



**RVK**

# Quarterly Investment Performance Analysis

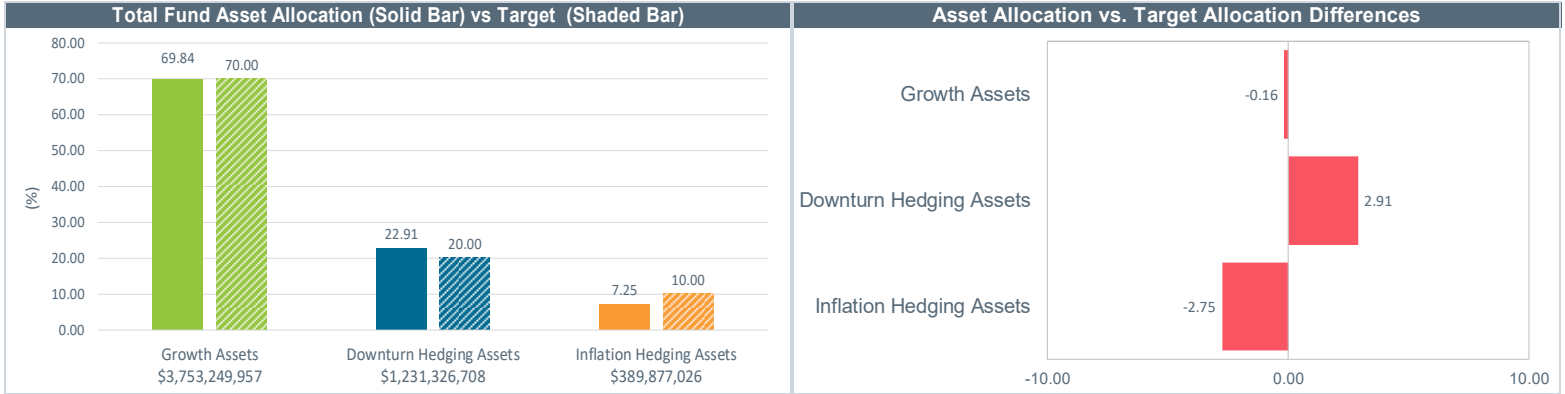
Vermont Pension Investment Committee

Period Ended: March 31, 2021



**Vermont Pension Investment Committee  
Total Fund Dashboard Summary**

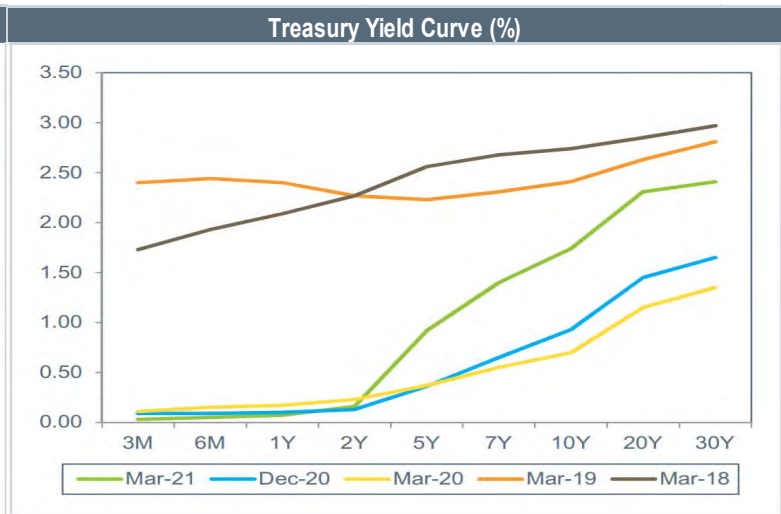
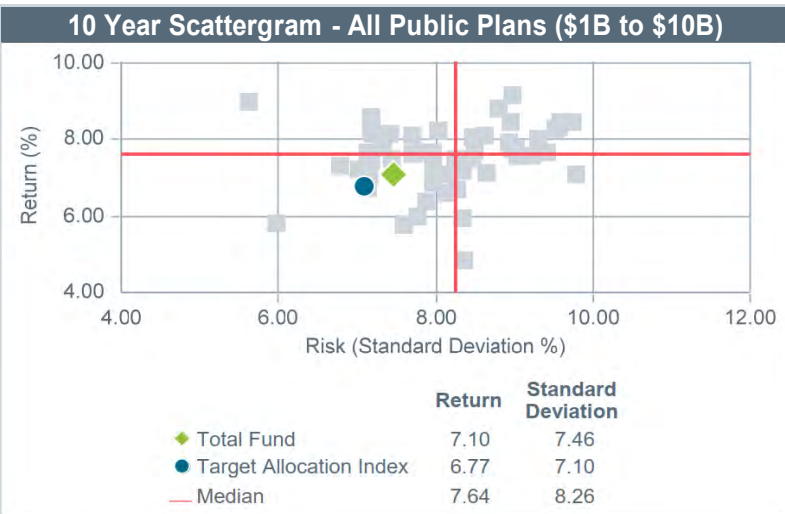
As of March 31, 2021



Period Ending Quarter	Beginning Market Value	+ Net Cash Flow	+ Gain/Loss	= Ending Market Value	% Return
	5,327,535,458	-53,638,881	100,557,113	5,374,453,690	1.90

	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Incep. Date
<b>Total Fund</b>	1.90	1.90	29.48	9.08	9.69	7.10	6.01	13.16	6.40	7/1/2005
Target Allocation Index	1.88	1.88	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference	0.02	0.02	0.45	0.04	0.49	0.33	-0.03	0.65	-0.03	

	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Incep. Date
<b>Growth Assets</b>	4.14	4.14	-	-	-	-	-	-	16.90	9/1/2020
MSCI ACW IM Index (USD) (Net)	5.14	5.14	57.58	11.90	13.21	9.15	7.16	16.25	17.87	
Difference	-1.00	-1.00	-	-	-	-	-	-	-0.97	
<b>Downturn Hedging Assets</b>	-3.43	-3.43	-	-	-	-	-	-	-2.68	9/1/2020
Bloomberg US Agg Bond Index	-3.38	-3.38	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference	-0.05	-0.05	-	-	-	-	-	-	0.10	
<b>Inflation Hedging Assets</b>	-1.63	-1.63	-	-	-	-	-	-	-1.33	9/1/2020
Consumer Price Index+2.5%	2.32	2.32	5.19	4.56	4.71	4.26	4.44	3.90	3.39	
Difference	-3.95	-3.95	-	-	-	-	-	-	-4.72	



Performance is shown net of fees. Allocations may not sum up to 100% exactly due to rounding.



# 2020 Greenwich *Quality Leader* Award

Coalition Greenwich recently announced that RVK is 1 of 3 firms among large US consultants to receive the 2020 Greenwich *Quality Leader* award.\* RVK is proud to receive this recognition for the 4<sup>th</sup> consecutive year.

**RVK ranked first (or tied for first) in 11 out of 14 key criteria:**

- Advice on Long-term Asset Allocation (#1)
- Communication of Philosophy and Beliefs (#1)
- Proactive Advice and Innovative Ideas (#1)
- Usefulness of Written Investment Reviews (#1)
- Client Satisfaction with Manager Recommendations (#1)
- Responsiveness to Client Requests (#1)
- Sufficient Professional Resources to Meet Client Needs (#1)
- Reasonable Fees Relative to Services Delivered (#1)
- Timeliness in Providing Written Info/Reports (#1)
- Advice on DC Plan Structure and Design (tied for #1)
- Usefulness of Personal Meetings (tied for #1)



***We are deeply grateful for your continued confidence and support.  
From all of us here at RVK, thank you for the opportunity to serve you!***

\*Between July and October 2020, Coalition Greenwich (formerly known as Greenwich Associates) conducted in-person and phone interviews and online surveys with 856 individuals at 704 of the largest tax-exempt funds in the US—including corporate and union funds, public funds, endowments and foundations, insurance general accounts, and healthcare organizations, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset managers and investment consultants, including qualitative assessments of those firms soliciting their business and detailed information on important market trends. RVK is one of three firms recognized in the large investment consultant category. The ratings may not be representative of any one client's experience with RVK; rather they are representative of those clients that chose to participate in the survey. The results are not indicative of RVK's future performance.

To read the Greenwich press release, please refer to the following URL: <https://www.greenwich.com/press-release/covid-19-crisis-put-investment-consultant-advisory-capabilities-test>

**First Quarter Economic Environment**

Investor expectations for a swift global economic recovery rose with the progress of vaccination distribution in the US being a key catalyst. The passage of further fiscal support in the US and anticipation of a bill more focused on infrastructure spending also factored into rising global and US GDP growth forecasts for 2021-22. Monetary policies remained supportive with the Federal Open Markets Committee (FOMC) and other major central banks maintaining interest rate levels near or below zero. In addition, the FOMC reiterated a commitment to accommodative policies until its inflation target is reached and a stronger labor market is sustained. As investors digested the potential for higher future growth and inflation, long-term bond yields moved higher throughout Q1. However, potential drags on sustained economic growth, including newer variants of the coronavirus and the prospect of rising inflationary pressures, remain as risks to the ongoing recovery. Another headwind to the recovery is the lower vaccination rates reported in other developed countries and some emerging market countries making parts of the world more susceptible to further outbreaks. With this backdrop, risk assets delivered positive returns in Q1 with most fixed income groups experiencing negative returns as longer-dated Treasury yields moved higher. Most commodity prices rose during Q1, notably crude oil appreciated quickly, partially driven by a tanker blocking passage of the Suez Canal in March.

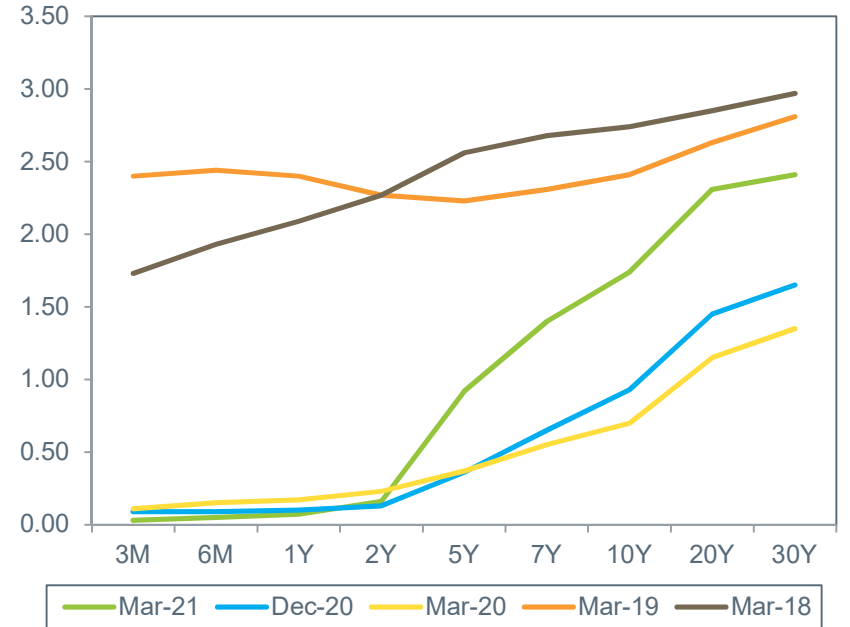
**Key Economic Indicators**



Economic Indicators	Mar-21	Dec-20	Mar-20	Mar-18	20 Yr
Federal Funds Rate (%)	0.06 ▼	0.09	0.08	1.68	1.42
Breakeven Infl. - 5 Yr (%)	2.60 ▲	1.97	0.53	2.04	1.83
Breakeven Infl. - 10 Yr (%)	2.37 ▲	1.99	0.93	2.06	2.01
CPI YoY (Headline) (%)	2.6 ▲	1.4	1.5	2.4	2.1
Unemployment Rate (%)	6.0 ▼	6.7	4.4	4.0	6.1
Real GDP YoY (%)	0.4 ▲	-2.4	0.3	3.1	1.7
PMI - Manufacturing	64.7 ▲	60.5	49.7	59.2	52.9
USD Total Wtd Idx	114.13 ▲	111.55	122.82	107.67	103.22
WTI Crude Oil per Barrel (\$)	59.2 ▲	48.5	20.5	64.9	62.7
Gold Spot per Oz (\$)	1,708 ▼	1,898	1,577	1,326	1,028

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	6.17	6.17	56.35	16.29	13.91
Russell 2000	12.70	12.70	94.85	16.35	11.68
MSCI EAFE (Net)	3.48	3.48	44.57	8.85	5.52
MSCI EAFE SC (Net)	4.50	4.50	61.98	10.50	8.01
MSCI Emg Mkts (Net)	2.29	2.29	58.39	12.07	3.65
Bloomberg US Agg Bond	-3.38	-3.38	0.71	3.10	3.44
ICE BofAML 3 Mo US T-Bill	0.02	0.02	0.12	1.19	0.63
NCREIF ODCE (Gross)	2.09	2.09	2.30	6.19	9.67
FTSE NAREIT Eq REIT (TR)	8.87	8.87	37.78	5.33	8.56
HFRI FOF Comp	1.87	1.87	23.83	5.61	3.42
Bloomberg Cmdty (TR)	6.92	6.92	35.04	2.31	-6.28

**Treasury Yield Curve (%)**





First Quarter Review

**Broad Market**

US equity markets opened 2021 with solid performance in Q1, driven by the passage of the \$1.9 trillion American Recovery Plan and hopes for a full reopening of the US economy with an ahead of schedule vaccine rollout. After poor performance at the start of Q1, the S&P 500 Index bounced back to finish the quarter up 6.2%.

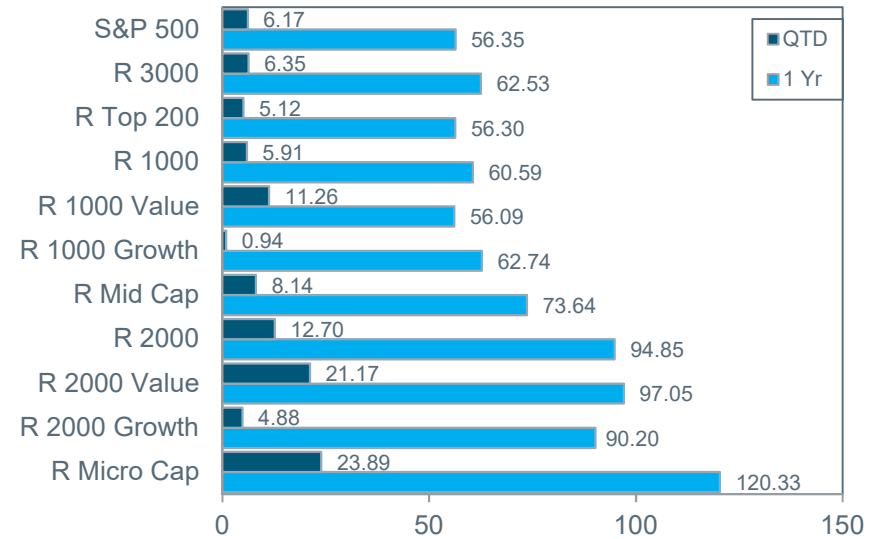
**Market Cap**

Small-cap stocks significantly outperformed their larger-cap counterparts. The Russell 2000 Index returned 12.7% compared to 6.2% for the S&P 500.

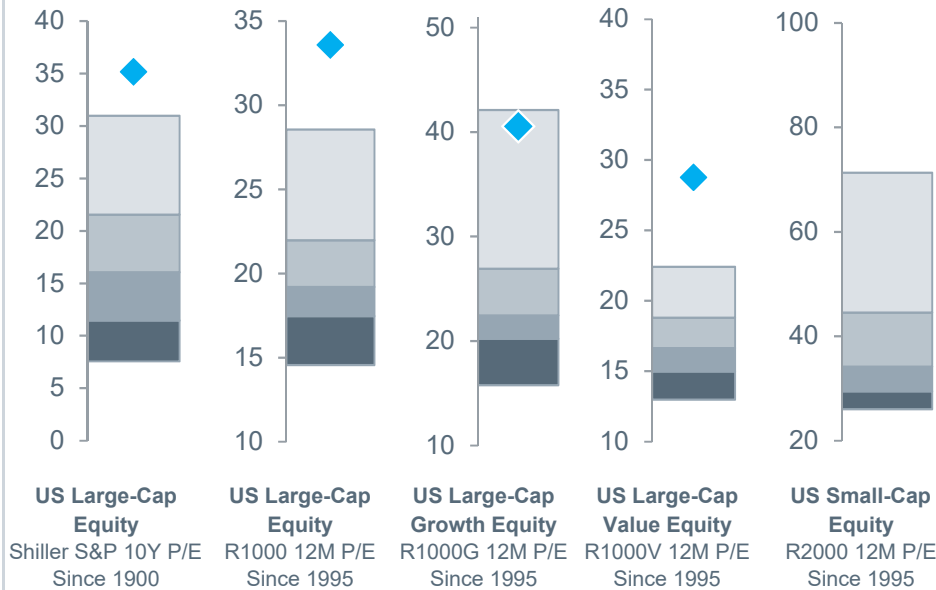
**Style and Sector**

Value continued to outperform growth, to a much greater extent than in Q4 2020, across the market capitalization spectrum. The Russell 1000 Value Index returned 11.2% in Q1, versus 0.9% for the Russell 1000 Growth Index.

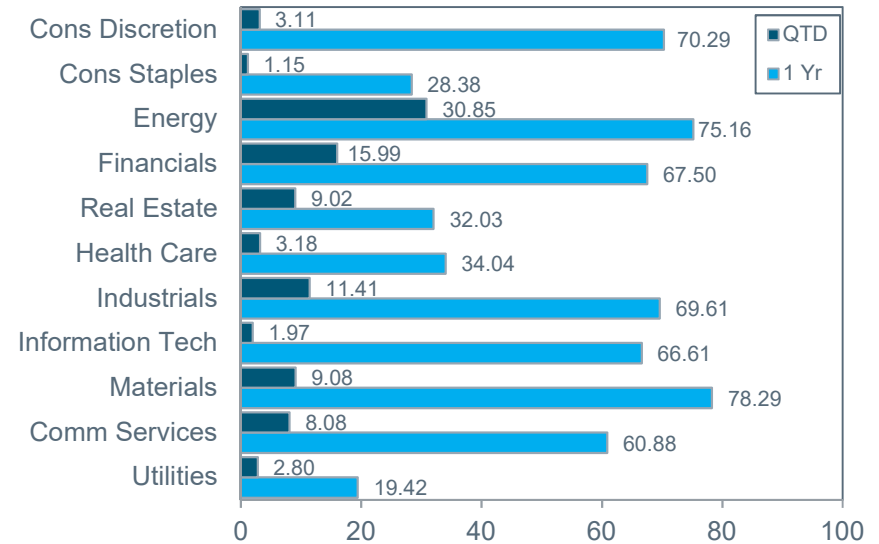
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. Current R2000 P/E is unavailable due to negative earnings per share as of 03/31



**First Quarter Review**

**Developed Markets**

Developed international equity lagged the US market in Q1, but did provide positive absolute returns. The rotation into value stocks continued in Q1 with growth stocks finishing in negative territory and small-cap stocks outperforming large. Median manager performance indicates that active management delivered mixed results amid the positive market returns in Q1.

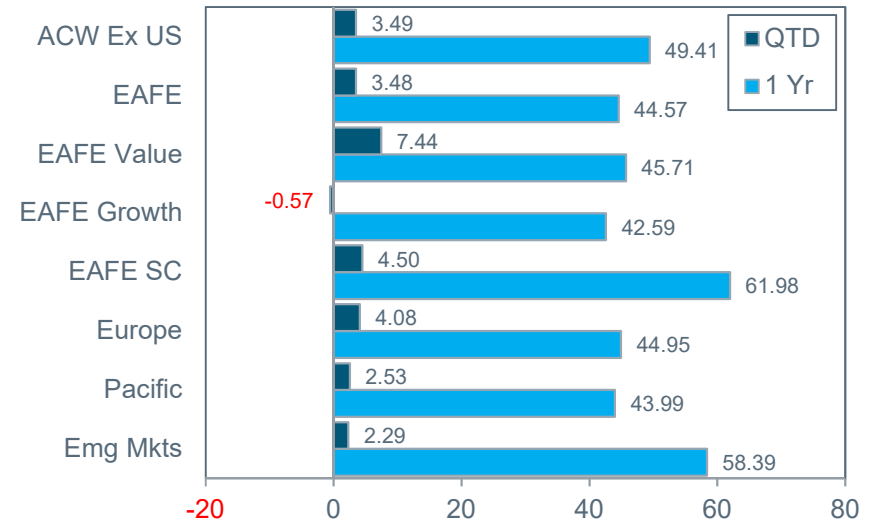
**Emerging Markets**

Emerging markets ended Q1 with positive returns, but underperformed developed markets. Value stocks outperformed growth and small cap outperformed large, but the spreads between these groups were not as significant as in developed international markets. Active management continued to add value this quarter and universe median excess returns indicate significant alpha has been produced in the last twelve months.

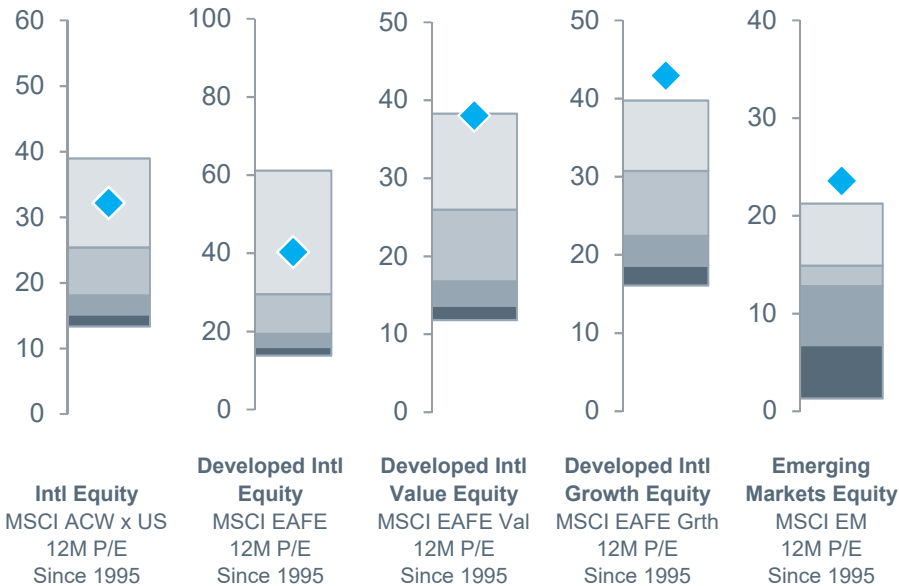
**Market Cap & Style**

In both developed international markets and emerging markets, value stocks outperformed growth, while small-cap stocks outperformed large-cap.

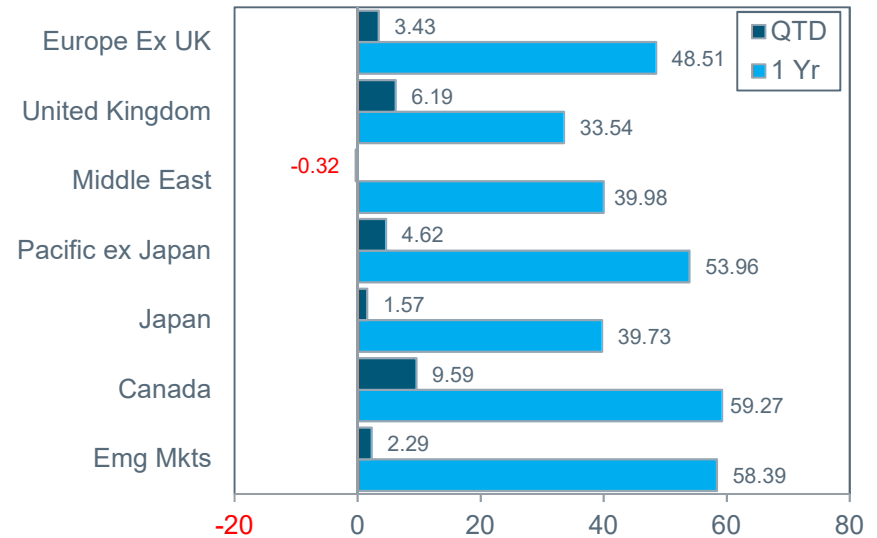
**MSCI Style and Capitalization Market Performance (%)**



**Valuations**



**MSCI Region Performance (%)**



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.

First Quarter Review

**Broad Market**

The Bloomberg US Aggregate Index declined -3.4% in Q1 as Treasury yields rose abruptly. The yield movement was primarily driven by investors reacting to potential inflationary pressure caused by a strong economic recovery.

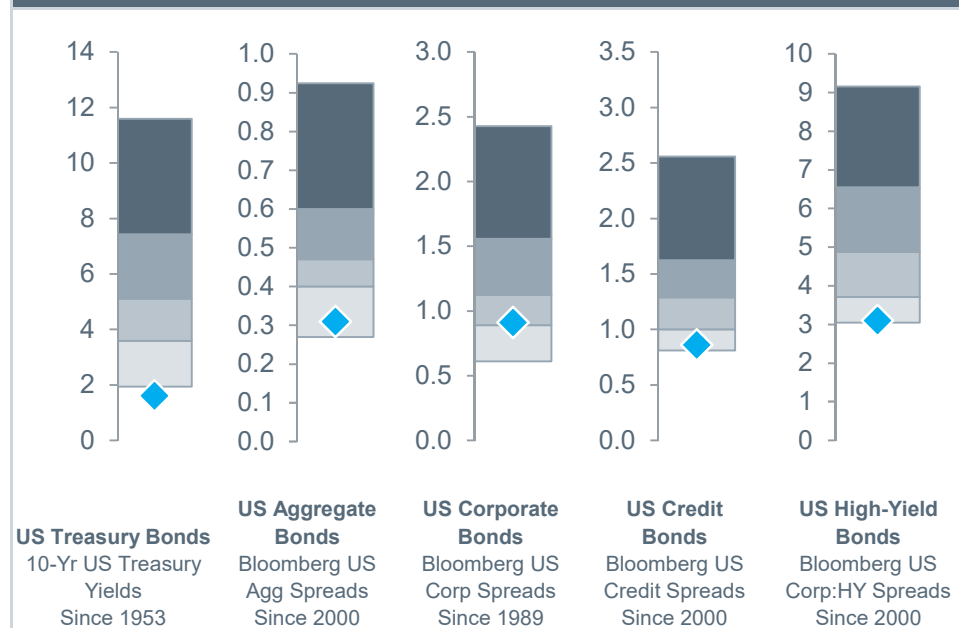
**Credit Market**

Below investment grade rated debt continued outperforming the broader market, a trend also seen in Q4 2020. The Bloomberg US Credit Index declined -4.5%, while the Bloomberg US High Yield Index returned 0.9% in Q1, largely carried by the lowest quality debt, with Caa rated debt returning 3.6% QTD in particular.

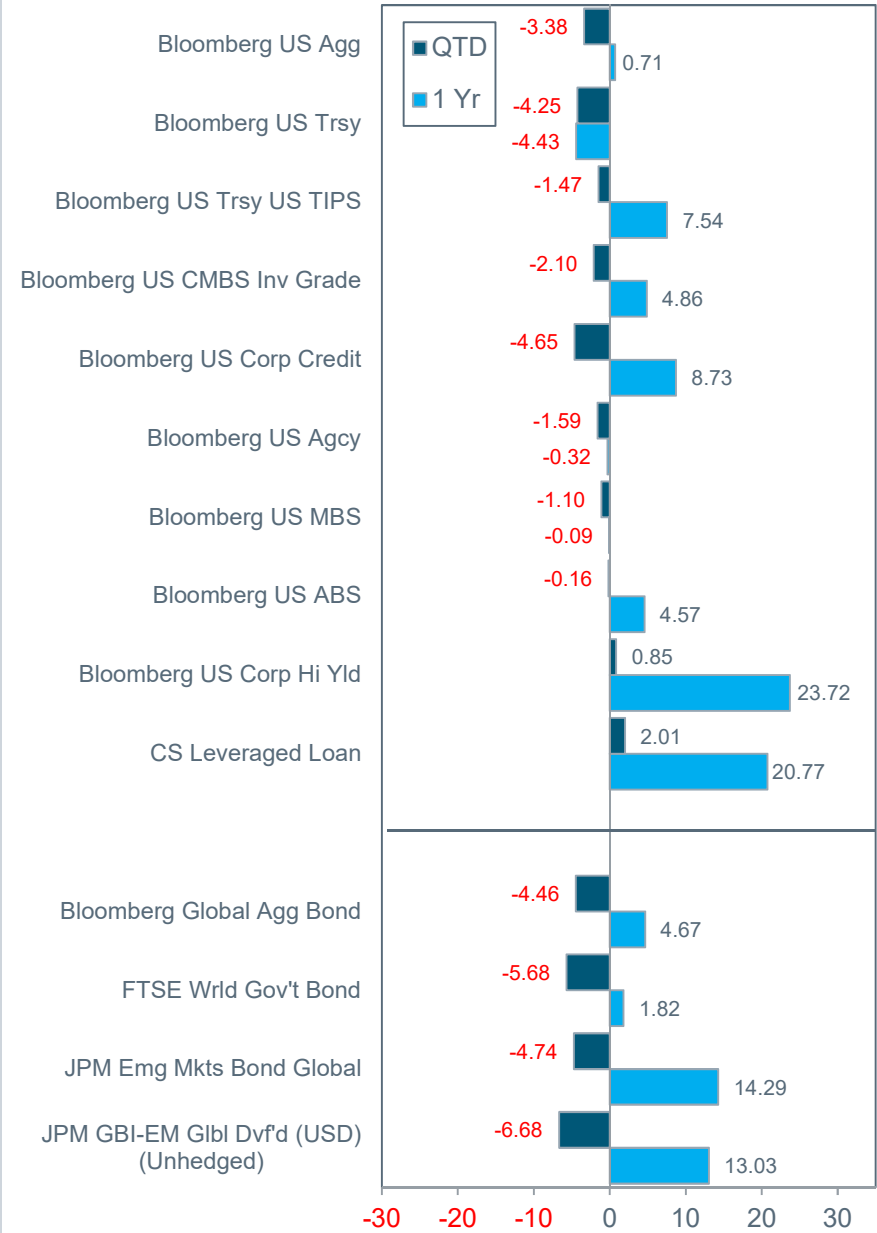
**Emerging Market Debt**

Increased US stimulus and an improving US economy contributed to a strengthening US Dollar. Local currency denominated debt as measured by the JPM GBI-EM Global Diversified Index returned -6.7%, underperforming both hard currency and corporate emerging market debt.

Valuations



Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service. Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

**First Quarter Review - Absolute Return**

**General Market - Hedge Funds**

Hedge fund returns in Q1 were positive in aggregate, though with considerable dispersion across strategies and trading styles. The HFRI Fund Weighted Composite Index returned 6.1% in Q1, outperforming its asset weighted counterpart. Given the style shifts seen in equity markets, managers with growth tilts lagged peers. Short alpha was particularly challenged, with prime brokerage data pointing to one of the worst quarters on record for stock picking on the short side.

**General Market - Global Tactical Asset Allocation (GTAA)**

GTAA strategies RVK follows closely largely generated positive absolute returns in Q1, ranging from low- to mid-single digits. Long-biased strategies performed well, though with some divergence, versus a static and less diversified blend of 60% US equity and 40% US fixed income. Generally, strategies that have continued to maintain a value bias relative to peers outperformed in Q1. Many of the strategies that outperformed peers have continued adding to alternative exposures.

**First Quarter Review - Real Assets**

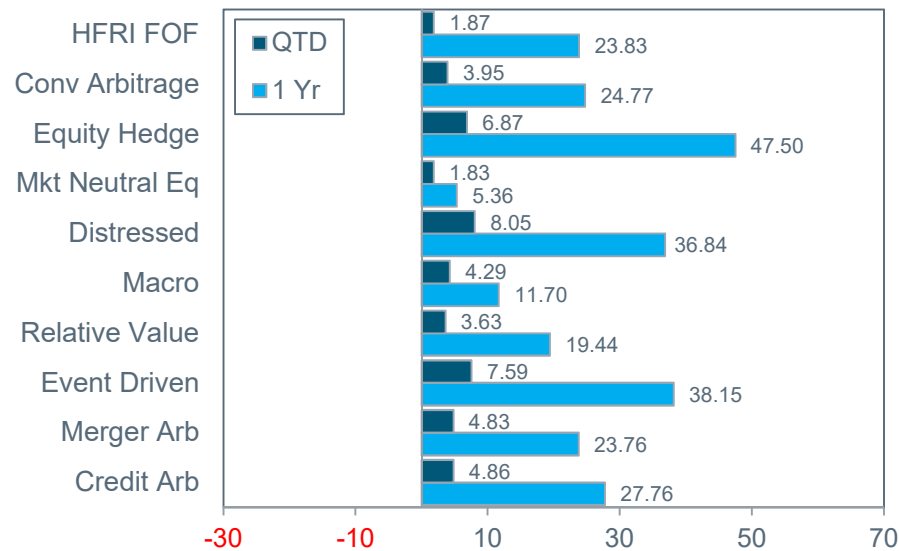
**General Market - Diversified Inflation Strategies (DIS)**

DIS managers that RVK follows closely largely generated positive absolute performance during Q1, ranging from low- to mid-single digits. For the quarter, traditional inflation-sensitive assets such as commodities, listed infrastructure, natural resource equities, and REITs posted positive absolute returns. Strategies with higher relative weights to these asset classes generally outperformed peers with higher relative exposures to TIPS, as the increase in yields during the quarter was a drag on performance.

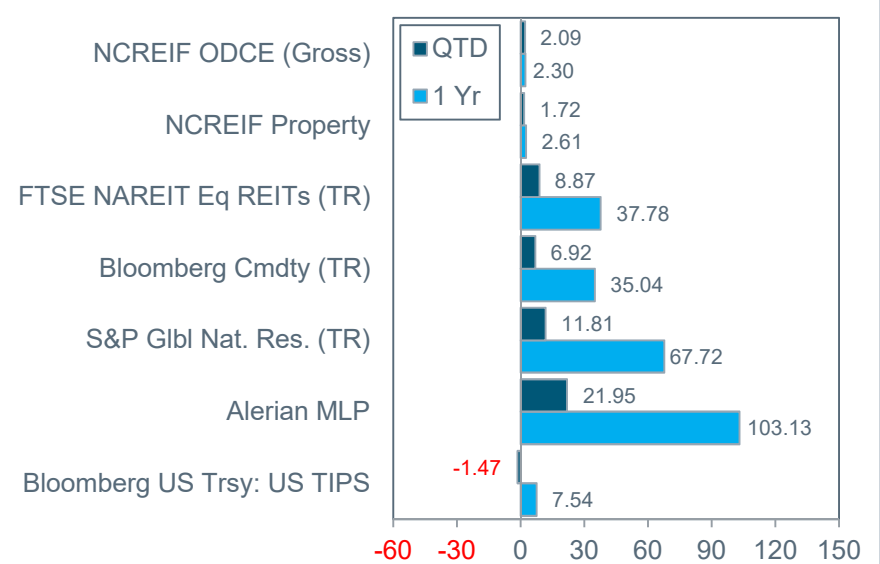
**General Market - Real Estate**

Core private real estate generated a gross 2.1% return in Q1, as reported by the NFI-ODCE Index, with the total return comprising of 1.0% income and 1.1% price appreciation. While the income component improved over the prior quarter and is more in line with historical levels, price appreciation rebounded meaningfully by 0.7% from the level recorded in Q4 2020. Investors of publicly traded real estate outperformed their private market counterparts.

**HFRI Hedge Fund Performance (%)**



**Real Asset Performance (%)**





Annual Asset Class Performance

As of March 31, 2021

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD
Best	39.38	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	12.70
	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	8.87
	15.97	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	6.92
	11.63	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	6.17
	11.17	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	13.16	4.50
	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	9.29	13.96	-3.33	19.59	12.34	3.48
	6.97	-26.16	26.46	15.12	2.11	15.81	7.99	4.04	-0.27	8.77	10.71	-4.02	18.44	10.99	2.29
	6.60	-30.15	26.29	15.06	1.81	12.69	7.44	3.64	-0.81	8.52	7.77	-4.38	17.15	10.88	2.11
	5.88	-33.79	18.91	14.44	0.10	10.94	2.47	3.37	-1.44	6.67	7.62	-4.62	14.32	7.82	2.00
	5.49	-35.65	11.47	10.16	-4.13	8.78	0.07	2.45	-2.20	4.68	7.50	-4.68	8.72	7.51	1.90
	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	0.85
	1.87	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.02
	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.47
	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-3.12	-3.38
Worst	-15.70	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-10.41

Total Fund Net (All Plans)	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp Hi Yield - FI	Bloombrg US Trsy US TIPS - FI	Bloombrg US Gov Credit Lng - FI	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv
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NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



# Combined Plans



### Manager Research Updates

Each quarter RVK sends a short questionnaire to each of the VPIC's investment managers which serves as the basis for providing VPIC and Staff with updates on the Funds' investment managers; critical and non-critical updates from the quarter are included below. In addition, RVK's Manager Research team keeps the VPIC RVK Consulting Team and VPIC Staff informed of any organizational or investment related developments (should any arise) intra-quarter.

#### Manager Research Updates: Critical

There were no critical manager updates during the quarter.

#### Manager Research Updates: Non-Critical

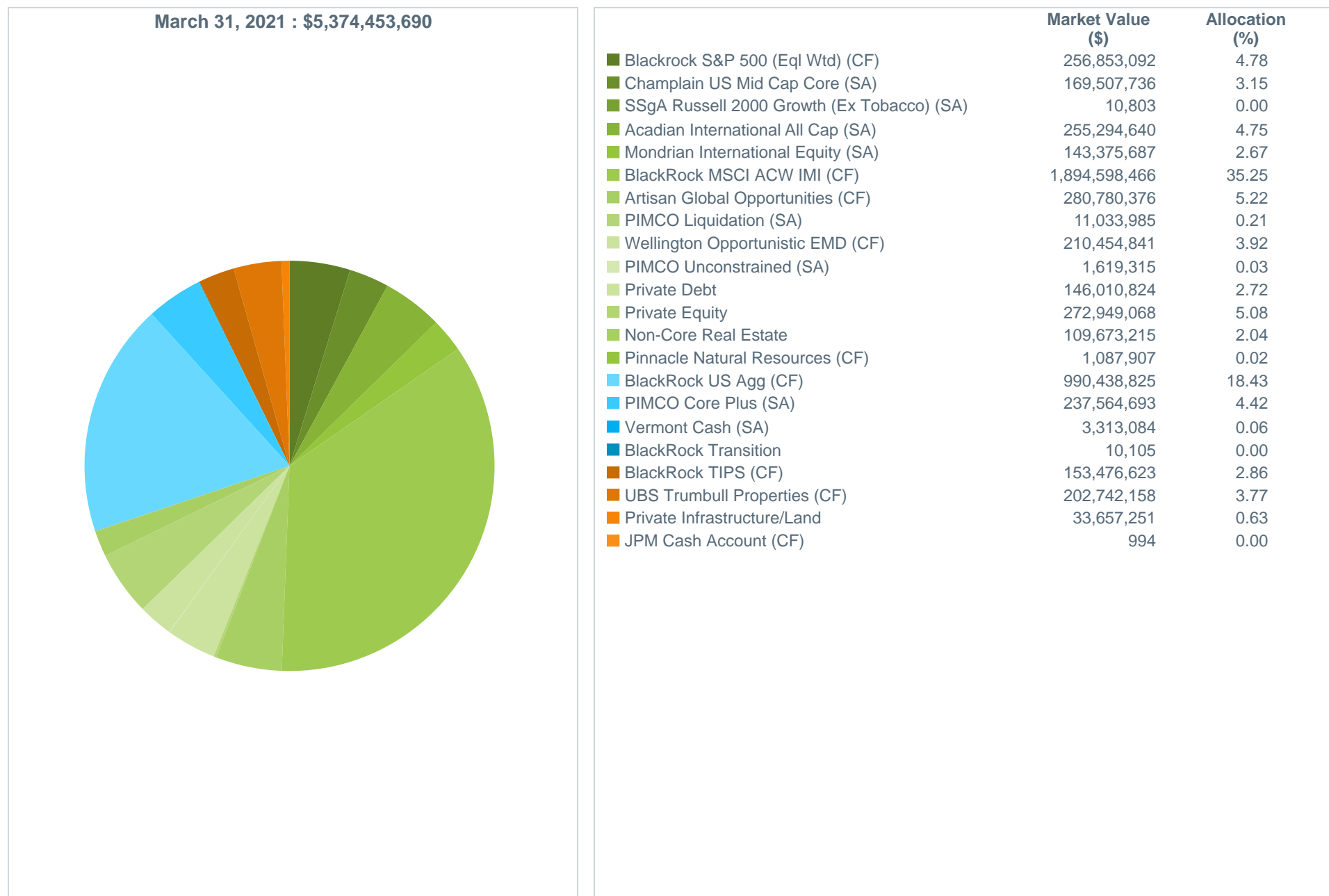
##### **Acadian**

Andy Moniz has joined Acadian as Director of Responsible Investing. In this role, Andy will lead Acadian's ESG initiatives globally and help further shape their responsible investing approach.

Mark Webster, SVP, Portfolio Manager, left to pursue other opportunities on March 31, 2021. Mark was one of 26 members of the Equity PM team responsible for Acadian's general equity portfolio. Due to the size of the team and quantitative nature of the strategy, this departure is not a cause for concern.

Vermont Pension Investment Committee  
Asset Allocation By Manager

As of March 31, 2021



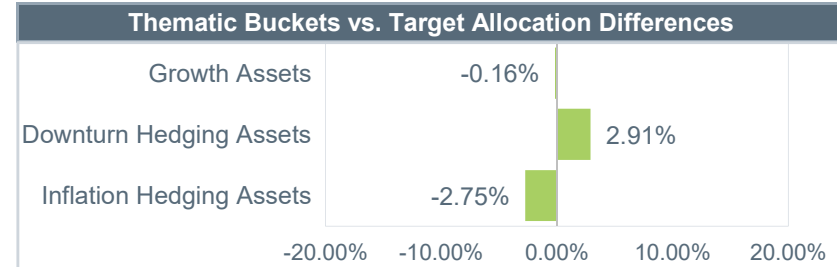
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA), Pinnacle Natural Resources (CF) and PIMCO Unconstrained (SA) represent residual assets after liquidation.



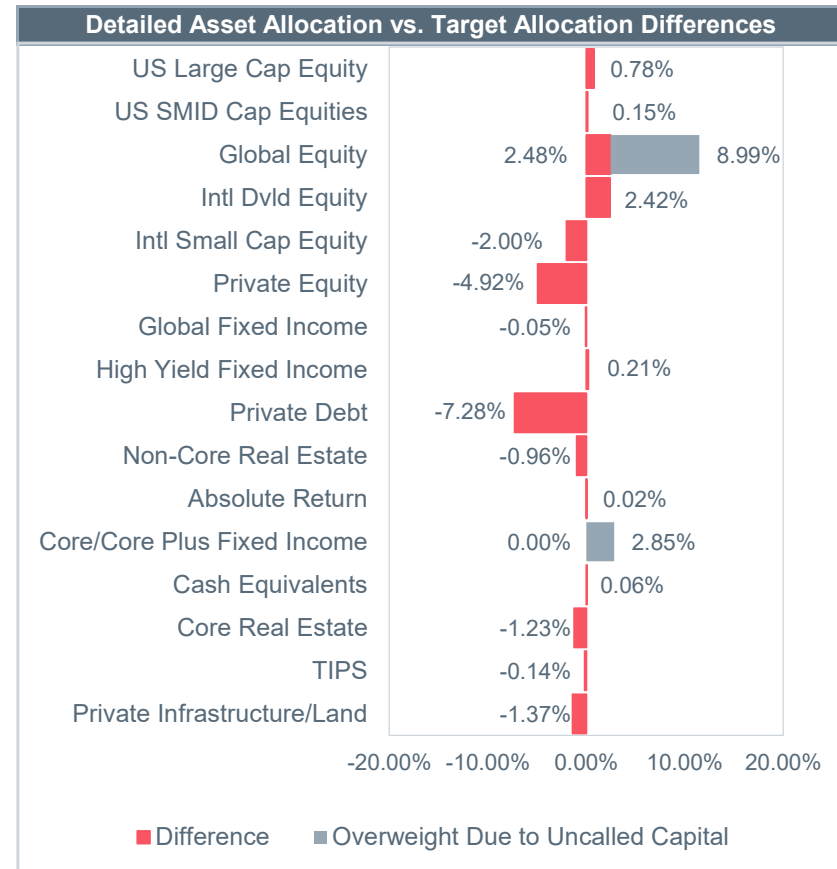
Total Fund

Asset Allocation vs. Target Allocation

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	3,753,249,957	69.84	70.00
Downturn Hedging Assets	1,231,326,708	22.91	20.00
Inflation Hedging Assets	389,877,026	7.25	10.00
<b>Total Fund</b>	<b>5,374,453,690</b>	<b>100.00</b>	<b>100.00</b>



Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	256,853,092	4.78	4.00
US SMID Cap Equities	169,518,539	3.15	3.00
Global Equity	2,175,378,843	40.48	29.00
Intl Dvld Equity	398,670,328	7.42	5.00
Intl Small Cap Equity	-	0.00	2.00
Private Equity	272,949,068	5.08	10.00
Global Fixed Income	212,074,156	3.95	4.00
High Yield Fixed Income	11,033,985	0.21	0.00
Private Debt	146,010,824	2.72	10.00
Non-Core Real Estate	109,673,215	2.04	3.00
Absolute Return	1,087,907	0.02	0.00
Core/Core Plus Fixed Income	1,228,003,518	22.85	20.00
Cash Equivalents	3,323,190	0.06	0.00
Core Real Estate	202,743,152	3.77	5.00
TIPS	153,476,623	2.86	3.00
Private Infrastructure/Land	33,657,251	0.63	2.00
<b>Total Fund</b>	<b>5,374,453,690</b>	<b>100.00</b>	<b>100.00</b>

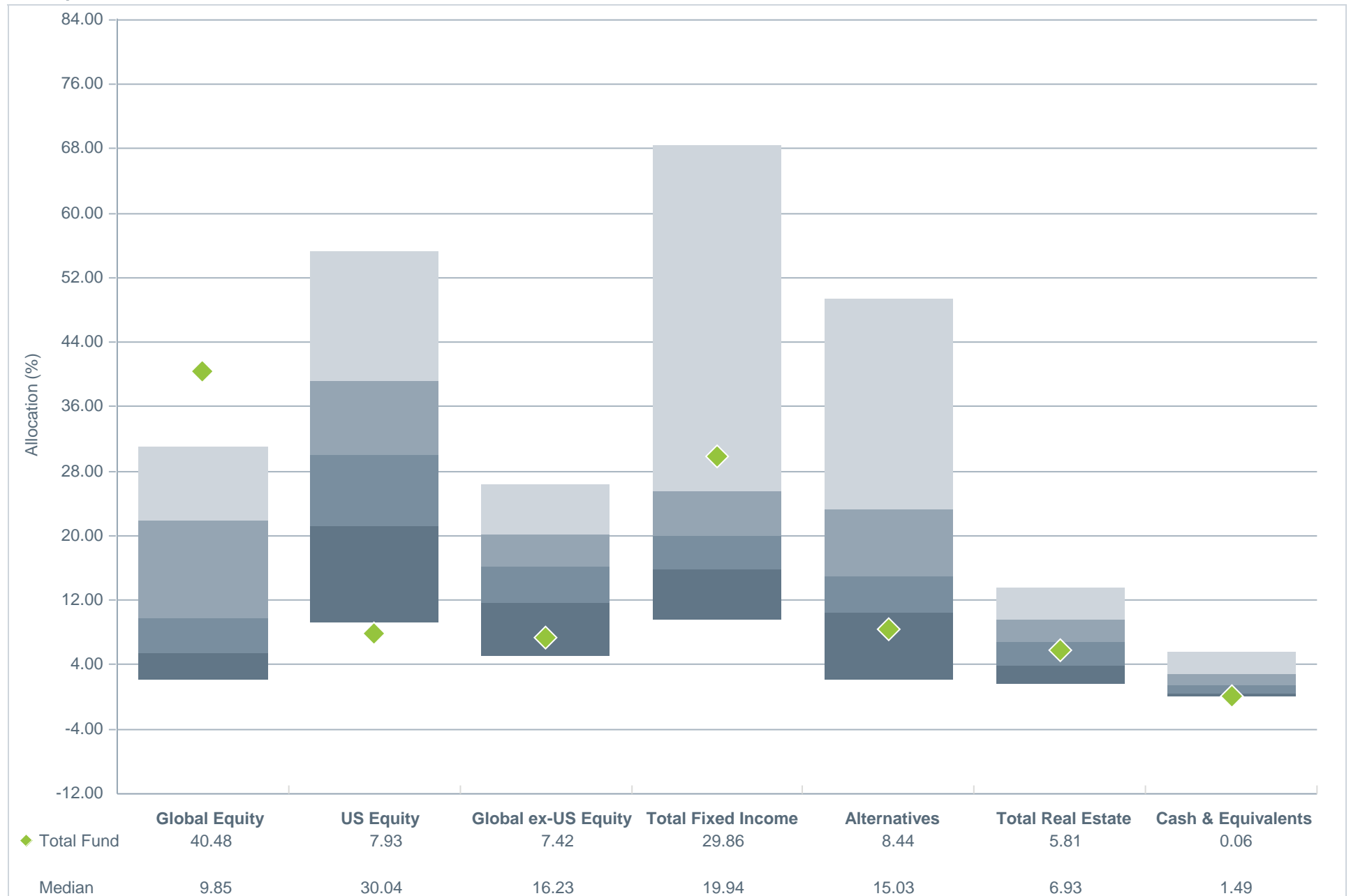


Allocations shown may not sum up to 100% exactly due to rounding.



