



Investment Performance Analysis

North Dakota Board of University and School Lands

Period Ended: June 30, 2022



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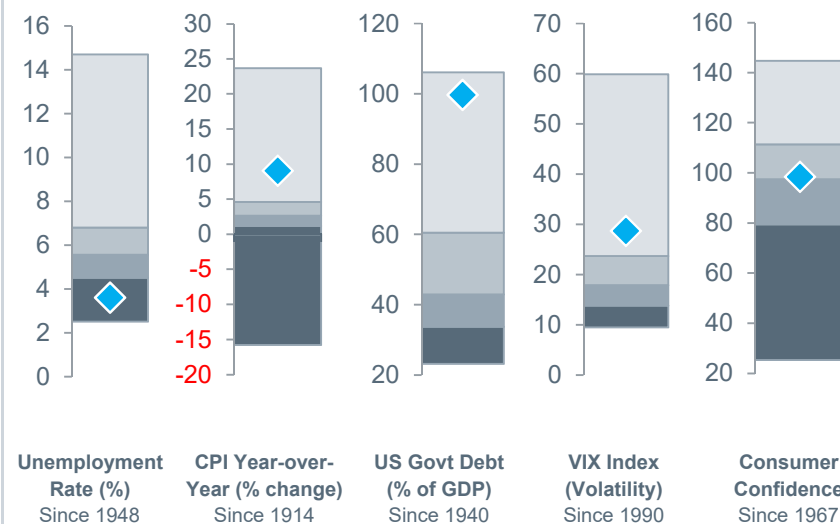
Capital Markets Review



Second Quarter Economic Environment

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

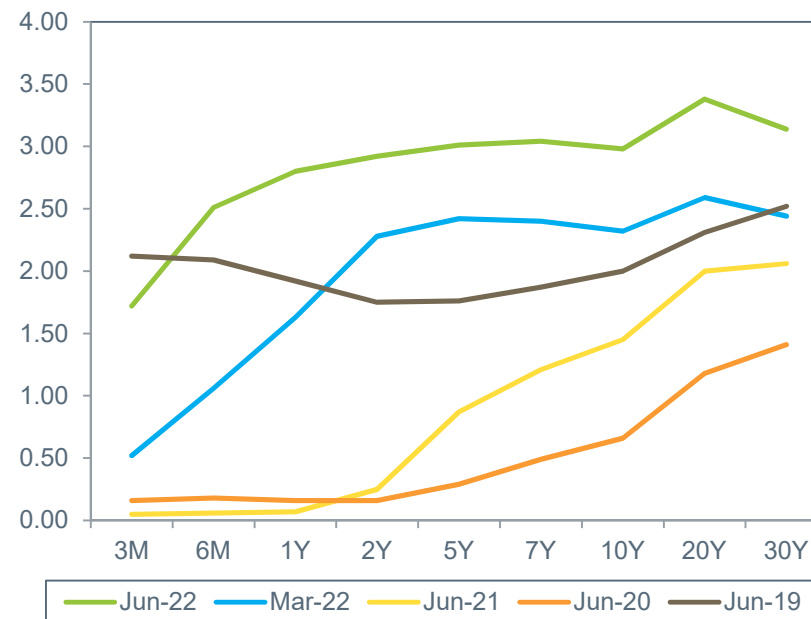
Key Economic Indicators



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

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

Treasury Yield Curve (%)



Second Quarter Review

Broad Market

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

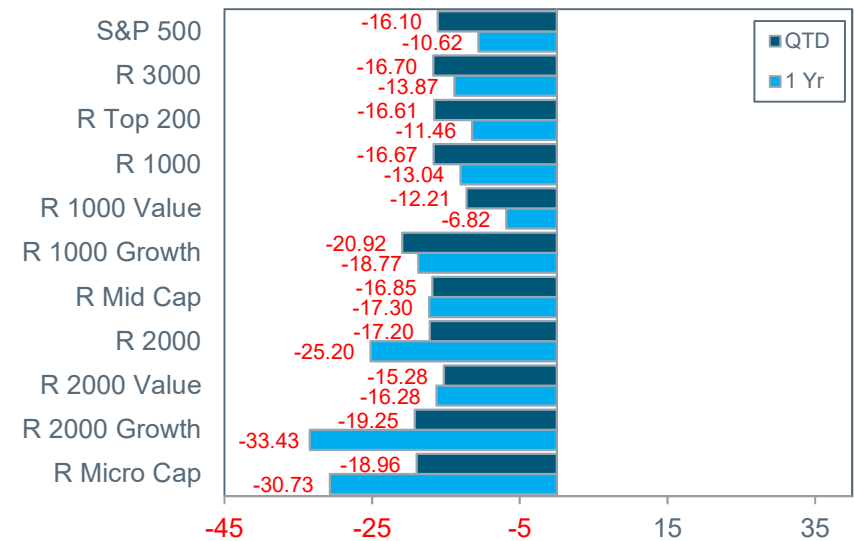
Market Cap

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

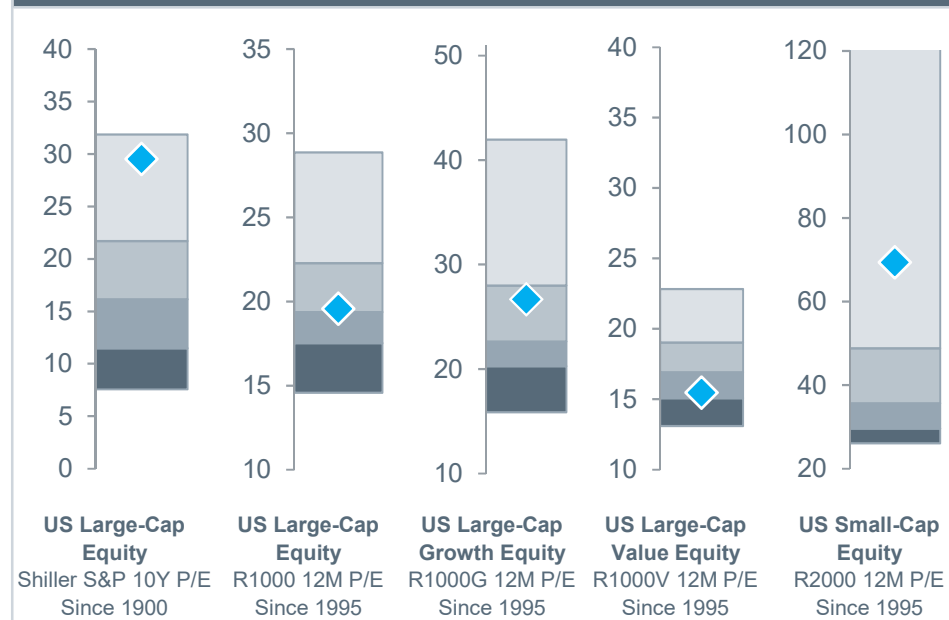
Style and Sector

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

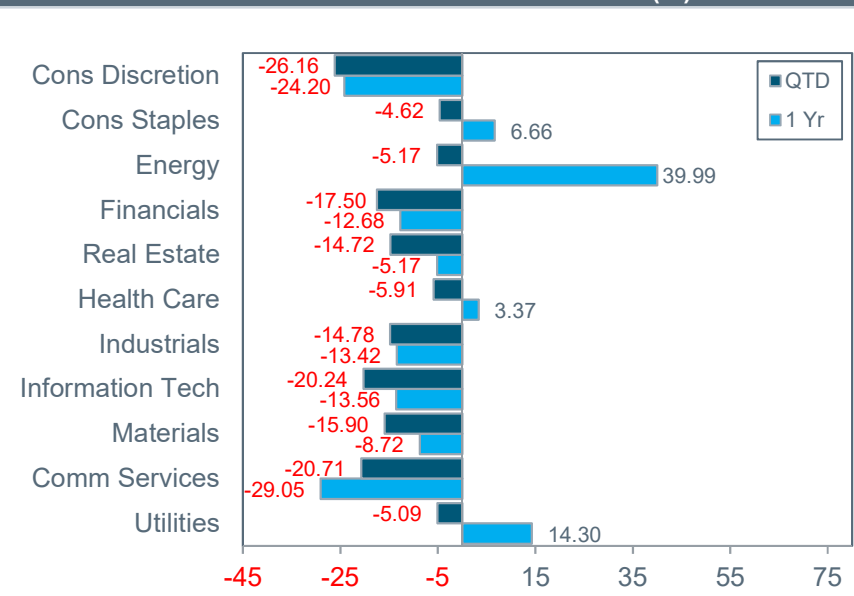
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Second Quarter Review

Developed Markets

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

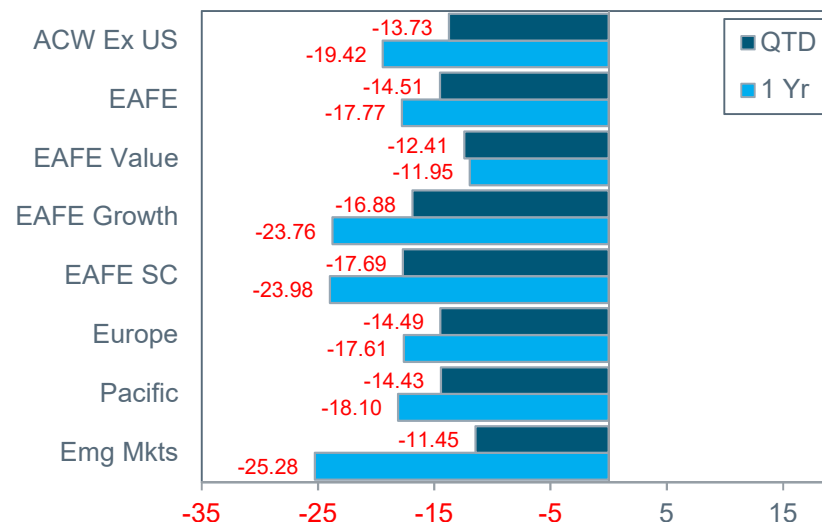
Emerging Markets

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

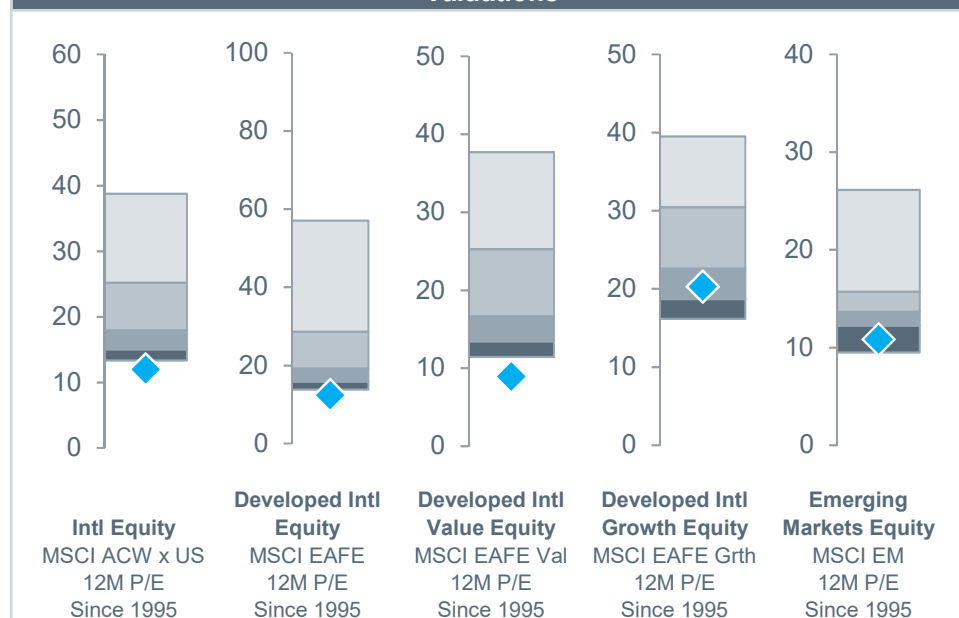
Market Cap & Style

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

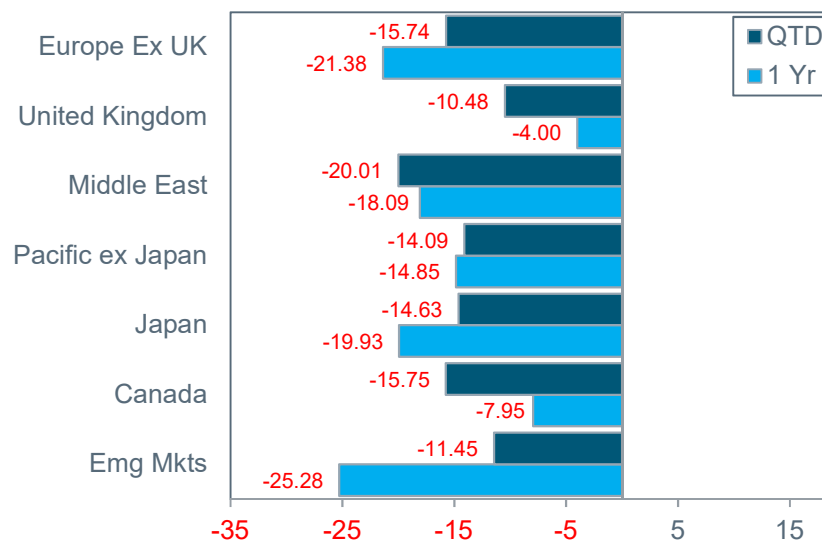
MSCI Style and Capitalization Market Performance (%)



Valuations



MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

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

All returns are shown net of foreign taxes on dividends.

Second Quarter Review

Broad Market

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

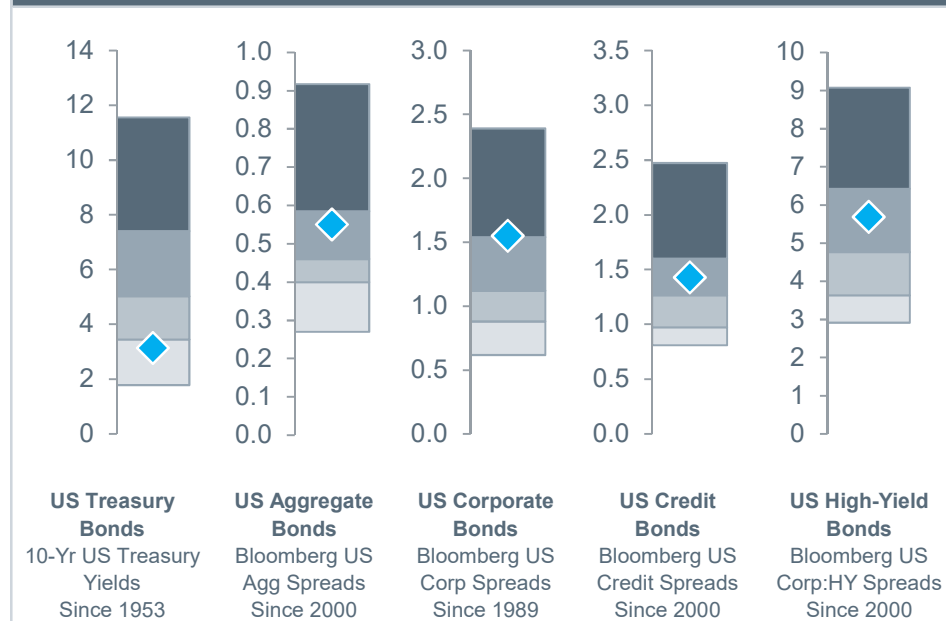
Credit Market

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

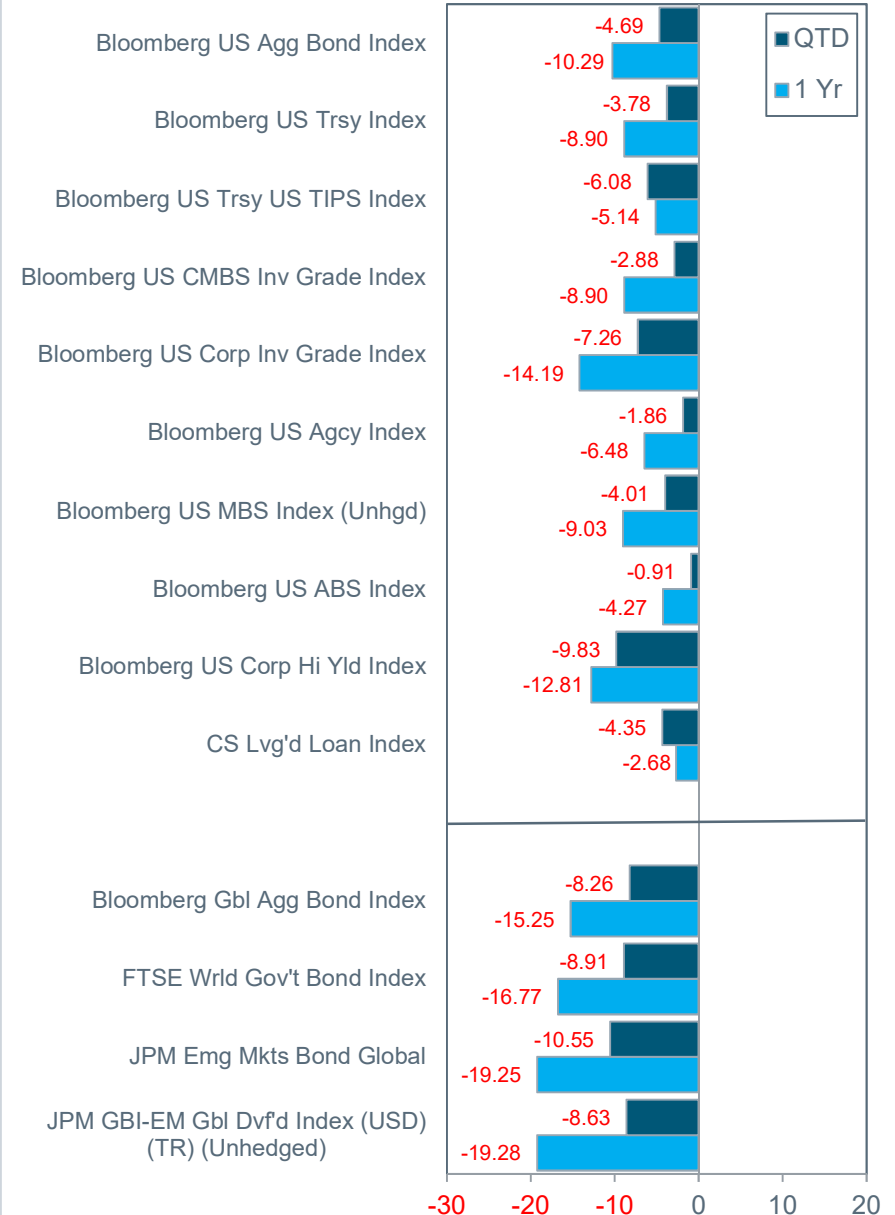
Emerging Market Debt

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

Valuations



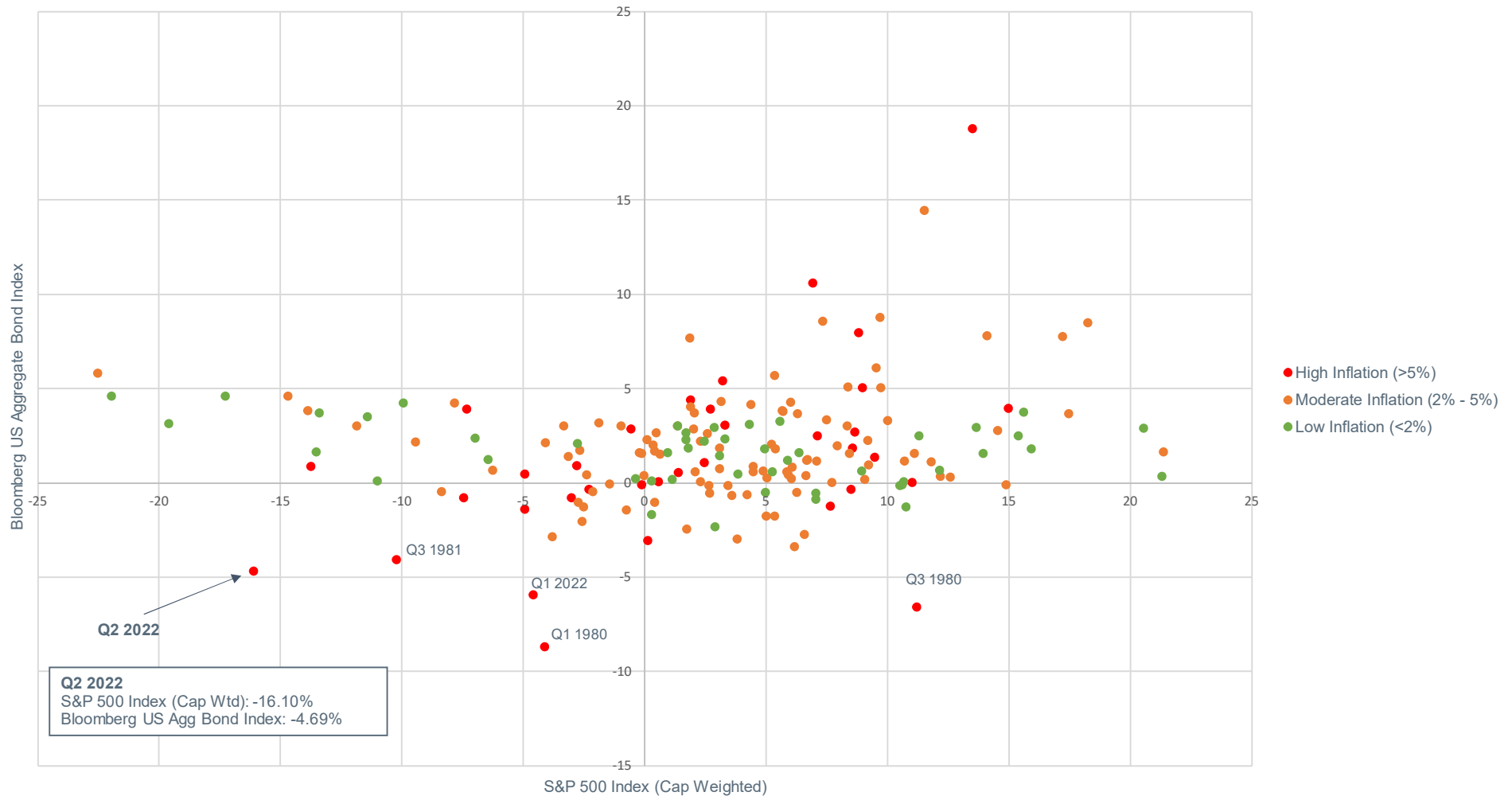
Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

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

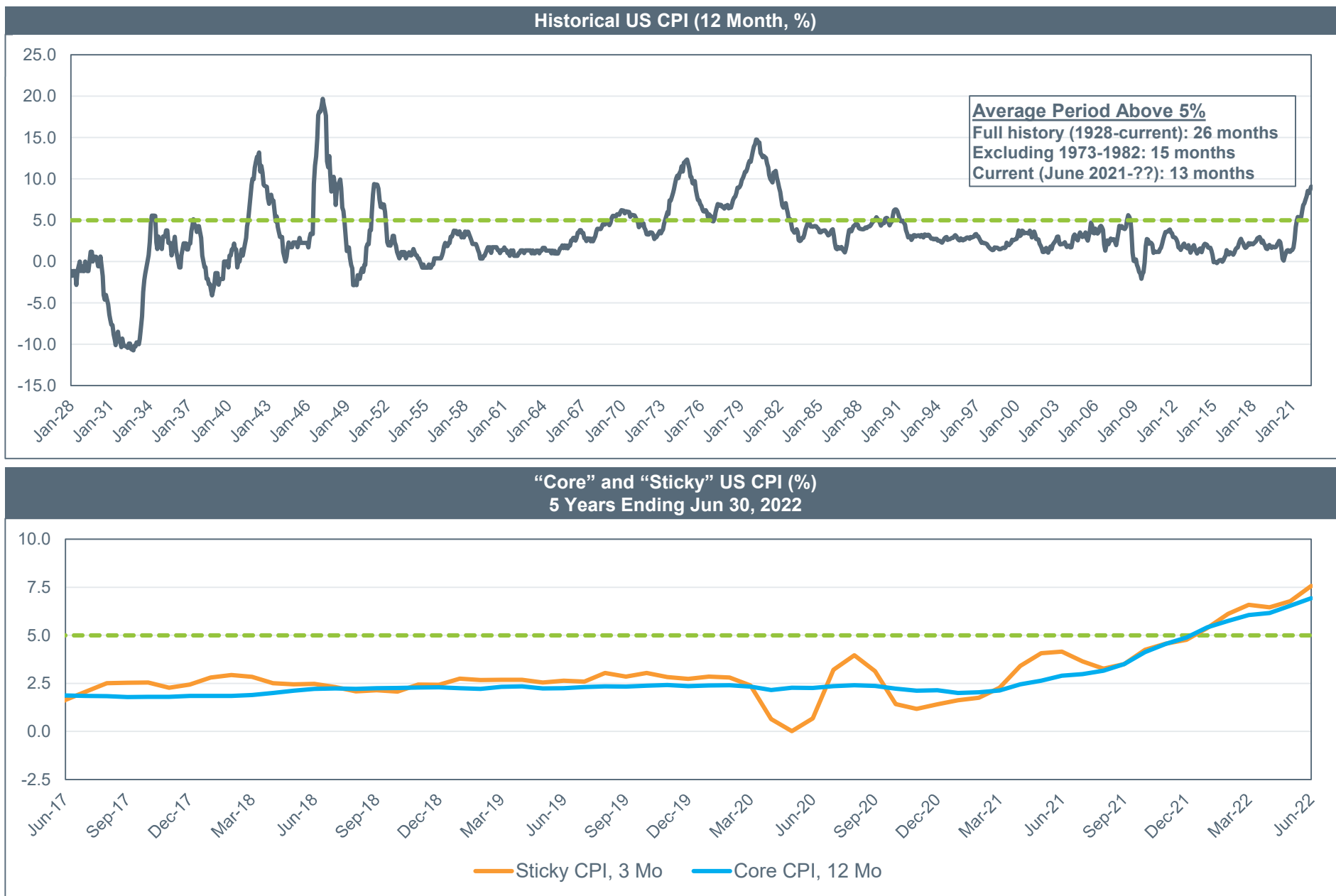
Quarterly Equity & Fixed Income Returns Since 1976



Bloomberg US Aggregate Bond Index: Worst Quarters and Subsequent Performance

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

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



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

Second Quarter Review - Absolute Return

General Market - Hedge Funds

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

General Market - Global Tactical Asset Allocation (GTAA)

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

Second Quarter Review - Real Assets

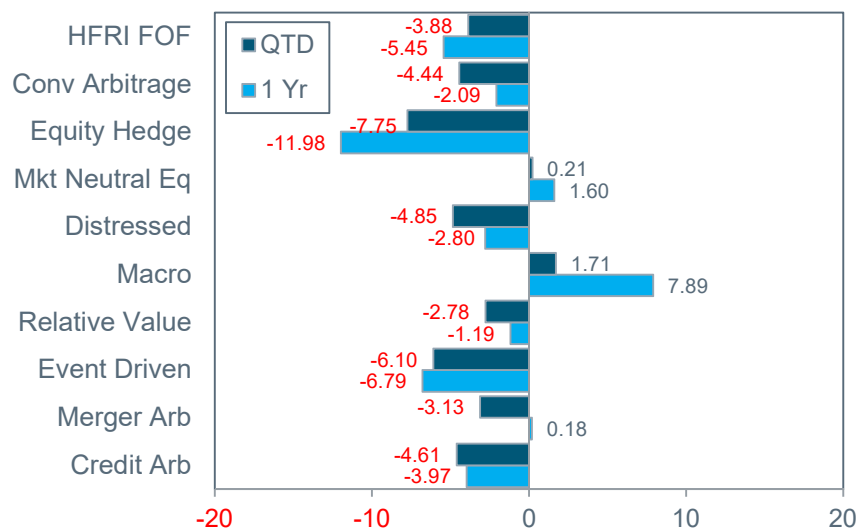
General Market - Diversified Inflation Strategies (DIS)

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

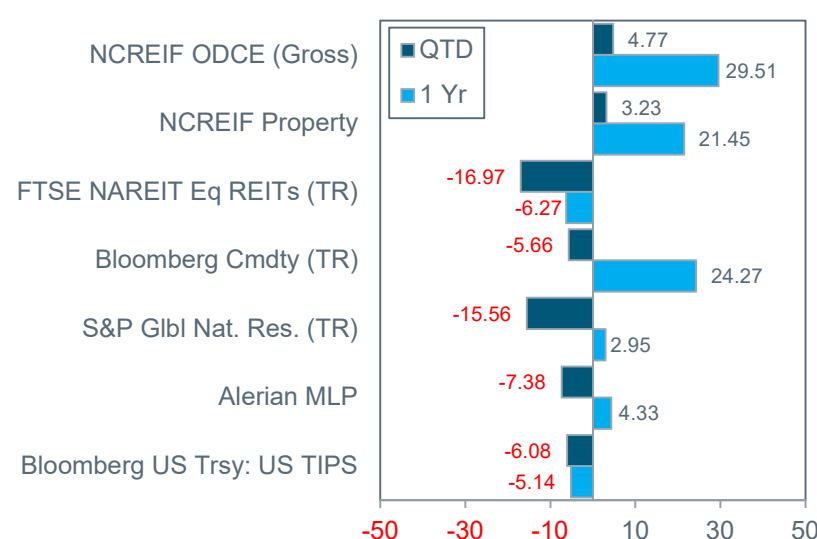
General Market - Real Estate

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

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of June 30, 2022

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
Best ↑ 															

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.

Total Fund



As of June 30, 2022

Asset Allocation vs. Target Allocation Differences

Asset Class	Allocation Difference
Broad US Equity	-0.88 %
Broad International Equity	-1.04 %
Fixed Income	4.24 %
Absolute Return	-1.79 %
Real Estate	4.18 %
Private Equity	-4.15 %
Private Infrastructure	-1.95 %
Opportunistic Investments	1.40 %

Schedule of Investable Assets					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
QTD	6,215,901,798	53,091,958	-436,253,514	5,832,740,243	-6.98

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is net of fees. Net cash flow includes securities lending income and client directed flows. Gain/loss includes dividend and interest income and capital appreciation. Real Estate market values are as of the most recent quarter-end. Market value for Brandwiney GIBI Opp Fixed Income and GMO:Bchmk-Fr All;IV consist of uninvested cash. In Q2, First Sentier GDIF US Hedged Feeder Fund and Angelo Gording Direct Lending BUSL was funded. The NT STIF Transition Account was closed.



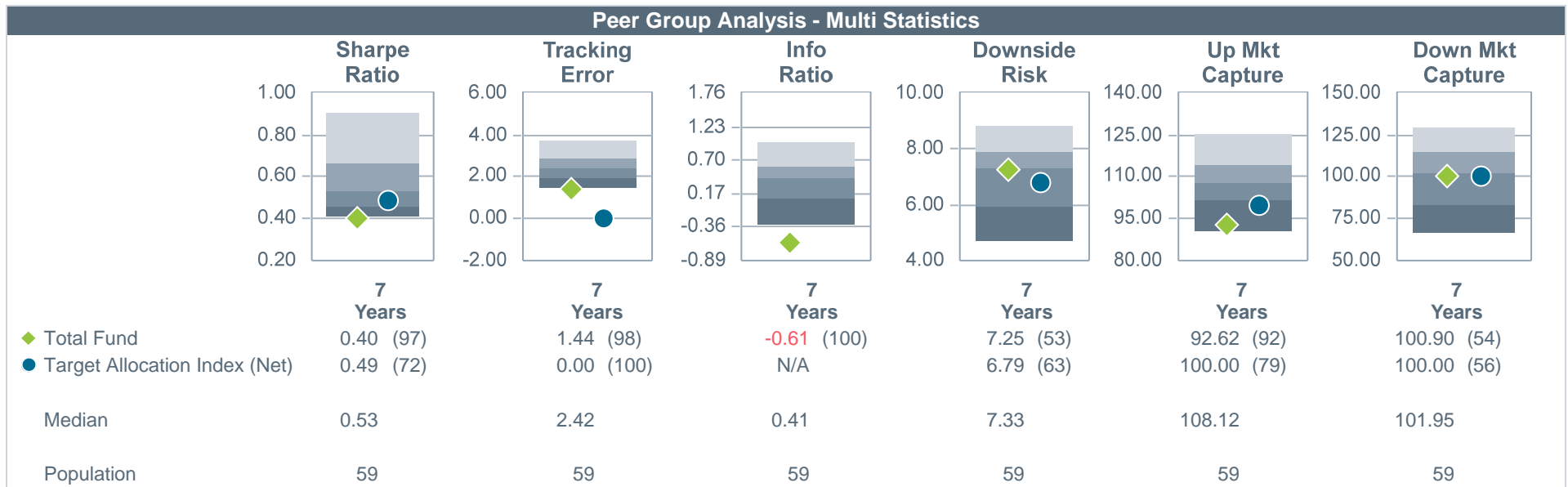
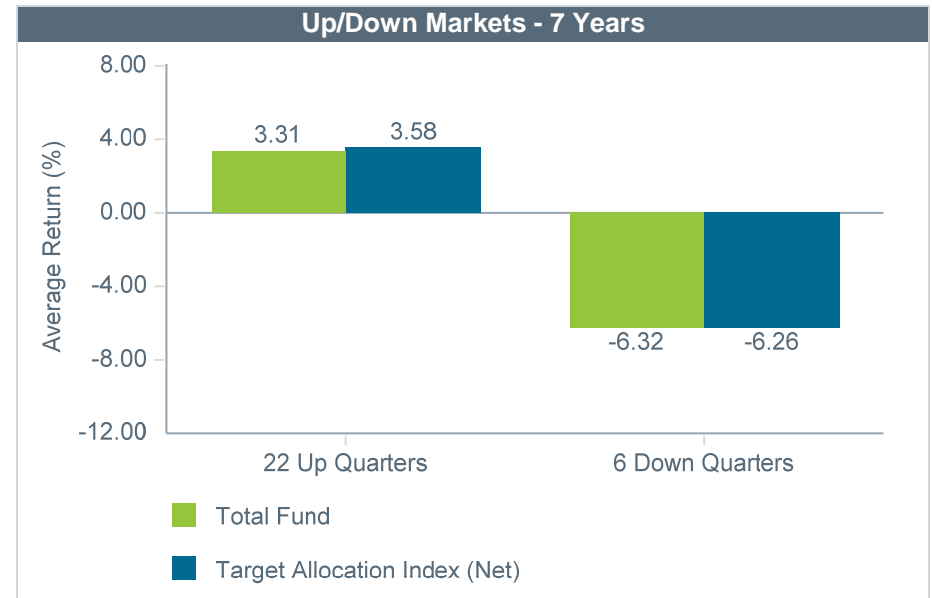
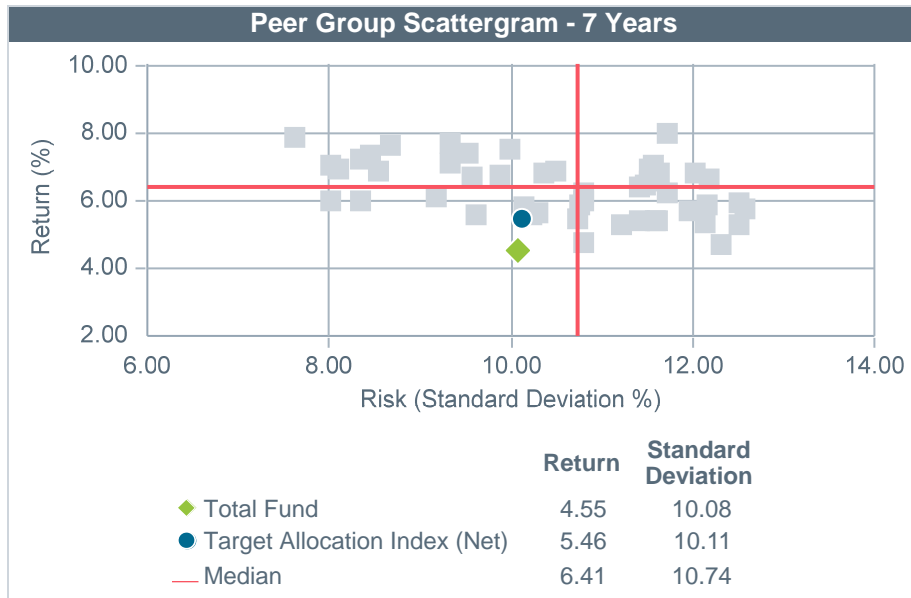
North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Total Fund	-6.98	-8.93	-4.99	-4.99	4.29	4.64	4.55	5.61	12.44	5.95	14.40	6.35	08/01/1995
Target Allocation Index (Net)	-8.34	-11.09	-6.73	-6.73	5.51	5.72	5.46	6.55	12.91	11.31	16.30	N/A	
Difference	1.36	2.16	1.74	1.74	-1.22	-1.08	-0.91	-0.94	-0.47	-5.36	-1.90	N/A	
All Public Plans > \$1B-Total Fund Median	-8.91	-12.09	-7.54	-7.54	6.22	6.47	6.41	7.52	15.03	11.27	17.07	7.26	
Rank	27	23	31	31	91	96	99	99	86	94	92	97	
Broad US Equity	-16.17	-20.91	-14.49	-14.49	9.32	10.31	10.33	11.93	24.58	20.97	30.30	13.06	07/01/2009
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	25.66	20.89	31.02	13.52	
Difference	0.53	0.19	-0.62	-0.62	-0.45	-0.29	-0.10	-0.64	-1.08	0.08	-0.72	-0.46	
Broad International Equity	-14.69	-18.62	-16.57	-16.57	2.36	2.46	3.03	5.81	13.26	8.42	22.05	5.33	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	7.82	10.65	21.51	5.32	
Difference	-0.96	-0.20	2.85	2.85	1.01	-0.04	0.11	0.98	5.44	-2.23	0.54	0.01	
Fixed Income	-2.21	-4.79	-3.76	-3.76	2.17	2.60	2.83	2.75	2.00	7.31	7.70	5.22	08/01/1995
Global Fixed Income Custom Index	-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.64	1.63	-1.10	7.58	9.21	N/A	
Difference	2.92	6.14	7.13	7.13	3.11	1.66	1.19	1.12	3.10	-0.27	-1.51	N/A	
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	4.54	
Difference	2.48	5.56	6.53	6.53	3.11	1.72	1.41	1.21	3.55	-0.20	-1.02	0.68	
Absolute Return	-8.77	-12.61	-13.82	-13.82	-0.64	1.08	1.82	N/A	7.90	0.99	11.09	1.17	07/01/2014
Absolute Return Custom Index	-11.46	-16.44	-13.90	-13.90	3.54	4.66	4.89	6.02	10.03	13.56	19.28	4.44	
Difference	2.69	3.83	0.08	0.08	-4.18	-3.58	-3.07	N/A	-2.13	-12.57	-8.19	-3.27	
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	12.39	6.43	7.40	7.90	
Difference	-13.10	-21.51	-28.33	-28.33	-10.86	-7.99	-6.48	N/A	-4.49	-5.44	3.69	-6.73	
Real Estate	3.74	11.36	29.85	29.85	12.35	10.51	10.22	N/A	24.07	-0.21	4.48	10.22	07/01/2015
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	9.35	10.15	21.02	0.34	4.39	9.35	
Difference	-0.80	-0.64	1.54	1.54	0.69	0.96	0.87	N/A	3.05	-0.55	0.09	0.87	
Private Equity	-0.58	-1.51	14.01	14.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.67	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	21.53	
Difference	-0.58	-2.09	1.19	1.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-8.86	
Private Infrastructure	1.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.75	02/01/2022
MSCI World Infrastructure Index (Net)	-5.69	-2.69	-0.59	-0.59	3.69	4.38	4.32	5.78	6.31	0.13	21.60	-1.94	
Difference	6.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.69	
Opportunistic Investments	-7.51	-8.71	-6.41	-6.41	N/A	N/A	N/A	N/A	10.86	N/A	N/A	15.73	07/01/2020

Performance shown is net of fees, and annualized for periods greater than one year. Composite inception dates are based on availability of data for each asset class. Please see the Addendum for custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.





