
SEPTEMBER 13, 2022

**AGENDA ITEM 7
INFORMATION ITEM**

SCHOLARSHARE INVESTMENT BOARD

Review and Analysis of Investment Performance for ScholarShare 529

Background

The ScholarShare Investment Board (SIB or Board) and its investment consultant, Meketa Investment Group, Inc. (Meketa), monitor all portfolios in ScholarShare 529 (Plan) in accordance with the ScholarShare Monitoring Procedures and Criteria (Procedures) adopted by the Board.

In this item, SIB will review and discuss the “Investment Performance Report” (Exhibit A) for the Plan for second quarter 2022, provided by TIAA-CREF Tuition Financing, Inc., and the “Investment Performance Status Report” (Exhibit B) for second quarter 2022, provided by Meketa. Exhibit B provides comparisons for each underlying fund allocated to the portfolios used in the Plan to applicable benchmark criteria and labels the current status of funds as “positive,” “acceptable,” “caution,” or “watch.”

For the second quarter of 2022:

- 10 underlying funds were in the “positive” status,
- 11 underlying funds were in the “acceptable” status, and
- Two (2) underlying funds were in the “caution” status (one of which is on “watch” status).

As outlined in Meketa’s memo (Exhibit C),

- One (1) fund, the T. Rowe Price Institutional Large Cap Growth Fund (“Fund”), remains on “watch” status;
- One (1) fund, the TIAA-CREF Emerging Markets Equity Index Fund, qualifies for “watch” status, however, Meketa is not recommending it be placed on “watch” status due to explanation included in its memo dated March 16, 2022, and presented at the March 23, 2022 Board meeting; and
- No new funds qualify for “watch” status.

Presenters

Jeremy Thiessen, Senior Director, Institutional Investment Strategist,
TIAA-CREF Tuition Financing, Inc.

Eric White, Principal, Meketa Investment Group, Inc.



TIAA-CREF Tuition Financing, Inc.

Quarterly Investment Performance Report

2nd Quarter 2022

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Before investing in the ScholarShare 529 College Savings Plan, you should consider the investment objectives, risks, charges, and expenses. The information contained in this report is subject to further change and amendments over time. Some changes may occur due to the result of adjustments. For a prospectus containing this and other information, as well as a Participant Agreement and Disclosure Statement, please call 1-800-544-5248 or view it online at www.scholarshare529.com. Please read these documents carefully before investing.

TIAA-CREF Tuition Financing, Inc., Program Manager. TIAA-CREF Individual & Institutional Services, LLC, member FINRA and SIPC, distributor and underwriter for the ScholarShare 529 College Savings Plan.



Market Overview: Q2 2022

Key Themes

- The macro environment in the second quarter was similar to that of the first, with investors concerned about higher inflation, conflict overseas, and issues related to business disruption and supply chain normalization. The Federal Reserve continued to raise interest rates during a volatile time for both stock and bond markets.

Equities

- Every U.S. sector posted a loss in Q2. Consumer Discretionary was the laggard, falling 26.16% while Consumer staples led with a loss of only 4.62%. Volatility remained high as slowing economic growth weighed on markets domestically and abroad.

Fixed Income

- The U.S. Federal Reserve raised interest rates by 75 basis points in June in an effort to cool inflation, and many expect the Fed Funds target to travel higher at the next FOMC meeting. Core bond markets continued to feel pain during this rate rally. Inflation-linked products fared better in this environment.

Past performance is not indicative of future results. You can not invest directly in an index. U.S. Equities – Russell 3000 Index; U.S. Growth Stocks – Russell 1000 Growth Index; U.S. Value Stocks – Russell 1000 Value Index; U.S. Mid Cap Stocks – Russell Midcap Index; U.S. Small-Cap Stocks – Russell 2000 Index; International Developed Markets – MSCI EAFE Index; Emerging Markets – MSCI Emerging Markets Index; Real Estate Stocks – FTSE NAREIT All Equity REITS Index; U.S. Investment Grade Bonds – Bloomberg Barclays U.S. Aggregate Bond Index; Inflation-Linked Bonds – Bloomberg Barclays TIPS 1-10 Years Index; High Yield Bonds – BofA Merrill Lynch BB/B Cash Pay Index; Commodities - Bloomberg Commodity Index; Cash – Bloomberg Barclays U.S. 3 month Treasury Bellweathers Index. C34631

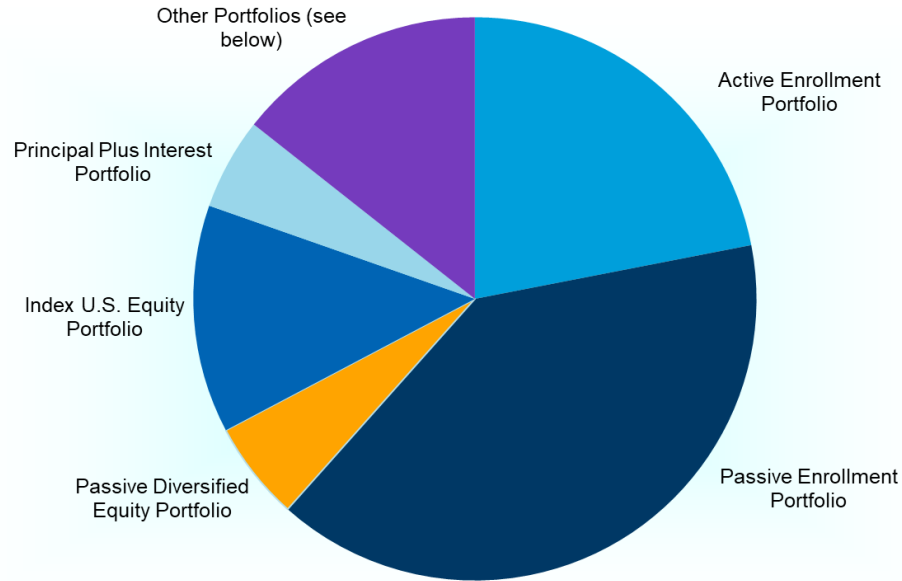
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Asset Class	3 Month	1 Year	3 Year	5 Year
U.S. Equities	-16.70	-13.87	9.77	10.60
U.S. Growth Stocks	-20.92	-18.77	12.58	14.29
U.S. Value Stocks	-12.21	-6.82	6.87	7.17
U.S. Mid-Cap Stocks	-16.85	-17.30	6.59	7.96
U.S. Small-Cap Stocks	-17.20	-25.20	4.21	5.17
Int'l Developed Stocks	-14.51	-17.77	1.07	2.20
Emerging Markets Stocks	-11.45	-25.28	0.57	2.18
Real Estate Stocks	-14.68	-5.89	5.34	6.75
U.S. Investment Grade Bonds	-4.69	-10.29	-0.93	0.88
Inflation-Linked Bonds	-3.42	-2.03	3.37	3.24
High Yield Bonds	-9.49	-12.19	0.04	2.07
Commodities	-5.66	24.27	14.34	8.39
Cash	0.11	0.17	0.63	1.12
Annualized Tuition Inflation Ending as of 2021-2022 Academic Year* (%)				
Educational Institution	1 Year	3 Year	5 Year	
National Average Public 4-Year In-state	1.61	1.70	2.12	
National Average Private Nonprofit 4-Year	2.15	2.18	2.59	
Consumer Price Index, June 2022	9.06	4.98	3.88	

*Data are for the entire academic year and are average total charges for full-time attendance. Tuition and fees were enrollment weighted. SOURCES: CollegeBoard, Trends in College Pricing 2021 and U.S. Department of Labor: Bureau of Labor Statistics

Asset Overview by Portfolio as of Q2 2022

Total Assets: \$11.5 Billion

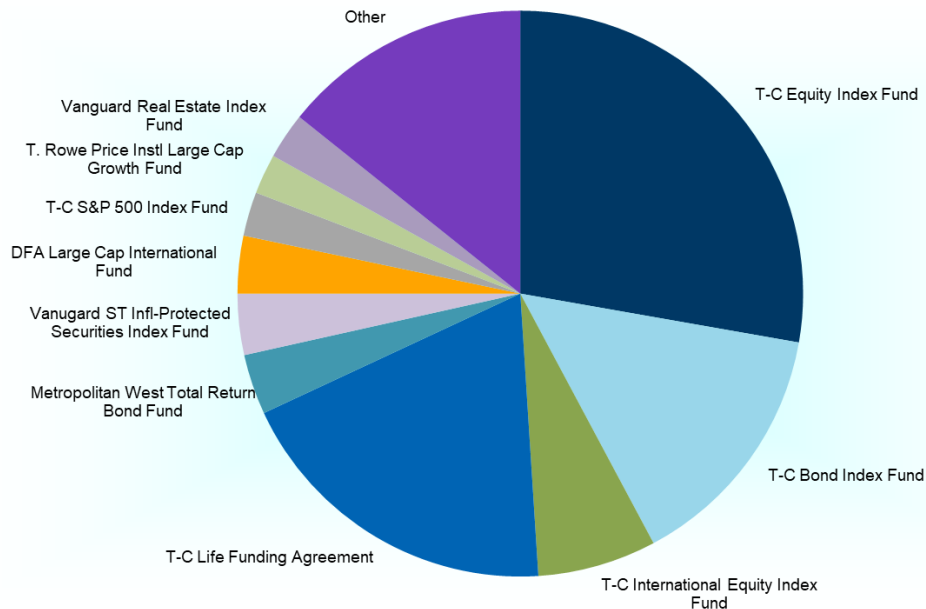


Portfolio	% of Assets	\$ Millions	Portfolio	% of Assets	\$ Millions
Passive Enrollment Portfolio	39.64%	\$4,565	Passive Diversified Equity Portfolio	5.70%	\$656
Active Enrollment Portfolio	21.94%	\$2,527	Principal Plus Interest Portfolio	5.26%	\$606
Index U.S. Equity Portfolio	13.09%	\$1,508	Other Portfolios (see below)	14.37%	\$1,655

Other Portfolios

Active Diversified Equity Portfolio	3.20%	\$369	Index Bond Portfolio	0.74%	\$85
Active Growth Portfolio	2.92%	\$336	Active Conservative Portfolio	0.70%	\$80
Passive Growth Portfolio	2.40%	\$277	Active International Equity Portfolio	0.32%	\$37
Social Choice Equity Portfolio	2.06%	\$237	ESG Enrollment Portfolio	0.04%	\$5
Index International Equity Portfolio	1.15%	\$132	ESG Bond Portfolio	0.01%	\$1.1
Passive Conservative Portfolio	0.83%	\$95	ESG International Equity Portfolio	0.00%	\$0.5

Asset Overview by Underlying Fund as of Q2 2022

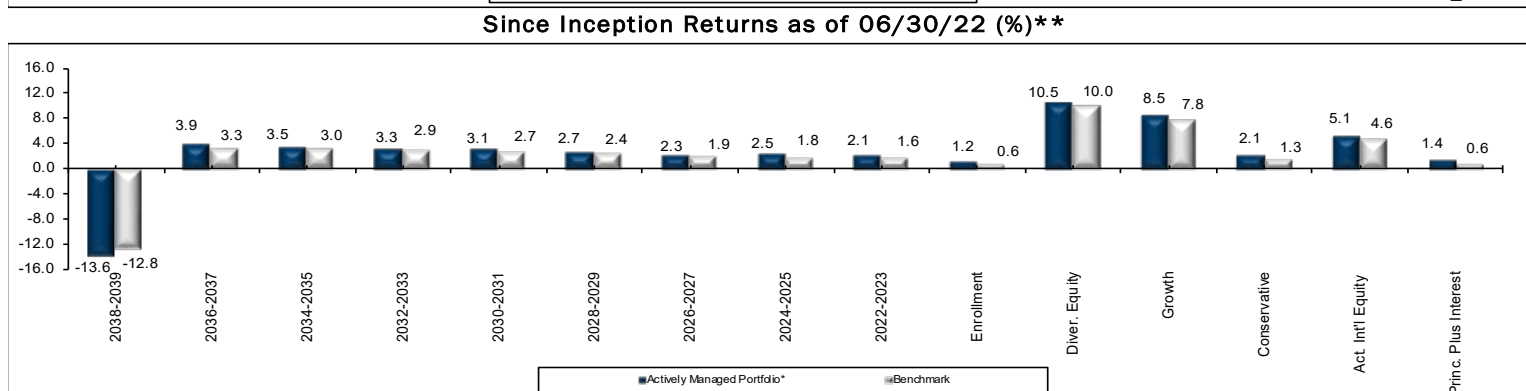
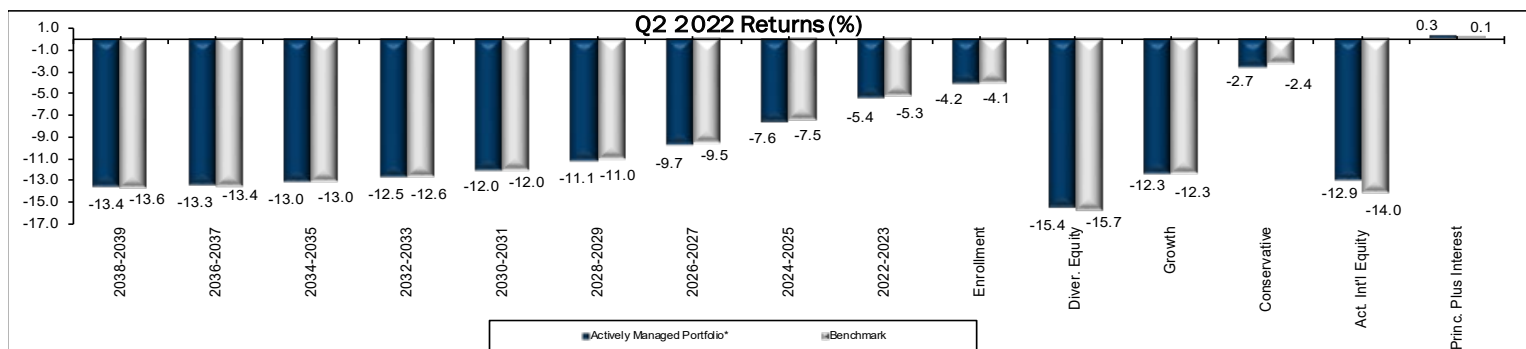


Fund	% of Assets	\$ Millions	Fund	% of Assets	\$ Millions
T-C Equity Index Fund	27.77%	\$3,404	DFA Large Cap International Fund	3.30%	\$404
T-C Life Funding Agreement	19.08%	\$2,340	Vanguard Real Estate Index Fund	2.64%	\$324
T-C Bond Index Fund	14.43%	\$1,769	T-C S&P 500 Index Fund	2.52%	\$309
T-C International Equity Index Fund	6.79%	\$833	T. Rowe Price Instl Large Cap Growth Fund	2.29%	\$280
Vanguard ST Inflation-Protected Securities Index Fund	3.48%	\$427	Other	14.27%	\$1,749
Metropolitan West Total Return Bond Fund	3.45%	\$422			

Other Funds

T. Rowe Price Instl Large Cap Value Fund	2.37%	\$291	DFA Emerging Markets Core Equity Portfolio	0.82%	\$101
PIMCO Income Fund	1.96%	\$240	T-C Quant Small Cap Equity Fund	0.80%	\$98
T-C Social Choice Equity Fund	1.95%	\$239	Nuveen ESG US Agg Bond ETF	0.02%	\$3
PIMCO Real Return Fund	1.94%	\$238	T-C Social Choice Int'l Equity Fund	0.01%	\$0.96
Vanguard High-Yield Corporate Fund	1.72%	\$211	Nuveen ESG HY Corp Bond ETF	0.00%	\$0.17
T-C Emerging Markets Equity Index Fund	1.71%	\$209	Nuveen ESG EM Equity ETF	0.00%	\$0.12
T. Rowe Price Instl Floating Rate Fund	0.97%	\$119			

Active Portfolios vs. Composite Benchmarks



* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees and State Administrative Fees (5 bps).

** Inception for the Multi-Fund and Single-Fund Portfolios was 11/4/11 - 11/10/11. Inception for most Enrollment Year Portfolios was 1/24/20 (inception for 2038-2039 was 6/11/21).

- The U.S. economy gained 372,000 jobs in June and the unemployment rate remained at 3.6%. Notable job gains occurred in education and health services, as well as professional and business services and leisure and hospitality.
- The Conference Board's index of leading economic indicators (LEI) decreased 0.4% in May, following a 0.4% decline in April. This was fueled by tumbling stock prices, a slowdown in housing construction, and gloomier expectations.
- The Federal Open Market Committee raised its target range for the Fed Funds Rate by 75 basis points in June. With inflationary pressure stubbornly high, the market is expecting more hikes in 2022.
- The Active Enrollment Year Portfolios generated negative absolute returns in Q2, with more aggressive portfolios posting lower returns than conservative ones. Portfolios performed in line with their blended benchmarks.
- Nearly all underlying funds saw negative returns in Q2. The T. Rowe Price Large Cap Growth Fund led the decline with returns down more than 22%. The T. Rowe Price Inst'l Floating Rate Fund returned -4.66% in the quarter and helped mitigate losses.

Active Portfolios vs. Composite Benchmarks –Return (%)

Investment Portfolios*	3 Month	YTD	Average Annual Total Return				Inception Date
			1 Year	3 Year	5 Year	Since Inception	
Active Enrollment Year Portfolios							
2038/2039 Enrollment Portfolio Active	-13.43%	-17.83%	-14.39%	-	-	-13.63%	06/11/21
Blended Benchmark Returns	-13.58%	-17.93%	-13.40%	-	-	-12.82%	
Difference	0.15%	0.10%	-0.99%	-	-	-0.81%	
2036/2037 Enrollment Portfolio Active	-13.28%	-17.70%	-14.30%	-	-	3.87%	01/24/20
Blended Benchmark Returns	-13.42%	-17.78%	-13.27%	-	-	3.28%	
Difference	0.14%	0.08%	-1.03%	-	-	0.59%	
2034/2035 Enrollment Portfolio Active	-12.98%	-17.35%	-14.08%	-	-	3.45%	01/24/20
Blended Benchmark Returns	-12.99%	-17.36%	-13.02%	-	-	3.05%	
Difference	0.01%	0.01%	-1.06%	-	-	0.40%	
2032/2033 Enrollment Portfolio Active	-12.54%	-16.91%	-13.80%	-	-	3.25%	01/24/20
Blended Benchmark Returns	-12.57%	-16.94%	-12.75%	-	-	2.88%	
Difference	0.03%	0.03%	-1.05%	-	-	0.37%	
2030/2031 Enrollment Portfolio Active	-12.00%	-16.37%	-13.34%	-	-	3.13%	01/24/20
Blended Benchmark Returns	-11.98%	-16.38%	-12.37%	-	-	2.75%	
Difference	-0.02%	0.01%	-0.97%	-	-	0.38%	
2028/2029 Enrollment Portfolio Active	-11.07%	-15.44%	-12.75%	-	-	2.74%	01/24/20
Blended Benchmark Returns	-10.96%	-15.38%	-11.75%	-	-	2.37%	
Difference	-0.11%	-0.06%	-1.00%	-	-	0.37%	
2026/2027 Enrollment Portfolio Active	-9.67%	-13.94%	-11.48%	-	-	2.26%	01/24/20
Blended Benchmark Returns	-9.51%	-13.83%	-10.69%	-	-	1.87%	
Difference	-0.16%	-0.11%	-0.79%	-	-	0.39%	
2024/2025 Enrollment Portfolio Active	-7.57%	-11.20%	-9.15%	-	-	2.50%	01/24/20
Blended Benchmark Returns	-7.47%	-11.23%	-8.68%	-	-	1.76%	
Difference	-0.10%	0.03%	-0.47%	-	-	0.74%	
2022/2023 Enrollment Portfolio Active	-5.39%	-8.03%	-6.40%	-	-	2.14%	01/24/20
Blended Benchmark Returns	-5.26%	-8.08%	-6.27%	-	-	1.62%	
Difference	-0.13%	0.05%	-0.13%	-	-	0.52%	
Enrollment Year Portfolio Active	-4.19%	-6.28%	-4.98%	-	-	1.22%	01/24/20
Blended Benchmark Returns	-4.08%	-6.41%	-5.11%	-	-	0.55%	
Difference	-0.11%	0.13%	0.13%	-	-	0.67%	

* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees and State Administrative Fees (5 bps).

Active Portfolios vs. Composite Benchmarks –Return (%)

Investment Portfolios*	Average Annual Total Return						Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	
Active Multi-Fund Investment Portfolios							
Active Diversified Equity Portfolio	-15.41%	-19.81%	-15.93%	6.75%	8.00%	10.46%	11/04/11
Blended Benchmark Returns	-15.67%	-20.01%	-14.73%	6.83%	7.83%	10.00%	
Difference	0.26%	0.20%	-1.20%	-0.08%	0.17%	0.46%	
Active Growth Portfolio	-12.29%	-16.68%	-13.60%	5.26%	6.43%	8.46%	11/04/11
Blended Benchmark Returns	-12.31%	-16.72%	-12.57%	5.19%	6.23%	7.76%	
Difference	0.02%	0.04%	-1.03%	0.07%	0.20%	0.70%	
Active Conservative Portfolio	-2.72%	-4.79%	-3.99%	0.98%	1.64%	2.13%	11/04/11
Blended Benchmark Returns	-2.42%	-4.75%	-4.23%	0.43%	1.36%	1.31%	
Difference	-0.30%	-0.04%	0.24%	0.55%	0.28%	0.82%	
Active International Equity Portfolio	-12.92%	-17.02%	-16.53%	2.53%	2.95%	5.07%	11/10/11
Blended Benchmark Returns	-14.02%	-18.51%	-18.47%	1.56%	2.64%	4.58%	
Difference	1.10%	1.49%	1.94%	0.97%	0.31%	0.49%	
Active Single Fund Investment Portfolios							
Principal Plus Interest Portfolio**	0.26%	0.52%	1.05%	1.40%	1.41%	1.35%	11/04/11
Benchmark Returns	0.13%	0.16%	0.18%	0.57%	1.06%	0.06%	
Difference	0.13%	0.36%	0.87%	0.83%	0.35%	1.29%	

* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees and State Administrative Fees (5 bps).

**The crediting rate of 1.00% for the TC Life Funding Agreement in the Principal Plus Interest Portfolio is guaranteed through 12/31/22.

Active Portfolios: Asset Allocation, Fees, and Performance

Active Enrollment Year Portfolio	Annual Asset Based Fees (bp)*	T. Rowe Price Instl Large Cap Growth Fund	T. Rowe Price Instl Large Cap Value Fund	TIAA-CREF Quant Small Cap Equity Fund	TIAA-CREF S&P 500 Index Fund	DFA Large Cap Int'l Portfolio	DFA Emerging Markets Core Equity I Portfolio	Vanguard Real Estate Index Fund	MetWest Total Return Bond Fund	TIAA-CREF Bond Index Fund	PIMCO Real Return Fund	PIMCO Income Fund	T. Rowe Price Instl Floating Rate Fund	T-C Life Funding Agreement
Underlying Fund Expenses (bp)		56	56	43	5	18	39	10	38	8	45	50	58	N/A
2038-2039	39	14.80%	14.80%	5.00%	15.80%	19.20%	4.80%	5.60%	7.00%	3.00%	4.00%	4.00%	2.00%	
2036-2037	39	14.50%	14.50%	4.90%	15.60%	18.80%	4.70%	5.50%	7.50%	3.20%	4.30%	4.30%	2.20%	
2034-2035	40	13.70%	13.70%	4.70%	14.80%	17.80%	4.50%	5.20%	9.10%	3.80%	5.10%	5.10%	2.50%	
2032-2033	40	13.00%	13.00%	4.40%	14.00%	16.90%	4.20%	5.00%	10.30%	4.40%	5.90%	5.90%	3.00%	
2030-2031	40	11.90%	11.90%	4.10%	12.90%	15.60%	3.90%	4.60%	12.30%	5.30%	7.00%	7.00%	3.50%	
2028-2029	41	10.20%	10.20%	3.50%	11.00%	13.30%	3.30%	3.90%	15.60%	6.70%	8.90%	8.90%	4.50%	
2026-2027	40	8.00%	8.00%	2.70%	8.70%	10.40%	2.60%	3.10%	18.30%	7.90%	10.60%	10.60%	5.30%	3.80%
2024-2025	35	5.80%	5.80%	2.00%	6.40%	7.60%	1.90%	2.20%	17.10%	7.30%	9.80%	9.80%	4.90%	19.40%
2022-2023	28	3.90%	3.90%	1.30%	4.30%	5.10%	1.30%	1.50%	13.40%	5.70%	7.60%	7.60%	3.80%	40.60%
Enrollment	24	2.70%	2.70%	1.00%	3.00%	3.60%	0.90%	1.10%	12.25%	5.25%	7.00%	7.00%	3.50%	50.00%

Active Multi-Fund Investment Portfolios

Active Diversified Equity Portfolio	38	18.40%	18.40%	6.30%	19.90%	24.00%	6.00%	7.00%						
Active Growth Portfolio	40	12.50%	12.50%	4.30%	13.60%	16.30%	4.00%	4.80%	11.20%	4.80%	6.40%	6.40%	3.20%	
Active Conservative Portfolio	26								17.50%	7.50%	10.00%	10.00%	5.00%	50.00%
Active International Equity Portfolio	28					80.00%	20.00%							
Fund's Performance vs Benchmk Q2 2022 (bp)		(200)	160	69	0	144	(35)	(5)	(102)	(3)	(34)	(49)	(10)	13

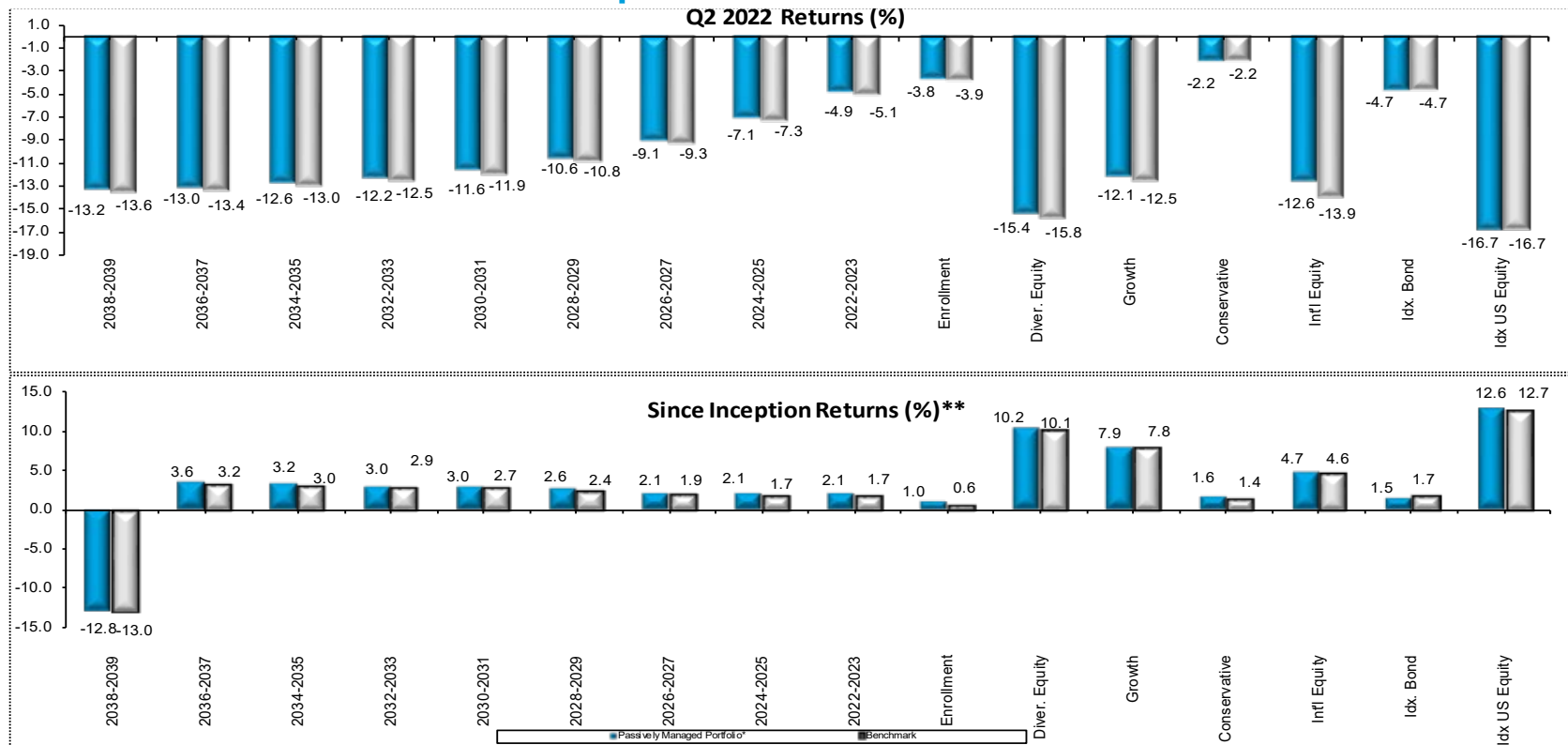
Glide Path asset allocations are as reflected in the Plan Description.

Active Single Fund Investment Portfolios

Investment Portfolios	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q2 2022 (bp)
Principal Plus Interest Portfolio	N/A	100.00%	TIAA-CREF Life Co. Funding Agreement	13

* Asset Based Fees include most recent weighted average Underlying Fund Fees, Program Management Fees and State Administrative Fees (5 bps).

Passive Portfolios vs Composite Benchmarks



* Returns are net of most recent weighted average Underlying Fund Fees and Program Management Fees for the quarter, as well as State Administrative Fees (5 bps) before 11/12/13.

** Inception for the Multi-Fund and Single-Fund Portfolios was 11/4/11 - 11/8/11. Inception for most Enrollment Year Portfolios was 1/24/20 (inception for 2038-2039 was 6/11/21).

- U.S. equity returns were severely impacted by concerns about inflation and the Fed's pace for interest rate hikes. The Russell 3000 Index lost 16.70% in the second quarter.
- Treasury yields rose fairly significantly across the curve. The Bloomberg U.S. Aggregate Bond Index of intermediate-term investment grade U.S. bonds returned -4.69% in another challenging quarter for fixed income investors.
- All eleven GIC sectors lost ground in Q2. Consumer Staples (-4.62%) was the leader, while Consumer Discretionary (-26.16%) lagged.
- Based on respective Russell indexes, small cap companies underperformed the broad large cap market. Value stocks (-12.21%) beat growth stocks (-20.92%), continuing a trend seen in the first quarter.
- Similar to the Active lineup, the Passive Enrollment Year Portfolios posted negative absolute returns in Q2.
- More conservative allocations in the Enrollment Year Portfolios had higher returns than more aggressive portfolios.
- The TIAA-CREF Life Funding Agreement continued to credit a guaranteed crediting rate of return and benefited investors.

Passive Portfolios vs. Composite Benchmarks

Investment Portfolios*	Average Annual Total Return					Since Inception	Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year		
Passive Enrollment Year Portfolios							
2038/2039 Enrollment Portfolio Passive	-13.23%	-17.91%	-13.40%	-	-	-12.77%	06/11/21
Blended Benchmark Returns	-13.57%	-18.22%	-13.59%	-	-	-13.00%	
Difference	0.34%	0.31%	0.19%	-	-	0.23%	
2036/2037 Enrollment Portfolio Passive	-13.02%	-17.81%	-13.37%	-	-	3.56%	01/24/20
Blended Benchmark Returns	-13.40%	-18.06%	-13.46%	-	-	3.24%	
Difference	0.38%	0.25%	0.09%	-	-	0.32%	
2034/2035 Enrollment Portfolio Passive	-12.62%	-17.37%	-13.04%	-	-	3.21%	01/24/20
Blended Benchmark Returns	-12.96%	-17.62%	-13.20%	-	-	3.02%	
Difference	0.34%	0.25%	0.16%	-	-	0.19%	
2032/2033 Enrollment Portfolio Passive	-12.18%	-16.94%	-12.82%	-	-	2.97%	01/24/20
Blended Benchmark Returns	-12.51%	-17.18%	-12.92%	-	-	2.85%	
Difference	0.33%	0.24%	0.10%	-	-	0.12%	
2030/2031 Enrollment Portfolio Passive	-11.60%	-16.36%	-12.47%	-	-	2.97%	01/24/20
Blended Benchmark Returns	-11.90%	-16.58%	-12.52%	-	-	2.73%	
Difference	0.30%	0.22%	0.05%	-	-	0.24%	
2028/2029 Enrollment Portfolio Passive	-10.58%	-15.27%	-11.76%	-	-	2.62%	01/24/20
Blended Benchmark Returns	-10.84%	-15.53%	-11.85%	-	-	2.38%	
Difference	0.26%	0.26%	0.09%	-	-	0.24%	
2026/2027 Enrollment Portfolio Passive	-9.07%	-13.62%	-10.69%	-	-	2.14%	01/24/20
Blended Benchmark Returns	-9.32%	-13.90%	-10.76%	-	-	1.91%	
Difference	0.25%	0.28%	0.07%	-	-	0.23%	
2024/2025 Enrollment Portfolio Passive	-7.07%	-11.00%	-8.52%	-	-	2.10%	01/24/20
Blended Benchmark Returns	-7.30%	-11.27%	-8.97%	-	-	1.67%	
Difference	0.23%	0.27%	0.45%	-	-	0.43%	
2022/2023 Enrollment Portfolio Passive	-4.88%	-7.79%	-5.90%	-	-	2.14%	01/24/20
Blended Benchmark Returns	-5.11%	-8.10%	-6.24%	-	-	1.68%	
Difference	0.23%	0.31%	0.34%	-	-	0.46%	
Enrollment Year Portfolio Passive	-3.76%	-6.06%	-4.57%	-	-	0.98%	01/24/20
Blended Benchmark Returns	-3.94%	-6.39%	-5.12%	-	-	0.55%	
Difference	0.18%	0.33%	0.55%	-	-	0.43%	

* Returns are net of most recent weighted average Underlying Fund Fees and Program Management Fees for the quarter.

Passive Portfolios vs. Composite Benchmarks

Investment Portfolios*	Average Annual Total Return						Since Inception	Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year			
Passive Multi-Fund Investment Portfolios								
Passive Diversified Equity Portfolio	-15.37%	-20.23%	-14.88%	7.06%	8.00%	10.16%	11/04/11	
Blended Benchmark Returns	-15.76%	-20.42%	-14.98%	6.85%	7.85%	10.09%		
Difference	0.39%	0.19%	0.10%	0.21%	0.15%	0.07%		
Passive Growth Portfolio	-12.10%	-16.86%	-12.82%	5.28%	6.26%	7.85%	11/04/11	
Blended Benchmark Returns	-12.46%	-17.12%	-12.90%	5.11%	6.20%	7.82%		
Difference	0.36%	0.26%	0.08%	0.17%	0.06%	0.03%		
Passive Conservative Portfolio	-2.16%	-4.38%	-3.76%	0.72%	1.43%	1.56%	11/04/11	
Blended Benchmark Returns	-2.18%	-4.62%	-4.19%	0.43%	1.36%	1.36%		
Difference	0.02%	0.24%	0.43%	0.29%	0.07%	0.20%		
Index International Equity Portfolio	-12.56%	-18.61%	-18.89%	1.23%	2.40%	4.73%	11/04/11	
Blended Benchmark Returns	-13.90%	-19.16%	-19.27%	1.06%	2.27%	4.62%		
Difference	1.34%	0.55%	0.38%	0.17%	0.13%	0.11%		
Passive Single Fund Investment Portfolios								
Index Bond Portfolio	-4.71%	-10.31%	-10.45%	-1.08%	0.70%	1.52%	11/04/11	
Benchmark Returns	-4.69%	-10.35%	-10.29%	-0.93%	0.88%	1.72%		
Difference	-0.02%	0.04%	-0.16%	-0.15%	-0.18%	-0.20%		
Index U.S. Equity Portfolio	-16.68%	-21.07%	-13.86%	9.74%	10.55%	12.64%	11/04/11	
Benchmark Returns	-16.70%	-21.10%	-13.87%	9.77%	10.60%	12.69%		
Difference	0.02%	0.03%	0.01%	-0.03%	-0.05%	-0.05%		

* Returns are net of most recent weighted average Underlying Fund Fees and Program Management Fees for the quarter, as well as State Administrative Fees (5 bps) before 11/12/13.

Passive Portfolios: Asset Allocation, Fees, and Performance

Passive Enrollment Year Portfolios	Annual Asset Based Fees (bp)*	TIAA-CREF Equity Index Fund	TIAA-CREF International Equity Index Fund	TIAA-CREF Emerging Markets Equity Index Fund	Vanguard Real Estate Index Fund	TIAA-CREF Bond Index Fund	Vanguard Shrt-Term Infl-Prot Sec Index Fund	Vanguard High-Yield Corporate Fund	T-C Life Funding Agreement
Underlying Fund Expenses (bp)		5	5	18	10	8	4	13	N/A
2038-2039	7	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	
2036-2037	7	49.40%	18.80%	4.70%	5.50%	15.10%	4.30%	2.20%	
2034-2035	8	47.00%	17.80%	4.50%	5.20%	17.80%	5.10%	2.60%	
2032-2033	8	44.40%	16.90%	4.20%	4.90%	20.70%	5.90%	3.00%	
2030-2031	8	40.90%	15.60%	3.90%	4.60%	24.50%	7.00%	3.50%	
2028-2029	8	35.00%	13.20%	3.30%	3.90%	31.20%	8.90%	4.50%	
2026-2027	8	27.30%	10.40%	2.60%	3.10%	36.90%	10.60%	5.30%	3.80%
2024-2025	7	20.10%	7.60%	1.90%	2.20%	34.10%	9.80%	4.90%	19.40%
2022-2023	5	13.30%	5.20%	1.30%	1.50%	26.70%	7.60%	3.80%	40.60%
Enrollment	5	9.40%	3.60%	0.90%	1.10%	24.50%	7.00%	3.50%	50.00%

Passive Multi-Fund Investment Portfolios

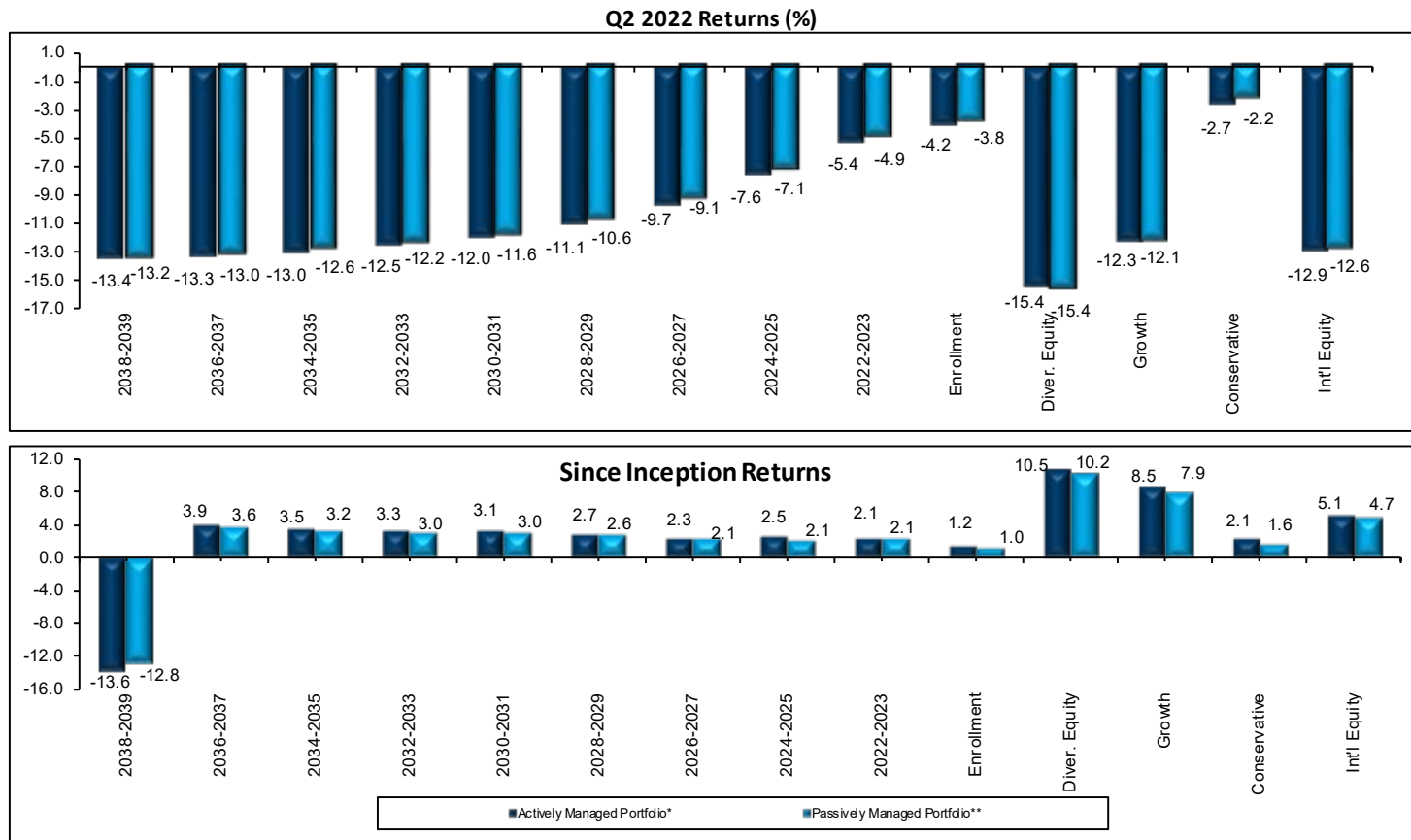
Passive Diversified Equity Portfolio	7	63.00%	24.00%	6.00%	7.00%				
Passive Growth Portfolio	8	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	
Passive Conservative Portfolio	5					35.00%	10.00%	5.00%	50.00%
Index International Equity Portfolio	9		80.00%	20.00%					
Fund's Performance vs Benchmk Q2 2022 (bp)		3	138	131	(5)	(3)	(2)	79	13

Glide Path asset allocations are as reflected in the Plan Description.

Passive Investment Portfolios	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q2 2022 (bp)
Index Bond Portfolio	9	100.00%	TIAA-CREF Bond Index Fund	(3)
Index U.S. Equity Portfolio	6	100.00%	TIAA-CREF Equity Index Fund	3

* Asset Based Fees include most recent weighted average Underlying Fund Fees and Program Management Fees.

Active Portfolios vs Passive Portfolios



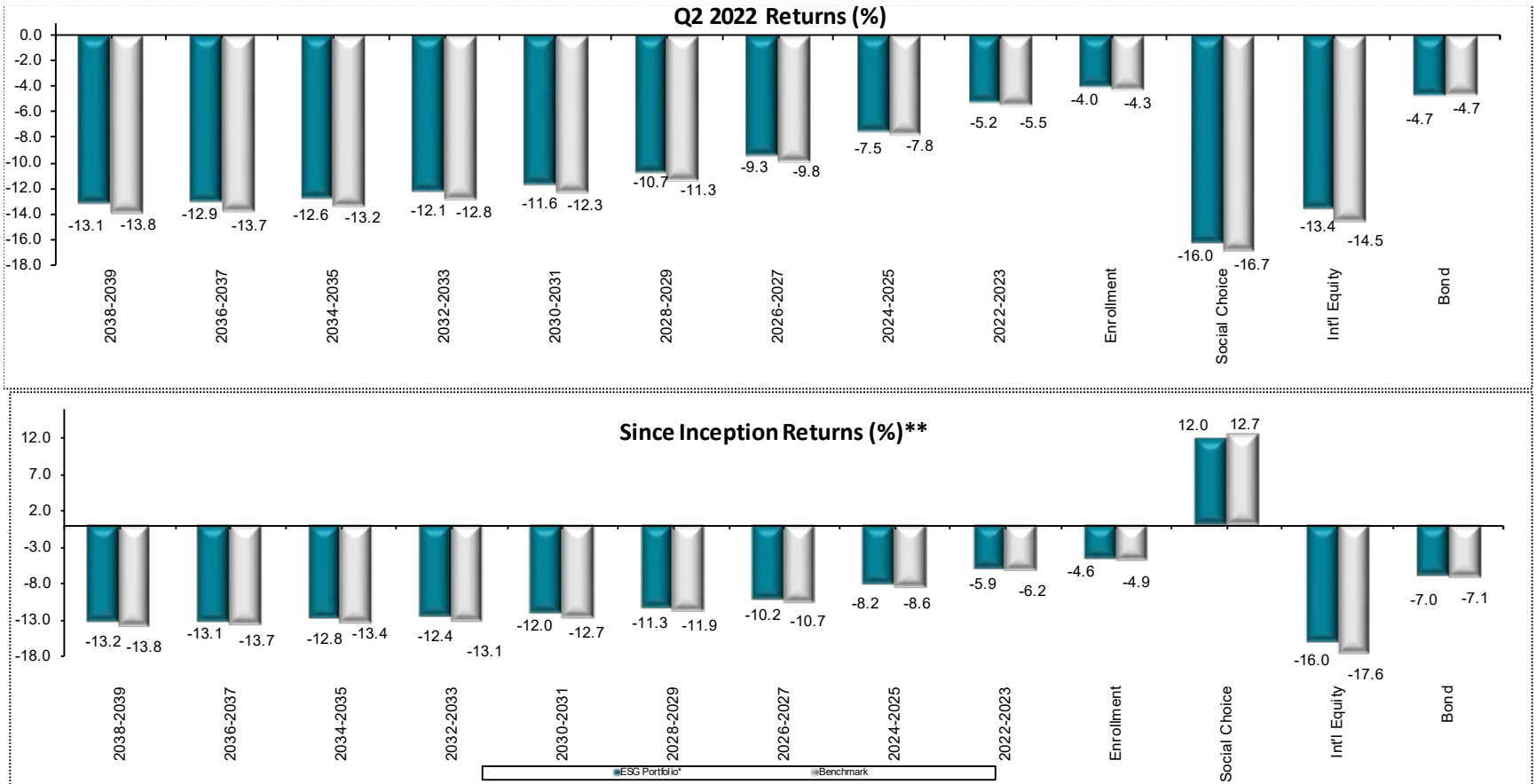
* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees (5 bps).

** Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees (5 bps) before 11/12/13.

*** Inception for the Multi-Fund and Single-Fund Portfolios was 11/4/11 - 11/10/11. Inception for most Enrollment Year Portfolios was 1/24/20 (2038-2039 was incepted 6/11/21).

- In Q2, Passive Portfolios outperformed Active Portfolios.
- The primary reason for underperformance in the Active Portfolios was the T. Rowe Price Large Cap Growth Fund, which contains larger allocations across the portfolios and trailed its benchmark by 200 basis points.
- Since inception, most Active Portfolios modestly outperform their Passive counterparts for portfolios with longer history.

ESG Portfolios vs Composite Benchmarks



* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees.

** Inception for most ESG Portfolios was 2/11/22 (inception for the Social Choice Equity Portfolio was 11/04/11).

- Returns for the ESG Portfolios were roughly in line with those of the Passive Portfolios as they include many of the same asset classes.
- Since inception on February 11, 2022, returns for the ESG Enrollment Year Investment Portfolios reflect the broad market downturns that investors have experienced during this time.

ESG Portfolios vs. Composite Benchmarks

Investment Portfolios*	3 Month	YTD	Average Annual Total Return			Since Inception	Inception Date
			1 Year	3 Year	5 Year		
ESG Enrollment Year Portfolios							
2038/2039 Enrollment Portfolio ESG	-13.11%	-	-	-	-	-13.20%	02/11/22
Blended Benchmark Returns	-13.81%	-	-	-	-	-13.84%	
Difference	0.70%	-	-	-	-	0.64%	
2036/2037 Enrollment Portfolio ESG	-12.93%	-	-	-	-	-13.10%	02/11/22
Blended Benchmark Returns	-13.66%	-	-	-	-	-13.72%	
Difference	0.73%	-	-	-	-	0.62%	
2034/2035 Enrollment Portfolio ESG	-12.63%	-	-	-	-	-12.80%	02/11/22
Blended Benchmark Returns	-13.25%	-	-	-	-	-13.40%	
Difference	0.62%	-	-	-	-	0.60%	
2032/2033 Enrollment Portfolio ESG	-12.14%	-	-	-	-	-12.40%	02/11/22
Blended Benchmark Returns	-12.84%	-	-	-	-	-13.09%	
Difference	0.70%	-	-	-	-	0.69%	
2030/2031 Enrollment Portfolio ESG	-11.56%	-	-	-	-	-12.00%	02/11/22
Blended Benchmark Returns	-12.27%	-	-	-	-	-12.66%	
Difference	0.71%	-	-	-	-	0.66%	
2028/2029 Enrollment Portfolio ESG	-10.67%	-	-	-	-	-11.30%	02/11/22
Blended Benchmark Returns	-11.27%	-	-	-	-	-11.90%	
Difference	0.60%	-	-	-	-	0.60%	
2026/2027 Enrollment Portfolio ESG	-9.29%	-	-	-	-	-10.20%	02/11/22
Blended Benchmark Returns	-9.82%	-	-	-	-	-10.69%	
Difference	0.53%	-	-	-	-	0.49%	
2024/2025 Enrollment Portfolio ESG	-7.46%	-	-	-	-	-8.20%	02/11/22
Blended Benchmark Returns	-7.76%	-	-	-	-	-8.63%	
Difference	0.30%	-	-	-	-	0.43%	
2022/2023 Enrollment Portfolio ESG	-5.24%	-	-	-	-	-5.90%	02/11/22
Blended Benchmark Returns	-5.47%	-	-	-	-	-6.17%	
Difference	0.23%	-	-	-	-	0.27%	
Enrollment Year Portfolio ESG	-4.02%	-	-	-	-	-4.60%	02/11/22
Blended Benchmark Returns	-4.26%	-	-	-	-	-4.94%	
Difference	0.24%	-	-	-	-	0.34%	
ESG Single Fund Investment Portfolios							
Social Choice Equity Portfolio	-16.04%	-21.58%	-14.52%	9.83%	10.37%	11.98%	11/04/11
Benchmark Returns	-16.70%	-21.10%	-13.87%	9.77%	10.60%	12.69%	
Difference	0.66%	-0.48%	-0.65%	0.06%	-0.23%	-0.71%	
ESG International Equity Portfolio	-13.40%	-	-	-	-	-16.00%	02/11/22
Benchmark Returns	-14.51%	-	-	-	-	-17.61%	
Difference	1.11%	-	-	-	-	1.61%	
ESG Bond Portfolio	-4.71%	-	-	-	-	-7.00%	02/11/22
Benchmark Returns	-4.69%	-	-	-	-	-7.15%	
Difference	-0.02%	-	-	-	-	0.15%	

* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees.
The crediting rate of 1.00% for the TC Life Funding Agreement in the ESG Enrollment Year Portfolios is guaranteed through 12/31/22.

ESG Portfolios: Asset Allocation Fees, and Performance

ESG Enrollment Year Portfolios	Annual Asset Based Fees (bp)*	TIAA-CREF Social Choice Equity Fund	TIAA-CREF Social Choice International Equity Fund	Nuveen ESG Emerging Markets Equity ETF	Nuveen ESG US Aggregate Bond ETF	Nuveen ESG High Yield Corporate Bond ETF	TIAA-CREF Life Funding Agreement
Underlying Fund Expenses (bp)		17	36	35	15	30	N/A
2038-2039	27	56.00%	19.20%	4.80%	18.00%	2.00%	
2036-2037	27	55.00%	18.80%	4.70%	19.30%	2.20%	
2034-2035	27	52.20%	17.80%	4.50%	22.90%	2.60%	
2032-2033	27	49.40%	16.90%	4.20%	26.50%	3.00%	
2030-2031	26	45.60%	15.60%	3.90%	31.50%	3.40%	
2028-2029	26	38.90%	13.30%	3.30%	40.10%	4.40%	
2026-2027	25	30.50%	10.40%	2.60%	47.50%	5.20%	3.80%
2024-2025	21	22.30%	7.60%	1.90%	43.90%	4.90%	19.40%
2022-2023	17	14.90%	5.10%	1.30%	34.30%	3.80%	40.60%
Enrollment	15	10.50%	3.60%	0.90%	31.50%	3.50%	50.00%
Fund's Performance vs Benchmk Q2 2022 (bp)		67	111	(6)	2	3	13

Glide Path asset allocations are as reflected in the Plan Description.

ESG Single Fund Investment Portfolios	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Fund	Fund's Performance vs Benchmk Q2 2022 (bp)
Social Choice Equity Portfolio	23	100.00%	TIAA-CREF Social Choice Equity Fund	67
ESG International Equity Portfolio	42	100.00%	TIAA-CREF Social Choice International Equity Fund	(3)
ESG Bond Portfolio	21	100.00%	Nuveen ESG US Aggregate Bond ETF	3

* Asset Based Fees include most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees.

Underlying Funds vs. Benchmarks

TIAA-CREF FUNDS	Average Annual Total Return						3-Year Standard Deviation	Fund Incept. Date
	3 Month	YTD	1 Year	3 Year	5 Year	Life		
T-C Bond Index Fund	-4.72%	-10.33%	-10.46%	-1.07%	0.72%	2.38%	4.60%	09/14/2009
Bloomberg U.S. Aggregate Bond Index	-4.69%	-10.35%	-10.29%	-0.93%	0.88%	2.56%	4.56%	
Difference	-0.03%	0.02%	-0.17%	-0.14%	-0.16%	-0.18%		
T-C Emerging Markets Equity Index Fund*	-10.14%	-16.98%	-25.21%	0.48%	2.06%	2.41%	18.13%	08/31/2010
MSCI Emerging Markets® Index	-11.45%	-17.63%	-25.28%	0.57%	2.18%	2.68%	18.17%	
Difference	1.31%	0.65%	0.07%	-0.09%	-0.12%	-0.27%		
T-C Equity Index Fund	-16.67%	-21.06%	-13.85%	9.74%	10.57%	6.66%	19.32%	07/01/1999
Russell 3000 Index	-16.70%	-21.10%	-13.87%	9.77%	10.60%	6.72%	19.37%	
Difference	0.03%	0.04%	0.02%	-0.03%	-0.03%	-0.06%		
T-C International Equity Index Fund*	-13.13%	-19.01%	-17.28%	1.34%	2.37%	6.60%	17.93%	10/01/2002
MSCI EAFE Index	-14.51%	-19.57%	-17.77%	1.07%	2.20%	6.51%	18.01%	
Difference	1.38%	0.56%	0.49%	0.27%	0.17%	0.09%		
T-C S&P 500 Index Fund	-16.10%	-19.95%	-10.64%	10.56%	11.26%	9.96%	18.62%	10/01/2002
S&P 500 Index	-16.10%	-19.96%	-10.62%	10.60%	11.31%	10.04%	18.64%	
Difference	0.00%	0.01%	-0.02%	-0.04%	-0.05%	-0.08%		
T-C Quant Small Cap Equity Fund	-16.51%	-21.20%	-19.61%	5.19%	5.93%	9.85%	25.05%	10/01/2002
Russell 2000 Index	-17.20%	-23.43%	-25.20%	4.21%	5.17%	9.52%	24.26%	
Difference	0.69%	2.23%	5.59%	0.98%	0.76%	0.33%		
T-C Social Choice Equity Fund	-16.03%	-21.56%	-14.46%	9.90%	10.45%	6.48%	19.16%	07/01/1999
Russell 3000 Index	-16.70%	-21.10%	-13.87%	9.77%	10.60%	6.72%	19.37%	
Difference	0.67%	-0.46%	-0.59%	0.13%	-0.15%	-0.24%		
T-C Social Choice International Equity Fund*	-13.40%	-19.14%	-16.18%	2.37%	2.90%	3.28%	18.11%	12/04/2015
MSCI EAFE Index	-14.51%	-19.57%	-17.77%	1.07%	2.20%	2.51%	18.01%	
Difference	1.11%	0.43%	1.59%	1.30%	0.70%	0.77%		
Nuveen ESG Emerging Markets Equity ETF	-11.27%	-15.56%	-24.51%	3.33%	3.38%	3.36%	18.19%	06/06/2017
TIAA ESG Emerging Markets Equity Index	-11.21%	-15.45%	-24.11%	4.11%	4.14%	4.13%	18.33%	
Difference	-0.06%	-0.11%	-0.40%	-0.78%	-0.76%	-0.77%		
Nuveen ESG US Aggregate Bond ETF	-4.72%	-10.31%	-10.48%	-1.24%	-	0.48%	4.58%	09/29/2017
Bloomberg MSCI US Aggregate ESG Select Index	-4.74%	-10.38%	-10.32%	-0.88%	-	-	4.55%	
Difference	0.02%	0.07%	-0.16%	-0.36%	-	-		
Nuveen ESG High Yield Corporate Bond ETF	-11.01%	-14.87%	-13.88%	-	-	-	-	09/25/2019
Bloomberg MSCI U.S. HY Very Liquid ESG Select Index	-11.04%	-14.84%	-13.47%	-	-	-	-	
Difference	0.03%	-0.03%	-0.41%	-	-	-		

Underlying Funds vs. Benchmarks

Average Annual Total Return

DFA FUNDS	3 Month	YTD	1 Year	3 Year	5 Year	Life	3-Year Standard Deviation	Fund Incept. Date
DFA Emerging Markets Core Equity Portfolio*	-11.80%	-15.12%	-19.75%	2.71%	2.91%	6.59%	19.81%	04/05/2005
MSCI Emerging Markets® Index	-11.45%	-17.63%	-25.28%	0.57%	2.18%	6.02%	18.17%	
Difference	-0.35%	2.51%	5.53%	2.14%	0.73%	0.57%		
DFA Large Cap International Portfolio*	-13.22%	-17.50%	-15.71%	2.47%	3.01%	5.28%	18.45%	07/17/1991
MSCI World Ex US Index	-14.66%	-18.76%	-16.76%	1.70%	2.66%	5.28%	18.23%	
Difference	1.44%	1.26%	1.05%	0.77%	0.35%	0.00%		
METWEST FUNDS								
MetWest Total Return Bond Fund	-5.71%	-11.59%	-11.55%	-0.71%	1.12%	2.69%	4.88%	07/01/1999
Bloomberg U.S. Aggregate Bond Index	-4.69%	-10.35%	-10.29%	-0.93%	0.88%	1.94%	4.56%	
Difference	-1.02%	-1.24%	-1.26%	0.22%	0.24%	0.75%		
PIMCO FUNDS								
PIMCO Income Fund	-5.18%	-9.16%	-8.48%	0.33%	2.04%	6.75%	6.55%	03/30/2007
Bloomberg U.S. Aggregate Bond Index	-4.69%	-10.35%	-10.29%	-0.93%	0.88%	3.17%	4.56%	
Difference	-0.49%	1.19%	1.81%	1.26%	1.16%	3.58%		
PIMCO Real Return Fund	-6.42%	-9.26%	-5.84%	3.13%	3.19%	5.39%	5.18%	01/29/1997
Bloomberg U.S. TIPS Index	-6.08%	-8.92%	-5.14%	3.04%	3.21%	-	5.02%	
Difference	-0.34%	-0.34%	-0.70%	0.09%	-0.02%	-		
T. ROWE PRICE FUNDS								
T. Rowe Price Instl Floating Rate Fund	-4.66%	-4.93%	-3.21%	1.63%	2.58%	4.37%	7.52%	01/31/2008
S&P/LSTA Performing Loan Index	-4.56%	-4.65%	-2.82%	2.26%	3.07%	4.66%	9.10%	
Difference	-0.10%	-0.28%	-0.39%	-0.63%	-0.49%	-0.29%		
T. Rowe Price Large Cap Growth Fund	-22.92%	-33.13%	-29.39%	7.73%	12.16%	10.29%	21.33%	10/31/2001
Russell 1000 Growth Index	-20.92%	-28.07%	-18.77%	12.58%	14.29%	9.22%	21.09%	
Difference	-2.00%	-5.06%	-10.62%	-4.85%	-2.13%	1.07%		
T. Rowe Price Large Cap Value Fund	-10.61%	-9.90%	-3.97%	8.42%	7.96%	8.19%	19.94%	3/31/2000
Russell 1000 Value Index	-12.21%	-12.86%	-6.82%	6.87%	7.17%	6.83%	19.46%	
Difference	1.60%	2.96%	2.85%	1.55%	0.79%	1.36%		
VANGUARD FUNDS								
Vanguard ST Infr-Protected Securities Index Fund	-1.12%	-1.42%	0.99%	3.41%	2.95%	1.58%	2.21%	10/16/2012
Bloomberg US TIPS 0-5 Year Index	-1.10%	-1.40%	1.06%	3.46%	2.99%	1.58%	2.28%	
Difference	-0.02%	-0.02%	-0.07%	-0.05%	-0.04%	0.00%		
Vanguard Real Estate Index Fund	-15.48%	-20.50%	-8.03%	4.78%	5.73%	8.53%	20.14%	12/2/2003
MSCI US Investable Market Real Estate 25/50 Index	-15.43%	-20.47%	-7.94%	4.88%	-	-	20.14%	
Difference	-0.05%	-0.03%	-0.09%	-0.10%	-	-		
Vanguard High-Yield Corporate Fund	-8.62%	-12.46%	-11.22%	0.00%	1.95%	5.69%	8.93%	11/12/2001
Bloomberg US HY Ba/B 2% Issuer Cap TR USD	-9.41%	-13.88%	-12.44%	0.43%	2.32%	6.55%	9.65%	
Bloomberg US Corporate High Yield Index	-9.83%	-14.19%	-12.81%	0.21%	2.10%	-	10.11%	
Difference	0.79%	1.42%	1.22%	-0.43%	-0.37%	-0.86%		

* For funds holding securities traded on foreign exchange that close before the U.S. market, fair value pricing creates tracking error relative to a benchmark index that uses foreign closing prices.



