



# Quarterly Investment Performance Analysis

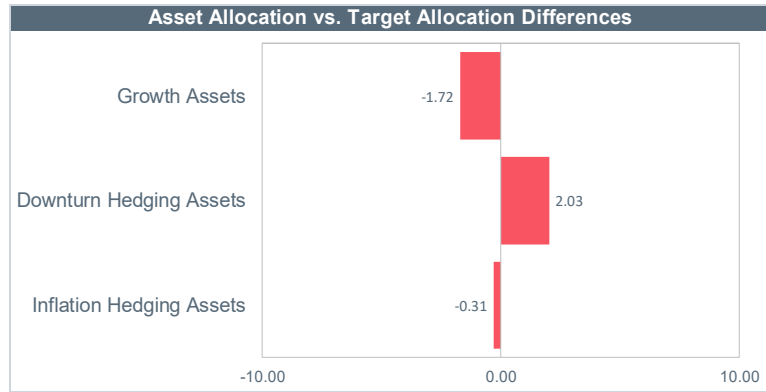
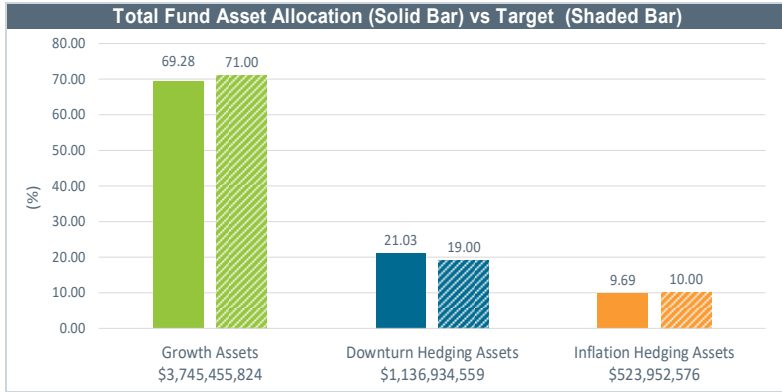
Vermont Pension Investment Commission

Period Ended: June 30, 2022



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

As of June 30, 2022



**Schedule of Investable Assets**

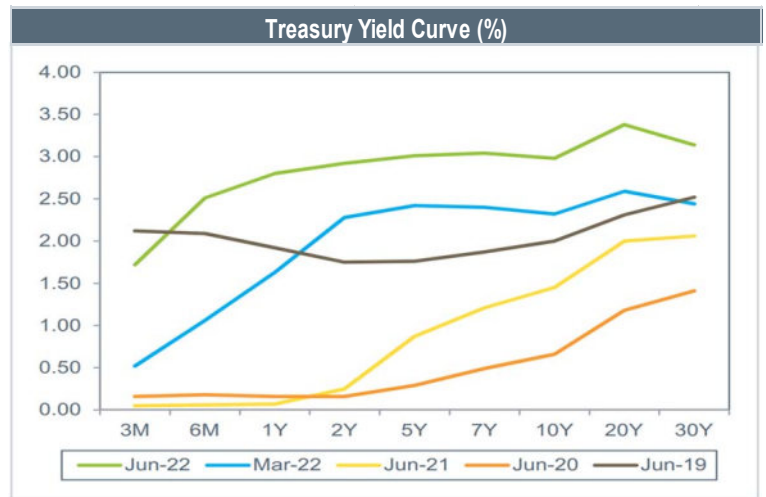
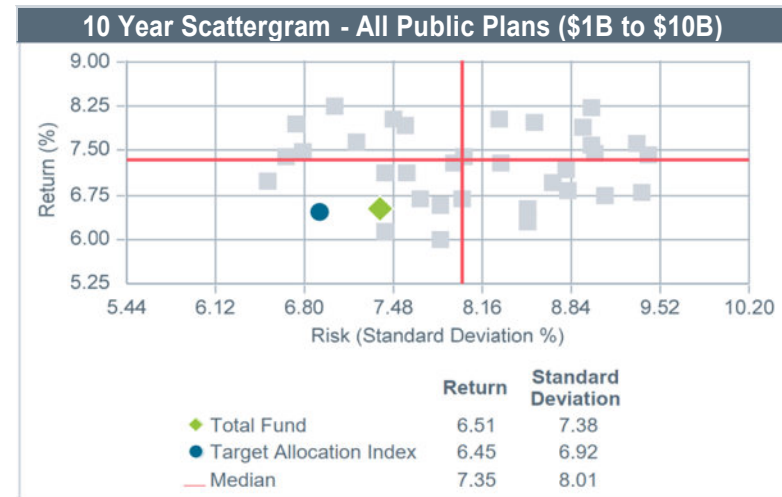
Period Ending	Beginning Market Value	+ Net Cash Flow	+ Gain/Loss	= Ending Market Value	% Return
Quarter	5,734,122,939	157,186,349	-484,966,329	5,406,342,959	-8.32

**Total Fund Performance**

	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Incep. Date
<b>Total Fund</b>	-8.32	-12.34	-7.72	6.14	6.44	6.51	4.83	14.06	5.80	7/1/2005
Target Allocation Index	-8.42	-11.61	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference	0.10	-0.73	-0.60	-0.07	0.04	0.06	-0.18	-0.03	-0.09	

**Performance by Allocation Bucket**

	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Incep. Date
<b>Growth Assets</b>	-10.54	-14.65	-8.77	-	-	-	-	20.47	8.14	9/1/2020
MSCI ACW IM Index (USD) (Net)	-15.83	-20.44	-16.52	5.98	6.70	8.71	4.86	18.22	2.94	
Difference	5.29	5.79	7.75	-	-	-	-	2.25	5.20	
<b>Downturn Hedging Assets</b>	-4.65	-10.16	-10.22	-	-	-	-	-1.66	-6.14	9/1/2020
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference	0.04	0.19	0.07	-	-	-	-	-0.11	0.13	
<b>Inflation Hedging Assets</b>	0.70	1.10	7.13	-	-	-	-	6.47	4.27	9/1/2020
Consumer Price Index+2.5%	3.70	7.60	11.79	7.60	6.48	5.15	4.93	9.71	10.09	
Difference	-3.00	-6.50	-4.66	-	-	-	-	-3.24	-5.82	



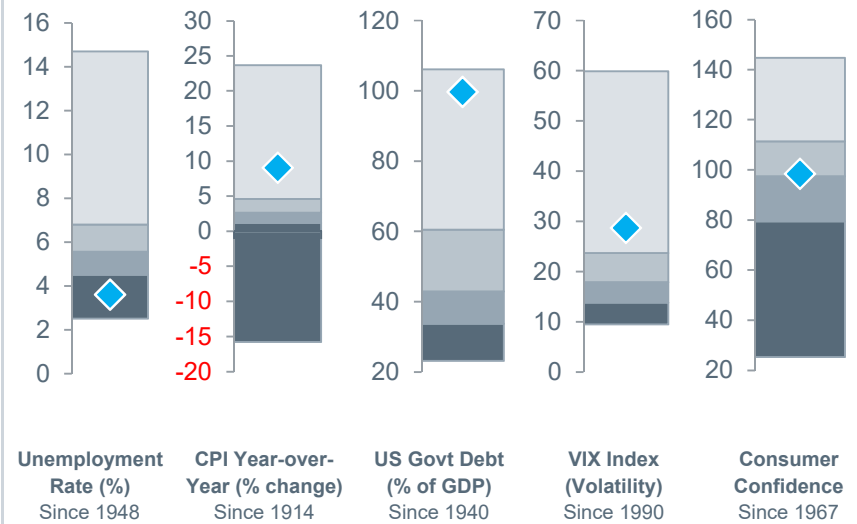
Performance is shown net of fees. Allocations may not sum up to 100% exactly due to rounding.



**Second Quarter Economic Environment**

Continued rising inflation, accelerated tightening of global monetary policy and falling economic growth estimates led to most major indices ending negative in Q2. Inflation continued to rise in the US as the Consumer Price Index (CPI) rose to 9.1% at the end of June, spurred on by supply chain disruptions tied with the war in Ukraine and China's zero-COVID policy. The OECD's June Economic Outlook report now forecasts global inflation to end the year near 9%. Central banks continued to tighten monetary policy with the Federal Open Market Committee raising the federal funds rate by 0.75% in June which followed a 0.50% increase in May. Following the June CPI release, a 1.0% increase at the FOMC meeting in July is now the most likely scenario based on probabilities implied by traders. Forecasters are increasingly citing a rising risk of a recession in the US however the data is less clear. The Atlanta Fed's GDP Nowcast indicates a modest contraction of growth in Q2, with declining residential investment and private inventory overhang as key negative effects. However, manufacturing and services Purchasing Managers' indexes (PMIs) indicate expansion. The unemployment rate ended June at 3.6% as non-farm payroll growth averaged just under 375k per month. According to the latest JOLTS survey, the US currently has roughly two job openings for every unemployed individual. The Atlanta Fed's wage tracker also lists average annual wage growth at 6.7% based on a 3-month moving average.

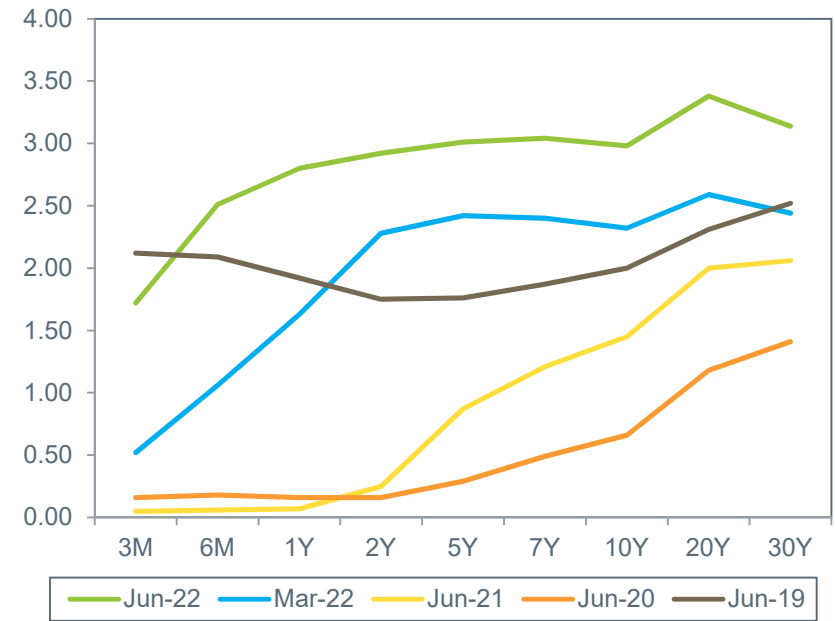
**Key Economic Indicators**

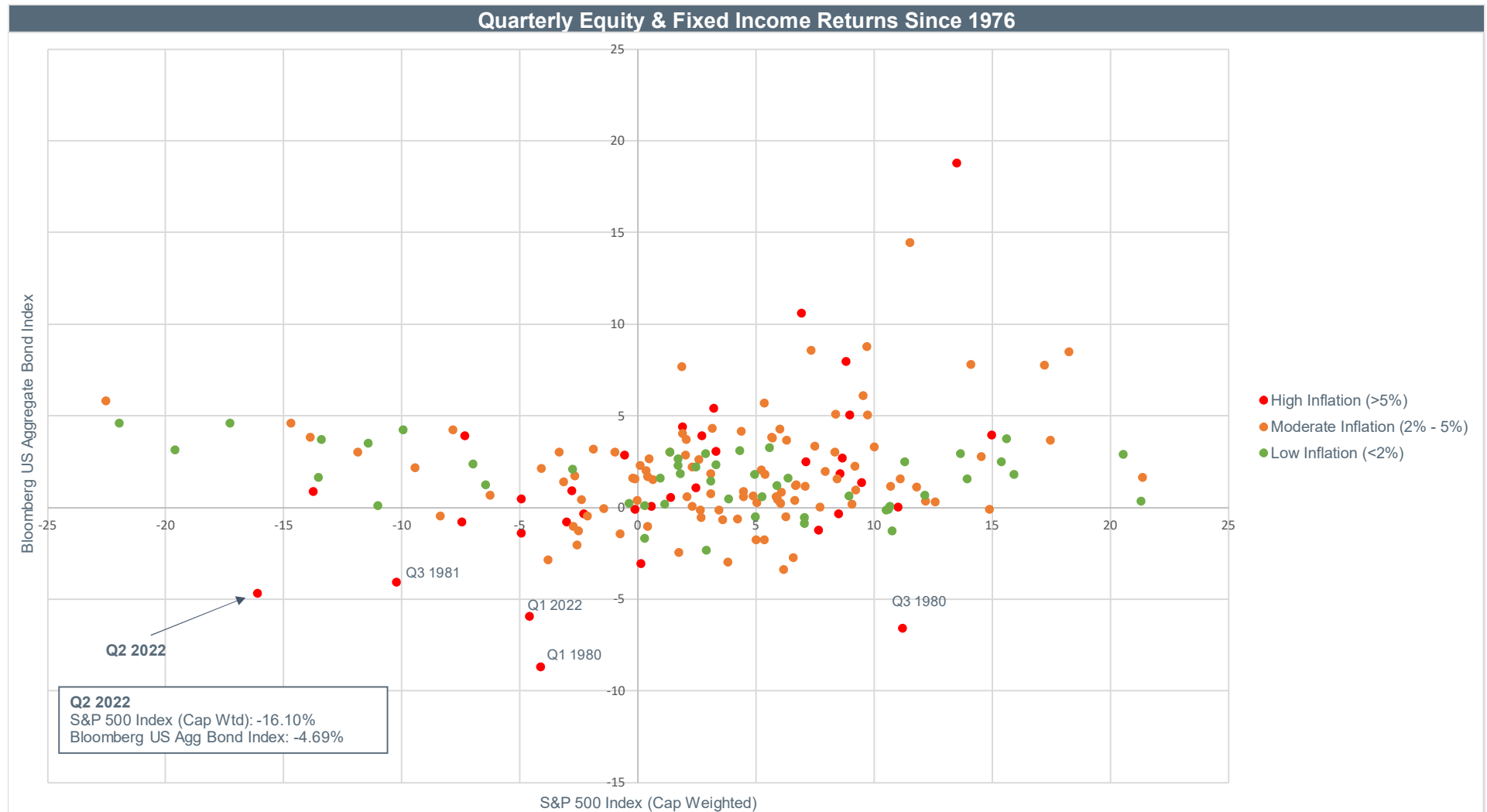


Economic Indicators	Jun-22	Mar-22	Jun-21	Jun-19	20 Yr
Federal Funds Rate (%)	1.58 ▲	0.33	0.08	2.40	1.30
Breakeven Infl. - 5 Yr (%)	2.62 ▼	3.43	2.50	1.54	1.86
Breakeven Infl. - 10 Yr (%)	2.34 ▼	2.83	2.34	1.70	2.04
CPI YoY (Headline) (%)	9.1 ▲	8.5	5.4	1.6	2.2
Unemployment Rate (%)	3.6 —	3.6	5.9	3.6	6.1
Real GDP YoY (%)	1.6 ▼	3.5	12.2	2.1	1.9
PMI - Manufacturing	53.0 ▼	57.1	60.9	51.5	53.5
USD Total Wtd Idx	121.05 ▲	115.22	112.61	114.58	103.10
WTI Crude Oil per Barrel (\$)	105.8 ▲	100.3	73.5	58.5	64.4
Gold Spot per Oz (\$)	1,807 ▼	1,937	1,770	1,410	1,086

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	-16.10	-19.96	-10.62	11.31	12.96
Russell 2000	-17.20	-23.43	-25.20	5.17	9.35
MSCI EAFE (Net)	-14.51	-19.57	-17.77	2.20	5.40
MSCI EAFE SC (Net)	-17.69	-24.71	-23.98	1.72	7.18
MSCI Emg Mkts (Net)	-11.45	-17.63	-25.28	2.18	3.06
Bloomberg US Agg Bond	-4.69	-10.35	-10.29	0.88	1.54
ICE BofAML 3 Mo US T-Bill	0.11	0.15	0.17	1.11	0.64
NCREIF ODCE (Gross)	4.77	12.49	29.51	10.54	11.16
FTSE NAREIT Eq REIT (TR)	-16.97	-20.20	-6.27	5.30	7.39
HFRI FOF Comp	-3.88	-6.53	-5.45	3.63	3.75
Bloomberg Cmdty (TR)	-5.66	18.44	24.27	8.39	-0.82

**Treasury Yield Curve (%)**



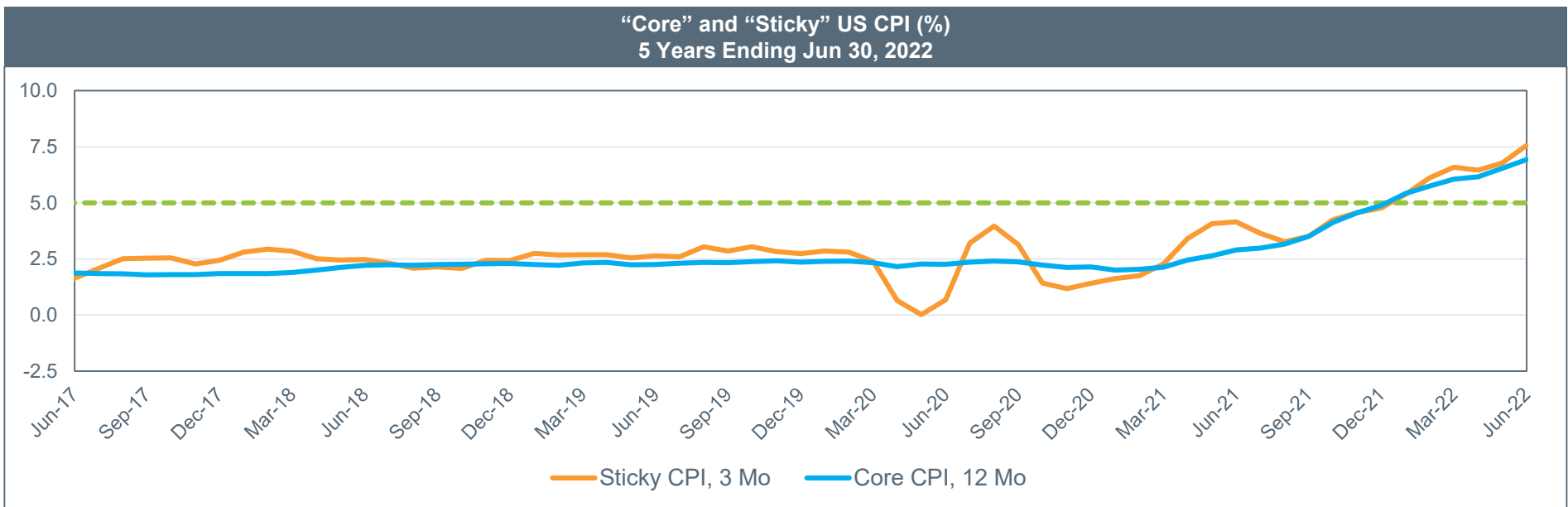
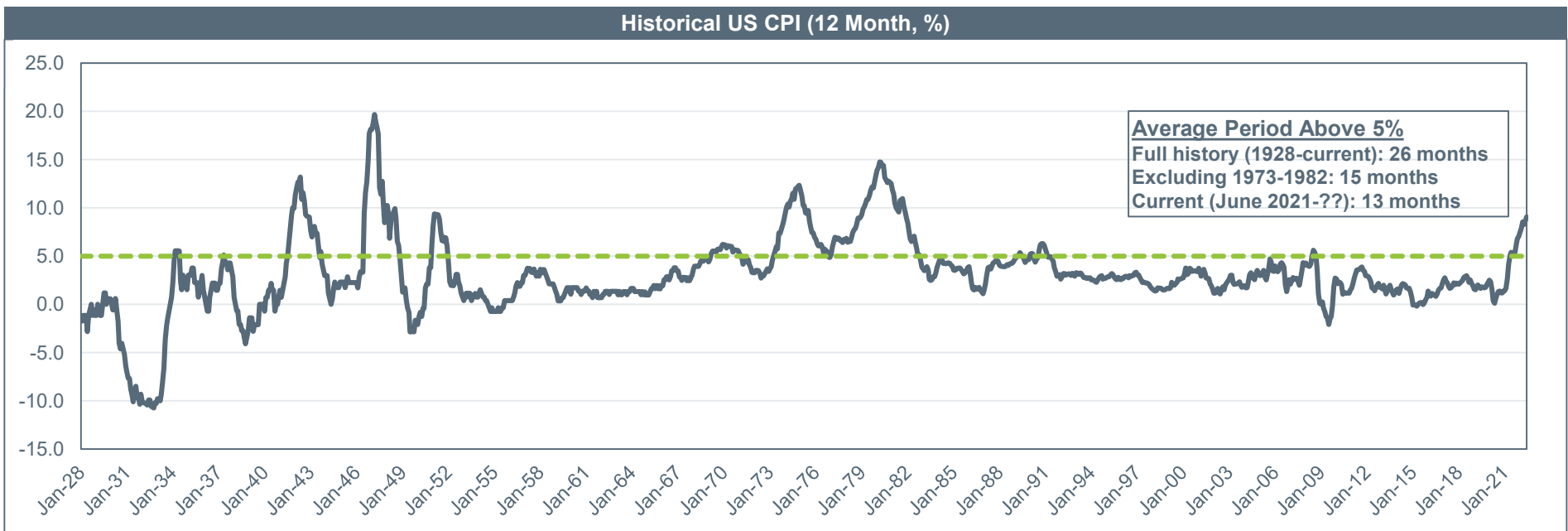


### Bloomberg US Aggregate Bond Index: Worst Quarters and Subsequent Performance

Quarter Ended	Quarter Return	YTW at Quarter End	Subsequent Quarter Return	Subsequent Year Return	Subsequent 3 Year Return Annualized
Mar-1980	-8.71%	14.10	18.79%	13.05%	17.88%
Sep-1980	-6.60%	12.43	1.36%	-2.58%	15.05%
Mar-2022	-5.93%	2.92	-4.69%	?	?
Jun-2022	-4.69%	3.72	?	?	?
Sep-1981	-4.07%	16.50	10.58%	35.22%	19.35%
Mar-2021	-3.38%	1.61	1.83%	-4.15%	?
Dec-1979	-3.08%	11.19	-8.71%	2.67%	13.12%

Inflation data provided by the Federal Reserve Economic Database.  
Yield to Worst data provided by Barclays Live.





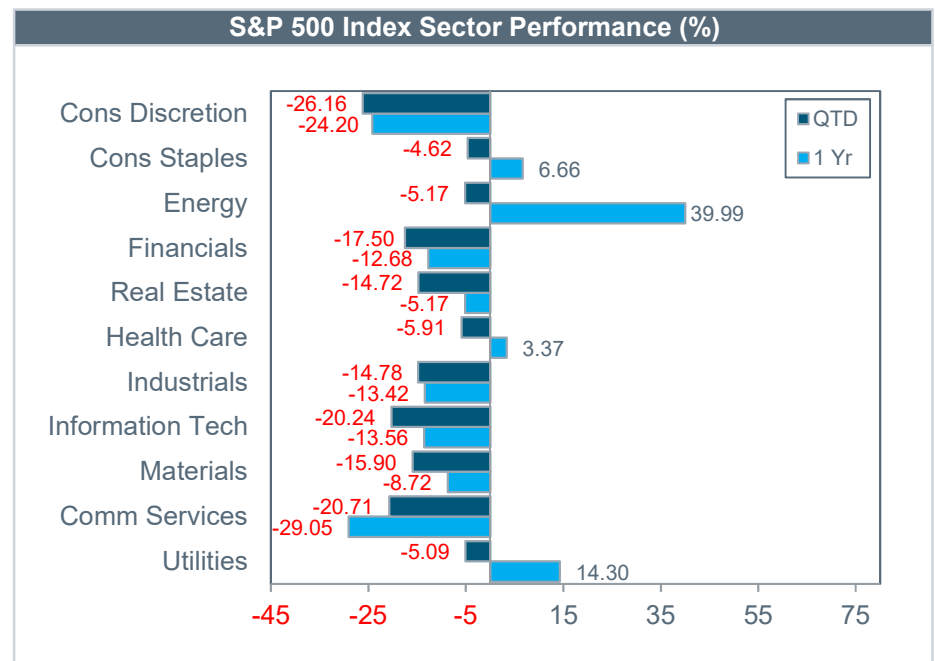
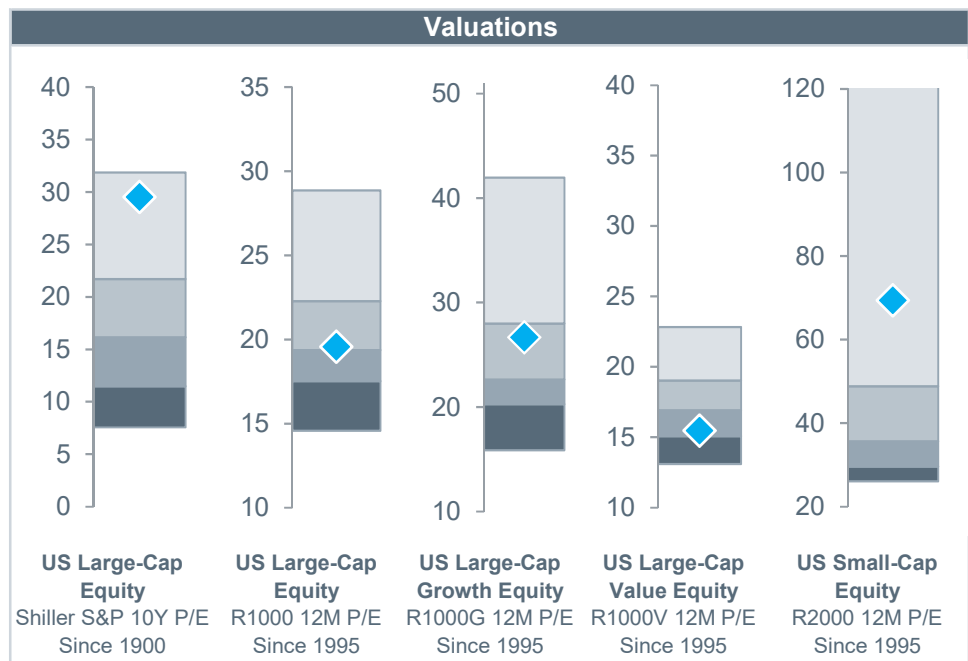
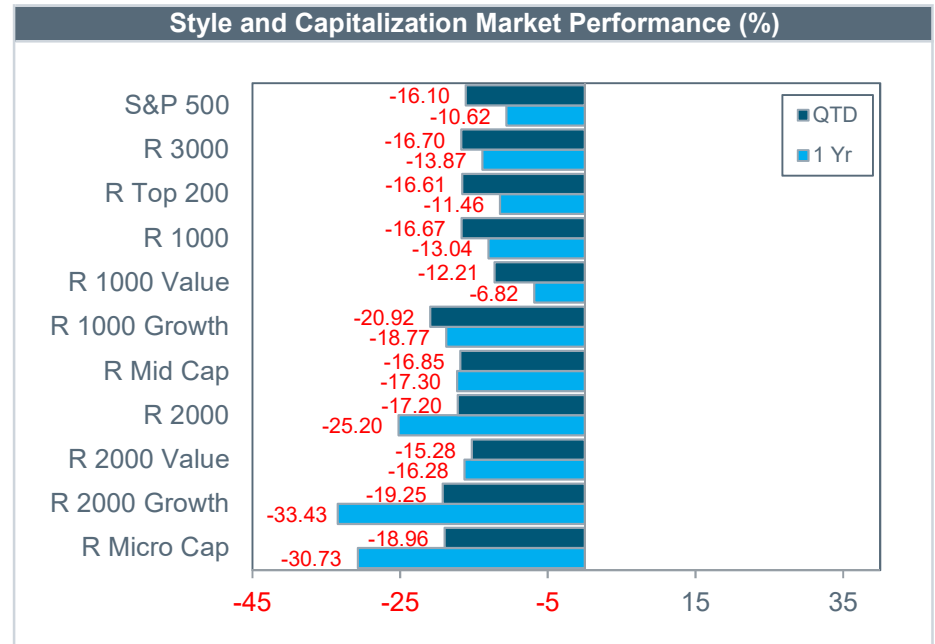
As of June 30, 2022. Sources: US Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, and Federal Reserve Bank of Atlanta. Core CPI is represented by the Revised FRB Cleveland Trimmed Mean, 12-month. Sticky CPI is represented by the FRB Atlanta Sticky-Price Index, 3-month.

### Second Quarter Review

**Broad Market**  
 US equity markets were down sharply in Q2 in the midst of increasing concerns of a looming recession as the Fed acted to respond to sustained, elevated levels of inflation. With declines affecting all sectors, investors fled to defensive stocks as these were comparatively resilient. Likewise, investors in energy stocks benefited as the sector was buoyed by commodity prices.

**Market Cap**  
 There was significant outperformance of value stocks over growth stocks, with the Russell 1000 Value and Russell 2000 Value indexes outperforming their growth counterparts by 8.7% and 4.0%, respectively.

**Style and Sector**  
 Active management performed well in Q2, with the exception of large-cap growth managers. Small- and mid-cap core and value managers had an exceptionally strong Q2 with a majority outpacing their respective benchmarks by significant margins.



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.



Second Quarter Review

Developed Markets

Developed International markets fared better than the domestic market, albeit still finishing Q2 in negative territory with the MSCI EAFE Index notching a -14.5% return for the period. Value stocks remained in favor with continued outperformance over growth stocks, while large-cap stocks outperformed small-cap stocks. All developed market countries and sectors were negative for the quarter, with the Asia-Pacific region and information technology sector leading markets lower.

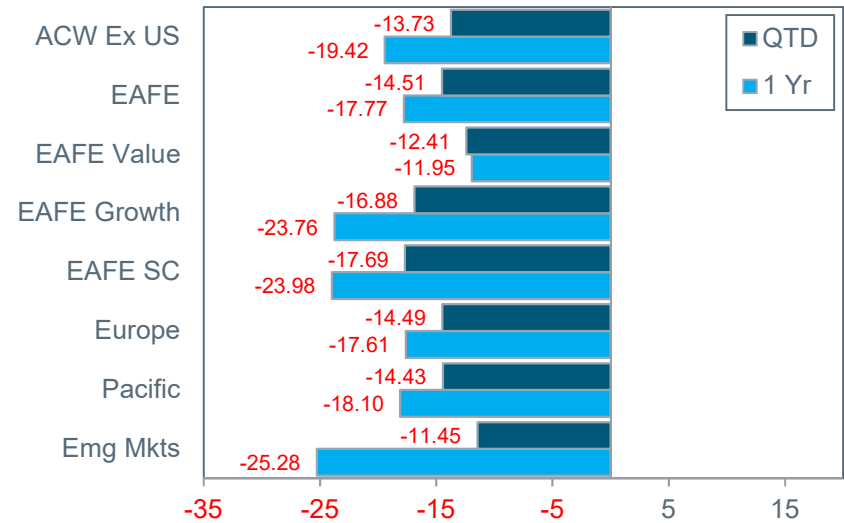
Emerging Markets

Emerging markets outperformed developed in Q2 with the MSCI EM Index returning -11.4%. Nearly all emerging market countries experienced negative returns.

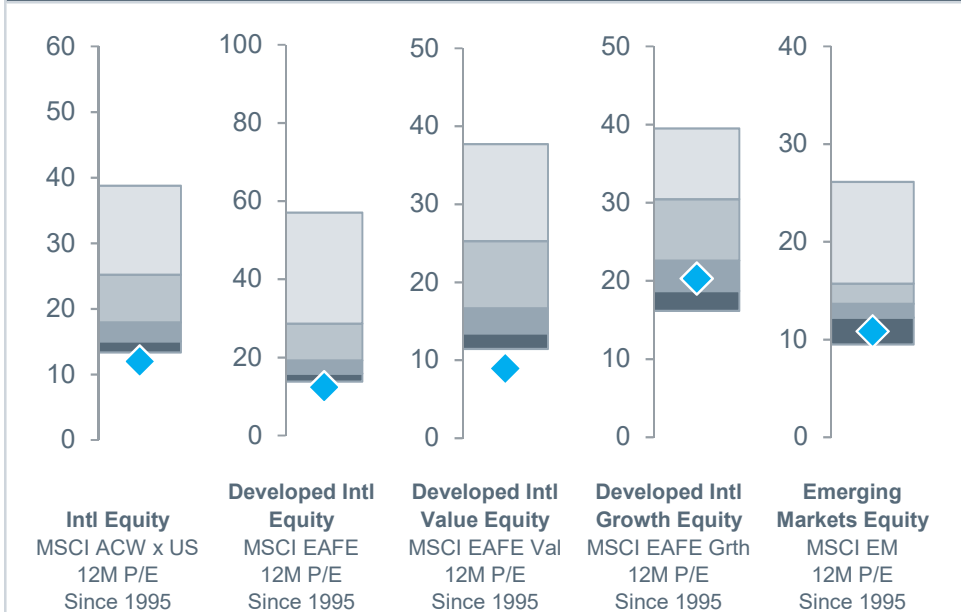
Market Cap & Style

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

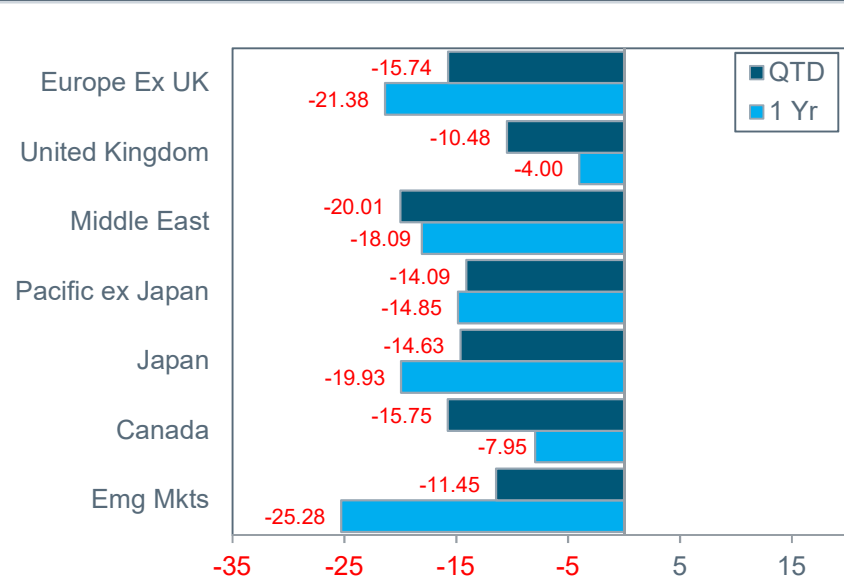
MSCI Style and Capitalization Market Performance (%)



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.



**Second Quarter Review**

**Broad Market**

In Q2, Treasury yields rose 66 basis points from 2.32% to 2.98% with an intra-quarter high of 3.49%, as measured by the 10-year US Treasury yield. The Federal Reserve hiked the Federal Funds rate by 75 basis points over the quarter, the largest single increase since 1994. The Bloomberg US Aggregate ended the quarter down with an overall return of -4.7%.

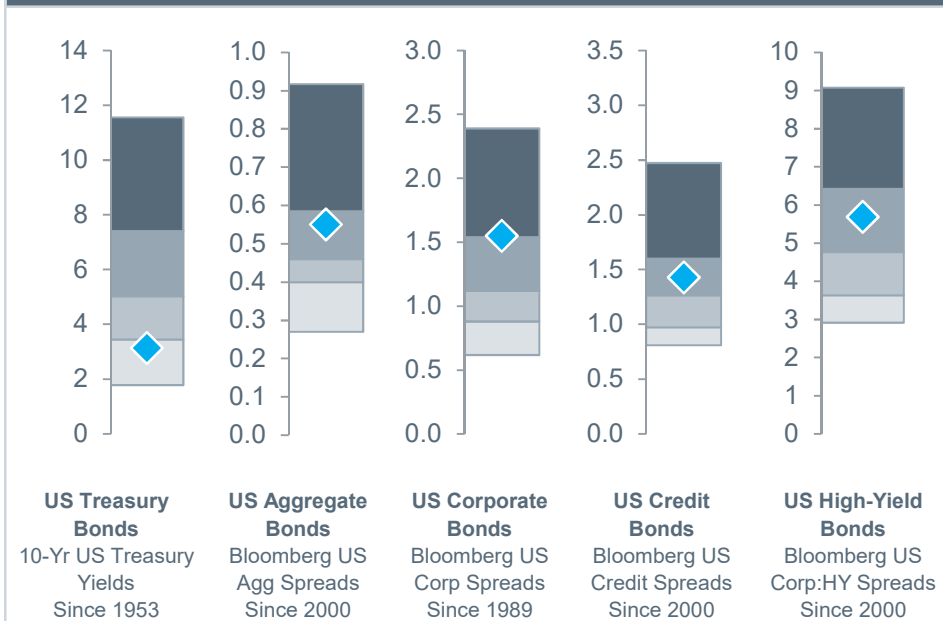
**Credit Market**

While fixed income broadly experienced negative absolute performance over the quarter, widening credit spreads presented additional headwinds to corporate credit. US Investment Grade credit detracted -6.9%, while US High Yield returned -9.8%, as measured by the Bloomberg US Credit Index and Bloomberg US High Yield index, respectively.

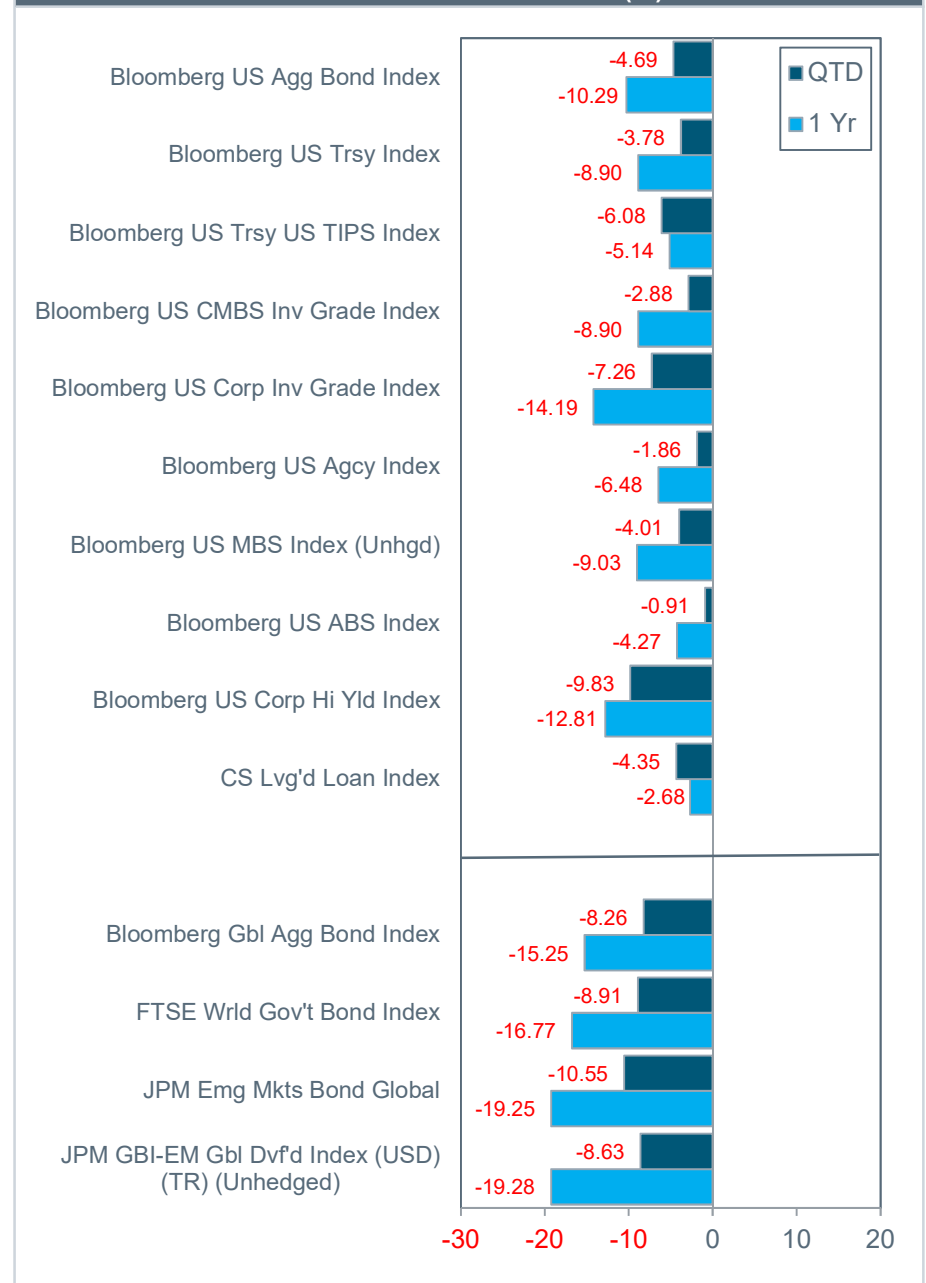
**Emerging Market Debt**

Foreign fixed income experienced headwinds from the Russia-Ukraine war, inflationary concerns, and mixed central bank policy. These factors led to a -11.4% return in Q2 for the JPM EMBI Global Diversified Index.

**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.



**Second Quarter Review - Absolute Return**

**General Market - Hedge Funds**

Dispersion continues to be the theme across the hedge fund landscape. Although the HFRI Asset Weighted Composite returned 0.3% during the quarter, its year-to-date return remained positive at 2.1%. By contrast, the Equal Weighted Index, which is dominated by long/short equity strategies (“ELS”), returned -4.9% in Q2, led lower by ELS managers returning -8.3%. Prime brokerage data indicates that the 1st half of 2022 was one of the strongest on record for short alpha, as higher interest rates tend to structurally benefit short sellers.

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

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely generated disparate performance in Q2. Although overall performance was negative, nearly all managers outperformed a US centric blend of 60% equity and 40% fixed income. The top performing long-biased GTAA strategies tended to emphasize relative undervaluation in their asset allocation processes, while underperformers tended to hold larger allocations to US equity and non-USD fixed income.

**Second Quarter Review - Real Assets**

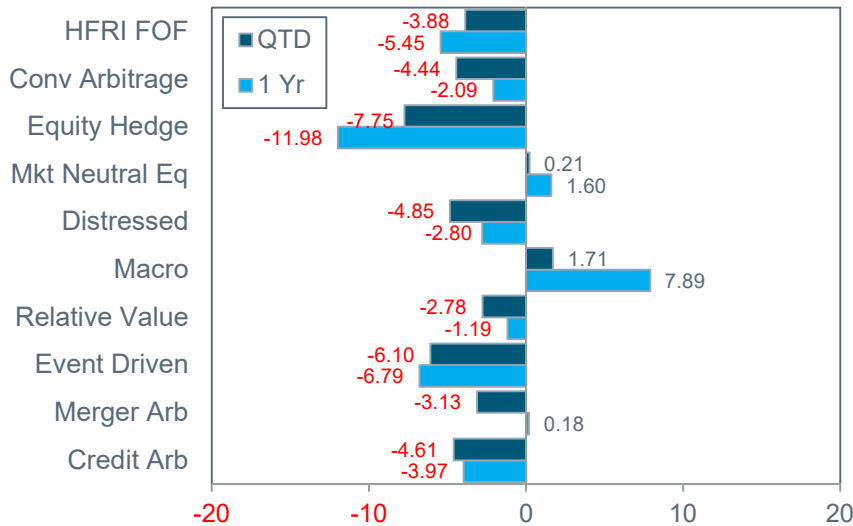
**General Market - Diversified Inflation Strategies (DIS)**

After responding positively to record inflationary pressures in Q1, DIS posted losses ranging from negative mid-single digit to negative low double-digit. Manager allocations to inflation sensitive assets were affected by cross currents of Fed rate hikes combined with changing market estimates of future economic growth. During the Q2, nearly all inflation sensitive asset classes were negative except for energy commodities. Managers with larger TIPS allocations tended to outperform peers, especially in cases where shorter duration TIPS were targeted.

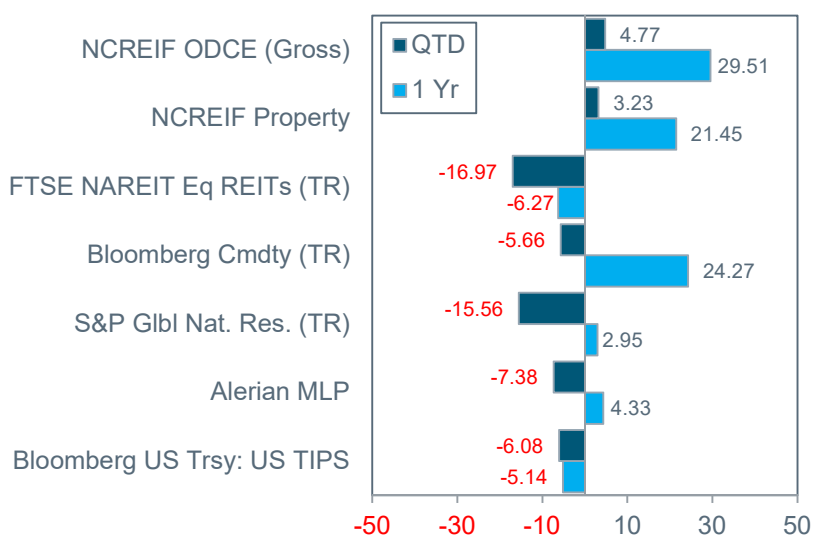
**General Market - Real Estate**

Core private real estate generated 4.8% return in Q2, as reported by the NFI-ODCE Index, with the total return comprising of 0.9% income and 3.9% price appreciation. As income return trends at the lower end of historical levels, the price appreciation return remains elevated. Investors in publicly traded real estate significantly underperformed their private market counterparts by a meaningful margin.

**HFRI Hedge Fund Performance (%)**



**Real Asset Performance (%)**



Annual Asset Class Performance

As of June 30, 2022

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Best	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	43.24	18.44
	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	28.71	12.49
	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	27.11	0.15
	-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	22.17	-6.53
	-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	14.82	-8.92
	-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	14.06	-10.35
	-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	11.26	-12.34
	-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	10.10	-14.19
	-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	6.17	-17.63
	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-2.20	4.68	7.50	-4.68	8.72	7.51	5.96	-19.57
	-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	5.28	-19.96
	-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	0.05	-20.20
	-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	-1.55	-21.88
	-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	-2.52	-23.43
Worst	-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	-2.54	-24.71
	<b>Total Fund Net (All Plans)</b>	<b>S&amp;P 500 - US Large Cap</b>	<b>R 2000 - US Small Cap</b>	<b>MSCI EAFE (Net) - Int'l Dev.</b>	<b>MSCI EAFE SC (Net) - Int'l SC</b>	<b>MSCI EM (Net) - Int'l Emg Mkts</b>	<b>Bloombrg US Agg Bond - FI</b>	<b>Bloombrg US Corp Hi Yield - FI</b>	<b>Bloombrg US Trsy US TIPS - FI</b>	<b>Bloombrg US Gov Credit Lng - FI</b>	<b>NCREIF ODCE (Gross) - Real Estate</b>	<b>FTSE NAREIT Eq REITs Index (TR)</b>	<b>HFRI FOF Comp Index - ARS</b>	<b>Bloombrg Cmdty (TR) - Commod.</b>	<b>ICE BofAML 3 Mo T-Bill - Cash Equiv</b>

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

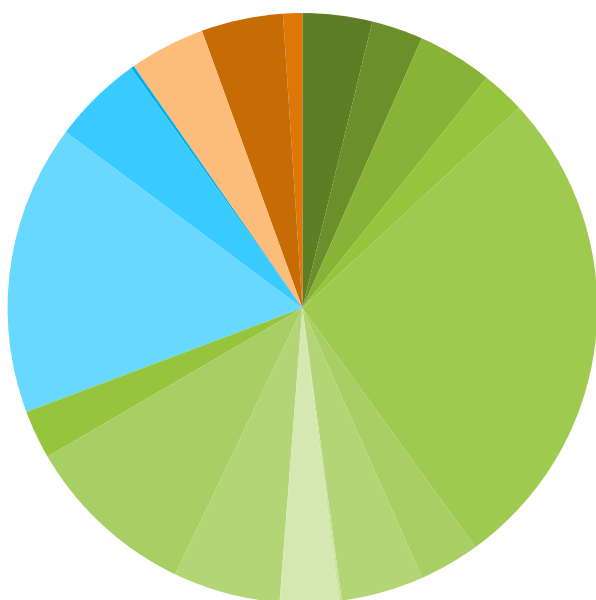
##### **Acadian**

David Purdy, SVP, Portfolio Manager and Harry Gakidis, SVP, Lead Portfolio Manager for Core Equities departed Acadian this past quarter. The portfolio management team consists of 27 members, 10 of which are core portfolio managers. Turnover at Acadian has not been elevated and they have a large team that engages in a quantitative process. As a result, RVK has concerns at this time.

Vermont Pension Investment Committee  
Asset Allocation By Manager

As of June 30, 2022

June 30, 2022 : \$5,406,342,959

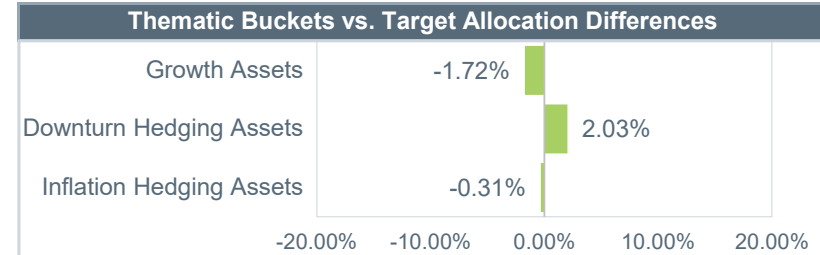


	Market Value (\$)	Allocation (%)
Blackrock S&P 500 (EqI Wtd) (SA)	206,426,626	3.82
Champlain US Mid Cap Core (SA)	152,117,869	2.81
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	17,101	0.00
Acadian International All Cap (SA)	222,321,469	4.11
Mondrian International Equity (SA)	128,611,146	2.38
BlackRock MSCI ACW IMI (SA)	1,454,437,358	26.90
Blackrock MSCI World LCTR (SA)	179,283,063	3.32
Artisan Global Opportunities (CF)	245,053,420	4.53
PIMCO Liquidation (SA)	7,635,718	0.14
Wellington Opportunistic EMD (CF)	173,017,329	3.20
PIMCO Unconstrained (SA)	1,458,526	0.03
Private Debt	316,563,449	5.86
Private Equity	514,337,149	9.51
Non-Core Real Estate	144,175,600	2.67
BlackRock US Agg (SA)	859,509,439	15.90
PIMCO Core (SA)	267,556,355	4.95
Vermont Cash (SA)	9,868,765	0.18
BlackRock TIPS (SA)	224,384,362	4.15
UBS Trumbull Properties (CF)	242,335,664	4.48
Private Infrastructure/Land	57,231,083	1.06
Real Estate Cash (CF)	1,467	0.00

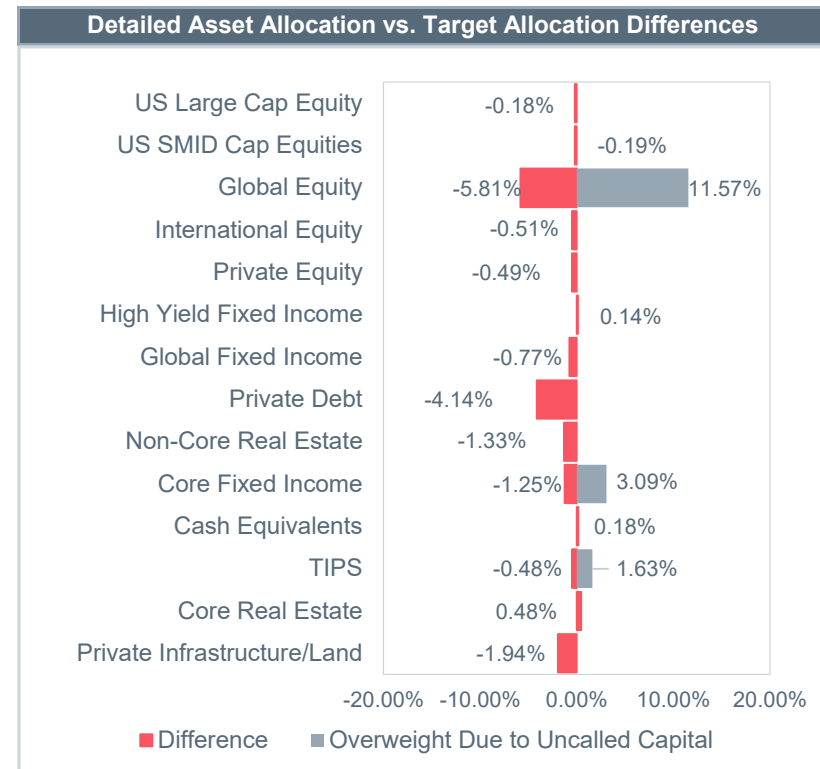
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation. During 06/2022, Accel-KKR GCP IV LP was funded.



Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	3,745,455,824	69.28	71.00
Downturn Hedging Assets	1,136,934,559	21.03	19.00
Inflation Hedging Assets	523,952,576	9.69	10.00
<b>Total Fund</b>	<b>5,406,342,959</b>	<b>100.00</b>	<b>100.00</b>



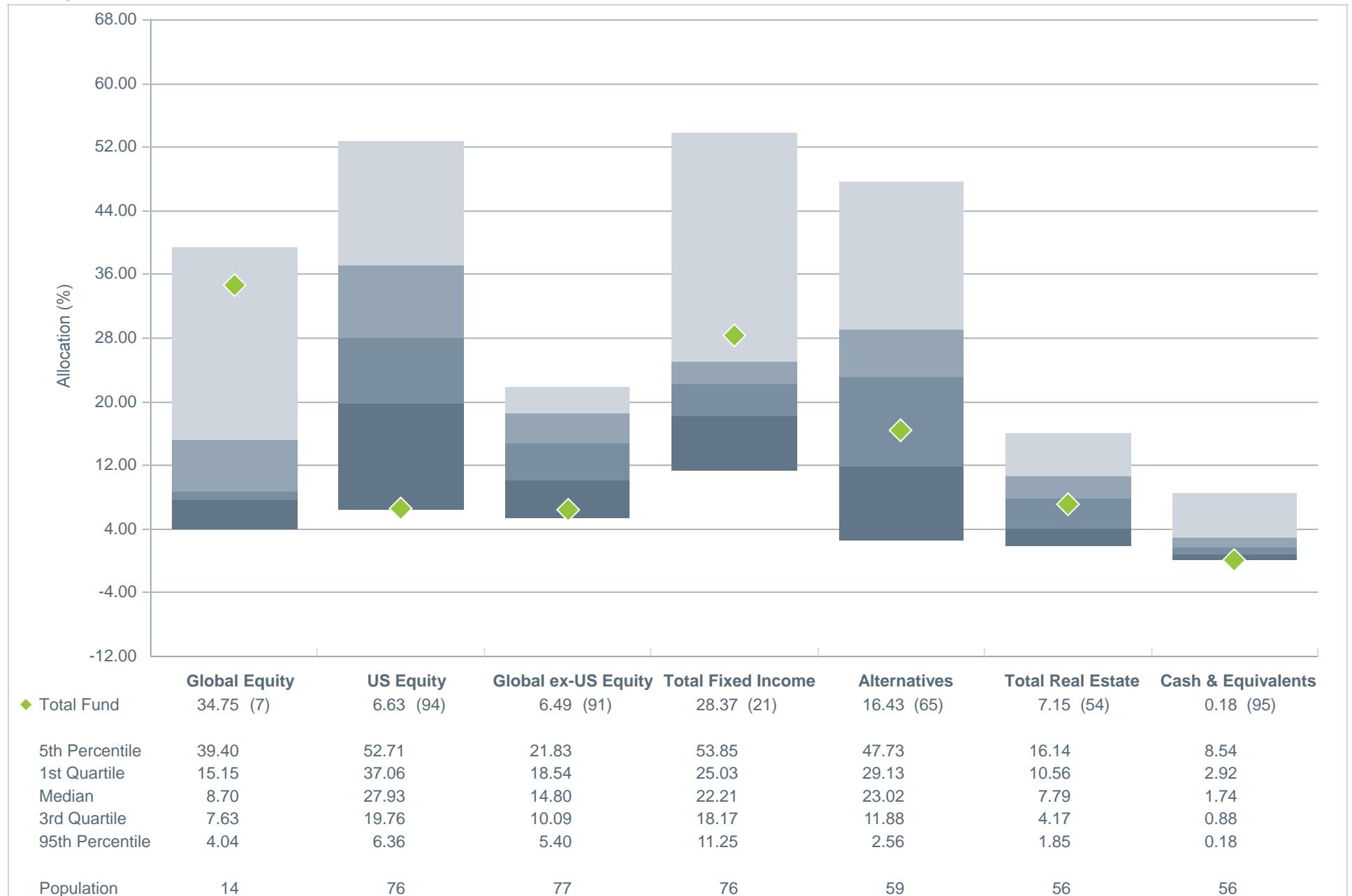
Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	206,426,626	3.82	4.00
US SMID Cap Equities	152,134,970	2.81	3.00
Global Equity	1,878,773,841	34.75	29.00
International Equity	350,932,615	6.49	7.00
Private Equity	514,337,149	9.51	10.00
High Yield Fixed Income	7,635,718	0.14	0.00
Global Fixed Income	174,475,855	3.23	4.00
Private Debt	316,563,449	5.86	10.00
Non-Core Real Estate	144,175,600	2.67	4.00
Core Fixed Income	1,127,065,794	20.85	19.00
Cash Equivalents	9,868,765	0.18	0.00
TIPS	224,384,362	4.15	3.00
Core Real Estate	242,337,131	4.48	4.00
Private Infrastructure/Land	57,231,083	1.06	3.00
<b>Total Fund</b>	<b>5,406,342,959</b>	<b>100.00</b>	<b>100.00</b>



Allocations shown may not sum up to 100% exactly due to rounding. Please note, the "Detailed Asset Allocation vs. Target Allocation Differences" table reflects the Commission's decision to allocate uncalled / uncommitted capital in line with long-term thematic allocations: 71% to Growth Assets (Blackrock MSCI ACW IMI Fund), 19% to Downturn Hedging Assets (Blackrock US Aggregate Fund), and of 10% to Inflation Hedging Assets (Blackrock TIPS Fund).

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

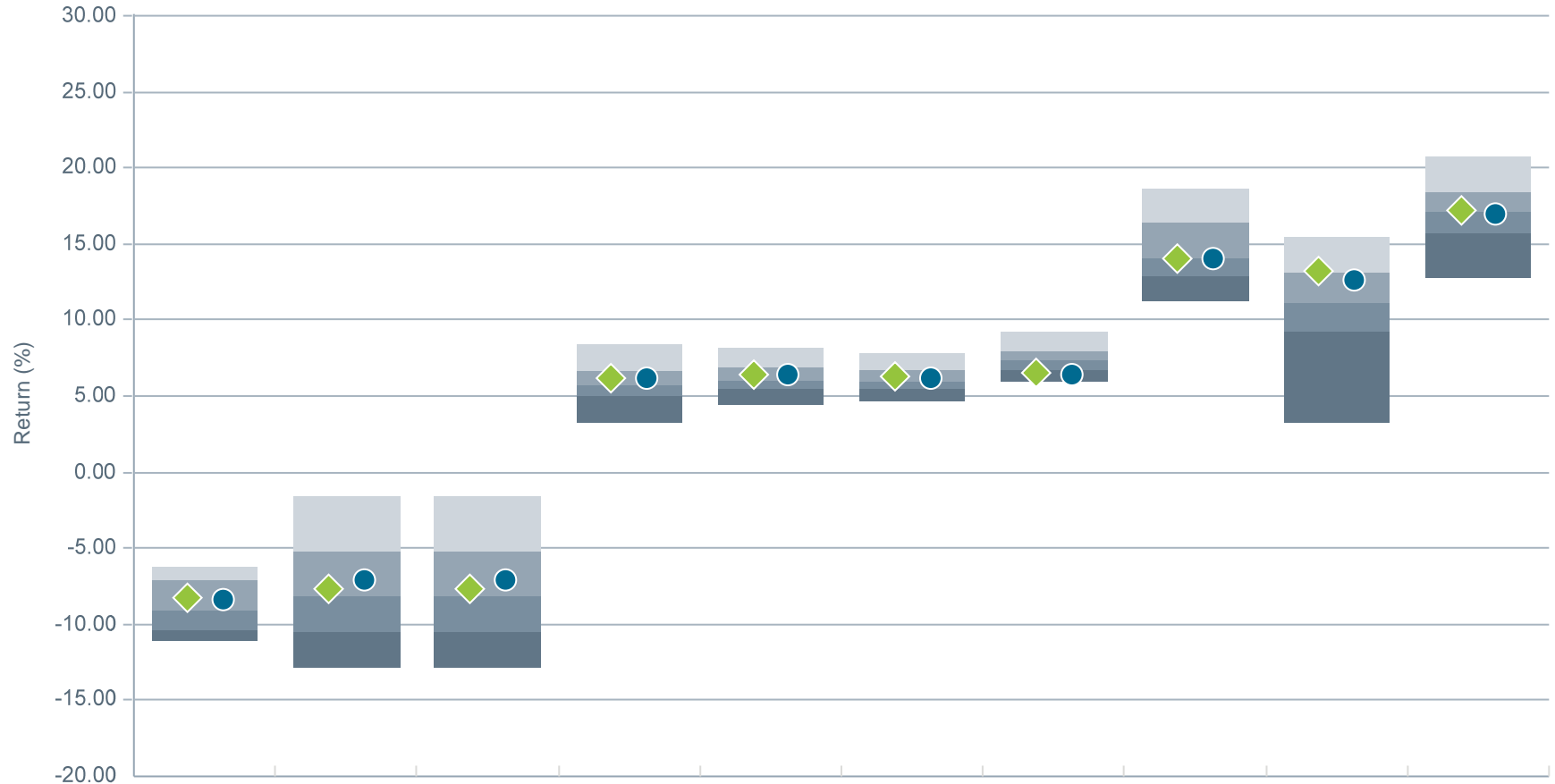
As of June 30, 2022



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

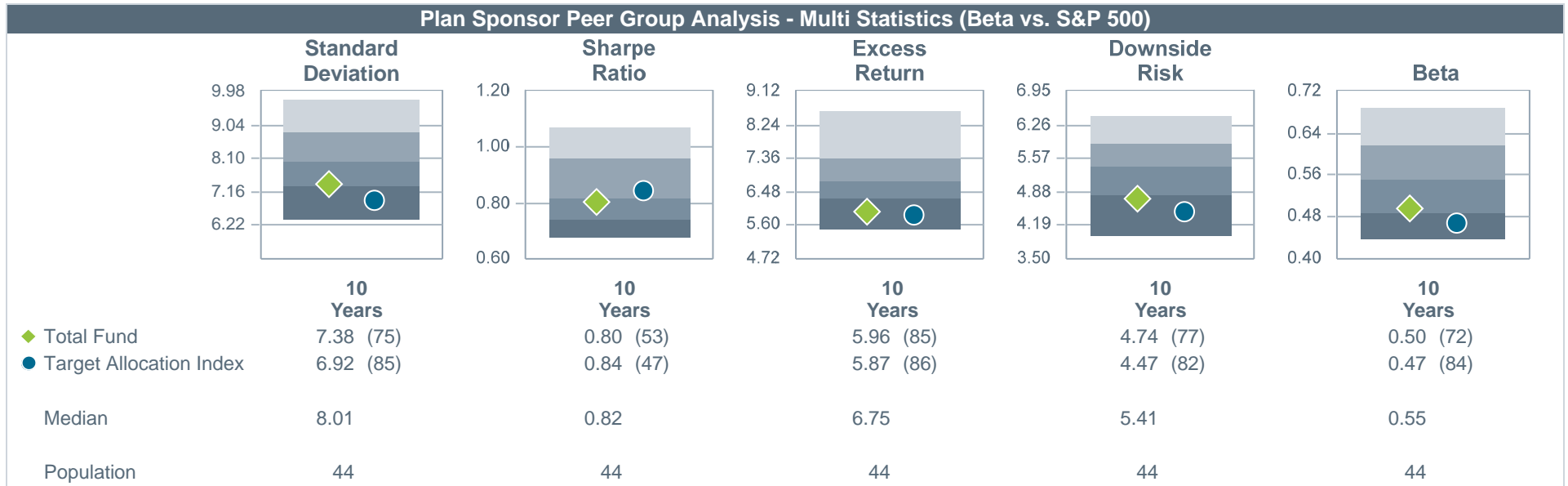
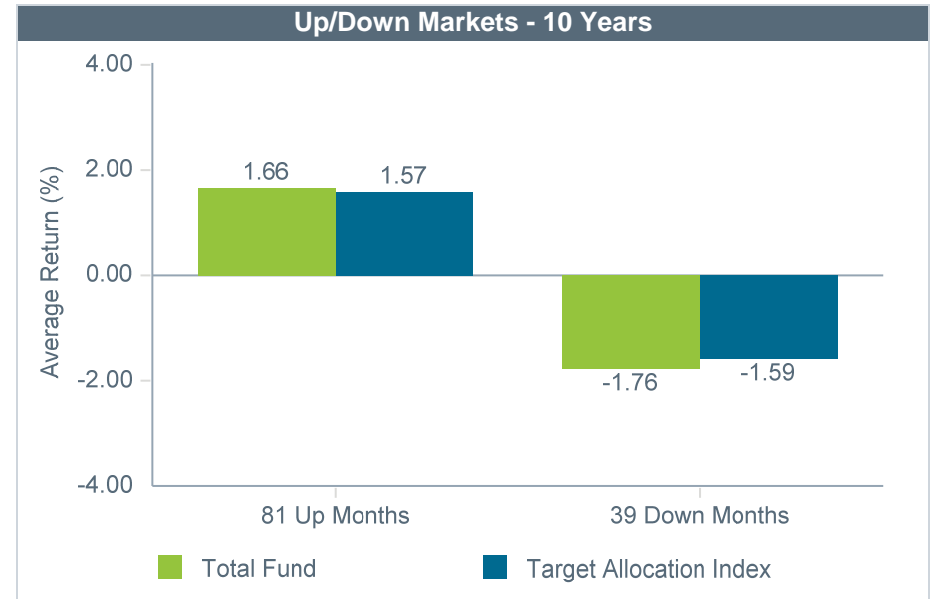
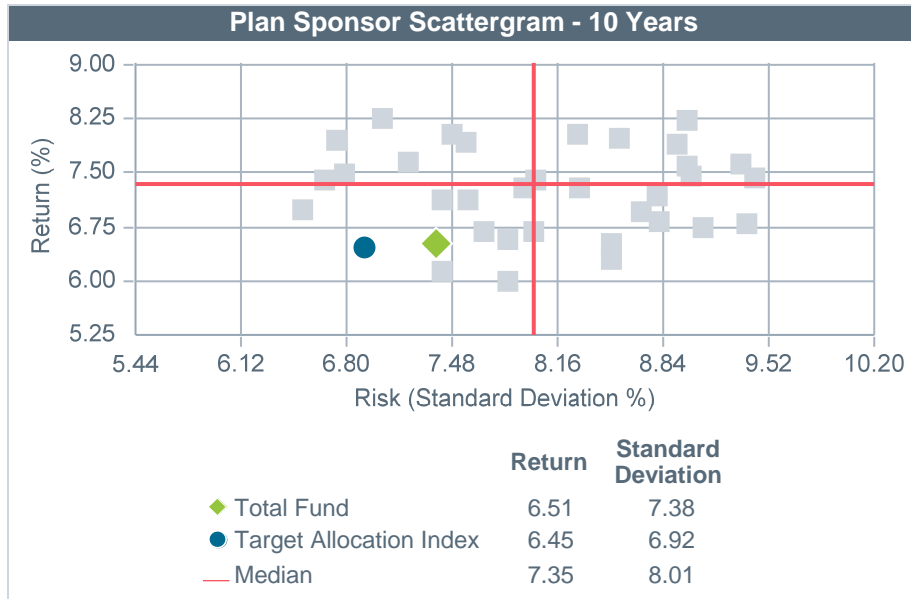
As of June 30, 2022



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
◆ Total Fund	-8.32 (42)	-7.72 (47)	-7.72 (47)	6.14 (40)	6.44 (40)	6.26 (41)	6.51 (84)	14.06 (51)	13.16 (25)	17.15 (47)
● Target Allocation Index	-8.42 (43)	-7.12 (40)	-7.12 (40)	6.21 (40)	6.40 (41)	6.20 (44)	6.45 (85)	14.09 (50)	12.60 (33)	16.91 (52)
5th Percentile	-6.23	-1.59	-1.59	8.46	8.16	7.87	9.24	18.61	15.48	20.74
1st Quartile	-7.08	-5.18	-5.18	6.59	6.88	6.80	7.97	16.37	13.11	18.43
Median	-9.12	-8.18	-8.18	5.74	6.11	5.99	7.35	14.07	11.10	17.07
3rd Quartile	-10.43	-10.51	-10.51	4.99	5.48	5.46	6.74	12.92	9.25	15.74
95th Percentile	-11.05	-12.90	-12.90	3.23	4.45	4.63	5.98	11.20	3.29	12.70
Population	49	49	49	47	47	45	44	96	119	118

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 June 30, 2022

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>5,406,342,959</b>	<b>100.00</b>	<b>-8.32</b>	<b>-7.72</b>	<b>-7.72</b>	<b>6.14</b>	<b>6.44</b>	<b>6.51</b>	<b>4.83</b>	<b>14.06</b>	<b>5.80</b>	<b>07/01/2005</b>
Target Allocation Index			-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference			0.10	-0.60	-0.60	-0.07	0.04	0.06	-0.18	-0.03	-0.09	
Actual Allocation Index			-9.21	-8.97	-8.97	5.01	5.59	6.12	4.78	13.32	5.66	
Difference			0.89	1.25	1.25	1.13	0.85	0.39	0.05	0.74	0.14	
<b>Growth Assets</b>	<b>3,745,455,824</b>	<b>69.28</b>	<b>-10.54</b>	<b>-8.77</b>	<b>-8.77</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.47</b>	<b>8.14</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	2.94	
Difference			5.29	7.75	7.75	-	-	-	-	2.25	5.20	
<b>Downturn Hedging Assets</b>	<b>1,136,934,559</b>	<b>21.03</b>	<b>-4.65</b>	<b>-10.22</b>	<b>-10.22</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.66</b>	<b>-6.14</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference			0.04	0.07	0.07	-	-	-	-	-0.11	0.13	
<b>Inflation Hedging Assets</b>	<b>523,952,576</b>	<b>9.69</b>	<b>0.70</b>	<b>7.13</b>	<b>7.13</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.47</b>	<b>4.27</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			3.70	11.79	11.79	7.60	6.48	5.15	4.93	9.71	10.09	
Difference			-3.00	-4.66	-4.66	-	-	-	-	-3.24	-5.82	

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 Pension Investment Committee  
Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>5,406,342,959</b>	<b>100.00</b>	<b>100.00</b>	<b>-8.32</b>	<b>-7.72</b>	<b>-7.72</b>	<b>6.14</b>	<b>6.44</b>	<b>6.51</b>	<b>4.83</b>	<b>14.06</b>	<b>5.80</b>	<b>07/01/2005</b>
Target Allocation Index				-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference				0.10	-0.60	-0.60	-0.07	0.04	0.06	-0.18	-0.03	-0.09	
Actual Allocation Index				-9.21	-8.97	-8.97	5.01	5.59	6.12	4.78	13.32	5.66	
Difference				0.89	1.25	1.25	1.13	0.85	0.39	0.05	0.74	0.14	
All Public Plans (\$1B to \$10B)				-9.12	-8.18	-8.18	5.74	6.11	7.35	5.33	14.07	6.17	
Rank				42	47	47	40	40	84	78	51	71	
<b>Domestic Equity</b>	<b>358,561,596</b>	<b>6.63</b>	<b>7.00</b>	<b>-16.11</b>	<b>-15.30</b>	<b>-15.30</b>	<b>8.00</b>	<b>8.91</b>	<b>11.80</b>	<b>-</b>	<b>25.34</b>	<b>11.06</b>	<b>01/01/2011</b>
Russell 3000 Index				-16.70	-13.87	-13.87	9.77	10.60	12.57	8.36	25.66	11.81	
Difference				0.59	-1.43	-1.43	-1.77	-1.69	-0.77	-	-0.32	-0.75	
<b>US Large Cap Equity</b>	<b>206,426,626</b>	<b>3.82</b>	<b>4.00</b>	<b>-14.43</b>	<b>-9.66</b>	<b>-9.66</b>	<b>9.65</b>	<b>9.47</b>	<b>12.16</b>	<b>8.26</b>	<b>29.25</b>	<b>9.02</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				-16.10	-10.62	-10.62	10.60	11.31	12.96	8.54	28.71	9.22	
Difference				1.67	0.96	0.96	-0.95	-1.84	-0.80	-0.28	0.54	-0.20	
<b>Blackrock S&amp;P 500 (Eq Wtd) (SA)</b>	<b>206,426,626</b>	<b>3.82</b>	<b>-</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>29.44</b>	<b>9.72</b>	<b>07/01/2019</b>
S&P 500 Index (Eq Wtd)				-14.36	-9.38	-9.38	9.73	9.87	12.66	8.85	29.63	9.73	
Difference				-0.03	-0.11	-0.11	-0.01	-	-	-	-0.19	-0.01	
IM U.S. Large Cap Equity (MF) Median				-16.48	-13.69	-13.69	8.96	10.40	12.03	8.08	25.28	8.96	
Rank				32	28	28	36	-	-	-	12	36	
<b>US SMID Cap Equities</b>	<b>152,134,970</b>	<b>2.81</b>	<b>3.00</b>	<b>-18.45</b>	<b>-22.21</b>	<b>-22.21</b>	<b>5.65</b>	<b>8.34</b>	<b>11.43</b>	<b>8.27</b>	<b>19.93</b>	<b>8.66</b>	<b>07/01/2005</b>
Russell 2500 Index				-16.98	-21.00	-21.00	5.91	7.04	10.49	7.29	18.18	8.29	
Difference				-1.47	-1.21	-1.21	-0.26	1.30	0.94	0.98	1.75	0.37	
<b>Champlain US Mid Cap Core (SA)</b>	<b>152,117,869</b>	<b>2.81</b>	<b>-</b>	<b>-18.45</b>	<b>-22.22</b>	<b>-22.22</b>	<b>5.64</b>	<b>8.58</b>	<b>12.24</b>	<b>-</b>	<b>19.93</b>	<b>12.58</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				-17.01	-21.30	-21.30	5.80	6.55	10.34	7.20	18.74	10.95	
Difference				-1.44	-0.92	-0.92	-0.16	2.03	1.90	-	1.19	1.63	
IM U.S. SMID Cap Equity (MF) Median				-16.02	-17.56	-17.56	5.46	6.80	10.17	7.20	20.18	10.75	
Rank				72	61	61	49	25	6	-	51	7	
<b>Global Equity</b>	<b>1,878,773,841</b>	<b>34.75</b>	<b>29.00</b>	<b>-16.42</b>	<b>-17.62</b>	<b>-17.62</b>	<b>6.51</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.15</b>	<b>2.53</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	3.80	
Difference				-0.59	-1.10	-1.10	0.53	-	-	-	-0.07	-1.27	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (SA)</b>	<b>1,454,437,358</b>	<b>26.90</b>	<b>-</b>	<b>-15.75</b>	<b>-16.23</b>	<b>-16.23</b>	<b>6.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.73</b>	<b>6.41</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	5.98	
Difference				0.08	0.29	0.29	0.43	-	-	-	0.51	0.43	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	4.98	
Rank				55	47	47	33	-	-	-	32	33	
<b>Blackrock MSCI World LCTR (SA)</b>	<b>179,283,063</b>	<b>3.32</b>	<b>-</b>	<b>-16.15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-18.00</b>	<b>09/01/2021</b>
MSCI Wrld Index (USD) (Net)				-16.19	-14.34	-14.34	7.00	7.67	9.51	5.19	21.82	-17.89	
Difference				0.04	-	-	-	-	-	-	-	-0.11	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	-19.94	
Rank				58	-	-	-	-	-	-	-	43	
<b>Artisan Global Opportunities (CF)</b>	<b>245,053,420</b>	<b>4.53</b>	<b>-</b>	<b>-20.65</b>	<b>-26.72</b>	<b>-26.72</b>	<b>6.62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14.17</b>	<b>7.05</b>	<b>07/01/2018</b>
MSCI ACW Index (USD) (Net)				-15.66	-15.75	-15.75	6.21	7.00	8.76	4.80	18.54	6.09	
Difference				-4.99	-10.97	-10.97	0.41	-	-	-	-4.37	0.96	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	5.27	
Rank				86	79	79	31	-	-	-	65	25	
<b>International Equity</b>	<b>350,932,615</b>	<b>6.49</b>	<b>7.00</b>	<b>-12.98</b>	<b>-15.82</b>	<b>-15.82</b>	<b>2.49</b>	<b>2.58</b>	<b>5.13</b>	<b>1.15</b>	<b>14.44</b>	<b>4.13</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	4.11	
Difference				1.53	1.95	1.95	1.42	0.38	-0.27	-0.27	3.18	0.02	
<b>Acadian International All Cap (SA)</b>	<b>222,321,469</b>	<b>4.11</b>	<b>-</b>	<b>-14.88</b>	<b>-18.03</b>	<b>-18.03</b>	<b>3.74</b>	<b>3.24</b>	<b>8.07</b>	<b>2.21</b>	<b>15.96</b>	<b>5.08</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				-15.00	-18.75	-18.75	1.06	2.12	5.61	1.62	11.08	3.96	
Difference				0.12	0.72	0.72	2.68	1.12	2.46	0.59	4.88	1.12	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.61	
Rank				76	46	46	8	18	4	26	8	12	
<b>Mondrian International Equity (SA)</b>	<b>128,611,146</b>	<b>2.38</b>	<b>-</b>	<b>-9.58</b>	<b>-11.80</b>	<b>-11.80</b>	<b>0.97</b>	<b>1.81</b>	<b>5.08</b>	<b>1.65</b>	<b>11.71</b>	<b>4.31</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	4.11	
Difference				4.93	5.97	5.97	-0.10	-0.39	-0.32	0.23	0.45	0.20	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.96	
Rank				6	10	10	62	54	50	41	35	38	
<b>Fixed Income</b>	<b>1,309,177,367</b>	<b>24.22</b>	<b>23.00</b>	<b>-5.49</b>	<b>-11.36</b>	<b>-11.36</b>	<b>-1.08</b>	<b>0.84</b>	<b>2.13</b>	<b>-</b>	<b>-1.81</b>	<b>2.94</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	2.22	
Difference				-0.80	-1.07	-1.07	-0.14	-0.04	0.59	-	-0.26	0.72	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>1,127,065,794</b>	<b>20.85</b>	<b>19.00</b>	<b>-4.69</b>	<b>-10.25</b>	<b>-10.25</b>	-	-	-	-	<b>-1.62</b>	<b>-6.16</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				0.00	0.04	0.04	-	-	-	-	-0.07	0.11	
<b>BlackRock US Agg (SA)</b>	<b>859,509,439</b>	<b>15.90</b>	-	<b>-4.69</b>	<b>-10.25</b>	<b>-10.25</b>	<b>-0.92</b>	-	-	-	<b>-1.62</b>	<b>-0.61</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-0.51	
Difference				0.00	0.04	0.04	0.02	-	-	-	-0.07	-0.10	
IM U.S. Broad Mkt Core FI(MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-0.50	
Rank				15	17	17	49	-	-	-	63	59	
<b>PIMCO Core (SA)</b>	<b>267,556,355</b>	<b>4.95</b>	-	<b>-4.71</b>	<b>-10.35</b>	<b>-10.35</b>	-	-	-	-	<b>-1.68</b>	<b>-5.90</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				-0.02	-0.06	-0.06	-	-	-	-	-0.13	0.37	
IM U.S. Broad Mkt Core FI(MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-6.27	
Rank				17	20	20	-	-	-	-	67	32	
<b>Emerging Markets Debt</b>	<b>173,017,329</b>	<b>3.20</b>	<b>4.00</b>	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	-	-	-	-	<b>-3.32</b>	<b>-10.67</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	-9.70	
Difference				-0.46	-1.68	-1.68	-	-	-	-	-1.81	-0.97	
<b>Wellington Opportunistic EMD (CF)</b>	<b>173,017,329</b>	<b>3.20</b>	-	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	<b>-4.54</b>	<b>-1.11</b>	<b>2.33</b>	-	<b>-3.32</b>	<b>4.03</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	3.83	
Difference				-0.46	-1.68	-1.68	-0.21	-0.11	0.28	-	-1.81	0.20	
IM Emerging Markets Debt (MF) Median				-11.25	-20.13	-20.13	-4.85	-1.32	1.11	3.22	-2.97	2.73	
Rank				46	65	65	45	45	11	-	60	5	
<b>High Yield Fixed Income</b>	<b>7,635,718</b>	<b>0.14</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	6.07	
Difference				-	-	-	-	-	-	-	-	-	
<b>PIMCO Liquidation (SA)</b>	<b>7,635,718</b>	<b>0.14</b>	-	-	-	-	-	-	-	-	-	-	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	1.74	
Difference				-	-	-	-	-	-	-	-	-	
IM U.S. High Yield Bonds (MF) Median				-9.83	-12.48	-12.48	-0.26	1.49	3.63	4.58	4.93	1.16	
Rank				-	-	-	-	-	-	-	-	-	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Private Debt</b>	<b>316,563,449</b>	<b>5.86</b>	<b>10.00</b>	<b>1.84</b>	<b>13.81</b>	<b>13.81</b>	<b>8.37</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17.88</b>	<b>7.83</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				-3.88	-0.73	-0.73	3.20	3.59	4.08	4.19	7.51	3.50	
Difference				5.72	14.54	14.54	5.17	-	-	-	10.37	4.33	
<b>Private Equity</b>	<b>514,337,149</b>	<b>9.51</b>	<b>10.00</b>	<b>9.90</b>	<b>40.16</b>	<b>40.16</b>	<b>31.83</b>	<b>27.44</b>	<b>-</b>	<b>-</b>	<b>60.29</b>	<b>21.35</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	12.82	12.82	21.72	18.85	16.16	12.50	40.41	16.17	
Difference				9.90	27.34	27.34	10.11	8.59	-	-	19.88	5.18	
<b>Non-Core Real Estate</b>	<b>144,175,600</b>	<b>2.67</b>	<b>4.00</b>	<b>9.91</b>	<b>23.86</b>	<b>23.86</b>	<b>10.57</b>	<b>10.95</b>	<b>-</b>	<b>-</b>	<b>17.08</b>	<b>11.13</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				5.05	30.82	30.82	13.45	10.76	10.62	7.85	23.40	10.77	
Difference				4.86	-6.96	-6.96	-2.88	0.19	-	-	-6.32	0.36	
<b>Inflation Hedging Assets (Spliced)</b>	<b>523,952,576</b>	<b>9.69</b>	<b>10.00</b>	<b>0.70</b>	<b>7.13</b>	<b>7.13</b>	<b>1.82</b>	<b>2.91</b>	<b>7.03</b>	<b>-</b>	<b>6.47</b>	<b>8.29</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				3.70	11.79	11.79	6.99	6.94	8.70	6.59	9.71	9.27	
Difference				-3.00	-4.66	-4.66	-5.17	-4.03	-1.67	-	-3.24	-0.98	
<b>TIPS</b>	<b>224,384,362</b>	<b>4.15</b>	<b>3.00</b>	<b>-6.11</b>	<b>-5.01</b>	<b>-5.01</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.00</b>	<b>-1.19</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	-1.26	
Difference				-0.03	0.13	0.13	-	-	-	-	0.04	0.07	
<b>BlackRock TIPS (SA)</b>	<b>224,384,362</b>	<b>4.15</b>	<b>-</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>2.98</b>	<b>3.13</b>	<b>1.66</b>	<b>-</b>	<b>5.81</b>	<b>3.00</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	3.04	
Difference				-0.05	-0.09	-0.09	-0.06	-0.08	-0.07	-	-0.15	-0.04	
IM U.S. TIPS (MF) Median				-6.09	-5.34	-5.34	2.89	2.87	1.37	3.30	5.26	2.47	
Rank				53	47	47	44	23	19	-	28	9	
<b>Core Real Estate</b>	<b>242,337,131</b>	<b>4.48</b>	<b>4.00</b>	<b>7.25</b>	<b>22.78</b>	<b>22.78</b>	<b>6.26</b>	<b>4.95</b>	<b>8.05</b>	<b>-</b>	<b>8.11</b>	<b>9.18</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	10.56	
Difference				2.71	-5.53	-5.53	-5.40	-4.60	-2.10	-	-12.91	-1.38	
<b>UBS Trumbull Properties (CF)</b>	<b>242,335,664</b>	<b>4.48</b>	<b>-</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.32</b>	<b>4.99</b>	<b>6.89</b>	<b>4.70</b>	<b>8.13</b>	<b>6.04</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	7.28	
Difference				2.73	-5.48	-5.48	-5.34	-4.56	-3.26	-1.31	-12.89	-1.24	
<b>Private Infrastructure/Land</b>	<b>57,231,083</b>	<b>1.06</b>	<b>3.00</b>	<b>3.99</b>	<b>4.92</b>	<b>4.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.70</b>	<b>4.03</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				1.45	9.71	9.71	6.14	6.13	9.47	10.53	7.83	7.64	
Difference				2.54	-4.79	-4.79	-	-	-	-	-2.13	-3.61	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



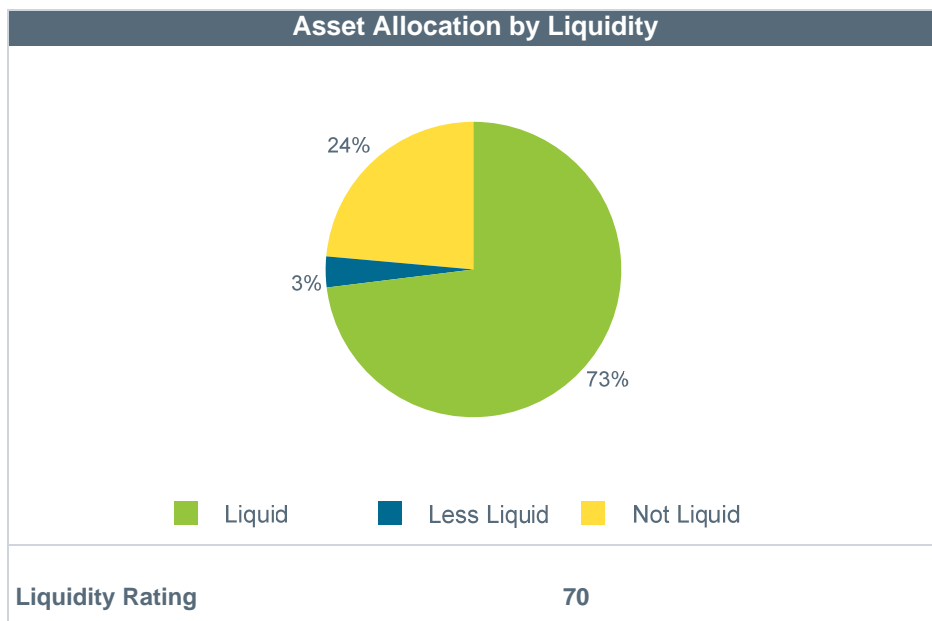
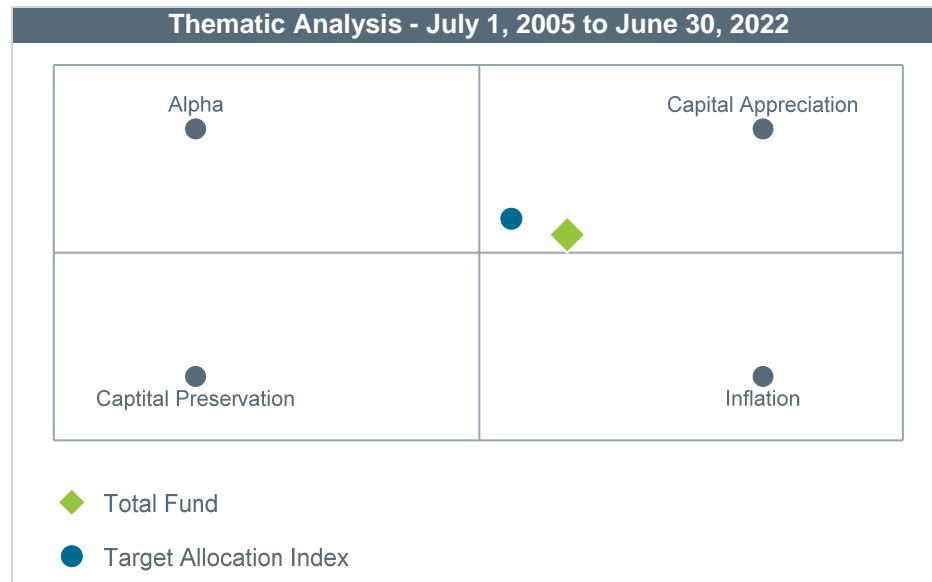
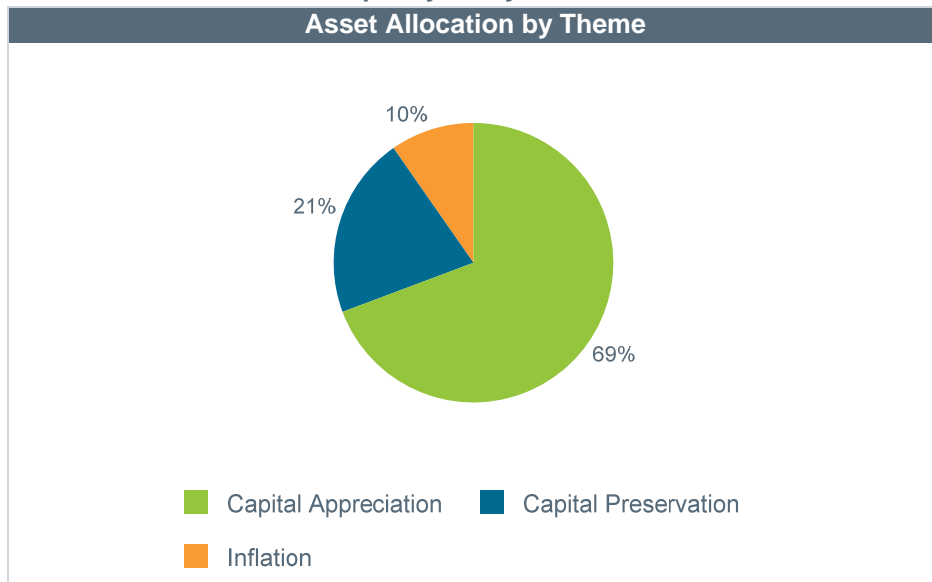
Vermont Pension Investment Committee  
 Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Cash Equivalents</b>	<b>9,868,765</b>	<b>0.18</b>	<b>0.00</b>	<b>0.12</b>	<b>0.13</b>	<b>0.13</b>	<b>0.48</b>	<b>0.31</b>	<b>0.16</b>	<b>0.56</b>	<b>-0.05</b>	<b>1.12</b>	<b>07/01/2005</b>
ICE BofAML 3 Mo US T-Bill Index				0.11	0.17	0.17	0.63	1.11	0.64	0.75	0.05	1.20	
Difference				0.01	-0.04	-0.04	-0.15	-0.80	-0.48	-0.19	-0.10	-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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.





### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.60	1.00		
C	-0.14	-0.15	1.00	
D	0.54	0.74	-0.03	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.



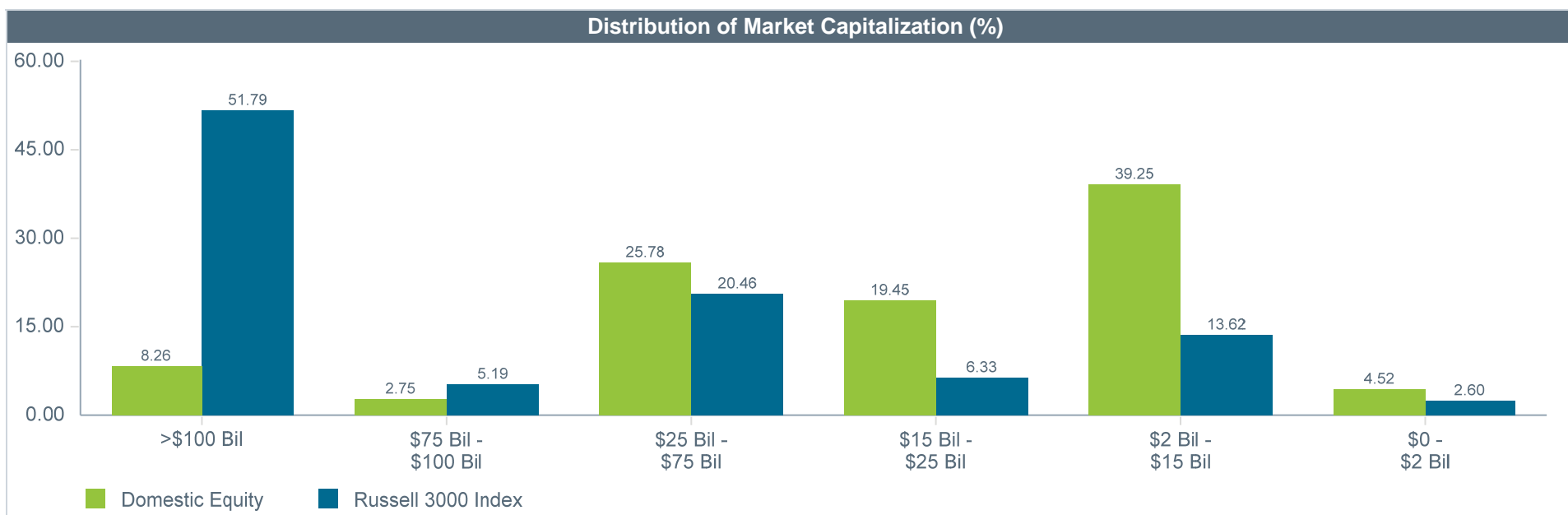


Vermont Pension Investment Committee  
Domestic Equity vs. Russell 3000 Index  
Portfolio Characteristics

As of June 30, 2022

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Pure Storage Inc	1.02	0.02	1.00	-27.19
Everest Re Group Ltd	0.96	0.03	0.93	-6.44
Waters Corp	0.91	0.05	0.86	6.63
AMETEK Inc	0.88	0.07	0.81	-17.34
Fortive Corp	0.87	0.05	0.82	-10.65
Arthur J. Gallagher & Co.	0.85	0.09	0.76	-6.33
Edwards Lifesciences Corp	0.84	0.16	0.68	-19.22
Integra LifeSciences Holdings Corp	0.83	0.01	0.82	-15.92
Advance Auto Parts Inc.	0.81	0.03	0.78	-15.61
Generac Holdings Inc	0.77	0.03	0.74	-29.16
% of Portfolio	8.74	0.54	8.20	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	44,849	406,574
Median Mkt. Cap (\$M)	22,018	1,913
Price/Earnings Ratio	18.67	17.73
Price/Book Ratio	3.21	3.68
5 Yr. EPS Growth Rate (%)	13.80	19.09
Current Yield (%)	1.46	1.66
Beta (5 Years, Monthly)	1.01	1.00
Number of Securities	593	3,011

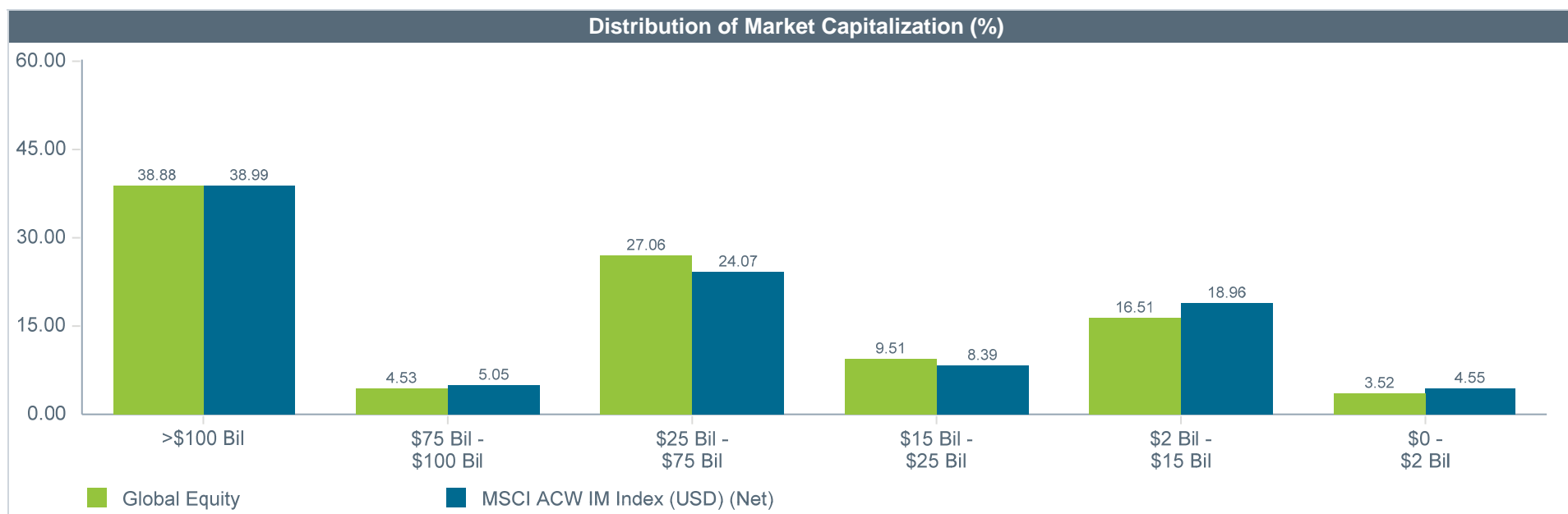


Vermont Pension Investment Committee  
Global Equity vs. MSCI ACW IM Index (USD) (Net)  
Portfolio Characteristics

As of June 30, 2022

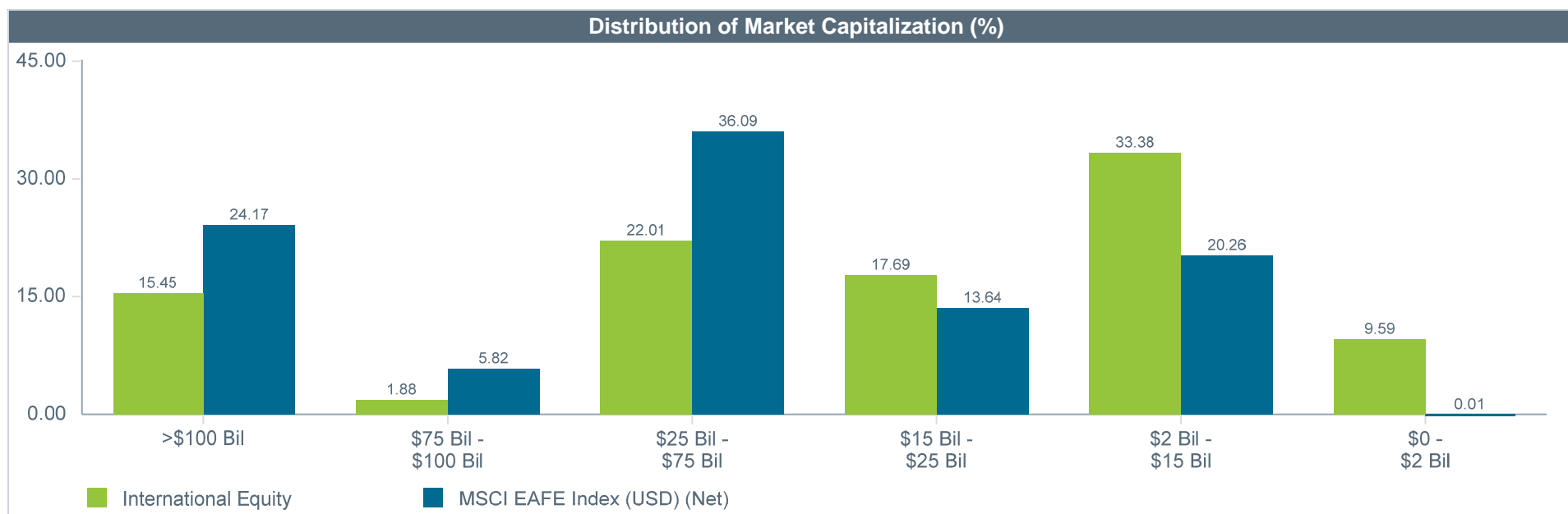
Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	3.20	3.53	-0.33	-21.59
Microsoft Corp	2.86	2.90	-0.04	-16.49
Alphabet Inc	1.49	1.04	0.45	-21.65
Amazon.com Inc	1.37	1.54	-0.17	-34.84
NextEra Energy Inc	0.96	0.24	0.72	-8.06
Tesla Inc	0.95	0.94	0.01	-37.51
Advanced Micro Devices Inc	0.92	0.20	0.72	-30.06
Alphabet Inc	0.91	0.98	-0.07	-21.68
Veeva Systems Inc	0.78	0.04	0.74	-6.79
Unitedhealth Group Inc	0.73	0.76	-0.03	1.08
% of Portfolio	14.17	12.17	2.00	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	264,605	271,220
Median Mkt. Cap (\$M)	1,740	1,712
Price/Earnings Ratio	15.60	14.83
Price/Book Ratio	3.21	3.09
5 Yr. EPS Growth Rate (%)	17.34	17.29
Current Yield (%)	2.20	2.38
Beta (3 Years, Monthly)	0.99	1.00
Number of Securities	9,280	9,297



Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
GSK plc	2.31	0.80	1.51	-0.12
Nippon Telegraph & Telephone Corp	2.17	0.25	1.92	-1.79
Roche Holding AG	2.09	1.72	0.37	-16.17
Novo Nordisk A/S	1.83	1.37	0.46	-0.92
Tokio Marine Holdings Inc	1.42	0.27	1.15	-0.93
Novartis AG	1.29	1.36	-0.07	-4.04
CK Hutchison Holdings Ltd	1.26	0.13	1.13	-4.84
Wolters Kluwer NV	1.20	0.19	1.01	-8.84
Fujitsu Ltd	1.20	0.18	1.02	-17.68
Sanofi	1.19	0.84	0.35	1.91
% of Portfolio	15.96	7.11	8.85	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	41,604	69,575
Median Mkt. Cap (\$M)	1,129	11,663
Price/Earnings Ratio	9.10	12.54
Price/Book Ratio	2.00	2.42
5 Yr. EPS Growth Rate (%)	18.55	13.52
Current Yield (%)	4.37	3.61
Beta (5 Years, Monthly)	1.02	1.00
Number of Securities	573	799



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

As of June 30, 2022

	Total Equity	MSCI ACW IM Index (USD) (Net)		Total Equity	MSCI ACW IM Index (USD) (Net)
Canada	2.91	3.34	China	2.16	3.45
United States	55.80	57.77	India	0.93	1.62
Australia	2.22	1.99	Indonesia	0.22	0.23
Hong Kong	1.76	1.09	Korea	0.95	1.37
New Zealand	0.06	0.09	Malaysia	0.13	0.20
Singapore	0.46	0.39	Philippines	0.05	0.09
<b>Pacific ex Japan</b>	<b>4.50</b>	<b>3.56</b>	Taiwan	1.08	1.80
Japan	7.06	5.94	Thailand	0.19	0.26
Austria	0.17	0.08	<b>EM Asia</b>	<b>5.72</b>	<b>9.03</b>
Belgium	0.26	0.24	Czech Republic	0.01	0.02
Bermuda	0.33	0.13	Greece	0.02	0.04
Denmark	1.47	0.67	Hungary	0.01	0.02
Finland	0.28	0.32	Poland	0.04	0.08
France	2.30	2.39	Russia	0.17	0.00
Germany	2.19	1.89	Turkey	0.03	0.05
Ireland	1.00	1.02	<b>EM Europe</b>	<b>0.28</b>	<b>0.20</b>
Italy	0.90	0.52	Argentina	0.03	0.05
Netherlands	1.61	1.23	Brazil	0.60	0.60
Norway	0.38	0.26	Cayman Islands	0.01	0.02
Portugal	0.06	0.05	Chile	0.04	0.06
Spain	0.79	0.62	Colombia	0.01	0.02
Sweden	1.21	0.89	Mexico	0.14	0.25
Switzerland	3.70	2.78	Peru	0.01	0.02
<b>Europe ex UK</b>	<b>16.63</b>	<b>13.09</b>	<b>EM Latin America</b>	<b>0.84</b>	<b>1.01</b>
United Kingdom	4.56	4.45	Egypt	0.01	0.01
Israel	0.74	0.30	Qatar	0.07	0.12
<b>Middle East</b>	<b>0.74</b>	<b>0.30</b>	Saudi Arabia	0.14	0.25
<b>Developed Markets</b>	<b>92.20</b>	<b>88.45</b>	South Africa	0.42	0.49
			United Arab Emirates	0.09	0.15
			<b>EM Mid East+Africa</b>	<b>0.72</b>	<b>1.01</b>
			<b>Emerging Markets</b>	<b>7.56</b>	<b>11.24</b>

Vermont Pension Investment Commission  
Total Equity  
Country/Region Allocation

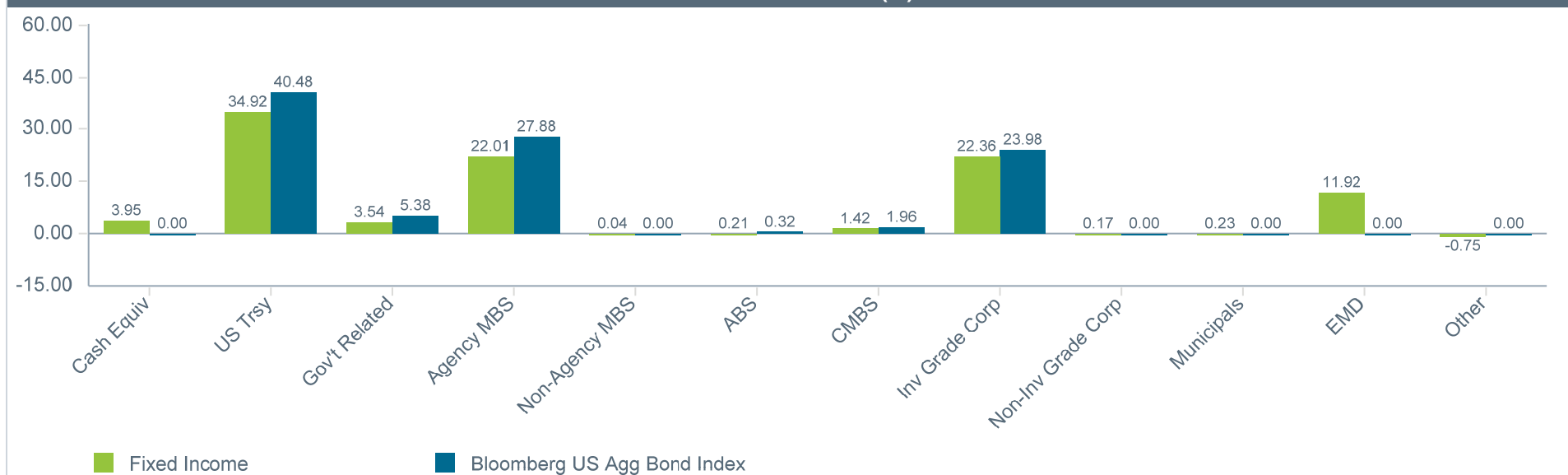
As of June 30, 2022

	Total Equity	MSCI ACW IM Index (USD) (Net)
Kazakhstan	0.00	0.00
Kuwait	0.06	0.10
Oman	0.09	0.16
<b>Frontier Markets</b>	<b>0.15</b>	<b>0.27</b>
Other	0.09	0.03
<b>Total</b>	<b>100.00</b>	<b>100.00</b>