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

North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Total Fund	-6.98	-8.93	-4.99	-4.99	4.29	4.64	5.61	12.44	5.95	14.40	6.35	08/01/1995
Target Allocation Index (Net)	-8.34	-11.09	-6.73	-6.73	5.51	5.72	6.55	12.91	11.31	16.30	N/A	
Difference	1.36	2.16	1.74	1.74	-1.22	-1.08	-0.94	-0.47	-5.36	-1.90	N/A	
Broad US Equity	-16.17	-20.91	-14.49	-14.49	9.32	10.31	11.93	24.58	20.97	30.30	13.06	07/01/2009
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	12.57	25.66	20.89	31.02	13.52	
Difference	0.53	0.19	-0.62	-0.62	-0.45	-0.29	-0.64	-1.08	0.08	-0.72	-0.46	
State Street Russell 1000 Index SL (CF)	-16.71	-21.00	-13.10	-13.10	10.12	10.96	N/A	26.43	20.90	31.39	10.92	06/01/2017
Russell 1000 Index	-16.67	-20.94	-13.04	-13.04	10.17	11.00	12.82	26.45	20.96	31.43	10.96	
Difference	-0.04	-0.06	-0.06	-0.06	-0.05	-0.04	N/A	-0.02	-0.06	-0.04	-0.04	
State Street Russell Mid Cap Index (SA)	-16.80	-21.51	-17.22	-17.22	6.59	7.96	N/A	22.58	17.05	30.38	8.04	06/01/2017
Russell Mid Cap Index	-16.85	-21.57	-17.30	-17.30	6.59	7.96	11.29	22.58	17.10	30.54	8.04	
Difference	0.05	0.06	0.08	0.08	0.00	0.00	N/A	0.00	-0.05	-0.16	0.00	
NT Small Cap Core (SA)	-15.53	-22.14	-20.93	-20.93	6.32	7.89	10.44	18.76	23.90	23.13	7.22	07/01/2014
Russell 2000 Index	-17.20	-23.43	-25.20	-25.20	4.21	5.17	9.35	14.82	19.96	25.53	5.98	
Difference	1.67	1.29	4.27	4.27	2.11	2.72	1.09	3.94	3.94	-2.40	1.24	

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**North Dakota Board of University and School Lands
Comparative Performance**

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Broad International Equity	-14.69	-18.62	-16.57	-16.57	2.36	2.46	5.81	13.26	8.42	22.05	5.33	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	4.83	7.82	10.65	21.51	5.32	
Difference	-0.96	-0.20	2.85	2.85	1.01	-0.04	0.98	5.44	-2.23	0.54	0.01	
State Street World Ex US Index (CF)	-14.90	-18.97	-16.98	-16.98	1.58	2.56	N/A	12.63	7.52	22.38	1.82	07/01/2014
MSCI Wrld Ex US Index (USD) (Net)	-14.66	-18.76	-16.76	-16.76	1.70	2.66	5.37	12.62	7.59	22.49	1.91	
Difference	-0.24	-0.21	-0.22	-0.22	-0.12	-0.10	N/A	0.01	-0.07	-0.11	-0.09	
Acadian International Small Cap	-17.63	-22.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.58	12/01/2021
MSCI EAFE Sm Cap Index (USD) (Net)	-17.69	-24.71	-23.98	-23.98	1.12	1.72	7.18	10.10	12.34	24.96	-21.42	
Difference	0.06	1.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.84	
State Street World Ex US Small Cap Index (CF)	-17.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.19	02/01/2022
MSCI Wrld Ex US Sm Cap Index (USD) (Net)	-17.94	-23.87	-23.02	-23.02	1.97	2.16	6.70	11.14	12.78	25.41	-18.28	
Difference	0.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.09	
Arrowstreet Emerging Markets	-14.13	-16.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-11.98	12/01/2021
MSCI Emg Mkts Index (USD) (Net)	-11.45	-17.63	-25.28	-25.28	0.57	2.18	3.06	-2.54	18.31	18.44	-16.08	
Difference	-2.68	1.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.10	
NT Emerging Markets Index Fund	-10.71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-16.71	02/01/2022
MSCI Emg Mkts Index (USD) (Net)	-11.45	-17.63	-25.28	-25.28	0.57	2.18	3.06	-2.54	18.31	18.44	-16.04	
Difference	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.67	

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North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Fixed Income	-2.21	-4.79	-3.76	-3.76	2.17	2.60	2.75	2.00	7.31	7.70	5.22	08/01/1995
Global Fixed Income Custom Index	-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.63	-1.10	7.58	9.21	N/A	
Difference	2.92	6.14	7.13	7.13	3.11	1.66	1.12	3.10	-0.27	-1.51	N/A	
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.54	-1.55	7.51	8.72	4.54	
Difference	2.48	5.56	6.53	6.53	3.11	1.72	1.21	3.55	-0.20	-1.02	0.68	
Payden & Rygel Long Term (SA)	-4.87	-10.25	-9.98	-9.98	-0.55	1.38	2.26	-0.69	7.58	9.42	5.14	08/01/1995
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.54	-1.55	7.51	8.72	4.54	
Difference	-0.18	0.10	0.31	0.31	0.39	0.50	0.72	0.86	0.07	0.70	0.60	
JP Morgan Core Bond (SA)	-4.54	-9.94	-9.87	-9.87	-0.95	0.72	N/A	-0.28	6.31	6.70	1.28	08/01/2012
JP Morgan FI Custom Index	-4.69	-10.35	-10.29	-10.29	-1.14	0.54	1.15	-0.48	6.43	6.80	1.07	
Difference	0.15	0.41	0.42	0.42	0.19	0.18	N/A	0.20	-0.12	-0.10	0.21	
Loomis Sayles Credit Asset (SA)	-6.67	-10.20	-9.63	-9.63	N/A	N/A	N/A	N/A	N/A	N/A	-5.90	04/01/2021
Loomis Sayles CA Custom Index	-7.17	-11.91	-11.04	-11.04	0.13	1.94	3.40	2.07	7.54	13.03	-6.88	
Difference	0.50	1.71	1.41	1.41	N/A	N/A	N/A	N/A	N/A	N/A	0.98	
AG Direct Lending III LP	3.19	5.96	12.33	12.33	11.10	N/A	N/A	13.73	8.13	10.02	10.52	09/01/2018
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.90	5.40	2.78	8.17	2.34	
Difference	7.54	10.41	15.01	15.01	9.07	N/A	N/A	8.33	5.35	1.85	8.18	
AG Direct Lending IV LP	3.25	6.15	11.59	11.59	N/A	N/A	N/A	N/A	N/A	N/A	18.54	06/01/2021
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.90	5.40	2.78	8.17	-2.11	
Difference	7.60	10.60	14.27	14.27	N/A	N/A	N/A	N/A	N/A	N/A	20.65	
AG Direct Lending BUSL LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.16	06/01/2022
CS Lvg'd Loan Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.16	
Owl Rock Diversified Lending	0.84	2.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.15	11/01/2021
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.90	5.40	2.78	8.17	-3.99	
Difference	5.19	7.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.14	
Apollo Defined Return Fund LP	-2.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.33	04/01/2022
CS Lvg'd Loan Index+2%	-3.88	-3.50	-0.73	-0.73	4.07	5.03	5.98	7.51	4.83	10.34	-3.88	
Difference	1.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.55	

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North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Fixed Income Cont.												
Ares Pathfinder Fund LP	2.29	6.15	15.04	15.04	N/A	N/A	N/A	N/A	N/A	N/A	68.45	03/01/2021
Schroders Flexible Secured Income (SA)	-0.86	-2.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.81	09/01/2021
3 Month LIBOR Index (USD)+1.75%	0.48	0.86	1.80	1.80	2.56	3.07	2.63	1.92	2.85	4.39	1.47	
Difference	-1.34	-2.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.28	
ND Land - PTF Cash (SA)												
ICE BofAML 3 Mo US T-Bill Index	0.11	0.15	0.17	0.17	0.63	1.11	0.64	0.05	0.67	2.28	1.11	
Difference	0.01	-0.02	0.00	0.00	-0.01	-0.03	N/A	0.00	-0.28	0.21	-0.03	
FLP (Loans)	1.11	2.21	4.59	4.59	4.35	4.96	5.43	4.19	4.19	4.86	6.87	08/01/1995

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North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Absolute Return	-8.77	-12.61	-13.82	-13.82	-0.64	1.08	N/A	7.90	0.99	11.09	1.17	07/01/2014
Absolute Return Custom Index	-11.46	-16.44	-13.90	-13.90	3.54	4.66	6.02	10.03	13.56	19.28	4.44	
Difference	2.69	3.83	0.08	0.08	-4.18	-3.58	N/A	-2.13	-12.57	-8.19	-3.27	
PIMCO:All Ast Ath;Inst (PAUIX)	-11.90	-14.23	-12.28	-12.28	1.77	1.97	N/A	15.51	4.59	7.62	0.98	07/01/2014
All Asset Custom Index (EqI Wtd)	-7.62	-11.00	-8.65	-8.65	2.73	3.81	4.32	6.46	9.89	12.97	3.52	
Difference	-4.28	-3.23	-3.63	-3.63	-0.96	-1.84	N/A	9.05	-5.30	-5.35	-2.54	
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	7.72	12.39	6.43	7.40	7.90	
Difference	-16.23	-23.13	-26.79	-26.79	-8.45	-7.10	N/A	3.12	-1.84	0.22	-6.92	
Millennium USA LP	2.49	6.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.20	01/01/2022
HFRI RV Multi Strat Index	-2.74	-1.03	-1.02	-1.02	4.66	3.84	4.47	7.03	6.69	5.29	-1.03	
Difference	5.23	7.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.23	
PineBridge Dyn AA;Inst (PDAIX)	-7.37	-15.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-15.70	01/01/2022
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	7.72	12.39	6.43	7.40	8.90	
Difference	-11.70	-24.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-24.60	

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North Dakota Board of University and School Lands
Comparative Performance

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Real Estate	3.74	11.36	29.85	29.85	12.35	10.51	N/A	24.07	-0.21	4.48	10.22	07/01/2015
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.35	
Difference	-0.80	-0.64	1.54	1.54	0.69	0.96	N/A	3.05	-0.55	0.09	0.87	
Morgan Stanley Prime Property (CF)	3.04	10.27	27.89	27.89	11.78	10.17	N/A	21.48	1.26	6.17	10.19	07/01/2015
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.35	
Difference	-1.50	-1.73	-0.42	-0.42	0.12	0.62	N/A	0.46	0.92	1.78	0.84	
UBS Trumbull Property LP (CF)	3.53	10.96	23.47	23.47	7.14	5.47	N/A	15.60	-4.67	-2.84	5.92	07/01/2015
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.35	
Difference	-1.01	-1.04	-4.84	-4.84	-4.52	-4.08	N/A	-5.42	-5.01	-7.23	-3.43	
Jamestown Premier Property (CF)	0.32	2.41	5.53	5.53	-3.05	1.91	N/A	-1.80	-9.83	2.40	3.66	07/01/2015
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.35	
Difference	-4.22	-9.59	-22.78	-22.78	-14.71	-7.64	N/A	-22.82	-10.17	-1.99	-5.69	
Prologis Targeted US Logistics LP (CF)	5.69	18.30	49.28	49.28	28.14	23.97	N/A	48.39	9.86	16.84	22.32	04/01/2016
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.05	
Difference	1.15	6.30	20.97	20.97	16.48	14.42	N/A	27.37	9.52	12.45	13.27	
JP Morgan US RE Inc & Grth LP (CF)	5.52	11.77	32.27	32.27	11.42	8.76	N/A	24.41	-1.76	2.24	8.64	07/01/2016
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	9.10	
Difference	0.98	-0.23	3.96	3.96	-0.24	-0.79	N/A	3.39	-2.10	-2.15	-0.46	
Harrison Street Core Property Fund	5.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.76	02/01/2022
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	12.00	
Difference	1.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.24	
State Street US REIT Index (CF)	-18.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.09	04/01/2022
NCREIF ODCE Index (AWA) (Net)	4.54	12.00	28.31	28.31	11.66	9.55	10.15	21.02	0.34	4.39	4.54	
Difference	-22.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-22.63	

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North Dakota Board of University and School Lands
Comparative Performance

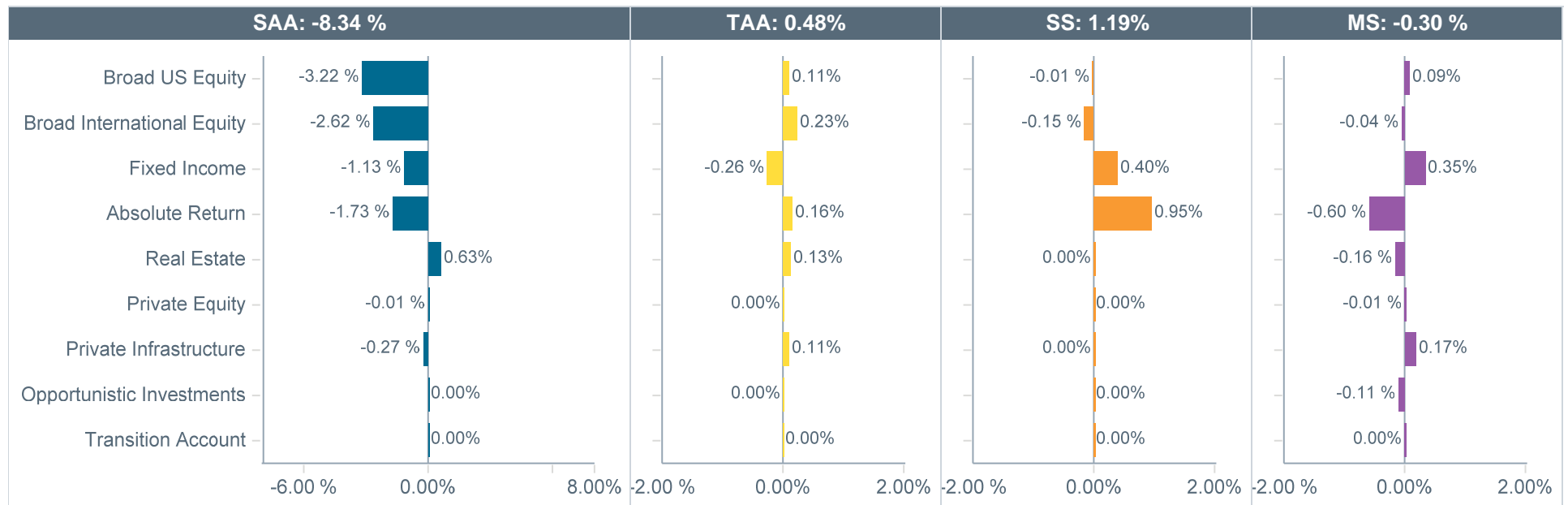
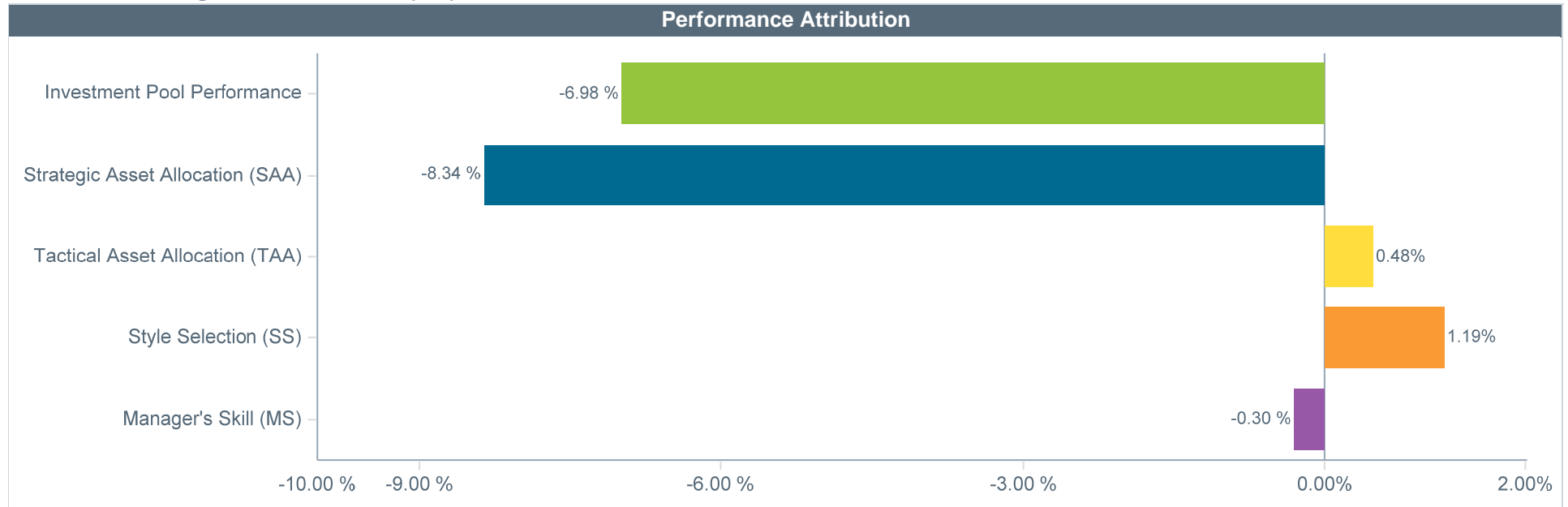
As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Private Equity	-0.58	-1.51	14.01	14.01	N/A	N/A	N/A	N/A	N/A	N/A	12.67	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.16	40.41	21.67	13.82	21.53	
Difference	-0.58	-2.09	1.19	1.19	N/A	N/A	N/A	N/A	N/A	N/A	-8.86	
GCM Grosvenor BUSL LP	1.80	1.48	15.30	15.30	N/A	N/A	N/A	N/A	N/A	N/A	13.69	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.16	40.41	21.67	13.82	21.53	
Difference	1.80	0.90	2.48	2.48	N/A	N/A	N/A	N/A	N/A	N/A	-7.84	
GCM Grosvenor Secondary Opp Fund III LP	-3.38	-4.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.81	01/01/2022
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.16	40.41	21.67	13.82	0.58	
Difference	-3.38	-5.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.39	
Private Infrastructure	1.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.75	02/01/2022
MSCI Wrld Infrastructure Index	-5.69	-2.69	-0.59	-0.59	3.69	4.38	5.78	6.31	0.13	21.60	-1.94	
Difference	6.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.69	
JP Morgan Infrastructure Investments	1.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.84	02/01/2022
MSCI Wrld Infrastructure Index	-5.69	-2.69	-0.59	-0.59	3.69	4.38	5.78	6.31	0.13	21.60	-1.94	
Difference	6.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.78	
First Sentier GDIF US HFF	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.74	05/01/2022
MSCI Wrld Infrastructure Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.74	
Opportunistic Investments												
Varde Dislocation Fund LP	-7.69	-8.88	-9.14	-9.14	N/A	N/A	N/A	7.39	N/A	N/A	14.65	07/01/2020
Apollo Accord Fund IV LP	0.71	-0.70	12.47	12.47	N/A	N/A	N/A	25.99	N/A	N/A	17.72	10/01/2020

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North Dakota Board of University and School Lands
Total Fund Attribution - IDP
Total Fund vs. Target Allocation Index (Net)

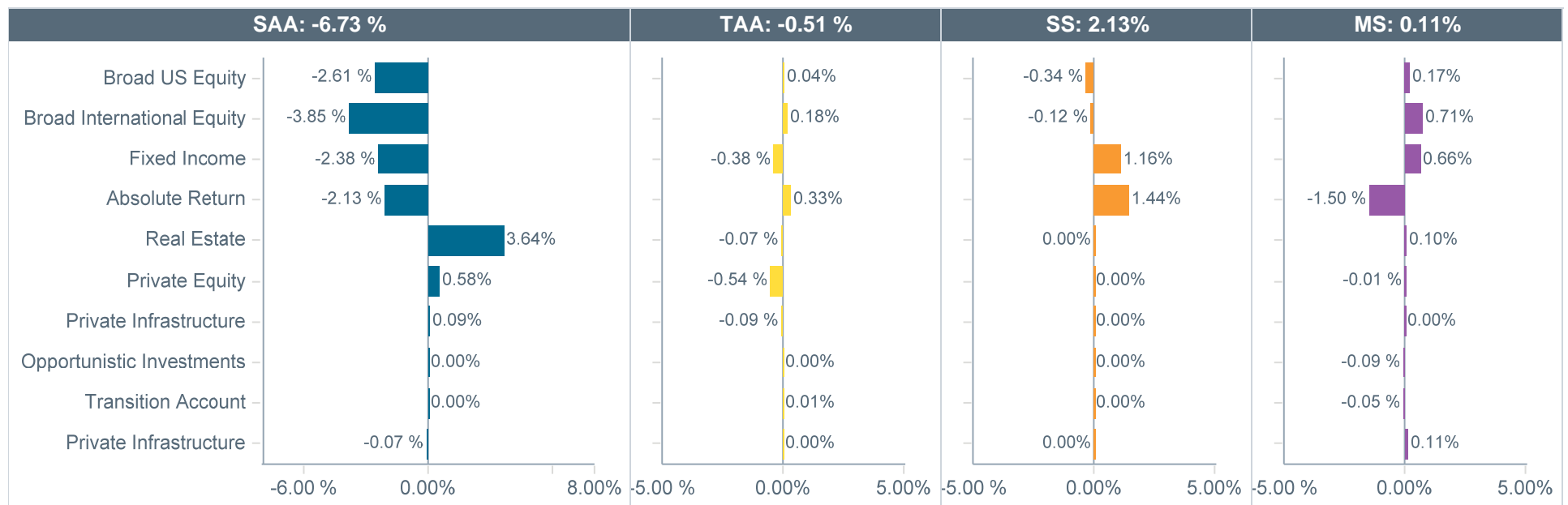
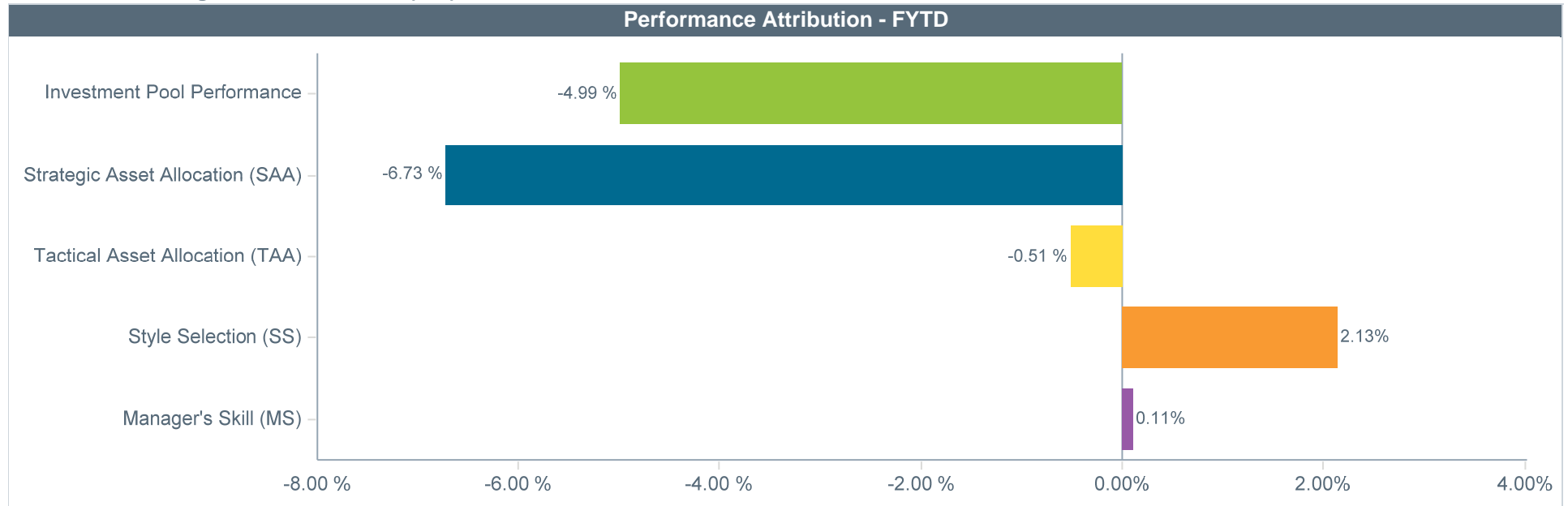
Quarter To Date Ending June 30, 2022



Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

North Dakota Board of University and School Lands
Total Fund Attribution - IDP
Total Fund vs. Target Allocation Index (Net)

Fiscal Year To Date as of June 30, 2022



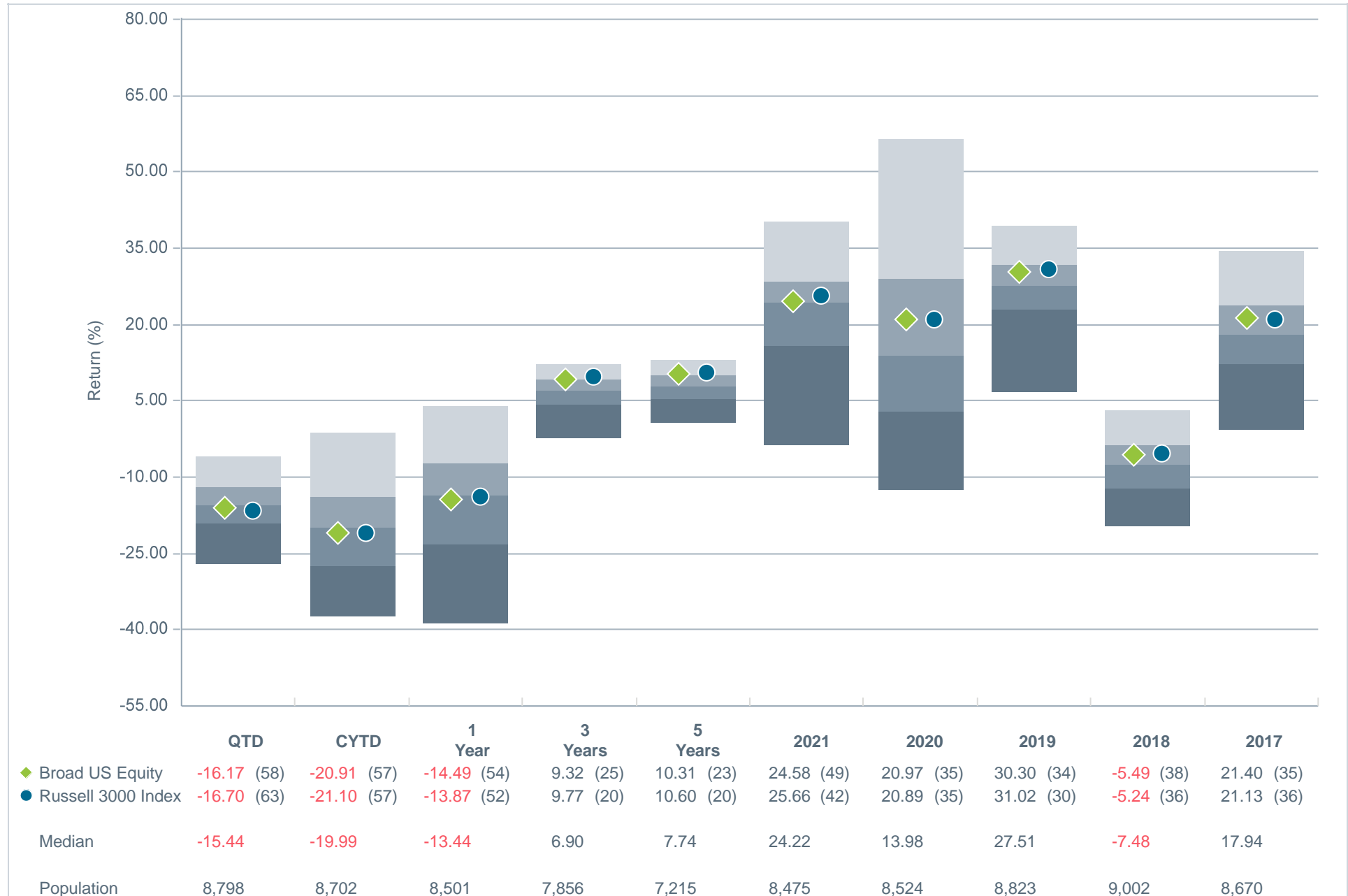
Attribution shown is calculated using the Investment Decision Process (IDP) method. Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation. Fiscal year ends 06/30.

Composite Profiles

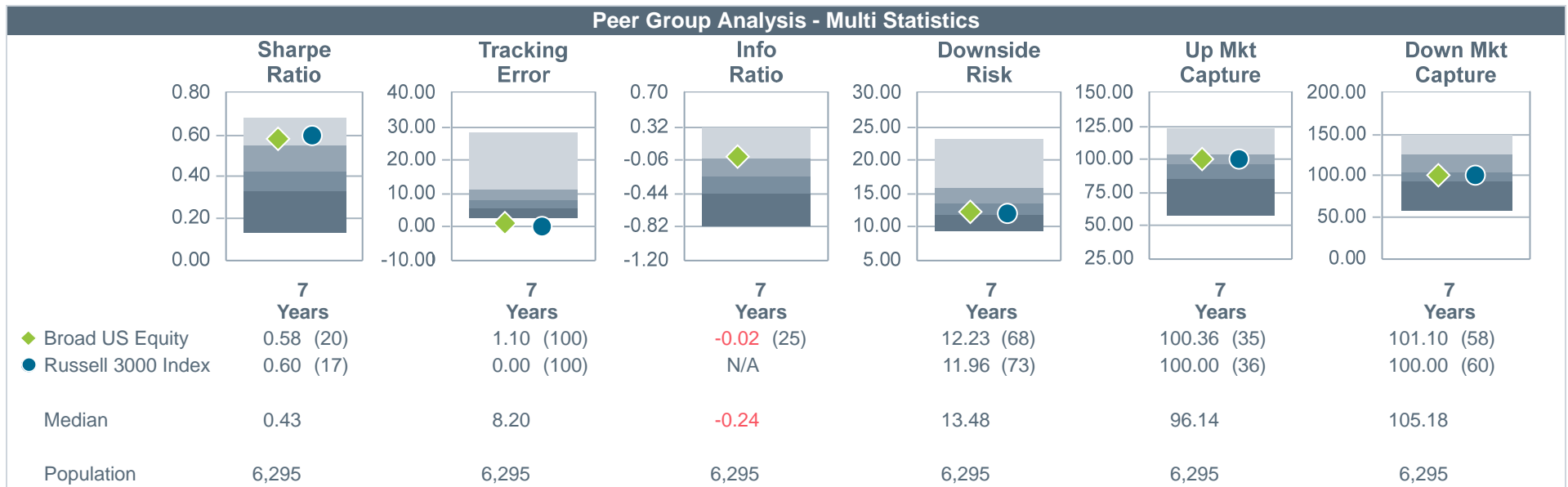
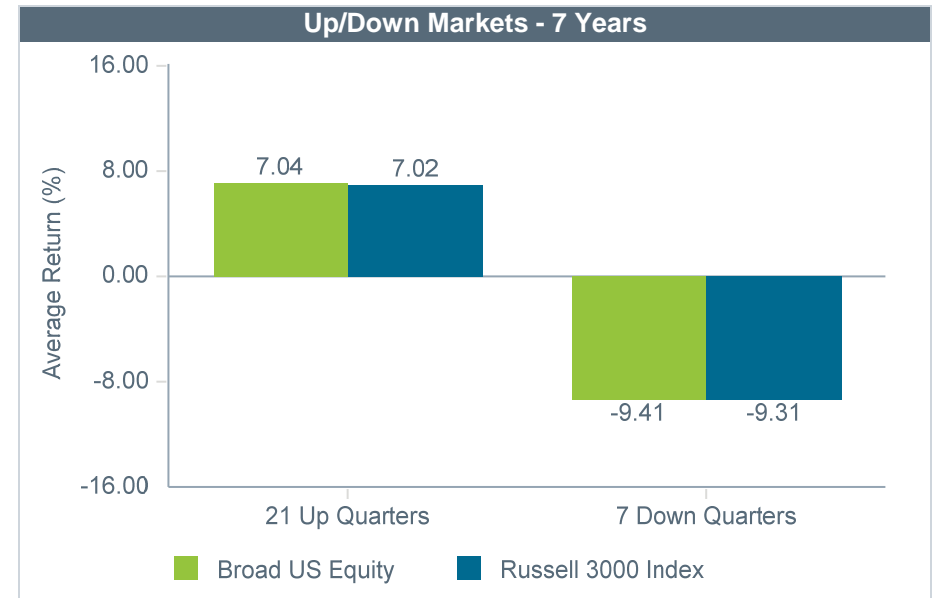
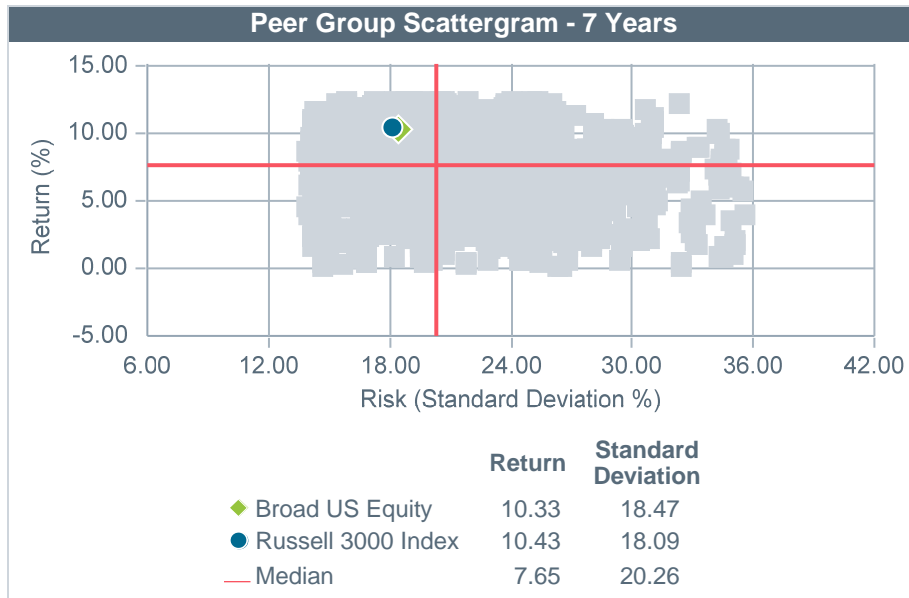


North Dakota Board of University and School Lands
IM U.S. Equity (MF)
Peer Group Analysis

As of June 30, 2022



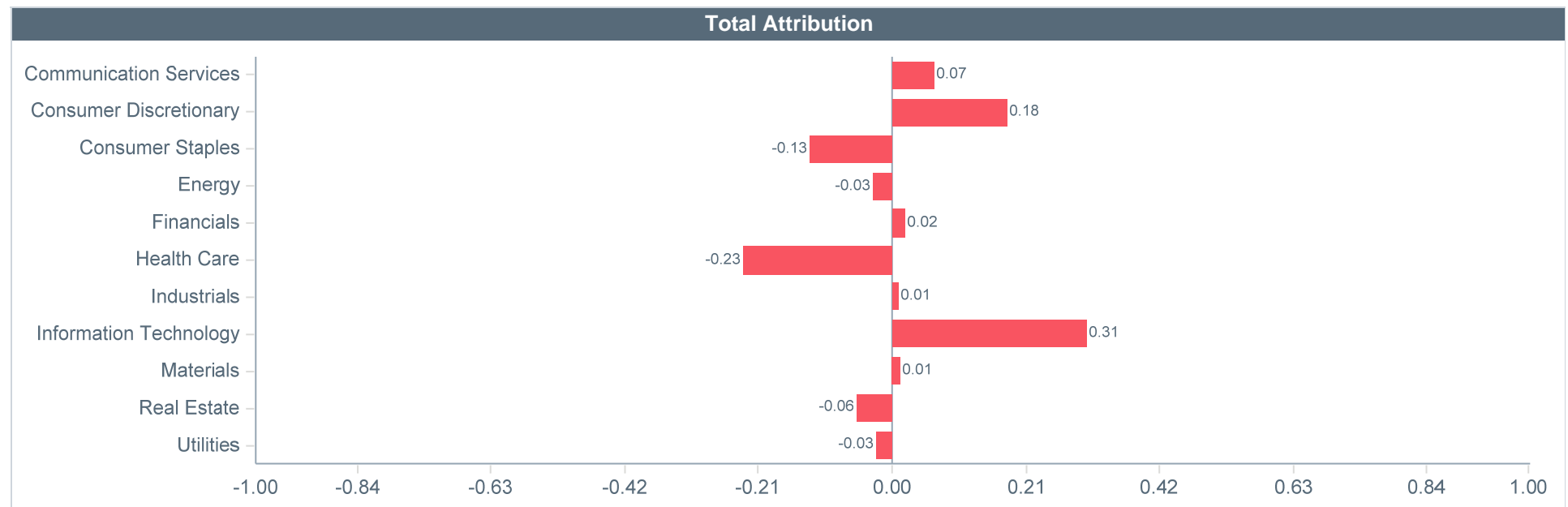
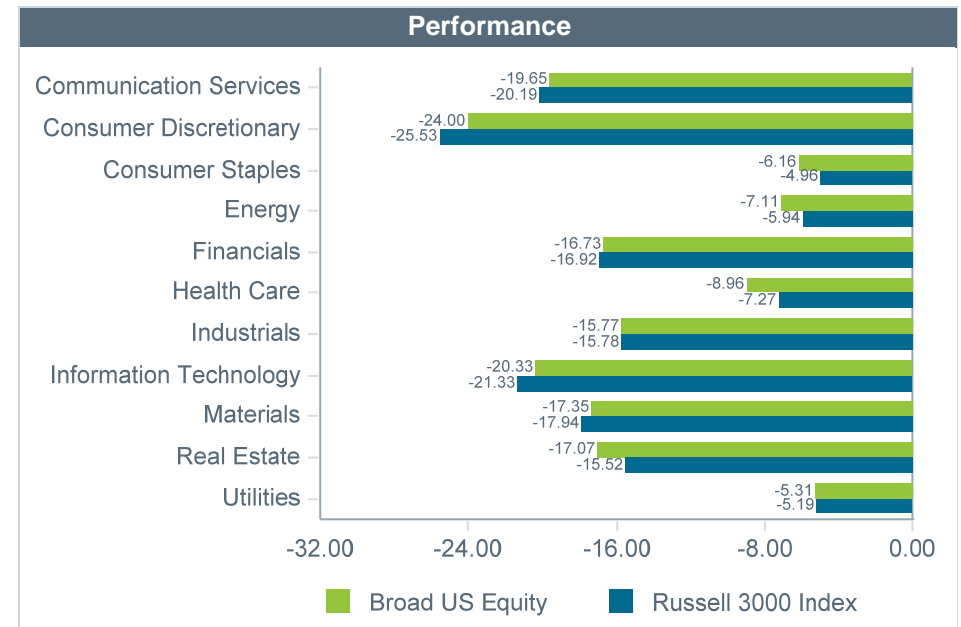
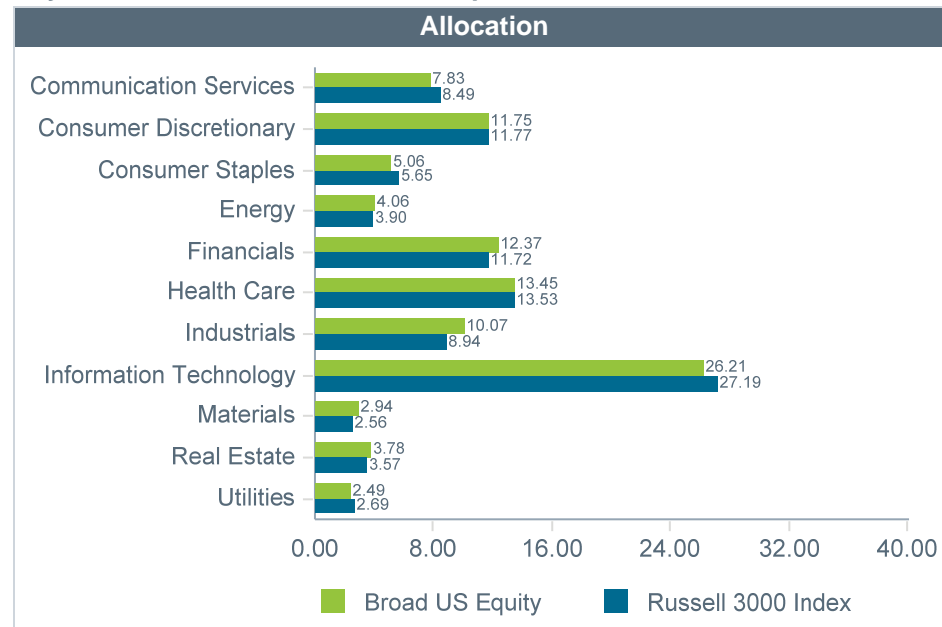
Performance shown is net of fees. Parentheses contain percentile ranks.



