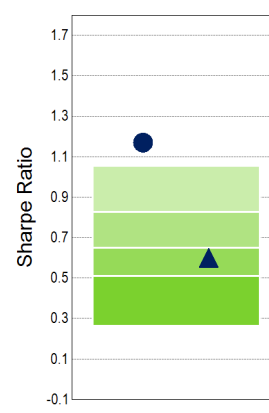
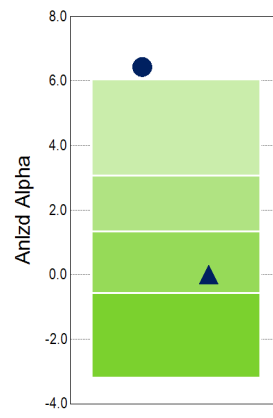
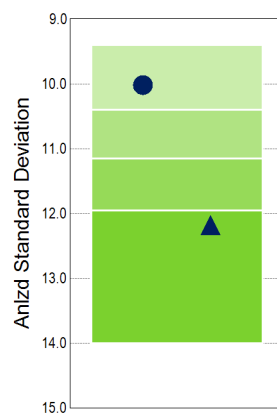
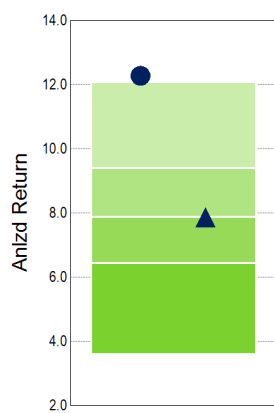
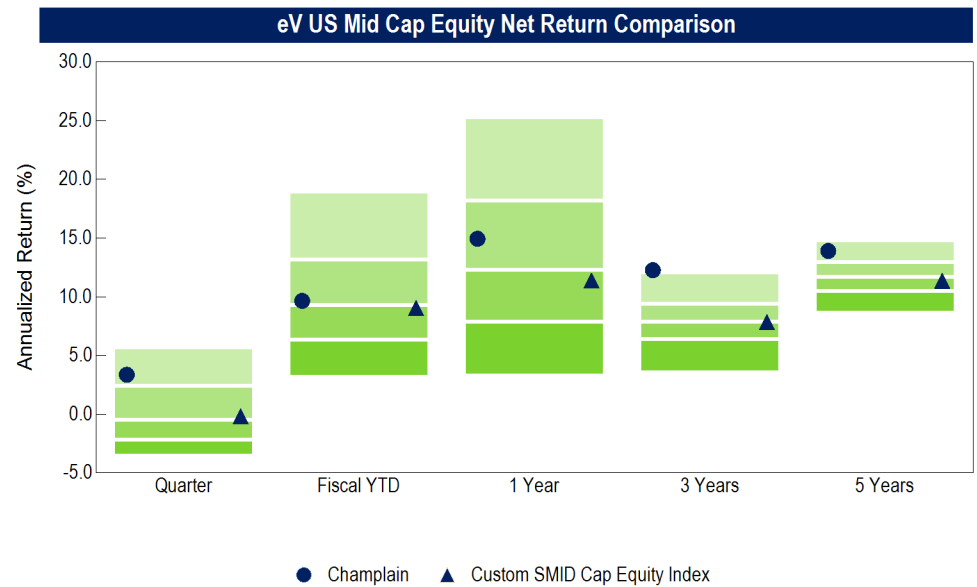
Top Negative Contributors		
	Relative Contribution %	Return %
TREEHOUSE FOODS	-0.4%	-22.6%
B & G FOODS	-0.3%	-31.3%
DENTSPLY SIRONA	-0.3%	-23.4%
WELBILT	-0.2%	-17.3%
NUVASIVE	-0.2%	-10.7%
PRESTIGE BRANDS HOLDINGS	-0.1%	-24.1%
WOLVERINE WWD.	-0.1%	-9.1%
TRACTOR SUPPLY	-0.1%	-15.3%
STERICYCLE	-0.1%	-13.9%
ELF BEAUTY	-0.1%	-13.2%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects				Returns		Sector Weights		
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.3%	--	0.3%	--	--	-8.0%	0.0%	4.5%			
Materials	0.3%	0.2%	0.1%	-0.1%	-1.8%	-5.4%	3.8%	6.1%			
Industrials	0.0%	0.0%	0.0%	0.0%	-2.0%	-2.1%	15.2%	16.9%			
Consumer Discretionary	-0.1%	-0.3%	0.1%	0.1%	-4.6%	-2.3%	7.6%	12.6%			
Consumer Staples	-0.5%	-0.1%	-0.2%	-0.3%	-6.1%	-2.6%	10.4%	2.8%			
Health Care	0.3%	-0.1%	0.5%	-0.1%	3.7%	4.3%	20.8%	11.2%			
Financials	0.5%	0.7%	0.0%	-0.1%	6.0%	2.0%	14.4%	16.3%			
Information Technology	2.2%	1.5%	0.3%	0.4%	15.8%	6.7%	20.4%	16.1%			
Telecommunication Services	0.0%	--	0.0%	--	--	-4.8%	0.0%	0.5%			
Utilities	0.1%	--	0.1%	--	--	-3.4%	0.0%	3.6%			
Real Estate	0.7%	--	0.7%	--	--	-7.9%	0.0%	9.4%			
Cash	0.1%	0.0%	0.1%	0.0%	0.4%	--	7.3%	0.0%			
<b>Portfolio</b>	<b>3.9%</b>	<b>=</b>	<b>1.9%</b>	<b>+</b>	<b>2.0%</b>	<b>+</b>	<b>0.0%</b>	<b>3.5%</b>	<b>-0.4%</b>	<b>100.0%</b>	<b>100.0%</b>



# CHAMPLAIN

Champlain employs a fundamental, bottom-up approach to investing in equity assets. They believe that superior companies purchased at attractive valuations have the highest probability to wealth creation. Champlain seeks strong businesses with credible and sincere management and aims to buy shares of their stock at discounts to fair or intrinsic value. Portfolio construction applies sector weight guidelines and position size rules to manage risk. The portfolio will have some exposure to at least seven out of the eight largest sectors of the S&P 400, with a maximum weighting on 25% in any one sector. Individual positions will not represent more than 2% of the respective companies' outstanding shares and are limited to no more than 5% of assets under management. The portfolio typically holds 50-75 securities with average position sizes of 2%. The strategy's minimum market cap is \$1.5 billion at purchase and a maximum market cap of \$15 billion. In general, no more than 10% of portfolio in stocks with a market cap below \$2B and no more than 5% of portfolio in companies with market cap above \$20B.



# CHAMPLAIN

Characteristics		
	Portfolio	Russell 2500
Number of Holdings	119	2,470
Weighted Avg. Market Cap. (\$B)	7.0	5.3
Median Market Cap. (\$B)	3.7	1.2
Price To Earnings	29.6	22.6
Price To Book	6.3	3.5
Price To Sales	4.3	3.4
Return on Equity (%)	11.1	11.7
Yield (%)	0.8	1.3
Beta	0.7	1.0
R-Squared	0.8	1.0

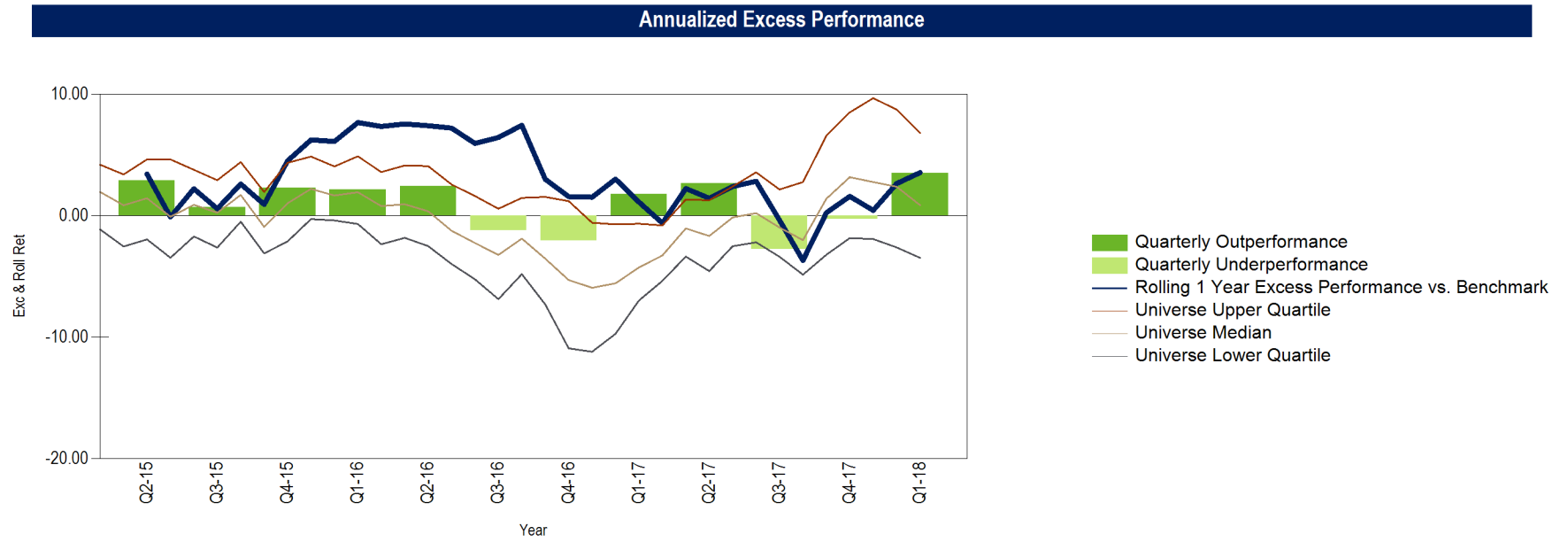
Top Positive Contributors		
	Relative Contribution %	Return %
OKTA CLA (OKTA)	0.4%	55.6%
INTEGRA LFSC.HDG. (IART)	0.4%	15.6%
RED HAT (RHT)	0.4%	24.5%
NEW RELIC (NEWR)	0.3%	28.3%
PALO ALTO NETWORKS (PANW)	0.3%	25.2%
QUALYS (QLYS)	0.2%	22.6%
WORKDAY CLASS A (WDAY)	0.2%	24.9%
CONMED (CNMD)	0.2%	24.6%
SPLUNK (SPLK)	0.2%	18.8%
INSULET (PODD)	0.2%	25.6%

Top Negative Contributors		
	Relative Contribution %	Return %
TREEHOUSE FOODS (THS)	-0.4%	-22.6%
B & G FOODS (BGS)	-0.3%	-31.3%
DENTSPLY SIRONA (XRAY)	-0.3%	-23.4%
WELBILT (WBT)	-0.2%	-17.3%
NUVASIVE (NUVA)	-0.2%	-10.7%
PRESTIGE BRANDS HOLDINGS (PBH)	-0.1%	-24.1%
WOLVERINE WWD. (WWW)	-0.1%	-9.1%
TRACTOR SUPPLY (TSCO)	-0.1%	-15.3%
STERICYCLE (SRCL)	-0.1%	-13.9%
ELF BEAUTY (ELF)	-0.1%	-13.2%

Champlain Performance Attribution vs. Russell 2500											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.4%	--	0.4%	--	--	-8.0%	0.0%	4.5%			
Materials	0.3%	0.2%	0.1%	-0.1%	-1.8%	-5.4%	3.8%	6.1%			
Industrials	0.1%	0.0%	0.0%	0.0%	-2.0%	-2.1%	15.2%	16.9%			
Consumer Discretionary	-0.1%	-0.3%	0.1%	0.1%	-4.6%	-2.3%	7.6%	12.6%			
Consumer Staples	-0.6%	-0.1%	-0.2%	-0.3%	-6.1%	-2.6%	10.4%	2.8%			
Health Care	0.3%	-0.1%	0.4%	-0.1%	3.7%	4.3%	20.8%	11.2%			
Financials	0.5%	0.7%	0.0%	-0.1%	6.0%	2.0%	14.4%	16.3%			
Information Technology	2.1%	1.5%	0.3%	0.4%	15.8%	6.7%	20.4%	16.1%			
Telecommunication Services	0.0%	--	0.0%	--	--	-4.8%	0.0%	0.5%			
Utilities	0.1%	--	0.1%	--	--	-3.4%	0.0%	3.6%			
Real Estate	0.7%	--	0.7%	--	--	-7.9%	0.0%	9.4%			
Cash	0.0%	0.0%	0.0%	0.0%	0.4%	--	7.3%	0.0%			
<b>Portfolio</b>	<b>3.9%</b>	<b>=</b>	<b>1.9%</b>	<b>+</b>	<b>2.0%</b>	<b>+</b>	<b>0.0%</b>	<b>3.5%</b>	<b>-0.4%</b>	<b>100.0%</b>	<b>100.0%</b>

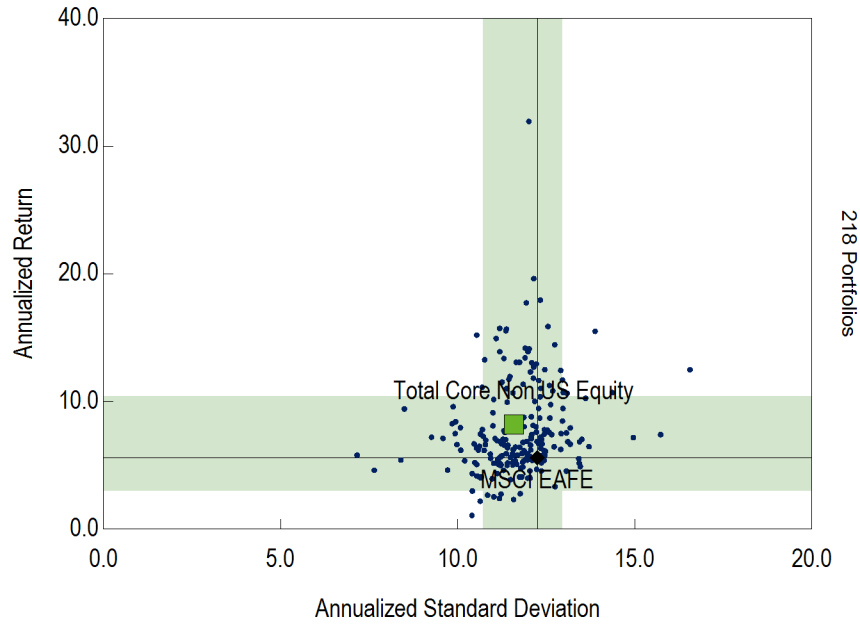


# CHAMPLAIN



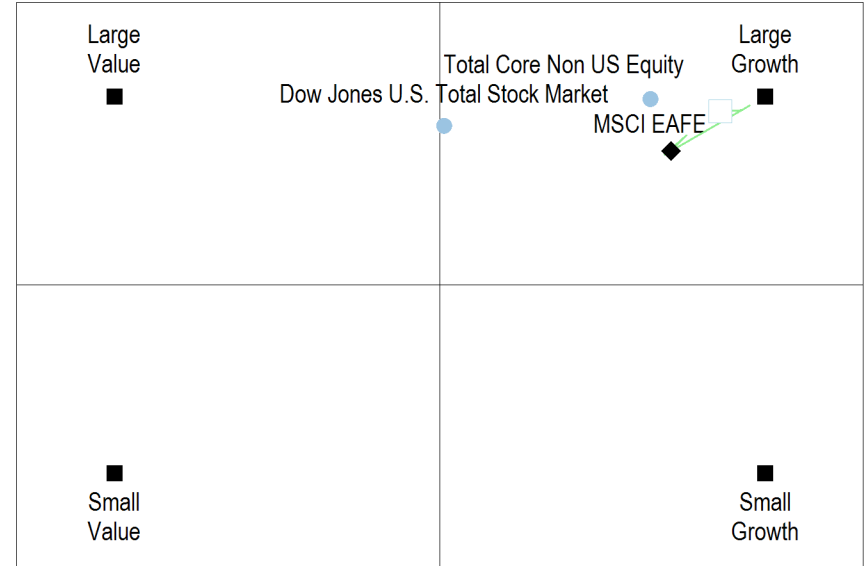
# INT'L EQUITY COMPOSITE

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



- Total Core Non US Equity
- ◆ MSCI EAFE
- 68% Confidence Interval
- eV All EAFE Equity Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018

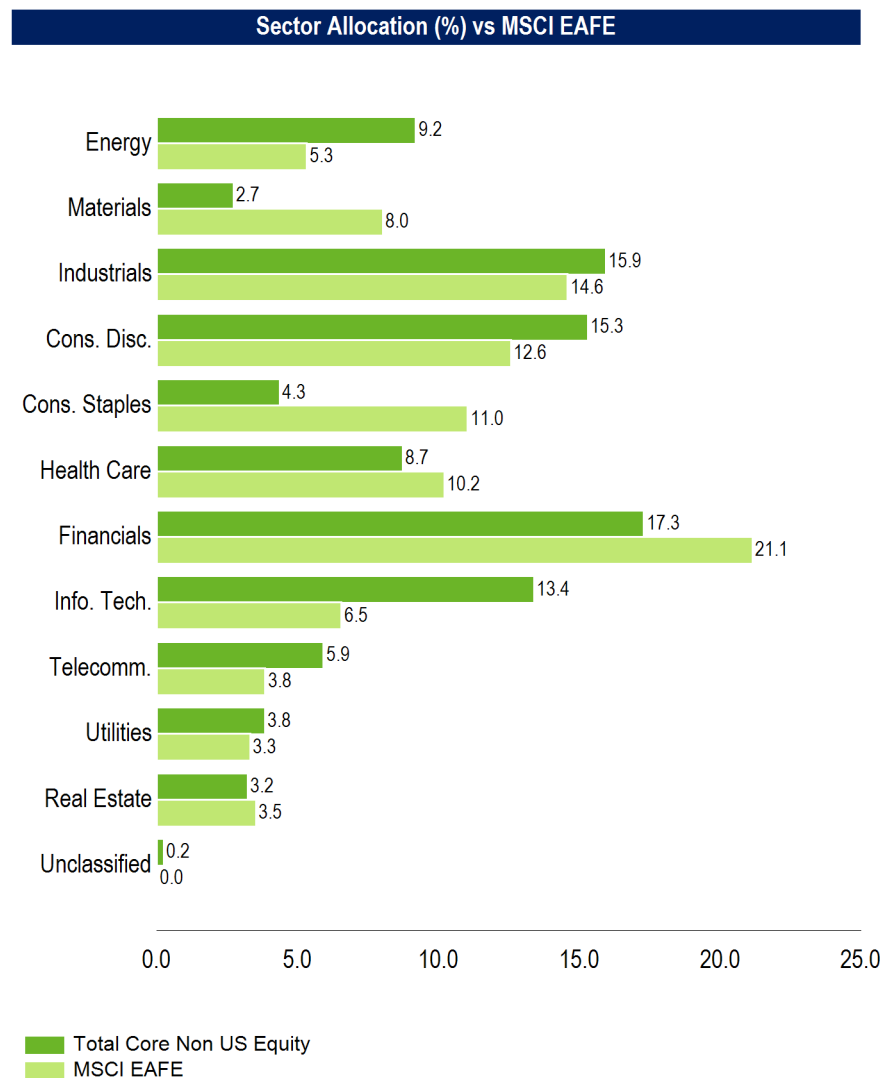
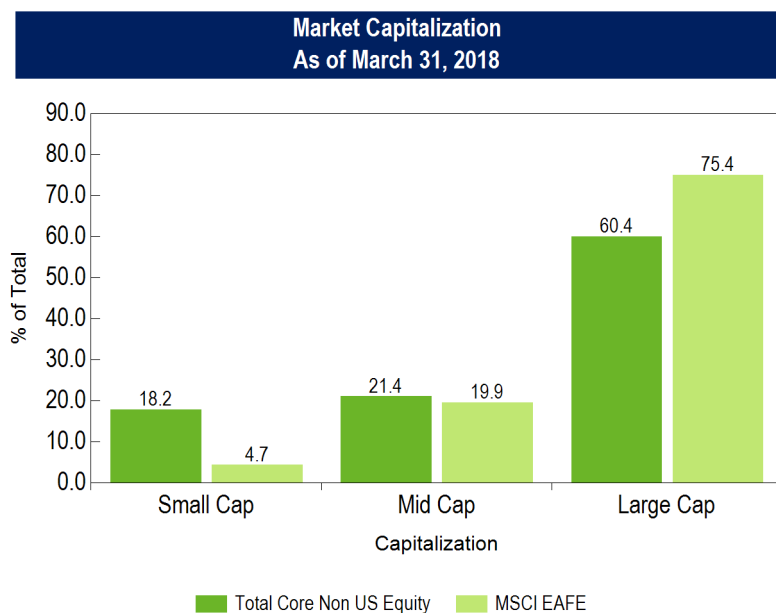


- First Rolling Period
- ◆ Last Rolling Period



# INT'L EQUITY COMPOSITE

Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	480	926
Weighted Avg. Market Cap. (\$B)	49.18	56.94
Median Market Cap. (\$B)	1.81	11.17
Price To Earnings	15.53	18.12
Price To Book	2.40	2.46
Price To Sales	1.98	2.22
Return on Equity (%)	15.62	14.17
Yield (%)	3.17	3.19
Beta	0.93	1.00
R-Squared	0.98	1.00



# INT'L EQUITY COMPOSITE

Top Ten Holdings	
ROYAL DUTCH SHELL B	1.9%
ALIBABA GROUP HLDG.SPN. ADR 1:1	1.9%
SANOFI	1.7%
UNITED OVERSEAS BANK	1.7%
ENEL	1.7%
HONDA MOTOR	1.7%
ROYAL DUTCH SHELL A	1.7%
ENI	1.6%
ALLIANZ	1.6%
TELIA COMPANY	1.6%

Top Positive Contributors		
	Relative Contribution %	Return %
PEUGEOT	0.1%	18.1%
QANTAS AIRWAYS	0.1%	14.8%
FUJI SOFT	0.1%	24.7%
ALIBABA GROUP HLDG.SPN. ADR 1:1	0.1%	6.4%
KONINKLIJKE AHOLD DELHAIZE	0.1%	7.5%
H LUNDBECK	0.1%	12.3%
TAIWAN SEMICON.MNFG.	0.1%	9.4%
UNITED OVERSEAS BANK	0.1%	6.0%
STANDARD BK.GP.	0.1%	16.8%
NEXT	0.1%	10.1%

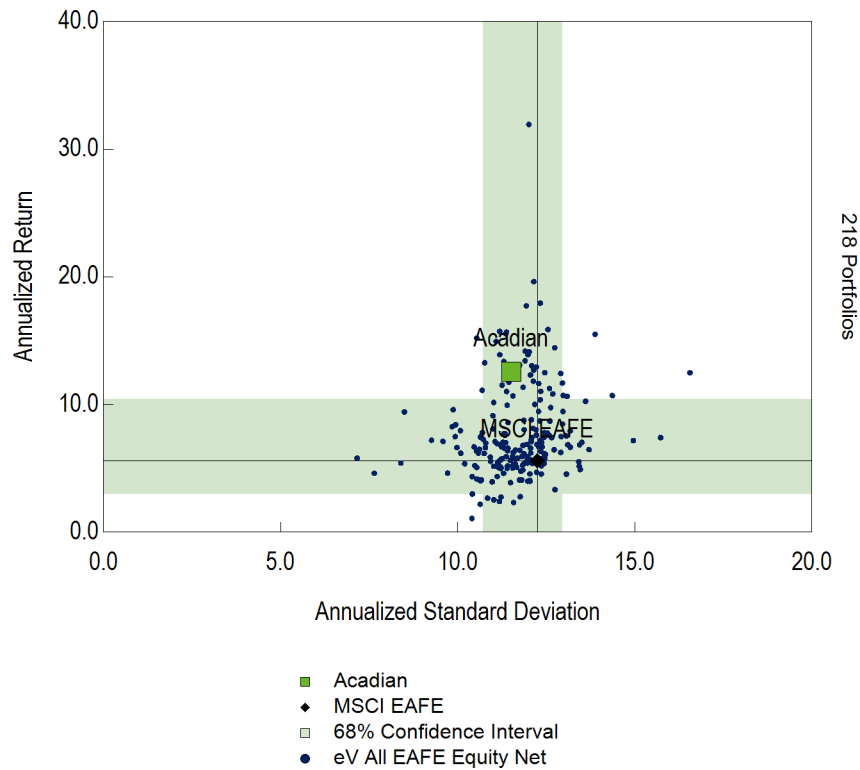
Top Negative Contributors		
	Relative Contribution %	Return %
AIR FRANCE-KLM	-0.2%	-32.0%
NORSK HYDRO	-0.2%	-23.2%
DEUTSCHE LUFTHANSA	-0.1%	-13.5%
TAKEDA PHARMACEUTICAL	-0.1%	-12.8%
DAITO TST.CONSTRUCTION	-0.1%	-13.9%
JAFCO	-0.1%	-18.2%
LONZA GROUP	-0.1%	-13.0%
KINGFISHER	-0.1%	-10.2%
ABB LTD N	-0.1%	-11.5%
FUJITSU	-0.1%	-12.8%

	Equity Sector Attribution										
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.1%	0.0%	0.0%	0.1%	-2.4%	-1.8%	10.3%	5.3%			
Materials	-0.2%	-0.4%	0.1%	0.1%	-8.8%	-3.7%	3.8%	8.2%			
Industrials	-0.4%	-0.2%	0.0%	-0.1%	-3.8%	-1.4%	15.4%	14.7%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	-0.1%	0.6%	14.7%	12.3%			
Consumer Staples	0.2%	0.5%	0.1%	-0.3%	2.2%	-2.9%	6.0%	11.2%			
Health Care	-0.1%	-0.1%	0.0%	0.0%	-1.5%	-0.6%	9.4%	10.1%			
Financials	0.2%	0.5%	0.0%	-0.3%	0.2%	-2.1%	15.7%	21.3%			
Information Technology	0.1%	0.0%	0.1%	0.0%	-0.7%	1.2%	12.7%	6.4%			
Telecommunication Services	0.0%	0.1%	0.0%	-0.1%	-3.6%	-3.9%	5.4%	3.9%			
Utilities	-0.1%	-0.1%	0.0%	0.0%	-1.6%	1.5%	3.3%	3.2%			
Real Estate	-0.2%	-0.2%	0.0%	0.1%	-6.0%	-1.1%	3.4%	3.4%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>0.1%</b>	<b>+</b>	<b>0.2%</b>	<b>+</b>	<b>-0.6%</b>	<b>-1.7%</b>	<b>-1.4%</b>	<b>100.0%</b>	<b>100.0%</b>

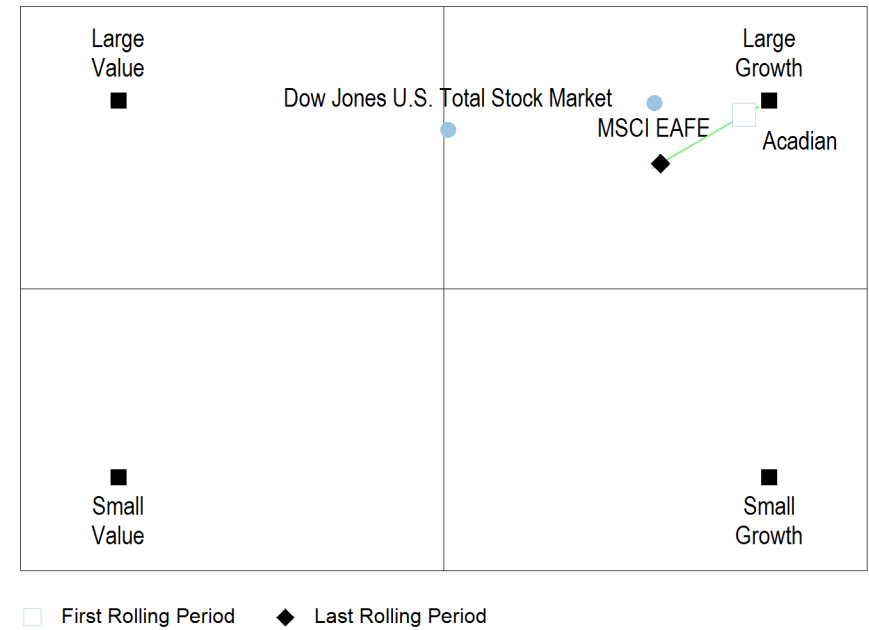


# ACADIAN

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



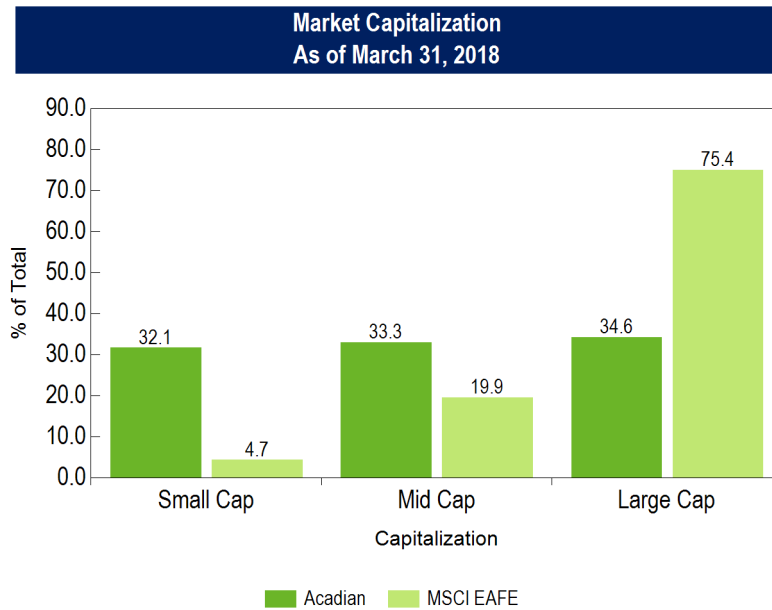
U.S. Effective Style Map  
3 Years Ending March 31, 2018