Vermont Pension Investment Committee  
 All Public Plans (\$1B to \$10B) (Custom PG)  
 Plan Sponsor TF Asset Allocation

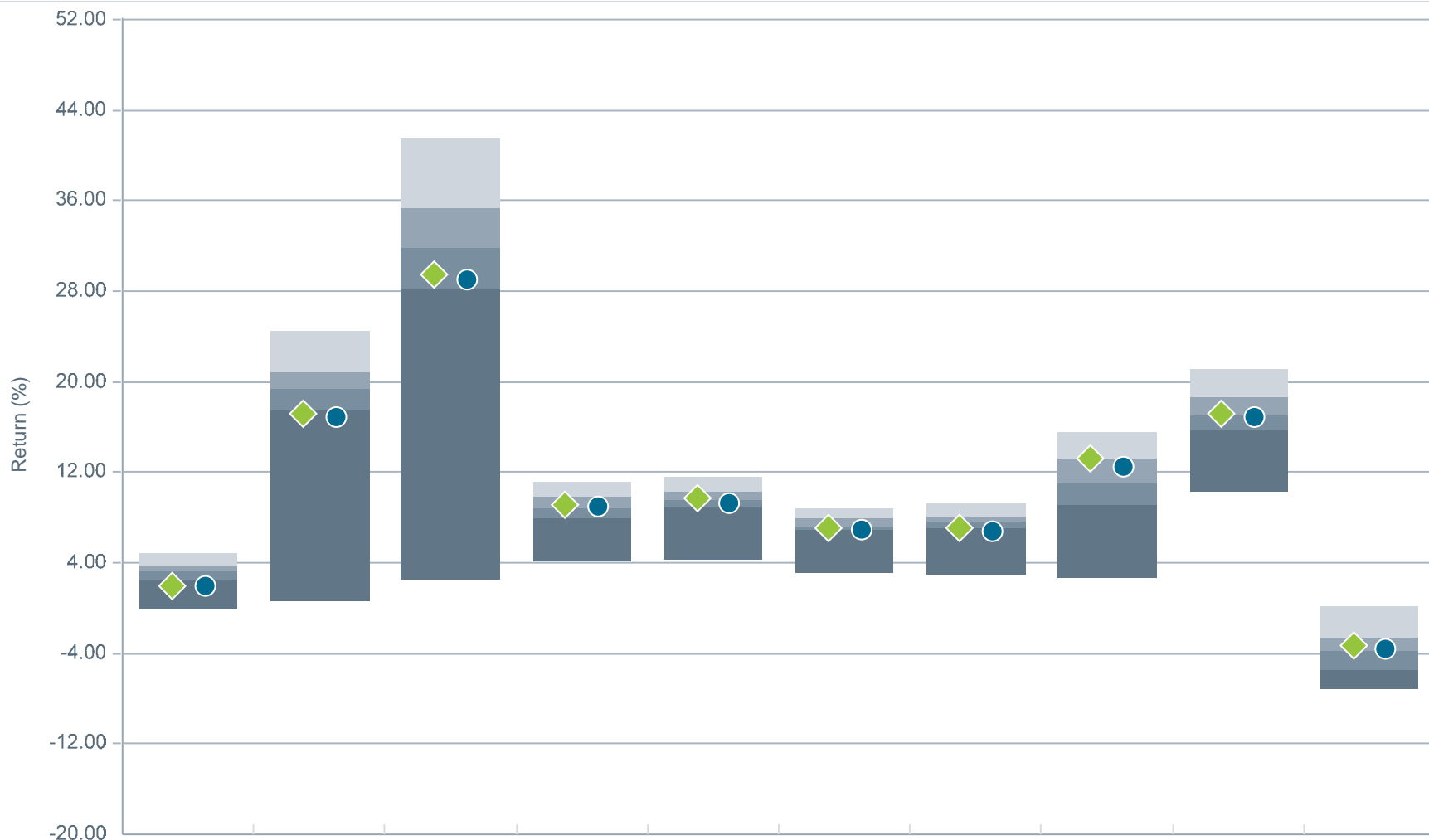
As of March 31, 2021



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

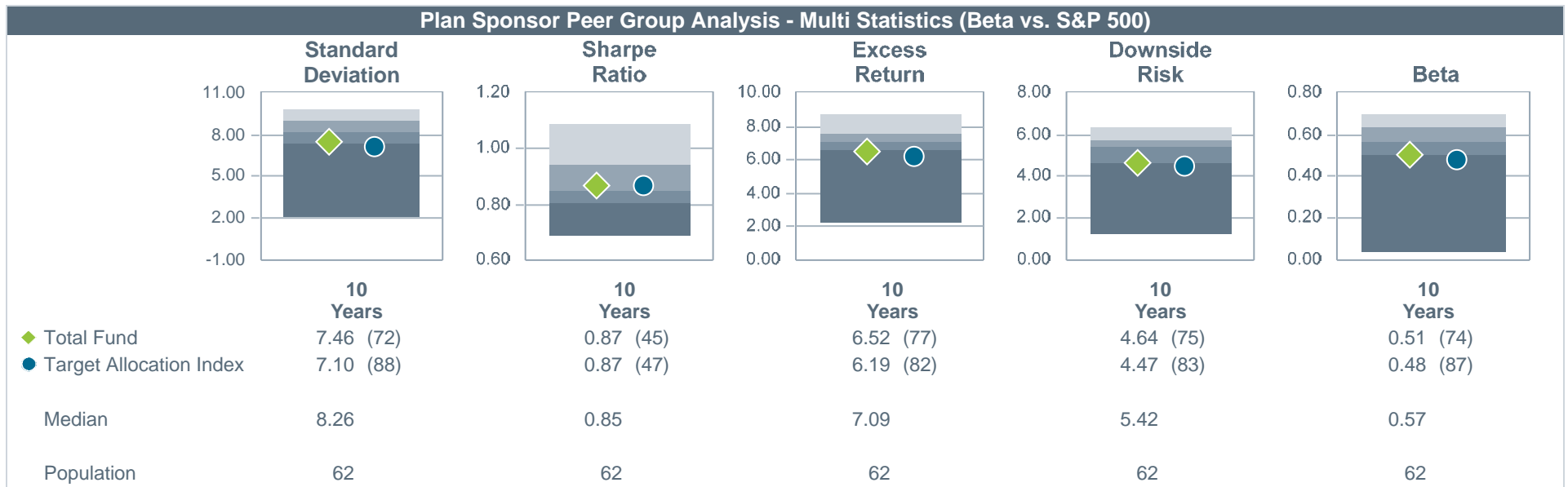
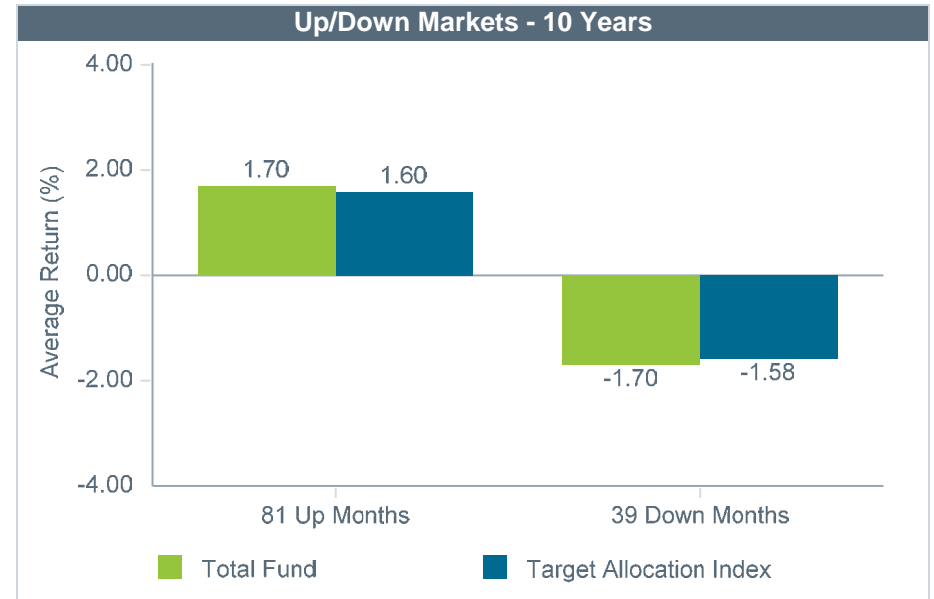
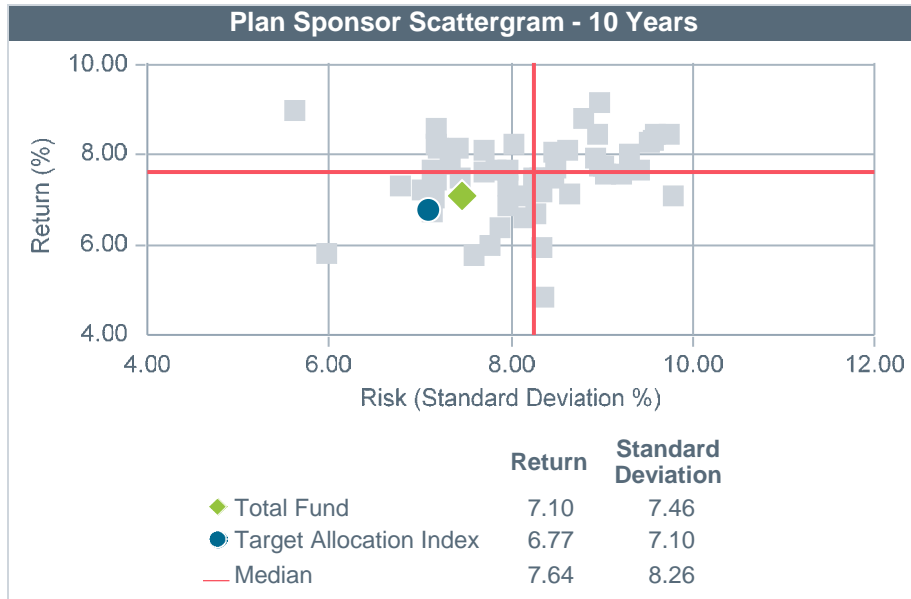
Vermont Pension Investment Committee  
 All Public Plans (\$1B to \$10B) (Custom PG)  
 Plan Sponsor Peer Group Analysis

As of March 31, 2021



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018
◆ Total Fund	1.90 (84)	17.20 (79)	29.48 (71)	9.08 (40)	9.69 (49)	7.08 (62)	7.10 (74)	13.16 (28)	17.15 (50)	-3.33 (40)
● Target Allocation Index	1.88 (84)	16.94 (82)	29.03 (73)	9.04 (41)	9.20 (66)	6.88 (75)	6.77 (81)	12.51 (32)	16.91 (54)	-3.63 (46)
Median	3.24	19.35	31.74	8.83	9.63	7.28	7.64	11.08	17.10	-3.83
Population	76	75	75	68	68	66	62	85	75	51

Performance shown is net of fees. Parentheses contain percentile ranks.



Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Vermont Pension Investment Committee  
 Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>5,374,453,690</b>	<b>100.00</b>	<b>1.90</b>	<b>17.20</b>	<b>29.48</b>	<b>9.08</b>	<b>9.69</b>	<b>7.10</b>	<b>6.01</b>	<b>13.16</b>	<b>6.40</b>	<b>07/01/2005</b>
Target Allocation Index			1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference			0.02	0.26	0.45	0.04	0.49	0.33	-0.03	0.65	-0.03	
Actual Allocation Index			2.24	17.71	30.24	8.42	8.99	6.64	5.99	11.20	6.35	
Difference			-0.34	-0.51	-0.76	0.66	0.70	0.46	0.02	1.96	0.05	
<b>Growth Assets</b>	<b>3,753,249,957</b>	<b>69.84</b>	<b>4.14</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.90</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.87	
Difference			-1.00	-	-	-	-	-	-	-	-0.97	
<b>Downturn Hedging Assets</b>	<b>1,231,326,708</b>	<b>22.91</b>	<b>-3.43</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.68</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference			-0.05	-	-	-	-	-	-	-	0.10	
<b>Inflation Hedging Assets</b>	<b>389,877,026</b>	<b>7.25</b>	<b>-1.63</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.33</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			2.32	4.67	5.19	4.56	4.71	4.26	4.44	3.90	3.39	
Difference			-3.95	-	-	-	-	-	-	-	-4.72	

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Vermont Pension Investment Committee  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>5,374,453,690</b>	<b>100.00</b>	<b>100.00</b>	<b>1.90</b>	<b>17.20</b>	<b>29.48</b>	<b>9.08</b>	<b>9.69</b>	<b>7.10</b>	<b>6.01</b>	<b>13.16</b>	<b>6.40</b>	<b>07/01/2005</b>
Target Allocation Index				1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference				0.02	0.26	0.45	0.04	0.49	0.33	-0.03	0.65	-0.03	
Actual Allocation Index				2.24	17.71	30.24	8.42	8.99	6.64	5.99	11.20	6.35	
Difference				-0.34	-0.51	-0.76	0.66	0.70	0.46	0.02	1.96	0.05	
All Public Plans (\$1B to \$10B)				3.24	19.35	31.74	8.83	9.63	7.64	6.31	11.08	6.75	
Rank				84	79	71	40	49	74	71	28	73	
<b>Domestic Equity</b>	<b>426,371,631</b>	<b>7.93</b>	<b>7.00</b>	<b>8.46</b>	<b>38.88</b>	<b>71.17</b>	<b>15.43</b>	<b>15.36</b>	<b>13.14</b>	<b>-</b>	<b>19.02</b>	<b>13.55</b>	<b>01/01/2011</b>
Russell 3000 Index				6.35	33.19	62.53	17.12	16.64	13.79	10.05	20.89	14.12	
Difference				2.11	5.69	8.64	-1.69	-1.28	-0.65	-	-1.87	-0.57	
<b>US Large Cap Equity</b>	<b>256,853,092</b>	<b>4.78</b>	<b>4.00</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>13.91</b>	<b>14.48</b>	<b>12.95</b>	<b>9.78</b>	<b>13.03</b>	<b>10.02</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				6.17	29.71	56.35	16.78	16.29	13.91	10.02	18.40	10.20	
Difference				5.28	11.30	15.45	-2.87	-1.81	-0.96	-0.24	-5.37	-0.18	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>256,853,092</b>	<b>4.78</b>	<b>-</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.03</b>	<b>19.77</b>	<b>06/01/2019</b>
S&P 500 Index (Eq Wtd)				11.49	40.98	71.61	14.90	14.74	13.09	10.33	12.83	23.24	
Difference				-0.04	0.03	0.19	-	-	-	-	0.20	-3.47	
IM U.S. Large Cap Equity (MF) Median				5.91	29.35	57.30	16.10	15.75	12.81	9.45	18.34	24.18	
Rank				14	9	8	-	-	-	-	64	71	
<b>US SMID Cap Equities</b>	<b>169,518,539</b>	<b>3.15</b>	<b>3.00</b>	<b>4.22</b>	<b>35.67</b>	<b>69.62</b>	<b>17.98</b>	<b>16.86</b>	<b>13.44</b>	<b>10.12</b>	<b>27.32</b>	<b>10.61</b>	<b>07/01/2005</b>
Russell 2500 Index				10.93	49.65	89.40	15.34	15.93	12.20	9.53	19.99	10.25	
Difference				-6.71	-13.98	-19.78	2.64	0.93	1.24	0.59	7.33	0.36	
<b>Champlain US Mid Cap Core (SA)</b>	<b>169,507,736</b>	<b>3.15</b>	<b>-</b>	<b>4.22</b>	<b>35.67</b>	<b>69.61</b>	<b>17.97</b>	<b>18.27</b>	<b>14.37</b>	<b>-</b>	<b>27.32</b>	<b>15.80</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				10.44	50.62	89.76	14.58	15.99	12.04	9.43	19.99	14.00	
Difference				-6.22	-14.95	-20.15	3.39	2.28	2.33	-	7.33	1.80	
IM U.S. SMID Cap Equity (MF) Median				10.21	46.73	83.31	14.61	15.53	11.84	9.53	20.27	13.86	
Rank				71	87	84	34	32	20	-	41	28	
<b>Global Equity</b>	<b>2,175,378,843</b>	<b>40.48</b>	<b>29.00</b>	<b>4.28</b>	<b>30.81</b>	<b>58.38</b>	<b>10.36</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19.91</b>	<b>7.61</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	9.10	
Difference				-0.86	-0.69	0.80	-1.54	-	-	-	3.66	-1.49	

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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>1,894,598,466</b>	<b>35.25</b>	<b>-</b>	<b>5.33</b>	<b>31.94</b>	<b>58.25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.77</b>	<b>18.25</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.72	
Difference				0.19	0.44	0.67	-	-	-	-	0.52	0.53	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	17.27	
Rank				35	39	47	-	-	-	-	44	46	
<b>Artisan Global Opportunities (CF)</b>	<b>280,780,376</b>	<b>5.22</b>	<b>-</b>	<b>-1.77</b>	<b>23.97</b>	<b>58.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40.50</b>	<b>18.65</b>	<b>06/01/2018</b>
MSCI ACW Index (USD) (Net)				4.57	29.68	54.60	12.07	13.21	9.14	7.04	16.25	12.40	
Difference				-6.34	-5.71	3.77	-	-	-	-	24.25	6.25	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	11.54	
Rank				93	75	47	-	-	-	-	14	13	
<b>International Equity</b>	<b>398,670,328</b>	<b>7.42</b>	<b>7.00</b>	<b>6.76</b>	<b>31.22</b>	<b>51.51</b>	<b>5.05</b>	<b>9.28</b>	<b>5.06</b>	<b>3.88</b>	<b>4.91</b>	<b>5.20</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.42	
Difference				3.28	5.38	6.94	-0.97	0.43	-0.46	-0.22	-2.91	-0.22	
<b>Acadian International All Cap (SA)</b>	<b>255,294,640</b>	<b>4.75</b>	<b>-</b>	<b>6.53</b>	<b>32.93</b>	<b>56.12</b>	<b>6.50</b>	<b>11.97</b>	<b>7.95</b>	<b>5.16</b>	<b>12.37</b>	<b>6.40</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				3.63	27.15	46.95	6.06	9.09	5.85	4.37	8.47	5.37	
Difference				2.90	5.78	9.17	0.44	2.88	2.10	0.79	3.90	1.03	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	4.96	
Rank				17	17	17	35	8	9	21	33	16	
<b>Mondrian International Equity (SA)</b>	<b>143,375,687</b>	<b>2.67</b>	<b>-</b>	<b>7.18</b>	<b>27.72</b>	<b>38.84</b>	<b>3.35</b>	<b>6.58</b>	<b>5.02</b>	<b>4.12</b>	<b>-4.01</b>	<b>5.17</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.42	
Difference				3.70	1.88	-5.73	-2.67	-2.27	-0.50	0.02	-11.83	-0.25	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	5.32	
Rank				15	42	88	77	81	60	48	98	56	
<b>Fixed Income</b>	<b>1,451,111,659</b>	<b>27.00</b>	<b>24.00</b>	<b>-3.69</b>	<b>-0.90</b>	<b>3.52</b>	<b>4.44</b>	<b>4.40</b>	<b>4.25</b>	<b>-</b>	<b>8.18</b>	<b>4.30</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	3.40	
Difference				-0.31	1.23	2.81	-0.21	1.30	0.81	-	0.67	0.90	
<b>Core/Core Plus Fixed Income</b>	<b>1,228,003,518</b>	<b>22.85</b>	<b>20.00</b>	<b>-3.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.69</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.07	-	-	-	-	-	-	-	0.09	

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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock US Agg (CF)</b>	<b>990,438,825</b>	<b>18.43</b>	<b>-</b>	<b>-3.41</b>	<b>-2.12</b>	<b>0.74</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7.54</b>	<b>3.96</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	4.16	
Difference				-0.03	0.01	0.03	-	-	-	-	0.03	-0.20	
IM U.S. Broad Mkt Core FI(MF)				-3.04	-0.52	4.37	4.80	3.40	3.51	4.24	8.19	4.71	
Rank				76	89	91	-	-	-	-	71	81	
<b>PIMCO Core Plus (SA)</b>	<b>237,564,693</b>	<b>4.42</b>	<b>-</b>	<b>-3.60</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.37</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.22	-	-	-	-	-	-	-	0.41	
IM U.S. Broad Mkt Core+ FI (MF)				-2.95	0.49	6.75	5.04	3.98	3.89	4.80	8.55	-1.18	
Rank				78	-	-	-	-	-	-	-	85	
<b>Emerging Markets Debt</b>	<b>210,454,841</b>	<b>3.92</b>	<b>4.00</b>	<b>-5.48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.09</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	-1.18	
Difference				-0.74	-	-	-	-	-	-	-	0.09	
<b>Wellington Opportunistic EMD (CF)</b>	<b>210,454,841</b>	<b>3.92</b>	<b>-</b>	<b>-5.48</b>	<b>3.27</b>	<b>16.94</b>	<b>4.09</b>	<b>5.80</b>	<b>5.76</b>	<b>-</b>	<b>7.69</b>	<b>6.31</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	5.89	
Difference				-0.74	0.50	2.65	0.22	1.06	0.41	-	1.81	0.42	
IM Emerging Markets Debt (MF) Median				-4.63	5.37	19.41	2.99	4.87	4.28	5.42	5.57	5.04	
Rank				91	93	81	26	20	3	-	15	4	
<b>High Yield Fixed Income</b>	<b>11,033,985</b>	<b>0.21</b>	<b>0.00</b>	<b>4.78</b>	<b>17.50</b>	<b>22.53</b>	<b>3.57</b>	<b>5.76</b>	<b>5.27</b>	<b>-</b>	<b>3.26</b>	<b>6.27</b>	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	7.40	
Difference				3.93	5.21	-1.19	-3.27	-2.30	-1.21	-	-3.85	-1.13	
<b>PIMCO Liquidation (SA)</b>	<b>11,033,985</b>	<b>0.21</b>	<b>-</b>	<b>4.78</b>	<b>17.50</b>	<b>22.54</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.26</b>	<b>3.39</b>	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	6.88	
Difference				3.93	5.21	-1.18	-	-	-	-	-3.85	-3.49	
IM U.S. High Yield Bonds (MF) Median				0.91	11.93	22.24	5.64	6.70	5.34	6.05	5.26	5.79	
Rank				1	5	47	-	-	-	-	82	95	
<b>Private Debt</b>	<b>146,010,824</b>	<b>2.72</b>	<b>10.00</b>	<b>6.19</b>	<b>14.44</b>	<b>8.62</b>	<b>5.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.07</b>	<b>6.25</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				2.51	10.82	21.58	4.38	5.44	4.33	4.66	3.12	4.49	
Difference				3.68	3.62	-12.96	1.54	-	-	-	-1.05	1.76	

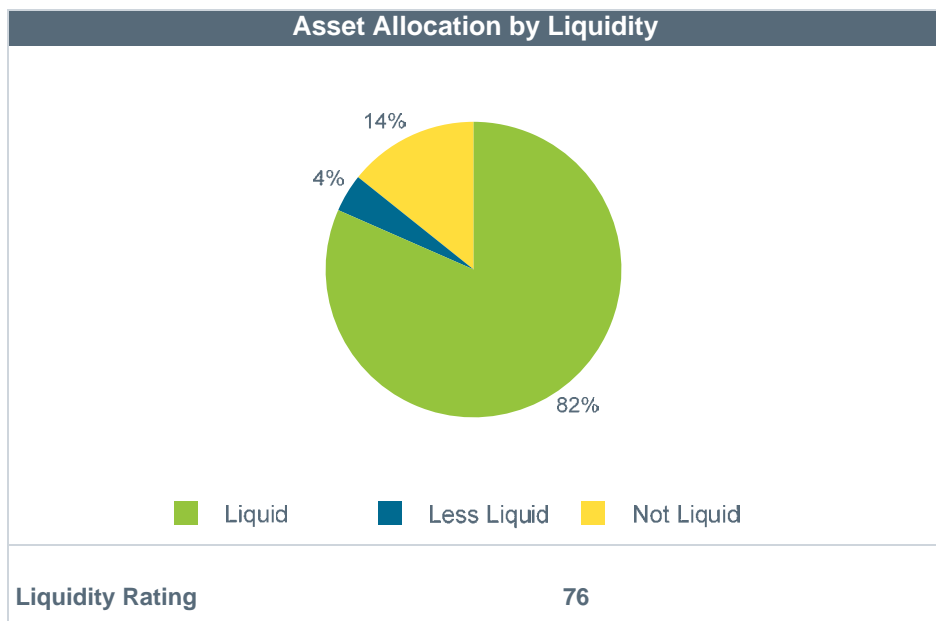
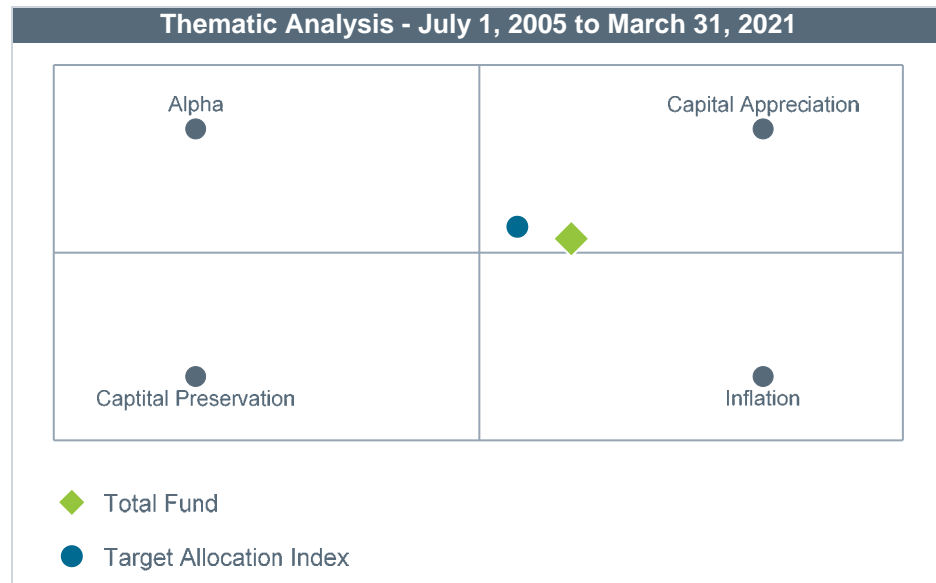
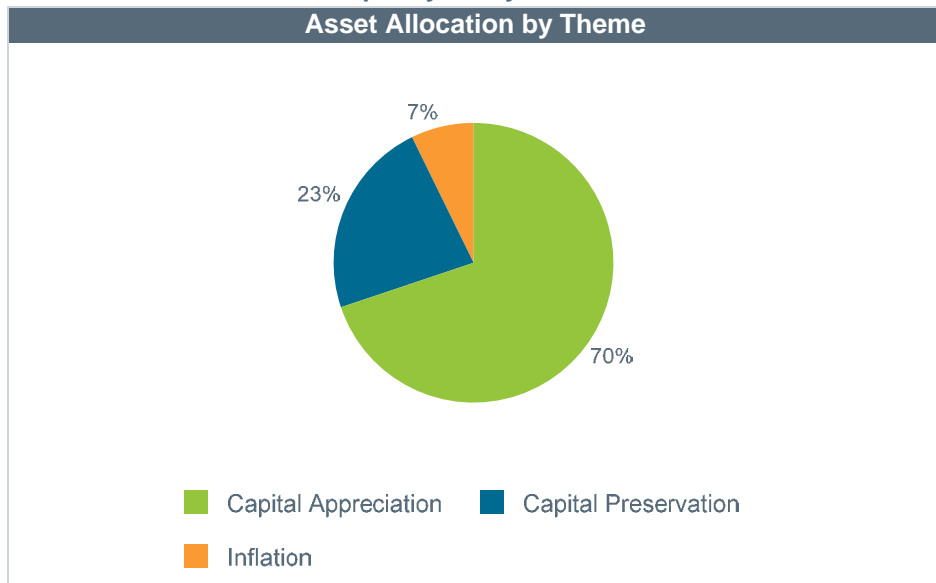
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<b>Private Equity</b>	<b>272,949,068</b>	<b>5.08</b>	<b>10.00</b>	<b>-0.47</b>	<b>25.06</b>	<b>16.73</b>	<b>17.61</b>	<b>17.71</b>	-	-	<b>17.19</b>	<b>16.49</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	23.17	34.58	13.98	15.28	13.34	12.29	21.32	13.83	
Difference				-0.47	1.89	-17.85	3.63	2.43	-	-	-4.13	2.66	
<b>Non-Core Real Estate</b>	<b>109,673,215</b>	<b>2.04</b>	<b>3.00</b>	<b>5.74</b>	<b>5.06</b>	<b>0.85</b>	<b>3.87</b>	<b>8.57</b>	-	-	<b>-1.65</b>	<b>9.16</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				2.39	4.33	3.29	5.12	5.95	8.90	7.05	1.60	7.76	
Difference				3.35	0.73	-2.44	-1.25	2.62	-	-	-3.25	1.40	
<b>Inflation Hedging Assets (Spliced)</b>	<b>389,877,026</b>	<b>7.25</b>	<b>10.00</b>	<b>-1.63</b>	<b>-4.44</b>	<b>-5.18</b>	<b>-0.54</b>	<b>2.77</b>	<b>8.18</b>	-	<b>-2.82</b>	<b>8.39</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				2.32	3.39	2.36	4.81	5.75	8.80	6.99	0.75	8.92	
Difference				-3.95	-7.83	-7.54	-5.35	-2.98	-0.62	-	-3.57	-0.53	
<b>TIPS</b>	<b>153,476,623</b>	<b>2.86</b>	<b>2.00</b>	<b>-1.50</b>	-	-	-	-	-	-	-	<b>-0.25</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	-0.24	
Difference				-0.03	-	-	-	-	-	-	-	-0.01	
<b>BlackRock TIPS (CF)</b>	<b>153,476,623</b>	<b>2.86</b>	<b>-</b>	<b>-1.50</b>	<b>3.16</b>	<b>7.62</b>	<b>5.59</b>	<b>3.81</b>	<b>3.37</b>	-	<b>10.97</b>	<b>3.53</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	3.57	
Difference				-0.03	0.00	0.08	-0.09	-0.05	-0.07	-	-0.02	-0.04	
IM U.S. TIPS (MF) Median				-1.19	3.93	8.43	4.97	3.44	2.78	3.70	9.64	2.96	
Rank				63	69	67	24	31	11	-	26	10	
<b>Core Real Estate</b>	<b>202,743,152</b>	<b>3.77</b>	<b>5.00</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.89</b>	<b>1.97</b>	<b>7.82</b>	-	<b>-2.26</b>	<b>8.04</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	8.85	
Difference				-3.93	-8.01	-5.77	-4.85	-3.29	-0.85	-	-2.60	-0.81	
<b>UBS Trumbull Properties (CF)</b>	<b>202,742,158</b>	<b>3.77</b>	<b>-</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.85</b>	<b>1.71</b>	<b>5.95</b>	<b>4.59</b>	<b>-2.26</b>	<b>5.06</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	5.94	
Difference				-3.93	-8.01	-5.77	-4.81	-3.55	-2.72	-0.75	-2.60	-0.88	
<b>Private Infrastructure/Land</b>	<b>33,657,251</b>	<b>0.63</b>	<b>3.00</b>	<b>0.80</b>	-	-	-	-	-	-	-	<b>0.61</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				0.86	3.45	4.08	4.71	5.46	10.24	11.19	3.08	3.45	
Difference				-0.06	-	-	-	-	-	-	-	-2.84	
<b>Cash Equivalents</b>	<b>3,323,190</b>	<b>0.06</b>	<b>0.00</b>	<b>0.00</b>	<b>0.06</b>	<b>0.09</b>	<b>0.46</b>	<b>0.30</b>	<b>0.17</b>	<b>0.99</b>	<b>0.37</b>	<b>1.20</b>	<b>07/01/2005</b>
ICE BofAML 3 Mo US T-Bill Index				0.02	0.09	0.12	1.49	1.19	0.63	1.16	0.67	1.28	
Difference				-0.02	-0.03	-0.03	-1.03	-0.89	-0.46	-0.17	-0.30	-0.08	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.70	1.00		
C	-0.28	-0.39	1.00	
D	0.60	0.79	-0.11	1.00

A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Gov't Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions. Allocations may not sum to 100% due to rounding.

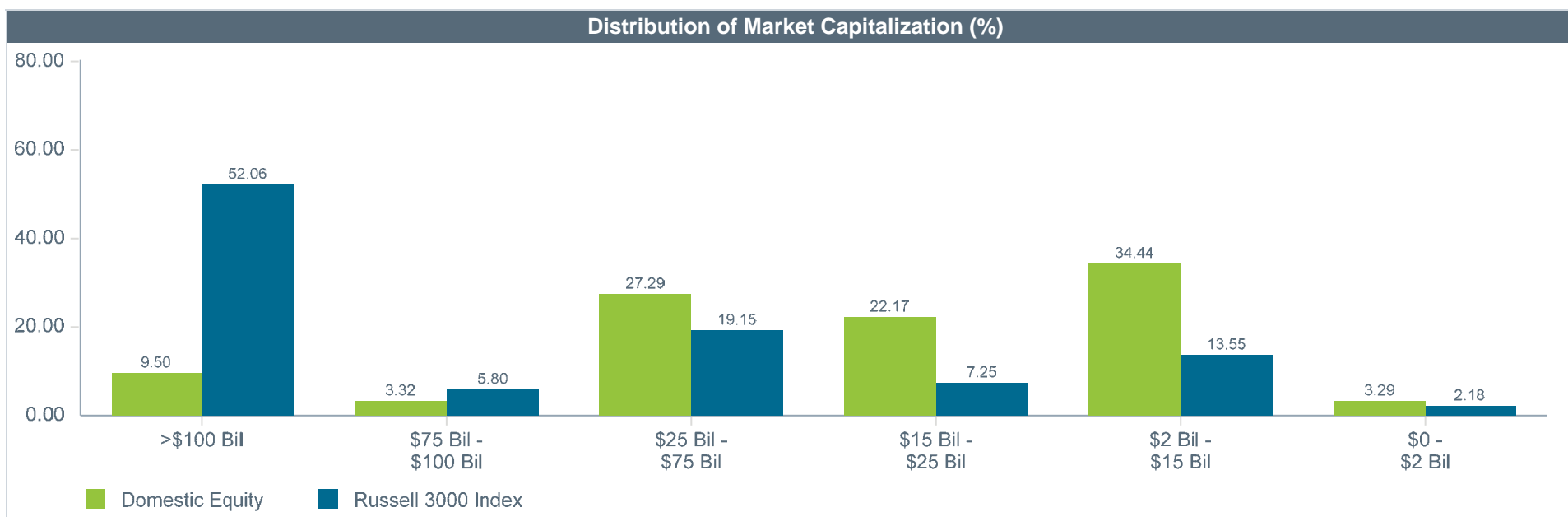


Vermont Pension Investment Committee  
 Domestic Equity vs. Russell 3000 Index  
 Portfolio Characteristics

As of March 31, 2021

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Integra LifeSciences Holdings Corp	0.93	0.01	0.92	6.42
Fortive Corp	0.89	0.05	0.84	-0.15
AMETEK Inc	0.85	0.07	0.78	5.79
Medallia Inc	0.76	0.01	0.75	-16.04
Everest Re Group Ltd	0.75	0.02	0.73	6.51
Advance Auto Parts Inc.	0.73	0.03	0.70	16.65
DENTSPLY SIRONA Inc	0.72	0.03	0.69	22.07
Workday Inc	0.71	0.11	0.60	3.68
Pure Storage Inc	0.67	0.01	0.66	-4.73
Arthur J. Gallagher & Co.	0.67	0.06	0.61	1.26
% of Portfolio	7.68	0.40	7.28	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	48,652	385,239
Median Mkt. Cap (\$M)	23,778	2,265
Price/Earnings Ratio	27.43	29.31
Price/Book Ratio	3.55	4.30
5 Yr. EPS Growth Rate (%)	11.30	17.01
Current Yield (%)	1.28	1.37
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	606	3,079



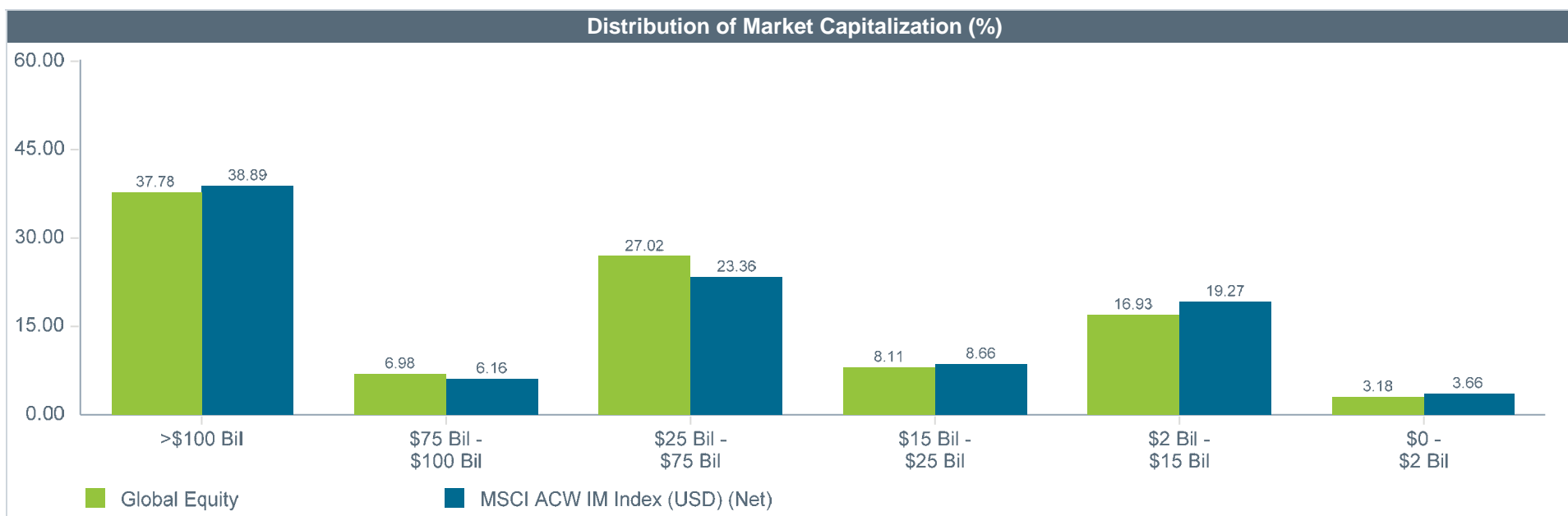


Vermont Pension Investment Committee  
Global Equity vs. MSCI ACW IM Index (USD) (Net)  
Portfolio Characteristics

As of March 31, 2021

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	2.56	2.94	-0.38	-7.81
Microsoft Corp	2.45	2.40	0.05	6.25
Amazon.com Inc	1.62	1.87	-0.25	-5.00
Alphabet Inc	1.09	0.88	0.21	17.68
Facebook Inc	0.87	1.00	-0.13	7.82
Alphabet Inc	0.76	0.87	-0.11	18.08
Techtronic Industries Co Ltd	0.75	0.03	0.72	19.92
Astrazeneca PLC	0.70	0.19	0.51	1.80
Taiwan Semiconductor Mfg	0.63	0.72	-0.09	9.66
Tesla Inc	0.62	0.72	-0.10	-5.35
% of Portfolio	12.05	11.62	0.43	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	245,221	259,103
Median Mkt. Cap (\$M)	2,219	2,203
Price/Earnings Ratio	26.45	25.25
Price/Book Ratio	3.65	3.48
5 Yr. EPS Growth Rate (%)	12.60	12.48
Current Yield (%)	1.64	1.74
Beta (3 Years, Monthly)	0.98	1.00
Number of Securities	8,947	8,925

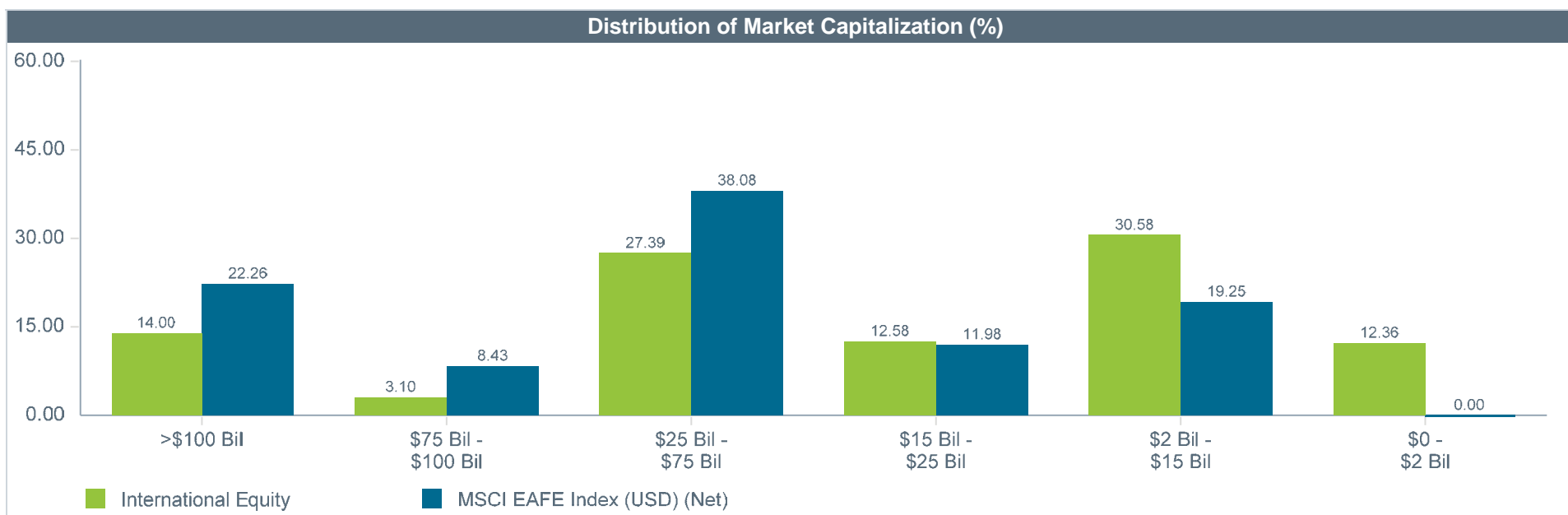


Vermont Pension Investment Committee  
International Equity vs. MSCI EAFE Index (USD) (Net)  
Portfolio Characteristics

As of March 31, 2021

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Novartis AG	2.33	1.17	1.16	-5.89
Roche Holding AG	1.79	1.40	0.39	-4.46
ASML Holding NV	1.58	1.59	-0.01	24.78
Nippon Telegraph & Telephone Corp	1.55	0.20	1.35	2.11
Kingfisher PLC	1.45	0.06	1.39	18.78
Fujitsu Ltd	1.32	0.17	1.15	0.78
Compagnie de Saint Gobain SA	1.19	0.18	1.01	28.75
CK Hutchison Holdings Ltd	1.18	0.13	1.05	14.19
United Overseas Bank Ltd	1.13	0.14	0.99	12.37
Scottish and Southern Energy PLC	1.10	0.13	0.97	-0.56
% of Portfolio	14.62	5.17	9.45	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	48,279	71,273
Median Mkt. Cap (\$M)	1,130	12,923
Price/Earnings Ratio	17.13	22.71
Price/Book Ratio	2.21	2.59
5 Yr. EPS Growth Rate (%)	10.75	3.45
Current Yield (%)	2.73	2.37
Beta (5 Years, Monthly)	1.01	1.00
Number of Securities	634	875



Vermont Pension Investment Committee  
**Total Equity**  
**Country/Region Allocation**

As of March 31, 2021

	Total Equity	MSCI ACW IM Index (USD) (Net)		Total Equity	MSCI ACW IM Index (USD) (Net)
Canada	2.55	2.96	China	2.77	4.12
United States	52.82	55.26	India	0.85	1.34
Australia	1.85	1.98	Indonesia	0.10	0.16
Hong Kong	1.79	1.16	Korea	1.68	1.78
New Zealand	0.14	0.12	Malaysia	0.13	0.21
Singapore	0.42	0.35	Pakistan	0.01	0.01
<b>Pacific ex Japan</b>	<b>4.19</b>	<b>3.60</b>	Philippines	0.05	0.08
Japan	7.71	6.87	Taiwan	1.34	1.88
Austria	0.10	0.09	Thailand	0.17	0.27
Belgium	0.19	0.26	<b>EM Asia</b>	<b>7.11</b>	<b>9.84</b>
Bermuda	0.33	0.15	Czech Republic	0.01	0.01
Denmark	1.36	0.62	Greece	0.02	0.03
Finland	0.34	0.34	Hungary	0.02	0.02
France	2.33	2.54	Poland	0.05	0.08
Germany	2.32	2.47	Russia	0.26	0.31
Ireland	0.94	1.09	Turkey	0.05	0.05
Italy	0.76	0.62	<b>EM Europe</b>	<b>0.41</b>	<b>0.51</b>
Netherlands	2.29	1.60	Argentina	0.07	0.10
Norway	0.15	0.23	Brazil	0.56	0.60
Portugal	0.03	0.05	Cayman Islands	0.01	0.02
Spain	0.99	0.64	Chile	0.05	0.08
Sweden	1.89	1.08	Colombia	0.01	0.02
Switzerland	3.54	2.61	Mexico	0.14	0.22
<b>Europe ex UK</b>	<b>17.57</b>	<b>14.38</b>	Peru	0.00	0.00
United Kingdom	5.73	4.19	<b>EM Latin America</b>	<b>0.84</b>	<b>1.05</b>
Israel	0.34	0.26	Egypt	0.01	0.01
<b>Middle East</b>	<b>0.34</b>	<b>0.26</b>	Qatar	0.06	0.09
<b>Developed Markets</b>	<b>90.91</b>	<b>87.52</b>	Saudi Arabia	0.11	0.18
			South Africa	0.34	0.51
			United Arab Emirates	0.06	0.09
			<b>EM Mid East+Africa</b>	<b>0.57</b>	<b>0.88</b>
			<b>Emerging Markets</b>	<b>8.94</b>	<b>12.28</b>

Total Equity

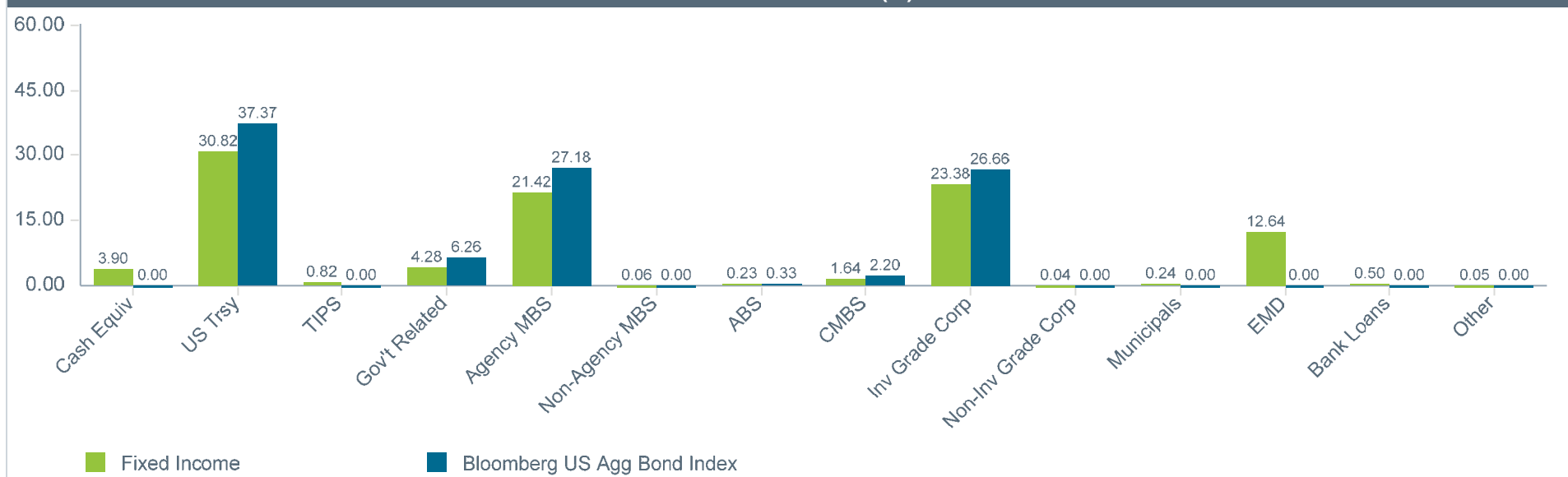
Country/Region Allocation

	Total Equity	MSCI ACW IM Index (USD) (Net)
Kazakhstan	0.00	0.00
Kuwait	0.04	0.07
Oman	0.08	0.12
<b>Frontier Markets</b>	<b>0.12</b>	<b>0.19</b>
Other	0.03	0.00
<b>Total</b>	<b>100.00</b>	<b>100.00</b>

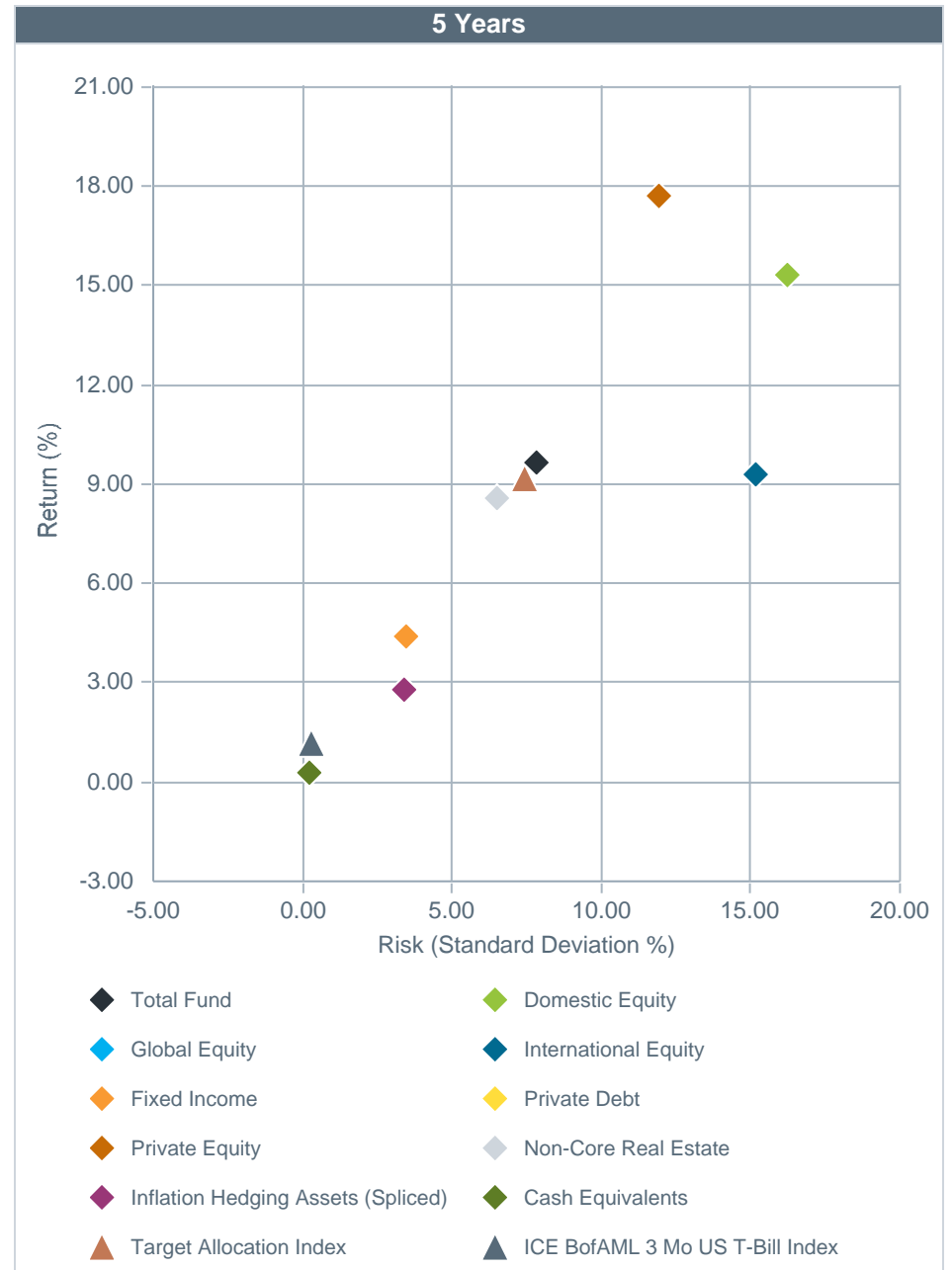
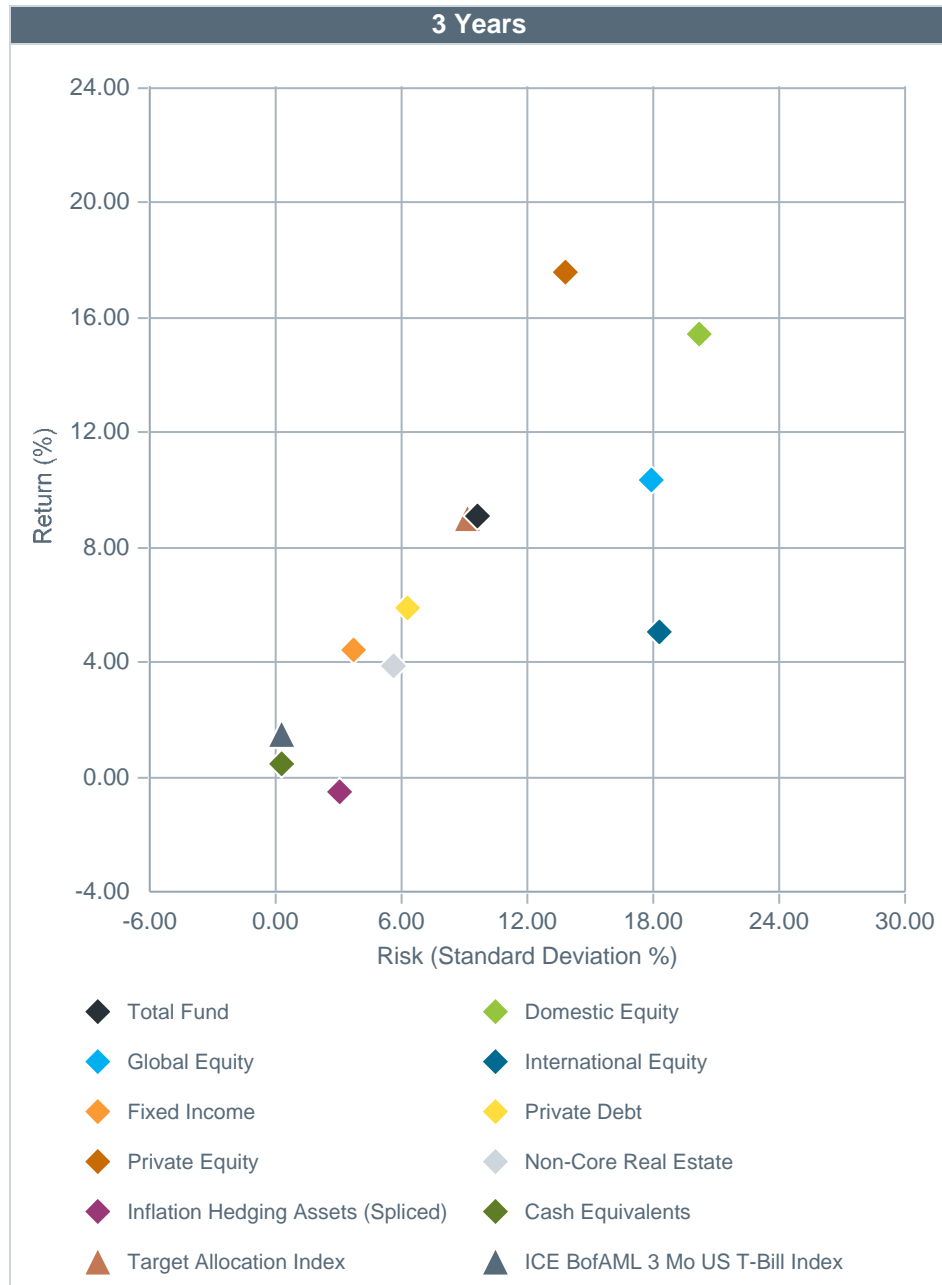
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.52	6.40
Convexity	0.41	0.28
Avg. Maturity	8.81	8.38
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	2.10	1.62
Coupon Rate (%)	2.80	2.64

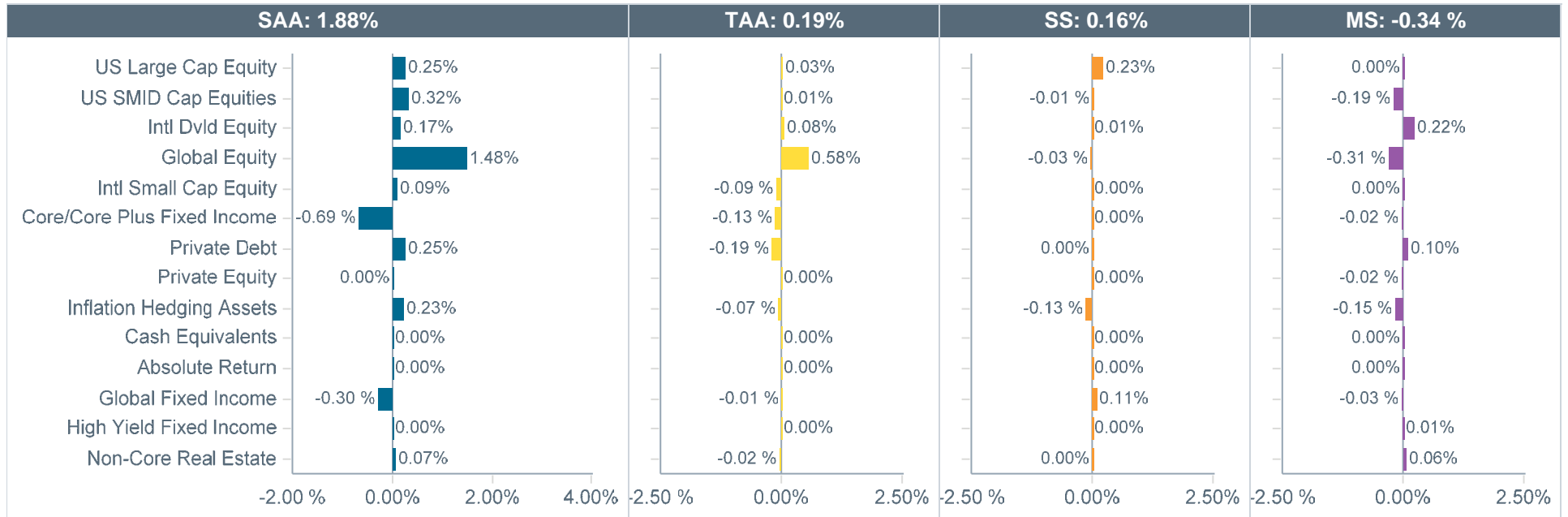
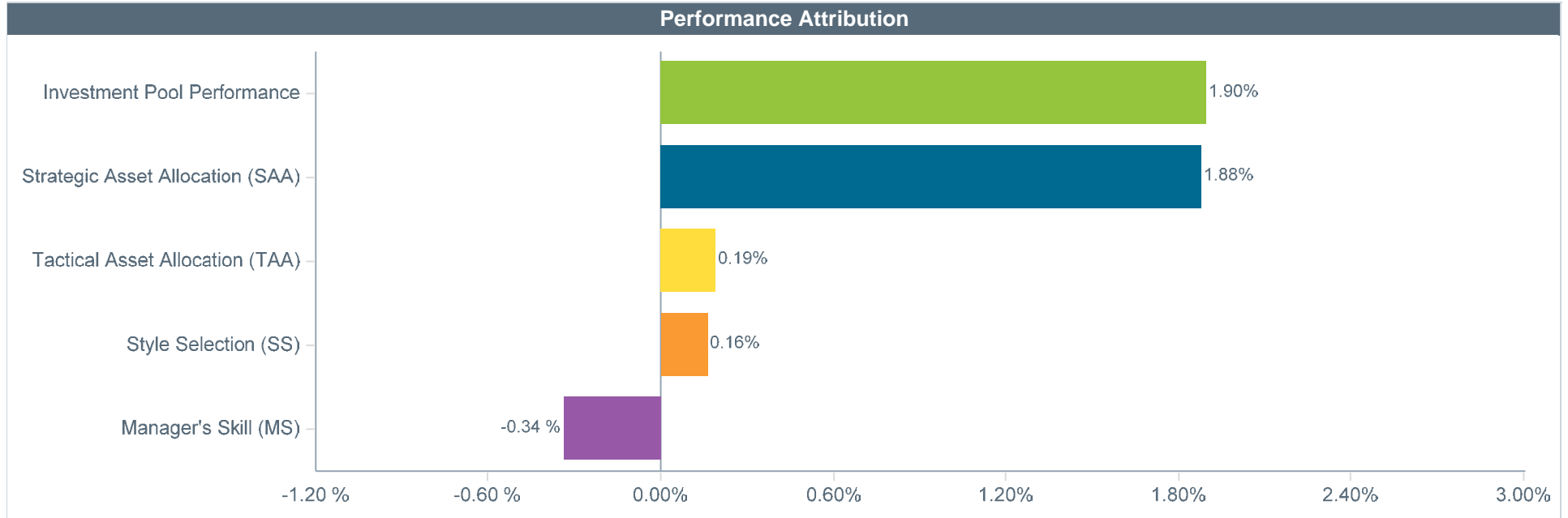
Sector Distribution (%)



Allocation to other consists of Euros/Yankees. Portfolio characteristics for Blackrock US Agg (CF) is proxied using benchmark statistics. PIMCO Unconstrained is excluded from calculations due to fund liquidation.



Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.



Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable investments, such as Private Equity, is imperfect at best and can potentially be misleading. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



General Comments

- Through this reporting period, Vermont Pension Investment Committee has committed a total of \$1,205,000,000 to 27 non-marketable alternative investments.
- The average age of active investments (based upon vintage year and weighted by commitment) was 2.92 years.
- A total of \$528,680,471 has been called or otherwise contributed to date.
- Distributions have totaled \$155,191,480 since plan inception.
- The residual estimated value of interests in these partnerships/investments is \$568,554,701.
- Since inception net performance for the investments are as follows:
  - Annualized since-inception estimated Internal Rate of Return (IRR) of 17.39%.
  - Were an investment into the benchmark index (MSCI ACW IM Index (USD) (Net)) ("Index IRR") made with the identical cash-flow pattern, the resulting return would be equal to 13.45% indicating roughly 393 basis points of annualized out-performance.
  - For every \$1 paid into the portfolio, \$1.37 has been returned as a distribution or is held in residual value (multiple on invested capital = 1.37x).

#### Private Credit - Direct Lending

- Private Credit - Direct Lending funds account for 21.99% of commitments, 25.21% of contributed funds, 17.81% of distributed funds, and 21.48% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 6.79%
  - MSCI ACW IM Index (USD) (Net) IRR of 13.01%
  - A multiple on invested capital of 1.12x.

#### Private Credit - Distressed/Special Situations

- Private Credit - Distressed/Special Situations funds account for 4.15% of commitments, 3.33% of contributed funds, 0.00% of distributed funds, and 3.30% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR - Not Material
  - MSCI ACW IM Index (USD) (Net) IRR - Not Material
  - A multiple on invested capital of 1.07x.

#### Private Equity - Buyout

- Private Equity - Buyout funds account for 21.33% of commitments, 17.76% of contributed funds, 18.33% of distributed funds, and 20.39% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 24.22%
  - MSCI ACW IM Index (USD) (Net) IRR of 16.03%
  - A multiple on invested capital of 1.54x.

#### Private Equity - Fund of Funds

- Private Equity - Fund of Funds funds account for 5.31% of commitments, 4.30% of contributed funds, 3.12% of distributed funds, and 5.04% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 22.62%
  - MSCI ACW IM Index (USD) (Net) IRR of 13.66%
  - A multiple on invested capital of 1.48x.

### Private Equity - Natural Resources

- Private Equity - Natural Resources funds account for 10.79% of commitments, 3.47% of contributed funds, 0.13% of distributed funds, and 3.22% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 2.15%
  - MSCI ACW IM Index (USD) (Net) IRR of 42.10%
  - A multiple on invested capital of 1.01x.

### Private Equity - Non-US Private Equity

- Private Equity - Non-US Private Equity funds account for 1.24% of commitments, 2.30% of contributed funds, 2.00% of distributed funds, and 3.27% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 20.65%
  - MSCI ACW IM Index (USD) (Net) IRR of 12.30%
  - A multiple on invested capital of 1.78x.

### Private Equity - Secondaries

- Private Equity - Secondaries funds account for 13.69% of commitments, 14.61% of contributed funds, 29.96% of distributed funds, and 12.73% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 25.63%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.54%
  - A multiple on invested capital of 1.54x.

### Private Equity - Venture

- Private Equity - Venture funds account for 5.73% of commitments, 7.51% of contributed funds, 9.39% of distributed funds, and 11.97% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 27.88%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.94%
  - A multiple on invested capital of 2.08x.

**Real Estate - Opportunistic**

- Real Estate - Opportunistic funds account for 12.86% of commitments, 19.00% of contributed funds, 19.26% of distributed funds, and 16.14% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 8.11%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.67%
  - A multiple on invested capital of 1.21x.

**Real Estate - Value Added**

- Real Estate - Value Added funds account for 2.90% of commitments, 2.52% of contributed funds, 0.00% of distributed funds, and 2.46% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR - Not Material
  - MSCI ACW IM Index (USD) (Net) IRR - Not Material
  - A multiple on invested capital of 1.05x.

Vermont Pension Investment Committee  
Alternative Investment Private Equity Fund Performance Listing

As of December 31, 2020

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
HarbourVest Partners IX - Buyout, LP	2011	Private Equity - Buyout	24,000,000	20,507,188	19,339,372	20,710,292	19.16	1st	9.45	1.95
HarbourVest Partners IX - Credit Opportunities Fund, LP	2011	Private Equity - Fund of Funds	4,000,000	3,210,265	2,397,018	2,410,293	12.25	2nd	10.55	1.50
HarbourVest Partners IX - Venture, LP	2011	Private Equity - Venture	12,000,000	11,437,671	11,282,463	21,774,071	24.01	1st	8.84	2.89
Dover Street VIII, LP (HarbourVest)	2012	Private Equity - Secondaries	25,000,000	22,750,000	28,461,573	9,632,108	20.42	2nd	8.62	1.67
HarbourVest International Private Equity Partners VII Partnership, LP	2014	Private Equity - Non-US Private Equity	15,000,000	12,150,000	3,105,869	18,570,438	20.65	1st	12.30	1.78
HarbourVest International Private Equity Partners VIII Partnership, LP	2014	Private Equity - Fund of Funds	60,000,000	19,500,000	2,443,063	26,249,208	29.88	1st	15.47	1.47
HarbourVest Partners X - Buyout, LP	2015	Private Equity - Buyout	45,500,000	25,255,287	7,524,481	32,219,120	25.51	1st	14.34	1.57
HarbourVest Partners X - Venture, LP	2015	Private Equity - Venture	19,500,000	14,967,922	2,867,746	28,031,506	34.34	1st	12.57	2.06
Dover Street IX, LP (HarbourVest)	2016	Private Equity - Secondaries	40,000,000	32,000,000	15,702,057	34,812,453	29.22	1st	12.67	1.58
Dover Street X, LP (HarbourVest)	2018	Private Equity - Secondaries	100,000,000	22,500,000	2,339,375	27,917,458	N/M	N/A	N/M	1.34
HarbourVest Partners XI - Buyout Fund, LP	2018	Private Equity - Buyout	75,000,000	17,625,000	1,266,788	22,939,388	52.33	1st	38.94	1.37
HarbourVest Partners XI - Micro Buyout Fund, LP	2018	Private Equity - Buyout	12,500,000	2,437,500	137,150	3,141,018	58.36	1st	53.56	1.34
HarbourVest Partners Co-Investment Fund V, LP	2019	Private Equity - Buyout	25,000,000	15,000,000	0	22,492,063	70.73	N/A	33.46	1.50
HarbourVest Partners XI - Venture Fund, LP	2019	Private Equity - Venture	37,500,000	13,312,500	419,097	18,238,979	65.42	N/A	37.87	1.40
Nuveen Global Farmland Fund, LP	2019	Private Equity - Natural Resources	100,000,000	15,514,687	198,844	15,753,572	N/M	N/A	N/M	1.03
Pontifax Global Food and Agriculture Technology Fund II, LP	2019	Private Equity - Natural Resources	30,000,000	2,808,648	0	2,554,156	-12.39	N/A	18.66	0.91
Siguler Guff Small Buyout Opportunities Fund IV	2019	Private Equity - Buyout	50,000,000	11,550,000	180,245	12,800,185 *	N/M	N/A	N/M	1.12

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the MSCI ACWI Index (USD) (Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Vermont Pension Investment Committee  
 Alternative Investment Private Equity Fund Performance Listing

As of December 31, 2020

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
NB Strategic Co-Investment Partners IV LP	2020	Private Equity - Buyout	25,000,000	1,498,452	0	1,625,686	N/M	N/A	N/M	1.08
			<b>700,000,000</b>	<b>264,025,120</b>	<b>97,665,141</b>	<b>321,871,994</b>	<b>25.00</b>		<b>13.85</b>	<b>1.59</b>

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the MSCI ACW IM Index (USD) (Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Vermont Pension Investment Committee  
Alternative Investment Real Estate Fund Performance Listing

As of December 31, 2020

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Siguler Guff Distressed Real Estate Opportunities Fund II	2013	Real Estate - Opportunistic	40,000,000	35,272,308	22,902,377	26,565,891 *	8.69	4th	6.97	1.40
Siguler Guff DREOF II Co-Investment Fund	2016	Real Estate - Opportunistic	15,000,000	12,669,146	6,164,010	9,737,685 *	7.25	4th	4.97	1.26
Blue Vista Real Estate Partners V	2018	Real Estate - Value Added	35,000,000	13,300,000	0	13,994,810	N/M	N/A	N/M	1.05
Brookfield Strategic Real Estate Partners III	2019	Real Estate - Opportunistic	100,000,000	52,527,937	823,042	55,472,145	6.81	N/A	1.63	1.07
			<b>190,000,000</b>	<b>113,769,391</b>	<b>29,889,429</b>	<b>105,770,531</b>	<b>8.13</b>		<b>5.52</b>	<b>1.19</b>

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA)(Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.





Vermont Pension Investment Committee  
Alternative Investment Private Credit Fund Performance Listing

As of December 31, 2020

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Benefit Street Partners Senior Secured Opportunities Fund	2016	Private Credit - Direct Lending	70,000,000	70,000,000	16,506,674	63,759,050	5.42	4th	4.20	1.15
(Arcmont) Direct Lending Fund III (USD-L) SLP	2018	Private Credit - Direct Lending	70,000,000	34,427,050	11,130,236	27,466,501	9.27	2nd	3.20	1.12
Benefit Street Partners Senior Secured Opportunities Fund II (Levered US)	2019	Private Credit - Direct Lending	75,000,000	12,587,064	0	14,032,793	46.10	N/A	13.14	1.11
AG Direct Lending Fund IV, LP	2020	Private Credit - Direct Lending	50,000,000	16,250,000	0	16,868,602	N/M	N/A	N/M	1.04
Kennedy Lewis Capital Partners Master Fund II, LP	2020	Private Credit - Distressed/Special Situations	50,000,000	17,621,846	0	18,785,230	N/M	N/A	N/M	1.07
			<b>315,000,000</b>	<b>150,885,960</b>	<b>27,636,910</b>	<b>140,912,176</b>	<b>7.15</b>		<b>4.46</b>	<b>1.12</b>

Certain valuations (marked with a \*\*) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the CS Lvg'd Loan Index assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Prequin.



Average Commitment-weighted Active Investment Age (in years): 3.14

Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Vintage Year IRR (%)	Index IRR (%)	Vintage Year Multiple	Cumulative Multiple
2011	40,000,000	35,155,124	33,018,853	44,894,656	20.78	9.31	2.22	2.22
2012	25,000,000	22,750,000	28,461,573	9,632,108	20.42	8.62	1.67	2.00
2014	75,000,000	31,650,000	5,548,932	44,819,646	23.89	13.52	1.59	1.86
2015	65,000,000	40,223,209	10,392,227	60,250,626	29.42	13.60	1.76	1.83
2016	40,000,000	32,000,000	15,702,057	34,812,453	29.22	12.67	1.58	1.78
2018	187,500,000	42,562,500	3,743,313	53,997,864	72.93	38.21	1.36	1.69
2019	242,500,000	58,185,835	798,186	71,838,955	44.56	43.51	1.25	1.59
2020	25,000,000	1,498,452	0	1,625,686	N/M	N/M	1.08	1.59
<b>TOTAL</b>	<b>700,000,000</b>	<b>264,025,120</b>	<b>97,665,141</b>	<b>321,871,994</b>	<b>25.00</b>	<b>13.85</b>		<b>1.59</b>

Index IRR represents the dollar-weighted returns calculated using the MSCI ACW IM Index (USD) (Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Vintage Year IRR is the annualized since-inception net internal rate for the indicated fund or composite. This report may contain valuations for investments that are preliminary estimates of valuation as of the date of reporting which reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Vintage Year Multiple is the since inception sum of distributions and valuation divided by paid in capital. Cumulative Multiple is the since inception sum of distributions and valuation divided by paid in capital for all investments through the indicated vintage year.



Average Commitment-weighted Active Investment Age (in years): 3.49

Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Vintage Year IRR (%)	Index IRR (%)	Vintage Year Multiple	Cumulative Multiple
2013	40,000,000	35,272,308	22,902,377	26,565,891	8.69	6.97	1.40	1.40
2016	15,000,000	12,669,146	6,164,010	9,737,685	7.25	4.97	1.26	1.36
2018	35,000,000	13,300,000	0	13,994,810	N/M	N/M	1.05	1.30
2019	100,000,000	52,527,937	823,042	55,472,145	6.81	1.63	1.07	1.19
<b>TOTAL</b>	<b>190,000,000</b>	<b>113,769,391</b>	<b>29,889,429</b>	<b>105,770,531</b>	<b>8.13</b>	<b>5.52</b>		<b>1.19</b>

Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA)(Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Vintage Year IRR is the annualized since-inception net internal rate for the indicated fund or composite. This report may contain valuations for investments that are preliminary estimates of valuation as of the date of reporting which reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Vintage Year Multiple is the since inception sum of distributions and valuation divided by paid in capital. Cumulative Multiple is the since inception sum of distributions and valuation divided by paid in capital for all investments through the indicated vintage year.

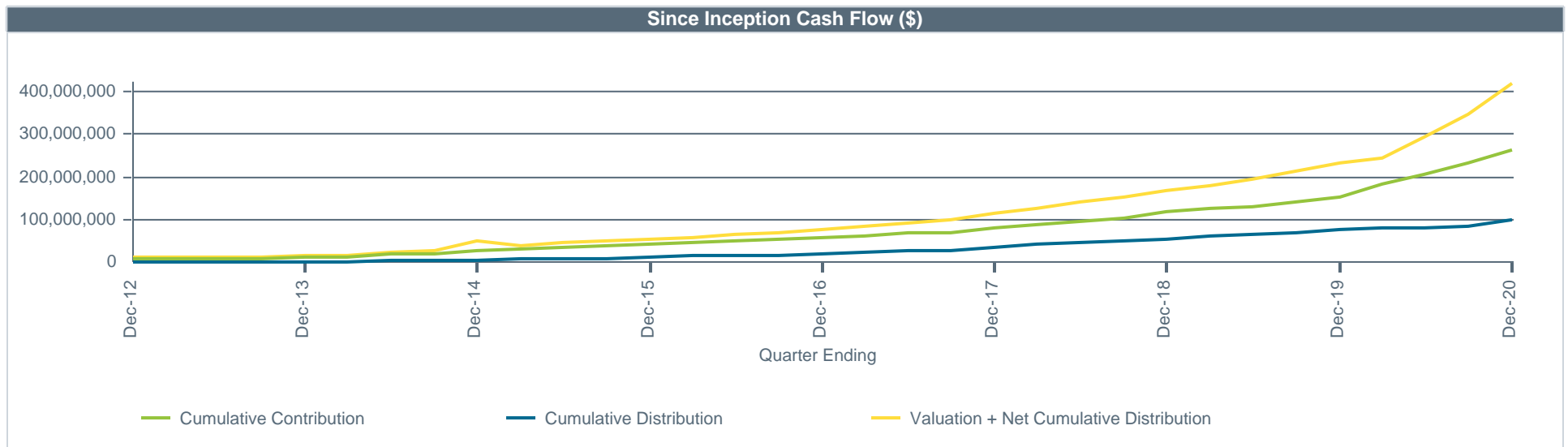
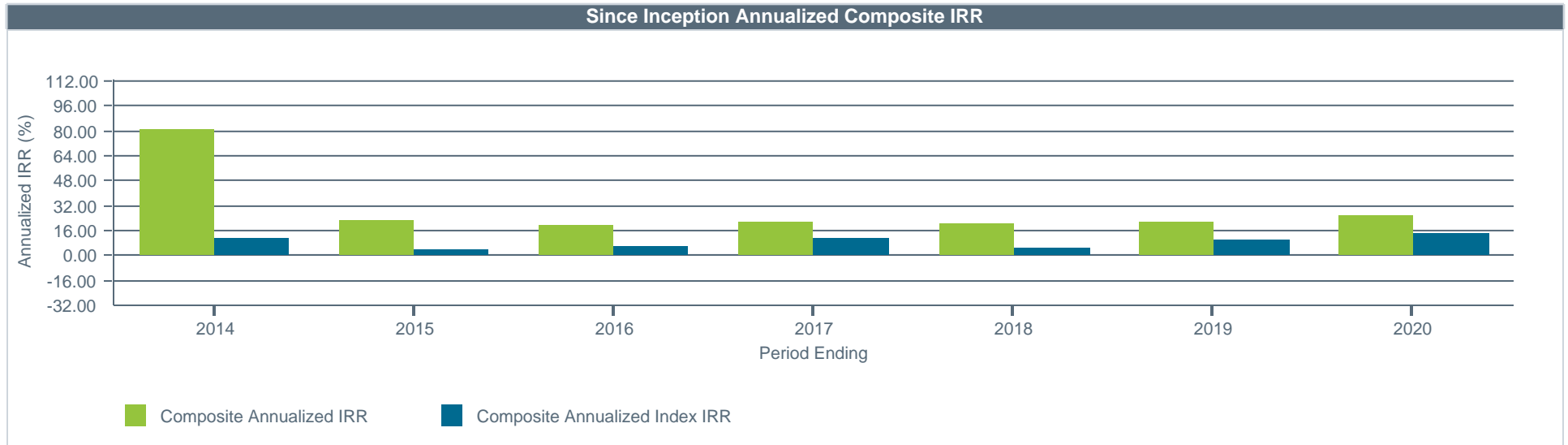


Average Commitment-weighted Active Investment Age (in years): 2.08

Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Vintage Year IRR (%)	Index IRR (%)	Vintage Year Multiple	Cumulative Multiple
2016	70,000,000	70,000,000	16,506,674	63,759,050	5.42	4.20	1.15	1.15
2018	70,000,000	34,427,050	11,130,236	27,466,501	9.27	3.20	1.12	1.14
2019	75,000,000	12,587,064	0	14,032,793	46.10	13.14	1.11	1.14
2020	100,000,000	33,871,846	0	35,653,832	N/M	N/M	1.05	1.12
<b>TOTAL</b>	<b>315,000,000</b>	<b>150,885,960</b>	<b>27,636,910</b>	<b>140,912,176</b>	<b>7.15</b>	<b>4.46</b>		<b>1.12</b>

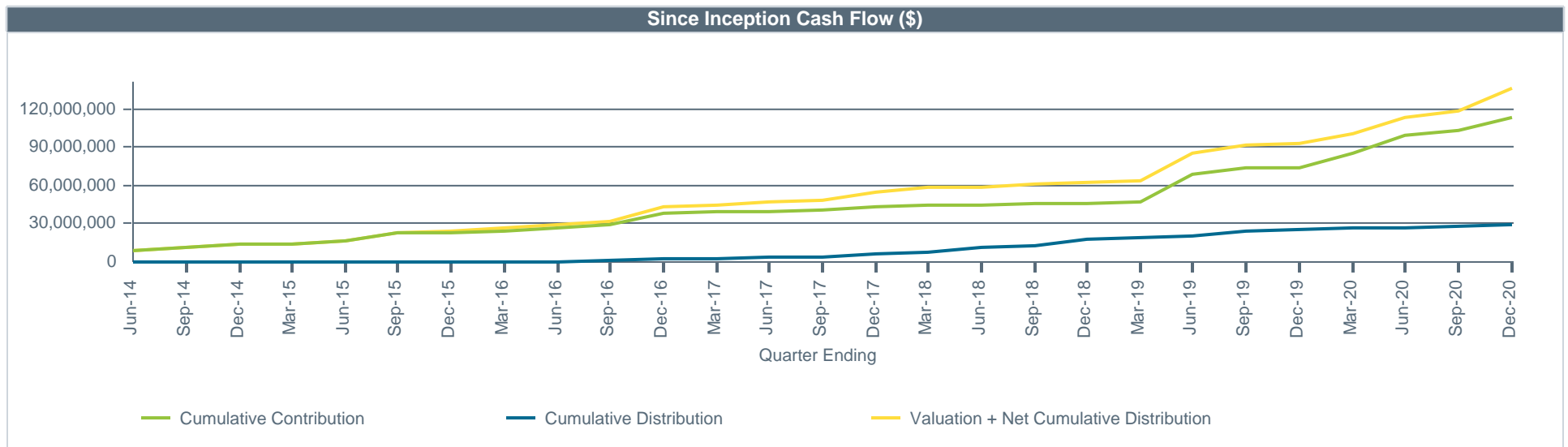
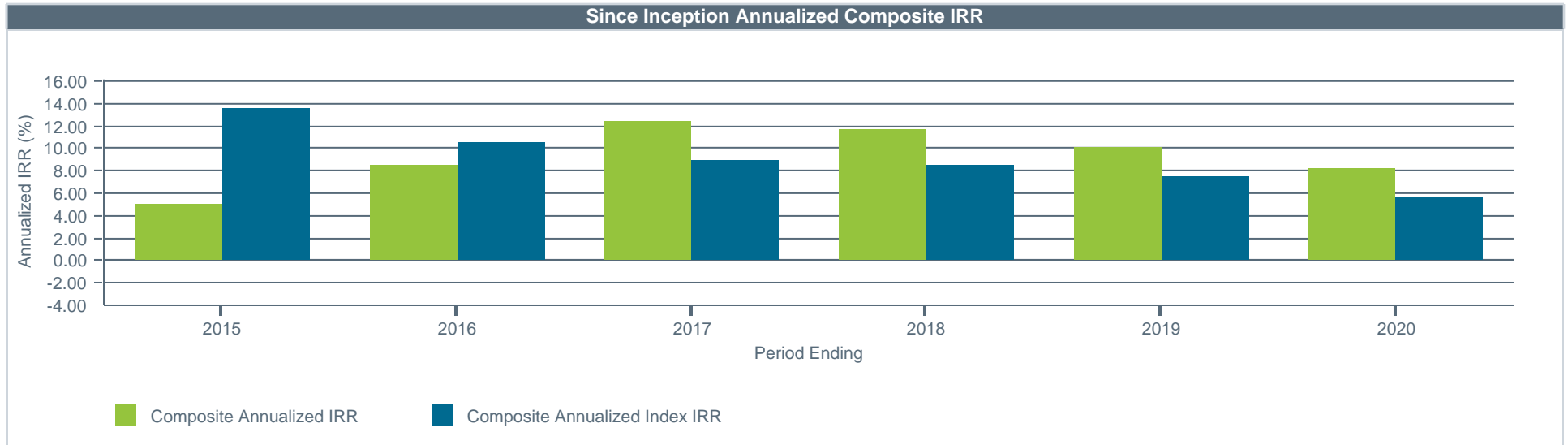
Index IRR represents the dollar-weighted returns calculated using the CS Lvg'd Loan Index assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Vintage Year IRR is the annualized since-inception net internal rate for the indicated fund or composite. This report may contain valuations for investments that are preliminary estimates of valuation as of the date of reporting which reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Vintage Year Multiple is the since inception sum of distributions and valuation divided by paid in capital. Cumulative Multiple is the since inception sum of distributions and valuation divided by paid in capital for all investments through the indicated vintage year.





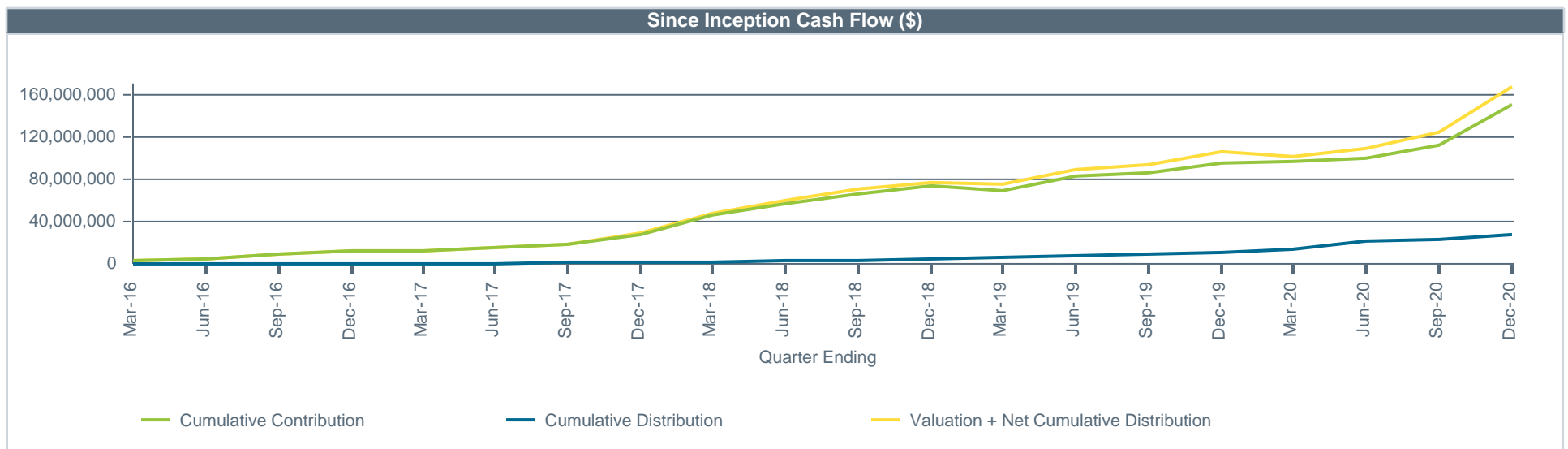
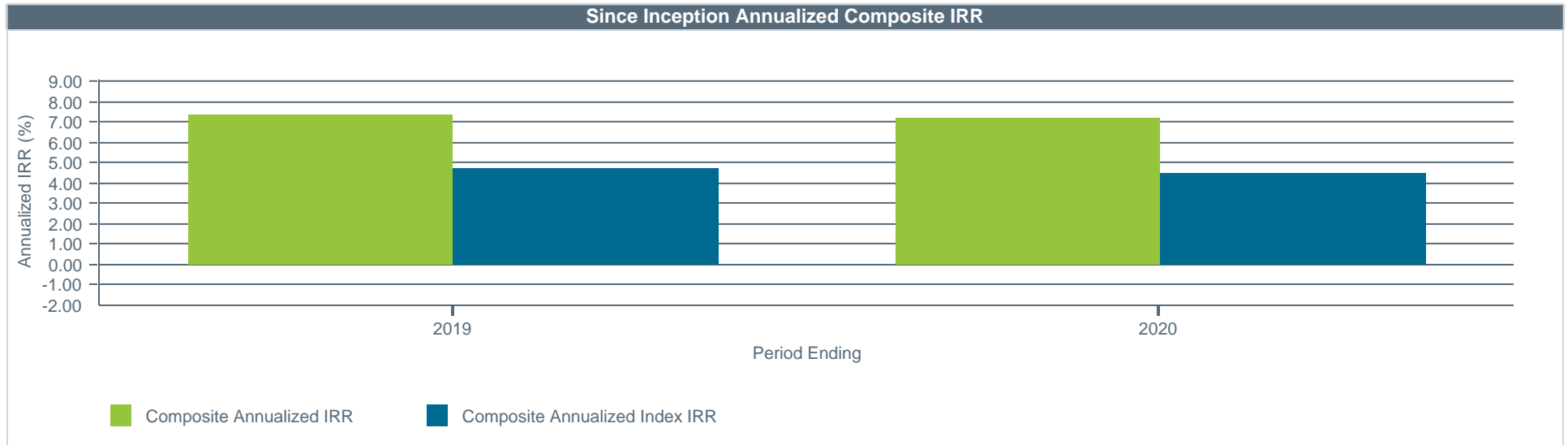
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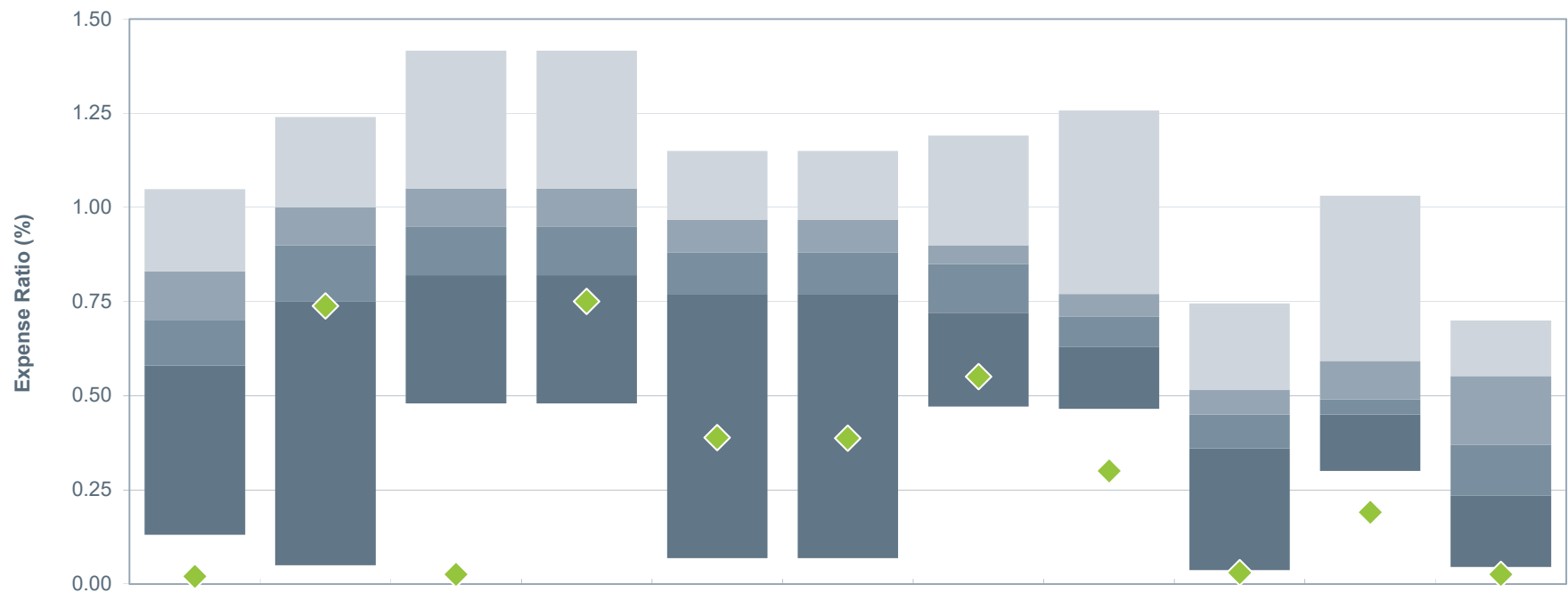




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Fund	Blackrock S&P 500 (Eq) Wtd (CF)	Champlain US Mid Cap Core (SA)	BlackRock MSCI ACW IMI (CF)	Artisan Global Opp (CF)	Acadian Int'l All Cap (SA)	Mondrian Int'l Equity (SA)	Wellington Opp EMD (CF)	PIMCO Liquidation (SA)	BlackRock US Agg (CF)	PIMCO Core Plus (SA)	BlackRock TIPS (CF)
Peer Group	U.S. Large Cap Equity (MF)	U.S. SMID Cap Equity (MF)	Global Equity (MF)	Global Equity (MF)	All EAFE (MF)	All EAFE (MF)	Emerging Markets Debt (MF)	U.S. High Yield Bonds (MF)	U.S. Broad Market Core Fixed Income (MF)	U.S. Broad Market Core+ Fixed Income (MF)	U.S. TIPS (MF)
◆ Fund Expense Ratio	0.02	0.74	0.03	0.75	0.39	0.39	0.55	0.30	0.03	0.19	0.03
Median Expense Ratio	0.70	0.90	0.95	0.95	0.88	0.88	0.85	0.71	0.45	0.49	0.37
Percentile Rank	2	26	1	17	12	12	6	3	5	1	4
Population	443	137	348	348	158	158	74	174	135	80	52

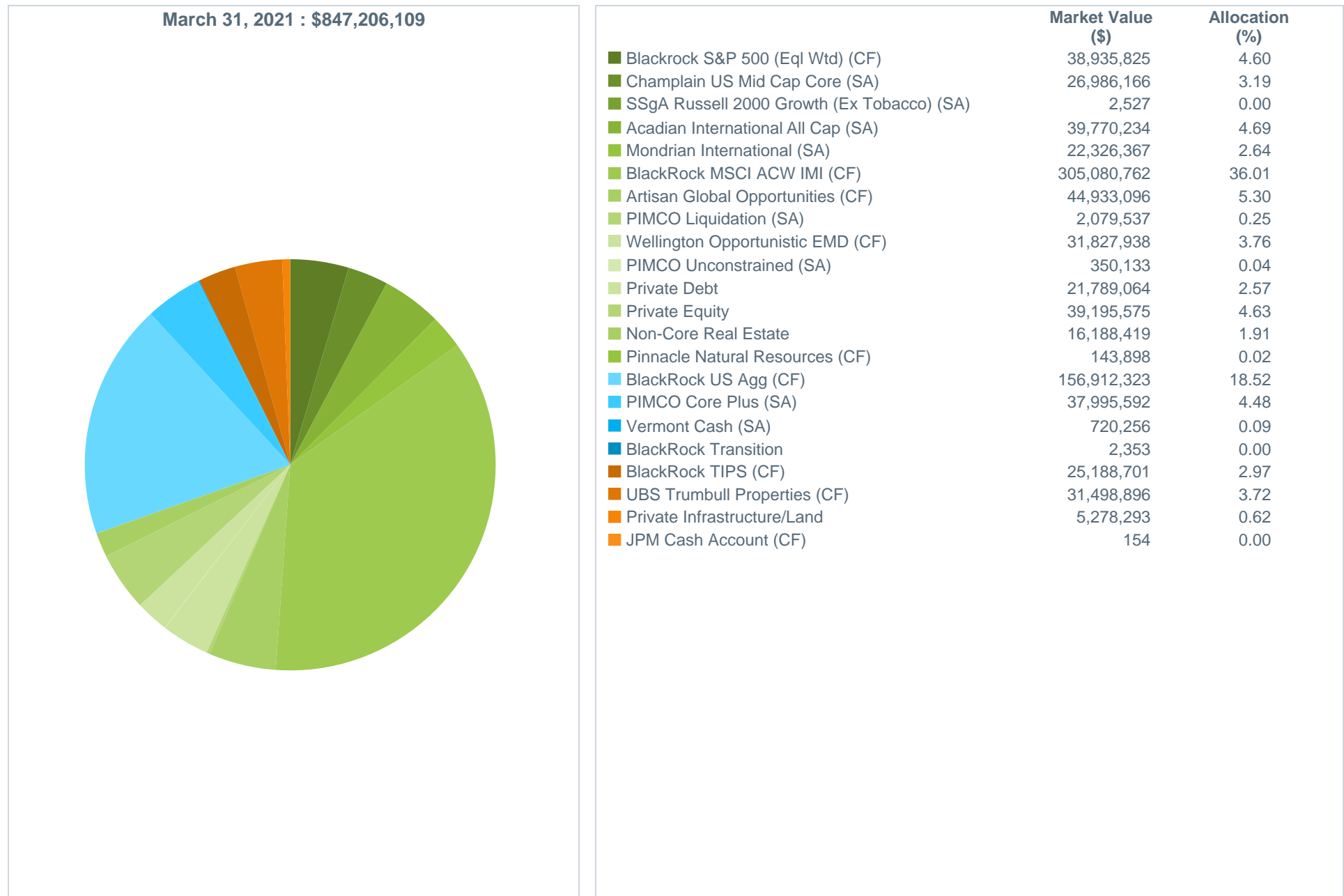
Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio).  
The fee peer groups consist of only institutional share classes.

# VMERS



Vermont Municipal Employees' Retirement System  
Asset Allocation By Manager

As of March 31, 2021

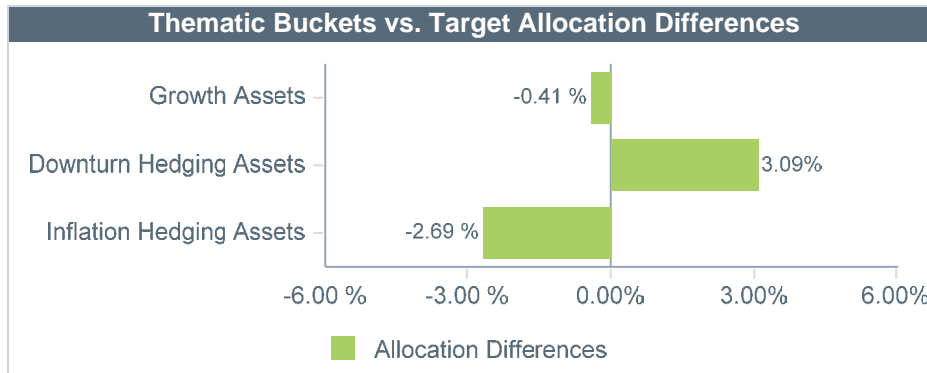


Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA), Pinnacle Natural Resources (CF) and PIMCO Unconstrained (SA) represent residual assets after liquidation.

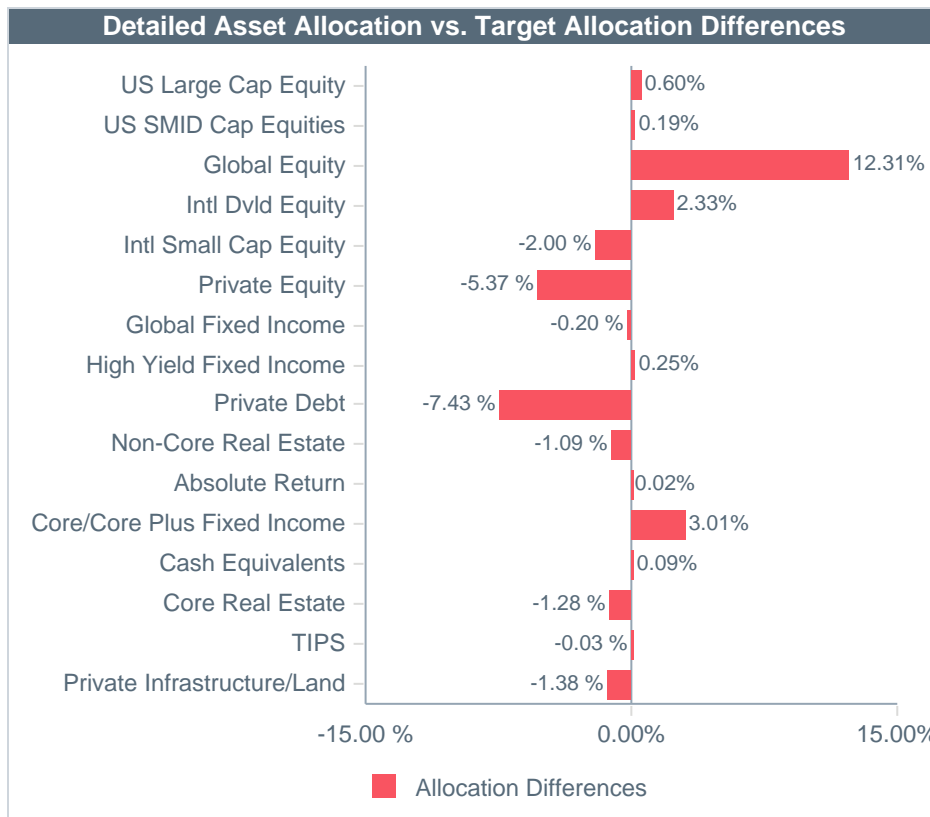
Vermont Municipal Employees' Retirement System  
 Total Fund  
 Asset Allocation vs. Target Allocation

As of March 31, 2021

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	589,609,540	69.59	70.00
Downturn Hedging Assets	195,630,525	23.09	20.00
Inflation Hedging Assets	61,966,044	7.31	10.00
<b>Total Fund</b>	<b>847,206,109</b>	<b>100.00</b>	<b>100.00</b>



Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	38,935,825	4.60	4.00
US SMID Cap Equities	26,988,692	3.19	3.00
Global Equity	350,013,858	41.31	29.00
Intl Dvld Equity	62,096,601	7.33	5.00
Intl Small Cap Equity	-	0.00	2.00
Private Equity	39,195,575	4.63	10.00
Global Fixed Income	32,178,071	3.80	4.00
High Yield Fixed Income	2,079,537	0.25	0.00
Private Debt	21,789,064	2.57	10.00
Non-Core Real Estate	16,188,419	1.91	3.00
Absolute Return	143,898	0.02	0.00
Core/Core Plus Fixed Income	194,907,916	23.01	20.00
Cash Equivalents	722,609	0.09	0.00
Core Real Estate	31,499,050	3.72	5.00
TIPS	25,188,701	2.97	3.00
Private Infrastructure/Land	5,278,293	0.62	2.00
<b>Total Fund</b>	<b>847,206,109</b>	<b>100.00</b>	<b>100.00</b>

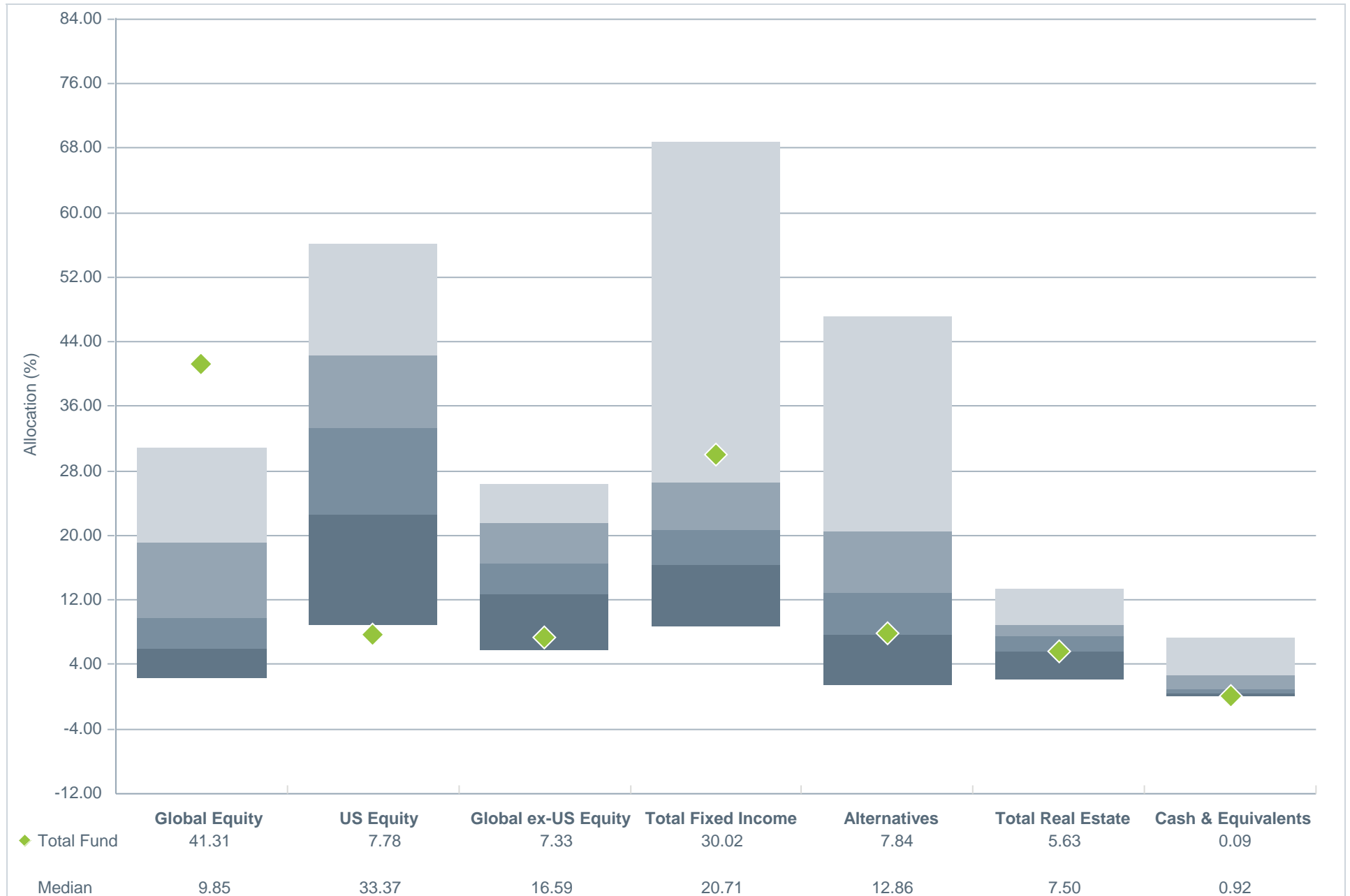


Allocations shown may not sum up to 100% exactly due to rounding.



Vermont Municipal Employees' Retirement System  
 All Public Plans (\$500M to \$5B) (Custom PG)  
 Plan Sponsor TF Asset Allocation

As of March 31, 2021

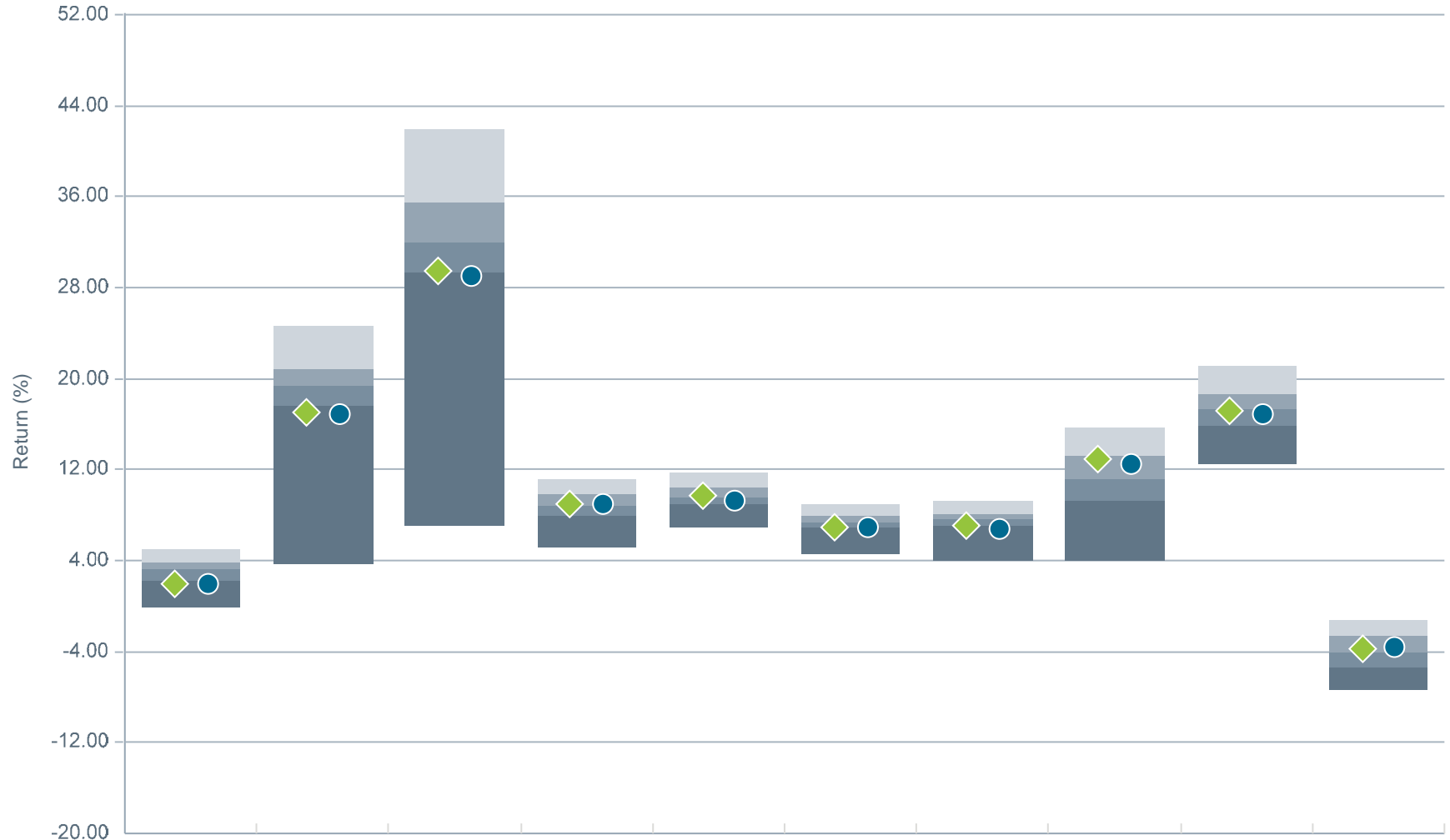


Parentheses contain percentile ranks. Total Fixed Income includes TIPS.