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

North Dakota Board of University and School Lands
Broad US Equity vs. Russell 3000 Index
Buy and Hold Sector Attribution Graph

1 Quarter Ending June 30, 2022

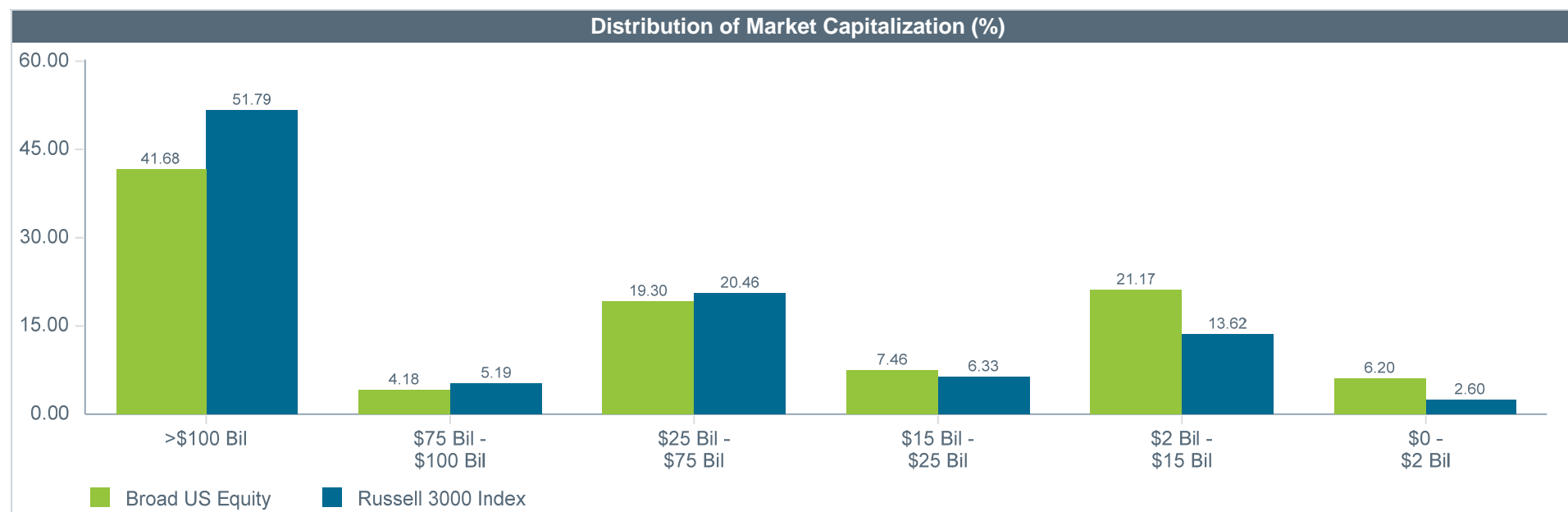


North Dakota Board of University and School Lands
Broad US Equity vs. Russell 3000 Index
Portfolio Characteristics

As of June 30, 2022

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	4.47	5.56	-1.09	-21.59
Microsoft Corp	4.11	5.11	-1.00	-16.49
Amazon.com Inc	2.02	2.51	-0.49	-34.84
Alphabet Inc	1.40	1.74	-0.34	-21.65
Alphabet Inc	1.29	1.60	-0.31	-21.68
Tesla Inc	1.22	1.52	-0.30	-37.51
Berkshire Hathaway Inc	1.06	1.31	-0.25	-22.64
Unitedhealth Group Inc	1.03	1.28	-0.25	1.08
Johnson & Johnson	1.00	1.24	-0.24	0.79
Meta Platforms Inc	0.79	0.98	-0.19	-27.48
% of Portfolio	18.39	22.85	-4.46	

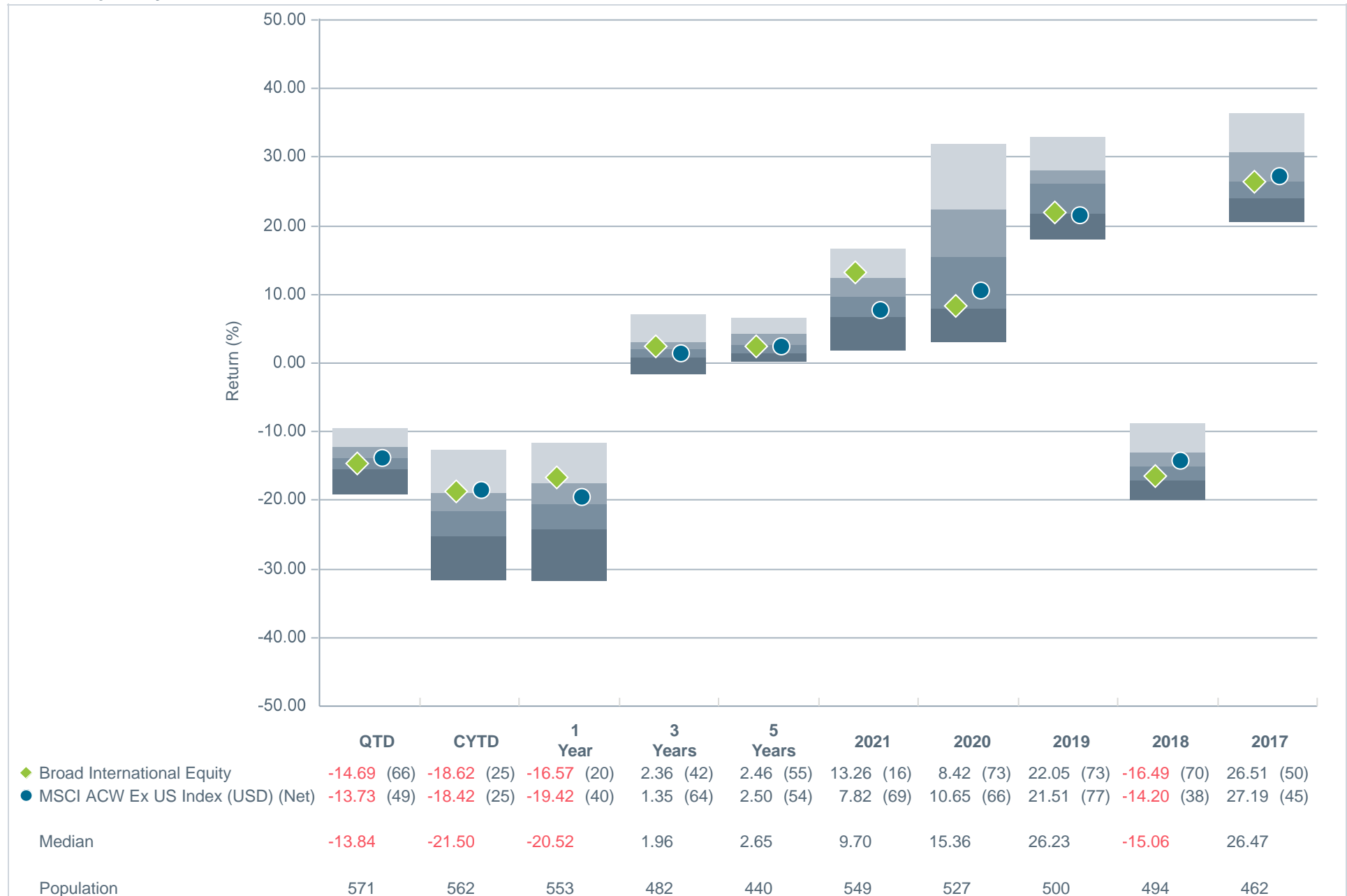
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	329,068	406,574
Median Mkt. Cap (\$M)	9,196	1,913
Price/Earnings Ratio	17.29	17.73
Price/Book Ratio	3.46	3.68
5 Yr. EPS Growth Rate (%)	19.48	19.09
Current Yield (%)	1.61	1.66
Beta (5 Years, Monthly)	1.01	1.00
Number of Securities	1,196	3,011



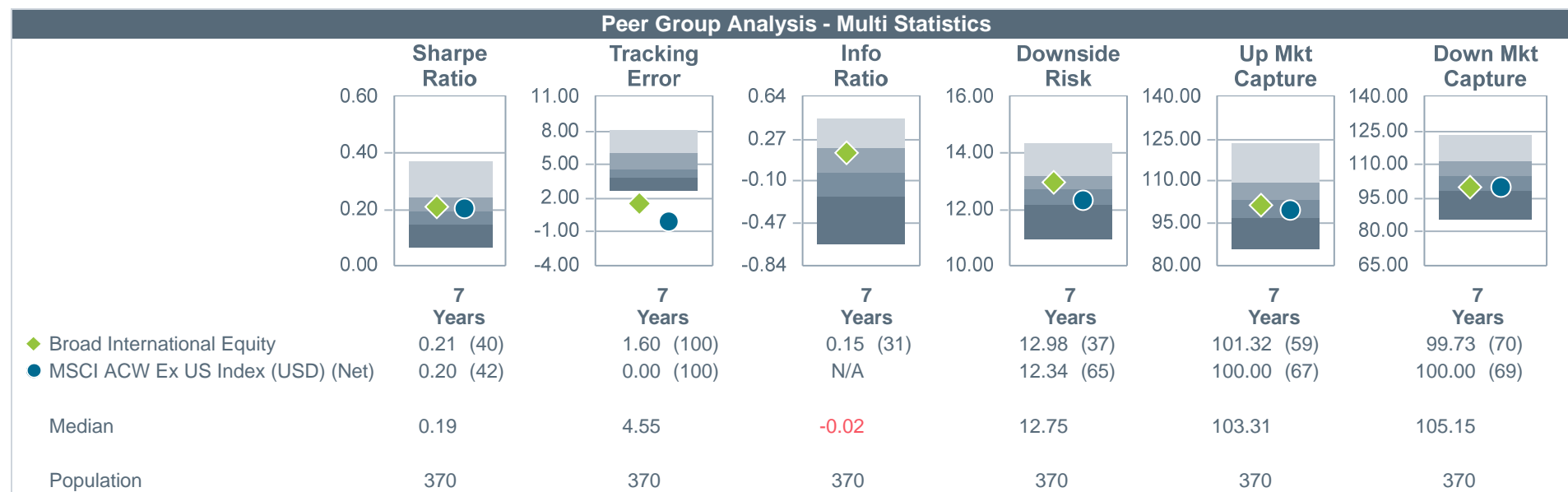
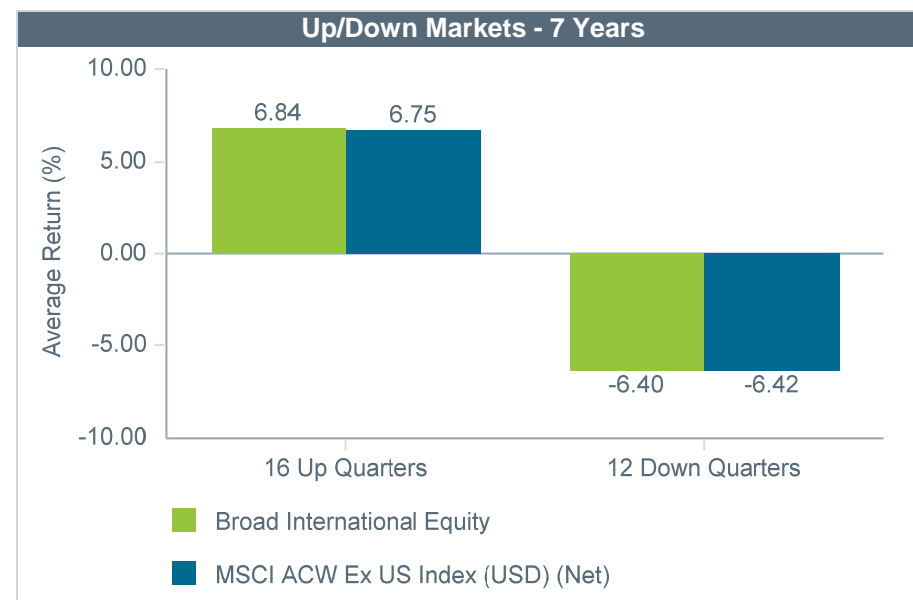
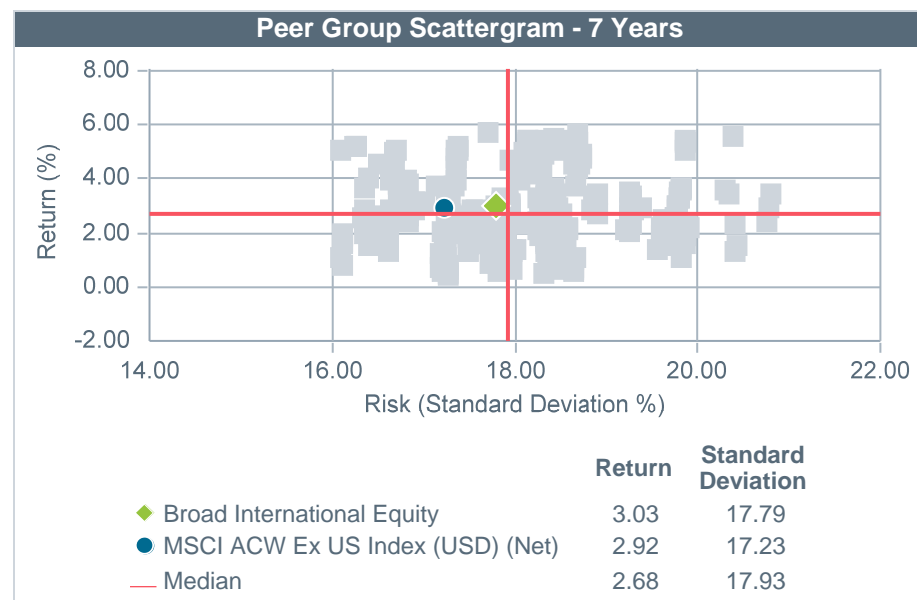
Alphabet Inc. is shown twice in the Top Ten Equity Holdings, but represents two different share classes: GOOGL (Class A) and GOOG (Class C).

North Dakota Board of University and School Lands
IM International Large Cap Equity (MF)
Peer Group Analysis

As of June 30, 2022



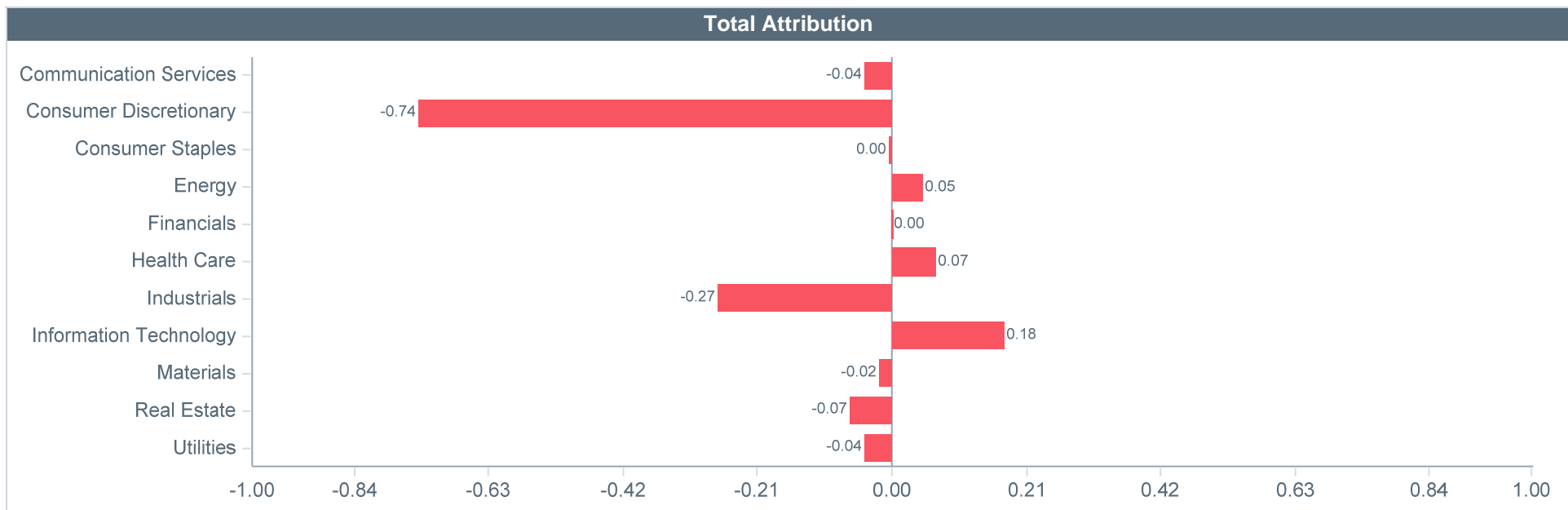
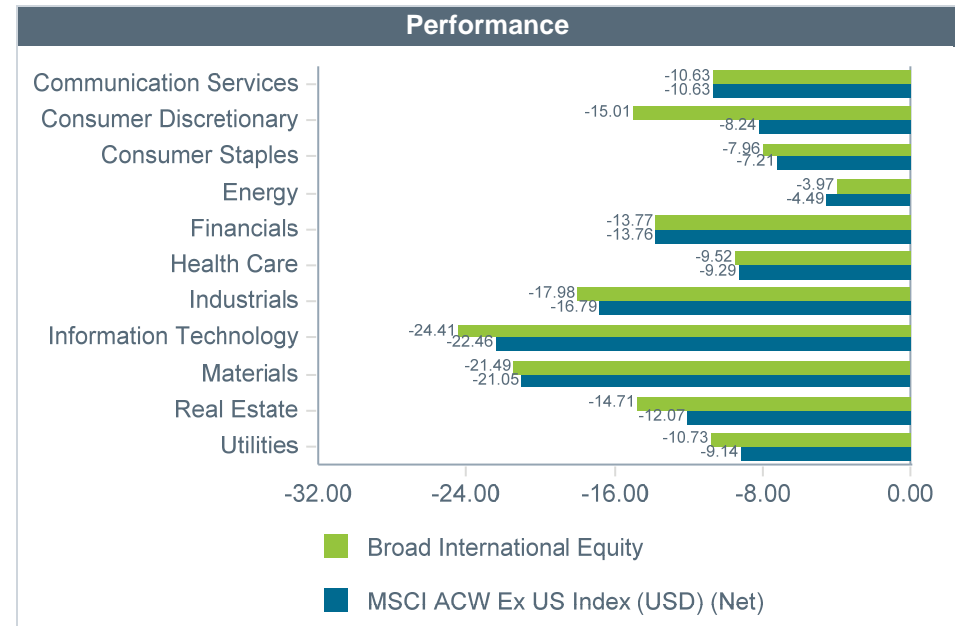
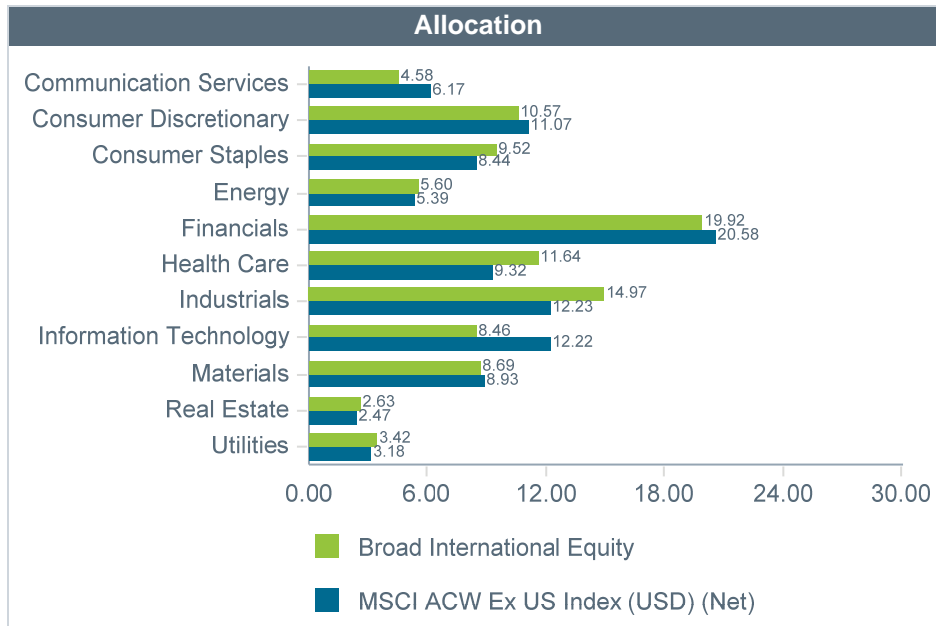
Performance shown is net of fees. Parentheses contain percentile ranks.



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

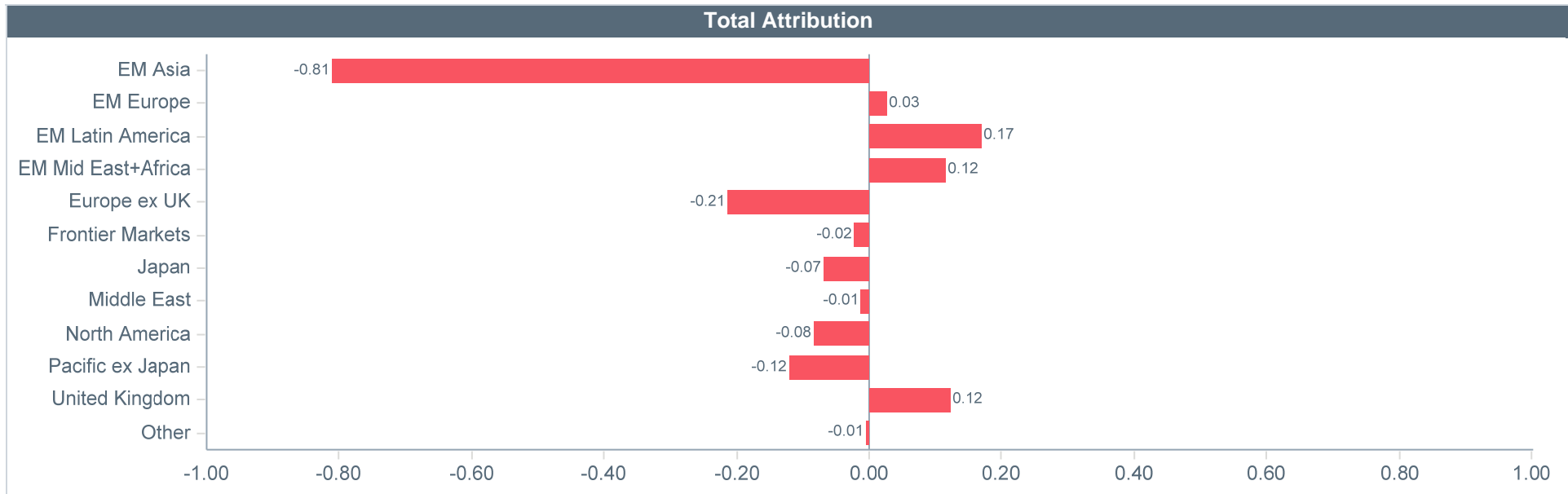
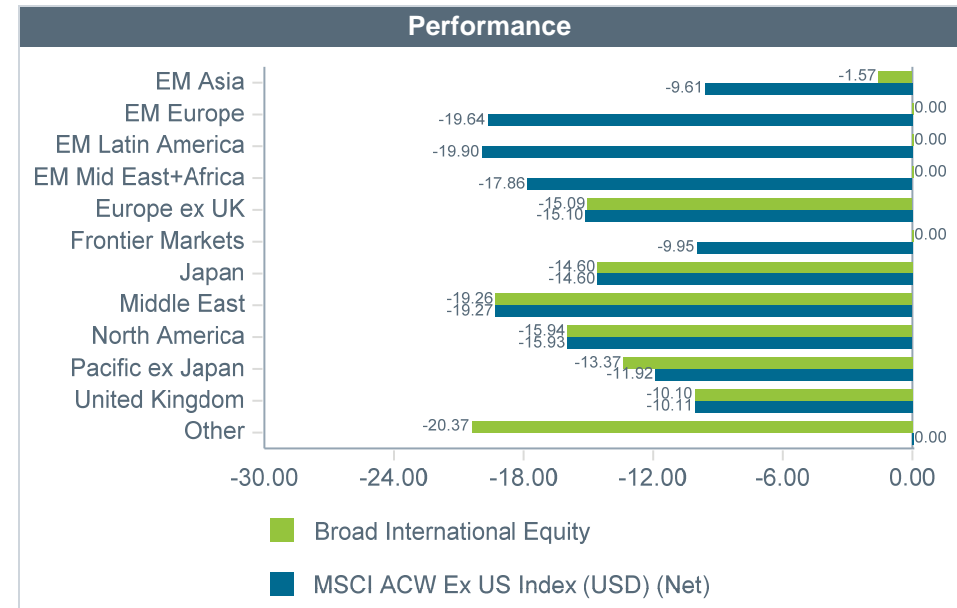
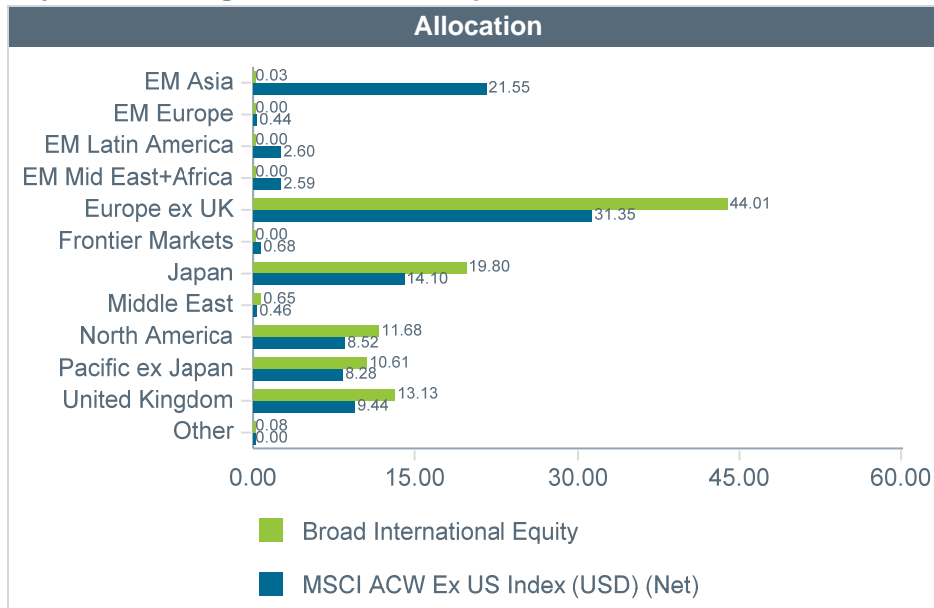
North Dakota Board of University and School Lands
Broad International Equity vs. MSCI ACW Ex US Index (USD) (Net)
Buy and Hold Sector Attribution Graph

1 Quarter Ending June 30, 2022



North Dakota Board of University and School Lands
Broad International Equity vs. MSCI ACW Ex US Index (USD) (Net)
Buy and Hold Region Attribution Graph

1 Quarter Ending June 30, 2022



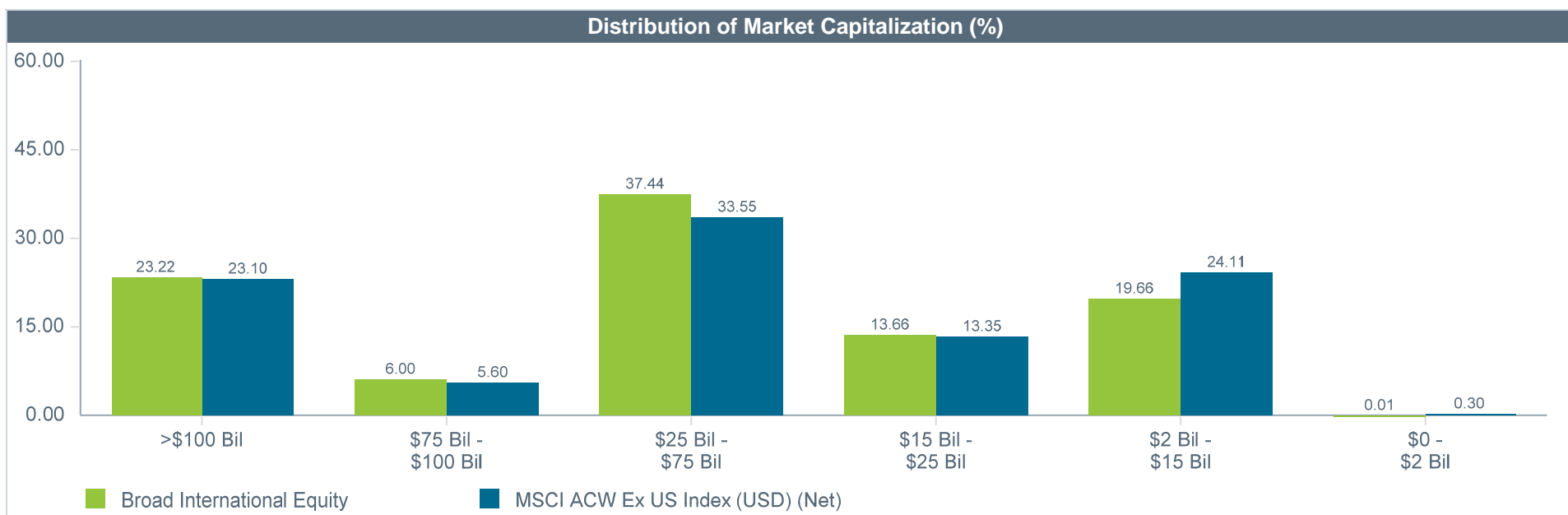
Allocation to "Other" consists Luxembourg.

North Dakota Board of University and School Lands
Broad International Equity vs. MSCI ACW Ex US Index (USD) (Net)
Portfolio Characteristics

As of June 30, 2022

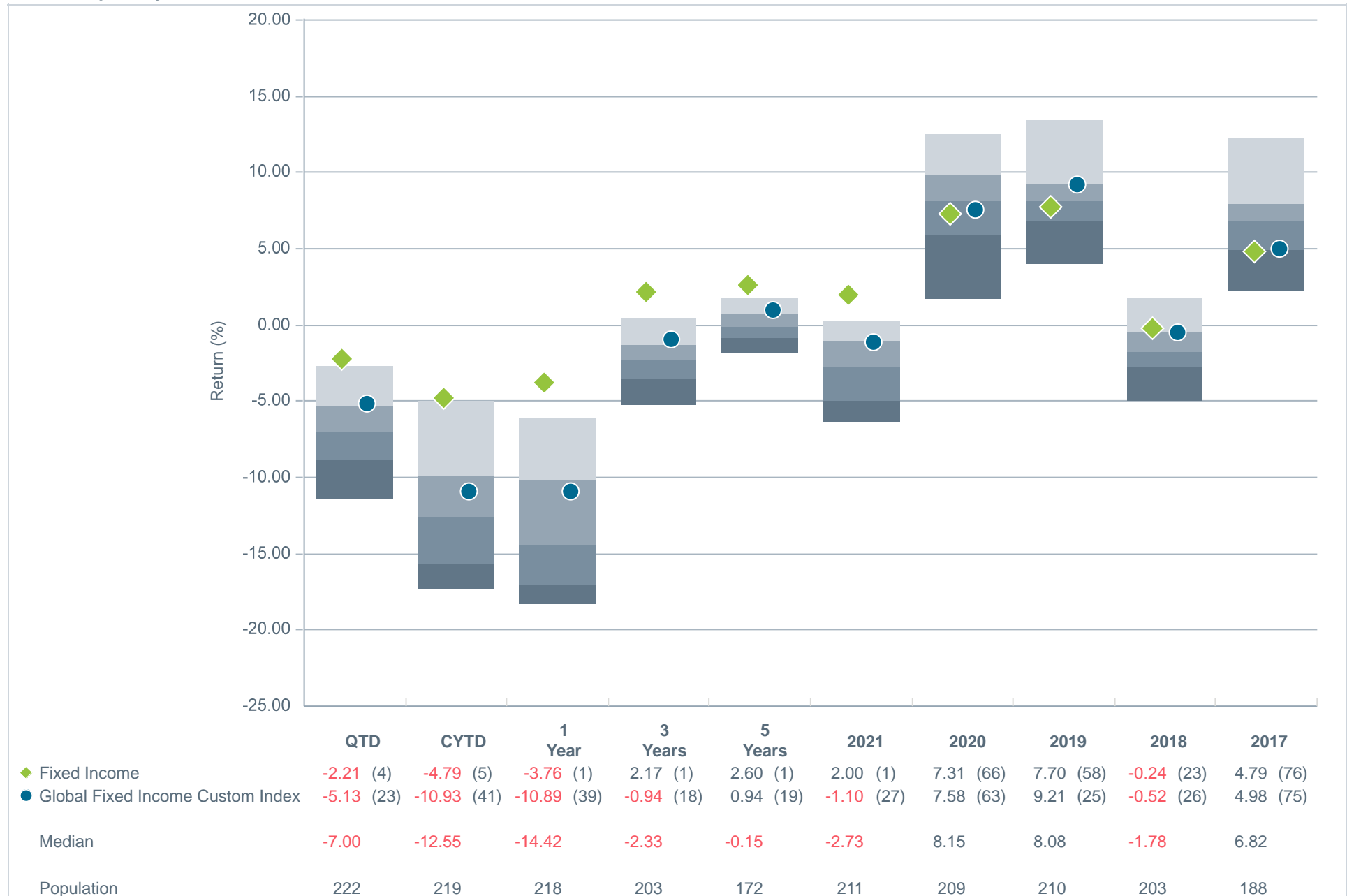
Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Nestle SA, Cham Und Vevey	2.16	1.50	0.66	-8.57
Roche Holding AG	1.54	1.07	0.47	-16.17
Astrazeneca PLC	1.30	0.93	0.37	-1.47
Shell Plc	1.27	0.90	0.37	-5.63
ASML Holding NV	1.27	0.88	0.39	-29.20
Novo Nordisk A/S	1.22	0.85	0.37	-0.92
Novartis AG	1.22	0.85	0.37	-4.04
Lvmh Moet Hennessy Louis Vuitton	1.09	0.77	0.32	-14.74
Toyota Motor Corp	1.06	0.75	0.31	-15.57
BHP Group Ltd	0.93	0.66	0.27	-17.89
% of Portfolio	13.06	9.16	3.90	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	67,565	76,934
Median Mkt. Cap (\$M)	11,581	8,474
Price/Earnings Ratio	12.51	11.90
Price/Book Ratio	2.35	2.39
5 Yr. EPS Growth Rate (%)	14.40	14.76
Current Yield (%)	3.57	3.45
Beta (5 Years, Monthly)	1.02	1.00
Number of Securities	956	2,269

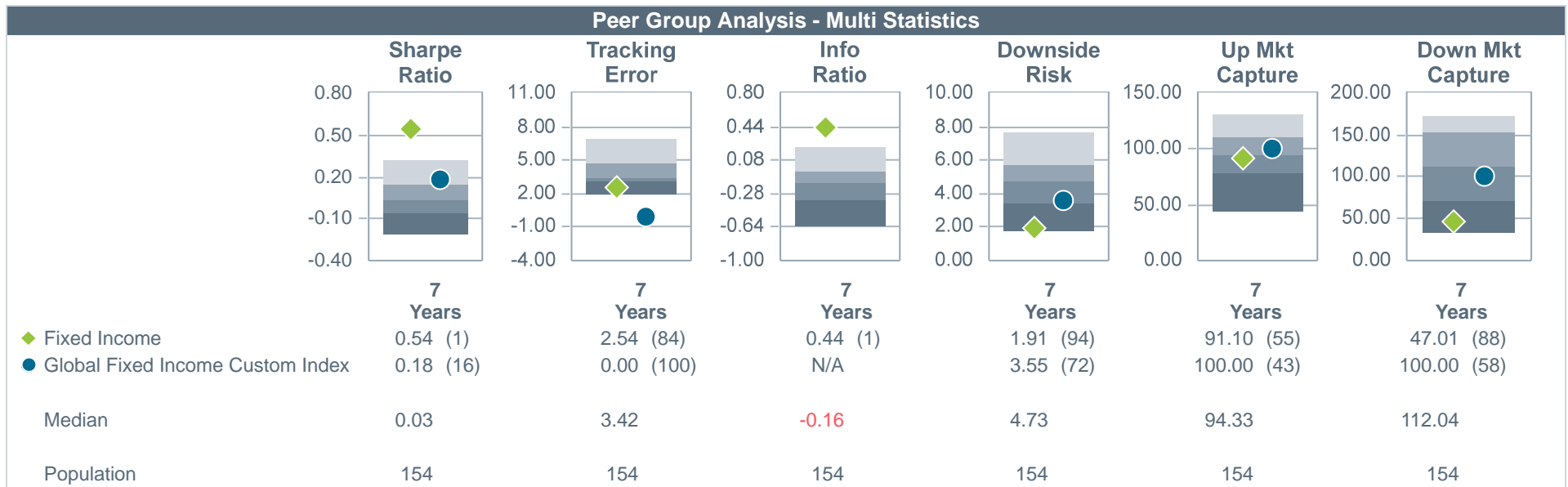
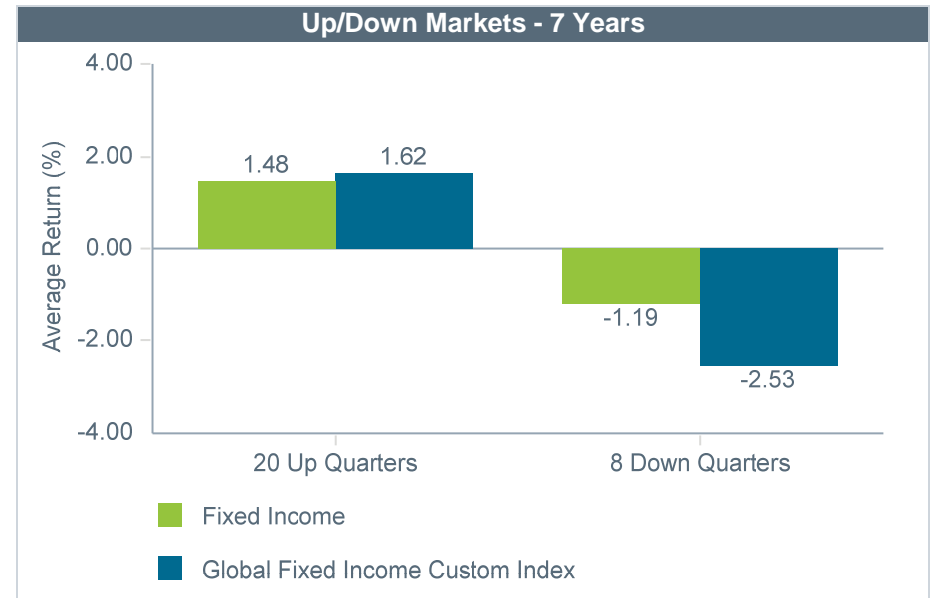
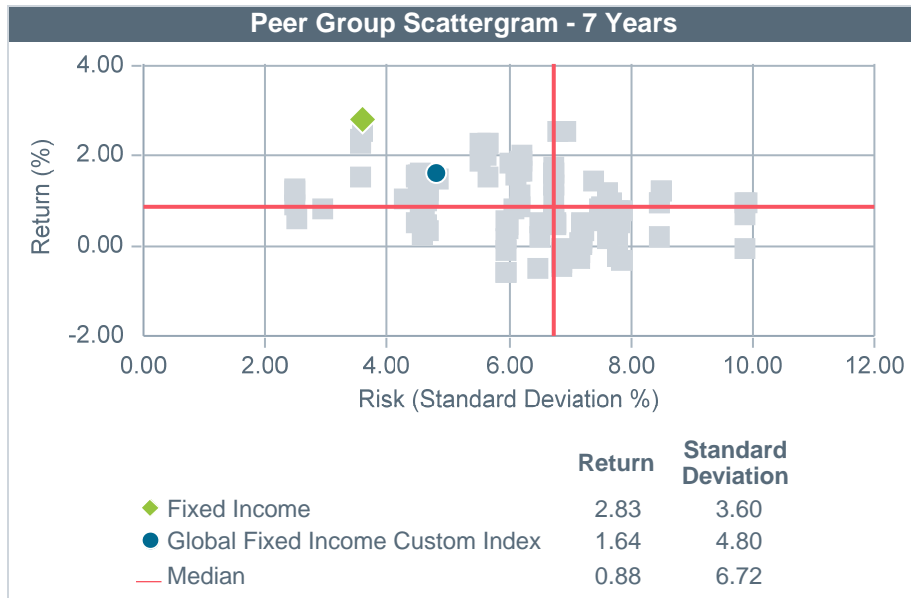


North Dakota Board of University and School Lands
IM Global Fixed Income (MF)
Peer Group Analysis

As of June 30, 2022



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

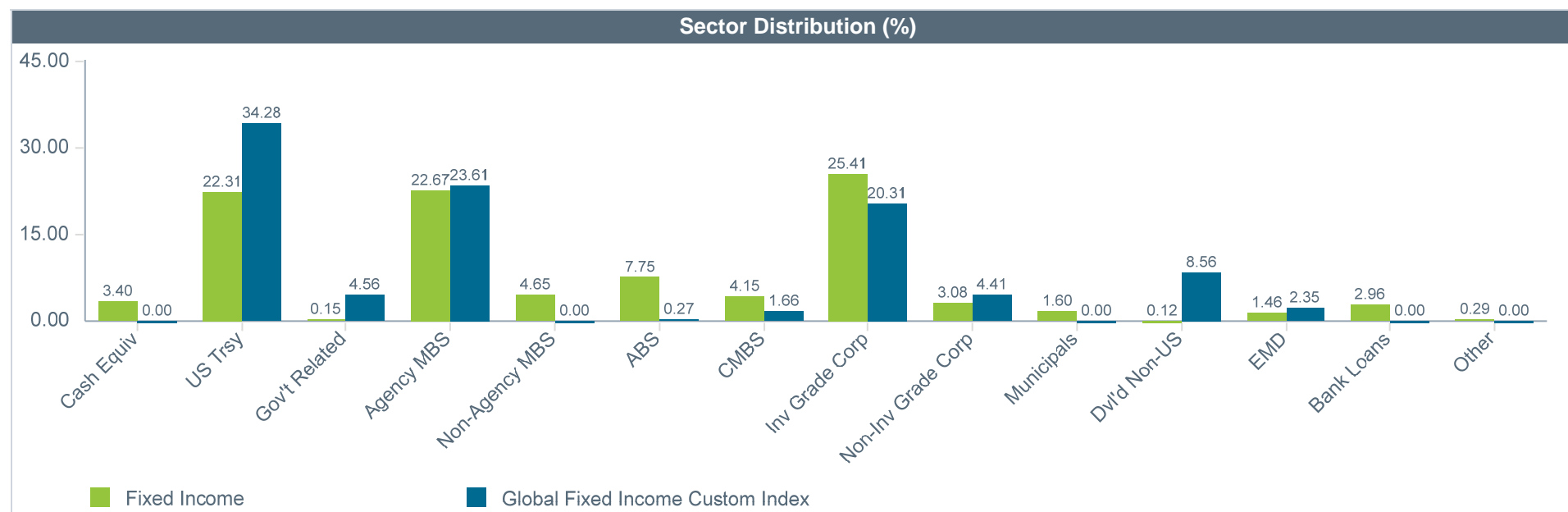


Performance shown is net of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

North Dakota Board of University and School Lands
Fixed Income vs. Global Fixed Income Custom Index
Portfolio Characteristics

As of June 30, 2022

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.90	6.22
Avg. Maturity	8.03	8.45
Avg. Quality	A1	N/A
Coupon Rate (%)	2.92	2.79
Yield To Worst (%)	4.52	4.21
Current Yield (%)	3.33	N/A



FLP Bank Loans, AG Direct Lending Fund III LP, AG Direct Lending Fund IV LP, ND Land - PTF Cash (SA), Schrodgers Flexible Secured Income and Ares Pathfinder Fund LP are excluded from portfolio characteristics and sector distribution. Allocation to "Other" consists of CDOs and Convertibles.