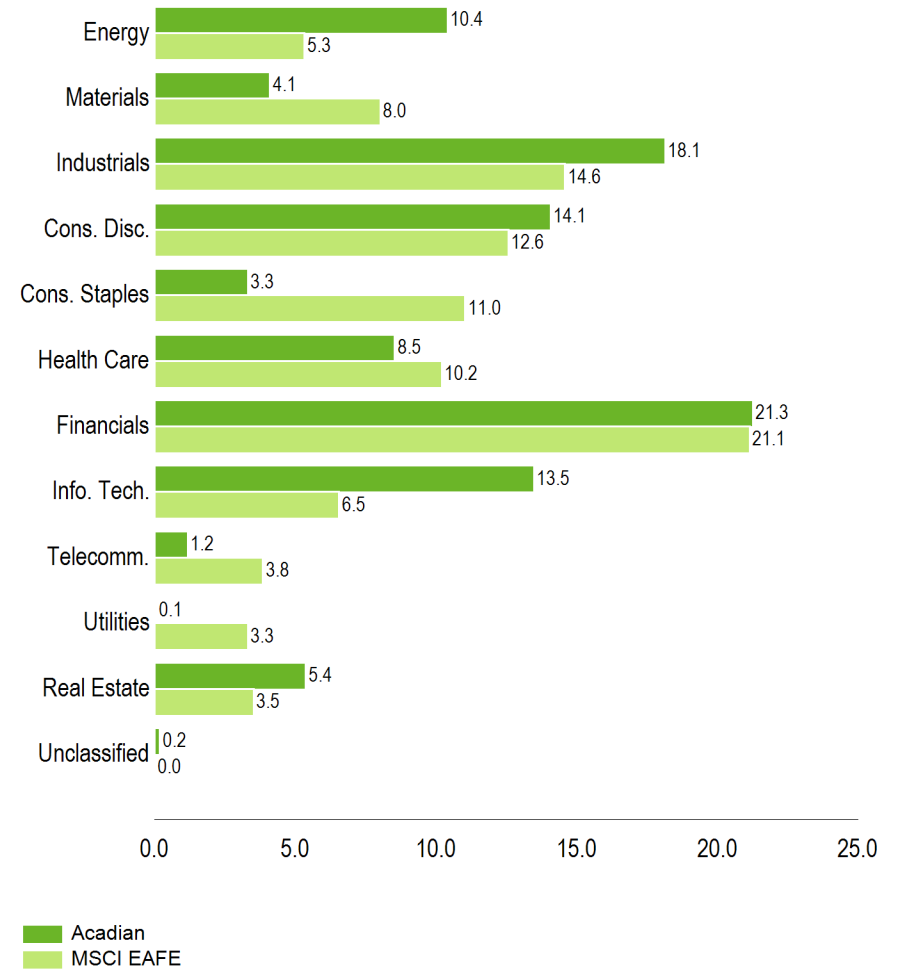


# ACADIAN

Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	385	926
Weighted Avg. Market Cap. (\$B)	24.16	56.94
Median Market Cap. (\$B)	0.83	11.17
Price To Earnings	17.06	18.12
Price To Book	2.61	2.46
Price To Sales	1.59	2.22
Return on Equity (%)	18.03	14.17
Yield (%)	2.63	3.19
Beta	0.90	1.00
R-Squared	0.91	1.00



## Sector Allocation (%) vs MSCI EAFE



# ACADIAN

Top Ten Holdings	
ROYAL DUTCH SHELL A	3.5%
PEUGEOT	2.2%
SWISS LIFE HOLDING	2.2%
ROYAL BANK OF CANADA	2.1%
DAITO TST.CONSTRUCTION	2.0%
TORONTO-DOMINION BANK	2.0%
DEUTSCHE LUFTHANSA	2.0%
ICON	1.9%
NESTE	1.9%
ARISTOCRAT LEISURE	1.9%

Top Positive Contributors		
	Relative Contribution %	Return %
PEUGEOT	0.3%	18.1%
QANTAS AIRWAYS	0.2%	14.8%
FUJI SOFT	0.2%	24.7%
H LUNDBECK	0.2%	12.3%
STANDARD BK.GP.	0.1%	16.8%
NESTE	0.1%	8.7%
FIAT CHRYSLER AUTOS.	0.1%	13.4%
EXOR ORD	0.1%	15.7%
ICON	0.1%	5.3%
YA-MAN	0.1%	34.7%

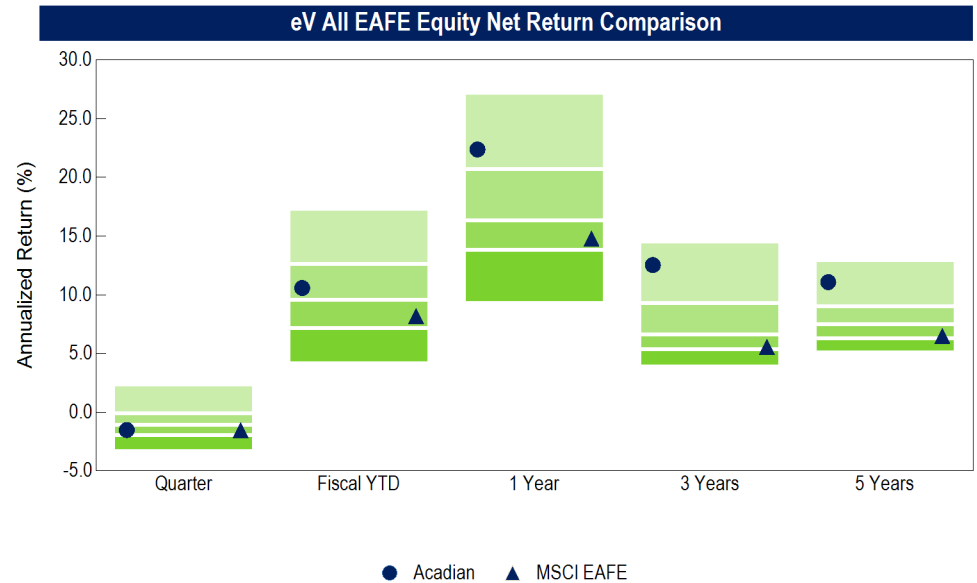
Top Negative Contributors		
	Relative Contribution %	Return %
AIR FRANCE-KLM	-0.5%	-32.0%
NORSK HYDRO	-0.5%	-23.2%
DEUTSCHE LUFTHANSA	-0.3%	-13.5%
DAITO TST.CONSTRUCTION	-0.3%	-13.9%
LONZA GROUP	-0.3%	-13.0%
JAFCO	-0.3%	-18.2%
FUJITSU	-0.2%	-12.8%
KT ADR 2:1	-0.2%	-12.2%
CANADIAN IMP.BK.COM.	-0.1%	-8.7%
ROYAL DUTCH SHELL A	-0.1%	-3.5%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	0.1%	0.0%	0.0%	0.1%		-2.1%	-1.8%	11.0%	5.3%		
Materials	-0.4%	-0.4%	0.0%	0.0%		-9.7%	-3.7%	6.5%	8.2%		
Industrials	-0.2%	-0.1%	0.0%	-0.1%		-3.2%	-1.4%	18.4%	14.7%		
Consumer Discretionary	0.3%	0.4%	0.0%	-0.1%		2.5%	0.6%	13.9%	12.3%		
Consumer Staples	0.0%	0.3%	0.1%	-0.4%		0.4%	-2.9%	3.5%	11.2%		
Health Care	0.0%	0.2%	0.0%	-0.2%		0.5%	-0.6%	8.6%	10.1%		
Financials	0.2%	0.5%	0.0%	-0.3%		-0.6%	-2.1%	16.7%	21.3%		
Information Technology	0.0%	-0.1%	0.1%	0.0%		-1.6%	1.2%	14.1%	6.4%		
Telecommunication Services	-0.1%	-0.2%	0.1%	0.0%		-12.0%	-3.9%	1.5%	3.9%		
Utilities	-0.2%	0.2%	-0.1%	-0.3%		3.2%	1.5%	0.1%	3.2%		
Real Estate	-0.3%	-0.3%	0.0%	0.0%		-7.0%	-1.1%	5.8%	3.4%		
Cash	0.0%	--	--	--		--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>-0.5%</b>	<b>=</b>	<b>0.4%</b>	<b>+</b>	<b>0.3%</b>	<b>+</b>	<b>-1.2%</b>	<b>-1.9%</b>	<b>-1.4%</b>	<b>100.0%</b>	<b>100.0%</b>

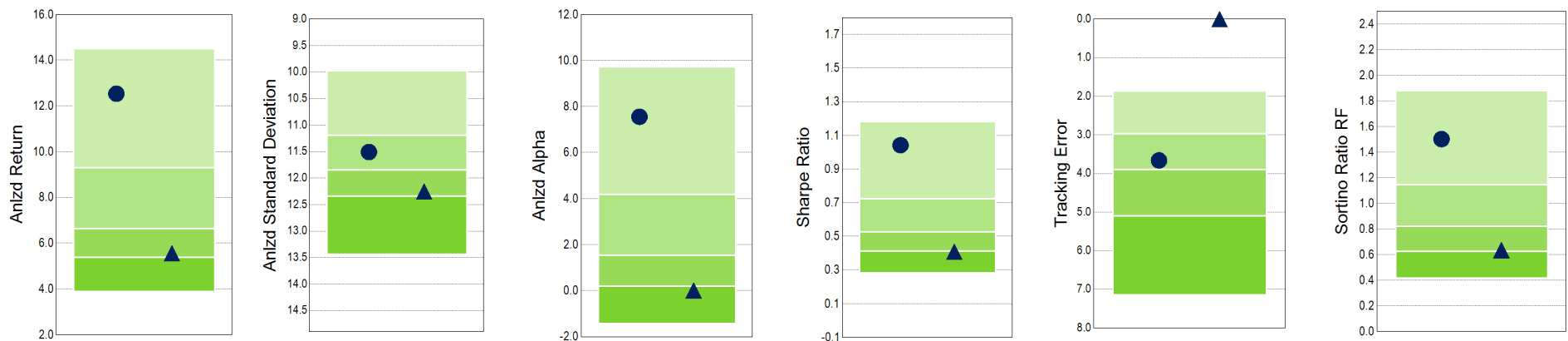


# ACADIAN

Acadian believes that the larger the pool of potential investments, the greater the potential opportunity an active manager has to add value. They believe that stocks and markets have many attributes that are related to potential outperformance, and that a successful investment approach must be multi-faceted and highly adaptable. They believe that objectivity is crucial to investment success. Acadian's quantitative process and extensive database allows them to apply their valuation techniques to over 40,000 stocks worldwide. They do not limit the universe other than to employ screens based on invest-ability and availability of data. For example, they only evaluate stocks that have sufficient daily trading volume to be appropriate for institutional investment. Other than these practical considerations, they consider our investment universe to encompass all institutionally investable stocks in the world.



## 3 Year Risk Statistics



# ACADIAN

Characteristics	Portfolio	MSCI EAFE
Number of Holdings	385	926
Weighted Avg. Market Cap. (\$B)	24.2	56.9
Median Market Cap. (\$B)	0.8	11.2
Price To Earnings	17.1	18.1
Price To Book	2.6	2.5
Price To Sales	1.6	2.2
Return on Equity (%)	18.0	14.2
Yield (%)	2.6	3.2
Beta	0.9	1.0
R-Squared	0.9	1.0

Top Positive Contributors	Relative Contribution %	Return %
PEUGEOT (F:PGT)	0.3%	18.1%
QANTAS AIRWAYS (A:QANX)	0.2%	14.8%
FUJI SOFT (J:FUST)	0.2%	24.7%
H LUNDBECK (DK:LUN)	0.2%	12.3%
STANDARD BK.GP. (R:SBKJ)	0.1%	16.8%
NESTE (M:NEST)	0.1%	8.7%
FIAT CHRYSLER AUTOS. (I:FCA)	0.1%	13.4%
EXOR ORD (I:EXOR)	0.1%	15.7%
ICON (ICLR)	0.1%	5.3%
YA-MAN (J:YAMN)	0.1%	34.7%

Top Negative Contributors	Relative Contribution %	Return %
AIR FRANCE-KLM (F:UTA)	-0.5%	-32.0%
NORSK HYDRO (N:NHY)	-0.5%	-23.2%
DEUTSCHE LUFTHANSA (D:LHA)	-0.3%	-13.5%
DAITO TST.CONSTRUCTION (J:DITC)	-0.3%	-13.9%
LONZA GROUP (S:LONN)	-0.3%	-13.0%
JAFCO (J:ASSD)	-0.3%	-18.2%
FUJITSU (J:FT@N)	-0.2%	-12.8%
KT ADR 2:1 (KT)	-0.2%	-12.2%
CANADIAN IMP.BK.COM. (C:CM)	-0.1%	-8.7%
ROYAL DUTCH SHELL A (H:RDSA)	-0.1%	-3.5%

Acadian Performance Attribution vs. MSCI EAFE											
	Attribution Effects					Returns			Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	0.0%	-0.3%	0.1%	-2.1%	-1.8%	11.0%	5.3%			
Materials	-0.3%	-0.4%	0.1%	0.0%	-9.7%	-3.7%	6.5%	8.2%			
Industrials	-0.4%	-0.1%	-0.2%	-0.1%	-3.2%	-1.4%	18.4%	14.7%			
Consumer Discretionary	0.3%	0.4%	0.0%	-0.1%	2.5%	0.6%	13.9%	12.3%			
Consumer Staples	0.3%	0.3%	0.4%	-0.4%	0.4%	-2.9%	3.5%	11.2%			
Health Care	0.1%	0.2%	0.1%	-0.2%	0.5%	-0.6%	8.6%	10.1%			
Financials	0.4%	0.5%	0.2%	-0.3%	-0.6%	-2.1%	16.7%	21.3%			
Information Technology	-0.3%	-0.1%	-0.2%	0.0%	-1.6%	1.2%	14.1%	6.4%			
Telecommunication Services	0.0%	-0.2%	0.2%	0.0%	-12.0%	-3.9%	1.5%	3.9%			
Utilities	0.0%	0.2%	0.0%	-0.3%	3.2%	1.5%	0.1%	3.2%			
Real Estate	-0.4%	-0.3%	-0.1%	0.0%	-7.0%	-1.1%	5.8%	3.4%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.5%</b>	<b>=</b>	<b>0.4%</b>	<b>+</b>	<b>0.3%</b>	<b>+</b>	<b>-1.2%</b>	<b>-1.9%</b>	<b>-1.4%</b>	<b>100.0%</b>	<b>100.0%</b>



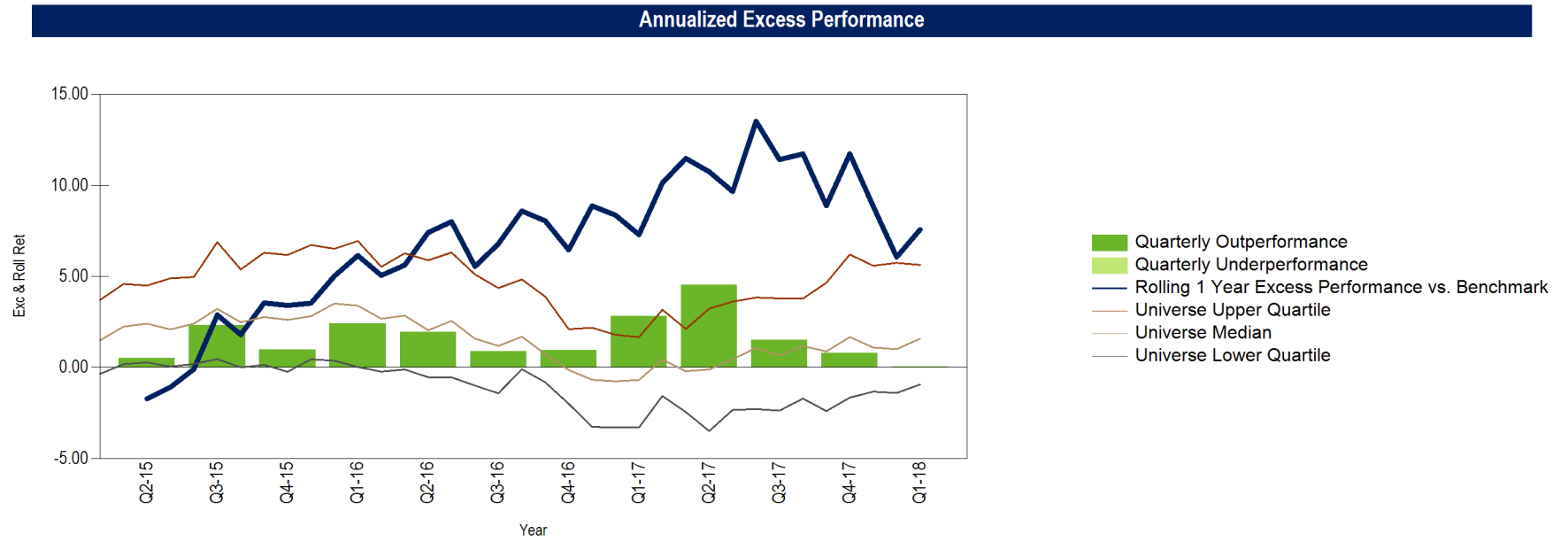
# ACADIAN

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Canada	6.2%	0.0%	-5.5%	-7.4%
Mexico*	0.2%	0.0%	14.1%	0.9%
United States	0.1%	0.0%	-11.8%	-0.8%
<b>Total-Americas</b>	<b>6.4%</b>	<b>0.0%</b>	<b>-5.1%</b>	<b>--</b>
<b>Europe</b>				
Austria	1.7%	0.3%	-7.1%	2.2%
Belgium	0.3%	1.1%	-11.8%	0.6%
Denmark	1.4%	1.8%	11.5%	-1.1%
Finland	1.8%	0.9%	7.4%	8.6%
France	7.9%	10.5%	-1.7%	0.5%
Germany	8.6%	9.9%	-4.5%	-3.5%
Greece*	0.2%	0.0%	-0.3%	-6.7%
Ireland	1.9%	0.5%	5.3%	-5.7%
Italy	2.4%	2.4%	10.8%	5.5%
Luxembourg	0.2%	0.0%	2.8%	-1.4%
Netherlands	6.1%	3.6%	-2.2%	1.0%
Norway	2.4%	0.7%	-19.2%	2.4%
Poland*	0.0%	0.0%	-16.4%	-8.2%
Spain	3.6%	3.2%	-0.5%	-1.7%
Sweden	3.5%	2.7%	-0.9%	-1.8%
Switzerland	4.6%	8.1%	-6.6%	-3.9%
United Kingdom	7.8%	17.6%	-0.5%	-3.8%
<b>Total-Europe</b>	<b>54.5%</b>	<b>63.3%</b>	<b>-1.9%</b>	<b>-1.8%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	6.0%	6.9%	7.0%	-6.1%
China*	0.1%	0.0%	19.1%	12.5%
Hong Kong	0.7%	3.6%	6.9%	-1.4%
Indonesia*	0.0%	0.0%	22.6%	3.0%
Japan	20.9%	24.1%	0.8%	0.8%
Korea*	5.7%	0.0%	-1.1%	3.7%
Malaysia*	0.4%	0.0%	2.0%	7.8%
New Zealand	0.4%	0.2%	0.6%	-4.9%
Philippines*	0.0%	0.0%	-12.0%	-1.3%
Singapore	0.9%	1.3%	10.4%	2.7%
Taiwan*	0.5%	0.0%	2.0%	7.6%
Thailand*	0.3%	0.0%	9.5%	8.5%
<b>Total-AsiaPacific</b>	<b>36.1%</b>	<b>36.1%</b>	<b>2.1%</b>	<b>-0.7%</b>
<b>Other</b>				
Israel	0.6%	0.5%	2.1%	-5.3%
South Africa*	2.1%	0.0%	4.9%	2.8%
Turkey*	0.1%	0.0%	18.8%	4.9%
<b>Total-Other</b>	<b>2.8%</b>	<b>0.5%</b>	<b>4.6%</b>	<b>-5.3%</b>
<b>Totals</b>				
Developed	90.4%	100.0%	4.4%	-1.4%
Emerging*	9.6%	0.0%	1.7%	--

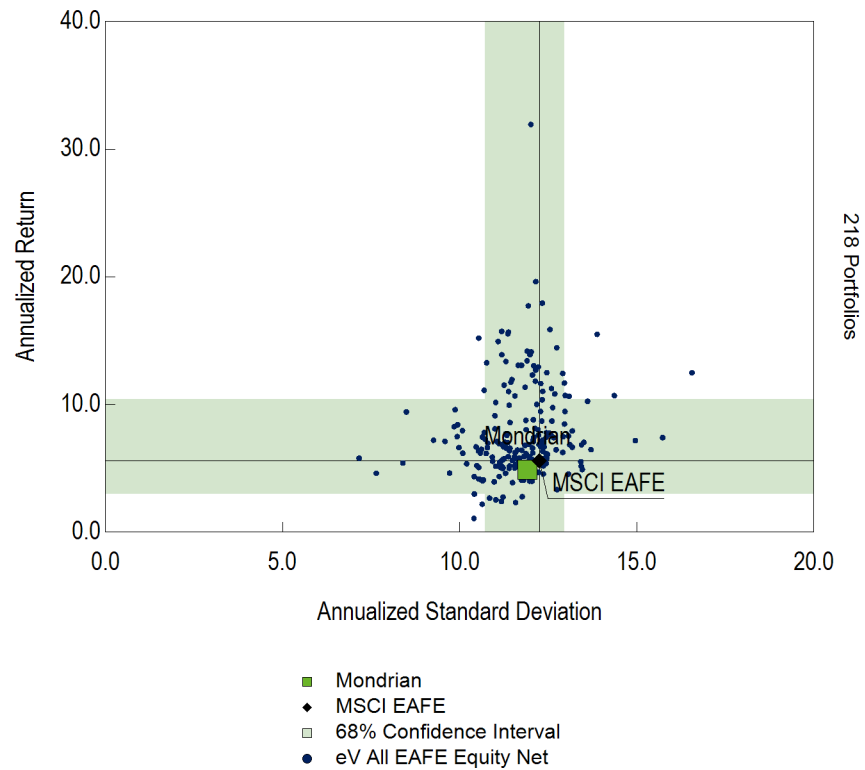


# ACADIAN

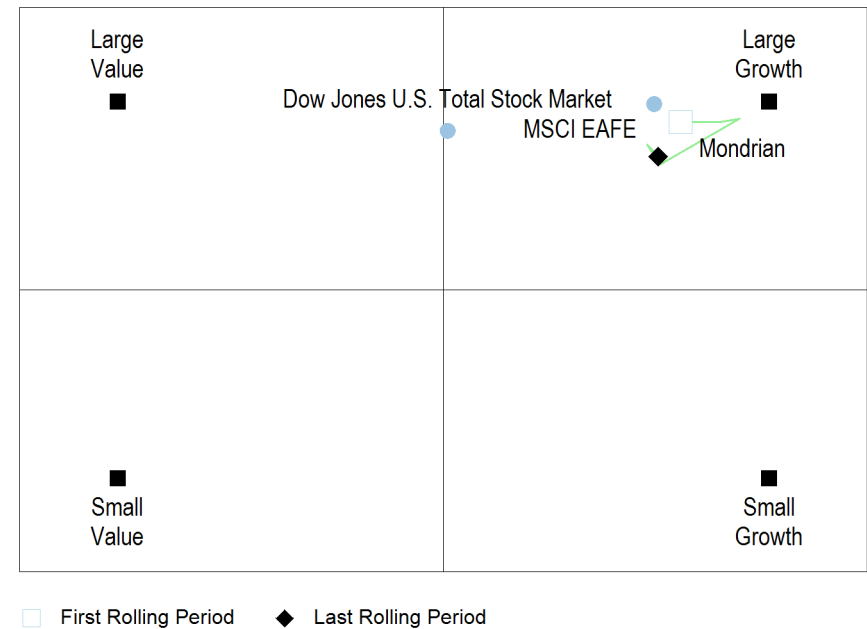


# MONDRIAN

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

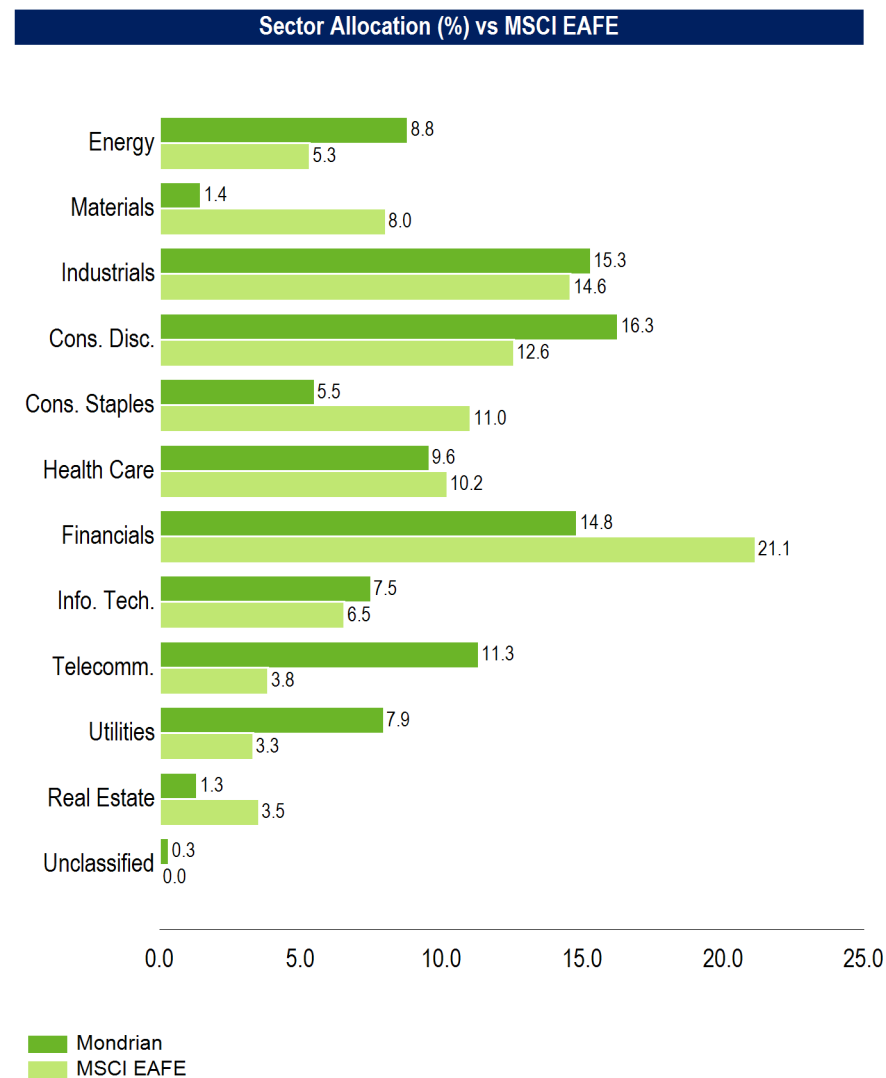
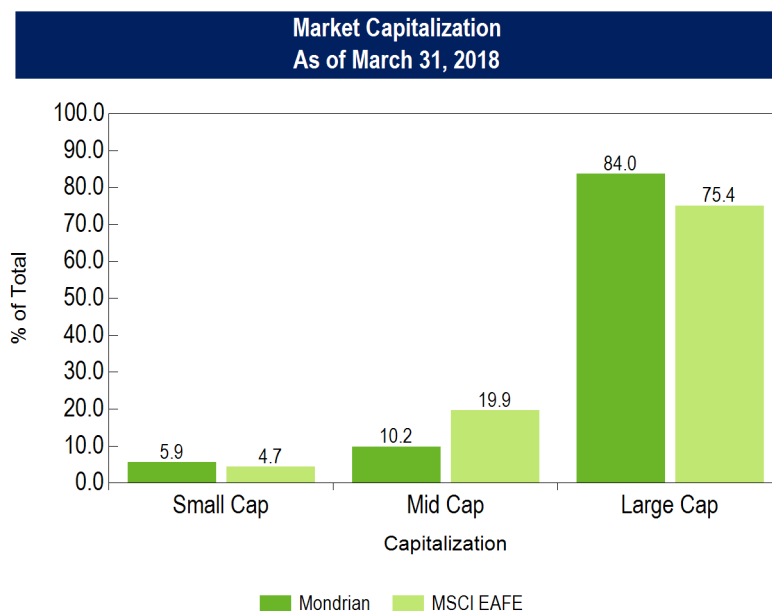