TIAA-CREF Tuition Financing, Inc.

ScholarShare 529 College Savings Plan

September 13, 2022

2Q 2022 Investment Performance
Status Report

1. Economic and Market Update
2. Review of ScholarShare Policy
3. Sensitivity Analyses
4. Summary Points
5. Enrollment Date Fund Performance
6. Appendix

Takeaways

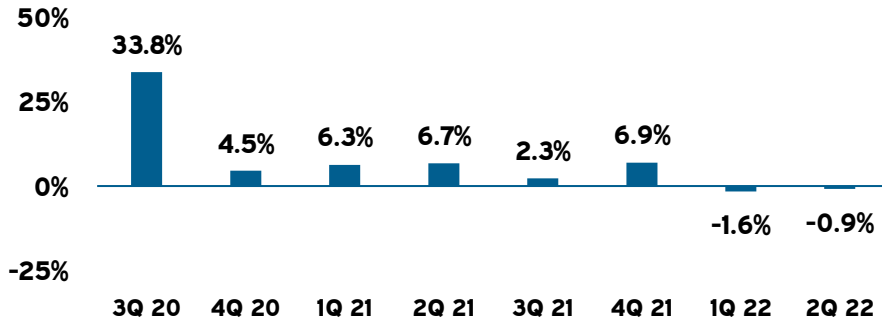
- Additional funds were added to the ScholarShare program as of February 11th, 2022. Now that the new funds have a full quarter of performance, they are included in the formal monitoring process within the ScholarShare program and are included in the Q2 performance report.
- Markets saw continued volatility through the second quarter of 2022 as both stocks and bonds have seen significant declines. Concern around slowing economic growth, global inflation and the anticipated response by respective central banks have been the primary headwinds this year. Through June, year to date performance for US Equities (S&P 500) has been the third worst start to a calendar year, whereas US bonds (Bloomberg US Agg) has been the worst on record.
- Equities posted sharply negative returns over the quarter. Domestically, US Small Cap outperformed US Large Cap while value slightly outperformed growth for the quarter. T. Rowe Price Large Cap Value was the top performing actively managed equity fund for the quarter, returning -10.6%. Emerging Markets fared better than International Developed as partially lifting of COVID-19 restrictions in China weighed favorably. DFA Emerging Markets Core Equity fund outperformed the DFA Large Cap International Fund by 1.4%.
- The T. Rowe Large Cap Value fund outperformed all other active equity funds, posting -10.6% for the quarter, outpacing its benchmark by 1.6%
- All actively managed fixed income funds posted negative returns for the quarter. The T. Rowe Price Floating Rate fund posted the strongest absolute returns at -4.7% for the quarter, though the fund trailed its benchmark by 10 bps.
- Vanguard High Yield outpaced its benchmark by 120 bps, though the fund struggled on an absolute basis, returning -8.6% for the quarter as widening credit spreads served as headwinds.

Economic and Market Update

Data as of June 30, 2022

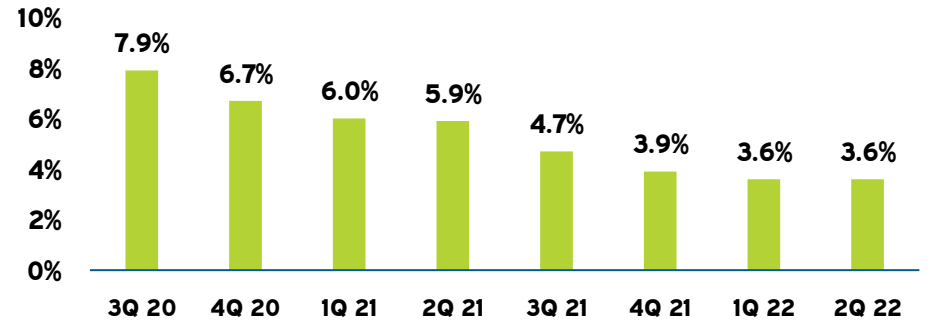
Economic and Market Update

Quarterly Real GDP (Annualized)



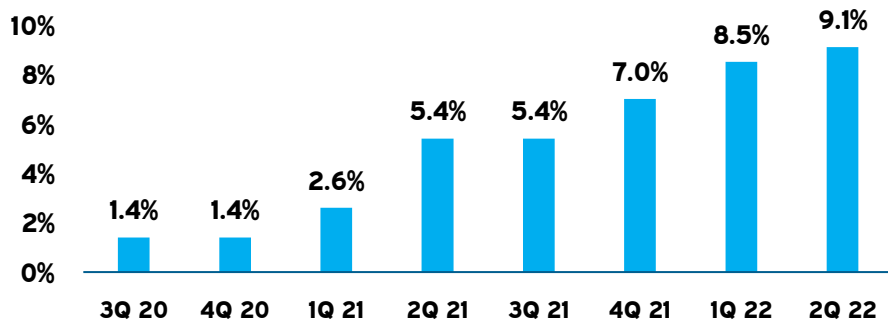
Source: Bureau of Economic Analysis. Data as of Q2 2022 representing the advance estimate. The GDP second quarter second estimate will be released on August 25, 2022.

US Unemployment



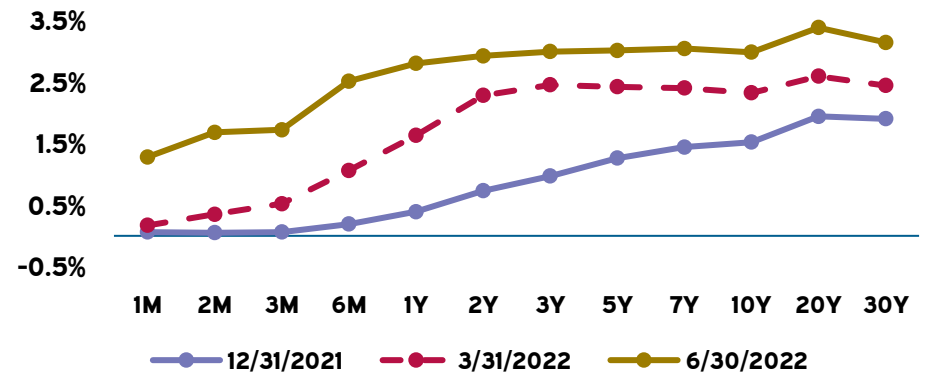
Source: Bureau of Labor Statistics. Data as of June 30, 2022. Seasonally adjusted.

US Inflation Trailing 12 Months



Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data as of June 30, 2022.

US Yield Curve



Source: US Department of the Treasury.

Index Returns

	QTR (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity						
S&P 500	(16.1)	(20.0)	(10.6)	10.6	11.3	13.0
Russell 3000	(16.7)	(21.1)	(13.9)	9.8	10.6	12.6
Russell 1000	(16.7)	(20.9)	(13.0)	10.2	11.0	12.8
Russell 1000 Growth	(20.9)	(28.1)	(18.8)	12.6	14.3	14.8
Russell 1000 Value	(12.2)	(12.9)	(6.8)	6.9	7.2	10.5
Russell MidCap	(16.9)	(28.1)	(17.3)	6.6	8.0	11.3
Russell MidCap Growth	(21.1)	(12.9)	(29.6)	4.3	8.9	11.5
Russell MidCap Value	(14.7)	(28.1)	(10.0)	6.7	6.3	10.6
Russell 2000	(17.2)	(16.7)	(25.2)	4.2	5.2	9.4
Russell 2000 Growth	(19.3)	(23.4)	(33.4)	1.4	4.8	9.3
Russell 2000 Value	(15.3)	(29.5)	(16.3)	6.2	4.9	9.1
Non-US Equity						
MSCI ACWI (ex. US)	(14.3)	(18.4)	(19.9)	1.6	2.5	5.0
MSCI EAFE	(14.5)	(19.6)	(17.8)	1.1	2.2	5.4
MSCI EAFE Growth	(16.9)	(26.8)	(23.8)	1.3	3.5	6.3
MSCI EAFE Value	(12.4)	(12.1)	(12.0)	0.2	0.5	4.3
MSCI EAFE (Local Currency)	(7.8)	(11.3)	(6.6)	4.4	4.3	8.3
MSCI EAFE Small Cap	(17.7)	(24.7)	(24.0)	1.1	1.7	7.2
MSCI Emerging Markets	(11.5)	(17.6)	(25.3)	0.6	2.2	3.1
MSCI Emg Mkts (Local Currency)	(8.1)	(13.7)	(20.2)	3.3	4.4	6.0
MSCI China	3.4	(11.3)	(31.8)	(0.6)	2.1	5.5
Fixed Income						
Bloomberg Universal	(5.1)	(10.9)	(10.9)	(0.9)	0.9	1.8
Bloomberg Aggregate	(4.7)	(10.4)	(10.3)	(0.9)	0.9	1.5
Bloomberg US TIPS	(6.1)	(8.9)	(5.1)	3.0	3.2	1.7
Bloomberg High Yield	(9.8)	(14.2)	(12.8)	0.2	2.1	4.5
JPM GBI-EM Global Diversified	(8.6)	(14.5)	(19.3)	(5.8)	(2.3)	(1.5)
Other						
FTSE NAREIT Equity	(17.0)	(20.2)	(6.3)	4.0	5.3	7.4
Bloomberg Commodity Index	(5.7)	18.4	24.3	14.3	8.4	(0.8)

During the Quarter:

- Historically high inflation, rising rates and the war in Ukraine continued to weigh on results.
- US and Non-US equity suffered steep declines.
 - Non-US equities outperformed US equities.
 - US Large Caps beat US Small Caps.
 - US Value outpaced US Growth across all market caps.
 - Within Non-US, Emerging Markets outperformed Developed Markets due to China gaining 3.4%.
- Broad fixed income returns were negative.
 - The FOMC raised rates twice during the quarter to combat surging inflation, driving interest rates higher and bond prices to go lower.
- Diversifying asset classes produced negative results.
 - Commodities were down (5.7%).
 - REITs were down (17.0%).

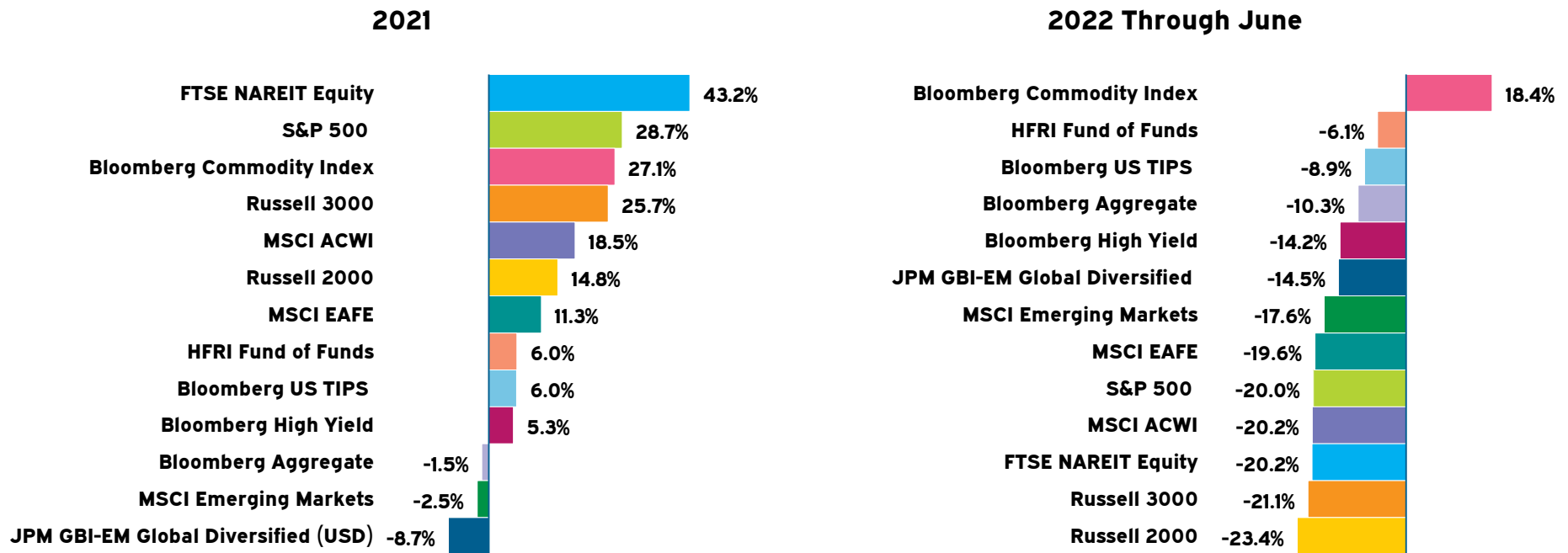
Commentary

→ Global markets resumed their sell-off in June as inflation surged in the US and Europe.

- In response, the US Federal Reserve increased interest rates 75 basis points (above prior expectations). Markets also repriced the growth outlook downward.
- All major equity indices suffered steep declines in June. Emerging markets proved slightly more resilient than developed markets on a partial re-opening in China from pandemic related lockdowns.
- In a reversal of the prior trend growth stocks outperformed value stocks in June.
- The global bond selloff resumed, as inflation fears, and policy expectations weighed on all major bond markets.

→ Persistently high inflation and the expected policy response, the war in Ukraine, lingering COVID-19 issues, and lockdowns in China will all have considerable economic and financial consequences for the global economy.

Index Returns¹



→ Outside of emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes appreciated in 2021.

→ In June all major asset classes posted negative returns on renewed inflation and economic growth fears, with equities experiencing the largest declines.

¹ Source: Bloomberg and FactSet. Data is as of June 30, 2022.

Domestic Equity Returns¹

Domestic Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-8.3	-16.1	-20.0	-10.6	10.6	11.3	12.9
Russell 3000	-8.4	-16.7	-21.1	-13.9	9.8	10.6	12.6
Russell 1000	-8.4	-16.7	-20.9	-13.0	10.2	11.0	12.8
Russell 1000 Growth	-7.9	-20.9	-28.1	-18.8	12.6	14.3	14.8
Russell 1000 Value	-8.7	-12.2	-12.9	-6.8	6.9	7.2	10.5
Russell MidCap	-10.0	-16.8	-21.6	-17.3	6.6	8.0	11.3
Russell MidCap Growth	-7.5	-21.1	-31.0	-29.6	4.3	8.9	11.5
Russell MidCap Value	-11.0	-14.7	-16.2	-10.0	6.7	6.3	10.6
Russell 2000	-8.2	-17.2	-23.4	-25.2	4.2	5.2	9.4
Russell 2000 Growth	-6.2	-19.3	-29.5	-33.4	1.4	4.8	9.3
Russell 2000 Value	-9.9	-15.3	-17.3	-16.3	6.2	4.9	9.0

US Equities: Russell 3000 Index declined 8.3%, and growth indices outperformed value in June.

- US stocks experienced steep losses for the month, led by the energy and materials sectors.
- Growth indices outperformed their value counterparts for the month but remain well behind for the year-to-date period.
- Small company stocks slightly outperformed large company stocks in June but remain behind their larger peers year-to-date.

¹ Source: Bloomberg. Data is as of June 30, 2022.

Foreign Equity Returns¹

Foreign Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-8.6	-13.7	-18.4	-19.4	1.3	2.5	4.8
MSCI EAFE	-9.3	-14.5	-19.6	-17.8	1.1	2.2	5.4
MSCI EAFE (Local Currency)	-6.3	-7.8	-11.3	-6.6	4.4	4.3	8.3
MSCI EAFE Small Cap	-11.0	-17.7	-24.7	-24.0	1.1	1.7	7.2
MSCI Emerging Markets	-6.6	-11.5	-17.6	-25.3	0.6	2.2	3.1
MSCI Emerging Markets (Local Currency)	-4.6	-8.1	-13.7	-20.2	3.3	4.4	6.0
MSCI China	6.6	3.4	-11.3	-31.8	-0.6	2.1	5.5

International Equities (MSCI EAFE) declined 9.3% and Emerging Markets (MSCI EM) declined 6.6% in June.

- Non-US developed market stocks slightly trailed the US for the month, while emerging markets stocks had better results due to China gaining 6.6%. Both remain notably negative for the year-to-date period, but ahead of the US.
- The war in Ukraine, high inflation and the likely monetary policy response, and slowing growth continue to weigh on sentiment.
- As in the US, growth stocks outperformed value stocks across developed and emerging markets.

¹ Source: Bloomberg. Data is as of June 30, 2022.

Fixed Income Returns¹

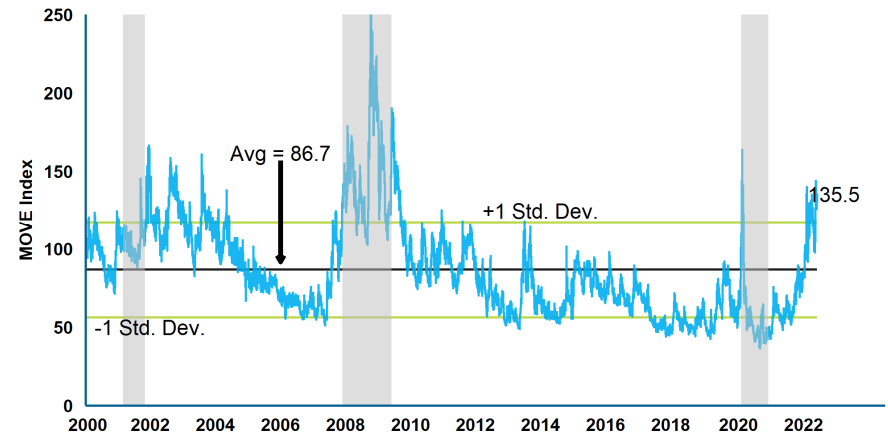
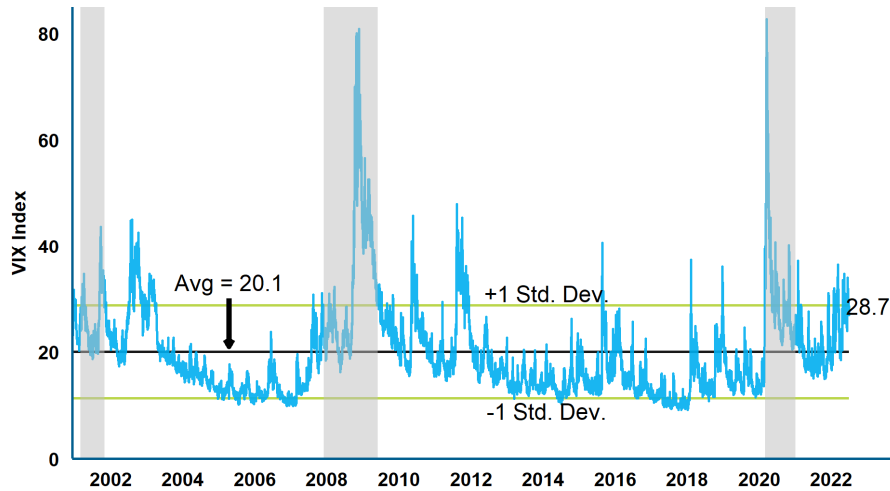
Fixed Income	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-2.0	-5.1	-10.9	-10.9	-0.9	0.9	1.8	4.2	6.4
Bloomberg Aggregate	-1.6	-4.7	-10.3	-10.3	-0.9	0.9	1.5	3.7	6.6
Bloomberg US TIPS	-3.2	-6.1	-8.9	-5.1	3.0	3.2	1.7	3.4	7.0
Bloomberg High Yield	-6.7	-9.8	-14.2	-12.8	0.2	2.1	4.5	8.9	4.8
JPM GBI-EM Global Diversified (USD)	-4.5	-8.6	-14.5	-19.3	-5.8	-2.3	-1.5	7.4	4.9

Fixed Income: The Bloomberg Universal declined 2.0% in June.

- The above expectations CPI print led to renewed inflation fears driving interest rates higher and weighing on the broad US investment grade bond market (Bloomberg Aggregate).
- Despite the above expectation CPI prints, breakeven inflation rates have continued to move down driven by the decline in nominal rates. The nominal 10-year Treasury yield peaked at 3.47% before declining to 3.01% by month-end, while the 2-year Treasury yield declined from 3.43% to 2.95%.
- US credit spreads widened, particularly for high yield debt, leading to it having the worst results among bonds for the month.
- Emerging market debt also declined for the month.

¹ Source: Bloomberg. JPM GBI-EM is from InvestorForce. Data is as of June 30, 2022.

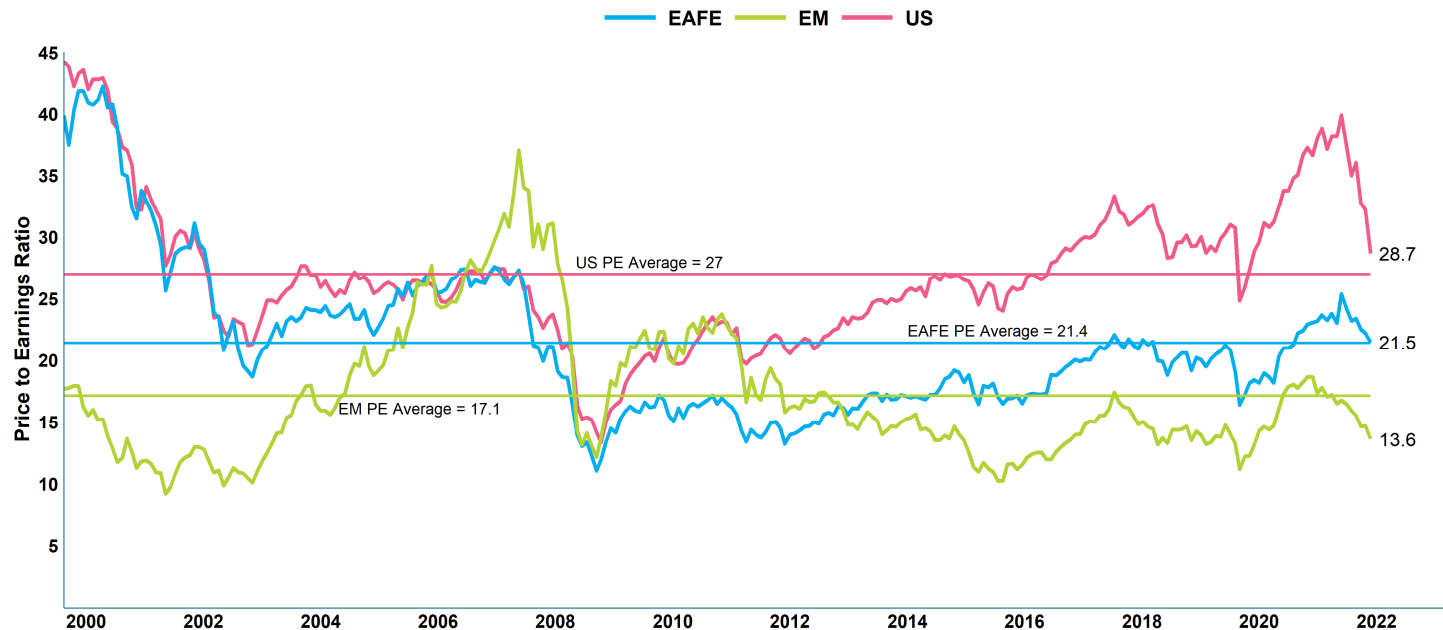
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) and fixed income (MOVE) rose in June on renewed inflation fears and on building signs of weakness in economic growth.
- Fixed income volatility remains particularly high due to the uncertain path of short-term interest rates.

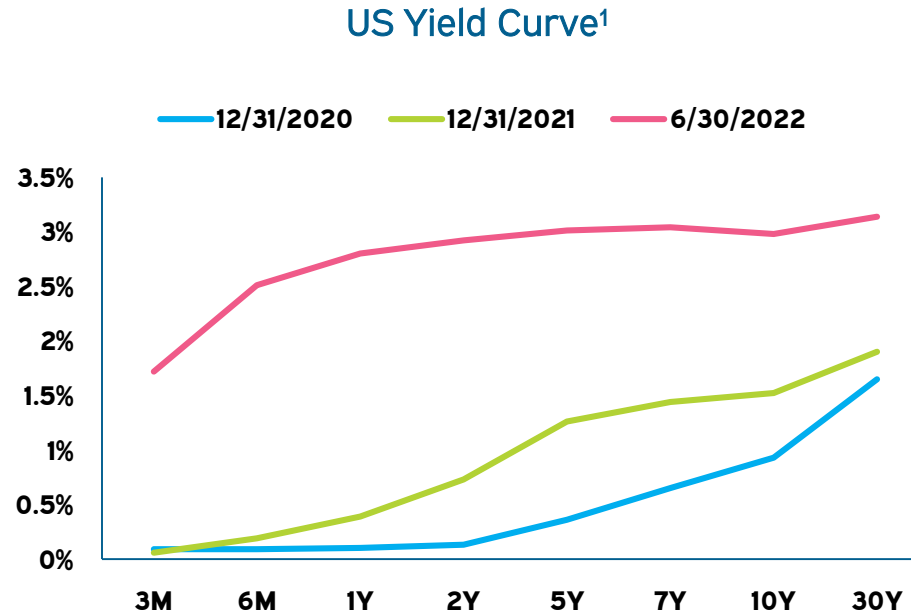
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the recent month-end respectively.

Equity Cyclically Adjusted P/E Ratios¹



- The steep decline in June in US equities pushed valuations lower, approaching the level of the long-term (post-2000) average.
- International developed market valuations remain below the US and are slightly above their own long-term average, with those for emerging markets the lowest and under the long-term average.

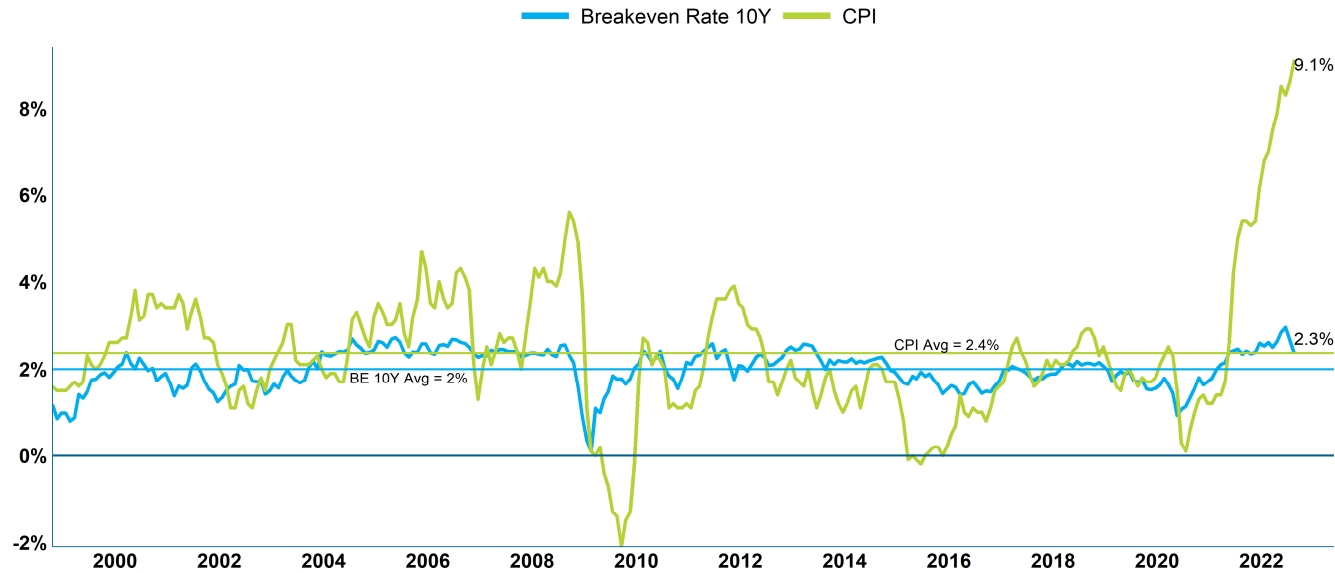
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 30, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- Rates across the yield curve remain much higher than at the start of the year.
- In June, rates rose across maturities (particularly short-dated), as markets continue to reflect elevated inflation and rate expectations.
- The curve continued to flatten in June with the spread between two-year and ten-year Treasuries falling from 30 basis points at the end of May to just 5 basis points by the end of June.
- Since month-end, the spread between two-year and ten-year Treasuries became negative which historically has often signaled a coming recession.

¹ Source: Bloomberg. Data is as of June 30, 2022.

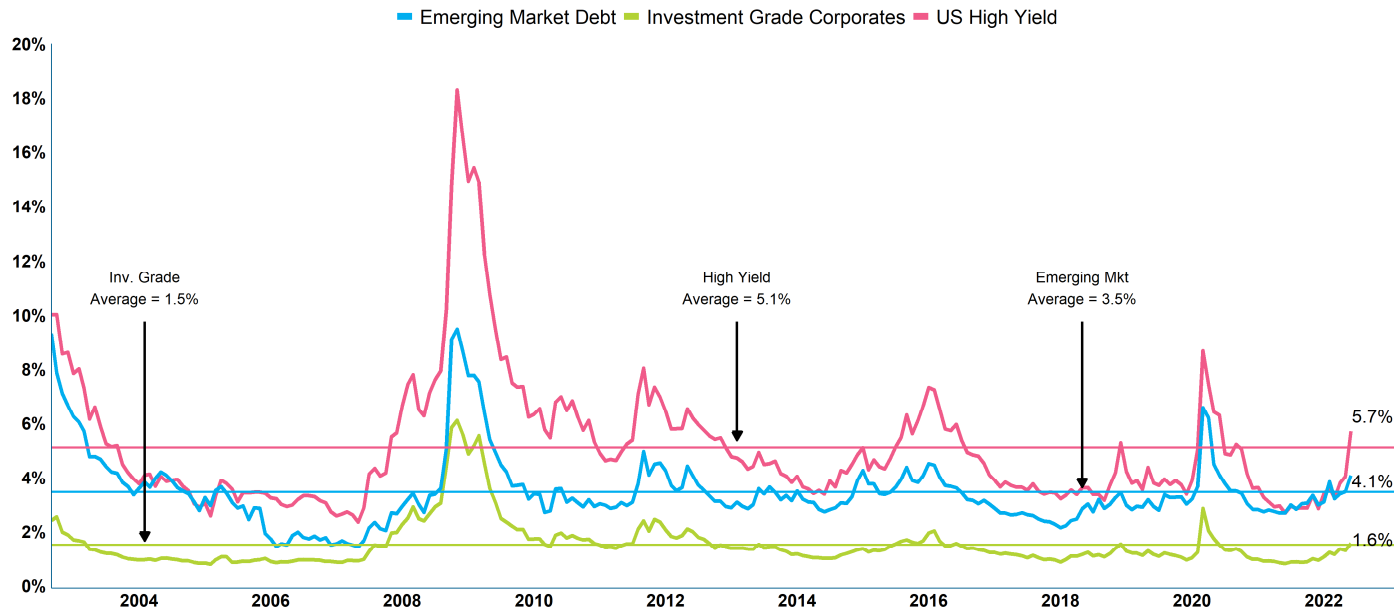
Ten-Year Breakeven Inflation and CPI¹



- Inflation expectations (breakevens) fell further in June on declining growth expectations and anticipated tighter monetary policy.
- Trailing twelve-month CPI rose in June (9.1% versus 8.6%) and notably came in above expectations. Inflation levels in the US remain well above the long-term average of 2.4%.
- Rising prices for energy (particularly oil), food, housing, and for new and used cars, remain key drivers of higher inflation.

¹ Source: Bloomberg. Data is as of June 30, 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

Credit Spreads vs. US Treasury Bonds¹



- Credit spreads (the spread above a comparable maturity Treasury) rose in June with high yield and investment grade corporate bonds breaking above their long-run averages.
- In the US, spreads for high yield significantly increased from 4.0% to 5.7% in the risk-off environment, while investment grade spreads experienced a more modest increase (1.3% to 1.6%). Emerging market spreads also rose (3.5% to 4.1% during the month) but finished much lower than US high yield spreads.

¹ Sources: Bloomberg. Data is as of June 30, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Economic Outlook

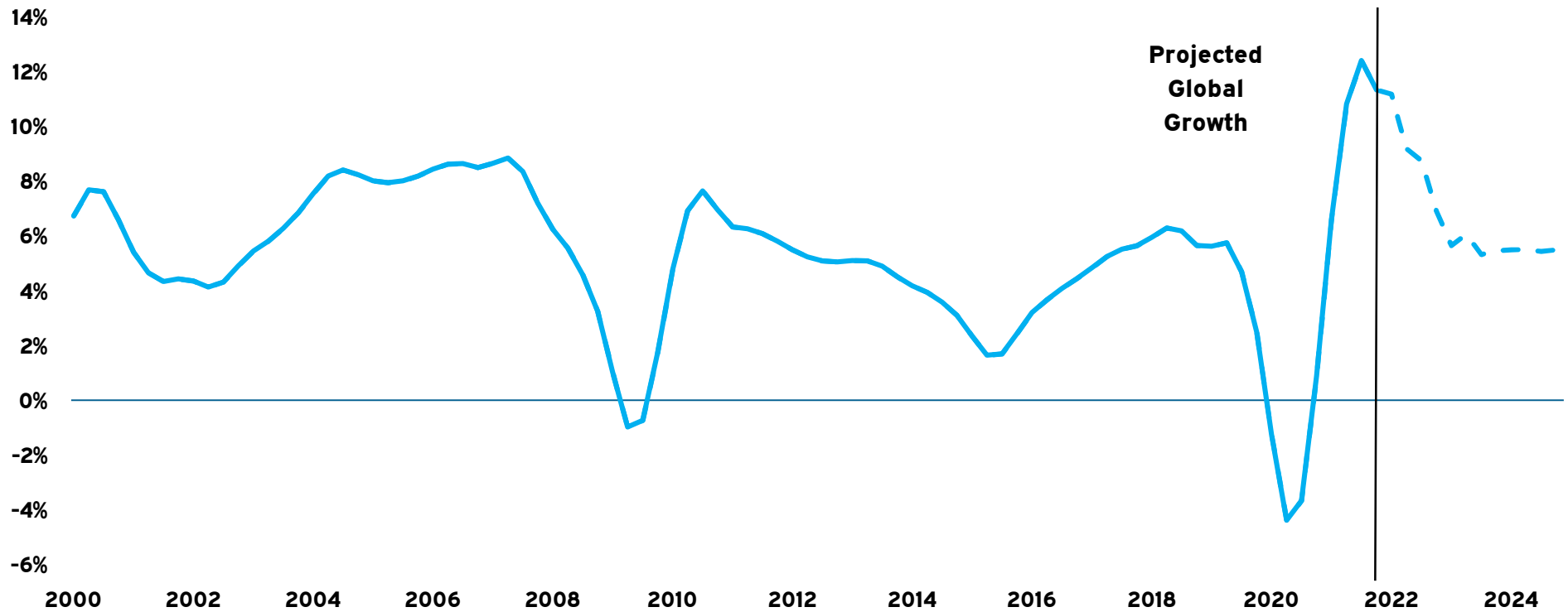
The IMF significantly lowered global growth forecasts again in their latest projections, driven by the economic impacts of persistent inflation in energy and food prices.

- The IMF forecasts global GDP growth to come in at 3.2% in 2022 (0.4% below the prior estimate) and 2.9% in 2023 (0.7% below the prior estimate).
- In advanced economies, GDP is projected to increase 2.5% in 2022 and 1.4% in 2023. The US saw another downgrade in the 2022 (2.3% versus 3.7%) and 2023 (1.0% versus 2.3%) growth forecasts largely due to policy tightening happening faster than previously expected given persistently high inflation. The euro area saw a downgrade too in expected growth (2.6% versus 2.8%) in 2022 and in 2023 (1.2% versus 2.3%) as rising energy prices particularly weigh on the region that is a net importer of energy. The Japanese economy is expected to grow 1.7% this year and next.
- Growth projections for emerging markets are higher than developed markets, at 3.6% in 2022 and 3.9% in 2023. China's growth was downgraded for 2022 (3.3% versus 4.4%) and 2023 (4.9% versus 5.1%) given tight COVID-19 restrictions and continued property sector problems.
- The global inflation forecast was significantly increased for 2022 (7.4% versus 3.8%).

	Real GDP (%) ¹			Inflation (%) ¹		
	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average
World	3.2	2.9	3.0	7.4	4.8	3.5
Advanced Economies	2.5	1.4	1.6	5.7	2.5	1.5
US	2.3	1.0	2.1	7.7	2.9	1.9
Euro Area	2.6	1.2	0.9	5.3	2.3	1.2
Japan	1.7	1.7	0.5	1.0	0.8	0.5
Emerging Economies	3.6	3.9	4.2	8.7	6.5	5.1
China	3.3	4.9	6.7	2.1	1.8	2.1

¹ Source: IMF World Economic Outlook. Real GDP forecasts from July 2022 Update. Inflation forecasts are as of the April 2022 Update. * Actual 10 Year Average* represents data from 2012 to 2021.

Global Nominal Gross Domestic Product (GDP) Growth¹

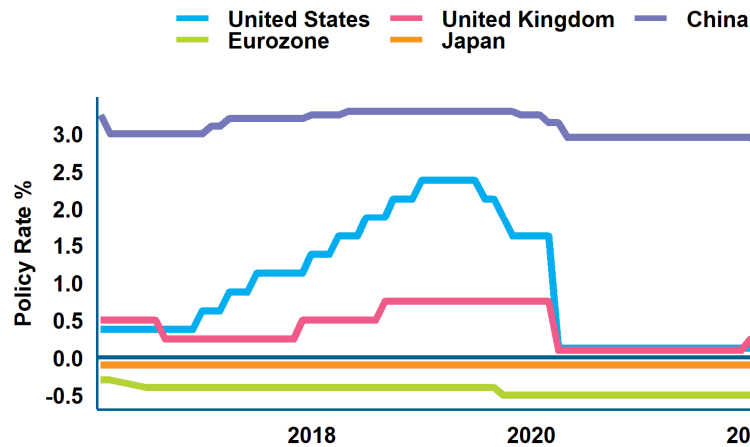


- Global economies are expected to slow in 2022 compared to 2021 with fears of potential recessions in areas increasing recently given persistently high inflation and related tighter monetary policy.
- Looking forward, the delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

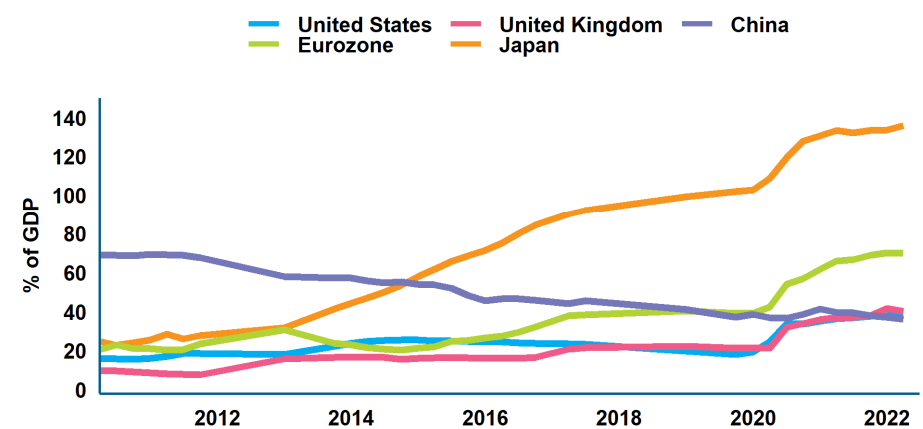
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, nominal, % change YoY). Updated June 2022.

Central Bank Response¹

Policy Rates



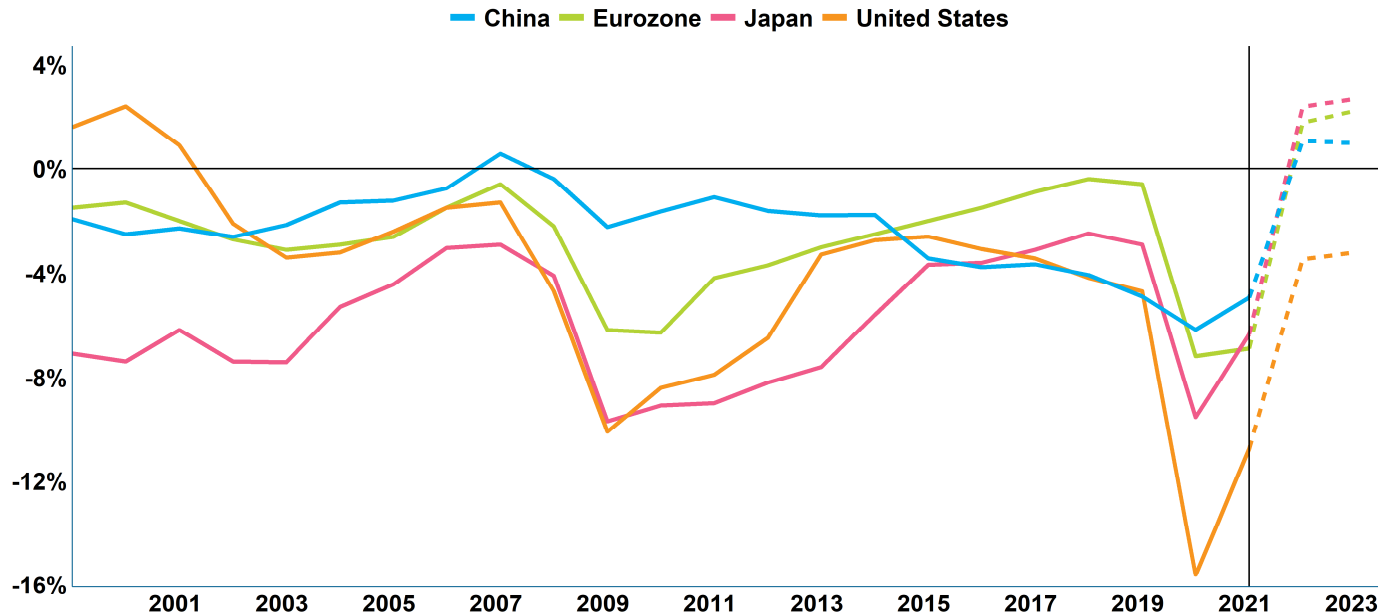
Balance Sheet as % of GDP



- After global central banks took extraordinary action to support economies during the pandemic, including policy rate cuts and emergency stimulus through quantitative easing (QE), many are reducing or considering reducing support, in the face of high inflation.
- The pace of withdrawing support will likely vary across central banks with the US expected to take a more aggressive approach. The risk remains for a policy error, particularly overtightening, as record inflation, the war in Ukraine, and a tough COVID-19 policy in China could suppress global growth.
- The one notable central bank outlier is China, where the central bank recently lowered rates and reserve requirements in response to slowing growth.

¹ Source: Bloomberg. Policy rate data is as of June 30, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of June 30, 2022.

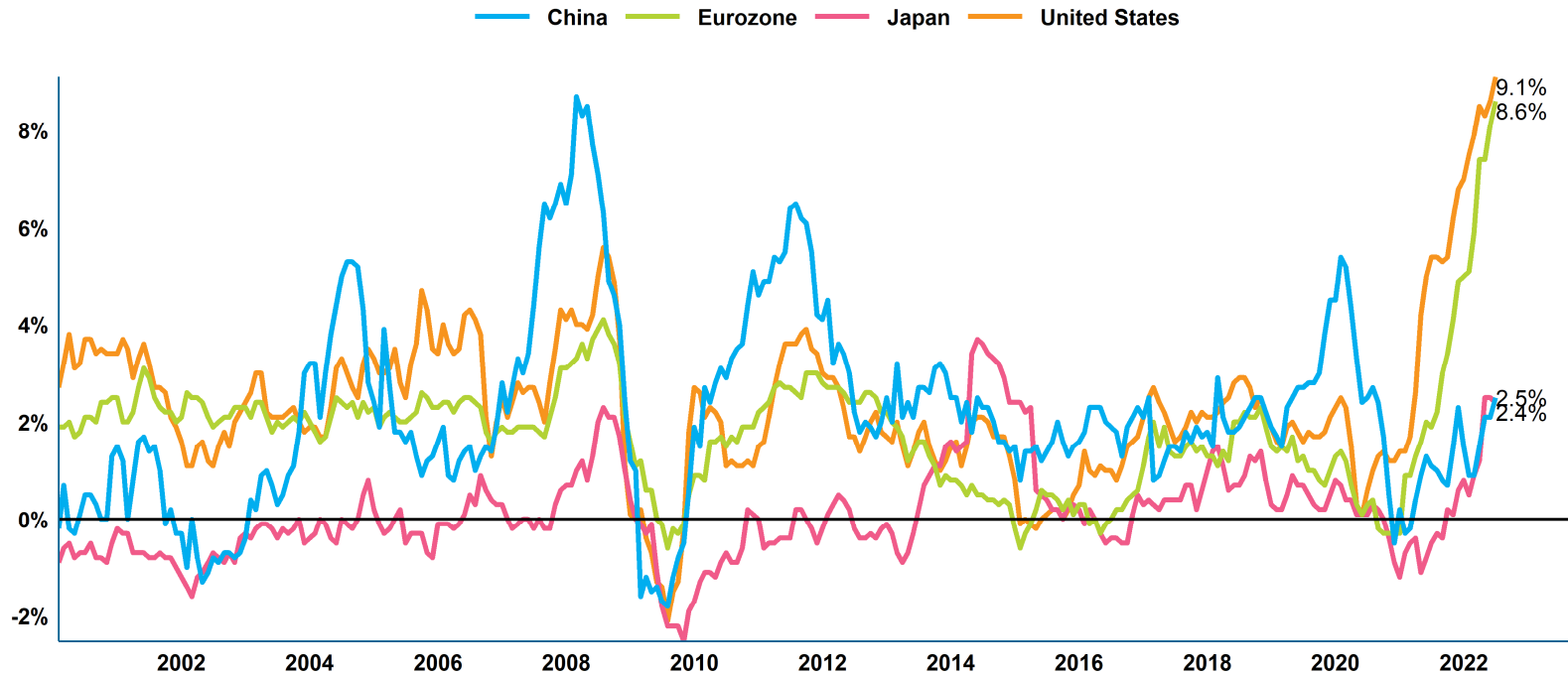
Budget Surplus / Deficit as a Percentage of GDP¹



- Budget deficits as a percentage of GDP drastically increased for major world economies, particularly the US, due to massive fiscal support and the severe economic contraction's effect on tax revenue in 2020 and 2021.
- As fiscal stimulus programs end, and economic recoveries continue, deficits should improve in the coming years.

¹ Source: Bloomberg. Data is as of June 30, 2022. Projections via IMF Forecasts from April 2022 Report. Dotted lines represent 2022 and 2023 forecasts.

Inflation (CPI Trailing Twelve Months)¹

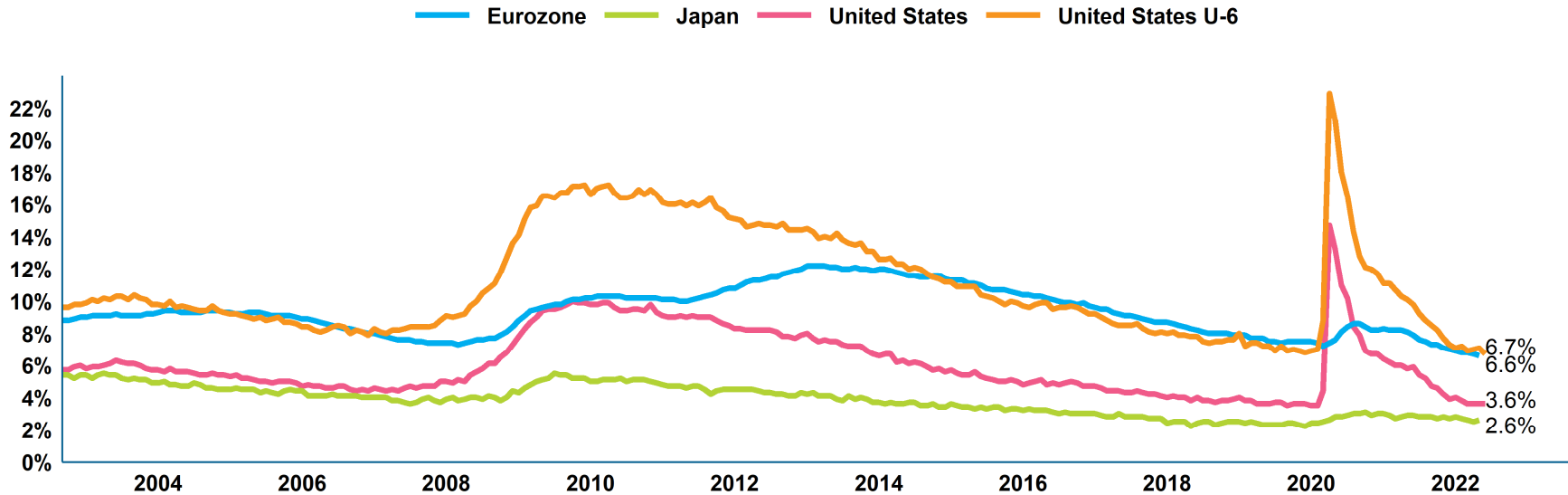


→ Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.

→ Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher prices in many commodities driven by the war in Ukraine have been key drivers of inflation globally.

¹ Source: Bloomberg. Data is as of June 2022.

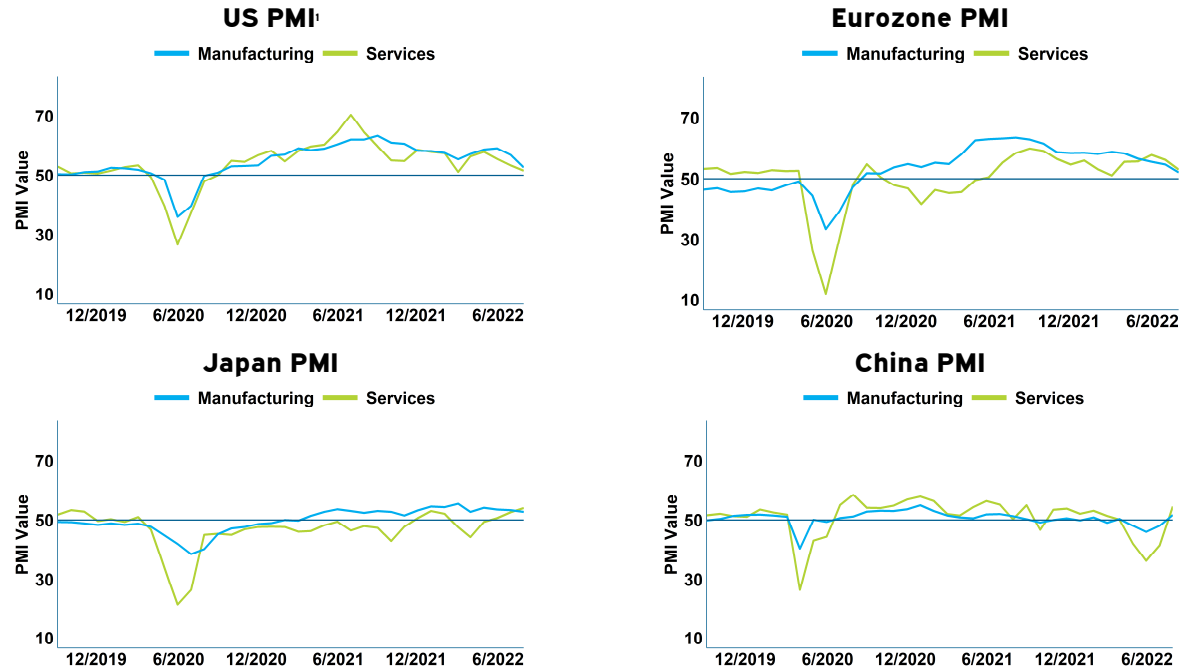
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- US unemployment, which experienced the steepest rise from the pandemic, declined back to pre-pandemic levels. The broader measure (U-6) that includes discouraged and underemployed workers declined but is much higher at 6.7%.

¹ Source: Bloomberg. Data is as of June 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of May 31, 2022.

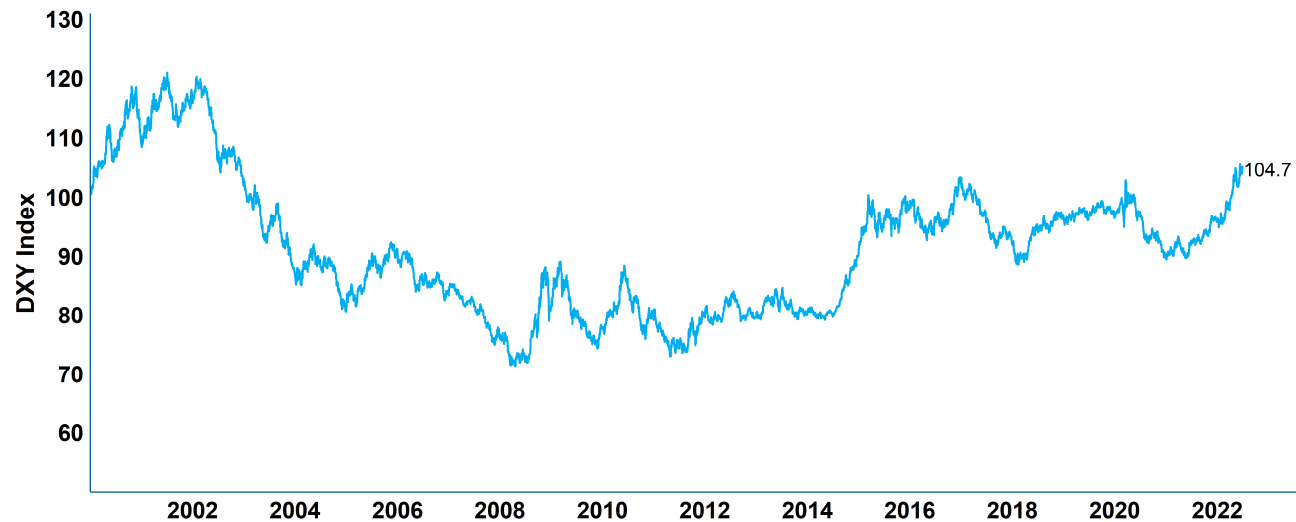
Global PMIs



- After improvements from the lows of the pandemic, Purchasing Managers Indices (PMI), based on surveys of private sector companies, have experienced some pressures recently.
- Service sector PMIs in the US and Europe have recently declined due to higher prices and supply issues, while they continue to improve in Japan as pandemic restrictions ease. In China the services PMI surged to expansion territory on an easing in lockdown measures.
- Manufacturing PMIs are in expansion territory as pandemic-related production issues ease and orders increase. China also moved to expansion levels here on partial reopening.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI, Caixin Services and Manufacturing PMI, Eurozone Markit Services and Manufacturing PMI, Jibun Bank Services and Manufacturing PMI. Data is as of June 2022. Readings below 50 represent economic contractions.

US Dollar versus Broad Currencies¹



- The US dollar continued higher in June on safe-haven flows, relatively strong growth, and higher interest rates.
- The euro, yen, and yuan have all experienced significant declines versus the dollar, adding to inflation and slowing growth concerns.

¹ Source: Bloomberg. Data as of June 30, 2022.

Summary

Key Trends in 2022:

- The impacts of record high inflation will remain key going forward, with volatility likely to remain high.
- The war in Ukraine has created significant uncertainty, with a wide range of potential outcomes.
- Expect growth to slow globally in 2022 to the long-term trend or below. Inflation, monetary policy, and the war will all be key.
- The end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices will depress consumers' spending in other areas.
- Monetary policy will likely tighten globally but will remain relatively accommodative. The risk of overtightening policy remains.
- Valuations have significantly declined in the US, approaching long-term averages.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including continued strength in the US dollar, higher inflation particularly weighing on Europe, and China maintaining its restrictive COVID-19 policies.

Review of ScholarShare Policy

Active Funds

Fund	Asset Class	Benchmark
T. Rowe Price Instl Large Cap Growth	Domestic Equity	Russell 1000 Growth TR USD
T. Rowe Price Instl Large Cap Value	Domestic Equity	Russell 1000 Value TR USD
TIAA-CREF Quant Small Cap Equity	Domestic Equity	Russell 2000 TR USD
TIAA-CREF Social Choice Equity	Domestic Equity	Russell 3000 TR USD
DFA Large Cap International	International Equity	MSCI World ex US NR USD
TIAA-CREF Social Choice International Equity	International Equity	MSCI EAFE
DFA Emerging Markets Core Equity	International Equity	MSCI EM NR USD
Metropolitan West Total Return Bond	Fixed Income	BBg BarCap US Agg Bond TR USD
PIMCO Real Return	Fixed Income	BBg BarCap US Trsy US TIPS TR USD
PIMCO Income	Fixed Income	BBg BarCap US Agg Bond TR USD
Vanguard High-Yield Corp Adm	High Yield	Bloomberg US Corporate High Yield TR
T. Rowe Price Institutional Floating Rate	High Yield	S&P/LSTA Performing Loan TR

Passive Funds

Fund	Asset Class	Benchmark
TIAA-CREF Equity Index	Domestic Equity	Russell 3000 TR USD
TIAA-CREF S&P 500 Index	Domestic Equity	S&P 500 TR
TIAA-CREF International Equity Index	International Equity	MSCI EAFE NR USD
TIAA-CREF Emerging Markets Equity Index	International Equity	MSCI EM NR USD
Nuveen ESG Emerging Markets Equity ETF	International Equity	TIAA ESG Emerging Markets Index
Vanguard Short Term Infl-Protected Securities	Fixed Income	BBg US TIPS 0-5 Years
TIAA-CREF Bond Index	Fixed Income	BBg BarCap US Agg Bond TR USD
Nuveen ESG US Aggregate Bond Index	Fixed Income	BBg MSCI US Agg ESG Select
Nuveen ESG High Yield Corporate Bond ETF	High Yield	BBg MSCI US High Yield Very Liquid ESG Select
Vanguard Real Estate Index	Real Estate	MSCI US IMI Real Estate 25/50 GR USD

T-C Life Funding Agreements

T-C Life Funding Agreements ¹	---	---
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¹ Investment through a funding agreement with TIAA-CREF Life Insurance Company. Not benchmarked to an index, rather, portfolio performance is monitored using a set of qualitative guidelines.