North Dakota Board of University and School Lands
Alternative Investment Private Credit Fund Performance Listing

As of June 30, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
AG Direct Lending Fund III, LP	2018	Private Credit - Direct Lending	150,000,000	138,000,000	73,674,497	111,074,572	11.02	N/A	0.68	1.34
AG Direct Lending Fund IV, LP	2020	Private Credit - Direct Lending	100,000,000	75,648,632	4,060,964	81,915,920	17.35	N/A	-12.15	1.14
Apollo Accord Fund IV, L.P.	2020	Private Credit - Opportunistic Credit	100,000,000	18,500,000	20,139,435	1,921,995	25.21	N/A	-2.36	1.19
Ares Pathfinder Fund, LP	2020	Private Credit - Specialty Finance	100,000,000	45,687,447	1,079,927	54,407,068	30.25	N/A	-12.17	1.21
Owl Rock Diversified Lending 2020 Fund, LP	2020	Private Credit - Distressed/Special Situations	100,000,000	69,859,845	40,432,476	31,082,165	N/M	N/A	N/M	1.02
Varde Dislocation Fund, LP	2020	Private Credit - Distressed/Special Situations	100,000,000	79,500,000	100,849	80,026,232	0.77	N/A	-7.78	1.01
AG Direct Lending BUSL LP	2022	Private Credit - Direct Lending	50,000,000	51,776,388	0	52,315,536	N/M	N/A	N/M	1.01
			700,000,000	478,972,312	139,488,148	412,743,488	11.24		-3.75	1.15

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 Barclays US Agg Bond 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. The Paid In Capital value for AG Direct Lending BUSL LP is funded by AG Direct Lending Fund III LP and AG Direct Lending Fund IV LP which does not contribute to the commitment total.



North Dakota Board of University and School Lands
Alternative Investment Private Equity Fund Performance Listing

As of June 30, 2022

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Grosvenor - BUSL, LP	2021	Private Equity - Multi-Stage	130,000,000	25,896,425	1,410,637	27,452,087	15.14	N/A	-16.15	1.11
Grosvenor Secondary Opportunities Fund III, LP	2021	Private Equity - Fund of Funds	150,000,000	21,730,018	0	22,363,164	N/M	N/A	N/M	1.03
			280,000,000	47,626,443	1,410,637	49,815,251	11.30		-24.47	1.08

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 Russell 3000 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.



Investment Manager Profiles



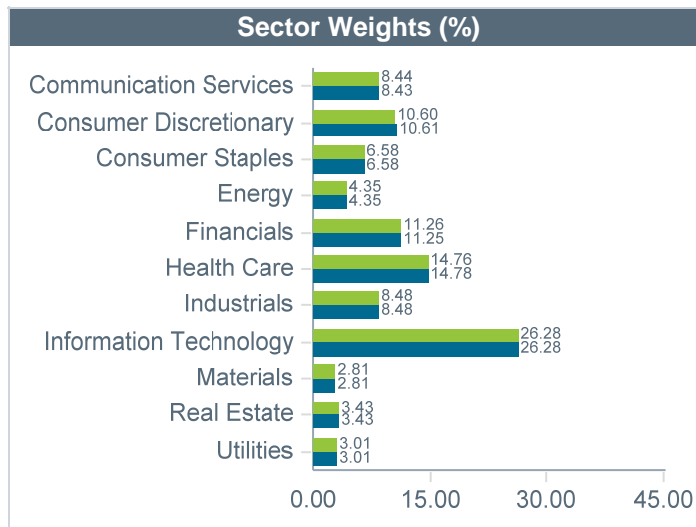
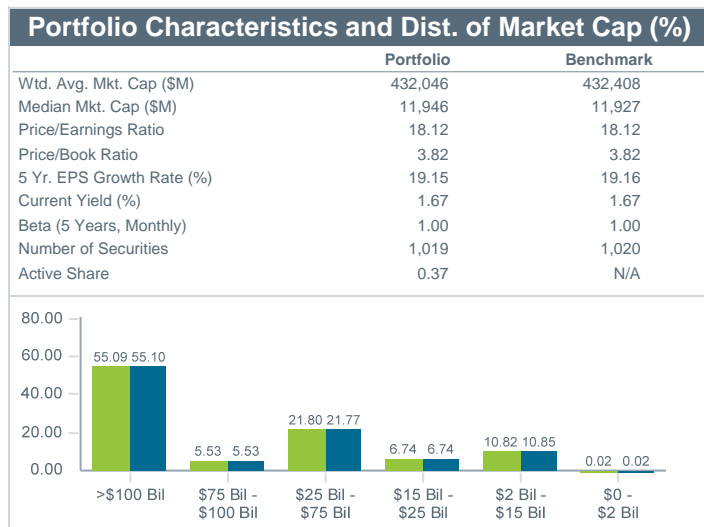
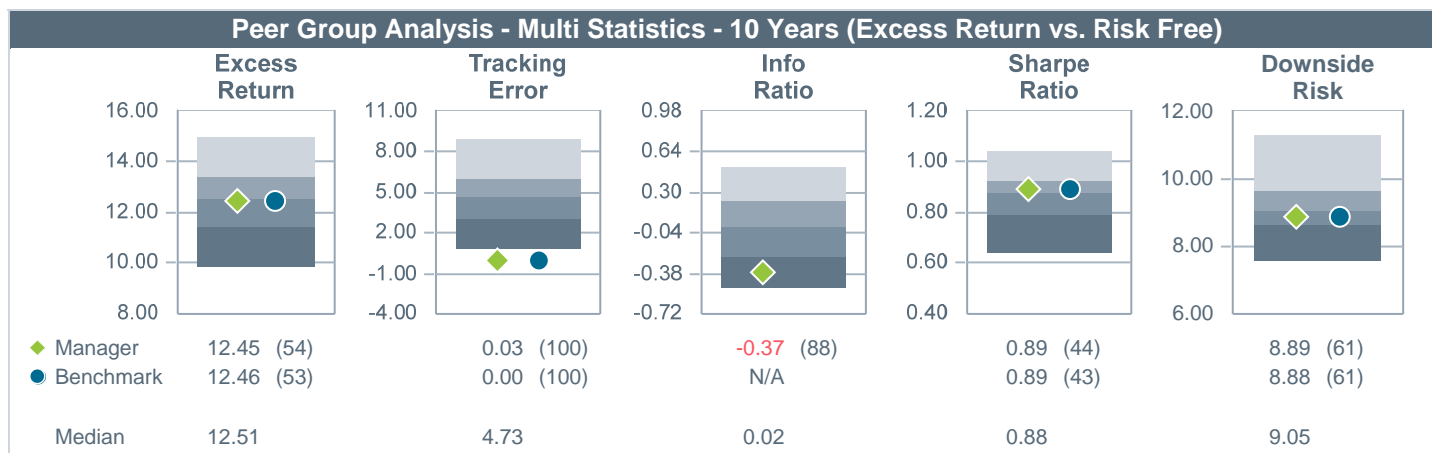
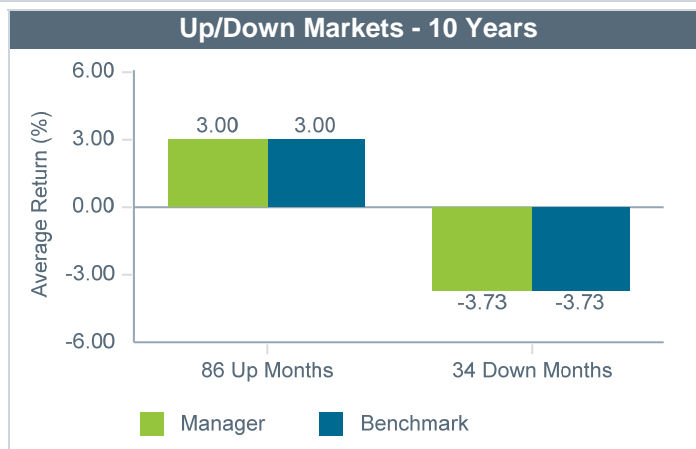
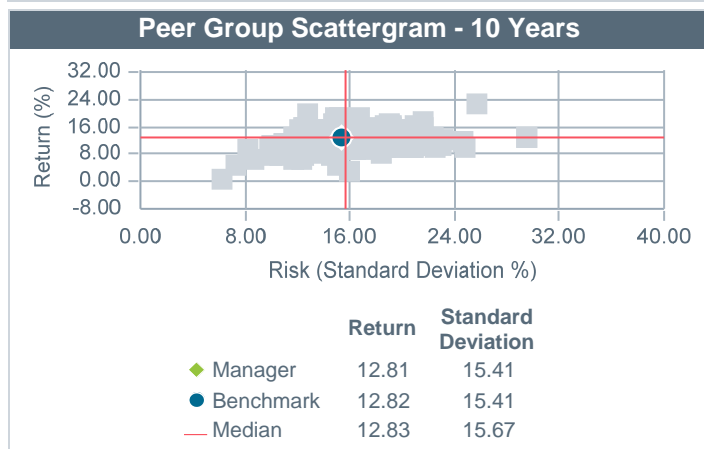
Manager: State Street Russell 1000 Index Lending (CF)

As of June 30, 2022

Benchmark: Russell 1000 Index

Peer Group: IM U.S. Large Cap Equity (SA+CF)

	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-16.68	-13.06	10.15	10.98	10.77	12.81	26.45	20.91	31.42	-4.77	21.70
Benchmark	-16.67	-13.04	10.17	11.00	10.78	12.82	26.45	20.96	31.43	-4.78	21.69
Difference	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	0.00	-0.05	-0.01	0.01	0.01
Peer Group Median	-15.59	-10.63	9.77	10.92	10.53	12.83	27.38	18.37	30.44	-4.84	21.82
Rank	68	65	45	49	47	52	57	38	41	49	52
Population	759	758	740	728	698	644	795	871	944	1,008	1,050



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

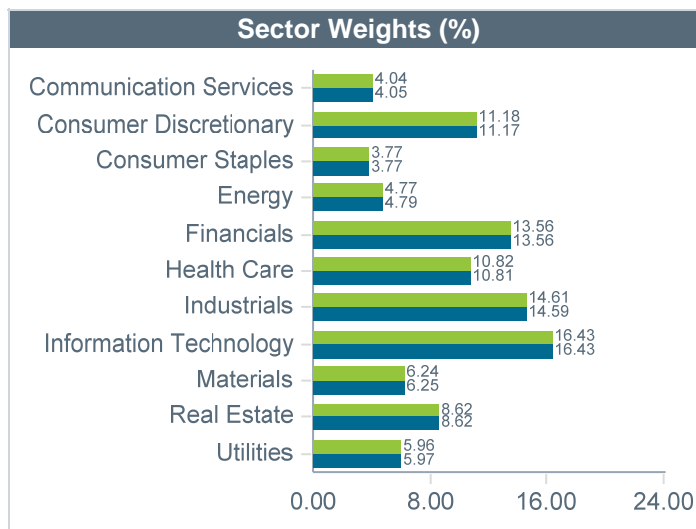
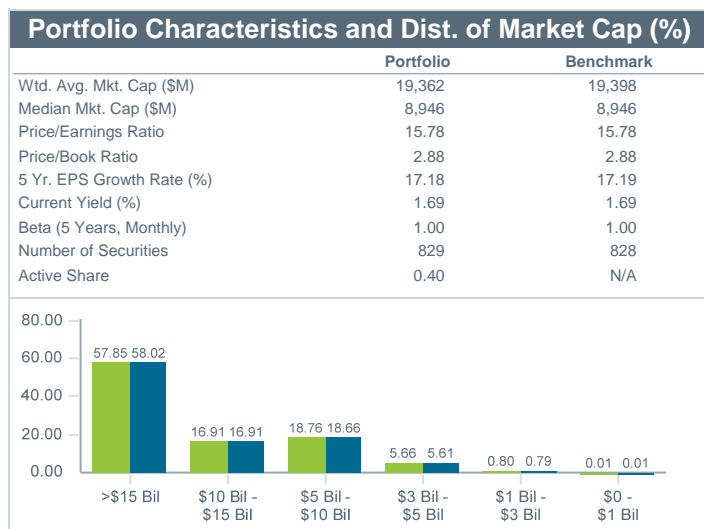
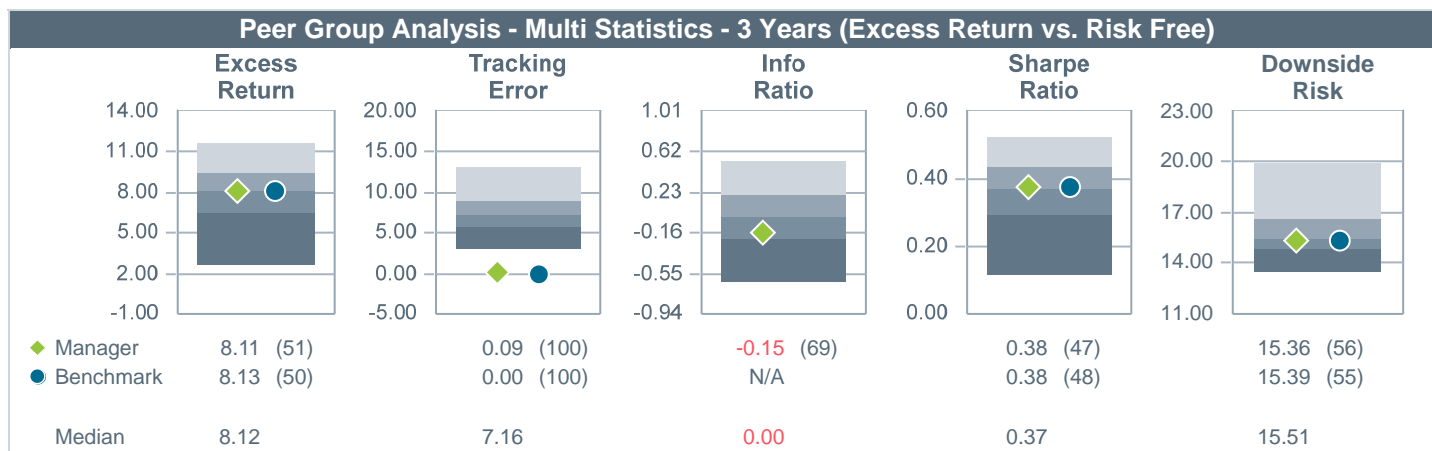
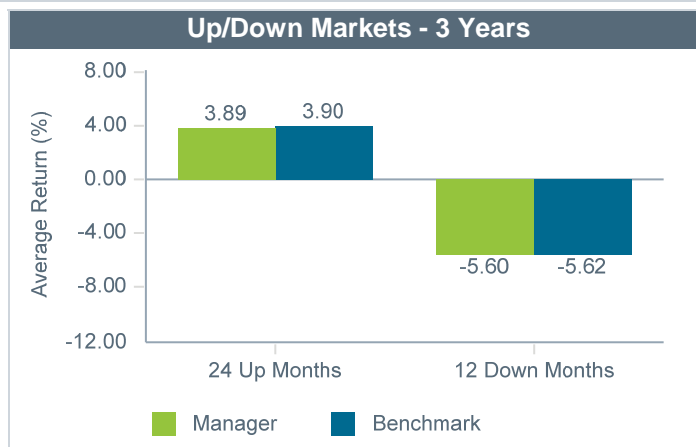
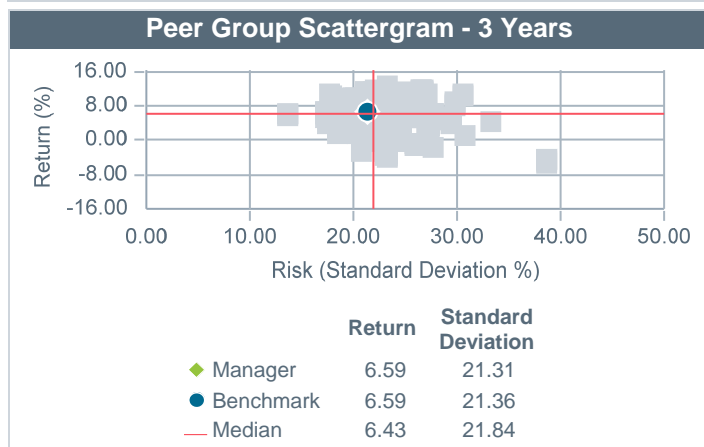
Manager: State Street Russell Mid Cap Index (SA)

As of June 30, 2022

Benchmark: Russell Mid Cap Index

Peer Group: IM U.S. Mid Cap Equity (MF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-16.80	-17.22	6.59	7.96	N/A	N/A	22.58	17.05	30.38	-8.97	N/A
Benchmark	-16.85	-17.30	6.59	7.96	8.04	11.29	22.58	17.10	30.54	-9.06	18.52
Difference	0.05	0.08	0.00	0.00	N/A	N/A	0.00	-0.05	-0.16	0.09	N/A
Peer Group Median	-14.80	-12.74	6.43	7.38	7.26	10.32	23.91	10.79	29.85	-10.90	17.00
Rank	62	62	47	40	N/A	N/A	54	44	45	38	N/A
Population	745	715	671	619	536	451	725	724	749	785	759



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

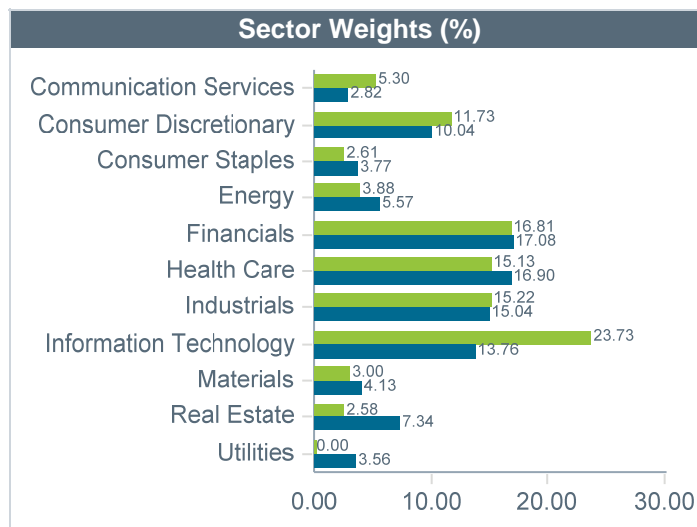
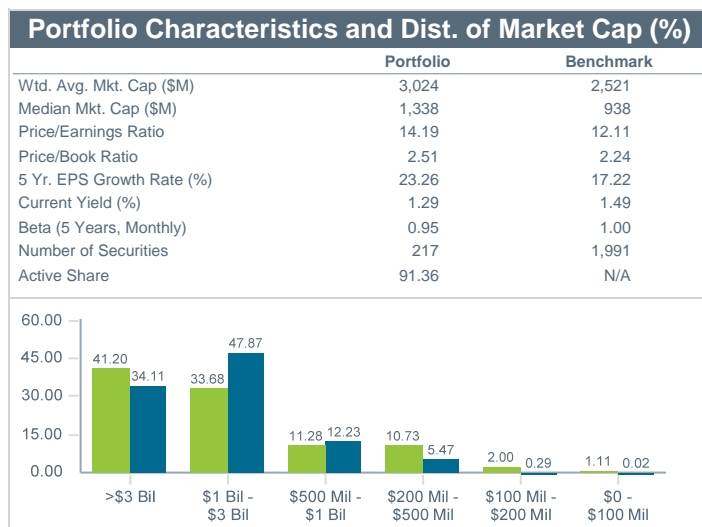
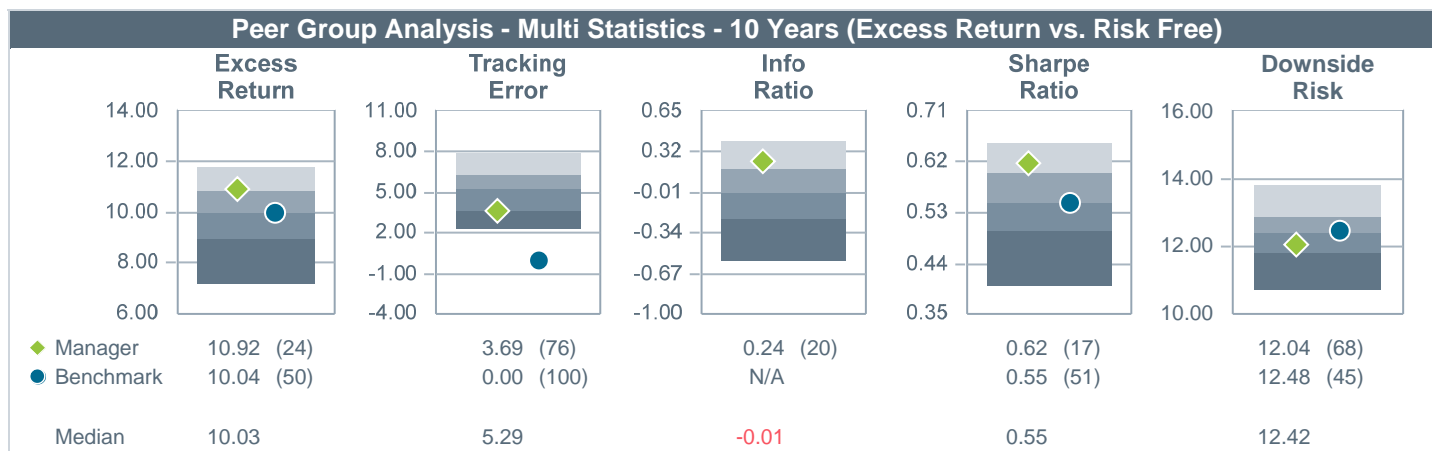
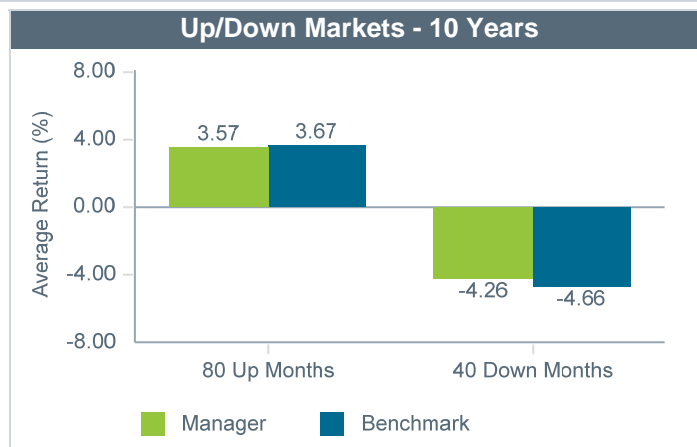
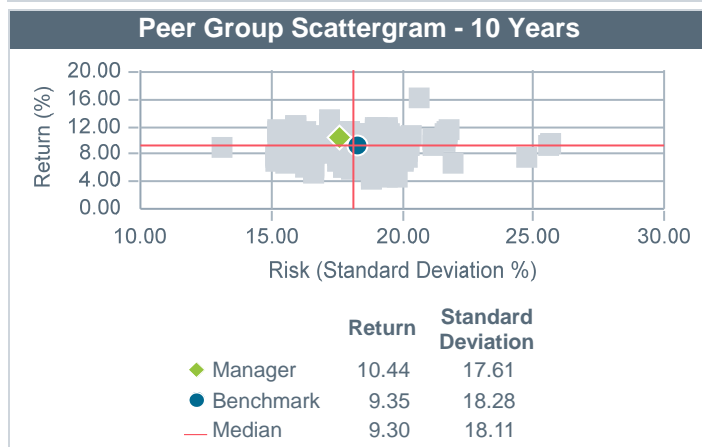
Manager: NT Small Cap Core (SA)

As of June 30, 2022

Benchmark: Russell 2000 Index

Peer Group: IM U.S. Small Cap Core Equity (MF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-15.53	-20.93	6.32	7.89	8.11	10.44	18.76	23.90	23.13	-7.63	21.82
Benchmark	-17.20	-25.20	4.21	5.17	5.91	9.35	14.82	19.96	25.53	-11.01	14.65
Difference	1.67	4.27	2.11	2.72	2.20	1.09	3.94	3.94	-2.40	3.38	7.17
Peer Group Median	-14.56	-15.84	5.77	5.49	6.01	9.30	25.12	9.89	23.94	-12.71	12.09
Rank	66	80	42	7	10	21	83	6	59	7	2
Population	696	686	658	603	499	412	701	720	740	775	773

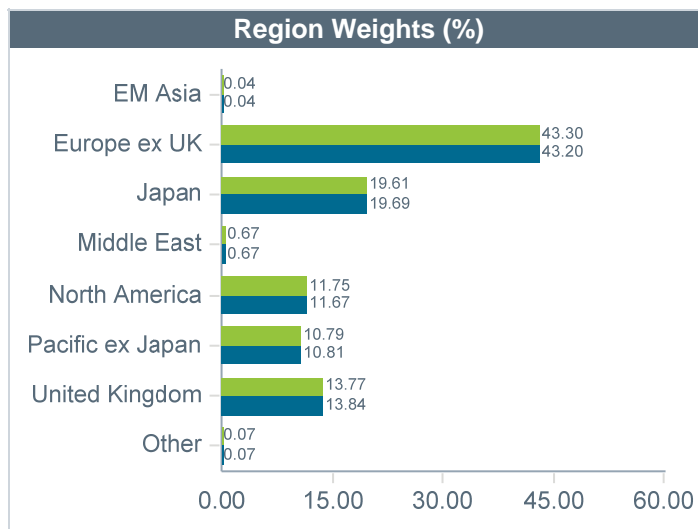
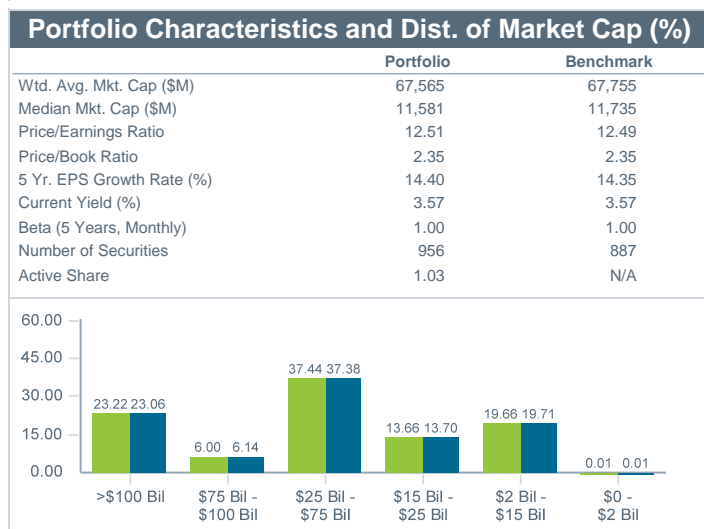
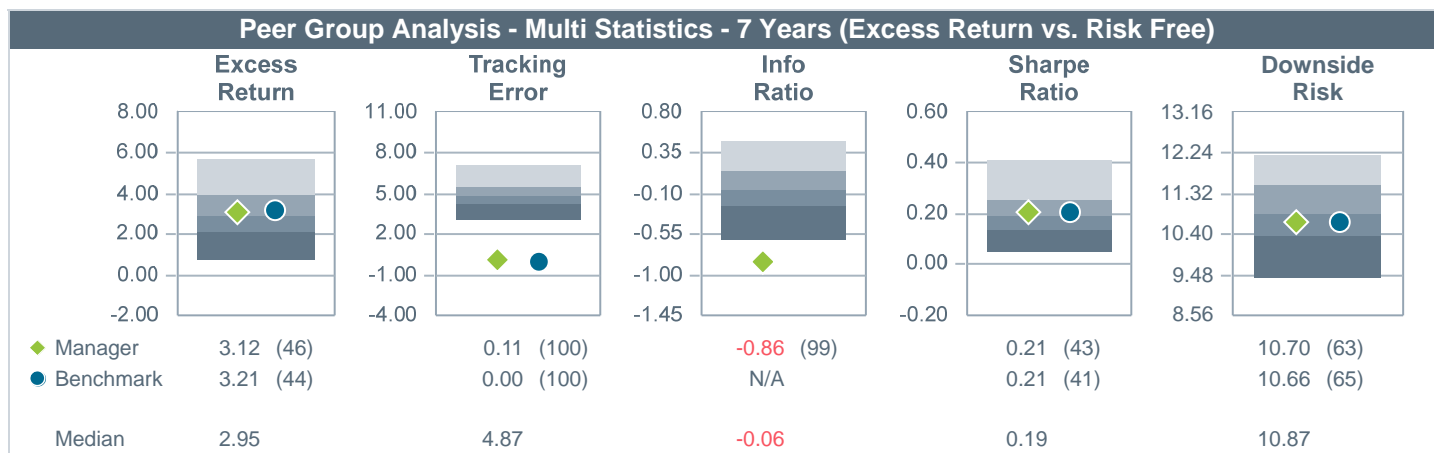
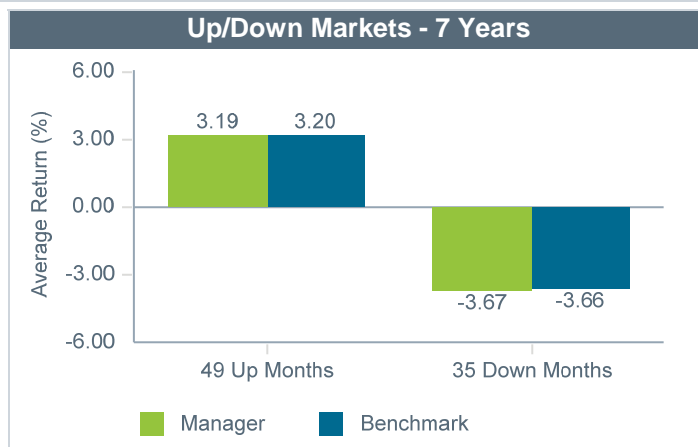
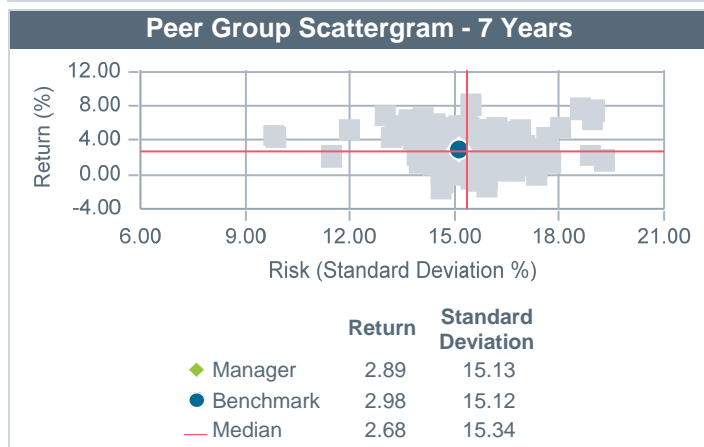


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Manager: State Street World Ex US Index (CF)
Benchmark: MSCI Wrld Ex US Index (USD) (Net)
Peer Group: IM International Large Cap Equity (MF)

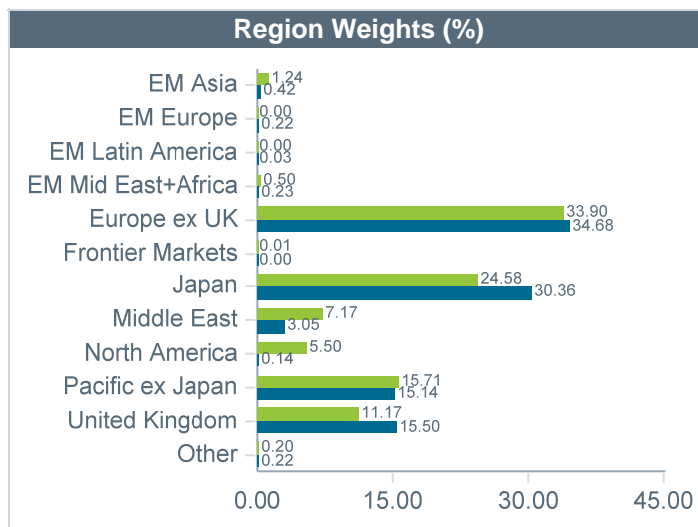
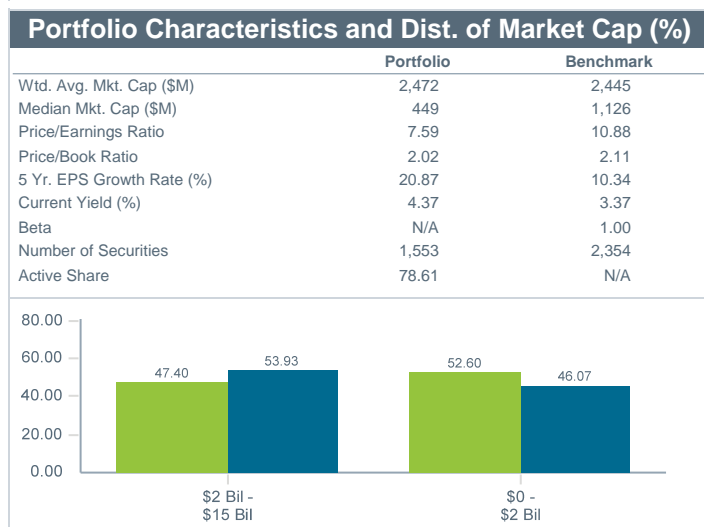
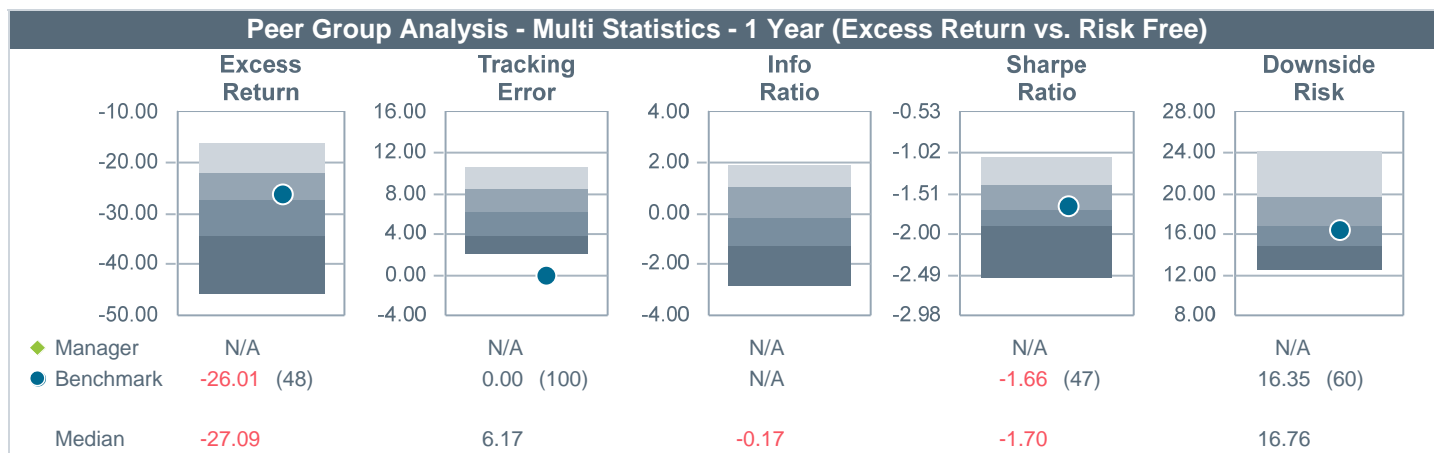
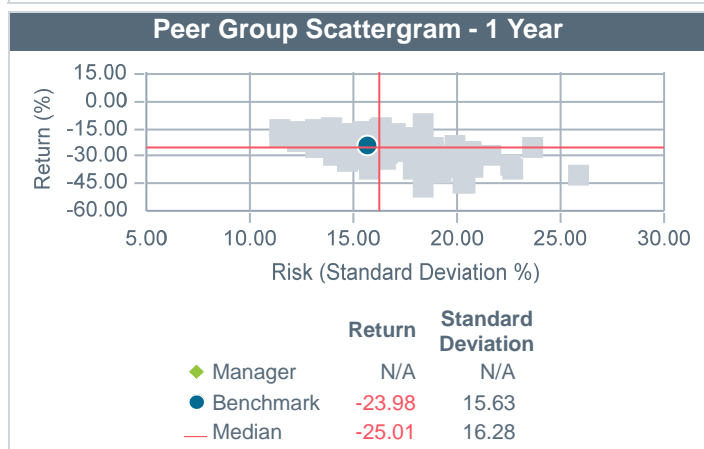
As of June 30, 2022

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-14.90	-16.98	1.58	2.56	2.89	N/A	12.63	7.52	22.38	-14.16	24.15
Benchmark	-14.66	-16.76	1.70	2.66	2.98	5.37	12.62	7.59	22.49	-14.09	24.21
Difference	-0.24	-0.22	-0.12	-0.10	-0.09	N/A	0.01	-0.07	-0.11	-0.07	-0.06
Peer Group Median	-13.84	-20.52	1.96	2.65	2.68	5.20	9.70	15.36	26.23	-15.06	26.47
Rank	70	22	59	52	44	N/A	22	81	71	37	74
Population	571	553	482	440	370	313	549	527	500	494	462



Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of Luxembourg.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-17.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-17.69	-23.98	1.12	1.72	3.73	7.18	10.10	12.34	24.96	-17.89	33.01
Difference	0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-17.28	-25.01	1.59	2.23	3.70	7.36	12.83	13.69	23.23	-19.00	34.38
Rank	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	99	97	88	77	68	49	98	105	105	107	107



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

Manager: State Street World Ex US Small Cap Index (CF)

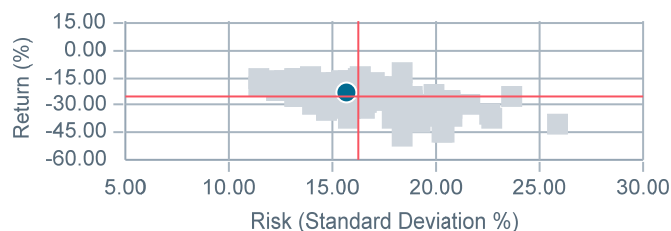
As of June 30, 2022

Benchmark: MSCI Wld Ex US Sm Cap Index (USD) (Net)

Peer Group: IM International Small Cap Equity (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-17.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-17.94	-23.02	1.97	2.16	3.87	6.70	11.14	12.78	25.41	-18.07	31.04
Difference	0.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-17.28	-25.01	1.59	2.23	3.70	7.36	12.83	13.69	23.23	-19.00	34.38
Rank	66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	99	97	88	77	68	49	98	105	105	107	107

Peer Group Scattergram - 1 Year

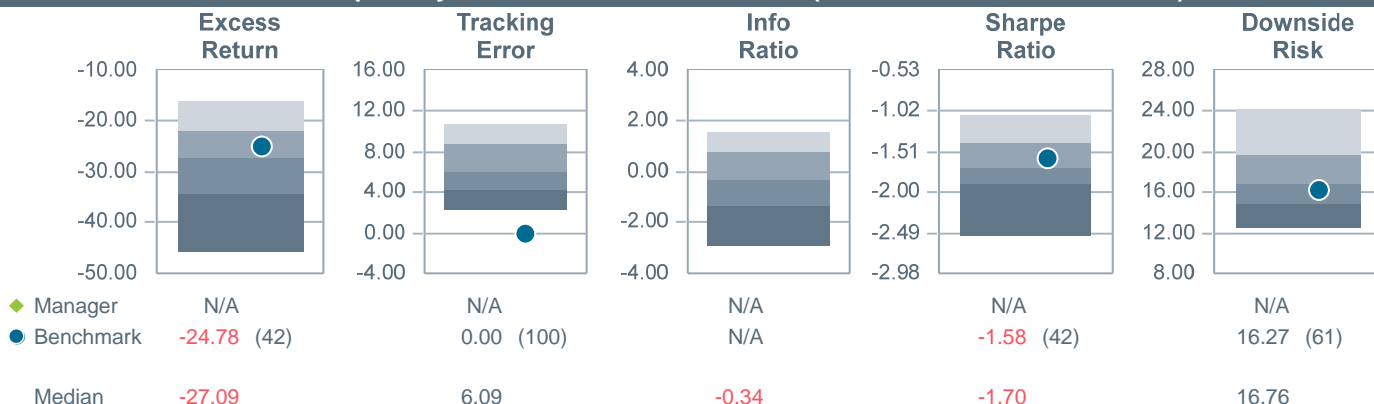


	Return	Standard Deviation
◆ Manager	N/A	N/A
● Benchmark	-23.02	15.69
— Median	-25.01	16.28

Up/Down Markets - 1 Year

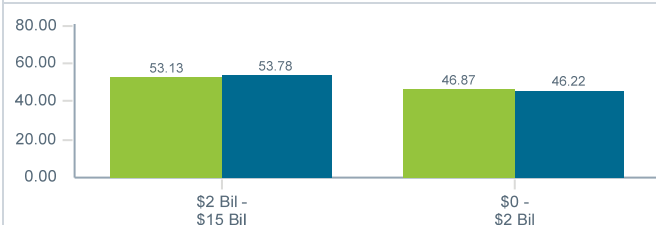
Data is currently unavailable.

Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)

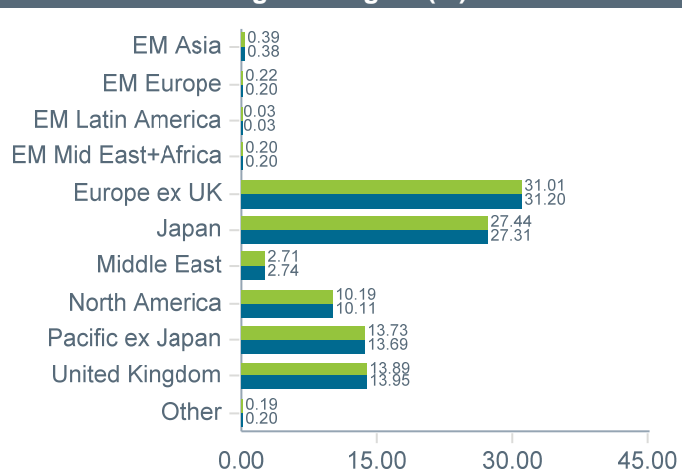


Portfolio Characteristics and Dist. of Market Cap (%)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,413	2,437
Median Mkt. Cap (\$M)	1,118	1,121
Price/Earnings Ratio	10.42	10.42
Price/Book Ratio	2.09	2.09
5 Yr. EPS Growth Rate (%)	10.92	10.96
Current Yield (%)	3.25	3.25
Beta	N/A	1.00
Number of Securities	2,640	2,590
Active Share	2.91	N/A

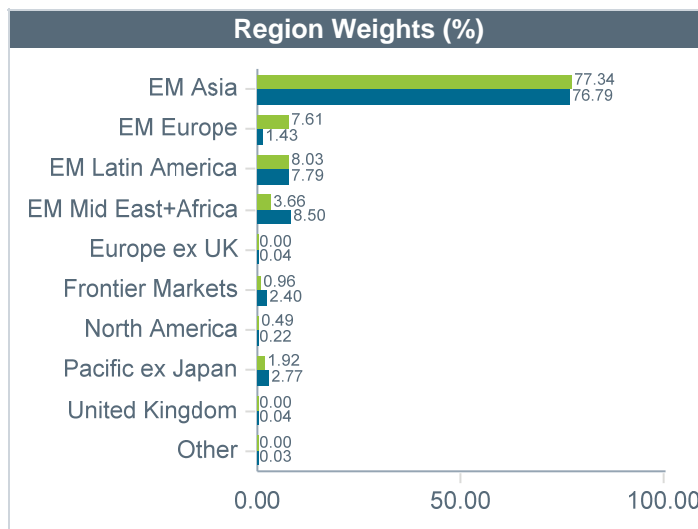
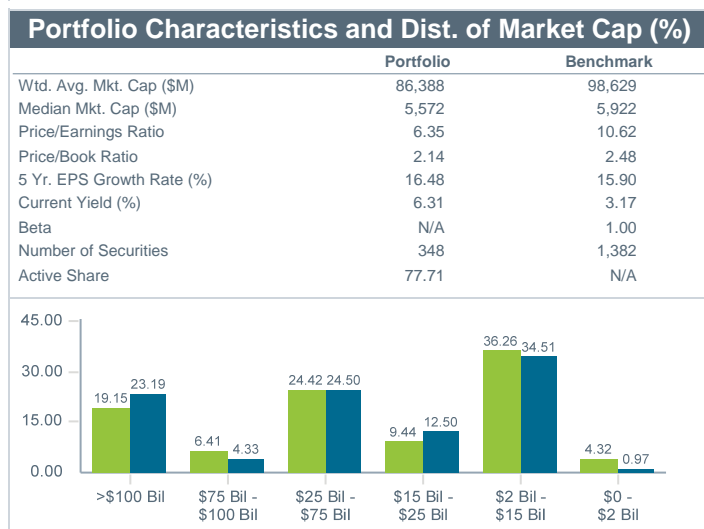
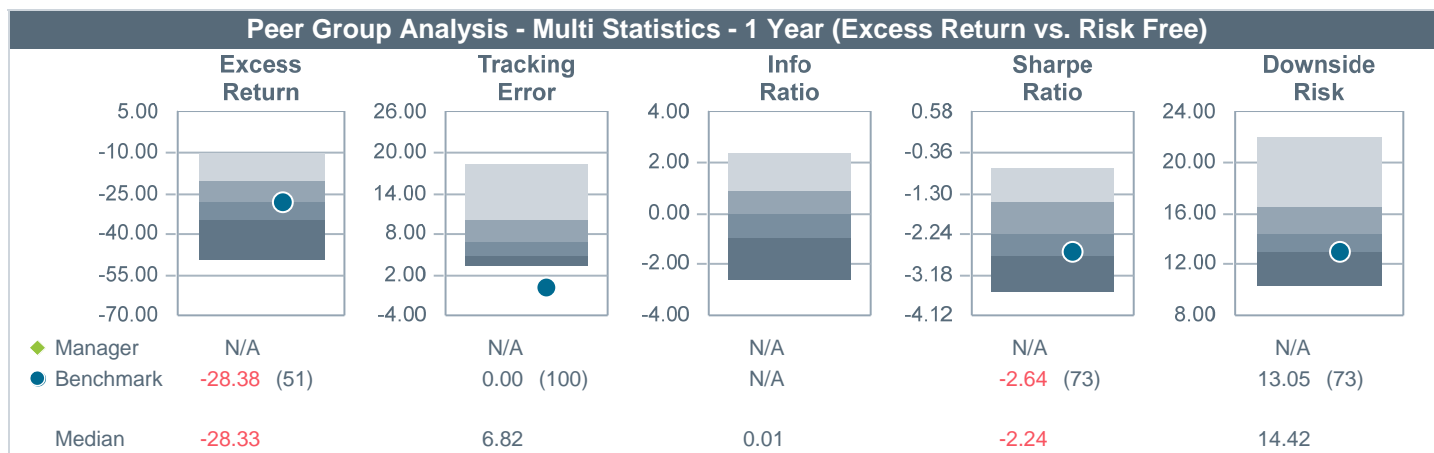
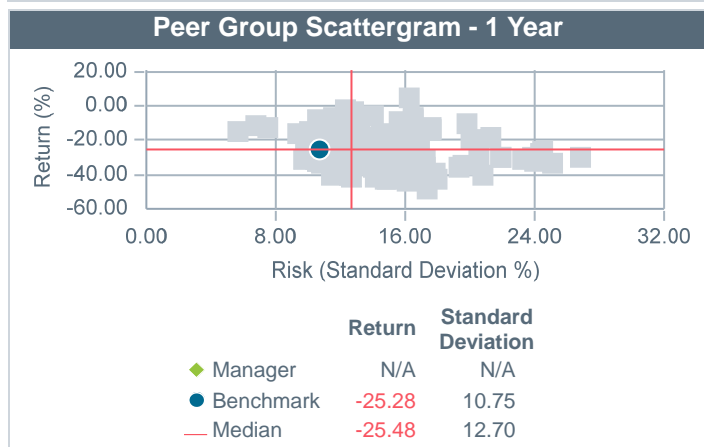


Region Weights (%)



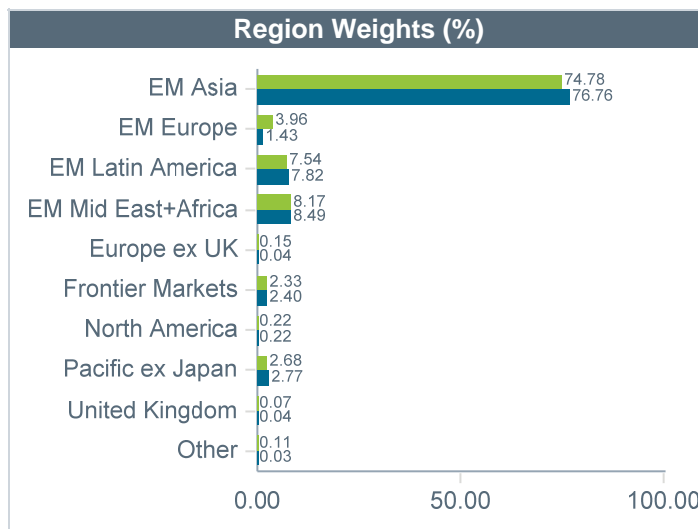
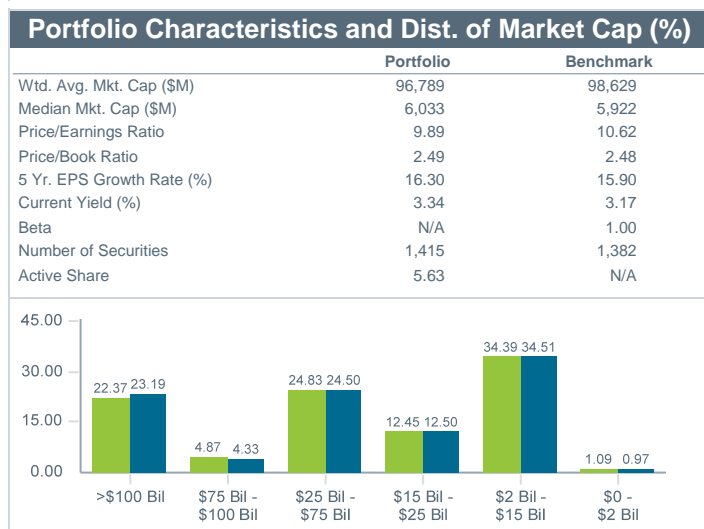
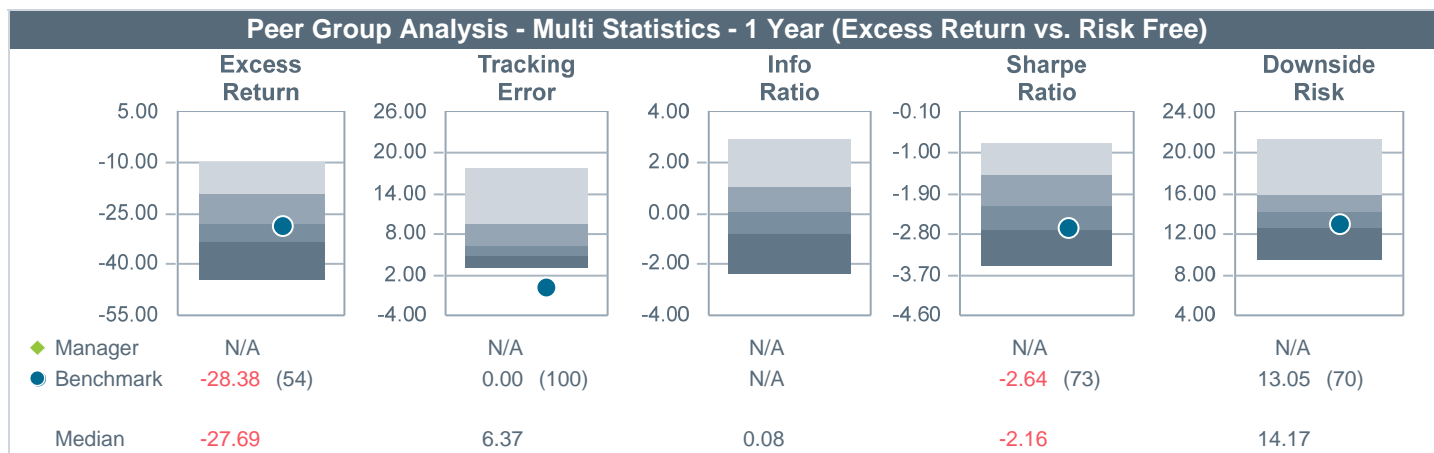
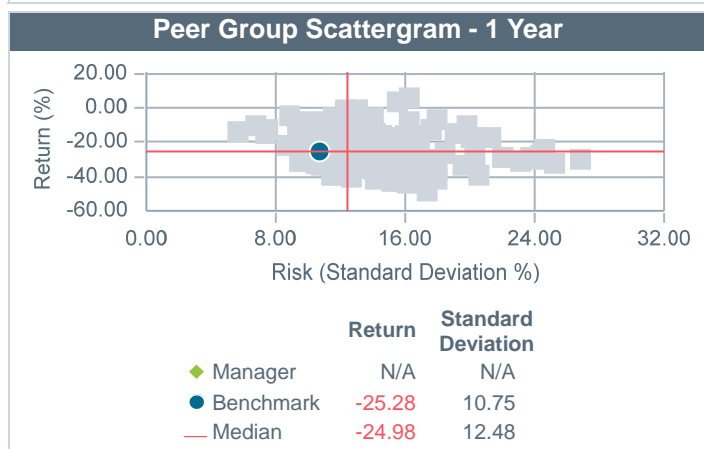
Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-14.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-11.45	-25.28	0.57	2.18	2.79	3.06	-2.54	18.31	18.44	-14.58	37.28
Difference	-2.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-12.46	-25.48	0.88	2.27	3.10	3.62	0.19	19.55	19.57	-16.21	35.97
Rank	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	220	218	201	165	149	110	225	238	254	248	244



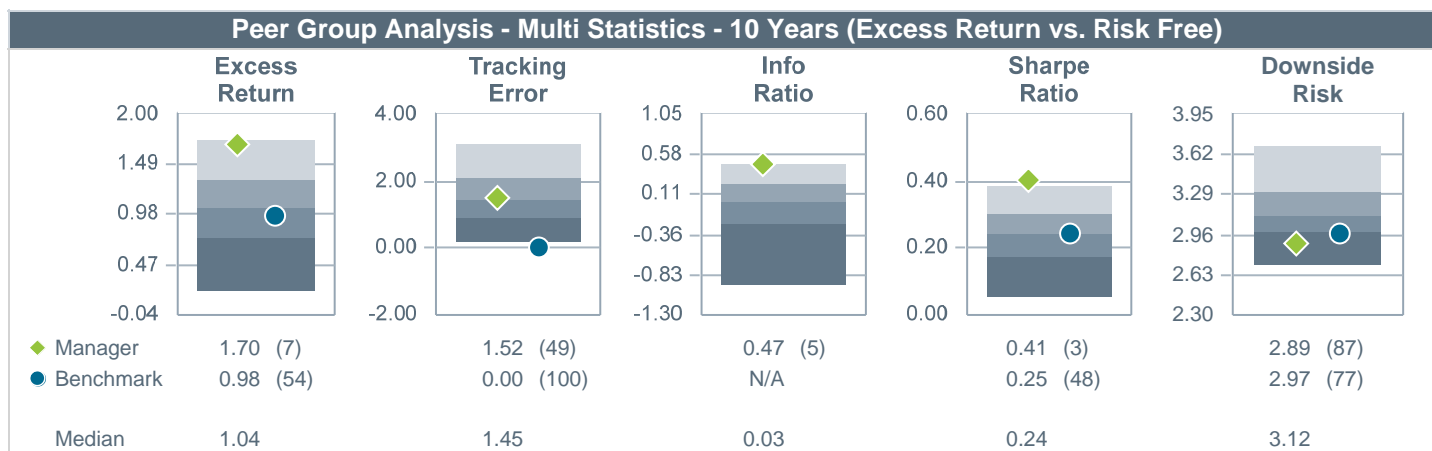
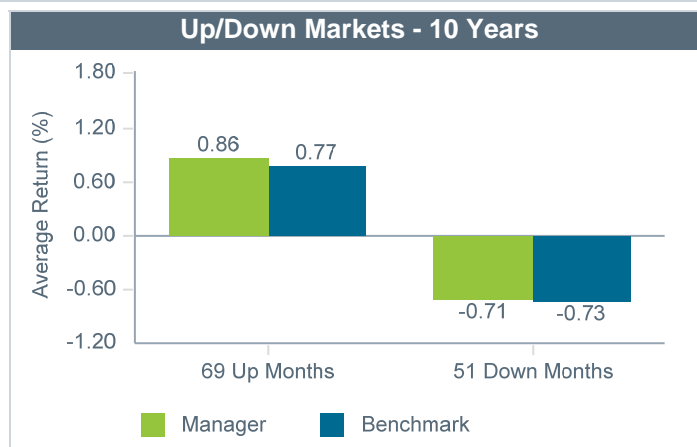
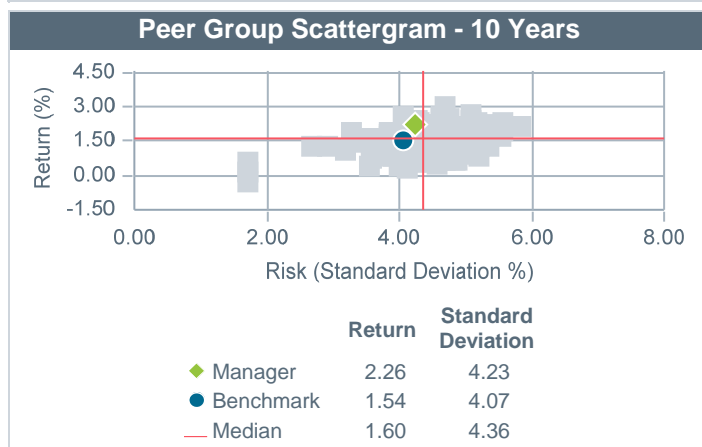
Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-10.71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-11.45	-25.28	0.57	2.18	2.79	3.06	-2.54	18.31	18.44	-14.58	37.28
Difference	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-12.46	-25.48	0.88	2.27	3.10	3.62	0.19	19.55	19.57	-16.21	35.97
Rank	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	220	218	201	165	149	110	225	238	254	248	244

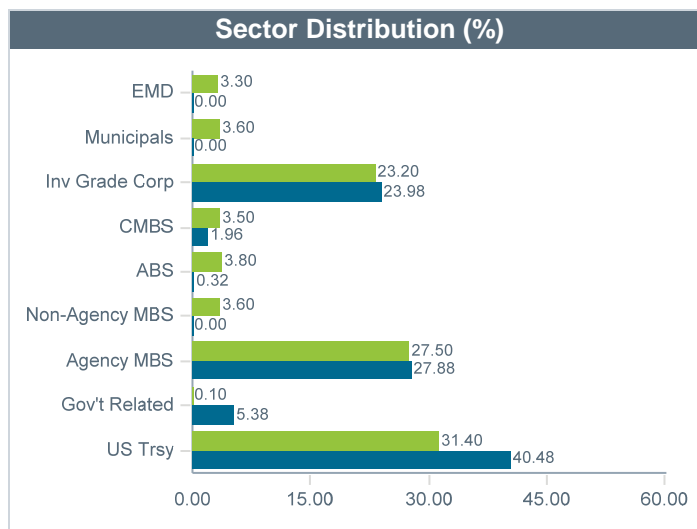


Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-4.87	-9.98	-0.55	1.38	2.04	2.26	-0.69	7.58	9.42	0.16	4.99
Benchmark	-4.69	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	0.01	3.54
Difference	-0.18	0.31	0.39	0.50	0.62	0.72	0.86	0.07	0.70	0.15	1.45
Peer Group Median	-5.35	-11.17	-0.93	0.80	1.37	1.60	-1.33	8.15	8.76	-0.62	3.60
Rank	23	13	24	9	6	6	21	71	29	11	6
Population	516	504	476	437	386	317	511	508	529	523	513



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	6.24	6.44
Spread Duration	4.15	N/A
Avg. Maturity	8.86	8.63
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	4.28	3.72
Coupon Rate (%)	2.95	2.49
Current Yield (%)	3.11	N/A
Holdings Count	274	12,563



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

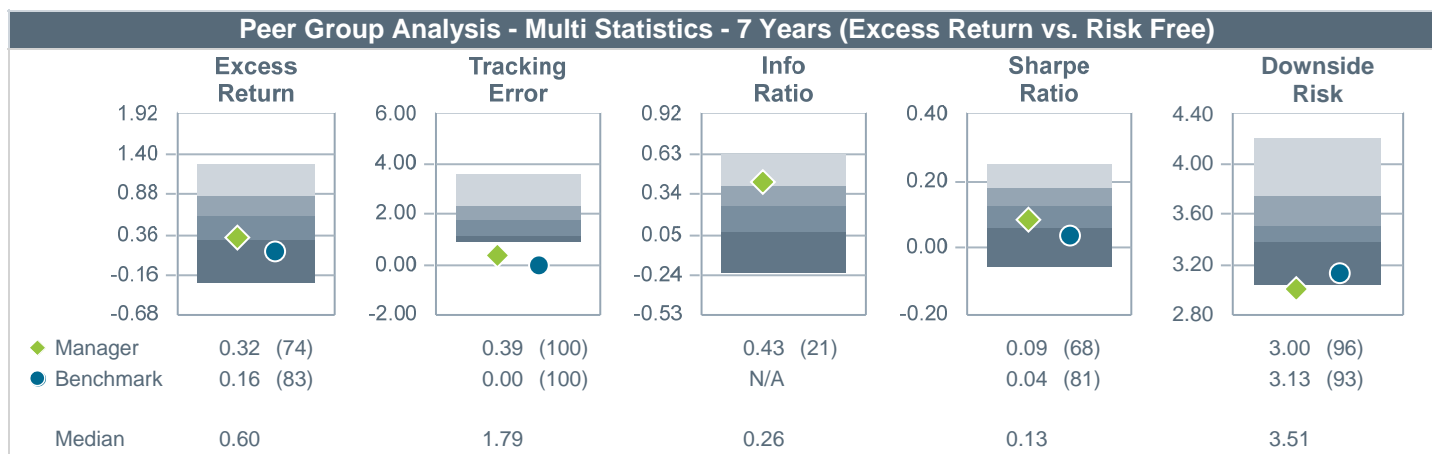
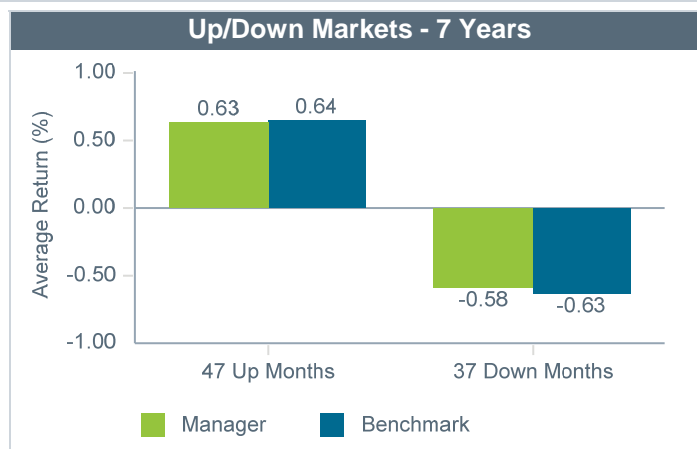
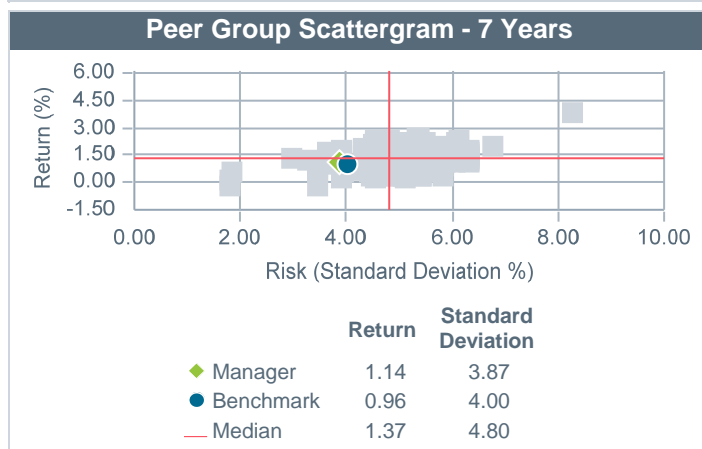
Manager: JP Morgan Core Bond (SA)

As of June 30, 2022

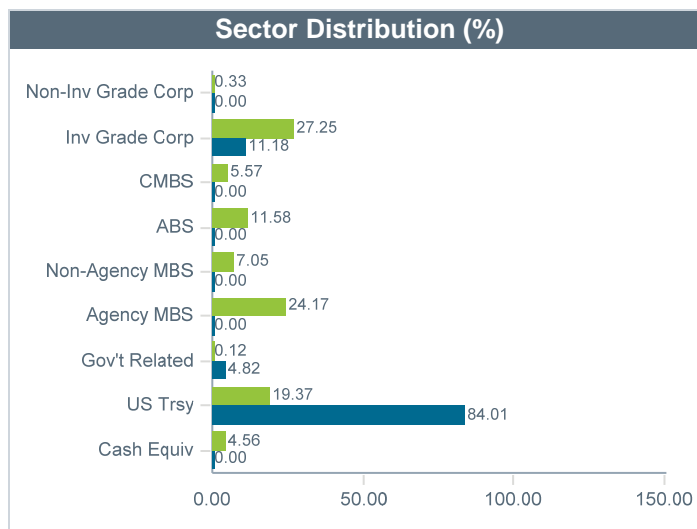
Benchmark: JP Morgan FI Custom Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-4.54	-9.87	-0.95	0.72	1.14	N/A	-0.28	6.31	6.70	1.01	2.71
Benchmark	-4.69	-10.29	-1.14	0.54	0.96	1.15	-0.48	6.43	6.80	0.88	2.14
Difference	0.15	0.42	0.19	0.18	0.18	N/A	0.20	-0.12	-0.10	0.13	0.57
Peer Group Median	-5.35	-11.17	-0.93	0.80	1.37	1.60	-1.33	8.15	8.76	-0.62	3.60
Rank	11	11	52	59	70	N/A	11	93	93	3	89
Population	516	504	476	437	386	317	511	508	529	523	513



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.99	1.08
Spread Duration	3.66	1.10
Avg. Maturity	7.53	1.12
Avg. Quality	Aa3	Aa1
Yield To Maturity (%)	4.31	2.45
Coupon Rate (%)	2.39	N/A
Current Yield (%)	3.16	N/A
Holdings Count	2,783	1,745



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

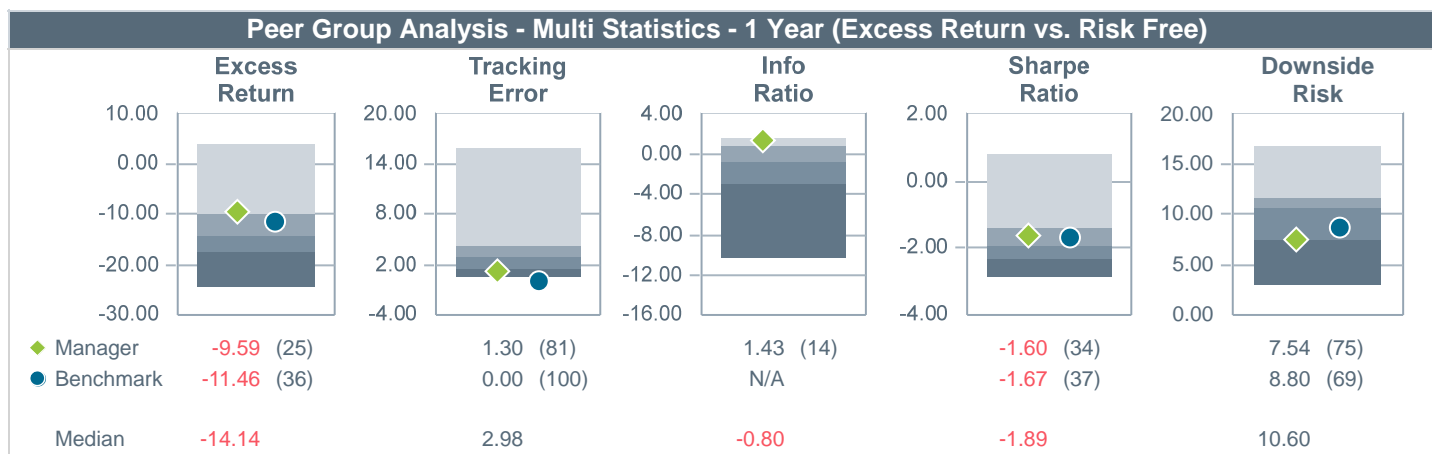
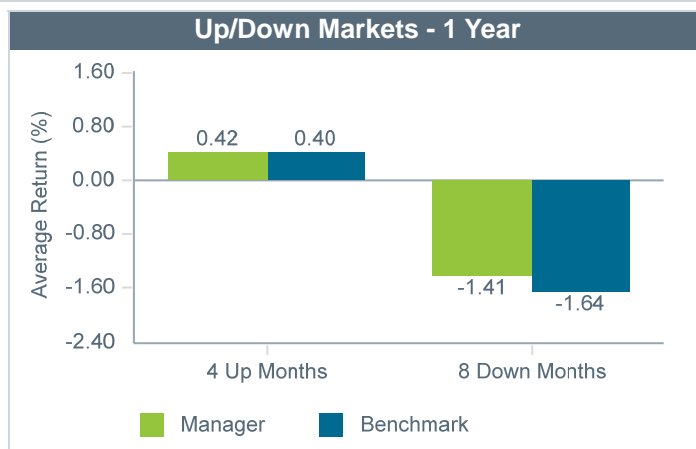
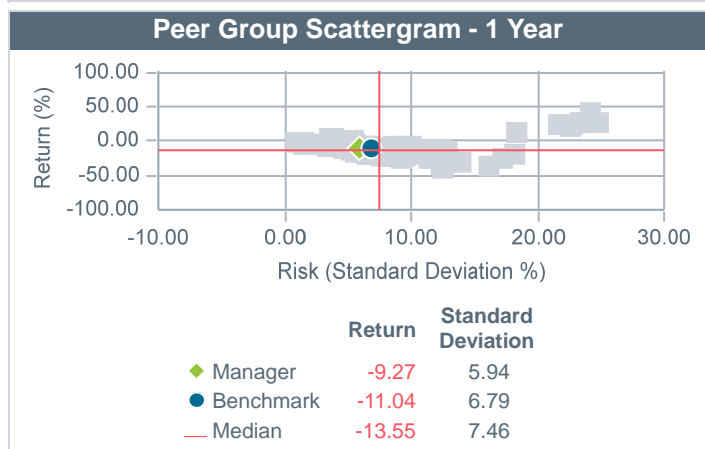
Manager: Loomis Sayles Credit Asset (SA)

As of June 30, 2022

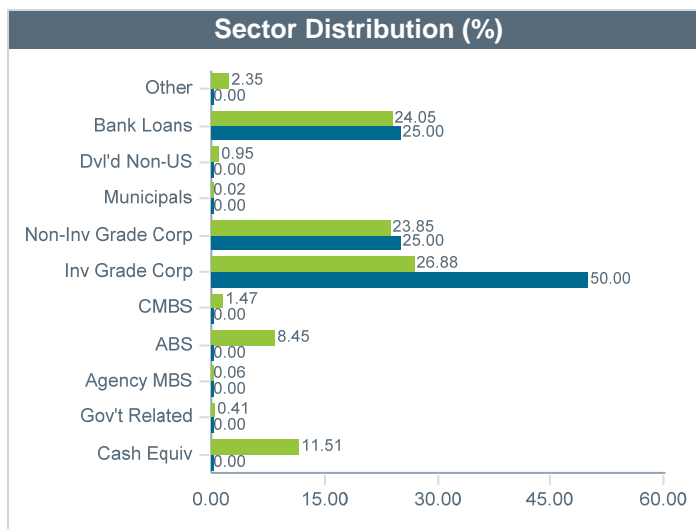
Benchmark: Loomis Sayles CA Custom Index

Peer Group: IM Global Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-6.58	-9.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	-7.17	-11.04	0.13	1.94	2.91	3.40	2.07	7.54	13.03	-1.64	6.11
Difference	0.59	1.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	-9.02	-13.50	-0.45	1.55	2.42	2.33	0.36	8.54	9.49	-1.81	7.67
Rank	26	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	190	190	186	180	175	150	207	225	238	254	263



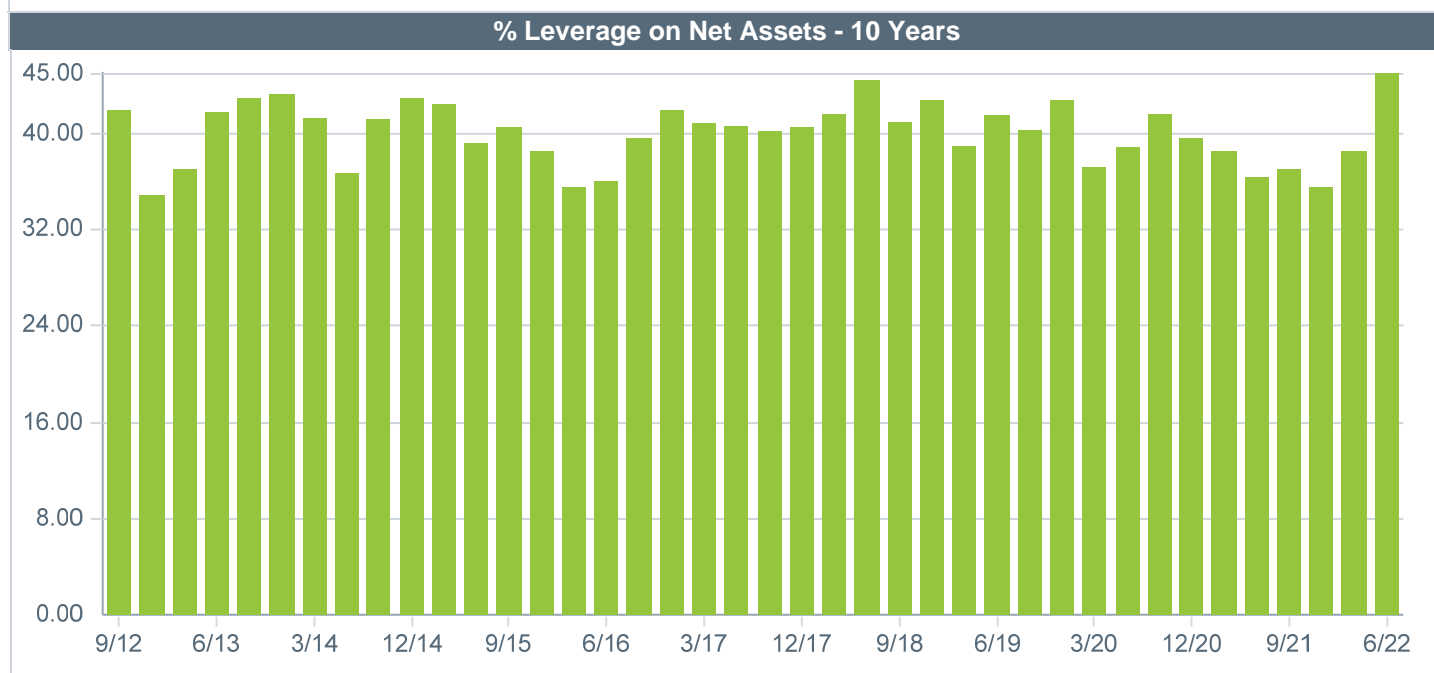
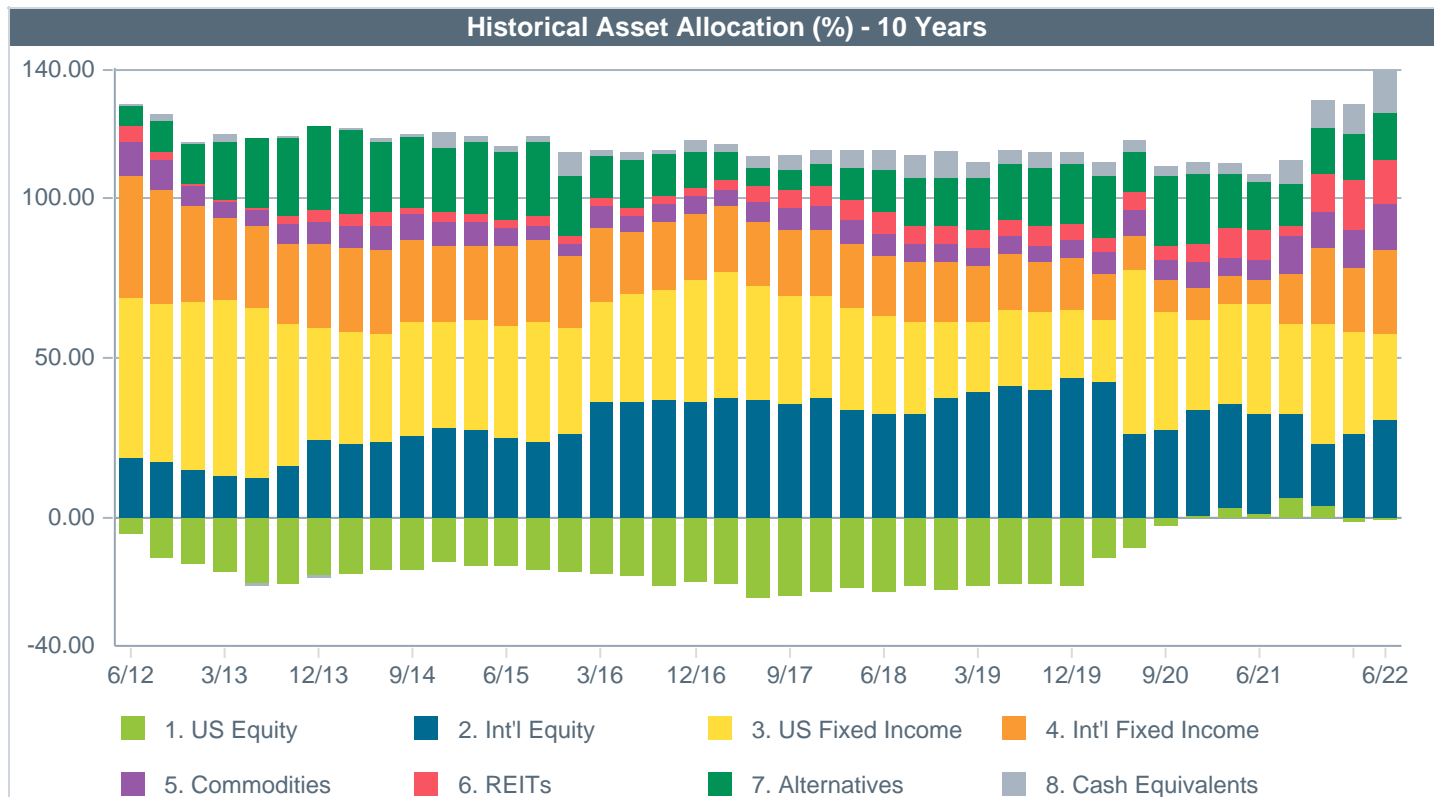
Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.36	N/A
Spread Duration	5.34	N/A
Avg. Maturity	6.84	8.41
Avg. Quality	Baa3	Ba1
Yield To Maturity (%)	6.10	5.60
Coupon Rate (%)	4.65	4.11
Current Yield (%)	4.75	N/A
Holdings Count	983	10,794



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Insufficient return data to calculate return statistic. Allocation to "Other" consists of Convertibles and CDO.