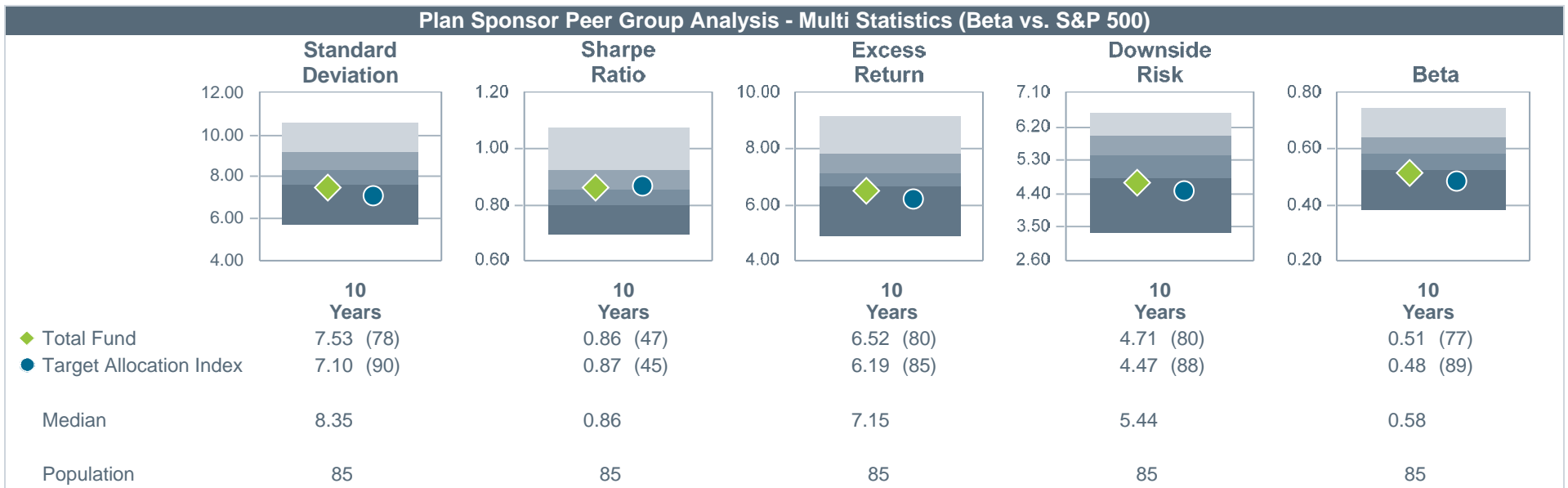
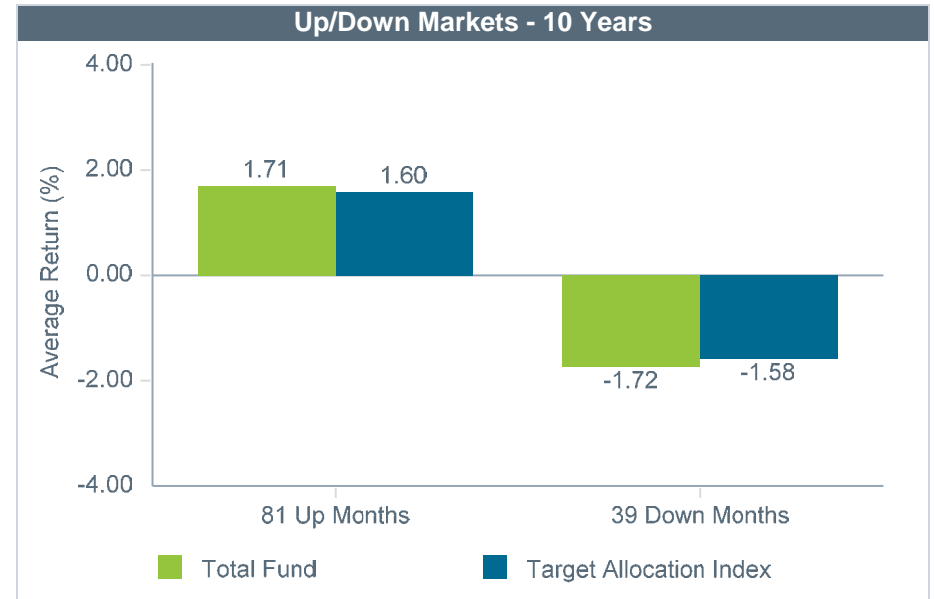
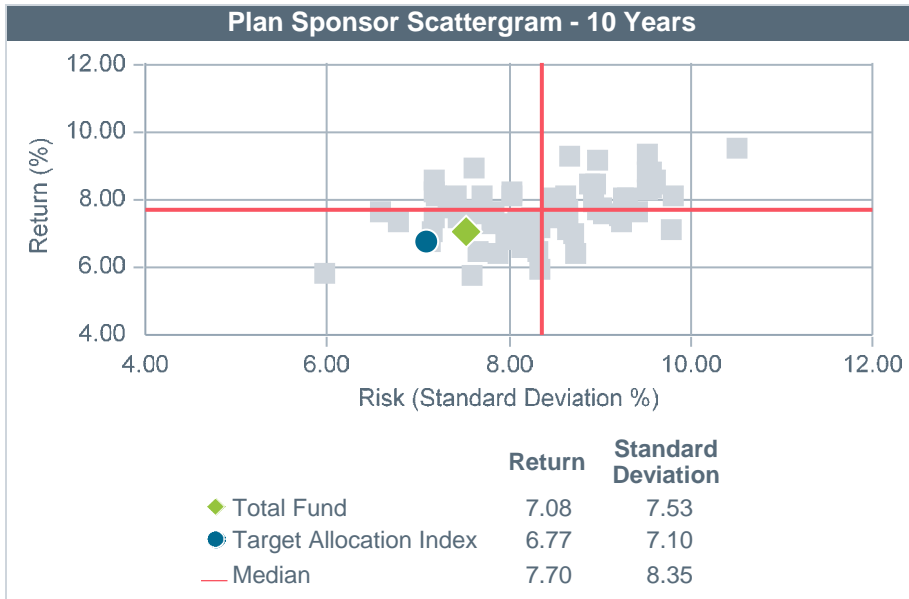
Vermont Municipal Employees' Retirement System  
 All Public Plans (\$1B to \$5B) (Custom PG)  
 Plan Sponsor Peer Group Analysis

As of March 31, 2021



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018
◆ Total Fund	1.91 (83)	17.02 (84)	29.47 (75)	8.94 (45)	9.64 (49)	6.99 (66)	7.08 (76)	12.95 (32)	17.19 (53)	-3.71 (44)
● Target Allocation Index	1.88 (83)	16.94 (84)	29.03 (77)	9.04 (42)	9.20 (67)	6.88 (75)	6.77 (81)	12.51 (34)	16.91 (59)	-3.63 (43)
Median	3.31	19.36	31.95	8.84	9.58	7.33	7.66	11.10	17.28	-4.01
Population	67	66	66	59	59	57	53	77	65	44

Performance shown is net of fees. Parentheses contain percentile ranks.



Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Vermont Municipal Employees' Retirement System  
 Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>847,206,109</b>	<b>100.00</b>	<b>1.91</b>	<b>17.02</b>	<b>29.47</b>	<b>8.94</b>	<b>9.64</b>	<b>7.08</b>	<b>6.09</b>	<b>12.95</b>	<b>6.51</b>	<b>07/01/2005</b>
Target Allocation Index			1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference			0.03	0.08	0.44	-0.10	0.44	0.31	0.05	0.44	0.08	
Actual Allocation Index			2.25	17.32	29.94	8.44	9.02	6.62	5.97	11.38	6.34	
Difference			-0.34	-0.30	-0.47	0.50	0.62	0.46	0.12	1.57	0.17	
<b>Growth Assets</b>	<b>589,609,540</b>	<b>69.59</b>	<b>4.19</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17.08</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.87	
Difference			-0.95	-	-	-	-	-	-	-	-0.79	
<b>Downturn Hedging Assets</b>	<b>195,630,525</b>	<b>23.09</b>	<b>-3.43</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.68</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference			-0.05	-	-	-	-	-	-	-	0.10	
<b>Inflation Hedging Assets</b>	<b>61,966,044</b>	<b>7.31</b>	<b>-1.64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.36</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			2.32	4.67	5.19	4.56	4.71	4.26	4.44	3.90	3.39	
Difference			-3.96	-	-	-	-	-	-	-	-4.75	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



Vermont Municipal Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>847,206,109</b>	<b>100.00</b>	<b>100.00</b>	<b>1.91</b>	<b>17.02</b>	<b>29.47</b>	<b>8.94</b>	<b>9.64</b>	<b>7.08</b>	<b>6.09</b>	<b>12.95</b>	<b>6.51</b>	<b>07/01/2005</b>
Target Allocation Index				1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference				0.03	0.08	0.44	-0.10	0.44	0.31	0.05	0.44	0.08	
Actual Allocation Index				2.25	17.32	29.94	8.44	9.02	6.62	5.97	11.38	6.34	
Difference				-0.34	-0.30	-0.47	0.50	0.62	0.46	0.12	1.57	0.17	
All Public Plans (\$500M to \$5B)				3.21	19.84	33.20	9.07	9.68	7.70	6.49	11.63	6.77	
Rank				84	82	78	55	51	78	74	38	71	
<b>Domestic Equity</b>	<b>65,924,517</b>	<b>7.78</b>	<b>7.00</b>	<b>8.38</b>	<b>38.88</b>	<b>71.20</b>	<b>15.47</b>	<b>15.39</b>	<b>13.14</b>	<b>-</b>	<b>19.18</b>	<b>13.55</b>	<b>01/01/2011</b>
Russell 3000 Index				6.35	33.19	62.53	17.12	16.64	13.79	10.05	20.89	14.12	
Difference				2.03	5.69	8.67	-1.65	-1.25	-0.65	-	-1.71	-0.57	
<b>US Large Cap Equity</b>	<b>38,935,825</b>	<b>4.60</b>	<b>4.00</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>13.92</b>	<b>14.48</b>	<b>12.95</b>	<b>9.85</b>	<b>13.03</b>	<b>10.34</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				6.17	29.71	56.35	16.78	16.29	13.91	10.02	18.40	10.20	
Difference				5.28	11.30	15.45	-2.86	-1.81	-0.96	-0.17	-5.37	0.14	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>38,935,825</b>	<b>4.60</b>	<b>-</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.03</b>	<b>19.77</b>	<b>06/01/2019</b>
S&P 500 Index (Eq Wtd)				11.49	40.98	71.61	14.90	14.74	13.09	10.33	12.83	23.24	
Difference				-0.04	0.03	0.19	-	-	-	-	0.20	-3.47	
IM U.S. Large Cap Equity (MF) Median				5.91	29.35	57.30	16.10	15.75	12.81	9.45	18.34	24.18	
Rank				14	9	8	-	-	-	-	64	71	
<b>US SMID Cap Equities</b>	<b>26,988,692</b>	<b>3.19</b>	<b>3.00</b>	<b>4.22</b>	<b>35.67</b>	<b>69.62</b>	<b>17.97</b>	<b>16.83</b>	<b>13.44</b>	<b>10.12</b>	<b>27.32</b>	<b>10.74</b>	<b>07/01/2005</b>
Russell 2500 Index				10.93	49.65	89.40	15.34	15.93	12.20	9.53	19.99	10.25	
Difference				-6.71	-13.98	-19.78	2.63	0.90	1.24	0.59	7.33	0.49	
<b>Champlain US Mid Cap Core (SA)</b>	<b>26,986,166</b>	<b>3.19</b>	<b>-</b>	<b>4.22</b>	<b>35.67</b>	<b>69.61</b>	<b>17.97</b>	<b>18.30</b>	<b>14.34</b>	<b>-</b>	<b>27.32</b>	<b>15.78</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				10.44	50.62	89.76	14.58	15.99	12.04	9.43	19.99	14.00	
Difference				-6.22	-14.95	-20.15	3.39	2.31	2.30	-	7.33	1.78	
IM U.S. SMID Cap Equity (MF) Median				10.21	46.73	83.31	14.61	15.53	11.84	9.53	20.27	13.86	
Rank				71	87	84	34	32	20	-	41	28	
<b>Global Equity</b>	<b>350,013,858</b>	<b>41.31</b>	<b>29.00</b>	<b>4.32</b>	<b>31.48</b>	<b>59.14</b>	<b>10.51</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.39</b>	<b>7.75</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	9.10	
Difference				-0.82	-0.02	1.56	-1.39	-	-	-	4.14	-1.35	

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Vermont Municipal Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>305,080,762</b>	<b>36.01</b>	<b>-</b>	<b>5.33</b>	<b>31.94</b>	<b>58.26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.77</b>	<b>18.25</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.72	
Difference				0.19	0.44	0.68	-	-	-	-	0.52	0.53	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	17.27	
Rank				35	39	47	-	-	-	-	44	46	
<b>Artisan Global Opportunities (CF)</b>	<b>44,933,096</b>	<b>5.30</b>	<b>-</b>	<b>-1.77</b>	<b>23.97</b>	<b>58.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40.50</b>	<b>18.65</b>	<b>06/01/2018</b>
MSCI ACW Index (USD) (Net)				4.57	29.68	54.60	12.07	13.21	9.14	7.04	16.25	12.40	
Difference				-6.34	-5.71	3.77	-	-	-	-	24.25	6.25	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	11.54	
Rank				93	75	47	-	-	-	-	14	13	
<b>International Equity</b>	<b>62,096,601</b>	<b>7.33</b>	<b>7.00</b>	<b>6.76</b>	<b>31.02</b>	<b>51.34</b>	<b>5.04</b>	<b>9.31</b>	<b>5.48</b>	<b>-</b>	<b>4.89</b>	<b>5.61</b>	<b>01/01/2011</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.72	
Difference				3.28	5.18	6.77	-0.98	0.46	-0.04	-	-2.93	-0.11	
<b>Acadian International All Cap (SA)</b>	<b>39,770,234</b>	<b>4.69</b>	<b>-</b>	<b>6.53</b>	<b>32.93</b>	<b>56.12</b>	<b>6.50</b>	<b>11.97</b>	<b>7.93</b>	<b>5.14</b>	<b>12.37</b>	<b>6.39</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				3.63	27.15	46.95	6.06	9.09	5.85	4.37	8.47	5.37	
Difference				2.90	5.78	9.17	0.44	2.88	2.08	0.77	3.90	1.02	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	4.96	
Rank				17	17	17	35	8	9	21	33	17	
<b>Mondrian International (SA)</b>	<b>22,326,367</b>	<b>2.64</b>	<b>-</b>	<b>7.18</b>	<b>27.72</b>	<b>38.84</b>	<b>3.35</b>	<b>6.58</b>	<b>5.01</b>	<b>4.11</b>	<b>-4.01</b>	<b>5.16</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.42	
Difference				3.70	1.88	-5.73	-2.67	-2.27	-0.51	0.01	-11.83	-0.26	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	5.32	
Rank				15	42	88	77	81	61	48	98	56	
<b>Fixed Income</b>	<b>229,165,523</b>	<b>27.05</b>	<b>24.00</b>	<b>-3.66</b>	<b>-0.90</b>	<b>3.46</b>	<b>4.42</b>	<b>4.39</b>	<b>4.24</b>	<b>-</b>	<b>8.14</b>	<b>4.30</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	3.40	
Difference				-0.28	1.23	2.75	-0.23	1.29	0.80	-	0.63	0.90	
<b>Core/Core Plus Fixed Income</b>	<b>194,907,916</b>	<b>23.01</b>	<b>20.00</b>	<b>-3.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.69</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.07	-	-	-	-	-	-	-	0.09	

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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock US Agg (CF)</b>	<b>156,912,323</b>	<b>18.52</b>	<b>-</b>	<b>-3.41</b>	<b>-2.12</b>	<b>0.74</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7.54</b>	<b>3.96</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	4.16	
Difference				-0.03	0.01	0.03	-	-	-	-	0.03	-0.20	
IM U.S. Broad Mkt Core FI (MF)				-3.04	-0.52	4.37	4.80	3.40	3.51	4.24	8.19	4.71	
Rank				76	89	91	-	-	-	-	71	81	
<b>PIMCO Core Plus (SA)</b>	<b>37,995,592</b>	<b>4.48</b>	<b>-</b>	<b>-3.60</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.37</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.22	-	-	-	-	-	-	-	0.41	
IM U.S. Broad Mkt Core+ FI (MF)				-2.95	0.49	6.75	5.04	3.98	3.89	4.80	8.55	-1.18	
Rank				78	-	-	-	-	-	-	-	85	
<b>Emerging Markets Debt</b>	<b>31,827,938</b>	<b>3.76</b>	<b>4.00</b>	<b>-5.48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.09</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	-1.18	
Difference				-0.74	-	-	-	-	-	-	-	0.09	
<b>Wellington Opportunistic EMD (CF)</b>	<b>31,827,938</b>	<b>3.76</b>	<b>-</b>	<b>-5.48</b>	<b>3.27</b>	<b>16.94</b>	<b>4.09</b>	<b>5.80</b>	<b>5.76</b>	<b>-</b>	<b>7.69</b>	<b>6.29</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	5.89	
Difference				-0.74	0.50	2.65	0.22	1.06	0.41	-	1.81	0.40	
IM Emerging Markets Debt (MF) Median				-4.63	5.37	19.41	2.99	4.87	4.28	5.42	5.57	5.04	
Rank				91	93	81	26	20	3	-	15	4	
<b>High Yield Fixed Income</b>	<b>2,079,537</b>	<b>0.25</b>	<b>0.00</b>	<b>4.78</b>	<b>17.51</b>	<b>22.48</b>	<b>3.55</b>	<b>5.72</b>	<b>5.25</b>	<b>-</b>	<b>3.21</b>	<b>6.24</b>	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	7.40	
Difference				3.93	5.22	-1.24	-3.29	-2.34	-1.23	-	-3.90	-1.16	
<b>PIMCO Liquidation (SA)</b>	<b>2,079,537</b>	<b>0.25</b>	<b>-</b>	<b>4.78</b>	<b>17.51</b>	<b>22.55</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.27</b>	<b>3.39</b>	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	6.88	
Difference				3.93	5.22	-1.17	-	-	-	-	-3.84	-3.49	
IM U.S. High Yield Bonds (MF) Median				0.91	11.93	22.24	5.64	6.70	5.34	6.05	5.26	5.79	
Rank				1	5	47	-	-	-	-	81	95	
<b>Private Debt</b>	<b>21,789,064</b>	<b>2.57</b>	<b>10.00</b>	<b>6.20</b>	<b>14.72</b>	<b>9.13</b>	<b>6.05</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.43</b>	<b>6.37</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				2.51	10.82	21.58	4.38	5.44	4.33	4.66	3.12	4.49	
Difference				3.69	3.90	-12.45	1.67	-	-	-	-0.69	1.88	

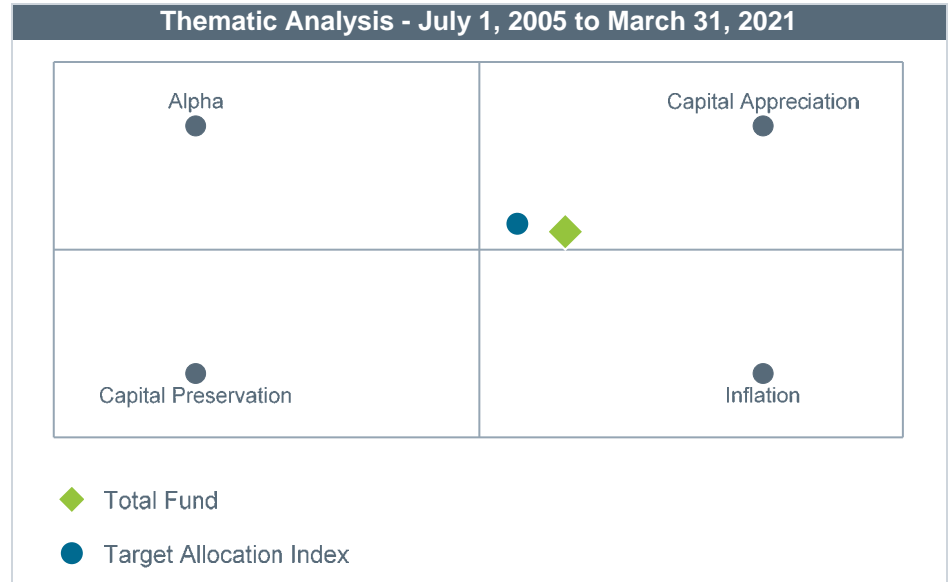
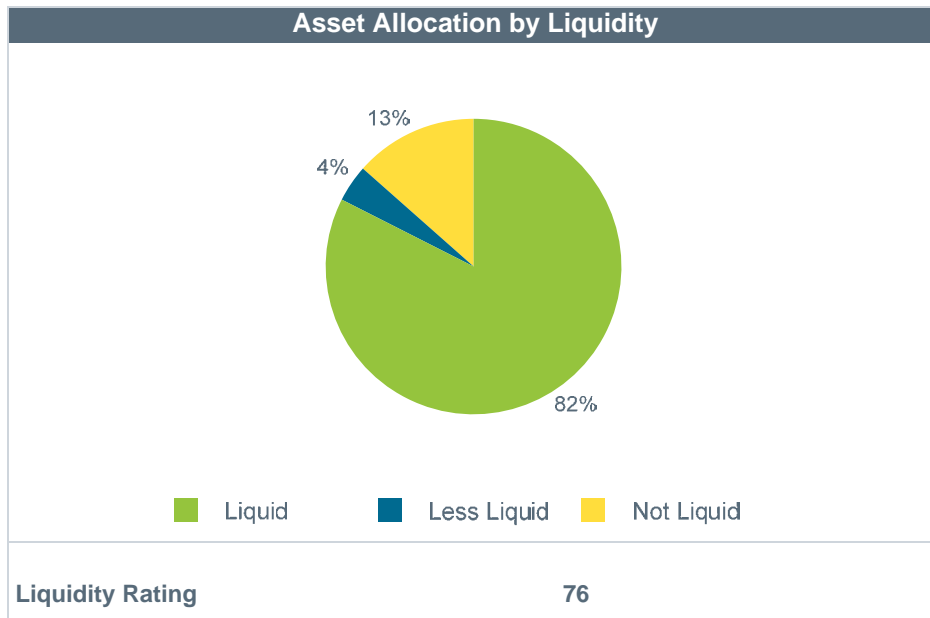
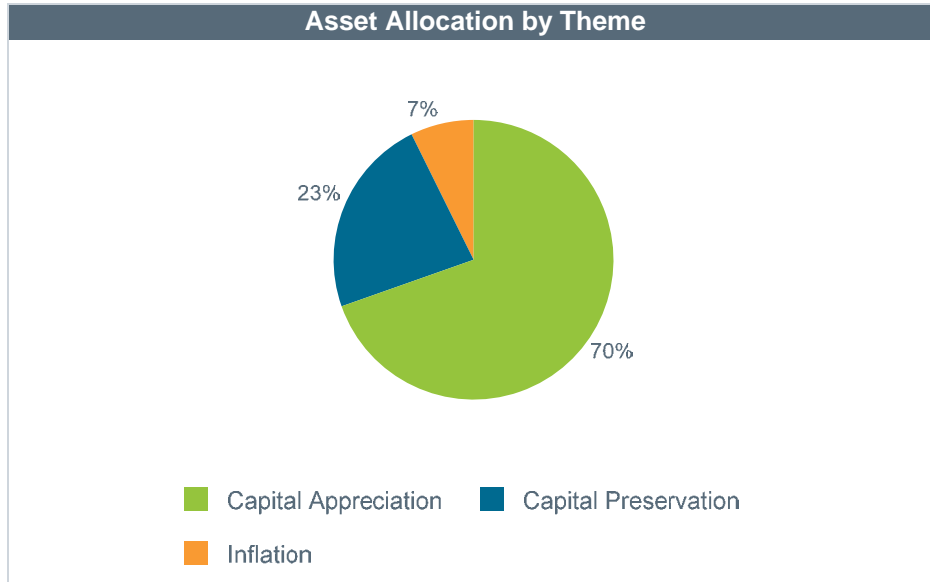
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<b>Private Equity</b>	<b>39,195,575</b>	<b>4.63</b>	<b>10.00</b>	<b>-0.48</b>	<b>25.24</b>	<b>16.84</b>	<b>17.69</b>	<b>17.89</b>	-	-	<b>17.35</b>	<b>17.13</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	23.17	34.58	13.98	15.28	13.34	12.29	21.32	13.83	
Difference				-0.48	2.07	-17.74	3.71	2.61	-	-	-3.97	3.30	
<b>Non-Core Real Estate</b>	<b>16,188,419</b>	<b>1.91</b>	<b>3.00</b>	<b>5.75</b>	<b>5.02</b>	<b>0.65</b>	<b>3.81</b>	<b>8.23</b>	-	-	<b>-1.92</b>	<b>8.90</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				2.39	4.33	3.29	5.12	5.95	8.90	7.05	1.60	7.76	
Difference				3.36	0.69	-2.64	-1.31	2.28	-	-	-3.52	1.14	
<b>Inflation Hedging Assets (Spliced)</b>	<b>61,966,044</b>	<b>7.31</b>	<b>10.00</b>	<b>-1.64</b>	<b>-4.34</b>	<b>-5.06</b>	<b>-0.51</b>	<b>2.94</b>	<b>8.00</b>	-	<b>-2.75</b>	<b>8.21</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				2.32	3.39	2.36	4.81	5.75	8.80	6.99	0.75	8.92	
Difference				-3.96	-7.73	-7.42	-5.32	-2.81	-0.80	-	-3.50	-0.71	
<b>TIPS</b>	<b>25,188,701</b>	<b>2.97</b>	<b>2.00</b>	<b>-1.50</b>	-	-	-	-	-	-	-	<b>-0.25</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	-0.24	
Difference				-0.03	-	-	-	-	-	-	-	-0.01	
<b>BlackRock TIPS (CF)</b>	<b>25,188,701</b>	<b>2.97</b>	<b>-</b>	<b>-1.50</b>	<b>3.16</b>	<b>7.62</b>	<b>5.60</b>	<b>3.81</b>	<b>3.37</b>	-	<b>10.98</b>	<b>3.53</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	3.57	
Difference				-0.03	0.00	0.08	-0.08	-0.05	-0.07	-	-0.01	-0.04	
IM U.S. TIPS (MF) Median				-1.19	3.93	8.43	4.97	3.44	2.78	3.70	9.64	2.96	
Rank				63	69	66	24	31	11	-	26	10	
<b>Core Real Estate</b>	<b>31,499,050</b>	<b>3.72</b>	<b>5.00</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.88</b>	<b>1.97</b>	<b>7.54</b>	-	<b>-2.26</b>	<b>7.76</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	8.85	
Difference				-3.93	-8.01	-5.77	-4.84	-3.29	-1.13	-	-2.60	-1.09	
<b>UBS Trumbull Properties (CF)</b>	<b>31,498,896</b>	<b>3.72</b>	<b>-</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.85</b>	<b>1.71</b>	<b>5.59</b>	<b>4.35</b>	<b>-2.26</b>	<b>4.84</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	5.94	
Difference				-3.93	-8.01	-5.77	-4.81	-3.55	-3.08	-0.99	-2.60	-1.10	
<b>Private Infrastructure/Land</b>	<b>5,278,293</b>	<b>0.62</b>	<b>3.00</b>	<b>0.80</b>	-	-	-	-	-	-	-	<b>0.61</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				0.86	3.45	4.08	4.71	5.46	10.24	11.19	3.08	3.45	
Difference				-0.06	-	-	-	-	-	-	-	-2.84	
<b>Cash Equivalents</b>	<b>722,609</b>	<b>0.09</b>	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>	<b>0.08</b>	<b>0.38</b>	<b>0.25</b>	<b>0.15</b>	-	<b>0.37</b>	<b>0.15</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.02	0.09	0.12	1.49	1.19	0.63	1.16	0.67	0.62	
Difference				-0.02	-0.04	-0.04	-1.11	-0.94	-0.48	-	-0.30	-0.47	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.

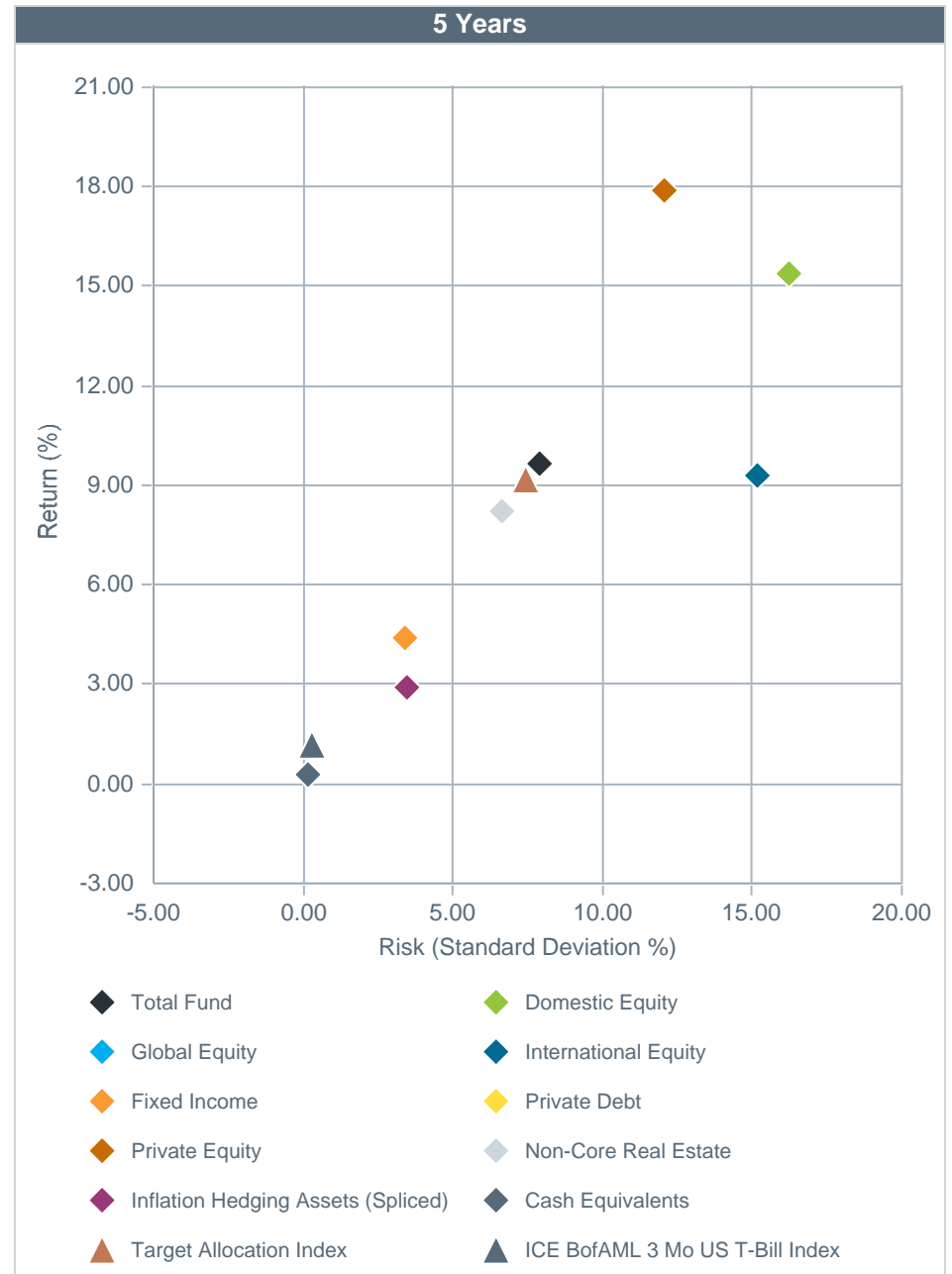
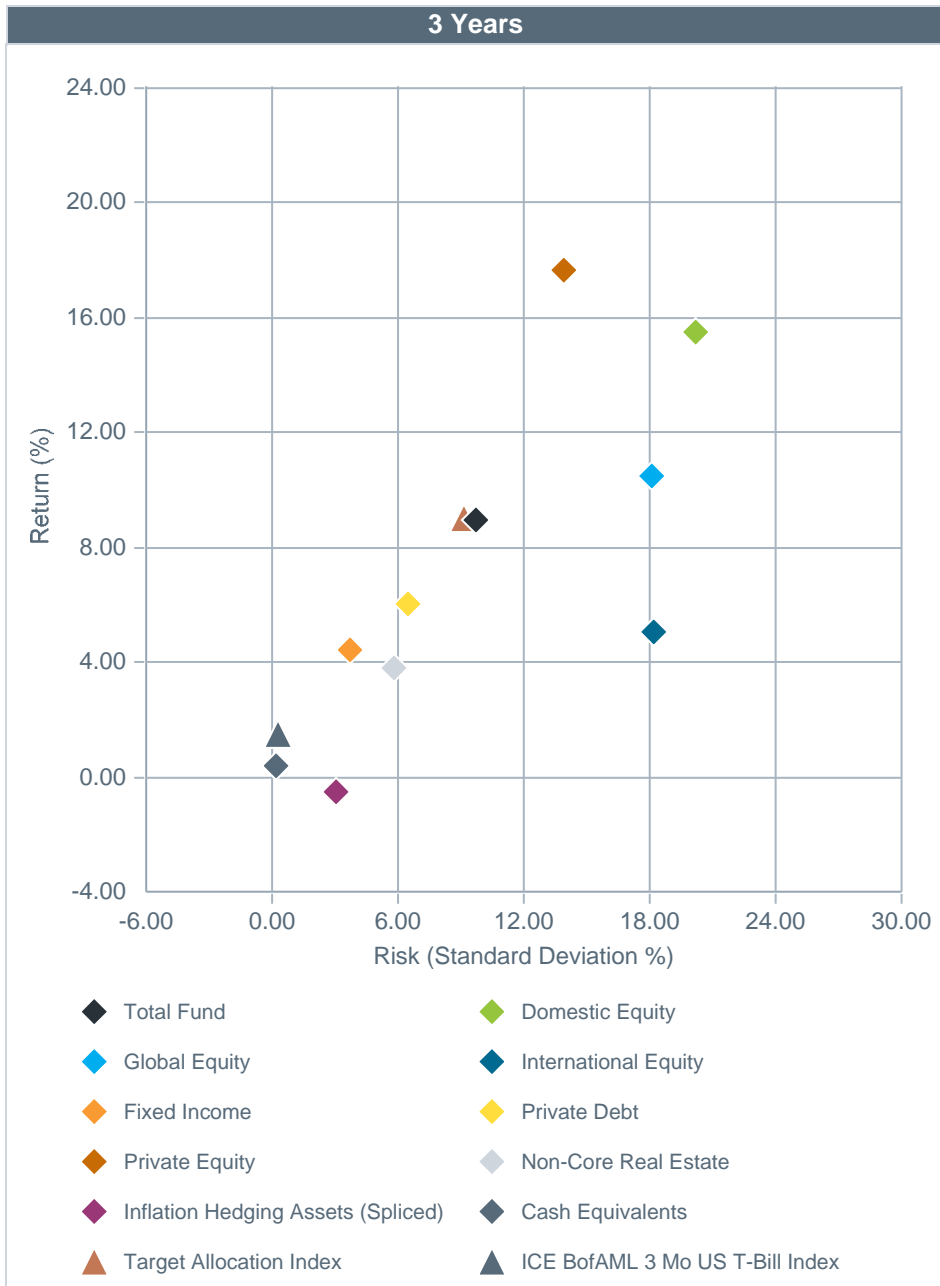


### Correlation Matrix - 10 Years

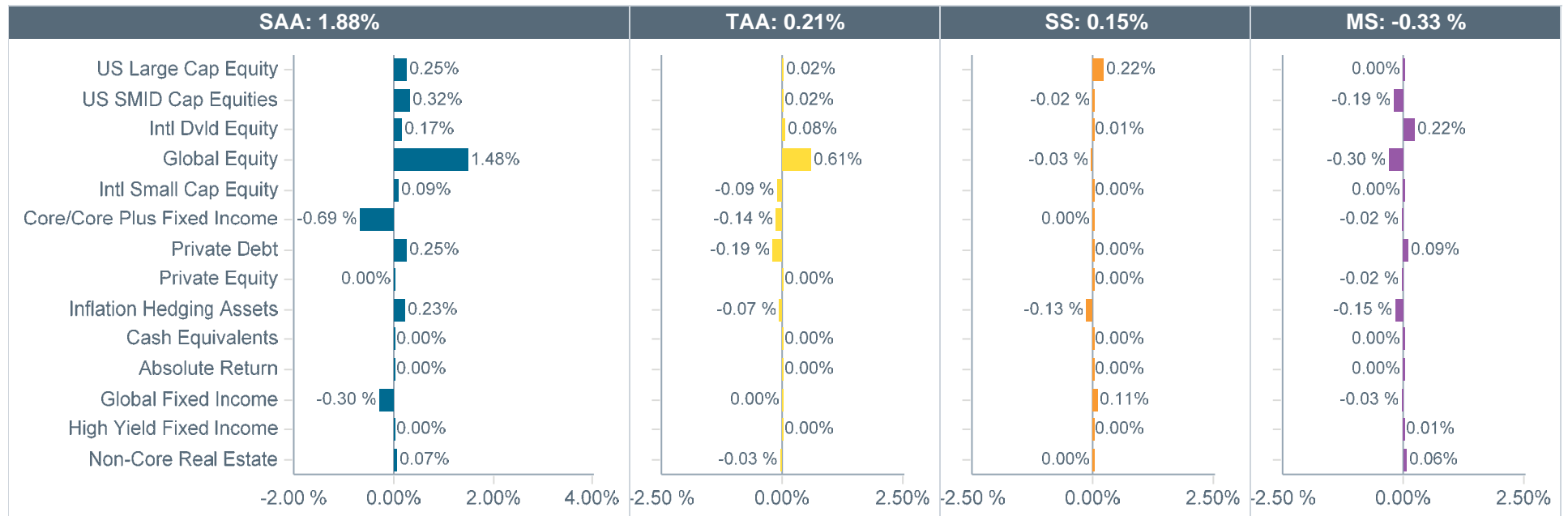
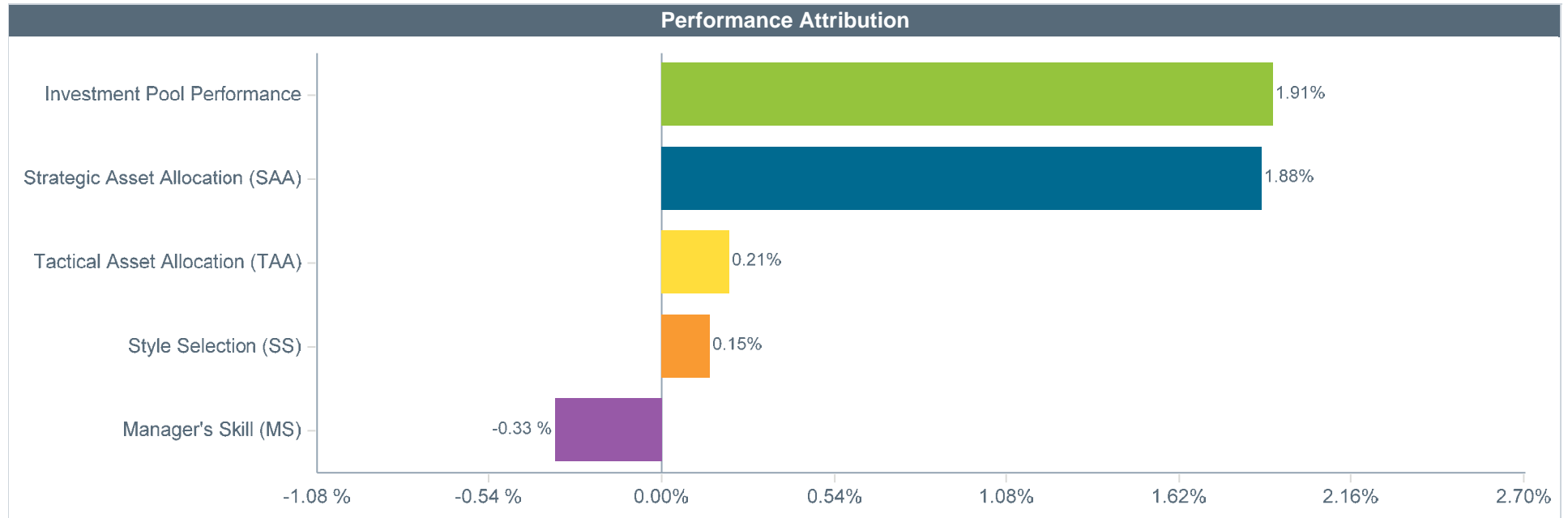
	A	B	C	D
A	1.00			
B	0.70	1.00		
C	-0.28	-0.39	1.00	
D	0.60	0.79	-0.11	1.00

A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Gov't Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions. Allocations may not sum to 100% due to rounding.



Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.

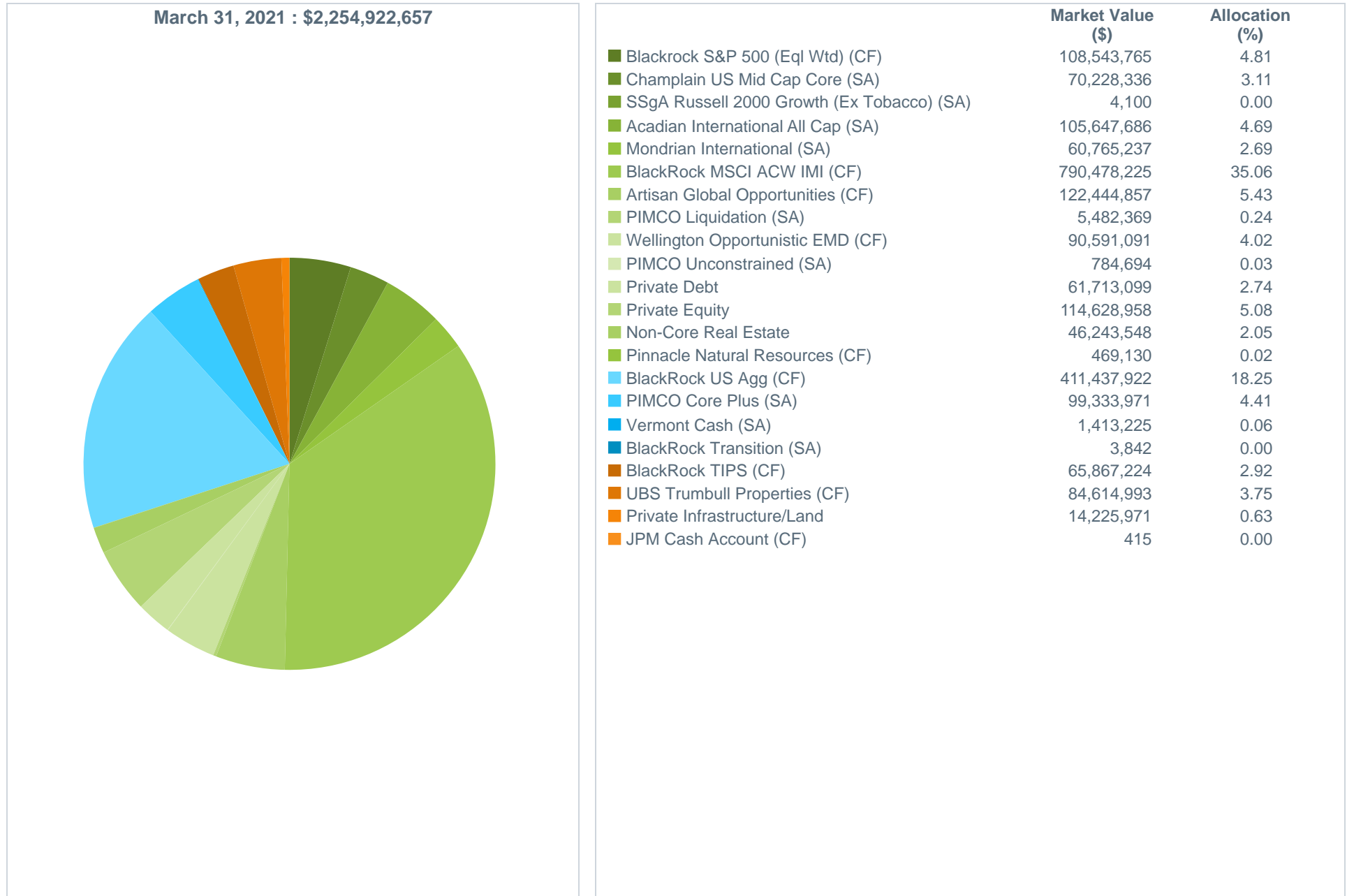


Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable investments, such as Private Equity, is imperfect at best and can potentially be misleading. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



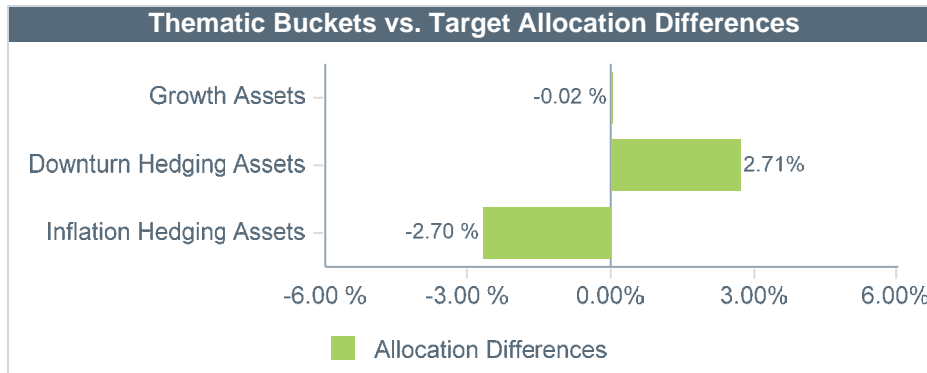
# VSERS



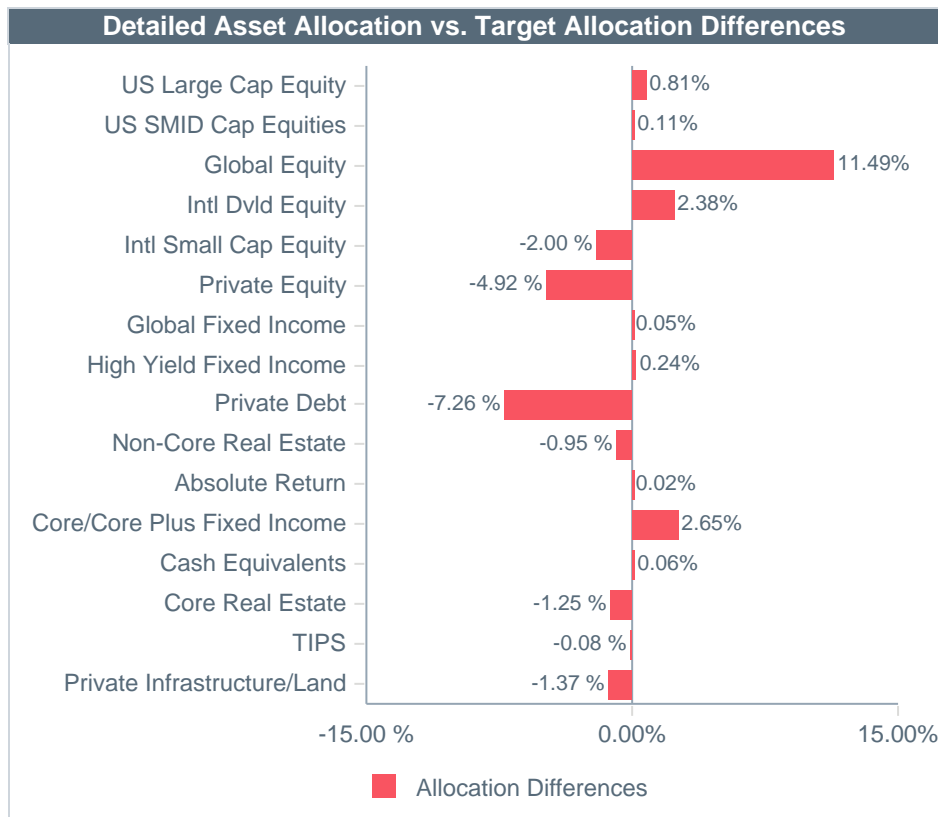


Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA), Pinnacle Natural Resources (CF) and PIMCO Unconstrained (SA) represent residual assets after liquidation.