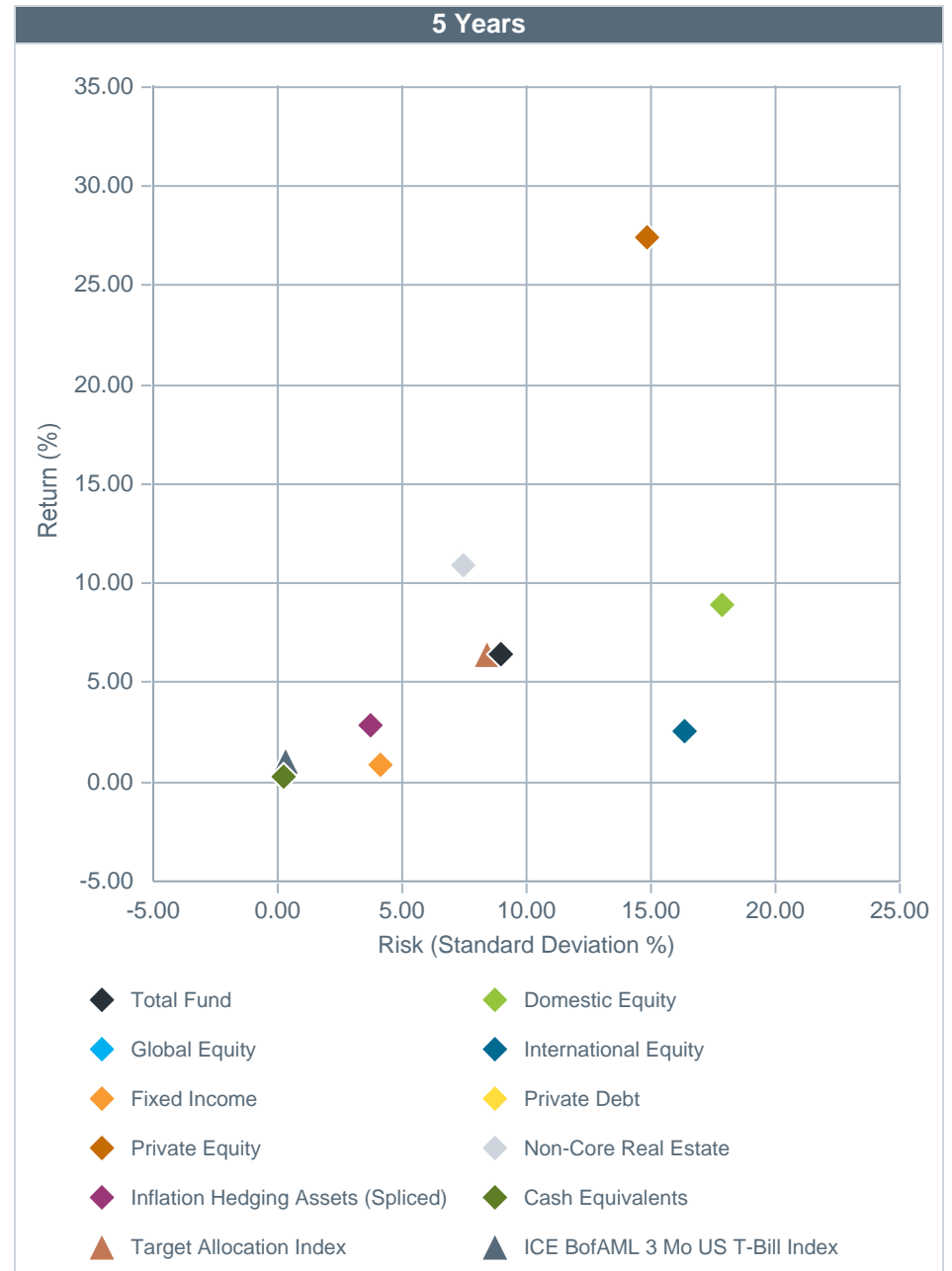
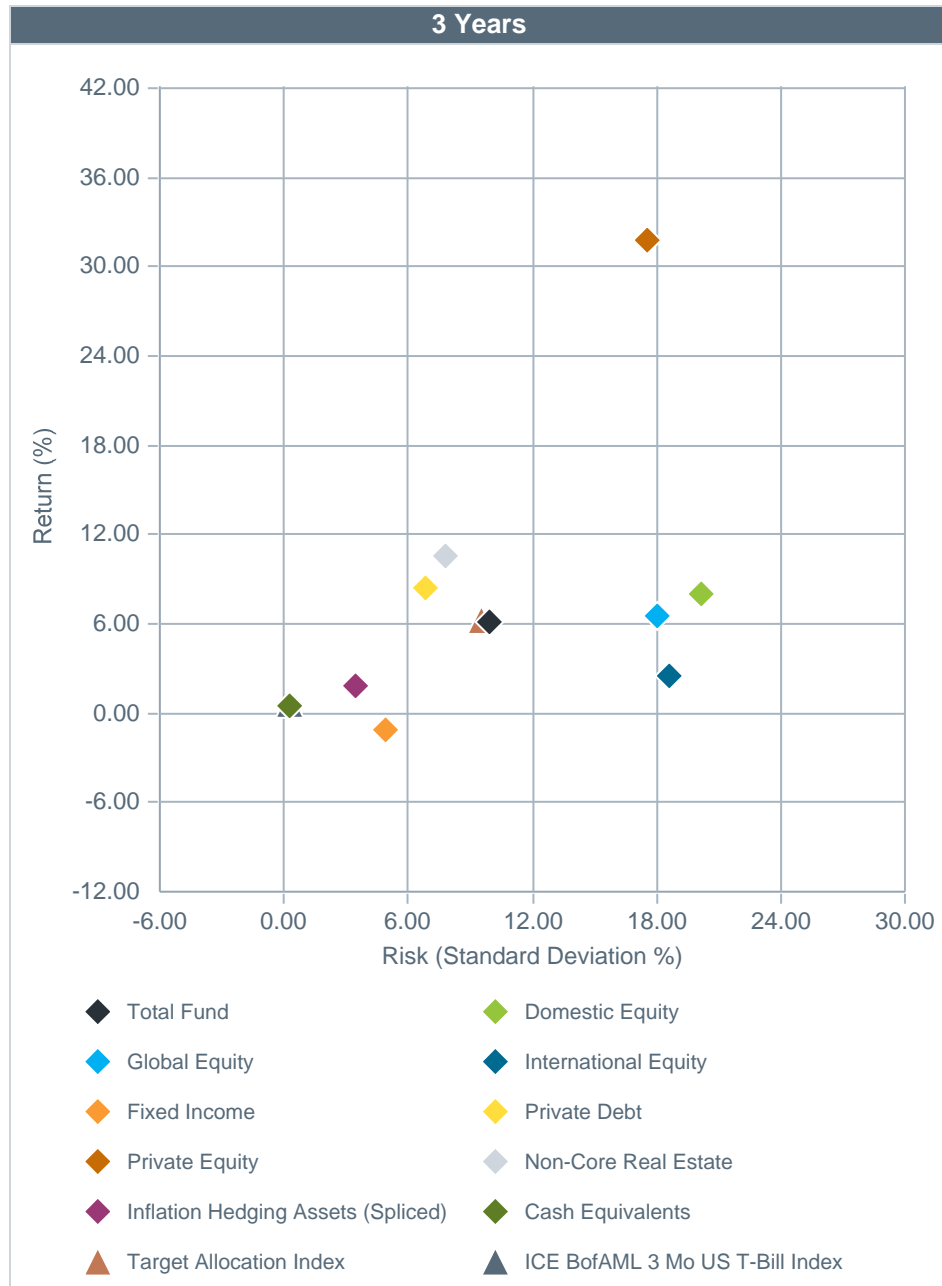
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	6.43	6.44
Convexity	0.62	0.64
Avg. Maturity	8.90	8.63
Avg. Quality	Aa2/Aa3	Aa1/Aa2
Yield To Maturity (%)	4.20	3.72
Coupon Rate (%)	2.72	2.49

Sector Distribution (%)



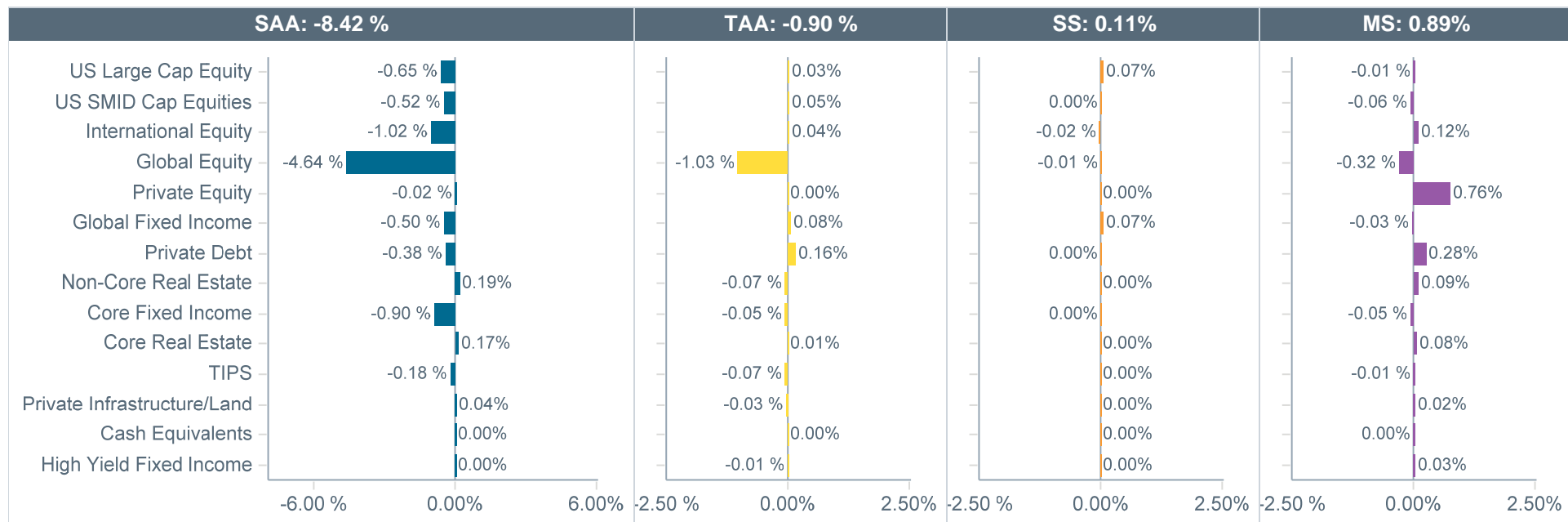
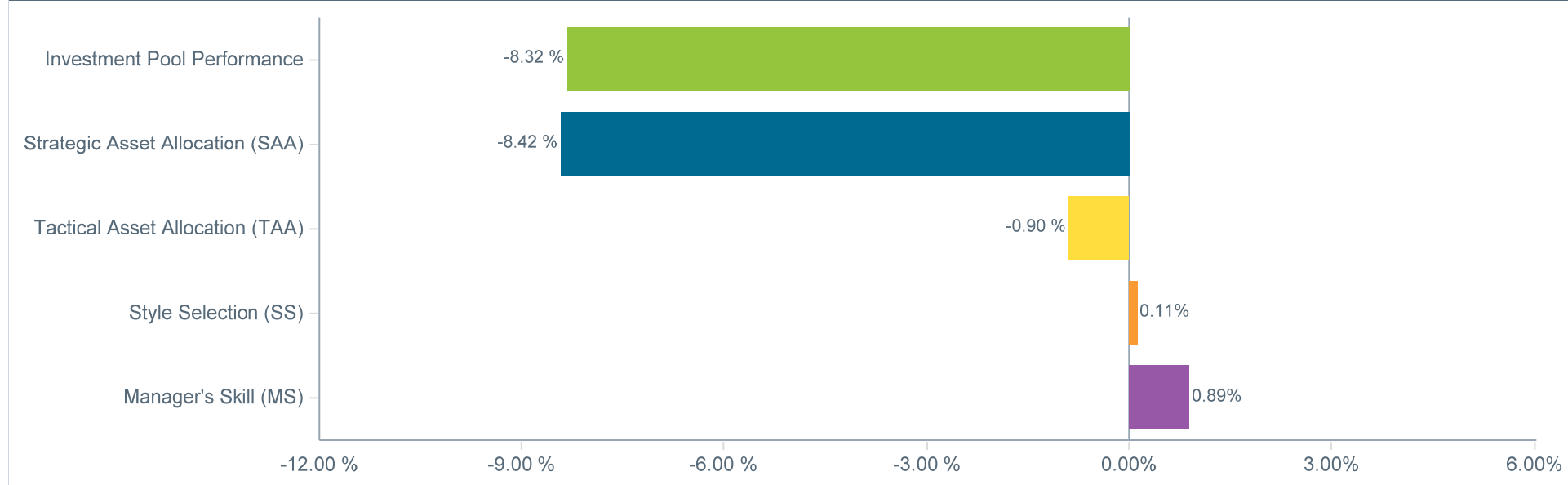
Allocation to other consists of Euros/Yankees, common stock, cash, cash equivalents, currency forwards, and EM CDX. Portfolio characteristics for Blackrock US Agg (CF) is proxied using benchmark statistics. PIMCO Unconstrained is excluded from calculations due to fund liquidation.



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.



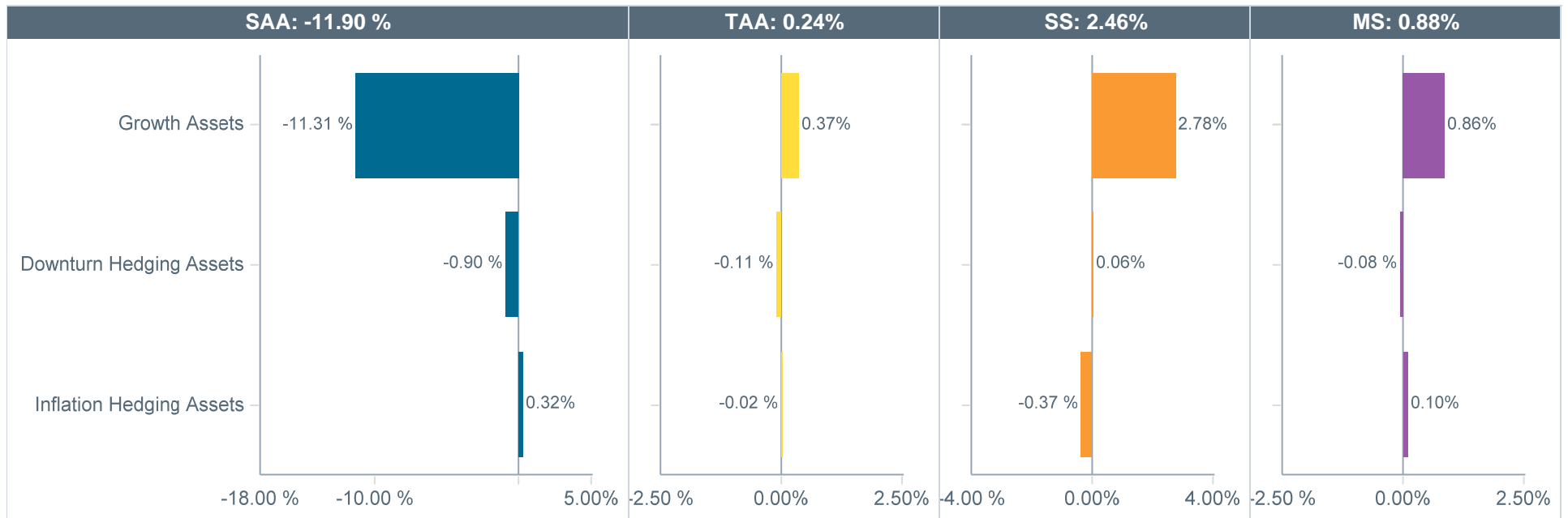
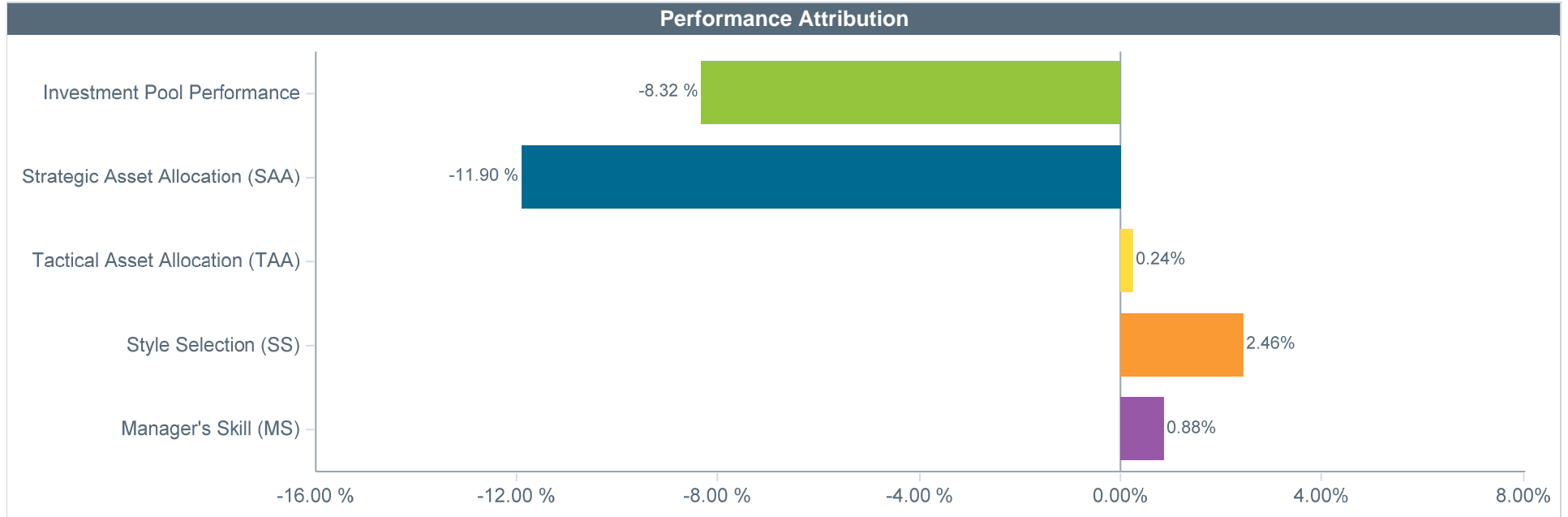
Performance Attribution



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.







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 Commission has committed a total of \$1,590,000,000 to 31 non-marketable alternative investments.
- The average age of active investments (based upon vintage year and weighted by commitment) was 3.41 years.
- A total of \$887,804,509 has been called or otherwise contributed to date.
- Distributions have totaled \$320,297,834 since plan inception.
- The residual estimated value of interests in these partnerships/investments is \$1,005,644,584.
- Since inception net performance for the investments are as follows:
  - Annualized since-inception estimated Internal Rate of Return (IRR) of 20.85%.
  - 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 11.60% indicating roughly 924 basis points of annualized out-performance.
  - For every \$1 paid into the portfolio, \$1.49 has been returned as a distribution or is held in residual value (multiple on invested capital = 1.49x).

**Private Credit - Direct Lending**

- Private Credit - Direct Lending funds account for 16.67% of commitments, 20.82% of contributed funds, 19.10% of distributed funds, and 15.73% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 8.31%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.29%
  - A multiple on invested capital of 1.19x.

**Private Credit - Distressed/Special Situations**

- Private Credit - Distressed/Special Situations funds account for 3.14% of commitments, 4.59% of contributed funds, 0.04% of distributed funds, and 4.78% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 17.22%
  - MSCI ACW IM Index (USD) (Net) IRR of 14.53%
  - A multiple on invested capital of 1.18x.

**Private Credit - Specialty Finance**

- Private Credit - Specialty Finance funds account for 14.78% of commitments, 8.90% of contributed funds, 0.26% of distributed funds, and 8.40% 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 1.08x.

**Private Equity - Buyout**

- Private Equity - Buyout funds account for 16.16% of commitments, 17.33% of contributed funds, 20.40% of distributed funds, and 20.10% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 27.82%
  - MSCI ACW IM Index (USD) (Net) IRR of 13.49%
  - A multiple on invested capital of 1.74x.

#### Private Equity - Fund of Funds

- Private Equity - Fund of Funds funds account for 4.03% of commitments, 3.99% of contributed funds, 2.95% of distributed funds, and 5.05% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 25.97%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.64%
  - A multiple on invested capital of 1.70x.

#### Private Equity - Natural Resources

- Private Equity - Natural Resources funds account for 8.18% of commitments, 7.14% of contributed funds, 0.75% of distributed funds, and 6.40% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 4.82%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.09%
  - A multiple on invested capital of 1.05x.

#### Private Equity - Non-US Private Equity

- Private Equity - Non-US Private Equity funds account for 5.97% of commitments, 2.02% of contributed funds, 2.87% of distributed funds, and 2.84% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 25.82%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.74%
  - A multiple on invested capital of 2.10x.

#### Private Equity - Secondaries

- Private Equity - Secondaries funds account for 14.78% of commitments, 12.48% of contributed funds, 24.99% of distributed funds, and 11.44% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 29.58%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.21%
  - A multiple on invested capital of 1.76x.

**Private Equity - Venture**

- Private Equity - Venture funds account for 4.34% of commitments, 6.03% of contributed funds, 11.80% of distributed funds, and 10.52% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 32.63%
  - MSCI ACW IM Index (USD) (Net) IRR of 11.54%
  - A multiple on invested capital of 2.68x.

**Real Estate - Opportunistic**

- Real Estate - Opportunistic funds account for 9.75% of commitments, 14.23% of contributed funds, 14.76% of distributed funds, and 12.02% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 10.31%
  - MSCI ACW IM Index (USD) (Net) IRR of 10.97%
  - A multiple on invested capital of 1.33x.

**Real Estate - Value Added**

- Real Estate - Value Added funds account for 2.20% of commitments, 2.48% of contributed funds, 2.10% of distributed funds, and 2.71% of reported residual value.
- Pooled portfolio since inception performance is as follows:
  - Annualized since-inception IRR of 44.18%
  - MSCI ACW IM Index (USD) (Net) IRR of 20.54%
  - A multiple on invested capital of 1.55x.

Vermont Pension Investment Commission  
Alternative Investment Private Equity Fund Performance Listing

As of March 31, 2022

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	26,871,594	19,152,350	19.83	2nd	9.72	2.24
HarbourVest Partners IX - Credit Opportunities Fund, LP	2011	Private Equity - Fund of Funds	4,000,000	3,210,265	3,309,316	2,168,213	13.67	2nd	10.58	1.71
HarbourVest Partners IX - Venture, LP	2011	Private Equity - Venture	12,000,000	11,437,671	20,329,317	21,174,876	25.26	1st	9.13	3.63
Dover Street VIII, LP (HarbourVest)	2012	Private Equity - Secondaries	25,000,000	23,000,000	35,074,912	4,396,963	20.09	2nd	8.62	1.72
HarbourVest International Private Equity Partners VII Partnership, LP	2014	Private Equity - Non-US Private Equity	15,000,000	12,712,500	8,625,339	19,341,397	21.95	3rd	12.02	2.20
HarbourVest International Private Equity Partners VIII Partnership, LP	2014	Private Equity - Fund of Funds	60,000,000	32,250,000	6,130,259	48,651,406	31.50	1st	11.99	1.70
HarbourVest Partners X - Buyout, LP	2015	Private Equity - Buyout	45,500,000	33,672,787	21,468,992	41,236,254	28.75	2nd	13.13	1.86
HarbourVest Partners X - Venture, LP	2015	Private Equity - Venture	19,500,000	18,087,922	11,017,382	43,336,595	40.57	1st	12.09	3.00
Dover Street IX, LP (HarbourVest)	2016	Private Equity - Secondaries	40,000,000	33,600,000	30,099,111	31,264,699	28.07	2nd	12.53	1.83
Dover Street X, LP (HarbourVest)	2018	Private Equity - Secondaries	100,000,000	52,000,000	14,873,500	73,040,947	76.36	1st	12.59	1.69
HarbourVest Partners XI - Buyout Fund, LP	2018	Private Equity - Buyout	75,000,000	35,250,000	9,900,948	50,098,033	52.29	1st	18.33	1.70
HarbourVest Partners XI - Micro Buyout Fund, LP	2018	Private Equity - Buyout	12,500,000	5,187,500	1,968,325	7,499,601	65.16	1st	20.40	1.83
HarbourVest Partners Co-Investment Fund V, LP	2019	Private Equity - Buyout	25,000,000	19,375,000	3,004,731	30,950,785	37.58	1st	16.96	1.75
HarbourVest Partners XI - Venture Fund, LP	2019	Private Equity - Venture	37,500,000	24,000,000	6,433,411	41,326,566	64.49	1st	16.40	1.99
Nuveen Global Farmland Fund, LP	2019	Private Equity - Natural Resources	100,000,000	54,605,784	2,394,147	55,987,866	6.38	4th	11.40	1.07
Pontifax Global Food and Agriculture Technology Fund II, LP	2019	Private Equity - Natural Resources	30,000,000	8,750,693	0	8,353,217	-3.70	4th	9.37	0.95
Siguler Guff Small Buyout Opportunities Fund IV LP	2019	Private Equity - Buyout	50,000,000	29,725,000	1,469,732	38,960,172	33.60	3rd	19.74	1.36

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 Commission  
Alternative Investment Private Equity Fund Performance Listing

As of March 31, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
HarbourVest HIPEP IX Fund, LP	2020	Private Equity - Non-US Private Equity	80,000,000	5,200,000	560,000	9,169,789	N/M	N/A	N/M	1.87
NB Strategic Co-Investment Partners IV LP	2020	Private Equity - Buyout	25,000,000	10,095,761	655,257	14,255,818	59.18	N/A	8.68	1.48
NB Secondary Opportunities Fund V LP	2021	Private Equity - Secondaries	70,000,000	2,187,500	0	6,328,359	N/M	N/A	N/M	2.89
			<b>850,000,000</b>	<b>434,855,571</b>	<b>204,186,273</b>	<b>566,693,906</b>	<b>28.38</b>		<b>12.16</b>	<b>1.77</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 Commission  
Alternative Investment Real Estate Fund Performance Listing

As of March 31, 2022

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 LP	2013	Real Estate - Opportunistic	40,000,000	35,272,308	30,123,385	22,864,650	9.01	4th	8.85	1.50
Siguler Guff DREOF II Co-Investment Fund LP	2016	Real Estate - Opportunistic	15,000,000	12,669,146	8,150,502	7,617,079	5.71	4th	7.91	1.24
Blue Vista Real Estate Partners V	2018	Real Estate - Value Added	35,000,000	21,980,000	6,720,790	27,240,016	44.18	1st	15.35	1.55
Brookfield Strategic Real Estate Partners III	2019	Real Estate - Opportunistic	100,000,000	78,353,742	8,987,806	90,443,249	14.71	2nd	13.85	1.27
			<b>190,000,000</b>	<b>148,275,197</b>	<b>53,982,483</b>	<b>148,164,994</b>	<b>12.03</b>		<b>10.47</b>	<b>1.36</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 Commission  
Alternative Investment Private Credit Fund Performance Listing

As of March 31, 2022

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	43,577,649	41,995,435	6.05	4th	6.39	1.22
(Arcmont) Direct Lending Fund III (USD-L) SLP	2018	Private Credit - Direct Lending	70,000,000	42,499,755	13,286,581	39,098,100	11.45	3rd	5.66	1.23
Benefit Street Partners Senior Secured Opportunities Fund II (Levered US)	2019	Private Credit - Direct Lending	75,000,000	34,927,208	3,088,379	36,675,684	14.88	2nd	6.41	1.14
AG Direct Lending Fund IV, LP	2020	Private Credit - Direct Lending	50,000,000	37,449,533	1,216,906	40,454,487	13.51	3rd	6.65	1.11
Ares Pathfinder Fund, LP	2020	Private Credit - Specialty Finance	65,000,000	29,683,124	701,952	34,571,289	N/M	N/A	N/M	1.19
Kennedy Lewis Capital Partners Master Fund II, LP	2020	Private Credit - Distressed/Special Situations	50,000,000	40,746,642	125,000	48,054,611	17.22	2nd	6.95	1.18
Ares Pathfinder Core Fund LP	2021	Private Credit - Specialty Finance	170,000,000	49,367,479	132,610	49,936,078	N/M	N/A	N/M	1.01
			<b>550,000,000</b>	<b>304,673,741</b>	<b>62,129,078</b>	<b>290,785,684</b>	<b>9.79</b>		<b>6.13</b>	<b>1.16</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 Credit Suisse Leveraged Loan Index+2% 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.



Average Commitment-weighted Active Investment Age (in years): 3.84

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	50,510,227	42,495,439	21.79	9.68	2.65	2.65
2012	25,000,000	23,000,000	35,074,912	4,396,963	20.09	8.62	1.72	2.28
2014	75,000,000	44,962,500	14,755,598	67,992,803	26.14	12.00	1.84	2.09
2015	65,000,000	51,760,709	32,486,374	84,572,849	34.17	12.70	2.26	2.15
2016	40,000,000	33,600,000	30,099,111	31,264,699	28.07	12.53	1.83	2.09
2018	187,500,000	92,437,500	26,742,773	130,638,581	63.81	15.84	1.70	1.96
2019	242,500,000	136,456,477	13,302,021	175,578,606	30.03	14.91	1.38	1.77
2020	105,000,000	15,295,761	1,215,257	23,425,607	105.14	6.53	1.61	1.77
2021	70,000,000	2,187,500	0	6,328,359	N/M	N/M	2.89	1.77
<b>TOTAL</b>	<b>850,000,000</b>	<b>434,855,571</b>	<b>204,186,273</b>	<b>566,693,906</b>	<b>28.38</b>	<b>12.16</b>		<b>1.77</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): 4.73

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	30,123,385	22,864,650	9.01	8.85	1.50	1.50
2016	15,000,000	12,669,146	8,150,502	7,617,079	5.71	7.91	1.24	1.43
2018	35,000,000	21,980,000	6,720,790	27,240,016	44.18	15.35	1.55	1.47
2019	100,000,000	78,353,742	8,987,806	90,443,249	14.71	13.85	1.27	1.36
<b>TOTAL</b>	<b>190,000,000</b>	<b>148,275,197</b>	<b>53,982,483</b>	<b>148,164,994</b>	<b>12.03</b>	<b>10.47</b>		<b>1.36</b>

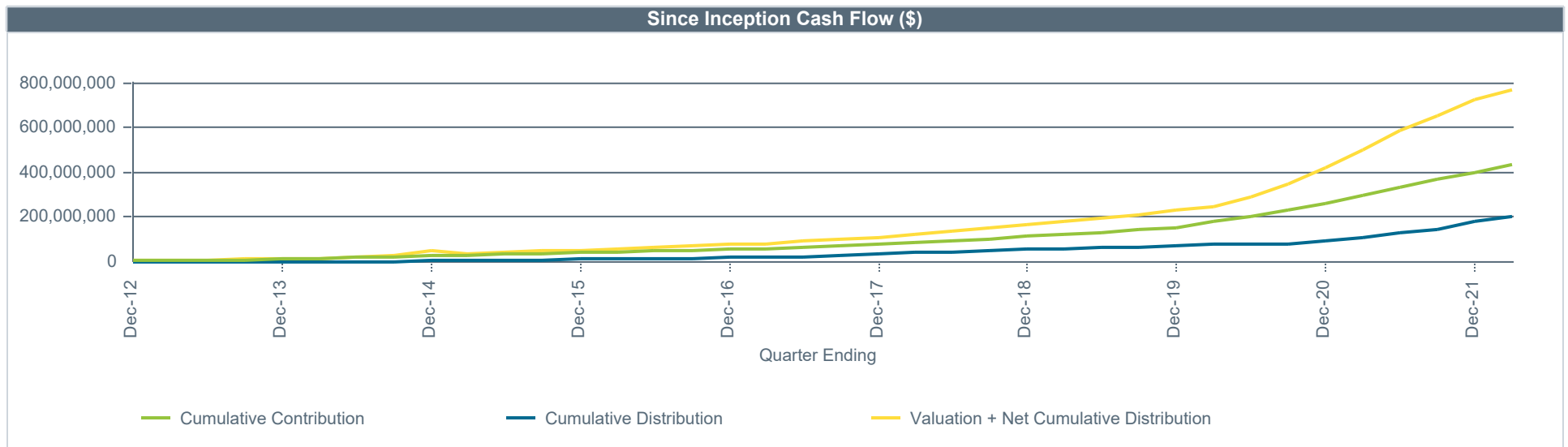
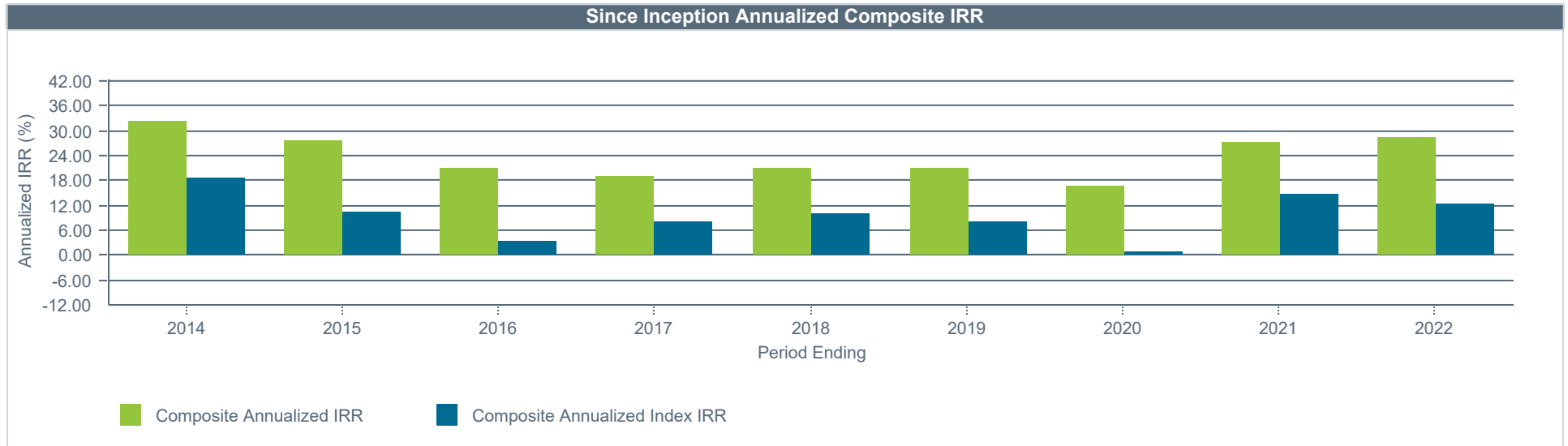
Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA)(Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are 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): 2.28

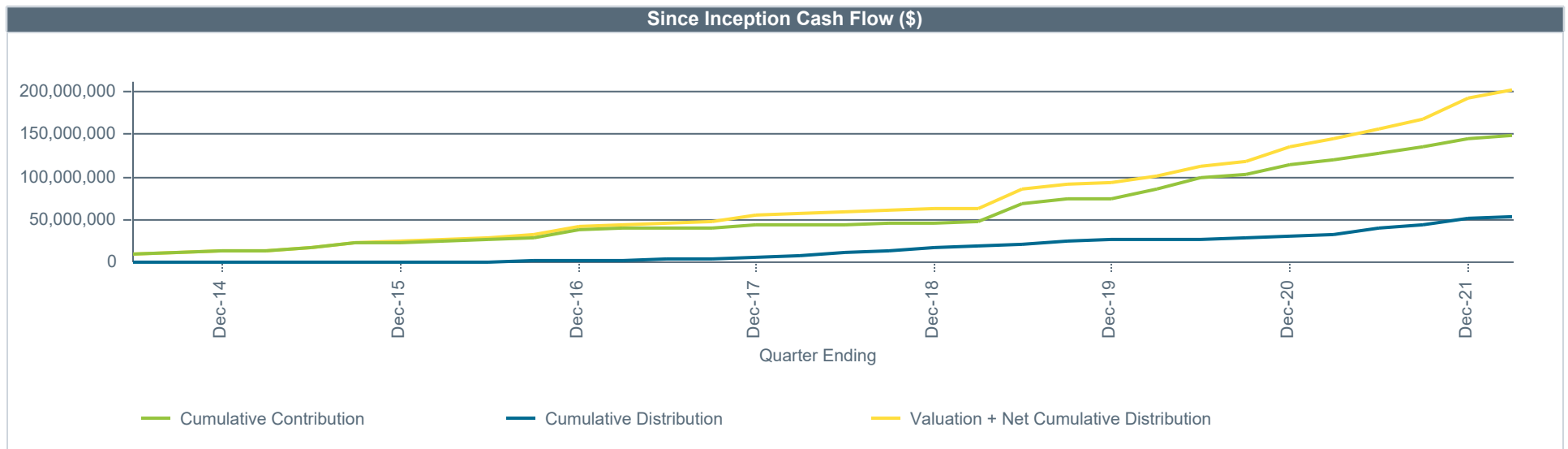
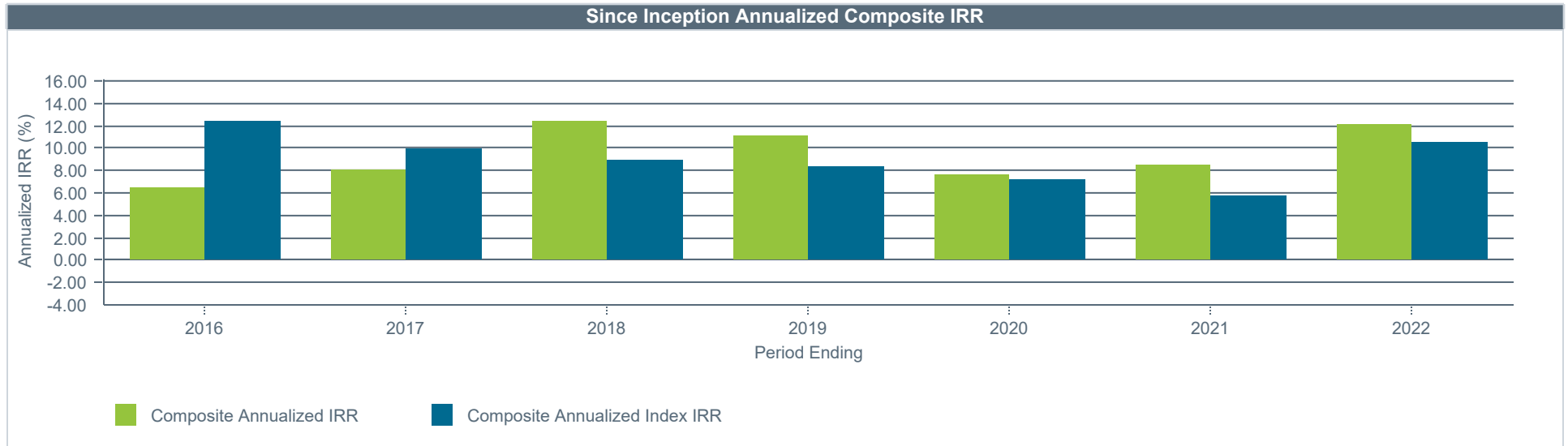
Vintage Year	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Vintage Year IRR (%)	Index IRR (%)	Vintage Year Multiple	Cumulative Multiple
2016	70,000,000	70,000,000	43,577,649	41,995,435	6.05	4.31	1.22	1.22
2018	70,000,000	42,499,755	13,286,581	39,098,100	11.45	3.58	1.23	1.23
2019	75,000,000	34,927,208	3,088,379	36,675,684	14.88	4.30	1.14	1.21
2020	165,000,000	107,879,299	2,043,858	123,080,387	19.67	4.29	1.16	1.19
2021	170,000,000	49,367,479	132,610	49,936,078	N/M	N/M	1.01	1.16
<b>TOTAL</b>	<b>550,000,000</b>	<b>304,673,741</b>	<b>62,129,078</b>	<b>290,785,684</b>	<b>9.79</b>	<b>4.04</b>		<b>1.16</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.



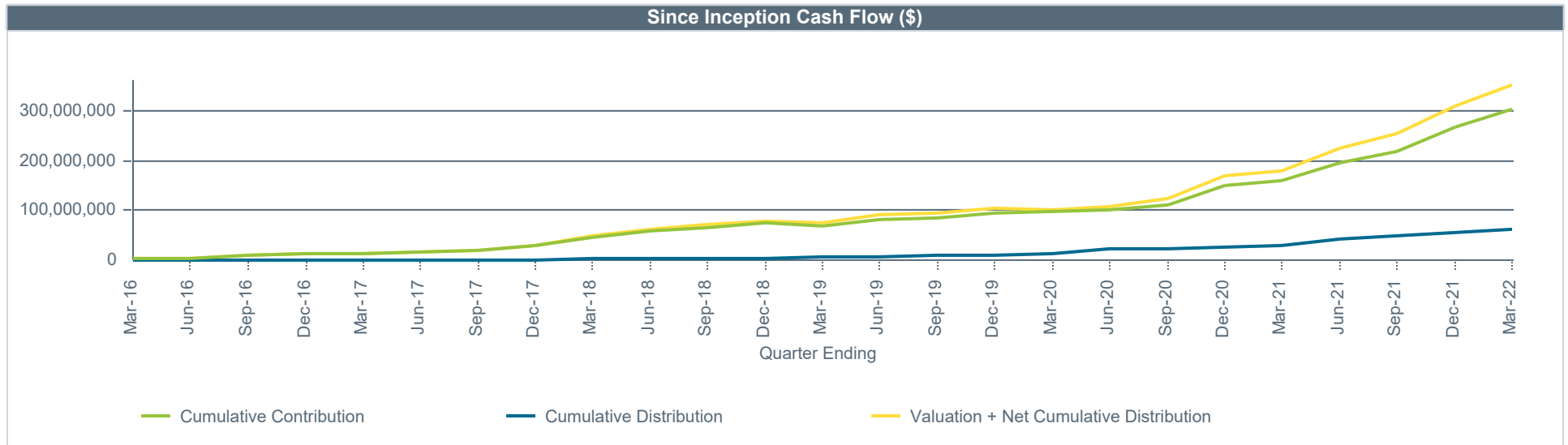
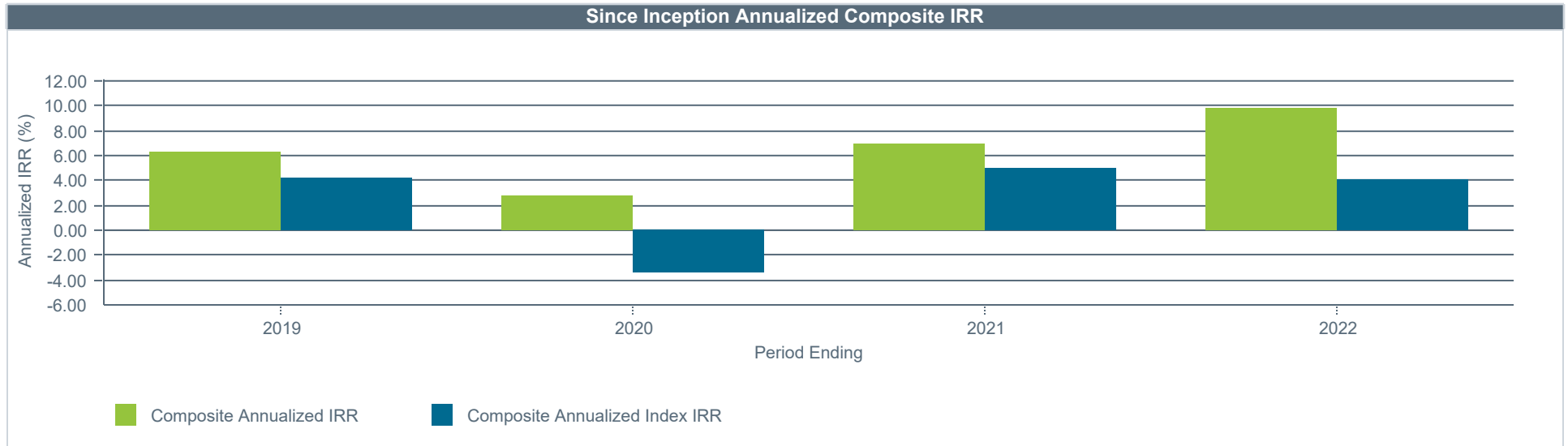
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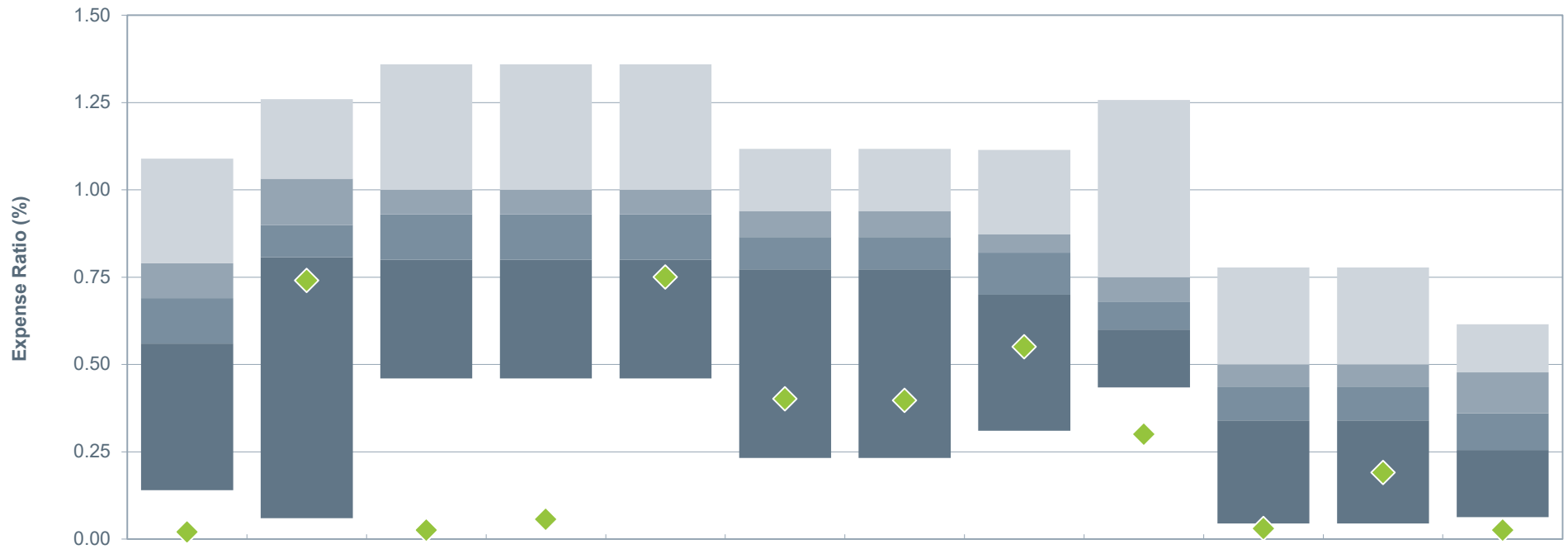
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Index IRR represents the dollar-weighted returns calculated using the CS Lvg'd Loan Index assuming an index investment with the same cash flow timing. This report may contain valuations for investments that are preliminary estimates of valuation as 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. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated.





Fund	Blackrock S&P 500 (Eq Wtd) (CF)	Champlain US Mid Cap Core (SA)	BlackRock MSCI ACW IMI (CF)	Blackrock MSCI World LCTR (SA)	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 (SA)	BlackRock TIPS (CF)
Peer Group	U.S. Large Cap Equity (MF)	U.S. SMID Cap Equity (MF)	Global 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)
<b>Fund Expense Ratio</b>	<b>0.02</b>	<b>0.74</b>	<b>0.03</b>	<b>0.06</b>	<b>0.75</b>	<b>0.40</b>	<b>0.40</b>	<b>0.55</b>	<b>0.30</b>	<b>0.03</b>	<b>0.19</b>	<b>0.03</b>
Median Expense Ratio	0.69	0.90	0.93	0.93	0.93	0.87	0.87	0.82	0.68	0.44	0.44	0.36
Percentile Rank	2	20	1	1	17	9	9	8	3	4	14	2
Population	381	156	341	341	341	142	142	72	129	130	130	46

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.

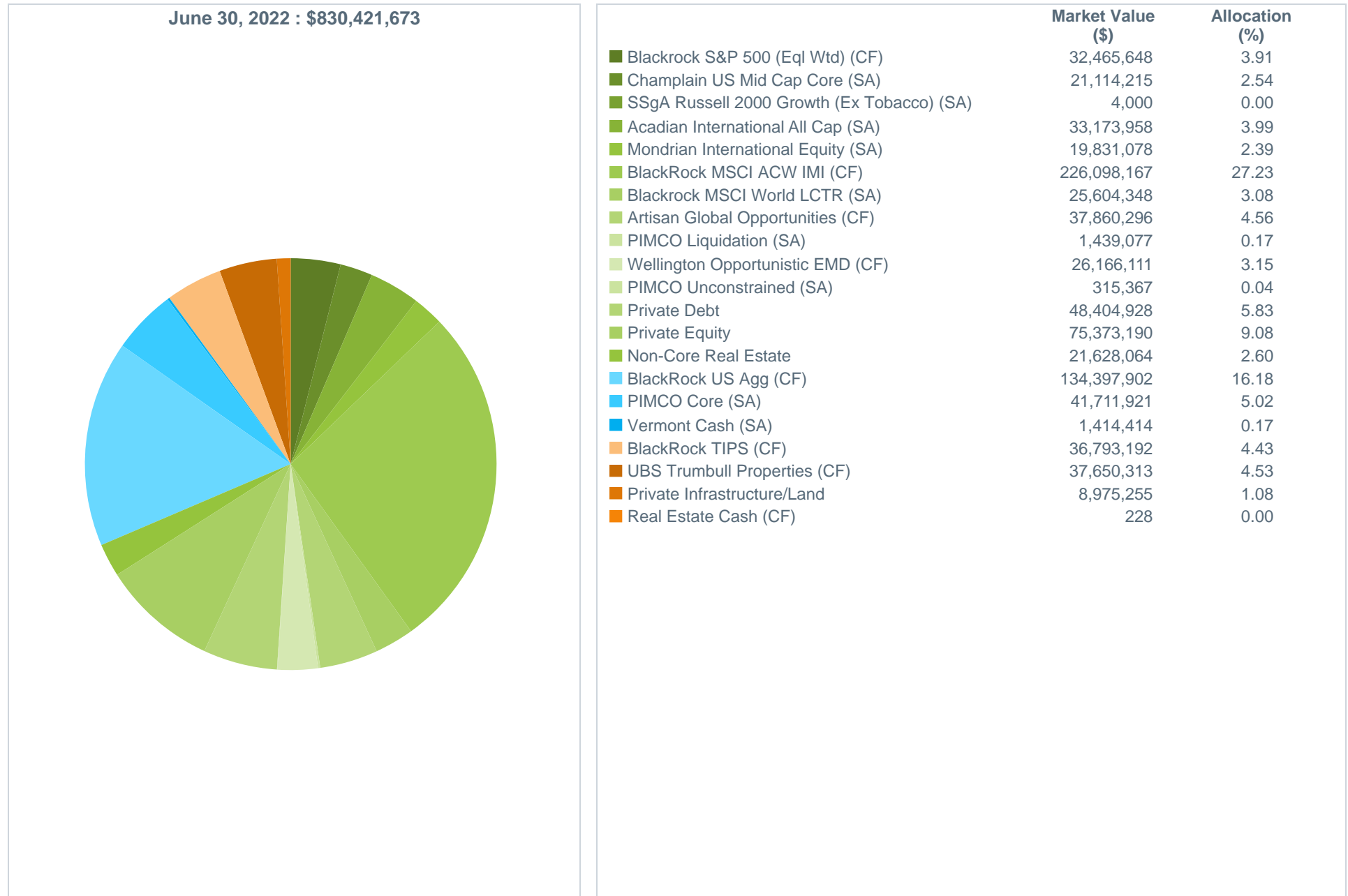


# VMERS



Vermont Municipal Employees' Retirement System  
Asset Allocation By Manager

As of June 30, 2022



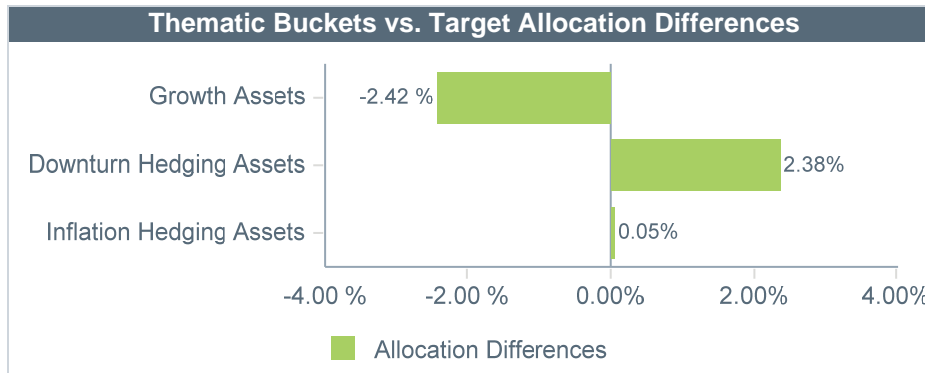
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation. During 06/2022, Accel-KKR GCP IV LP was funded.



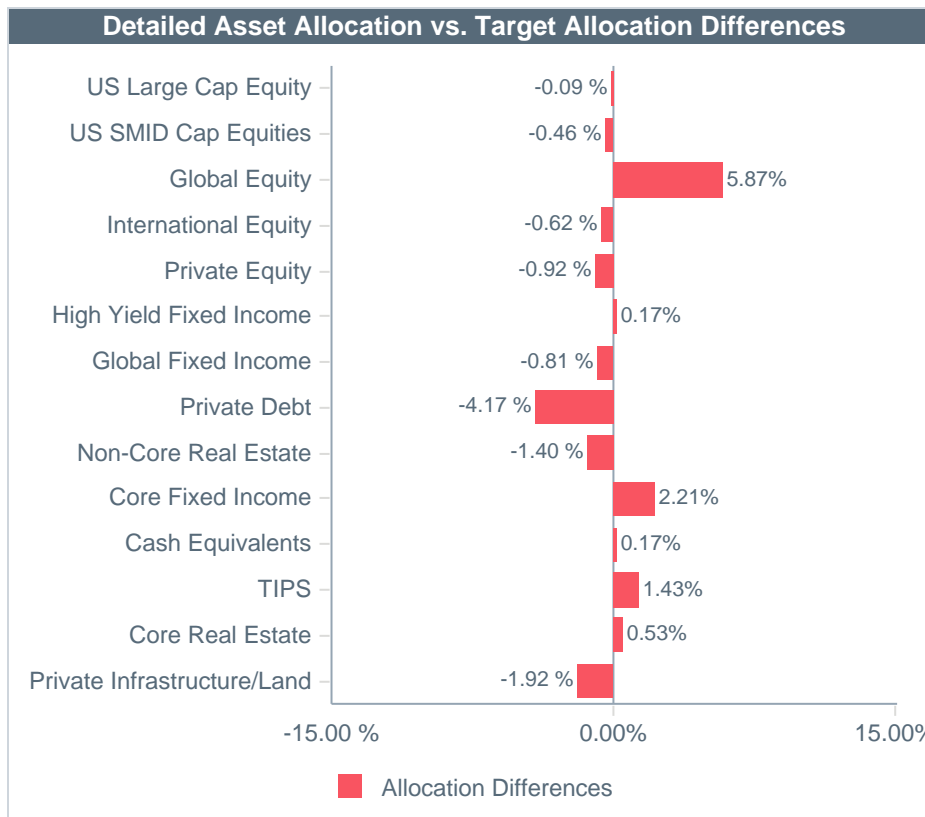
Vermont Municipal Employees' Retirement System  
 Total Fund  
 Asset Allocation vs. Target Allocation

As of June 30, 2022

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	569,478,447	68.58	71.00
Downturn Hedging Assets	177,524,237	21.38	19.00
Inflation Hedging Assets	83,418,989	10.05	10.00
<b>Total Fund</b>	<b>830,421,673</b>	<b>100.00</b>	<b>100.00</b>



Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	32,465,648	3.91	4.00
US SMID Cap Equities	21,118,215	2.54	3.00
Global Equity	289,562,811	34.87	29.00
International Equity	53,005,036	6.38	7.00
Private Equity	75,373,190	9.08	10.00
High Yield Fixed Income	1,439,077	0.17	0.00
Global Fixed Income	26,481,478	3.19	4.00
Private Debt	48,404,928	5.83	10.00
Non-Core Real Estate	21,628,064	2.60	4.00
Core Fixed Income	176,109,823	21.21	19.00
Cash Equivalents	1,414,414	0.17	0.00
TIPS	36,793,192	4.43	3.00
Core Real Estate	37,650,541	4.53	4.00
Private Infrastructure/Land	8,975,255	1.08	3.00
<b>Total Fund</b>	<b>830,421,673</b>	<b>100.00</b>	<b>100.00</b>

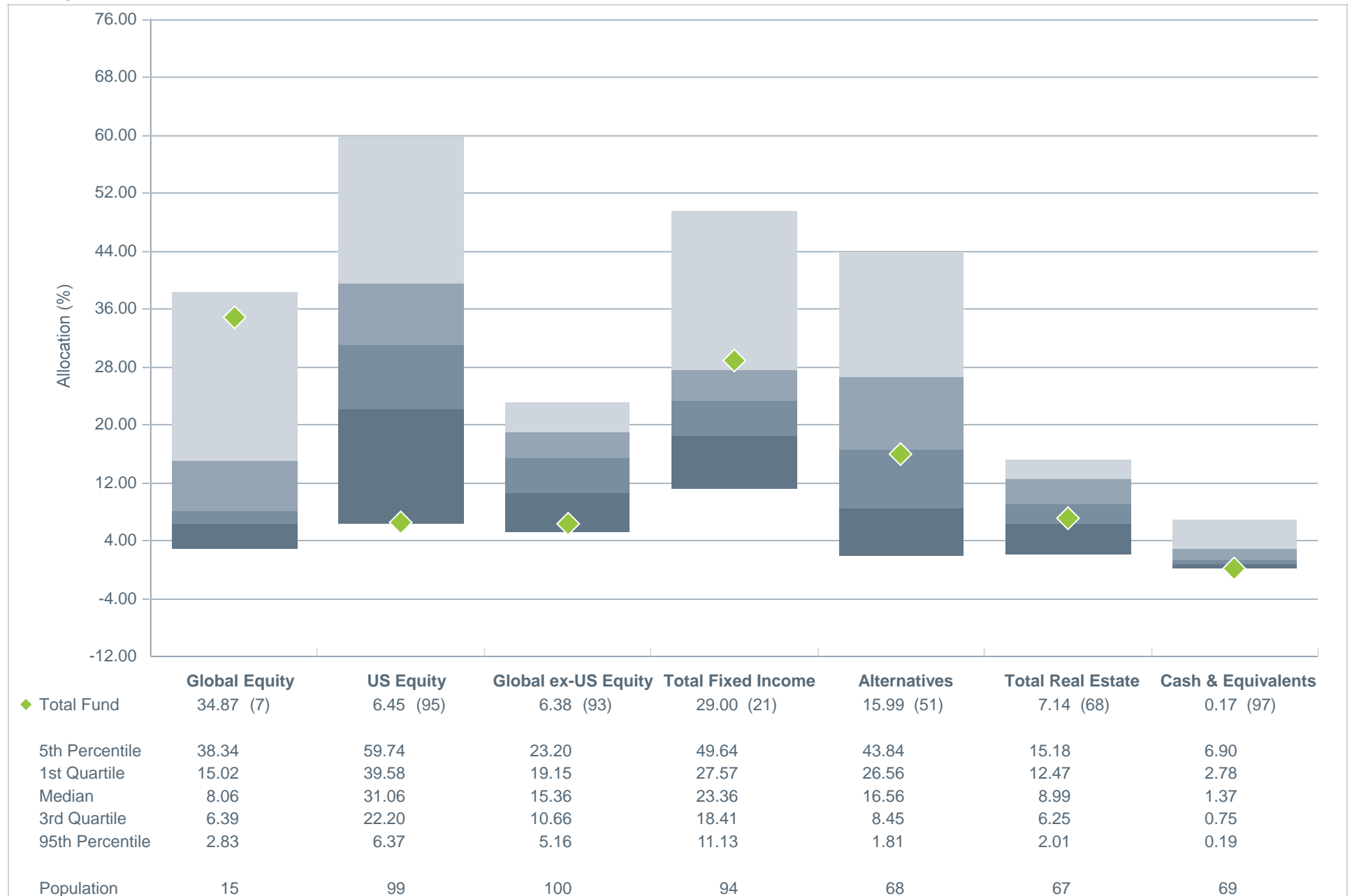


Allocations shown may not sum up to 100% exactly due to rounding.