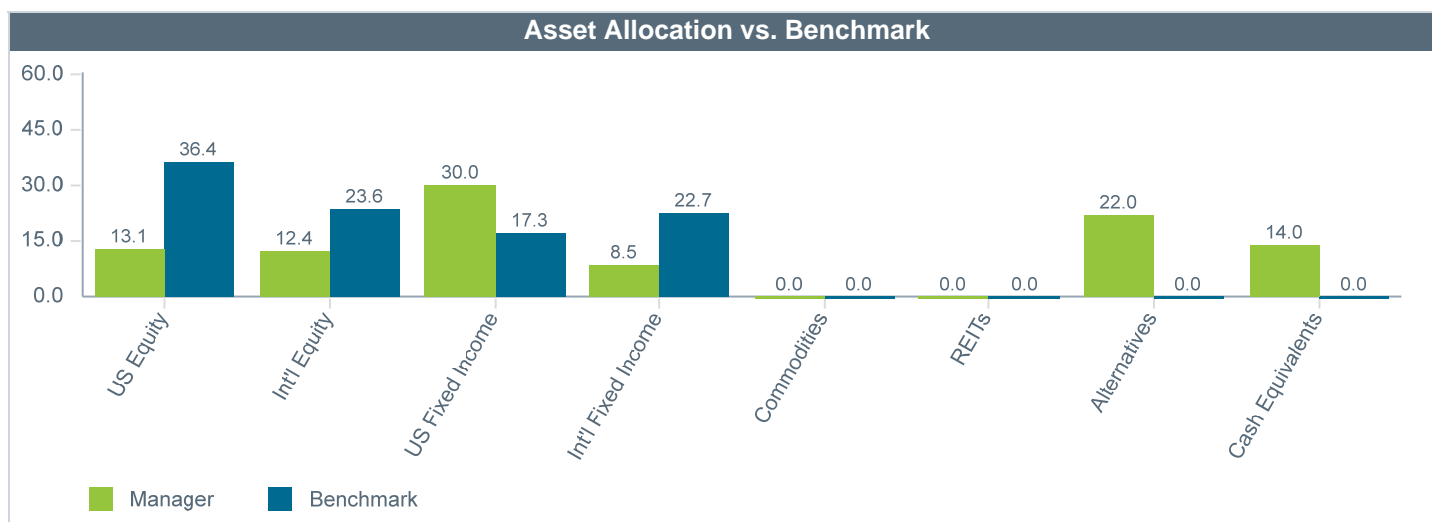
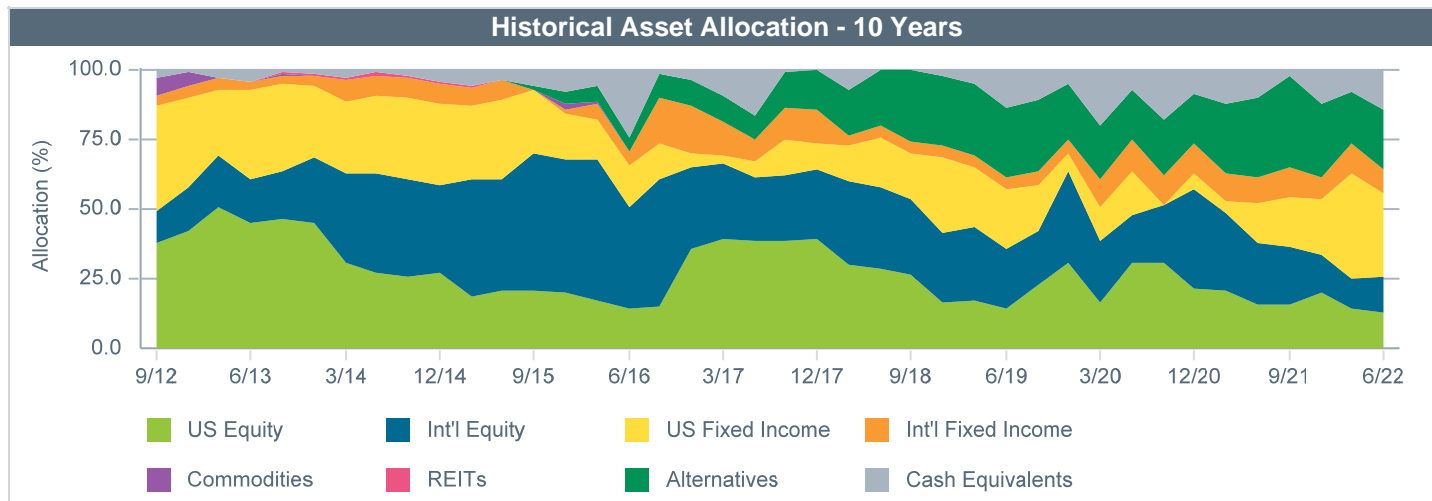


	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-11.90	-12.28	1.77	1.97	2.44	1.83	15.51	4.59	7.62	-6.14	12.04
Benchmark	-7.62	-8.65	2.73	3.81	4.01	4.32	6.46	9.89	12.97	-1.62	8.94
Difference	-4.28	-3.63	-0.96	-1.84	-1.57	-2.49	9.05	-5.30	-5.35	-4.52	3.10



Performance shown is net of fees and product specific. Manager may use leverage up to one-half of net assets. This is accomplished through a line of credit from external banks, the proceeds of which are used to gain incremental exposure to the desired underlying fund(s). Current gross exposures sum to 146.00% due to the use of 46.00% leverage on net assets. Historical Commodities and REITs allocations shown are available at a one-quarter lag due to the disclosure guidelines set by the investment manager for the underlying fund strategies. Please see the Addendum for custom index definition.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	-7.37	-15.09	2.23	2.74	2.46	4.62	6.49	12.97	15.10	-9.48	16.12
Benchmark	-12.98	-16.01	2.23	3.96	4.44	5.10	7.76	14.53	18.17	-5.85	17.14
Difference	5.61	0.92	0.00	-1.22	-1.98	-0.48	-1.27	-1.56	-3.07	-3.63	-1.02

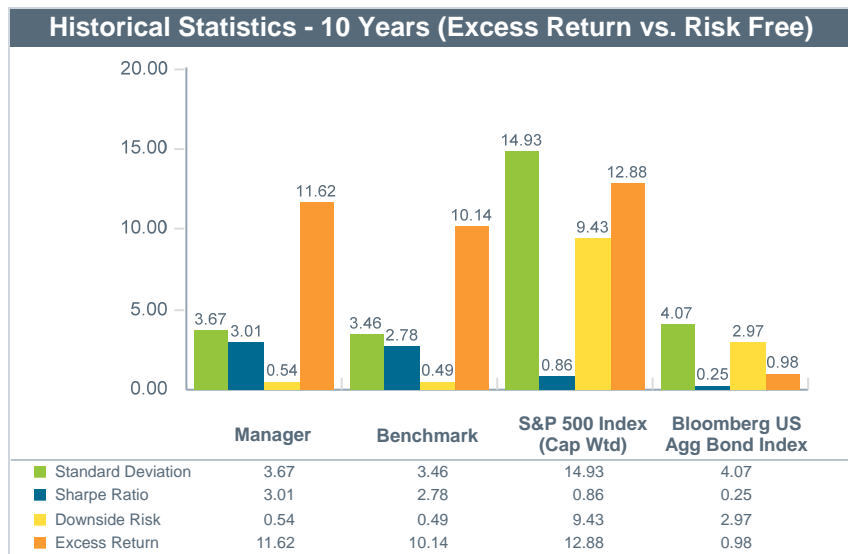


Historical Statistics - 10 Years					Actual Correlation - 10 Years	
	Manager	Benchmark	S&P 500 Index (Cap Wtd)	Bloomberg US Agg Bond Index		Actual Correlation
Standard Deviation	10.12	8.87	13.65	3.48	60% MSCI ACW (Net)/40% FTSE WGBI	0.90
Sharpe Ratio	0.43	0.53	0.92	0.28	S&P 500 Index (Cap Wtd)	0.89
Downside Risk	6.91	5.86	8.68	2.39	Russell 2000 Index	0.82
Excess Return	4.40	4.74	12.54	0.95	MSCI EAFE Index (USD) (Net)	0.90
					MSCI Emg Mkts Index (USD) (Net)	0.79
					Bloomberg US Agg Bond Index	0.22
					Bloomberg US Trsy US TIPS Index	0.34
					Wilshire US REIT Index	0.61
					HFRI FOF Comp Index	0.88
					Bloomberg Cmdty Index (TR)	0.37
					ICE BofAML 3 Mo US T-Bill Index	-0.21
					Cons Price Index (Unadjusted)	-0.09

Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Performance shown for PineBridge Dyn AA;Inst (PDAIX) prior to April 2016 is represented by PineBridge Dynamic Asset Allocation (CF).

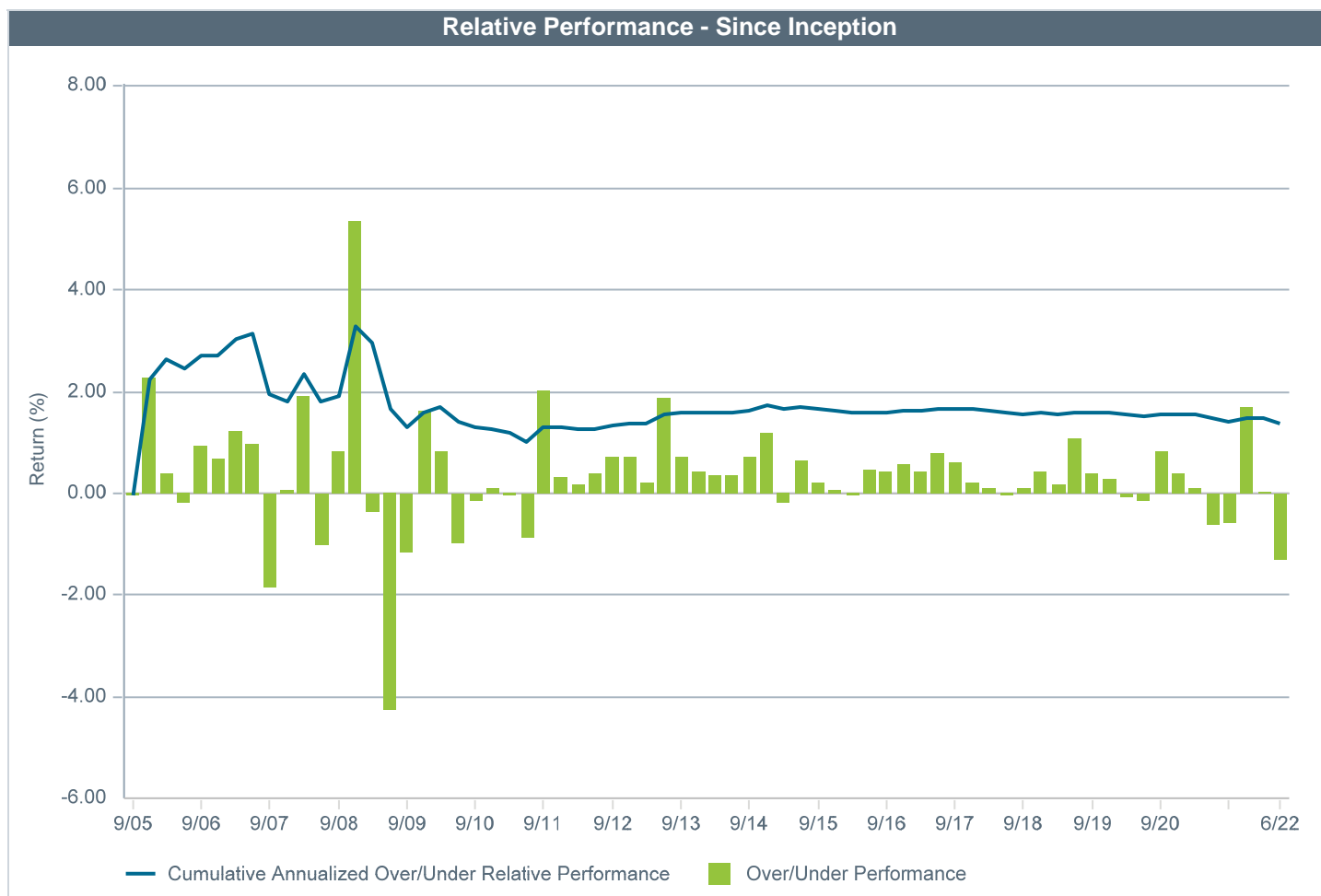


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	3.40	29.25	13.02	11.34	11.38	12.76	22.87	2.18	7.40	8.99	9.84
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	-1.37	-0.26	0.36	0.80	1.04	1.60	0.70	0.99	2.06	0.64	2.22



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.95
S&P 500 Index (Cap Wtd)	-0.13
Russell 2000 Index	-0.22
MSCI EAFE Index (USD) (Net)	-0.18
MSCI Emg Mkts Index (USD) (Net)	-0.35
Bloomberg US Agg Bond Index	-0.44
Bloomberg US Trsy US TIPS Index	-0.35
Wilshire US REIT Index	0.06
HFRI FOF Comp Index	-0.24
Bloomberg Cmtty Index (TR)	0.07
ICE BofAML 3 Mo US T-Bill Index	-0.41
Cons Price Index (Unadjusted)	0.26



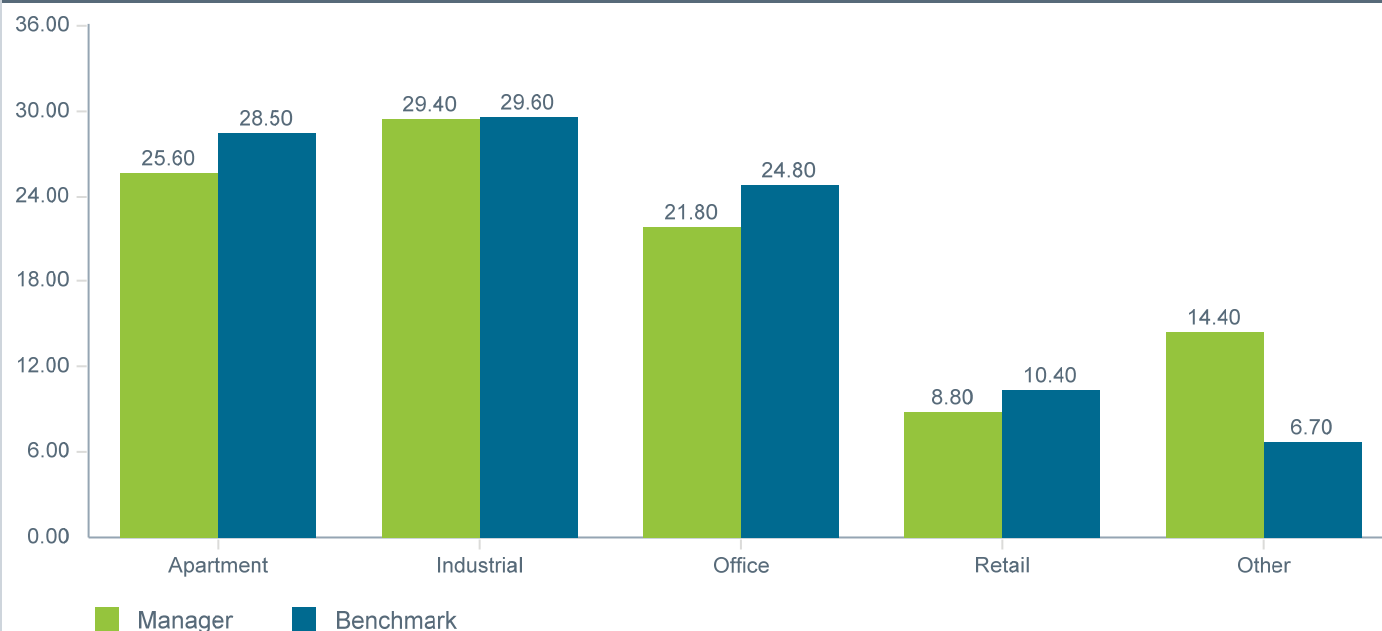
Investment Strategy

The Fund pursues a diversified core real estate strategy that invests in assets with stable, highly predictable cash flow returns. The Fund targets high quality office, Class A multifamily, warehouse distribution, and top-tier super regional malls in addition to storage facilities in targeted primary markets. The Fund favors investing in major metropolitan markets and secondary markets expected to achieve above-average economic performance and believes that those cities offer better liquidity, more diverse tenant bases, and stronger resilience to market cycles. It operates with leverage of 50% or less and may invest up to 15% of its gross assets in higher-risk, value-added real estate investment opportunities.

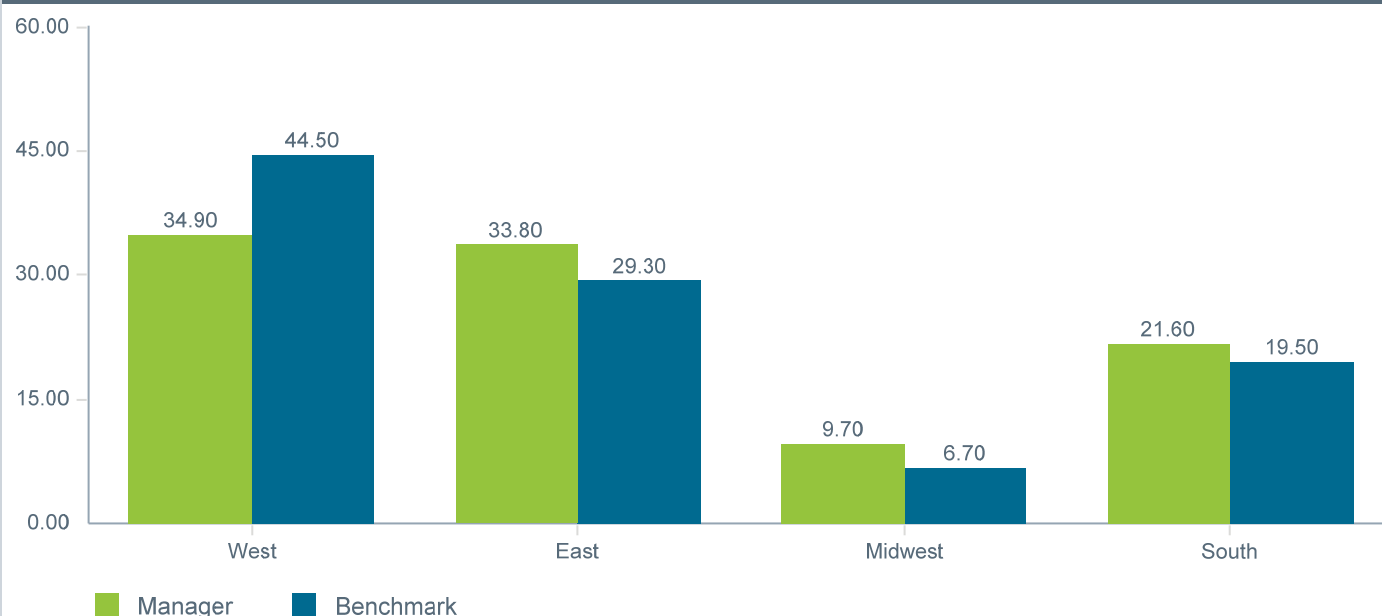
Investment Profile

Fund Inception	1973
Legal Structure	LLC
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	44,405
Fund Leverage %	16.70
Portfolio Occupancy %	94.30
Cash Reserve %	1.10
Number of Investments	526
Number of Limited Partners	423

Property Type Allocation (%)

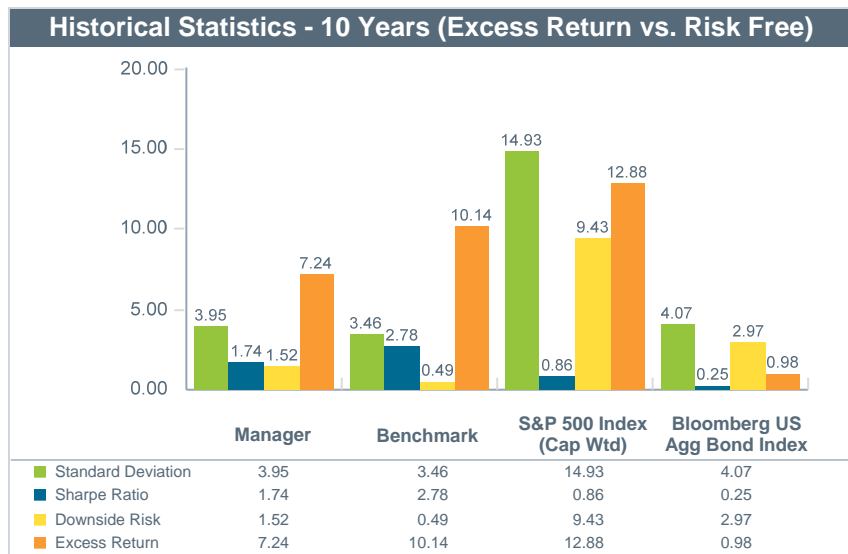


Geographic Allocation (%)



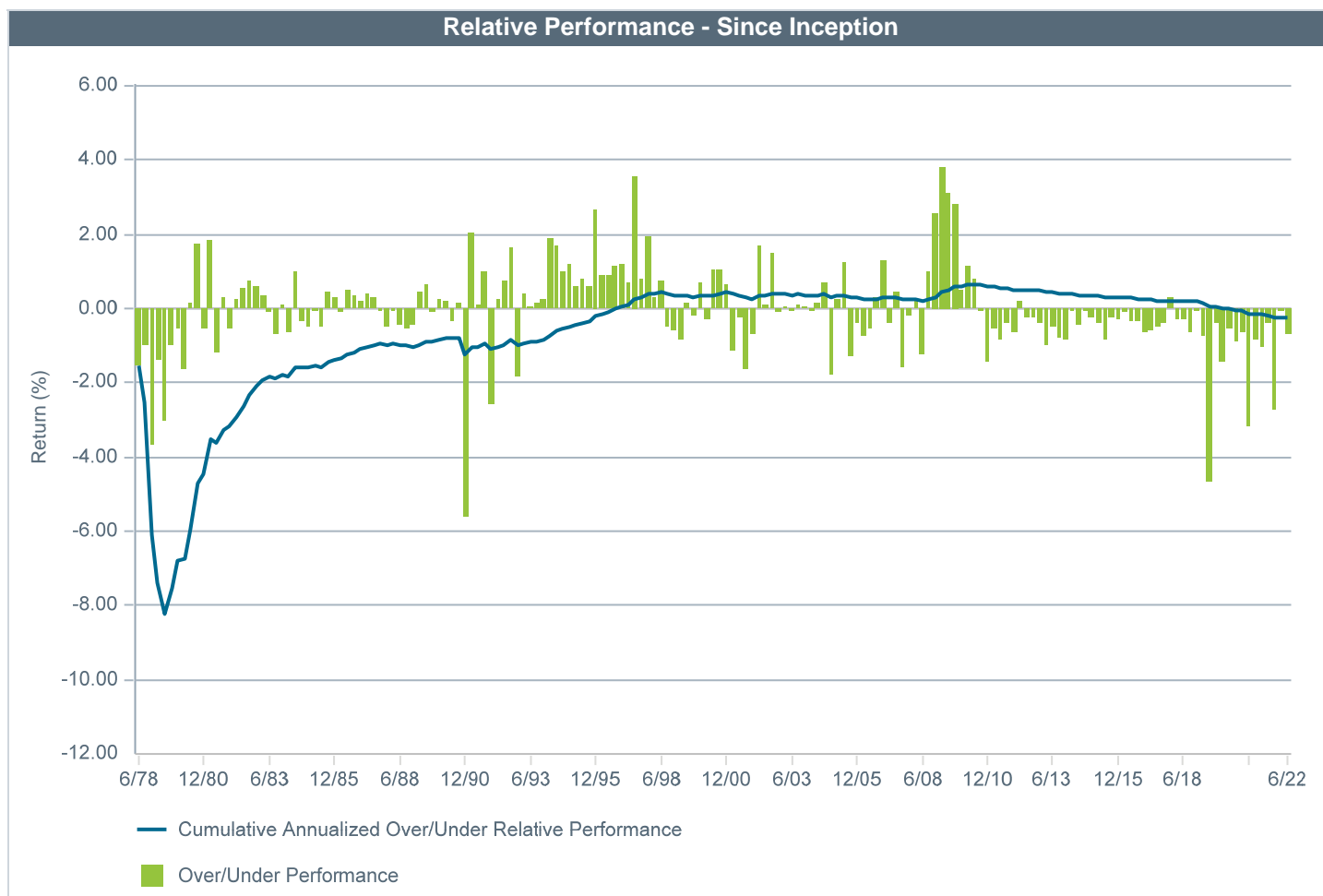
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage, health care, land held for potential development, and hotel. 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.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	4.02	24.65	7.95	6.27	6.80	8.03	16.24	-4.04	-2.10	6.99	6.30
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	-0.75	-4.86	-4.71	-4.27	-3.54	-3.13	-5.93	-5.23	-7.44	-1.36	-1.32



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.89
S&P 500 Index (Cap Wtd)	-0.33
Russell 2000 Index	-0.40
MSCI EAFE Index (USD) (Net)	-0.37
MSCI Emg Mkts Index (USD) (Net)	-0.46
Bloomberg US Agg Bond Index	-0.50
Bloomberg US Trsy US TIPS Index	-0.40
Wilshire US REIT Index	-0.09
HFRI FOF Comp Index	-0.41
Bloomberg Cmnty Index (TR)	0.07
ICE BofAML 3 Mo US T-Bill Index	-0.44
Cons Price Index (Unadjusted)	0.31



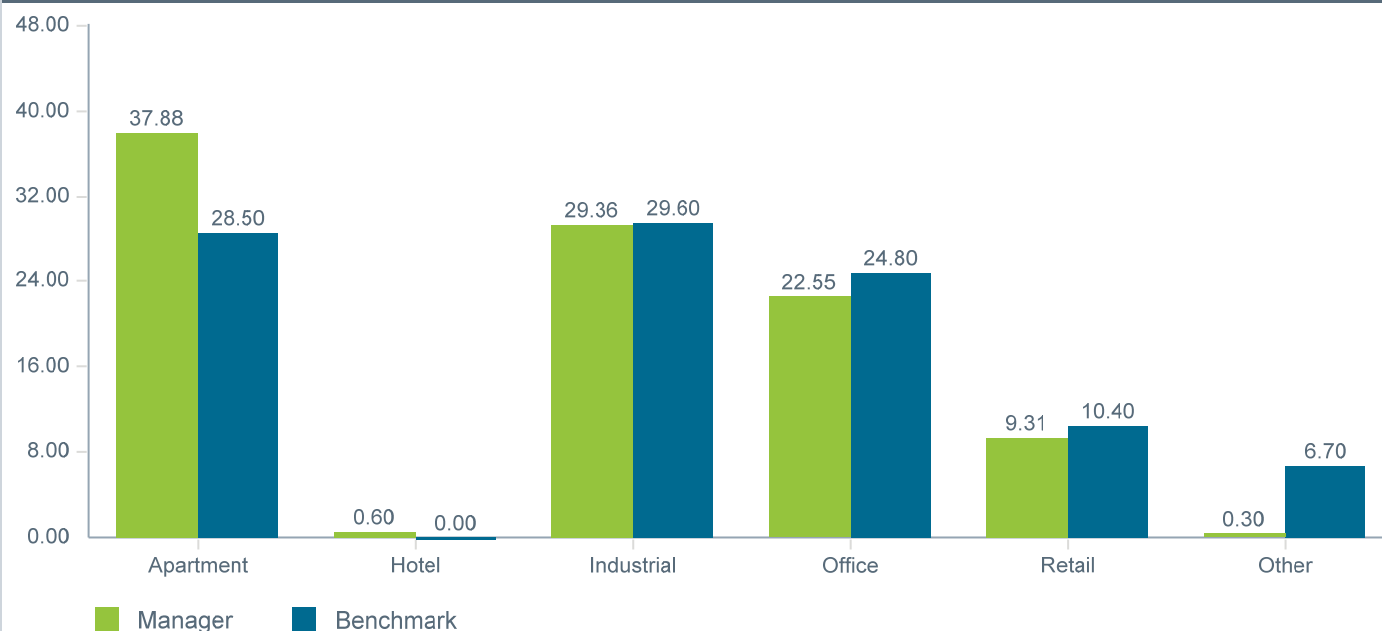
Investment Strategy

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

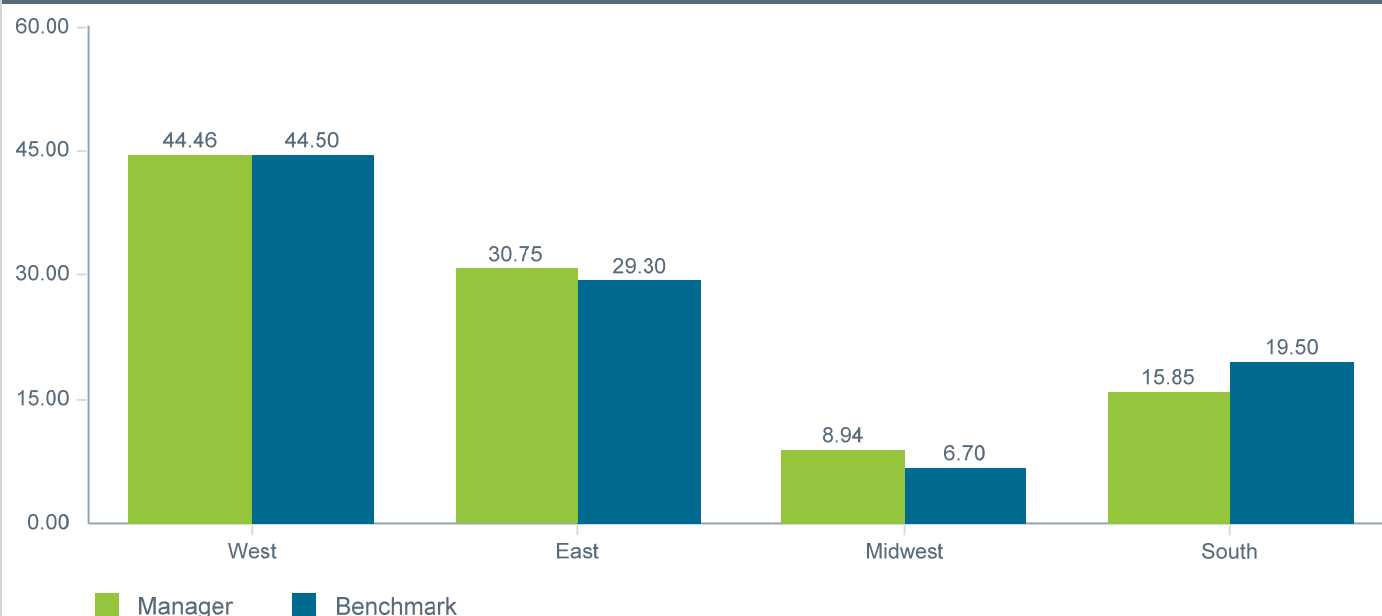
Investment Profile

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

Property Type Allocation (%)



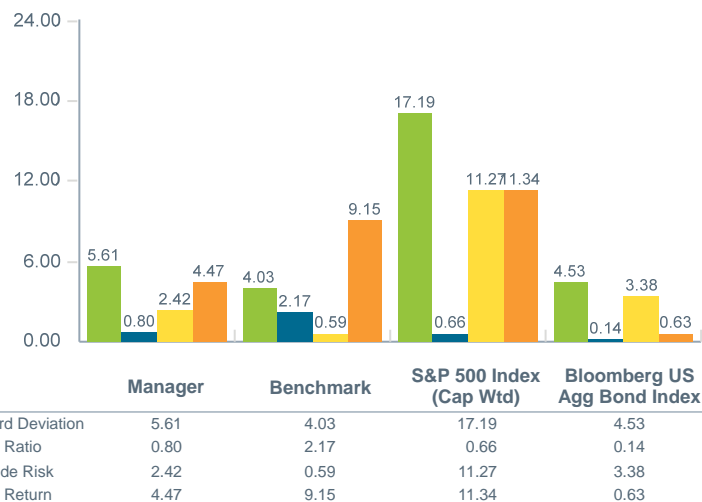
Geographic Allocation (%)



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of self-storage. 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.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	0.67	6.94	-2.08	3.42	5.30	9.14	-0.48	-9.32	3.03	9.71	18.00
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	-4.10	-22.57	-14.74	-7.12	-5.04	-2.02	-22.65	-10.51	-2.31	1.36	10.38

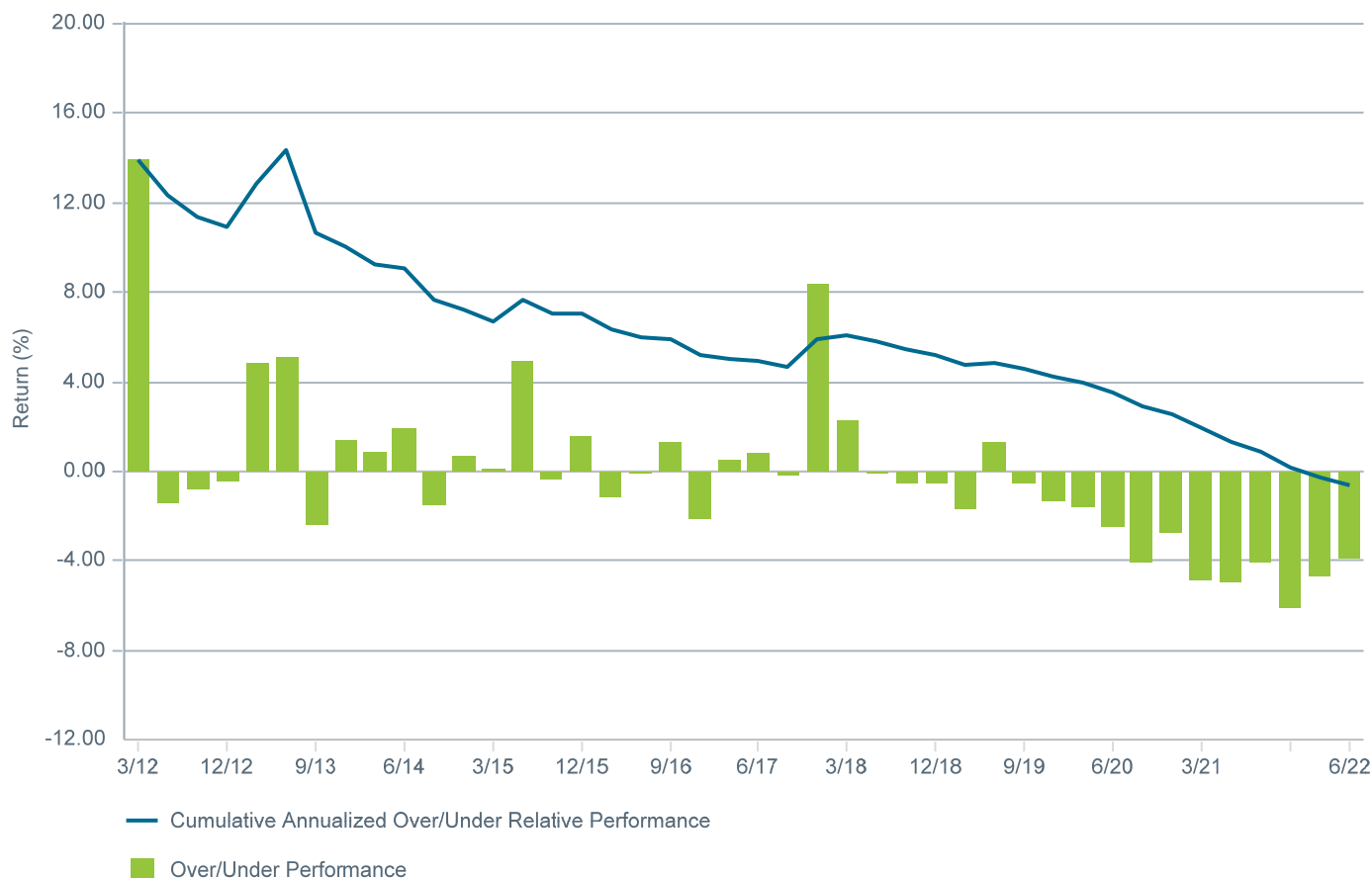
Historical Statistics - 7 Years (Excess Return vs. Risk Free)



Actual Correlation - 7 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.28
S&P 500 Index (Cap Wtd)	-0.19
Russell 2000 Index	-0.25
MSCI EAFE Index (USD) (Net)	-0.13
MSCI Emg Mkts Index (USD) (Net)	-0.17
Bloomberg US Agg Bond Index	-0.09
Bloomberg US Trsy US TIPS Index	-0.21
Wilshire US REIT Index	-0.13
HFRI FOF Comp Index	-0.24
Bloomberg Cmtty Index (TR)	-0.18
ICE BofAML 3 Mo US T-Bill Index	0.12
Cons Price Index (Unadjusted)	-0.19

Relative Performance - Since Inception



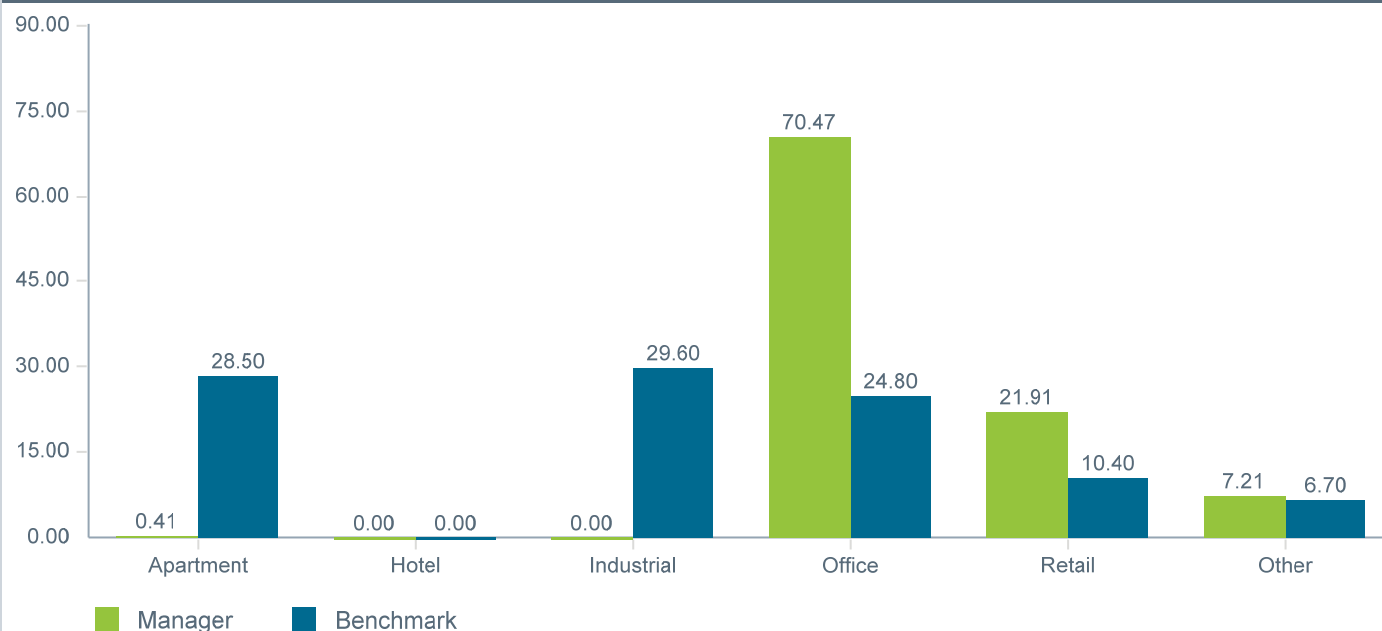
Investment Strategy

The Fund pursues a concentrated core-plus real estate strategy that acquires, manages and enhances the value of core and core-plus office, retail and mixed-used assets in major metropolitan markets. Target assets are stabilized or nearly stabilized core properties with high-quality, creditworthy and diversified tenant rosters producing predictable and growing income, with the potential for operational improvements to enhance NOI and drive capital appreciation. Additionally, the Fund also targets assets that are moderately- to substantially-leased but could benefit from repositioning. It operates with leverage of 50% or less and may invest up to 20% of its gross assets in higher-risk, non-core real estate investment opportunities.