Performance Criteria for Placing a Fund on Watch

Actively Managed Funds

Asset Class	Short-Term (rolling 12-month periods)	Medium-term (rolling 36-month periods)	Long-term ⁵ (> 60 months)	Morningstar Sustainability Rating
	Fund return < Benchmark 6 consecutive months (%)	Fund return < Benchmark 6 consecutive months (%)	VRR < 6 consecutive months	
Domestic Equity	-3.50	-1.75	0.97	--
International Equity	-4.50	-2.00	0.97	--
Fixed Income	-1.00	-0.50	0.98	--
High Yield	-6.50	-3.25	0.96	--
Social Choice	-5.00	-2.50	0.90	Above Average

Passively Managed Funds

Asset Class	Short-Term (rolling 12-month periods)	Medium-term (rolling 36-month periods)	Long-term ⁵ (rolling 60-month periods)
	Tracking Error > for 6 consecutive months (%)	Tracking Error > for 6 consecutive months (%)	Fund annualized return < Benchmark 6 consecutive months (%)
Domestic Equity	0.30	0.25	0.30
International Equity	0.75	0.70	0.30
Fixed Income	0.40	0.55	0.35

1 Return discounts from a benchmark return based on 2/3rds of the typical tracking error estimates of the specified type of fund manager.

2 Annualized return is the average annual return of either the manager or its benchmark.

3 VRR – Value Relative Ratio – is calculated as: Manager Cumulative Return / Benchmark Cumulative Return.

4 Tracking error is a measure of the volatility of the average annual difference between the manager’s return and the benchmark’s return.

5 Long-term analysis is presented for informational value to provide context but is not a factor used to determine an Underlying Investment’s status.

Performance Criteria for Placing a Fund on Watch (Continued)

T-C Life Funding Agreements¹
(based on non-investment performance criteria)

Fund Name	Financial Strength	Mortgage Portfolio	Bond Portfolio	Account Diversification
T-C Life Funding Agreements	Moody's \geq Aa2 Standard & Poor's \geq AA A.M. Best \geq A+ Fitch \geq AA	100% in Good Standing	At least 90% Investment Grade	Portfolio is diversified across asset classes and types

ESG Funds
(based on net-of-fee asset class performance)

Asset Class	Short-Term (rolling 12-month periods)	Medium-Term (rolling 36-month periods)	Long-Term (rolling 60-month periods)
	Tracking Error > for 6 consecutive months (%)	Tracking Error > for 6 consecutive months (%)	Fund annualized return < Benchmark for 6 consecutive months (%)
International Equity ²	1.00	0.75	-0.50
Fixed Income	0.70	0.60	-0.50
High Yield	0.75	0.65	-0.55

¹ The T-C Life Funding Agreements are measured against a set of non-investment performance criteria (see above) in a published TIAA-CREF report every quarter.

² Nuveen utilizes "fair market value" adjustment procedures for the Nuveen ESG Emerging Markets Equity ETF (the ETF). This adjustment increases or decreases the ETF's actual closing price to compensate for pricing differences between international markets. This procedure can create an artificially high tracking error. Monitoring of the ETF takes this into account and corrects for it where data is available.

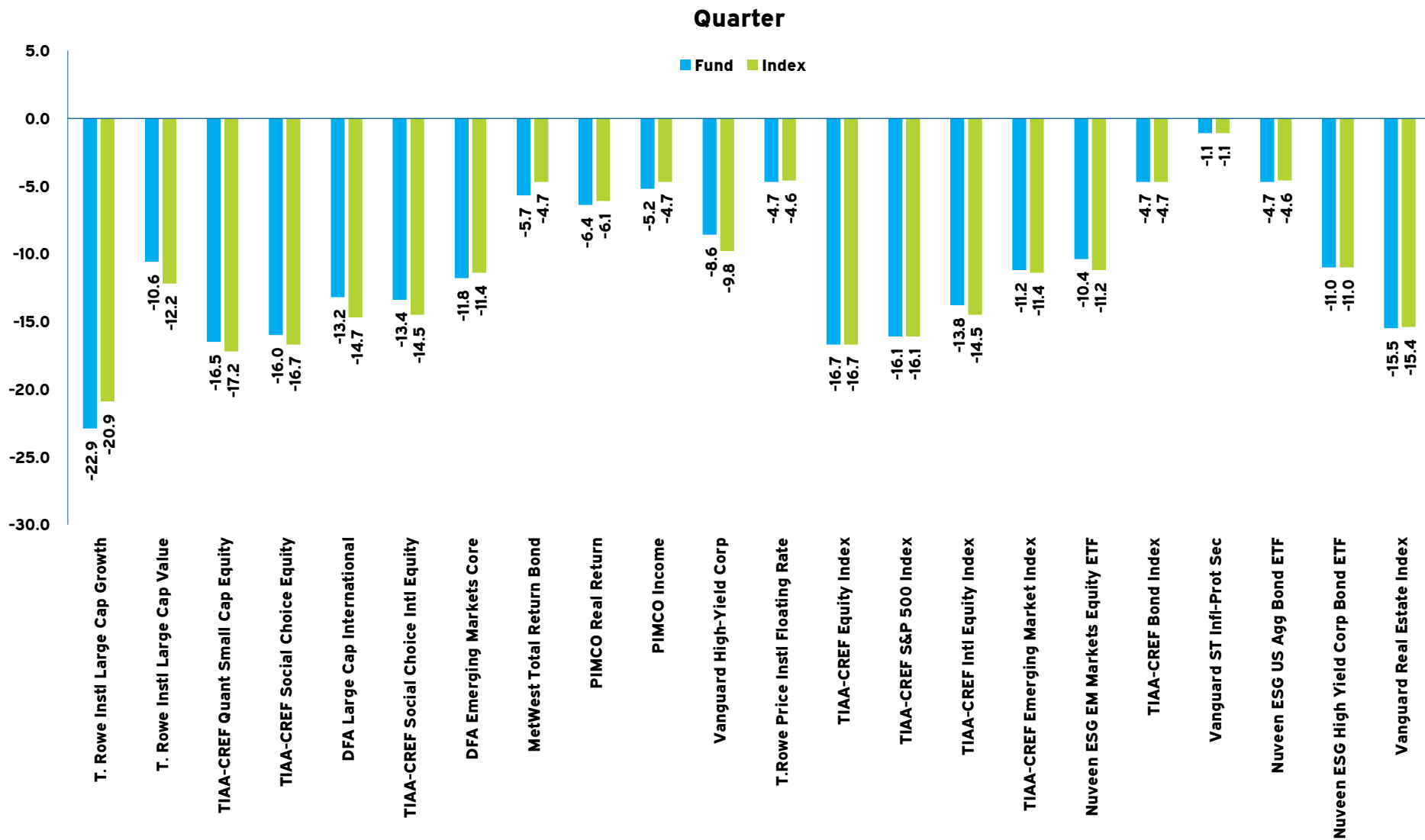
Investment Status Schedule

Performance Category ¹	Actively Managed Portfolios	Passively Managed Portfolios
Positive	→ Performance exceeds the benchmark.	→ Performance exceeds the benchmark (first 1-12 month period), or → Tracking error is within the allowable range ¹ (short, medium, and long time periods).
Acceptable	→ Performance meets or is under the benchmark and is within the allowable range.	→ Performance does not exceed the benchmark but is within the allowable range (first 1-12 month period only).
Caution	→ Performance is below allowable range but either: i) for less than six consecutive months, or ii) the Board has not taken (or decided not to take) a formal action to place the asset class or individual fund portfolio on Watch even though performance has been below allowable range for six months or longer.	→ Tracking error falls outside of the allowable range but either i) for less than six consecutive months, or ii) the Board has not voted to place the asset class or stand alone fund on Watch
Watch ²	→ Performance is below allowable range for more than six consecutive months and the Board has formally voted to place the asset class or individual fund on Watch.	→ Tracking error falls outside of the allowable range for more than six consecutive months and the Board has formally voted to place the asset class or individual fund portfolio on Watch.

¹ Ranges are shown in the Investment Performance Criteria Schedules.

² The amount of time generally required before an investment is put on watch.

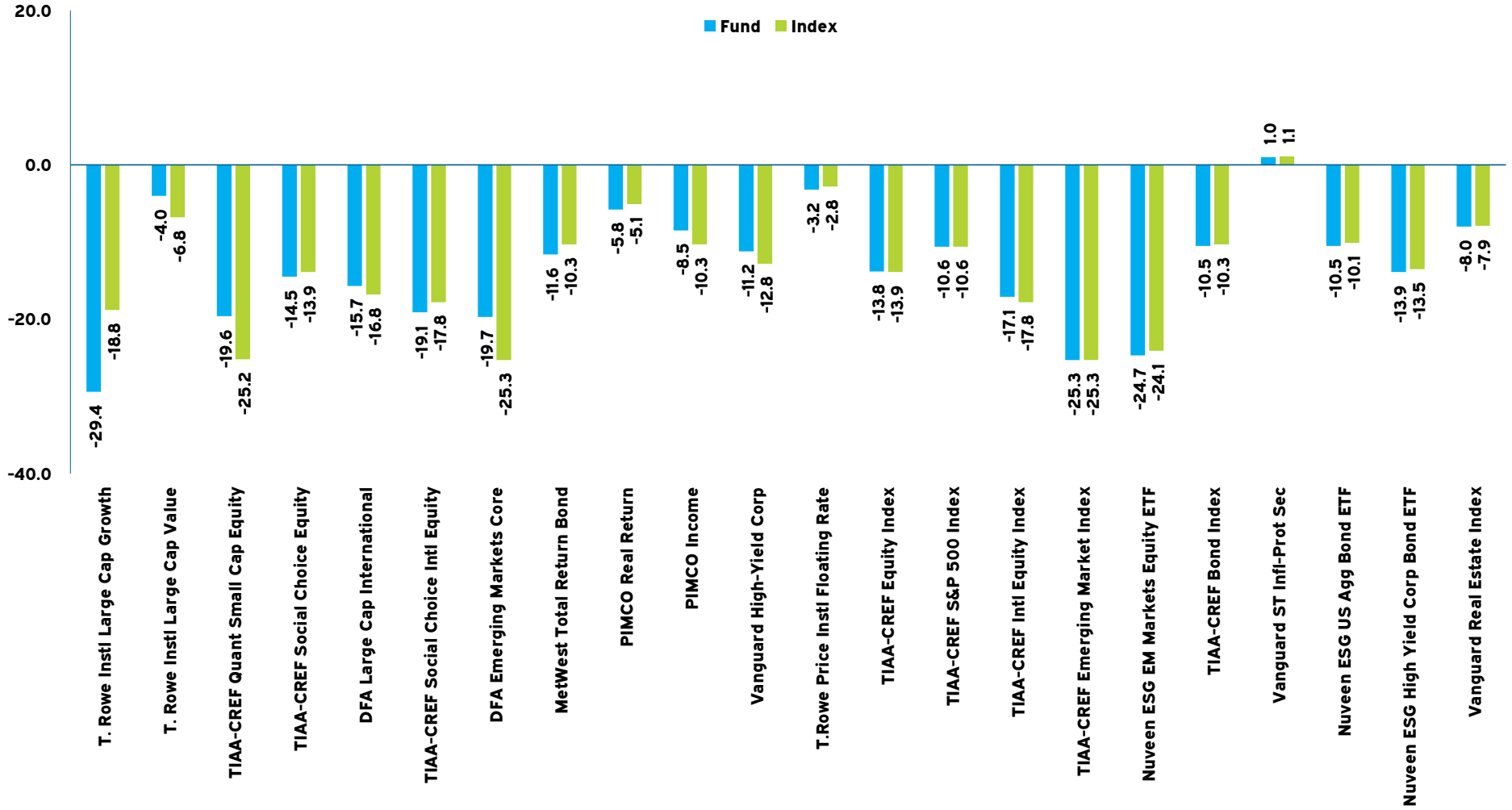
Summary of Fund Performance 6/30/22



Summary of Fund Performance 6/30/22

1 Year

Fund Index



Summary of Fund Performance Status

Program	Total Funds	Positive	Acceptable	Caution	Watch ²
Number of Funds ¹	23	10	11	2	1
% of Funds	100%	44%	48%	8%	4%
% of Program Assets	100%	83%	58%	4%	2%
Fund Status ↑	--	—	—	—	—
Fund Status ↓	4	—	4	—	—
Domestic Equity Funds	6	2	3	1	1
Intl Equity Funds	6	5	—	1	—
Fixed Income Funds	8	1	7	—	—
High Yield Funds	1	1	—	—	—
Real Estate	1	—	1	—	—
Funding Agreement	1	1	—	—	—

¹ Total number of funds does not include funds added to the program in 2/11/2022. New to program funds' performance statuses are based on excess performance since addition to portfolio

² Includes funds on Watch and new funds qualifying for Watch status. Number has not been adjusted to remove funds no longer qualifying for Watch.

→ Ninety-two percent of the Program's funds have either a Positive or Acceptable performance status.

→ Four funds declined to Acceptable status over the quarter:

- Metropolitan West Total Return Bond
- TIAA-CREF Equity Index
- TIAA-CREF S&P 500 Index
- TIAA-CREF Bond Index

→ The T. Rowe Price Instl Large Cap Growth fund continues to qualify for "Watch" status.

→ The TIAA-CREF Emerging Markets Index qualifies for watch, but we recommend keeping it off watch for reasons detailed in the watch memo.

Summary of Fund Performance Status

Funds	Prior Quarter		Current Quarter	
	Status	On Watch	Status	On Watch
Active Funds				
T. Rowe Price Instl Large Cap Growth	Caution	Yes	Caution	Yes
T. Rowe Price Instl Large Cap Value	Positive	No	Positive	No
TIAA-CREF Quant Small Cap Equity	Positive	No	Positive	No
TIAA-CREF Social Choice Equity	Acceptable	No	Acceptable	No
DFA Large Cap International	Positive	No	Positive	No
TIAA-CREF Social Choice Intl Equity ^{1,2}	N/A	N/A	Positive	N/A
DFA Emerging Markets Core Equity	Positive	No	Positive	No
Metropolitan West Total Return Bond	Positive	No	Acceptable	No
PIMCO Real Return	Acceptable	No	Acceptable	No
PIMCO Income	Positive	No	Positive	No
Vanguard High-Yield Corp Adm ²	N/A	N/A	Positive	N/A
T. Rowe Price Instl Floating Rate	Acceptable	No	Acceptable	No
Passive Funds				
TIAA-CREF Equity Index	Positive	No	Acceptable	No
TIAA-CREF S&P 500 Index	Positive	No	Acceptable	No
TIAA-CREF International Equity Index ¹	Positive	No	Positive	No
TIAA-CREF Emerging Markets Index ¹	Caution	No	Caution	No
Nuveen ESG EM Market Equity ^{1,2}	N/A	N/A	Positive	N/A
Vanguard ST Infl-Prot Sec Idx ²	N/A	N/A	Acceptable	N/A
TIAA-CREF Bond Index	Positive	No	Acceptable	No
Nuveen ESG US Agg Bond ²	N/A	N/A	Acceptable	N/A
Nuveen ESG High Yield ²	N/A	N/A	Acceptable	N/A
Vanguard REIT Index ²	N/A	N/A	Acceptable	N/A
T-C Life Funding Agreements				
T-C Life Funding Agreements	Positive	No	Positive	No

→ Current status is based on Short-Term (rolling 12-month) and Medium-Term (rolling 36-month) evaluation results.

→ According to the Investment Status Schedule on the previous page, the portfolio’s overall “Current Status” equals the lowest status as achieved by one or more of the criteria during the quarter.

¹ The TIAA-CREF International Equity Index, Emerging Markets Index, and Social Choice International Equity funds’ returns have been adjusted to include Fair Value impact for the purpose of monitoring.

² Funds added to the program as of 2/11/2022. New to program funds’ performance statuses are based on excess performance since addition to portfolio

Summary of Fund Assets as of 6/30/22

Funds	Assets (\$)	% of Total
Active Funds		
T. Rowe Price Instl Large Cap Growth Fund	280,215,440	2.43%
T. Rowe Price Instl Large Cap Value Fund	291,067,815	2.53%
TIAA-CREF Quant Small-Cap Equity Fund	98,091,726	0.85%
TIAA-CREF Social Choice Equity Fund	238,825,691	2.07%
DFA Large Cap International	404,483,092	3.51%
TIAA-CREF Social Choice International Equity Fund ¹	958,627	0.01%
DFA Emerging Markets Core Equity Fund	100,825,814	0.88%
Metropolitan West Total Return Bond	422,406,535	3.67%
PIMCO Real Return	237,682,396	2.06%
PIMCO Income	239,840,928	2.08%
Vanguard High-Yield Corporate Adm ¹	185,308,187	1.61%
T. Rowe Price Instl Floating Rate Fund	119,058,462	1.03%
Active Funds Total	2,618,764,712	22.74%
Passive Funds		
TIAA-CREF Equity Index Fund	3,106,063,938	26.97%
TIAA-CREF S&P 500 Index Fund	308,651,735	2.68%
TIAA-CREF International Equity Index Fund	719,307,003	6.25%
TIAA-CREF Emerging Markets Equity Index Fund	180,773,575	1.57%
Nuveen ESG EM Market Equity ¹	120,260	0.00%
TIAA-CREF Bond Index Fund	1,590,061,736	13.81%
Nuveen ESG US Agg Bond ¹	2,587,586	0.02%
Nuveen ESG High Yield ¹	165,408	0.00%
Vanguard Shrt-Term Infl-Prot Sec Idx Ins ¹	375,529,949	3.26%
Vanguard REIT Index I ¹	290,721,330	2.52%
Passive Funds Total	6,573,982,520	57.08%
TIAA-CREF Life Funding Agreements		
T-C Life Funding Agreements	2,324,341,215	20.18%
TOTAL	11,517,088,446	100.00%

¹ Funds added to the program as of 2/11/2022.

Portfolio Management Overview

Fund.	Ticker		Current PM Team	Recent PM Departures ¹	
T.Rowe Price Large Cap Growth	TRLGX	01/01/2017-	Taymour R. Tamaddon		
T.Rowe Price Large Cap Value	TILCX	03/31/2000- 02/25/2010- 10/01/2021-	John D. Linehan Mark S. Finn Gabriel Solomon	01/01/2015 – 05/01/2022	Heather K. McPherson
TIAA-CREF Quant Small Cap Equity	TISEX	03/01/2016- 03/01/2019-	Pei Chen Max Kozlov	10/23/2006- 10/1/2020	Adam Cao
TIAA-CREF Social Choice Equity	TISCX	12/31/2005- 05/30/2014- 05/01/2022-	Philip James Campagna Lei Liao Darren Tran		
DFA Large Cap International	DFALX	02/28/2010- 07/21/2015- 02/28/2020- 02/28/2020-	Jed S. Fogdall Bhanu P. Singh Joel P. Schneider Arun C. Keswani	02/28/2010-02/28/2019 07/21/2015-02/28/2020	Joseph H. Chi Mary T. Phillips
TIAA-CREF Social Choice Intl Equity	TSO NX	08/07/2015 – 08/07/2015 – 05/01/2022 -	Lei Liao Philip James Campagna Darren Tran		
DFA Emerging Markets Core Equity	DFCEX	02/28/2010- 07/21/2015- 07/21/2015- 02/28/2017- 02/28/2019-	Jed S. Fogdall Allen Pu Bhanu P. Singh Mary T. Phillips William Collins-Dean	02/28/2010-02/28/2019	Joseph H. Chi
Nuveen ESG EM Market Equity	NUEM	06/06/2017 – 06/06/2017 –	Lei Liao Philip James Campagna		

¹ Recent is defined as having occurred in the last three years.
Source: MorningStar

Portfolio Management Overview

Fund.	Ticker	Current PM Team		Recent PM Departures ¹	
Metropolitan West Total Return Bond	MWTIX	03/31/1997- 03/31/1997- 12/31/2004-	Stephen M. Kane Laird R. Landman Bryan T. Whalen	03/31/1997-12/31/2021	Tad Rivelle
PIMCO Real Return	PRRIX	01/09/2019- 12/11/2019-	Stephen A. Rodosky Daniel He	01/02/2015-01/09/2019 12/31/2007-12/11/2019	Jeramie Banet Mihir P. Worah
PIMCO Income	PIMIX	03/30/2007- 03/15/2013- 07/30/2018-	Daniel J. Ivascyn Alfred T. Murata Joshua Anderson		
Vanguard High-Yield Corp Adm	VWEAX	02/14/2008 -	Michael L. Hong		
Nuveen ESG High Yield	NUHY	09/29/2017 - 11/30/2021 - 11/30/2021 -	Lijun (Kevin) Chen James Tsang Rui (Vivian) Liu	09/25/2019 - 11/30/2021	Yong (Mark) Zheng
T.Rowe Price Floating Rate	RPIFX	05/01/2009-	Paul M. Massaro		T.Rowe Price Floating Rate
Nuveen ESG US Agg Bond		09/29/2017 - 11/30/2021 - 11/30/2021 -	Lijun (Kevin) Chen James Tsang Rui (Vivian) Liu	06/26/2018 - 11/30/2021	Yong (Mark) Zheng
TIAA-CREF Equity Index	TIEIX	12/31/2005- 05/30/2014- 03/01/2019-	Philip James Campagna Lei Liao Darren Tran		
TIAA-CREF S&P 500 Index	TISPX	12/31/2005- 05/30/2014- 03/01/2019-	Philip James Campagna Lei Liao Darren Tran		

¹ Recent is defined as having occurred in the last three years.
Source: MorningStar

Portfolio Management Overview (continued)

Fund	Ticker	Current PM Team	Recent PM Departures ¹
TIAA-CREF International Equity Index	TCIEX	08/01/2005- 05/30/2014- 03/01/2019- Philip James Campagna Lei Liao Darren Tran	
TIAA-CREF Emerging Markets Equity Index	TEQLX	08/31/2010- 05/30/2014- 03/01/2019- Philip James Campagna Lei Liao Darren Tran	
Vanguard REIT Index	VGSLX	05/13/1996 – 05/25/2016 – Gerard C. O’Reilly Walter Nejman	
Vanguard ST Infl-Prot Sec Index	VTSPX	10/12/2012 - Joshua C. Barrickman	
TIAA-CREF Bond Index	TBIIX	12/31/2009- 08/24/2011- Lijun (Kevin) Chen James Tsang	

Observations:

→ Heather K. McPherson left the T.Rowe Price Large Cap Value team in May.

¹ Recent is defined as having occurred in the last three years.
Source: MorningStar

Sensitivity Analyses

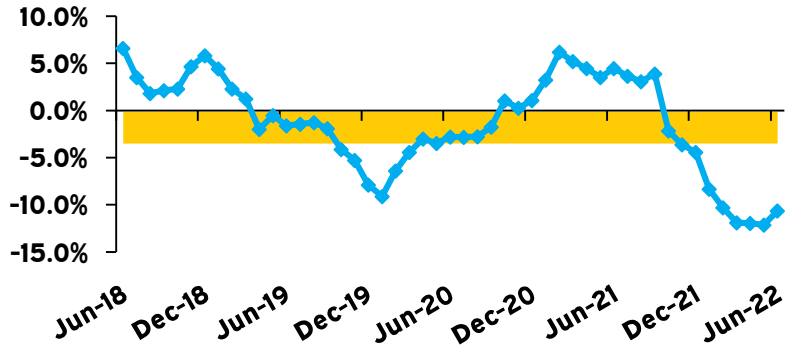
	QTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Active Funds										
TRowe Price Large Cap Growth I	-22.9	68	-29.4	74	7.7	59	12.2	35	14.8	8
<i>Russell 1000 Growth</i>	-20.9	51	-18.8	34	12.6	7	14.3	11	14.8	8
<i>Large Growth MStar MF Median</i>	-20.8		-22.6		8.7		11.5		12.9	
TRowe Price Large Cap Value I	-10.6	35	-4.0	40	8.4	45	8.0	54	11.4	22
<i>Russell 1000 Value</i>	-12.2	69	-6.8	73	6.9	79	7.2	76	10.5	55
<i>Large Value MStar MF Median</i>	-11.3		-5.1		8.2		8.1		10.6	
TIAA-CREF Quant Small Cap Equity I	-16.5	58	-19.6	54	5.2	58	5.9	58	10.3	39
<i>Russell 2000</i>	-17.2	64	-25.2	68	4.2	69	5.2	69	9.4	67
<i>Small Cap MStar MF Median</i>	-15.7		-18.5		5.8		6.3		9.9	
TIAA-CREF Social Choice Equity I	-16.0	56	-14.5	83	9.9	49	10.5	53	12.3	55
<i>Russell 3000</i>	-16.7	81	-13.9	75	9.8	51	10.6	46	12.6	41
<i>Large Blend MStar MF Median</i>	-15.7		-11.6		9.8		10.5		12.4	
DFA Large Cap International I	-13.2	51	-15.7	14	2.5	27	3.0	21	5.6	32
<i>MSCI World ex USA</i>	-14.7	82	-16.8	20	1.7	49	2.7	39	5.4	45
<i>Foreign Large Blend MStar MF Median</i>	-13.2		-19.1		1.6		2.3		5.2	
TIAA-CREF Social Choice Intl Equity	-13.4	54	-16.2	16	2.4	29	2.9	24	--	--
<i>MSCI EAFE</i>	-14.5	81	-17.8	32	1.1	65	2.2	55	5.4	43
<i>Foreign Large Blend MStar MF Median</i>	-13.2		-19.1		1.6		2.3		5.2	
DFA Emerging Markets Core Equity I	-11.8	53	-19.7	15	2.7	23	2.9	27	3.8	27
<i>MSCI Emerging Markets</i>	-11.4	43	-25.3	37	0.6	47	2.2	44	3.1	50
<i>Diversified Emerging Mkts MStar MF Median</i>	-11.7		-27.6		0.5		1.6		3.0	
Metropolitan West Total Return Bond I	-5.7	53	-11.6	68	-0.8	68	1.1	57	--	--
<i>Bloomberg US Aggregate TR</i>	-4.7	14	-10.3	29	-0.9	74	0.9	71	1.5	96
<i>Intermediate Core Plus Bond MStar MF Median</i>	-5.7		-11.3		-0.5		1.1		2.1	

	QTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
PIMCO Real Return	-6.4	68	-5.8	72	3.1	37	3.2	26	1.7	22
<i>Bloomberg US TIPS TR</i>	-6.1	56	-5.1	54	3.0	44	3.2	20	1.7	18
<i>Inflation-Protected Bond MStar MF Median</i>	-6.0		-5.0		3.0		3.0		1.6	
PIMCO Income I	-5.2	36	-8.5	38	0.3	45	2.0	27	5.1	1
<i>Bloomberg US Aggregate TR</i>	-4.7	32	-10.3	58	-0.9	83	0.9	87	1.5	99
<i>Multisector Bond MStar MF Median</i>	-6.2		-9.7		0.1		1.8		3.1	
Vanguard High-Yield Corp Adm	-8.6	22	-11.2	35	0.0	50	1.9	37	4.1	43
<i>Bloomberg US Corporate High Yield TR</i>	-9.8	54	-12.8	67	0.2	41	2.1	33	4.5	23
<i>High Yield Bond MStar MF Median</i>	-9.7		-12.3		0.0		1.7		3.9	
TRowe Price Floating Rate I	-4.7	22	-3.2	24	1.6	23	2.6	10	3.5	18
<i>S&P/LSTA Performing Loan TR USD</i>	-4.6	15	-2.8	14	2.3	1	3.1	4	4.0	1
<i>Bank Loan MStar MF Median</i>	-5.1		-4.0		1.1		2.1		3.1	
Passive Funds										
TIAA-CREF Equity Index I	-16.7	80	-13.8	74	9.7	52	10.6	47	12.5	44
<i>Russell 3000</i>	-16.7	81	-13.9	75	9.8	51	10.6	46	12.6	41
<i>Large Blend MStar MF Median</i>	-15.7		-11.6		9.8		10.5		12.4	
TIAA-CREF S&P 500 Index I	-16.1	58	-10.6	35	10.6	23	11.3	20	12.9	20
<i>S&P 500</i>	-16.1	58	-10.6	35	10.6	22	11.3	18	13.0	16
<i>Large Blend MStar MF Median</i>	-15.7		-11.6		9.8		10.5		12.4	
Vanguard Real Estate Index	-15.5	43	-8.0	79	4.8	69	5.7	66	7.5	51
<i>MSCI US IMI Real Estate 25/50 GR USD</i>	-15.4	36	-7.9	77	4.9	66	5.6	68	6.8	81
<i>Real Estate MStar MF Median</i>	-16.4		-6.8		5.4		6.3		7.5	
TIAA-CREF International Equity Index	-13.8	61	-17.1	23	1.4	57	2.5	43	5.6	33
<i>MSCI EAFE</i>	-14.5	81	-17.8	32	1.1	65	2.2	55	5.4	43
<i>Foreign Large Blend MStar MF Median</i>	-13.2		-19.1		1.6		2.3		5.2	

	QTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
TIAA-CREF Emerging Markets Equity Index	-11.2	37	-25.3	37	0.4	54	2.0	46	2.9	53
<i>MSCI Emerging Markets</i>	-11.4	43	-25.3	37	0.6	47	2.2	44	3.1	50
<i>Diversified Emerging Mkts MStar MF Median</i>	-11.7		-27.6		0.5		1.6		3.0	
Nuveen ESG Emerging Markets Equity ETF	-10.4	24	-24.7	32	3.3	18	--	--	--	--
<i>TIAA ESG Emerging Markets Index</i>	-11.2	37	-24.1	31	4.1	12	4.1	12	--	--
<i>Diversified Emerging Mkts MStar MF Median</i>	-11.7		-27.6		0.5		1.6		3.0	
TIAA-CREF Bond Index I	-4.7	35	-10.5	41	-1.1	71	0.7	77	1.4	82
<i>Bloomberg US Aggregate TR</i>	-4.7	28	-10.3	28	-0.9	60	0.9	54	1.5	67
<i>Intermediate Core Bond MStar MF Median</i>	-4.9		-10.6		-0.8		0.9		1.7	
Vanguard Short Term Infl-Prot Securities	-1.1	1	1.0	5	3.4	22	2.9	57	--	--
<i>BBg U.S. TIPS 0-5 Years</i>	-1.1	1	1.1	3	3.5	20	3.0	53	1.7	29
<i>Inflation-Protected Bond MStar MF Median</i>	-6.0		-5.0		3.0		3.0		1.6	
Nuveen ESG US Aggregate Bond ETF	-4.7	35	-10.5	43	-1.2	87	--	--	--	--
<i>BBg MSCI US Agg ESG Select</i>	-4.6	21	-10.1	18	-0.9	56	0.9	52	--	--
<i>Intermediate Core Bond MStar MF Median</i>	-4.9		-10.6		-0.8		0.9		1.7	
Nuveen ESG High Yield Corp Bond ETF	-11.0	90	-13.9	88	--	--	--	--	--	--
<i>BBg MSCI US High Yield Very Liquid ESG Select</i>	-11.0	90	-13.5	83	-1.6	98	--	--	--	--
<i>High Yield Bond MStar MF Median</i>	-9.7		-12.3		0.0		1.7		3.9	

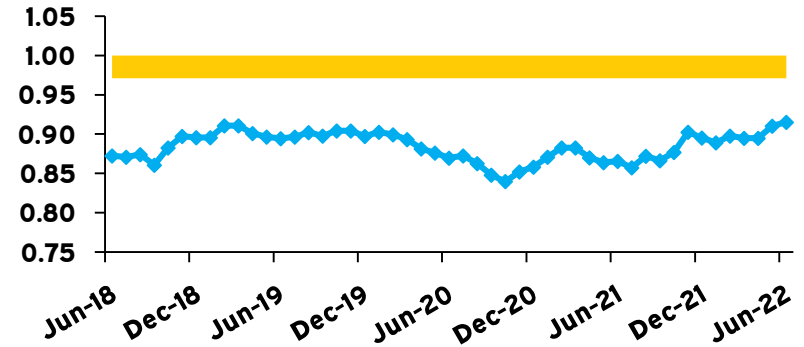
Sensitivity Analyses: Active Funds

Short Term – Rolling 12-Month Excess Return



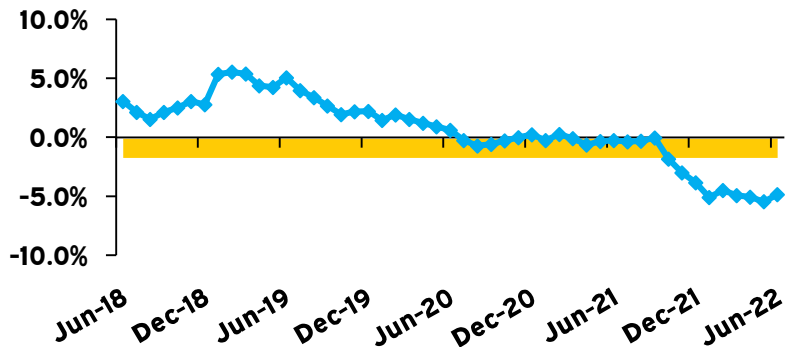
Results fall in the caution range.
Probationary Threshold -3.50%

Long Term – VRR



Results fall in the caution range.
Probationary Threshold <0.97

Medium Term – Rolling 36-Month Excess Return



Results fall in the caution range.
Probationary Threshold -1.75%

Benchmark: Russell 1000 Growth

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TRowe Price Large Cap Growth I	-22.9	-29.4	7.7	12.2	14.6	11/20/2011
Russell 1000 Growth	-20.9	-18.8	12.6	14.3	14.8	

Monitoring Status

Caution, On Watch

TRowe Price Large Cap Growth I | As of June 30, 2022

Description:

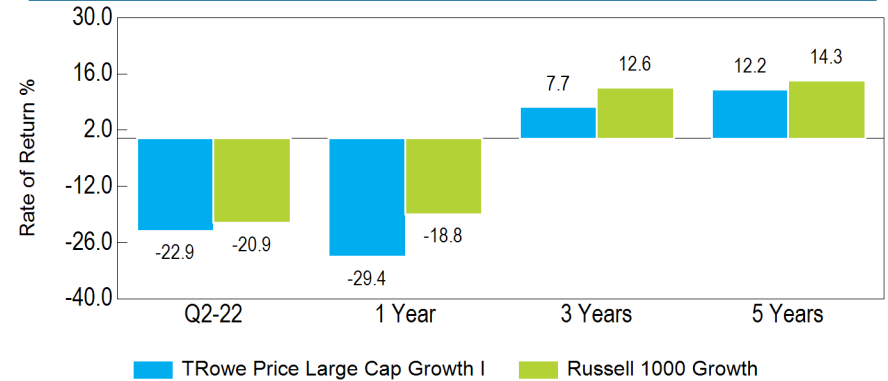
The investment seeks to provide long-term capital appreciation through investments in common stocks of growth companies.

The fund will normally invest at least 80% of its net assets (including any borrowings for investment purposes) in the securities of large-cap companies. The advisor defines a large-cap company as one whose market capitalization is larger than the median market capitalization of companies in the Russell 1000® Growth Index, a widely used benchmark of the largest U.S. growth stocks. The fund is non-diversified.

Portfolio Fund Information as of June 30, 2022

Ticker	TRLGX
Morningstar Category	Large Growth
Average Market Cap (\$mm)	261,247.02
Net Assets (\$mm)	15,345.06
% Assets in Top 10 Holdings	54.49
Total Number of Holdings	61
Manager Name	Taymour R. Tamaddon
Manager Tenure	6
Expense Ratio	0.55%
Closed to New Investors	No

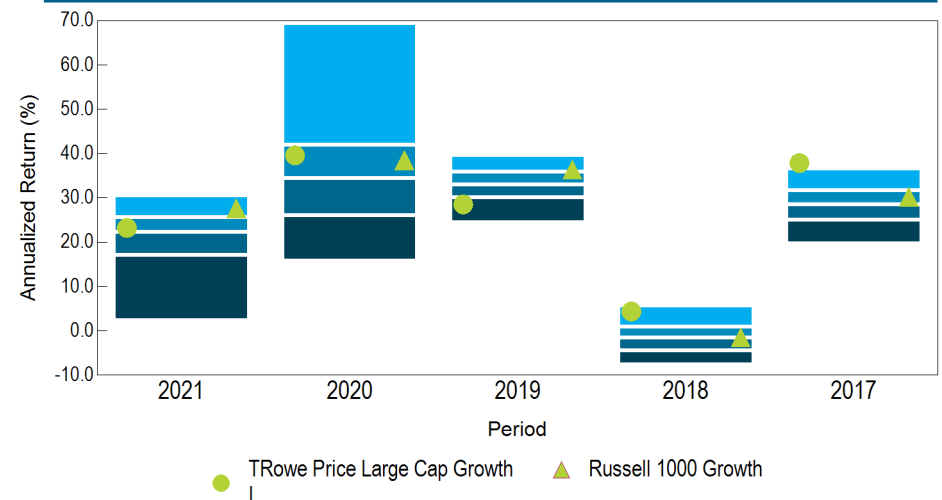
Return Summary



Large Growth MStar MF Return Comparison

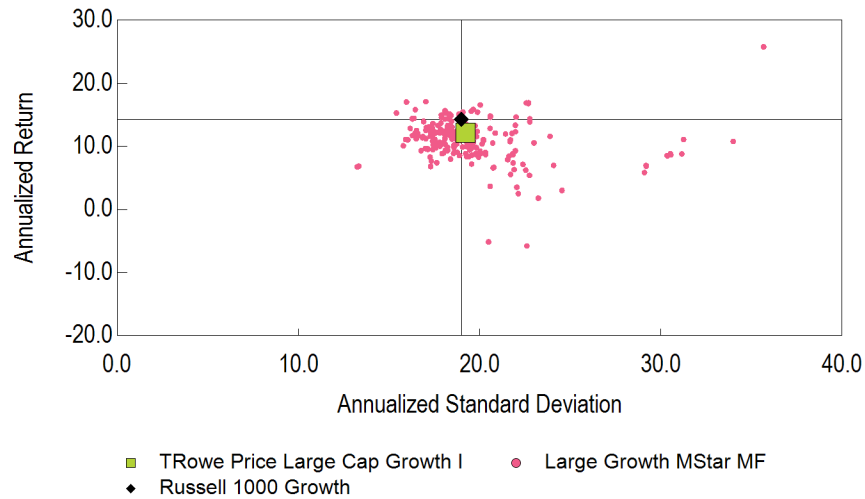


Large Growth MStar MF Return Comparison

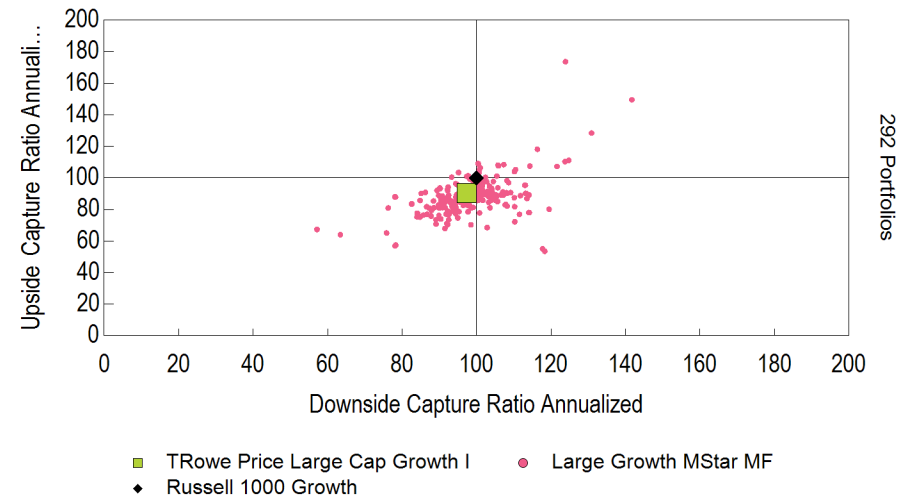


TRowe Price Large Cap Growth I | As of June 30, 2022

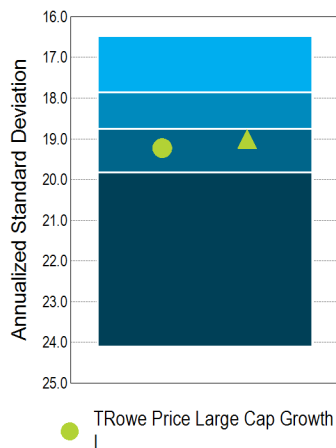
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



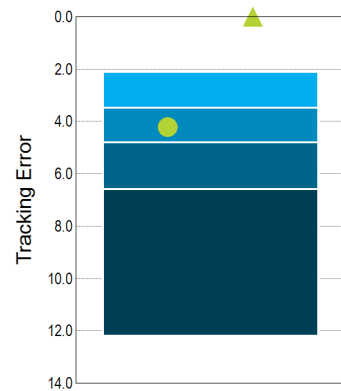
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



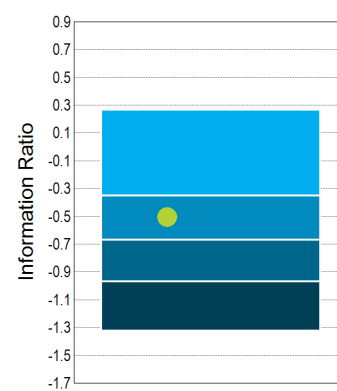
Annualized Standard Deviation



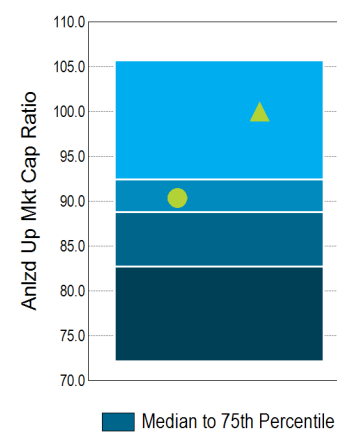
Tracking Error



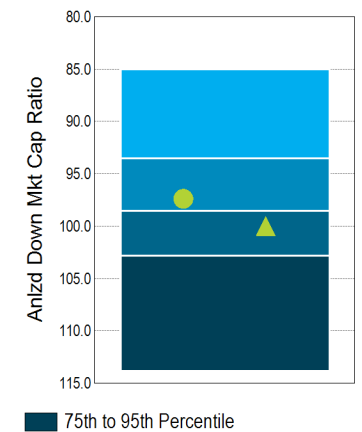
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.34
Average Market Cap (\$mm)	261,247.02
Price/Earnings	20.03
Price/Book	4.50
Price/Sales	2.51
Price/Cash Flow	15.06
Dividend Yield	0.79
Number of Equity Holdings	60
R-Squared (3 Year)	0.96
Alpha (3 Year)	-0.36%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	1.09%
COMMUNICATION SERVICES	17.26%
CONSUMER CYCLICAL	16.74%
CONSUMER DEFENSIVE	1.48%
ENERGY	0.00%
FINANCIAL SERVICES	4.04%
HEALTHCARE	15.88%
INDUSTRIALS	3.03%
REAL ESTATE	0.00%
TECHNOLOGY	40.49%
UTILITIES	0.00%

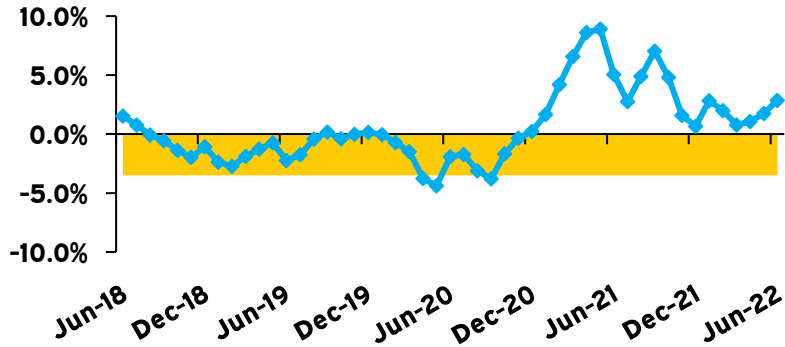
Top Holdings as of June 30, 2022

MICROSOFT CORP	12.13%
ALPHABET INC CLASS A	8.67%
AMAZON.COM INC	8.45%
APPLE INC	6.79%
UNITEDHEALTH GROUP INC	4.54%
INTUIT INC	3.34%
CIGNA CORP	3.15%
ALPHABET INC CLASS C	2.79%
FISERV INC	2.38%
RIVIAN AUTOMOTIVE INC CLASS A	2.25%

Top Countries as of June 30, 2022

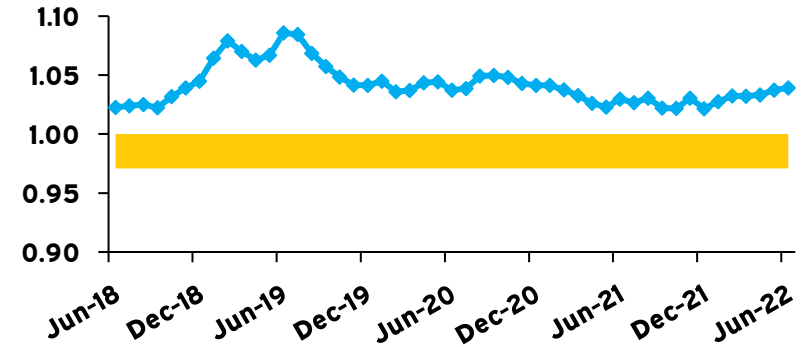
United States	97.78%
Netherlands	1.47%
Japan	0.39%
South Korea	0.36%

Short Term – Rolling 12-Month Excess Return



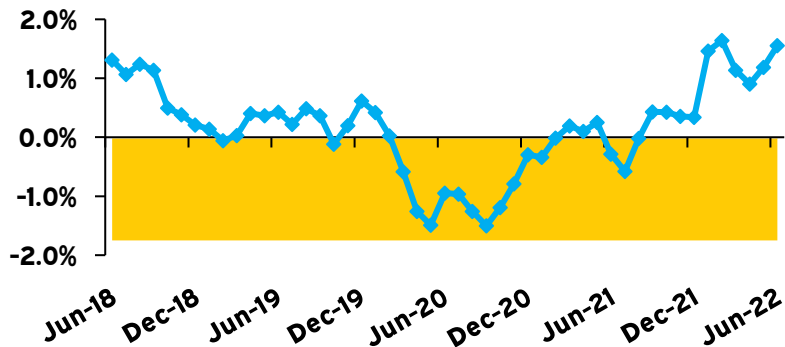
Results fall in the positive range.
Probationary Threshold -3.50%

Long Term – VRR



Results fall in the positive range.
Probationary Threshold <0.97

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -1.75%

Benchmark: Russell 1000 Value

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TRowe Price Large Cap Value I	-10.6	-4.0	8.4	8.0	11.5	11/20/2011
Russell 1000 Value	-12.2	-6.8	6.9	7.2	10.8	

Monitoring Status

Positive

Description:

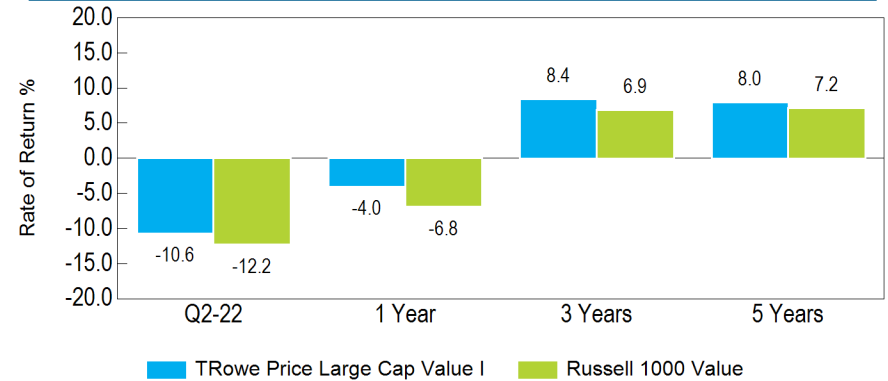
The investment seeks long-term capital appreciation; income is a secondary objective.

The fund will normally invest at least 80% of its net assets (including any borrowings for investment purposes) in securities of large-cap companies that the portfolio manager regards as undervalued. The manager defines a large-cap company as having a market capitalization that, at the time of purchase, is either (i) larger than the current median market capitalization of companies in the Russell 1000® Value Index or (ii) larger than the three year average median market capitalization of companies in the index as of December 31 of the three preceding years.

Portfolio Fund Information as of June 30, 2022

Ticker	TILCX
Morningstar Category	Large Value
Average Market Cap (\$mm)	75,752.23
Net Assets (\$mm)	3,168.90
% Assets in Top 10 Holdings	25.72
Total Number of Holdings	82
Manager Name	John D. Linehan
Manager Tenure	22
Expense Ratio	0.55%
Closed to New Investors	No

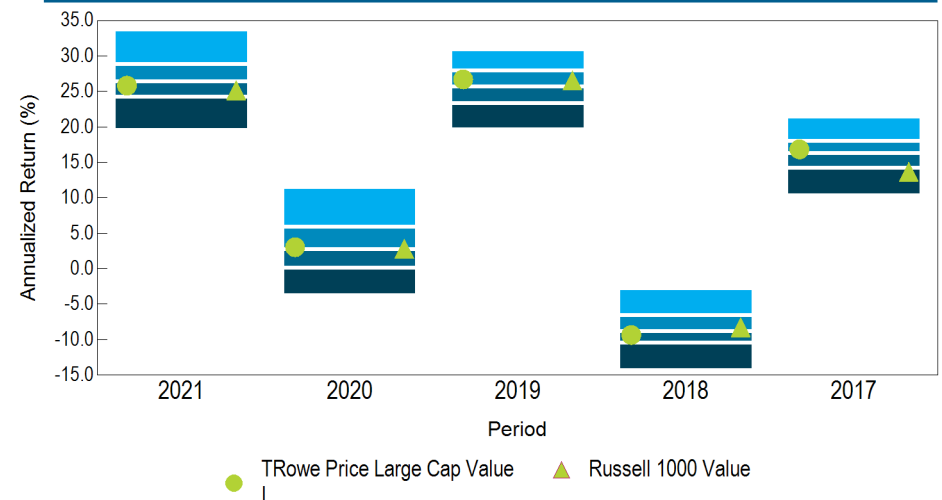
Return Summary



Large Value MStar MF Return Comparison

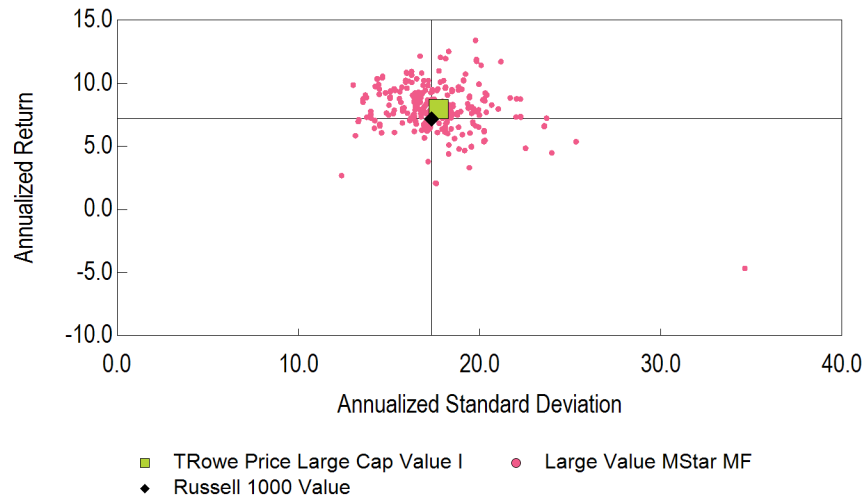


Large Value MStar MF Return Comparison

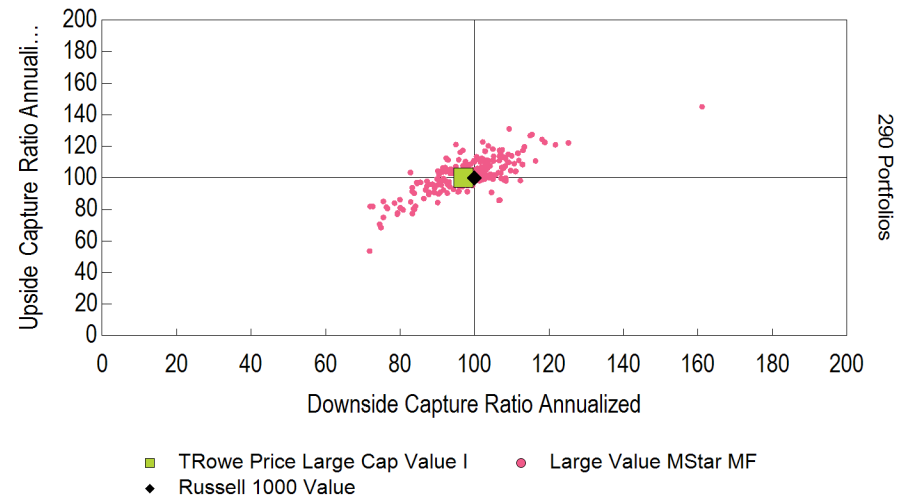


TRowe Price Large Cap Value I | As of June 30, 2022

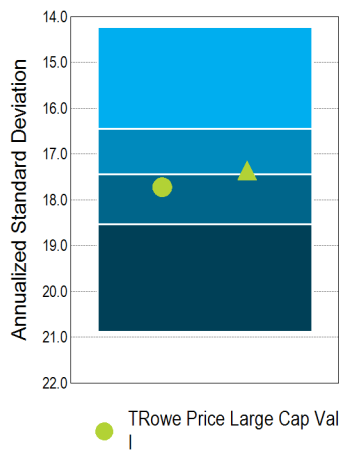
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



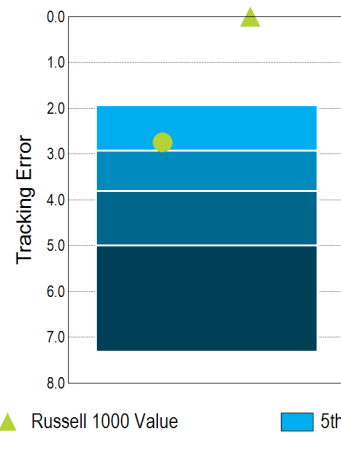
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



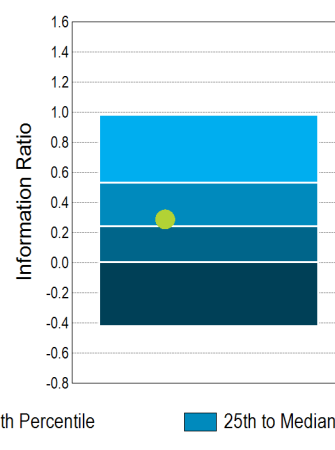
Annualized Standard Deviation



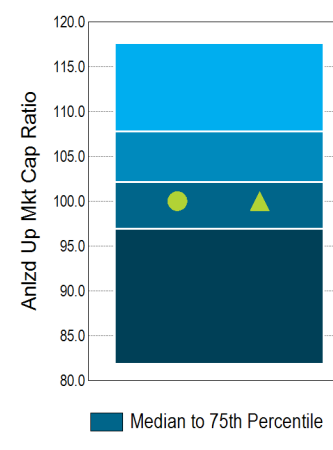
Tracking Error



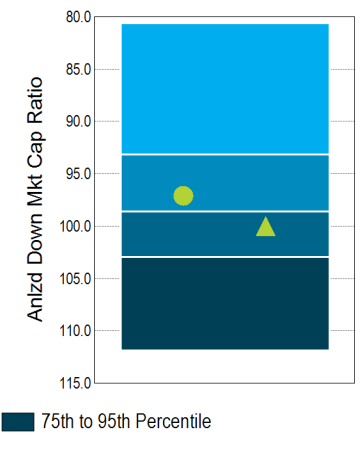
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.40
Average Market Cap (\$mm)	75,752.23
Price/Earnings	12.23
Price/Book	2.03
Price/Sales	1.30
Price/Cash Flow	8.77
Dividend Yield	2.81
Number of Equity Holdings	79
R-Squared (3 Year)	0.97
Alpha (3 Year)	0.12%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	3.13%
COMMUNICATION SERVICES	5.22%
CONSUMER CYCLICAL	5.45%
CONSUMER DEFENSIVE	8.65%
ENERGY	7.23%
FINANCIAL SERVICES	13.95%
HEALTHCARE	21.07%
INDUSTRIALS	10.82%
REAL ESTATE	5.32%
TECHNOLOGY	9.97%
UTILITIES	9.19%

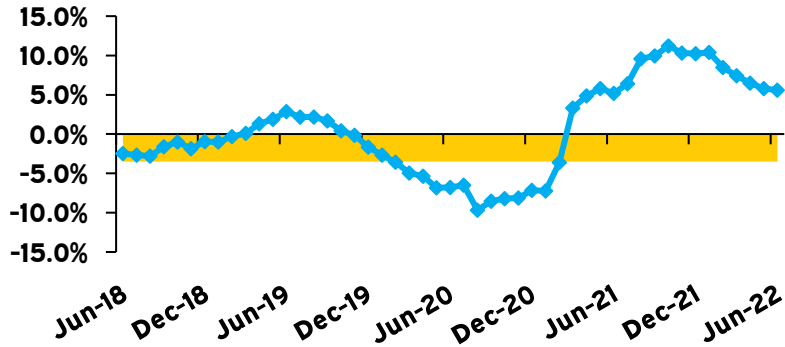
Top Holdings as of June 30, 2022

SOUTHERN CO	3.20%
TOTALENERGIES SE ADR	3.05%
WELLS FARGO & CO	2.85%
UNITED PARCEL SERVICE INC CLASS B	2.66%
GENERAL ELECTRIC CO	2.55%
JOHNSON & JOHNSON	2.46%
QUALCOMM INC	2.39%
CHUBB LTD	2.25%
BECTON, DICKINSON AND CO	2.17%
ELEVANCE HEALTH INC	2.14%

Top Countries as of June 30, 2022

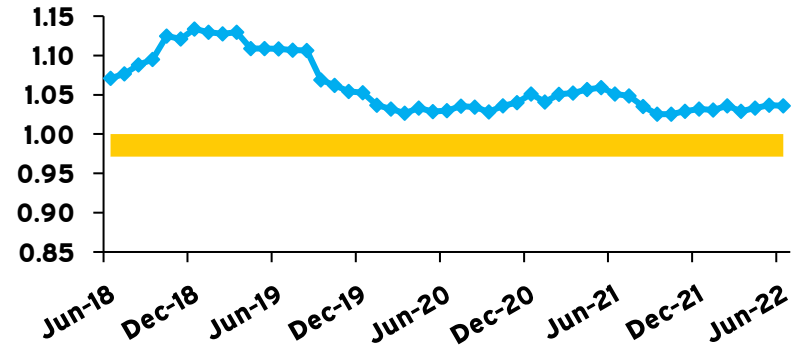
United States	91.82%
France	3.12%
Switzerland	2.30%
Canada	1.51%
Germany	0.92%
Netherlands	0.33%

Short Term – Rolling 12-Month Excess Return



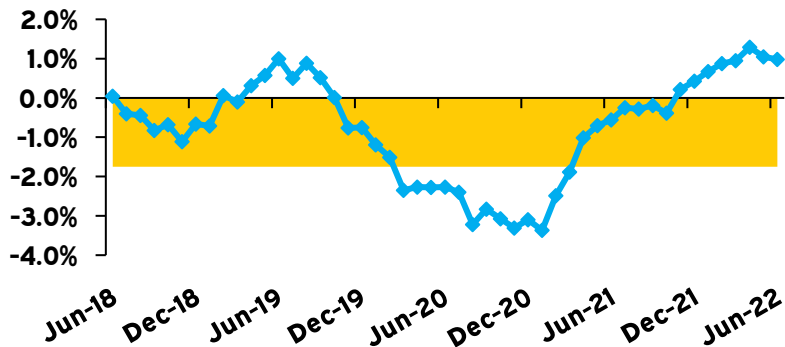
Results fall in the positive range.
Probationary Threshold -3.50%

Long Term – VRR



Results fall in the positive range.
Probationary Threshold <0.97

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -1.75%

Benchmark: Russell 2000

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF Quant Small Cap Equity I	-16.5	-19.6	5.2	5.9	10.4	11/20/2011
Russell 2000	-17.2	-25.2	4.2	5.2	9.6	

Monitoring Status

Positive

TIAA-CREF Quant Small Cap Equity I | As of June 30, 2022

Description:

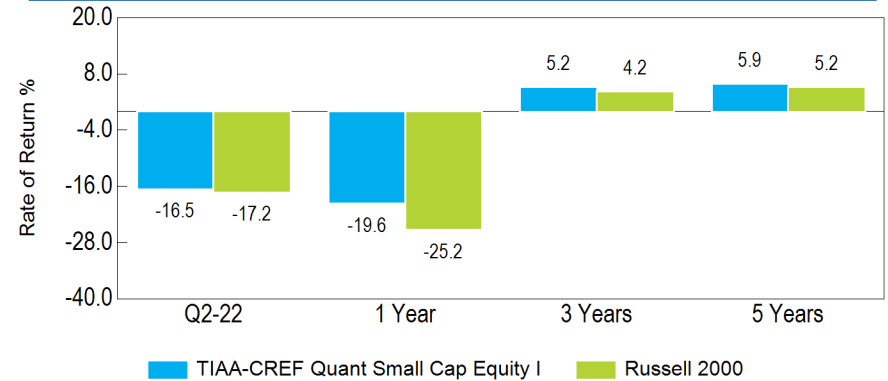
The investment seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of smaller domestic companies.