U.S. Effective Style Map  
3 Years Ending March 31, 2018



# MONDRIAN

Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	51	926
Weighted Avg. Market Cap. (\$B)	58.15	56.94
Median Market Cap. (\$B)	36.40	11.17
Price To Earnings	12.17	18.12
Price To Book	1.66	2.46
Price To Sales	1.47	2.22
Return on Equity (%)	12.42	14.17
Yield (%)	3.98	3.19
Beta	0.93	1.00
R-Squared	0.92	1.00





# MONDRIAN

Top Ten Holdings	
ROYAL DUTCH SHELL B	4.1%
SANOFI	3.7%
UNITED OVERSEAS BANK	3.7%
ENEL	3.6%
HONDA MOTOR	3.6%
ENI	3.4%
TELIA COMPANY	3.3%
DAIMLER	3.1%
CK HUTCHISON HOLDINGS	2.9%
TAKEDA PHARMACEUTICAL	2.9%

Top Positive Contributors		
	Relative Contribution %	Return %
GLAXOSMITHKLINE	0.2%	11.2%
KONINKLIJKE AHOLD DELHAIZE	0.2%	7.5%
UNITED OVERSEAS BANK	0.2%	6.0%
TAIWAN SEMICON.MNFG.	0.2%	9.4%
ENI	0.1%	6.0%
NEXT	0.1%	10.1%
ZURICH INSURANCE GROUP	0.1%	7.5%
TELIA COMPANY	0.1%	4.9%
KIRIN HOLDINGS	0.1%	5.6%
TESCO	0.1%	2.0%

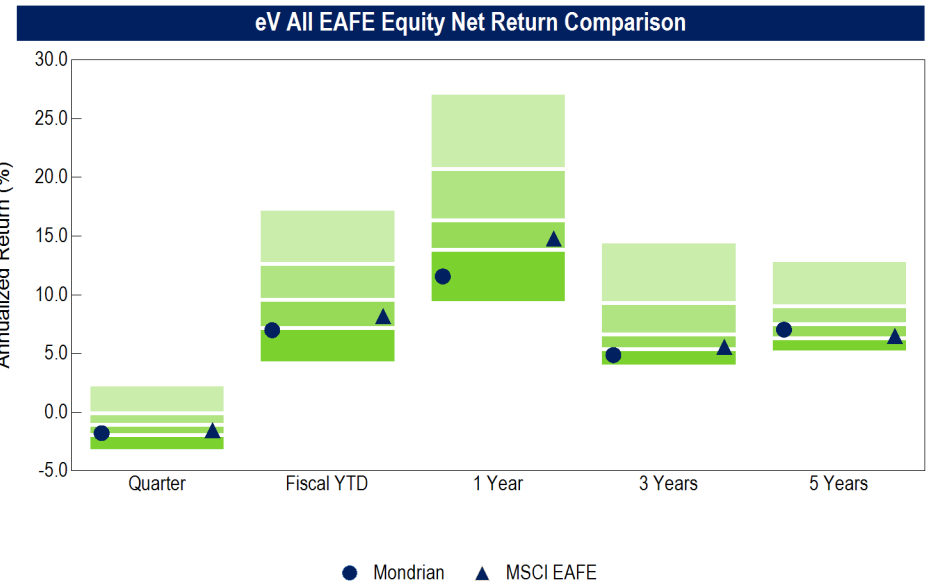
Top Negative Contributors		
	Relative Contribution %	Return %
TAKEDA PHARMACEUTICAL	-0.3%	-12.8%
ABB LTD N	-0.3%	-11.5%
KINGFISHER	-0.2%	-10.2%
CHINA MOBILE	-0.2%	-9.6%
WOOD GROUP (JOHN)	-0.2%	-13.8%
DEUTSCHE TELEKOM	-0.2%	-7.9%
SANOFI	-0.2%	-6.9%
QBE INSURANCE GROUP	-0.1%	-11.2%
WPP	-0.1%	-12.4%
ROYAL DUTCH SHELL B	-0.1%	-4.5%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.1%	0.0%	0.1%	-2.6%	-1.8%	10.3%	5.3%			
Materials	-0.1%	-0.2%	0.1%	0.0%	-6.3%	-3.7%	1.3%	8.2%			
Industrials	-0.5%	-0.4%	0.0%	-0.1%	-4.7%	-1.4%	13.5%	14.7%			
Consumer Discretionary	-0.4%	-0.5%	0.0%	0.1%	-3.0%	0.6%	15.3%	12.3%			
Consumer Staples	0.5%	0.7%	0.0%	-0.2%	3.5%	-2.9%	8.8%	11.2%			
Health Care	-0.2%	-0.3%	0.0%	0.1%	-2.9%	-0.6%	10.7%	10.1%			
Financials	0.4%	0.6%	0.0%	-0.2%	1.0%	-2.1%	15.7%	21.3%			
Information Technology	-0.1%	0.0%	0.0%	-0.1%	-0.4%	1.2%	6.7%	6.4%			
Telecommunication Services	0.2%	0.2%	-0.2%	0.2%	-2.4%	-3.9%	9.7%	3.9%			
Utilities	0.0%	-0.1%	0.1%	0.0%	-1.7%	1.5%	6.8%	3.2%			
Real Estate	-0.1%	0.0%	0.0%	0.0%	-1.5%	-1.1%	1.2%	3.4%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>-0.2%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>-0.2%</b>	<b>-1.7%</b>	<b>-1.4%</b>	<b>100.0%</b>	<b>100.0%</b>

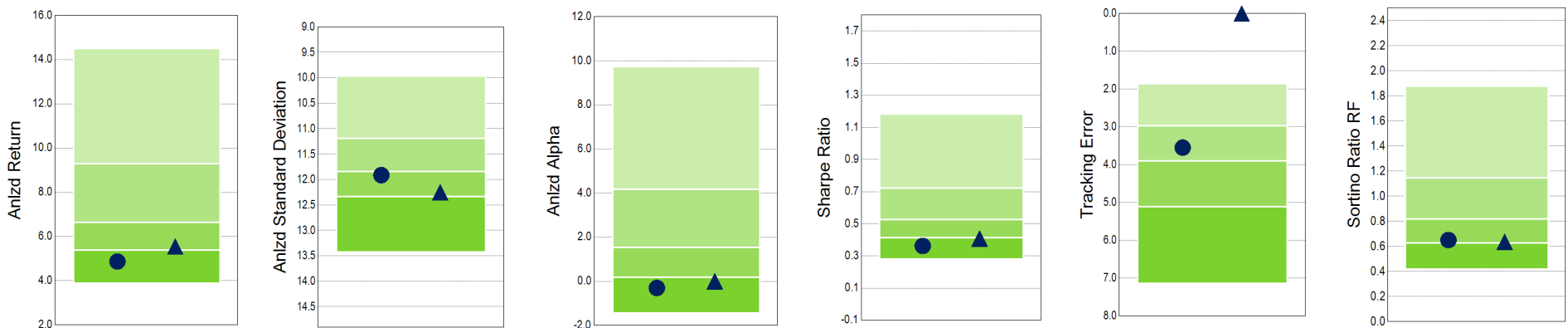


# MONDRIAN

The firm is an active value-oriented defensive manager. The firm's value driven investment philosophy is based on the belief that investments need to be evaluated in terms of their fundamental long-term value. The firm believes that the value of a company lies in its future income stream as dividends represent the most direct form of cash flow to a shareholder. The firm uses an inflation adjusted dividend discount model to derive the underlying value of a company. This methodology is applied consistently to individual securities across all markets and industries. The universe spans markets covered in the MSCI Indices and those developing markets with adequate investor protection and good repatriation procedures. The firm will then narrow the universe to a list of more than 1000 securities on the basis of value criteria, and then further reduce this to a shorter list of approximately 250 securities annually, for detailed fundamental analysis. The screens include basic value characteristics such as price to book, price to cash flow ratio, price to earnings ratio, and yield, as well as liquidity considerations. A focus list of approximately 80 securities is then created from that list of approximately 250 through fundamental research and deliberations of the Equity Strategy Committee. It is this list of securities on which more detailed fundamental analysis and financial modeling is carried out utilizing the dividend discount model, which is based on an evaluation of a company's future income stream, which is then discounted in real terms.



## 3 Year Risk Statistics



# MONDRIAN

Characteristics		
	Portfolio	MSCI EAFE
Number of Holdings	51	926
Weighted Avg. Market Cap. (\$B)	58.1	56.9
Median Market Cap. (\$B)	36.4	11.2
Price To Earnings	12.2	18.1
Price To Book	1.7	2.5
Price To Sales	1.5	2.2
Return on Equity (%)	12.4	14.2
Yield (%)	4.0	3.2
Beta	0.9	1.0
R-Squared	0.9	1.0

Top Positive Contributors		
	Relative Contribution %	Return %
GLAXOSMITHKLINE (UKIR:GSK)	0.2%	11.2%
KONINKLIJKE AHOLD DELHAIZE (H:AD)	0.2%	7.5%
UNITED OVERSEAS BANK (T:UOBS)	0.2%	6.0%
TAIWAN SEMICON.MNFG. (TW:TSM)	0.2%	9.4%
ENI (I:ENI)	0.1%	6.0%
NEXT (UKIR:NXT)	0.1%	10.1%
ZURICH INSURANCE GROUP (S:ZURN)	0.1%	7.5%
TELIA COMPANY (W:TEL)	0.1%	4.9%
KIRIN HOLDINGS (J:KB@N)	0.1%	5.6%
TESCO (UKIR:TSCO)	0.1%	2.0%

Top Negative Contributors		
	Relative Contribution %	Return %
TAKEDA PHARMACEUTICAL (J:TA@N)	-0.3%	-12.8%
ABB LTD N (S:ABBN)	-0.3%	-11.5%
KINGFISHER (UKIR:KGF)	-0.2%	-10.2%
CHINA MOBILE (K:CHT)	-0.2%	-9.6%
WOOD GROUP (JOHN) (UKIR:WG.)	-0.2%	-13.8%
DEUTSCHE TELEKOM (D:DTE)	-0.2%	-7.9%
SANOFI (F:SQ@F)	-0.2%	-6.9%
QBE INSURANCE GROUP (A:QBEX)	-0.1%	-11.2%
WPP (UKIR:WPP)	-0.1%	-12.4%
ROYAL DUTCH SHELL B (UKIR:RDSB)	-0.1%	-4.5%

Mondrian Performance Attribution vs. MSCI EAFE											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.2%	-0.1%	-0.2%	0.1%	-2.6%	-1.8%	10.3%	5.3%			
Materials	0.2%	-0.2%	0.4%	0.0%	-6.3%	-3.7%	1.3%	8.2%			
Industrials	-0.4%	-0.4%	0.1%	-0.1%	-4.7%	-1.4%	13.5%	14.7%			
Consumer Discretionary	-0.5%	-0.5%	-0.1%	0.1%	-3.0%	0.6%	15.3%	12.3%			
Consumer Staples	0.6%	0.7%	0.1%	-0.2%	3.5%	-2.9%	8.8%	11.2%			
Health Care	-0.3%	-0.3%	0.0%	0.1%	-2.9%	-0.6%	10.7%	10.1%			
Financials	0.6%	0.6%	0.2%	-0.2%	1.0%	-2.1%	15.7%	21.3%			
Information Technology	-0.1%	0.0%	0.0%	-0.1%	-0.4%	1.2%	6.7%	6.4%			
Telecommunication Services	-0.1%	0.2%	-0.4%	0.2%	-2.4%	-3.9%	9.7%	3.9%			
Utilities	-0.2%	-0.1%	0.0%	0.0%	-1.7%	1.5%	6.8%	3.2%			
Real Estate	0.0%	0.0%	0.1%	0.0%	-1.5%	-1.1%	1.2%	3.4%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-0.3%</b>	<b>=</b>	<b>-0.2%</b>	<b>+</b>	<b>0.1%</b>	<b>+</b>	<b>-0.2%</b>	<b>-1.7%</b>	<b>-1.4%</b>	<b>100.0%</b>	<b>100.0%</b>



# MONDRIAN

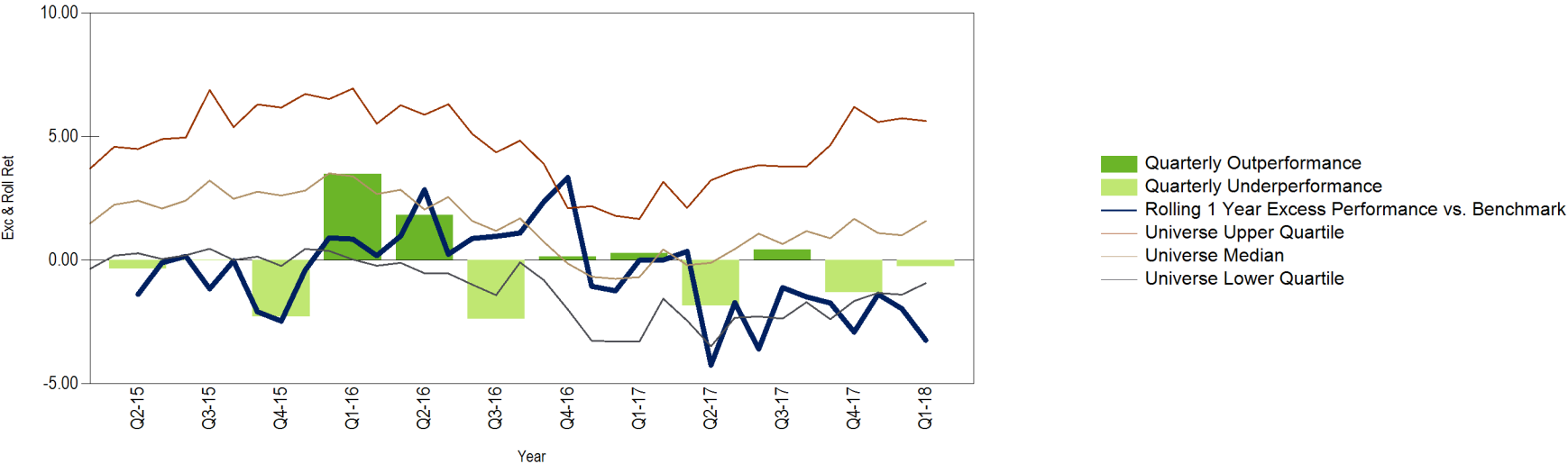
Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Europe</b>				
Denmark	1.3%	1.8%	-4.8%	-1.1%
France	6.0%	10.5%	-3.6%	0.5%
Germany	11.2%	9.9%	-3.1%	-3.5%
Italy	5.6%	2.4%	3.5%	5.5%
Netherlands	2.7%	3.6%	7.2%	1.0%
Norway	0.0%	0.7%	0.7%	2.4%
Spain	5.0%	3.2%	-1.3%	-1.7%
Sweden	3.9%	2.7%	2.7%	-1.8%
Switzerland	7.1%	8.1%	-2.4%	-3.9%
United Kingdom	24.2%	17.6%	-2.3%	-3.8%
<b>Total-Europe</b>	<b>67.1%</b>	<b>63.3%</b>	<b>-1.4%</b>	<b>-1.8%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
Australia	1.4%	7.0%	-11.2%	-6.1%
Hong Kong	5.5%	3.6%	-6.5%	-1.4%
Japan	18.0%	24.2%	-3.1%	0.8%
Singapore	6.4%	1.3%	2.1%	2.9%
Taiwan*	1.7%	0.0%	9.4%	4.9%
<b>Total-AsiaPacific</b>	<b>32.9%</b>	<b>36.2%</b>	<b>-2.4%</b>	<b>-0.7%</b>
<b>Totals</b>				
Developed	98.3%	100.0%	-1.9%	-1.4%
Emerging*	1.7%	0.0%	9.4%	--



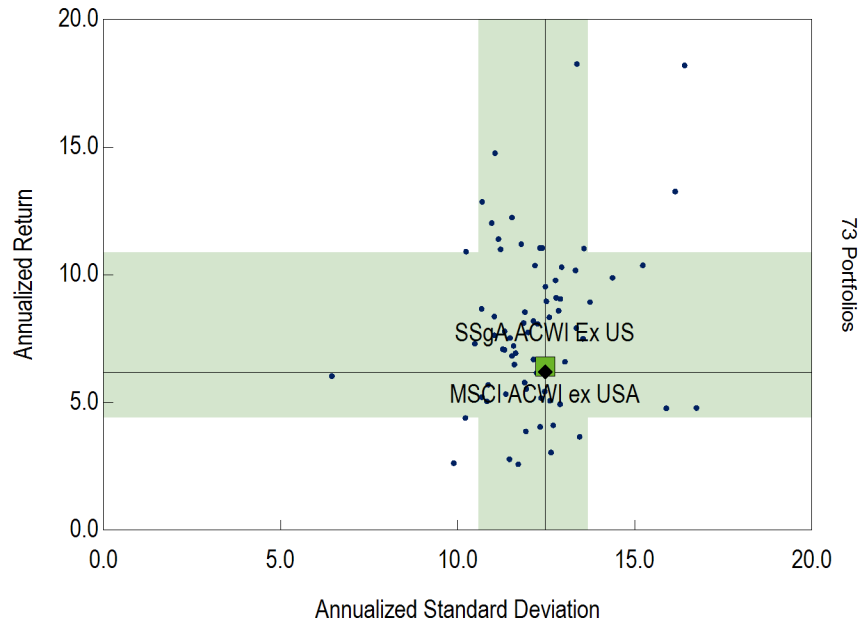
# MONDRIAN

Annualized Excess Performance



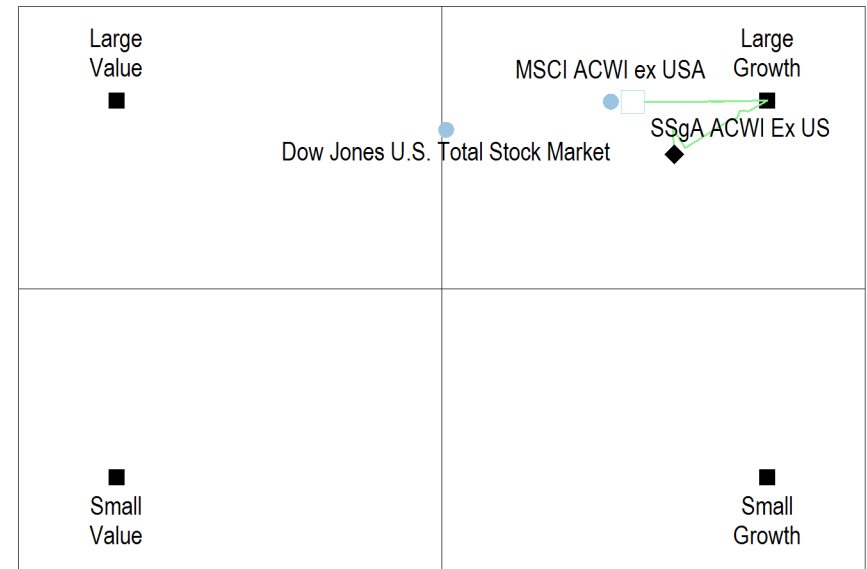
# SSGA ACWI EX US

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



- SSGA ACWI Ex US
- ◆ MSCI ACWI ex USA
- 68% Confidence Interval
- eV ACWI ex-US All Cap Equity Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018

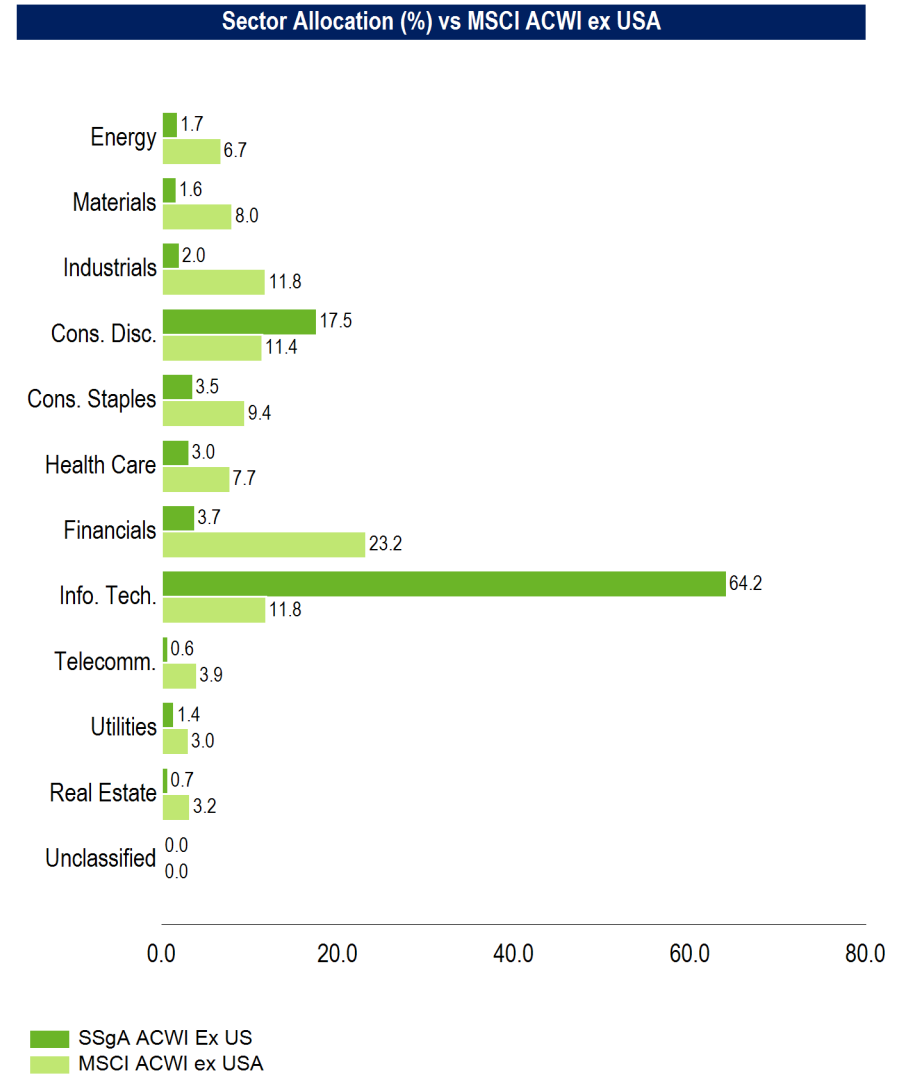
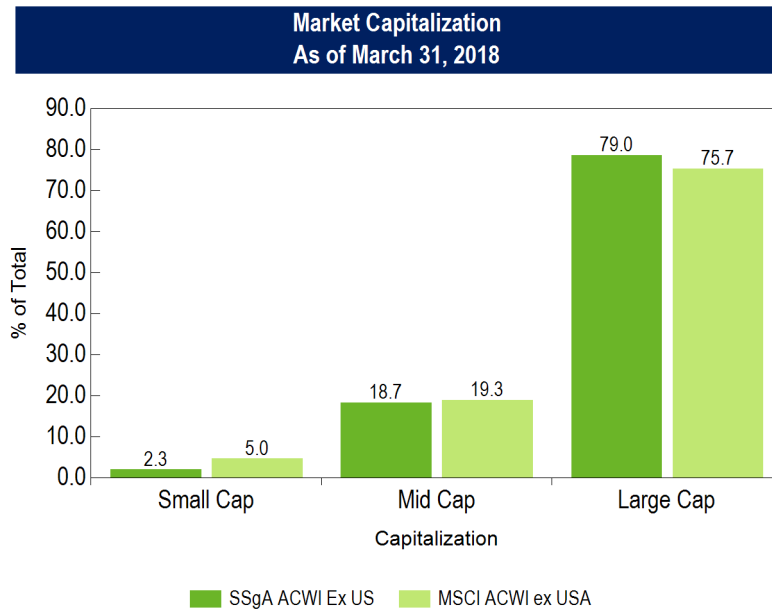


- First Rolling Period
- ◆ Last Rolling Period



# SSGA ACWI EX US

Characteristics		
	Portfolio	MSCI ACWI ex USA
Number of Holdings	48	1,864
Weighted Avg. Market Cap. (\$B)	188.16	64.97
Median Market Cap. (\$B)	11.66	8.49
Price To Earnings	32.68	18.59
Price To Book	7.19	2.50
Price To Sales	9.61	2.30
Return on Equity (%)	23.12	15.38
Yield (%)	0.77	2.96
Beta	1.00	1.00
R-Squared	1.00	1.00



# SSGA ACWI EX US

Top Ten Holdings	
ALIBABA GROUP HLDG.SPN. ADR 1:1	35.4%
BAIDU 'A' ADR 10:1	10.3%
NXP SEMICONDUCTORS	6.8%
JD.COM 'A' ADR 1:2	4.4%
NETEASE ADR 1:25	3.7%
BRITISH AMER.TOB.ADR 1:1	3.4%
CTRIIP.COM INTL.ADR 8:1	3.1%
YUM CHINA HOLDINGS	2.7%
CREDICORP	2.6%
TEVA PHARM.INDS.ADR 1:1	2.6%

Top Positive Contributors		
	Relative Contribution %	Return %
ALIBABA GROUP HLDG.SPN. ADR 1:1	2.1%	6.4%
TAL EDUCATION GROUP CL.A ADR 3:1	0.3%	24.8%
VIPSHOP HOLDINGS ADR 5:1	0.3%	41.8%
MOMO ADR 1:2 CL A	0.2%	52.7%
CREDICORP	0.2%	9.5%
AUTOHOME CL.A ADR 1:1	0.2%	34.3%
CTRIIP.COM INTL.ADR 8:1	0.2%	5.7%
58 COM CL.A ADR 1:2	0.1%	11.6%
WEIBO CLASS 'A' ADR	0.1%	15.5%
HIWIN TECHNOLOGIES	0.1%	32.2%

Top Negative Contributors		
	Relative Contribution %	Return %
NETEASE ADR 1:25	-0.8%	-18.6%
MICRO FOCUS INTL.SPN.ADR 1:1	-0.5%	-57.7%
BRITISH AMER.TOB.ADR 1:1	-0.5%	-12.8%
BAIDU 'A' ADR 10:1	-0.5%	-4.7%
TEVA PHARM.INDS.ADR 1:1	-0.3%	-9.8%
ENBRIDGE	-0.2%	-18.6%
NEW ORIENTAL ED.& TECH. GP.ADS 1:1	-0.1%	-6.8%
CAPITEC BANK	-0.1%	-17.2%
JD.COM 'A' ADR 1:2	-0.1%	-2.2%
CHECK POINT SFTW.TECHS.	-0.1%	-4.1%