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

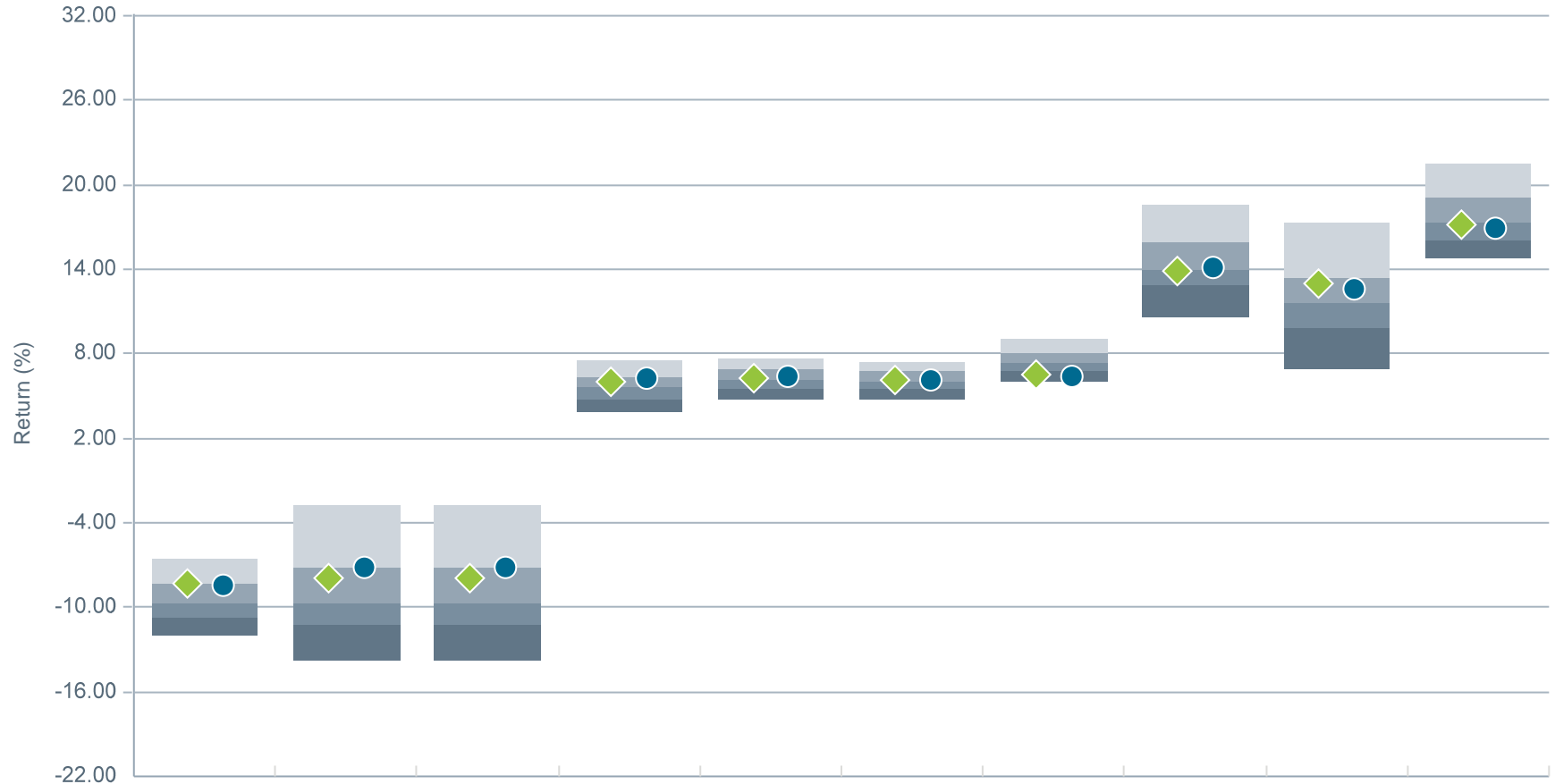
As of June 30, 2022



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

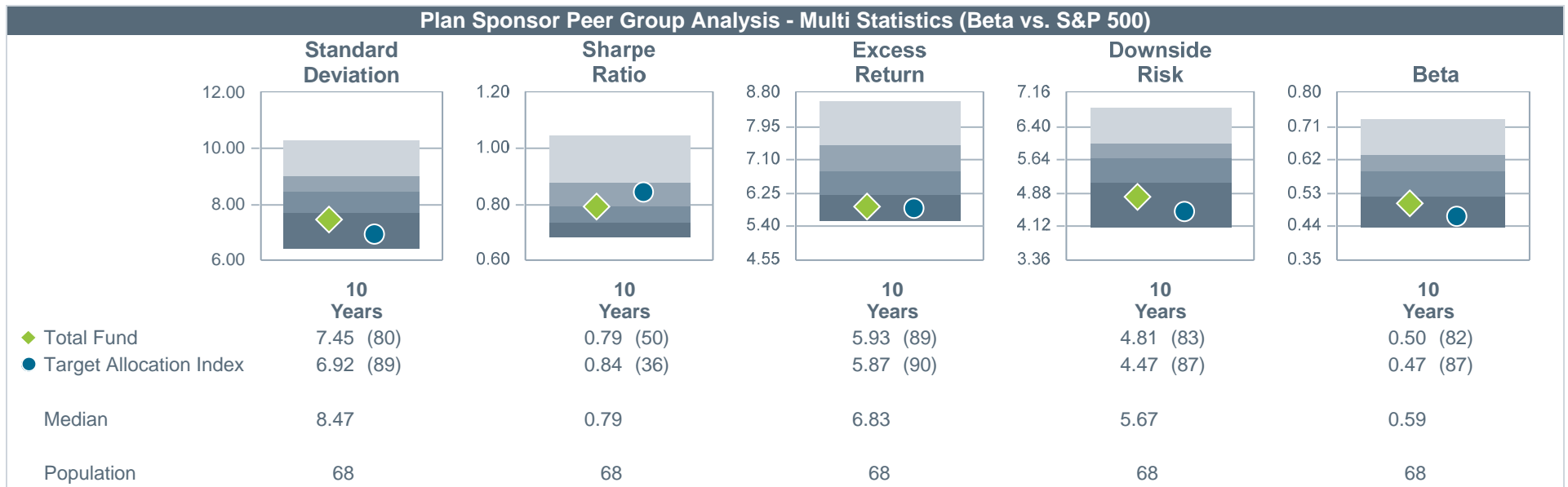
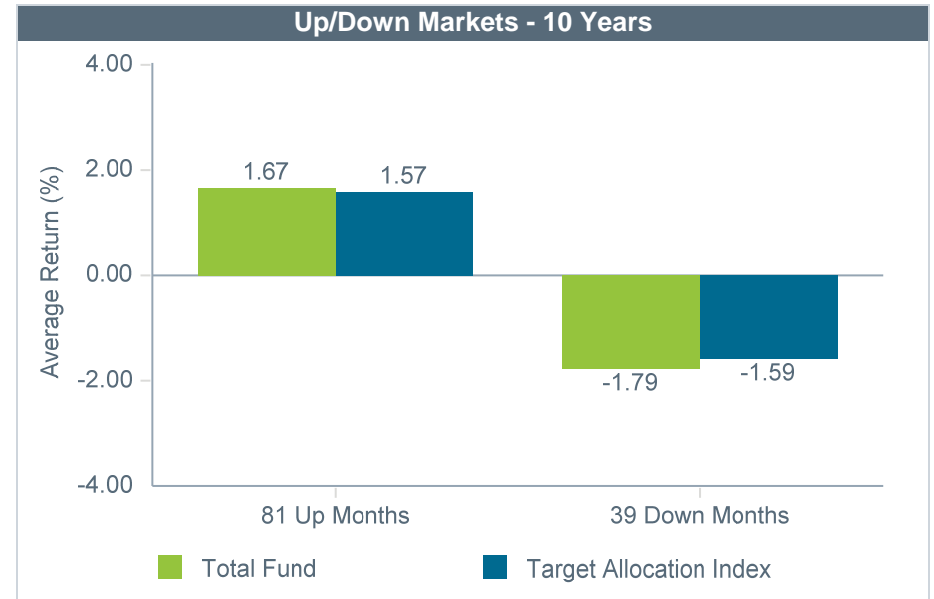
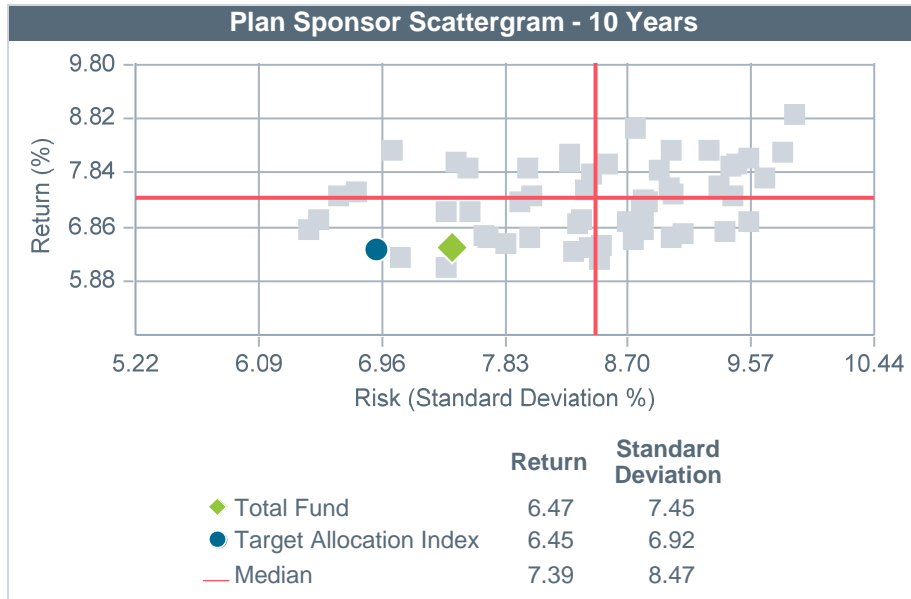
Vermont Municipal Employees' Retirement System  
 All Public Plans (\$500M to \$5B) (Custom PG)  
 Plan Sponsor Peer Group Analysis

As of June 30, 2022



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
◆ Total Fund	-8.36 (27)	-7.88 (30)	-7.88 (30)	5.97 (36)	6.30 (43)	6.17 (44)	6.47 (88)	13.83 (56)	12.95 (36)	17.19 (57)
● Target Allocation Index	-8.42 (27)	-7.12 (25)	-7.12 (25)	6.21 (34)	6.40 (36)	6.20 (43)	6.45 (88)	14.09 (46)	12.60 (41)	16.91 (63)
5th Percentile	-6.56	-2.77	-2.77	7.50	7.72	7.39	9.04	18.51	17.26	21.47
1st Quartile	-8.25	-7.21	-7.21	6.38	6.84	6.74	8.01	15.92	13.37	19.08
Median	-9.75	-9.69	-9.69	5.68	6.14	5.97	7.39	13.99	11.54	17.35
3rd Quartile	-10.69	-11.25	-11.25	4.77	5.45	5.50	6.74	12.92	9.77	16.09
95th Percentile	-12.05	-13.79	-13.79	3.92	4.74	4.78	6.03	10.58	6.85	14.78
Population	77	77	77	75	73	70	68	148	165	160

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 June 30, 2022

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>830,421,673</b>	<b>100.00</b>	<b>-8.36</b>	<b>-7.88</b>	<b>-7.88</b>	<b>5.97</b>	<b>6.30</b>	<b>6.47</b>	<b>4.91</b>	<b>13.83</b>	<b>5.88</b>	<b>07/01/2005</b>
Target Allocation Index			-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference			0.06	-0.76	-0.76	-0.24	-0.10	0.02	-0.10	-0.26	-0.01	
Actual Allocation Index			-9.48	-9.29	-9.29	4.91	5.51	6.05	4.73	13.22	5.62	
Difference			1.12	1.41	1.41	1.06	0.79	0.42	0.18	0.61	0.26	
<b>Growth Assets</b>	<b>569,478,447</b>	<b>68.58</b>	<b>-10.57</b>	<b>-9.04</b>	<b>-9.04</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.21</b>	<b>7.98</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	2.94	
Difference			5.16	7.48	7.48	-	-	-	-	1.99	5.04	
<b>Downturn Hedging Assets</b>	<b>177,524,237</b>	<b>21.38</b>	<b>-4.68</b>	<b>-10.21</b>	<b>-10.21</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.63</b>	<b>-6.13</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference			0.01	0.08	0.08	-	-	-	-	-0.08	0.14	
<b>Inflation Hedging Assets</b>	<b>83,418,989</b>	<b>10.05</b>	<b>0.51</b>	<b>6.73</b>	<b>6.73</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.37</b>	<b>4.06</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			3.70	11.79	11.79	7.60	6.48	5.15	4.93	9.71	10.09	
Difference			-3.19	-5.06	-5.06	-	-	-	-	-3.34	-6.03	

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 June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>830,421,673</b>	<b>100.00</b>	<b>100.00</b>	<b>-8.36</b>	<b>-7.88</b>	<b>-7.88</b>	<b>5.97</b>	<b>6.30</b>	<b>6.47</b>	<b>4.91</b>	<b>13.83</b>	<b>5.88</b>	<b>07/01/2005</b>
Target Allocation Index				-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference				0.06	-0.76	-0.76	-0.24	-0.10	0.02	-0.10	-0.26	-0.01	
Actual Allocation Index				-9.48	-9.29	-9.29	4.91	5.51	6.05	4.73	13.22	5.62	
Difference				1.12	1.41	1.41	1.06	0.79	0.42	0.18	0.61	0.26	
All Public Plans (\$500M to \$5B)				-9.75	-9.69	-9.69	5.68	6.14	7.39	5.50	13.99	6.17	
Rank				27	30	30	36	43	88	78	56	68	
<b>Domestic Equity</b>	<b>53,583,863</b>	<b>6.45</b>	<b>7.00</b>	<b>-16.04</b>	<b>-14.98</b>	<b>-14.98</b>	<b>8.13</b>	<b>9.01</b>	<b>11.85</b>	<b>-</b>	<b>25.34</b>	<b>11.09</b>	<b>01/01/2011</b>
Russell 3000 Index				-16.70	-13.87	-13.87	9.77	10.60	12.57	8.36	25.66	11.81	
Difference				0.66	-1.11	-1.11	-1.64	-1.59	-0.72	-	-0.32	-0.72	
<b>US Large Cap Equity</b>	<b>32,465,648</b>	<b>3.91</b>	<b>4.00</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>9.51</b>	<b>12.18</b>	<b>8.33</b>	<b>29.44</b>	<b>9.32</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				-16.10	-10.62	-10.62	10.60	11.31	12.96	8.54	28.71	9.22	
Difference				1.71	1.13	1.13	-0.88	-1.80	-0.78	-0.21	0.73	0.10	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>32,465,648</b>	<b>3.91</b>	<b>-</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>29.44</b>	<b>9.72</b>	<b>07/01/2019</b>
S&P 500 Index (Eq Wtd)				-14.36	-9.38	-9.38	9.73	9.87	12.66	8.85	29.63	9.73	
Difference				-0.03	-0.11	-0.11	-0.01	-	-	-	-0.19	-0.01	
IM U.S. Large Cap Equity (MF) Median				-16.48	-13.69	-13.69	8.96	10.40	12.03	8.08	25.28	8.96	
Rank				32	28	28	36	-	-	-	12	36	
<b>US SMID Cap Equities</b>	<b>21,118,215</b>	<b>2.54</b>	<b>3.00</b>	<b>-18.45</b>	<b>-22.21</b>	<b>-22.21</b>	<b>5.65</b>	<b>8.35</b>	<b>11.43</b>	<b>8.27</b>	<b>19.93</b>	<b>8.78</b>	<b>07/01/2005</b>
Russell 2500 Index				-16.98	-21.00	-21.00	5.91	7.04	10.49	7.29	18.18	8.29	
Difference				-1.47	-1.21	-1.21	-0.26	1.31	0.94	0.98	1.75	0.49	
<b>Champlain US Mid Cap Core (SA)</b>	<b>21,114,215</b>	<b>2.54</b>	<b>-</b>	<b>-18.45</b>	<b>-22.22</b>	<b>-22.22</b>	<b>5.64</b>	<b>8.59</b>	<b>12.22</b>	<b>-</b>	<b>19.93</b>	<b>12.56</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				-17.01	-21.30	-21.30	5.80	6.55	10.34	7.20	18.74	10.95	
Difference				-1.44	-0.92	-0.92	-0.16	2.04	1.88	-	1.19	1.61	
IM U.S. SMID Cap Equity (MF) Median				-16.02	-17.56	-17.56	5.46	6.80	10.17	7.20	20.18	10.75	
Rank				72	61	61	49	25	6	-	51	8	
<b>Global Equity</b>	<b>289,562,811</b>	<b>34.87</b>	<b>29.00</b>	<b>-16.38</b>	<b>-17.51</b>	<b>-17.51</b>	<b>6.71</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.24</b>	<b>2.66</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	3.80	
Difference				-0.55	-0.99	-0.99	0.73	-	-	-	0.02	-1.14	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>226,098,167</b>	<b>27.23</b>	<b>-</b>	<b>-15.75</b>	<b>-16.23</b>	<b>-16.23</b>	<b>6.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.73</b>	<b>6.41</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	5.98	
Difference				0.08	0.29	0.29	0.43	-	-	-	0.51	0.43	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	4.98	
Rank				55	47	47	33	-	-	-	32	33	
<b>Blackrock MSCI World LCTR (SA)</b>	<b>25,604,348</b>	<b>3.08</b>	<b>-</b>	<b>-16.15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-18.00</b>	<b>09/01/2021</b>
MSCI Wrld Index (USD) (Net)				-16.19	-14.34	-14.34	7.00	7.67	9.51	5.19	21.82	-17.89	
Difference				0.04	-	-	-	-	-	-	-	-0.11	
IM Global Equity (MF) Median				-15.02	-16.66	-16.66	6.14	7.29	9.84	6.29	17.93	-19.22	
Rank				60	-	-	-	-	-	-	-	45	
<b>Artisan Global Opportunities (CF)</b>	<b>37,860,296</b>	<b>4.56</b>	<b>-</b>	<b>-20.65</b>	<b>-26.72</b>	<b>-26.72</b>	<b>6.62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14.17</b>	<b>7.05</b>	<b>07/01/2018</b>
MSCI ACW Index (USD) (Net)				-15.66	-15.75	-15.75	6.21	7.00	8.76	4.80	18.54	6.09	
Difference				-4.99	-10.97	-10.97	0.41	-	-	-	-4.37	0.96	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	5.27	
Rank				86	79	79	31	-	-	-	65	25	
<b>International Equity</b>	<b>53,005,036</b>	<b>6.38</b>	<b>7.00</b>	<b>-12.97</b>	<b>-15.81</b>	<b>-15.81</b>	<b>2.48</b>	<b>2.59</b>	<b>5.19</b>	<b>-</b>	<b>14.44</b>	<b>3.98</b>	<b>01/01/2011</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	3.77	
Difference				1.54	1.96	1.96	1.41	0.39	-0.21	-	3.18	0.21	
<b>Acadian International All Cap (SA)</b>	<b>33,173,958</b>	<b>3.99</b>	<b>-</b>	<b>-14.88</b>	<b>-18.03</b>	<b>-18.03</b>	<b>3.74</b>	<b>3.24</b>	<b>8.04</b>	<b>2.20</b>	<b>15.96</b>	<b>5.07</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				-15.00	-18.75	-18.75	1.06	2.12	5.61	1.62	11.08	3.96	
Difference				0.12	0.72	0.72	2.68	1.12	2.43	0.58	4.88	1.11	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.61	
Rank				76	46	46	8	18	4	26	8	12	
<b>Mondrian International Equity (SA)</b>	<b>19,831,078</b>	<b>2.39</b>	<b>-</b>	<b>-9.58</b>	<b>-11.80</b>	<b>-11.80</b>	<b>0.97</b>	<b>1.81</b>	<b>5.07</b>	<b>1.64</b>	<b>11.71</b>	<b>4.30</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	4.11	
Difference				4.93	5.97	5.97	-0.10	-0.39	-0.33	0.22	0.45	0.19	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.96	
Rank				6	10	10	62	54	50	41	35	38	
<b>Fixed Income</b>	<b>204,030,379</b>	<b>24.57</b>	<b>23.00</b>	<b>-5.43</b>	<b>-11.20</b>	<b>-11.20</b>	<b>-1.03</b>	<b>0.86</b>	<b>2.15</b>	<b>-</b>	<b>-1.80</b>	<b>2.95</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	2.22	
Difference				-0.74	-0.91	-0.91	-0.09	-0.02	0.61	-	-0.25	0.73	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>176,109,823</b>	<b>21.21</b>	<b>20.00</b>	<b>-4.69</b>	<b>-10.27</b>	<b>-10.27</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.64</b>	<b>-6.17</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				0.00	0.02	0.02	-	-	-	-	-0.09	0.10	
<b>BlackRock US Agg (CF)</b>	<b>134,397,902</b>	<b>16.18</b>	<b>-</b>	<b>-4.69</b>	<b>-10.25</b>	<b>-10.25</b>	<b>-0.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.62</b>	<b>-0.61</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-0.51	
Difference				0.00	0.04	0.04	0.02	-	-	-	-0.07	-0.10	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-0.50	
Rank				15	17	17	49	-	-	-	63	59	
<b>PIMCO Core (SA)</b>	<b>41,711,921</b>	<b>5.02</b>	<b>-</b>	<b>-4.71</b>	<b>-10.35</b>	<b>-10.35</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.68</b>	<b>-5.90</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				-0.02	-0.06	-0.06	-	-	-	-	-0.13	0.37	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-6.27	
Rank				17	20	20	-	-	-	-	67	32	
<b>Emerging Markets Debt</b>	<b>26,166,111</b>	<b>3.15</b>	<b>4.00</b>	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-3.32</b>	<b>-10.67</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	-9.70	
Difference				-0.46	-1.68	-1.68	-	-	-	-	-1.81	-0.97	
<b>Wellington Opportunistic EMD (CF)</b>	<b>26,166,111</b>	<b>3.15</b>	<b>-</b>	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	<b>-4.54</b>	<b>-1.11</b>	<b>2.33</b>	<b>-</b>	<b>-3.32</b>	<b>4.02</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	3.83	
Difference				-0.46	-1.68	-1.68	-0.21	-0.11	0.28	-	-1.81	0.19	
IM Emerging Markets Debt (MF) Median				-11.25	-20.13	-20.13	-4.85	-1.32	1.11	3.22	-2.97	2.73	
Rank				46	65	65	45	45	11	-	60	5	
<b>High Yield Fixed Income</b>	<b>1,439,077</b>	<b>0.17</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	6.07	
Difference				-	-	-	-	-	-	-	-	-	
<b>PIMCO Liquidation (SA)</b>	<b>1,439,077</b>	<b>0.17</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	1.74	
Difference				-	-	-	-	-	-	-	-	-	
IM U.S. High Yield Bonds (MF) Median				-9.83	-12.48	-12.48	-0.26	1.49	3.63	4.58	4.93	1.16	
Rank				-	-	-	-	-	-	-	-	-	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Private Debt</b>	<b>48,404,928</b>	<b>5.83</b>	<b>10.00</b>	<b>1.84</b>	<b>13.99</b>	<b>13.99</b>	<b>8.58</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.12</b>	<b>7.97</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				-3.88	-0.73	-0.73	3.20	3.59	4.08	4.19	7.51	3.50	
Difference				5.72	14.72	14.72	5.38	-	-	-	10.61	4.47	
<b>Private Equity</b>	<b>75,373,190</b>	<b>9.08</b>	<b>10.00</b>	<b>10.19</b>	<b>39.49</b>	<b>39.49</b>	<b>31.57</b>	<b>27.33</b>	<b>-</b>	<b>-</b>	<b>58.59</b>	<b>21.84</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	12.82	12.82	21.72	18.85	16.16	12.50	40.41	16.17	
Difference				10.19	26.67	26.67	9.85	8.48	-	-	18.18	5.67	
<b>Non-Core Real Estate</b>	<b>21,628,064</b>	<b>2.60</b>	<b>3.00</b>	<b>10.08</b>	<b>24.31</b>	<b>24.31</b>	<b>10.69</b>	<b>11.19</b>	<b>-</b>	<b>-</b>	<b>17.44</b>	<b>10.98</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				5.05	30.82	30.82	13.45	10.76	10.62	7.85	23.40	10.77	
Difference				5.03	-6.51	-6.51	-2.76	0.43	-	-	-5.96	0.21	
<b>Inflation Hedging Assets (Spliced)</b>	<b>83,418,989</b>	<b>10.05</b>	<b>10.00</b>	<b>0.51</b>	<b>6.73</b>	<b>6.73</b>	<b>1.73</b>	<b>3.01</b>	<b>6.81</b>	<b>-</b>	<b>6.37</b>	<b>8.10</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				3.70	11.79	11.79	6.99	6.94	8.70	6.59	9.71	9.27	
Difference				-3.19	-5.06	-5.06	-5.26	-3.93	-1.89	-	-3.34	-1.17	
<b>TIPS</b>	<b>36,793,192</b>	<b>4.43</b>	<b>2.00</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.81</b>	<b>-1.32</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	-1.26	
Difference				-0.05	-0.09	-0.09	-	-	-	-	-0.15	-0.06	
<b>BlackRock TIPS (CF)</b>	<b>36,793,192</b>	<b>4.43</b>	<b>-</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>2.98</b>	<b>3.14</b>	<b>1.65</b>	<b>-</b>	<b>5.81</b>	<b>2.99</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	3.04	
Difference				-0.05	-0.09	-0.09	-0.06	-0.07	-0.08	-	-0.15	-0.05	
IM U.S. TIPS (MF) Median				-6.09	-5.34	-5.34	2.89	2.87	1.37	3.30	5.26	2.47	
Rank				53	47	47	44	23	20	-	28	9	
<b>Core Real Estate</b>	<b>37,650,541</b>	<b>4.53</b>	<b>5.00</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.29</b>	<b>4.97</b>	<b>7.77</b>	<b>-</b>	<b>8.13</b>	<b>8.94</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	10.56	
Difference				2.73	-5.48	-5.48	-5.37	-4.58	-2.38	-	-12.89	-1.62	
<b>UBS Trumbull Properties (CF)</b>	<b>37,650,313</b>	<b>4.53</b>	<b>-</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.32</b>	<b>4.99</b>	<b>6.53</b>	<b>4.46</b>	<b>8.13</b>	<b>5.83</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	7.28	
Difference				2.73	-5.48	-5.48	-5.34	-4.56	-3.62	-1.55	-12.89	-1.45	
<b>Private Infrastructure/Land</b>	<b>8,975,255</b>	<b>1.08</b>	<b>3.00</b>	<b>3.99</b>	<b>4.92</b>	<b>4.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.70</b>	<b>4.03</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				1.45	9.71	9.71	6.14	6.13	9.47	10.53	7.83	7.64	
Difference				2.54	-4.79	-4.79	-	-	-	-	-2.13	-3.61	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



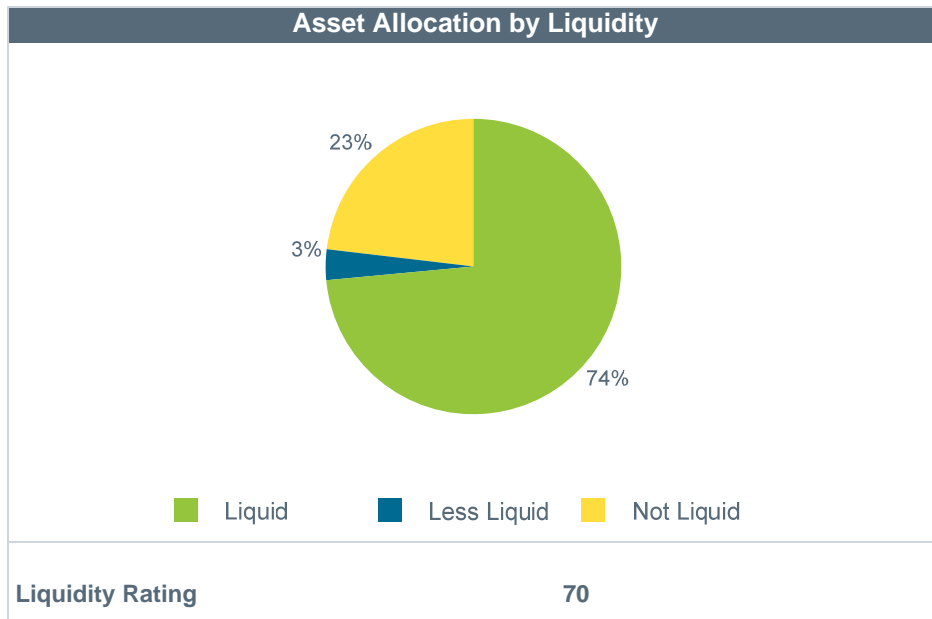
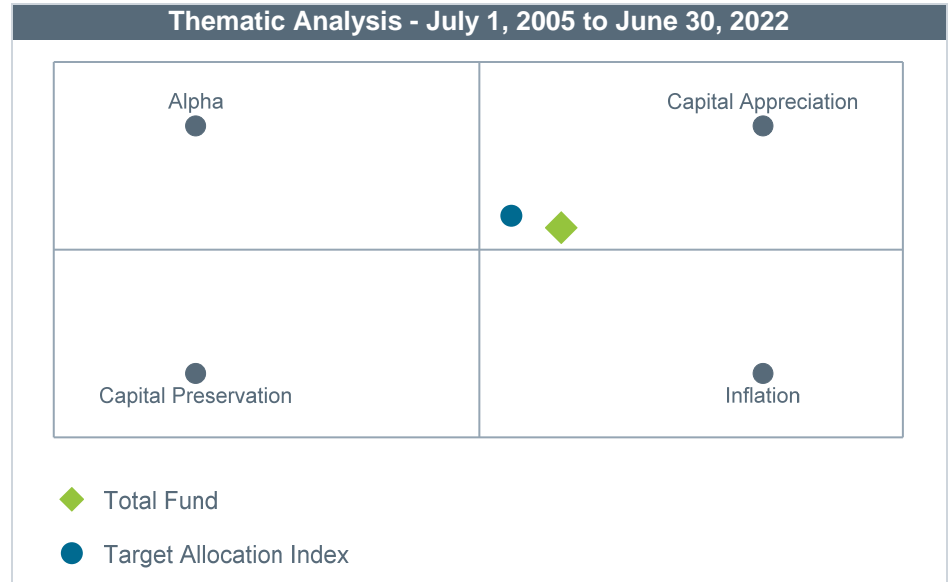
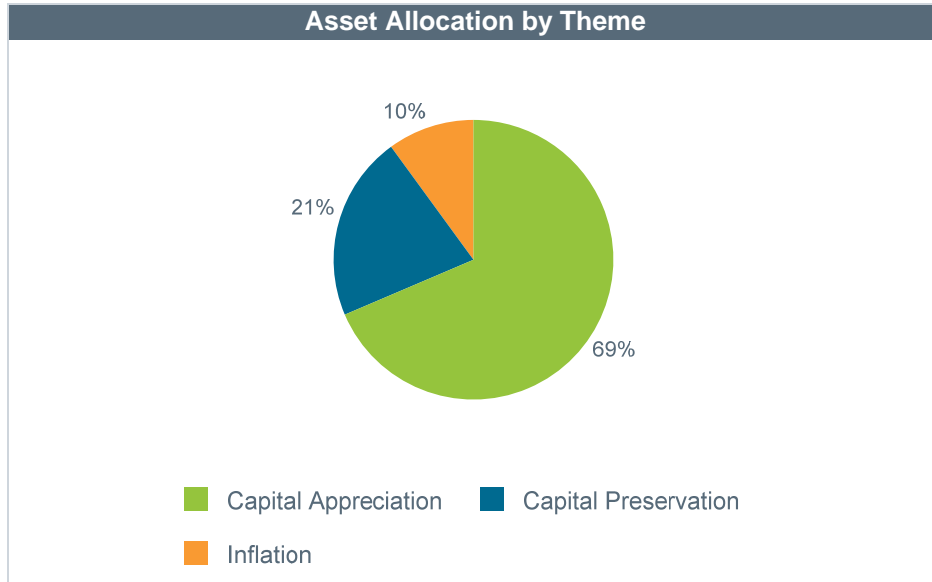
Vermont Municipal Employees' Retirement System  
 Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Cash Equivalents</b>	<b>1,414,414</b>	<b>0.17</b>	<b>0.00</b>	<b>0.12</b>	<b>0.13</b>	<b>0.13</b>	<b>0.41</b>	<b>0.27</b>	<b>0.14</b>	<b>-</b>	<b>-0.06</b>	<b>0.14</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.11	0.17	0.17	0.63	1.11	0.64	0.75	0.05	0.57	
Difference				0.01	-0.04	-0.04	-0.22	-0.84	-0.50	-	-0.11	-0.43	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



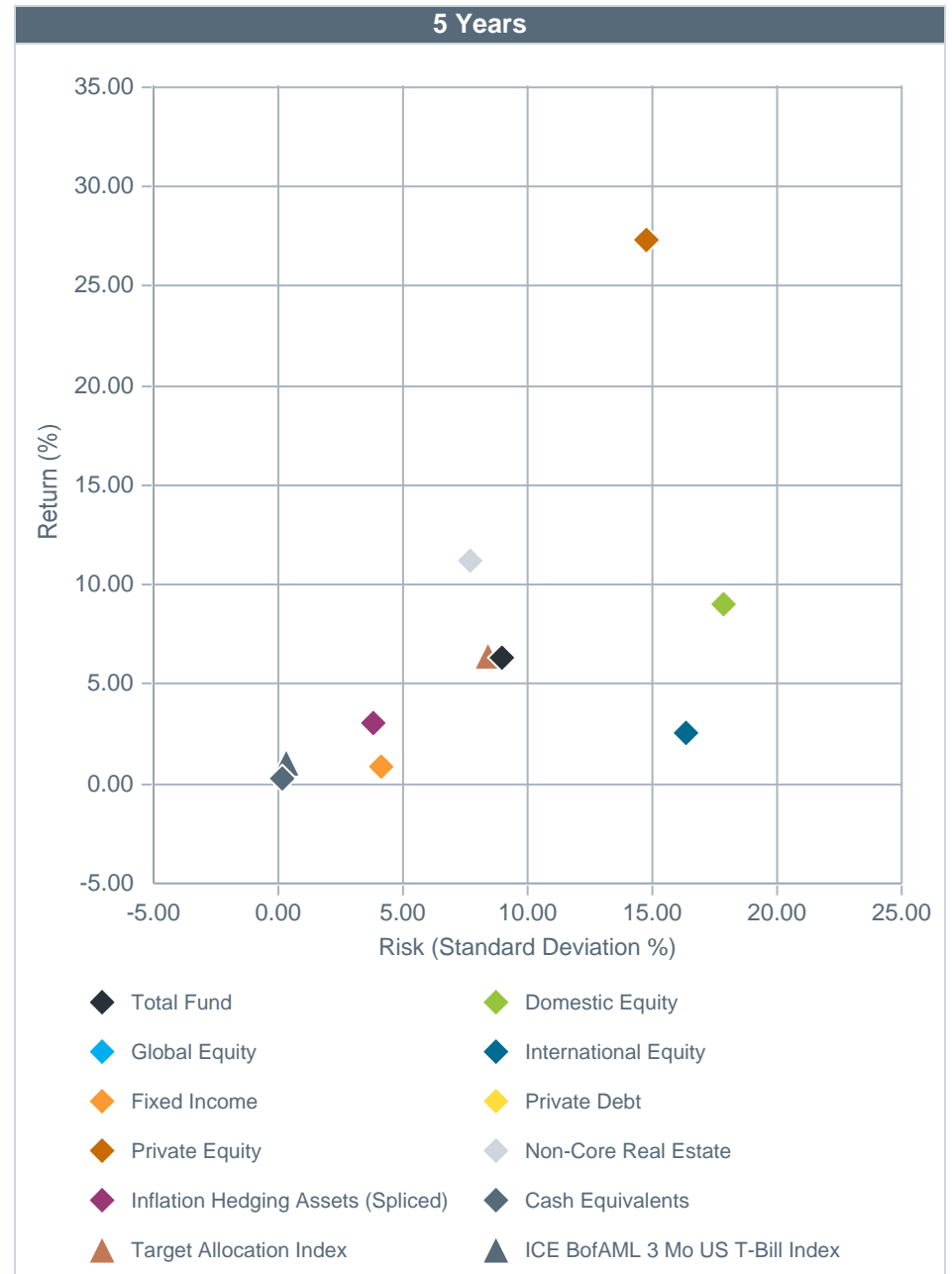
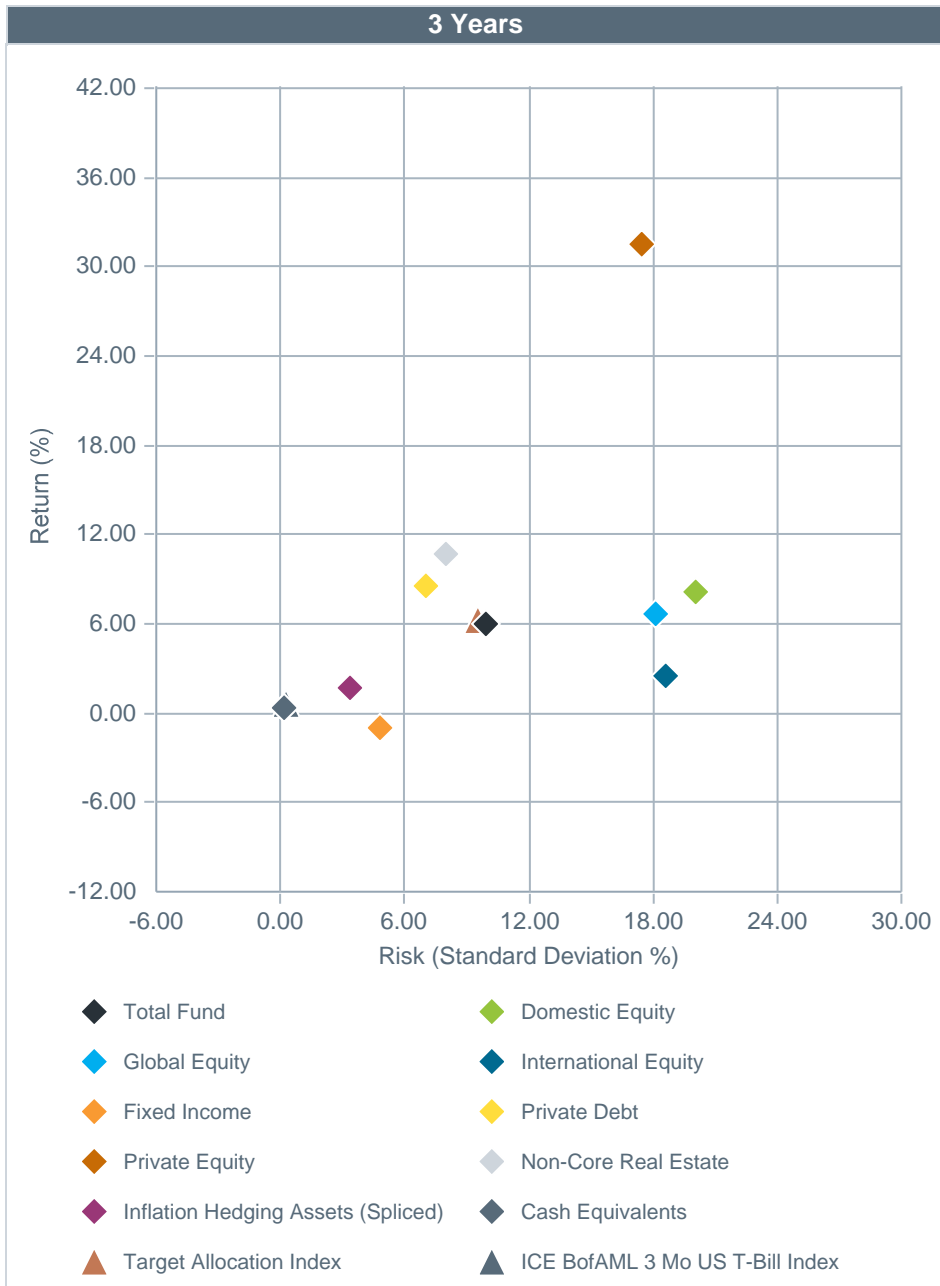


### Correlation Matrix - 10 Years

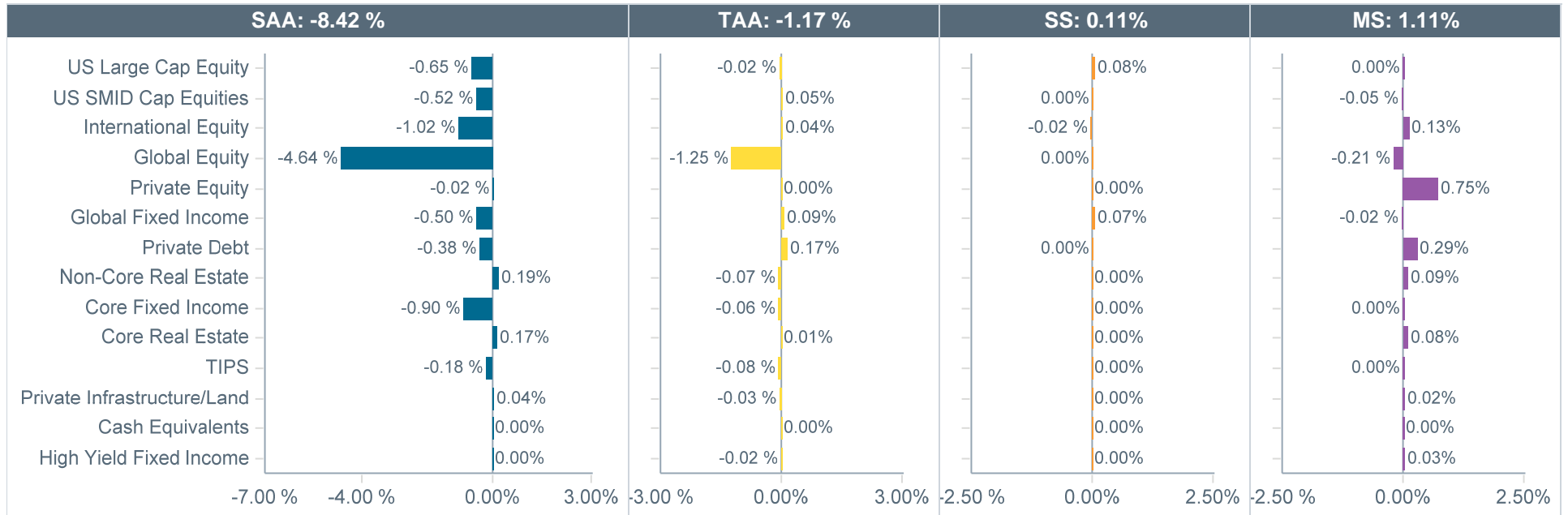
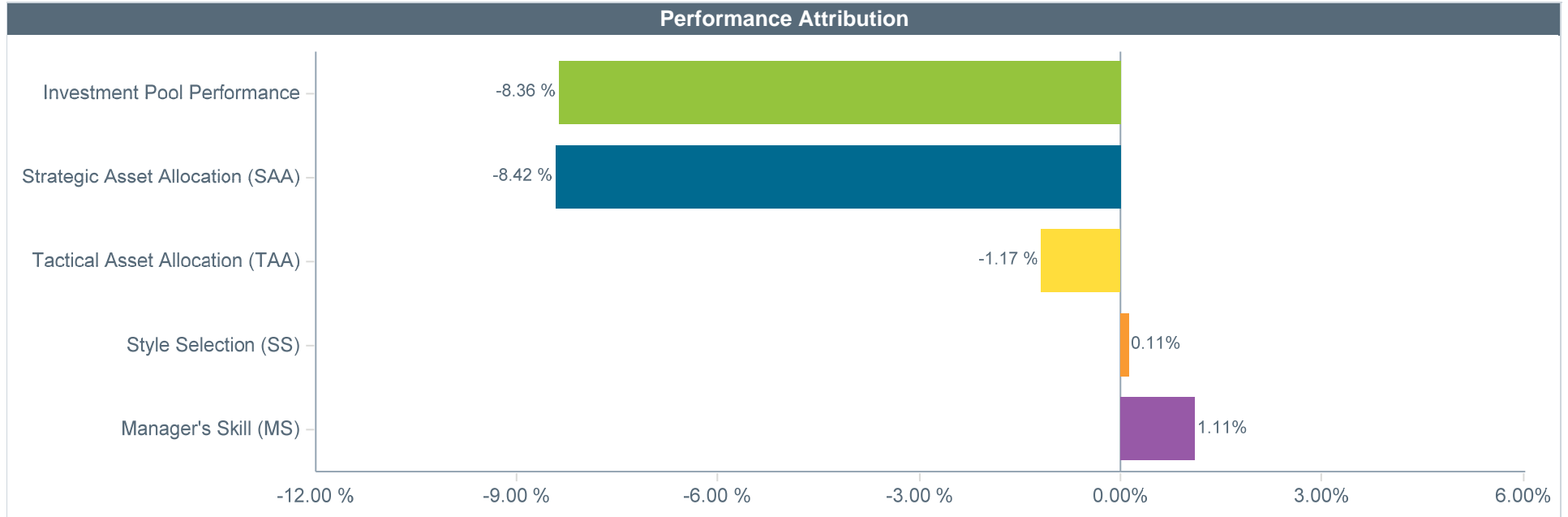
	A	B	C	D
A	1.00			
B	0.60	1.00		
C	-0.14	-0.15	1.00	
D	0.54	0.74	-0.03	1.00

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)

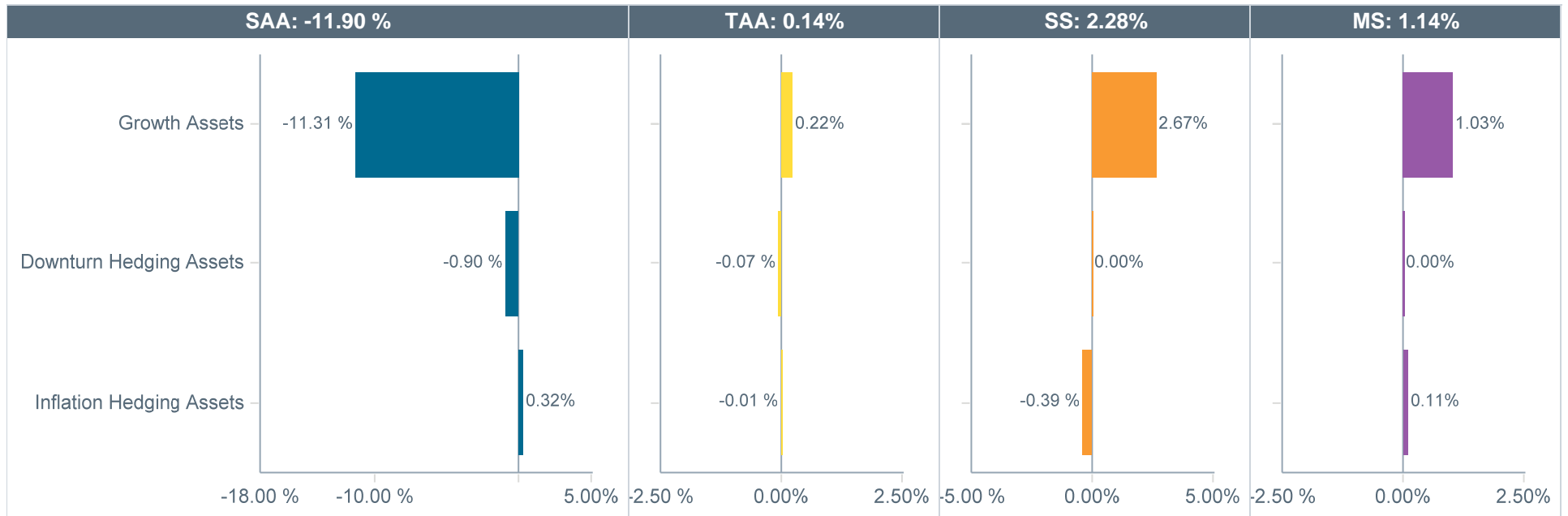
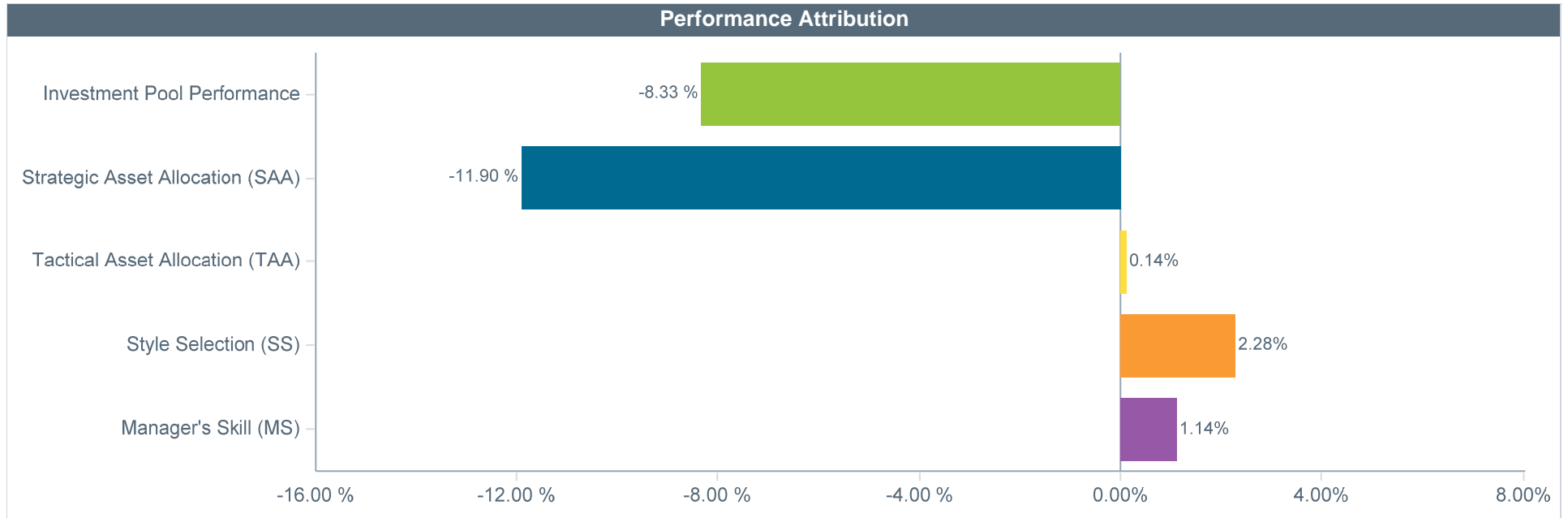
Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional 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.



Performance shown is gross 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.