Under normal circumstances, the fund invests at least 80% of its assets in small-cap equity securities. A "small-cap" equity security is a security within the capitalization range of the companies included in the fund's benchmark index, the Russell 2000® Index, at the time of purchase. It invests primarily in equity securities of smaller domestic companies across a wide range of sectors, growth rates and valuations.

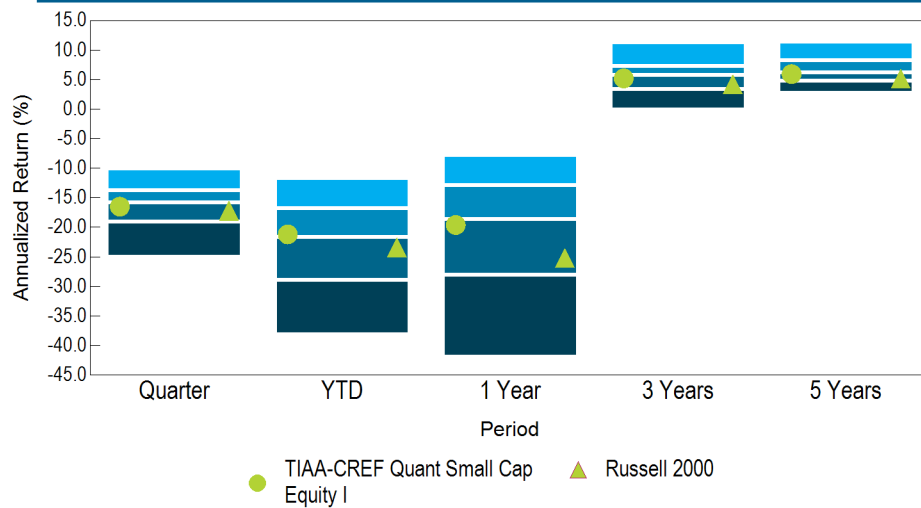
Portfolio Fund Information as of May 31, 2022

Ticker	TISEX
Morningstar Category	Small Blend
Average Market Cap (\$mm)	2,594.24
Net Assets (\$mm)	1,444.86
% Assets in Top 10 Holdings	8.78
Total Number of Holdings	436
Manager Name	Pei Chen
Manager Tenure	6
Expense Ratio	0.41%
Closed to New Investors	No

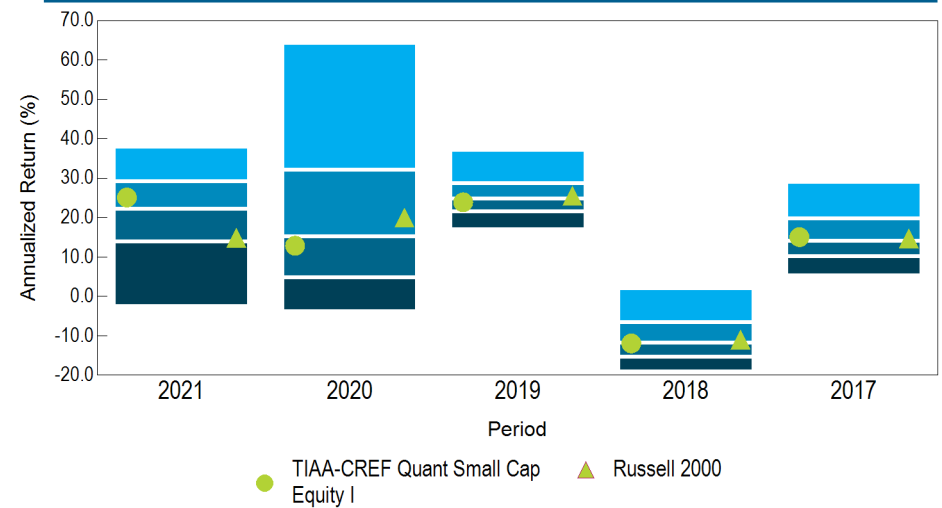
Return Summary



Small Cap MStar MF Return Comparison

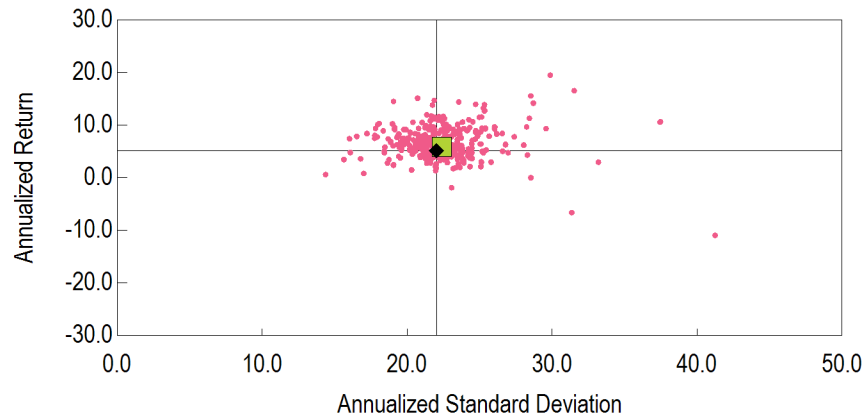


Small Cap MStar MF Return Comparison



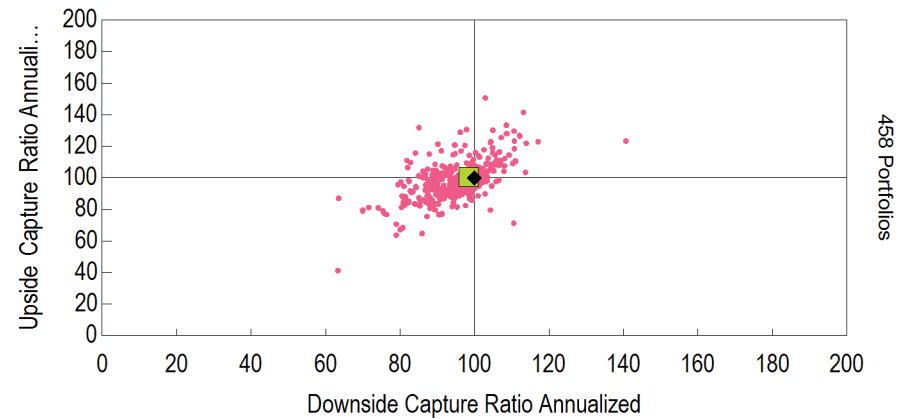
TIAA-CREF Quant Small Cap Equity I | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



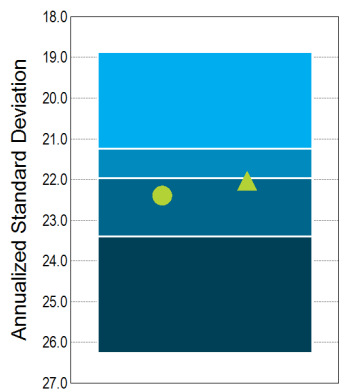
- TIAA-CREF Quant Small Cap Equity I
- Small Cap MStar MF
- ◆ Russell 2000

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022

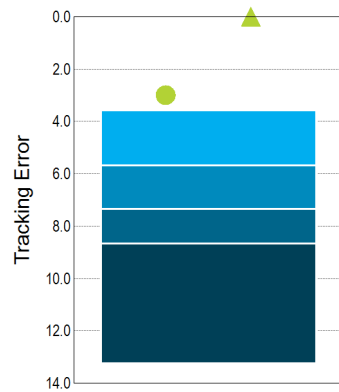


- TIAA-CREF Quant Small Cap Equity I
- Small Cap MStar MF
- ◆ Russell 2000

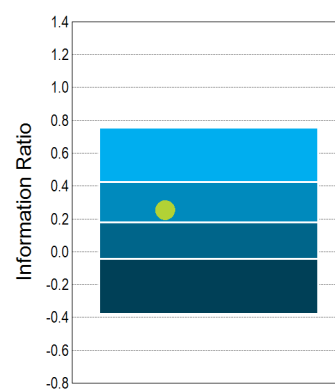
Annualized Standard Deviation



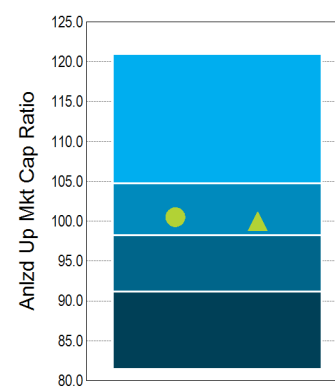
Tracking Error



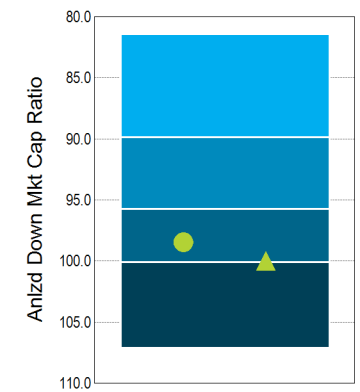
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- TIAA-CREF Quant Small Cap Equity I
- ▲ Russell 2000
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.41
Average Market Cap (\$mm)	2,594.24
Price/Earnings	11.05
Price/Book	1.69
Price/Sales	0.80
Price/Cash Flow	5.18
Dividend Yield	1.22
Number of Equity Holdings	429
R-Squared (3 Year)	0.98
Alpha (3 Year)	0.08%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	4.81%
COMMUNICATION SERVICES	3.89%
CONSUMER CYCLICAL	7.88%
CONSUMER DEFENSIVE	4.57%
ENERGY	9.22%
FINANCIAL SERVICES	15.66%
HEALTHCARE	14.92%
INDUSTRIALS	14.87%
REAL ESTATE	7.52%
TECHNOLOGY	12.81%
UTILITIES	3.85%

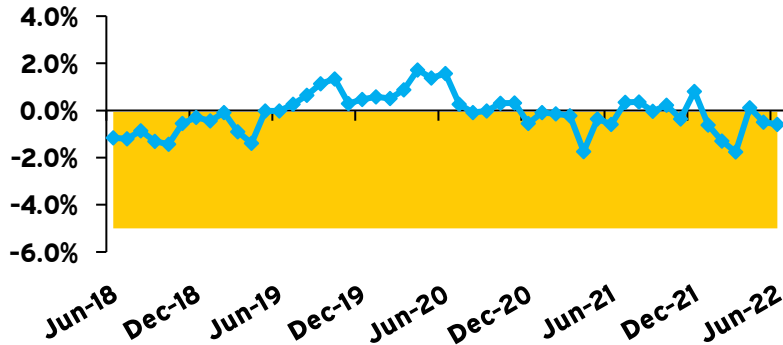
Top Holdings as of May 31, 2022

E MINI RUSS 2000 JUN22 XCME 20220617	1.36%
OVINTIV INC	1.14%
BJ'S WHOLESALE CLUB HOLDINGS INC	0.94%
LANTHEUS HOLDINGS INC	0.89%
ANTERO RESOURCES CORP	0.87%
PBF ENERGY INC CLASS A	0.81%
COMFORT SYSTEMS USA INC	0.75%
KBR INC	0.69%
NATIONAL STORAGE AFFILIATES TRUST	0.68%
WILLSCOT MOBILE MINI HOLDINGS CORP	0.64%

Top Countries as of May 31, 2022

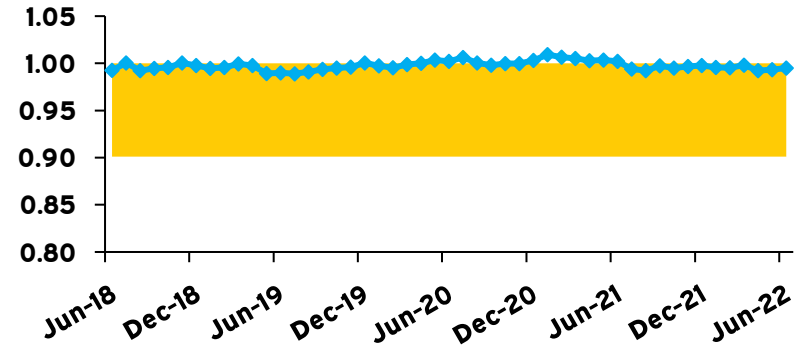
United States	98.42%
Puerto Rico	0.47%
Brazil	0.45%
Ireland	0.19%
Chile	0.18%
Marshall Islands	0.10%
Hong Kong	0.09%
Israel	0.09%

Short Term – Rolling 12-Month Excess Return



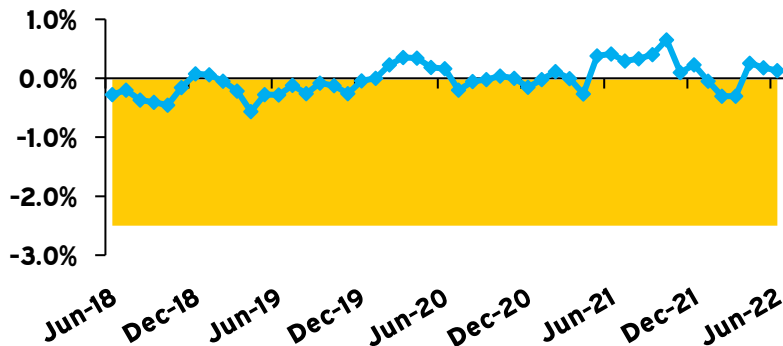
Results fall in the positive range.
Probationary Threshold -5.00%

Long Term – VRR



Results fall in the acceptable range.
Probationary Threshold <0.90

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -2.50%

Benchmark: Russell 3000

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF Social Choice Equity I	-16.0	-14.5	9.9	10.5	12.1	11/20/2011
Russell 3000	-16.7	-13.9	9.8	10.6	12.7	

Monitoring Status

Acceptable

TIAA-CREF Social Choice Equity I | As of June 30, 2022

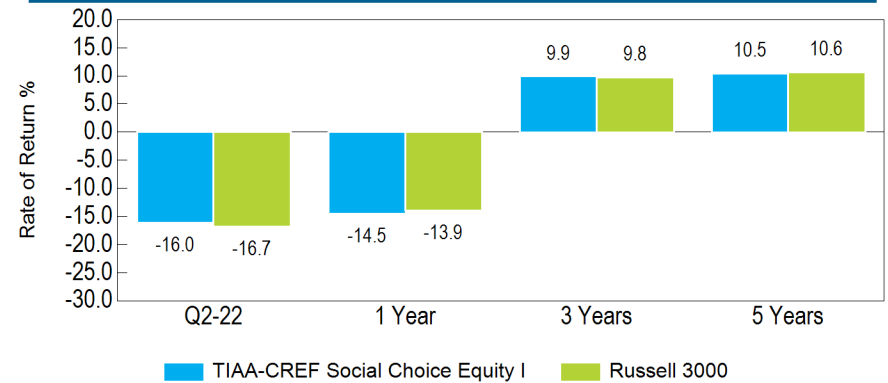
Description:

The investment seeks a favorable long-term total return that reflects the investment performance of the overall U.S. stock market while giving special consideration to certain ESG criteria. Under normal circumstances, the fund invests at least 80% of its assets in equity securities. The Advisor attempts to achieve the return of the U.S. stock market as represented by its benchmark, the Russell 3000® Index, while taking into consideration certain ESG criteria.

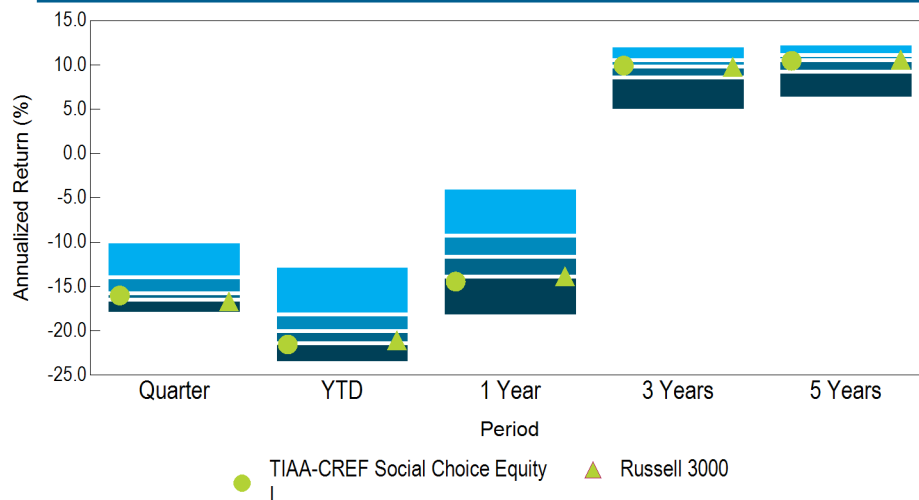
Portfolio Fund Information as of May 31, 2022

Ticker	TISCX
Morningstar Category	Large Blend
Average Market Cap (\$mm)	78,114.11
Net Assets (\$mm)	5,034.81
% Assets in Top 10 Holdings	16.93
Total Number of Holdings	544
Manager Name	Philip James (Jim) Campagna
Manager Tenure	17
Expense Ratio	0.17%
Closed to New Investors	No

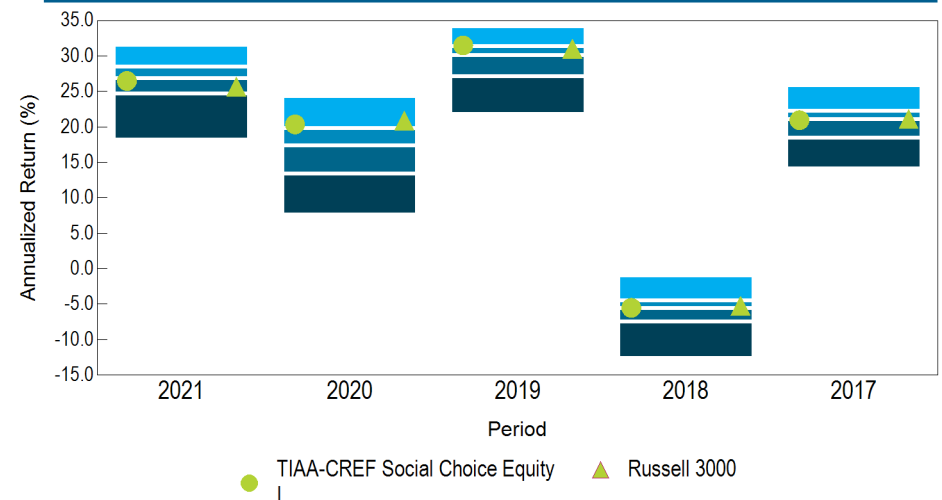
Return Summary



Large Blend MStar MF Return Comparison

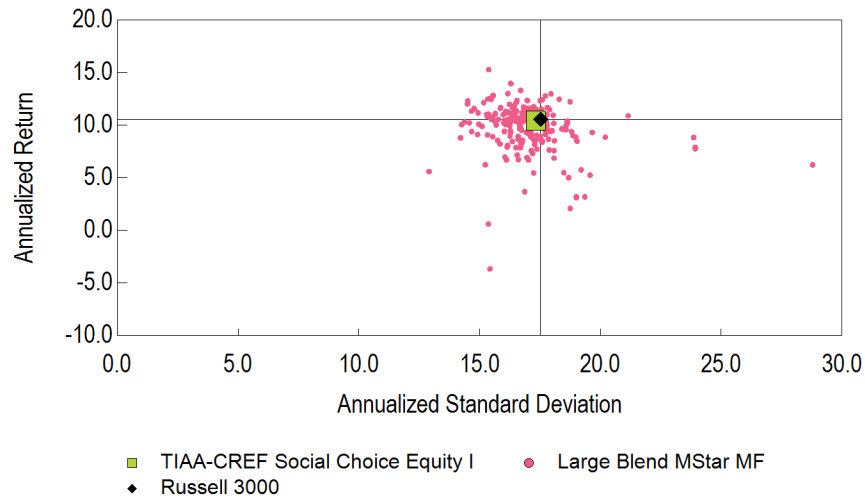


Large Blend MStar MF Return Comparison

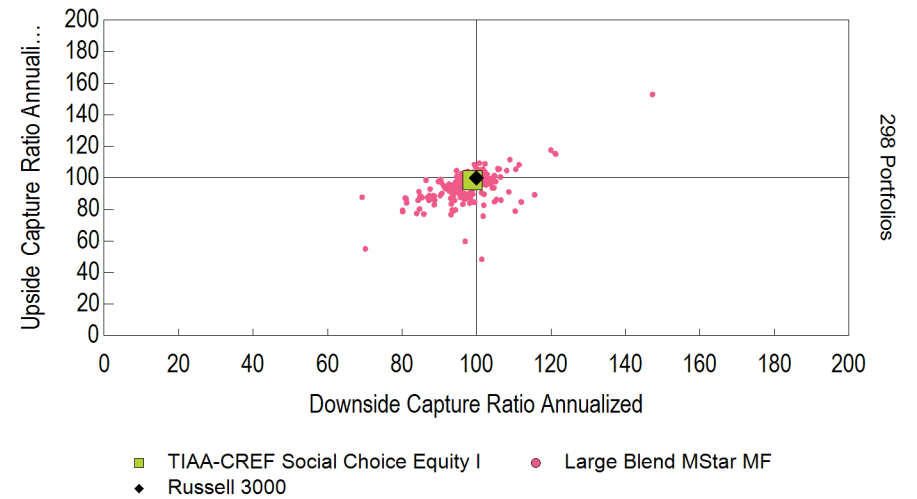


TIAA-CREF Social Choice Equity I | As of June 30, 2022

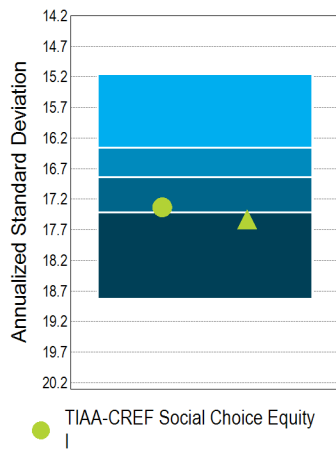
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



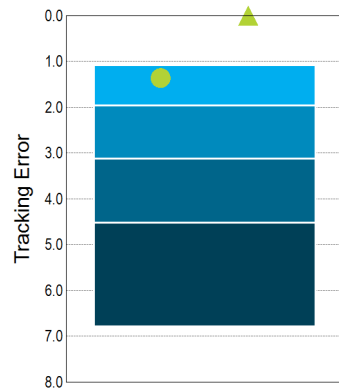
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



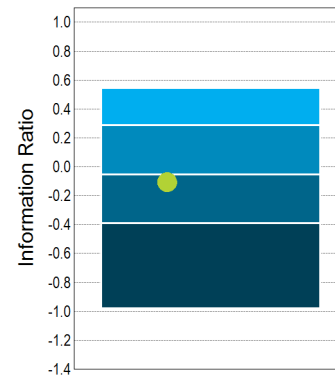
Annualized Standard Deviation



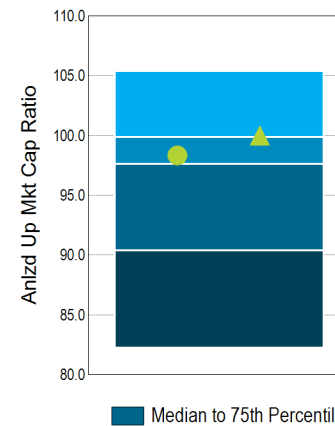
Tracking Error



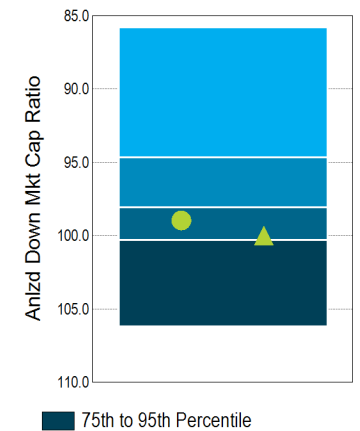
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.82
Average Market Cap (\$mm)	78,114.11
Price/Earnings	17.22
Price/Book	2.94
Price/Sales	2.11
Price/Cash Flow	11.16
Dividend Yield	1.66
Number of Equity Holdings	538
R-Squared (3 Year)	0.99
Alpha (3 Year)	0.03%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	1.94%
COMMUNICATION SERVICES	5.97%
CONSUMER CYCLICAL	9.88%
CONSUMER DEFENSIVE	6.06%
ENERGY	4.64%
FINANCIAL SERVICES	15.86%
HEALTHCARE	14.53%
INDUSTRIALS	9.74%
REAL ESTATE	2.97%
TECHNOLOGY	25.05%
UTILITIES	3.36%

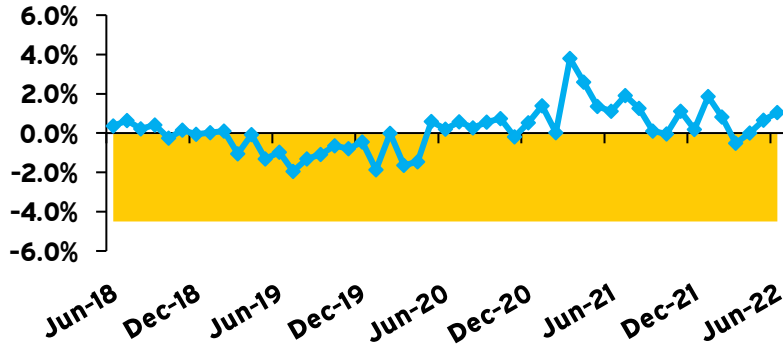
Top Holdings as of May 31, 2022

MICROSOFT CORP	5.43%
TESLA INC	1.88%
NVIDIA CORP	1.56%
PROCTER & GAMBLE CO	1.34%
THE HOME DEPOT INC	1.24%
MASTERCARD INC CLASS A	1.23%
ELI LILLY AND CO	1.11%
COCA-COLA CO	1.08%
PEPSICO INC	1.05%
THERMO FISHER SCIENTIFIC INC	1.02%

Top Countries as of May 31, 2022

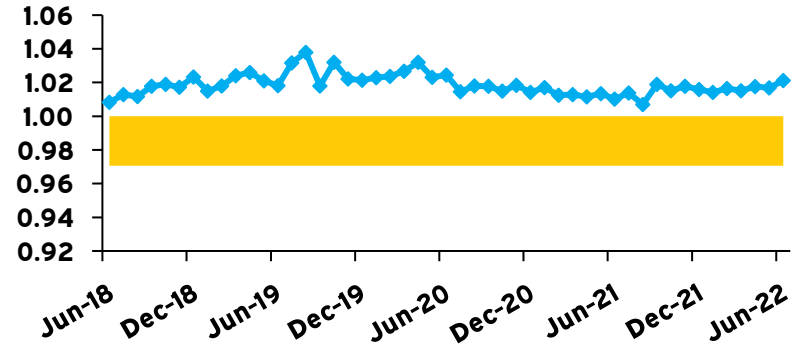
United States	98.61%
Switzerland	0.71%
Netherlands	0.60%
United Kingdom	0.04%
Ireland	0.03%
Canada	0.01%

Short Term – Rolling 12-Month Excess Return



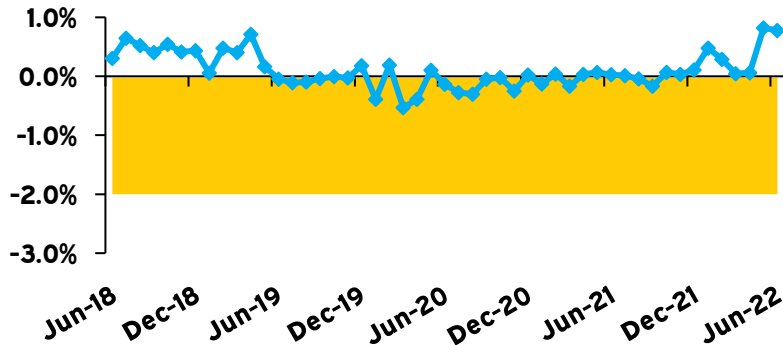
Results fall in the positive range.
Probationary Threshold -4.50%

Long Term – VRR



Results fall in the positive range.
Probationary Threshold <0.97

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -2.00%

Benchmark: MSCI World ex USA

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
DFA Large Cap International I	-13.2	-15.7	2.5	3.0	5.1	11/20/2011
MSCI World ex USA	-14.7	-16.8	1.7	2.7	4.7	

Monitoring Status

Positive

Description:

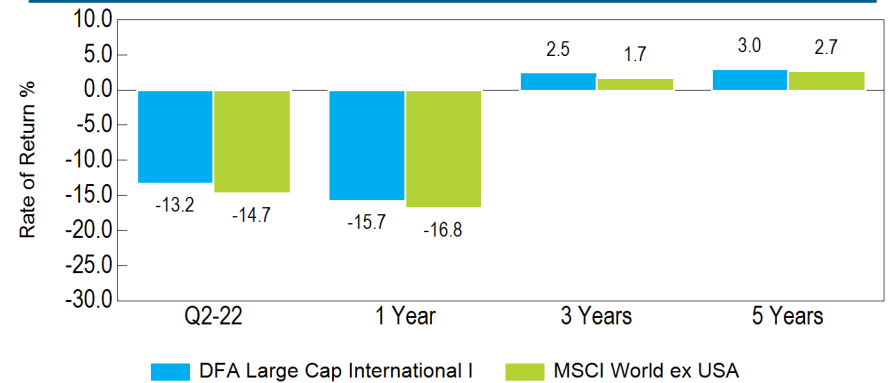
The investment seeks long-term capital appreciation.

The Portfolio will invest at least 80% of its net assets in securities of large cap companies in the particular markets in which the Portfolio invests. The Advisor determines the minimum market capitalization of a large company with respect to each country or region in which the Portfolio invests. It also may purchase or sell futures contracts and options on futures contracts for foreign or U.S. equity securities and indices, to increase or decrease equity market exposure based on actual or expected cash inflows to or outflows from the Portfolio.

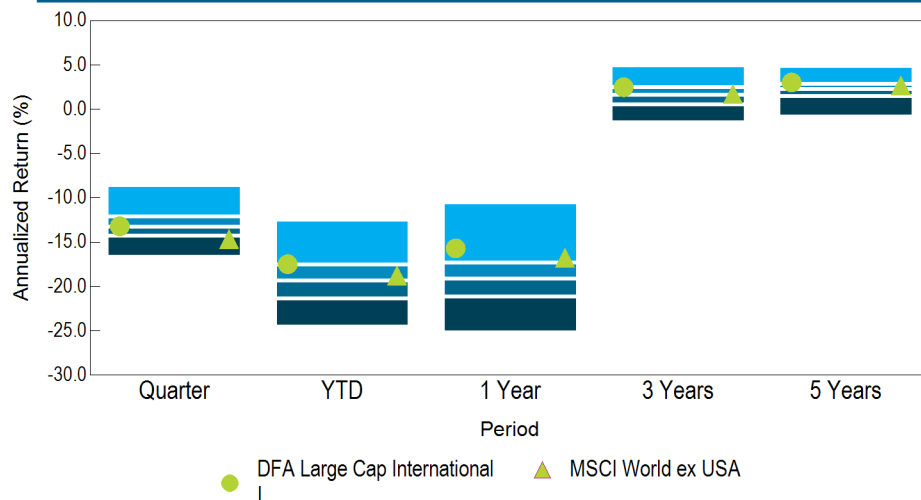
Portfolio Fund Information as of June 30, 2022

Ticker	DFALX
Morningstar Category	Foreign Large Blend
Average Market Cap (\$mm)	28,921.82
Net Assets (\$mm)	5,029.98
% Assets in Top 10 Holdings	10.15
Total Number of Holdings	1,342
Manager Name	Jed S. Fogdall
Manager Tenure	12
Expense Ratio	0.18%
Closed to New Investors	No

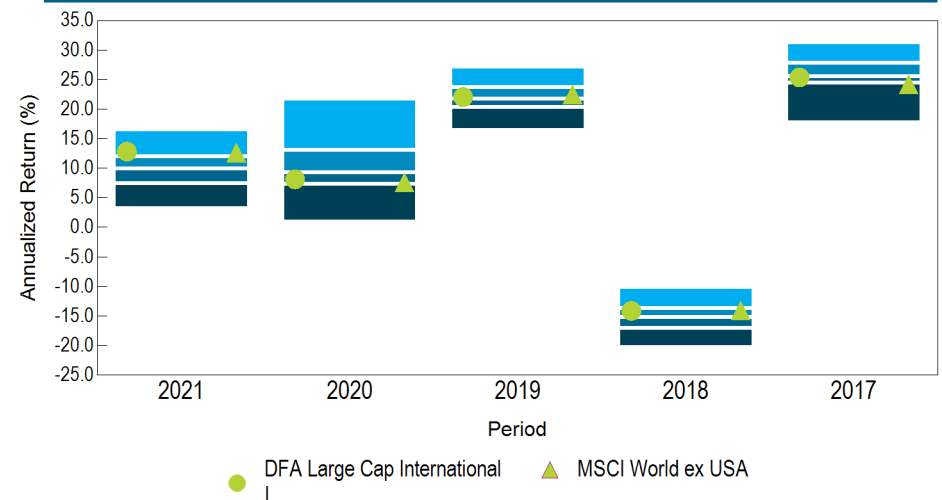
Return Summary



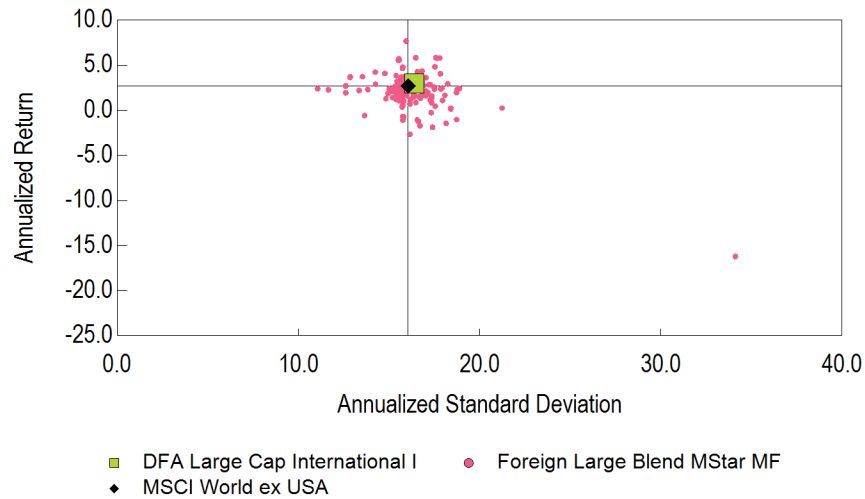
Foreign Large Blend MStar MF Return Comparison



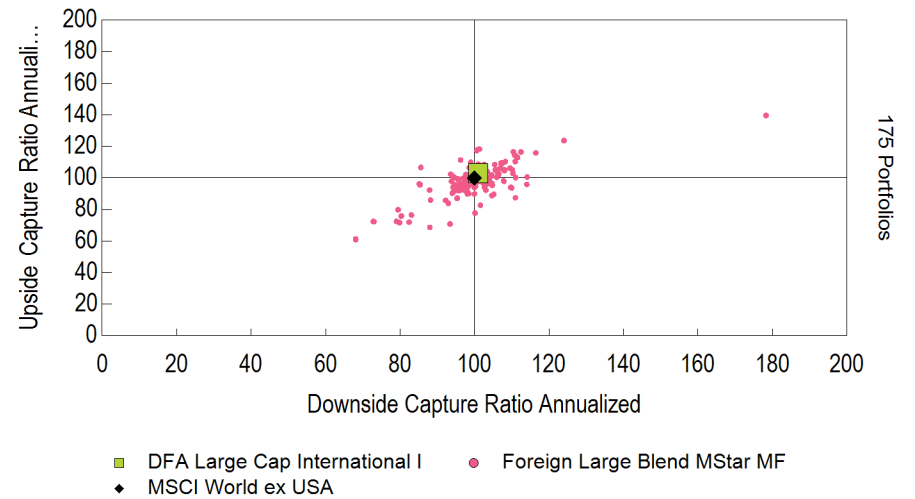
Foreign Large Blend MStar MF Return Comparison



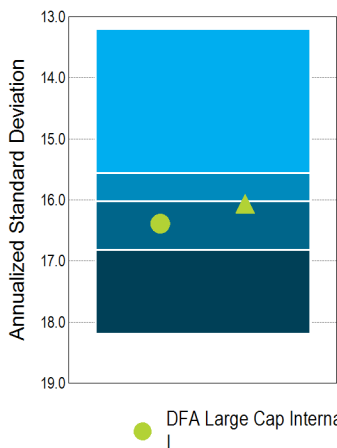
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



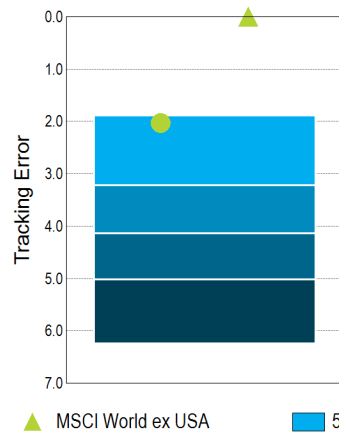
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



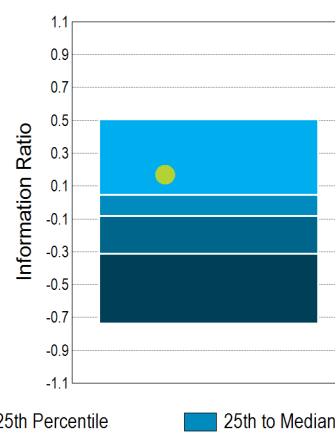
Annualized Standard Deviation



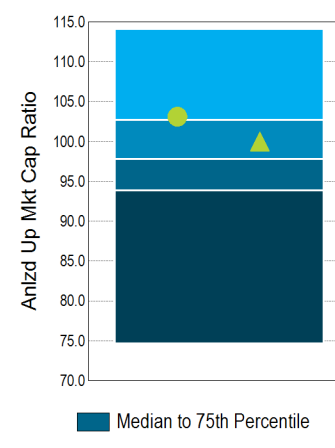
Tracking Error



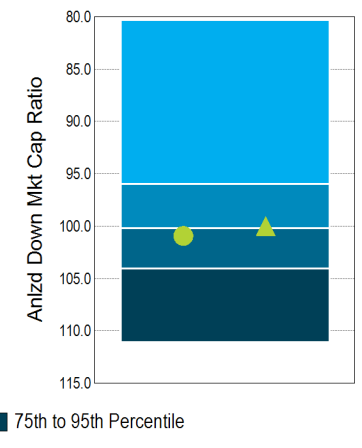
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.11
Average Market Cap (\$mm)	28,921.82
Price/Earnings	10.77
Price/Book	1.38
Price/Sales	0.98
Price/Cash Flow	5.25
Dividend Yield	3.75
Number of Equity Holdings	1,321
R-Squared (3 Year)	0.98
Alpha (3 Year)	0.07%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	10.22%
COMMUNICATION SERVICES	6.33%
CONSUMER CYCLICAL	10.61%
CONSUMER DEFENSIVE	9.65%
ENERGY	7.00%
FINANCIAL SERVICES	17.52%
HEALTHCARE	11.14%
INDUSTRIALS	15.35%
REAL ESTATE	1.55%
TECHNOLOGY	7.12%
UTILITIES	3.51%

Top Holdings as of June 30, 2022

NESTLE SA	1.59%
ROCHE HOLDING AG	1.36%
NOVO NORDISK A/S ADR	1.11%
LVMH MOET HENNESSY LOUIS VUITTON SE	0.97%
SHELL PLC ADR (REPRESENTING - ORDINARY SHARES)	0.95%
S+P500 EMINI FUT SEP22 XCME 20220916	0.94%
ROYAL BANK OF CANADA	0.93%
TOTALENERGIES SE	0.85%
TOYOTA MOTOR CORP	0.74%
NOVARTIS AG	0.71%

Top Countries as of June 30, 2022

Japan	21.27%
United Kingdom	13.19%
Canada	11.25%
France	8.88%
Switzerland	8.77%
Germany	7.06%
Australia	6.94%
Netherlands	4.06%
Sweden	2.82%
Hong Kong	2.38%

TIAA-CREF Social Choice Intl Equity | As of June 30, 2022

Description:

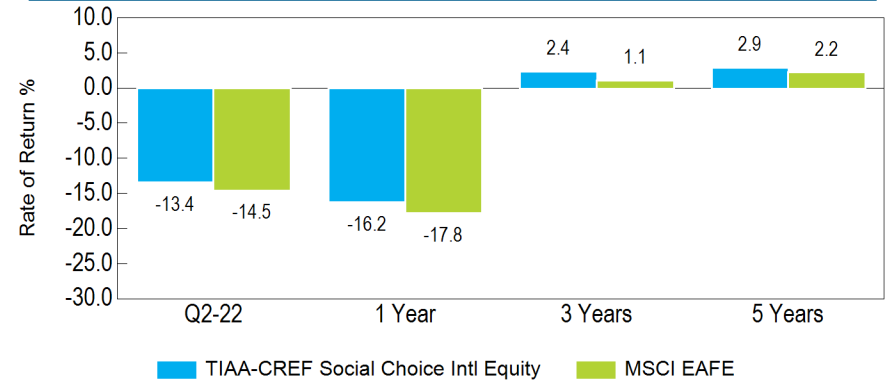
The investment seeks a favorable long-term total return that reflects the investment performance of the overall foreign equity markets while giving special consideration to certain environmental, social and governance ("ESG") criteria.

Under normal circumstances, the fund invests at least 80% of its assets in equity securities of foreign issuers. The advisor attempts to achieve the return of the foreign equity markets, as represented by its benchmark index, the Morgan Stanley Capital International EAFE® (Europe, Australasia, Far East) Index (the "MSCI EAFE Index"), while taking into consideration certain ESG criteria.

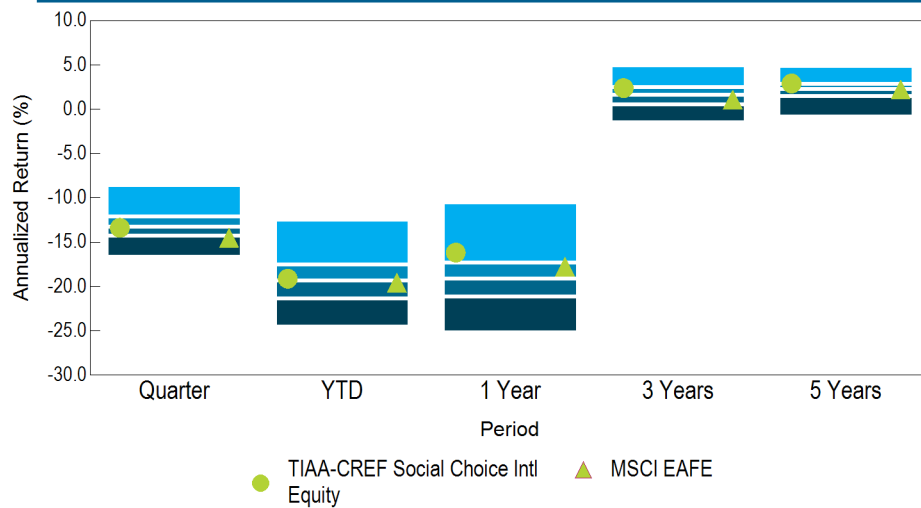
Portfolio Fund Information as of June 30, 2022

Ticker	TSONX
Morningstar Category	Foreign Large Blend
Average Market Cap (\$mm)	36,019.12
Net Assets (\$mm)	613.03
% Assets in Top 10 Holdings	15.57
Total Number of Holdings	366
Manager Name	Philip James(Jim) Campagna
Manager Tenure	7
Expense Ratio	0.36%
Closed to New Investors	No

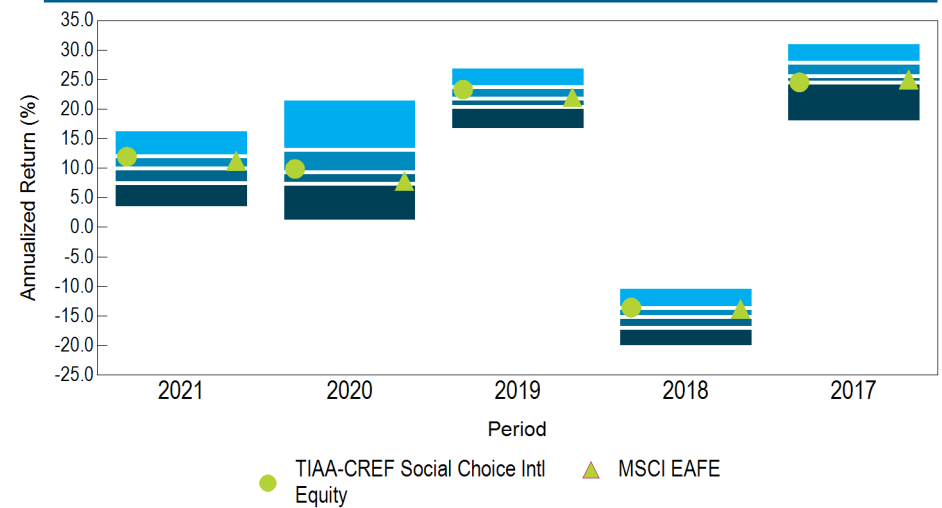
Return Summary



Foreign Large Blend MStar MF Return Comparison

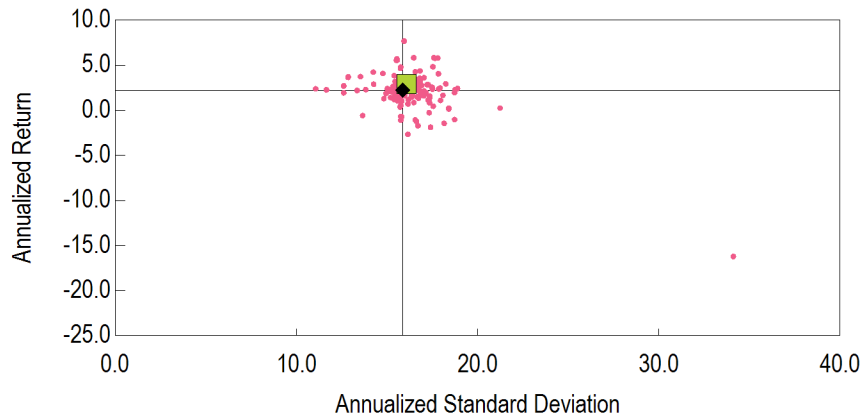


Foreign Large Blend MStar MF Return Comparison



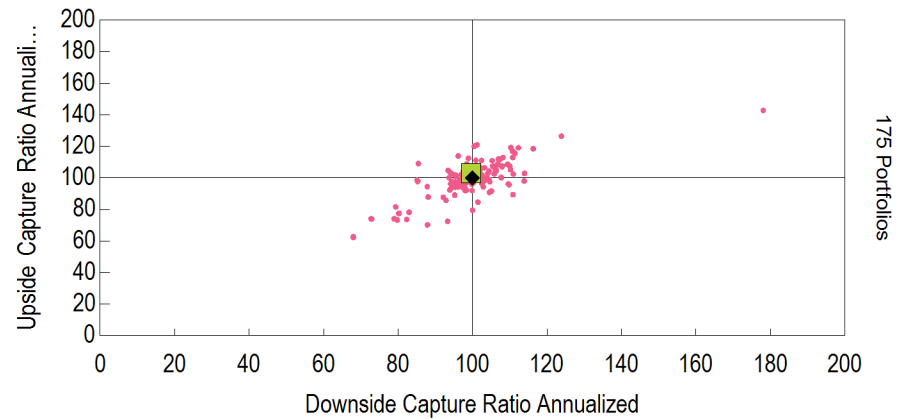
TIAA-CREF Social Choice Intl Equity | As of June 30, 2022

**Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022**



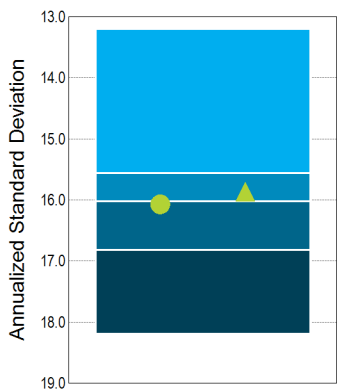
- TIAA-CREF Social Choice Intl Equity
- Foreign Large Blend MStar MF
- ◆ MSCI EAFE

**Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022**



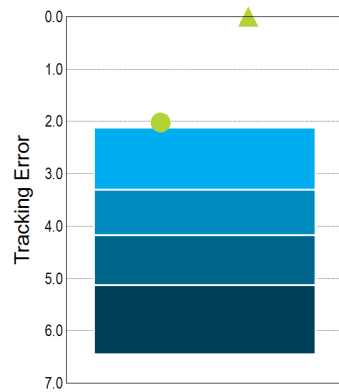
- TIAA-CREF Social Choice Intl Equity
- Foreign Large Blend MStar MF
- ◆ MSCI EAFE

Annualized Standard Deviation



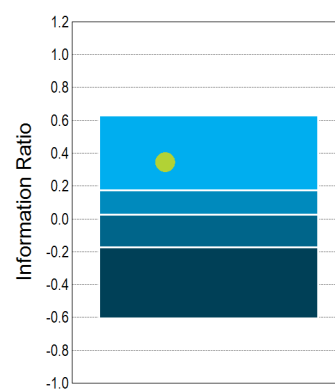
- TIAA-CREF Social Choice Intl Equity
- ▲ MSCI EAFE

Tracking Error



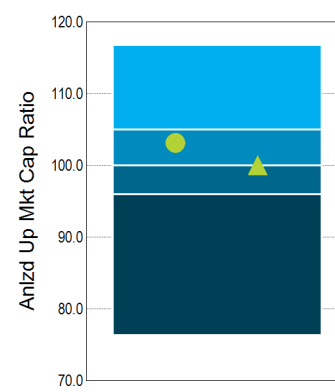
- ▲ MSCI EAFE

Information Ratio



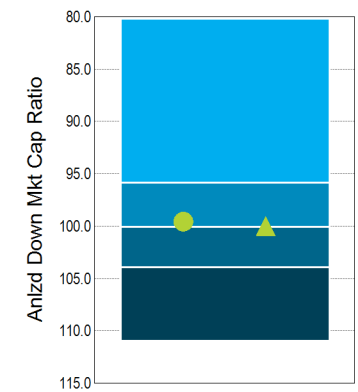
- 5th to 25th Percentile
- 25th to Median

Anlzd Up Mkt Cap Ratio



- Median to 75th Percentile

Anlzd Down Mkt Cap Ratio



- 75th to 95th Percentile

Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.10
Average Market Cap (\$mm)	36,019.12
Price/Earnings	12.03
Price/Book	1.46
Price/Sales	1.07
Price/Cash Flow	6.40
Dividend Yield	3.96
Number of Equity Holdings	358
R-Squared (3 Year)	0.98
Alpha (3 Year)	0.11%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	7.90%
COMMUNICATION SERVICES	6.68%
CONSUMER CYCLICAL	9.07%
CONSUMER DEFENSIVE	10.55%
ENERGY	5.35%
FINANCIAL SERVICES	17.88%
HEALTHCARE	13.87%
INDUSTRIALS	13.47%
REAL ESTATE	3.21%
TECHNOLOGY	8.58%
UTILITIES	3.44%

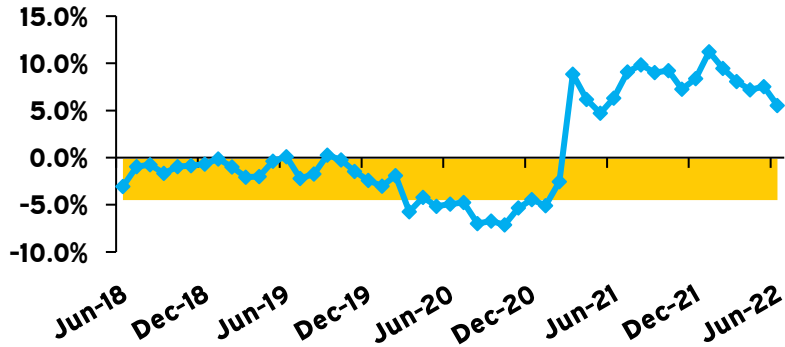
Top Holdings as of June 30, 2022

NESTLE SA	2.62%
ROCHE HOLDING AG	1.96%
ASTRAZENECA PLC	1.74%
ASML HOLDING NV	1.64%
NOVO NORDISK A/S CLASS B	1.61%
TOYOTA MOTOR CORP	1.45%
HSBC HOLDINGS PLC	1.22%
TOTALENERGIES SE	1.21%
AIA GROUP LTD	1.06%
GSK PLC	1.06%

Top Countries as of June 30, 2022

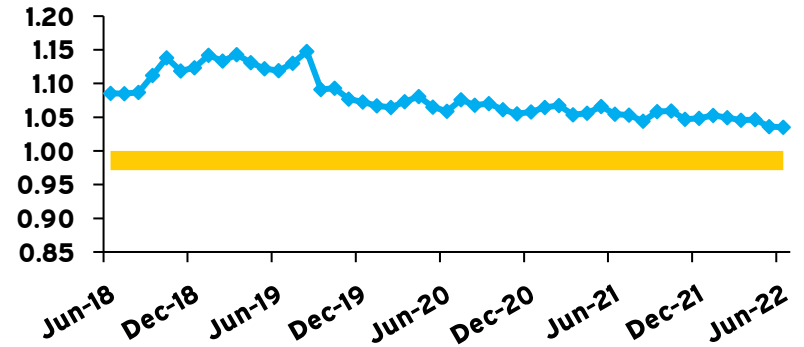
Japan	22.65%
United Kingdom	14.76%
Switzerland	10.87%
France	10.42%
Germany	7.78%
Australia	7.22%
Netherlands	3.79%
Hong Kong	3.18%
Sweden	3.04%
Denmark	2.82%

Short Term – Rolling 12-Month Excess Return



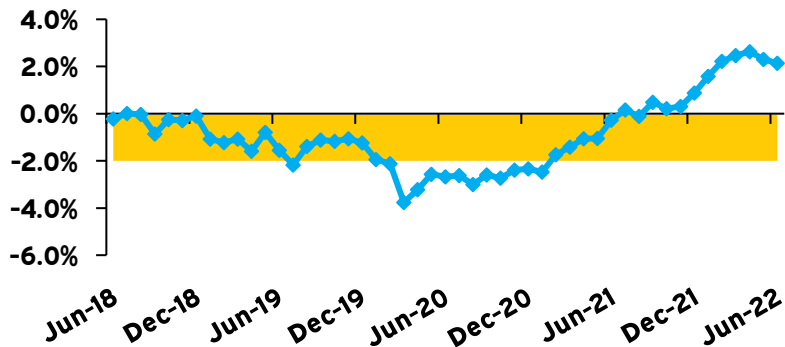
Results fall in the positive range.
Probationary Threshold -4.50%

Long Term – VRR



Results fall in the positive range.
Probationary Threshold <0.97

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -2.00%

Benchmark: MSCI Emerging Markets

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
DFA Emerging Markets Core Equity I	-11.8	-19.7	2.7	2.9	3.3	11/20/2011
MSCI Emerging Markets	-11.4	-25.3	0.6	2.2	2.5	

Monitoring Status

Positive

DFA Emerging Markets Core Equity I | As of June 30, 2022

Description:

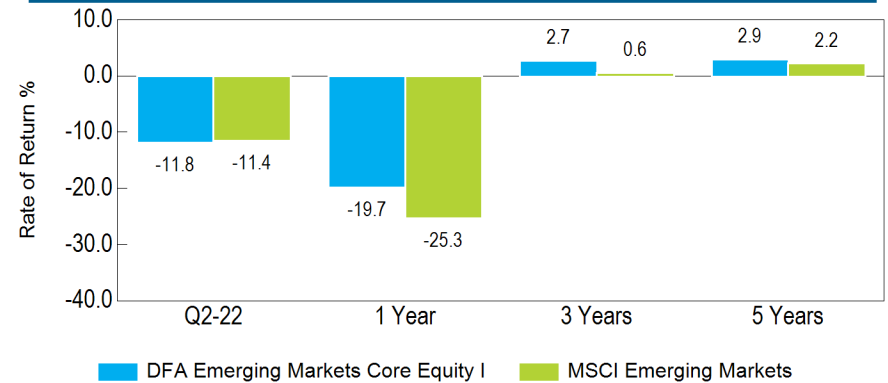
The investment seeks long-term capital appreciation.

The Portfolio purchases a broad and diverse group of securities associated with emerging markets, which may include frontier markets (emerging market countries in an earlier stage of development), authorized for investment by the Advisor's Investment Committee ("Approved Markets"). It may gain exposure to companies in Approved Markets by purchasing equity securities in the form of depositary receipts, which may be listed or traded outside the issuer's domicile country.