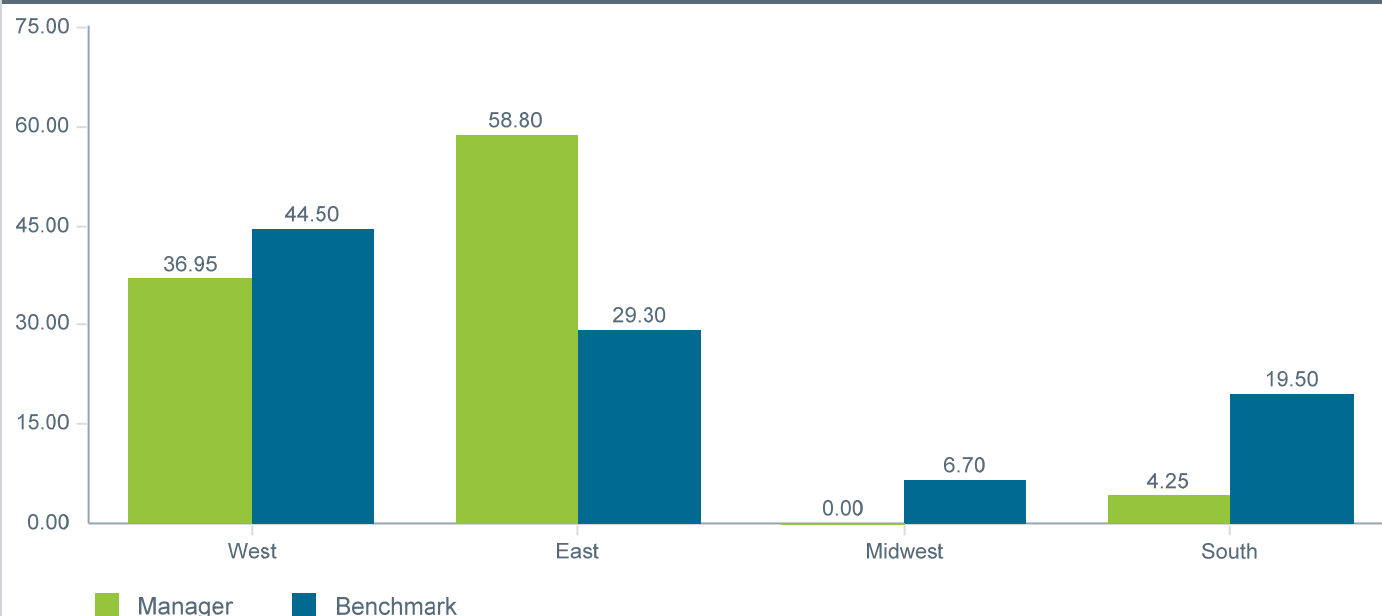
Investment Profile

Fund Inception	2011
Legal Structure	REIT
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	4,405
Fund Leverage %	42.71
Portfolio Occupancy %	78.20
Cash Reserve %	2.69
Number of Investments	26
Number of Limited Partners	50

Property Type Allocation (%)

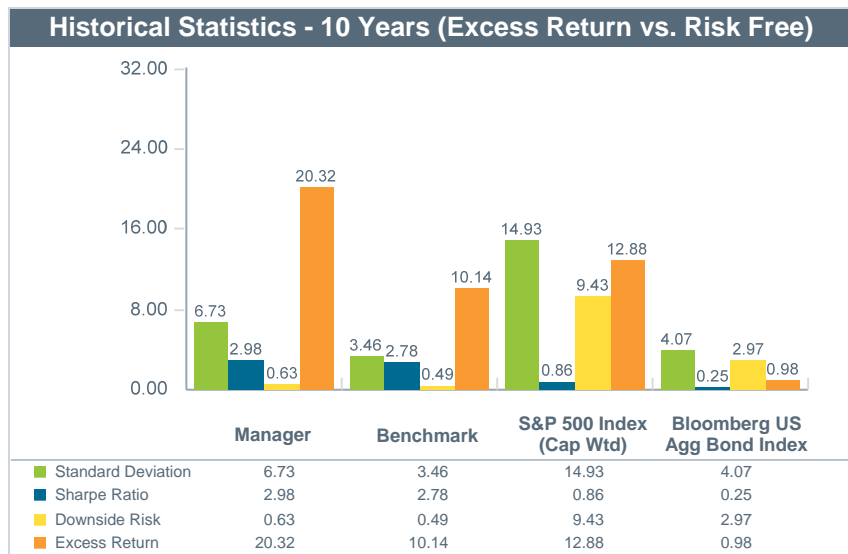


Geographic Allocation (%)



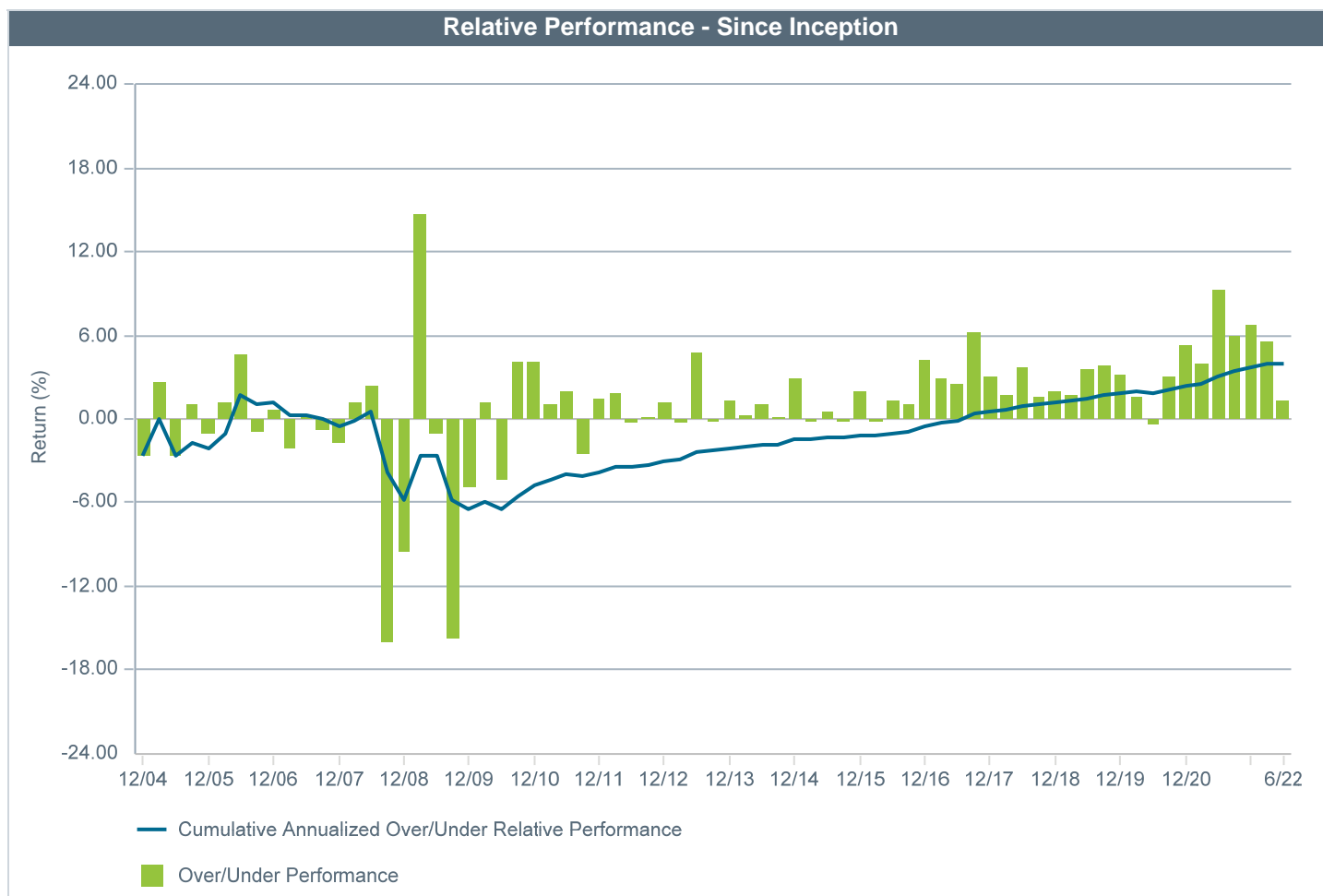
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of One Times Square. 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.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	6.20	56.75	32.28	27.41	24.51	22.42	56.86	11.16	18.88	18.19	24.16
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	1.43	27.24	19.62	16.87	14.17	11.26	34.69	9.97	13.54	9.84	16.54



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.76
S&P 500 Index (Cap Wtd)	-0.03
Russell 2000 Index	-0.10
MSCI EAFE Index (USD) (Net)	-0.09
MSCI Emg Mkts Index (USD) (Net)	-0.22
Bloomberg US Agg Bond Index	-0.43
Bloomberg US Trsy US TIPS Index	-0.20
Wilshire US REIT Index	0.16
HFRI FOF Comp Index	-0.09
Bloomberg Cmdty Index (TR)	0.31
ICE BofAML 3 Mo US T-Bill Index	-0.18
Cons Price Index (Unadjusted)	0.44



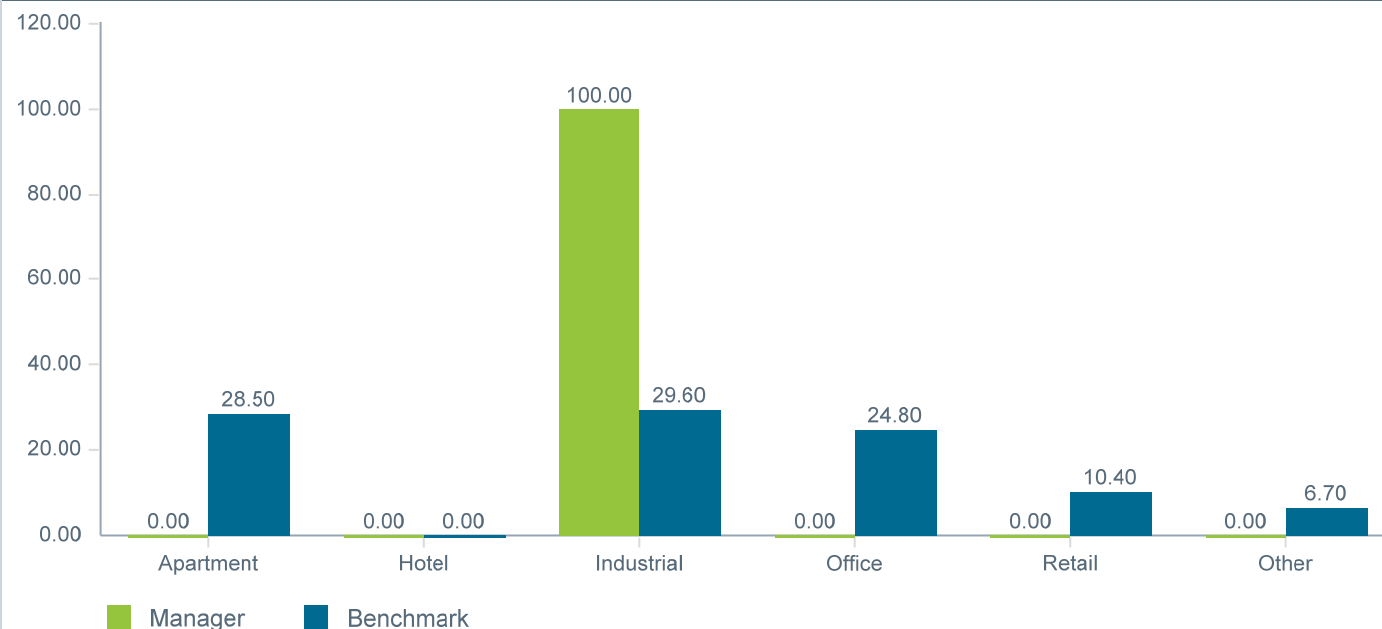
Investment Strategy

The US Logistics Fund is an open-end core-plus vehicle that invests in US industrial assets. The Fund's investment objective is to combine attractive current income with long-term capital growth. The Fund's investment activities focus on industrial properties near key passenger and cargo airports, highway systems, and seaports in major metropolitan areas where it's believed that opportunities exist to acquire investment properties on an advantageous basis. The Fund seeks to invest primarily in operating properties and selectively pursues renovation opportunities with a maximum allocation to renovation of 20%. The Fund does not intend to invest in properties that are initially classified as development properties or land. Value add initiatives include newly developed stabilized assets purchased the parent organization, urban infill, and covered land plays. The fund operates with a leverage limit of 45%.

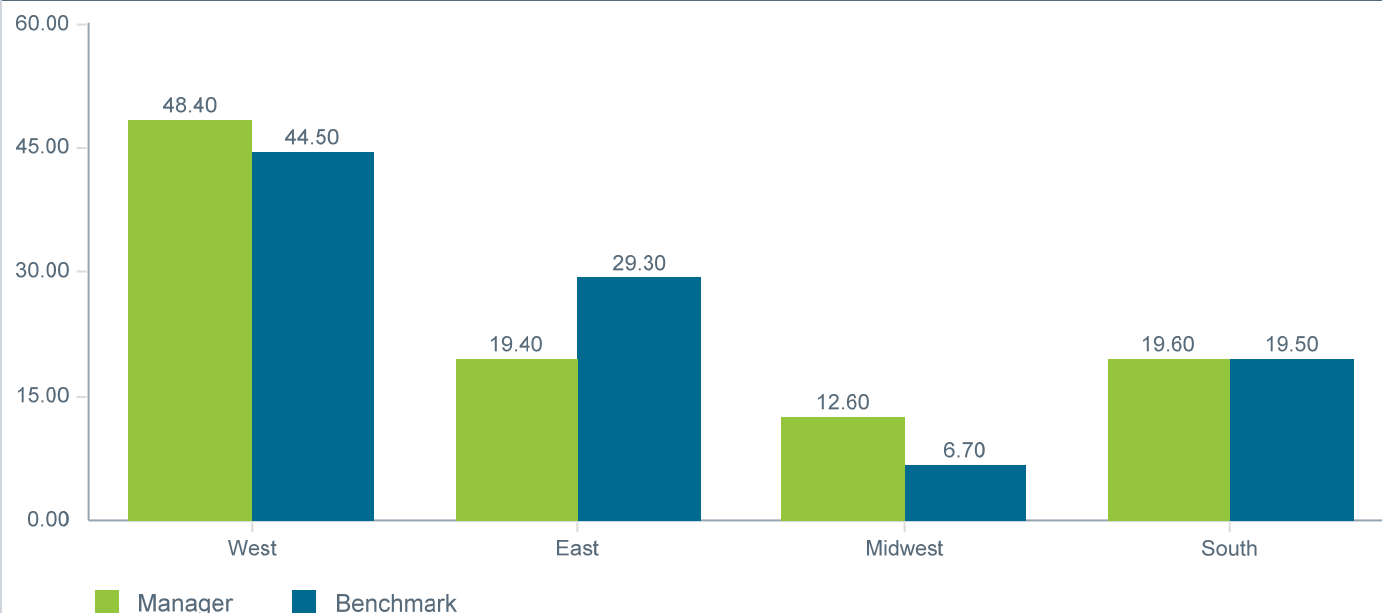
Investment Profile

Fund Inception	2004
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	27,439
Fund Leverage %	11.20
Portfolio Occupancy %	97.00
Cash Reserve %	0.30
Number of Investments	736
Number of Limited Partners	107

Property Type Allocation (%)

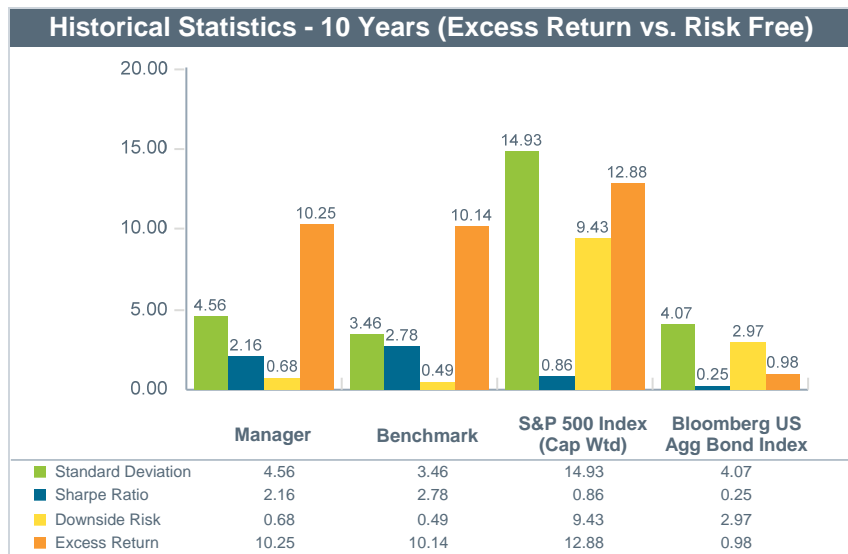


Geographic Allocation (%)



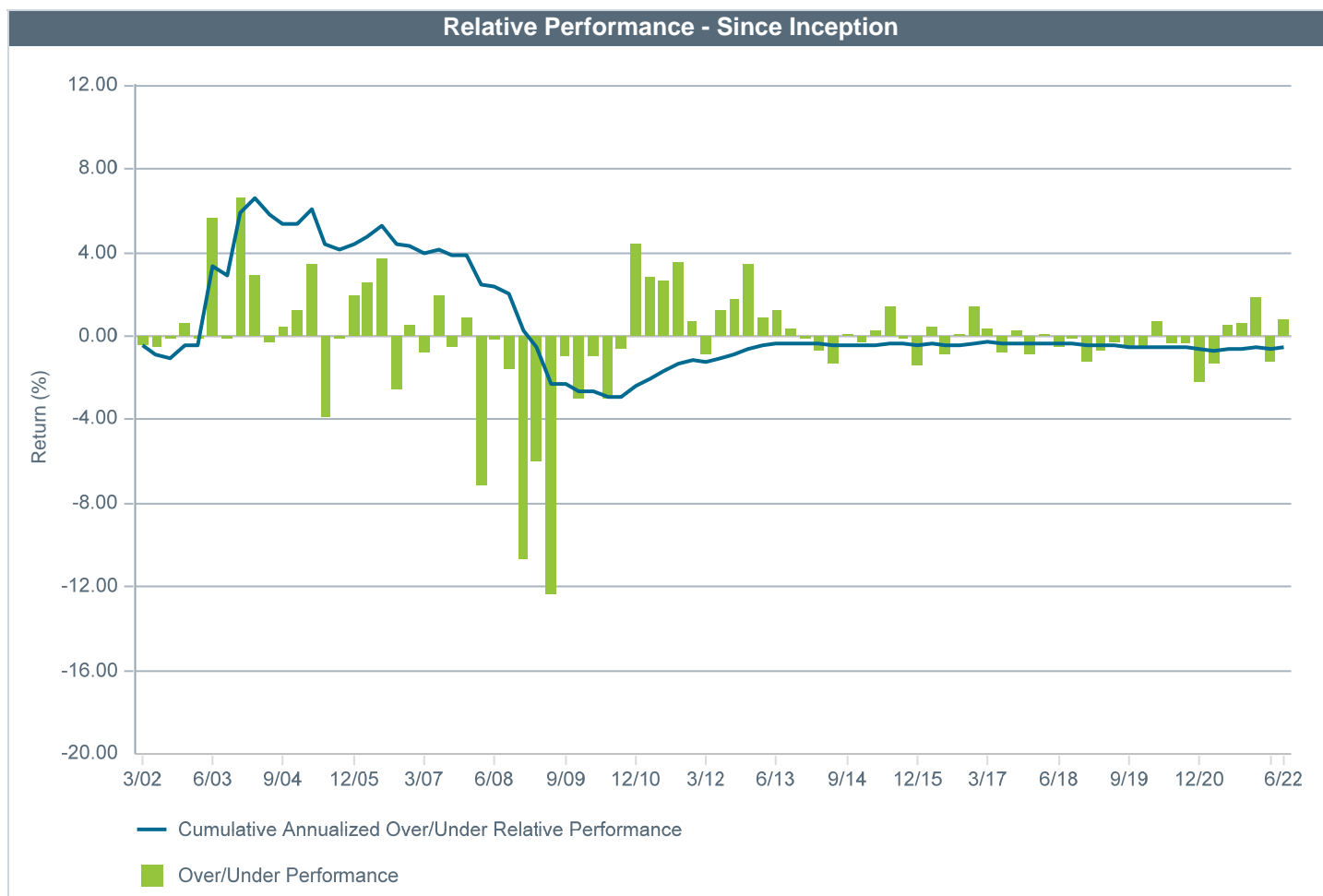
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Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	5.61	32.04	11.77	9.28	9.32	11.24	24.07	-1.08	3.01	6.59	6.50
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	0.84	2.53	-0.89	-1.26	-1.02	0.08	1.90	-2.27	-2.33	-1.76	-1.12



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.89
S&P 500 Index (Cap Wtd)	-0.23
Russell 2000 Index	-0.32
MSCI EAFE Index (USD) (Net)	-0.24
MSCI Emg Mkts Index (USD) (Net)	-0.40
Bloomberg US Agg Bond Index	-0.43
Bloomberg US Trsy US TIPS Index	-0.33
Wilshire US REIT Index	-0.11
HFRI FOF Comp Index	-0.30
Bloomberg Cmnty Index (TR)	-0.02
ICE BofAML 3 Mo US T-Bill Index	-0.42
Cons Price Index (Unadjusted)	0.32



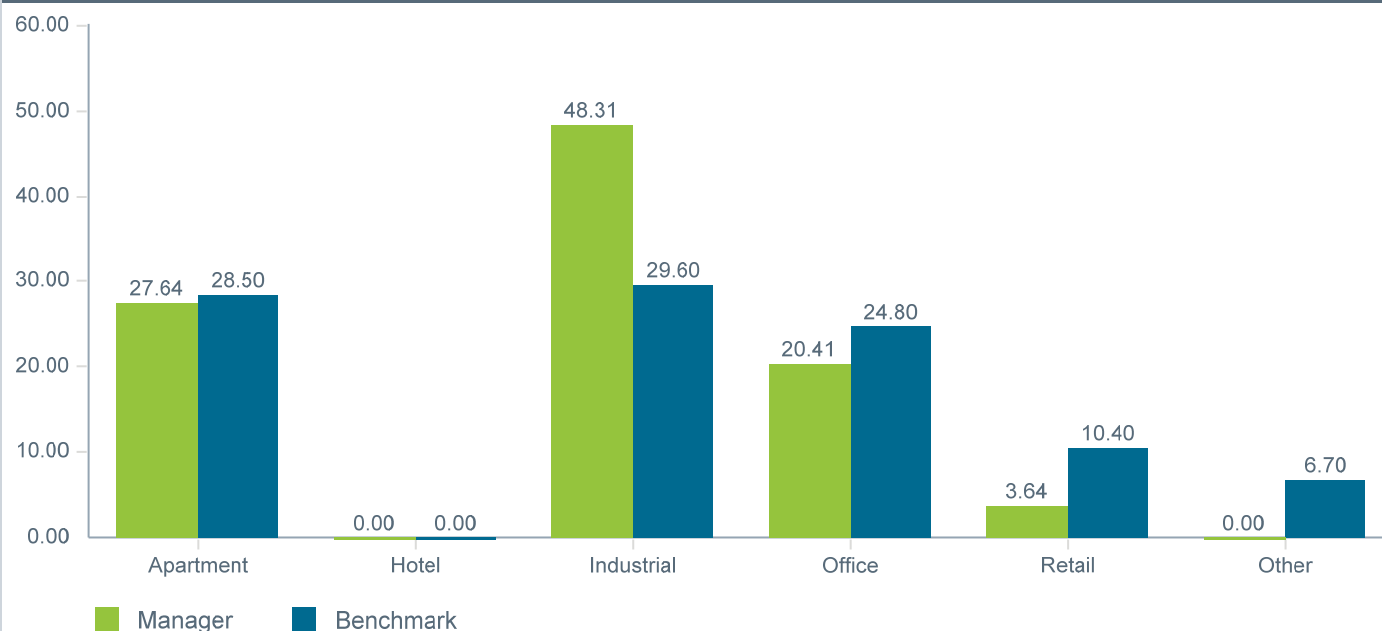
Investment Strategy

The Fund pursues a core-plus real estate strategy and focuses on producing high income returns with the potential for capital appreciation. The Fund's broad investment scope allows it to participate in market opportunities across private equity and debt markets, as well as all property sectors and US geographic regions. It invests primarily in leveraged direct core real estate and may dedicate up to 25% of its gross asset value to non-core investments. Investments are concentrated in the four primary property types, while volatile and/or specialized sectors such as hotels and self-storage investments are avoided. The Fund operates with leverage of 40% or less.

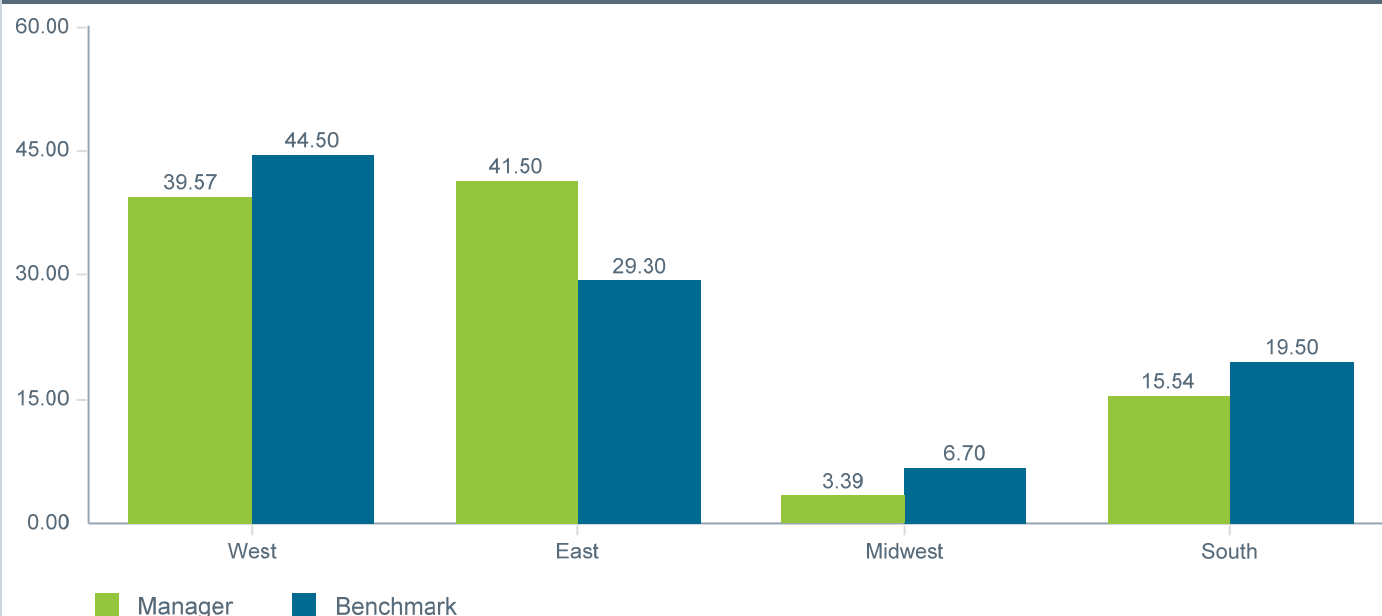
Investment Profile

Fund Inception	2002
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	3,505
Fund Leverage %	34.10
Portfolio Occupancy %	93.12
Cash Reserve %	11.33
Number of Investments	58
Number of Limited Partners	37

Property Type Allocation (%)

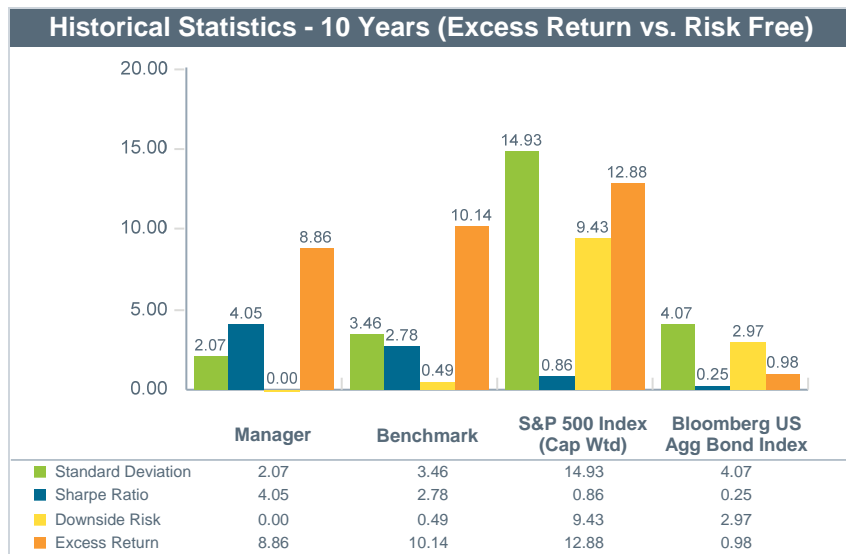


Geographic Allocation (%)



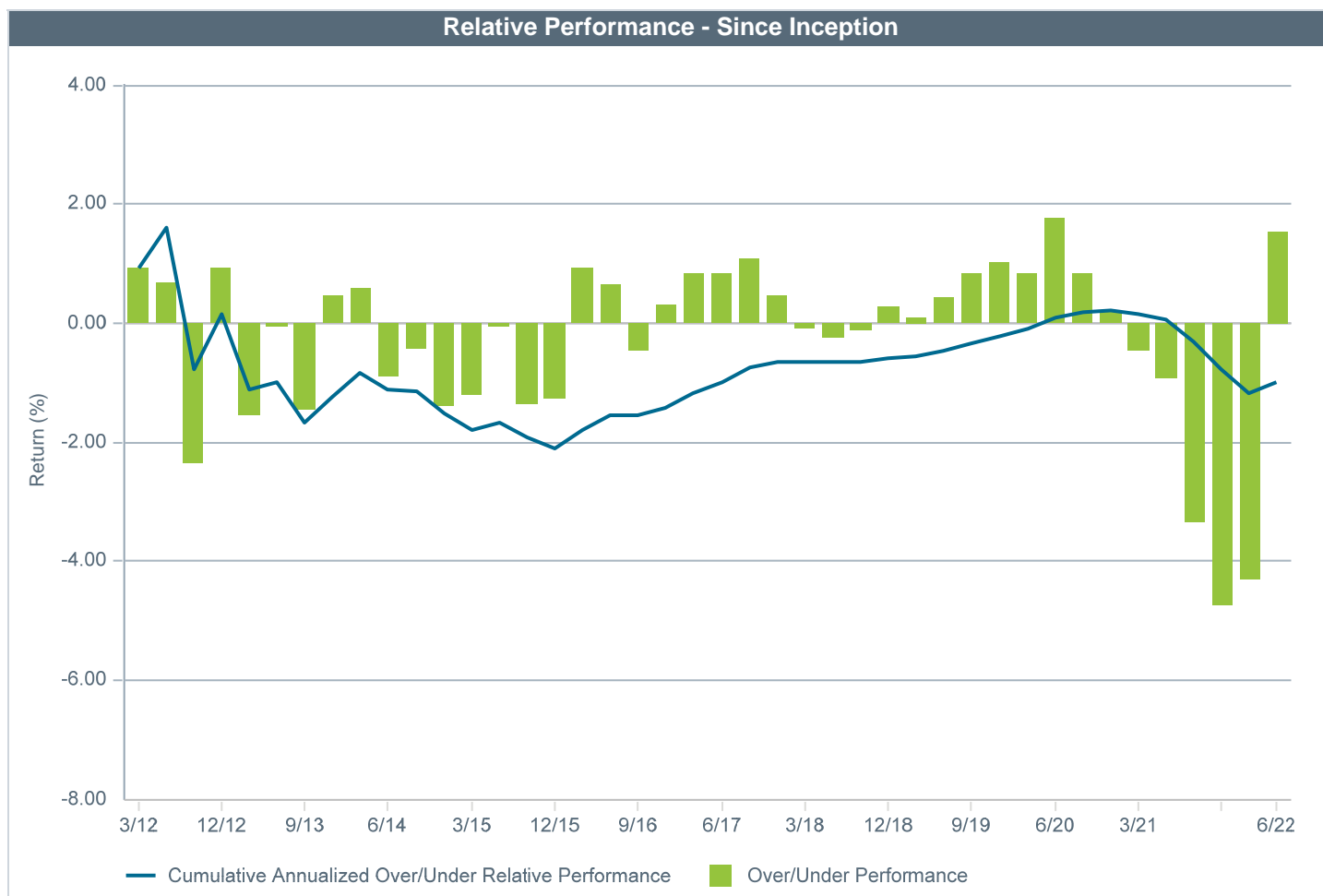
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Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	2018	2017
Manager	6.39	15.92	10.06	9.41	9.60	9.82	10.94	4.91	7.87	8.18	11.11
Benchmark	4.77	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	8.35	7.62
Difference	1.62	-13.59	-2.60	-1.13	-0.74	-1.34	-11.23	3.72	2.53	-0.17	3.49



Actual Correlation - 10 Years

	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.50
S&P 500 Index (Cap Wtd)	-0.45
Russell 2000 Index	-0.42
MSCI EAFE Index (USD) (Net)	-0.38
MSCI Emg Mkts Index (USD) (Net)	-0.33
Bloomberg US Agg Bond Index	-0.46
Bloomberg US Trsy US TIPS Index	-0.54
Wilshire US REIT Index	-0.36
HFRI FOF Comp Index	-0.39
Bloomberg Cmtty Index (TR)	-0.09
ICE BofAML 3 Mo US T-Bill Index	-0.19
Cons Price Index (Unadjusted)	0.31
NCREIF ODCE Index (AWA) (Gross)	0.50



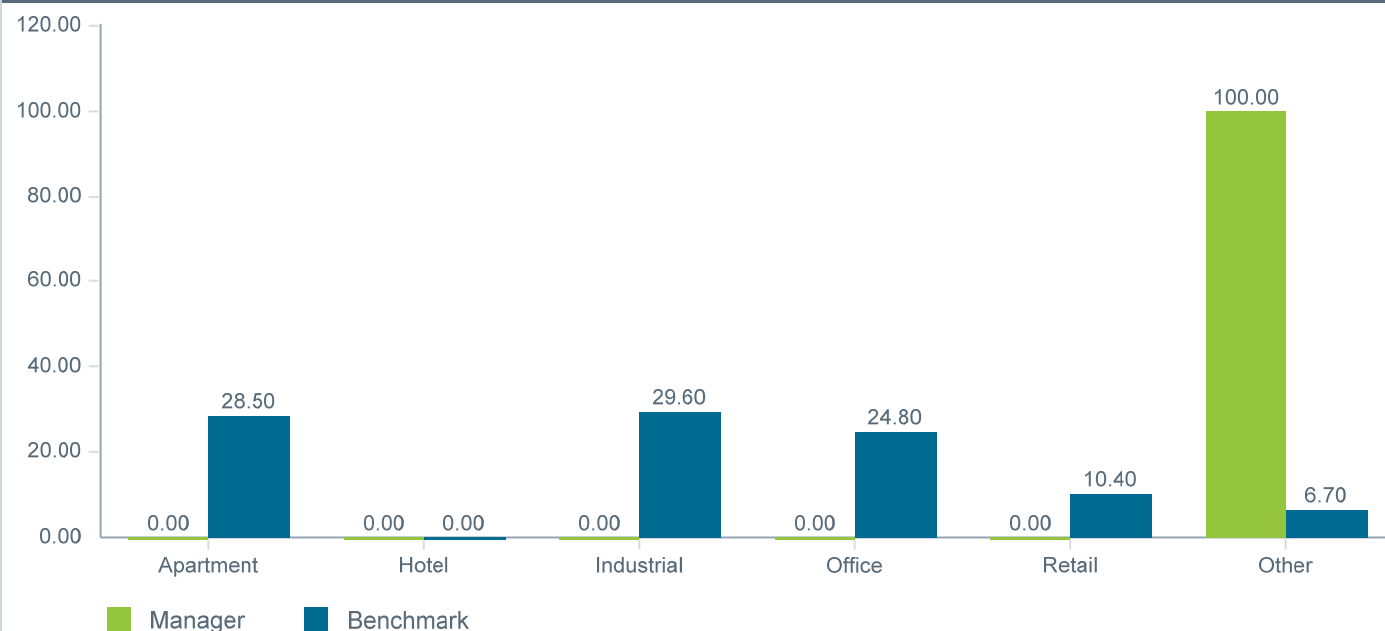
Investment Strategy

The Fund's strategy is on primarily stabilized income-producing investments in niche sectors; Education, Health, and Storage. Within these sectors the fund invests in student housing, seniors housing, medical office buildings, life science buildings, and self-storage. The majority of the return from the Fund is expected to be realized from current income, with a modest portion of the return to be derived from asset appreciation. Harrison Street believes that the primary property types it targets will provide better risk/return profiles than properties in traditional core portfolios across all economic cycles.