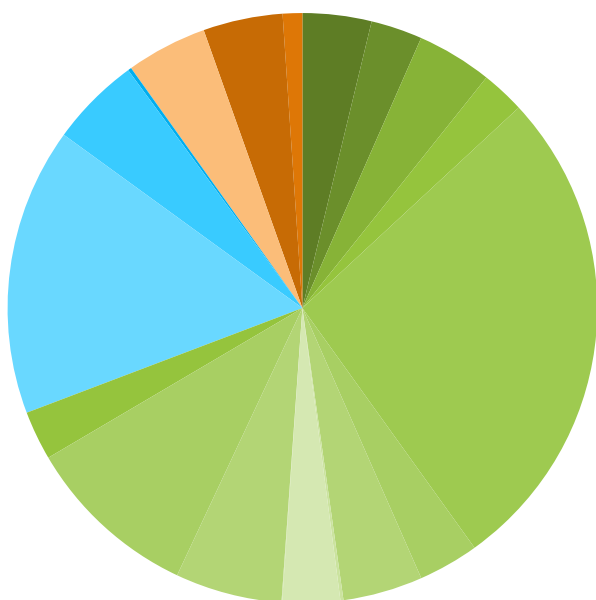




# VSERS



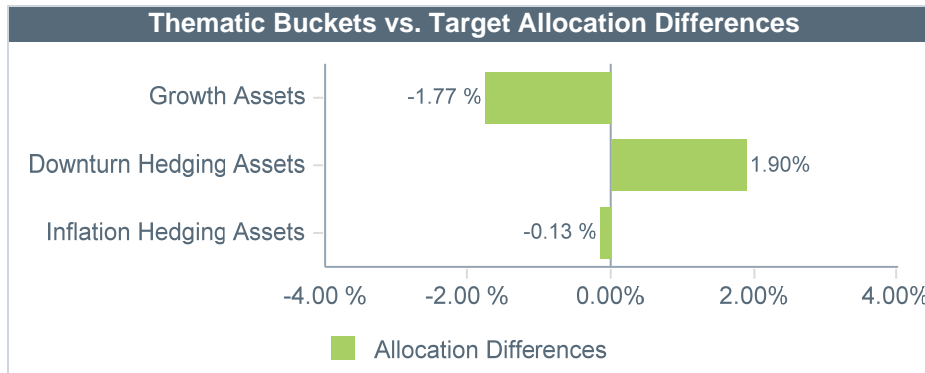
June 30, 2022 : \$2,256,116,209



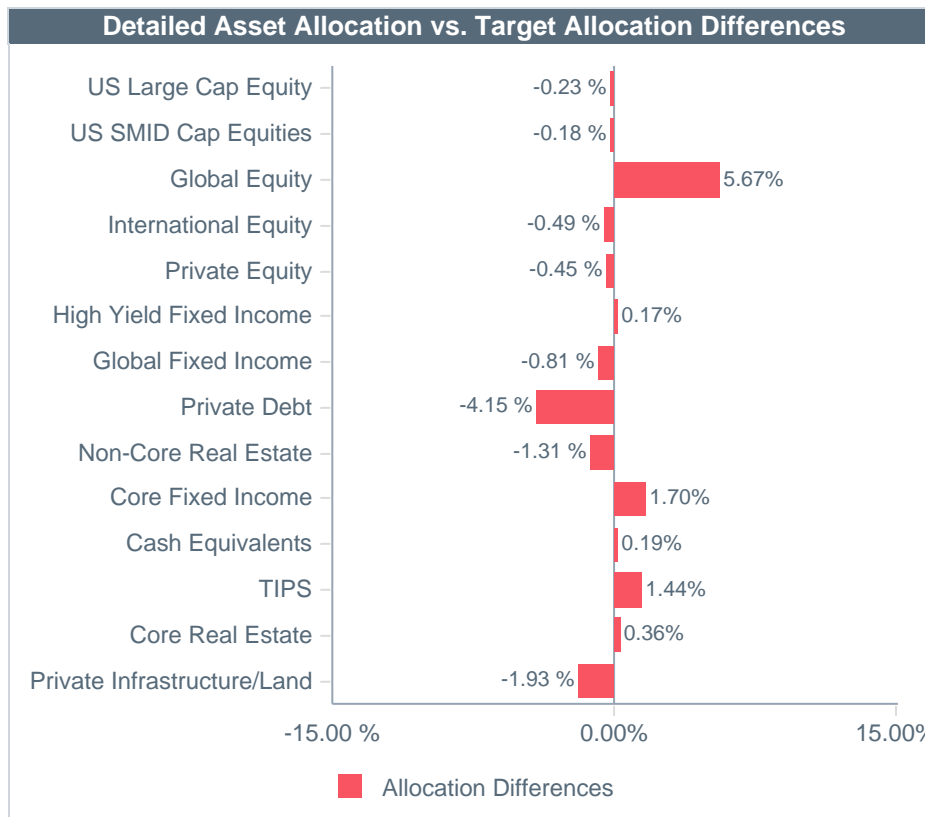
	Market Value (\$)	Allocation (%)
Blackrock S&P 500 (EqI Wtd) (CF)	85,020,757	3.77
Champlain US Mid Cap Core (SA)	63,723,334	2.82
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	6,490	0.00
Acadian International All Cap (SA)	93,041,773	4.12
Mondrian International Equity (SA)	53,826,492	2.39
BlackRock MSCI ACW IMI (CF)	608,586,629	26.97
Blackrock MSCI World LCTR (SA)	74,932,086	3.32
Artisan Global Opportunities (CF)	98,651,814	4.37
PIMCO Liquidation (SA)	3,793,899	0.17
Wellington Opportunistic EMD (CF)	71,316,249	3.16
PIMCO Unconstrained (SA)	706,778	0.03
Private Debt	132,092,257	5.85
Private Equity	215,561,663	9.55
Non-Core Real Estate	60,722,341	2.69
BlackRock US Agg (CF)	355,677,271	15.77
PIMCO Core (SA)	111,443,004	4.94
Vermont Cash (SA)	4,296,087	0.19
BlackRock TIPS (CF)	100,122,397	4.44
UBS Trumbull Properties (CF)	98,404,329	4.36
Private Infrastructure/Land	24,189,964	1.07
Real Estate Cash (CF)	596	0.00

Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation. During 06/2022, Accel-KKR GCP IV LP was funded.

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	1,561,982,562	69.23	71.00
Downturn Hedging Assets	471,416,362	20.90	19.00
Inflation Hedging Assets	222,717,286	9.87	10.00
<b>Total Fund</b>	<b>2,256,116,209</b>	<b>100.00</b>	<b>100.00</b>



Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	85,020,757	3.77	4.00
US SMID Cap Equities	63,729,824	2.82	3.00
Global Equity	782,170,529	34.67	29.00
International Equity	146,868,265	6.51	7.00
Private Equity	215,561,663	9.55	10.00
High Yield Fixed Income	3,793,899	0.17	0.00
Global Fixed Income	72,023,027	3.19	4.00
Private Debt	132,092,257	5.85	10.00
Non-Core Real Estate	60,722,341	2.69	4.00
Core Fixed Income	467,120,275	20.70	19.00
Cash Equivalents	4,296,087	0.19	0.00
TIPS	100,122,397	4.44	3.00
Core Real Estate	98,404,925	4.36	4.00
Private Infrastructure/Land	24,189,964	1.07	3.00
<b>Total Fund</b>	<b>2,256,116,209</b>	<b>100.00</b>	<b>100.00</b>

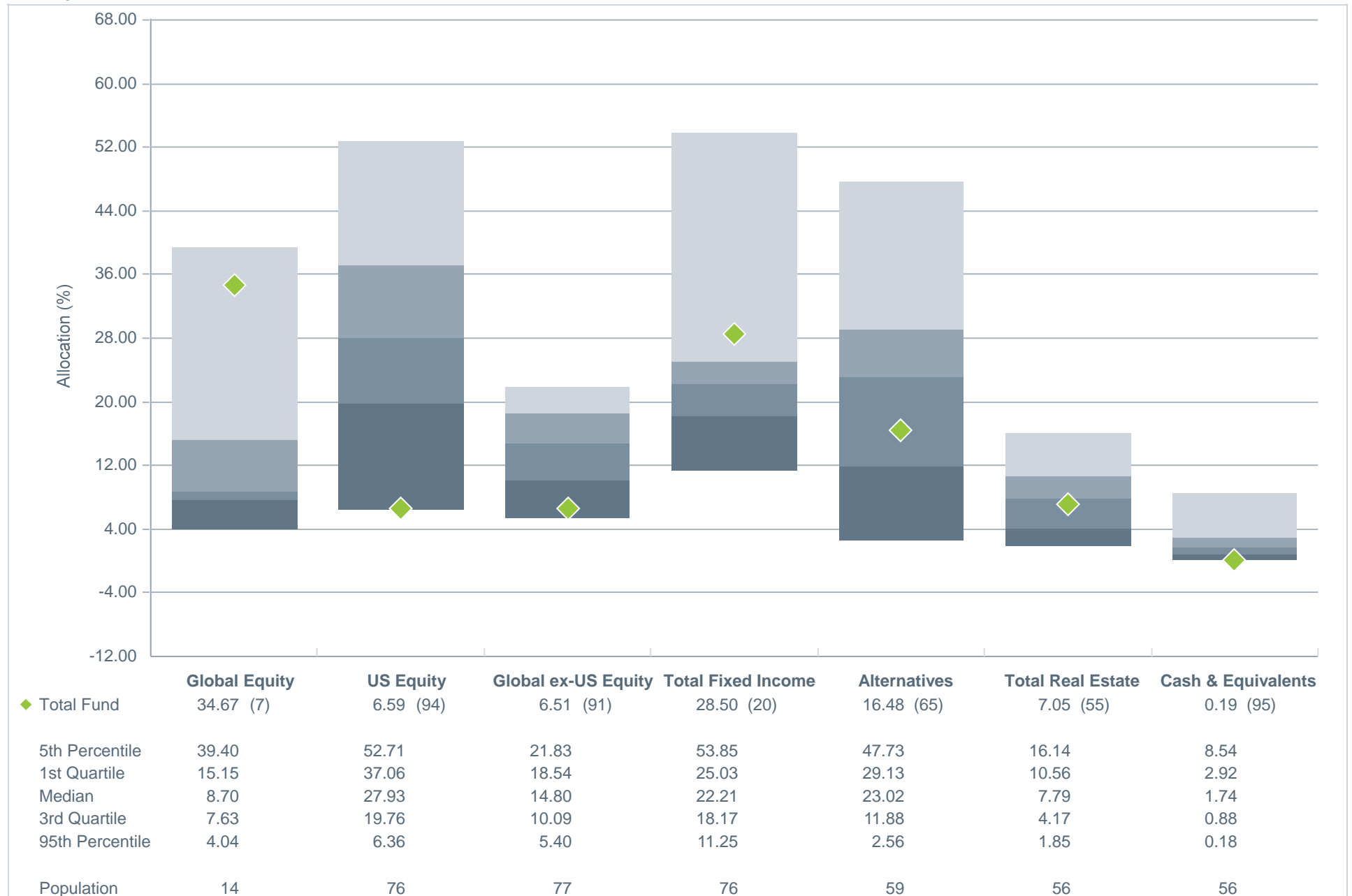


Allocations shown may not sum up to 100% exactly due to rounding.



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

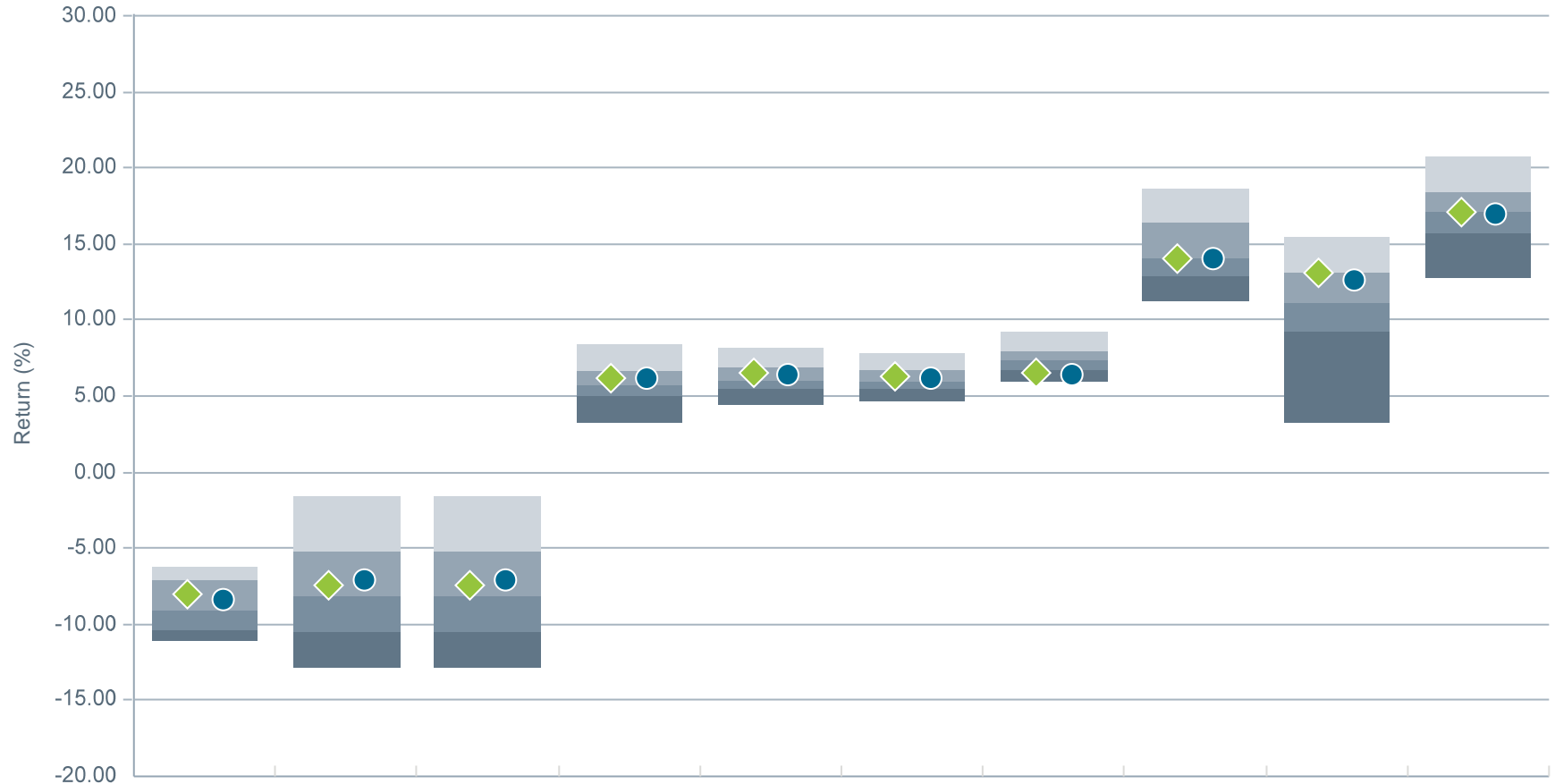
As of June 30, 2022



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

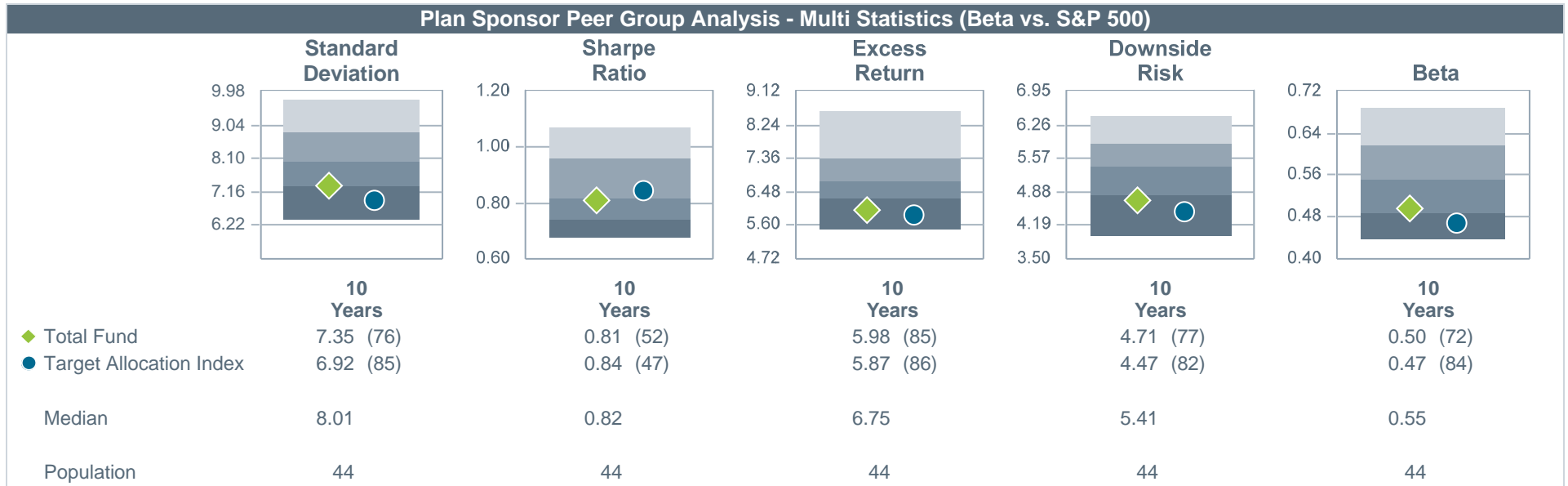
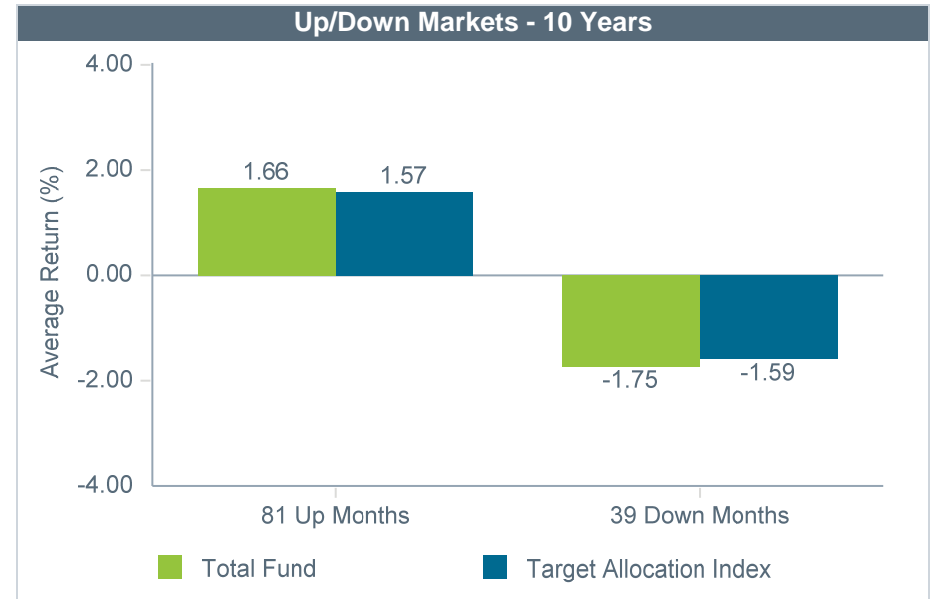
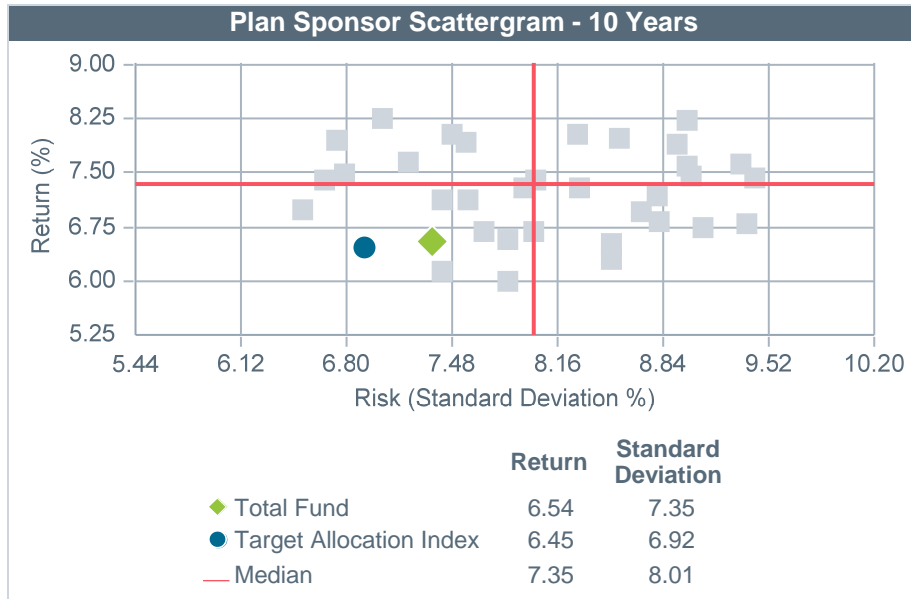
As of June 30, 2022



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
◆ Total Fund	-8.03 (36)	-7.42 (41)	-7.42 (41)	6.22 (40)	6.47 (40)	6.27 (41)	6.54 (83)	14.03 (51)	13.07 (26)	17.08 (50)
● Target Allocation Index	-8.42 (43)	-7.12 (40)	-7.12 (40)	6.21 (40)	6.40 (41)	6.20 (44)	6.45 (85)	14.09 (50)	12.60 (33)	16.91 (52)
5th Percentile	-6.23	-1.59	-1.59	8.46	8.16	7.87	9.24	18.61	15.48	20.74
1st Quartile	-7.08	-5.18	-5.18	6.59	6.88	6.80	7.97	16.37	13.11	18.43
Median	-9.12	-8.18	-8.18	5.74	6.11	5.99	7.35	14.07	11.10	17.07
3rd Quartile	-10.43	-10.51	-10.51	4.99	5.48	5.46	6.74	12.92	9.25	15.74
95th Percentile	-11.05	-12.90	-12.90	3.23	4.45	4.63	5.98	11.20	3.29	12.70
Population	49	49	49	47	47	45	44	96	119	118

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 June 30, 2022

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,256,116,209</b>	<b>100.00</b>	<b>-8.03</b>	<b>-7.42</b>	<b>-7.42</b>	<b>6.22</b>	<b>6.47</b>	<b>6.54</b>	<b>4.92</b>	<b>14.03</b>	<b>5.85</b>	<b>07/01/2005</b>
Target Allocation Index			-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference			0.39	-0.30	-0.30	0.01	0.07	0.09	-0.09	-0.06	-0.04	
Actual Allocation Index			-9.21	-8.95	-8.95	5.13	5.66	6.07	4.68	13.33	5.59	
Difference			1.18	1.53	1.53	1.09	0.81	0.47	0.24	0.70	0.26	
<b>Growth Assets</b>	<b>1,561,982,562</b>	<b>69.23</b>	<b>-10.36</b>	<b>-8.52</b>	<b>-8.52</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.44</b>	<b>8.27</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	2.94	
Difference			5.47	8.00	8.00	-	-	-	-	2.22	5.33	
<b>Downturn Hedging Assets</b>	<b>471,416,362</b>	<b>20.90</b>	<b>-4.47</b>	<b>-10.03</b>	<b>-10.03</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.63</b>	<b>-6.03</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference			0.22	0.26	0.26	-	-	-	-	-0.08	0.24	
<b>Inflation Hedging Assets</b>	<b>222,717,286</b>	<b>9.87</b>	<b>0.49</b>	<b>6.72</b>	<b>6.72</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.36</b>	<b>4.06</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			3.70	11.79	11.79	7.60	6.48	5.15	4.93	9.71	10.09	
Difference			-3.21	-5.07	-5.07	-	-	-	-	-3.35	-6.03	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,256,116,209</b>	<b>100.00</b>	<b>100.00</b>	<b>-8.03</b>	<b>-7.42</b>	<b>-7.42</b>	<b>6.22</b>	<b>6.47</b>	<b>6.54</b>	<b>4.92</b>	<b>14.03</b>	<b>5.85</b>	<b>07/01/2005</b>
Target Allocation Index				-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference				0.39	-0.30	-0.30	0.01	0.07	0.09	-0.09	-0.06	-0.04	
Actual Allocation Index				-9.21	-8.95	-8.95	5.13	5.66	6.07	4.68	13.33	5.59	
Difference				1.18	1.53	1.53	1.09	0.81	0.47	0.24	0.70	0.26	
All Public Plans (\$1B to \$10B)				-9.12	-8.18	-8.18	5.74	6.11	7.35	5.33	14.07	6.17	
Rank				36	41	41	40	40	83	74	51	63	
<b>Domestic Equity</b>	<b>148,750,581</b>	<b>6.59</b>	<b>7.00</b>	<b>-16.08</b>	<b>-15.11</b>	<b>-15.11</b>	<b>8.04</b>	<b>8.91</b>	<b>11.80</b>	<b>-</b>	<b>25.46</b>	<b>11.06</b>	<b>01/01/2011</b>
Russell 3000 Index				-16.70	-13.87	-13.87	9.77	10.60	12.57	8.36	25.66	11.81	
Difference				0.62	-1.24	-1.24	-1.73	-1.69	-0.77	-	-0.20	-0.75	
<b>US Large Cap Equity</b>	<b>85,020,757</b>	<b>3.77</b>	<b>4.00</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>9.51</b>	<b>12.18</b>	<b>8.33</b>	<b>29.44</b>	<b>9.15</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				-16.10	-10.62	-10.62	10.60	11.31	12.96	8.54	28.71	9.22	
Difference				1.71	1.13	1.13	-0.88	-1.80	-0.78	-0.21	0.73	-0.07	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>85,020,757</b>	<b>3.77</b>	<b>-</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>29.44</b>	<b>9.72</b>	<b>07/01/2019</b>
S&P 500 Index (Eq Wtd)				-14.36	-9.38	-9.38	9.73	9.87	12.66	8.85	29.63	9.73	
Difference				-0.03	-0.11	-0.11	-0.01	-	-	-	-0.19	-0.01	
IM U.S. Large Cap Equity (MF) Median				-16.48	-13.69	-13.69	8.96	10.40	12.03	8.08	25.28	8.96	
Rank				32	28	28	36	-	-	-	12	36	
<b>US SMID Cap Equities</b>	<b>63,729,824</b>	<b>2.82</b>	<b>3.00</b>	<b>-18.45</b>	<b>-22.21</b>	<b>-22.21</b>	<b>5.65</b>	<b>8.33</b>	<b>11.39</b>	<b>8.25</b>	<b>19.93</b>	<b>8.78</b>	<b>07/01/2005</b>
Russell 2500 Index				-16.98	-21.00	-21.00	5.91	7.04	10.49	7.29	18.18	8.29	
Difference				-1.47	-1.21	-1.21	-0.26	1.29	0.90	0.96	1.75	0.49	
<b>Champlain US Mid Cap Core (SA)</b>	<b>63,723,334</b>	<b>2.82</b>	<b>-</b>	<b>-18.45</b>	<b>-22.22</b>	<b>-22.22</b>	<b>5.64</b>	<b>8.58</b>	<b>12.21</b>	<b>-</b>	<b>19.93</b>	<b>12.55</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				-17.01	-21.30	-21.30	5.80	6.55	10.34	7.20	18.74	10.95	
Difference				-1.44	-0.92	-0.92	-0.16	2.03	1.87	-	1.19	1.60	
IM U.S. SMID Cap Equity (MF) Median				-16.02	-17.56	-17.56	5.46	6.80	10.17	7.20	20.18	10.75	
Rank				72	61	61	49	25	6	-	51	8	
<b>Global Equity</b>	<b>782,170,529</b>	<b>34.67</b>	<b>29.00</b>	<b>-16.38</b>	<b>-17.50</b>	<b>-17.50</b>	<b>6.58</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.22</b>	<b>2.58</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	3.80	
Difference				-0.55	-0.98	-0.98	0.60	-	-	-	0.00	-1.22	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.





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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>608,586,629</b>	<b>26.97</b>	<b>-</b>	<b>-15.75</b>	<b>-16.23</b>	<b>-16.23</b>	<b>6.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.73</b>	<b>6.41</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	5.98	
Difference				0.08	0.29	0.29	0.43	-	-	-	0.51	0.43	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	4.98	
Rank				55	47	47	33	-	-	-	32	33	
<b>Blackrock MSCI World LCTR (SA)</b>	<b>74,932,086</b>	<b>3.32</b>	<b>-</b>	<b>-16.15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-18.00</b>	<b>09/01/2021</b>
MSCI Wrld Index (USD) (Net)				-16.19	-14.34	-14.34	7.00	7.67	9.51	5.19	21.82	-17.89	
Difference				0.04	-	-	-	-	-	-	-	-0.11	
IM Global Equity (MF) Median				-15.02	-16.66	-16.66	6.14	7.29	9.84	6.29	17.93	-19.22	
Rank				60	-	-	-	-	-	-	-	45	
<b>Artisan Global Opportunities (CF)</b>	<b>98,651,814</b>	<b>4.37</b>	<b>-</b>	<b>-20.65</b>	<b>-26.72</b>	<b>-26.72</b>	<b>6.62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14.17</b>	<b>7.05</b>	<b>07/01/2018</b>
MSCI ACW Index (USD) (Net)				-15.66	-15.75	-15.75	6.21	7.00	8.76	4.80	18.54	6.09	
Difference				-4.99	-10.97	-10.97	0.41	-	-	-	-4.37	0.96	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	5.27	
Rank				86	79	79	31	-	-	-	65	25	
<b>International Equity</b>	<b>146,868,265</b>	<b>6.51</b>	<b>7.00</b>	<b>-12.95</b>	<b>-15.79</b>	<b>-15.79</b>	<b>2.40</b>	<b>2.54</b>	<b>5.13</b>	<b>-</b>	<b>14.41</b>	<b>3.93</b>	<b>01/01/2011</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	3.77	
Difference				1.56	1.98	1.98	1.33	0.34	-0.27	-	3.15	0.16	
<b>Acadian International All Cap (SA)</b>	<b>93,041,773</b>	<b>4.12</b>	<b>-</b>	<b>-14.88</b>	<b>-18.03</b>	<b>-18.03</b>	<b>3.74</b>	<b>3.24</b>	<b>8.04</b>	<b>2.20</b>	<b>15.96</b>	<b>5.07</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				-15.00	-18.75	-18.75	1.06	2.12	5.61	1.62	11.08	3.96	
Difference				0.12	0.72	0.72	2.68	1.12	2.43	0.58	4.88	1.11	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.61	
Rank				76	46	46	8	18	4	26	8	12	
<b>Mondrian International Equity (SA)</b>	<b>53,826,492</b>	<b>2.39</b>	<b>-</b>	<b>-9.58</b>	<b>-11.80</b>	<b>-11.80</b>	<b>0.97</b>	<b>1.81</b>	<b>5.07</b>	<b>1.64</b>	<b>11.71</b>	<b>4.30</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	4.11	
Difference				4.93	5.97	5.97	-0.10	-0.39	-0.33	0.22	0.45	0.19	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.96	
Rank				6	10	10	62	54	50	41	35	38	
<b>Fixed Income</b>	<b>542,937,201</b>	<b>24.07</b>	<b>90.00</b>	<b>-5.48</b>	<b>-11.27</b>	<b>-11.27</b>	<b>-1.06</b>	<b>0.84</b>	<b>2.13</b>	<b>-</b>	<b>-1.82</b>	<b>2.94</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	2.22	
Difference				-0.79	-0.98	-0.98	-0.12	-0.04	0.59	-	-0.27	0.72	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>467,120,275</b>	<b>20.70</b>	<b>20.00</b>	<b>-4.69</b>	<b>-10.27</b>	<b>-10.27</b>	-	-	-	-	<b>-1.64</b>	<b>-6.17</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				0.00	0.02	0.02	-	-	-	-	-0.09	0.10	
<b>BlackRock US Agg (CF)</b>	<b>355,677,271</b>	<b>15.77</b>	-	<b>-4.69</b>	<b>-10.25</b>	<b>-10.25</b>	<b>-0.92</b>	-	-	-	<b>-1.62</b>	<b>-0.61</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-0.51	
Difference				0.00	0.04	0.04	0.02	-	-	-	-0.07	-0.10	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-0.50	
Rank				15	17	17	49	-	-	-	63	59	
<b>PIMCO Core (SA)</b>	<b>111,443,004</b>	<b>4.94</b>	-	<b>-4.71</b>	<b>-10.35</b>	<b>-10.35</b>	-	-	-	-	<b>-1.68</b>	<b>-5.90</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				-0.02	-0.06	-0.06	-	-	-	-	-0.13	0.37	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-6.27	
Rank				17	20	20	-	-	-	-	67	32	
<b>Emerging Markets Debt</b>	<b>71,316,249</b>	<b>3.16</b>	<b>4.00</b>	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	-	-	-	-	<b>-3.32</b>	<b>-10.67</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	-9.70	
Difference				-0.46	-1.68	-1.68	-	-	-	-	-1.81	-0.97	
<b>Wellington Opportunistic EMD (CF)</b>	<b>71,316,249</b>	<b>3.16</b>	-	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	<b>-4.54</b>	<b>-1.11</b>	<b>2.33</b>	-	<b>-3.32</b>	<b>4.02</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	3.83	
Difference				-0.46	-1.68	-1.68	-0.21	-0.11	0.28	-	-1.81	0.19	
IM Emerging Markets Debt (MF) Median				-11.25	-20.13	-20.13	-4.85	-1.32	1.11	3.22	-2.97	2.73	
Rank				46	65	65	45	45	11	-	60	5	
<b>High Yield Fixed Income</b>	<b>3,793,899</b>	<b>0.17</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	<b>06/01/2006</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	6.07	
Difference				-	-	-	-	-	-	-	-	-	
<b>PIMCO Liquidation (SA)</b>	<b>3,793,899</b>	<b>0.17</b>	-	-	-	-	-	-	-	-	-	-	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	1.74	
Difference				-	-	-	-	-	-	-	-	-	
IM U.S. High Yield Bonds (MF) Median				-9.83	-12.48	-12.48	-0.26	1.49	3.63	4.58	4.93	1.16	
Rank				-	-	-	-	-	-	-	-	-	

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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Private Debt</b>	<b>132,092,257</b>	<b>5.85</b>	<b>10.00</b>	<b>1.83</b>	<b>13.80</b>	<b>13.80</b>	<b>8.49</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.07</b>	<b>7.91</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				-3.88	-0.73	-0.73	3.20	3.59	4.08	4.19	7.51	3.50	
Difference				5.71	14.53	14.53	5.29	-	-	-	10.56	4.41	
<b>Private Equity</b>	<b>215,561,663</b>	<b>9.55</b>	<b>10.00</b>	<b>9.87</b>	<b>38.84</b>	<b>38.84</b>	<b>31.50</b>	<b>27.25</b>	<b>-</b>	<b>-</b>	<b>59.09</b>	<b>21.49</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	12.82	12.82	21.72	18.85	16.16	12.50	40.41	16.17	
Difference				9.87	26.02	26.02	9.78	8.40	-	-	18.68	5.32	
<b>Non-Core Real Estate</b>	<b>60,722,341</b>	<b>2.69</b>	<b>3.00</b>	<b>9.77</b>	<b>23.87</b>	<b>23.87</b>	<b>10.48</b>	<b>10.77</b>	<b>-</b>	<b>-</b>	<b>17.08</b>	<b>10.98</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				5.05	30.82	30.82	13.45	10.76	10.62	7.85	23.40	10.77	
Difference				4.72	-6.95	-6.95	-2.97	0.01	-	-	-6.32	0.21	
<b>Inflation Hedging Assets (Spliced)</b>	<b>222,717,286</b>	<b>9.87</b>	<b>10.00</b>	<b>0.49</b>	<b>6.72</b>	<b>6.72</b>	<b>1.69</b>	<b>2.81</b>	<b>7.03</b>	<b>-</b>	<b>6.36</b>	<b>8.29</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				3.70	11.79	11.79	6.99	6.94	8.70	6.59	9.71	9.27	
Difference				-3.21	-5.07	-5.07	-5.30	-4.13	-1.67	-	-3.35	-0.98	
<b>TIPS</b>	<b>100,122,397</b>	<b>4.44</b>	<b>2.00</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.81</b>	<b>-1.32</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	-1.26	
Difference				-0.05	-0.09	-0.09	-	-	-	-	-0.15	-0.06	
<b>BlackRock TIPS (CF)</b>	<b>100,122,397</b>	<b>4.44</b>	<b>-</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>2.98</b>	<b>3.13</b>	<b>1.65</b>	<b>-</b>	<b>5.81</b>	<b>2.99</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	3.04	
Difference				-0.05	-0.09	-0.09	-0.06	-0.08	-0.08	-	-0.15	-0.05	
IM U.S. TIPS (MF) Median				-6.09	-5.34	-5.34	2.89	2.87	1.37	3.30	5.26	2.47	
Rank				53	47	47	44	23	21	-	28	10	
<b>Core Real Estate</b>	<b>98,404,925</b>	<b>4.36</b>	<b>5.00</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.28</b>	<b>4.96</b>	<b>8.11</b>	<b>-</b>	<b>8.13</b>	<b>9.24</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	10.56	
Difference				2.73	-5.48	-5.48	-5.38	-4.59	-2.04	-	-12.89	-1.32	
<b>UBS Trumbull Properties (CF)</b>	<b>98,404,329</b>	<b>4.36</b>	<b>-</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.32</b>	<b>4.99</b>	<b>6.89</b>	<b>4.69</b>	<b>8.13</b>	<b>6.03</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	7.28	
Difference				2.73	-5.48	-5.48	-5.34	-4.56	-3.26	-1.32	-12.89	-1.25	
<b>Private Infrastructure/Land</b>	<b>24,189,964</b>	<b>1.07</b>	<b>3.00</b>	<b>3.99</b>	<b>4.92</b>	<b>4.92</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5.70</b>	<b>4.03</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				1.45	9.71	9.71	6.14	6.13	9.47	10.53	7.83	7.64	
Difference				2.54	-4.79	-4.79	-	-	-	-	-2.13	-3.61	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



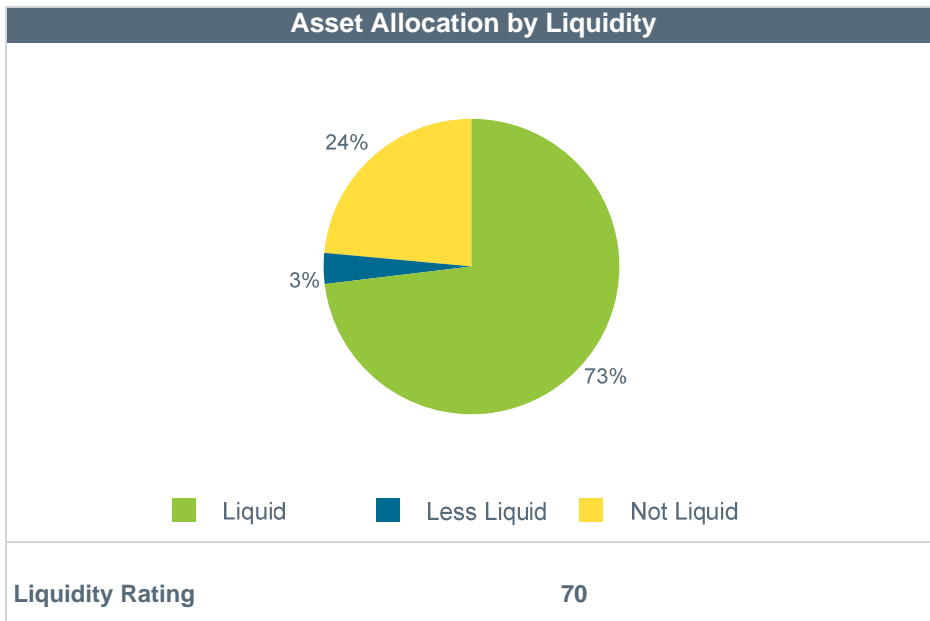
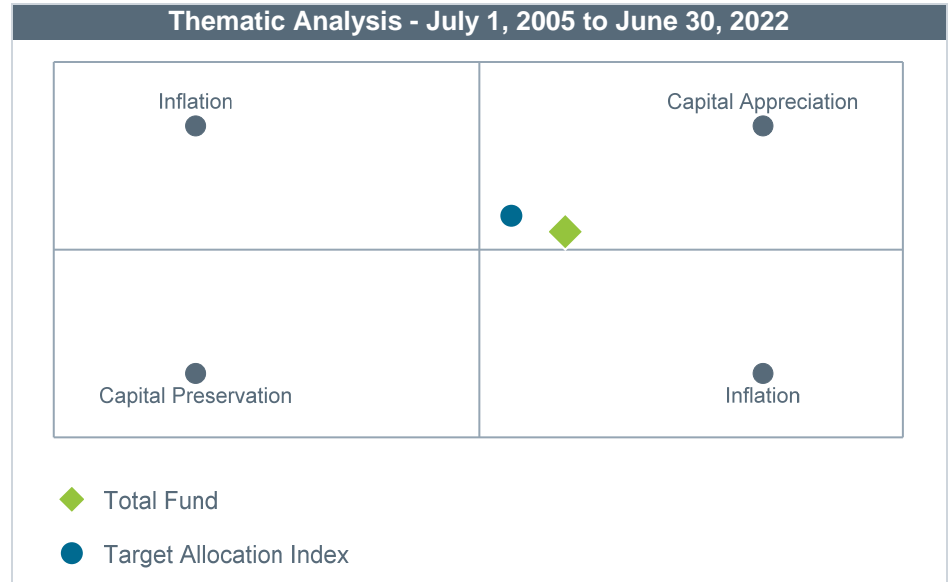
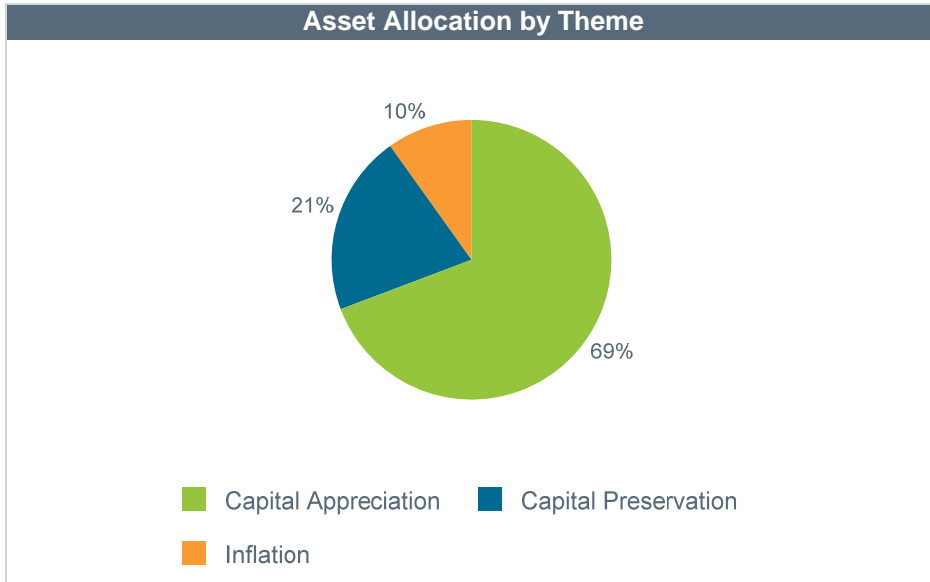
Vermont State Employees' Retirement System  
 Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Cash Equivalents</b>	<b>4,296,087</b>	<b>0.19</b>	<b>0.00</b>	<b>0.12</b>	<b>0.13</b>	<b>0.13</b>	<b>0.44</b>	<b>0.29</b>	<b>0.15</b>	<b>-</b>	<b>-0.07</b>	<b>0.15</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.11	0.17	0.17	0.63	1.11	0.64	0.75	0.05	0.57	
Difference				0.01	-0.04	-0.04	-0.19	-0.82	-0.49	-	-0.12	-0.42	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.



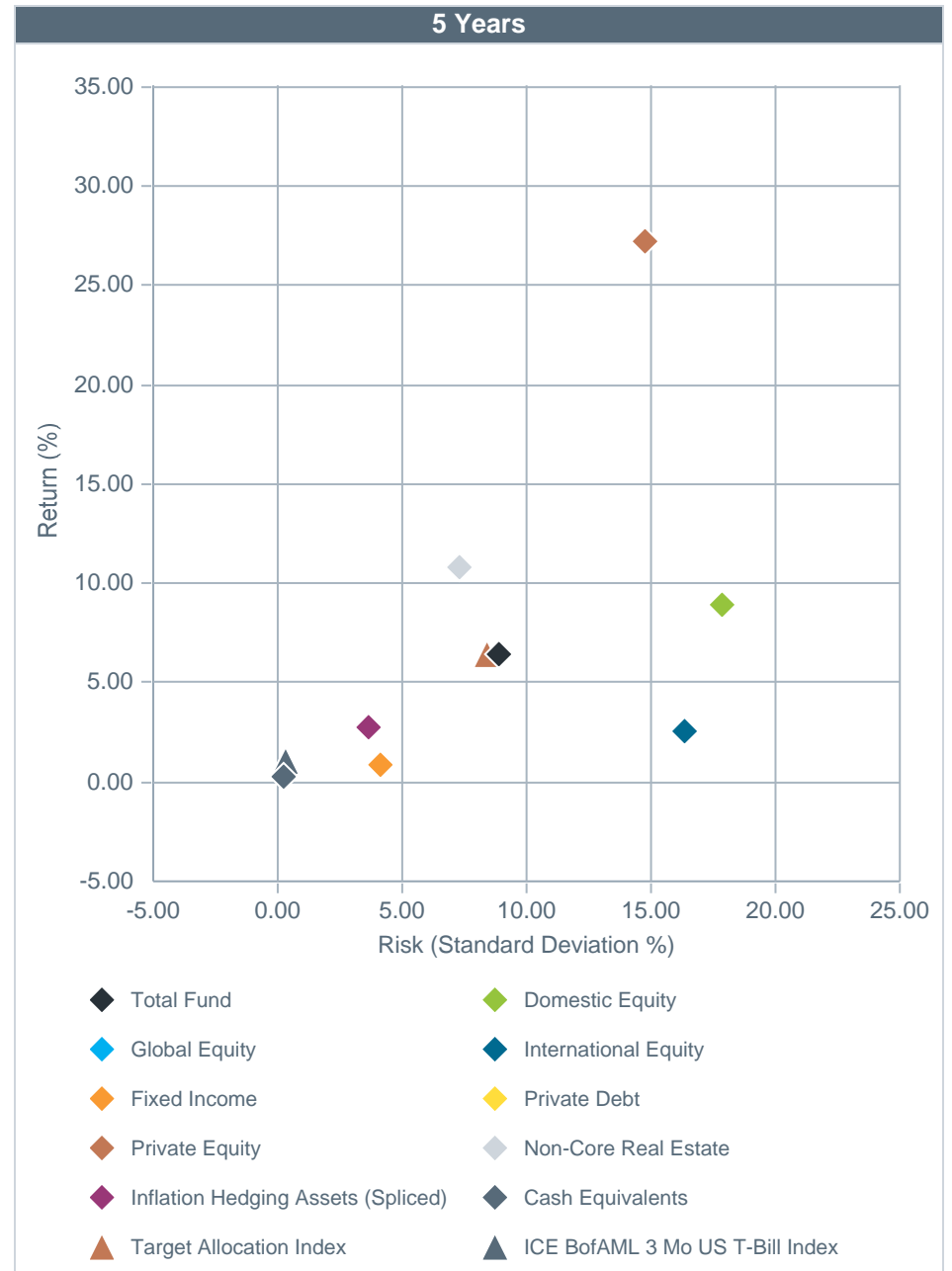
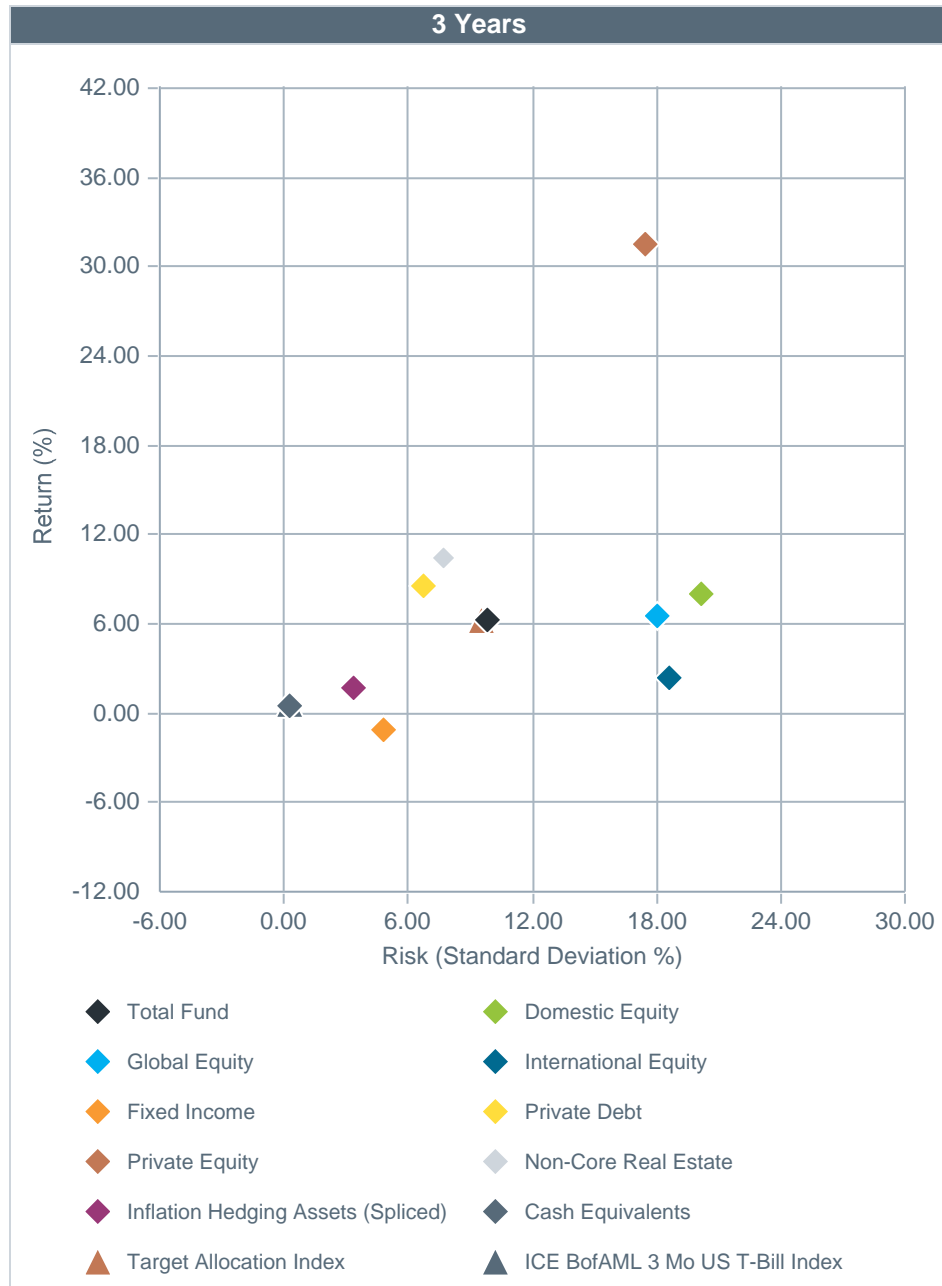


### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.60	1.00		
C	-0.14	-0.15	1.00	
D	0.54	0.74	-0.03	1.00

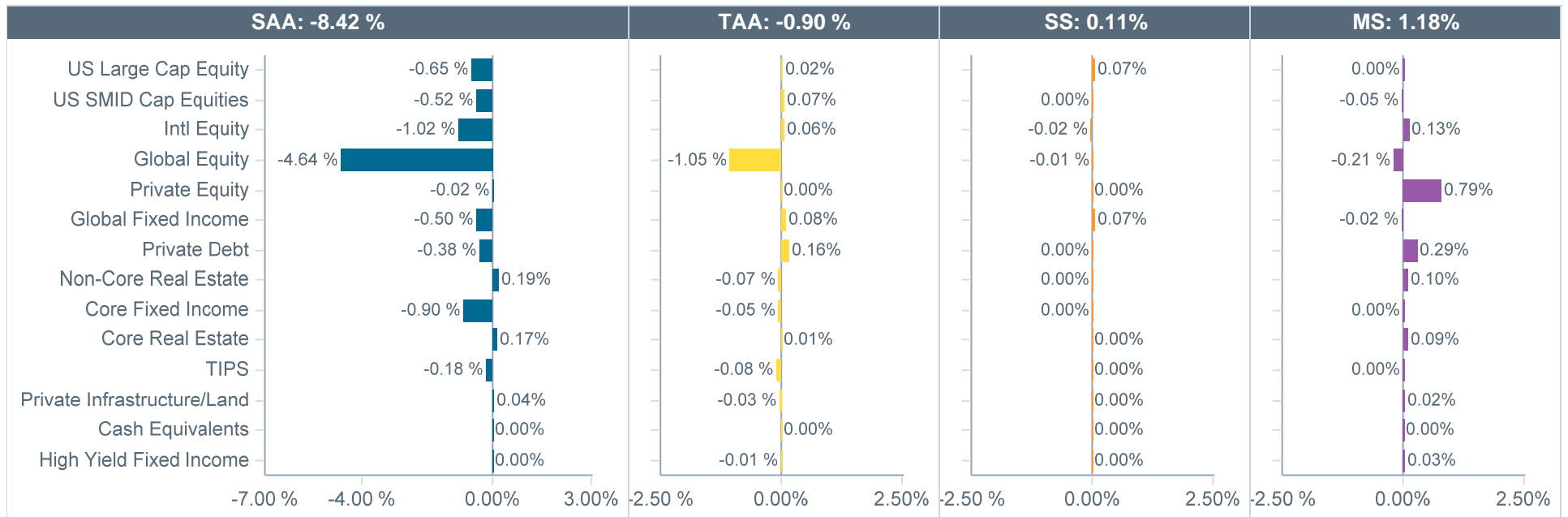
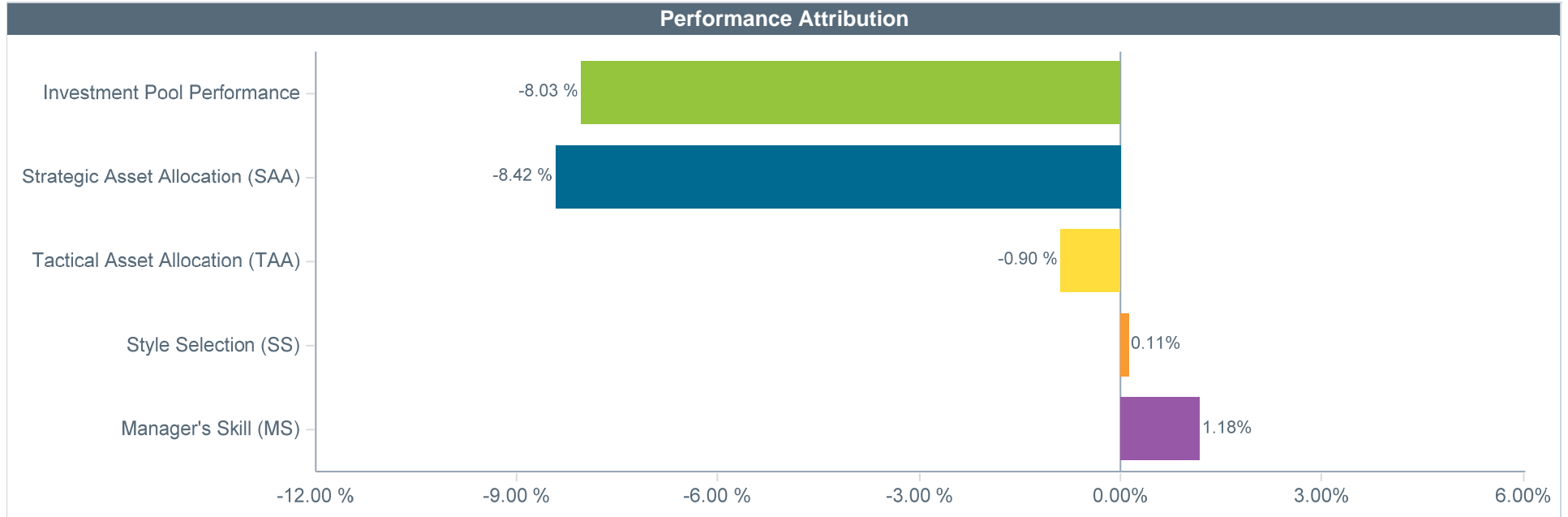
A = HFRI EH: Equity Market Neutral Index (Alpha)  
 B = MSCI ACW Index (USD) (Gross) (Capital Appreciation)  
 C = Bloomberg US Gov't Bond Index (Capital Preservation)  
 D = Real Return Custom Index (Inflation)

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.