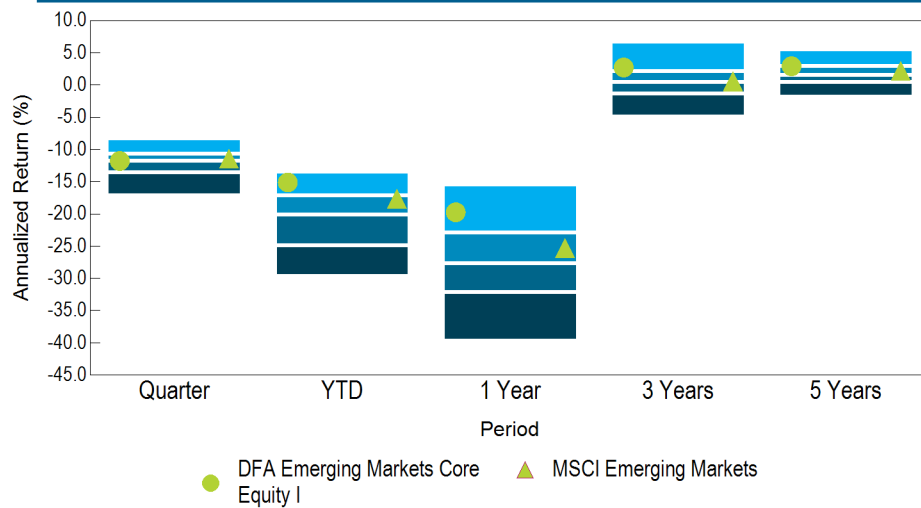
Portfolio Fund Information as of June 30, 2022

Ticker	DFCEX
Morningstar Category	Diversified Emerging Mkts
Average Market Cap (\$mm)	10,123.51
Net Assets (\$mm)	24,971.65
% Assets in Top 10 Holdings	14.64
Total Number of Holdings	6,856
Manager Name	Jed S. Fogdall
Manager Tenure	12
Expense Ratio	0.39%
Closed to New Investors	No

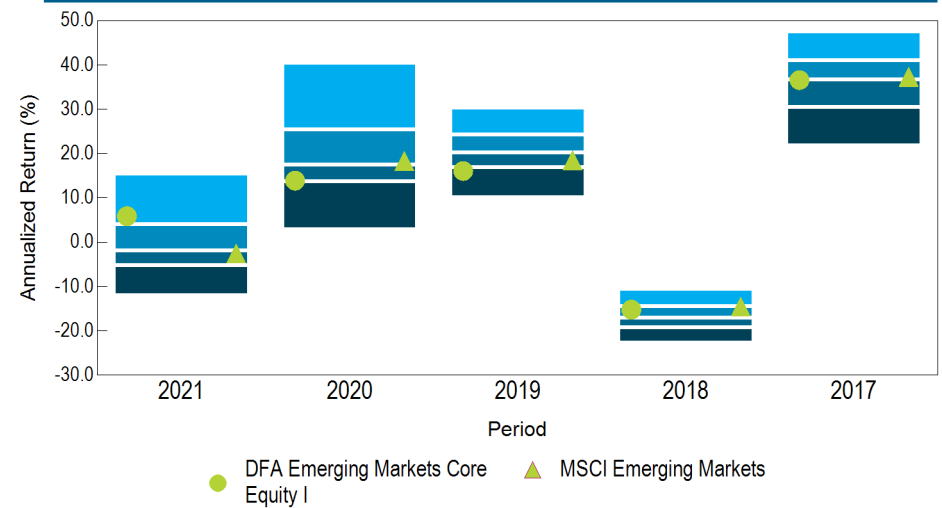
Return Summary



Diversified Emerging Mkts MStar MF Return Comparison

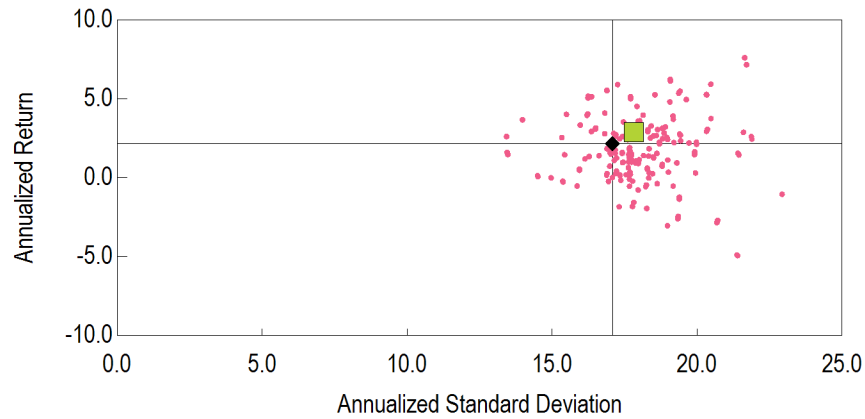


Diversified Emerging Mkts MStar MF Return Comparison

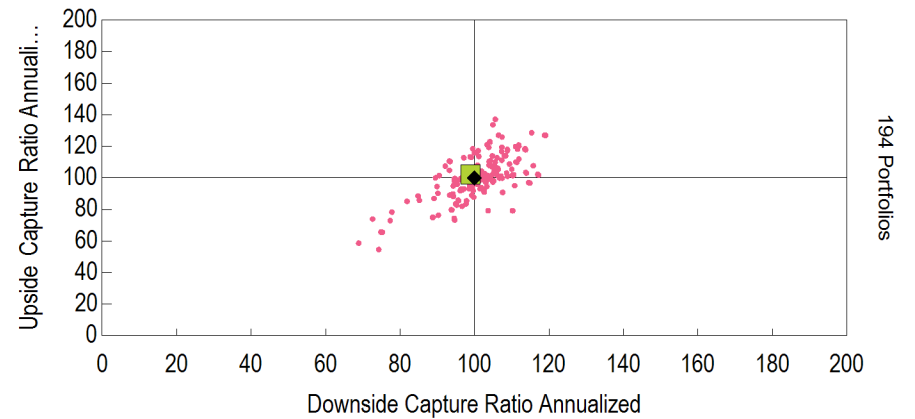


DFA Emerging Markets Core Equity I | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



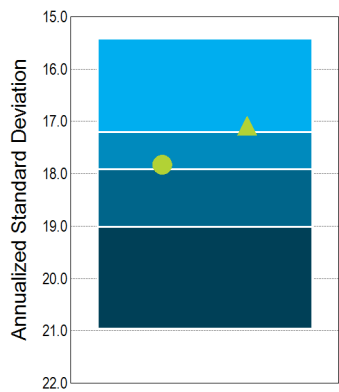
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



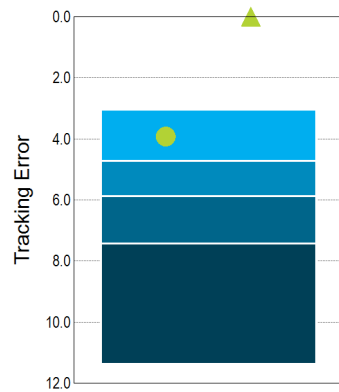
- DFA Emerging Markets Core Equity I
- Diversified Emerging Mkts MStar MF
- ◆ MSCI Emerging Markets

- DFA Emerging Markets Core Equity I
- Diversified Emerging Mkts MStar MF
- ◆ MSCI Emerging Markets

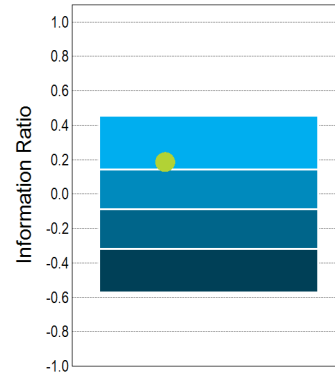
Annualized Standard Deviation



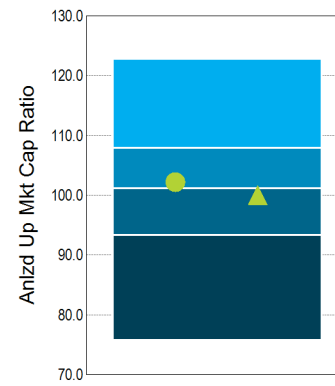
Tracking Error



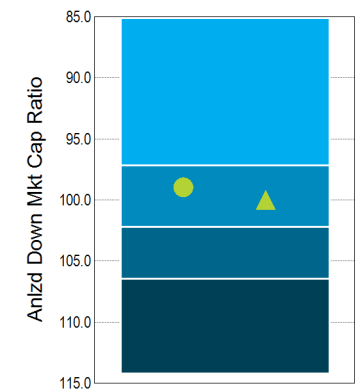
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- DFA Emerging Markets Core Equity I
- ▲ MSCI Emerging Markets
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

DFA Emerging Markets Core Equity I | As of June 30, 2022

Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.11
Average Market Cap (\$mm)	10,123.51
Price/Earnings	8.47
Price/Book	1.17
Price/Sales	0.75
Price/Cash Flow	4.16
Dividend Yield	4.11
Number of Equity Holdings	6,763
R-Squared (3 Year)	0.95
Alpha (3 Year)	0.19%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	11.83%
COMMUNICATION SERVICES	7.83%
CONSUMER CYCLICAL	11.54%
CONSUMER DEFENSIVE	6.12%
ENERGY	5.04%
FINANCIAL SERVICES	16.41%
HEALTHCARE	4.50%
INDUSTRIALS	9.90%
REAL ESTATE	3.79%
TECHNOLOGY	19.70%
UTILITIES	3.35%

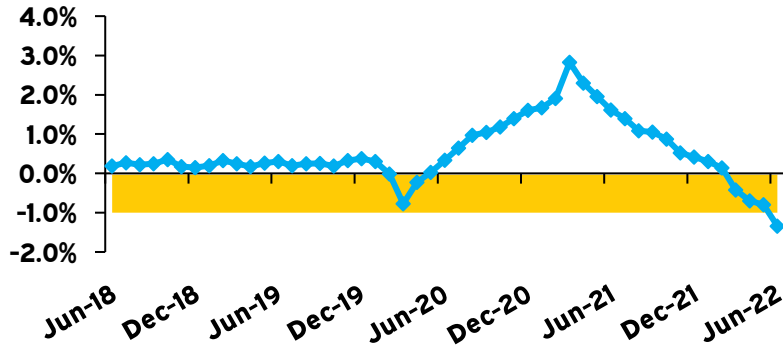
Top Holdings as of June 30, 2022

TENCENT HOLDINGS LTD	2.82%
SAMSUNG ELECTRONICS CO LTD	2.73%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	2.67%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD ADR	1.19%
ALIBABA GROUP HOLDING LTD ADR	1.13%
CHINA CONSTRUCTION BANK CORP CLASS H	1.00%
VALE SA	0.91%
PING AN INSURANCE (GROUP) CO. OF CHINA LTD CLASS H	0.82%
RELIANCE INDUSTRIES LTD	0.78%
INFOSYS LTD	0.59%

Top Countries as of June 30, 2022

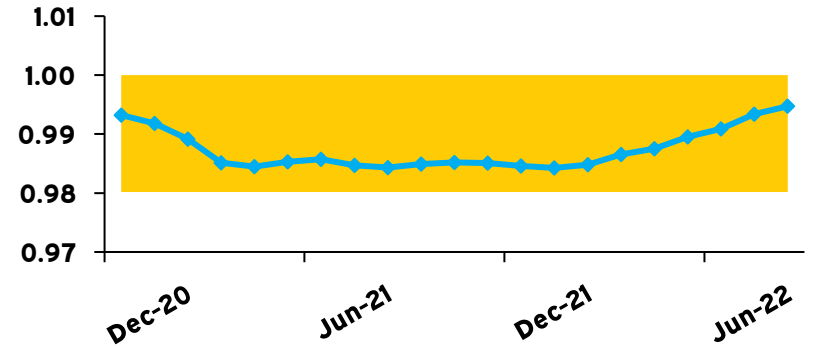
China	30.31%
Taiwan	16.68%
India	14.46%
South Korea	11.99%
Brazil	4.86%
South Africa	3.85%
Saudi Arabia	3.49%
Thailand	2.59%
Mexico	2.38%
Indonesia	2.03%

Short Term – Rolling 12-Month Excess Return



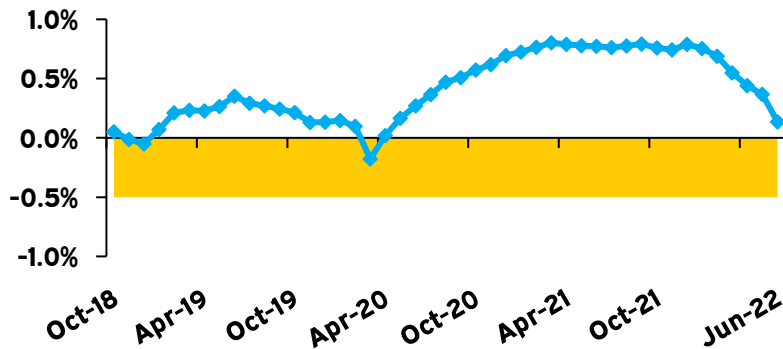
Results fall in the acceptable range.
Probationary Threshold -1.00%

Long Term – VRR



Results fall in the acceptable range.
Probationary Threshold <0.98

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -0.50%

Benchmark: Bloomberg US Aggregate TR

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
Metropolitan West Total Return Bond I	-5.7	-11.6	-0.8	1.1	1.4	10/7/2015
Bloomberg US Aggregate TR	-4.7	-10.3	-0.9	0.9	1.3	

Monitoring Status

Acceptable

Metropolitan West Total Return Bond I | As of June 30, 2022

Description:

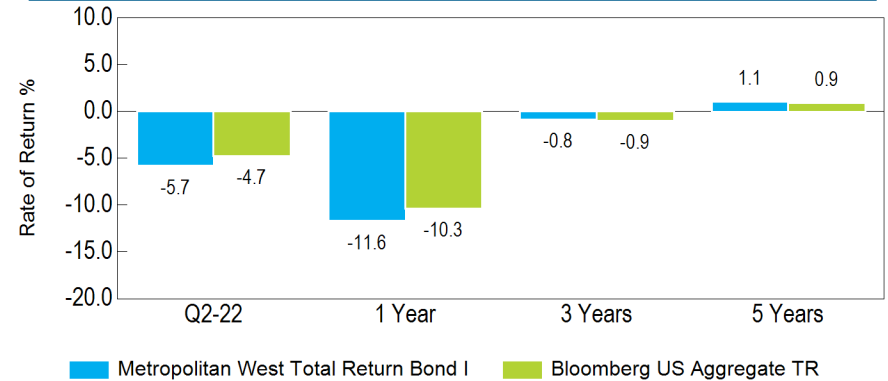
The investment seeks to maximize long-term total return.

The fund pursues its objective by investing, under normal circumstances, at least 80% of its net assets in investment grade fixed income securities or unrated securities determined by the Adviser to be of comparable quality. Up to 20% of the fund's net assets may be invested in securities rated below investment grade or unrated securities determined by the Adviser to be of comparable quality. The fund also invests at least 80% of its net assets, plus any borrowings for investment purposes in fixed income securities it regards as bonds.

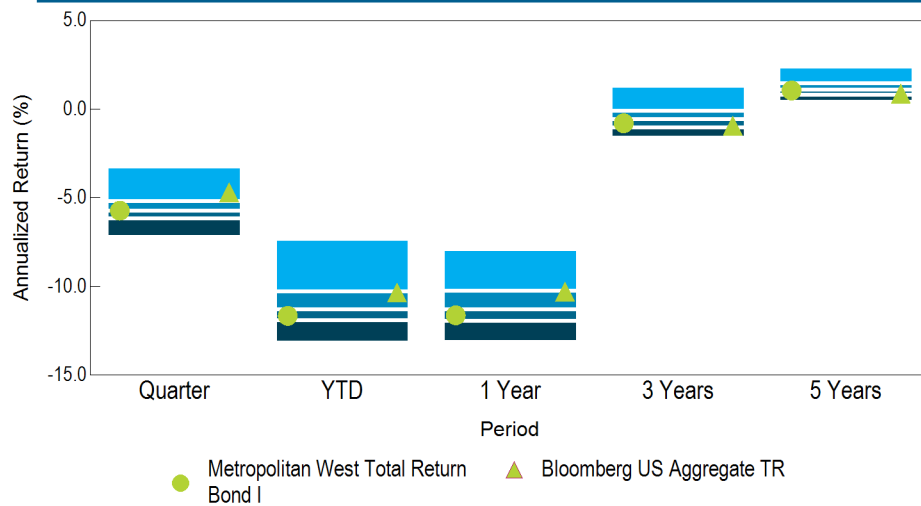
Portfolio Fund Information as of May 31, 2022

Ticker	MWTIX
Morningstar Category	Intermediate Core-Plus Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	43,574.25
% Assets in Top 10 Holdings	37.76
Total Number of Holdings	1,906
Manager Name	Stephen M. Kane
Manager Tenure	25
Expense Ratio	0.45%
Closed to New Investors	No

Return Summary



Intermediate Core Plus Bond MStar MF Return Comparison

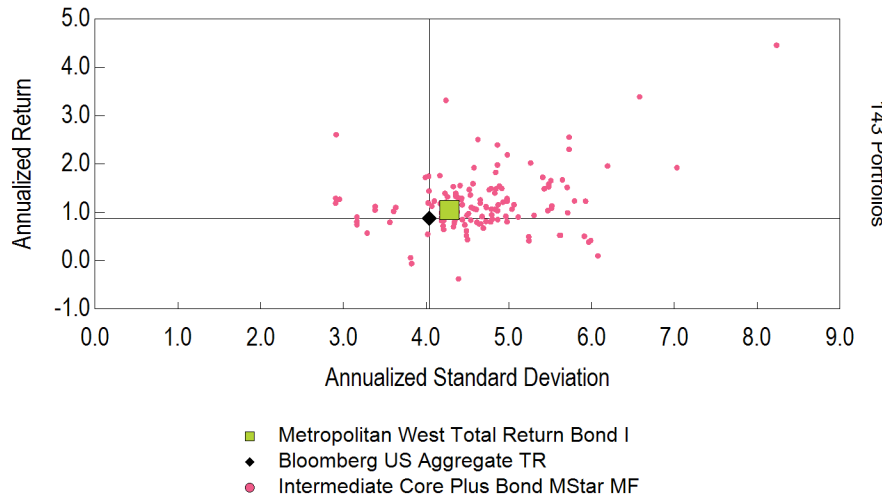


Intermediate Core Plus Bond MStar MF Return Comparison

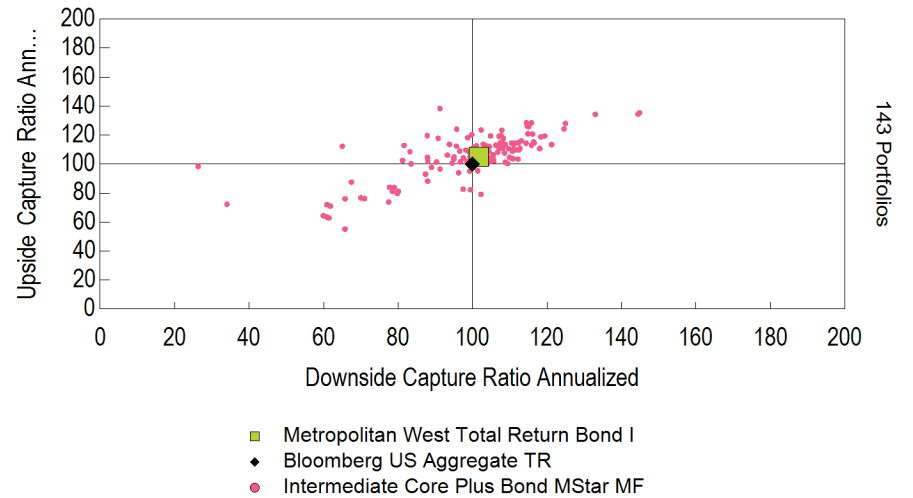


Metropolitan West Total Return Bond I | As of June 30, 2022

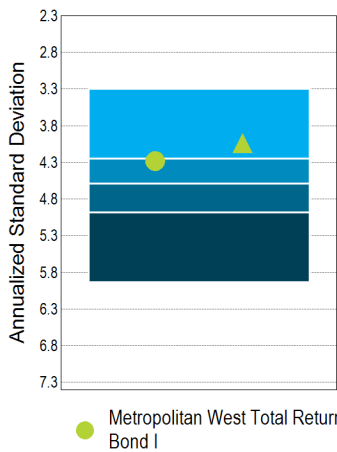
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



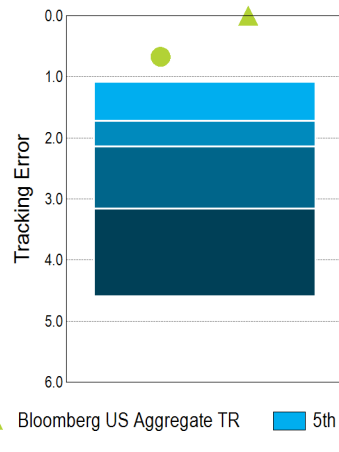
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



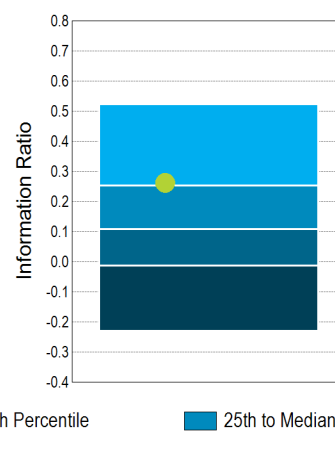
Annualized Standard Deviation



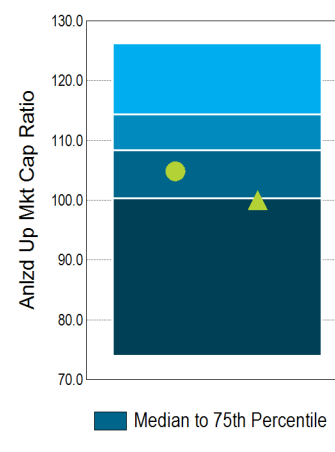
Tracking Error



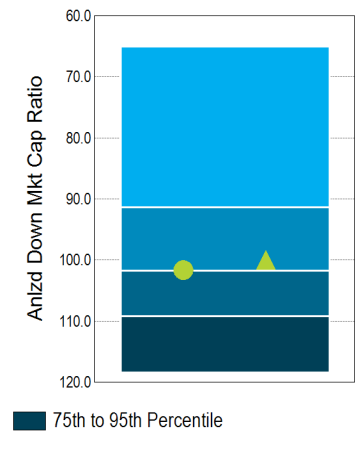
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio

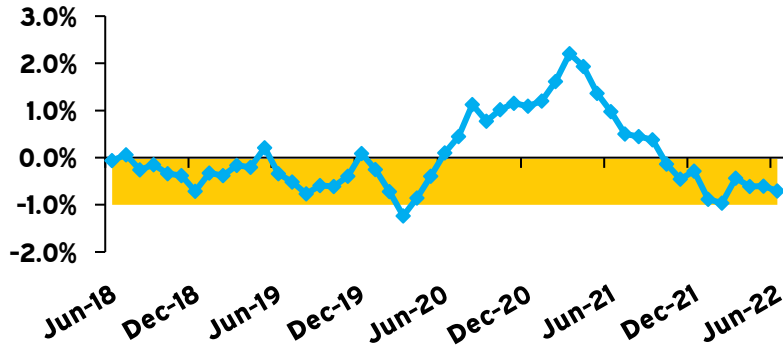


Metropolitan West Total Return Bond I | As of June 30, 2022

Fund Characteristics as of May 31, 2022		Top Holdings as of May 31, 2022		Fixed Income Sectors as of May 31, 2022	
Sharpe Ratio (3 Year)	-0.04	FEDERAL NATIONAL MORTGAGE ASSOCIATION	7.24%	GOVERNMENT	26.37%
Average Duration	6.48	2.5%		MUNICIPAL	0.58%
Average Coupon	2.84%	FEDERAL NATIONAL MORTGAGE ASSOCIATION	5.16%	CORPORATE	26.11%
Average Effective Maturity	8.98	2%		SECURITIZED	40.93%
R-Squared (3 Year)	0.98	UNITED STATES TREASURY NOTES 2.625%	4.64%	CASH & EQUIVALENTS	4.33%
Alpha (3 Year)	0.03%	UNITED STATES TREASURY NOTES 2.625%	3.89%	DERIVATIVE	1.69%
Beta (3 Year)	1.05	UNITED STATES TREASURY NOTES 2.75%	3.77%		
		FEDERAL NATIONAL MORTGAGE ASSOCIATION	3.56%		
		3%			
		UNITED STATES TREASURY BONDS 2%	3.19%		
		UNITED STATES TREASURY BONDS 2.375%	2.85%		
		UNITED STATES TREASURY NOTES 2.5%	1.80%		
		UNITED STATES TREASURY NOTES 2.5%	1.67%		

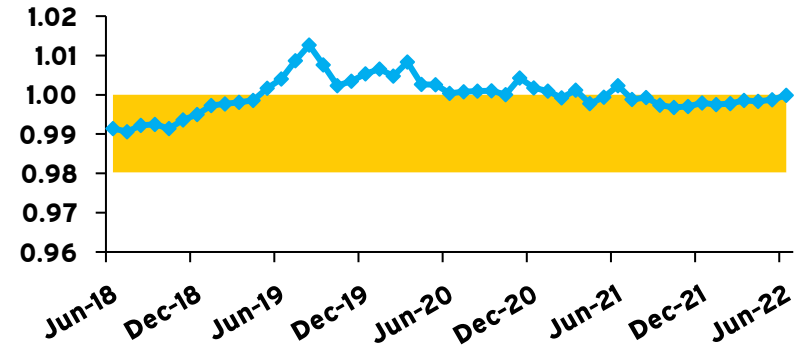
Credit Quality as of March 31, 2022		Maturities as of May 31, 2022		Top Countries as of May 31, 2022	
AAA	58.88%	1 to 3 Years	12.16%	United States	93.38%
AA	5.27%	3 to 5 Years	12.18%	United Kingdom	1.69%
A	13.02%	5 to 7 Years	9.39%	Cayman Islands	0.55%
BBB	15.45%	7 to 10 Years	6.56%	Germany	0.55%
BB	2.87%	10 to 15 Years	7.17%	Ireland	0.55%
B	1.16%	15 to 20 Years	9.55%	Switzerland	0.46%
Below B	3.54%	20 to 30 Years	16.74%	Australia	0.39%
Not Rated	-0.19%	Greater than 30 Years	23.49%	Mexico	0.39%
				Netherlands	0.33%
				Belgium	0.24%

Short Term – Rolling 12-Month Excess Return



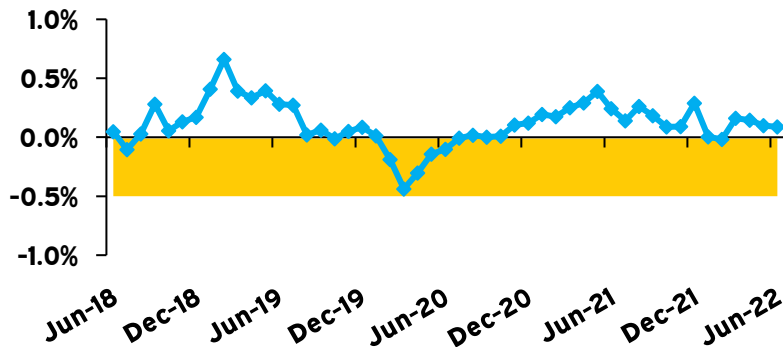
Results fall in the acceptable range.
Probationary Threshold -1.00%

Long Term – VRR



Results fall in the acceptable range.
Probationary Threshold <0.98

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -0.50%

Benchmark: Bloomberg US TIPS TR

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
PIMCO Real Return	-6.4	-5.8	3.1	3.2	2.1	11/20/2011
Bloomberg US TIPS TR	-6.1	-5.1	3.0	3.2	2.1	

Monitoring Status

Acceptable

Description:

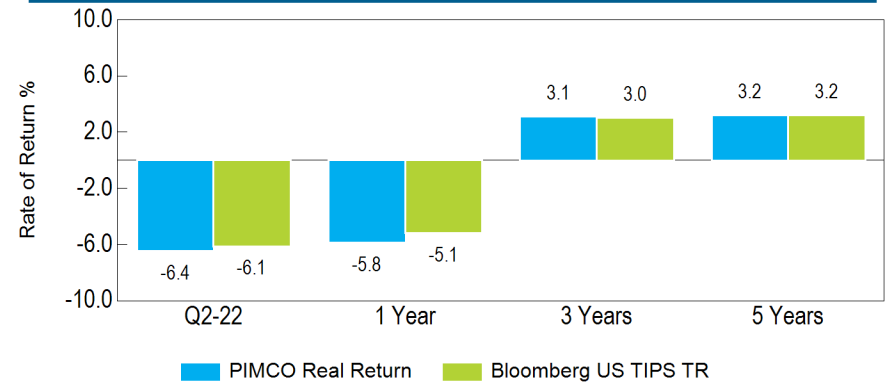
The investment seeks maximum real return, consistent with preservation of capital and prudent investment management.

The fund normally invests at least 80% of its net assets in inflation-indexed bonds of varying maturities issued by the U.S. and non-U.S. governments, their agencies or instrumentalities, and corporations, which may be represented by forwards or derivatives such as options, futures contracts or swap agreements.

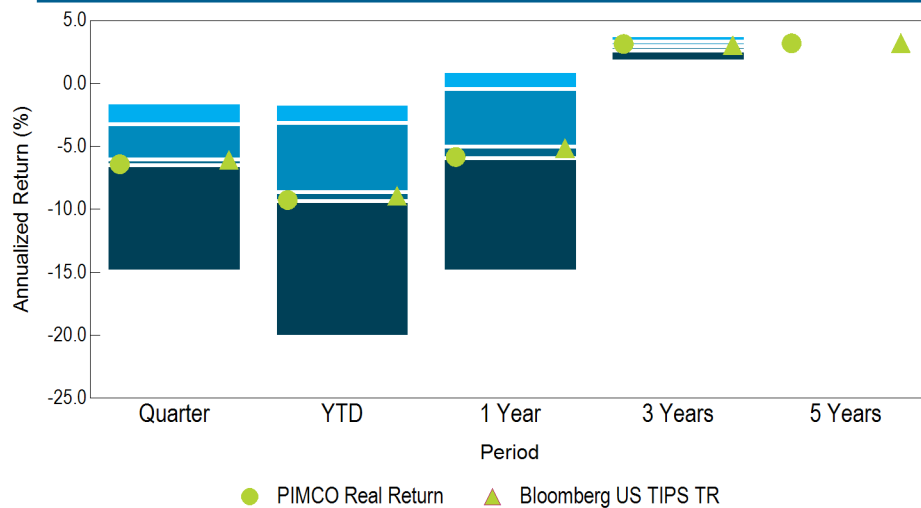
Portfolio Fund Information as of March 31, 2022

Ticker	PRRIX
Morningstar Category	Inflation-Protected Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	7,690.22
% Assets in Top 10 Holdings	68.25
Total Number of Holdings	843
Manager Name	Stephen A. Rodosky
Manager Tenure	4
Expense Ratio	0.47%
Closed to New Investors	No

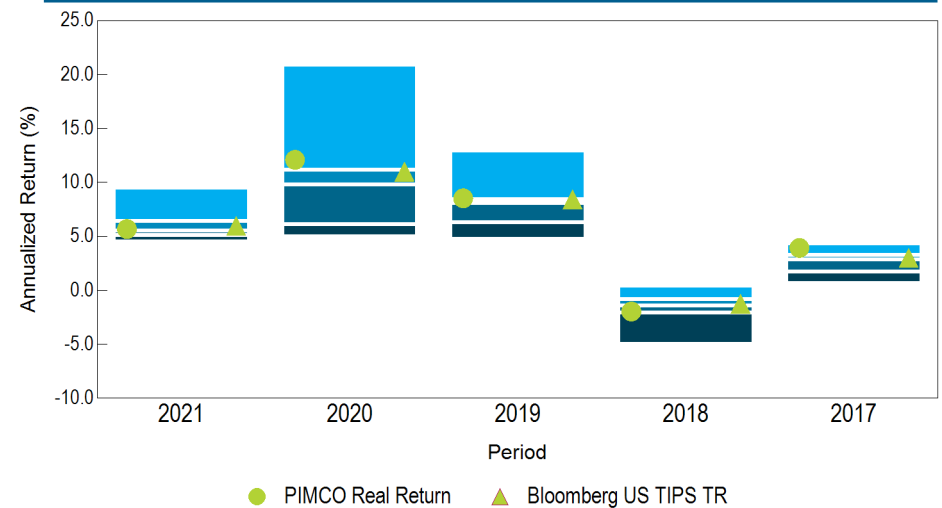
Return Summary



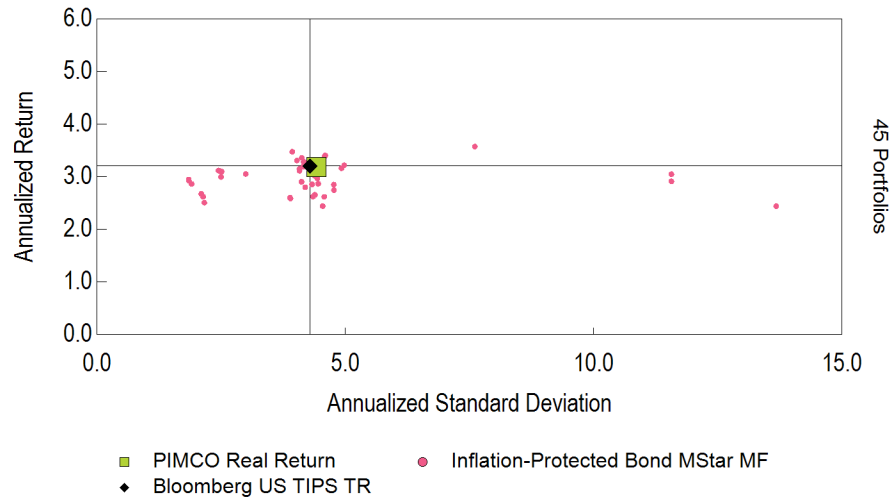
Inflation-Protected Bond MStar MF Return Comparison



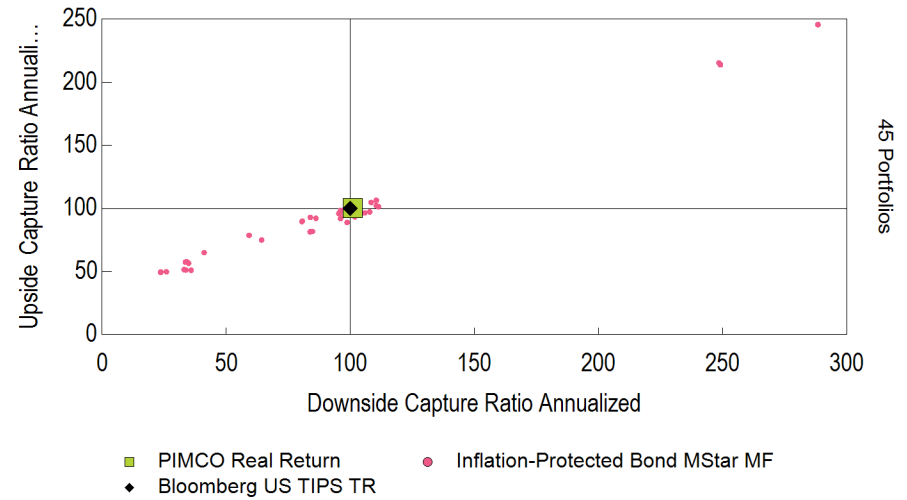
Inflation-Protected Bond MStar MF Return Comparison



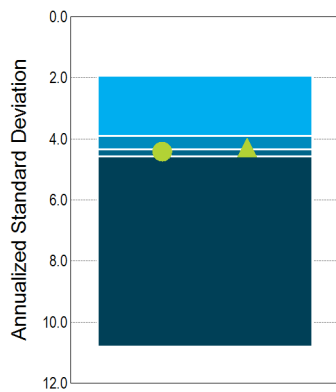
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



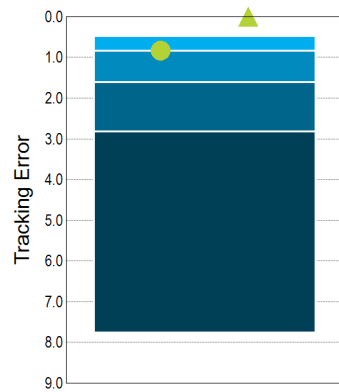
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



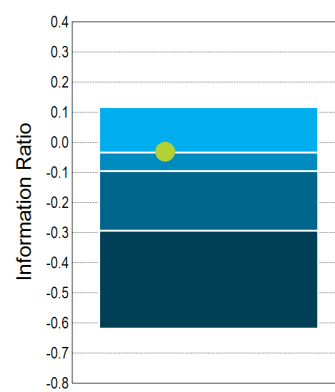
Annualized Standard Deviation



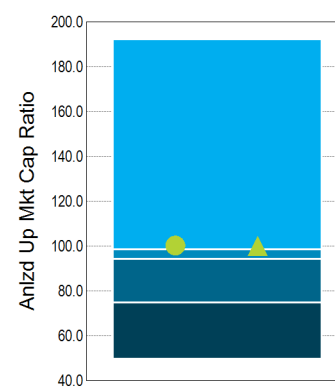
Tracking Error



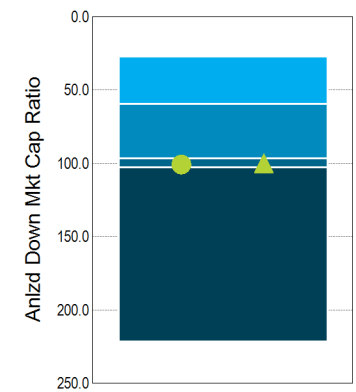
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



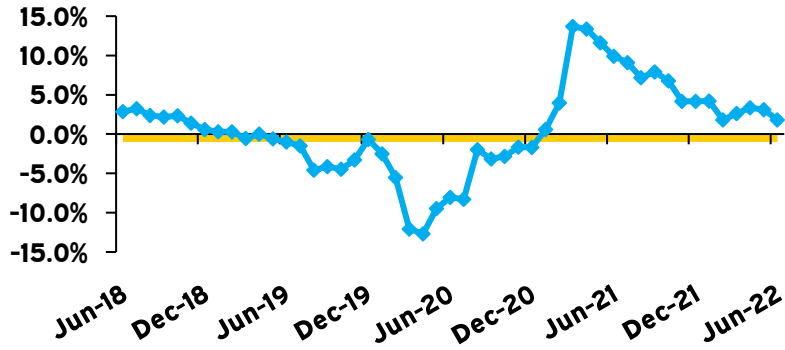
● PIMCO Real Return ▲ Bloomberg US TIPS TR ■ 5th to 25th Percentile ■ 25th to Median ■ Median to 75th Percentile ■ 75th to 95th Percentile

Fund Characteristics as of March 31, 2022		Top Holdings as of March 31, 2022		Fixed Income Sectors as of March 31, 2022	
Sharpe Ratio (3 Year)	1.29	EURO SCHATZ FUTURE JUNE 22	14.36%	GOVERNMENT	64.33%
Average Duration	7.17	10 YEAR TREASURY NOTE FUTURE JUNE 22	11.26%	MUNICIPAL	0.00%
Average Coupon	1.06%	UNITED STATES TREASURY NOTES 0.125%	9.93%	CORPORATE	0.53%
Average Effective Maturity	6.91	5 YEAR TREASURY NOTE FUTURE JUNE 22	7.23%	SECURITIZED	7.19%
R-Squared (3 Year)	0.95	US TREASURY BOND FUTURE JUNE 22	4.70%	CASH & EQUIVALENTS	16.05%
Alpha (3 Year)	0.01%	UNITED STATES TREASURY BONDS 3.625%	4.44%	DERIVATIVE	11.90%
Beta (3 Year)	1.00	UNITED STATES TREASURY BONDS 1.375%	4.32%		
		EURO BOBL FUTURE JUNE 22	4.30%		
		UNITED STATES TREASURY NOTES 0.625%	3.99%		
		UNITED STATES TREASURY NOTES 0.5%	3.71%		

Maturities as of March 31, 2022	
1 to 3 Years	17.09%
3 to 5 Years	13.58%
5 to 7 Years	12.25%
7 to 10 Years	19.15%
10 to 15 Years	2.26%
15 to 20 Years	3.28%
20 to 30 Years	10.87%
Greater than 30 Years	2.13%

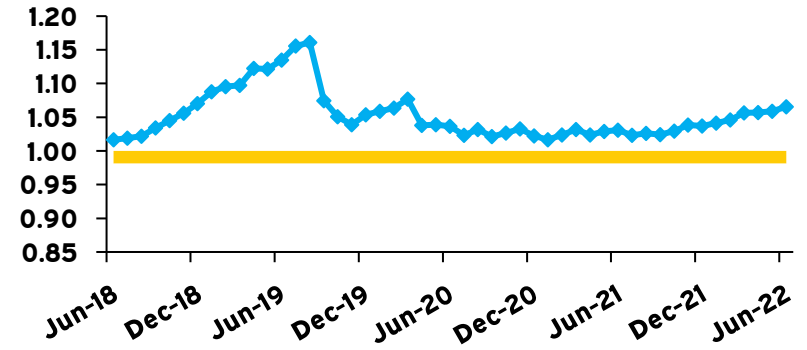
Top Countries as of March 31, 2022	
United States	79.03%
Germany	6.21%
United Kingdom	5.75%
Italy	2.87%
Denmark	2.46%
France	1.12%
Ireland	0.80%
Cayman Islands	0.53%
Japan	0.43%
Canada	0.20%

Short Term – Rolling 12-Month Excess Return



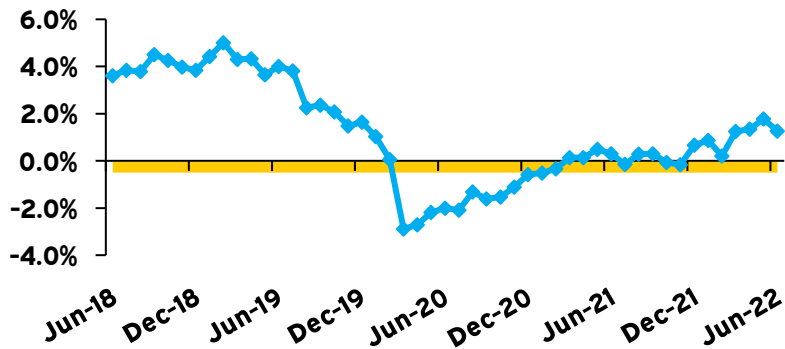
Results fall in the positive range.
Probationary Threshold -1.00%

Long Term – VRR



Results fall in the positive range.
Probationary Threshold <0.98

Medium Term – Rolling 36-Month Excess Return



Results fall in the positive range.
Probationary Threshold -0.50%

Benchmark: Bloomberg US Aggregate TR

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
PIMCO Income I	-5.2	-8.5	0.3	2.0	5.6	11/20/2011
Bloomberg US Aggregate TR	-4.7	-10.3	-0.9	0.9	1.8	

Monitoring Status

Positive

Description:

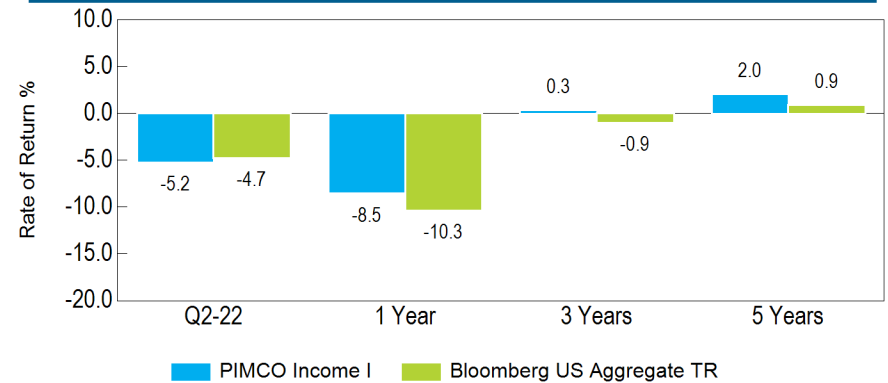
The investment seeks to maximize current income; long-term capital appreciation is a secondary objective.

The fund invests at least 65% of its total assets in a multi-sector portfolio of Fixed Income Instruments of varying maturities, which may be represented by forwards or derivatives such as options, futures contracts or swap agreements. It may invest up to 50% of its total assets in high yield securities rated below investment grade by Moody's, S&P or Fitch, or if unrated, as determined by PIMCO.

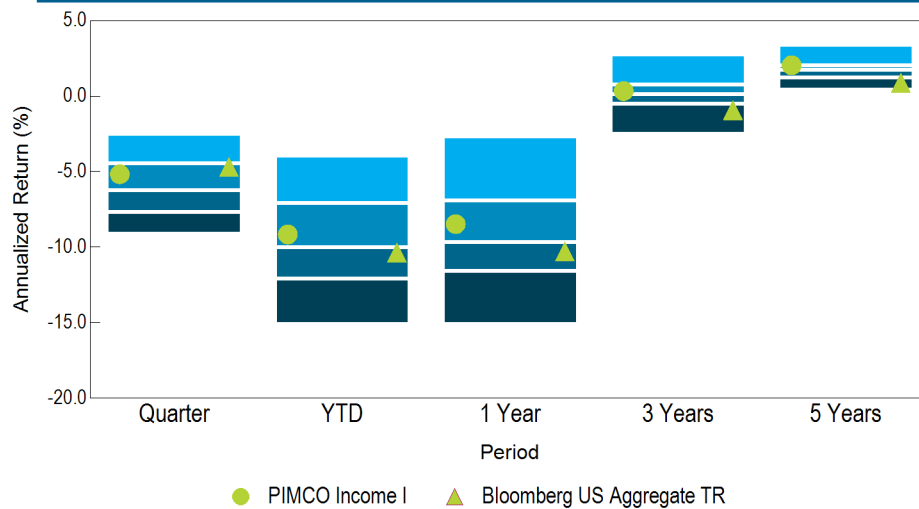
Portfolio Fund Information as of March 31, 2022

Ticker	PIMIX
Morningstar Category	Multisector Bond
Average Market Cap (\$mm)	4,203.46
Net Assets (\$mm)	76,170.14
% Assets in Top 10 Holdings	31.33
Total Number of Holdings	7,615
Manager Name	Daniel J. Ivascyn
Manager Tenure	15
Expense Ratio	0.62%
Closed to New Investors	No

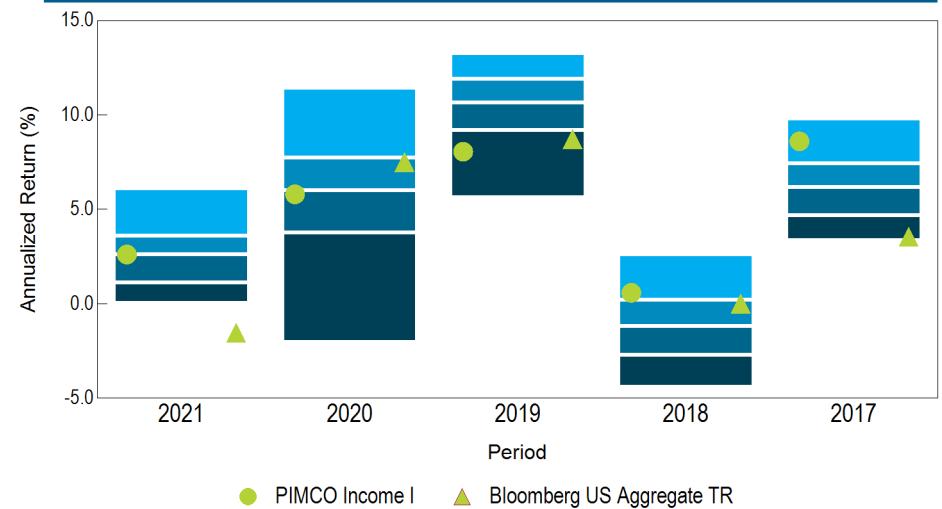
Return Summary



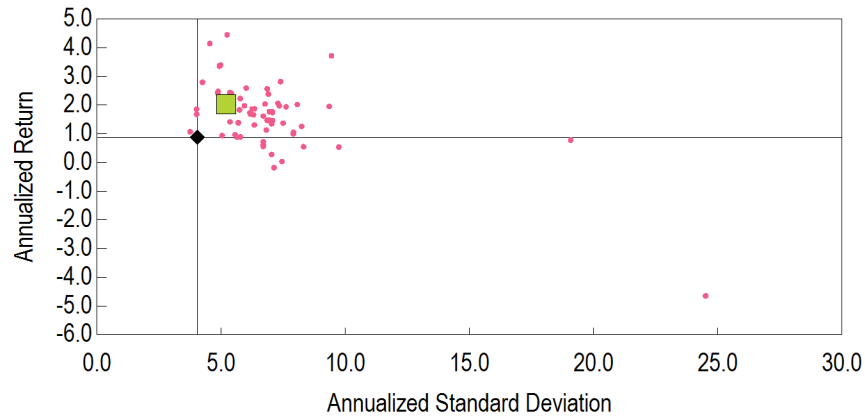
Multisector Bond MStar MF Return Comparison



Multisector Bond MStar MF Return Comparison

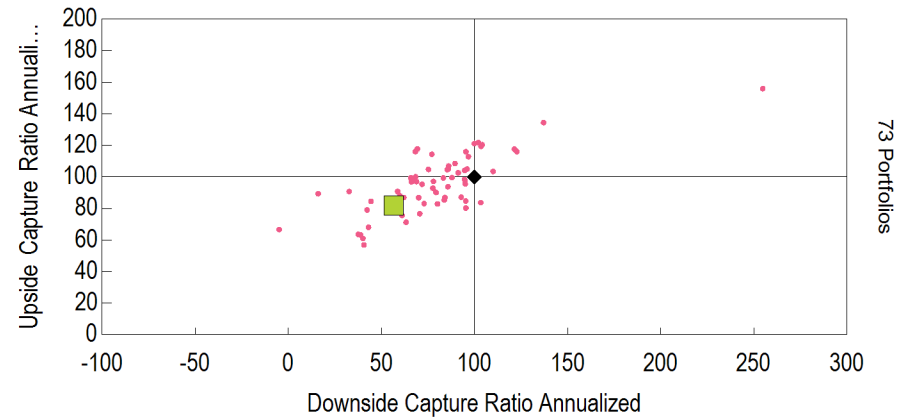


Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



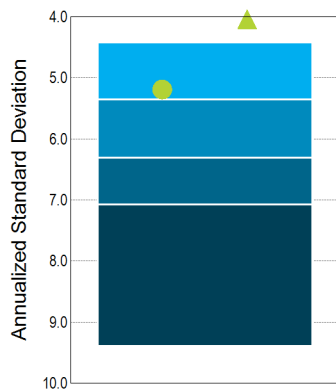
- PIMCO Income I
- Multisector Bond MStar MF
- ◆ Bloomberg US Aggregate TR

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022

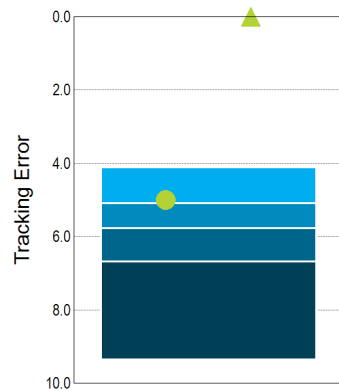


- PIMCO Income I
- Multisector Bond MStar MF
- ◆ Bloomberg US Aggregate TR

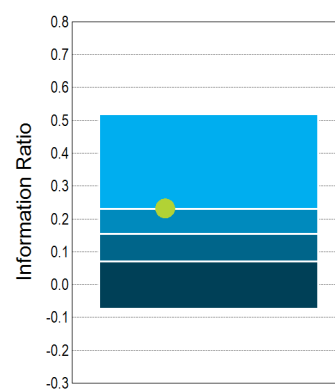
Annualized Standard Deviation



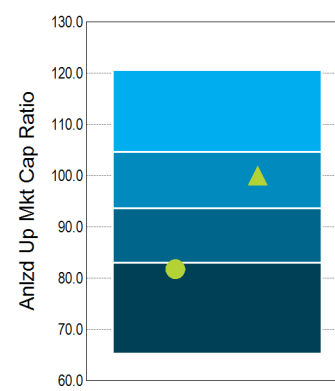
Tracking Error



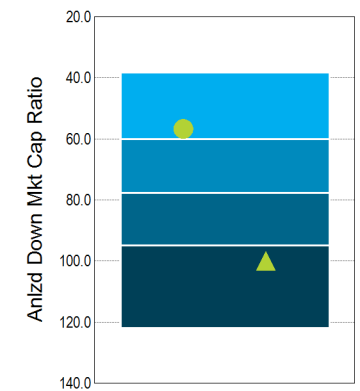
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- PIMCO Income I
- ▲ Bloomberg US Aggregate TR
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Fund Characteristics as of March 31, 2022		Top Holdings as of March 31, 2022		Fixed Income Sectors as of March 31, 2022	
Sharpe Ratio (3 Year)	0.37	10 YEAR TREASURY NOTE FUTURE JUNE 22	8.95%	GOVERNMENT	25.98%
Average Duration	2.53	PIMCO FDS	5.15%	MUNICIPAL	0.05%
Average Coupon		FEDERAL NATIONAL MORTGAGE ASSOCIATION	2.68%	CORPORATE	8.21%
Average Effective Maturity	3.68	3%		SECURITIZED	20.41%
R-Squared (3 Year)	0.09	FEDERAL NATIONAL MORTGAGE ASSOCIATION	2.42%	CASH & EQUIVALENTS	25.01%
Alpha (3 Year)	0.19%	4%		DERIVATIVE	20.35%
Beta (3 Year)	0.46	FEDERAL NATIONAL MORTGAGE ASSOCIATION	2.32%		
		2.5%			
		FIN FUT US ULTRA 30YR CBT 06/21/22	2.22%		
		US TREASURY BOND FUTURE JUNE 22	2.13%		
		UNITED STATES TREASURY NOTES 2.375%	1.94%		
		LONG-TERM EURO BTP FUTURE JUNE 22	1.93%		
		FEDERAL NATIONAL MORTGAGE ASSOCIATION	1.58%		
		3.5%			

Credit Quality as of March 31, 2022		Maturities as of March 31, 2022		Top Countries as of March 31, 2022	
AAA	34.35%	1 to 3 Years	4.38%	United States	77.77%
AA	7.93%	3 to 5 Years	16.57%	United Kingdom	4.72%
A	4.17%	5 to 7 Years	11.72%	Mexico	3.26%
BBB	19.57%	7 to 10 Years	11.48%	Belize	3.10%
BB	19.47%	10 to 15 Years	5.88%	Australia	2.32%
B	4.50%	15 to 20 Years	2.56%	South Africa	1.59%
Below B	10.02%	20 to 30 Years	13.00%	Italy	1.28%
Not Rated	0.00%	Greater than 30 Years	17.95%	Ireland	0.81%
				Turkey	0.61%
				Canada	0.40%

Description:

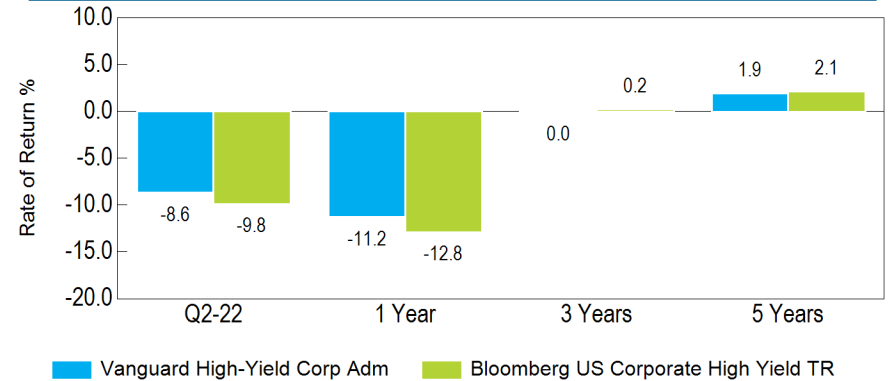
The investment seeks to provide a high level of current income.

The fund invests primarily in a diversified group of high-yielding, higher-risk corporate bonds—commonly known as "junk bonds"—with medium- and lower-range credit-quality ratings. It invests at least 80% of its assets in corporate bonds that are rated below Baa by Moody's Investors Service, Inc. (Moody's); have an equivalent rating by any other independent bond-rating agency; or, if unrated, are determined to be of comparable quality by the fund's advisor. The fund's high-yield bonds and loans mostly have short- and intermediate-term maturities.