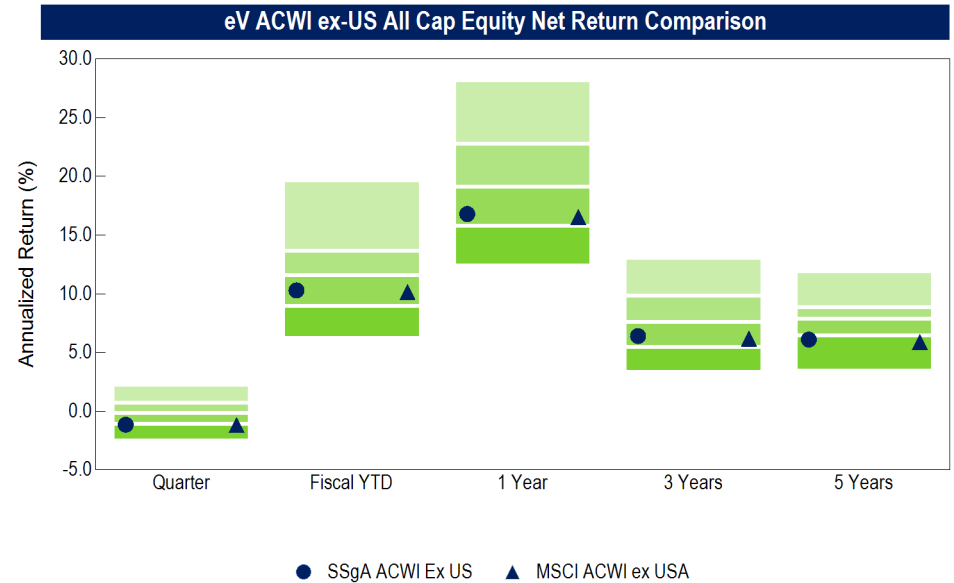
Equity Sector Attribution											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.2%	-0.3%	0.0%	0.1%	-7.7%	-1.6%	1.9%	6.8%			
Materials	0.1%	1.0%	0.1%	-0.9%	8.7%	-2.8%	1.4%	8.0%			
Industrials	0.0%	0.9%	0.1%	-1.0%	3.5%	-1.5%	2.0%	11.9%			
Consumer Discretionary	1.0%	0.9%	0.0%	0.1%	4.0%	-1.1%	16.9%	11.4%			
Consumer Staples	-0.4%	-0.7%	0.1%	0.2%	-12.3%	-2.7%	4.2%	9.6%			
Health Care	-0.5%	-0.6%	0.0%	0.1%	-10.2%	0.0%	3.4%	7.7%			
Financials	-0.3%	0.9%	-0.2%	-1.0%	1.8%	-1.0%	3.7%	23.2%			
Information Technology	2.2%	0.1%	1.6%	0.4%	1.3%	1.7%	64.0%	11.5%			
Telecommunication Services	0.1%	0.7%	0.1%	-0.7%	11.8%	-4.0%	0.5%	4.0%			
Utilities	-0.1%	0.0%	0.0%	0.0%	-1.6%	1.4%	1.4%	2.9%			
Real Estate	0.0%	0.0%	0.0%	0.0%	2.7%	-1.3%	0.6%	3.1%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>1.9%</b>	<b>=</b>	<b>2.9%</b>	<b>+</b>	<b>1.8%</b>	<b>+</b>	<b>-2.8%</b>	<b>0.8%</b>	<b>-1.1%</b>	<b>100.0%</b>	<b>100.0%</b>



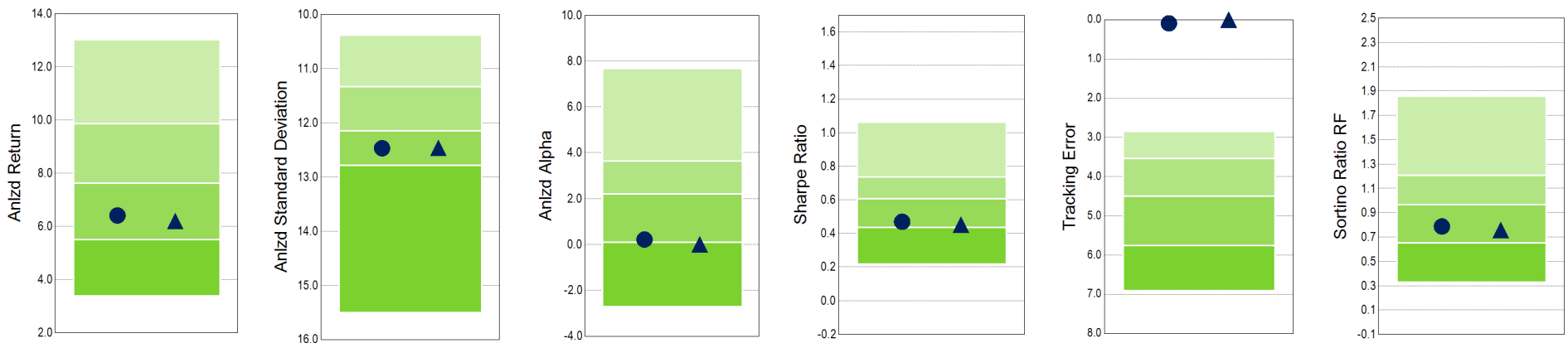


# SSGA ACWI EX US

The MSCI ACWI ex US Index Strategy tends to hold each security that is held in the benchmark index, but the strategy will not be perfectly weighted in every index constituent on a daily basis. Holding securities in the perfect weights would require increased trading and therefore would incur costs. Thus, there will be securities in the fund that are either over- or under-weighted relative to the benchmark. The individual security mis-weights are very minimal, usually within 1 basis point. However, in aggregate, these small mis-weights can add up and result in tracking error if the mis-weighted securities' performance is volatile. SSgA seek to replicate the index by attempting to hold every security in the fund in its appropriate index weight. SSgA trade only when there is a change to the Index, when we have participant cash flows, or when we receive significant dividend income into the fund.



## 3 Year Risk Statistics



# SSGA ACWI EX US

Characteristics	Portfolio	MSCI ACWI ex USA
	Number of Holdings	48
Weighted Avg. Market Cap. (\$B)	188.2	65.0
Median Market Cap. (\$B)	11.7	8.5
Price To Earnings	32.7	18.6
Price To Book	7.2	2.5
Price To Sales	9.6	2.3
Return on Equity (%)	23.1	15.4
Yield (%)	0.8	3.0
Beta	1.0	1.0
R-Squared	1.0	1.0

Top Positive Contributors	Relative Contribution %	Return %
	ALIBABA GROUP HLDG.SPN. ADR 1:1 (BABA)	2.1%
TAL EDUCATION GROUP CL.A ADR 3:1 (TAL)	0.3%	24.8%
VIPSHOP HOLDINGS ADR 5:1 (VIPS)	0.3%	41.8%
MOMO ADR 1:2 CL A (MOMO)	0.2%	52.7%
CREDICORP (BAP)	0.2%	9.5%
AUTOHOME CL.A ADR 1:1 (ATHM)	0.2%	34.3%
CTRP.COM INTL.ADR 8:1 (CTRP)	0.2%	5.7%
58 COM CL.A ADR 1:2 (WUBA)	0.1%	11.6%
WEIBO CLASS 'A' ADR (WB)	0.1%	15.5%
HIWIN TECHNOLOGIES (TW:HIW)	0.1%	32.2%

Top Negative Contributors	Relative Contribution %	Return %
	NETEASE ADR 1:25 (NTES)	-0.8%
MICRO FOCUS INTL.SPN.ADR 1:1 (MFGP)	-0.5%	-57.7%
BRITISH AMER.TOB.ADR 1:1 (BTI)	-0.5%	-12.8%
BAIDU 'A' ADR 10:1 (BIDU)	-0.5%	-4.7%
TEVA PHARM.INDS.ADR 1:1 (TEVA)	-0.3%	-9.8%
ENBRIDGE (C:ENB)	-0.2%	-18.6%
NEW ORIENTAL ED.& TECH. GP.ADS 1:1 (EDU)	-0.1%	-6.8%
CAPITEC BANK (R:CPIJ)	-0.1%	-17.2%
JD.COM 'A' ADR 1:2 (JD)	-0.1%	-2.2%
CHECK POINT SFTW.TECHS. (CHKP)	-0.1%	-4.1%

SSgA ACWI Ex US Performance Attribution vs. MSCI ACWI ex USA											
	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.3%	0.1%	0.1%	-7.7%	-1.6%	1.9%	6.8%			
Materials	0.3%	1.0%	0.3%	-0.9%	8.7%	-2.8%	1.4%	8.0%			
Industrials	0.3%	0.9%	0.4%	-1.0%	3.5%	-1.5%	2.0%	11.9%			
Consumer Discretionary	0.8%	0.9%	-0.2%	0.1%	4.0%	-1.1%	16.9%	11.4%			
Consumer Staples	-0.3%	-0.7%	0.3%	0.2%	-12.3%	-2.7%	4.2%	9.6%			
Health Care	-0.3%	-0.6%	0.1%	0.1%	-10.2%	0.0%	3.4%	7.7%			
Financials	0.3%	0.9%	0.4%	-1.0%	1.8%	-1.0%	3.7%	23.2%			
Information Technology	0.6%	0.1%	0.1%	0.4%	1.3%	1.7%	64.0%	11.5%			
Telecommunication Services	0.2%	0.7%	0.2%	-0.7%	11.8%	-4.0%	0.5%	4.0%			
Utilities	-0.1%	0.0%	0.0%	0.0%	-1.6%	1.4%	1.4%	2.9%			
Real Estate	0.1%	0.0%	0.1%	0.0%	2.7%	-1.3%	0.6%	3.1%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>1.9%</b>	<b>=</b>	<b>2.9%</b>	<b>+</b>	<b>1.8%</b>	<b>+</b>	<b>-2.8%</b>	<b>0.8%</b>	<b>-1.1%</b>	<b>100.0%</b>	<b>100.0%</b>



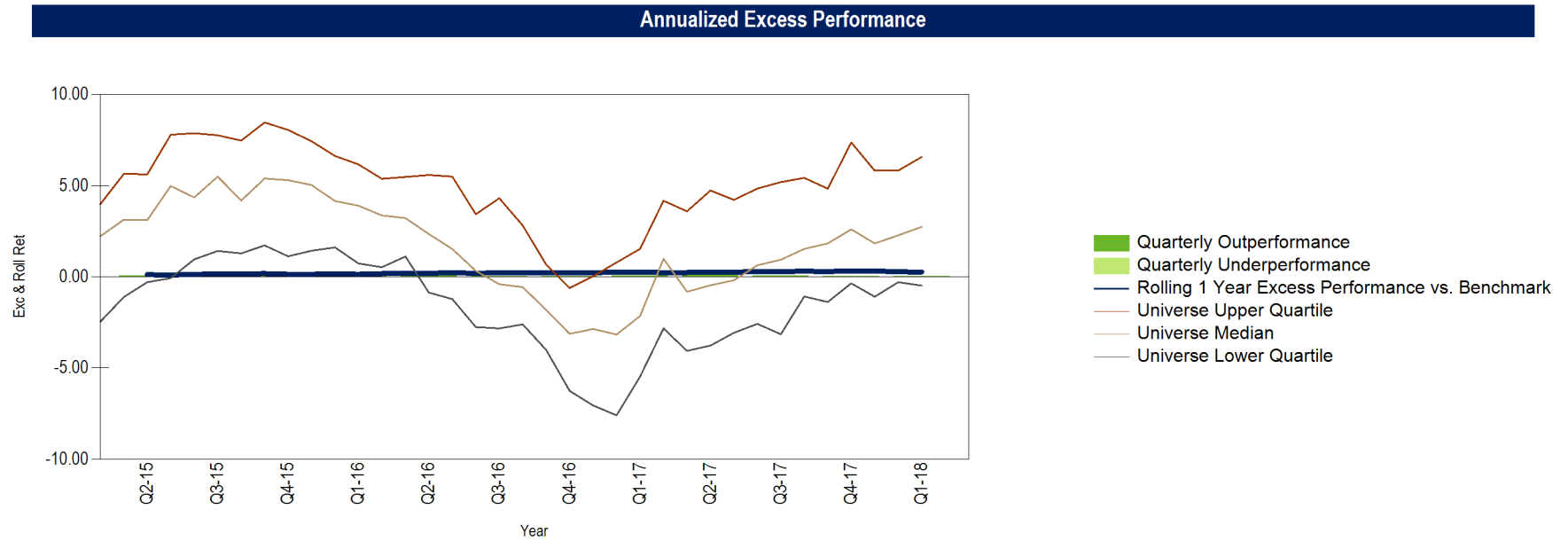
# SSGA ACWI EX US

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Canada	2.1%	6.4%	-13.9%	-7.2%
Chile*	0.3%	0.3%	4.2%	1.6%
Colombia*	0.6%	0.1%	-1.6%	4.9%
Peru*	2.7%	0.1%	9.2%	10.4%
United States	15.4%	0.0%	2.5%	-0.8%
<b>Total-Americas</b>	<b>21.2%</b>	<b>9.4%</b>	<b>1.7%</b>	<b>-2.4%</b>
<b>Europe</b>				
Ireland	0.1%	0.3%	17.9%	-5.7%
Netherlands	1.2%	2.5%	-3.6%	1.0%
Russia*	0.5%	0.8%	11.8%	9.5%
United Kingdom	5.0%	12.1%	-21.2%	-3.8%
<b>Total-Europe</b>	<b>6.9%</b>	<b>44.9%</b>	<b>-14.8%</b>	<b>-1.7%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
China*	64.5%	7.4%	2.8%	1.8%
India*	2.0%	2.2%	-8.4%	-6.9%
Japan	0.6%	16.6%	2.7%	0.8%
Malaysia*	0.3%	0.6%	28.0%	8.7%
Taiwan*	1.1%	2.8%	8.5%	5.6%
<b>Total-AsiaPacific</b>	<b>68.5%</b>	<b>43.1%</b>	<b>2.7%</b>	<b>-0.1%</b>
<b>Other</b>				
Israel	2.9%	0.3%	-9.8%	-5.3%
South Africa*	0.6%	1.8%	-17.2%	-4.0%
<b>Total-Other</b>	<b>3.5%</b>	<b>2.7%</b>	<b>-11.1%</b>	<b>-3.4%</b>
<b>Totals</b>				
Developed	27.3%	75.2%	-4.6%	-1.9%
Emerging*	72.7%	24.8%	2.8%	1.4%

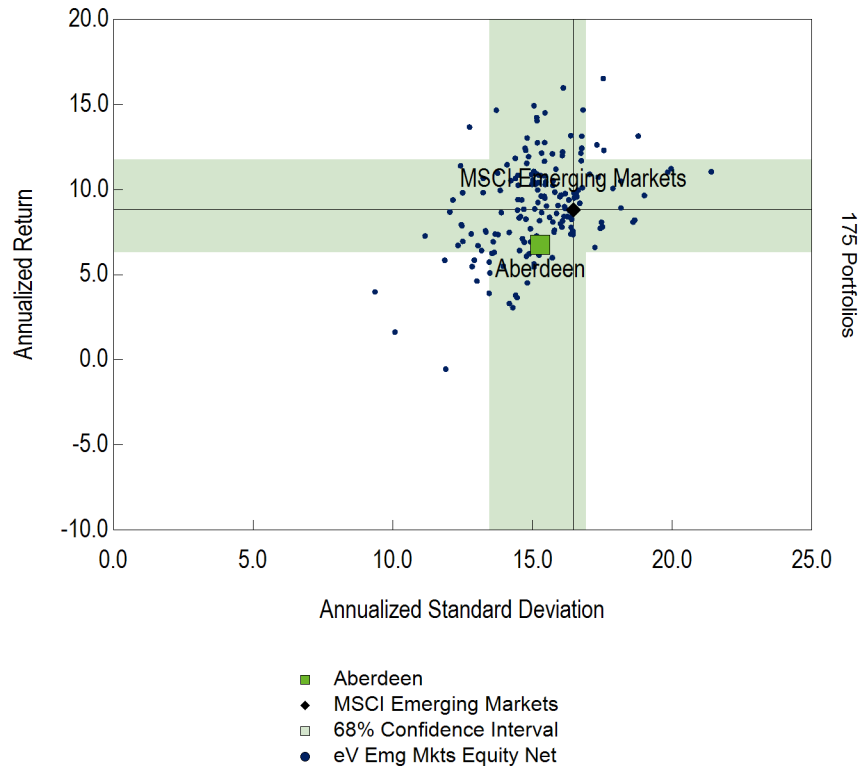


# SSGA ACWI EX US

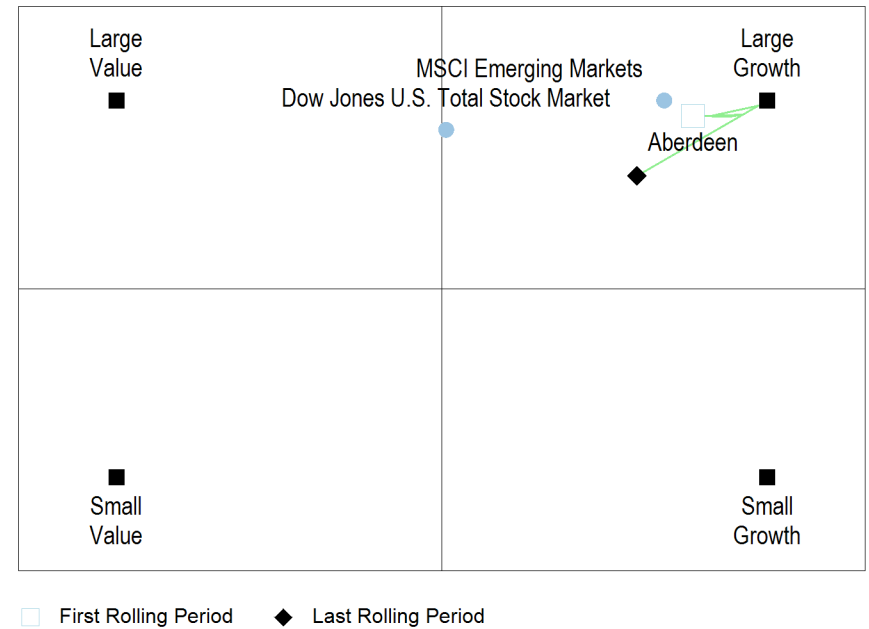


# ABERDEEN

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

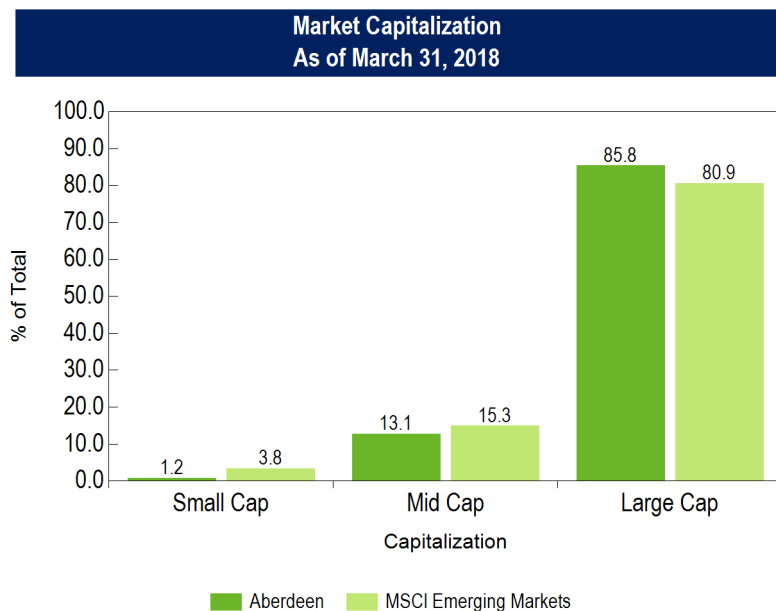


U.S. Effective Style Map  
3 Years Ending March 31, 2018

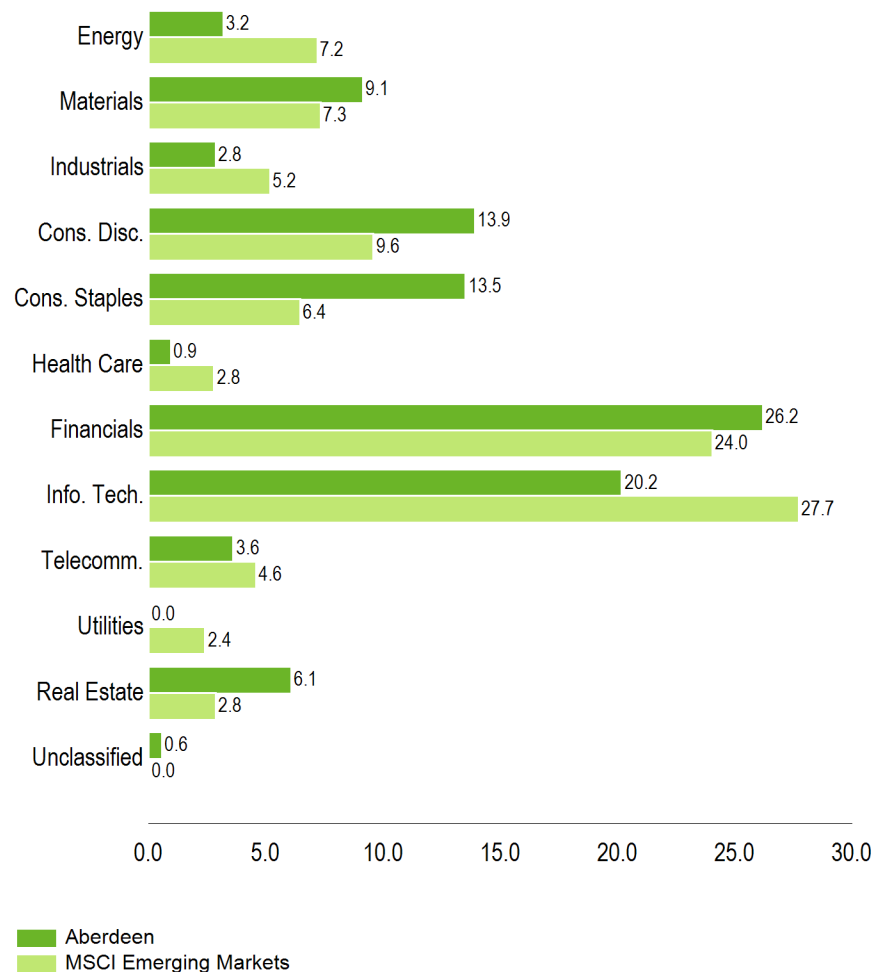


# ABERDEEN

Characteristics		
	Portfolio	MSCI Emerging Markets
Number of Holdings	65	847
Weighted Avg. Market Cap. (\$B)	68.34	91.91
Median Market Cap. (\$B)	16.76	5.87
Price To Earnings	23.48	20.27
Price To Book	3.74	2.65
Price To Sales	3.93	2.46
Return on Equity (%)	21.78	19.03
Yield (%)	2.33	2.30
Beta	0.88	1.00
R-Squared	0.89	1.00



## Sector Allocation (%) vs MSCI Emerging Markets



# ABERDEEN

Top Ten Holdings	
SAMSUNG ELTN.PREF.	5.5%
TENCENT HOLDINGS	5.0%
TAIWAN SEMICON.MNFG.	4.8%
HOUSING DEVELOPMENT FIN.	3.8%
BNC.BRADESCO PF.SPN.ADR 1:1	3.0%
AIA GROUP	2.6%
CHINA MOBILE	2.3%
SIAM CEMENT FB	2.3%
ASTRA INTERNATIONAL	2.2%
VALE ON ADR 1:1	2.1%

Top Positive Contributors		
	Relative Contribution %	Return %
BNC.BRADESCO PF.SPN.ADR 1:1	0.4%	16.1%
TRUWORTHS INTL.	0.3%	22.0%
MASSMART	0.3%	23.3%
PJSC LUKOIL SPON (LON) ADR	0.2%	20.4%
PUBLIC BANK	0.2%	22.6%
CHINA RESOURCES LAND	0.2%	23.6%
GPO FINANCE BANORTE	0.1%	10.5%
AMBEV ON	0.1%	13.2%
HOUSING DEVELOPMENT FIN.	0.1%	4.7%
SIAM CEMENT FB	0.1%	6.3%

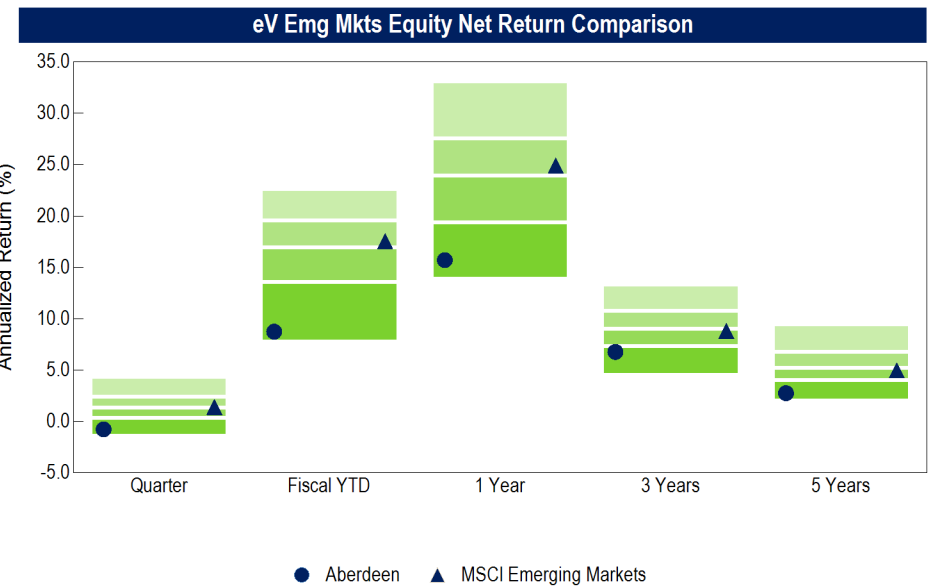
Top Negative Contributors		
	Relative Contribution %	Return %
MAGNIT	-0.4%	-26.1%
ICT.TUNGGAL PRAKARSA	-0.3%	-28.2%
ASTRA INTERNATIONAL	-0.3%	-13.3%
BRF BRASIL FOODS ON	-0.3%	-37.7%
RICHTER GEDEON	-0.2%	-20.4%
AYALA LAND	-0.2%	-11.3%
HANG LUNG GROUP	-0.2%	-11.1%
BIM BIRLESIK MAGAZALAR	-0.1%	-11.9%
GRASIM INDUSTRIES	-0.1%	-11.8%
ULTRATECH CEMENT	-0.1%	-10.5%

Equity Sector Attribution											
	Total Effects	Selection Effect	Attribution Effects			Returns		Sector Weights			
			Allocation Effect	Interaction Effects		Portfolio	Benchmark	Portfolio	Benchmark		
Energy	-0.4%	-0.2%	-0.2%	0.1%		4.2%	7.6%	3.4%	6.8%		
Materials	-0.6%	-0.3%	0.0%	-0.2%		-4.8%	0.7%	10.2%	7.4%		
Industrials	0.0%	-0.3%	0.1%	0.2%		-6.5%	-0.7%	1.4%	5.3%		
Consumer Discretionary	0.5%	0.6%	-0.1%	0.0%		-1.4%	-6.1%	10.9%	10.2%		
Consumer Staples	-0.8%	-0.1%	-0.3%	-0.4%		-4.6%	-0.7%	16.3%	6.5%		
Health Care	-0.4%	-0.8%	-0.1%	0.4%		-20.4%	7.1%	1.2%	2.7%		
Financials	0.1%	0.1%	0.1%	-0.1%		3.9%	4.3%	28.5%	23.5%		
Information Technology	-0.2%	-0.1%	-0.1%	0.0%		1.5%	1.9%	17.2%	27.7%		
Telecommunication Services	-0.2%	-0.2%	0.0%	0.0%		-7.5%	-3.6%	4.6%	4.8%		
Utilities	-0.1%	--	0.0%	--		--	3.3%	0.0%	2.4%		
Real Estate	-0.2%	0.0%	-0.1%	-0.1%		-3.3%	-1.8%	6.4%	2.8%		
Cash	0.0%	--	--	--		--	--	0.0%	0.0%		
<b>Portfolio</b>	<b>-2.2%</b>	<b>=</b>	<b>-1.4%</b>	<b>+</b>	<b>-0.7%</b>	<b>+</b>	<b>-0.1%</b>	<b>-0.8%</b>	<b>1.4%</b>	<b>100.0%</b>	<b>100.0%</b>

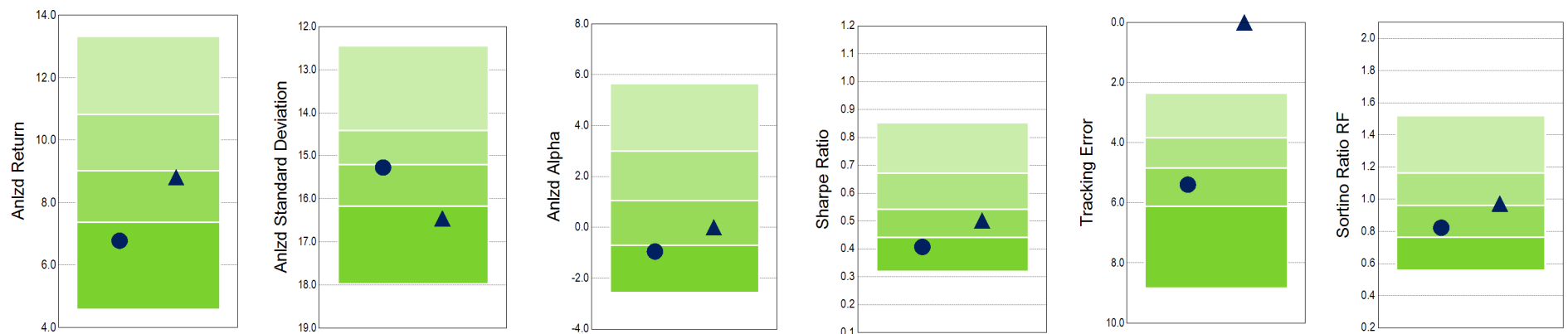


# ABERDEEN

Aberdeen believes, given the inefficiency of markets, that competitive long-term returns are achieved by identifying high quality stocks at attractive valuations and holding for the long term. It is their belief that sound fundamentals drive stock prices over time. They employ a fundamental bottom-up investment approach based upon a rigorous and disciplined proprietary research effort which originates with direct company due diligence visits. Portfolios are constructed to maximize their level of exposure to the most attractive companies filtered from the stock selection process. They run a representative or model' unconstrained portfolio that contains approximately 30 - 70 stocks at any given time. Once a stock has received unanimous approval by the team, the senior investment team members then decide which portfolio category it should enter (i.e. country, regional, Global Emerging Markets) and at what weighting. The Head of Global Emerging Markets then has responsibility to ensure that the decision is implemented.



