
JUNE 26, 2019

**AGENDA ITEM 3
INFORMATION ITEM**

SCHOLARSHARE INVESTMENT BOARD

Review and Analysis of Investment Performance for ScholarShare 529 for First Quarter 2019.

Background

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

In this item, SIB will review and discuss “Investment Performance Report” (Exhibit A) for the Plan for first quarter 2019, provided by TIAA Tuition Financing, Inc., and the “Investment Performance Status Report” (Exhibit B) for first quarter 2019, provided by Meketa. Exhibit B provides comparisons for each underlying fund allocated to the portfolios used in the Plan to applicable benchmark criteria and labels the current status of funds as “positive,” “acceptable,” “caution,” or “watch.”

For the first quarter of 2019:

- Seven underlying funds were in the “positive” status, and
- 11 underlying funds were in the “acceptable” status
- One underlying fund was in the “caution” status (currently also on “watch” status).

As outlined in its memo (Exhibit C), Meketa is recommending that:

- The TIAA-CREF Social Choice Equity Fund remain on “watch” status; and
- No new funds qualify for “watch” status.

Presenters

Eric White, Executive Vice President, Meketa Investment Group, Inc.
Glenn Friedman, Manager, TIAA Tuition Financing, Inc.

Quarterly Investment Report

1st Quarter, 2019

BUILT TO PERFORM.

CREATED TO SERVE.

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

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

ScholarShare529 

Market Overview: Q1 2019

Key Themes

- After a volatile fourth quarter, Q1 saw renewed optimism in regard to many economic, political, and investment concerns. Fear turned to hope as investors looked past lingering risks and resumed a positive outlook. Many markets reacted positively and posted solid results that more than offset the downturn in Q4.

Equities

- All eleven U.S. equity sectors had positive returns. Information Technology and Real Estate had the highest returns while Health Care was the laggard. International developed and emerging markets also participated in the rally.

Fixed Income

- At the March FOMC meeting, the Federal Reserve Board kept its benchmark fed funds rate unchanged at a target range of 2.25%-2.50. It also indicated that no more rate hikes will be coming this year, signaling a more dovish stance.

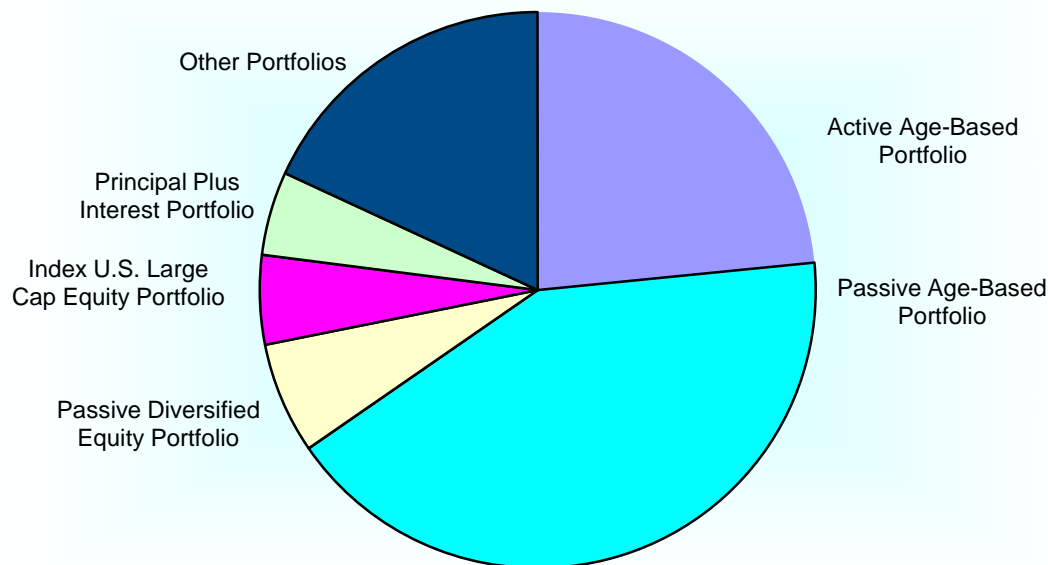
Asset Class	3 Month	1 Year	3 Year	5 Year
U.S. Equities	14.04	8.77	13.48	10.36
U.S. Growth Stocks	16.10	12.75	16.53	13.50
U.S. Value Stocks	11.93	5.67	10.45	7.72
U.S. Mid-Cap Stocks	16.54	6.47	11.82	8.81
U.S. Small-Cap Stocks	14.58	2.05	12.92	7.05
Int'l Developed Stocks	9.98	-3.71	7.27	2.33
Emerging Markets Stocks	9.91	-7.41	10.68	3.68
Real Estate Stocks	17.17	20.46	7.84	10.00
U.S. Investment Grade Bonds	2.94	4.48	2.03	2.74
Long-dated U.S. Treasuries	6.45	5.24	3.75	5.35
Inflation-Linked Bonds	2.57	2.72	1.53	1.50
High Yield Bonds	7.34	6.33	7.76	4.74
Commodities	6.32	-5.25	2.22	-8.92
Cash	0.61	2.14	1.21	0.76
Annualized Tuition Inflation Ending as of 2018-2019 Academic Year* (%)				
Educational Institution	1 Year	3 Year	5 Year	
National Average Public 4-Year In-state	2.51	2.75	2.85	
National Average Private Nonprofit 4-Year	3.26	3.48	3.53	
Consumer Price Index, March 2019	1.90	2.23	1.50	

*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 2018 and U.S. Department of Labor: Bureau of Labor Statistics

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; U.S. Treasuries – Bloomberg Barclays U.S. Government/Credit Long 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

Assets by Portfolio as of Q1 2019

Total Assets: \$8.98 Billion

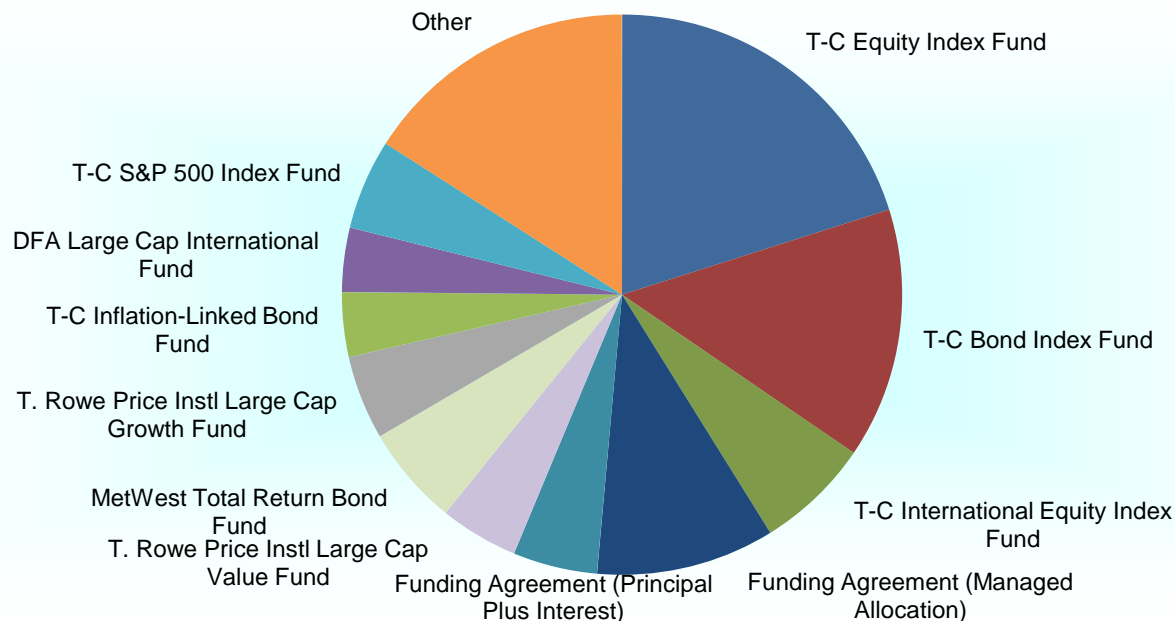


Portfolio	% of Assets	\$ Millions	Portfolio	% of Assets	\$ Millions
Passive Age-Based Portfolio	41.95%	\$ 3,769	Index U.S. Large Cap Equity Portfolio	5.19%	\$ 466
Active Age-Based Portfolio	23.42%	\$ 2,104	Principal Plus Interest Portfolio	4.86%	\$ 437
Passive Diversified Equity Portfolio	6.48%	\$ 582	Other Portfolios (see below)	18.11%	\$ 1,627

Other Portfolios

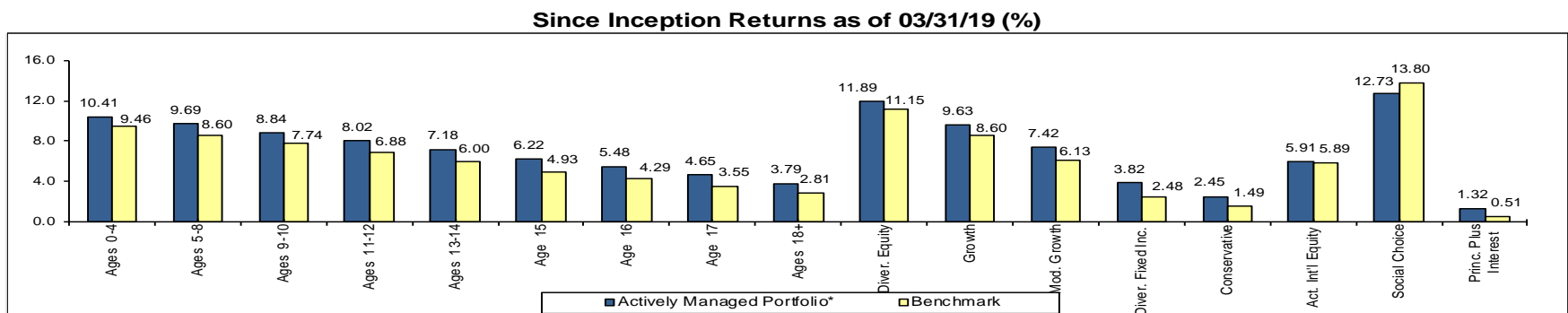
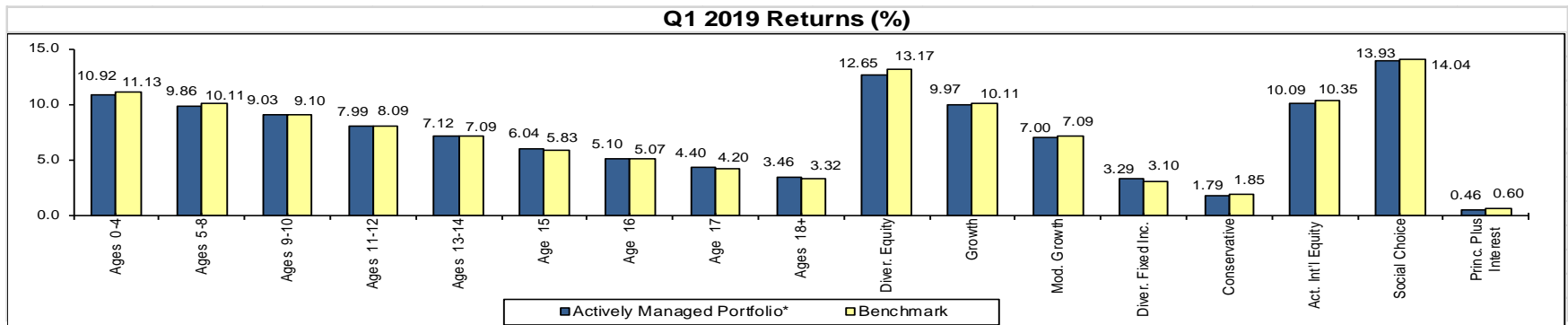
Index U.S. Equity Portfolio	4.82%	\$ 433	Active Moderate Growth Portfolio	0.66%	\$ 59
Active Diversified Equity Portfolio	2.94%	\$ 264	Passive Moderate Growth Portfolio	0.61%	\$ 55
Social Choice Portfolio	1.95%	\$ 175	Passive Conservative Portfolio	0.48%	\$ 43
Active Growth Portfolio	1.91%	\$ 171	Active Conservative Portfolio	0.42%	\$ 38
Passive Growth Portfolio	1.43%	\$ 128	Active International Equity Portfolio	0.32%	\$ 29
Index International Equity Portfolio	1.38%	\$ 124	Active Diversified Fixed Income Portfolio	0.26%	\$ 24
Index Bond Portfolio	0.71%	\$ 64	Passive Diversified Fixed Income Portfolio	0.23%	\$ 21

Assets by Underlying Fund as of Q1 2019



Fund	% of Assets	\$ Millions	Fund	% of Assets	\$ Millions
T-C Equity Index Fund	20.10%	\$ 1,804	Funding Agreement (Principal Plus Interest)	4.87%	\$ 437
T-C Bond Index Fund	14.44%	\$ 1,296	T. Rowe Price Instl Large Cap Growth Fund	4.84%	\$ 434
Funding Agreement (Managed Allocation)	10.29%	\$ 924	T. Rowe Price Instl Large Cap Value Fund	4.53%	\$ 407
T-C International Equity Index Fund	6.61%	\$ 593	T-C Inflation-Linked Bond Fund	3.74%	\$ 336
Metropolitan West Total Return Bond Fund	5.75%	\$ 516	DFA Large Cap International Fund	3.71%	\$ 333
T-C S&P 500 Index Fund	5.19%	\$ 466	Other	15.95%	\$ 1,432
Other Funds					
T-C Real Estate Securities Fund	3.13%	\$ 281	T-C Emerging Markets Equity Index Fund	1.54%	\$ 139
PIMCO Income Fund	2.30%	\$ 206	T-C Small Cap Equity Fund	1.12%	\$ 100
PIMCO Real Return Fund	2.03%	\$ 182	T. Rowe Price Instl Floating Rate Fund	1.01%	\$ 91
T-C High Yield Bond Fund	2.01%	\$ 180	DFA Emerging Markets Core Equity Portfolio	0.86%	\$ 77
T-C Social Choice Equity Fund	1.95%	\$ 175			

Actively Managed Portfolios vs Composite Benchmarks Q1 and Since Inception Returns (%)



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

- Total nonfarm payroll employment increased by 196,000 in March, which was a strong bounce back after February's gain of just 20,000. The unemployment rate held steady at 3.8%.
- Average hourly earnings of all employees on private nonfarm payrolls showed a strong 3.20% year-over-year increase.
- The Conference Board's index of leading economic indicators (LEI) improved in March, following a 0.1% increase in February and no change in January.
- All age bands in the Actively Managed Portfolios had positive absolute returns in Q1, and most outperformed their blended benchmarks. Younger age bands had higher returns than older age bands.
- Contributing to absolute returns was the TIAA-CREF Real Estate Securities Fund, which returned 17.29% and outperformed its benchmark. Also contributing to absolute performance was the TIAA-CREF Quant Small Cap Equity Fund, which generated 15.25% and beat its benchmark by 67 basis points.
- A number of other funds also contributed to relative returns. The PIMCO Real Return Fund, the PIMCO Income Fund, and the MetWest Total Return Bond Fund all outperformed their respective benchmarks.

Actively Managed Portfolios vs Composite Benchmarks

Investment Portfolios	Average Annual Total Return						Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	
Active Age-Based Portfolios**							
Active Age-Based Portfolio 0-4	10.92%	10.92%	4.78%	11.25%	7.67%	10.41%	11/04/11
Blended Benchmark Returns	11.13%	11.13%	5.39%	9.73%	7.03%	9.46%	
Difference	-0.21%	-0.21%	-0.61%	1.52%	0.64%	0.95%	
Active Age-Based Portfolio 5-8	9.86%	9.86%	4.81%	10.37%	7.21%	9.69%	11/04/11
Blended Benchmark Returns	10.11%	10.11%	5.29%	8.82%	6.53%	8.60%	
Difference	-0.25%	-0.25%	-0.48%	1.55%	0.68%	1.09%	
Active Age-Based Portfolio 9-10	9.03%	9.03%	4.64%	9.27%	6.58%	8.84%	11/04/11
Blended Benchmark Returns	9.10%	9.10%	5.16%	7.91%	6.01%	7.74%	
Difference	-0.07%	-0.07%	-0.52%	1.36%	0.57%	1.10%	
Active Age-Based Portfolio 11-12	7.99%	7.99%	4.55%	8.31%	6.01%	8.02%	11/04/11
Blended Benchmark Returns	8.09%	8.09%	5.02%	6.99%	5.49%	6.88%	
Difference	-0.10%	-0.10%	-0.47%	1.32%	0.52%	1.14%	
Active Age-Based Portfolio 13-14	7.12%	7.12%	4.37%	7.24%	5.43%	7.18%	11/04/11
Blended Benchmark Returns	7.09%	7.09%	4.86%	6.06%	4.95%	6.00%	
Difference	0.03%	0.03%	-0.49%	1.18%	0.48%	1.18%	
Active Age-Based Portfolio 15	6.04%	6.04%	4.13%	6.33%	4.82%	6.22%	11/04/11
Blended Benchmark Returns	5.83%	5.83%	4.49%	5.02%	4.20%	4.93%	
Difference	0.21%	0.21%	-0.36%	1.31%	0.62%	1.29%	
Active Age-Based Portfolio 16	5.10%	5.10%	3.63%	5.46%	4.28%	5.48%	11/04/11
Blended Benchmark Returns	5.07%	5.07%	4.20%	4.44%	3.73%	4.29%	
Difference	0.03%	0.03%	-0.57%	1.02%	0.55%	1.19%	
Active Age-Based Portfolio 17	4.40%	4.40%	3.32%	4.75%	3.71%	4.65%	11/04/11
Blended Benchmark Returns	4.20%	4.20%	3.81%	3.80%	3.15%	3.55%	
Difference	0.20%	0.20%	-0.49%	0.95%	0.56%	1.10%	
Active Age-Based Portfolio 18 & Over	3.46%	3.46%	2.89%	3.91%	3.09%	3.79%	11/04/11
Blended Benchmark Returns	3.32%	3.32%	3.42%	3.16%	2.57%	2.81%	
Difference	0.14%	0.14%	-0.53%	0.75%	0.52%	0.98%	
Active Multi-Fund Investment Portfolios							
Active Diversified Equity Portfolio	12.65%	12.65%	4.88%	13.06%	8.66%	11.89%	11/04/11
Blended Benchmark Returns	13.17%	13.17%	5.52%	11.54%	8.02%	11.15%	
Difference	-0.52%	-0.52%	-0.64%	1.52%	0.64%	0.74%	
Active Growth Portfolio	9.97%	9.97%	4.66%	10.22%	7.12%	9.63%	11/04/11
Blended Benchmark Returns	10.11%	10.11%	5.29%	8.82%	6.53%	8.60%	
Difference	-0.14%	-0.14%	-0.63%	1.40%	0.59%	1.03%	
Active Moderate Growth Portfolio	7.00%	7.00%	4.43%	7.40%	5.54%	7.42%	11/09/11
Blended Benchmark Returns	7.09%	7.09%	4.86%	6.06%	4.95%	6.13%	
Difference	-0.09%	-0.09%	-0.43%	1.34%	0.59%	1.29%	
Active Conservative Portfolio	1.79%	1.79%	2.66%	2.24%	2.12%	2.45%	11/04/11
Blended Benchmark Returns	1.85%	1.85%	3.06%	1.76%	1.72%	1.49%	
Difference	-0.06%	-0.06%	-0.40%	0.48%	0.40%	0.96%	
Active International Equity Portfolio	10.09%	10.09%	-5.39%	8.00%	2.42%	5.91%	11/10/11
Blended Benchmark Returns	10.35%	10.35%	-3.97%	8.02%	2.56%	5.89%	
Difference	-0.26%	-0.26%	-1.42%	-0.02%	-0.14%	0.02%	
Active Diversified Fixed Income Portfolio	3.29%	3.29%	3.94%	3.26%	3.10%	3.82%	11/08/11
Blended Benchmark Returns	3.10%	3.10%	4.00%	2.34%	2.71%	2.48%	
Difference	0.19%	0.19%	-0.06%	0.92%	0.39%	1.34%	
Active Single Fund Investment Portfolios							
Social Choice Portfolio	13.93%	13.93%	7.76%	13.17%	9.43%	12.73%	11/04/11
Benchmark Returns	14.04%	14.04%	8.77%	13.48%	10.36%	13.80%	
Difference	-0.11%	-0.11%	-1.01%	-0.31%	-0.93%	-1.07%	
Principal Plus Interest Portfolio**	0.46%	0.46%	1.47%	1.34%	1.24%	1.32%	11/04/11
Benchmark Returns	0.60%	0.60%	2.11%	1.17%	0.72%	0.06%	
Difference	-0.14%	-0.14%	-0.64%	0.17%	0.52%	1.26%	

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

**The crediting rate of 1.70% for the TC Life Funding Agreement in the Active Age-Based Portfolio for the Principal Plus Interest Portfolio are guaranteed through 12/31/19.

Asset Allocation, Fees, and Performance

Active Age-Based Portfolio Age of Beneficiary	Q1 Portfolio Return	Q1 Blended Benchmk Return	Annual Asset Based Fees (bp)*	T. Rowe Price Instl Large Cap Growth Fund	T. Rowe Price Instl Large Cap Value Fund	T. Rowe Price Instl Floating Rate Fund	TIAA- CREF Quant Small Cap Equity Fund	TIAA- CREF Real Estate Securities Fund	DFA Large Cap International Portfolio	DFA Emerging Markets Core Equity I Portfolio	MetWest Total Return Bond Fund	PIMCO Real Return Fund	PIMCO Income Fund	T-C Life Funding Agreement
Underlying Fund Expenses (bp)				56	57	57	41	51	24	52	37	45	50	N/A
0 - 4	10.92%	11.13%	54	22.68%	22.68%	2.00%	5.04%	5.60%	19.20%	4.80%	10.00%	4.00%	4.00%	0.00%
5 - 8	9.86%	10.11%	54	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	0.00%
9 - 10	9.03%	9.10%	54	17.01%	17.01%	4.00%	3.78%	4.20%	14.40%	3.60%	20.00%	8.00%	8.00%	0.00%
11 - 12	7.99%	8.09%	53	14.18%	14.18%	5.00%	3.14%	3.50%	12.00%	3.00%	25.00%	10.00%	10.00%	0.00%
13 - 14	7.12%	7.09%	53	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	0.00%
15	6.04%	5.83%	48	8.51%	8.51%	6.00%	1.88%	2.10%	7.20%	1.80%	30.00%	12.00%	12.00%	10.00%
16	5.10%	5.07%	44	7.09%	7.09%	5.50%	1.57%	1.75%	6.00%	1.50%	27.50%	11.00%	11.00%	20.00%
17	4.40%	4.20%	37	5.67%	5.67%	4.50%	1.26%	1.40%	4.80%	1.20%	22.50%	9.00%	9.00%	35.00%
18+	3.46%	3.32%	30	4.25%	4.25%	3.50%	0.95%	1.05%	3.60%	0.90%	17.50%	7.00%	7.00%	50.00%

Active Multi-Fund Investment Portfolios

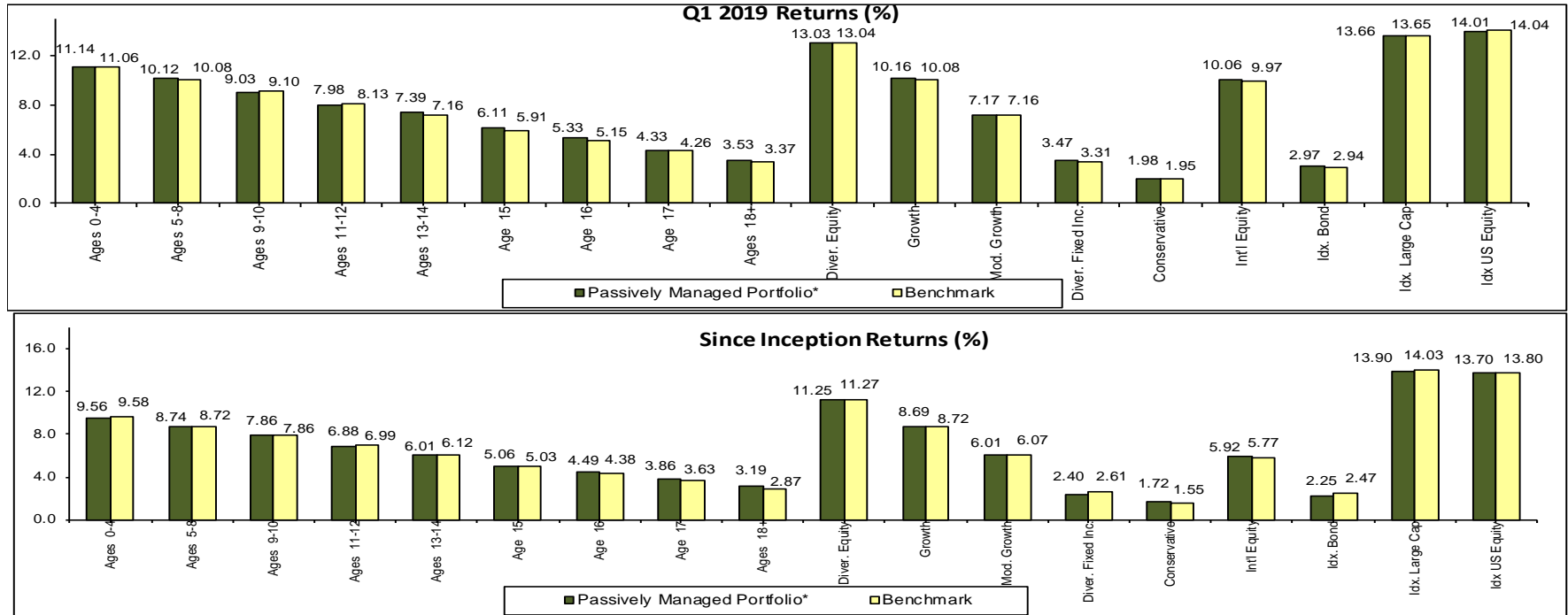
Active Diversified Equity Portfolio	12.65%	13.17%	55	28.35%	28.35%		6.30%	7.00%	24.00%	6.00%				
Active Growth Portfolio	9.97%	10.11%	54	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	
Active Moderate Growth Portfolio	7.00%	7.09%	53	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	
Active Diversified Fixed Income Portfolio	3.29%	3.10%	51			10.00%					50.00%	20.00%	20.00%	
Active Conservative Portfolio	1.79%	1.85%	30			5.00%					25.00%	10.00%	10.00%	50.00%
Active International Equity Portfolio	10.09%	10.35%	38						80.00%	20.00%				
Fund's Performance vs Benchmk Q1 2019 (bp)				(142)	(67)	(22)	67	12	4	(130)	21	35	9	(14)

Active Single Fund Investment Portfolios

Investment Portfolios	Q1 Portfolio Return	Q1 Blended Benchmk Return	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q1 2019 (bp)
Social Choice Portfolio	13.93%	14.04%	25	100.00%	TIAA-CREF Social Choice Equity Fund	(9)
Principal Plus Interest Portfolio	0.46%	0.60%	N/A	100.00%	TIAA-CREF Life Co. Funding Agreement	(14)

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

Passively Managed Portfolios vs Composite Benchmarks Q1 and Since Inception Returns (%)



* 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.

- After a volatile and challenging fourth quarter, many investor concerns were cast aside in Q1 and the S&P 500 completed its best quarter since 2009 with a gain of 13.65%.
- Treasury yields ended the quarter lower and the Bloomberg Barclays U.S. Aggregate Bond Index returned 2.94%. This continued a positive return trend from the fourth quarter when many fixed income markets benefited from a risk-off environment.
- All age bands in the Passively Managed Portfolios posted positive absolute returns for the quarter and most outperformed their blended benchmarks.
- Positive absolute returns were primarily driven by the TIAA-CREF Equity Index Fund, TIAA-CREF International Equity Index Fund, and TIAA-CREF Emerging Markets Equity Index Fund, all of which had largely positive returns during a risk-on period. Positive relative returns were, in large part, due to the TIAA-CREF High Yield Fund, which outperformed by 91 basis points, and had the highest relative returns among all underlying funds in Q1.
- All Multi-Fund and Single Fund Portfolios also saw positive absolute returns. More aggressive investment portfolios had higher returns and more conservative portfolios with lower volatility assets had lower returns in Q1.

Passively Managed Portfolios vs Composite Benchmarks

Investment Portfolios	Average Annual Total Return						Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	
Passive Age-Based Portfolio**							
Passive Age-Based Portfolio 0-4	11.14%	11.14%	5.30%	9.80%	7.09%	9.56%	11/04/11
Blended Benchmark Returns	11.06%	11.06%	5.45%	9.76%	7.09%	9.58%	
Difference	0.08%	0.08%	-0.15%	0.04%	0.00%	-0.02%	
Passive Age-Based Portfolio 5-8	10.12%	10.12%	5.14%	8.96%	6.62%	8.74%	11/04/11
Blended Benchmark Returns	10.08%	10.08%	5.38%	8.86%	6.58%	8.72%	
Difference	0.04%	0.04%	-0.24%	0.10%	0.04%	0.02%	
Passive Age-Based Portfolio 9-10	9.03%	9.03%	5.17%	8.03%	6.06%	7.86%	11/04/11
Blended Benchmark Returns	9.10%	9.10%	5.29%	7.96%	6.06%	7.86%	
Difference	-0.07%	-0.07%	-0.12%	0.07%	0.00%	0.00%	
Passive Age-Based Portfolio 11-12	7.98%	7.98%	5.07%	7.01%	5.41%	6.88%	11/04/11
Blended Benchmark Returns	8.13%	8.13%	5.18%	7.06%	5.53%	6.99%	
Difference	-0.15%	-0.15%	-0.11%	-0.05%	-0.12%	-0.11%	
Passive Age-Based Portfolio 13-14	7.39%	7.39%	4.83%	6.11%	4.87%	6.01%	11/04/11
Blended Benchmark Returns	7.16%	7.16%	5.05%	6.15%	4.99%	6.12%	
Difference	0.23%	0.23%	-0.22%	-0.04%	-0.12%	-0.11%	
Passive Age-Based Portfolio 15	6.11%	6.11%	4.42%	5.16%	4.22%	5.06%	11/04/11
Blended Benchmark Returns	5.91%	5.91%	4.68%	5.11%	4.24%	5.03%	
Difference	0.20%	0.20%	-0.26%	0.05%	-0.02%	0.03%	
Passive Age-Based Portfolio 16	5.33%	5.33%	4.06%	4.64%	3.83%	4.49%	11/04/11
Blended Benchmark Returns	5.15%	5.15%	4.37%	4.52%	3.75%	4.38%	
Difference	0.18%	0.18%	-0.31%	0.12%	0.08%	0.11%	
Passive Age-Based Portfolio 17	4.33%	4.33%	3.52%	4.03%	3.35%	3.86%	11/04/11
Blended Benchmark Returns	4.26%	4.26%	3.96%	3.86%	3.17%	3.63%	
Difference	0.07%	0.07%	-0.44%	0.17%	0.18%	0.23%	
Passive Age-Based Portfolio 18 & Over	3.53%	3.53%	3.10%	3.36%	2.80%	3.19%	11/04/11
Blended Benchmark Returns	3.37%	3.37%	3.53%	3.21%	2.59%	2.87%	
Difference	0.16%	0.16%	-0.43%	0.15%	0.21%	0.32%	
Passive Multi-Fund Investment Portfolios							
Passive Diversified Equity Portfolio	13.03%	13.03%	5.21%	11.55%	8.13%	11.25%	11/04/11
Blended Benchmark Returns	13.04%	13.04%	5.52%	11.53%	8.08%	11.27%	
Difference	-0.01%	-0.01%	-0.31%	0.02%	0.05%	-0.02%	
Passive Growth Portfolio	10.16%	10.16%	5.04%	8.84%	6.57%	8.69%	11/04/11
Blended Benchmark Returns	10.08%	10.08%	5.38%	8.86%	6.58%	8.72%	
Difference	0.08%	0.08%	-0.34%	-0.02%	-0.01%	-0.03%	
Passive Moderate Growth Portfolio	7.17%	7.17%	4.90%	6.16%	4.91%	6.01%	11/08/11
Blended Benchmark Returns	7.16%	7.16%	5.05%	6.15%	4.99%	6.07%	
Difference	0.01%	0.01%	-0.15%	0.01%	-0.08%	-0.06%	
Passive Conservative Portfolio	1.98%	1.98%	2.99%	1.86%	1.88%	1.72%	11/04/11
Blended Benchmark Returns	1.95%	1.95%	3.22%	1.84%	1.74%	1.55%	
Difference	0.03%	0.03%	-0.23%	0.02%	0.14%	0.17%	
Index International Equity Portfolio	10.06%	10.06%	-4.73%	8.28%	2.82%	5.92%	11/04/11
Blended Benchmark Returns	9.97%	9.97%	-4.42%	8.00%	2.67%	5.77%	
Difference	0.09%	0.09%	-0.31%	0.28%	0.15%	0.15%	
Passive Diversified Fixed Income Portfolio	3.47%	3.47%	4.38%	2.37%	2.57%	2.40%	11/08/11
Blended Benchmark Returns	3.31%	3.31%	4.33%	2.50%	2.74%	2.61%	
Difference	0.16%	0.16%	0.05%	-0.13%	-0.17%	-0.21%	
Passive Single Fund Investment Portfolios							
Index Bond Portfolio	2.97%	2.97%	4.61%	1.82%	2.60%	2.25%	11/04/11
Benchmark Returns	2.94%	2.94%	4.48%	2.03%	2.74%	2.47%	
Difference	0.03%	0.03%	0.13%	-0.21%	-0.14%	-0.22%	
Index U.S. Large Cap Equity Portfolio	13.66%	13.66%	9.44%	13.41%	10.79%	13.90%	11/04/11
Benchmark Returns	13.65%	13.65%	9.50%	13.51%	10.91%	14.03%	
Difference	0.01%	0.01%	-0.06%	-0.10%	-0.12%	-0.13%	
Index U.S. Equity Portfolio	14.01%	14.01%	8.74%	13.44%	10.29%	13.70%	11/04/11
Benchmark Returns	14.04%	14.04%	8.77%	13.48%	10.36%	13.80%	
Difference	-0.03%	-0.03%	-0.03%	-0.04%	-0.07%	-0.10%	

* 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.

**The crediting rate of 1.70% for the TC Life Funding Agreement in the Passive Age-Based Portfolio is guaranteed through 12/31/19.

Asset Allocation, Fees, and Performance

Passive Age-Based Portfolio Age of Beneficiary	Q1 Portfolio Return	Q1 Blended Benchmk Return	Annual Asset Based Fees (bp)*	TIAA-CREF Equity Index Fund	TIAA-CREF International Equity Index Fund	TIAA-CREF Emerging Markets Equity Index Fund	TIAA-CREF Real Estate Securities Fund	TIAA-CREF Bond Index Fund	TIAA-CREF Inflation- Linked Bond Fund	TIAA-CREF High Yield Fund	T-C Life Funding Agreement
Underlying Fund Expenses (bp)				5	6	20	51	12	26	36	N/A
0 - 4	11.14%	11.06%	14	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	0.00%
5 - 8	10.12%	10.08%	15	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	0.00%
9 - 10	9.03%	9.10%	15	37.80%	14.40%	3.60%	4.20%	28.00%	8.00%	4.00%	0.00%
11 - 12	7.98%	8.13%	16	31.50%	12.00%	3.00%	3.50%	35.00%	10.00%	5.00%	0.00%
13 - 14	7.39%	7.16%	17	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	0.00%
15	6.11%	5.91%	16	18.90%	7.20%	1.80%	2.10%	42.00%	12.00%	6.00%	10.00%
16	5.33%	5.15%	15	15.75%	6.00%	1.50%	1.75%	38.50%	11.00%	5.50%	20.00%
17	4.33%	4.26%	13	12.60%	4.80%	1.20%	1.40%	31.50%	9.00%	4.50%	35.00%
18 +	3.53%	3.37%	10	9.45%	3.60%	0.90%	1.05%	24.50%	7.00%	3.50%	50.00%

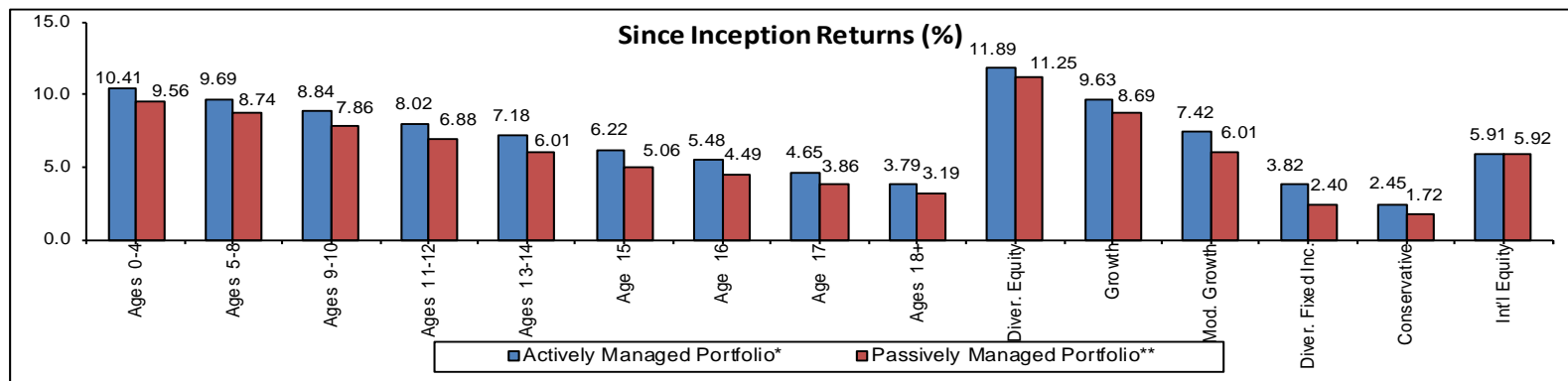
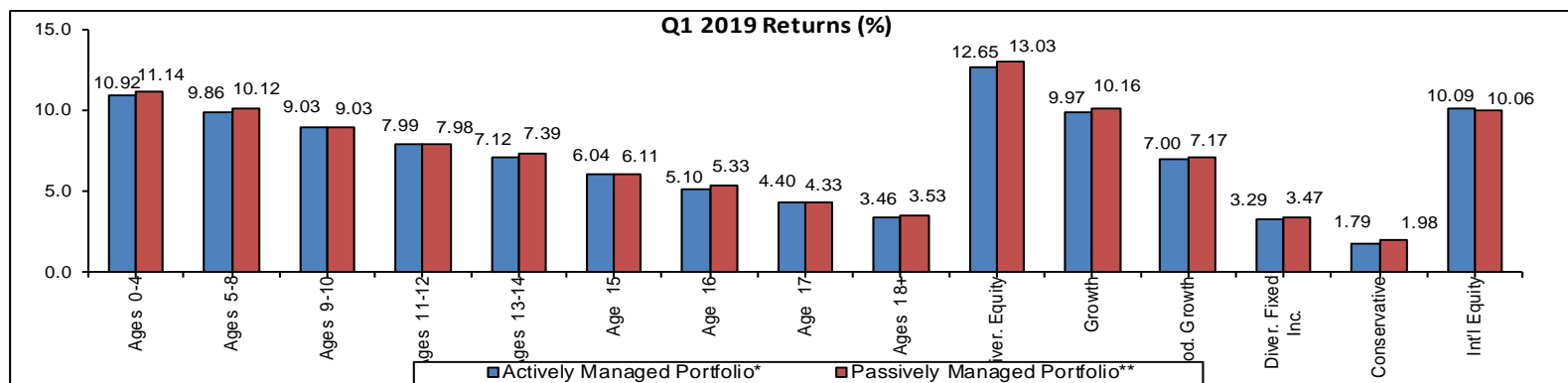
Passive Multi-Fund Investment Portfolios

Passive Diversified Equity Portfolio	13.03%	13.04%	12	63.00%	24.00%	6.00%	7.00%				
Passive Growth Portfolio	10.16%	10.08%	15	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	
Passive Moderate Growth Portfolio	7.17%	7.16%	17	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	
Passive Diversified Fixed Income Portfolio	3.47%	3.31%	20					70.00%	20.00%	10.00%	
Passive Conservative Portfolio	1.98%	1.95%	12					35.00%	10.00%	5.00%	50.00%
Index International Equity Portfolio	10.06%	9.97%	12		80.00%	20.00%					
Fund's Performance vs Benchmk Q1 2019 (bp)				(3)	6	18	12	(3)	7	91	(14)

Investment Portfolios	Q1 Portfolio Return	Q1 Blended Benchmk Return	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q1 2019 (bp)
Index Bond Portfolio	2.97%	2.94%	15	100.00%	TIAA-CREF Bond Index Fund	(3)
Index U.S. Large Cap Equity Portfolio	13.66%	13.65%	9	100.00%	TIAA-CREF S&P 500 Index Fund	(2)
Index U.S. Equity Portfolio	14.01%	14.04%	8	100.00%	TIAA-CREF Equity Index Fund	(3)

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

Actively Managed Portfolios vs. Passively Managed Portfolios



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

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

- In Q1, most Passively Managed Portfolios outperformed the Actively Managed Portfolios.
- Certain underlying funds in the Active Portfolios underperformed their benchmark, which resulted in lower returns for some portfolios with allocations to those funds compared to their passive counterparts. For example, all three T. Rowe Price underlying funds and the DFA Emerging Markets Core Equity Portfolio underperformed their respective benchmarks. However, other active underlying funds outperformed, which moderated any of Active's underperformance.
- Since Inception returns largely continue to favor the Actively Managed Portfolios.

Underlying Funds vs. Benchmarks Option

	Average Annual Total Return						Fund Incept. Date
	3 Month	YTD	1 Year	3 Year	5 Year	Life	
TIAA-CREF FUNDS							
T-C Bond Index Fund	2.91%	2.91%	4.55%	1.85%	2.64%	3.24%	09/14/2009
Bloomberg Barclays U.S. Aggregate Bond Index	2.94%	2.94%	4.48%	2.03%	2.74%	3.43%	
Difference	-0.03%	-0.03%	0.07%	-0.18%	-0.10%	-0.19%	
T-C Emerging Markets Equity Index Fund*	10.09%	10.09%	-8.17%	10.65%	3.61%	3.10%	08/31/2010
MSCI Emerging Markets® Index	9.91%	9.91%	-7.41%	10.69%	3.68%	3.44%	
Difference	0.18%	0.18%	-0.76%	-0.04%	-0.07%	-0.34%	
T-C Equity Index Fund	14.01%	14.01%	8.78%	13.48%	10.34%	6.07%	07/01/1999
Russell 3000 Index	14.04%	14.04%	8.77%	13.49%	10.36%	6.14%	
Difference	-0.03%	-0.03%	0.01%	-0.01%	-0.02%	-0.07%	
T-C High Yield Bond Fund	8.25%	8.25%	6.58%	8.06%	4.42%	6.89%	03/31/2006
ICE BofAML BB/B Cash Pay Index	7.34%	7.34%	6.33%	7.77%	4.74%	6.81%	
Difference	0.91%	0.91%	0.25%	0.29%	-0.32%	0.08%	
T-C Inflation-Linked Bond Fund	2.64%	2.64%	2.67%	1.34%	1.46%	3.86%	10/01/2002
Bloomberg Barclays 1-10 Year U.S. TIPS Index	2.57%	2.57%	2.72%	1.53%	1.50%	3.64%	
Difference	0.07%	0.07%	-0.05%	-0.19%	-0.04%	0.22%	
T-C International Equity Index Fund*	10.04%	10.04%	-3.82%	7.58%	2.49%	7.45%	10/01/2002
MSCI EAFE Index	9.98%	9.98%	-3.71%	7.28%	2.33%	7.40%	
Difference	0.06%	0.06%	-0.11%	0.30%	0.16%	0.05%	
T-C Real Estate Securities Fund	17.29%	17.29%	18.91%	8.15%	10.37%	10.66%	10/01/2002
FTSE NAREIT Equity Index	17.17%	17.17%	20.46%	7.84%	10.00%	10.90%	
Difference	0.12%	0.12%	-1.55%	0.31%	0.37%	-0.24%	
T-C S&P 500 Index Fund	13.63%	13.63%	9.45%	13.45%	10.84%	9.73%	10/01/2002
S&P 500 Index	13.65%	13.65%	9.50%	13.52%	10.91%	9.81%	
Difference	-0.02%	-0.02%	-0.05%	-0.07%	-0.07%	-0.08%	
T-C Quant Small Cap Equity Fund	15.25%	15.25%	2.15%	12.83%	8.08%	10.70%	10/01/2002
Russell 2000 Index	14.58%	14.58%	2.05%	12.93%	7.05%	10.53%	
Difference	0.67%	0.67%	0.10%	-0.10%	1.03%	0.17%	
T-C Social Choice Equity Fund	13.95%	13.95%	7.87%	13.28%	9.53%	5.86%	07/01/1999
Russell 3000 Index	14.04%	14.04%	8.77%	13.49%	10.36%	6.14%	
Difference	-0.09%	-0.09%	-0.90%	-0.21%	-0.83%	-0.28%	
DFA FUNDS							
DFA Emerging Markets Core Equity Portfolio*	8.61%	8.61%	-9.48%	9.61%	3.44%	7.50%	04/05/2005
MSCI Emerging Markets® Index	9.91%	9.91%	-7.41%	10.69%	3.68%	7.30%	
Difference	-1.30%	-1.30%	-2.07%	-1.08%	-0.24%	0.20%	
DFA Large Cap International Portfolio*	10.49%	10.49%	-4.19%	7.70%	2.28%	5.52%	07/17/1991
MSCI World Ex US Index	10.45%	10.45%	-3.14%	7.30%	2.20%	5.58%	
Difference	0.04%	0.04%	-1.05%	0.40%	0.08%	-0.06%	
METWEST FUNDS							
MetWest Total Return Bond Fund	3.15%	3.15%	4.80%	2.32%	2.77%	3.71%	07/01/1999
Bloomberg Barclays U.S. Aggregate Bond Index	2.94%	2.94%	4.48%	2.03%	2.74%	2.74%	
Difference	0.21%	0.21%	0.32%	0.29%	0.03%	0.97%	
PIMCO FUNDS							
PIMCO Income Fund	3.03%	3.03%	3.91%	6.33%	5.48%	8.35%	03/30/2007
Barclays Capital U.S. Aggregate Bond Index	2.94%	2.94%	4.48%	2.03%	2.74%	4.03%	
Difference	0.09%	0.09%	-0.57%	4.30%	2.74%	4.32%	
PIMCO Real Return Fund	3.54%	3.54%	2.54%	2.09%	1.74%	5.64%	01/29/1997
Bloomberg Barclays U.S. TIPS Index	3.19%	3.19%	2.70%	1.70%	1.94%	-	
Difference	0.35%	0.35%	-0.16%	0.39%	-0.20%	-	
T. ROWE PRICE FUNDS							
T. Rowe Price Instl Floating Rate Fund	3.76%	3.76%	3.09%	4.68%	3.61%	5.05%	01/31/2008
S&P/LSTA Performing Loan Index	3.98%	3.98%	3.02%	5.80%	3.95%	5.27%	
Difference	-0.22%	-0.22%	0.07%	-1.12%	-0.34%	-0.22%	
T. Rowe Price Instl Large Cap Growth Fund	14.68%	14.68%	13.98%	21.94%	15.19%	10.70%	10/31/2001
Russell 1000 Growth Index	16.10%	16.10%	12.75%	16.55%	13.50%	8.50%	
Difference	-1.42%	-1.42%	1.23%	5.39%	1.69%	2.20%	
T. Rowe Price Instl Large Cap Value Fund	11.26%	11.26%	3.79%	10.48%	7.87%	8.02%	3/31/2000
Russell 1000 Value Index	11.93%	11.93%	5.67%	10.46%	7.72%	6.70%	
Difference	-0.67%	-0.67%	-1.88%	0.02%	0.15%	1.32%	

* 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.

BUILT TO PERFORM.

CREATED TO SERVE.

1Q

2019

SCHOLARSHARE 529

INVESTMENT PERFORMANCE STATUS REPORT



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AGENDA

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TAKEAWAYS

- All of the Program's age-based portfolios posted positive absolute results for the quarter. Benchmark relative results were mixed for actively-managed and passively-managed portfolios; early age-bands tended to struggle over the quarter while latter age-bands outperformed.
- In 1Q 2019, the markets recovered from the accelerated volatility that marked the prior quarter. All of the Program's underlying funds produced positive returns on an absolute basis during the quarter.
- US equities experienced an exceptional first quarter as they provided double-digit returns across styles and market capitalizations. Growth stocks outperformed value stocks, and small cap stocks outperformed large cap stocks. The TIAA-CREF Small Cap Equity fund was the top equity contributor for the period.
- International equities also provided solid positive results in both developed and emerging markets. However, the DFA Emerging Markets Equity portfolio was a notable detractor to actively-managed portfolios as it significantly underperformed its benchmark.
- Fixed income results continued to improve over the recent quarter; high yield bonds provided the strongest performance in the segment. All of the Program's actively-managed fixed income funds outperformed their respective benchmarks for the quarter and contributed to returns (especially in later age-bands with higher fixed income allocations). The TIAA-CREF High Yield Bond fund generated the highest benchmark relative outperformance of the Program's funds.
- Real Estate was also a top performer for the quarter with the TIAA-CREF Real Estate Securities Fund posting the strongest absolute return amongst all of the Program's funds; the fund was up 17.3%.



SECTION 1

ECONOMIC OVERVIEW



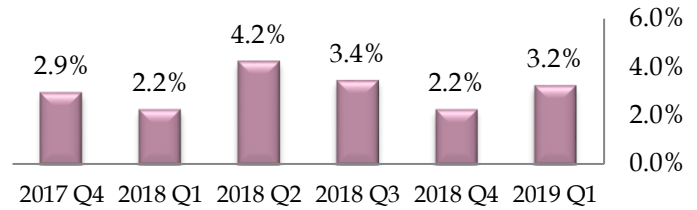


Overview: Real U.S. GDP increased by 3.2% in the first quarter of 2019. Growth was driven by increases in personal consumption expenditures, private inventory investment, exports, state and local government spending, and nonresidential fixed investment, while a decrease in residential fixed investment detracted from GDP growth over the quarter. At quarter-end, the unemployment rate decreased to 3.8%. The seasonally adjusted Consumer Price Index for All Urban Consumers increased by 2.3% on an annualized basis during the quarter. Commodities were up in the first quarter, but the 1-year return for a basket of commodities was negative at -5.3%. Global equity returns were strong over the quarter as the MSCI ACWI was up 12.7%. The U.S. Dollar appreciated against the Euro and Yen by 2.2% and 1.1%, respectively, but depreciated against the Pound by 2.2%.

Economic Growth

- Real GDP increased at an annualized rate of 3.2 percent in the first quarter of 2019.
- Real GDP growth was driven by increases in personal consumption expenditures, private inventory investment, exports, state and local government spending, and nonresidential fixed investments.
- GDP growth was partially offset during the quarter by a decrease in residential investment.

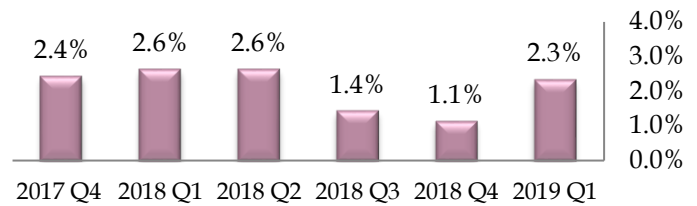
Annualized Quarterly GDP Growth



Inflation

- The Consumer Price Index for All Urban Consumers (CPI-U) increased by 2.3 percent during the first quarter on an annualized basis after seasonal adjustment.
- Quarterly percentage changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 2.0 percent for the quarter on an annualized basis after seasonal adjustment.
- Over the last 12 months, core CPI-U increased by 2.0 percent after seasonal adjustment.

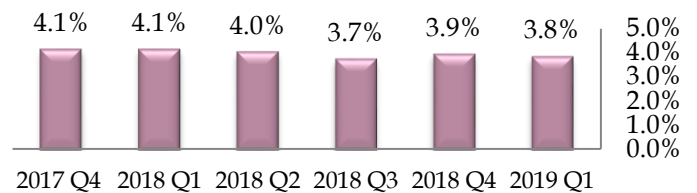
CPI-U After Seasonal Adjustment



Unemployment

- The U.S. economy gained approximately 541,000 jobs in the first quarter of 2019.
- The unemployment rate decreased to 3.8% at quarter-end.
- The majority of jobs gained occurred in education and health services, professional and business services, and leisure and hospitality. Job loss in temporary help services, retail trade, as well as manufacturing in motor vehicles and parts detracted from job growth over the quarter.

Unemployment Rate

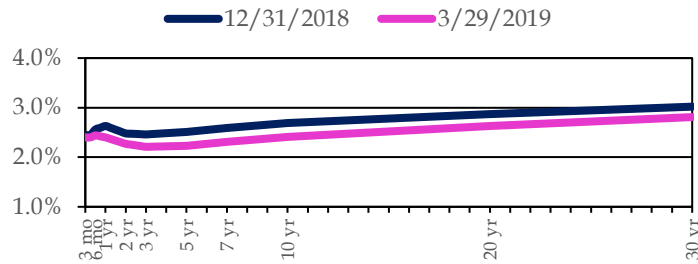




Interest Rates & U.S. Dollar

- Certain parts of the yield curve remained slightly inverted over the quarter as longer term yields decreased more than shorter-term yields.
- The Federal Fund Rate was unchanged in the first quarter. The current target is between 2.25 and 2.50 percent.
- The U.S. Dollar appreciated against the Euro and Yen by 2.2% and 1.1%, respectively, but depreciated against the Pound by 2.2%.

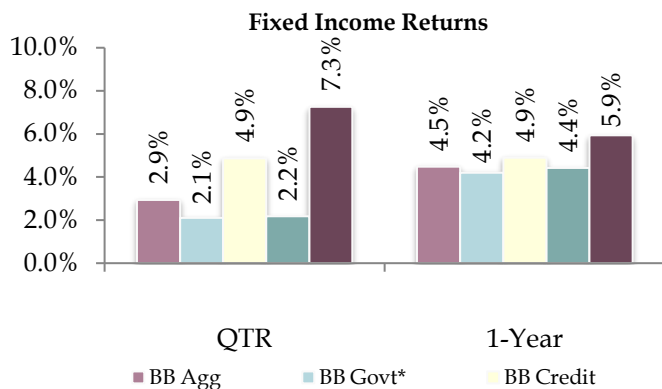
Treasury Yield Curve Changes



Source: US Treasury Department

Fixed Income

- Investment Grade bonds performed well over the quarter, generally producing returns between 2% and 5%. High Yield bonds provided the strongest performance as they were up 7.3% for the quarter.
- Over the trailing 1-year period, all bonds sectors performed favorably as they were all in excess of 4%. High Yield led all other sectors as they were up nearly 6% over the 1-year period.



*U.S. Treasuries and Agencies

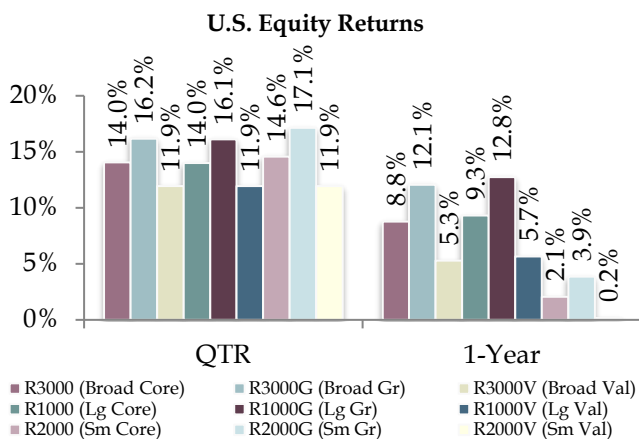
US Fixed Income Sector Performance (BB Aggregate Index)			
Sector	Weight	QTR	1 Year
Governments*	42.3%	2.2%	4.2%
Agencies	2.7%	2.5%	3.8%
Inv. Grade Credit	24.7%	5.1%	4.9%
MBS	27.8%	2.2%	4.4%
ABS	0.5%	1.5%	3.7%
CMBS	2.0%	3.2%	5.4%

*U.S. Treasuries and Government Related



U.S. Equities

- U.S. equities experienced an exceptional first quarter as they provided double-digit returns across styles and market capitalizations. Growth stocks outperformed value stocks and small cap stocks outperformed large cap stocks. Small cap growth outperformed all other styles and capitalizations as they returned 17.3% over the quarter. Broad, large, and small cap value stocks each returned 11.9% over the quarter.
- During the trailing 1-year period, U.S. equities were mixed as large cap growth stocks performed well returning 12.8% over the time period, while small cap value stocks were essentially flat.