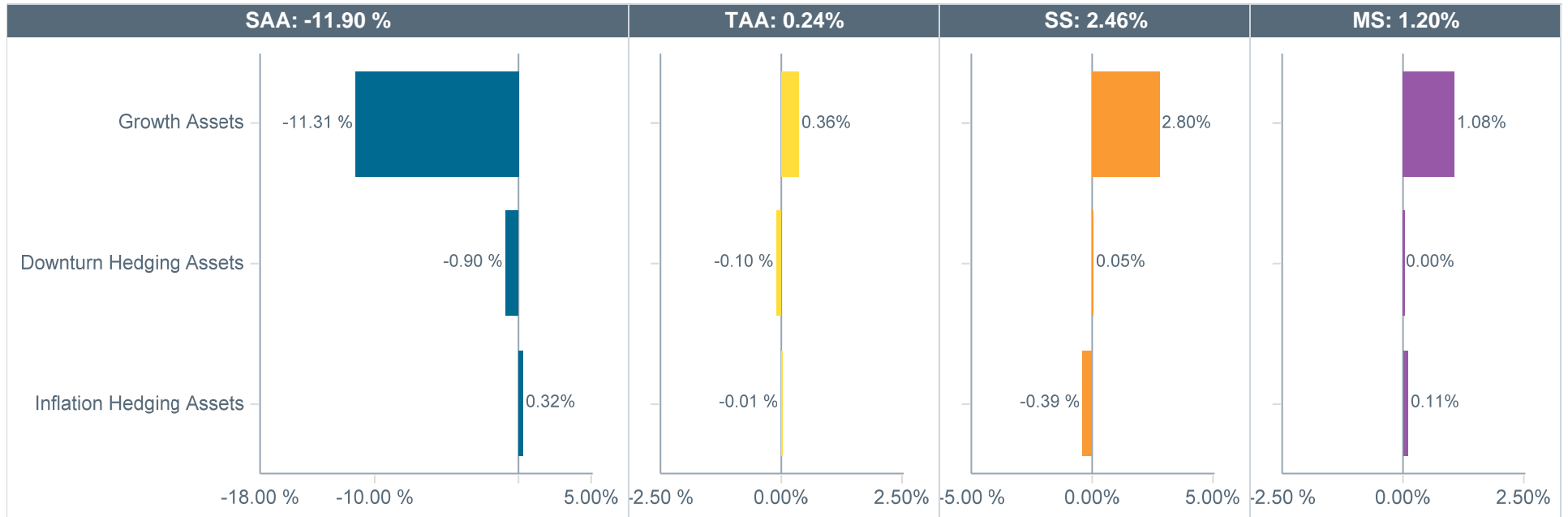
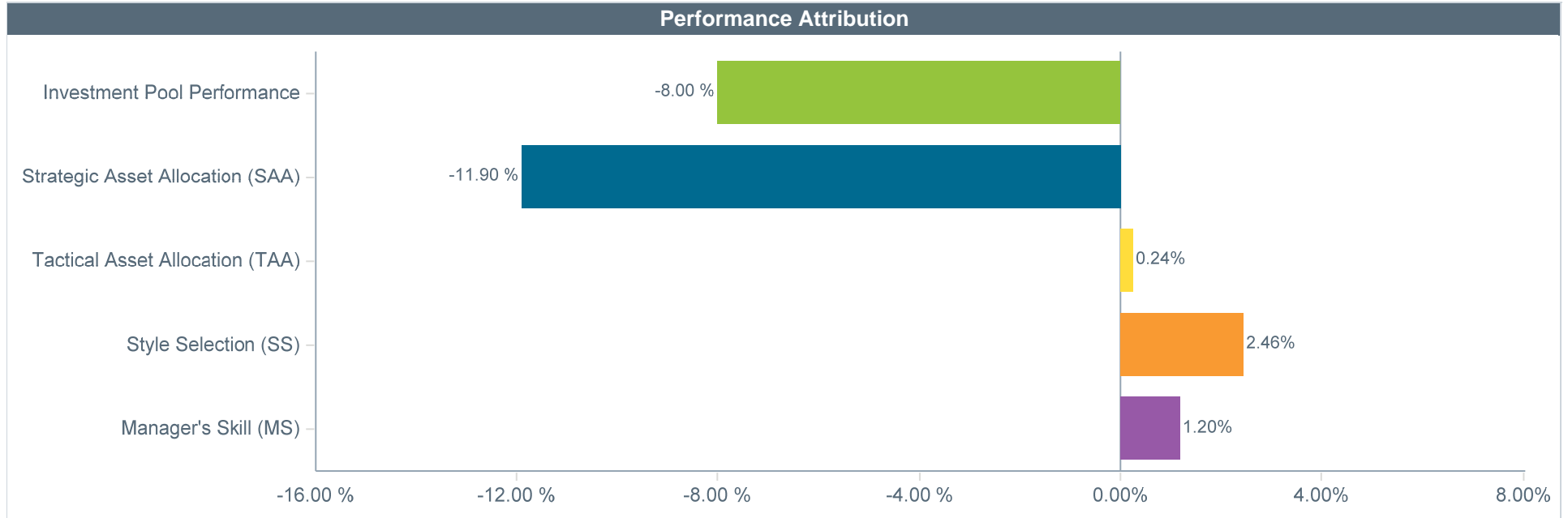
Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.





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.





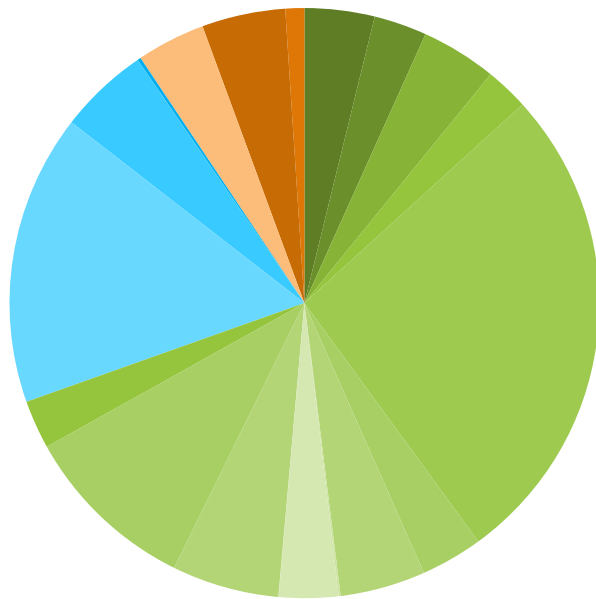
Performance shown is gross of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable 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



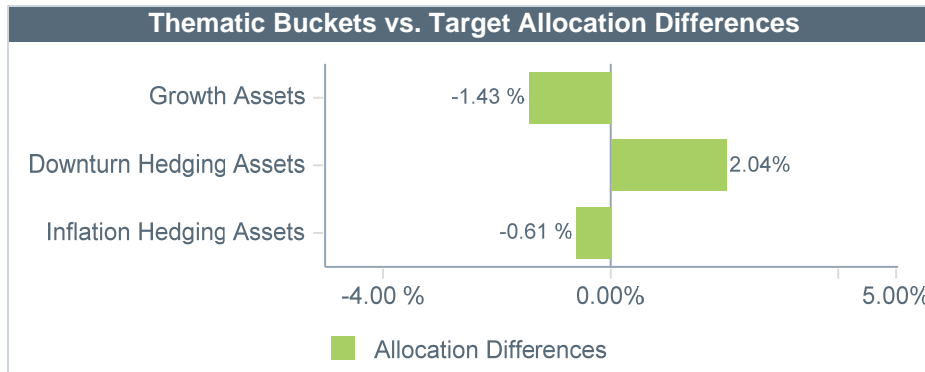
June 30, 2022 : \$2,319,804,540



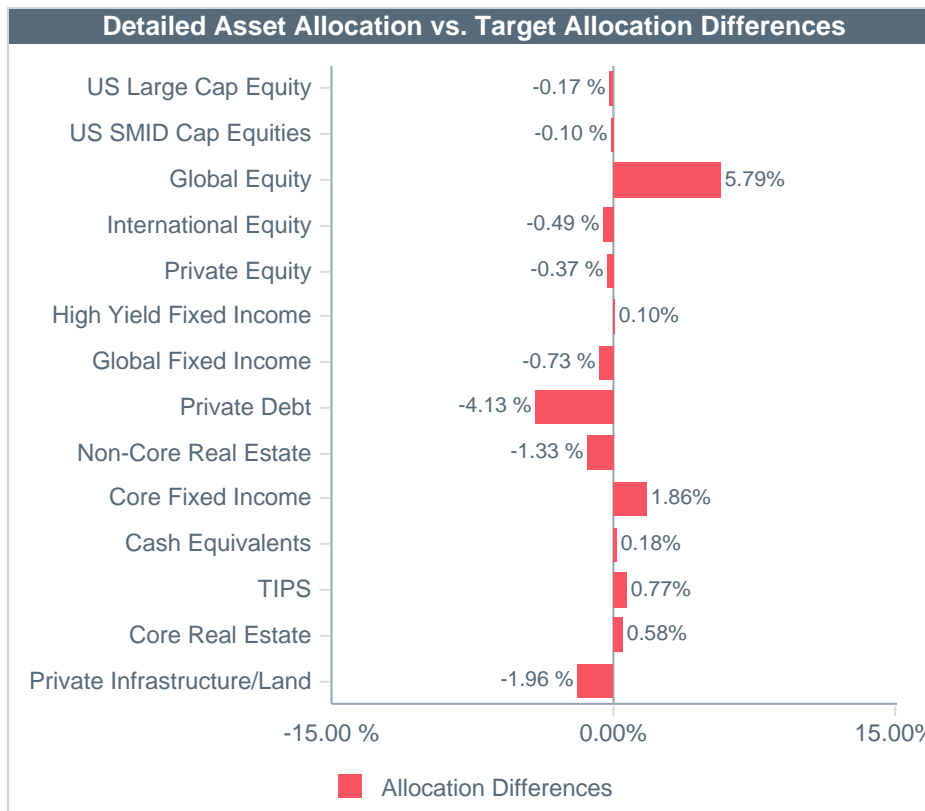
	Market Value (\$)	Allocation (%)
Blackrock S&P 500 (EqI Wtd) (CF)	88,940,221	3.83
Champlain US Mid Cap Core (SA)	67,280,320	2.90
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	6,611	0.00
Acadian International All Cap (SA)	96,105,738	4.14
Mondrian International Equity (SA)	54,953,576	2.37
BlackRock MSCI ACW IMI (CF)	619,752,562	26.72
Blackrock MSCI World LCTR (SA)	78,746,629	3.39
Artisan Global Opportunities (CF)	108,541,310	4.68
PIMCO Liquidation (SA)	2,402,742	0.10
Wellington Opportunistic EMD (CF)	75,534,969	3.26
PIMCO Unconstrained (SA)	436,381	0.02
Private Debt	136,066,264	5.87
Private Equity	223,402,297	9.63
Non-Core Real Estate	61,825,195	2.67
BlackRock US Agg (CF)	369,434,265	15.93
PIMCO Core (SA)	114,401,430	4.93
Vermont Cash (SA)	4,157,728	0.18
BlackRock TIPS (CF)	87,468,773	3.77
UBS Trumbull Properties (CF)	106,281,022	4.58
Private Infrastructure/Land	24,065,863	1.04
Real Estate Cash (CF)	643	0.00

Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation. During 06/2022, Accel-KKR GCP IV LP was funded.

Thematic Buckets vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	1,613,994,815	69.57	71.00
Downturn Hedging Assets	487,993,423	21.04	19.00
Inflation Hedging Assets	217,816,301	9.39	10.00
<b>Total Fund</b>	<b>2,319,804,540</b>	<b>100.00</b>	<b>100.00</b>



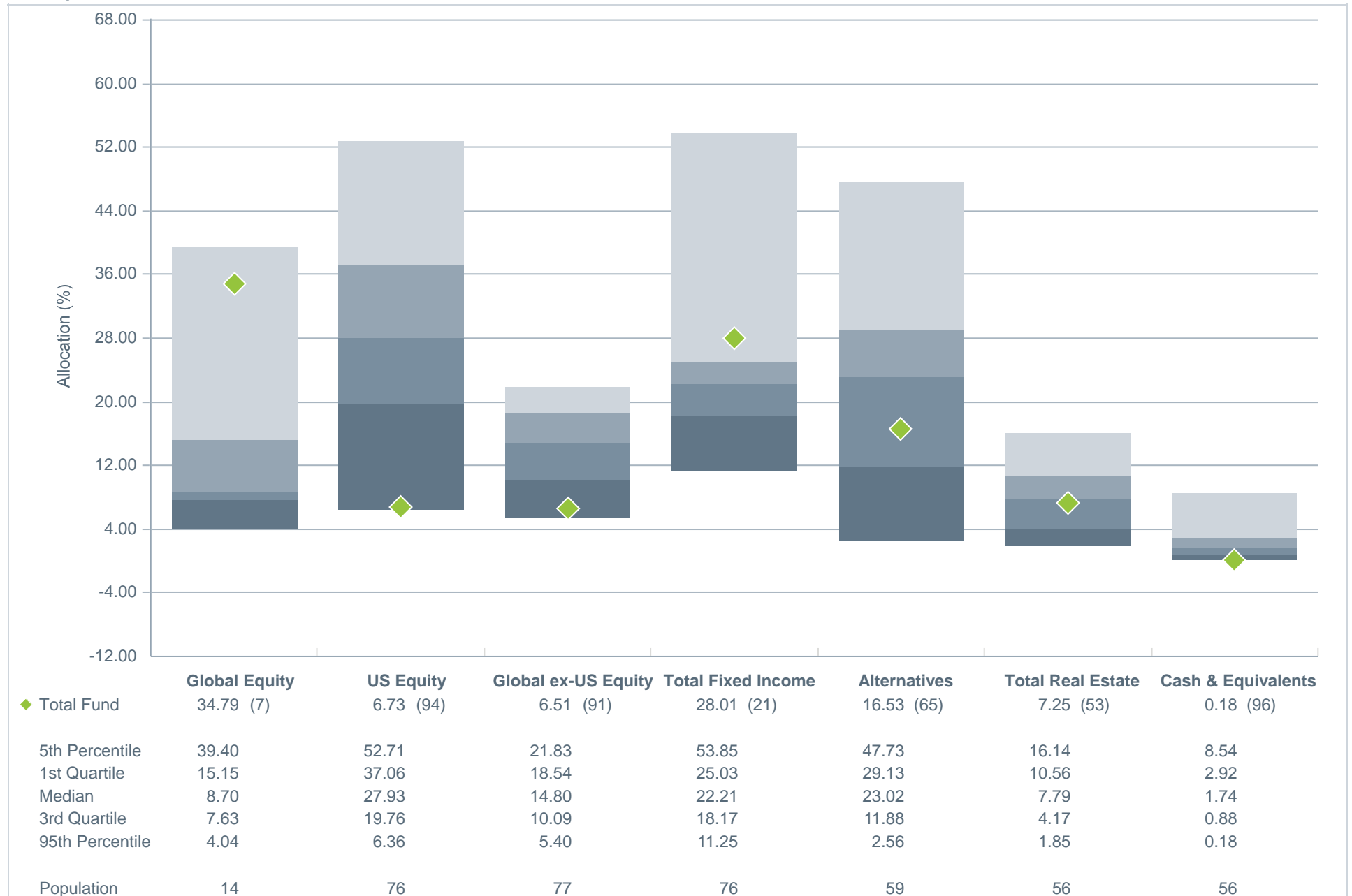
Detailed Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	88,940,221	3.83	4.00
US SMID Cap Equities	67,286,931	2.90	3.00
Global Equity	807,040,502	34.79	29.00
International Equity	151,059,314	6.51	7.00
Private Equity	223,402,297	9.63	10.00
High Yield Fixed Income	2,402,742	0.10	0.00
Global Fixed Income	75,971,350	3.27	4.00
Private Debt	136,066,264	5.87	10.00
Non-Core Real Estate	61,825,195	2.67	4.00
Core Fixed Income	483,835,696	20.86	19.00
Cash Equivalents	4,157,728	0.18	0.00
TIPS	87,468,773	3.77	3.00
Core Real Estate	106,281,665	4.58	4.00
Private Infrastructure/Land	24,065,863	1.04	3.00
<b>Total Fund</b>	<b>2,319,804,540</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

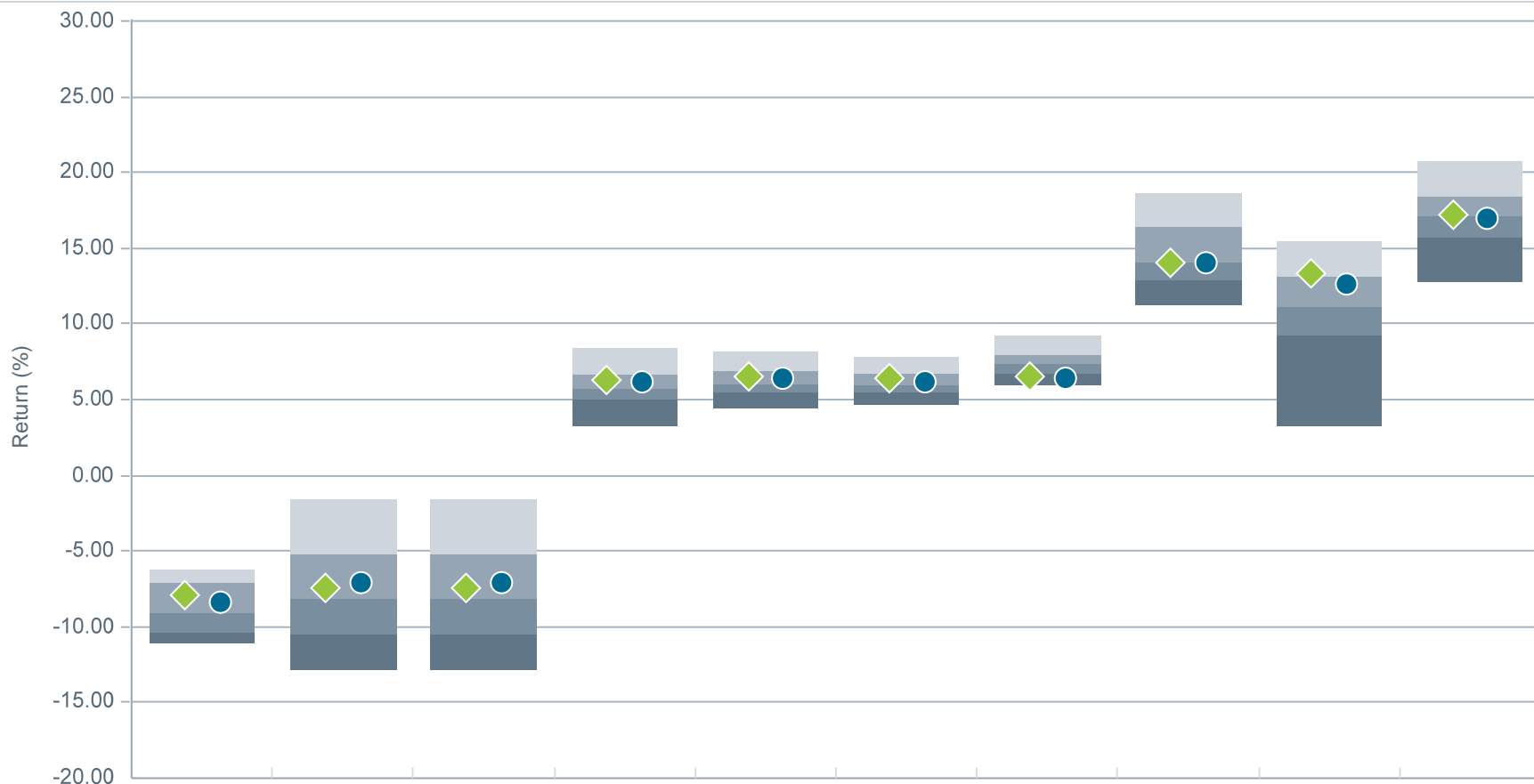
As of June 30, 2022



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

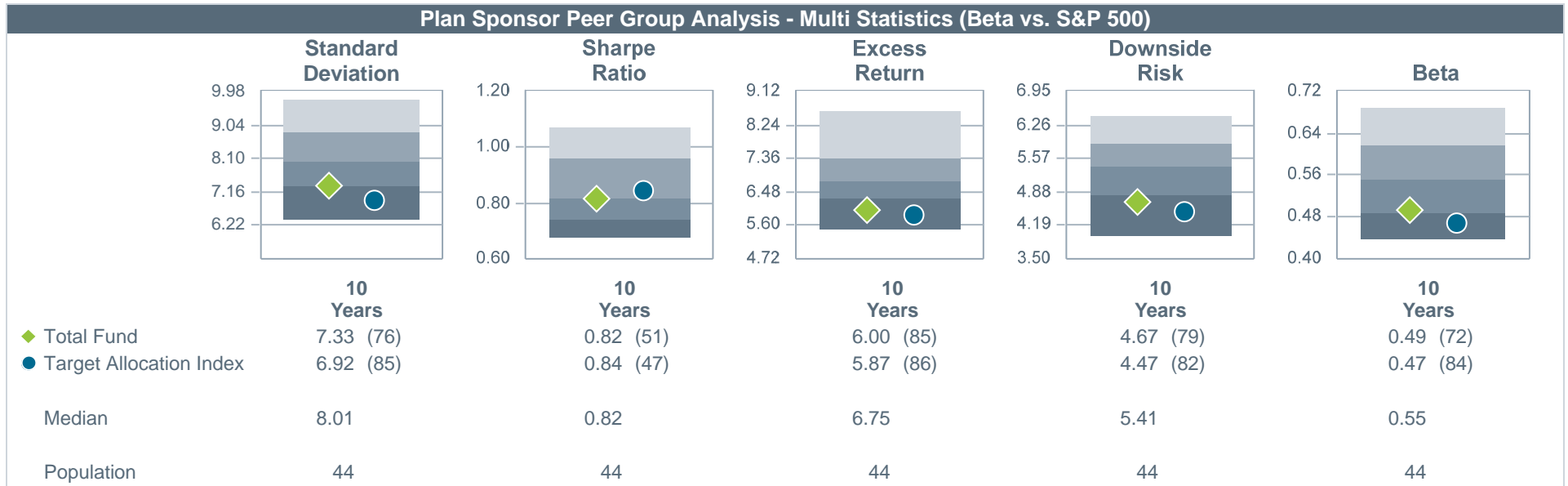
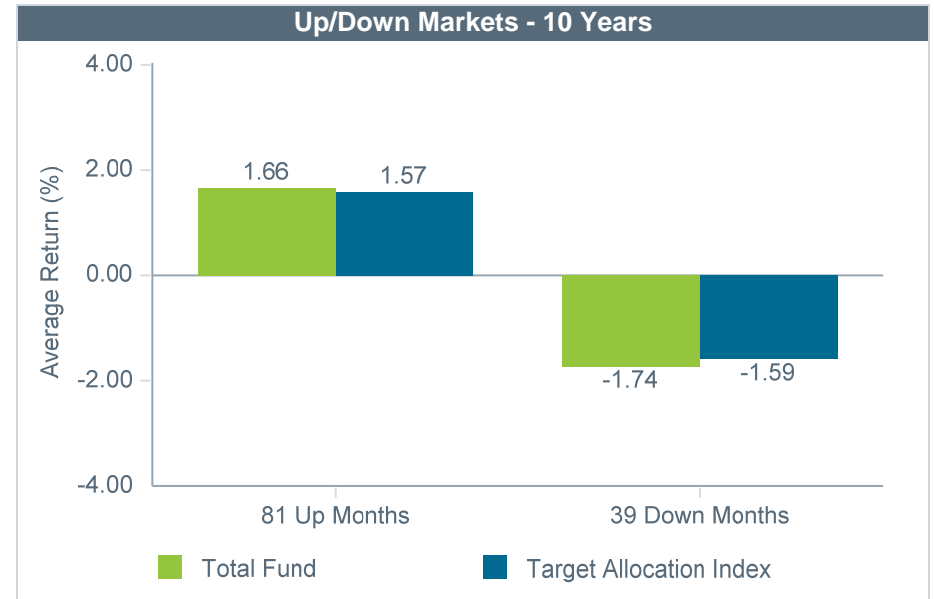
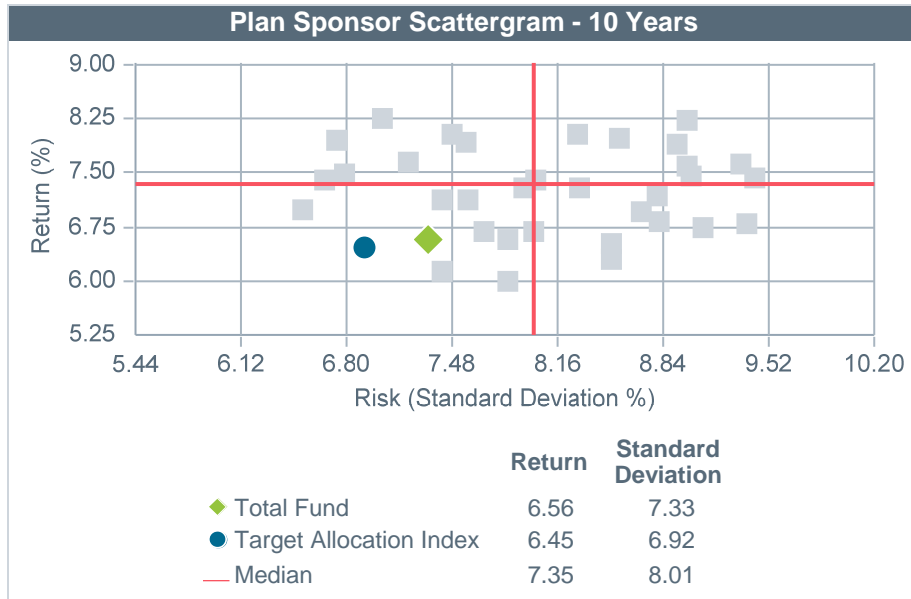
As of June 30, 2022



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019
◆ Total Fund	-7.92 (36)	-7.41 (41)	-7.41 (41)	6.34 (32)	6.57 (39)	6.37 (40)	6.56 (82)	14.03 (52)	13.28 (22)	17.21 (46)
● Target Allocation Index	-8.42 (43)	-7.12 (40)	-7.12 (40)	6.21 (40)	6.40 (41)	6.20 (44)	6.45 (85)	14.09 (50)	12.60 (33)	16.91 (52)
5th Percentile	-6.23	-1.59	-1.59	8.46	8.16	7.87	9.24	18.61	15.48	20.74
1st Quartile	-7.08	-5.18	-5.18	6.59	6.88	6.80	7.97	16.37	13.11	18.43
Median	-9.12	-8.18	-8.18	5.74	6.11	5.99	7.35	14.07	11.10	17.07
3rd Quartile	-10.43	-10.51	-10.51	4.99	5.48	5.46	6.74	12.92	9.25	15.74
95th Percentile	-11.05	-12.90	-12.90	3.23	4.45	4.63	5.98	11.20	3.29	12.70
Population	49	49	49	47	47	45	44	96	119	118

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 June 30, 2022

	Allocation		Performance (%)									
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,319,804,540</b>	<b>100.00</b>	<b>-7.92</b>	<b>-7.41</b>	<b>-7.41</b>	<b>6.34</b>	<b>6.57</b>	<b>6.56</b>	<b>4.80</b>	<b>14.03</b>	<b>5.78</b>	<b>07/01/2005</b>
Target Allocation Index			-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference			0.50	-0.29	-0.29	0.13	0.17	0.11	-0.21	-0.06	-0.11	
Actual Allocation Index			-9.11	-8.87	-8.87	5.29	5.75	6.06	4.52	13.34	5.51	
Difference			1.19	1.46	1.46	1.05	0.82	0.50	0.28	0.69	0.27	
<b>Growth Assets</b>	<b>1,613,994,815</b>	<b>69.57</b>	<b>-10.33</b>	<b>-8.66</b>	<b>-8.66</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.47</b>	<b>8.28</b>	<b>09/01/2020</b>
MSCI ACW IM Index (USD) (Net)			-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	2.94	
Difference			5.50	7.86	7.86	-	-	-	-	2.25	5.34	
<b>Downturn Hedging Assets</b>	<b>487,993,423</b>	<b>21.04</b>	<b>-4.35</b>	<b>-9.93</b>	<b>-9.93</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1.63</b>	<b>-5.97</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index			-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference			0.34	0.36	0.36	-	-	-	-	-0.08	0.30	
<b>Inflation Hedging Assets</b>	<b>217,816,301</b>	<b>9.39</b>	<b>0.95</b>	<b>7.36</b>	<b>7.36</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6.33</b>	<b>4.38</b>	<b>09/01/2020</b>
Consumer Price Index+2.5%			3.70	11.79	11.79	7.60	6.48	5.15	4.93	9.71	10.09	
Difference			-2.75	-4.43	-4.43	-	-	-	-	-3.38	-5.71	

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 June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Total Fund</b>	<b>2,319,804,540</b>	<b>100.00</b>	<b>100.00</b>	<b>-7.92</b>	<b>-7.41</b>	<b>-7.41</b>	<b>6.34</b>	<b>6.57</b>	<b>6.56</b>	<b>4.80</b>	<b>14.03</b>	<b>5.78</b>	<b>07/01/2005</b>
Target Allocation Index				-8.42	-7.12	-7.12	6.21	6.40	6.45	5.01	14.09	5.89	
Difference				0.50	-0.29	-0.29	0.13	0.17	0.11	-0.21	-0.06	-0.11	
Actual Allocation Index				-9.11	-8.87	-8.87	5.29	5.75	6.06	4.52	13.34	5.51	
Difference				1.19	1.46	1.46	1.05	0.82	0.50	0.28	0.69	0.27	
All Public Plans (\$1B to \$10B)				-9.12	-8.18	-8.18	5.74	6.11	7.35	5.33	14.07	6.17	
Rank				36	41	41	32	39	82	79	52	76	
<b>Domestic Equity</b>	<b>156,227,152</b>	<b>6.73</b>	<b>7.00</b>	<b>-16.20</b>	<b>-15.48</b>	<b>-15.48</b>	<b>7.99</b>	<b>8.92</b>	<b>11.81</b>	<b>-</b>	<b>25.44</b>	<b>11.07</b>	<b>01/01/2011</b>
Russell 3000 Index				-16.70	-13.87	-13.87	9.77	10.60	12.57	8.36	25.66	11.81	
Difference				0.50	-1.61	-1.61	-1.78	-1.68	-0.76	-	-0.22	-0.74	
<b>US Large Cap Equity</b>	<b>88,940,221</b>	<b>3.83</b>	<b>4.00</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>9.51</b>	<b>12.17</b>	<b>8.27</b>	<b>29.44</b>	<b>9.02</b>	<b>07/01/2005</b>
S&P 500 Index (Cap Wtd)				-16.10	-10.62	-10.62	10.60	11.31	12.96	8.54	28.71	9.22	
Difference				1.71	1.13	1.13	-0.88	-1.80	-0.79	-0.27	0.73	-0.20	
<b>Blackrock S&amp;P 500 (Eq Wtd) (CF)</b>	<b>88,940,221</b>	<b>3.83</b>	<b>-</b>	<b>-14.39</b>	<b>-9.49</b>	<b>-9.49</b>	<b>9.72</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>29.44</b>	<b>9.72</b>	<b>07/01/2019</b>
S&P 500 Index (Eq Wtd)				-14.36	-9.38	-9.38	9.73	9.87	12.66	8.85	29.63	9.73	
Difference				-0.03	-0.11	-0.11	-0.01	-	-	-	-0.19	-0.01	
IM U.S. Large Cap Equity (MF) Median				-16.48	-13.69	-13.69	8.96	10.40	12.03	8.08	25.28	8.96	
Rank				32	28	28	36	-	-	-	12	36	
<b>US SMID Cap Equities</b>	<b>67,286,931</b>	<b>2.90</b>	<b>3.00</b>	<b>-18.45</b>	<b>-22.21</b>	<b>-22.21</b>	<b>5.65</b>	<b>8.34</b>	<b>11.49</b>	<b>8.31</b>	<b>19.93</b>	<b>8.67</b>	<b>07/01/2005</b>
Russell 2500 Index				-16.98	-21.00	-21.00	5.91	7.04	10.49	7.29	18.18	8.29	
Difference				-1.47	-1.21	-1.21	-0.26	1.30	1.00	1.02	1.75	0.38	
<b>Champlain US Mid Cap Core (SA)</b>	<b>67,280,320</b>	<b>2.90</b>	<b>-</b>	<b>-18.45</b>	<b>-22.22</b>	<b>-22.22</b>	<b>5.64</b>	<b>8.58</b>	<b>12.20</b>	<b>-</b>	<b>19.93</b>	<b>12.54</b>	<b>10/01/2009</b>
Custom SMID Cap Equity Index				-17.01	-21.30	-21.30	5.80	6.55	10.34	7.20	18.74	10.95	
Difference				-1.44	-0.92	-0.92	-0.16	2.03	1.86	-	1.19	1.59	
IM U.S. SMID Cap Equity (MF) Median				-16.02	-17.56	-17.56	5.46	6.80	10.17	7.20	20.18	10.75	
Rank				72	61	61	49	25	6	-	51	8	
<b>Global Equity</b>	<b>807,040,502</b>	<b>34.79</b>	<b>29.00</b>	<b>-16.38</b>	<b>-17.54</b>	<b>-17.54</b>	<b>6.54</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.19</b>	<b>2.55</b>	<b>02/01/2018</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	3.80	
Difference				-0.55	-1.02	-1.02	0.56	-	-	-	-0.03	-1.25	

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. PIMCO Liquidation (SA) consists of residual assets from Vermont Pension's High Yield allocation.





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

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>BlackRock MSCI ACW IMI (CF)</b>	<b>619,752,562</b>	<b>26.72</b>	<b>-</b>	<b>-15.75</b>	<b>-16.23</b>	<b>-16.23</b>	<b>6.41</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18.73</b>	<b>6.41</b>	<b>07/01/2019</b>
MSCI ACW IM Index (USD) (Net)				-15.83	-16.52	-16.52	5.98	6.70	8.71	4.86	18.22	5.98	
Difference				0.08	0.29	0.29	0.43	-	-	-	0.51	0.43	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	4.98	
Rank				55	47	47	33	-	-	-	32	33	
<b>Blackrock MSCI World LCTR (SA)</b>	<b>78,746,629</b>	<b>3.39</b>	<b>-</b>	<b>-16.15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-18.00</b>	<b>09/01/2021</b>
MSCI Wrld Index (USD) (Net)				-16.19	-14.34	-14.34	7.00	7.67	9.51	5.19	21.82	-17.89	
Difference				0.04	-	-	-	-	-	-	-	-0.11	
IM Global Equity (MF) Median				-15.02	-16.66	-16.66	6.14	7.29	9.84	6.29	17.93	-19.22	
Rank				60	-	-	-	-	-	-	-	45	
<b>Artisan Global Opportunities (CF)</b>	<b>108,541,310</b>	<b>4.68</b>	<b>-</b>	<b>-20.65</b>	<b>-26.72</b>	<b>-26.72</b>	<b>6.62</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14.17</b>	<b>7.05</b>	<b>07/01/2018</b>
MSCI ACW Index (USD) (Net)				-15.66	-15.75	-15.75	6.21	7.00	8.76	4.80	18.54	6.09	
Difference				-4.99	-10.97	-10.97	0.41	-	-	-	-4.37	0.96	
IM Global Equity (MF) Median				-15.25	-17.51	-17.51	4.98	6.19	8.57	4.85	16.55	5.27	
Rank				86	79	79	31	-	-	-	65	25	
<b>International Equity</b>	<b>151,059,314</b>	<b>6.51</b>	<b>7.00</b>	<b>-12.97</b>	<b>-15.80</b>	<b>-15.80</b>	<b>2.48</b>	<b>2.55</b>	<b>5.08</b>	<b>-</b>	<b>14.46</b>	<b>3.89</b>	<b>01/01/2011</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	3.77	
Difference				1.54	1.97	1.97	1.41	0.35	-0.32	-	3.20	0.12	
<b>Acadian International All Cap (SA)</b>	<b>96,105,738</b>	<b>4.14</b>	<b>-</b>	<b>-14.88</b>	<b>-18.03</b>	<b>-18.03</b>	<b>3.74</b>	<b>3.24</b>	<b>8.04</b>	<b>2.20</b>	<b>15.96</b>	<b>5.06</b>	<b>11/01/2005</b>
MSCI EAFE IM Index (USD) (Net)				-15.00	-18.75	-18.75	1.06	2.12	5.61	1.62	11.08	3.96	
Difference				0.12	0.72	0.72	2.68	1.12	2.43	0.58	4.88	1.10	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.61	
Rank				76	46	46	8	18	4	26	8	12	
<b>Mondrian International Equity (SA)</b>	<b>54,953,576</b>	<b>2.37</b>	<b>-</b>	<b>-9.58</b>	<b>-11.80</b>	<b>-11.80</b>	<b>0.97</b>	<b>1.81</b>	<b>5.06</b>	<b>1.64</b>	<b>11.71</b>	<b>4.30</b>	<b>07/01/2005</b>
MSCI EAFE Index (USD) (Net)				-14.51	-17.77	-17.77	1.07	2.20	5.40	1.42	11.26	4.11	
Difference				4.93	5.97	5.97	-0.10	-0.39	-0.34	0.22	0.45	0.19	
IM All EAFE (MF) Median				-13.19	-18.37	-18.37	1.48	1.94	5.05	1.29	10.79	3.96	
Rank				6	10	10	62	54	50	42	35	39	
<b>Fixed Income</b>	<b>562,209,788</b>	<b>24.24</b>	<b>23.00</b>	<b>-5.56</b>	<b>-11.55</b>	<b>-11.55</b>	<b>-1.14</b>	<b>0.81</b>	<b>2.12</b>	<b>-</b>	<b>-1.84</b>	<b>2.93</b>	<b>01/01/2011</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	2.22	
Difference				-0.87	-1.26	-1.26	-0.20	-0.07	0.58	-	-0.29	0.71	

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Vermont State Teachers' Retirement System  
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As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Core Fixed Income</b>	<b>483,835,696</b>	<b>20.86</b>	<b>20.00</b>	<b>-4.69</b>	<b>-10.27</b>	<b>-10.27</b>	-	-	-	-	<b>-1.64</b>	<b>-6.17</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				0.00	0.02	0.02	-	-	-	-	-0.09	0.10	
<b>BlackRock US Agg (CF)</b>	<b>369,434,265</b>	<b>15.93</b>	-	<b>-4.69</b>	<b>-10.25</b>	<b>-10.25</b>	<b>-0.92</b>	-	-	-	<b>-1.62</b>	<b>-0.61</b>	<b>06/01/2019</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-0.51	
Difference				0.00	0.04	0.04	0.02	-	-	-	-0.07	-0.10	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-0.50	
Rank				15	17	17	49	-	-	-	63	59	
<b>PIMCO Core (SA)</b>	<b>114,401,430</b>	<b>4.93</b>	-	<b>-4.71</b>	<b>-10.35</b>	<b>-10.35</b>	-	-	-	-	<b>-1.68</b>	<b>-5.90</b>	<b>09/01/2020</b>
Bloomberg US Agg Bond Index				-4.69	-10.29	-10.29	-0.94	0.88	1.54	3.26	-1.55	-6.27	
Difference				-0.02	-0.06	-0.06	-	-	-	-	-0.13	0.37	
IM U.S. Broad Mkt Core FI (MF)				-5.35	-11.17	-11.17	-0.93	0.80	1.60	3.20	-1.33	-6.27	
Rank				17	20	20	-	-	-	-	67	32	
<b>Emerging Markets Debt</b>	<b>75,534,969</b>	<b>3.26</b>	<b>4.00</b>	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	-	-	-	-	<b>-3.32</b>	<b>-10.67</b>	<b>09/01/2020</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	-9.70	
Difference				-0.46	-1.68	-1.68	-	-	-	-	-1.81	-0.97	
<b>Wellington Opportunistic EMD (CF)</b>	<b>75,534,969</b>	<b>3.26</b>	-	<b>-11.01</b>	<b>-20.93</b>	<b>-20.93</b>	<b>-4.54</b>	<b>-1.11</b>	<b>2.33</b>	-	<b>-3.32</b>	<b>4.02</b>	<b>12/01/2009</b>
JPM Emg Mkts Bond Gbl Index (USD)				-10.55	-19.25	-19.25	-4.33	-1.00	2.05	4.46	-1.51	3.83	
Difference				-0.46	-1.68	-1.68	-0.21	-0.11	0.28	-	-1.81	0.19	
IM Emerging Markets Debt (MF) Median				-11.25	-20.13	-20.13	-4.85	-1.32	1.11	3.22	-2.97	2.73	
Rank				46	65	65	45	45	11	-	60	5	
<b>High Yield Fixed Income</b>	<b>2,402,742</b>	<b>0.10</b>	<b>0.00</b>	-	-	-	-	-	-	-	-	-	<b>05/01/2006</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	6.04	
Difference				-	-	-	-	-	-	-	-	-	
<b>PIMCO Liquidation (SA)</b>	<b>2,402,742</b>	<b>0.10</b>	-	-	-	-	-	-	-	-	-	-	<b>08/01/2018</b>
Bloomberg US Corp Hi Yld Index				-9.83	-12.81	-12.81	0.21	2.10	4.47	5.78	5.28	1.74	
Difference				-	-	-	-	-	-	-	-	-	
IM U.S. High Yield Bonds (MF) Median				-9.83	-12.48	-12.48	-0.26	1.49	3.63	4.58	4.93	1.16	
Rank				-	-	-	-	-	-	-	-	-	

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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	2021	Since Incep.	Inception Date
<b>Private Debt</b>	<b>136,066,264</b>	<b>5.87</b>	<b>10.00</b>	<b>1.83</b>	<b>13.82</b>	<b>13.82</b>	<b>8.48</b>	-	-	-	<b>17.92</b>	<b>7.90</b>	<b>01/01/2018</b>
CS Lvg'd Loan Index+2% (Spliced)				-3.88	-0.73	-0.73	3.20	3.59	4.08	4.19	7.51	3.50	
Difference				5.71	14.55	14.55	5.28	-	-	-	10.41	4.40	
<b>Private Equity</b>	<b>223,402,297</b>	<b>9.63</b>	<b>10.00</b>	<b>9.87</b>	<b>38.87</b>	<b>38.87</b>	<b>31.57</b>	<b>27.27</b>	-	-	<b>59.28</b>	<b>20.74</b>	<b>01/01/2013</b>
Cambridge US Prvt Eq Index				0.00	12.82	12.82	21.72	18.85	16.16	12.50	40.41	16.17	
Difference				9.87	26.05	26.05	9.85	8.42	-	-	18.87	4.57	
<b>Non-Core Real Estate</b>	<b>61,825,195</b>	<b>2.67</b>	<b>3.00</b>	<b>9.80</b>	<b>23.87</b>	<b>23.87</b>	<b>10.45</b>	<b>10.91</b>	-	-	<b>17.00</b>	<b>11.24</b>	<b>09/01/2014</b>
NCREIF ODCE Index+2% (Spliced)				5.05	30.82	30.82	13.45	10.76	10.62	7.85	23.40	10.77	
Difference				4.75	-6.95	-6.95	-3.00	0.15	-	-	-6.40	0.47	
<b>Inflation Hedging Assets (Spliced)</b>	<b>217,816,301</b>	<b>9.39</b>	<b>10.00</b>	<b>0.95</b>	<b>7.36</b>	<b>7.36</b>	<b>1.88</b>	<b>2.92</b>	<b>7.08</b>	-	<b>6.33</b>	<b>8.33</b>	<b>01/01/2011</b>
CPI+2.5% (Spliced)				3.70	11.79	11.79	6.99	6.94	8.70	6.59	9.71	9.27	
Difference				-2.75	-4.43	-4.43	-5.11	-4.02	-1.62	-	-3.38	-0.94	
<b>TIPS</b>	<b>87,468,773</b>	<b>3.77</b>	<b>2.00</b>	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	-	-	-	-	<b>5.81</b>	<b>-1.32</b>	<b>09/01/2020</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	-1.26	
Difference				-0.05	-0.09	-0.09	-	-	-	-	-0.15	-0.06	
<b>BlackRock TIPS (CF)</b>	<b>87,468,773</b>	<b>3.77</b>	-	<b>-6.13</b>	<b>-5.23</b>	<b>-5.23</b>	<b>2.98</b>	<b>3.14</b>	<b>1.65</b>	-	<b>5.81</b>	<b>2.99</b>	<b>12/01/2009</b>
Bloomberg US Trsy US TIPS Index				-6.08	-5.14	-5.14	3.04	3.21	1.73	3.92	5.96	3.04	
Difference				-0.05	-0.09	-0.09	-0.06	-0.07	-0.08	-	-0.15	-0.05	
IM U.S. TIPS (MF) Median				-6.09	-5.34	-5.34	2.89	2.87	1.37	3.30	5.26	2.47	
Rank				53	47	47	44	23	21	-	28	10	
<b>Core Real Estate</b>	<b>106,281,665</b>	<b>4.58</b>	<b>5.00</b>	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.27</b>	<b>4.96</b>	<b>8.09</b>	-	<b>8.13</b>	<b>9.23</b>	<b>01/01/2011</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	10.56	
Difference				2.73	-5.48	-5.48	-5.39	-4.59	-2.06	-	-12.89	-1.33	
<b>UBS Trumbull Properties (CF)</b>	<b>106,281,022</b>	<b>4.58</b>	-	<b>7.27</b>	<b>22.83</b>	<b>22.83</b>	<b>6.32</b>	<b>4.99</b>	<b>7.00</b>	<b>4.77</b>	<b>8.13</b>	<b>6.10</b>	<b>07/01/2005</b>
NCREIF ODCE Index (AWA) (Net)				4.54	28.31	28.31	11.66	9.55	10.15	6.01	21.02	7.28	
Difference				2.73	-5.48	-5.48	-5.34	-4.56	-3.15	-1.24	-12.89	-1.18	
<b>Private Infrastructure/Land</b>	<b>24,065,863</b>	<b>1.04</b>	<b>3.00</b>	<b>3.99</b>	<b>4.92</b>	<b>4.92</b>	-	-	-	-	<b>5.70</b>	<b>4.03</b>	<b>08/01/2020</b>
NCREIF Farmland Index (TR)				1.45	9.71	9.71	6.14	6.13	9.47	10.53	7.83	7.64	
Difference				2.54	-4.79	-4.79	-	-	-	-	-2.13	-3.61	

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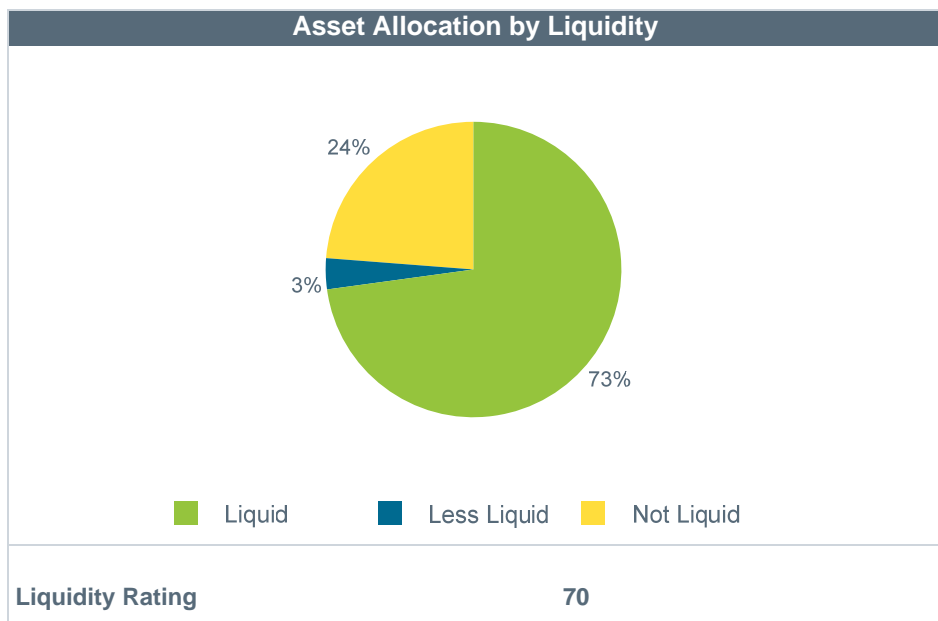
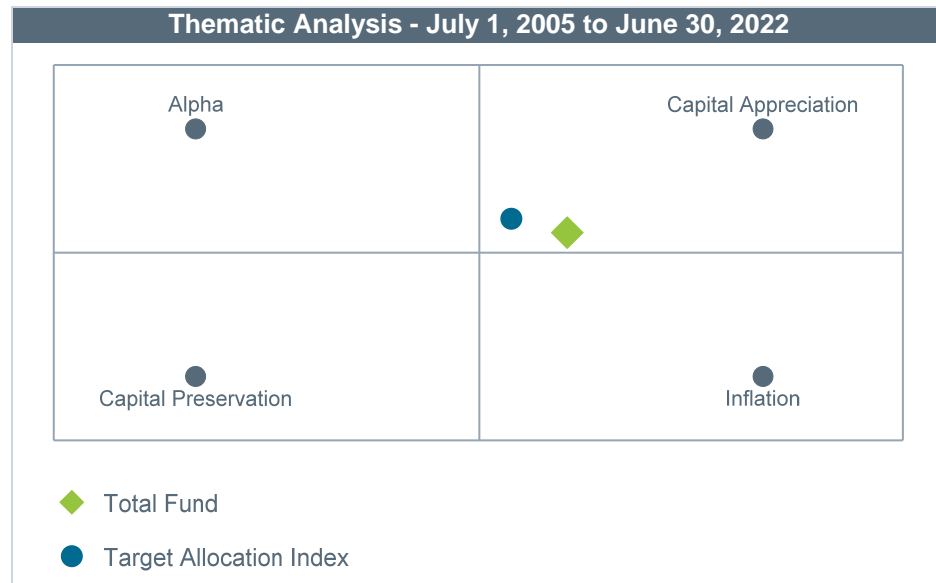
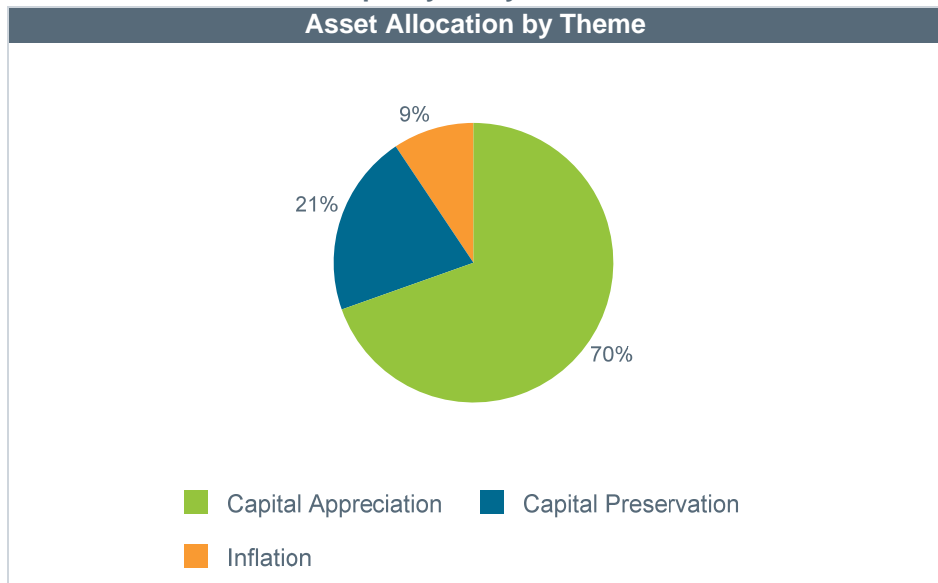
Vermont State Teachers' Retirement System  
 Asset Allocation & Performance - Net of Fees

As of June 30, 2022

	Allocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2021	Since Incep.	Inception Date
<b>Cash Equivalents</b>	<b>4,157,728</b>	<b>0.18</b>	<b>0.00</b>	<b>0.12</b>	<b>0.13</b>	<b>0.13</b>	<b>0.49</b>	<b>0.32</b>	<b>0.16</b>	<b>-</b>	<b>-0.08</b>	<b>0.16</b>	<b>01/01/2011</b>
ICE BofAML 3 Mo US T-Bill Index				0.11	0.17	0.17	0.63	1.11	0.64	0.75	0.05	0.57	
Difference				0.01	-0.04	-0.04	-0.14	-0.79	-0.48	-	-0.13	-0.41	

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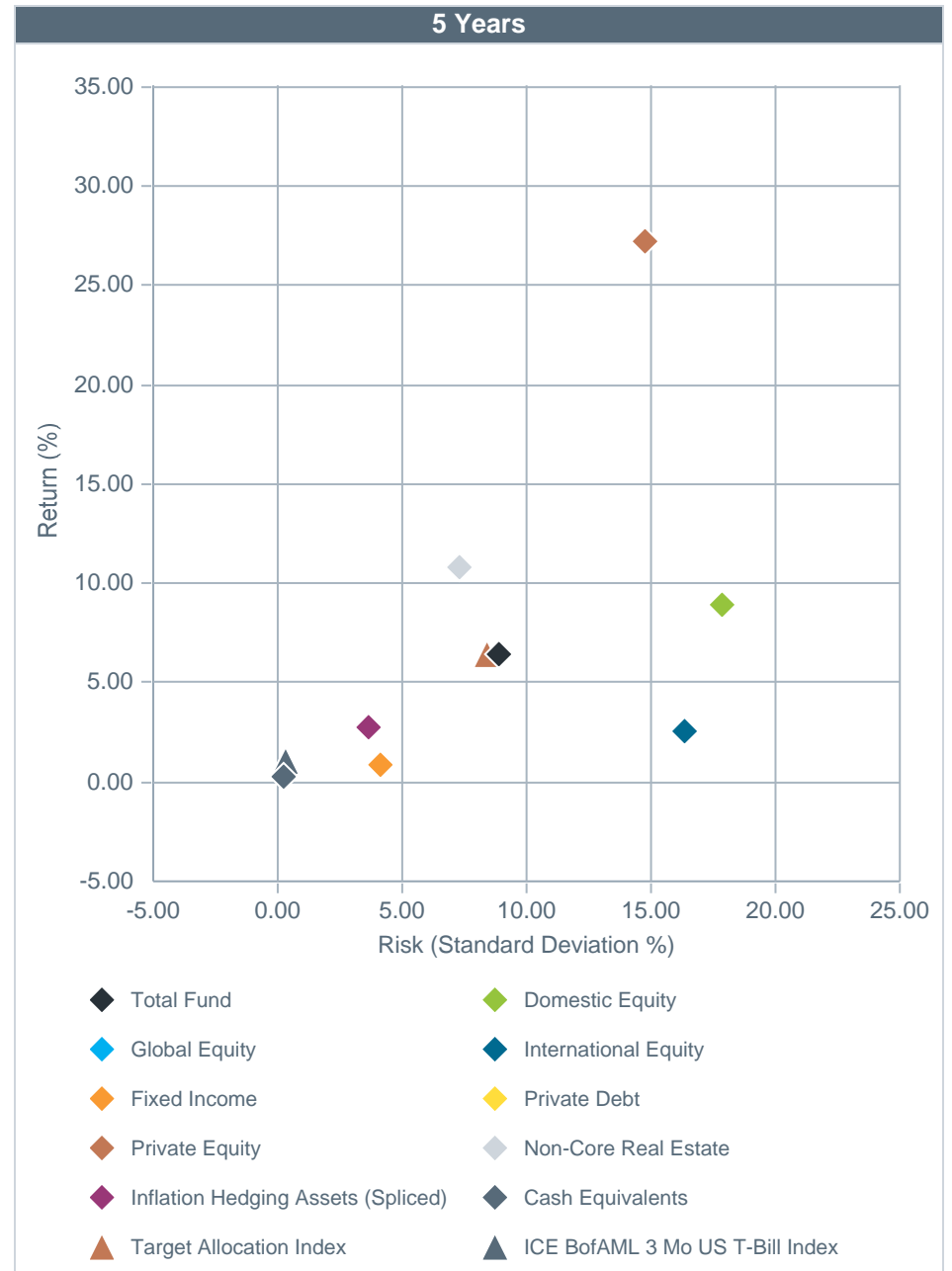
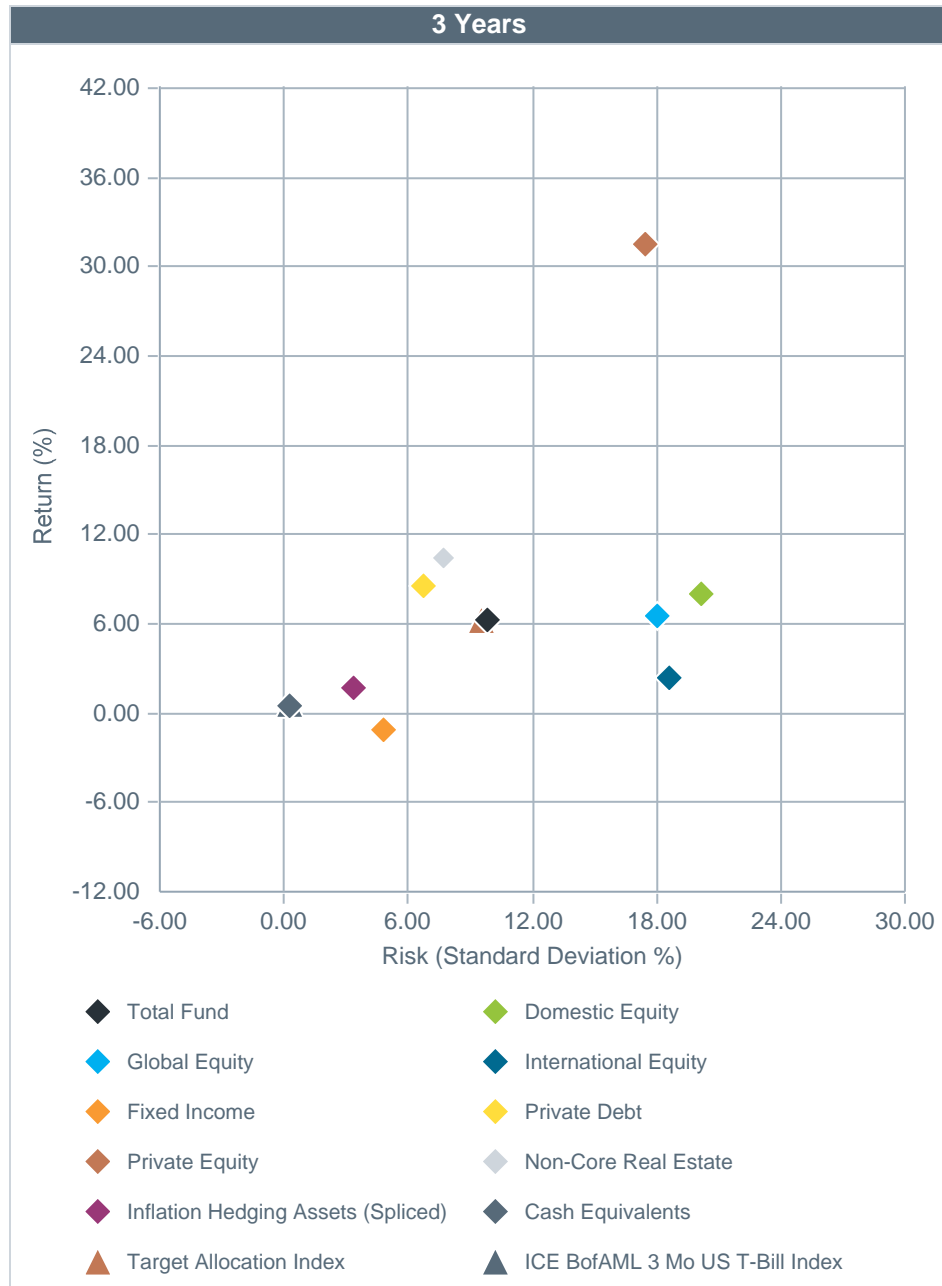
### Correlation Matrix - 10 Years