## 3 Year Risk Statistics





# ABERDEEN

Characteristics	MSCI	
	Portfolio	Emerging Markets
Number of Holdings	65	847
Weighted Avg. Market Cap. (\$B)	68.3	91.9
Median Market Cap. (\$B)	16.8	5.9
Price To Earnings	23.5	20.3
Price To Book	3.7	2.7
Price To Sales	3.9	2.5
Return on Equity (%)	21.8	19.0
Yield (%)	2.3	2.3
Beta	0.9	1.0
R-Squared	0.9	1.0

Top Positive Contributors	Relative	
	Contribution %	Return %
BNC.BRADESCO PF.SPN.ADR 1:1 (BBD)	0.4%	16.1%
TRUWORTHS INTL. (R:TRUJ)	0.3%	22.0%
MASSMART (R:MSMJ)	0.3%	23.3%
PJSC LUKOIL SPON (LON) ADR (UKIR:LKOD)	0.2%	20.4%
PUBLIC BANK (L:PBOM)	0.2%	22.6%
CHINA RESOURCES LAND (K:CHBE)	0.2%	23.6%
GPO FINANCE BANORTE (MX:GTB)	0.1%	10.5%
AMBEV ON (BR:AVS)	0.1%	13.2%
HOUSING DEVELOPMENT FIN. (IN:HDF)	0.1%	4.7%
SIAM CEMENT FB (Q:SCQF)	0.1%	6.3%

Top Negative Contributors	Relative	
	Contribution %	Return %
MAGNIT (RS:MGN)	-0.4%	-26.1%
ICT.TUNGGAL PRAKARSA (ID:INC)	-0.3%	-28.2%
ASTRA INTERNATIONAL (ID:ATA)	-0.3%	-13.3%
BRF BRASIL FOODS ON (BR:DG3)	-0.3%	-37.7%
RICHTER GEDEON (HN:RIC)	-0.2%	-20.4%
AYALA LAND (PH:ALI)	-0.2%	-11.3%
HANG LUNG GROUP (K:HLDV)	-0.2%	-11.1%
BIM BIRLESIK MAGAZALAR (TK:BMI)	-0.1%	-11.9%
GRASIM INDUSTRIES (IN:GSI)	-0.1%	-11.8%
ULTRATECH CEMENT (IN:URC)	-0.1%	-10.5%

Aberdeen Performance Attribution vs. MSCI Emerging Markets											
	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.4%	-0.2%	-0.3%	0.1%	4.2%	7.6%	3.4%	6.8%			
Materials	-0.5%	-0.3%	0.0%	-0.2%	-4.8%	0.7%	10.2%	7.4%			
Industrials	-0.1%	-0.3%	0.0%	0.2%	-6.5%	-0.7%	1.4%	5.3%			
Consumer Discretionary	0.5%	0.6%	-0.1%	0.0%	-1.4%	-6.1%	10.9%	10.2%			
Consumer Staples	-0.7%	-0.1%	-0.2%	-0.4%	-4.6%	-0.7%	16.3%	6.5%			
Health Care	-0.4%	-0.8%	-0.1%	0.4%	-20.4%	7.1%	1.2%	2.7%			
Financials	0.1%	0.1%	0.2%	-0.1%	3.9%	4.3%	28.5%	23.5%			
Information Technology	-0.3%	-0.1%	-0.1%	0.0%	1.5%	1.9%	17.2%	27.7%			
Telecommunication Services	-0.2%	-0.2%	0.0%	0.0%	-7.5%	-3.6%	4.6%	4.8%			
Utilities	-0.1%	--	-0.1%	--	--	3.3%	0.0%	2.4%			
Real Estate	-0.2%	0.0%	-0.1%	-0.1%	-3.3%	-1.8%	6.4%	2.8%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
<b>Portfolio</b>	<b>-2.2%</b>	<b>=</b>	<b>-1.4%</b>	<b>+</b>	<b>-0.7%</b>	<b>+</b>	<b>-0.1%</b>	<b>-0.8%</b>	<b>1.4%</b>	<b>100.0%</b>	<b>100.0%</b>



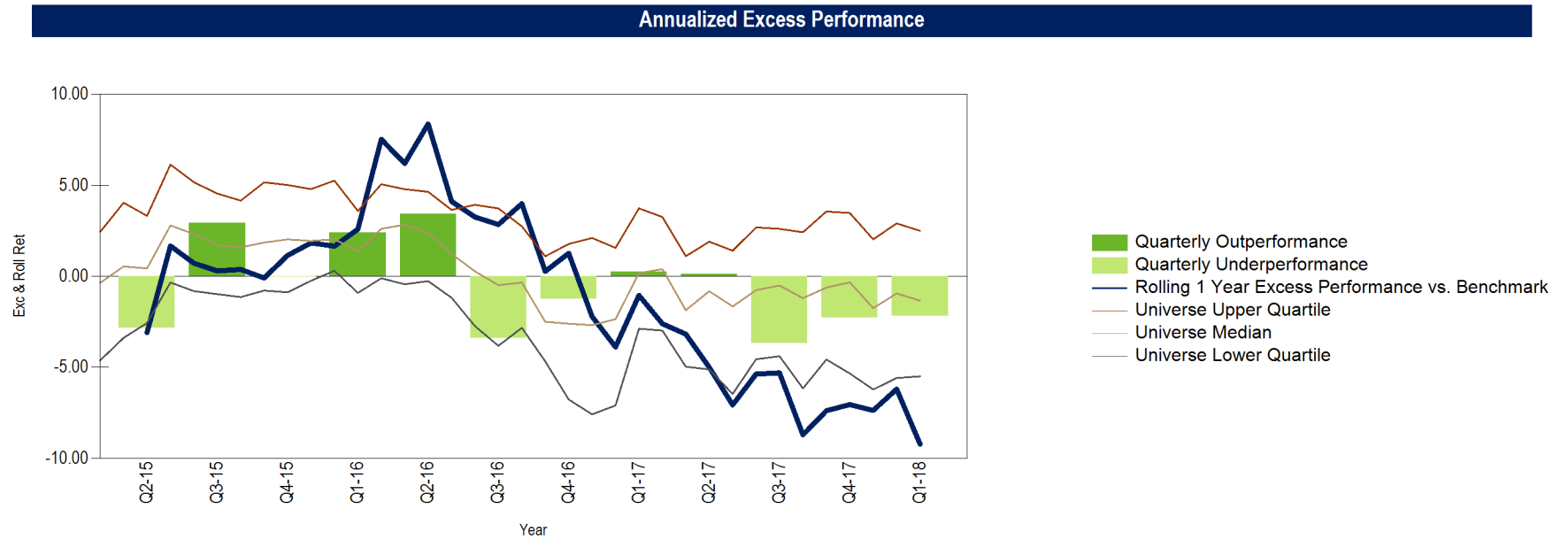
# ABERDEEN

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>Americas</b>				
Brazil*	13.5%	6.9%	1.9%	12.5%
Chile*	2.5%	1.3%	2.1%	1.6%
Mexico*	5.7%	2.9%	0.6%	0.9%
United States	1.9%	0.0%	3.9%	-0.8%
<b>Total-Americas</b>	<b>23.6%</b>	<b>11.8%</b>	<b>1.8%</b>	<b>8.2%</b>
<b>Europe</b>				
Hungary*	1.2%	0.3%	-20.4%	-1.0%
Poland*	1.1%	1.3%	-3.4%	-8.2%
Portugal	1.1%	0.0%	-6.4%	3.1%
Russia*	2.7%	3.3%	-6.3%	9.5%
United Kingdom	1.1%	0.0%	-4.3%	-3.9%
<b>Total-Europe</b>	<b>7.2%</b>	<b>5.5%</b>	<b>-7.9%</b>	<b>3.5%</b>

Country Allocation				
	Manager	Index	Manager	Index
	Allocation (USD)	Allocation (USD)	Return (USD)	Return (USD)
<b>AsiaPacific</b>				
China*	1.1%	29.8%	-2.3%	1.8%
Hong Kong	14.5%	0.0%	-0.9%	-1.4%
India*	16.2%	8.7%	-3.0%	-6.9%
Indonesia*	5.6%	2.2%	-11.5%	-7.0%
Korea*	9.5%	15.5%	-3.4%	-0.9%
Malaysia*	1.3%	2.3%	22.6%	8.7%
Philippines*	4.2%	1.1%	-5.7%	-11.4%
Taiwan*	5.1%	11.2%	9.1%	5.6%
Thailand*	4.1%	2.3%	2.8%	9.1%
<b>Total-AsiaPacific</b>	<b>61.7%</b>	<b>73.2%</b>	<b>-1.6%</b>	<b>0.8%</b>
<b>Other</b>				
South Africa*	4.3%	7.1%	13.0%	-4.0%
Turkey*	3.2%	1.1%	-6.9%	-4.8%
<b>Total-Other</b>	<b>7.5%</b>	<b>9.5%</b>	<b>4.5%</b>	<b>-3.2%</b>
<b>Totals</b>				
Developed	18.7%	0.0%	-1.0%	--
Emerging*	81.3%	100.0%	-0.7%	1.4%

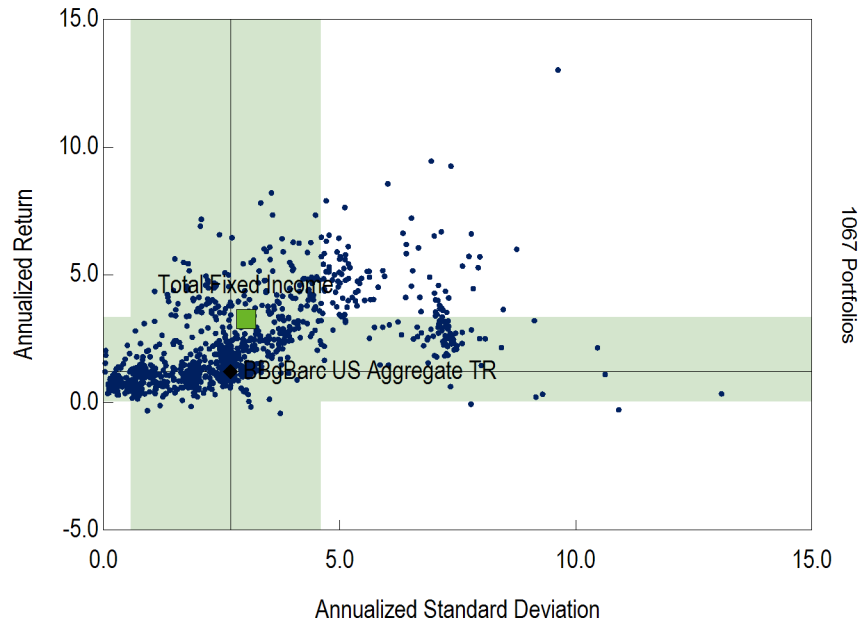


# ABERDEEN



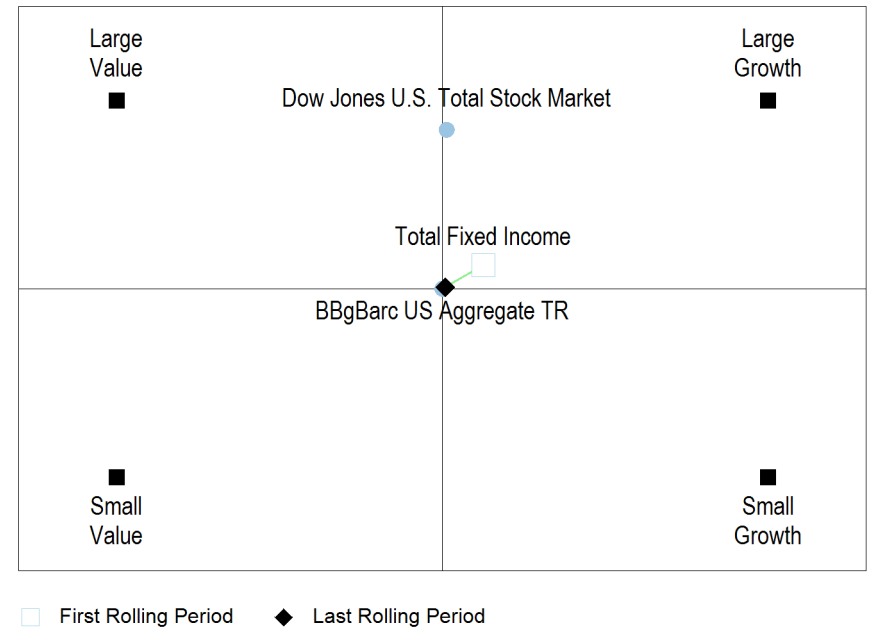
# TOTAL FIXED INCOME COMPOSITE

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

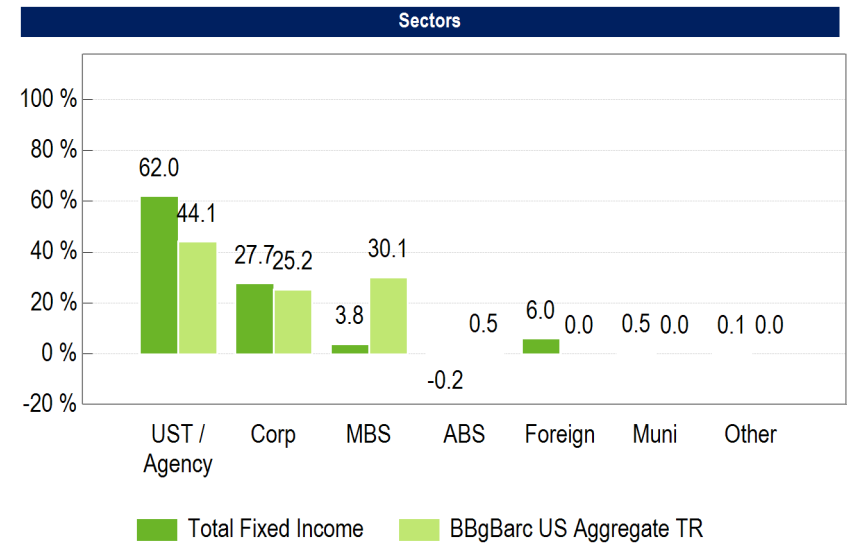
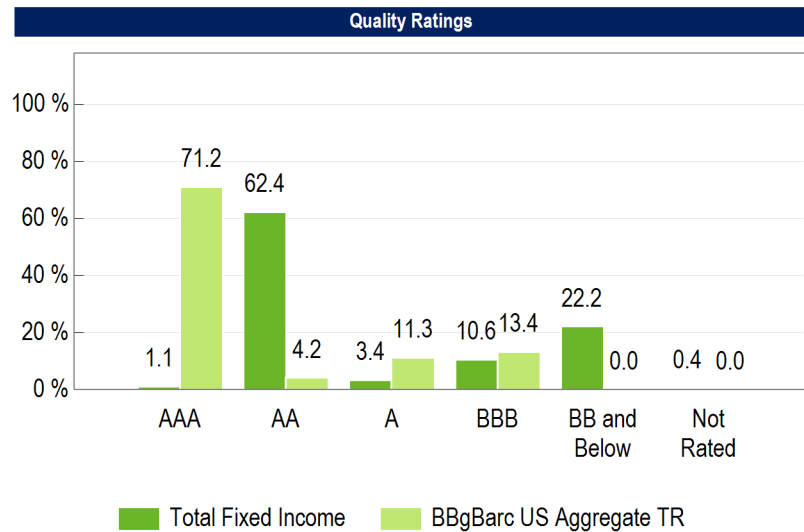
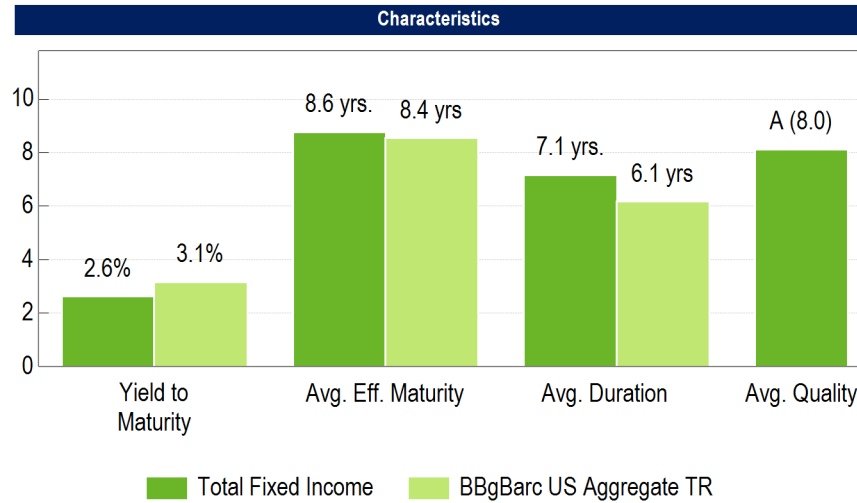


- Total Fixed Income
- ◆ BBgBarc US Aggregate TR
- 68% Confidence Interval
- eV All US Fixed Inc Net

U.S. Effective Style Map  
3 Years Ending March 31, 2018

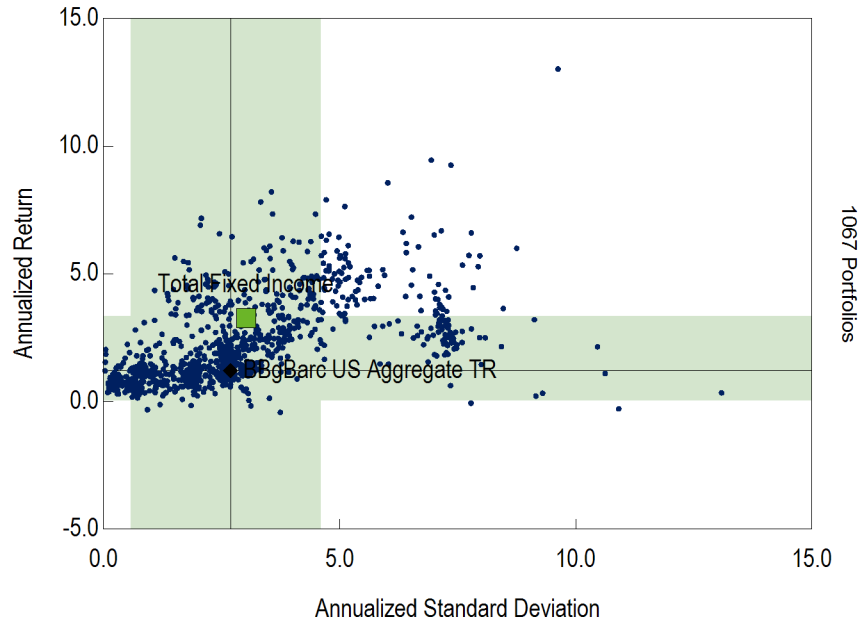


# TOTAL FIXED INCOME COMPOSITE



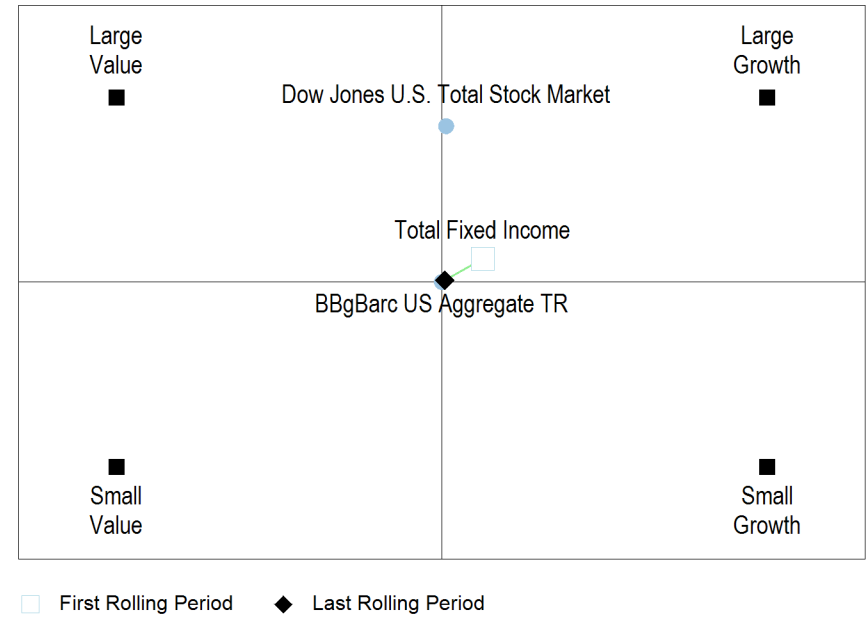
# TOTAL FIXED INCOME COMPOSITE

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

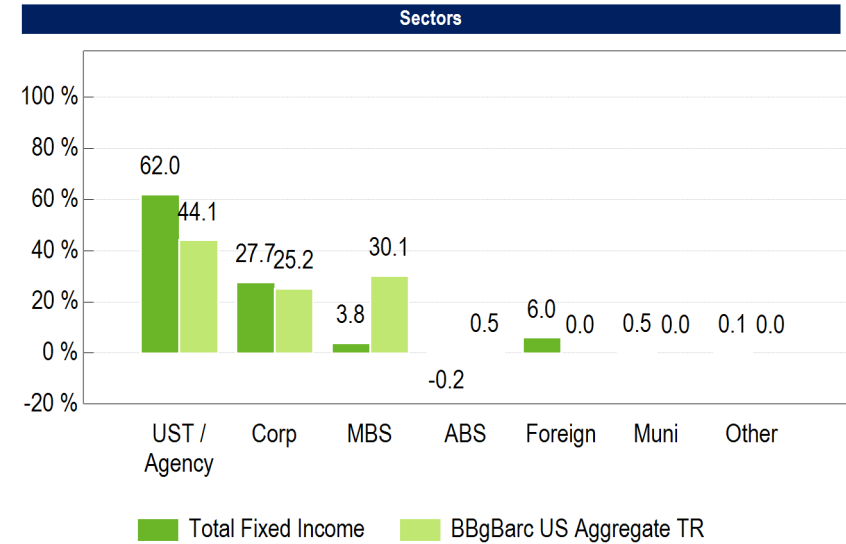
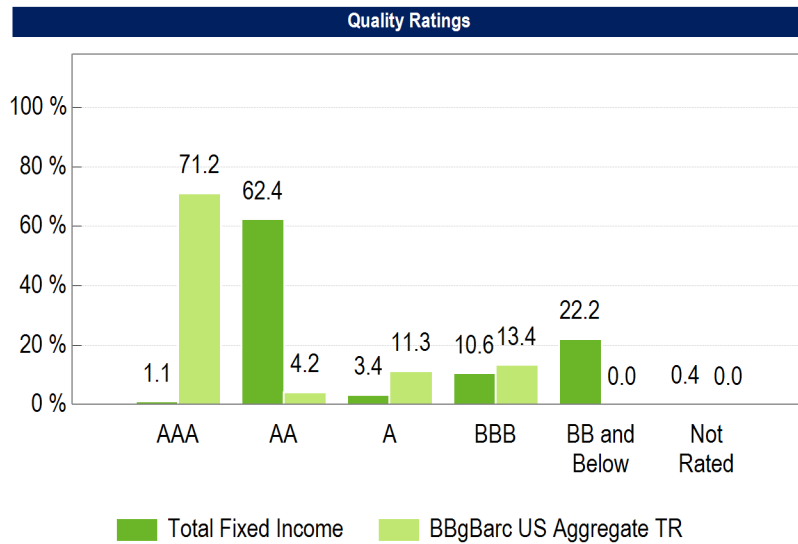
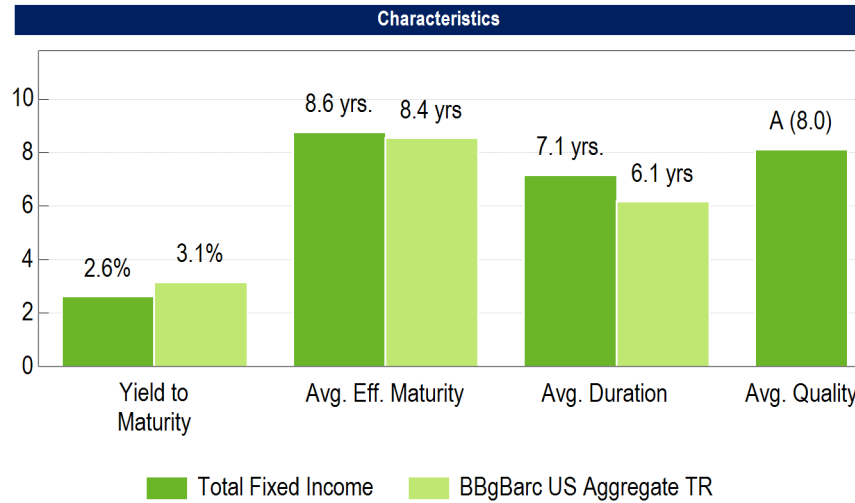


- Total Fixed Income
- ◆ BBgBarc US Aggregate TR
- 68% Confidence Interval
- eV All US Fixed Inc Net