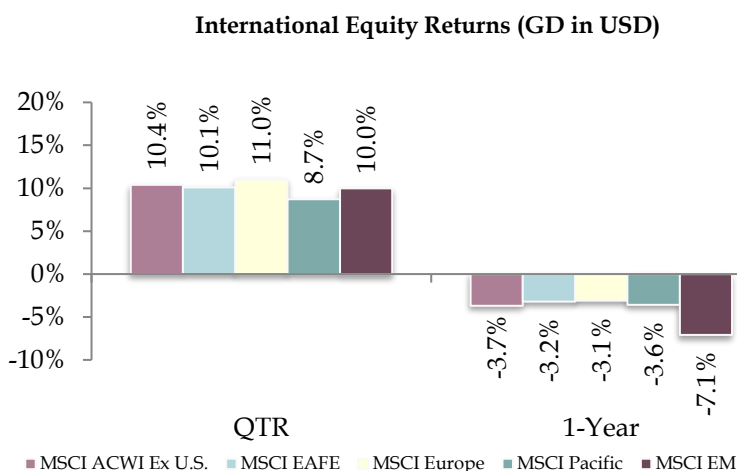


U.S. Equity Sector Performance (Russell 3000 Index)

Sector	Weight	QTR	1 Year
Information Tech.	20.5%	20.8%	18.0%
Health Care	14.4%	8.2%	14.1%
Financials	13.8%	8.8%	-4.7%
Industrials	10.4%	16.7%	2.1%
Consumer Disc.	10.2%	14.7%	10.5%
Comm. Services	9.1%	14.2%	10.5%
Consumer Staples	6.4%	11.7%	9.8%
Energy	5.0%	16.6%	-0.2%
Real Estate	3.9%	17.3%	19.3%
Utilities	3.2%	11.4%	20.3%
Materials	3.0%	11.6%	-2.3%

International Equities

- International equities provided strong performance across the board during the first quarter. Europe led all major regions with a return of 11.0% while the Pacific trailed all other major regions with a return of 8.7%.
- Over the trailing 1-year period, Europe led all other major regions with a return of -3.1%, while Emerging Markets trailed all other major regions with a -7.1% return.



International Equity Region Performance (GD in USD) (MSCI ACWI ex U.S.)

Sector	Weight	QTR	1 Year
Europe Ex. UK	30.7%	10.7%	-4.3%
Emerging Markets	26.1%	10.0%	-7.1%
Japan	16.1%	6.9%	-7.5%
United Kingdom	11.5%	11.9%	0.0%
Pacific Ex. Japan	8.5%	12.3%	4.7%
Canada	6.8%	15.6%	3.9%

Market Summary - Multi-term Performance*

Indexes	Month	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Global Equity							
MSCI AC World Index	1.3%	12.3%	3.2%	11.3%	7.0%	12.6%	5.4%
Domestic Equity							
S&P 500	1.9%	13.6%	9.5%	13.5%	10.9%	15.9%	6.0%
Russell 3000	1.5%	14.0%	8.8%	13.5%	10.4%	16.0%	6.5%
Russell 3000 Growth	2.5%	16.2%	12.1%	16.4%	13.1%	17.4%	5.6%
Russell 3000 Value	0.4%	11.9%	5.3%	10.5%	7.6%	14.5%	6.9%
Russell 1000	1.7%	14.0%	9.3%	13.5%	10.6%	16.0%	6.3%
Russell 1000 Growth	2.8%	16.1%	12.7%	16.5%	13.5%	17.5%	5.5%
Russell 1000 Value	0.6%	11.9%	5.7%	10.5%	7.7%	14.5%	6.7%
Russell 2000	-2.1%	14.6%	2.0%	12.9%	7.1%	15.4%	8.4%
Russell 2000 Growth	-1.4%	17.1%	3.9%	14.9%	8.4%	16.5%	7.1%
Russell 2000 Value	-2.9%	11.9%	0.2%	10.9%	5.6%	14.1%	9.4%
Russell Microcap	-3.0%	13.1%	-2.4%	12.3%	5.0%	15.0%	---
Alerian MLP Index	3.4%	16.8%	15.1%	5.7%	-4.7%	10.1%	11.5%
CBOE BXM Index	1.8%	6.8%	3.3%	7.4%	5.9%	9.0%	5.0%
International Equity							
MSCI AC World Index ex USA	0.7%	10.4%	-3.7%	8.6%	3.0%	9.3%	5.0%
MSCI EAFE	0.7%	10.1%	-3.2%	7.8%	2.8%	9.5%	4.4%
MSCI Pacific	0.8%	8.7%	-3.6%	9.1%	5.2%	9.3%	4.4%
MSCI Europe	0.7%	11.0%	-3.1%	7.2%	1.6%	9.6%	4.4%
MSCI EM (Emerging Markets)	0.9%	10.0%	-7.1%	11.1%	4.1%	9.3%	8.7%
Fixed Income							
BB Universal	1.8%	3.3%	4.5%	2.6%	3.0%	4.4%	5.0%
Global Agg. - Hedged	1.8%	3.0%	4.9%	2.8%	3.6%	4.1%	4.7%
BB Aggregate Bond	1.9%	2.9%	4.5%	2.0%	2.7%	3.8%	4.7%
BB Government	1.9%	2.1%	4.2%	1.1%	2.1%	2.4%	4.3%
BB Credit Bond	2.4%	4.9%	4.9%	3.5%	3.6%	6.2%	5.5%
BB Mortgage Backed Securities	1.5%	2.2%	4.4%	1.8%	2.6%	3.1%	4.6%
BB High Yield	0.9%	7.3%	5.9%	8.6%	4.7%	11.3%	6.8%
BB WGIL All Maturities - Hedged	3.1%	3.9%	4.0%	4.4%	4.5%	4.8%	---
Emerging Markets Debt	1.4%	5.4%	4.4%	5.4%	4.8%	8.5%	9.1%
Real Estate							
NCREIF	0.5%	1.4%	7.5%	8.0%	10.2%	8.7%	8.5%
FTSE NAREIT All Equity Index	4.2%	16.7%	19.9%	8.1%	9.9%	18.3%	10.7%
Commodity Index							
Bloomberg Commodity Index	-0.2%	6.3%	-5.3%	2.2%	-8.9%	-2.6%	1.8%

* Performance is annualized for periods greater than one year.



Annual Asset Class Performance

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD
Best	34.5	32.6	39.8	36.3	79.0	35.9	29.9	18.6	33.6	27.4	15.2	18.3	37.8	8.3	16.8
	20.2	28.0	16.1	24.0	76.4	19.2	16.0	17.9	27.6	25.1	4.4	17.5	25.6	0.0	14.0
	14.0	26.9	12.7	5.2	57.5	16.9	13.9	16.8	23.4	12.6	0.5	12.7	24.6	-1.3	12.3
	11.4	26.1	12.5	-2.4	35.4	16.1	13.6	16.4	23.3	12.3	0.5	11.6	21.1	-1.8	10.1
	8.1	21.5	12.2	-10.4	32.5	15.2	7.8	15.6	13.3	6.0	-0.4	9.3	8.5	-2.3	10.0
	6.5	16.1	11.6	-26.4	28.3	13.2	4.4	11.0	12.8	4.8	-1.2	8.5	7.8	-5.2	7.4
	6.3	15.7	11.6	-36.9	11.4	9.4	1.0	7.0	7.4	4.7	-1.4	5.1	7.5	-8.9	4.7
	6.1	11.8	9.8	-37.3	5.9	8.2	-6.9	4.8	-2.0	3.6	-1.8	4.7	3.5	-10.0	3.2
	2.8	4.3	7.0	-41.8	1.5	8.2	-8.7	4.2	-2.3	2.5	-4.6	2.6	3.0	-12.4	2.9
	2.7	1.8	5.1	-43.1	-12.9	6.5	-11.7	3.6	-8.6	-1.8	-14.6	1.5	-4.5	-13.4	1.7
Worst	2.4	0.5	2.2	-53.2	-30.7	6.3	-18.2	-14.3	-12.7	-4.5	-32.6	1.3	-6.5	-14.2	-5.8

MSCI ACWI	Russell 3000 Index	Alerian MLP Index	MSCI EAFE Index	MSCI Emerging Markets	BB Agg	ICE BofAML High Yield	BB Long Treasury	BB TIPS Index	CS MF 18% Vol Index	NCREIF ODCE
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SECTION 2

REVIEW OF SCHOLARSHARE POLICY



REVIEW OF SCHOLARSHARE POLICY

Active Funds

<u>Fund</u>	<u>Asset Class</u>	<u>Benchmark</u>
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 Small Cap Equity	Domestic Equity	Russell 2000 TR USD
TIAA-CREF Social Choice Equity	Domestic Equity	Russell 3000 TR USD
TIAA-CREF Real Estate Securities	Domestic Equity	FTSE NAREIT All Equity REITs TR
DFA Large Cap International	International Equity	MSCI World ex US NR USD
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
TIAA-CREF Inflation-Linked Bond	Fixed Income	BBg BarCap US TIPS 1-10 year TR USD
T. Rowe Price Institutional Floating Rate	High Yield	S&P/LSTA Performing Loan TR
TIAA-CREF High Yield Bond	High Yield	BofA ML US HY C Pay BB-B Constd TR

Passive Funds

<u>Fund</u>	<u>Asset Class</u>	<u>Benchmark</u>
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
TIAA-CREF Bond Index	Fixed Income	BBg BarCap US Agg Bond TR USD

T-C Life Funding Agreements

T-C Life Funding Agreements*	---	---
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*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.



REVIEW OF SCHOLARSHARE POLICY

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 (> 60 months)
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

Passively Managed Funds

Asset Class	Short-Term (rolling 12-month periods)	Medium-term (rolling 36-month periods)	Long-term (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

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

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

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

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



REVIEW OF SCHOLARSHARE POLICY

Performance Criteria for Placing a Fund on Watch (Continued)

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

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

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.



REVIEW OF SCHOLARSHARE POLICY

Investment Status Schedule

Performance Category	Actively Managed Portfolios	Passively Managed Portfolios
Positive	<ul style="list-style-type: none"> Performance exceeds the benchmark. 	<ul style="list-style-type: none"> Performance exceeds the benchmark (first 1-12 month period), or Tracking error is within the allowable range¹ (short, medium, and long time periods).
Acceptable	<ul style="list-style-type: none"> Performance meets or is under the benchmark and is within the allowable range. 	<ul style="list-style-type: none"> Performance does not exceed the benchmark but is within the allowable range (first 1-12 month period only).
Caution	<ul style="list-style-type: none"> Performance is below allowable range but either: <ol style="list-style-type: none"> for less than six consecutive months, or 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. 	<ul style="list-style-type: none"> Tracking error falls outside of the allowable range but either <ol style="list-style-type: none"> for less than six consecutive months, or the Board has not voted to place the asset class or stand alone fund on Watch
Watch ²	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Tracking error falls outside of the allowable range for more than six consecutive months and the Board has formally voted to place the asset class or individual fund portfolio on Watch.

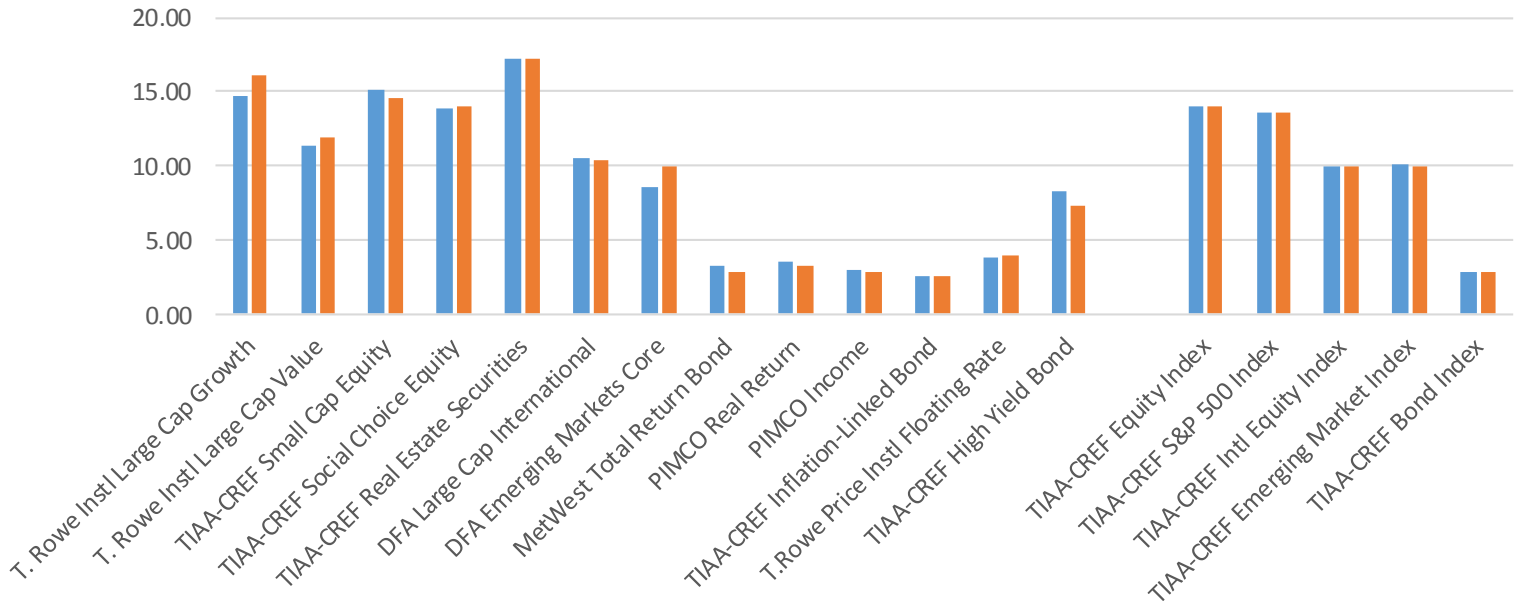
¹ Ranges are shown in the Investment Performance Criteria Schedules.

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

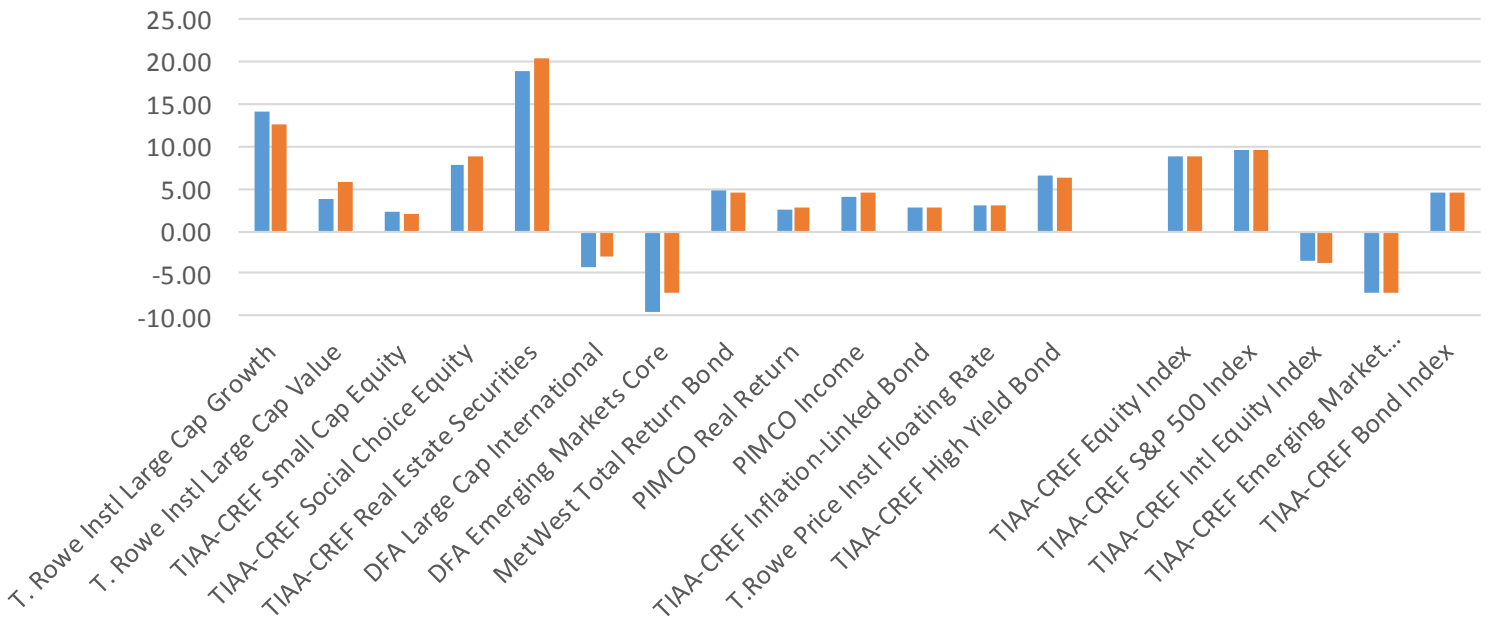


SUMMARY OF FUND PERFORMANCE 3/31/19

Quarter



1 Year



■ Fund ■ Index



SUMMARY OF FUND PERFORMANCE STATUS

Program	Total Funds	Positive	Acceptable	Caution	Watch [^]
Number of Funds	19	7	11	1	1
% of Funds	100%	37%	58%	5%	5%
% of Program Assets	100%	39%	59%	2%	2%
Fund Status ↑	1	1	--	--	--
Fund Status ↓	--	--	--	--	--
Domestic Equity Funds	7	2	4	1	1
Intl Equity Funds	4	2	2	--	--
Fixed Income Funds	5	2	3	--	--
High Yield Funds	2	--	2	--	--
Funding Agreement	1	1	--	--	--

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

- Ninety-five percent of the Program’s funds have either a Positive or Acceptable performance status
- The status of one fund improved over the quarter
 - TIAA-CREF Small Cap Equity Fund
- No new funds qualify for “Watch” status



SUMMARY OF FUND PERFORMANCE STATUS

Funds	Prior Quarter		Current Quarter	
	Status	On Watch	Status	On Watch
Active Funds				
T. Rowe Price Instl Large Cap Growth	Positive		Positive	
T. Rowe Price Instl Large Cap Value	Acceptable		Acceptable	
TIAA-CREF Small Cap Equity	Acceptable		Positive	
TIAA-CREF Social Choice Equity	Caution	7/1/17	Caution	7/1/17
TIAA-CREF Real Estate Securities	Acceptable		Acceptable	
DFA Large Cap International	Positive		Positive	
DFA Emerging Markets Core Equity	Acceptable		Acceptable	
Metropolitan West Total Return Bond	Positive		Positive	
PIMCO Real Return	Acceptable		Acceptable	
PIMCO Income	Positive		Positive	
TIAA-CREF Inflation-Linked Bond	Acceptable		Acceptable	
T. Rowe Price Instl Floating Rate	Acceptable		Acceptable	
TIAA-CREF High-Yield Bond	Acceptable		Acceptable	
Passive Funds				
TIAA-CREF Equity Index	Acceptable		Acceptable	
TIAA-CREF S&P 500 Index	Acceptable		Acceptable	
TIAA-CREF International Equity Index	Positive		Positive	
TIAA-CREF Emerging Markets Index	Acceptable		Acceptable	
TIAA-CREF Bond Index	Acceptable		Acceptable	
T-C Life Funding Agreements				
T-C Life Funding Agreements	Positive		Positive	

- 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.



SUMMARY OF FUND ASSETS

Assets as of 3/31/2019

Funds	Assets (\$)	% of Total
Active Funds		
T. Rowe Price Instl Large Cap Growth	434,378,347	4.83%
T. Rowe Price Instl Large Cap Value	406,785,045	4.53%
TIAA-CREF Small Cap Equity	100,383,135	1.12%
TIAA-CREF Social Choice Equity	175,143,257	1.95%
TIAA-CREF Real Estate Securities	281,346,003	3.13%
DFA Large Cap International	332,664,555	3.70%
DFA Emerging Markets Core Equity	77,283,633	0.86%
Metropolitan West Total Return Bond	516,154,670	5.74%
PIMCO Real Return	182,248,121	2.03%
PIMCO Income	206,232,979	2.30%
TIAA-CREF Inflation-Linked Bond	335,817,465	3.74%
T. Rowe Price Instl Floating Rate	91,035,963	1.01%
TIAA-CREF High-Yield Bond	180,080,160	2.00%
Active Funds Total	3,319,553,333	36.95%
Passive Funds		
TIAA-CREF Equity Index	1,810,256,420	20.15%
TIAA-CREF S&P 500 Index	466,123,564	5.19%
TIAA-CREF International Equity Index	593,207,245	6.60%
TIAA-CREF Emerging Markets Index	138,514,652	1.54%
TIAA-CREF Bond Index	1,296,095,252	14.43%
Passive Funds Total	4,304,197,133	47.91%
T-C Life Funding Agreements		
T-C Life Funding Agreements	1,360,794,139	15.15%
TOTAL	\$8,984,544,605	100%



PORTFOLIO MANAGEMENT OVERVIEW

Fund	Ticker	Current PM Team	Recent PM Departures*
T.Rowe Price Large Cap Growth	TRLGX	01/01/2017- Taymour R. Tamaddon	12/31/2002-01/01/2017 Robert W. Sharps
T.Rowe Price Large Cap Value	TILCX	03/31/2000-02/25/2010-01/01/2015- John D. Linehan Mark S. Finn Heather K. McPherson	
TIAA-CREF Small Cap Equity	TISEX	12/31/2006-03/01/2016-03/01/2019- Adam Cao Pei Chen Max Kozlov	
TIAA-CREF Social Choice Equity	TISCX	12/31/2005-05/30/2014- Philip James Campagna Lei Liao	
TIAA-CREF Real Estate Securities	TIREX	12/31/2005-07/10/2006- David Copp Brendan W. Lee	
DFA Large Cap International	DFALX	02/28/2010-07/21/2015-07/21/2015- Jed S. Fogdall Mary T. Phillips Bhanu P. Singh	02/28/2012-02/28/2017 02/28/2010-02/28/2019 Henry F. Gray Joseph H. Chi
DFA Emerging Markets Core Equity	DFCEX	02/28/2010-07/21/2015-07/21/2015-02/28/2017-02/28/2019- Jed S. Fogdall Allen Pu Bhanu P. Singh Mary T. Phillips William Collins-Dean	02/28/2010-02/28/2019 Joseph H. Chi
Metropolitan West Total Return Bond	MWTIX	03/31/1997-03/31/1997-03/31/1997-12/31/2004- Stephen M. Kane Laird R. Landman Tad Rivelle Bryan T. Whalen	
PIMCO Real Return	PRRIX	12/31/2007-01/09/2019- Mihir P. Worah Stephen A. Rodosky	01/02/2015-01/09/2019 Jeramie Banet
PIMCO Income	PIMIX	03/30/2007-03/15/2013-07/30/2018- Daniel J. Ivascyn Alfred T. Murata Joshua Anderson	
TIAA-CREF Inflation-Linked Bond	TIILX	08/21/2008-08/01/2016 John Michael Cerra Nicholas Travaglino	10/01/2011-08/01/2016 Stephen M. Liberatore
T.Rowe Price Floating Rate	RPIFX	05/01/2009- Paul M. Massaro	
TIAA-CREF High Yield	TIHYX	03/31/2006-10/01/2011- Kevin R. Lorenz Jean C. Lin	
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	
TIAA-CREF International Equity Index	TCIEIX	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	
TIAA-CREF Bond Index	TBIIX	12/31/2009-08/24/2011- Lijun (Kevin) Chen James Tsang	

*Recent is defined as having occurred in the last three years.

Source: MorningStar



PORTFOLIO MANAGEMENT OVERVIEW

Observations:

- TIAA Small Cap Equity
 - Added Max Kozlov to the portfolio management team
 - DFA Large Cap International
 - Departure of Joseph H. Chi. Jed Fogdall who has also been on the fund's portfolio management team since 2010 remains on the strategy and co-head of Global Portfolio Management.
 - DFA Emerging Markets Core Equity
 - Added William Collins-Dean to the portfolio management team
 - Departure of Joseph H. Chi. Jed Fogdall who has also been on the fund's portfolio management team since 2010 remains on the strategy and co-head of Global Portfolio Management.
 - TIAA Equity Index
 - TIAA S&P 500 Index
 - TIAA International Equity Index
 - TIAA Emerging Markets Equity Index
- } Added Darren Tran to the portfolio management team



SECTION 4

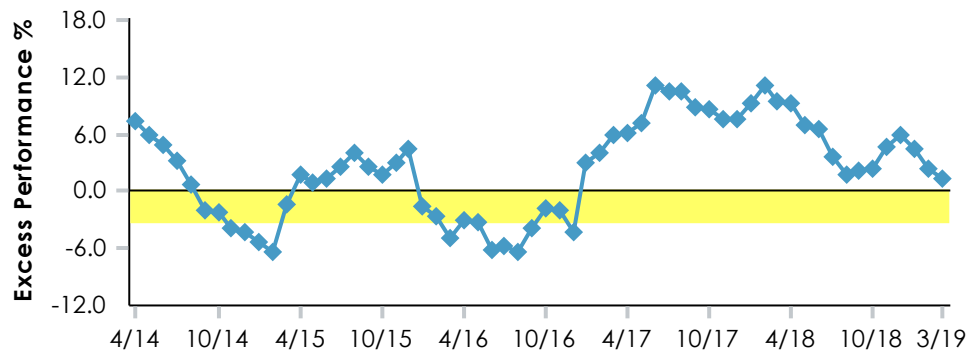
SENSITIVITY ANALYSES

ACTIVE FUNDS



TRowe Price Large Cap Growth I vs. Russell 1000 Growth Index

Short-term (Rolling 12 Months Excess Performance)

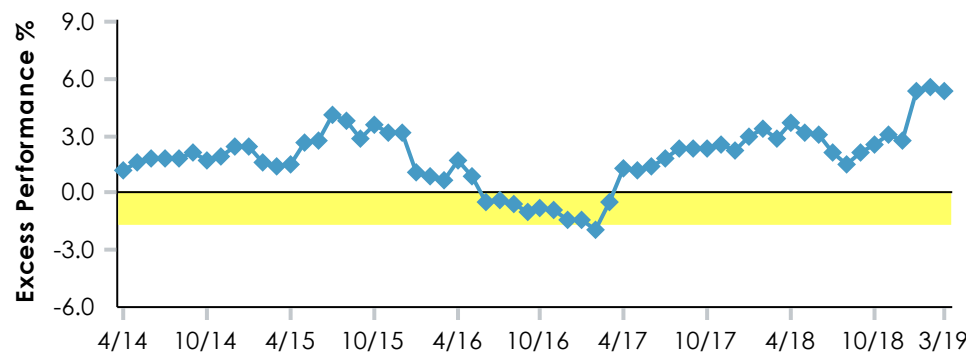


Short-Term Performance

Positive

Probationary Performance -3.50%

Medium-term (Rolling 36 Months Excess Performance)

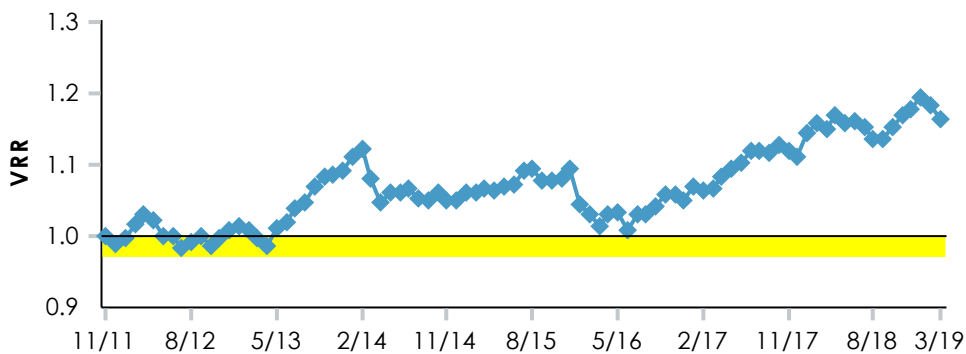


Medium-Term Performance

Positive

Probationary Performance -1.75%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TRowe Price Large Cap Growth I	14.7 (83)	14.0 (25)	21.9 (2)	15.2 (4)	18.1 (2)
Russell 1000 Growth Index	16.1 (55)	12.7 (41)	16.5 (42)	13.5 (24)	15.7 (23)
IM U.S. Large Cap Growth Equity (MF) Median	16.3	12.0	16.1	12.5	14.8

Monitoring Status

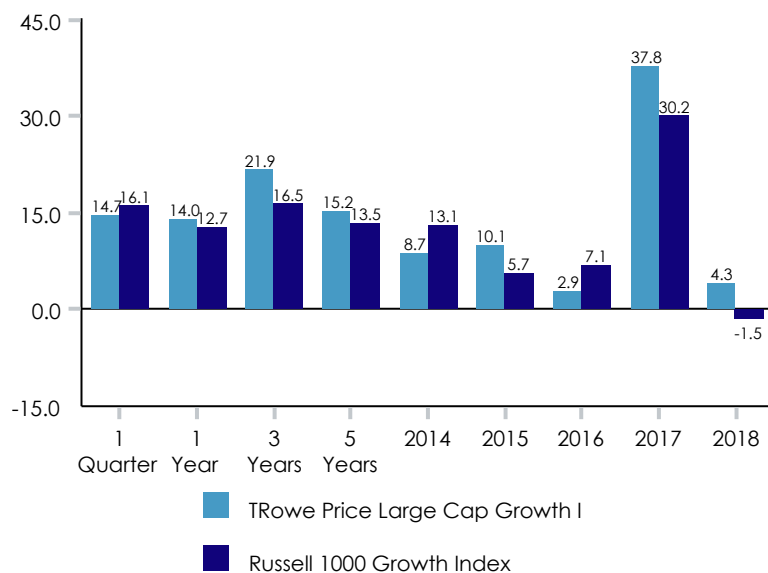
Positive



Mutual Fund Info

Product Name : T Rowe Price I LgCp Gro (TRLGX)
 Fund Family : T Rowe Price Associates Inc
 Ticker : TRLGX
 Peer Group : IM U.S. Large Cap Growth Equity (MF)
 Benchmark : Russell 1000 Growth Index
 Fund Inception : 10/31/2001
 Portfolio Manager : Taymour R. Tamaddon
 Total Assets : \$18,814 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.6%
 Net Expense : 0.6%
 Turnover : 33%

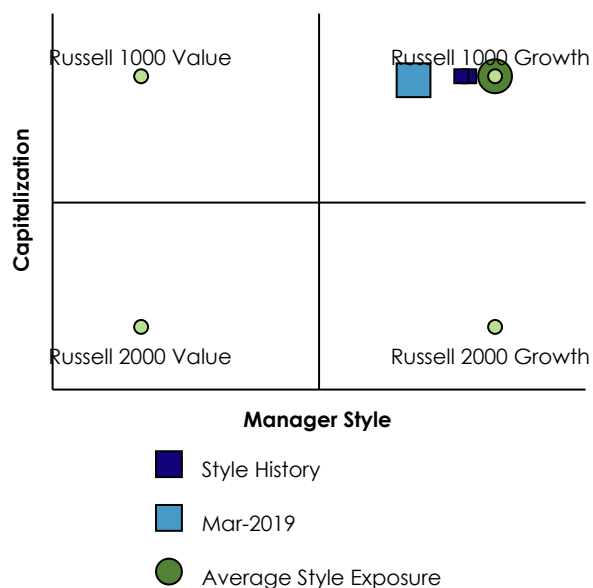
Comparative Performance



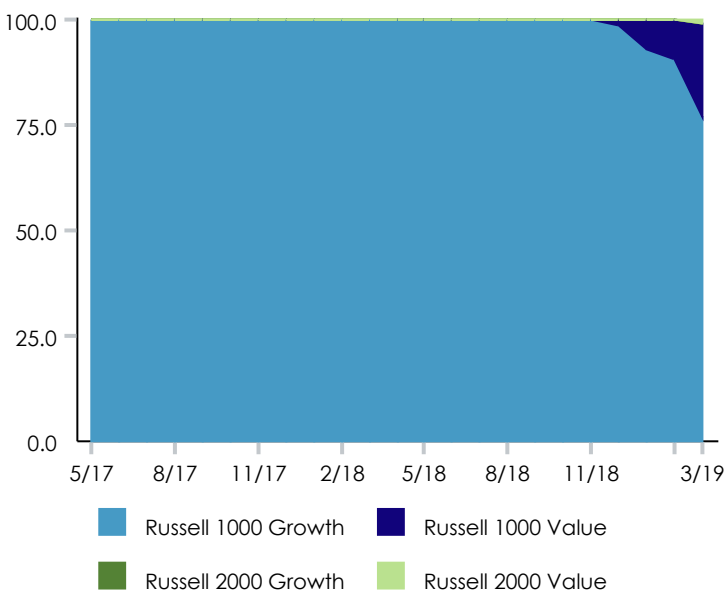
Fund Investment Policy

The Fund seeks long-term capital appreciation through investments in the common stocks of large-capitalization growth companies.

Style Map (3 Years)



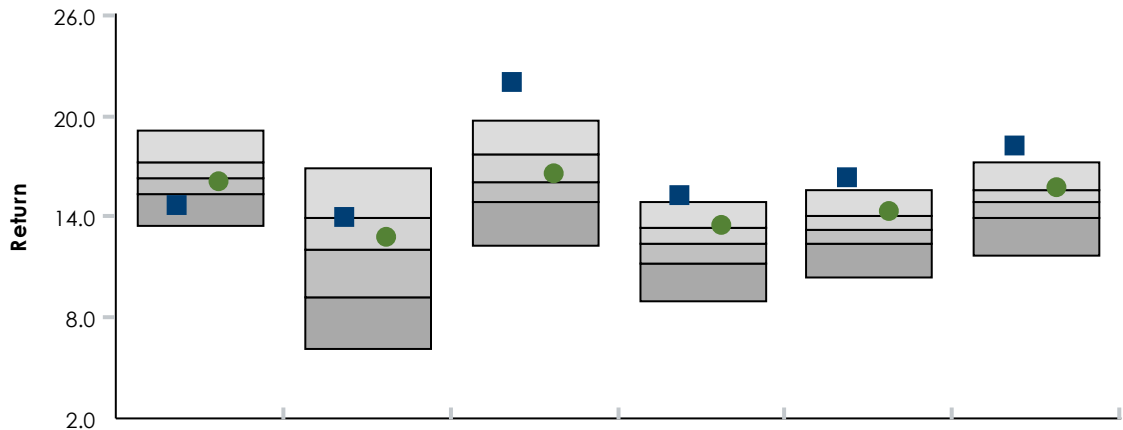
Style History (3 Years)



Historical Statistics (3 Years)

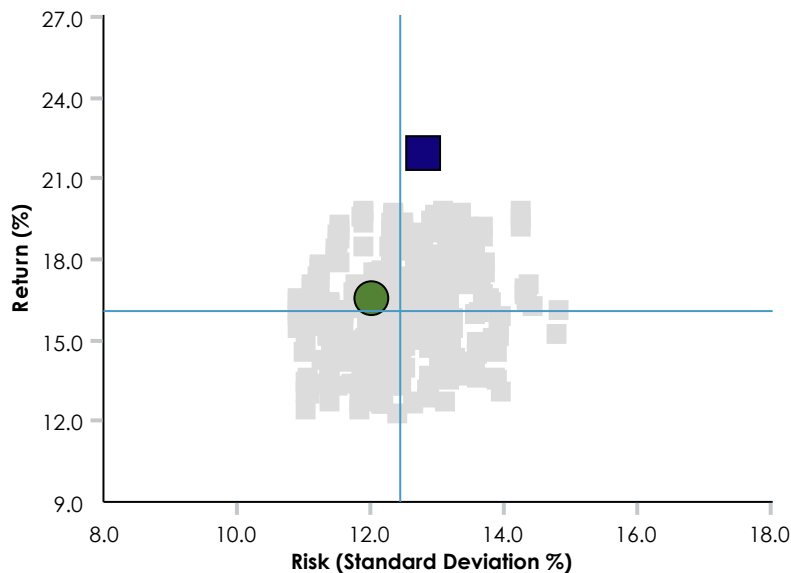
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TRowe Price Large Cap Growth I	21.9	12.8	1.5	4.7	1.0	0.9	4.3	1.1	113.6	86.3
Russell 1000 Growth Index	16.5	12.0	1.2	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Large Cap Growth Equity (MF) Median	16.1	12.5	1.2	-0.2	1.0	0.9	3.3	-0.1	98.4	99.3

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TRowe Price Large Cap Growth I	14.7 (83)	14.0 (25)	21.9 (2)	15.2 (4)	16.3 (2)	18.1 (2)
● Russell 1000 Growth Index	16.1 (55)	12.7 (41)	16.5 (42)	13.5 (24)	14.3 (19)	15.7 (23)
Median	16.3	12.0	16.1	12.5	13.3	14.8

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TRowe Price Large Cap Growth I	21.9	12.8
● Russell 1000 Growth Index	16.5	12.0
— Median	16.1	12.5

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	27	113.6
Down Markets	9	86.3
Batting Average		
Up Markets	27	59.3
Down Markets	9	77.8
Overall	36	63.9

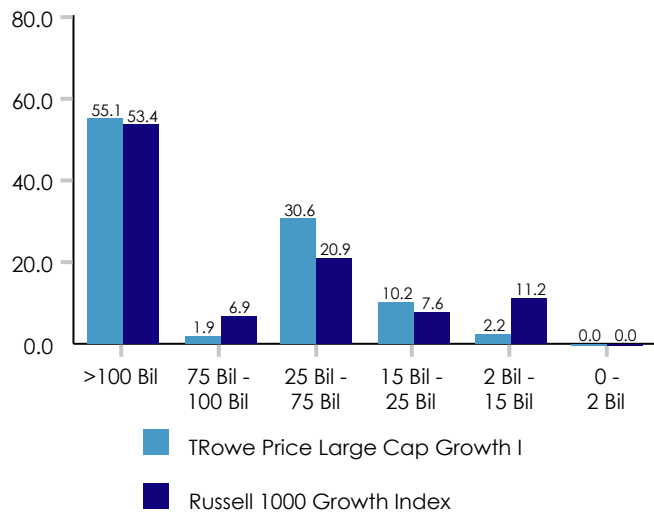
Portfolio Characteristics (As of 3/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	307,888	283,378
Median Mkt. Cap (\$M)	46,395	11,754
Price/Earnings ratio	27.0	23.6
Price/Book ratio	6.2	6.7
5 Yr. EPS Growth Rate (%)	27.1	23.8
Current Yield (%)	0.8	1.3
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	62	545

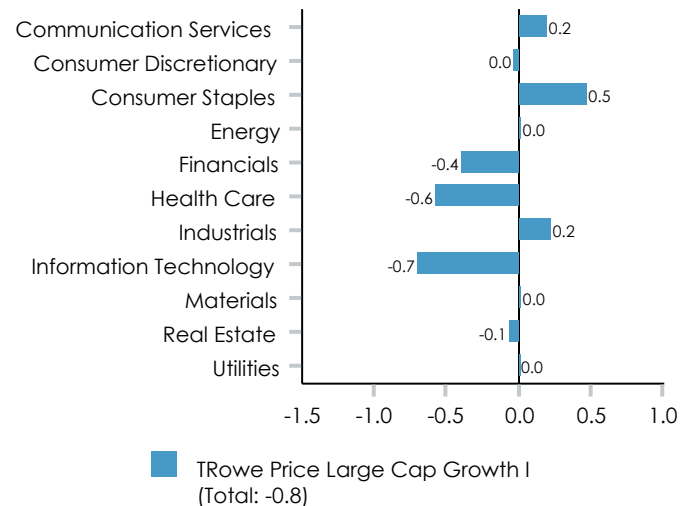
Top 10 Holdings (As of 3/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Amazon.com Inc	8.6	5.5	18.6
Microsoft Corp	6.6	6.3	16.6
Boeing Co	5.4	1.5	18.9
Facebook Inc	5.3	3.0	27.2
Visa Inc	4.9	2.1	18.6
Alphabet Inc	4.8	2.6	12.6
Unitedhealth Group Inc	2.7	1.8	-0.4
Tencent Holdings LTD	2.4	0.0	14.7
Intuitive Surgical Inc	2.4	0.5	19.1
Stryker Corp	2.4	0.5	26.3
% of Portfolio	45.5	23.8	

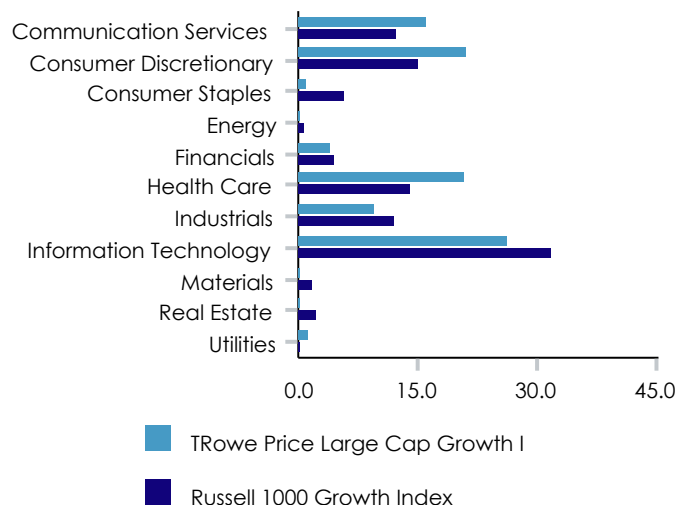
Market Cap Distribution (As of 3/31/2019)



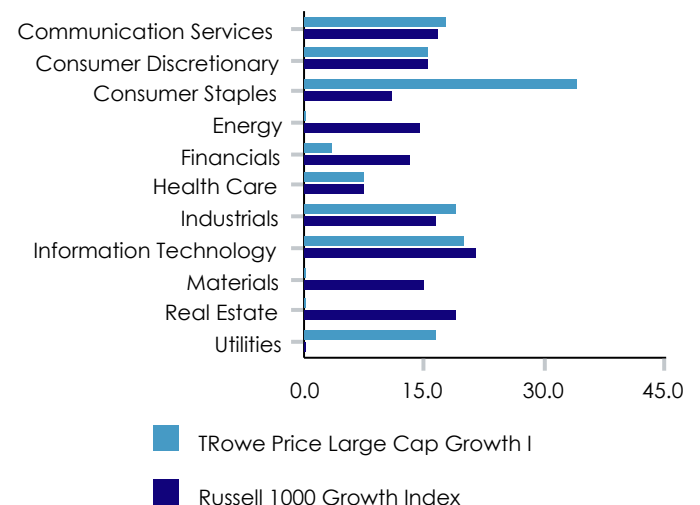
Sector Attribution (1 Quarter as of 3/31/2019)



Sector Allocation (1 Quarter as of 3/31/2019)

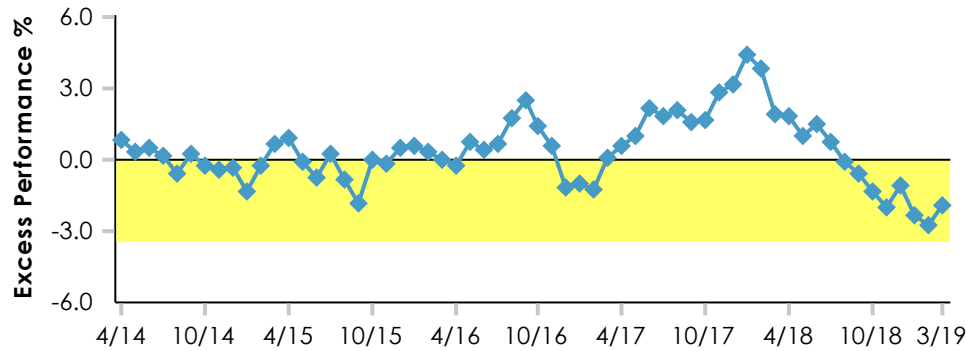


Sector Performance (1 Quarter as of 3/31/2019)



TRowe Price Large Cap Value I vs. Russell 1000 Value Index

Short-term (Rolling 12 Months Excess Performance)

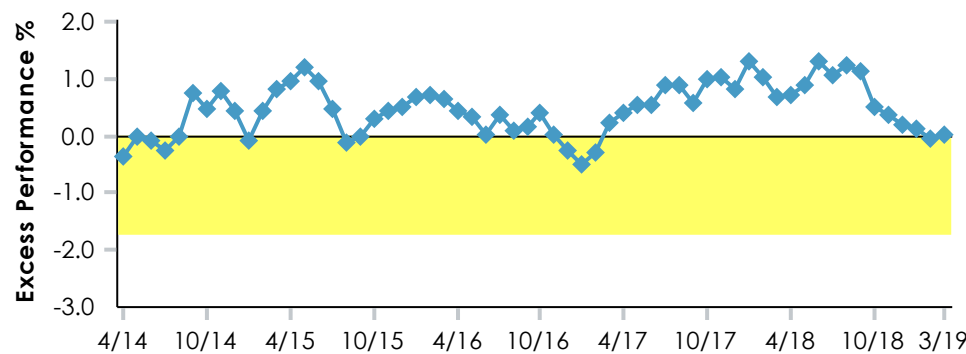


Short-Term Performance

Acceptable

Probationary Performance -3.50%

Medium-term (Rolling 36 Months Excess Performance)

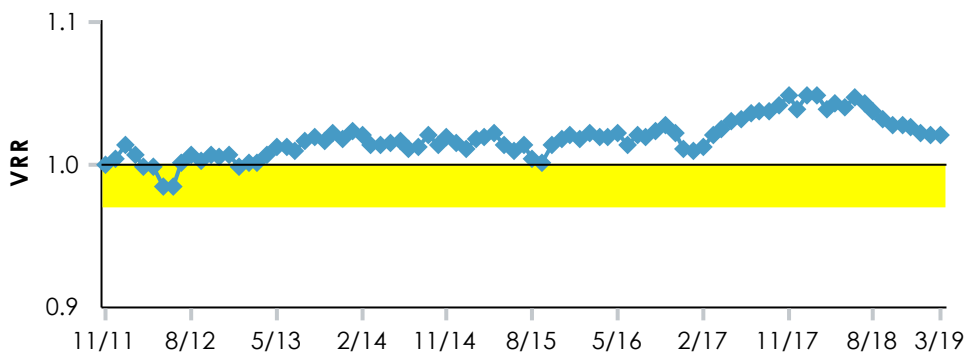


Medium-Term Performance

Positive

Probationary Performance -1.75%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TRowe Price Large Cap Value I	11.3 (57)	3.8 (58)	10.5 (45)	7.9 (26)	12.8 (14)
Russell 1000 Value Index	11.9 (40)	5.7 (33)	10.5 (47)	7.7 (32)	12.5 (20)
IM U.S. Large Cap Value Equity (MF) Median	11.6	4.2	10.3	7.1	11.6

Monitoring Status

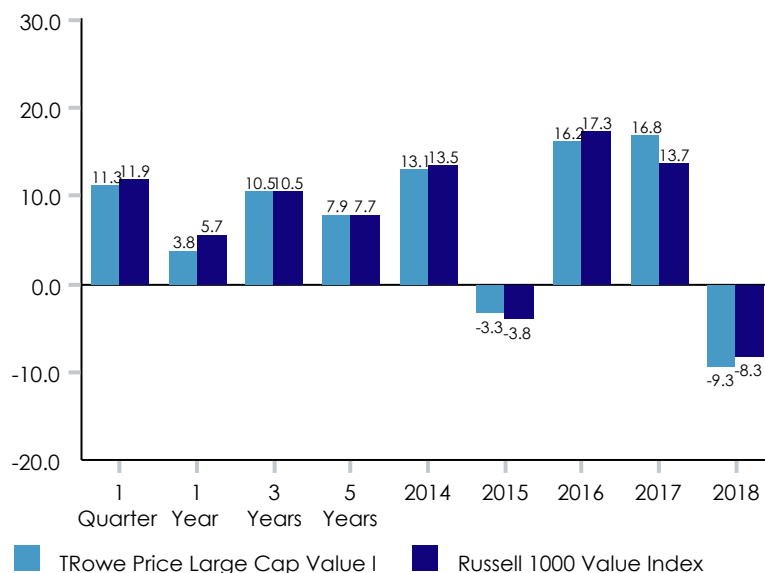
Acceptable



Mutual Fund Info

Product Name : T Rowe Price I LgCp Val (TILCX)
 Fund Family : T Rowe Price Associates Inc
 Ticker : TILCX
 Peer Group : IM U.S. Large Cap Value Equity (MF)
 Benchmark : Russell 1000 Value Index
 Fund Inception : 03/31/2000
 Portfolio Manager : Team Managed
 Total Assets : \$3,333 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.6%
 Net Expense : 0.6%
 Turnover : 28%

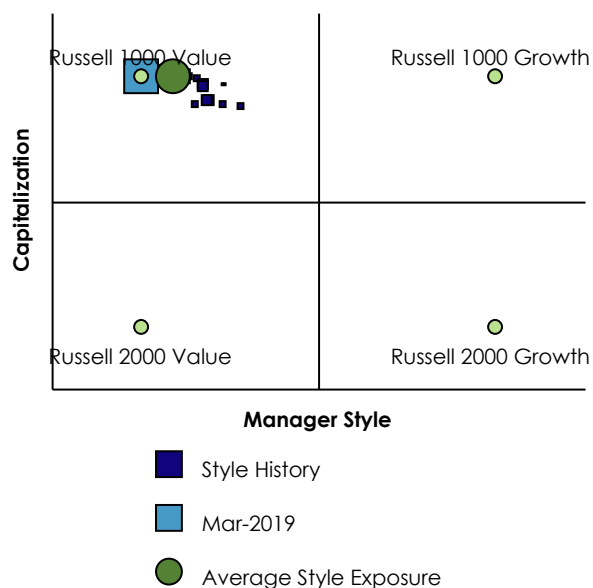
Comparative Performance



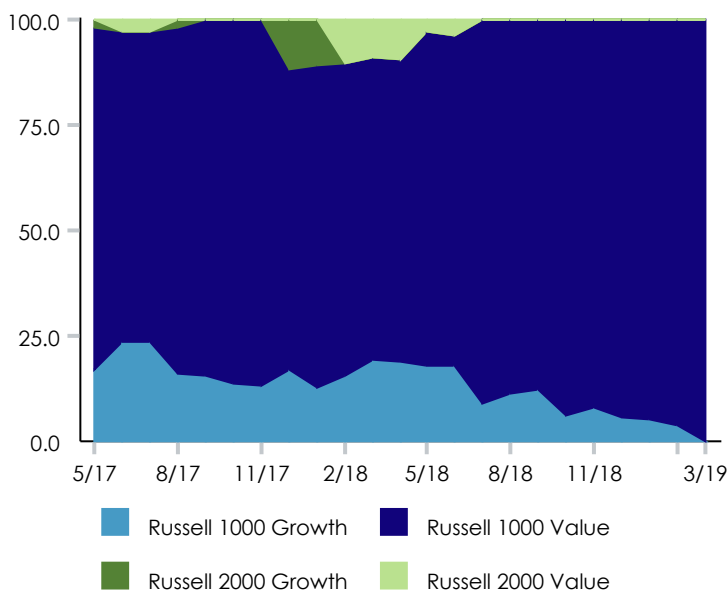
Fund Investment Policy

The Fund seeks to provide long-term capital appreciation and secondarily income. 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.