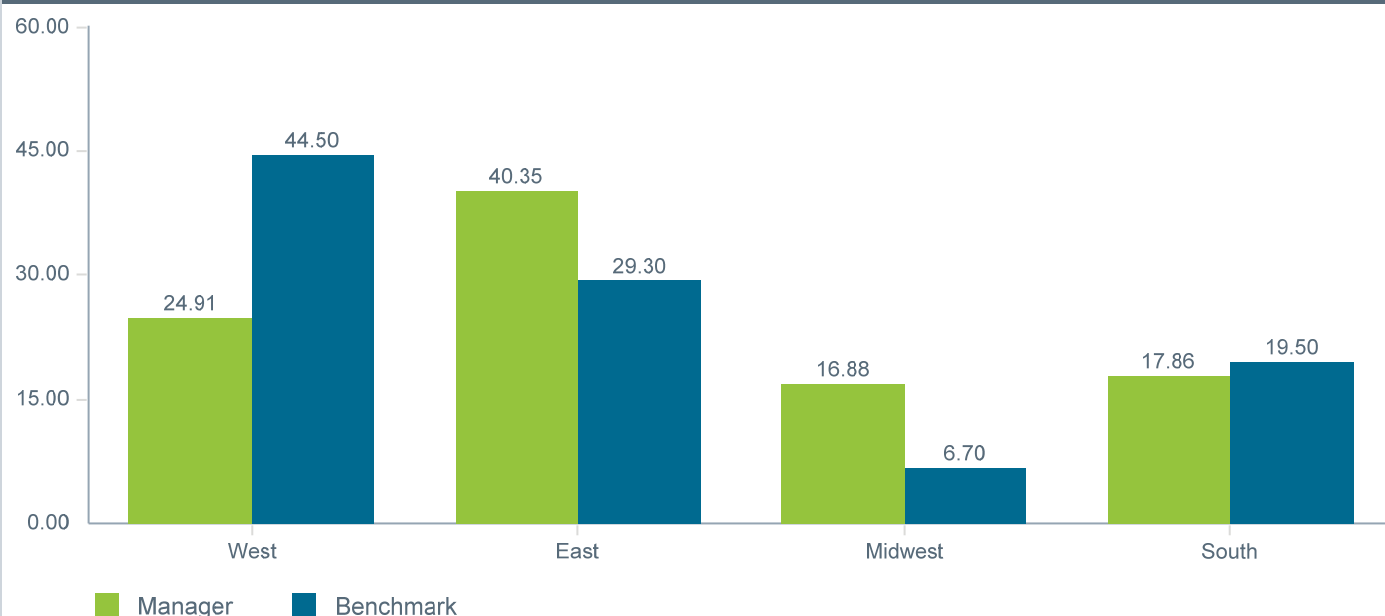
Investment Profile

Fund Inception	2011
Legal Structure	LP
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	13,464
Fund Leverage %	23.78
Portfolio Occupancy %	89.30
Cash Reserve %	1.08
Number of Investments	387
Number of Limited Partners	231

Property Type Allocation (%)



Geographic Allocation (%)



Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of education, healthcare, senior housing, and storage real estate. 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



North Dakota Board of University and School Lands
Long-Term Monitoring Tool

As of June 30, 2022

Asset Allocation							
Asset Class	Market Value	Within Target Range?		Current (%)	Targets		
		Yes	No		Min.	Target	Max.
Broad US Equity	\$ 1,056,601,163	✓		18.12%	14.0%	19.0%	24.0%
Broad International Equity	\$ 1,047,419,208	✓		17.96%	14.0%	19.0%	24.0%
Fixed Income	\$ 1,530,317,613	✓		26.24%	17.0%	22.0%	27.0%
Absolute Return	\$ 770,261,459	✓		13.21%	10.0%	15.0%	20.0%
Real Estate	\$ 1,118,652,751	✓		19.18%	10.0%	15.0%	20.0%
Private Equity	\$ 49,815,251	✓		0.85%	0.0%	5.0%	10.0%
Private Infrastructure	\$ 177,724,571	✓		3.05%	0.0%	5.0%	10.0%
Opportunistic Investments	\$ 81,948,227	✓		1.40%	0.0%	0.0%	5.0%
Total Fund	\$ 5,832,740,243			100.00%			

Monitoring Guideline (Over a Full Market Cycle of 5 Years)				Explanation
Total Fund		Yes	No	
Total Fund returns exceed the Target Allocation Index over a 5-year period.		✓		The Total Fund returned 6.57% vs. 5.72% for the index.
Broad US Equity		Yes	No	
The composite returns exceed the Russell 3000 Index over a 5 year period.			✓	The composite returned 10.31% vs. 10.60% for the index. Includes managers which are no longer in the portfolio.
Rank above the IM U.S. Equity Median.		✓		The composite has a ranking of 23. Includes managers which are no longer in the portfolio.
State Street Russell 1000 Index SL (CF)		Yes	No	
The fund returns are in line with the Russell 1000 Index over a 5 year period.		✓		The fund returned 10.96% vs. 11.00% for the index.
Rank above the IM U.S. Large Cap Equity Median.		✓		The fund has a ranking of 39
State Street Russell Mid Cap Index (SA)		Yes	No	
The fund returns are in line with the Russell Mid Cap Index over a 5 year period.		✓		The fund returned 7.96% vs. 7.96% for the index.
Rank above the IM U.S. Mid Cap Equity Median.		✓		The fund has a ranking of 40
NT Small Cap Core (SA)		Yes	No	
The fund returns exceed the Russell 2000 Index over a 5 year period.		✓		The fund returned 7.89% vs. 5.17% for the index.
Rank above the IM U.S. Small Cap Core Equity Median.		✓		The fund has a ranking of 28.
Broad International Equity		Yes	No	
The composite returns exceed the MSCI ACW Ex US Index (USD) (Net) over a 5 year period.			✓	The composite returned 2.46% vs. 2.50% for the index. Includes managers which are no longer in the portfolio.
Rank above the IM International Large Cap Equity Median.			✓	The composite has a ranking of 55. Includes managers which are no longer in the portfolio.
State Street World Ex US Index (CF)		Yes	No	
The fund returns are in line with the MSCI Wrld Ex US Index (USD) (Net) over a 5 year period.			✓	The fund returned 2.56% vs. 2.66% for the index.
Rank above the IM International Large Cap Equity Median.			✓	The fund has a ranking of 52.
Acadian International Small Cap		Yes	No	
The fund returns exceed the MSCI EAFE Sm Cap Index (USD) (Net) over a 5 year period.				5 year data is unavailable.
Rank above the IM International Small Cap Equity (SA+CF)				5 year data is unavailable.
State Street World Ex US Small Cap Index (CF)		Yes	No	
The fund returns exceed the MSCI World Excluding US Small Cap Index (USD) (Net) over a 5 year period.				5 year data is unavailable.
Rank above the IM International Small Cap Equity (SA+CF)				5 year data is unavailable.
Arrowstreet Emerging Markets		Yes	No	
The fund returns exceed the MSCI Emg Mkts Index (USD) (Net) over a 5 year period.				5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.				5 year data is unavailable.
NT Emerging Markets Index Fund		Yes	No	
The fund returns exceed the MSCI Emg Mkts Index (USD) (Net) over a 5 year period.				5 year data is unavailable.
Rank above the IM Emerging Markets Equity Median.				5 year data is unavailable.
Fixed Income		Yes	No	
The composite returns exceed the Global Fixed Income Custom Index over a 5 year period.		✓		The composite returned 2.60% vs. 0.94% for the index.
Rank above the IM Global Fixed Income Median.		✓		The composite has a ranking of 1.
Payden & Rygel Long Term (SA)		Yes	No	
The fund returns exceed the Bloomberg US Agg Bond Index over a 5 year period.		✓		The fund returned 1.38% vs. 0.88% for the index.
Rank above the IM U.S. Broad Market Core Fixed Income Median.		✓		The fund has a ranking of 9.
JP Morgan Core Bond (SA)		Yes	No	
The fund returns exceed the JP Morgan FI Custom Index over a 5 year period.		✓		The fund returned 0.72% vs. 0.54% for the index.
Rank above the IM U.S. Broad Market Core Fixed Income Median.			✓	The fund has a ranking of 59.

Performance shown is net of fees.

North Dakota Board of University and School Lands Long-Term Monitoring Tool

As of June 30, 2022

Fixed Income (Continued)			
Loomis Sayles Credit Asset (SA)		Yes	No
The fund returns exceed the Loomis Sayles CA Custom Index over a 5 year period			5 year data is unavailable.
Rank above the IM Global Fixed Income Median.			5 year data is unavailable.
Owl Rock Diversified Lending		Yes	No
The fund returns exceed the CS Lvg'd Loan Index over a 5 year period.			5 year data is unavailable.
Apollo Defined Return Fund		Yes	No
The fund returns exceed the CS Lvg'd Loan Index+2% over a 5 year period.			5 year data is unavailable.
Schroders Flexible Secured Income (SA)		Yes	No
The fund returns exceed the 3 Month LIBOR Index (USD)+1.75% over a 5 year period.			5 year data is unavailable.
ND Land - PTF Cash (SA)		Yes	No
The fund returns exceed the BofA ML 3 Mo US T-Bill Index over a 5 year period.			✓ The fund returned 1.08% vs. 1.11% for the index.
Absolute Return		Yes	No
The composite returns exceed the Absolute Return Custom Index over a 5 year period.			✓ The composite returned 1.08% vs. 4.66% for the index.
PIMCO:All Ast Ath;Inst (PAUIX)		Yes	No
The fund returns exceed the All Asset Custom Index (EqI Wtd) over a 5 year period.			✓ The fund returned 1.97% vs. 3.81% for the index.
Millennium USA LP		Yes	No
The fund returns exceed the HFRI RV Multi Strat Index over a 5 year period.			5 year data is unavailable.
PineBridge Dyn AA;Inst (PDAIX)		Yes	No
The fund returns exceed the Consumer Price Index+5% over a 5 year period.			5 year data is unavailable.
Real Estate		Yes	No
The composite returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.		✓	The composite returned 10.51% vs. 9.55% for the index.
Morgan Stanley Prime Property (CF)		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.		✓	The fund returned 10.17% vs. 9.55% for the index.
UBS Trumbull Property LP (CF)		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			✓ The fund returned 5.47% vs. 9.55% for the index.
Prologis Targeted US Logistics LP (CF)		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.		✓	The fund returned 23.97% vs. 9.55% for the index.
JP Morgan US Real Estate Income and Growth, LP (CF)		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			✓ The fund returned 8.76% vs. 9.55% for the index.
Harrison Street Core Property Fund		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.
State Street US REIT Index (CF)		Yes	No
The fund returns exceed the NCREIF ODCE Index (AWA) (Net) over a 5 year period.			5 year data is unavailable.

Color Key
Performance:
Green: Manager outperformed benchmark.
Yellow: Manager underperformed benchmark by 100 basis points or less.
Red: Manager underperformed benchmark by more than 100 basis points.
Peer Group Ranks:
Green: Manager ranks in the top 50th percentile compared to its peers.
Yellow: Manager ranks between the 51st and 64th percentile compared to its peers.
Red: Manager ranks in the 65th percentile or lower compared to its peers.

North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	-6.87	-8.67	-4.44	-4.44	4.82	5.18	5.07	6.07	7.34	07/01/2009
Target Allocation Index (Gross)	-8.31	-11.03	-6.59	-6.59	5.66	5.86	5.60	6.66	8.05	
Difference	1.44	2.36	2.15	2.15	-0.84	-0.68	-0.53	-0.59	-0.71	
Broad US Equity	-16.16	-20.91	-14.48	-14.48	9.37	10.39	10.42	12.04	13.18	07/01/2009
Russell 3000 Index	-16.70	-21.10	-13.87	-13.87	9.77	10.60	10.43	12.57	13.52	
Difference	0.54	0.19	-0.61	-0.61	-0.40	-0.21	-0.01	-0.53	-0.34	
Broad International Equity	-14.63	-18.52	-16.41	-16.41	2.62	2.73	3.27	6.16	5.73	07/01/2009
MSCI ACW Ex US Index (USD) (Net)	-13.73	-18.42	-19.42	-19.42	1.35	2.50	2.92	4.83	5.32	
Difference	-0.90	-0.10	3.01	3.01	1.27	0.23	0.35	1.33	0.41	
Fixed Income	-2.18	-4.73	-3.61	-3.61	2.44	2.85	3.07	2.99	4.24	07/01/2009
Global Fixed Income Custom Index	-5.13	-10.93	-10.89	-10.89	-0.94	0.94	1.64	1.63	2.90	
Difference	2.95	6.20	7.28	7.28	3.38	1.91	1.43	1.36	1.34	
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	2.76	
Difference	2.51	5.62	6.68	6.68	3.38	1.97	1.65	1.45	1.48	
Absolute Return	-8.57	-12.23	-13.05	-13.05	0.25	1.94	2.67	N/A	2.01	07/01/2014
Absolute Return Custom Index	-11.46	-16.44	-13.90	-13.90	3.54	4.66	4.89	6.02	4.44	
Difference	2.89	4.21	0.85	0.85	-3.29	-2.72	-2.22	N/A	-2.43	
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	7.90	
Difference	-12.90	-21.13	-27.56	-27.56	-9.97	-7.13	-5.63	N/A	-5.89	
Real Estate	4.12	12.55	32.99	32.99	14.16	12.16	11.80	N/A	11.80	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	10.34	
Difference	-0.65	0.06	3.48	3.48	1.50	1.62	1.46	N/A	1.46	
Private Equity	-0.58	-1.51	14.01	14.01	N/A	N/A	N/A	N/A	12.67	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	21.53	
Difference	-0.58	-2.09	1.19	1.19	N/A	N/A	N/A	N/A	-8.86	
Private Infrastructure	1.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.12	02/01/2022
MSCI Wrld Infrastructure Index	-5.45	-2.22	0.32	0.32	4.65	5.38	5.28	6.74	-1.56	
Difference	6.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.68	
Opportunistic Investments	-7.51	-8.71	-6.41	-6.41	N/A	N/A	N/A	N/A	15.73	07/01/2020

Performance shown is gross of fees except where noted, and annualized for periods greater than one year. Composite inception dates are based on availability of data for each asset class. Please see the Addendum for custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.

North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Broad US Equity													
State Street Russell 1000 Index SL (CF)	-16.71	-20.99	-13.09	-13.09	10.13	10.97	N/A	N/A	26.44	20.91	31.40	10.93	06/01/2017
Russell 1000 Index	-16.67	-20.94	-13.04	-13.04	10.17	11.00	10.78	12.82	26.45	20.96	31.43	10.96	
Difference	-0.04	-0.05	-0.05	-0.05	-0.04	-0.03	N/A	N/A	-0.01	-0.05	-0.03	-0.03	
IM U.S. Large Cap Equity (SA+CF) Median	-15.59	-19.71	-10.63	-10.63	9.77	10.92	10.53	12.83	27.38	18.37	30.44	10.88	
Rank	69	64	65	65	46	49	N/A	N/A	58	38	41	49	
State Street Russell Mid Cap Index (SA)													
State Street Russell Mid Cap Index (SA)	-16.79	-21.50	-17.20	-17.20	6.62	7.99	N/A	N/A	22.62	17.09	30.42	8.07	06/01/2017
Russell Mid Cap Index	-16.85	-21.57	-17.30	-17.30	6.59	7.96	8.04	11.29	22.58	17.10	30.54	8.04	
Difference	0.06	0.07	0.10	0.10	0.03	0.03	N/A	N/A	0.04	-0.01	-0.12	0.03	
IM U.S. Mid Cap Equity (SA+CF) Median	-15.40	-19.85	-14.63	-14.63	6.97	8.43	8.44	11.60	24.73	14.24	30.21	8.49	
Rank	63	58	60	60	63	58	N/A	N/A	59	45	49	60	
NT Small Cap Core (SA)													
NT Small Cap Core (SA)	-15.53	-22.14	-20.93	-20.93	6.71	8.42	8.72	11.11	18.89	24.69	23.98	7.83	07/01/2014
Russell 2000 Index	-17.20	-23.43	-25.20	-25.20	4.21	5.17	5.91	9.35	14.82	19.96	25.53	5.98	
Difference	1.67	1.29	4.27	4.27	2.50	3.25	2.81	1.76	4.07	4.73	-1.55	1.85	
IM U.S. Small Cap Core Equity (SA+CF) Median	-15.34	-20.78	-16.96	-16.96	7.27	7.69	7.85	11.31	24.21	18.90	25.82	8.13	
Rank	55	62	74	74	58	40	35	59	80	26	58	56	

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North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Broad International Equity													
State Street World Ex US Index (CF)	-14.89	-18.96	-16.97	-16.97	1.60	2.58	2.91	N/A	12.65	7.54	22.40	1.84	07/01/2014
MSCI Wrld Ex US Index (USD) (Net)	-14.66	-18.76	-16.76	-16.76	1.70	2.66	2.98	5.37	12.62	7.59	22.49	1.91	
Difference	-0.23	-0.20	-0.21	-0.21	-0.10	-0.08	-0.07	N/A	0.03	-0.05	-0.09	-0.07	
IM International Large Cap Equity (SA+CF) Median	-14.11	-19.90	-18.82	-18.82	2.66	3.26	3.84	6.49	11.59	11.19	23.88	3.05	
Rank	62	43	34	34	65	67	74	N/A	40	64	61	83	
Acadian International Small Cap													
MSCI EAFE Sm Cap Index (USD) (Gross)	-17.50	-22.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.42	12/01/2021
MSCI EAFE Sm Cap Index (USD) (Gross)	-17.50	-24.46	-23.63	-23.63	1.51	2.11	4.12	7.57	10.48	12.75	25.47	-21.14	
Difference	0.00	1.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.72	
IM International Small Cap Equity (SA+CF) Median	-16.53	-24.36	-23.69	-23.69	2.70	3.08	4.14	7.94	13.69	13.95	24.85	-21.15	
Rank	70	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37	
State Street World Ex US Small Cap Index (CF)													
MSCI Wrld Ex US Sm Cap Index (USD) (Gross)	-17.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.19	02/01/2022
MSCI Wrld Ex US Sm Cap Index (USD) (Gross)	-17.76	-23.62	-22.67	-22.67	2.37	2.57	4.28	7.11	11.54	13.20	25.94	-18.02	
Difference	-0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.17	
IM International Small Cap Equity (SA+CF) Median	-16.53	-24.36	-23.69	-23.69	2.70	3.08	4.14	7.94	13.69	13.95	24.85	-18.39	
Rank	72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49	
Arrowstreet Emerging Markets													
MSCI Emg Mkts Index (USD) (Gross)	-13.98	-15.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-11.65	12/01/2021
MSCI Emg Mkts Index (USD) (Gross)	-11.34	-17.47	-25.00	-25.00	0.92	2.55	3.16	3.43	-2.22	18.69	18.90	-15.89	
Difference	-2.64	1.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.24	
IM Emerging Markets Equity (SA+CF) Median	-11.81	-17.94	-24.98	-24.98	1.53	2.96	3.82	4.43	0.81	18.63	20.66	-16.30	
Rank	74	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24	
NT Emerging Markets Index Fund													
MSCI Emg Mkts Index (USD) (Gross)	-10.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-16.70	02/01/2022
MSCI Emg Mkts Index (USD) (Gross)	-11.34	-17.47	-25.00	-25.00	0.92	2.55	3.16	3.43	-2.22	18.69	18.90	-15.89	
Difference	0.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.81	
IM Emerging Markets Equity (SA+CF) Median	-11.81	-17.94	-24.98	-24.98	1.53	2.96	3.82	4.43	0.81	18.63	20.66	-16.63	
Rank	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53	

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North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Fixed Income													
Payden & Rygel Long Term (SA)	-4.83	-10.17	-9.83	-9.83	-0.37	1.57	2.24	2.46	-0.53	7.77	9.64	5.28	08/01/1995
Bloomberg US Agg Bond Index	-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.42	1.54	-1.55	7.51	8.72	4.54	
Difference	-0.14	0.18	0.46	0.46	0.57	0.69	0.82	0.92	1.02	0.26	0.92	0.74	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-4.85	-10.36	-10.29	-10.29	-0.44	1.29	1.89	2.03	-1.21	8.52	9.20	4.92	
Rank	50	35	21	21	43	23	16	16	23	72	26	14	
JP Morgan Core Bond (SA)	-4.52	-9.90	-9.80	-9.80	-0.86	0.81	1.24	N/A	-0.19	6.40	6.80	1.38	08/01/2012
JP Morgan FI Custom Index	-4.69	-10.35	-10.29	-10.29	-1.14	0.54	0.96	1.15	-0.48	6.43	6.80	1.07	
Difference	0.17	0.45	0.49	0.49	0.28	0.27	0.28	N/A	0.29	-0.03	0.00	0.31	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	-4.85	-10.36	-10.29	-10.29	-0.44	1.29	1.89	2.03	-1.21	8.52	9.20	1.90	
Rank	23	23	20	20	84	96	99	N/A	12	97	98	98	
Loomis Sayles Credit Asset (SA)	-6.58	-10.02	-9.27	-9.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.52	04/01/2021
Loomis Sayles CA Custom Index	-7.17	-11.91	-11.04	-11.04	0.13	1.94	2.91	3.40	2.07	7.54	13.03	-6.88	
Difference	0.59	1.89	1.77	1.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.36	
IM Global Fixed Income (SA+CF) Median	-9.02	-13.71	-13.50	-13.50	-0.45	1.55	2.42	2.33	0.36	8.54	9.49	-9.07	
Rank	26	27	25	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	
AG Direct Lending III LP	3.19	5.96	12.66	12.66	12.04	N/A	N/A	N/A	14.75	9.32	11.14	11.40	09/01/2018
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.31	3.90	5.40	2.78	8.17	2.34	
Difference	7.54	10.41	15.34	15.34	10.01	N/A	N/A	N/A	9.35	6.54	2.97	9.06	
IM U.S. Intermediate Duration Fixed Income (MF) Median	-2.40	-5.58	-5.97	-5.97	0.56	1.56	1.75	1.71	-0.23	6.39	6.08	1.80	
Rank	1	1	1	1	1	N/A	N/A	N/A	1	1	1	1	
AG Direct Lending IV LP	3.25	6.15	11.59	11.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.76	06/01/2021
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.31	3.90	5.40	2.78	8.17	-2.11	
Difference	7.60	10.60	14.27	14.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.87	
IM U.S. Intermediate Duration Fixed Income (MF) Median	-2.40	-5.58	-5.97	-5.97	0.56	1.56	1.75	1.71	-0.23	6.39	6.08	-5.52	
Rank	1	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	
AG Direct Lending BUSL LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.16	06/01/2022
CS Lvg'd Loan Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.16	
IM U.S. Intermediate Duration Fixed Income (MF) Median	-2.40	-5.58	-5.97	-5.97	0.56	1.56	1.75	1.71	-0.23	6.39	6.08	-1.10	
Rank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	

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North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Fixed Income Cont.													
Owl Rock Diversified Lending	0.84	2.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.15	11/01/2021
CS Lvg'd Loan Index	-4.35	-4.45	-2.68	-2.68	2.03	2.97	3.31	3.90	5.40	2.78	8.17	-3.99	
Difference	5.19	7.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.14	
Apollo Defined Return Fund LP	-2.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.33	04/01/2022
CS Lvg'd Loan Index+2%	-3.88	-3.50	-0.73	-0.73	4.07	5.03	5.38	5.98	7.51	4.83	10.34	-3.88	
Difference	1.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.55	
Ares Pathfinder Fund LP	2.29	6.15	15.04	15.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	68.45	03/01/2021
Schroders Flexible Secured Income (SA)	-0.78	-1.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.56	09/01/2021
3 Month LIBOR Index (USD)+1.75%	0.48	0.86	1.80	1.80	2.56	3.07	2.88	2.63	1.92	2.85	4.39	1.47	
Difference	-1.26	-2.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.03	
ND Land - PTF Cash (SA)	0.17	0.21	0.34	0.34	0.88	1.23	N/A	N/A	0.41	0.64	2.56	1.23	07/01/2017
ICE BofAML 3 Mo US T-Bill Index	0.11	0.15	0.17	0.17	0.63	1.11	0.89	0.64	0.05	0.67	2.28	1.11	
Difference	0.06	0.06	0.17	0.17	0.25	0.12	N/A	N/A	0.36	-0.03	0.28	0.12	
FLP (Loans)	1.19	2.39	4.95	4.95	4.64	5.14	5.41	5.52	4.54	4.52	4.89	6.91	08/01/1995

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North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Absolute Return													
PIMCO:All Ast Ath;Inst (PAUIX)	-11.69	-13.82	-11.45	-11.45	2.73	2.94	3.41	N/A	16.59	5.57	8.63	1.94	07/01/2014
All Asset Custom Index (EqI Wtd)	-7.62	-11.00	-8.65	-8.65	2.73	3.81	4.01	4.32	6.46	9.89	12.97	3.52	
Difference	-4.07	-2.82	-2.80	-2.80	0.00	-0.87	-0.60	N/A	10.13	-4.32	-4.34	-1.58	
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	12.39	6.43	7.40	7.90	
Difference	-16.02	-22.72	-25.96	-25.96	-7.49	-6.13	-4.89	N/A	4.20	-0.86	1.23	-5.96	
Millennium USA LP													
HFRI RV Multi Strat Index	-2.74	-1.03	-1.02	-1.02	4.66	3.84	3.67	4.47	7.03	6.69	5.29	-1.03	
Difference	5.23	7.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.23	
PineBridge Dyn AA;Inst (PDAIX)													
Consumer Price Index+5%	4.33	8.90	14.51	14.51	10.22	9.07	8.30	7.72	12.39	6.43	7.40	8.90	
Difference	-11.52	-24.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-24.28	
IM Global Balanced/TAA (SA+CF+MF) Median	-11.22	-15.68	-12.55	-12.55	4.63	5.55	5.68	7.12	12.75	13.52	19.85	-15.71	
Rank	16	48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47	

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North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Real Estate													
Morgan Stanley Prime Property (CF)	3.25	10.71	28.90	28.90	12.75	11.19	11.28	N/A	22.46	2.11	7.38	11.28	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	10.34	
Difference	-1.52	-1.78	-0.61	-0.61	0.09	0.65	0.94	N/A	0.29	0.92	2.04	0.94	
UBS Trumbull Property LP (CF)	3.73	11.38	24.26	24.26	7.82	6.20	6.74	N/A	16.22	-4.08	-2.11	6.74	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	10.34	
Difference	-1.04	-1.11	-5.25	-5.25	-4.84	-4.34	-3.60	N/A	-5.95	-5.27	-7.45	-3.60	
Jamestown Premier Property (CF)	0.47	2.71	6.16	6.16	-2.46	3.25	5.18	N/A	-1.21	-9.27	3.02	5.18	07/01/2015
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	10.34	
Difference	-4.30	-9.78	-23.35	-23.35	-15.12	-7.29	-5.16	N/A	-23.38	-10.46	-2.32	-5.16	
Prologis Targeted US Logistics LP (CF)	6.82	22.59	61.68	61.68	34.14	28.63	N/A	N/A	60.03	11.25	19.51	26.60	04/01/2016
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	10.04	
Difference	2.05	10.10	32.17	32.17	21.48	18.09	N/A	N/A	37.86	10.06	14.17	16.56	
JP Morgan US RE Inc & Grth LP (CF)	5.70	12.16	33.19	33.19	12.29	9.69	N/A	N/A	25.29	-0.95	3.21	9.60	07/01/2016
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	10.09	
Difference	0.93	-0.33	3.68	3.68	-0.37	-0.85	N/A	N/A	3.12	-2.14	-2.13	-0.49	
Harrison Street Core Property Fund	5.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.76	02/01/2022
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	12.49	
Difference	1.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.73	
State Street US REIT Index (CF)	-18.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-18.09	04/01/2022
NCREIF ODCE Index (AWA) (Gross)	4.77	12.49	29.51	29.51	12.66	10.54	10.34	11.16	22.17	1.19	5.34	4.77	
Difference	-22.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-22.86	
IM U.S. REIT (SA+CF) Median	-16.66	-19.80	-5.87	-5.87	6.00	7.13	7.90	8.25	42.78	-4.05	28.09	-16.66	
Rank	88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	88	

Performance shown is gross of fees, except for FLP & ECLP Bank Loans which are shown net of fees, and annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.

North Dakota Board of University and School Lands
Comparative Performance - Gross

As of June 30, 2022

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2021	2020	2019	Since Incep.	Inception Date
Private Equity													
GCM Grosvenor BUSL LP	1.80	1.48	15.30	15.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.69	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	21.53	
Difference	1.80	0.90	2.48	2.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-7.84	
GCM Grosvenor Secondary Opp Fund III LP													
GCM Grosvenor Secondary Opp Fund III LP	-3.38	-4.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.81	01/01/2022
Cambridge US Prvt Eq Index	0.00	0.58	12.82	12.82	21.72	18.85	16.28	16.16	40.41	21.67	13.82	0.58	
Difference	-3.38	-5.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-5.39	
Private Infrastructure													
Private Infrastructure	1.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.12	02/01/2022
MSCI Wrld Infrastructure Index	-5.69	-2.69	-0.59	-0.59	3.69	4.38	4.32	5.78	6.31	0.13	21.60	-1.94	
Difference	6.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.06	
JP Morgan Infrastructure Investments													
JP Morgan Infrastructure Investments	1.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.26	02/01/2022
MSCI Wrld Infrastructure Index	-5.69	-2.69	-0.59	-0.59	3.69	4.38	4.32	5.78	6.31	0.13	21.60	-1.94	
Difference	6.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.20	
First Sentier GDIF US HFF													
First Sentier GDIF US HFF	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.76	05/01/2022
MSCI Wrld Infrastructure Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.76	
Opportunistic Investments													
Opportunistic Investments	-7.69	-8.88	-9.14	-9.14	N/A	N/A	N/A	N/A	7.39	N/A	N/A	14.65	07/01/2020
Varde Dislocation Fund LP	-7.69	-8.88	-9.14	-9.14	N/A	N/A	N/A	N/A	7.39	N/A	N/A	14.65	
Apollo Accord Fund IV LP	0.71	-0.70	12.47	12.47	N/A	N/A	N/A	N/A	25.99	N/A	N/A	17.72	10/01/2020

Performance shown is gross of fees, except for FLP & ECLP Bank Loans which are shown net of fees, and annualized for periods greater than one year. Manager inception dates shown represent the first full month following initial funding. Please see the Addendum for custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.

Performance Related Comments

- Manager inception dates shown represent the first full month following initial funding.
- RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Prior historical data was provided by North Dakota Board of University and School Lands.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- Historical gross performance for composites was calculated by aggregating gross performance for each of the composites' underlying managers. Managers' gross performance was provided by North Dakota Board of University and School Lands. As of 07/2014, composite and manager performance is provided and calculated by RVK.

Manager Transition Comments

- During 07/2020, Varde Dislocation Fund, LP was funded and Gresham Commodities (SA) was liquidated.
- During 09/2020, Apollo Accord Fund IV, LP was funded.
- During 03/2021, Loomis Sayles Credit Asset (SA), Ares Pathfinder Fund LP and GCM Grosvenor BUSL LP was funded. Harvest MLP (SA) and ECLP (Loans) were liquidated.
- During 05/2021, Angelo Gordon Direct Lending IV Fund LP was funded.
- During 08/2021, QMA Int'l Sm Cap Equity, DFA Emg Mkts Core Eq;I and Brandywine Gbl Opp Fixed Income were liquidated. Schroders Securitized Credit (Structured Credit) transitioned into Schroders Flexible Secured Income (Secured Income)
- During 10/2021 Owl Rock Diversified Lending was funded.
- During 09/2021, Harding Loevner:LEM;IZ was liquidated.
- During 11/2021 Acadian International Small Cap was funded.
- During 11/2021 Arrowstreet Emerging Markets was funded.
- During 12/2021 PineBridge Dyn AA;Inst (PDAIX) was funded.
- During 12/2021 Millennium USA LP was funded.
- During 12/2021 GCM Grosvenor Secondary Opp Fund III LP was funded.
- During 01/2022 State Street World Ex US Index, NT Emerging Markets, Harrison Street Core Property and JP Morgan Infrastructure Investments were funded. GMO: Bchmk-Fr All;IV was liquidated.
- During 02/2022 Apollo Defined Return Fund and State Street U.S. REIT Index Fund were funded.
- During 04/2022 First Sentier GDIF US HFF was funded.
- During 05/2022 Angelo Gordon Direct Lending BUSL was funded.
- During 06/2022 The NT STIF Transition Account was closed.

Index Comments

- The Target Allocation Index (Net) is a static custom index that is calculated monthly and consists of:
 - From 05/2020 through present: 19% Russell 3000 Index, 19% MSCI ACW Ex US Index (USD) (Net), 22% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 15% Absolute Return Index, 5% Cambridge US Private Equity Index, and 5% MSCI World Infrastructure Index.
 - From 07/2019 through 04/2020: 18.5% Russell 3000 Index, 18.5% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 15% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 02/2018 through 06/2019: 17% Russell 3000 Index, 17% MSCI ACW Ex US Index (USD) (Net), 21% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 07/2016 through 01/2018: 17% Russell 3000 Index, 15% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 04/2016 through 06/2016: 17.6% Russell 3000 Index, 15.5% MSCI ACW Ex US Index (USD) (Net), 23.8% Global Fixed Income Custom Index, 12% NCREIF ODCE Index (AWA) (Net), 20.7% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 01/2016 through 03/2016: 17.7% Russell 3000 Index, 15.6% MSCI ACW Ex US Index (USD) (Net), 25.3% Global Fixed Income Custom Index, 10% NCREIF ODCE Index (AWA) (Net), 21% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 10/2015 through 12/2015: 17.9% Russell 3000 Index, 15.9% MSCI ACW Ex US Index (USD) (Net), 25.5% Global Fixed Income Custom Index, 9% NCREIF ODCE Index (AWA) (Net), 21.1% Absolute Return Custom Index, and 10.6% DIS Custom Index.
 - From 07/2015 through 09/2015: 19.5% Russell 3000 Index, 17.4% MSCI ACW Ex US Index (USD) (Net), 26.2% Global Fixed Income Custom Index, 4.1% NCREIF ODCE Index (AWA) (Net), 22% Absolute Return Custom Index, and 10.8% DIS Custom Index.
 - From 07/2014 through 06/2015: The index was calculated monthly using beginning of month asset class weights applied to each corresponding primary benchmark return.
 - From 01/2013 through 06/2014: 18.7% Russell 1000 Index, 12.4% Russell 2500 Index, 7.5% FTSE EPRA/NAREIT US Index, 12.4% MSCI EAFE Index (USD) (Net), 33.3% Bloomberg US Agg Bond Index, 0.70% CS Lvg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, and 5% Bloomberg Gbl Agg Ex USD Index (Hedged).

- From 07/2009 through 12/2012: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRA/NAREIT US Index, 10% MSCI EAFE Index (USD) (Net), 32.3% Bloomberg US Agg Bond Index, 1.70% CS Lvg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, 5% Bloomberg Gbl Agg Ex USD Index (Hedged), and 10% ICE BofAML Cnvt Bonds Index (All Qual).

Index Comments Cont.

- The Target Allocation Index (Gross) is a static custom index that is calculated monthly and consists of:
 - From 05/2020 through present: 19% Russell 3000 Index, 19% MSCI ACW Ex US Index (USD) (Net), 22% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Gross), 15% Absolute Return Index, 5% Cambridge US Private Equity Index, and 5% MSCI World Infrastructure Index.
 - From 07/2019 through 04/2020: 18.5% Russell 3000 Index, 18.5% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Gross), 15% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 02/2018 through 06/2019: 17% Russell 3000 Index, 17% MSCI ACW Ex US Index (USD) (Net), 21% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Gross), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 07/2016 through 01/2018: 17% Russell 3000 Index, 15% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Gross), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 04/2016 through 06/2016: 17.6% Russell 3000 Index, 15.5% MSCI ACW Ex US Index (USD) (Net), 23.8% Global Fixed Income Custom Index, 12% NCREIF ODCE Index (AWA) (Gross), 20.7% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 01/2016 through 03/2016: 17.7% Russell 3000 Index, 15.6% MSCI ACW Ex US Index (USD) (Net), 25.3% Global Fixed Income Custom Index, 10% NCREIF ODCE Index (AWA) (Gross), 21% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 10/2015 through 12/2015: 17.9% Russell 3000 Index, 15.9% MSCI ACW Ex US Index (USD) (Net), 25.5% Global Fixed Income Custom Index, 9% NCREIF ODCE Index (AWA) (Gross), 21.1% Absolute Return Custom Index, and 10.6% DIS Custom Index.
 - From 07/2015 through 09/2015: 19.5% Russell 3000 Index, 17.4% MSCI ACW Ex US Index (USD) (Net), 26.2% Global Fixed Income Custom Index, 4.1% NCREIF ODCE Index (AWA) (Gross), 22% Absolute Return Custom Index, and 10.8% DIS Custom Index.
 - From 07/2014 through 06/2015: The index was calculated monthly using beginning of month asset class weights applied to each corresponding primary benchmark return.
 - From 01/2013 through 06/2014: 18.7% Russell 1000 Index, 12.4% Russell 2500 Index, 7.5% FTSE EPRA/NAREIT US Index, 12.4% MSCI EAFE Index (USD) (Net), 33.3% Bloomberg US Agg Bond Index, 0.70% CS Lvg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, and 5% Bloomberg Gbl Agg Ex USD Index (Hedged).
 - From 07/2009 through 12/2012: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRA/NAREIT US Index, 10% MSCI EAFE Index (USD) (Net), 32.3% Bloomberg US Agg Bond Index, 1.70% CS Lvg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, 5% Bloomberg Gbl Agg Ex USD Index (Hedged), and 10% ICE BofAML Cnvt Bonds Index (All Qual).
- The Global Fixed Income Custom Index consists of the Bloomberg US Unv Bond Index. Prior to 03/2019, the index consisted of 75% Bloomberg US Unv Bond Index and 25% Bloomberg Multiverse Index.
- The Absolute Return Custom Index consists of 60% MSCI ACW IM Index (USD) (Net) and 40% Bloomberg US Agg Bond Index.
- The JP Morgan FI Custom Index consists of the Bloomberg US Agg Bond Index. Prior to 03/2021, the index consisted of Bloomberg US Gov't Crdt Int Trm Bond Index.

The All Asset Custom Index (EqI Wtd) is an equal-weighted hybrid created independently by RVK specifically for PIMCO's All Asset strategies, and it consists of the following benchmarks:

1. Short Term Strategies: ICE BofAML 1 Yr T-Bill Index
2. US Core and Long Maturity Bond Strategies: Bloomberg US Agg Bond Index
3. EM and Gbl Bond Strategies: PIMCO GLADI Index*
4. Crdt Strategies: ICE BofAML US Hi Yld Master II Index
5. Inflation Related Strategies: Bloomberg US Trsy US TIPS Index
6. US Equity Strategies: Russell 3000 Index
7. Global Equity Strategies: MSCI ACW Index (USD) (Net)
8. Alternative Strategies: ICE BofAML 3 Mo US T-Bill Index + 3%

*Performance for the PIMCO Gbl Advantage Bond Index (London Close) prior to 01/01/2004 consists of the JPM EMBI Gbl Dvf'd Index (TR).

Peer Groups

- Total Fund - All Master Trust Universe
- US Equity - IM US Equity (MF)
- International Equity - IM International Large Cap Equity (MF)
- Fixed Income - IM Global Fixed Income (MF)

Glossary

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

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

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

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

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

<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – 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	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

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

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

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

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

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data. Attribution to "other" is the result of securities based in industries that do not fit into any GICS classification.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider. Attribution to "other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

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

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

Capital Markets Review -

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

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

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

Glossary

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

Glossary

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

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

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

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

Peer Groups -

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

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

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

1 - Highest Statistical Value

100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 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 $\geq 10\%$ of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

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

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

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

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

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

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

Return - Compounded rate of return for the period.

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

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

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



Glossary

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

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

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

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

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

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

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