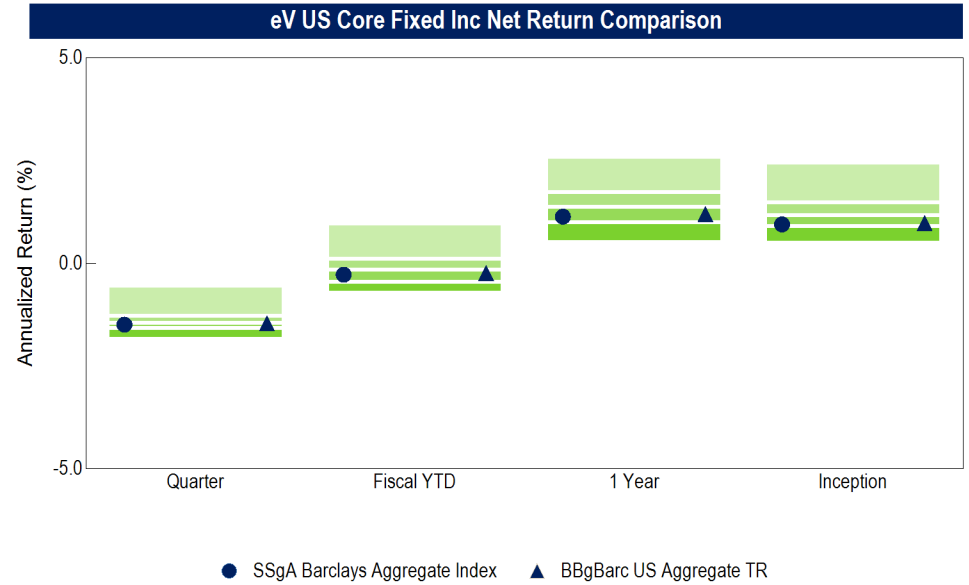
U.S. Effective Style Map  
3 Years Ending March 31, 2018



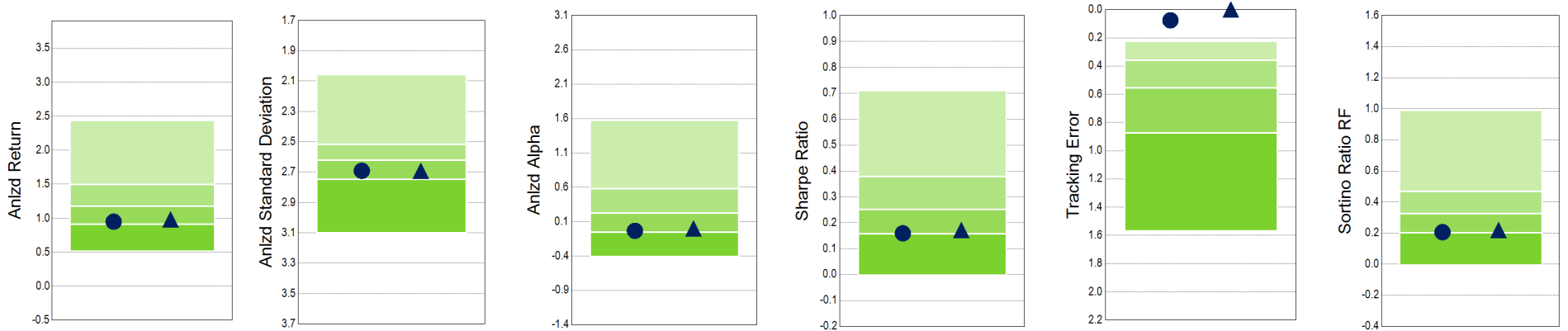
# TOTAL FIXED INCOME COMPOSITE



# SSGA BARCLAYS AGGREGATE INDEX

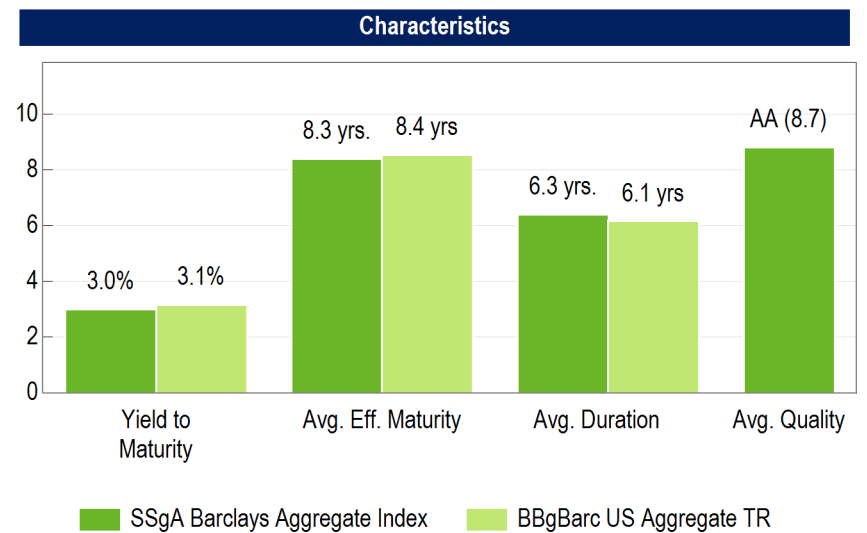
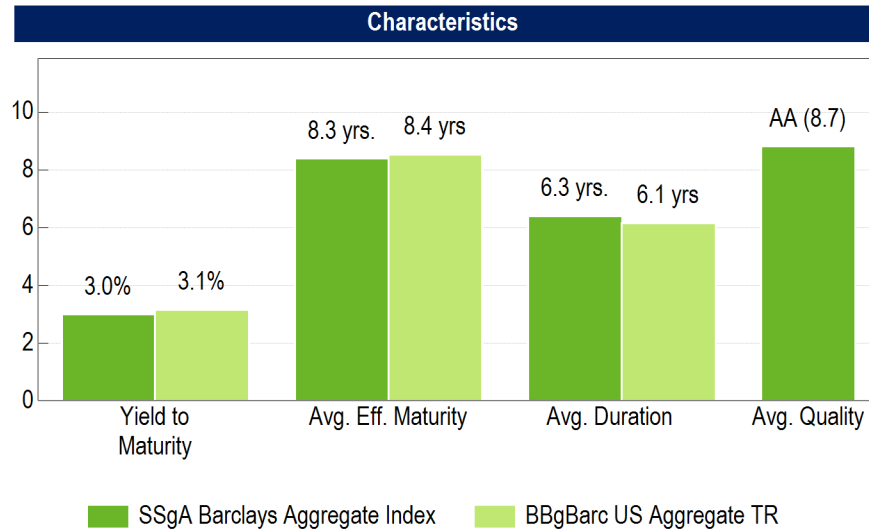
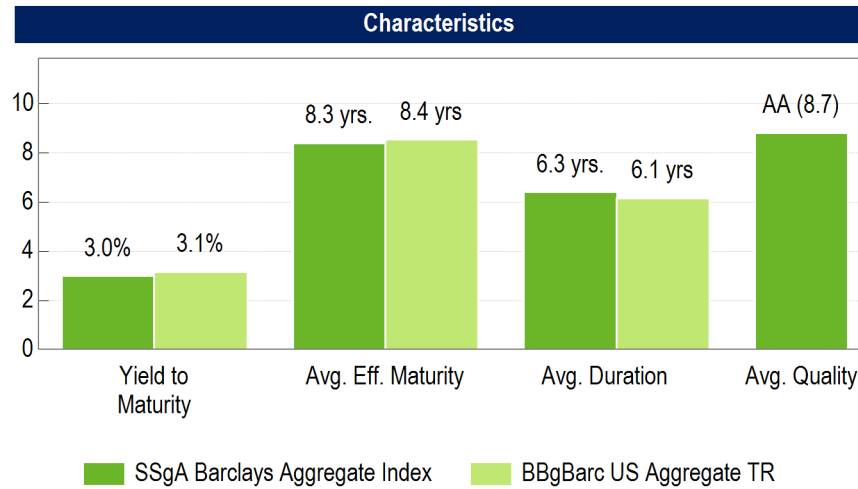


## Since Inception Risk Statistics



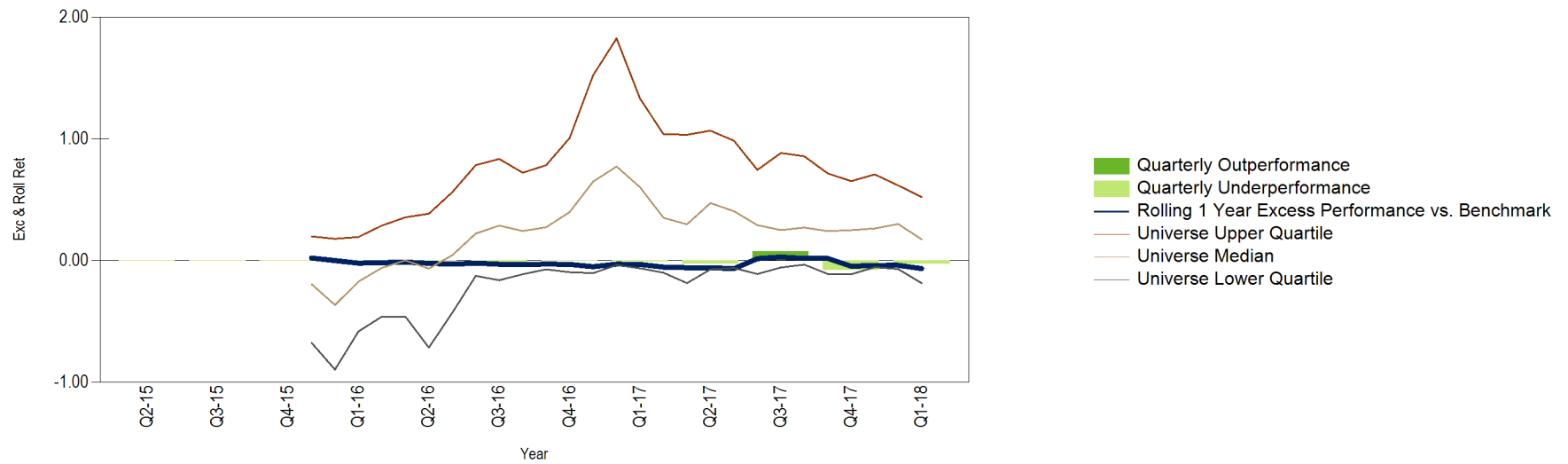


# SSGA BARCLAYS AGGREGATE INDEX



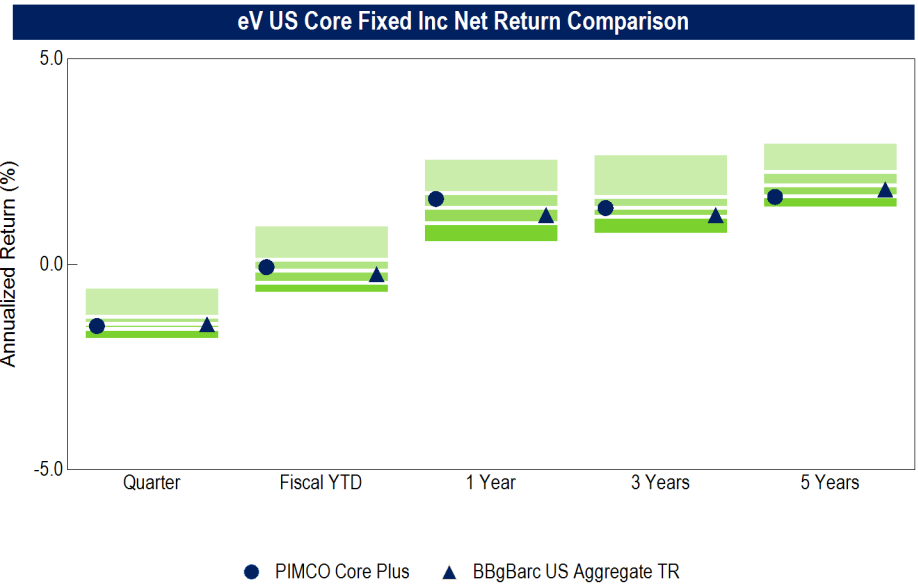
# SSGA BARCLAYS AGGREGATE INDEX

Annualized Excess Performance

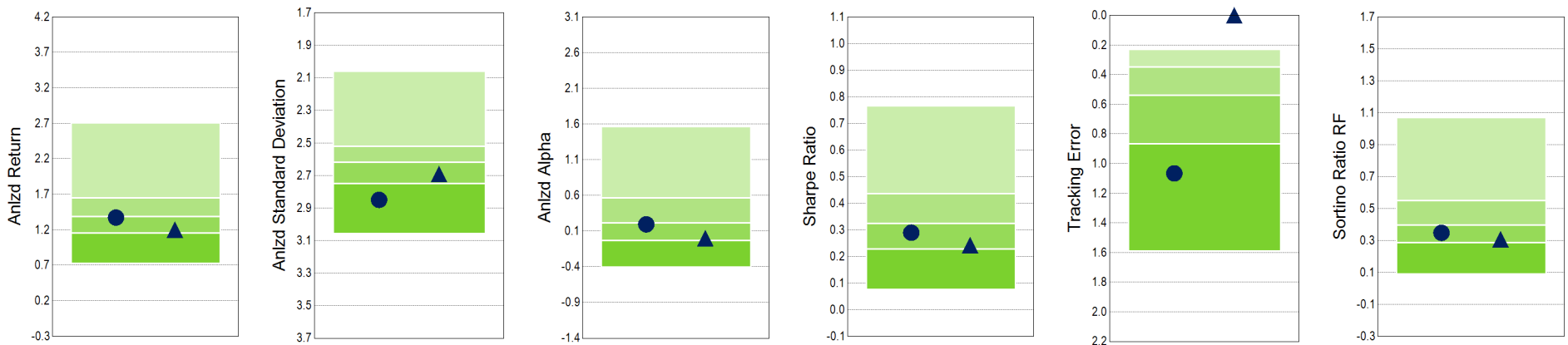


# PIMCO CORE PLUS

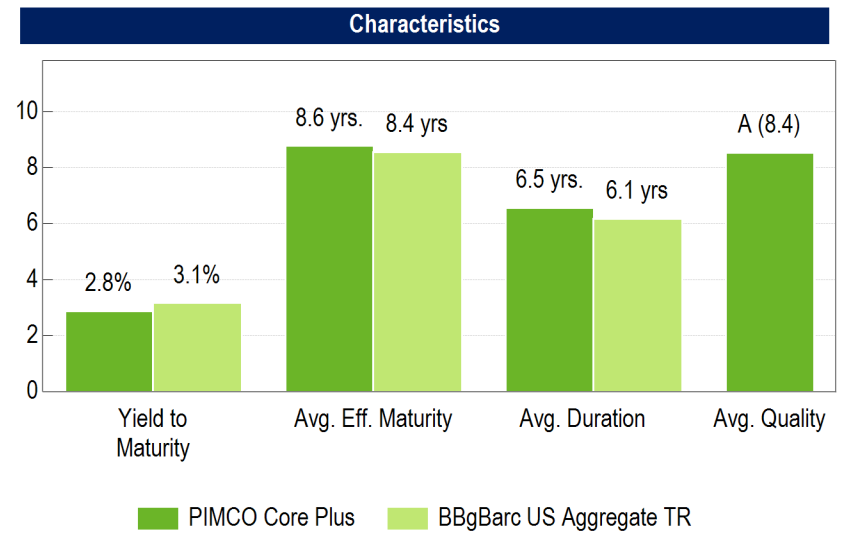
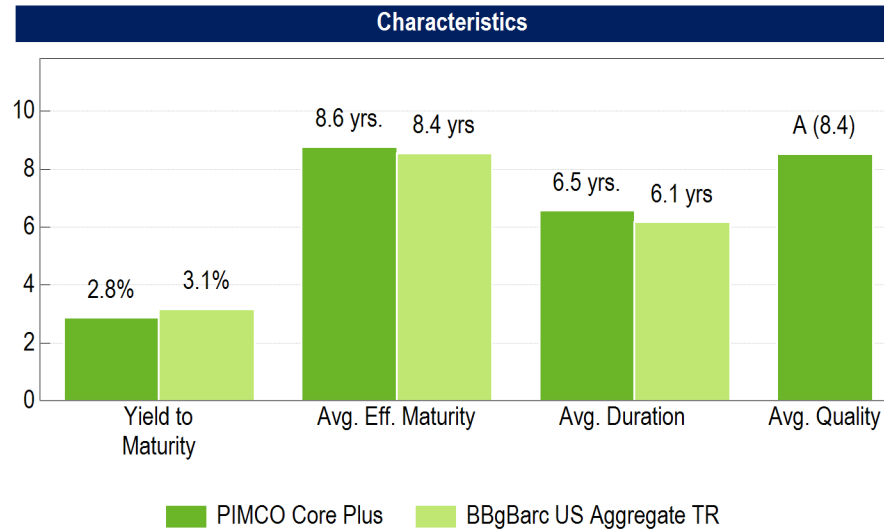
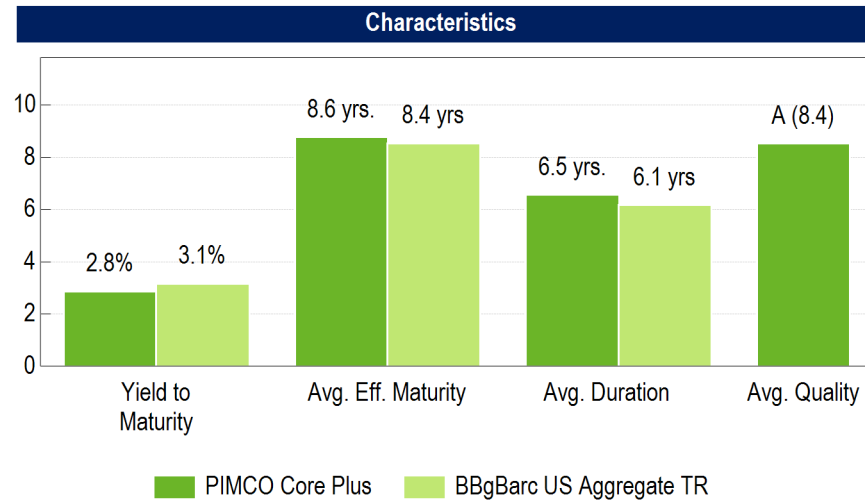
PIMCO's investment process expects to generate above-benchmark returns by building diversified, risk-averse portfolios based upon their long-term secular outlook. This is achieved by analyzing fundamental global trends in such areas as political factors, inflation, volatility, growth, and currency, amongst others. The three to five-year secular outlook is the core element of their decision-making process, and serves as a framework for portfolio implementation. In applying the secular outlook to the portfolio, such tools as duration position, yield curve posture and sector allocation are expressed to best represent the firm's view on the macro-economic environment. Bottom-up analysis of specific securities is also an important part of the firm's philosophy. Bonds are evaluated on a rich/cheap basis and fundamental research determines strong portfolio candidates.



## 3 Year Risk Statistics

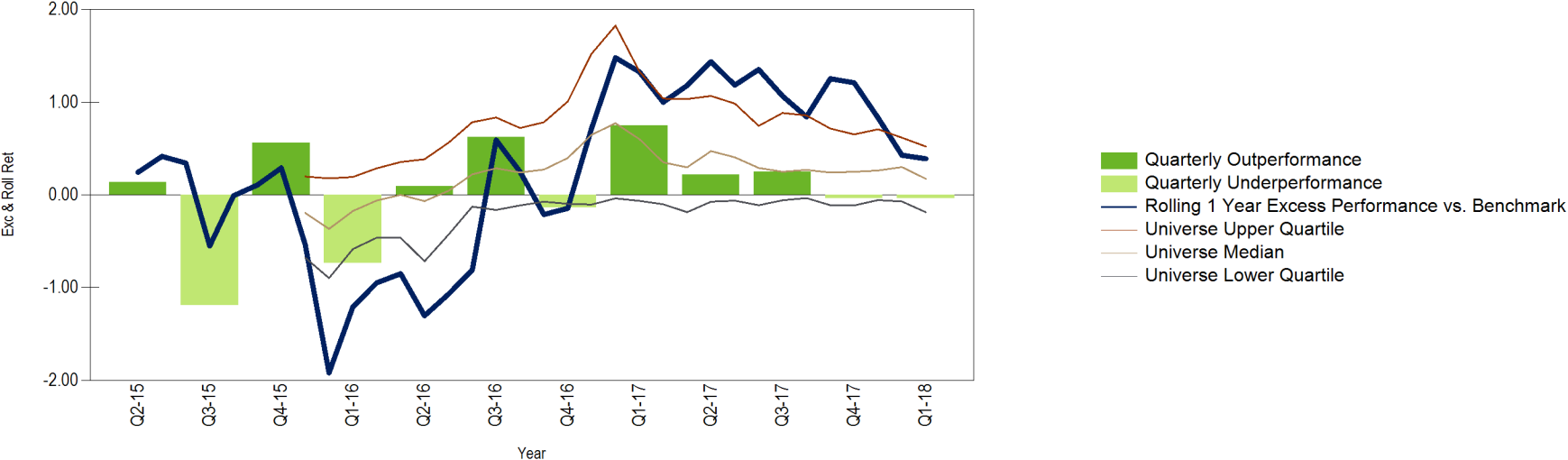


# PIMCO CORE PLUS



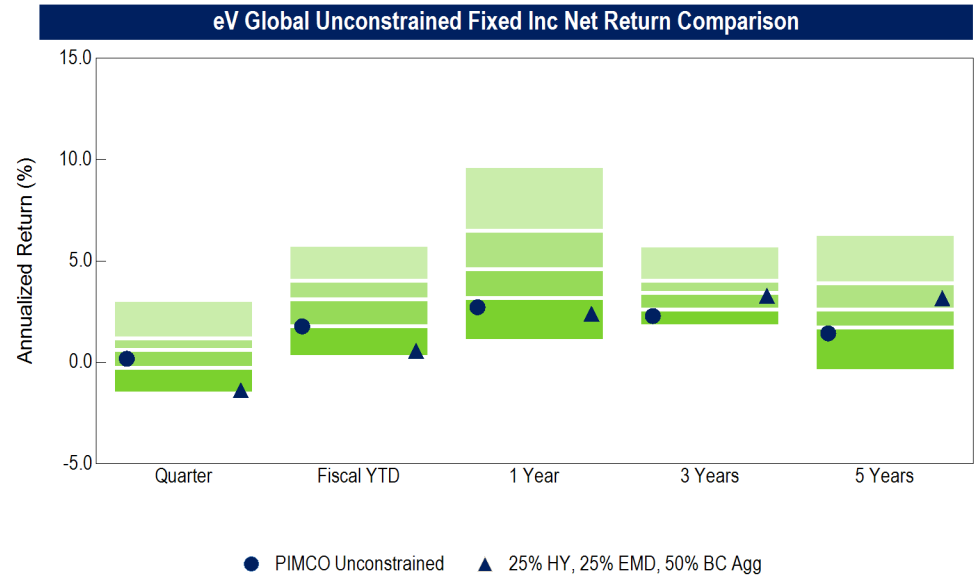
# PIMCO CORE PLUS

Annualized Excess Performance

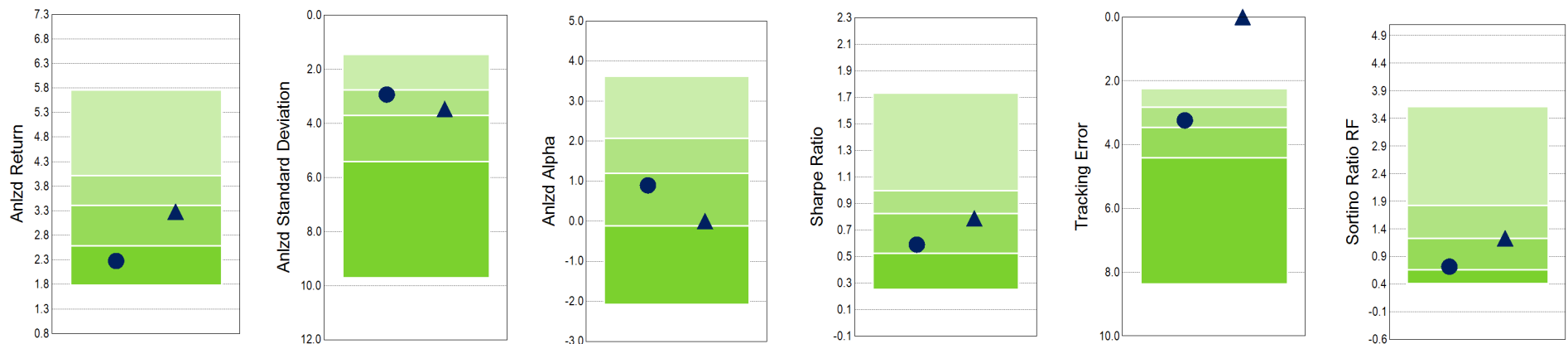


# PIMCO UNCONSTRAINED

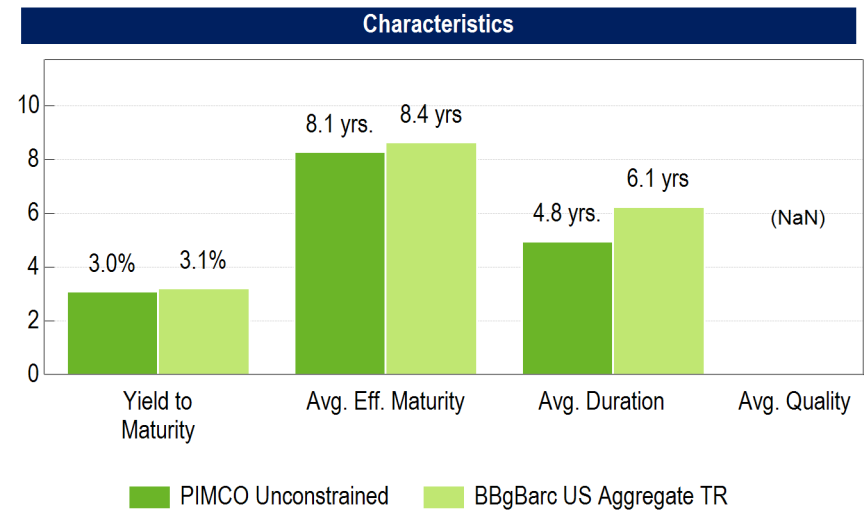
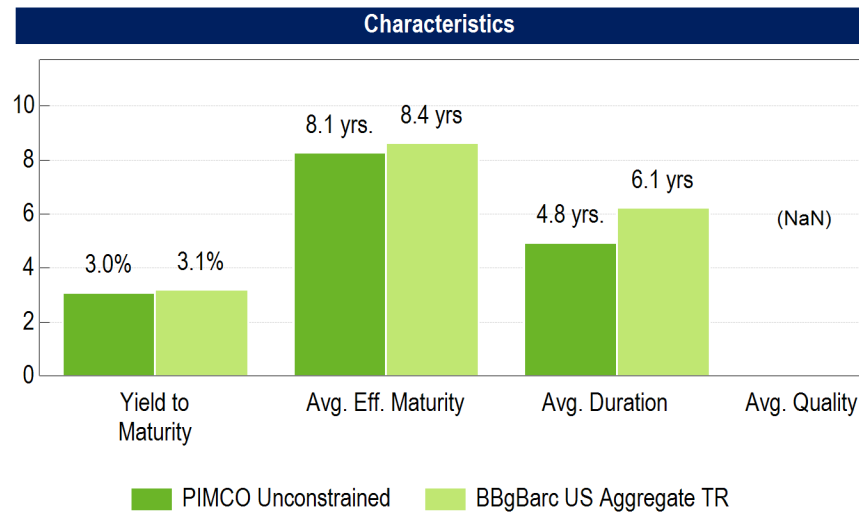
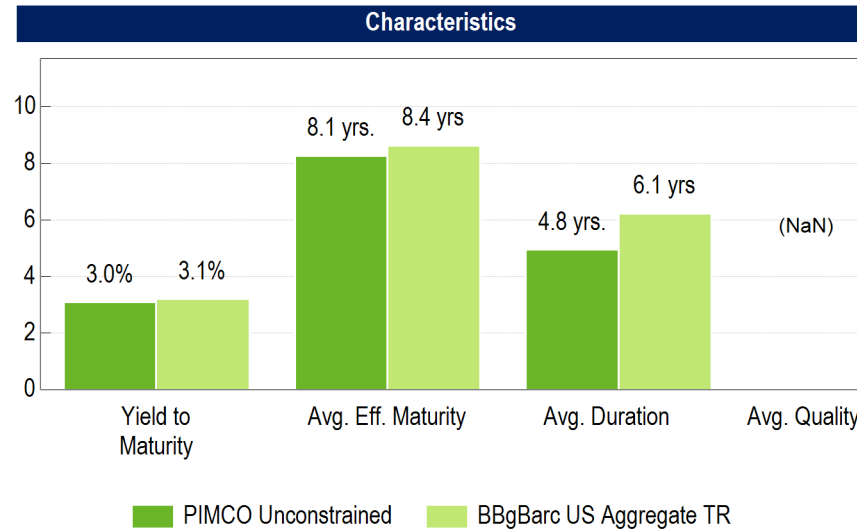
The PIMCO Unconstrained Bond Strategy is an absolute return-oriented, investment grade quality fixed income strategy that embodies PIMCO's secular thinking, global themes, and integrated investment process without the constraints of a benchmark or significant sector/instrument limitations. The strategy is designed to offer the traditional benefits of a core bond portfolio - seeks maximum long-term return consistent with capital preservation and prudent management- but with higher potential alpha and the potential to mitigate downside risk to a greater degree than what is reasonably possible from traditional active fixed income management approaches as the strategy allows for more manager discretion to adjust duration exposure, allocate across sectors and otherwise express the firm's active views. The strategy is governed by PIMCO's investment philosophy and unique, disciplined secular investment process, which focuses on long-term economic, social and political trends that may have lasting impacts on investment returns.



