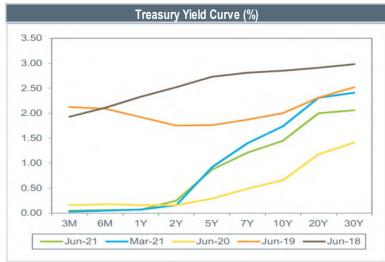


Schedule of Investable Assets											
					Ending Market	%					
Period Ending	Beginning Market Value	Net Cash Flow +	Gain/Loss	=	Value	Return					
Quarter	5,657,364,156	140,962,578	54,956,098		5,853,282,832	0.94					

			Total F	und Perfo	rmance					
									Since	
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Incep.	Incep. Date
Total Fund	0.94	9.36	19.74	10.56	9.86	8.50	6.25	13.16	6.66	7/1/2005
Target Allocation Index	0.38	8.93	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference	0.56	0.43	0.92	0.18	0.44	0.31	-0.05	0.61	-0.01	
		Per	formanc	e by Alloc	ation Bud	ket				
									Since	

		Per	formanc	e by Alloc	ation Bud	ket				
									Since	
	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Incep.	Incep. Date
Growth Assets	1.11	13.95	29.81	-	-	-	-	-	25.52	9/1/2020
MSCI ACW IM Index (USD) (Net)	-1.11	11.42	28.92	12.38	13.06	11.96	7.37	16.25	22.80	
Difference	2.22	2.53	0.89	-	-	-	-	-	2.72	
Downturn Hedging Assets	0.04	-1.55	-0.78	-	-	-	-	-	-0.72	9/1/2020
Bloomberg US Agg Bond Index	0.05	-1.56	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference	-0.01	0.01	0.12	-	-	-	-	-	0.16	
Inflation Hedging Assets	2.06	2.55	3.01	-	-	-	-	-	2.64	9/1/2020
Consumer Price Index+2.5%	1.59	7.28	8.02	5.38	5.15	4.46	4.58	3.90	7.73	
Difference	0.47	-4.73	-5.01	-	-	-	-	-	-5.09	





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



Capital Markets Review As of September 30, 2021

Third Quarter Economic Environment

Persistent inflationary pressures, disrupted supply chains, stalled fiscal negotiations, and the continued spread of the delta variant, all contributed to a guarter of mixed results for risk assets. In addition, heightened concerns over an increasingly stringent regulatory regime in China, combined with the debt restructuring of its second-largest property developer, led to a down quarter for emerging markets with volatility spreading to other regions as well. US markets outperformed on average, though were roughly flat. Investor sentiment was aided by a strong corporate earnings environment amid continued support from the Federal Reserve, along with improvement in some economic fundamentals. Globally, an uneven economic recovery continued, evidenced by labor market conditions and inflation readings showing mixed indications of progress. The September US non-farm payrolls report indicated a weaker than anticipated 194,000 added jobs, although past months were revised higher. The unemployment rate dropped to 4.8%, compared to 5.9% at the start of the quarter, but this decrease was largely driven by a declining labor force participation rate. The core PCE price index, the Federal Reserve's preferred measure for inflation, ran at a 30 year high based on the reading in August. Wage growth similarly rose higher in September with average hourly pay increasing 4.6% year-over-year. Overall, global growth forecasts remained relatively consistent with recent quarters.

Sep-21 Jun-21 Sep-20 Sep-18 20 Yr

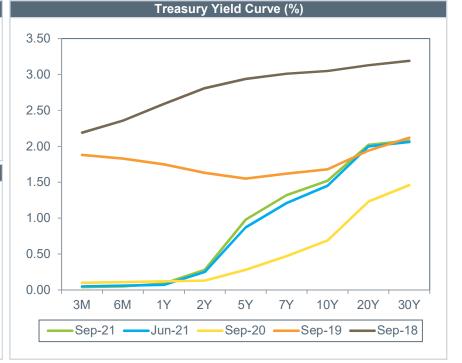
Economic Indicators

HFRI FOF Comp

Bloomberg Cmdty (TR)

	Key I	Economic Indi	icators	
16 7	30]	120]	70 7	160]
14 -	25 - 20 -	100 -	60	140 -
12 -	15 -	100 -	50 -	120 -
10 -	10 -	80 -	40 -	100 -
8 -	5 - 0	60	30 -	80 -
4	-5 -		20 -	60 -
2 -	-10 - -15 -	40 -	10 -	40 -
0	-20	20	0	20
Unemployment Rate (%)	CPI Year-over- Year (% change)	US Govt Debt (% of GDP)	VIX Index (Volatility)	Consumer Confidence
Since 1948	Since 1914	Since 1940	Since 1990	Since 1967

LCOHOITIC IIIdicators	06p-21	Juli-E i	Och-Fo	Och-10	20 11
Federal Funds Rate (%)	0.06	0.08	0.09	2.18	1.33
Breakeven Infl 5 Yr (%)	2.53	2.50	1.49	2.03	1.84
Breakeven Infl 10 Yr (%)	2.38	2.34	1.63	2.14	2.03
CPI YoY (Headline) (%)	5.4 —	5.4	1.4	2.3	2.1
Unemployment Rate (%)	4.8	5.9	7.8	3.7	6.1
Real GDP YoY (%)	4.9 ▼	12.2	-2.9	3.1	1.9
PMI - Manufacturing	61.1	60.6	55.7	59.5	53.3
USD Total Wtd Idx	114.99	112.85	117.26	113.81	103.15
WTI Crude Oil per Barrel (\$)	75.0 ▲	73.5	40.2	73.3	63.7
Gold Spot per Oz (\$)	1,757 ▼	1,770	1,886	1,191	1,067
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
Market Performance (%) S&P 500 (Cap Wtd)	QTD 0.58	CYTD 15.92	1 Yr 30.00	5 Yr 16.90	10 Yr 16.63
S&P 500 (Cap Wtd)	0.58	15.92	30.00	16.90	16.63
S&P 500 (Cap Wtd) Russell 2000	0.58 -4.36	15.92 12.41	30.00 47.68	16.90 13.45	16.63 14.63
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net)	0.58 -4.36 -0.45	15.92 12.41 8.35	30.00 47.68 25.73	16.90 13.45 8.81	16.63 14.63 8.10
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net)	0.58 -4.36 -0.45 0.90	15.92 12.41 8.35 10.02	30.00 47.68 25.73 29.02 18.20	16.90 13.45 8.81 10.38	16.63 14.63 8.10 10.73
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net)	0.58 -4.36 -0.45 0.90 -8.09	15.92 12.41 8.35 10.02 -1.25	30.00 47.68 25.73 29.02 18.20 -0.90	16.90 13.45 8.81 10.38 9.23	16.63 14.63 8.10 10.73 6.09
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond	0.58 -4.36 -0.45 0.90 -8.09 0.05	15.92 12.41 8.35 10.02 -1.25 -1.56	30.00 47.68 25.73 29.02 18.20 -0.90	16.90 13.45 8.81 10.38 9.23 2.94	16.63 14.63 8.10 10.73 6.09 3.01





0.78

6.59

5.77

29.13

14.35

42.29

5.81

4.54

4.47

-2.66

US Equity Review As of September 30, 2021

Third Quarter Review

Broad Market

US equity markets cooled off in Q3, compared to recent quarters, as the S&P 500 finished relatively flat. The spread of the Delta variant throughout the country slowed consumer spending, although the overall recovery remained on course. Concerns over inflation, due to continued stimulus from the Fed and supply chain disruptions, continue to be a major theme in the US contributing to moderated investor sentiment.

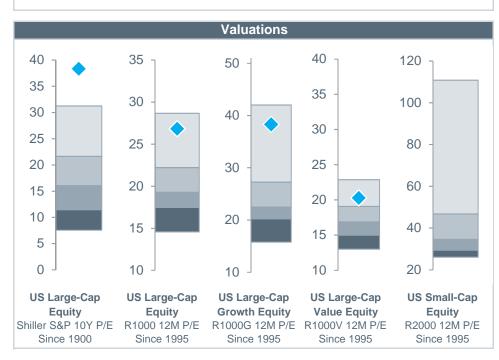
Market Cap

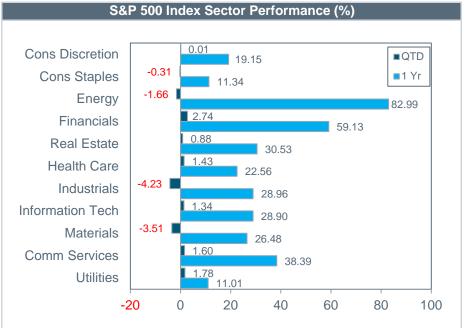
Large-cap stocks significantly outperformed their smaller-cap counterparts. The Russell 2000 Index returned -4.4% compared to 0.6% for the S&P 500.

Style and Sector

Large-cap growth turned in modestly positive returns in Q3 while small-cap and value stocks generally struggled. The Russell 1000 Growth Index returned 1.2% vs. -0.8% for the Russell 1000 Value Index. The Russell 2000 Value Index returned -3.0% vs. -5.7% for the Russell 2000 Growth Index.







Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. Current R2000 P/E is unavailable due to negative earnings per share as of 9/30/2021.



Non-US Equity Review

As of September 30, 2021

Third Quarter Review

Developed Markets

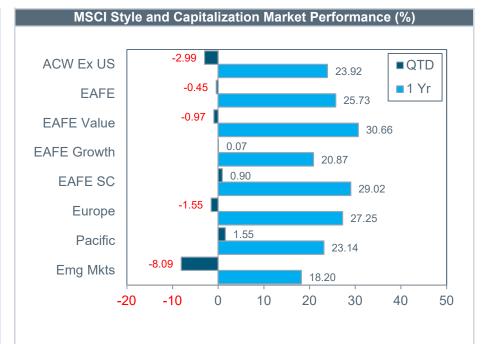
In similar fashion to the US equity market, developed international market returns were muted. The MSCI EAFE Index was slightly negative for Q3 with growth stocks outperforming value, although value stocks are still ahead year-to-date. Small cap stocks outperformed their larger counterparts.

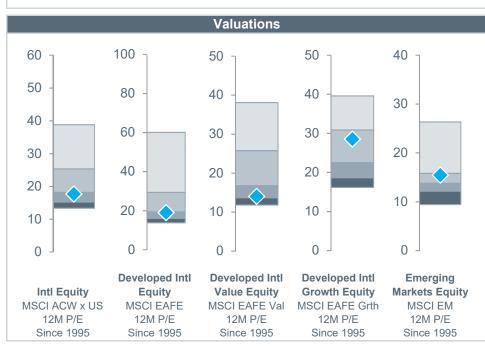
Emerging Markets

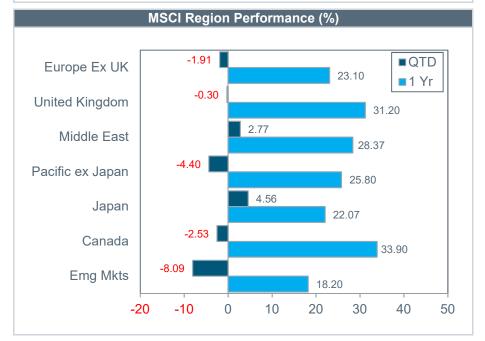
Unlike developed markets, emerging markets experienced significant negative absolute returns in Q3 driven by market volatility in China. Subsequently, value stocks outperformed growth and small cap stocks outperformed large.

Market Cap & Style

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









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.



Fixed Income Review As of September 30, 2021

Third Quarter Review

Broad Market

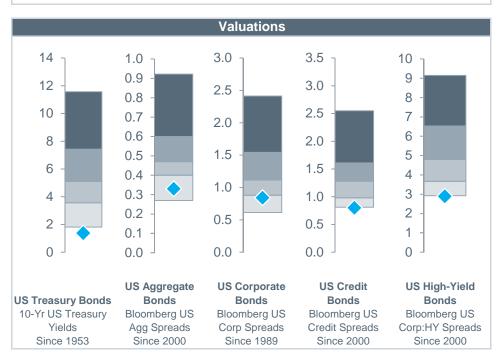
The Bloomberg US Aggregate Index was flat, finishing with returns of 0.1% in Q3, while remaining down -1.6% year-to-date. Treasury yields rose in Q3 in light of inflation concerns sparked by supply chain constraints and sustained economic growth. Speculation over the timing of Federal Reserve tapering was also a contributing factor to the slight move in rates.

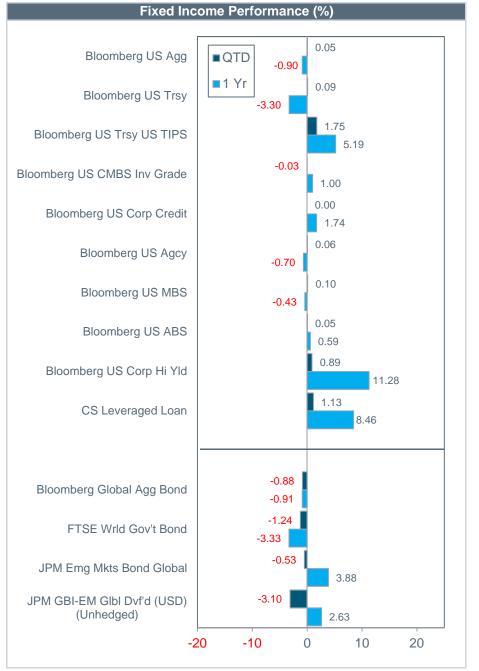
Credit Market

Low-rated debt remained a source of outperformance in a market starved for yield. The Bloomberg US Credit Index was flat, returning 0.0% QTD with BBB-rated debt marginally outperforming higher-rated debt. In contrast, the Bloomberg US High Yield Index returned 0.9% in Q3 with the Credit Suisse Leveraged Loan Index returned 1.1%.

Emerging Market Debt

Emerging markets corporate debt continued to outpace local currency and hard currency sovereign debt, with local currency being a laggard in part due to a strengthening US dollar.







Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Alternatives Review As of September 30, 2021

Third Quarter Review - Absolute Return

General Market - Hedge Funds

After a strong first half of the year, hedge fund returns moderated during Q3, with the HFRI Fund Weighted Composite Index finishing the quarter roughly flat. The Asset Weighted composite, which relies far less heavily on directional long/short equity strategies, produced a modest gain of 0.03% in Q3. Hedged equity strategies, which had led the way in the first half of 2021, captured some of the downside, finishing the quarter with a -0.9% return according to the HFRI Equity Hedge Index.

General Market - Global Tactical Asset Allocation (GTAA)

Global Tactical Asset Allocation strategies that RVK follows closely generated disparate results in Q3. The top performing long-biased GTAA strategies incorporated inflation protection subcomponents, particularly in energy commodities, which continued to reward investors. These long-biased strategies also produced differentiated results compared to the modest performance of a less diversified blended benchmark of 60% US equity and 40% US fixed income.

HFRI Hedge Fund Performance (%) 0.78 HFRI FOF ■ QTD 14.35 1.44 Conv Arbitrage ■1 Yr 13.11 -0.90 Equity Hedge 27 47 1.29 Mkt Neutral Eq 8.03 0.16 Distressed 27.12 -0.23 Macro 13.37 0.77 Relative Value 13.06 -0.42 **Event Driven** 24.28 0.55 Merger Arb 19.01 1.35 Credit Arb -15 5 25 45

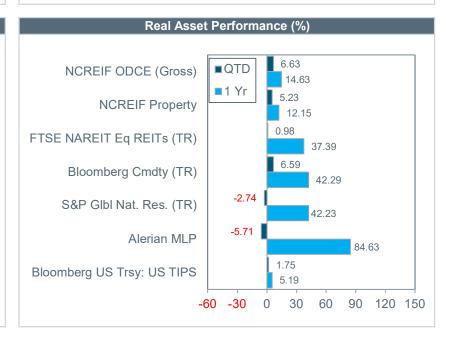
Third Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategies that RVK follows closely continued to generate strong positive absolute performance. Managers with higher commodities and TIPS exposures posted the strongest positive absolute returns. Commodities led the way, with the Bloomberg Commodity Index posting a 6.6% return, largely driven by gains in energy. Inflation, as measured by the year-over-year change in Headline CPI, was reported as 5.4% for September, a significant increase from 2.6% at the end of Q1.

General Market - Real Estate

Core private real estate generated a positive 6.6% return in Q3, as reported by the NFI-ODCE Index, with the total return comprising of 1.0% income and 5.6% price appreciation. While the income return continues to trend in line with historical levels, price appreciation exceeded expectations and previous levels, such as the 2.6% return recorded in Q2. Investors in publicly traded real estate underperformed their private market counterparts.





Annual Asset Class Performance As of September 30, 2021

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD
Best	39.38	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	29.13
↑	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	23.15
	15.97	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	15.92
	11.63	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	13.15
	11.17	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	13.16	12.41
	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	9.29	13.96	-3.33	19.59	12.34	10.02
	6.97	-26.16	26.46	15.12	2.11	15.81	7.99	4.04	-0.27	8.77	10.71	-4.02	18.44	10.99	9.36
	6.60	-30.15	26.29	15.06	1.81	12.69	7.44	3.64	-0.81	8.52	7.77	-4.38	17.15	10.88	8.35
	5.88	-33.79	18.91	14.44	0.10	10.94	2.47	3.37	-1.44	6.67	7.62	-4.62	14.32	7.82	5.77
	5.49	-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	4.53
	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	3.51
	1.87	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.04
	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.25
+	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-3.12	-1.56
Worst	-15.70	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-4.57
Total Fu Net (Al Plans)		ge US Sm	nall (Net) -	E EAFE	SC (Net)	I EM Bloc - Int'l US Mkts Bor	ombrg US	oombrg Bl Corp L Yield - U	JS Trsy	US Gov	NCREIF ODCE (Gross) - Real Estate	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv

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) intraquarter.

Manager Research Updates: Critical

There were no critical manager updates during the quarter.

Manager Research Updates: Non-Critical

Wellington

In September 2021, the US Securities and Exchange Commission's (SEC) Office of Compliance, Inspections, and Examinations began an examination of Wellington Management Company LLP (WMC) focusing on WMC's policies and practices related to the assessment of climate-related risks and considerations.

In August 2021, the SEC Office of Compliance Inspections and Examinations began an examination of WMC focusing on WMC's general business and investment activities.

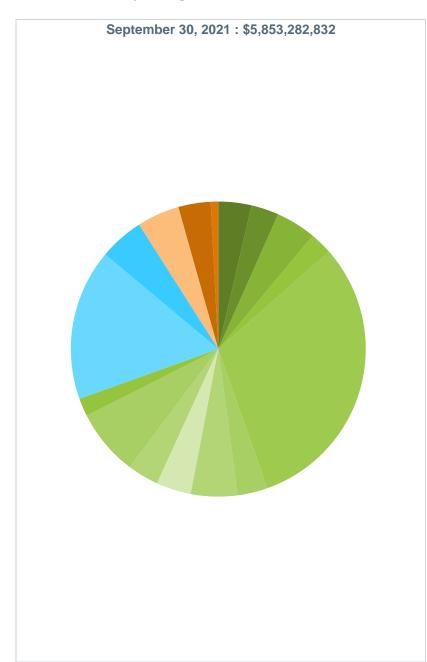
RVK is monitoring the situation, but it is too early to come to any conclusions on these investigations.

PIMCO

In August 2021, PIMCO announced that Ryan Korinke, managing director and member of the Executive Office, will be Global Head of Sustainability, overseeing the business management of PIMCO's ESG and Sustainability initiatives



Vermont Pension Investment Committee Asset Allocation By Manager



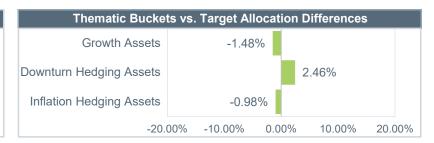
	Market Value (\$)	Allocation (%)
■ Blackrock S&P 500 (Eql Wtd) (SA)	212,421,080	3.63
■ Champlain US Mid Cap Core (SA)	176,822,351	3.02
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	16,142	0.00
Acadian International All Cap (SA)	257,209,159	4.39
■ Mondrian International Equity (SA)	143,946,537	2.46
■ BlackRock MSCI ACW IMI (SA)	1,819,657,613	31.09
■ Blackrock MSCI World LCTR (SA)	193,271,069	3.30
Artisan Global Opportunities (CF)	297,397,172	5.08
■ PIMCO Liquidation (SA)	5,580,520	0.10
■ Wellington Opportunistic EMD (CF)	217,554,646	3.72
■ PIMCO Unconstrained (SA)	1,620,223	0.03
Private Debt	200,303,195	3.42
Private Equity	427,143,982	7.30
■ Non-Core Real Estate	116,174,965	1.98
■ BlackRock US Agg (SA)	969,477,459	16.56
PIMCO Core (SA)	285,446,716	4.88
■ Vermont Cash (SA)	1,339,314	0.02
■ BlackRock TIPS (SA)	272,122,516	4.65
■ UBS Trumbull Properties (CF)	207,376,745	3.54
Private Infrastructure/Land	48,400,374	0.83
Real Estate Cash (CF)	1,055	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.

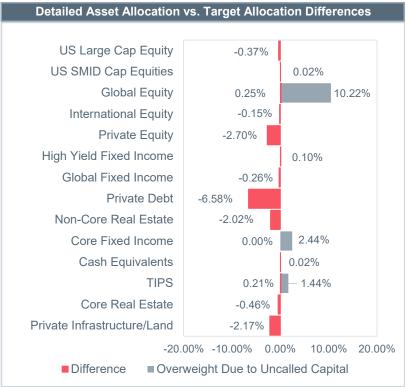


Vermont Pension Investment Committee Total Fund Asset Allocation vs.Target Allocation

Thematic	Buckets vs. Target	Allocation	
	Market Value (\$)	Allocation (%)	Target (%)
Growth Assets	4,069,118,654	69.52	71.00
Downturn Hedging Assets	1,256,263,488	21.46	19.00
Inflation Hedging Assets	527,900,690	9.02	10.00
Total Fund	5,853,282,832	100.00	100.00



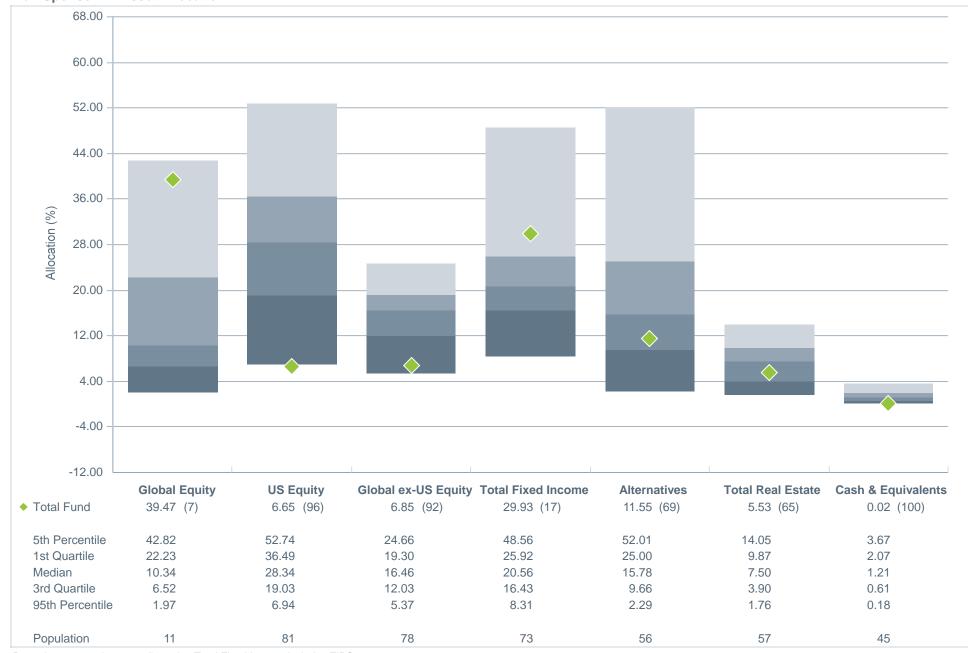
Detailed Asse	t Allocation vs. Tar	get Allocation	
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	212,421,081	3.63	4.00
US SMID Cap Equities	176,838,492	3.02	3.00
Global Equity	2,310,325,854	39.47	29.00
International Equity	401,155,696	6.85	7.00
Private Equity	427,143,983	7.30	10.00
High Yield Fixed Income	5,580,520	0.10	0.00
Global Fixed Income	219,174,869	3.74	4.00
Private Debt	200,303,195	3.42	10.00
Non-Core Real Estate	116,174,965	1.98	4.00
Core Fixed Income	1,254,924,175	21.44	19.00
Cash Equivalents	1,339,314	0.02	0.00
TIPS	272,122,516	4.65	3.00
Core Real Estate	207,377,800	3.54	4.00
Private Infrastructure/Land	48,400,374	0.83	3.00
Total Fund	5,853,282,832	100.00	100.00



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



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

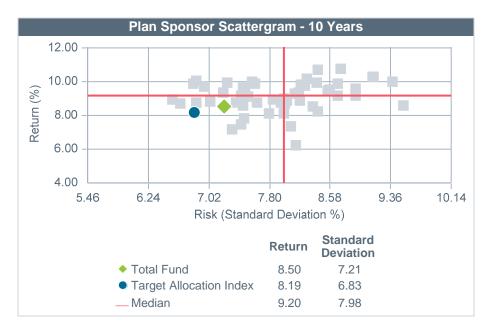


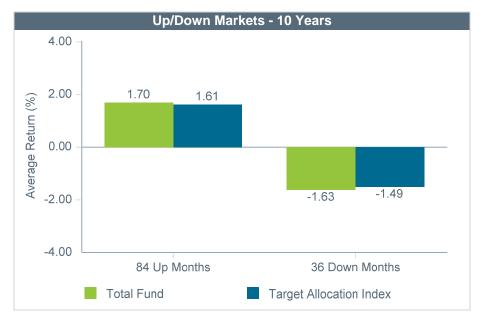
Vermont Pension Investment Committee All Public Plans (\$1B to \$10B) (Custom PG) Plan Sponsor Peer Group Analysis

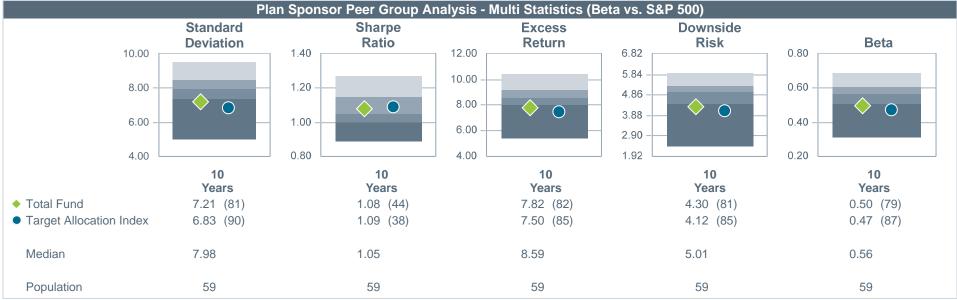


Performance shown is net of fees. Parentheses contain percentile ranks.





