

---

**APRIL 16, 2024**

**AGENDA ITEM 9  
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 (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 third quarter 2023, provided by TIAA-CREF Tuition Financing, Inc., and the “Investment Performance Status Report” (Exhibit B) for fourth quarter 2023, 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,” or “caution.”

For the fourth quarter of 2023:

- Seven (7) underlying funds were in the “positive” status,
- 12 underlying funds were in the “acceptable” status, and
- Four (4) underlying funds were in the “caution” status (one of which is on “watch” status).

In addition, as outlined in Meketa’s memo dated March 27, 2024(Exhibit C):

- One (1) fund, the T. Rowe Price Institutional Large Cap Growth Fund, remains on “watch” status;
- Two (2) funds, the TIAA-CREF Emerging Markets Equity Index Fund and TIAA-CREF International Equity Index Fund (collectively the “Funds”), qualify for “watch” status, however, Meketa is not recommending they be placed on “watch” status due to explanation included in its memos dated March 16, 2022 and October 16, 2023, presented at the March 23, 2022 and October 16, 2023 Board meetings, respectively; and
- One (1) fund, the Nuveen ESG Emerging Markets Equity ETF (“Fund”), qualifies for “watch” status, however, Meketa is not recommending they be placed on “watch” status due to this quarter’s “caution” status, which resulted from the expanded trailing periods now being considered and not as a result of the latest quarter’s performance.

***Presenters***

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

Jordan Jones, Investment Analyst, TIAA-CREF Tuition Financing, Inc.

Kay Ceserani, Managing Principal / Consultant, Meketa Investment Group, Inc.



TIAA-CREF Tuition Financing, Inc.

# Quarterly Investment Performance Report

## 4th Quarter 2023

**For Institutional client use only. Not for distribution.**

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](http://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: Q4 2023

## Key Themes

- U.S. equities posted positive returns during the fourth quarter, led by the strong performance of a few large cap technology stocks. Growth stocks outperformed Value stocks by over 400 bps.

## Equities

- A majority of the eleven GIC sectors in the S&P 500 produced positive returns in the fourth quarter. Technology and Real Estate increased the most, while Energy was the most significant detractor.

## Fixed Income

- The U.S. Federal Reserve held its target range for the Fed Funds Rate steady in both the November and December meetings. Treasury yields declined across the curve during the quarter; the yield on the 10-year Treasury started the quarter at 4.61% and ended the year at 3.86%. The Bloomberg U.S. Aggregate Bond Index of intermediate-term investment grade U.S. bonds gained 6.82% during the fourth quarter.

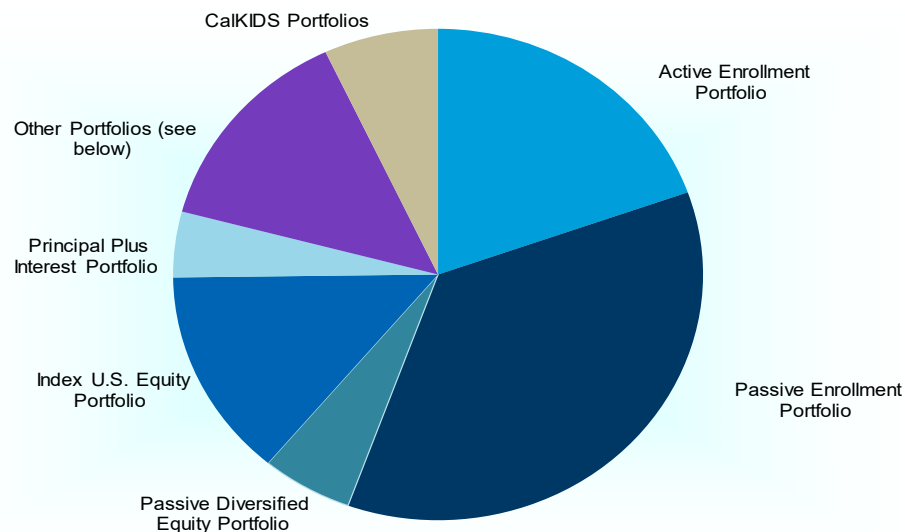
Past performance is not indicative of future results. You can not invest directly in an index. U.S. Equities – Russell 3000 Index; U.S. Growth Stocks – Russell 1000 Growth Index; U.S. Value Stocks – Russell 1000 Value Index; U.S. Mid Cap Stocks – Russell Midcap Index; U.S. Small-Cap Stocks – Russell 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

© 2022 TIAA-CREF Tuition Financing, Inc.

Asset Class	3 Month	1 Year	3 Year	5 Year
U.S. Equities	12.07	25.96	8.54	15.16
U.S. Growth Stocks	14.16	42.68	8.86	19.50
U.S. Value Stocks	9.50	11.46	8.86	10.91
U.S. Mid-Cap Stocks	12.82	17.23	5.92	12.68
U.S. Small-Cap Stocks	14.03	16.93	2.22	9.97
Int'l Developed Stocks	10.42	18.24	4.02	8.16
Emerging Markets Stocks	7.86	9.83	-5.08	3.69
Real Estate Stocks	17.98	11.36	5.70	7.59
U.S. Investment Grade Bonds	6.82	5.53	-3.31	1.10
Inflation-Linked Bonds	3.89	4.36	0.73	3.43
High Yield Bonds	7.12	12.55	1.72	5.19
Commodities	-4.63	-7.91	10.76	7.23
Cash	1.39	5.15	2.21	1.92
<b>Annualized Tuition Inflation Ending as of 2023-2024 Academic Year* (%)</b>				
<b>Educational Institution</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	
National Average Public 4-Year In-state	2.46	2.13	1.98	
National Average Private Nonprofit 4-Year	4.01	3.68	3.09	
Consumer Price Index, December 2023	3.35	5.60	4.07	

\*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 Q4 2023 - Total Assets: \$14.4 Billion



Portfolio	% of Assets	\$ Millions	Portfolio	% of Assets	\$ Millions
Passive Enrollment Portfolio	35.56%	\$5,126	Passive Diversified Equity Portfolio	5.59%	\$806
Active Enrollment Portfolio	19.02%	\$2,742	Principal Plus Interest Portfolio	3.75%	\$541
Index U.S. Equity Portfolio	14.61%	\$2,105	Other Portfolios (see below)	14.06%	\$2,026

## Other Portfolios

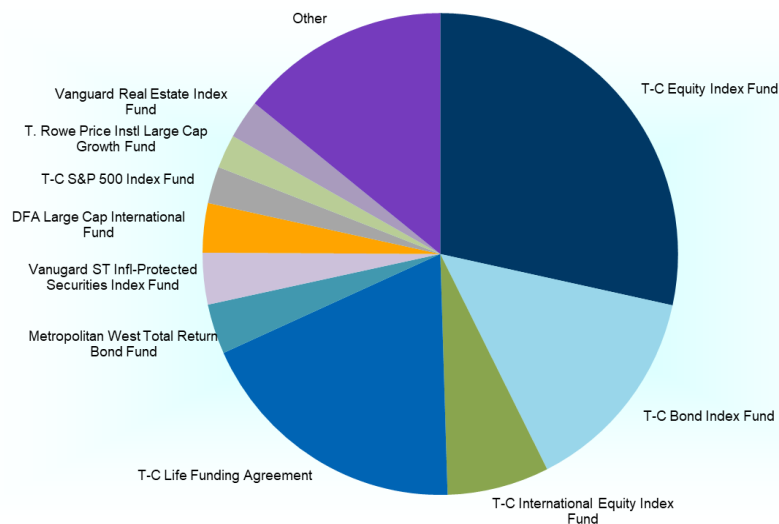
Active Diversified Equity Portfolio	3.30%	\$475	Index Bond Portfolio	0.76%	\$109
Active Growth Portfolio	2.83%	\$408	Active Conservative Portfolio	0.55%	\$79
Passive Growth Portfolio	2.34%	\$337	Active International Equity Portfolio	0.33%	\$48
Social Choice Equity Portfolio	1.98%	\$286	ESG Enrollment Portfolio	0.14%	\$21
Index International Equity Portfolio	1.13%	\$163	ESG Bond Portfolio	0.02%	\$3.1
Passive Conservative Portfolio	0.63%	\$90	ESG International Equity Portfolio	0.02%	\$2.7

## CaIKIDS / CSA Portfolios

CaIKIDS*	7.42%	\$1,069	Local CSA Programs	0.03%	\$4.78
----------	-------	---------	--------------------	-------	--------

\* CaIKIDS AUM invested in ScholarShare are included in the total assets of \$14.4 billion. Does not include CaIKIDS AUM held outside of ScholarShare of \$1.09 billion.

# Asset Overview by Underlying Fund as of Q4 2023



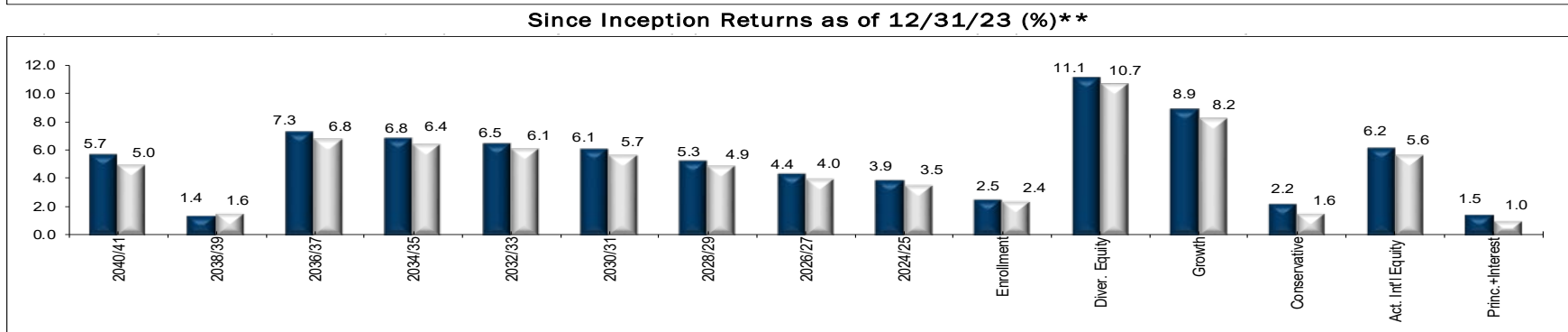
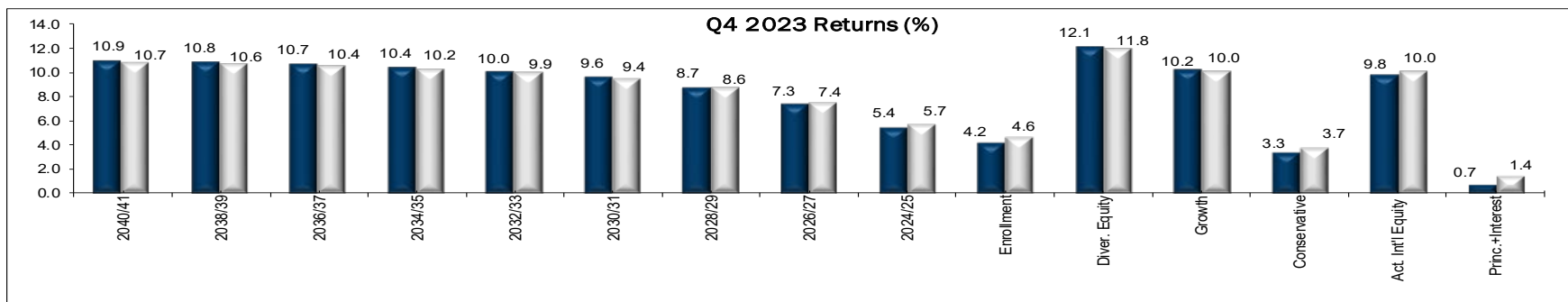
Fund	% of Assets	\$ Millions	Fund	% of Assets	\$ Millions
T-C Equity Index Fund	30.94%	\$4,461	DFA Large Cap International Fund	3.16%	\$456
T-C Life Funding Agreement	16.87%	\$2,432	Vanguard Real Estate Index Fund	2.70%	\$389
T-C Bond Index Fund	14.08%	\$2,030	T-C S&P 500 Index Fund	2.41%	\$348
T-C International Equity Index Fund	7.17%	\$1,033	T. Rowe Price Instl Large Cap Growth Fund	2.22%	\$320
Vanugard ST Infl-Protected Securities Index Fund	3.41%	\$491	Other	13.89%	\$2,002
Metropolitan West Total Return Bond Fund	3.15%	\$454			

## Other Funds

T. Rowe Price Instl Large Cap Value Fund	2.21%	\$319	T-C Quant Small Cap Equity Fund	0.77%	\$111
PIMCO Income Fund	1.80%	\$259	DFA Emerging Markets Core Equity Portfolio	0.79%	\$113
PIMCO Real Return Fund	1.79%	\$258	Nuveen ESG US Agg Bond ETF	0.07%	\$10
T-C Social Choice Equity Fund	2.03%	\$293	T-C Social Choice Int'l Equity Fund	0.04%	\$5.2
Vanguard High-Yield Corporate Fund	1.71%	\$246	Nuveen ESG HY Corp Bond ETF	0.01%	\$0.8
T-C Emerging Markets Equity Index Fund	1.79%	\$257	Nuveen ESG EM Equity ETF	0.00%	\$0.6
T. Rowe Price Instl Floating Rate Fund	0.90%	\$129			

\* CalKIDS AUM are included in the total assets of \$14.4B

# Active Portfolios vs. Composite Benchmarks



■ **Actively Managed Portfolios**    ■ **Benchmark**

\* The 2040-41 Enrollment Yr Portfolio was launched on 7/14/23 and the 2022-23 Enrollment Yr Portfolio was merged into Enrollment Year Portfolio as of 7/14/23

\*\* 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

- The U.S. economy gained 216,000 jobs in December and the unemployment rate was 3.7 percent at the end of the quarter.
- Average hourly earnings of all employees on private nonfarm payrolls increased 4.1% year-over-year from last December, seasonally adjusted.
- Sales of new single-family houses in the United States were at a seasonally adjusted annual rate of 590,000 in November.
- The Active Enrollment Year Portfolios generated positive returns in Q4, while portfolios in the earlier stages of the glide path produced higher returns due to the elevated equity allocation.
- The strongest contributor to returns was the T.Rowe Price Large Cap Value Fund, which outperformed its underlying benchmark by 174 bps during the quarter.

# 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	
<b>Active Enrollment Year Portfolios</b>							
2040/2041 Enrollment Portfolio Active	10.91%		-	-	-	5.70%	07/14/23
Blended Benchmark Returns	10.68%		-	-	-	4.98%	
Difference	0.23%					0.72%	
2038/2039 Enrollment Portfolio Active	10.79%	19.20%	19.20%	-	-	1.43%	06/11/21
Blended Benchmark Returns	10.64%	18.51%	18.51%	-	-	1.58%	
Difference	0.15%	0.69%	0.69%	-	-	-0.15%	
2036/2037 Enrollment Portfolio Active	10.65%	18.72%	18.72%	5.17%	-	7.29%	01/24/20
Blended Benchmark Returns	10.41%	17.96%	17.96%	4.81%	-	6.75%	
Difference	0.24%	0.76%	0.76%	0.36%	-	0.54%	
2034/2035 Enrollment Portfolio Active	10.38%	18.02%	18.02%	4.86%	-	6.83%	01/24/20
Blended Benchmark Returns	10.18%	17.31%	17.31%	4.51%	-	6.41%	
Difference	0.20%	0.71%	0.71%	0.35%	-	0.42%	
2032/2033 Enrollment Portfolio Active	10.04%	17.40%	17.40%	4.51%	-	6.52%	01/24/20
Blended Benchmark Returns	9.91%	16.65%	16.65%	4.18%	-	6.10%	
Difference	0.13%	0.75%	0.75%	0.33%	-	0.42%	
2030/2031 Enrollment Portfolio Active	9.55%	16.10%	16.10%	4.03%	-	6.09%	01/24/20
Blended Benchmark Returns	9.40%	15.43%	15.43%	3.68%	-	5.66%	
Difference	0.15%	0.67%	0.67%	0.35%	-	0.43%	
2028/2029 Enrollment Portfolio Active	8.70%	14.27%	14.27%	3.25%	-	5.29%	01/24/20
Blended Benchmark Returns	8.65%	13.56%	13.56%	2.86%	-	4.86%	
Difference	0.05%	0.71%	0.71%	0.39%	-	0.43%	
2026/2027 Enrollment Portfolio Active	7.34%	12.02%	12.02%	2.36%	-	4.39%	01/24/20
Blended Benchmark Returns	7.41%	11.60%	11.60%	2.04%	-	3.99%	
Difference	-0.07%	0.42%	0.42%	0.32%	-	0.40%	
2024/2025 Enrollment Portfolio Active	5.44%	9.42%	9.42%	1.84%	-	3.89%	01/24/20
Blended Benchmark Returns	5.69%	9.80%	9.80%	1.75%	-	3.54%	
Difference	-0.25%	-0.38%	-0.38%	0.09%	-	0.35%	
Enrollment Year Portfolio Active	4.15%	6.98%	6.98%	1.46%	-	2.52%	01/24/20
Blended Benchmark Returns	4.59%	8.01%	8.01%	1.56%	-	2.41%	
Difference	-0.44%	-1.03%	-1.03%	-0.10%	-	0.11%	

\* 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 (%)

## Average Annual Total Return

Investment Portfolios*	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date
<b>Active Multi-Fund Investment Portfolios</b>							
Active Diversified Equity Portfolio	12.08%	22.41%	22.41%	6.87%	12.09%	11.14%	11/04/11
Blended Benchmark Returns	11.84%	21.75%	21.75%	6.60%	12.24%	10.69%	
Difference	0.24%	0.66%	0.66%	0.27%	-0.15%	0.45%	
Active Growth Portfolio	10.17%	17.33%	17.33%	4.44%	9.41%	8.89%	11/04/11
Blended Benchmark Returns	9.99%	16.63%	16.63%	4.09%	9.33%	8.21%	
Difference	0.18%	0.70%	0.70%	0.35%	0.08%	0.68%	
Active Conservative Portfolio	3.33%	4.74%	4.74%	0.15%	2.12%	2.21%	11/04/11
Blended Benchmark Returns	3.71%	5.70%	5.70%	0.19%	2.01%	1.57%	
Difference	-0.38%	-0.96%	-0.96%	-0.04%	0.11%	0.64%	
Active International Equity Portfolio	9.78%	17.33%	17.33%	4.09%	8.27%	6.16%	11/10/11
Blended Benchmark Returns	9.98%	16.33%	16.33%	2.54%	7.58%	5.64%	
Difference	-0.20%	1.00%	1.00%	1.55%	0.69%	0.52%	
<b>Active Single Fund Investment Portfolios</b>							
Principal Plus Interest Portfolio**	0.68%	2.76%	2.76%	1.62%	1.66%	1.45%	11/04/11
Benchmark Returns	1.41%	5.26%	5.26%	2.25%	1.91%	0.06%	
Difference	-0.73%	-2.50%	-2.50%	-0.63%	-0.25%	1.39%	

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

\*\*The crediting rate of 2.80% for the TC Life Funding Agreement in the Principal Plus Interest Portfolio is guaranteed through 12/31/23.



# 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
<b>Underlying Fund Expenses (bp)</b>		<b>55</b>	<b>56</b>	<b>42</b>	<b>5</b>	<b>17</b>	<b>40</b>	<b>10</b>	<b>37</b>	<b>7</b>	<b>67</b>	<b>62</b>	<b>57</b>	<b>N/A</b>
<b>2040-2041</b>	<b>40</b>	14.80%	14.80%	5.00%	15.80%	19.20%	4.80%	5.60%	7.00%	3.00%	4.00%	4.00%	2.00%	0.00%
<b>2038-2039</b>	<b>40</b>	14.80%	14.80%	5.00%	15.80%	19.20%	4.80%	5.60%	7.00%	3.00%	4.00%	4.00%	2.00%	0.00%
<b>2036-2037</b>	<b>41</b>	14.00%	14.00%	4.80%	15.20%	18.10%	4.60%	5.30%	8.40%	3.60%	4.80%	4.80%	2.40%	0.00%
<b>2034-2035</b>	<b>41</b>	13.30%	13.30%	4.50%	14.20%	17.30%	4.30%	5.10%	9.80%	4.20%	5.60%	5.60%	2.80%	0.00%
<b>2032-2033</b>	<b>42</b>	12.50%	12.50%	4.30%	13.60%	16.30%	4.00%	4.80%	11.20%	4.80%	6.40%	6.40%	3.20%	0.00%
<b>2030-2031</b>	<b>43</b>	11.10%	11.10%	3.80%	11.80%	14.40%	3.60%	4.20%	14.00%	6.00%	8.00%	8.00%	4.00%	0.00%
<b>2028-2029</b>	<b>45</b>	8.80%	8.80%	3.00%	9.60%	11.50%	2.90%	3.40%	18.20%	7.80%	10.40%	10.40%	5.20%	0.00%
<b>2026-2027</b>	<b>42</b>	6.60%	6.60%	2.30%	7.20%	8.60%	2.20%	2.50%	18.90%	8.10%	10.80%	10.80%	5.40%	10.00%
<b>2024-2025</b>	<b>32</b>	4.60%	4.60%	1.50%	5.00%	6.00%	1.50%	1.80%	14.00%	6.00%	8.00%	8.00%	4.00%	35.00%
<b>Enrollment</b>	<b>27</b>	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

<b>Active Diversified Equity Portfolio</b>	<b>37</b>	18.40%	18.40%	6.30%	19.90%	24.00%	6.00%	7.00%						
<b>Active Growth Portfolio</b>	<b>42</b>	12.50%	12.50%	4.30%	13.60%	16.30%	4.00%	4.80%	11.20%	4.80%	6.40%	6.40%	3.20%	
<b>Active Conservative Portfolio</b>	<b>29</b>								17.50%	7.50%	10.00%	10.00%	5.00%	50.00%
<b>Active International Equity Portfolio</b>	<b>28</b>					80.00%	20.00%							
<b>Fund's Performance vs Benchmk Q4 2023 (bp)</b>		<b>10</b>	<b>174</b>	<b>(92)</b>	<b>(1)</b>	<b>(22)</b>	<b>0</b>	<b>(5)</b>	<b>72</b>	<b>(18)</b>	<b>(15)</b>	<b>(93)</b>	<b>19</b>	<b>(73)</b>

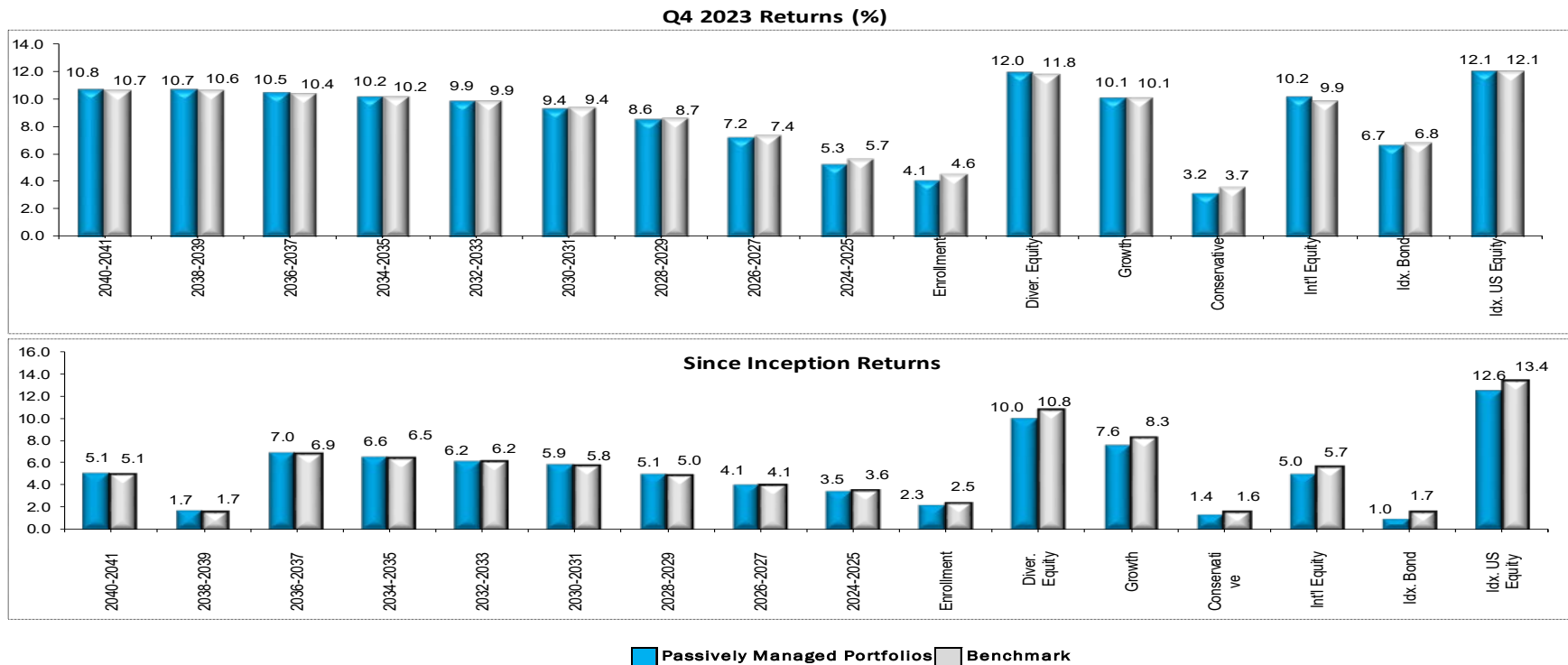
Glide Path asset allocations are as reflected in the Plan Description.

## Active Single Fund Investment Portfolios

Investment Portfolios	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q4 2023 (bp)
<b>Principal Plus Interest Portfolio</b>	<b>N/A</b>	100.00%	TIAA-CREF Life Co. Funding Agreement	<b>(73)</b>

\* 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



\* The 2040-41 Enrollment Yr Portfolio was launched on 7/14/23 and does not reflect a full quarter of performance.

The 2022-23 Enrollment Yr Portfolio was merged into Enrollment Year Portfolio as of 7/14/23

\*\* 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. equities posted positive returns during the fourth quarter, led by the strong performance of a few large cap technology stocks. Growth stocks outperformed Value stocks by over 400 bps.
- The U.S. Federal Reserve held its target range for the Fed Funds Rate steady in both the November and December meetings. Treasury yields declined across the curve during the quarter; the yield on the 10-year Treasury started the quarter at 4.61% and ended the year at 3.86%. The Bloomberg U.S. Aggregate Bond Index of intermediate-term investment grade U.S. bonds gained 6.82% during the fourth quarter.
- Based on respective Russell indexes, small cap companies outperformed the broad large cap market. Growth stocks notably outperformed Value stocks during the quarter.
- The Passive Enrollment Year Portfolios generated positive returns in Q4, while portfolios in the earlier stages of the glide path produced higher returns due to the elevated equity allocation.

# Passive Portfolios vs. Composite Benchmarks

Investment Portfolios*	Average Annual Total Return					Since Inception	Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year		
<b>Passive Enrollment Year Portfolios</b>							
2040/2041 Enrollment Portfolio Passive	10.75%	-	-	-	-	5.10%	07/14/23
Blended Benchmark Returns	10.68%	-	-	-	-	5.05%	
Difference	0.07%	-	-	-	-	0.05%	
2038/2039 Enrollment Portfolio Passive	10.70%	18.89%	18.89%	-	-	1.74%	06/11/21
Blended Benchmark Returns	10.65%	18.83%	18.83%	-	-	1.68%	
Difference	0.05%	0.06%	0.06%	-	-	0.06%	
2036/2037 Enrollment Portfolio Passive	10.50%	18.21%	18.21%	16.77%	-	7.00%	01/24/20
Blended Benchmark Returns	10.41%	18.26%	18.26%	16.21%	-	6.85%	
Difference	0.09%	-0.05%	-0.05%	0.56%	-	0.15%	
2034/2035 Enrollment Portfolio Passive	10.21%	17.47%	17.47%	4.44%	-	6.56%	01/24/20
Blended Benchmark Returns	10.18%	17.62%	17.62%	4.50%	-	6.52%	
Difference	0.03%	-0.15%	-0.15%	-0.06%	-	0.04%	
2032/2033 Enrollment Portfolio Passive	9.88%	16.87%	16.87%	4.10%	-	6.22%	01/24/20
Blended Benchmark Returns	9.91%	16.93%	16.93%	4.16%	-	6.21%	
Difference	-0.03%	-0.06%	-0.06%	-0.06%	-	0.01%	
2030/2031 Enrollment Portfolio Passive	9.35%	15.62%	15.62%	3.60%	-	5.86%	01/24/20
Blended Benchmark Returns	9.41%	15.70%	15.70%	3.68%	-	5.77%	
Difference	-0.06%	-0.08%	-0.08%	-0.08%	-	0.09%	
2028/2029 Enrollment Portfolio Passive	8.59%	13.78%	13.78%	2.81%	-	5.05%	01/24/20
Blended Benchmark Returns	8.65%	13.80%	13.80%	2.89%	-	4.98%	
Difference	-0.06%	-0.02%	-0.02%	-0.08%	-	0.07%	
2026/2027 Enrollment Portfolio Passive	7.23%	11.42%	11.42%	1.89%	-	4.09%	01/24/20
Blended Benchmark Returns	7.41%	11.78%	11.78%	2.09%	-	4.12%	
Difference	-0.18%	-0.36%	-0.36%	-0.20%	-	-0.03%	
2024/2025 Enrollment Portfolio Passive	5.34%	8.95%	8.95%	1.41%	-	3.48%	01/24/20
Blended Benchmark Returns	5.69%	9.91%	9.91%	1.69%	-	3.56%	
Difference	-0.35%	-0.96%	-0.96%	-0.28%	-	-0.08%	
Enrollment Year Portfolio Passive	4.10%	6.74%	6.74%	1.25%	-	2.26%	01/24/20
Blended Benchmark Returns	4.59%	8.10%	8.10%	1.62%	-	2.47%	
Difference	-0.49%	-1.36%	-1.36%	-0.37%	-	-0.21%	

\* 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			
<b>Passive Multi-Fund Investment Portfolios</b>								
Passive Diversified Equity Portfolio	11.97%	22.13%	22.13%	6.47%	12.42%	10.85%	11/04/11	
Blended Benchmark Returns	11.84%	22.13%	22.13%	6.51%	12.33%	10.81%		
Difference	0.13%	0.00%	0.00%	-0.04%	0.09%	0.04%		
Passive Growth Portfolio	10.11%	17.18%	17.18%	4.03%	9.47%	8.33%	11/04/11	
Blended Benchmark Returns	10.10%	17.24%	17.24%	4.14%	9.46%	8.34%		
Difference	0.01%	-0.06%	-0.06%	-0.11%	0.01%	-0.01%		
Passive Conservative Portfolio	3.21%	4.36%	4.36%	-0.11%	1.87%	1.66%	11/04/11	
Blended Benchmark Returns	3.71%	5.76%	5.76%	0.28%	2.08%	1.63%		
Difference	-0.50%	-1.40%	-1.40%	-0.39%	-0.21%	0.03%		
Index International Equity Portfolio	10.19%	16.34%	16.34%	2.18%	7.31%	5.78%	11/04/11	
Blended Benchmark Returns	9.91%	16.56%	16.56%	2.22%	7.35%	5.74%		
Difference	0.28%	-0.22%	-0.22%	-0.04%	-0.04%	0.04%		
<b>Passive Single Fund Investment Portfolios</b>								
Index Bond Portfolio	6.67%	5.63%	5.63%	-3.47%	0.94%	1.51%	11/04/11	
Benchmark Returns	6.82%	5.53%	5.53%	-3.31%	1.10%	1.70%		
Difference	-0.15%	0.10%	0.10%	-0.16%	-0.16%	-0.19%		
Index U.S. Equity Portfolio	12.08%	25.90%	25.90%	8.53%	15.10%	13.34%	11/04/11	
Benchmark Returns	12.07%	25.96%	25.96%	8.54%	15.16%	13.39%		
Difference	0.01%	-0.06%	-0.06%	-0.01%	-0.06%	-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
<b>Underlying Fund Expenses (bp)</b>		<b>5</b>	<b>5</b>	<b>19</b>	<b>10</b>	<b>7</b>	<b>4</b>	<b>13</b>	<b>N/A</b>
<b>2040-2041</b>	<b>7</b>	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	0.00%
<b>2038-2039</b>	<b>7</b>	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	0.00%
<b>2036-2037</b>	<b>7</b>	47.90%	18.20%	4.60%	5.30%	16.80%	4.80%	2.40%	0.00%
<b>2034-2035</b>	<b>7</b>	45.40%	17.30%	4.30%	5.00%	19.60%	5.60%	2.80%	0.00%
<b>2032-2033</b>	<b>7</b>	42.80%	16.30%	4.10%	4.80%	22.40%	6.40%	3.20%	0.00%
<b>2030-2031</b>	<b>8</b>	37.80%	14.40%	3.60%	4.20%	28.00%	8.00%	4.00%	0.00%
<b>2028-2029</b>	<b>8</b>	30.20%	11.50%	2.90%	3.40%	36.40%	10.40%	5.20%	0.00%
<b>2026-2027</b>	<b>7</b>	22.70%	8.60%	2.20%	2.50%	37.80%	10.80%	5.40%	10.00%
<b>2024-2025</b>	<b>5</b>	15.70%	6.00%	1.50%	1.80%	28.00%	8.00%	4.00%	35.00%
<b>Enrollment</b>	<b>4</b>	9.40%	3.60%	0.90%	1.10%	24.50%	7.00%	3.50%	50.00%

## Passive Multi-Fund Investment Portfolios

<b>Passive Diversified Equity Portfolio</b>	<b>7</b>	63.00%	24.00%	6.00%	7.00%				
<b>Passive Growth Portfolio</b>	<b>7</b>	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	
<b>Passive Conservative Portfolio</b>	<b>5</b>					35.00%	10.00%	5.00%	50.00%
<b>Index International Equity Portfolio</b>	<b>9</b>		80.00%	20.00%					
<b>Fund's Performance vs Benchmk Q4 2023 (bp)</b>		<b>1</b>	<b>41</b>	<b>(28)</b>	<b>(5)</b>	<b>(18)</b>	<b>(5)</b>	<b>11</b>	<b>(73)</b>

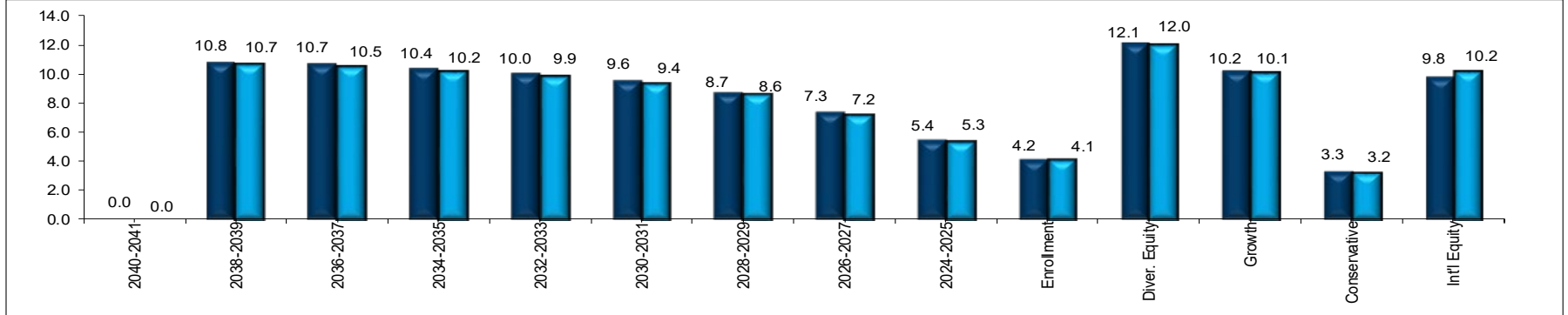
Glide Path asset allocations are as reflected in the Plan Description.

Passive Investment Portfolios	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund				Fund's Performance vs Benchmk Q4 2023 (bp)
<b>Index Bond Portfolio</b>	<b>9</b>	100.00%	TIAA-CREF Bond Index Fund				<b>(18)</b>
<b>Index U.S. Equity Portfolio</b>	<b>6</b>	100.00%	TIAA-CREF Equity Index Fund				<b>1</b>

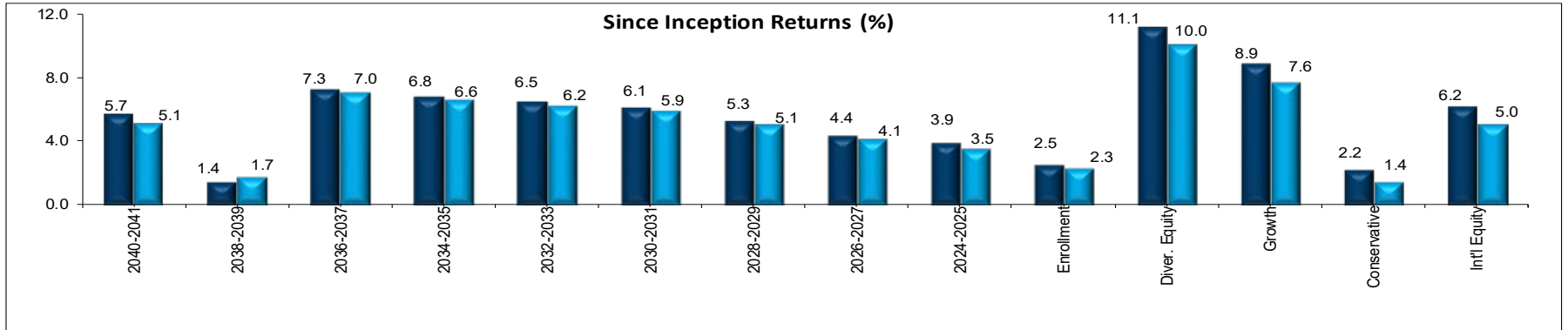
\* Asset Based Fees include most recent weighted average Underlying Fund Fees and Program Management Fees.

# Active Portfolios vs Passive Portfolios

Q4 2023 Returns (%)



Since Inception Returns (%)



Actively Managed Portfolios\*
  Passively Managed Portfolios\*\*

\* The 2040-41 Enrollment Yr Portfolio was launched on 7/14/23 and does not reflect a full quarter of performance.

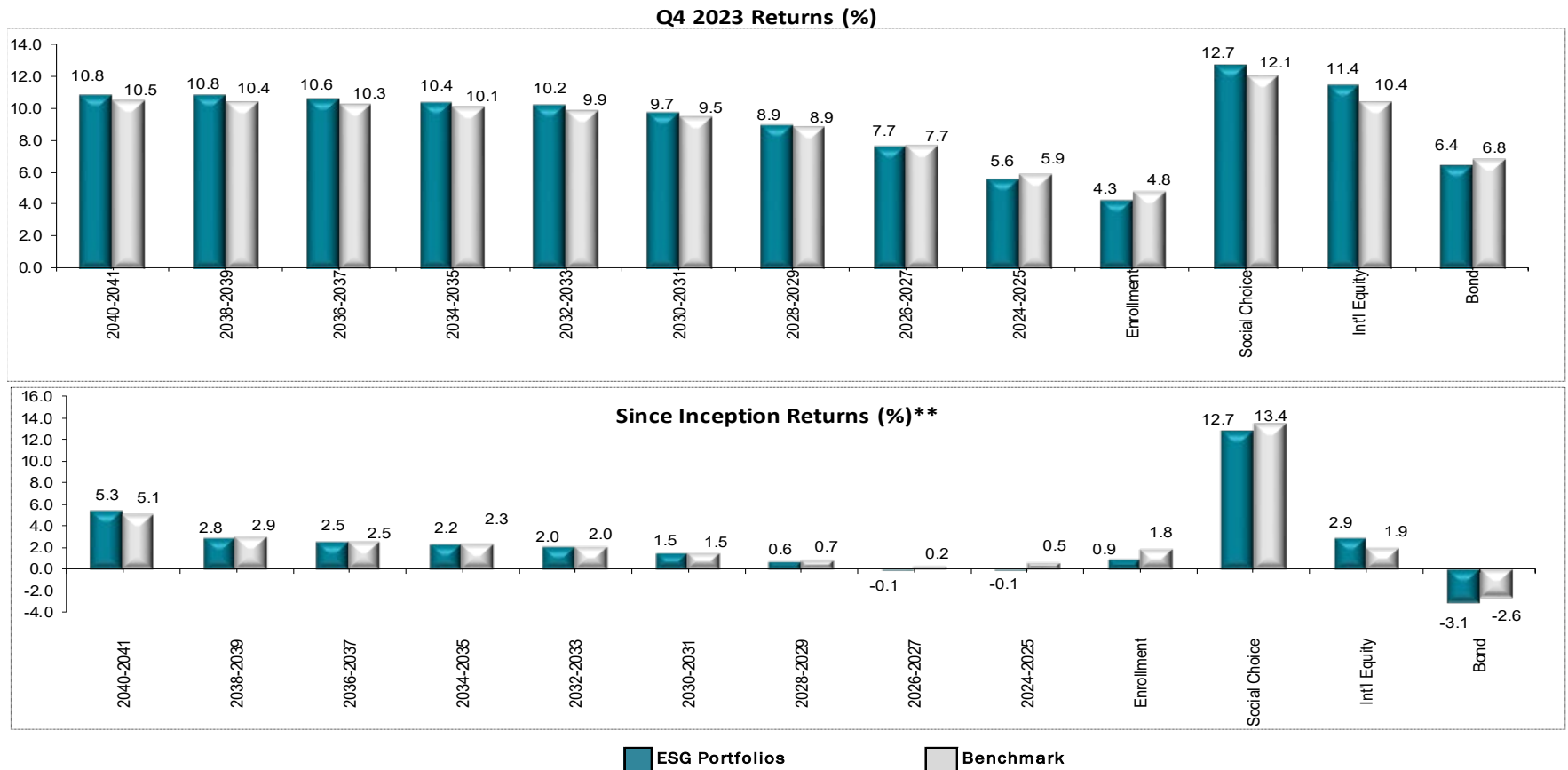
The 2022-23 Enrollment Yr Portfolio was merged into Enrollment Year Portfolio as of 7/14/23

\*\* 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 Q4, Passive Portfolios slightly underperformed Active Portfolios.
- A primary driver of outperformance in the Active Portfolios was the T. Rowe Price Large Cap Value Fund, which receives larger allocations across the earlier stages of the glide path and outperformed its benchmark by 174 basis points during the quarter.
- Since inception, most Active Portfolios have modestly outperformed their Passive counterparts.

# ESG Portfolios vs Composite Benchmarks



\* The 2040-41 Enrollment Yr Portfolio was launched on 7/14/23 and the 2022-23 Enrollment Yr Portfolio was merged into Enrollment Year Portfolio as of 7/14/23

\*\* 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 slightly higher than those of the benchmarks during Q4, primarily driven by the large allocations to the TIAA-CREF Social Choice Equity Fund and the TIAA-CREF Social Choice International Equity Fund; both modestly outperformed their respective benchmarks during the quarter.

# ESG Portfolios vs. Composite Benchmarks

Investment Portfolios*	3 Month	YTD	Average Annual Total Return				Inception Date
			1 Year	3 Year	5 Year	Since Inception	
<b>ESG Enrollment Year Portfolios</b>							
2040/2041 Enrollment Portfolio ESG	10.84%	-	-	-	-	5.30%	07/14/23
Blended Benchmark Returns	10.47%	-	-	-	-	5.05%	
Difference	0.37%	-	-	-	-	0.25%	
2038/2039 Enrollment Portfolio ESG	10.84%	17.65%	17.65%	-	-	2.78%	02/11/22
Blended Benchmark Returns	10.44%	19.63%	19.63%	-	-	2.89%	
Difference	0.40%	-1.98%	-1.98%	-	-	-0.11%	
2036/2037 Enrollment Portfolio ESG	10.56%	17.11%	17.11%	-	-	2.47%	02/11/22
Blended Benchmark Returns	10.26%	19.03%	19.03%	-	-	2.48%	
Difference	0.30%	-1.92%	-1.92%	-	-	-0.01%	
2034/2035 Enrollment Portfolio ESG	10.38%	5.77%	-6.91%	-	-	2.21%	02/11/22
Blended Benchmark Returns	10.09%	7.18%	-8.58%	-	-	2.25%	
Difference	0.29%	-1.41%	1.67%	-	-	-0.04%	
2032/2033 Enrollment Portfolio ESG	10.19%	15.85%	15.85%	-	-	2.00%	02/11/22
Blended Benchmark Returns	9.89%	17.64%	17.64%	-	-	2.01%	
Difference	0.30%	-1.79%	-1.79%	-	-	-0.01%	
2030/2031 Enrollment Portfolio ESG	9.71%	14.60%	14.60%	-	-	1.48%	02/11/22
Blended Benchmark Returns	9.50%	16.33%	16.33%	-	-	1.50%	
Difference	0.21%	-1.73%	-1.73%	-	-	-0.02%	
2028/2029 Enrollment Portfolio ESG	8.93%	12.69%	12.69%	-	-	0.64%	02/11/22
Blended Benchmark Returns	8.89%	14.32%	14.32%	-	-	0.73%	
Difference	0.04%	-1.63%	-1.63%	-	-	-0.09%	
2026/2027 Enrollment Portfolio ESG	7.65%	10.63%	10.63%	-	-	-0.05%	02/11/22
Blended Benchmark Returns	7.71%	12.18%	12.18%	-	-	0.22%	
Difference	-0.06%	-1.55%	-1.55%	-	-	-0.27%	
2024/2025 Enrollment Portfolio ESG	5.61%	8.36%	8.36%	-	-	-0.11%	02/11/22
Blended Benchmark Returns	5.92%	10.21%	10.21%	-	-	0.54%	
Difference	-0.31%	-1.85%	-1.85%	-	-	-0.65%	
Enrollment Year Portfolio ESG	4.31%	6.28%	6.28%	-	-	0.85%	02/11/22
Blended Benchmark Returns	4.83%	8.28%	8.28%	-	-	1.79%	
Difference	-0.52%	-2.00%	-2.00%	-	-	-0.94%	
<b>ESG Single Fund Investment Portfolios</b>							
Social Choice Equity Portfolio	12.71%	22.40%	22.40%	8.34%	14.98%	12.71%	11/04/11
Benchmark Returns	12.07%	25.96%	25.96%	8.54%	15.16%	13.39%	
Difference	0.64%	-3.56%	-3.56%	-0.20%	-0.18%	-0.68%	
ESG International Equity Portfolio	11.40%	19.21%	19.21%	-	-	2.88%	02/11/22
Benchmark Returns	10.42%	18.24%	18.24%	-	-	1.90%	
Difference	0.98%	0.97%	0.97%	-	-	0.98%	
ESG Bond Portfolio	6.44%	4.55%	4.55%	-	-	-3.12%	02/11/22
Benchmark Returns	6.82%	5.53%	5.53%	-	-	-2.64%	
Difference	-0.38%	-0.98%	-0.98%	-	-	-0.48%	

\* Returns are net of most recent weighted average Underlying Fund Fees, Program Management Fees, and State Administrative Fees. The crediting rate of 2.80% for the TC Life Funding Agreement in the ESG Enrollment Year Portfolios is guaranteed through 12/31/23.



# 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
<b>Underlying Fund Expenses (bp)</b>		<b>18</b>	<b>37</b>	<b>36</b>	<b>16</b>	<b>31</b>	<b>N/A</b>
<b>2040-2041</b>	<b>28</b>	56.00%	19.20%	4.80%	18.00%	2.00%	0.00%
<b>2038-2039</b>	<b>28</b>	56.00%	19.20%	4.80%	18.00%	2.00%	0.00%
<b>2036-2037</b>	<b>28</b>	53.30%	18.10%	4.60%	21.60%	2.40%	0.00%
<b>2034-2035</b>	<b>28</b>	50.40%	17.30%	4.30%	25.20%	2.80%	0.00%
<b>2032-2033</b>	<b>28</b>	47.70%	16.30%	4.00%	28.80%	3.20%	0.00%
<b>2030-2031</b>	<b>27</b>	42.00%	14.40%	3.60%	36.00%	4.00%	0.00%
<b>2028-2029</b>	<b>26</b>	33.60%	11.50%	2.90%	46.80%	5.20%	0.00%
<b>2026-2027</b>	<b>24</b>	25.20%	8.60%	2.20%	48.60%	5.40%	10.00%
<b>2024-2025</b>	<b>19</b>	17.50%	6.00%	1.50%	36.00%	4.00%	35.00%
<b>Enrollment</b>	<b>16</b>	10.50%	3.60%	0.90%	31.50%	3.50%	50.00%
<b>Fund's Performance vs Benchmk Q4 2023 (bp)</b>		<b>65</b>	<b>97</b>	<b>(48)</b>	<b>(28)</b>	<b>(27)</b>	<b>(73)</b>

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 Q4 2023 (bp)
<b>Social Choice Equity Portfolio</b>	<b>23</b>	100.00%	TIAA-CREF Social Choice Equity Fund	<b>65</b>
<b>ESG International Equity Portfolio</b>	<b>42</b>	100.00%	TIAA-CREF Social Choice International Equity Fund	<b>(18)</b>
<b>ESG Bond Portfolio</b>	<b>21</b>	100.00%	Nuveen ESG US Aggregate Bond ETF	<b>1</b>

\* 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	6.64%	5.64%	5.64%	-3.46%	0.95%	2.28%	7.25%	09/14/2009
Bloomberg U.S. Aggregate Bond Index	6.82%	5.53%	5.53%	-3.32%	1.10%	2.46%	7.24%	
Difference	<b>-0.18%</b>	<b>0.11%</b>	<b>0.11%</b>	<b>-0.14%</b>	<b>-0.15%</b>	<b>-0.18%</b>		
T-C Emerging Markets Equity Index Fund*	7.58%	9.23%	9.23%	-5.47%	3.34%	2.51%	17.91%	08/31/2010
MSCI Emerging Markets® Index	7.86%	9.83%	9.83%	-5.08%	3.69%	2.86%	17.39%	
Difference	<b>-0.28%</b>	<b>-0.60%</b>	<b>-0.60%</b>	<b>-0.39%</b>	<b>-0.35%</b>	<b>-0.35%</b>		
T-C Equity Index Fund	12.08%	25.91%	25.91%	8.54%	15.12%	7.34%	17.68%	07/01/1999
Russell 3000 Index	12.07%	25.96%	25.96%	8.55%	15.16%	7.41%	17.71%	
Difference	<b>0.01%</b>	<b>-0.05%</b>	<b>-0.05%</b>	<b>-0.01%</b>	<b>-0.04%</b>	<b>-0.07%</b>		
T-C International Equity Index Fund*	10.83%	18.20%	18.20%	4.12%	8.26%	7.25%	17.53%	10/01/2002
MSCI EAFE Index	10.42%	18.24%	18.24%	4.02%	8.17%	7.19%	16.85%	
Difference	<b>0.41%</b>	<b>-0.04%</b>	<b>-0.04%</b>	<b>0.10%</b>	<b>0.09%</b>	<b>0.06%</b>		
T-C S&P 500 Index Fund	11.68%	26.22%	26.22%	9.96%	15.64%	10.54%	17.52%	10/01/2002
S&P 500 Index	11.69%	26.29%	26.29%	10.01%	15.69%	10.62%	17.54%	
Difference	<b>-0.01%</b>	<b>-0.07%</b>	<b>-0.07%</b>	<b>-0.05%</b>	<b>-0.05%</b>	<b>-0.08%</b>		
T-C Quant Small Cap Equity Fund	13.11%	18.70%	18.70%	7.88%	11.90%	10.37%	20.74%	10/01/2002
Russell 2000 Index	14.03%	16.93%	16.93%	2.22%	9.97%	9.82%	21.41%	
Difference	<b>-0.92%</b>	<b>1.77%</b>	<b>1.77%</b>	<b>5.66%</b>	<b>1.93%</b>	<b>0.55%</b>		
T-C Social Choice Equity Fund	12.72%	22.49%	22.49%	8.41%	15.05%	7.16%	18.05%	07/01/1999
Russell 3000 Index	12.07%	25.96%	25.96%	8.55%	15.16%	7.41%	17.71%	
Difference	<b>0.65%</b>	<b>-3.47%</b>	<b>-3.47%</b>	<b>-0.14%</b>	<b>-0.11%</b>	<b>-0.25%</b>		
T-C Social Choice International Equity Fund*	11.39%	19.25%	19.25%	4.39%	9.04%	5.52%	17.78%	12/04/2015
MSCI EAFE Index	10.42%	18.24%	18.24%	4.02%	8.17%	4.88%	16.85%	
Difference	<b>0.97%</b>	<b>1.01%</b>	<b>1.01%</b>	<b>0.37%</b>	<b>0.87%</b>	<b>0.64%</b>		
Nuveen ESG Emerging Markets Equity ETF	6.20%	9.07%	9.07%	-4.53%	4.70%	3.24%	17.48%	06/06/2017
TIAA ESG Emerging Markets Equity Index	6.68%	10.18%	10.18%	-3.74%	5.54%	4.07%	17.52%	
Difference	<b>-0.48%</b>	<b>-1.11%</b>	<b>-1.11%</b>	<b>-0.79%</b>	<b>-0.84%</b>	<b>-0.83%</b>		
Nuveen ESG US Aggregate Bond ETF	6.53%	5.48%	5.48%	-3.61%	-	0.70%	7.16%	09/29/2017
Bloomberg MSCI US Aggregate ESG Select Index	6.81%	5.53%	5.53%	-3.31%	-	-	7.23%	
Difference	<b>-0.28%</b>	<b>-0.05%</b>	<b>-0.05%</b>	<b>-0.30%</b>	-	-		
Nuveen ESG High Yield Corporate Bond ETF	7.60%	12.17%	12.17%	-	-	-	-	09/25/2019
Bloomberg MSCI U.S. HY Very Liquid ESG Select Index	7.87%	12.64%	12.64%	-	-	-	-	
Difference	<b>-0.27%</b>	<b>-0.47%</b>	<b>-0.47%</b>	-	-	-	-	

# 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*	7.86%	15.45%	15.45%	0.71%	6.18%	6.78%	16.54%	04/05/2005
MSCI Emerging Markets® Index	7.86%	9.83%	9.83%	-5.08%	3.69%	5.88%	17.39%	
Difference	<b>0.00%</b>	<b>5.62%</b>	<b>5.62%</b>	<b>5.79%</b>	<b>2.49%</b>	<b>0.90%</b>		
DFA Large Cap International Portfolio*	10.29%	17.87%	17.87%	4.97%	8.82%	5.74%	17.30%	07/17/1991
MSCI World Ex US Index	10.51%	17.94%	17.94%	4.42%	8.45%	5.74%	16.86%	
Difference	<b>-0.22%</b>	<b>-0.07%</b>	<b>-0.07%</b>	<b>0.55%</b>	<b>0.37%</b>	<b>0.00%</b>		
<b>METWEST FUNDS</b>								
MetWest Total Return Bond Fund	7.54%	6.07%	6.07%	-3.64%	1.31%	2.56%	8.12%	07/01/1999
Bloomberg U.S. Aggregate Bond Index	6.82%	5.53%	5.53%	-3.32%	1.10%	1.89%	7.24%	
Difference	<b>0.72%</b>	<b>0.54%</b>	<b>0.54%</b>	<b>-0.32%</b>	<b>0.21%</b>	<b>0.67%</b>		
<b>PIMCO FUNDS</b>								
PIMCO Income Fund	5.89%	9.32%	9.32%	1.12%	3.40%	6.78%	6.26%	03/30/2007
Bloomberg U.S. Aggregate Bond Index	6.82%	5.53%	5.53%	-3.32%	1.10%	3.03%	7.24%	
Difference	<b>-0.93%</b>	<b>3.79%</b>	<b>3.79%</b>	<b>4.44%</b>	<b>2.30%</b>	<b>3.75%</b>		
PIMCO Real Return Fund	4.56%	3.74%	3.74%	-1.14%	3.28%	5.11%	7.28%	01/29/1997
Bloomberg U.S. TIPS Index	4.71%	3.90%	3.90%	-1.00%	3.15%	-	7.17%	
Difference	<b>-0.15%</b>	<b>-0.16%</b>	<b>-0.16%</b>	<b>-0.14%</b>	<b>0.13%</b>	<b>-</b>		
<b>T. ROWE PRICE FUNDS</b>								
T. Rowe Price Floating Rate Fund	3.15%	12.46%	12.46%	5.37%	5.44%	5.01%	3.88%	01/31/2008
S&P/LSTA Performing Loan Index	2.96%	13.72%	13.72%	5.96%	6.00%	5.32%	3.97%	
Difference	<b>0.19%</b>	<b>-1.26%</b>	<b>-1.26%</b>	<b>-0.59%</b>	<b>-0.56%</b>	<b>-0.31%</b>		
T. Rowe Price Large Cap Growth Fund	14.26%	46.21%	46.21%	5.30%	15.93%	11.30%	20.64%	10/31/2001
Russell 1000 Growth Index	14.16%	42.68%	42.68%	8.87%	19.50%	10.25%	20.80%	
Difference	<b>0.10%</b>	<b>3.53%</b>	<b>3.53%</b>	<b>-3.57%</b>	<b>-3.57%</b>	<b>1.05%</b>		
T. Rowe Price Large Cap Value Fund	11.24%	9.69%	9.69%	9.55%	11.40%	8.32%	16.65%	3/31/2000
Russell 1000 Value Index	9.50%	11.46%	11.46%	8.86%	10.91%	7.14%	16.74%	
Difference	<b>1.74%</b>	<b>-1.77%</b>	<b>-1.77%</b>	<b>0.69%</b>	<b>0.49%</b>	<b>1.18%</b>		
<b>VANGUARD FUNDS</b>								
Vanugard ST Infr-Protected Securities Index Fund	2.55%	4.61%	4.61%	2.31%	3.34%	1.64%	3.19%	10/16/2012
Bloomberg US TIPS 0-5 Year Index	2.60%	4.57%	4.57%	2.33%	3.37%	1.65%	3.20%	
Difference	<b>-0.05%</b>	<b>0.04%</b>	<b>0.04%</b>	<b>-0.02%</b>	<b>-0.03%</b>	<b>-0.01%</b>		
Vanguard Real Estate Index Fund	18.13%	11.82%	11.82%	5.05%	7.35%	8.07%	21.73%	12/2/2003
MSCI US Investable Market Real Estate 25/50 Index	18.18%	11.96%	11.96%	5.16%	7.44%	-	21.74%	
Difference	<b>-0.05%</b>	<b>-0.14%</b>	<b>-0.14%</b>	<b>-0.11%</b>	<b>-0.09%</b>	<b>-</b>		
Vanguard High-Yield Corporate Fund	7.30%	11.74%	11.74%	1.82%	5.22%	6.01%	8.26%	11/12/2001
Bloomberg US HY Ba/B 2% Issuer Cap TR USD	7.19%	12.56%	12.56%	1.75%	5.49%	6.84%	8.33%	
Bloomberg US Corporate High Yield Index	7.16%	13.44%	13.44%	1.98%	5.37%	-	8.36%	
Difference	<b>0.11%</b>	<b>-0.82%</b>	<b>-0.82%</b>	<b>0.07%</b>	<b>-0.27%</b>	<b>-0.83%</b>		

\* 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

April 16, 2024

4Q 2023 Investment Performance  
Status Report

1. Economic and Market Update
2. 529 Industry Data
3. Review of ScholarShare Policy
4. Summary of Performance Status
5. Portfolio Management Overview
6. Year-of-Enrollment Option Analysis
7. Active Underlying Fund Analysis
8. Passive Underlying Fund Analysis
9. T. Life Funding Agreement Review
10. Appendix

## Takeaways

- Most markets saw strong returns in the fourth quarter of 2023, primarily due to shifting expectations for policy rate cuts in 2024. The strong returns over the period contributed to calendar year positive returns for all asset classes except for commodities.
- Equities broadly saw positive returns over the quarter. Domestically, Small Cap outperformed Large Cap stocks while growth continued to outpace value over the quarter. T Rowe Price Large Cap Growth was the top performing actively managed domestic equity fund for the quarter, returning 14.3%. Non-US Developed markets trailed the US over the quarter, despite the weakening dollar. Emerging Markets, while also producing strong returns over the quarter, lagged their developed counterparts as China continued to weigh on returns. DFA Large Cap International returned 10.3%, whereas the DFA Emerging Markets Core Equity returned 7.9%.
- T. Rowe Price Large Cap Growth was the strongest performing actively managed equity fund for the quarter, returning 14.3% versus benchmark return of 14.2%.
- The Metropolitan West Total Return Bond had the strongest absolute performance amongst actively managed fixed income fund for the quarter, returning 7.5%, versus benchmark return of 6.8%.
- 8 of the 12 active managers in the ScholarShare plan outperformed or met their benchmark returns.