Style Map (3 Years)



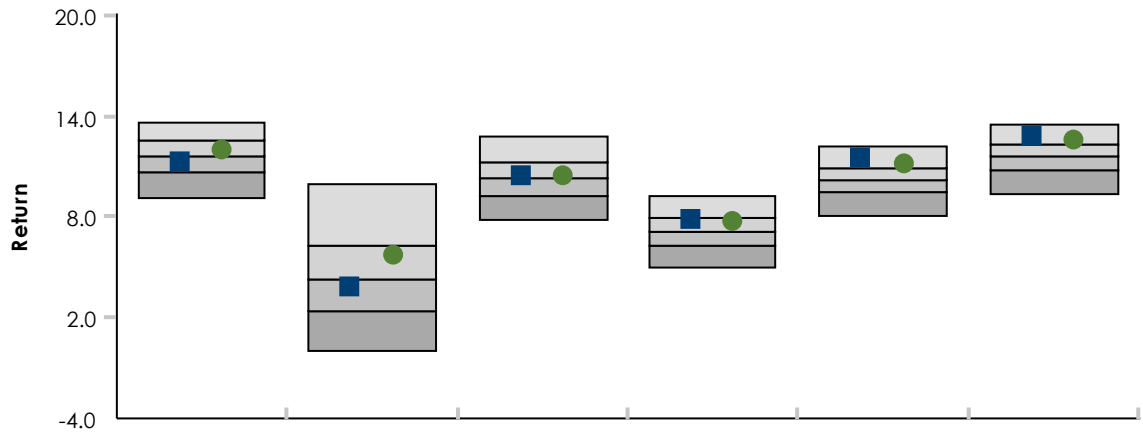
Style History (3 Years)



Historical Statistics (3 Years)

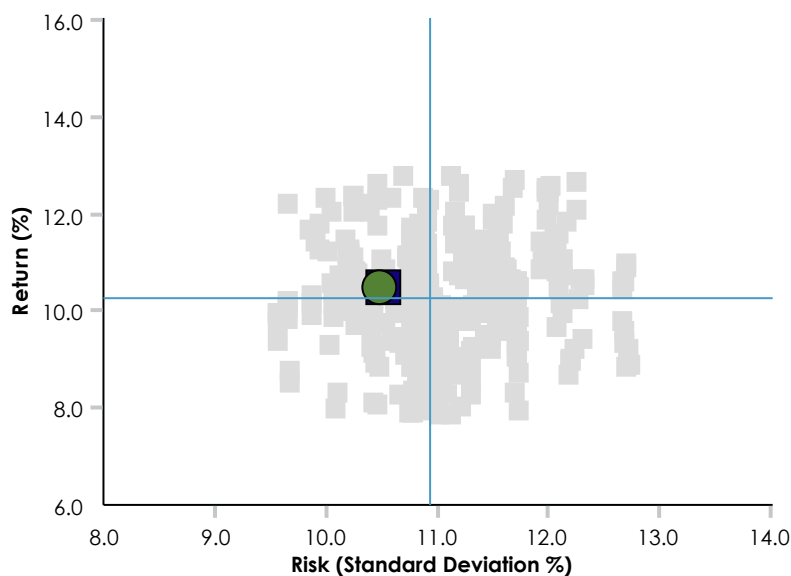
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TRowe Price Large Cap Value I	10.5	10.5	0.9	0.1	1.0	1.0	1.8	0.0	97.5	94.0
Russell 1000 Value Index	10.5	10.5	0.9	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Large Cap Value Equity (MF) Median	10.3	10.9	0.8	-0.4	1.0	0.9	2.8	0.0	99.7	100.4

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TRowe Price Large Cap Value I	11.3 (57)	3.8 (58)	10.5 (45)	7.9 (26)	11.5 (12)	12.8 (14)
● Russell 1000 Value Index	11.9 (40)	5.7 (33)	10.5 (47)	7.7 (32)	11.1 (18)	12.5 (20)
Median	11.6	4.2	10.3	7.1	10.2	11.6

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TRowe Price Large Cap Value I	10.5	10.5
● Russell 1000 Value Index	10.5	10.5
— Median	10.3	10.9

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	26	97.5
Down Markets	10	94.0
Batting Average		
Up Markets	26	42.3
Down Markets	10	60.0
Overall	36	47.2

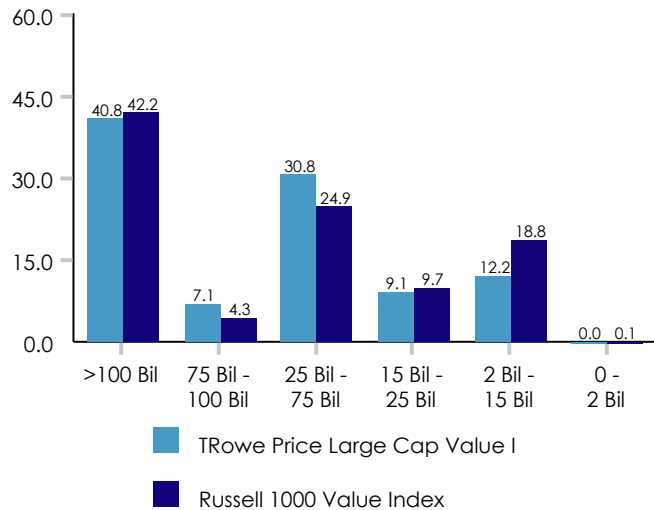
Portfolio Characteristics (As of 3/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	141,515	126,580
Median Mkt. Cap (\$M)	47,430	9,111
Price/Earnings ratio	16.1	17.2
Price/Book ratio	2.3	2.2
5 Yr. EPS Growth Rate (%)	5.9	6.1
Current Yield (%)	3.0	2.6
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	79	722

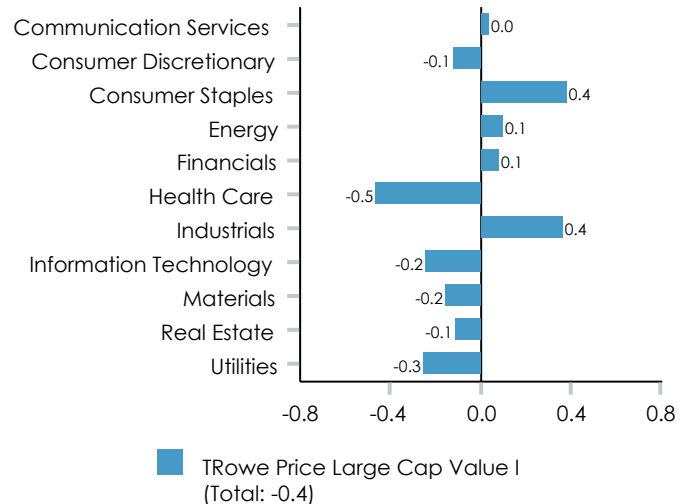
Top 10 Holdings (As of 3/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Microsoft Corp	3.6	0.4	16.6
JPMorgan Chase & Co	3.4	2.6	4.6
Wells Fargo & Co	3.4	1.5	5.8
Pfizer Inc	2.7	1.9	-1.9
TOTAL SA	2.7	0.0	8.0
Cisco Systems Inc	2.7	1.9	25.6
Tyson Foods Inc.	2.5	0.2	30.8
Verizon Communications Inc	2.3	1.9	6.3
Exxon Mobil Corp	2.3	2.6	19.8
Medtronic PLC	2.2	0.9	0.7
% of Portfolio	27.8	13.9	

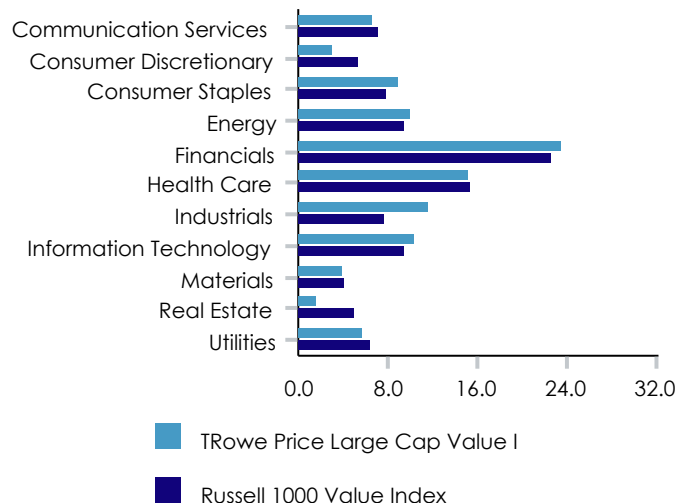
Market Cap Distribution (As of 3/31/2019)



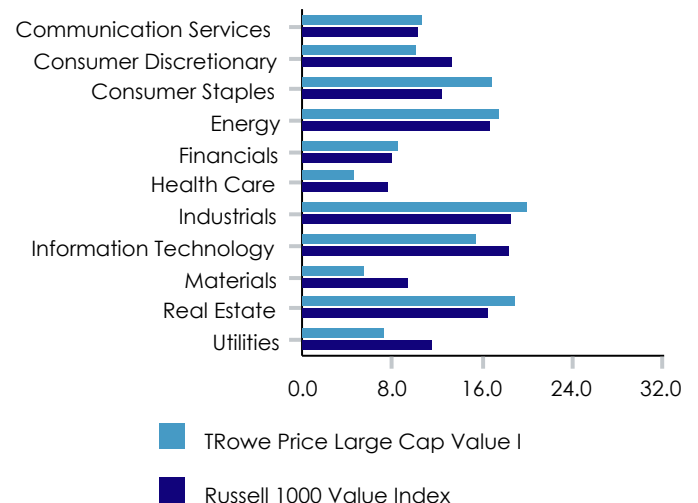
Sector Attribution (1 Quarter as of 3/31/2019)



Sector Allocation (1 Quarter as of 3/31/2019)

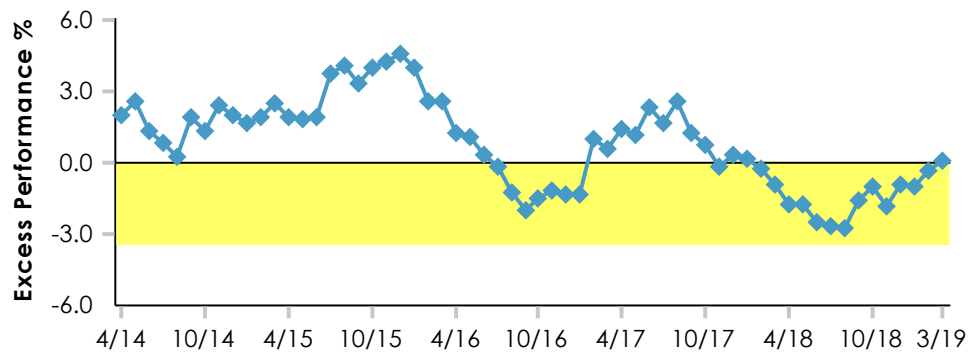


Sector Performance (1 Quarter as of 3/31/2019)



TIAA-CREF Small Cap Equity I vs. Russell 2000 Index

Short-term (Rolling 12 Months Excess Performance)

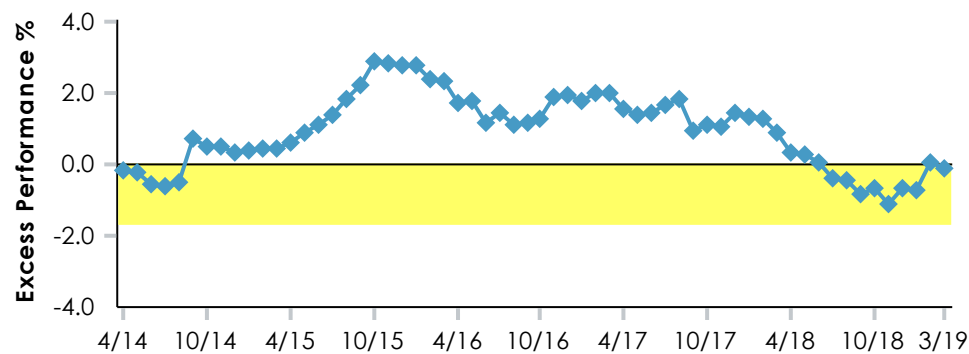


Short-Term Performance

Positive

Probationary Performance -3.50%

Medium-term (Rolling 36 Months Excess Performance)

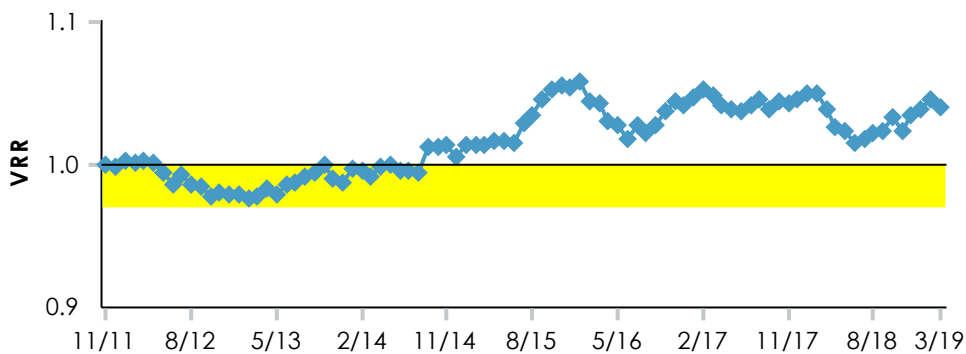


Medium-Term Performance

Positive

Probationary Performance -1.75%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Small Cap Equity I	15.2 (23)	2.2 (31)	12.8 (15)	8.1 (10)	12.7 (12)
Russell 2000 Index	14.6 (34)	2.0 (33)	12.9 (13)	7.1 (29)	12.1 (24)
IM U.S. SMID Cap Core Equity (MF) Median	14.0	0.4	10.0	6.0	11.1

Monitoring Status

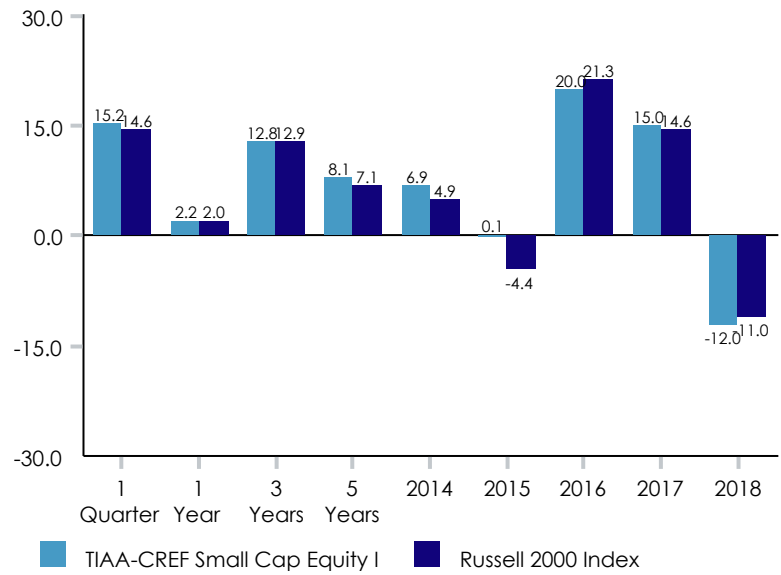
Positive



Mutual Fund Info

Product Name : TIAA-CREF:Qnt SCE;Inst (TISEX)
 Fund Family : TIAA-CREF
 Ticker : TISEX
 Peer Group : IM U.S. SMID Cap Core Equity (MF)
 Benchmark : Russell 2500 Index
 Fund Inception : 10/01/2002
 Portfolio Manager : Cao/Chen/Kozlov
 Total Assets : \$1,659 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.4%
 Net Expense : 0.4%
 Turnover : 87%

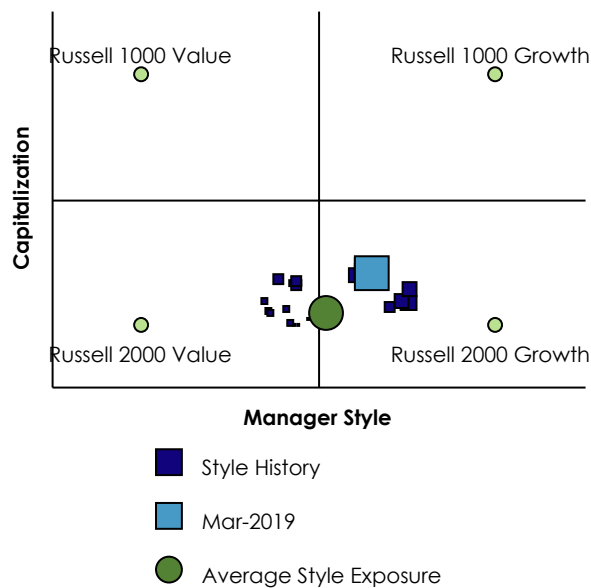
Comparative Performance



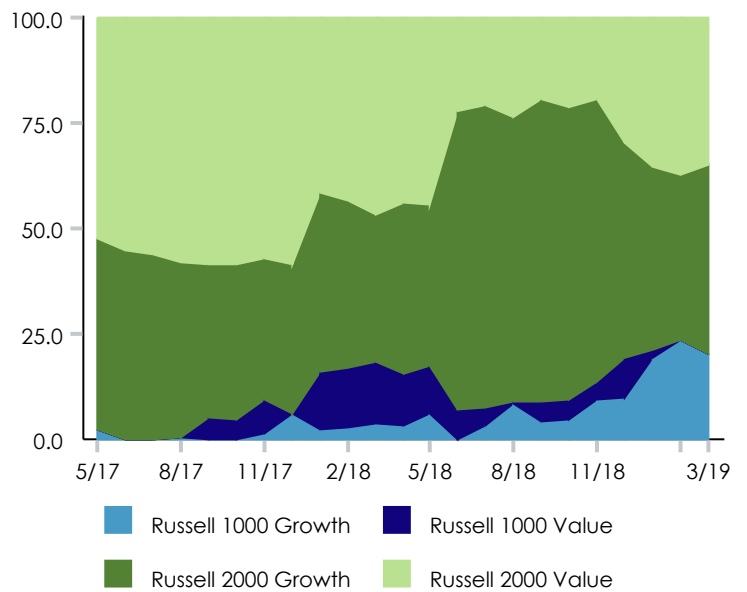
Fund Investment Policy

The Fund seeks a favorable long-term total return, mainly through capital appreciation, primarily from equity securities of smaller domestic companies. The Fund invests at least 80% in equity securities of smaller domestic companies, across a wide range of sectors, growth rates and valuations.

Style Map (3 Years)



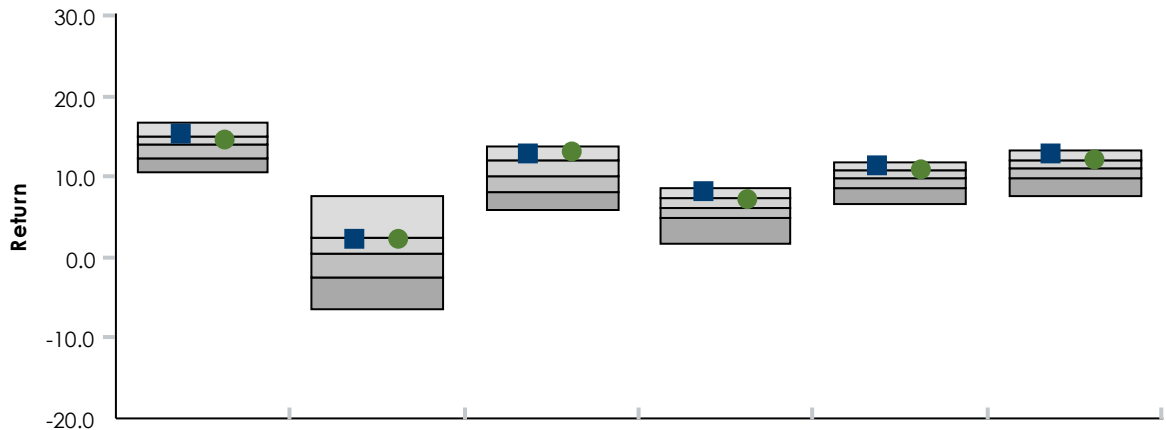
Style History (3 Years)



Historical Statistics (3 Years)

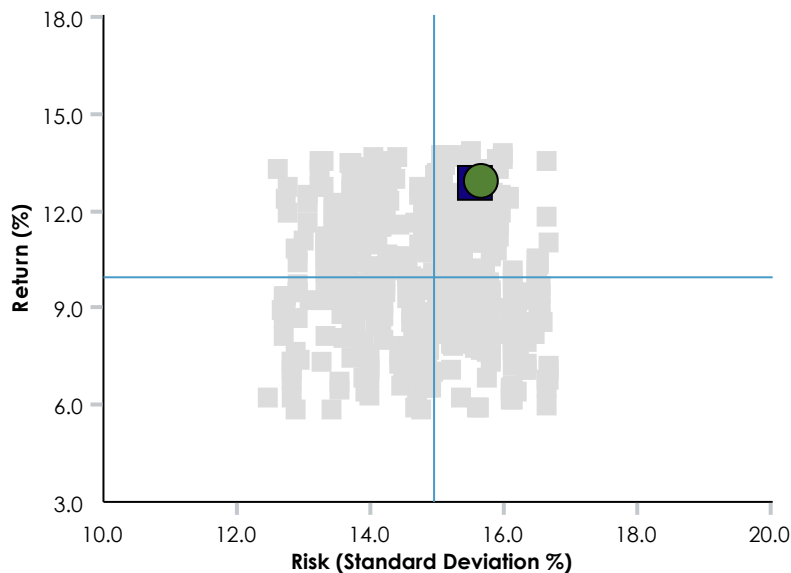
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Small Cap Equity I	12.8	15.6	0.8	0.1	1.0	1.0	2.2	-0.1	97.4	95.7
Russell 2000 Index	12.9	15.7	0.8	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. SMID Cap Core Equity (MF) Median	10.0	15.0	0.6	-1.5	0.9	0.9	4.0	-0.7	86.6	94.3

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Small Cap Equity I	15.2 (23)	2.2 (31)	12.8 (15)	8.1 (10)	11.3 (12)	12.7 (12)
● Russell 2000 Index	14.6 (34)	2.0 (33)	12.9 (13)	7.1 (29)	10.7 (27)	12.1 (24)
Median	14.0	0.4	10.0	6.0	9.7	11.1

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Small Cap Equity I	12.8	15.6
● Russell 2000 Index	12.9	15.7
— Median	10.0	15.0

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	26	97.4
Down Markets	10	95.7
Batting Average		
Up Markets	26	46.2
Down Markets	10	70.0
Overall	36	52.8

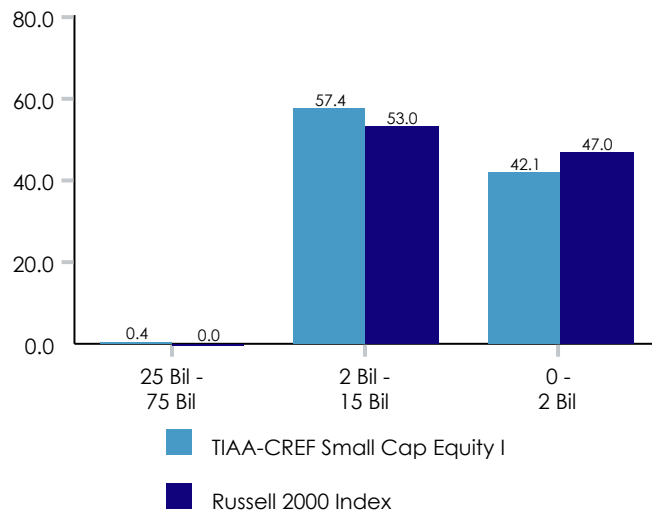
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,867	2,385
Median Mkt. Cap (\$M)	1,788	799
Price/Earnings ratio	17.3	17.8
Price/Book ratio	2.6	2.4
5 Yr. EPS Growth Rate (%)	16.6	11.8
Current Yield (%)	1.2	1.4
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	332	1,999

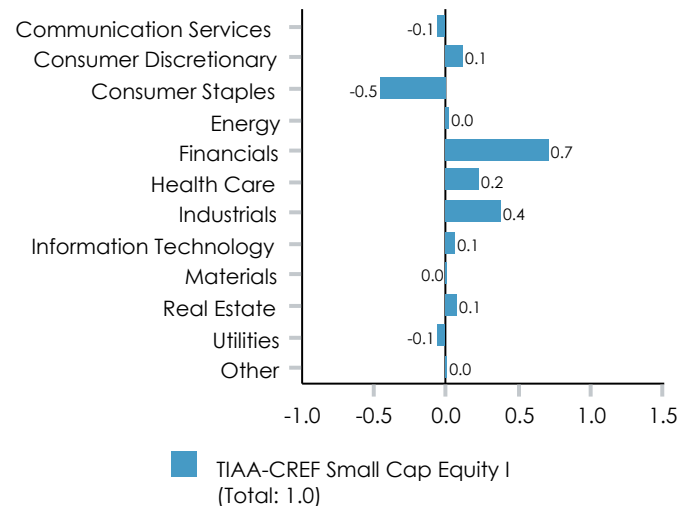
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Inspirety Inc.	1.0	0.2	32.8
Trade Desk Inc (The)	1.0	0.3	70.6
Five Below Inc	0.9	0.3	21.4
EMCOR Group Inc.	0.9	0.2	22.6
Portland Gen. Elec. Co.	0.8	0.2	13.9
Verint Systems Inc	0.8	0.2	41.5
PS Business Parks Inc.	0.7	0.2	20.5
EastGroup Properties Inc.	0.7	0.2	22.5
Ingevity Corp	0.7	0.2	26.2
Comfort Systems USA Inc.	0.7	0.1	20.2
% of Portfolio	8.2	2.1	

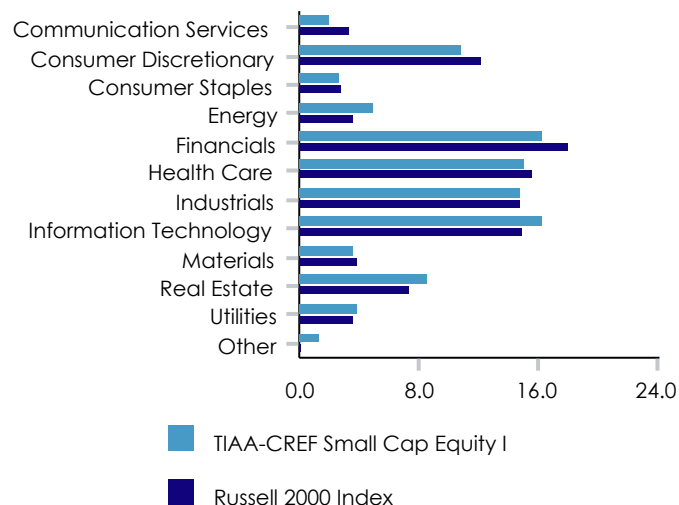
Market Cap Distribution (As of 1/31/2019)



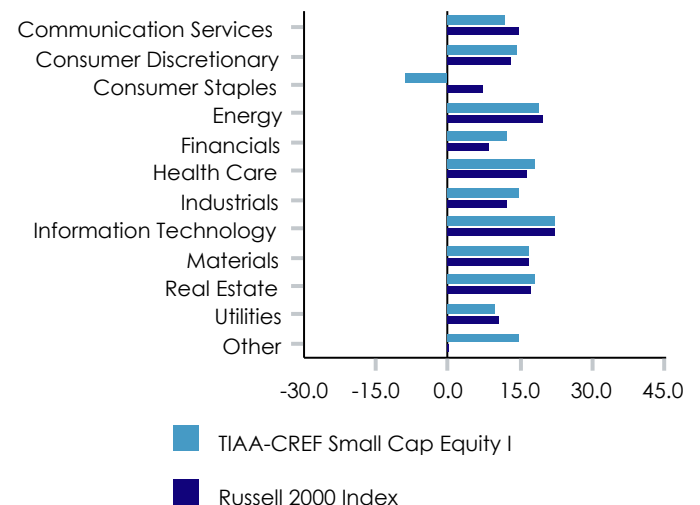
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

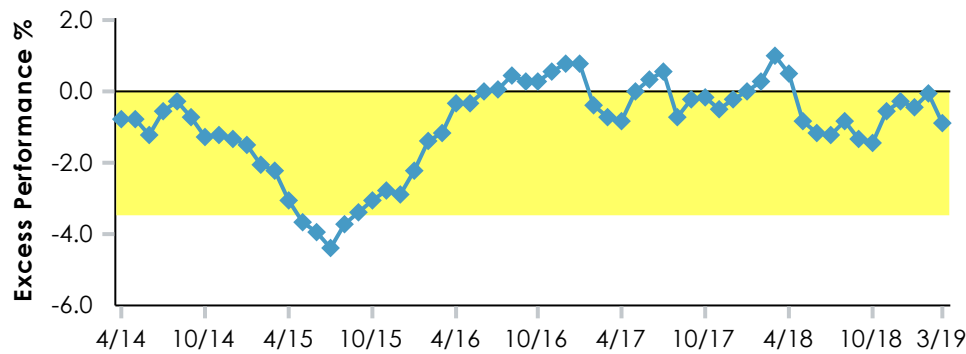


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF Social Choice Equity I vs. Russell 3000 Index

Short-term (Rolling 12 Months Excess Performance)

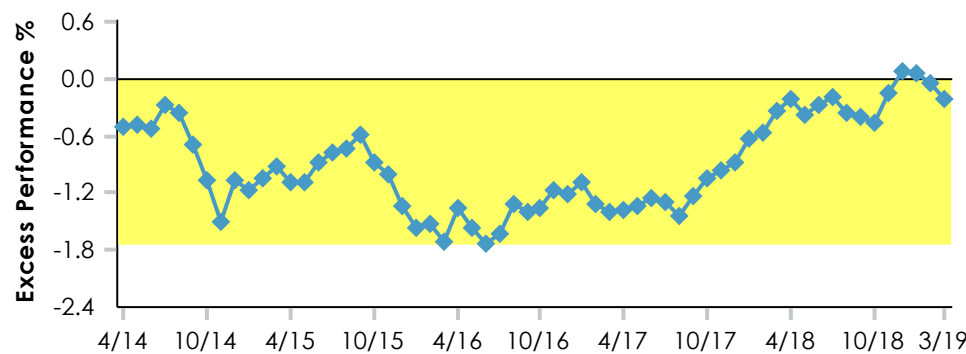


Short-Term Performance

Acceptable

Probationary Performance -3.50%

Medium-term (Rolling 36 Months Excess Performance)

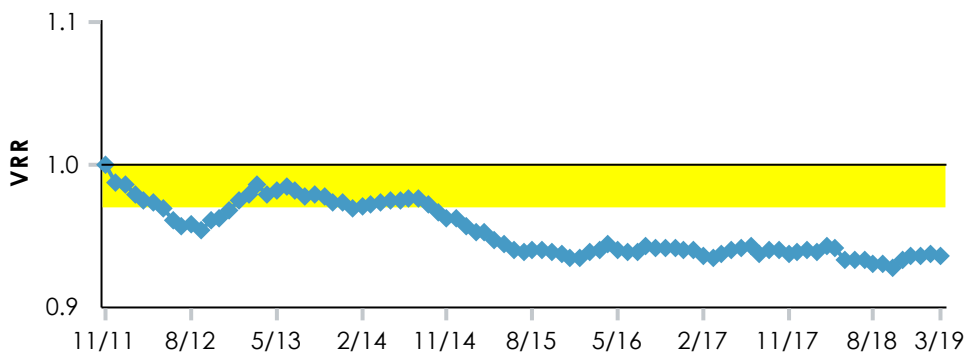


Medium-Term Performance

Positive

Probationary Performance -1.75%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Caution - Long-term Criteria for placing Fund on Watch took effect as of 2Q 2017

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Social Choice Equity I	13.9 (25)	7.9 (48)	13.3 (29)	9.5 (47)	13.0 (50)
Russell 3000 Index	14.0 (23)	8.8 (35)	13.5 (23)	10.4 (25)	14.0 (20)
IM U.S. Large Cap Core Equity (MF) Median	13.1	7.7	12.4	9.4	12.9

Monitoring Status

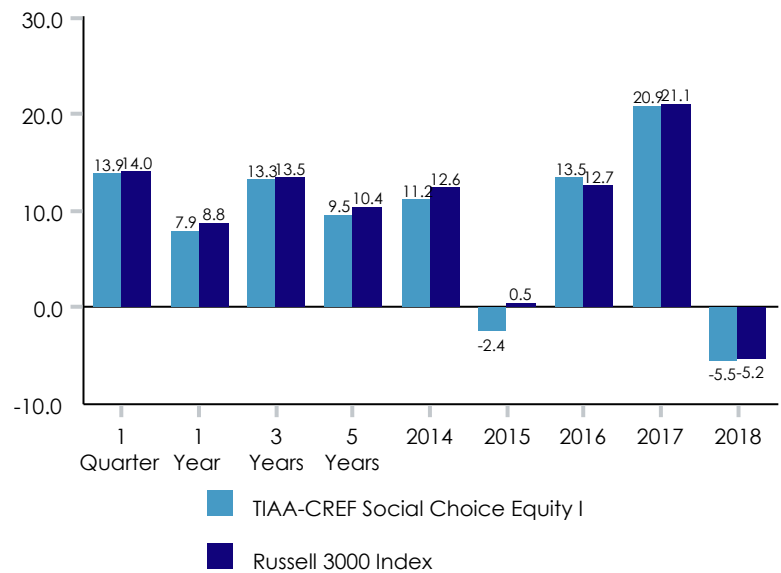
Caution / On Watch



Mutual Fund Info

Product Name : TIAA-CREF:Soc Ch Eq;Inst (TISCX)
 Fund Family : TIAA-CREF
 Ticker : TISCX
 Peer Group : IM U.S. Multi-Cap Core Equity (MF)
 Benchmark : Russell 3000 Index
 Fund Inception : 07/01/1999
 Portfolio Manager : Campagna/Liao
 Total Assets : \$3,173 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.2%
 Net Expense : 0.2%
 Turnover : 29%

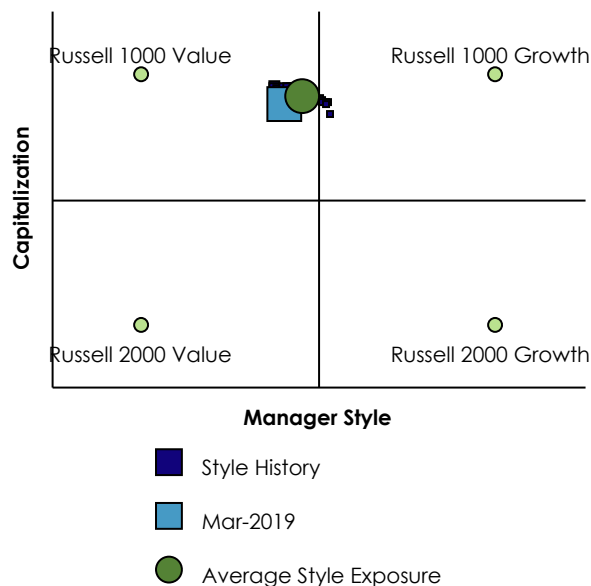
Comparative Performance



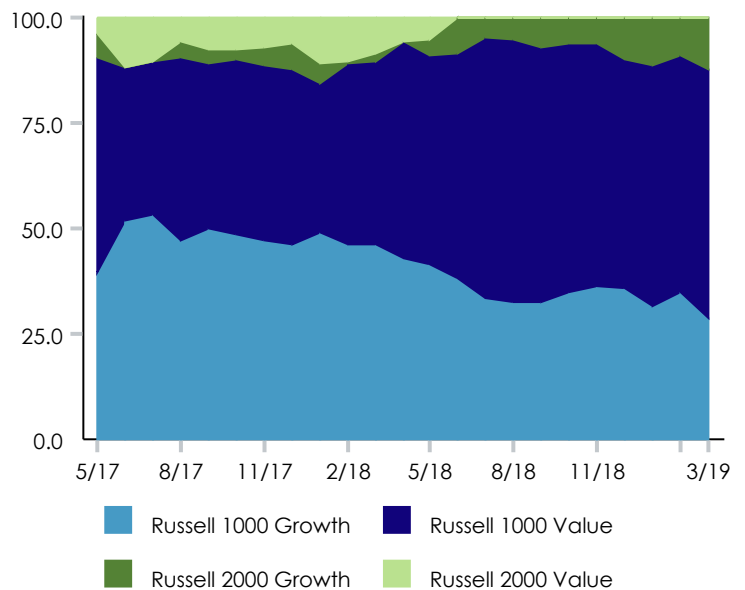
Fund Investment Policy

The Fund seeks a favorable long-term rate of return. The Fund attempts to track the return of the U.S. stock market as represented by its benchmark, the Russell 3000 Index, while investing only in companies whose activities are consistent with the Funds social criteria.

Style Map (3 Years)



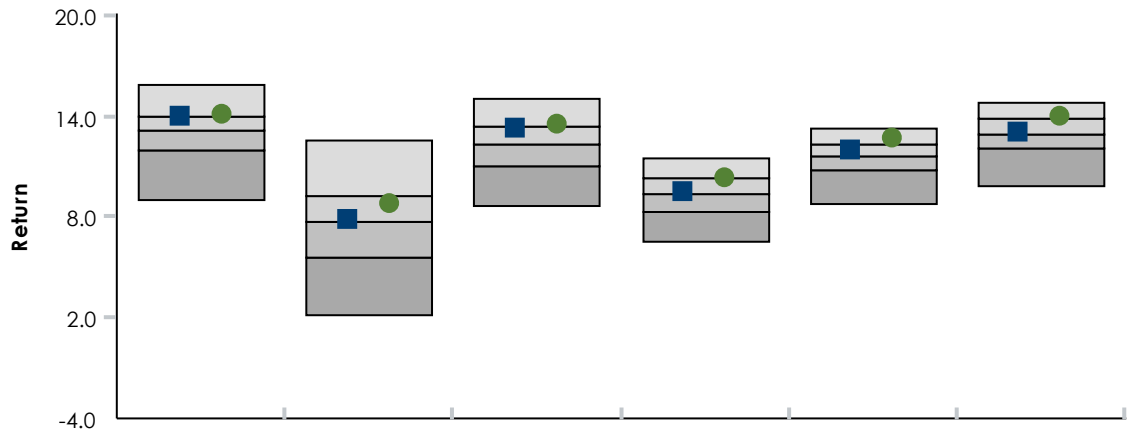
Style History (3 Years)



Historical Statistics (3 Years)

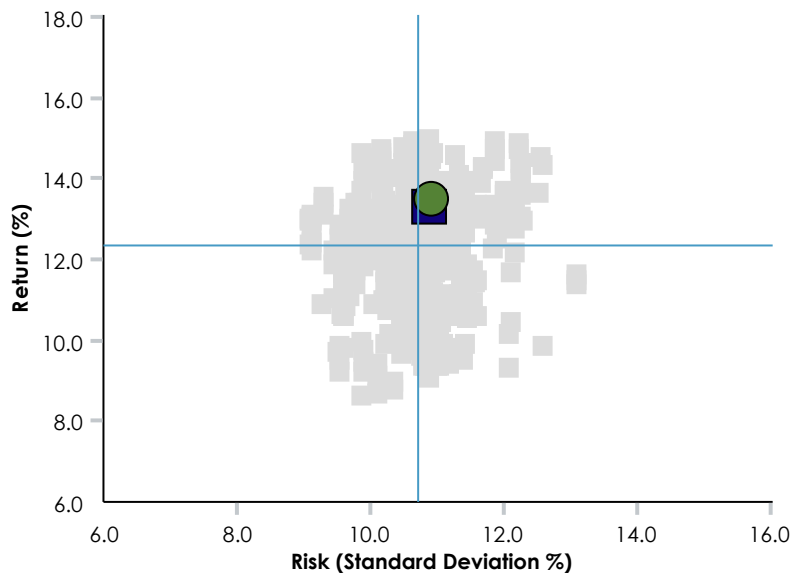
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Social Choice Equity I	13.3	10.9	1.1	-0.1	1.0	1.0	1.1	-0.2	98.7	98.9
Russell 3000 Index	13.5	10.9	1.1	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Large Cap Core Equity (MF) Median	12.4	10.7	1.1	-0.2	1.0	0.9	2.9	-0.4	93.9	97.6

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Social Choice Equity I	13.9 (25)	7.9 (48)	13.3 (29)	9.5 (47)	12.0 (40)	13.0 (50)
● Russell 3000 Index	14.0 (23)	8.8 (35)	13.5 (23)	10.4 (25)	12.6 (18)	14.0 (20)
Median	13.1	7.7	12.4	9.4	11.6	12.9

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Social Choice Equity I	13.3	10.9
● Russell 3000 Index	13.5	10.9
— Median	12.4	10.7

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	31	98.7
Down Markets	5	98.9
Batting Average		
Up Markets	31	41.9
Down Markets	5	40.0
Overall	36	41.7

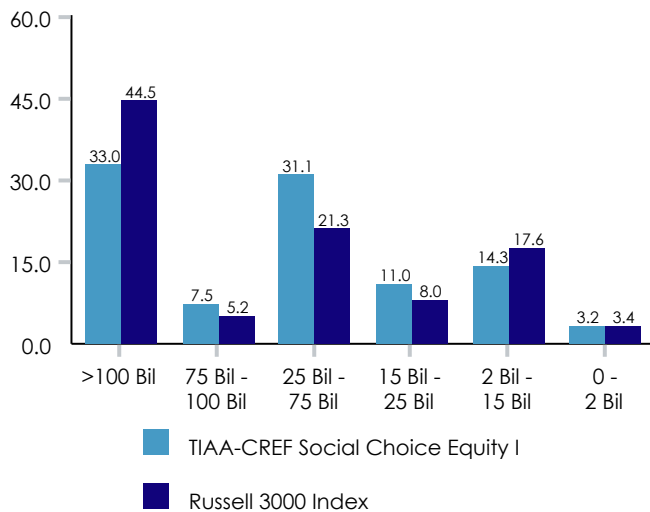
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	150,992	191,476
Median Mkt. Cap (\$M)	4,321	1,646
Price/Earnings ratio	19.9	19.8
Price/Book ratio	3.5	3.3
5 Yr. EPS Growth Rate (%)	14.0	15.0
Current Yield (%)	1.9	1.9
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	741	2,977

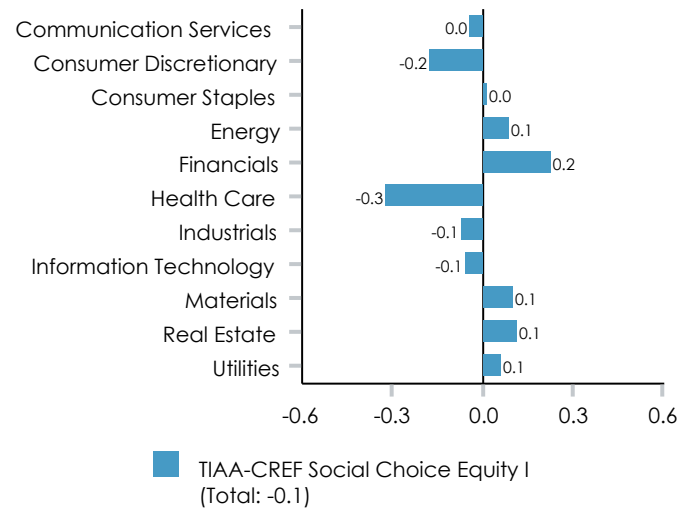
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Microsoft Corp	3.5	3.2	16.6
Apple Inc	3.3	3.2	20.9
Alphabet Inc	1.5	1.3	13.3
Alphabet Inc	1.5	1.2	12.6
Procter & Gamble Co (The)	1.4	0.9	14.1
Cisco Systems Inc	1.4	0.9	25.6
Bank of America Corp	1.3	0.9	12.5
Merck & Co Inc.	1.3	0.8	9.6
Home Depot Inc. (The)	1.2	0.8	12.5
Unitedhealth Group Inc	1.2	0.8	-0.4
% of Portfolio	17.6	14.0	

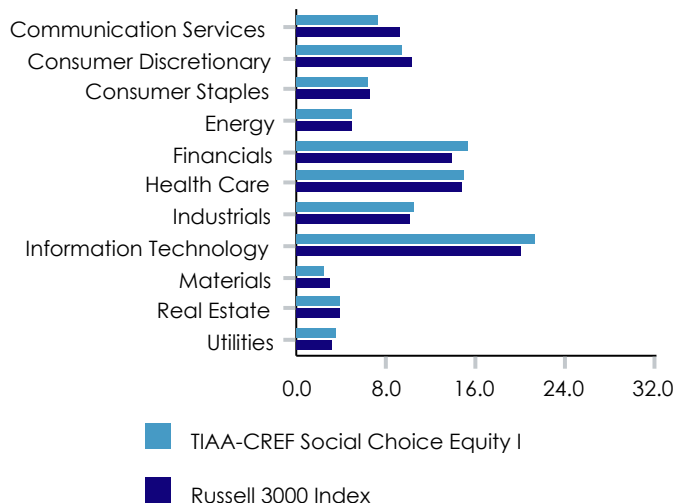
Market Cap Distribution (As of 1/31/2019)



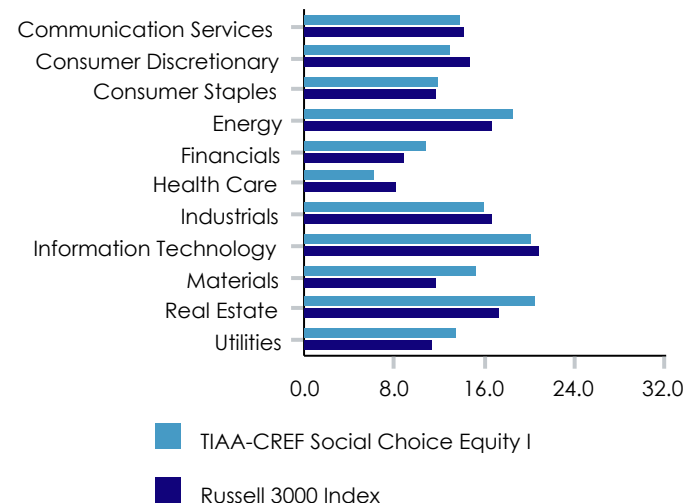
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

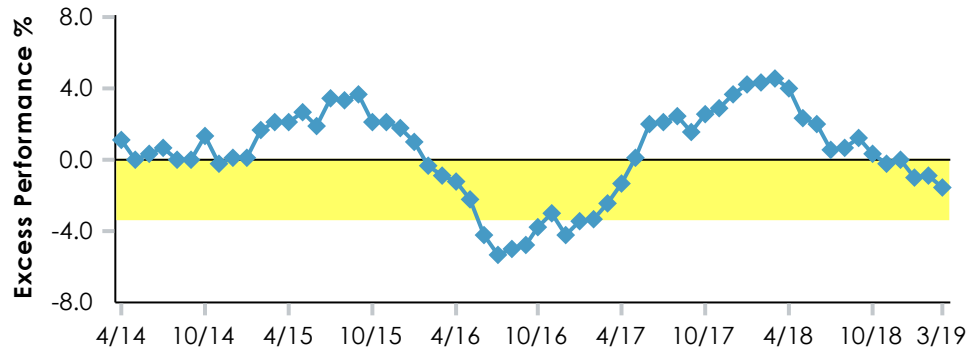


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF Real Estate Securities I vs. FTSE NAREIT All Equity REITs

Short-term (Rolling 12 Months Excess Performance)

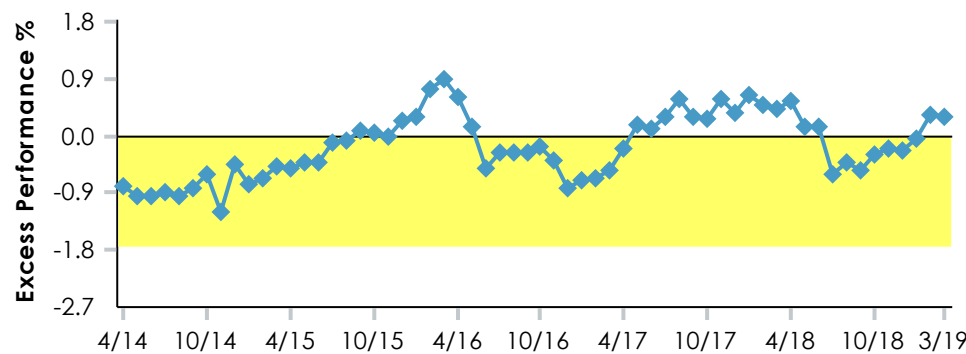


Short-Term Performance

Acceptable

Probationary Performance -3.50%

Medium-term (Rolling 36 Months Excess Performance)

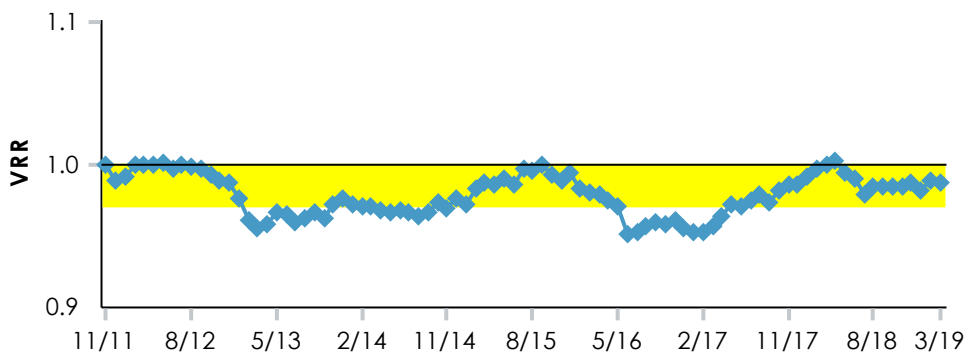


Medium-Term Performance

Positive

Probationary Performance -1.75%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Acceptable - Long-term Criteria for placing Fund on Watch took effect as of 2Q 2017

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Real Estate Securities I	17.3 (15)	18.9 (24)	8.1 (4)	10.4 (5)	11.5 (6)
FTSE NAREIT All Equity REITs	17.2 (24)	20.5 (7)	7.8 (9)	10.0 (9)	11.7 (4)
IM Real Estate Sector (MF) Median	16.4	17.3	5.3	8.2	10.0

Monitoring Status

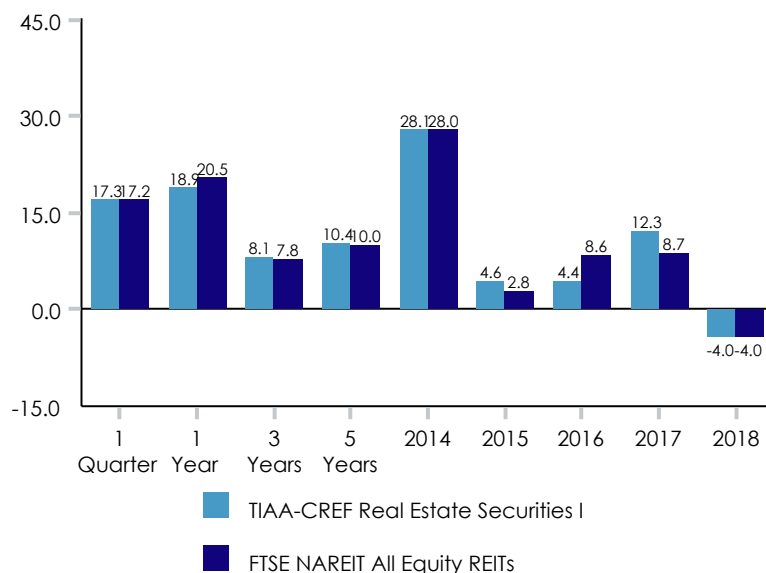
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:Real Est;Inst (TIREX)
 Fund Family : TIAA-CREF
 Ticker : TIREX
 Peer Group : IM Real Estate Sector (MF)
 Benchmark : Wilshire U.S. REIT Index
 Fund Inception : 10/01/2002
 Portfolio Manager : Copp/Lee
 Total Assets : \$1,579 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.5%
 Net Expense : 0.5%
 Turnover : 30%

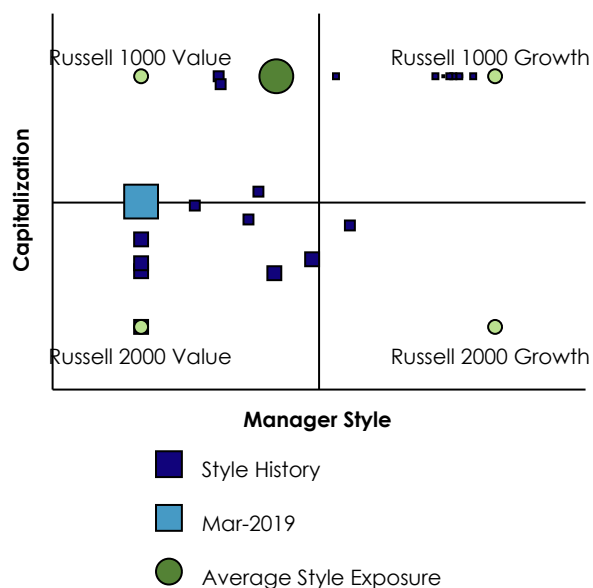
Comparative Performance



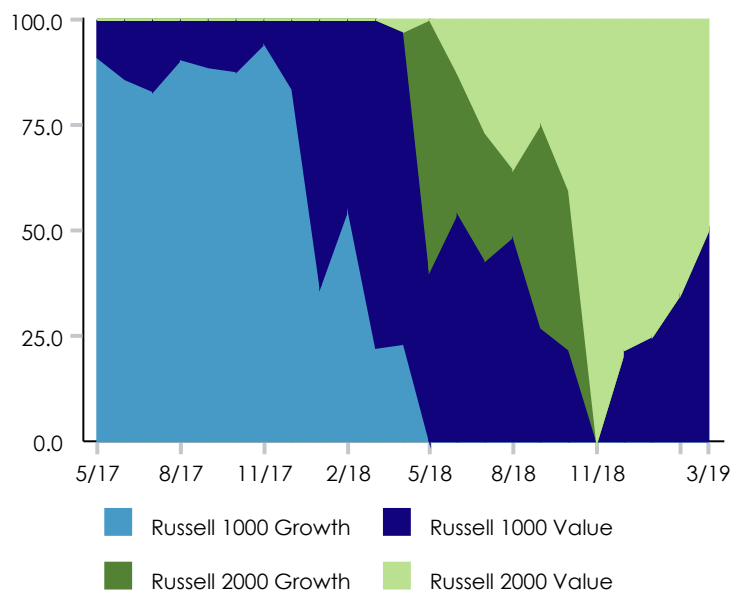
Fund Investment Policy

The Fund seeks to obtain a favorable long-term total return through both capital appreciation and current income, by investing primarily in equity and fixed-income securities of companies principally engaged in or related to the real estate industry.

Style Map (3 Years)



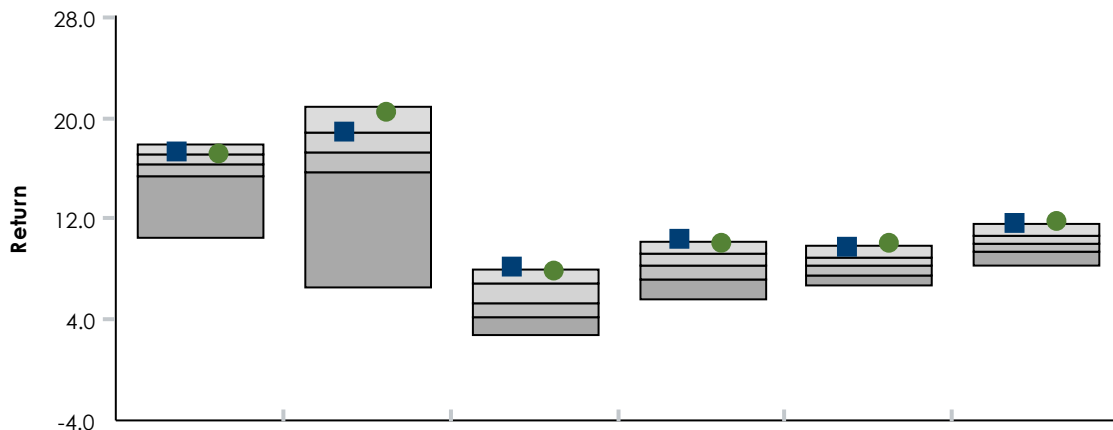
Style History (3 Years)



Historical Statistics (3 Years)

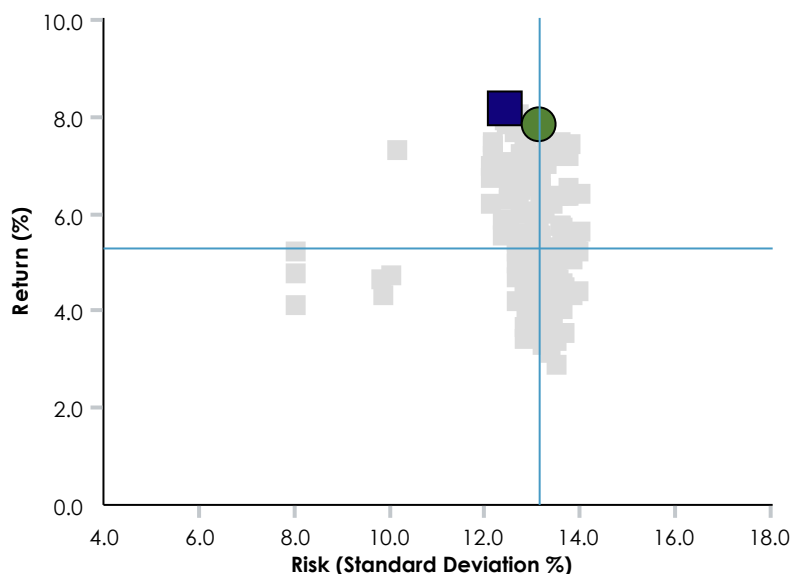
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Real Estate Securities I	8.1	12.4	0.6	0.7	0.9	1.0	2.0	0.1	97.1	93.8
FTSE NAREIT All Equity REITs	7.8	13.1	0.6	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM Real Estate Sector (MF) Median	5.3	13.1	0.4	-2.1	1.0	1.0	2.1	-1.0	92.4	104.8

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Real Estate Securities I	17.3 (15)	18.9 (24)	8.1 (4)	10.4 (5)	9.8 (6)	11.5 (6)
● FTSE NAREIT All Equity REITs	17.2 (24)	20.5 (7)	7.8 (9)	10.0 (9)	10.0 (4)	11.7 (4)
Median	16.4	17.3	5.3	8.2	8.2	10.0

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Real Estate Securities I	8.1	12.4
● FTSE NAREIT All Equity REITs	7.8	13.1
— Median	5.3	13.1

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	22	97.1
Down Markets	14	93.8
Batting Average		
Up Markets	22	45.5
Down Markets	14	71.4
Overall	36	55.6

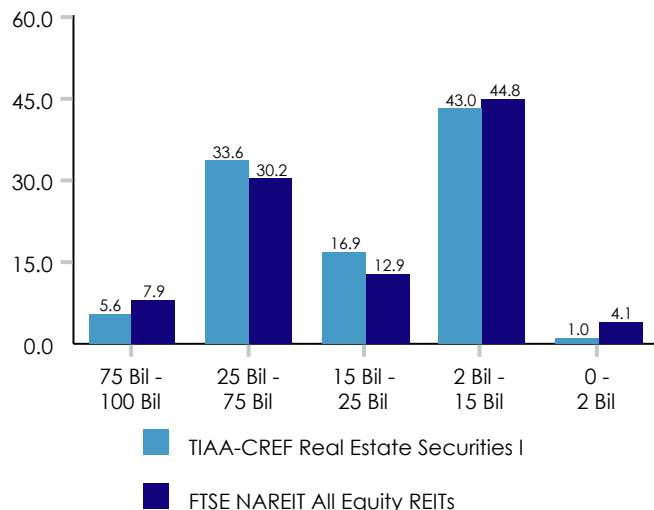
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	25,623	25,789
Median Mkt. Cap (\$M)	10,070	3,012
Price/Earnings ratio	36.4	32.9
Price/Book ratio	2.8	2.7
5 Yr. EPS Growth Rate (%)	22.9	22.2
Current Yield (%)	3.1	3.8
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	53	169

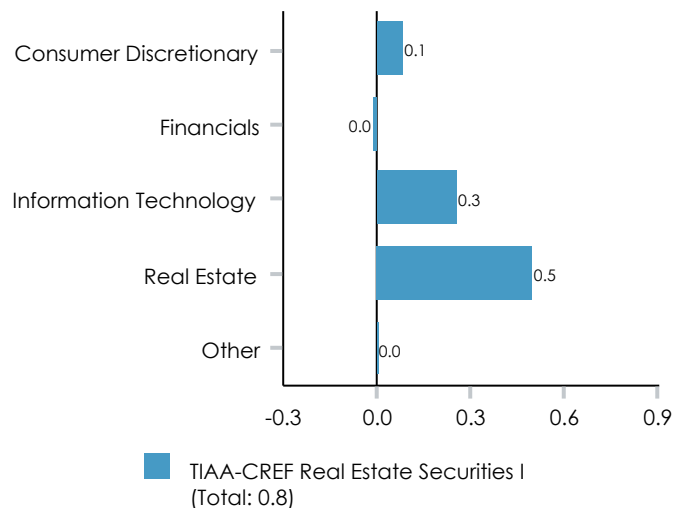
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Simon Property Group Inc.	6.5	5.1	9.7
American Tower Corp	5.6	7.9	24.6
Prologis Inc	5.0	4.1	23.4
AvalonBay Communities Inc.	4.5	2.5	16.2
Boston Properties Inc	4.2	1.9	19.8
Crown Castle International Corp	4.1	4.8	18.9
Rexford Industrial Realty Inc	3.7	0.3	22.1
Essex Property Trust Inc.	3.6	1.7	18.7
Equinix Inc	3.5	3.4	29.3
Sun Communities Inc.	3.4	0.9	17.3
% of Portfolio	44.1	32.6	

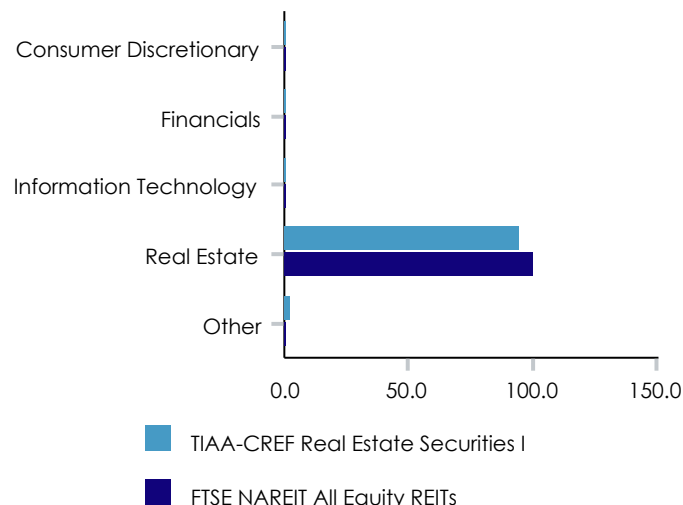
Market Cap Distribution (As of 1/31/2019)



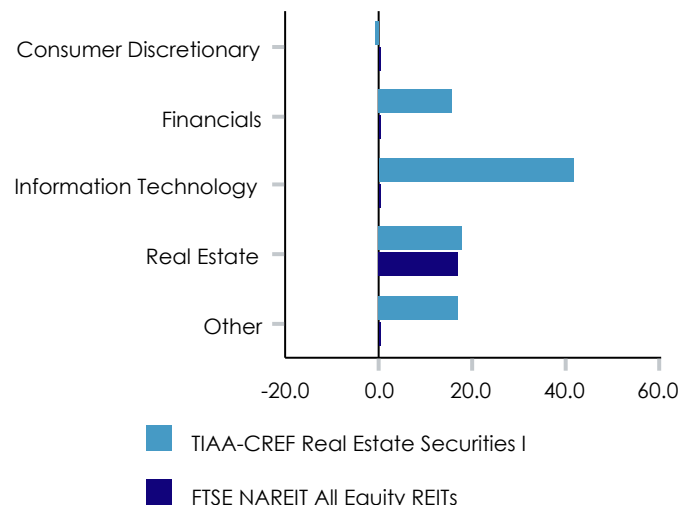
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

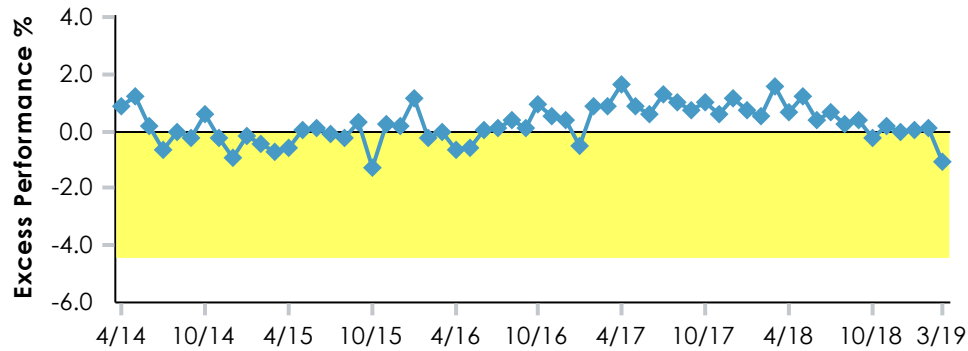


Sector Performance (1 Quarter as of 1/31/2019)



DFA Large Cap International I vs. MSCI World ex-U.S. (net)

Short-term (Rolling 12 Months Excess Performance)

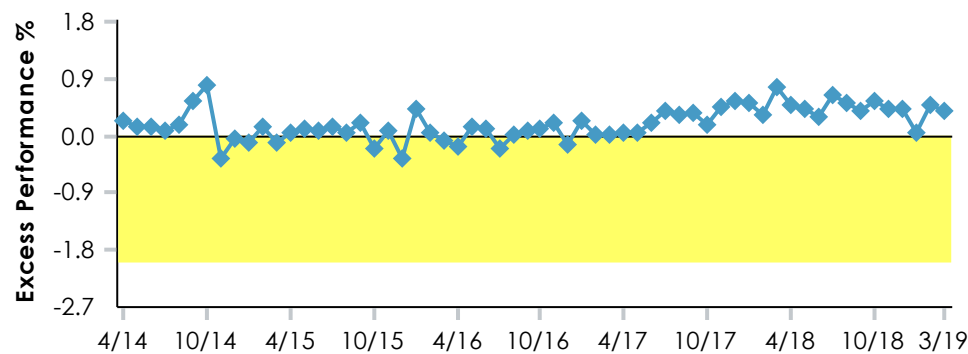


Short-Term Performance

Positive

Probationary Performance -4.50%

Medium-term (Rolling 36 Months Excess Performance)

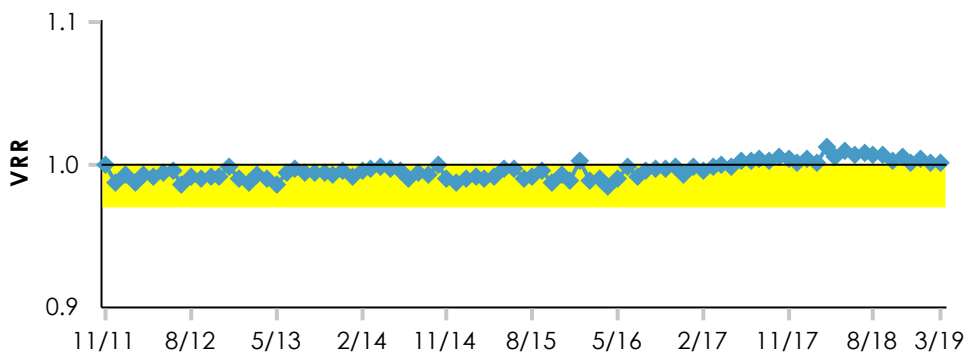


Medium-Term Performance

Positive

Probationary Performance -2.00%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
DFA Large Cap International I	10.5 (26)	-4.2 (26)	7.7 (19)	2.3 (45)	6.3 (41)
MSCI World ex-U.S. (net)	10.4 (27)	-3.1 (15)	7.3 (31)	2.2 (49)	6.3 (42)
IM International Multi-Cap Core Equity (MF) Median	10.0	-5.6	6.6	2.1	6.1

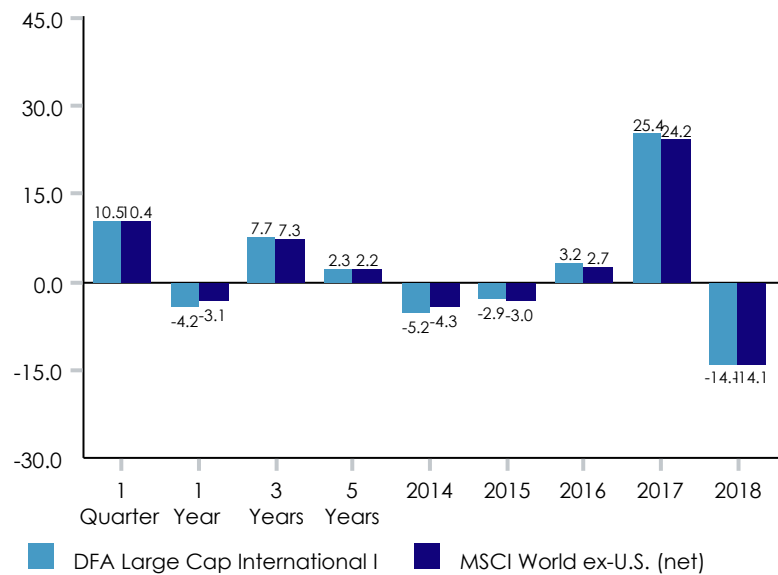
Monitoring Status

Positive

Mutual Fund Info

Product Name : DFA Large Cap Intl;I (DFALX)
 Fund Family : Dimensional Fund Advisors LP
 Ticker : DFALX
 Peer Group : IM International Multi-Cap Core Equity (MF)
 Benchmark : MSCI EAFE IMI
 Fund Inception : 07/15/1991
 Portfolio Manager : Fogdall/Phillips/Singh
 Total Assets : \$5,062 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.2%
 Net Expense : 0.2%
 Turnover : 8%

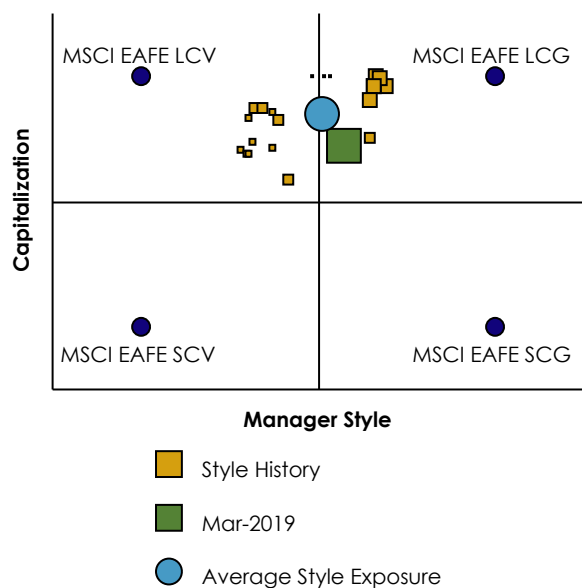
Comparative Performance



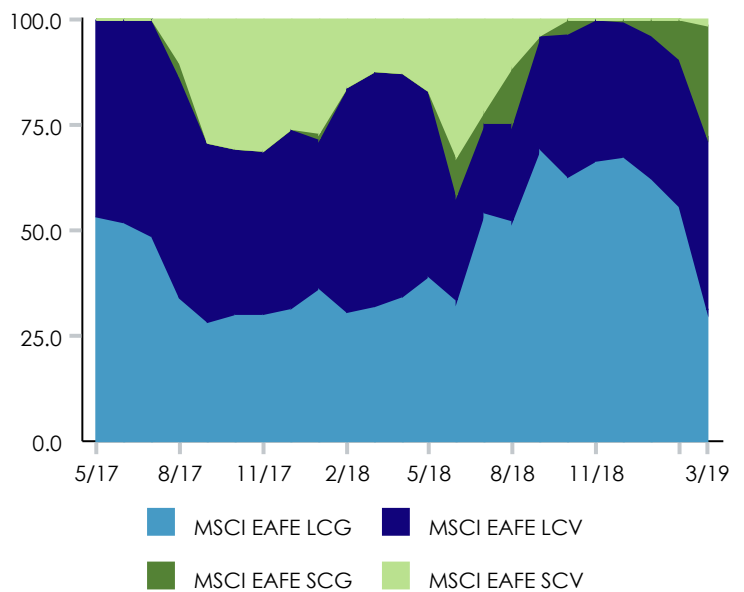
Fund Investment Policy

The Fund seeks to achieve long-term capital appreciation by investing in the stocks of large companies in Europe, Australia, and the Far East.

Style Map (3 Years)



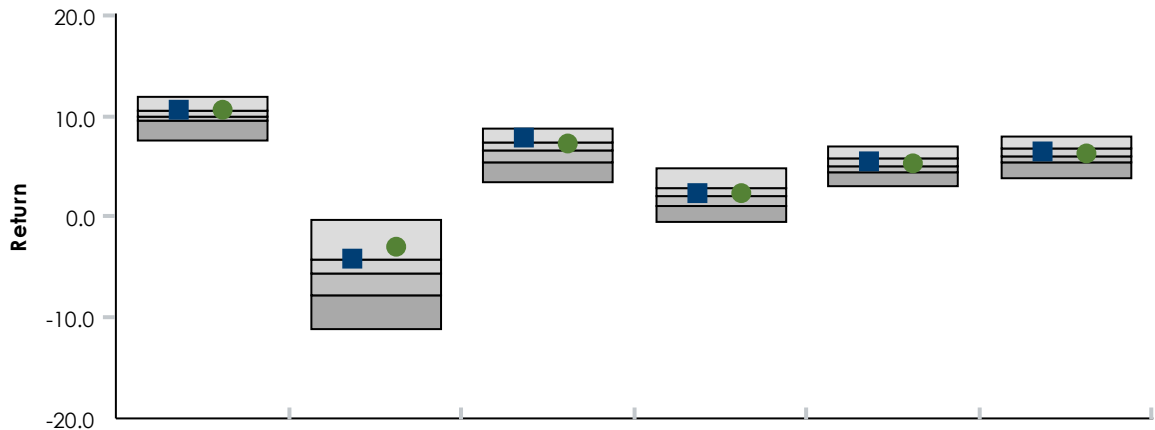
Style History (3 Years)



Historical Statistics (3 Years)

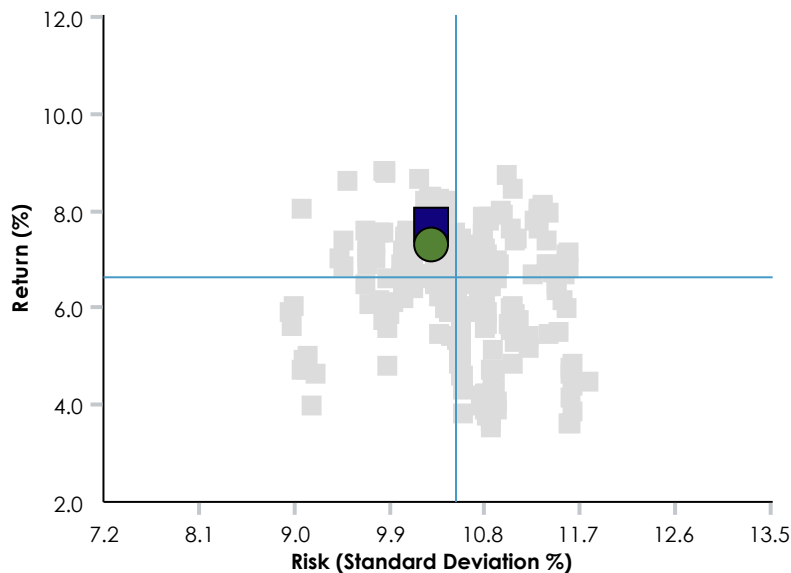
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
DFA Large Cap International I	7.7	10.3	0.7	0.4	1.0	1.0	1.4	0.3	98.6	94.1
MSCI World ex-U.S. (net)	7.3	10.3	0.6	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM International Multi-Cap Core Equity (MF) Median	6.6	10.5	0.5	-0.4	1.0	0.9	3.0	-0.2	95.8	97.5

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ DFA Large Cap International I	10.5 (26)	-4.2 (26)	7.7 (19)	2.3 (45)	5.4 (37)	6.3 (41)
● MSCI World ex-U.S. (net)	10.4 (27)	-3.1 (15)	7.3 (31)	2.2 (49)	5.3 (43)	6.3 (42)
Median	10.0	-5.6	6.6	2.1	5.1	6.1

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ DFA Large Cap International I	7.7	10.3
● MSCI World ex-U.S. (net)	7.3	10.3
— Median	6.6	10.5

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	23	98.6
Down Markets	13	94.1
Batting Average		
Up Markets	23	47.8
Down Markets	13	53.8
Overall	36	50.0

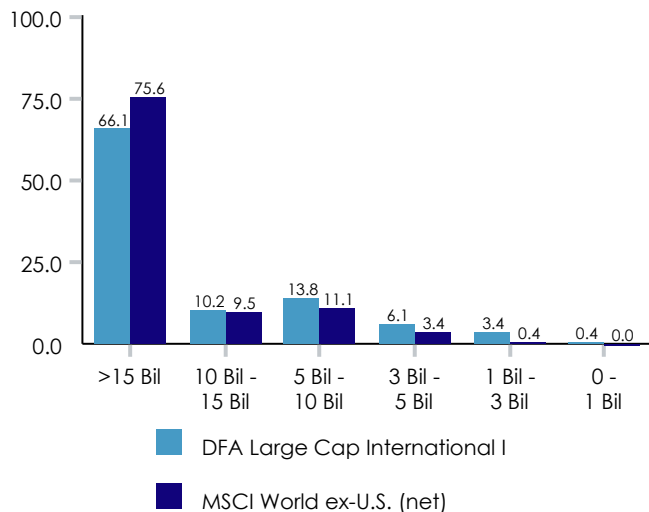
Portfolio Characteristics (As of 10/31/2018)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	55,212	59,888
Median Mkt. Cap (\$M)	7,949	10,329
Price/Earnings ratio	13.8	14.0
Price/Book ratio	2.2	2.2
5 Yr. EPS Growth Rate (%)	9.7	8.7
Current Yield (%)	3.2	3.6
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	1,397	1,012

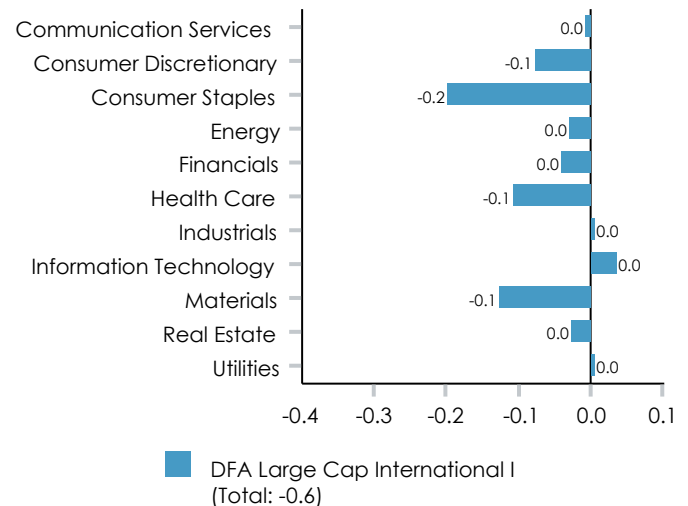
Top 10 Holdings (As of 10/31/2018)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Nestle SA	1.7	1.9	17.5
Roche Holding AG	1.3	1.3	15.0
NOVARTIS AG	0.9	0.0	N/A
BP PLC	0.8	1.0	17.0
AIA Group Ltd	0.7	0.8	20.0
Toyota Motor Corp	0.7	0.9	2.1
Louis Vuitton Moet Hennessy	0.7	0.7	24.5
Royal Bank of Canada	0.7	0.7	11.4
Unilever PLC	0.6	0.4	11.4
Total SA Oil & Gas	0.6	0.9	6.4
% of Portfolio	8.7	8.6	

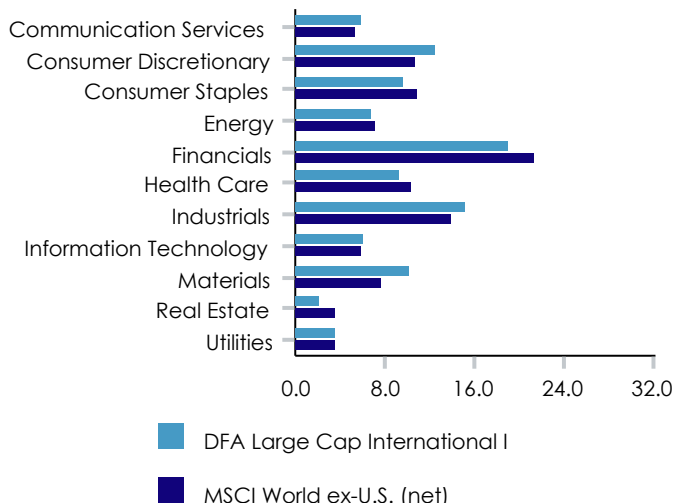
Market Cap Distribution (As of 10/31/2018)



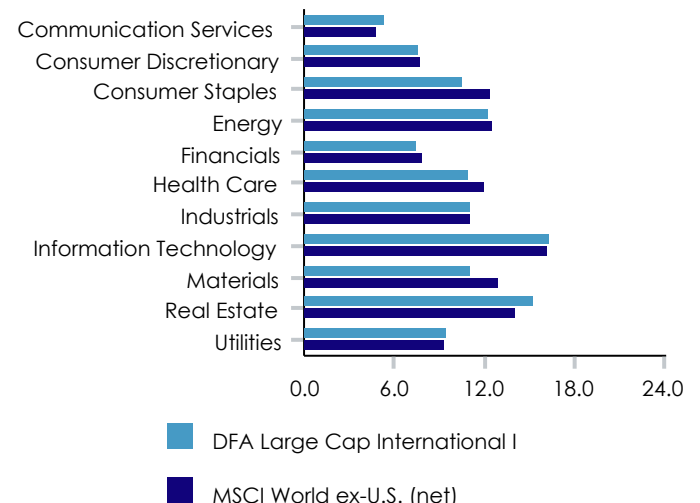
Sector Attribution (1 Quarter as of 10/31/2018)



Sector Allocation (1 Quarter as of 10/31/2018)

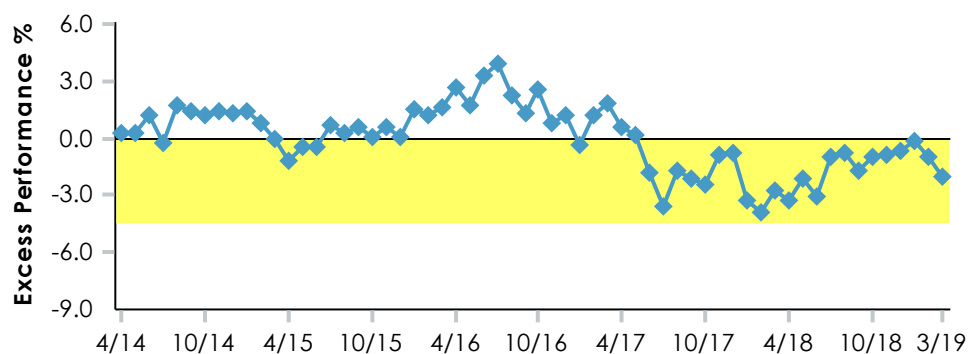


Sector Performance (1 Quarter as of 10/31/2018)



DFA Emerging Markets Core Equity I vs. MSCI Emerging Markets (Net) Index

Short-term (Rolling 12 Months Excess Performance)

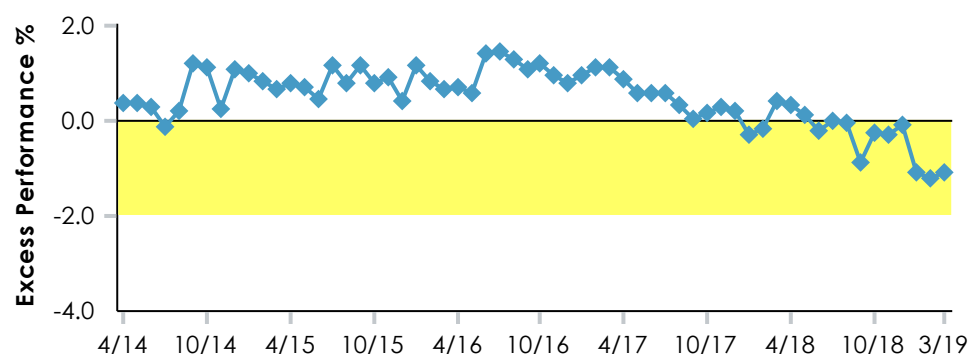


Short-Term Performance

Acceptable

Probationary Performance -4.50%

Medium-term (Rolling 36 Months Excess Performance)

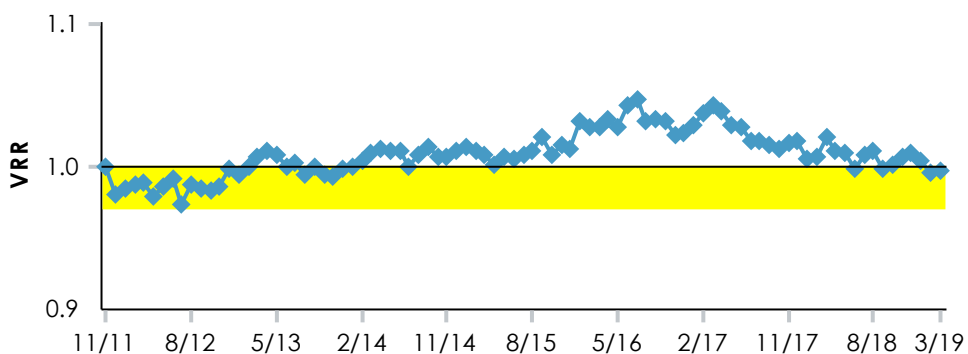


Medium-Term Performance

Acceptable

Probationary Performance -2.00%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.97

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
DFA Emerging Markets Core Equity I	8.6 (74)	-9.5 (51)	9.6 (49)	3.4 (41)	4.2 (41)
MSCI Emerging Markets (Net) Index	9.9 (59)	-7.4 (33)	10.7 (31)	3.7 (33)	4.3 (40)
IM Emerging Markets Equity (MF) Median	10.4	-9.4	9.4	3.1	3.7

Monitoring Status

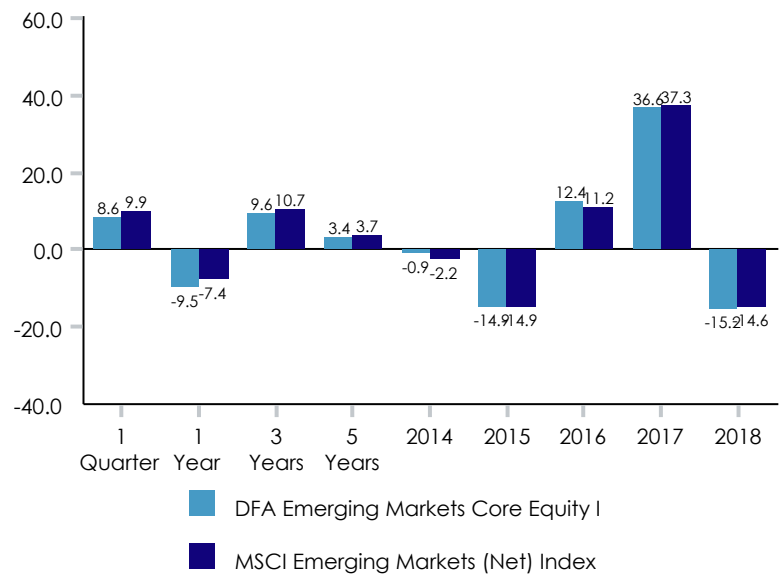
Acceptable



Mutual Fund Info

Product Name : DFA Emg Mkts Core Eq;l (DFCEX)
 Fund Family : Dimensional Fund Advisors LP
 Ticker : DFCEX
 Peer Group : IM Emerging Markets Equity (MF)
 Benchmark : MSCI Emerging Markets Index
 Fund Inception : 04/05/2005
 Portfolio Manager : Team Managed
 Total Assets : \$28,467 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.5%
 Net Expense : 0.5%
 Turnover : 4%

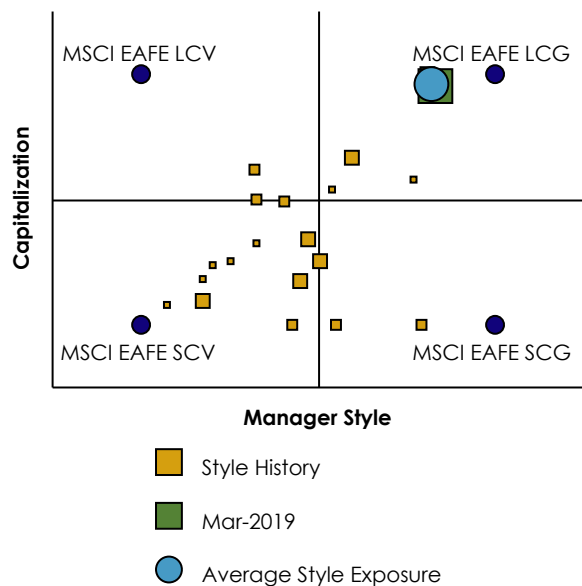
Comparative Performance



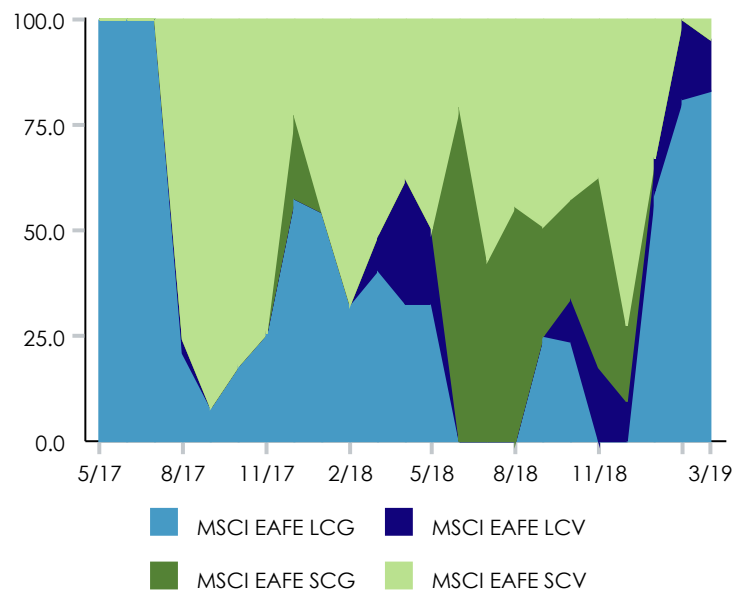
Fund Investment Policy

The Fund seeks long-term capital appreciation. The Fund invests in a broad and diverse group of securities associated with emerging markets, including frontier markets, with an increased exposure to securities of small cap issuers and securities that it considers to be value securities.

Style Map (3 Years)



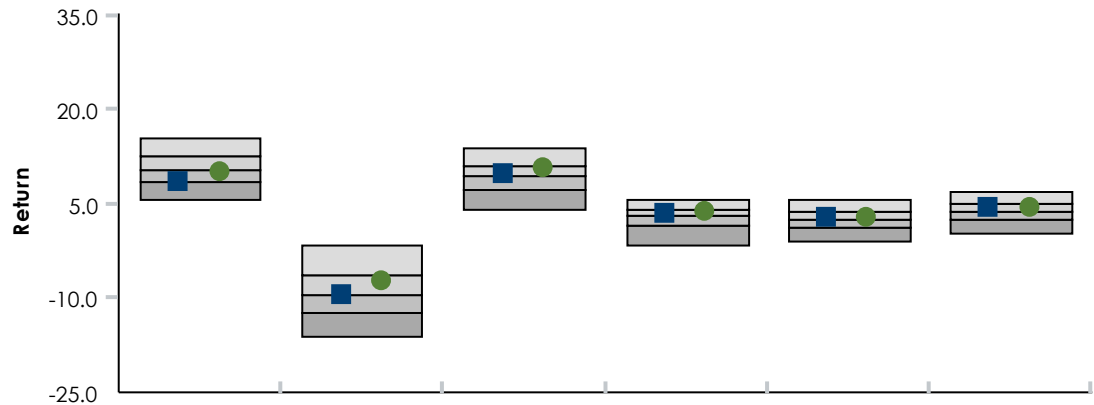
Style History (3 Years)



Historical Statistics (3 Years)

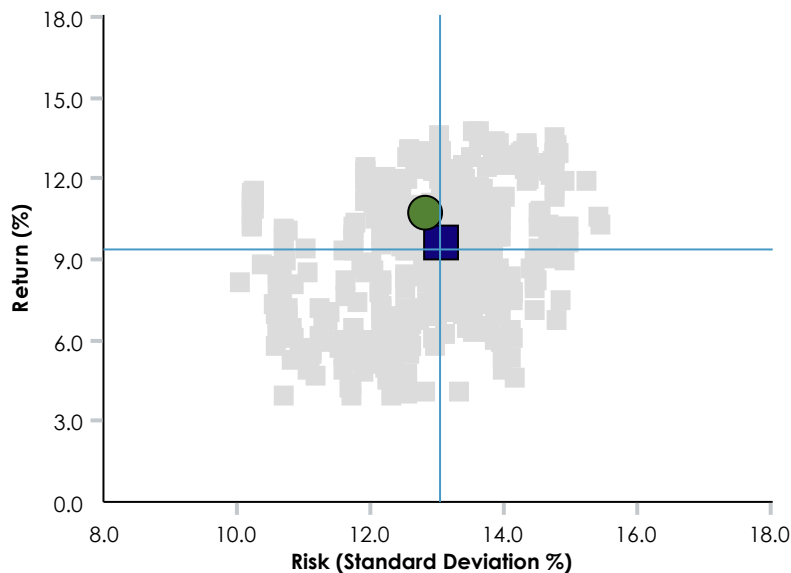
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
DFA Emerging Markets Core Equity I	9.6	13.1	0.7	-0.9	1.0	1.0	2.6	-0.4	100.0	107.6
MSCI Emerging Markets (Net) Index	10.7	12.8	0.8	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM Emerging Markets Equity (MF) Median	9.4	13.0	0.7	-0.4	0.9	0.9	4.5	-0.3	94.7	99.3

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ DFA Emerging Markets Core Equity I	8.6 (74)	-9.5 (51)	9.6 (49)	3.4 (41)	2.8 (43)	4.2 (41)
● MSCI Emerging Markets (Net) Index	9.9 (59)	-7.4 (33)	10.7 (31)	3.7 (33)	2.7 (45)	4.3 (40)
Median	10.4	-9.4	9.4	3.1	2.4	3.7

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ DFA Emerging Markets Core Equity I	9.6	13.1
● MSCI Emerging Markets (Net) Index	10.7	12.8
— Median	9.4	13.0

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	24	100.0
Down Markets	12	107.6
Batting Average		
Up Markets	24	58.3
Down Markets	12	41.7
Overall	36	52.8

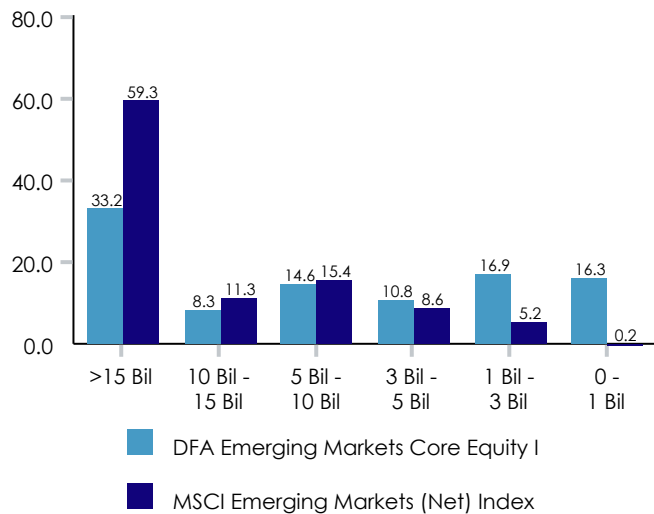
Portfolio Characteristics (As of 10/31/2018)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	36,610	85,403
Median Mkt. Cap (\$M)	375	5,467
Price/Earnings ratio	12.6	12.8
Price/Book ratio	2.2	2.2
5 Yr. EPS Growth Rate (%)	11.9	14.2
Current Yield (%)	3.0	2.9
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	5,012	1,136

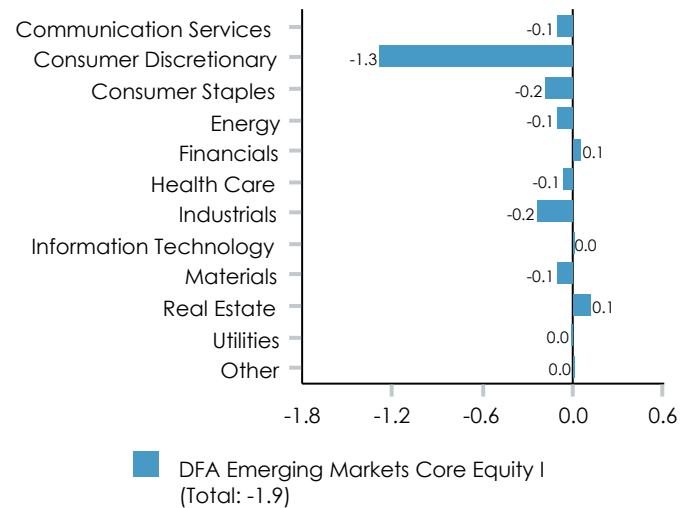
Top 10 Holdings (As of 10/31/2018)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Tencent Holdings LTD	1.8	5.0	14.7
Taiwan Semiconductor	1.7	3.7	11.0
Taiwan Semiconductor	1.2	3.7	8.0
Alibaba Group Holding Ltd	1.0	4.5	33.1
Vale SA	0.9	0.8	1.7
SK Hynix Inc	0.8	0.7	20.1
Ping An Insurance Group	0.7	1.1	26.8
China Construction Bank Corp	0.7	1.6	3.9
Reliance Industries Ltd	0.6	1.1	22.1
Naspers Ltd	0.6	1.9	15.0
% of Portfolio	10.0	24.1	

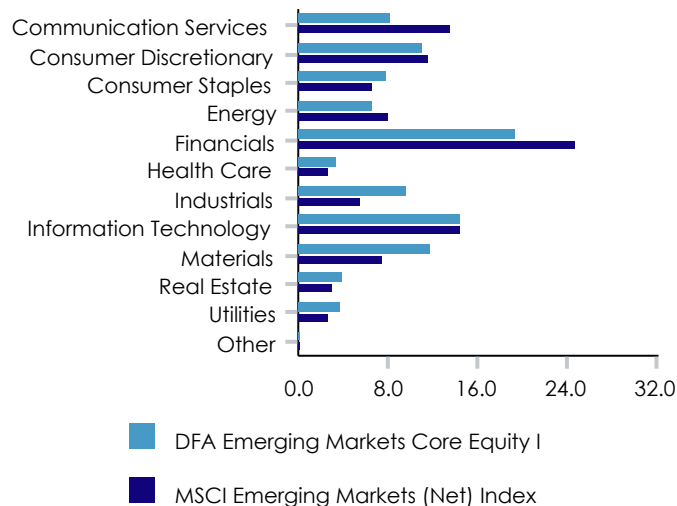
Market Cap Distribution (As of 10/31/2018)



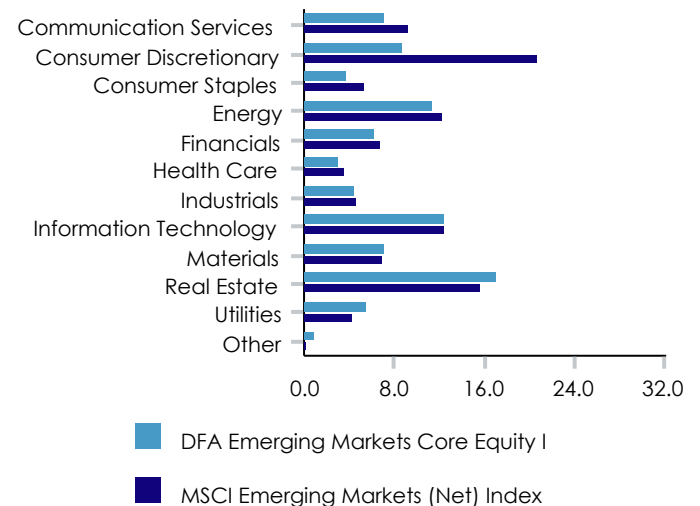
Sector Attribution (1 Quarter as of 10/31/2018)



Sector Allocation (1 Quarter as of 10/31/2018)

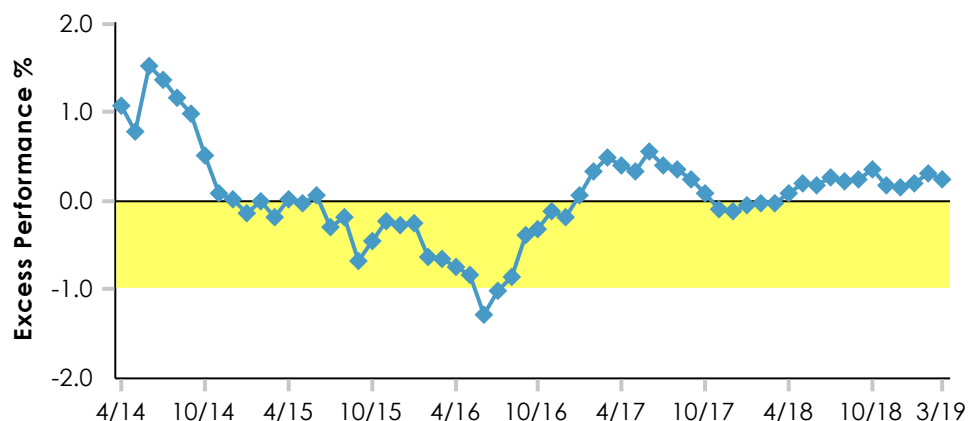


Sector Performance (1 Quarter as of 10/31/2018)



Metropolitan West Total Return Bond I vs. BBg BC U.S. Aggregate Index

Short-term (Rolling 12 Months Excess Performance)

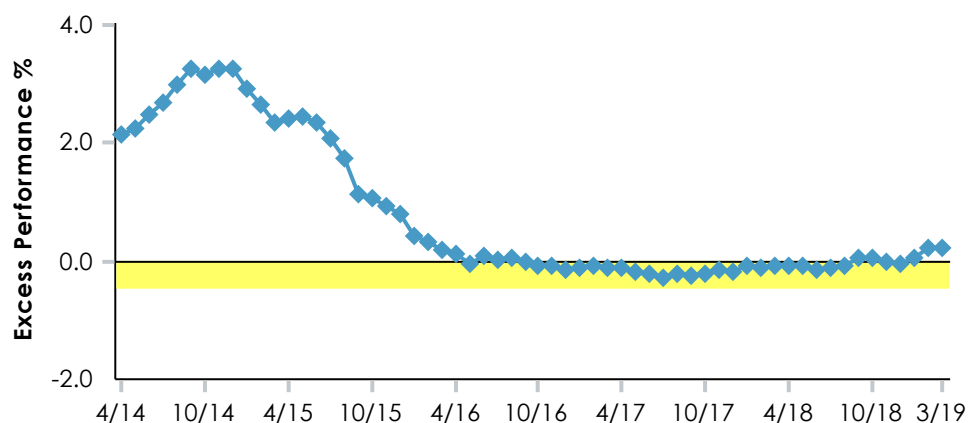


Short-Term Performance

Positive

Probationary Performance -1.00%

Medium-term (Rolling 36 Months Excess Performance)



Medium-Term Performance

Positive

Probationary Performance -0.50%

- Long-term criteria to take effect 1Q 2021

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (10/2015)
Metropolitan West Total Return Bond I	3.2 (68)	4.7 (16)	2.3 (79)	2.7 (51)	2.5 (74)
BBg BC U.S. Aggregate Index	2.9 (81)	4.5 (27)	2.0 (87)	2.7 (50)	2.4 (78)
IM U.S. Broad Market Core+ Fixed Income (MF) Median	3.5	4.0	2.8	2.7	3.0

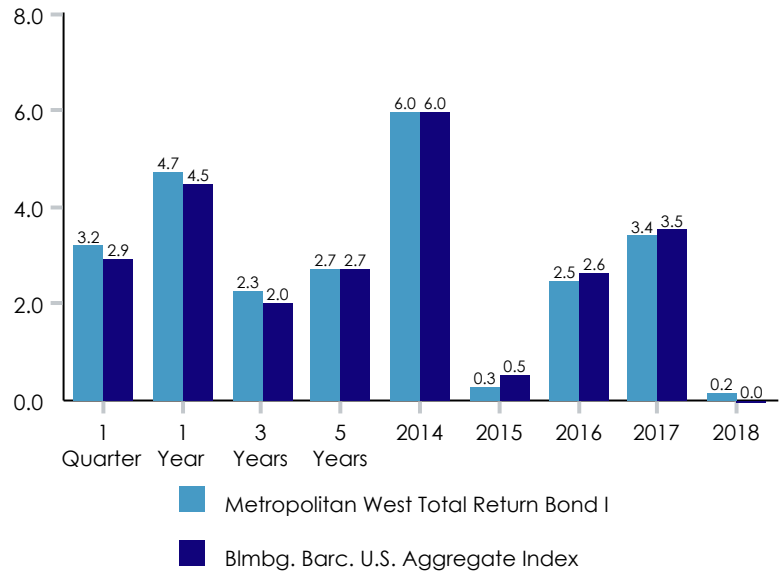
Monitoring Status

Positive

Mutual Fund Info

Product Name : Met West:Total Return:I (MWTIX)
 Fund Family : Metropolitan West Asset Management LLC
 Ticker : MWTIX
 Peer Group : IM U.S. Broad Market Core+ Fixed Income (MF)
 Benchmark : Bloomberg Barclays U.S. Aggregate
 Fund Inception : 03/31/2000
 Portfolio Manager : Team Managed
 Total Assets : \$40,908 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.5%
 Net Expense : 0.5%
 Turnover : 291%

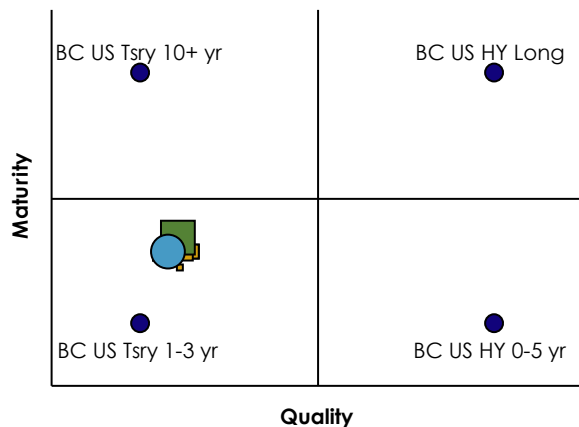
Comparative Performance



Fund Investment Policy

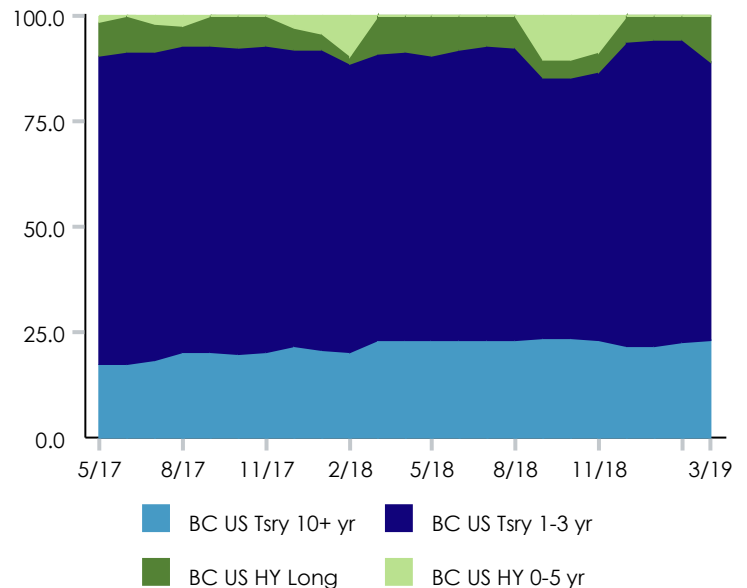
The Fund seeks to outperform the broad bond market by applying specialized management expertise to and allocating capital among U.S. government, corporate, high yield, and mortgage-backed sectors.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

Style History (3 Years)



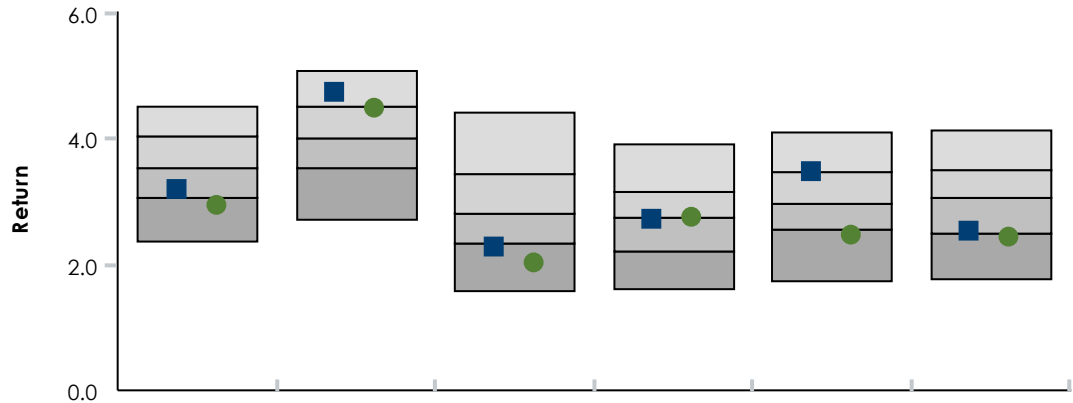
Metropolitan West Total Return Bond I

March 31, 2019

Historical Statistics (3 Years)

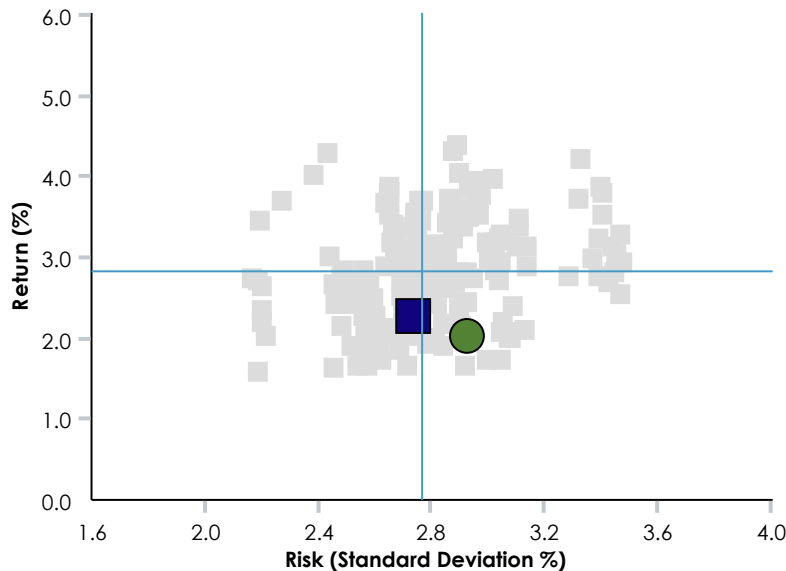
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
Metropolitan West Total Return Bond I	2.3	2.7	0.4	0.4	0.9	1.0	0.3	0.7	97.0	86.9
Blmbg. Barc. U.S. Aggregate Index	2.0	2.9	0.3	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Broad Market Core+ Fixed Income (MF) Median	2.8	2.8	0.6	1.0	0.9	0.9	1.1	0.7	101.5	79.0

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Oct-2015
■ Metropolitan West Total Return Bond I	3.2 (68)	4.7 (16)	2.3 (79)	2.7 (51)	3.5 (24)	2.5 (74)
● Blmbg. Barc. U.S. Aggregate Index	2.9 (81)	4.5 (27)	2.0 (87)	2.7 (50)	2.5 (80)	2.4 (78)
Median	3.5	4.0	2.8	2.7	3.0	3.0

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ Metropolitan West Total Return Bond I	2.3	2.7
● Blmbg. Barc. U.S. Aggregate Index	2.0	2.9
— Median	2.8	2.8

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	21	97.0
Down Markets	15	86.9
Batting Average		
Up Markets	21	33.3
Down Markets	15	73.3
Overall	36	50.0



Metropolitan West Total Return Bond I

March 31, 2019

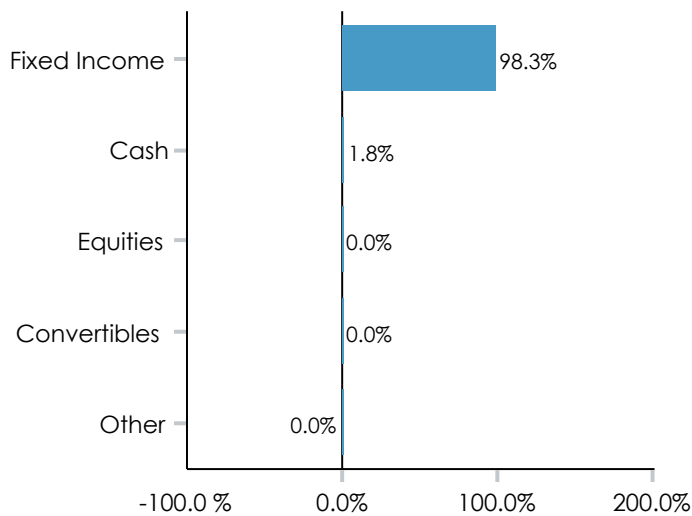
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	3.32 %
Nominal Maturity	7.52 Years
Effective Maturity	N/A
Duration	6.05 Years
SEC 30 Day Yield	3.9
Avg. Credit Quality	AA

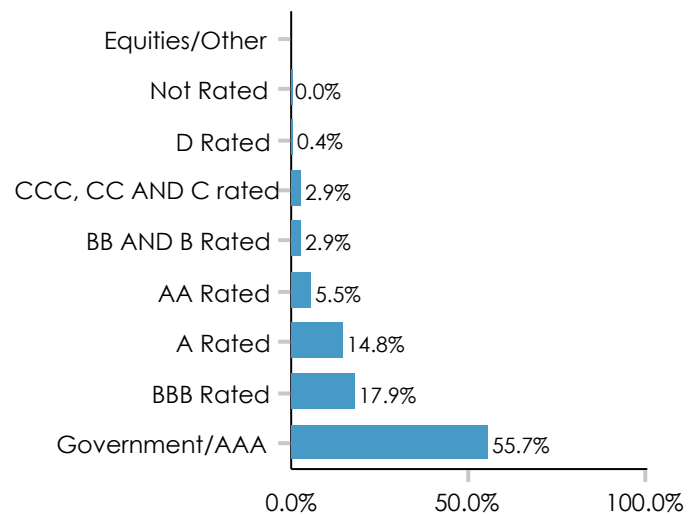
Top 10 Holdings (As of 12/31/2018)

GNMA and Other Mtg Backed	41.2 %
Corporate Notes/Bonds	37.2 %
Government Agency Securities	13.8 %
Asset Backed Securities	6.0 %

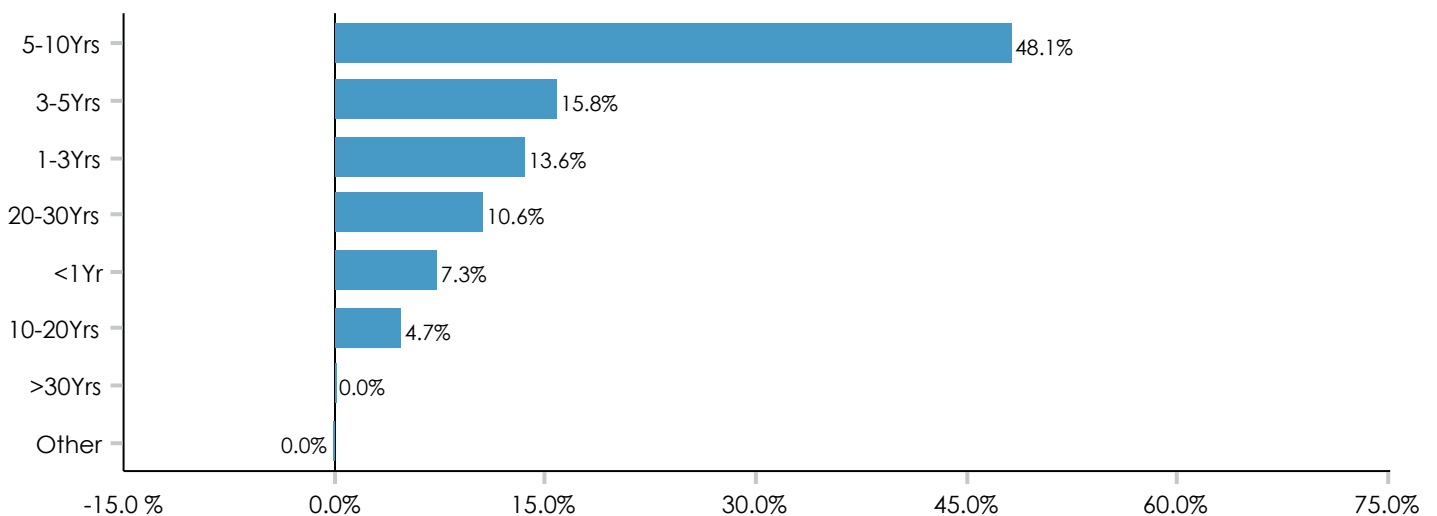
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)