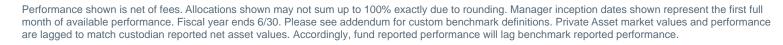




Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



	Allocatio	Allocation					Perfor	mance (%)				
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	5,853,282,832	100.00	0.94	0.94	19.74	10.56	9.86	8.50	6.25	13.16	6.66	07/01/2005
Target Allocation Index			0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference			0.56	0.56	0.92	0.18	0.44	0.31	-0.05	0.61	-0.01	
Actual Allocation Index			-0.09	-0.09	19.13	9.44	9.00	7.97	6.18	11.22	6.53	
Difference			1.03	1.03	0.61	1.12	0.86	0.53	0.07	1.94	0.13	
Growth Assets	4,069,118,654	69.52	1.11	1.11	29.81	-	-	-	-	-	25.51	09/01/2020
MSCI ACW IM Index (USD) (Net)			-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	22.80	
Difference			2.22	2.22	0.89	-	-	-	-	-	2.71	
Downturn Hedging Assets	1,256,263,488	21.46	0.04	0.04	-0.78	-	-	-	-	-	-0.72	09/01/2020
Bloomberg US Agg Bond Index			0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference			-0.01	-0.01	0.12	-	-	-	-	-	0.16	
Inflation Hedging Assets	527,900,690	9.02	2.06	2.06	3.01	-	-	-	-	-	2.64	09/01/2020
Consumer Price Index+2.5%			1.59	1.59	8.02	5.38	5.15	4.46	4.58	3.90	7.73	
Difference			0.47	0.47	-5.01	-	-	-	-	-	-5.09	





	Allo	ocation						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	5,853,282,832	100.00	100.00	0.94	0.94	19.74	10.56	9.86	8.50	6.25	13.16	6.66	07/01/2005
Target Allocation Index				0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference				0.56	0.56	0.92	0.18	0.44	0.31	-0.05	0.61	-0.01	
Actual Allocation Index				-0.09	-0.09	19.13	9.44	9.00	7.97	6.18	11.22	6.53	
Difference				1.03	1.03	0.61	1.12	0.86	0.53	0.07	1.94	0.13	
All Public Plans (\$1B to \$10B)				0.07	0.07	20.89	9.70	9.57	9.20	6.61	11.23	6.86	
Rank				22	22	72	28	38	82	74	26	69	
Domestic Equity	389,259,573	6.65	7.00	0.13	0.13	39.60	13.99	15.39	16.03	-	19.02	13.63	01/01/2011
Russell 3000 Index				-0.10	-0.10	31.88	16.00	16.85	16.60	10.44	20.89	14.25	
Difference				0.23	0.23	7.72	-2.01	-1.46	-0.57	-	-1.87	-0.62	
US Large Cap Equity	212,421,080	3.63	4.00	-0.43	-0.43	40.50	12.36	14.41	15.53	10.00	13.03	10.11	07/01/2005
S&P 500 Index (Cap Wtd)				0.58	0.58	30.00	15.99	16.90	16.63	10.37	18.40	10.46	
Difference				-1.01	-1.01	10.50	-3.63	-2.49	-1.10	-0.37	-5.37	-0.35	
Blackrock S&P 500 (Eql Wtd) (SA)	212,421,080	3.63	-	-0.29	-0.29	40.70	-	-	-	-	13.03	18.14	07/01/2019
S&P 500 Index (Eq Wtd)				-0.22	-0.22	40.87	14.29	14.61	15.99	10.67	12.83	18.13	
Difference				-0.07	-0.07	-0.17	-	-	-	-	0.20	0.01	
IM U.S. Large Cap Equity (MF) Median				0.05	0.05	28.72	15.45	16.19	15.73	9.83	18.34	20.02	
Rank				63	63	8	-	-	-	-	64	59	
US SMID Cap Equities	176,838,492	3.02	3.00	0.83	0.83	37.84	15.67	16.81	16.81	11.27	27.32	10.83	07/01/2005
Russell 2500 Index				-2.68	-2.68	45.03	12.47	14.25	15.27	10.01	19.99	10.10	
Difference				3.51	3.51	-7.19	3.20	2.56	1.54	1.26	7.33	0.73	
Champlain US Mid Cap Core (SA)	176,822,351	3.02	-	0.82	0.82	37.84	15.67	17.62	17.28	-	27.32	15.90	10/01/2009
Custom SMID Cap Equity Index				-2.63	-2.63	47.33	11.75	14.15	15.17	9.94	19.99	13.67	
Difference				3.45	3.45	-9.49	3.92	3.47	2.11	-	7.33	2.23	
IM U.S. SMID Cap Equity (MF) Median				-1.79	-1.79	41.86	11.95	14.62	14.67	10.24	20.27	13.69	
Rank				13	13	61	30	30	23	-	41	23	
Global Equity	2,310,325,854	39.47	29.00	-0.71	-0.71	28.01	12.84	-	-	•	19.91	8.44	02/01/2018
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	9.53	
Difference				0.40	0.40	-0.91	0.46	-	-	-	3.66	-1.09	



	Alle	ocation						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
BlackRock MSCI ACW IMI (SA)	1,819,657,613	31.09	-	-1.03	-1.03	29.51	-	-	-	-	16.77	16.99	07/01/2019
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	16.50	
Difference				0.08	0.08	0.59	-	-	-	-	0.52	0.49	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	16.01	
Rank				49	49	35	-	-	-	-	44	47	
Blackrock MSCI World LCTR (SA)	193,271,069	3.30	-	-	-	-	-	-	-	-	-	-4.24	09/01/2021
MSCI Wrld Index (USD) (Net)				-0.01	-0.01	28.82	13.14	13.74	12.68	7.47	15.90	-4.15	
Difference				-	-	-	-	-	-	-	-	-0.09	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	-4.25	
Rank				-	-	-	-	-	-	-	-	50	
Artisan Global Opportunities (CF)	297,397,172	5.08	-	2.01	2.01	20.66	20.87	-	-	-	40.50	20.40	07/01/2018
MSCI ACW Index (USD) (Net)				-1.05	-1.05	27.44	12.58	13.20	11.90	7.21	16.25	13.00	
Difference				3.06	3.06	-6.78	8.29	-	-	-	24.25	7.40	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	12.31	
Rank				6	6	77	10	-	-	-	14	10	
International Equity	401,155,696	6.85	7.00	-2.20	-2.20	28.46	7.51	8.57	7.24	3.57	4.91	5.29	07/01/2005
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.54	
Difference				-1.75	-1.75	2.73	-0.11	-0.24	-0.86	-0.53	-2.91	-0.25	
Acadian International All Cap (SA)	257,209,159	4.39	-	-2.71	-2.71	27.10	8.03	11.19	10.56	4.90	12.37	6.47	11/01/2005
MSCI EAFE IM Index (USD) (Net)				-0.24	-0.24	26.23	7.83	9.04	8.45	4.41	8.47	5.50	
Difference				-2.47	-2.47	0.87	0.20	2.15	2.11	0.49	3.90	0.97	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.11	
Rank				82	82	27	42	15	9	29	33	18	
Mondrian International Equity (SA)	143,946,537	2.46	-	-1.28	-1.28	30.97	4.68	6.41	6.63	3.76	-4.01	5.24	07/01/2005
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.54	
Difference				-0.83	-0.83	5.24	-2.94	-2.40	-1.47	-0.34	-11.83	-0.30	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.45	
Rank				51	51	14	82	79	83	57	98	59	
Fixed Income	1,479,679,563	25.28	23.00	-0.01	-0.01	0.05	5.24	3.69	4.11		8.18	4.31	01/01/2011
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	3.42	
Difference				-0.06	-0.06	0.95	-0.11	0.75	1.10	-	0.67	0.89	



	Allo	ocation						Perfori	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Core Fixed Income	1,254,924,175	21.44	19.00	0.09	0.09	-0.74	-	-	-	-	-	-0.69	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				0.04	0.04	0.16	-	-	-	-	-	0.19	
BlackRock US Agg (SA)	969,477,459	16.56	-	0.07	0.07	-0.86	-	-	-	-	7.54	3.94	06/01/2019
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	4.08	
Difference				0.02	0.02	0.04	-	-	-	-	0.03	-0.14	
IM U.S. Broad Mkt Core FI(MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	4.57	
Rank				39	39	81	-	-	-	-	71	79	
PIMCO Core (SA)	285,446,716	4.88	-	0.04	0.04	-0.32	-	-	-	-	-	-0.18	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				-0.01	-0.01	0.58	-	-	-	-	-	0.70	
IM U.S. Broad Mkt Core FI(MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	0.10	
Rank				47	47	67	-	-	-	-	-	61	
Emerging Markets Debt	217,554,646	3.72	4.00	-0.58	-0.58	4.16	-	-	-	-	-	2.07	09/01/2020
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	1.99	
Difference				-0.05	-0.05	0.28	-	-	-	-	-	0.08	
Wellington Opportunistic EMD (CF)	217,554,646	3.72	-	-0.58	-0.58	4.16	5.98	4.27	5.94	-	7.69	6.33	12/01/2009
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	5.93	
Difference				-0.05	-0.05	0.28	0.34	0.70	0.46	-	1.81	0.40	
IM Emerging Markets Debt (MF) Median				-0.71	-0.71	5.55	5.48	3.70	4.81	5.22	5.57	4.99	
Rank				39	39	84	33	30	6	-	15	4	
High Yield Fixed Income	5,580,520	0.10	0.00	0.34	0.34	14.20	4.03	4.29	5.96	6.21	3.26	6.24	06/01/2006
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	7.40	
Difference				-0.55	-0.55	2.92	-2.88	-2.23	-1.46	-1.10	-3.85	-1.16	
PIMCO Liquidation (SA)	5,580,520	0.10	-	0.34	0.34	14.20	4.02	-	-	-	3.26	3.72	08/01/2018
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	6.97	
Difference				-0.55	-0.55	2.92	-2.89	-	-	-	-3.85	-3.25	
IM U.S. High Yield Bonds (MF) Median				0.67	0.67	10.49	5.87	5.50	6.39	6.03	5.28	5.93	
Rank				84	84	10	92	-	-	-	81	94	



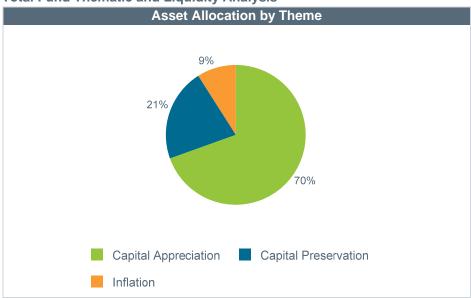
	Alle	ocation						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Private Debt	200,303,195	3.42	10.00	6.54	6.54	15.43	7.42	-	-	-	2.07	7.55	01/01/2018
CS Lvg'd Loan Index+2% (Spliced)				1.64	1.64	10.27	4.74	4.94	5.09	4.72	3.12	4.87	
Difference				4.90	4.90	5.16	2.68	-	-	-	-1.05	2.68	
Private Equity	427,143,982	7.30	10.00	16.50	16.50	64.27	29.02	24.88	-	-	17.19	20.80	01/01/2013
Cambridge US Prvt Eq Index				0.00	0.00	39.06	19.19	18.64	15.85	13.39	21.77	15.91	
Difference				16.50	16.50	25.21	9.83	6.24	-	-	-4.58	4.89	
Non-Core Real Estate	116,174,965	1.98	4.00	-0.06	-0.06	14.62	3.97	7.93	-	-	-1.65	9.02	09/01/2014
NCREIF ODCE Index+2% (Spliced)				6.93	6.93	15.38	7.73	7.45	9.30	7.30	1.60	8.84	
Difference				-6.99	-6.99	-0.76	-3.76	0.48	-	-	-3.25	0.18	
Inflation Hedging Assets (Spliced)	527,900,690	9.02	10.00	2.06	2.06	3.01	-0.11	2.80	7.40	-	-2.82	8.40	01/01/2011
CPI+2.5% (Spliced)				1.59	1.59	8.02	5.25	5.96	8.54	6.80	0.75	8.97	
Difference				0.47	0.47	-5.01	-5.36	-3.16	-1.14	-	-3.57	-0.57	
TIPS	272,122,516	4.65	3.00	1.93	1.93	5.35	-	-	-	-	-	4.58	09/01/2020
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	4.42	
Difference				0.18	0.18	0.16	-	-	-	-	-	0.16	
BlackRock TIPS (SA)	272,122,516	4.65	-	1.73	1.73	5.14	7.36	4.27	3.05	-	10.97	3.81	12/01/2009
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	3.85	
Difference				-0.02	-0.02	-0.05	-0.09	-0.07	-0.07	-	-0.02	-0.04	
IM U.S. TIPS (MF) Median				1.59	1.59	5.37	6.56	3.81	2.48	3.75	9.64	3.21	
Rank				28	28	59	20	26	15	-	26	11	
Core Real Estate	207,377,800	3.54	4.00	2.74	2.74	1.59	-0.51	2.03	7.02	-	-2.26	8.05	01/01/2011
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	9.41	
Difference				-3.67	-3.67	-12.05	-6.64	-4.53	-1.90	-	-2.60	-1.36	
UBS Trumbull Properties (CF)	207,376,745	3.54	-	2.74	2.74	1.60	-0.46	1.93	5.71	4.40	-2.26	5.16	07/01/2005
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	6.40	
Difference				-3.67	-3.67	-12.04	-6.59	-4.63	-3.21	-1.15	-2.60	-1.24	
Private Infrastructure/Land	48,400,374	0.83	3.00	-0.16	-0.16	2.63	-	-	-	-	-	2.25	08/01/2020
NCREIF Farmland Index (TR)				1.51	1.51	5.54	4.90	5.53	10.19	11.09	3.08	5.59	
Difference				-1.67	-1.67	-2.91	-	-	-	-	-	-3.34	

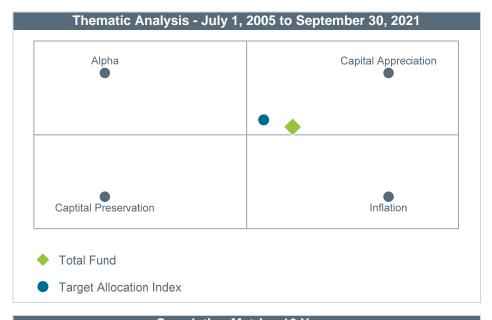


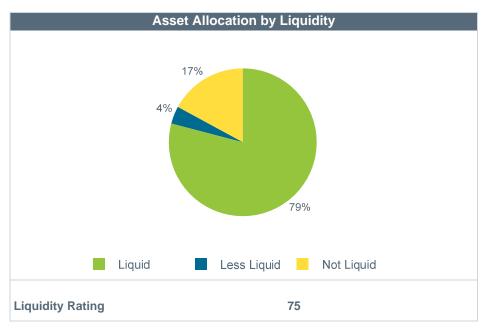
	Alle	ocation						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Cash Equivalents	1,339,314	0.02	0.00	0.00	0.00	0.01	0.44	0.29	0.16	0.84	0.37	1.16	07/01/2005
ICE BofAML 3 Mo US T-Bill Index				0.02	0.02	0.07	1.18	1.16	0.63	1.00	0.67	1.24	
Difference				-0.02	-0.02	-0.06	-0.74	-0.87	-0.47	-0.16	-0.30	-0.08	



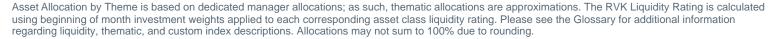
Vermont Pension Investment Committee Total Fund Thematic and Liquidity Analysis







		Correlatio	n Matrix - 10 Ye	ars	
	Α	В	С		D
Α	1.00				
В	0.66	1.00			
С	-0.18	-0.32	1.	00	
D	0.59	0.78	-0.	06	1.00
A B C D	= = = =	HFRI EH: Equity Ma MSCI ACW Index (U Bloomberg US Gov' Real Return Custom	JSD) (Gross) (Cap t Bond Index (Cap	oital Appreciation)	

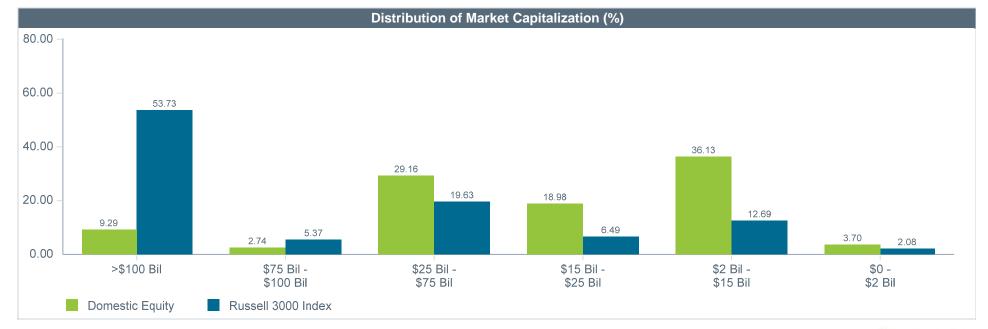




Vermont Pension Investment Committee Domestic Equity vs. Russell 3000 Index Portfolio Characteristics

n Equity H	oldings		
Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
0.98	0.02	0.96	28.83
0.92	0.05	0.87	1.28
0.89	0.02	0.87	67.40
0.88	0.01	0.87	0.35
0.84	0.06	0.78	-6.97
0.83	0.04	0.79	-0.78
0.82	0.03	0.79	2.32
0.82	0.05	0.77	3.38
0.78	0.07	0.71	6.47
0.78	0.06	0.72	-1.56
8.54	0.41	8.13	
	Portfolio Weight (%) 0.98 0.92 0.89 0.84 0.83 0.82 0.82 0.78	Weight (%) Weight (%) 0.98 0.02 0.92 0.05 0.89 0.02 0.88 0.01 0.84 0.06 0.83 0.04 0.82 0.03 0.82 0.05 0.78 0.07 0.78 0.06	Portfolio Weight (%) Benchmark Weight (%) Active Weight (%) 0.98 0.02 0.96 0.92 0.05 0.87 0.89 0.02 0.87 0.84 0.01 0.87 0.83 0.04 0.79 0.82 0.03 0.79 0.82 0.05 0.77 0.78 0.07 0.71 0.78 0.06 0.72

Portfo	lio Characteristics	
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	48,932	461,435
Median Mkt. Cap (\$M)	25,256	2,481
Price/Earnings Ratio	23.13	23.75
Price/Book Ratio	3.61	4.30
5 Yr. EPS Growth Rate (%)	15.59	20.13
Current Yield (%)	1.24	1.33
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	606	3,052

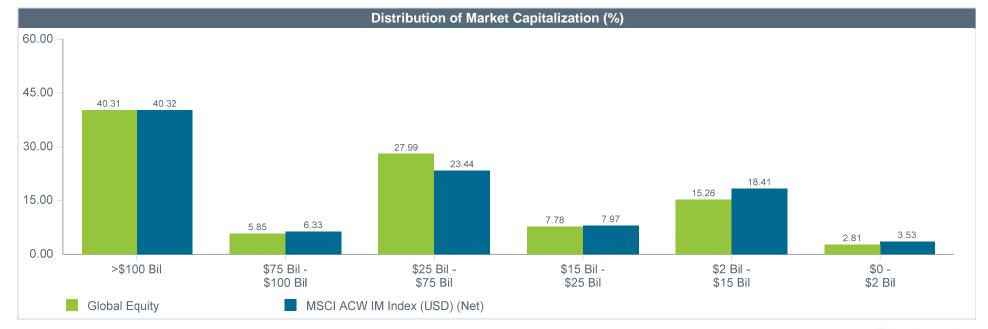




Vermont Pension Investment Committee Global Equity vs. MSCI ACW IM Index (USD) (Net) Portfolio Characteristics

Portfolio Weight (%) 2.83	Benchmark Weight (%)	Active Weight (%)	Quarterly Return
2.83	0.44		(%)
	3.14	-0.31	3.47
2.74	2.68	0.06	4.27
1.73	1.98	-0.25	-4.51
1.35	1.07	0.28	9.49
1.00	1.08	-0.08	-2.39
0.93	1.03	-0.10	6.34
0.80	0.04	0.76	14.66
0.76	0.17	0.59	9.55
0.76	0.84	-0.08	14.09
0.69	0.26	0.43	13.52
13.59	12.29	1.30	
	1.73 1.35 1.00 0.93 0.80 0.76 0.76 0.69	1.73 1.98 1.35 1.07 1.00 1.08 0.93 1.03 0.80 0.04 0.76 0.17 0.76 0.84 0.69 0.26	1.73 1.98 -0.25 1.35 1.07 0.28 1.00 1.08 -0.08 0.93 1.03 -0.10 0.80 0.04 0.76 0.76 0.17 0.59 0.76 0.84 -0.08 0.69 0.26 0.43

Portro	lio Characteristics	
	Portfolio	Benchmark
Vtd. Avg. Mkt. Cap (\$M)	296,374	305,578
Median Mkt. Cap (\$M)	2,241	2,231
Price/Earnings Ratio	20.81	19.40
Price/Book Ratio	3.74	3.52
5 Yr. EPS Growth Rate (%)	17.23	17.36
Current Yield (%)	1.68	1.85
Beta (3 Years, Monthly)	0.98	1.00
Number of Securities	9,247	9,213

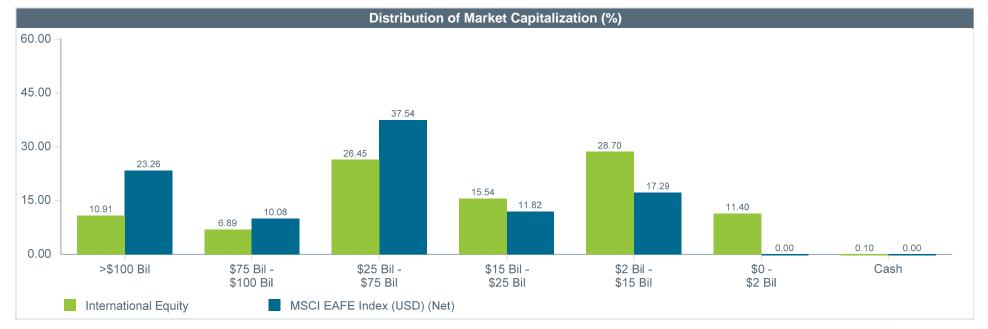




Vermont Pension Investment Committee International Equity vs. MSCI EAFE Index (USD) (Net) Portfolio Characteristics