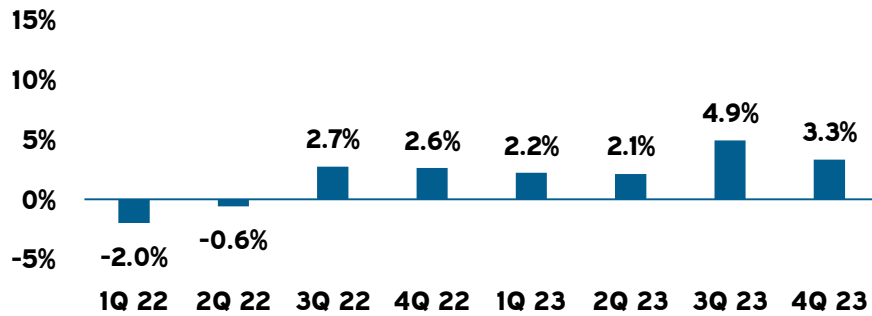
# **Economic and Market Update**

## Data as of December 31, 2023



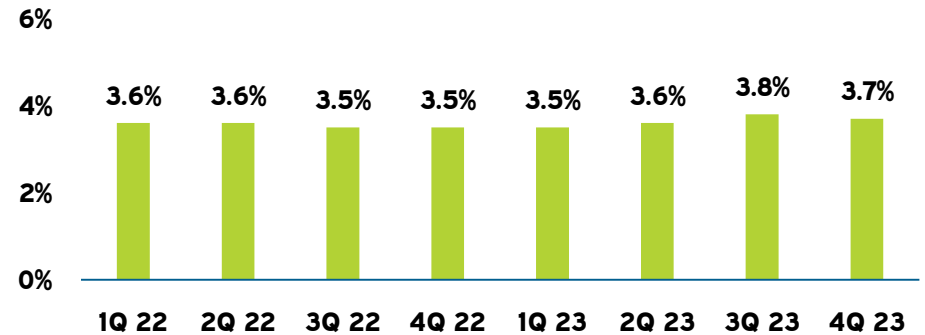
### Economic and Market Update

#### Quarterly Real GDP (Annualized)



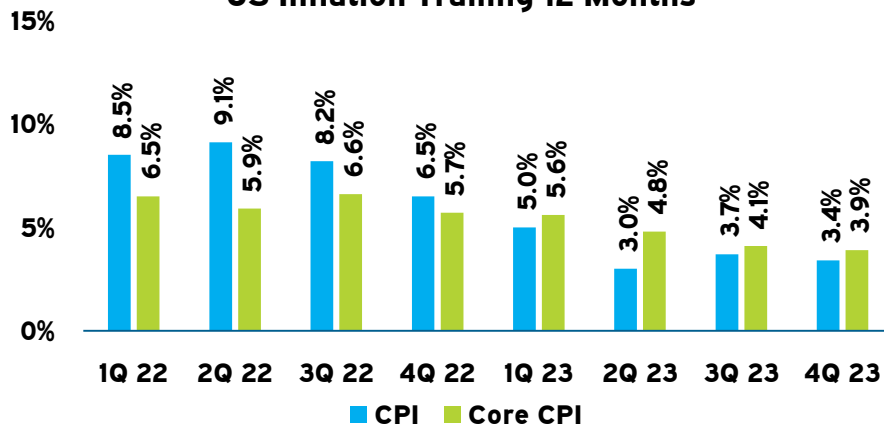
Source: Bureau of Economic Analysis. Data as of Q4 2023 represents the "advanced" estimate. The Q4 2023 and Year 2023 "second" estimate will be released February 28, 2024.

#### US Unemployment



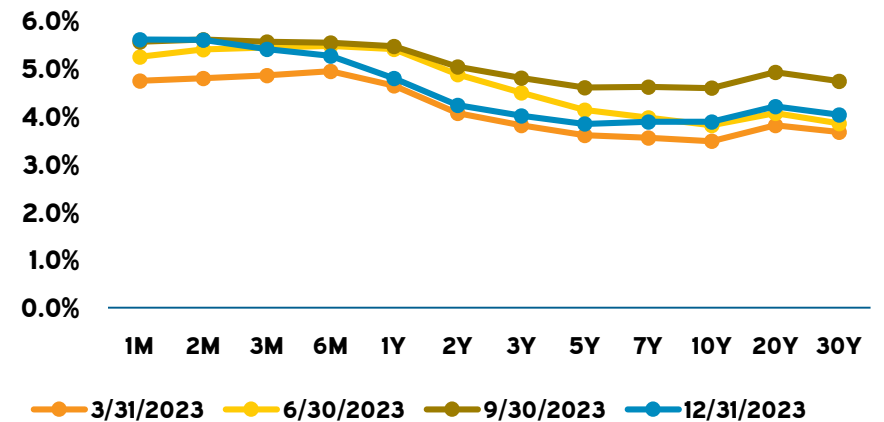
Source: Bureau of Labor Statistics. Data as of December 31, 2023. Seasonally adjusted.

#### 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 December 31, 2023.

#### US Yield Curve



Source: US Department of the Treasury.

## Market Update as of December 31, 2023

### Index Returns

	QTR (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
<b>Domestic Equity</b>					
S&P 500	11.7	26.3	10.0	15.7	12.0
Russell 3000	12.1	26.0	8.5	15.2	11.5
Russell 1000	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	9.5	11.5	8.9	10.9	8.4
Russell MidCap	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	14.6	25.9	1.3	13.8	10.6
Russell MidCap Value	12.1	12.7	8.4	11.2	8.3
Russell 2000	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.8	18.7	(3.5)	9.2	7.2
Russell 2000 Value	15.3	14.7	7.9	10.0	6.8
<b>Non-US Equity</b>					
MSCI ACWI (ex. US)	9.8	15.6	1.6	7.1	3.8
MSCI EAFE	10.4	18.2	4.0	8.2	4.3
MSCI EAFE Growth	12.7	17.6	0.3	8.8	5.2
MSCI EAFE Value	8.2	19.0	7.6	7.1	3.2
MSCI EAFE (Local Currency)	5.0	16.2	8.6	9.5	6.6
MSCI EAFE Small Cap	11.1	13.2	(0.7)	6.6	4.8
MSCI Emerging Markets	7.9	9.8	(5.1)	3.7	2.7
MSCI Emg Mkts (Local Currency)	5.6	9.9	(2.5)	5.4	5.2
MSCI China	(4.2)	(11.2)	(18.4)	(2.8)	(0.9)
<b>Fixed Income</b>					
Bloomberg Universal	6.8	6.2	(3.0)	1.4	2.1
Bloomberg Aggregate	6.8	5.5	(3.3)	1.1	1.8
Bloomberg US TIPS	4.7	3.9	(1.0)	3.2	2.4
Bloomberg High Yield	7.2	13.4	2.0	5.4	4.6
JPM GBI-EM Global Diversified	8.1	12.7	(3.2)	1.1	0.1
<b>Other</b>					
FTSE NAREIT Equity	16.2	13.7	7.2	7.4	7.7
Bloomberg Commodity Index	(4.6)	(7.9)	10.8	7.2	(1.1)

#### During the Quarter:

- Markets rallied in the fourth quarter after a weak Q3 as investors now believe the FOMC's rate hiking cycle is over and that monetary easing is likely in 2024. Inflation declined over the quarter and has retreated meaningfully since December 2022. The consumer continues to be resilient as unemployment has remained historically low and wages have continued to increase.
  - Looking forward, the paths of inflation and monetary policy, China's economic slowdown, slowing global growth and the uncertainty surrounding the geopolitical risks with the wars in Ukraine and Israel will all be key.
- Markets posted strong results in Q4 and year-to-date with major asset classes producing positive returns except for commodities.
- The FOMC maintained the federal funds rate target range of 5.25% to 5.50% during the quarter and the updated projections from the Fed's December Dot Plot now shows an overall 0.75% rate cut in 2024.
- Equities rebounded strongly in Q4 as most asset classes were positive.
  - US equities (+12.1%) continue to outpace non-US equities (+9.8%).
  - US Small Caps outperformed US Large Caps during the quarter, but large cap stocks still outperformed by a wide margin YTD.
  - Growth outpaced Value across all market capitalizations in the US except for Small Cap.
  - YTD Large Cap Growth kept its massive lead over value (+42.7% v +11.5%). The "Magnificent 7" stocks generated more than 50% of the total gains for the S&P 500 for the year.
  - Within Non-US, Developed Markets outperformed Emerging Markets.
- Broad fixed income returns were positive.
  - US Treasury yields declined mainly due to more dovish policy expectations. The 10-year Treasury declined ~70 basis points during the quarter ending December below 4%.
- Diversifying asset classes produced mixed results.
  - Commodities were down (-4.6%).
  - REITs increased (+16.2%)

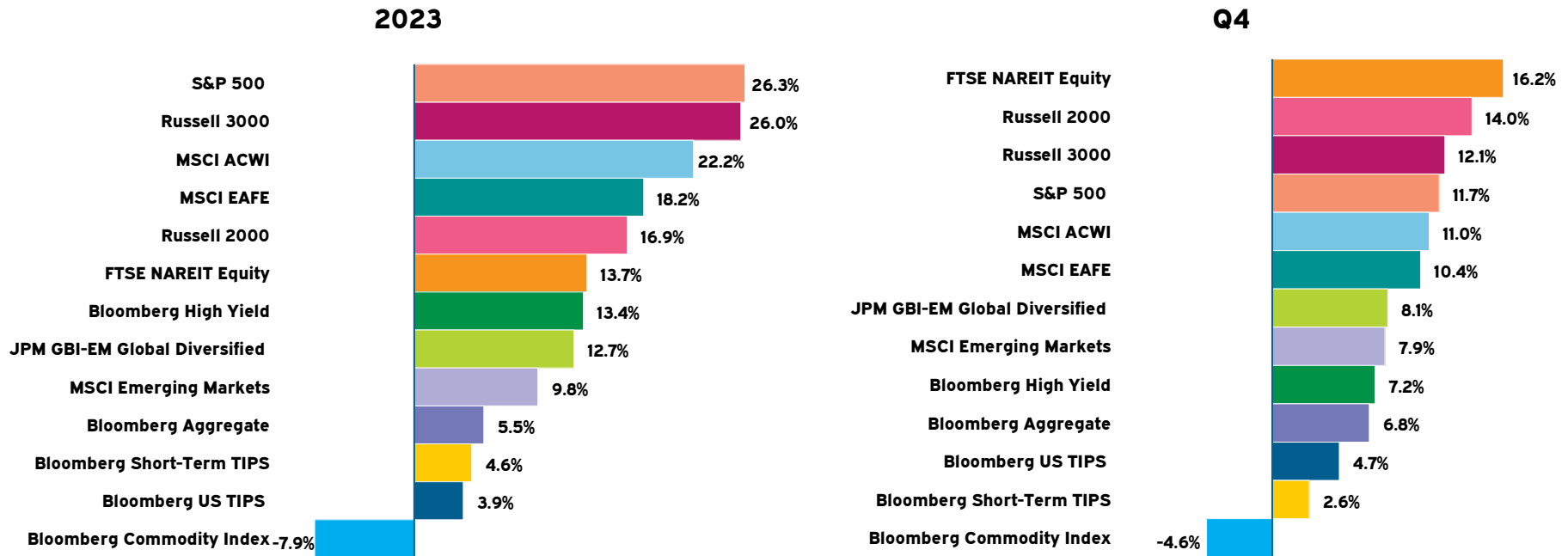
## Commentary

→ Most markets rallied in the fourth quarter in anticipation that policy rates cuts were ahead in 2024.

- Major central banks have largely paused interest rate hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels and begin cutting rates as soon as Q1 2024.
- Inflation rose in December in the US and Europe, but both finished the year much lower than where they started. China remained in deflationary territory (-0.3%) at year-end.
- US equity markets (Russell 3000 index) posted strong gains for the quarter (12.1%), raising full year results to +26.0%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets also rallied in the fourth quarter (MSCI EAFE 10.4%), with the weakening of the US dollar contributing meaningfully (10.4% versus 5.0% ex.-US dollar influence). The performance difference between US and international developed equities for the year remained wide (26.0% versus 18.2%).
- Emerging market equities were up 7.9% in the fourth quarter and 9.8% for calendar 2023 but trailed developed markets due to lagging returns in China (-4.2% Q4/-11.2% one-year). Emerging market equities ex.-China returned 20% in 2023.
- Interest rates generally fell in the fourth quarter, particularly for longer-dated maturities. The broad US bond market rallied (6.8%) for the quarter, lifting 2023 returns into positive territory (5.5%).

→ Looking to 2024, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, and the wars in Ukraine and Israel, will be key.

### Index Returns<sup>1</sup>



→ After a tough start to the quarter on lingering fears that the Federal Reserve might keep interest rates “higher for longer”, markets rallied in November and December. Economic data generally coming in below expectations sparked expectations that the Federal Reserve might really be done raising policy rates for this cycle.

→ Strong results for the quarter built on gains for the year with all asset classes finishing in positive territory in 2023, except commodities.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

### Domestic Equity Returns<sup>1</sup>

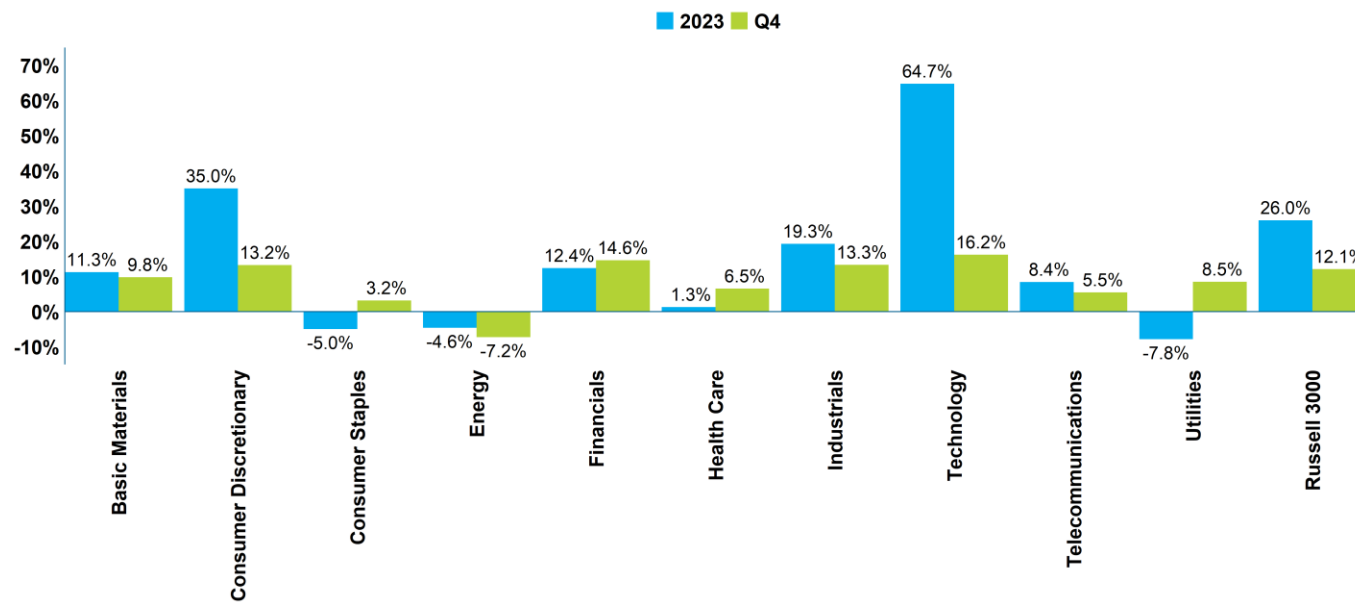
Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	4.5	11.7	26.3	10.0	15.7	12.0
Russell 3000	5.3	12.1	26.0	8.6	15.2	11.5
Russell 1000	4.9	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	4.4	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	8.9	10.9	8.4
Russell MidCap	7.7	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	7.6	14.5	25.9	1.3	13.8	10.6
Russell MidCap Value	7.8	12.1	12.7	8.4	11.2	8.3
Russell 2000	12.2	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.0	12.7	18.7	-3.5	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	8.0	10.0	6.8

**US Equities: The Russell 3000 rallied 5.3% in December, bringing fourth quarter results to +12.1%. US stocks were up 26.0% in 2023.**

- US equities had a strong final quarter of the year, driven by expectations that rate cuts may be ahead in 2024.
- Small cap stocks outperformed their large cap peers for the quarter while growth outpaced value with the exception of small cap. Large cap stocks outperformed small cap stocks by a wide margin for the calendar year and growth outpaced value across market caps.
- Calendar year results were clearly driven by large cap technology stocks. Within the S&P 500 index, the “Magnificent 7” stocks generated more than 50% of the total gains.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023. Magnificent Seven stocks include: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.

### Russell 3000 Sector Returns<sup>1</sup>



- All sectors posted gains for the fourth quarter, except for energy (-7.2%) given oil's recent declines. Technology (+16.2%) led the way for the quarter followed by financials (+14.6%).
- In 2023, technology (+64.7%) and consumer discretionary (+35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer. Traditionally defensive sectors like utilities (-7.8%) and consumer staples (-5.0%) trailed.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

### Foreign Equity Returns<sup>1</sup>

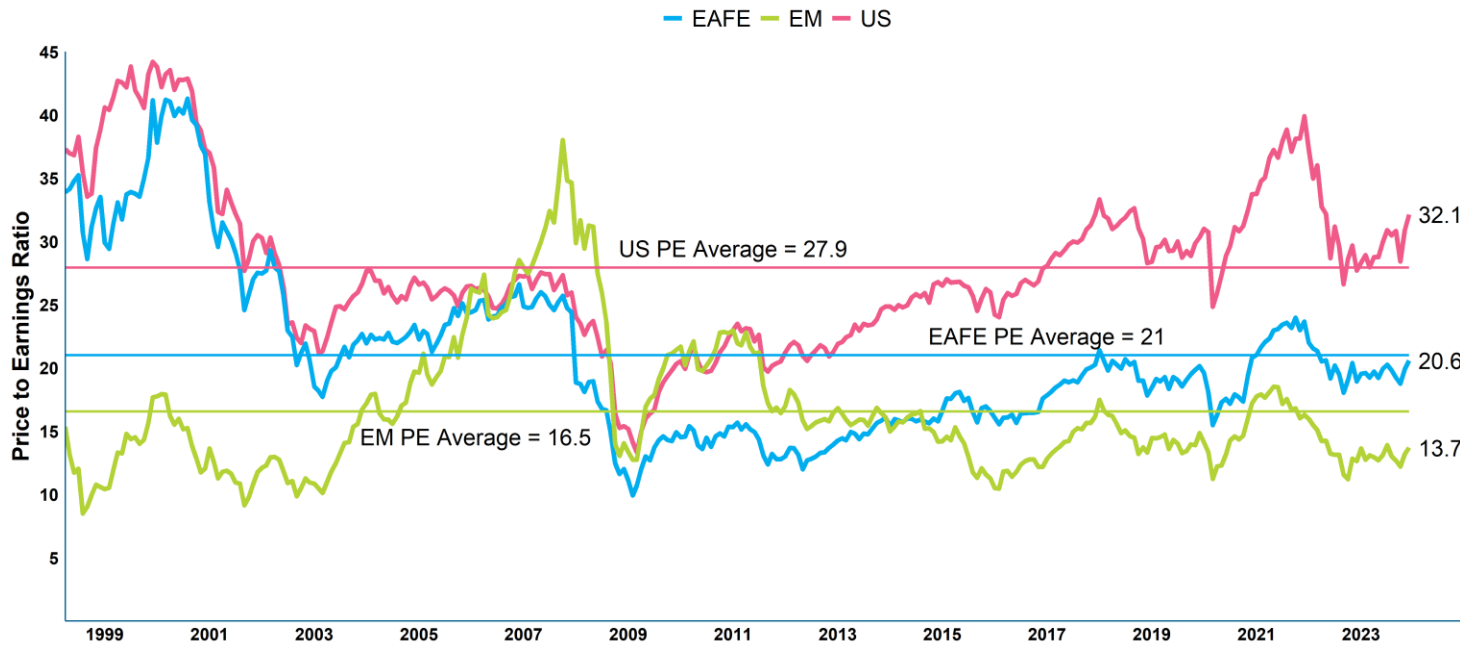
Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	5.0	9.8	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	4.0	8.2	4.3
MSCI EAFE (Local Currency)	2.9	5.0	16.2	8.7	9.5	6.6
MSCI EAFE Small Cap	7.3	11.1	13.2	-0.7	6.6	4.8
MSCI Emerging Markets	3.9	7.9	9.8	-5.1	3.7	2.7
MSCI Emerging Markets (Local Currency)	3.1	5.6	9.9	-2.5	5.4	5.2
MSCI China	-2.4	-4.2	-11.2	-18.5	-2.8	0.9

**Foreign Equity:** Developed international equities (MSCI EAFE) gained 5.3% in December and 10.4% in the fourth quarter bringing calendar year results to 18.2%. Emerging market equities (MSCI EM) rose 3.9% in December, 7.9% for the quarter, and 9.8% for the year.

- Optimism around lower inflation and potentially peaking and declining policy rates drove gains in the UK and Europe. Japan had weaker results for the quarter as concerns over a strengthening yen weighed on returns in December. Overall weakness in the US dollar also contributed to quarterly and full year results across developed markets.
- Emerging markets also experienced strong performance in the fourth quarter but trailed developed markets. China weighed on relative results for the quarter and year, declining 4.2% and 11.2%, respectively. Slowing growth, issues in the property sector, and on-going tensions with the US all weighed on results.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- Given the strong technology-driven rally last year, the US equity price-to-earnings ratio increased above its 21st century average. Fourth quarter gains brought valuations to their highest level for the year.
- International market valuations also increased in the fourth quarter, but remain below the US. In the case of developed markets, valuations finished the year close to the their long-term average, while emerging markets remained well below their average.

<sup>1</sup> 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: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.



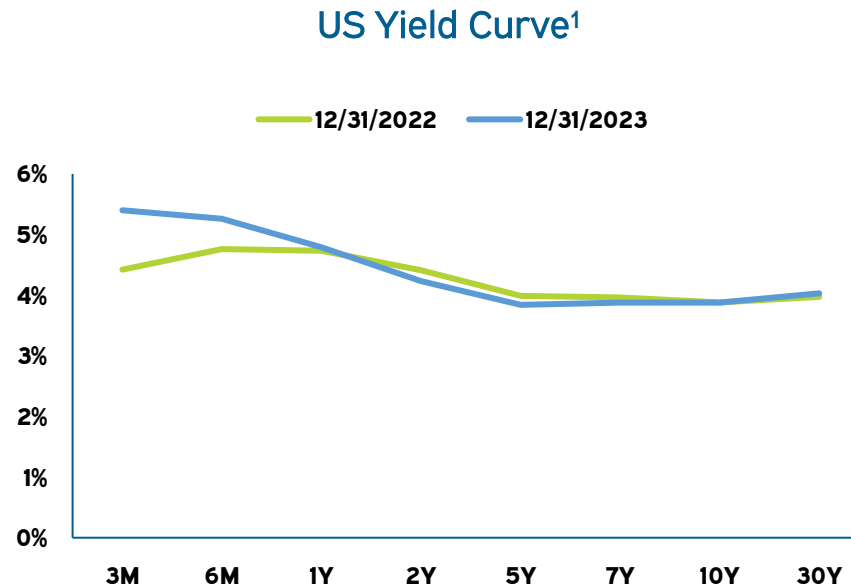
### Fixed Income Returns<sup>1</sup>

Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.8	6.8	6.2	-3.0	1.4	2.1	4.8	6.1
Bloomberg Aggregate	3.8	6.8	5.5	-3.3	1.1	1.8	4.5	6.3
Bloomberg US TIPS	2.7	4.7	3.9	-1.0	3.2	2.4	4.2	6.7
Bloomberg Short-term TIPS	1.1	2.6	4.6	2.3	3.4	2.0	4.5	2.4
Bloomberg High Yield	3.7	7.2	13.4	2.0	5.4	4.6	7.6	3.8
JPM GBI-EM Global Diversified (USD)	3.2	8.1	12.7	-3.2	1.1	0.1	6.5	5.0

**Fixed Income: The Bloomberg Universal index rose 3.8% in December, 6.8% for the quarter, and 6.2% for the year.**

- Policy rate expectations swung from pessimism to optimism in November and December. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024, leading to one of the best quarterly results in over twenty years.
- The broad US bond market (Bloomberg Aggregate) rallied 6.8% for the quarter, lifting full-year performance into positive territory (+5.5%). The broader TIPS index rose 4.7% for the quarter and 3.9% for the year, while the less interest-rate-sensitive short-term TIPS index rose 2.6% and 4.6% over the same periods.
- High yield bonds rallied on better risk sentiment (+7.2%), as did emerging market bonds (+8.1%). Both asset classes produced double-digit results last year.

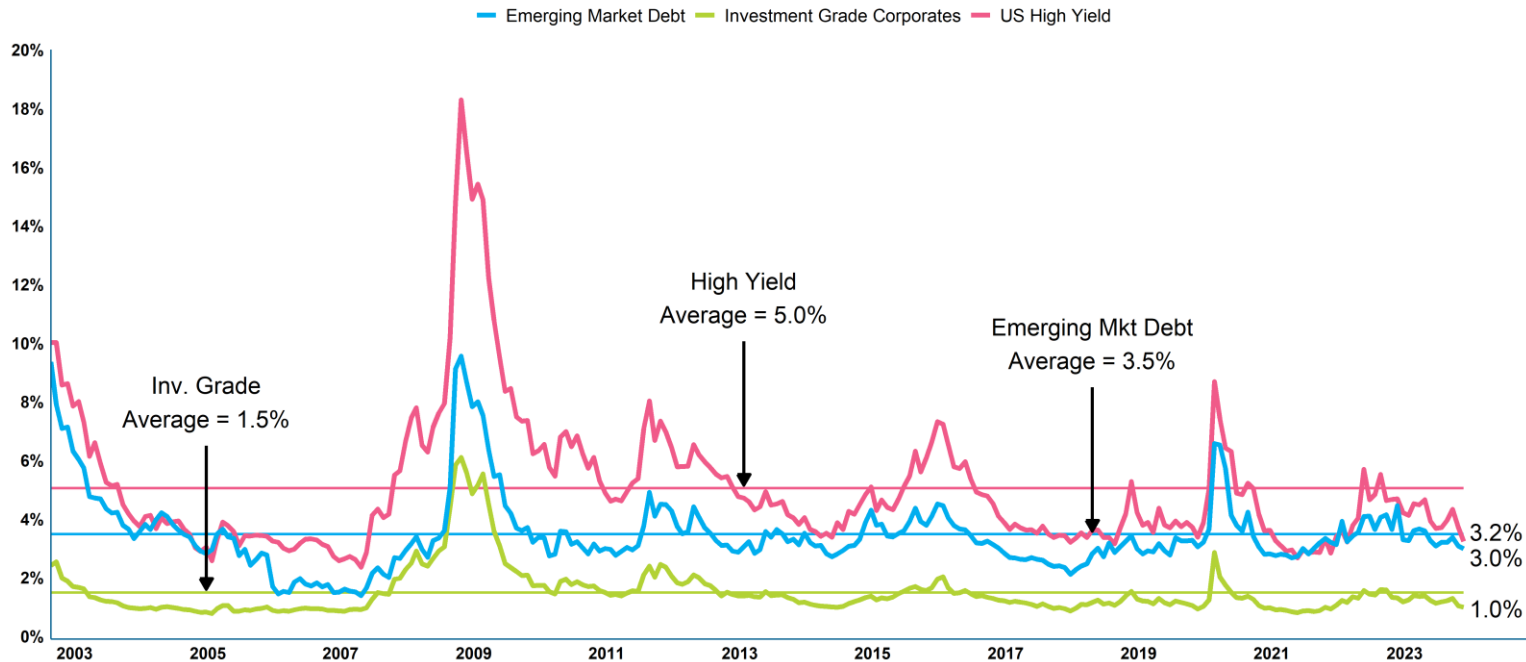
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- The more policy sensitive short-term maturities were higher this year while longer-term maturities finished the year where they started.
- Still, rates declined sharply over the quarter, particularly at the longer end of the yield curve on continued easing of inflation-related risks and speculation that the Federal Reserve is done with their policy rate increases for this cycle.
- For the quarter, two-year Treasury yields fell from 5.05% to 4.24% while ten-year Treasury yields declined from 4.56% to 3.88%.
- The yield curve remained inverted at year-end despite a recent flattening trend. The spread between the 2-year and 10-year Treasury was -0.37% at the end of December.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

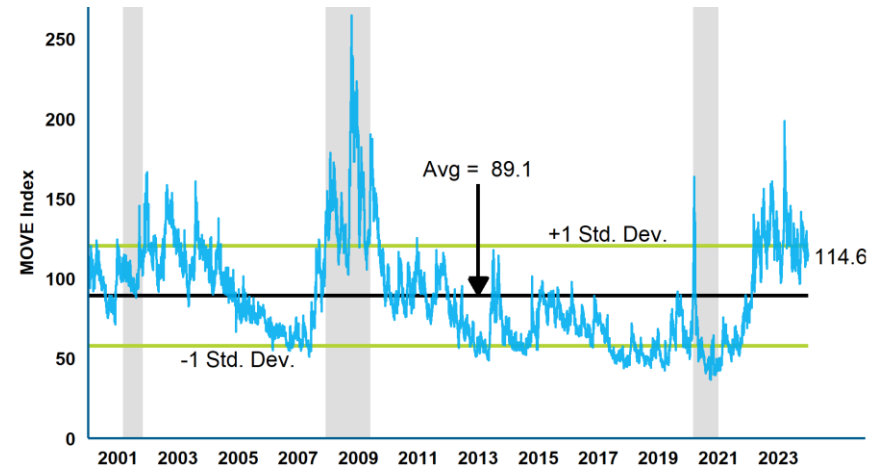
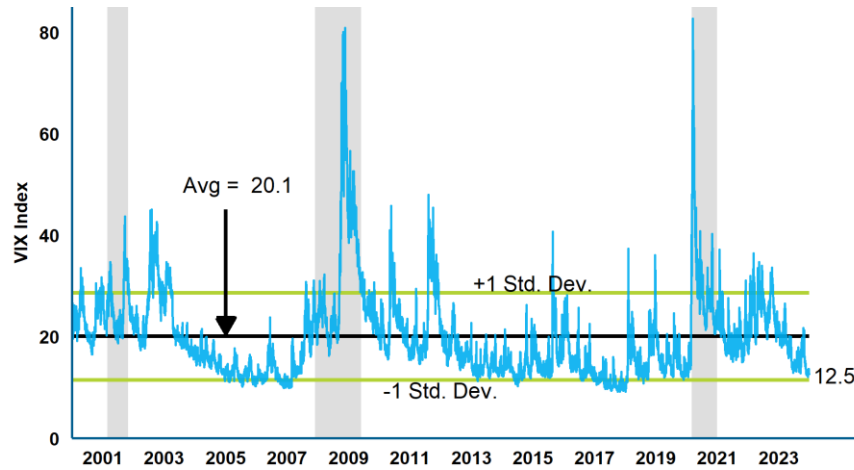
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in the fourth quarter with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.
- High yield spreads continue to be the furthest below their long-term average given the overall risk appetite last year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

<sup>1</sup> Sources: Bloomberg. Data is as of December 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

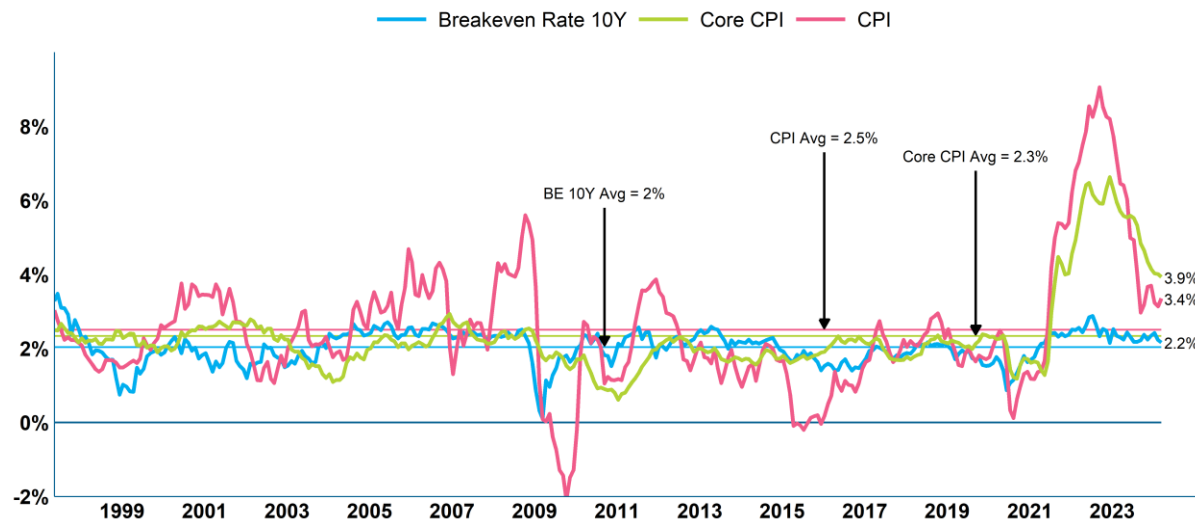
**Equity and Fixed Income Volatility<sup>1</sup>**



- Volatility in equities (VIX) finished the year close to its lows, remaining well below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) remained elevated to close out 2023 and is well above its long-run average (89.1). The bond market remained on edge for most of 2024 largely driven by uncertainty about the ultimate path of monetary policy.

<sup>1</sup> Equity Volatility – Source: FRED. 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 December 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2023.

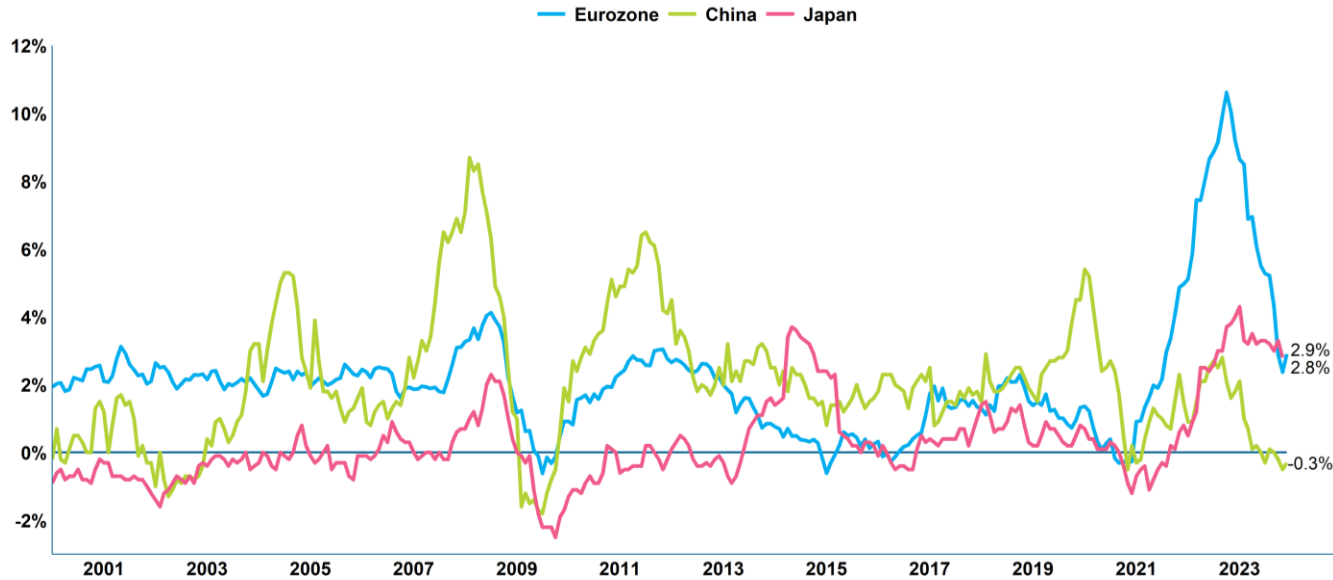
### US Ten-Year Breakeven Inflation and CPI<sup>1</sup>



- Year-over-year headline inflation rose from 3.1% to 3.4% in December, coming in above expectations of 3.2%. An increase in shelter (+6.2%) drove results, with food also increasing from a year prior (+2.7%) and energy prices falling (-2.0%). Month-over-month inflation came in at 0.3%, above expectations of 0.2% and the prior reading of 0.1%.
- Core inflation - excluding food and energy – declined in December (3.9% versus 4.0%) year-over-year, with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>1</sup> Source: FRED. Data is as December 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

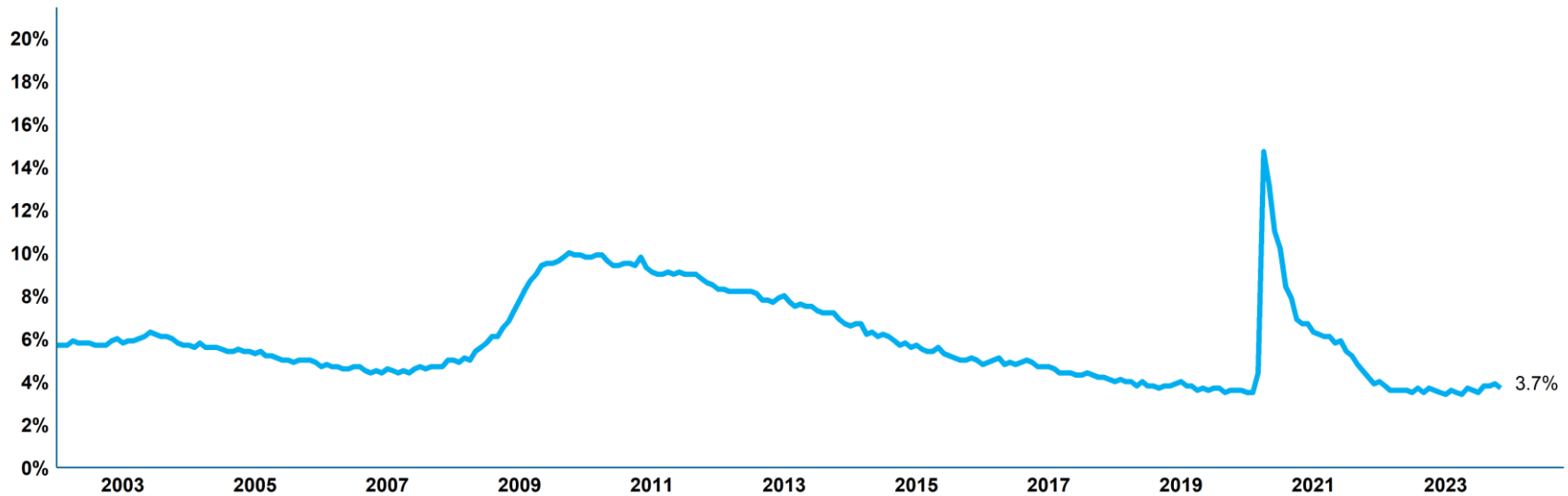
**Global Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Outside the US, inflation is also falling across major economies with China slipping into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. Despite a small increase in December (2.9% versus 2.4%) it finished the year below the 3.4% year-over-year reading in the US.
- Inflation in Japan remains near levels not seen in almost a decade, driven by food and home related items.

<sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone December flash estimate. Data is as December 31, 2023, except Japan which is as of November 30, 2023.

### US Unemployment<sup>1</sup>

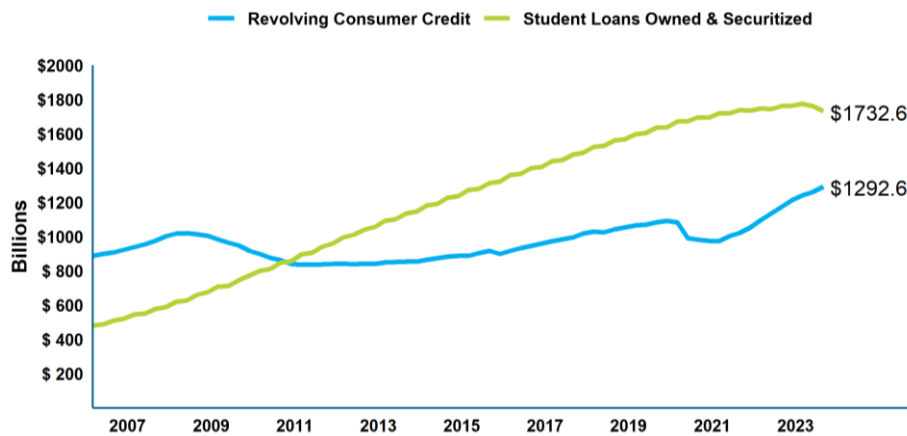


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In December, US unemployment remained unchanged (3.7%) and came in slightly below expectations of an increase to 3.8%. The number of jobs added did come in above expectations (216k versus 175k) though with the most jobs added in the government, leisure and hospitality, and health care sectors.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% finishing 2023 at 4.1% yoy. Wage growth remains positive in real terms though.

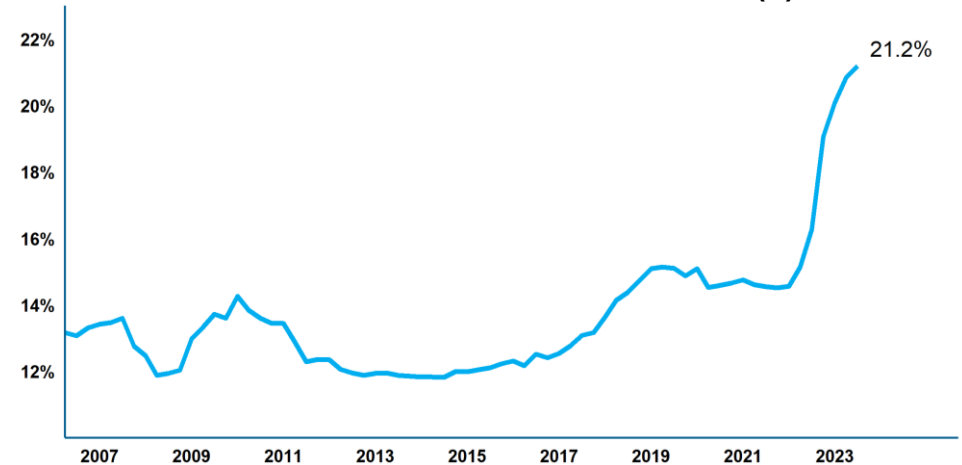
<sup>1</sup>Source: FRED. Data is as December 31, 2023.

### US Consumer Under Stress?<sup>1</sup>

#### Revolving Consumer Credit & Student Loans (\$B)



#### Consumer Credit Card Interest Rates (%)

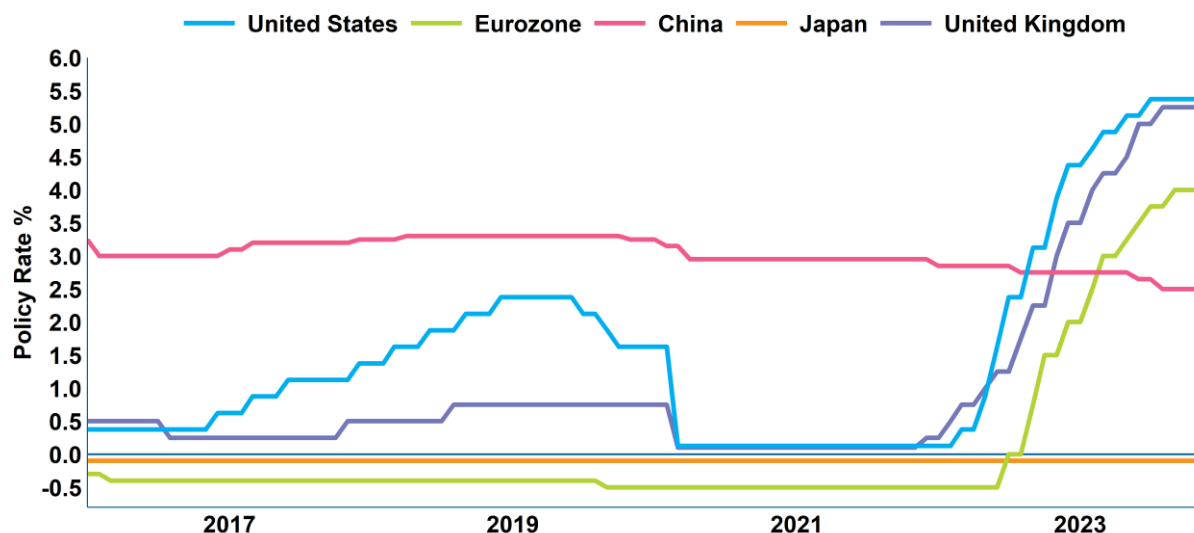


- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.



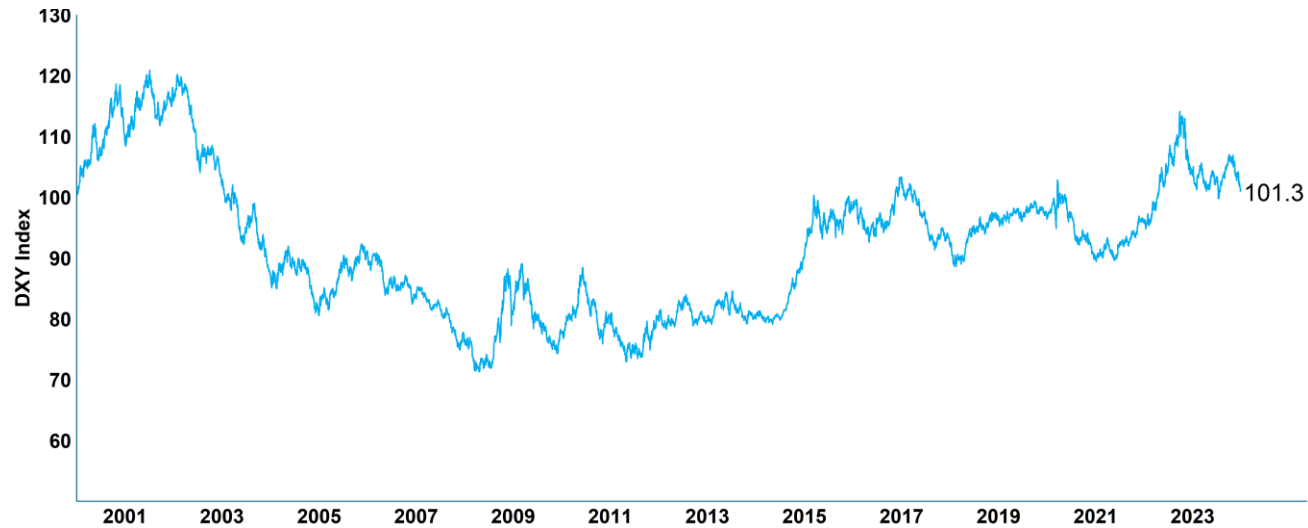
### Policy Rates<sup>1</sup>



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are pricing in six rate cuts next year given the track of economic data and recent comments from the Fed, while the Fed itself is only predicting three. How this discrepancy is resolved will be key this year.
- The European and UK central banks also recently paused their rate increases on slowing inflation. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>1</sup> Source: Bloomberg. Data is as of December 2023.

US Dollar vs. Broad Currencies<sup>1</sup>



- The US dollar declined around 5% in the fourth quarter as generally weaker economic data led investors to anticipate the end of FOMC tightening and interest rate cuts in 2024.
- Overall, the dollar finished the year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.

<sup>1</sup> Source: Bloomberg. Data as of December 31, 2023.

## Summary

### Key Trends:

- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for China's economic slowdown and on-going weakness in the real estate sector could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

## 529 Industry Data

### Tuition Inflation

- Twelve-month CPI increased in December to 3.4% coming in slightly above what economists had expected.
  - Elevated inflation could impact participants ability to save.
- College tuition inflation also ticked down in December from September's print of 1.9% to 1.2%.
- While Tuition inflation remains below CPI the gap between the two has narrowed considerably.