	A	B	C	D
A	1.00			
B	0.60	1.00		
C	-0.14	-0.15	1.00	
D	0.54	0.74	-0.03	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)

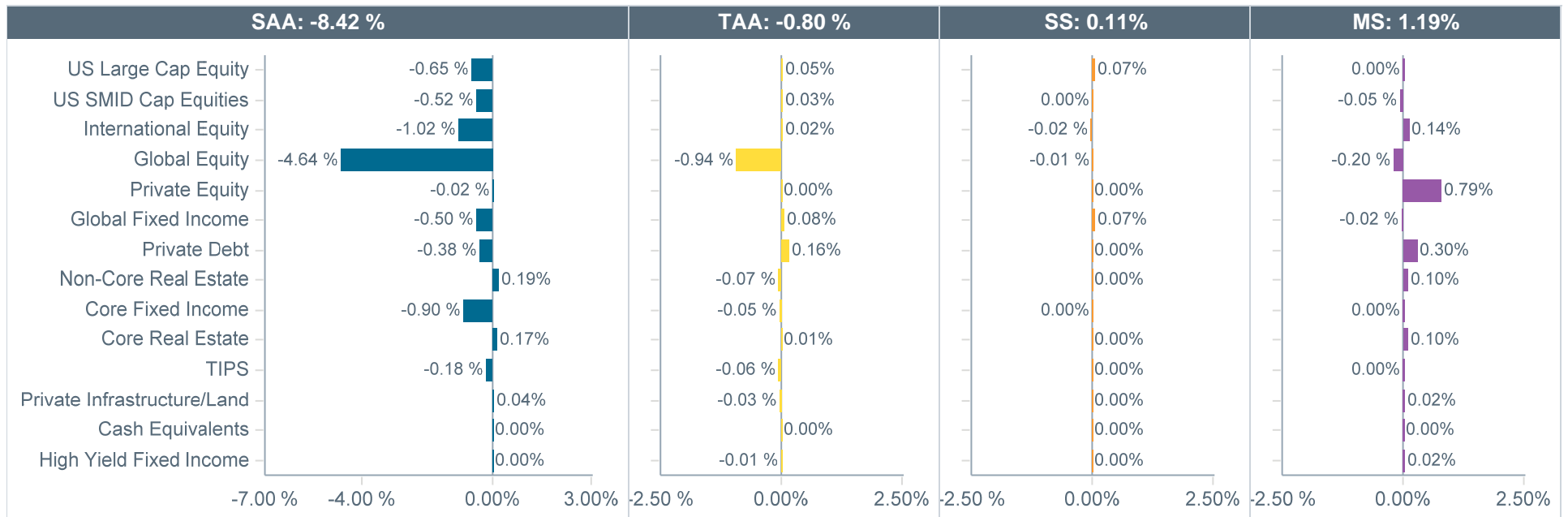
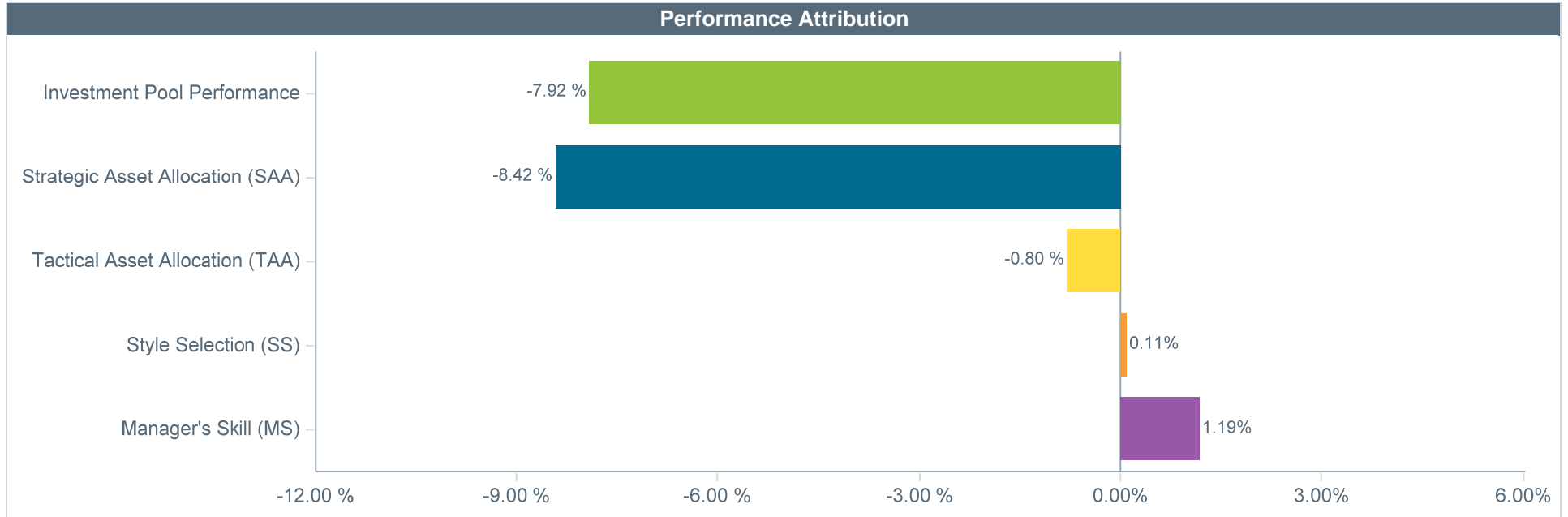
Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional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



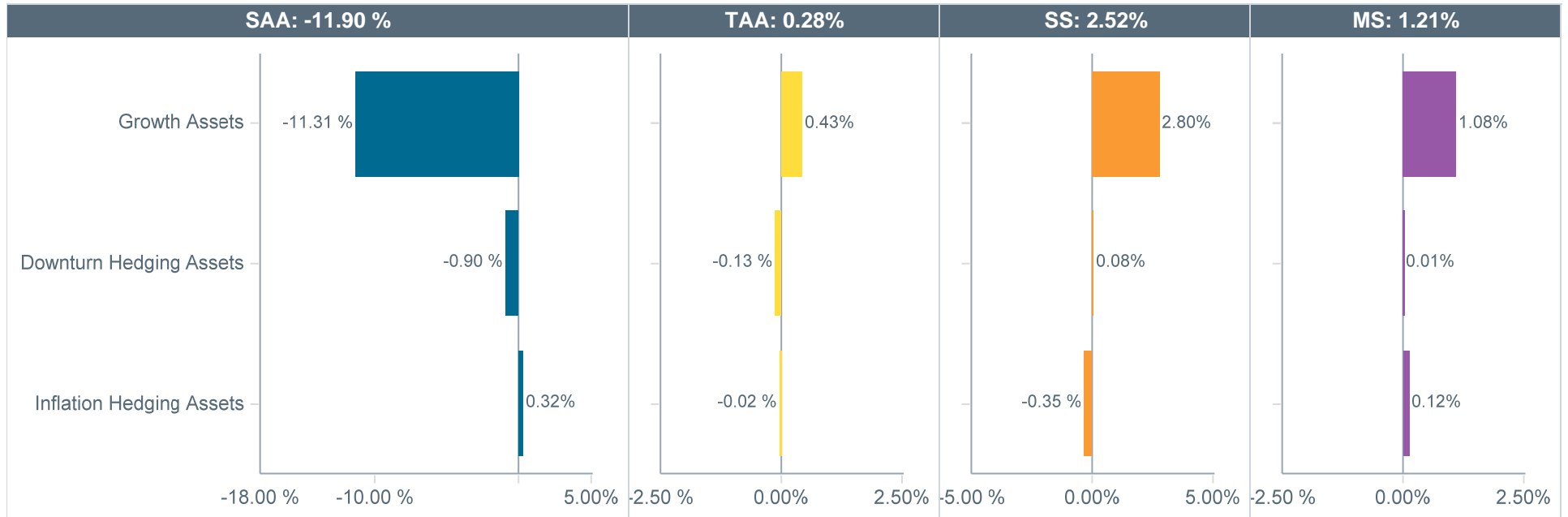
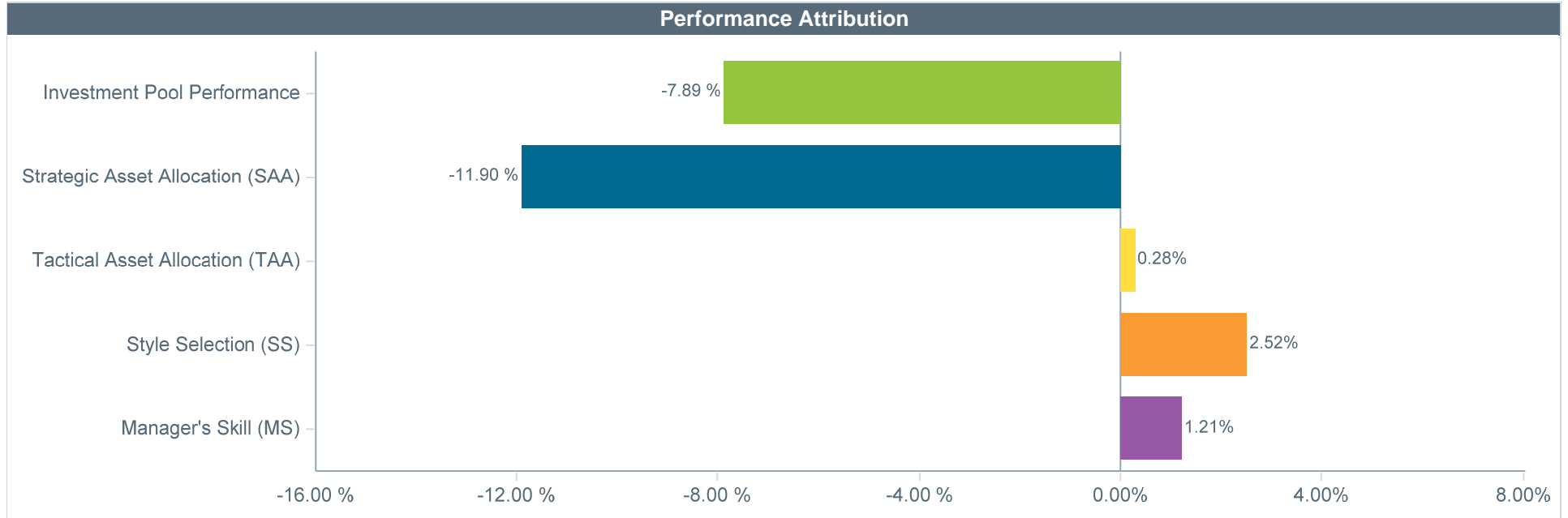


Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.





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.



Performance shown is gross 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.

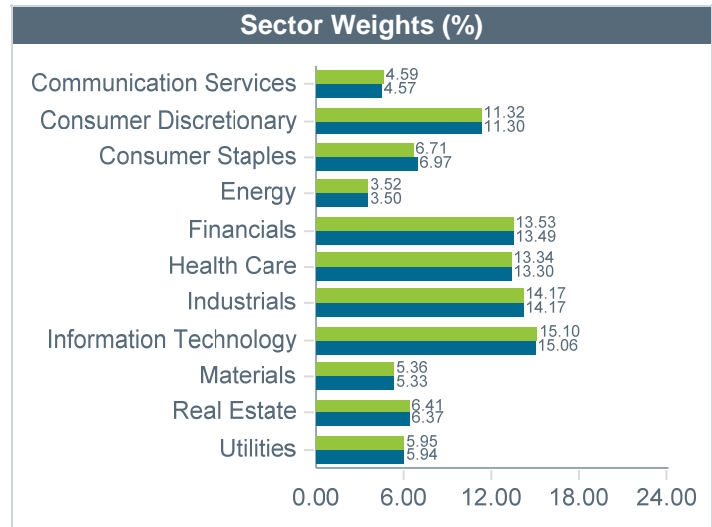
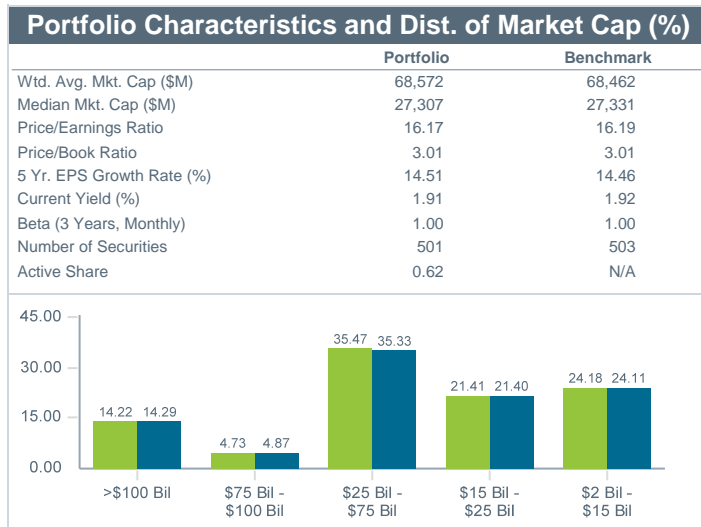
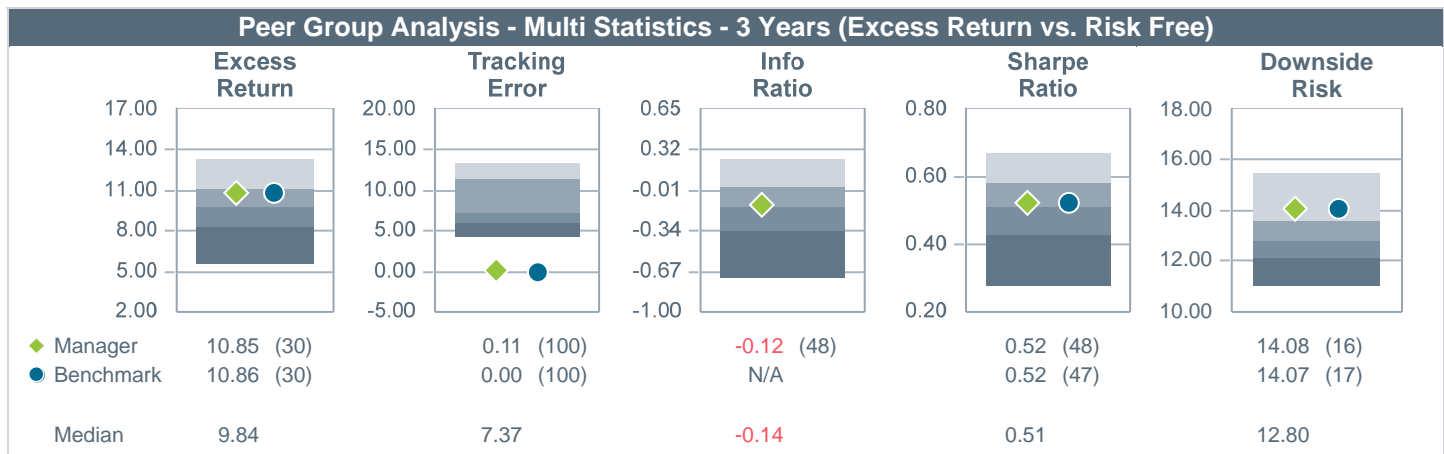
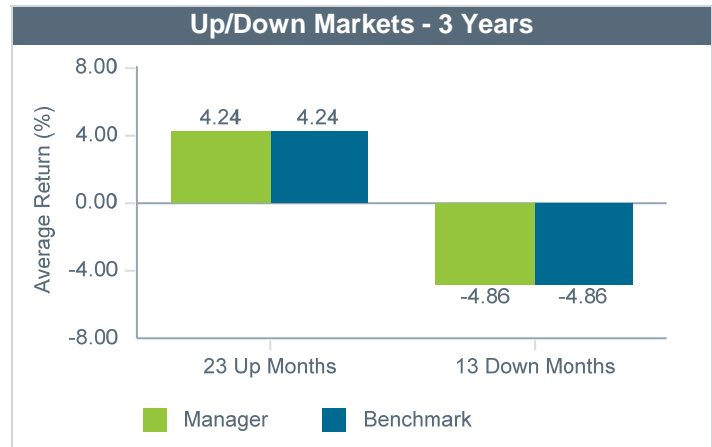
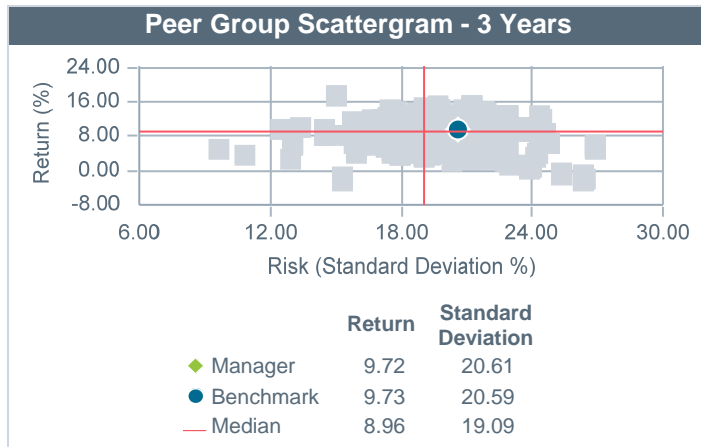




# Investment Manager Profiles



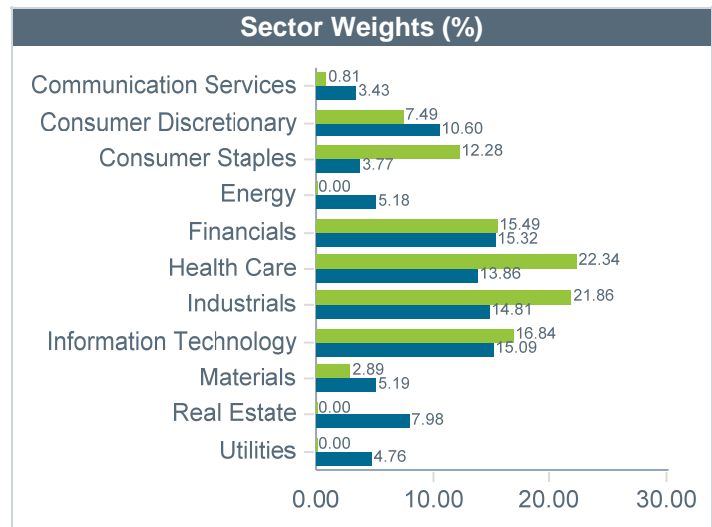
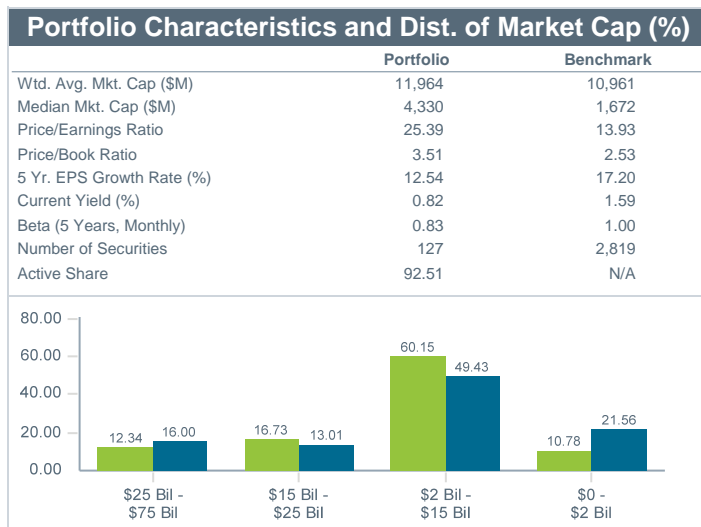
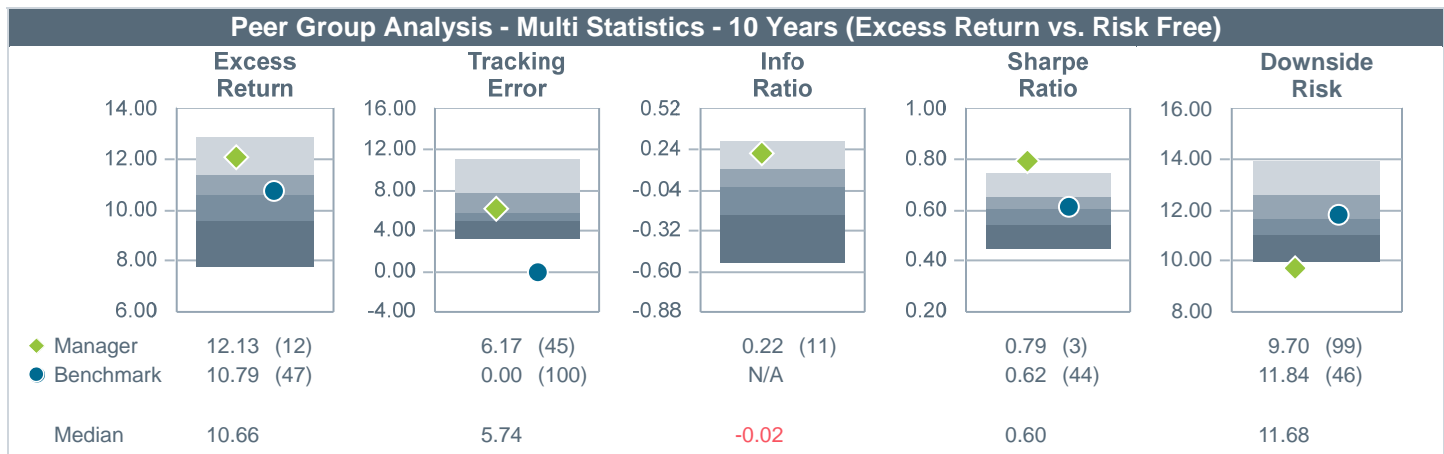
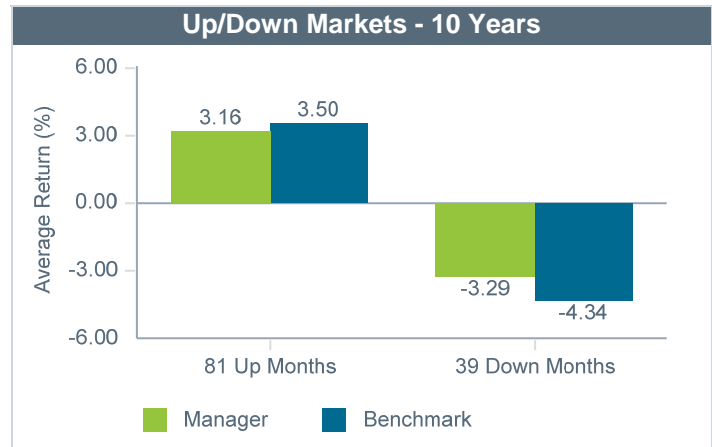
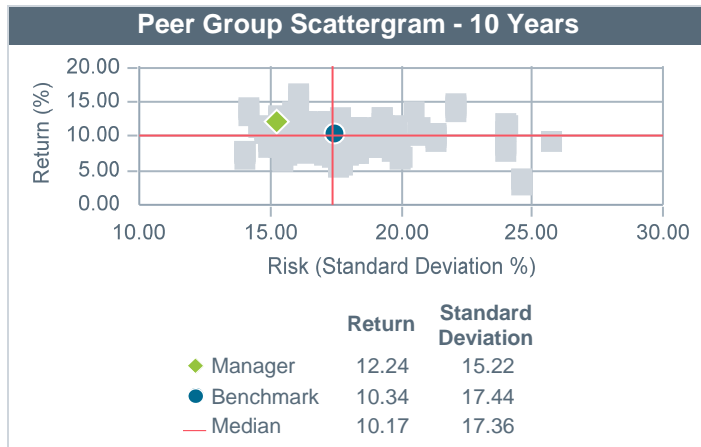
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-14.39	-9.49	9.72	N/A	N/A	N/A	29.44	13.03	N/A	N/A	N/A
Benchmark	-14.36	-9.38	9.73	9.87	9.83	12.66	29.63	12.83	29.24	-7.64	18.90
Difference	-0.03	-0.11	-0.01	N/A	N/A	N/A	-0.19	0.20	N/A	N/A	N/A
Peer Group Median	-16.48	-13.69	8.96	10.40	10.01	12.03	25.28	20.81	30.87	-4.41	22.89
Rank	32	28	36	N/A	N/A	N/A	12	74	N/A	N/A	N/A
Population	1,741	1,680	1,512	1,420	1,265	1,110	1,669	1,652	1,646	1,682	1,637



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



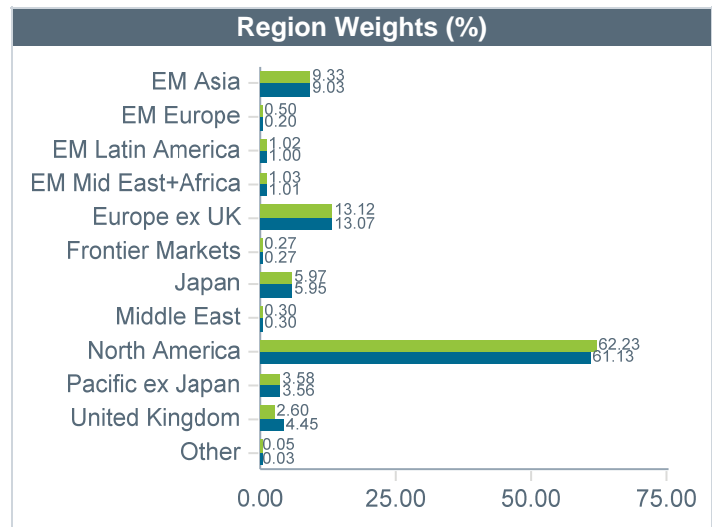
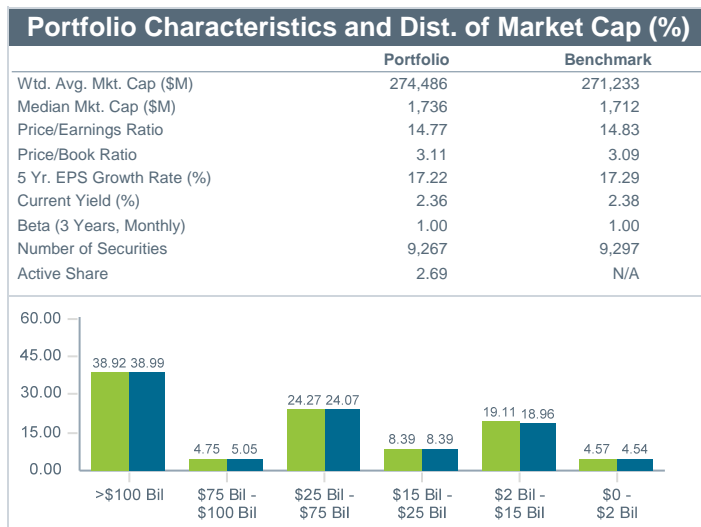
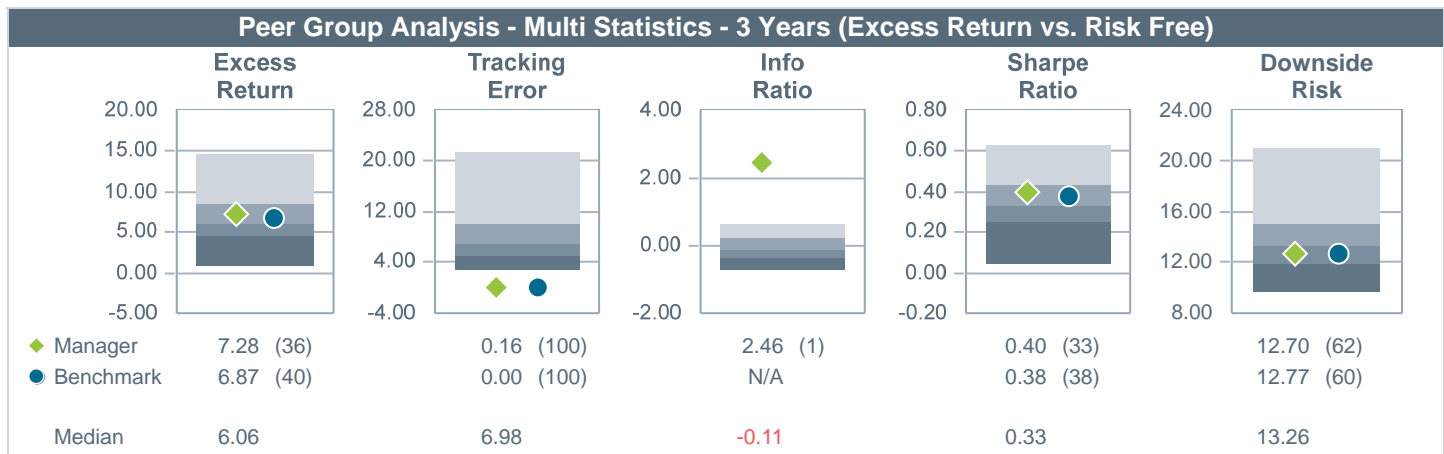
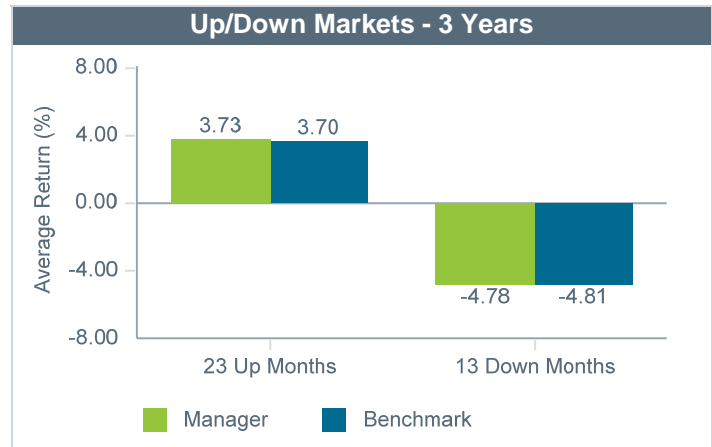
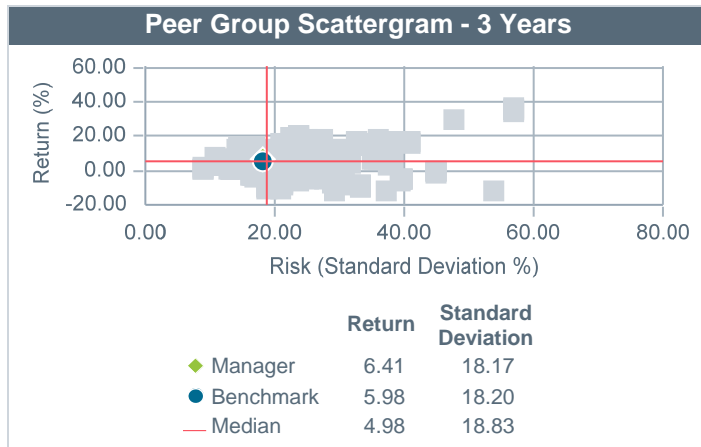
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-18.45	-22.22	5.64	8.58	9.59	12.24	19.93	27.32	27.29	0.47	17.33
Benchmark	-17.01	-21.30	5.80	6.55	7.19	10.34	18.74	19.99	26.65	-10.50	14.67
Difference	-1.44	-0.92	-0.16	2.03	2.40	1.90	1.19	7.33	0.64	10.97	2.66
Peer Group Median	-16.02	-17.56	5.46	6.80	6.91	10.17	20.18	17.55	27.64	-9.57	18.04
Rank	72	61	49	25	7	6	51	34	54	6	54
Population	522	511	468	442	373	319	503	505	521	522	496



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



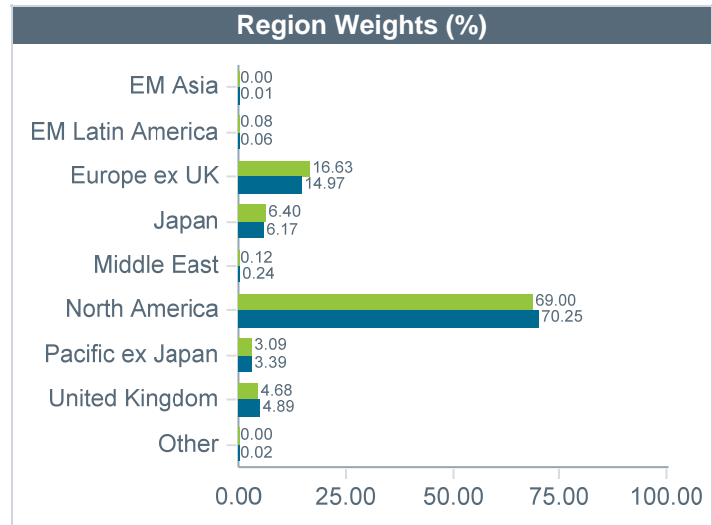
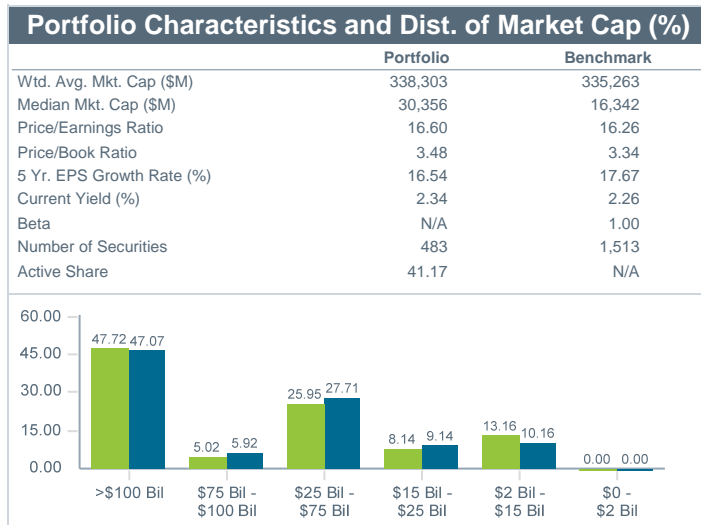
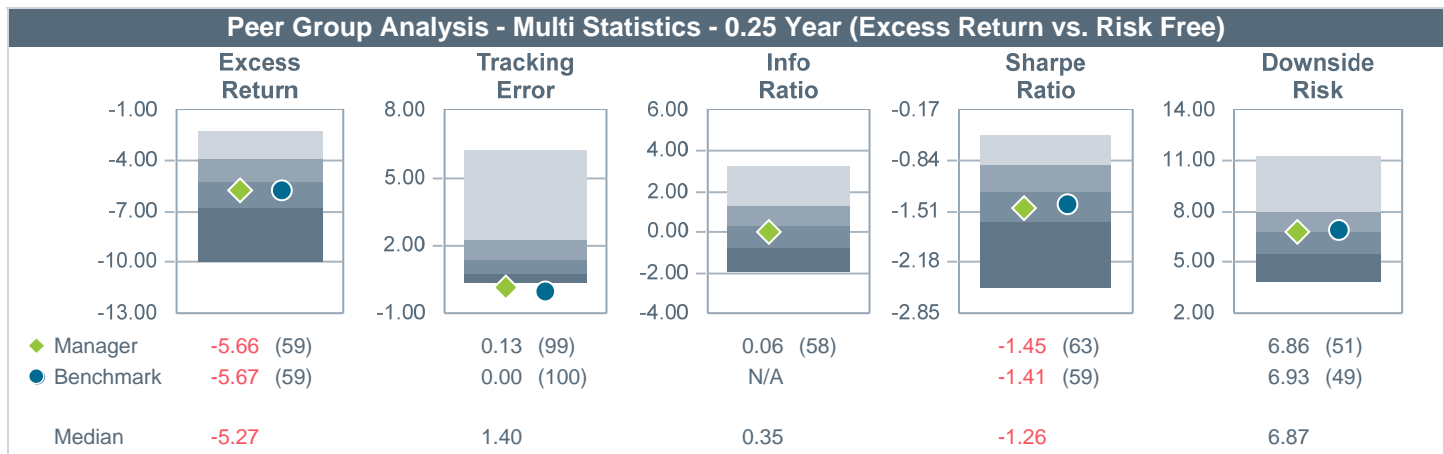
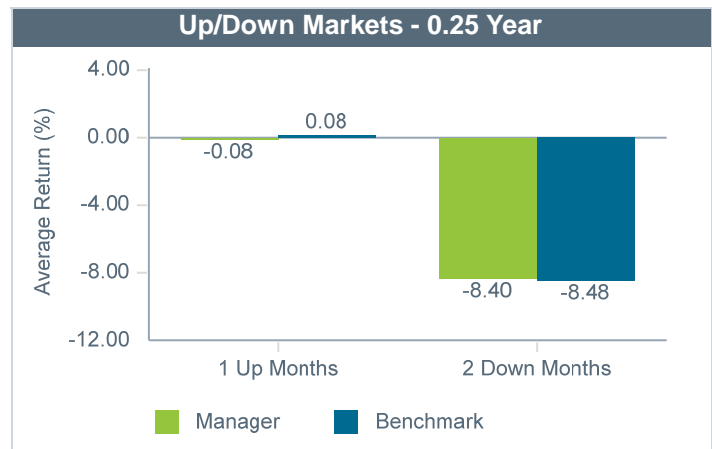
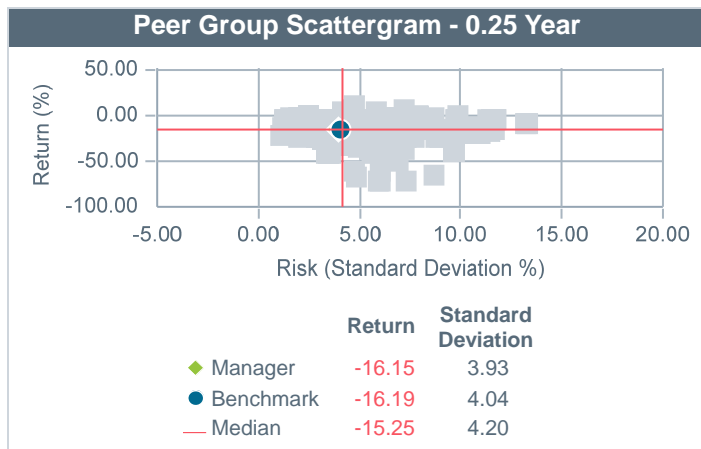
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-15.75	-16.23	6.41	N/A	N/A	N/A	18.73	16.77	N/A	N/A	N/A
Benchmark	-15.83	-16.52	5.98	6.70	6.78	8.71	18.22	16.25	26.35	-10.08	23.95
Difference	0.08	0.29	0.43	N/A	N/A	N/A	0.51	0.52	N/A	N/A	N/A
Peer Group Median	-15.25	-17.51	4.98	6.19	6.02	8.57	16.55	15.37	26.38	-9.55	22.45
Rank	55	47	33	N/A	N/A	N/A	32	45	N/A	N/A	N/A
Population	1,462	1,371	1,192	1,050	850	669	1,359	1,321	1,373	1,373	1,290



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

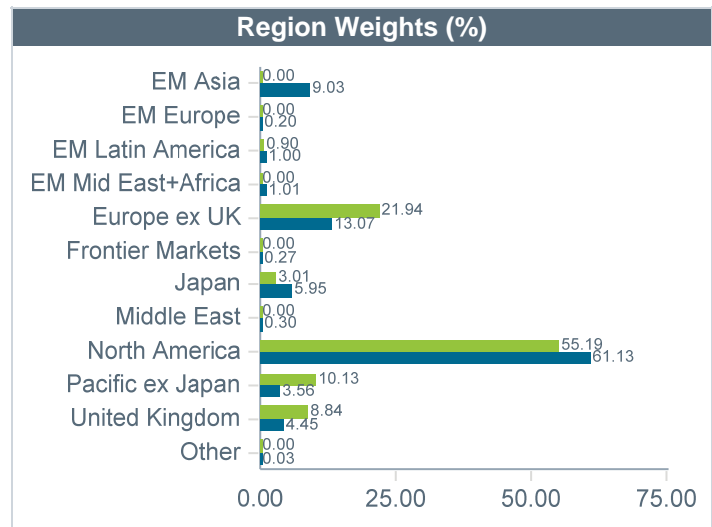
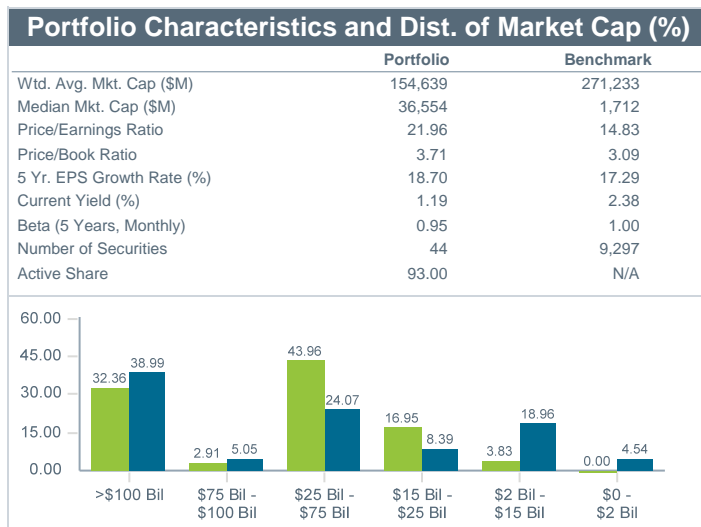
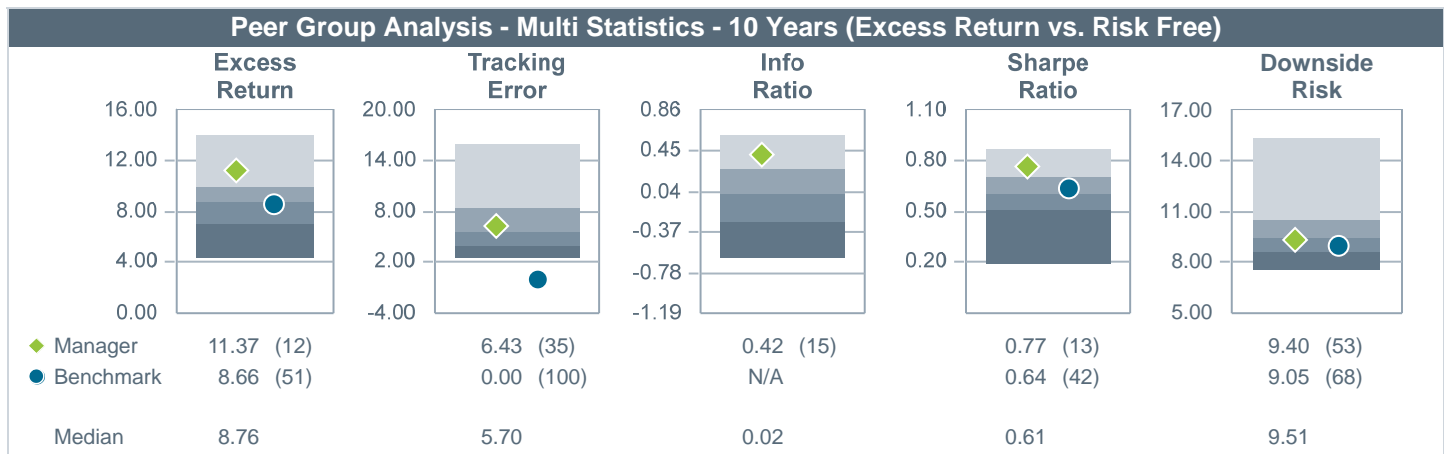
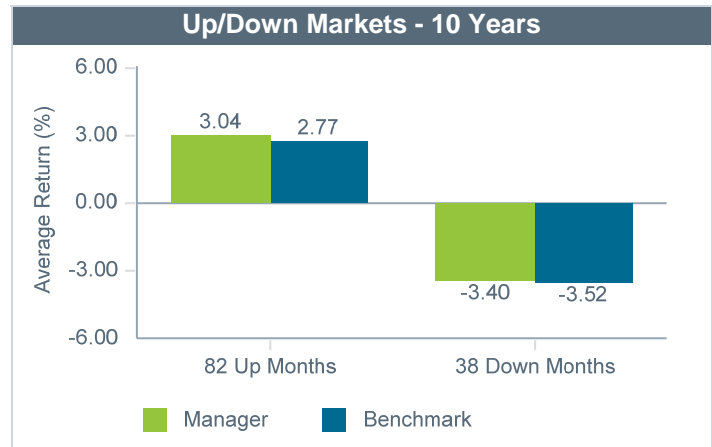
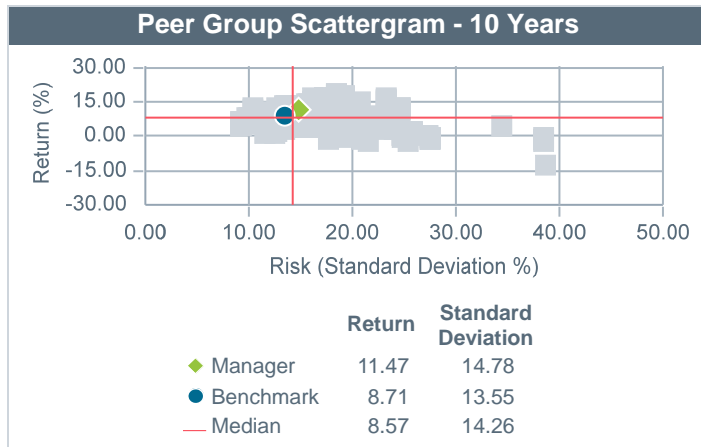


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-16.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-16.19	-14.34	7.00	7.67	7.53	9.51	21.82	15.90	27.67	-8.71	22.40
Difference	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-15.25	-17.51	4.98	6.19	6.02	8.57	16.55	15.37	26.38	-9.55	22.45
Rank	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	1,462	1,371	1,192	1,050	850	669	1,359	1,321	1,373	1,373	1,290



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

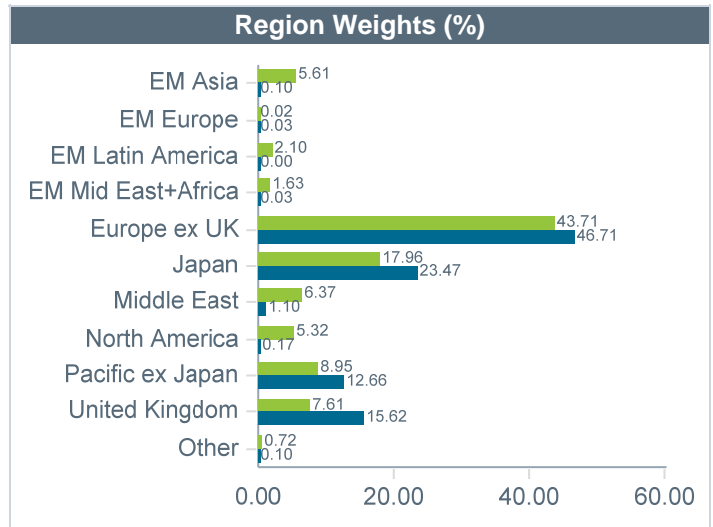
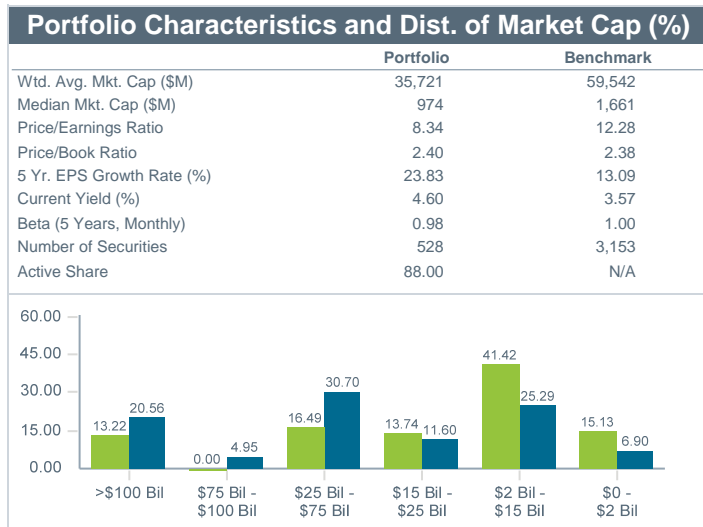
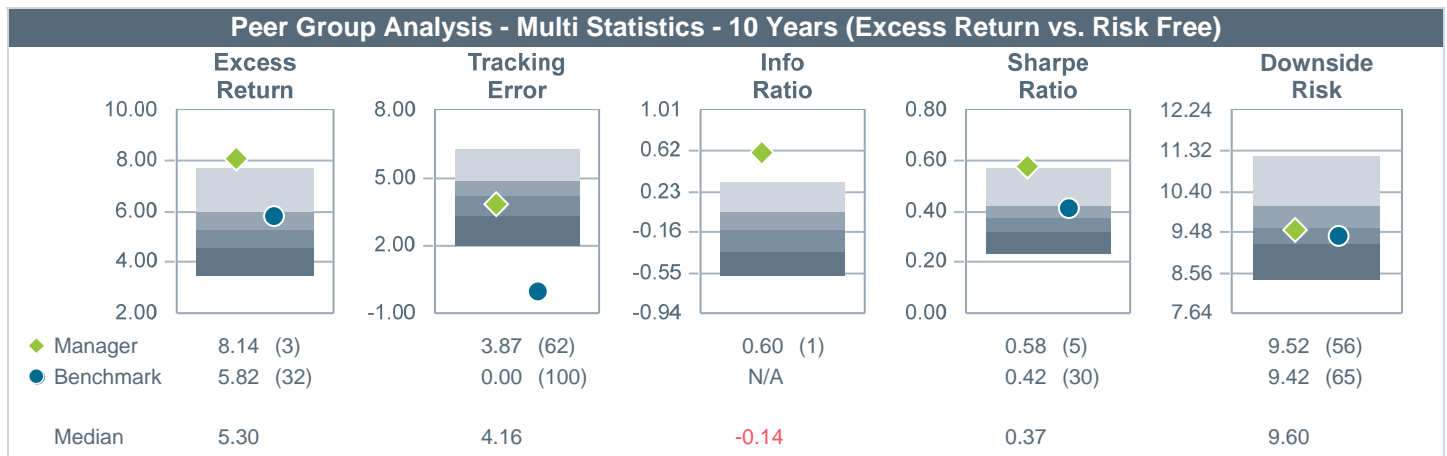
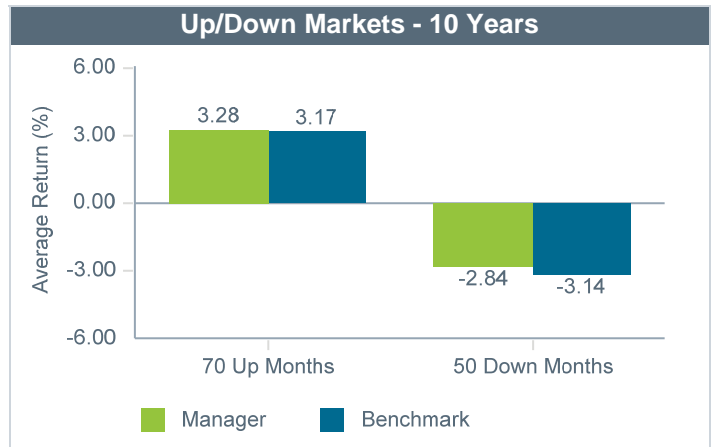
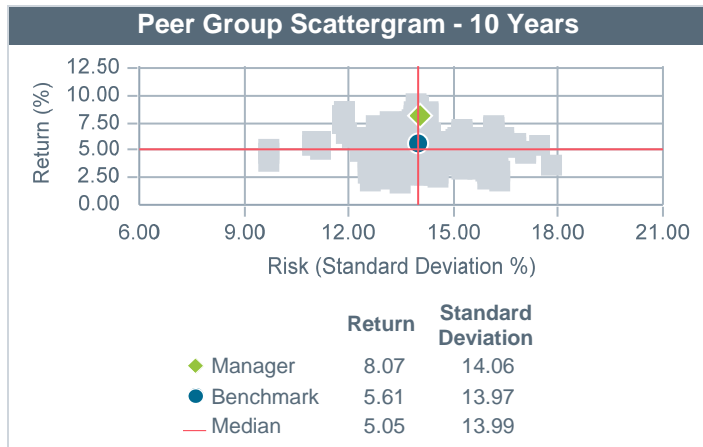
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-20.70	-26.65	6.57	8.49	9.22	11.47	14.10	40.32	35.89	-8.68	31.69
Benchmark	-15.83	-16.52	5.98	6.70	6.78	8.71	18.22	16.25	26.35	-10.08	23.95
Difference	-4.87	-10.13	0.59	1.79	2.44	2.76	-4.12	24.07	9.54	1.40	7.74
Peer Group Median	-15.25	-17.51	4.98	6.19	6.02	8.57	16.55	15.37	26.38	-9.55	22.45
Rank	86	78	31	19	10	12	66	13	5	40	13
Population	1,462	1,371	1,192	1,050	850	669	1,359	1,321	1,373	1,373	1,290