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	1,578,025,094	69.98	70.00
Downturn Hedging Assets	512,188,960	22.71	20.00
Inflation Hedging Assets	164,708,602	7.30	10.00
<b>Total Fund</b>	<b>2,254,922,657</b>	<b>100.00</b>	<b>100.00</b>



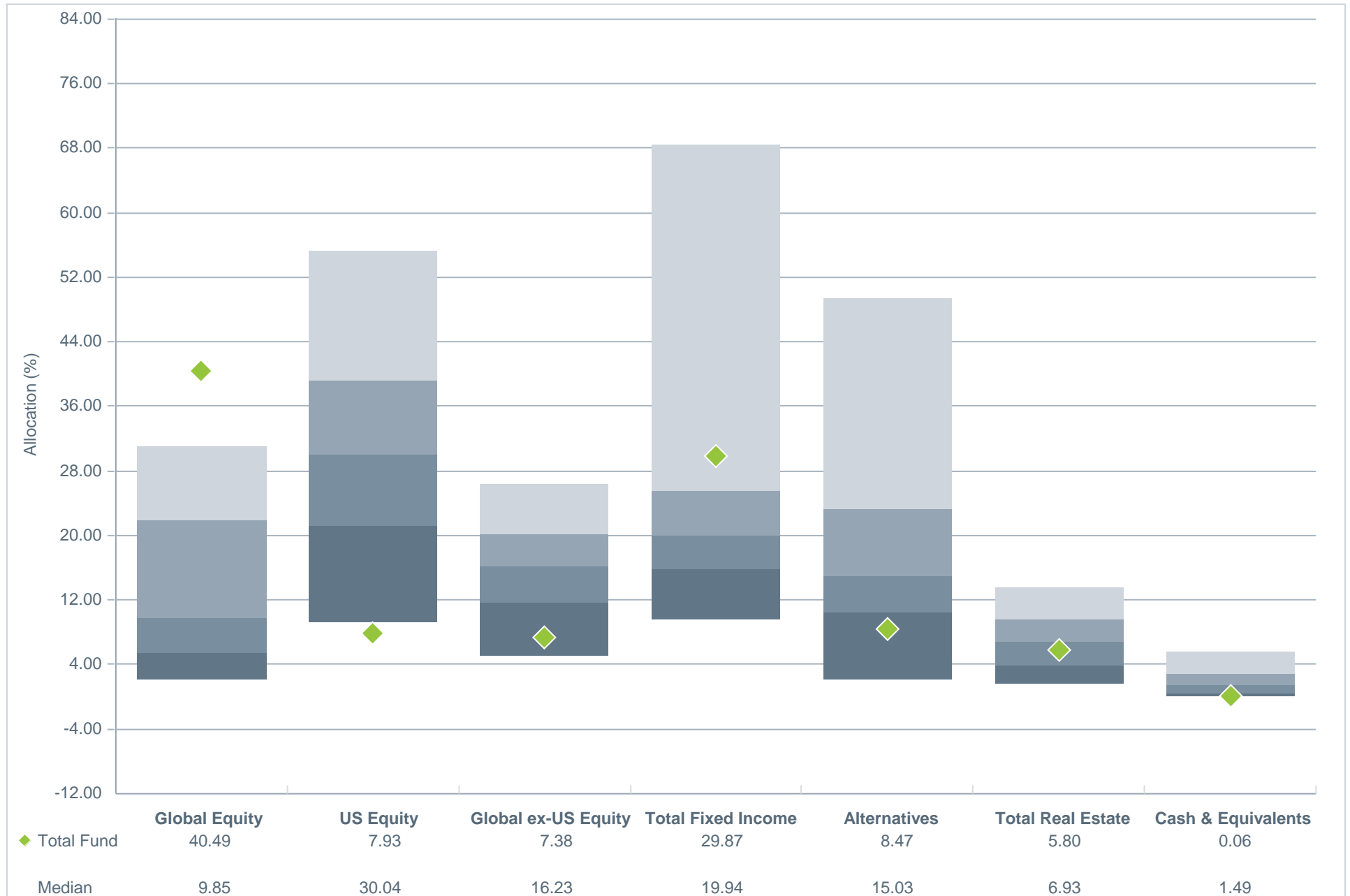
Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	108,543,765	4.81	4.00
US SMID Cap Equities	70,232,436	3.11	3.00
Global Equity	912,923,082	40.49	29.00
Intl Dvld Equity	166,412,924	7.38	5.00
Intl Small Cap Equity	-	0.00	2.00
Private Equity	114,628,958	5.08	10.00
Global Fixed Income	91,375,785	4.05	4.00
High Yield Fixed Income	5,482,369	0.24	0.00
Private Debt	61,713,099	2.74	10.00
Non-Core Real Estate	46,243,548	2.05	3.00
Absolute Return	469,130	0.02	0.00
Core/Core Plus Fixed Income	510,771,893	22.65	20.00
Cash Equivalents	1,417,067	0.06	0.00
Core Real Estate	84,615,407	3.75	5.00
TIPS	65,867,224	2.92	3.00
Private Infrastructure/Land	14,225,971	0.63	2.00
<b>Total Fund</b>	<b>2,254,922,657</b>	<b>100.00</b>	<b>100.00</b>



Allocations shown may not sum up to 100% exactly due to rounding.

Vermont State Employees' Retirement System  
 All Public Plans (\$1B to \$10B; Median) (Custom PG)  
 Plan Sponsor TF Asset Allocation

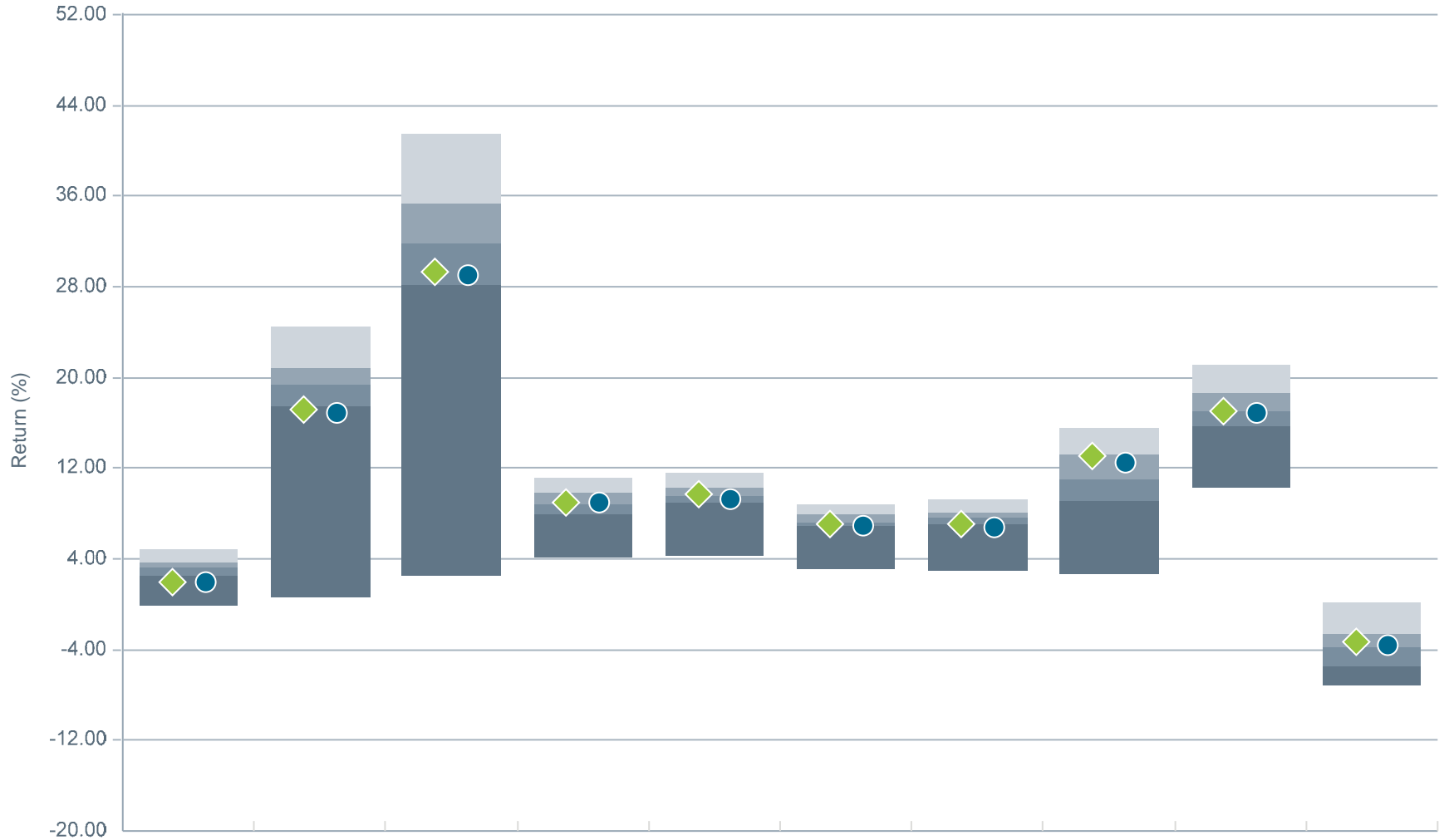
As of March 31, 2021



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

Vermont State Employees' Retirement System  
 All Public Plans (\$1B to \$10B) (Custom PG)  
 Plan Sponsor Peer Group Analysis

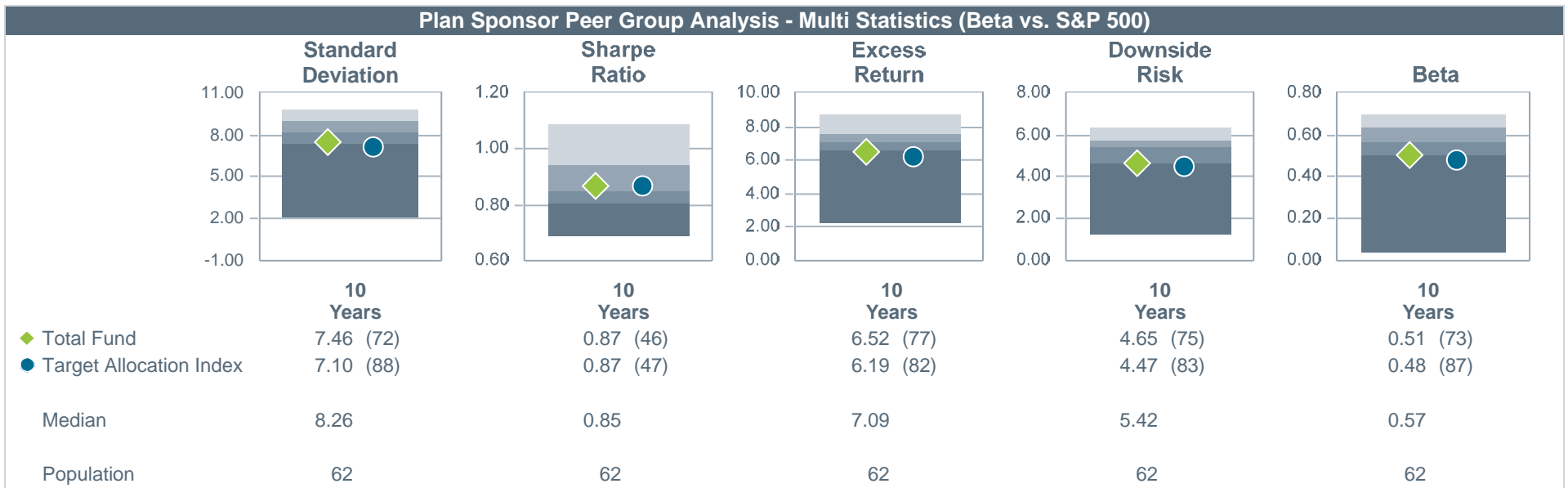
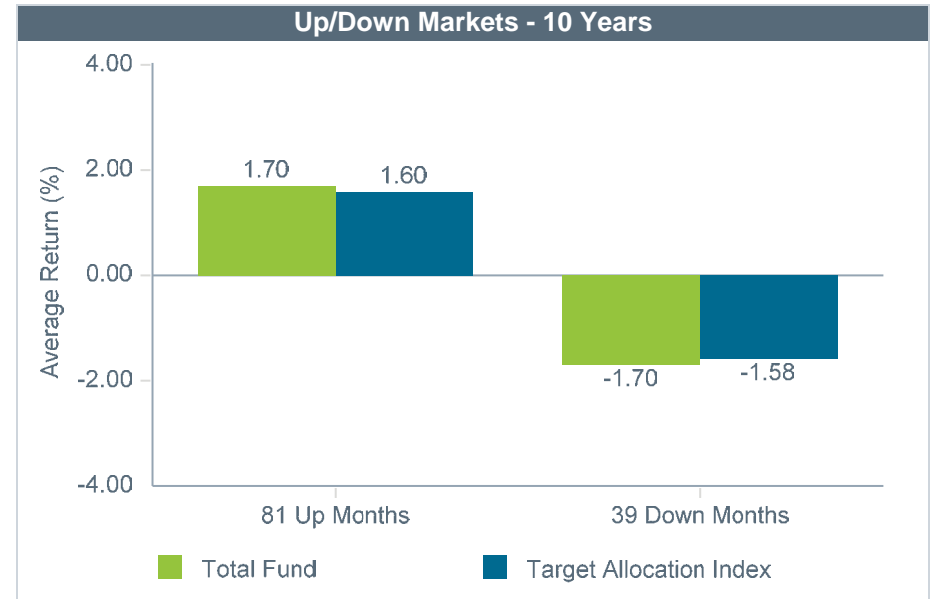
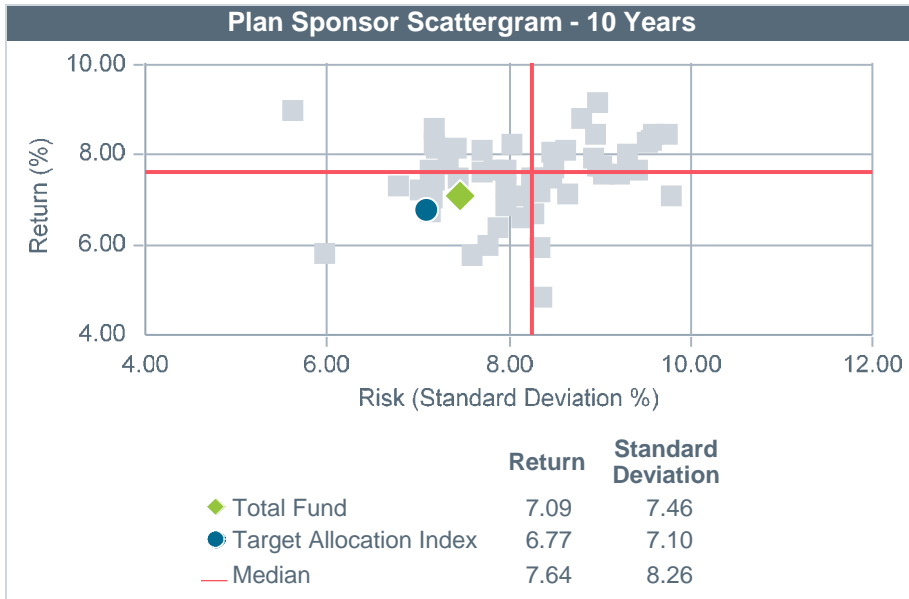
As of March 31, 2021



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018
◆ Total Fund	1.90 (84)	17.16 (80)	29.34 (72)	9.02 (42)	9.66 (50)	7.04 (63)	7.09 (76)	13.08 (29)	17.08 (52)	-3.38 (40)
● Target Allocation Index	1.88 (84)	16.94 (82)	29.03 (73)	9.04 (41)	9.20 (66)	6.88 (75)	6.77 (81)	12.51 (32)	16.91 (54)	-3.63 (46)
Median	3.24	19.35	31.74	8.83	9.63	7.28	7.64	11.08	17.10	-3.83
Population	76	75	75	68	68	66	62	85	75	51

Performance shown is net of fees. Parentheses contain percentile ranks.





Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Vermont State Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,254,922,657</b>	<b>100.00</b>	<b>1.90</b>	<b>17.16</b>	<b>29.34</b>	<b>9.02</b>	<b>9.66</b>	<b>7.09</b>	<b>6.04</b>	<b>13.08</b>	<b>6.43</b>	<b>07/01/2005</b>
Target Allocation Index			1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference			0.02	0.22	0.31	-0.02	0.46	0.32	0.00	0.57	0.00	
Actual Allocation Index			2.24	17.64	30.06	8.53	9.05	6.58	5.90	11.59	6.28	
Difference			-0.34	-0.48	-0.72	0.49	0.61	0.51	0.14	1.49	0.15	
<b>Growth Assets</b>	<b>1,578,025,094</b>	<b>69.98</b>	<b>4.12</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.83</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.87	
Difference			-1.02	-	-	-	-	-	-	-	-1.04	
<b>Downturn Hedging Assets</b>	<b>512,188,960</b>	<b>22.71</b>	<b>-3.44</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.68</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference			-0.06	-	-	-	-	-	-	-	0.10	
<b>Inflation Hedging Assets</b>	<b>164,708,602</b>	<b>7.30</b>	<b>-1.64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.26</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			2.32	4.67	5.19	4.56	4.71	4.26	4.44	3.90	3.39	
Difference			-3.96	-	-	-	-	-	-	-	-4.65	

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Vermont State Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,254,922,657</b>	<b>100.00</b>	<b>100.00</b>	<b>1.90</b>	<b>17.15</b>	<b>29.33</b>	<b>9.02</b>	<b>9.66</b>	<b>7.09</b>	<b>6.04</b>	<b>13.07</b>	<b>6.43</b>	<b>07/01/2005</b>
Target Allocation Index				1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference				0.02	0.21	0.30	-0.02	0.46	0.32	0.00	0.56	0.00	
Actual Allocation Index				2.24	17.64	30.06	8.53	9.05	6.58	5.90	11.59	6.28	
Difference				-0.34	-0.49	-0.73	0.49	0.61	0.51	0.14	1.48	0.15	
All Public Plans (\$1B to \$10B)				3.24	19.35	31.74	8.83	9.63	7.64	6.31	11.08	6.75	
Rank				84	80	72	42	50	76	68	29	69	
<b>Domestic Equity</b>	<b>178,776,201</b>	<b>7.93</b>	<b>7.00</b>	<b>8.50</b>	<b>38.90</b>	<b>71.13</b>	<b>15.38</b>	<b>15.30</b>	<b>13.11</b>	<b>-</b>	<b>18.83</b>	<b>13.53</b>	<b>01/01/2011</b>
Russell 3000 Index				6.35	33.19	62.53	17.12	16.64	13.79	10.05	20.89	14.12	
Difference				2.15	5.71	8.60	-1.74	-1.34	-0.68	-	-2.06	-0.59	
<b>US Large Cap Equity</b>	<b>108,543,765</b>	<b>4.81</b>	<b>4.00</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>13.91</b>	<b>14.48</b>	<b>12.95</b>	<b>9.85</b>	<b>13.03</b>	<b>10.14</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				6.17	29.71	56.35	16.78	16.29	13.91	10.02	18.40	10.20	
Difference				5.28	11.30	15.45	-2.87	-1.81	-0.96	-0.17	-5.37	-0.06	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>108,543,765</b>	<b>4.81</b>	<b>-</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.03</b>	<b>19.77</b>	<b>06/01/2019</b>
S&P 500 Index (Eq Wtd)				11.49	40.98	71.61	14.90	14.74	13.09	10.33	12.83	23.24	
Difference				-0.04	0.03	0.19	-	-	-	-	0.20	-3.47	
IM U.S. Large Cap Equity (MF) Median				5.91	29.35	57.30	16.10	15.75	12.81	9.45	18.34	24.18	
Rank				14	9	8	-	-	-	-	64	71	
<b>US SMID Cap Equities</b>	<b>70,232,436</b>	<b>3.11</b>	<b>3.00</b>	<b>4.22</b>	<b>35.67</b>	<b>69.62</b>	<b>17.98</b>	<b>16.80</b>	<b>13.40</b>	<b>10.09</b>	<b>27.32</b>	<b>10.74</b>	<b>07/01/2005</b>
Russell 2500 Index				10.93	49.65	89.40	15.34	15.93	12.20	9.53	19.99	10.25	
Difference				-6.71	-13.98	-19.78	2.64	0.87	1.20	0.56	7.33	0.49	
<b>Champlain US Mid Cap Core (SA)</b>	<b>70,228,336</b>	<b>3.11</b>	<b>-</b>	<b>4.22</b>	<b>35.67</b>	<b>69.61</b>	<b>17.98</b>	<b>18.29</b>	<b>14.33</b>	<b>-</b>	<b>27.32</b>	<b>15.77</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				10.44	50.62	89.76	14.58	15.99	12.04	9.43	19.99	14.00	
Difference				-6.22	-14.95	-20.15	3.40	2.30	2.29	-	7.33	1.77	
IM U.S. SMID Cap Equity (MF) Median				10.21	46.73	83.31	14.61	15.53	11.84	9.53	20.27	13.86	
Rank				71	87	84	34	32	20	-	41	29	
<b>Global Equity</b>	<b>912,923,082</b>	<b>40.49</b>	<b>29.00</b>	<b>4.26</b>	<b>30.78</b>	<b>58.36</b>	<b>10.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19.96</b>	<b>7.62</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	9.10	
Difference				-0.88	-0.72	0.78	-1.53	-	-	-	3.71	-1.48	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



Vermont State Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>790,478,225</b>	<b>35.06</b>	<b>-</b>	<b>5.33</b>	<b>31.94</b>	<b>58.25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.77</b>	<b>18.24</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.72	
Difference				0.19	0.44	0.67	-	-	-	-	0.52	0.52	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	17.27	
Rank				35	39	47	-	-	-	-	44	46	
<b>Artisan Global Opportunities (CF)</b>	<b>122,444,857</b>	<b>5.43</b>	<b>-</b>	<b>-1.77</b>	<b>23.97</b>	<b>58.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40.50</b>	<b>18.65</b>	<b>06/01/2018</b>
MSCI ACW Index (USD) (Net)				4.57	29.68	54.60	12.07	13.21	9.14	7.04	16.25	12.40	
Difference				-6.34	-5.71	3.77	-	-	-	-	24.25	6.25	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	11.54	
Rank				93	75	47	-	-	-	-	14	13	
<b>International Equity</b>	<b>166,412,924</b>	<b>7.38</b>	<b>7.00</b>	<b>6.77</b>	<b>30.99</b>	<b>51.11</b>	<b>4.96</b>	<b>9.24</b>	<b>-</b>	<b>-</b>	<b>4.62</b>	<b>7.21</b>	<b>12/01/2011</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	7.68	
Difference				3.29	5.15	6.54	-1.06	0.39	-	-	-3.20	-0.47	
<b>Acadian International All Cap (SA)</b>	<b>105,647,686</b>	<b>4.69</b>	<b>-</b>	<b>6.53</b>	<b>32.93</b>	<b>56.12</b>	<b>6.50</b>	<b>11.97</b>	<b>7.93</b>	<b>5.14</b>	<b>12.37</b>	<b>6.39</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				3.63	27.15	46.95	6.06	9.09	5.85	4.37	8.47	5.37	
Difference				2.90	5.78	9.17	0.44	2.88	2.08	0.77	3.90	1.02	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	4.96	
Rank				17	17	17	35	8	9	21	33	17	
<b>Mondrian International (SA)</b>	<b>60,765,237</b>	<b>2.69</b>	<b>-</b>	<b>7.18</b>	<b>27.72</b>	<b>38.84</b>	<b>3.35</b>	<b>6.58</b>	<b>5.01</b>	<b>4.11</b>	<b>-4.01</b>	<b>5.16</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.42	
Difference				3.70	1.88	-5.73	-2.67	-2.27	-0.51	0.01	-11.83	-0.26	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	5.32	
Rank				15	42	88	77	81	61	48	98	56	
<b>Fixed Income</b>	<b>607,630,047</b>	<b>26.95</b>	<b>24.00</b>	<b>-3.68</b>	<b>-0.86</b>	<b>3.54</b>	<b>4.41</b>	<b>4.38</b>	<b>4.24</b>	<b>-</b>	<b>8.14</b>	<b>4.30</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	3.40	
Difference				-0.30	1.27	2.83	-0.24	1.28	0.80	-	0.63	0.90	
<b>Core/Core Plus Fixed Income</b>	<b>510,771,893</b>	<b>22.65</b>	<b>20.00</b>	<b>-3.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.69</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.07	-	-	-	-	-	-	-	0.09	

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Vermont State Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock US Agg (CF)</b>	<b>411,437,922</b>	<b>18.25</b>	<b>-</b>	<b>-3.41</b>	<b>-2.12</b>	<b>0.74</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7.54</b>	<b>3.96</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	4.16	
Difference				-0.03	0.01	0.03	-	-	-	-	0.03	-0.20	
IM U.S. Broad Mkt Core FI (MF)				-3.04	-0.52	4.37	4.80	3.40	3.51	4.24	8.19	4.71	
Rank				76	89	91	-	-	-	-	71	81	
<b>PIMCO Core Plus (SA)</b>	<b>99,333,971</b>	<b>4.41</b>	<b>-</b>	<b>-3.60</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.37</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.22	-	-	-	-	-	-	-	0.41	
IM U.S. Broad Mkt Core+ FI (MF)				-2.95	0.49	6.75	5.04	3.98	3.89	4.80	8.55	-1.18	
Rank				78	-	-	-	-	-	-	-	85	
<b>Emerging Markets Debt</b>	<b>90,591,091</b>	<b>4.02</b>	<b>4.00</b>	<b>-5.48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.09</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	-1.18	
Difference				-0.74	-	-	-	-	-	-	-	0.09	
<b>Wellington Opportunistic EMD (CF)</b>	<b>90,591,091</b>	<b>4.02</b>	<b>-</b>	<b>-5.48</b>	<b>3.27</b>	<b>16.94</b>	<b>4.09</b>	<b>5.80</b>	<b>5.76</b>	<b>-</b>	<b>7.69</b>	<b>6.29</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	5.89	
Difference				-0.74	0.50	2.65	0.22	1.06	0.41	-	1.81	0.40	
IM Emerging Markets Debt (MF) Median				-4.63	5.37	19.41	2.99	4.87	4.28	5.42	5.57	5.04	
Rank				91	93	81	26	20	3	-	15	4	
<b>High Yield Fixed Income</b>	<b>5,482,369</b>	<b>0.24</b>	<b>0.00</b>	<b>4.78</b>	<b>17.50</b>	<b>22.55</b>	<b>3.57</b>	<b>5.77</b>	<b>5.27</b>	<b>-</b>	<b>3.27</b>	<b>6.25</b>	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	7.40	
Difference				3.93	5.21	-1.17	-3.27	-2.29	-1.21	-	-3.84	-1.15	
<b>PIMCO Liquidation (SA)</b>	<b>5,482,369</b>	<b>0.24</b>	<b>-</b>	<b>4.78</b>	<b>17.50</b>	<b>22.54</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.26</b>	<b>3.39</b>	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	6.88	
Difference				3.93	5.21	-1.18	-	-	-	-	-3.85	-3.49	
IM U.S. High Yield Bonds (MF) Median				0.91	11.93	22.24	5.64	6.70	5.34	6.05	5.26	5.79	
Rank				1	5	47	-	-	-	-	81	95	
<b>Private Debt</b>	<b>61,713,099</b>	<b>2.74</b>	<b>10.00</b>	<b>6.22</b>	<b>14.65</b>	<b>8.74</b>	<b>5.98</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.22</b>	<b>6.31</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				2.51	10.82	21.58	4.38	5.44	4.33	4.66	3.12	4.49	
Difference				3.71	3.83	-12.84	1.60	-	-	-	-0.90	1.82	

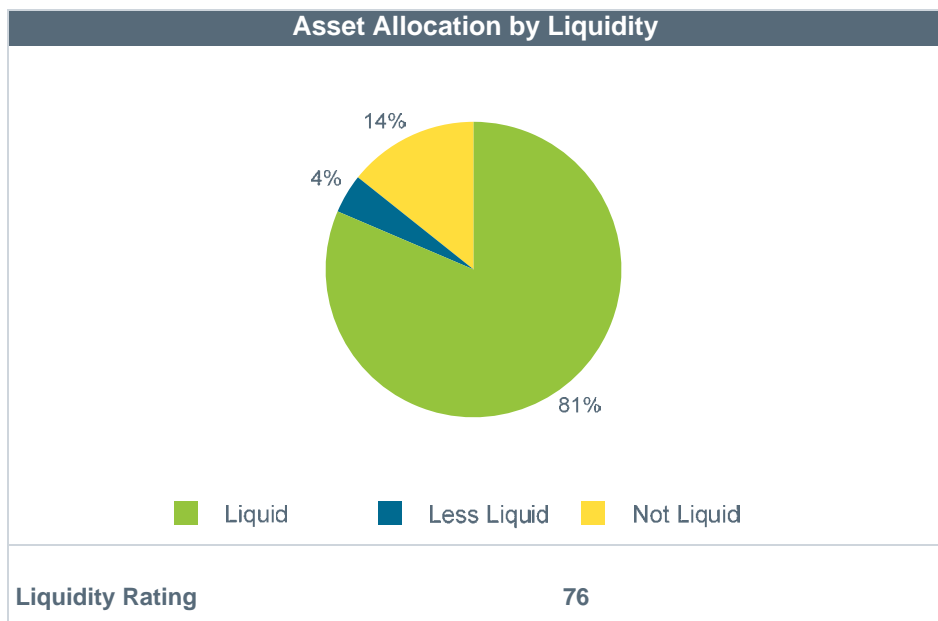
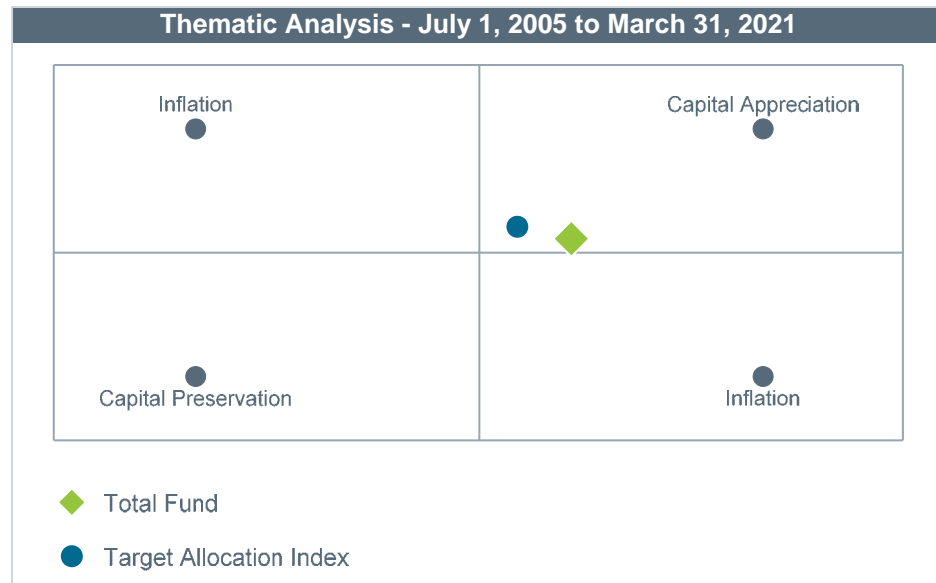
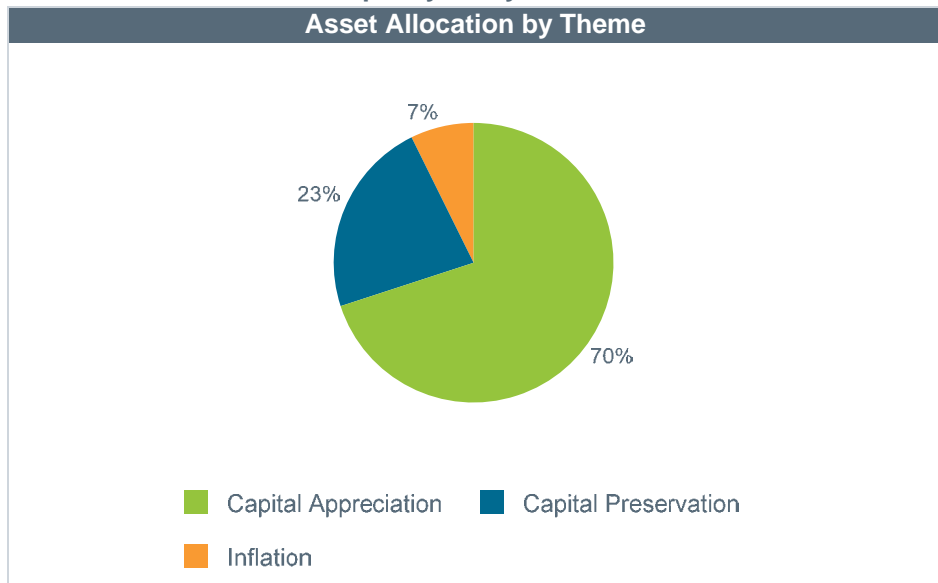
Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.

Vermont State Employees' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Private Equity</b>	<b>114,628,958</b>	<b>5.08</b>	<b>10.00</b>	<b>-0.47</b>	<b>25.12</b>	<b>16.79</b>	<b>17.62</b>	<b>17.75</b>	-	-	<b>17.25</b>	<b>16.75</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	23.17	34.58	13.98	15.28	13.34	12.29	21.32	13.83	
Difference				-0.47	1.95	-17.79	3.64	2.47	-	-	-4.07	2.92	
<b>Non-Core Real Estate</b>	<b>46,243,548</b>	<b>2.05</b>	<b>3.00</b>	<b>5.75</b>	<b>4.90</b>	<b>0.70</b>	<b>3.82</b>	<b>8.36</b>	-	-	<b>-1.80</b>	<b>9.01</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				2.39	4.33	3.29	5.12	5.95	8.90	7.05	1.60	7.76	
Difference				3.36	0.57	-2.59	-1.30	2.41	-	-	-3.40	1.25	
<b>Inflation Hedging Assets (Spliced)</b>	<b>164,708,602</b>	<b>7.30</b>	<b>10.00</b>	<b>-1.64</b>	<b>-4.45</b>	<b>-5.20</b>	<b>-0.54</b>	<b>2.75</b>	<b>8.22</b>	-	<b>-2.83</b>	<b>8.43</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				2.32	3.39	2.36	4.81	5.75	8.80	6.99	0.75	8.92	
Difference				-3.96	-7.84	-7.56	-5.35	-3.00	-0.58	-	-3.58	-0.49	
<b>TIPS</b>	<b>65,867,224</b>	<b>2.92</b>	<b>2.00</b>	<b>-1.50</b>	-	-	-	-	-	-	-	<b>-0.25</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	-0.24	
Difference				-0.03	-	-	-	-	-	-	-	-0.01	
<b>BlackRock TIPS (CF)</b>	<b>65,867,224</b>	<b>2.92</b>	<b>-</b>	<b>-1.50</b>	<b>3.16</b>	<b>7.61</b>	<b>5.59</b>	<b>3.80</b>	<b>3.37</b>	-	<b>10.96</b>	<b>3.53</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	3.57	
Difference				-0.03	0.00	0.07	-0.09	-0.06	-0.07	-	-0.03	-0.04	
IM U.S. TIPS (MF) Median				-1.19	3.93	8.43	4.97	3.44	2.78	3.70	9.64	2.96	
Rank				63	69	67	24	31	12	-	26	10	
<b>Core Real Estate</b>	<b>84,615,407</b>	<b>3.75</b>	<b>5.00</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.89</b>	<b>1.97</b>	<b>7.88</b>	-	<b>-2.26</b>	<b>8.10</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	8.85	
Difference				-3.93	-8.01	-5.77	-4.85	-3.29	-0.79	-	-2.60	-0.75	
<b>UBS Trumbull Properties (CF)</b>	<b>84,614,993</b>	<b>3.75</b>	<b>-</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.85</b>	<b>1.71</b>	<b>5.95</b>	<b>4.59</b>	<b>-2.26</b>	<b>5.06</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	5.94	
Difference				-3.93	-8.01	-5.77	-4.81	-3.55	-2.72	-0.75	-2.60	-0.88	
<b>Private Infrastructure/Land</b>	<b>14,225,971</b>	<b>0.63</b>	<b>3.00</b>	<b>0.80</b>	-	-	-	-	-	-	-	<b>0.61</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				0.86	3.45	4.08	4.71	5.46	10.24	11.19	3.08	3.45	
Difference				-0.06	-	-	-	-	-	-	-	-2.84	
<b>Cash Equivalents</b>	<b>1,417,067</b>	<b>0.06</b>	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>	<b>0.09</b>	<b>0.42</b>	<b>0.28</b>	<b>0.16</b>	-	<b>0.37</b>	<b>0.16</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.02	0.09	0.12	1.49	1.19	0.63	1.16	0.67	0.62	
Difference				-0.02	-0.04	-0.03	-1.07	-0.91	-0.47	-	-0.30	-0.46	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



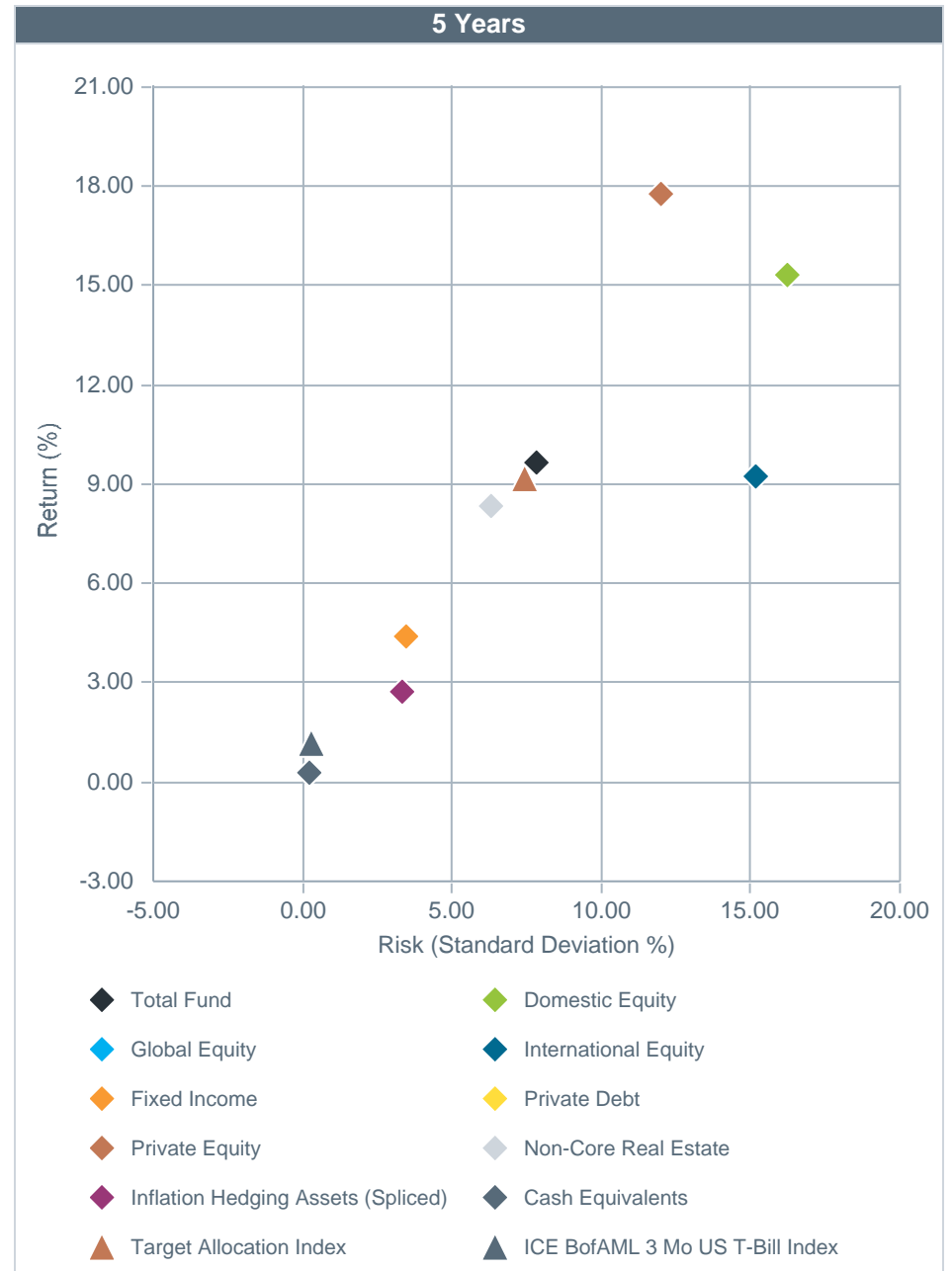
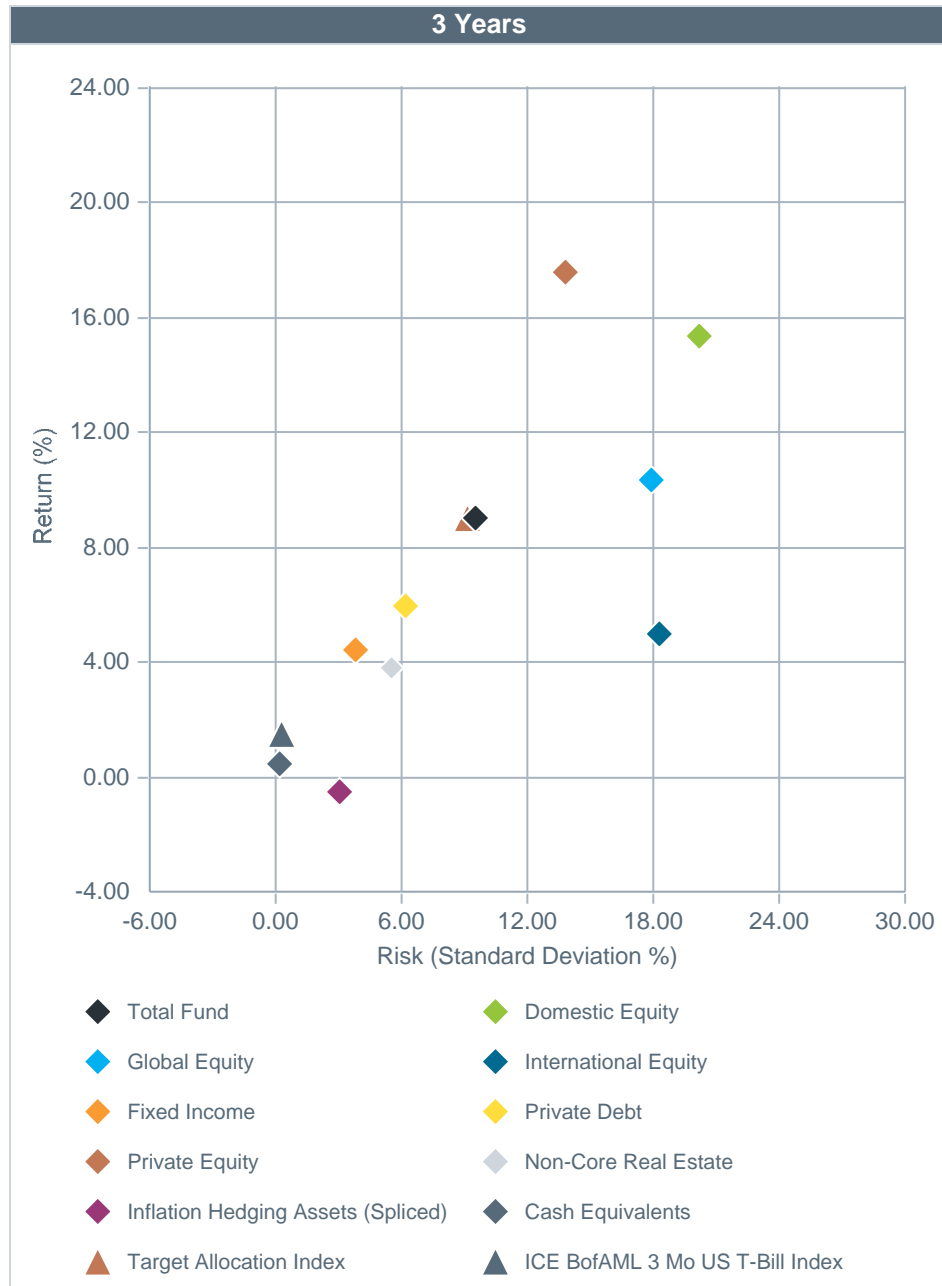
### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.70	1.00		
C	-0.28	-0.39	1.00	
D	0.60	0.79	-0.11	1.00

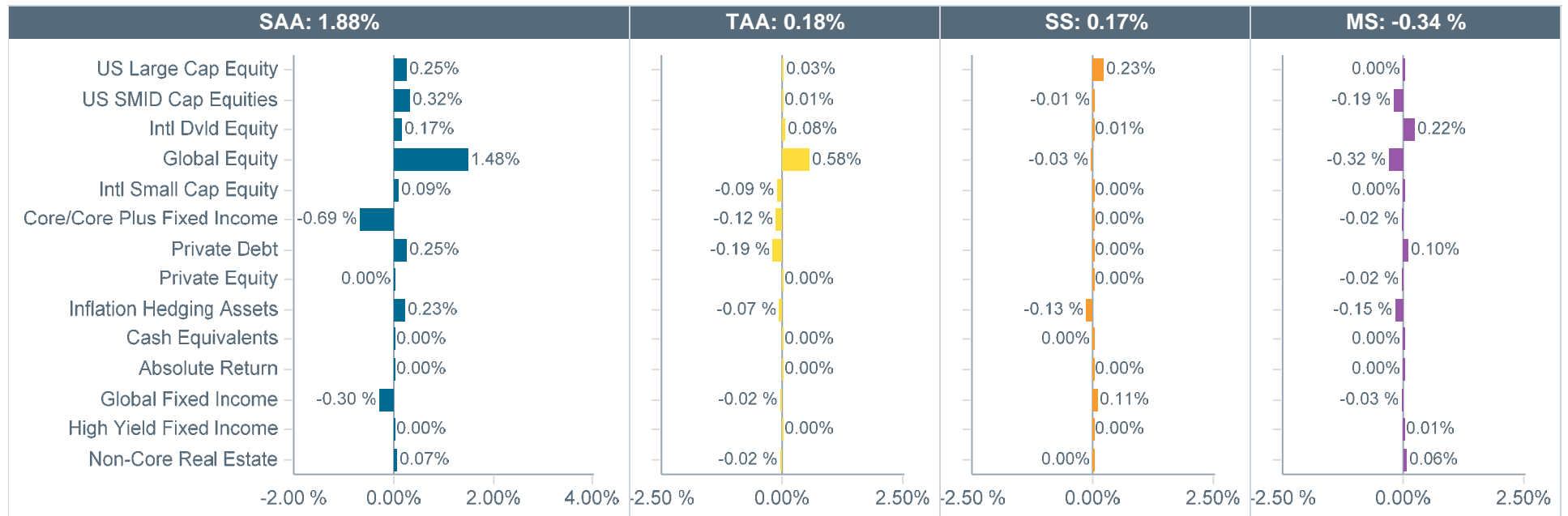
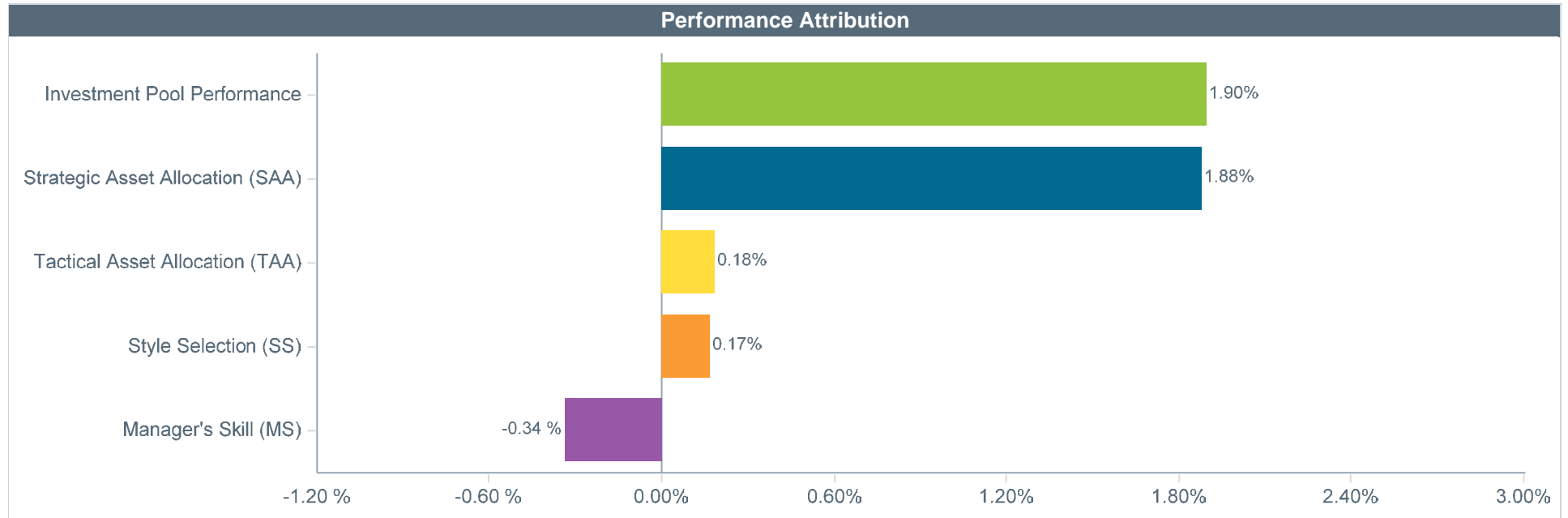
A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Gov't Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions. Allocations may not sum to 100% due to rounding.





Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.

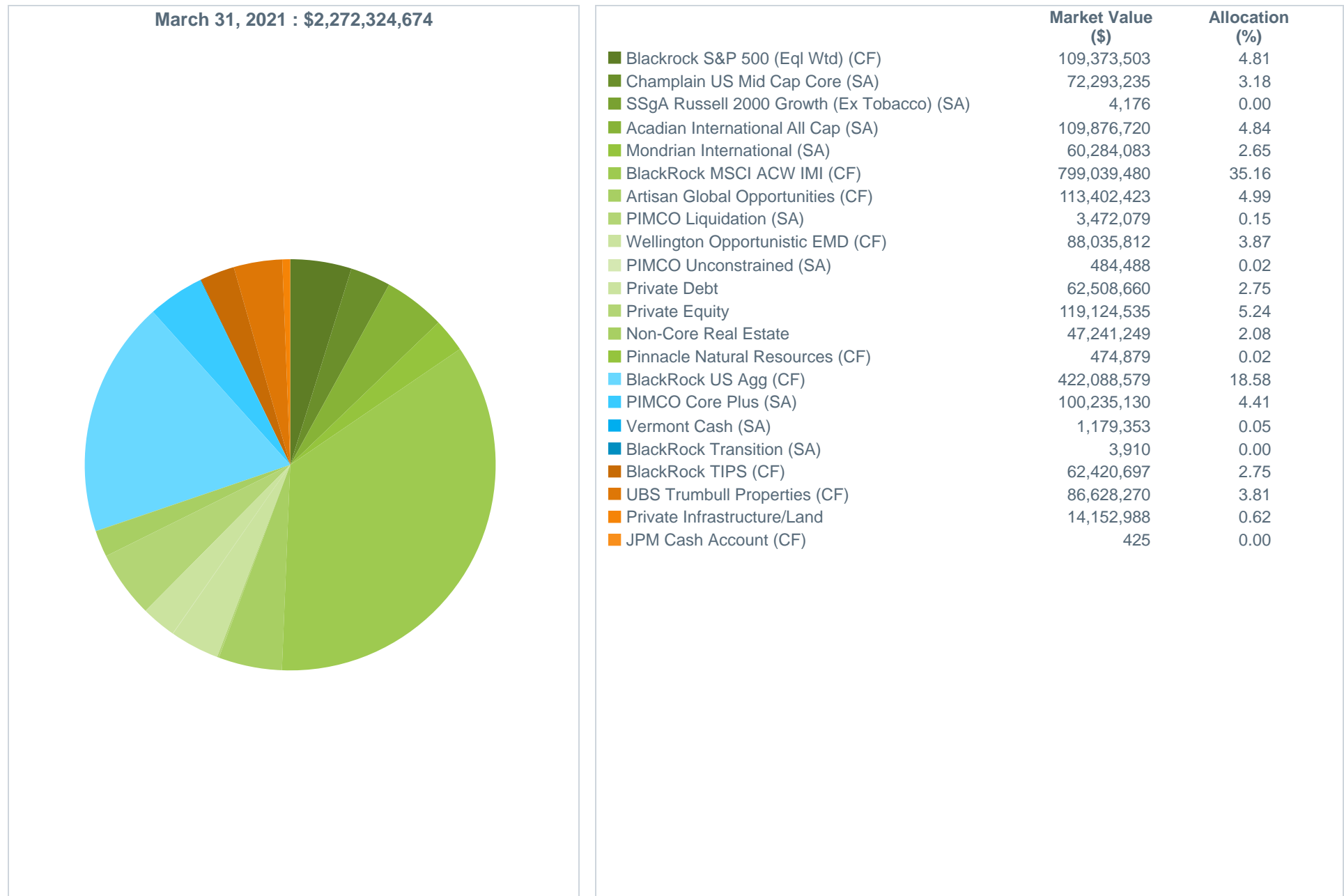


Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable investments, such as Private Equity, is imperfect at best and can potentially be misleading. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



# VSTRS





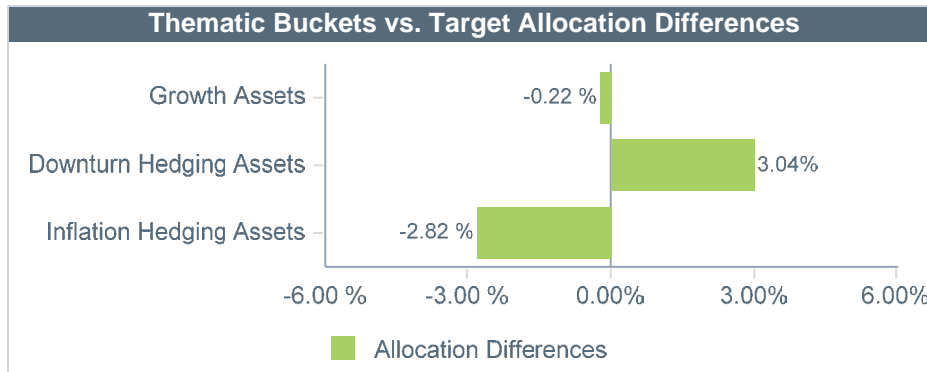
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA), Pinnacle Natural Resources (CF) and PIMCO Unconstrained (SA) represent residual assets after liquidation.