Top To	en Equity H	loldings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Roche Holding AG	2.01	1.53	0.48	-2.80
ASML Holding NV	1.94	1.86	0.08	8.97
Fujitsu Ltd	1.49	0.21	1.28	-2.32
Kingfisher PLC	1.29	0.06	1.23	-9.75
Fujifilm Holdings Corp	1.20	0.18	1.02	17.01
Glaxosmithkline PLC	1.19	0.57	0.62	-2.11
Scottish and Southern Energy PLC	1.16	0.13	1.03	6.29
Deutsche Post AG	1.16	0.37	0.79	-7.15
Wolters Kluwer NV	1.15	0.17	0.98	6.26
ASM International NV	1.11	0.11	1.00	19.35
% of Portfolio	13.70	5.19	8.51	

Portfol	lio Characteristics	
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	48,239	77,709
Median Mkt. Cap (\$M)	1,387	14,333
Price/Earnings Ratio	12.26	15.97
Price/Book Ratio	2.34	2.72
5 Yr. EPS Growth Rate (%)	18.38	12.47
Current Yield (%)	3.03	2.72
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	616	843





Vermont Pension Investment Committee Total Equity Country/Region Allocation

	Total Equity	MSCI ACW IM Index (USD) (Net)		Total Equity	MSCI ACW IM Index (USD) (Net)
Canada	2.81	3.01	China	2.19	3.37
United States	54.26	56.58	India	0.95	1.58
Australia	2.01	1.92	Indonesia	0.10	0.17
Hong Kong	1.77	1.01	Korea	1.26	1.58
New Zealand	0.10	0.11	Malaysia	0.13	0.19
Singapore	0.43	0.36	Pakistan	0.00	0.01
Pacific ex Japan	4.31	3.40	Philippines	0.05	0.08
Japan	7.82	6.63	Taiwan	1.25	1.85
Austria	0.16	0.10	Thailand	0.13	0.22
Belgium	0.19	0.25	EM Asia	6.05	9.05
Bermuda	0.29	0.13	Czech Republic	0.01	0.01
Denmark	1.36	0.67	Greece	0.02	0.03
Finland	0.36	0.36	Hungary	0.02	0.03
France	2.34	2.46	Poland	0.06	0.09
Germany	2.55	2.32	Russia	0.26	0.36
Ireland	1.27	1.11	Turkey	0.03	0.05
Italy	0.80	0.59	EM Europe	0.39	0.57
Netherlands	2.19	1.75	Argentina	0.08	0.11
Norway	0.21	0.24	Brazil	0.45	0.56
Portugal	0.03	0.04	Cayman Islands	0.01	0.01
Spain	0.97	0.62	Chile	0.03	0.06
Sweden	1.72	1.08	Colombia	0.01	0.02
Switzerland	3.48	2.64	Mexico	0.14	0.23
Europe ex UK	17.93	14.36	Peru	0.00	0.00
United Kingdom	4.45	4.09	EM Latin America	0.72	0.99
Israel	0.40	0.28	Egypt	0.01	0.01
Middle East	0.40	0.28	Qatar	0.05	0.09
Developed Markets	91.97	88.34	Saudi Arabia	0.12	0.19
•			South Africa	0.36	0.43
			United Arab Emirates	0.06	0.11
			EM Mid East+Africa	0.60	0.83
			Emerging Markets	7.77	11.45



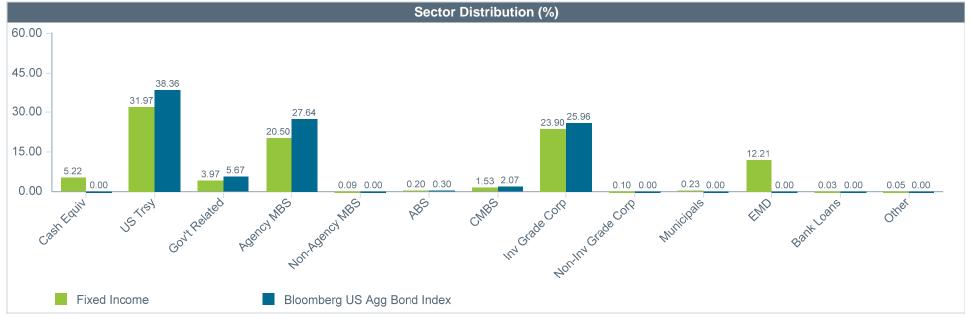
Vermont Pension Investment Committee Total Equity Country/Region Allocation

	Total Equity	MSCI ACW IM Index (USD) (Net)
Kazakhstan	0.00	0.00
Kuwait	0.05	0.08
Oman	0.08	0.14
Ukraine	0.00	0.00
Frontier Markets	0.13	0.21
Cash	0.01	0.00
Other	0.12	0.00
Total	100.00	100.00



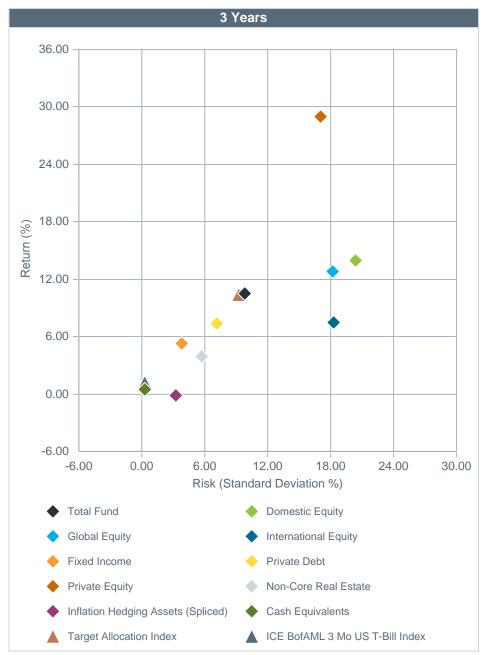
Vermont Pension Investment Committee Fixed Income vs. Bloomberg US Agg Bond Index Portfolio Characteristics

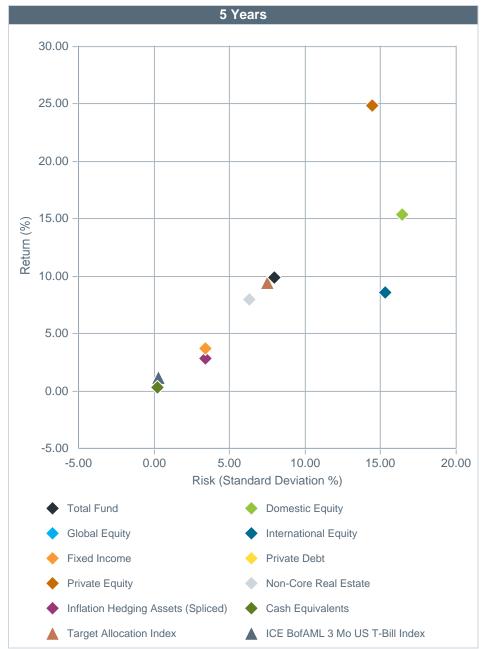
Portfolio Characteristics							
	Portfolio	Benchmark					
Effective Duration	6.64	6.71					
Convexity	0.44	0.33					
Avg. Maturity	8.87	8.63					
Avg. Quality	Aa2/Aa3	Aa1/Aa2					
Yield To Maturity (%)	1.94	1.57					
Coupon Rate (%)	2.68	2.48					



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

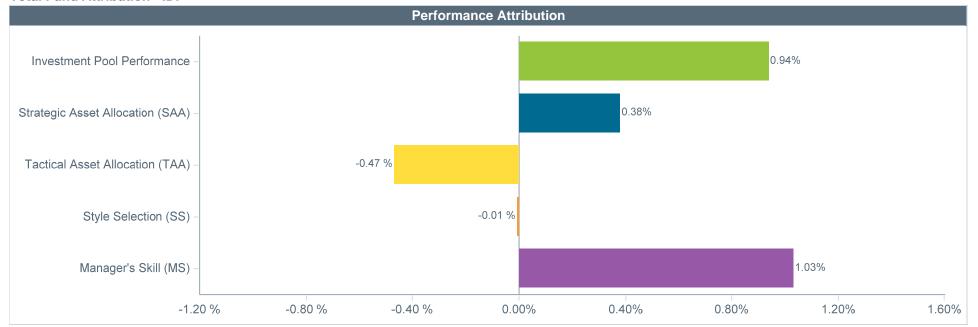


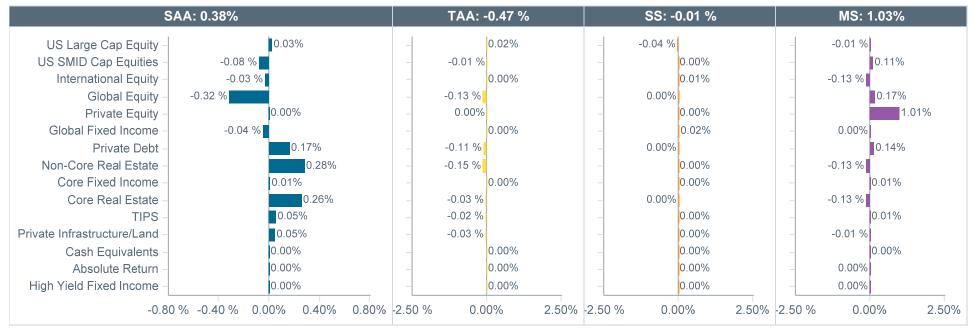




Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.







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

Page 30



General Comments

- Through this reporting period, Vermont Pension Investment Committee has committed a total of \$1,350,000,000 to 29 non-marketable alternative investments.
- The average age of active investments (based upon vintage year and weighted by commitment) was 3.12 years.
- A total of \$657,374,330 has been called or otherwise contributed to date.
- Distributions have totaled \$211,985,810 since plan inception.
- The residual estimated value of interests in these partnerships/investments is \$756,980,320.
- Since inception net performance for the investments are as follows:
 - O Annualized since-inception estimated Internal Rate of Return (IRR) of 20.72%.
 - O 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 15.50% indicating roughly 521 basis points of annualized out-performance.
 - O For every \$1 paid into the portfolio, \$1.47 has been returned as a distribution or is held in residual value (multiple on invested capital = 1.47x).



Private Credit - Direct Lending

- Private Credit Direct Lending funds account for 19.63% of commitments, 23.77% of contributed funds, 20.24% of distributed funds, and 18.14% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 7.81%
 - MSCI ACW IM Index (USD) (Net) IRR of 15.40%
 - A multiple on invested capital of 1.15x.

Private Credit - Distressed/Special Situations

- Private Credit Distressed/Special Situations funds account for 3.70% of commitments, 4.59% of contributed funds, 0.00% of distributed funds, and 4.46% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR Not Material
 - MSCI ACW IM Index (USD) (Net) IRR Not Material
 - A multiple on invested capital of 1.12x.

Private Credit - Specialty Finance

- Private Credit Specialty Finance funds account for 4.81% of commitments, 1.54% of contributed funds, 0.03% of distributed funds, and 1.74% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - O Annualized since-inception IRR Not Material
 - o MSCI ACW IM Index (USD) (Net) IRR Not Material
 - A multiple on invested capital of 1.31x.

Private Equity - Buyout

- Private Equity Buyout funds account for 19.04% of commitments, 17.50% of contributed funds, 17.87% of distributed funds, and 21.40% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 28.72%
 - O MSCI ACW IM Index (USD) (Net) IRR of 17.69%
 - A multiple on invested capital of 1.74x.



Private Equity - Fund of Funds

- Private Equity Fund of Funds funds account for 4.74% of commitments, 4.21% of contributed funds, 3.37% of distributed funds, and 5.32% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 28.70%
 - MSCI ACW IM Index (USD) (Net) IRR of 15.96%
 - O A multiple on invested capital of 1.72x.

Private Equity - Natural Resources

- Private Equity Natural Resources funds account for 9.63% of commitments, 7.20% of contributed funds, 0.33% of distributed funds, and 6.30% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 3.87%
 - MSCI ACW IM Index (USD) (Net) IRR of 33.57%
 - O A multiple on invested capital of 1.02x.

Private Equity - Non-US Private Equity

- Private Equity Non-US Private Equity funds account for 7.04% of commitments, 1.89% of contributed funds, 2.38% of distributed funds, and 3.18% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 27.01%
 - MSCI ACW IM Index (USD) (Net) IRR of 13.86%
 - A multiple on invested capital of 2.34x.

Private Equity - Secondaries

- Private Equity Secondaries funds account for 12.22% of commitments, 12.93% of contributed funds, 26.42% of distributed funds, and 11.74% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 28.33%
 - O MSCI ACW IM Index (USD) (Net) IRR of 13.14%
 - A multiple on invested capital of 1.70x.



Private Equity - Venture

- Private Equity Venture funds account for 5.11% of commitments, 7.00% of contributed funds, 10.74% of distributed funds, and 12.30% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - O Annualized since-inception IRR of 32.89%
 - O MSCI ACW IM Index (USD) (Net) IRR of 13.49%
 - A multiple on invested capital of 2.52x.

Real Estate - Opportunistic

- Real Estate Opportunistic funds account for 11.48% of commitments, 17.21% of contributed funds, 17.68% of distributed funds, and 13.53% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 8.61%
 - MSCI ACW IM Index (USD) (Net) IRR of 13.44%
 - O A multiple on invested capital of 1.24x.

Real Estate - Value Added

- Real Estate Value Added funds account for 2.59% of commitments, 2.16% of contributed funds, 0.93% of distributed funds, and 1.89% of reported residual value.
- Pooled portfolio since inception performance is as follows:
 - Annualized since-inception IRR of 15.03%
 - O MSCI ACW IM Index (USD) (Net) IRR of 37.76%
 - O A multiple on invested capital of 1.15x.



Vermont Pension Investment Committee Alternative Investment Private Equity Fund Performance Listing

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	21,837,565	22,449,608	20.37	1st	9.98	2.16
HarbourVest Partners IX - Credit Opportunities Fund, LP	2011	Private Equity - Fund of Funds	4,000,000	3,210,265	2,805,194	2,370,931	13.37	2nd	11.33	1.61
HarbourVest Partners IX - Venture, LP	2011	Private Equity - Venture	12,000,000	11,437,671	15,554,241	23,262,416	25.75	1st	9.17	3.39
Dover Street VIII, LP (HarbourVest)	2012	Private Equity - Secondaries	25,000,000	23,000,000	30,497,651	9,308,986	20.78	2nd	8.62	1.73
HarbourVest International Private Equity Partners VII Partnership, LP	2014	Private Equity - Non-US Private Equity	15,000,000	12,450,000	5,040,604	21,179,871	23.73	2nd	13.86	2.11
HarbourVest International Private Equity Partners VIII Partnership, LP	2014	Private Equity - Fund of Funds	60,000,000	24,450,000	4,330,259	37,934,975	38.26	1st	18.21	1.73
HarbourVest Partners X - Buyout, LP	2015	Private Equity - Buyout	45,500,000	26,847,787	11,421,637	38,143,121	29.84	2nd	16.24	1.85
HarbourVest Partners X - Venture, LP	2015	Private Equity - Venture	19,500,000	15,650,422	5,188,257	39,372,590	43.41	1st	14.63	2.85
Dover Street IX, LP (HarbourVest)	2016	Private Equity - Secondaries	40,000,000	32,000,000	20,893,598	37,048,688	32.00	1st	14.46	1.81
Dover Street X, LP (HarbourVest)	2018	Private Equity - Secondaries	100,000,000	30,000,000	4,617,188	42,532,408	94.78	1st	29.55	1.57
HarbourVest Partners XI - Buyout Fund LP	, 2018	Private Equity - Buyout	75,000,000	23,625,000	3,633,681	35,512,274	65.70	1st	34.35	1.66
HarbourVest Partners XI - Micro Buyout Fund, LP	2018	Private Equity - Buyout	12,500,000	3,562,500	517,563	5,458,917	81.98	1st	41.80	1.68
HarbourVest Partners Co-Investment Fund V, LP	2019	Private Equity - Buyout	25,000,000	17,500,000	0	30,772,398	63.55	N/A	31.10	1.76
HarbourVest Partners XI - Venture Fund LP	d, 2019	Private Equity - Venture	37,500,000	18,937,500	2,024,729	30,498,769	80.47	N/A	33.19	1.72
Nuveen Global Farmland Fund, LP	2019	Private Equity - Natural Resources	100,000,000	40,214,982	707,213	41,050,959	N/M	N/A	N/M	1.04
Pontifax Global Food and Agriculture Technology Fund II, LP	2019	Private Equity - Natural Resources	30,000,000	7,147,202	0	6,663,330	-10.08	N/A	24.13	0.93
Siguler Guff Small Buyout Opportunities Fund IV	2019	Private Equity - Buyout	50,000,000	17,850,000	479,009	22,115,006	36.12	N/A	49.16	1.27

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.



As of June 30, 2021

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	0	0	2,903,689	N/M	N/A	N/M	
NB Strategic Co-Investment Partners IV	2020	Private Equity - Buyout	25,000,000	5,130,604	0	7,522,736	114.77	N/A	37.61	1.47
			780,000,000	333,521,121	129,548,389	456,101,672	29.10		15.79	1.76

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.



Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Siguler Guff Distressed Real Estate Opportunities Fund II	2013	Real Estate - Opportunistic	40,000,000	35,272,308	23,986,725	27,006,348	8.87	4th	7.24	1.45
Siguler Guff DREOF II Co-Investment Fund	2016	Real Estate - Opportunistic	15,000,000	12,669,146	6,164,010	9,772,703	6.69	4th	5.50	1.26
Blue Vista Real Estate Partners V	2018	Real Estate - Value Added	35,000,000	14,175,000	1,978,763	14,288,872	15.03	2nd	5.98	1.15
Brookfield Strategic Real Estate Partner	rs 2019	Real Estate - Opportunistic	100,000,000	65,161,125	7,329,401	65,604,071	9.19	N/A	4.88	1.12
			190,000,000	127,277,579	39,458,899	116,671,994	8.85		6.38	1.23

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.



Alternative Investment Private Credit Fund Performance Listing

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	29,624,702	54,401,804	6.30	4th	4.58	1.20
(Arcmont) Direct Lending Fund III (USD-SLP	L) 2018	Private Credit - Direct Lending	70,000,000	42,499,755	13,286,581	35,593,208	10.76	3rd	4.11	1.15
Benefit Street Partners Senior Secured Opportunities Fund II (Levered US)	2019	Private Credit - Direct Lending	75,000,000	27,534,994	0	29,791,634	23.55	N/A	9.19	1.08
AG Direct Lending Fund IV, LP	2020	Private Credit - Direct Lending	50,000,000	16,250,000	0	17,498,969	N/M	N/A	N/M	1.08
Ares Pathfinder Fund, LP	2020	Private Credit - Specialty Finance	65,000,000	10,092,163	67,239	13,163,241	N/M	N/A	N/M	1.31
Kennedy Lewis Capital Partners Master Fund II, LP	2020	Private Credit - Distressed/Special Situations	50,000,000	30,198,717	0	33,757,799	N/M	N/A	N/M	1.12
			380,000,000	196,575,629	42,978,522	184,206,655	9.36		5.01	1.16

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



Vermont Pension Investment Committee Alternative Investment Private Equity Vintage Year Composite

Average Commitment-weighted Active Investment Age (in years): 3.29

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	40,197,000	48,082,955	22.25	9.79	2.51	2.51
2012	25,000,000	23,000,000	30,497,651	9,308,986	20.78	8.62	1.73	2.20
2014	75,000,000	36,900,000	9,370,863	59,114,846	29.24	15.67	1.86	2.07
2015	65,000,000	42,498,209	16,609,894	77,515,711	36.03	15.57	2.21	2.11
2016	40,000,000	32,000,000	20,893,598	37,048,688	32.00	14.46	1.81	2.06
2018	187,500,000	57,187,500	8,768,432	83,503,599	77.96	32.91	1.61	1.94
2019	242,500,000	101,649,684	3,210,951	131,100,462	43.04	35.52	1.32	1.75
2020	105,000,000	5,130,604	0	10,426,425	269.88	37.61	2.03	1.76
TOTAL	780,000,000	333,521,121	129,548,389	456,101,672	29.10	15.79		1.76

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.



Vermont Pension Investment Committee Alternative Investment Real Estate Vintage Year Composite

Average Commitment-weighted Active Investment Age (in years): 3.98

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	23,986,725	27,006,348	8.87	7.24	1.45	1.45
2016	15,000,000	12,669,146	6,164,010	9,772,703	6.69	5.50	1.26	1.40
2018	35,000,000	14,175,000	1,978,763	14,288,872	15.03	5.98	1.15	1.34
2019	100,000,000	65,161,125	7,329,401	65,604,071	9.19	4.88	1.12	1.23
TOTAL	190,000,000	127,277,579	39,458,899	116,671,994	8.85	6.38		1.23

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.



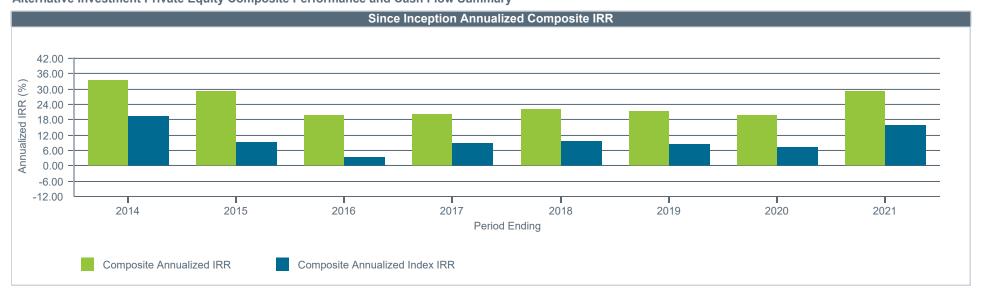
Vermont Pension Investment Committee Alternative Investment Private Credit Vintage Year Composite

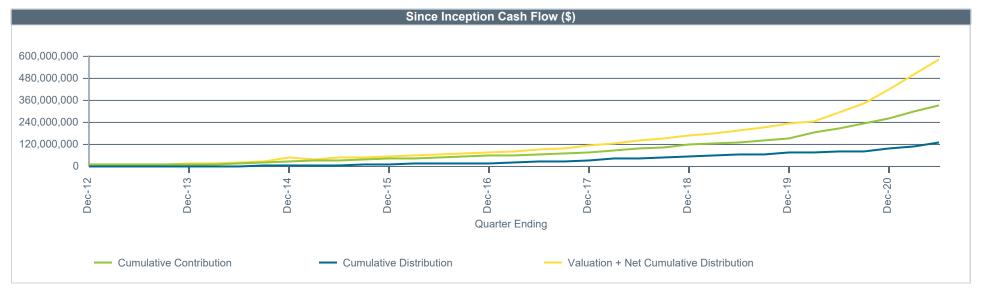
Average Commitment-weighted Active Investment Age (in years): 2.36

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	29,624,702	54,401,804	6.30	4.58	1.20	1.20
2018	70,000,000	42,499,755	13,286,581	35,593,208	10.76	4.11	1.15	1.18
2019	75,000,000	27,534,994	0	29,791,634	23.55	9.19	1.08	1.16
2020	165,000,000	56,540,880	67,239	64,420,009	N/M	N/M	1.14	1.16
TOTAL	380,000,000	196,575,629	42,978,522	184,206,655	9.36	5.01		1.16

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 for all investments through the indicated vintage year.

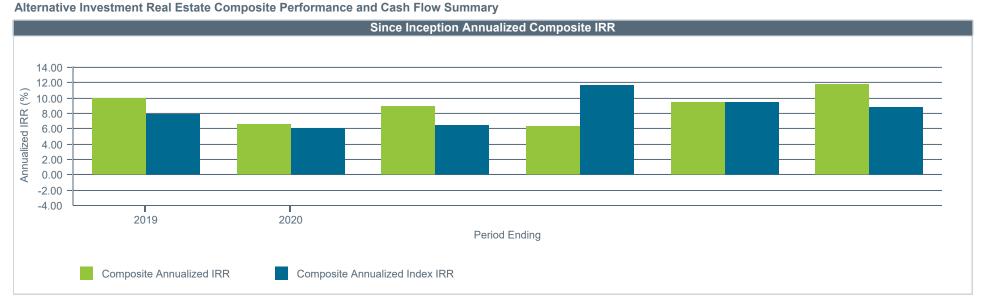


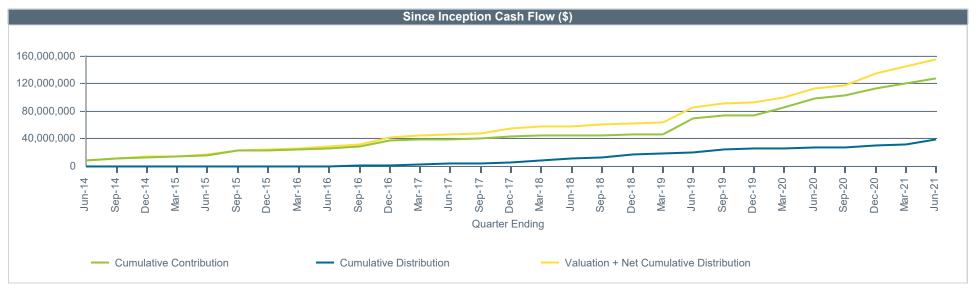




Index IRR represents the dollar-weighted returns calculated using the MSCI ACW IM Index (USD) (Net) assuming an index investment with the same cash flow timing. This report may contain valuations for investments that are preliminary estimates of valuation as of the date of reporting which reflect the 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.