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

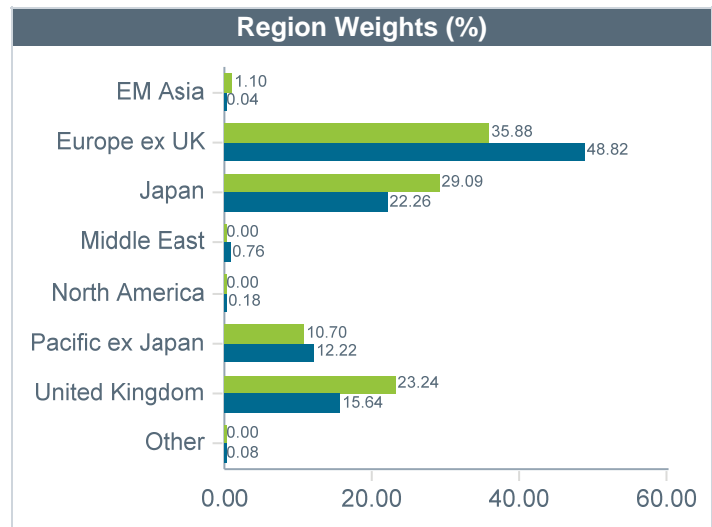
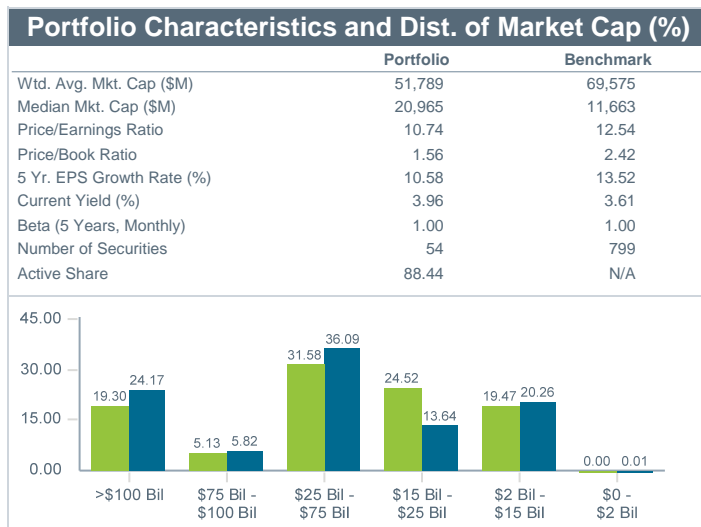
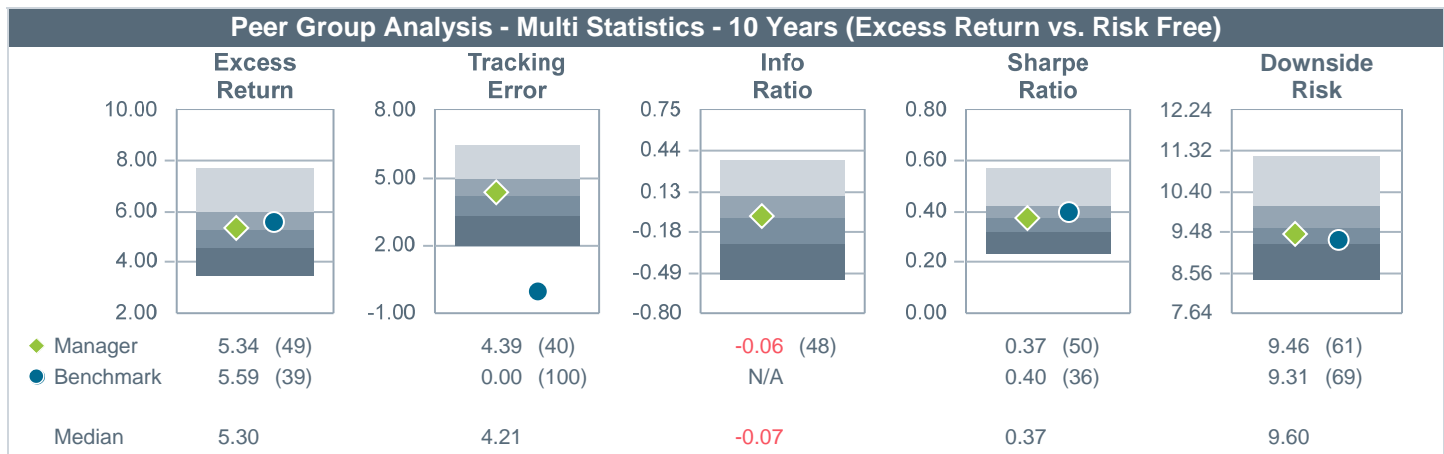
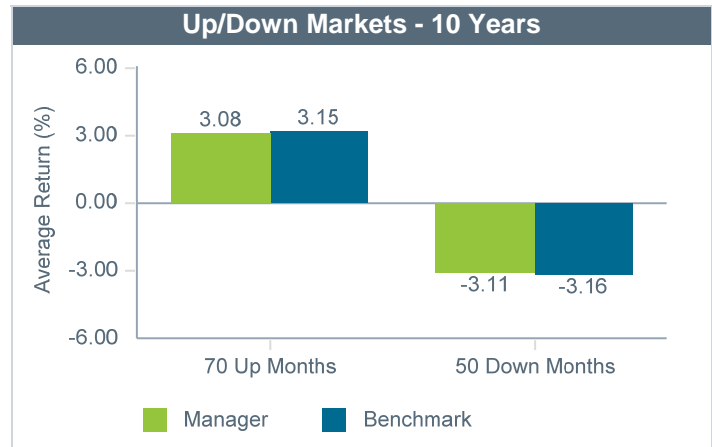
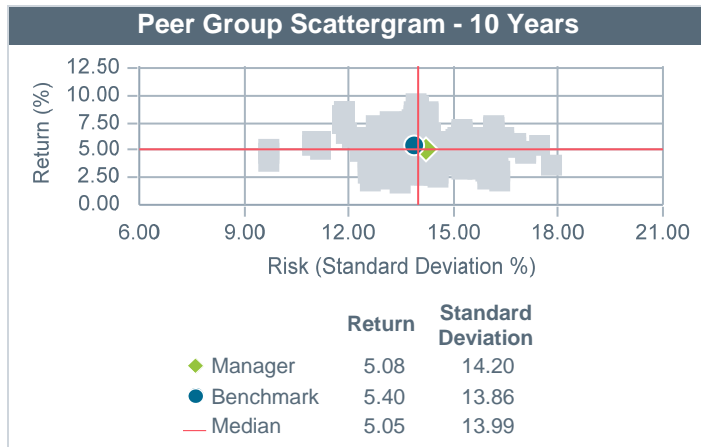


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-14.88	-18.03	3.74	3.24	5.92	8.07	15.96	12.37	18.22	-15.89	36.78
Benchmark	-15.00	-18.75	1.06	2.12	2.82	5.61	11.08	8.47	22.44	-14.40	26.16
Difference	0.12	0.72	2.68	1.12	3.10	2.46	4.88	3.90	-4.22	-1.49	10.62
Peer Group Median	-13.19	-18.37	1.48	1.94	2.34	5.05	10.79	8.17	21.59	-15.91	25.26
Rank	76	46	8	18	1	4	8	33	78	50	3
Population	530	530	530	530	489	397	558	597	643	672	699



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	2021	2020	2019	2018	2017
Manager	-9.58	-11.80	0.97	1.81	2.35	5.08	11.71	-4.01	19.29	-11.66	22.08
Benchmark	-14.51	-17.77	1.07	2.20	2.70	5.40	11.26	7.82	22.01	-13.79	25.03
Difference	4.93	5.97	-0.10	-0.39	-0.35	-0.32	0.45	-11.83	-2.72	2.13	-2.95
Peer Group Median	-13.19	-18.37	1.48	1.94	2.34	5.05	10.79	8.17	21.59	-15.91	25.26
Rank	6	10	62	54	50	50	35	98	69	14	85
Population	530	530	530	530	489	397	558	597	643	672	699

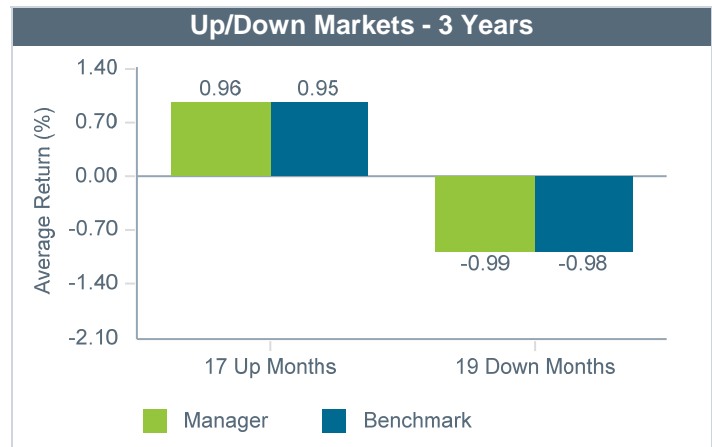
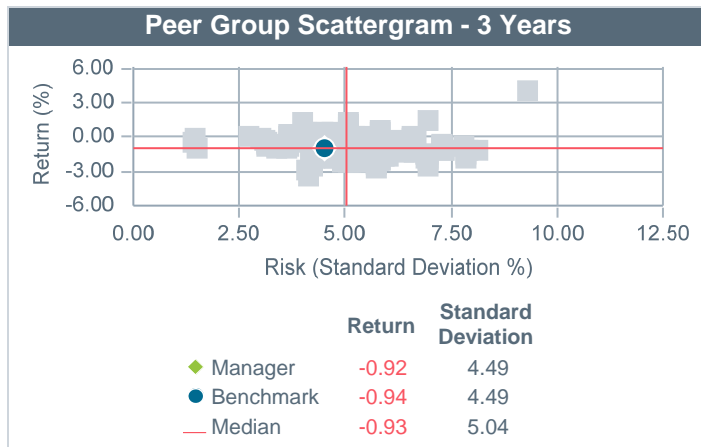


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



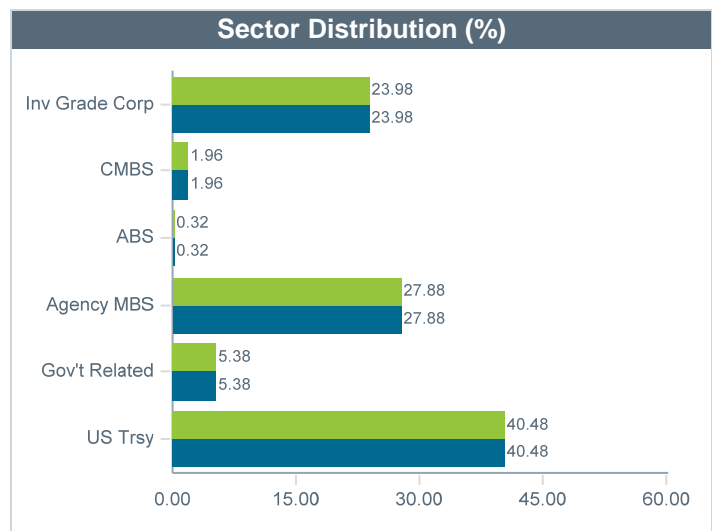


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-4.69	-10.25	-0.92	N/A	N/A	N/A	-1.62	7.54	N/A	N/A	N/A
Benchmark	-4.69	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01	3.54
Difference	0.00	0.04	0.02	N/A	N/A	N/A	-0.07	0.03	N/A	N/A	N/A
Peer Group Median	-5.35	-11.17	-0.93	0.80	1.37	1.60	-1.33	8.15	8.76	-0.62	3.60
Rank	15	17	49	N/A	N/A	N/A	63	72	N/A	N/A	N/A
Population	516	504	476	437	386	317	511	508	529	523	513



### Portfolio Characteristics

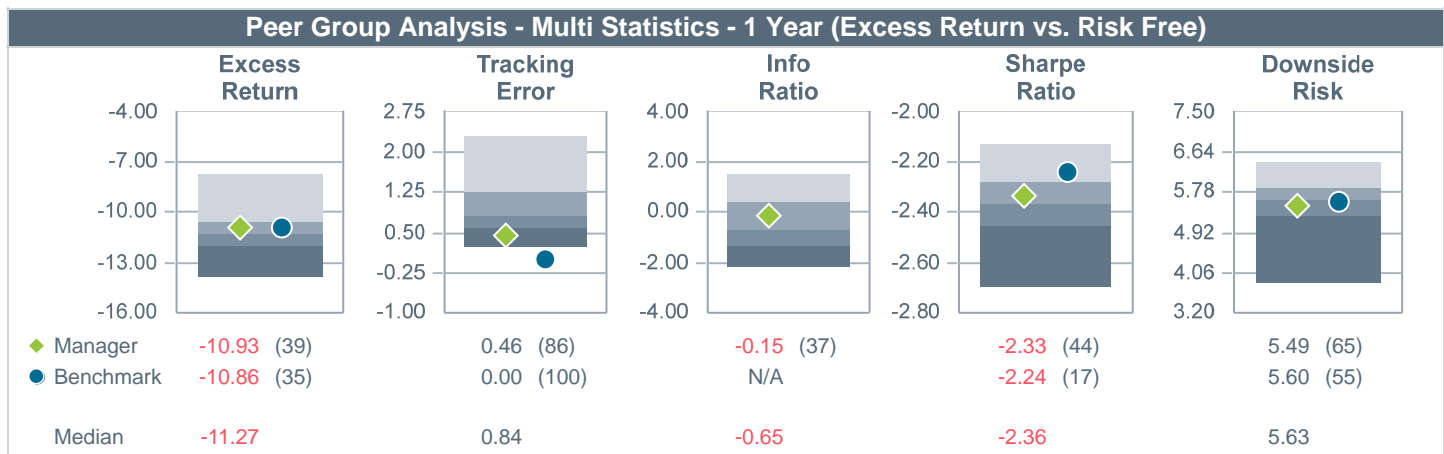
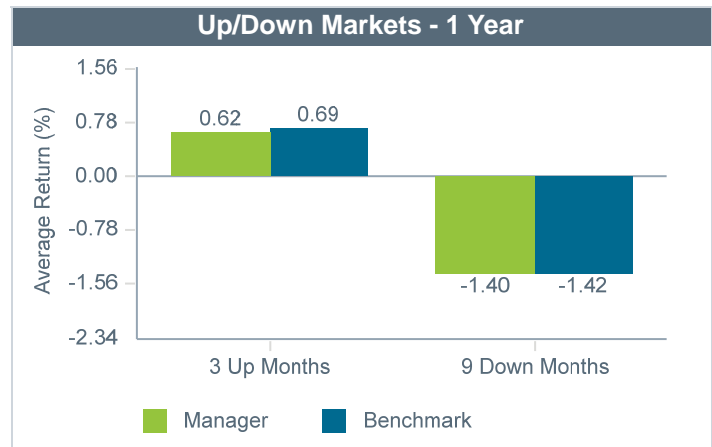
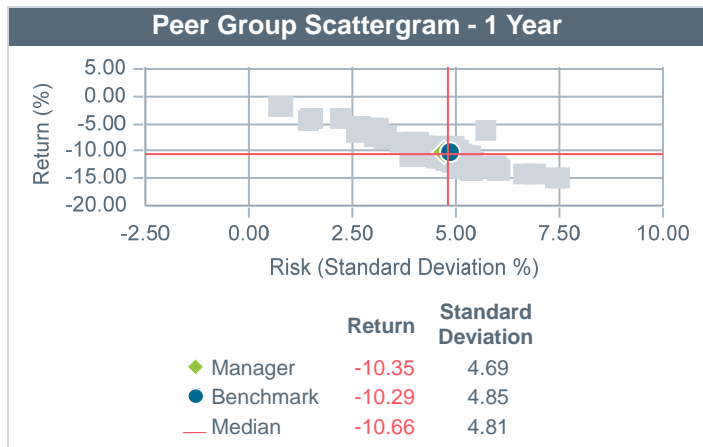
	Portfolio	Benchmark
Effective Duration	6.44	6.44
Spread Duration	N/A	N/A
Avg. Maturity	8.63	8.63
Avg. Quality	Aa1/Aa2	Aa1/Aa2
Yield To Maturity (%)	3.72	3.72
Coupon Rate (%)	2.49	2.49
Current Yield (%)	N/A	N/A
Holdings Count	12,563	12,563



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.

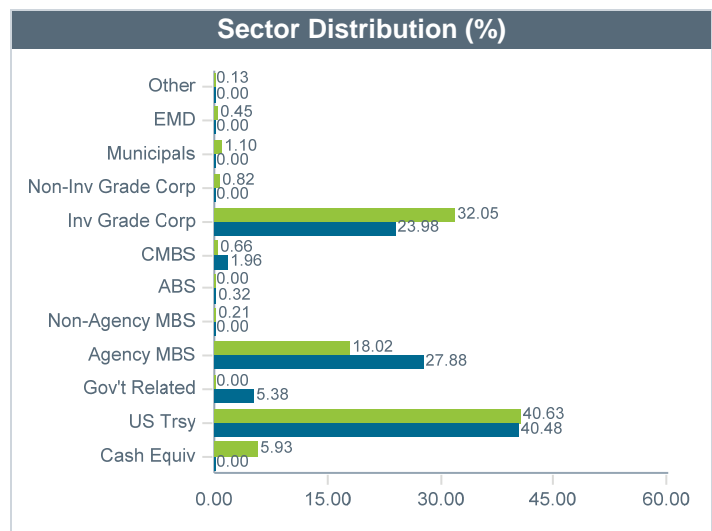


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-4.71	-10.35	N/A	N/A	N/A	N/A	-1.68	N/A	N/A	N/A	N/A
Benchmark	-4.69	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01	3.54
Difference	-0.02	-0.06	N/A	N/A	N/A	N/A	-0.13	N/A	N/A	N/A	N/A
Peer Group Median	-5.22	-10.66	-0.31	1.41	2.06	2.36	-0.69	8.87	9.52	0.00	4.37
Rank	21	38	N/A	N/A	N/A	N/A	91	N/A	N/A	N/A	N/A
Population	516	504	476	437	386	317	511	508	529	523	513



### Portfolio Characteristics

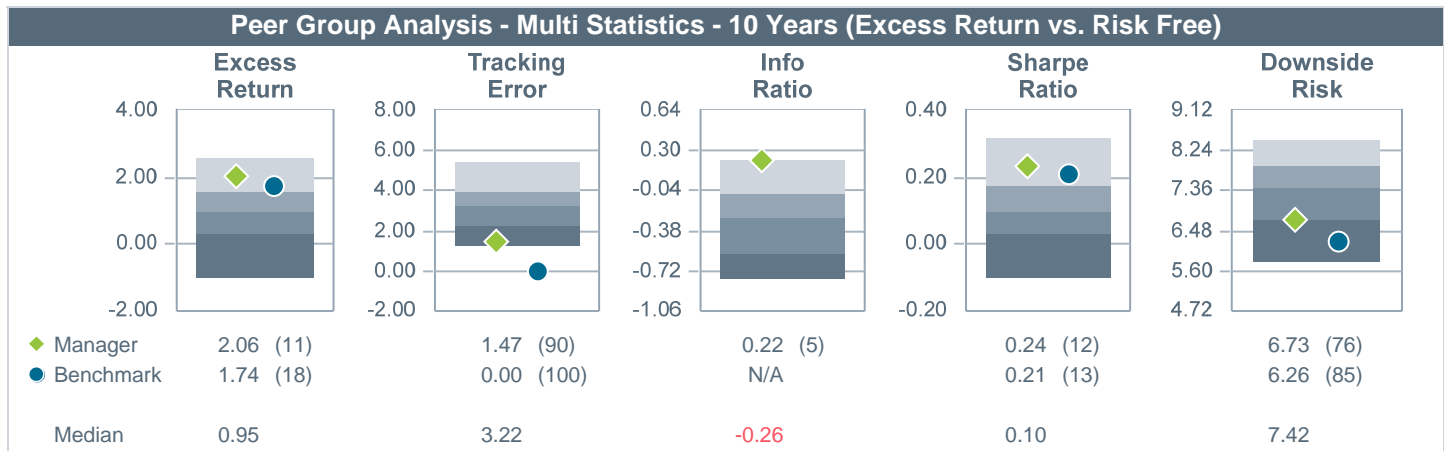
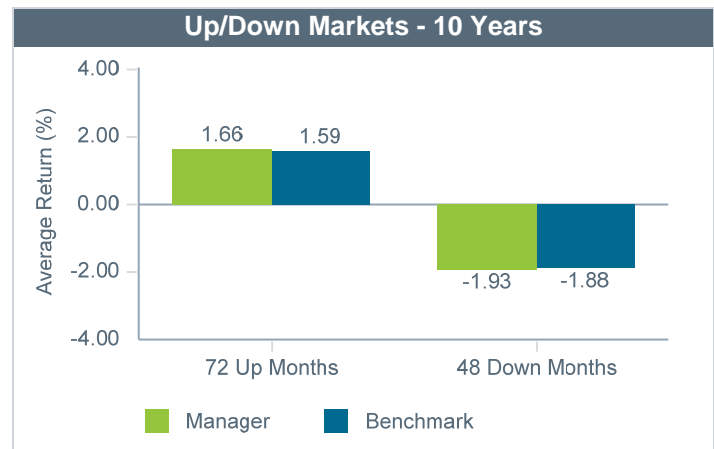
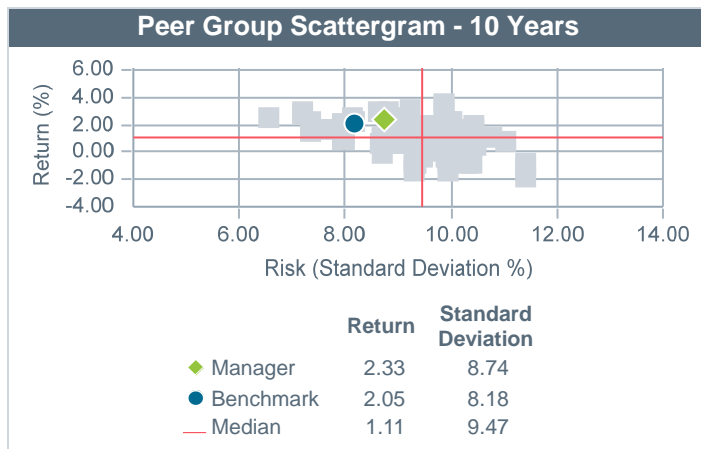
	Portfolio	Benchmark
Effective Duration	6.21	6.44
Spread Duration	3.70	N/A
Avg. Maturity	8.26	8.63
Avg. Quality	AA	Aa1/Aa2
Yield To Maturity (%)	3.87	3.72
Coupon Rate (%)	2.27	2.49
Current Yield (%)	2.43	N/A
Holdings Count	303	12,563



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.

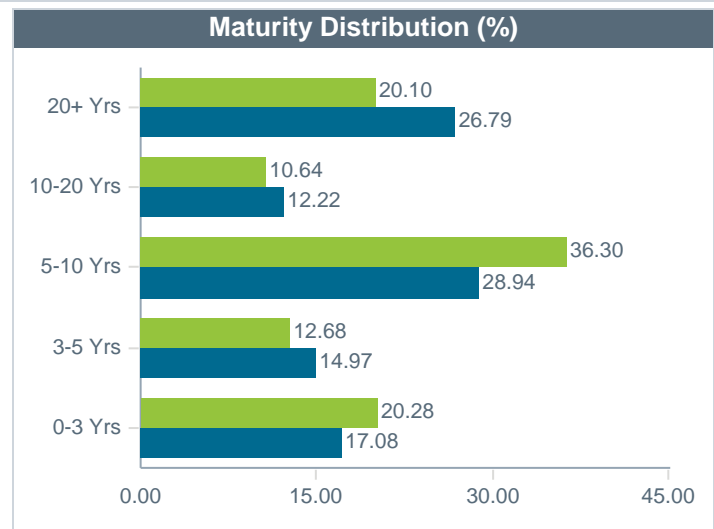


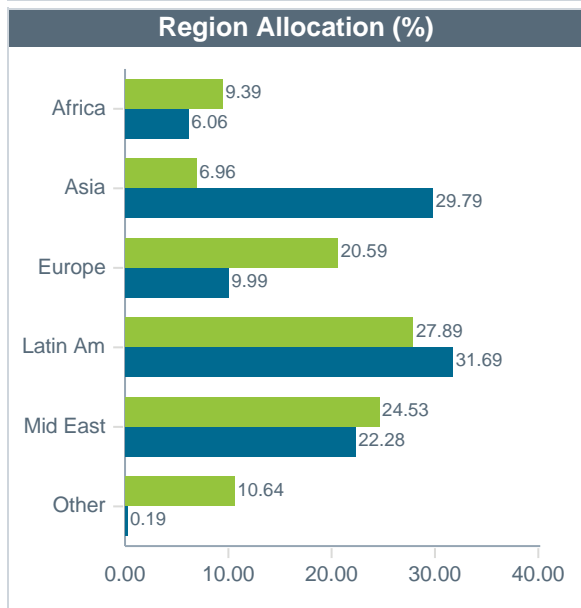
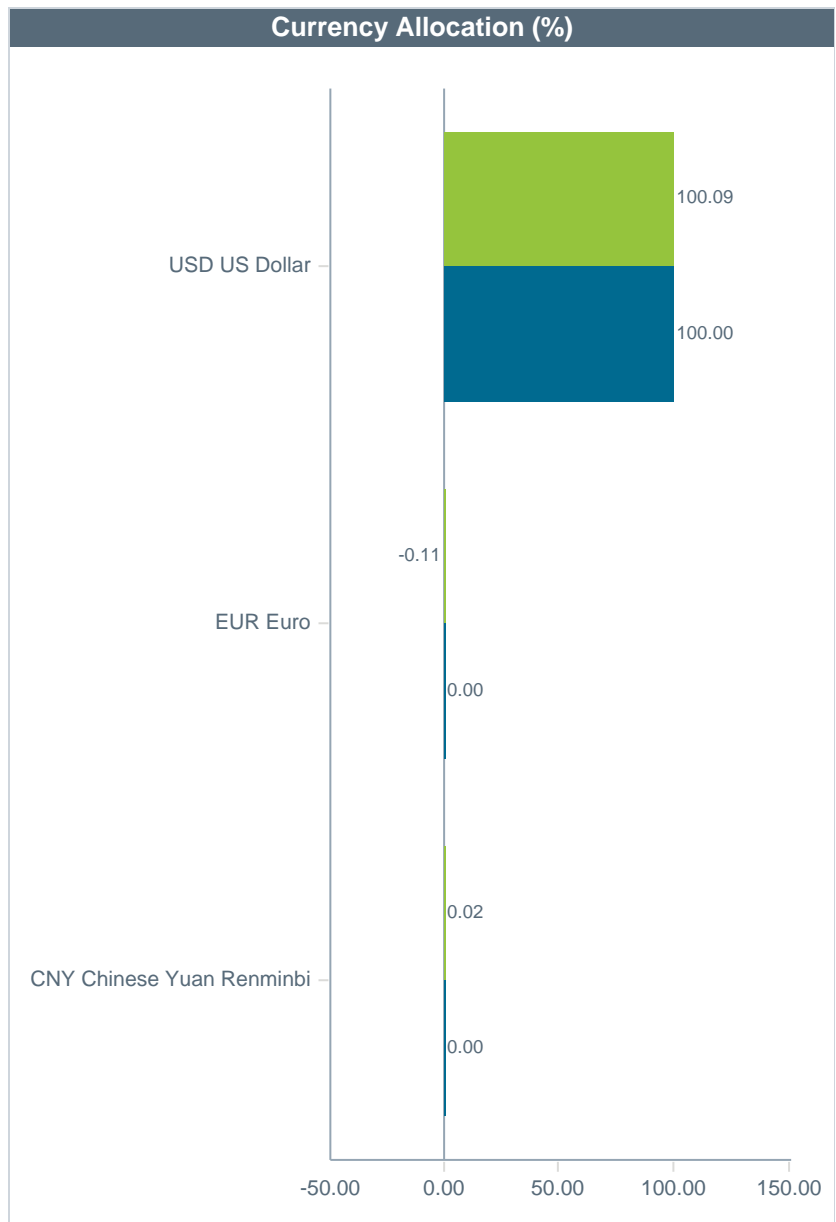
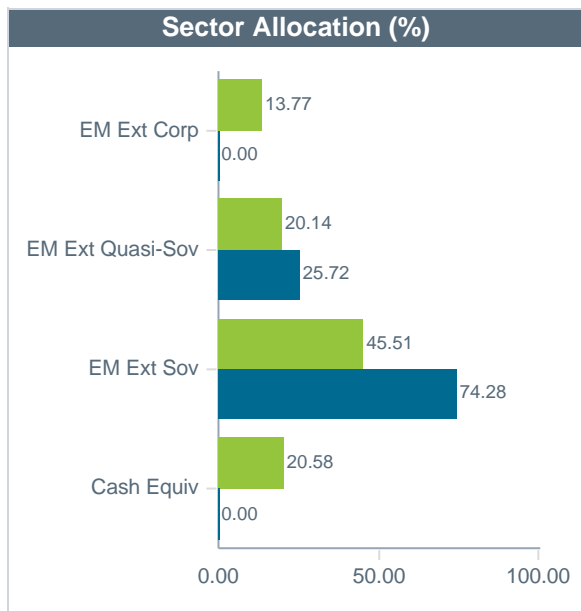
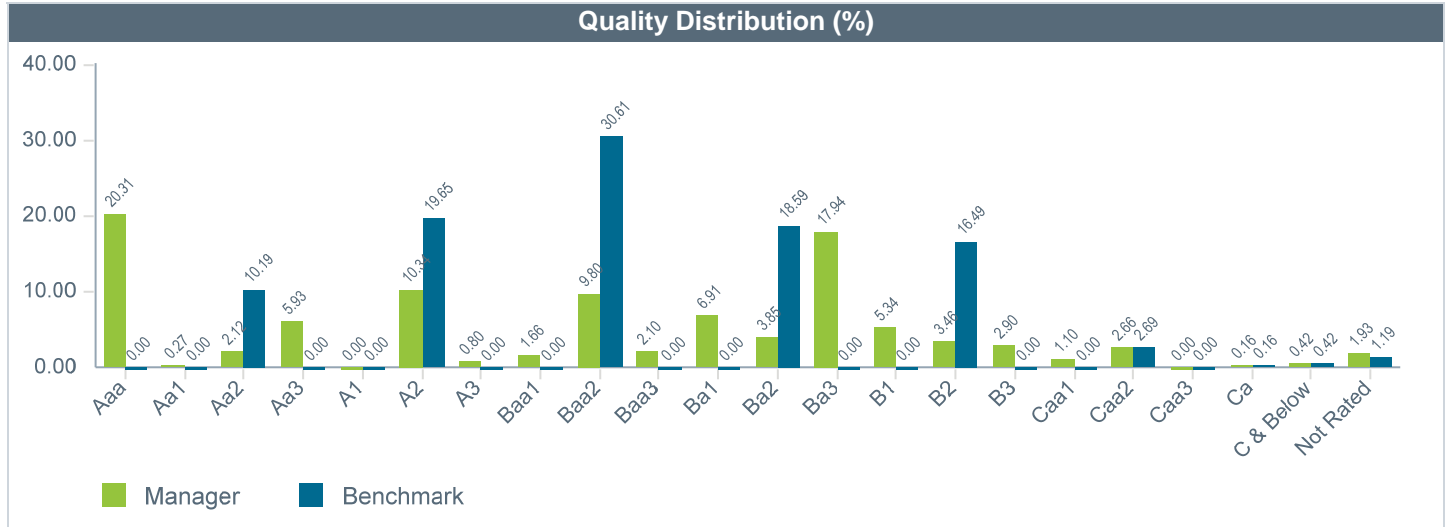
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-11.01	-20.93	-4.54	-1.11	1.64	2.33	-3.32	7.69	15.84	-5.78	10.56
Benchmark	-10.55	-19.25	-4.33	-1.00	1.46	2.05	-1.51	5.88	14.42	-4.61	9.32
Difference	-0.46	-1.68	-0.21	-0.11	0.18	0.28	-1.81	1.81	1.42	-1.17	1.24
Peer Group Median	-11.25	-20.13	-4.85	-1.32	0.92	1.11	-2.97	5.74	13.63	-5.92	10.54
Rank	46	65	45	45	25	11	60	16	9	48	50
Population	262	260	239	212	165	94	264	263	273	273	262



### Portfolio Characteristics (%)

	Portfolio	Benchmark
Effective Duration	7.01	7.01
Spread Duration	6.53	6.96
Avg. Maturity	11.58	12.68
Avg. Quality	Baa2	Baa3
Yield To Maturity (%)	7.26	7.70
Coupon Rate (%)	4.43	4.69
Current Yield (%)	5.99	5.67
Holdings Count	411	945

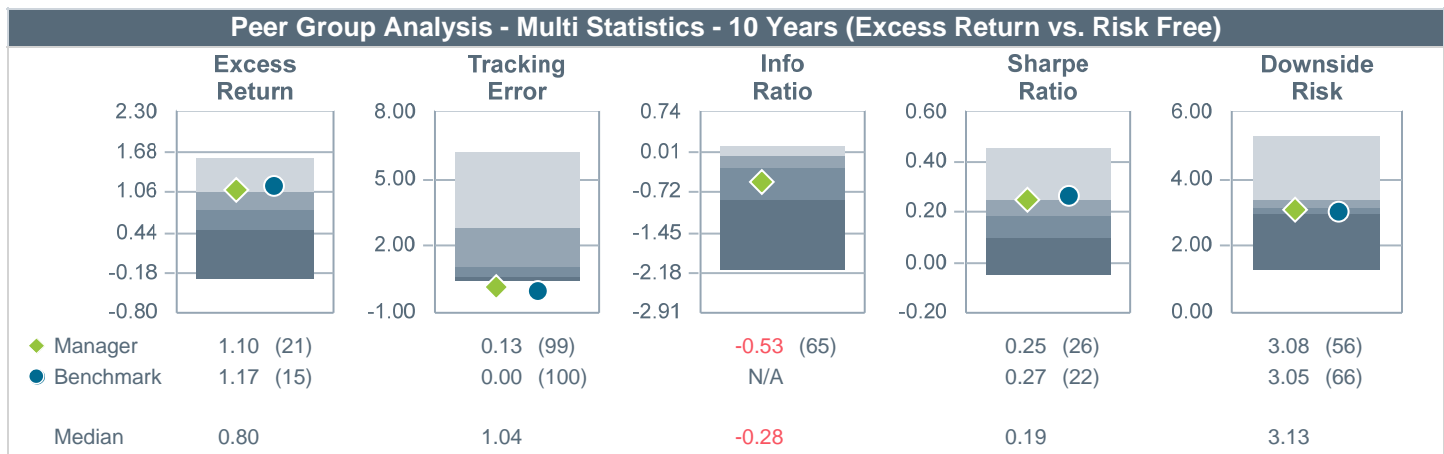
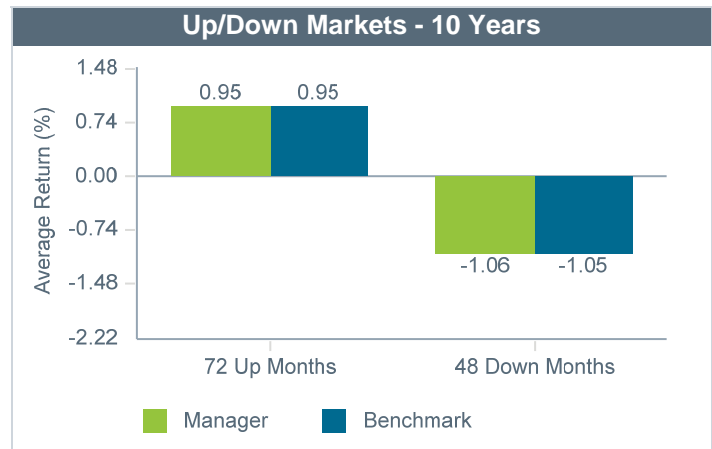
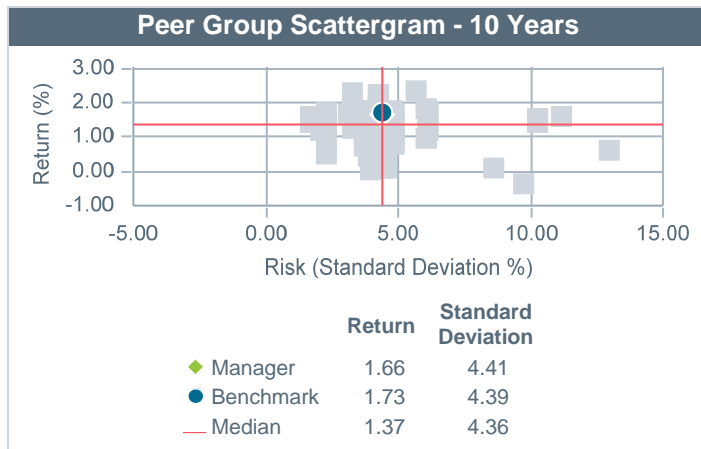




Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Region allocation to other consists of cash, cash equivalents, currency forwards, EM CDX and North America. Region allocation to other consists of EM government debt.

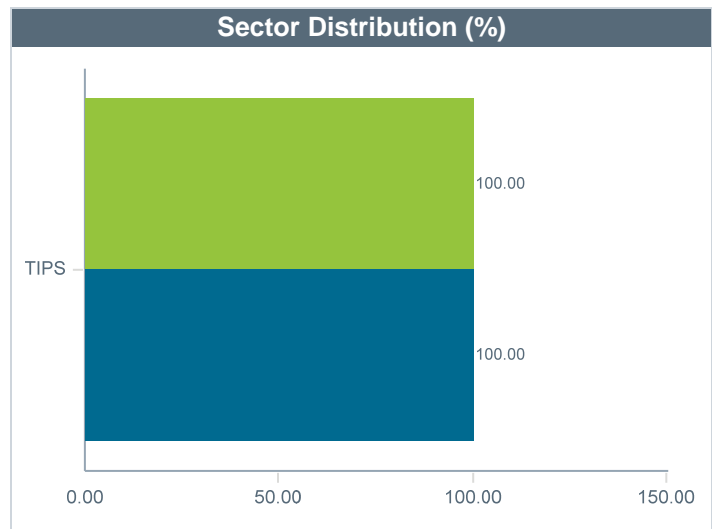


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-6.13	-5.23	2.98	3.13	2.75	1.66	5.81	10.97	8.33	-1.36	2.98
Benchmark	-6.08	-5.14	3.04	3.21	2.82	1.73	5.96	10.99	8.43	-1.26	3.01
Difference	-0.05	-0.09	-0.06	-0.08	-0.07	-0.07	-0.15	-0.02	-0.10	-0.10	-0.03
Peer Group Median	-6.09	-5.34	2.89	2.87	2.35	1.37	5.26	9.70	7.41	-1.57	2.60
Rank	53	47	44	23	18	19	28	27	23	42	30
Population	202	196	189	176	153	116	201	199	214	221	222



### Portfolio Characteristics

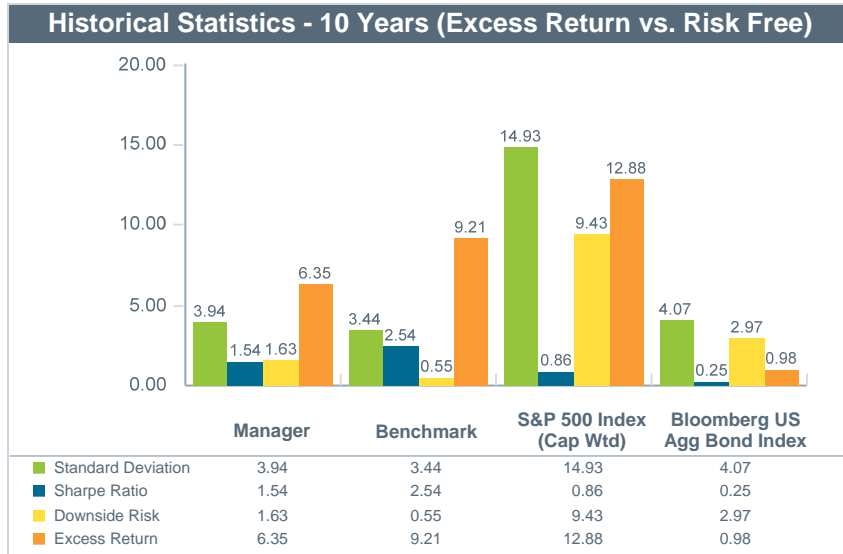
	Portfolio	Benchmark
Effective Duration	5.05	5.05
Spread Duration	5.05	5.05
Avg. Maturity	7.38	7.38
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	3.38	3.38
Coupon Rate (%)	0.63	0.63
Current Yield (%)	N/A	N/A
Holdings Count	46	46



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.

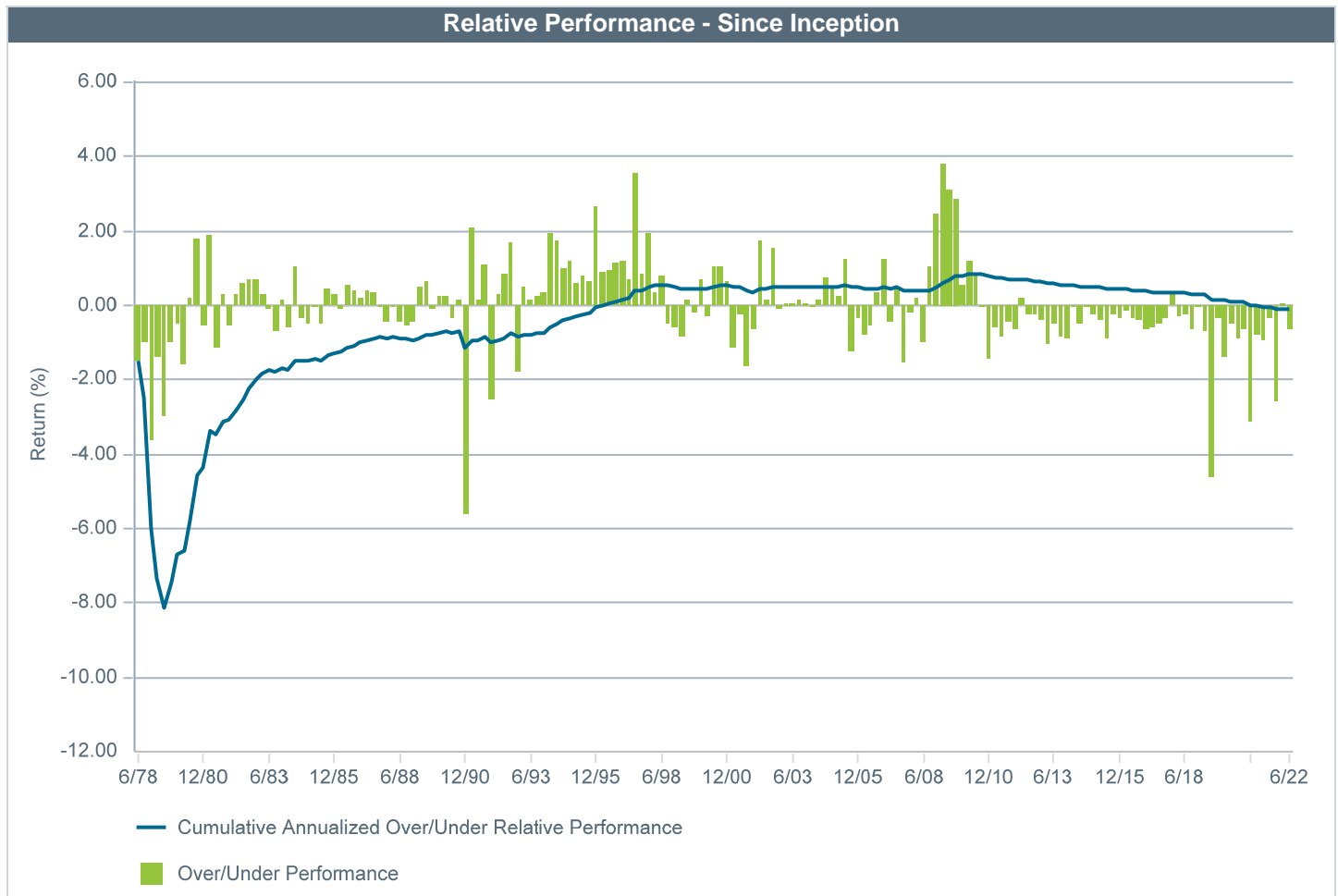


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	3.84	23.78	7.17	5.48	5.93	7.09	15.42	-4.74	-2.87	6.15	5.42
Benchmark	4.54	28.31	11.66	9.55	9.35	10.15	21.02	0.34	4.39	7.36	6.66
Difference	-0.70	-4.53	-4.49	-4.07	-3.42	-3.06	-5.60	-5.08	-7.26	-1.21	-1.24



### Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Net)	0.89
S&P 500 Index (Cap Wtd)	-0.34
Russell 2000 Index	-0.41
MSCI EAFE Index (USD) (Net)	-0.37
MSCI Emg Mkts Index (USD) (Net)	-0.46
Bloomberg US Agg Bond Index	-0.50
Bloomberg US Trsy US TIPS Index	-0.40
Wilshire US REIT Index	-0.09
HFRI FOF Comp Index	-0.41
Bloomberg Comdty Index (TR)	0.07
ICE BofAML 3 Mo US T-Bill Index	-0.43
Cons Price Index (Unadjusted)	0.32
NCREIF Property Index	0.86



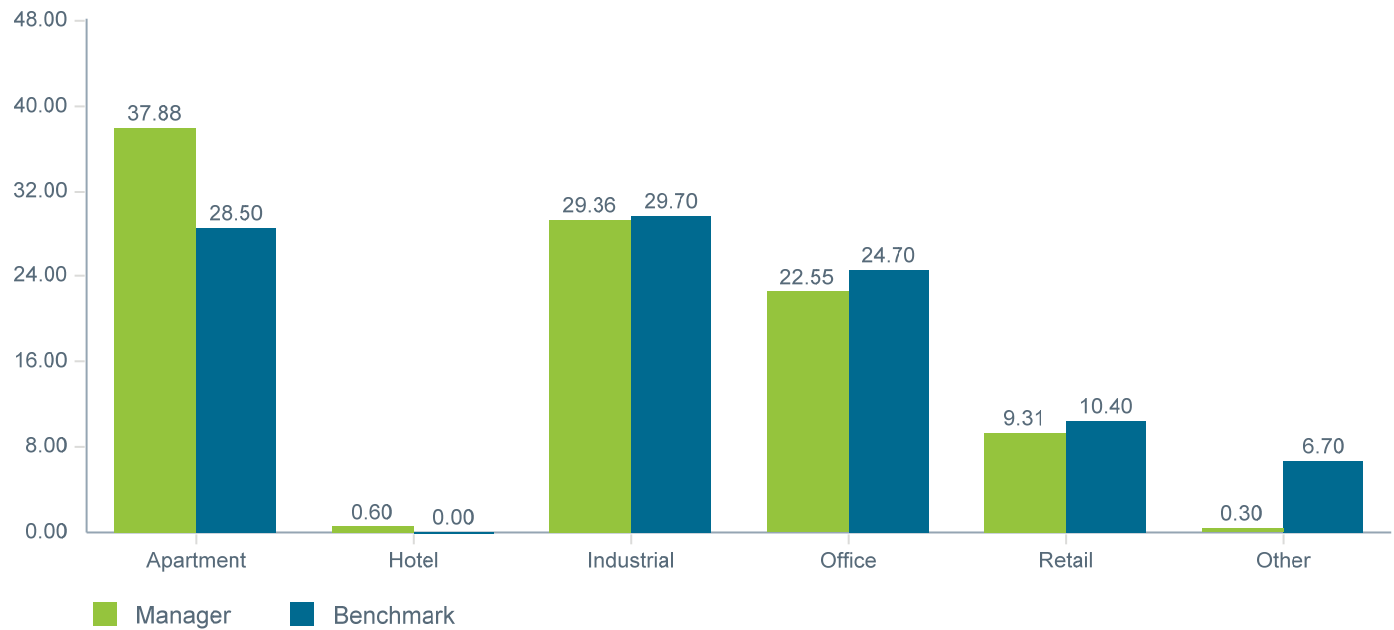
**Investment Strategy**

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.

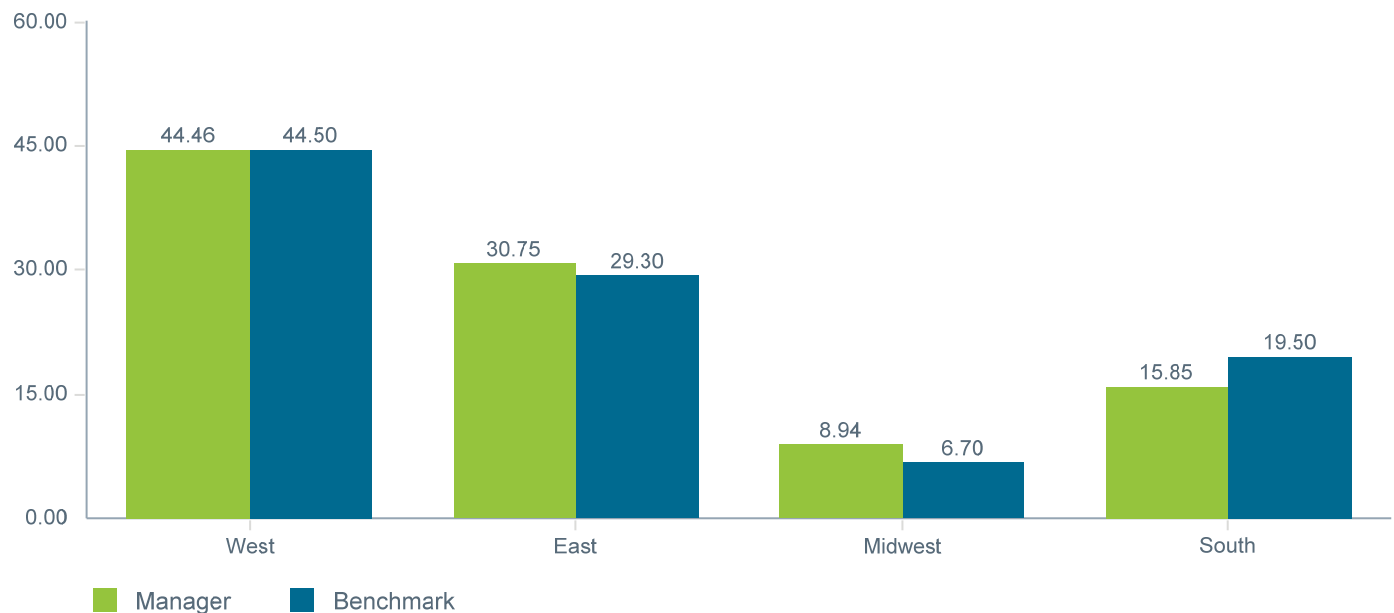
**Investment Profile**

Fund Inception	1978
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	18,225
Fund Leverage %	16.70
Portfolio Occupancy %	92.80
Cash Reserve %	2.30
Number of Investments	157
Number of Limited Partners	443

**Property Type Allocation (%)**



**Geographic Allocation (%)**



Performance shown is net 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 June 30, 2022**

	<b>Fee Schedule</b>	<b>Market Value As of 06/30/2022 (\$)</b>	<b>Estimated Annual Fee (\$)</b>	<b>Estimated Annual Fee (%)</b>
Blackrock S&P 500 (EqI Wtd) (SA)	0.020 % of Assets	206,426,626	41,285	0.020
Champlain US Mid Cap Core (SA)	0.850 % of First \$50 M 0.750 % of Next \$50 M 0.650 % Thereafter	152,117,869	1,138,766	0.749
BlackRock MSCI ACW IMI (SA)	0.025 % of Assets	1,454,437,358	363,609	0.025
Blackrock MSCI World LCTR (SA)	0.060 % of First \$100 M 0.050 % Thereafter	179,283,063	99,642	0.056
Artisan Global Opportunities (CF)	0.750 % of Assets	245,053,420	1,837,901	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	222,321,469	891,964	0.401
Mondrian International Equity (SA)	0.500 % of First \$50 M 0.350 % of Next \$50 M 0.300 % Thereafter	128,611,146	510,833	0.397
Wellington Opportunistic EMD (CF)	0.550 % of Assets	173,017,329	951,595	0.550
PIMCO Liquidation (SA)	0.300 % of Assets	7,635,718	22,907	0.300
BlackRock US Agg (SA)	0.030 % of Assets	859,509,439	257,853	0.030
PIMCO Core (SA)	0.190 % of Assets	267,556,355	508,357	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	242,335,664	1,769,149	0.730
BlackRock TIPS (SA)	0.025 % of Assets	224,384,362	56,096	0.025
<b>Total Fund</b>		<b>5,406,342,959</b>	<b>8,449,958</b>	<b>0.156</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.
- Inflation Hedging Assets (Spliced) consists of the Real Return composite prior to 08/31/2020 and the Inflation Hedging Assets Composite thereafter.
- During 06/2021, the inception dates for Blackrock S&P 500, Artisan Global Opportunities and Wellington EMD were adjusted to reflect the first full month of performance.

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

**Manager Additions**

- Angelo Gordon Direct Lending, Harbourvest Dover X, Harbourvest XI Funds, Neuberger Berman, Benefit Street Partners II, Kennedy Lewis Capital II, Ares Pathfinder Fund I, Blackrock MSCI World LCTR (SA), Harbourvest HIPEP IX, Ares Pathfinder Core, and Neuberger Berman V.

**Manager Liquidations**

- SGA International Small Cap (CF), Pinnacle Natural Resources and Blackrock Transition Account.

**Policy Changes**

- During 01/2021, the board approved an updated target allocation index and fund level benchmarks. Benchmark changes were reflected starting 01/2021.
- During 06/2021, the board approved updated target allocations. Benchmark changes were reflected starting 07/2021.
- During 06/2022, the board approved updated target allocation. Benchmark changes were reflected starting 07/2022.

**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.
- The Wellington Small Cap Value (SA) liquidation was completed during 03/2021.
- Ares Pathfinder Fund I was funded during 04/2021.
- During 06/2021, Blackrock Transition was liquidated.
- During 08/2021, Blackrock MSCI World LCTR (SA) was funded.
- The Pinnacle Natural Resources (CF) liquidation was completed during 09/2021.
- Ares Pathfinder Core was funded during 10/2021.
- During 12/2021, Harbourvest HIPEP IX was funded.
- During 03/2022, Neuberger Berman Secondary Investment V was funded.
- During 06/2022, Accel-KKR GCP IV, LP was funded.

**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

**Addendum**

- 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. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

**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. Attribution to "other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

**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

## Glossary

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.

## Glossary

**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>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
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	<u>Not Liquid Investments</u>	
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.



## Glossary

**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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