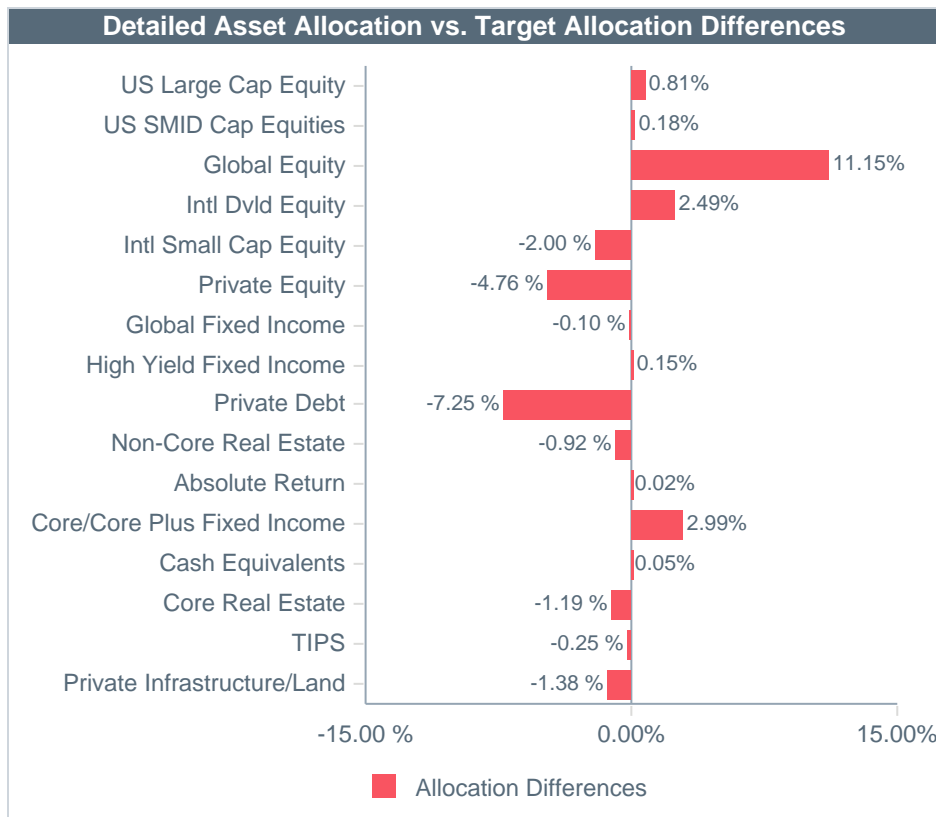
Vermont State Teachers' Retirement System  
 Total Fund  
 Asset Allocation vs. Target Allocation

As of March 31, 2021

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	1,585,615,323	69.78	70.00
Downturn Hedging Assets	523,506,972	23.04	20.00
Inflation Hedging Assets	163,202,379	7.18	10.00
<b>Total Fund</b>	<b>2,272,324,674</b>	<b>100.00</b>	<b>100.00</b>



Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	109,373,503	4.81	4.00
US SMID Cap Equities	72,297,411	3.18	3.00
Global Equity	912,441,903	40.15	29.00
Intl Dvld Equity	170,160,803	7.49	5.00
Intl Small Cap Equity	-	0.00	2.00
Private Equity	119,124,535	5.24	10.00
Global Fixed Income	88,520,300	3.90	4.00
High Yield Fixed Income	3,472,079	0.15	0.00
Private Debt	62,508,660	2.75	10.00
Non-Core Real Estate	47,241,249	2.08	3.00
Absolute Return	474,879	0.02	0.00
Core/Core Plus Fixed Income	522,323,709	22.99	20.00
Cash Equivalents	1,183,263	0.05	0.00
Core Real Estate	86,628,695	3.81	5.00
TIPS	62,420,697	2.75	3.00
Private Infrastructure/Land	14,152,988	0.62	2.00
<b>Total Fund</b>	<b>2,272,324,674</b>	<b>100.00</b>	<b>100.00</b>

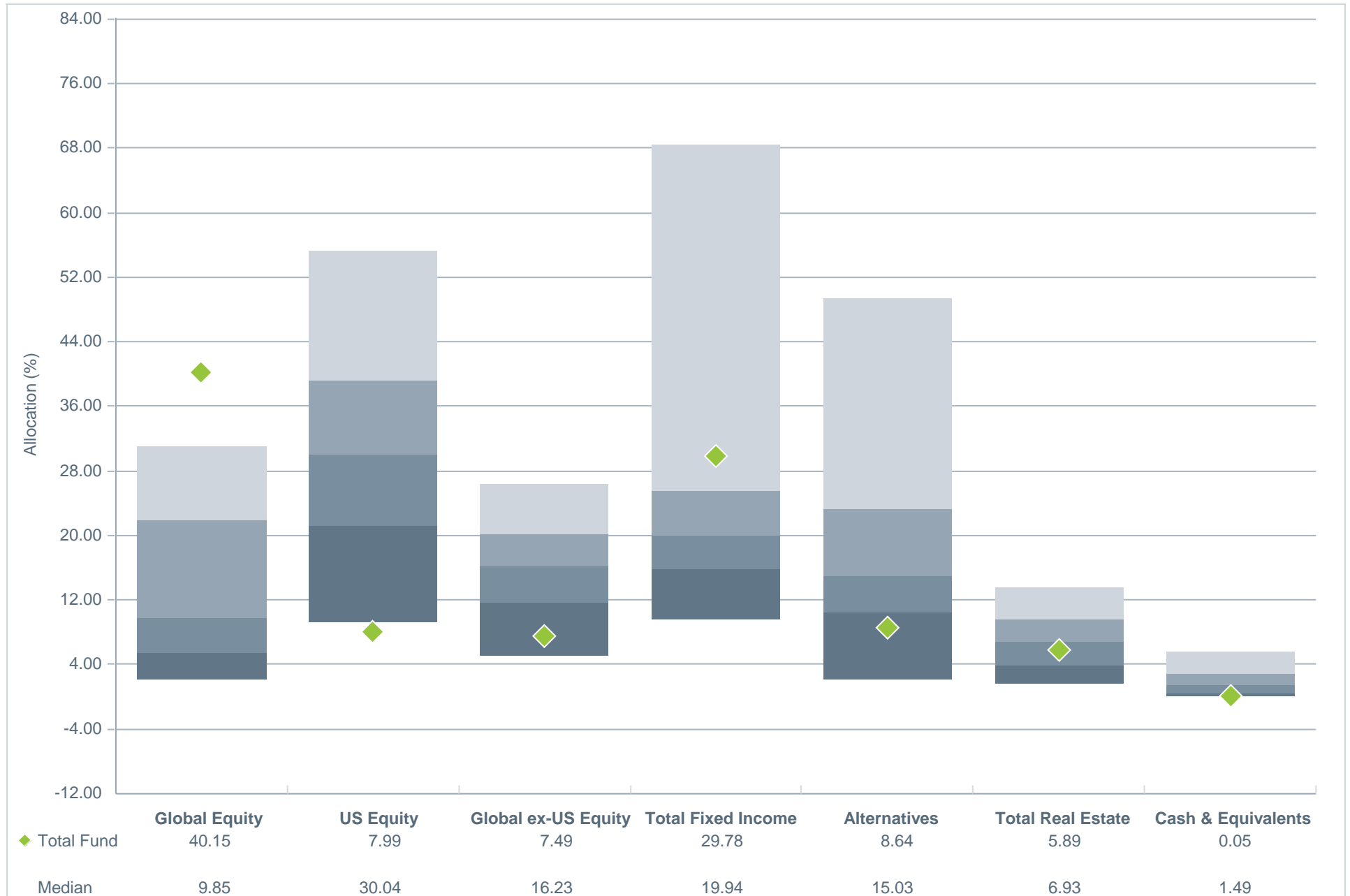


Allocations shown may not sum up to 100% exactly due to rounding.



Vermont State Teachers' Retirement System  
 All Public Plans (\$1B to \$10B) (Custom PG)  
 Plan Sponsor TF Asset Allocation

As of March 31, 2021

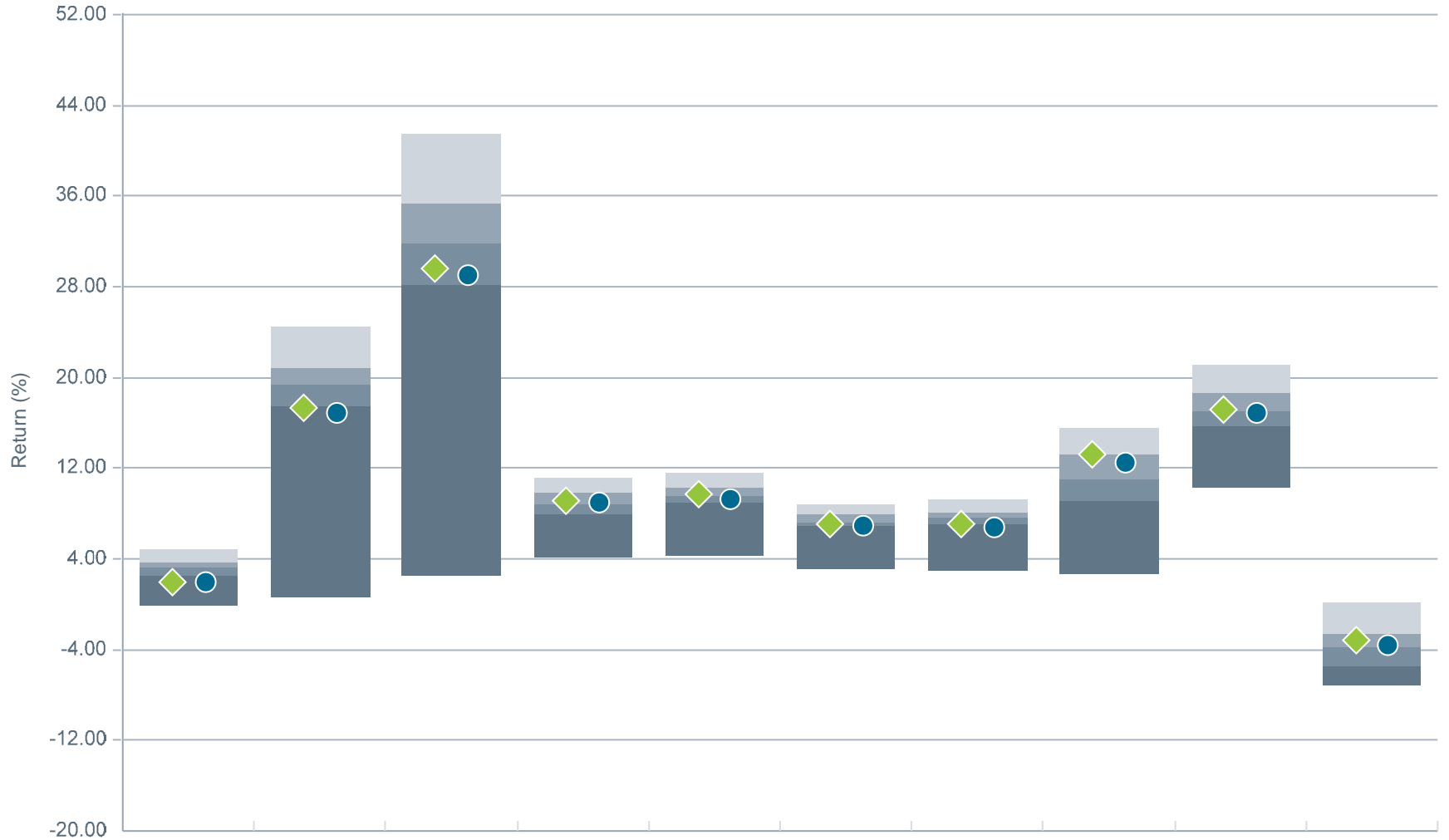


Parentheses contain percentile ranks. Total Fixed Income includes TIPS.



Vermont State Teachers' Retirement System  
 All Public Plans (\$1B to \$10B) (Custom PG)  
 Plan Sponsor Peer Group Analysis

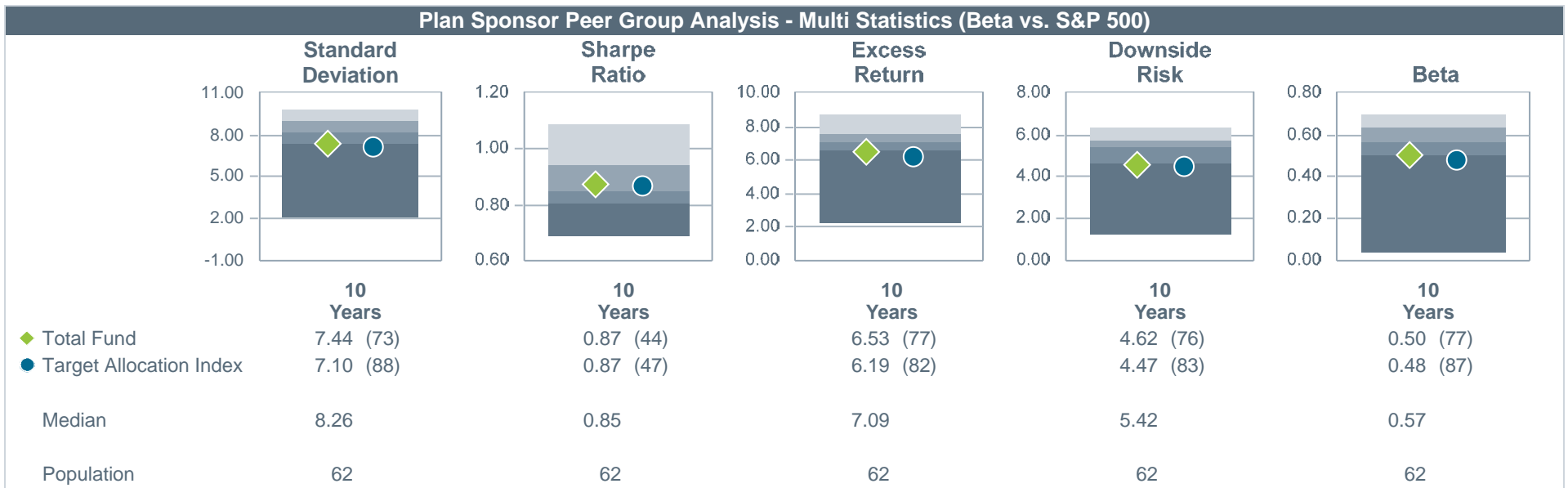
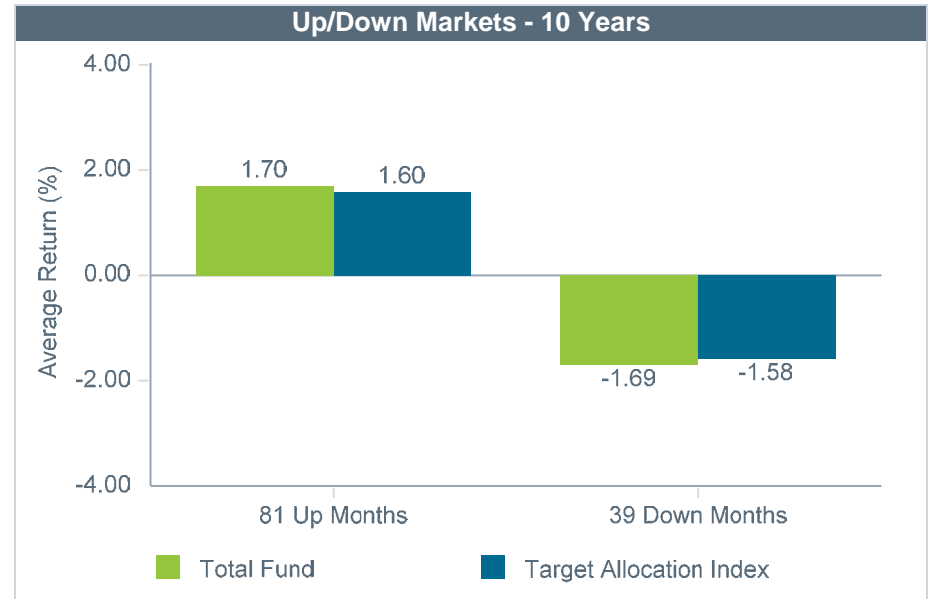
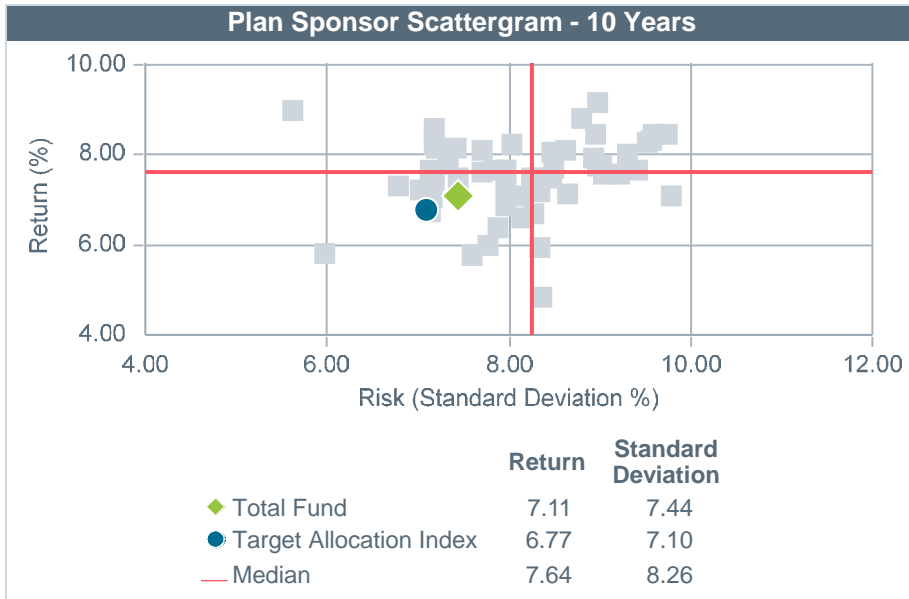
As of March 31, 2021



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018
◆ Total Fund	1.90 (84)	17.27 (77)	29.59 (71)	9.18 (34)	9.73 (43)	7.14 (60)	7.11 (73)	13.29 (24)	17.21 (48)	-3.14 (39)
● Target Allocation Index	1.88 (84)	16.94 (82)	29.03 (73)	9.04 (41)	9.20 (66)	6.88 (75)	6.77 (81)	12.51 (32)	16.91 (54)	-3.63 (46)
Median	3.24	19.35	31.74	8.83	9.63	7.28	7.64	11.08	17.10	-3.83
Population	76	75	75	68	68	66	62	85	75	51

Performance shown is net of fees. Parentheses contain percentile ranks.





Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Vermont State Teachers' Retirement System  
 Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,272,324,674</b>	<b>100.00</b>	<b>1.90</b>	<b>17.27</b>	<b>29.59</b>	<b>9.18</b>	<b>9.73</b>	<b>7.11</b>	<b>5.99</b>	<b>13.29</b>	<b>6.36</b>	<b>07/01/2005</b>
Target Allocation Index			1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference			0.02	0.33	0.56	0.14	0.53	0.34	-0.05	0.78	-0.07	
Actual Allocation Index			2.24	17.80	30.40	8.68	9.09	6.60	5.79	11.88	6.18	
Difference			-0.34	-0.53	-0.81	0.50	0.64	0.51	0.20	1.41	0.18	
<b>Growth Assets</b>	<b>1,585,615,323</b>	<b>69.78</b>	<b>4.15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.97</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.87	
Difference			-0.99	-	-	-	-	-	-	-	-0.90	
<b>Downturn Hedging Assets</b>	<b>523,506,972</b>	<b>23.04</b>	<b>-3.44</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.69</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference			-0.06	-	-	-	-	-	-	-	0.09	
<b>Inflation Hedging Assets</b>	<b>163,202,379</b>	<b>7.18</b>	<b>-1.64</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.26</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			2.32	4.67	5.19	4.56	4.71	4.26	4.44	3.90	3.39	
Difference			-3.96	-	-	-	-	-	-	-	-4.65	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



Vermont State Teachers' Retirement System  
Asset Allocation & Performance - Net of Fees

As of March 31, 2021

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,272,324,674</b>	<b>100.00</b>	<b>100.00</b>	<b>1.90</b>	<b>17.27</b>	<b>29.59</b>	<b>9.18</b>	<b>9.73</b>	<b>7.11</b>	<b>5.99</b>	<b>13.28</b>	<b>6.36</b>	<b>07/01/2005</b>
Target Allocation Index				1.88	16.94	29.03	9.04	9.20	6.77	6.04	12.51	6.43	
Difference				0.02	0.33	0.56	0.14	0.53	0.34	-0.05	0.77	-0.07	
Actual Allocation Index				2.24	17.80	30.40	8.68	9.09	6.60	5.79	11.88	6.18	
Difference				-0.34	-0.53	-0.81	0.50	0.64	0.51	0.20	1.40	0.18	
All Public Plans (\$1B to \$10B)				3.24	19.35	31.74	8.83	9.63	7.64	6.31	11.08	6.75	
Rank				84	77	71	34	43	74	72	24	74	
<b>Domestic Equity</b>	<b>181,670,914</b>	<b>7.99</b>	<b>7.00</b>	<b>8.46</b>	<b>38.98</b>	<b>71.33</b>	<b>15.49</b>	<b>15.42</b>	<b>13.17</b>	<b>-</b>	<b>19.22</b>	<b>13.58</b>	<b>01/01/2011</b>
Russell 3000 Index				6.35	33.19	62.53	17.12	16.64	13.79	10.05	20.89	14.12	
Difference				2.11	5.79	8.80	-1.63	-1.22	-0.62	-	-1.67	-0.54	
<b>US Large Cap Equity</b>	<b>109,373,503</b>	<b>4.81</b>	<b>4.00</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>13.91</b>	<b>14.48</b>	<b>12.94</b>	<b>9.78</b>	<b>13.03</b>	<b>10.01</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				6.17	29.71	56.35	16.78	16.29	13.91	10.02	18.40	10.20	
Difference				5.28	11.30	15.45	-2.87	-1.81	-0.97	-0.24	-5.37	-0.19	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>109,373,503</b>	<b>4.81</b>	<b>-</b>	<b>11.45</b>	<b>41.01</b>	<b>71.80</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.03</b>	<b>19.77</b>	<b>06/01/2019</b>
S&P 500 Index (Eq Wtd)				11.49	40.98	71.61	14.90	14.74	13.09	10.33	12.83	23.24	
Difference				-0.04	0.03	0.19	-	-	-	-	0.20	-3.47	
IM U.S. Large Cap Equity (MF) Median				5.91	29.35	57.30	16.10	15.75	12.81	9.45	18.34	24.18	
Rank				14	9	8	-	-	-	-	64	71	
<b>US SMID Cap Equities</b>	<b>72,297,411</b>	<b>3.18</b>	<b>3.00</b>	<b>4.22</b>	<b>35.67</b>	<b>69.62</b>	<b>17.97</b>	<b>16.93</b>	<b>13.50</b>	<b>10.15</b>	<b>27.32</b>	<b>10.62</b>	<b>07/01/2005</b>
Russell 2500 Index				10.93	49.65	89.40	15.34	15.93	12.20	9.53	19.99	10.25	
Difference				-6.71	-13.98	-19.78	2.63	1.00	1.30	0.62	7.33	0.37	
<b>Champlain US Mid Cap Core (SA)</b>	<b>72,293,235</b>	<b>3.18</b>	<b>-</b>	<b>4.22</b>	<b>35.67</b>	<b>69.61</b>	<b>17.97</b>	<b>18.27</b>	<b>14.32</b>	<b>-</b>	<b>27.32</b>	<b>15.76</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				10.44	50.62	89.76	14.58	15.99	12.04	9.43	19.99	14.00	
Difference				-6.22	-14.95	-20.15	3.39	2.28	2.28	-	7.33	1.76	
IM U.S. SMID Cap Equity (MF) Median				10.21	46.73	83.31	14.61	15.53	11.84	9.53	20.27	13.86	
Rank				71	87	84	34	32	20	-	41	29	
<b>Global Equity</b>	<b>912,441,903</b>	<b>40.15</b>	<b>29.00</b>	<b>4.29</b>	<b>30.82</b>	<b>58.38</b>	<b>10.34</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19.89</b>	<b>7.60</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	9.10	
Difference				-0.85	-0.68	0.80	-1.56	-	-	-	3.64	-1.50	

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Vermont State Teachers' Retirement System  
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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>799,039,480</b>	<b>35.16</b>	<b>-</b>	<b>5.33</b>	<b>31.94</b>	<b>58.25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16.77</b>	<b>18.25</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				5.14	31.50	57.58	11.90	13.21	9.15	7.16	16.25	17.72	
Difference				0.19	0.44	0.67	-	-	-	-	0.52	0.53	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	17.27	
Rank				35	39	47	-	-	-	-	44	46	
<b>Artisan Global Opportunities (CF)</b>	<b>113,402,423</b>	<b>4.99</b>	<b>-</b>	<b>-1.77</b>	<b>23.97</b>	<b>58.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>40.50</b>	<b>18.65</b>	<b>06/01/2018</b>
MSCI ACW Index (USD) (Net)				4.57	29.68	54.60	12.07	13.21	9.14	7.04	16.25	12.40	
Difference				-6.34	-5.71	3.77	-	-	-	-	24.25	6.25	
IM Global Equity (MF) Median				4.06	29.50	56.61	11.26	12.03	9.09	7.02	15.21	11.54	
Rank				93	75	47	-	-	-	-	14	13	
<b>International Equity</b>	<b>170,160,803</b>	<b>7.49</b>	<b>7.00</b>	<b>6.76</b>	<b>31.07</b>	<b>51.44</b>	<b>5.01</b>	<b>9.24</b>	<b>5.37</b>	<b>-</b>	<b>4.84</b>	<b>5.50</b>	<b>01/01/2011</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.72	
Difference				3.28	5.23	6.87	-1.01	0.39	-0.15	-	-2.98	-0.22	
<b>Acadian International All Cap (SA)</b>	<b>109,876,720</b>	<b>4.84</b>	<b>-</b>	<b>6.53</b>	<b>32.93</b>	<b>56.12</b>	<b>6.50</b>	<b>11.96</b>	<b>7.92</b>	<b>5.14</b>	<b>12.37</b>	<b>6.38</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				3.63	27.15	46.95	6.06	9.09	5.85	4.37	8.47	5.37	
Difference				2.90	5.78	9.17	0.44	2.87	2.07	0.77	3.90	1.01	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	4.96	
Rank				17	17	17	35	8	9	21	33	17	
<b>Mondrian International (SA)</b>	<b>60,284,083</b>	<b>2.65</b>	<b>-</b>	<b>7.18</b>	<b>27.72</b>	<b>38.84</b>	<b>3.35</b>	<b>6.58</b>	<b>5.00</b>	<b>4.11</b>	<b>-4.01</b>	<b>5.16</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				3.48	25.84	44.57	6.02	8.85	5.52	4.10	7.82	5.42	
Difference				3.70	1.88	-5.73	-2.67	-2.27	-0.52	0.01	-11.83	-0.26	
IM All EAFE (MF) Median				3.39	26.56	48.15	5.63	8.52	5.34	3.98	8.17	5.32	
Rank				15	42	88	77	81	61	48	98	56	
<b>Fixed Income</b>	<b>614,316,089</b>	<b>27.03</b>	<b>24.00</b>	<b>-3.70</b>	<b>-0.95</b>	<b>3.51</b>	<b>4.48</b>	<b>4.42</b>	<b>4.26</b>	<b>-</b>	<b>8.23</b>	<b>4.32</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	3.40	
Difference				-0.32	1.18	2.80	-0.17	1.32	0.82	-	0.72	0.92	
<b>Core/Core Plus Fixed Income</b>	<b>522,323,709</b>	<b>22.99</b>	<b>20.00</b>	<b>-3.45</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.69</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.07	-	-	-	-	-	-	-	0.09	

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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>BlackRock US Agg (CF)</b>	<b>422,088,579</b>	<b>18.58</b>	<b>-</b>	<b>-3.41</b>	<b>-2.12</b>	<b>0.74</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7.54</b>	<b>3.96</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	4.16	
Difference				-0.03	0.01	0.03	-	-	-	-	0.03	-0.20	
IM U.S. Broad Mkt Core FI (MF)				-3.04	-0.52	4.37	4.80	3.40	3.51	4.24	8.19	4.71	
Rank				76	89	91	-	-	-	-	71	81	
<b>PIMCO Core Plus (SA)</b>	<b>100,235,130</b>	<b>4.41</b>	<b>-</b>	<b>-3.60</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-2.37</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-3.38	-2.13	0.71	4.65	3.10	3.44	4.29	7.51	-2.78	
Difference				-0.22	-	-	-	-	-	-	-	0.41	
IM U.S. Broad Mkt Core+ FI (MF)				-2.95	0.49	6.75	5.04	3.98	3.89	4.80	8.55	-1.18	
Rank				78	-	-	-	-	-	-	-	85	
<b>Emerging Markets Debt</b>	<b>88,035,812</b>	<b>3.87</b>	<b>4.00</b>	<b>-5.48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.09</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	-1.18	
Difference				-0.74	-	-	-	-	-	-	-	0.09	
<b>Wellington Opportunistic EMD (CF)</b>	<b>88,035,812</b>	<b>3.87</b>	<b>-</b>	<b>-5.48</b>	<b>3.27</b>	<b>16.94</b>	<b>4.09</b>	<b>5.80</b>	<b>5.76</b>	<b>-</b>	<b>7.69</b>	<b>6.29</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-4.74	2.77	14.29	3.87	4.74	5.35	6.31	5.88	5.89	
Difference				-0.74	0.50	2.65	0.22	1.06	0.41	-	1.81	0.40	
IM Emerging Markets Debt (MF) Median				-4.63	5.37	19.41	2.99	4.87	4.28	5.42	5.57	5.04	
Rank				91	93	81	26	20	3	-	15	4	
<b>High Yield Fixed Income</b>	<b>3,472,079</b>	<b>0.15</b>	<b>0.00</b>	<b>4.78</b>	<b>17.50</b>	<b>22.54</b>	<b>3.57</b>	<b>5.76</b>	<b>5.27</b>	<b>-</b>	<b>3.26</b>	<b>6.25</b>	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	7.40	
Difference				3.93	5.21	-1.18	-3.27	-2.30	-1.21	-	-3.85	-1.15	
<b>PIMCO Liquidation (SA)</b>	<b>3,472,079</b>	<b>0.15</b>	<b>-</b>	<b>4.78</b>	<b>17.50</b>	<b>22.53</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.25</b>	<b>3.39</b>	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				0.85	12.29	23.72	6.84	8.06	6.48	7.36	7.11	6.88	
Difference				3.93	5.21	-1.19	-	-	-	-	-3.86	-3.49	
IM U.S. High Yield Bonds (MF) Median				0.91	11.93	22.24	5.64	6.70	5.34	6.05	5.26	5.79	
Rank				1	5	47	-	-	-	-	82	95	
<b>Private Debt</b>	<b>62,508,660</b>	<b>2.75</b>	<b>10.00</b>	<b>6.12</b>	<b>14.73</b>	<b>8.88</b>	<b>5.99</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.36</b>	<b>6.31</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				2.51	10.82	21.58	4.38	5.44	4.33	4.66	3.12	4.49	
Difference				3.61	3.91	-12.70	1.61	-	-	-	-0.76	1.82	

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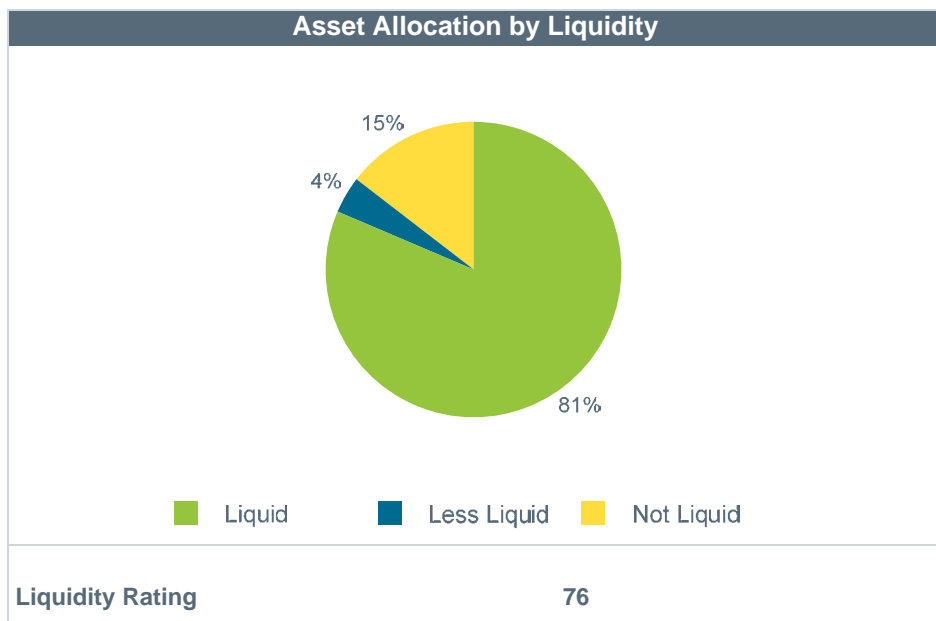
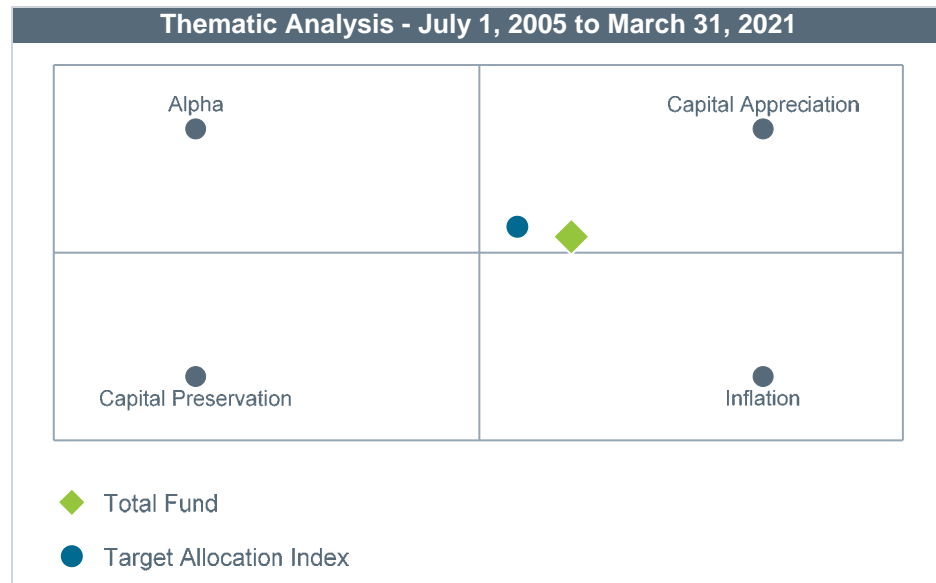
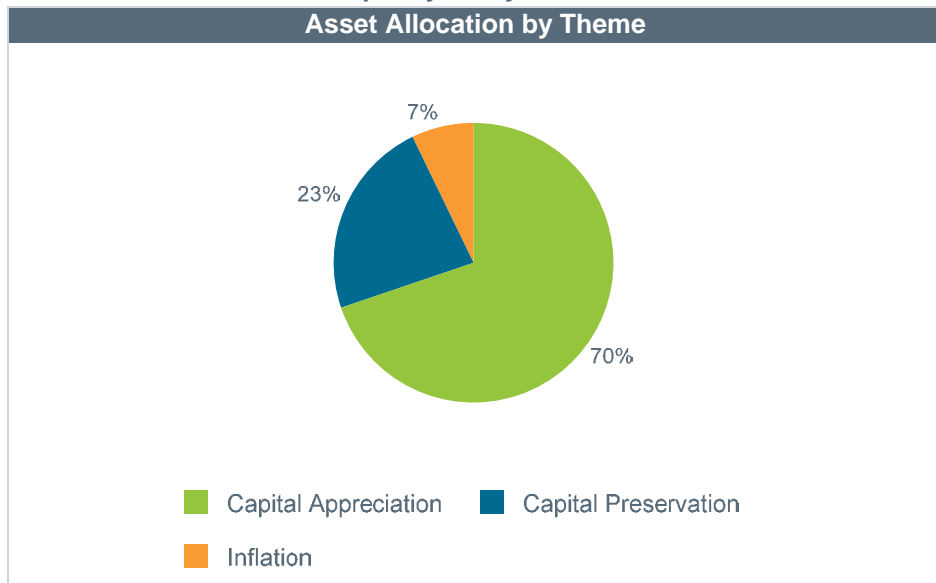


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	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
<b>Private Equity</b>	<b>119,124,535</b>	<b>5.24</b>	<b>10.00</b>	<b>-0.46</b>	<b>25.15</b>	<b>16.82</b>	<b>17.64</b>	<b>17.66</b>	-	-	<b>17.27</b>	<b>15.91</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	23.17	34.58	13.98	15.28	13.34	12.29	21.32	13.83	
Difference				-0.46	1.98	-17.76	3.66	2.38	-	-	-4.05	2.08	
<b>Non-Core Real Estate</b>	<b>47,241,249</b>	<b>2.08</b>	<b>3.00</b>	<b>5.72</b>	<b>4.83</b>	<b>0.68</b>	<b>3.82</b>	<b>8.76</b>	-	-	<b>-1.77</b>	<b>9.32</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				2.39	4.33	3.29	5.12	5.95	8.90	7.05	1.60	7.76	
Difference				3.33	0.50	-2.61	-1.30	2.81	-	-	-3.37	1.56	
<b>Inflation Hedging Assets (Spliced)</b>	<b>163,202,379</b>	<b>7.18</b>	<b>10.00</b>	<b>-1.64</b>	<b>-4.45</b>	<b>-5.19</b>	<b>-0.55</b>	<b>2.73</b>	<b>8.21</b>	-	<b>-2.80</b>	<b>8.42</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				2.32	3.39	2.36	4.81	5.75	8.80	6.99	0.75	8.92	
Difference				-3.96	-7.84	-7.55	-5.36	-3.02	-0.59	-	-3.55	-0.50	
<b>TIPS</b>	<b>62,420,697</b>	<b>2.75</b>	<b>2.00</b>	<b>-1.50</b>	-	-	-	-	-	-	-	<b>-0.25</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	-0.24	
Difference				-0.03	-	-	-	-	-	-	-	-0.01	
<b>BlackRock TIPS (CF)</b>	<b>62,420,697</b>	<b>2.75</b>	<b>-</b>	<b>-1.50</b>	<b>3.16</b>	<b>7.62</b>	<b>5.59</b>	<b>3.81</b>	<b>3.37</b>	-	<b>10.97</b>	<b>3.53</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-1.47	3.16	7.54	5.68	3.86	3.44	4.37	10.99	3.57	
Difference				-0.03	0.00	0.08	-0.09	-0.05	-0.07	-	-0.02	-0.04	
IM U.S. TIPS (MF) Median				-1.19	3.93	8.43	4.97	3.44	2.78	3.70	9.64	2.96	
Rank				63	69	66	24	31	12	-	26	10	
<b>Core Real Estate</b>	<b>86,628,694</b>	<b>3.81</b>	<b>5.00</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.90</b>	<b>1.96</b>	<b>7.86</b>	-	<b>-2.26</b>	<b>8.08</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	8.85	
Difference				-3.93	-8.01	-5.77	-4.86	-3.30	-0.81	-	-2.60	-0.77	
<b>UBS Trumbull Properties (CF)</b>	<b>86,628,270</b>	<b>3.81</b>	<b>-</b>	<b>-2.04</b>	<b>-4.73</b>	<b>-4.30</b>	<b>-0.85</b>	<b>1.71</b>	<b>6.05</b>	<b>4.66</b>	<b>-2.26</b>	<b>5.13</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				1.89	3.28	1.47	3.96	5.26	8.67	5.34	0.34	5.94	
Difference				-3.93	-8.01	-5.77	-4.81	-3.55	-2.62	-0.68	-2.60	-0.81	
<b>Private Infrastructure/Land</b>	<b>14,152,988</b>	<b>0.62</b>	<b>3.00</b>	<b>0.80</b>	-	-	-	-	-	-	-	<b>0.61</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				0.86	3.45	4.08	4.71	5.46	10.24	11.19	3.08	3.45	
Difference				-0.06	-	-	-	-	-	-	-	-2.84	
<b>Cash Equivalents</b>	<b>1,183,263</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>	<b>0.08</b>	<b>0.47</b>	<b>0.31</b>	<b>0.17</b>	-	<b>0.36</b>	<b>0.18</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.02	0.09	0.12	1.49	1.19	0.63	1.16	0.67	0.62	
Difference				-0.02	-0.04	-0.04	-1.02	-0.88	-0.46	-	-0.31	-0.44	

Performance shown is net of fees. Allocations shown may not sum up to 100% exactly due to rounding. Manager inception dates shown represent the first full month of available performance. Fiscal year ends 6/30. Please see addendum for custom benchmark definitions. Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.



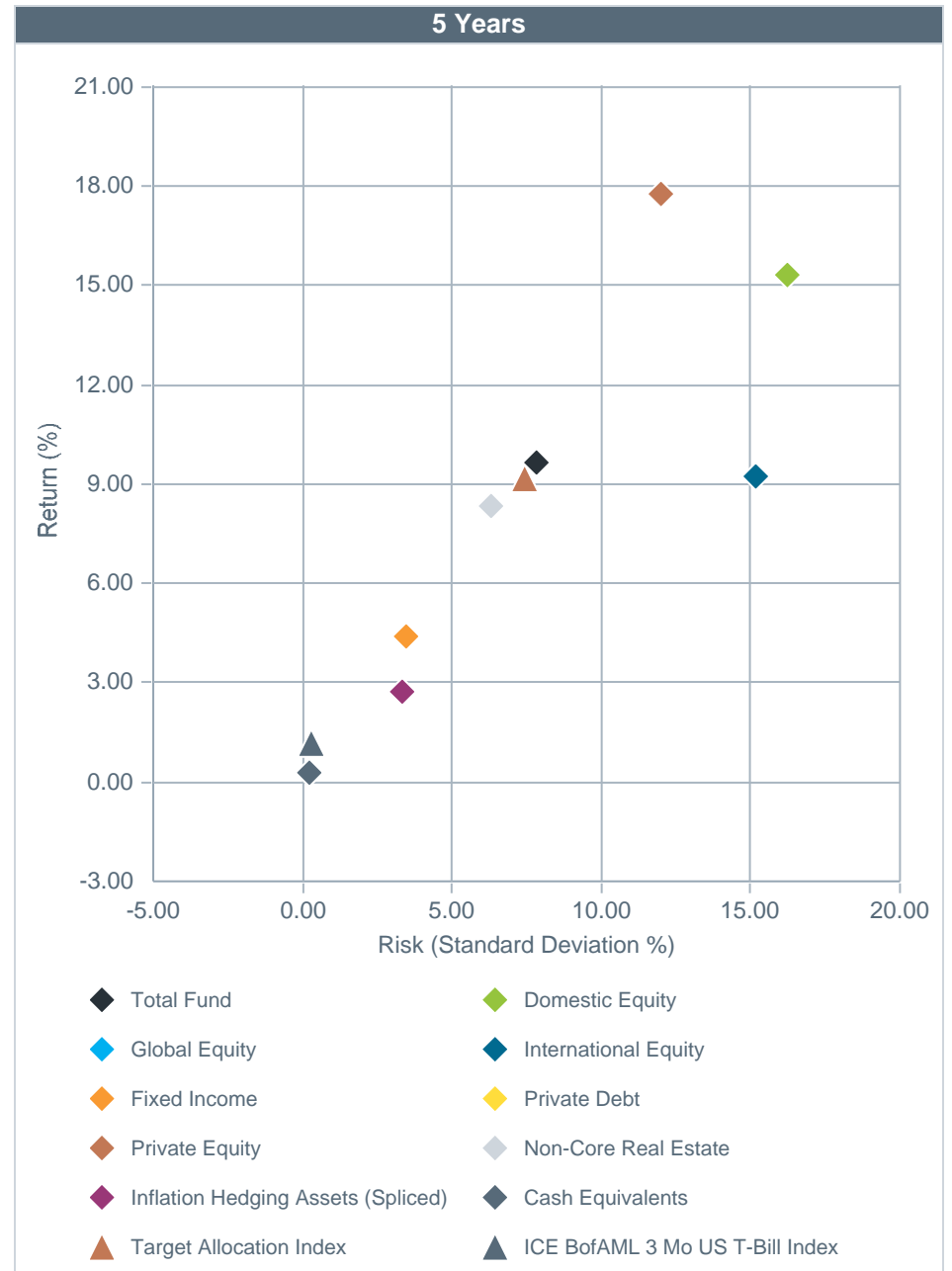
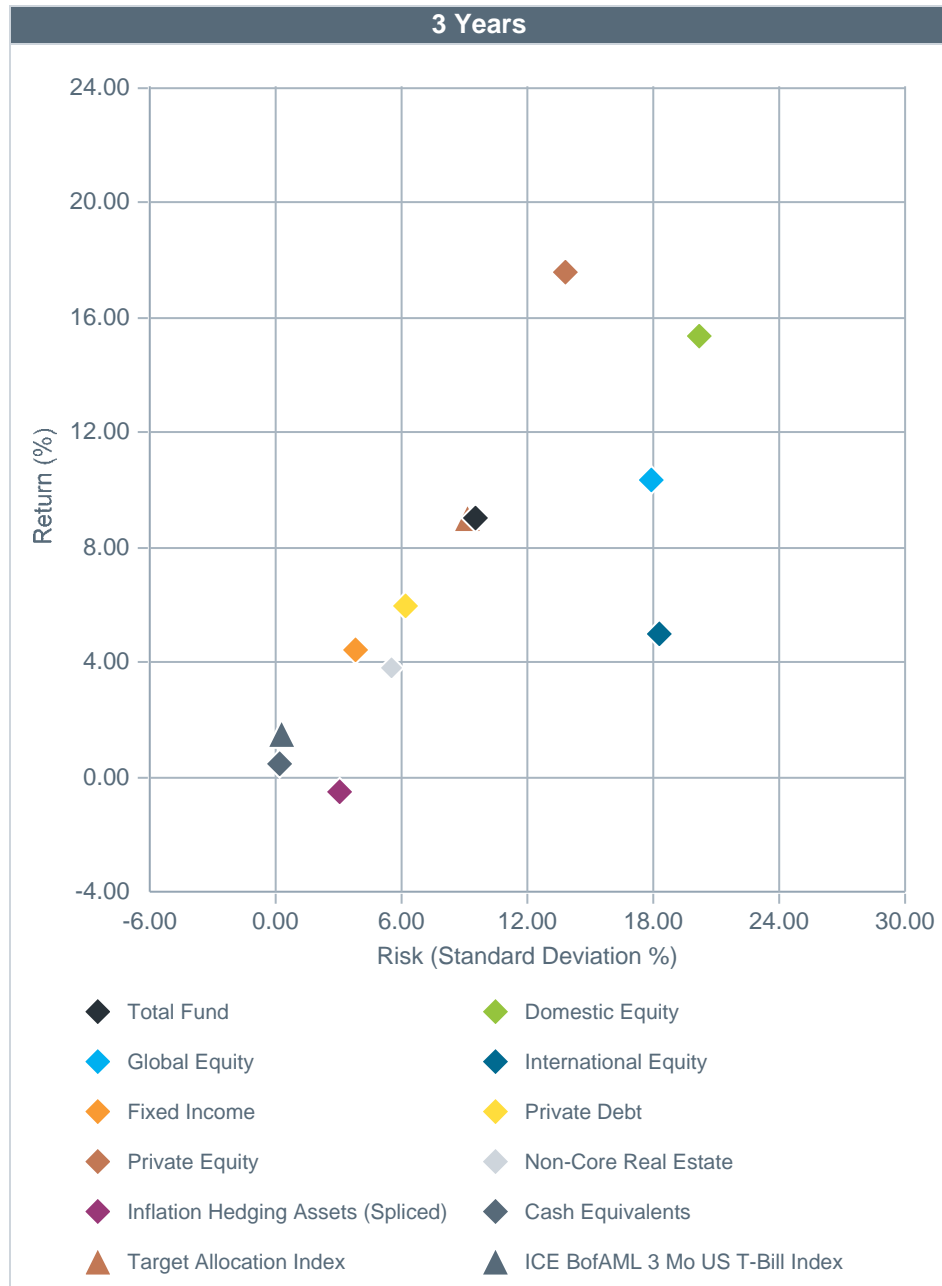
### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.70	1.00		
C	-0.28	-0.39	1.00	
D	0.60	0.79	-0.11	1.00

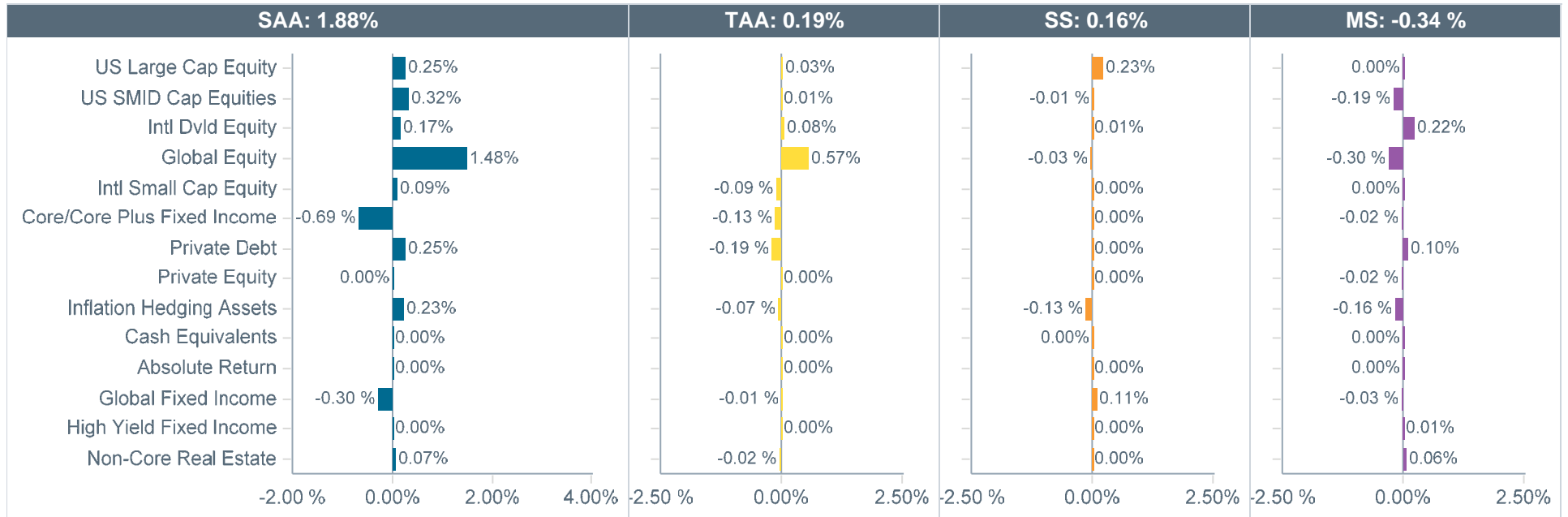
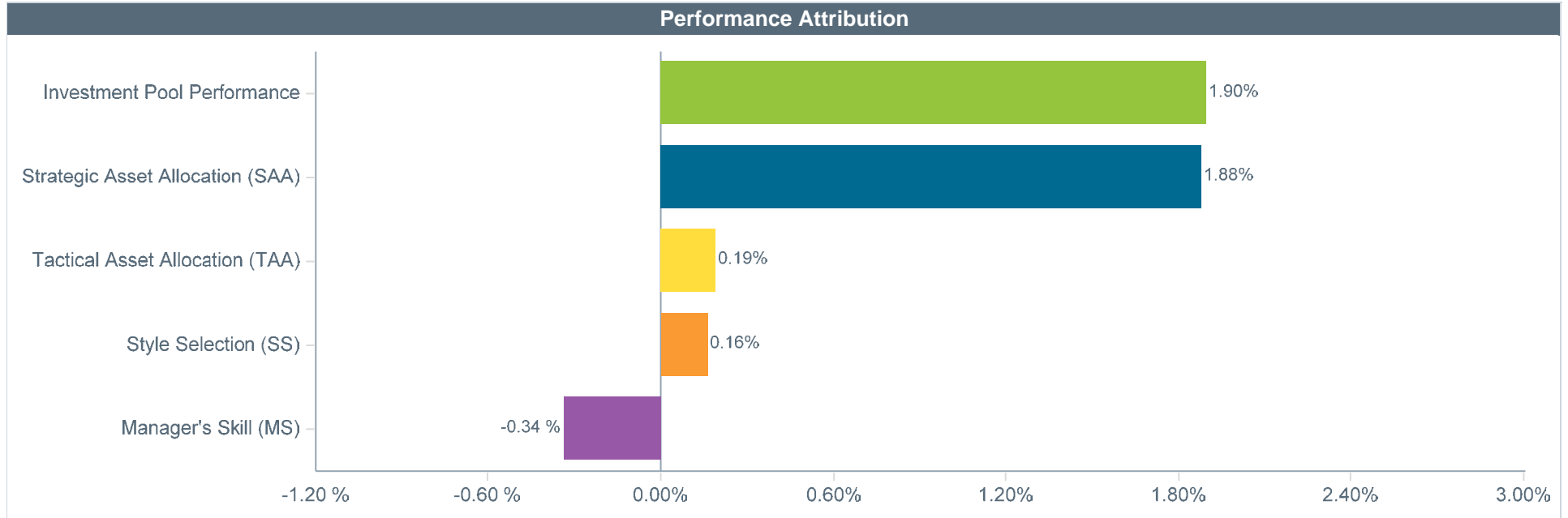
A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Gov't Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions. Allocations may not sum to 100% due to rounding.





Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.

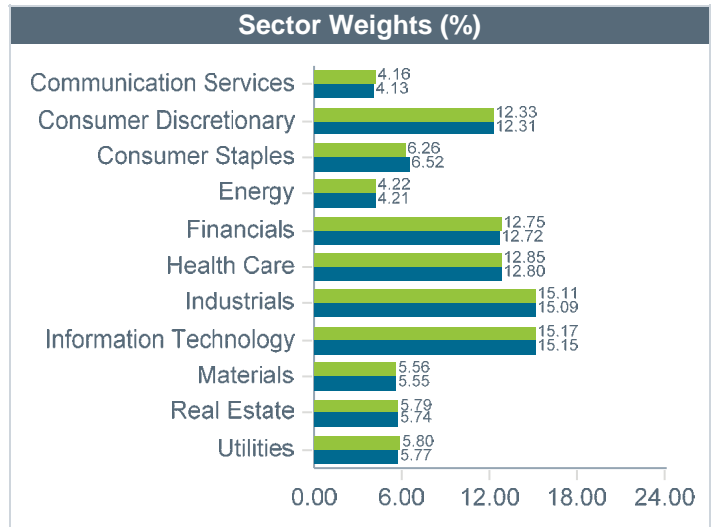
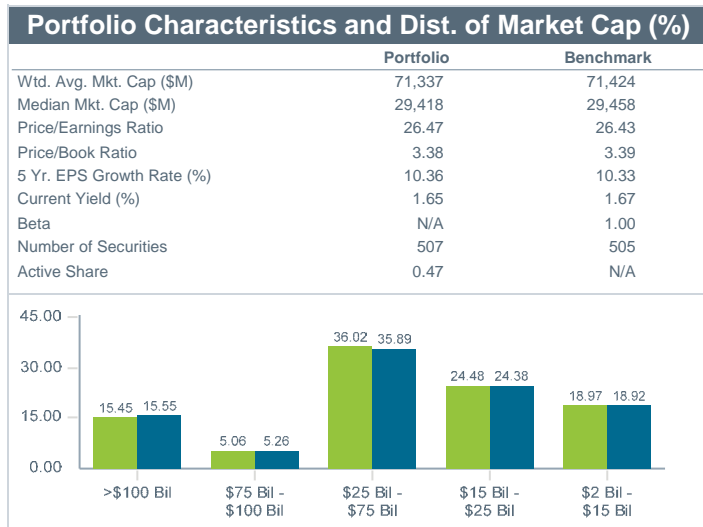
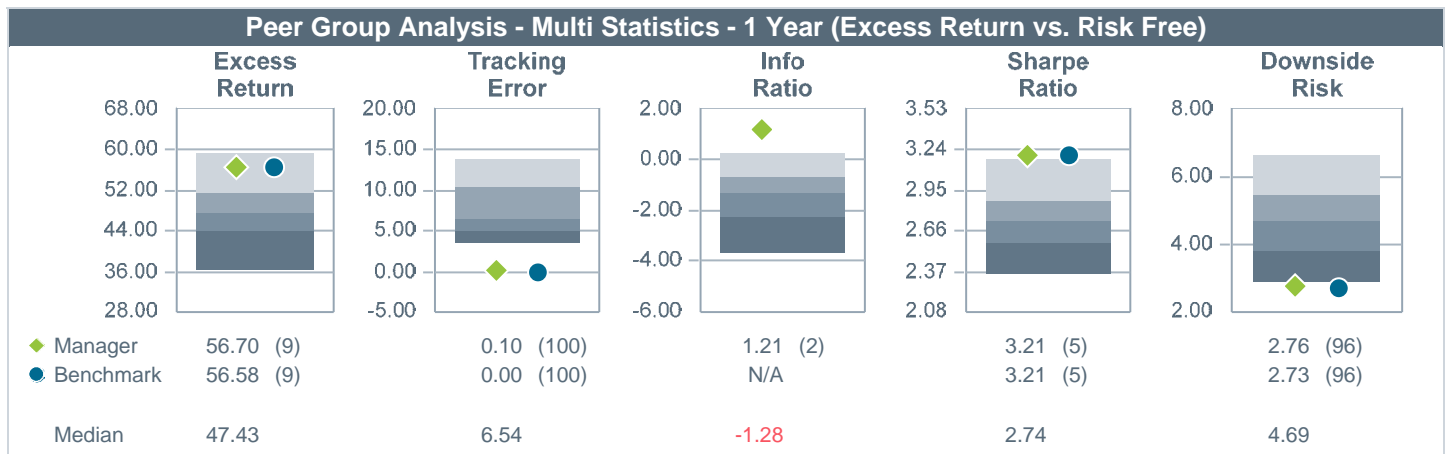
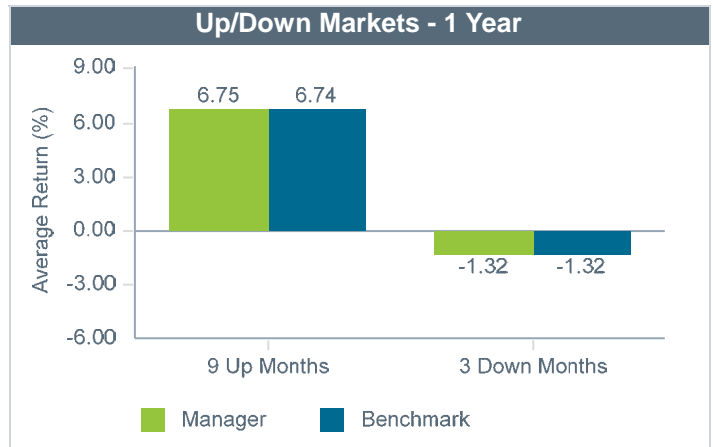
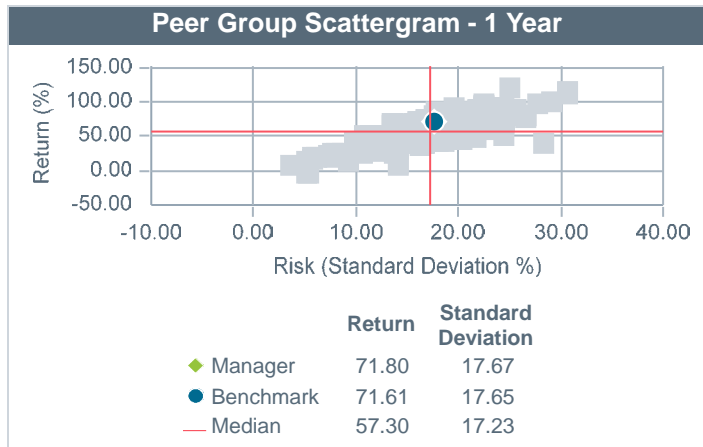


Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable investments, such as Private Equity, is imperfect at best and can potentially be misleading. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

# Investment Manager Profiles



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	11.45	71.80	N/A	N/A	N/A	N/A	13.03	N/A	N/A	N/A	N/A
Benchmark	11.49	71.61	14.90	14.74	12.13	13.09	12.83	29.24	-7.64	18.90	14.80
Difference	-0.04	0.19	N/A	N/A	N/A	N/A	0.20	N/A	N/A	N/A	N/A
Peer Group Median	5.91	57.30	16.10	15.75	12.63	12.81	18.34	30.00	-5.02	21.89	9.05
Rank	14	8	N/A	N/A	N/A	N/A	64	N/A	N/A	N/A	N/A
Population	1,938	1,868	1,689	1,515	1,337	1,179	1,869	1,848	1,862	1,791	1,706

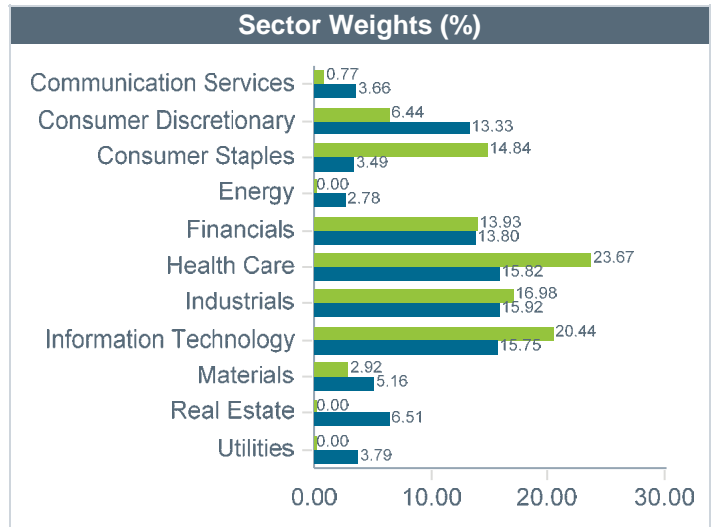
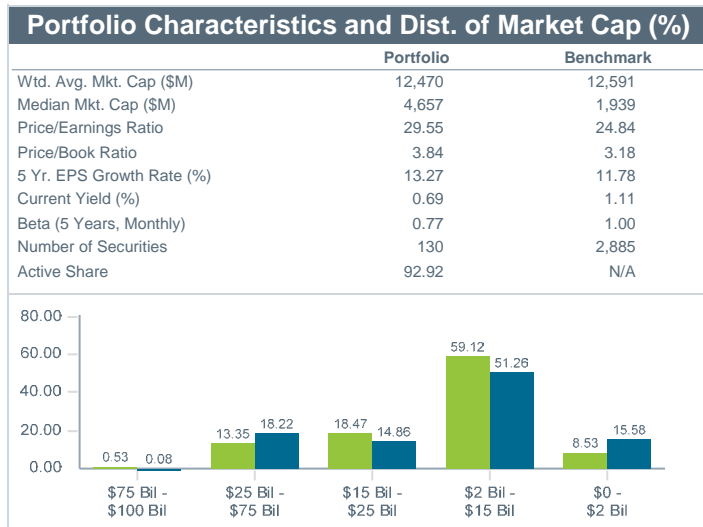
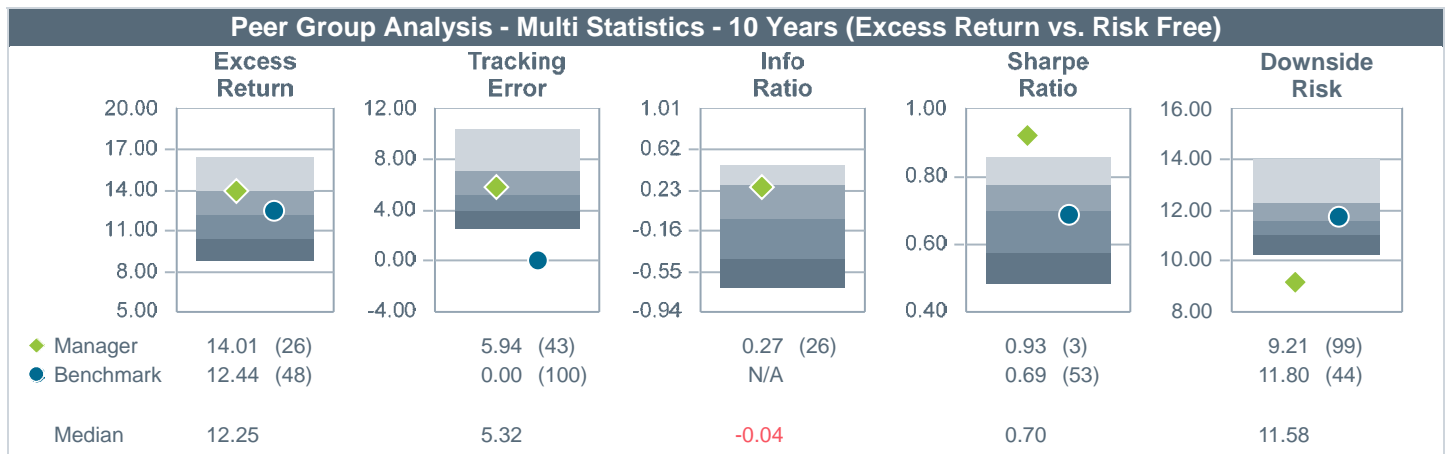
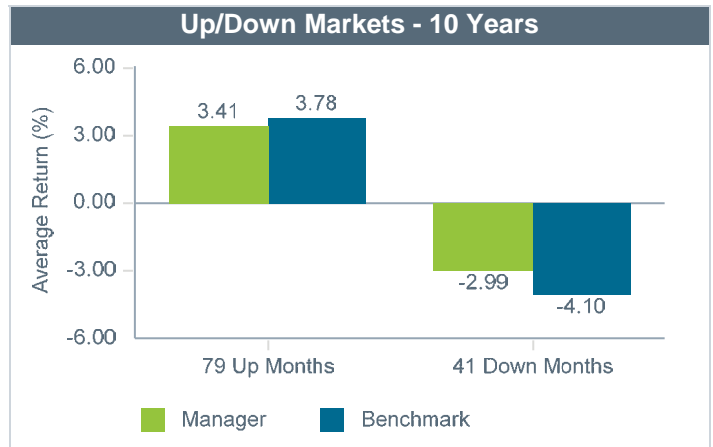
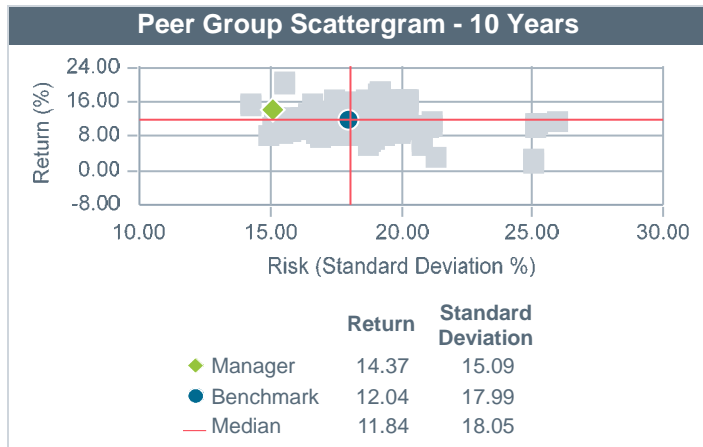


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.





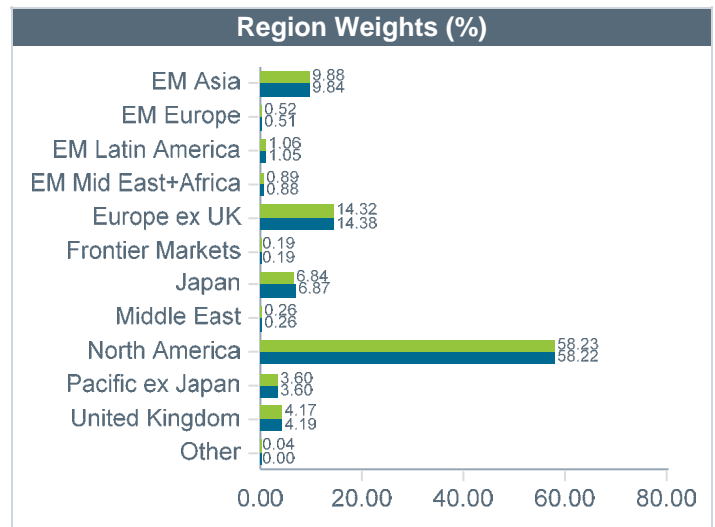
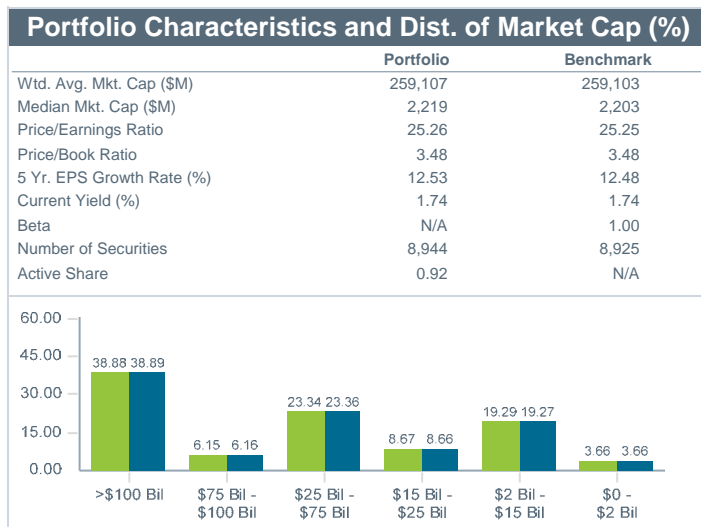
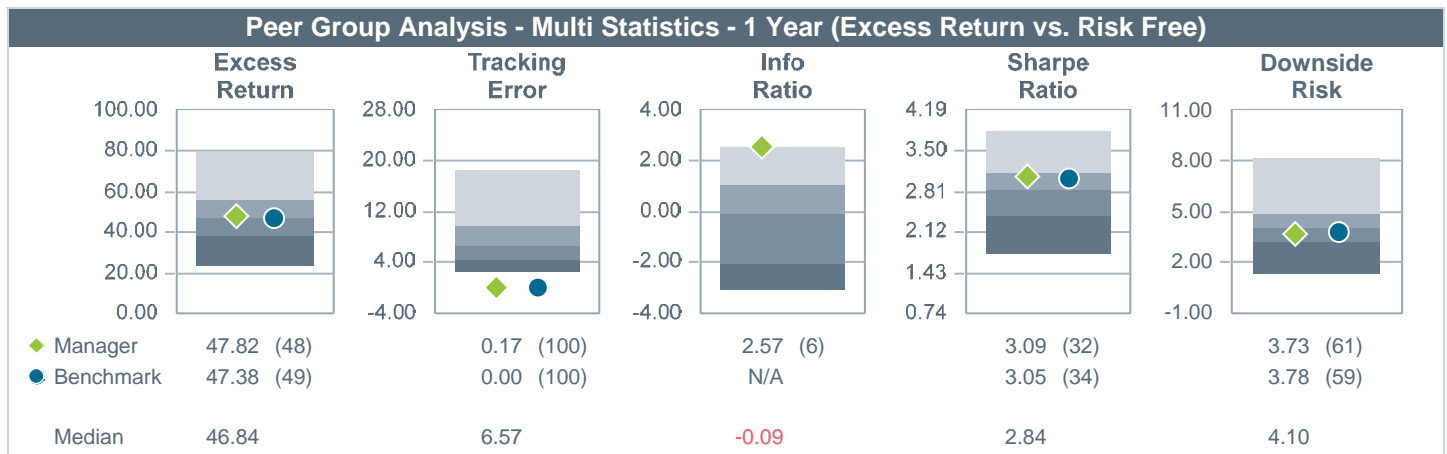
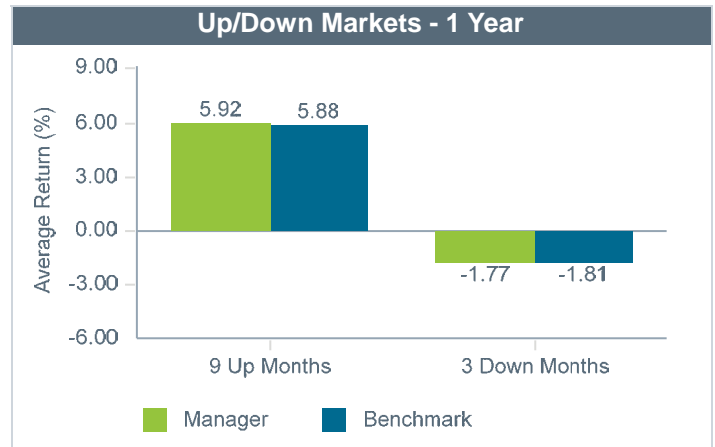
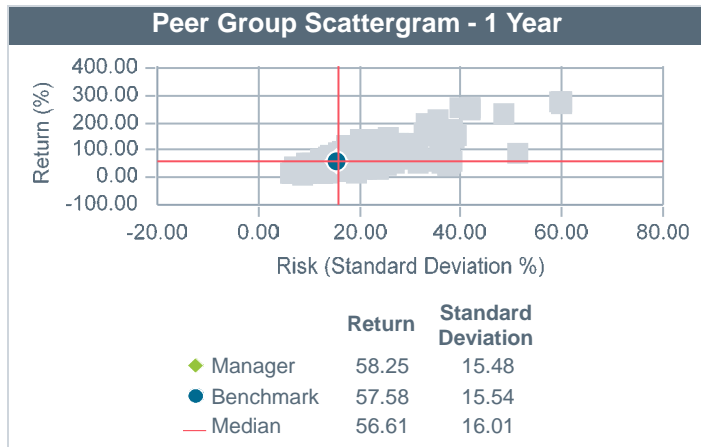
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	4.22	69.61	17.97	18.27	14.53	14.37	27.32	27.29	0.47	17.33	19.16
Benchmark	10.44	89.76	14.58	15.99	11.23	12.04	19.99	26.65	-10.50	14.67	22.77
Difference	-6.22	-20.15	3.39	2.28	3.30	2.33	7.33	0.64	10.97	2.66	-3.61
Peer Group Median	10.21	83.31	14.61	15.53	11.22	11.84	20.27	27.56	-10.18	17.90	14.58
Rank	71	84	34	32	21	20	41	53	9	53	25
Population	474	468	436	383	339	281	466	490	489	462	425



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
<b>Manager</b>	<b>5.33</b>	<b>58.25</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>16.77</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Benchmark	5.14	57.58	11.90	13.21	9.35	9.15	16.25	26.35	-10.08	23.95	8.36
Difference	0.19	0.67	N/A	N/A	N/A	N/A	0.52	N/A	N/A	N/A	N/A
Peer Group Median	4.06	56.61	11.26	12.03	8.66	9.09	15.21	26.35	-9.73	22.32	6.37
Rank	35	47	N/A	N/A	N/A	N/A	44	N/A	N/A	N/A	N/A
Population	1,446	1,352	1,181	983	837	607	1,356	1,396	1,395	1,307	1,190

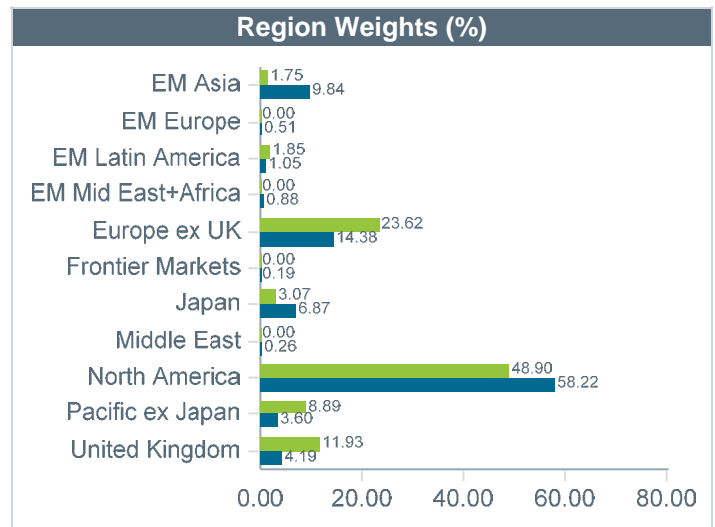
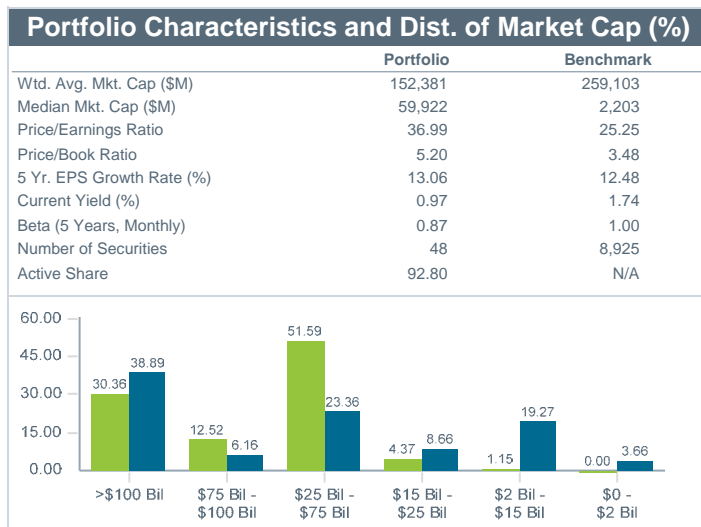
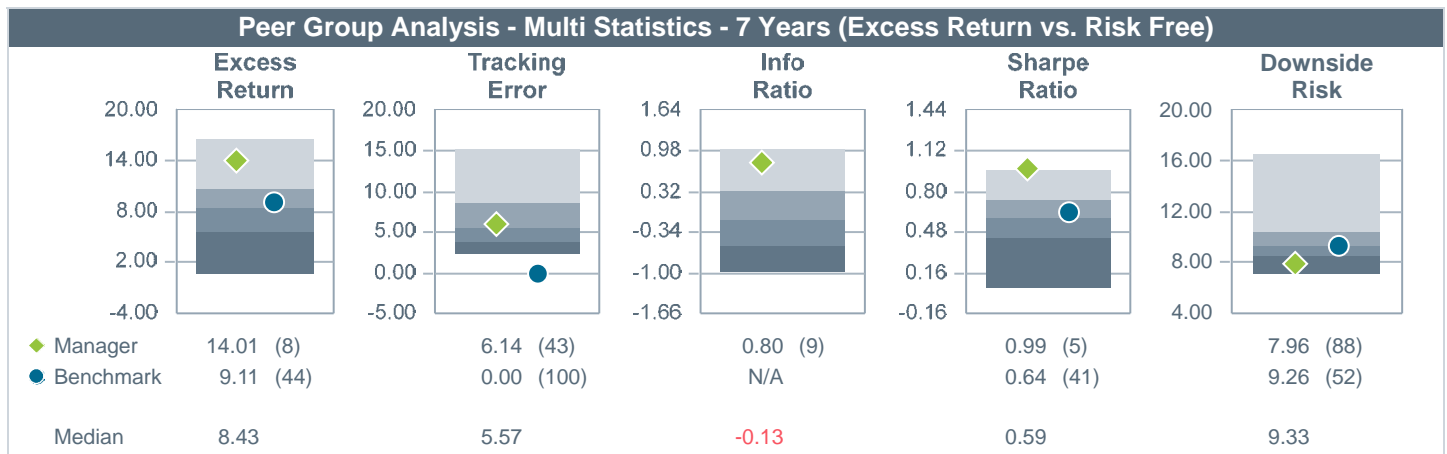
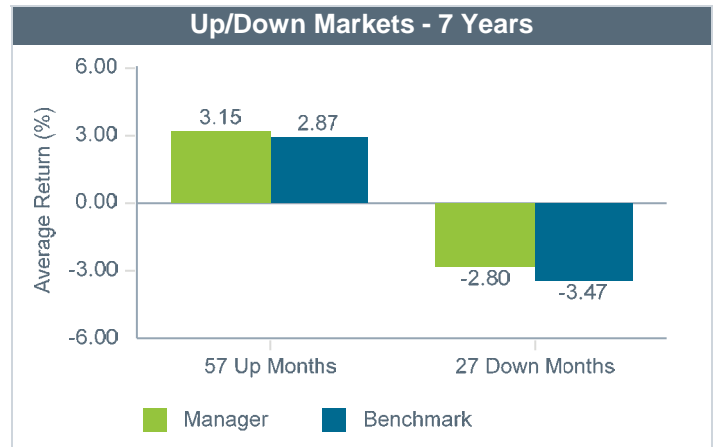
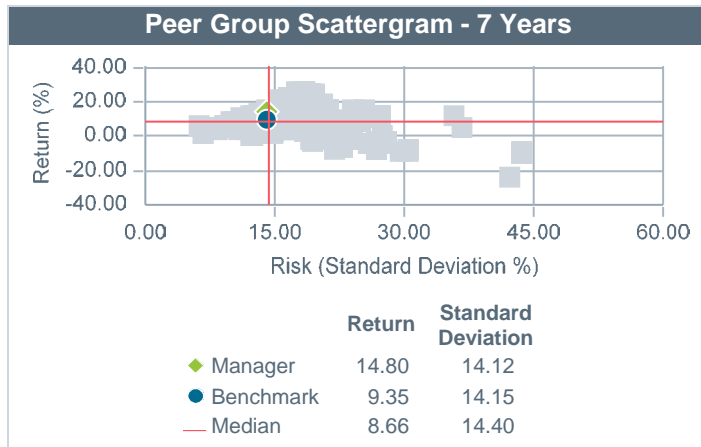


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.





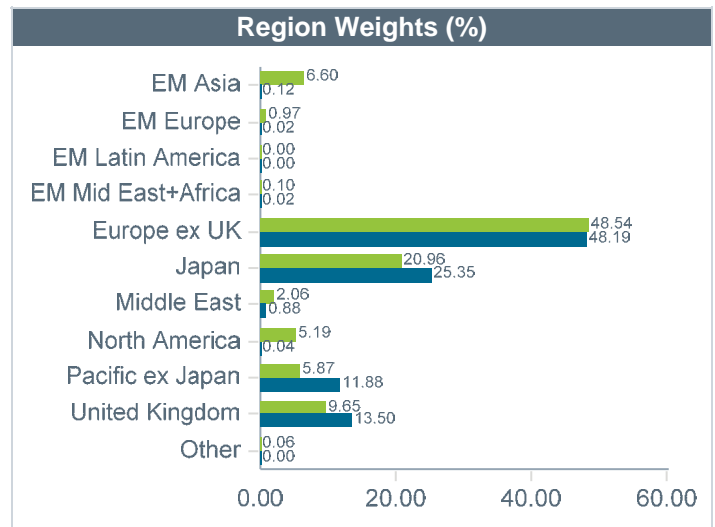
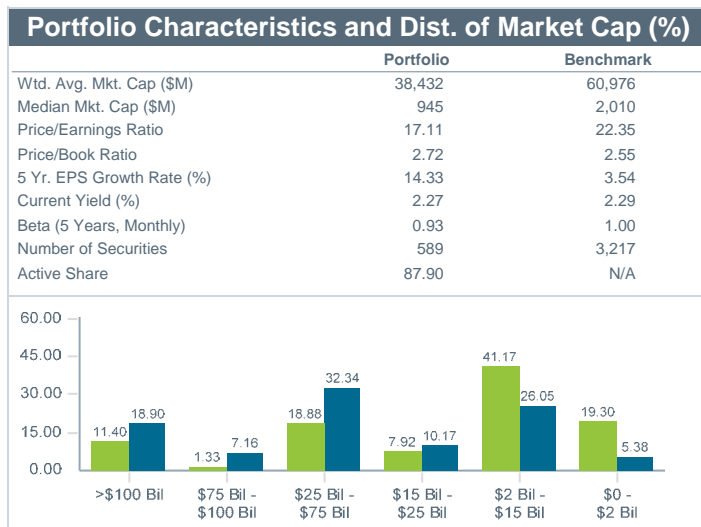
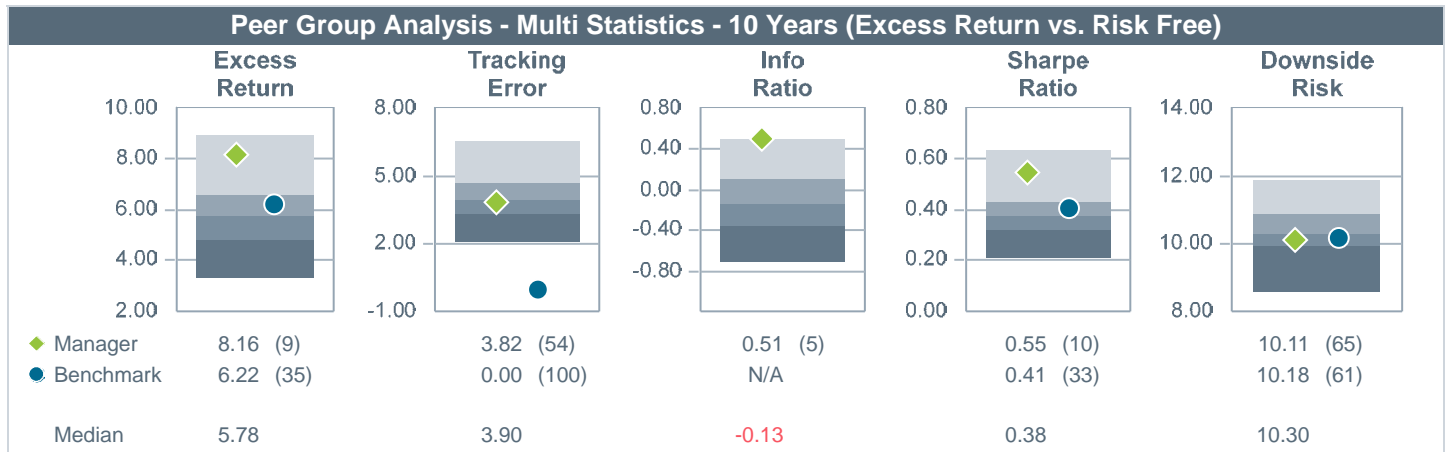
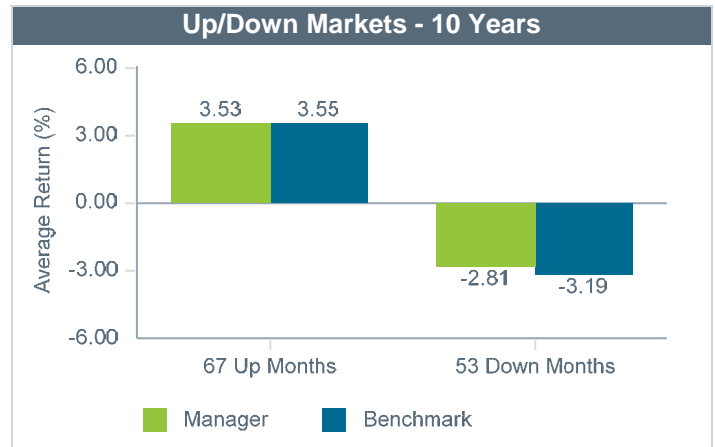
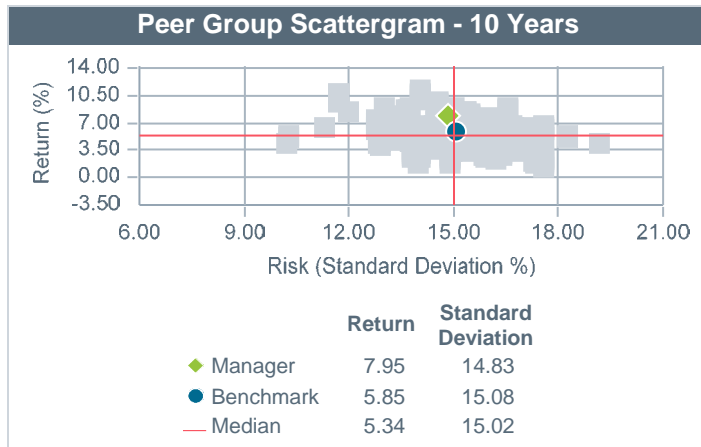
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-1.79	58.16	18.40	18.87	14.80	N/A	40.32	35.89	-8.68	31.69	4.77
Benchmark	5.14	57.58	11.90	13.21	9.35	9.15	16.25	26.35	-10.08	23.95	8.36
Difference	-6.93	0.58	6.50	5.66	5.45	N/A	24.07	9.54	1.40	7.74	-3.59
Peer Group Median	4.06	56.61	11.26	12.03	8.66	9.09	15.21	26.35	-9.73	22.32	6.37
Rank	93	47	14	11	7	N/A	14	6	38	12	64
Population	1,446	1,352	1,181	983	837	607	1,356	1,396	1,395	1,307	1,190



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

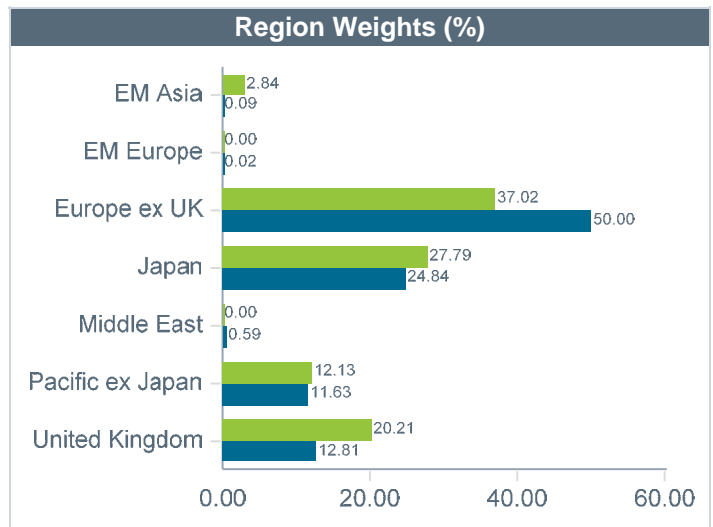
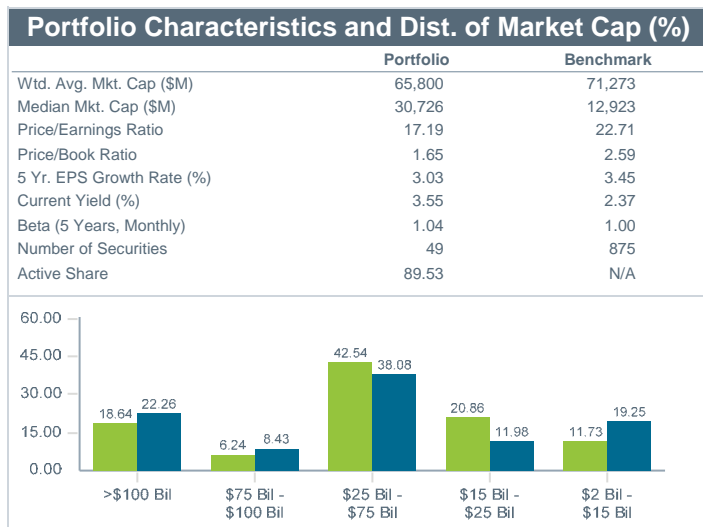
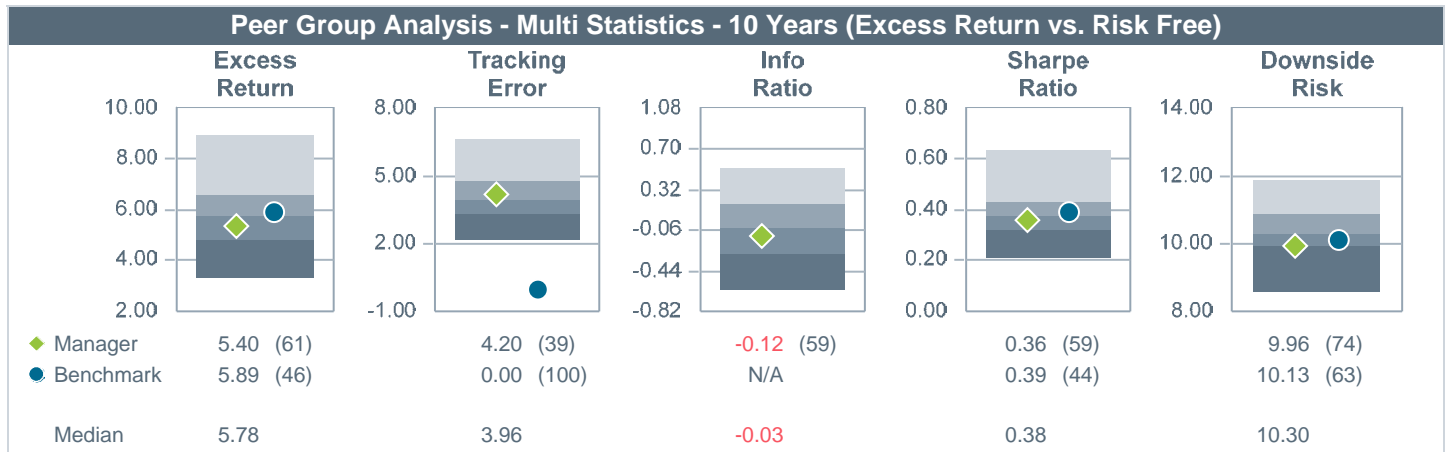
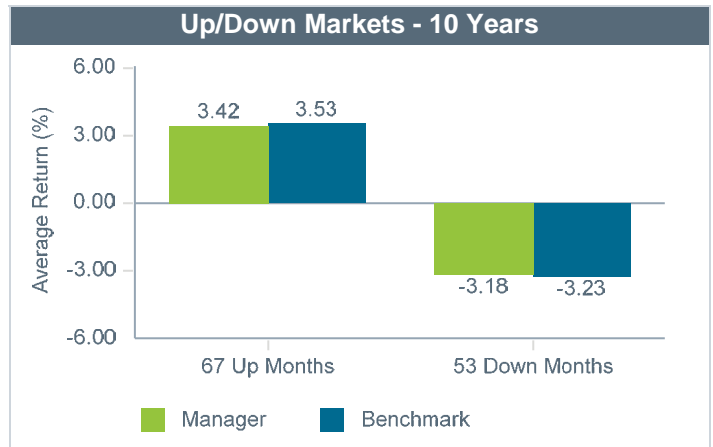
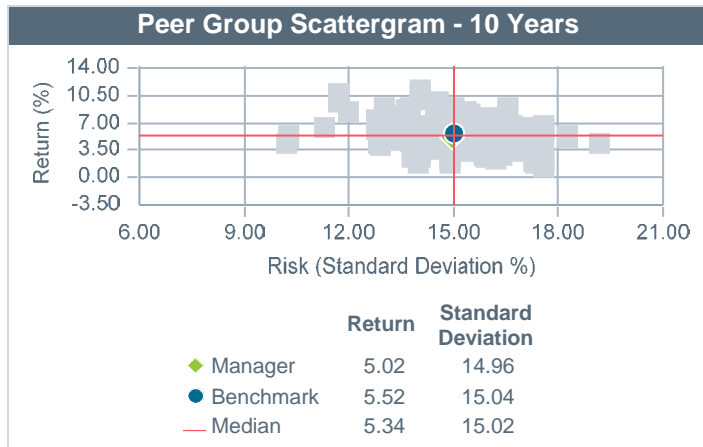


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	6.53	56.12	6.50	11.97	7.55	7.95	12.37	18.22	-15.89	36.78	7.45
Benchmark	3.63	46.95	6.06	9.09	5.16	5.85	8.47	22.44	-14.40	26.16	1.15
Difference	2.90	9.17	0.44	2.88	2.39	2.10	3.90	-4.22	-1.49	10.62	6.30
Peer Group Median	3.39	48.15	5.63	8.52	4.68	5.34	8.17	21.59	-15.91	25.26	0.09
Rank	17	17	35	8	11	9	33	78	50	3	4
Population	579	579	579	564	475	403	596	642	671	698	669



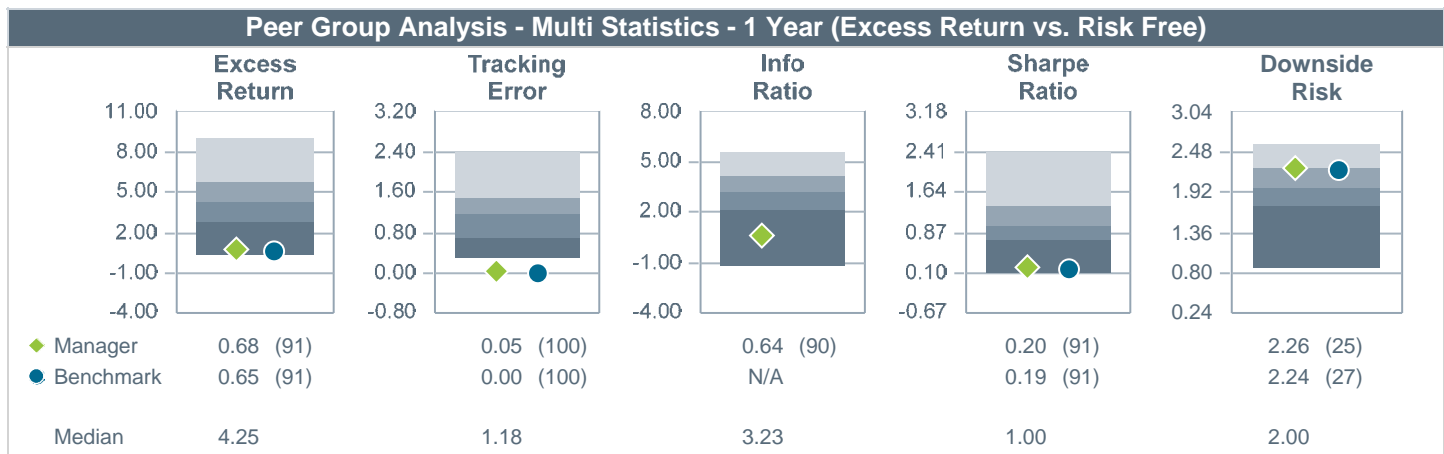
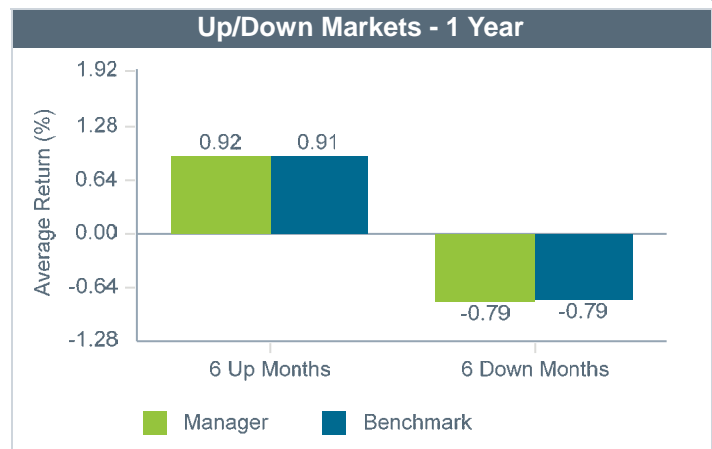
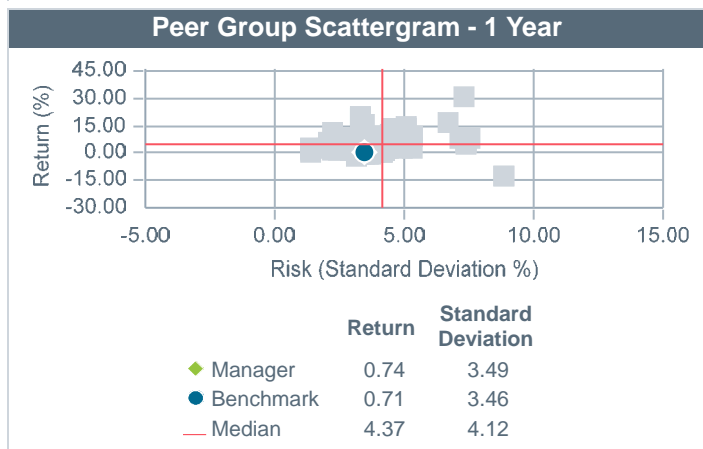
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	7.18	38.84	3.35	6.58	3.42	5.02	-4.01	19.29	-11.66	22.08	4.37
Benchmark	3.48	44.57	6.02	8.85	4.80	5.52	7.82	22.01	-13.79	25.03	1.00
Difference	3.70	-5.73	-2.67	-2.27	-1.38	-0.50	-11.83	-2.72	2.13	-2.95	3.37
Peer Group Median	3.39	48.15	5.63	8.52	4.68	5.34	8.17	21.59	-15.91	25.26	0.09
Rank	15	88	77	81	77	60	98	69	14	85	8
Population	579	579	579	564	475	403	596	642	671	698	669



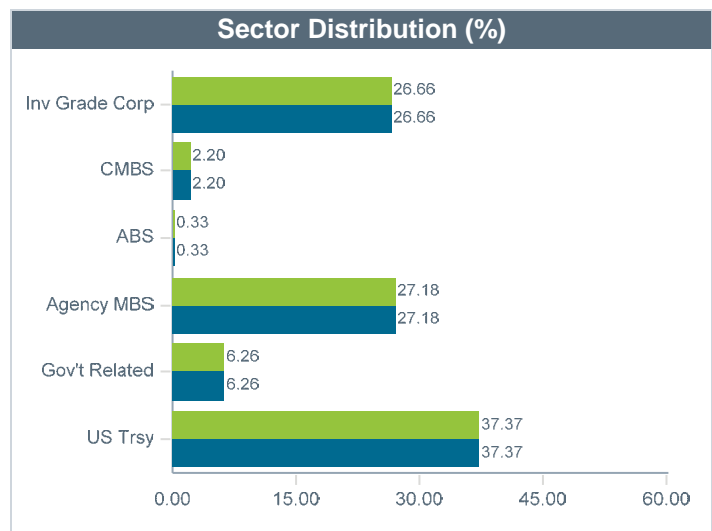
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-3.41	0.74	N/A	N/A	N/A	N/A	7.54	N/A	N/A	N/A	N/A
Benchmark	-3.38	0.71	4.65	3.10	3.31	3.44	7.51	8.72	0.01	3.54	2.65
Difference	-0.03	0.03	N/A	N/A	N/A	N/A	0.03	N/A	N/A	N/A	N/A
Peer Group Median	-3.04	4.37	4.80	3.40	3.29	3.51	8.19	8.76	-0.63	3.59	2.86
Rank	76	91	N/A	N/A	N/A	N/A	71	N/A	N/A	N/A	N/A
Population	504	489	461	407	344	300	488	511	506	498	469



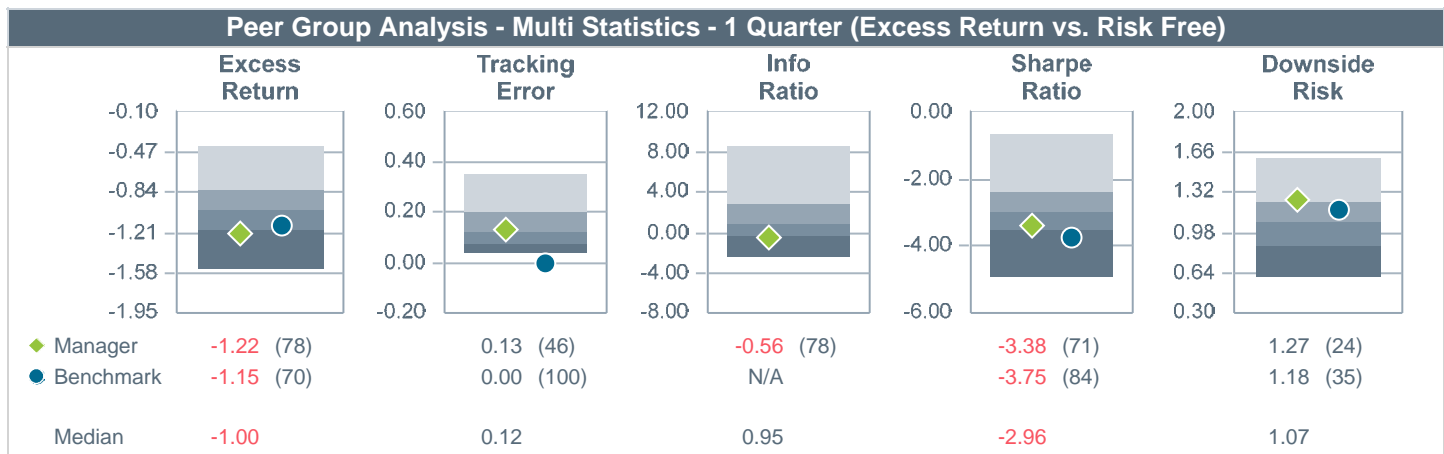
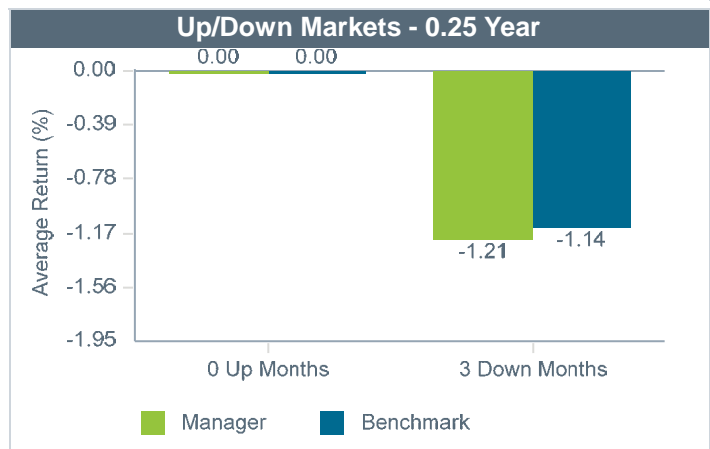
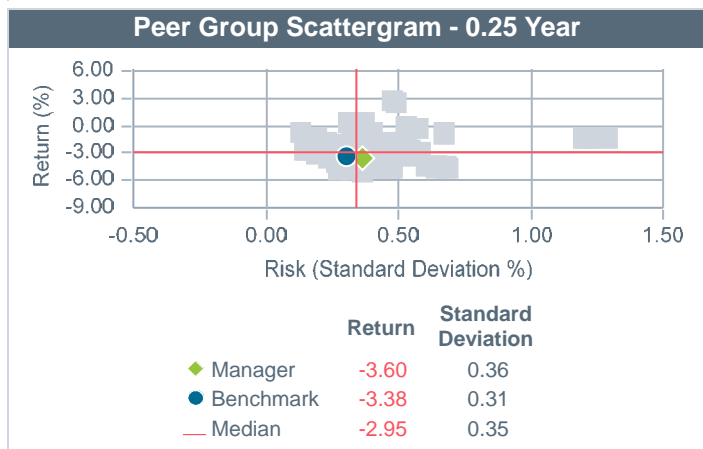
### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.40	6.40
Spread Duration	6.39	6.39
Avg. Maturity	8.38	8.38
Avg. Quality	Aa1/Aa2	Aa1/Aa2
Yield To Maturity (%)	1.62	1.62
Coupon Rate (%)	2.64	2.64
Current Yield (%)	N/A	N/A
Holdings Count	12,161	12,161