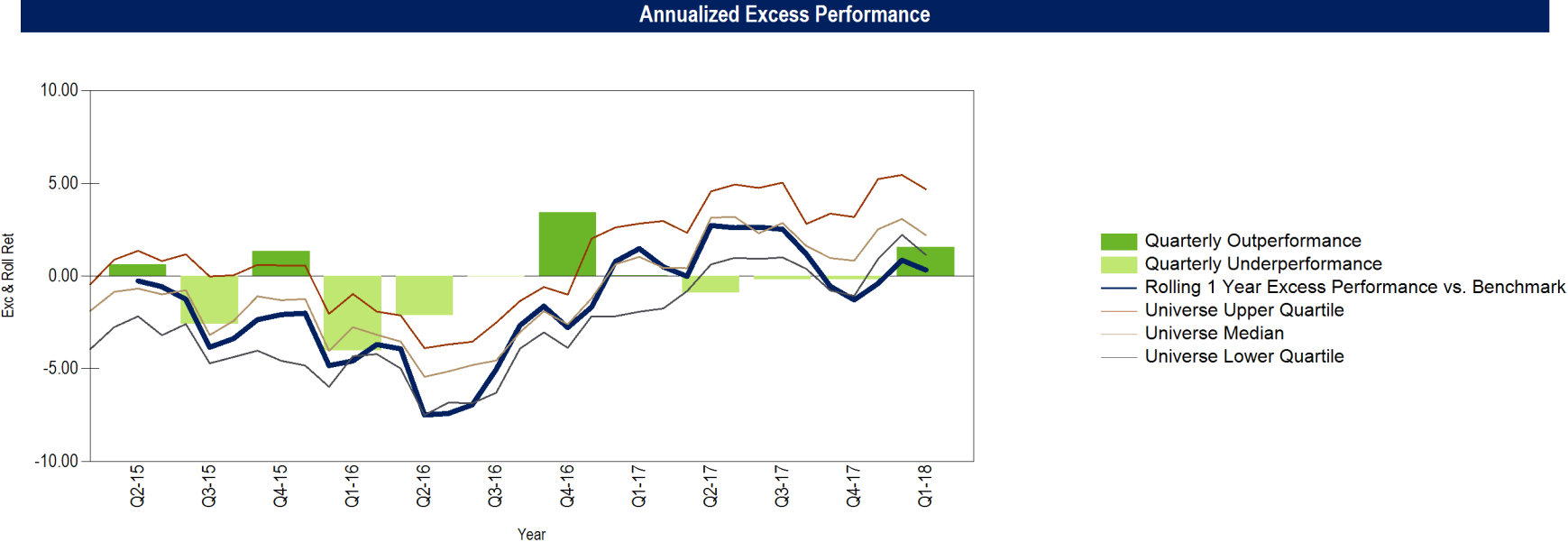
## 3 Year Risk Statistics



# PIMCO UNCONSTRAINED



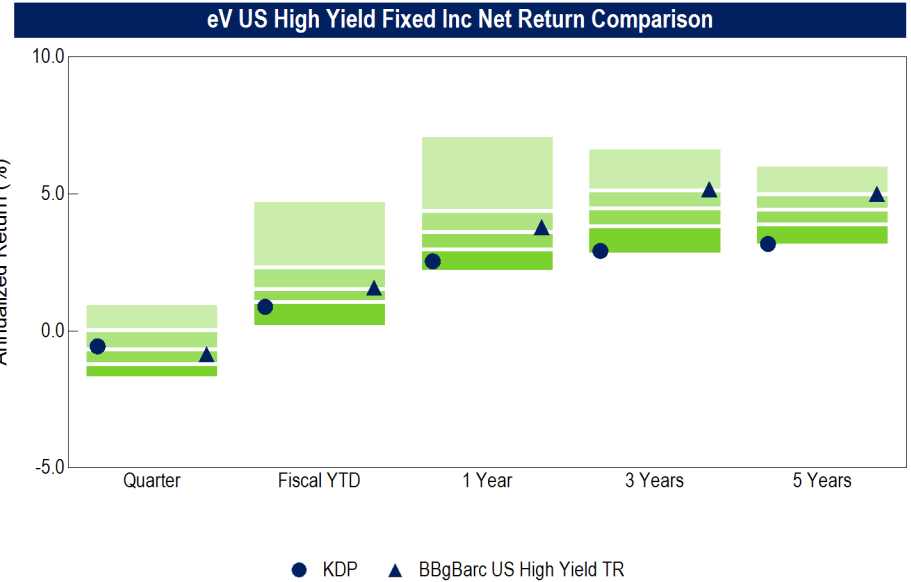
# PIMCO UNCONSTRAINED



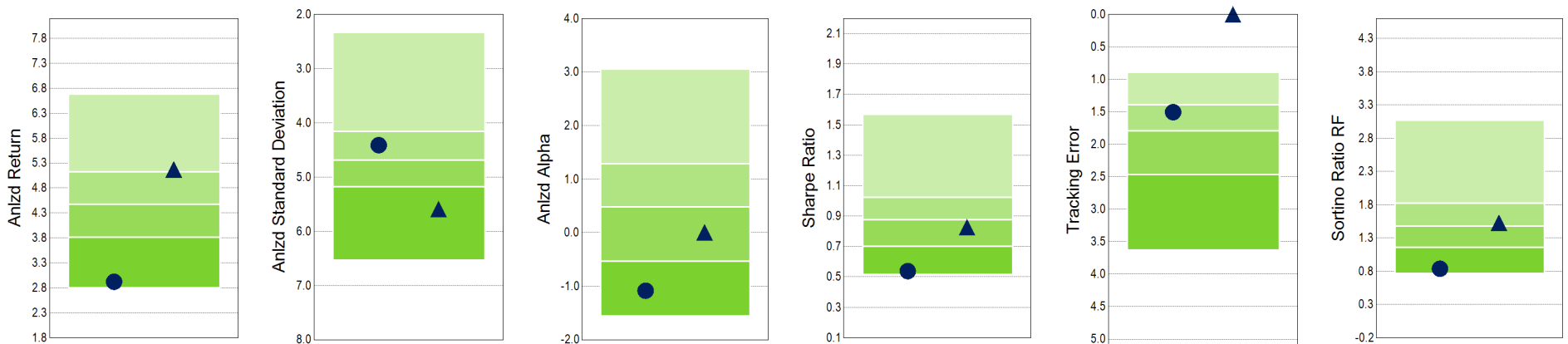


# KDP

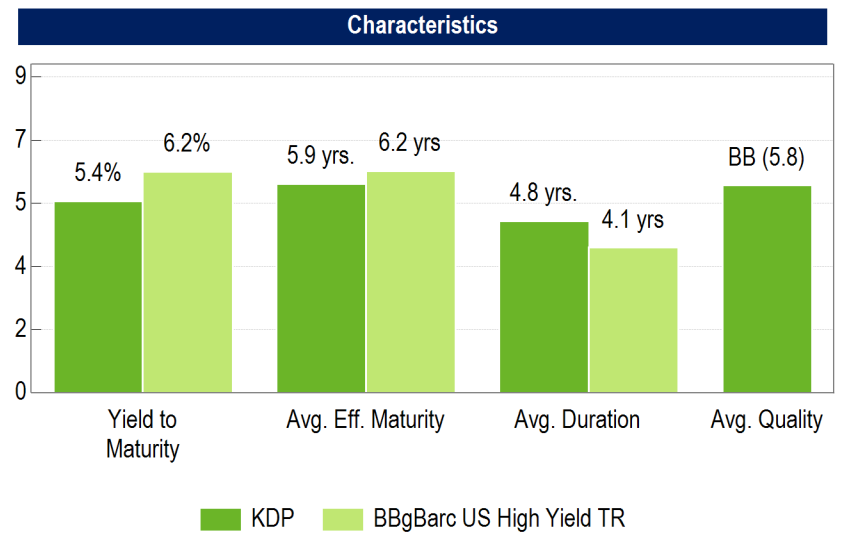
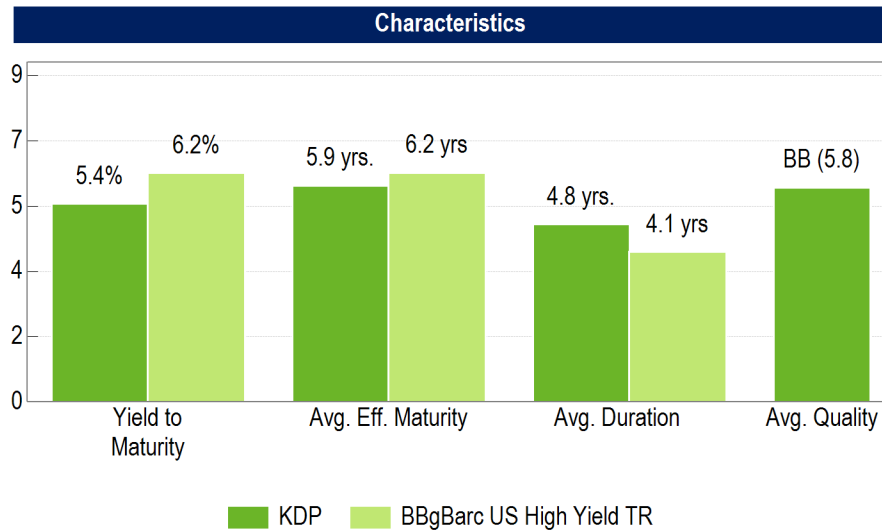
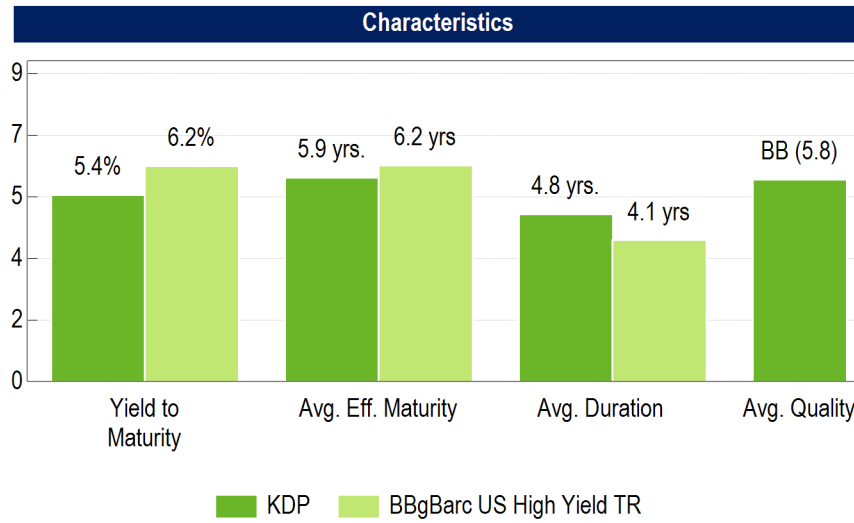
KDP believes that the key to delivering superior risk-adjusted returns lies in controlling credit risk. To do this the firm combines rigorous, bottom-up credit analysis with an active, top-down management approach that ensures a strong overall credit profile and broad portfolio diversification. KDP employs a value-oriented approach to investing that leverages our strong fundamental research capabilities, and seeks to take advantage of market inefficiencies and anomalies on an opportunistic basis in order to capture excess credit spread. KDP places a strong emphasis on issuer, industry and sector diversification, and tends to focus on larger companies, as they tend to be more resilient in times of difficulty and their securities tend to be more liquid. KDP uses a proprietary "Default Risk Ranking (DRR)" System to screen securities eligible for purchase in its portfolios. By assigning default risk probabilities to companies covered, the DRR system is used to identify securities that are overvalued or undervalued relative to the market. The firm minimizes portfolio volatility in part by investing in securities of companies that exhibit greater resilience in times of financial distress. KDP focuses on companies with good management, stable to improving earnings, good balance sheet liquidity and a strong competitive position in industries with favorable underlying fundamentals.



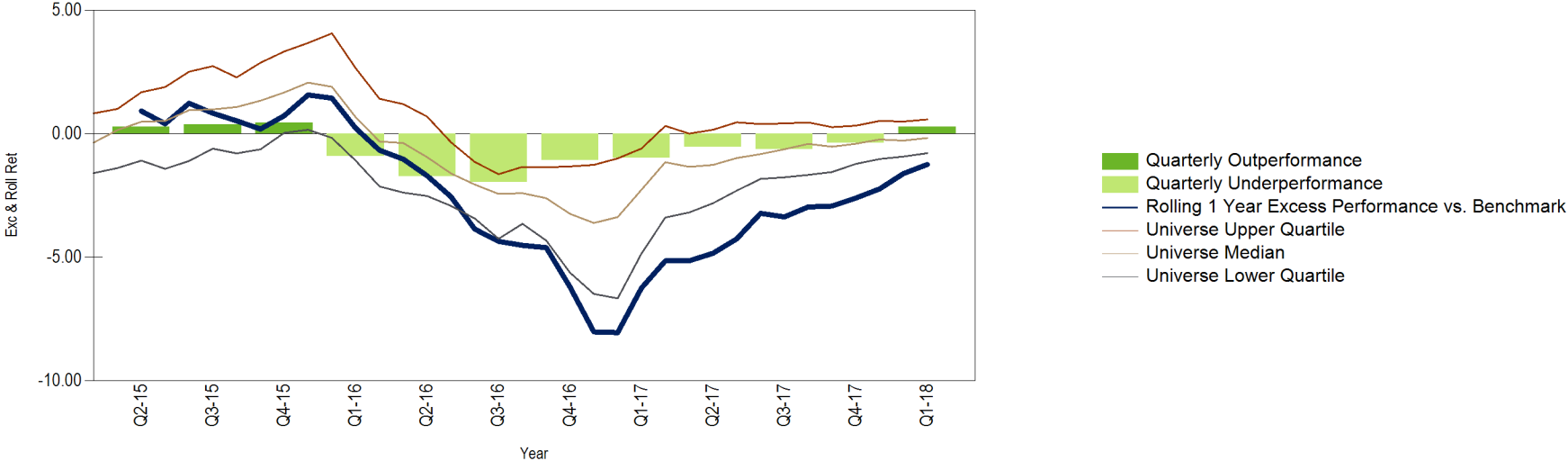
## 3 Year Risk Statistics



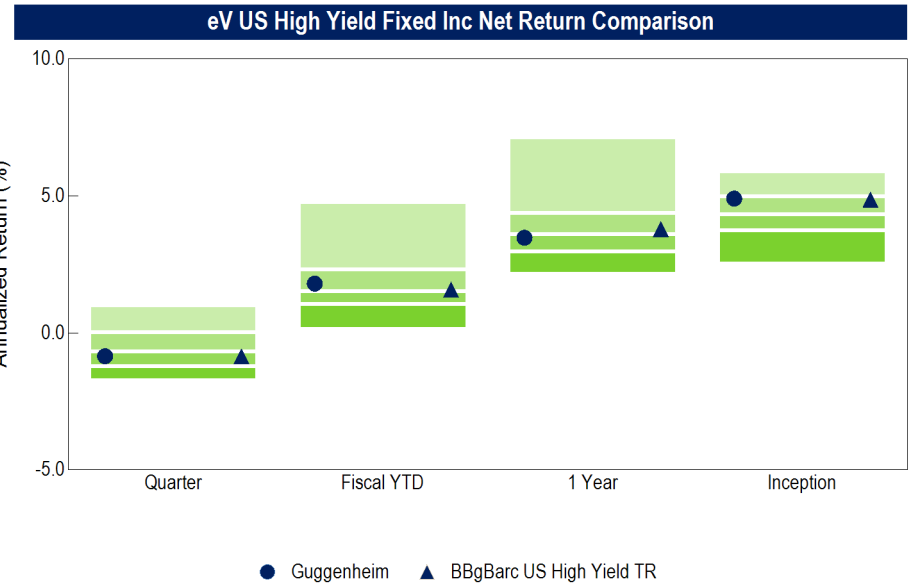
# KDP



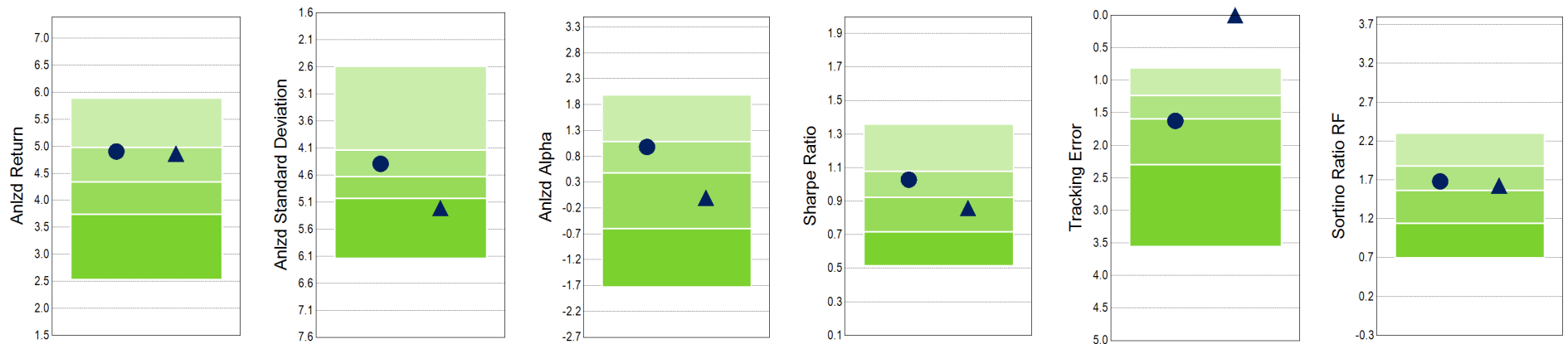
## Annualized Excess Performance



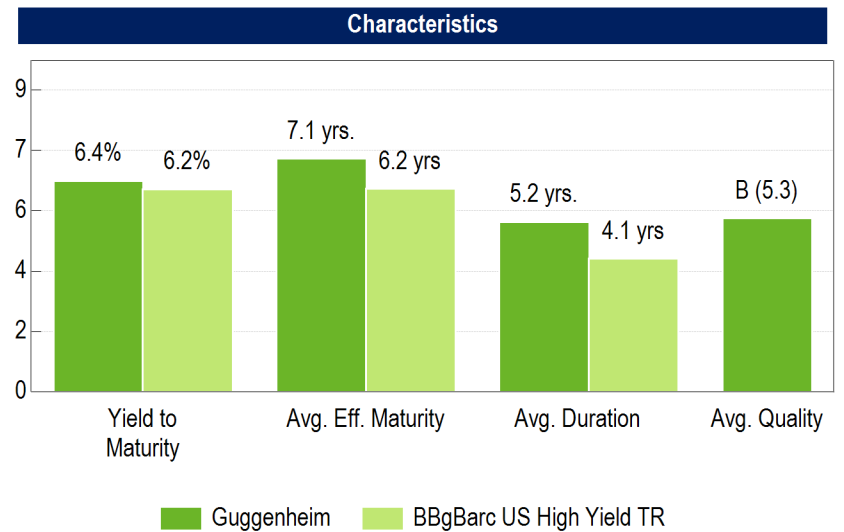
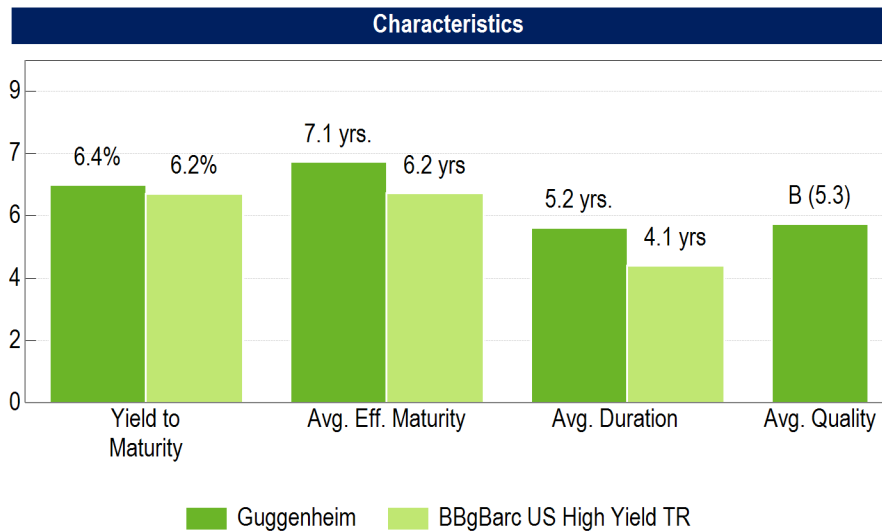
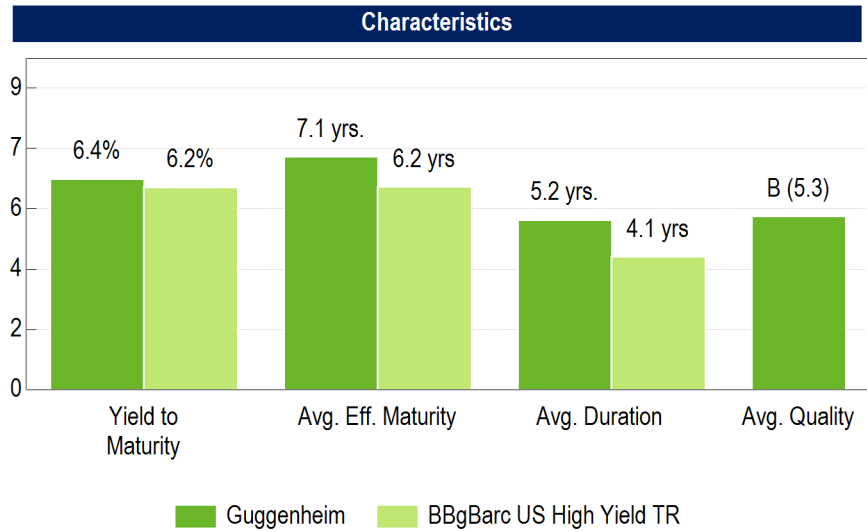
# GUGGENHEIM