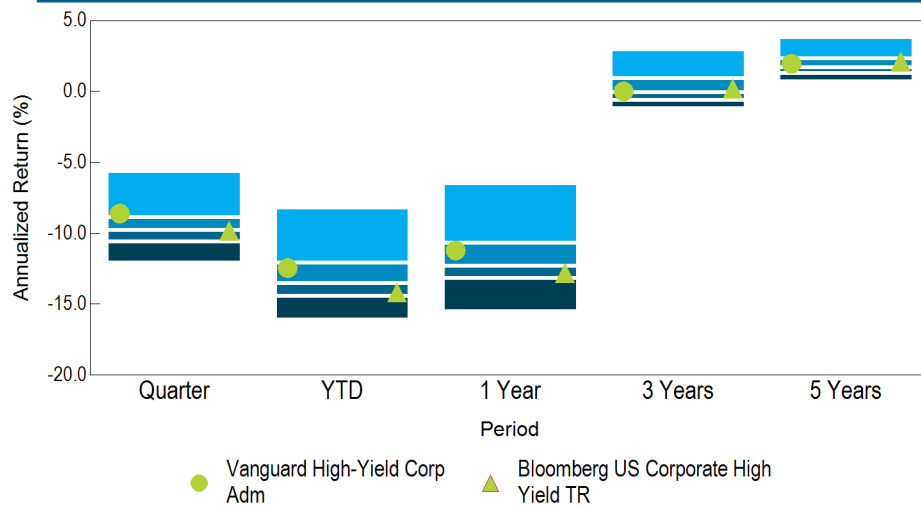
Portfolio Fund Information as of June 30, 2022

Ticker	VWEAX
Morningstar Category	High Yield Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	21,134.30
% Assets in Top 10 Holdings	9.24
Total Number of Holdings	636
Manager Name	Michael L. Hong
Manager Tenure	14
Expense Ratio	0.13%
Closed to New Investors	No

Return Summary



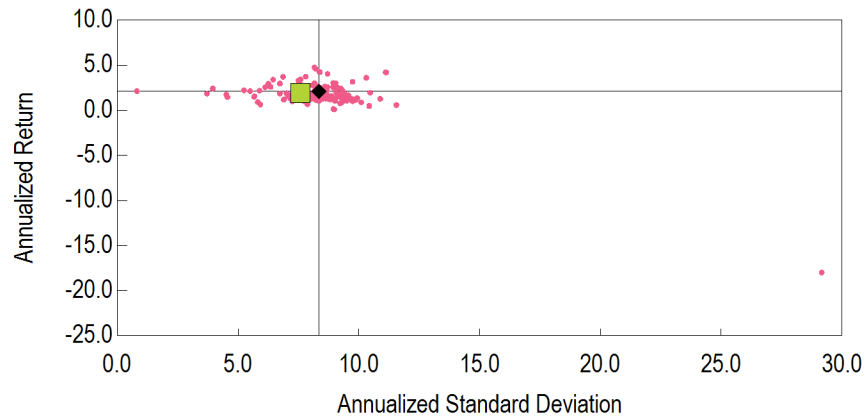
High Yield Bond MStar MF Return Comparison



High Yield Bond MStar MF Return Comparison

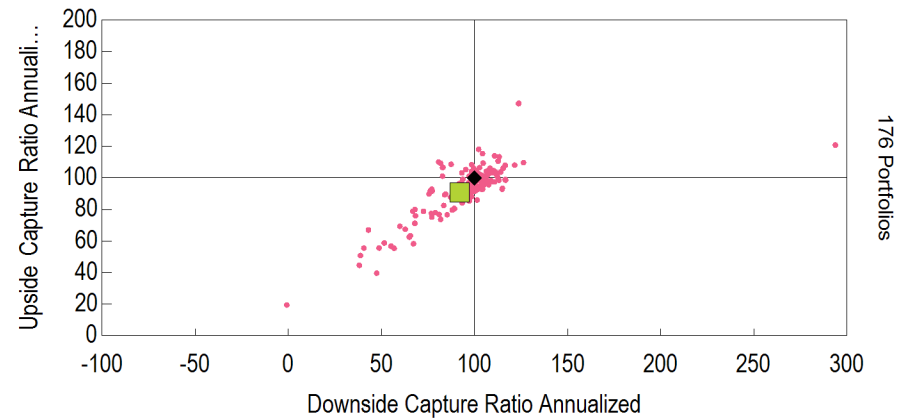


Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



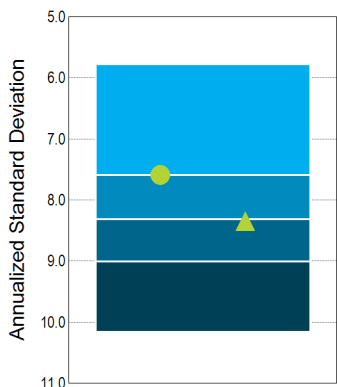
- Vanguard High-Yield Corp Adm
- ◆ Bloomberg US Corporate High Yield TR
- High Yield Bond MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022

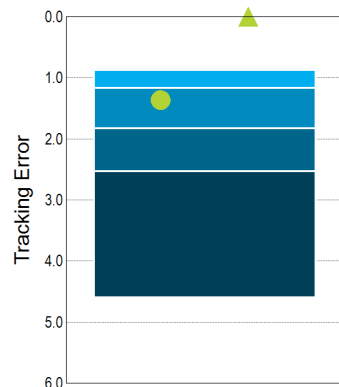


- Vanguard High-Yield Corp Adm
- ◆ Bloomberg US Corporate High Yield TR
- High Yield Bond MStar MF

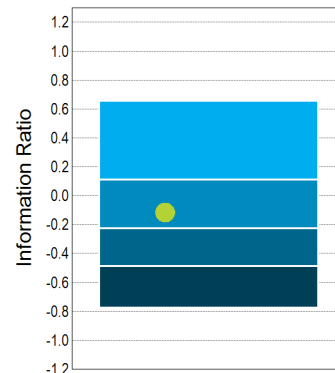
Annualized Standard Deviation



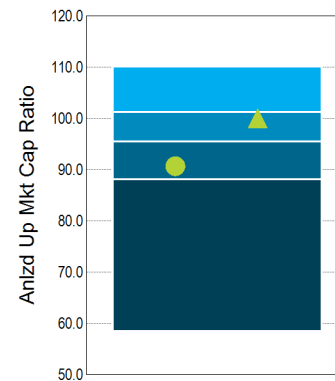
Tracking Error



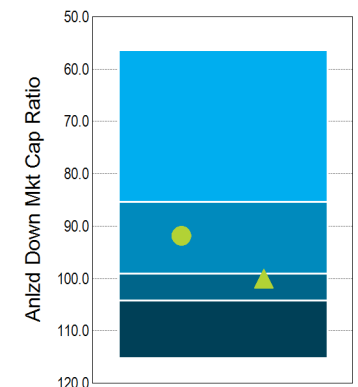
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio

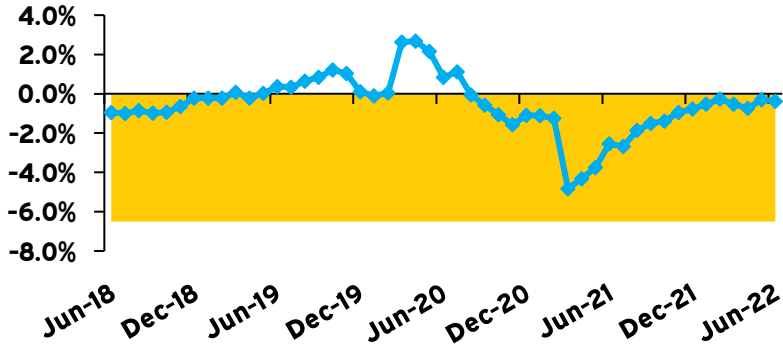


- Vanguard High-Yield Corp Adm
- ▲ Bloomberg US Corporate High Yield TR
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Fund Characteristics as of June 30, 2022		Top Holdings as of June 30, 2022		Fixed Income Sectors as of June 30, 2022	
Sharpe Ratio (3 Year)	-0.06	T-MOBILE US INC	1.41%	GOVERNMENT	3.14%
Average Duration	4.27	UNITED STATES TREASURY NOTES	1.15%	MUNICIPAL	0.00%
Average Coupon	4.84%	IMOLA MERGER CORP.	0.91%	CORPORATE	95.01%
Average Effective Maturity	6.10	UNITED STATES TREASURY NOTES	0.85%	SECURITIZED	0.00%
R-Squared (3 Year)	0.98	UNITED STATES TREASURY NOTES	0.84%	CASH & EQUIVALENTS	1.85%
Alpha (3 Year)	-0.02%	MOZART DEBT MERGER SUBORDINATED INC.	0.78%	DERIVATIVE	0.00%
Beta (3 Year)	0.88	HERC HOLDINGS INC	0.77%		
		CREDIT SUISSE GROUP AG	0.75%		
		HCA INC.	0.64%		

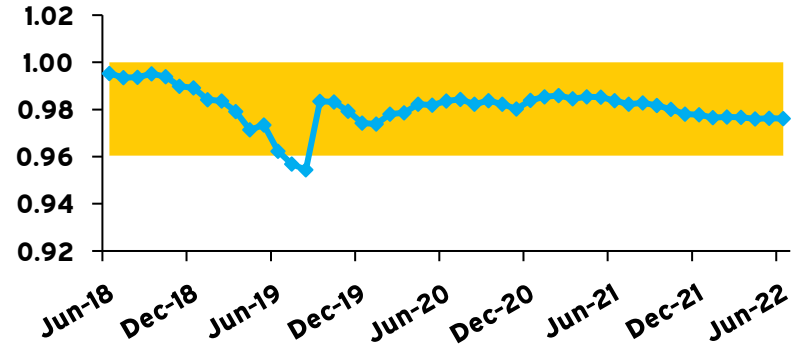
Credit Quality as of June 30, 2022		Maturities as of June 30, 2022		Top Countries as of June 30, 2022	
AAA	3.93%	1 to 3 Years	10.44%	United States	84.58%
AA	0.02%	3 to 5 Years	18.63%	Canada	3.50%
A	0.00%	5 to 7 Years	33.23%	Netherlands	2.67%
BBB	5.26%	7 to 10 Years	27.60%	United Kingdom	1.23%
BB	55.24%	10 to 15 Years	0.92%	France	1.04%
B	31.37%	15 to 20 Years	1.24%	Italy	1.00%
Below B	4.18%	20 to 30 Years	2.01%	Ireland	0.98%
Not Rated	0.00%	Greater than 30 Years	0.27%	Spain	0.86%
				Finland	0.85%
				Israel	0.75%

Short Term – Rolling 12-Month Excess Return



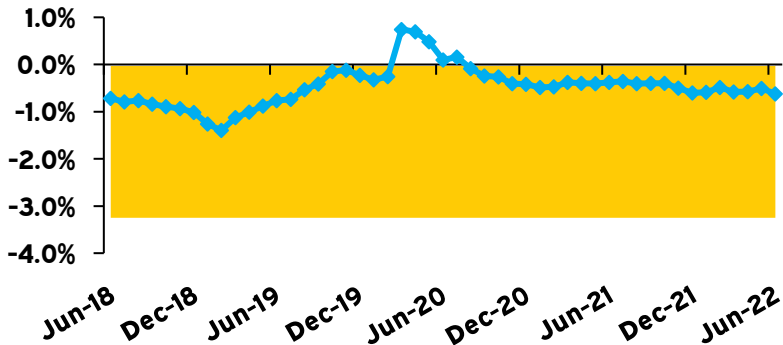
Results fall in the acceptable range.
 Probationary Threshold -6.50%

Long Term – VRR



Results fall in the acceptable range.
 Probationary Threshold <0.96

Medium Term – Rolling 36-Month Excess Return



Results fall in the acceptable range.
 Probationary Threshold -3.25%

Benchmark: S&P/LSTA Performing Loan TR USD

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TRowe Price Floating Rate I	-4.7	-3.2	1.6	2.6	3.7	11/20/2011
S&P/LSTA Performing Loan TR USD	-4.6	-2.8	2.3	3.1	4.2	

Monitoring Status

Acceptable

Description:

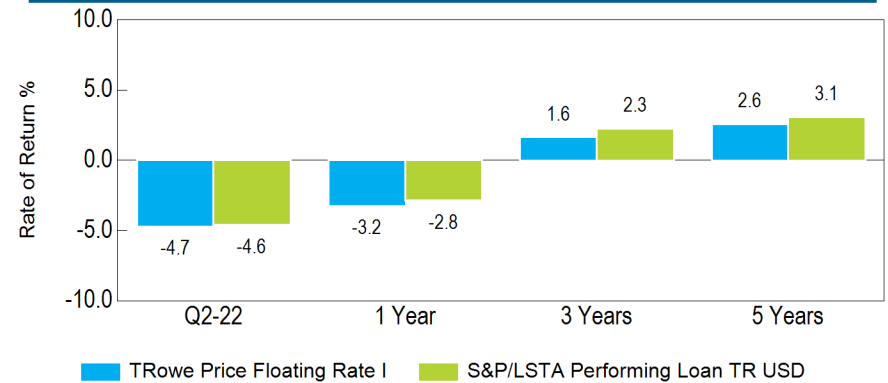
The investment seeks high current income and, secondarily, capital appreciation.

The fund invests at least 80% of its net assets (including any borrowings for investment purposes) in floating rate loans and floating rate debt securities. Floating rate loans represent amounts borrowed by companies or other entities from banks and other lenders. The fund may also invest up to 20% of its total assets in non-U.S. dollar-denominated loans and debt instruments (including instruments of issuers in emerging markets) in keeping with the fund's investment objective.

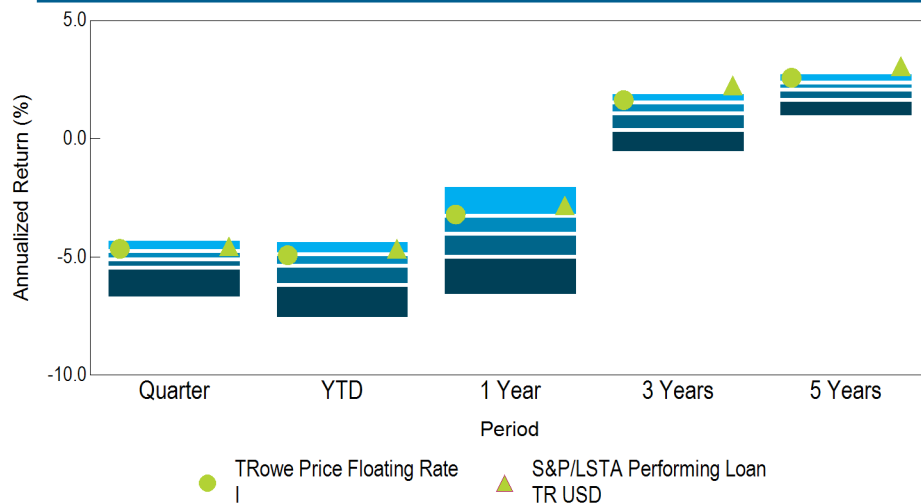
Portfolio Fund Information as of June 30, 2022

Ticker	RPIFX
Morningstar Category	Bank Loan
Average Market Cap (\$mm)	
Net Assets (\$mm)	5,616.61
% Assets in Top 10 Holdings	15.62
Total Number of Holdings	424
Manager Name	Paul M. Massaro
Manager Tenure	13
Expense Ratio	0.58%
Closed to New Investors	No

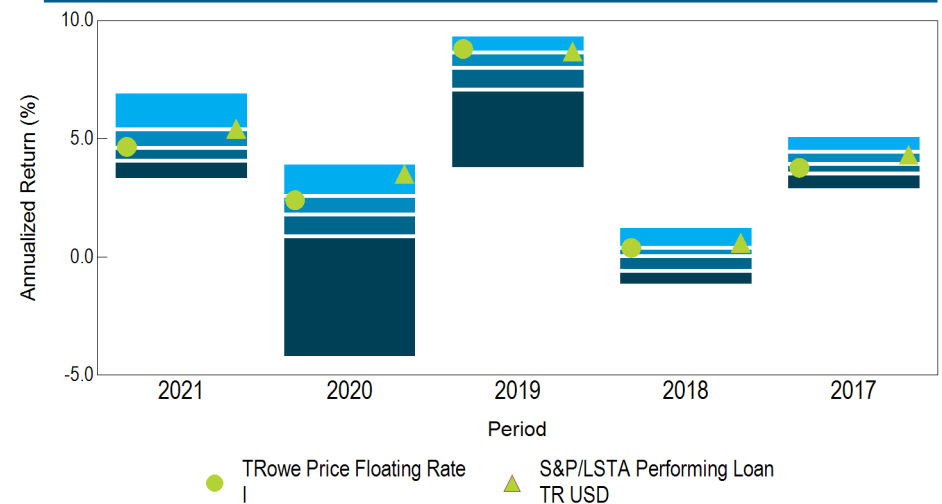
Return Summary



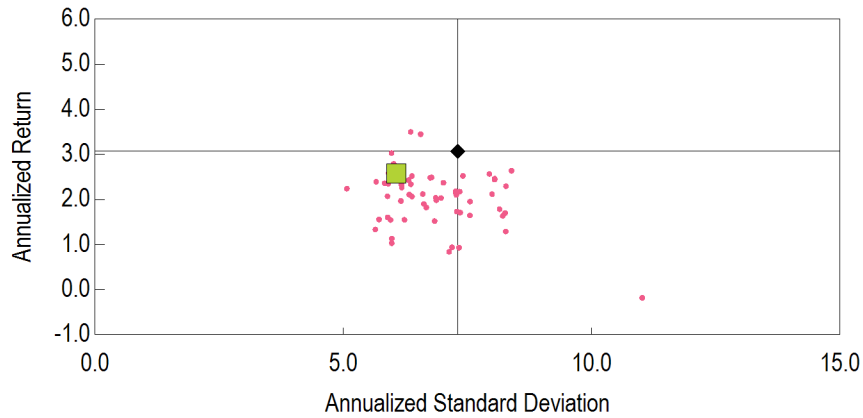
Bank Loan MStar MF Return Comparison



Bank Loan MStar MF Return Comparison

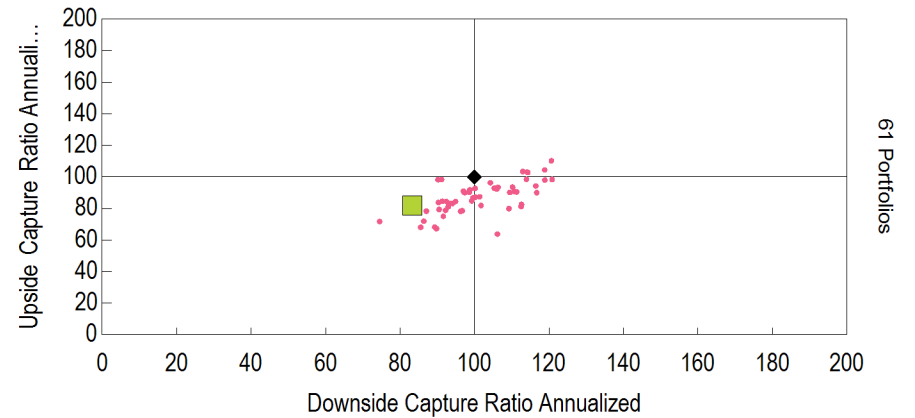


Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



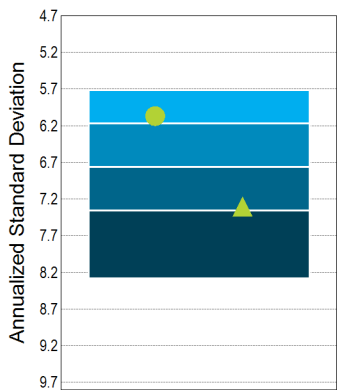
- TRowe Price Floating Rate I
- ◆ S&P/LSTA Performing Loan TR USD
- Bank Loan MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



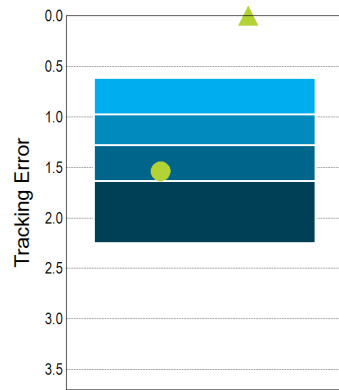
- TRowe Price Floating Rate I
- ◆ S&P/LSTA Performing Loan TR USD
- Bank Loan MStar MF

Annualized Standard Deviation



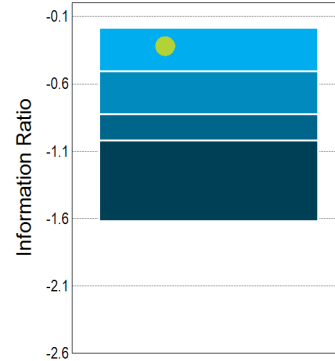
- TRowe Price Floating Rate I

Tracking Error

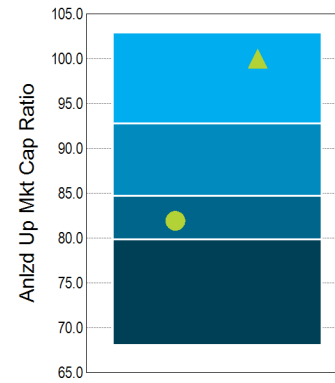


- ▲ S&P/LSTA Performing Loan TR USD

Information Ratio

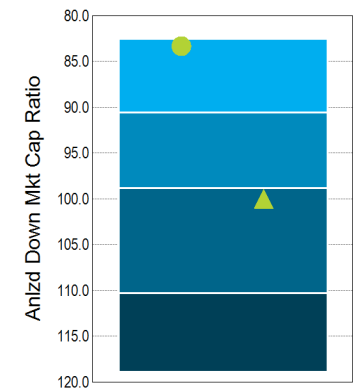


Anlzd Up Mkt Cap Ratio



- Median to 75th Percentile

Anlzd Down Mkt Cap Ratio



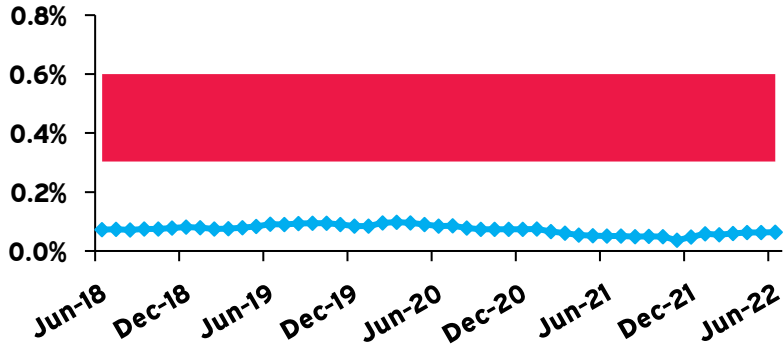
- 75th to 95th Percentile

Fund Characteristics as of June 30, 2022		Top Holdings as of June 30, 2022		Fixed Income Sectors as of June 30, 2022	
Sharpe Ratio (3 Year)	0.15	T. ROWE PRICE GOV. RESERVE	4.02%	GOVERNMENT	0.07%
Average Duration	0.55	HUB INTERNATIONAL	1.86%	MUNICIPAL	0.00%
Average Coupon	5.42%	UKG	1.74%	CORPORATE	94.44%
Average Effective Maturity	4.87	GAINWELL ACQUISITION	1.25%	SECURITIZED	0.00%
R-Squared (3 Year)	0.98	EPICOR SOFTWARE	1.20%	CASH & EQUIVALENTS	5.49%
Alpha (3 Year)	-0.02%	MEDLINE BORROWER	1.20%	DERIVATIVE	0.00%
Beta (3 Year)	0.82	ATHENAHEALTH	1.18%		
		CHARTER NEXT GENERATION	1.13%		
		PETVET CARE CENTERS	1.02%		
		UFC HOLDINGS	1.02%		

Credit Quality as of June 30, 2022		Maturities as of June 30, 2022		Top Countries as of June 30, 2022	
AAA	5.44%	1 to 3 Years	15.75%	United States	93.65%
AA	0.00%	3 to 5 Years	30.75%	United Kingdom	1.60%
A	0.11%	5 to 7 Years	50.15%	Canada	1.10%
BBB	1.79%	7 to 10 Years	2.99%	France	1.00%
BB	9.59%	10 to 15 Years	0.00%	Luxembourg	0.83%
B	69.09%	15 to 20 Years	0.00%	Germany	0.42%
Below B	11.82%	20 to 30 Years	0.00%	Sweden	0.38%
Not Rated	2.15%	Greater than 30 Years	0.00%	Denmark	0.27%
				Ireland	0.17%
				Finland	0.15%

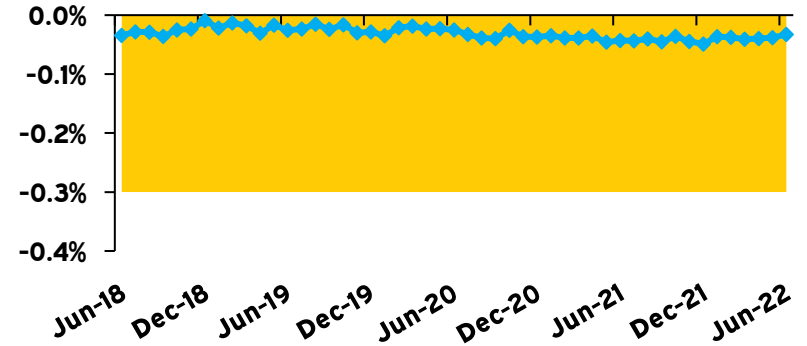
Sensitivity Analyses: Passive Funds

Short Term – Rolling 12-Month Tracking Error



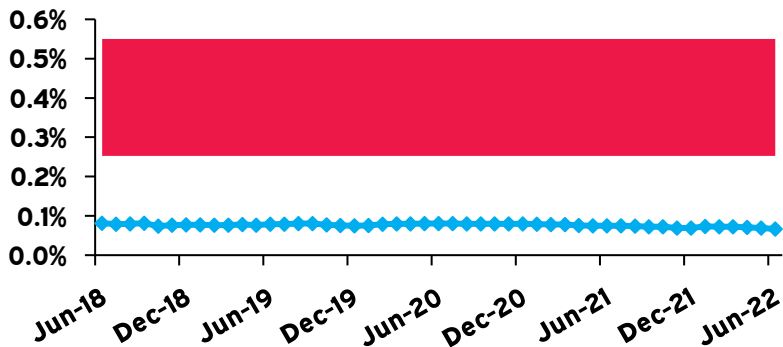
Results fall in the positive range.
Probationary Threshold 0.30%

Long Term – Rolling 60-Month Excess Return



Results fall in the acceptable range.
Probationary Threshold -0.30%

Medium Term – Rolling 36-Month Tracking Error



Results fall in the positive range.
Probationary Threshold 0.25%

Benchmark: Russell 3000

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF Equity Index I	-16.7	-13.8	9.7	10.6	12.7	11/20/2011
Russell 3000	-16.7	-13.9	9.8	10.6	12.7	

Monitoring Status

Acceptable

Description:

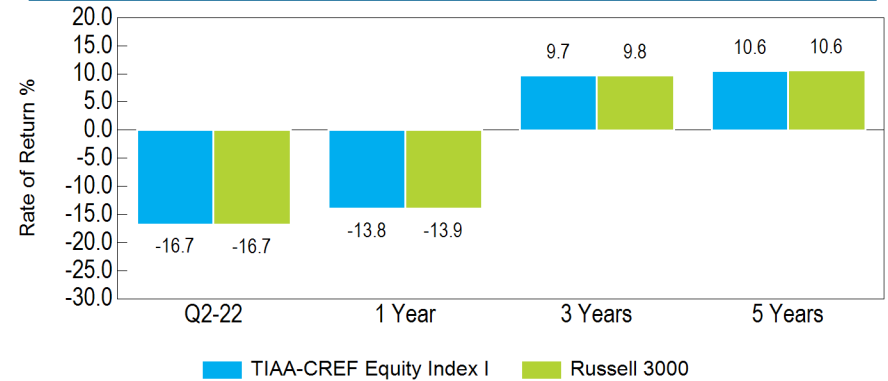
The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities selected to track the overall U.S. equity markets based on a market index.

Under normal circumstances, the fund invests at least 80% of its assets in equity securities of its benchmark index, the Russell 3000® Index. It buys most, but not necessarily all, of the stocks in its benchmark index, and the advisor will attempt to closely match the overall investment characteristics of its benchmark index.

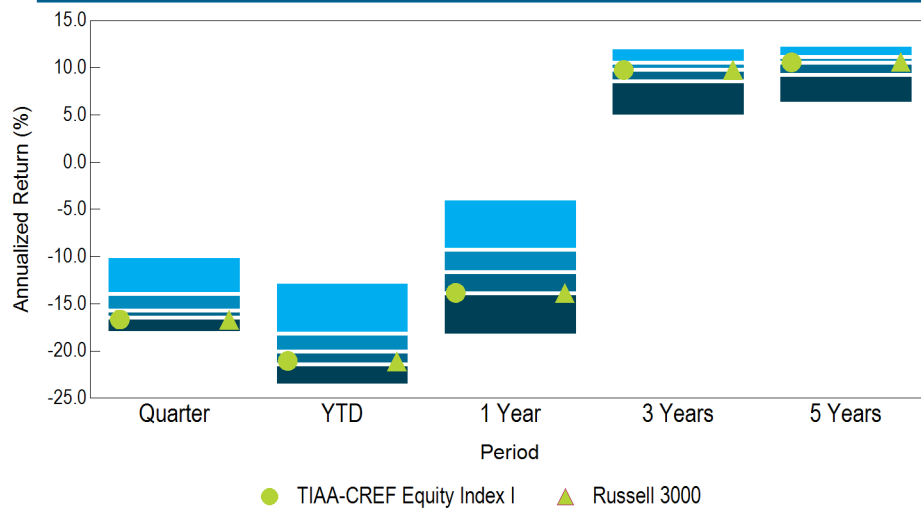
Portfolio Fund Information as of May 31, 2022

Ticker	TIEIX
Morningstar Category	Large Blend
Average Market Cap (\$mm)	111,710.20
Net Assets (\$mm)	11,960.74
% Assets in Top 10 Holdings	22.56
Total Number of Holdings	2,938
Manager Name	Philip James (Jim) Campagna
Manager Tenure	17
Expense Ratio	0.05%
Closed to New Investors	No

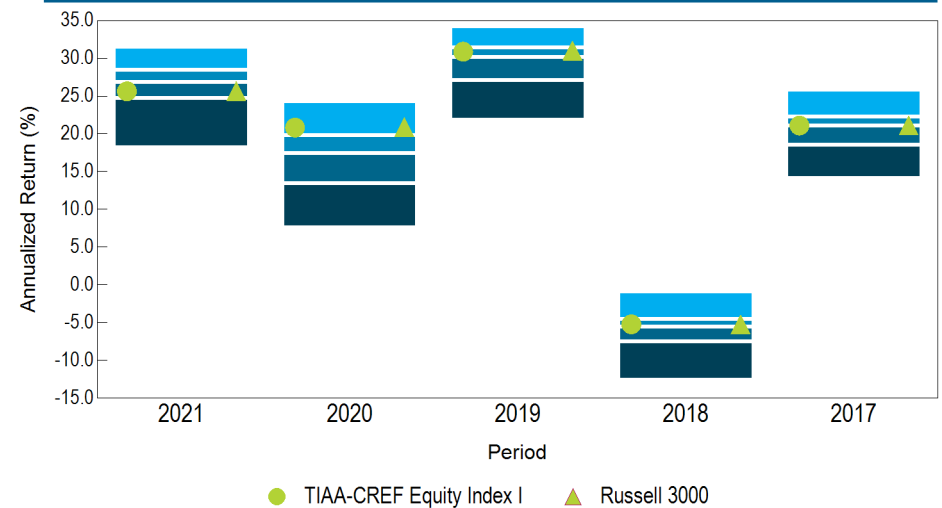
Return Summary



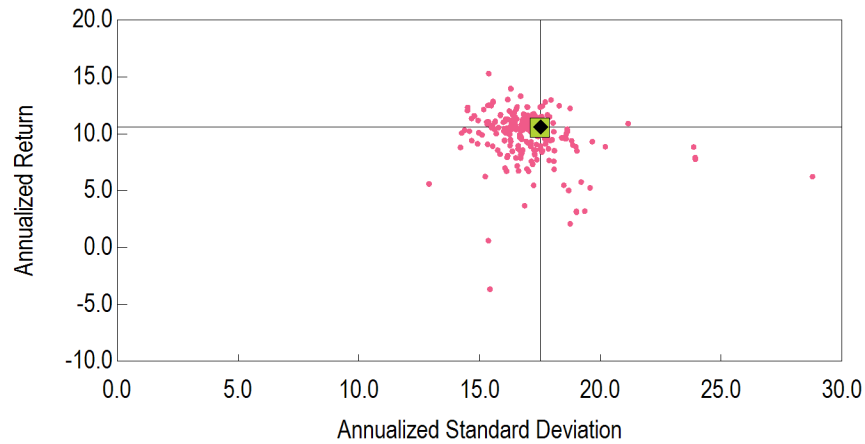
Large Blend MStar MF Return Comparison



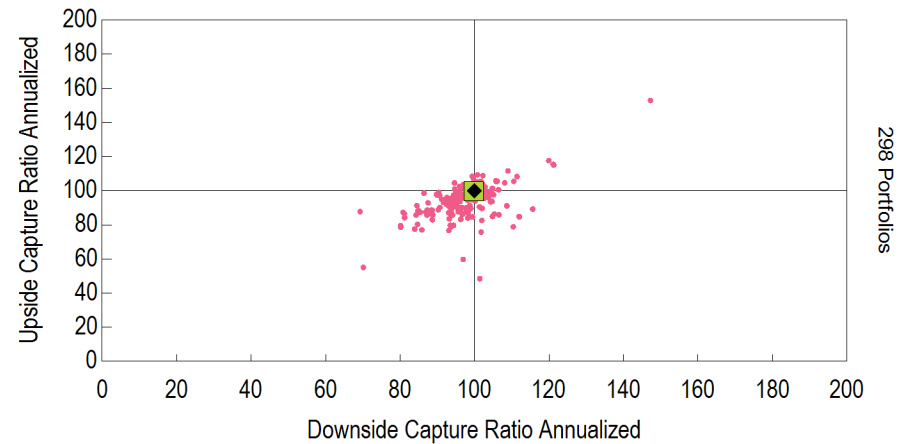
Large Blend MStar MF Return Comparison



Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



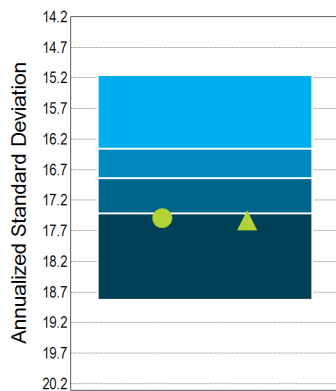
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



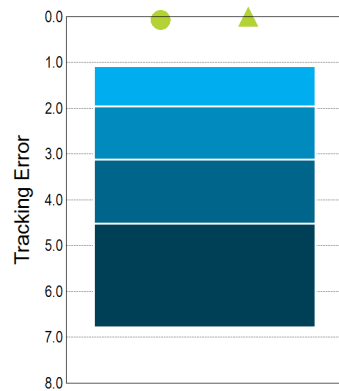
■ TIAA-CREF Equity Index I ◆ Russell 3000 ● Large Blend MStar MF

■ TIAA-CREF Equity Index I ◆ Russell 3000 ● Large Blend MStar MF

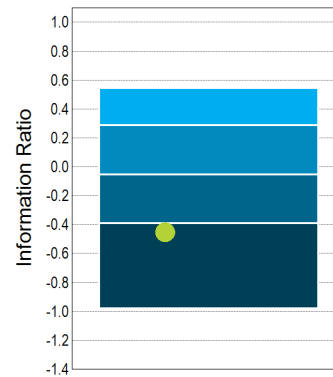
Annualized Standard Deviation



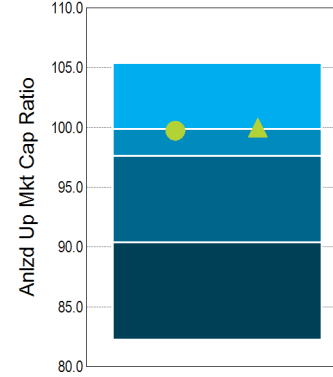
Tracking Error



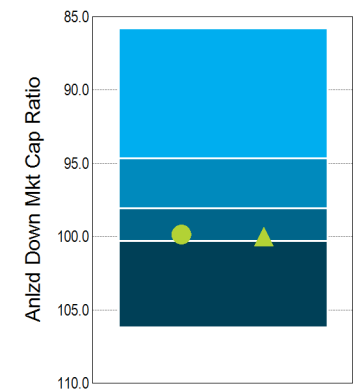
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



● TIAA-CREF Equity Index I ▲ Russell 3000 ■ 5th to 25th Percentile ■ 25th to Median ■ Median to 75th Percentile ■ 75th to 95th Percentile

Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.80
Average Market Cap (\$mm)	111,710.20
Price/Earnings	17.34
Price/Book	3.00
Price/Sales	2.01
Price/Cash Flow	9.74
Dividend Yield	1.59
Number of Equity Holdings	2,922
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	2.34%
COMMUNICATION SERVICES	8.12%
CONSUMER CYCLICAL	10.69%
CONSUMER DEFENSIVE	6.44%
ENERGY	4.86%
FINANCIAL SERVICES	13.73%
HEALTHCARE	14.16%
INDUSTRIALS	9.03%
REAL ESTATE	3.79%
TECHNOLOGY	23.89%
UTILITIES	2.94%

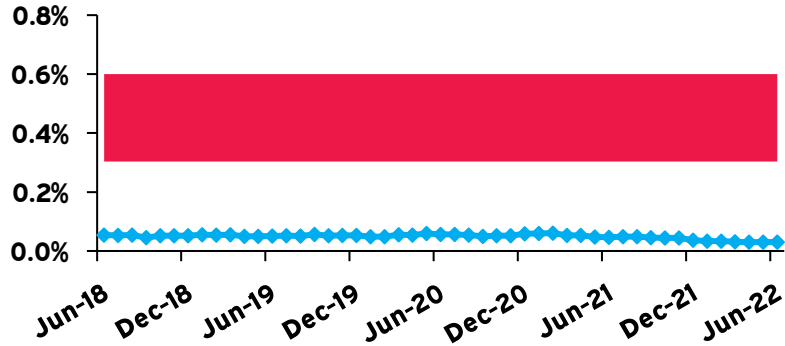
Top Holdings as of May 31, 2022

APPLE INC	5.57%
MICROSOFT CORP	4.97%
AMAZON.COM INC	2.53%
ALPHABET INC CLASS A	1.66%
ALPHABET INC CLASS C	1.53%
TESLA INC	1.53%
BERKSHIRE HATHAWAY INC CLASS B	1.40%
JOHNSON & JOHNSON	1.15%
UNITEDHEALTH GROUP INC	1.13%
META PLATFORMS INC CLASS A	1.08%

Top Countries as of May 31, 2022

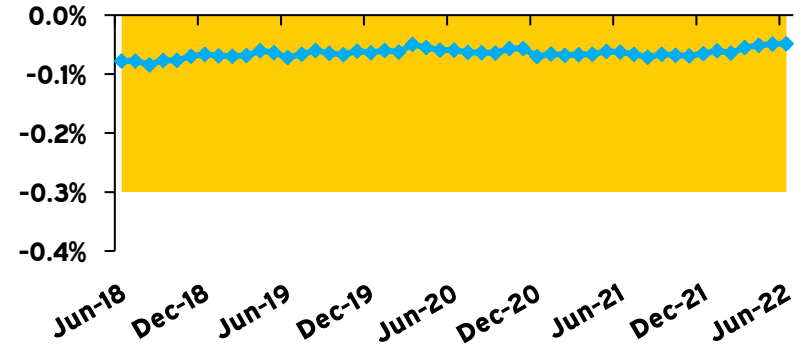
United States	99.32%
Switzerland	0.31%
Netherlands	0.12%
United Kingdom	0.09%
China	0.05%
Puerto Rico	0.03%
Brazil	0.02%
India	0.02%
Canada	0.01%
Israel	0.01%

Short Term – Rolling 12-Month Tracking Error



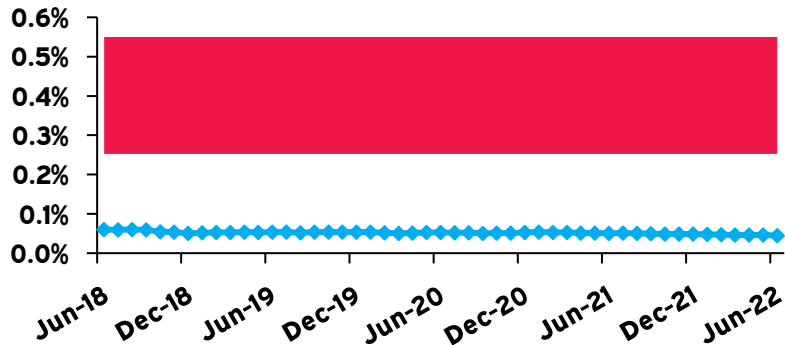
Results fall in the positive range.
Probationary Threshold 0.30%

Long Term – Rolling 60-Month Excess Return



Results fall in the acceptable range.
Probationary Threshold -0.30%

Medium Term – Rolling 36-Month Tracking Error



Results fall in the positive range.
Probationary Threshold 0.25%

Benchmark: S&P 500

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF S&P 500 Index I	-16.1	-10.6	10.6	11.3	13.1	11/20/2011
S&P 500	-16.1	-10.6	10.6	11.3	13.1	

Monitoring Status

Acceptable

Description:

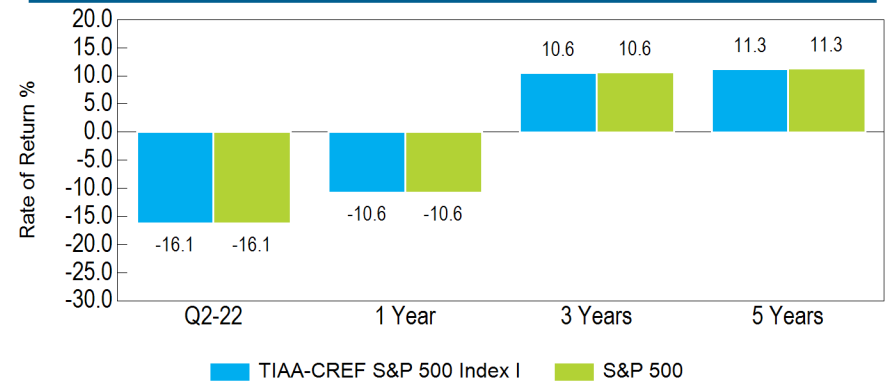
The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of equity securities of large domestic companies selected to track U.S. equity markets based on a market index.

The fund invests at least 80% of its assets in securities of its benchmark index, the S&P 500® Index. It buys most, but not necessarily all, of the stocks in its benchmark index, and the advisor will attempt to closely match the overall investment characteristics of the fund's benchmark index.

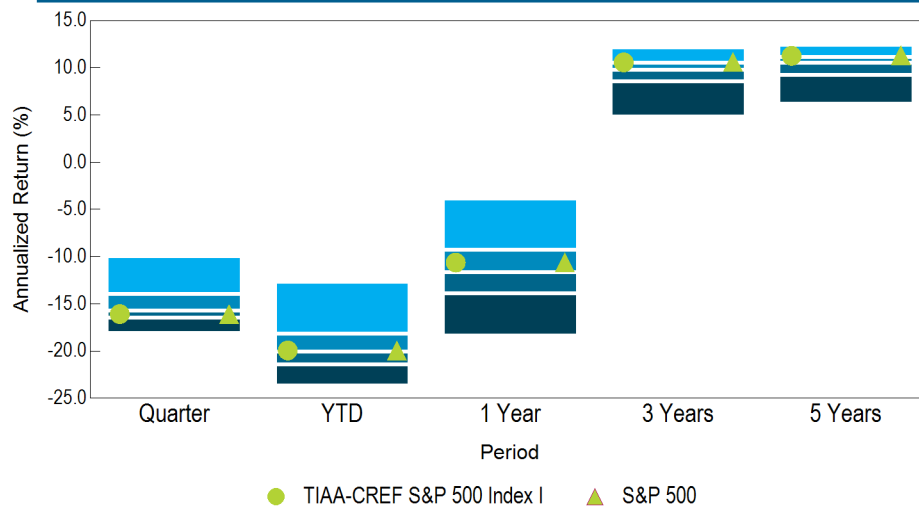
Portfolio Fund Information as of May 31, 2022

Ticker	TISPX
Morningstar Category	Large Blend
Average Market Cap (\$mm)	185,609.76
Net Assets (\$mm)	5,089.57
% Assets in Top 10 Holdings	26.39
Total Number of Holdings	509
Manager Name	Philip James(Jim) Campagna
Manager Tenure	17
Expense Ratio	0.05%
Closed to New Investors	No

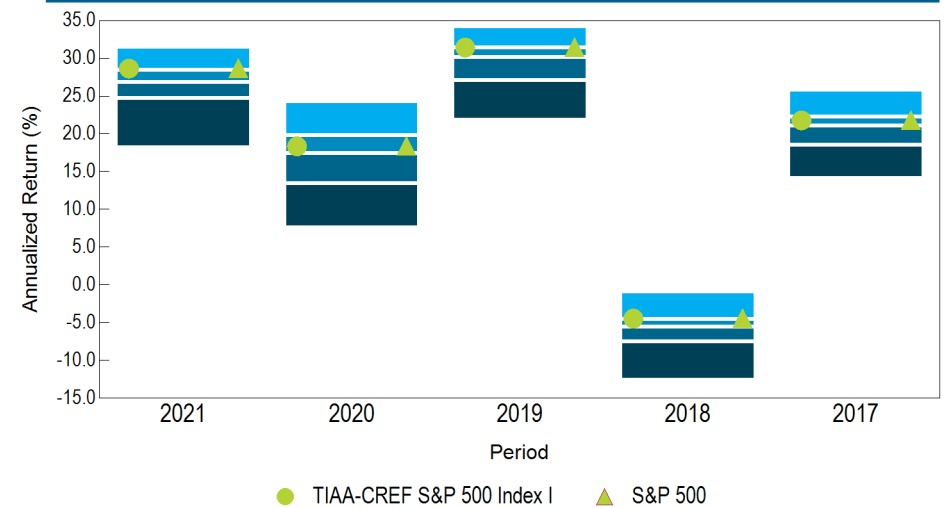
Return Summary



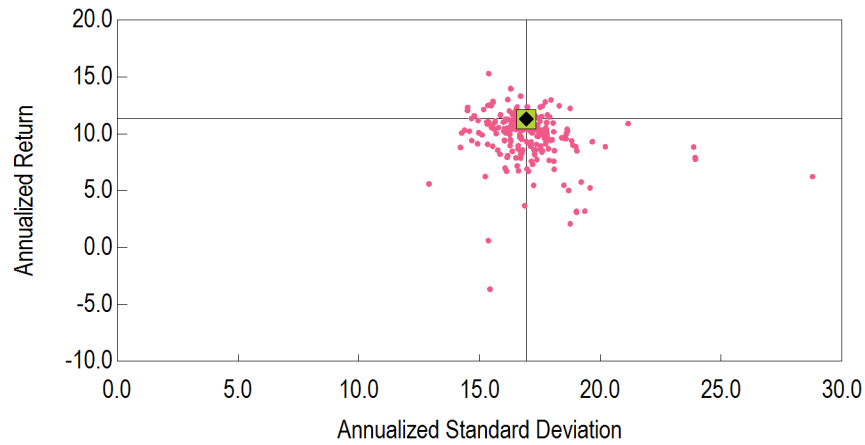
Large Blend MStar MF Return Comparison



Large Blend MStar MF Return Comparison

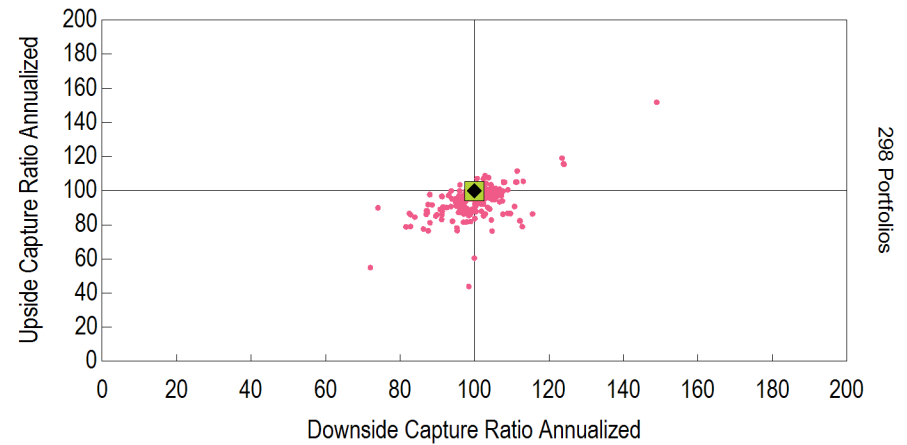


Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



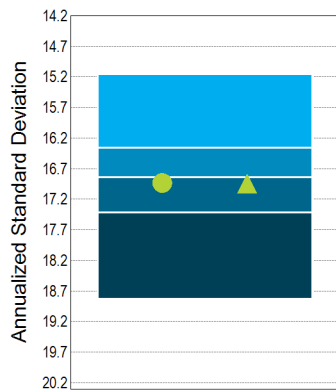
■ TIAA-CREF S&P 500 Index I ◆ S&P 500 ● Large Blend MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



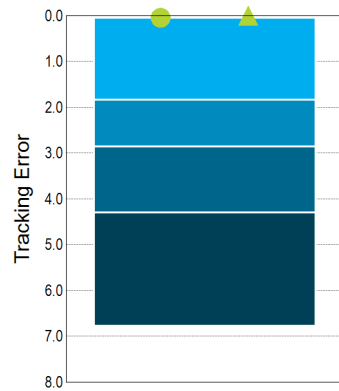
■ TIAA-CREF S&P 500 Index I ◆ S&P 500 ● Large Blend MStar MF

Annualized Standard Deviation

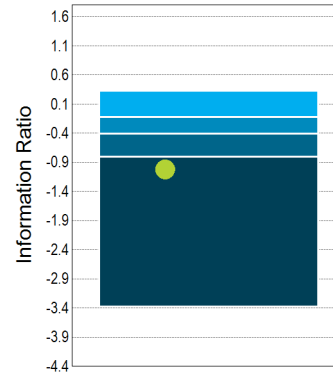


● TIAA-CREF S&P 500 Index I ▲ S&P 500

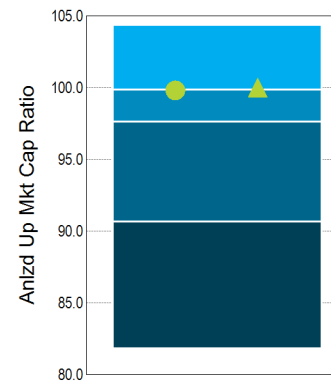
Tracking Error



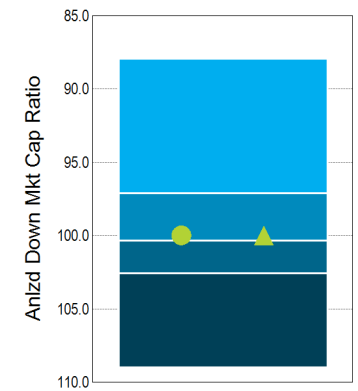
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



■ 5th to 25th Percentile ■ 25th to Median ■ Median to 75th Percentile ■ 75th to 95th Percentile

Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.87
Average Market Cap (\$mm)	185,609.76
Price/Earnings	18.01
Price/Book	3.26
Price/Sales	2.25
Price/Cash Flow	10.63
Dividend Yield	1.63
Number of Equity Holdings	504
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.00%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	2.47%
COMMUNICATION SERVICES	8.80%
CONSUMER CYCLICAL	10.68%
CONSUMER DEFENSIVE	6.90%
ENERGY	4.80%
FINANCIAL SERVICES	13.42%
HEALTHCARE	14.46%
INDUSTRIALS	8.27%
REAL ESTATE	2.77%
TECHNOLOGY	24.45%
UTILITIES	2.98%

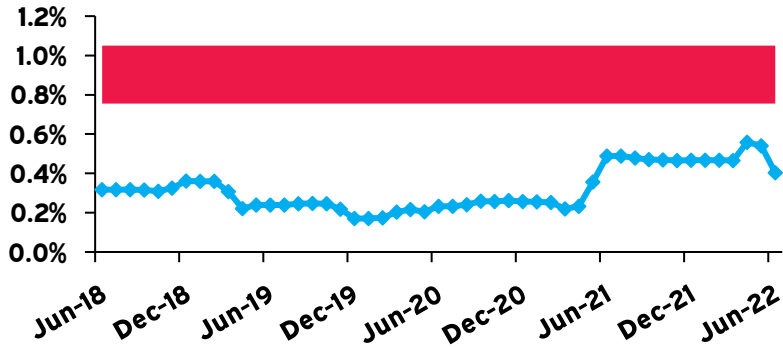
Top Holdings as of May 31, 2022

APPLE INC	6.52%
MICROSOFT CORP	5.76%
AMAZON.COM INC	2.97%
ALPHABET INC CLASS A	1.93%
ALPHABET INC CLASS C	1.79%
TESLA INC	1.79%
BERKSHIRE HATHAWAY INC CLASS B	1.63%
JOHNSON & JOHNSON	1.34%
NVIDIA CORP	1.32%
UNITEDHEALTH GROUP INC	1.32%

Top Countries as of May 31, 2022

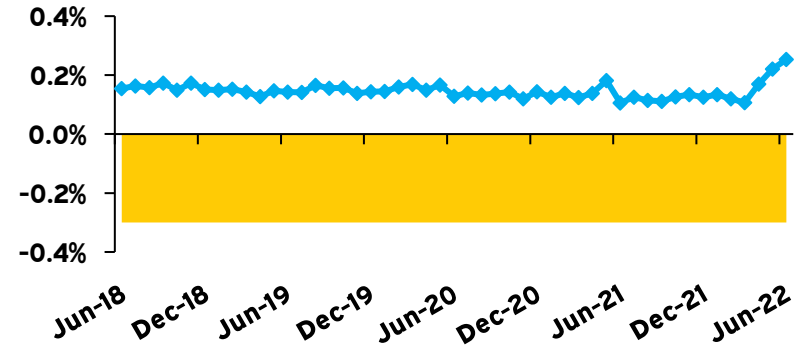
United States	98.90%
United Kingdom	0.55%
Switzerland	0.36%
Netherlands	0.14%
Singapore	0.05%

Short Term – Rolling 12-Month Tracking Error



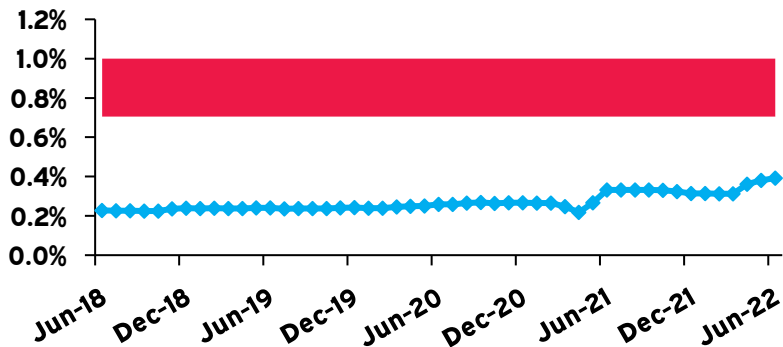
Results fall in the positive range.
Probationary Threshold 0.75%

Long Term – Rolling 60-Month Excess Return



Results fall in the positive range.
Probationary Threshold -0.30%

Medium Term – Rolling 36-Month Tracking Error



Results fall in the positive range.
Probationary Threshold 0.70%

Benchmark: MSCI EAFE

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF International Equity Index	-13.8	-17.1	1.4	2.5	5.0	11/20/2011
MSCI EAFE	-14.5	-17.8	1.1	2.2	4.8	

Monitoring Status

Positive

TIAA-CREF International Equity Index | As of June 30, 2022

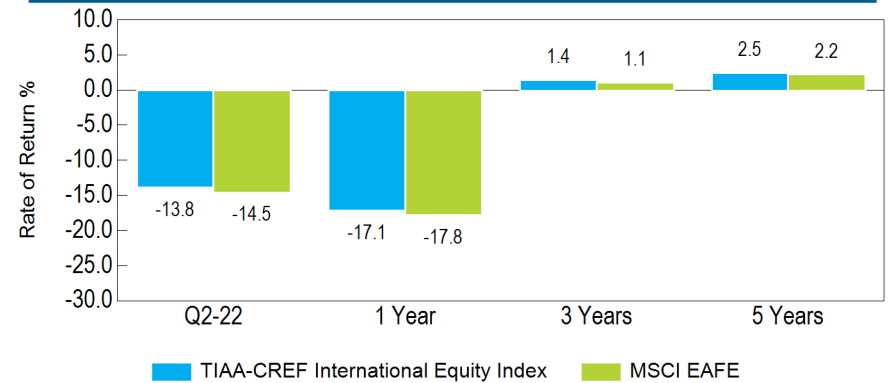
Description:

The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of foreign equity investments based on a market index. Under normal circumstances, the fund invests at least 80% of its assets in securities of its benchmark index, the MSCI EAFE Index. It buys most, but not necessarily all, of the stocks included in its benchmark index, and the advisor will attempt to closely match the overall investment characteristics of the fund's benchmark index.