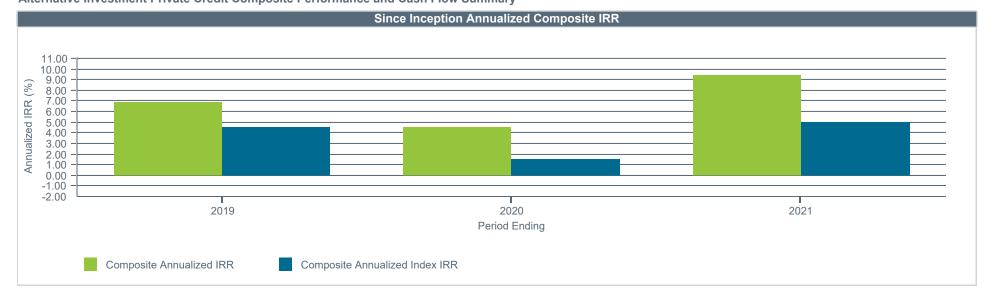


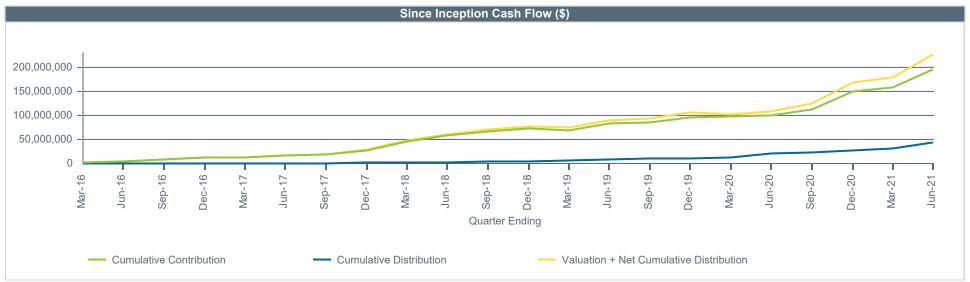




Index IRR represents the dollar-weighted returns calculated using the NCREIF ODCE Index (AWA)(Net) assuming an index investment with the same cash flow timing. This report may contain valuations for investments that are preliminary estimates of valuation as of the date of reporting which reflect the 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.







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.





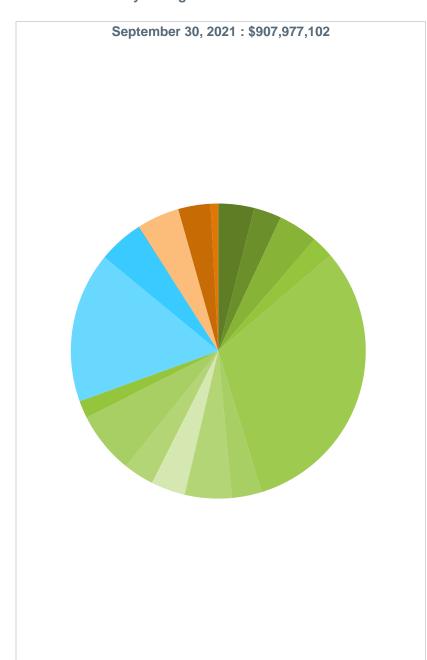
Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio). The fee peer groups consist of only institutional share classes.



VMERS



Vermont Municipal Employees' Retirement System Asset Allocation By Manager



	Market Value	Allocation
T DI 1 00D 500 (F 111(1) (OF)	(\$)	(%)
■ Blackrock S&P 500 (Eql Wtd) (CF)	35,771,832	3.94
■ Champlain US Mid Cap Core (SA)	27,421,098	3.02
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	3,775	0.00
Acadian International All Cap (SA)	39,489,577	4.35
■ Mondrian International Equity (SA)	22,195,704	2.44
■ BlackRock MSCI ACW IMI (CF)	285,837,631	31.48
■ Blackrock MSCI World LCTR (SA)	29,894,752	3.29
Artisan Global Opportunities (CF)	46,403,879	5.11
PIMCO Liquidation (SA)	1,051,741	0.12
■ Wellington Opportunistic EMD (CF)	32,901,670	3.62
■ PIMCO Unconstrained (SA)	350,329	0.04
Private Debt	30,317,893	3.34
Private Equity	61,846,576	6.81
■ Non-Core Real Estate	17,220,821	1.90
■ BlackRock US Agg (CF)	149,864,505	16.51
■ PIMCO Core (SA)	44,360,378	4.89
■ Vermont Cash (SA)	697,466	0.08
■ BlackRock TIPS (CF)	42,537,984	4.68
■ UBS Trumbull Properties (CF)	32,218,945	3.55
Private Infrastructure/Land	7,590,381	0.84
Real Estate Cash (CF)	164	0.00

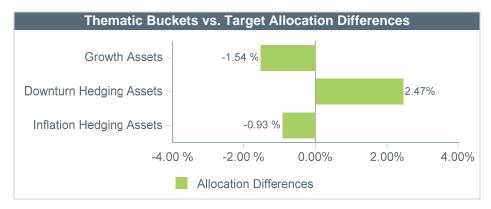
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation.



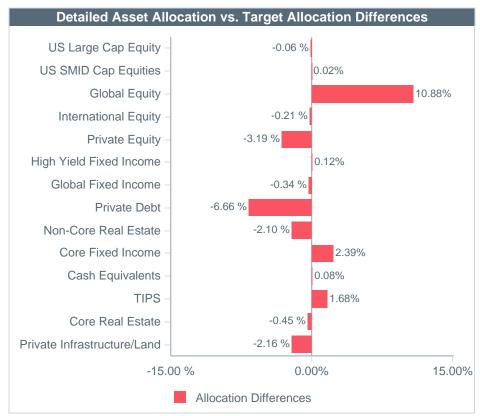
Vermont Municipal Employees' Retirement System Total Fund

Asset Allocation vs. Target Allocation

Thematic Buckets vs. Target Allocation											
	Market Value (\$)	Allocation (%)	Target (%)								
Growth Assets	630,707,279	69.46	71.00								
Downturn Hedging Assets	194,922,349	21.47	19.00								
Inflation Hedging Assets	82,347,474	9.07	10.00								
Total Fund	907,977,102	100.00	100.00								



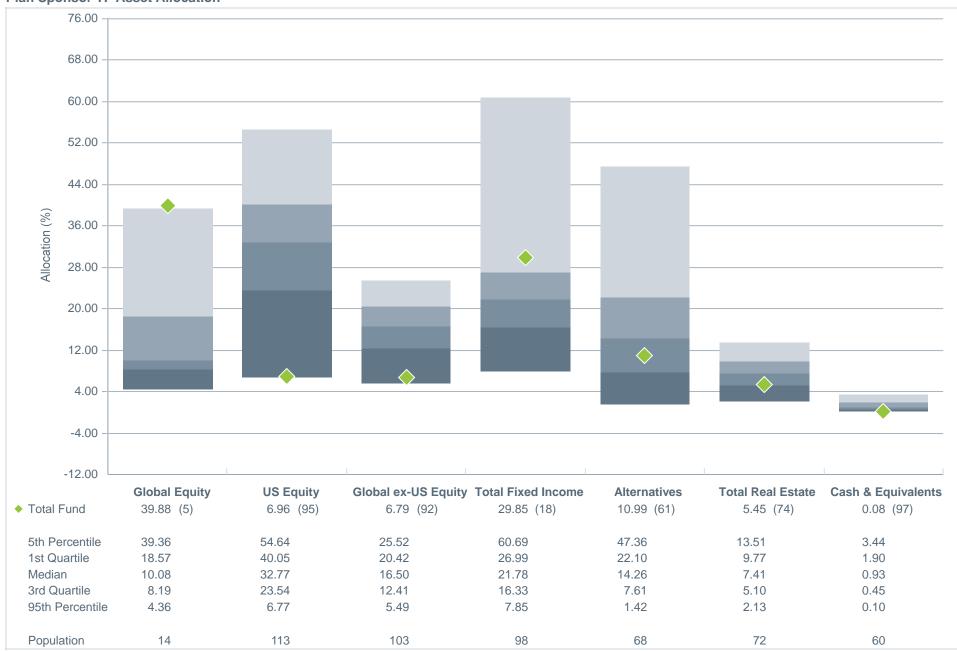
Detailed Asse	t Allocation vs. Tar	get Allocation	
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	35,771,832	3.94	4.00
US SMID Cap Equities	27,424,873	3.02	3.00
Global Equity	362,136,261	39.88	29.00
International Equity	61,685,281	6.79	7.00
Private Equity	61,846,576	6.81	10.00
High Yield Fixed Income	1,051,741	0.12	0.00
Global Fixed Income	33,251,999	3.66	4.00
Private Debt	30,317,893	3.34	10.00
Non-Core Real Estate	17,220,821	1.90	4.00
Core Fixed Income	194,224,883	21.39	19.00
Cash Equivalents	697,466	0.08	0.00
TIPS	42,537,984	4.68	3.00
Core Real Estate	32,219,109	3.55	4.00
Private Infrastructure/Land	7,590,381	0.84	3.00
Total Fund	907,977,102	100.00	100.00







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



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

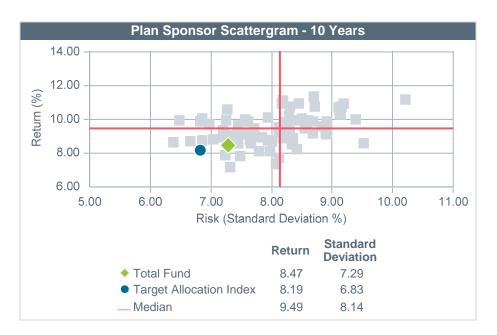


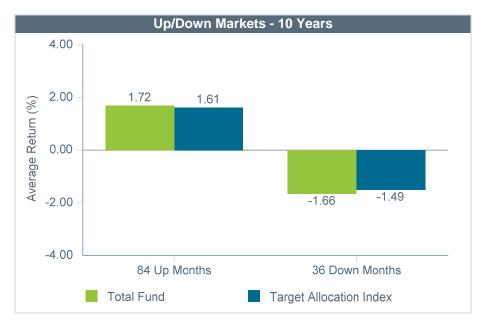
Vermont Municipal Employees' Retirement System All Public Plans (\$500M to \$5B) (Custom PG) Plan Sponsor Peer Group Analysis

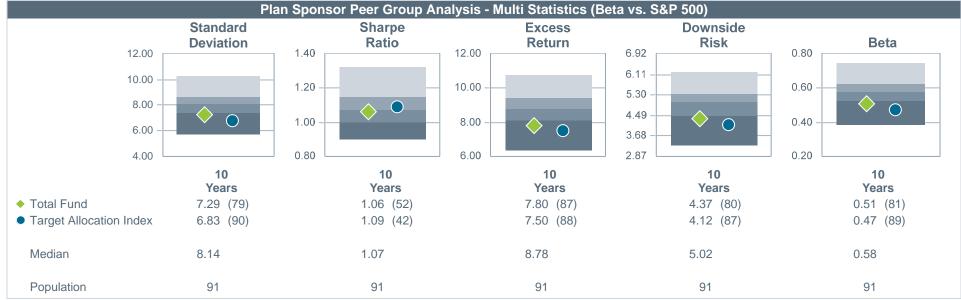


Performance shown is net of fees. Parentheses contain percentile ranks.









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



	Allocati	ion			Performance (%)							
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	907,977,102	100.00	0.87	0.87	19.40	10.37	9.78	8.47	6.31	12.95	6.76	07/01/2005
Target Allocation Index			0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference			0.49	0.49	0.58	-0.01	0.36	0.28	0.01	0.40	0.09	
Actual Allocation Index			-0.10	-0.10	18.67	9.42	8.99	7.94	6.15	11.40	6.51	
Difference			0.97	0.97	0.73	0.95	0.79	0.53	0.16	1.55	0.25	
Growth Assets	630,707,279	69.46	1.02	1.02	29.87	-	-	-	-	-	25.46	09/01/2020
MSCI ACW IM Index (USD) (Net)			-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	22.80	
Difference			2.13	2.13	0.95	-	-	-	-	-	2.66	
Downturn Hedging Assets	194,922,349	21.47	0.06	0.06	-0.76	-	-	-	-	-	-0.71	09/01/2020
Bloomberg US Agg Bond Index			0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference			0.01	0.01	0.14	-	-	-	-	-	0.17	
Inflation Hedging Assets	82,347,474	9.07	1.94	1.94	2.99	-	-	-	-	-	2.52	09/01/2020
Consumer Price Index+2.5%			1.59	1.59	8.02	5.38	5.15	4.46	4.58	3.90	7.73	
Difference			0.35	0.35	-5.03	-	-	-	-	-	-5.21	



	Al	location						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	907,977,102	100.00	100.00	0.87	0.87	19.40	10.37	9.78	8.47	6.31	12.95	6.76	07/01/2005
Target Allocation Index				0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference				0.49	0.49	0.58	-0.01	0.36	0.28	0.01	0.40	0.09	
Actual Allocation Index				-0.10	-0.10	18.67	9.42	8.99	7.94	6.15	11.40	6.51	
Difference				0.97	0.97	0.73	0.95	0.79	0.53	0.16	1.55	0.25	
All Public Plans (\$500M to \$5B)				0.00	0.00	20.76	10.04	9.72	9.49	6.82	11.69	7.02	
Rank				14	14	73	42	49	86	78	38	70	
Domestic Equity	63,196,706	6.96	7.00	0.18	0.18	39.63	14.04	15.43	16.04	-	19.18	13.63	01/01/2011
Russell 3000 Index				-0.10	-0.10	31.88	16.00	16.85	16.60	10.44	20.89	14.25	
Difference				0.28	0.28	7.75	-1.96	-1.42	-0.56	-	-1.71	-0.62	
US Large Cap Equity	35,771,832	3.94	4.00	-0.29	-0.29	40.70	12.41	14.45	15.55	10.05	13.03	10.43	07/01/2005
S&P 500 Index (Cap Wtd)				0.58	0.58	30.00	15.99	16.90	16.63	10.37	18.40	10.46	
Difference				-0.87	-0.87	10.70	-3.58	-2.45	-1.08	-0.32	-5.37	-0.03	
Blackrock S&P 500 (Eql Wtd) (CF)	35,771,832	3.94	-	-0.29	-0.29	40.70	-	-	-	-	13.03	18.14	07/01/2019
S&P 500 Index (Eq Wtd)				-0.22	-0.22	40.87	14.29	14.61	15.99	10.67	12.83	18.13	
Difference				-0.07	-0.07	-0.17	-	-	-	-	0.20	0.01	
IM U.S. Large Cap Equity (MF) Median				0.05	0.05	28.72	15.45	16.19	15.73	9.83	18.34	20.02	
Rank				63	63	8	-	-	-	-	64	59	
US SMID Cap Equities	27,424,873	3.02	3.00	0.83	0.83	37.84	15.67	16.80	16.81	11.27	27.32	10.96	07/01/2005
Russell 2500 Index				-2.68	-2.68	45.03	12.47	14.25	15.27	10.01	19.99	10.10	
Difference				3.51	3.51	-7.19	3.20	2.55	1.54	1.26	7.33	0.86	
Champlain US Mid Cap Core (SA)	27,421,098	3.02	-	0.82	0.82	37.84	15.67	17.64	17.26	-	27.32	15.88	10/01/2009
Custom SMID Cap Equity Index				-2.63	-2.63	47.33	11.75	14.15	15.17	9.94	19.99	13.67	
Difference				3.45	3.45	-9.49	3.92	3.49	2.09	-	7.33	2.21	
IM U.S. SMID Cap Equity (MF) Median				-1.79	-1.79	41.86	11.95	14.62	14.67	10.24	20.27	13.69	
Rank				13	13	61	30	30	24	-	41	23	
Global Equity	362,136,261	39.88	29.00	-0.66	-0.66	28.76	13.02	-	-	-	20.39	8.59	02/01/2018
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	9.53	
Difference				0.45	0.45	-0.16	0.64	-	-	-	4.14	-0.94	



	Al	location						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
BlackRock MSCI ACW IMI (CF)	285,837,631	31.48	-	-1.03	-1.03	29.51	-	-	-	-	16.77	16.99	07/01/2019
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	16.50	
Difference				0.08	0.08	0.59	-	-	-	-	0.52	0.49	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	16.01	
Rank				49	49	35	-	-	-	-	44	47	
Blackrock MSCI World LCTR (SA)	29,894,752	3.29	-	-	-	-	-	-	-	-	-	-4.24	09/01/2021
MSCI Wrld Index (USD) (Net)				-0.01	-0.01	28.82	13.14	13.74	12.68	7.47	15.90	-4.15	
Difference				-	-	-	-	-	-	-	-	-0.09	
IM Global Equity (MF) Median				-0.59	-0.84	28.20	13.13	13.31	12.92	8.29	16.28	-4.16	
Rank				-	-	-	-	-	-	-	-	55	
Artisan Global Opportunities (CF)	46,403,879	5.11	-	2.01	2.01	20.66	20.87	-	-	-	40.50	20.40	07/01/2018
MSCI ACW Index (USD) (Net)				-1.05	-1.05	27.44	12.58	13.20	11.90	7.21	16.25	13.00	
Difference				3.06	3.06	-6.78	8.29	-	-	-	24.25	7.40	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	12.31	
Rank				6	6	77	10	-	-	-	14	10	
International Equity	61,685,281	6.79	7.00	-2.20	-2.20	28.47	7.49	8.60	7.67	-	4.89	5.73	01/01/2011
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.90	
Difference				-1.75	-1.75	2.74	-0.13	-0.21	-0.43	-	-2.93	-0.17	
Acadian International All Cap (SA)	39,489,577	4.35	-	-2.71	-2.71	27.10	8.04	11.20	10.54	4.89	12.37	6.45	11/01/2005
MSCI EAFE IM Index (USD) (Net)				-0.24	-0.24	26.23	7.83	9.04	8.45	4.41	8.47	5.50	
Difference				-2.47	-2.47	0.87	0.21	2.16	2.09	0.48	3.90	0.95	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.11	
Rank				82	82	27	42	15	9	29	33	18	
Mondrian International Equity (SA)	22,195,704	2.44	-	-1.28	-1.28	30.97	4.68	6.41	6.62	3.75	-4.01	5.23	07/01/2005
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.54	
Difference				-0.83	-0.83	5.24	-2.94	-2.40	-1.48	-0.35	-11.83	-0.31	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.45	
Rank				51	51	14	82	79	84	57	98	59	
Fixed Income	228,528,624	25.17	90.00	-0.02	-0.02	0.02	5.19	3.68	4.10		8.14	4.31	01/01/2011
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	3.42	



	AI	location						Perfori	mance (%	(a)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Core Fixed Income	194,224,883	21.39	20.00	0.07	0.07	-0.76	-	-	-	-	-	-0.71	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				0.02	0.02	0.14	-	-	-	-	-	0.17	
BlackRock US Agg (CF)	149,864,505	16.51	-	0.07	0.07	-0.86	-	-	-	-	7.54	3.94	06/01/2019
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	4.08	
Difference				0.02	0.02	0.04	-	-	-	-	0.03	-0.14	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	4.57	
Rank				39	39	81	-	-	-	-	71	79	
PIMCO Core (SA)	44,360,378	4.89	-	0.04	0.04	-0.32	-	-	-	-	-	-0.18	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				-0.01	-0.01	0.58	-	-	-	-	-	0.70	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	0.10	
Rank				47	47	67	-	-	-	-	-	61	
Emerging Markets Debt	32,901,670	3.62	4.00	-0.58	-0.58	4.16	-	-	-	-	-	2.07	09/01/2020
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	1.99	
Difference				-0.05	-0.05	0.28	-	-	-	-	-	0.08	
Wellington Opportunistic EMD (CF)	32,901,670	3.62	-	-0.58	-0.58	4.16	5.98	4.27	5.94	-	7.69	6.32	12/01/2009
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	5.93	
Difference				-0.05	-0.05	0.28	0.34	0.70	0.46	-	1.81	0.39	
IM Emerging Markets Debt (MF) Median				-0.71	-0.71	5.55	5.48	3.70	4.81	5.22	5.57	4.99	
Rank				39	39	84	33	30	6	-	15	4	
High Yield Fixed Income	1,051,741	0.12	0.00	0.34	0.34	14.20	4.02	4.27	5.94	6.18	3.21	6.21	06/01/2006
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	7.40	
Difference				-0.55	-0.55	2.92	-2.89	-2.25	-1.48	-1.13	-3.90	-1.19	
PIMCO Liquidation (SA)	1,051,741	0.12	-	0.34	0.34	14.20	4.03	-	-	-	3.27	3.72	08/01/2018
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	6.97	
Difference				-0.55	-0.55	2.92	-2.88	-	-	-	-3.84	-3.25	
IM U.S. High Yield Bonds (MF) Median				0.67	0.67	10.49	5.87	5.50	6.39	6.03	5.28	5.93	
Rank				84	84	10	92	-	-	-	81	94	



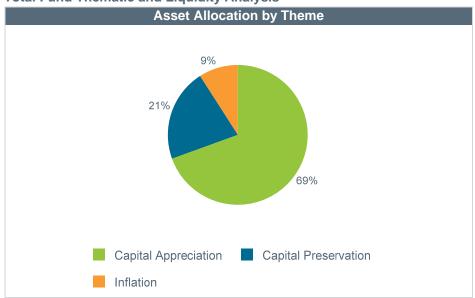
	Al	location						Perfor	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Private Debt	30,317,893	3.34	10.00	6.67	6.67	15.78	7.63	-	-	-	2.43	7.72	01/01/2018
CS Lvg'd Loan Index+2% (Spliced)				1.64	1.64	10.27	4.74	4.94	5.09	4.72	3.12	4.87	
Difference				5.03	5.03	5.51	2.89	-	-	-	-0.69	2.85	
Private Equity	61,846,576	6.81	10.00	16.49	16.49	63.82	28.95	25.01	-	-	17.35	21.39	01/01/2013
Cambridge US Prvt Eq Index				0.00	0.00	39.06	19.19	18.64	15.85	13.39	21.77	15.91	
Difference				16.49	16.49	24.76	9.76	6.37	-	-	-4.42	5.48	
Non-Core Real Estate	17,220,821	1.90	3.00	-0.08	-0.08	14.75	3.94	7.99	-	-	-1.92	8.81	09/01/2014
NCREIF ODCE Index+2% (Spliced)				6.93	6.93	15.38	7.73	7.45	9.30	7.30	1.60	8.84	
Difference				-7.01	-7.01	-0.63	-3.79	0.54	-	-	-3.52	-0.03	
Inflation Hedging Assets (Spliced)	82,347,474	9.07	10.00	1.94	1.94	2.99	-0.11	2.99	7.20	-	-2.75	8.22	01/01/2011
CPI+2.5% (Spliced)				1.59	1.59	8.02	5.25	5.96	8.54	6.80	0.75	8.97	
Difference				0.35	0.35	-5.03	-5.36	-2.97	-1.34	-	-3.50	-0.75	
TIPS	42,537,984	4.68	2.00	1.73	1.73	5.14	-	-	-	-	-	4.39	09/01/2020
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	4.42	
Difference				-0.02	-0.02	-0.05	-	-	-	-	-	-0.03	
BlackRock TIPS (CF)	42,537,984	4.68	-	1.73	1.73	5.14	7.37	4.28	3.05	-	10.98	3.81	12/01/2009
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	3.85	
Difference				-0.02	-0.02	-0.05	-0.08	-0.06	-0.07	-	-0.01	-0.04	
IM U.S. TIPS (MF) Median				1.59	1.59	5.37	6.56	3.81	2.48	3.75	9.64	3.21	
Rank				28	28	59	20	26	16	-	26	11	
Core Real Estate	32,219,109	3.55	5.00	2.74	2.74	1.60	-0.49	2.04	6.74	-	-2.26	7.79	01/01/2011
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	9.41	
Difference				-3.67	-3.67	-12.04	-6.62	-4.52	-2.18	-	-2.60	-1.62	
UBS Trumbull Properties (CF)	32,218,945	3.55	-	2.74	2.74	1.60	-0.46	1.93	5.35	4.17	-2.26	4.94	07/01/2005
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	6.40	
Difference				-3.67	-3.67	-12.04	-6.59	-4.63	-3.57	-1.38	-2.60	-1.46	
Private Infrastructure/Land	7,590,381	0.84	3.00	-0.16	-0.16	2.63	-	-	-	-	-	2.25	08/01/2020
NCREIF Farmland Index (TR)				1.51	1.51	5.54	4.90	5.53	10.19	11.09	3.08	5.59	
Difference				-1.67	-1.67	-2.91	-	-	-	-	-	-3.34	