### Since Inception Risk Statistics

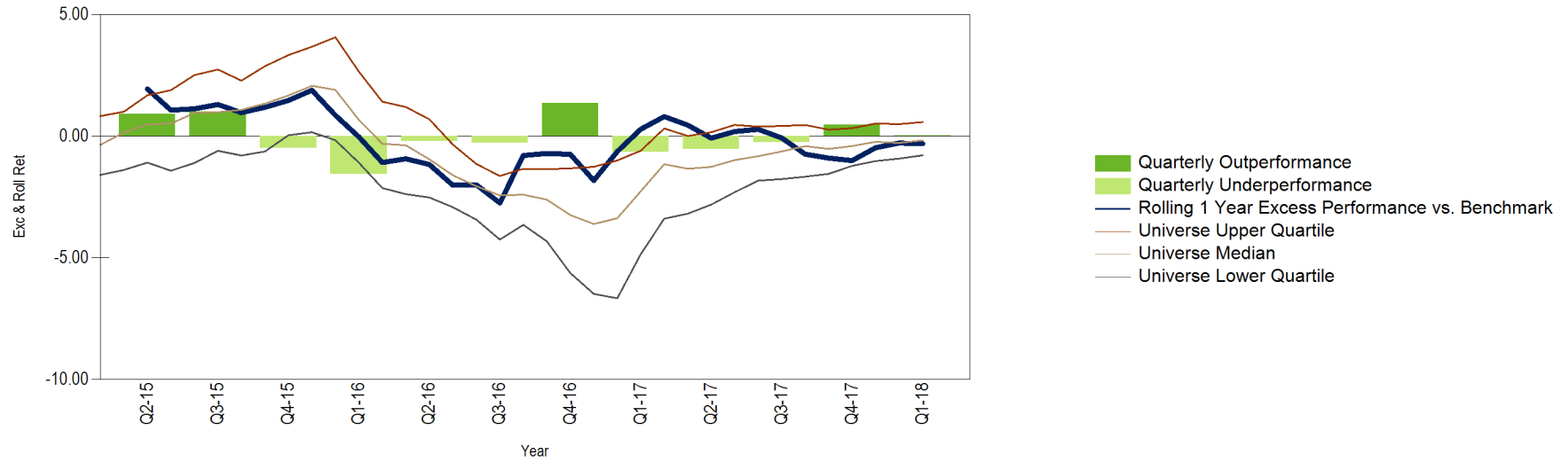


# GUGGENHEIM



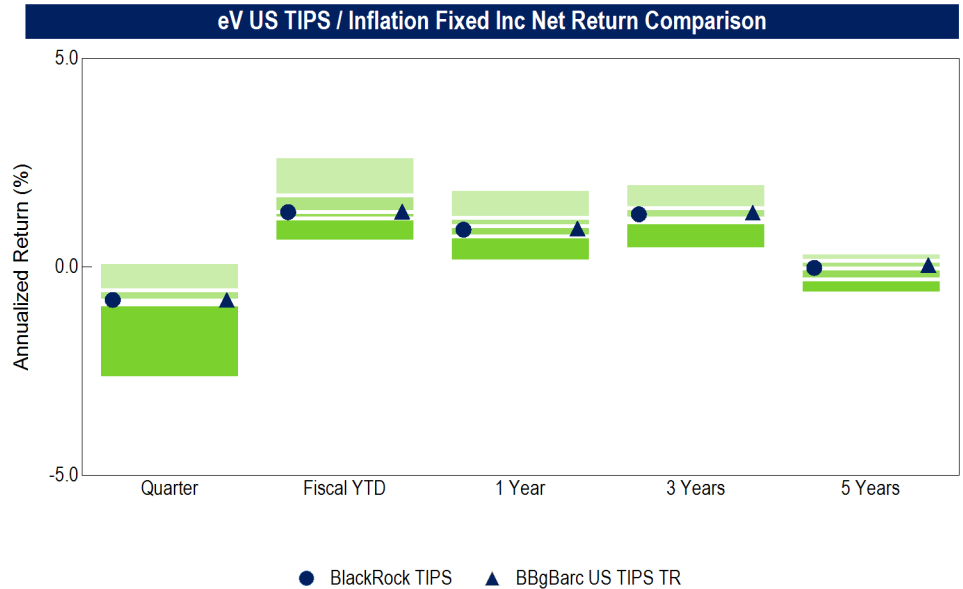
# GUGGENHEIM

## Annualized Excess Performance

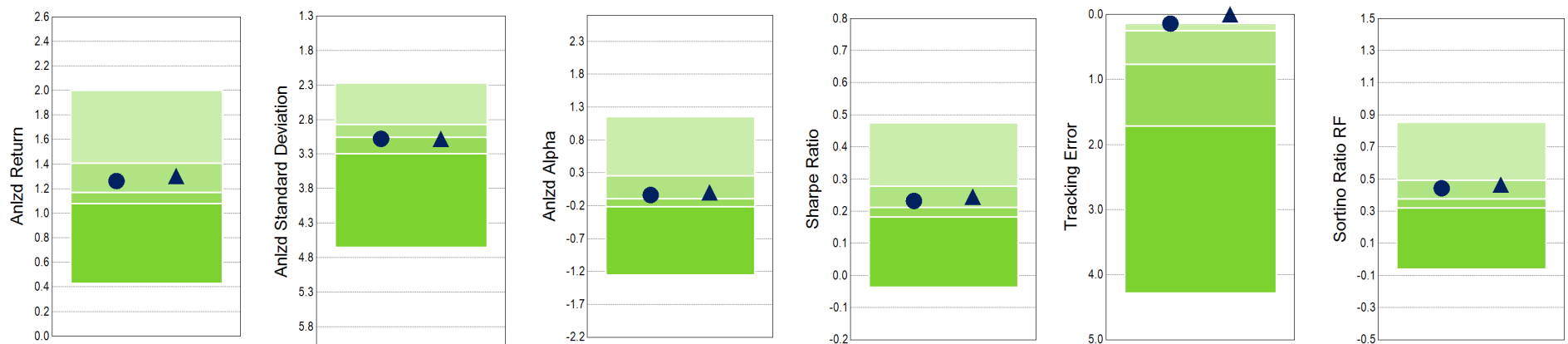


# BLACKROCK TIPS

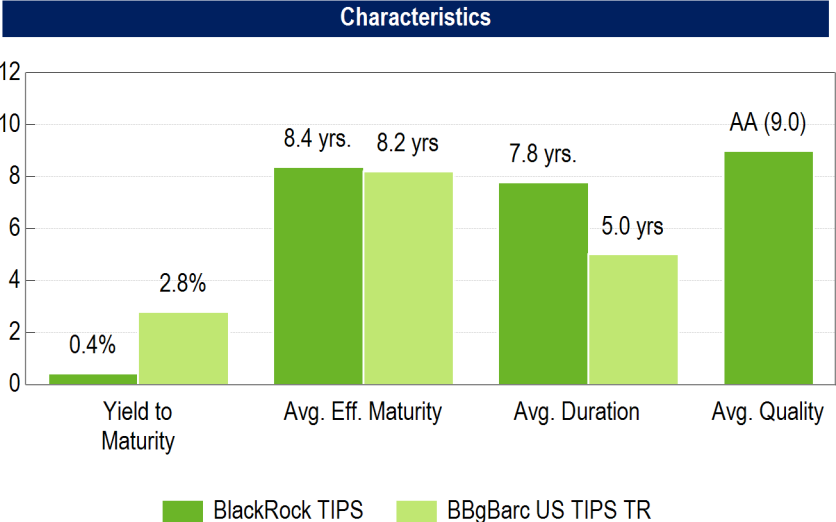
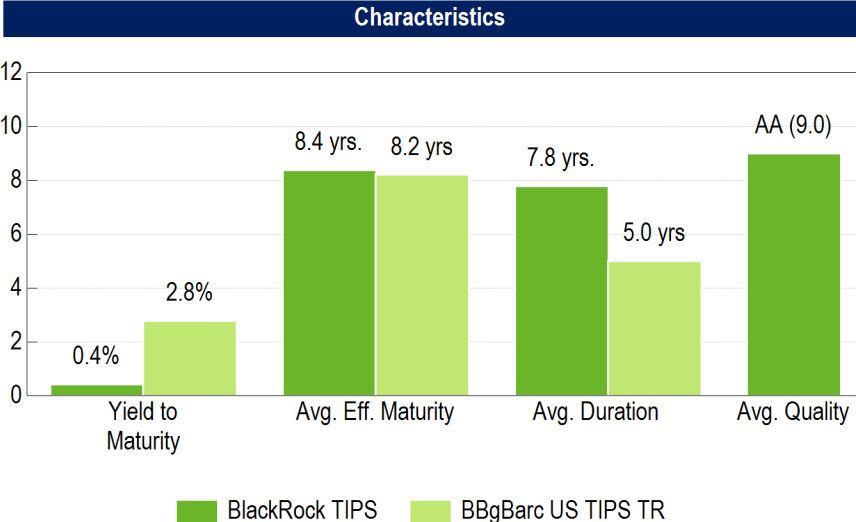
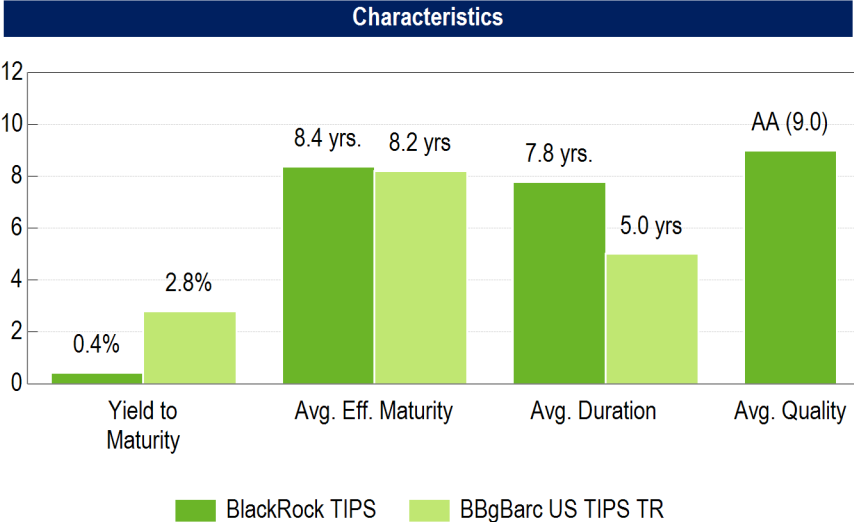
In the management of an inflation-linked bond portfolio, BlackRock will utilize multiple strategies to outperform the index. These include: duration and yield curve positioning, technical supply/demand anomalies related primarily to the ILB auction cycle, seasonal factors related to non-seasonally adjusted inflation-linked indices, break-even spread between ILBs and nominal securities, and, if applicable, sector and country allocation. The team compares nominal yields with real yields and factor in their views on inflation. If the yield spread is less than the inflation rate, then ILBs are considered to trade cheaply to nominal bonds and have greater relative value. The portfolio currently holds about 31 positions, out of 27-29 issues in the benchmark. Turnover is moderate, at around 100-150%.



## 3 Year Risk Statistics



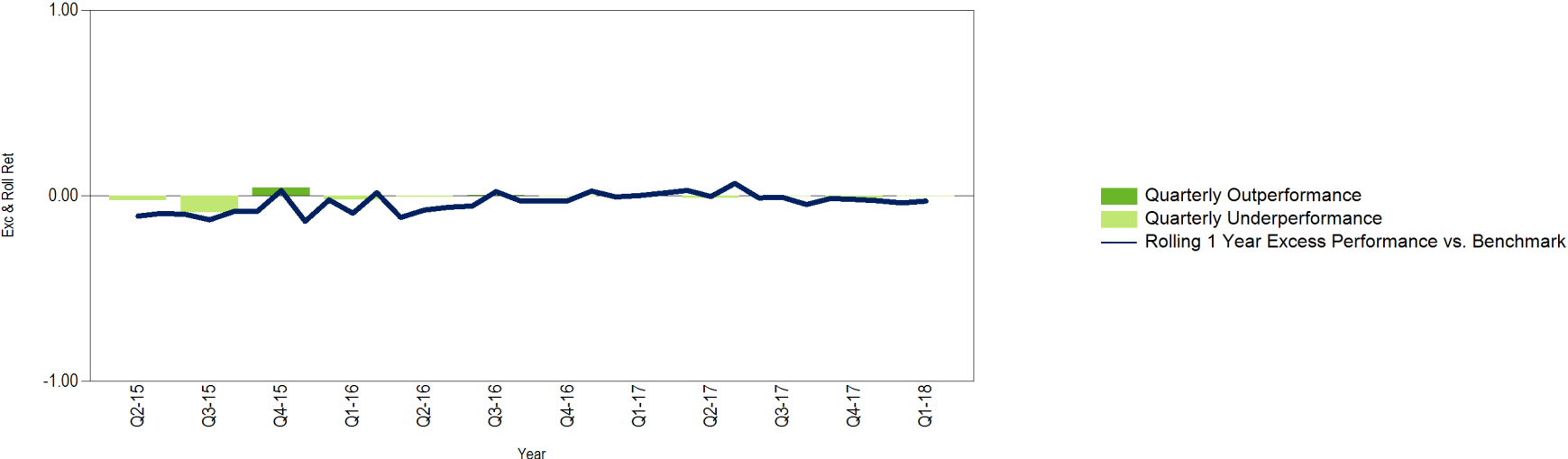
# BLACKROCK TIPS



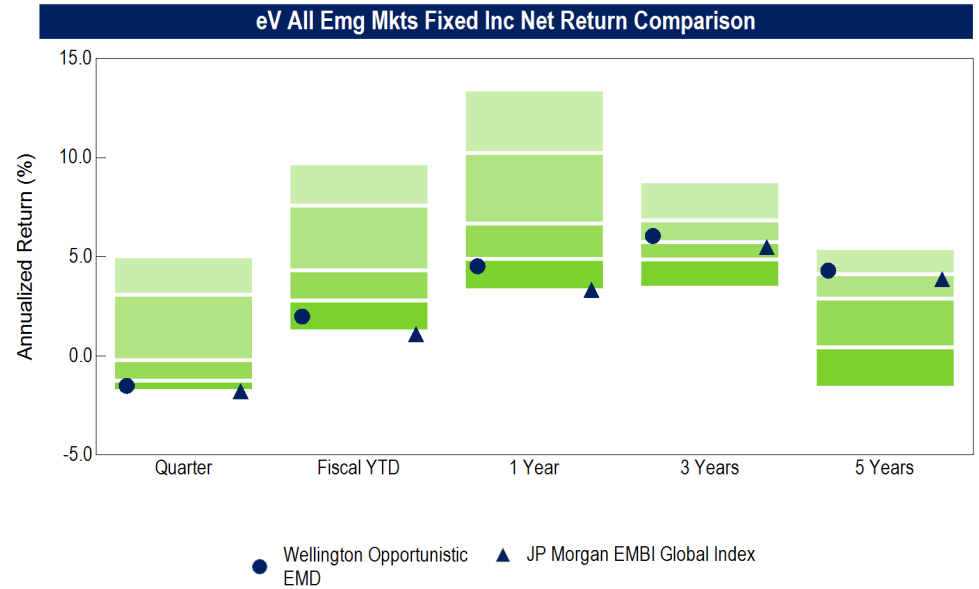


# BLACKROCK TIPS

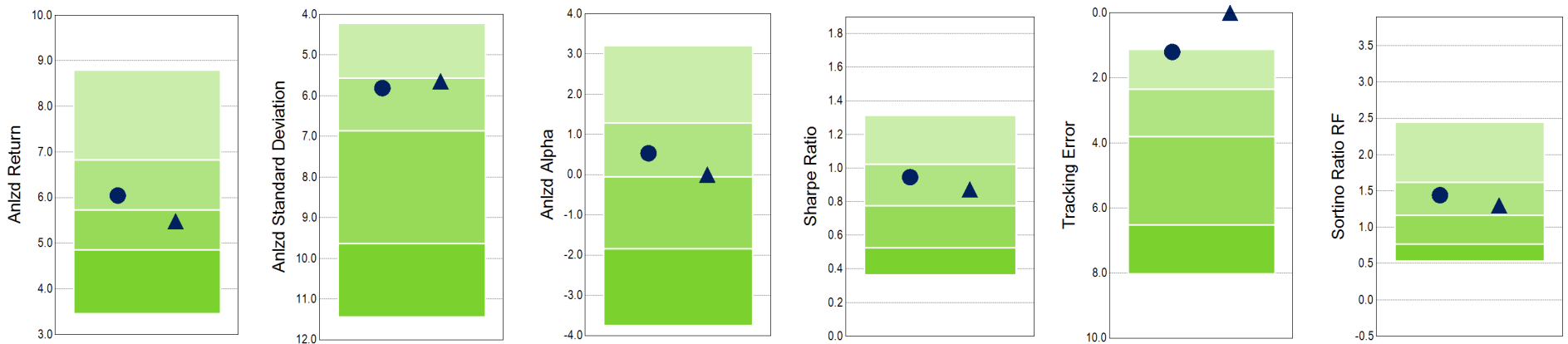
Annualized Excess Performance



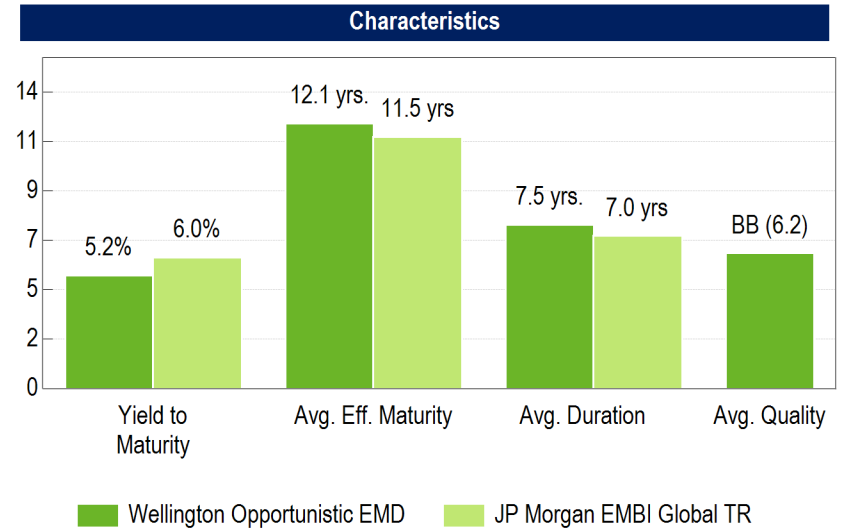
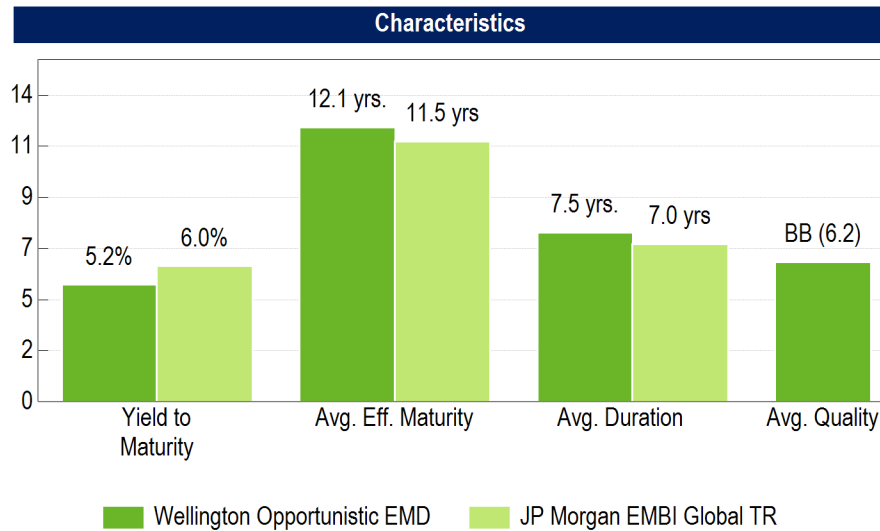
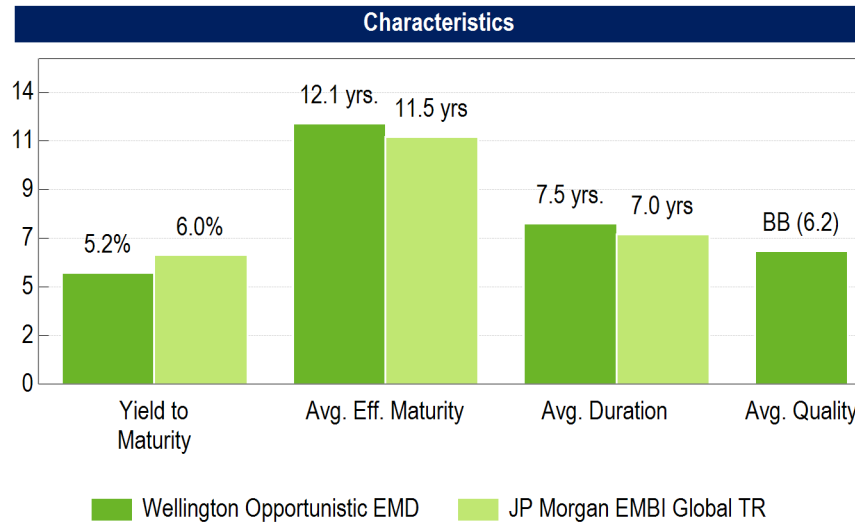
# WELLINGTON OPPORTUNISTIC EMD



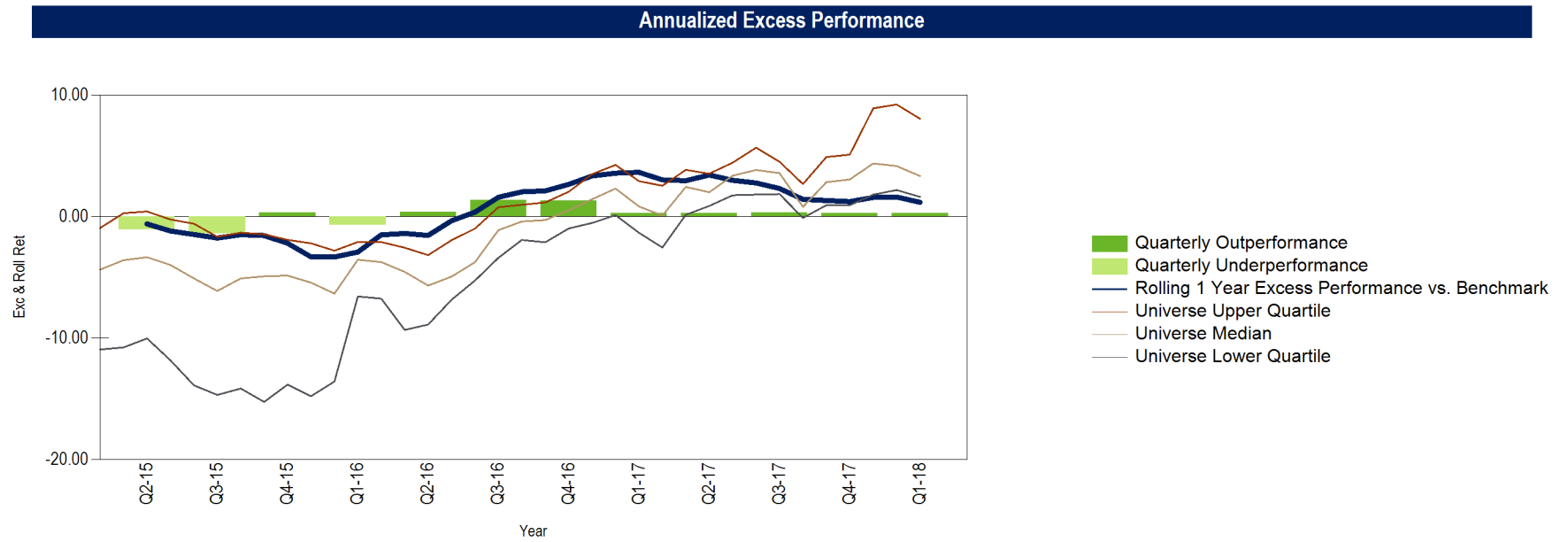
## 3 Year Risk Statistics



# WELLINGTON OPPORTUNISTIC EMD



# WELLINGTON OPPORTUNISTIC EMD



# 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)

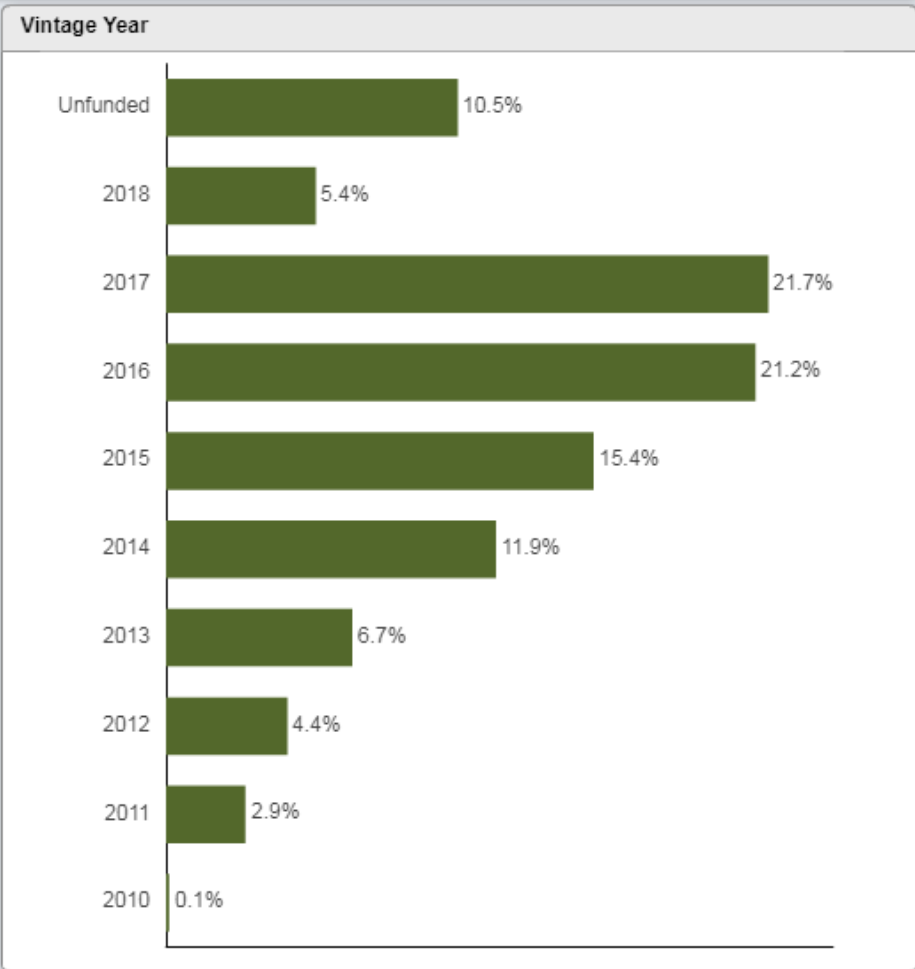
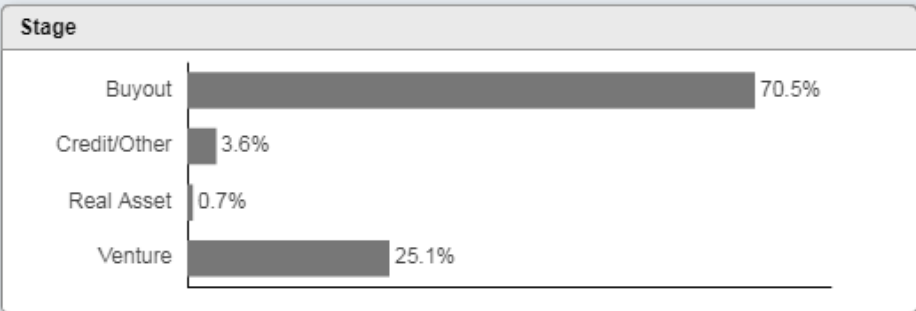
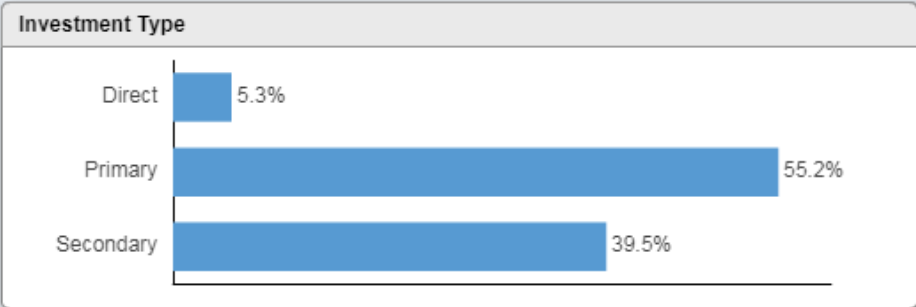
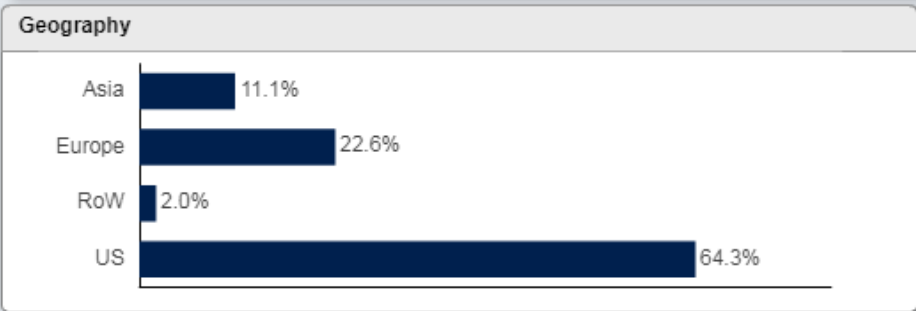
## State of Vermont Performance Analysis

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%	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
<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

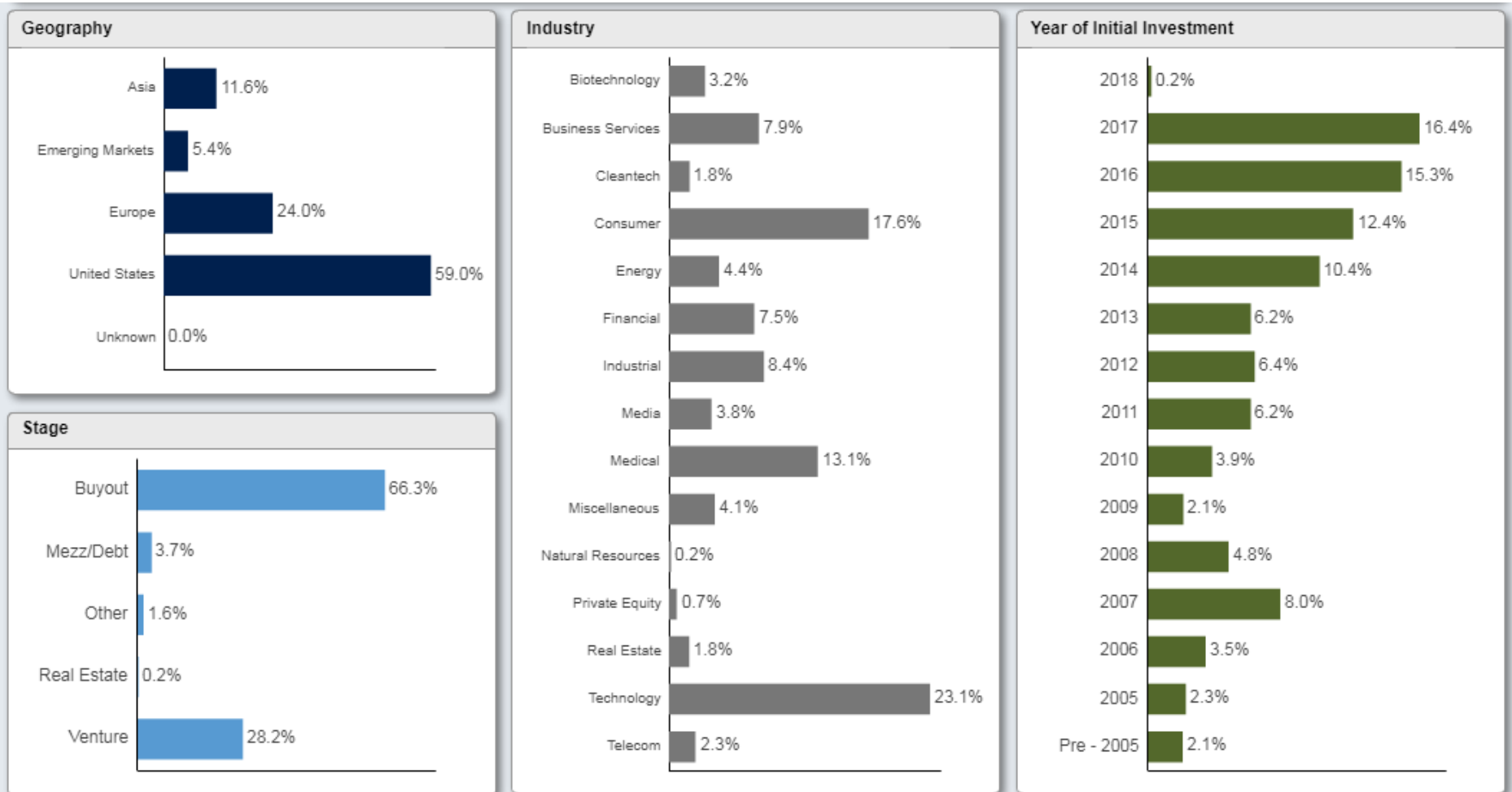


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For questions and additional information, please contact [clientrelations@harbourvest.com](mailto:clientrelations@harbourvest.com).



# 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
<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 Eq 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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- **Past performance is no guarantee of future results.**
- **The goal of this report is to provide a basis for monitoring financial markets. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
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