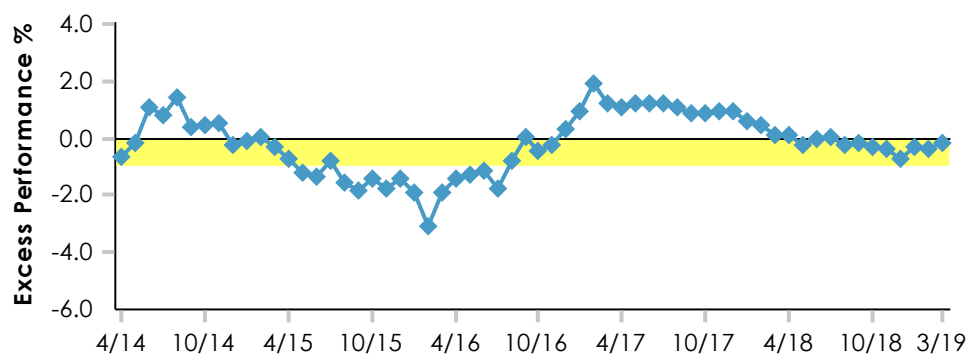


Maturity Distribution (As of 12/31/2018)



PIMCO Real Return vs. Bloomberg Barclays U.S. TIPS Index

Short-term (Rolling 12 Months Excess Performance)

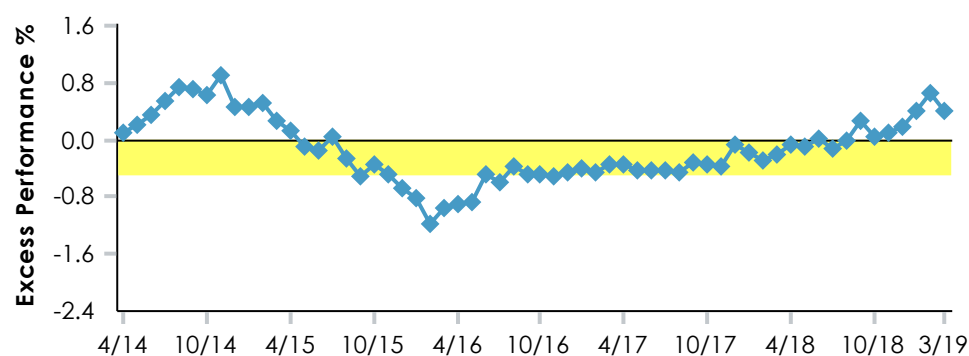


Short-Term Performance

Acceptable

Probationary Performance -1.00%

Medium-term (Rolling 36 Months Excess Performance)

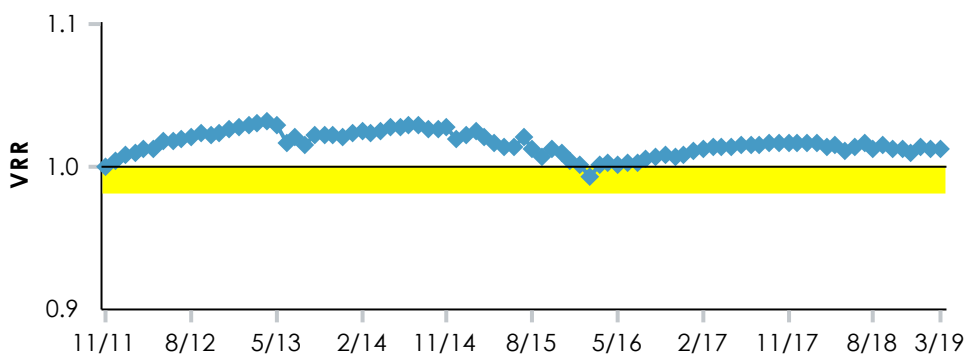


Medium-Term Performance

Positive

Probationary Performance -0.50%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.98

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
PIMCO Real Return	3.5 (20)	2.6 (18)	2.1 (22)	1.7 (19)	1.5 (7)
Bloomberg Barclays U.S. TIPS Index	3.2 (44)	2.7 (12)	1.7 (33)	1.9 (9)	1.3 (17)
IM U.S. TIPS (MF) Median	3.2	2.1	1.5	1.2	0.8

Monitoring Status

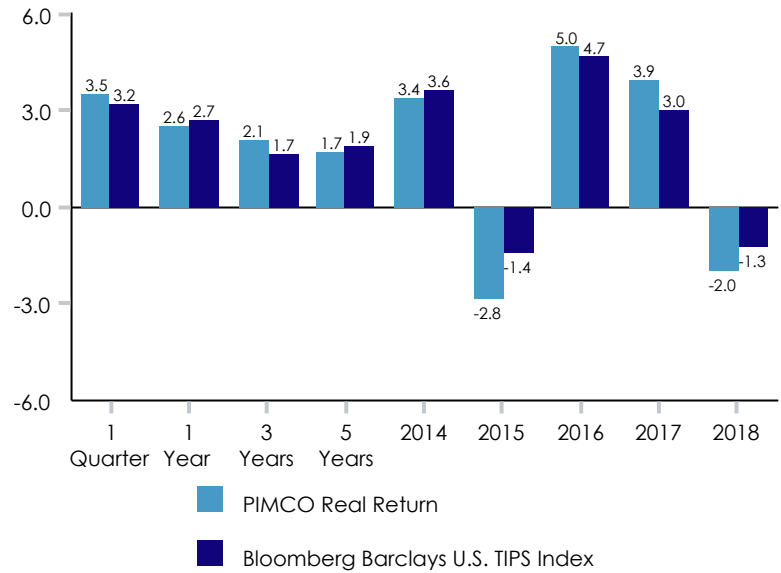
Acceptable



Mutual Fund Info

Product Name : PIMCO:Real Return;Inst (PRRIX)
 Fund Family : PIMCO
 Ticker : PRRIX
 Peer Group : IM U.S. TIPS (MF)
 Benchmark : Bloomberg Barclays U.S. TIPS
 Fund Inception : 01/29/1997
 Portfolio Manager : Worah/Rodosky
 Total Assets : \$5,521 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.9%
 Net Expense : 0.9%
 Turnover : 165%

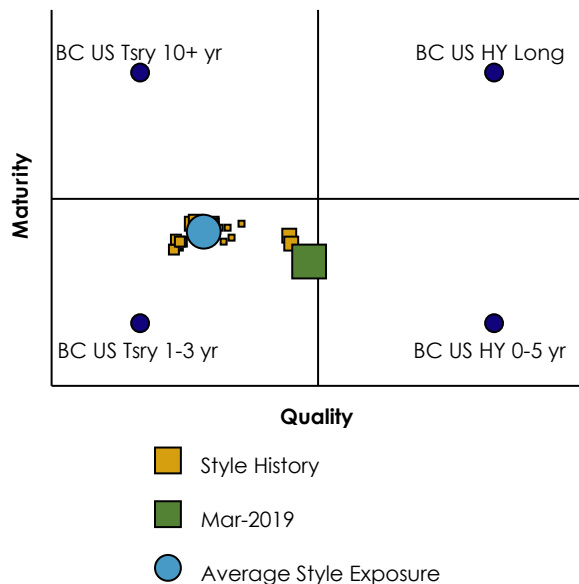
Comparative Performance



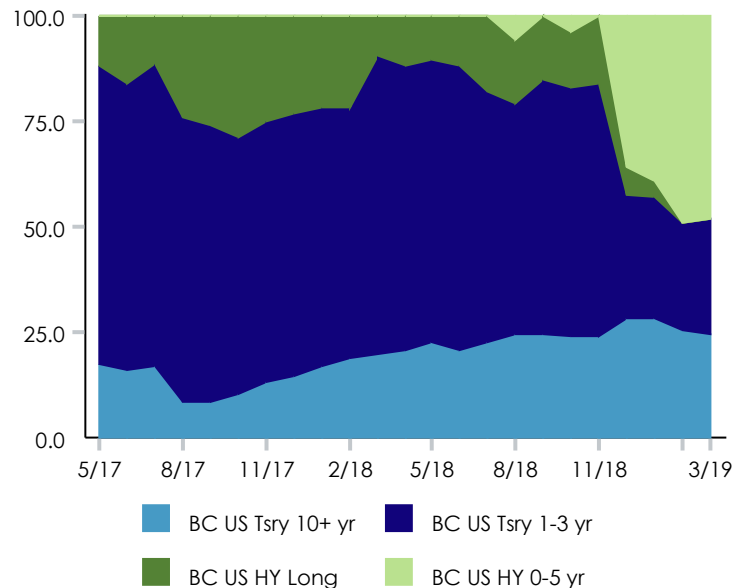
Fund Investment Policy

The Fund seeks to maximize real return consistent with preservation of real capital and prudent investment management. It 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.

Style Map (3 Years)



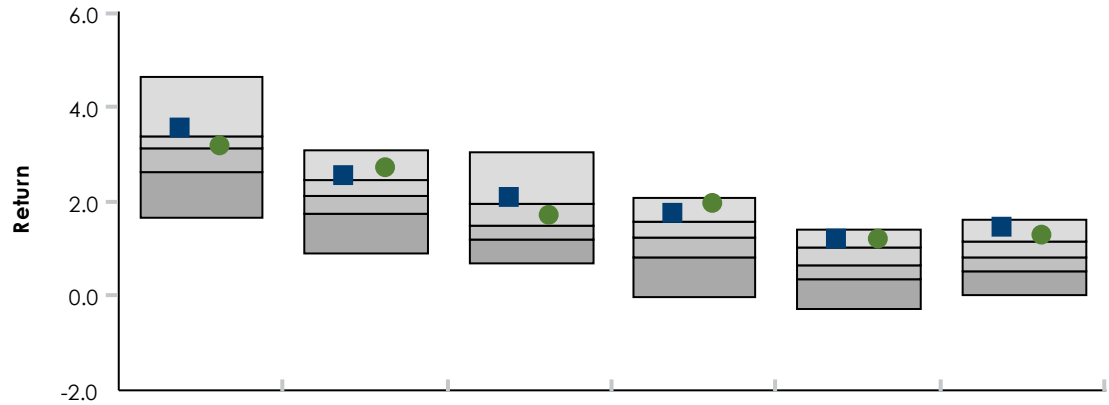
Style History (3 Years)



Historical Statistics (3 Years)

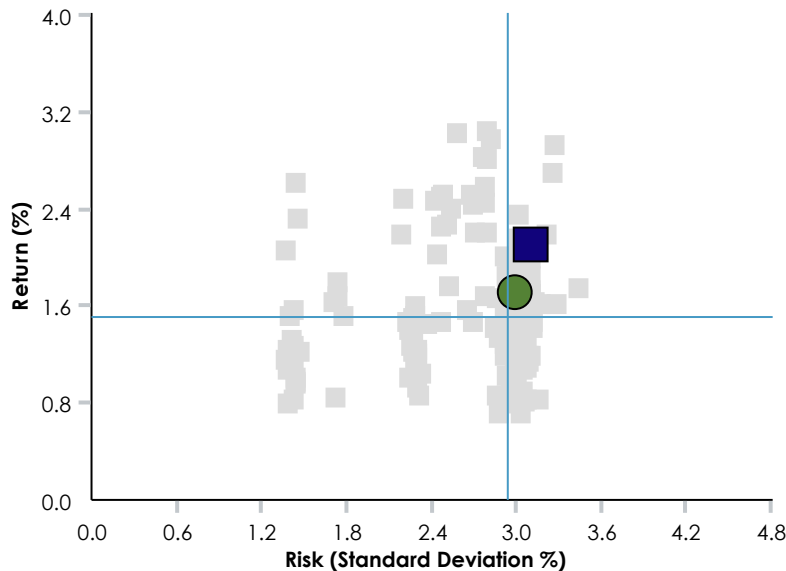
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
PIMCO Real Return	2.1	3.1	0.3	0.4	1.0	1.0	0.6	0.7	103.6	94.0
Bloomberg Barclays U.S. TIPS Index	1.7	3.0	0.2	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. TIPS (MF) Median	1.5	2.9	0.1	0.0	1.0	0.9	0.9	-0.2	87.9	91.9

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ PIMCO Real Return	3.5 (20)	2.6 (18)	2.1 (22)	1.7 (19)	1.2 (12)	1.5 (7)
● Bloomberg Barclays U.S. TIPS Index	3.2 (44)	2.7 (12)	1.7 (33)	1.9 (9)	1.2 (12)	1.3 (17)
Median	3.2	2.1	1.5	1.2	0.6	0.8

Peer Group Scattergram (3 Years)



Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	20	103.6
Down Markets	16	94.0
Batting Average		
Up Markets	20	65.0
Down Markets	16	68.8
Overall	36	66.7

	Return	Standard Deviation
■ PIMCO Real Return	2.1	3.1
● Bloomberg Barclays U.S. TIPS Index	1.7	3.0
— Median	1.5	2.9

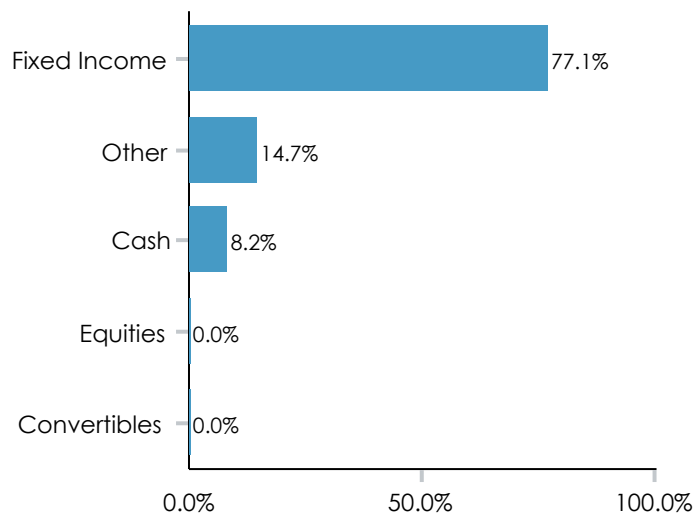
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	1.68 %
Nominal Maturity	6.31 Years
Effective Maturity	N/A
Duration	6.69 Years
SEC 30 Day Yield	2.2
Avg. Credit Quality	AAA

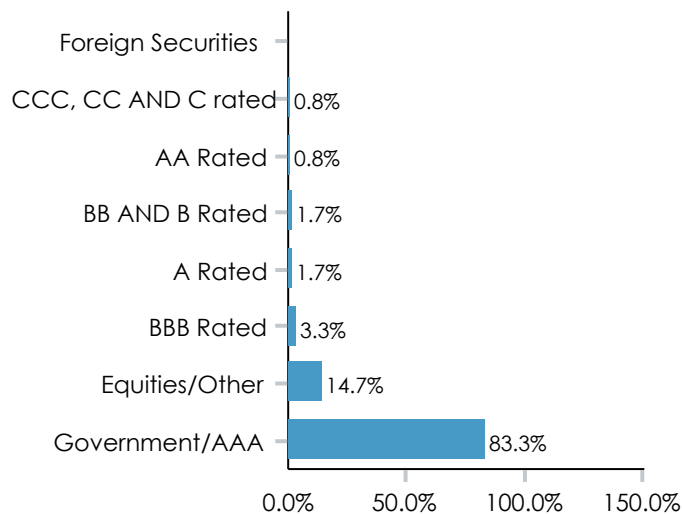
Top 10 Holdings (As of 12/31/2018)

Government Agency Securities	69.6 %
GNMA and Other Mtg Backed	19.8 %
Corporate Notes/Bonds	2.9 %

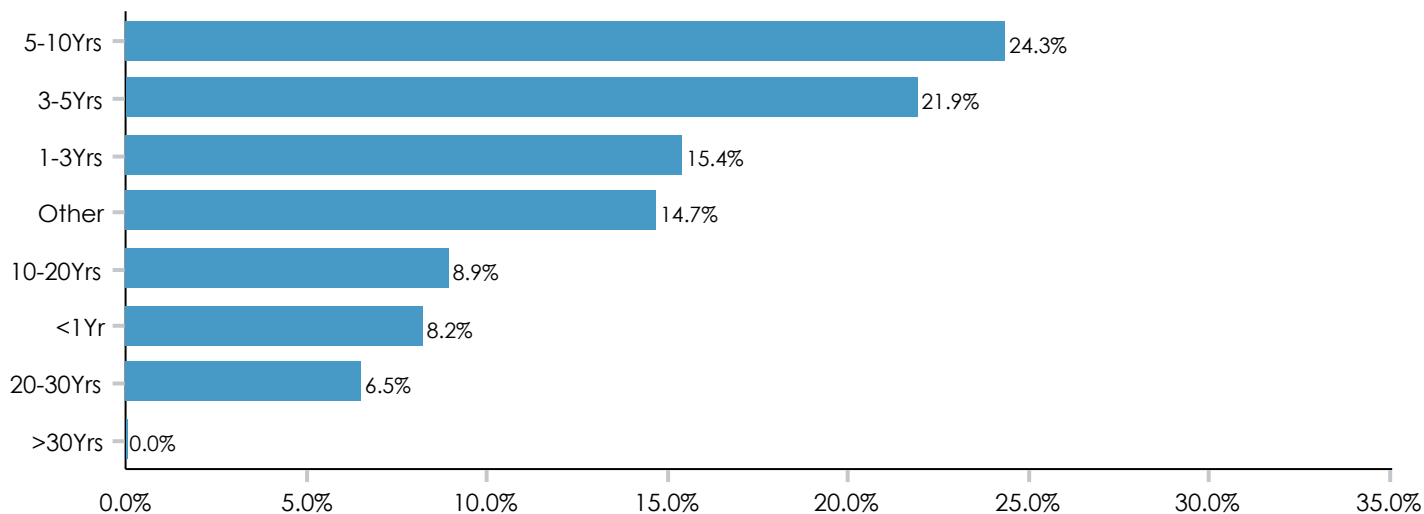
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)

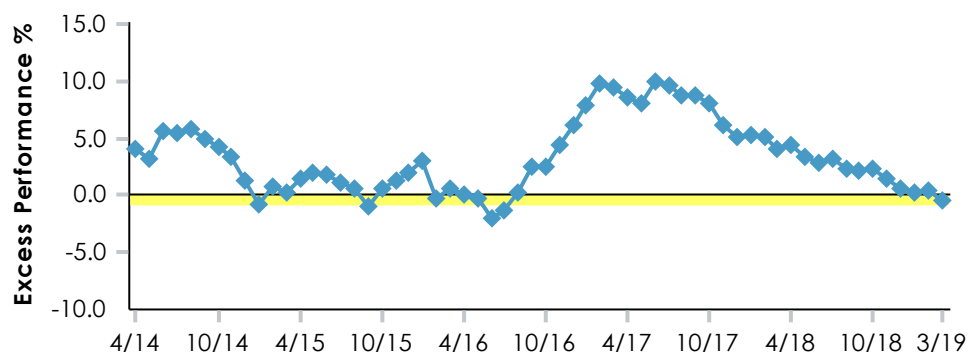


Maturity Distribution (As of 12/31/2018)



PIMCO Income I vs. Blmbg. Barc. U.S. Aggregate Index

Short-term (Rolling 12 Months Excess Performance)

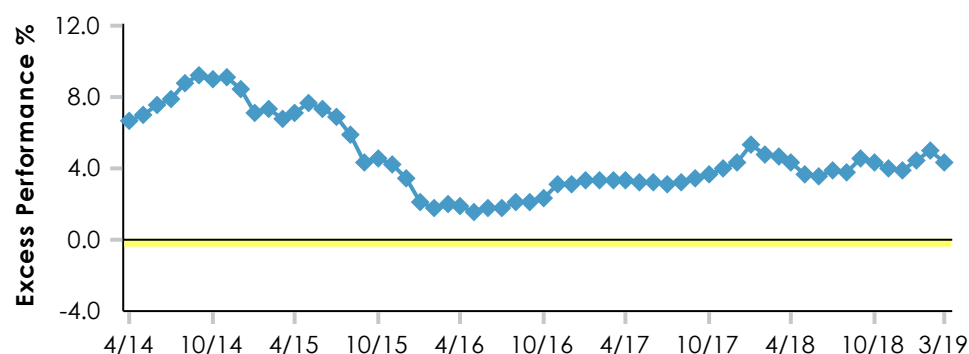


Short-Term Performance

Positive

Probationary Performance -1.00%

Medium-term (Rolling 36 Months Excess Performance)

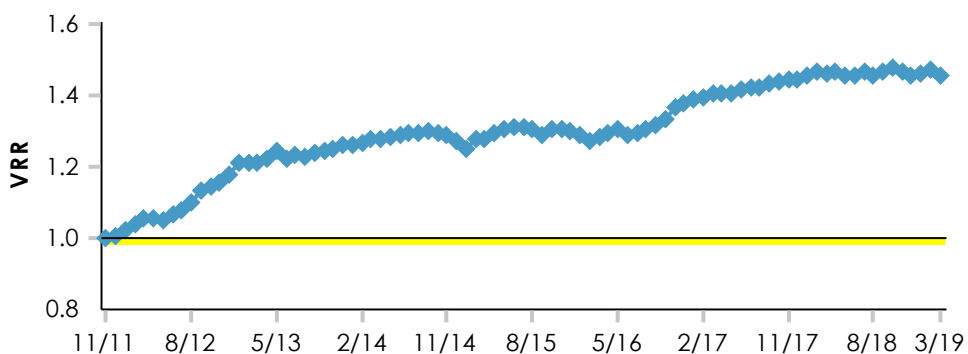


Medium-Term Performance

Positive

Probationary Performance -0.50%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Positive

Probationary Performance < 0.98

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
PIMCO Income I	3.0 (78)	4.0 (31)	6.3 (10)	5.5 (2)	7.9 (1)
Blmbg. Barc. U.S. Aggregate Index	2.9 (80)	4.5 (16)	2.0 (96)	2.7 (58)	2.6 (91)
IM Multi-Sector General Bond (MF) Median	4.0	3.4	4.5	2.9	4.2

Monitoring Status

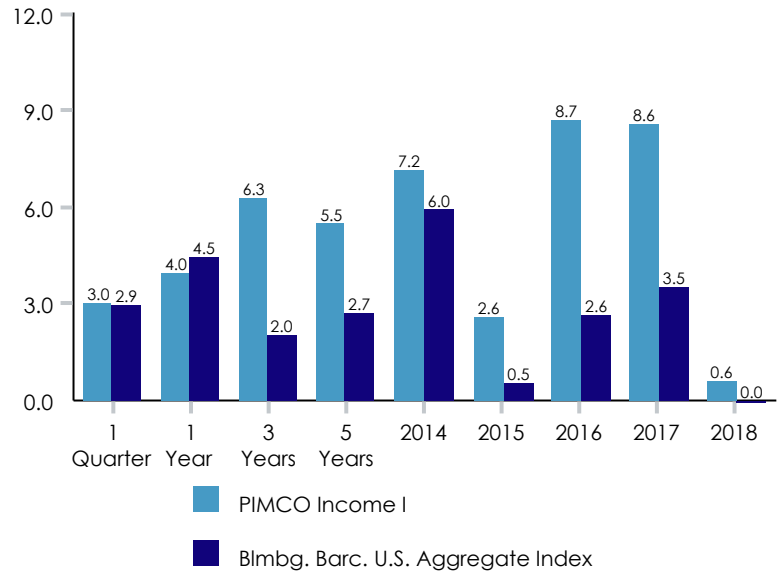
Positive



Mutual Fund Info

Product Name : PIMCO:Income;Inst (PIMIX)
 Fund Family : PIMCO
 Ticker : PIMIX
 Peer Group : IM Multi-Sector General Bond (MF)
 Benchmark : Bloomberg Barclays U.S. Aggregate
 Fund Inception : 03/30/2007
 Portfolio Manager : Ivascyn/Murata
 Total Assets : \$61,425 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.7%
 Net Expense : 0.7%
 Turnover : 266%

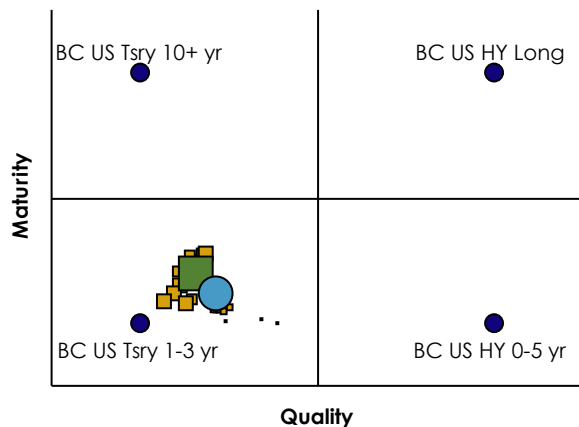
Comparative Performance



Fund Investment Policy

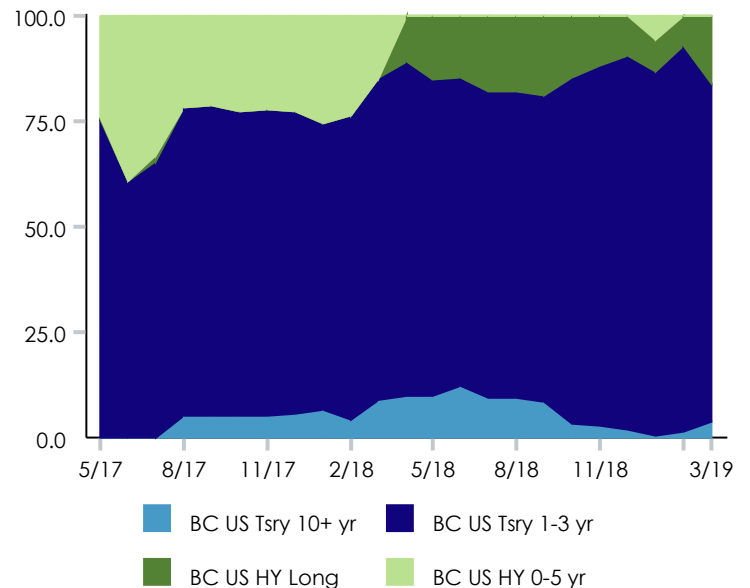
The Fund seeks to maximize current income. The Fund typically invests at least 65% of its total assets in a multi-sector portfolio of fixed income instruments of varying maturities. The Fund will generally allocate its assets among several investment sectors.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

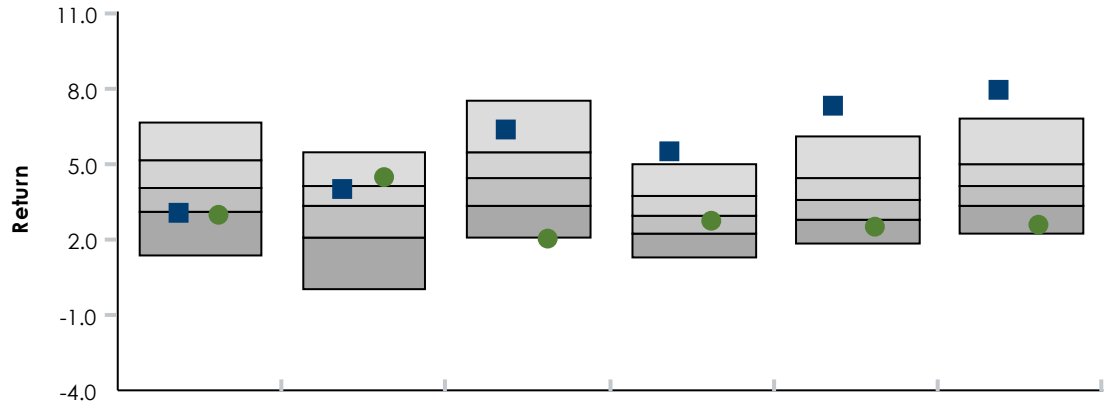
Style History (3 Years)



Historical Statistics (3 Years)

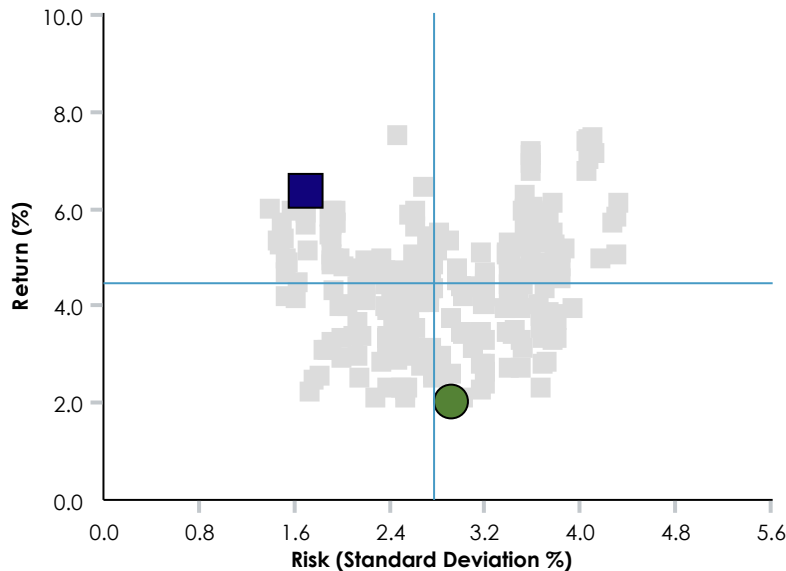
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
PIMCO Income I	6.3	1.7	2.8	5.7	0.3	0.3	2.4	1.7	103.0	-40.2
Blmbg. Barc. U.S. Aggregate Index	2.0	2.9	0.3	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM Multi-Sector General Bond (MF) Median	4.5	2.8	1.1	3.6	0.5	0.3	3.0	0.9	98.2	13.3

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ PIMCO Income I	3.0 (78)	4.0 (31)	6.3 (10)	5.5 (2)	7.3 (1)	7.9 (1)
● Blmbg. Barc. U.S. Aggregate Index	2.9 (80)	4.5 (16)	2.0 (96)	2.7 (58)	2.5 (86)	2.6 (91)
Median	4.0	3.4	4.5	2.9	3.6	4.2

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ PIMCO Income I	6.3	1.7
● Blmbg. Barc. U.S. Aggregate Index	2.0	2.9
— Median	4.5	2.8

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	21	103.0
Down Markets	15	-40.2
Batting Average		
Up Markets	21	57.1
Down Markets	15	100.0
Overall	36	75.0

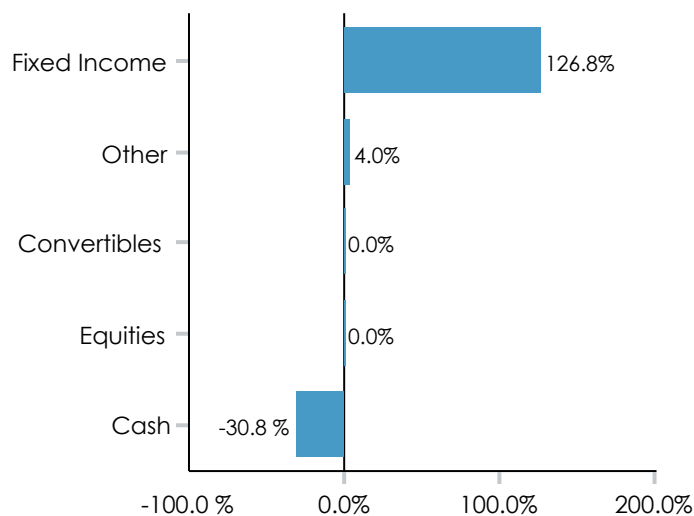
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	3.95 %
Nominal Maturity	3.80 Years
Effective Maturity	N/A
Duration	1.96 Years
SEC 30 Day Yield	6.7
Avg. Credit Quality	BBB

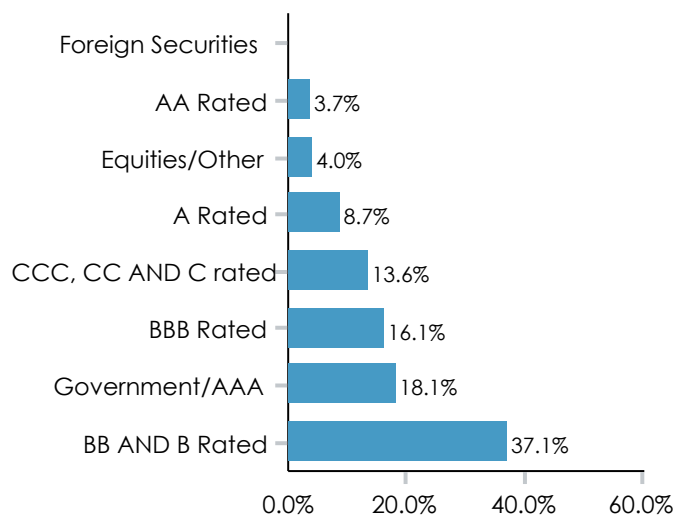
Top 10 Holdings (As of 12/31/2018)

GNMA and Other Mtg Backed	66.8 %
Treasury Notes/Bonds	23.2 %
Corporate Notes/Bonds	21.6 %
Government Agency Securities	16.4 %
Convertible Securities	0.0%

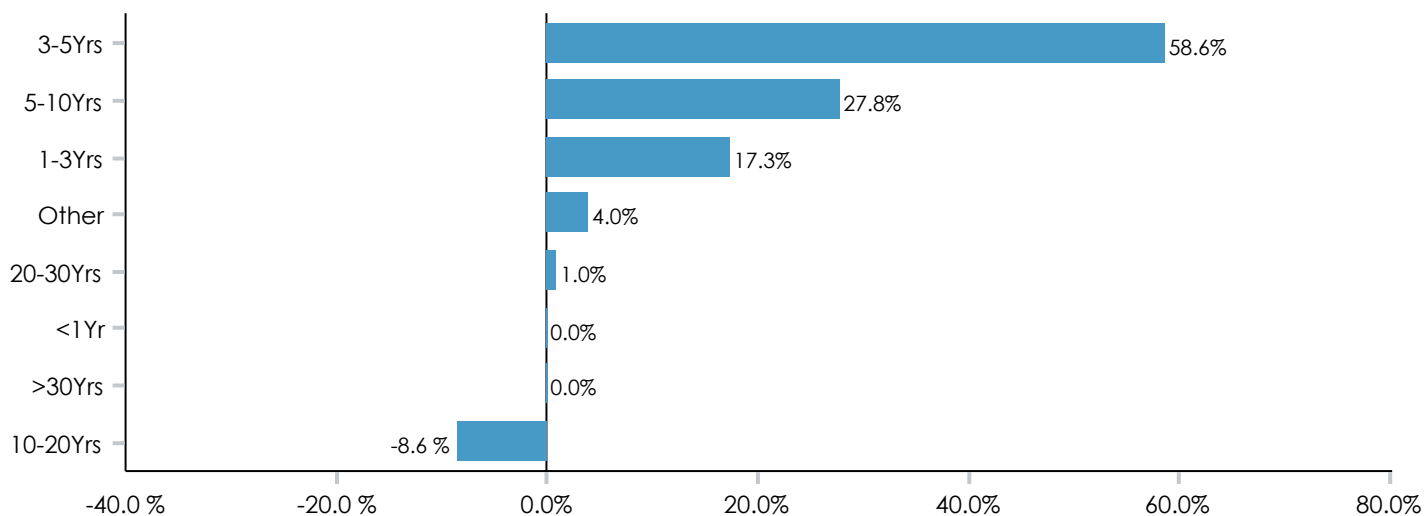
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)

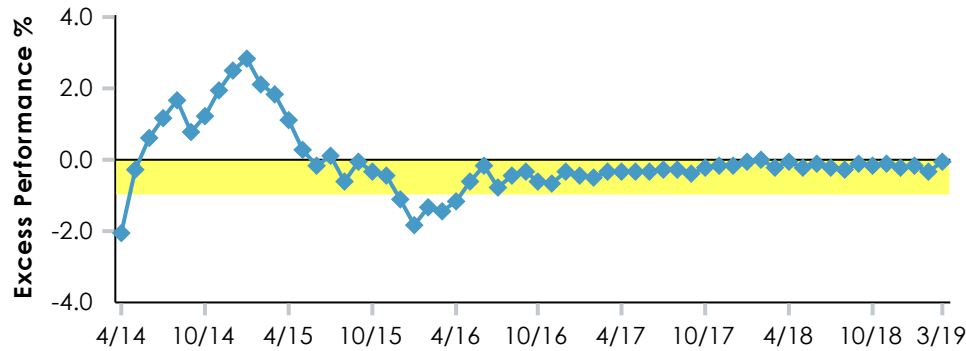


Maturity Distribution (As of 12/31/2018)



TIAA-CREF Inflation Link Bond I vs. Blmbg. Barc. U.S. TIPS 1-10 Year

Short-term (Rolling 12 Months Excess Performance)

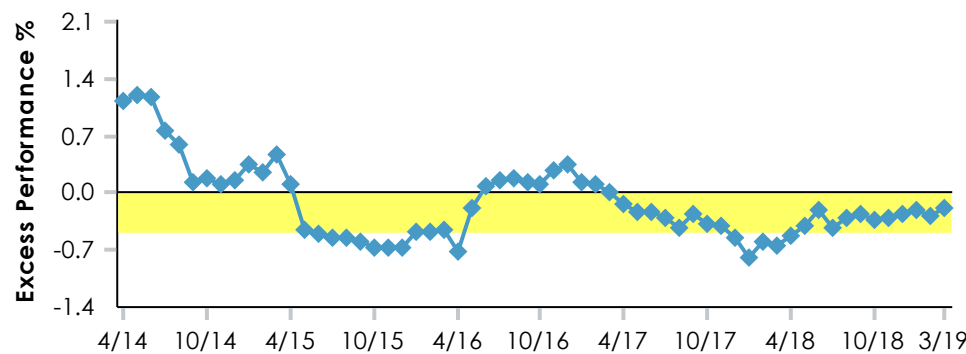


Short-Term Performance

Acceptable

Probationary Performance -1.00%

Medium-term (Rolling 36 Months Excess Performance)

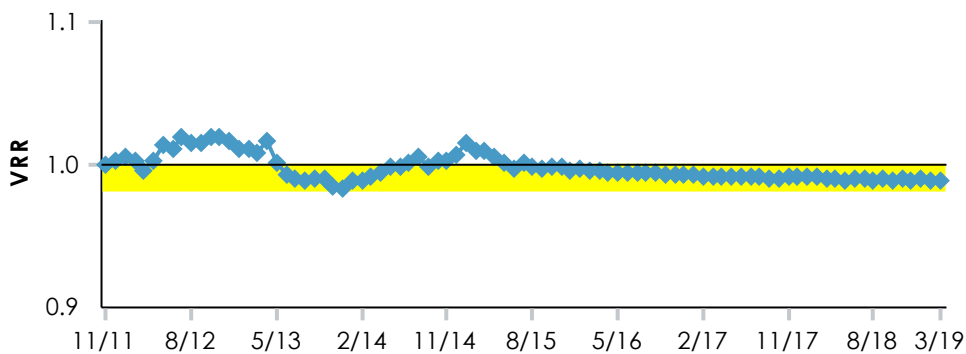


Medium-Term Performance

Acceptable

Probationary Performance -0.50%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Acceptable

Probationary Performance < 0.98

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Inflation Link Bond I	2.6 (76)	2.7 (12)	1.3 (62)	1.5 (31)	0.9 (44)
Blmbg. Barc. U.S. TIPS 1-10 Year	2.6 (81)	2.7 (11)	1.5 (49)	1.5 (28)	1.0 (38)
IM U.S. TIPS (MF) Median	3.2	2.1	1.5	1.2	0.8

Monitoring Status

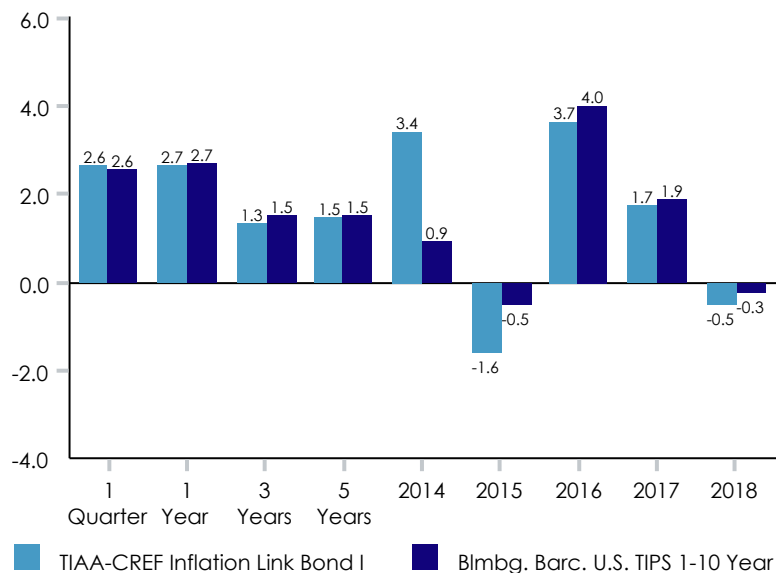
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:Infl Bond;Inst (TIILX)
 Fund Family : TIAA-CREF
 Ticker : TIILX
 Peer Group : IM U.S. TIPS (MF)
 Benchmark : Bloomberg Barclays U.S. TIPS
 Fund Inception : 10/01/2002
 Portfolio Manager : Cerra/Travaglino
 Total Assets : \$1,632 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.3%
 Net Expense : 0.3%
 Turnover : 17%

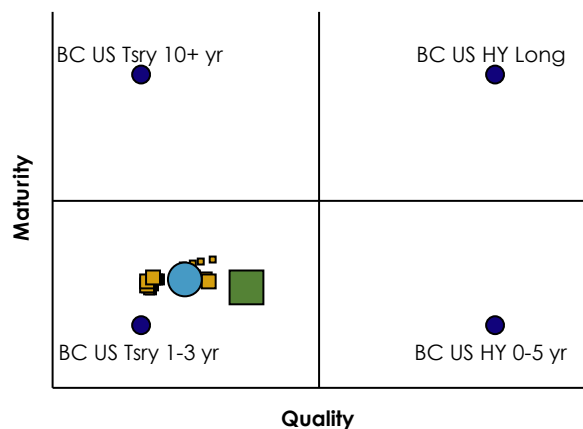
Comparative Performance



Fund Investment Policy

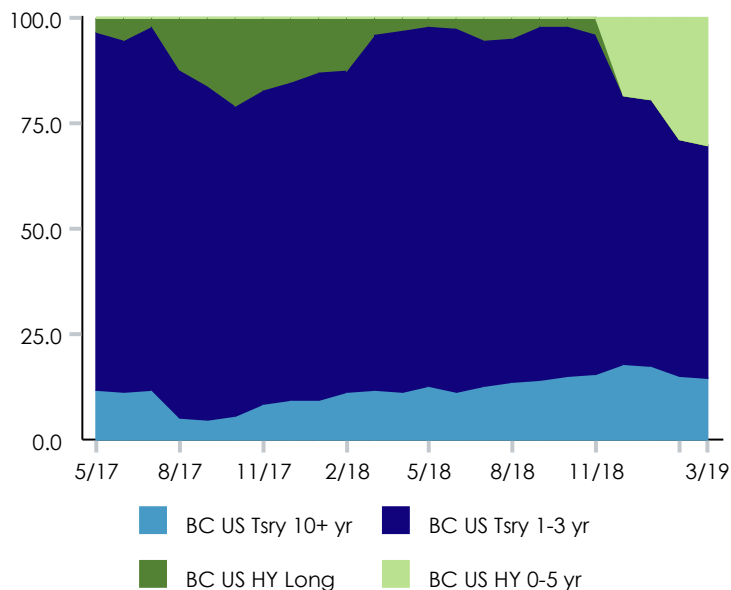
The Fund seeks a long-term rate of return that outpaces inflation primarily through investment in inflation-indexed bonds. The Fund invests primarily in U.S. Treasury Inflation-Indexed Securities ("TIIS"). The Fund can also invest in other inflation-indexed bonds issued or guaranteed by the U.S. Government.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

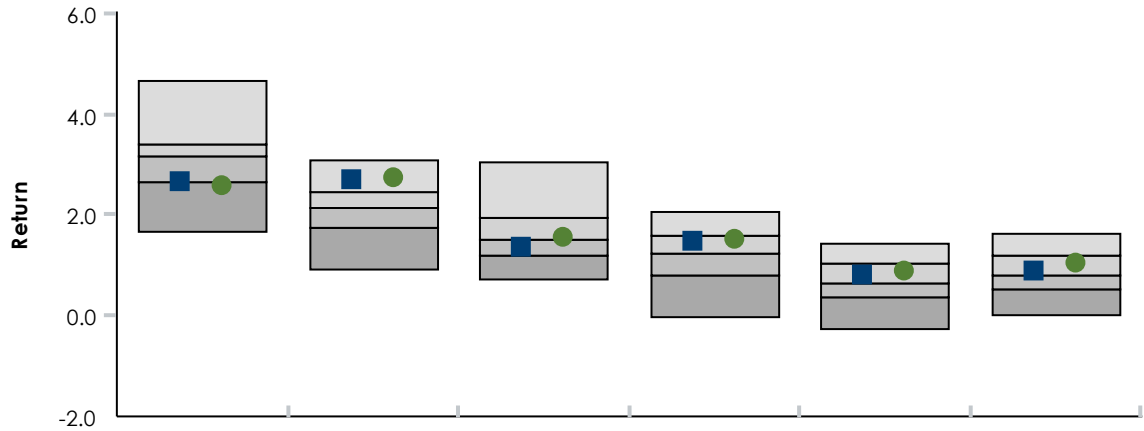
Style History (3 Years)



Historical Statistics (3 Years)

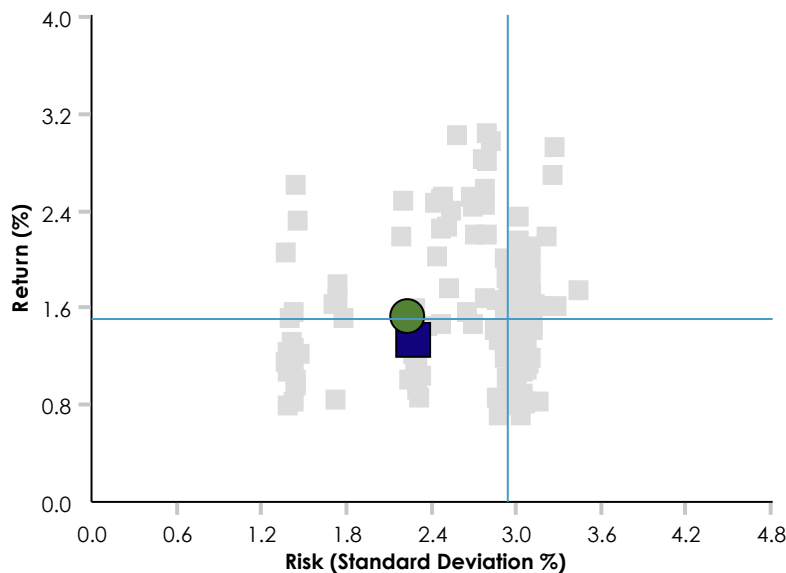
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Inflation Link Bond I	1.3	2.3	0.1	-0.2	1.0	1.0	0.3	-0.7	96.4	101.9
Blmbg. Barc. U.S. TIPS 1-10 Year	1.5	2.2	0.2	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. TIPS (MF) Median	1.5	2.9	0.1	-0.2	1.3	0.9	1.0	0.0	112.5	125.7

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Inflation Link Bond I	2.6 (76)	2.7 (12)	1.3 (62)	1.5 (31)	0.8 (41)	0.9 (44)
● Blmbg. Barc. U.S. TIPS 1-10 Year	2.6 (81)	2.7 (11)	1.5 (49)	1.5 (28)	0.9 (35)	1.0 (38)
Median	3.2	2.1	1.5	1.2	0.6	0.8

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Inflation Link Bond I	1.3	2.3
● Blmbg. Barc. U.S. TIPS 1-10 Year	1.5	2.2
— Median	1.5	2.9

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	22	96.4
Down Markets	14	101.9
Batting Average		
Up Markets	22	54.5
Down Markets	14	57.1
Overall	36	55.6

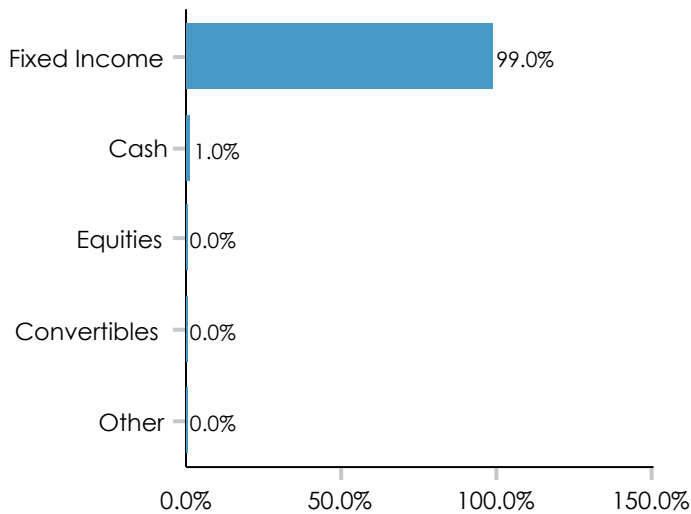
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	0.87 %
Nominal Maturity	5.43 Years
Effective Maturity	N/A
Duration	5.07 Years
SEC 30 Day Yield	0.6
Avg. Credit Quality	AAA

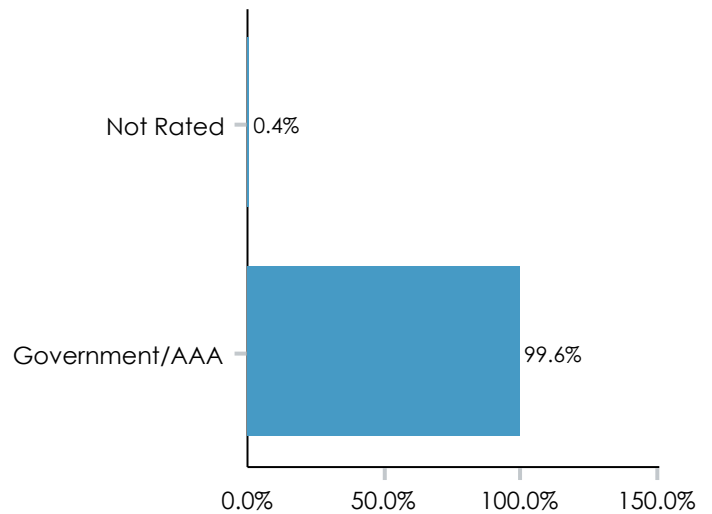
Top 10 Holdings (As of 12/31/2018)

Treasury Notes/Bonds	97.4 %
Government Agency Securities	1.1 %
GNMA and Other Mtg Backed	0.3 %
US\$ Denominated Fgn. Gvt.	0.2 %

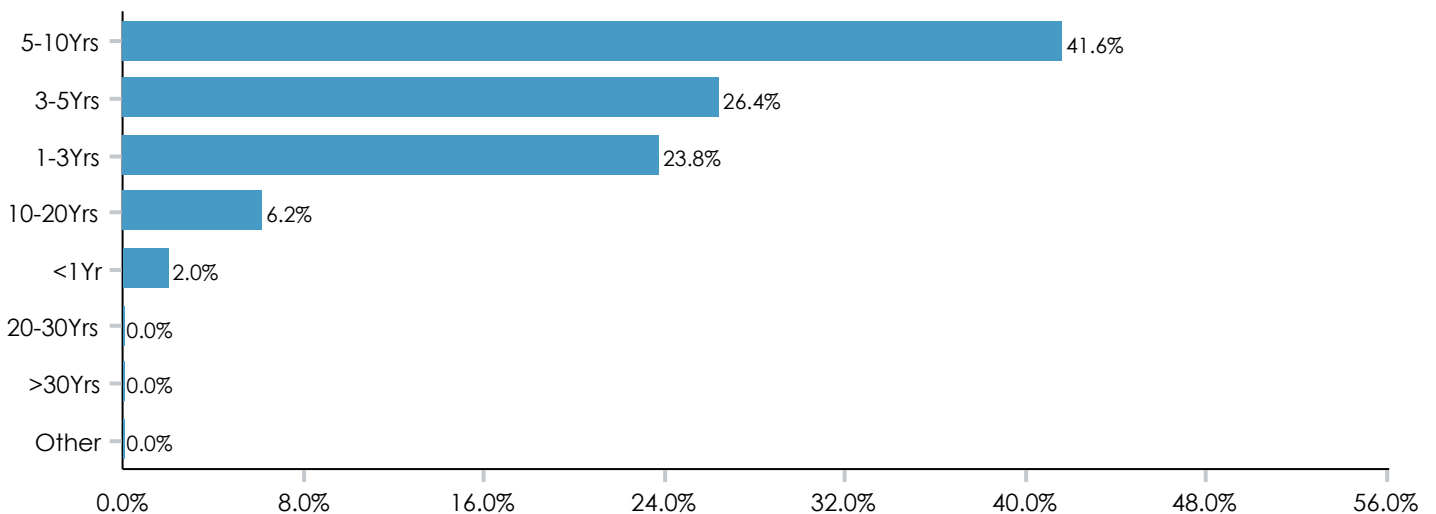
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)

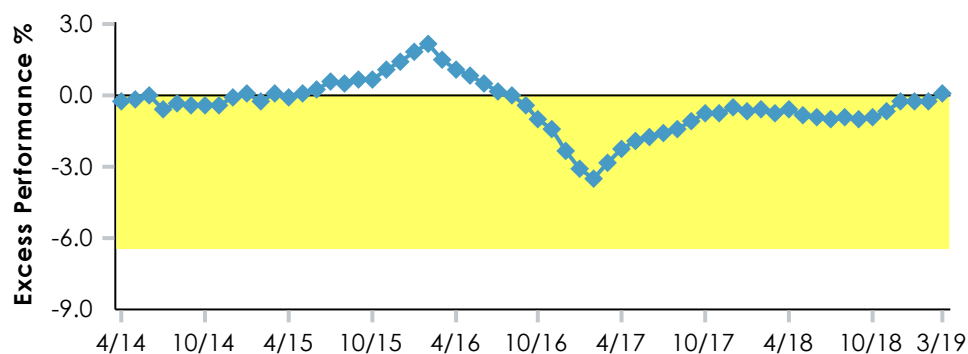


Maturity Distribution (As of 12/31/2018)



T. Rowe Price Floating Rate I vs. S&P/LSTA Performing Loans Index

Short-term (Rolling 12 Months Excess Performance)

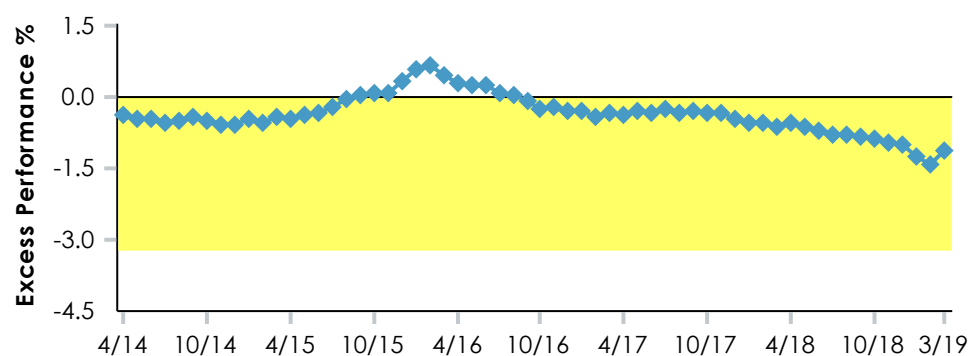


Short-Term Performance

Positive

Probationary Performance -6.50%

Medium-term (Rolling 36 Months Excess Performance)

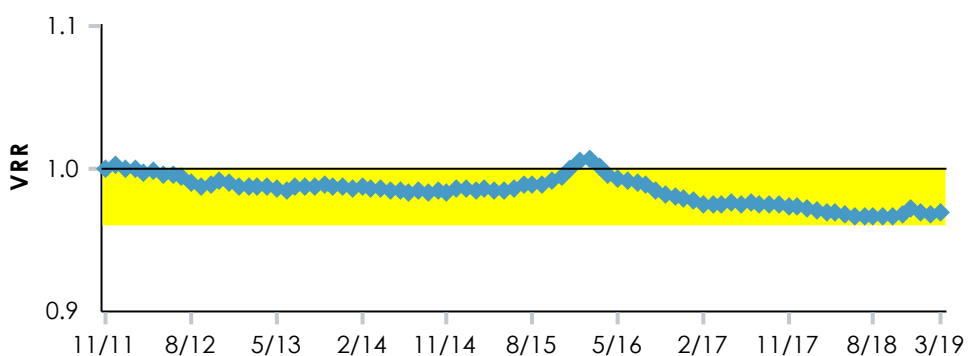


Medium-Term Performance

Acceptable

Probationary Performance -3.25%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Acceptable

Probationary Performance < 0.96

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
T. Rowe Price Floating Rate I	3.8 (51)	3.1 (5)	4.7 (55)	3.6 (6)	4.5 (21)
S&P/LSTA Performing Loans Index	4.0 (31)	3.0 (6)	5.8 (19)	3.9 (1)	5.0 (8)
IM U.S. Bank Loans (MF) Median	3.8	2.2	4.8	2.9	4.0

Monitoring Status

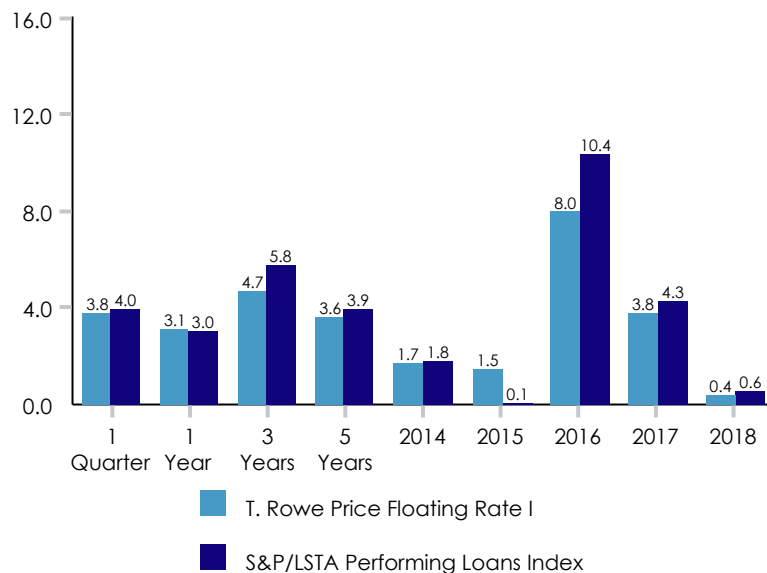
Acceptable



Mutual Fund Info

Product Name : T Rowe Price Inst:FR (RPIFX)
 Fund Family : T Rowe Price Associates Inc
 Ticker : RPIFX
 Peer Group : IM U.S. Bank Loans (MF)
 Benchmark : S&P/LSTA Leveraged Loan Index
 Fund Inception : 01/31/2008
 Portfolio Manager : Paul M. Massaro
 Total Assets : \$3,561 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.6%
 Net Expense : 0.6%
 Turnover : 54%

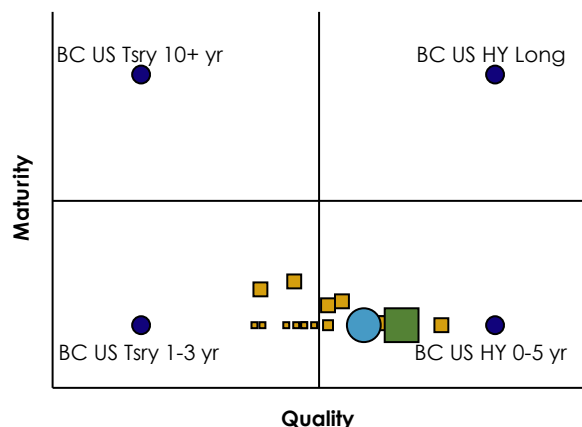
Comparative Performance



Fund Investment Policy

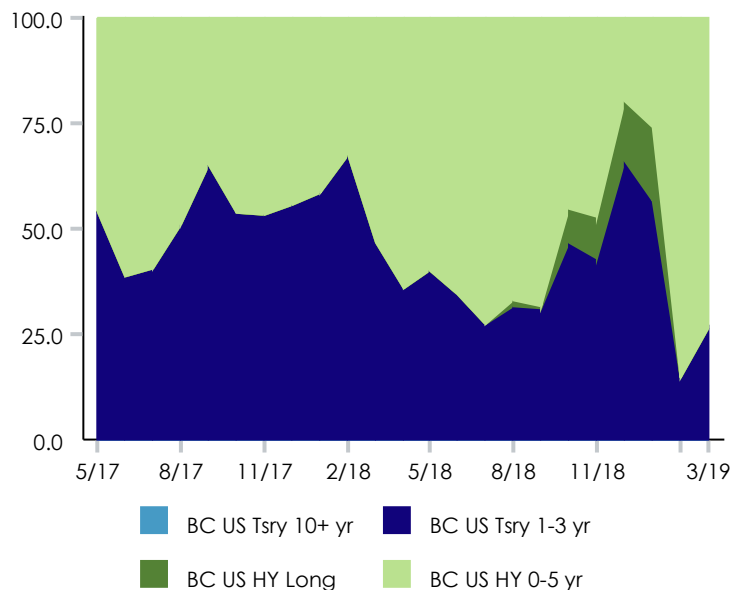
The Fund seeks high current income and, secondarily, capital appreciation. The Fund seeks to normally invest at least 80% of net assets in floating rate loans and debt securities.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

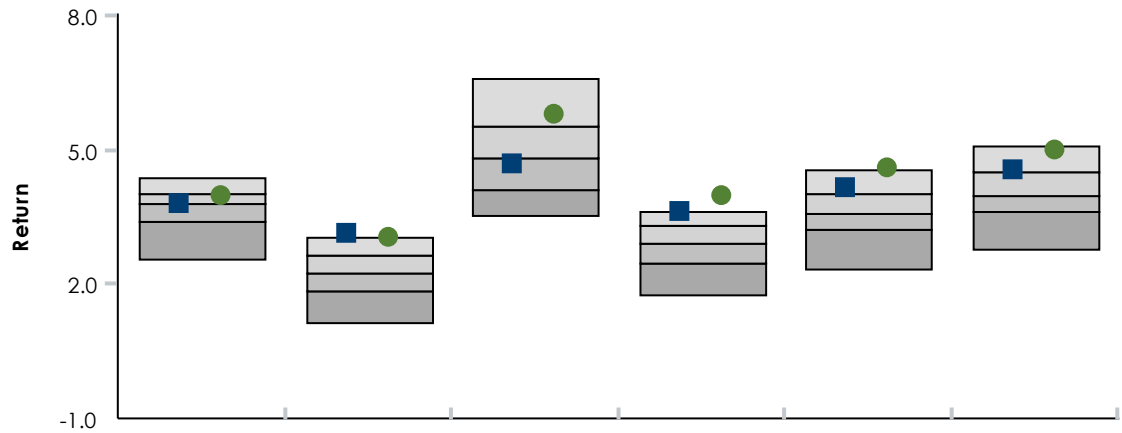
Style History (3 Years)



Historical Statistics (3 Years)

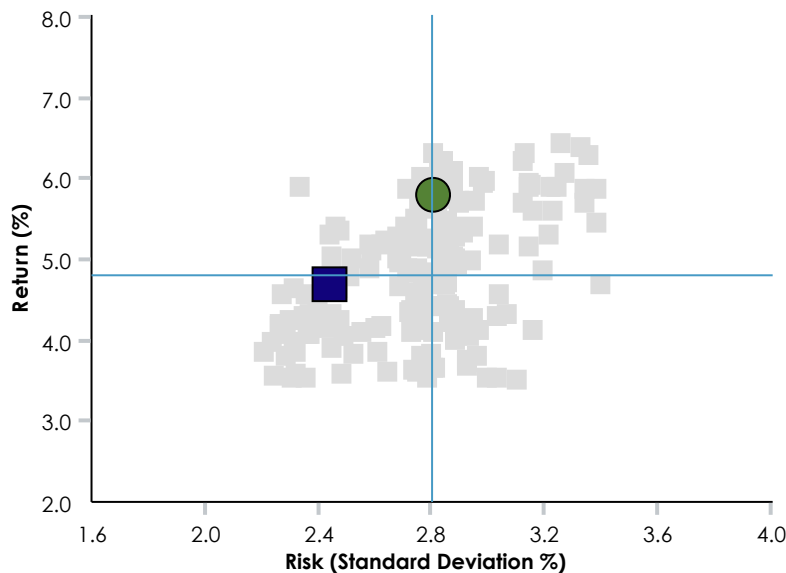
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
T. Rowe Price Floating Rate I	4.7	2.4	1.4	-0.3	0.9	1.0	0.6	-1.9	82.3	88.2
S&P/LSTA Performing Loans Index	5.8	2.8	1.6	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Bank Loans (MF) Median	4.8	2.8	1.3	-0.7	1.0	1.0	0.6	-1.6	87.1	109.9

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ T. Rowe Price Floating Rate I	3.8 (51)	3.1 (5)	4.7 (55)	3.6 (6)	4.2 (21)	4.5 (21)
● S&P/LSTA Performing Loans Index	4.0 (31)	3.0 (6)	5.8 (19)	3.9 (1)	4.6 (3)	5.0 (8)
Median	3.8	2.2	4.8	2.9	3.5	4.0

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ T. Rowe Price Floating Rate I	4.7	2.4
● S&P/LSTA Performing Loans Index	5.8	2.8
— Median	4.8	2.8

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	29	82.3
Down Markets	7	88.2
Batting Average		
Up Markets	29	20.7
Down Markets	7	57.1
Overall	36	27.8

T. Rowe Price Floating Rate I

March 31, 2019

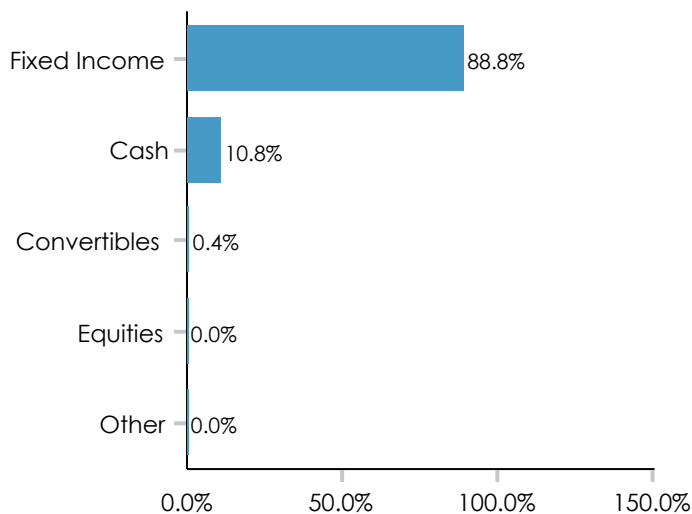
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	6.01 %
Nominal Maturity	N/A
Effective Maturity	5.38 Years
Duration	0.33 Years
SEC 30 Day Yield	5.5
Avg. Credit Quality	BB

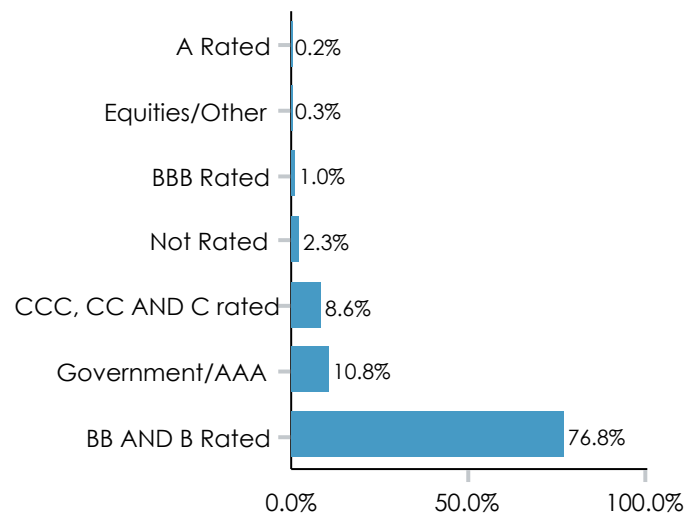
Top 10 Holdings (As of 12/31/2018)

Corporate Notes/Bonds	82.8 %
US\$ Denominated Fgn. Gvt.	6.0 %
Convertible Securities	0.4 %
Treasury Notes/Bonds	0.0%

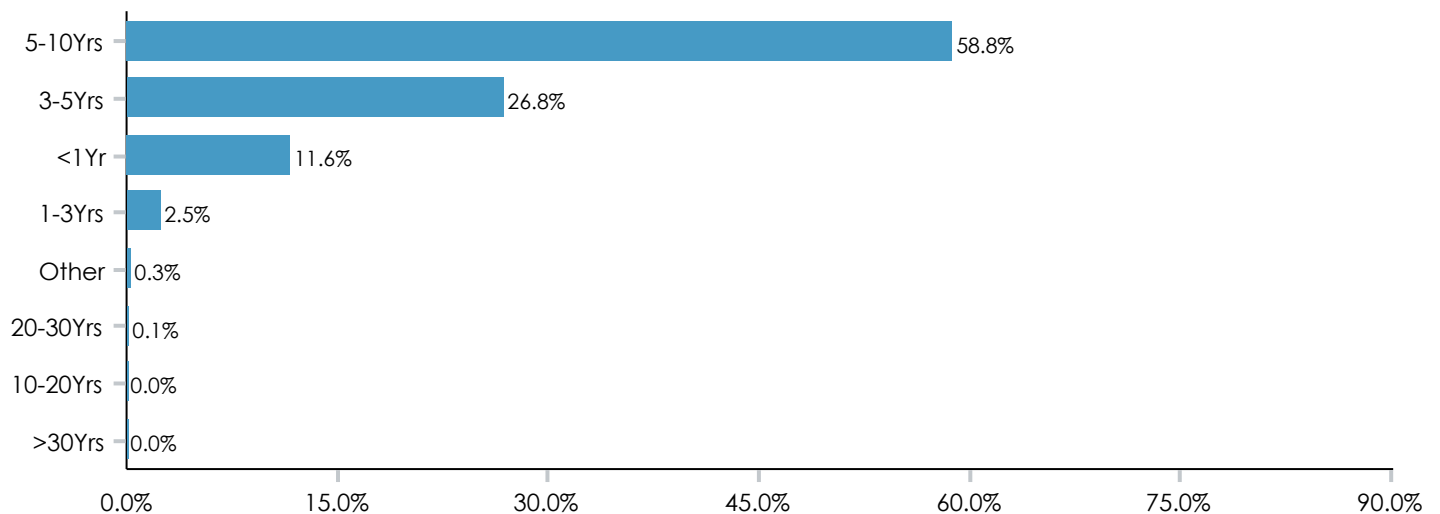
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)

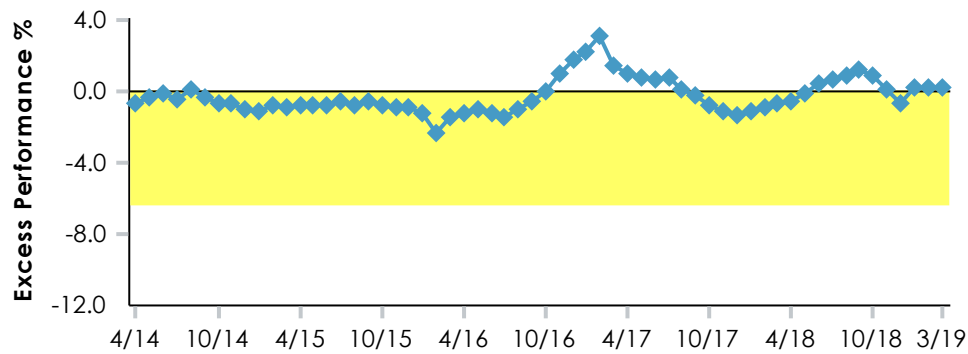


Maturity Distribution (As of 12/31/2018)



TIAA-CREF High-Yield I vs. ICE BofAML High Yield BB-B Constrained Index

Short-term (Rolling 12 Months Excess Performance)

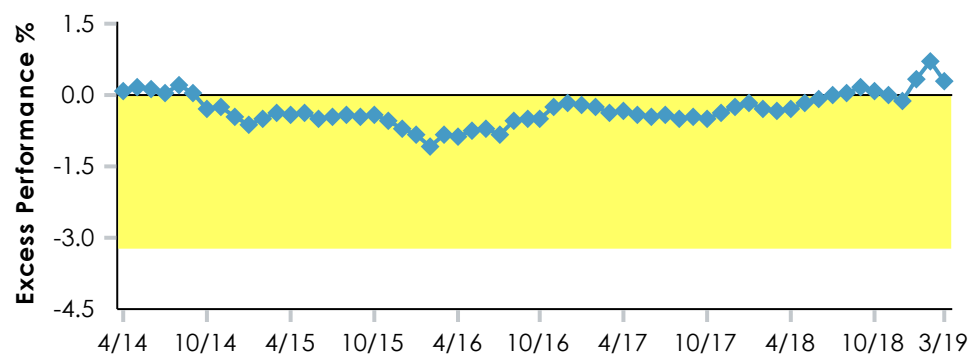


Short-Term Performance

Positive

Probationary Performance -6.50%

Medium-term (Rolling 36 Months Excess Performance)

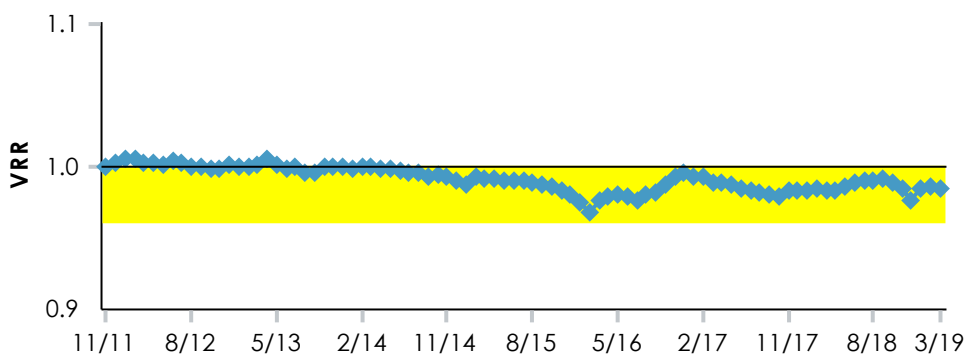


Medium-Term Performance

Positive

Probationary Performance -3.25%

Long-term (December 1, 2011 To March 31, 2019 VRR)



Long-Term Performance

Acceptable

Probationary Performance < 0.96

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF High-Yield I	8.3 (3)	6.6 (2)	8.1 (20)	4.4 (13)	6.6 (23)
ICE BofAML High Yield BB-B Constrained Index	7.3 (27)	6.3 (5)	7.8 (31)	4.7 (6)	6.8 (16)
IM U.S. High Yield Bonds (MF) Median	6.9	4.6	7.0	3.5	6.0

Monitoring Status

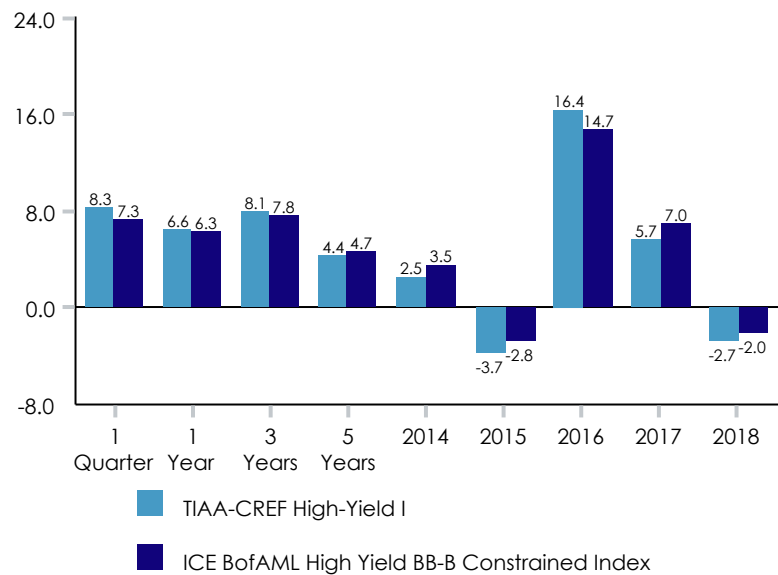
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:Hi-Yld;Inst (TIHYX)
 Fund Family : TIAA-CREF
 Ticker : TIHYX
 Peer Group : IM U.S. High Yield Bonds (MF)
 Benchmark : FTSE High Yield Market Index
 Fund Inception : 03/31/2006
 Portfolio Manager : Lorenz/Lin
 Total Assets : \$3,098 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.4%
 Net Expense : 0.4%
 Turnover : 40%

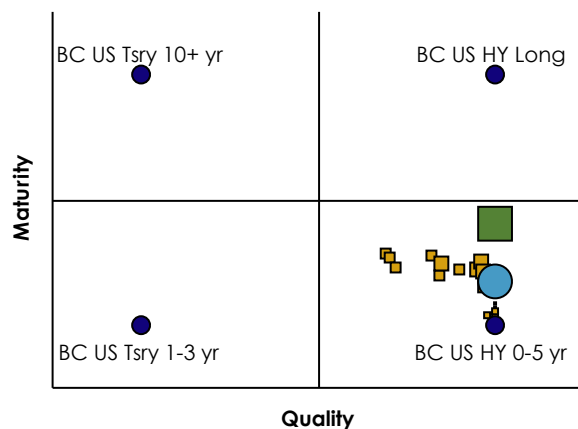
Comparative Performance



Fund Investment Policy

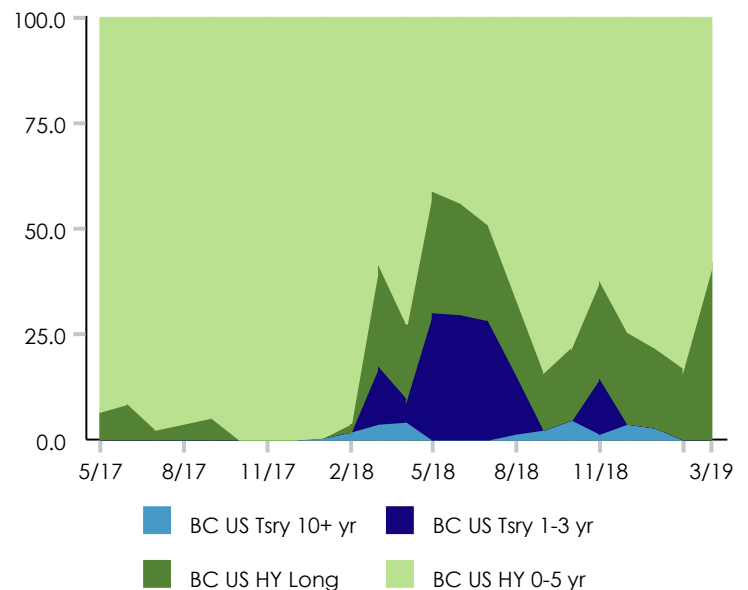
The Fund seeks high current income and, when consistent with its primary objective, capital appreciation. The Fund achieves this objective by investing at least 80% of its assets in debt and other fixed-income securities rated lower than investment grade or other high-yielding debt securities.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

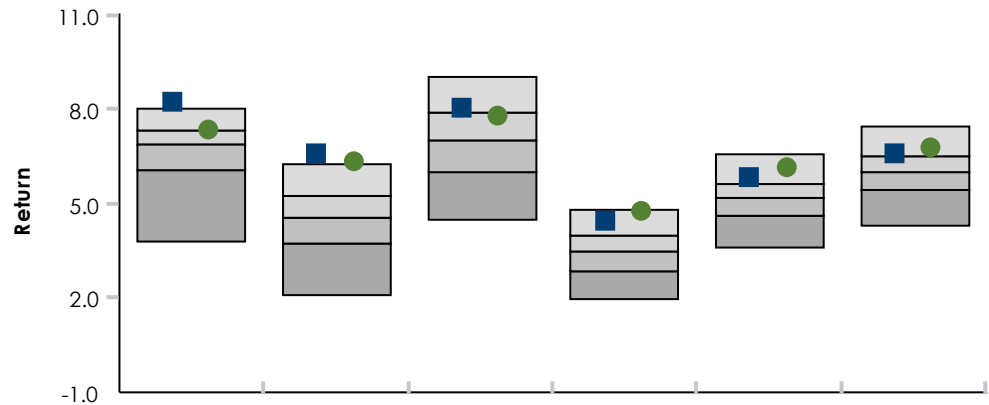
Style History (3 Years)



Historical Statistics (3 Years)

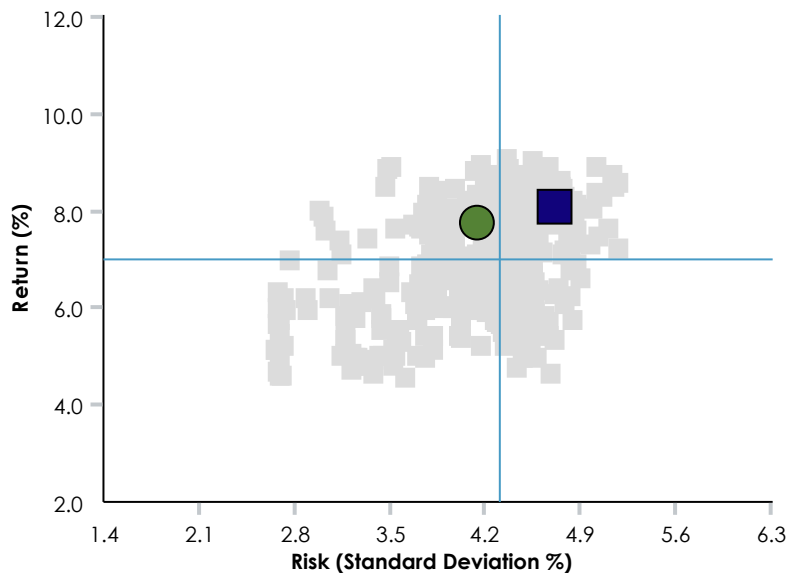
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF High-Yield I	8.1	4.7	1.4	-0.6	1.1	1.0	1.0	0.3	105.3	109.3
ICE BofAML High Yield BB-B Constrained Index	7.8	4.2	1.5	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. High Yield Bonds (MF) Median	7.0	4.3	1.3	-0.5	1.0	0.9	1.2	-0.7	95.9	111.6

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF High-Yield I	8.3 (3)	6.6 (2)	8.1 (20)	4.4 (13)	5.8 (18)	6.6 (23)
● ICE BofAML High Yield BB-B Constrained Index	7.3 (27)	6.3 (5)	7.8 (31)	4.7 (6)	6.1 (11)	6.8 (16)
Median	6.9	4.6	7.0	3.5	5.2	6.0

Peer Group Scattergram (3 Years)



Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	27	105.3
Down Markets	9	109.3
Batting Average		
Up Markets	27	55.6
Down Markets	9	44.4
Overall	36	52.8

	Return	Standard Deviation
■ TIAA-CREF High-Yield I	8.1	4.7
● ICE BofAML High Yield BB-B Constrained Index	7.8	4.2
— Median	7.0	4.3

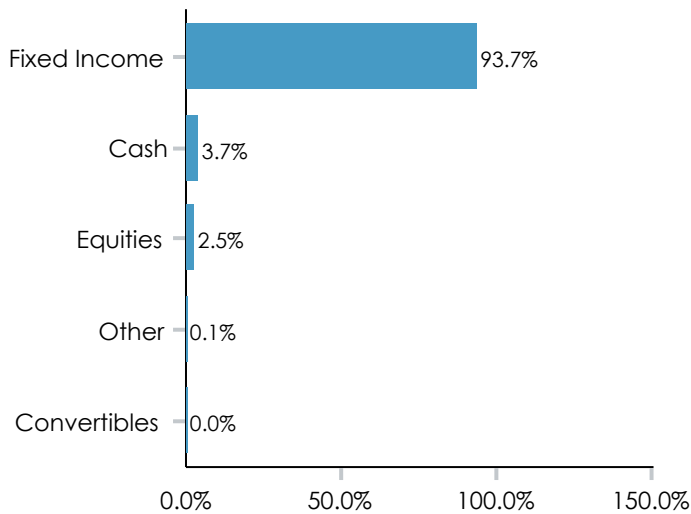
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	6.15 %
Nominal Maturity	6.61 Years
Effective Maturity	N/A
Duration	3.78 Years
SEC 30 Day Yield	6.4
Avg. Credit Quality	A

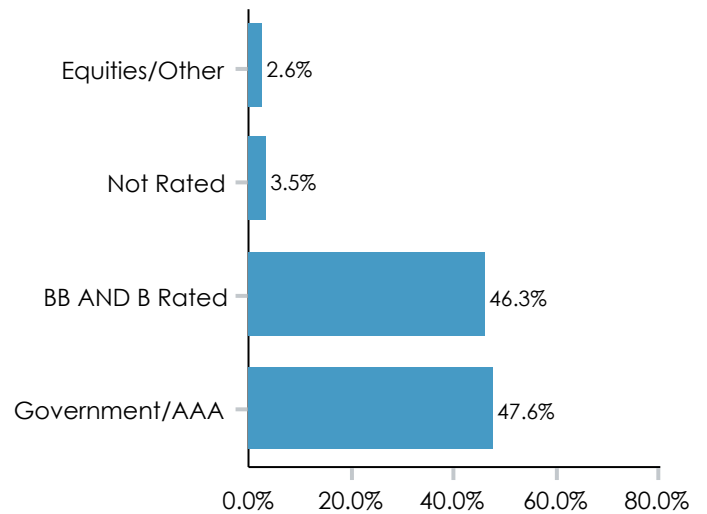
Top 10 Holdings (As of 12/31/2018)

Corporate Notes/Bonds	80.8 %
US\$ Denominated Fgn. Gvt.	12.9 %
Common Stock	2.5 %

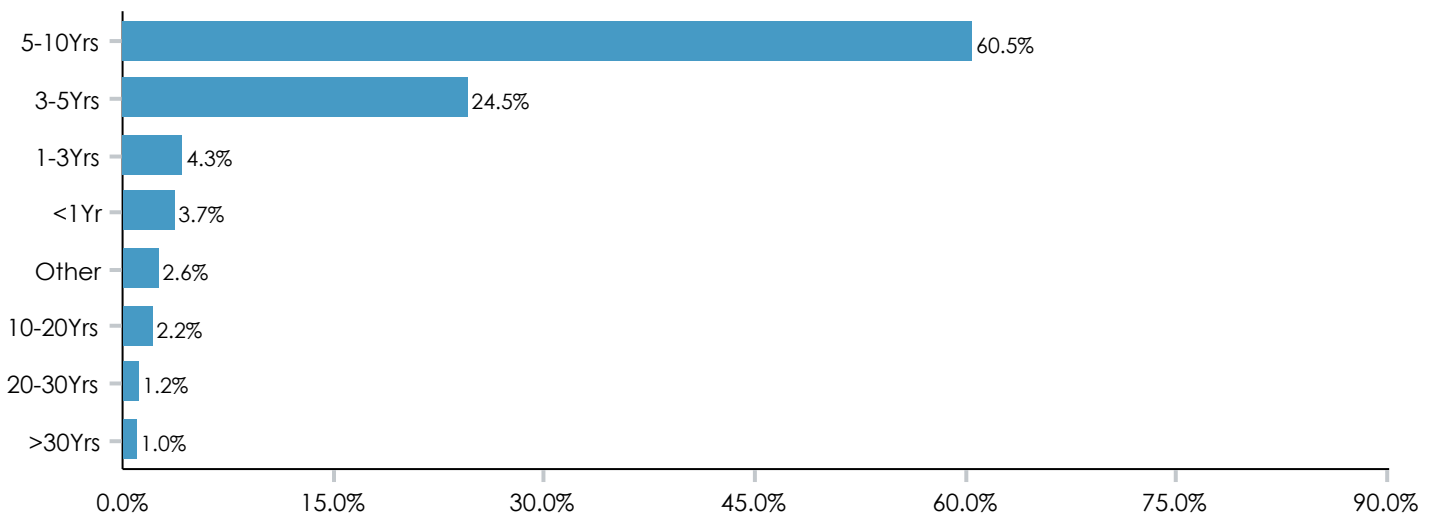
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)



Maturity Distribution (As of 12/31/2018)

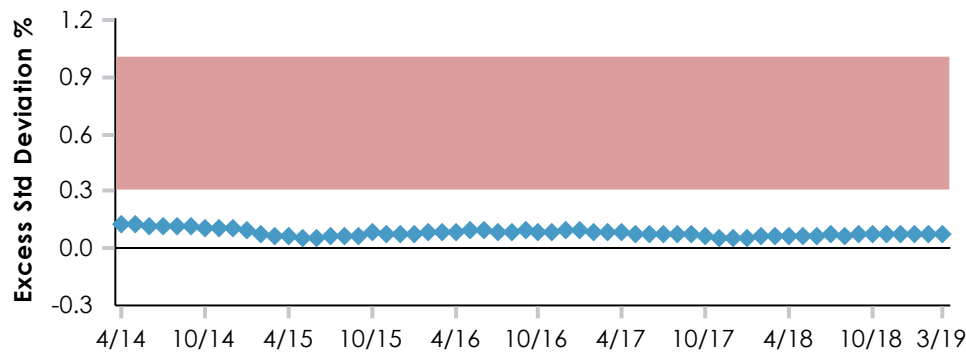


PASSIVE FUNDS



TIAA-CREF Equity Index I vs. Russell 3000 Index

Short-term (Rolling 12 Months Tracking Error)

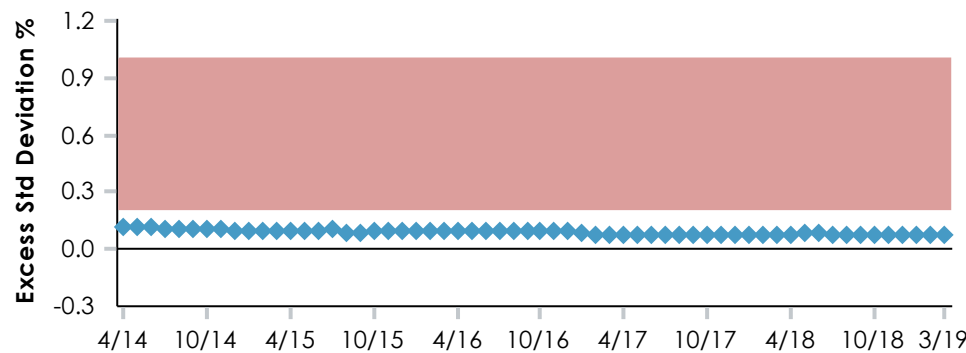


Short-Term Performance

Positive

Probationary Performance 0.30%

Medium-term (Rolling 36 Months Tracking Error)

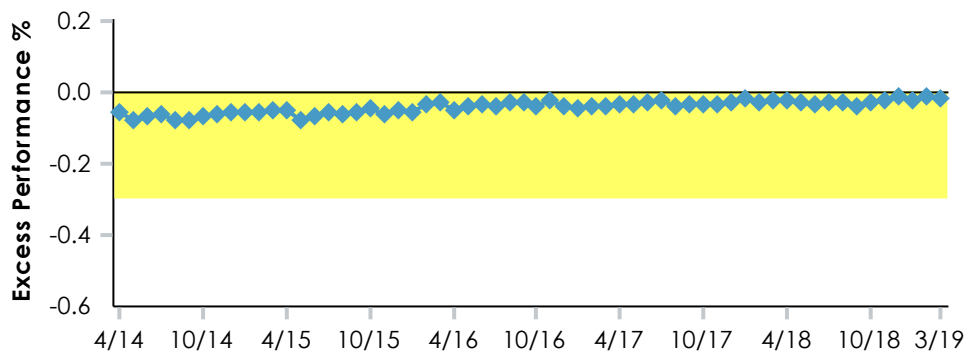


Medium-Term Performance

Positive

Probationary Performance 0.25%

Long-term (Rolling 60 Months Excess Performance)



Long-Term Performance

Acceptable

Probationary Performance -0.30%

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Equity Index I	14.0 (33)	8.8 (17)	13.5 (13)	10.3 (9)	14.0 (13)
Russell 3000 Index	14.0 (31)	8.8 (17)	13.5 (12)	10.4 (8)	14.0 (11)
IM U.S. Multi-Cap Core Equity (MF) Median	13.3	5.5	11.5	8.2	12.4

Monitoring Status

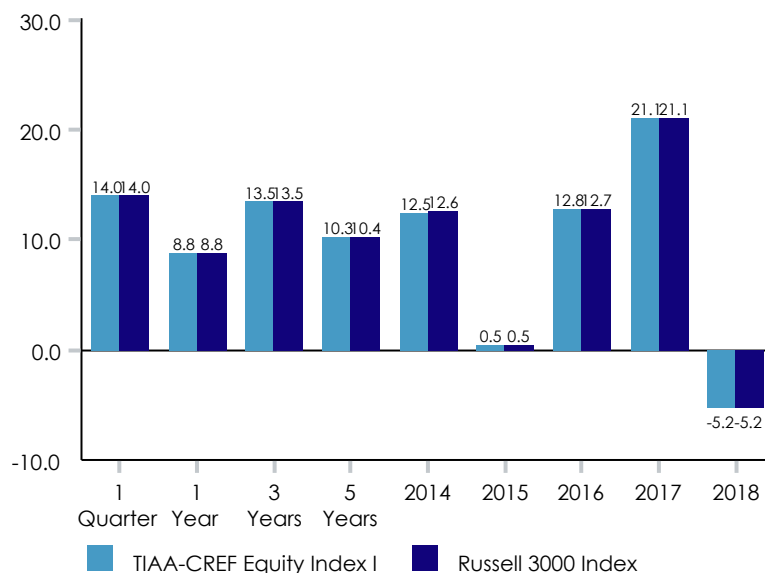
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:Eq Idx;Inst (TIEIX)
 Fund Family : TIAA-CREF
 Ticker : TIEIX
 Peer Group : IM U.S. Multi-Cap Core Equity (MF)
 Benchmark : Russell 3000 Index
 Fund Inception : 07/01/1999
 Portfolio Manager : Campana/Liao/Tran
 Total Assets : \$8,557 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.1%
 Net Expense : 0.1%
 Turnover : 5%

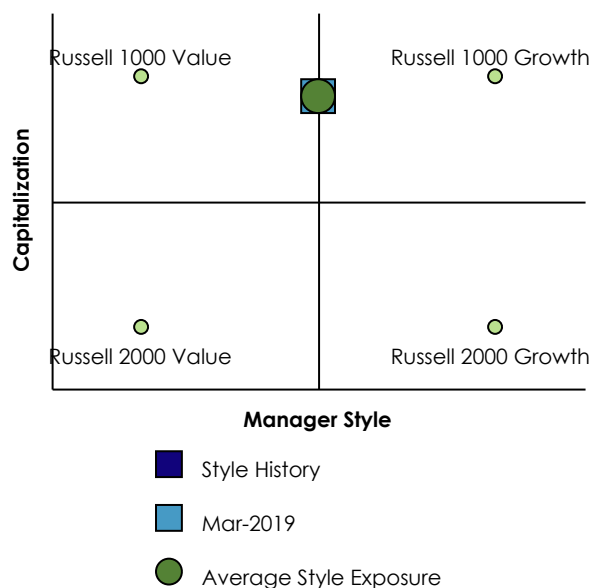
Comparative Performance



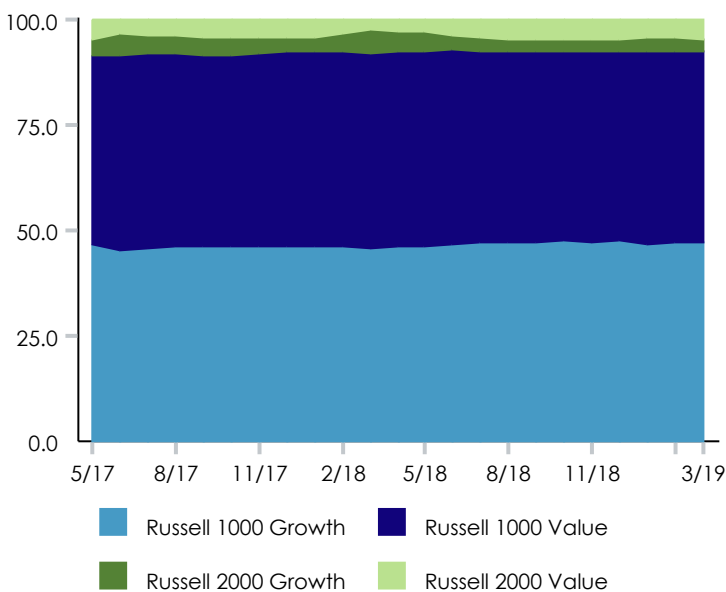
Fund Investment Policy

The Fund seeks a favorable long-term total return. Under normal circumstances, the Fund invests at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in securities of its benchmark index (the Russell 3000 Index) and in equity securities.

Style Map (3 Years)



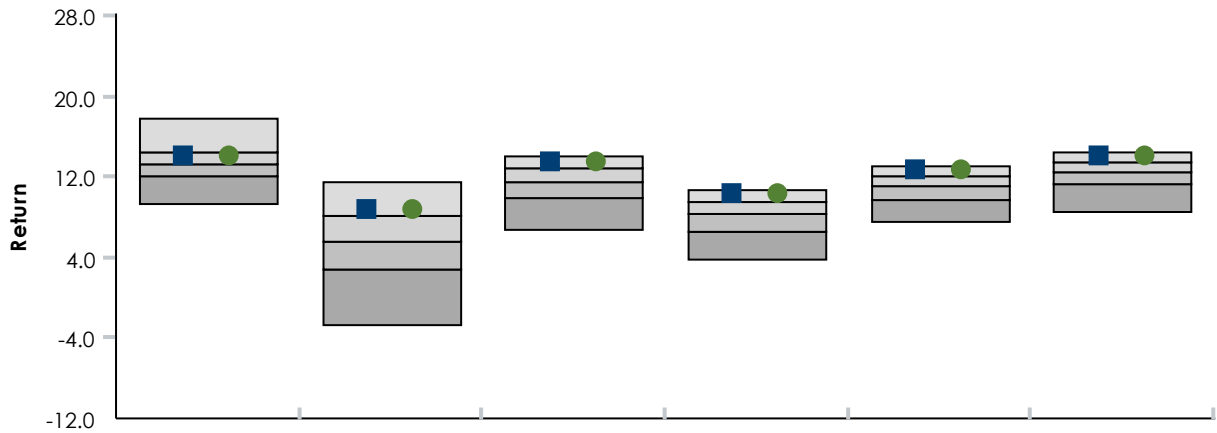
Style History (3 Years)



Historical Statistics (3 Years)

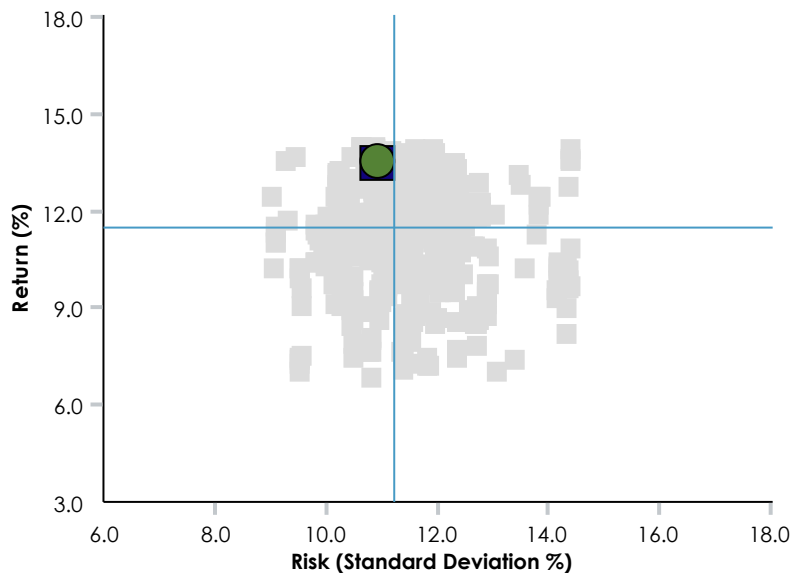
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Equity Index I	13.5	10.9	1.1	0.0	1.0	1.0	0.1	-0.2	100.0	100.2
Russell 3000 Index	13.5	10.9	1.1	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Multi-Cap Core Equity (MF) Median	11.5	11.2	0.9	-1.6	1.0	0.9	3.2	-0.6	92.3	100.0

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Equity Index I	14.0 (33)	8.8 (17)	13.5 (13)	10.3 (9)	12.6 (12)	14.0 (13)
● Russell 3000 Index	14.0 (31)	8.8 (17)	13.5 (12)	10.4 (8)	12.6 (11)	14.0 (11)
Median	13.3	5.5	11.5	8.2	11.0	12.4

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Equity Index I	13.5	10.9
● Russell 3000 Index	13.5	10.9
— Median	11.5	11.2

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	31	100.0
Down Markets	5	100.2
Batting Average		
Up Markets	31	45.2
Down Markets	5	20.0
Overall	36	41.7

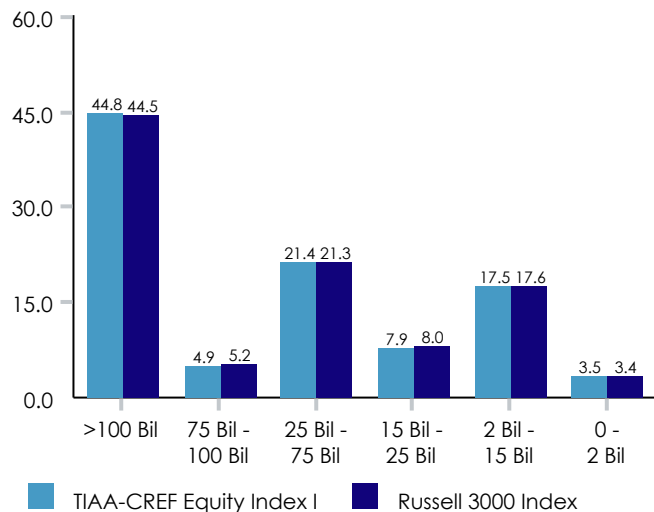
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	192,062	191,476
Median Mkt. Cap (\$M)	1,866	1,646
Price/Earnings ratio	19.8	19.8
Price/Book ratio	3.3	3.3
5 Yr. EPS Growth Rate (%)	14.9	15.0
Current Yield (%)	1.9	1.9
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	2,804	2,977

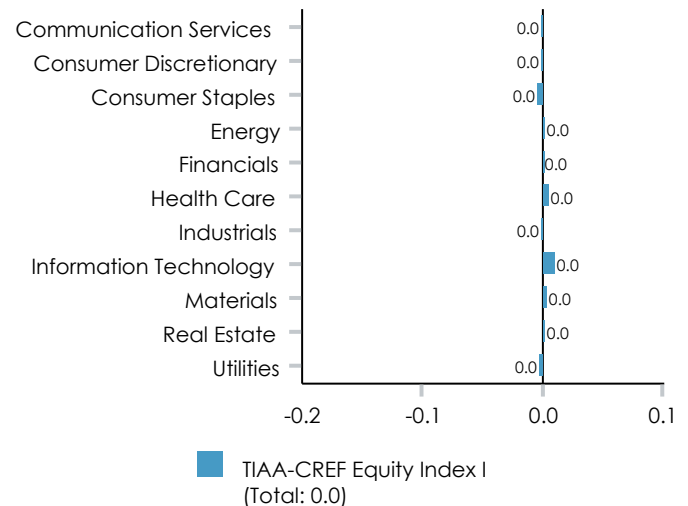
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Apple Inc	3.2	3.2	20.9
Microsoft Corp	3.2	3.2	16.6
Amazon.com Inc	2.6	2.6	18.6
Facebook Inc	1.4	1.4	27.2
Berkshire Hathaway Inc	1.4	1.4	-1.6
Johnson & Johnson	1.3	1.3	9.0
Alphabet Inc	1.3	1.3	13.3
Alphabet Inc	1.2	1.2	12.6
Exxon Mobil Corp	1.2	1.2	19.8
JPMorgan Chase & Co	1.2	1.2	4.6
% of Portfolio	18.0	18.0	

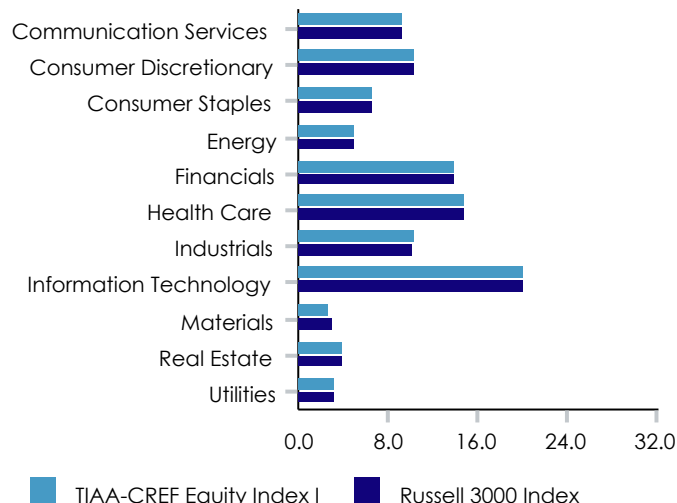
Market Cap Distribution (As of 1/31/2019)



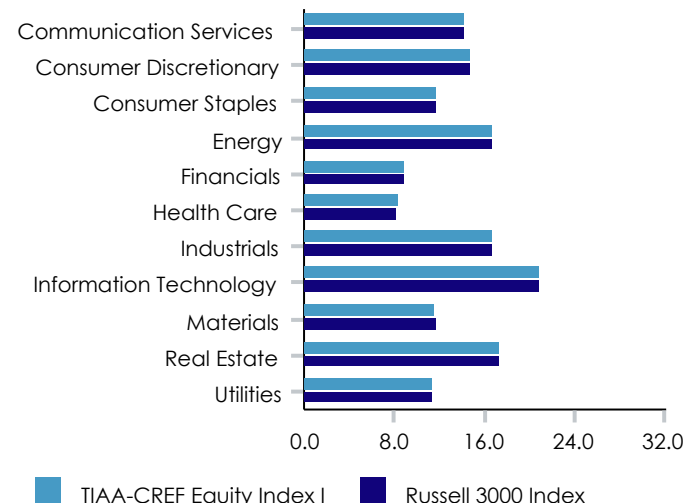
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

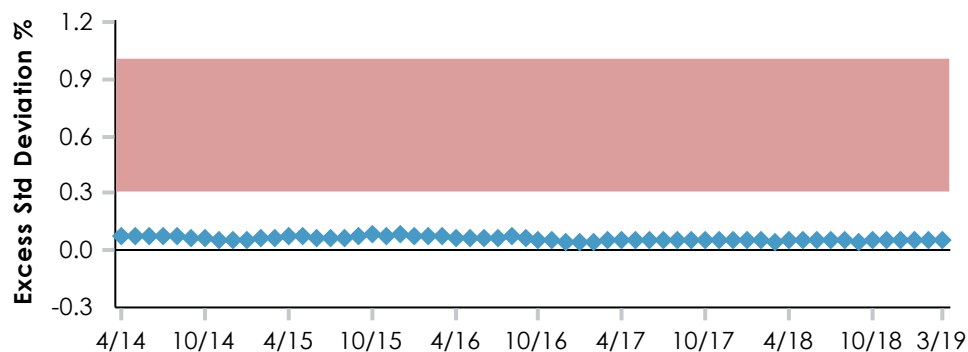


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF S&P 500 Index I vs. S&P 500 Index

Short-term (Rolling 12 Months Tracking Error)

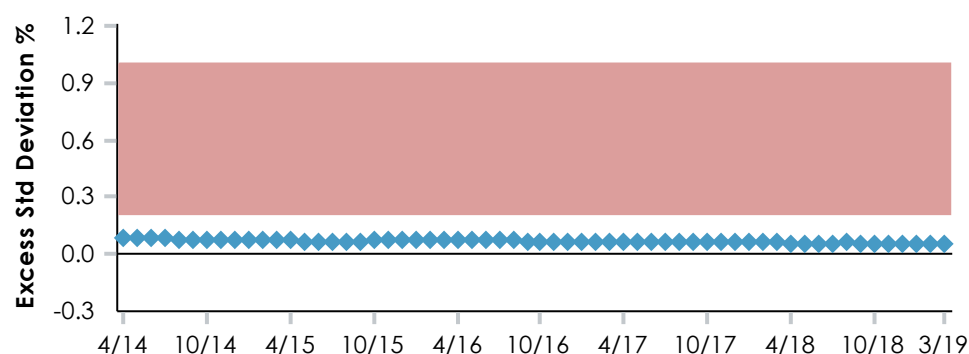


Short-Term Performance

Positive

Probationary Performance 0.30%

Medium-term (Rolling 36 Months Tracking Error)

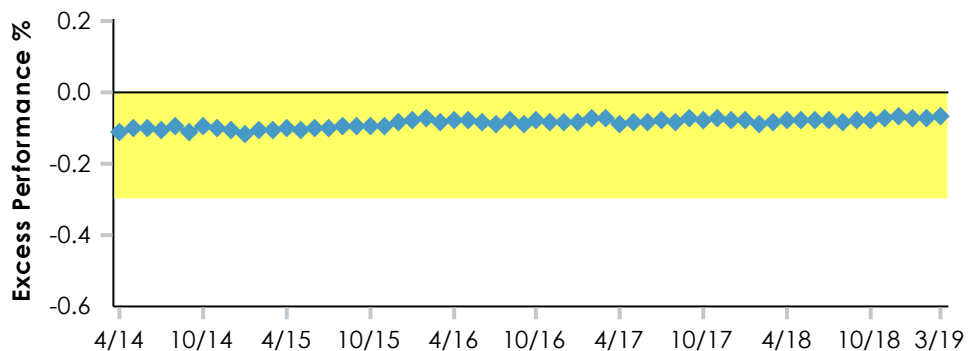


Medium-Term Performance

Positive

Probationary Performance 0.25%

Long-term (Rolling 60 Months Excess Performance)



Long-Term Performance

Acceptable

Probationary Performance -0.30%

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF S&P 500 Index I	13.6 (16)	9.5 (16)	13.4 (13)	10.8 (9)	14.1 (10)
S&P 500 Index	13.6 (7)	9.5 (6)	13.5 (2)	10.9 (1)	14.2 (1)
IM S&P 500 Index (MF) Median	13.6	9.2	13.1	10.5	13.7

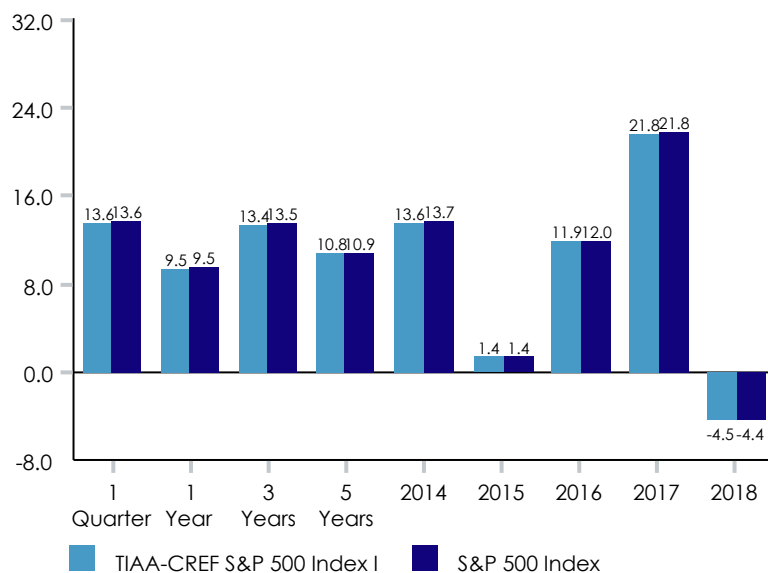
Monitoring Status

Acceptable

Mutual Fund Info

Product Name : TIAA-CREF:S&P500 Idx;Ins (TISPX)
 Fund Family : TIAA-CREF
 Ticker : TISPX
 Peer Group : IM S&P 500 Index (MF)
 Benchmark : S&P 500 Index
 Fund Inception : 10/01/2002
 Portfolio Manager : Campagna/Liao/Tran
 Total Assets : \$3,659 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.1%
 Net Expense : 0.1%
 Turnover : 8%

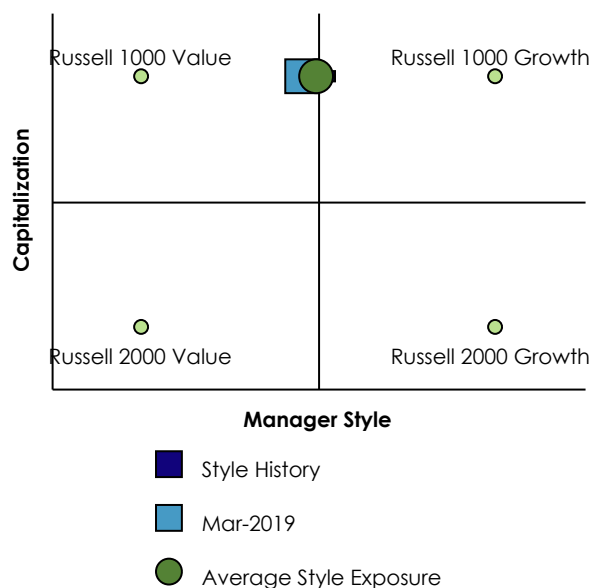
Comparative Performance



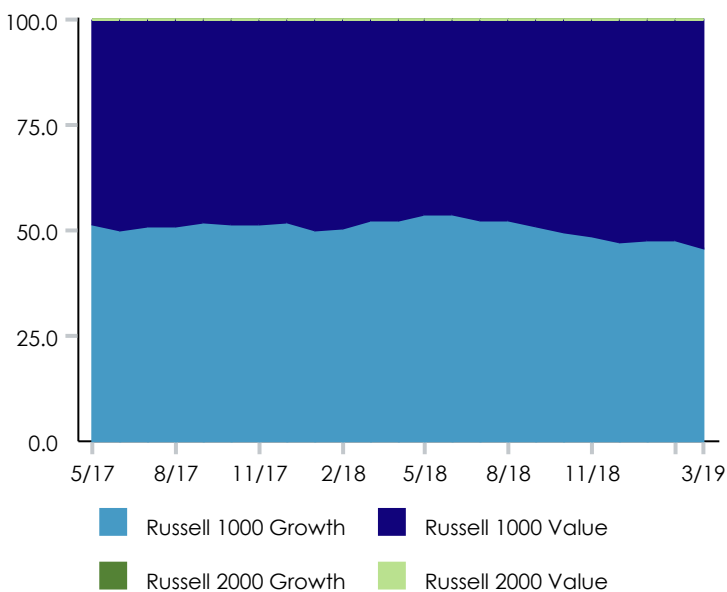
Fund Investment Policy

The Fund 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.

Style Map (3 Years)



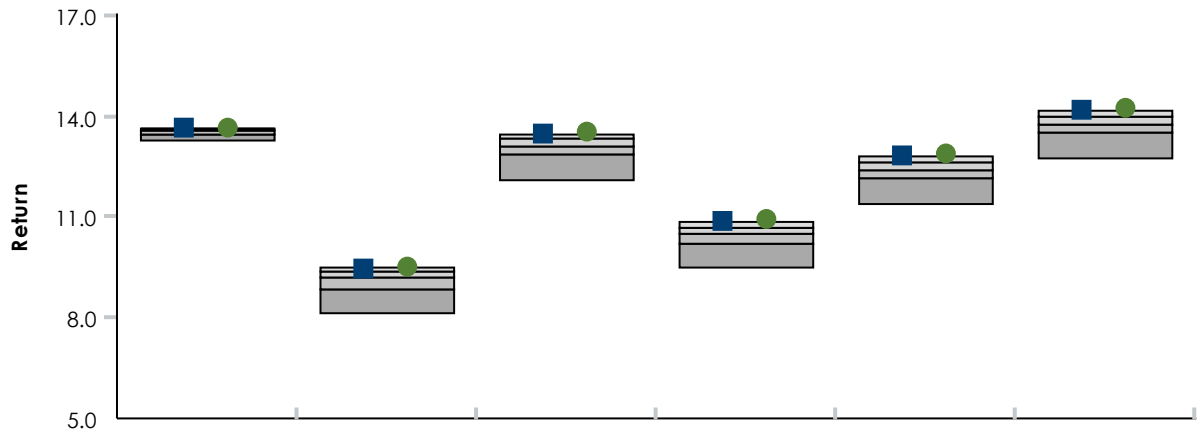
Style History (3 Years)



Historical Statistics (3 Years)

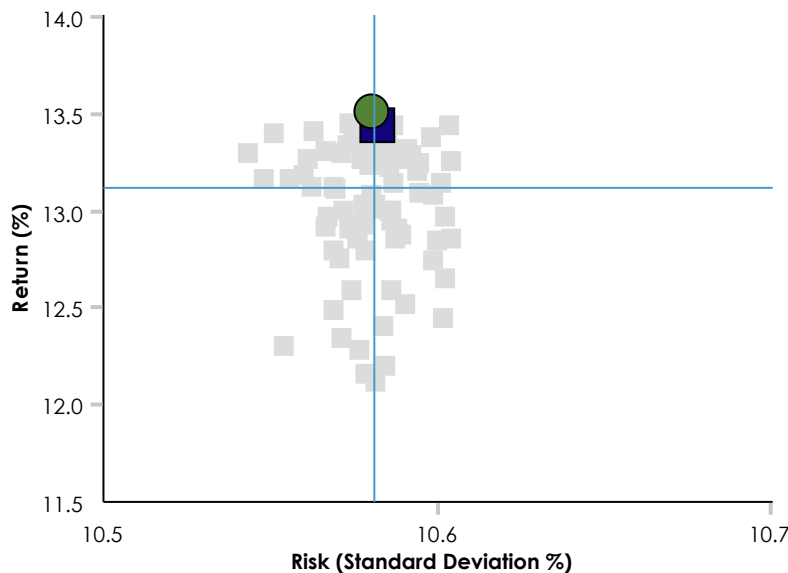
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF S&P 500 Index I	13.4	10.6	1.1	-0.1	1.0	1.0	0.1	-1.3	99.7	100.1
S&P 500 Index	13.5	10.6	1.1	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM S&P 500 Index (MF) Median	13.1	10.6	1.1	-0.3	1.0	1.0	0.1	-5.3	98.6	100.6

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF S&P 500 Index I	13.6 (16)	9.5 (16)	13.4 (13)	10.8 (9)	12.8 (7)	14.1 (10)
● S&P 500 Index	13.6 (7)	9.5 (6)	13.5 (2)	10.9 (1)	12.8 (1)	14.2 (1)
Median	13.6	9.2	13.1	10.5	12.4	13.7

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF S&P 500 Index I	13.4	10.6
● S&P 500 Index	13.5	10.6
— Median	13.1	10.6

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	31	99.7
Down Markets	5	100.1
Batting Average		
Up Markets	31	25.8
Down Markets	5	20.0
Overall	36	25.0

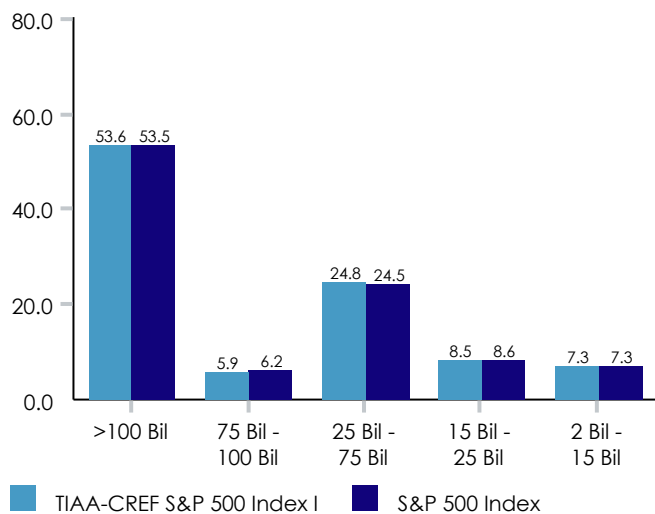
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	227,979	230,718
Median Mkt. Cap (\$M)	21,280	21,550
Price/Earnings ratio	20.0	20.1
Price/Book ratio	3.5	3.4
5 Yr. EPS Growth Rate (%)	15.0	15.1
Current Yield (%)	2.0	2.0
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	504	505

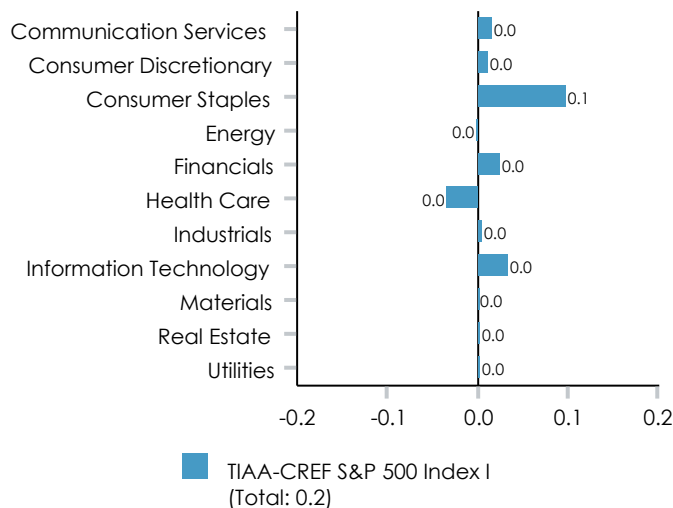
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Microsoft Corp	3.9	3.7	16.6
Apple Inc	3.6	3.6	20.9
Amazon.com Inc	3.1	3.5	18.6
Facebook Inc	1.7	1.6	27.2
Berkshire Hathaway Inc	1.7	2.0	-1.6
Johnson & Johnson	1.6	1.5	9.0
Alphabet Inc	1.5	1.7	13.3
Alphabet Inc	1.5	1.4	12.6
Exxon Mobil Corp	1.5	1.4	19.8
JPMorgan Chase & Co	1.4	1.3	4.6
% of Portfolio	21.5	21.7	

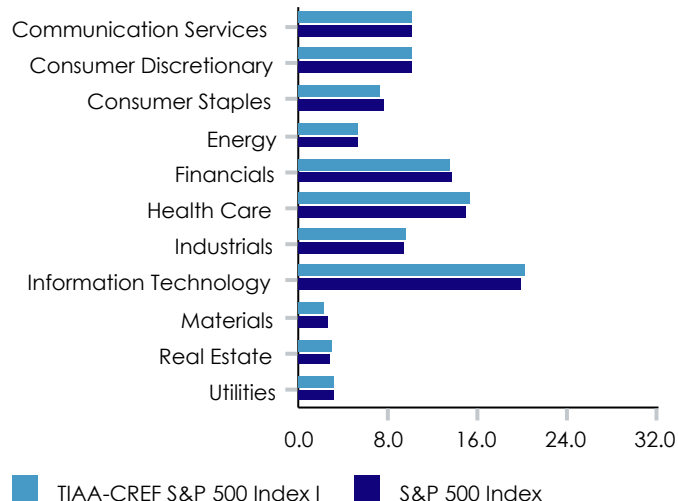
Market Cap Distribution (As of 1/31/2019)



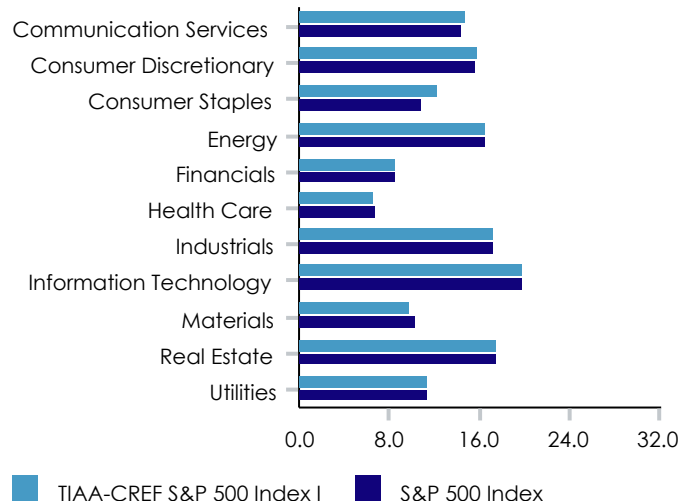
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

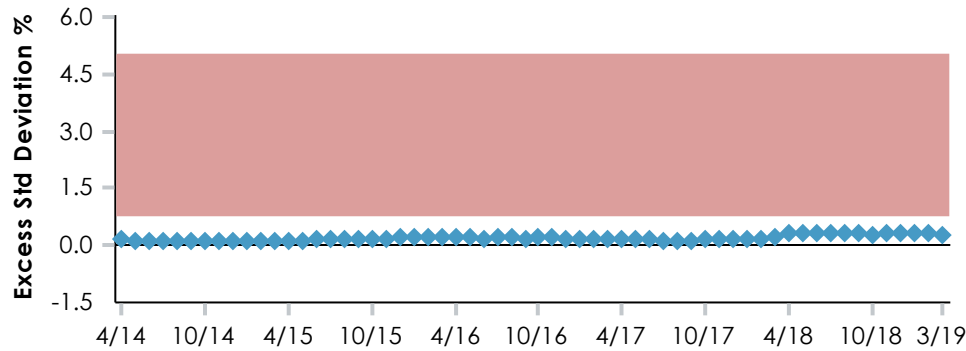


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF Interational Equity Index I (actual) vs. MSCI EAFE (Net) Index

Short-term (Rolling 12 Months Tracking Error)

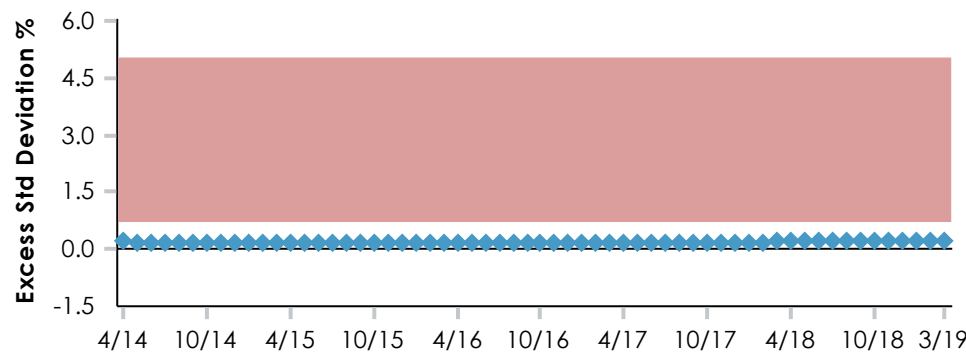


Short-Term Performance

Positive

Probationary Performance 0.75%

Medium-term (Rolling 36 Months Tracking Error)

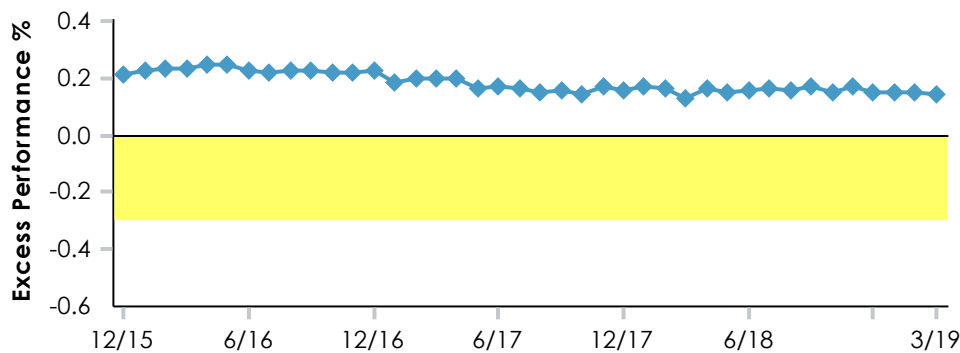


Medium-Term Performance

Positive

Probationary Performance 0.70%

Long-term (Rolling 60 Months Excess Performance)



Long-Term Performance

Positive

Probationary Performance -0.30%

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Interational Equity Index I (actual)	10.0 (52)	-3.4 (16)	7.4 (27)	2.5 (39)	6.9 (22)
MSCI EAFE (Net) Index	10.0 (56)	-3.7 (19)	7.3 (31)	2.3 (43)	6.7 (28)
IM International Multi-Cap Core Equity (MF) Median	10.0	-5.6	6.6	2.1	6.1

Monitoring Status

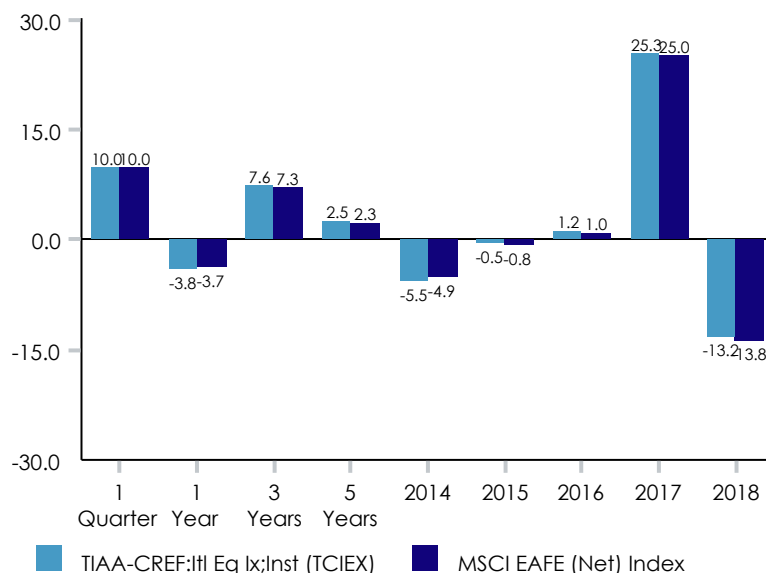
Positive



Mutual Fund Info

Product Name : TIAA-CREF:Itl Eq Ix;Inst (TCIEX)
 Fund Family : TIAA-CREF
 Ticker : TCIEX
 Peer Group : IM International Multi-Cap Core Equity (MF)
 Benchmark : MSCI EAFE IMI
 Fund Inception : 10/01/2002
 Portfolio Manager : Campagna/Liao/Tran
 Total Assets : \$6,959 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.1%
 Net Expense : 0.1%
 Turnover : 4%

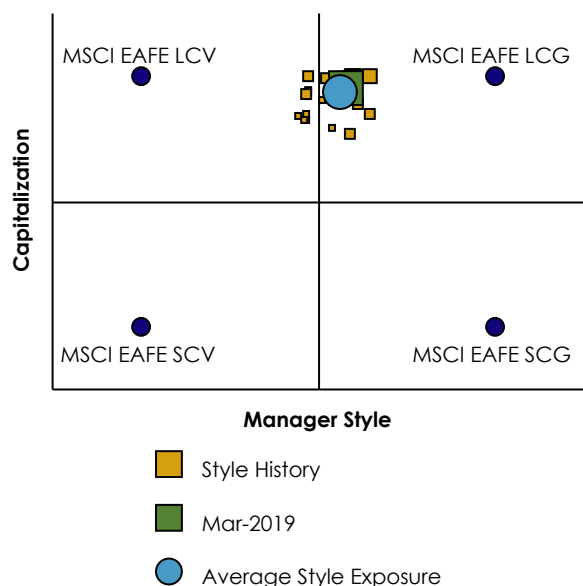
Comparative Performance



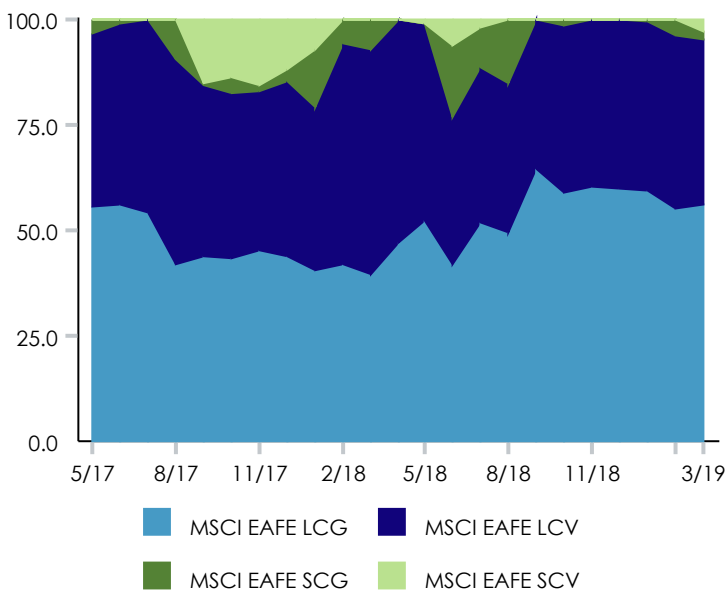
Fund Investment Policy

The Fund seeks a favorable long-term total return, mainly through capital appreciation. The Fund has a policy of investing, under normal circumstances, at least 80% of its assets (net assets, plus the amount of any borrowings for investment purposes) in the equity securities of its benchmark index, the MSCI EAFE Index.

Style Map (3 Years)



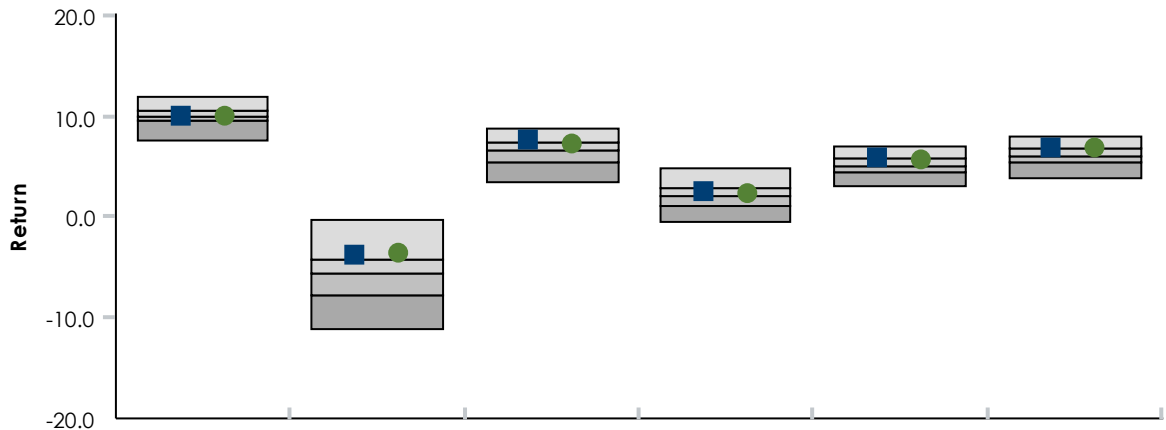
Style History (3 Years)



Historical Statistics (3 Years)

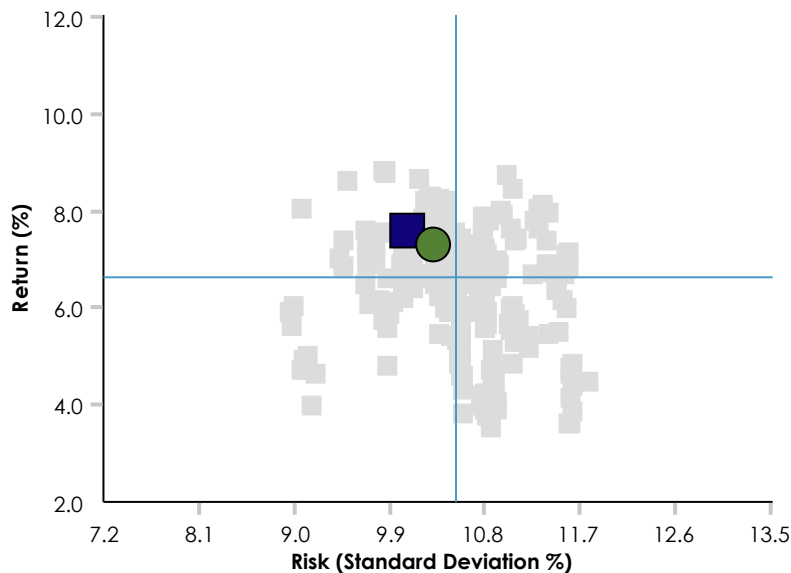
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF:Itl Eq Ix;Inst (TCIEX)	7.6	10.1	0.7	0.5	1.0	1.0	1.5	0.2	96.6	91.8
MSCI EAFE (Net) Index	7.3	10.3	0.6	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM International Multi-Cap Core Equity (MF) Median	6.6	10.5	0.5	-0.4	1.0	0.9	3.0	-0.2	94.0	94.0

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF:Itl Eq Ix;Inst (TCIEX)	10.0 (51)	-3.8 (20)	7.6 (22)	2.5 (37)	5.8 (25)	6.8 (28)
● MSCI EAFE (Net) Index	10.0 (56)	-3.7 (19)	7.3 (31)	2.3 (43)	5.6 (30)	6.7 (28)
Median	10.0	-5.6	6.6	2.1	5.1	6.1

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF:Itl Eq Ix;Inst (TCIEX)	7.6	10.1
● MSCI EAFE (Net) Index	7.3	10.3
— Median	6.6	10.5

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	22	96.6
Down Markets	14	91.8
Batting Average		
Up Markets	22	45.5
Down Markets	14	64.3
Overall	36	52.8

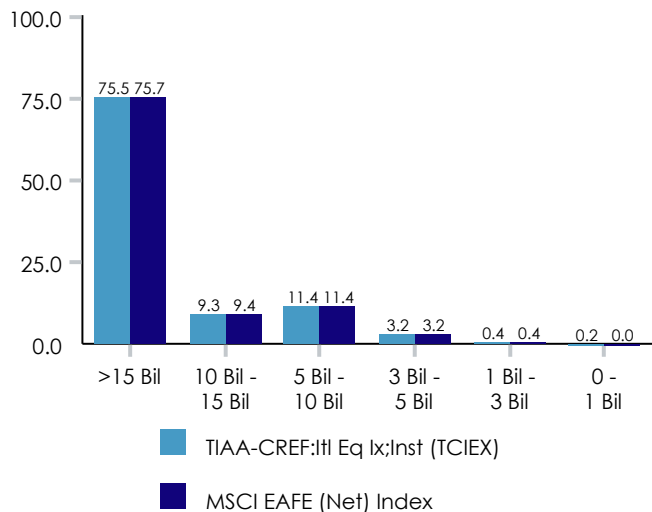
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	62,609	61,530
Median Mkt. Cap (\$M)	10,328	10,328
Price/Earnings ratio	14.0	14.0
Price/Book ratio	2.2	2.2
5 Yr. EPS Growth Rate (%)	9.0	8.7
Current Yield (%)	3.2	3.6
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	920	920

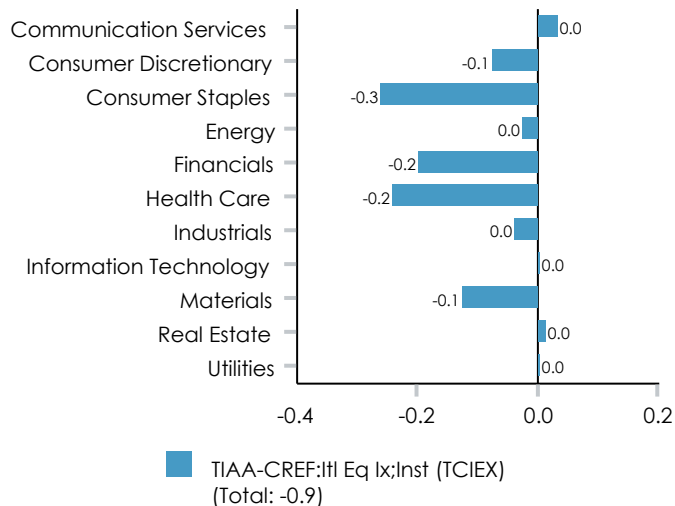
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quarterly Return (%)
Nestle SA	2.2	2.1	17.5
NOVARTIS AG	1.5	0.0	N/A
Roche Holding AG	1.4	1.4	15.0
HSBC Holdings PLC	1.2	1.2	1.0
BP PLC	1.1	1.1	16.8
Royal Dutch Shell PLC	1.1	1.0	6.9
Toyota Motor Corp	1.0	1.0	2.1
Total SA Oil & Gas	1.0	1.0	6.4
AIA Group Ltd	0.9	0.9	20.0
Royal Dutch Shell PLC	0.9	0.9	7.6
% of Portfolio	12.3	10.6	

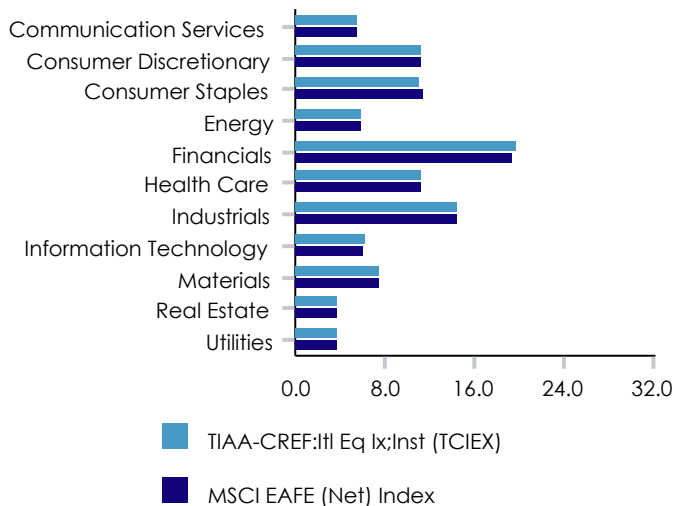
Market Cap Distribution (As of 1/31/2019)



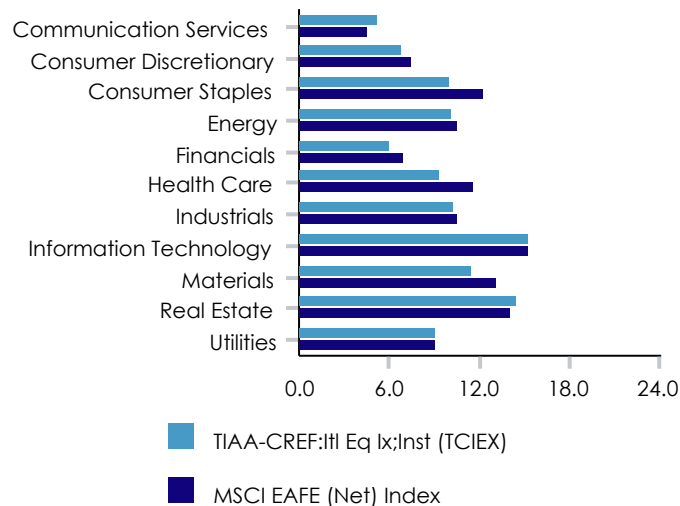
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

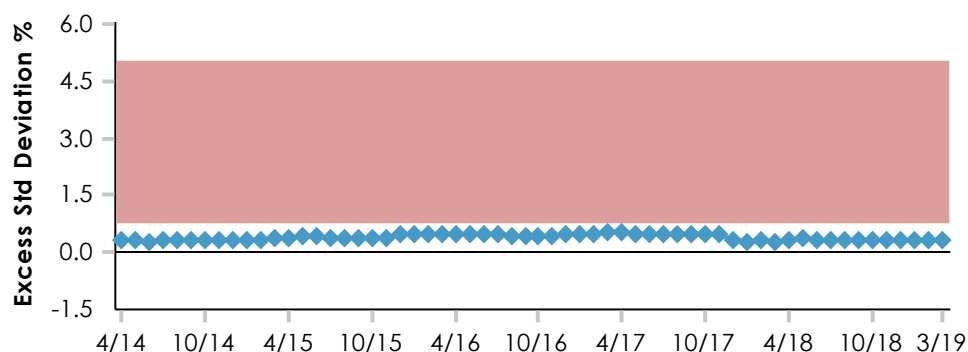


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF Emerging Markets Equity Index (actual) vs. MSCI Emerging Markets (

Short-term (Rolling 12 Months Tracking Error)

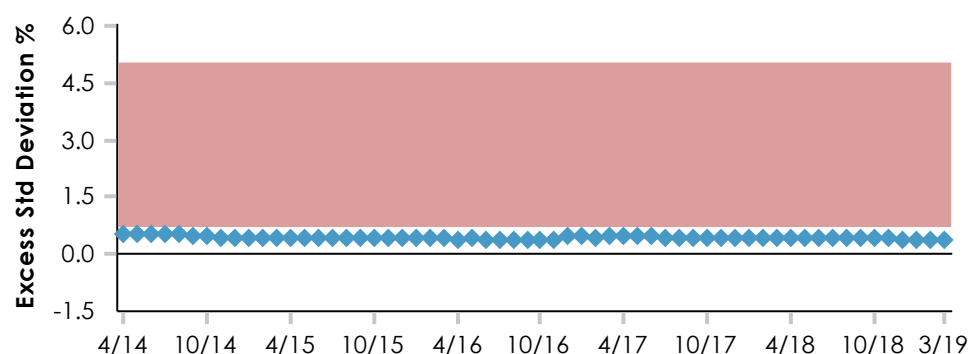


Short-Term Performance

Positive

Probationary Performance 0.75%

Medium-term (Rolling 36 Months Tracking Error)

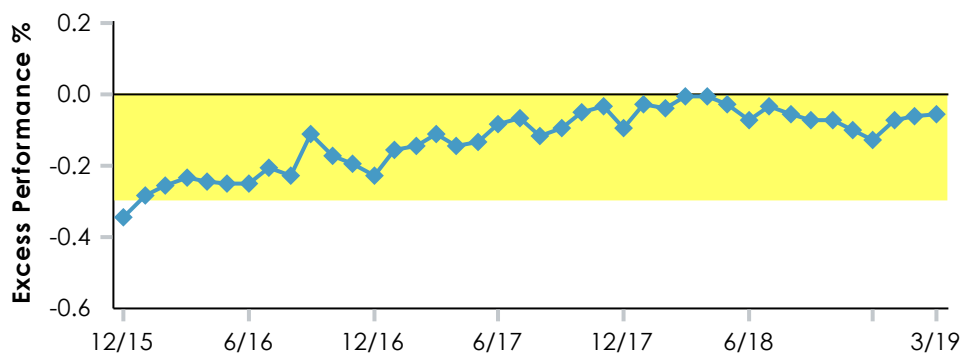


Medium-Term Performance

Positive

Probationary Performance 0.70%

Long-term (Rolling 60 Months Excess Performance)



Long-Term Performance

Acceptable

Probationary Performance -0.30%

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Emerging Markets Equity Index (actual)	10.1 (57)	-7.4 (33)	10.6 (33)	3.6 (35)	4.1 (44)
MSCI Emerging Markets (Net)	9.9 (59)	-7.4 (33)	10.7 (31)	3.7 (33)	4.3 (40)
IM Emerging Markets Equity (MF) Median	10.4	-9.4	9.4	3.1	3.7

Monitoring Status

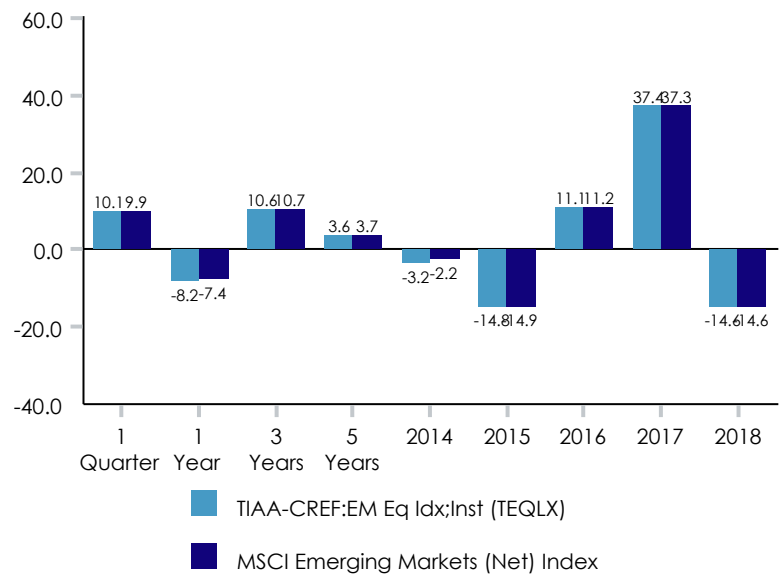
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:EM Eq Idx;Inst (TEQLX)
 Fund Family : TIAA-CREF
 Ticker : TEQLX
 Peer Group : IM Emerging Markets Equity (MF)
 Benchmark : MSCI Emerging Markets Index
 Fund Inception : 08/31/2010
 Portfolio Manager : Campagna/Liao/Tran
 Total Assets : \$855 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.2%
 Net Expense : 0.2%
 Turnover : 27%

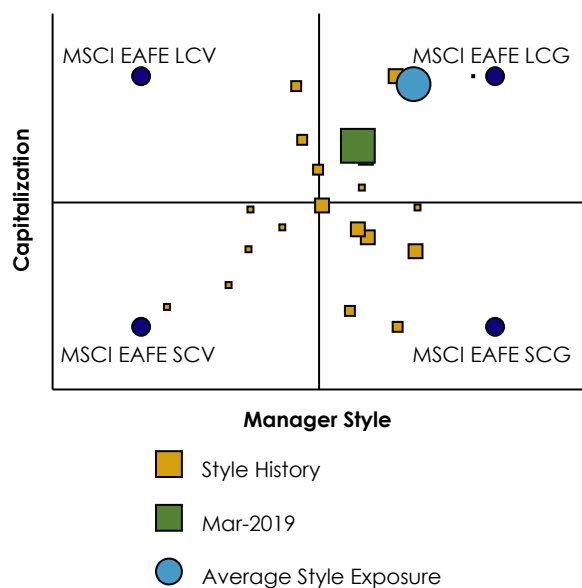
Comparative Performance



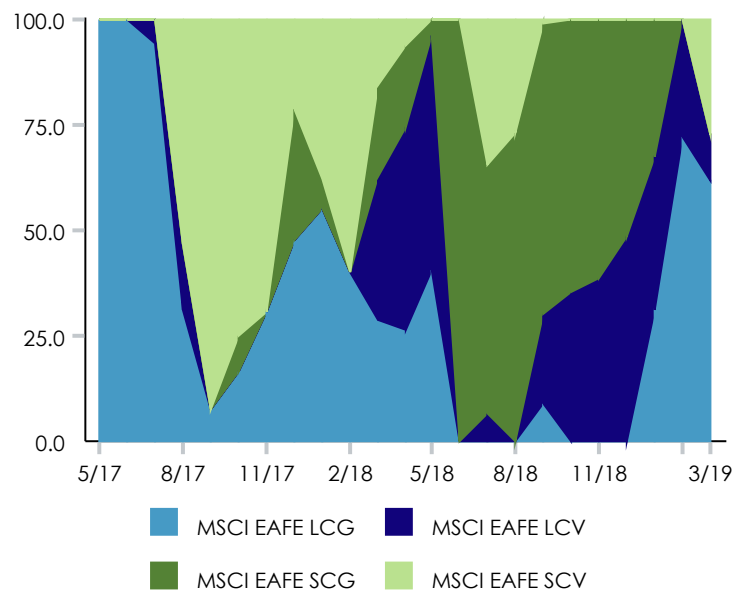
Fund Investment Policy

The Fund seeks a favorable long-term total return. The Fund seeks a favorable long-term total return from a diversified portfolio of equity securities selected to track publicly-traded stocks in emerging markets, as represented by its benchmark index, the MSCI Emerging Markets Index.

Style Map (3 Years)



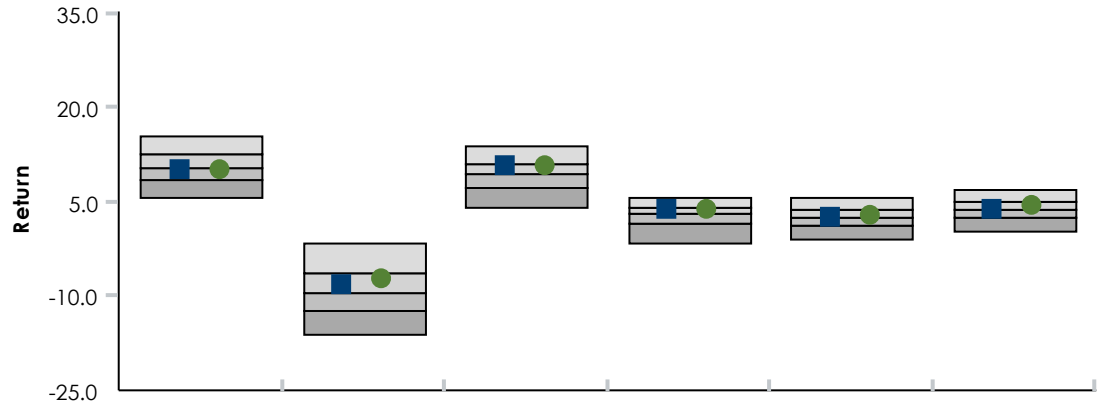
Style History (3 Years)



Historical Statistics (3 Years)

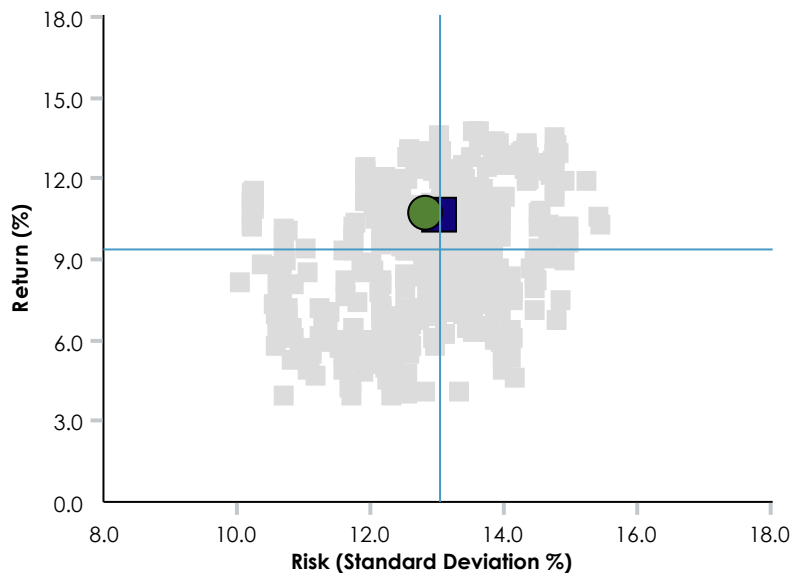
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF:EM Eq Idx;Inst (TEQLX)	10.6	13.0	0.8	-0.1	1.0	1.0	1.5	0.0	100.3	100.8
MSCI Emerging Markets (Net) Index	10.7	12.8	0.8	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM Emerging Markets Equity (MF) Median	9.4	13.0	0.7	-0.4	0.9	0.9	4.5	-0.3	94.7	99.3

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF:EM Eq Idx;Inst (TEQLX)	10.1 (56)	-8.2 (40)	10.6 (33)	3.6 (35)	2.5 (48)	3.8 (49)
● MSCI Emerging Markets (Net) Index	9.9 (59)	-7.4 (33)	10.7 (31)	3.7 (33)	2.7 (45)	4.3 (40)
Median	10.4	-9.4	9.4	3.1	2.4	3.7

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF:EM Eq Idx;Inst (TEQLX)	10.6	13.0
● MSCI Emerging Markets (Net) Index	10.7	12.8
— Median	9.4	13.0

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	24	100.3
Down Markets	12	100.8
Batting Average		
Up Markets	24	54.2
Down Markets	12	50.0
Overall	36	52.8

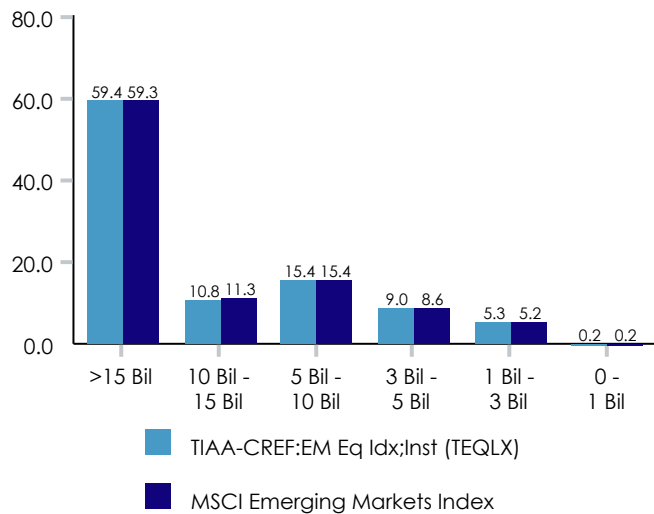
Portfolio Characteristics (As of 1/31/2019)

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	80,126	85,403
Median Mkt. Cap (\$M)	6,006	5,467
Price/Earnings ratio	13.0	12.8
Price/Book ratio	2.4	2.2
5 Yr. EPS Growth Rate (%)	12.6	14.2
Current Yield (%)	2.8	2.9
Beta (5 Years, Monthly)	1.0	1.0
Number of Stocks	1,036	1,136

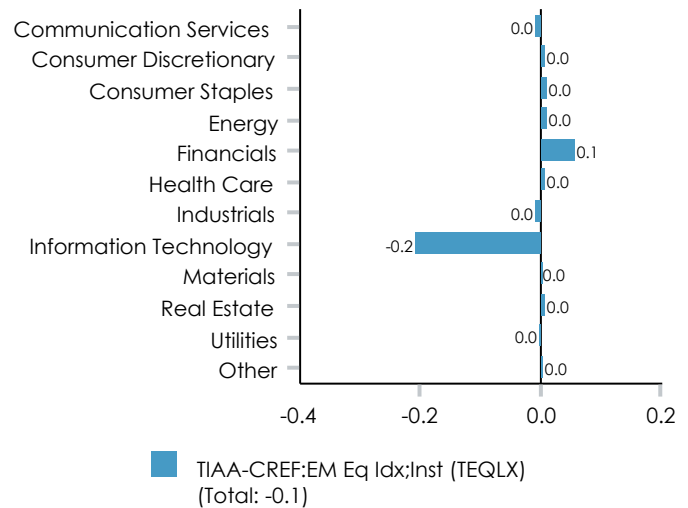
Top 10 Holdings (As of 1/31/2019)

	Portfolio Weight (%)	Benchmark Weight (%)	Quality Rating
Tencent Holdings LTD	5.0	5.0	1
Alibaba Group Holding Ltd	4.5	4.5	3
Taiwan Semiconductor	3.8	3.7	
Vanguard FTSE Emerging Markets ETF	2.8	0.0	1
Naspers Ltd	1.9	1.9	1
China Construction Bank Corp	1.6	1.6	
China Mobile Ltd	1.2	1.2	
Ping An Insurance Group	1.1	1.1	2
Reliance Industries Ltd	1.1	1.1	2
Ind & Comm Bank of China	1.0	1.0	
% of Portfolio	24.0	21.1	

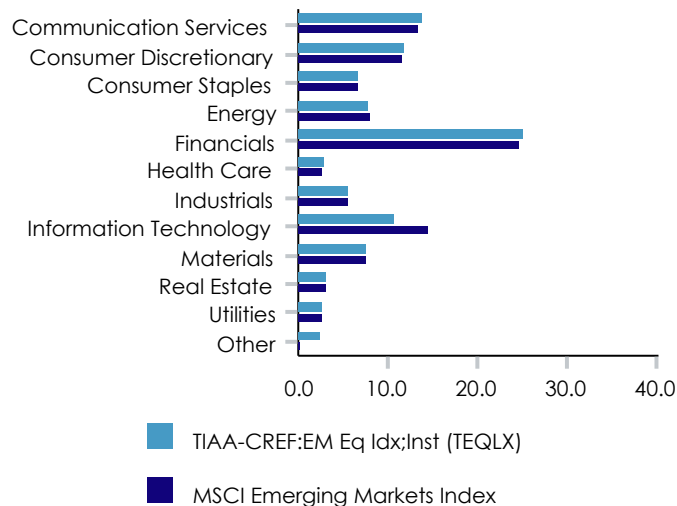
Market Cap Distribution (As of 1/31/2019)



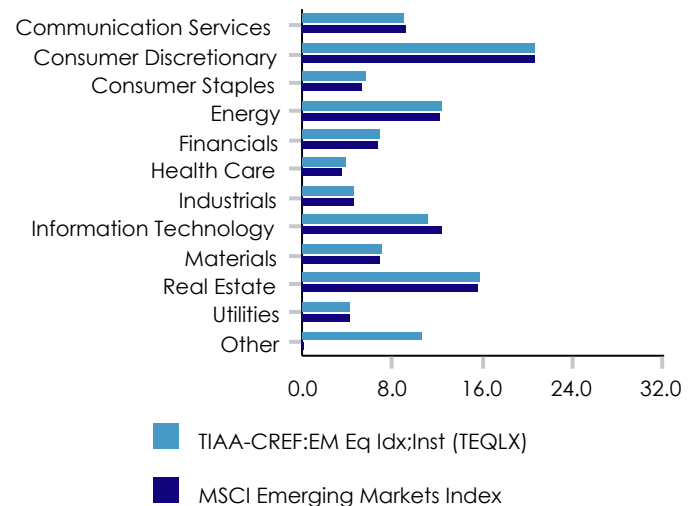
Sector Attribution (1 Quarter as of 1/31/2019)



Sector Allocation (1 Quarter as of 1/31/2019)

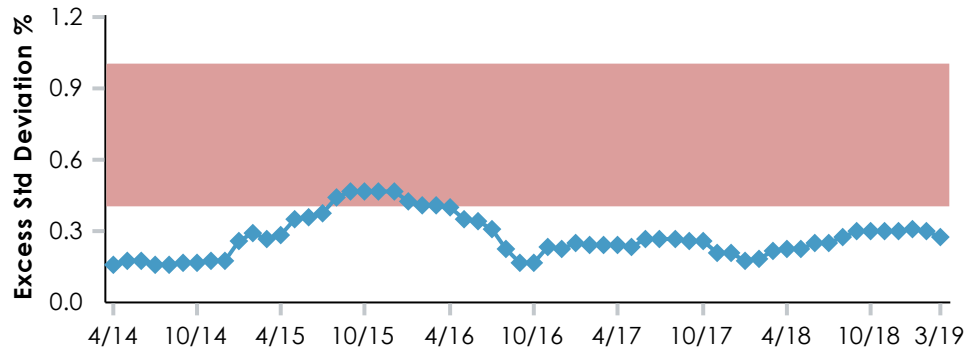


Sector Performance (1 Quarter as of 1/31/2019)



TIAA-CREF Bond Index I vs. BBg BC U.S. Aggregate Index

Short-term (Rolling 12 Months Tracking Error)

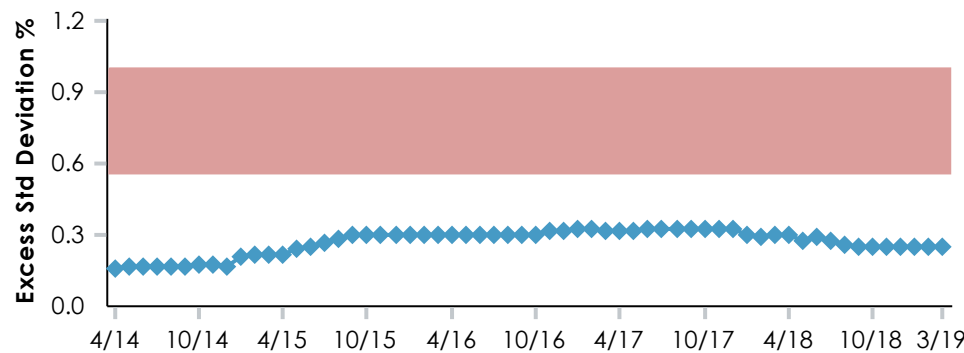


Short-Term Performance

Positive

Probationary Performance 0.40%

Medium-term (Rolling 36 Months Tracking Error)

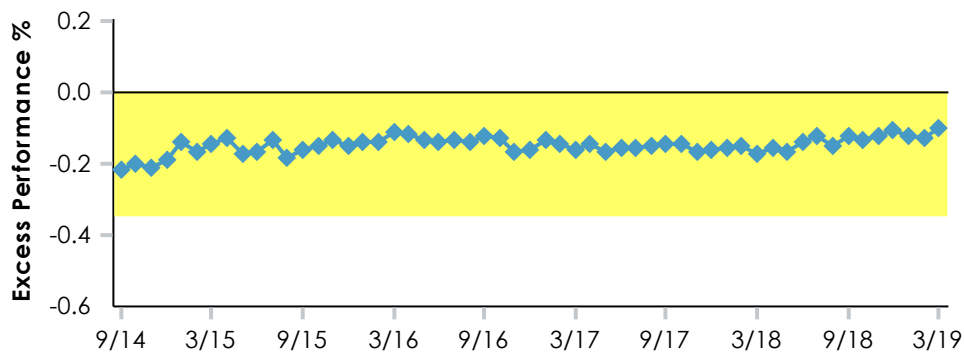


Medium-Term Performance

Positive

Probationary Performance 0.55%

Long-term (Rolling 60 Months Excess Performance)



Long-Term Performance

Acceptable

Probationary Performance -0.35%

Annualized Performance Results (Net of management fees)

	Qtr	1 Year	3 Years	5 Years	Inception (12/2011)
TIAA-CREF Bond Index I	2.9 (76)	4.5 (15)	1.8 (72)	2.6 (39)	2.4 (68)
BBg BC U.S. Aggregate Index	2.9 (72)	4.5 (20)	2.0 (57)	2.7 (28)	2.6 (59)
IM U.S. Broad Market Core Fixed Income (MF) Median	3.2	4.1	2.1	2.5	2.7

Monitoring Status

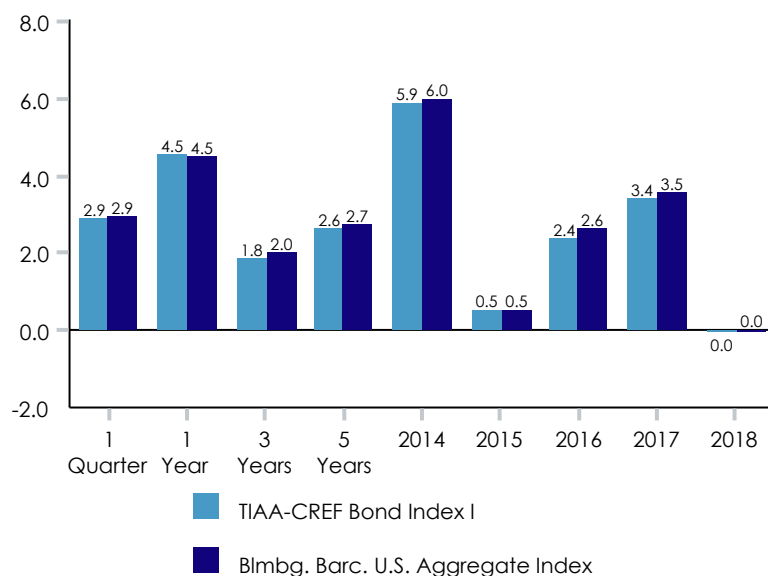
Acceptable



Mutual Fund Info

Product Name : TIAA-CREF:Bond Indx;Inst (TBIX)
 Fund Family : TIAA-CREF
 Ticker : TBIX
 Peer Group : IM U.S. Broad Market Core Fixed Income (MF)
 Benchmark : Bloomberg Barclays U.S. Aggregate
 Fund Inception : 09/14/2009
 Portfolio Manager : Chen/Tsang
 Total Assets : \$6,431 Million
 Total Assets Date : 03/31/2019
 Gross Expense : 0.1%
 Net Expense : 0.1%
 Turnover : 15%

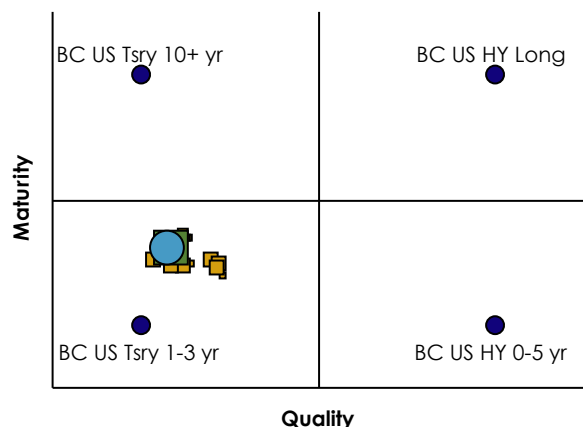
Comparative Performance



Fund Investment Policy

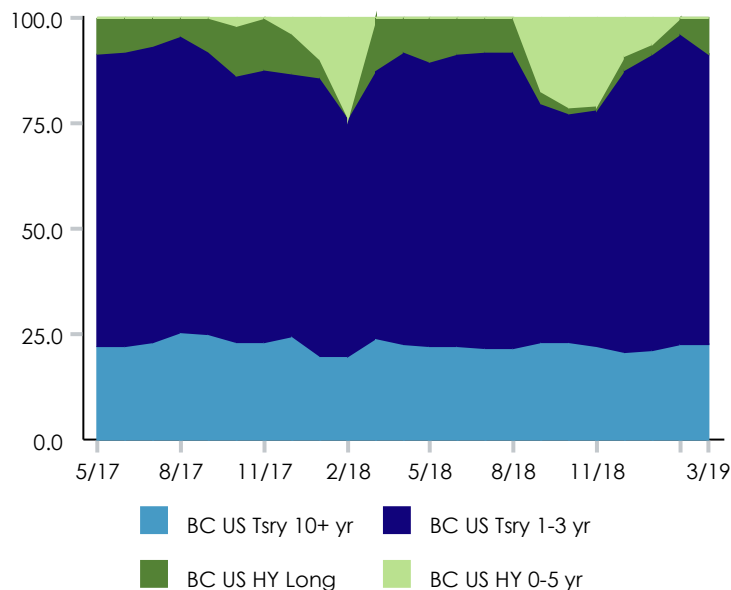
The Fund seeks a favorable long term total return. The Fund invests at least 80% of its assets bonds within its benchmark and portfolio tracking index, the Barclay's Capital U.S. Aggregate Bond Index.

Style Map (3 Years)



- Style History
- Mar-2019
- Average Style Exposure

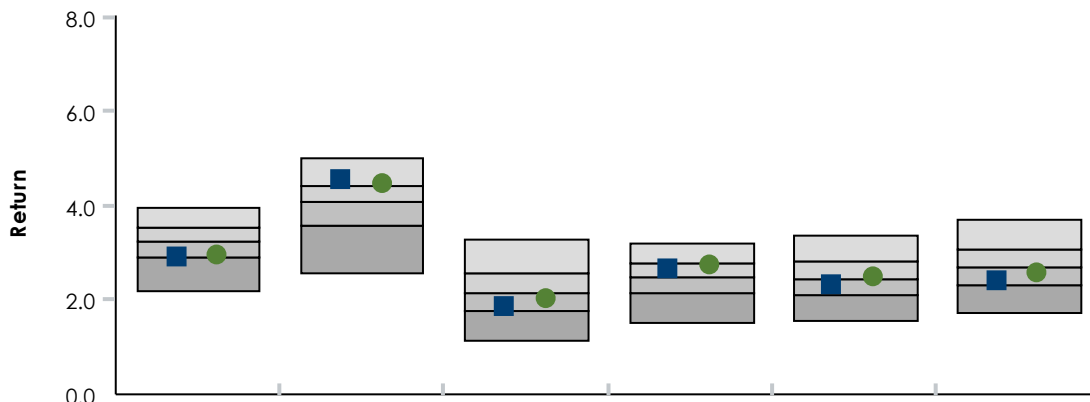
Style History (3 Years)



Historical Statistics (3 Years)

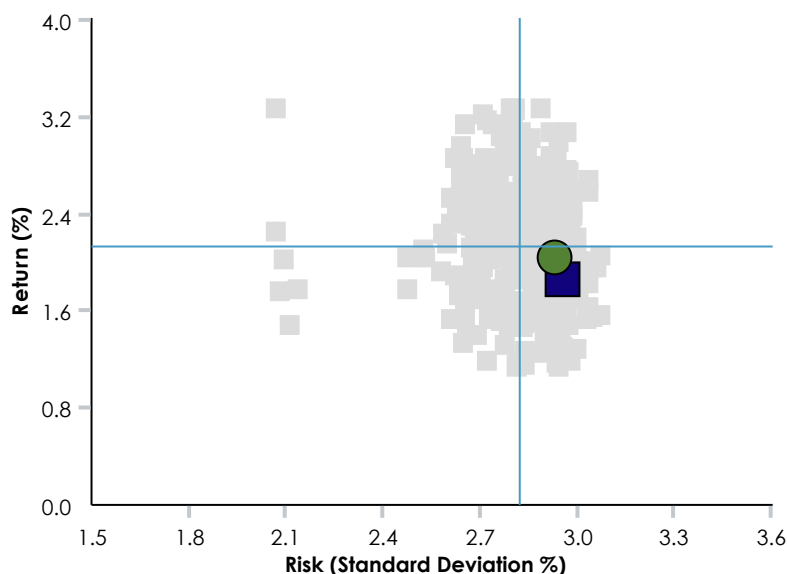
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture
TIAA-CREF Bond Index I	1.8	3.0	0.2	-0.2	1.0	1.0	0.2	-0.7	95.5	98.4
Blmbg. Barc. U.S. Aggregate Index	2.0	2.9	0.3	0.0	1.0	1.0	0.0	N/A	100.0	100.0
IM U.S. Broad Market Core Fixed Income (MF) Median	2.1	2.8	0.4	0.3	0.9	1.0	0.6	0.2	97.7	91.1

Peer Group Analysis



	1 Quarter	1 Year	3 Years	5 Years	7 Years	Since Inception Dec-2011
■ TIAA-CREF Bond Index I	2.9 (76)	4.5 (15)	1.8 (72)	2.6 (39)	2.3 (62)	2.4 (68)
● Blmbg. Barc. U.S. Aggregate Index	2.9 (72)	4.5 (20)	2.0 (57)	2.7 (28)	2.5 (48)	2.6 (59)
Median	3.2	4.1	2.1	2.5	2.5	2.7

Peer Group Scattergram (3 Years)



	Return	Standard Deviation
■ TIAA-CREF Bond Index I	1.8	3.0
● Blmbg. Barc. U.S. Aggregate Index	2.0	2.9
— Median	2.1	2.8

Performance Statistics (3 Years)

	Months	%
Market Capture		
Up Markets	21	95.5
Down Markets	15	98.4
Batting Average		
Up Markets	21	33.3
Down Markets	15	53.3
Overall	36	41.7

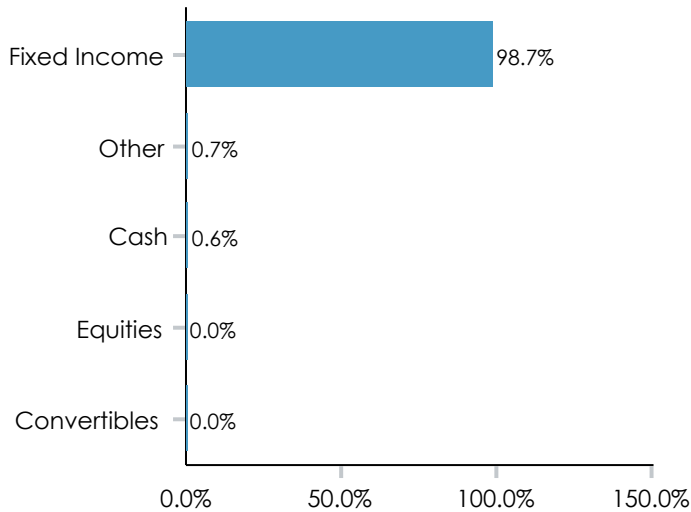
Portfolio Characteristics (As of 12/31/2018)

Avg. Coupon	3.10 %
Nominal Maturity	8.33 Years
Effective Maturity	N/A
Duration	6.05 Years
SEC 30 Day Yield	2.8
Avg. Credit Quality	AA

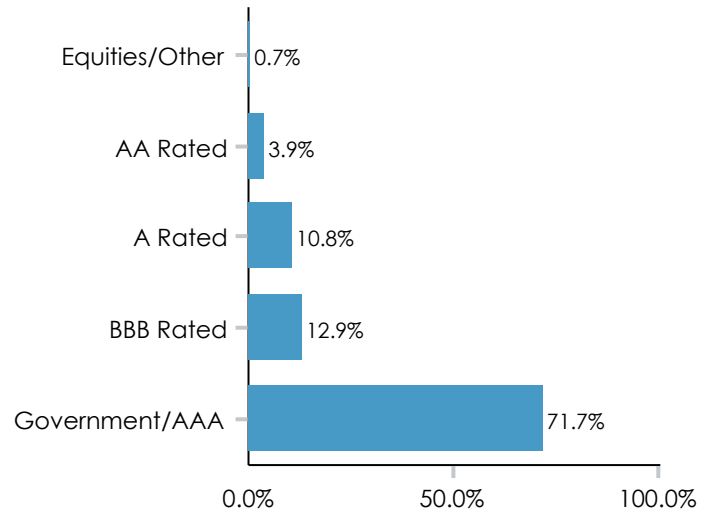
Top 10 Holdings (As of 12/31/2018)

Treasury Notes/Bonds	37.8 %
GNMA and Other Mtg Backed	29.7 %
Corporate Notes/Bonds	20.2 %
US\$ Denominated Fgn. Gvt.	8.7 %
Government Agency Securities	1.5 %
Asset Backed Securities	0.8 %

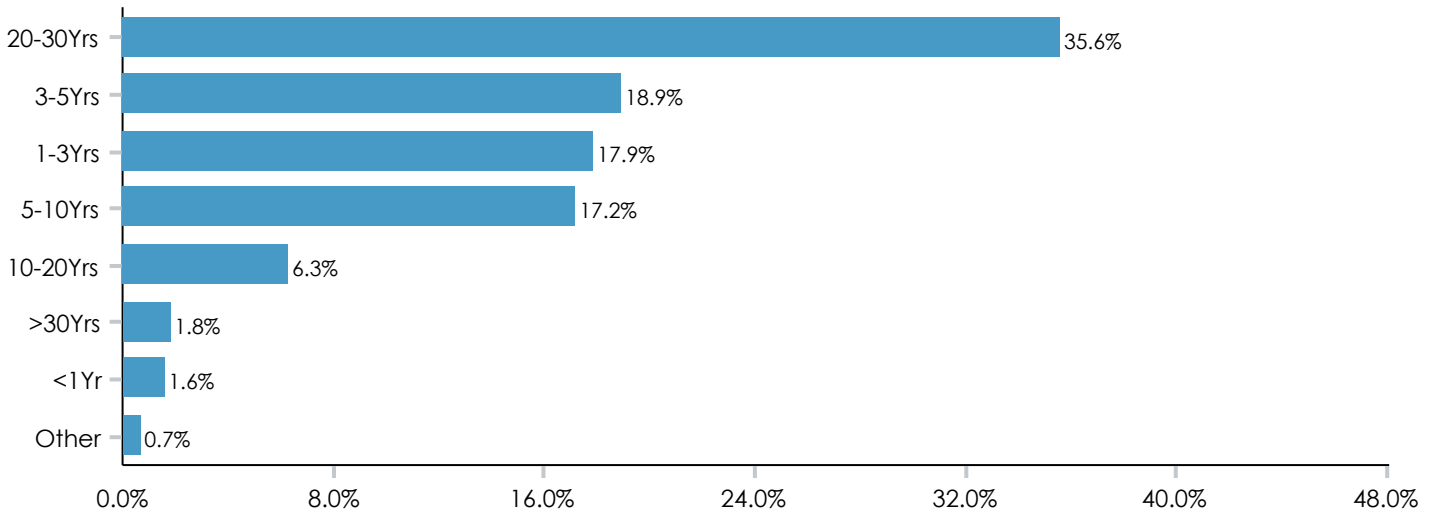
Asset Allocation (As of 12/31/2018)



Quality Allocation (As of 12/31/2018)



Maturity Distribution (As of 12/31/2018)



T-C LIFE FUNDING AGREEMENTS



T-C LIFE FUNDING AGREEMENTS

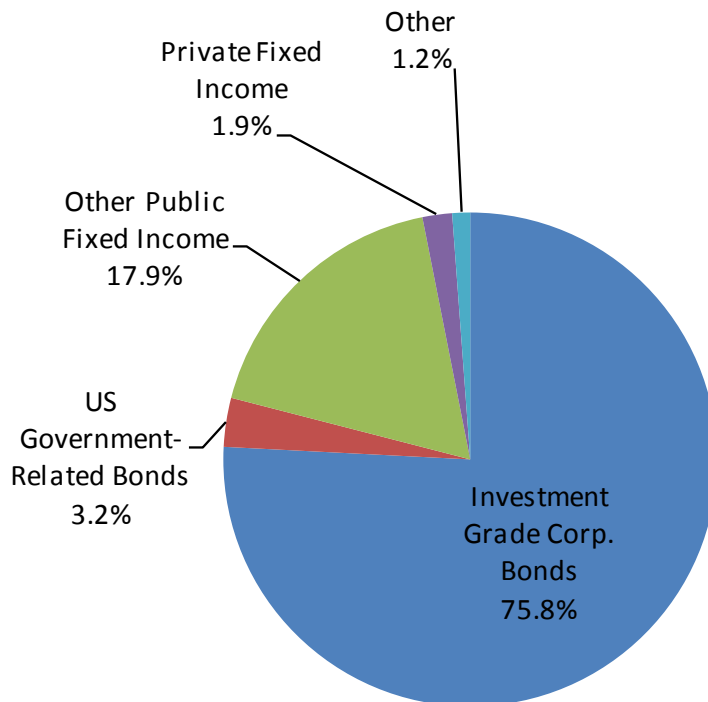
(based on non-investment performance criteria)

Criteria	Status as of 3/31/2019	Status as of 12/31/2018	Status as of 9/30/2018	Status as of 6/30/2018
Financial Strength	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA
Mortgage Portfolio	100% in Good Standing*	100% in Good Standing*	100% in Good Standing*	100% in Good Standing*
Bond Portfolio	99.4% in Investment Grade (at least 90%)	99.4% in Investment Grade (at least 90%)	99.34% in Investment Grade (at least 90%)	99.48% in Investment Grade (at least 90%)
Account Diversification	Portfolio is diversified across asset classes and types (see chart below)	Portfolio is diversified across asset classes and types (see chart below)	Portfolio is diversified across asset classes and types (see chart below)	Portfolio is diversified across asset classes and types (see chart below)

*Portfolio did not contain any commercial mortgages.

Note, prior-period investment status will shift to the right.

Source: TIAA-CREF



Monitoring Status

Positive



SECTION 5

SUMMARY POINTS



SUMMARY POINTS

	Criteria Utilized for Performance Watch Status			
	On Watch	Short-term	Medium-term	Long-term
T. Rowe Price Instl Large Cap Growth	No	---	---	---
T. Rowe Price Instl Large Cap Value	No	---	---	---
TIAA-CREF Small Cap Equity	No	---	---	---
TIAA-CREF Social Choice Equity	Yes	---	---	✓
TIAA-CREF Real Estate Securities	No	---	---	---
DFA Large Cap International	No	---	---	---
DFA Emerging Markets Core Equity	No	---	---	---
Metropolitan West Total Return Bond	No	---	---	N/A
PIMCO Real Return	No	---	---	---
PIMCO Income	No	---	---	---
TIAA-CREF Inflation-Linked Bond	No	---	---	---
T. Rowe Price Instl Floating Rate	No	---	---	---
TIAA-CREF High Yield Bond	No	---	---	---
TIAA-CREF Equity Index	No	---	---	---
TIAA-CREF S&P 500 Index	No	---	---	---
TIAA-CREF International Eq Index	No	---	---	---
TIAA-CREF Emerging Markets Eq Index	No	---	---	---
TIAA-CREF Bond Index	No	---	---	---
T-C Life Funding Agreements	No	N/A	N/A	N/A
Total	1 of 19	0 of 18 eligible portfolios	0 of 18 eligible portfolios	1 of 17 eligible portfolios

- 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



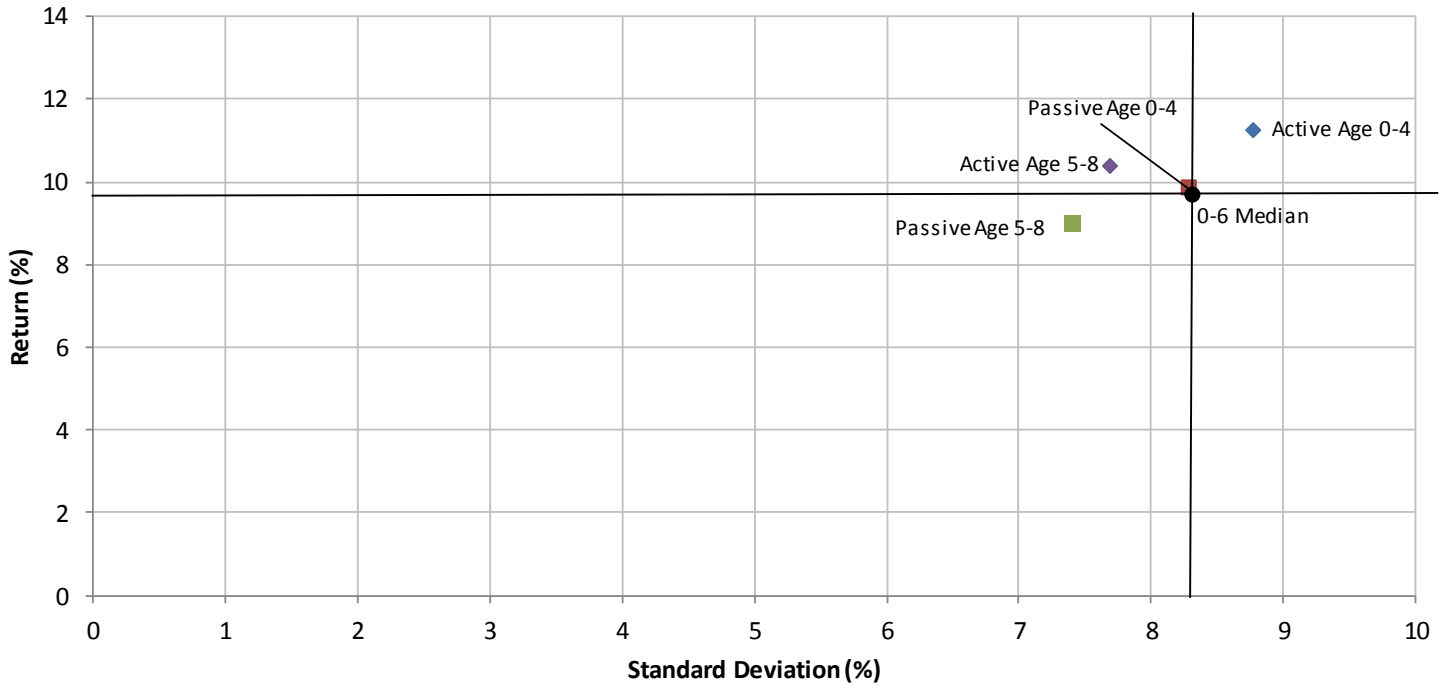
SECTION 6

AGE-BASED FUND ANALYSIS

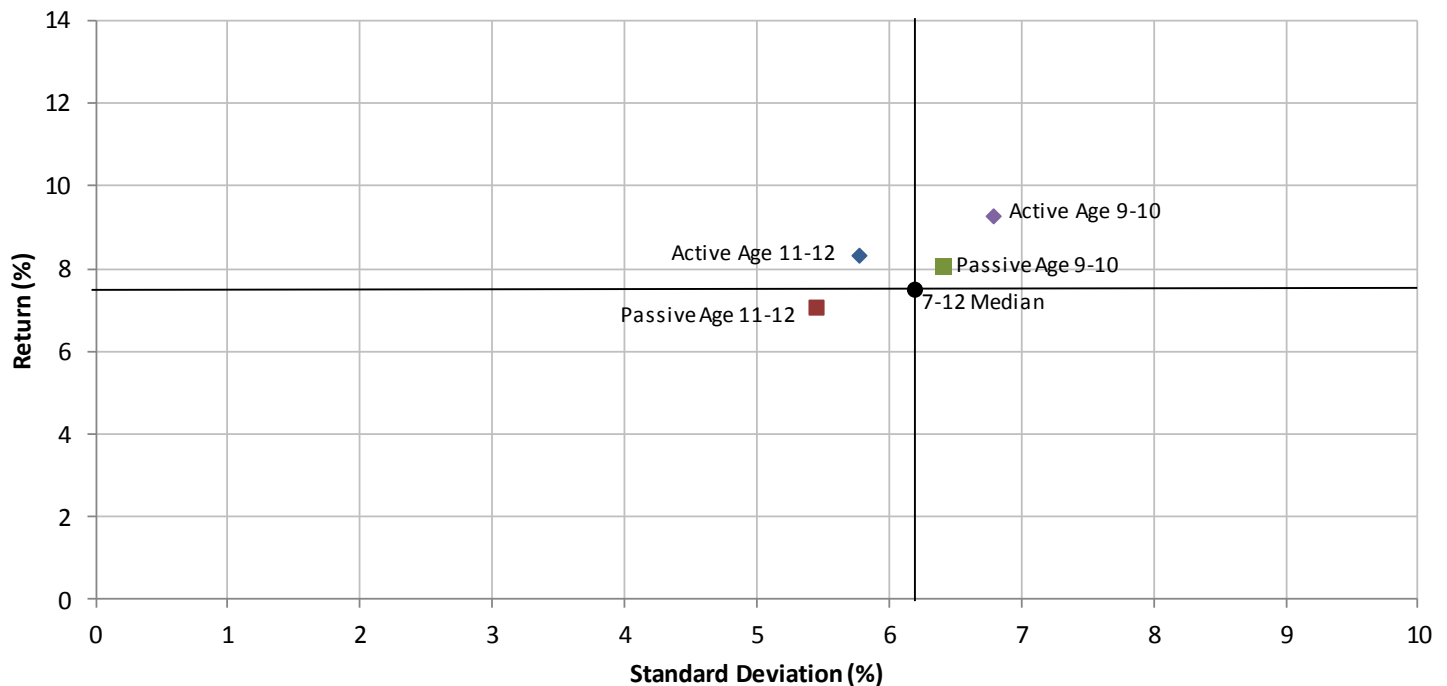


SCHOLARSHARE AGE-BASED FUND – RISK/RETURN

AGE 0-6 : 3-YEAR (as of 3/31/2019)



AGE 7-13 : 3-YEAR (as of 3/31/2019)

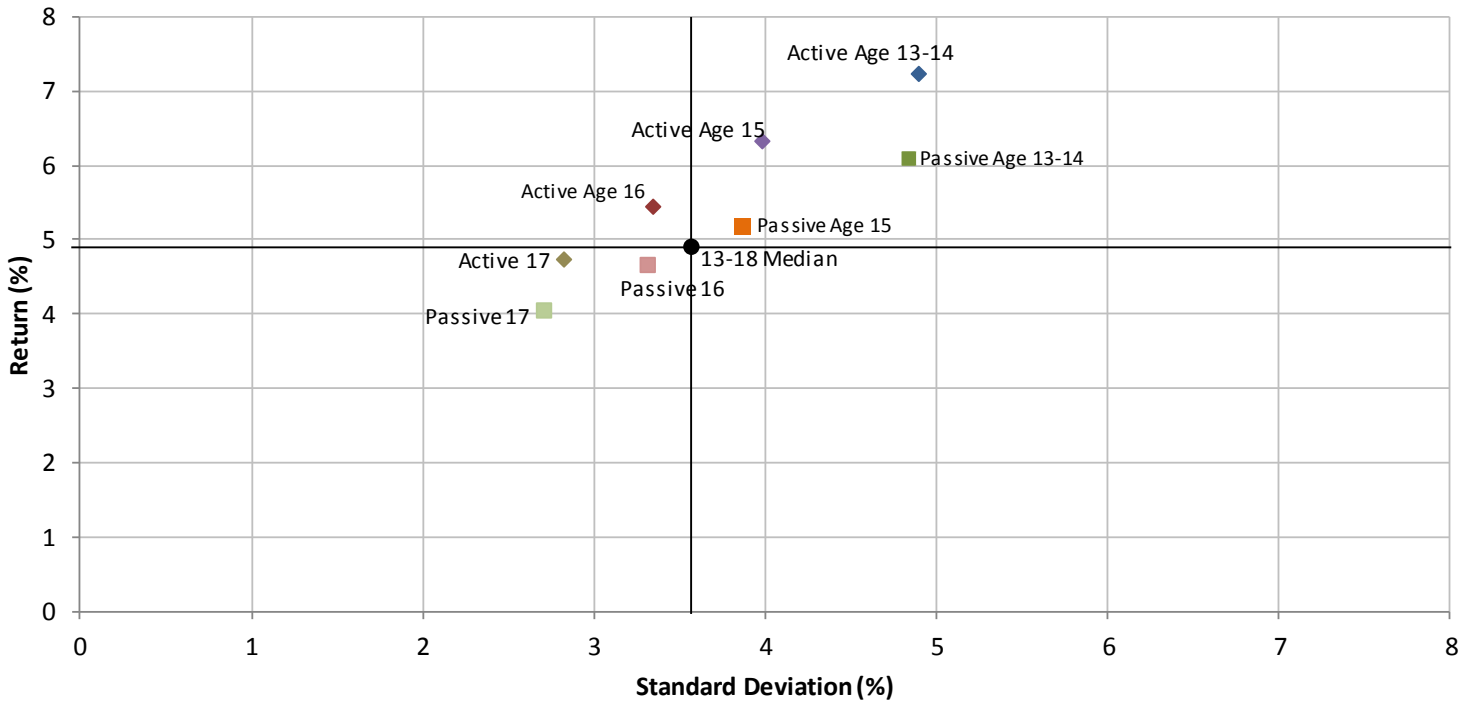


Source: Morningstar

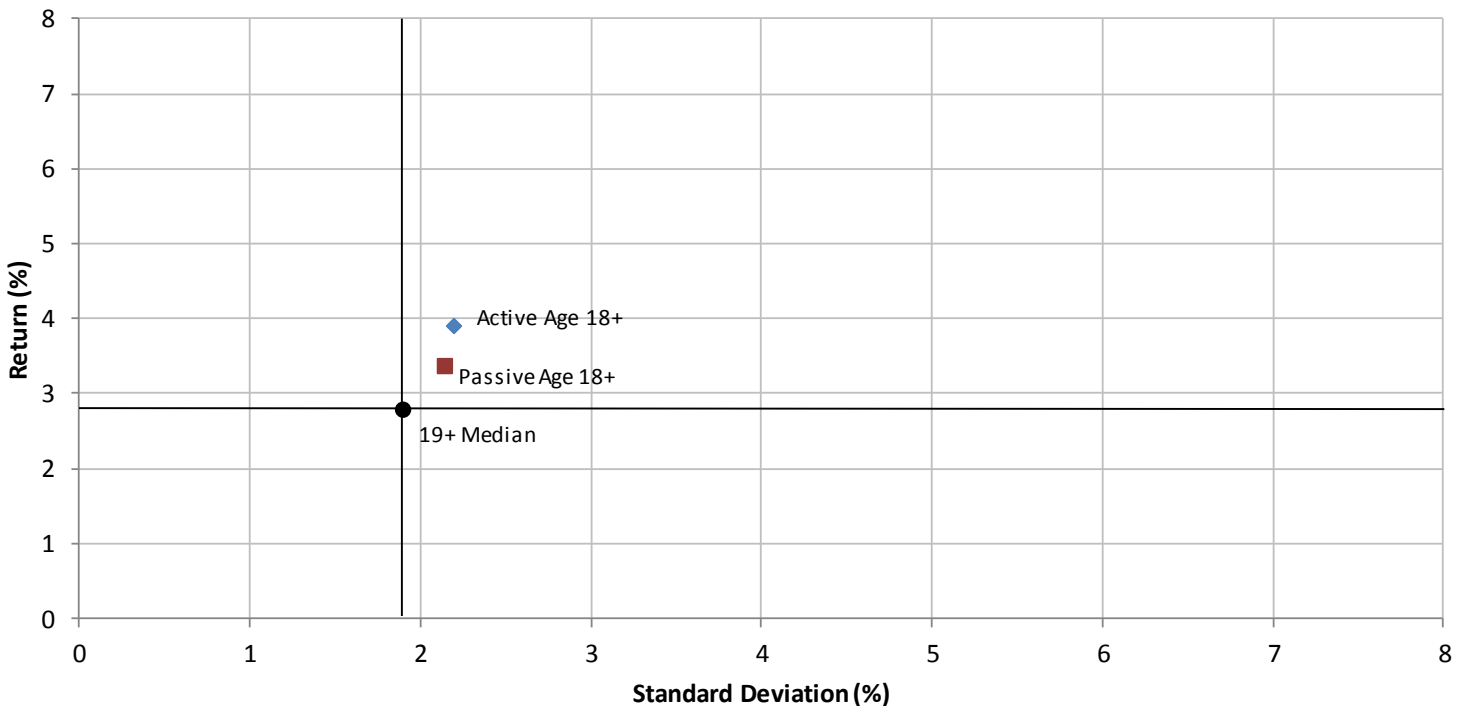
California ScholarShare

SCHOLARSHARE AGE-BASED FUND – RISK/RETURN

AGE 13-18 : 3-YEAR (as of 3/31/2019)



AGE 19+ : 3-YEAR (as of 3/31/2019)

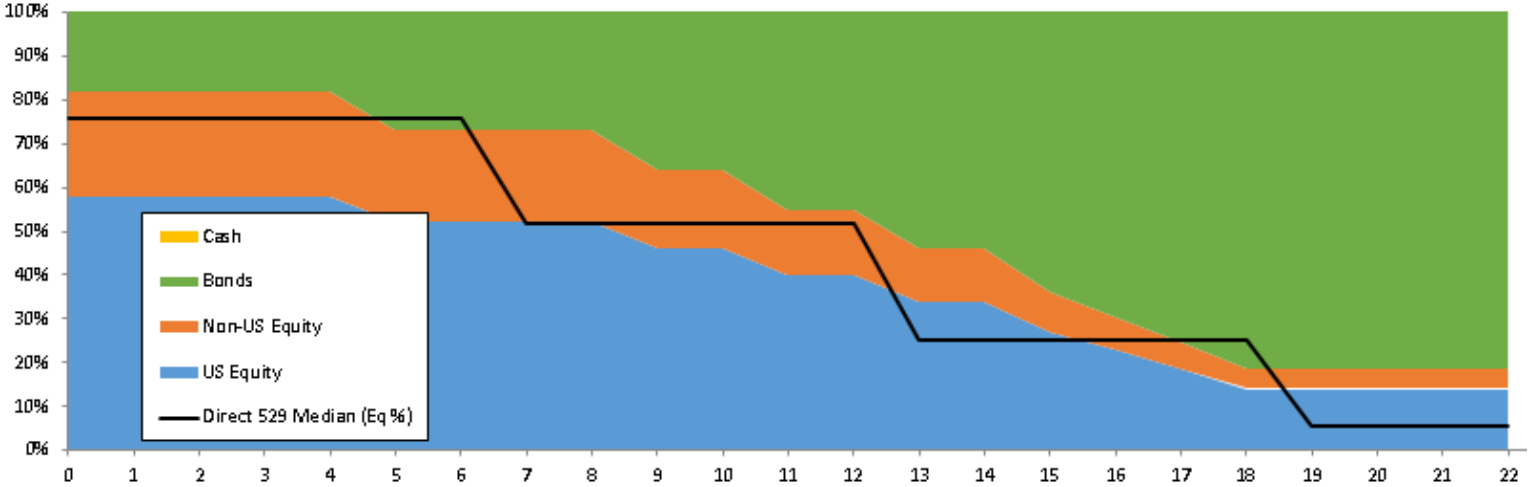


Source: Morningstar

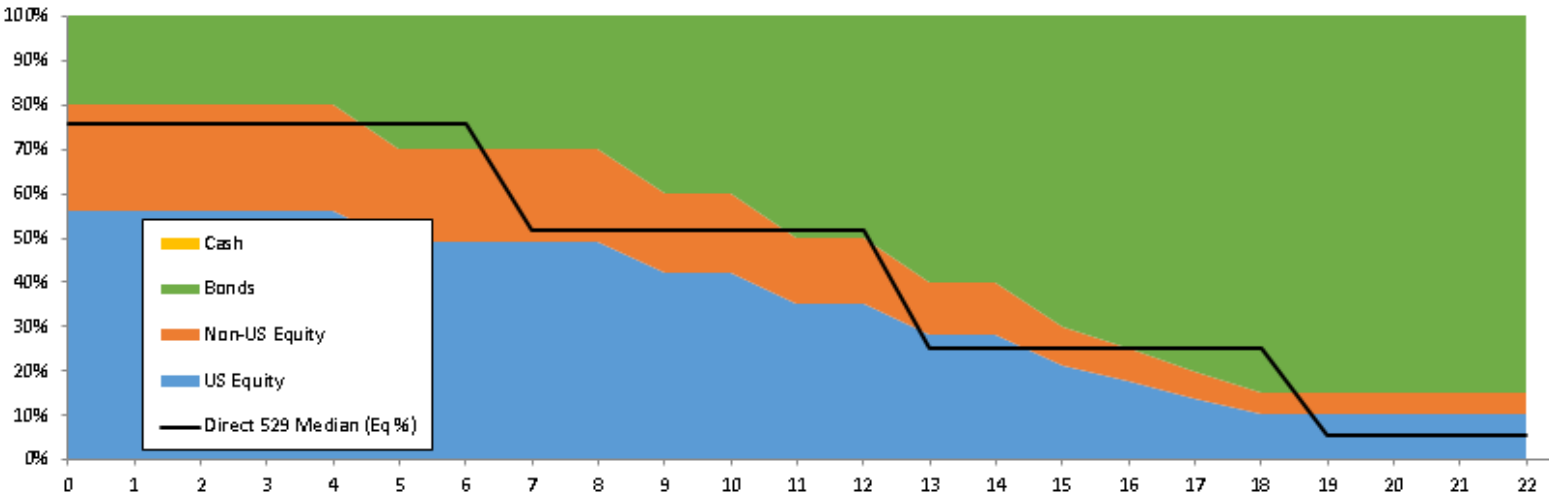
California ScholarShare

SCHOLARSHARE AGE-BASED GLIDEPATH

ACTIVE AGE-BASED PORTFOLIO



PASSIVE AGE-BASED PORTFOLIO



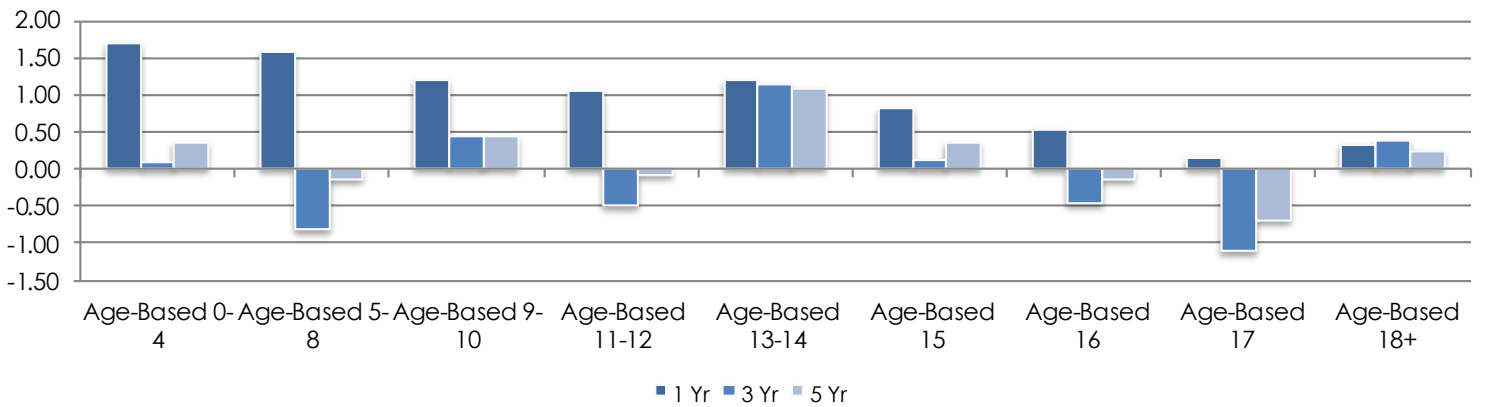
SCHOLARSHARE AGE-BASED ATTRIBUTION

ACTIVE AGE-BASED PORTFOLIO

Contribution to Return From Selection



Contribution to Return From Allocation



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: $\text{Manager Cumulative Return} / \text{Benchmark Cumulative Return}$.





MEMORANDUM

To: ScholarShare Investment Board (SIB)
From: Eric White, Kay Ceserani, Meketa Investment Group
Date: May 31, 2019
Re: Review of Underlying Funds Qualifying for “Watch” Status

SUMMARY

Meketa Investment Group has conducted a review of the underlying funds in the ScholarShare College Savings 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 January 1, 2019 through March 31, 2019.

At the end of the period, **one fund, the TIAA-CREF Social Choice Equity Fund, remains on “Watch” status, and no new funds qualify for “Watch” status.** At the April 2018 SIB meeting, the SIB elected to keep the TIAA-CREF Social Choice Equity fund on “Watch” status as Meketa Investment Group conducts more research to identify a benchmark more aligned with the strategy’s ESG focus. Meketa Investment Group recommends the TIAA-CREF Social Choice Equity Fund remain on “Watch” as the SIB discusses options for monitoring the fund going forward. This fund is discussed in more detail on the following pages.

Performance of Funds on Watch Status As of 3/31/2019

Funds on Watch Status	Board Action Date	Watch Status Start Date	No. Months Since Watch Began	Excess Perf. Since Watch Began
TIAA-CREF Social Choice Equity	10/4/2017	7/1/2017	21	(0.5%)

BACKGROUND

New Funds Qualifying for “Watch” Status: Meketa Investment Group has conducted a review of the underlying funds in the ScholarShare College Savings Plan (see also the 1Q 2019 ScholarShare College Savings Plan Investment Performance Status Report) and determined that no additional funds qualify for “Watch” status at this time.

Funds Currently on “Watch” Status: As of March 31, 2019, one fund, the TIAA-CREF Social Choice Equity Fund, remains on “Watch” status for performance concerns. The fund is discussed in further detail below.

TIAA-CREF Social Choice Equity Fund: The fund was placed on “Watch” status for performance concerns upon breaching the long-term investment monitoring guidelines as per the Program’s *Monitoring Procedures and Criteria* as of the period ended June 30, 2017.

INVESTMENT ROLE IN PROGRAM

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 environmental, social, and governance (“ESG”) criteria. Under normal circumstances, the fund invests at least 80% of its assets in equity securities. The fund attempts to achieve the return of the U.S. stock market as represented by its benchmark, the Russell 3000 Index, while investing only in companies whose activities are consistent with the fund's ESG criteria.

HISTORY AND ORGANIZATIONAL STRUCTURE

In October 2014, TIAA completed its acquisition of Nuveen Investments. In 2016, the executive management, distribution teams, marketing organization and other non-investment functions of TIAA-CREF Asset Management and Nuveen Investments were combined into a unified operating structure. In January of 2017, the company rebranded the organization as Nuveen to deliver all their capabilities under one name and operating mandate; Nuveen has become the umbrella brand for TIAA’s asset management capabilities, including TIAA Investments, which oversees TIAA-CREF branded mutual funds.

Nuveen brings together the investment heritage of two 100-year-old companies and the specialist knowledge of their affiliates to be a global asset manager dedicated to helping their clients achieve their investment goals. Nuveen has been providing investment solutions and strategies to a wide range of clients worldwide, including institutional investors, intermediaries, plan sponsors, investment and pension consultants, and individual investors. They are one of the largest global asset managers across multiple asset classes.

Teachers Insurance and Annuity Association of America® (TIAA®) has built its reputation on its long-term investment capabilities, below-average expenses and seasoned portfolio managers. Their extensive capabilities give their portfolio managers access to investment opportunities throughout the world.

INVESTMENT TEAM

Philip James Campagna is the lead portfolio manager for the fund. Mr. Campagna is a quantitative portfolio manager and has portfolio management responsibilities for all TIAA-CREF equity index strategies and the Social Choice Equity fund. He joined TIAA-CREF in February 2005, became a manager on the Social Choice Equity fund at the end of 2005, and has more than 15 years of investment experience. His prior experience includes seven years at Mellon Capital Management where he was responsible for several mandates and was an index strategy manager.

Lei Liao joined Mr. Campagna as a portfolio manager on the fund in May 2014. Mr. Liao is a managing director and equity index portfolio manager for TIAA. He has 13 years of industry experience, including several years at Northern Trust as a senior equity portfolio manager.

Both portfolio managers are responsible for the day-to-day investment management of the strategy. A team led by Amy O'Brien, Nuveen's Director of Social Investing, oversees the social screening for this strategy and several other socially screened portfolios. The team has grown over recent years and had 18 members as of January 2019, eight of whom were hired in 2018 in a conscious effort to boost Nuveen's ESG capabilities.

INVESTMENT PHILOSOPHY AND APPROACH

The Social Choice Equity fund's underlying philosophy is to offer competitive returns consistent with the performance of the Russell 3000 Index while giving special consideration to certain ESG criteria. The strategy seeks returns consistent with a broad U.S. core equity benchmark and a portfolio that has higher ESG performance quality relative to the benchmark.

TIAA's ESG criteria for the Social Choice Equity fund seeks to include companies that are leaders within their respective sectors on ESG performance. This performance should reflect a company's positive and negative impacts on its key stakeholders: employees, communities, customers, suppliers, and the planet. Public company performance evaluations should be based on the ESG factors most relevant to the industry a company operates in while also reflecting a company's adherence to international norms and conventions. Typically, ESG performance categories can include: environmental factors related to climate change, natural resource use, waste management, and environmental opportunities; social factors related to human capital, product safety, and social opportunities; and governance factors related to corporate governance, business ethics, and government & public policy.

Additionally, the eligible universe:

- Has no categorical industry exclusions; however, companies' exposure to historically controversial businesses (e.g., alcohol, firearms, tobacco) is incorporated into their overall ESG performance assessment. While not automatically excluded from the fund, companies with exposure are typically ineligible for inclusion.
- Balances considerations of company strengths and weaknesses in ESG performance.
- Leverages a research process that is built upon diverse sources and the input of multiple stakeholders.
- Results in a portfolio with significantly higher ESG performance than the benchmark.

Consistent with the approach used in all TIAA Asset Management's Social Choice products, TIAA partners with leading independent ESG research providers to implement the ESG guidelines and criteria they have established for the fund. Their partnership with established ESG research partners increases the transparency of the ESG evaluation processes and decisions and provides TIAA Asset Management's equity portfolio managers with broadly diversified and reasonably sized eligible investment universes from which to build portfolios that can achieve their investment mandates.

The team has developed a comprehensive and robust due diligence process to evaluate existing and potential ESG research partners. All potential research partners are assessed per an internally developed framework that includes consideration of the partner's track record and history in ESG research and analysis, analytical capabilities, sources of data utilized, comprehensive factors that encompass a broad range of ESG issues, and consistent ESG methodologies applied across regions.

Nuveen's responsible investing team currently works in collaboration with the social-investment department at MSCI, one of the two largest socially responsible investing research firms in the world. The MSCI team does most of the detailed SRI analysis of individual companies, while Nuveen's team focuses more on the big picture, deciding what screening criteria the strategy should use, as well as overseeing corporate engagement and community investing. The strategy formerly used a standard set of ESG criteria from MSCI, but in 2018 Nuveen and the MSCI teams collaborated to create customized criteria for the strategy. Now, the ESG score threshold for companies to be eligible for portfolio inclusion is generally higher, but ESG momentum is also taken into account, thus advantaging firms with an improving ESG profile. Following more than a decade of stability, these recent changes were designed to improve the strategy's environmental, social, and governance profile, and isn't expected to necessarily have much effect on returns. After the social responsible team at MSCI ranks the stocks in the MSCI Investable Market Index according to how well they meet ESG criteria established by Nuveen's team, the quantitative team at TIAA-CREF narrows the acceptable list.

The portfolio managers for the Social Choice Equity fund begin with the eligible universe of securities and, combining industry-recognized optimization techniques with proprietary enhancements, seek to match the risk characteristics of the fund's underlying benchmark: the Russell 3000 Index. The intent is to neutralize, to the extent possible, the inherent biases introduced by the constrained universe of securities. Using a non-proprietary, industry-recognized risk model, the team can avoid unintended exposure to any common or security-specific sources of risk. Its models are designed to replicate the risk characteristics of the Russell 3000 Index and do not try to identify specific stocks that will perform better or worse than the Index. This results in a well-balanced and diversified portfolio that allows them to better track the benchmark with minimal risk. The portfolio's sector weightings do not deviate too far from the benchmark because the process is designed to avoid large sector bets. The fund keeps underweightings in certain industries, such as big oil companies and money-center banks, and overweightings in other areas to keep sector weightings close to the benchmark. These differences frequently help or hurt the fund relative to the broader market in the short-term but have tended to balance out over time. Since Mr. Campagna joined the portfolio management team in late 2005, there has been less of an emphasis on excluding companies and more on finding stocks that best fit a set of positive criteria.

The risk model incorporates industry and style factors to capture risk due to the sources common to the universe of equity securities and a sub-model to capture security-specific risk. The models use covariance factors to target risk characteristics like the Index, including 13 fundamental factors and 55 industry group factors. The risk model is reviewed periodically by BARRA to ensure relevance, accuracy, and reliability. While there are no quantifiable formal tracking error guidelines, ex-post tracking has generally been in the range of 100 to 150 basis points versus the underlying benchmarks.

The investment team typically sells or trims a position when either the optimization model or the risk model recommends a reduction in a stock's weighting due to changes in the stock's or the benchmark's characteristics. If a stock needs to be eliminated because of ESG criteria, a sale is initiated in an orderly fashion to minimize market impact.

PERFORMANCE

The fund posted mixed results versus its prospectus benchmark, the Russell 3000 Index, across the periods reported. Over the most recent quarter and 3-year periods, the fund slightly underperformed by (10) and (20) basis points, respectively. Over the trailing 1- and 5- year periods, the fund underperformed by (90) basis points. Since its addition to the program the fund has underperformed the Russell 3000 Index by (1.0%). Some stocks that are in the Russell 3000 Index are not part of the fund’s eligible investment universe due to the exclusion of certain stocks based on the fund’s ESG criteria; the social screening eliminates some stocks that are prominent in the benchmark (i.e., Facebook, Exxon Mobil, etc.). Thus, some individual securities in the eligible universe may be either overweighted or underweighted relative to the benchmark, which is determined through quantitative modeling.

For the quarter, the fund modestly underperformed the Russell 3000 Index by (10) basis points. Driven by individual stock positioning within the two sectors, health care was the largest detractor from fund performance, while utilities contributed the most. Not owning Amazon.com Inc. or Facebook, Inc. largely contributed to the fund’s relative underperformance. Both stocks outperformed the benchmark during the quarter, but their ineligibility for inclusion in the fund based on ESG criteria hurt relative returns. Conversely, not owning Berkshire Hathaway Inc., Pfizer Inc. or JP Morgan Chase & Co. contributed the most to the Fund’s relative performance, as their stocks lagged the overall market. All three stocks are ineligible for inclusion in the fund based on ESG criteria.

Trailing Performance Results, Net of Fees Ending March 31, 2019

Fund	Quarter	1 Year	3 Years	5 Years	Since Addition (12/2011)
TIAA-CREF Social Choice Equity	13.9	7.9	13.3	9.5	13.0
<i>Russell 3000 Index</i>	14.0	8.8	13.5	10.4	14.0
Difference	(0.1)	(0.9)	(0.2)	(0.9)	(1.0)
Percentile Rank*	30	49	30	47	48

*IM US Large Cap Core Equity Universe. 1 = Best, 100 = Worst.

The fund’s results placed above the Large Cap Core peer median across all time periods measured.

The fund continues to earn a Morningstar Sustainability Rating of ‘High,’ with a Sustainability Score in the top 10% of its category. The high sustainability markings are a sign that the fund has done a good job of adhering to ESG standards. When looking at other institutional Large Cap Blend funds with a Morningstar Sustainability Rating of ‘High’, the TIAA-CREF Social Choice Equity fund trailed the custom peer median over the 1-year period but outperformed over the extended 3-year, 5-year, and since

Program inception periods. Note, over the since inception period, only four of 26 reported funds in the custom peer group outperformed the Russell 3000 Index.

Annualized Risk-Adjusted Performance				
	1-year	3-year	5-year	Since 12/2011
TIAA-CREF Social Choice Equity				
Return	7.9%	13.3%	9.5%	13.0%
Peer Group Percentile Rank*	56	18	39	40
Custom Peer Group Median*				
Return	8.1%	12.0%	9.1%	12.3%
Russell 3000 Index				
Return	8.8%	13.5%	10.4%	14.0%

*35 funds as of 3/31/2019

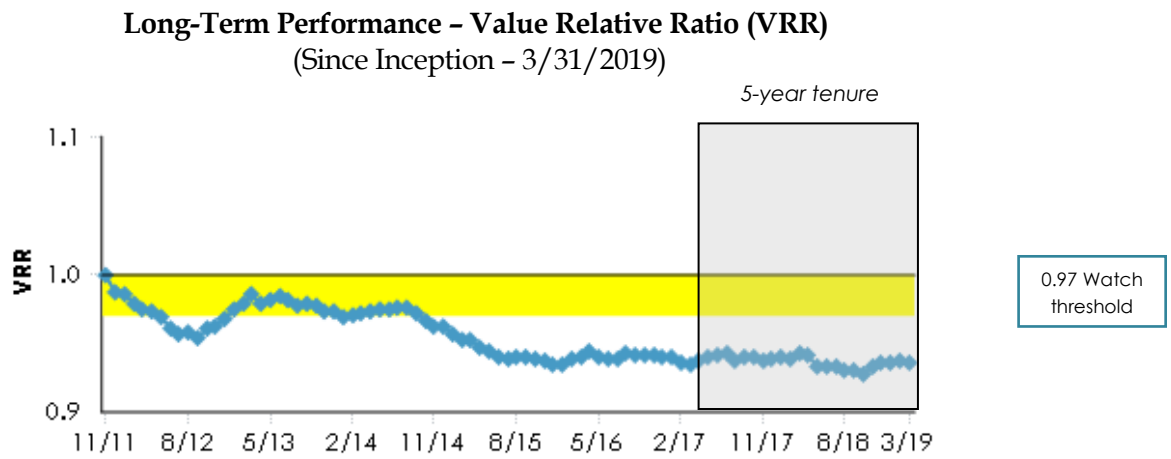
Since being added to the Program in late 2011, on a calendar year basis, the fund has struggled versus its benchmark over five of the last seven years. In 2012, the fund trailed about two-thirds of its peers and the Russell 3000 Index by (2.4%) as not holding Apple stock in the portfolio detracted. The portfolio posted strong gains and ranked in the top quartile of the peer group in the bull market of 2013; this time, the absence of Apple stock benefitted results as the stock struggled and performance improved to the Acceptable range throughout the period. In 2014 and 2015, the fund underperformed the benchmark by (1.4%) and (2.9%), respectively. During these periods, the fund's exclusion of certain ineligible holdings negatively impacted performance. For 2015, notable names that were not owned by the fund due to the ESG criteria included Amazon, Facebook, and General Electric; these specific exclusions that produced strong results detracted from relative results. The fund's performance improved in 2016 to exceed the benchmark by 80 basis points and ranked in the top quartile of the peer group. The fund has exhibited a historical tendency to perform relatively well in speculation-driven bull markets where risk is favorable. Over the two most recent calendar years (2017 and 2018), the fund performed roughly in-line with the benchmark and the peer group.

Calendar Year Performance Results, Net of Fees
Ending December 31

Fund	2012	2013	2014	2015	2016	2017	2018
TIAA-CREF Social Choice Equity	14.0	34.3	11.2	-2.4	13.5	20.9	(5.5)
Russell 3000 Index	16.4	33.6	12.6	0.5	12.7	21.1	(5.2)
Difference	(2.4)	0.7	(1.4)	(2.9)	0.8	(0.2)	(0.3)
Percentile Rank*	69	20	53	75	16	50	49

*IM US Large Cap Core Equity Universe. 1 = Best, 100 = Worst.

The graph below shows the cumulative relative results of the TIAA-CREF Social Choice Equity portfolio since being added to the Program in late 2011. A VRR of greater than 1.0 would represent outperformance of the portfolio versus its respective benchmark. It is evident that the portfolio's relative underperformance soon after being added to the Program has had a significant impact on longer-term results and will likely continue for some time to come.



When evaluating the fund on several quantitative factors, the fund's strict ESG focus will cause the fund to deviate from its benchmark, but the strategy's use of quantitative modeling should result in overall risk characteristics similar to that of the index. The table below summarizes the fund's 5-year portfolio statistics versus its benchmark.

Risk/Return Stats
 (5-Years ending 3/31/19)

	Return	StdDev	Alpha ¹	Beta ²	Sharpe Ratio ³	Up Mkt Capture	Down Mkt Capture
T-C Social Choice Equity	9.52	11.50	-0.72	1.00	0.79	96.76	101.45
Russell 3000 Index	10.36	11.50	0.00	1.00	0.85	100.00	100.00
Custom Peer Group Median	9.12	11.22	-1.41	0.96	0.77	92.49	103.09

¹ Alpha: Is the difference between a Manager's performance and the Manager's expected performance given its market sensitivity or Beta. It is used as a measure of value added by a Manager. A positive Alpha indicates that a Manager has performed better than its Beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed given the expectations set by Beta.

² Beta: Is defined as a Manager's sensitivity to the market movements and is used to evaluate market related or systemic risk. Beta is a measure of the linear relationship, over time, of the Manager's returns and those of the Benchmark.

³ Sharpe Ratio. Is used to characterize how well the return of the portfolio compensates for the risk taken. The higher the portfolio's Sharpe Ratio, the better the portfolio's returns have been relative to the risk taken on. Sharpe Ratio = (Portfolio Return - Risk Free Rate) / Standard Deviation.

Versus the benchmark, the fund has exhibited a similar level of volatility (as measured by Standard Deviation) and comparable Sharpe Ratio. The fund's Beta also remains in-line with the benchmark. Reviewing these statistics, it is evident the fund has been able to meet its risk objectives while being consistent with its investment philosophy and process.

RECOMMENDATION

Upon reviewing the performance of the TIAA-CREF Social Choice Equity fund, Meketa Investment Group continues to find the long-term performance deviations versus its current benchmark to be reasonable. The fund has delivered long-term results in-line with peer ESG funds and has demonstrated risk characteristics like the benchmark, therefore meeting its investment objectives while maintaining its investment philosophy.

At the April 2018 SIB meeting, the SIB elected that the TIAA-CREF Social Choice Equity fund remain on "Watch" status. The SIB requested that Meketa Investment Group conduct research to possibly identify a benchmark more closely aligned with the strategy's ESG focus that can be used for performance monitoring purposes. Upon research, Meketa identified the Russell 3000 ESG Index as a possible suitable benchmark. The Russell 3000 ESG Index is a new benchmark still being developed by FTSE Russell and ESG research firm Sustainalytics and is a sustainable version of the fund's prospectus benchmark, the Russell 3000 index. Meketa Investment Group will continue monitoring the availability of the new index which is expected to be released sometime in 2019.

Meketa Investment Group recommends that the TIAA-CREF Social Choice Equity Fund remain on "Watch" as the SIB continues to discuss options for monitoring the fund going forward.

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