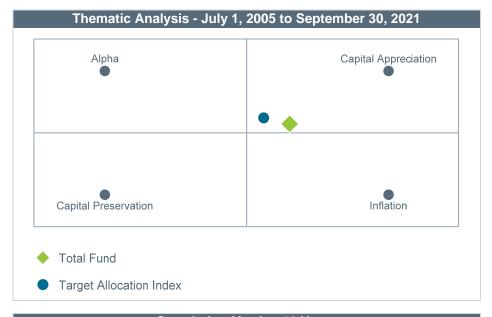


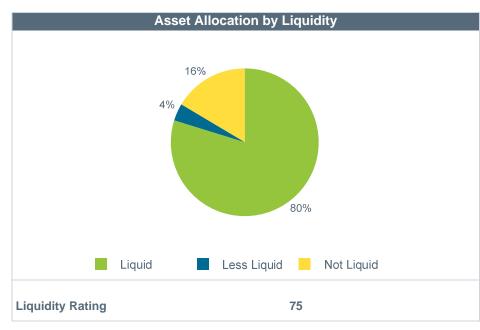
	Al	location		Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Cash Equivalents	697,466	0.08	0.00	0.00	0.00	0.00	0.36	0.24	0.13		0.37	0.13	01/01/2011
ICE BofAML 3 Mo US T-Bill Index				0.02	0.02	0.07	1.18	1.16	0.63	1.00	0.67	0.59	
Difference				-0.02	-0.02	-0.07	-0.82	-0.92	-0.50	-	-0.30	-0.46	



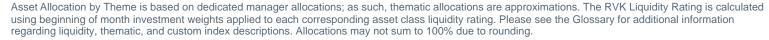
Vermont Municipal Employees' Retirement System Total Fund Thematic and Liquidity Analysis



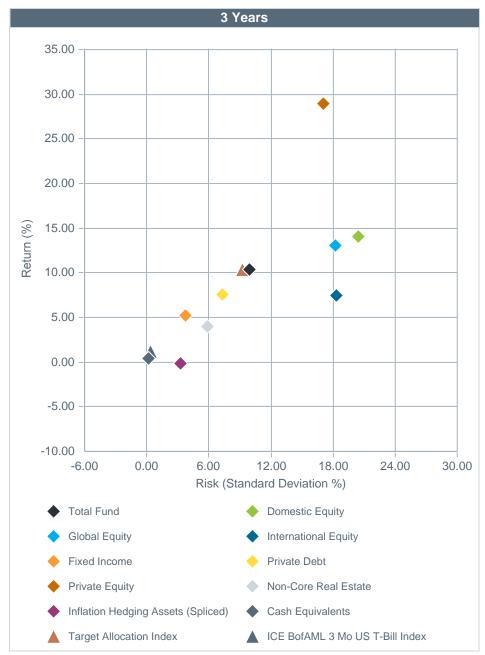


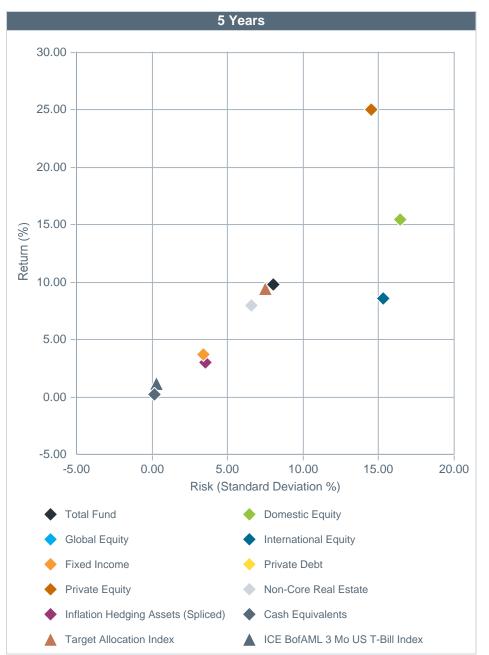


		Correlation Mat	rix - 10 Years	
	Α	В	С	D
Α	1.00			
В	0.66	1.00		
С	-0.18	-0.32	1.00	
D	0.59	0.78	-0.06	1.00
A B C D	= = = =	HFRI EH: Equity Market N MSCI ACW Index (USD) (0 Bloomberg US Gov't Bond Real Return Custom Index	Gross) (Capital Appred Index (Capital Preser	



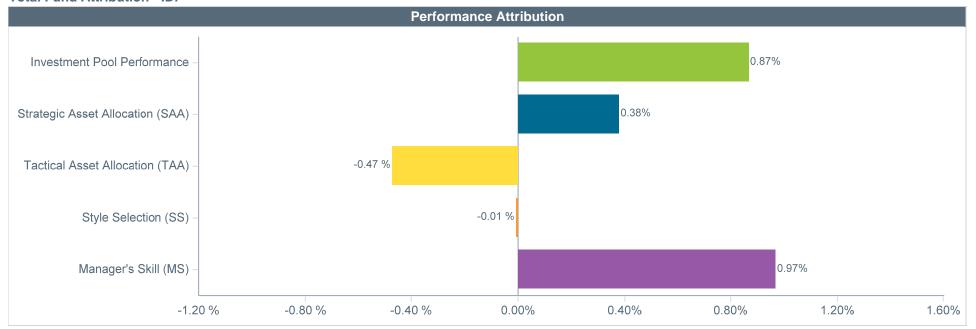


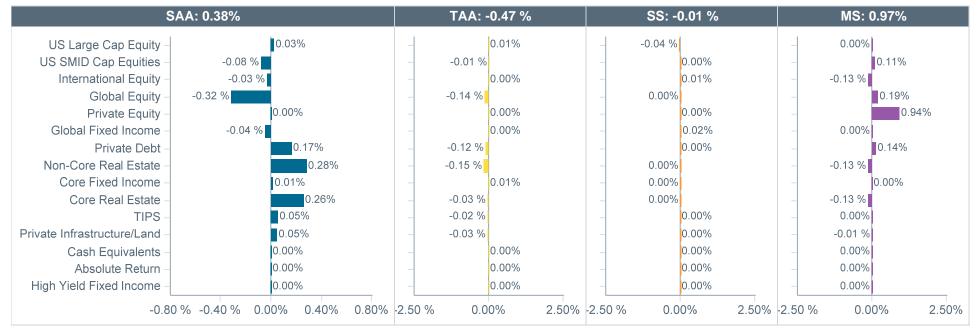




Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.







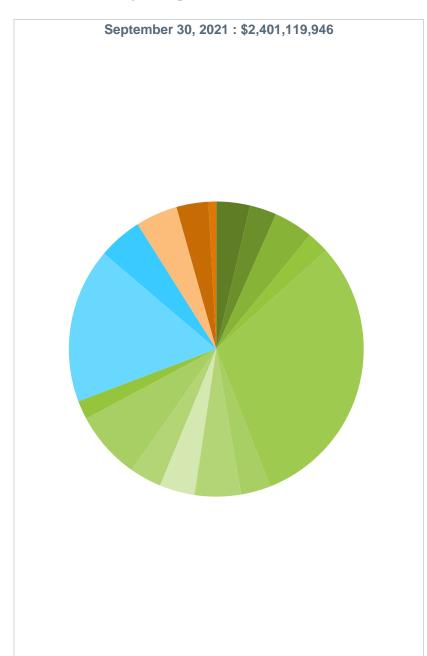
Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable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



VSERS



Vermont State Employees' Retirement System Asset Allocation By Manager



	Market Value (\$)	Allocation (%)	
■ Blackrock S&P 500 (Eql Wtd) (CF)	88,669,869	3.69	
■ Champlain US Mid Cap Core (SA)	70,561,456	2.94	
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	6,126	0.00	
Acadian International All Cap (SA)	103,268,740	4.30	
■ Mondrian International Equity (SA)	58,150,308	2.42	
■ BlackRock MSCI ACW IMI (CF)	736,205,237	30.66	
■ Blackrock MSCI World LCTR (SA)	78,926,173	3.29	
Artisan Global Opportunities (CF)	120,949,648	5.04	
■ PIMCO Liquidation (SA)	2,772,749	0.12	
■ Wellington Opportunistic EMD (CF)	89,674,147	3.73	
■ PIMCO Unconstrained (SA)	785,134	0.03	
Private Debt	84,213,911	3.51	
■ Private Equity	179,294,518	7.47	
■ Non-Core Real Estate	48,979,927	2.04	
■ BlackRock US Agg (CF)	407,722,486	16.98	
■ PIMCO Core (SA)	115,595,996	4.81	
■ Vermont Cash (SA)	226,896	0.01	
■ BlackRock TIPS (CF)	110,450,034	4.60	
■ UBS Trumbull Properties (CF)	84,208,692	3.51	
Private Infrastructure/Land	20,457,473	0.85	
Real Estate Cash (CF)	429	0.00	

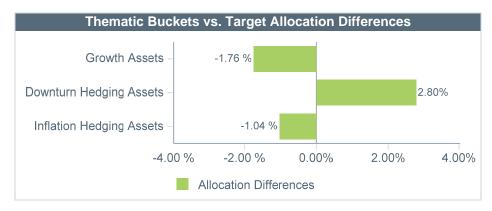
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation.



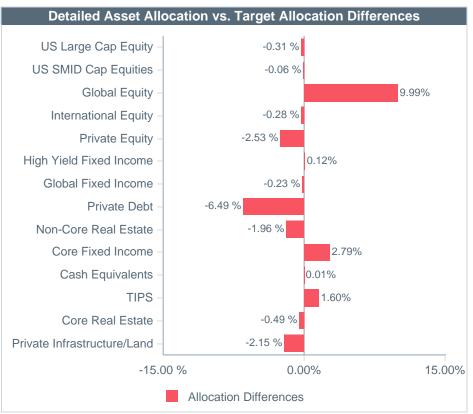
Vermont State Employees' Retirement System Total Fund

Asset Allocation vs. Target Allocation

Thematic Buckets vs. Target Allocation												
	Market Value (\$)	Allocation (%)	Target (%)									
Growth Assets	1,662,457,941	69.24	71.00									
Downturn Hedging Assets	523,545,378	21.80	19.00									
Inflation Hedging Assets	215,116,627	8.96	10.00									
Total Fund	2,401,119,946	100.00	100.00									

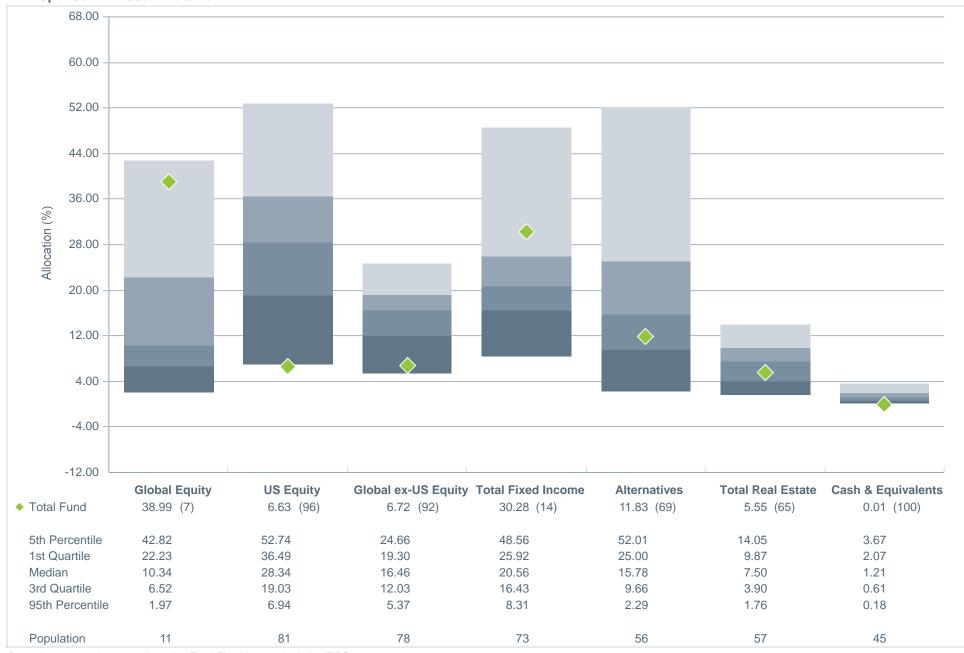


Detailed Asset	t Allocation vs. Tar	get Allocation	
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	88,669,869	3.69	4.00
US SMID Cap Equities	70,567,582	2.94	3.00
Global Equity	936,081,058	38.99	29.00
International Equity	161,419,048	6.72	7.00
Private Equity	179,294,518	7.47	10.00
High Yield Fixed Income	2,772,749	0.12	0.00
Global Fixed Income	90,459,280	3.77	4.00
Private Debt	84,213,911	3.51	10.00
Non-Core Real Estate	48,979,927	2.04	4.00
Core Fixed Income	523,318,482	21.79	19.00
Cash Equivalents	226,896	0.01	0.00
TIPS	110,450,034	4.60	3.00
Core Real Estate	84,209,121	3.51	4.00
Private Infrastructure/Land	20,457,473	0.85	3.00
Total Fund	2,401,119,946	100.00	100.00





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



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

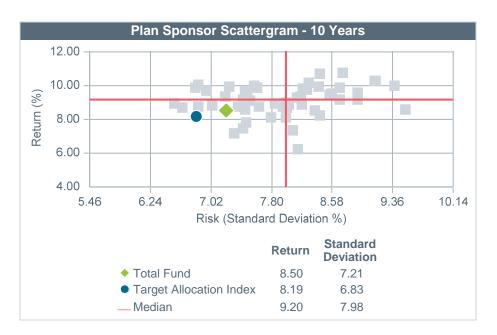


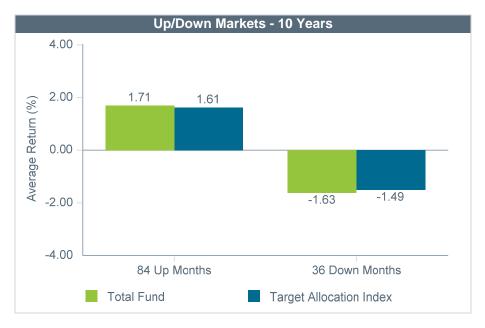
Vermont State Employees' Retirement System All Public Plans (\$1B to \$10B) (Custom PG) Plan Sponsor Peer Group Analysis

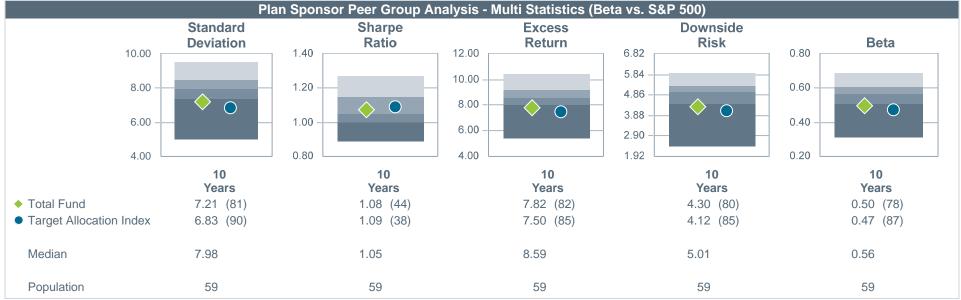


Performance shown is net of fees. Parentheses contain percentile ranks.









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



	Allocatio	n		Performance (%)										
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date		
Total Fund	2,401,119,946	100.00	0.98	0.98	19.75	10.53	9.84	8.50	6.30	13.07	6.70	07/01/2005		
Target Allocation Index			0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67			
Difference			0.60	0.60	0.93	0.15	0.42	0.31	0.00	0.52	0.03			
Actual Allocation Index			-0.08	-0.08	19.08	9.57	9.05	7.94	6.09	11.61	6.46			
Difference			1.06	1.06	0.67	0.96	0.79	0.56	0.21	1.46	0.24			
Growth Assets	1,662,457,941	69.24	1.18	1.18	29.83	-	-	-	-	-	25.54	09/01/2020		
MSCI ACW IM Index (USD) (Net)			-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	22.80			
Difference			2.29	2.29	0.91	-	-	-	-	-	2.74			
Downturn Hedging Assets	523,545,378	21.80	0.07	0.07	-0.76	-	-	-	-	-	-0.70	09/01/2020		
Bloomberg US Agg Bond Index			0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88			
Difference			0.02	0.02	0.14	-	-	-	-	-	0.18			
Inflation Hedging Assets	215,116,627	8.96	1.94	1.94	2.89	-	-	-	-	-	2.53	09/01/2020		
Consumer Price Index+2.5%			1.59	1.59	8.02	5.38	5.15	4.46	4.58	3.90	7.73			
Difference			0.35	0.35	-5.13	-	-	-	-	-	-5.20			





	Alle	ocation		Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	2,401,119,946	100.00	100.00	0.98	0.98	19.75	10.53	9.84	8.50	6.30	13.07	6.70	07/01/2005
Target Allocation Index				0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference				0.60	0.60	0.93	0.15	0.42	0.31	0.00	0.52	0.03	
Actual Allocation Index				-0.08	-0.08	19.08	9.57	9.05	7.94	6.09	11.61	6.46	
Difference				1.06	1.06	0.67	0.96	0.79	0.56	0.21	1.46	0.24	
All Public Plans (\$1B to \$10B)				0.07	0.07	20.89	9.70	9.57	9.20	6.61	11.23	6.86	
Rank				22	22	72	28	38	82	69	27	64	
Domestic Equity	159,237,451	6.63	7.00	0.18	0.18	39.67	13.95	15.35	16.01	-	18.83	13.61	01/01/2011
Russell 3000 Index				-0.10	-0.10	31.88	16.00	16.85	16.60	10.44	20.89	14.25	
Difference				0.28	0.28	7.79	-2.05	-1.50	-0.59	-	-2.06	-0.64	
US Large Cap Equity	88,669,869	3.69	4.00	-0.29	-0.29	40.70	12.41	14.44	15.56	10.05	13.03	10.25	07/01/2005
S&P 500 Index (Cap Wtd)				0.58	0.58	30.00	15.99	16.90	16.63	10.37	18.40	10.46	
Difference				-0.87	-0.87	10.70	-3.58	-2.46	-1.07	-0.32	-5.37	-0.21	
Blackrock S&P 500 (Eql Wtd) (CF)	88,669,869	3.69	-	-0.29	-0.29	40.70	-	-	-	-	13.03	18.14	07/01/2019
S&P 500 Index (Eq Wtd)				-0.22	-0.22	40.87	14.29	14.61	15.99	10.67	12.83	18.13	
Difference				-0.07	-0.07	-0.17	-	-	-	-	0.20	0.01	
IM U.S. Large Cap Equity (MF) Median				0.05	0.05	28.72	15.45	16.19	15.73	9.83	18.34	20.02	
Rank				63	63	8	-	-	-	-	64	59	
US SMID Cap Equities	70,567,582	2.94	3.00	0.83	0.83	37.84	15.67	16.78	16.77	11.25	27.32	10.96	07/01/2005
Russell 2500 Index				-2.68	-2.68	45.03	12.47	14.25	15.27	10.01	19.99	10.10	
Difference				3.51	3.51	-7.19	3.20	2.53	1.50	1.24	7.33	0.86	
Champlain US Mid Cap Core (SA)	70,561,456	2.94	-	0.82	0.82	37.84	15.67	17.63	17.25	-	27.32	15.87	10/01/2009
Custom SMID Cap Equity Index				-2.63	-2.63	47.33	11.75	14.15	15.17	9.94	19.99	13.67	
Difference				3.45	3.45	-9.49	3.92	3.48	2.08	-	7.33	2.20	
IM U.S. SMID Cap Equity (MF) Median				-1.79	-1.79	41.86	11.95	14.62	14.67	10.24	20.27	13.69	
Rank				13	13	61	30	30	24	-	41	23	
Global Equity	936,081,058	38.99	29.00	-0.63	-0.63	28.07	12.89	-	-	-	19.96	8.48	02/01/2018
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	9.53	
Difference				0.48	0.48	-0.85	0.51	-	-	-	3.71	-1.05	



	Alle	Performance (%)											
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
BlackRock MSCI ACW IMI (CF)	736,205,237	30.66	-	-1.03	-1.03	29.51	-	-	-	-	16.77	16.99	07/01/2019
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	16.50	
Difference				0.08	0.08	0.59	-	-	-	-	0.52	0.49	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	16.01	
Rank				49	49	35	-	-	-	-	44	47	
Blackrock MSCI World LCTR (SA)	78,926,173	3.29	-	-	-	-	-	-	-	-	-	-4.24	09/01/2021
MSCI Wrld Index (USD) (Net)				-0.01	-0.01	28.82	13.14	13.74	12.68	7.47	15.90	-4.15	
Difference				-	-	-	-	-	-	-	-	-0.09	
IM Global Equity (MF) Median				-0.59	-0.84	28.20	13.13	13.31	12.92	8.29	16.28	-4.16	
Rank				-	-	-	-	-	-	-	-	55	
Artisan Global Opportunities (CF)	120,949,648	5.04	-	2.01	2.01	20.66	20.87	-	-	-	40.50	20.40	07/01/2018
MSCI ACW Index (USD) (Net)				-1.05	-1.05	27.44	12.58	13.20	11.90	7.21	16.25	13.00	
Difference				3.06	3.06	-6.78	8.29	-	-	-	24.25	7.40	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	12.31	
Rank				6	6	77	10	-	-	-	14	10	
International Equity	161,419,048	6.72	7.00	-2.21	-2.21	28.46	7.41	8.52	7.61	-	4.62	5.67	01/01/2011
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.90	
Difference				-1.76	-1.76	2.73	-0.21	-0.29	-0.49	-	-3.20	-0.23	
Acadian International All Cap (SA)	103,268,740	4.30	-	-2.71	-2.71	27.10	8.04	11.19	10.54	4.89	12.37	6.45	11/01/2005
MSCI EAFE IM Index (USD) (Net)				-0.24	-0.24	26.23	7.83	9.04	8.45	4.41	8.47	5.50	
Difference				-2.47	-2.47	0.87	0.21	2.15	2.09	0.48	3.90	0.95	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.11	
Rank				82	82	27	42	15	9	29	33	18	
Mondrian International Equity (SA)	58,150,308	2.42	-	-1.28	-1.28	30.97	4.68	6.41	6.62	3.75	-4.01	5.23	07/01/2005
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.54	
Difference				-0.83	-0.83	5.24	-2.94	-2.40	-1.48	-0.35	-11.83	-0.31	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.45	
Rank				51	51	14	82	79	84	57	98	59	
Fixed Income	616,550,510	25.68	90.00	-0.03	-0.03	0.06	5.20	3.67	4.10	-	8.14	4.30	01/01/2011
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	3.42	
Difference				-0.08	-0.08	0.96	-0.15	0.73	1.09	-	0.63	0.88	



	Alle	ocation		Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Core Fixed Income	523,318,482	21.79	20.00	0.07	0.07	-0.76	-	-	-	-	-	-0.70	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				0.02	0.02	0.14	-	-	-	-	-	0.18	
BlackRock US Agg (CF)	407,722,486	16.98	-	0.07	0.07	-0.86	-	-	-	-	7.54	3.94	06/01/2019
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	4.08	
Difference				0.02	0.02	0.04	-	-	-	-	0.03	-0.14	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	4.57	
Rank				39	39	81	-	-	-	-	71	79	
PIMCO Core (SA)	115,595,996	4.81	-	0.04	0.04	-0.32	-	-	-	-	-	-0.18	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				-0.01	-0.01	0.58	-	-	-	-	-	0.70	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	0.10	
Rank				47	47	67	-	-	-	-	-	61	
Emerging Markets Debt	89,674,147	3.73	4.00	-0.58	-0.58	4.16	-	-	-	-	-	2.07	09/01/2020
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	1.99	
Difference				-0.05	-0.05	0.28	-	-	-	-	-	0.08	
Wellington Opportunistic EMD (CF)	89,674,147	3.73	-	-0.58	-0.58	4.16	5.98	4.27	5.94	-	7.69	6.32	12/01/2009
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	5.93	
Difference				-0.05	-0.05	0.28	0.34	0.70	0.46	-	1.81	0.39	
IM Emerging Markets Debt (MF) Median				-0.71	-0.71	5.55	5.48	3.70	4.81	5.22	5.57	4.99	
Rank				39	39	84	33	30	6	-	15	4	
High Yield Fixed Income	2,772,749	0.12	0.00	0.34	0.34	14.20	4.04	4.30	5.96	6.20	3.27	6.23	06/01/2006
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	7.40	
Difference				-0.55	-0.55	2.92	-2.87	-2.22	-1.46	-1.11	-3.84	-1.17	
PIMCO Liquidation (SA)	2,772,749	0.12	-	0.34	0.34	14.20	4.03	-	-	-	3.26	3.72	08/01/2018
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	6.97	
Difference				-0.55	-0.55	2.92	-2.88	-	-	-	-3.85	-3.25	
IM U.S. High Yield Bonds (MF) Median				0.67	0.67	10.49	5.87	5.50	6.39	6.03	5.28	5.93	
Rank				84	84	10	92	-	-	-	81	94	