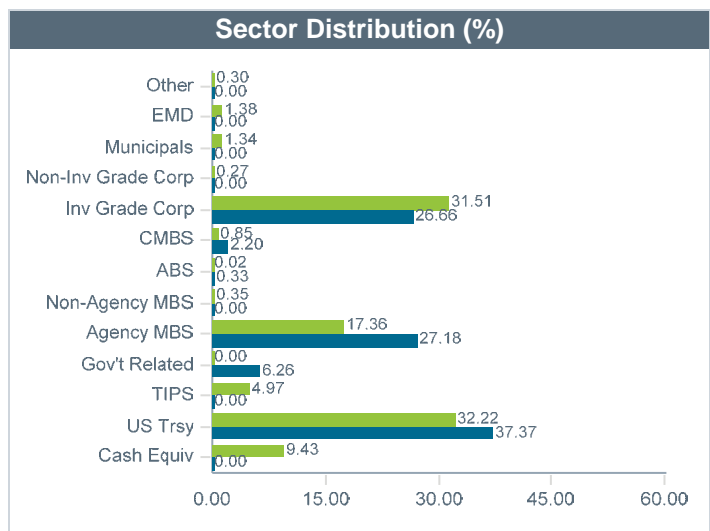
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Portfolio characteristics are proxied using benchmark statistics.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-3.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-3.38	0.71	4.65	3.10	3.31	3.44	7.51	8.72	0.01	3.54	2.65
Difference	-0.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-2.95	6.75	5.04	3.98	3.52	3.89	8.55	9.32	-0.93	4.49	4.19
Rank	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	319	310	267	227	185	150	309	307	283	265	228



### Portfolio Characteristics

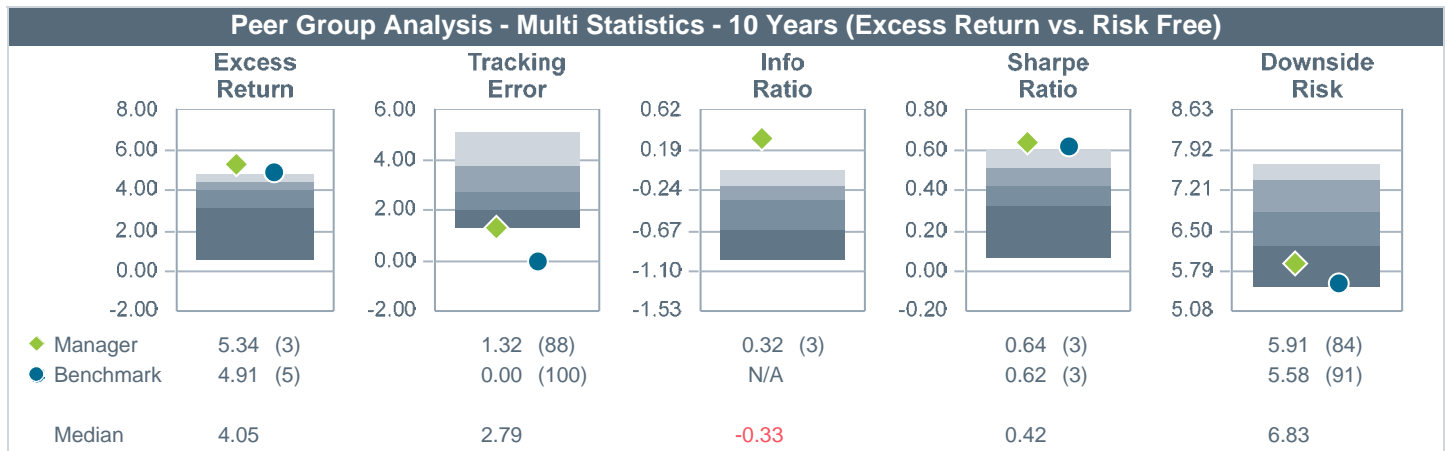
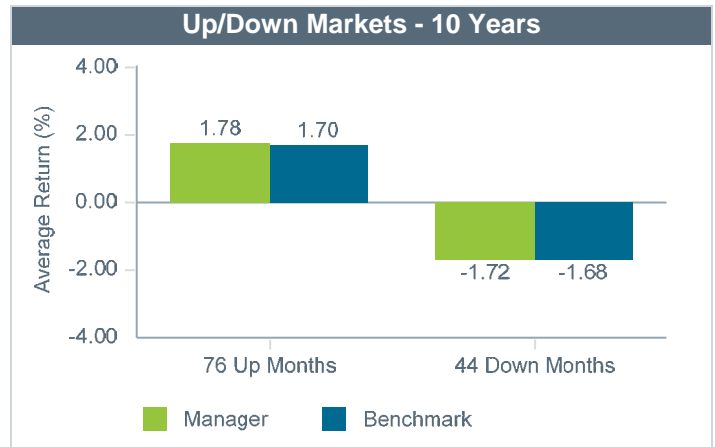
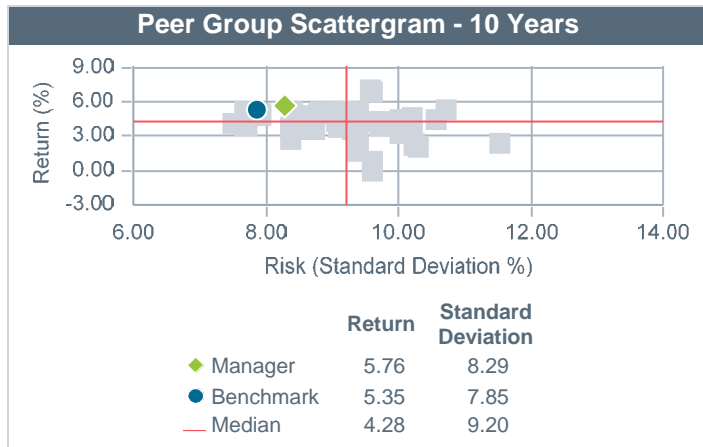
	Portfolio	Benchmark
Effective Duration	6.15	6.40
Spread Duration	4.17	6.39
Avg. Maturity	7.73	8.38
Avg. Quality	Aa2	Aa1/Aa2
Yield To Maturity (%)	1.67	1.62
Coupon Rate (%)	2.05	2.64
Current Yield (%)	1.97	N/A
Holdings Count	249	12,161



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "other" consists of Euro/Yankees.

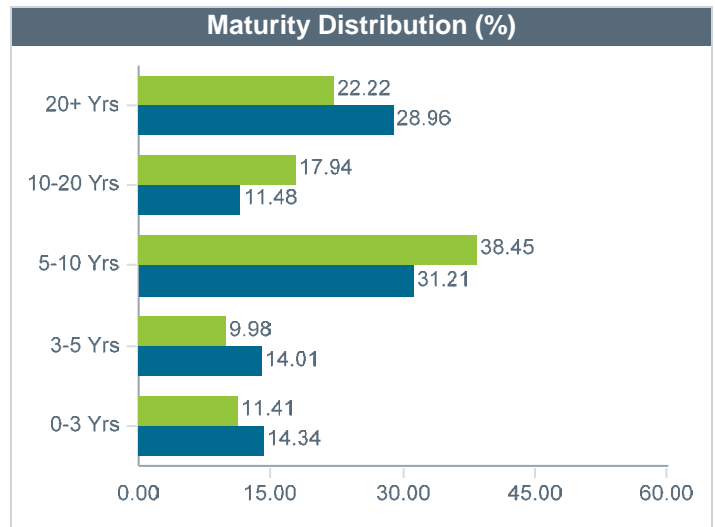


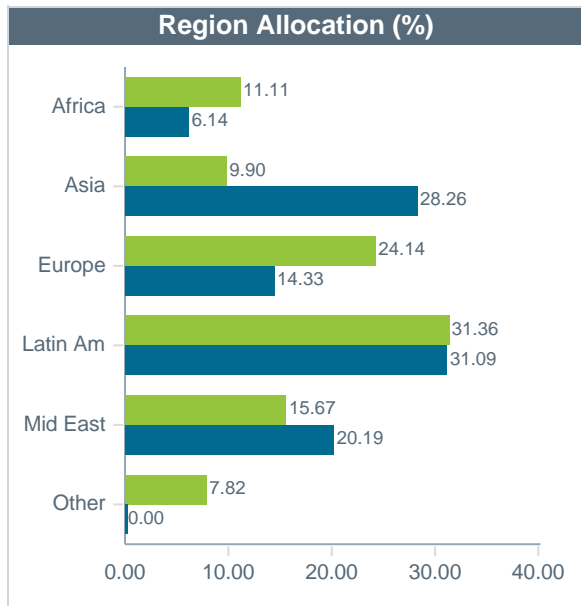
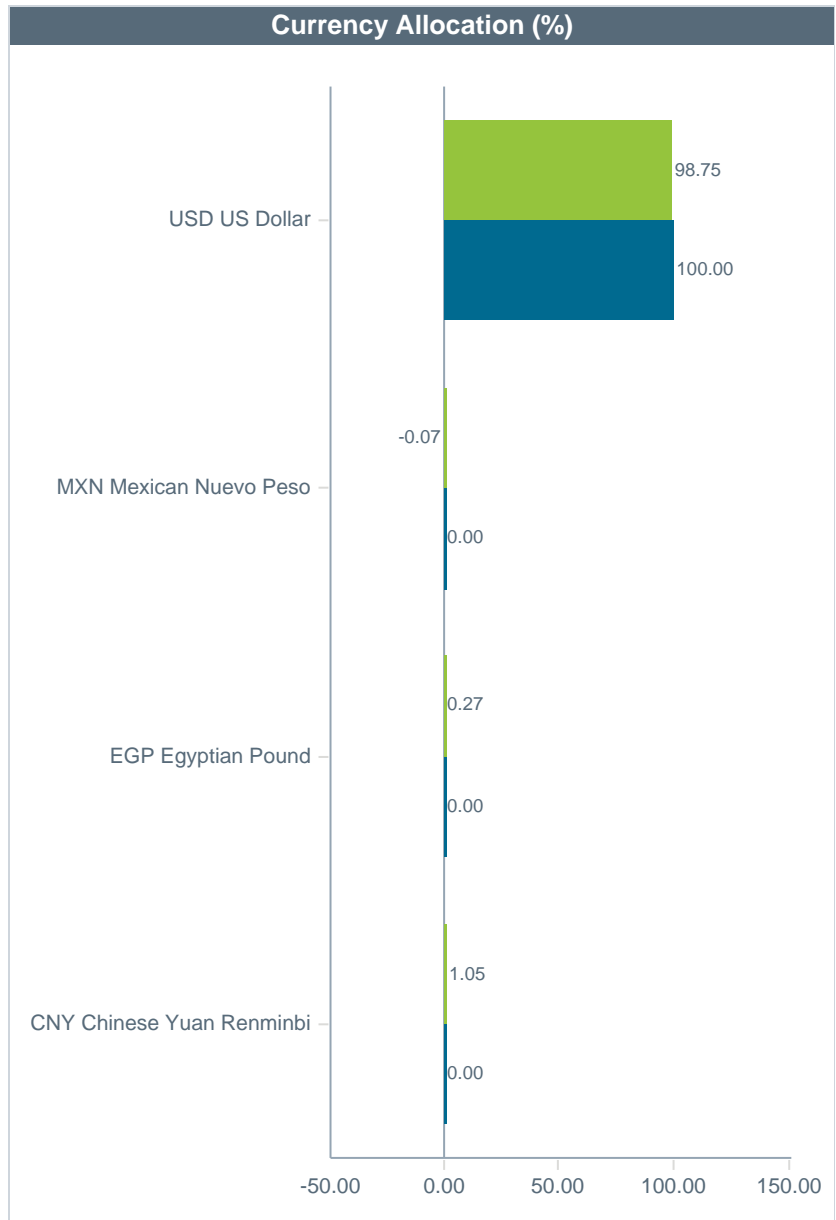
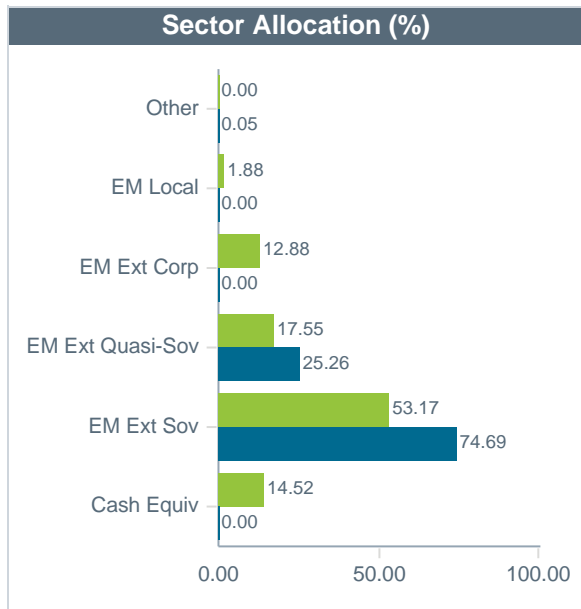
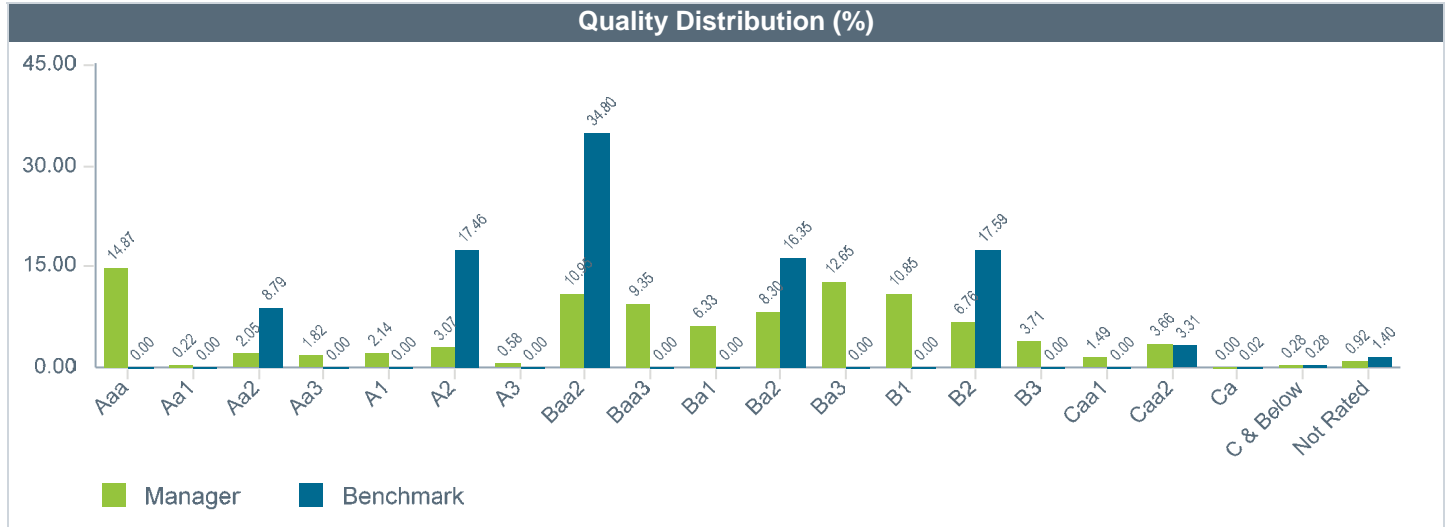
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-5.48	16.94	4.09	5.80	4.97	5.76	7.69	15.84	-5.78	10.56	12.85
Benchmark	-4.74	14.29	3.87	4.74	4.59	5.35	5.88	14.42	-4.61	9.32	10.19
Difference	-0.74	2.65	0.22	1.06	0.38	0.41	1.81	1.42	-1.17	1.24	2.66
Peer Group Median	-4.63	19.41	2.99	4.87	3.84	4.28	5.57	13.58	-5.92	10.49	10.42
Rank	91	81	26	20	13	3	15	9	48	50	28
Population	269	259	241	196	152	71	262	274	275	265	233



### Portfolio Characteristics (%)

	Portfolio	Benchmark
Effective Duration	7.81	8.03
Spread Duration	7.13	7.77
Avg. Maturity	12.42	13.38
Avg. Quality	Baa3	Baa3
Yield To Maturity (%)	4.66	4.28
Coupon Rate (%)	4.31	4.72
Current Yield (%)	4.80	4.68
Holdings Count	407	901

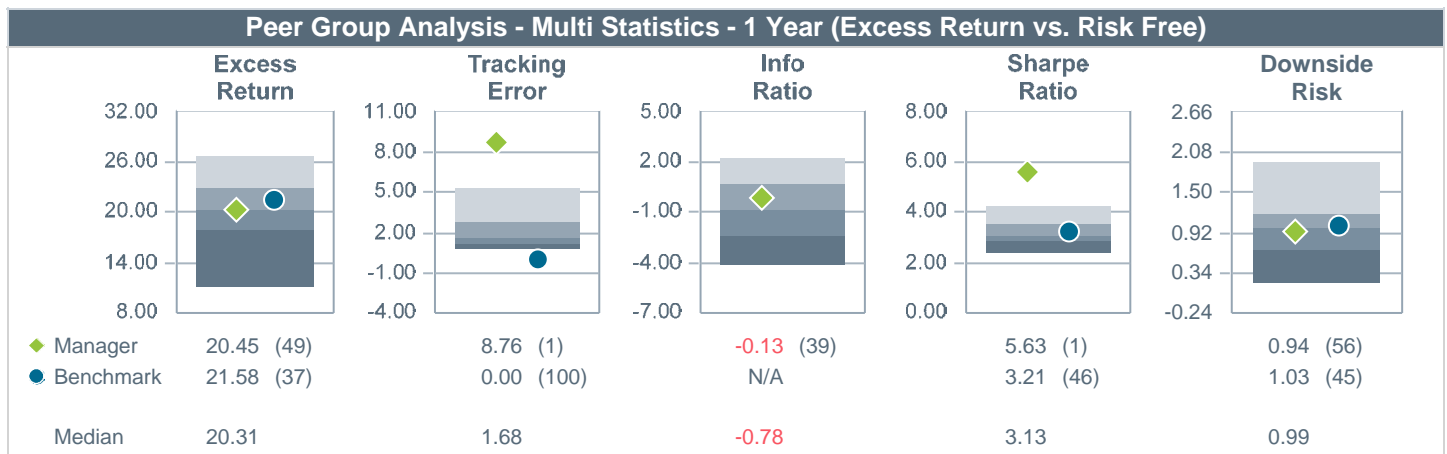
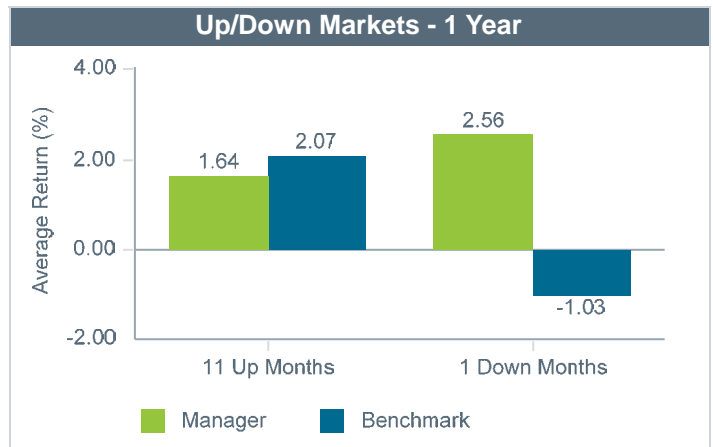
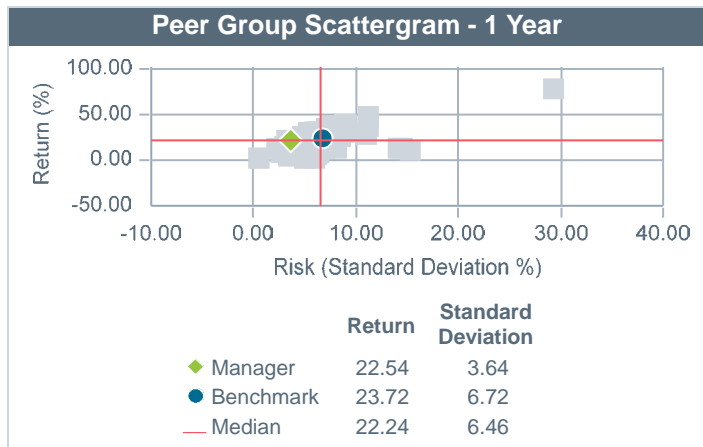




Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to other consists of cash, cash equivalents, currency forwards, EM CDX and North America.

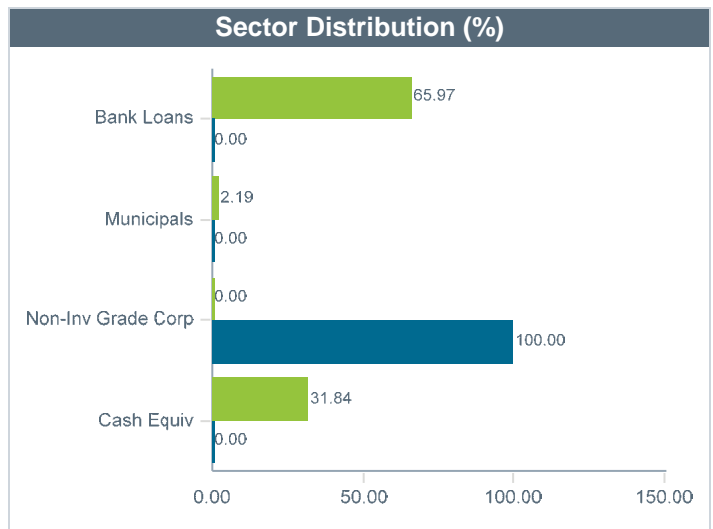


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	4.78	22.54	N/A	N/A	N/A	N/A	3.26	6.30	N/A	N/A	N/A
Benchmark	0.85	23.72	6.84	8.06	5.42	6.48	7.11	14.32	-2.08	7.50	17.13
Difference	3.93	-1.18	N/A	N/A	N/A	N/A	-3.85	-8.02	N/A	N/A	N/A
Peer Group Median	0.91	22.24	5.64	6.70	4.21	5.34	5.26	13.51	-2.91	6.65	13.52
Rank	1	47	N/A	N/A	N/A	N/A	82	99	N/A	N/A	N/A
Population	669	655	609	535	465	344	660	683	670	627	595



### Portfolio Characteristics

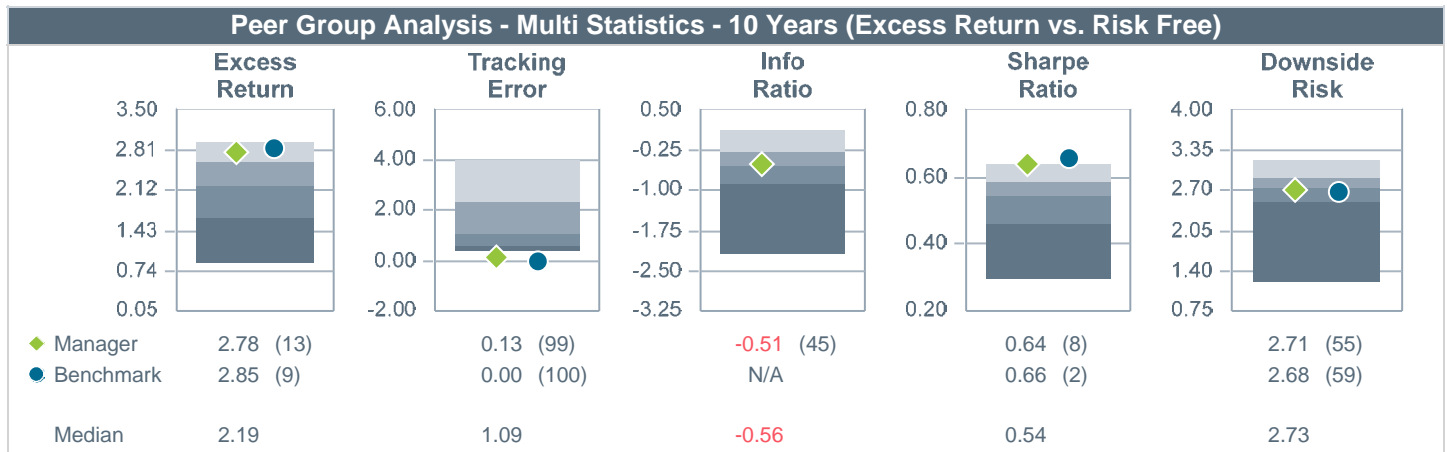
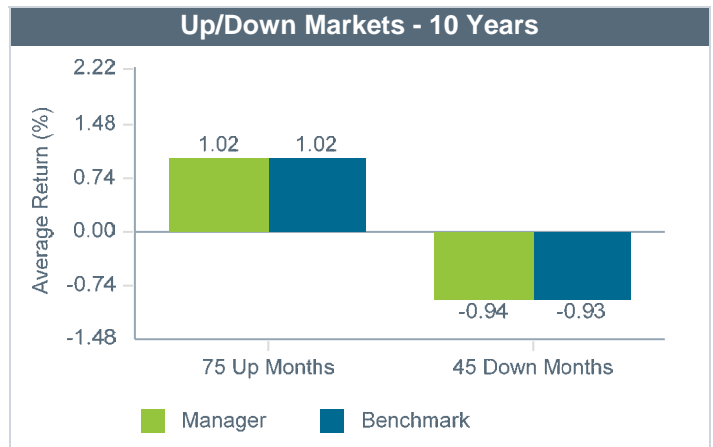
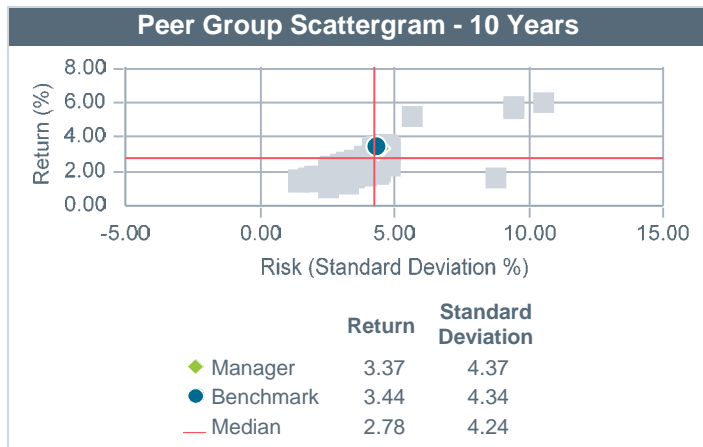
	Portfolio	Benchmark
Effective Duration	0.69	3.87
Spread Duration	13.64	3.81
Avg. Maturity	2.26	6.49
Avg. Quality	Ba1	Ba3/B1
Yield To Maturity (%)	5.53	4.94
Coupon Rate (%)	4.07	5.91
Current Yield (%)	4.14	N/A
Holdings Count	26	2,182



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

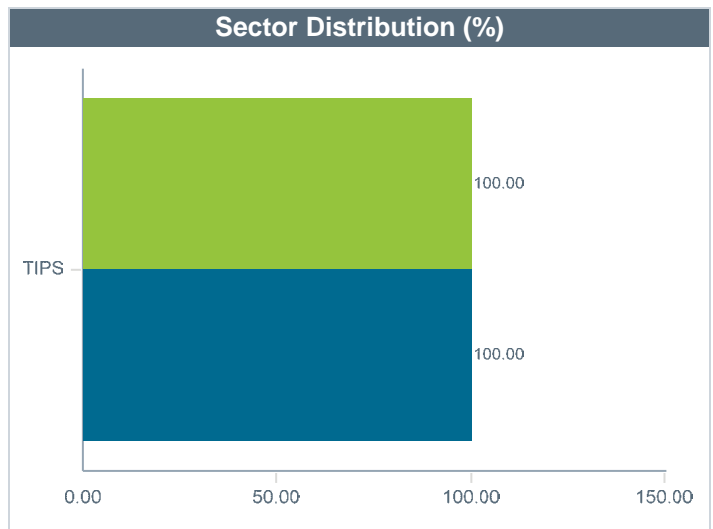


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-1.50	7.62	5.59	3.81	3.36	3.37	10.97	8.33	-1.36	2.98	4.67
Benchmark	-1.47	7.54	5.68	3.86	3.42	3.44	10.99	8.43	-1.26	3.01	4.68
Difference	-0.03	0.08	-0.09	-0.05	-0.06	-0.07	-0.02	-0.10	-0.10	-0.03	-0.01
Peer Group Median	-1.19	8.43	4.97	3.44	2.63	2.78	9.64	7.53	-1.57	2.62	4.39
Rank	63	67	24	31	14	11	26	25	42	31	38
Population	210	205	196	174	143	111	206	221	227	228	220



### Portfolio Characteristics

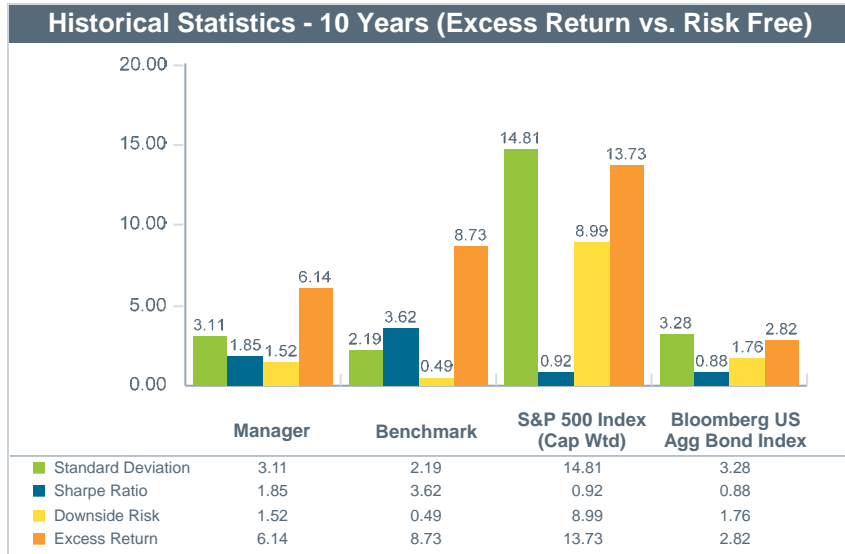
	Portfolio	Benchmark
Effective Duration	8.14	8.14
Spread Duration	8.14	8.14
Avg. Maturity	7.93	7.93
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	1.11	1.11
Coupon Rate (%)	0.67	0.67
Current Yield (%)	N/A	N/A
Holdings Count	44	44



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Portfolio characteristics are proxied using benchmark statistics.

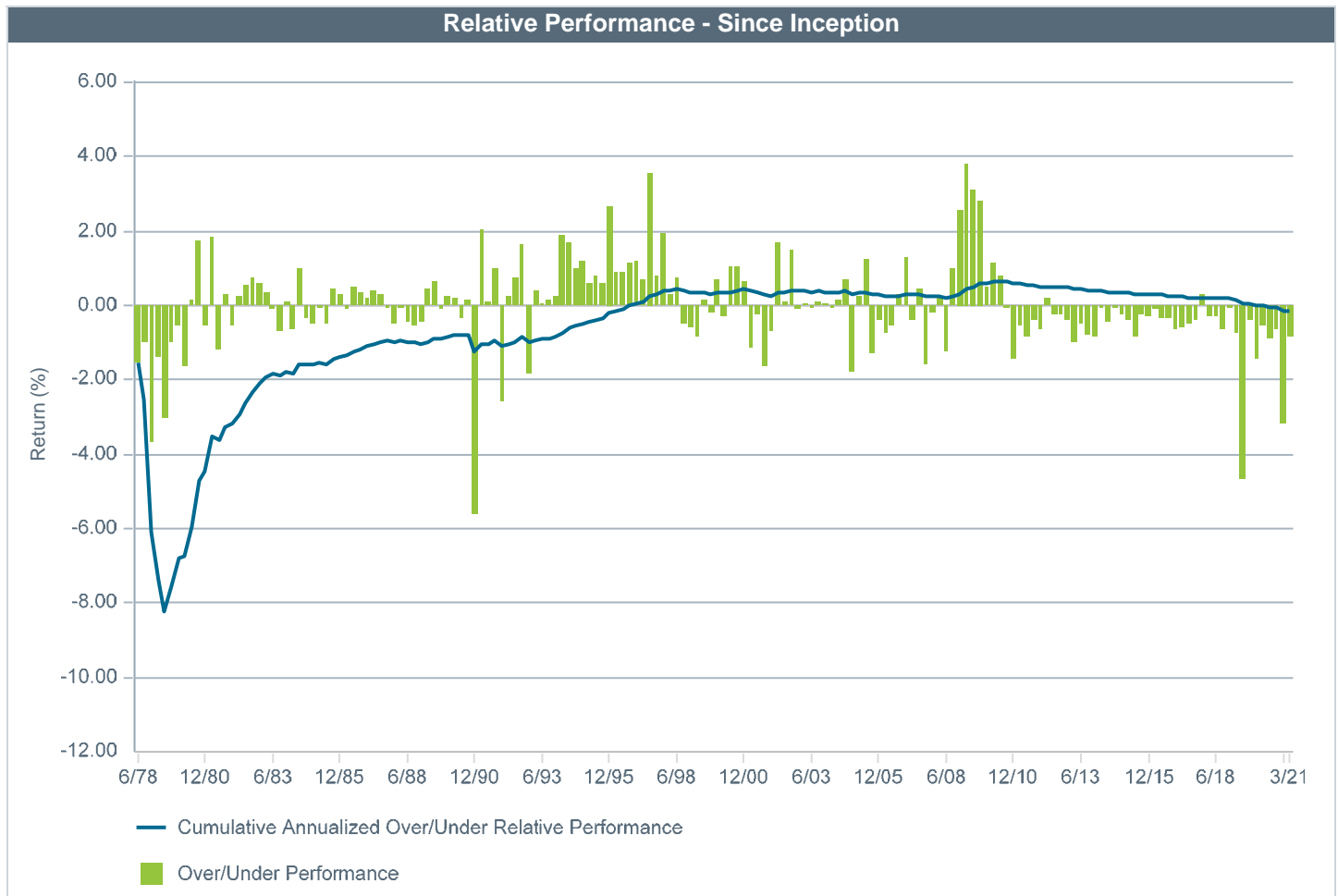


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	1.27	-3.24	-0.03	2.59	5.21	6.89	-4.04	-2.10	6.99	6.30	7.21
Benchmark	2.11	2.32	4.88	6.20	8.25	9.67	1.19	5.34	8.35	7.62	8.77
Difference	-0.84	-5.56	-4.91	-3.61	-3.04	-2.78	-5.23	-7.44	-1.36	-1.32	-1.56



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.85
S&P 500 Index (Cap Wtd)	-0.31
Russell 2000 Index	-0.33
MSCI EAFE Index (USD) (Net)	-0.32
MSCI Emg Mkts Index (USD) (Net)	-0.37
Bloomberg US Agg Bond Index	-0.21
Bloomberg US Trsy US TIPS Index	-0.30
Wilshire US REIT Index	-0.07
HFRI FOF Comp Index	-0.40
Bloomberg Comdty Index (TR)	-0.33
ICE BofAML 3 Mo US T-Bill Index	-0.45
Cons Price Index (Unadjusted)	-0.06



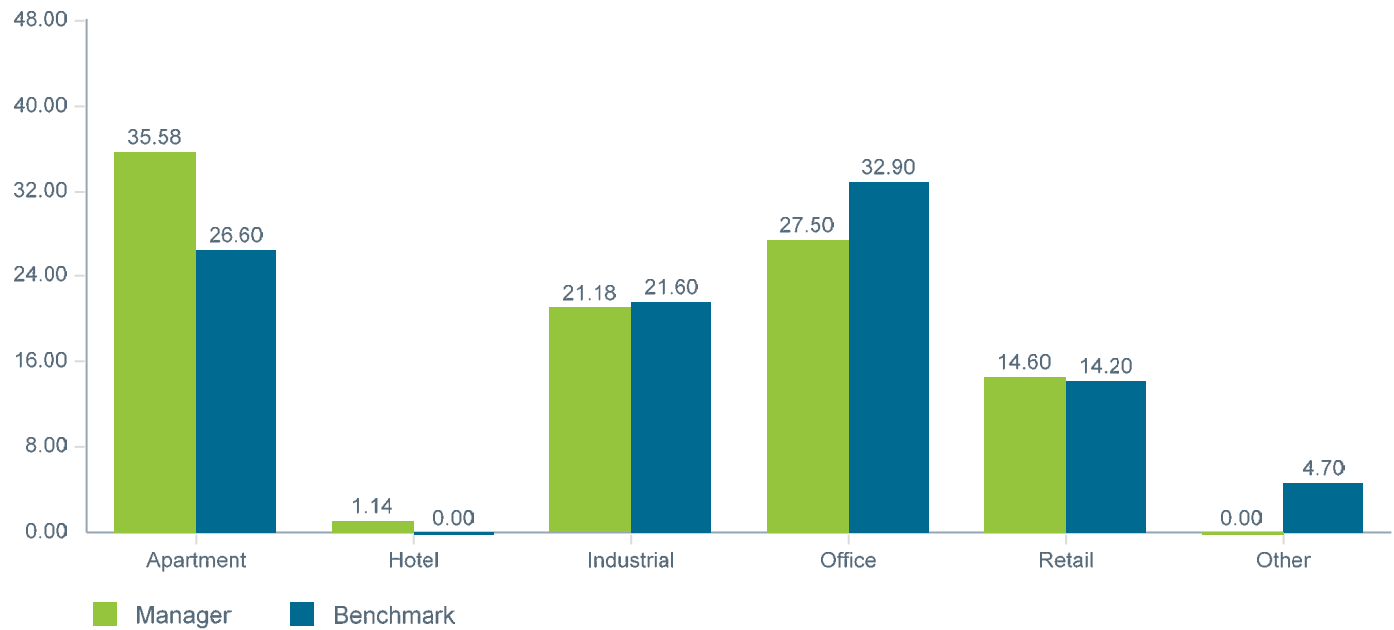
**Investment Strategy**

The Fund pursues a diversified core real estate strategy that seeks to produce attractive risk-adjusted returns by focusing on selective acquisitions, diversification, active portfolio management, and asset management. The Fund invests in well-leased, stabilized assets in major US metropolitan markets and receives the majority of its return from the income component. Diversification for the Fund is consistently pursued on many levels, including geographic region, property type, and economic sector. The Fund has historically maintained a leverage ratio significantly lower than the NCREIF ODCE Index and invests 5-15% of its gross assets in value-added type real estate investment opportunities.

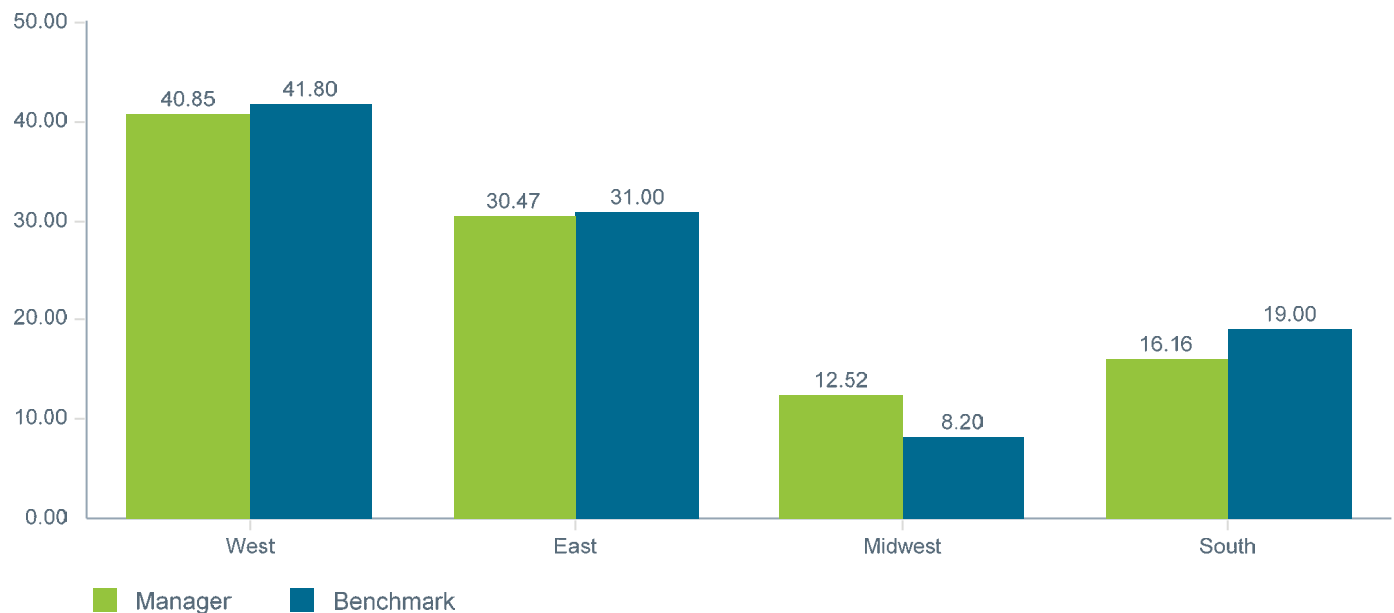
**Investment Profile**

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	18,723
Fund Leverage %	19.00
Portfolio Occupancy %	91.00
Cash Reserve %	2.20
Number of Investments	182
Number of Limited Partners	444

**Property Type Allocation (%)**



**Geographic Allocation (%)**



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.



# Addendum & Glossary



Vermont Pension Investment Committee  
Fee Schedule

As of March 31, 2021

	Fee Schedule	Market Value As of 03/31/2021 (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Blackrock S&P 500 (EqI Wtd) (CF)	0.020 % of Assets	256,853,092	51,371	0.020
Champlain US Mid Cap Core (SA)	0.850 % of First \$50 M 0.750 % of Next \$50 M 0.650 % Thereafter	169,507,736	1,251,800	0.738
BlackRock MSCI ACW IMI (CF)	0.025 % of Assets	1,894,598,466	473,650	0.025
Artisan Global Opportunities (CF)	0.750 % of Assets	280,780,376	2,105,853	0.750
Acadian International All Cap (SA)	0.700 % of First \$25 M 0.600 % of Next \$25 M 0.500 % of Next \$25 M 0.300 % Thereafter	255,294,640	990,884	0.388
Mondrian International Equity (SA)	0.500 % of First \$50 M 0.350 % of Next \$50 M 0.300 % Thereafter	143,375,687	555,127	0.387
Wellington Opportunistic EMD (CF)	0.550 % of Assets	210,454,841	1,157,502	0.550
PIMCO Liquidation (SA)	0.300 % of Assets	11,033,985	33,102	0.300
BlackRock US Agg (CF)	0.030 % of Assets	990,438,825	297,132	0.030
PIMCO Core Plus (SA)	0.190 % of Assets	237,564,693	451,373	0.190
UBS Trumbull Properties (CF)	0.955 % of First \$10 M 0.825 % of Next \$15 M 0.805 % of Next \$25 M 0.790 % of Next \$50 M 0.670 % of Next \$150 M 0.600 % of Next \$150 M 0.560 % of Next \$200 M 0.520 % Thereafter	202,742,158	1,503,872	0.742
BlackRock TIPS (CF)	0.025 % of Assets	153,476,623	38,369	0.025
<b>Total Fund</b>		<b>5,374,453,690</b>	<b>8,910,034</b>	<b>0.166</b>

Mutual Fund fees are sourced from Morningstar and/or the investment manager. UBS also has a variable fee ranging from 0.00% to 0.25%. The variable fee has been suspended from 4/01/2018 to 3/31/2022. Total fund fee shown excludes fees on Private Assets.



**Performance Related Comments**

- RVK began monitoring the plan's assets as of 9/2020. Prior data was provided by the previous consultant.
- Performance shown is net of fees.
- Inception dates shown represent the first full month of available performance.
- Fiscal year ends 6/30.
- Private Asset market values and performance are lagged to match custodian reported net asset values. Accordingly, fund reported performance will lag benchmark reported performance.
- Inception dates for allocation buckets are when RVK started calculating performance in 09/2020.
- PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.
- During 12/2020, the Real Assets composite consisting of Core Real Estate, Non-Core Real Estate, and Private Infrastructure/Land was replaced by the Inflation Hedging Assets composite consisting of TIPS, Core Real Estate, and Private Infrastructure/Land. A new Non-Core Real Estate composite was created.

**Decisions Made by the Committee Over the Last 18 Months**

**Manager Additions**

- BlackRock S&P 500 (EqI Wtd) (CF), BlackRock MSCI ACW IMI (CF), BlackRock US Agg (CF), Nuveen Global Agriculture (CF), Angelo Gordan Direct Lending, Harbourvest Dover X, Harbourvest XI Funds, Siguer Guff SBOF IV, Neuberger Berman, Benefit Street Partners II, Blue Vista Real Estate Partners and Kennedy Lewis Capital II.

**Manager Liquidations**

- SGA International Small Cap (CF), Pinnacle Natural Resources, KDP High Yield, Allianz Structured Alpha, Guggenheim High Yield, PIMCO Unconstrained Bond Fund, Grosvenor Hedge Fund of Funds, Aberdeen International Equities, Hosking Partners Global Equity Fund.

**Policy Changes**

- During 01/2021, the board approved an updated target allocation index and fund level benchmarks. Benchmark changes were reflected starting 01/2021.
- The Wellington Small Cap Value (SA) liquidation was completed during 03/2021.

**Historical Transition Comments**

- SGA International Small Cap (CF) was liquidated during 09/2020. Remaining market value represents residual assets.
- Angelo Gordon Direct Lending IV was funded during 09/2020.
- Wellington Small Cap Value (SA), SSgA Russell 2000 Growth (SA), Pinnacle Natural Resources (CF) and PIMCO Unconstrained (SA) were liquidated prior to 09/2020. Remaining market values represent residual assets.

**Benchmark Comments**

- The Target Allocation Index currently consists of 4% S&P 500 Index (Cap Wtd), 3% Russell 2500 Index, 5% MSCI EAFE Index, 29% MSCI ACW IM Index (USD) (Net), 2% MSCI EAFE Small Cap Index, 20% Bloomberg US Aggregate Bond Index, 3% NCREIF ODCE Index (AWA) (Net)+2%, 4% JP Morgan Emerging Mkts Bond Gbl Index, 10% Credit Suisse Leveraged Loan Index + 2%, 10% Cambridge US PE Index and 10% CPI+ 2.5%. From 08/31/2020 through 12/31/2020, the index consisted of 4% S&P 500 Index (Cap Wtd), 3% Russell 2500 Index, 5% MSCI EAFE Index, 29% MSCI ACW IM Index (USD) (Net), 2% MSCI EAFE Small Cap Index, 20% Bloomberg US Aggregate Bond Index, 3% Bloomberg US Treasury US TIPS Index (TR), 4% JP Morgan Emerging Mkts Bond Gbl Index, 10% S&P/LSTA Leveraged Loan Index (TR), 10% Cambridge US PE Index and 10% NCREIF Property Index. Prior data was provided by the previous consultant.
- The Actual Allocation Indices are calculated monthly using beginning of month investment weights applied to each corresponding benchmark return.
- The Custom SMID Cap Equity Index currently consists of 50% Russell Midcap Index and 50% Russell 2000 index. From 08/2020 through 12/2020 it consisted of 50% Russell 2500 index and 50% Russell 2000 index. Prior data was provided by the previous consultant.
- The CPI+2.5% (Spliced) consists of the NCREIF Property Index prior to 08/31/2020 and the Consumer Price Index+2.5% thereafter.
- CS Lvg'd Loan Index+2% (Spliced) consists of the S&P/LSTA Loan Index prior to 12/31/2020 and the Credit Suisse Leveraged Loan Index+2% thereafter.
- NCREIF ODCE Index+2% (Spliced) consists of the NCREIF Property Index prior to 12/31/2020 and the NCREIF ODCE Index (Net)+2% thereafter.

## Glossary

**Active Return** - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

**Active Share** - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

**Alpha** - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

**Alpha Ratio** - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

**Average Quality** - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>
<b>Higher Credit Quality – Investment Grade</b>			<b>Lower Credit Quality – Below Investment Grade</b>		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

**Benchmark Effect** - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Box Plots** - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1<sup>st</sup> quartile, 2<sup>nd</sup> quartile, 3<sup>rd</sup> quartile, and 4<sup>th</sup> quartile). The median observation is where the 2<sup>nd</sup> quartile and 3<sup>rd</sup> quartile meet.

**Buy and Hold Attribution** - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

**Sector** - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data.

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

### Capital Markets Review -

**Breakeven Inflation** - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

**Consumer Confidence** - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

**Consumer Price Index (CPI)** - Measures the change in the price level of consumer goods and services.



## Glossary

- Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.
- Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.
- Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.
- Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.
- Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.
- US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.
- VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."
- Cash Flow Effect** - The composite's active return minus the sum of each managers' active return minus the benchmark effect.
- Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.
- Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.
- Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.
- Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.
- Current Yield** - The annual income of a security divided by the security's current price.
- Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.
- Downside Risk** - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.
- Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.
- Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.
- Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.
- Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.
- Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.
- Expense Ratios** - Morningstar is the source for mutual fund expense ratios.
- Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.
- Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.
- Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.
- Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.
- Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.
- Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.
- Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.
- Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.
- Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and



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multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

**Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

**Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

**Net Cash Flow** - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

### Peer Groups -

**Plan Sponsor Peer Groups** - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans.

**Investment Manager Peer Groups** - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value                      100 - Lowest Statistical Value

*Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.*

**Performance Methodology** - RVK calculates performance for investment managers and composites using different methodologies.

**Investment Managers** - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

**Portfolio Characteristics** - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

**Price to Earnings Ratio** - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

**Private Equity Quartile Ranks** - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**Return** - Compounded rate of return for the period.

**% Return** - The time-weighted rate of return of a portfolio for a given period.

**Risk Free Benchmark** - ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

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**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<b><u>Liquid Investments</u></b>		<b><u>Less Liquid Investments</u></b>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	<b><u>Not Liquid Investments</u></b>	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity Funds of Funds	5
US SMid Cap Equity	85		
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

**Sector Allocation** - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Simple Alpha** - The difference between the manager's return and the benchmark's return.

**Spread Duration** - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

**Thematic Classification** - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITs
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

**Time Period Abbreviations** - **QTD** - Quarter-to-Date. **CYTD** - Calendar Year-to-Date. **FYTD** - Fiscal Year-to-Date. **YOY** - Year Over Year.

**Total Fund Attribution** - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

**Strategic Asset Allocation (SAA)** - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

**Tactical Asset Allocation (TAA)** - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

**Style Selection (SS)** - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

**Manager's Skill (MS)** - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.



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**Tracking Error** - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

**Unit Value** - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

**Up Market Capture** - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

**Yield to Maturity** - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

**Yield to Worst** - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

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