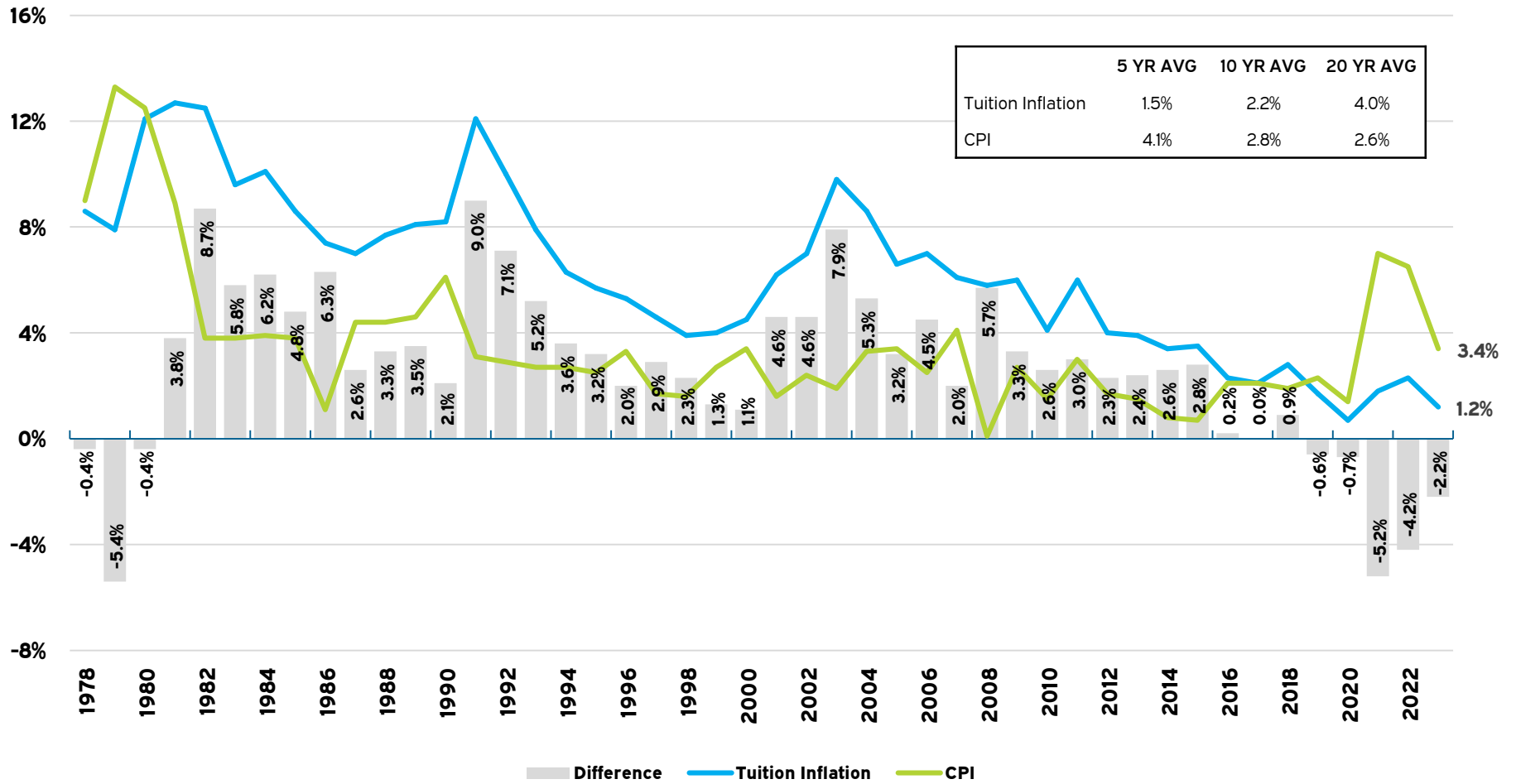
### Account & Asset Growth

- As of December 31, 2023, total college savings assets were \$447 billion, up from \$409 billion at the end of September 2023.
- Direct plans' accounts and assets continue to out pace Advisor plans.
- Year-over-year account growth is trending upward, but remains below the 10-year average for Direct plans.
  - Direct plan account growth increased over the quarter.
  - Advisor plan account growth rose slightly above its 10-year average over the quarter.

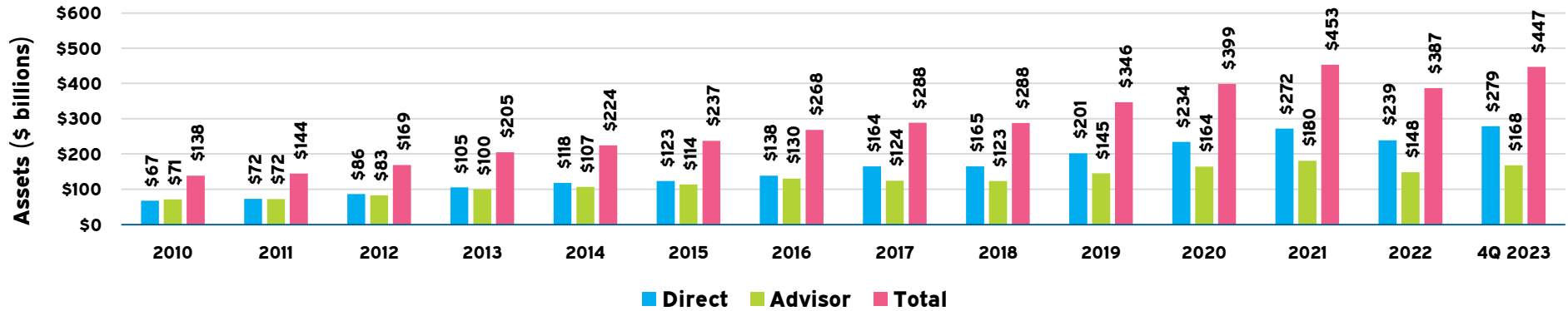
### Median Portfolio Results

- Both age-based and YOE portfolios saw positive results over the most recent quarter and all other trailing periods remain positive.
- Direct Age-based portfolios matched or outperformed their Advisor counterparts in almost all peer groups and time periods measured.
- Direct YOE portfolios matched or outperformed their Advisor counterparts, in almost all peer groups and time periods measured.
- Most Direct portfolios experienced less risk than their Advisor counterparts.

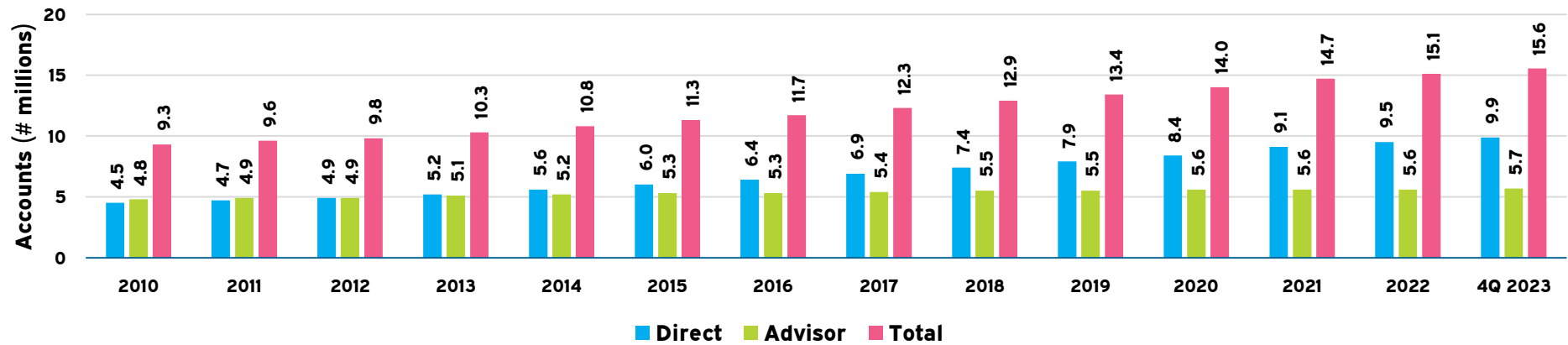
**Year-Over-Year (1978 – December 2023)  
College Tuition Inflation v. the Consumer Price Index,  
US Bureau of Labor Statistics**



Industry Total Assets Under Management by Plan Type



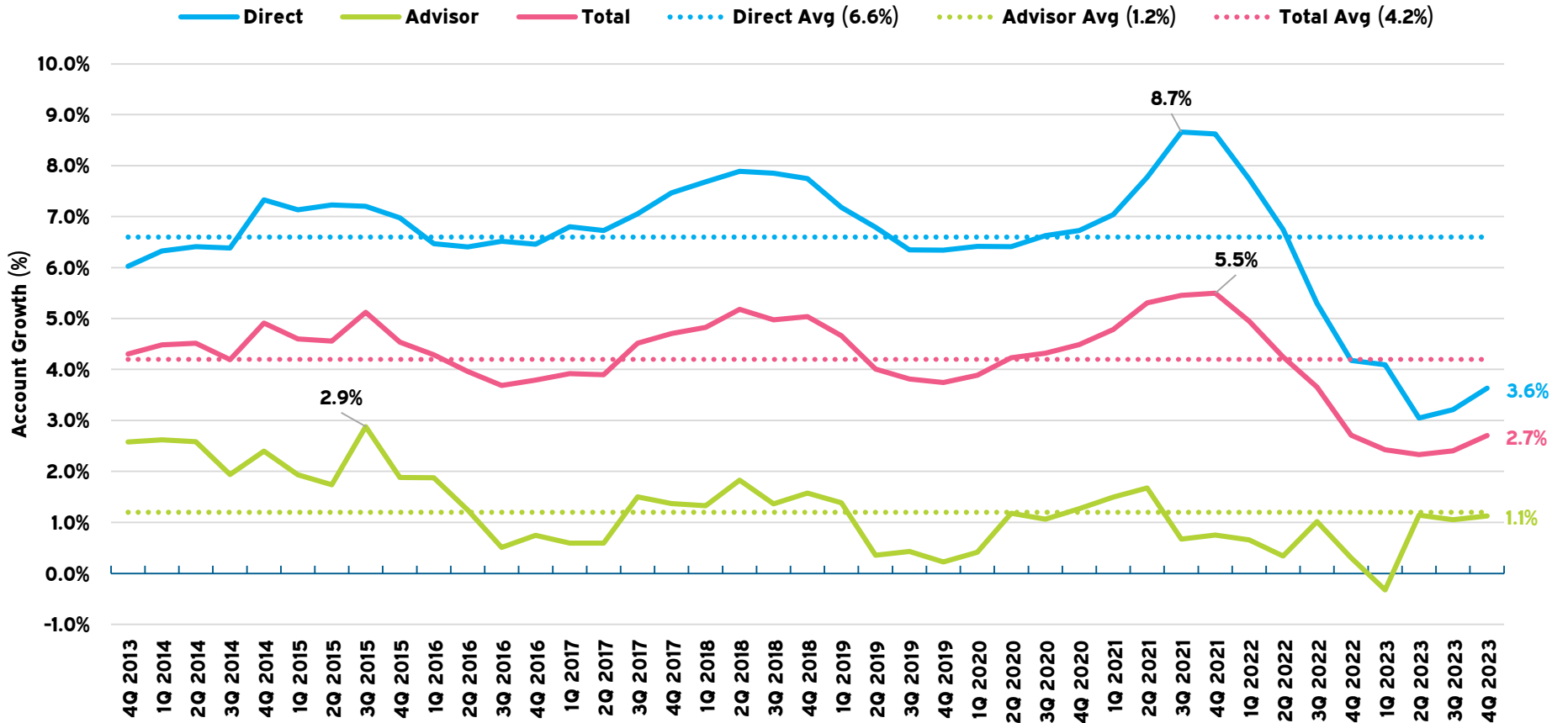
Industry Total Accounts By Plan Type



Source: ISS Market Intelligence as December 31, 2023.

Size of Market: Account Growth

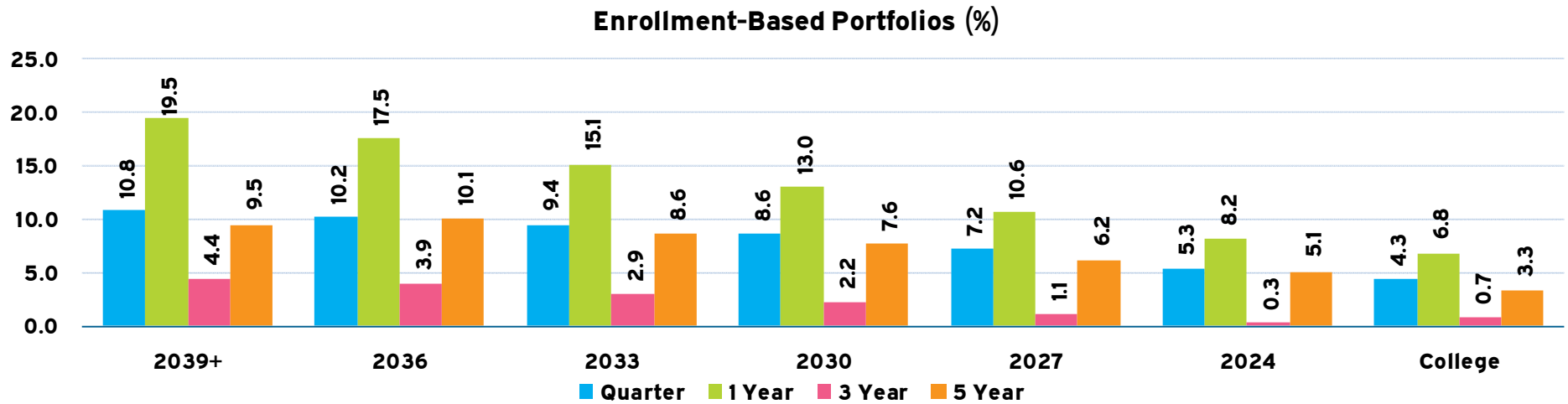
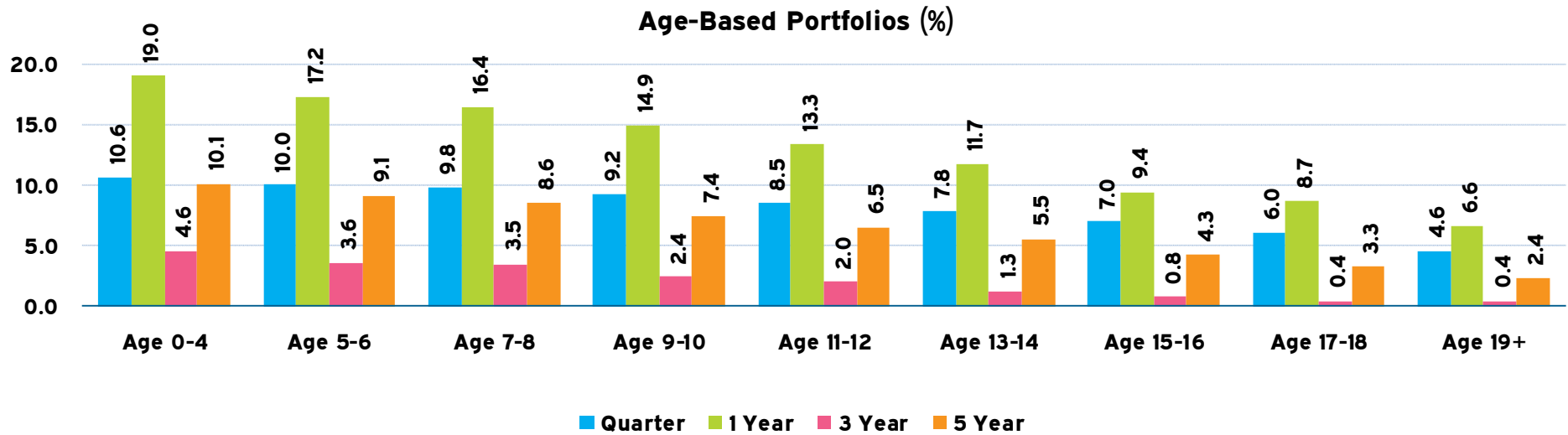
Rolling 1-Year Account Growth by Plan Type (%)



Source: ISS Market Intelligence as of December 31, 2023.

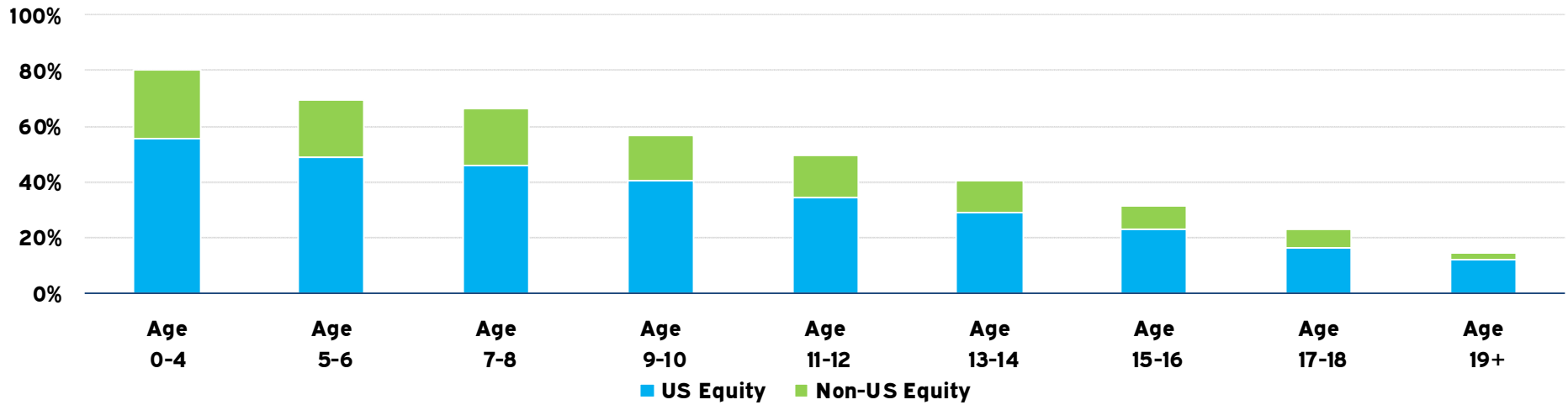


### Median Portfolio Returns

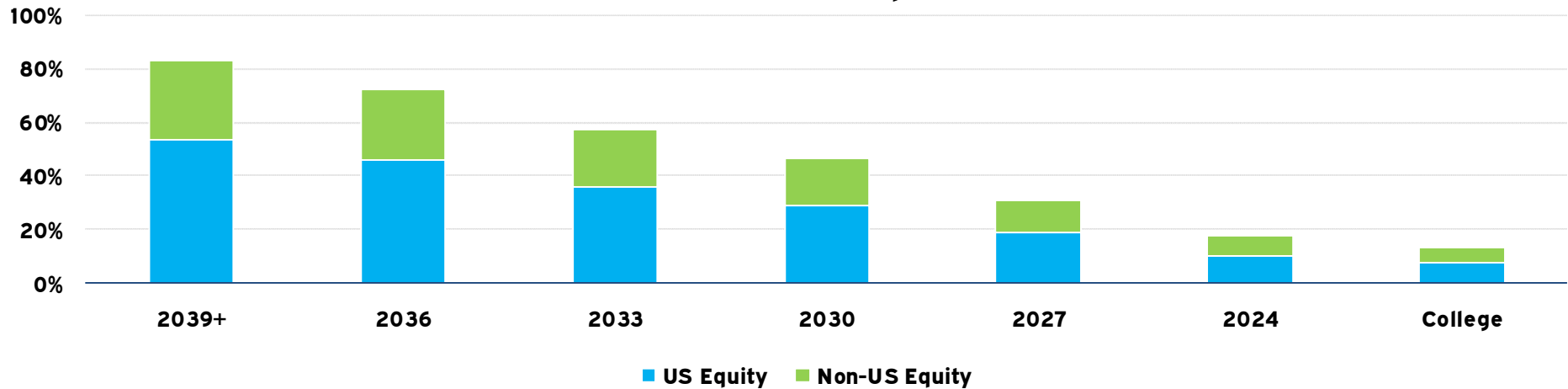


Source: Morningstar Direct. Returns are net of fees. Advisor Plan returns reflect A Shares excluding the effects of sales charges.

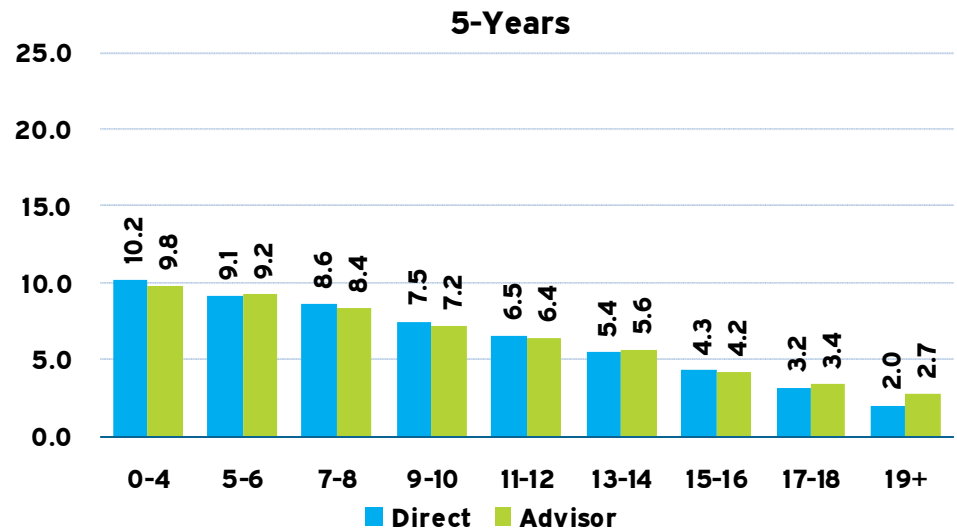
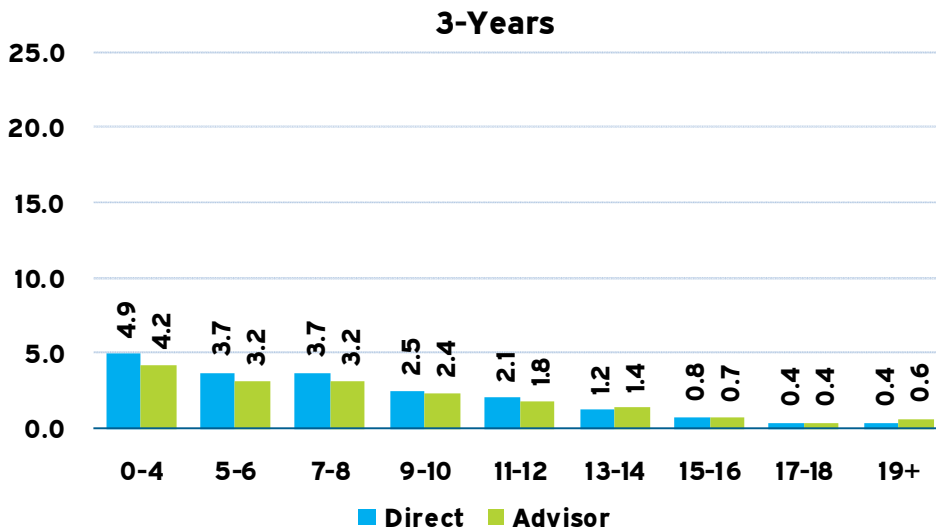
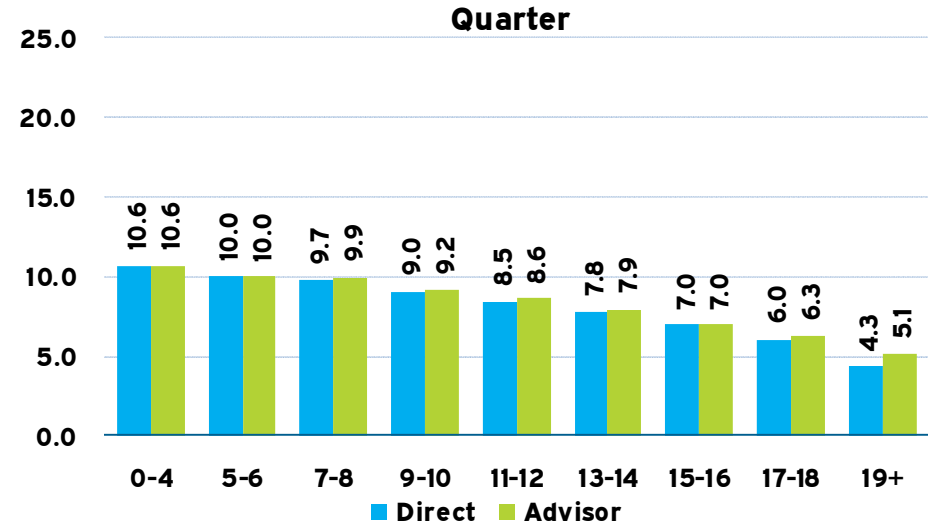
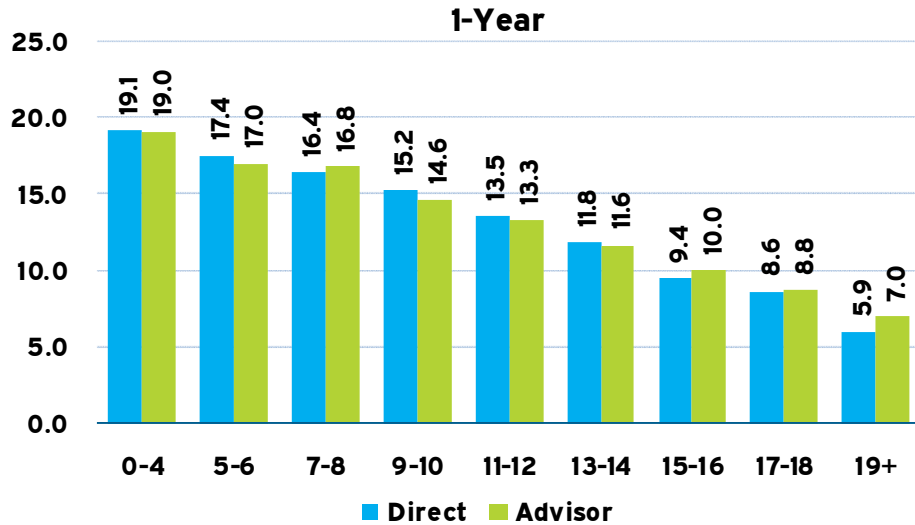
#### Age-Based Options



#### Enrollment-Based Options

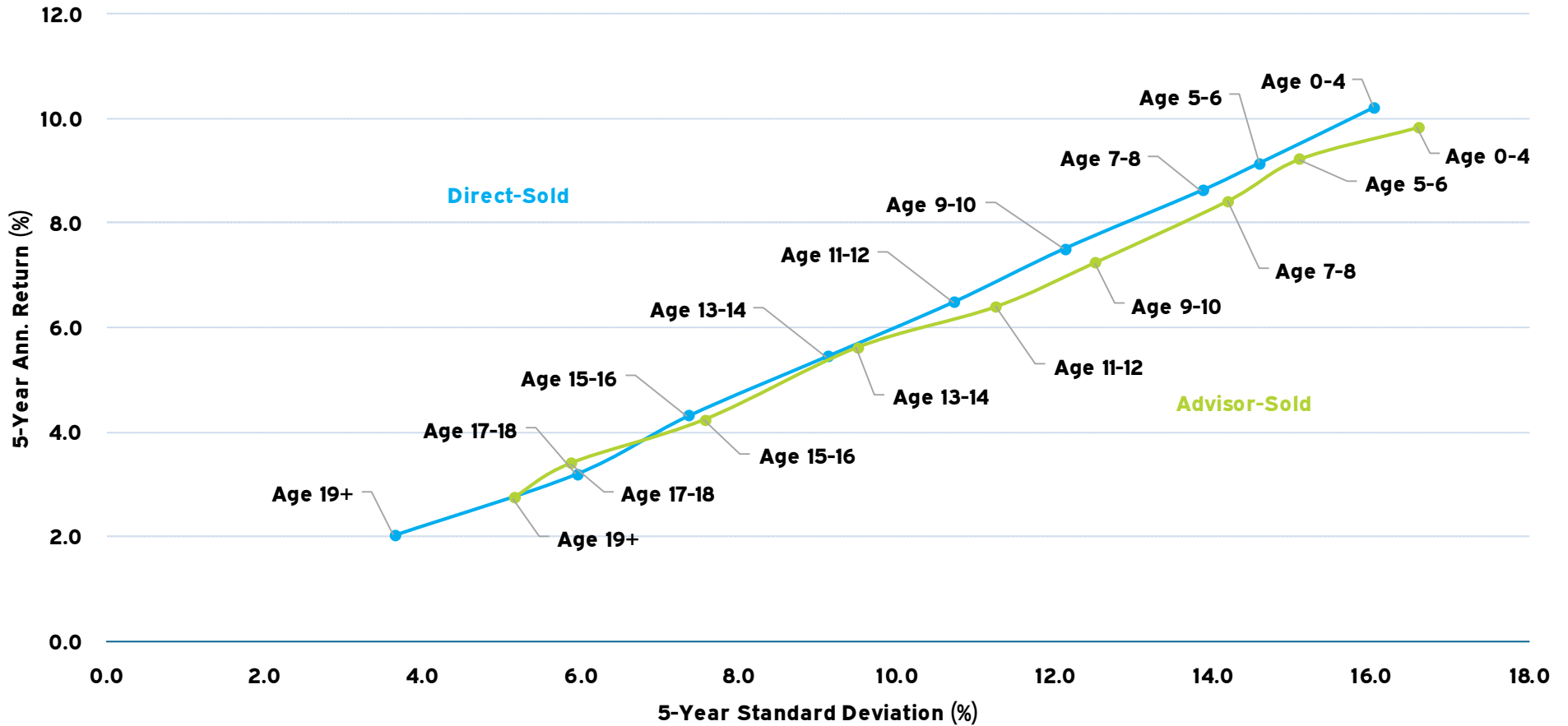


Source: Morningstar Direct.



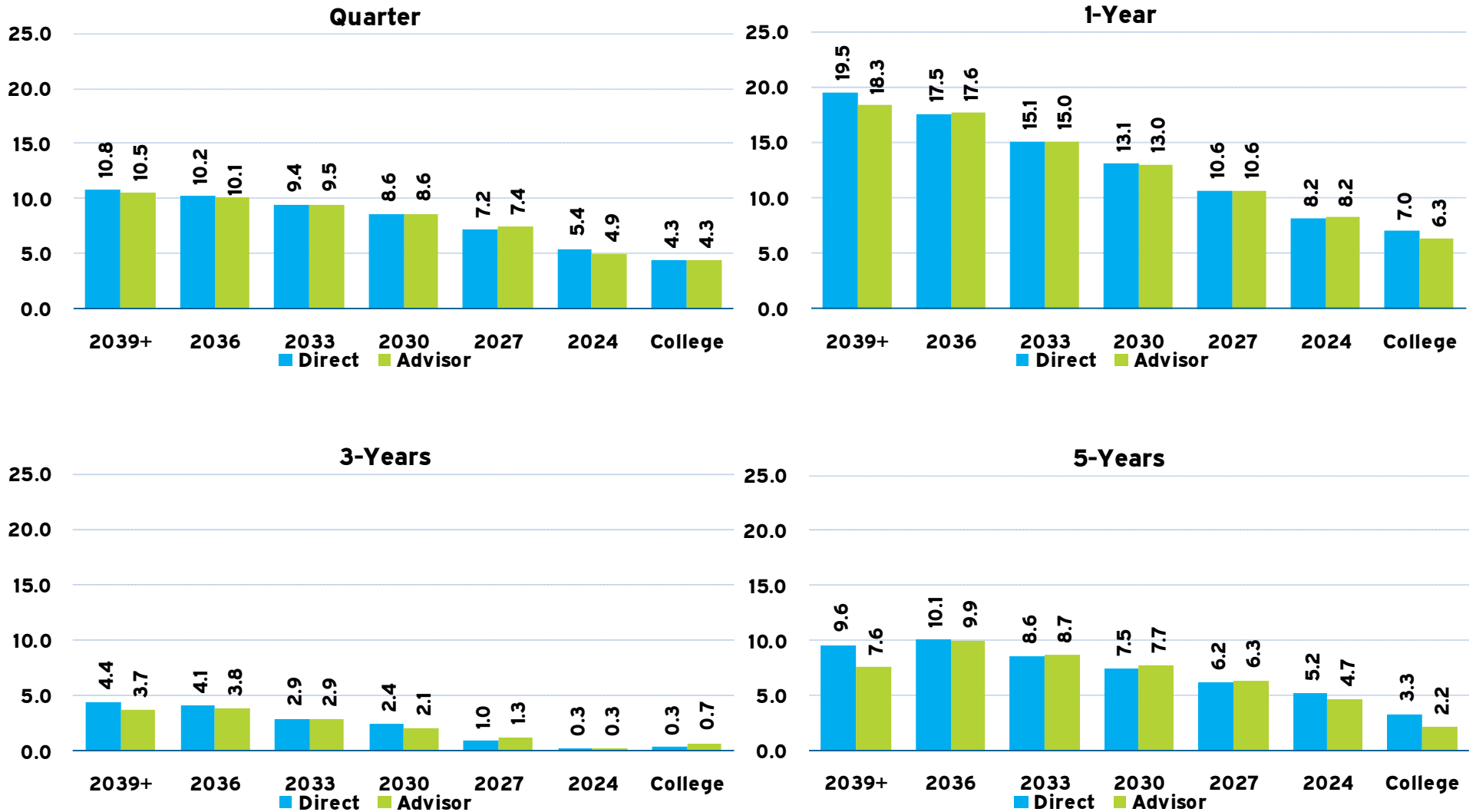
Source: Morningstar Direct. Returns are net of fees. Advisor Plan returns reflect A Shares excluding the effects of sales charges.

**Median Age-Based Risk vs Return  
(5 Years ending December 31, 2023)**



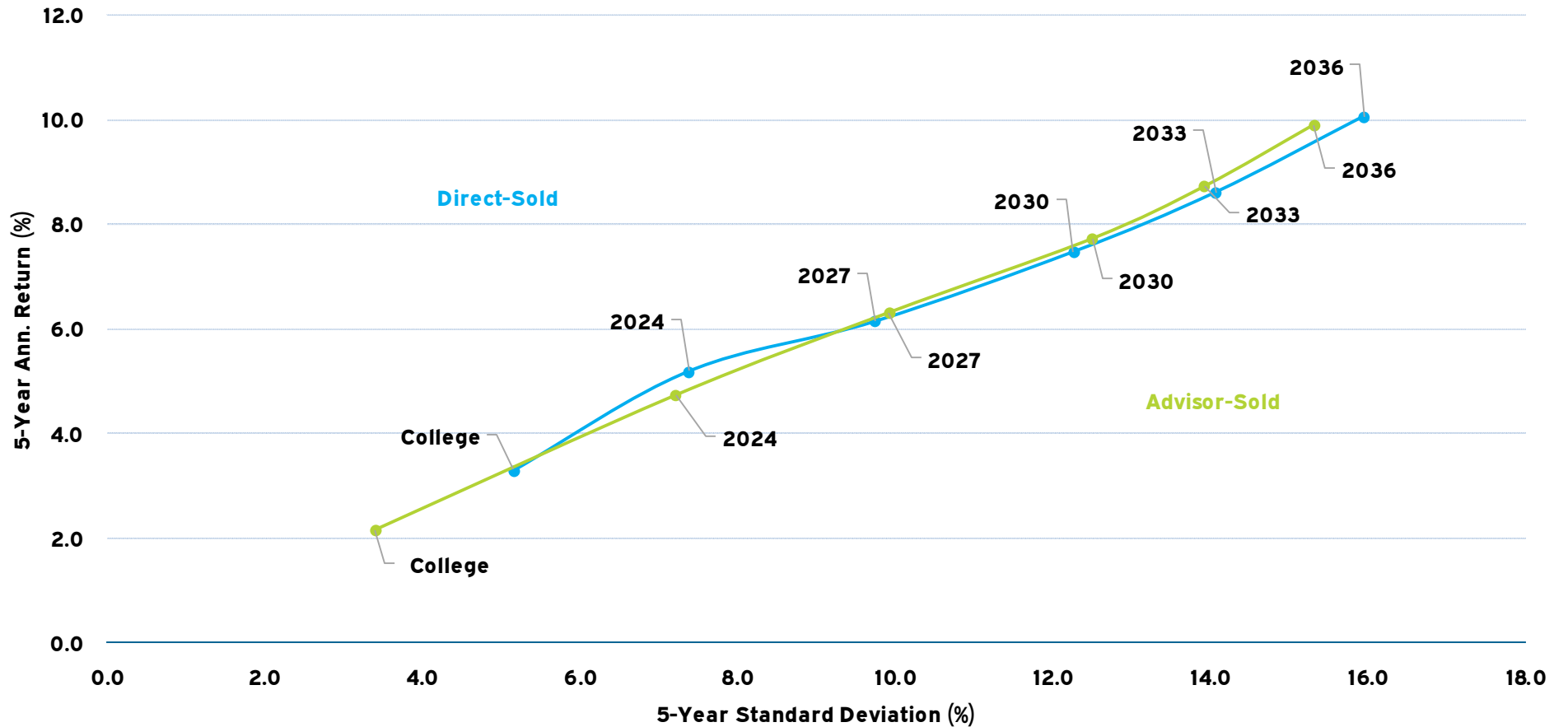
Source: Morningstar Direct. Returns are net of fees. Advisor Plan returns reflect A Shares excluding the effects of sales charges.

### Enrollment-Based Portfolios



Source: Morningstar Direct. Returns are net of fees. Advisor Plan returns reflect A Shares excluding the effects of sales charges.

**Median Enrollment-Based Risk vs Return  
(5 Years ending December 31, 2023)**



Source: Morningstar Direct. Returns are net of fees. Advisor Plan returns reflect A Shares excluding the effects of sales charges.

## **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 <sup>1</sup>	---	---
--	-----	-----

<sup>1</sup> 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 <sup>5</sup> (> 60 months)	Morningstar Sustainability Rating
Domestic Equity	Fund return < bench return -3.5% for 6 consecutive months	Fund return < bench return -1.75% for 6 consecutive months	VRR < 0.97 for 6 consecutive months	--
International Equity	Fund return < bench return -4.5% for 6 consecutive months	Fund return < bench return -2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months	--
Fixed Income	Fund return < bench return -1.0% for 6 consecutive months	Fund return < bench return -0.5% for 6 consecutive months	VRR < 0.98 for 6 consecutive months	--
High Yield	Fund return < bench return -6.5% for 6 consecutive months	Fund return < bench return -3.25% for 6 consecutive months	VRR < 0.96 for 6 consecutive months	--
Social Choice	Fund return < bench return -5.0% for 6 consecutive months	Fund return < bench return -2.50% for 6 consecutive months	VRR < 0.9 for 6 consecutive months	Above Average

### Passively Managed Funds

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

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

<sup>2</sup> Annualized return is the average annual return of either the manager or its benchmark.

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

<sup>4</sup> Tracking error is a measure of the volatility of the average annual difference between the manager's return and the benchmark's return.

<sup>5</sup> 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 Agreements<sup>1</sup> (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)
International Equity <sup>2</sup>	Tracking Error > 1.00% for 6 consecutive months	Tracking Error > 0.75% for 6 consecutive months	Fd annlzd return < bench annlzd return -0.50% for 6 consecutive months
Fixed Income	Tracking Error > 0.70% for 6 consecutive months	Tracking Error > 0.60% for 6 consecutive months	Fd annlzd return < bench annlzd return -0.50% for 6 consecutive months
High Yield	Tracking Error > 0.75% for 6 consecutive months	Tracking Error > 0.65% for 6 consecutive months	Fd annlzd return < bench annlzd return -0.55% for 6 consecutive months

<sup>1</sup> 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.

<sup>2</sup> 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 <sup>1</sup>	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 <sup>1</sup> (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 <sup>2</sup>	→ 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.

<sup>1</sup> Ranges are shown in the Investment Performance Criteria Schedules.

<sup>2</sup> The amount of time generally required before an investment is put on watch.

## **Summary of Performance Status**

**Asset Allocation & Performance | As of December 31, 2023**

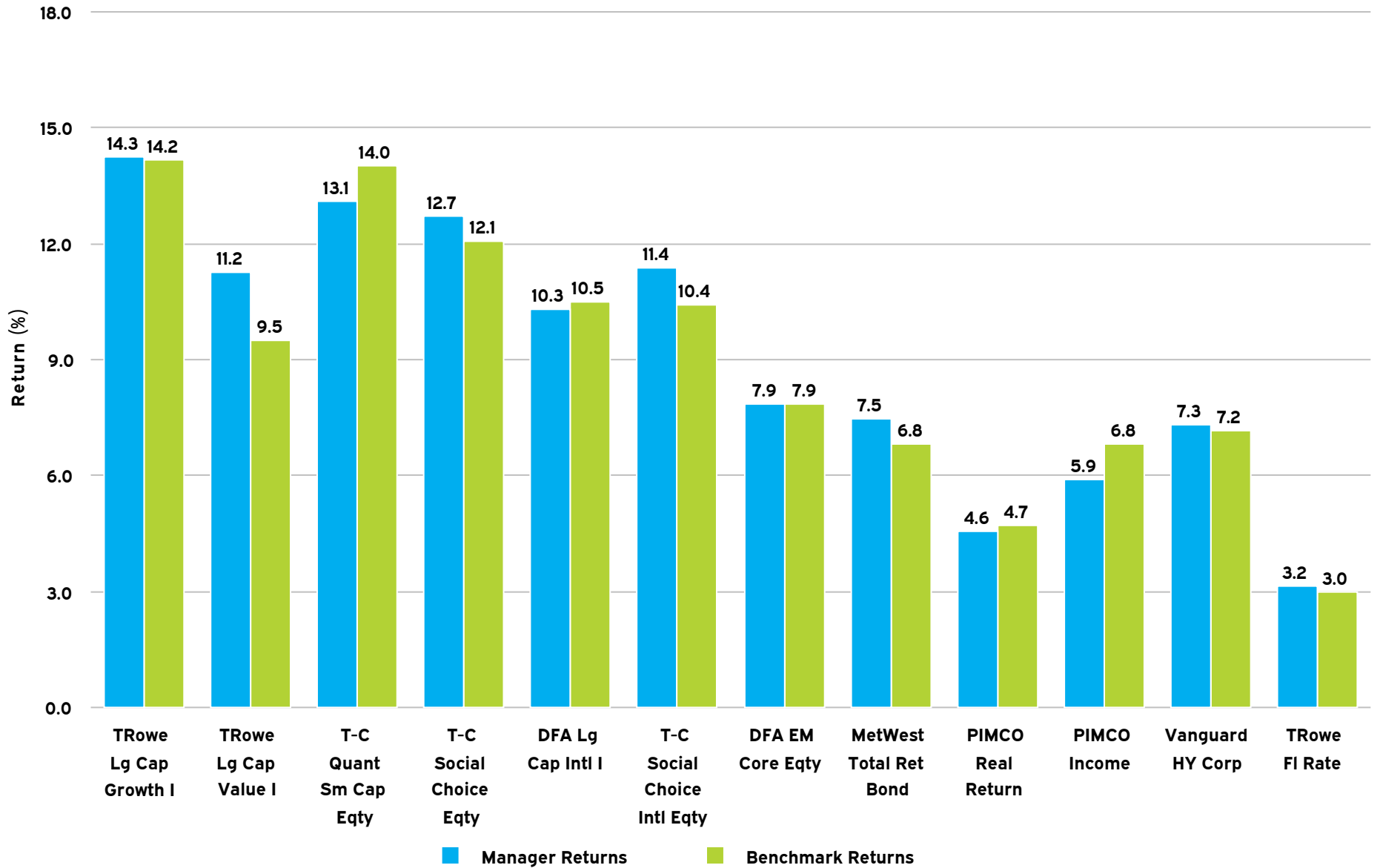
Trailing Net Performance											
	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	
<b>Active</b>											
TRowe Price Large Cap Growth I	14.3 (41)	46.2 (18)	5.3 (53)	15.9 (53)	14.0 (15)	-35.2 (76)	23.2 (40)	39.6 (34)	28.5 (86)	4.3 (7)	
<i>Russell 1000 Growth Index</i>	14.2 (44)	42.7 (32)	8.9 (10)	19.5 (7)	14.9 (6)	-29.1 (36)	27.6 (15)	38.5 (38)	36.4 (19)	-1.5 (51)	
<i>Large Growth Median</i>	14.0	39.0	5.4	16.1	12.3	-30.9	21.9	35.6	32.8	-1.5	
TRowe Price Large Cap Value I	11.2 (17)	9.7 (60)	9.5 (53)	11.4 (47)	8.7 (35)	-4.8 (43)	25.8 (54)	3.0 (47)	26.7 (35)	-9.3 (58)	
<i>Russell 1000 Value Index</i>	9.5 (52)	11.5 (47)	8.9 (67)	10.9 (60)	8.4 (48)	-7.5 (70)	25.2 (62)	2.8 (50)	26.5 (37)	-8.3 (41)	
<i>Large Value Median</i>	9.6	11.0	9.6	11.3	8.3	-5.4	26.0	2.7	25.6	-8.9	
TIAA-CREF Quant Small Cap Equity I	13.1 (37)	18.7 (27)	7.9 (34)	11.9 (30)	8.6 (19)	-15.4 (36)	25.1 (40)	12.8 (54)	23.9 (58)	-12.0 (53)	
<i>Russell 2000 Index</i>	14.0 (21)	16.9 (42)	2.2 (65)	10.0 (67)	7.2 (57)	-20.4 (62)	14.8 (70)	20.0 (39)	25.5 (44)	-11.0 (46)	
<i>Small Cap Median</i>	12.3	16.3	5.4	10.8	7.4	-17.7	22.0	14.9	24.8	-11.6	
TIAA-CREF Social Choice Equity I	12.7 (14)	22.5 (64)	8.4 (67)	15.1 (38)	--	-17.8 (47)	26.5 (54)	20.3 (22)	31.5 (22)	-5.5 (51)	
<i>Russell 3000 Index</i>	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)	11.5 (28)	-19.2 (72)	25.7 (63)	20.9 (18)	31.0 (34)	-5.2 (46)	
<i>Large Blend Median</i>	11.6	24.4	9.0	14.5	10.8	-18.2	26.8	17.3	30.0	-5.5	
DFA Large Cap International I	10.3 (43)	17.9 (28)	5.0 (8)	8.8 (21)	4.5 (21)	-13.0 (15)	12.8 (17)	8.1 (61)	22.0 (50)	-14.1 (36)	
<i>MSCI World ex U.S. (Net)</i>	10.5 (36)	17.9 (27)	4.4 (15)	8.5 (28)	4.3 (30)	-14.3 (27)	12.6 (19)	7.6 (69)	22.5 (45)	-14.1 (34)	
<i>Foreign Large Blend Median</i>	10.0	16.4	2.5	7.8	4.0	-15.7	10.5	9.3	22.0	-15.0	
TIAA-CREF Social Choice Intl Equity	11.4 (13)	19.3 (13)	--	--	--	--	--	--	--	--	
<i>MSCI EAFE (Net)</i>	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)	4.3 (31)	-14.5 (31)	11.3 (37)	7.8 (66)	22.0 (50)	-13.8 (27)	
<i>Foreign Large Blend Median</i>	10.0	16.4	2.5	7.8	4.0	-15.7	10.5	9.3	22.0	-15.0	
DFA Emerging Markets Core Equity I	7.9 (48)	15.5 (24)	0.7 (14)	6.2 (22)	4.0 (18)	-16.4 (15)	5.8 (16)	13.9 (71)	16.0 (81)	-15.2 (39)	
<i>MSCI Emerging Markets (Net)</i>	7.9 (48)	9.8 (60)	-5.1 (44)	3.7 (56)	2.7 (44)	-20.1 (30)	-2.5 (58)	18.3 (47)	18.4 (66)	-14.6 (29)	
<i>Diversified Emerging Mkts Median</i>	7.8	10.9	-5.6	4.0	2.4	-22.5	-1.7	17.6	20.6	-16.4	
Metropolitan West Total Return Bond I	7.5 (15)	6.0 (59)	-3.7 (70)	1.2 (61)	--	-14.8 (77)	-1.1 (63)	9.1 (29)	9.1 (56)	0.2 (17)	
<i>Blmbg. U.S. Aggregate Index</i>	6.8 (61)	5.5 (74)	-3.3 (51)	1.1 (68)	1.8 (59)	-13.0 (26)	-1.5 (81)	7.5 (71)	8.7 (68)	0.0 (19)	
<i>Intermediate Core-Plus Bond Median</i>	7.0	6.2	-3.3	1.4	1.9	-13.9	-0.9	8.4	9.3	-0.8	
PIMCO Real Return	4.6 (40)	3.7 (53)	-1.1 (52)	3.3 (23)	2.4 (17)	-11.9 (55)	5.7 (33)	12.1 (13)	8.5 (17)	-2.0 (65)	
<i>Blmbg. U.S. TIPS</i>	4.7 (31)	3.9 (47)	-1.0 (46)	3.2 (33)	2.4 (13)	-11.8 (54)	6.0 (23)	11.0 (30)	8.4 (20)	-1.3 (37)	
<i>Inflation-Protected Bond Median</i>	4.4	3.8	-1.1	3.0	2.0	-11.7	5.3	9.8	7.7	-1.5	

### Asset Allocation & Performance | As of December 31, 2023

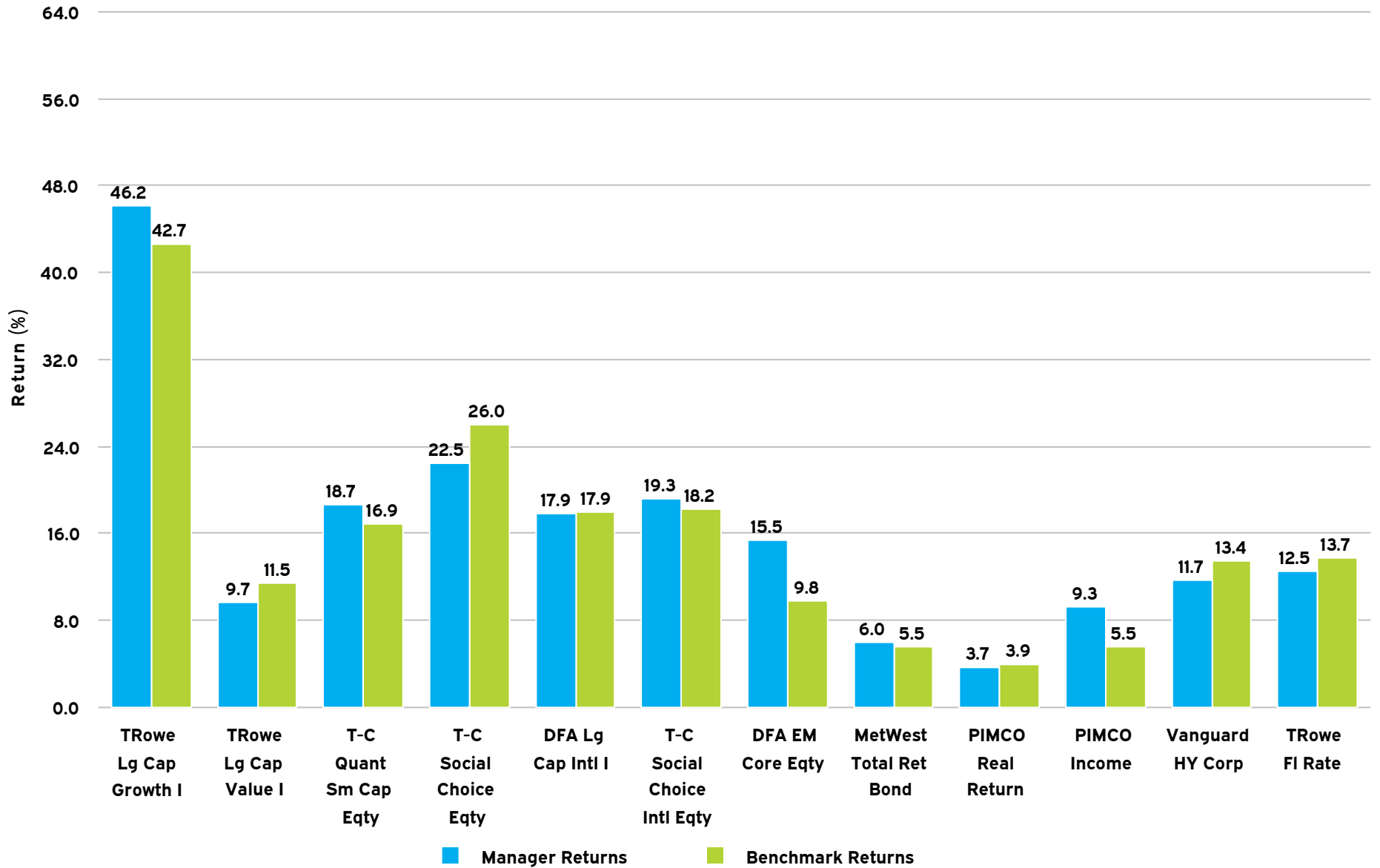
	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)
PIMCO Income I	5.9 (63)	9.3 (36)	1.1 (16)	3.4 (37)	4.4 (1)	-7.8 (20)	2.6 (45)	5.8 (57)	8.1 (80)	0.6 (12)
<i>Blmbg. U.S. Aggregate Index</i>	6.8 (29)	5.5 (94)	-3.3 (99)	1.1 (95)	1.8 (88)	-13.0 (85)	-1.5 (100)	7.5 (36)	8.7 (72)	0.0 (20)
<i>Multisector Bond Median</i>	6.3	8.6	-0.2	3.2	3.0	-10.8	2.4	6.4	10.5	-2.1
Vanguard High-Yield Corp Adm	7.3 (9)	11.7 (62)	--	--	--	--	--	--	--	--
<i>Blmbg. U.S. Corp: High Yield Index</i>	7.2 (15)	13.4 (13)	2.0 (42)	5.4 (21)	4.6 (9)	-11.2 (61)	5.3 (40)	7.1 (19)	14.3 (37)	-2.1 (25)
<i>High Yield Bond Median</i>	6.5	12.2	1.7	4.7	3.8	-10.7	4.9	5.4	13.6	-2.9
TRowe Price Floating Rate I	3.2 (22)	12.5 (31)	5.4 (19)	5.4 (8)	4.2 (4)	-0.6 (10)	4.7 (39)	2.4 (25)	8.8 (17)	0.4 (17)
<i>Morningstar LSTA US Performing Loans</i>	3.0 (34)	13.7 (9)	6.0 (5)	6.0 (1)	4.7 (1)	-0.8 (12)	5.4 (19)	3.5 (6)	8.7 (20)	0.6 (8)
<i>Bank Loan Median</i>	2.8	12.0	4.5	4.4	3.5	-2.3	4.4	1.5	7.7	-0.3
<b>Passive</b>										
TIAA-CREF Equity Index I	12.1 (28)	25.9 (34)	8.5 (62)	15.1 (34)	11.5 (30)	-19.2 (71)	25.6 (64)	20.8 (19)	30.9 (39)	-5.2 (45)
<i>Russell 3000 Index</i>	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)	11.5 (28)	-19.2 (72)	25.7 (63)	20.9 (18)	31.0 (34)	-5.2 (46)
<i>Large Blend Median</i>	11.6	24.4	9.0	14.5	10.8	-18.2	26.8	17.3	30.0	-5.5
TIAA-CREF S&P 500 Index I	11.7 (46)	26.2 (26)	10.0 (25)	15.6 (18)	12.0 (9)	-18.1 (49)	28.6 (22)	18.3 (36)	31.4 (24)	-4.5 (26)
<i>S&amp;P 500 Index</i>	11.7 (45)	26.3 (24)	10.0 (23)	15.7 (16)	12.0 (7)	-18.1 (49)	28.7 (20)	18.4 (35)	31.5 (22)	-4.4 (24)
<i>Large Blend Median</i>	11.6	24.4	9.0	14.5	10.8	-18.2	26.8	17.3	30.0	-5.5
TIAA-CREF International Eqty Idx - FVP Adjusted	10.5 (36)	17.9 (27)	4.3 (18)	8.4 (30)	4.5 (23)	-13.8 (20)	11.4 (34)	8.0 (63)	22.1 (49)	-13.7 (24)
<i>MSCI EAFE (Net)</i>	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)	4.3 (31)	-14.5 (31)	11.3 (37)	7.8 (66)	22.0 (50)	-13.8 (27)
<i>Foreign Large Blend Median</i>	10.0	16.4	2.5	7.8	4.0	-15.7	10.5	9.3	22.0	-15.0
TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.	7.6 (57)	9.2 (66)	-5.4 (48)	3.4 (65)	2.4 (50)	-20.3 (32)	-2.9 (60)	17.9 (49)	18.5 (65)	-14.8 (34)
<i>MSCI Emerging Markets (Net)</i>	7.9 (48)	9.8 (60)	-5.1 (44)	3.7 (56)	2.7 (44)	-20.1 (30)	-2.5 (58)	18.3 (47)	18.4 (66)	-14.6 (29)
<i>Diversified Emerging Mkts Median</i>	7.8	10.9	-5.6	4.0	2.4	-22.5	-1.7	17.6	20.6	-16.4
Nuveen ESG Emerging Markets Equity ETF	6.2 (82)	9.1 (68)	--	--	--	--	--	--	--	--
<i>TIAA ESG Emerging Markets Index</i>	6.7 (76)	10.2 (57)	-3.7 (36)	5.5 (25)	3.8 (20)	-18.7 (23)	-0.4 (44)	25.8 (24)	16.7 (79)	-16.1 (47)
<i>Diversified Emerging Mkts Median</i>	7.8	10.9	-5.6	4.0	2.4	-22.5	-1.7	17.6	20.6	-16.4

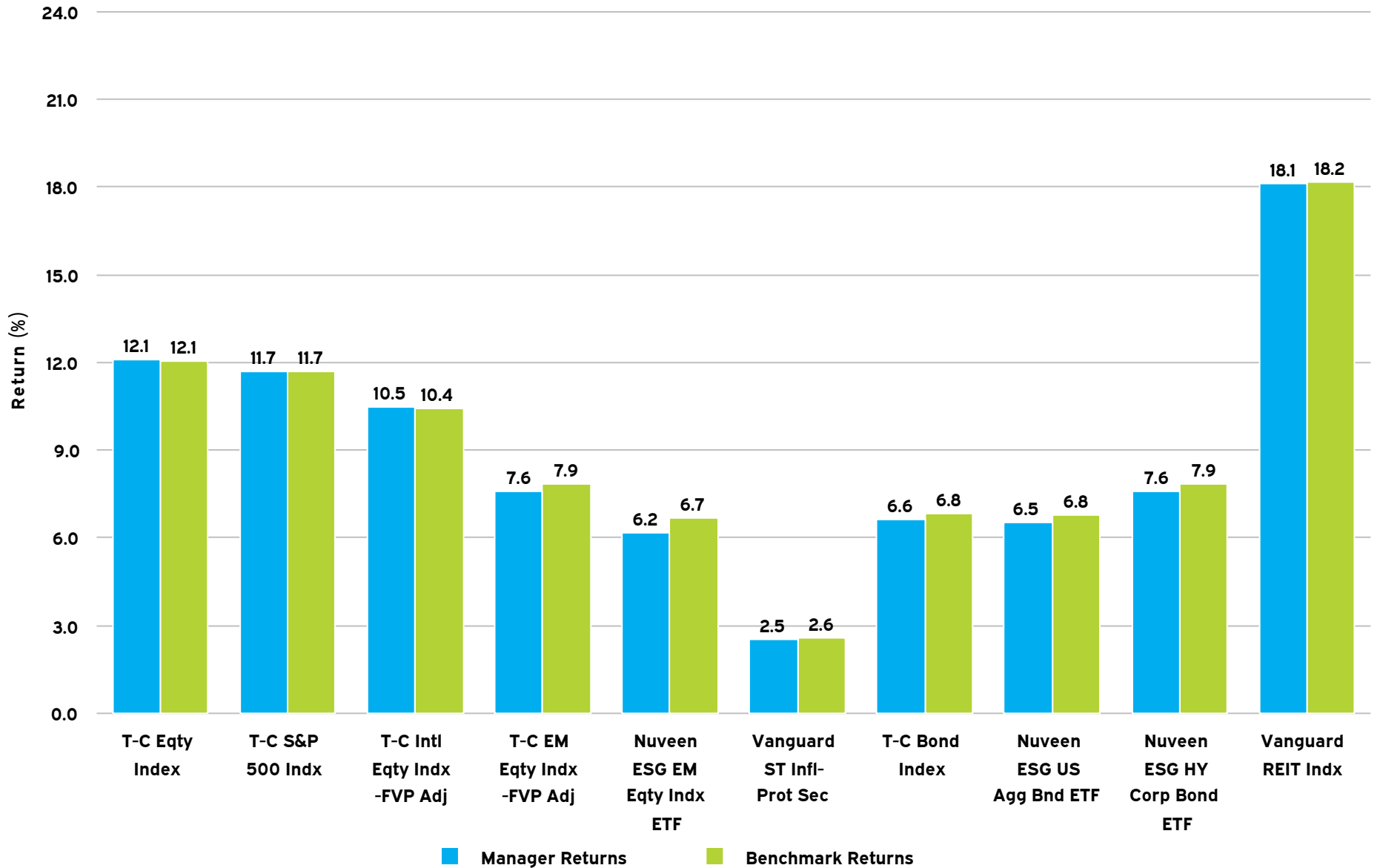
**Asset Allocation & Performance | As of December 31, 2023**

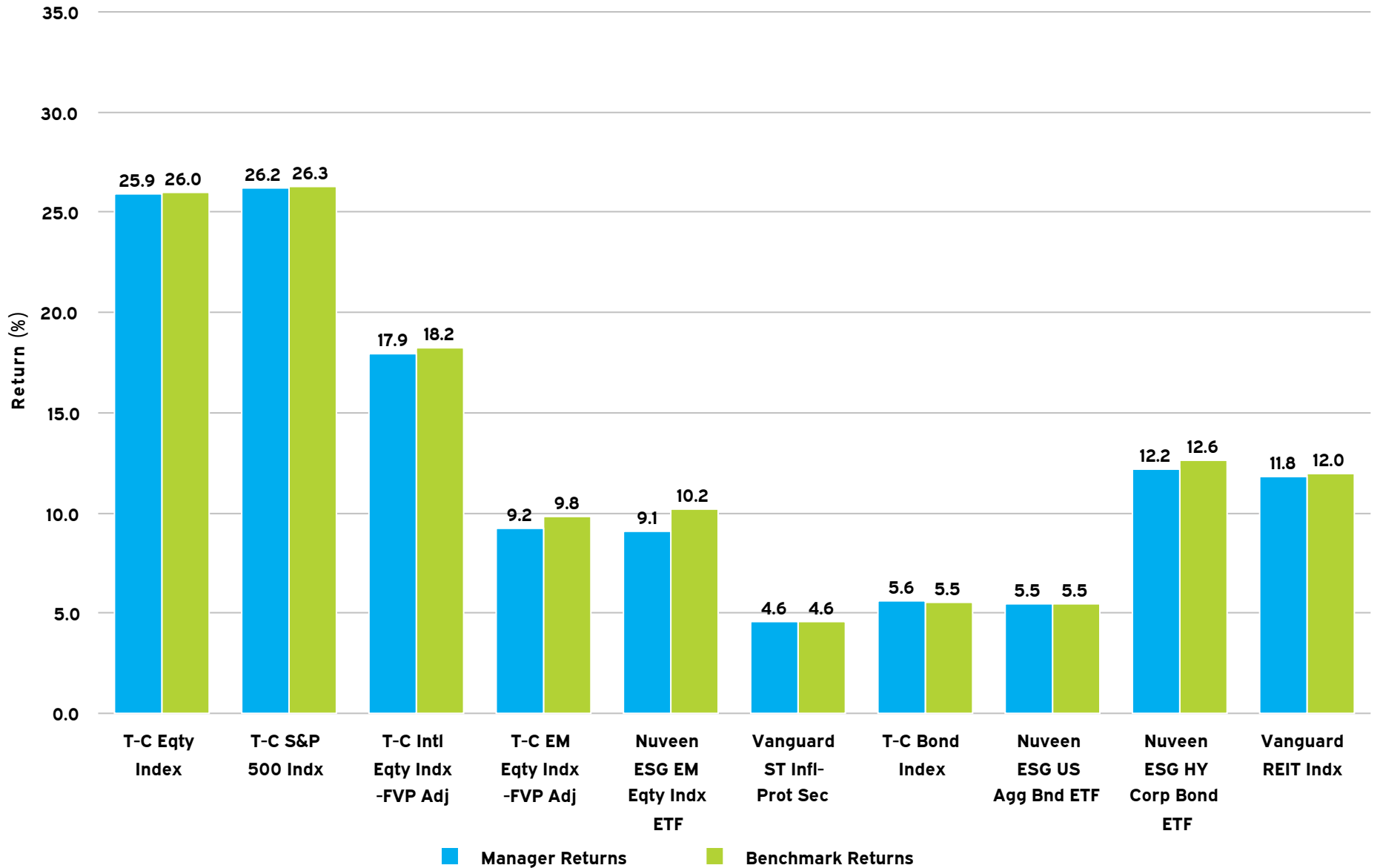
	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)
TIAA-CREF Bond Index I	6.6 (63)	5.6 (49)	-3.5 (52)	0.9 (62)	1.7 (53)	-13.2 (40)	-1.8 (64)	7.5 (59)	8.4 (54)	0.0 (29)
<i>Bloomberg U.S. Aggregate Index</i>	6.8 (39)	5.5 (57)	-3.3 (38)	1.1 (48)	1.8 (36)	-13.0 (29)	-1.5 (48)	7.5 (58)	8.7 (37)	0.0 (27)
<i>Intermediate Core Bond Median</i>	6.7	5.6	-3.4	1.1	1.7	-13.4	-1.6	7.8	8.5	-0.4
Vanguard Short Term Infl-Prot Securities	2.5 (93)	4.6 (23)	--	--	--	--	--	--	--	--
<i>BBg U.S. TIPS 0-5 Years</i>	2.6 (92)	4.6 (24)	2.3 (7)	3.4 (18)	--	-2.7 (1)	5.3 (48)	5.1 (94)	4.8 (92)	0.6 (2)
<i>Inflation-Protected Bond Median</i>	4.4	3.8	-1.1	3.0	2.0	-11.7	5.3	9.8	7.7	-1.5
Nuveen ESG US Aggregate Bond ETF	6.5 (76)	5.5 (59)	--	--	--	--	--	--	--	--
<i>BBg MSCI US Agg ESG Select</i>	6.8 (42)	5.5 (59)	-3.3 (36)	1.1 (50)	--	-12.8 (24)	-1.6 (51)	7.6 (57)	8.4 (53)	0.3 (16)
<i>Intermediate Core Bond Median</i>	6.7	5.6	-3.4	1.1	1.7	-13.4	-1.6	7.8	8.5	-0.4
Nuveen ESG High Yield Corp Bond ETF	7.6 (5)	12.2 (50)	--	--	--	--	--	--	--	--
<i>BBg MSCI US High Yield Very Liquid ESG Select</i>	7.9 (3)	12.6 (32)	0.9 (78)	--	--	-12.1 (83)	3.6 (81)	4.0 (74)	--	--
<i>High Yield Bond Median</i>	6.5	12.2	1.7	4.7	3.8	-10.7	4.9	5.4	13.6	-2.9
Vanguard Real Estate Index	18.1 (11)	11.8 (56)	--	--	--	--	--	--	--	--
<i>MSCI US IMI Real Estate 25/50 GR USD</i>	18.2 (10)	12.0 (51)	5.2 (59)	7.4 (47)	6.9 (65)	-26.1 (47)	40.6 (61)	-4.6 (48)	29.0 (35)	-6.1 (56)
<i>Real Estate Median</i>	16.3	12.0	5.4	7.4	7.3	-26.2	41.3	-4.8	27.7	-5.7











### Total Fund Assets | As of December 31, 2023

	<i>Total Fund</i>	
	\$	%
<b>California Scholarshare Total Fund</b>	<b>14,416,008,146</b>	<b>100.0</b>
Active	2,962,789,673	20.6
TRowe Price Large Cap Growth I	320,413,413	2.2
TRowe Price Large Cap Value I	319,167,261	2.2
TIAA-CREF Quant Small Cap Equity I	110,751,232	0.8
TIAA-CREF Social Choice Equity I	292,850,929	2.0
DFA Large Cap International I	455,575,472	3.2
TIAA-CREF Social Choice Intl Equity	5,151,684	0.0
DFA Emerging Markets Core Equity I	113,287,498	0.8
Metropolitan West Total Return Bond I	453,661,556	3.1
PIMCO Real Return	258,089,951	1.8
PIMCO Income I	258,869,369	1.8
Vanguard High-Yield Corp Adm	245,939,917	1.7
TRowe Price Floating Rate I	129,031,391	0.9
Passive	9,021,167,159	62.6
TIAA-CREF Equity Index I	4,460,941,542	30.9
TIAA-CREF S&P 500 Index I	347,871,096	2.4
TIAA-CREF International Eqty Idx - FVP Adjusted	1,033,265,568	7.2
TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.	257,488,148	1.8
Nuveen ESG Emerging Markets Equity ETF	612,130	0.0
TIAA-CREF Bond Index I	2,029,944,469	14.1
Nuveen ESG US Aggregate Bond ETF	9,963,744	0.1
Nuveen ESG High Yield Corp Bond ETF	764,613	0.0
Vanguard Short Term Infl-Prot Securities	491,015,825	3.4
Vanguard Real Estate Index	389,300,024	2.7
Other Assets	2,432,051,314	16.9
T-C Life Funding Agreement	2,432,051,314	16.9

CalKIDS AUM excluding non-529 assets are included in the total.

### Summary of Fund Performance Status

Program	Total Funds	Positive	Acceptable	Caution	Watch <sup>1</sup>
Number of Funds	23	7	12	4	1
% of Funds	100%	30%	53%	17%	4%
% of Program Assets <sup>1</sup>	100%	25%	64%	11%	2%
Fund Status ↑	--	—	—	—	—
Fund Status ↓	4	—	3	1	—
Domestic Equity Funds	6	1	4	1	1
Intl Equity Funds	6	3	—	3	—
Fixed Income Funds	6	1	5	—	—
High Yield Funds	3	1	2	—	—
Real Estate	1	—	1	—	—
Funding Agreement	1	1	—	—	—

<sup>1</sup> Includes only funds placed on Watch. Number has not been adjusted to remove funds no longer qualifying for Watch.

- Eighty-three percent of the Program’s funds have either a Positive or Acceptable performance status.
- No funds improved over the quarter:
- Four funds declined over the quarter:
  - PIMCO Real Return (Acceptable)
  - Nuveen ESG EM Equity (Caution)
  - Vanguard Short Term Inflation-Protected Security Index (Acceptable)
  - Nuveen ESG US Aggregate Bond (Acceptable)
- T. Rowe Price Instl Large Cap Growth fund continues to qualify for “Watch” status.
- The TIAA-CREF Emerging Markets Index and International Equity Index funds qualify for watch, but we recommend keeping them off watch as detailed in the watch memo.
- The Nuveen ESG EM Equity ETF newly qualifies for watch, but we recommend keeping them off watch as detailed in the watch memo.

<sup>1</sup> Percentage of total 529 assets, excluding the CalKids portfolio.

Summary of Fund Performance Status

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

- Effective 2023 Q4, the complete performance history for each underlying fund was utilized for trailing period monitoring guidelines – these have been applied retroactively to previous period monitoring statuses.
- 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.

<sup>1</sup> 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

<sup>2</sup> The Nuveen ESG EM Equity and Vanguard REIT Index’ Prior Quarter Statuses have been revised retroactively to reflect their status using the complete manager performance history

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	---	---	---
TIAA-CREF Social Choice International Equity	No	---	---	---
Metropolitan West Total Return Bond	No	---	---	---
PIMCO Real Return	No	---	---	---
PIMCO Income	No	---	---	---
Vanguard High-Yield Corporate Adm	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	Yes	Yes	---
TIAA-CREF Emerging Markets Eq Index	No	Yes	Yes	---
Nuveen ESG EM Market Equity	No	---	Yes	Yes
TIAA-CREF Bond Index	No	---	---	---
Vanguard Short-Term Infl-Prot Sec Index	No	---	---	---
Nuveen ESG US Agg Bond	No	---	---	---
Nuveen ESG High Yield	No	---	---	N/A
Vanguard REIT Index	No	---	---	---
T-C Life Funding Agreements	No	N/A	N/A	N/A
<b>Total</b>	<b>1 of 23</b>	<b>2 of 22 eligible funds</b>	<b>4 of 22 eligible funds</b>	<b>2 of 21 eligible funds</b>

- 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.

## **Portfolio Management Overview**



Portfolio Management Overview

Fund	Ticker	Current PM Team	Recent PM Departures <sup>1</sup>
T.Rowe Price Large Cap Growth	TRLGX	01/01/2017- Taymour R. Tamaddon	
T.Rowe Price Large Cap Value	TILCX	03/31/2000- 10/01/2021- John D. Linehan Gabriel Solomon	01/01/2015 – 05/01/2022 02/25/2010- 12/31/2022 Heather K. McPherson Mark S. Finn
TIAA-CREF Quant Small Cap Equity	TISEX	03/01/2016- 03/01/2019- Pei Chen Max Kozlov	
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- 02/28/2020- 02/28/2020- Jed S. Fogdall Joel P. Schneider Arun C. Keswani	07/21/2015-02/28/2023 Bhanu P. Singh
TIAA-CREF Social Choice Intl Equity	TSOX	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- 02/28/2017- 02/28/2019- Jed S. Fogdall Allen Pu Mary T. Phillips William Collins-Dean	07/21/2015-02/28/2023 Bhanu P. Singh
Nuveen ESG EM Market Equity	NUEM	06/06/2017 – 06/06/2017 – Lei Liao Philip James Campagna	

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

Portfolio Management Overview

Fund	Ticker	Current PM Team	Recent PM Departures <sup>1</sup>
Metropolitan West Total Return Bond	MWTIX	03/31/1997- 03/31/1997- 12/31/2004- 09/06/2023- 09/06/2023- Stephen M. Kane Laird R. Landman Bryan T. Whalen Jerry M. Cudzil Ruben Hovhannisyan	03/31/1997-12/31/2021 Tad Rivelle
PIMCO Real Return	PRRIX	01/09/2019- 12/11/2019- Stephen A. Rodosky Daniel He	
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	08/29/2022 – 08/29/2022 – Elizabeth H. Shortsleeve Michael Chang	02/14/2008 – 07/31/2023 Michael L. Hong
Nuveen ESG High Yield	NUHY	11/30/2021 – 11/30/2021 – James Tsang Rui (Vivian) Liu	09/25/2019 – 11/30/2021 09/29/2017 – 03/21/2023 Yong (Mark) Zheng Lijun (Kevin) Chen
T.Rowe Price Floating Rate	RPIFX	05/01/2009- Paul M. Massaro	
Nuveen ESG US Agg Bond	NUBD	11/30/2021 – 11/30/2021 – James Tsang Rui (Vivian) Liu	09/25/2019 – 11/30/2021 09/29/2017 – 03/21/2023 Yong (Mark) Zheng Lijun (Kevin) Chen
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	

<sup>1</sup> 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 <sup>1</sup>	
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	08/24/2011- 03/21/2023-	James Tsang Vivian Liu	12/31/2009-03/21/2023	Lijun (Kevin) Chen

Observations:

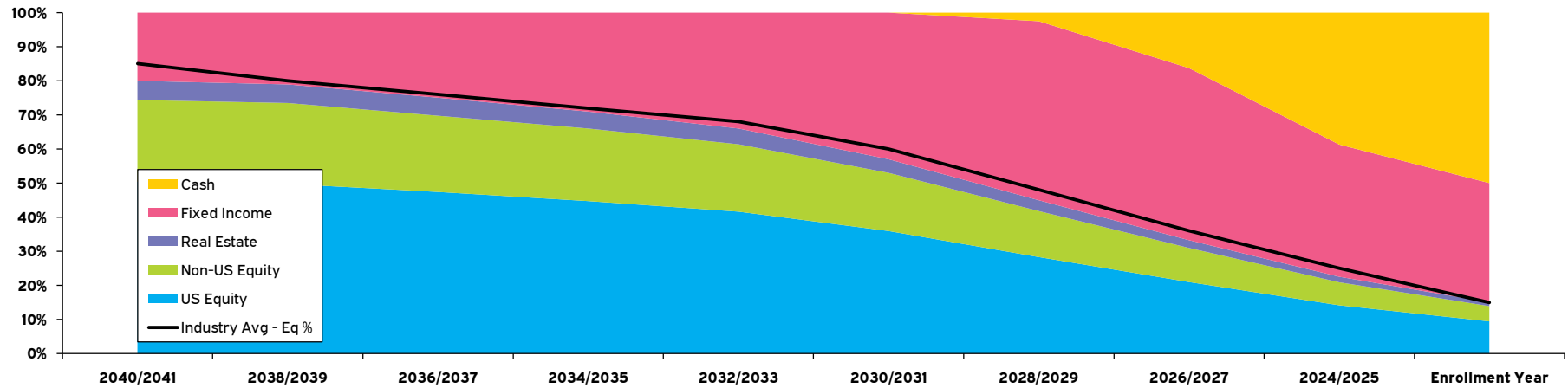
→ No significant portfolio manager changes this quarter.

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

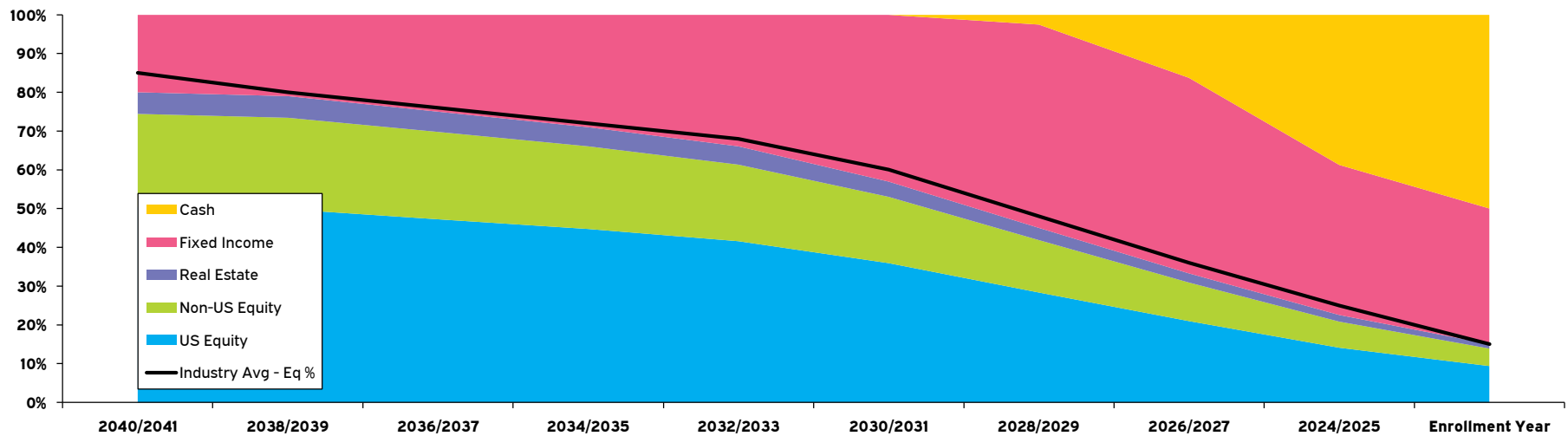
## **Year-of-Enrollment Option Analysis**

### ScholarShare Enrollment Date Glidepath

#### Active Enrollment Date Portfolio

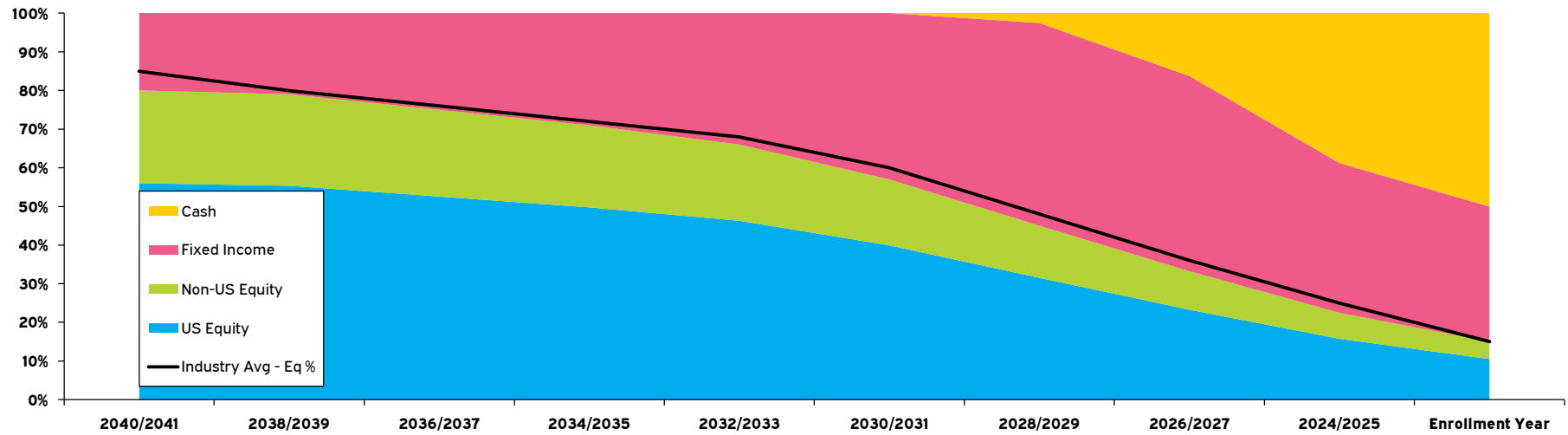


#### Passive Enrollment Date Portfolio



### ScholarShare Enrollment Date Glidepath

#### ESG Enrollment Date Portfolio

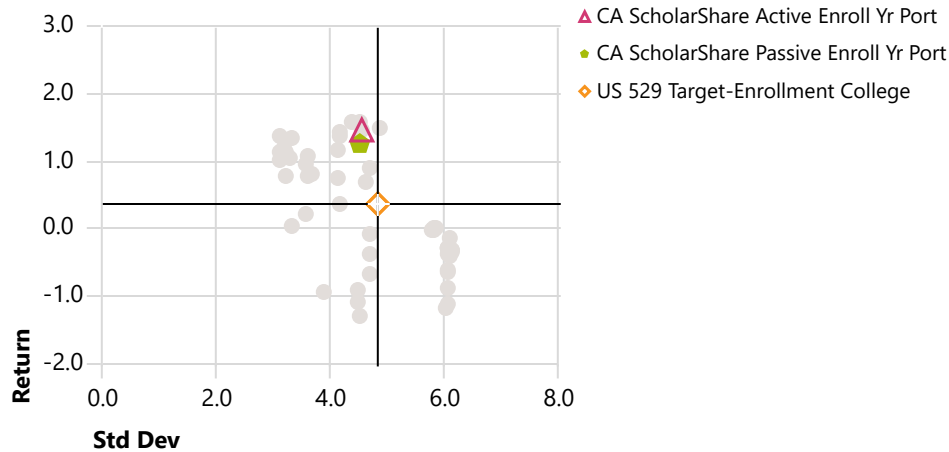


### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment College



#### Risk

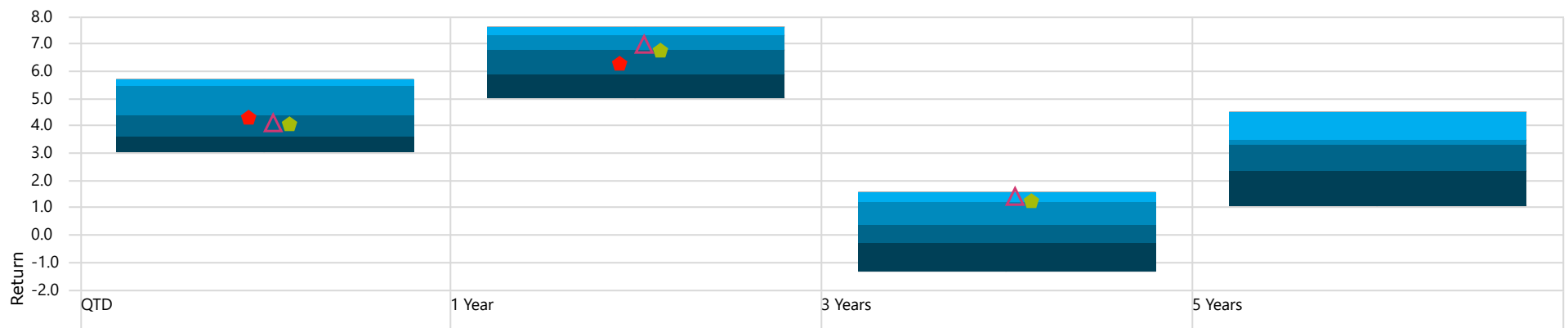
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment College

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active Enroll Yr Port	1.46	12	4.56	57	-0.23
CA ScholarShare Passive Enroll Yr Port	1.25	24	4.52	60	-0.28
Median	0.35		4.70		-0.44
Count	43		43		43

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment College

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



▲ CA ScholarShare Active Enroll Yr Port

● CA ScholarShare ESG Enroll Yr Port

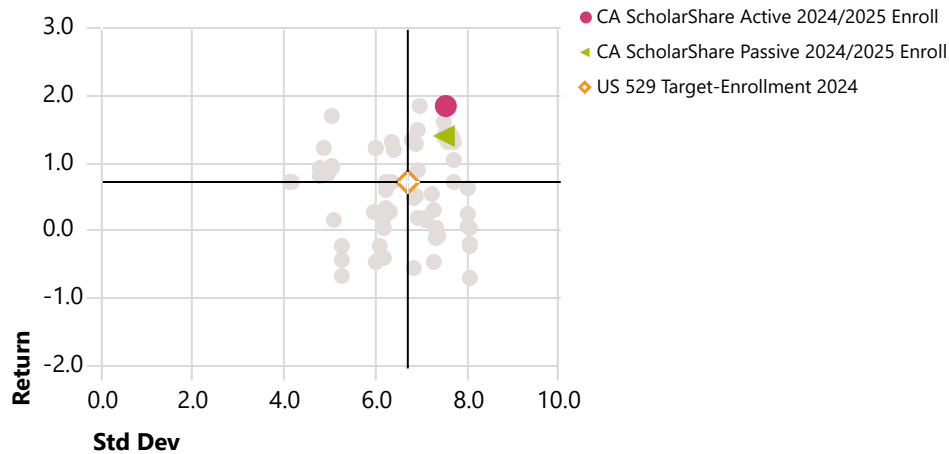
● CA ScholarShare Passive Enroll Yr Port

### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2024



#### Risk

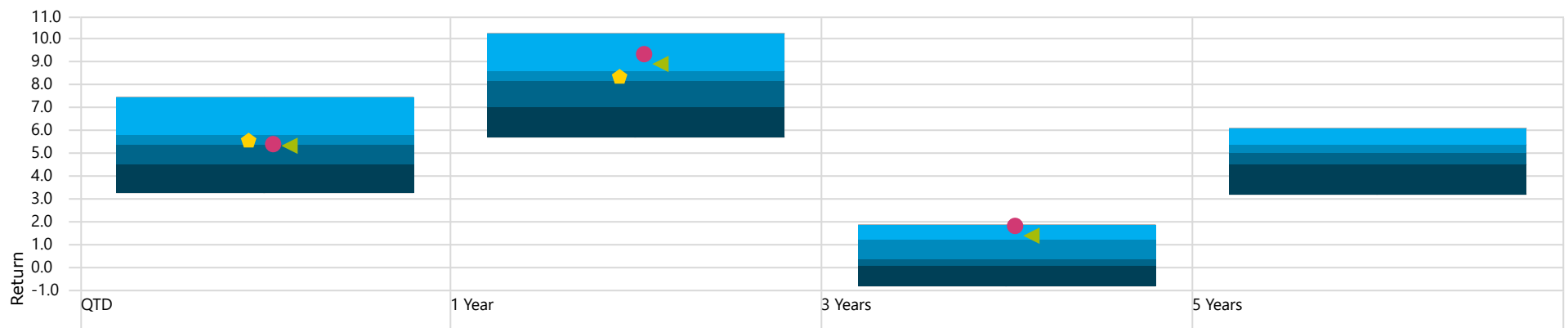
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2024

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2024/2025 Enroll	1.84	4	7.53	21	-0.09
CA ScholarShare Passive 2024/2025 Enroll	1.41	14	7.48	25	-0.15
Median	0.31		7.11		-0.33
Count	51		51		51

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2024

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



CA ScholarShare Active 2024/2025 Enroll

CA ScholarShare ESG 2024/2025 Enroll

CA ScholarShare Passive 2024/2025 Enroll

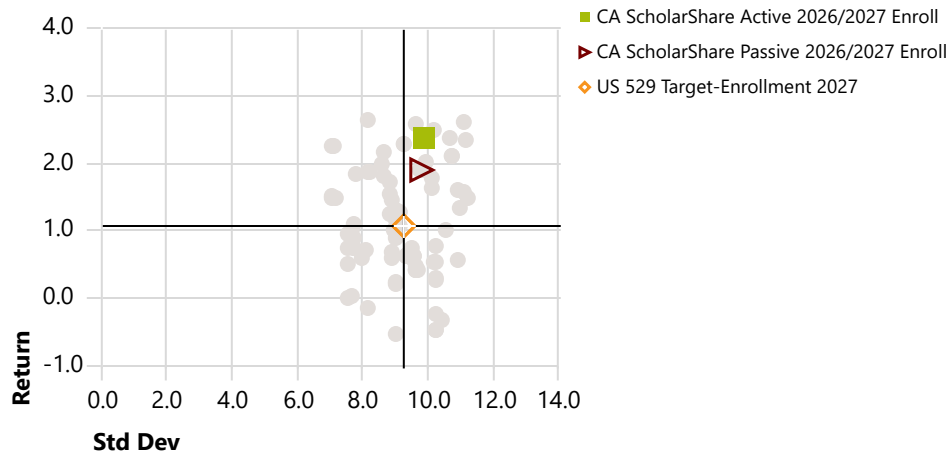


### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2027



#### Risk

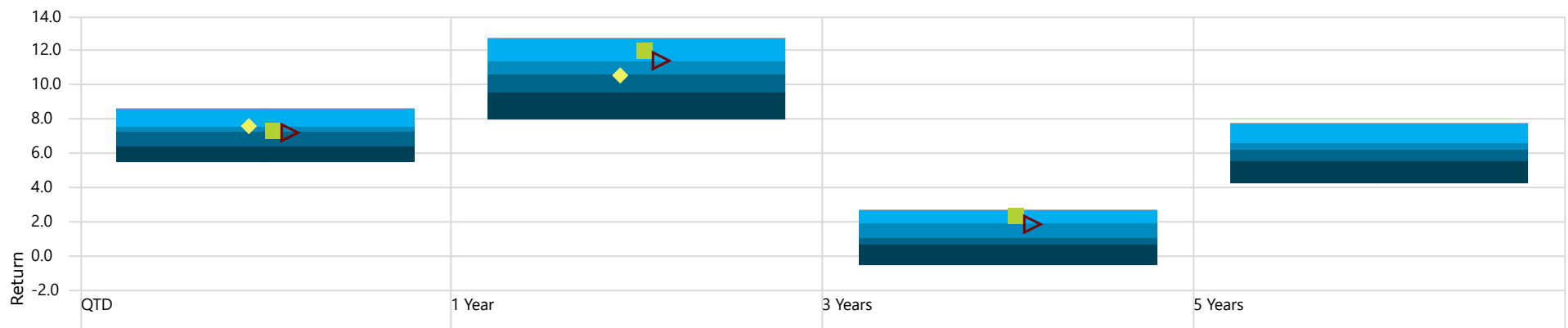
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2027

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2026/2027 Enroll	2.36	13	9.88	31	-0.01
CA ScholarShare Passive 2026/2027 Enroll	1.89	27	9.81	32	-0.06
Median	1.05		9.53		-0.15
Count	58		58		58

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2027

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile

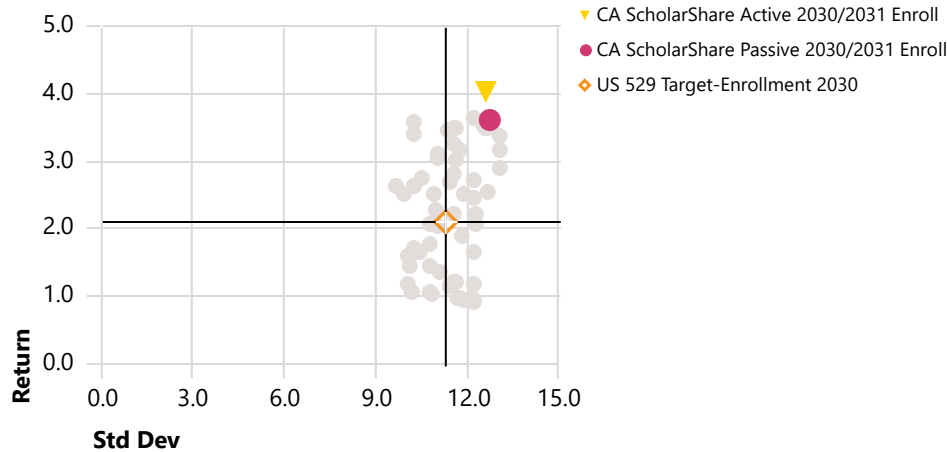


### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2030



#### Risk

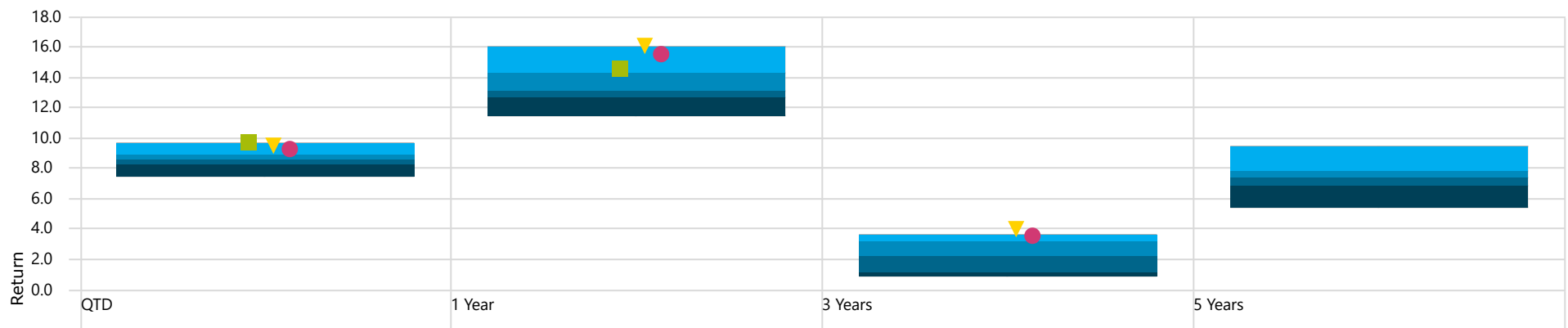
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2030

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2030/2031 Enroll	4.03	3	12.64	15	0.12
CA ScholarShare Passive 2030/2031 Enroll	3.60	7	12.74	9	0.09
Median	2.25		11.59		-0.02
Count	58		58		58

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2030

Top Quartile 2nd Quartile 3rd Quartile Bottom Quartile



CA ScholarShare Active 2030/2031 Enroll

CA ScholarShare ESG 2030/2031 Enroll

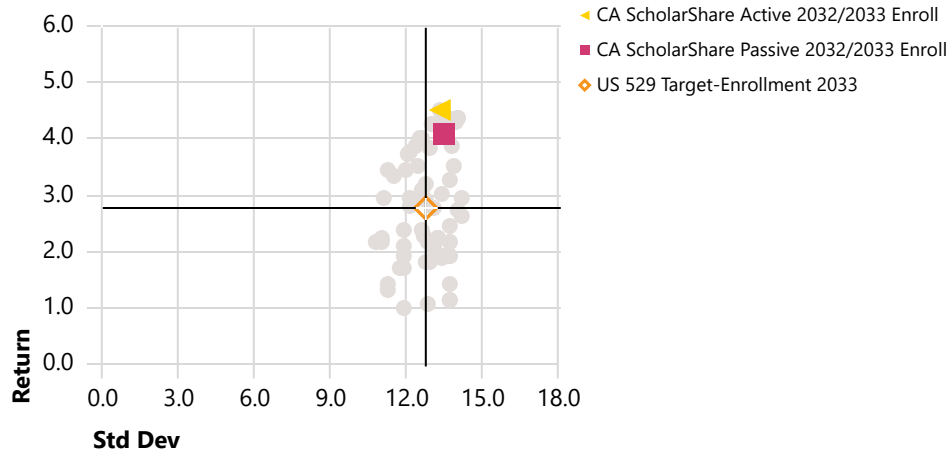
CA ScholarShare Passive 2030/2031 Enroll

### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2033



#### Risk

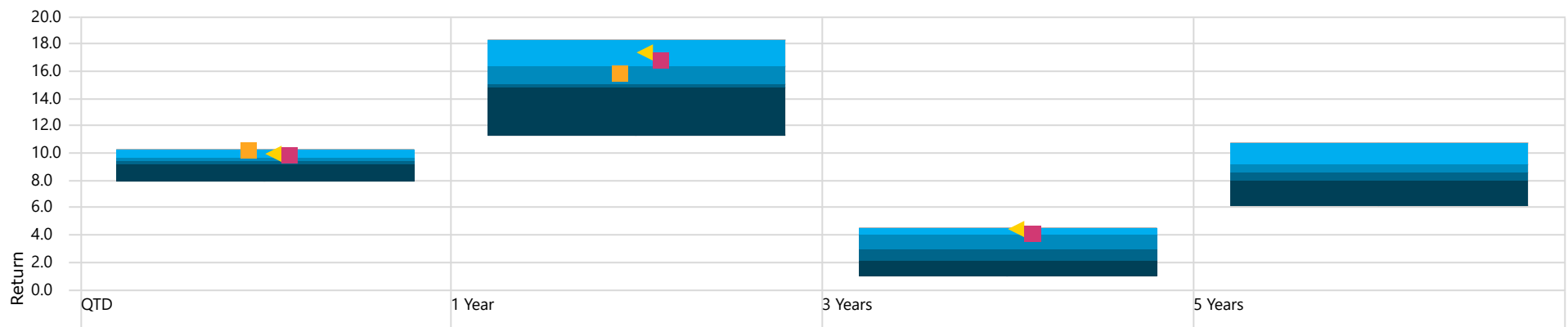
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2033

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2032/2033 Enroll	4.51	5	13.33	38	0.15
CA ScholarShare Passive 2032/2033 Enroll	4.10	21	13.45	25	0.12
Median	2.95		13.11		0.04
Count	57		57		57

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2033

■ Top Quartile  
 ■ 2nd Quartile  
 ■ 3rd Quartile  
 ■ Bottom Quartile



▲ CA ScholarShare Active 2032/2033 Enroll

■ CA ScholarShare ESG 2032/2033 Enroll

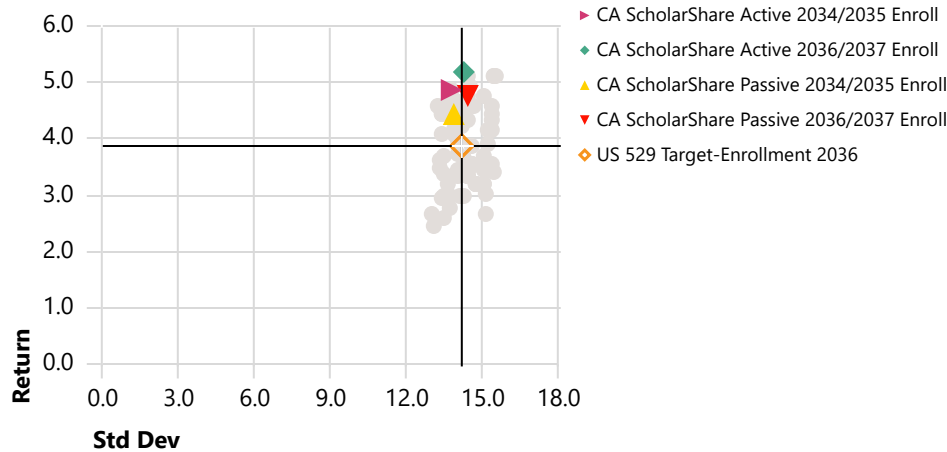
■ CA ScholarShare Passive 2032/2033 Enroll

### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2021 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2036



#### Risk

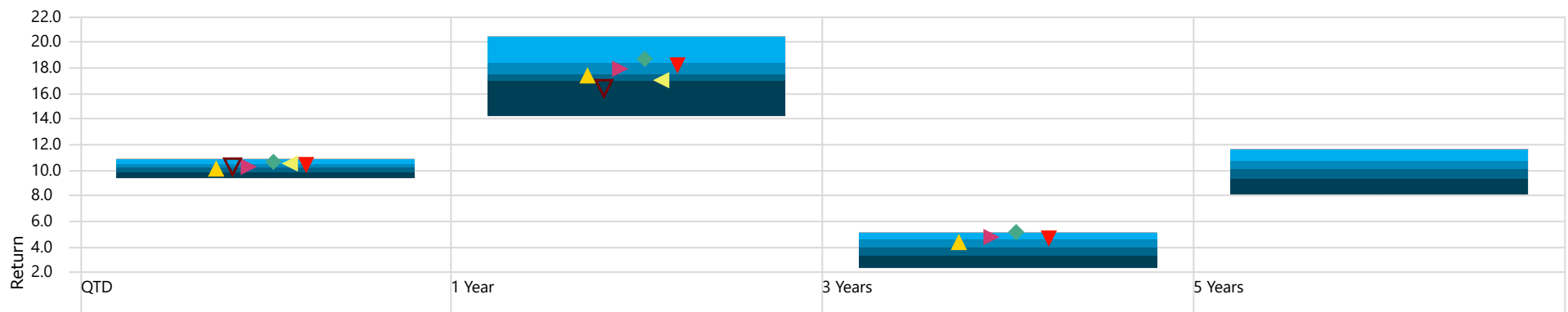
Time Period: 1/1/2021 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2036

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2034/2035 Enroll	4.86	13	13.80	80	0.17
CA ScholarShare Active 2036/2037 Enroll	5.17	4	14.23	58	0.19
CA ScholarShare Passive 2034/2035 Enroll	4.44	32	13.91	73	0.14
CA ScholarShare Passive 2036/2037 Enroll	4.76	16	14.40	50	0.16
Median	3.90		14.40		0.10
Count	58		58		58

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2036

■ Top Quartile  
 ■ 2nd Quartile  
 ■ 3rd Quartile  
 ■ Bottom Quartile



▶ CA ScholarShare Active 2034/2035 Enroll  
▲ CA ScholarShare ESG 2036/2037 Enroll

◆ CA ScholarShare Active 2036/2037 Enroll  
▲ CA ScholarShare Passive 2034/2035 Enroll

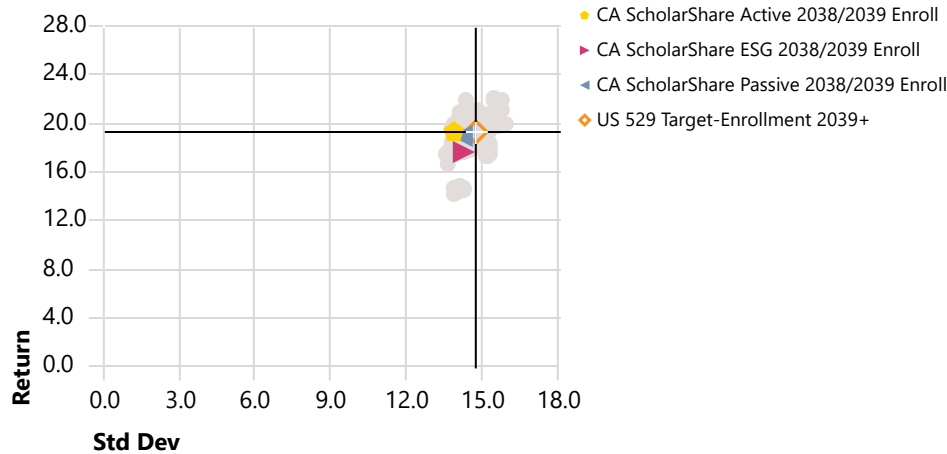
▼ CA ScholarShare ESG 2034/2035 Enroll  
▼ CA ScholarShare Passive 2036/2037 Enroll

### Year-of-Enrollment Option Analysis

#### Risk-Reward

Time Period: 1/1/2023 to 12/31/2023

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2039+



#### Risk

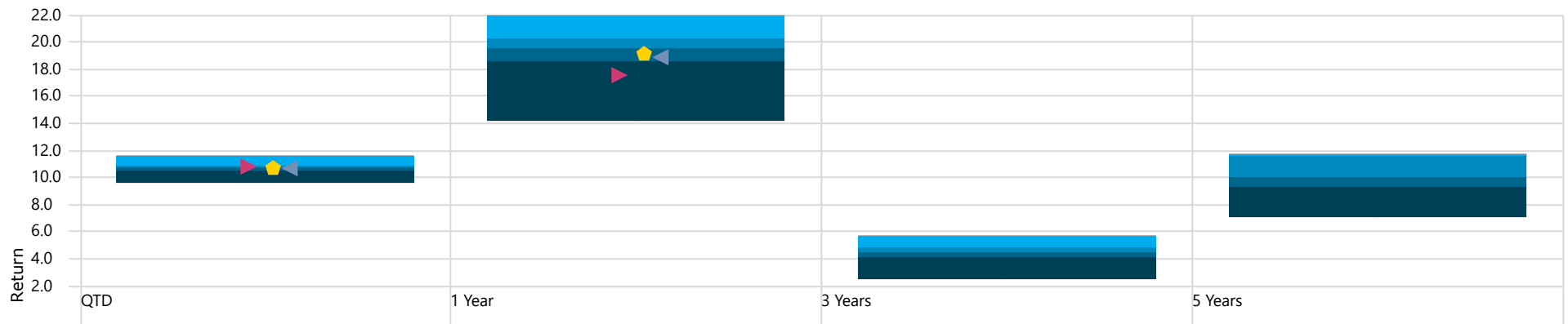
Time Period: 1/1/2023 to 12/31/2023 Peer Group: 529 Portfolios - U.S. - Target-Enrollment 2039+

	Return	Peer group percentile	Std Dev	Peer group percentile	Sharpe Ratio (arith)
CA ScholarShare Active 2038/2039 Enroll	19.20	58	13.82	90	1.00
CA ScholarShare ESG 2038/2039 Enroll	17.65	85	14.27	73	0.86
CA ScholarShare Passive 2038/2039 Enroll	18.89	68	14.13	77	0.95
Median	19.49		14.94		0.94
Count	95		95		95

#### Performance Relative to Peer Group

Peer Group (5-95%): 529 Portfolios - U.S. - Target-Enrollment 2039+

■ Top Quartile ■ 2nd Quartile ■ 3rd Quartile ■ Bottom Quartile



● CA ScholarShare Active 2038/2039 Enroll

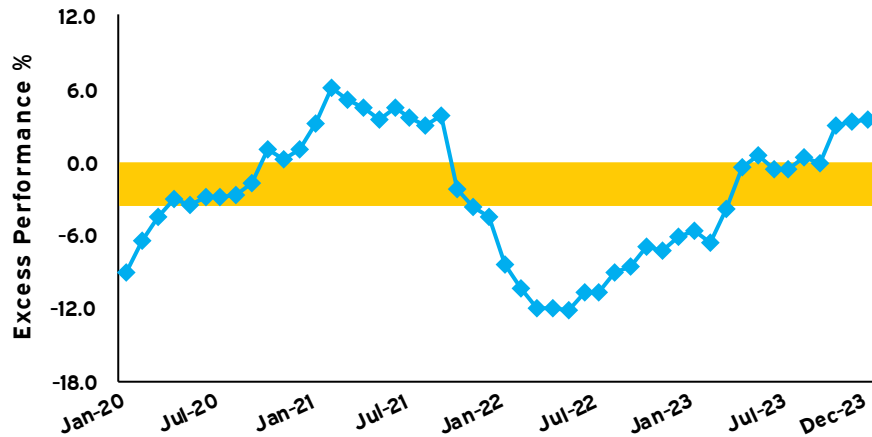
▶ CA ScholarShare ESG 2038/2039 Enroll

◀ CA ScholarShare Passive 2038/2039 Enroll

## **Active Underlying Fund Analysis**

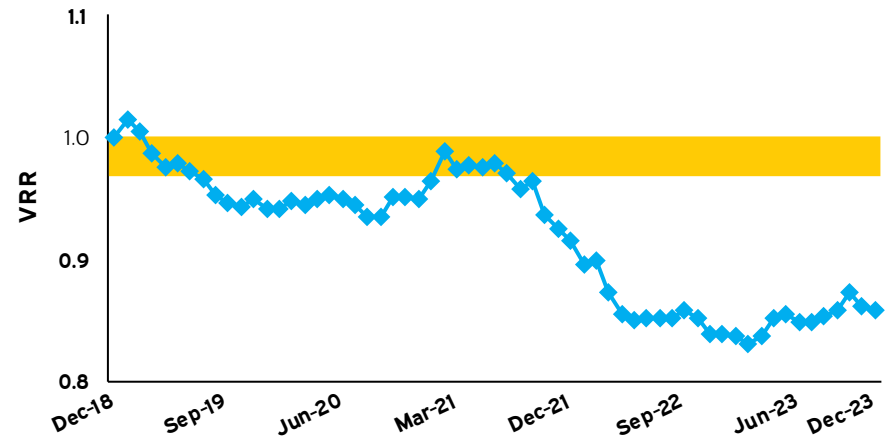
### TRowe Price Large Cap Growth I | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



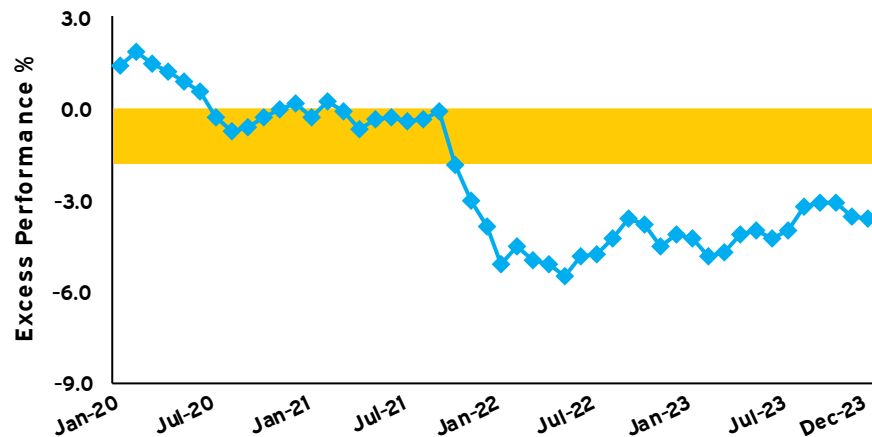
Results fall in the positive range.  
Probationary Threshold - 3.50%

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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TRowe Price Large Cap Growth I	14.3 (41)	46.2 (18)	5.3 (53)	15.9 (53)	16.3 (6)	12/1/2011
Russell 1000 Growth Index	14.2 (44)	42.7 (32)	8.9 (10)	19.5 (7)	16.2 (8)	
Large Growth Median	14.0	39.0	5.4	16.1	14.2	

#### Monitoring Status

Caution, On Watch

### Objective

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.

### Account Information

Account Name	TRowe Price Large Cap Growth I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Equity
Benchmark	Russell 1000 Growth Index
Universe	Large Growth

### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TRowe Price Large Cap Growth I	14.3 (41)	46.2 (18)	5.3 (53)	15.9 (53)
Russell 1000 Growth Index	14.2 (44)	42.7 (32)	8.9 (10)	19.5 (7)
Large Growth Median	14.0	39.0	5.4	16.1

	2022	2021	2020	2019	2018
TRowe Price Large Cap Growth I	-35.2 (76)	23.2 (40)	39.6 (34)	28.5 (86)	4.3 (7)
Russell 1000 Growth Index	-29.1 (36)	27.6 (15)	38.5 (38)	36.4 (20)	-1.5 (51)
Large Growth Median	-30.9	21.9	35.6	32.8	-1.5

### TRowe Price Large Cap Growth I | As of December 31, 2023

### Portfolio Characteristics vs Russell 1000 Growth Index

	Portfolio	Index
# of Holdings	50	443
Wtd. Avg. Mkt. Cap	1,073.7	1,091.1
Median Mkt. Cap	83.7	17.6
P/E Ratio	37.0	34.2
Yield	0.5	0.7
EPS Growth - 5 Yrs.	21.4	21.2
Price/Book ratio	7.5	11.3
Beta	1.0	1.0

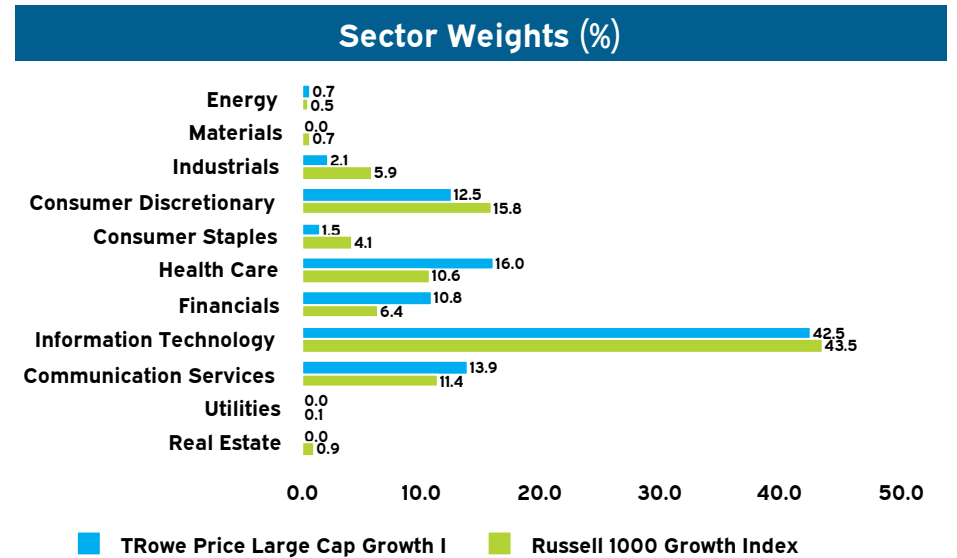
### Risk Statistics

	3 Yrs (%)	5 Yrs (%)
Standard Deviation	20.4	20.6
Tracking Error	4.2	3.8
Up Capture	87.6	90.6
Down Capture	95.9	96.3
Consistency	44.4	40.0
Alpha	-3.0	-2.7
Sharpe Ratio	0.3	0.7

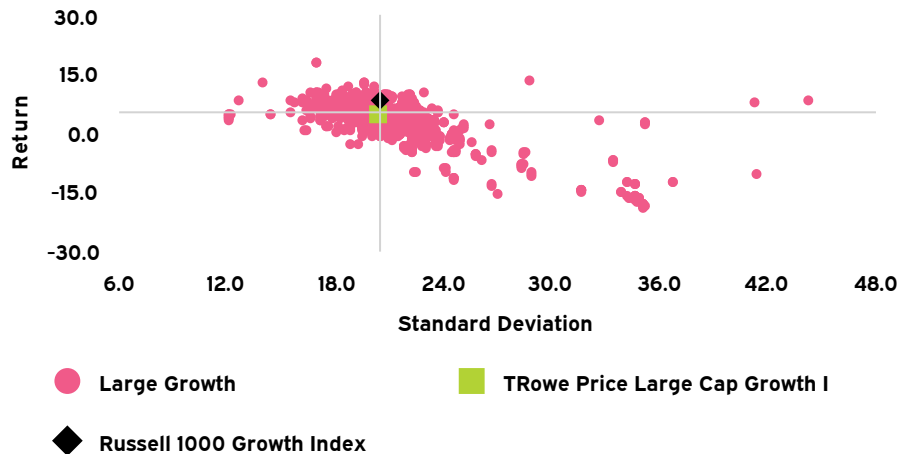


### TRowe Price Large Cap Growth I | As of December 31, 2023

Top Holdings	
Microsoft Corp	13.6
Apple Inc	8.8
Amazon.com Inc	7.5
Alphabet Inc Class A	6.9
NVIDIA Corporation	5.3
Meta Platforms Inc	4.2
UnitedHealth Group Incorporated	3.9
Intuit Inc.	3.9
Mastercard Inc	3.0
Fiserv Inc.	2.9
<b>% of Portfolio</b>	<b>60.0</b>

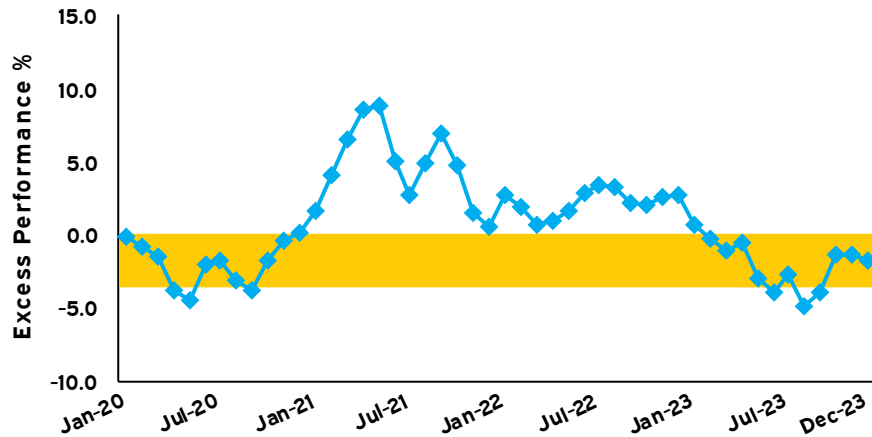


### Return vs. Standard Deviation 3 Years Ending December 31, 2023



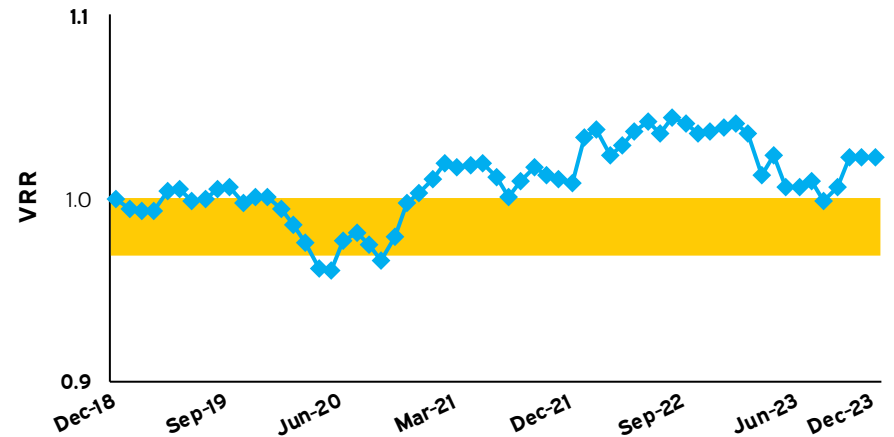
### TRowe Price Large Cap Value I | As of December 31, 2023

#### Short Term - Rolling 12-Month Excess Return



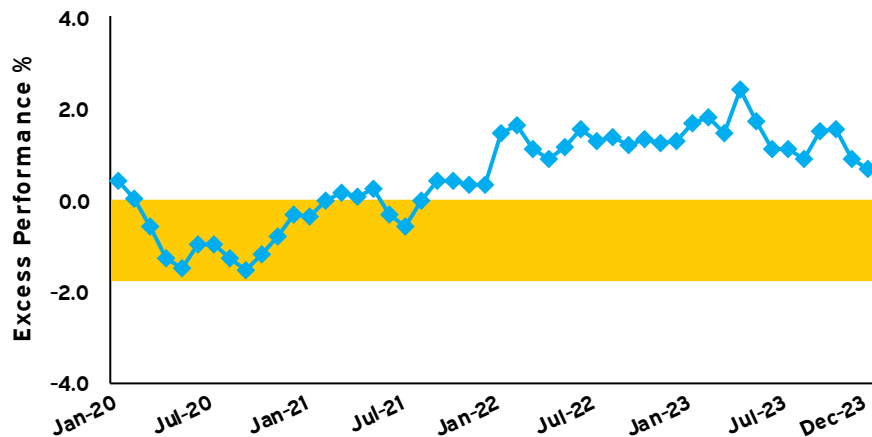
Results fall in the acceptable range.  
Probationary Threshold - 3.50%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TRowe Price Large Cap Value I	11.2 (17)	9.7 (60)	9.5 (53)	11.4 (47)	11.5 (23)	12/1/2011
Russell 1000 Value Index	9.5 (52)	11.5 (47)	8.9 (67)	10.9 (60)	11.1 (36)	
Large Value Median	9.6	11.0	9.6	11.3	10.7	

#### Monitoring Status

Acceptable

### TRowe Price Large Cap Value I | As of December 31, 2023

#### Objective

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.

#### Account Information

Account Name	TRowe Price Large Cap Value I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Equity
Benchmark	Russell 1000 Value Index
Universe	Large Value

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TRowe Price Large Cap Value I	11.2 (17)	9.7 (60)	9.5 (53)	11.4 (47)
Russell 1000 Value Index	9.5 (52)	11.5 (47)	8.9 (67)	10.9 (60)
Large Value Median	9.6	11.0	9.6	11.3

	2022	2021	2020	2019	2018
TRowe Price Large Cap Value I	-4.8 (43)	25.8 (54)	3.0 (47)	26.7 (35)	-9.3 (58)
Russell 1000 Value Index	-7.5 (70)	25.2 (62)	2.8 (50)	26.5 (37)	-8.3 (41)
Large Value Median	-5.4	26.0	2.7	25.6	-8.9

#### Portfolio Characteristics vs Russell 1000 Value Index

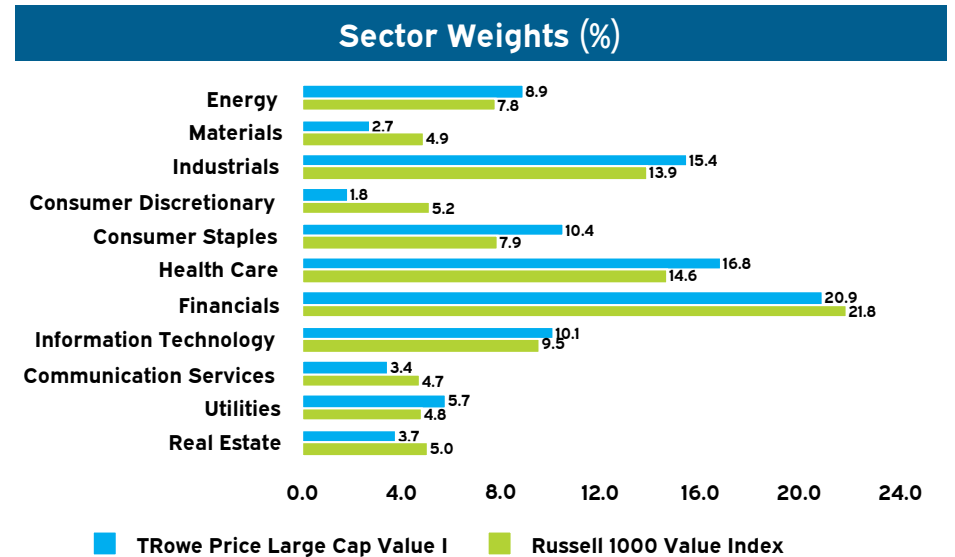
	Portfolio	Index
# of Holdings	77	849
Wtd. Avg. Mkt. Cap	144.8	139.5
Median Mkt. Cap	70.5	12.5
P/E Ratio	16.2	16.8
Yield	2.8	2.3
EPS Growth - 5 Yrs.	9.9	11.4
Price/Book ratio	2.2	2.5
Beta	1.0	1.0

#### Risk Statistics

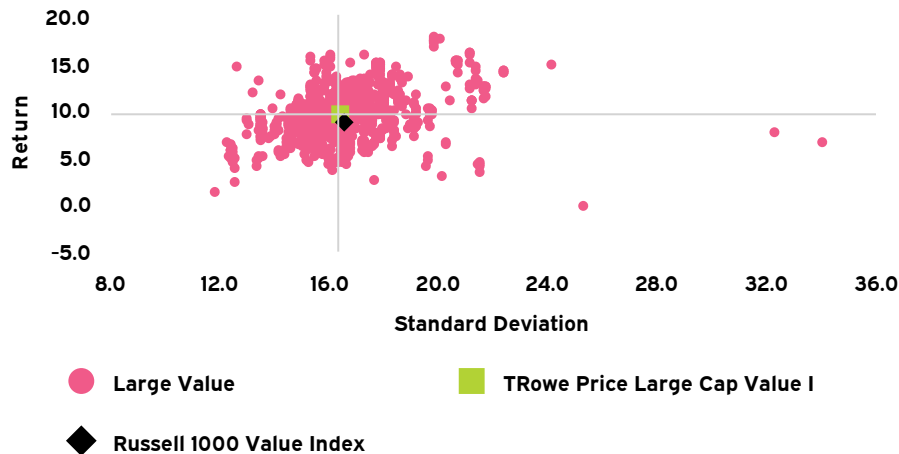
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	16.4	19.1
Tracking Error	3.1	3.1
Up Capture	100.0	100.0
Down Capture	97.0	97.5
Consistency	58.3	55.0
Alpha	0.9	0.5
Sharpe Ratio	0.5	0.6

### TRowe Price Large Cap Value I | As of December 31, 2023

Top Holdings	
QUALCOMM Inc.	3.4
Wells Fargo & Co	2.9
Chubb Ltd	2.9
Southern Co (The)	2.8
TotalEnergies SE	2.8
Bank of America Corp	2.6
Elevance Health Inc	2.4
Johnson & Johnson	2.3
American International Group Inc	2.3
L3Harris Technologies Inc	2.2
<b>% of Portfolio</b>	<b>26.6</b>

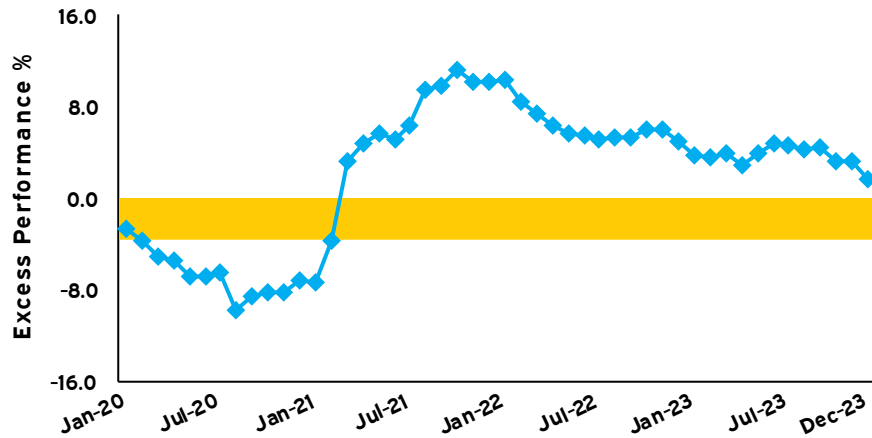


### Return vs. Standard Deviation 3 Years Ending December 31, 2023



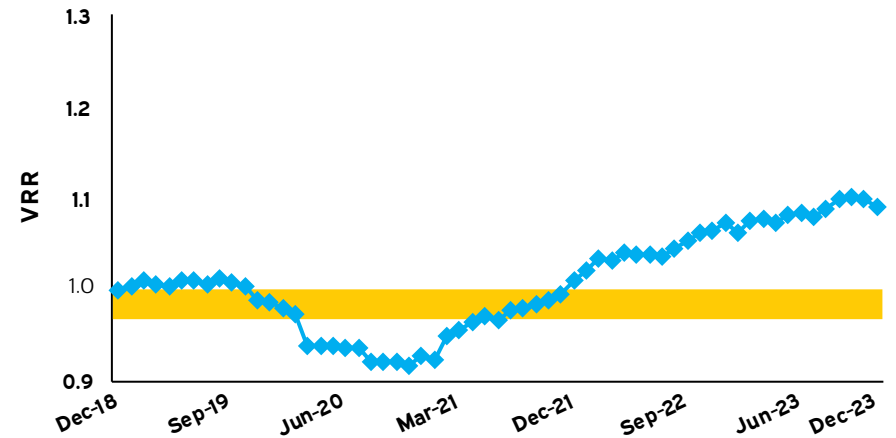
### TIAA-CREF Quant Small Cap Equity I | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



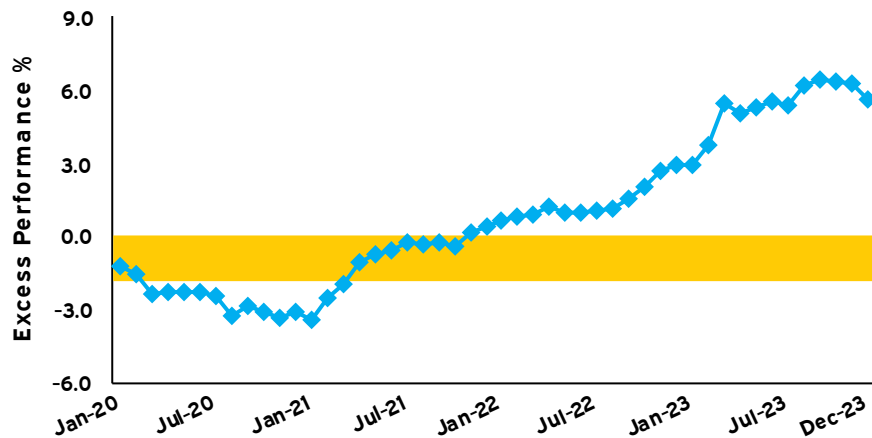
Results fall in the positive range.  
Probationary Threshold - 3.50%

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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Quant Small Cap Equity I	13.1 (37)	18.7 (27)	7.9 (34)	11.9 (30)	11.3 (23)	12/1/2011
Russell 2000 Index	14.0 (22)	16.9 (42)	2.2 (65)	10.0 (67)	10.2 (53)	
Small Cap Median	12.3	16.3	5.4	10.8	10.4	

#### Monitoring Status

Positive

TIAA-CREF Quant Small Cap Equity I | As of December 31, 2023

**Objective**

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.

**Account Information**

Account Name TIAA-CREF Quant Small Cap Equity I  
 Account Structure Mutual Fund  
 Inception Date 11/20/2011  
 Asset Class US Equity  
 Benchmark Russell 2000 Index  
 Universe Small Cap

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Quant Small Cap Equity I	13.1 (37)	18.7 (27)	7.9 (34)	11.9 (30)
Russell 2000 Index	14.0 (22)	16.9 (42)	2.2 (65)	10.0 (67)
Small Cap Median	12.3	16.3	5.4	10.8

	2022	2021	2020	2019	2018
TIAA-CREF Quant Small Cap Equity I	-15.4 (36)	25.1 (40)	12.8 (54)	23.9 (58)	-12.0 (53)
Russell 2000 Index	-20.4 (62)	14.8 (70)	20.0 (39)	25.5 (44)	-11.0 (46)
Small Cap Median	-17.7	22.0	14.9	24.8	-11.6

**Portfolio Characteristics vs Russell 2000 Index**

	Portfolio	Index
# of Holdings	375	1,966
Wtd. Avg. Mkt. Cap	3.6	3.2
Median Mkt. Cap	2.2	1.0
P/E Ratio	15.8	14.8
Yield	1.3	1.5
EPS Growth - 5 Yrs.	13.7	11.9
Price/Book ratio	2.5	2.4
Beta	1.0	1.0

**Risk Statistics**

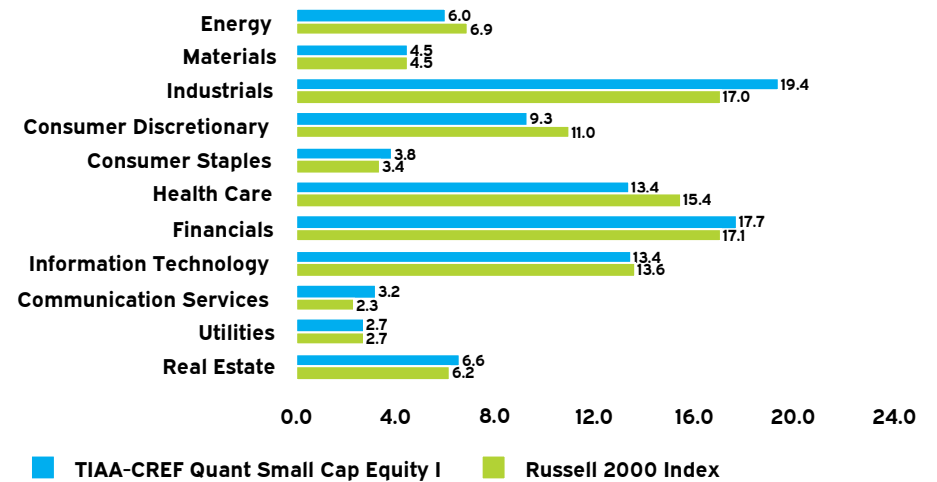
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	20.5	24.2
Tracking Error	2.7	3.0
Up Capture	106.0	101.2
Down Capture	88.1	95.0
Consistency	72.2	56.7
Alpha	5.6	1.9
Sharpe Ratio	0.4	0.5

### TIAA-CREF Quant Small Cap Equity I | As of December 31, 2023

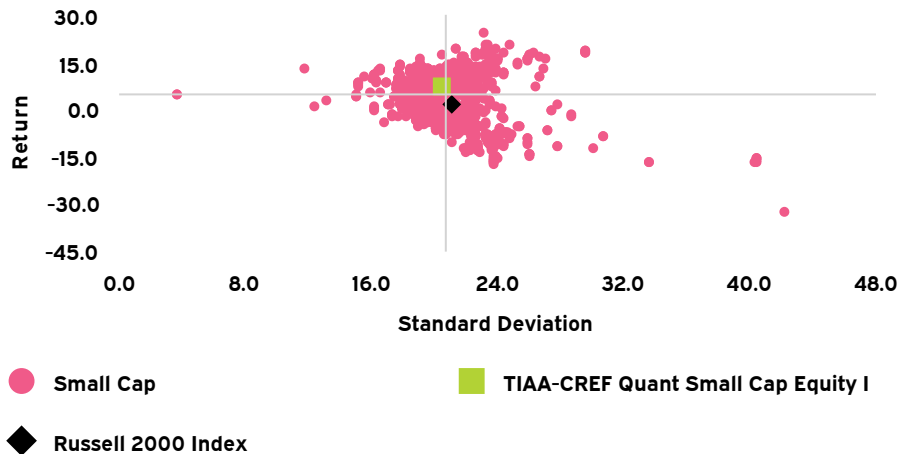
#### Top Holdings

Super Micro Computer Inc	1.1
e.l.f. Beauty Inc	1.0
Comfort Systems USA Inc.	1.0
Abercrombie & Fitch Co.	0.8
BellRing Brands Inc	0.8
Murphy Oil Corp	0.7
Simpson Manufacturing Co. Inc.	0.7
ImmunoGen Inc	0.7
Duolingo Inc	0.7
Rambus Inc	0.7
<b>% of Portfolio</b>	<b>8.2</b>

#### Sector Weights (%)

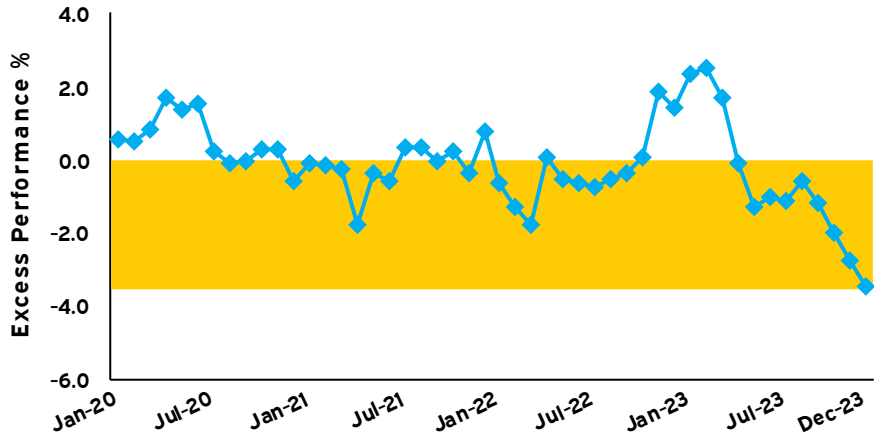


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



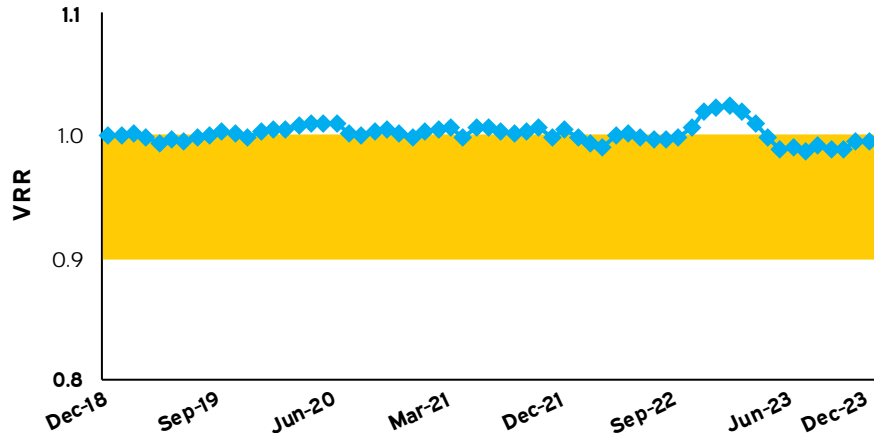
### TIAA-CREF Social Choice Equity I | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



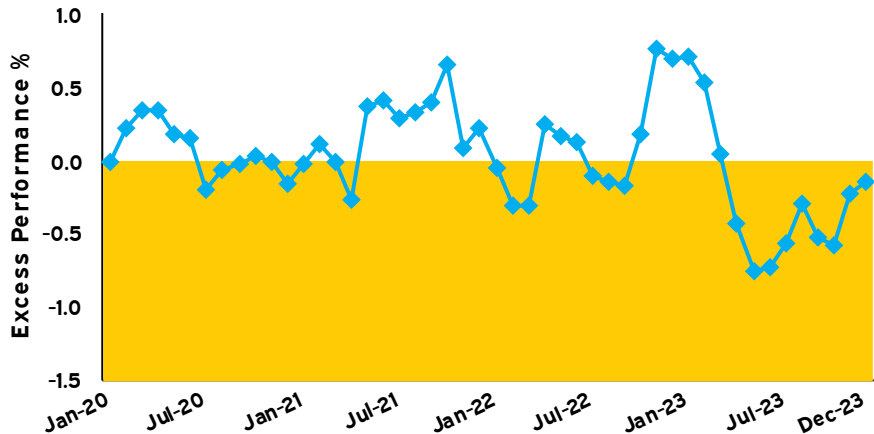
Results fall in the acceptable range.  
Probationary Threshold - 5.00%

Long Term - VRR



Results fall in the acceptable range.  
Probationary Threshold 0.90%

Medium Term - Rolling 36-Month Excess Return



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

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Social Choice Equity I	12.7 (14)	22.5 (64)	8.4 (67)	15.1 (38)	12.8 (27)	1/1/2016
Russell 3000 Index	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)	12.8 (26)	
Large Blend Median	11.6	24.4	9.0	14.5	12.1	

#### Monitoring Status

Acceptable



### Objective

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.

### Account Information

Account Name TIAA-CREF Social Choice Equity I  
 Account Structure Mutual Fund  
 Inception Date 12/04/2015  
 Asset Class US Equity  
 Benchmark Russell 3000 Index  
 Universe Large Blend

### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Social Choice Equity I	12.7 (14)	22.5 (64)	8.4 (67)	15.1 (38)
Russell 3000 Index	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)
Large Blend Median	11.6	24.4	9.0	14.5

	2022	2021	2020	2019	2018
TIAA-CREF Social Choice Equity I	-17.8 (47)	26.5 (54)	20.3 (22)	31.5 (22)	-5.5 (51)
Russell 3000 Index	-19.2 (71)	25.7 (63)	20.9 (18)	31.0 (34)	-5.2 (46)
Large Blend Median	-18.1	26.8	17.3	30.0	-5.5

### TIAA-CREF Social Choice Equity I | As of December 31, 2023

### Portfolio Characteristics vs Russell 3000 Index

	Portfolio	Index
# of Holdings	450	2,976
Wtd. Avg. Mkt. Cap	345.7	618.1
Median Mkt. Cap	6.7	2.2
P/E Ratio	22.9	22.8
Yield	1.5	1.5
EPS Growth - 5 Yrs.	17.0	16.6
Price/Book ratio	4.4	4.1
Beta	1.0	1.0

### Risk Statistics

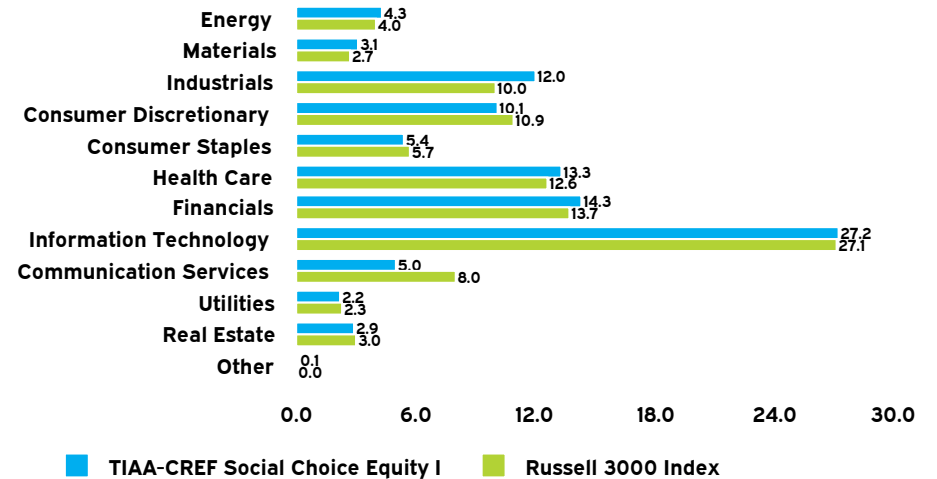
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	17.8	19.0
Tracking Error	2.0	1.7
Up Capture	99.9	99.0
Down Capture	100.2	98.7
Consistency	50.0	51.7
Alpha	-0.2	0.0
Sharpe Ratio	0.4	0.7

### TIAA-CREF Social Choice Equity I | As of December 31, 2023

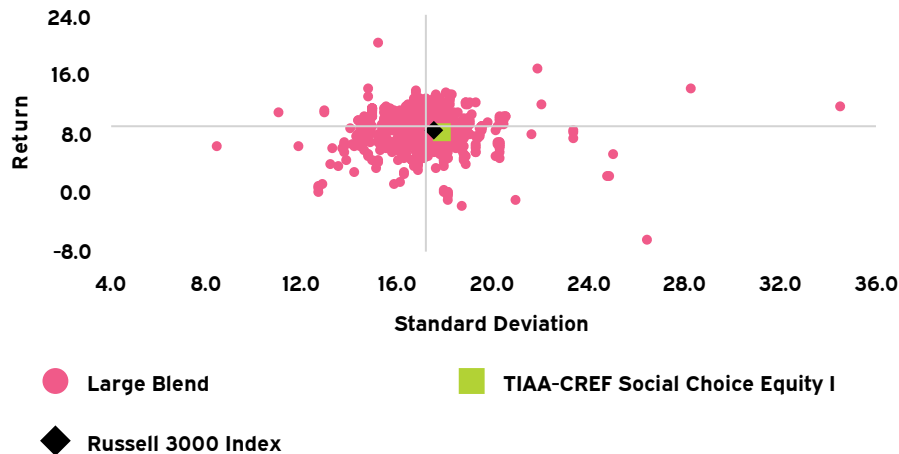
#### Top Holdings

Microsoft Corp	6.5
NVIDIA Corporation	3.0
Tesla Inc	2.0
Eli Lilly and Co	1.5
Visa Inc	1.4
Mastercard Inc	1.3
Home Depot Inc. (The)	1.2
UnitedHealth Group Incorporated	1.2
Procter & Gamble Co (The)	1.2
Merck & Co Inc	1.1
<b>% of Portfolio</b>	<b>20.4</b>

#### Sector Weights (%)

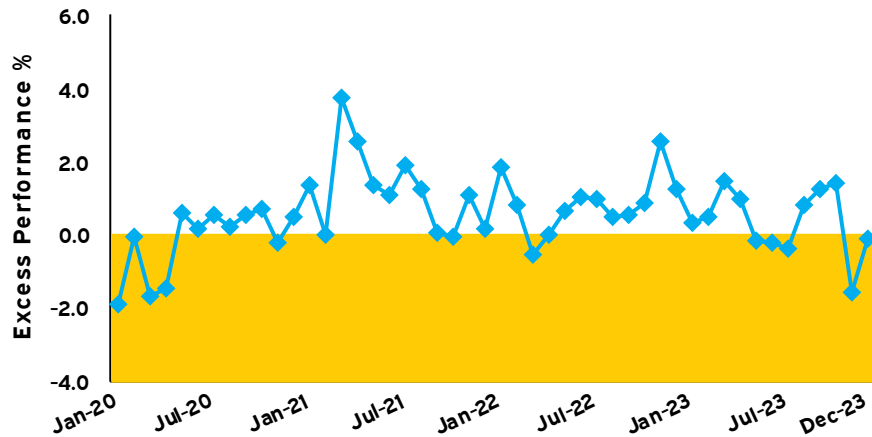


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



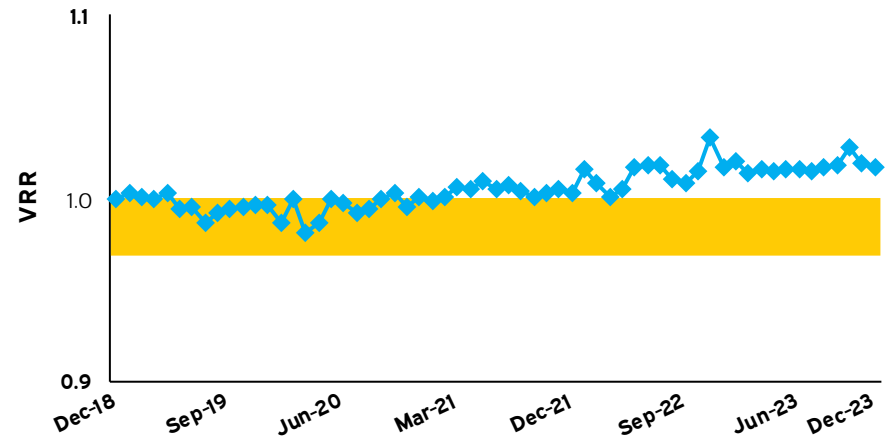
### DFA Large Cap International I | As of December 31, 2023

#### Short Term - Rolling 12-Month Excess Return



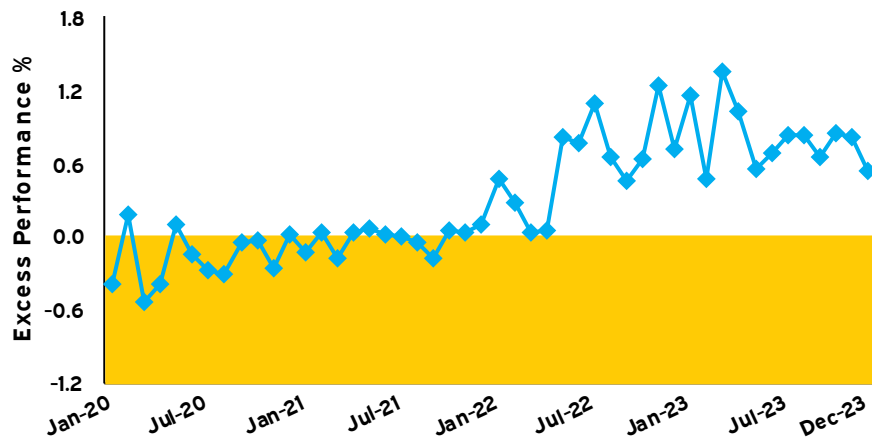
Results fall in the positive range.  
Probationary Threshold - 4.50%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
DFA Large Cap International I	10.3 (43)	17.9 (28)	5.0 (8)	8.8 (21)	6.6 (27)	12/1/2011
MSCI World ex U.S. (Net)	10.5 (36)	17.9 (27)	4.4 (15)	8.5 (28)	6.4 (34)	
Foreign Large Blend Median	10.0	16.4	2.5	7.8	6.1	

#### Monitoring Status

Positive

### Objective

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.

### Account Information

Account Name DFA Large Cap International I  
 Account Structure Mutual Fund  
 Inception Date 11/20/2011  
 Asset Class International Equity  
 Benchmark MSCI World ex U.S. (Net)  
 Universe Foreign Large Blend

### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
DFA Large Cap International I	10.3 (43)	17.9 (28)	5.0 (8)	8.8 (21)
MSCI World ex U.S. (Net)	10.5 (36)	17.9 (27)	4.4 (15)	8.5 (28)
Foreign Large Blend Median	10.0	16.4	2.5	7.8

	2022	2021	2020	2019	2018
DFA Large Cap International I	-13.0 (15)	12.8 (17)	8.1 (61)	22.0 (50)	-14.1 (37)
MSCI World ex U.S. (Net)	-14.3 (27)	12.6 (19)	7.6 (69)	22.5 (44)	-14.1 (35)
Foreign Large Blend Median	-15.7	10.5	9.3	22.0	-14.9

### Portfolio Characteristics vs MSCI World ex U.S. (Net)

	Portfolio	Index
# of Holdings	1,218	871
Wtd. Avg. Mkt. Cap	128.1	85.0
Median Mkt. Cap	9.8	13.6
P/E Ratio	12.5	13.9
Yield	2.2	3.2
EPS Growth - 5 Yrs.	9.2	9.7
Price/Book ratio	2.4	2.5
Beta	1.0	1.0

### Risk Statistics

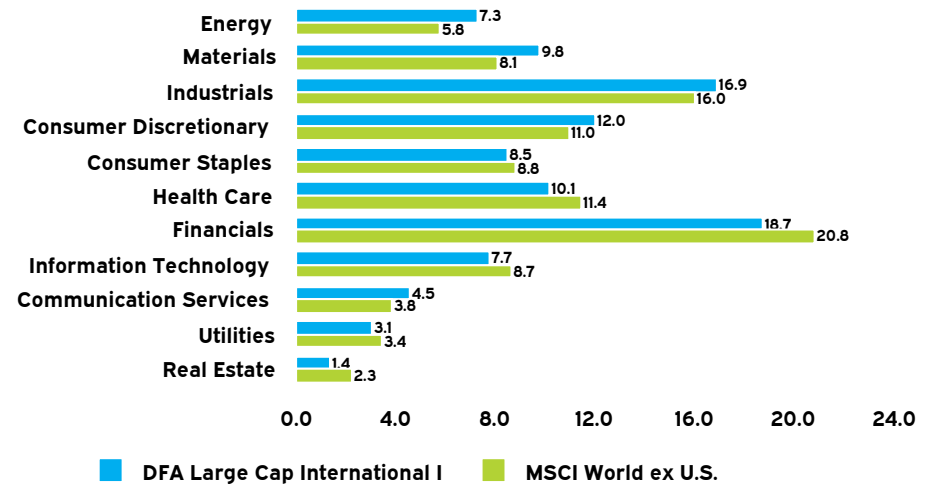
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	17.1	18.6
Tracking Error	2.3	2.3
Up Capture	104.1	103.5
Down Capture	102.4	103.1
Consistency	55.6	56.7
Alpha	0.5	0.2
Sharpe Ratio	0.2	0.4

### DFA Large Cap International I | As of December 31, 2023

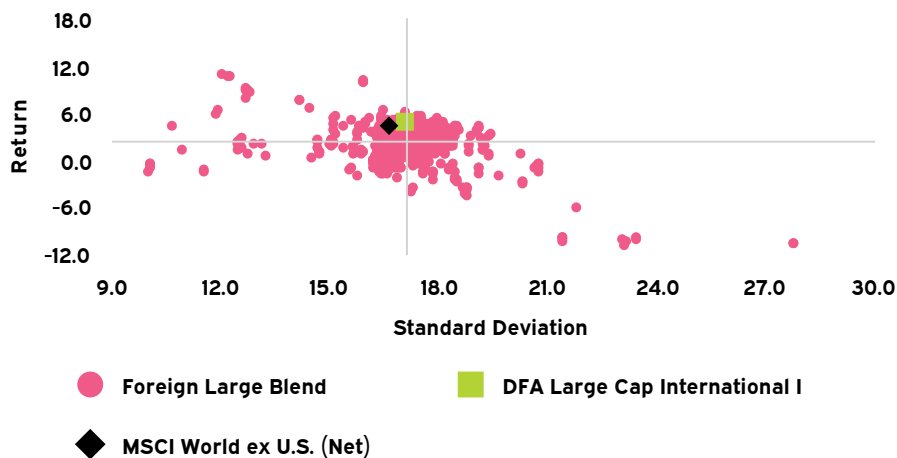
#### Top Holdings

Novo Nordisk A/S	1.7
Nestle SA, Cham Und Vevey	1.4
Shell Plc	1.2
LVMH Moet Hennessy Louis Vuitton SE	1.2
TotalEnergies SE	1.1
ASML Holding NV	1.1
Roche Holding AG	1.0
Toyota Motor Corp	0.8
Royal Bank of Canada	0.8
Sony Group Corporation	0.6
<b>% of Portfolio</b>	<b>10.9</b>

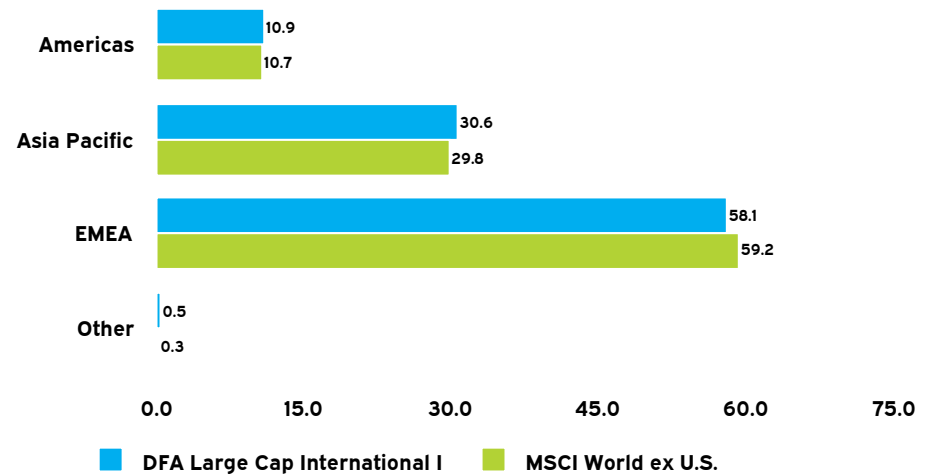
#### Sector Weights (%)



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

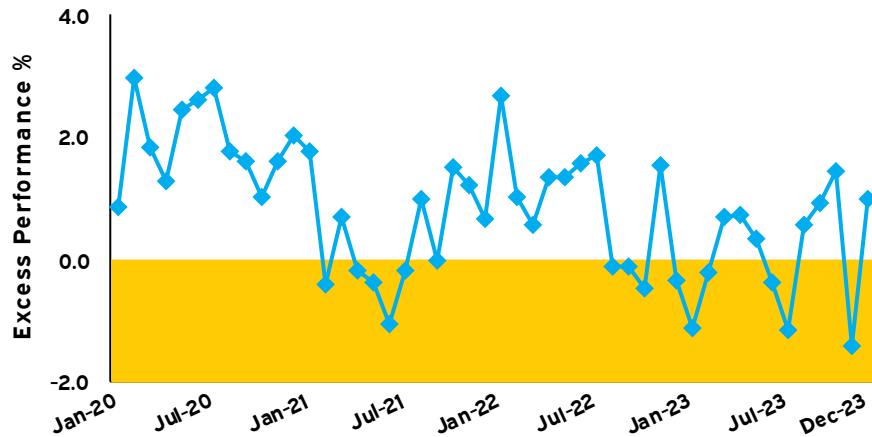


#### Region



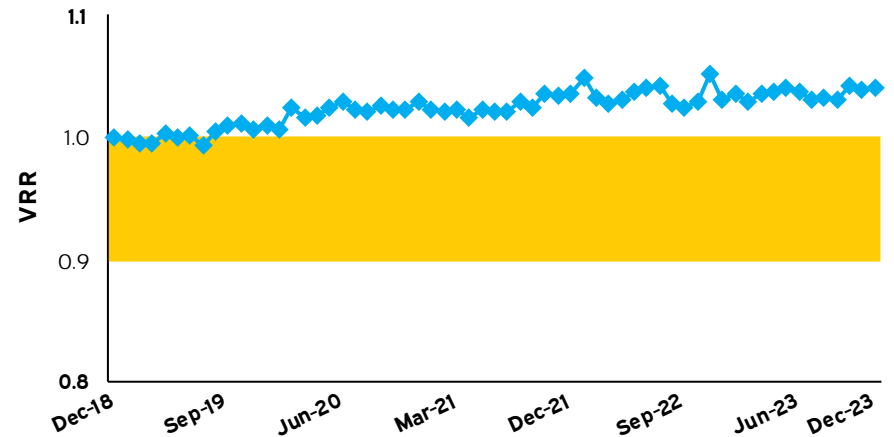
### TIAA-CREF Social Choice Intl Equity | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



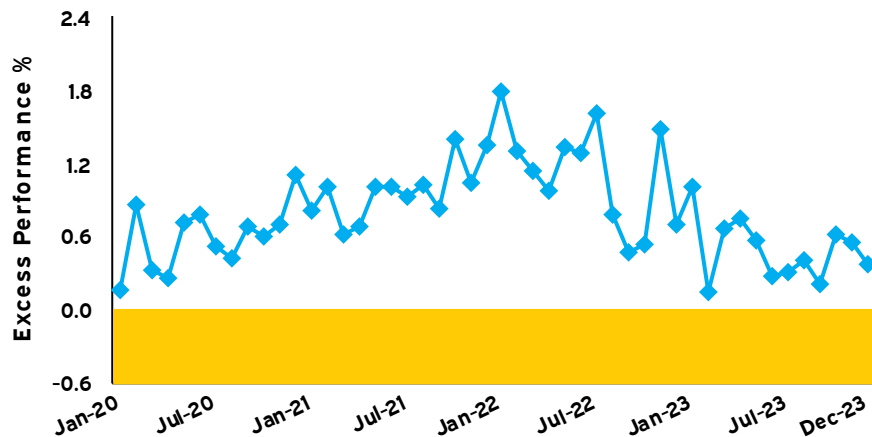
Results fall in the positive range.  
Probationary Threshold - 5.00%

Long Term - VRR



Results fall in the positive range.  
Probationary Threshold 0.90%

Medium Term - Rolling 36-Month Excess Return



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

### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Social Choice Intl Equity	11.4 (13)	19.3 (13)	4.4 (16)	9.0 (16)	6.5 (14)	9/1/2015
MSCI EAFE (Net)	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)	5.8 (34)	
Foreign Large Blend Median	10.0	16.4	2.5	7.8	5.5	

### Monitoring Status

Positive

TIAA-CREF Social Choice Intl Equity | As of December 31, 2023

**Objective**

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 MSCI EAFE® (Europe, Australasia, Far East) Index (the "MSCI EAFE Index"), while taking into consideration certain ESG criteria.

**Account Information**

Account Name TIAA-CREF Social Choice Intl Equity  
 Account Structure Mutual Fund  
 Inception Date 09/01/2015  
 Asset Class International Equity  
 Benchmark MSCI EAFE (Net)  
 Universe Foreign Large Blend

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Social Choice Intl Equity	11.4 (13)	19.3 (13)	-	-
MSCI EAFE (Net)	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)
Foreign Large Blend Median	10.0	16.4	2.5	7.8

	2022	2021	2020	2019	2018
TIAA-CREF Social Choice Intl Equity	-	-	-	-	-
MSCI EAFE (Net)	-14.5 (31)	11.3 (36)	7.8 (66)	22.0 (50)	-13.8 (27)
Foreign Large Blend Median	-15.7	10.5	9.3	22.0	-14.9

**Portfolio Characteristics vs MSCI EAFE (Net)**

	Portfolio	Index
# of Holdings	339	783
Wtd. Avg. Mkt. Cap	133.5	88.5
Median Mkt. Cap	16.4	13.4
P/E Ratio	10.8	13.7
Yield	1.9	3.2
EPS Growth - 5 Yrs.	9.7	9.9
Price/Book ratio	2.7	2.6
Beta	1.0	1.0

**Risk Statistics**

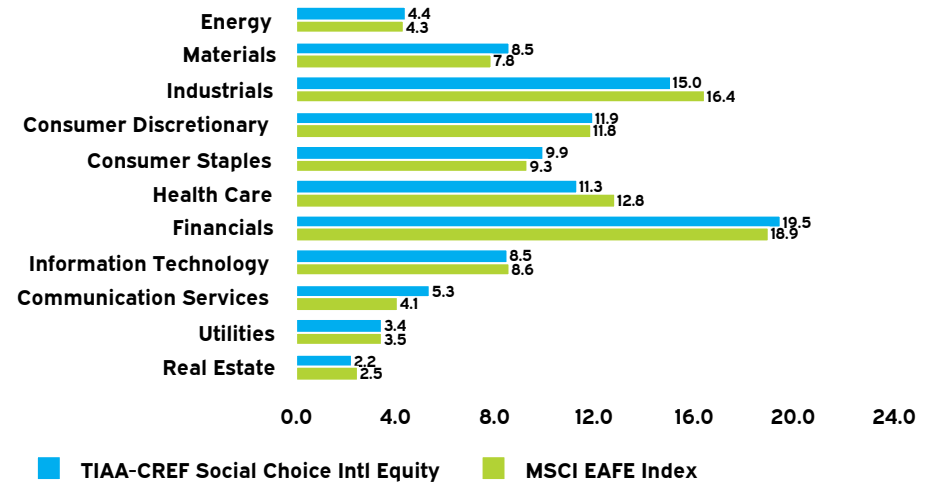
	1 Yr (%)
Standard Deviation	16.0
Tracking Error	1.6
Up Capture	100.7
Down Capture	96.8
Consistency	58.3
Alpha	1.1
Sharpe Ratio	0.9

### TIAA-CREF Social Choice Intl Equity | As of December 31, 2023

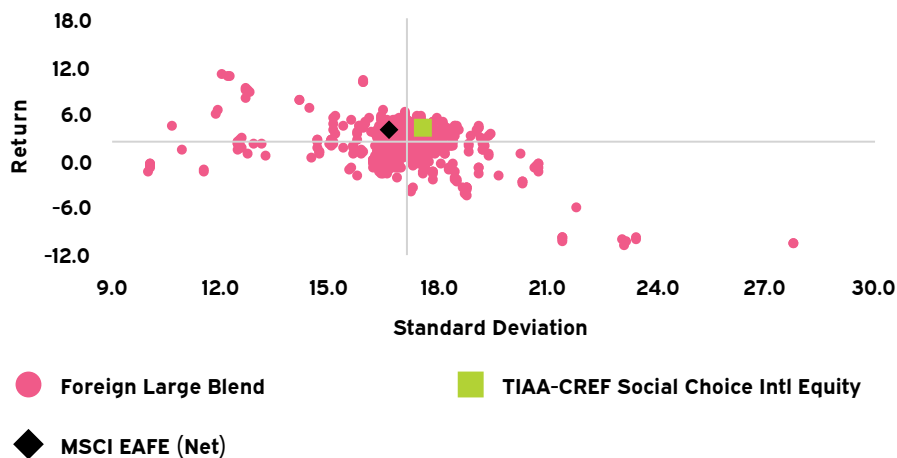
#### Top Holdings

Novo Nordisk A/S	2.4
ASML Holding NV	2.2
Nestle SA, Cham Und Vevey	2.2
Shell Plc	1.6
Novartis AG	1.6
Astrazeneca PLC	1.5
HSBC Holdings PLC	1.3
SAP SE	1.3
TotalEnergies SE	1.3
Siemens AG	1.2
<b>% of Portfolio</b>	<b>16.6</b>

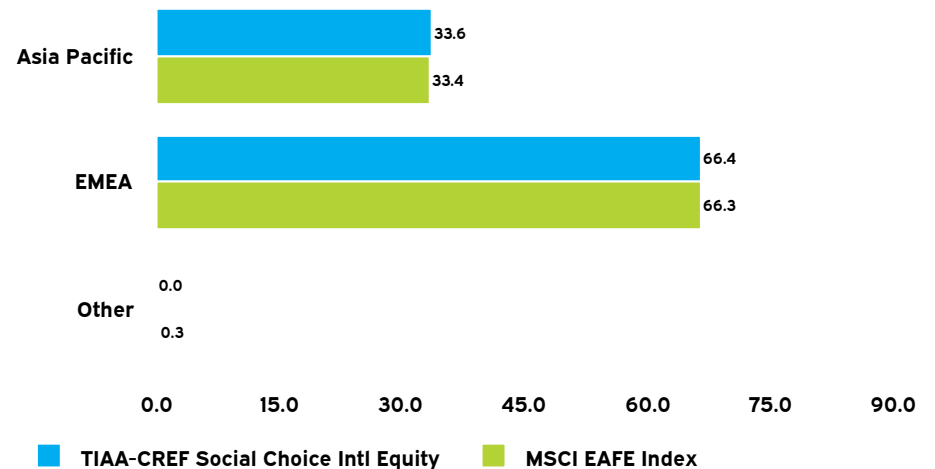
#### Sector Weights (%)



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



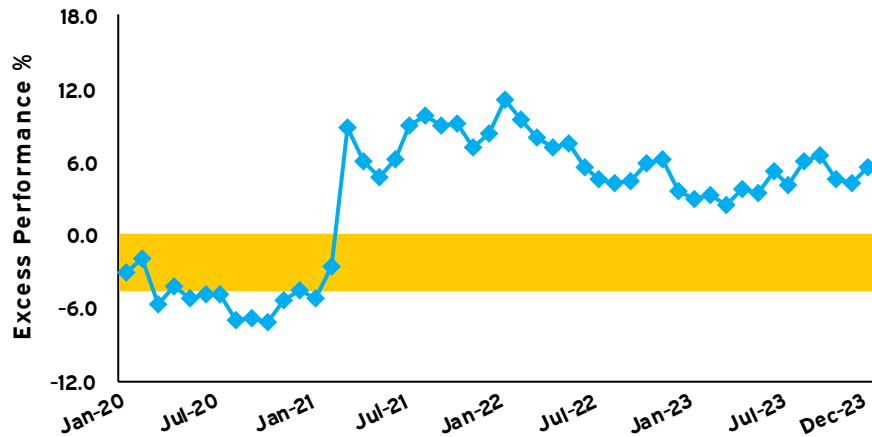
#### Region





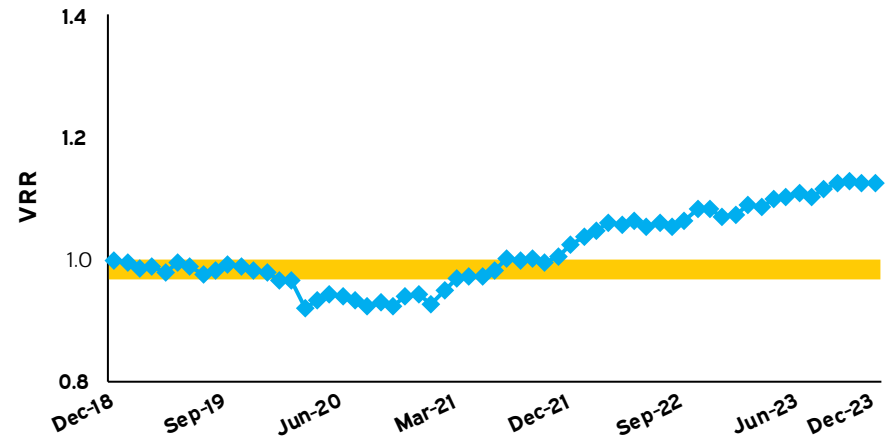
### DFA Emerging Markets Core Equity I | As of December 31, 2023

#### Short Term - Rolling 12-Month Excess Return



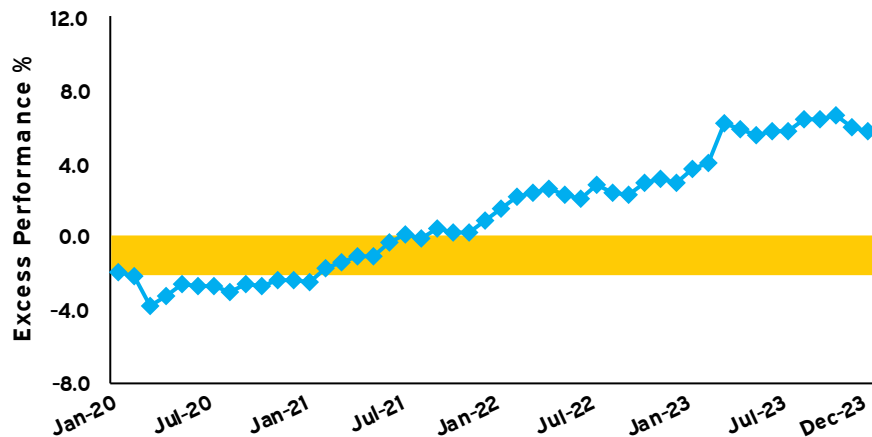
Results fall in the positive range.  
Probationary Threshold - 4.50%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
DFA Emerging Markets Core Equity I	7.9 (49)	15.5 (23)	0.7 (14)	6.2 (22)	4.4 (24)	12/1/2011
MSCI Emerging Markets (Net)	7.9 (49)	9.8 (60)	-5.1 (44)	3.7 (57)	3.3 (46)	
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0	3.1	

#### Monitoring Status

Positive

DFA Emerging Markets Core Equity I | As of December 31, 2023

**Objective**

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.

**Account Information**

Account Name DFA Emerging Markets Core Equity I  
 Account Structure Mutual Fund  
 Inception Date 05/01/2005  
 Asset Class International Equity  
 Benchmark MSCI Emerging Markets (Net)  
 Universe Diversified Emerging Mkts

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
DFA Emerging Markets Core Equity I	7.9 (49)	15.5 (23)	0.7 (14)	6.2 (22)
MSCI Emerging Markets (Net)	7.9 (49)	9.8 (60)	-5.1 (44)	3.7 (57)
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0

	2022	2021	2020	2019	2018
DFA Emerging Markets Core Equity I	-16.4 (15)	5.8 (16)	13.9 (72)	16.0 (81)	-15.2 (40)
MSCI Emerging Markets (Net)	-20.1 (30)	-2.5 (58)	18.3 (47)	18.4 (65)	-14.6 (30)
Diversified Emerging Mkts Median	-22.4	-1.7	17.6	20.5	-16.4

**Portfolio Characteristics vs MSCI Emerging Markets (Net)**

	Portfolio	Index
# of Holdings	6,656	1,441
Wtd. Avg. Mkt. Cap	69.1	103.8
Median Mkt. Cap	0.8	7.0
P/E Ratio	11.5	12.9
Yield	3.0	2.8
EPS Growth - 5 Yrs.	14.1	12.3
Price/Book ratio	2.4	2.5
Beta	1.0	1.0

**Risk Statistics**

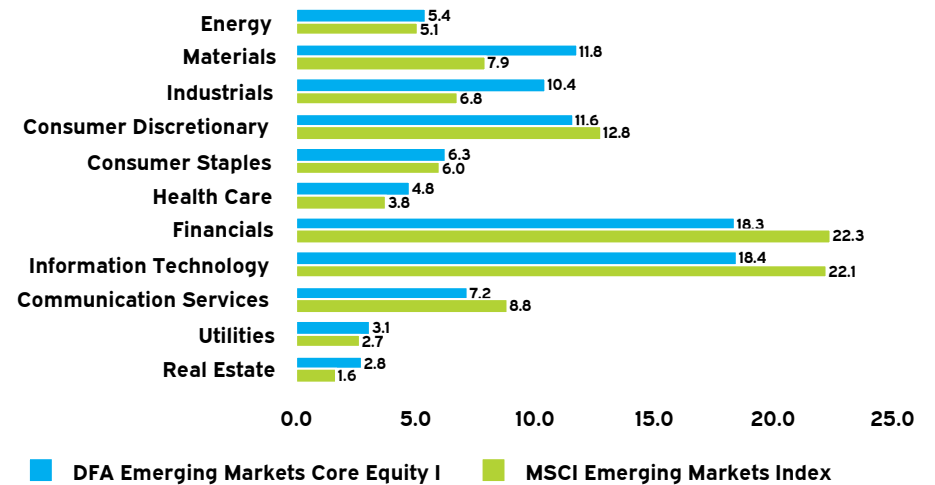
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	16.3	19.4
Tracking Error	3.3	3.9
Up Capture	103.3	101.1
Down Capture	79.5	90.5
Consistency	66.7	56.7
Alpha	5.7	2.5
Sharpe Ratio	0.0	0.3

### DFA Emerging Markets Core Equity I | As of December 31, 2023

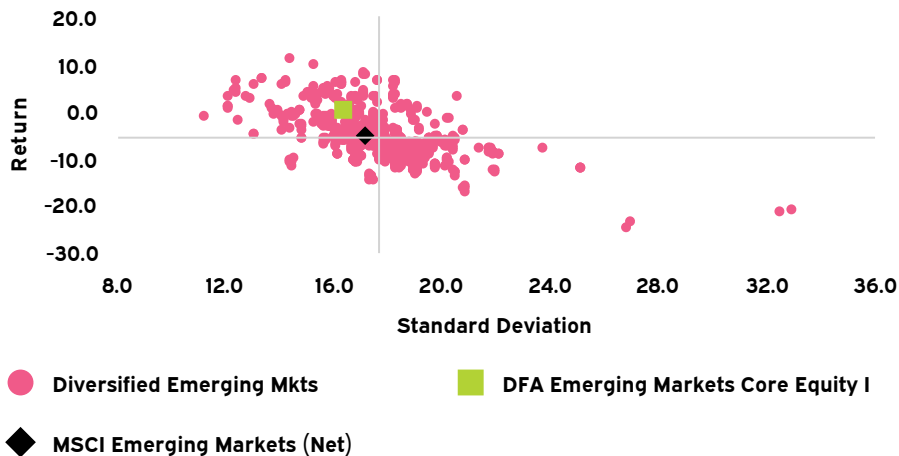
#### Top Holdings

Taiwan Semiconductor Manufacturing	3.4
Tencent Holdings LTD	2.5
Taiwan Semiconductor Manufacturing	1.3
Alibaba Group Holding Ltd	1.1
SK Hynix Inc	0.8
Petroleo Brasileiro S.A.- Petrobras	0.7
China Construction Bank Corp	0.7
Infosys Ltd	0.6
Reliance Industries Ltd	0.6
Vale SA	0.6
<b>% of Portfolio</b>	<b>12.3</b>

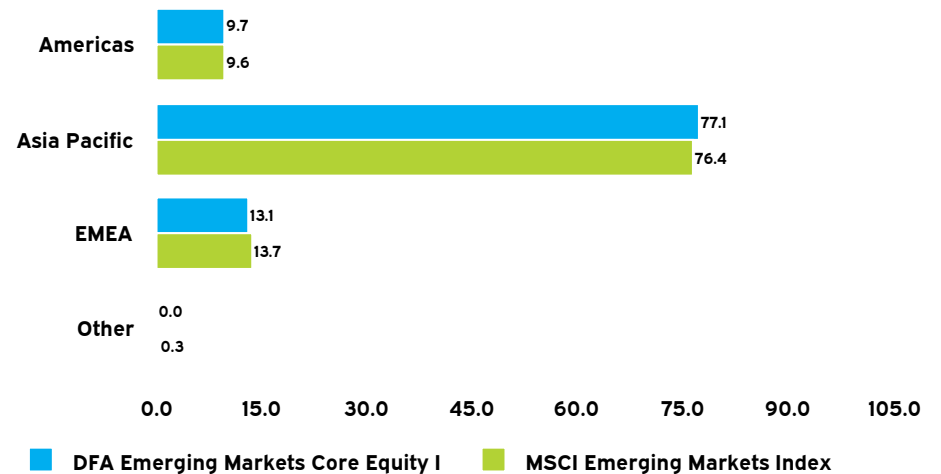
#### Sector Weights (%)



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

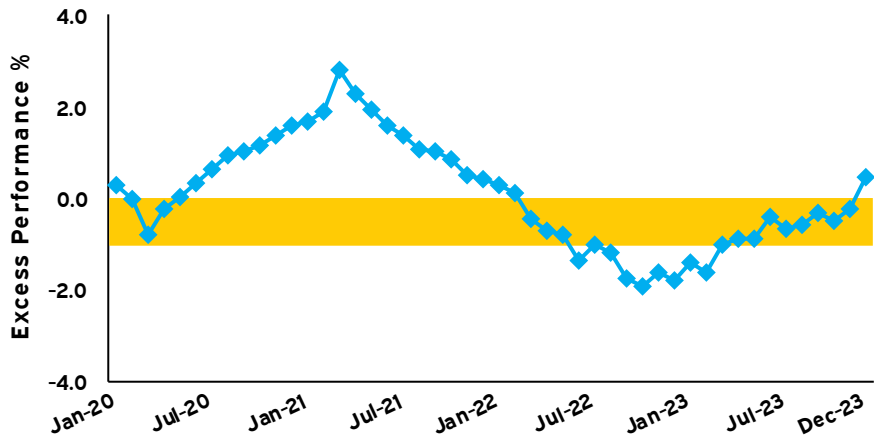


#### Region



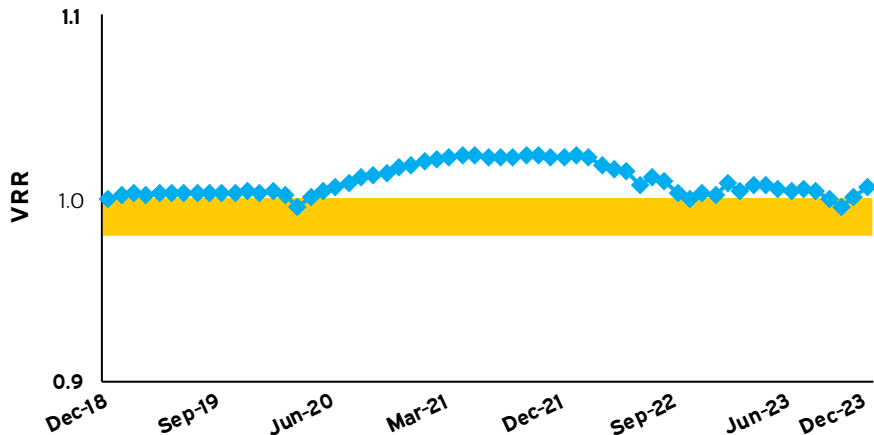
### Metropolitan West Total Return Bond I | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



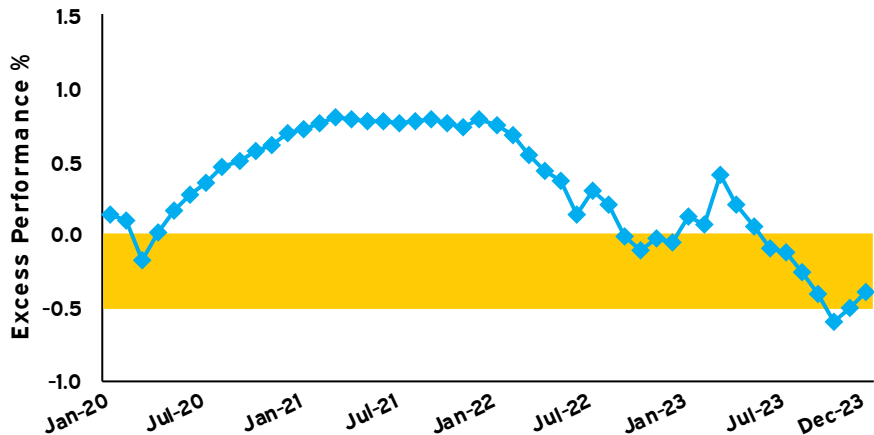
Results fall in the positive range.  
Probationary Threshold - 1.00%

Long Term - VRR



Results fall in the positive range.  
Probationary Threshold 0.98%

Medium Term - Rolling 36-Month Excess Return



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

### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Metropolitan West Total Return Bond I	7.5 (15)	6.0 (59)	-3.7 (70)	1.2 (61)	1.4 (63)	11/1/2015
Blmbg. U.S. Aggregate Index	6.8 (61)	5.5 (74)	-3.3 (51)	1.1 (68)	1.4 (68)	
Intermediate Core-Plus Bond Median	6.9	6.2	-3.3	1.4	1.6	

### Monitoring Status

Acceptable

Metropolitan West Total Return Bond I | As of December 31, 2023

**Objective**

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.

**Account Information**

Account Name	Metropolitan West Total Return Bond I
Account Structure	Mutual Fund
Inception Date	10/07/2015
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Universe	Intermediate Core-Plus Bond

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Metropolitan West Total Return Bond I	7.5 (15)	6.0 (59)	-3.7 (70)	1.2 (61)
Blmbg. U.S. Aggregate Index	6.8 (61)	5.5 (74)	-3.3 (51)	1.1 (68)
Intermediate Core-Plus Bond Median	6.9	6.2	-3.3	1.4

	2022	2021	2020	2019	2018
Metropolitan West Total Return Bond I	-14.8 (77)	-1.1 (63)	9.1 (29)	9.1 (56)	0.2 (17)
Blmbg. U.S. Aggregate Index	-13.0 (26)	-1.5 (81)	7.5 (71)	8.7 (68)	0.0 (20)
Intermediate Core-Plus Bond Median	-13.9	-0.9	8.4	9.3	-0.8

**Portfolio Characteristics vs Benchmark**

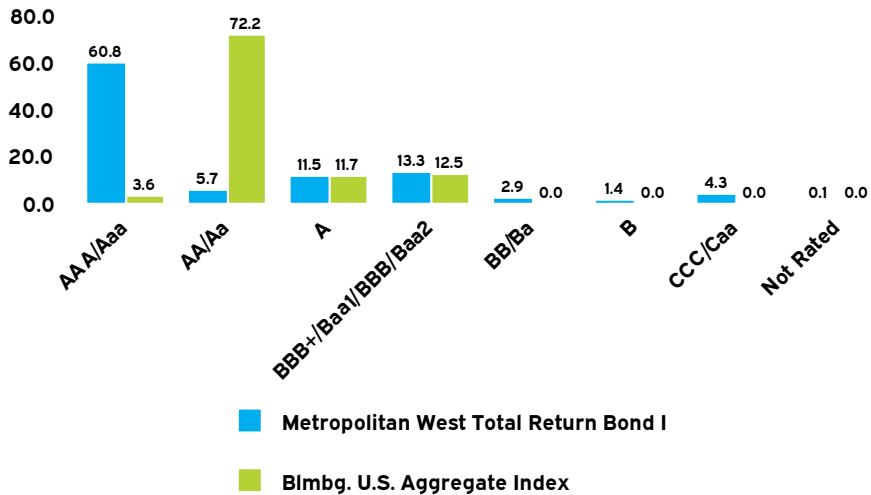
	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	4.4	4.5
Average Duration	6.9	6.2
Average Quality	AA	AA
Weighted Average Maturity	4.9	8.5

**Risk Statistics**

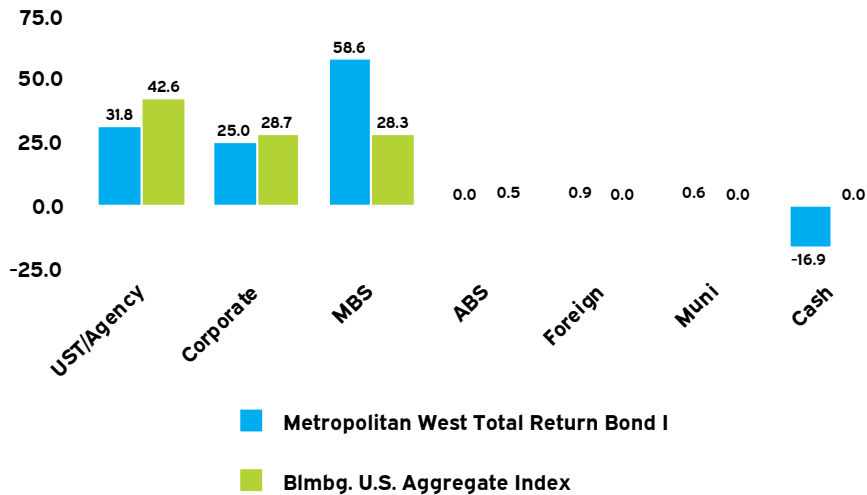
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	8.0	6.8
Tracking Error	1.1	1.0
Up Capture	110.3	110.2
Down Capture	110.4	109.6
Consistency	41.7	55.0
Alpha	0.0	0.0
Sharpe Ratio	-0.7	-0.1

### Metropolitan West Total Return Bond I | As of December 31, 2023

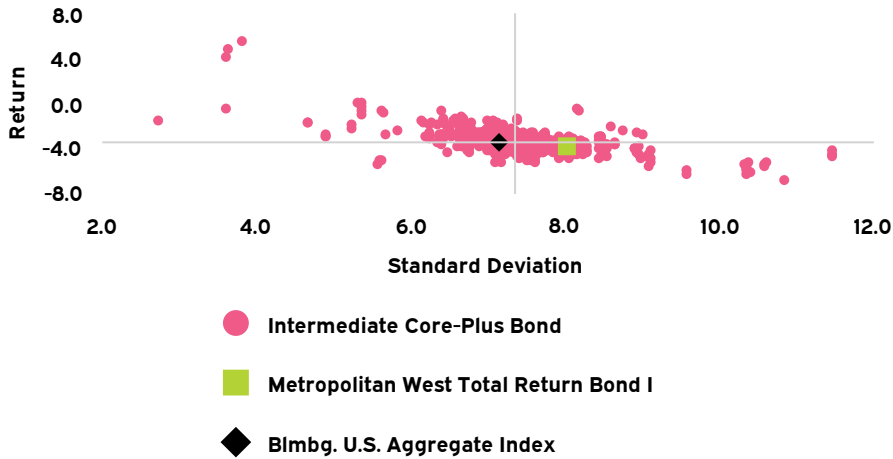
#### Credit Quality



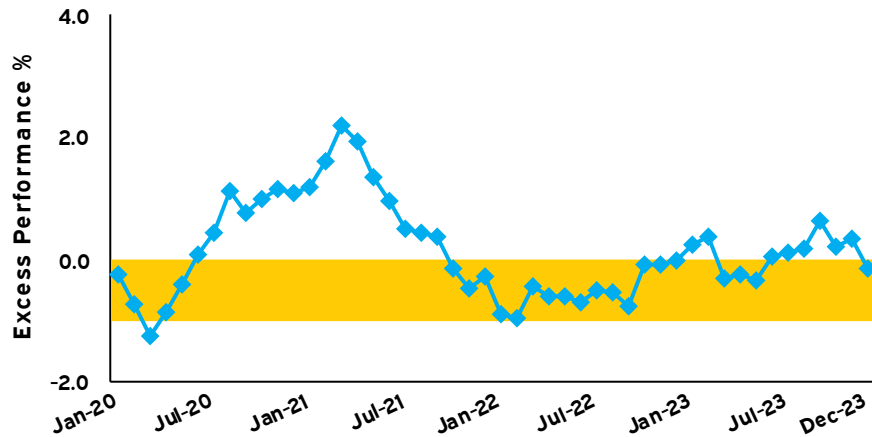
#### Sector Allocation



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

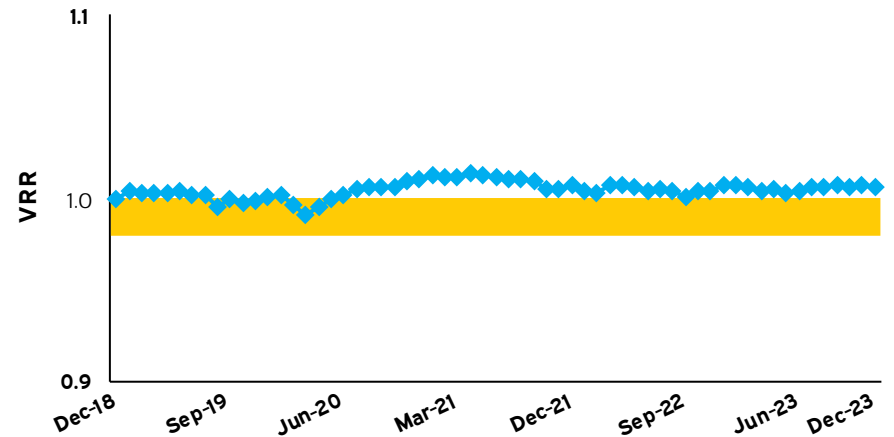


#### Short Term - Rolling 12-Month Excess Return



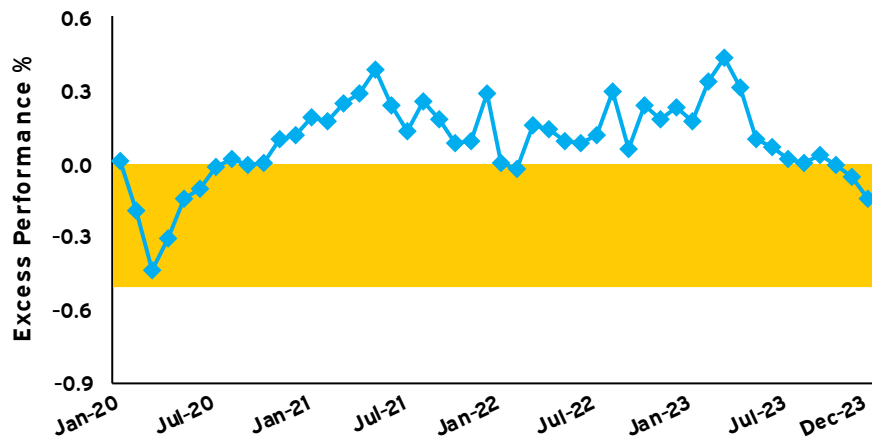
Results fall in the positive range.  
Probationary Threshold - 1.00%

#### Long Term - VRR



Results fall in the positive range.  
Probationary Threshold 0.98%

#### Medium Term - Rolling 36-Month Excess Return



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

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
PIMCO Real Return	4.6 (40)	3.7 (53)	-1.1 (52)	3.3 (23)	2.0 (11)	12/1/2011
Blmbg. U.S. TIPS	4.7 (31)	3.9 (47)	-1.0 (46)	3.2 (33)	1.8 (20)	
Inflation-Protected Bond Median	4.4	3.8	-1.1	3.0	1.5	

#### Monitoring Status

Acceptable

#### Strategy 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.

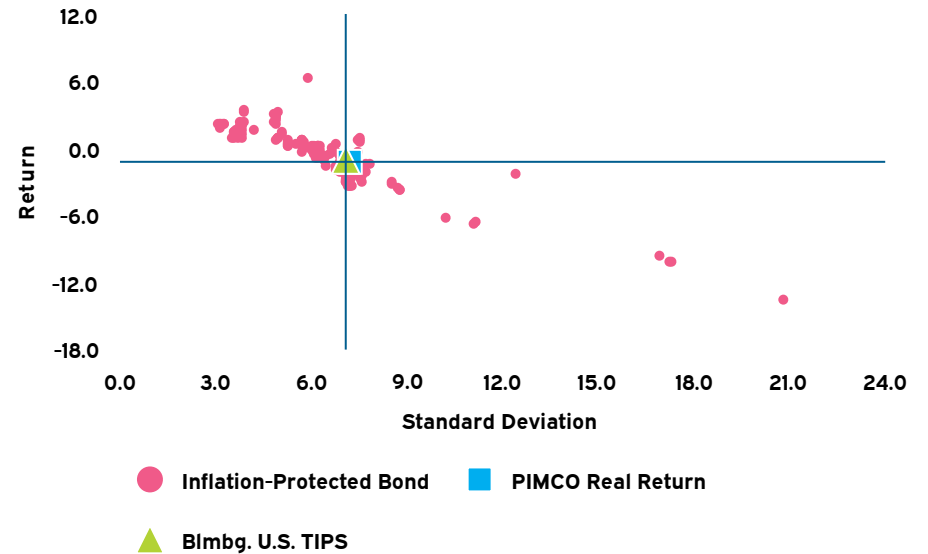
#### Account Information

Account Name	PIMCO Real Return
Inception Date	11/20/2011
Account Structure	Mutual Fund
Asset Class	US Real Return
Benchmark	Blmbg. U.S. TIPS
Peer Group	Inflation-Protected Bond

#### Performance Summary

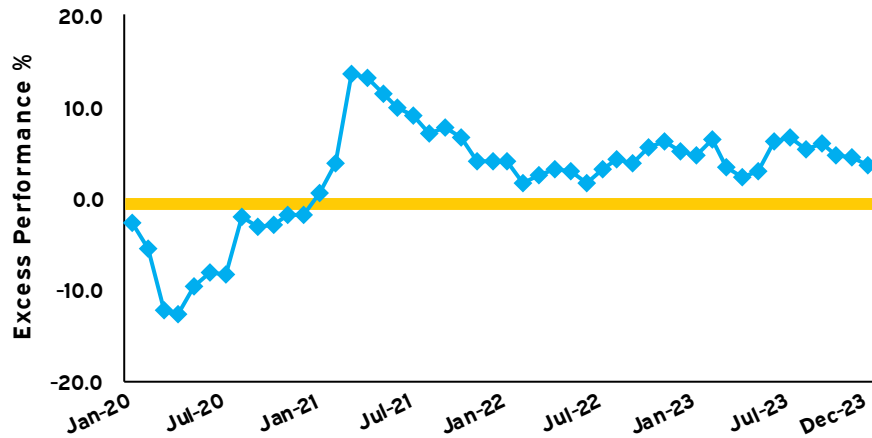
	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
PIMCO Real Return	2.54 (38)	3.74 (53)	-1.14 (52)	3.28 (23)	2.38 (17)
<i>Blmbg. U.S. TIPS</i>	<i>2.69</i>	<i>3.90</i>	<i>-1.00</i>	<i>3.15</i>	<i>2.42</i>
-----					
	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)
PIMCO Real Return	-11.86 (55)	5.67 (32)	12.09 (13)	8.52 (16)	-1.97 (65)
<i>Blmbg. U.S. TIPS</i>	<i>-11.85 (54)</i>	<i>5.96 (23)</i>	<i>10.99 (30)</i>	<i>8.43 (19)</i>	<i>-1.26 (37)</i>
<i>Inflation-Protected Bond Median</i>	<i>-11.71</i>	<i>5.28</i>	<i>9.79</i>	<i>7.74</i>	<i>-1.56</i>

#### 3-Year Return vs Standard Deviation



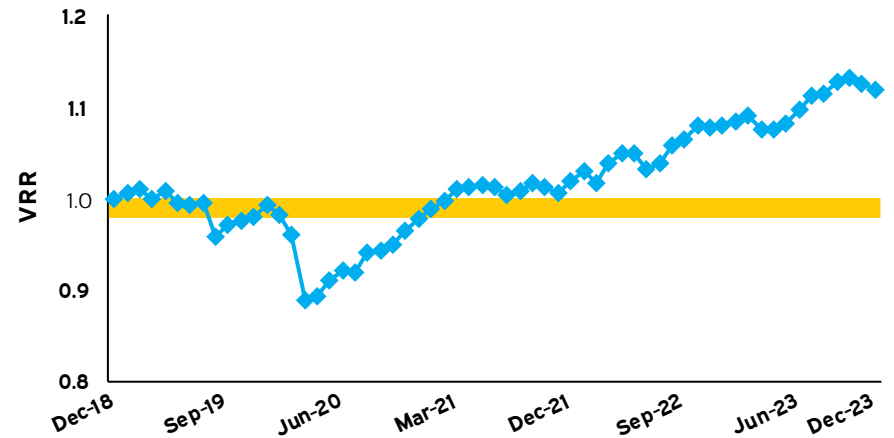


#### Short Term - Rolling 12-Month Excess Return



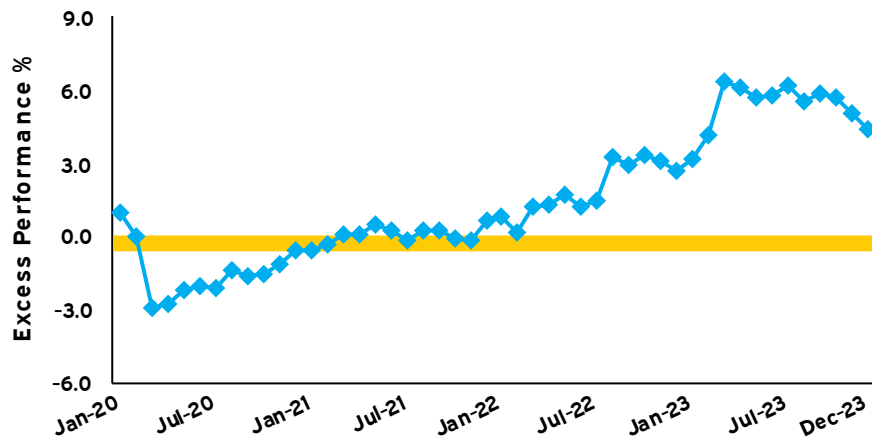
Results fall in the positive range.  
Probationary Threshold - 1.00%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
PIMCO Income I	5.9 (63)	9.3 (36)	1.1 (17)	3.4 (37)	5.9 (1)	12/1/2011
Blmbg. U.S. Aggregate Index	6.8 (29)	5.5 (94)	-3.3 (100)	1.1 (95)	1.8 (99)	
Multisector Bond Median	6.3	8.6	-0.2	3.2	3.7	

#### Monitoring Status

Positive

#### Strategy 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.

#### Account Information

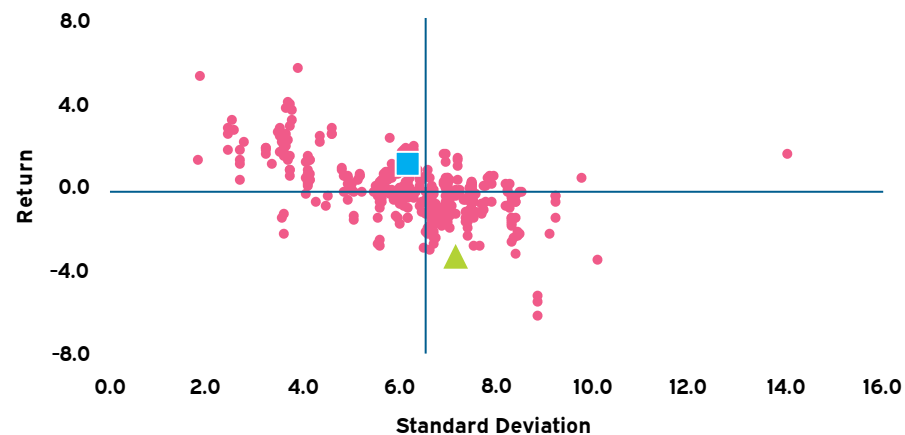
Account Name	PIMCO Income I
Inception Date	11/20/2011
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Peer Group	Multisector Bond

#### Performance Summary

	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
PIMCO Income I	3.14 (57)	9.32 (36)	1.12 (17)	3.40 (37)	4.44 (1)
<i>Blmbg. U.S. Aggregate Index</i>	<i>3.83</i>	<i>5.53</i>	<i>-3.31</i>	<i>1.10</i>	<i>1.81</i>
<i>Multisector Bond Median</i>	<i>3.27</i>	<i>8.57</i>	<i>-0.21</i>	<i>3.17</i>	<i>2.95</i>

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)
PIMCO Real Return	-11.86 (55)	5.67 (32)	12.09 (13)	8.52 (16)	-1.97 (65)
<i>Blmbg. U.S. TIPS</i>	<i>-11.85 (54)</i>	<i>5.96 (23)</i>	<i>10.99 (30)</i>	<i>8.43 (19)</i>	<i>-1.26 (37)</i>
<i>Inflation-Protected Bond Median</i>	<i>-11.71</i>	<i>5.28</i>	<i>9.79</i>	<i>7.74</i>	<i>-1.56</i>

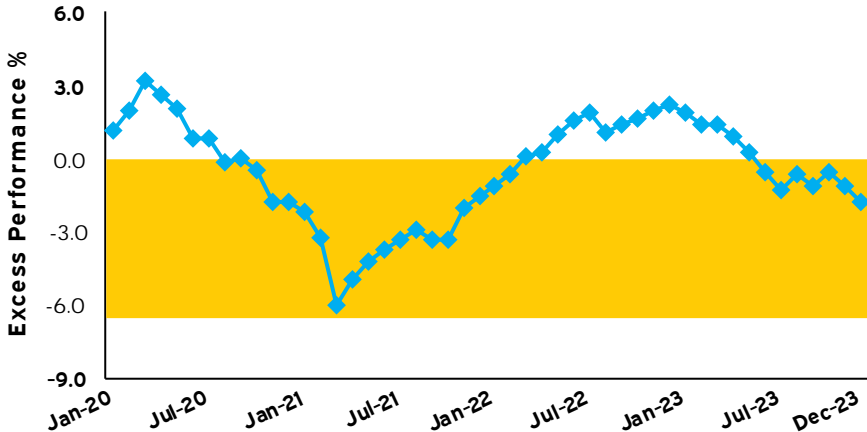
#### 3-Year Return vs Standard Deviation



- Multisector Bond
- PIMCO Income I
- ▲ Blmbg. U.S. Aggregate Index

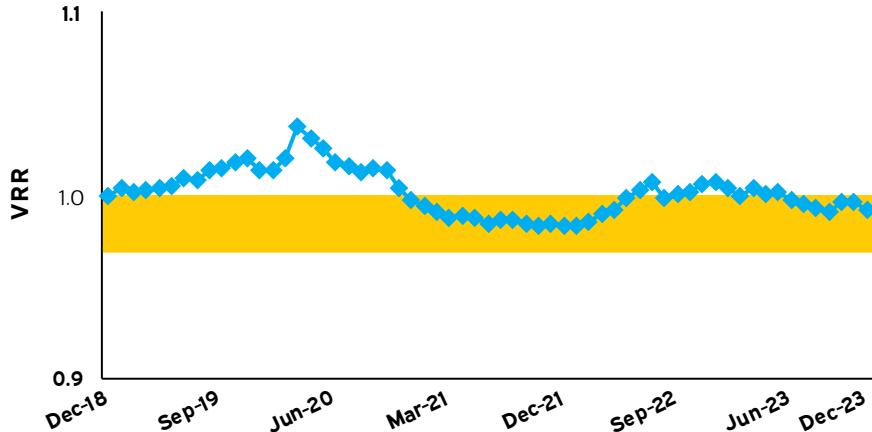
### Vanguard High-Yield Corp Adm | As of December 31, 2023

Short Term - Rolling 12-Month Excess Return



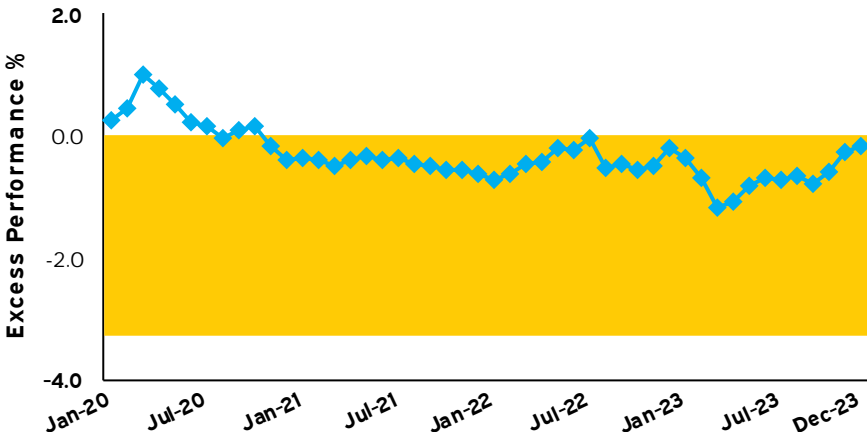
Results fall in the acceptable range.  
Probationary Threshold -6.5%

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%

### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Vanguard High-Yield Corp Adm	7.3 (9)	11.7 (62)	1.8 (47)	5.2 (28)	7.4 (33)	7/1/1983
Blmbg. U.S. Corp: High Yield Index	7.2 (15)	13.4 (13)	2.0 (42)	5.4 (21)	8.3 (2)	
High Yield Bond Median	6.5	12.2	1.7	4.7	7.0	

### Monitoring Status

Acceptable

### Objective

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.

### Account Information

Account Name	Vanguard High-Yield Corp Adm
Account Structure	Mutual Fund
Inception Date	01/01/1979
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Corp: High Yield Index
Universe	High Yield Bond

### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Vanguard High-Yield Corp Adm	7.3 (9)	11.7 (62)	-	-
Blmbg. U.S. Corp: High Yield Index	7.2 (15)	13.4 (13)	2.0 (42)	5.4 (21)
High Yield Bond Median	6.5	12.2	1.7	4.7

	2022	2021	2020	2019	2018
Vanguard High-Yield Corp Adm	-	-	-	-	-
Blmbg. U.S. Corp: High Yield Index	-11.2 (61)	5.3 (40)	7.1 (19)	14.3 (37)	-2.1 (26)
High Yield Bond Median	-10.7	4.9	5.3	13.6	-2.9

### Vanguard High-Yield Corp Adm | As of December 31, 2023

### Portfolio Characteristics vs Benchmark

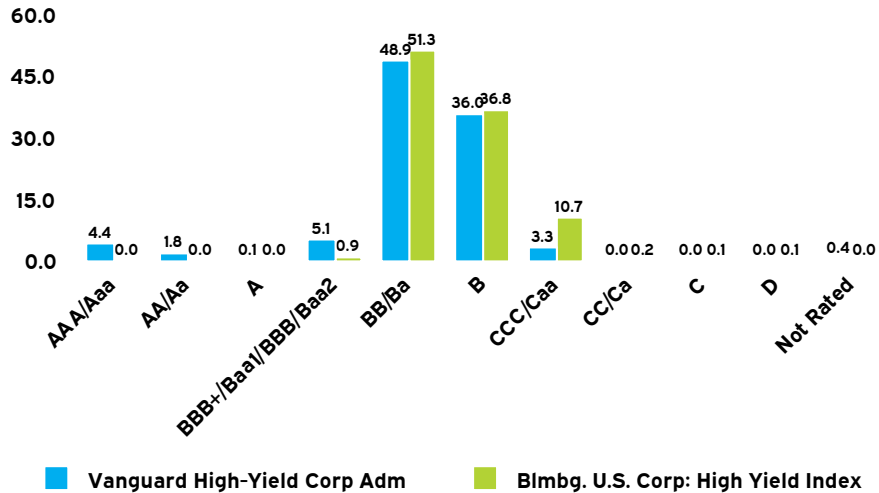
	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	7.8	7.7
Average Duration	3.7	3.9
Average Quality	BB	B
Weighted Average Maturity	4.8	4.9

### Risk Statistics

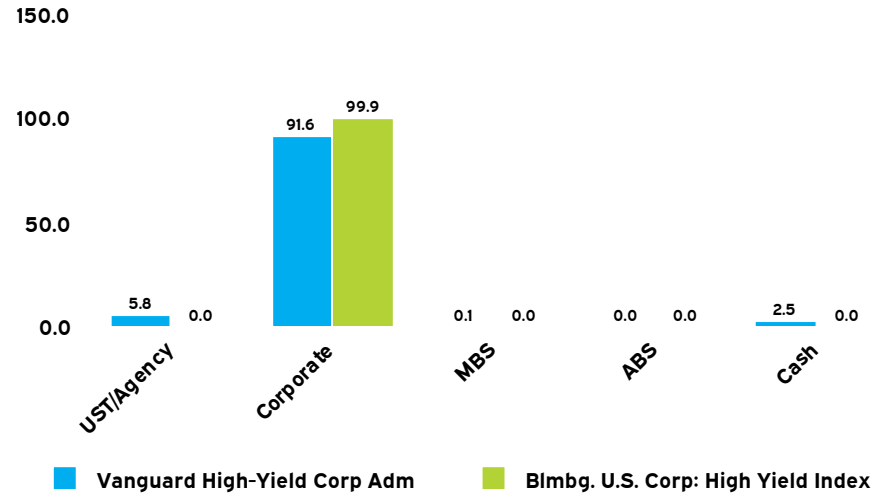
	1 Yr (%)
Standard Deviation	6.6
Tracking Error	1.0
Up Capture	90.7
Down Capture	98.6
Consistency	25.0
Alpha	-0.8
Sharpe Ratio	1.0

### Vanguard High-Yield Corp Adm | As of December 31, 2023

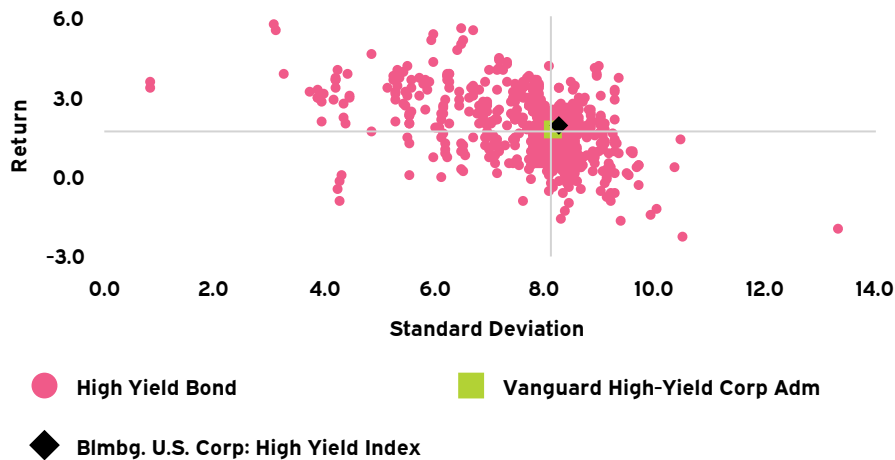
#### Credit Quality



#### Sector Allocation

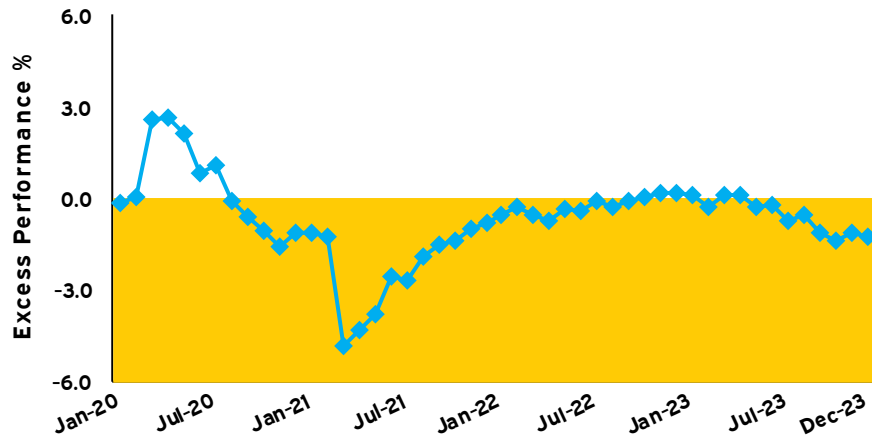


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



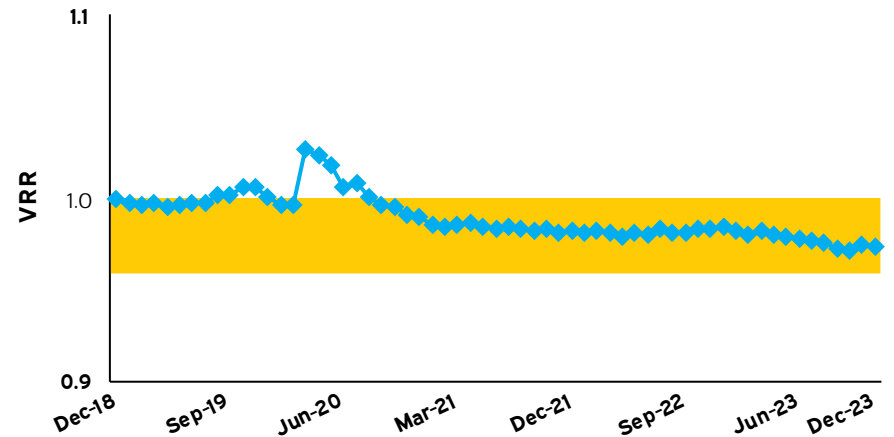
### TRowe Price Floating Rate I | As of December 31, 2023

#### Short Term - Rolling 12-Month Excess Return



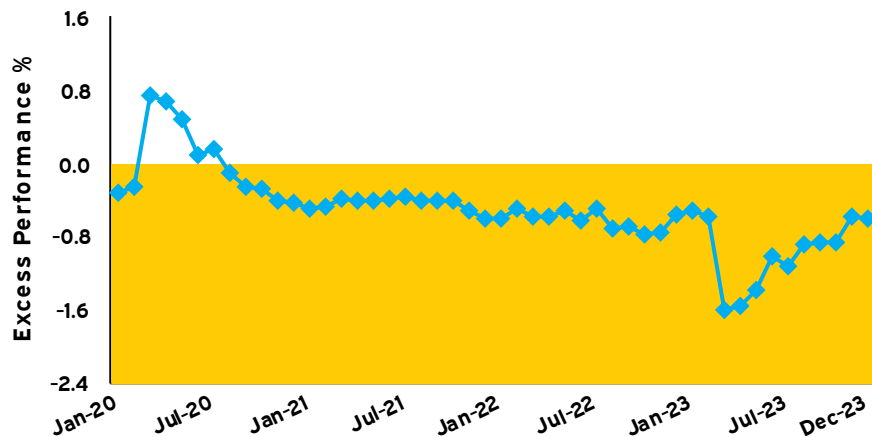
Results fall in the acceptable range.  
Probationary Threshold -6.50%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TRowe Price Floating Rate I	3.2 (22)	12.5 (31)	5.4 (19)	5.4 (8)	4.7 (9)	12/1/2011
Morningstar LSTA US Performing Loans	3.0 (34)	13.7 (9)	6.0 (5)	6.0 (1)	5.2 (1)	
Bank Loan Median	2.8	12.0	4.5	4.4	4.0	

#### Monitoring Status

Acceptable

### TRowe Price Floating Rate I | As of December 31, 2023

#### Objective

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 investments.

#### Account Information

Account Name	TRowe Price Floating Rate I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Fixed Income
Benchmark	Morningstar LSTA US Performing Loans
Universe	Bank Loan

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TRowe Price Floating Rate I	3.2 (22)	12.5 (31)	5.4 (19)	5.4 (8)
Morningstar LSTA US Performing Loans	3.0 (34)	13.7 (9)	6.0 (5)	6.0 (1)
Bank Loan Median	2.8	12.0	4.5	4.4

	2022	2021	2020	2019	2018
TRowe Price Floating Rate I	-0.6 (10)	4.7 (39)	2.4 (25)	8.8 (17)	0.4 (17)
Morningstar LSTA US Performing Loans	-0.8 (12)	5.4 (19)	3.5 (6)	8.7 (20)	0.6 (9)
Bank Loan Median	-2.2	4.4	1.5	7.7	-0.3

#### Portfolio Characteristics vs Benchmark

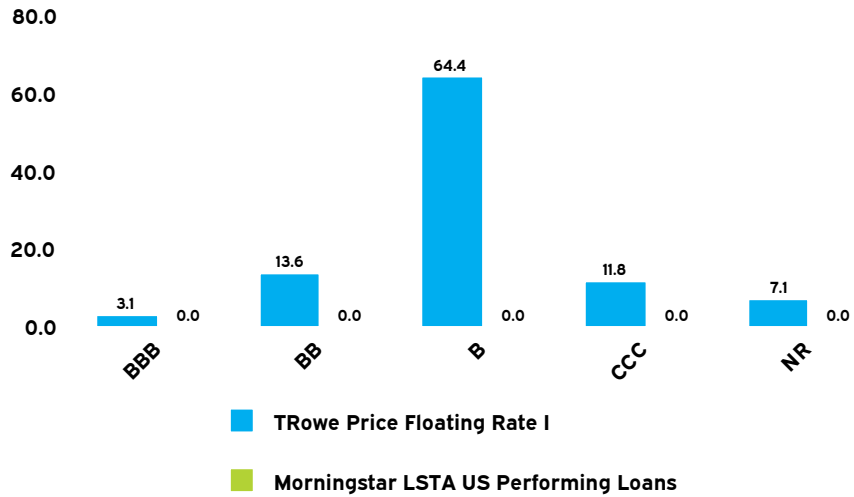
	Portfolio
<b>Portfolio Characteristics</b>	
Yield To Maturity (%)	8.1
Average Duration	0.6
Average Quality	B
Weighted Average Maturity	4.2

#### Risk Statistics

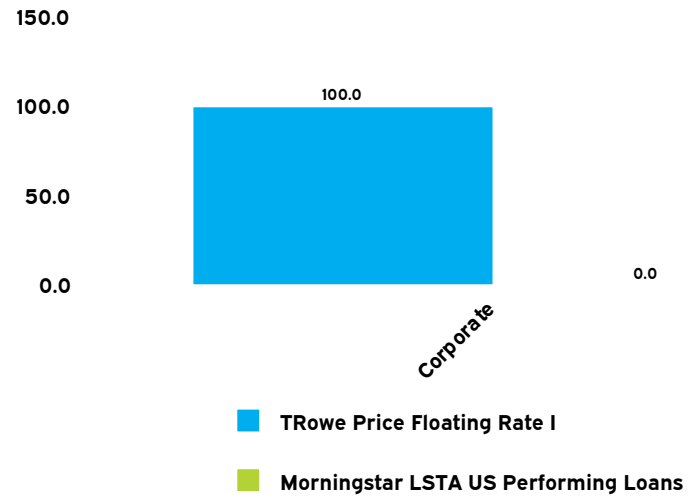
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	3.8	6.3
Tracking Error	0.6	1.6
Up Capture	92.1	86.9
Down Capture	95.7	82.9
Consistency	38.9	36.7
Alpha	-0.3	0.4
Sharpe Ratio	0.9	0.6

TRowe Price Floating Rate I | As of December 31, 2023

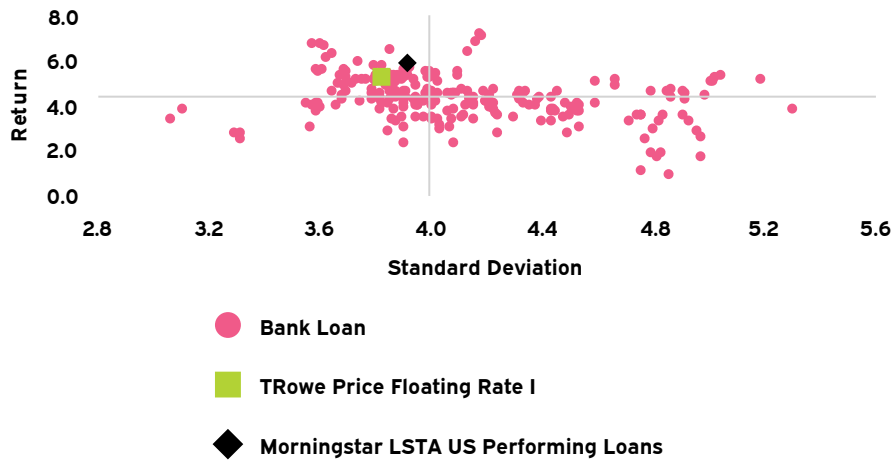
### Credit Quality



### Sector Allocation



### Return vs. Standard Deviation 3 Years Ending December 31, 2023

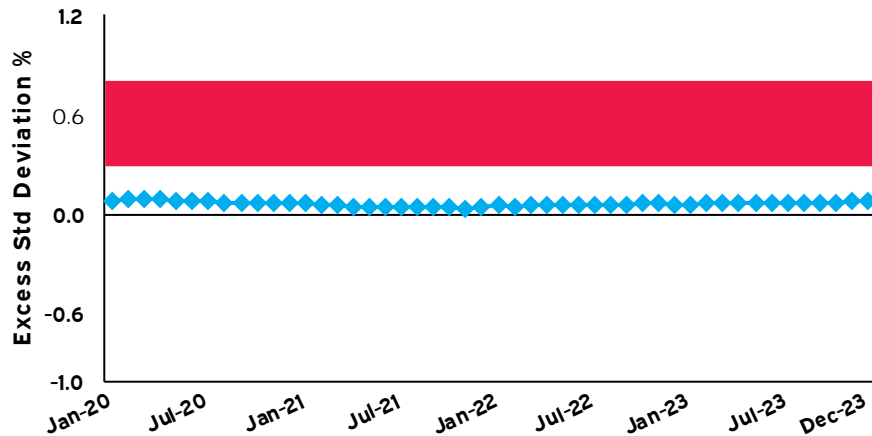




## **Passive Underlying Fund Analysis**

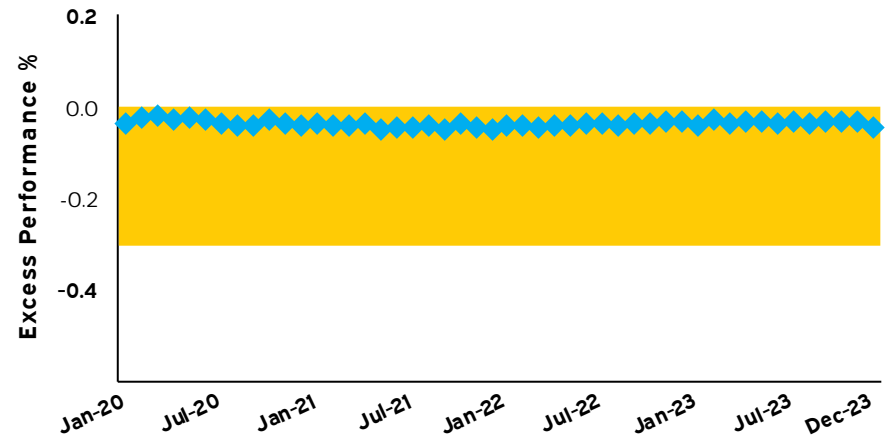
### TIAA-CREF Equity Index I | As of December 31, 2023

#### Short Term - Rolling 12-Month Tracking Error



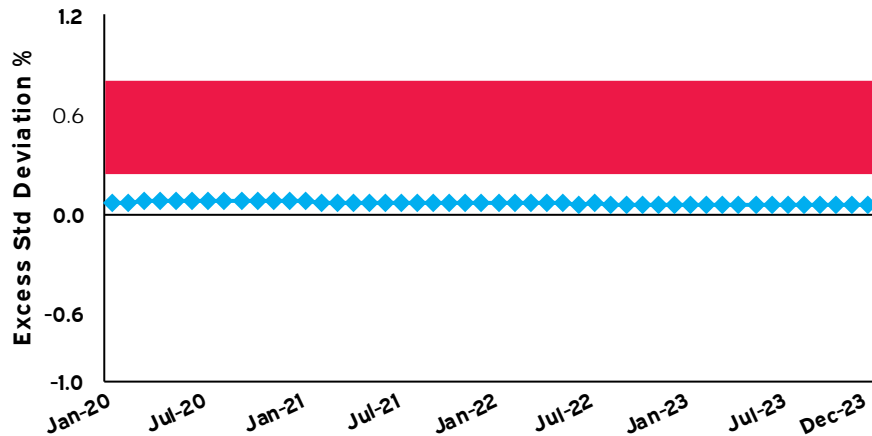
Results fall in the positive range.  
Probationary Threshold 0.30%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Equity Index I	12.1 (28)	25.9 (34)	8.5 (62)	15.1 (34)	13.5 (26)	12/1/2011
Russell 3000 Index	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)	13.6 (25)	
Large Blend Median	11.6	24.4	9.0	14.5	12.9	

#### Monitoring Status

Acceptable

### TIAA-CREF Equity Index I | As of December 31, 2023

#### Objective

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.

#### Account Information

Account Name	TIAA-CREF Equity Index I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Equity
Benchmark	Russell 3000 Index
Universe	Large Blend

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Equity Index I	12.1 (28)	25.9 (34)	8.5 (62)	15.1 (34)
Russell 3000 Index	12.1 (29)	26.0 (32)	8.5 (62)	15.2 (33)
Large Blend Median	11.6	24.4	9.0	14.5

	2022	2021	2020	2019	2018
TIAA-CREF Equity Index I	-19.2 (71)	25.6 (64)	20.8 (19)	30.9 (39)	-5.2 (45)
Russell 3000 Index	-19.2 (71)	25.7 (63)	20.9 (18)	31.0 (34)	-5.2 (46)
Large Blend Median	-18.1	26.8	17.3	30.0	-5.5

#### Portfolio Characteristics vs Russell 3000 Index

	Portfolio	Index
# of Holdings	2,727	2,976
Wtd. Avg. Mkt. Cap	618.6	618.1
Median Mkt. Cap	2.6	2.2
P/E Ratio	22.8	22.8
Yield	1.5	1.5
EPS Growth - 5 Yrs.	16.6	16.6
Price/Book ratio	4.1	4.1
Beta	1.0	1.0

#### Risk Statistics

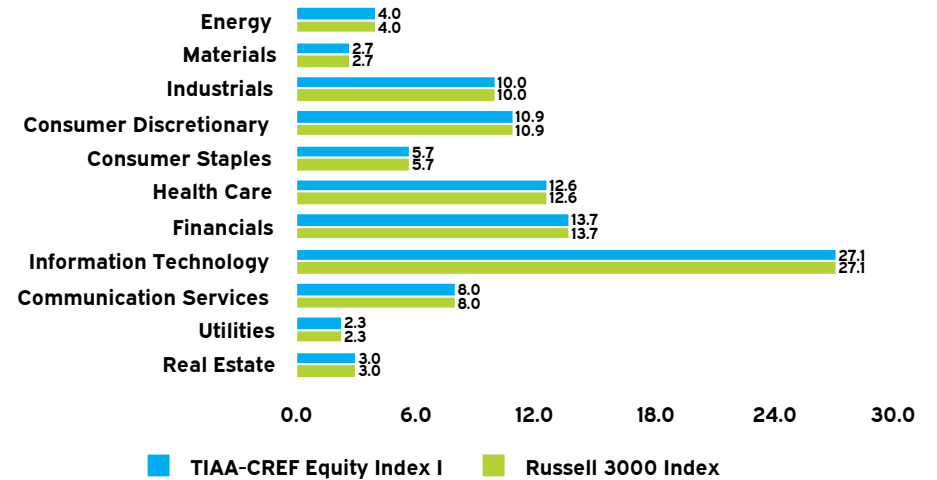
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Incepti Date
Standard Deviation	5.0	14.8	17.4	18.9	15.5	14.7	12/01/2011
Tracking Error	0.0	0.1	0.1	0.1	0.1	0.1	
Up Capture	100.1	99.9	99.8	99.7	99.8	99.8	
Down Capture	100.2	99.9	99.8	99.8	99.8	99.8	
Consistency	33.3	33.3	44.4	40.0	44.2	44.1	
Alpha	0.0	0.0	0.0	0.0	0.0	0.0	
Sharpe Ratio	0.7	1.3	0.4	0.7	0.7	0.9	

### TIAA-CREF Equity Index I | As of December 31, 2023

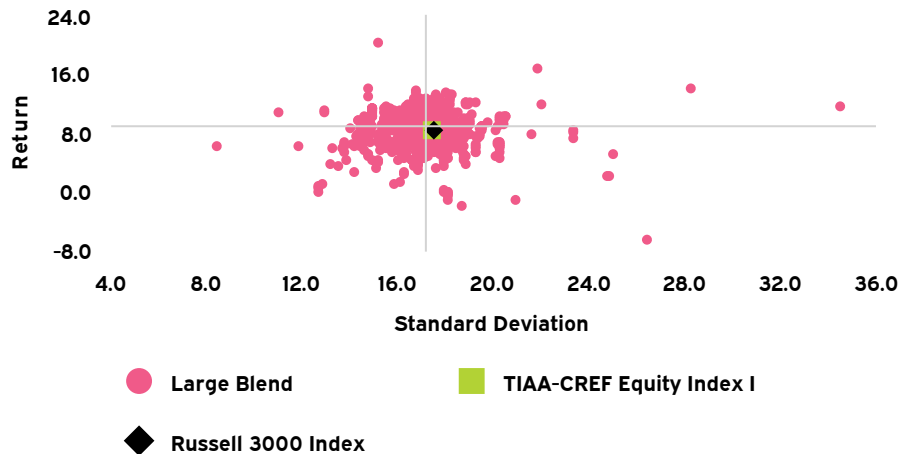
#### Top Holdings

Apple Inc	6.1
Microsoft Corp	6.0
Amazon.com Inc	3.0
NVIDIA Corporation	2.5
Alphabet Inc Class A	1.8
Meta Platforms Inc	1.7
Alphabet Inc Class C	1.5
Tesla Inc	1.5
Berkshire Hathaway Inc	1.4
Eli Lilly and Co	1.1
<b>% of Portfolio</b>	<b>26.6</b>

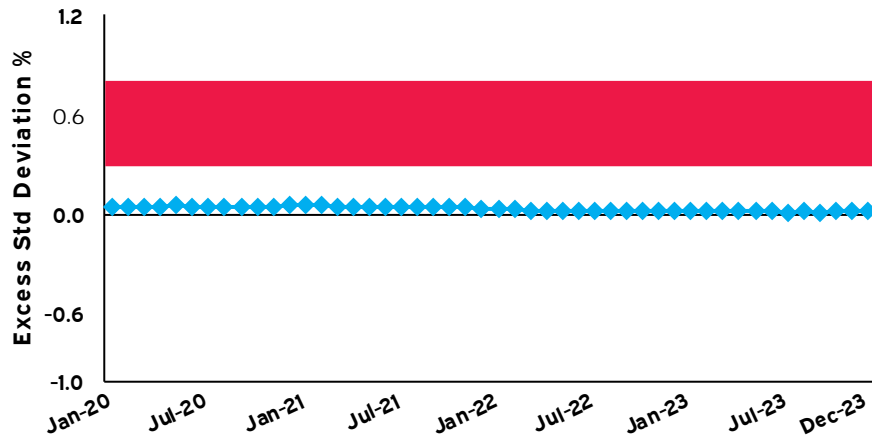
#### Sector Weights (%)



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

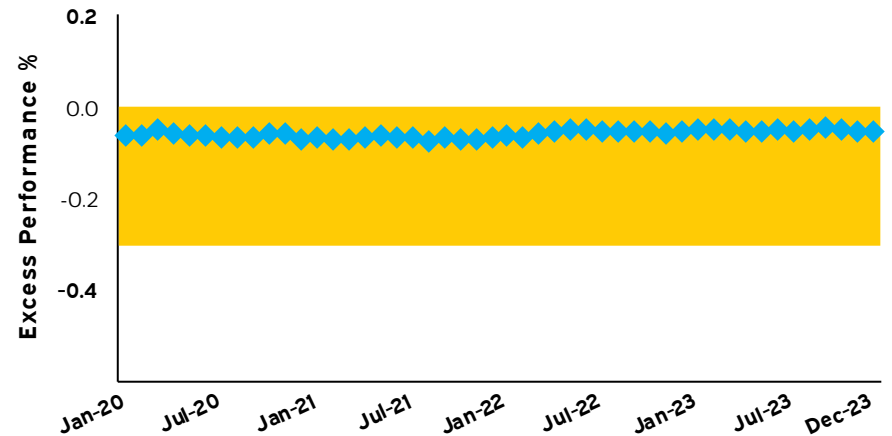


#### Short Term - Rolling 12-Month Tracking Error



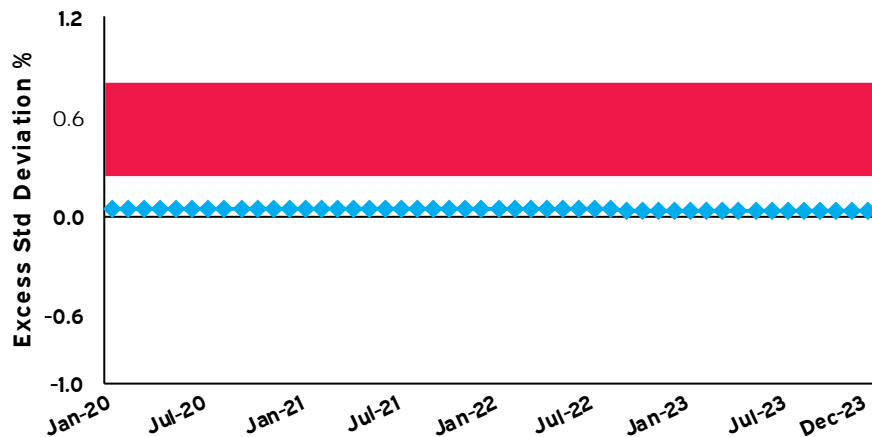
Results fall in the positive range.  
Probationary Threshold 0.30%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF S&P 500 Index I	11.7 (46)	26.2 (26)	10.0 (25)	15.6 (18)	13.9 (11)	12/1/2011
S&P 500 Index	11.7 (45)	26.3 (24)	10.0 (23)	15.7 (16)	13.9 (9)	
Large Blend Median	11.6	24.4	9.0	14.5	12.9	

#### Monitoring Status

Acceptable

### TIAA-CREF S&P 500 Index I | As of December 31, 2023

#### Objective

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.

#### Account Information

Account Name	TIAA-CREF S&P 500 Index I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Equity
Benchmark	S&P 500 Index
Universe	Large Blend

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF S&P 500 Index I	11.7 (46)	26.2 (26)	10.0 (25)	15.6 (18)
S&P 500 Index	11.7 (45)	26.3 (24)	10.0 (23)	15.7 (16)
Large Blend Median	11.6	24.4	9.0	14.5

	2022	2021	2020	2019	2018
TIAA-CREF S&P 500 Index I	-18.1 (50)	28.6 (22)	18.3 (36)	31.4 (24)	-4.5 (26)
S&P 500 Index	-18.1 (49)	28.7 (20)	18.4 (35)	31.5 (22)	-4.4 (24)
Large Blend Median	-18.1	26.8	17.3	30.0	-5.5

#### Portfolio Characteristics vs S&P 500 Index

	Portfolio	Index
# of Holdings	503	503
Wtd. Avg. Mkt. Cap	714.6	714.1
Median Mkt. Cap	33.7	33.5
P/E Ratio	24.0	24.0
Yield	1.5	1.5
EPS Growth - 5 Yrs.	16.9	16.9
Price/Book ratio	4.4	4.4
Beta	1.0	1.0

#### Risk Statistics

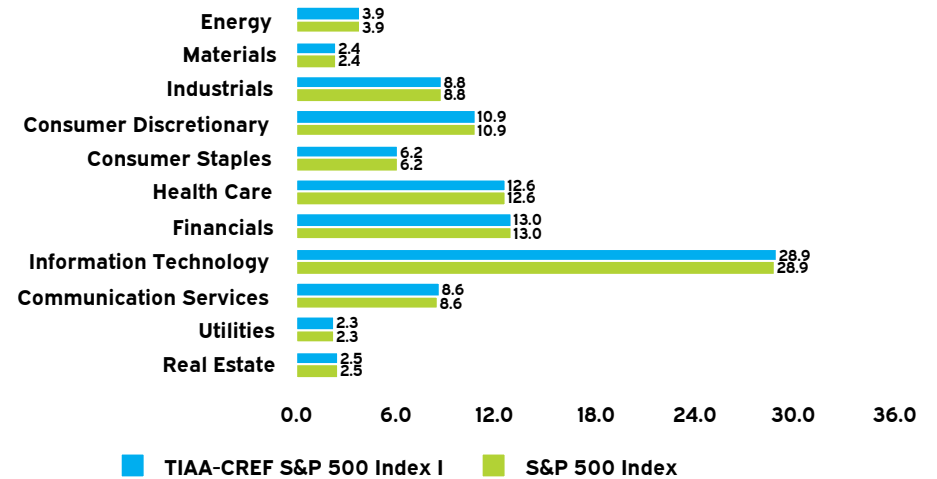
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	17.3	18.4
Tracking Error	0.0	0.0
Up Capture	99.9	99.9
Down Capture	100.0	100.0
Consistency	30.6	38.3
Alpha	0.0	0.0
Sharpe Ratio	0.5	0.8

TIAA-CREF S&P 500 Index I | As of December 31, 2023

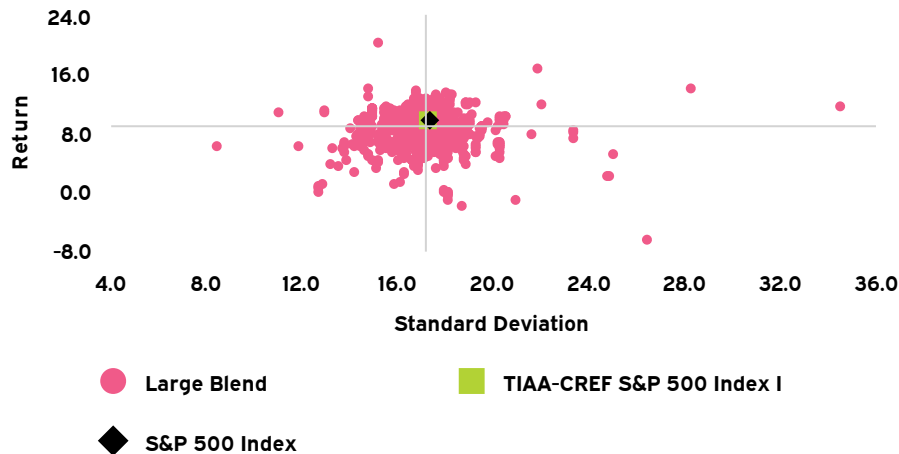
### Top Holdings

Apple Inc	7.0
Microsoft Corp	7.0
Amazon.com Inc	3.5
NVIDIA Corporation	3.1
Alphabet Inc Class A	2.1
Meta Platforms Inc	2.0
Alphabet Inc Class C	1.8
Tesla Inc	1.7
Berkshire Hathaway Inc	1.6
JPMorgan Chase & Co	1.2
<b>% of Portfolio</b>	<b>31.0</b>

### Sector Weights (%)

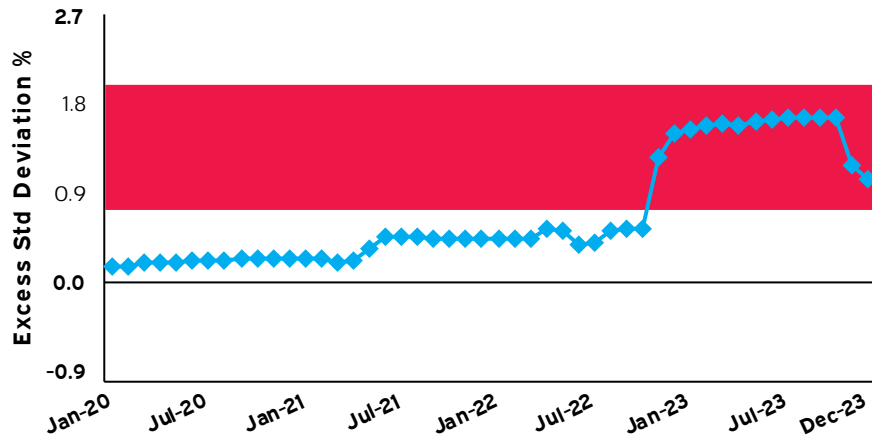


### Return vs. Standard Deviation 3 Years Ending December 31, 2023



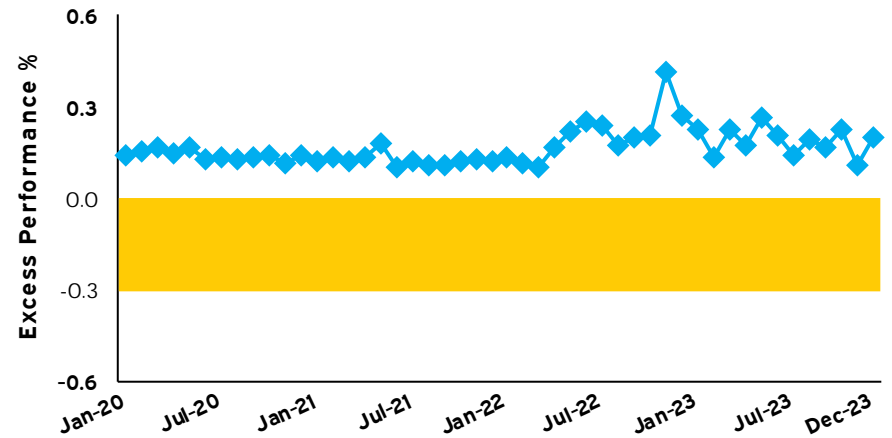
TIAA-CREF International Eqty Idx - FVP Adj. | As of December 31, 2023

### Short Term - Rolling 12-Month Tracking Error



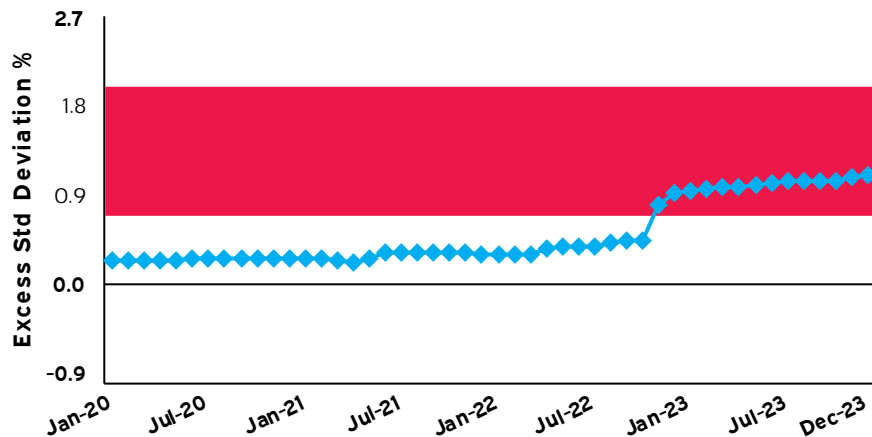
Results fall in the caution range.  
Probationary Threshold 0.75%

### Long Term - Rolling 60-Month Excess Return



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

### Medium Term - Rolling 36-Month Tracking Error



Results fall in the caution range.  
Probationary Threshold 0.70%

### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF International Eqty Idx - FVP Adjusted	10.5 (36)	17.9 (27)	4.3 (18)	8.4 (30)	6.8 (20)	12/1/2011
MSCI EAFE (Net)	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)	6.6 (27)	
Foreign Large Blend Median	10.0	16.4	2.5	7.8	6.1	

### Monitoring Status

Caution



TIAA-CREF International Eqty Idx - FVP Adj. | As of December 31, 2023

**Objective**

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.

**Account Information**

Account Name TIAA-CREF International Eqty Idx - FVP Adjusted  
 Account Structure Mutual Fund  
 Inception Date 11/20/2011  
 Asset Class International Equity  
 Benchmark MSCI EAFE (Net)  
 Universe Foreign Large Blend

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF International Eqty Idx - FVP Adjusted	10.5 (36)	17.9 (27)	4.3 (18)	8.4 (30)
MSCI EAFE (Net)	10.4 (40)	18.2 (22)	4.0 (23)	8.2 (37)
Foreign Large Blend Median	10.0	16.4	2.5	7.8

	2022	2021	2020	2019	2018
TIAA-CREF International Eqty Idx - FVP Adjusted	-13.8 (20)	11.4 (33)	8.0 (63)	22.1 (49)	-13.7 (25)
MSCI EAFE (Net)	-14.5 (31)	11.3 (36)	7.8 (66)	22.0 (50)	-13.8 (27)
Foreign Large Blend Median	-15.7	10.5	9.3	22.0	-14.9

**Portfolio Characteristics vs MSCI EAFE (Net)**

	Portfolio	Index
# of Holdings	774	783
Wtd. Avg. Mkt. Cap	156.7	88.5
Median Mkt. Cap	14.7	13.4
P/E Ratio	11.1	13.7
Yield	1.8	3.2
EPS Growth - 5 Yrs.	9.0	9.9
Price/Book ratio	2.8	2.6
Beta	1.0	1.0

**Risk Statistics**

	3 Yrs (%)	5 Yrs (%)
Standard Deviation	16.7	17.9
Tracking Error	1.1	0.9
Up Capture	100.3	99.9
Down Capture	99.2	99.0
Consistency	47.2	50.0
Alpha	0.2	0.2
Sharpe Ratio	0.2	0.4

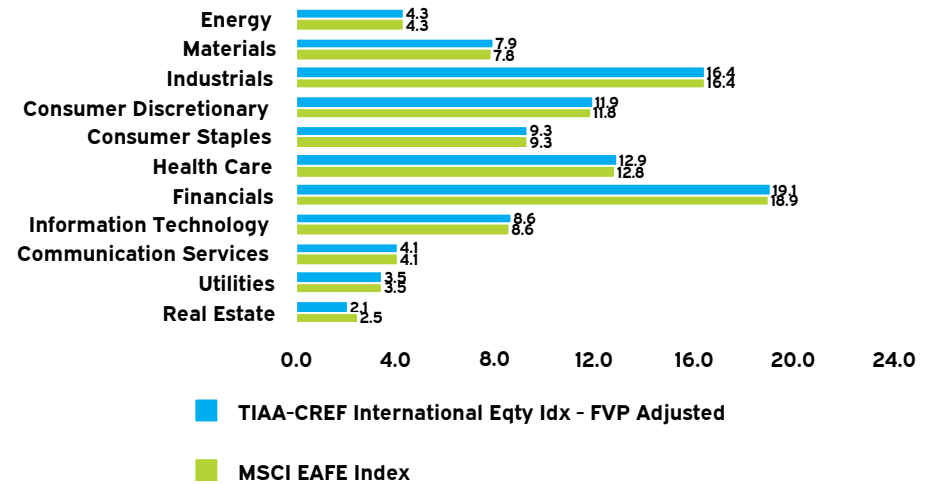
### TIAA-CREF International Eqty Idx - FVP Adj. | As of December 31, 2023

#### Top Holdings

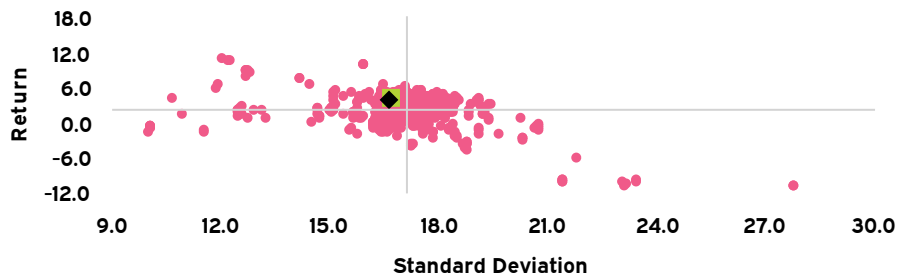
Novo Nordisk A/S	2.1
Nestle SA, Cham Und Vevey	1.9
ASML Holding NV	1.9
LVMH Moet Hennessy Louis Vuitton SE	1.4
Shell Plc	1.3
Astrazeneca PLC	1.3
Novartis AG	1.3
Roche Holding AG	1.3
Toyota Motor Corp	1.2
BHP Group Ltd	1.1

**% of Portfolio** 14.8

#### Sector Weights (%)

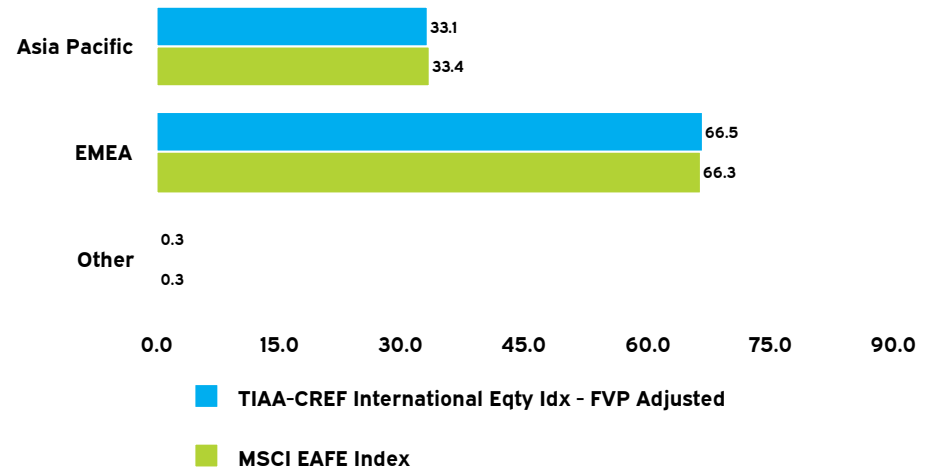


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



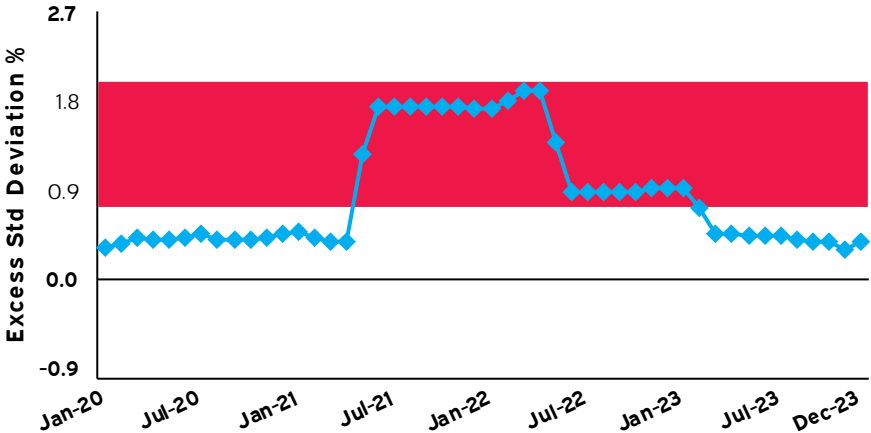
- Foreign Large Blend
- ◆ TIAA-CREF International Eqty Idx - FVP Adjusted
- ◆ MSCI EAFE (Net)

#### Region



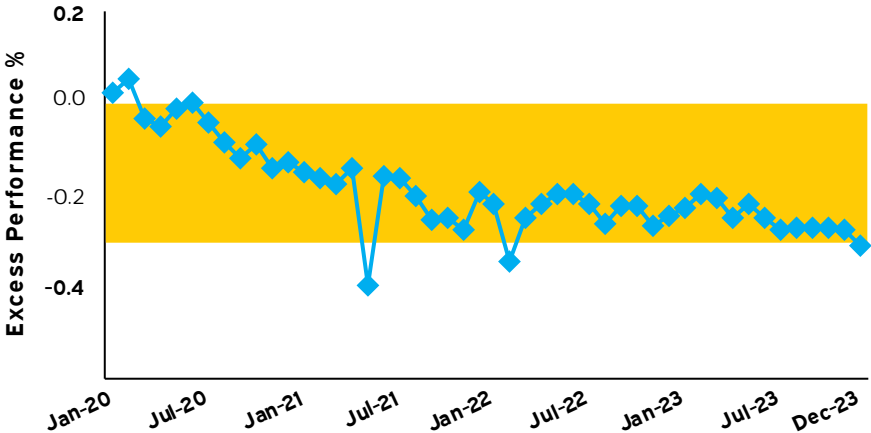
### TIAA-CREF Emerging Markets Eqty Idx - FVP Adj. | As of December 31, 2023

Short Term - Rolling 12-Month Tracking Error



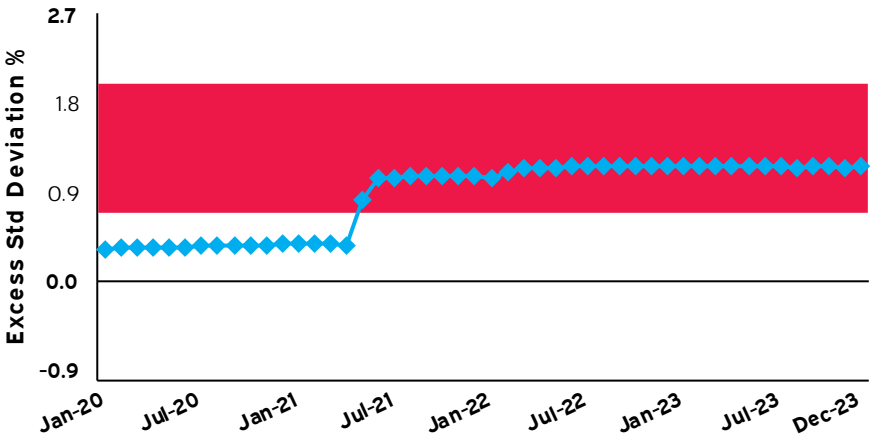
Results fall in the positive range.  
Probationary Threshold 0.75%

Long Term - Rolling 60-Month Excess Return



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

Medium Term - Rolling 36-Month Tracking Error



Results fall in the caution range.  
Probationary Threshold 0.70%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.	7.6 (58)	9.2 (66)	-5.4 (48)	3.4 (65)	15 (59)	2/1/2011
MSCI Emerging Markets (Net)	7.9 (49)	9.8 (60)	-5.1 (44)	3.7 (57)	18 (51)	
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0	18	

#### Monitoring Status

Caution

### TIAA-CREF Emerging Markets Eqty Idx - FVP Adj. | As of December 31, 2023

#### Objective

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.

#### Account Information

Account Name	TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.
Account Structure	Mutual Fund
Inception Date	08/31/2010
Asset Class	International Equity
Benchmark	MSCI Emerging Markets (Net)
Universe	Diversified Emerging Mkts

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.	7.6 (58)	9.2 (66)	-5.4 (48)	3.4 (65)
MSCI Emerging Markets (Net)	7.9 (49)	9.8 (60)	-5.1 (44)	3.7 (57)
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0

	2022	2021	2020	2019	2018
TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.	-20.3 (32)	-2.9 (60)	17.9 (49)	18.5 (65)	-14.8 (35)
MSCI Emerging Markets (Net)	-20.1 (30)	-2.5 (58)	18.3 (47)	18.4 (65)	-14.6 (30)
Diversified Emerging Mkts Median	-22.4	-1.7	17.6	20.5	-16.4

#### Portfolio Characteristics vs MSCI Emerging Markets (Net)

	Portfolio	Index
# of Holdings	1,421	1,441
Wtd. Avg. Mkt. Cap	107.9	103.8
Median Mkt. Cap	6.2	7.0
P/E Ratio	12.9	12.9
Yield	2.7	2.8
EPS Growth - 5 Yrs.	13.8	12.3
Price/Book ratio	2.6	2.5
Beta	1.0	1.0

#### Risk Statistics

	3 Yrs (%)	5 Yrs (%)
Standard Deviation	17.0	18.9
Tracking Error	1.2	0.9
Up Capture	97.9	98.7
Down Capture	99.9	99.8
Consistency	38.9	41.7
Alpha	-0.5	-0.3
Sharpe Ratio	-0.4	0.2

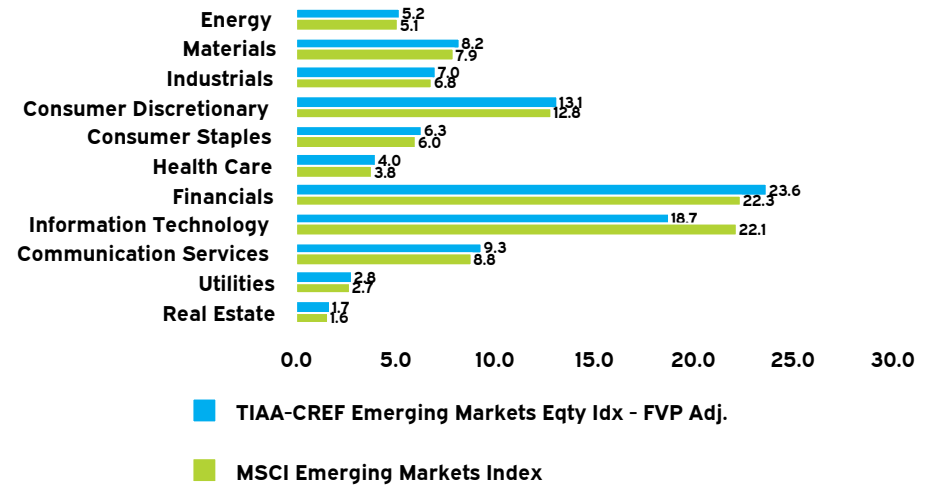
### TIAA-CREF Emerging Markets Eqty Idx - FVP Adj. | As of December 31, 2023

#### Top Holdings

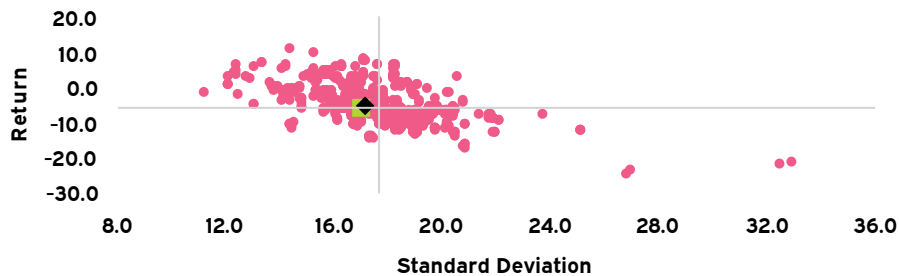
Taiwan Semiconductor Manufacturing	7.1
Tencent Holdings LTD	3.8
Alibaba Group Holding Ltd	2.4
Reliance Industries Ltd	1.4
PDD Holdings Inc	1.3
Icici Bank Ltd	0.9
Infosys Ltd	0.9
SK Hynix Inc	0.9
China Construction Bank Corp	0.9
H D F C Bank Ltd	0.9

**% of Portfolio** 20.5

#### Sector Weights (%)

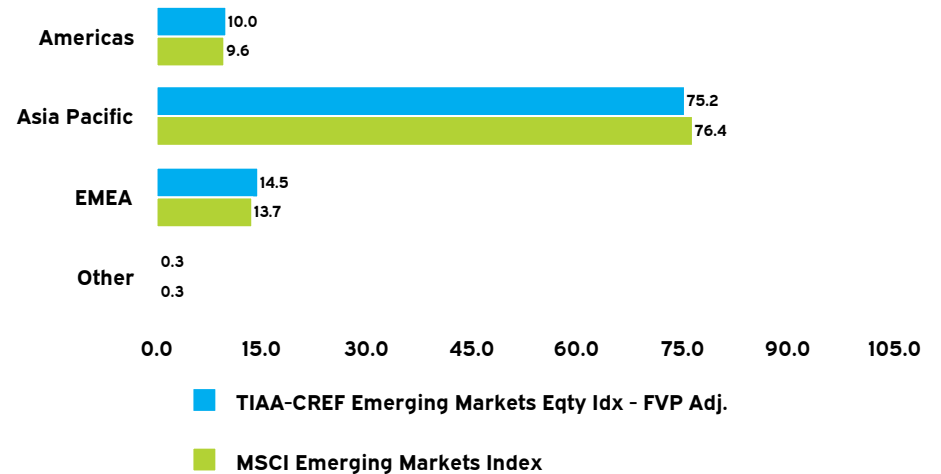


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



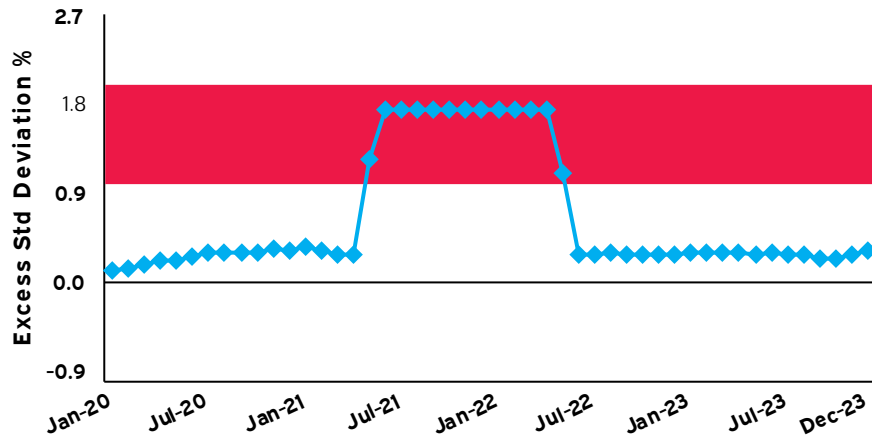
- Diversified Emerging Mkts
- TIAA-CREF Emerging Markets Eqty Idx - FVP Adj.
- ◆ MSCI Emerging Markets (Net)

#### Region



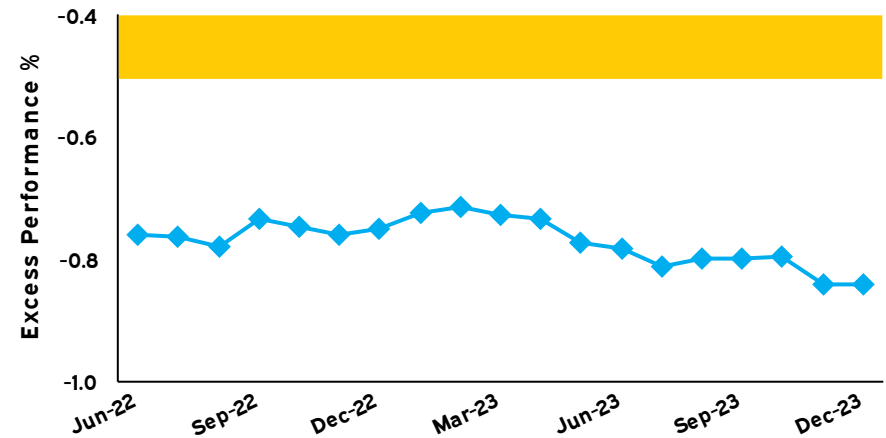
### Nuveen ESG Emerging Markets Equity ETF | As of December 31, 2023

#### Short Term - Rolling 12-Month Tracking Error



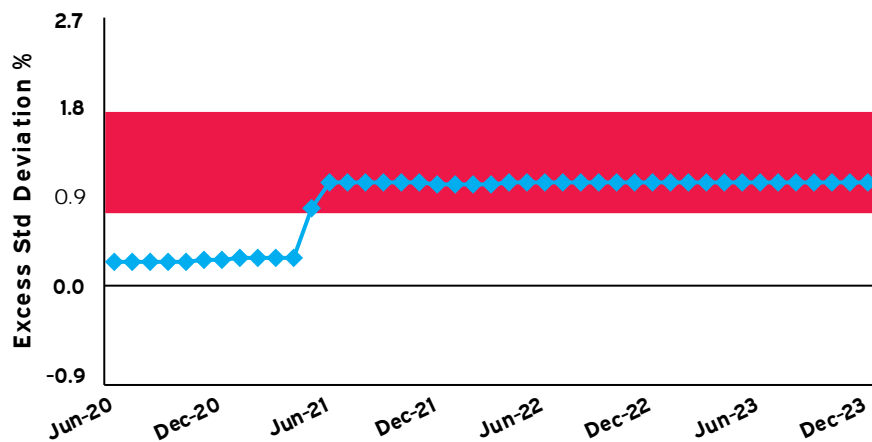
Results fall in the positive range.  
Probationary Threshold 1.00%

#### Long Term - Rolling 60-Month Excess Return



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

#### Medium Term - Rolling 36-Month Tracking Error



Results fall in the caution range.  
Probationary Threshold 0.75%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Nuveen ESG Emerging Markets Equity ETF	6.2 (83)	9.1 (68)	-4.5 (40)	4.7 (36)	3.3 (32)	7/1/2017
TIAA ESG Emerging Markets Index	6.7 (77)	10.2 (57)	-3.7 (36)	5.5 (25)	4.1 (24)	
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0	2.4	

#### Monitoring Status

Caution

Nuveen ESG Emerging Markets Equity ETF | As of December 31, 2023

**Objective**

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  
 Inception Date 07/01/2017  
 Asset Class International Equity  
 Benchmark TIAA ESG Emerging Markets Index  
 Universe Diversified Emerging Mkts

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Nuveen ESG Emerging Markets Equity ETF	6.2 (83)	9.1 (68)	-	-
TIAA ESG Emerging Markets Index	6.7 (77)	10.2 (57)	-3.7 (36)	5.5 (25)
Diversified Emerging Mkts Median	7.8	10.9	-5.6	4.0

	2022	2021	2020	2019	2018
Nuveen ESG Emerging Markets Equity ETF	-	-	-	-	-
TIAA ESG Emerging Markets Index	-18.7 (23)	-0.4 (45)	25.8 (24)	16.7 (78)	-16.1 (48)
Diversified Emerging Mkts Median	-22.4	-1.7	17.6	20.5	-16.4

**Portfolio Characteristics vs TIAA ESG Emerging Markets Index**

	Portfolio	Index
# of Holdings	262	1,441
Wtd. Avg. Mkt. Cap	73.8	103.8
Median Mkt. Cap	10.8	7.0
P/E Ratio	13.8	12.9
Yield	2.4	2.8
EPS Growth - 5 Yrs.	11.6	12.3
Price/Book ratio	2.7	2.5
Beta	1.0	1.0

**Risk Statistics**

	1 Yr (%)
Standard Deviation	17.5
Tracking Error	0.3
Up Capture	97.3
Down Capture	100.7
Consistency	8.3
Alpha	-1.0
Sharpe Ratio	0.3

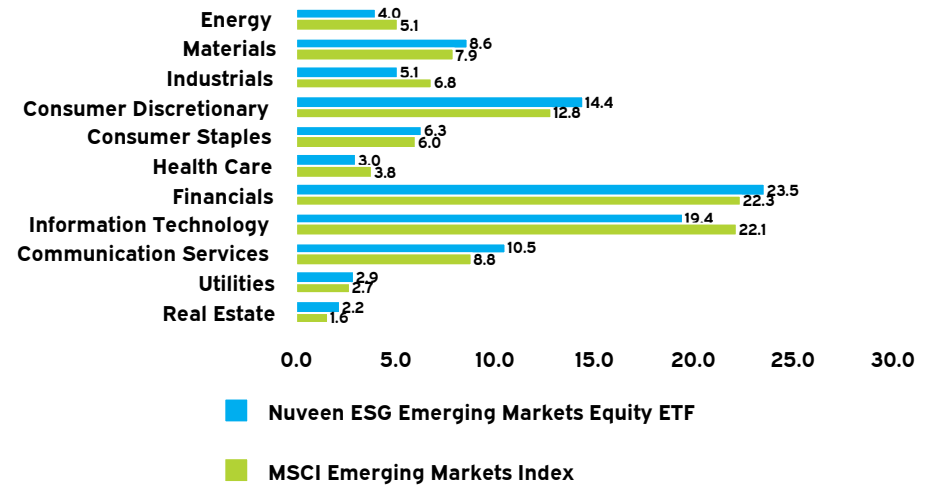
### Nuveen ESG Emerging Markets Equity ETF | As of December 31, 2023

#### Top Holdings

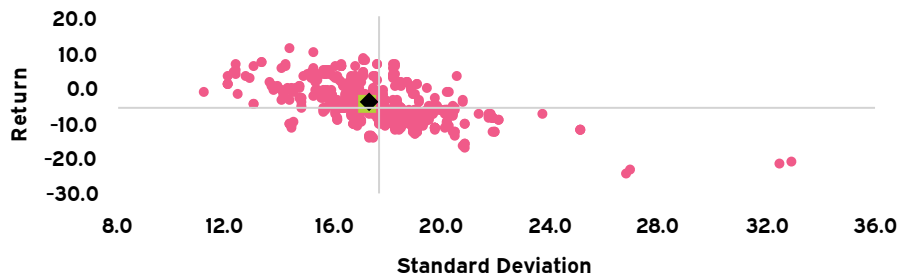
Taiwan Semiconductor Manufacturing	7.9
Alibaba Group Holding Ltd	3.3
H D F C Bank Ltd	2.2
Baidu Inc	1.8
China Construction Bank Corp	1.8
SK Hynix Inc	1.7
Delta Electronics Inc	1.6
Saudi Arabian Mining Co	1.4
Ping An Insurance Group	1.4
Saudi Telecom Co	1.4

**% of Portfolio** 24.5

#### Sector Weights (%)

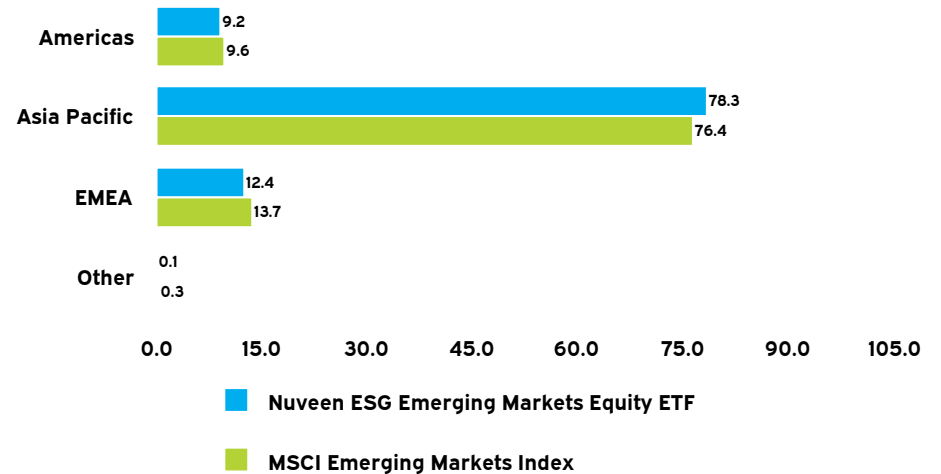


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



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

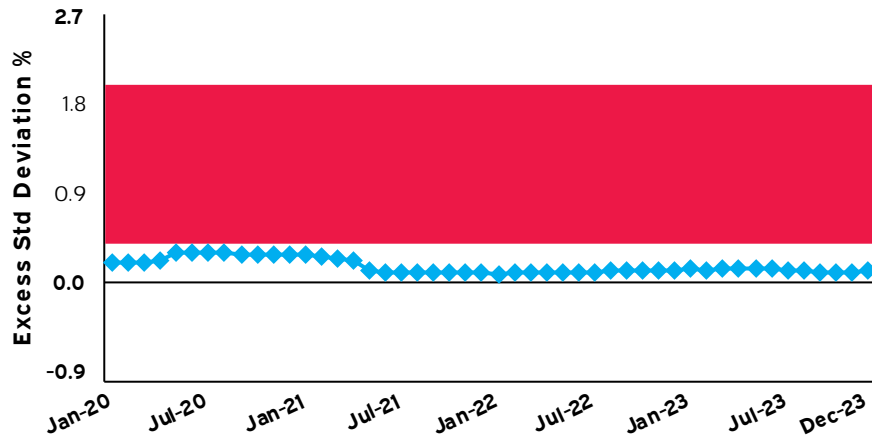
#### Region





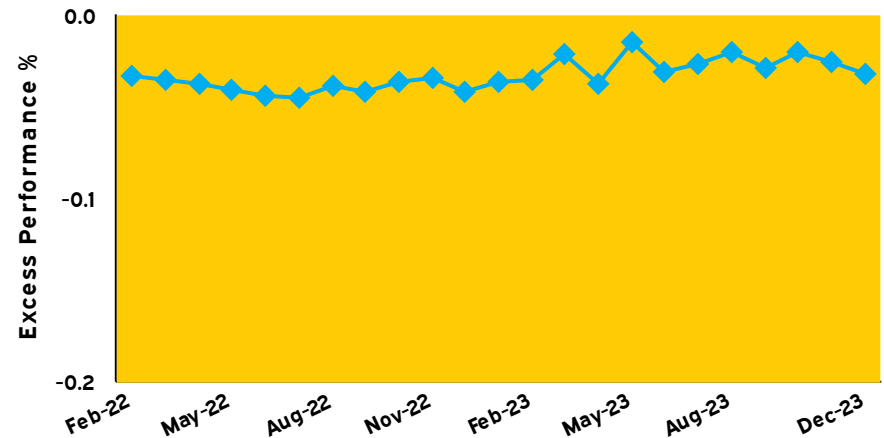
### Vanguard Short Term Infl-Prot Securities | As of December 31, 2023

#### Short Term - Rolling 12-Month Tracking Error



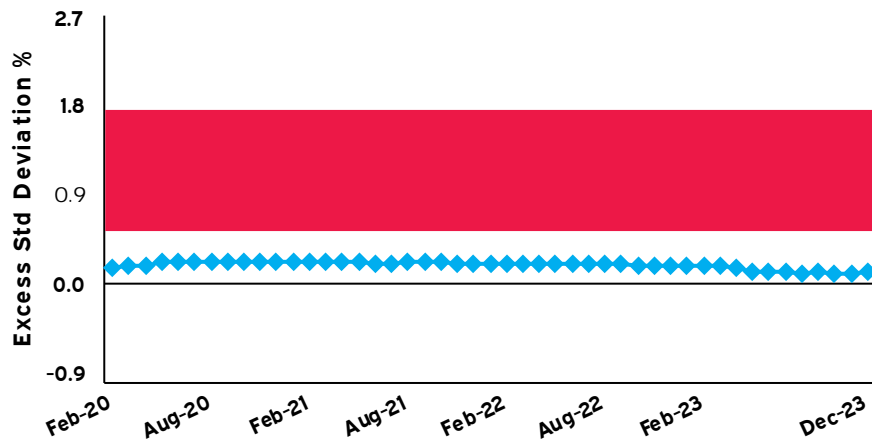
Results fall in the positive range.  
Probationary Threshold 0.40%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Vanguard Short Term Infl-Prot Securities	2.5 (93)	4.6 (23)	2.3 (7)	3.3 (19)	1.6 (9)	11/1/2012
BBg U.S. TIPS 0-5 Years	2.6 (92)	4.6 (24)	2.3 (7)	3.4 (18)	-	
Inflation-Protected Bond Median	4.4	3.8	-1.1	3.0	1.1	

#### Monitoring Status

Acceptable

Vanguard Short Term Infl-Prot Securities | As of December 31, 2023

**Objective**

The investment seeks to track the performance of a Bloomberg U.S. 0-5 Year Treasury Inflation-Protected Securities Index that measures the investment return of inflation-protected public obligations of the U.S. Treasury with remaining maturities of less than 5 years.

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.

**Account Information**

Account Name	Vanguard Short Term Infl-Prot Securities
Account Structure	Mutual Fund
Inception Date	11/17/2012
Asset Class	US Fixed Income
Benchmark	BBg U.S. TIPS 0-5 Years
Universe	Inflation-Protected Bond

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Vanguard Short Term Infl-Prot Securities	2.5 (93)	4.6 (23)	-	-
BBg U.S. TIPS 0-5 Years	2.6 (92)	4.6 (24)	2.3 (7)	3.4 (18)
Inflation-Protected Bond Median	4.4	3.8	-1.1	3.0

	2022	2021	2020	2019	2018
Vanguard Short Term Infl-Prot Securities	-	-	-	-	-
BBg U.S. TIPS 0-5 Years	-2.7 (1)	5.3 (47)	5.1 (94)	4.8 (92)	0.6 (2)
Inflation-Protected Bond Median	-11.7	5.3	9.8	7.7	-1.6

**Portfolio Characteristics vs Benchmark**

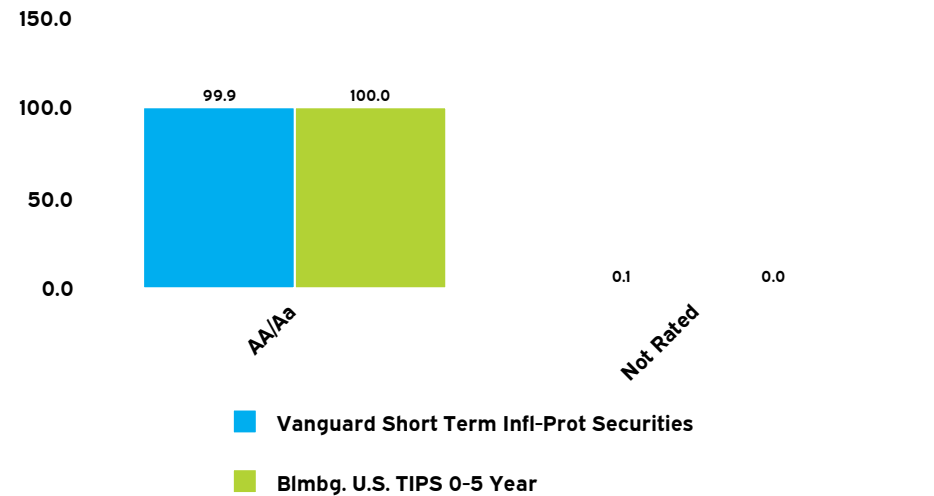
	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	4.2	4.5
Average Duration	2.4	2.2
Average Quality	AA	AA
Weighted Average Maturity	2.5	2.5

**Risk Statistics**

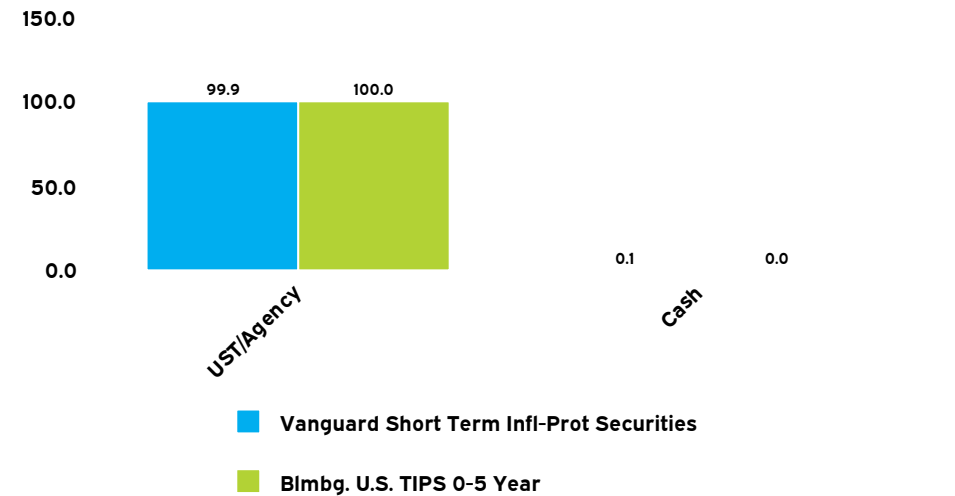
	1 Yr (%)
Standard Deviation	2.4
Tracking Error	0.1
Up Capture	100.6
Down Capture	99.2
Consistency	58.3
Alpha	0.0
Sharpe Ratio	-0.1

### Vanguard Short Term Infi-Prot Securities | As of December 31, 2023

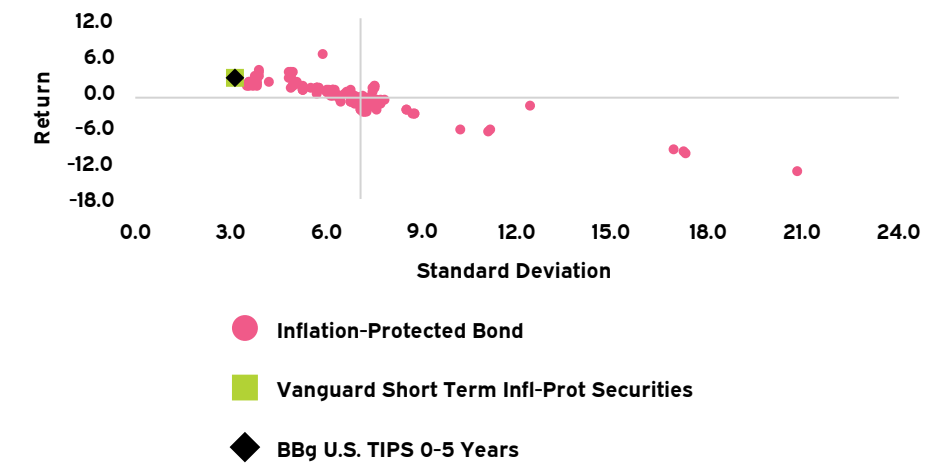
#### Credit Quality



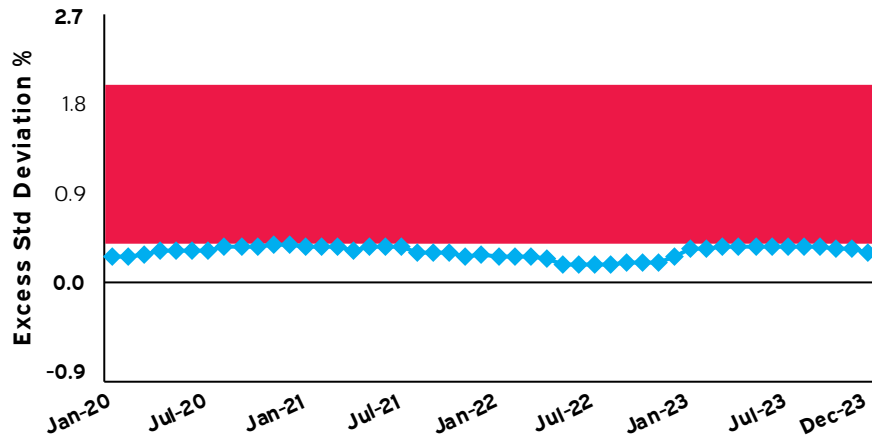
#### Sector Allocation



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

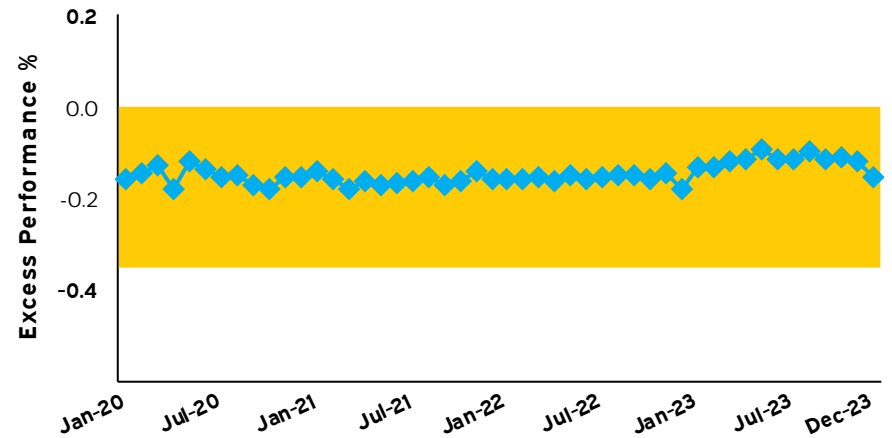


#### Short Term - Rolling 12-Month Tracking Error



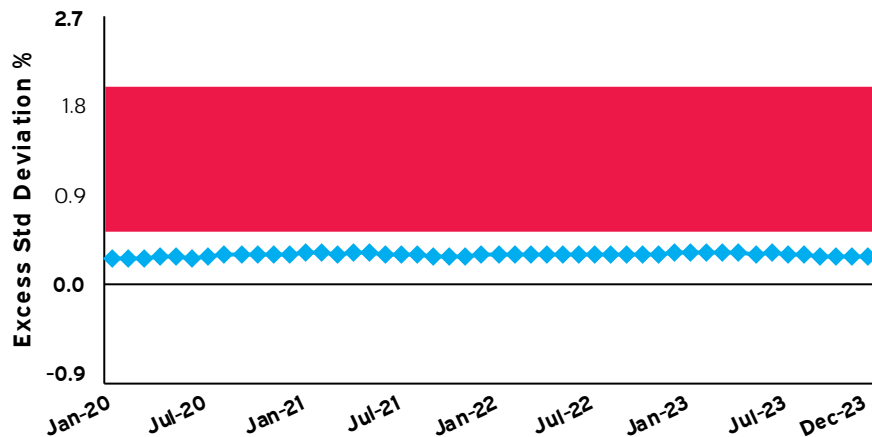
Results fall in the positive range.  
Probationary Threshold 0.40%

#### Long Term - Rolling 60-Month Excess Return



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

#### Medium Term - Rolling 36-Month Tracking Error



Results fall in the positive range.  
Probationary Threshold 0.70%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
TIAA-CREF Bond Index I	6.6 (63)	5.6 (48)	-3.5 (52)	0.9 (62)	1.6 (63)	12/1/2011
Blmbg. U.S. Aggregate Index	6.8 (38)	5.5 (56)	-3.3 (38)	1.1 (48)	1.8 (51)	
Intermediate Core Bond Median	6.7	5.6	-3.4	1.1	1.8	

#### Monitoring Status

Acceptable

#### Objective

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.

#### Account Information

Account Name	TIAA-CREF Bond Index I
Account Structure	Mutual Fund
Inception Date	11/20/2011
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Universe	Intermediate Core Bond

#### Portfolio Performance Summary

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
TIAA-CREF Bond Index I	6.6 (63)	5.6 (48)	-3.5 (52)	0.9 (62)
Blmbg. U.S. Aggregate Index	6.8 (38)	5.5 (56)	-3.3 (38)	1.1 (48)
Intermediate Core Bond Median	6.7	5.6	-3.4	1.1

	2022	2021	2020	2019	2018
TIAA-CREF Bond Index I	-13.2 (40)	-1.8 (64)	7.5 (60)	8.4 (54)	0.0 (29)
Blmbg. U.S. Aggregate Index	-13.0 (29)	-1.5 (48)	7.5 (58)	8.7 (36)	0.0 (27)
Intermediate Core Bond Median	-13.4	-1.6	7.8	8.5	-0.4

#### Portfolio Characteristics vs Benchmark

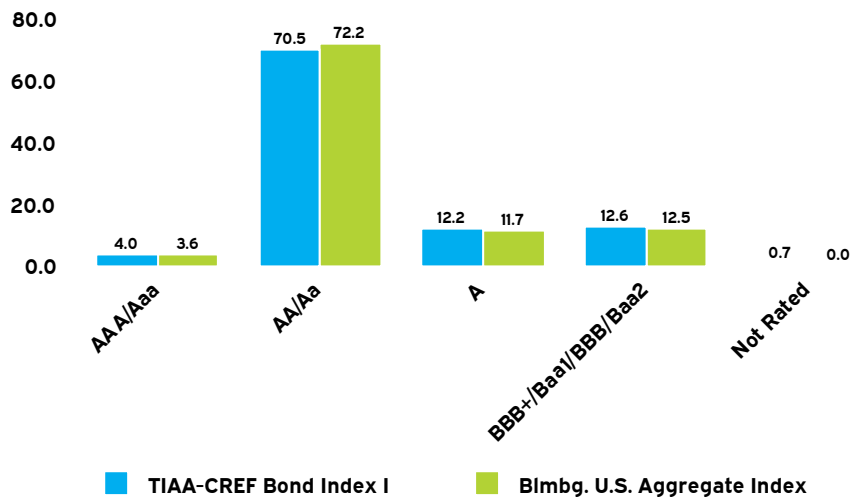
	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	4.3	4.5
Average Duration	6.3	6.2
Average Quality	AA	AA
Weighted Average Maturity	8.6	8.5

#### Risk Statistics

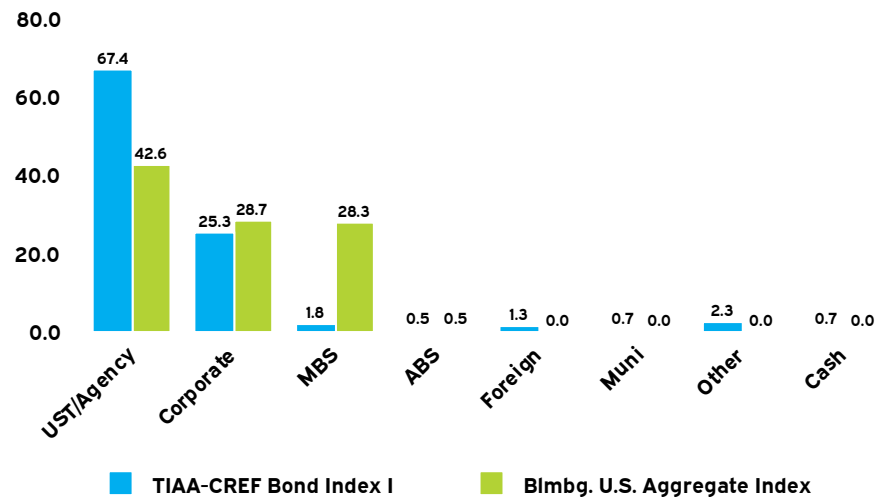
	3 Yrs (%)	5 Yrs (%)
Standard Deviation	7.1	6.1
Tracking Error	0.3	0.3
Up Capture	99.8	99.7
Down Capture	101.1	101.7
Consistency	38.9	38.3
Alpha	-0.1	-0.2
Sharpe Ratio	-0.8	-0.1

TIAA-CREF Bond Index I | As of December 31, 2023

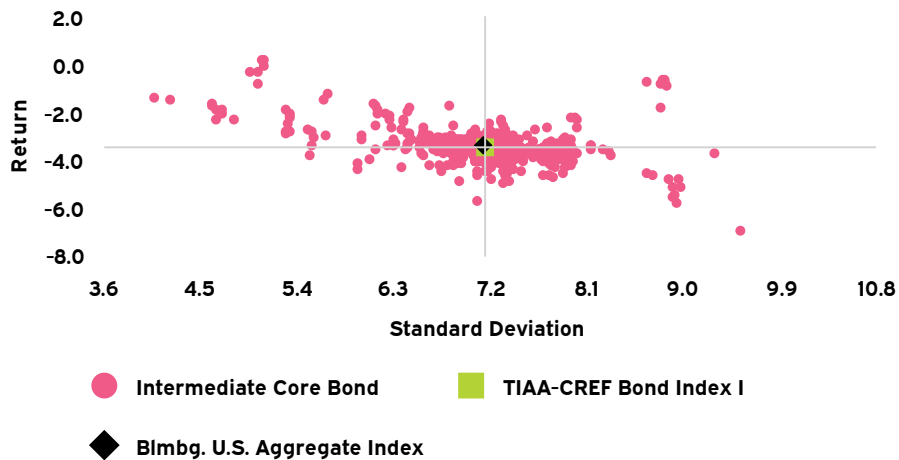
### Credit Quality



### Sector Allocation

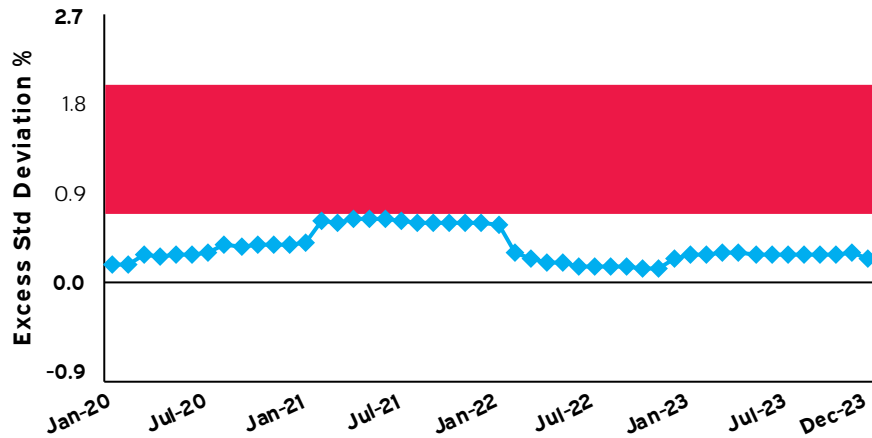


### Return vs. Standard Deviation 3 Years Ending December 31, 2023



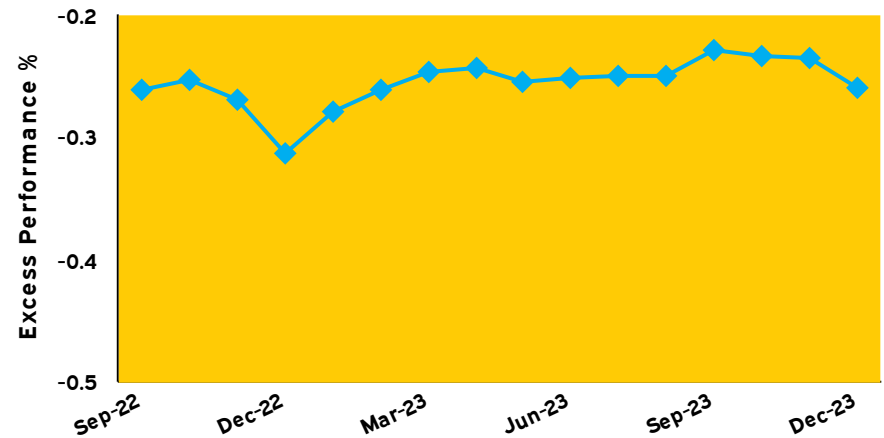
### Nuveen ESG US Aggregate Bond ETF | As of December 31, 2023

Short Term - Rolling 12-Month Tracking Error



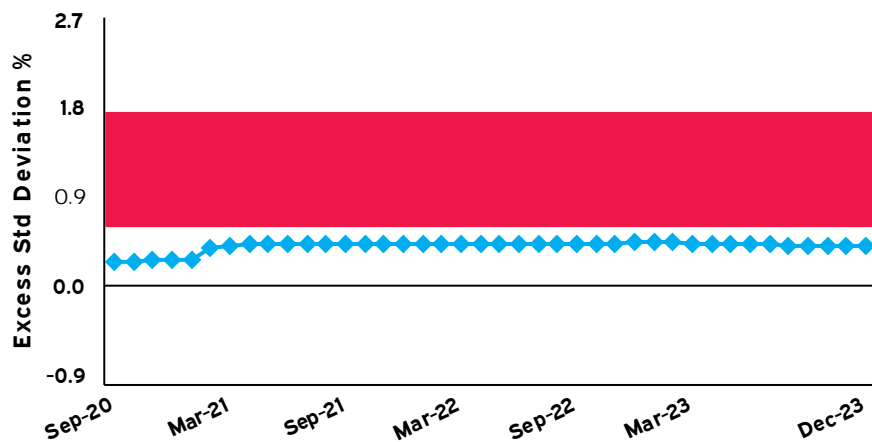
Results fall in the positive range.  
Probationary Threshold 0.70%

Long Term - Rolling 60-Month Excess Return



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

Medium Term - Rolling 36-Month Tracking Error



Results fall in the positive range.  
Probationary Threshold 0.60%

### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Nuveen ESG US Aggregate Bond ETF	6.5 (76)	5.5 (59)	-3.6 (68)	0.8 (71)	0.7 (65)	10/1/2017
BBg MSCI US Agg ESG Select	6.8 (41)	5.5 (60)	-3.3 (36)	1.1 (50)	1.0 (40)	
Intermediate Core Bond Median	6.7	5.6	-3.4	1.1	0.8	

### Monitoring Status

Acceptable

Nuveen ESG US Aggregate Bond ETF | As of December 31, 2023

**Objective**

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
Inception Date	10/29/2017
Asset Class	US Fixed Income
Benchmark	BBg MSCI US Agg ESG Select
Universe	Intermediate Core Bond

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Nuveen ESG US Aggregate Bond ETF	6.5 (76)	5.5 (59)	-	-
BBg MSCI US Agg ESG Select	6.8 (41)	5.5 (60)	-3.3 (36)	1.1 (50)
Intermediate Core Bond Median	6.7	5.6	-3.4	1.1

	2022	2021	2020	2019	2018
Nuveen ESG US Aggregate Bond ETF	-	-	-	-	-
BBg MSCI US Agg ESG Select	-12.8 (24)	-1.6 (51)	7.6 (57)	8.4 (52)	0.3 (16)
Intermediate Core Bond Median	-13.4	-1.6	7.8	8.5	-0.4

**Portfolio Characteristics vs Benchmark**

	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	4.6	4.5
Average Duration	6.2	6.2
Average Quality	AA	AA
Weighted Average Maturity	8.5	8.5

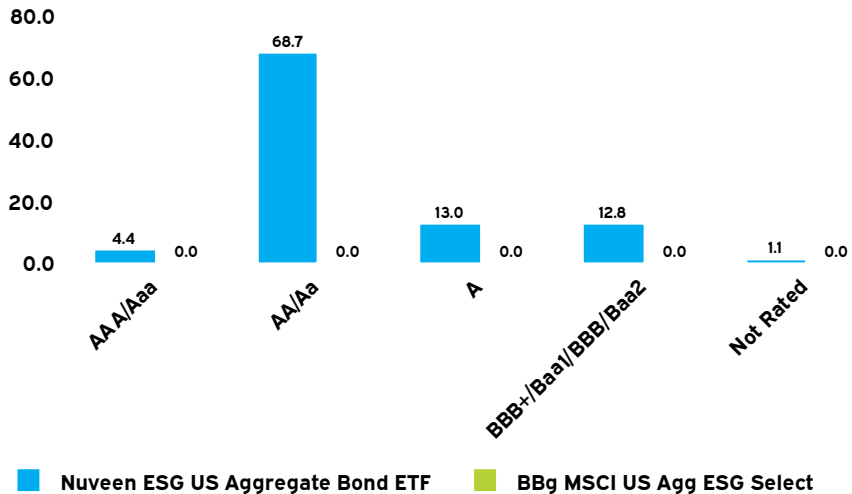
**Risk Statistics**

	1 Yr (%)
Standard Deviation	8.0
Tracking Error	0.2
Up Capture	99.6
Down Capture	99.4
Consistency	58.3
Alpha	0.1
Sharpe Ratio	0.1

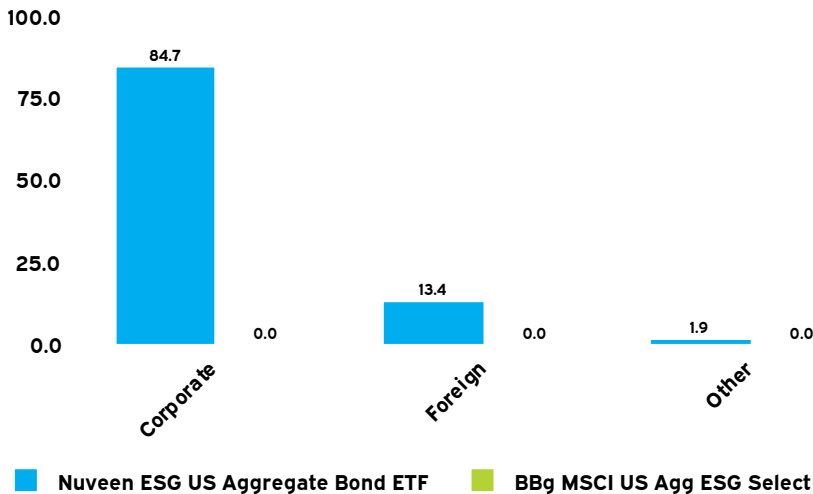


### Nuveen ESG US Aggregate Bond ETF | As of December 31, 2023

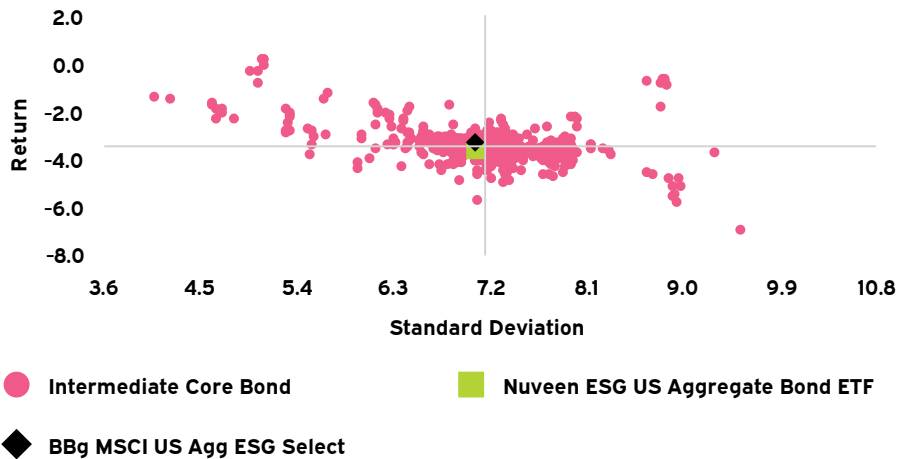
#### Credit Quality



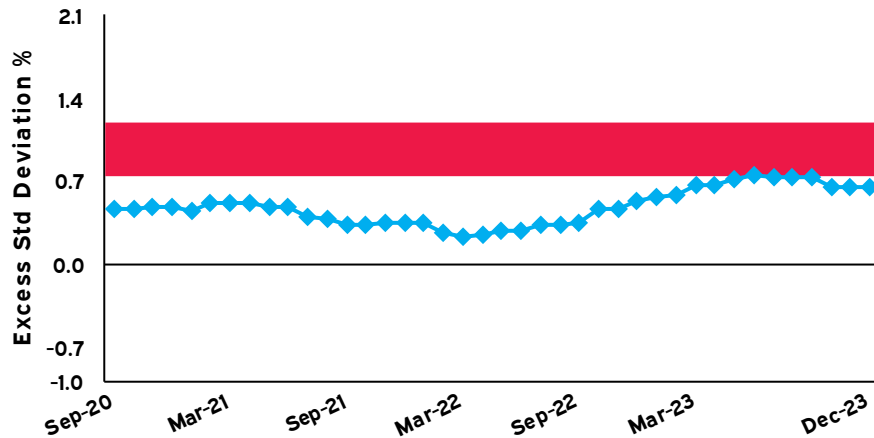
#### Sector Allocation



#### Return vs. Standard Deviation 3 Years Ending December 31, 2023

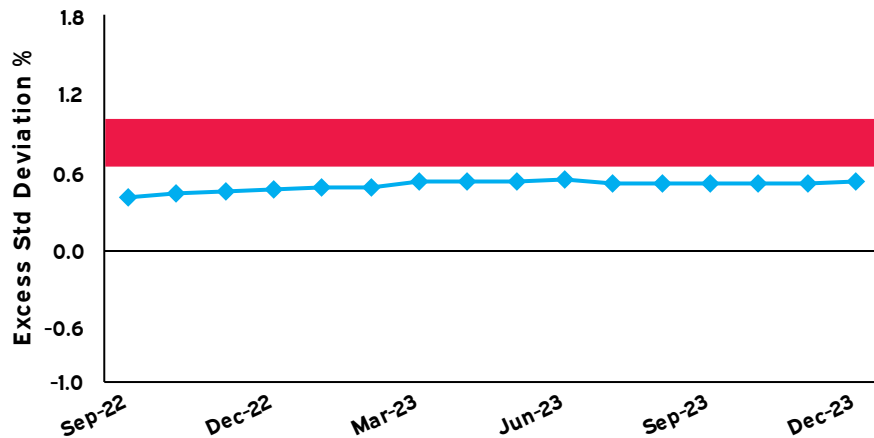


#### Short Term - Rolling 12-Month Tracking Error



Results fall in the positive range.  
Probationary Threshold 0.75%

#### Medium Term - Rolling 36-Month Tracking Error



Results fall in the positive range.  
Probationary Threshold 0.65%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	Since Inception	Inception Date
Nuveen ESG High Yield Corp Bond ETF	7.6 (5)	12.2 (50)	0.4 (91)	1.7 (92)	10/1/2019
BBg MSCI US High Yield Very Liquid ESG Select	7.9 (3)	12.6 (32)	0.9 (78)	2.1 (85)	
High Yield Bond Median	6.5	12.2	1.7	3.0	

#### Monitoring Status

Positive

Nuveen ESG High Yield Corp Bond ETF | As of December 31, 2023

**Objective**

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
Inception Date	10/01/2019
Asset Class	US Fixed Income
Benchmark	BBg MSCI US High Yield Very Liquid ESG Select
Universe	High Yield Bond

**Portfolio Performance Summary**

	QTR (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Nuveen ESG High Yield Corp Bond ETF	7.6 (5)	12.2 (50)	-	-
BBg MSCI US High Yield Very Liquid ESG Select	7.9 (3)	12.6 (32)	0.9 (78)	-
High Yield Bond Median	6.5	12.2	1.7	4.7

	2022	2021	2020	2019	2018
Nuveen ESG High Yield Corp Bond ETF	-12.1 (84)	2.8 (93)	4.0 (74)	-	-
BBg MSCI US High Yield Very Liquid ESG Select	-12.1 (83)	3.6 (81)	4.0 (73)	-	-
High Yield Bond Median	-10.7	4.9	5.3	13.6	-2.9

**Portfolio Characteristics vs Benchmark**

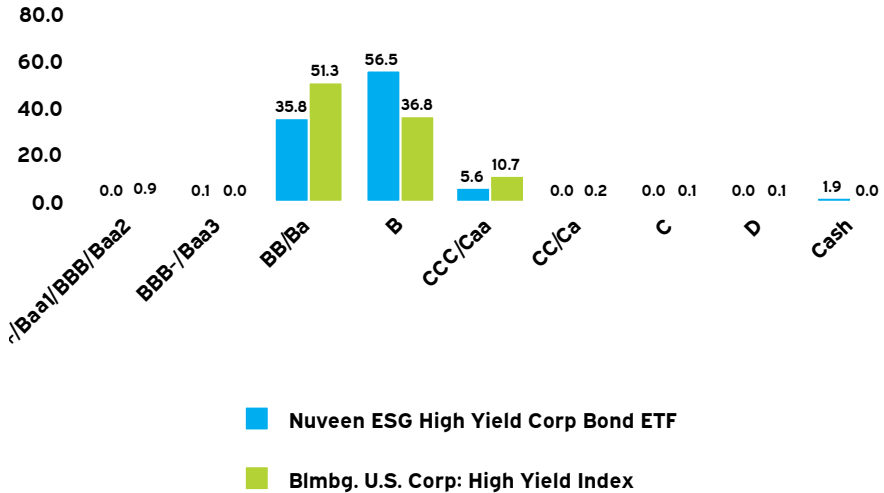
	Portfolio	Index
<b>Portfolio Characteristics</b>		
Yield To Maturity (%)	7.4	7.7
Average Duration	3.4	3.9
Average Quality	B	B
Weighted Average Maturity	5.0	4.9

**Risk Statistics**

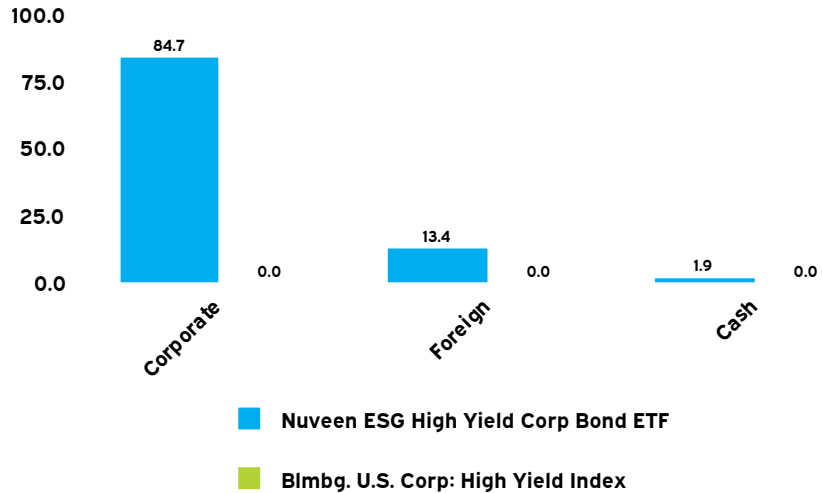
	1 Yr (%)
Standard Deviation	7.8
Tracking Error	0.7
Up Capture	100.0
Down Capture	106.9
Consistency	41.7
Alpha	-0.6
Sharpe Ratio	0.9

### Nuveen ESG High Yield Corp Bond ETF | As of December 31, 2023

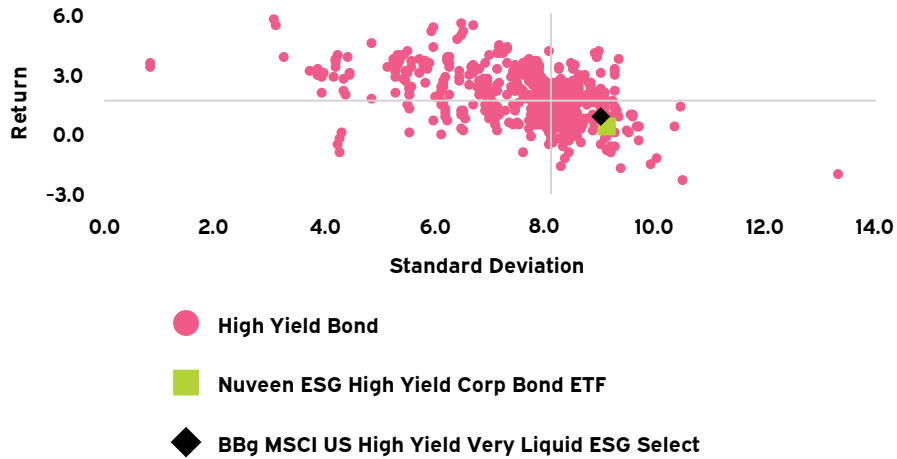
#### Credit Quality



#### Sector Allocation

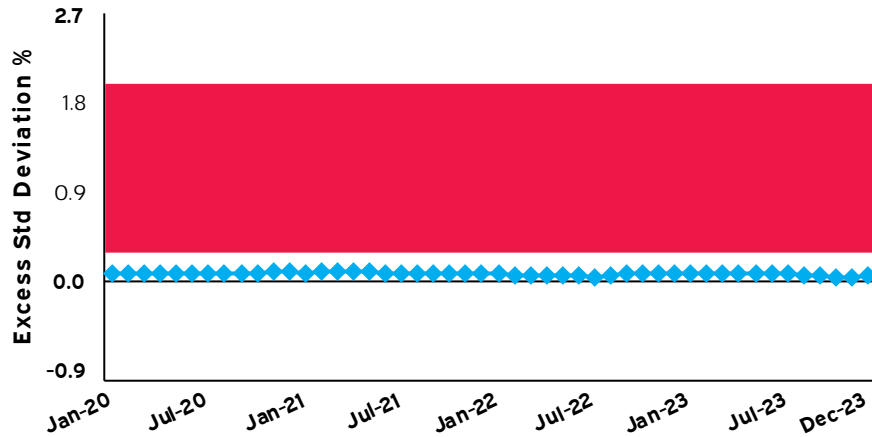


#### Return vs. Standard Deviation 3 Years Ending December 31, 2023



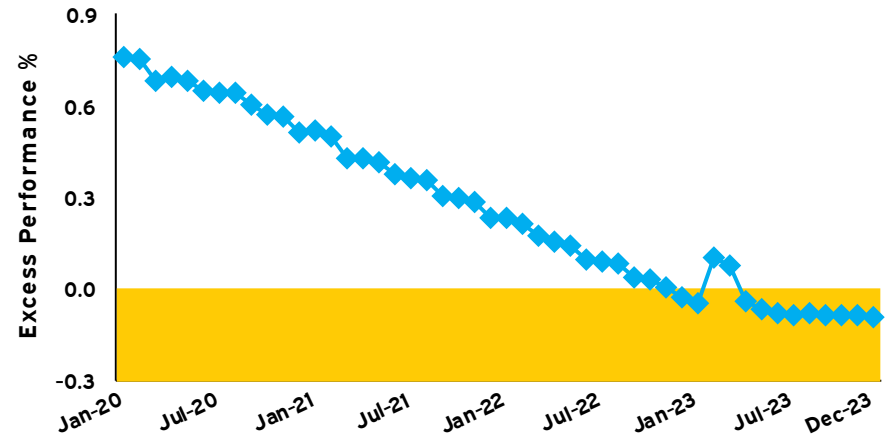
### Vanguard Real Estate Index | As of December 31, 2023

#### Short Term - Rolling 12-Month Tracking Error



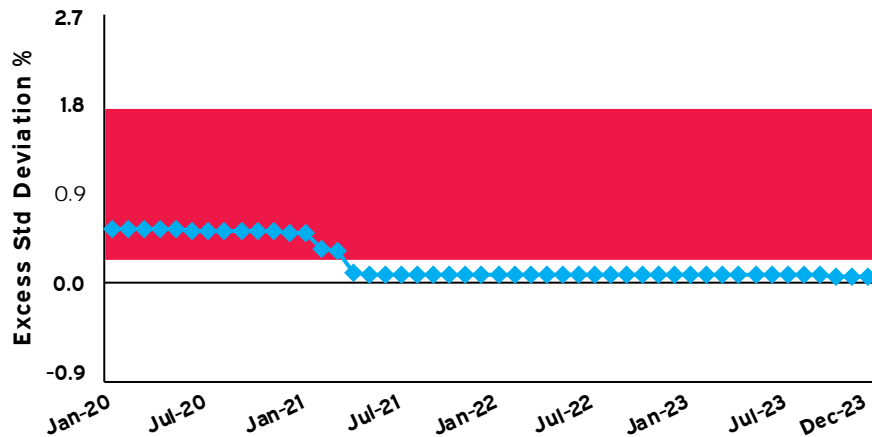
Results fall in the positive range.  
Probationary Threshold 0.30%

#### 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%

#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Since Inception	Inception Date
Vanguard Real Estate Index	18.1 (11)	11.8 (56)	5.0 (63)	7.4 (51)	9.2 (45)	6/1/1996
MSCI US IMI Real Estate 25/50 GR USD	18.2 (10)	12.0 (51)	5.2 (59)	7.4 (47)	-	
Real Estate Median	16.3	12.0	5.4	7.4	9.1	

#### Monitoring Status

Acceptable

### Objective

This fund invests in real estate investment trusts—companies that purchase office buildings, hotels, and other real estate property. REITs have often performed differently than stocks and bonds, so this fund may offer some diversification to a portfolio already made up of stocks and bonds. The fund may distribute dividend income higher than other funds, but it is not without risk. One of the fund’s primary risks is its narrow scope, since it invests solely within the real estate industry and may be more volatile than more broadly diversified stock funds.

### Account Information

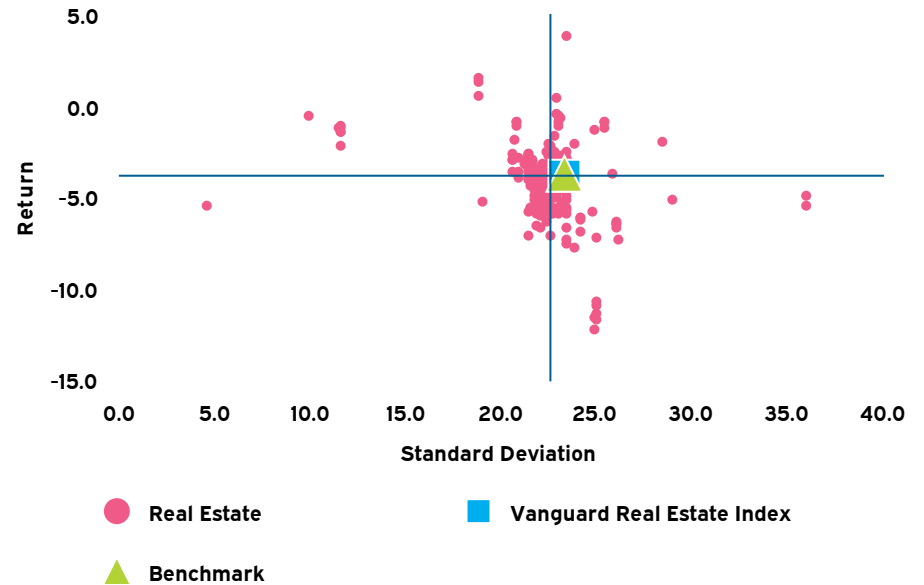
Account Name	Vanguard Real Estate Index
Inception Date	01/02/2004
Account Structure	Mutual Fund
Asset Class	US Private Real Estate
Benchmark	MSCI US IMI Real Estate 25/50 GR USD
Peer Group	Real Estate

### Performance Summary

	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Vanguard Real Estate Index	9.37 (30)	11.82 (56)	--	--	--
<i>MSCI US IMI Real Estate 25/50 GR USD</i>	<i>9.40</i>	<i>11.96</i>	<i>5.15</i>	<i>7.44</i>	<i>6.91</i>
<i>Real Estate Median</i>	<i>8.62</i>	<i>12.02</i>	<i>5.45</i>	<i>7.36</i>	<i>7.30</i>

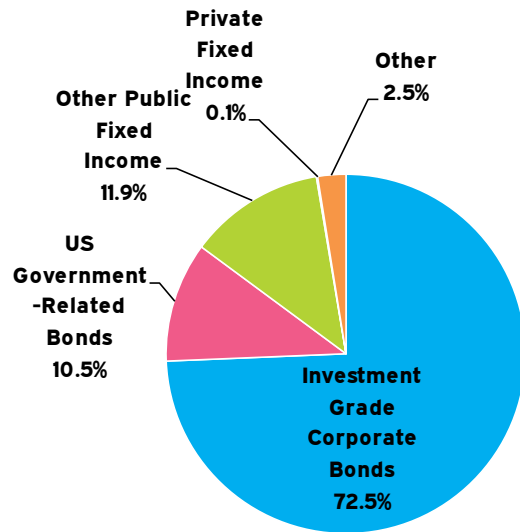
### Vanguard Real Estate Index | As of December 31, 2023

#### S.I. Return vs Standard Deviation



## **T-C Life Funding Agreement Review**

### T-C Life Funding Agreement



**Monitoring Status**

**Positive**

	Criteria	Status as of 12/31/2023
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	94.4% in Good Standing*
Bond Portfolio*	At least 90% Investment Grade	97.4% 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 contains 5.6% commercial mortgages.  
Source: TIAA-CREF



# 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:** Kay Ceserani; Aysun Kilic; Inwoo Hwang;  
 Meketa Investment Group (“Meketa”)  
**DATE:** March 27, 2024  
**RE:** ScholarShare 529 Programs “Watch” Status Update

### 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 October 1, 2023, through December 31, 2023. As of the end of the period, three funds continue to qualify for “Watch” status. Additionally, one fund newly qualifies for “Watch” status (Nuveen ESG Emerging Markets ETF).

*Of the four funds qualifying for “Watch” status, Meketa recommends the T. Rowe Large Cap Growth fund remain on “Watch” status and the three remaining funds be kept off “Watch” status as we have seen most Passive International funds’ tracking errors tick upwards. We will report any material findings to SIB. All funds listed below are discussed in more detail on the following pages.*

### Performance of Funds on “Watch” Status (As of 12/31/2023)

Funds on Watch Status	Plan Assets (\$M)	SIB Action Date	Watch Status Start Date	Months Since Watch Began	Qualifies for Watch	Excess Performance Recent Quarter	Excess Performance Since Watch Began	Level of Concern
<b>Passive</b>								
None	---	---	---	---	---	---	---	---
<b>Active</b>								
T. Rowe Price Large Cap Growth Fund	\$320.4	6/22/22	4/1/22	21	Medium	0.1%	-1.0%	1

#### Concern Level

- Low** Underperformance consistent with biases of investment strategy; benchmark and/or peer group mismatch.
- Moderate** Isolated periods of underperformance due to stock selection and/or sector selection.
- Moderately High** Persistent underperformance resulting from stock and/or sector selection; significant personnel change.
- High** Portfolio exhibiting style drift; change in investment philosophy or process; material personnel change.

### Funds being monitored off “Watch” status

When there is a quantifiable reason not to place funds on “Watch” status, even though they qualify, we recommend that rather than being placed on watch, those funds be monitored separately.

At the end of the period, the TIAA-CREF International Equity Index (Passive) and the TIAA-CREF Emerging Markets Equity Index (Passive) continue to qualify for “Watch” status. The two international equity index funds fall into Caution range primarily due to “Fair Value” adjustment procedures, which increases tracking error.

Additionally, the Nuveen ESG Emerging Markets Equity ETF qualifies for watch this quarter, as we have expanded the trailing returns to include data prior to the fund being added to the ScholarShare program. The fund qualifies on both medium-term (Tracking error over rolling 36-months) and long-term (relative performance vs. benchmark over rolling 60-months). The long-term underperformance is most attributable to a combination of higher fees (passive ESG funds tend to have higher fees than their standard passive counterparts), pricing differences and timing. As for the medium-term spike in tracking error, this is a result of a technical market issue which occurred over the Memorial Day holiday in 2021 (5/28/21 – 6/01/21). This event was covered in the March 2022 Watch Status memo regarding the TIAA-CREF Emerging Markets Equity Index – the Nuveen ESG Emerging Markets Equity ETF passively tracks a subset of the same index (MSCI Emerging Markets) and thus was also impacted by this event. To reiterate – the fund’s ‘Caution’ status is a result of the expanded trailing periods being considered, not a result of the latest quarter’s performance.

#### Fair Value Pricing:

Some ETFs or mutual funds will use Fair Value pricing if the value of their underlying securities has been materially affected by events occurring before the US market closes, but after the close of the markets or exchanges on which the security is traded. This situation most commonly occurs with foreign securities, which may trade on foreign exchanges that close many hours before the ETF or mutual fund is priced in the US. Fair Value pricing addresses the price discrepancies in such scenarios. As a result, a divergence in a Fair Value priced asset and the index may be observed temporarily.

#### Recommendation:

Although these funds qualify for “Watch,” Meketa does not recommend placing them on “Watch” given the root cause for them qualifying is operational versus a fundamental flaw with the funds’ investment processes. However, we will continue to monitor these funds and report any material findings to SIB.

## Funds Currently on "Watch" Status

### 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 \$320.4M of ScholarShare 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's portfolio manager since 2017 and has been with the firm since 2004. He earned an MBA from Dartmouth College and is also a CFA charter holder. Taymour is supported by other members of T. Rowe Price's US Large Cap Growth team.

#### Investment Philosophy and Approach

The fund uses a growth style of investing employing a bottom-up investment approach on companies that fall in the large-cap US investment universe, defined as companies in the Russell 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. Additionally, the fund may have a significant portion of its assets invested in the same economic sector, such as the information technology sector.

Portfolios are constructed on the basis of identifying large-cap growth companies that the portfolio manager believes can generate real, double-digit earnings growth for a minimum of three years. Portfolio Manager Taymour Tamaddon looks for companies on the right side of change, and these have tended to be high-quality companies that are well run and score well on environmental, social, and governance (ESG) measures. As such, their primary emphasis is on company fundamentals, not the composition of the Russell 1000 Growth Index.

They are cognizant of whether or not a potential holding is in the index and of its weighting. However, position size is a function of their conviction in a company's ability to deliver long-term, double-digit growth. Active position sizes typically range up to +5% of their relative weighting in the Russell 1000 Growth Index at the time of purchase. Position size ultimately reflects the strength of the investment case, including valuation levels, a company's growth prospects, its ESG profile, and other fundamentals and risk factors affecting the stock.

Sector and industry weightings are a residual of their bottom-up stock selection process. In some instances, they may have a macro view that modestly influences sector and industry weightings, but that is a qualitative, not quantitative, judgment. For primary sectors in the Russell 1000 Growth Index (i.e., those weighted approximately 10% or higher), the portfolio's sector weights typically vary from  $\pm 15\%$  of the index weight for purposes of diversification and risk management. Positions are built carefully over time, however, when an unusually attractive entry point develops the investment period is accelerated. While portfolio holdings are continuously monitored, there is no automatic appreciation level that would trigger trimming of a position. Each decision is made on a stock-by-stock basis, considering factors such as company fundamentals, valuation, confidence level in the security, ESG assessment, and the stock's weight in the portfolio. When selling, a position is generally gradually scaled out of unless a change in the fundamental view of the company prompts a quicker divestment. The fund typically holds between 50-60 securities, with the top 10 positions representing over half of the assets.

- 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.

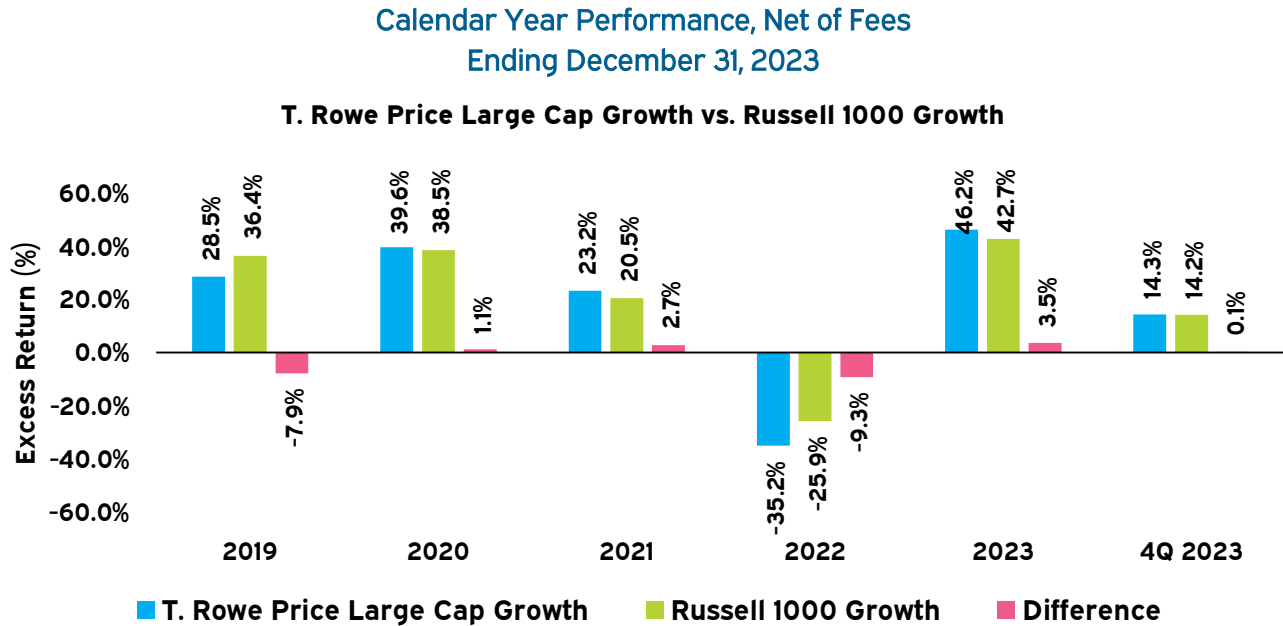
## Performance

As of December 31, 2023, the T. Rowe Large Cap Growth fund continues to qualify for "Watch" status by having a rolling 36-month excess return below (1.75%) for six or more consecutive months.

For the most recent quarter, the fund returned 14.3% while the Russell 1000 Growth index returned 14.2%, outpacing the index by 0.1%. The fund's outperformance relative to the index over the period was attributable to security selection in the communication services sector. From a sector allocation perspective, the fund's overweight to communication services sector and Financials relative to benchmark contributed to relative outperformance, offset by Health Care, which detracted due to both the overweight allocation as well as security selection. At the security level, Intuit and Fiserv, Inc. were the top contributors, while Broadcom Inc. and Apple were the top detractors from performance.

The marginal outperformance over the quarter capped off a strong calendar year for the fund, as trailing 1-year return of 46.2% outpaced the Russell 1000 Growth Index by 3.5%. Over the trailing 3- and 5-year periods performance, the fund trailed the Russell 1000 Growth Index by 3.6% over both periods; ranking in the 53<sup>rd</sup> percentile versus its US Large Cap Growth Equity. Performance was negatively impacted by the overall challenging year in 2021 for high-growth investors, after two years of extraordinary returns in 2019 and 2020.

The following graph shows the fund’s quarter-to-date and calendar year excess returns over the last five years.



Given the Russell 1000 Growth Index’s high concentration in it’s top constituents and that the fund can, and does, look materially different than the index, 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**

Despite recovery over the recent periods on both absolute and relative to benchmark basis, fund performance continues to be mixed and trails the index since being placed on “Watch”. The fund continues to qualify for “Watch” based on its medium-term results. *Therefore, Meketa continues to recommend the T. Rowe Price Large Cap Growth fund remain on “Watch” status to be closely monitored over the coming periods.*



## 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.