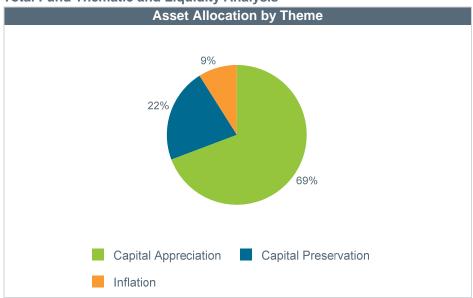
	All	Allocation				Performance (%)								
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date	
Private Debt	84,213,911	3.51	10.00	6.54	6.54	15.90	7.54	-	-	-	2.22	7.65	01/01/2018	
CS Lvg'd Loan Index+2% (Spliced)				1.64	1.64	10.27	4.74	4.94	5.09	4.72	3.12	4.87		
Difference				4.90	4.90	5.63	2.80	-	-	-	-0.90	2.78		
Private Equity	179,294,518	7.47	10.00	16.35	16.35	64.40	29.05	24.93	-	-	17.25	21.06	01/01/2013	
Cambridge US Prvt Eq Index				0.00	0.00	39.06	19.19	18.64	15.85	13.39	21.77	15.91		
Difference				16.35	16.35	25.34	9.86	6.29	-	-	-4.52	5.15		
Non-Core Real Estate	48,979,927	2.04	3.00	0.05	0.05	14.45	3.91	7.85	-	-	-1.80	8.88	09/01/2014	
NCREIF ODCE Index+2% (Spliced)				6.93	6.93	15.38	7.73	7.45	9.30	7.30	1.60	8.84		
Difference				-6.88	-6.88	-0.93	-3.82	0.40	-	-	-3.40	0.04		
Inflation Hedging Assets (Spliced)	215,116,627	8.96	10.00	1.94	1.94	2.89	-0.15	2.77	7.42	-	-2.83	8.43	01/01/2011	
CPI+2.5% (Spliced)				1.59	1.59	8.02	5.25	5.96	8.54	6.80	0.75	8.97		
Difference				0.35	0.35	-5.13	-5.40	-3.19	-1.12	-	-3.58	-0.54		
TIPS	110,450,034	4.60	2.00	1.73	1.73	5.14	-	-	-	-	-	4.39	09/01/2020	
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	4.42		
Difference				-0.02	-0.02	-0.05	-	-	-	-	-	-0.03		
BlackRock TIPS (CF)	110,450,034	4.60	-	1.73	1.73	5.14	7.36	4.27	3.04	-	10.96	3.81	12/01/2009	
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	3.85		
Difference				-0.02	-0.02	-0.05	-0.09	-0.07	-0.08	-	-0.03	-0.04		
IM U.S. TIPS (MF) Median				1.59	1.59	5.37	6.56	3.81	2.48	3.75	9.64	3.21		
Rank				28	28	59	20	27	16	-	26	11		
Core Real Estate	84,209,121	3.51	5.00	2.74	2.74	1.60	-0.50	2.03	7.08	-	-2.26	8.10	01/01/2011	
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	9.41		
Difference				-3.67	-3.67	-12.04	-6.63	-4.53	-1.84	-	-2.60	-1.31		
UBS Trumbull Properties (CF)	84,208,692	3.51	-	2.74	2.74	1.60	-0.46	1.93	5.71	4.40	-2.26	5.16	07/01/2005	
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	6.40		
Difference				-3.67	-3.67	-12.04	-6.59	-4.63	-3.21	-1.15	-2.60	-1.24		
Private Infrastructure/Land	20,457,473	0.85	3.00	-0.16	-0.16	2.63	-	-	-	-	-	2.25	08/01/2020	
NCREIF Farmland Index (TR)				1.51	1.51	5.54	4.90	5.53	10.19	11.09	3.08	5.59		
Difference				-1.67	-1.67	-2.91	-	-	-	-	-	-3.34		

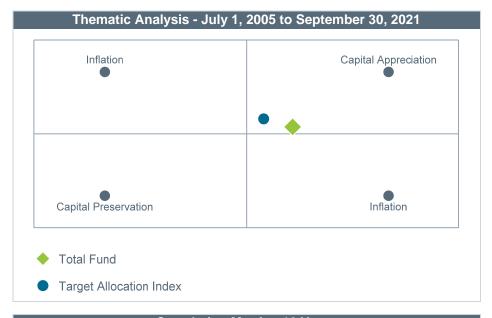


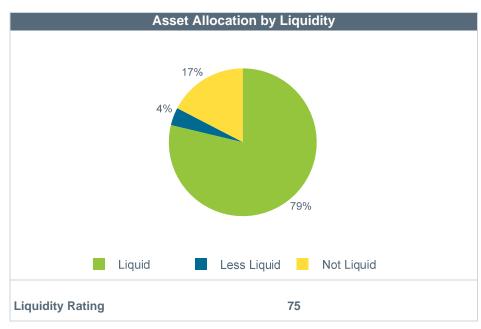
	Alle	ocation			Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date	
Cash Equivalents	226,896	0.01	0.00	0.00	0.00	-0.01	0.40	0.27	0.15		0.37	0.15	01/01/2011	
ICE BofAML 3 Mo US T-Bill Index				0.02	0.02	0.07	1.18	1.16	0.63	1.00	0.67	0.59		
Difference				-0.02	-0.02	-0.08	-0.78	-0.89	-0.48	-	-0.30	-0.44		



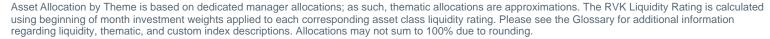
Vermont State Employees' Retirement System Total Fund Thematic and Liquidity Analysis



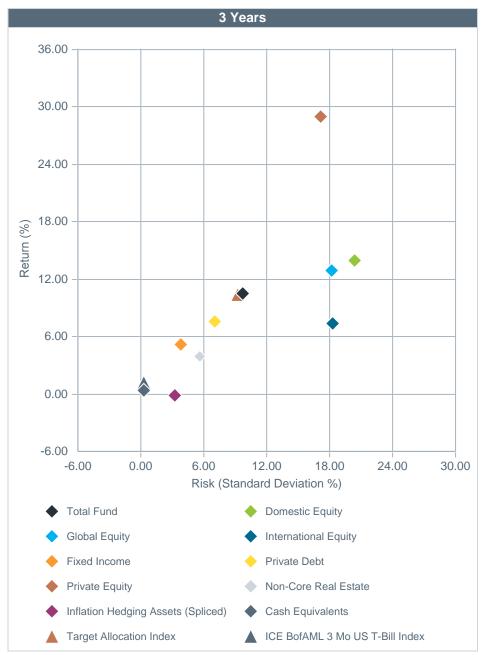


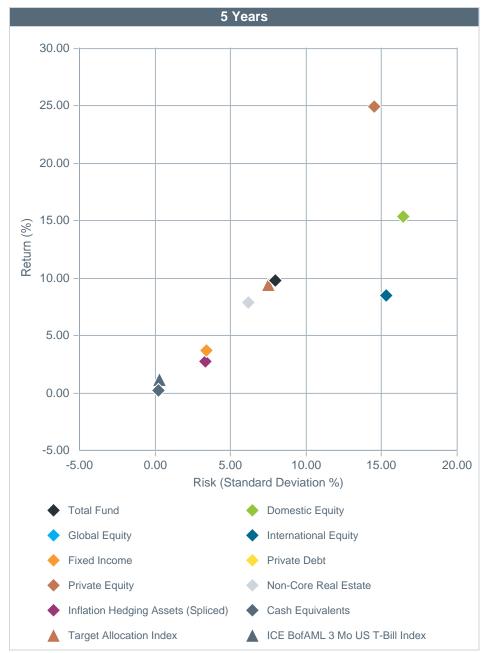


	Correlation Matrix - 10 Years												
	Α	В	С	D									
Α	1.00												
В	0.66	1.00											
С	-0.18	-0.32	1.00										
D	0.59	0.78	-0.06	1.00									
A B C D	= = = =	HFRI EH: Equity Market N MSCI ACW Index (USD) (I Bloomberg US Gov't Bond Real Return Custom Index	Gross) (Capital Appre Index (Capital Prese										





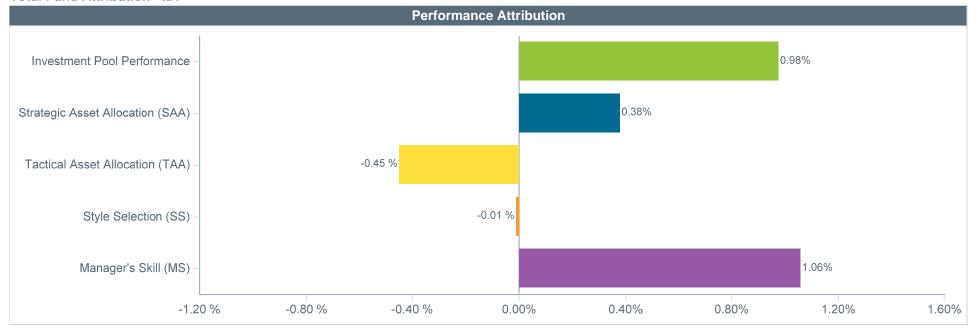


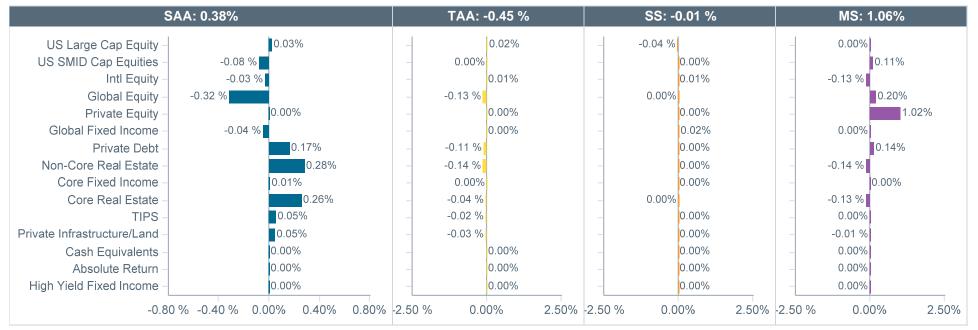


Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.



Vermont State Employees' Retirement System Total Fund Attribution - IDP





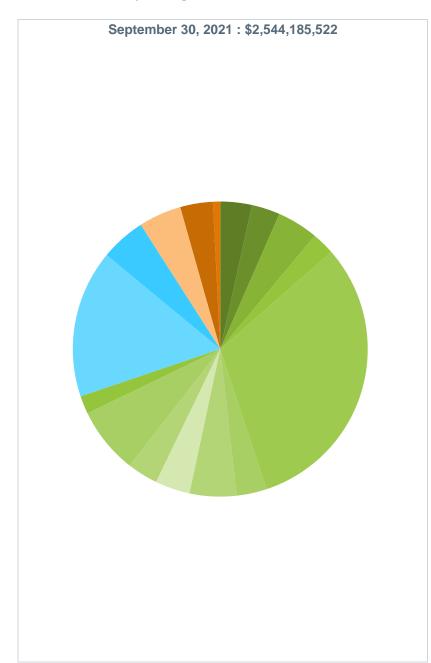
Performance shown is net of fees. Calculation is based on monthly. Private Asset market values, performance and benchmarks are valued quarterly and shown as of most recently available quarter end, adjusted for subsequent cash flows. RVK cautions that the interpretation of time-weighted data on non-marketable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



VSTRS



Vermont State Teachers' Retirement System Asset Allocation By Manager



	Market Value (\$)	Allocation (%)
■ Blackrock S&P 500 (Eql Wtd) (CF)	87,979,380	3.46
■ Champlain US Mid Cap Core (SA)	78,839,797	3.10
SSgA Russell 2000 Growth (Ex Tobacco) (SA)	6,240	0.00
Acadian International All Cap (SA)	114,450,841	4.50
■ Mondrian International Equity (SA)	63,600,525	2.50
■ BlackRock MSCI ACW IMI (CF)	797,614,745	31.35
■ Blackrock MSCI World LCTR (SA)	84,450,145	3.32
Artisan Global Opportunities (CF)	130,043,646	5.11
PIMCO Liquidation (SA)	1,756,030	0.07
■ Wellington Opportunistic EMD (CF)	94,978,829	3.73
■ PIMCO Unconstrained (SA)	484,760	0.02
Private Debt	85,771,391	3.37
Private Equity	186,002,889	7.31
■ Non-Core Real Estate	49,974,216	1.96
■ BlackRock US Agg (CF)	411,890,468	16.19
■ PIMCO Core (SA)	125,490,342	4.93
■ Vermont Cash (SA)	414,690	0.02
■ BlackRock TIPS (CF)	119,134,499	4.68
■ UBS Trumbull Properties (CF)	90,949,107	3.57
Private Infrastructure/Land	20,352,520	0.80
Real Estate Cash (CF)	463	0.00

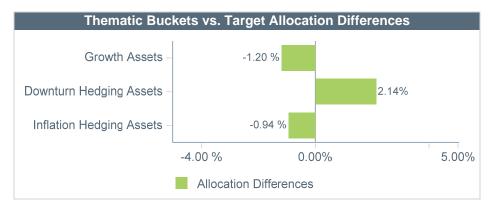
Allocations shown may not sum up to 100% exactly due to rounding. Market values for SSgA Russell 2000 Growth (SA) and PIMCO Unconstrained (SA) represent residual assets after liquidation.



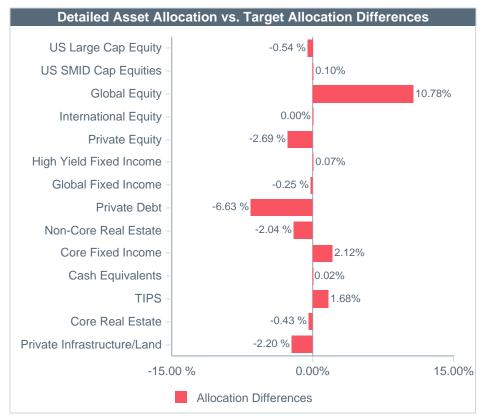
Vermont State Teachers' Retirement System Total Fund

Asset Allocation vs. Target Allocation

Thematic Buckets vs. Target Allocation												
	Market Value (\$)	Allocation (%)	Target (%)									
Growth Assets	1,775,953,434	69.80	71.00									
Downturn Hedging Assets	537,795,500	21.14	19.00									
Inflation Hedging Assets	230,436,589	9.06	10.00									
Total Fund	2,544,185,522	100.00	100.00									



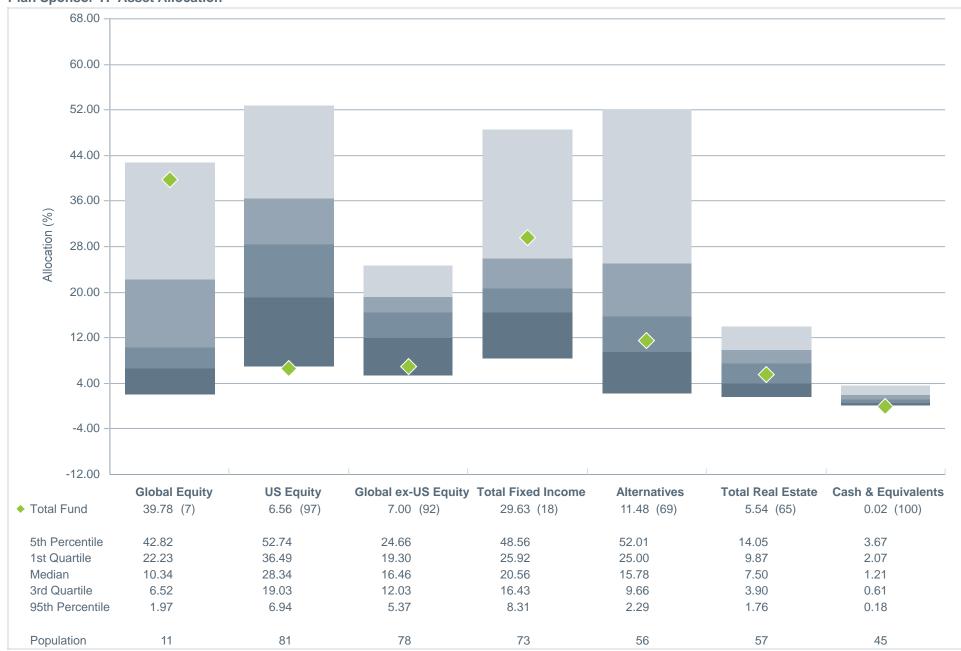
Detailed Asse	t Allocation vs. Tar	get Allocation	
	Market Value (\$)	Allocation (%)	Target (%)
US Large Cap Equity	87,979,380	3.46	4.00
US SMID Cap Equities	78,846,037	3.10	3.00
Global Equity	1,012,108,535	39.78	29.00
International Equity	178,051,367	7.00	7.00
Private Equity	186,002,889	7.31	10.00
High Yield Fixed Income	1,756,030	0.07	0.00
Global Fixed Income	95,463,589	3.75	4.00
Private Debt	85,771,391	3.37	10.00
Non-Core Real Estate	49,974,216	1.96	4.00
Core Fixed Income	537,380,810	21.12	19.00
Cash Equivalents	414,690	0.02	0.00
TIPS	119,134,499	4.68	3.00
Core Real Estate	90,949,570	3.57	4.00
Private Infrastructure/Land	20,352,520	0.80	3.00
Total Fund	2,544,185,522	100.00	100.00







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



Parentheses contain percentile ranks. Total Fixed Income includes TIPS.

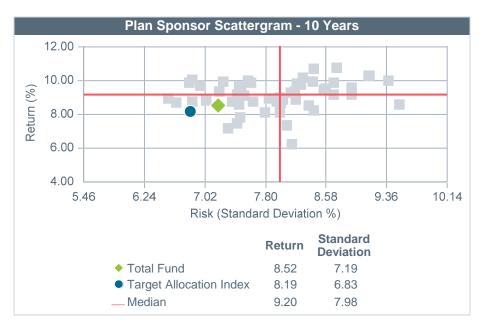


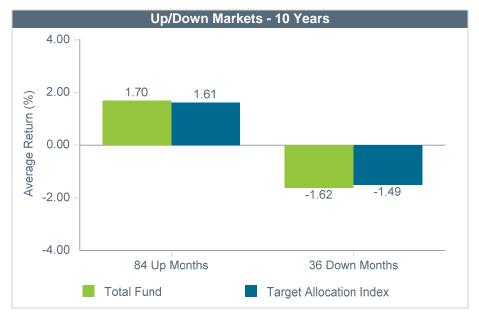
Vermont State Teachers' Retirement System All Public Plans (\$1B to \$10B) (Custom PG) Plan Sponsor Peer Group Analysis

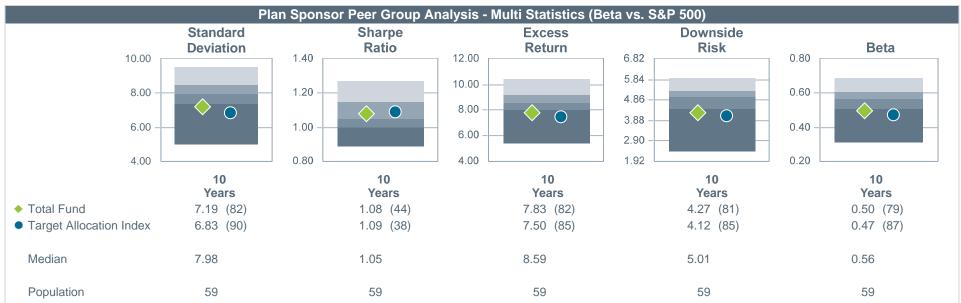


Performance shown is net of fees. Parentheses contain percentile ranks.









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



	Allocatio	n					Perfor	mance (%)				
	Market Value (\$)	Actual (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	2,544,185,522	100.00	0.92	0.92	19.88	10.66	9.91	8.52	6.23	13.28	6.62	07/01/2005
Target Allocation Index			0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference			0.54	0.54	1.06	0.28	0.49	0.33	-0.07	0.73	-0.05	
Actual Allocation Index			-0.11	-0.11	19.24	9.70	9.10	7.95	5.97	11.90	6.37	
Difference			1.03	1.03	0.64	0.96	0.81	0.57	0.26	1.38	0.25	
Growth Assets	1,775,953,434	69.80	1.11	1.11	30.00	-	-	-	-	-	25.67	09/01/2020
MSCI ACW IM Index (USD) (Net)			-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	22.80	
Difference			2.22	2.22	1.08	-	-	-	-	-	2.87	
Downturn Hedging Assets	537,795,500	21.14	0.06	0.06	-0.76	-	-	-	-	-	-0.71	09/01/2020
Bloomberg US Agg Bond Index			0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference			0.01	0.01	0.14	-	-	-	-	-	0.17	
Inflation Hedging Assets	230,436,589	9.06	1.94	1.94	2.86	-	-	-	-	-	2.50	09/01/2020
Consumer Price Index+2.5%			1.59	1.59	8.02	5.38	5.15	4.46	4.58	3.90	7.73	
Difference			0.35	0.35	-5.16	-	-	-	-	-	-5.23	





	Allo		Performance (%)										
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Total Fund	2,544,185,522	100.00	100.00	0.92	0.92	19.88	10.66	9.91	8.52	6.23	13.28	6.62	07/01/2005
Target Allocation Index				0.38	0.38	18.82	10.38	9.42	8.19	6.30	12.55	6.67	
Difference				0.54	0.54	1.06	0.28	0.49	0.33	-0.07	0.73	-0.05	
Actual Allocation Index				-0.11	-0.11	19.24	9.70	9.10	7.95	5.97	11.90	6.37	
Difference				1.03	1.03	0.64	0.96	0.81	0.57	0.26	1.38	0.25	
All Public Plans (\$1B to \$10B)				0.07	0.07	20.89	9.70	9.57	9.20	6.61	11.23	6.86	
Rank				22	22	70	25	36	82	74	23	74	
Domestic Equity	166,825,416	6.56	7.00	0.22	0.22	39.88	14.11	15.47	16.08	-	19.22	13.67	01/01/2011
Russell 3000 Index				-0.10	-0.10	31.88	16.00	16.85	16.60	10.44	20.89	14.25	
Difference				0.32	0.32	8.00	-1.89	-1.38	-0.52	-	-1.67	-0.58	
US Large Cap Equity	87,979,380	3.46	4.00	-0.29	-0.29	40.70	12.41	14.44	15.55	10.00	13.03	10.11	07/01/2005
S&P 500 Index (Cap Wtd)				0.58	0.58	30.00	15.99	16.90	16.63	10.37	18.40	10.46	
Difference				-0.87	-0.87	10.70	-3.58	-2.46	-1.08	-0.37	-5.37	-0.35	
Blackrock S&P 500 (Eql Wtd) (CF)	87,979,380	3.46	-	-0.29	-0.29	40.70	-	-	-	-	13.03	18.14	07/01/2019
S&P 500 Index (Eq Wtd)				-0.22	-0.22	40.87	14.29	14.61	15.99	10.67	12.83	18.13	
Difference				-0.07	-0.07	-0.17	-	-	-	-	0.20	0.01	
IM U.S. Large Cap Equity (MF) Median				0.05	0.05	28.72	15.45	16.19	15.73	9.83	18.34	20.02	
Rank				63	63	8	-	-	-	-	64	59	
US SMID Cap Equities	78,846,037	3.10	3.00	0.83	0.83	37.84	15.67	16.85	16.87	11.31	27.32	10.85	07/01/2005
Russell 2500 Index				-2.68	-2.68	45.03	12.47	14.25	15.27	10.01	19.99	10.10	
Difference				3.51	3.51	-7.19	3.20	2.60	1.60	1.30	7.33	0.75	
Champlain US Mid Cap Core (SA)	78,839,797	3.10	-	0.82	0.82	37.84	15.67	17.62	17.24	-	27.32	15.86	10/01/2009
Custom SMID Cap Equity Index				-2.63	-2.63	47.33	11.75	14.15	15.17	9.94	19.99	13.67	
Difference				3.45	3.45	-9.49	3.92	3.47	2.07	-	7.33	2.19	
IM U.S. SMID Cap Equity (MF) Median				-1.79	-1.79	41.86	11.95	14.62	14.67	10.24	20.27	13.69	
Rank				13	13	61	30	30	24	-	41	23	
Global Equity	1,012,108,535	39.78	29.00	-0.66	-0.66	28.11	12.85	-	-	-	19.89	8.45	02/01/2018
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	9.53	
Difference				0.45	0.45	-0.81	0.47	-	-	-	3.64	-1.08	