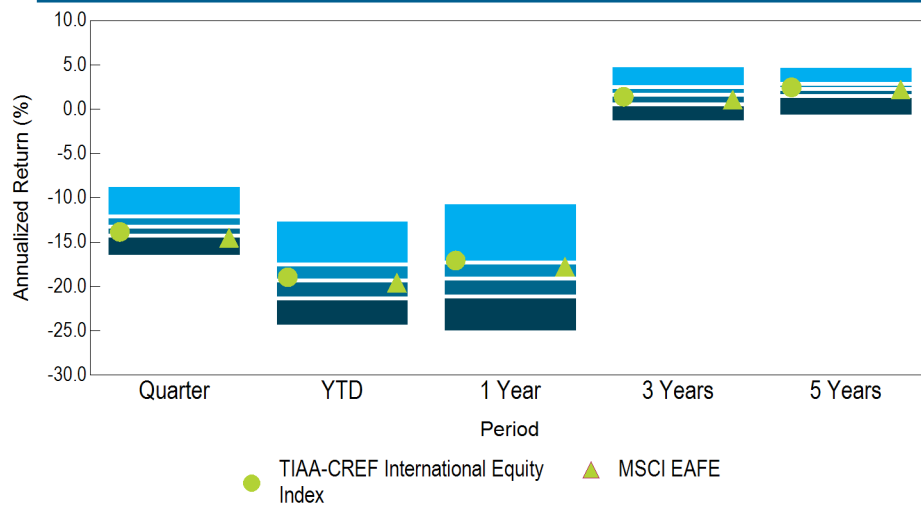
Portfolio Fund Information as of May 31, 2022

Ticker	TCIEX
Morningstar Category	Foreign Large Blend
Average Market Cap (\$mm)	44,690.55
Net Assets (\$mm)	9,056.99
% Assets in Top 10 Holdings	13.87
Total Number of Holdings	827
Manager Name	Philip James(Jim) Campagna
Manager Tenure	17
Expense Ratio	0.05%
Closed to New Investors	No

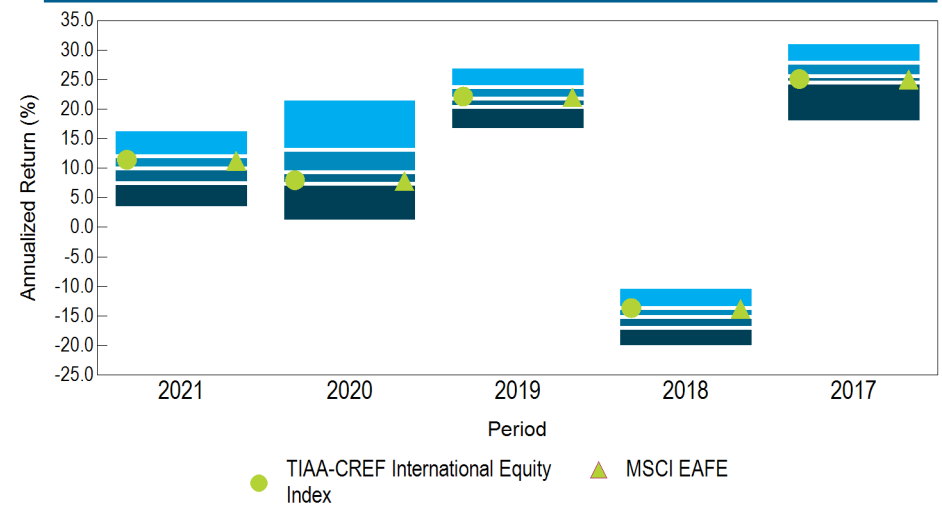
Return Summary



Foreign Large Blend MStar MF Return Comparison

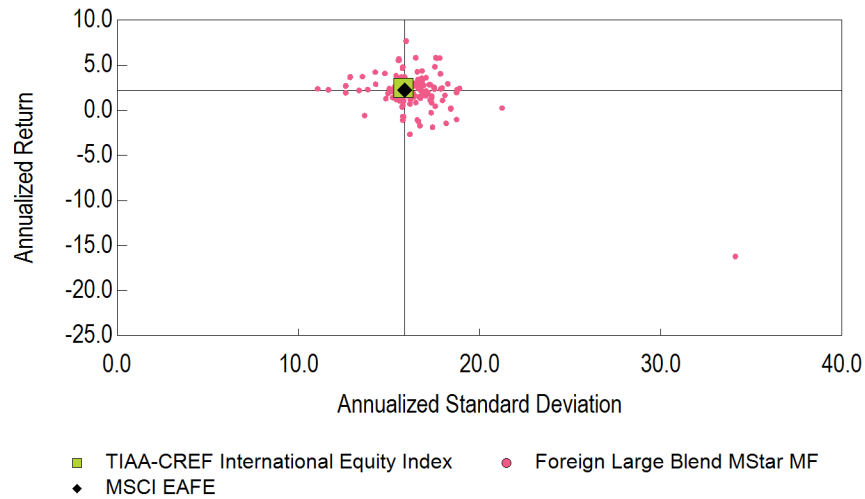


Foreign Large Blend MStar MF Return Comparison

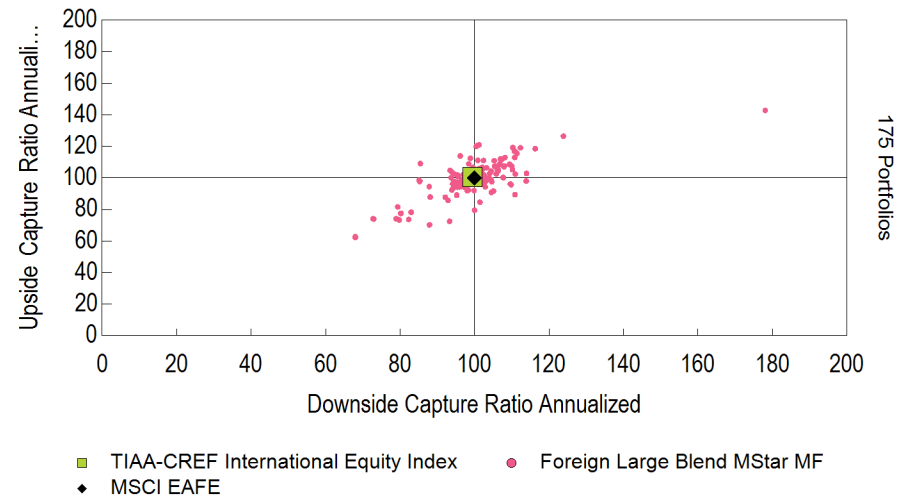


TIAA-CREF International Equity Index | As of June 30, 2022

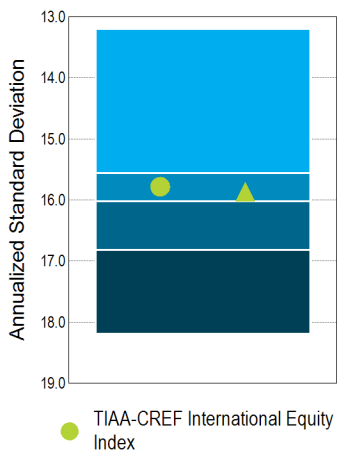
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



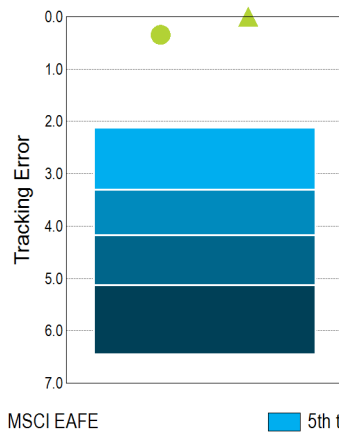
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



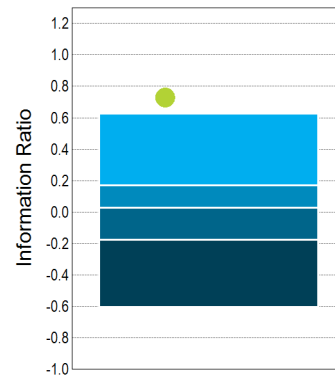
Annualized Standard Deviation



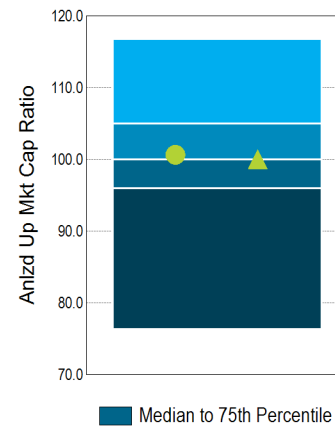
Tracking Error



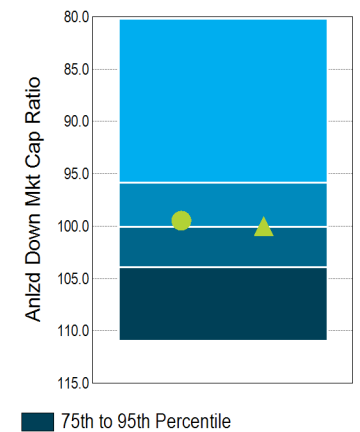
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



TIAA-CREF International Equity Index | As of June 30, 2022

Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.36
Average Market Cap (\$mm)	44,690.55
Price/Earnings	12.61
Price/Book	1.57
Price/Sales	1.25
Price/Cash Flow	6.84
Dividend Yield	3.15
Number of Equity Holdings	804
R-Squared (3 Year)	1.00
Alpha (3 Year)	0.02%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	8.18%
COMMUNICATION SERVICES	5.30%
CONSUMER CYCLICAL	10.35%
CONSUMER DEFENSIVE	10.31%
ENERGY	4.98%
FINANCIAL SERVICES	17.66%
HEALTHCARE	13.50%
INDUSTRIALS	14.91%
REAL ESTATE	2.93%
TECHNOLOGY	8.51%
UTILITIES	3.38%

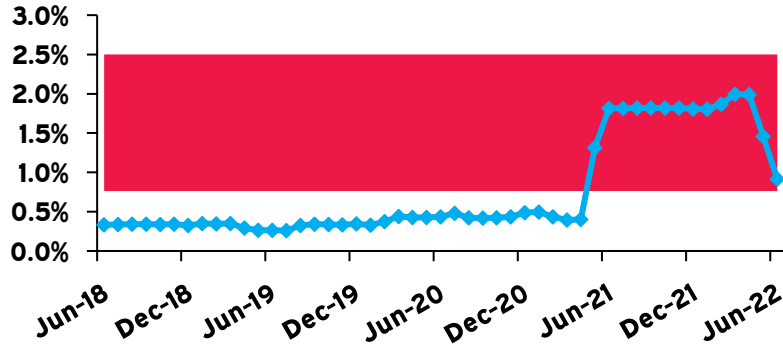
Top Holdings as of May 31, 2022

NESTLE SA	2.22%
ROCHE HOLDING AG	1.55%
ASML HOLDING NV	1.51%
SHELL PLC	1.45%
ASTRAZENECA PLC	1.32%
NOVARTIS AG	1.29%
NOVO NORDISK A/S CLASS B	1.21%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.16%
TOYOTA MOTOR CORP	1.14%
BHP GROUP LTD	1.03%

Top Countries as of May 31, 2022

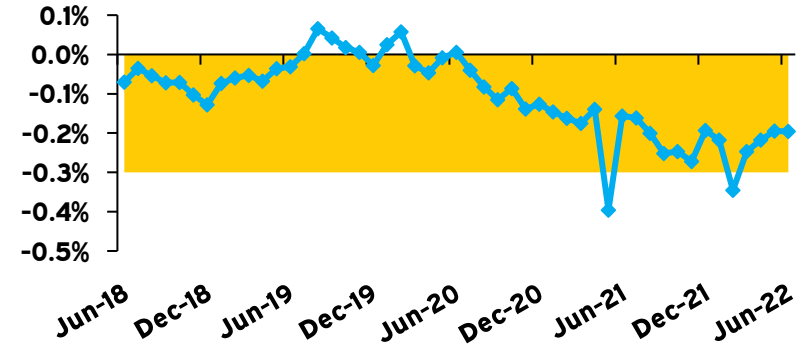
Japan	21.88%
United Kingdom	15.20%
Switzerland	10.69%
France	10.62%
Germany	8.12%
Australia	7.96%
Netherlands	4.79%
Sweden	3.63%
Hong Kong	2.69%
Denmark	2.65%

Short Term – Rolling 12-Month Tracking Error



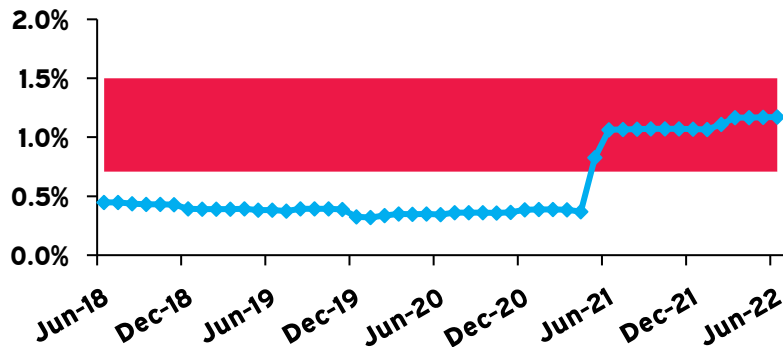
Results fall in the caution range.
Probationary Threshold 0.75%

Long Term – Rolling 60-Month Excess Return



Results fall in the acceptable range.
Probationary Threshold -0.30%

Medium Term – Rolling 36-Month Tracking Error



Results fall in the caution range.
Probationary Threshold 0.70%

Benchmark: MSCI Emerging Markets

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF Emerging Markets Equity Index	-11.2	-25.3	0.4	2.0	1.0	1/31/2011
MSCI Emerging Markets	-11.4	-25.3	0.6	2.2	1.2	

Monitoring Status

Caution

TIAA-CREF Emerging Markets Equity Index | As of June 30, 2022

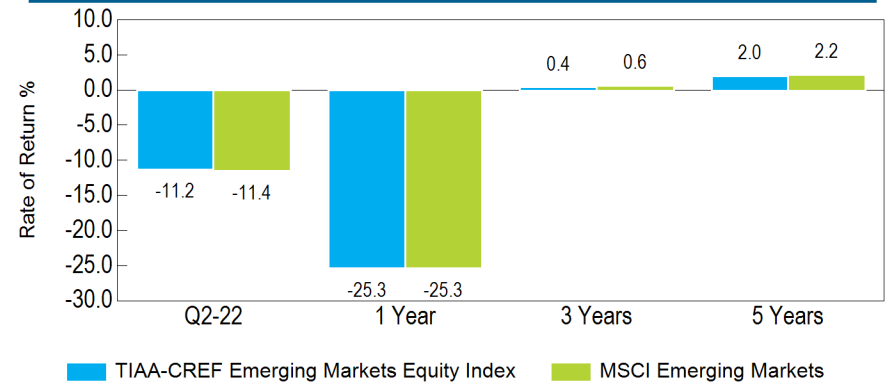
Description:

The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of emerging market equity investments based on a market index. Under normal circumstances, the fund invests at least 80% of its assets in equity securities that comprise its benchmark index, the MSCI Emerging Markets® Index ("MSCI EM Index"), or in instruments with economic characteristics similar to all or a portion of the MSCI EM Index. It buys most, but not necessarily all, of the stocks in its benchmark index, and the advisor will attempt to closely match the overall investment attributes of the fund's benchmark index.

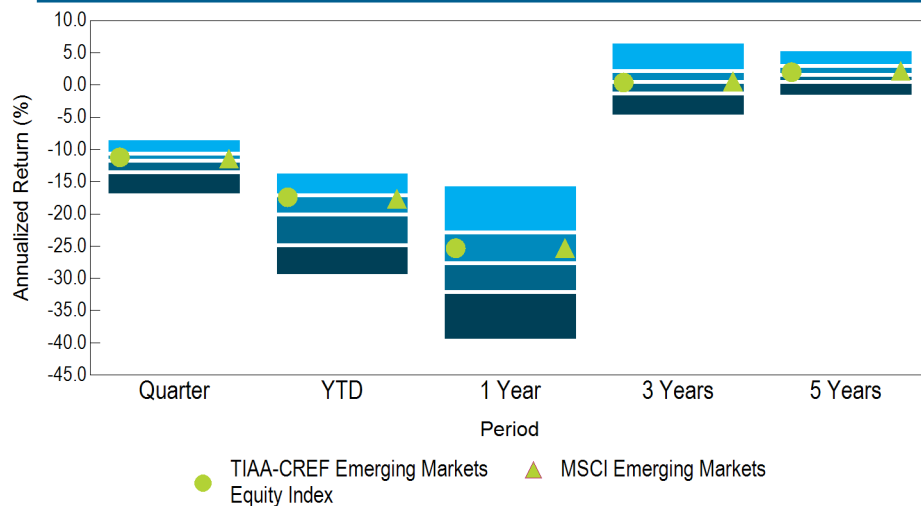
Portfolio Fund Information as of May 31, 2022

Ticker	TEQLX
Morningstar Category	Diversified Emerging Mkts
Average Market Cap (\$mm)	38,413.87
Net Assets (\$mm)	1,163.31
% Assets in Top 10 Holdings	23.67
Total Number of Holdings	1,412
Manager Name	Philip James(Jim) Campagna
Manager Tenure	12
Expense Ratio	0.18%
Closed to New Investors	No

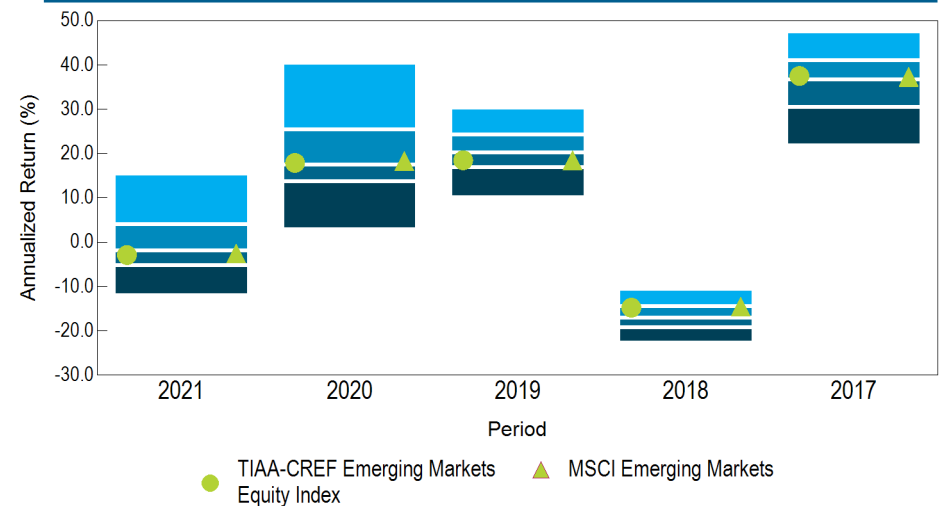
Return Summary



Diversified Emerging Mkts MStar MF Return Comparison

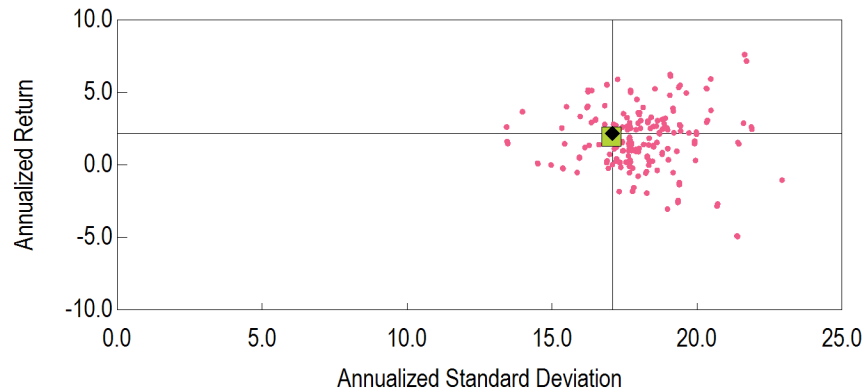


Diversified Emerging Mkts MStar MF Return Comparison

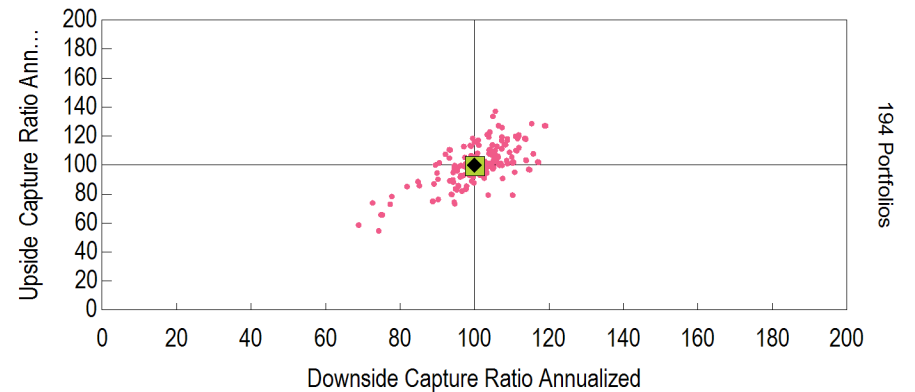


TIAA-CREF Emerging Markets Equity Index | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



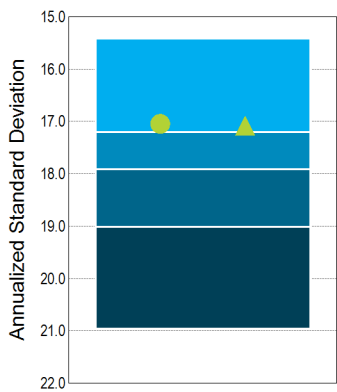
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



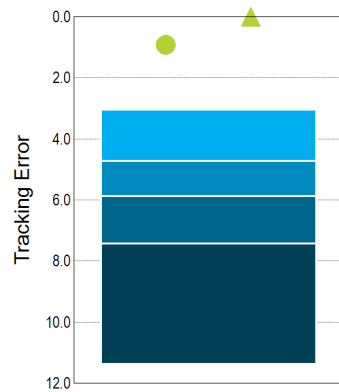
- TIAA-CREF Emerging Markets Equity Index
- ◆ MSCI Emerging Markets
- Diversified Emerging Mkts MStar MF

- TIAA-CREF Emerging Markets Equity Index
- ◆ MSCI Emerging Markets
- Diversified Emerging Mkts MStar MF

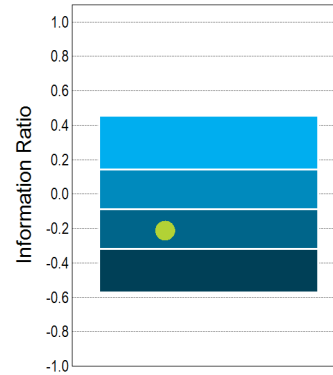
Annualized Standard Deviation



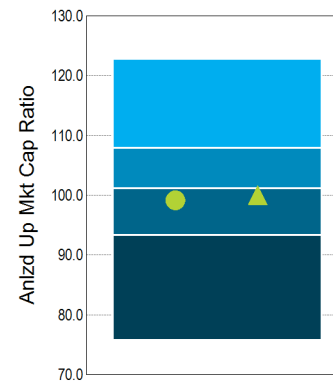
Tracking Error



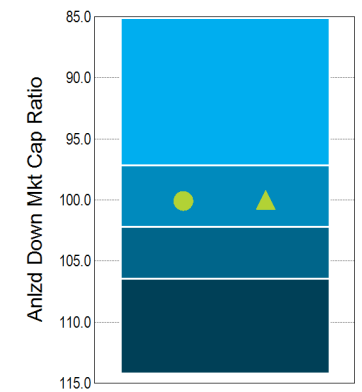
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- TIAA-CREF Emerging Markets Equity Index
- ▲ MSCI Emerging Markets
- 5th to 25th Percentile
- 25th to Median

- Median to 75th Percentile
- 75th to 95th Percentile

TIAA-CREF Emerging Markets Equity Index | As of June 30, 2022

Fund Characteristics as of May 31, 2022

Sharpe Ratio (3 Year)	0.23
Average Market Cap (\$mm)	38,413.87
Price/Earnings	11.21
Price/Book	1.53
Price/Sales	1.25
Price/Cash Flow	5.65
Dividend Yield	3.20
Number of Equity Holdings	1,390
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.02%

Sector Allocation as of May 31, 2022

BASIC MATERIALS	9.15%
COMMUNICATION SERVICES	10.74%
CONSUMER CYCLICAL	12.36%
CONSUMER DEFENSIVE	5.69%
ENERGY	5.02%
FINANCIAL SERVICES	21.89%
HEALTHCARE	3.76%
INDUSTRIALS	5.71%
REAL ESTATE	2.03%
TECHNOLOGY	20.91%
UTILITIES	2.75%

Top Holdings as of May 31, 2022

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.43%
TENCENT HOLDINGS LTD	3.94%
SAMSUNG ELECTRONICS CO LTD	3.58%
ALIBABA GROUP HOLDING LTD ORDINARY SHARES	2.52%
MSCI EMGMKT JUN22 IFUS 20220617	1.58%
RELIANCE INDUSTRIES LTD	1.42%
MEITUAN CLASS B	1.33%
CHINA CONSTRUCTION BANK CORP CLASS H	1.00%
VALE SA	1.00%
INFOSYS LTD	0.90%

Top Countries as of May 31, 2022

China	30.28%
Taiwan	15.70%
India	12.73%
South Korea	12.69%
Brazil	5.55%
Saudi Arabia	4.51%
South Africa	3.67%
Mexico	2.19%
Indonesia	1.89%
Thailand	1.88%

Nuveen ESG Emerging Markets Equity ETF | As of June 30, 2022

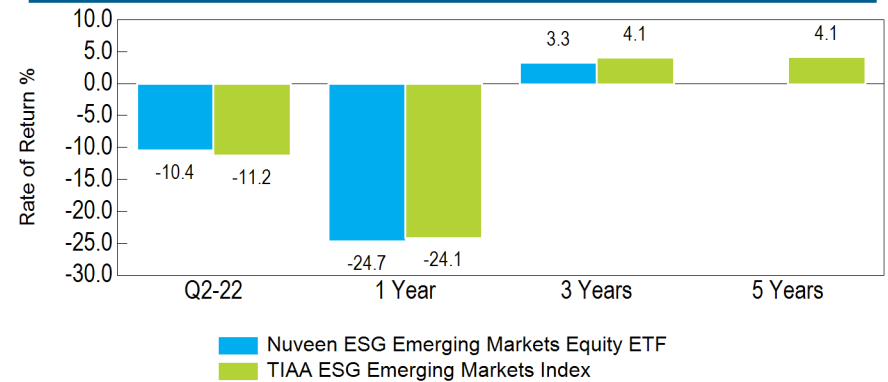
Description:

The investment seeks to track the investment results, before fees and expenses, of the TIAA ESG Emerging Markets Equity Index (the "index"). In seeking to track the investment results of the index, the advisor attempts to replicate the index by investing all, or substantially all, of its assets in the securities represented in the index in approximately the same proportions as the index. The index identifies equity securities from the base index that satisfy certain ESG criteria, based on ESG performance data collected by MSCI ESG Research, Inc.

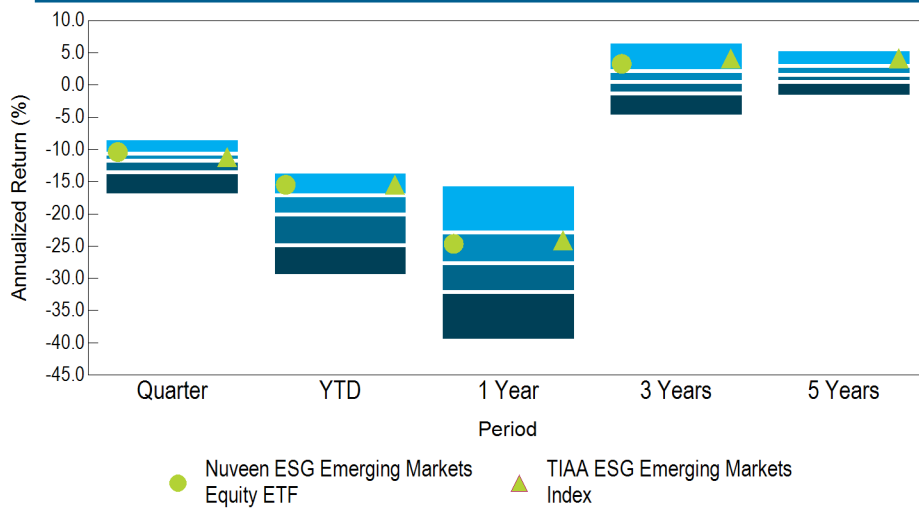
Account Information

Account Name	Nuveen ESG Emerging Markets Equity ETF
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	8/01/17
Account Type	
Benchmark	TIAA ESG Emerging Markets Index
Universe	Diversified Emerging Mkts MStar MF

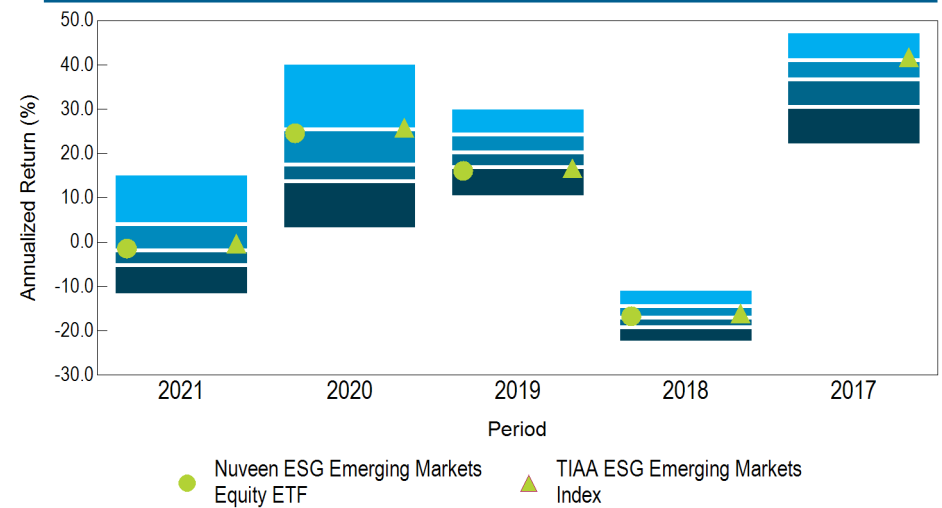
Return Summary



Diversified Emerging Mkts MStar MF Return Comparison

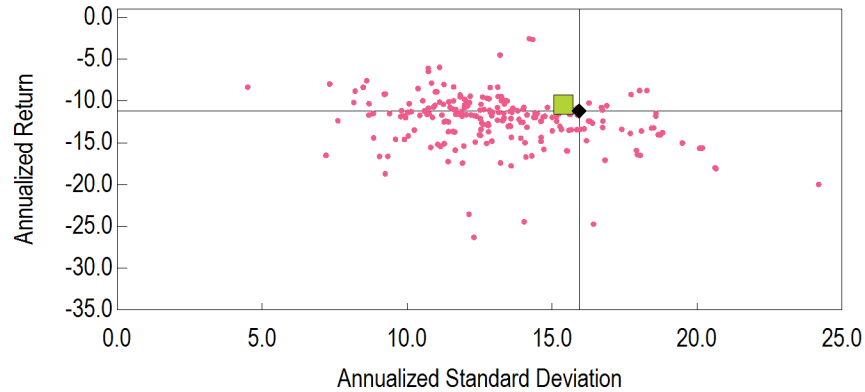


Diversified Emerging Mkts MStar MF Return Comparison



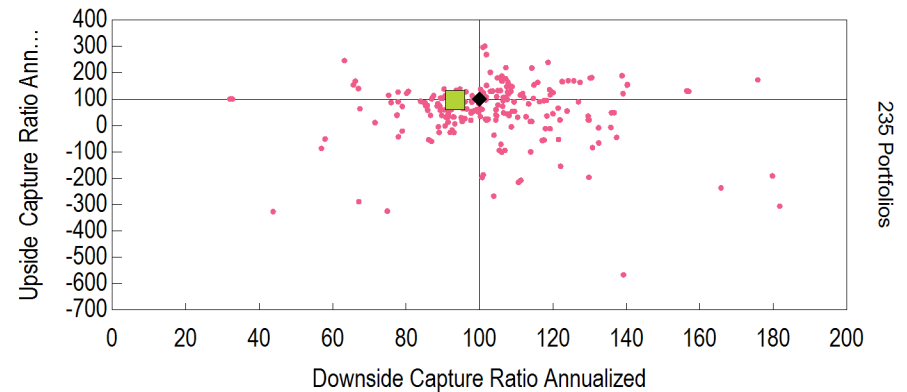
Nuveen ESG Emerging Markets Equity ETF | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
3 Months Ending June 30, 2022



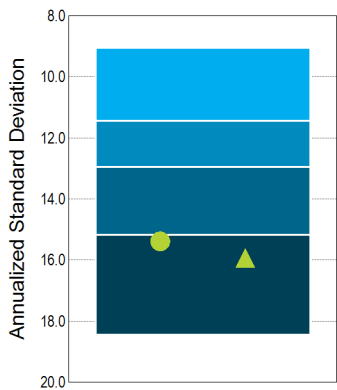
- Nuveen ESG Emerging Markets Equity ETF
- ◆ TIAA ESG Emerging Markets Index
- Diversified Emerging Mkts MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
3 Months Ending June 30, 2022

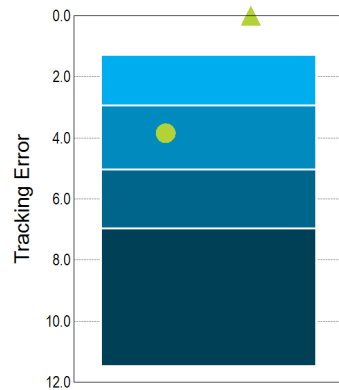


- Nuveen ESG Emerging Markets Equity ETF
- ◆ TIAA ESG Emerging Markets Index
- Diversified Emerging Mkts MStar MF

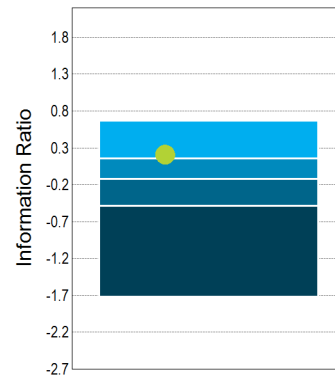
Annualized Standard Deviation



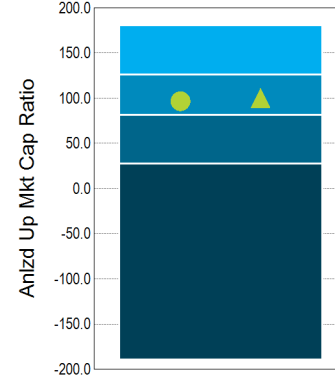
Tracking Error



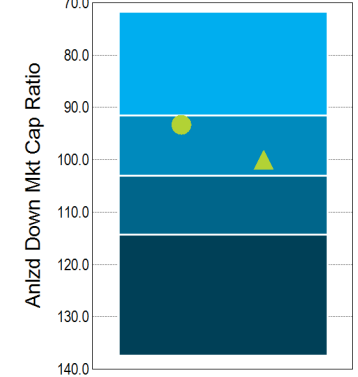
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- Nuveen ESG Emerging Markets Equity ETF
- ▲ TIAA ESG Emerging Markets Index
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Nuveen ESG Emerging Markets Equity ETF | As of June 30, 2022

Characteristics	
	Portfolio
Number of Holdings	208
Weighted Avg. Market Cap. (\$B)	93.25
Median Market Cap. (\$B)	9.04
Price To Earnings	11.74
Price To Book	2.78
Price To Sales	1.23
Return on Equity (%)	15.95
Yield (%)	3.25
Beta	
R-Squared	

Top Holdings	
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	7.26%
TENCENT HOLDINGS LTD	5.32%
ALIBABA GROUP HOLDING LTD	4.38%
MEITUAN DIANPING USD0.00001 A B CLASS ISIN KYG596691041	2.38%
CHINA CONSTRUCTION BANK CORP	2.17%
SUNNY OPTICAL TECHNOLOGY GROUP CO LTD	1.61%
ENN ENERGY HOLDINGS LTD	1.59%
TATA CONSULTANCY SERVICES LTD	1.51%
BYD 'H'	1.42%
FIRST ABU DHABI BANK P.J.S.C	1.42%

Holdings By Sector	
GICS Sector	% of Total
Energy	3.65%
Materials	9.65%
Industrials	5.30%
Consumer Discretionary	15.07%
Consumer Staples	6.92%
Health Care	3.28%
Financials	20.42%
Information Technology	18.17%
Communication Services	11.17%
Utilities	4.23%

Vanguard Short Term Inflation-Protected Securities | As of June 30, 2022

Description:

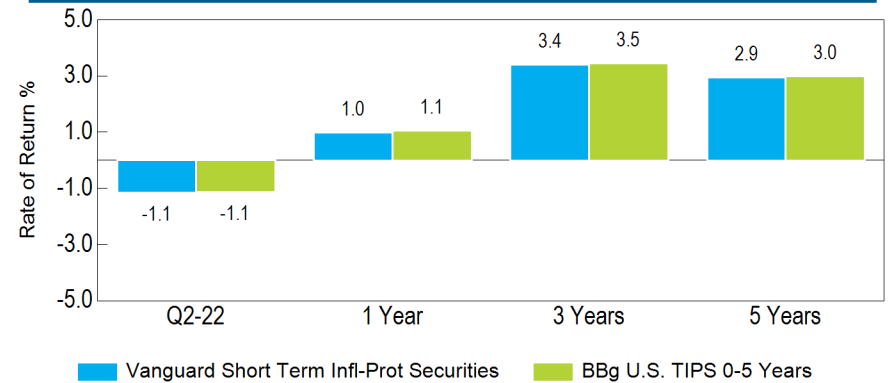
The investment seeks to track the performance of the Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index.

The index is a market-capitalization-weighted index that includes all inflation-protected public obligations issued by the U.S. Treasury with remaining maturities of less than 5 years. The manager attempts to replicate the target index by investing all, or substantially all, of its assets in the securities that make up the index, holding each security in approximately the same proportion as its weighting in the index.

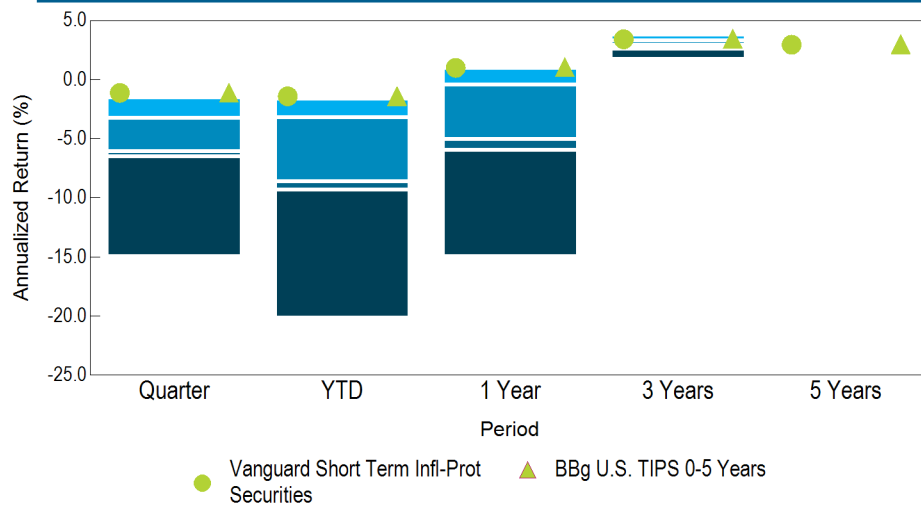
Portfolio Fund Information as of May 31, 2022

Ticker	VTSPX
Morningstar Category	Inflation-Protected Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	17,923.07
% Assets in Top 10 Holdings	57.95
Total Number of Holdings	23
Manager Name	Joshua C. Barrickman
Manager Tenure	10
Expense Ratio	0.04%
Closed to New Investors	No

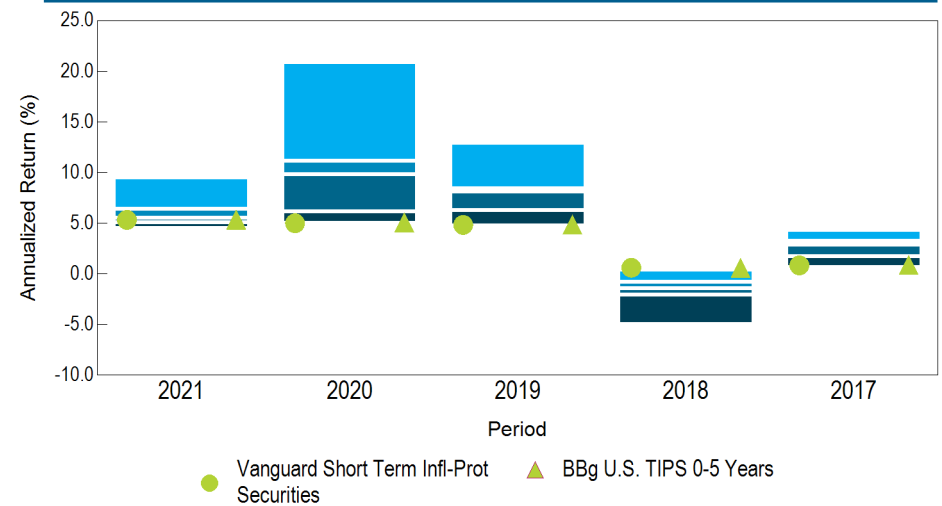
Return Summary



Inflation-Protected Bond MStar MF Return Comparison

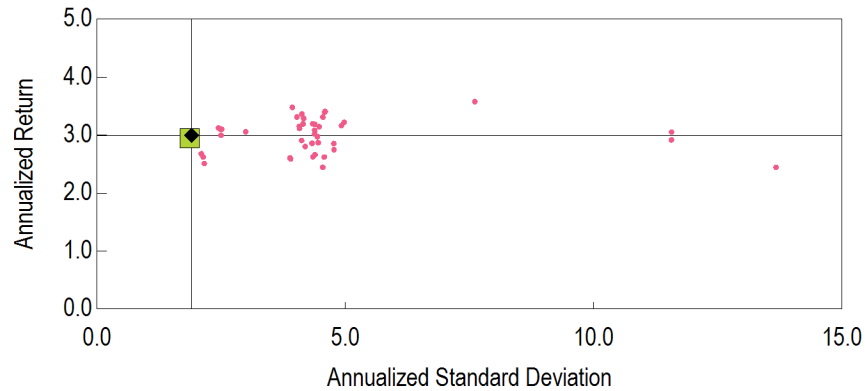


Inflation-Protected Bond MStar MF Return Comparison



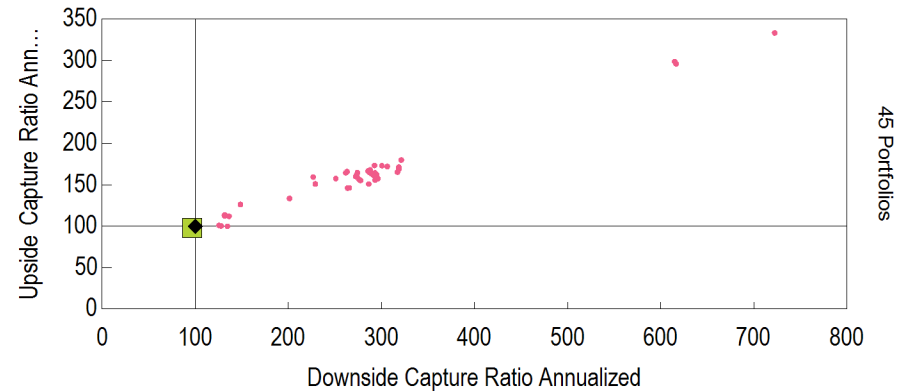
Vanguard Short Term Inflation-Protected Securities | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



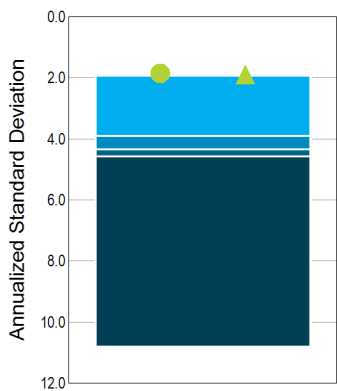
- Vanguard Short Term Inflation-Protected Securities
- ◆ BBg U.S. TIPS 0-5 Years
- Inflation-Protected Bond MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022

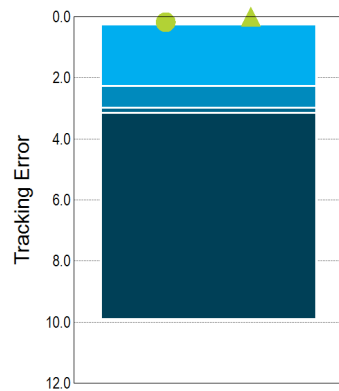


- Vanguard Short Term Inflation-Protected Securities
- ◆ BBg U.S. TIPS 0-5 Years
- Inflation-Protected Bond MStar MF

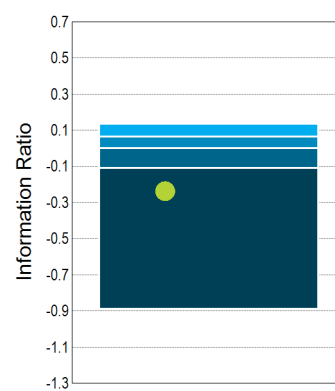
Annualized Standard Deviation



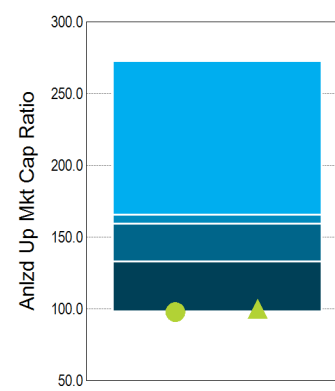
Tracking Error



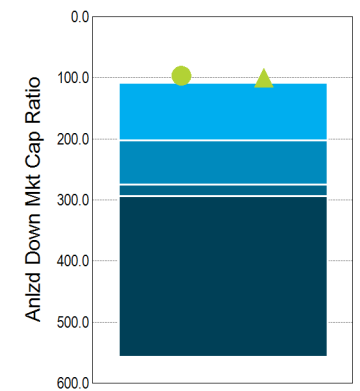
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



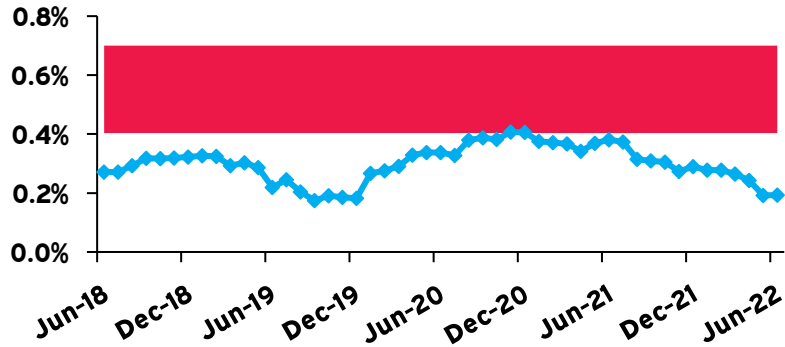
- Vanguard Short Term Inflation-Protected Securities
- ▲ BBg U.S. TIPS 0-5 Years
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

Vanguard Short Term Infl-Prot Securities | As of June 30, 2022

Fund Characteristics as of May 31, 2022		Top Holdings as of May 31, 2022		Fixed Income Sectors as of May 31, 2022	
Sharpe Ratio (3 Year)	1.83	UNITED STATES TREASURY NOTES	6.81%	GOVERNMENT	94.41%
Average Duration	2.53	UNITED STATES TREASURY NOTES	6.57%	MUNICIPAL	0.00%
Average Coupon		UNITED STATES TREASURY NOTES	6.28%	CORPORATE	0.00%
Average Effective Maturity	2.60	UNITED STATES TREASURY NOTES	5.82%	SECURITIZED	0.00%
R-Squared (3 Year)	0.99	UNITED STATES TREASURY NOTES	5.71%	CASH & EQUIVALENTS	5.59%
Alpha (3 Year)	0.01%	UNITED STATES TREASURY NOTES	5.47%	DERIVATIVE	0.00%
Beta (3 Year)	0.96	UNITED STATES TREASURY NOTES	5.34%		
		UNITED STATES TREASURY NOTES	5.18%		
		UNITED STATES TREASURY NOTES	5.06%		

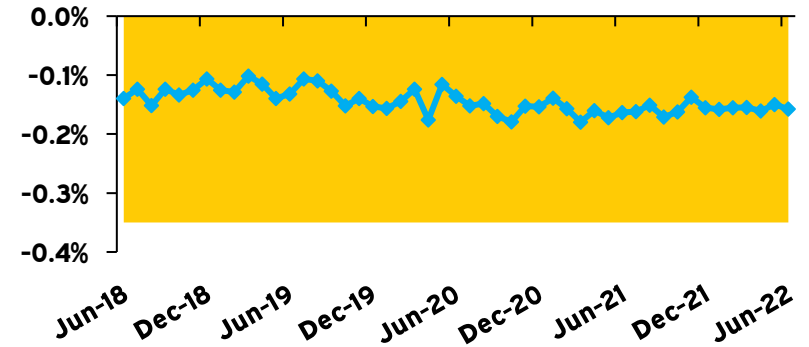
Credit Quality as of June 30, 2022		Maturities as of May 31, 2022		Top Countries as of May 31, 2022	
AAA	99.99%	1 to 3 Years	42.55%	United States	100.00%
AA	0.00%	3 to 5 Years	44.08%		
A	0.00%	5 to 7 Years	0.00%		
BBB	0.00%	7 to 10 Years	0.00%		
BB	0.00%	10 to 15 Years	0.00%		
B	0.00%	15 to 20 Years	0.00%		
Below B	0.00%	20 to 30 Years	0.00%		
Not Rated	0.01%	Greater than 30 Years	0.00%		

Short Term – Rolling 12-Month Tracking Error



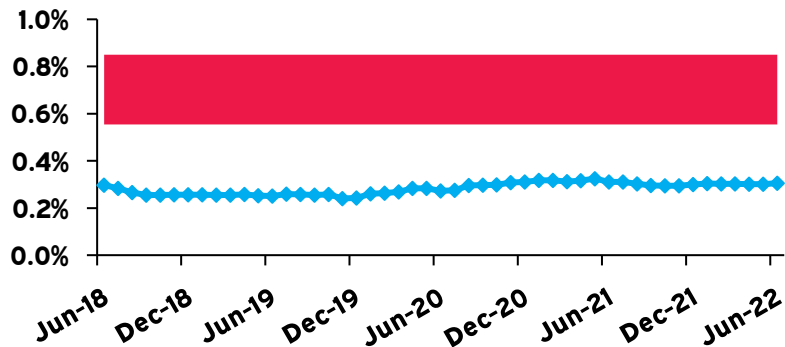
Results fall in the positive range.
Probationary Threshold 0.40%

Long Term – Rolling 60-Month Excess Return



Results fall in the acceptable range.
Probationary Threshold -0.35%

Medium Term – Rolling 36-Month Tracking Error



Results fall in the positive range.
Probationary Threshold 0.55%

Benchmark: Bloomberg US Aggregate TR

Portfolio Performance Summary

	Qtr (%)	1 YR (%)	3 YR (%)	5 YR (%)	Incep (%)	Incep Date
TIAA-CREF Bond Index I	-4.7	-10.5	-1.1	0.7	1.6	11/20/2011
Bloomberg US Aggregate TR	-4.7	-10.3	-0.9	0.9	1.8	

Monitoring Status

Acceptable

Description:

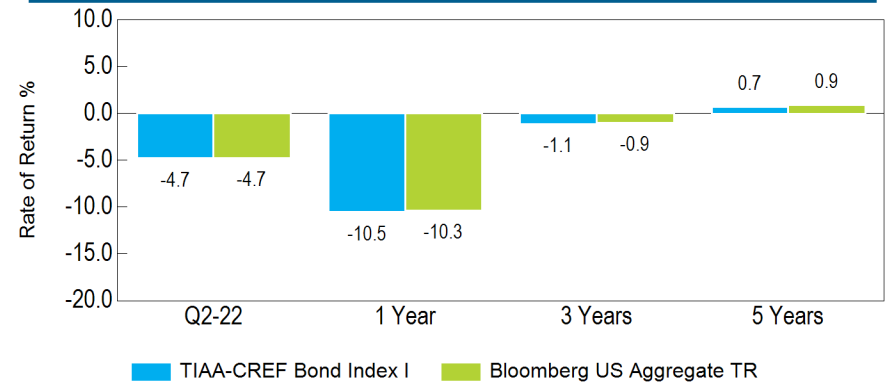
The investment seeks total return that corresponds with the total return of the Bloomberg Barclays U.S. Aggregate Bond Index.

The fund invests at least 80% of its assets in bonds within its benchmark and portfolio tracking index, the Bloomberg U.S. Aggregate Bond Index. The securities purchased by the fund will mainly be high-quality instruments rated in the top four credit categories by Moody's or S&P or deemed to be of the same quality by the advisors using its own credit quality analysis.

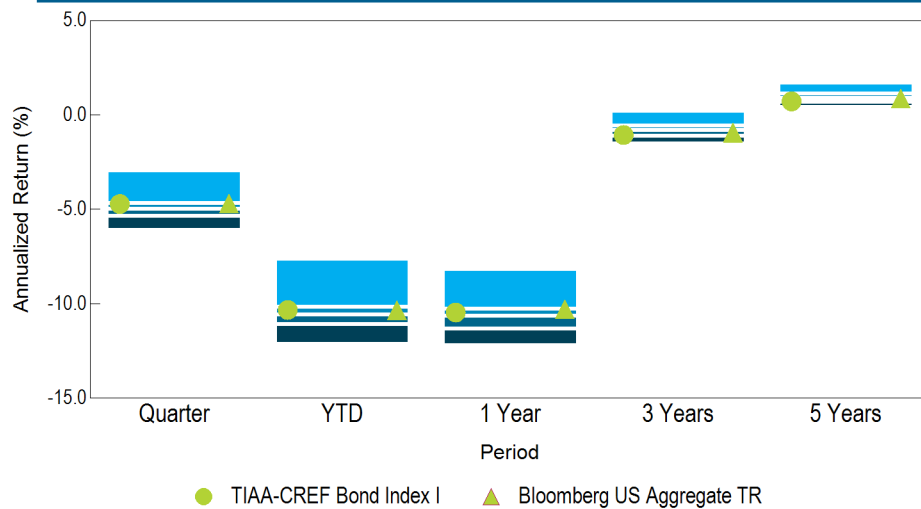
Portfolio Fund Information as of June 30, 2022

Ticker	TBIX
Morningstar Category	Intermediate Core Bond
Average Market Cap (\$mm)	
Net Assets (\$mm)	9,195.10
% Assets in Top 10 Holdings	9.63
Total Number of Holdings	8,145
Manager Name	Lijun (Kevin) Chen
Manager Tenure	13
Expense Ratio	0.08%
Closed to New Investors	No

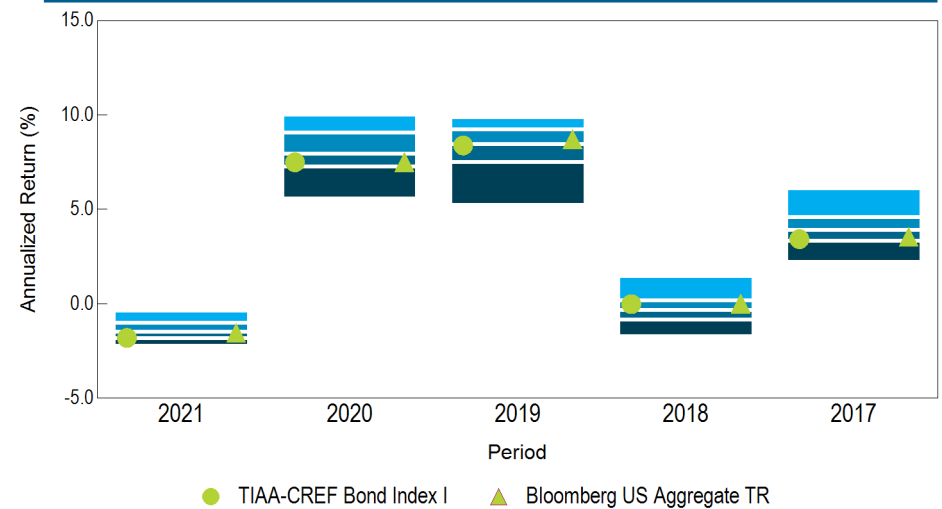
Return Summary



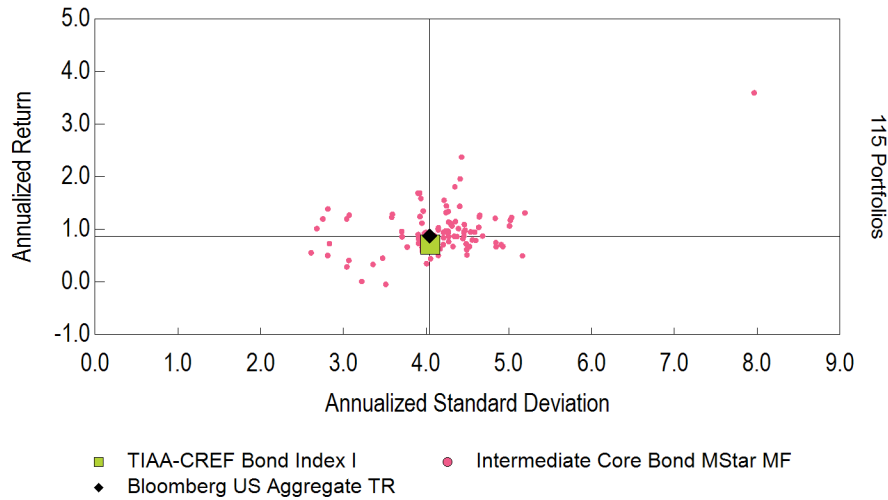
Intermediate Core Bond MStar MF Return Comparison



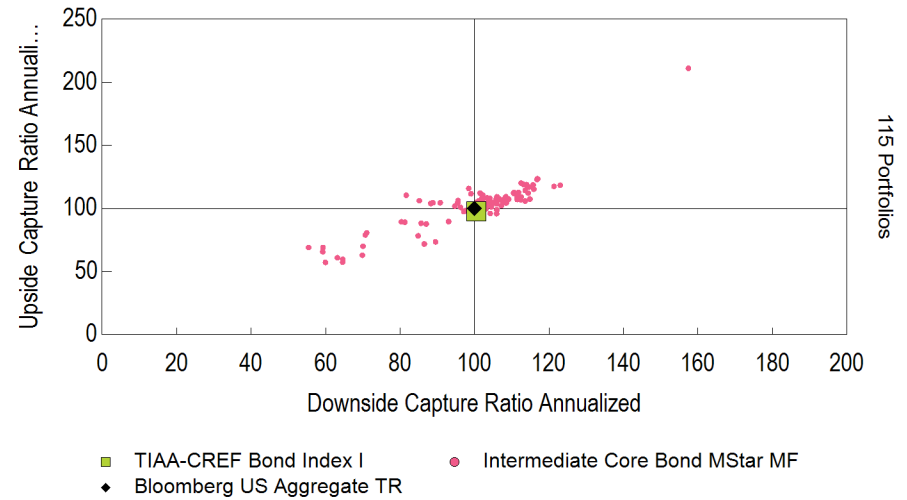
Intermediate Core Bond MStar MF Return Comparison



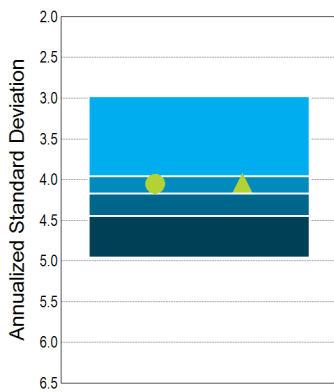
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



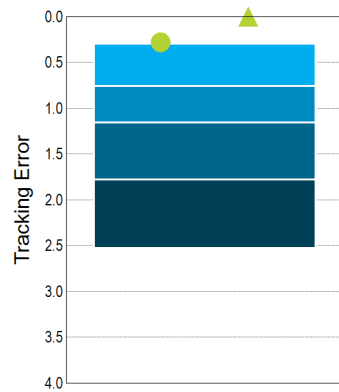
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



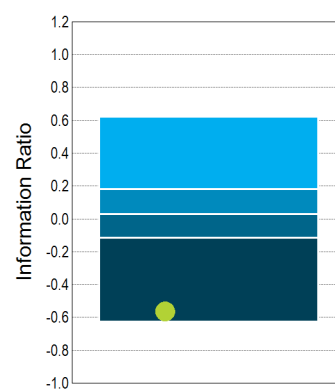
Annualized Standard Deviation



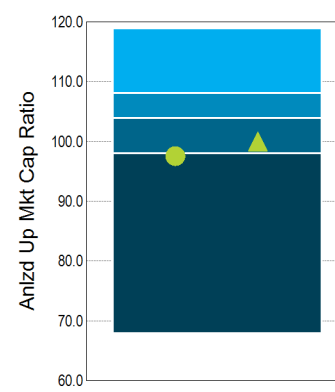
Tracking Error



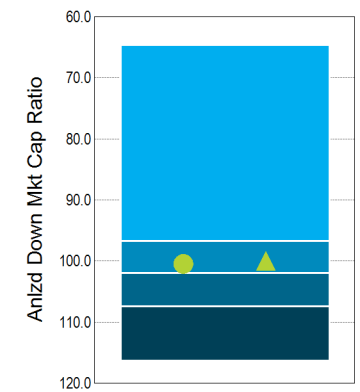
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



● TIAA-CREF Bond Index I ▲ Bloomberg US Aggregate TR ■ 5th to 25th Percentile ■ 25th to Median ■ Median to 75th Percentile ■ 75th to 95th Percentile

Fund Characteristics as of June 30, 2022		Top Holdings as of June 30, 2022		Fixed Income Sectors as of June 30, 2022	
Sharpe Ratio (3 Year)	-0.34	UNITED STATES TREASURY NOTES 2.125%	1.61%	GOVERNMENT	43.69%
Average Duration	6.46	UNITED STATES TREASURY NOTES 0.375%	1.22%	MUNICIPAL	0.77%
Average Coupon	2.47%	UNITED STATES TREASURY NOTES 1.75%	1.04%	CORPORATE	24.18%
Average Effective Maturity	8.73	UNITED STATES TREASURY BONDS 3.5%	0.94%	SECURITIZED	29.82%
R-Squared (3 Year)	1.00	GOVERNMENT NATIONAL MORTGAGE ASSOCIATION 2%	0.87%	CASH & EQUIVALENTS	1.55%
Alpha (3 Year)	-0.01%	UNITED STATES TREASURY NOTES 2.25%	0.86%	DERIVATIVE	0.00%
Beta (3 Year)	1.01	FEDERAL NATIONAL MORTGAGE ASSOCIATION 2.5%	0.81%		
		UNITED STATES TREASURY NOTES 1.125%	0.79%		
		UNITED STATES TREASURY NOTES 0.75%	0.76%		
		UNITED STATES TREASURY NOTES 1.75%	0.74%		

Credit Quality as of June 30, 2022		Maturities as of June 30, 2022		Top Countries as of June 30, 2022	
AAA	73.15%	1 to 3 Years	15.90%	United States	93.41%
AA	3.18%	3 to 5 Years	19.08%	Supranational	1.41%
A	10.72%	5 to 7 Years	8.32%	United Kingdom	0.84%
BBB	12.93%	7 to 10 Years	8.69%	Canada	0.83%
BB	0.01%	10 to 15 Years	4.71%	Japan	0.67%
B	0.00%	15 to 20 Years	6.94%	Germany	0.39%
Below B	0.00%	20 to 30 Years	33.27%	Netherlands	0.35%
Not Rated	0.01%	Greater than 30 Years	2.18%	Mexico	0.28%
				Belgium	0.24%
				South Korea	0.15%

Nuveen ESG US Aggregate Bond ETF | As of June 30, 2022

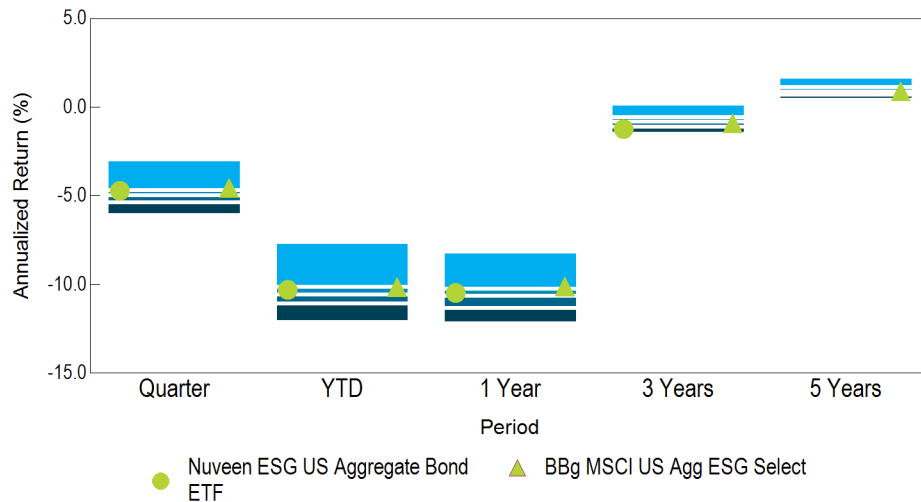
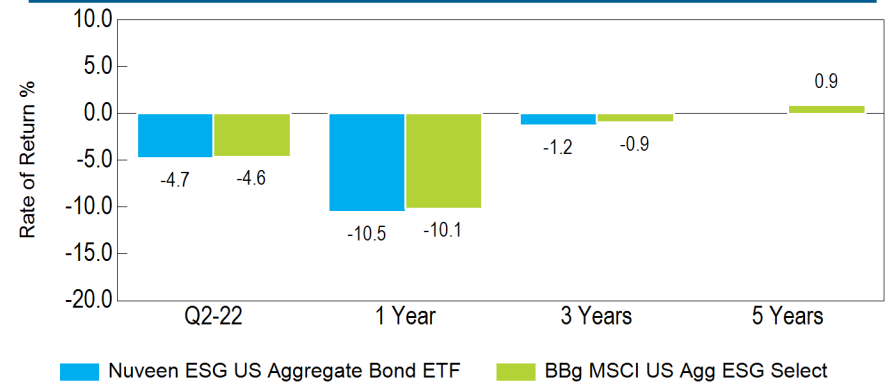
Description:

The investment seeks to track the investment results, before fees and expenses, of the Bloomberg MSCI U.S. Aggregate ESG Select Index (the "index"). Under normal market conditions, the fund invests at least 80% of the sum of its net assets and the amount of any borrowings for investment purposes in component securities of the index. The index utilizes certain environmental, social, and governance ("ESG") criteria to select from the securities included in the Bloomberg U.S. Aggregate Bond Index (the "base index"), which is designed to broadly capture the U.S. investment grade, taxable fixed income market.

