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**JUNE 18, 2015**

**AGENDA ITEM 5  
INFORMATION ITEM**

**SCHOLARSHARE INVESTMENT BOARD**

*Review and Analysis of Investment Performance for the ScholarShare College Savings Plan for First Quarter 2015*

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***Background***

The ScholarShare Investment Board (SIB or Board) and its investment consultant, Pension Consulting Alliance, Inc. (PCA), monitor all portfolios in the ScholarShare College Savings Plan (Plan) in accordance with the ScholarShare Monitoring Procedures and Criteria adopted by the Board.

In this item, SIB will review and discuss PCA's "Investment Performance Status Report" (Exhibit A) for the first quarter of 2015. PCA's report compares 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 2015:

- 12 underlying funds were in the "positive" status (two of which were on "watch" status),
- Seven underlying funds were in the "acceptable" status, and
- No underlying funds were in "caution" status or "watch" status.

As outlined in its memo (Exhibit B), PCA is recommending that the two underlying funds, PIMCO Income Fund and PIMCO Real Return Fund, remain on "watch" status at this time and no new funds qualify for "watch" status. TIAA-CREF Tuition Financing, Inc. has also provided an "Investment Performance Report" for the Plan for first quarter 2015 (Exhibit C).

***Presenters***

Eric White, Principal, Pension Consulting Alliance, Inc.

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

1Q

2015

SCHOLARSHARE COLLEGE SAVINGS PLAN  
INVESTMENT PERFORMANCE STATUS REPORT



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# AGENDA

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## TAKEAWAYS

- US Equity ended the quarter with positive first quarter returns but was outpaced by International Equity whose performance improved after two consecutive quarters of negative results. Performance gains in public equity markets are more heavily reflected in early age bands with larger equity allocations.
- US Treasury yields fell on average over the quarter and US Fixed Income posted positive results. This contributed to later age band returns that have larger allocations to fixed income.
- Real Estate increased in value leading to strong double digit positive performance for the TIAA-CREF Real Estate fund over the latest year.
- Interest rate risk remains high and US Equity metrics remain in top decile valuation levels.

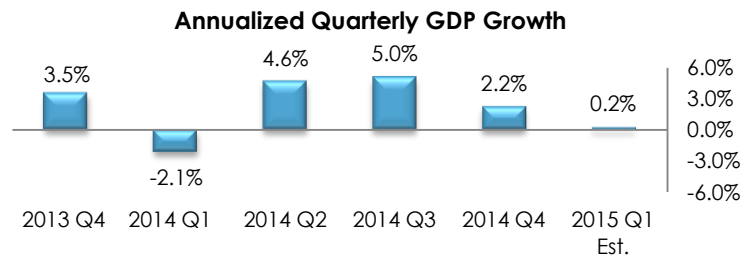
## SECTION 1

## ECONOMIC OVERVIEW

**Overview:** US GDP slowed to a crawl during the first quarter of 2015 based on the advanced estimate of growth at 0.2 percent. Downturns in exports, nonresidential fixed investment, and state and local government spending were offset by positive contributions from personal consumption expenditures and private inventory investment during the quarter. The unemployment rate also held fairly steady quarter-over-quarter as it declined another (0.1percent) to 5.5 percent. Inflation over the 1-year period was 0.0 percent as it declined for a second consecutive quarter. Commodities declined for a third straight quarter and finished at negative (27 percent) for the trailing 1-year. The US dollar continued to rally against the Euro, appreciating another 11.3 percent during the quarter. US Equities finished the quarter in positive territory despite investor concerns of rising rates and slowing economic conditions in producing volatility during the quarter. International equities outperformed US equities during the quarter as they benefited from increased central bank activity and signs of renewed economic growth.

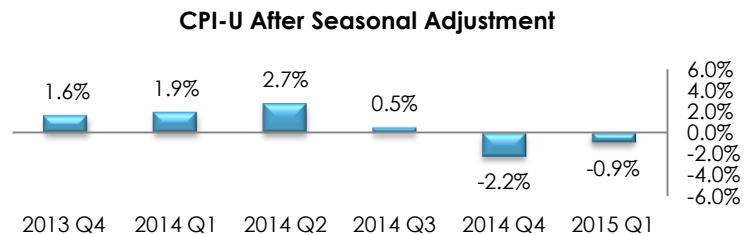
**Economic Growth**

- Real GDP increased at an annualized rate of 0.2 percent in the first quarter of 2015 after increasing at an annualized rate of 2.2 percent in the fourth quarter of 2014.
- Downturns in exports, nonresidential fixed investment, and state and local government spending had a negative impact on GDP growth during the quarter.
- Positive contributions from personal consumption expenditures and private inventory investments were the main contributors to positive growth during the quarter.



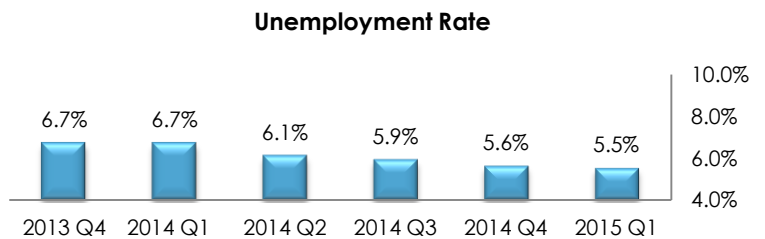
**Inflation**

- The Consumer Price Index for All Urban Consumers (CPI-U) decreased by 0.9 percent in the quarter on an annualized basis, after seasonal adjustment.
- Quarterly percent changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 2.3 percent for the quarter on an annualized basis.
- Over the last 12 months, core CPI-U increased 1.6 percent after seasonal adjustment.



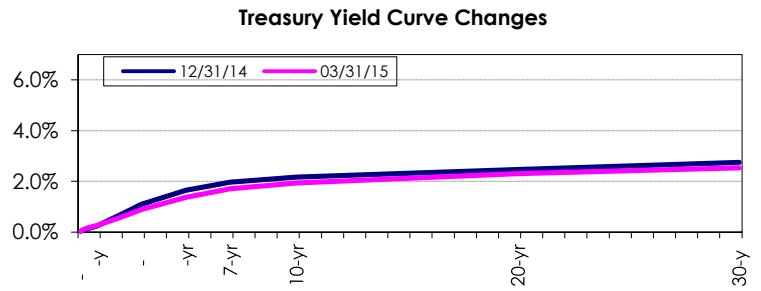
**Unemployment**

- The US economy gained approximately 591,000 jobs in the quarter.
- The official unemployment rate dropped to 5.5 percent at quarter end.
- The majority of jobs gained occurred in professional and business services, education and health services, and leisure and hospitality.



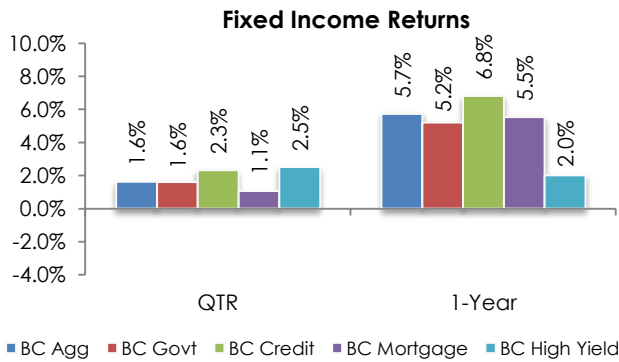
**Interest Rates & US Dollar**

- US Treasury yields fell on average over the quarter.
- The Federal Reserve has maintained the federal funds rate between 0.00 percent and 0.25 percent since December 2008.
- The US dollar appreciated against the Euro, Yen and Sterling by 11.3 percent, 0.3 percent, and 4.9 percent, respectively.



**Fixed Income**

- US bond markets delivered positive returns during the quarter, led by credit and high yield.
- High yield trailed all other bond sectors over the trailing 1-year period.

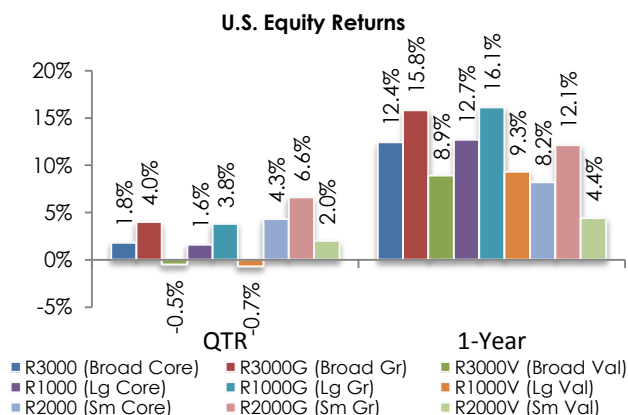


US Fixed Income Sector Performance (BC Aggregate Index)			
Sector	Weight	QTR	1 Year
Governments*	40.6%	1.6%	5.2%
Agencies	5.0%	1.2%	3.6%
Inv. Grade Credit	23.6%	2.3%	6.8%
MBS	28.2%	1.1%	5.5%
ABS	0.6%	0.9%	2.2%
CMBS	2.0%	1.8%	4.4%

\*US Treasuries and Government Related

**US Equities**

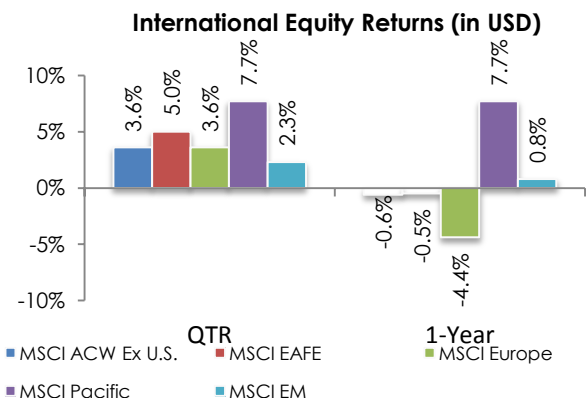
- Large cap US equities were outpaced by small cap stocks during the quarter but remained ahead during the longer 1-year period.
- During the quarter and 1-year periods, growth outperformed value stocks across all market capitalizations.



Sector	Weight	QTR	1 Year
Information Tech.	19.0%	1.7%	17.3%
Financials	17.6%	-0.7%	10.5%
Health Care	14.6%	7.8%	27.6%
Consumer Disc.	13.2%	4.7%	16.8%
Industrials	11.3%	0.4%	7.9%
Consumer Staples	8.5%	1.3%	16.6%
Energy	7.2%	-2.2%	-13.4%
Materials	3.6%	1.0%	3.7%
Utilities	3.1%	-4.6%	10.6%
Telecomm. Serv.	2.0%	1.9%	4.0%

**International Equities**

- International markets started the year with strong returns across the board the first quarter of 2015.
- One year returns remained negative in broad developed market equities while emerging markets equities turned slightly positive.



Sector	Weight	QTR	1 Year
Europe Ex. UK	32.6%	5.7%	-4.0%
Emerging Markets	21.6%	2.3%	0.8%
Japan	16.0%	10.3%	12.4%
United Kingdom	14.2%	-1.0%	-5.5%
Pacific Ex. Japan	8.7%	3.2%	-0.2%
Canada	6.9%	-5.9%	-5.5%



## Market Summary – Long-term Performance\*

Indexes	1 Year	3 Year	5 Year	10 Year	20 Year
<b>Global Equity</b>					
MSCI All Country World	6.0%	11.3%	9.6%	7.0%	7.4%
<b>Domestic Equity</b>					
S&P 500	12.7%	16.1%	14.5%	8.0%	9.4%
Russell 3000	12.4%	16.4%	14.7%	8.4%	9.6%
Russell 3000 Growth	15.8%	16.4%	15.7%	9.4%	8.6%
Russell 3000 Value	8.9%	16.3%	13.7%	7.2%	10.0%
Russell 1000	12.7%	16.4%	14.7%	8.3%	9.6%
Russell 1000 Growth	16.1%	16.3%	15.6%	9.4%	8.8%
Russell 1000 Value	9.3%	16.4%	13.8%	7.2%	10.0%
Russell 2000	8.2%	16.3%	14.6%	8.8%	9.6%
Russell 2000 Growth	12.1%	17.7%	16.6%	10.0%	7.9%
Russell 2000 Value	4.4%	14.8%	12.5%	7.5%	10.9%
CBOE BXM	4.9%	6.8%	7.2%	4.9%	7.8%
<b>International Equity</b>					
MSCI All Country World ex US	-0.6%	6.9%	5.3%	5.9%	6.0%
MSCI EAFE	-0.5%	9.5%	6.6%	5.4%	5.6%
MSCI Pacific	7.7%	8.6%	6.1%	5.4%	2.4%
MSCI Europe	-4.4%	10.0%	7.0%	5.5%	7.9%
MSCI EM (Emerging Markets)	0.8%	0.7%	2.1%	8.8%	6.8%
<b>Fixed Income</b>					
BC Universal Bond	5.3%	3.5%	4.7%	5.2%	6.2%
BC Global Agg – Hedged	7.4%	4.6%	4.6%	4.8%	6.1%
BC Aggregate Bond	5.7%	3.1%	4.4%	4.9%	6.0%
BC Government	5.2%	2.3%	3.8%	4.5%	5.7%
BC Credit Bond	6.7%	4.9%	6.2%	5.8%	6.7%
BC Mortgage Backed Securities	5.5%	2.5%	3.6%	4.9%	5.9%
BC High Yield Corporate Bond	2.0%	7.5%	8.6%	8.2%	7.8%
BC WGILB - Hedged	9.0%	3.3%	5.2%	5.1%	N/A
BC Emerging Markets	4.2%	4.7%	6.9%	8.2%	11.5%
<b>Real Estate</b>					
NCREIF (Private RE)	12.7%	11.5%	12.8%	8.4%	9.7%
NAREIT (Public RE)	21.9%	14.1%	15.4%	8.8%	11.3%
<b>Commodity Index</b>					
Bloomberg Commodity (formerly DJUBS)	-27.0%	-11.5%	-5.7%	-3.6%	2.8%

\* Performance is annualized for periods greater than one year.

## SECTION 2

## INVESTMENT MARKET RISK METRICS

# Takeaways

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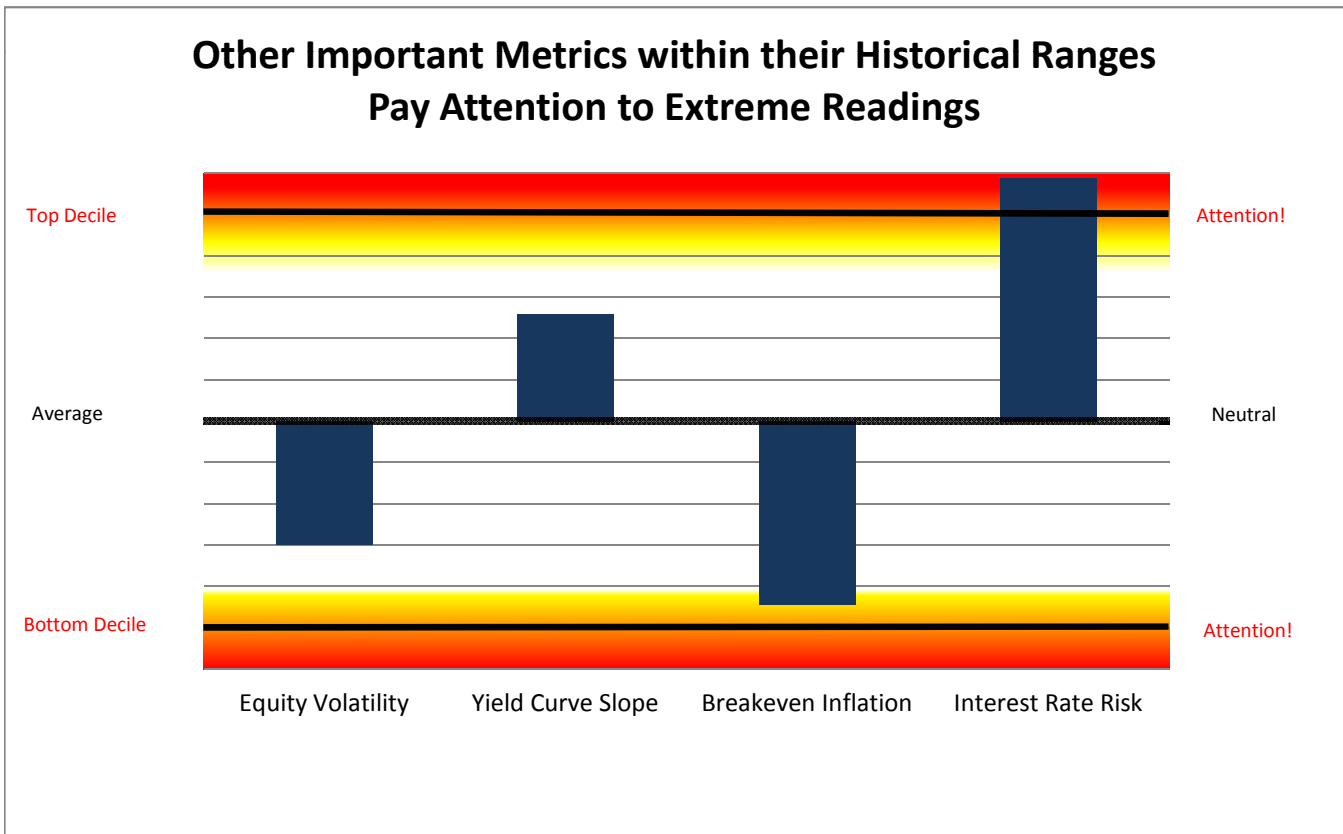
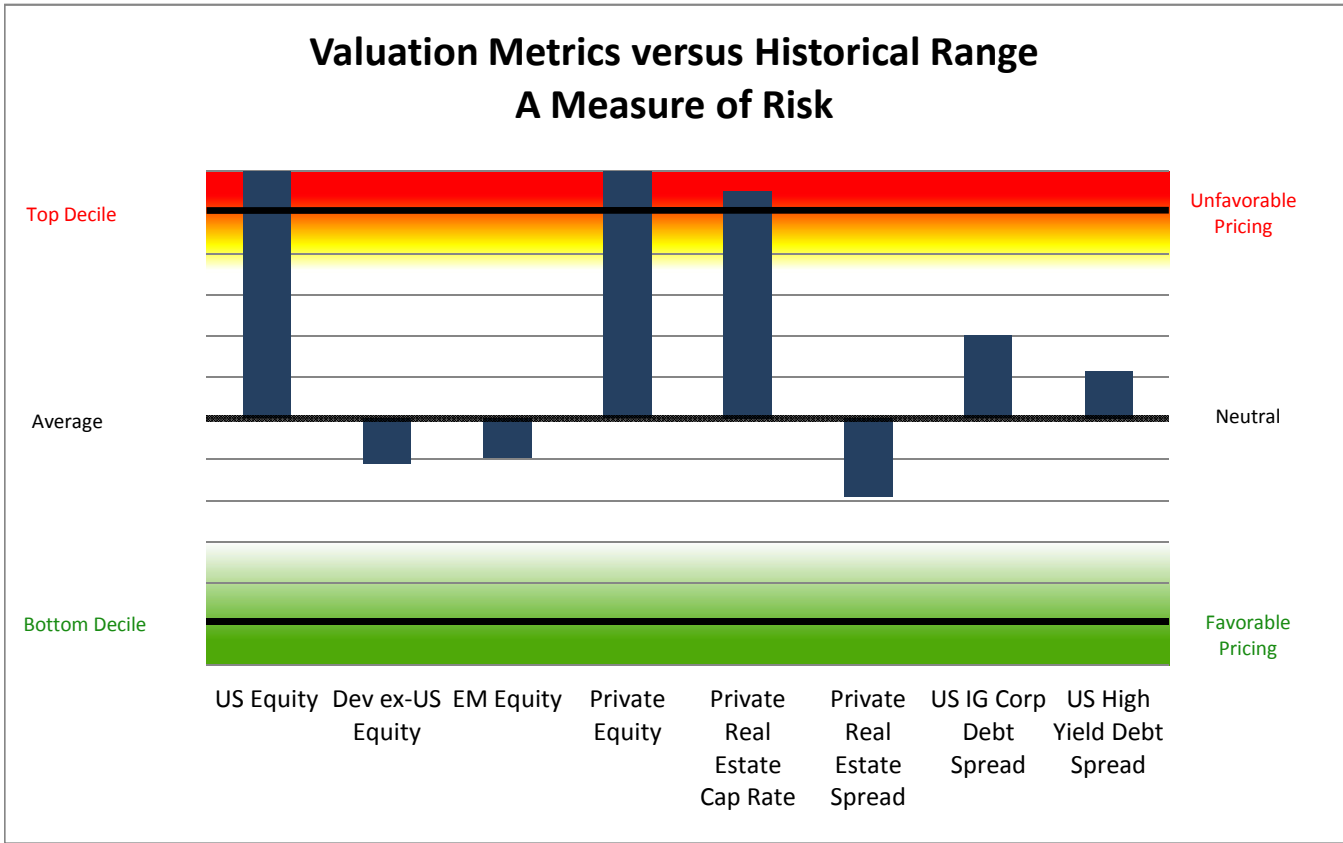
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- The U.S. 10-year interest rate rose before the March Fed policy meeting, but ended March below 2%, as the timing of any interest rate increase continues to be pushed out.
- U.S. equity, private equity and private real estate metrics all remain in top decile valuation territory.
- Even after significant first quarter gains, international equity valuations are below their historical average valuation levels.
- With the compression of interest rates year-over-year, the spread between the core real estate cap rate and 10-year Treasury rate increased from 2014 levels, indicating valuations have room to rise.
- Interest rate risk remains significant, with duration on the 10-year Treasury note at approximately 9. (A 100 basis point rise in rates, leads to -9% loss.)
- The 10-year breakeven inflation rate moved off of its low for the year, but remains below 2%, and commodity prices declined again in March. The market is pricing (expecting) low future inflation.
- The PCA Market Sentiment Indicator remained **neutral** in March.

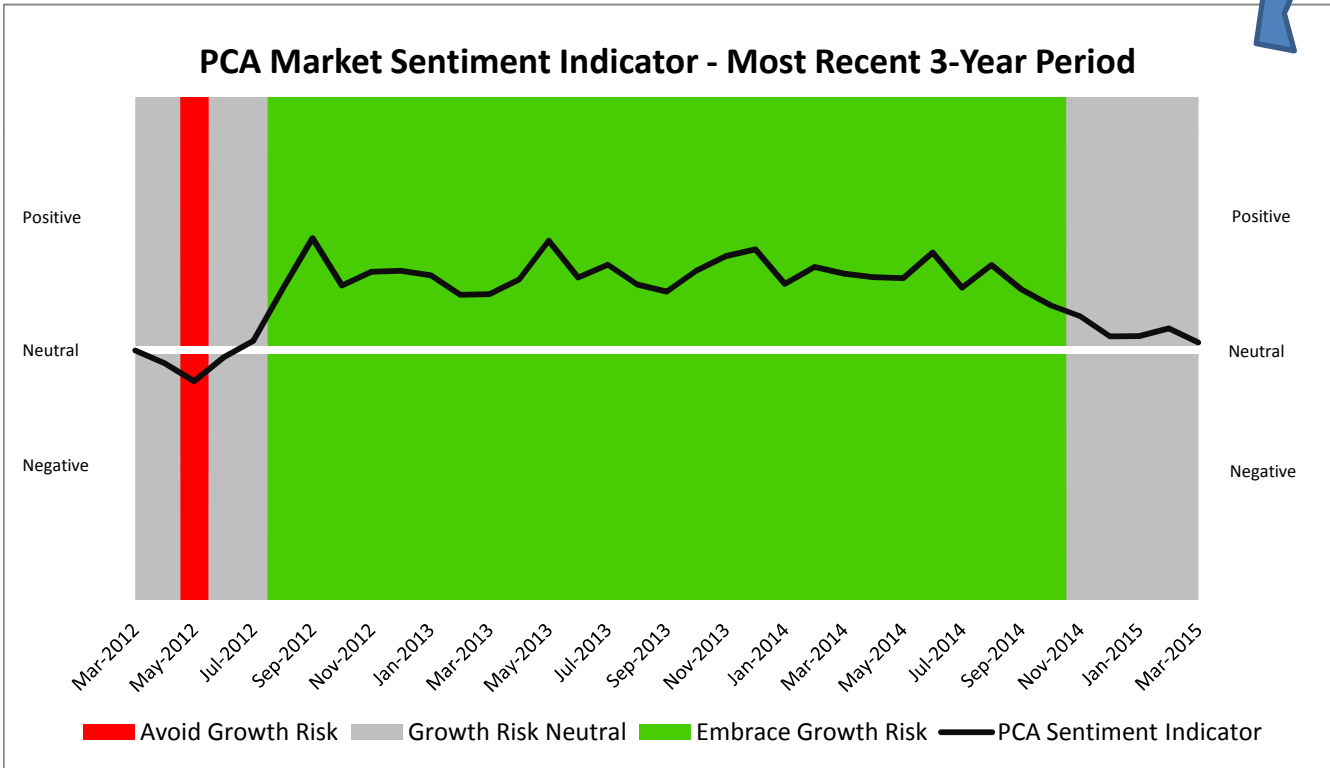
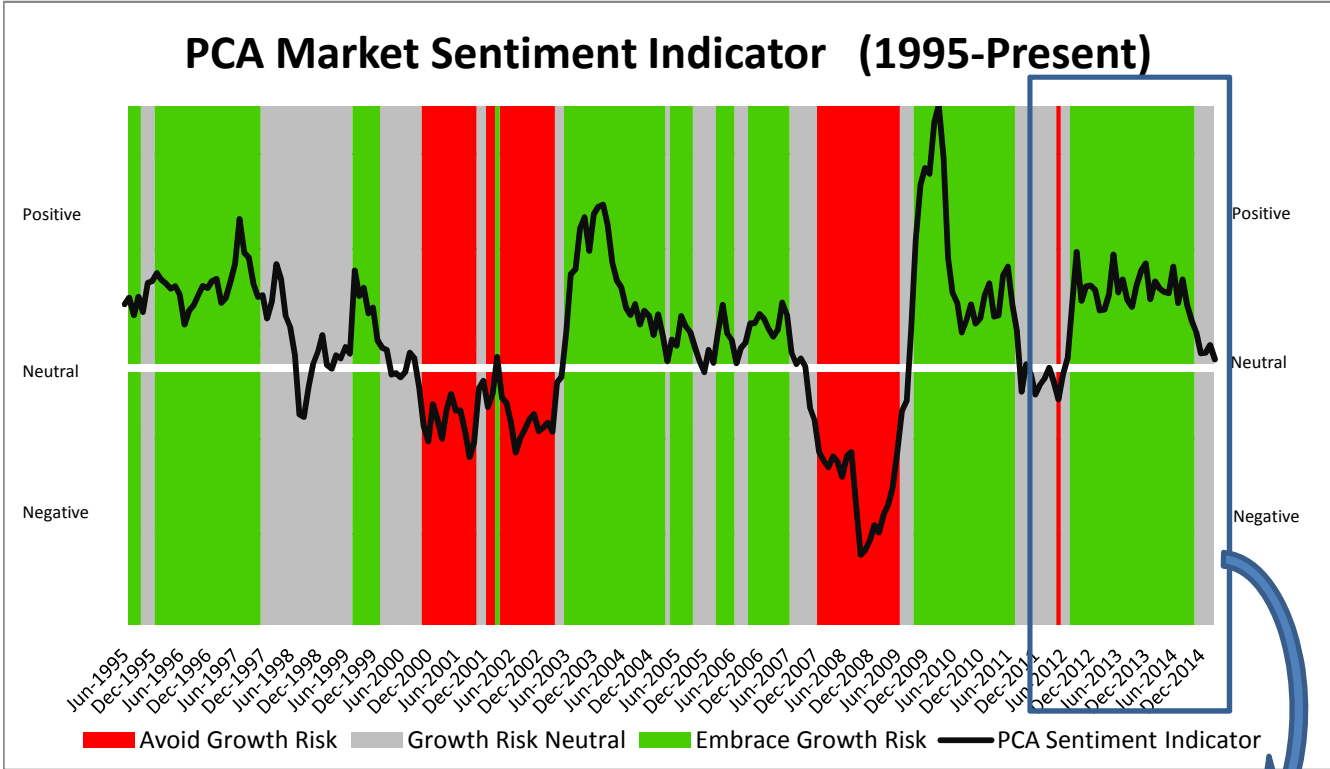
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<sup>1</sup>See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

**Risk Overview**



**Market Sentiment**



Bond Spread Momentum Trailing-Twelve Months

Equity Return Momentum Trailing-Twelve Months

Agreement Between Bond Spread and Equity Spread Momentum Measures?

Negative

Positive

Disagree

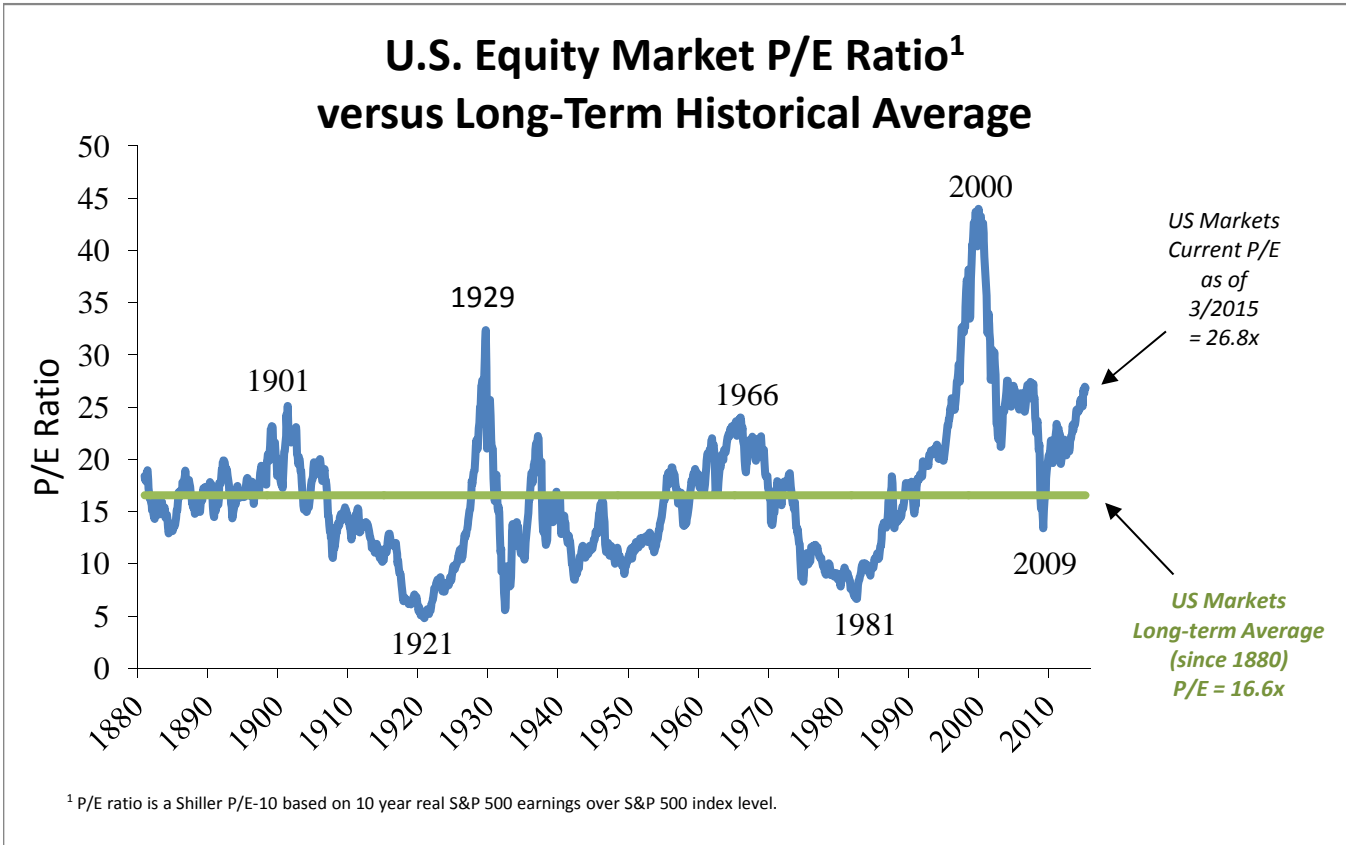


**Growth Risk Visibility (Current Overall Sentiment)**

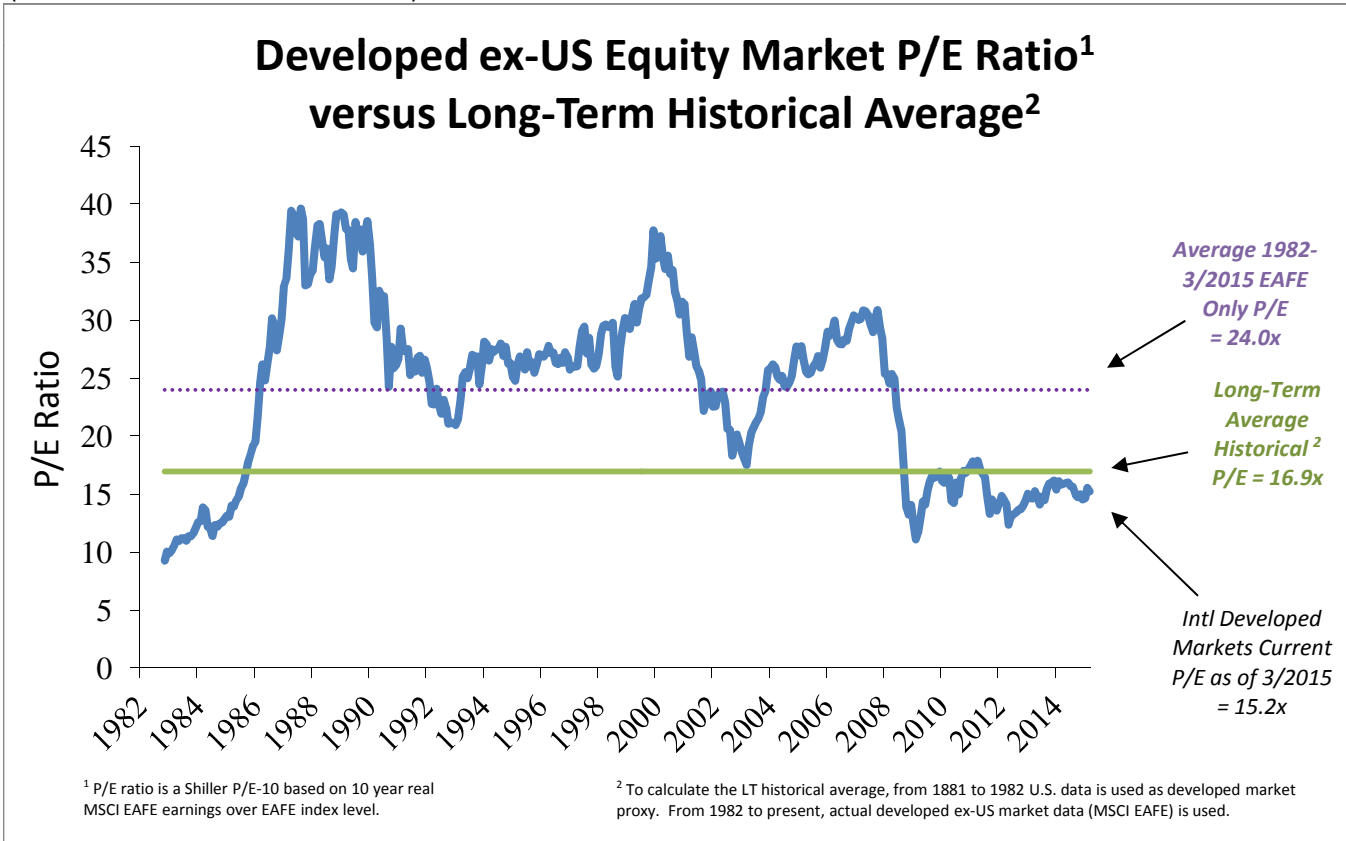
**Neutral**



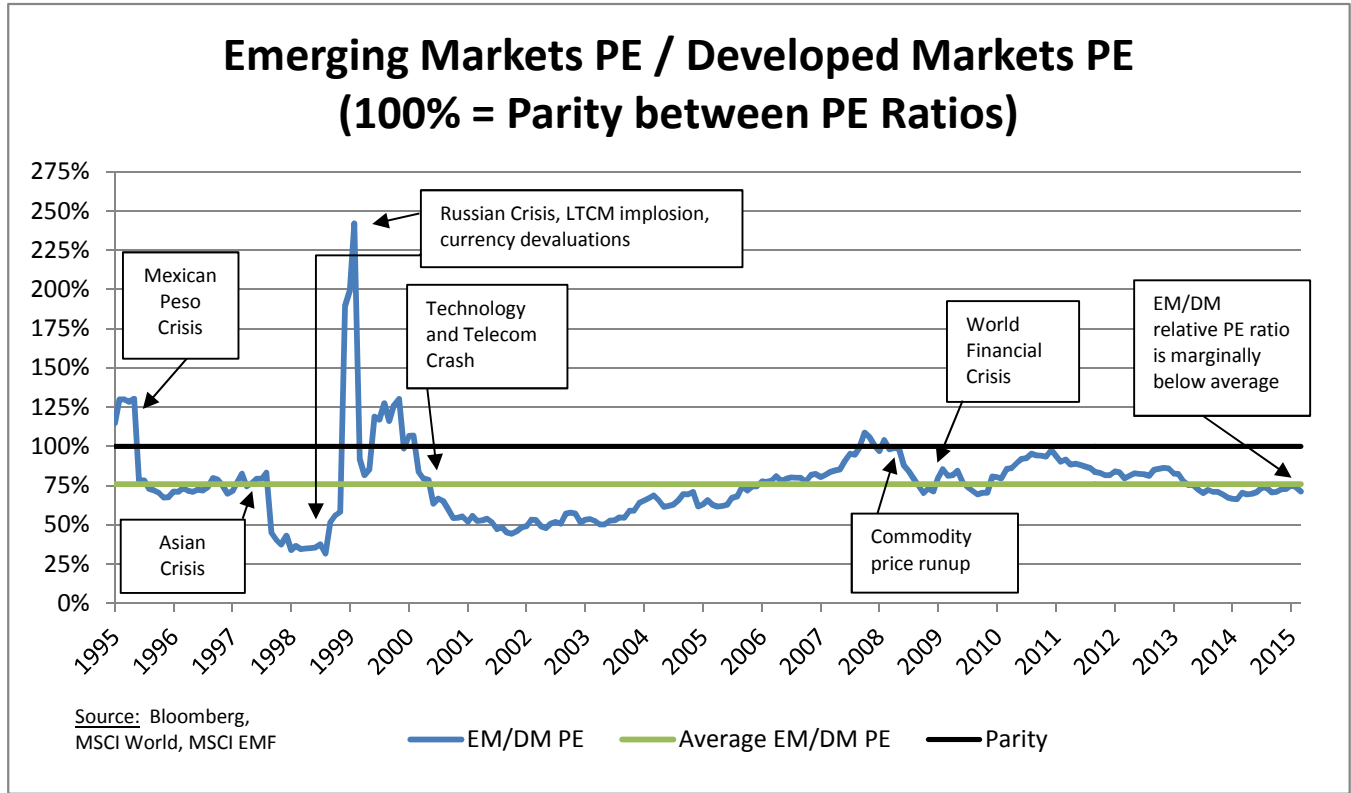
**Developed Public Equity Markets**



(Please note the different time scales)

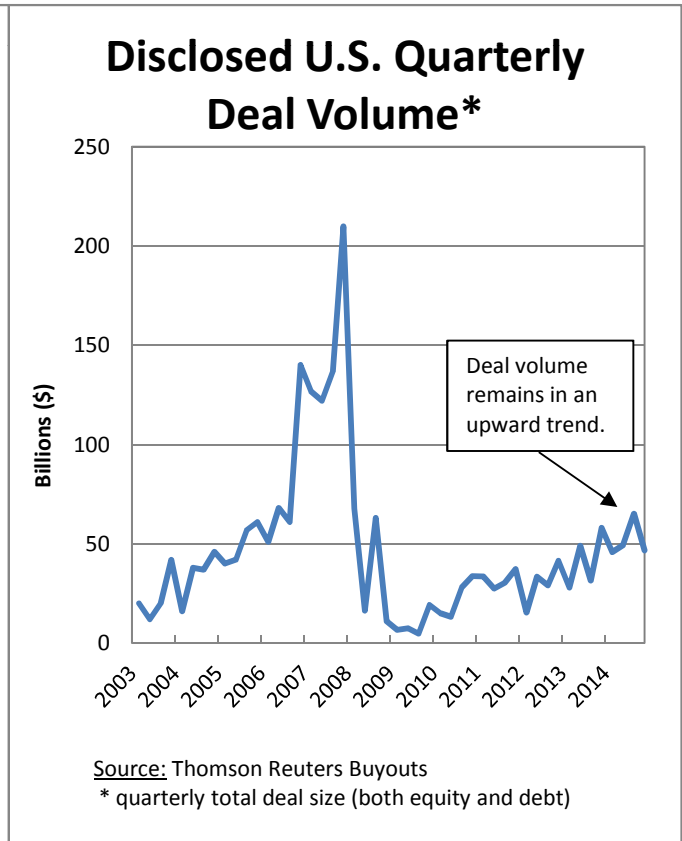
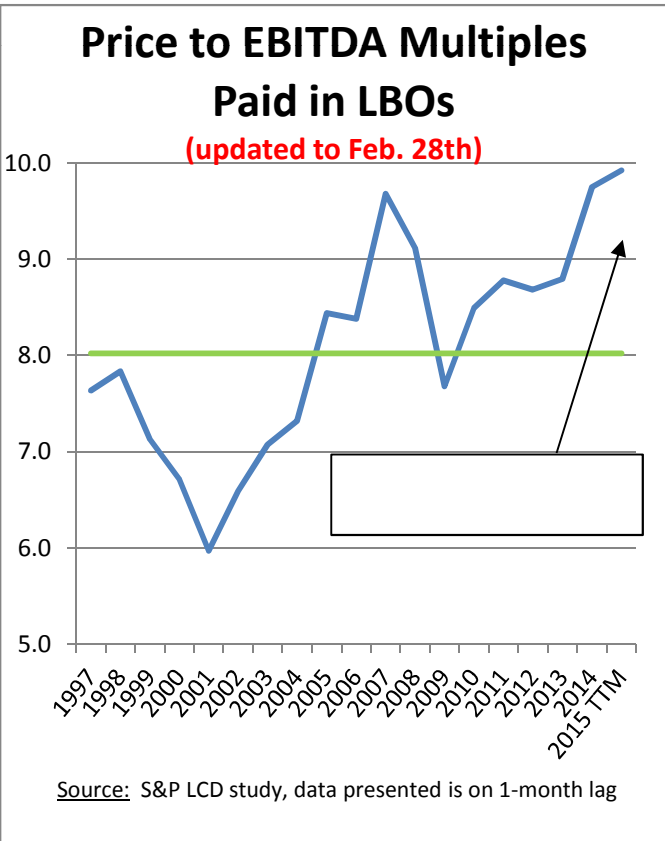


**Emerging Market Public Equity Markets**



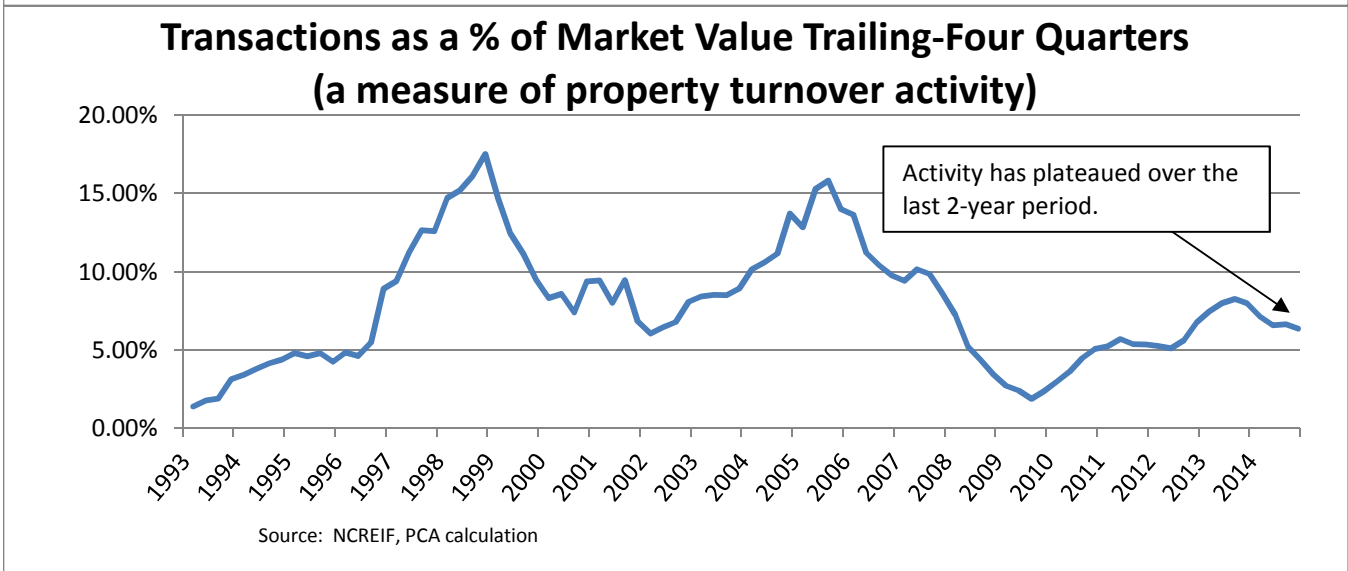
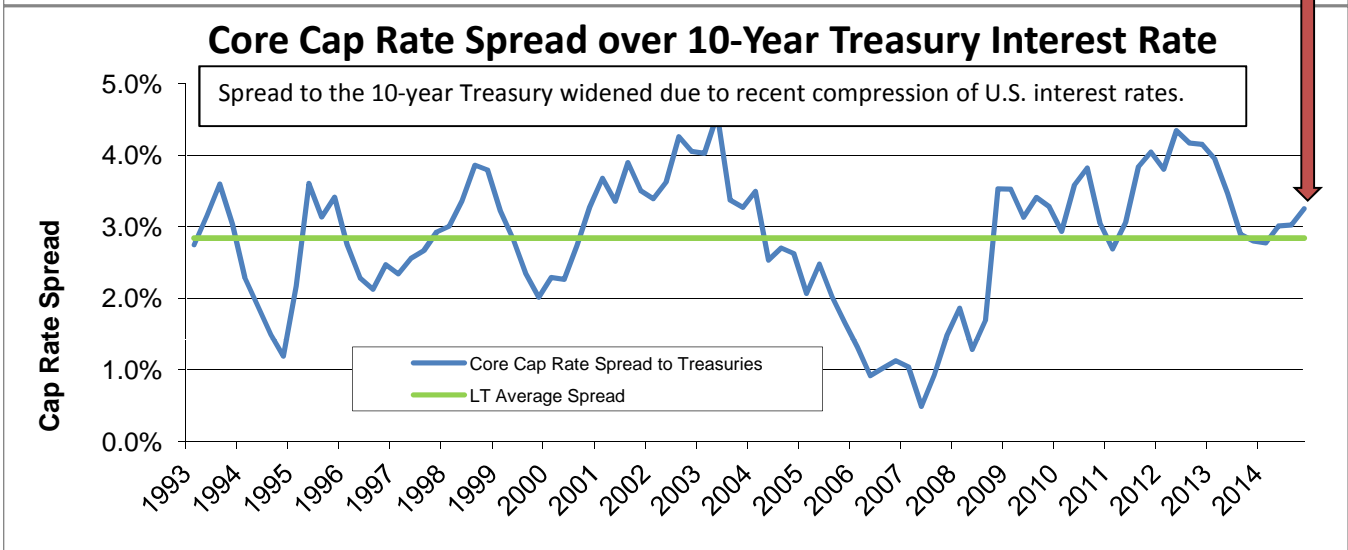
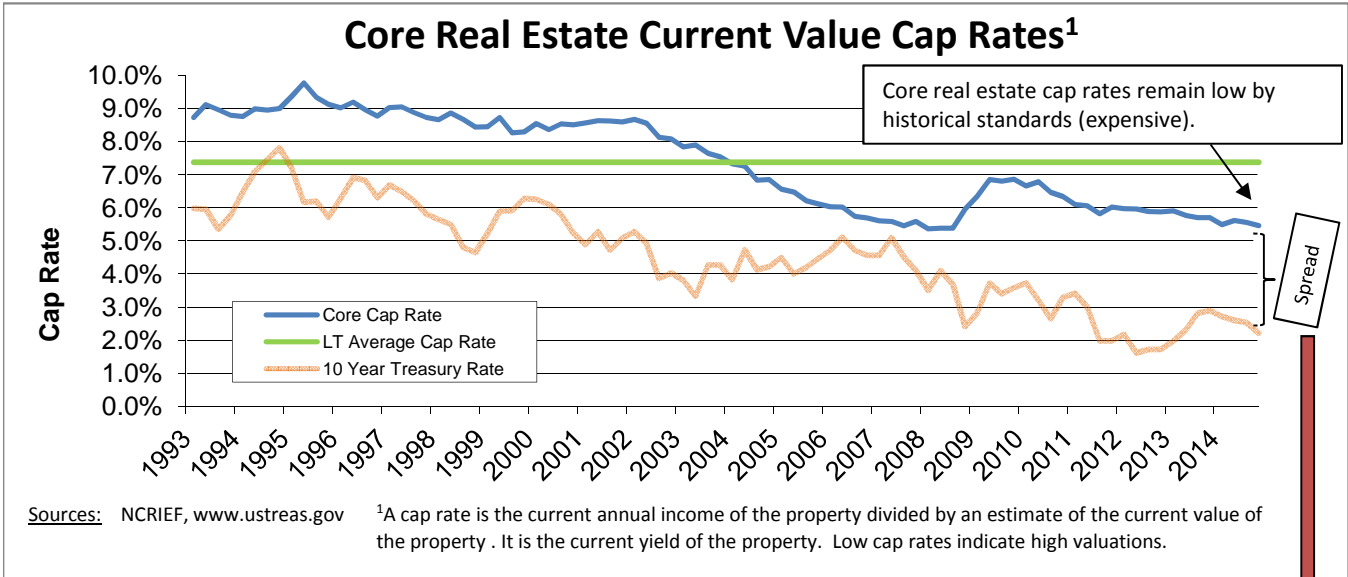
**US Private Equity**

Quarterly Data, Updated to Dec. 31st



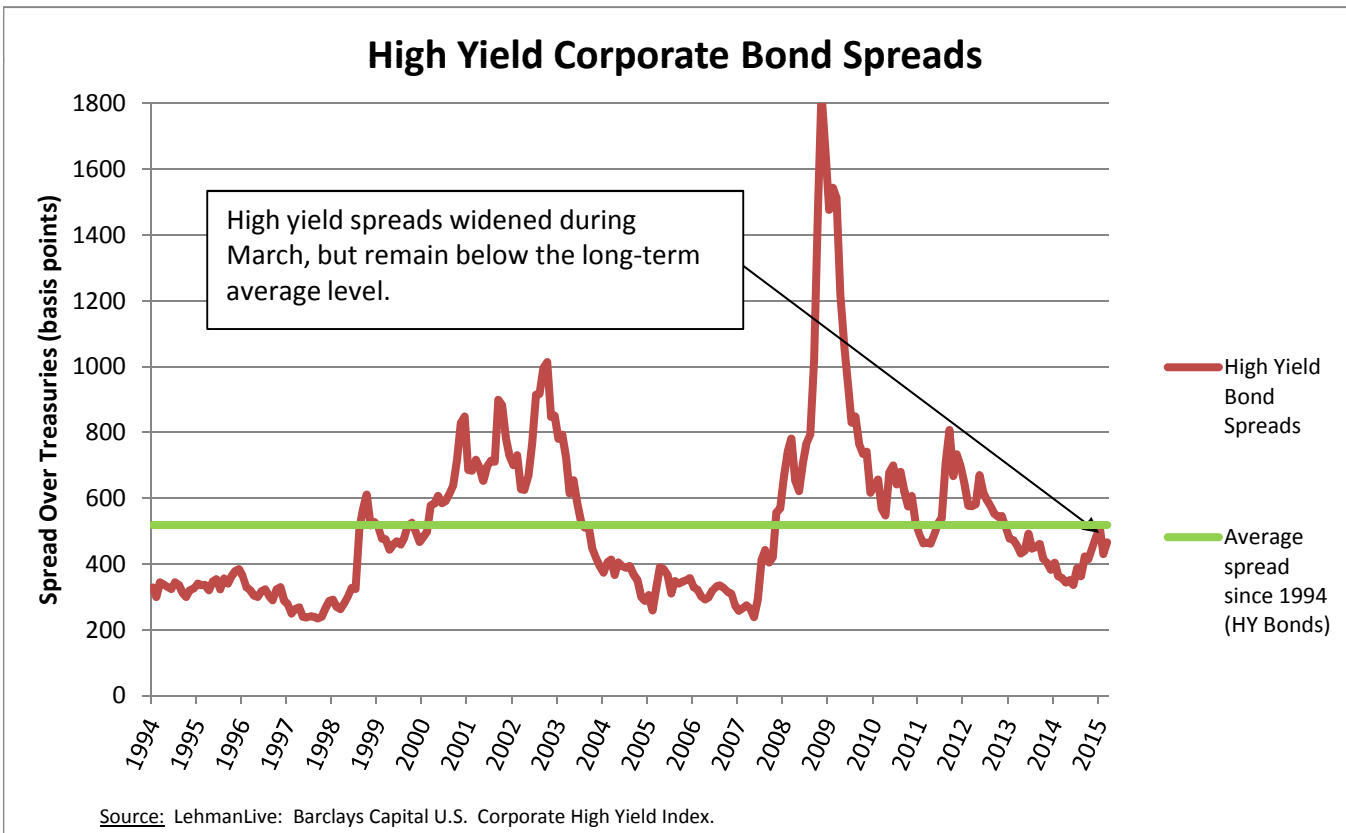
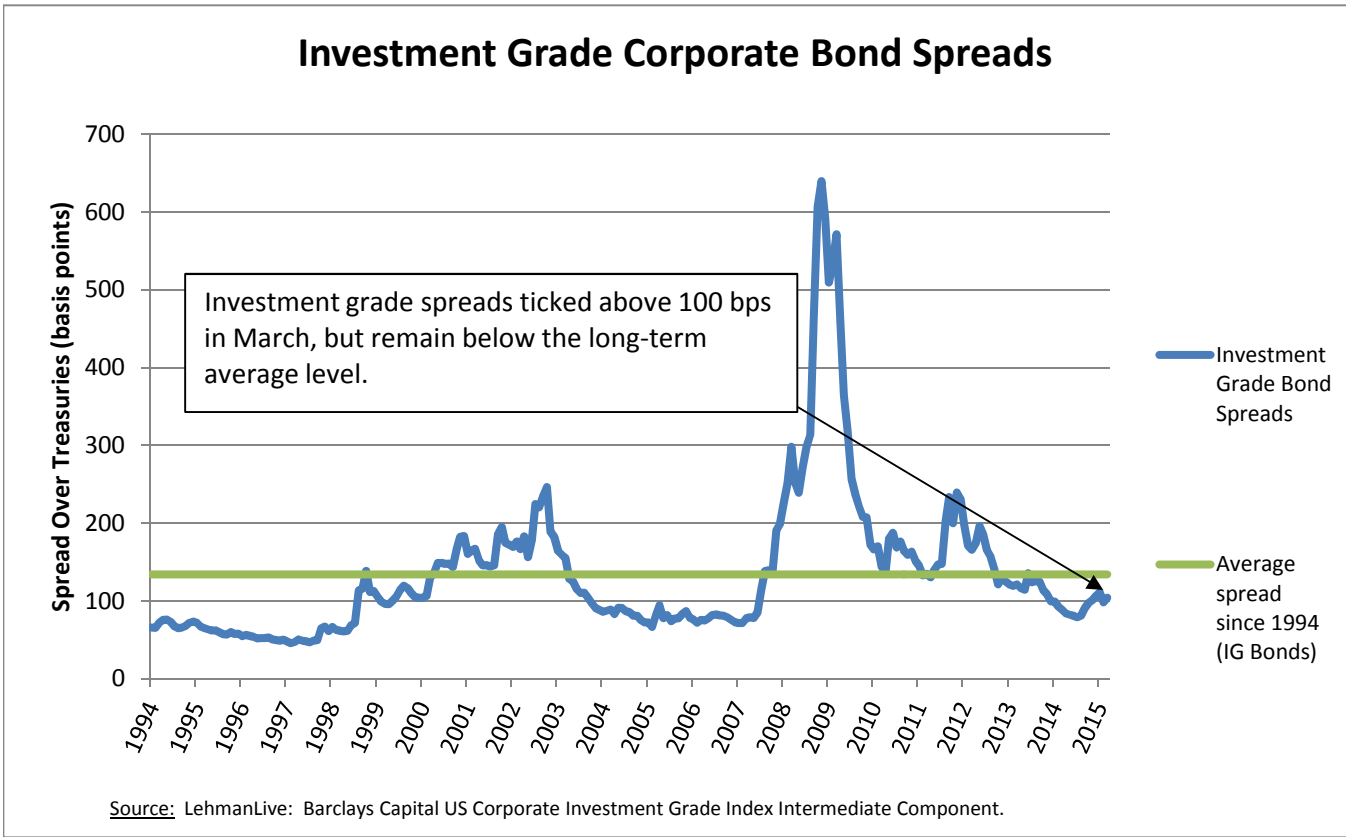
**Private Real Estate Markets**

**Quarterly Data, Updated to Dec. 31st**



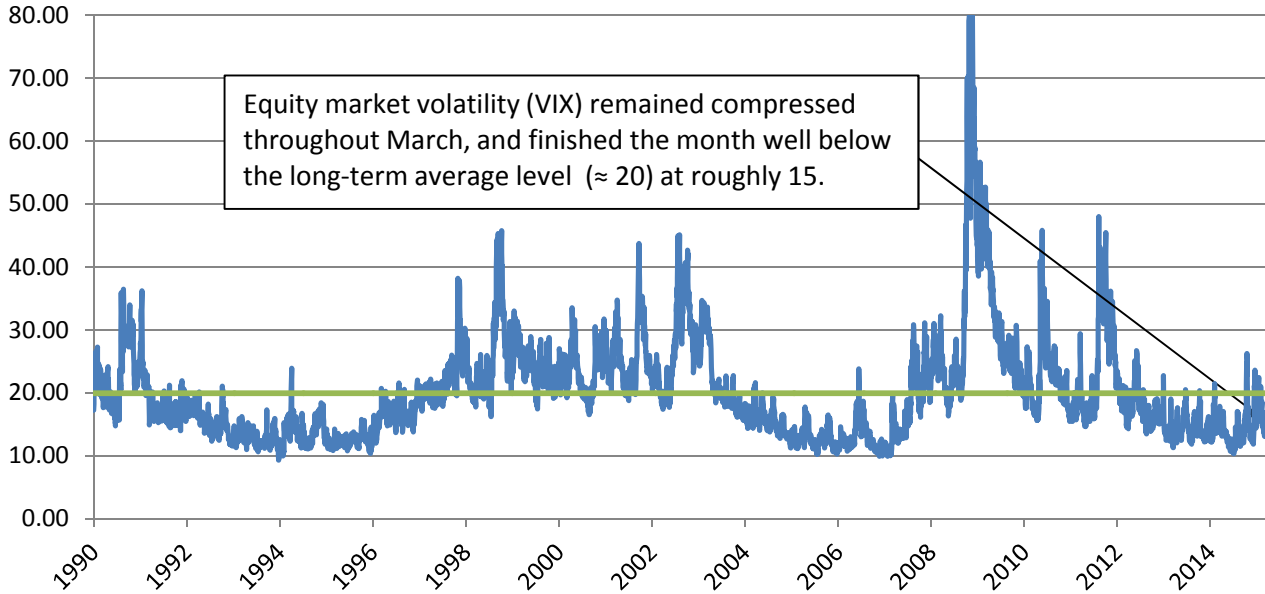


**Credit Markets US Fixed Income**



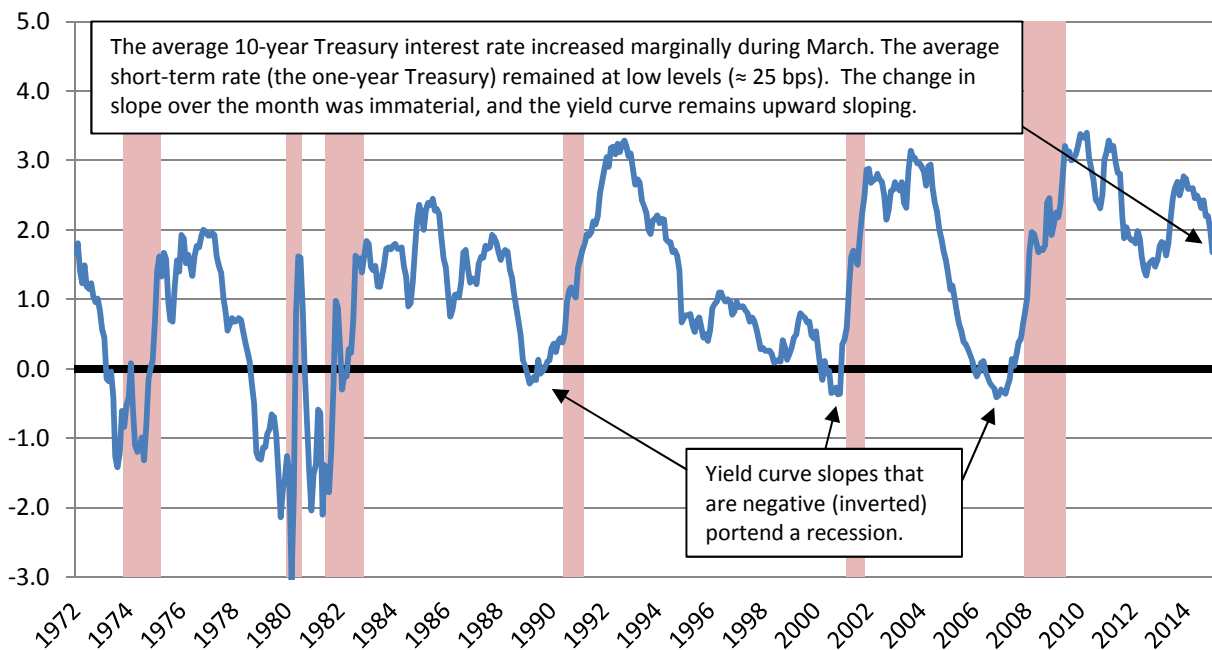
**Other Market Metrics**

**VIX - a measure of equity market fear / uncertainty**



Source: <http://www.cboe.com/micro/vix/historical.aspx>

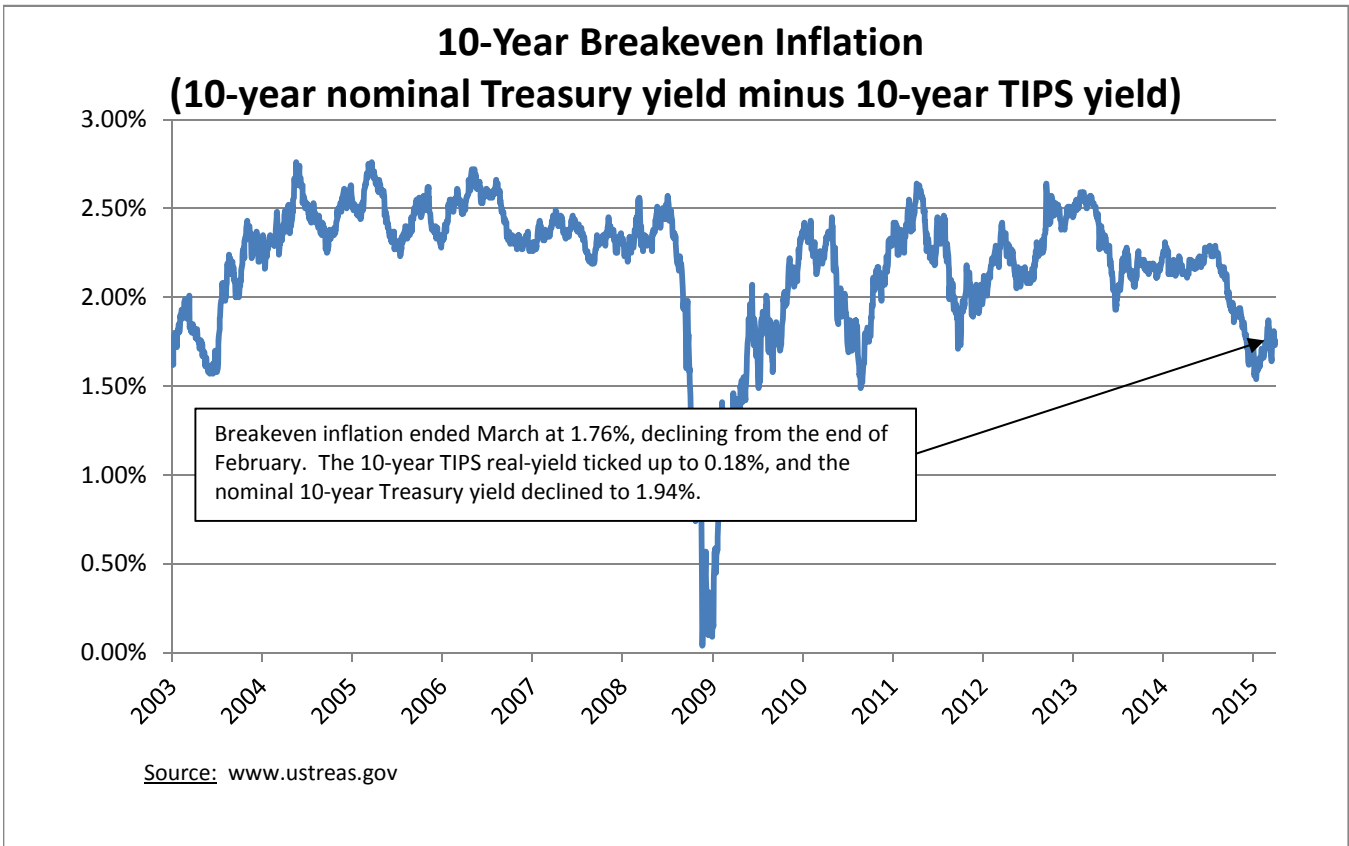
**Yield Curve Slope**



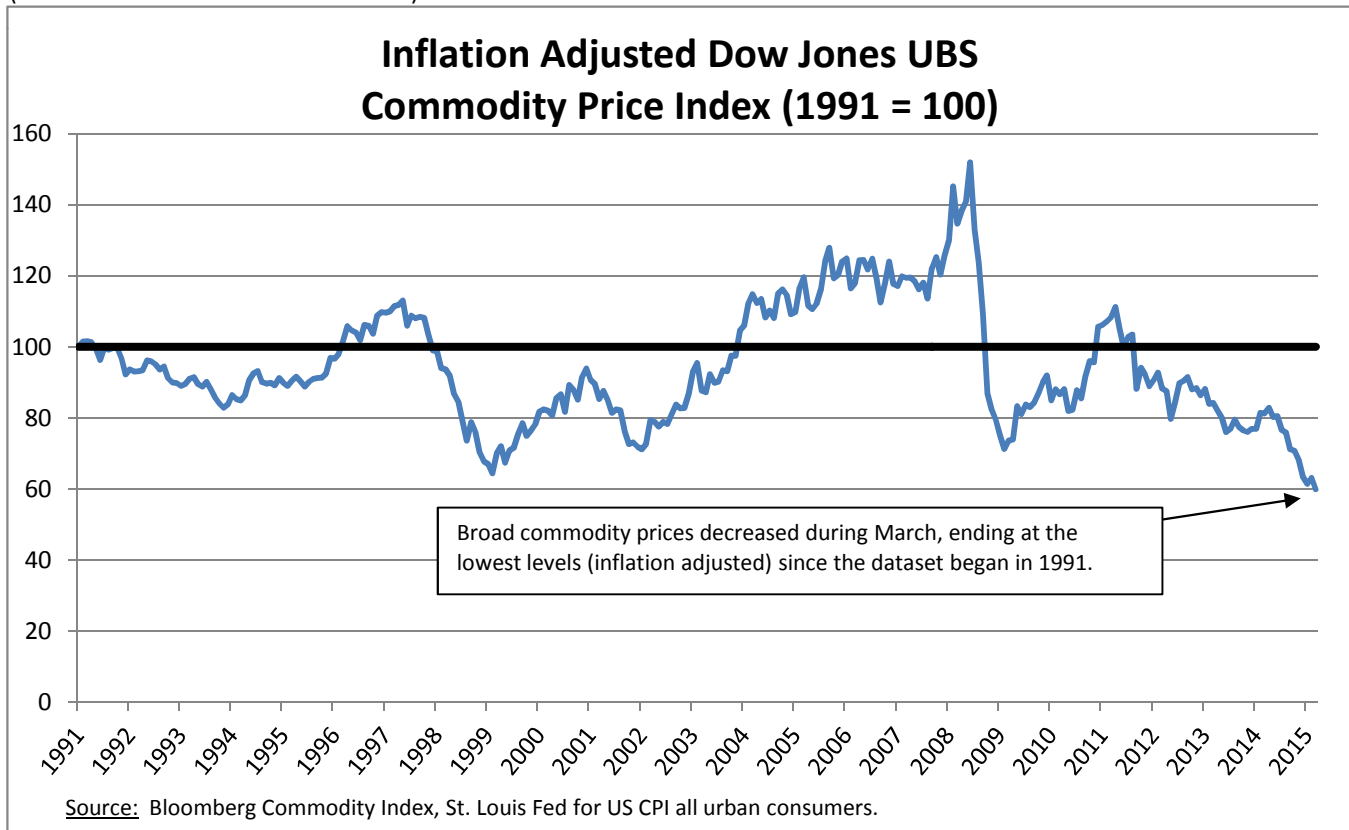
Source: [www.ustreas.gov](http://www.ustreas.gov) (10 yr treasury yield minus 1 year treasury yield)

Recession Dating: NBER <http://www.nber.org/cycles.html>

**Measures of Inflation Expectations**

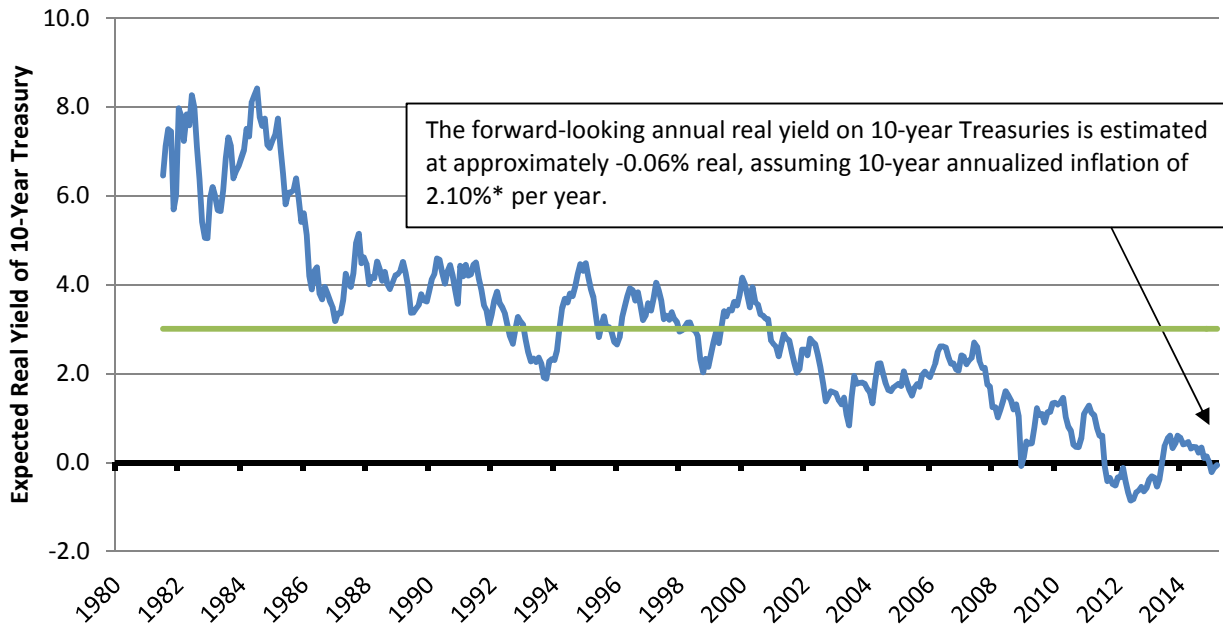


(Please note the different time scales)



**Measures of U.S. Treasury Interest Rate Risk**

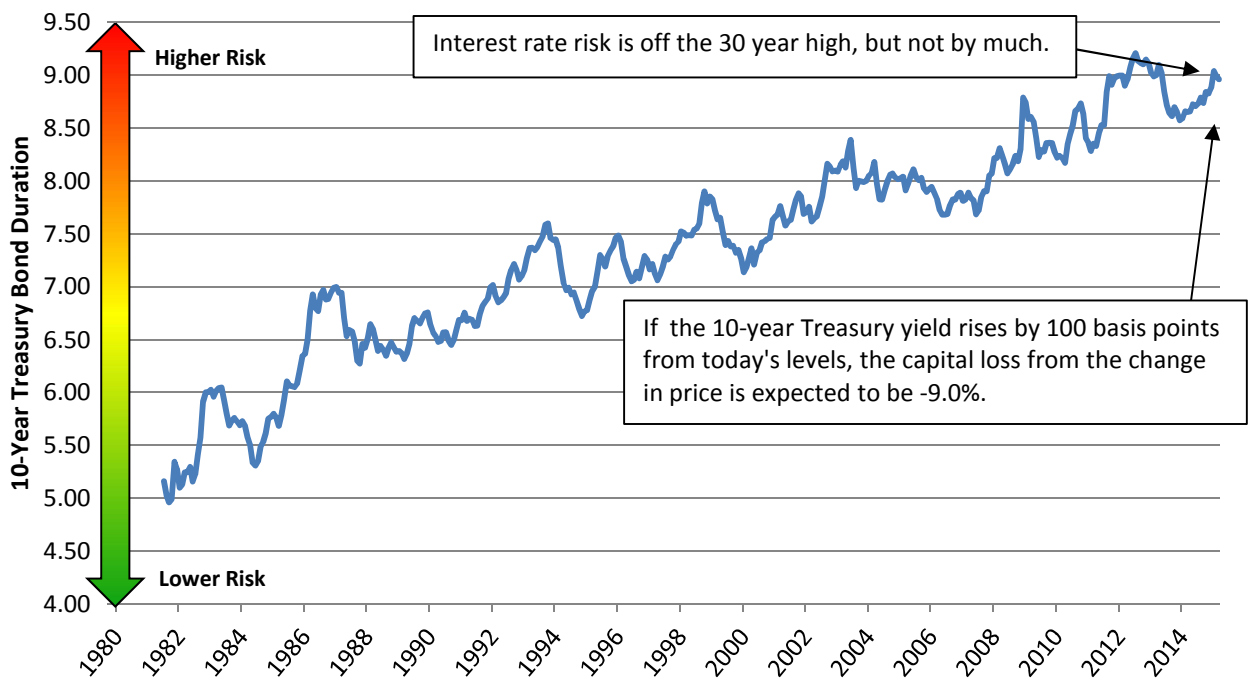
**Estimate of 10-Year Treasury Forward-Looking Real Yield**



Sources: [www.ustreas.gov](http://www.ustreas.gov) for 10-year constant maturity rates

\*Federal Reserve Bank of Philadelphia survey of professional forecasts for inflation estimates

**10-Year Treasury Duration**



Source: [www.ustreas.gov](http://www.ustreas.gov) for 10-year constant maturity rates, calculation of duration

# Appendix

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# Appendix

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## METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### **US Equity Markets:**

Metric: P/E ratio = Price / "Normalized" earnings for the S&P 500 Index

To represent the price of US equity markets, we have chosen the S&P 500 index. This index has the longest published history of price, is well known, and also has reliable, long-term, published quarterly earnings. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the S&P 500 index). Equity markets are very volatile. Prices fluctuate significantly during normal times and extremely during periods of market stress or euphoria. Therefore, developing a measure of earnings power (E) which is stable is vitally important, if the measure is to provide insight. While equity prices can and do double, or get cut in half, real earnings power does not change nearly as much. Therefore, we have selected a well known measure of real, stable earnings power developed by Yale Professor Robert Shiller known as the Shiller E-10. The calculation of E-10 is simply the average real annual earnings over the past 10 years. Over 10 years, the earnings shenanigans and boom and bust levels of earnings tend to even out (and often times get restated). Therefore, this earnings statistic gives a reasonably stable, slow-to-change estimate of average real earnings power for the index. Professor Shiller's data and calculation of the E-10 are available on his website at <http://www.econ.yale.edu/~shiller/data.htm>. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].

### **Developed Equity Markets Excluding the US:**

Metric: P/E ratio = Price / "Normalized" earnings for the MSCI EAFE Index

To represent the price of non-US developed equity markets, we have chosen the MSCI EAFE index. This index has the longest published history of price for non-US developed equities. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the MSCI EAFE index). The price level of this index is available starting in December 1969. Again, for the reasons described above, we elected to use the Shiller E-10 as our measure of earnings (E). Since 12/1972, a monthly price earnings ratio is available from MSCI. Using this quoted ratio, we have backed out the implied trailing-twelve month earnings of the EAFE index for each month from 12/1972 to the present. These annualized earnings are then inflation adjusted using CPI-U to represent real earnings in US dollar terms for each time period. The Shiller E-10 for the EAFE index (10 year average real earnings) is calculated in the same manner as detailed above.

However, we do not believe that the pricing and earnings history of the EAFE markets are long enough to be a reliable representation of pricing history for developed market equities outside of the US. Therefore, in constructing the Long-Term Average Historical P/E for developed ex-US equities for comparison purposes, we have elected to use the US equity market as a developed market proxy, from 1881 to 1982. This lowers the Long-Term Average Historical P/E considerably. We believe this methodology provides a more realistic historical comparison for a market with a relatively short history.

# Appendix

## METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### **Emerging Market Equity Markets:**

Metric: Ratio of Emerging Market P/E Ratio to Developed Market P/E Ratio

To represent the Emerging Markets P/E Ratio, we have chosen the MSCI Emerging Market Free Index, which has P/E data back to January 1995 on Bloomberg. To represent the Developed Markets PE Ratio, we have chosen the MSCI World Index, which also has data back to January 1995 on Bloomberg. Although there are issues with published, single time period P/E ratios, in which the denominator effect can cause large movements, we feel that the information contained in such movements will alert investors to market activity that they will want to interpret.

### **US Private Equity Markets:**

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (earnings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in \$ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

### **U.S Private Real Estate Markets:**

Metrics: US Cap Rates, Cap Rate Spreads, and Transactions as a % of Market Value

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The data, published by NCREIF, describes completed and leased properties (core) on an unleveraged basis. We chose to use current value cap rates. These are capitalization rates from properties that were revalued during the quarter. This data relies on estimates of value and therefore tends to be lagging (estimated prices are slower to rise and slower to fall than transaction prices). The data is published quarterly.

Spreads between the cap rate (described above) and the 10-year nominal Treasury yield, indicate a measure of the cost of properties versus a current measure of the cost of financing.

Transactions as a % of Market Value Trailing-Four Quarters is a measure of property turnover activity in the NCREIF Universe. This quarterly metric is a measure of activity in the market.

### **Credit Markets US Fixed Income:**

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of valuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Barclays Capital US Corporate High Yield Index.

# Appendix

## METRIC DESCRIPTION, RATIONALE FOR SELECTION AND CALCULATION METHODOLOGY

### **Measure of Equity Market Fear / Uncertainty**

Metric: VIX – Measure of implied option volatility for U.S. equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

### **Measure of Monetary Policy**

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.

### **Measures of US Inflation Expectations**

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates an acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPS. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

### **Measures of US Treasury Bond Interest Rate Risk**

Metrics: 10-Year Treasury Forward-Looking Real Yield and 10-Year Treasury Duration

The expected annualized real yield of the 10 year U.S. Treasury Bond is a measure of valuation risk for U.S. Treasuries. A low real yield means investors will accept a low rate of expected return for the certainty of receiving their nominal cash flows. PCA estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

Duration for the 10-Year Treasury Bond is calculated based on the current yield and a price of 100. This is a measure of expected percentage movements in the price of the bond based on small movements in percentage yield. We make no attempt to account for convexity.

### **Definition of “extreme” metric readings**

A metric reading is defined as “extreme” if the metric reading is in the top or bottom decile of its historical readings. These “extreme” reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.



# PCA Market Sentiment Indicator

*Explanation, Construction and Q&A*

**By:**

**Pension Consulting Alliance, Inc.**

***John Linder, CFA, CPA***

***Neil Rue, CFA***

PCA has created the PCA Market Sentiment Indicator (PMSI) to complement our valuation focused PCA Investment Market Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk seeking trend or a risk aversion trend.

This paper explores:

- What is the PCA Market Sentiment Indicator (PMSI)?
- How do I read the indicator graph?
- How is the PCA Market Sentiment Indicator (PMSI) constructed?
- What do changes in the indicator mean?



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# PCA Market Sentiment Indicator

PCA has created a market sentiment indicator for monthly publication (the PMSI – see below) to complement PCA's Investment Market Risk Metrics.

PCA's Investment Market Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The PMSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the PMSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, PCA believes the Risk Metrics and PMSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the PCA PMSI:

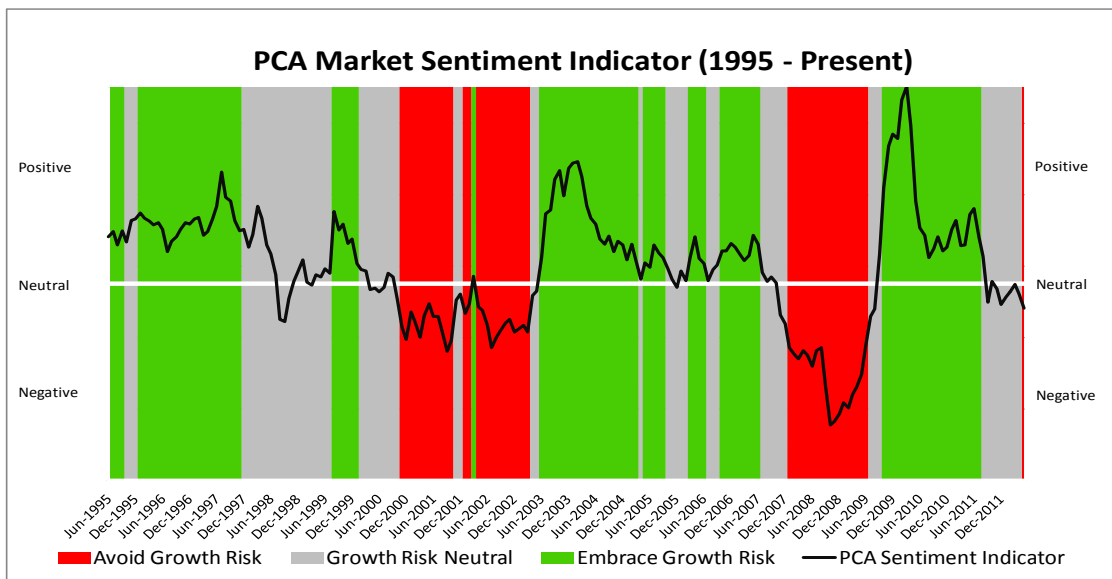
## What is the PCA Market Sentiment Indicator (PMSI)?

The PMSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The PMSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

## How do I read the PCA Market Sentiment Indicator (PMSI) graph?

Simply put, the PMSI is a color coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the PMSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the PMSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.

Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



# PCA Market Sentiment Indicator

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## How is the PCA Market Sentiment Indicator (PMSI) Constructed?

The PMSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

1. Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
2. Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration U.S. Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight). The scale of this measure is adjusted to match that of the stock return momentum measure.

The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure. The color reading on the graph is determined as follows:

1. If both stock return momentum and bond spread momentum are positive = GREEN (positive)
2. If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
3. If both stock return momentum and bond spread momentum are negative = RED (negative)

## What does the PCA Market Sentiment Indicator (PMSI) mean? Why might it be useful?

There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12 month period. The PMSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

<sup>i</sup> Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

<sup>ii</sup> "Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010  
<http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

## SECTION 3

## 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
TIAA-CREF Bond Plus	Fixed Income	BarCap US Universal TR USD
PIMCO Real Return	Fixed Income	BarCap US Trsy US TIPS TR USD
PIMCO Income	Fixed Income	BarCap US Agg Bond TR USD
TIAA-CREF Inflation-Linked Bond	Fixed Income	BarCap US Trsy US TIPS 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	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"> <li>Performance exceeds the benchmark.</li> </ul>	<ul style="list-style-type: none"> <li>Performance exceeds the benchmark (first 1-12 month period), or</li> <li>Tracking error is within the allowable range<sup>1</sup> (short, medium, and long time periods).</li> </ul>
Acceptable	<ul style="list-style-type: none"> <li>Performance meets or is under the benchmark and is within the allowable range.</li> </ul>	<ul style="list-style-type: none"> <li>Performance does not exceed the benchmark but is within the allowable range (first 1-12 month period only).</li> </ul>
Caution	<ul style="list-style-type: none"> <li>Performance is below allowable range but either:                             <ul style="list-style-type: none"> <li>i) for less than six consecutive months, or</li> <li>ii) the Board has not taken (or decided not to take) a formal action to place the asset class or individual fund portfolio on Watch even though performance has been below allowable range for six months or longer.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Tracking error falls outside of the allowable range but either                             <ul style="list-style-type: none"> <li>i) for less than six consecutive months, or</li> <li>ii) the Board has not voted to place the asset class or stand alone fund on Watch</li> </ul> </li> </ul>
Watch <sup>2</sup>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

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

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



# SUMMARY OF FUND PERFORMANCE STATUS

Funds	Prior Quarter		Current Quarter	
	Status	On Watch	Status	On Watch
<b>Active Funds</b>				
T. Rowe Price Instl Large Cap Growth	Acceptable		Acceptable	
T. Rowe Price Instl Large Cap Value	Acceptable		Positive	
TIAA-CREF Small Cap Equity	Positive		Positive	
TIAA-CREF Social Choice Equity	Acceptable		Acceptable	
TIAA-CREF Real Estate Securities	Acceptable		Acceptable	
DFA Large Cap International	Positive		Acceptable	
DFA Emerging Markets Core Equity	Positive		Positive	
TIAA-CREF Bond Plus	Positive		Positive	
PIMCO Real Return	Positive	X	Positive	X
PIMCO Income	Positive	X	Positive	X
TIAA-CREF Inflation-Linked Bond	Acceptable		Acceptable	
T. Rowe Price Instl Floating Rate	Acceptable		Acceptable	
TIAA-CREF High-Yield Bond	Acceptable		Acceptable	
<b>Passive Funds</b>				
TIAA-CREF Equity Index	Positive		Positive	
TIAA-CREF S&P 500 Index	Positive		Positive	
TIAA-CREF International Equity Index	Positive		Positive	
TIAA-CREF Emerging Markets Index	Positive		Positive	
TIAA-CREF Bond Index	Positive		Positive	
<b>T-C Life Funding Agreements</b>				
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 3/31/2015

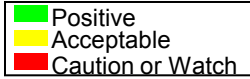
Funds	Assets (\$)	% of Total
<b>Active Funds</b>		
T. Rowe Price Instl Large Cap Growth	290,673,298	4.56%
T. Rowe Price Instl Large Cap Value	278,115,433	4.36%
TIAA-CREF Small Cap Equity	66,914,243	1.05%
TIAA-CREF Social Choice Equity	129,196,427	2.03%
TIAA-CREF Real Estate Securities	219,535,237	3.45%
DFA Large Cap International	218,290,266	3.43%
DFA Emerging Markets Core Equity	49,596,313	0.78%
TIAA-CREF Bond Plus	287,740,541	4.52%
PIMCO Real Return	104,911,691	1.65%
PIMCO Income	119,331,717	1.87%
TIAA-CREF Inflation-Linked Bond	249,842,589	3.92%
T. Rowe Price Instl Floating Rate	53,718,509	0.84%
TIAA-CREF High-Yield Bond	143,319,879	2.25%
<b>Active Funds Total</b>	<b>2,211,186,142</b>	<b>34.70%</b>
<b>Passive Funds</b>		
TIAA-CREF Equity Index	1,422,718,642	23.15%
TIAA-CREF S&P 500 Index	193,255,083	3.14%
TIAA-CREF International Equity Index	504,430,735	8.21%
TIAA-CREF Emerging Markets Index	101,474,186	1.65%
TIAA-CREF Bond Index	1,027,962,273	16.73%
<b>Passive Funds Total</b>	<b>3,358,859,067</b>	<b>52.71%</b>
<b>T-C Life Funding Agreements</b>		
T-C Life Funding Agreements	801,710,448	12.58%
<b>TOTAL</b>	<b>6,371,755,657</b>	<b>100.00%</b>

**SECTION 4**

**SENSITIVITY ANALYSES**

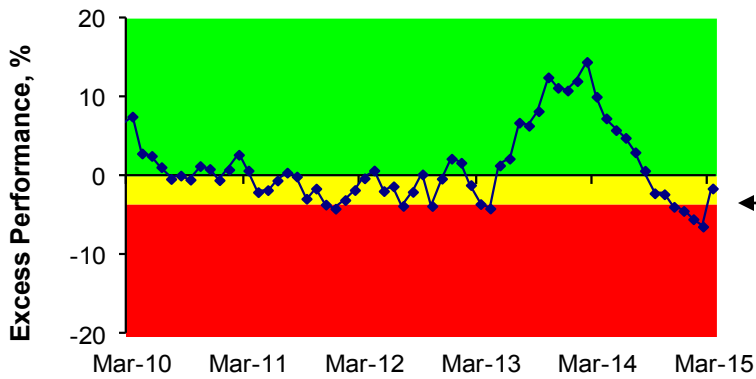
**ACTIVE FUNDS**

# T. ROWE PRICE INSTL. LARGE CAP GROWTH FUND



## Short-term

(Rolling 12-Month Excess Performance)

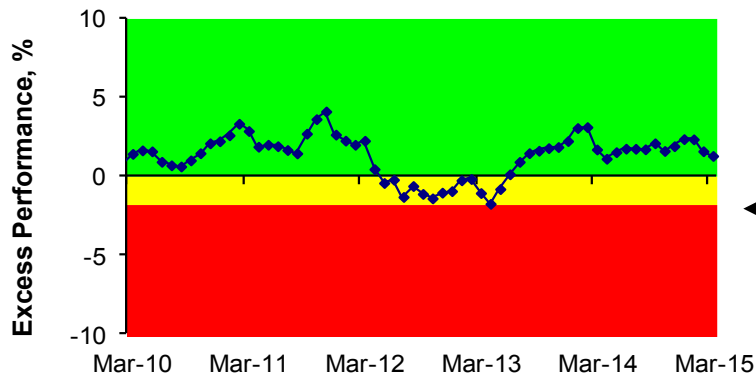


▪ Short-term performance climbed back into the Acceptable range

← probationary performance band -3.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance remained in the Positive range

← probationary performance band -1.75%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
T. Rowe Price Instl Large Cap Growth	14.61	17.69	16.55	22.13
Russell 1000 Growth TR	16.09	16.34	15.63	20.05
Peer Rank (Percentile)	36	8	7	5

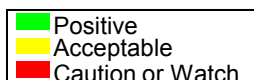
**Current Status**

**Acceptable**

Source: Morningstar Direct

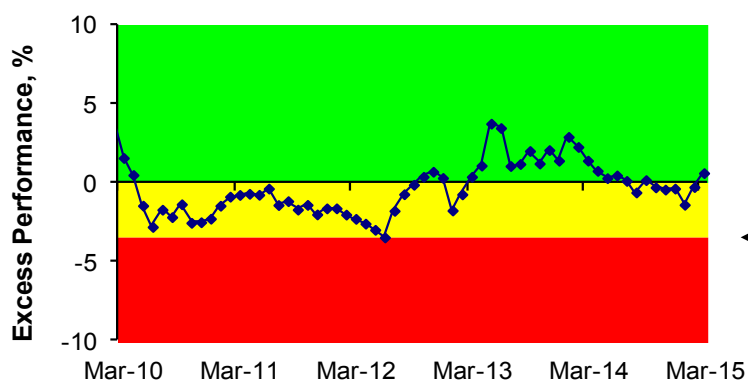
Peer Group = US OE Large Growth

# T. ROWE PRICE INSTL. LARGE CAP VALUE FUND



## Short-term

(Rolling 12-Month Excess Performance)

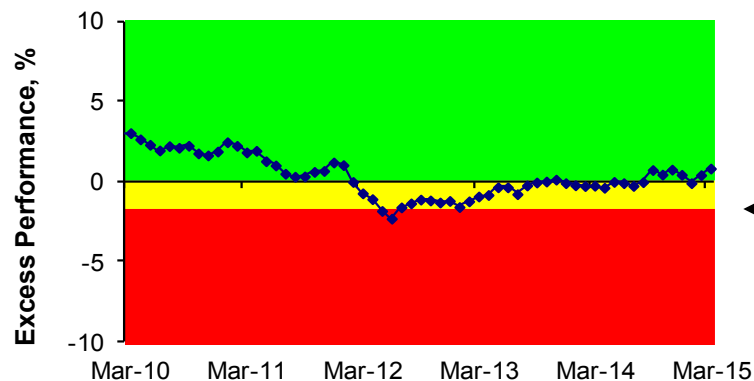


▪ Short-term performance ended the period in the Positive range

← probationary performance band -3.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance continued in the Positive range

← probationary performance band -1.75%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
T. Rowe Price Instl Large Cap Value	9.99	17.27	13.61	20.43
Russell 1000 Value TR	9.33	16.44	13.75	19.85
Peer Rank (Percentile)	22	8	20	10

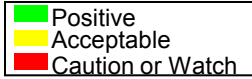
**Current Status**

**Positive**

Source: Morningstar Direct

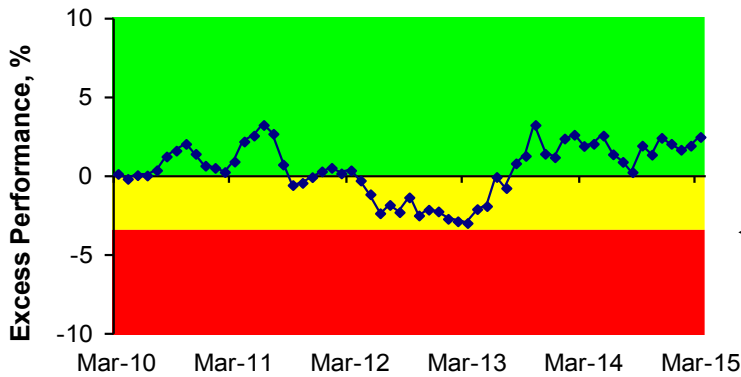
Peer Group = US OE Large Value

# TIAA-CREF SMALL CAP EQUITY FUND



## Short-term

(Rolling 12-Month Excess Performance)

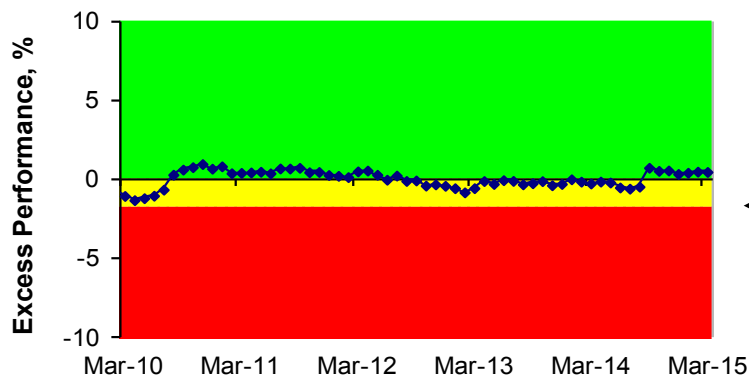


▪ Short-term performance remained in the Positive range

← probationary performance band -3.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance remained in the Positive range

← probationary performance band -1.75%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Small Cap Equity	10.67	16.70	15.06	20.09
Russell 2000 TR	8.21	16.27	14.57	19.58
Peer Rank (Percentile)	15	32	33	31

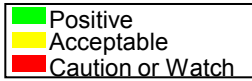
**Current Status**

**Positive**

Source: Morningstar Direct

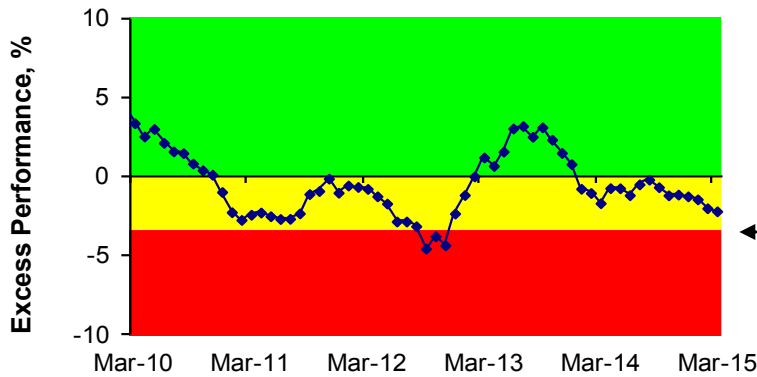
Peer Group = US OE Small Blend

# TIAA-CREF SOCIAL CHOICE EQUITY FUND



## Short-term

(Rolling 12-Month Excess Performance)

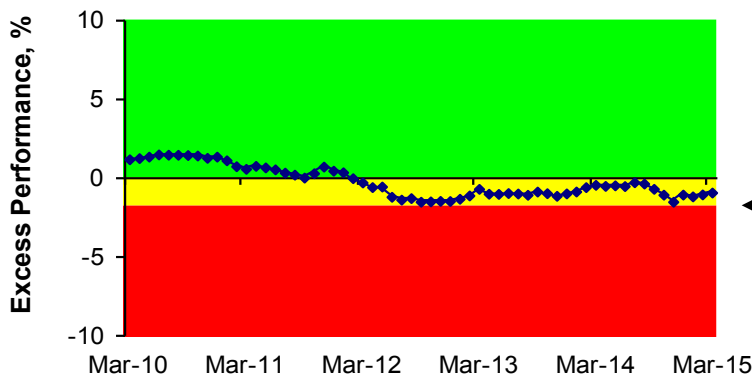


▪ Short-term performance remained in the Acceptable range

← probationary performance band -3.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance remained in the Acceptable range

← probationary performance band -1.75%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

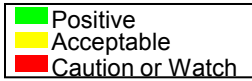
	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Social Choice Equity	10.12	15.50	13.50	18.29
Russell 3000 TR	12.37	16.43	14.71	19.97
Peer Rank (Percentile)	60	43	43	57

**Current Status**  
**Acceptable**

Source: Morningstar Direct

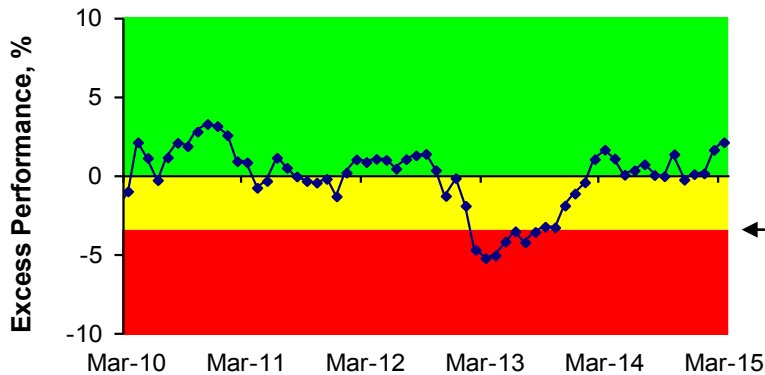
Peer Group = US OE Large Cap Blend

# TIAA-CREF REAL ESTATE SECURITIES FUND



## Short-term

(Rolling 12-Month Excess Performance)

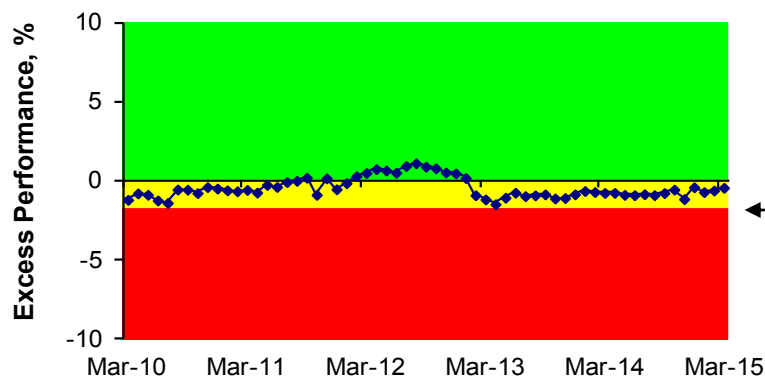


▪ Short-term performance ended the period in the Positive range

← probationary performance band -3.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance remained in the Acceptable range

← probationary performance band -1.75%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Real Estate Securites	24.80	13.56	15.63	17.54
FTSE NAREIT All Equity REITs TR	22.68	14.05	15.60	17.80
Peer Rank (Percentile)	26	33	27	28

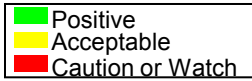
**Current Status**  
**Acceptable**

Source: Morningstar Direct

Peer Group = US OE Real Estate

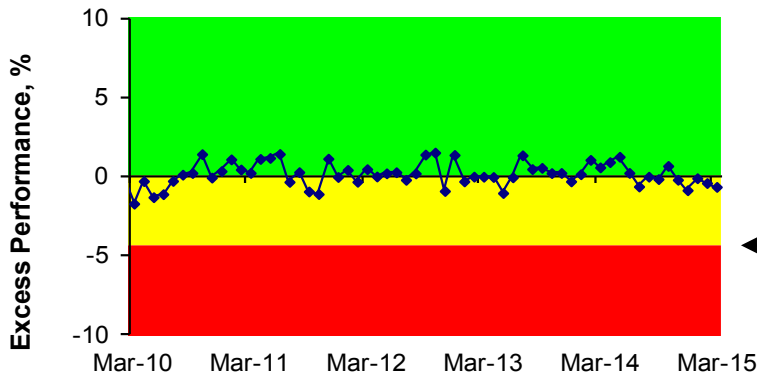


# DFA LARGE CAP INTERNATIONAL PORTFOLIO



## Short-term

(Rolling 12-Month Excess Performance)

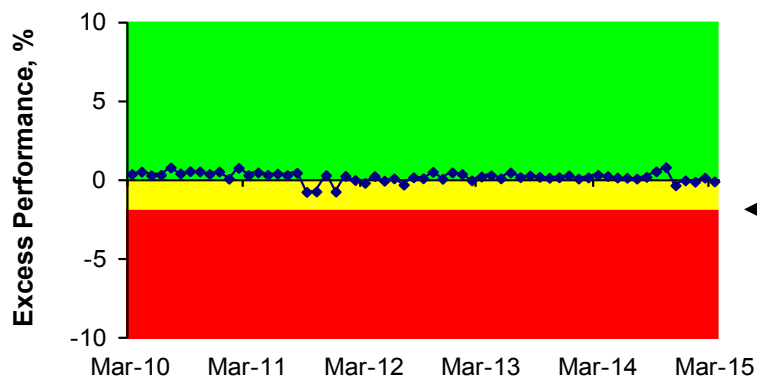


▪ Short-term performance continued in the Acceptable range

← probationary performance band -4.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance remained near the Positive range

← probationary performance band -2.0%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

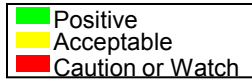
	1 Year	3 Year	5 Year	Program Inc. (11/2011)
DFA Large Cap International	-2.09	8.14	5.80	10.94
MSCI World ex US NR USD	-1.39	8.24	5.72	10.86
Peer Rank (Percentile)	73	49	53	47

**Current Status**  
**Acceptable**

Source: Morningstar Direct

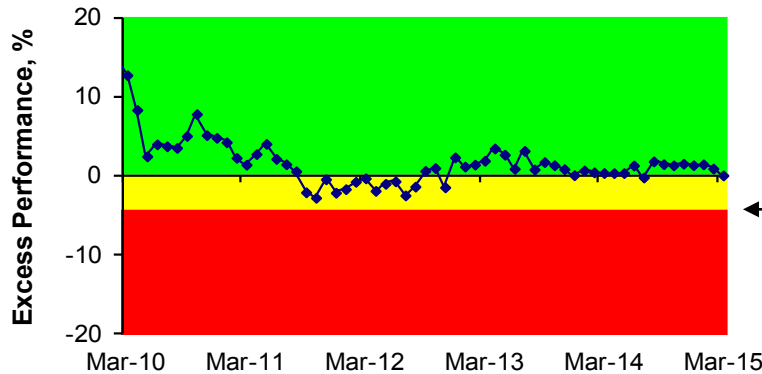
Peer Group = US OE Foreign Large Blend

# DFA EMERGING MARKETS CORE EQUITY PORTFOLIO



## Short-term

(Rolling 12-Month Excess Performance)

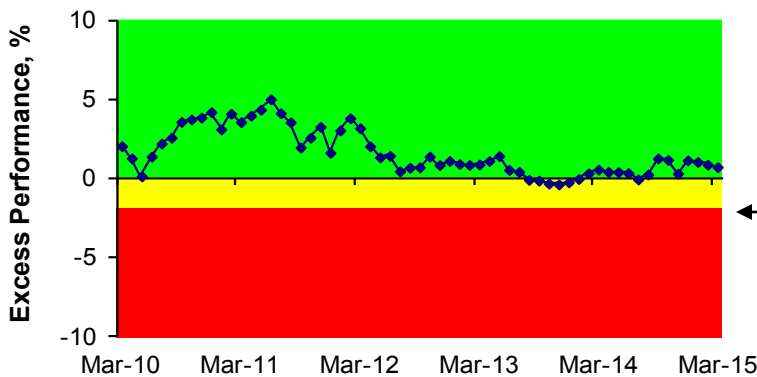


▪ Short-term performance ended the period on the edge of the Acceptable range

← probationary performance band -4.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance continued in the Positive range

← probationary performance band -2.0%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

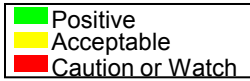
	1 Year	3 Year	5 Year	Program Inc. (11/2011)
DFA Emerging Markets Core Equity	0.40	0.98	2.29	4.53
MSCI EM NR USD	0.44	0.31	1.75	3.73
Peer Rank (Percentile)	36	40	36	37

**Current Status**  
**Positive**

Source: Morningstar Direct

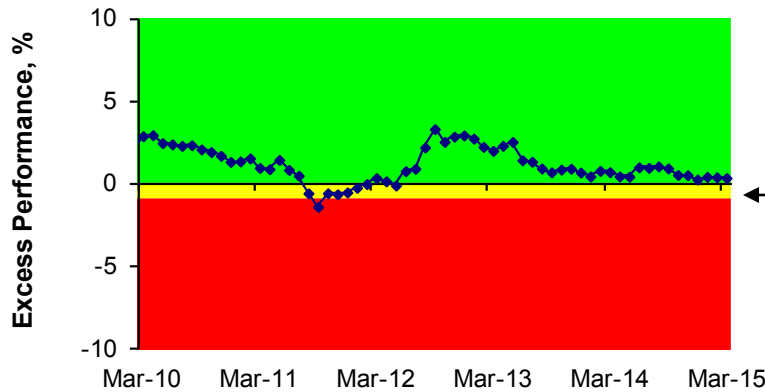
Peer Group = US OE Diversified Emerging Markets

# TIAA-CREF BOND PLUS FUND



## Short-term

(Rolling 12-Month Excess Performance)

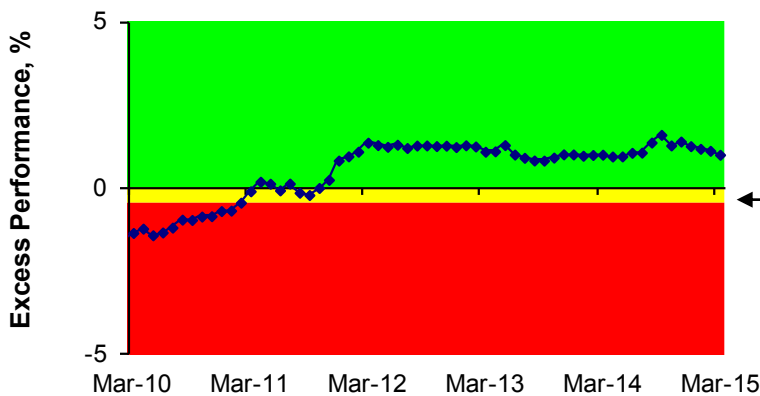


▪ Short-term performance was within the Positive range

← probationary performance band -1.0%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance was within the Positive range

← probationary performance band -0.5%

▪ Long-term criteria to take effect 4Q 2019

### Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (10/2014)
TIAA-CREF Bond Plus Institutional	5.66	4.49	5.60	2.53
BarCap US Universal TR	5.33	3.49	4.75	2.21
Peer Rank (Percentile)	22	16	16	16

**Current Status**

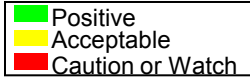
**Positive**

Source: Morningstar Direct

Peer Group = US OE Intermediate-Term Bond

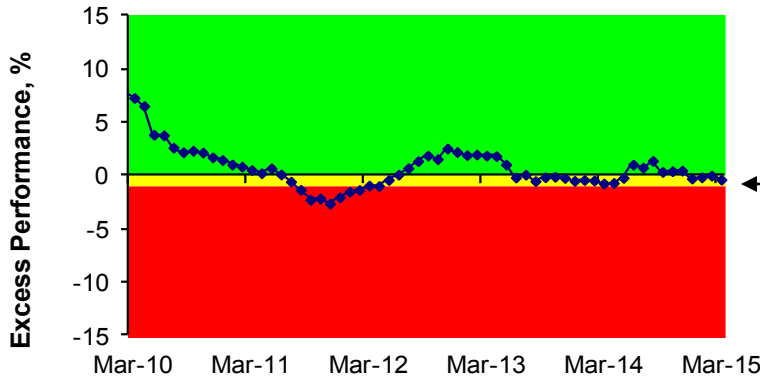
# PIMCO REAL RETURN FUND

\* On "Watch" due to organizational concerns



## Short-term

(Rolling 12-Month Excess Performance)

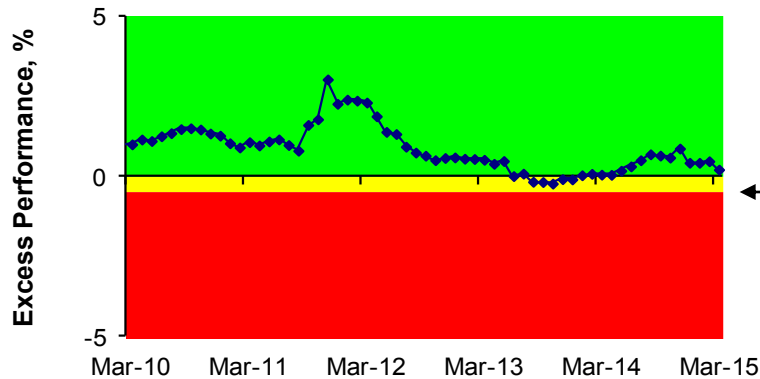


▪ Short-term performance slid into the Acceptable range

← probationary performance band -1.0%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance continued in the Positive range

← probationary performance band -0.5%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
PIMCO Real Return Institutional	2.77	0.89	4.39	1.45
BarCap US Treasury US TIPS TR	3.11	0.63	4.29	0.94
Peer Rank (Percentile)	20	2	3	2

**Current Status**

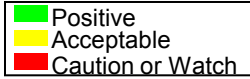
**Positive**

Source: Morningstar Direct

Peer Group = US OE Inflation-Protected Bond

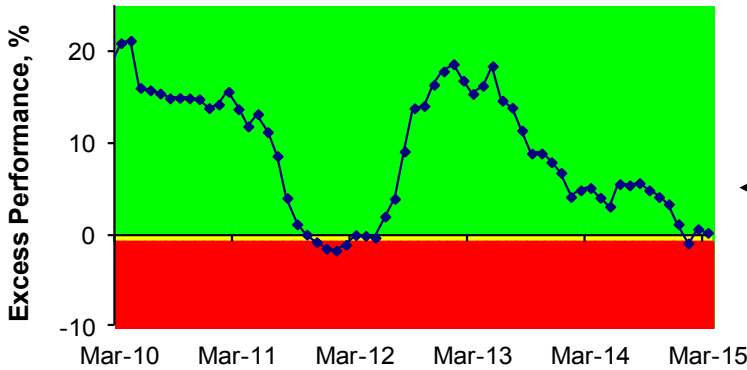
# PIMCO INCOME FUND

\* On "Watch" due to organizational concerns



## Short-term

(Rolling 12-Month Excess Performance)

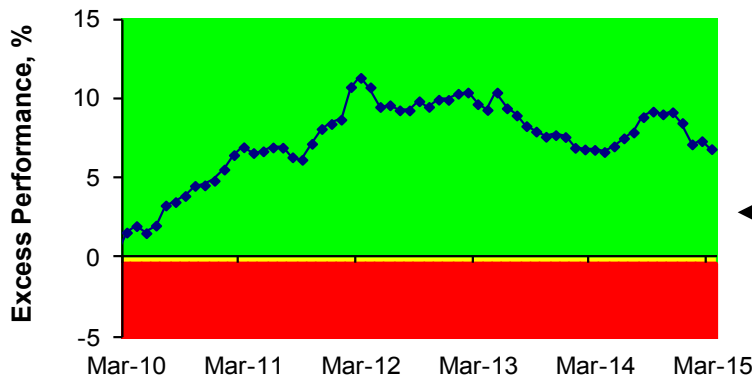


- Short-term performance ended the period in the Positive range

← probationary performance band -1.0%

## Medium-term

(Rolling 36-Month Excess Performance)



- Medium-term performance remained in the Positive range

← probationary performance band -0.5%

- Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
PIMCO Income Institutional	5.99	9.93	11.22	10.88
BC US Aggregate Bond TR	5.72	3.10	4.41	3.12
Peer Rank (Percentile)	5	1	1	1

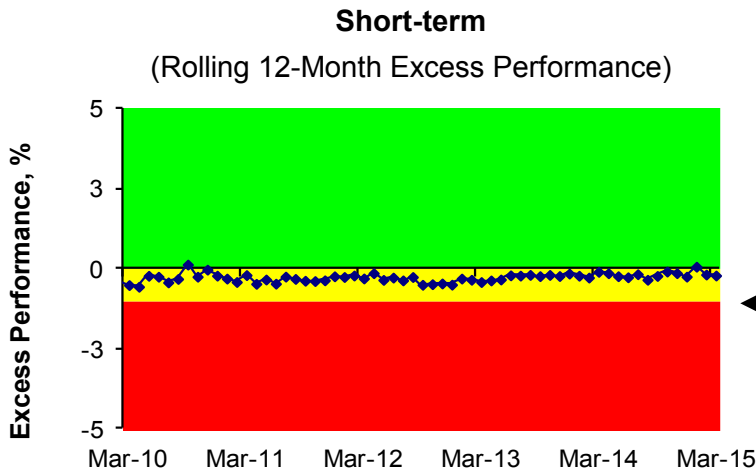
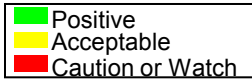
**Current Status**

**Positive**

Source: Morningstar Direct

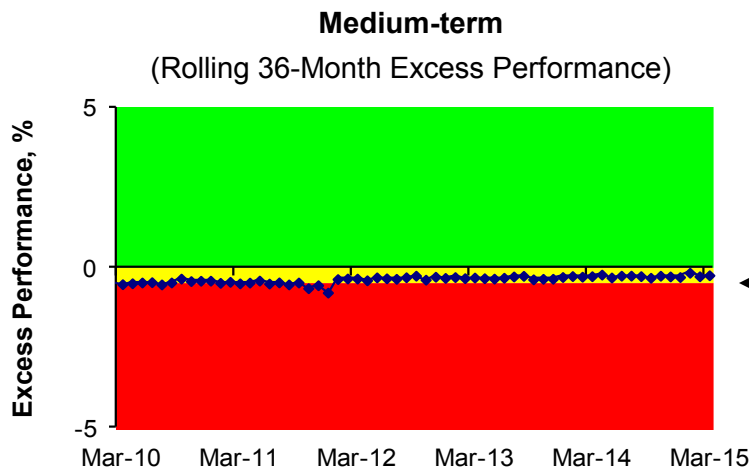
Peer Group = US OE Multisector Bond

# TIAA-CREF INFLATION-LINKED BOND FUND



▪ Short-term performance continued in the Acceptable range

← probationary performance band -1.0%



▪ Medium-term performance remained in the Acceptable range

← probationary performance band -0.5%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

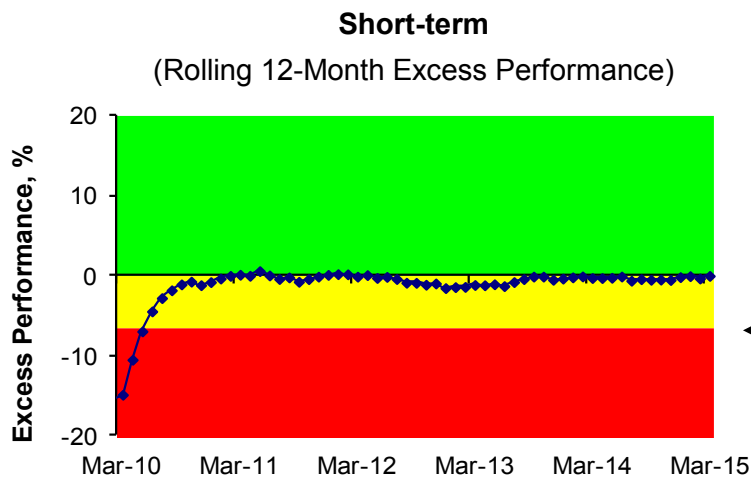
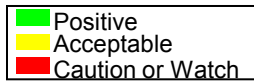
	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Inflation-Linked Bond	2.92	0.42	4.07	0.70
BarCap US Treasury US TIPS TR	3.11	0.63	4.29	0.94
Peer Rank (Percentile)	18	18	12	26

**Current Status**  
**Acceptable**

Source: Morningstar Direct

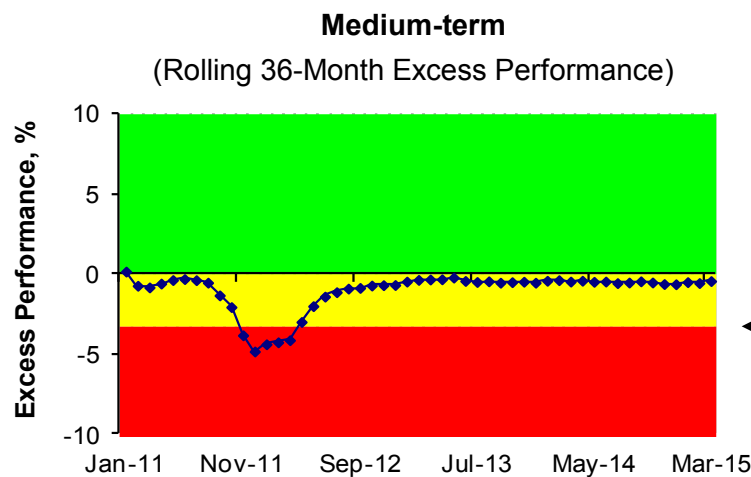
Peer Group = US OE Inflation-Protected Bond

# T. ROWE PRICE INSTL. FLOATING RATE FUND



- Short-term performance ended the period on the edge of the Positive range

← probationary performance band -6.5%



- Medium-term performance remained in the Acceptable range

← probationary performance band -3.25%

- Long-term criteria to take effect 4Q 2016

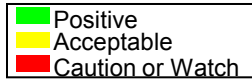
## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
T. Rowe Price Instl Floating Rate	3.08	4.70	5.01	5.31
S&P/LSTA Performing Loan TR	3.02	5.10	5.22	5.71
Peer Rank (Percentile)	4	27	32	33

**Current Status**  
**Acceptable**

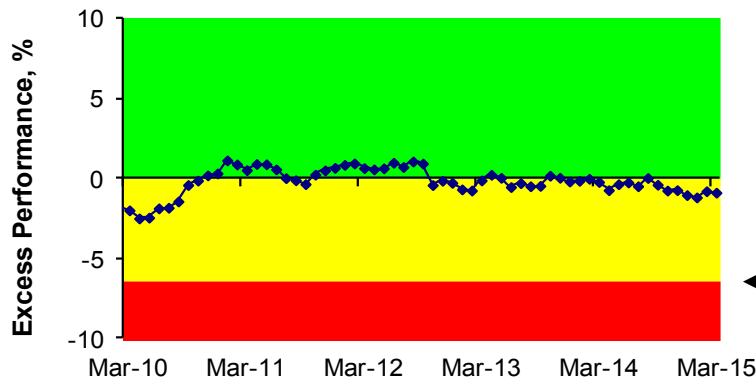
Source: Morningstar Direct Peer Group = US OE Bank Loan

# TIAA-CREF HIGH YIELD BOND FUND



## Short-term

(Rolling 12-Month Excess Performance)

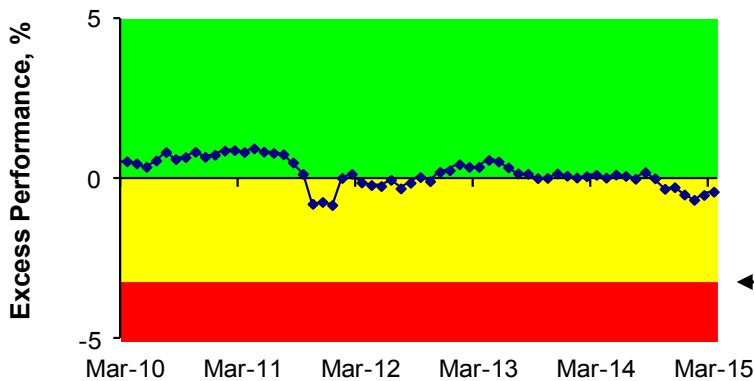


▪ Short-term performance continued in the Acceptable range

← probationary performance band -6.5%

## Medium-term

(Rolling 36-Month Excess Performance)



▪ Medium-term performance continued in the Acceptable range

← probationary performance band -3.25%

▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF High Yield	2.33	7.03	8.40	8.30
BofA ML US HY C Pay BB-B Constd TR	3.17	7.41	8.38	8.54
Peer Rank (Percentile)	21	26	17	40

**Current Status**  
**Acceptable**

Source: Morningstar Direct

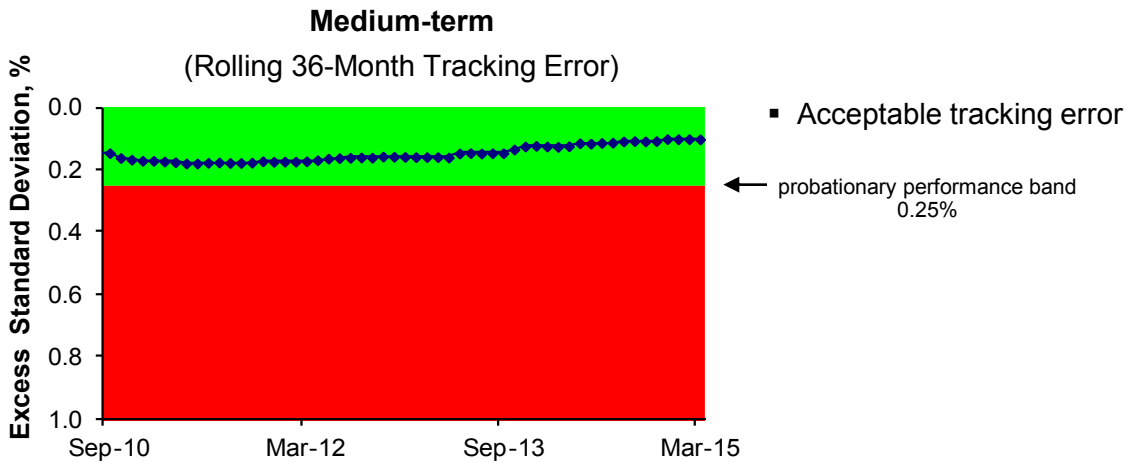
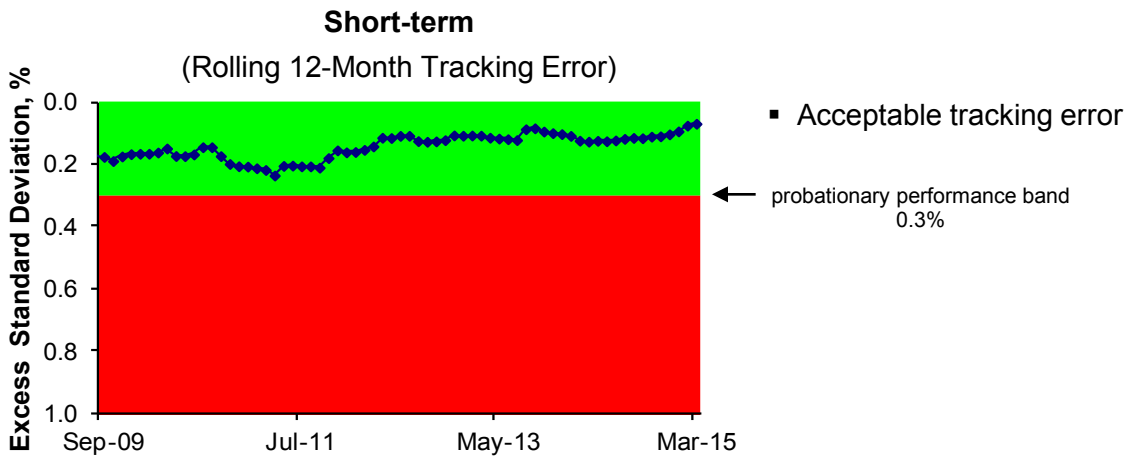
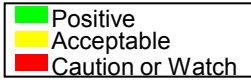
Peer Group = US OE High Yield Bond



## SENSITIVITY ANALYSES

## PASSIVE FUNDS

# TIAA-CREF EQUITY INDEX FUND



▪ Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

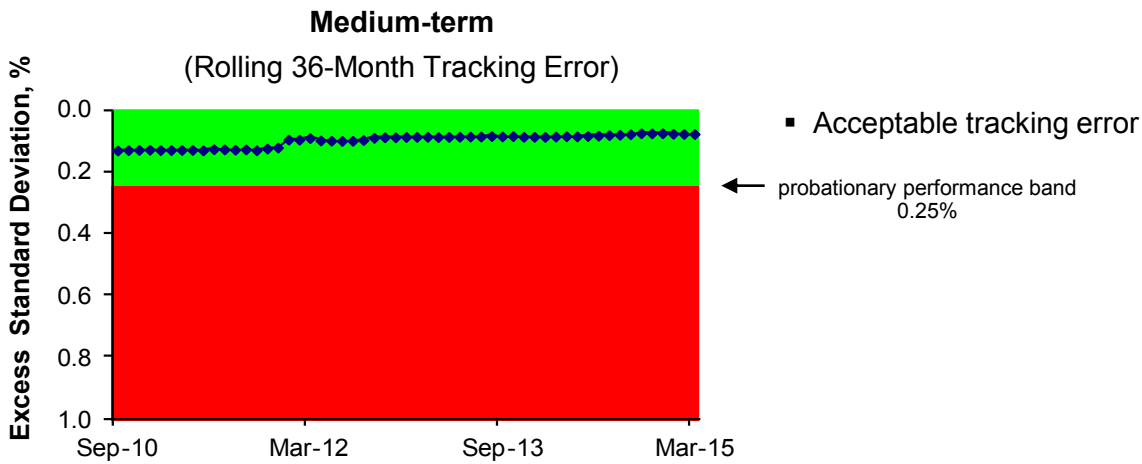
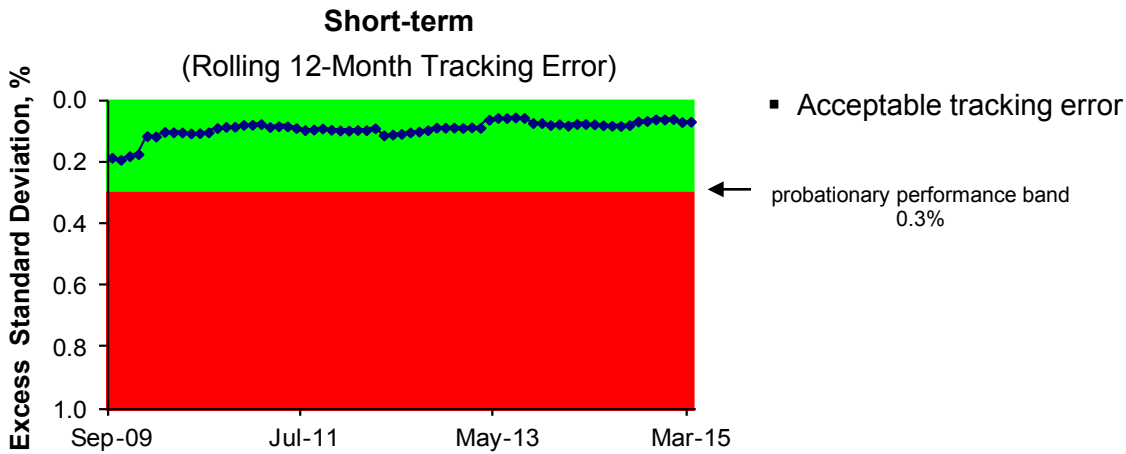
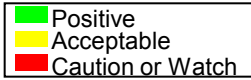
	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Equity Index	12.33	16.38	14.67	19.90
Russell 3000 TR	12.37	16.43	14.71	19.97
Peer Rank (Percentile)	28	24	16	25

**Current Status**  
**Positive**

Source: Morningstar Direct

Peer Group = US OE Large Blend

# TIAA-CREF S&P 500 INDEX FUND



- Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF S&P 500 Index	12.62	16.03	14.36	19.55
S&P 500 Index TR	12.73	16.11	14.47	19.66
Peer Rank (Percentile)	21	30	22	31

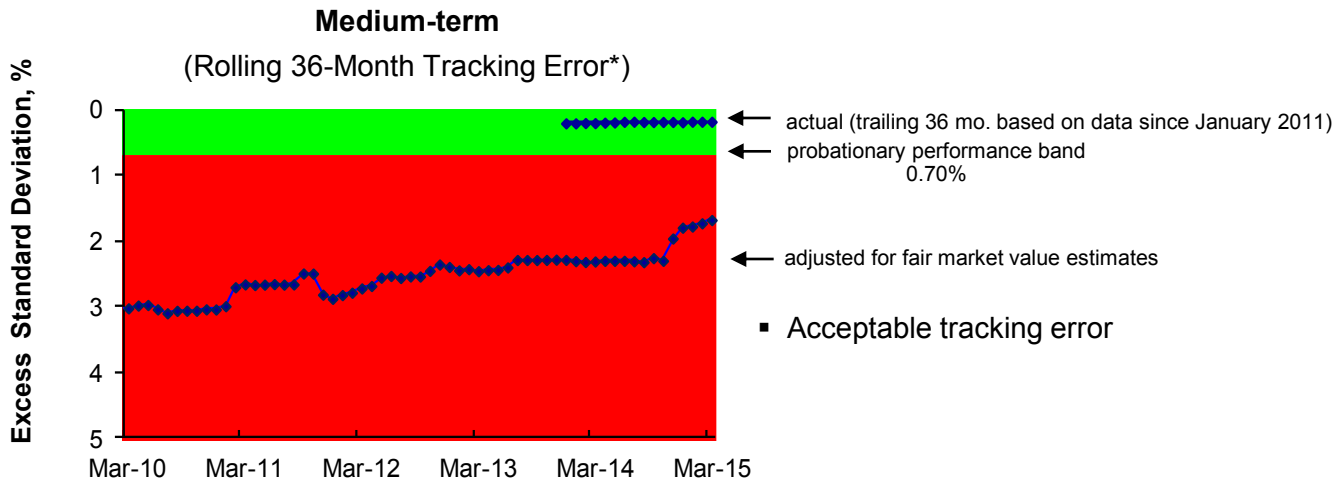
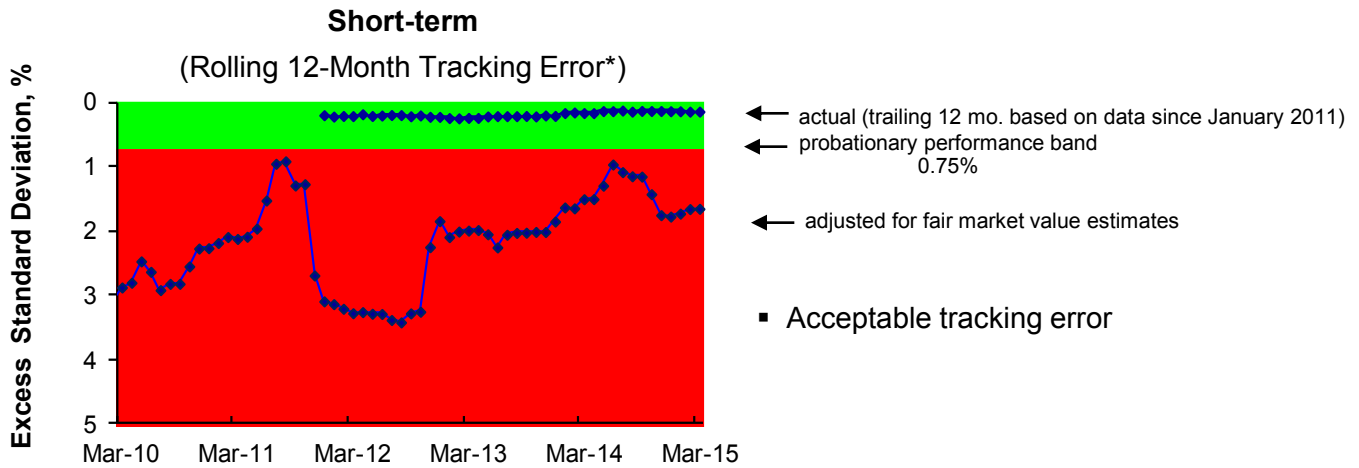
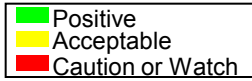
**Current Status**

**Positive**

Source: Morningstar Direct

Peer Group = US OE Large Blend

# TIAA-CREF INTERNATIONAL EQUITY INDEX FUND



▪ Long-term criteria to take effect 4Q 2016

\*Increased tracking error is due primarily to the Fund's "fair market value" adjustment procedures, which increases or decreases the Fund's actual closing price to compensate for pricing differences between international markets. This results in increased tracking error during periods of high volatility.

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF International Equity Index	-1.03	9.07	6.30	11.89
MSCI EAFE Index NR	-0.92	9.02	6.16	11.71
Peer Rank (Percentile)	48	28	38	29

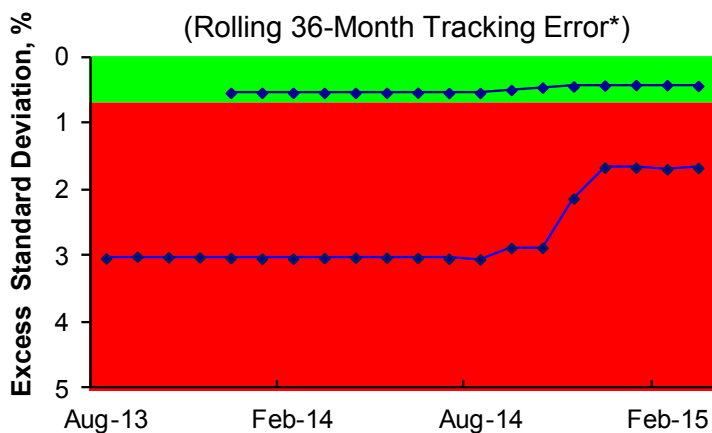
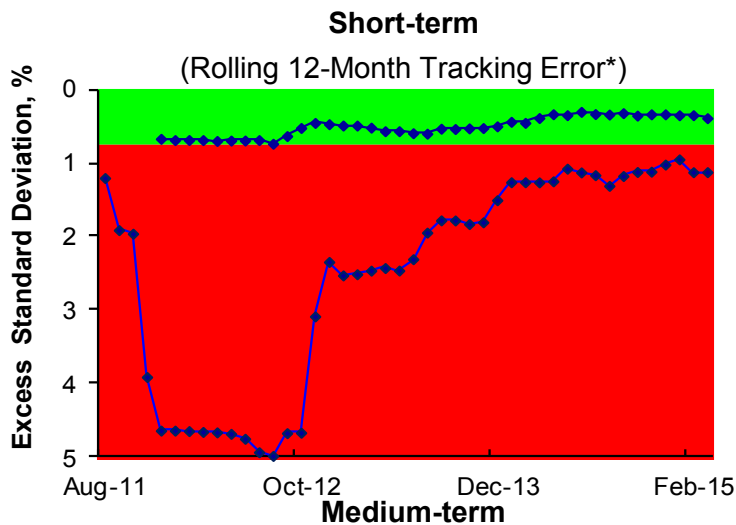
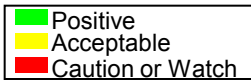
**Current Status**

**Positive**

Source: Morningstar Direct

Peer Group = US OE Foreign Large Blend

# TIAA-CREF EMERGING MARKETS EQUITY INDEX FUND



▪ Long-term criteria to take effect 4Q 2016

\*Increased tracking error is due primarily to the Fund's "fair market value" adjustment procedures, which increases or decreases the Fund's actual closing price to compensate for pricing differences between international markets. This results in increased tracking error during periods of high volatility.

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Emerging Markets Equity Index	0.12	-0.05	---	3.38
MSCI EM NR USD	0.44	0.31	---	3.73
Peer Rank (Percentile)	39	56	---	56

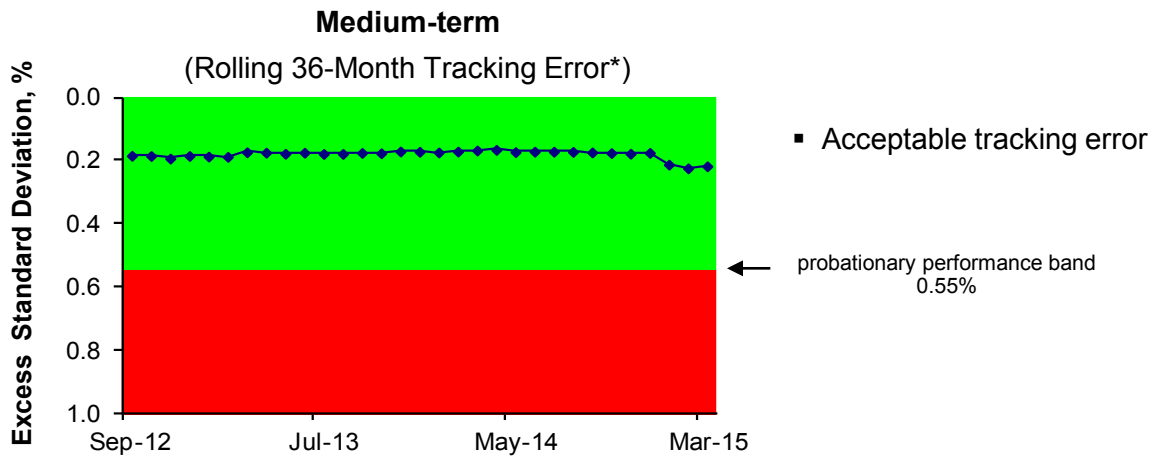
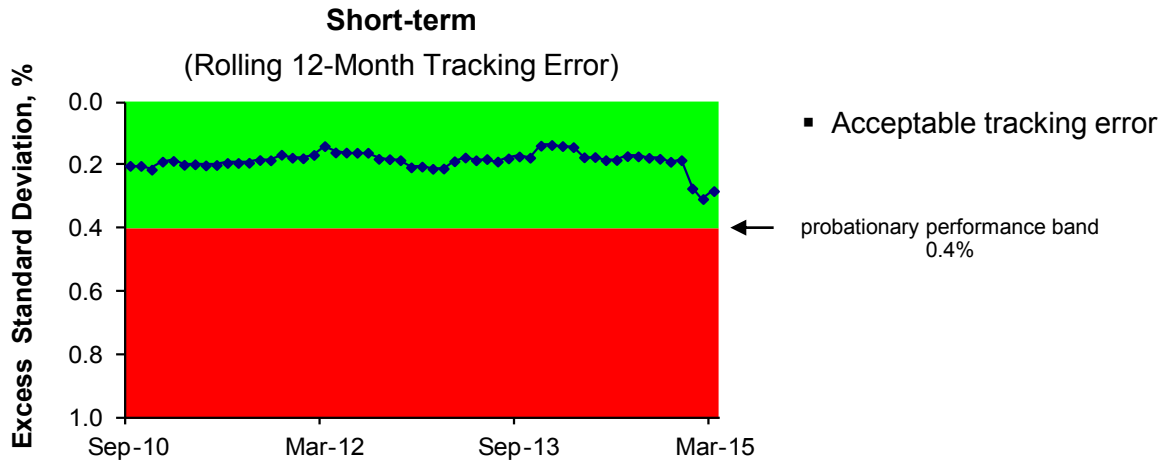
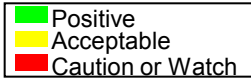
**Current Status**

**Positive**

Source: Morningstar Direct

Peer Group = US OE Diversified Emerging Markets

# TIAA-CREF BOND INDEX FUND



Long-term criteria to take effect 4Q 2016

## Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF Bond Index	5.73	2.92	4.27	2.96
BC US Aggregate Bond TR	5.72	3.10	4.41	3.12
Peer Rank (Percentile)	19	71	67	77

Source: Morningstar Direct

Peer Group = US OE Intermediate-Term Bond

**Current Status**

**Positive**

## T-C LIFE FUNDING AGREEMENTS

# T-C LIFE FUNDING AGREEMENTS

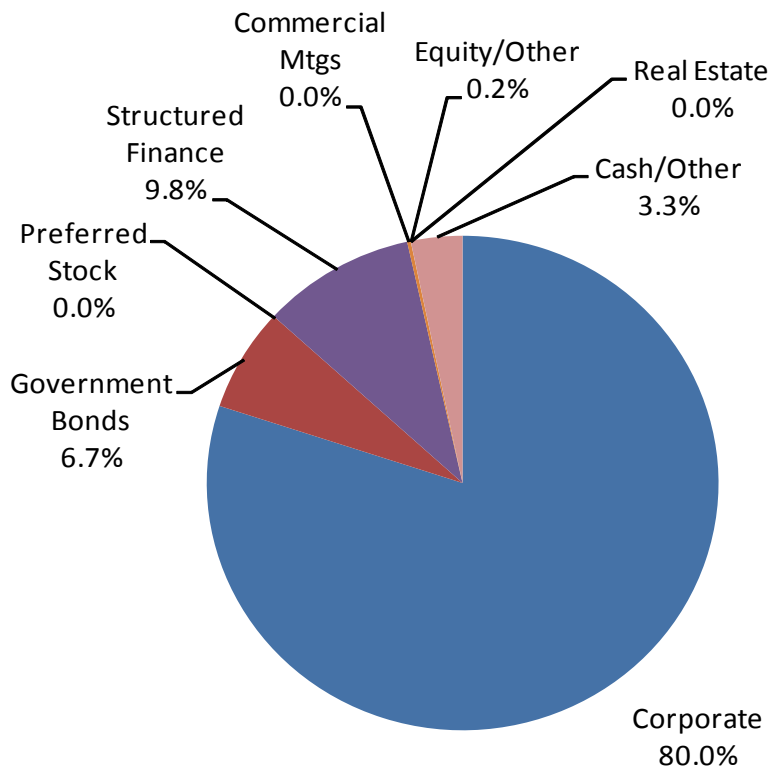
(based on non investment performance criteria)

Criteria	Status as of 3/31/2015	Status as of 12/31/2014	Status as of 9/30/2014	Status as of 6/30/2014
<b>Financial Strength</b>	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 = Aaa Standard & Poor's = AA+ A.M. Best = A++ Fitch = AAA
<b>Mortgage Portfolio</b>	100% in Good Standing*	100% in Good Standing*	100% in Good Standing*	100% in Good Standing*
<b>Bond Portfolio</b>	98.40% in Investment Grade (at least 90%)	98.40% in Investment Grade (at least 90%)	98.33% in Investment Grade (at least 90%)	98.30% in Investment Grade (at least 90%)
<b>Account Diversification</b>	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



**Current 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	---	---	N/A
T. Rowe Price Instl Large Cap Value	No	---	---	N/A
TIAA-CREF Small Cap Equity	No	---	---	N/A
TIAA-CREF Social Choice Equity	No	---	---	N/A
TIAA-CREF Real Estate Securities	No	---	---	N/A
DFA Large Cap International	No	---	---	N/A
DFA Emerging Markets Core Equity	No	---	---	N/A
TIAA-CREF Bond Plus	No	---	---	N/A
PIMCO Real Return	Yes - Org.	---	---	N/A
PIMCO Income	Yes - Org.	---	---	N/A
TIAA-CREF Inflation-Linked Bond	No	---	---	N/A
T. Rowe Price Instl Floating Rate	No	---	---	N/A
TIAA-CREF High Yield Bond	No	---	---	N/A
TIAA-CREF Equity Index	No	---	---	N/A
TIAA-CREF S&P 500 Index	No	---	---	N/A
TIAA-CREF International Eq Index	No	---	---	N/A
TIAA-CREF Emerging Markets Eq Index	No	---	---	N/A
TIAA-CREF Bond Index	No	---	---	N/A
T-C Life Funding Agreements	No	---	---	N/A
Total	2 of 19	0 of 18 eligible portfolios	0 of 18 eligible portfolios	0 of 0 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
- The following funds remain on “Watch” status for organizational concerns:
  - PIMCO Real Return
  - PIMCO Income

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

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**Date:** May 14, 2015  
**To:** ScholarShare Investment Board (SIB)  
**From:** Pension Consulting Alliance, Inc. (PCA)  
**CC:** Allan Emkin – PCA; Eric White, CFA – PCA; Kay Ceserani – PCA  
**RE: Review of Underlying Funds Qualifying for “Watch” Status**

**Summary**

PCA 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, 2015 through March 31, 2015. At the end of the period, **two funds remain on “Watch” status and no new funds qualify for “Watch” status.** PCA recommends the two funds identified in the table below remain on “Watch” status. Each of these funds is discussed in more detail on the following pages.

**Performance of Funds on Watch Status  
As of 3/31/2015**

Funds on Watch Status	Plan Assets (\$mil)	Board Action Date	Watch Status Start Date	Number of Months Since Watch Began	Excess Perf. Since Watch Began
PIMCO Income Fund	\$119.3	10/02/2014	10/01/2014	6	-1.58%
PIMCO Real Return Fund	\$104.9	10/02/2014	10/01/2014	6	-0.57%

**Background**

At the October 2, 2014 Board meeting, the Board approved the recommendation to place the following three funds on “Watch” status to be closely monitored due to material organizational changes: i) PIMCO Total Return Fund, ii) PIMCO Income Fund, and iii) PIMCO Real Return Fund. The Board also authorized the Executive Director of SIB to take necessary action, with the recommendation of PCA and TIAA-CREF Tuition Financing, Inc. (TFI), to remove any or all of the three PIMCO funds for replacement by actively-managed bond fund(s) with comparable risk return characteristics. On October, 10, 2014, in accordance with the *ScholarShare Monitoring Procedures and Criteria* and upon recommendation of PCA and TFI, assets were transferred from the PIMCO Total Return Fund to the TIAA-CREF Bond Plus Fund. With that fund replacement completed, the remaining two funds on “Watch” status include the PIMCO Income Fund and the PIMCO Real Return Fund.

## **New Funds Qualifying for “Watch” Status**

PCA has conducted a review of the underlying funds in the ScholarShare College Savings Plan (see also the 1Q2015 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**

### **PIMCO Income Fund**

The Fund was placed on “Watch” status for organizational concerns upon the departure of the firm’s CIO and founder, Bill Gross, in September 2014.

### *Investment Role in Program*

The fund is a portfolio of a broad range of intermediate-duration bonds that is actively managed to maximize current income while maintaining a relatively low risk profile, with a secondary goal of capital appreciation. The strategy utilizes multiple sectors of the bond market in an effort to generate a competitive and consistent distribution yield and monthly dividend. Managed to pursue efficient income generation, the strategy also focuses on PIMCO total-return ideas in an effort to maximize capital appreciation and risk-adjusted returns relative to its peers. This approach seeks to provide consistent income over the long term.

### *History and Organizational Structure*

PIMCO (Pacific Investment Management Company) was founded in 1971 and started as a subsidiary of Pacific Life Insurance Company to manage separate accounts for institutional clients. In 2000, PIMCO was acquired by AllianzSE, a large global financial services company based in Germany, and PIMCO currently operates as a separate and autonomous subsidiary of Allianz. PIMCO is currently one of the world’s largest fixed income managers with offices around the globe.

### *Investment Team*

Daniel Ivascyn has been the lead portfolio manager of the fund since its inception in 2007. Mr. Ivascyn was named Group Chief Investment Officer in October 2014 upon the departure of firm’s former CIO and founder, Bill Gross. He is also the head of the mortgage credit portfolio management team and a lead portfolio manager for PIMCO’s credit hedge fund and mortgage opportunistic strategies. Mr. Ivascyn is a member of PIMCO’s Executive Committee and a member of the Investment Committee. Morningstar named him Fixed-Income Fund Manager of the Year (U.S.) for 2013.

Mr. Ivascyn is supported by Alfred Murata who has been co-portfolio manager on the fund since March 2013. Mr. Murata joined PIMCO in 2001. With Mr. Ivascyn, Morningstar named Mr. Murata Fixed-Income Fund Manager of the Year (U.S.) for 2013.

### *Investment Philosophy and Approach*

PIMCO’s investment philosophy for the Income strategy revolves around the principle of diversification. By diversifying strategies, or relying on multiple sources of value, they are confident that they will be able to generate a solid track record with a high degree of consistency. They seek to add value through the use of “top-down” strategies such as exposure to interest rates, or duration, changing volatility, yield curve positioning and sector rotation. These strategies are deployed from a macro view of the portfolio that are driven by PIMCO’s secular outlook of the forces likely to influence the economy and financial markets over the next

three to five years and their cyclical views of two-to-four quarter trends. “Bottom-up” strategies drive PIMCO’s security-selection process and help identify and analyze undervalued securities and securities that pay high income. Here, they employ advanced proprietary analytics and expertise in all major fixed-income sectors. By combining perspectives from both the portfolio and security levels, they attempt to add value consistently over time within acceptable levels of portfolio risk.

PIMCO’s investment process starts with an annual Secular Forum at which their investment professionals from around the globe gather with industry experts for a discussion about the future of the global economy and financial markets. The goal of this Forum is to look beyond the current business cycle and determine how secular forces will play out over the next three to five years. Quarterly, PIMCO holds Economic Forums to evaluate growth and inflation over the next six to nine months.

Following the Secular and Economic Forums, the Investment Committee, comprised of senior portfolio managers as well as PIMCO’s Chief Economist and headed by PIMCO’s Group Chief Investment Officer and CIOs, develops key portfolio strategies. They consider both the “top-down” conclusions emanating from the Forum, as well as the “bottom-up” market intelligence provided by teams of sector specialist portfolio managers. Through an interactive series of meetings, the Investment Committee defines a set of consistent strategies that are then implemented across all PIMCO strategies.

Portfolios are then continuously monitored for adherence to the current model portfolio structure, and historical measures such as volatility (close to benchmark) and tracking error (moderate) affirm PIMCO’s adherence to a diversified, moderate risk style.

Buy and sell decisions are executed in order to optimize the risk/return and the relative value characteristics of the portfolio. PIMCO does not employ automated or mechanical selling procedures. Securities are sold when the credit analysis indicates that a company or a particular issue will become fundamentally flawed. Current holdings are constantly re-evaluated for their relative attractiveness versus investments available in the marketplace. Securities are sold when they individually no longer represent good value, when superior risk/return potential exists in substitute positions (factoring in transaction costs), or when they no longer fit with the macroeconomic or structural strategies in the portfolio.

### *Performance*

Since being placed on “Watch” status in October 2014, the PIMCO Income Fund fund has trailed its benchmark, the Barclays US Aggregate Bond Index, by (1.58%) and ranked in the 27<sup>th</sup> percentile versus its peers in the Multisector Bond category. The PIMCO Income Fund outperformed the benchmark over the recent quarter as the portfolio’s currency positioning, sovereign exposure in Australia and the eurozone, and an underweight in agency mortgage-backed securities were contributory to the period’s performance. The portfolio outperformed the benchmark by 0.27% over the 1-year period and 6.83% over the 3-year period; these results ranked in the 5<sup>th</sup> and 1<sup>st</sup> percentile versus peers, respectively. Performance results are within acceptable limits as per the Program’s *Monitoring Procedures and Criteria*.

### *Recommendation*

At this time **PCA recommends that the PIMCO Income Fund remain on “Watch” status.**

### PIMCO Real Return Fund

The Fund was placed on "Watch" status for organizational concerns upon the departure of the firm's CIO and founder, Bill Gross, in September 2014.

#### *Investment Role in Program*

The fund is an actively managed strategy that provides investors exposure to US Treasury Inflation Protected Securities (TIPS). The fund seeks to provide high correlation to the broad TIPS market and consistently outperform the benchmark by leveraging PIMCO's disciplined investment process, global investment team, and focus on risk management.

#### *History and Organizational Structure*

PIMCO (Pacific Investment Management Company) was founded in 1971 and started as a subsidiary of Pacific Life Insurance Company to manage separate accounts for institutional clients. In 2000, PIMCO was acquired by AllianzSE, a large global financial services company based in Germany, and PIMCO currently operates as a separate and autonomous subsidiary of Allianz. PIMCO is currently one of the world's largest fixed income managers with offices around the globe.

#### *Investment Team*

Mihir Worah, Managing Director and CIO of Real Return and Asset Allocation, has been the lead portfolio manager of the fund since December 2007. Mr. Worah also serves as the head of the real return and multi-asset portfolio management teams. In January 2015, PIMCO announced Jeramie Banet was added as a co-Portfolio Manager to the Real Return fund. Mr. Banet first joined PIMCO in 2011 and re-joined the firm in 2014.

The Real Return portfolio management team is responsible for adapting the firm's "top-down" views into TIPS portfolios and further incorporates TIPS-specific "bottom-up" views to create a well-diversified portfolio.

#### *Investment Philosophy and Approach*

PIMCO's Real Return investment philosophy is centered on the goal of delivering the strategic characteristics of the TIPS asset class in a way that enhances total real returns. The TIPS market provides a robust opportunity set to add active alpha, and PIMCO's long-term track record is reflective of this. To accomplish the dual goals of providing exposure to the TIPS asset class and delivering active excess returns, the firm's Real Return investment philosophy is based on the following four key points:

- 1) Look to obtain the most cost efficient exposure to the TIPS market. PIMCO seeks better execution than rules-based, price indifferent passive investors. The firm also seeks to intelligently manage portfolio exposures around recurring structural factors that affect the TIPS market, such as index rebalancing and auctions.
- 2) Benefit from a diversified set of "top-down" and "bottom-up" strategies. PIMCO seeks to position TIPS portfolios to benefit from changing "top-down" macroeconomic conditions, such as global rates of growth and inflation, and from a range of "bottom-up" strategies, which relate to inflation and issue specific opportunities unique to the TIPS market.
- 3) Quantify and actively monitor all active positions. The excess return potential of each active position is weighed against its potential risk and scaled accordingly, so as to preserve the strategic characteristics of the TIPS asset class while enhancing investors' real return potential.



4) Provide index-like characteristics with above-index returns. Portfolio returns should exhibit high correlation to the TIPS index with a higher level of returns.

PIMCO's investment process is oriented to identify and implement global macro "top-down" opportunities and complement that with TIPS specific "bottom-up" strategies to create a well-diversified portfolio around a core strategic position in dedicated TIPS exposure. The firm's "top-down" views are driven by quarterly economic forums. Annually, all PIMCO investment professionals gather for a secular forum, in which they identify forces that are likely to affect US and world economies and financial markets over a three to five year horizon. During the other three quarterly intervals, PIMCO investment professionals convene for cyclical forums, in which they identify shorter-term economic forces that are likely to prevail over a three to twelve month horizon. The conclusions of these forums are further refined by the Portfolio Management group during an all-day "strategy meeting", in which each specialty desk contributes more detailed sector views. PIMCO's Investment Committee ultimately distills these views into a "model portfolio" that provides a risk position framework that can be adapted by each specialty portfolio manager. This model portfolio provides guidance with respect to duration, curve, country, sector, volatility and currency positioning.

PIMCO does not have any systematic selling procedures. Securities are sold subject to portfolio manager discretion, while keeping portfolios directionally consistent with the Investment Committee's "model portfolio" themes. Current holdings are constantly re-evaluated for their relative attractiveness versus investments available in the marketplace. The expected length of an active "top down" position is generally consistent with the three to twelve month time horizon of the firm's cyclical views. "Bottom up" strategies, which are more micro in nature, may have a shorter expected payoff horizon.

#### *Performance*

Since being placed on "Watch" status in October 2014, the PIMCO Real Return fund has trailed its benchmark, the Barclays US Treasury US TIPS Index, by (57) basis points and ranked in the 44<sup>th</sup> percentile versus its peers in the Inflation-Protected Bond category. Relative outperformance over the recent quarter was aided by the portfolio's currency positioning, exposure to Italian inflation-linked bonds and Spanish nominal bonds, and exposure to Australian and New Zealand inflation-linked bonds. The portfolio trailed the benchmark by (34) basis points over the 1-year period, but exceeded the benchmark by 26 basis points over the 3-year period; these results ranked in the 20<sup>th</sup> and 2<sup>nd</sup> percentile versus peers, respectively. Performance results are within acceptable limits as per the Program's *Monitoring Procedures and Criteria*.

#### *Recommendation*

At this time **PCA recommends that the PIMCO Real Return Fund remain on "Watch" status.**

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ScholarShare College Savings Plan

Investment Performance Report

1st Quarter, 2015



**SCHOLARSHARE**

.....  
CALIFORNIA'S 529 COLLEGE SAVINGS PLAN  
.....



# Market Overview – Q1 2015

## Key Themes

- The first quarter of 2015 provided evidence that the U.S. economy, while stable, had slowed since late last year, reflecting in part severe winter weather and a long California port dispute.
- Consumer confidence improved in March from February's upwardly revised level, while small-business sentiment in February touched one of its highest readings in eight years.
- On the negative side, retail sales declined in both January and February. Moreover, sharply lower energy costs failed to spur consumer spending as anticipated.

## Equities

- Optimism driven by Quantitative Easing, signs of economic improvement, and a falling euro supported Eurozone stocks, which surged 18.53%, although the dollar's rise eroded this gain to 5.20% for U.S. investors.
- Six of the 10 sectors in the S&P 500 advanced, led by Health Care (+6.53%), Consumer Discretionary (+4.80%), and Telecommunications (+1.54%).

## Fixed Income

- In the U.S., fixed income outperformed large-cap equities in a volatile period marked by uncertainty over the pace and timing of the Fed's first rate hike since 2006, a strengthening U.S. dollar, and ongoing developments in the Greek debt crisis and the Russia/Ukraine standoff.
- Fundamentals remained stable to positive for both investment-grade (+2.32%) and high-yield bonds (+2.52%). Despite ongoing geopolitical risks, emerging-market bonds rebounded (+1.80% in local terms) from last quarter's decline.

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; U.S. Value Stocks – Russell 1000 Value; 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; Real Estate Stocks – FTSE NAREIT All Equity REITS; U.S. Investment Grade Bonds – Barclays U.S. Aggregate Bond Index; U.S. Treasuries – Barclays U.S. Government/Credit Long Index; Inflation-Linked Bonds – Barclays TIPS Index; High Yield Bonds – BofA Merrill Lynch BB/B Cash Pay Index; Commodities – Bloomberg Commodity TR USD; Cash - Barclays U.S. 3 month Treasury Bellweathers Index

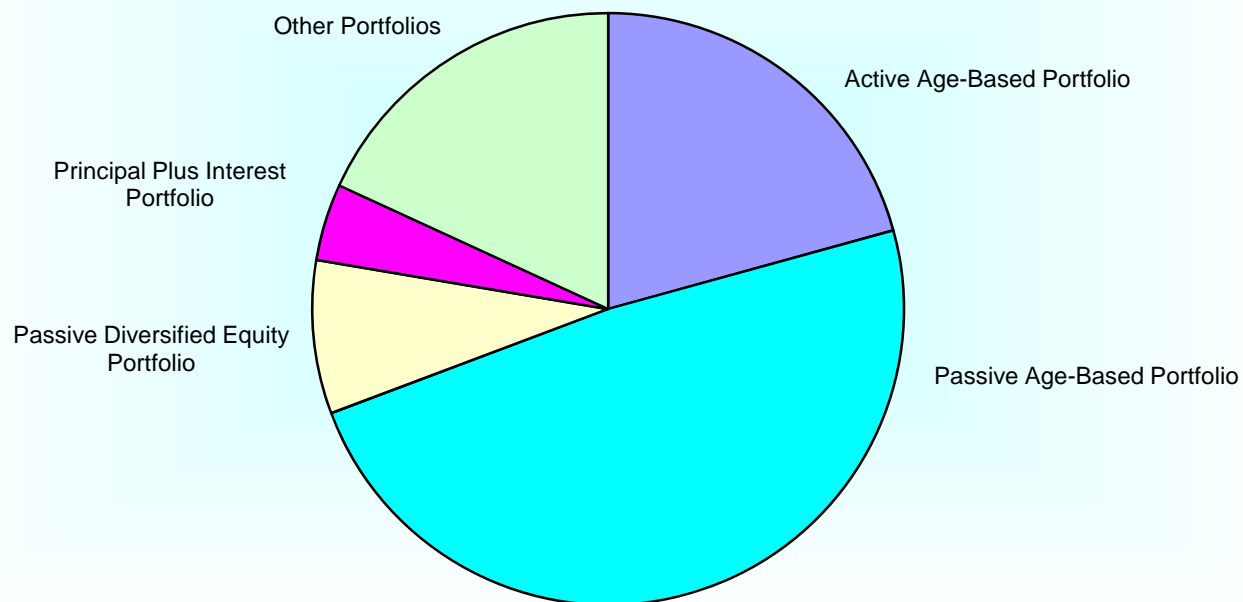
Market Performance as of March 31, 2015 (%)

Asset Class	Latest Quarter	1 Year	3 Year	5 Year
U.S. Equities	1.80	12.37	16.43	14.71
U.S. Growth Stocks	3.84	16.09	16.34	15.63
U.S. Value Stocks	-0.72	9.33	16.44	13.75
U.S. Mid-Cap Stocks	3.95	13.68	18.10	16.16
U.S. Small-Cap Stocks	4.32	8.21	16.27	14.57
Int'l Developed Markets	4.88	-0.92	9.02	6.16
Emerging Markets	2.24	0.44	0.31	1.75
Real Estate Stocks	3.98	22.68	14.05	15.60
U.S. Investment Grade Bonds	1.61	5.72	3.10	4.41
U.S. Treasuries	3.36	15.73	7.71	10.20
Inflation-Linked Bonds	1.42	3.11	0.63	4.29
High Yield Bonds	2.67	3.17	7.41	8.38
Commodities	-5.94	-27.04	-11.52	-5.71
Cash	0.01	0.04	0.09	0.10
Annualized Tuition Inflation Ending as of 2014-2015 Academic Year* (%)				
Educational Institution	1 Year	3 Year	5 Year	
National Average Public 4-Year In-state	2.86	3.36	5.26	
National Average Private Nonprofit 4-Year	3.65	3.85	3.94	
Consumer Price Index, March 2015	-0.07	0.97	1.64	

\*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 2014 and U.S. Department of Labor: Bureau of Labor Statistics

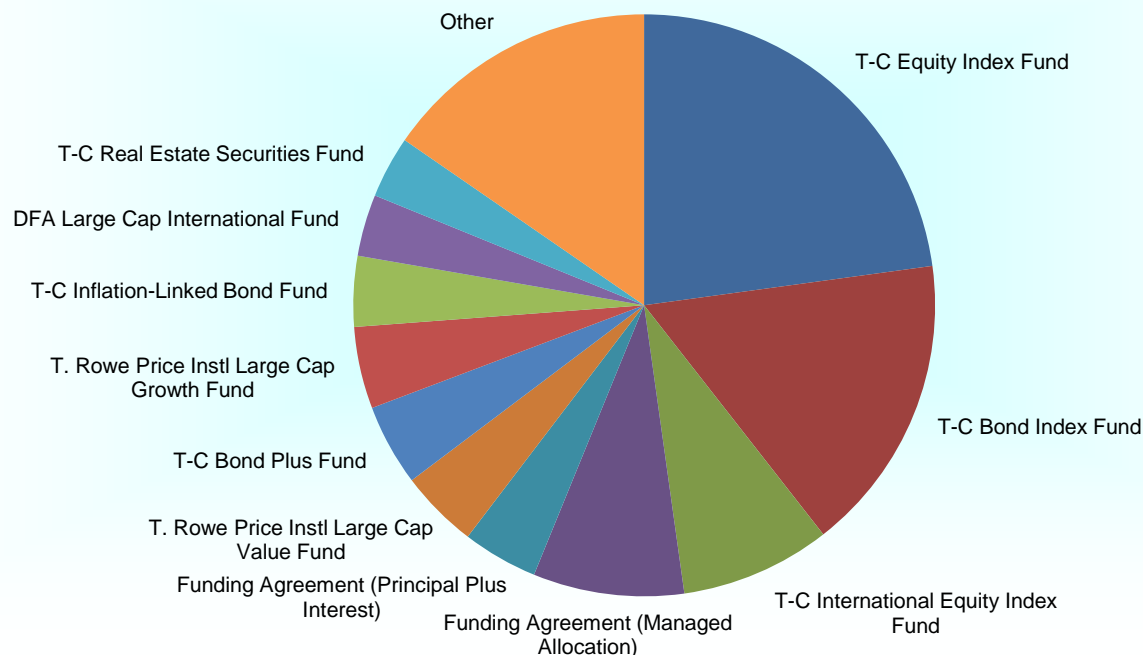
TIAA-CREF Tuition Financing, Inc., a registered investment advisor

**ScholarShare Assets by Investment Portfolio  
as of 3/31/15  
Total Assets: \$6.37 Billion**



<b>Portfolio</b>	<b>% of Assets</b>	<b>\$ Millions</b>	<b>Portfolio</b>	<b>% of Assets</b>	<b>\$ Millions</b>
Passive Age-Based Portfolio	48.56%	\$ 3,094	Principal Plus Interest Portfolio	4.20%	\$ 268
Active Age-Based Portfolio	20.72%	\$ 1,320	Other Portfolios (see below)	18.14%	\$ 1,156
Passive Diversified Equity Portfolio	8.38%	\$ 534			
<b>Other Portfolios</b>					
Index U.S. Large Cap Equity Portfolio	3.29%	\$ 209	Active Moderate Growth Portfolio	0.47%	\$ 30
Index U.S. Equity Portfolio	3.27%	\$ 208	Passive Conservative Portfolio	0.46%	\$ 29
Active Diversified Equity Portfolio	2.58%	\$ 165	Active Conservative Portfolio	0.44%	\$ 28
Social Choice Portfolio	2.03%	\$ 129	Passive Moderate Growth Portfolio	0.35%	\$ 23
Active Growth Portfolio	1.48%	\$ 94	Active Diversified Fixed Income Portfolio	0.24%	\$ 15
Index International Equity Portfolio	1.44%	\$ 92	Active International Equity Portfolio	0.24%	\$ 15
Passive Growth Portfolio	1.14%	\$ 73	Passive Diversified Fixed Income Portfolio	0.11%	\$ 7
Index Bond Portfolio	0.61%	\$ 39			

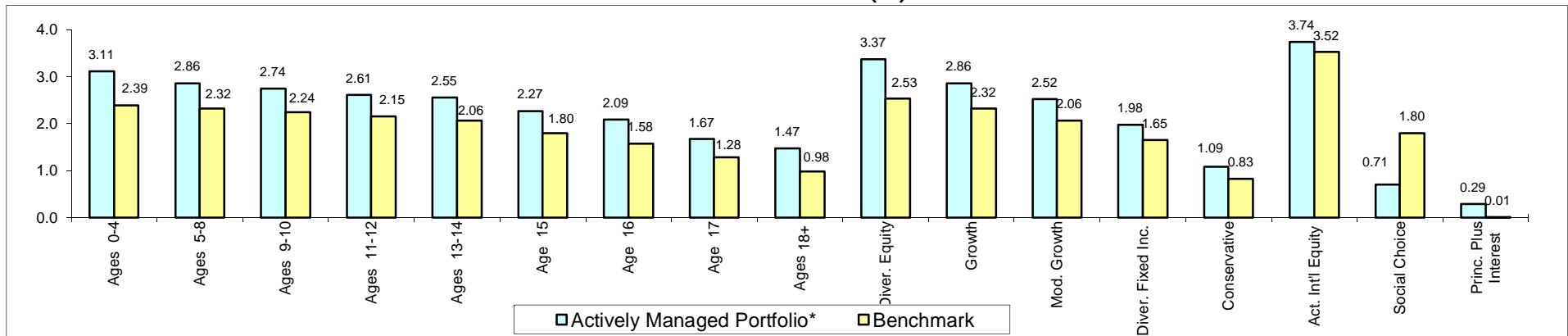
**ScholarShare Assets by Underlying Funds  
as of 3/31/15  
Total Assets: \$6.37 Billion**



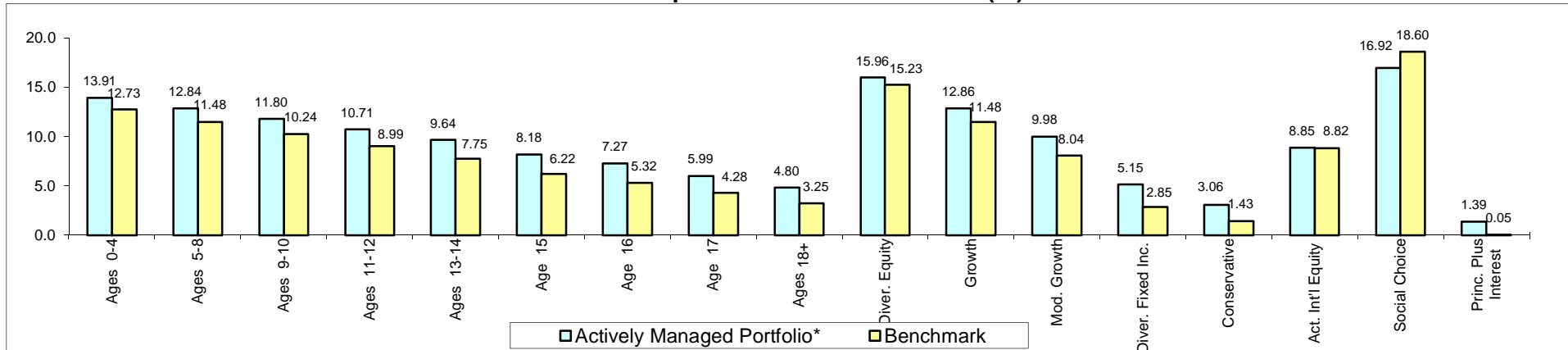
<b>Fund</b>	<b>% of Assets</b>	<b>\$ Millions</b>	<b>Fund</b>	<b>% of Assets</b>	<b>\$ Millions</b>
T-C Equity Index Fund	22.83%	\$ 1,454	T. Rowe Price Instl Large Cap Value Fund	4.37%	\$ 278
T-C Bond Index Fund	16.61%	\$ 1,058	Funding Agreement (Principal Plus Interest)	4.20%	\$ 268
Funding Agreement (Managed Allocation)	8.38%	\$ 534	T-C Inflation-Linked Bond Fund	3.92%	\$ 250
T-C International Equity Index Fund	8.35%	\$ 532	T-C Real Estate Securities Fund	3.45%	\$ 220
T. Rowe Price Instl Large Cap Growth Fund	4.56%	\$ 291	DFA Large Cap International Fund	3.43%	\$ 218
TIAA-CREF Bond Plus Fund	4.52%	\$ 288	Other	15.39%	\$ 980
<b>Other Funds</b>					
T-C S&P 500 Index Fund	3.29%	\$ 209	T-C Emerging Markets Equity Index Fund	1.63%	\$ 104
T-C High Yield Bond Fund	2.25%	\$ 143	T-C Small Cap Equity Fund	1.05%	\$ 67
T-C Social Choice Equity Fund	2.03%	\$ 129	T. Rowe Price Instl Floating Rate Fund	0.84%	\$ 54
PIMCO Income Fund	1.87%	\$ 119	DFA Emerging Markets Core Equity Portfolio	0.78%	\$ 50
PIMCO Real Return Fund	1.65%	\$ 105			

## Actively Managed Portfolios vs. Composite Benchmarks

### Q1 2015 Returns (%)



### Since Inception Returns as of 3/31/15 (%)



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

- Monthly payroll gains disappointed in the first quarter, with the U.S. economy adding only 126,000 jobs in March, while January and February totals were revised downward from their original estimates, slowing the average monthly job growth to 197,000 in the quarter.
- New home sales surged to a seven-year high in February from an upwardly revised level in January, while existing home sales rebounded modestly in February.
- All actively managed portfolios had positive absolute returns in Q1, and aside from the Social Choice Portfolio, all outperformed their blended benchmarks. Portfolios and age bands with higher equity allocations tended to have higher absolute returns, while those with higher fixed income exposure tended to have lower absolute returns.
- