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**MARCH 3, 2020**

**AGENDA ITEM 3  
INFORMATION ITEM**

**CALIFORNIA ABLE ACT BOARD**

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Review of CalABLE Investment Performance for Fourth Quarter 2019

***Background***

The CalABLE Act Board and its investment consultant, Meketa Investment Group, Inc. (Meketa) monitor all portfolios in the CalABLE (Plan). In this item, CalABLE will review and “Investment Performance Report” (Exhibit A) for the Plan for fourth quarter 2019, provided by TIAA Tuition Financing, Inc. , and the “Investment Performance Status Report” (Exhibit B) for fourth 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 the funds as “positive,” “acceptable,” “caution,” or “watch.”

**Attachments**

- CalABLE Performance 4Q19
- TFI CalABLE Performance Report 4Q19

**Presenters**

Glenn Friedman, Manager, TIAA Tuition Financing Inc.  
Eric White, Principal, Meketa Investment Group, Inc.

# Quarterly Investment Report

4th Quarter, 2019

BUILT TO PERFORM.

CREATED TO SERVE.

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

Before investing in the California Achieving a Better Life Experience (CalABLE) Program, 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 (833) 225-2253 or view it online at <https://calable.ca.gov/>. 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 CalABLE plan.



# Market Overview: Q4 2019

## Key Themes

- The same economic and political themes that persisted much of the year continued in the fourth quarter. We saw uneasy international relations and uncertainty regarding international trade; however, there was optimism around the potential for a Phase I trade deal with China.

## Equities

- Ten of eleven U.S. equity sectors had positive results. Information Technology had the highest returns, registering 14.40% for the quarter, while Real Estate lagged, falling 0.54%. Non-U.S. developed and emerging markets both had a strong showing, with EM outperforming most other markets.

## Fixed Income

- At the December FOMC meeting, the Federal Reserve Board maintained the current level for its benchmark fed funds rate. The statement released from Chair Powell struck a dovish tone by emphasizing that the Fed has no plans to re-raise interest rates in the near term, stating that monetary policy is “appropriate to sustain the current expansion.” Fixed income yields rose for the quarter but had little reaction to this news.

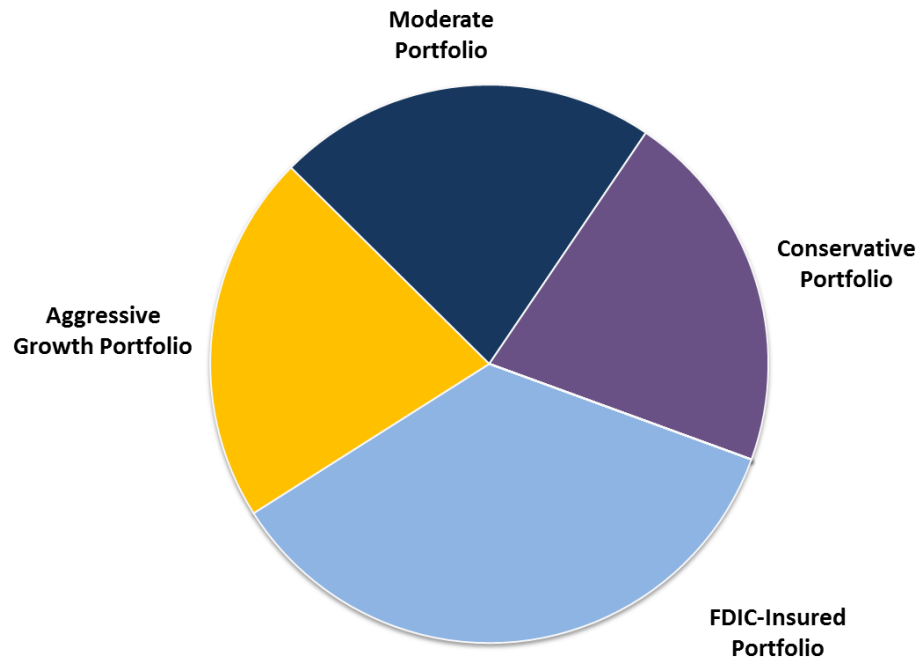
Past performance is not indicative of future results. You can not invest directly in an index. U.S. Equities – Russell 3000 Index; U.S. Growth Stocks – Russell 1000 Growth Index; U.S. Value Stocks – Russell 1000 Value Index; U.S. Mid Cap Stocks – Russell Midcap Index; U.S. Small-Cap Stocks – Russell 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; Long-dated Bonds – 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 Bill Index C34631

Asset Class	3 Month	1 Year	3 Year	5 Year
U.S. Equities	9.10	31.02	14.57	11.24
U.S. Growth Stocks	10.62	36.39	20.49	14.63
U.S. Value Stocks	7.41	26.54	9.68	8.29
U.S. Mid-Cap Stocks	7.06	30.54	12.06	9.33
U.S. Small-Cap Stocks	9.94	25.52	8.59	8.23
Int'l Developed Stocks	8.17	22.01	9.56	5.67
Emerging Markets Stocks	11.84	18.42	11.57	5.61
Real Estate Stocks	0.13	28.66	10.29	8.43
U.S. Investment Grade Bonds	0.18	8.72	4.03	3.05
Long-dated Bonds	-1.12	19.59	8.07	5.42
Inflation-Linked Bonds	1.00	6.85	2.79	2.36
High Yield Bonds	2.57	15.09	6.44	6.11
Commodities	4.42	7.69	-0.94	-3.92
Cash	0.47	2.30	1.68	1.09
<b>Annualized Tuition Inflation Ending as of 2019-2020 Academic Year* (%)</b>				
<b>Educational Institution</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	
National Average Public 4-Year In-state	2.25	2.59	2.67	
National Average Private Nonprofit 4-Year	3.36	3.26	3.35	
Consumer Price Index, December 2019	2.29	2.10	1.82	

\*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 2019 and U.S. Department of Labor: Bureau of Labor Statistics

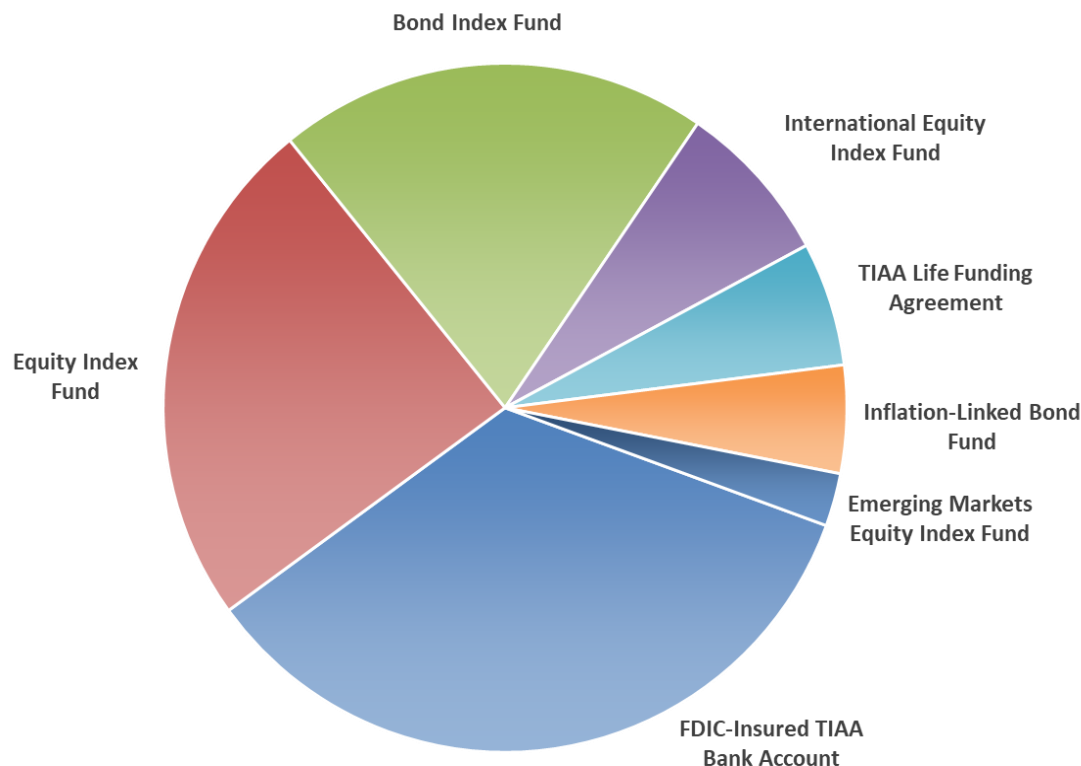
# Assets by Portfolio as of Q4 2019

## Total Assets: \$13.5M



Portfolio	Assets (in thousands)			Quarter-End % of Assets
	October	November	December	
FDIC-Insured Portfolio	\$3,452	\$3,757	\$4,531	34%
Aggressive Growth Portfolio	\$2,004	\$2,293	\$3,052	23%
Moderate Portfolio	\$2,104	\$2,388	\$3,056	23%
Conservative Portfolio	\$2,078	\$2,317	\$2,863	21%
Total Assets	\$9,637	\$10,756	\$13,502	100%

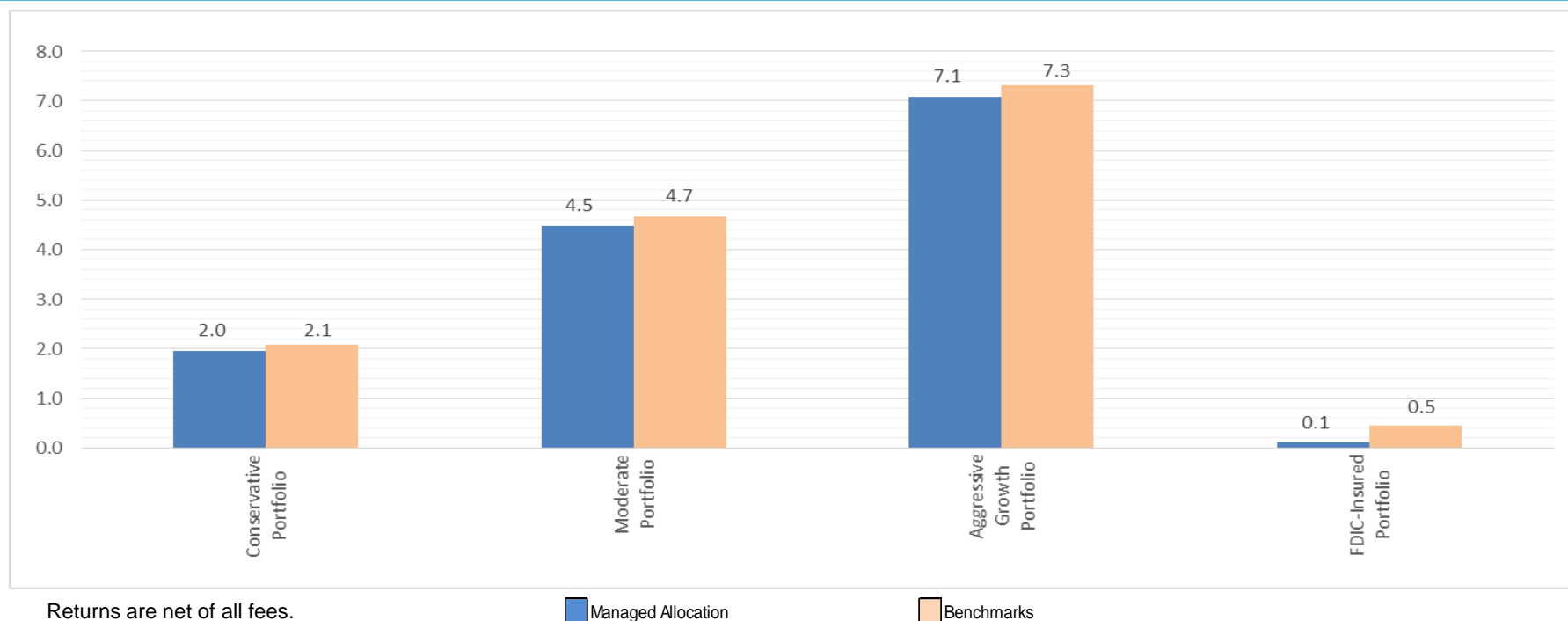
# Assets by Underlying Fund as of Q4 2019



	% of Assets	(\$K)		% of Assets	(\$K)
FDIC-Insured TIAA Bank Account	34%	\$4,531	International Equity Index Fund	8%	\$1,032
Equity Index Fund	24%	\$3,294	TIAA Life Funding Agreement	6%	\$841
Bond Index Fund	21%	\$2,770	Inflation-Linked Bond Fund	5%	\$690
			Emerging Markets Equity Index Fund	3%	\$344

# Investment Portfolios vs Composite Benchmarks

## Q4 2019 (%)



- Total nonfarm payroll employment increased by 145,000 in December, capping a decade of solid job creation and robust wage growth but falling just shy of economist expectations of 160,000.
- Average hourly earnings of all employees on private nonfarm payrolls showed a 3.1% year-over-year increase from last October.
- The Conference Board's index of leading economic indicators (LEI) remained unchanged in November, following a 0.2% decline in both October and September.
- All investment portfolios had positive absolute returns in Q4.
- Contributing to absolute returns was the TIAA-CREF Emerging Markets Equity Index Fund, which generated 11.76% in Q4. Also contributing to absolute performance was the TIAA-CREF Equity Index Fund, which added 9.06% in the quarter.
- The program is primarily composed of index funds, which have an objective to replicate respective benchmark returns gross of fees. Tracking error for the underlying funds in Q4 remained small.

# Investment Portfolios vs Composite Benchmarks

						Average Annual Total Return			
	October	November	December	3 Month	YTD	1 Year	3 Year	Since Inception	Inception Date
Managed Allocation Option									
Conservative Portfolio	0.65%	0.55%	0.73%	1.95%	9.79%	9.79%	-	9.52%	12/17/18
Blended Benchmark Returns	0.73%	0.60%	0.74%	2.09%	10.60%	10.60%	-	10.32%	
Difference	-0.08%	-0.05%	-0.01%	-0.14%	-0.81%	-0.81%	-	-0.80%	
Moderate Portfolio	1.35%	1.50%	1.57%	4.48%	16.73%	16.73%	-	15.84%	12/17/18
Blended Benchmark Returns	1.46%	1.44%	1.70%	4.67%	17.74%	17.74%	-	16.60%	
Difference	-0.11%	0.06%	-0.13%	-0.19%	-1.01%	-1.01%	-	-0.76%	
Aggressive Growth Portfolio	2.01%	2.31%	2.60%	7.08%	23.36%	23.36%	-	21.59%	12/17/18
Blended Benchmark Returns	2.16%	2.32%	2.67%	7.32%	24.03%	24.03%	-	21.89%	
Difference	-0.15%	-0.01%	-0.07%	-0.24%	-0.67%	-0.67%	-	-0.30%	
FDIC-Insured Portfolio	0.10%	0.00%	0.00%	0.10%	0.40%	0.40%	-	0.39%	12/17/18
FTSE 3-Month T-Bill	0.17%	0.15%	0.14%	0.46%	2.25%	2.25%	-	2.26%	
Difference	-0.07%	-0.15%	-0.14%	-0.36%	-1.85%	-1.85%	-	-1.87%	

Returns are net of all fees.

The crediting rate of 1.75% for the Funding Agreement in the Conservative Portfolio and Moderate Portfolio is guaranteed through 12/30/19.

# Asset Allocation, Fees, and Performance

Portfolio	Q4 Option 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 Bond Index Fund	TIAA-CREF Inflation-Linked Bond Fund	T-C Life Funding Agreement	FDIC-Insured TIAA Bank Account
Underlying Fund Expenses (bp)			5	6	20	11	26	N/A	N/A
Conservative Portfolio	1.95%	53	14.00%	4.50%	1.50%	44.00%	11.00%	25.00%	
Moderate Portfolio	4.48%	53	35.00%	11.25%	3.75%	36.00%	9.00%	5.00%	
Aggressive Growth Portfolio	7.08%	52	56.00%	18.00%	6.00%	16.00%	4.00%	0.00%	
FDIC-Insured Portfolio**	0.10%	44							100.00%

Underlying Fund Rating

POSITIVE POSITIVE POSITIVE POSITIVE POSITIVE POSITIVE POSITIVE

\* Asset Based Fees include estimated Underlying Investment Expenses and State Administrative Fees.

\*\*Currently, the 0.44% State Administrative Fee for the FDIC-Insured Portfolio is being waived by the Board. The Board reserves the right to charge a State Administrative Fee to the FDIC-Insured Portfolio in the future to the extent that the imposition of such Fee would not result in a loss of principal for Account Owners.



# Underlying Funds vs. Benchmarks

	Average Annual Total Return							
	3 Month	YTD	1 Year	3 Year	5 Year	10 Year	Life	Incept. Date
TIAA-CREF FUNDS								
T-C Bond Index Fund	0.01%	8.38%	8.38%	3.87%	2.90%	3.58%	3.52%	09/14/2009
Bloomberg Barclays U.S. Aggregate Bond Index	0.18%	8.72%	8.72%	4.03%	3.05%	3.75%	3.72%	
Difference	-0.17%	-0.34%	-0.34%	-0.16%	-0.15%	-0.17%	-0.20%	
T-C Emerging Markets Equity Index Fund*	11.76%	18.57%	18.57%	11.67%	5.66%	-	3.67%	08/31/2010
MSCI Emerging Markets Index	11.84%	18.42%	18.42%	11.58%	5.61%	-	3.98%	
Difference	-0.08%	0.15%	0.15%	0.09%	0.05%	-	-0.31%	
T-C Equity Index Fund	9.06%	30.87%	30.87%	14.53%	11.21%	13.37%	6.55%	07/01/1999
Russell 3000 Index	9.10%	31.02%	31.02%	14.58%	11.24%	13.42%	6.62%	
Difference	-0.04%	-0.15%	-0.15%	-0.05%	-0.03%	-0.05%	-0.07%	
T-C Inflation-Linked Bond Fund	0.80%	6.59%	6.59%	2.57%	1.93%	2.90%	3.92%	10/01/2002
Bloomberg Barclays 1-10 Year U.S. TIPS Index	1.00%	6.85%	6.85%	2.79%	2.36%	2.57%	3.73%	
Difference	-0.20%	-0.26%	-0.26%	-0.22%	-0.43%	0.33%	0.19%	
T-C International Equity Index Fund*	7.90%	21.79%	21.79%	9.82%	5.93%	5.65%	7.75%	10/01/2002
MSCI EAFE Index	8.17%	22.01%	22.01%	9.57%	5.67%	5.50%	7.71%	
Difference	-0.27%	-0.22%	-0.22%	0.25%	0.26%	0.15%	0.04%	

\* 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.

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# CalABLE Plans

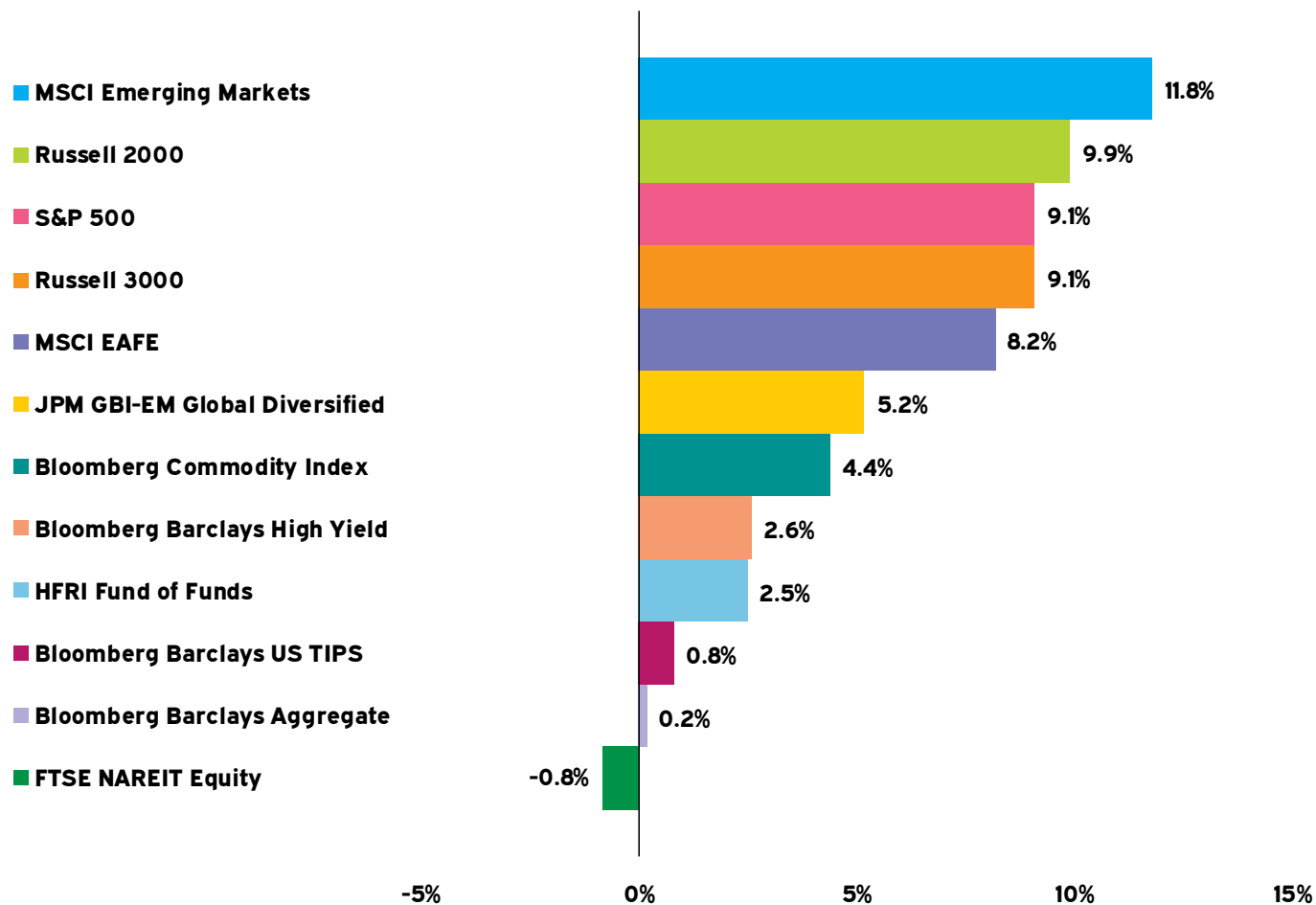
March 3, 2020

4Q19 Performance &  
Evaluation Report

1. The World Markets in the Fourth Quarter of 2019
2. Summary of Monitoring Status
3. CalABLE Portfolios Analysis
4. CalABLE Underlying Funds Analysis
5. Fee Schedule

## **The World Markets Fourth Quarter of 2019**

### The World Markets<sup>1</sup> Fourth Quarter of 2019



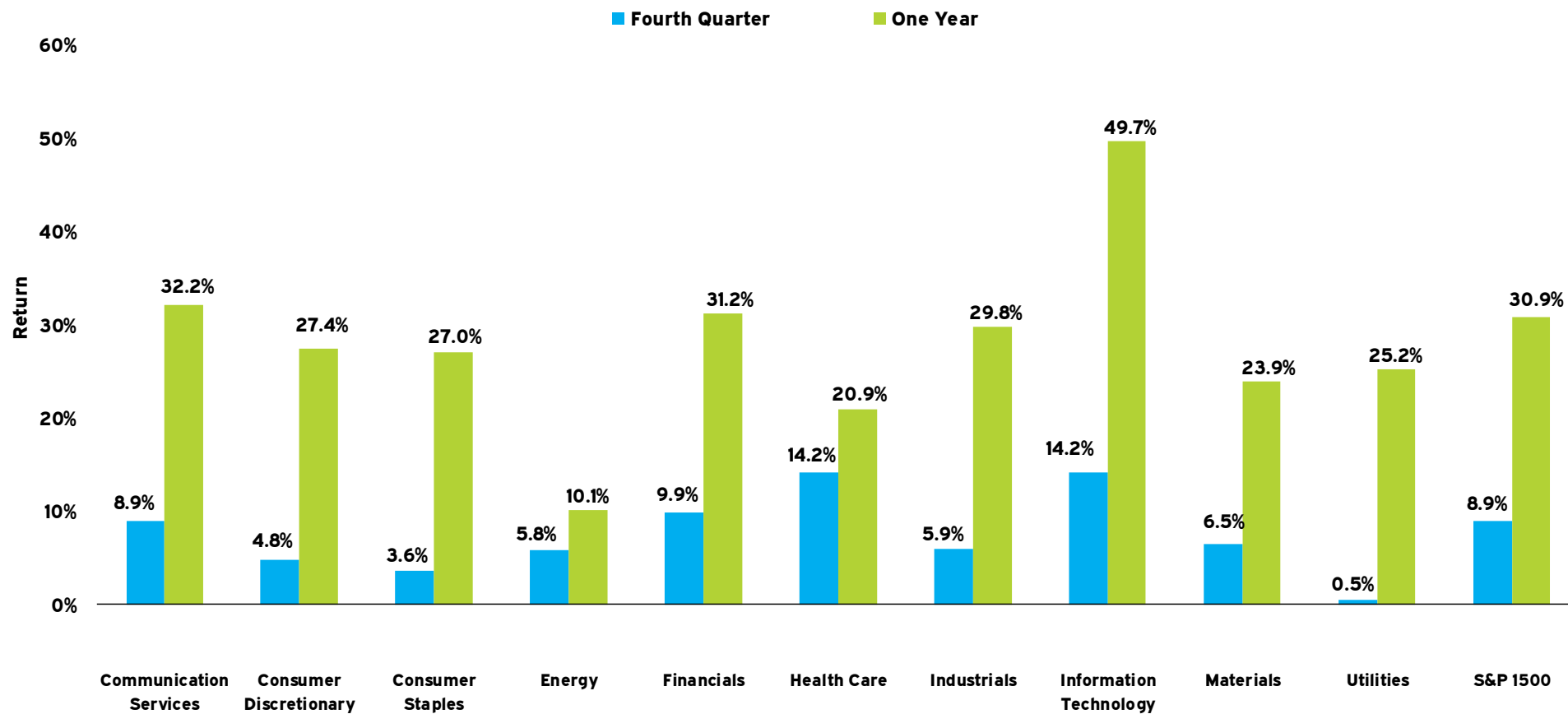
<sup>1</sup> Source: InvestorForce.

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

	4Q19 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
<b>Domestic Equity</b>					
S&P 500	9.1	31.5	15.3	11.7	13.6
Russell 3000	9.1	31.0	14.6	11.2	13.4
Russell 1000	9.0	31.4	15.0	11.5	13.5
Russell 1000 Growth	10.6	36.4	20.5	14.6	15.2
Russell 1000 Value	7.4	26.5	9.7	8.3	11.8
Russell MidCap	7.1	30.5	12.1	9.3	13.2
Russell MidCap Growth	8.2	35.5	17.4	11.6	14.2
Russell MidCap Value	6.4	27.1	8.1	7.6	12.4
Russell 2000	9.9	25.5	8.6	8.2	11.8
Russell 2000 Growth	11.4	28.5	12.5	9.3	13.0
Russell 2000 Value	8.5	22.4	4.8	7.0	10.6
<b>Foreign Equity</b>					
MSCI ACWI (ex. US)	8.9	21.5	9.9	5.5	5.0
MSCI EAFE	8.2	22.0	9.6	5.7	5.5
MSCI EAFE (Local Currency)	5.2	21.7	7.7	6.7	7.2
MSCI EAFE Small Cap	11.5	25.0	10.9	8.9	8.7
MSCI Emerging Markets	11.8	18.4	11.6	5.6	3.7
MSCI Emerging Markets (Local Currency)	9.5	18.1	11.5	7.5	6.1
<b>Fixed Income</b>					
Bloomberg Barclays Universal	0.5	9.3	4.3	3.4	4.1
Bloomberg Barclays Aggregate	0.2	8.7	4.0	3.0	3.7
Bloomberg Barclays US TIPS	0.8	8.4	3.3	2.6	3.4
Bloomberg Barclays High Yield	2.6	14.3	6.4	6.1	7.6
JPM GBI-EM Global Diversified	5.2	13.5	7.0	2.8	2.7
<b>Other</b>					
FTSE NAREIT Equity	-0.8	26.0	8.1	7.2	11.9
Bloomberg Commodity Index	4.4	7.7	-0.9	-3.9	-4.7
HFRI Fund of Funds	2.5	7.8	3.7	2.2	2.8

<sup>1</sup> Source: InvestorForce.

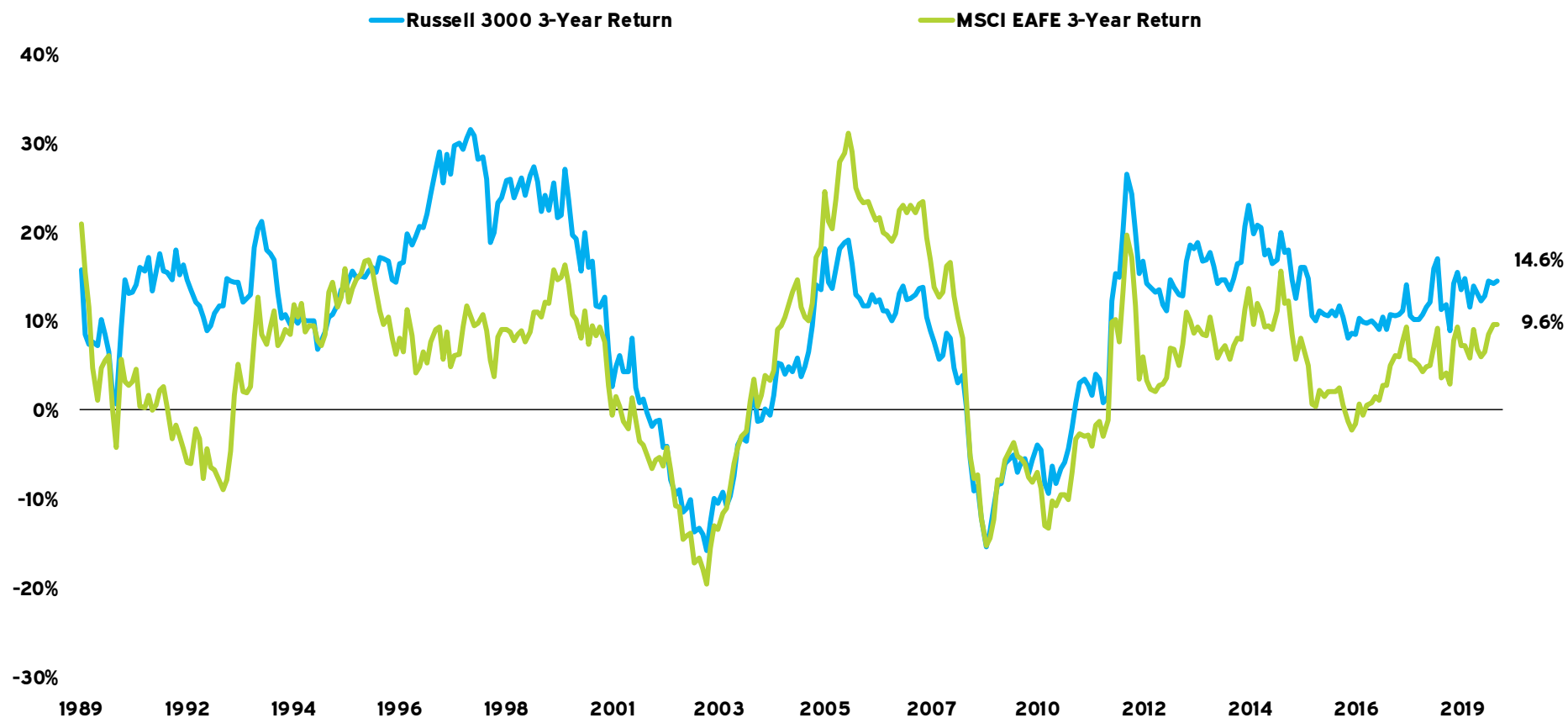
### S&P Sector Returns<sup>1</sup>



<sup>1</sup> Source: InvestorForce. Represents S&P 1500 (All Cap) data.

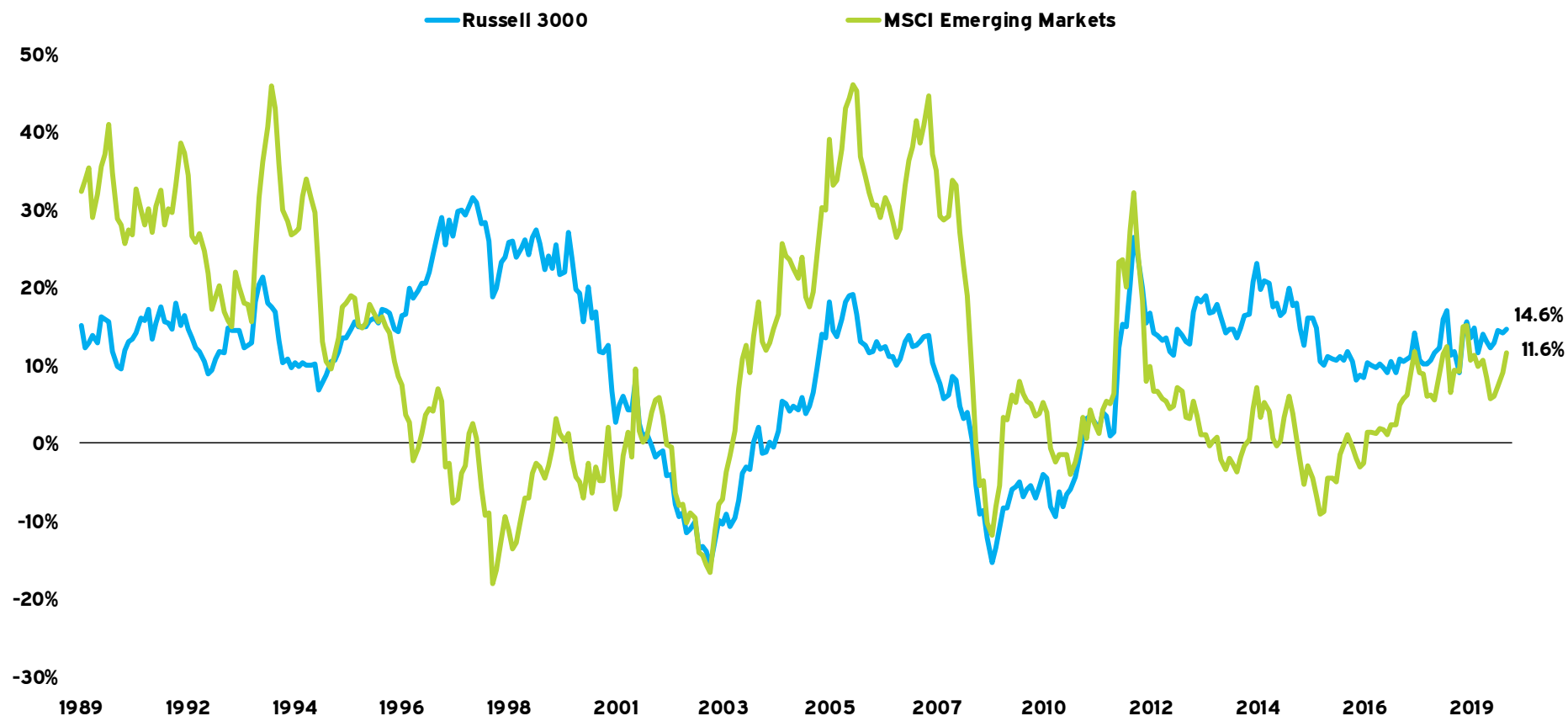


### US and Developed Market Foreign Equity Rolling Three-Year Returns<sup>1</sup>



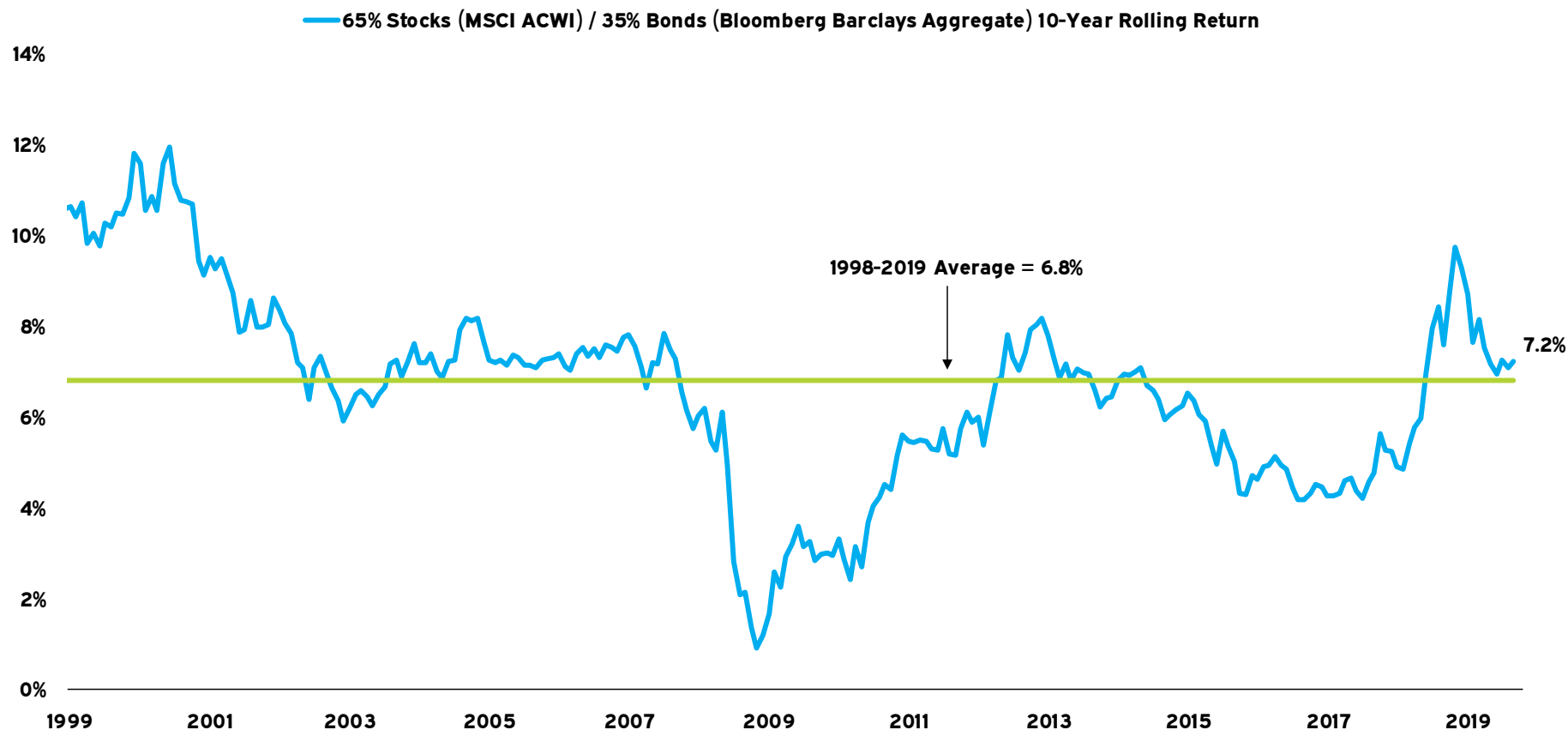
<sup>1</sup> Source: InvestorForce.

### US and Emerging Market Equity Rolling Three-Year Returns<sup>1</sup>



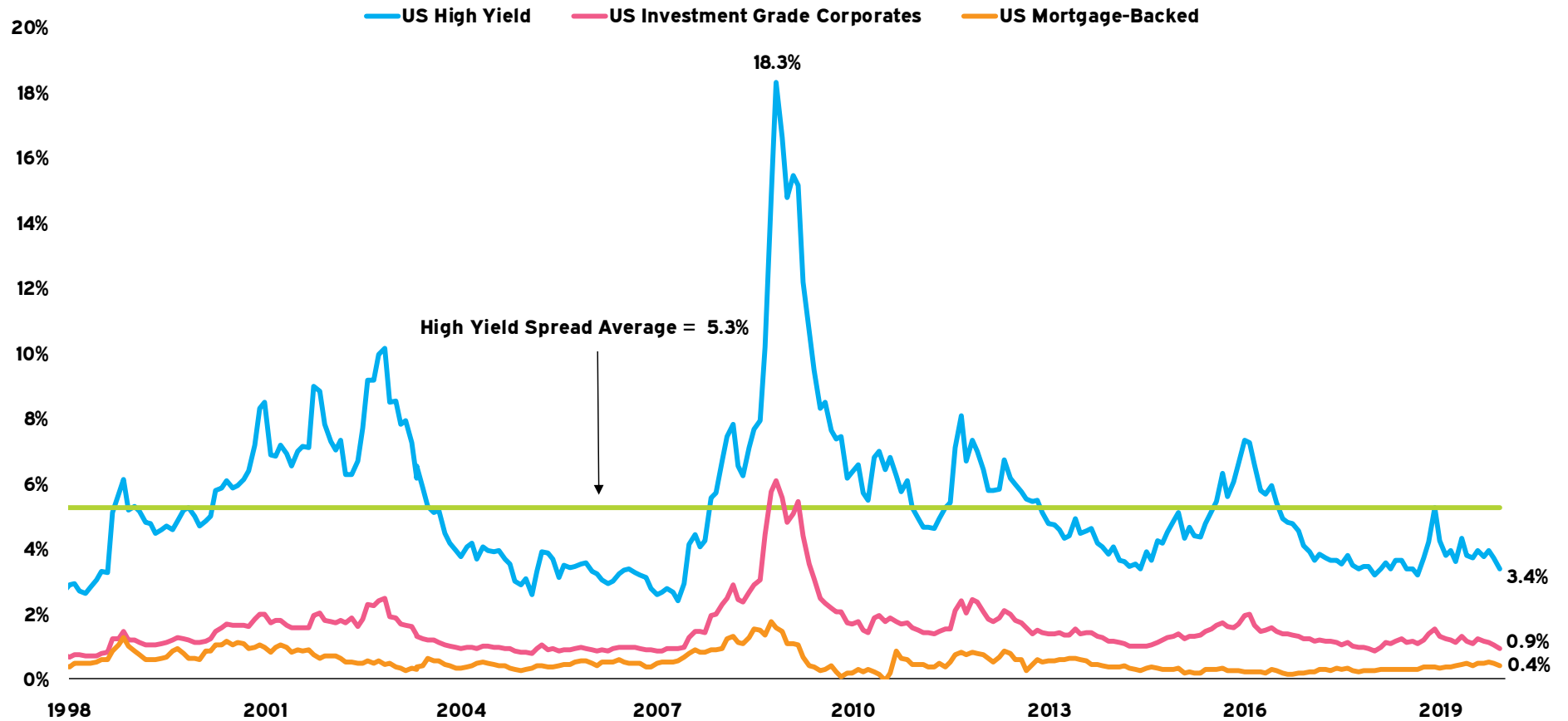
<sup>1</sup> Source: InvestorForce.

### Rolling Ten-Year Returns: 65% Stocks and 35% Bonds<sup>1</sup>



<sup>1</sup> Source: InvestorForce.

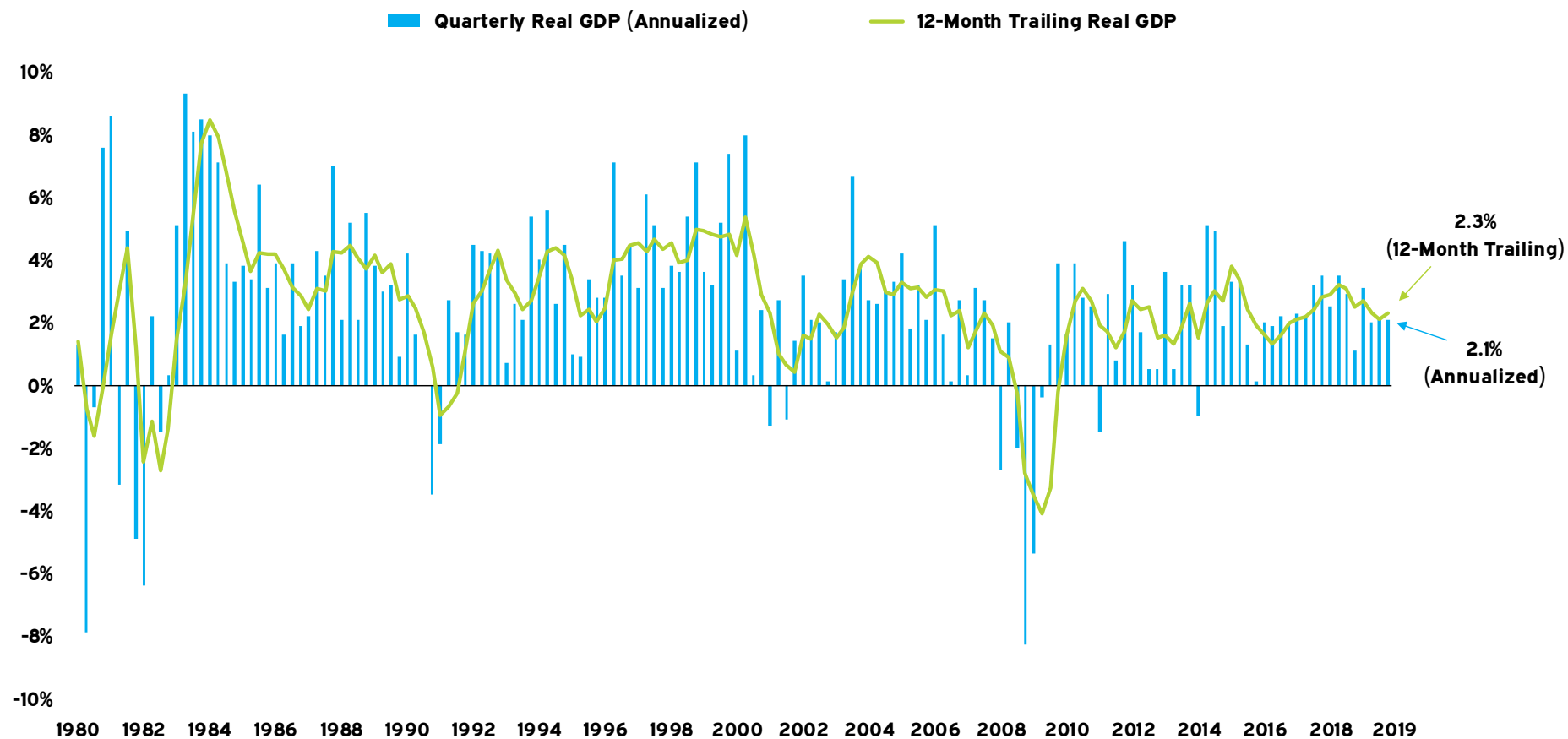
### Credit Spreads vs. US Treasury Bonds<sup>1,2</sup>



<sup>1</sup> Source: Barclays Live. Data represents the OAS.

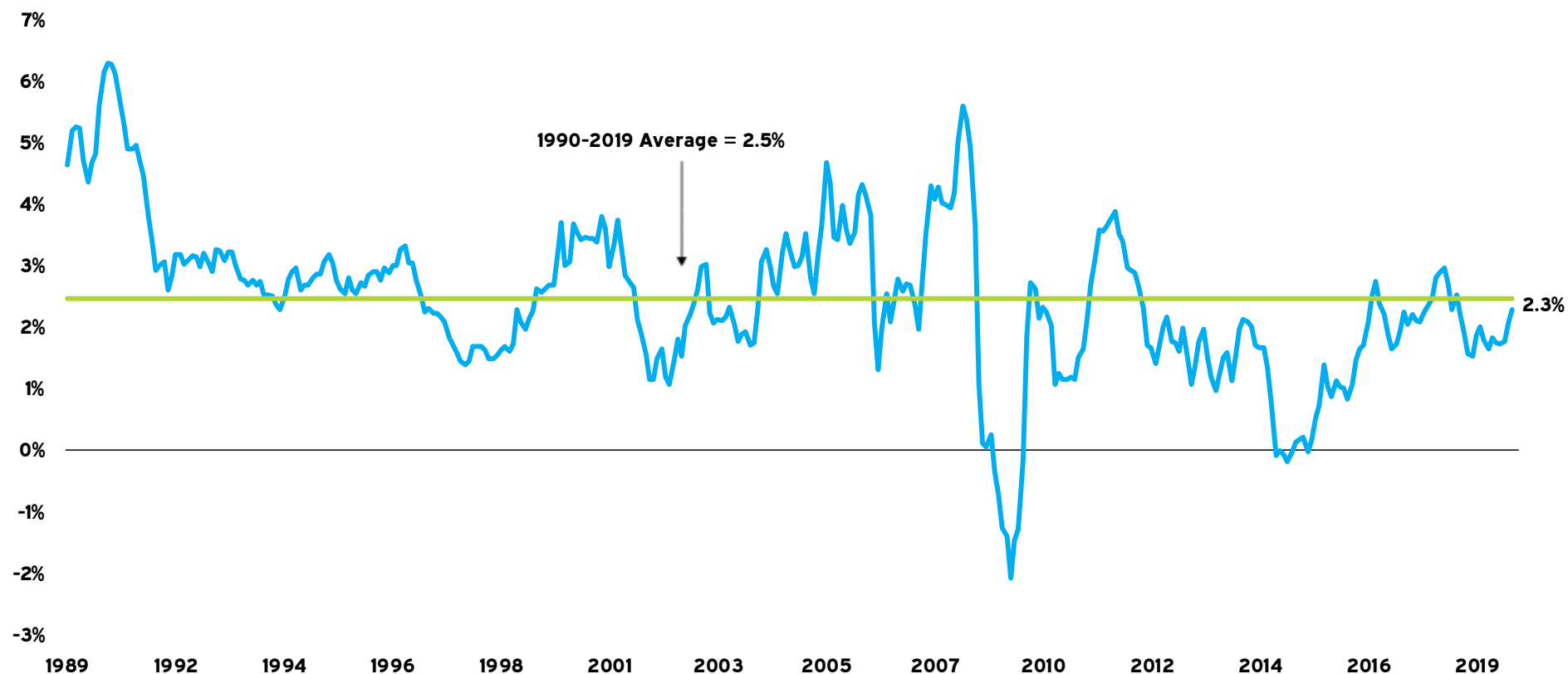
<sup>2</sup> The median high yield spread was 4.7% from 1997-2019.

### US Real Gross Domestic Product (GDP) Growth<sup>1</sup>



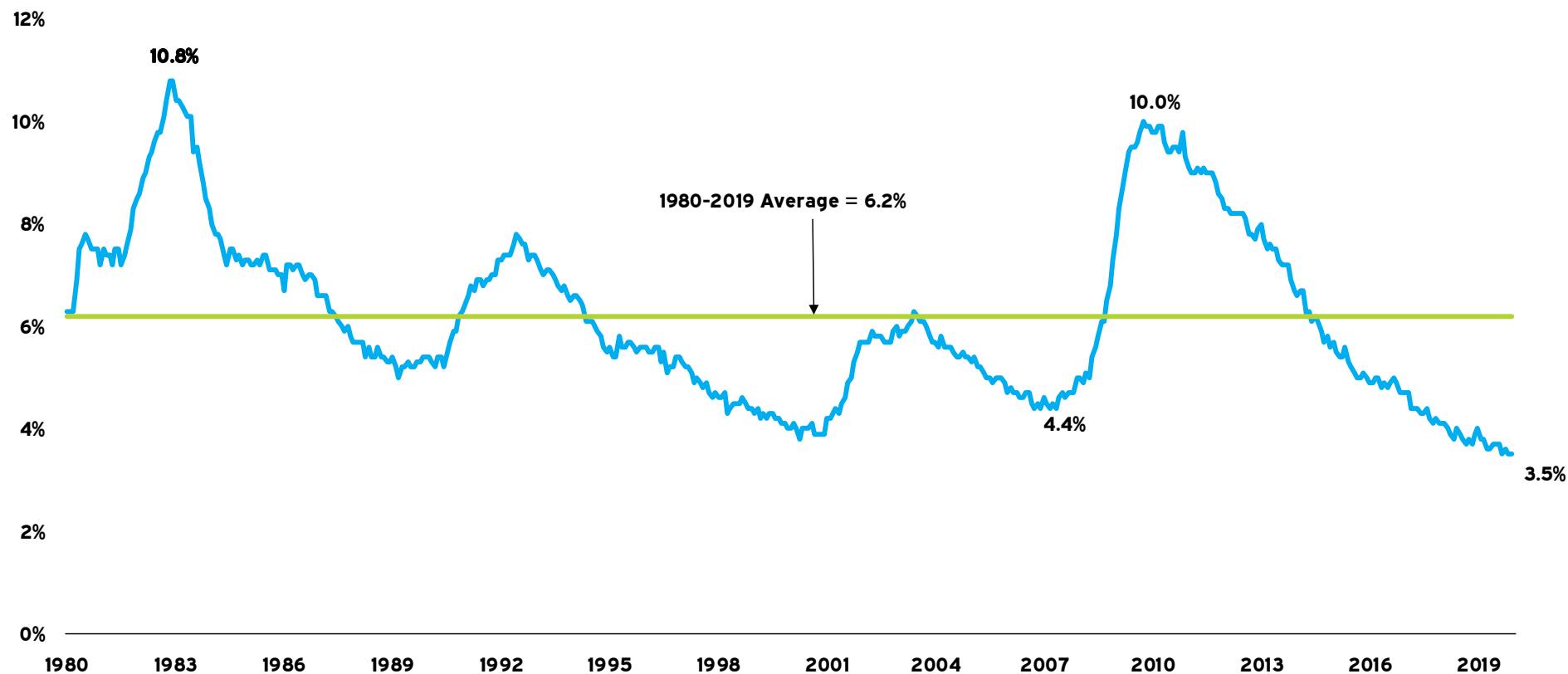
<sup>1</sup> Source: Bureau of Economic Analysis. Data is as of Q4 2019 and represents the first estimate.

### US Inflation (CPI) Trailing Twelve Months<sup>1</sup>



<sup>1</sup> Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of December 31, 2019.

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



<sup>1</sup> Source: Bureau of Labor Statistics. Data is as of December 31, 2019.

## **Summary of Monitoring Status**



### Underlying Fund Summary As of December 31, 2019

Underlying Funds	Asset Class	Ticker	Active/Passive
TIAA-CREF Equity Index Fund	Domestic Equity	TIEIX	Passive
TIAA-CREF Int'l Equity Index Fund	International Equity	TCIEX	Passive
TIAA-CREF Emerging Markets Index Fund	Emerging Markets	TEQLX	Passive
TIAA-CREF Bond Index Fund	Fixed Income	TBIIX	Passive
TIAA-CREF Inflation Linked Bond Fund	Fixed Income	TIILX	Active
TIAA- Life Funding Agreement	Bank Deposit	--	--

**Monitoring Summary**  
**As of December 31, 2019**

Portfolios	Total Fund Assets (\$K)	% of Total	Prior QTR Status	Current QTR Status	Qualifies for Watch?	On Watch
<b>Portfolios</b>						
Aggressive Growth Portfolio	\$3,052	23%	---	---	---	---
Moderate Portfolio	\$3,056	23%	---	---	---	---
Conservative Portfolio	\$2,863	21%	---	---	---	---
FDIC-Insured Portfolio	\$4,531	34%	---	---	---	---
<b>Underlying Funds</b>						
TIAA-CREF Equity Index Fund	\$3,294	24%	Positive	Positive	No	No
TIAA-CREF Int'l Equity Index Fund*	\$1,032	8%	Acceptable	Positive	No	No
TIAA-CREF Emerging Markets Index Fund*	\$344	2%	Positive	Positive	No	No
TIAA-CREF Bond Index Fund	\$2,770	21%	Positive	Positive	No	No
TIAA-CREF Inflation Linked Bond Fund	\$690	5%	Acceptable	Acceptable	No	No
TIAA-Life Funding Agreement	\$841	6%	Positive	Positive	No	No
FDIC-Insured TIAA Bank Account	\$4,531	34%	Positive	Positive	No	No
<b>Total</b>	<b>\$13,502</b>	<b>100%</b>	---	---	---	---

\*The TIAA-CREF International Equity and Emerging Markets Index funds' returns have been adjusted to remove F/X and Fair Value impact for the purpose of monitoring.

Watch criteria summarized on Page 20.

### Portfolio Management Review As of December 31, 2019

Fund	Ticker	Current PM Team		Recent PM Departures*	
TIAA-CREF Equity Index Fund	TIEIX	08/31/2010 05/30/2014 03/01/2019	Philip James Campagna Lei Liao Darren Tran	--	--
TIAA-CREF Int'l Equity Index Fund	TCIEX	08/31/2010 05/30/2014 03/01/2019	Philip James Campagna Lei Liao Darren Tran	--	--
TIAA-CREF Emerging Markets Index Fund	TEQLX	08/31/2010 05/30/2014 03/01/2019	Philip James Campagna Lei Liao Darren Tran	--	--
TIAA-CREF Bond Index Fund	TBIIX	12/31/2009 08/24/2011	Lijun (Kevin) Chen James Tsang	--	--
TIAA-CREF Inflation Linked Bond Fund	TIILX	08/21/2008 08/01/2016 08/01/2019	John Michael Cerra Nicholas Travaglino Chad Kemper	10/01/2011-08/01/2016	Stephen Liberatore

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

Source: MorningStar

- No portfolio management team changes were reported over the recent period.

### Monitoring Guidelines

Performance Category	Active Funds	Passive Funds
Positive	Performance exceeds the benchmark	Tracking error is within the allowable range (short, medium and long-term periods)
Acceptable	Performance meets or trails the benchmark but is within the allowable range	N/A
Caution	Performance is below allowable range but either: i) For less than 6 consecutive months ii) The Board has not taken (or decided not to take) a formal action to place the underlying fund on Watch even though performance has been below allowable range for 6 months or longer	Tracking error falls outside of the allowable range but either i) For less than 6 consecutive months or ii) The Board has not voted to place the underlying fund on Watch
Watch	Performance is below allowable range for more than 6 consecutive months and the Board has formally voted to place the underlying fund on Watch.	Tracking error falls outside of the allowable range for more than 6 consecutive months and the Board has formally voted to place the underlying fund on Watch.

### Monitoring Guidelines As of December 31, 2019

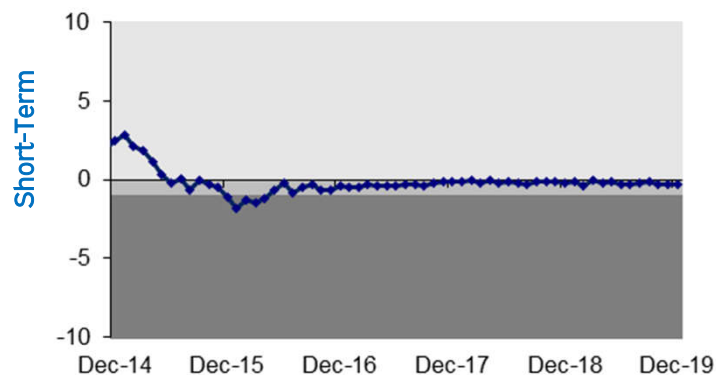
Asset Class	Shorter-Term Performance (rolling 12-month periods)	Medium-Term Performance (rolling 36-month periods)	Long-Term (>60 months)
Actively Managed Funds	Fund return < Benchmark return for 6 consecutive months	Fund return < Benchmark return for 6 consecutive months	VRR < for 6 consecutive months
Fixed Income	-1.0%	-0.5%	0.98
Passively Managed Funds	Tracking Error > for 6 consecutive months	Tracking Error > for 6 consecutive months	Fund annualized return < Benchmark annualized return for 6 consecutive months
Domestic Equity	0.30%	0.25%	-0.30%
International Equity	0.75%	0.70%	-0.30%
Fixed Income	0.40%	0.55%	-0.35%

FDIC Insured Deposit Portfolio				
Asset Class	FDIC-Insured Status		Stability	
Bank Deposit	Bank continues with appropriate levels of insurance with the FDIC		No identifiable issues regarding changes in the bank's financial stability	
Asset Class	Financial Strength	Mortgage Portfolio	Bond Portfolio	Account Diversification
Funding Agreement (Stable Value)	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

### Summary of Monitoring Status

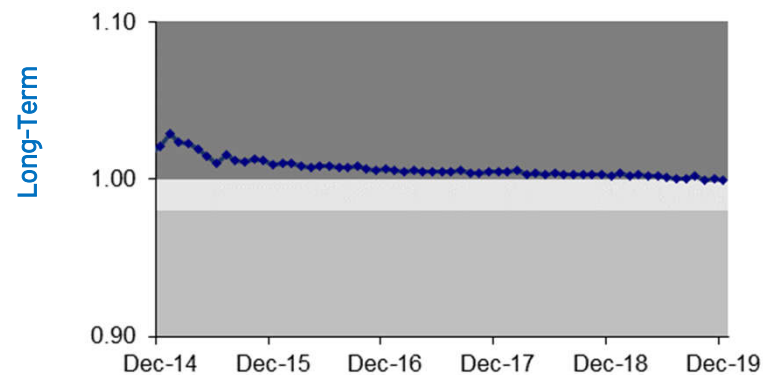
#### TIAA CREF Inflation-Linked Bond

**Rolling 12-Month Excess**  
(As of 12/31/19)



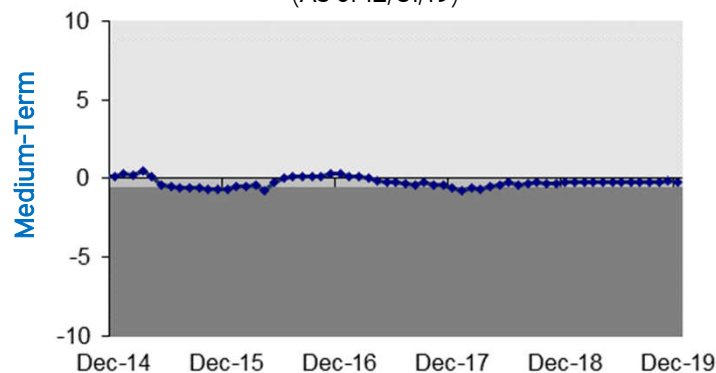
- Results fall in the Acceptable range.
- Probationary Performance -1.00%

**VRR**  
(As of 12/31/19)



- Results fall in the Acceptable range.
- Probationary Performance <0.98

**Rolling 36-Month Excess**  
(As of 12/31/19)



- Results fall in the Acceptable range.
- Probationary Performance -0.50%

**Monitoring Status**

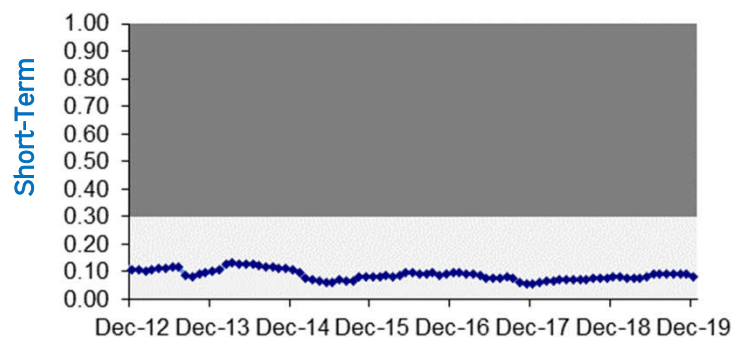
**Acceptable**

Benchmark: Bloomberg Barclays US TIPS 1-10 Year Index

### Summary of Monitoring Status

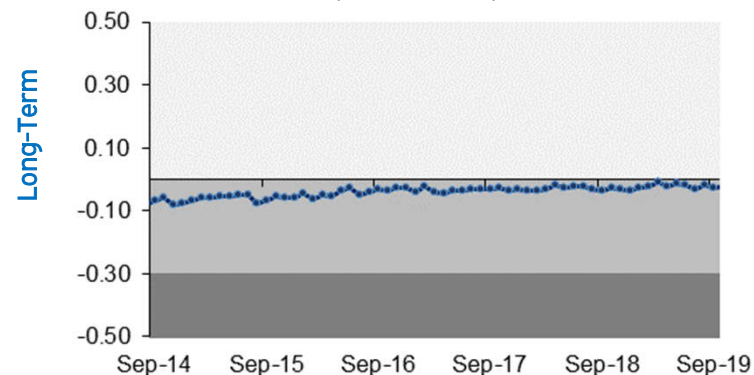
#### TIAA CREF Equity Index

Rolling 12-Month Tracking Error  
(As of 12/31/19)



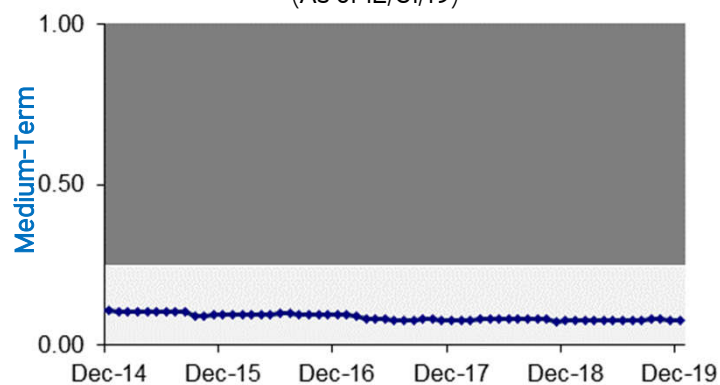
- Results fall in the Positive range.
- Probationary Performance 0.30%

5-YR Annualized Excess Return  
(As of 12/31/19)



- Results fall in the Positive range.
- Probationary Performance -0.30%

Rolling 36-Month Tracking Error  
(As of 12/31/19)



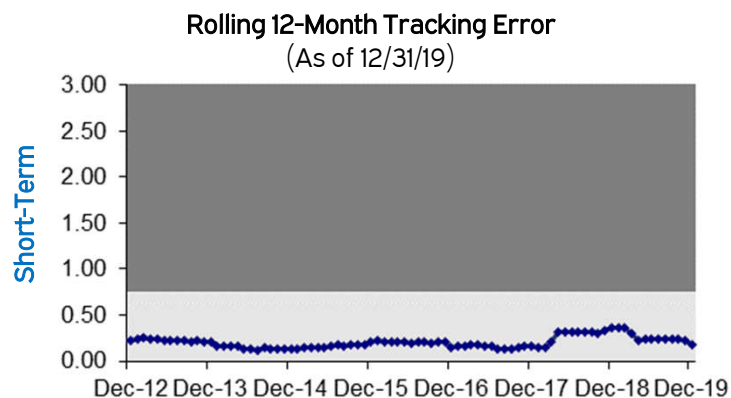
- Results fall in the Positive range.
- Probationary Performance 0.25%

**Monitoring Status**

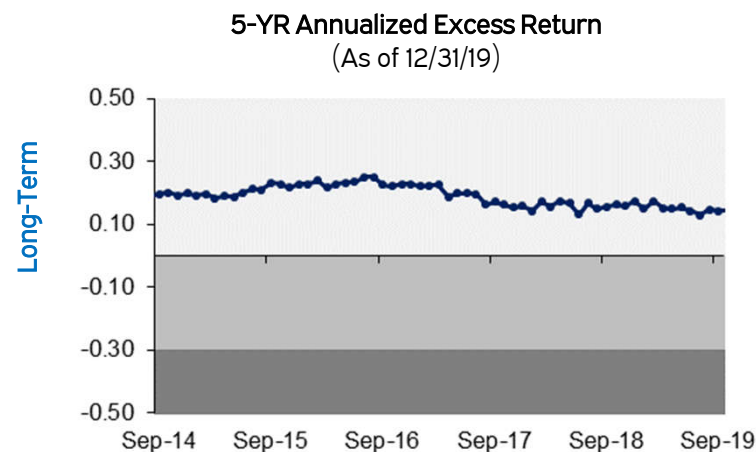
**Positive**

### Summary of Monitoring Status

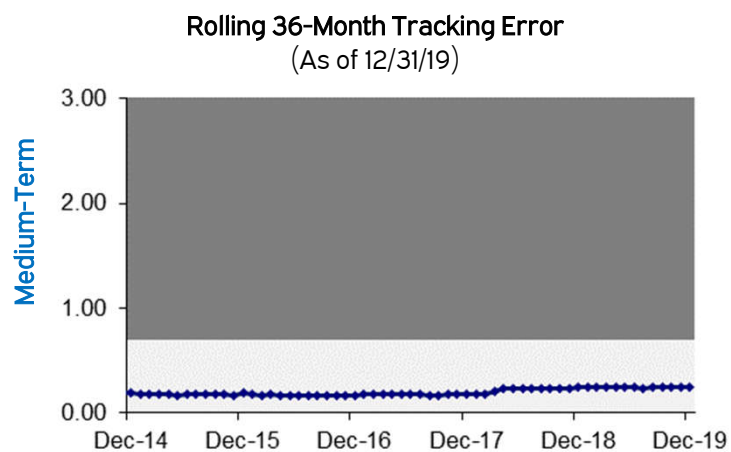
#### TIAA CREF International Equity Index



- Results fall in the Positive range.
- Probationary Performance 0.75%



- Results fall in the Positive range.
- Probationary Performance -0.30%



- Results fall in the Positive range.
- Probationary Performance 0.70%

#### Monitoring Status

**Positive**

\*Fund returns have been adjusted to remove Fair Value and F/X impacts.

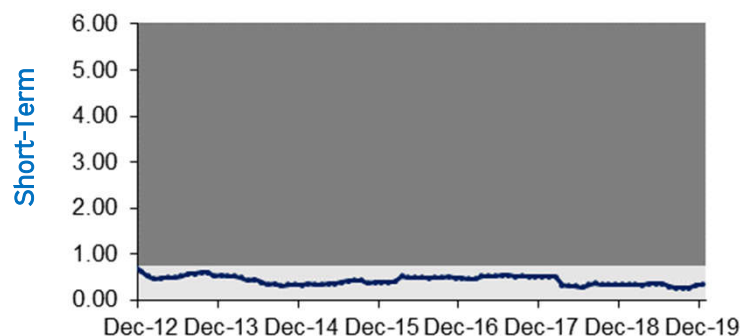
Benchmark: MSCI EAFE Index NR



### Summary of Monitoring Status

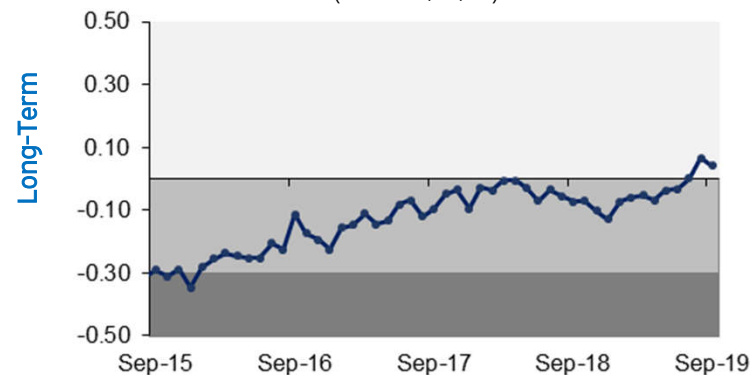
#### TIAA CREF Emerging Markets Index

Rolling 12-Month Tracking Error  
(As of 12/31/19)



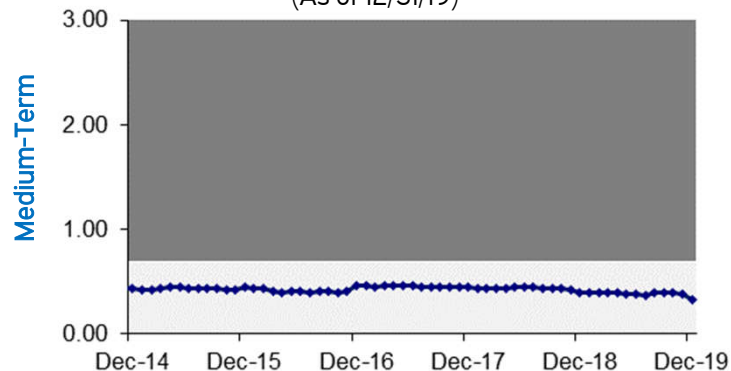
- Results fall in the Positive range.
- Probationary Performance 0.75%

5-YR Annualized Excess Return  
(As of 12/31/19)



- Results fall in the Positive range.
- Probationary Performance -0.30%

Rolling 36-Month Tracking Error  
(As of 12/31/19)



- Results fall in the Positive range.
- Probationary Performance 0.70%

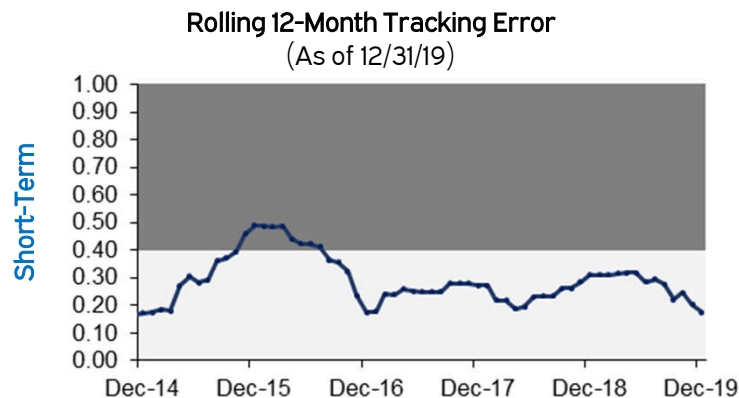
Monitoring Status

Positive

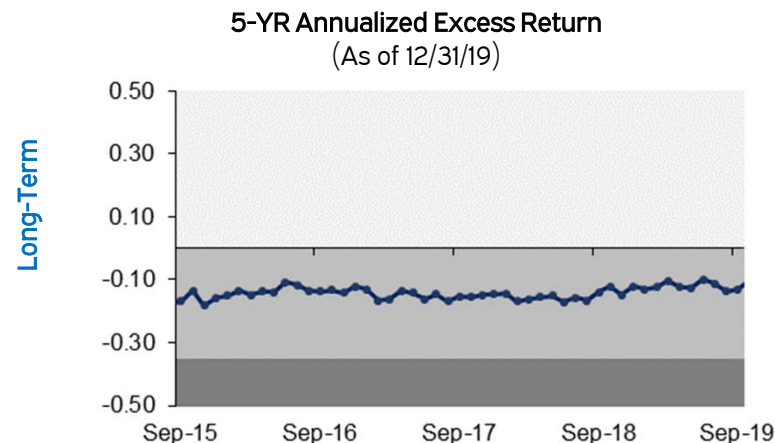
Benchmark: MSCI Emerging Markets Index NR

### Summary of Monitoring Status

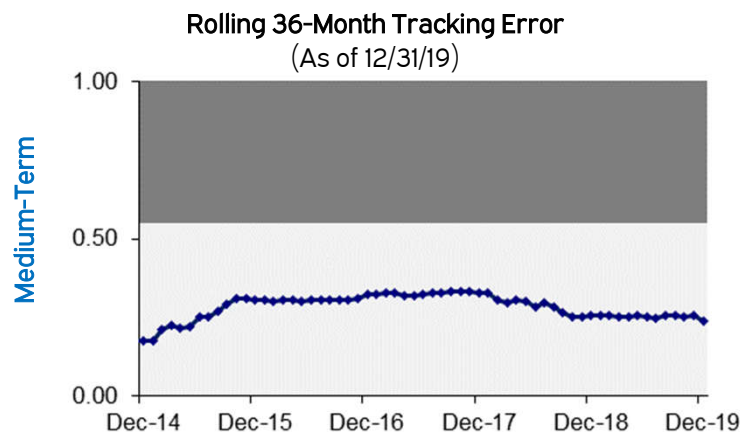
#### TIAA CREF Bond Index



- Results fall in the Positive range.
- Probationary Performance 0.40%



- Results fall in the Positive range.
- Probationary Performance -0.35%



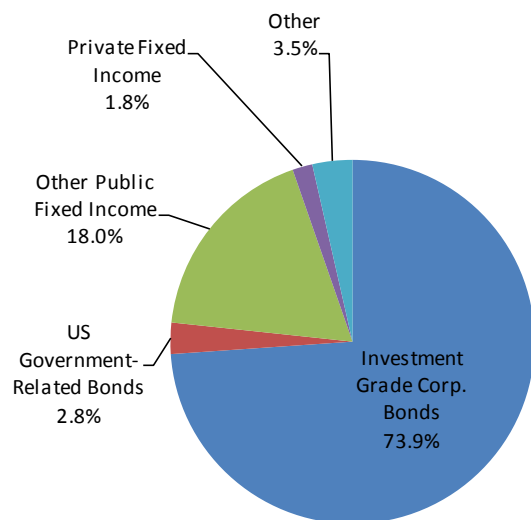
- Results fall in the Positive range.
- Probationary Performance 0.55%

**Monitoring Status**

**Positive**

Benchmark: Bloomberg Barclays US Aggregate Index

#### T-C Life Funding Agreement



#### Monitoring Status

**Positive**

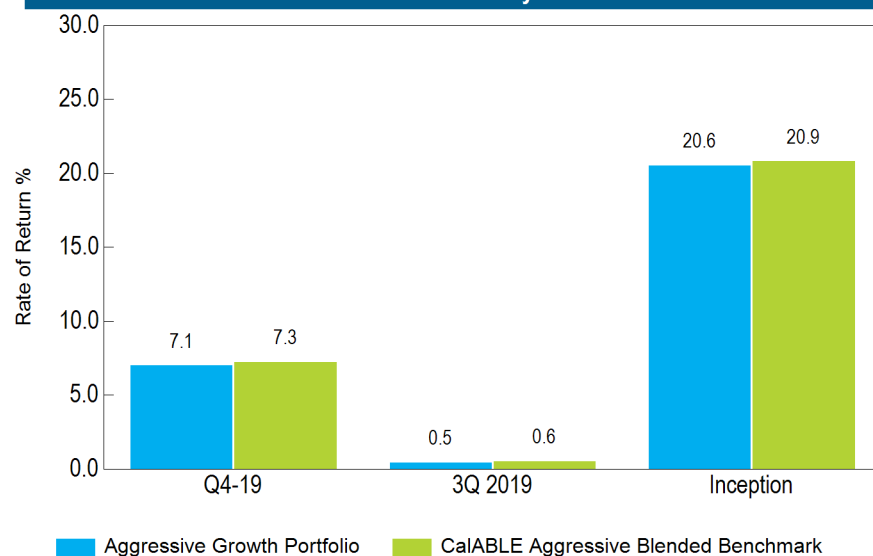
Criteria		Status as of 12/31/2019
Financial Strength	Moody's = Aaa Standard & Poor's = AAA A.M. Best = A+++ Fitch = AAA	Moody's = Aa1 Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA
Mortgage Portfolio	100% in Good Standing	100% in Good Standing*
Bond Portfolio	At least 90% Investment Grade	99.6% in Investment Grade
Account Diversification	Portfolio is diversified across asset classes and types	Portfolio is diversified across asset classes and types (see chart above)

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

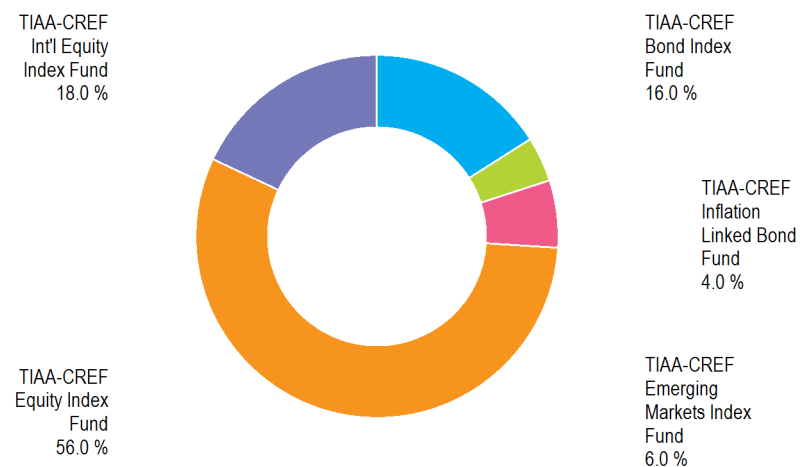
## CalABLE Portfolios Analysis

## Aggressive Growth Portfolio | As of December 31, 2019

### Return Summary



### Current Allocation

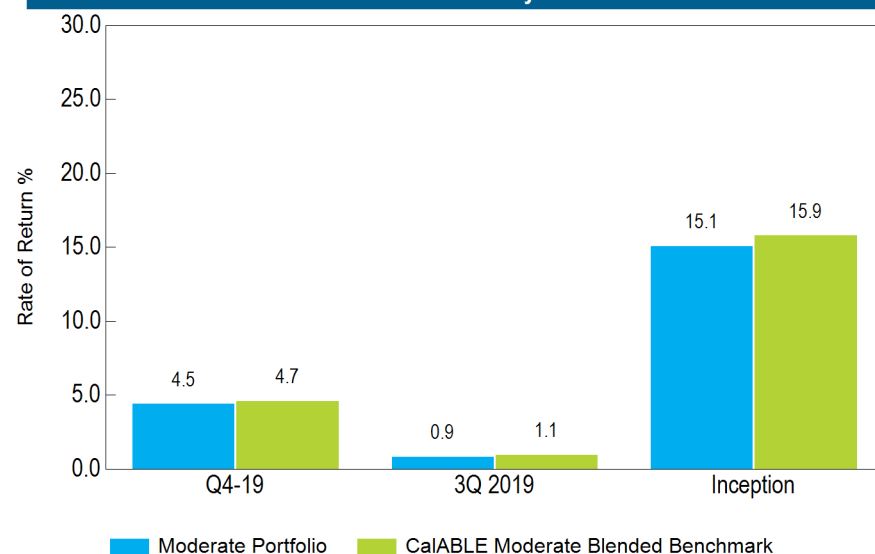


### Underlying Investment Trailing Performance

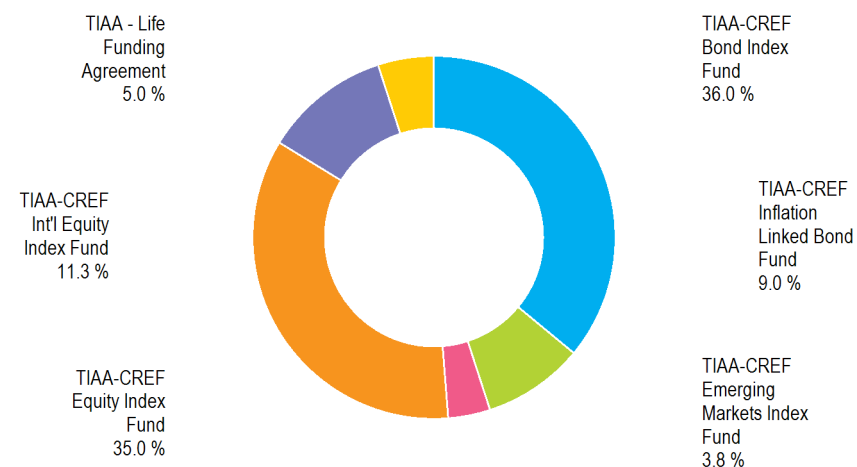
	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
<b>Aggressive Growth Portfolio</b>						
TIAA-CREF Bond Index Fund	-0.1	0.0	8.4	8.4	3.9	2.9
BBgBarc US Aggregate TR	-0.1	0.2	8.7	8.7	4.0	3.0
TIAA-CREF Inflation Linked Bond Fund	0.6	0.8	6.6	6.6	2.6	1.9
BBgBarc US TIPS 1-10 Yr TR	0.7	1.0	6.9	6.9	2.8	2.4
TIAA-CREF Emerging Markets Index Fund	7.3	11.8	18.6	18.6	11.7	5.7
MSCI Emerging Markets	7.5	11.8	18.4	18.4	11.6	5.6
TIAA-CREF Equity Index Fund	2.9	9.1	30.9	30.9	14.5	11.2
Russell 3000	2.9	9.1	31.0	31.0	14.6	11.2
TIAA-CREF Int'l Equity Index Fund	3.0	7.9	21.8	21.8	9.8	5.9
MSCI EAFE	3.2	8.2	22.0	22.0	9.6	5.7

## Moderate Portfolio | As of December 31, 2019

### Return Summary



### Current Allocation

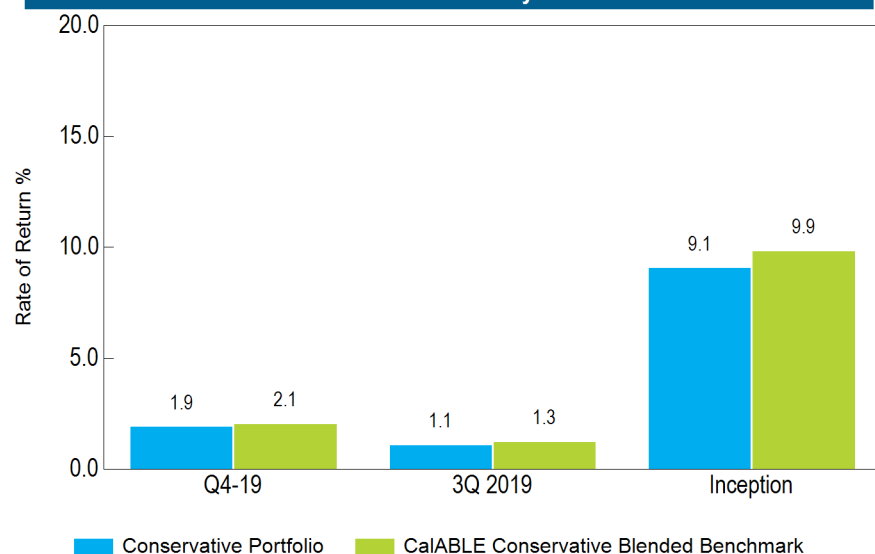


### Underlying Investment Trailing Performance

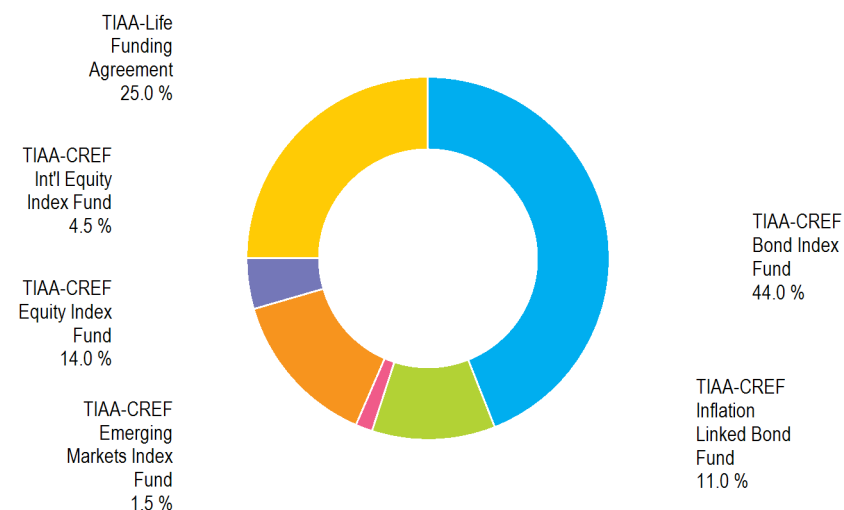
	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
<b>Moderate Portfolio</b>						
TIAA-CREF Bond Index Fund	-0.1	0.0	8.4	8.4	3.9	2.9
<i>BBgBarc US Aggregate TR</i>	<i>-0.1</i>	<i>0.2</i>	<i>8.7</i>	<i>8.7</i>	<i>4.0</i>	<i>3.0</i>
TIAA-CREF Inflation Linked Bond Fund	0.6	0.8	6.6	6.6	2.6	1.9
<i>BBgBarc US TIPS 1-10 Yr TR</i>	<i>0.7</i>	<i>1.0</i>	<i>6.9</i>	<i>6.9</i>	<i>2.8</i>	<i>2.4</i>
TIAA-CREF Emerging Markets Index Fund	7.3	11.8	18.6	18.6	11.7	5.7
<i>MSCI Emerging Markets</i>	<i>7.5</i>	<i>11.8</i>	<i>18.4</i>	<i>18.4</i>	<i>11.6</i>	<i>5.6</i>
TIAA-CREF Equity Index Fund	2.9	9.1	30.9	30.9	14.5	11.2
<i>Russell 3000</i>	<i>2.9</i>	<i>9.1</i>	<i>31.0</i>	<i>31.0</i>	<i>14.6</i>	<i>11.2</i>
TIAA-CREF Int'l Equity Index Fund	3.0	7.9	21.8	21.8	9.8	5.9
<i>MSCI EAFE</i>	<i>3.2</i>	<i>8.2</i>	<i>22.0</i>	<i>22.0</i>	<i>9.6</i>	<i>5.7</i>
TIAA - Life Funding Agreement						

## Conservative Portfolio | As of December 31, 2019

### Return Summary



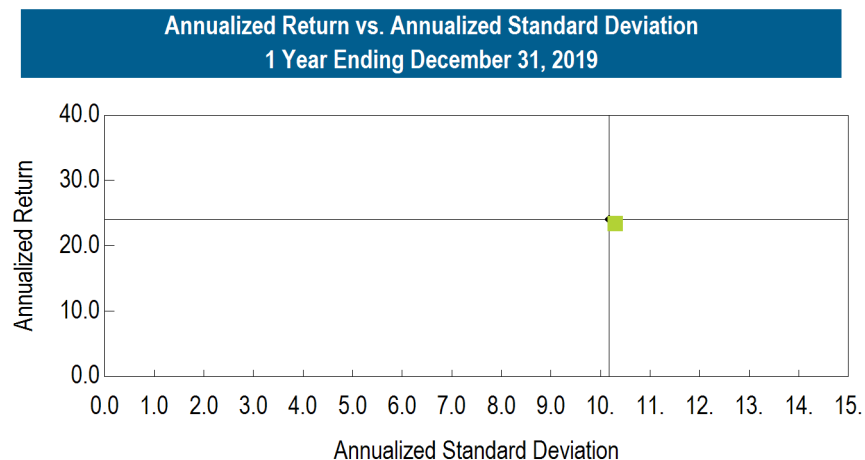
### Current Allocation



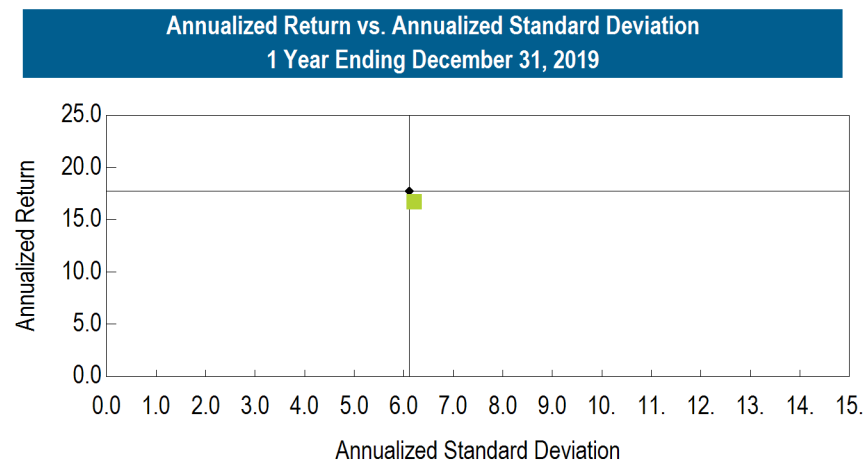
### Underlying Investment Trailing Performance

	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
<b>Conservative Portfolio</b>						
TIAA-CREF Bond Index Fund	-0.1	0.0	8.4	8.4	3.9	2.9
<i>BBgBarc US Aggregate TR</i>	-0.1	0.2	8.7	8.7	4.0	3.0
TIAA-CREF Inflation Linked Bond Fund	0.6	0.8	6.6	6.6	2.6	1.9
<i>BBgBarc US TIPS 1-10 Yr TR</i>	0.7	1.0	6.9	6.9	2.8	2.4
TIAA-CREF Emerging Markets Index Fund	7.3	11.8	18.6	18.6	11.7	5.7
<i>MSCI Emerging Markets</i>	7.5	11.8	18.4	18.4	11.6	5.6
TIAA-CREF Equity Index Fund	2.9	9.1	30.9	30.9	14.5	11.2
<i>Russell 3000</i>	2.9	9.1	31.0	31.0	14.6	11.2
TIAA-CREF Int'l Equity Index Fund	3.0	7.9	21.8	21.8	9.8	5.9
<i>MSCI EAFE</i>	3.2	8.2	22.0	22.0	9.6	5.7
TIAA-Life Funding Agreement						

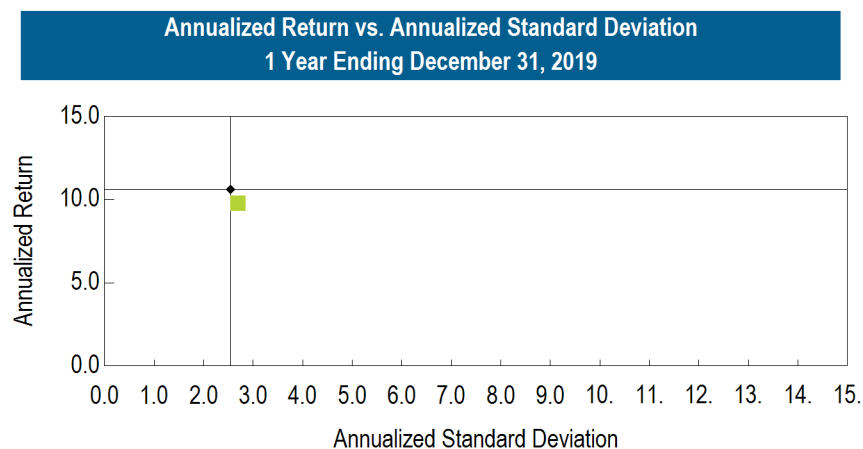
## Managed Portfolios | As of December 31, 2019



- Aggressive Growth Portfolio
- ◆ CalABLE Aggressive Blended Benchmark



- Moderate Portfolio
- ◆ CalABLE Moderate Blended Benchmark



- Conservative Portfolio
- ◆ CalABLE Conservative Blended Benchmark



## **CalABLE Underlying Funds Analysis**

## CalABLE Underlying Investments | As of December 31, 2019

Manager Returns Periods Ending December 31, 2019																						
	QTD (%) Rank		1 Yr (%) Rank		2 Yrs (%) Rank		3 Yrs (%) Rank		5 Yrs (%) Rank		Inception (%)	2019 (%) Rank		2018 (%) Rank		2017 (%) Rank		2016 (%) Rank		2015 (%) Rank		
CalABLE Underlying Investments																						
TIAA-CREF Equity Index Fund	9.1	33	30.9	43	11.4	39	14.5	44	11.2	33	--	30.9	43	-5.2	45	21.1	53	12.8	18	0.5	44	
Russell 3000	9.1	30	31.0	40	11.4	37	14.6	41	11.2	32	6.7	31.0	40	-5.2	45	21.1	53	12.7	19	0.5	42	
Large Blend MStar MF Median	8.7		30.2		10.5		14.3		10.5		6.2	30.2		-5.5		21.2		10.9		-0.1		
TIAA-CREF Int'l Equity Index Fund	7.9	75	21.8	52	2.8	22	9.8	35	5.9	28	--	21.8	52	-13.2	18	25.3	58	1.2	48	-0.5	42	
MSCI EAFE	8.2	67	22.0	48	2.6	26	9.6	43	5.7	43	7.7	22.0	48	-13.8	30	25.0	67	1.0	53	-0.8	49	
Foreign Large Blend MStar MF Median	8.9		21.8		1.7		9.3		5.6		7.7	21.8		-15.1		25.6		1.1		-0.9		
TIAA-CREF Emerging Markets Index Fund	11.8	32	18.6	64	0.6	41	11.7	38	5.7	41	3.7	18.6	64	-14.6	27	37.4	48	11.1	35	-14.8	60	
MSCI Emerging Markets	11.8	29	18.4	64	0.6	42	11.6	38	5.6	42	4.0	18.4	64	-14.6	28	37.3	49	11.2	34	-14.9	62	
Diversified Emerging Mkts MStar MF Median	11.0		20.4		0.1		10.7		5.3		4.2	20.4		-17.0		36.8		8.3		-13.7		
TIAA-CREF Bond Index Fund	0.0	66	8.4	56	4.1	49	3.9	56	2.9	58	--	8.4	56	0.0	37	3.4	70	2.4	80	0.5	31	
BBgBarc US Aggregate TR	0.2	37	8.7	40	4.3	30	4.0	43	3.0	40	3.7	8.7	40	0.0	34	3.5	66	2.6	69	0.5	29	
Intermediate Core Bond MStar MF Median	0.1		8.5		4.1		3.9		3.0		3.9	8.5		-0.3		3.9		3.2		0.2		
TIAA-CREF Inflation Linked Bond Fund	0.8	58	6.6	72	3.0	60	2.6	70	1.9	80	--	6.6	72	-0.5	22	1.7	77	3.7	76	-1.6	47	
BBgBarc US TIPS 1-10 Yr TR	1.0	48	6.9	66	3.2	42	2.8	64	2.4	46	3.7	6.9	66	-0.3	19	1.9	74	4.0	62	-0.5	10	
Inflation-Protected Bond MStar MF Median	0.9		8.1		3.1		3.1		2.3		4.1	8.1		-1.4		2.9		4.4		-1.7		
FDIC-Insured Portfolio	0.1	--	0.4	--	--	--	--	--	--	--	--	0.4	--	--	--	--	--	--	--	--	--	
FTSE T-Bill 3 Months TR	0.5	--	2.3	--	2.1	--	1.7	--	1.0	--	--	2.3	--	1.9	--	0.8	--	0.3	--	0.0	--	
TIAA - Life Funding Agreement	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

## TIAA-CREF Equity Index Fund | As of December 31, 2019

### Description:

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

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

Portfolio Fund Information	
<b>Ticker</b>	TIEIX
<b>Morningstar Category</b>	Large Blend
<b>Morningstar Rating (3 Year)</b>	3 (stars)
<b>Average Market Cap (\$mm)</b>	73,939.00
<b>Net Assets (\$mm)</b>	9,641.83
<b>% Assets in Top 10 Holdings</b>	18.88
<b>Total Number of Holdings</b>	2,790
<b>Manager Name</b>	Philip James(Jim) Campagna
<b>Manager Tenure</b>	14
<b>Expense Ratio</b>	0.05%
<b>Closed to New Investors</b>	No

Fund Characteristics	
<b>Sharpe Ratio (3 Year)</b>	1.04
<b>Average Market Cap (\$mm)</b>	73,939.00
<b>Price/Earnings</b>	18.60
<b>Price/Book</b>	3.15
<b>Price/Sales</b>	2.10
<b>Price/Cash Flow</b>	9.77
<b>Dividend Yield</b>	1.82
<b>Number of Equity Holdings</b>	2,776
<b>R-Squared (3 Year)</b>	1.00
<b>Alpha (3 Year)</b>	0.00%

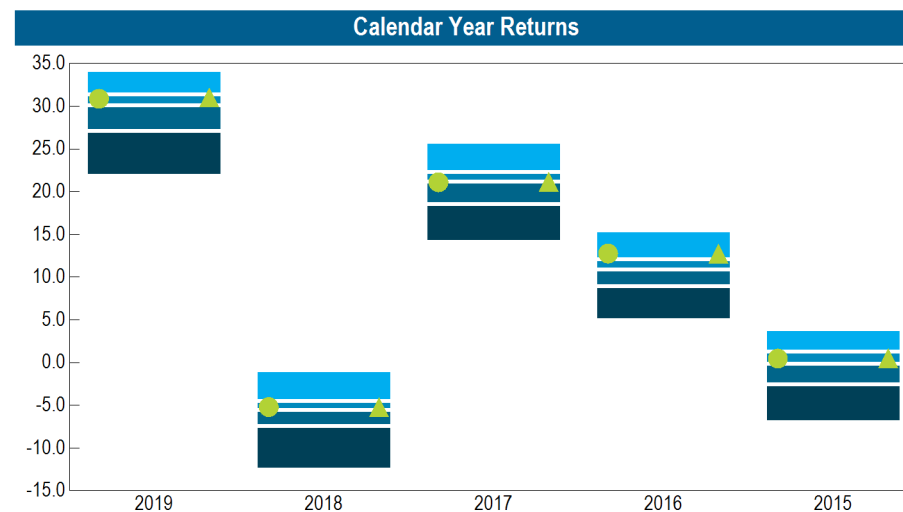
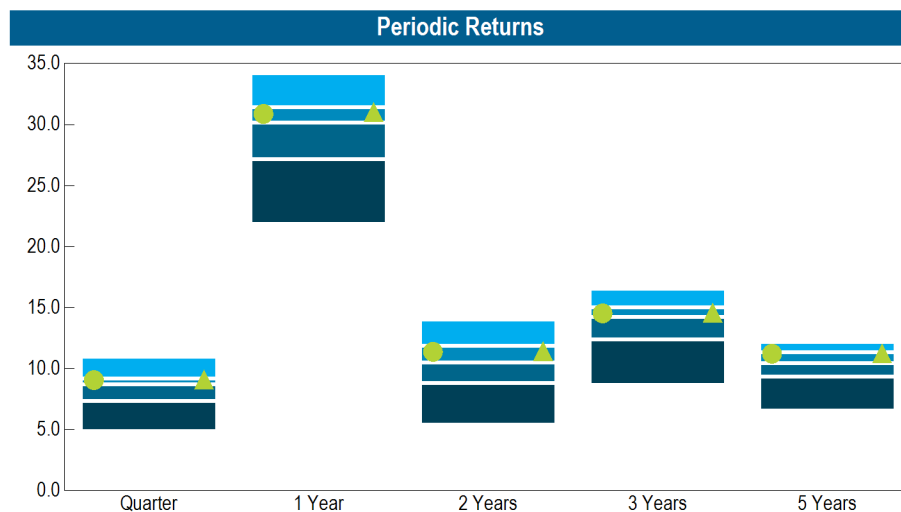
Top Holdings as of December 31, 2019	
<b>APPLE INC</b>	4.01%
<b>MICROSOFT CORP</b>	3.67%
<b>AMAZON.COM INC</b>	2.35%
<b>FACEBOOK INC A</b>	1.51%
<b>BERKSHIRE HATHAWAY INC B</b>	1.36%
<b>JPMORGAN CHASE &amp; CO</b>	1.34%
<b>ALPHABET INC A</b>	1.23%
<b>ALPHABET INC CLASS C</b>	1.23%
<b>JOHNSON &amp; JOHNSON</b>	1.19%
<b>VISA INC CLASS A</b>	0.99%

Sector Allocation as of December 31, 2019	
<b>BASIC MATERIALS</b>	2.51%
<b>COMMUNICATION SERVICES</b>	9.46%
<b>CONSUMER CYCLICAL</b>	9.89%
<b>CONSUMER DEFENSIVE</b>	6.80%
<b>ENERGY</b>	4.07%
<b>FINANCIAL SERVICES</b>	15.78%
<b>HEALTHCARE</b>	14.27%
<b>INDUSTRIALS</b>	10.09%
<b>REAL ESTATE</b>	4.28%
<b>TECHNOLOGY</b>	19.63%
<b>UTILITIES</b>	3.22%

Top Countries as of December 31, 2019	
<b>United States</b>	99.09%
<b>United Kingdom</b>	0.42%
<b>Switzerland</b>	0.26%
<b>China</b>	0.12%
<b>Puerto Rico</b>	0.04%
<b>Canada</b>	0.02%
<b>India</b>	0.02%
<b>Ghana</b>	0.01%
<b>Marshall Islands</b>	0.01%
<b>Taiwan</b>	0.01%

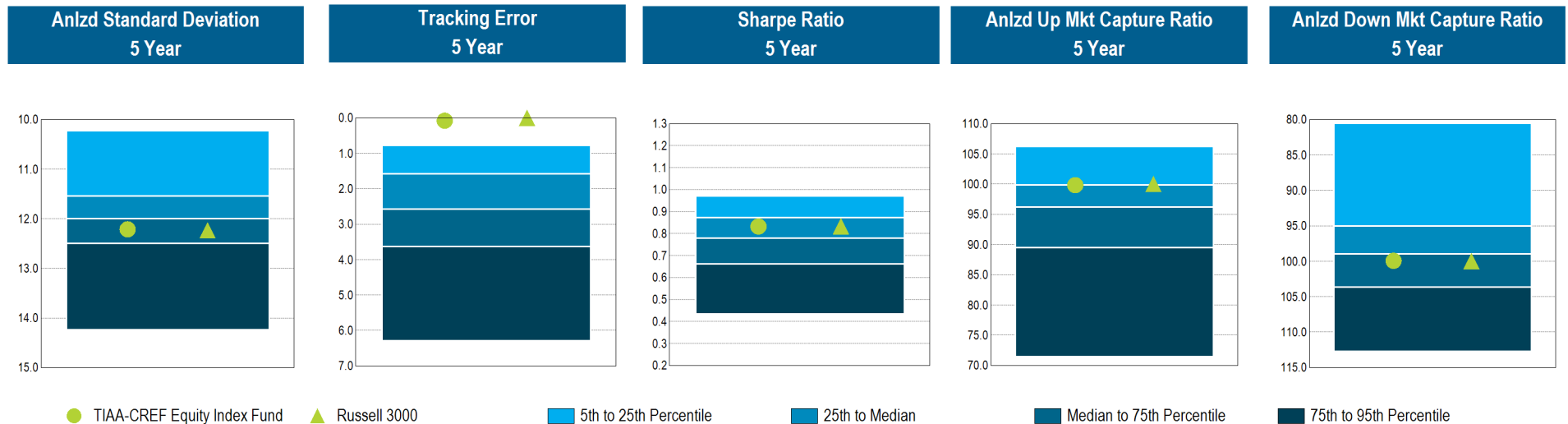
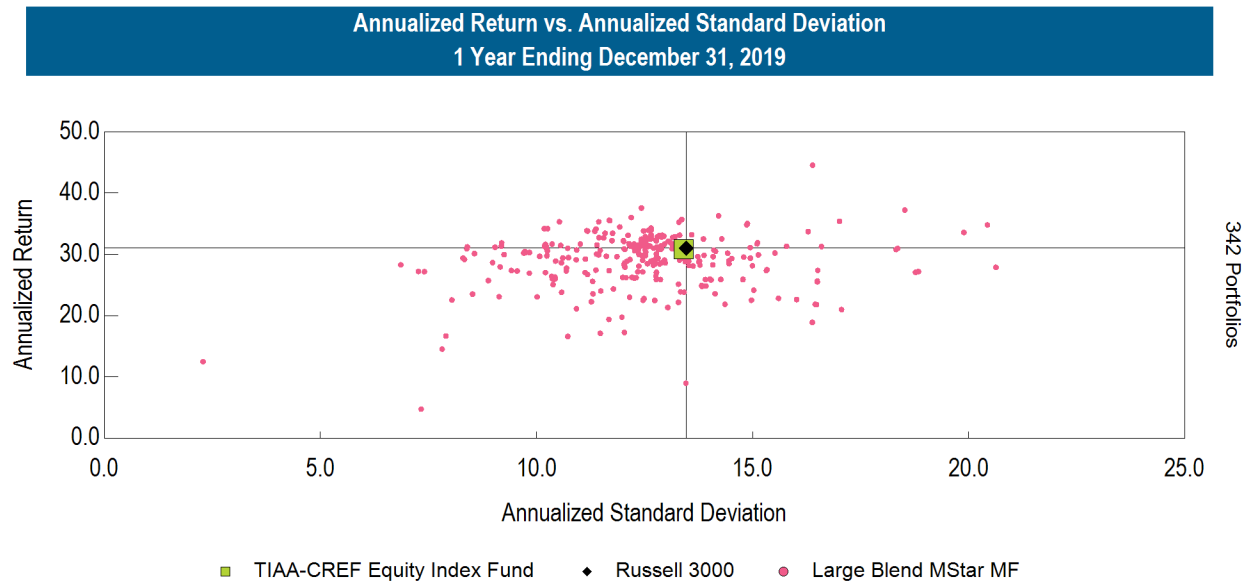
Top Regions as of December 31, 2019	
<b>UNITED STATES</b>	99.08%
<b>UNITED KINGDOM</b>	0.41%
<b>EUROPE EXEURO</b>	0.27%
<b>ASIA EMERGING</b>	0.15%
<b>LATIN AMERICA</b>	0.04%

## TIAA-CREF Equity Index Fund | As of December 31, 2019



	QTD	Rank	1 Yr	Rank	2 Yrs	Rank	3 Yrs	Rank	5 Yrs	Rank	2019	Rank	2018	Rank	2017	Rank	2016	Rank	2015	Rank
TIAA-CREF Equity Index Fund	9.1	33	30.9	43	11.4	39	14.5	44	11.2	33	30.9	43	-5.2	45	21.1	53	12.8	18	0.5	44
Russell 3000	9.1	30	31.0	40	11.4	37	14.6	41	11.2	32	31.0	40	-5.2	45	21.1	53	12.7	19	0.5	42
Universe Median	8.7		30.2		10.5		14.3		10.5		30.2		-5.5		21.2		10.9		-0.1	

## TIAA-CREF Equity Index Fund | As of December 31, 2019



## TIAA-CREF Int'l Equity Index Fund | As of December 31, 2019

### Description:

The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of foreign equity investments based on a market index.

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

Portfolio Fund Information	
<b>Ticker</b>	TCIEX
<b>Morningstar Category</b>	Foreign Large Blend
<b>Morningstar Rating (3 Year)</b>	4 (stars)
<b>Average Market Cap (\$mm)</b>	38,373.08
<b>Net Assets (\$mm)</b>	8,280.47
<b>% Assets in Top 10 Holdings</b>	11.95
<b>Total Number of Holdings</b>	934
<b>Manager Name</b>	Philip James(Jim) Campagna
<b>Manager Tenure</b>	15
<b>Expense Ratio</b>	0.06%
<b>Closed to New Investors</b>	No

Fund Characteristics	
<b>Sharpe Ratio (3 Year)</b>	0.74
<b>Average Market Cap (\$mm)</b>	38,373.08
<b>Price/Earnings</b>	14.73
<b>Price/Book</b>	1.54
<b>Price/Sales</b>	1.17
<b>Price/Cash Flow</b>	7.42
<b>Dividend Yield</b>	3.40
<b>Number of Equity Holdings</b>	919
<b>R-Squared (3 Year)</b>	0.99
<b>Alpha (3 Year)</b>	0.02%

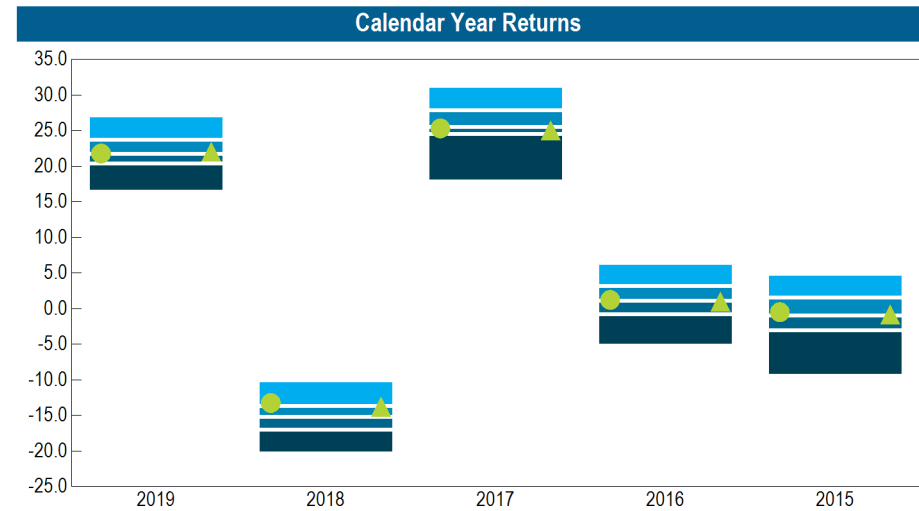
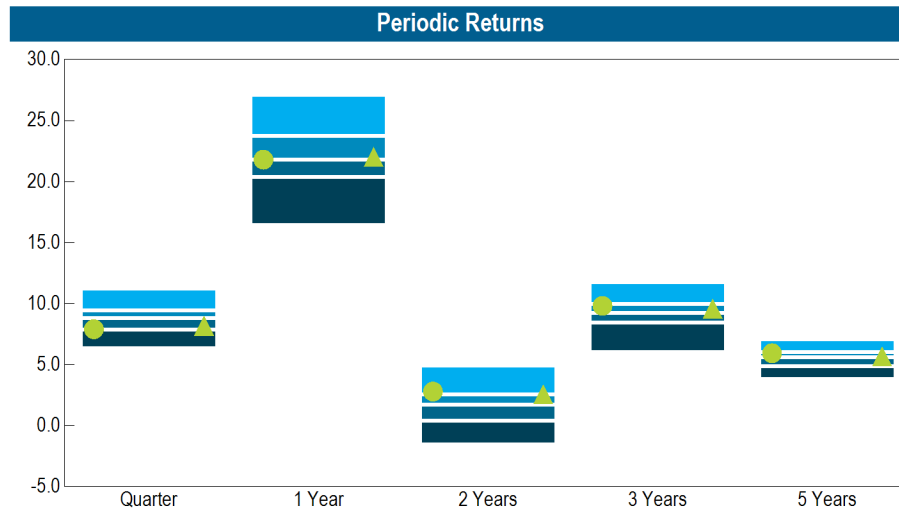
Top Holdings as of December 31, 2019	
<b>NESTLE SA</b>	2.10%
<b>MSCI EAFE MAR20 IFUS 20200320</b>	1.51%
<b>ROCHE HOLDING AG DIVIDEND RIGHT CERT.</b>	1.49%
<b>NOVARTIS AG</b>	1.33%
<b>TOYOTA MOTOR CORP</b>	1.05%
<b>HSBC HOLDINGS PLC</b>	1.03%
<b>TOTAL SA</b>	0.87%
<b>ASTRAZENECA PLC</b>	0.86%
<b>SAP SE</b>	0.86%
<b>LVMH MOET HENNESSY LOUIS VUITTON SE</b>	0.85%

Sector Allocation as of December 31, 2019	
<b>BASIC MATERIALS</b>	7.04%
<b>COMMUNICATION SERVICES</b>	5.97%
<b>CONSUMER CYCLICAL</b>	10.23%
<b>CONSUMER DEFENSIVE</b>	11.24%
<b>ENERGY</b>	5.14%
<b>FINANCIAL SERVICES</b>	18.61%
<b>HEALTHCARE</b>	12.54%
<b>INDUSTRIALS</b>	14.90%
<b>REAL ESTATE</b>	3.44%
<b>TECHNOLOGY</b>	7.30%
<b>UTILITIES</b>	3.59%

Top Countries as of December 31, 2019	
<b>Japan</b>	24.40%
<b>United Kingdom</b>	16.20%
<b>France</b>	11.24%
<b>Switzerland</b>	9.62%
<b>Germany</b>	8.70%
<b>Australia</b>	6.77%
<b>Netherlands</b>	3.58%
<b>Hong Kong</b>	3.08%
<b>Spain</b>	2.85%
<b>Sweden</b>	2.46%

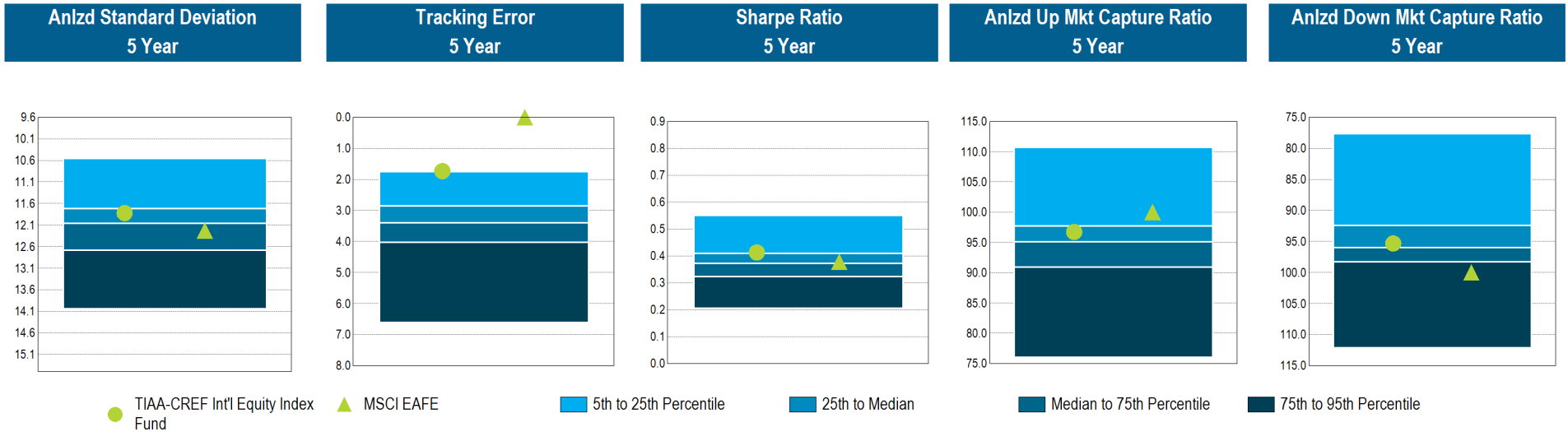
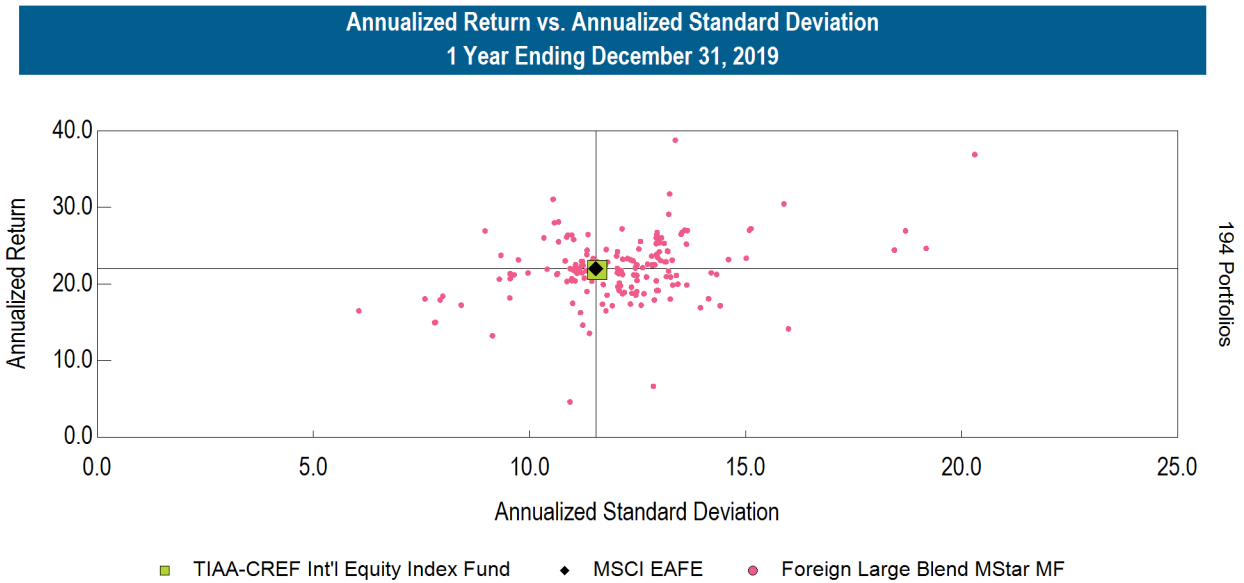
Top Regions as of December 31, 2019	
<b>EUROZONE</b>	31.10%
<b>JAPAN</b>	24.41%
<b>UNITED KINGDOM</b>	16.20%
<b>EUROPE EXEURO</b>	14.54%
<b>AUSTRALASIA</b>	7.05%

## TIAA-CREF Int'l Equity Index Fund | As of December 31, 2019



	QTD	Rank	1 Yr	Rank	2 Yrs	Rank	3 Yrs	Rank	5 Yrs	Rank	2019	Rank	2018	Rank	2017	Rank	2016	Rank	2015	Rank
TIAA-CREF Int'l Equity Index Fund	7.9	75	21.8	52	2.8	22	9.8	35	5.9	28	21.8	52	-13.2	18	25.3	58	1.2	48	-0.5	42
MSCI EAFE	8.2	67	22.0	48	2.6	26	9.6	43	5.7	43	22.0	48	-13.8	30	25.0	67	1.0	53	-0.8	49
Universe Median	8.9		21.8		1.7		9.3		5.6		21.8		-15.1		25.6		1.1		-0.9	

TIAA-CREF Int'l Equity Index Fund | As of December 31, 2019





## TIAA-CREF Emerging Markets Index Fund | As of December 31, 2019

### Description:

The investment seeks a favorable long-term total return, mainly through capital appreciation, by investing primarily in a portfolio of emerging market equity investments based on a market index.

Under normal circumstances, the fund invests at least 80% of its assets in equity securities that comprise its benchmark index, the MSCI Emerging Markets® Index ("MSCI EM Index"), or in instruments with economic characteristics similar to all or a portion of the MSCI EM Index. It buys most, but not necessarily all, of the stocks in its benchmark index, and the advisor will attempt to closely match the overall investment attributes of the fund's benchmark index.

Portfolio Fund Information	
<b>Ticker</b>	TEQLX
<b>Morningstar Category</b>	Diversified Emerging Mkts
<b>Morningstar Rating (3 Year)</b>	3 (stars)
<b>Average Market Cap (\$mm)</b>	35,777.44
<b>Net Assets (\$mm)</b>	876.50
<b>% Assets in Top 10 Holdings</b>	24.43
<b>Total Number of Holdings</b>	1,400
<b>Manager Name</b>	Philip James(Jim) Campagna
<b>Manager Tenure</b>	9
<b>Expense Ratio</b>	0.20%
<b>Closed to New Investors</b>	No

Fund Characteristics	
<b>Sharpe Ratio (3 Year)</b>	0.69
<b>Average Market Cap (\$mm)</b>	35,777.44
<b>Price/Earnings</b>	12.74
<b>Price/Book</b>	1.54
<b>Price/Sales</b>	1.23
<b>Price/Cash Flow</b>	4.92
<b>Dividend Yield</b>	3.10
<b>Number of Equity Holdings</b>	1,385
<b>R-Squared (3 Year)</b>	0.99
<b>Alpha (3 Year)</b>	0.00%

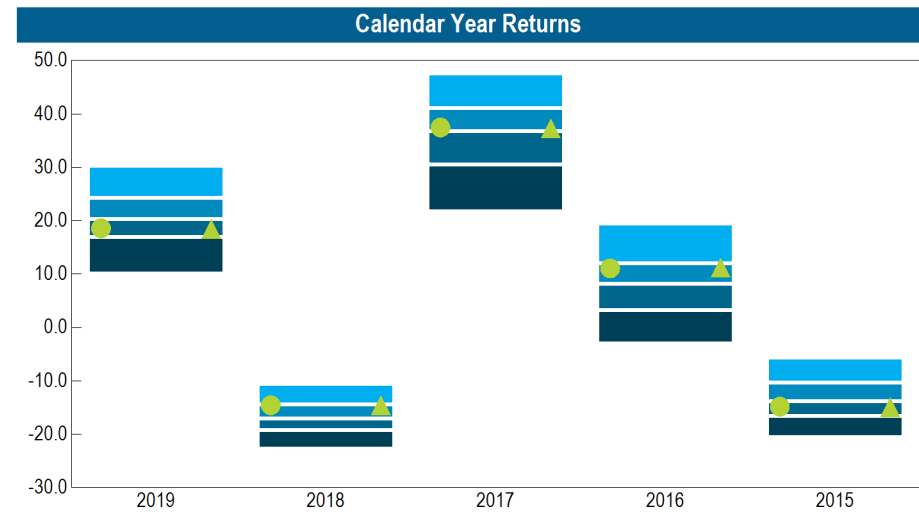
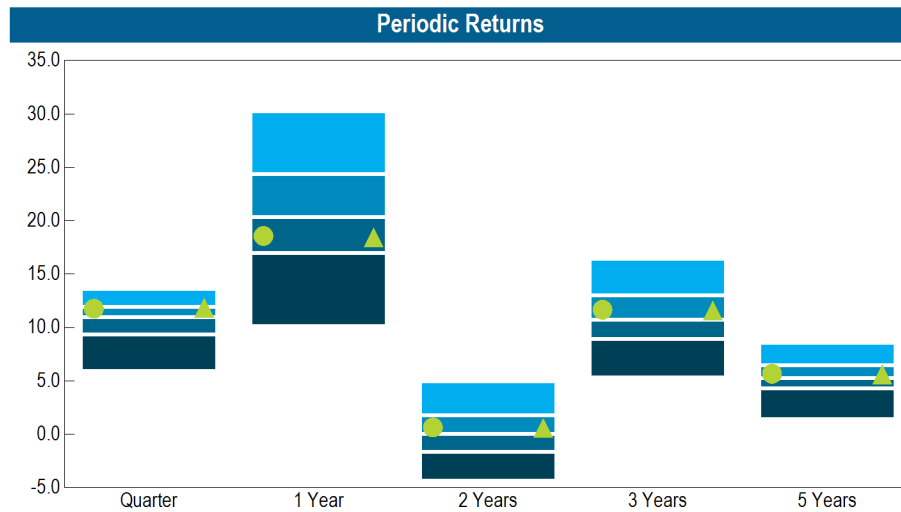
Top Holdings as of December 31, 2019	
<b>ALIBABA GROUP HOLDING LTD ADR</b>	5.69%
<b>TENCENT HOLDINGS LTD</b>	4.38%
<b>TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD</b>	4.32%
<b>SAMSUNG ELECTRONICS CO LTD</b>	3.65%
<b>CHINA CONSTRUCTION BANK CORP CLASS H</b>	1.33%
<b>NASPERS LTD CLASS N</b>	1.14%
<b>PING AN INSURANCE (GROUP) CO. OF CHINA LTD CLASS H</b>	1.05%
<b>VANGUARD FTSE EMERGING MARKETS ETF</b>	1.05%
<b>RELIANCE INDUSTRIES LTD</b>	0.96%
<b>HOUSING DEVELOPMENT FINANCE CORP LTD</b>	0.87%

Sector Allocation as of December 31, 2019	
<b>BASIC MATERIALS</b>	7.28%
<b>COMMUNICATION SERVICES</b>	12.36%
<b>CONSUMER CYCLICAL</b>	12.47%
<b>CONSUMER DEFENSIVE</b>	6.46%
<b>ENERGY</b>	7.27%
<b>FINANCIAL SERVICES</b>	24.18%
<b>HEALTHCARE</b>	2.95%
<b>INDUSTRIALS</b>	5.49%
<b>REAL ESTATE</b>	3.13%
<b>TECHNOLOGY</b>	15.90%
<b>UTILITIES</b>	2.52%

Top Countries as of December 31, 2019	
<b>China</b>	33.37%
<b>Taiwan</b>	11.83%
<b>South Korea</b>	11.79%
<b>India</b>	8.59%
<b>Brazil</b>	7.47%
<b>South Africa</b>	4.67%
<b>Russia</b>	3.92%
<b>Saudi Arabia</b>	2.61%
<b>Thailand</b>	2.59%
<b>Mexico</b>	2.21%

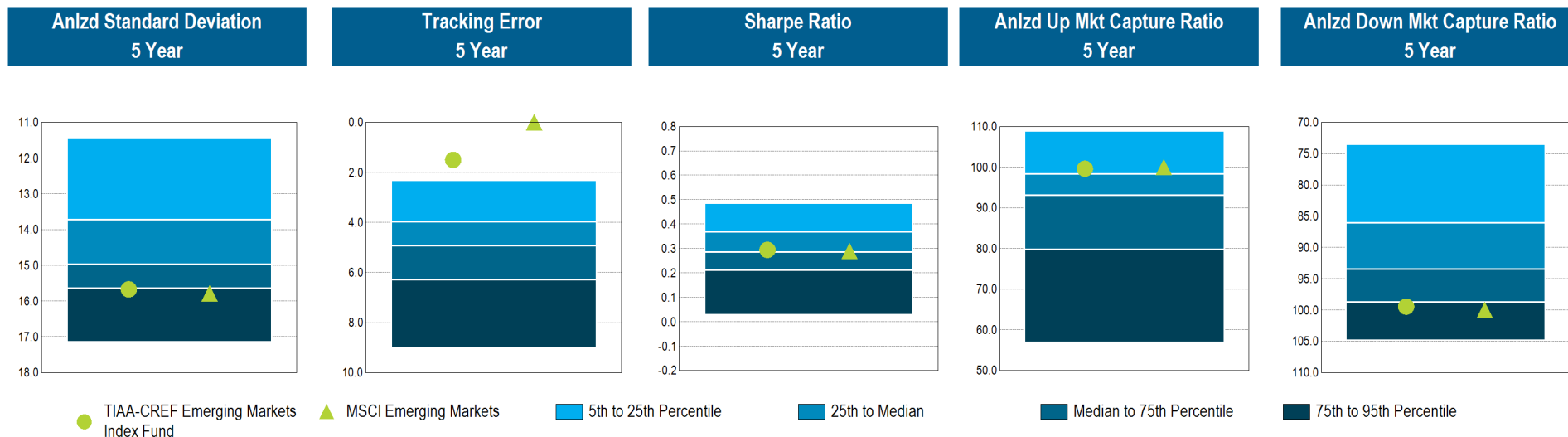
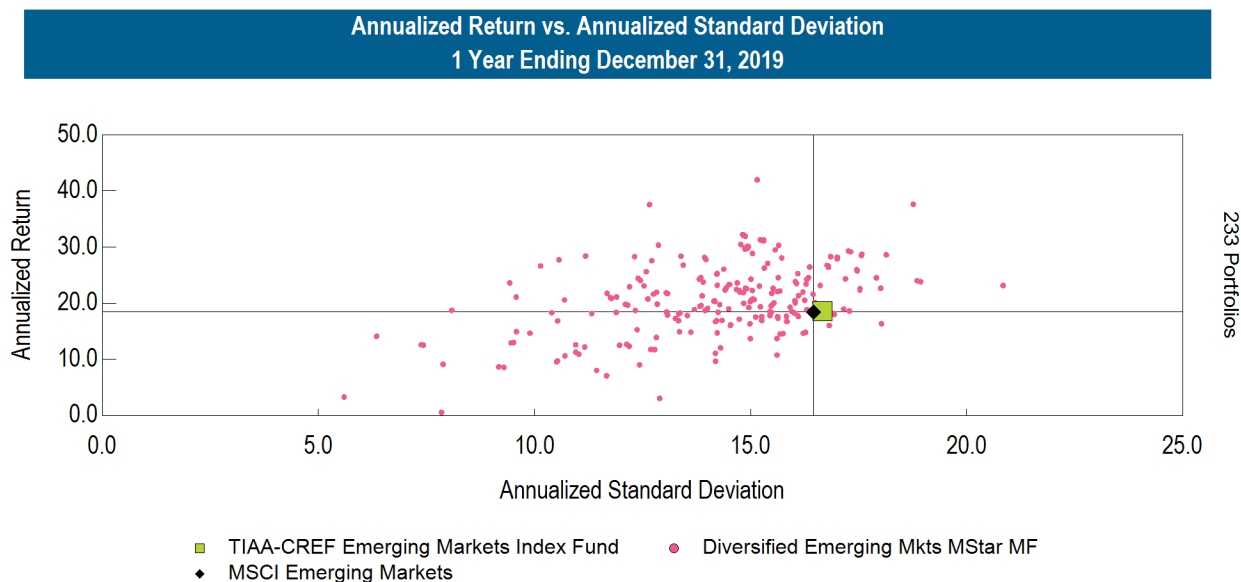
Top Regions as of December 31, 2019	
<b>ASIA EMERGING</b>	49.31%
<b>ASIA DEVELOPED</b>	24.32%
<b>LATIN AMERICA</b>	11.03%
<b>EUROPE EMERGING</b>	5.74%
<b>AFRICA</b>	4.80%

## TIAA-CREF Emerging Markets Index Fund | As of December 31, 2019



	QTD Rank		1 Yr Rank		2 Yrs Rank		3 Yrs Rank		5 Yrs Rank		2019 Rank		2018 Rank		2017 Rank		2016 Rank		2015 Rank	
TIAA-CREF Emerging Markets Index Fund	11.8	32	18.6	64	0.6	41	11.7	38	5.7	41	18.6	64	-14.6	27	37.4	48	11.1	35	-14.8	60
MSCI Emerging Markets	11.8	29	18.4	64	0.6	42	11.6	38	5.6	42	18.4	64	-14.6	28	37.3	49	11.2	34	-14.9	62
Universe Median	11.0		20.4		0.1		10.7		5.3		20.4		-17.0		36.8		8.3		-13.7	

## TIAA-CREF Emerging Markets Index Fund | As of December 31, 2019



## TIAA-CREF Bond Index Fund | As of December 31, 2019

### Description:

The investment seeks total return that corresponds with the total return of a broad U.S. investment-grade bond market index.

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

Portfolio Fund Information	
<b>Ticker</b>	TBIIX
<b>Morningstar Category</b>	Intermediate Core Bond
<b>Morningstar Rating (3 Year)</b>	3 (stars)
<b>Average Market Cap (\$mm)</b>	
<b>Net Assets (\$mm)</b>	10,675.50
<b>% Assets in Top 10 Holdings</b>	11.42
<b>Total Number of Holdings</b>	7,233
<b>Manager Name</b>	Lijun (Kevin) Chen
<b>Manager Tenure</b>	10
<b>Expense Ratio</b>	0.11%
<b>Closed to New Investors</b>	No

Fund Characteristics	
<b>Sharpe Ratio (3 Year)</b>	0.77
<b>Average Duration</b>	5.72
<b>Average Coupon</b>	3.13%
<b>Average Effective Maturity</b>	7.89
<b>R-Squared (3 Year)</b>	0.99
<b>Alpha (3 Year)</b>	-0.01%
<b>Beta (3 Year)</b>	0.98

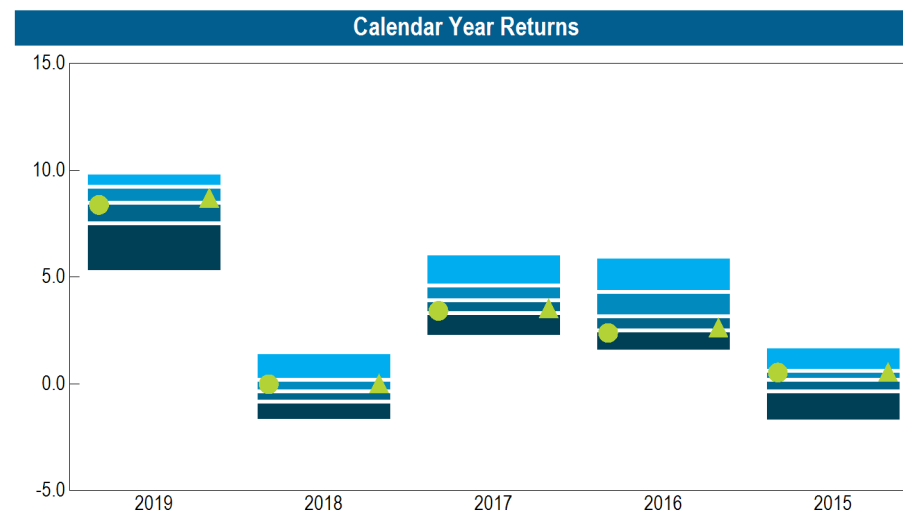
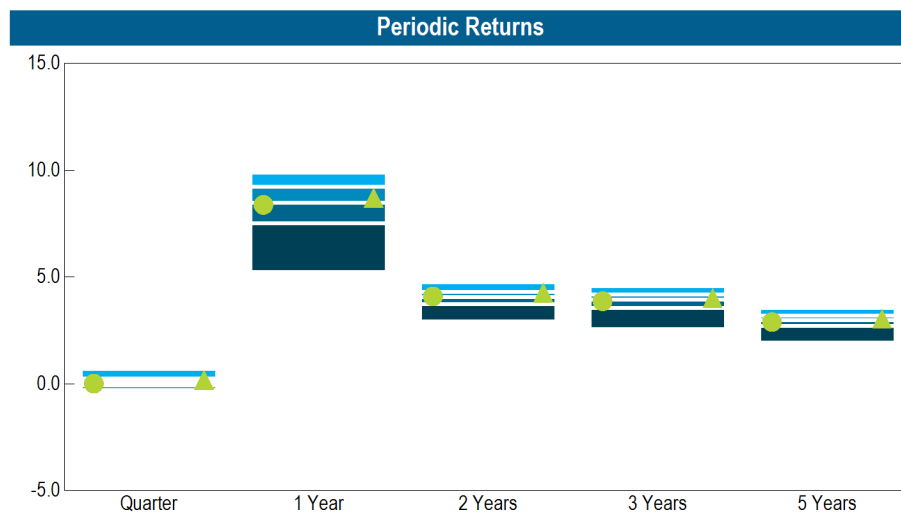
Top Holdings as of December 31, 2019	
<b>UNITED STATES TREASURY BONDS 3.5%</b>	1.92%
<b>UNITED STATES TREASURY NOTES 2.12%</b>	1.90%
<b>UNITED STATES TREASURY NOTES 1.75%</b>	1.22%
<b>UNITED STATES TREASURY NOTES 2.25%</b>	1.17%
<b>UNITED STATES TREASURY NOTES 2.25%</b>	1.02%
<b>UNITED STATES TREASURY BONDS 3.12%</b>	0.99%
<b>UNITED STATES TREASURY NOTES 1.75%</b>	0.88%
<b>UNITED STATES TREASURY BONDS 3%</b>	0.86%
<b>UNITED STATES TREASURY NOTES 2.5%</b>	0.77%
<b>UNITED STATES TREASURY NOTES 2.75%</b>	0.69%

Fixed Income Sectors as of December 31, 2019	
<b>GOVERNMENT</b>	44.02%
<b>MUNICIPAL</b>	0.66%
<b>CORPORATE</b>	24.55%
<b>SECURITIZED</b>	29.29%
<b>CASH &amp; EQUIVALENTS</b>	1.48%
<b>DERIVATIVE</b>	0.00%

Credit Quality as of September 30, 2019	
<b>AAA</b>	72.17%
<b>AA</b>	3.49%
<b>A</b>	10.78%
<b>BBB</b>	13.46%
<b>BB</b>	0.02%
<b>B</b>	0.00%
<b>Below B</b>	0.00%
<b>Not Rated</b>	0.08%

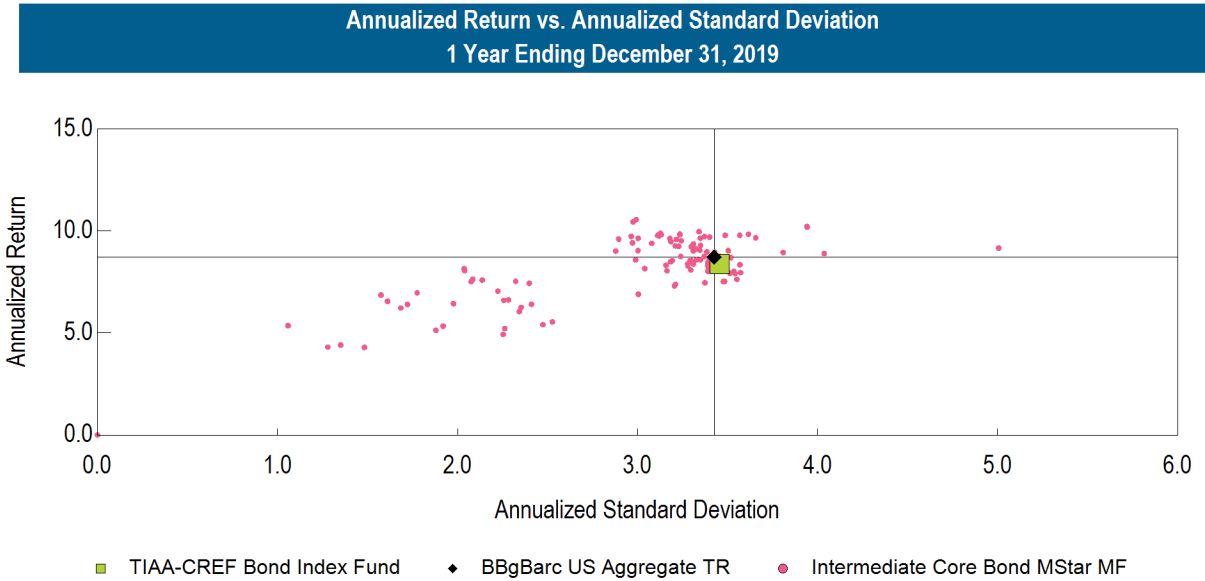
Maturities as of December 31, 2019	
<b>1 to 3 Years</b>	17.29%
<b>3 to 5 Years</b>	18.69%
<b>5 to 7 Years</b>	6.82%
<b>7 to 10 Years</b>	10.29%
<b>10 to 15 Years</b>	3.27%
<b>15 to 20 Years</b>	5.02%
<b>20 to 30 Years</b>	35.88%
<b>Greater than 30 Years</b>	1.93%

## TIAA-CREF Bond Index Fund | As of December 31, 2019

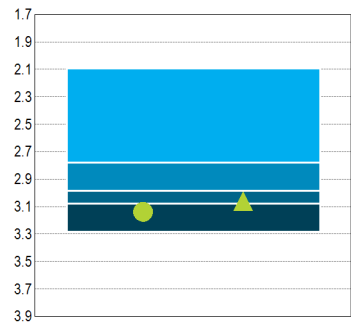


	QTD	Rank	1 Yr	Rank	2 Yrs	Rank	3 Yrs	Rank	5 Yrs	Rank	2019	Rank	2018	Rank	2017	Rank	2016	Rank	2015	Rank
TIAA-CREF Bond Index Fund	0.0	66	8.4	56	4.1	49	3.9	56	2.9	58	8.4	56	0.0	37	3.4	70	2.4	80	0.5	31
BBgBarc US Aggregate TR	0.2	37	8.7	40	4.3	30	4.0	43	3.0	40	8.7	40	0.0	34	3.5	66	2.6	69	0.5	29
Universe Median	0.1		8.5		4.1		3.9		3.0		8.5		-0.3		3.9		3.2		0.2	

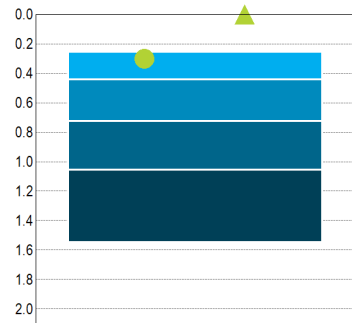
TIAA-CREF Bond Index Fund | As of December 31, 2019



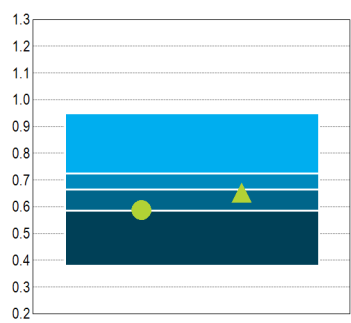
Anlzd Standard Deviation  
5 Year



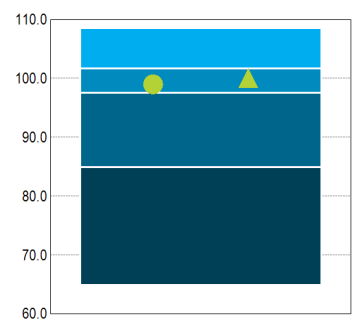
Tracking Error  
5 Year



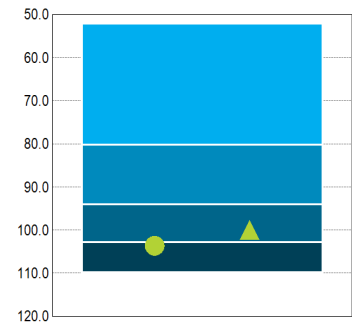
Sharpe Ratio  
5 Year



Anlzd Up Mkt Capture Ratio  
5 Year



Anlzd Down Mkt Capture Ratio  
5 Year



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

## TIAA-CREF Inflation Linked Bond Fund | As of December 31, 2019

### Description:

The investment seeks to provide inflation protection and income, primarily through investment in inflation-linked bonds.

The fund invests at least 80% of its assets in fixed-income securities whose principal value increases or decreases based on changes in the Consumer Price Index for All Urban Consumers ("CPI-U"), over the life of the security. Typically, it will invest in U.S. Treasury Inflation-Indexed Securities ("TIIS"). Under most circumstances, the fund's investments in inflation-linked bonds of foreign issuers are generally less than 20% of its assets.

Portfolio Fund Information	
<b>Ticker</b>	TIILX
<b>Morningstar Category</b>	Inflation-Protected Bond
<b>Morningstar Rating (3 Year)</b>	3 (stars)
<b>Average Market Cap (\$mm)</b>	
<b>Net Assets (\$mm)</b>	1,614.22
<b>% Assets in Top 10 Holdings</b>	42.73
<b>Total Number of Holdings</b>	49
<b>Manager Name</b>	John Michael Cerra
<b>Manager Tenure</b>	11
<b>Expense Ratio</b>	0.26%
<b>Closed to New Investors</b>	No

Fund Characteristics	
<b>Sharpe Ratio (3 Year)</b>	0.44
<b>Average Duration</b>	5.06
<b>Average Coupon</b>	0.87%
<b>Average Effective Maturity</b>	5.34
<b>R-Squared (3 Year)</b>	0.98
<b>Alpha (3 Year)</b>	-0.01%
<b>Beta (3 Year)</b>	0.99

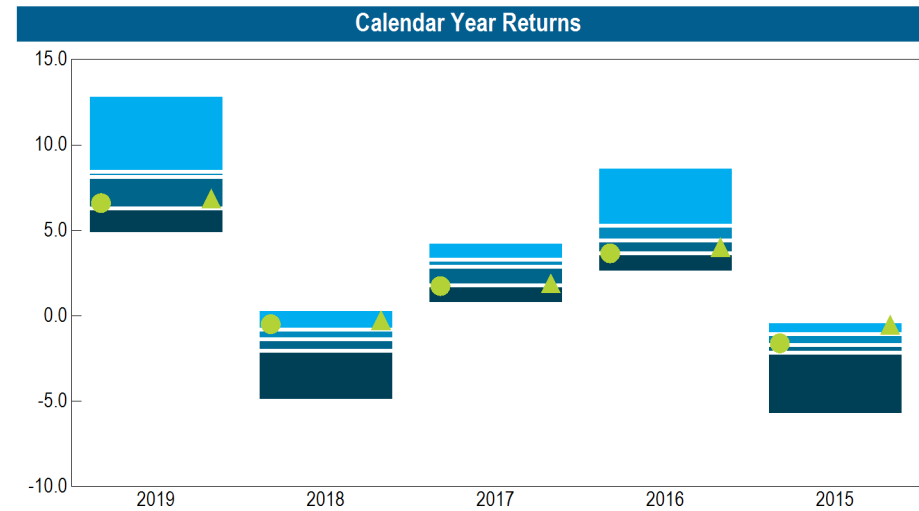
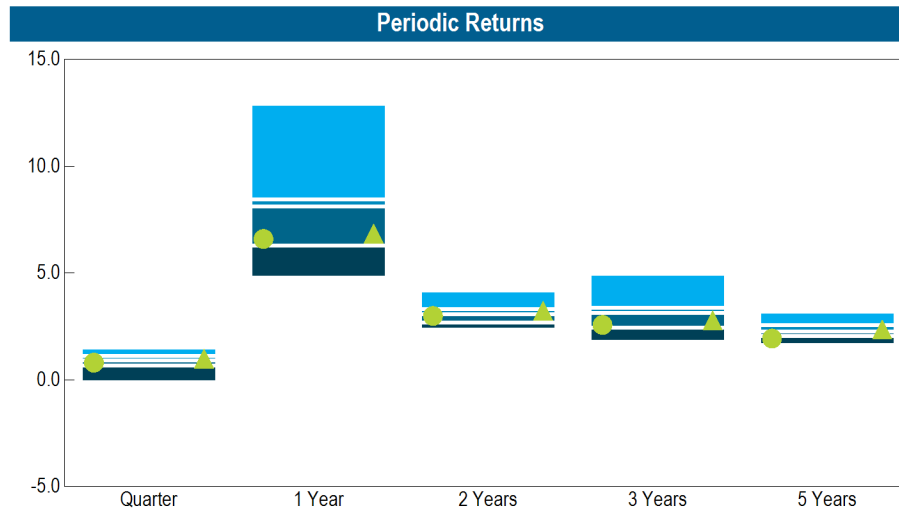
Top Holdings as of December 31, 2019	
<b>UNITED STATES TREASURY NOTES 0.12%</b>	4.88%
<b>UNITED STATES TREASURY NOTES 0.25%</b>	4.47%
<b>UNITED STATES TREASURY BONDS 3.88%</b>	4.45%
<b>UNITED STATES TREASURY NOTES 0.5%</b>	4.32%
<b>UNITED STATES TREASURY NOTES 0.12%</b>	4.30%
<b>UNITED STATES TREASURY NOTES 0.62%</b>	4.27%
<b>UNITED STATES TREASURY NOTES 0.12%</b>	4.20%
<b>UNITED STATES TREASURY NOTES 0.38%</b>	4.05%
<b>UNITED STATES TREASURY NOTES 0.12%</b>	3.90%
<b>UNITED STATES TREASURY NOTES 0.12%</b>	3.89%

Fixed Income Sectors as of December 31, 2019	
<b>GOVERNMENT</b>	97.22%
<b>MUNICIPAL</b>	0.00%
<b>CORPORATE</b>	0.51%
<b>SECURITIZED</b>	1.60%
<b>CASH &amp; EQUIVALENTS</b>	0.67%
<b>DERIVATIVE</b>	0.00%

Credit Quality as of September 30, 2019	
<b>AAA</b>	99.58%
<b>AA</b>	0.00%
<b>A</b>	0.00%
<b>BBB</b>	0.00%
<b>BB</b>	0.00%
<b>B</b>	0.00%
<b>Below B</b>	0.00%
<b>Not Rated</b>	0.42%

Maturities as of December 31, 2019	
<b>1 to 3 Years</b>	22.46%
<b>3 to 5 Years</b>	24.37%
<b>5 to 7 Years</b>	20.84%
<b>7 to 10 Years</b>	29.97%
<b>10 to 15 Years</b>	0.95%
<b>15 to 20 Years</b>	0.29%
<b>20 to 30 Years</b>	0.93%
<b>Greater than 30 Years</b>	0.00%

## TIAA-CREF Inflation Linked Bond Fund | As of December 31, 2019

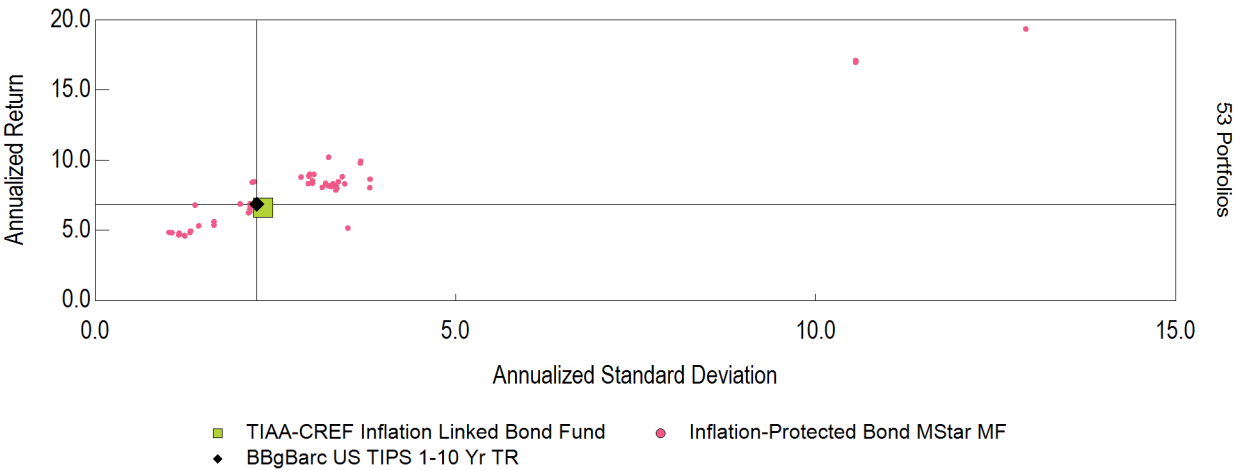


	QTD	Rank	1 Yr	Rank	2 Yrs	Rank	3 Yrs	Rank	5 Yrs	Rank	2019	Rank	2018	Rank	2017	Rank	2016	Rank	2015	Rank
TIAA-CREF Inflation Linked Bond Fund	0.8	58	6.6	72	3.0	60	2.6	70	1.9	80	6.6	72	-0.5	22	1.7	77	3.7	76	-1.6	47
BBgBarc US TIPS 1-10 Yr TR	1.0	48	6.9	66	3.2	42	2.8	64	2.4	46	6.9	66	-0.3	19	1.9	74	4.0	62	-0.5	10
Universe Median	0.9		8.1		3.1		3.1		2.3		8.1		-1.4		2.9		4.4		-1.7	

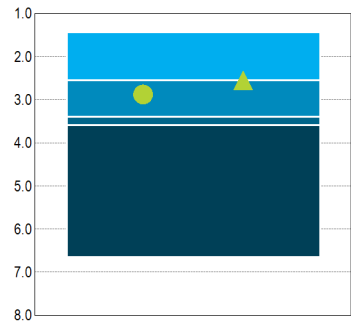


TIAA-CREF Inflation Linked Bond Fund | As of December 31, 2019

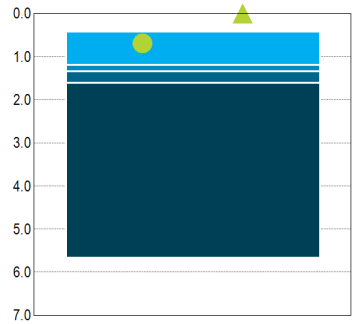
Annualized Return vs. Annualized Standard Deviation  
1 Year Ending December 31, 2019



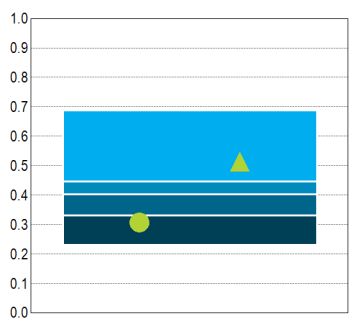
Anlzd Standard Deviation  
5 Year



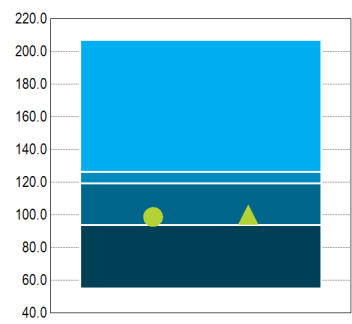
Tracking Error  
5 Year



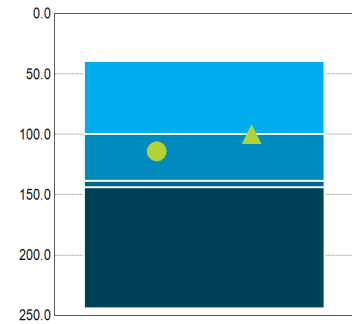
Sharpe Ratio  
5 Year



Anlzd Up Mkt Capture Ratio  
5 Year



Anlzd Down Mkt Capture Ratio  
5 Year



● TIAA-CREF Inflation Linked Bond Fund    ▲ BBgBarc US TIPS 1-10 Yr TR    ■ 5th to 25th Percentile    ■ 25th to Median    ■ Median to 75th Percentile    ■ 75th to 95th Percentile

**CalABLE Underlying Investments | As of December 31, 2019**
**Annual Investment Expense Analysis  
As Of December 31, 2019**

Name	Identifier	Category	Benchmark	Expense Ratio	Median Expense Ratio	Difference Fund v. Median
<b>CalABLE Underlying Investments</b>						
TIAA-CREF Equity Index Fund	TIEIX	Large Blend	Russell 3000	0.05%	0.68%	-0.63%
TIAA-CREF Int'l Equity Index Fund	TCIEX	Foreign Large Blend	MSCI EAFE	0.06%	0.84%	-0.78%
TIAA-CREF Emerging Markets Index Fund	TEQLX	Diversified Emerging Mkts	MSCI Emerging Markets	0.20%	1.15%	-0.95%
TIAA-CREF Bond Index Fund	TBIIX	Intermediate Core Bond	BBgBarc US Aggregate TR	0.11%	0.45%	-0.34%
TIAA-CREF Inflation Linked Bond Fund	TIILX	Inflation-Protected Bond	BBgBarc US TIPS 1-10 Yr TR	0.26%	0.45%	-0.19%
TIAA - Life Funding Agreement						

## Fee Schedule

**Fee Schedule as of December 31, 2019**

<b>Portfolio*</b>	<b>State Administrative Fee (bps)</b>	<b>Estimated Underlying Investment Expenses (bps)</b>	<b>Total Annual Asset-Based Fees and Expenses</b>
Aggressive Growth Portfolio	44	8	52
Moderate Portfolio	44	10	54
Conservative Portfolio	44	9	53
FDIC-Insured Portfolio**	44	N/A	44
<b>Underlying Funds***</b>	<b>Prospectus Net Expense Ratio (bps)</b>		
TIAA-CREF Equity Index Fund	5		
TIAA-CREF Int'l Equity Index Fund	6		
TIAA-CREF Emerging Markets Index Fund	20		
TIAA-CREF Bond Index Fund	12		
TIAA-CREF Inflation Linked Bond Fund	26		

\*Source: California's 529A Qualified ABL Program Disclosure Statement and Participation Agreement

\*\*Currently, the 0.44% State Administrative Fee for the FDIC-Insured Portfolio is being waived by the Board. The Board reserves the right to charge a State Administrative Fee to the FDIC-Insured Portfolio in the future to the extent that the imposition of such Fee would not result in a loss of principal for Account Owners.

\*\*\*Source: Morningstar, Inc.