Account Information

Account Name	Nuveen ESG US Aggregate Bond ETF
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	10/01/17
Account Type	
Benchmark	BBg MSCI US Agg ESG Select
Universe	Intermediate Core Bond MStar MF

Return Summary

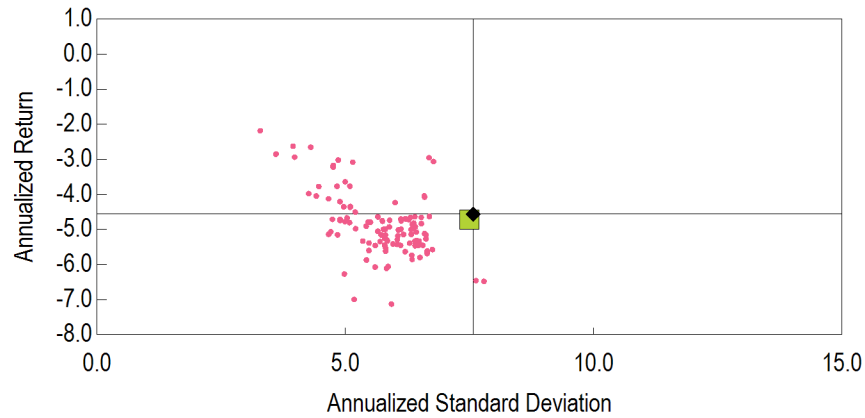


Intermediate Core Bond MStar MF Return Comparison



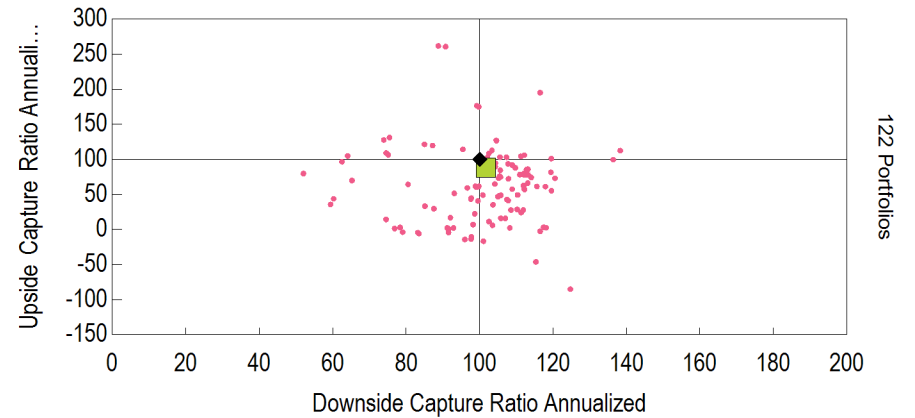
Nuveen ESG US Aggregate Bond ETF | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
3 Months Ending June 30, 2022



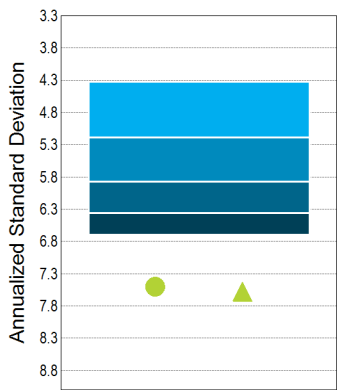
- Nuveen ESG US Aggregate Bond ETF
- Intermediate Core Bond MStar MF
- ◆ BBg MSCI US Agg ESG Select

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
3 Months Ending June 30, 2022



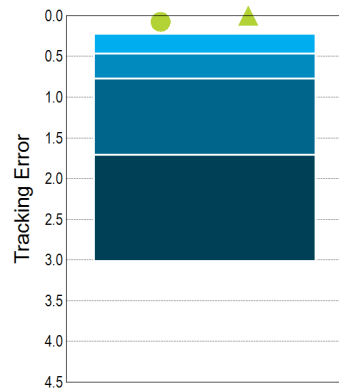
- Nuveen ESG US Aggregate Bond ETF
- Intermediate Core Bond MStar MF
- ◆ BBg MSCI US Agg ESG Select

Annualized Standard Deviation



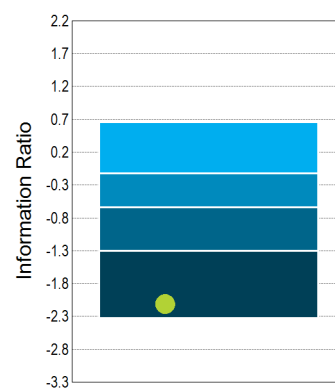
- Nuveen ESG US Aggregate Bond ETF
- ▲ BBg MSCI US Agg ESG Select

Tracking Error



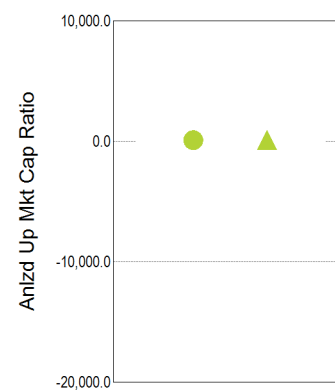
- ▲ BBg MSCI US Agg ESG Select
- 5th to 25th Percentile

Information Ratio



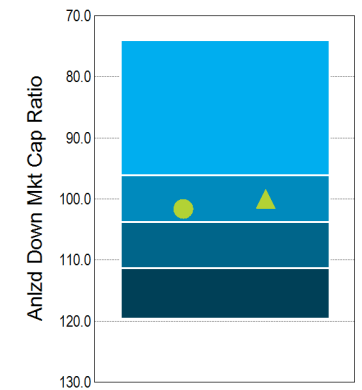
- 25th to Median

Anlzd Up Mkt Cap Ratio



- Median to 75th Percentile

Anlzd Down Mkt Cap Ratio



- 75th to 95th Percentile

	Portfolio Q2-22
Fixed Income Characteristics	
Yield to Maturity	3.75
Average Quality	AAA

	Portfolio Q2-22
US Sector Allocation	
UST/Agency	43.31
Corporate	27.79
Other	28.86
Cash	0.04

	Portfolio Q2-22
Credit Quality Allocation	
AAA	68.55
AA	3.73
A	13.81
BBB	13.18
Not Rated	0.73

Top Holdings	
FNMA 2.500 2051-11-01 USD	2.82%
UST 2% SNR 31/05/2024 USD1000	1.83%
UST 2.75% SNR 15/08/47 USD1000	1.63%
UST 0% NTS 30/11/23 USDBK-2023	1.54%
UST 0% NTS 30/09/25 USDAD-2025	1.42%
UST 0% NTS 31/10/23 USDBH-2023	1.33%
UST 0% NTS 31/01/26 USDU-2026	1.27%
UST 2.125% SNR 30/09/24 USD1000	1.21%
UST 0% NTS 30/04/26 USDY-2026	1.17%
UST BDS USD	1.14%

Nuveen ESG High Yield Corp Bond ETF | As of June 30, 2022

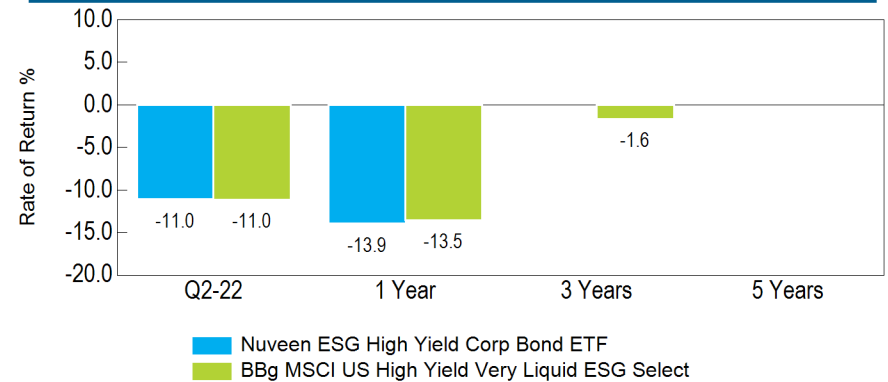
Description:

The investment seeks to track the investment results, before fees and expenses, of the Bloomberg MSCI U.S. High Yield Very Liquid ESG Select Index. The index utilizes certain environmental, social, and governance ("ESG") criteria to select from the securities included in the Bloomberg U.S. High Yield Very Liquid Index (the "Base Index"), which is designed to broadly capture the U.S. dollar-denominated, high yield, fixed-rate corporate bond market. Under normal market conditions, it invests at least 80% of the sum of its net assets and the amount of any borrowings for investment purposes in component securities of the index.

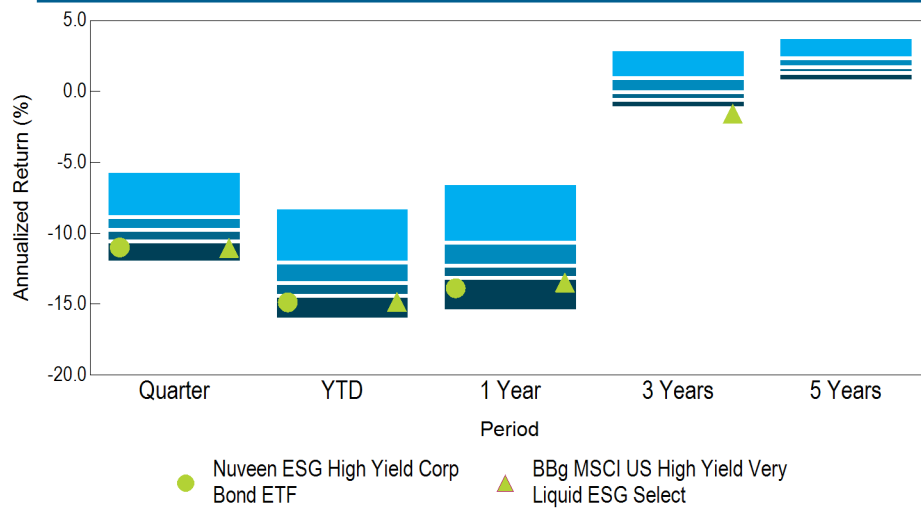
Account Information

Account Name	Nuveen ESG High Yield Corp Bond ETF
Account Structure	Mutual Fund
Investment Style	Passive
Inception Date	10/01/19
Account Type	
Benchmark	BBg MSCI US High Yield Very Liquid ESG Select
Universe	High Yield Bond MStar MF

Return Summary



High Yield Bond MStar MF Return Comparison

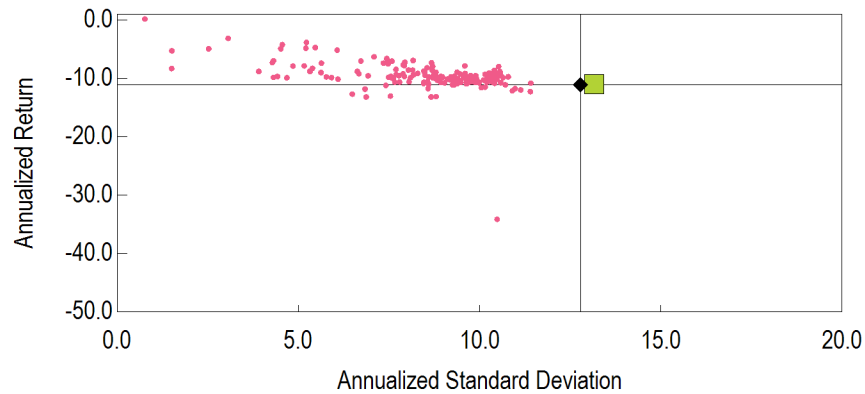


High Yield Bond MStar MF Return Comparison



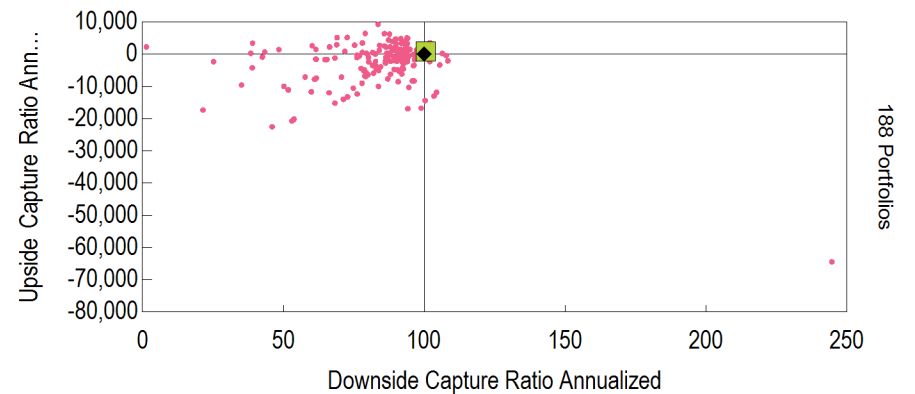
Nuveen ESG High Yield Corp Bond ETF | As of June 30, 2022

Annualized Return vs. Annualized Standard Deviation
3 Months Ending June 30, 2022



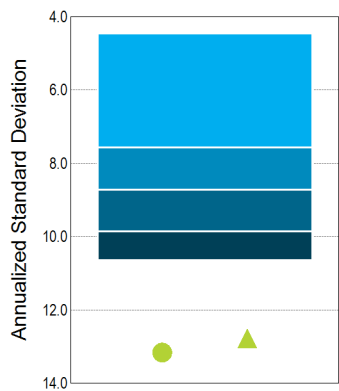
- Nuveen ESG High Yield Corp Bond ETF
- ◆ BBg MSCI US High Yield Very Liquid ESG Select
- High Yield Bond MStar MF

Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
3 Months Ending June 30, 2022

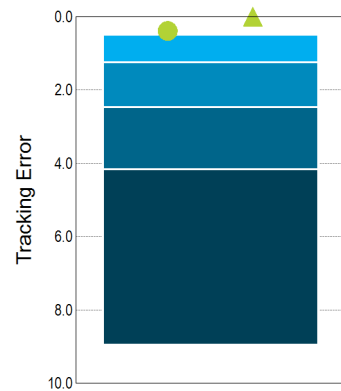


- Nuveen ESG High Yield Corp Bond ETF
- ◆ BBg MSCI US High Yield Very Liquid ESG Select
- High Yield Bond MStar MF

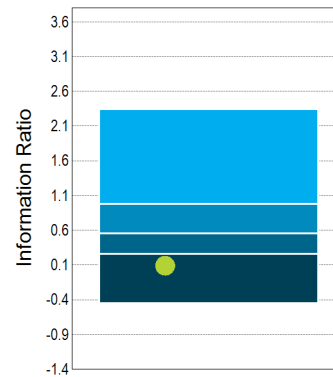
Annualized Standard Deviation



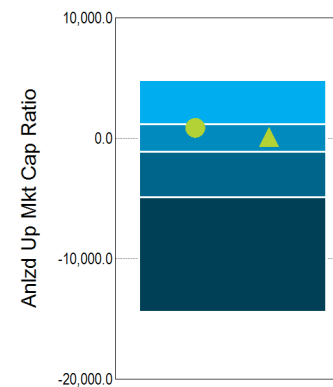
Tracking Error



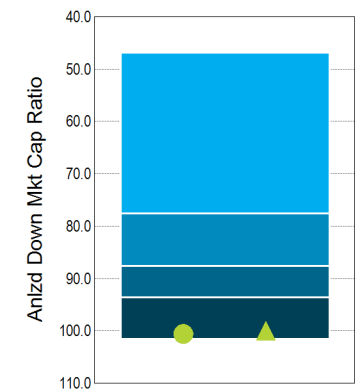
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



- Nuveen ESG High Yield Corp Bond ETF
- ▲ BBg MSCI US High Yield Very Liquid ESG Select
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

	Portfolio Q2-22
Fixed Income Characteristics	
Average Duration	4.46
Average Quality	B

	Portfolio Q2-22
Credit Quality Allocation	
BB	37.43
B	52.60
Not Rated	9.97

	Portfolio Q2-22
US Sector Allocation	
Corporate	90.46
Foreign	7.38
Other	2.16

Top Holdings	
Nielsen Finance LLC/Nielsen Finance Co SNR PIDI NTS USD (144A)	1.97%
Select Medical Corporation 6.25% GTD SNR 15/08/26 USD	1.50%
CASH - USD	1.33%
Trivium Packaging Finance BV 5.5% GTD 15/08/2026 USD	1.23%
Prime Securities Services Borrower, LLC and Prime Finance, Inc. 6.25% SNR SEC 15/01/28 USD	1.21%
Centene Corporation 4.625% SNR 15/12/29 USD1000	1.20%
Weatherford International Ltd Bermuda SNR NTS USD (144A)	1.20%
WEATHERFORD INTERNATIONA SR SECURED 144A 0928 6.5	1.11%
Performance Food Group Company 4.25% SNR 01/08/25 USD144A	1.10%
UBER TECHNOLOGIES INC 7.5% GTD SNR 15/05/2025 USD	0.99%

Vanguard Real Estate Index | As of June 30, 2022

Description:

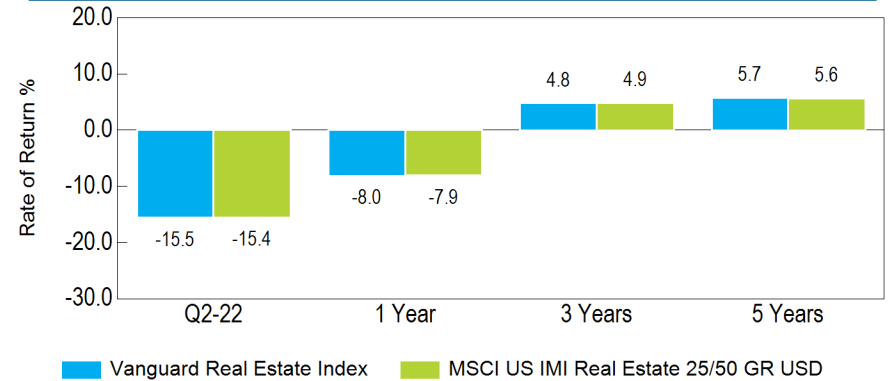
The investment seeks to provide a high level of income and moderate long-term capital appreciation by tracking the performance of the MSCI US Investable Market Real Estate 25/50 Index that measures the performance of publicly traded equity REITs and other real estate-related investments.

The advisor attempts to track the index by investing all, or substantially all, of its assets-either directly or indirectly through a wholly owned subsidiary, which is itself a registered investment company-in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund is non-diversified.

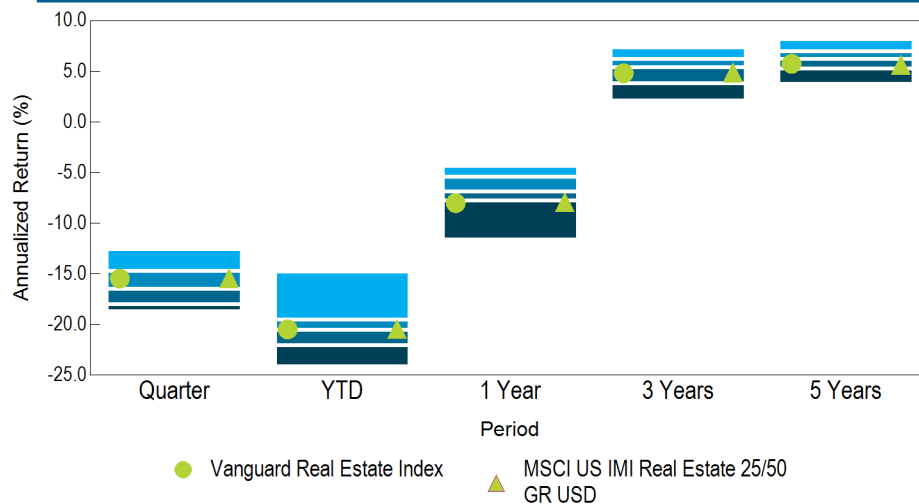
Portfolio Fund Information as of June 30, 2022

Ticker	VGSNX
Morningstar Category	Real Estate
Average Market Cap (\$mm)	20,968.80
Net Assets (\$mm)	10,781.17
% Assets in Top 10 Holdings	45.88
Total Number of Holdings	173
Manager Name	Gerard C. O'Reilly
Manager Tenure	26
Expense Ratio	0.10%
Closed to New Investors	No

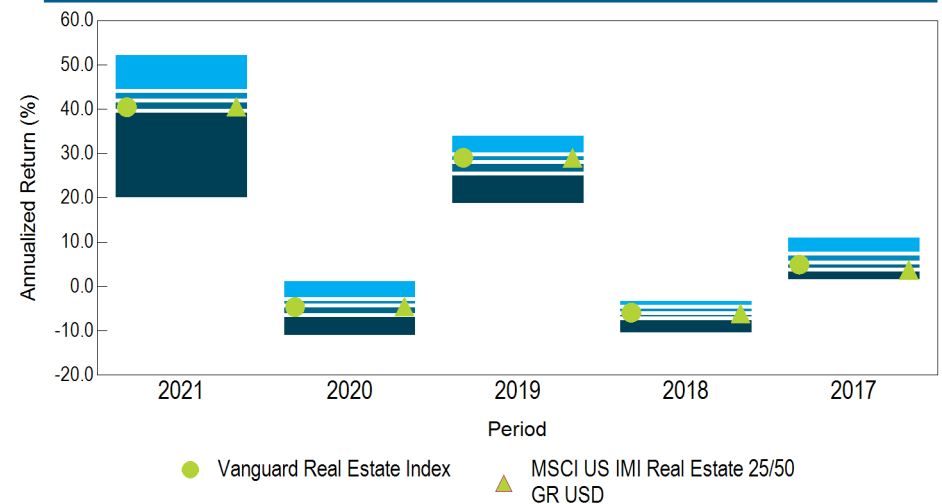
Return Summary



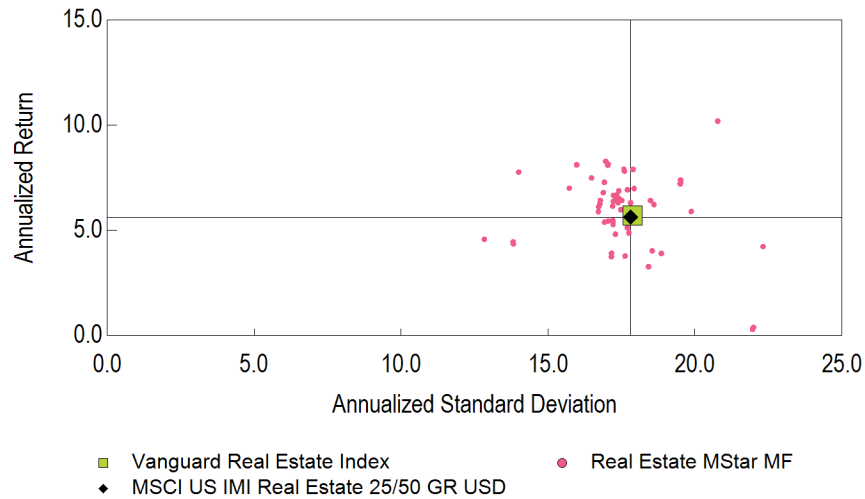
Real Estate MStar MF Return Comparison



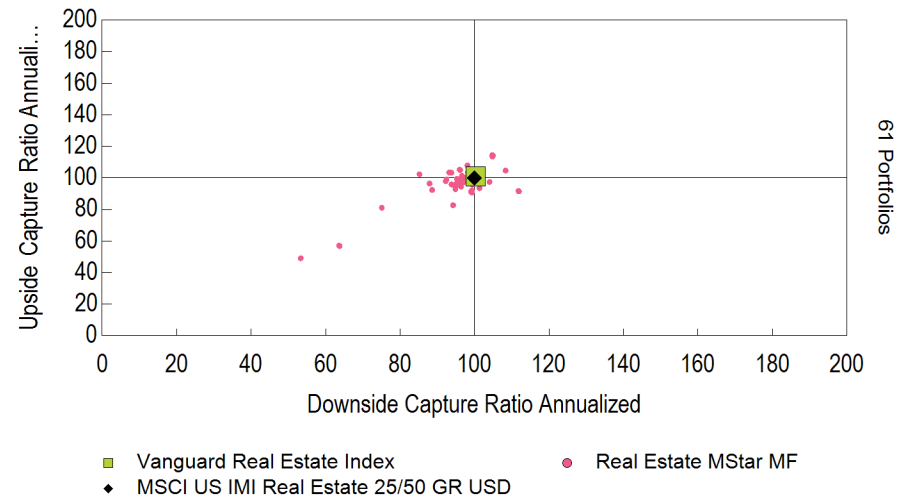
Real Estate MStar MF Return Comparison



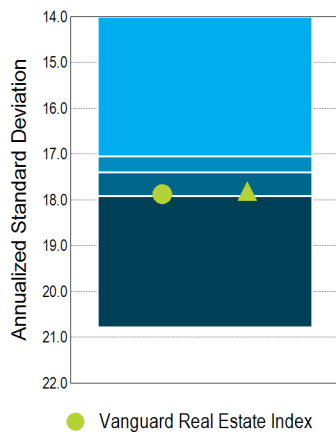
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



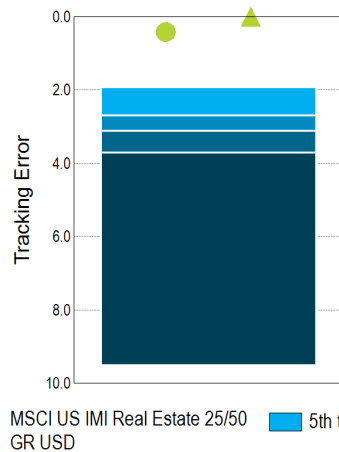
Upside Capture Ratio Annualized vs. Downside Capture Ratio Annualized
5 Years Ending June 30, 2022



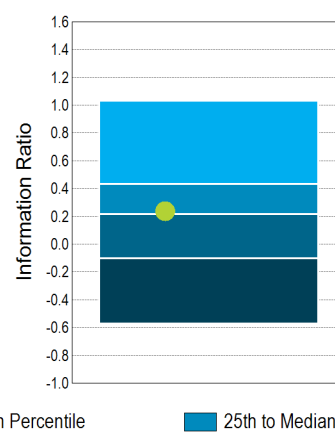
Annualized Standard Deviation



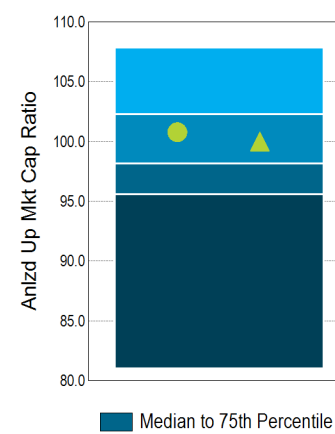
Tracking Error



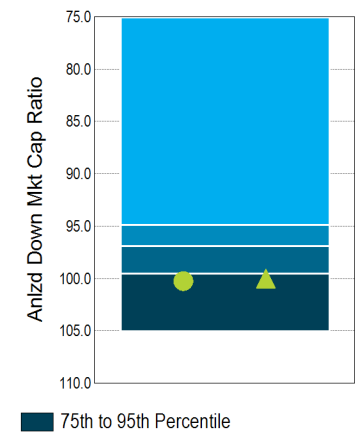
Information Ratio



Anlzd Up Mkt Cap Ratio



Anlzd Down Mkt Cap Ratio



Fund Characteristics as of June 30, 2022

Sharpe Ratio (3 Year)	0.21
Average Market Cap (\$mm)	20,968.80
Price/Earnings	32.56
Price/Book	2.31
Price/Sales	4.37
Price/Cash Flow	13.16
Dividend Yield	3.36
Number of Equity Holdings	169
R-Squared (3 Year)	1.00
Alpha (3 Year)	-0.01%

Sector Allocation as of June 30, 2022

BASIC MATERIALS	0.00%
COMMUNICATION SERVICES	0.53%
CONSUMER CYCLICAL	0.00%
CONSUMER DEFENSIVE	0.00%
ENERGY	0.00%
FINANCIAL SERVICES	0.00%
HEALTHCARE	0.00%
INDUSTRIALS	0.00%
REAL ESTATE	99.41%
TECHNOLOGY	0.06%
UTILITIES	0.00%

Top Holdings as of June 30, 2022

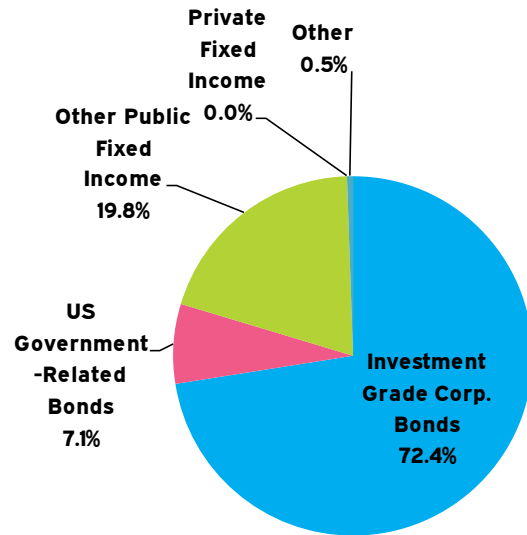
VANGUARD REAL ESTATE II INDEX	11.59%
AMERICAN TOWER CORP	7.52%
PROLOGIS INC	5.62%
CROWN CASTLE INTERNATIONAL CORP	4.70%
EQUINIX INC	3.85%
PUBLIC STORAGE	3.18%
REALTY INCOME CORP	2.61%
WELLTOWER OP LLC	2.29%
DIGITAL REALTY TRUST INC	2.27%
SBA COMMUNICATIONS CORP	2.25%

Top Countries as of June 30, 2022

United States	99.96%
Canada	0.04%

Sensitivity Analyses: T-C Life Funding Agreements

T-C Life Funding Agreement



Monitoring Status
Positive

	Criteria	Status as of 6/30/22
Financial Strength	Moody's = Aa2 Standard & Poor's = AA A.M. Best = A+ Fitch = AA-	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA
Mortgage Portfolio*	100% in Good Standing	100% in Good Standing*
Bond Portfolio*	At least 90% Investment Grade	99.6% in Investment Grade
Account Diversification*	Portfolio is diversified across asset classes and types	Portfolio is diversified across asset classes and types (see chart above)

*Portfolio did not contain any commercial mortgages.
Source: TIAA-CREF

Summary Points

Summary Points

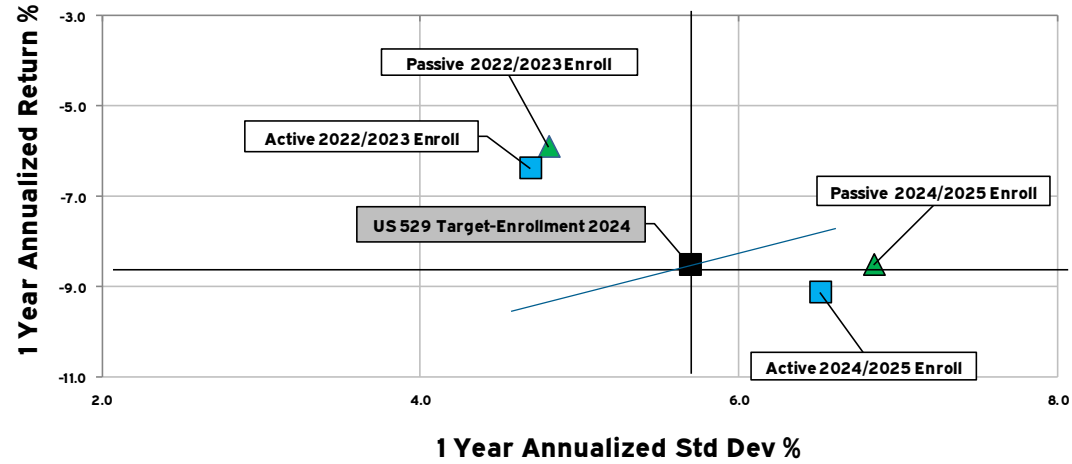
	Criteria Utilized for Performance Watch Status			
	On Watch	Short-term	Medium-term	Long-term
T. Rowe Price Instl Large Cap Growth	Yes	Yes	Yes	---
T. Rowe Price Instl Large Cap Value	No	---	---	---
TIAA-CREF Quant Small Cap Equity	No	---	---	---
TIAA-CREF Social Choice Equity	No	---	---	---
DFA Large Cap International	No	---	---	---
DFA Emerging Markets Core Equity	No	---	---	---
Metropolitan West Total Return Bond	No	---	---	---
PIMCO Real Return	No	---	---	---
PIMCO Income	No	---	---	---
T. Rowe Price Instl Floating Rate	No	---	---	---
TIAA-CREF Equity Index	No	---	---	---
TIAA-CREF S&P 500 Index	No	---	---	---
TIAA-CREF International Eq Index	No	---	---	---
TIAA-CREF Emerging Markets Eq Index	No	---	---	---
TIAA-CREF Bond Index	No	---	---	---
T-C Life Funding Agreements	No	N/A	N/A	N/A
Total	1 of 16	1 of 15 eligible funds	1 of 15 eligible funds	0 of 15 eligible funds

- Performance-based watch status criteria is on a *relative* basis.
 - Absolute results may still be negative.
- Criteria set up to evaluate managers over differing time periods.
- Long-term analysis is presented for informational value to provide context but is not a factor used to determine an Underlying Investment's status.

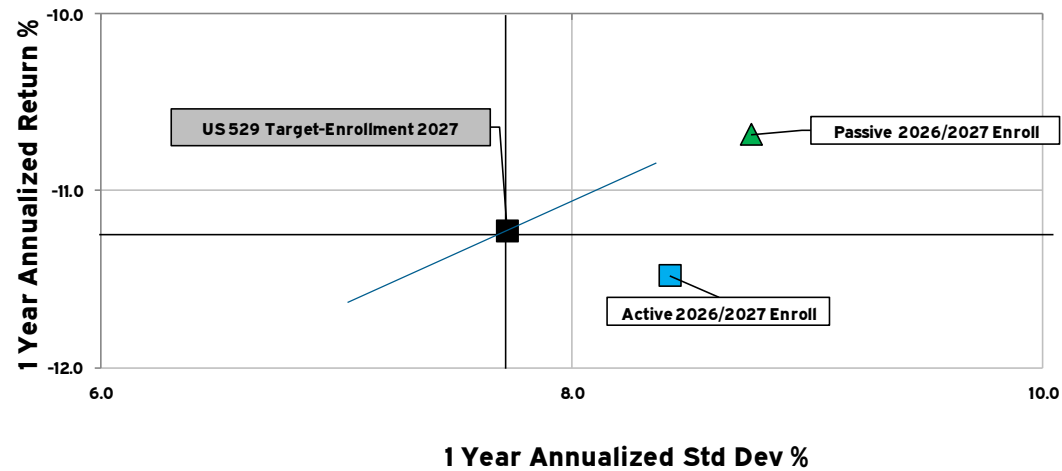
Enrollment Date Fund Performance

Enrollment Date Portfolios Performance

Morningstar Target Date 2024: 1 Year Risk/Return as of 6/30/2022

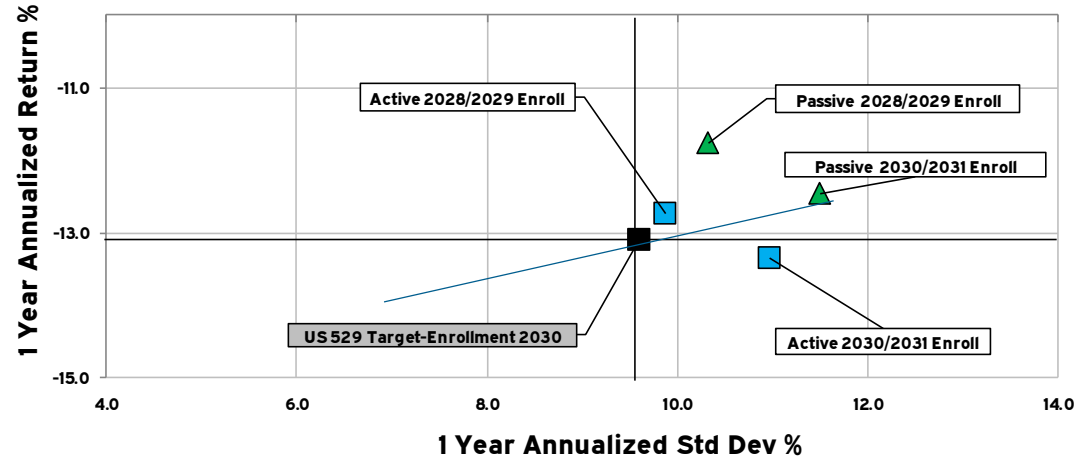


Morningstar Target Date 2027: 1 Year Risk/Return as of 6/30/2022

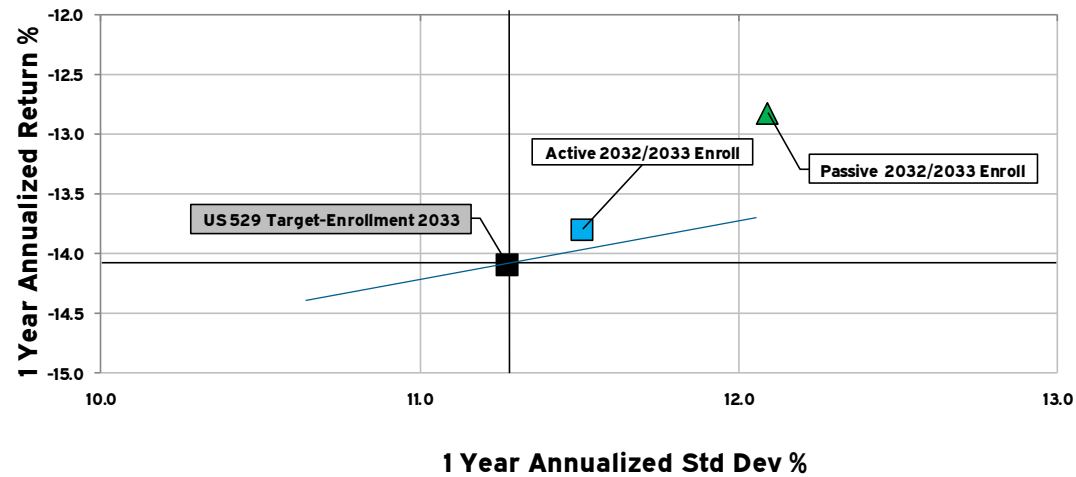


Enrollment Date Portfolios Performance

Morningstar Target Date 2030: 1 Year Risk/Return as of 6/30/2022

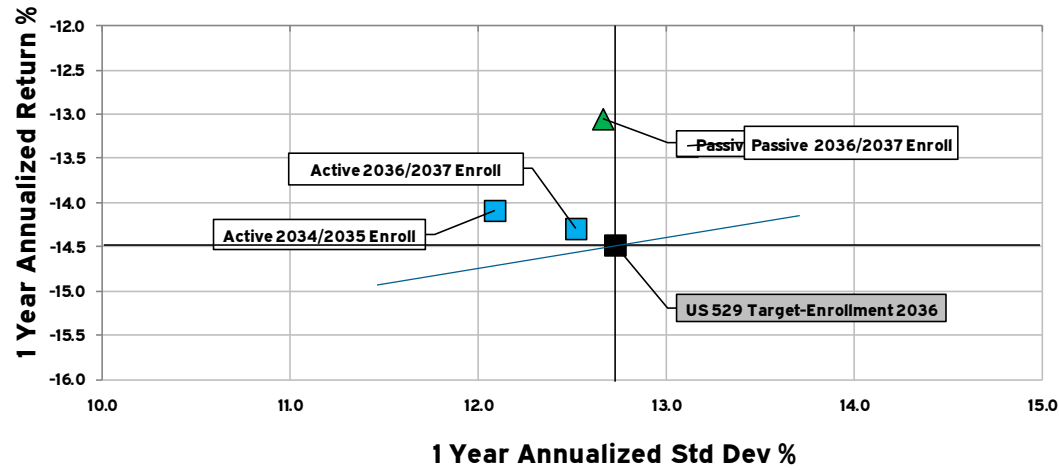


Morningstar Target Date 2033: 1 Year Risk/Return as of 6/30/2022

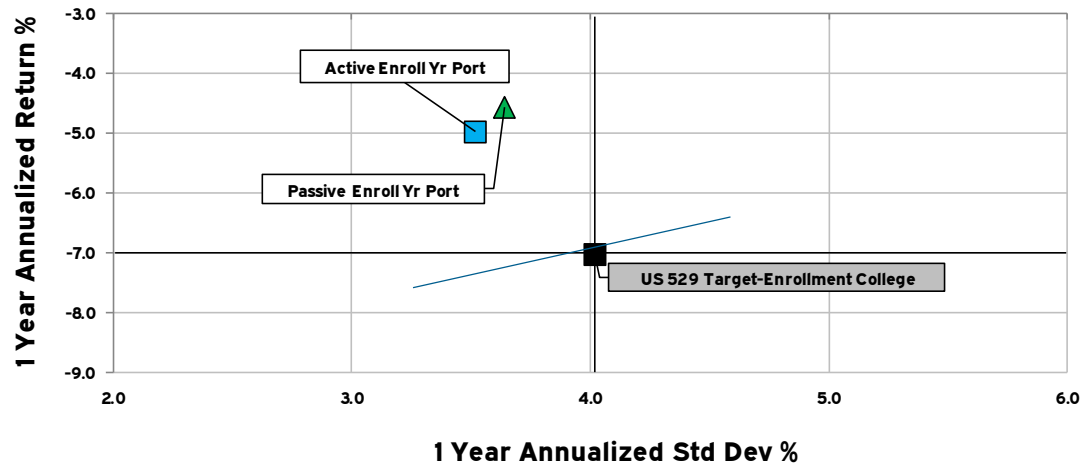


Enrollment Date Portfolios Performance

Morningstar Target Date 2036: 1 Year Risk/Return as of 6/30/2022

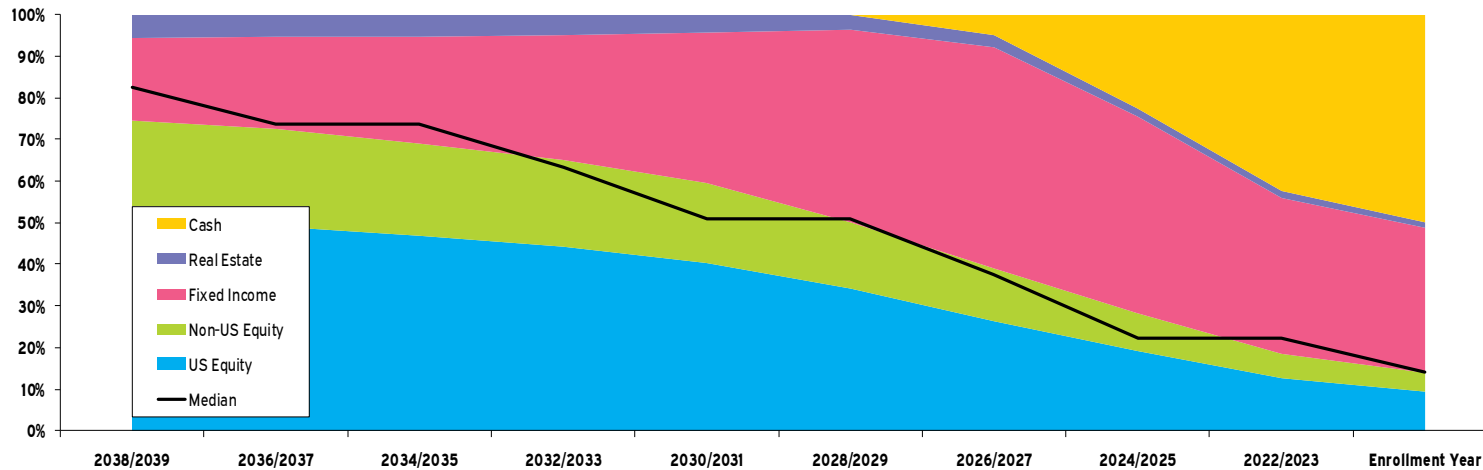


Morningstar Target Date 2039: 1 Year Risk/Return as of 6/30/2022

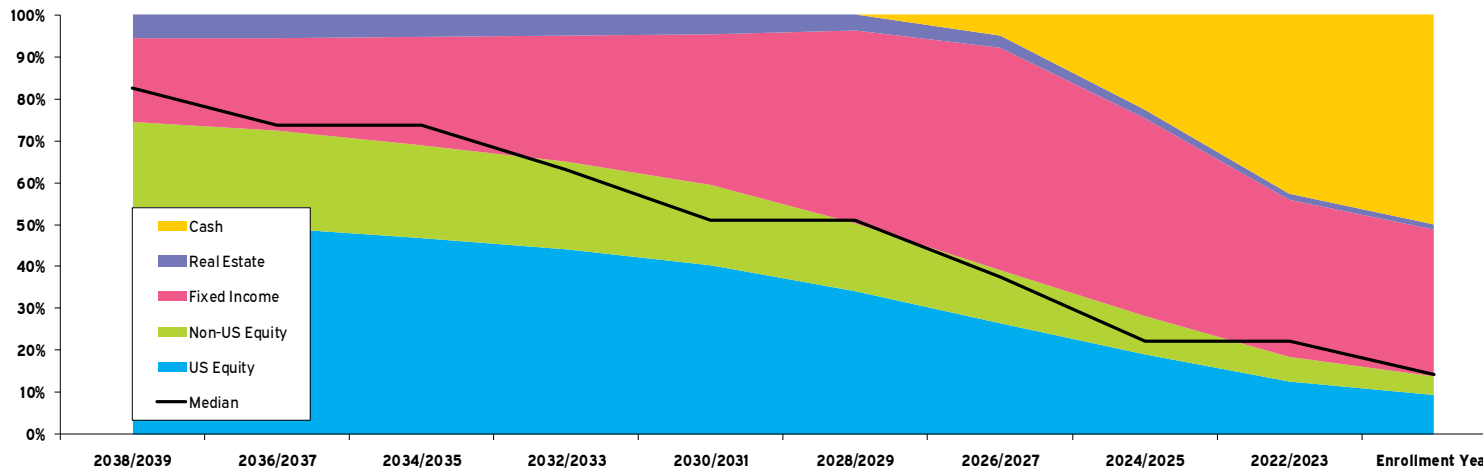


ScholarShare Enrollment Date Glidepath

Active Enrollment Date Portfolio

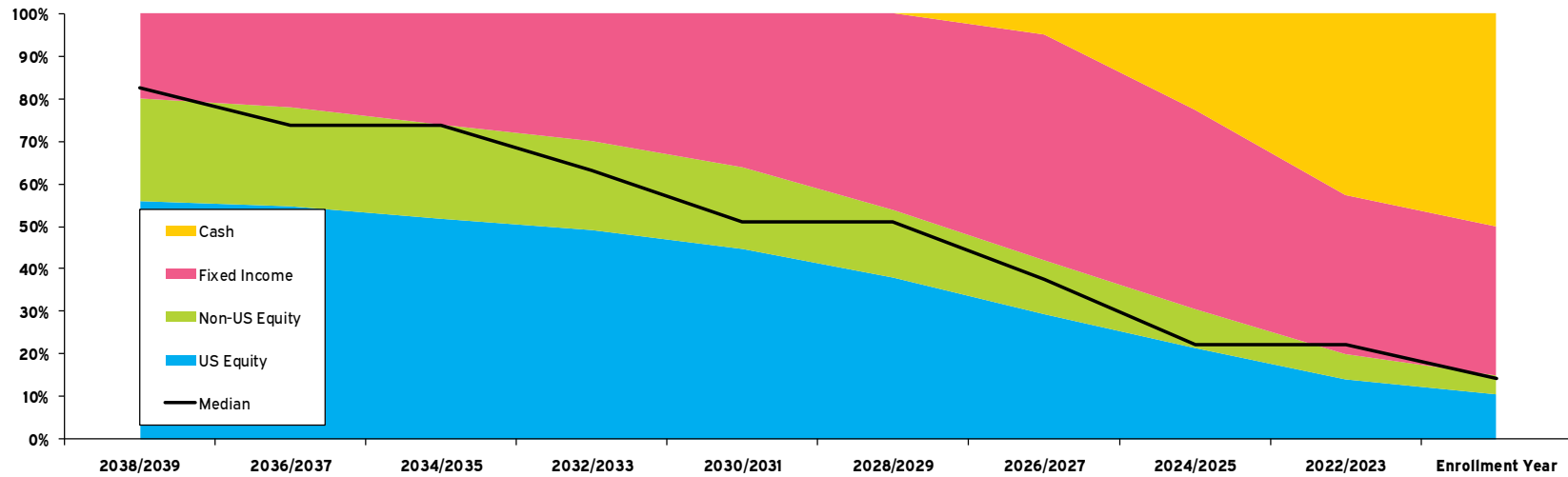


Passive Enrollment Date Portfolio



ScholarShare Enrollment Date Glidepath

ESG Enrollment Date Portfolio



Appendix

Glossary

Annualized Return – The average annual return of either the manager or its benchmark.

Excess Performance – Manager returns in excess of the benchmark returns.

Standard Deviation – A measure of dispersion of a set of data from its mean.

Excess Standard Deviation – A measure of the volatility of the average annual difference between the manager's return and the benchmark's return, same as tracking error.

VRR – Value Relative Ratio – Is calculated as: $\text{Manager Cumulative Return} / \text{Benchmark Cumulative Return}$.

Disclaimer

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD-LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

MEMORANDUM

TO: ScholarShare Investment Board (SIB)
FROM: Eric White, CFA; Kay Ceserani; Inwoo Hwang;
Meketa Investment Group
DATE: September 13, 2022
RE: Review of Underlying Funds Qualifying for “Watch” Status

Summary

Meketa Investment Group (“Meketa”) has conducted a review of the underlying funds in the ScholarShare 529 Plan. The review included a quantitative analysis of the underlying funds based on specific performance criteria (as per the *Monitoring Procedures and Criteria*) as well as a qualitative analysis, including a review of organizational concerns, stability of personnel, changes in investment objectives, etc. This memo summarizes the period from April 1, 2022, through June 30, 2022.

At the end of the period, 2 funds continue to qualify for watch (TIAA-CREF Emerging Markets Equity Index, T. Rowe Large Cap Growth) though we continue to recommend SIB forgo watch status for the TIAA-CREF Emerging Markets Equity Index as the spike in tracking error was caused by a technical market anomaly discussed at the March 23, 2022 meeting. T. Rowe Price Large Cap Growth fund was placed on Watch at the June 22, 2022 meeting. Meketa recommends the fund remain on Watch and be closely monitored over coming quarters. We will report any material findings to SIB.

Qualifying for Watch

1. TIAA-CREF Emerging Markets Equity Index
2. T. Rowe Large Cap Growth

Performance of Funds on Watch Status As of 6/30/2022

Funds on Watch Status	Board Action Date	Watch Status Start Date	No. Months Since Watch Began	Excess Perf. Since Watch Began	Plan Assets (\$mil)	% of Plan Assets
T. Rowe Large Cap Growth		4/1/2022	3	-2.0	280.2	2.4%

Discussion

T. Rowe Large Cap Growth

Investment Role in Program

The T. Rowe Large Cap Growth Fund is one of two actively managed US Large Cap Funds in the program. The fund holds a \$331.3M of fund assets.

The T. Rowe Large Cap Growth Fund seeks long-term capital appreciation by investing in common stock of large cap growth companies.

History and Organizational Structure

T. Rowe Price serves as the manager and advisor of the fund. Headquartered in Maryland, T. Rowe Price has over \$1 trillion in assets under management.

Investment Team

Taymour Tamaddon has served as the fund manager since 2017. Mr. Tamaddon has managed this fund since 2017 and has been with the firm for since 2004. He earned an MBA from Dartmouth College and is also a CFA charter holder.

Investment Philosophy and Approach

The fund uses a growth style of investing. The fund invests utilizes a bottom-up investment approach on companies that fall in the large-cap U.S. investment universe, defined as companies in the Russel 1000 Growth Index. The team seeks companies with an above-average rate of earnings and cash flow growth, as well as lucrative strategic positioning to drive future earnings growth. The fund is non-diversified as the fund may invest a larger percentage of assets in a smaller number of securities than a diversified fund. The fund looks for companies with one of more of the following characteristics:

- Above average growth rate: seek companies with superior growth in earnings and cash flow.
- Operations in “fertile fields”: seeks companies with ability to sustain earnings momentum even in economic slowdowns by operating in industries or services where earnings and dividends can outpace inflation and the overall economy.
- Durability of earnings growth: seeks companies that operate in a lucrative niche in the economy that enables the company to expand even during slow growth periods.

Performance

The fund qualified for “Watch” based on the medium-term monitoring criteria. Fund has continued to underperform in the most recent quarter, attributable to lack of exposure to Consumer Staples & stock selection in Consumer Discretionary & Communication Services sectors.

Trailing Performance Results, Net of Fees Ending June 30, 2022

Fund	Quarter	1 Year	3 Years	5 Years	Since Addition (11/20/2011)
T. Rowe Price Large Cap Growth Fund	-22.9	-29.4	7.7	12.2	-14.6
<i>Russell 1000 Growth</i>	-20.9	-18.8	12.6	14.3	-14.8
Difference	-2.0	-10.6	-4.9	-2.1	-0.2
Percentile Rank*	68	74	59	35	9

*Morningstar Large-Cap Growth Universe. 1 = Best, 100 = Worst.

The fund has outperformed the benchmark in the three of the last five calendar years, though it underperformed in the most recent calendar year. Stock selection especially in Information Technology, Consumer Discretionary, and Communications services sectors detracted from performance in 2021.

Calendar Year Performance Results, Net of Fees Ending December 31, 2021

Fund	2017	2018	2019	2020	2021
T. Rowe Price Large Cap Growth Fund	37.8	4.3	28.5	39.6	23.2
<i>Russell 1000 Growth</i>	30.2	-1.5	36.4	38.5	27.6
Difference	7.6	5.8	-7.9	1.1	-4.4
Percentile Rank*	4	9	88	32	45

* Morningstar Large-Cap Growth Universe. 1 = Best, 100 = Worst.

Over time, the large cap growth segment of the US stock market has proven itself to be an area where active investment managers have particularly struggled. Illustrating this fact is the top quartile performance of the Russell 1000 Growth index over longer trailing time periods. In fact, as of the end of 2021, the index ranked in the 14th percentile over the trailing 10-year period, indicating it has outperformed over 85% of the funds with similar capital market exposure. This compares to other asset classes where the index tends to produce near-median results. The exceptional peer performance of the index can be attributed to multiple factors with the dominant factors being the high concentration in the index top holdings.

The Russell 1000 Growth index is highly concentrated in its top holdings. In fact, just the top 10 holdings constitute approximately 50% of the index, while the top 5 holdings comprise roughly 40%. Of those, two stocks, Apple and Microsoft, each account for more than 10% of the index. This high concentration results in the price movement of 5 or 10 stocks dominating the performance of the index. As a result, a manager's weighting to those 5 to 10 stocks largely defines their relative performance to the index. As such, their view on just 10 or so holdings often overwhelms their view on the other 490 or so stocks in the index. Compounding this is the fact that, in practice, it is difficult for an active manager to express

positive conviction in the top 5 stocks of the index given their enormous weight and the fact that the manager would have to hold them at an even larger weight.

As such, it is likely that the T. Rowe Large Cap Growth fund will exhibit volatile relative performance over time. We would expect that this volatility should be materially positive in some periods and materially negative in others. Prior to recent materially negative relative performance, the Fund had a sizeable relative outperformance over a considerable period of time. Over time, this Fund has demonstrated strong absolute and peer results though with periods of dramatic underperformance relative to the benchmark. Overall, Meketa has a favorable opinion of the fund and views it as one of the better options in its peer universe.

Recommendation

Due to continued underperformance against its benchmark, Meketa recommends that the T. Rowe Large Cap Growth Fund remain on "Watch" status to be closely monitored over future periods.

EDW/KRC/IH/mp



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