	Alle	ocation		Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
BlackRock MSCI ACW IMI (CF)	797,614,745	31.35	-	-1.03	-1.03	29.51	-	-	-	-	16.77	16.99	07/01/2019
MSCI ACW IM Index (USD) (Net)				-1.11	-1.11	28.92	12.38	13.06	11.96	7.37	16.25	16.50	
Difference				0.08	0.08	0.59	-	-	-	-	0.52	0.49	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	16.01	
Rank				49	49	35	-	-	-	-	44	47	
Blackrock MSCI World LCTR (SA)	84,450,145	3.32	-	-	-	-	-	-	-	-	-	-4.24	09/01/2021
MSCI Wrld Index (USD) (Net)				-0.01	-0.01	28.82	13.14	13.74	12.68	7.47	15.90	-4.15	
Difference				-	-	-	-	-	-	-	-	-0.09	
IM Global Equity (MF) Median				-0.59	-0.84	28.20	13.13	13.31	12.92	8.29	16.28	-4.16	
Rank				-	-	-	-	-	-	-	-	55	
Artisan Global Opportunities (CF)	130,043,646	5.11	-	2.01	2.01	20.66	20.87	-	-	-	40.50	20.40	07/01/2018
MSCI ACW Index (USD) (Net)				-1.05	-1.05	27.44	12.58	13.20	11.90	7.21	16.25	13.00	
Difference				3.06	3.06	-6.78	8.29	-	-	-	24.25	7.40	
IM Global Equity (MF) Median				-1.15	-1.15	26.61	11.90	11.93	11.62	7.23	15.21	12.31	
Rank				6	6	77	10	-	-	-	14	10	
International Equity	178,051,367	7.00	7.00	-2.20	-2.20	28.46	7.50	8.53	7.55	-	4.84	5.63	01/01/2011
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.90	
Difference				-1.75	-1.75	2.73	-0.12	-0.28	-0.55	-	-2.98	-0.27	
Acadian International All Cap (SA)	114,450,841	4.50	-	-2.71	-2.71	27.10	8.03	11.19	10.53	4.89	12.37	6.45	11/01/2005
MSCI EAFE IM Index (USD) (Net)				-0.24	-0.24	26.23	7.83	9.04	8.45	4.41	8.47	5.50	
Difference				-2.47	-2.47	0.87	0.20	2.15	2.08	0.48	3.90	0.95	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.11	
Rank				82	82	27	43	15	9	29	33	18	
Mondrian International Equity (SA)	63,600,525	2.50	-	-1.28	-1.28	30.97	4.68	6.42	6.61	3.74	-4.01	5.23	07/01/2005
MSCI EAFE Index (USD) (Net)				-0.45	-0.45	25.73	7.62	8.81	8.10	4.10	7.82	5.54	
Difference				-0.83	-0.83	5.24	-2.94	-2.39	-1.49	-0.36	-11.83	-0.31	
IM All EAFE (MF) Median				-1.23	-1.23	24.53	7.31	8.29	8.04	3.99	8.17	5.45	
Rank				51	51	14	82	79	84	57	98	59	
Fixed Income	634,600,429	24.94	90.00	-0.03	-0.03	-0.01	5.28	3.71	4.13	-	8.23	4.32	01/01/2011
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	3.42	
Difference				-0.08	-0.08	0.89	-0.07	0.77	1.12	-	0.72	0.90	



	Allo	ocation						Perfori	mance (%	6)			
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Core Fixed Income	537,380,810	21.12	20.00	0.07	0.07	-0.76	-	-	-	-	-	-0.71	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				0.02	0.02	0.14	-	-	-	-	-	0.17	
BlackRock US Agg (CF)	411,890,468	16.19	-	0.07	0.07	-0.86	-	-	-	-	7.54	3.94	06/01/2019
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	4.08	
Difference				0.02	0.02	0.04	-	-	-	-	0.03	-0.14	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	4.57	
Rank				39	39	81	-	-	-	-	71	79	
PIMCO Core (SA)	125,490,342	4.93	-	0.04	0.04	-0.32	-	-	-	-	-	-0.18	09/01/2020
Bloomberg US Agg Bond Index				0.05	0.05	-0.90	5.35	2.94	3.01	4.17	7.51	-0.88	
Difference				-0.01	-0.01	0.58	-	-	-	-	-	0.70	
IM U.S. Broad Mkt Core FI (MF)				0.03	0.03	0.18	5.58	3.17	3.26	4.15	8.19	0.10	
Rank				47	47	67	-	-	-	-	-	61	
Emerging Markets Debt	94,978,829	3.73	4.00	-0.58	-0.58	4.16	-	-	-	-	-	2.07	09/01/2020
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	1.99	
Difference				-0.05	-0.05	0.28	-	-	-	-	-	0.08	
Wellington Opportunistic EMD (CF)	94,978,829	3.73	-	-0.58	-0.58	4.16	5.98	4.27	5.94	-	7.69	6.32	12/01/2009
JPM Emg Mkts Bond Gbl Index (USD)				-0.53	-0.53	3.88	5.64	3.57	5.48	6.25	5.88	5.93	
Difference				-0.05	-0.05	0.28	0.34	0.70	0.46	-	1.81	0.39	
IM Emerging Markets Debt (MF) Median				-0.71	-0.71	5.55	5.48	3.70	4.81	5.22	5.57	4.99	
Rank				39	39	84	33	30	6	-	15	4	
High Yield Fixed Income	1,756,030	0.07	0.00	0.34	0.34	14.20	4.04	4.29	5.96	6.19	3.26	6.23	06/01/2006
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	7.40	
Difference				-0.55	-0.55	2.92	-2.87	-2.23	-1.46	-1.12	-3.85	-1.17	
PIMCO Liquidation (SA)	1,756,030	0.07	-	0.34	0.34	14.20	4.02	-	-	-	3.25	3.72	08/01/2018
Bloomberg US Corp Hi Yld Index				0.89	0.89	11.28	6.91	6.52	7.42	7.31	7.11	6.97	
Difference				-0.55	-0.55	2.92	-2.89	-	-	-	-3.86	-3.25	
IM U.S. High Yield Bonds (MF) Median				0.67	0.67	10.49	5.87	5.50	6.39	6.03	5.28	5.93	
Rank				84	84	10	92	-	-	-	82	94	



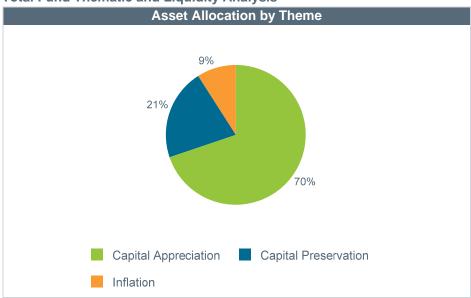
	All	ocation		Performance (%)									
	Market Value (\$)	Actual (%)	Policy (%)	QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date
Private Debt	85,771,391	3.37	10.00	6.57	6.57	15.84	7.54	-	-	-	2.36	7.65	01/01/2018
CS Lvg'd Loan Index+2% (Spliced)				1.64	1.64	10.27	4.74	4.94	5.09	4.72	3.12	4.87	
Difference				4.93	4.93	5.57	2.80	-	-	-	-0.76	2.78	
Private Equity	186,002,889	7.31	10.00	16.33	16.33	64.56	29.10	24.84	-	-	17.27	20.24	01/01/2013
Cambridge US Prvt Eq Index				0.00	0.00	39.06	19.19	18.64	15.85	13.39	21.77	15.91	
Difference				16.33	16.33	25.50	9.91	6.20	-	-	-4.50	4.33	
Non-Core Real Estate	49,974,216	1.96	3.00	0.11	0.11	14.36	3.92	7.90	-	-	-1.77	9.17	09/01/2014
NCREIF ODCE Index+2% (Spliced)				6.93	6.93	15.38	7.73	7.45	9.30	7.30	1.60	8.84	
Difference				-6.82	-6.82	-1.02	-3.81	0.45	-	-	-3.37	0.33	
Inflation Hedging Assets (Spliced)	230,436,589	9.06	10.00	1.94	1.94	2.86	-0.17	2.72	7.41	-	-2.80	8.42	01/01/2011
CPI+2.5% (Spliced)				1.59	1.59	8.02	5.25	5.96	8.54	6.80	0.75	8.97	
Difference				0.35	0.35	-5.16	-5.42	-3.24	-1.13	-	-3.55	-0.55	
TIPS	119,134,499	4.68	2.00	1.73	1.73	5.14	-	-	-	-	-	4.39	09/01/2020
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	4.42	
Difference				-0.02	-0.02	-0.05	-	-	-	-	-	-0.03	
BlackRock TIPS (CF)	119,134,499	4.68	-	1.73	1.73	5.14	7.36	4.28	3.04	-	10.97	3.80	12/01/2009
Bloomberg US Trsy US TIPS Index				1.75	1.75	5.19	7.45	4.34	3.12	4.43	10.99	3.85	
Difference				-0.02	-0.02	-0.05	-0.09	-0.06	-0.08	-	-0.02	-0.05	
IM U.S. TIPS (MF) Median				1.59	1.59	5.37	6.56	3.81	2.48	3.75	9.64	3.21	
Rank				28	28	59	20	26	16	-	26	11	
Core Real Estate	90,949,570	3.57	5.00	2.74	2.74	1.60	-0.51	2.03	7.06	-	-2.26	8.09	01/01/2011
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	9.41	
Difference				-3.67	-3.67	-12.04	-6.64	-4.53	-1.86	-	-2.60	-1.32	
UBS Trumbull Properties (CF)	90,949,107	3.57	-	2.74	2.74	1.60	-0.46	1.93	5.82	4.47	-2.26	5.23	07/01/2005
NCREIF ODCE Index (AWA) (Net)				6.41	6.41	13.64	6.13	6.56	8.92	5.55	0.34	6.40	
Difference				-3.67	-3.67	-12.04	-6.59	-4.63	-3.10	-1.08	-2.60	-1.17	
Private Infrastructure/Land	20,352,520	0.80	3.00	-0.16	-0.16	2.63	-	-	-	-	-	2.25	08/01/2020
NCREIF Farmland Index (TR)				1.51	1.51	5.54	4.90	5.53	10.19	11.09	3.08	5.59	
Difference				-1.67	-1.67	-2.91	-	-	-	-	-	-3.34	

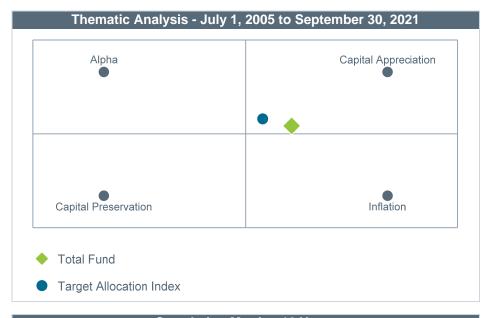


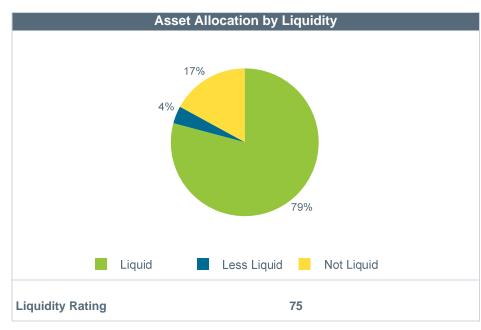
	Alle	ocation			Performance (%)									
Market Actual Policy Value (\$) (%) (%)				QTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	2020	Since Incep.	Inception Date	
Cash Equivalents	414,690	0.02	0.00	0.00	0.00	-0.02	0.45	0.29	0.16		0.36	0.16	01/01/2011	
ICE BofAML 3 Mo US T-Bill Index				0.02	0.02	0.07	1.18	1.16	0.63	1.00	0.67	0.59		
Difference				-0.02	-0.02	-0.09	-0.73	-0.87	-0.47	-	-0.31	-0.43		



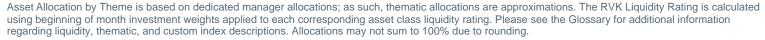
Vermont State Teachers' Retirement System Total Fund Thematic and Liquidity Analysis



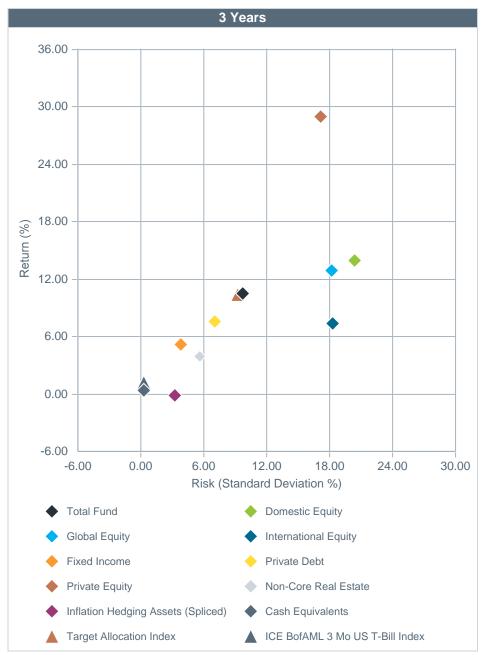


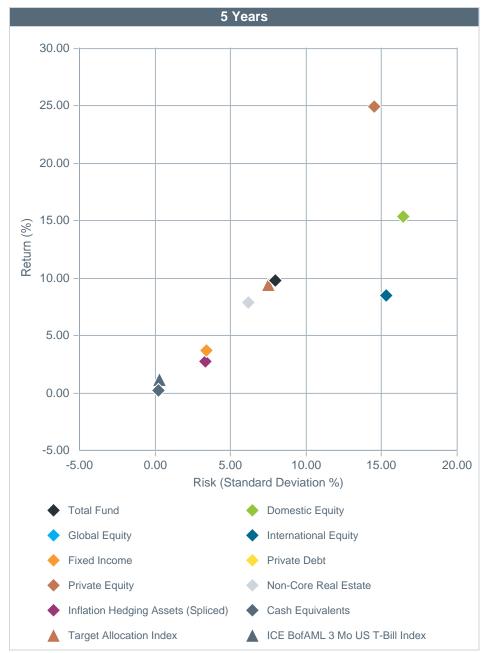


	Correlation Matrix - 10 Years												
	Α	В	С	D									
Α	1.00												
В	0.66	1.00											
С	-0.18	-0.32	1.00										
D	0.59	0.78	-0.06	1.00									
A B C D	= = = =	HFRI EH: Equity Market N MSCI ACW Index (USD) (I Bloomberg US Gov't Bond Real Return Custom Index	Gross) (Capital Appre Index (Capital Prese										





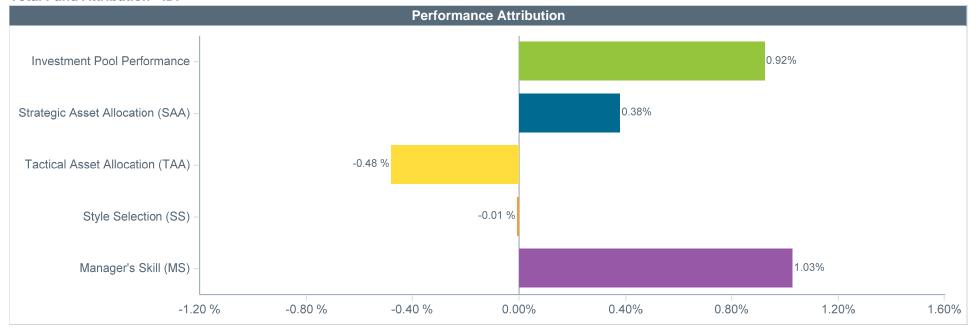


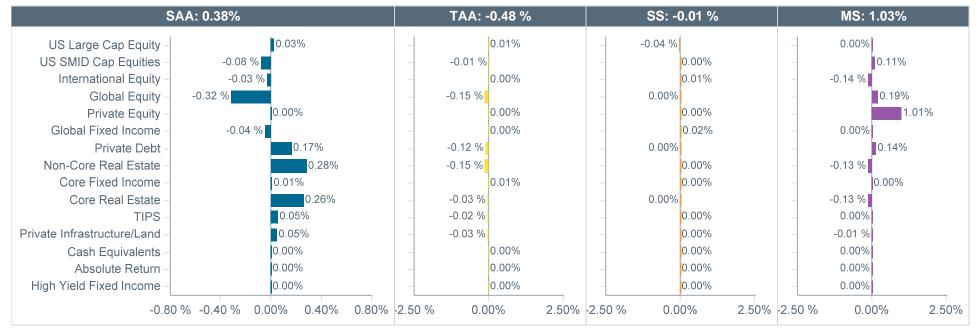


Performance shown is net of fees. Calculation is based on monthly periodicity. Funds or composites with less history than the specified time period will not appear in the chart.



Vermont State Teachers' Retirement System Total Fund Attribution - IDP





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



Investment Manager Profiles

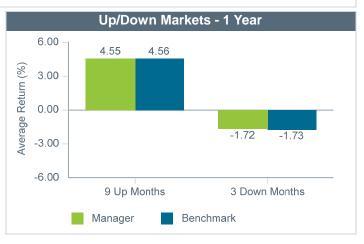


Manager: Blackrock S&P 500 (Eql Wtd) (SA)

Benchmark: S&P 500 Index (Eq Wtd) **Peer Group:** IM U.S. Large Cap Equity (MF)

	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016			
Manager	-0.29	40.70	N/A	N/A	N/A	N/A	13.03	N/A	N/A	N/A	N/A			
Benchmark	-0.22	40.87	14.29	14.61	12.41	15.99	12.83	29.24	-7.64	18.90	14.80			
Difference	-0.07	-0.17	N/A	N/A	N/A	N/A	0.20	N/A	N/A	N/A	N/A			
Peer Group Median	0.05	28.72	15.45	16.19	13.08	15.73	18.34	30.00	-5.02	21.89	9.05			
Rank	63	8	N/A	N/A	N/A	N/A	64	N/A	N/A	N/A	N/A			
Population	1,943	1,874	1,706	1,521	1,357	1,179	1,868	1,847	1,862	1,791	1,706			







		Portfo	olio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)		76,47	77	76,501
Median Mkt. Cap (\$M)		30,67	72	30,680
Price/Earnings Ratio		21.3	37	21.35
Price/Book Ratio		3.2	22	3.22
5 Yr. EPS Growth Rate (%	b)	14.	10	14.05
Current Yield (%)		1.6	69	1.71
Beta		N.	/A	1.00
Number of Securities		50	03	505
Active Share		0.4	40	N/A
60.00 -				
45.00 -		37.93 37.78		
30.00 -				
16.33 16.45			22.45 22.35	18.38 18.32
15.00 —	4.92 5.09			
0.00	4.92 5.09			
>\$100 Bil	\$75 Bil -	\$25 Bil -	\$15 Bil -	\$2 Bil -
	\$100 Bil	\$75 Bil	\$25 Bil	\$15 Bil

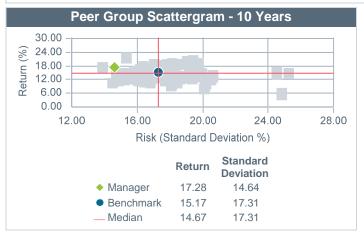


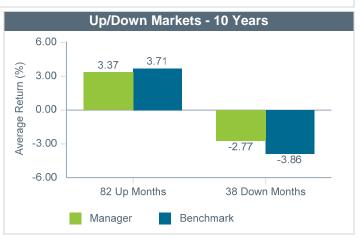
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Manager: Champlain US Mid Cap Core (SA)
Benchmark: Custom SMID Cap Equity Index
Peer Group: IM U.S. SMID Cap Equity (MF)

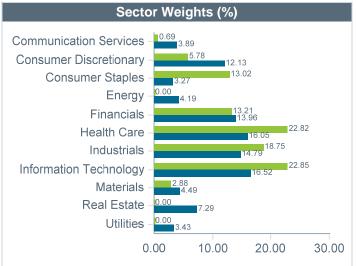
	Performance Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	0.82	37.84	15.67	17.62	15.55	17.28	27.32	27.29	0.47	17.33	19.16
Benchmark	-2.63	47.33	11.75	14.15	12.29	15.17	19.99	26.65	-10.50	14.67	22.77
Difference	3.45	-9.49	3.92	3.47	3.26	2.11	7.33	0.64	10.97	2.66	-3.61
Peer Group Median	-1.79	41.86	11.95	14.62	12.19	14.67	20.27	27.56	-10.18	17.90	14.58
Rank	13	61	30	30	25	23	41	53	9	53	25
Population	468	463	434	391	333	288	466	490	489	462	425







Portfolio Chara	acteristic	s and Dis	st. of Mai	rket Cap (%)
		Portfol	io	Benchmark
Wtd. Avg. Mkt. Cap (\$M)		14,269	9	13,212
Median Mkt. Cap (\$M)		5,612	2	2,165
Price/Earnings Ratio		26.70	6	18.89
Price/Book Ratio		4.24	4	3.10
5 Yr. EPS Growth Rate (%)		18.10	0	16.97
Current Yield (%)		0.68	8	1.15
Beta (5 Years, Monthly)		0.78	8	1.00
Number of Securities		134	4	2,855
Active Share		92.4	7	N/A
80.00 — _I				
60.00 —			58.47	
40.00			50.36	
40.00 -				
20.00 -	18.12 20.71	14.61 13.19		15.74
0.44 0.00		10.10		8.35
0.00				
>\$100 Bil	\$25 Bil -	\$15 Bil -	\$2 Bil -	\$0 -
	\$75 Bil	\$25 Bil	\$15 Bil	\$2 Bil



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.

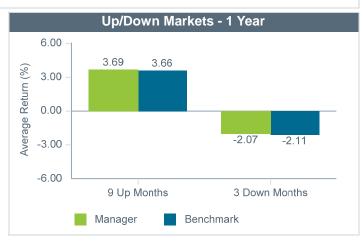


Manager: BlackRock MSCI ACW IMI (SA)
Benchmark: MSCI ACW IM Index (USD) (Net)

Peer Group: IM Global Equity (MF)

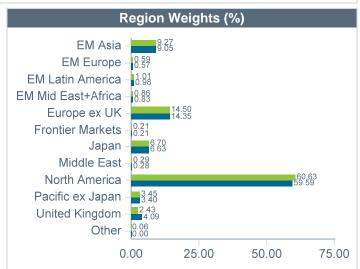
	Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016	
Manager	-1.03	29.51	N/A	N/A	N/A	N/A	16.77	N/A	N/A	N/A	N/A	
Benchmark	-1.11	28.92	12.38	13.06	9.97	11.96	16.25	26.35	-10.08	23.95	8.36	
Difference	0.08	0.59	N/A	N/A	N/A	N/A	0.52	N/A	N/A	N/A	N/A	
Peer Group Median	-1.15	26.61	11.90	11.93	9.09	11.62	15.21	26.35	-9.73	22.32	6.37	
Rank	49	35	N/A	N/A	N/A	N/A	44	N/A	N/A	N/A	N/A	
Population	1,453	1,371	1,193	1,006	850	610	1,356	1,396	1,395	1,307	1,190	







			Portfolio		Benchmark
Wtd. Avg. Mkt. Cap (\$N	И)		309,475		305,578
Median Mkt. Cap (\$M)			2,240		2,231
Price/Earnings Ratio			19.55		19.40
Price/Book Ratio			3.53		3.52
5 Yr. EPS Growth Rate	(%)		17.01		17.36
Current Yield (%)			1.80		1.85
Beta			N/A		1.00
Number of Securities			9,244		9,213
Active Share			2.30		N/A
60.00 – 45.00 – 30.00 –		23.62 23.44		18.48 18.41	
15.00 -	5.98 6.33		7.92 7.97		3.57 3.53
>\$100 Bil	\$75 Bil - \$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$15 Bil	\$0 - \$2 Bil



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



Manager: Blackrock MSCI World LCTR (SA)
Benchmark: MSCI Wrld Index (USD) (Net)
Peer Group: IM Global Equity (MF)

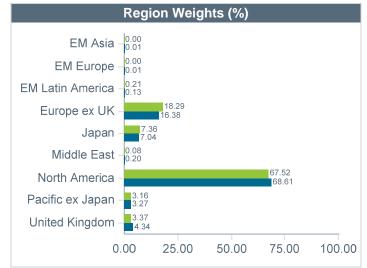
					Perforn	nance					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-0.01	28.82	13.14	13.74	10.50	12.68	15.90	27.67	-8.71	22.40	7.51
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Up/Down Markets - 0.25 Year Data is currently unavailable.



Portfolio Characteri	stics an	d Dist.	of Market Cap (%)
·		Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)		360,571	379,211
Median Mkt. Cap (\$M)		26,899	19,401
Price/Earnings Ratio		22.08	21.14
Price/Book Ratio		3.79	3.81
5 Yr. EPS Growth Rate (%)		16.65	17.96
Current Yield (%)		1.75	1.80
Beta		N/A	1.00
Number of Securities		694	1,557
Active Share		39.54	N/A
60.00 – 45.00 – 48.35 48.85			
30.00 -	24.55 26.74		
15.00 -		9.64 8.56	9.05 8.07
0.00			0.00 0.00
>\$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$0 - \$15 Bil \$2 Bil



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

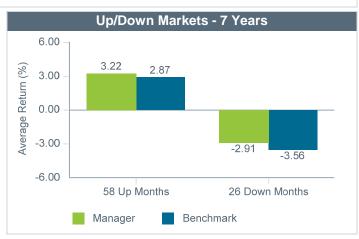


Manager: Artisan Global Opportunities Trust Benchmark: MSCI ACW IM Index (USD) (Net)

Peer Group: IM Global Equity (MF)

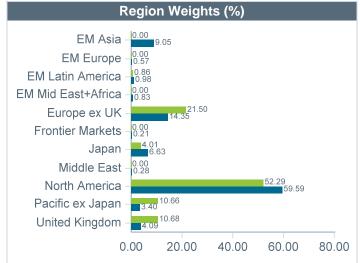
				Р	erformar	nce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	2.04	20.57	20.76	18.73	15.95	N/A	40.32	35.89	-8.68	31.69	4.77
Benchmark	-1.11	28.92	12.38	13.06	9.97	11.96	16.25	26.35	-10.08	23.95	8.36
Difference	3.15	-8.35	8.38	5.67	5.98	N/A	24.07	9.54	1.40	7.74	-3.59
Peer Group Median	-1.15	26.61	11.90	11.93	9.09	11.62	15.21	26.35	-9.73	22.32	6.37
Rank	6	77	11	10	7	N/A	14	6	38	12	64
Population	1,453	1,371	1,193	1,006	850	610	1,356	1,396	1,395	1,307	1,190







Portfolio Characte	eristics and Dist.	of Market Cap (%)
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	177,692	305,578
Median Mkt. Cap (\$M)	56,457	2,231
Price/Earnings Ratio	31.32	19.40
Price/Book Ratio	5.65	3.52
5 Yr. EPS Growth Rate (%)	19.03	17.36
Current Yield (%)	0.85	1.85
Beta (5 Years, Monthly)	0.88	1.00
Number of Securities	45	9,213
Active Share	92.77	N/A
80.00 — 60.00 — 40.00 — 34.49 ^{40.32}	56.28 23.44	18.41
20.00 - 3.47 6.3	5.76 7.97	0.00 0.00 3.53
>\$100 Bil \$75 Bil \$100 B		\$2 Bil - \$0 - \$15 Bil \$2 Bil



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



Manager: Acadian International All Cap (SA) Benchmark: MSCI EAFE IM Index (USD) (Net)

Peer Group: IM All EAFE (MF)

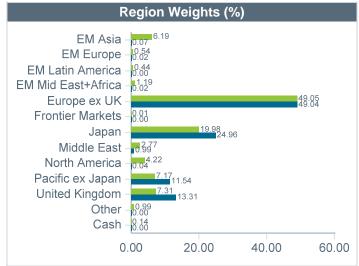
	Performance Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016
Manager	-2.71	27.10	8.03	11.19	8.91	10.56	12.37	18.22	-15.89	36.78	7.45
Benchmark	-0.24	26.23	7.83	9.04	6.26	8.45	8.47	22.44	-14.40	26.16	1.15
Difference	-2.47	0.87	0.20	2.15	2.65	2.11	3.90	-4.22	-1.49	10.62	6.30
Peer Group Median	-1.23	24.53	7.31	8.29	5.65	8.04	8.17	21.59	-15.91	25.26	0.09
Rank	82	27	42	15	9	9	33	78	50	3	4
Population	560	559	559	550	479	399	596	642	671	698	669







			Port	folio	В	enchmark
Wtd. Avg. Mkt. Cap (\$1	M)		39	171		66,003
Median Mkt. Cap (\$M)			1.	242		2,134
Price/Earnings Ratio			1:	2.32		16.06
Price/Book Ratio				2.82		2.67
5 Yr. EPS Growth Rate	€ (%)		2	0.76		12.07
Current Yield (%)				2.54		2.64
Beta (5 Years, Monthly	/)		(0.95		1.00
Number of Securities				570		3,216
Active Share			8	7.81		N/A
45.00 – 30.00 – 15.00 – 8.94	8.50	31.65 19.07	14.13 9.96	37.14 25.12	17.67 5.18	0.14 0.00
	\$75 Bil - \$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$15 Bil	\$0 - \$2 Bil	Cash



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



Manager: Mondrian International Equity (SA)
Benchmark: MSCI EAFE Index (USD) (Net)

Peer Group: IM All EAFE (MF)

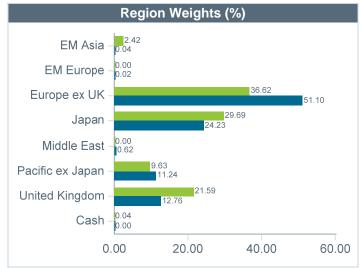
	Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016	
Manager	-1.28	30.97	4.68	6.41	4.09	6.63	-4.01	19.29	-11.66	22.08	4.37	
Benchmark	-0.45	25.73	7.62	8.81	5.80	8.10	7.82	22.01	-13.79	25.03	1.00	
Difference	-0.83	5.24	-2.94	-2.40	-1.71	-1.47	-11.83	-2.72	2.13	-2.95	3.37	
Peer Group Median	-1.23	24.53	7.31	8.29	5.65	8.04	8.17	21.59	-15.91	25.26	0.09	
Rank	51	14	82	79	78	83	98	69	14	85	8	
Population	560	559	559	550	479	399	596	642	671	698	669	







29 1: 1-	,480 ,957 2.16 1.74 4.27 3.91 1.06 54 9.69		77,709 14,333 15.97 2.72 12.47 2.72 1.00 843 N/A	
1:	2.16 1.74 4.27 3.91 1.06		15.97 2.72 12.47 2.72 1.00 843	
1.	1.74 4.27 3.91 1.06		2.72 12.47 2.72 1.00 843	
1-	4.27 3.91 1.06 54		12.47 2.72 1.00 843	
:	3.91 1.06 54		2.72 1.00 843	
	1.06 54		1.00 843	
	54		843	
8				
8	9.69		N/A	
		N/A		
18 06	17 20			
11.82	13.60			
		0.16 0.00	0.04 0.00	
\$15 Bil -	\$2 Bil -	\$0 -	Cash	
		11.82 13.60 \$15 Bil - \$2 Bil -	11.82 13.60 0.16 0.00 \$15 Bil - \$2 Bil - \$0 -	



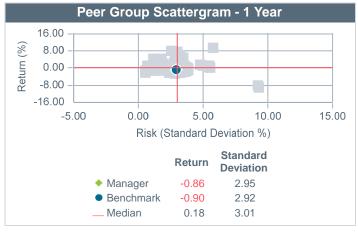
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

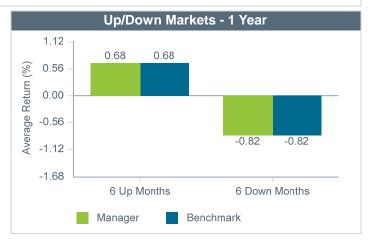


Manager: BlackRock US Agg (SA)
Benchmark: Bloomberg US Agg Bond Index

Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016			
Manager	0.07	-0.86	N/A	N/A	N/A	N/A	7.54	N/A	N/A	N/A	N/A			
Benchmark	0.05	-0.90	5.35	2.94	3.26	3.01	7.51	8.72	0.01	3.54	2.65			
Difference	0.02	0.04	N/A	N/A	N/A	N/A	0.03	N/A	N/A	N/A	N/A			
Peer Group Median	0.03	0.18	5.58	3.17	3.27	3.26	8.19	8.76	-0.63	3.59	2.86			
Rank	39	81	N/A	N/A	N/A	N/A	71	N/A	N/A	N/A	N/A			
Population	502	490	465	411	351	305	488	511	506	498	469			







	Portfolio	Benchmark
Effective Duration	6.71	6.71
Spread Duration	N/A	N/A
Avg. Maturity	8.63	8.63
Avg. Quality	Aa1/Aa2	Aa1/Aa2
Yield To Maturity (%)	1.57	1.57
Coupon Rate (%)	2.48	2.48
Current Yield (%)	N/A	N/A
Holdings Count	12,226	12,226
Holdings Count	12,226	12,226



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.



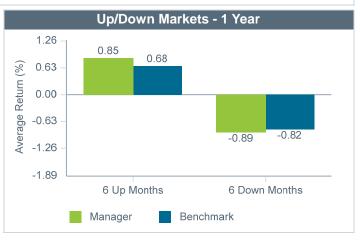
Manager: PIMCO Core (SA)

Benchmark: Bloomberg US Agg Bond Index

Peer Group: IM U.S. Broad Market Core Fixed Income (MF)

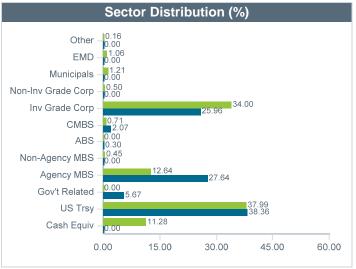
					,									
	Performance Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016			
Manager	0.04	-0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Benchmark	0.05	-0.90	5.35	2.94	3.26	3.01	7.51	8.72	0.01	3.54	2.65			
Difference	-0.01	0.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Peer Group Median	0.34	0.84	6.34	3.84	4.01	4.03	8.99	9.56	-0.01	4.37	3.49			
Rank	92	85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Population	502	490	465	411	351	305	488	511	506	498	469			







Spread Duration 4.	83 6.71 15 N/A 20 8.63
Avg. Maturity 7.	20 8.63
0 ,	
Avg. Quality A	0 4/4 0
	a2 Aa1/Aa2
Yield To Maturity (%) 1.	49 1.57
Coupon Rate (%) 2.	01 2.48
Current Yield (%) 1.	93 N/A
Holdings Count 2	84 12,226



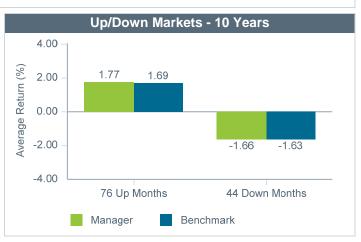
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "other" consists of Euro/Yankees.



Manager: Wellington Opportunistic EMD (CF)
Benchmark: JPM Emg Mkts Bond Gbl Index (USD)
Peer Group: IM Emerging Markets Debt (MF)

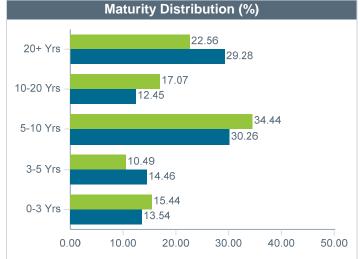
	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016		
Manager	-0.58	4.16	5.98	4.27	4.98	5.94	7.69	15.84	-5.78	10.56	12.85		
Benchmark	-0.53	3.88	5.64	3.57	4.54	5.48	5.88	14.42	-4.61	9.32	10.19		
Difference	-0.05	0.28	0.34	0.70	0.44	0.46	1.81	1.42	-1.17	1.24	2.66		
Peer Group Median	-0.71	5.55	5.48	3.70	3.83	4.81	5.57	13.58	-5.92	10.49	10.42		
Rank	39	84	33	30	10	6	15	9	48	50	28		
Population	274	264	244	215	166	81	262	274	275	265	233		







Portfolio Characteristics (%)									
	Portfolio	Benchmark							
Effective Duration	8.16	8.15							
Spread Duration	7.56	7.94							
Avg. Maturity	12.80	13.49							
Avg. Quality	Baa3	Baa3							
Yield To Maturity (%)	4.50	4.26							
Coupon Rate (%)	4.15	4.75							
Current Yield (%)	4.51	4.66							
Holdings Count	404	953							

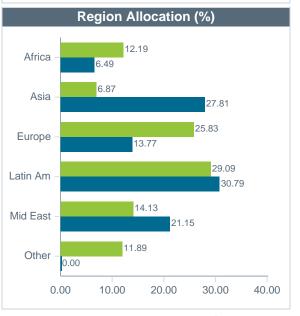


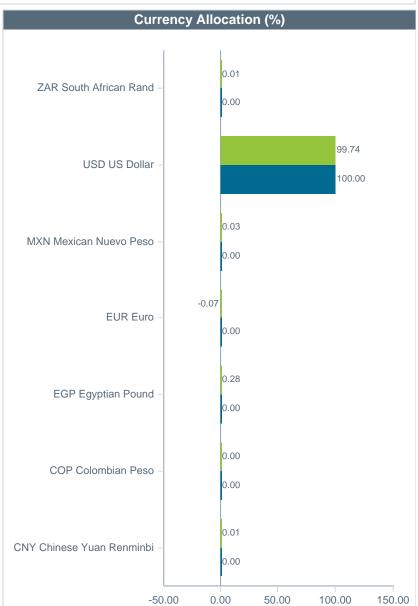


Manager: Wellington Opportunistic EMD (CF)
Benchmark: JPM Emg Mkts Bond Gbl Index (USD)
Peer Group: IM Emerging Markets Debt (MF)









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



Manager: PIMCO Liquidation (SA)

Benchmark: Bloomberg US Corp Hi Yld Index **Peer Group:** IM U.S. High Yield Bonds (MF)

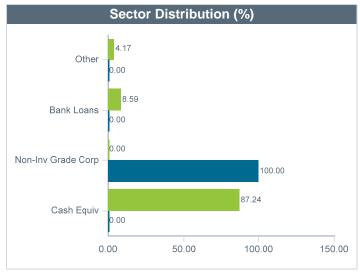
	Performance Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016		
Manager	0.34	14.20	4.02	N/A	N/A	N/A	3.26	6.30	N/A	N/A	N/A		
Benchmark	0.89	11.28	6.91	6.52	5.89	7.42	7.11	14.32	-2.08	7.50	17.13		
Difference	-0.55	2.92	-2.89	N/A	N/A	N/A	-3.85	-8.02	N/A	N/A	N/A		
Peer Group Median	0.67	10.49	5.87	5.50	4.66	6.39	5.28	13.51	-2.91	6.65	13.52		
Rank	84	10	92	N/A	N/A	N/A	81	99	N/A	N/A	N/A		
Population	664	649	613	535	470	344	659	682	669	626	594		







	Portfolio	Benchmark
Effective Duration	0.11	3.97
Spread Duration	2.13	3.92
Avg. Maturity	0.84	6.60
Avg. Quality	Aaa	Ba3/B1
Yield To Maturity (%)	0.80	4.68
Coupon Rate (%)	1.20	5.72
Current Yield (%)	1.21	N/A
Holdings Count	11	2,238



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to other consists of common stock.



Manager: Blackrock TIPS (CF)

Benchmark: Bloomberg US Trsy US TIPS Index

Peer Group: IM U.S. TIPS (MF)

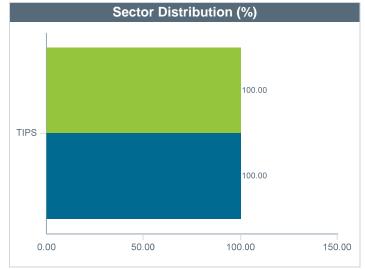
	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016			
Manager	1.73	5.14	7.36	4.27	3.84	3.05	10.97	8.33	-1.36	2.98	4.67			
Benchmark	1.75	5.19	7.45	4.34	3.90	3.12	10.99	8.43	-1.26	3.01	4.68			
Difference	-0.02	-0.05	-0.09	-0.07	-0.06	-0.07	-0.02	-0.10	-0.10	-0.03	-0.01			
Peer Group Median	1.59	5.37	6.56	3.81	3.06	2.48	9.64	7.53	-1.57	2.62	4.39			
Rank	28	59	20	26	13	15	26	25	42	31	38			
Population	210	205	200	174	144	118	206	221	227	228	220			







Portfolio	Benchmark
5.48	5.48
5.48	5.48
8.17	8.17
Aaa	Aaa
1.17	1.17
0.67	0.67
N/A	N/A
44	44
	5.48 8.17 Aaa 1.17 0.67 N/A

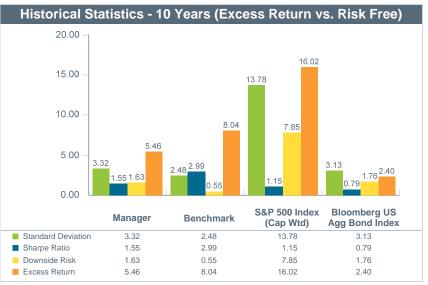


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Portfolio characteristics are proxied using benchmark statistics.

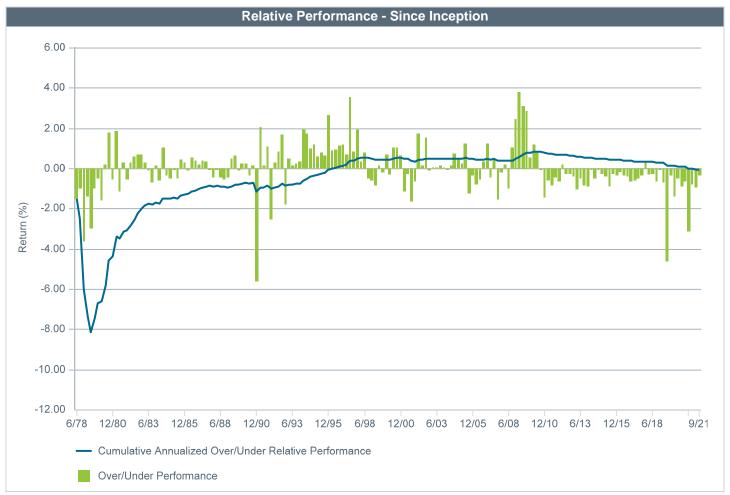


Manager: UBS Trumbull Property (CF) (Net) Benchmark: NCREIF ODCE Index (AWA) (Net)

	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2020	2019	2018	2017	2016		
Manager	6.03	7.78	1.12	2.90	4.82	6.17	-4.74	-2.87	6.15	5.42	6.14		
Benchmark	6.41	13.64	6.13	6.56	7.93	8.92	0.34	4.39	7.36	6.66	7.79		
Difference	-0.38	-5.86	-5.01	-3.66	-3.11	-2.75	-5.08	-7.26	-1.21	-1.24	-1.65		



	Actual Correlation
NCREIF ODCE Index (AWA) (Net)	0.87
S&P 500 Index (Cap Wtd)	-0.26
Russell 2000 Index	-0.32
MSCI EAFE Index (USD) (Net)	-0.28
MSCI Emg Mkts Index (USD) (Net)	-0.38
Bloomberg US Agg Bond Index	-0.29
Bloomberg US Trsy US TIPS Index	-0.31
Wilshire US REIT Index	-0.02
HFRI FOF Comp Index	-0.32
Bloomberg Cmdty Index (TR)	-0.15
ICE BofAML 3 Mo US T-Bill Index	-0.44
Cons Price Index (Unadjusted)	0.02
NCREIF Property Index	0.82



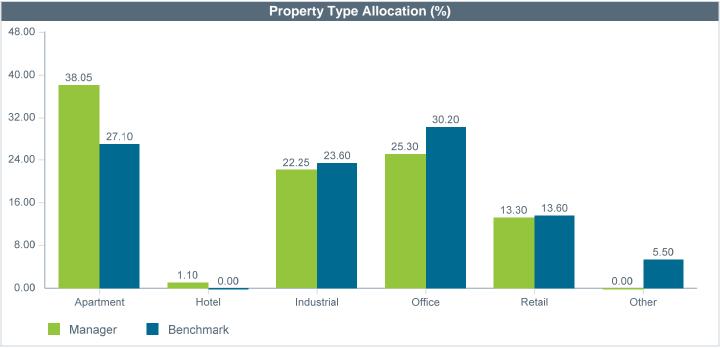


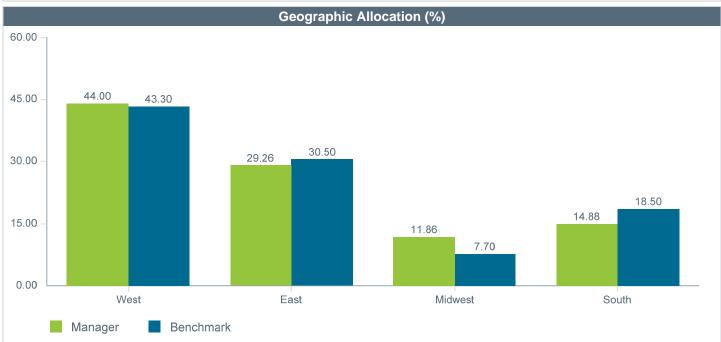
Manager: UBS Trumbull Property (CF) (Net)
Benchmark: NCREIF ODCE Index (AWA) (Net)

Investr	nant	Strato	MV
Investr	HEHL	วแลเษ	4 V

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)	17,816			
Fund Leverage %	17.00			
Portfolio Occupancy %	93.00			
Cash Reserve %	5.50			
Number of Investments	172			
Number of Limited Partners	446			





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

	Fee Schedule	Market Value As of 09/30/2021 (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Blackrock S&P 500 (Eql Wtd) (SA)	0.020 % of Assets	212,421,080	42,484	0.020
Champlain US Mid Cap Core (SA)	0.850 % of First \$50 M 0.750 % of Next \$50 M 0.650 % Thereafter	176,822,351	1,299,345	0.735
BlackRock MSCI ACW IMI (SA)	0.025 % of Assets	1,819,657,613	454,914	0.025
Blackrock MSCI World LCTR (SA)	0.055 % of Assets	193,271,069	106,299	0.055
Artisan Global Opportunities (CF)	0.750 % of Assets	297,397,172	2,230,479	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	257,209,159	996,627	0.387
Mondrian International Equity (SA)	0.500 % of First \$50 M 0.350 % of Next \$50 M 0.300 % Thereafter	143,946,537	556,840	0.387
Wellington Opportunistic EMD (CF)	0.550 % of Assets	217,554,646	1,196,551	0.550
PIMCO Liquidation (SA)	0.300 % of Assets	5,580,520	16,742	0.300
BlackRock US Agg (SA)	0.030 % of Assets	969,477,459	290,843	0.030
PIMCO Core (SA)	0.190 % of Assets	285,446,716	542,349	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	207,376,745	1,534,924	0.740
BlackRock TIPS (SA)	0.025 % of Assets	272,122,516	68,031	0.025
Total Fund		5,853,282,832	9,336,428	0.160

Vermont Pension Investment Committee As of September 30, 2021
Addendum

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.
- 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.

<u>Decisions Made by the Committee Over the Last 18 Months</u>

Manager Additions

• Nuveen Global Agriculture (CF), Angelo Gordan Direct Lending, Harbourvest Dover X, Harbourvest XI Funds, Siguer Guff SBOF IV, Neuberger Berman, Benefit Street Partners II, Blue Vista Real Estate Partners, Ares Pathfinder Fund I, Blackrock MSCI World LCTR (SA) and Kennedy Lewis Capital II.

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.

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.

Benchmark Comments

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



Vermont Pension Investment Committee As of September 30, 2021 Addendum

- 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.



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:

S&P	Moody's	Explanation	S&P	Moody's	Explanation
Higher Cı	redit Quality – I	nvestment Grade	Lower Cr	edit Quality – E	Below Investment Grade
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	В	B2	
Α	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
			С	Ca	
			D	С	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., 1st quartile, 2nd quartile, 3nd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3nd quartile meet.

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

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

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

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the 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.



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



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 4th 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 ≥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.



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.

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
<u>Liquid Investments</u>		Less Liquid Investments	
T-Bills and Treasurys	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	Not Liquid Investments	
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>	Capital Appreciation	Capital Preservation	<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.

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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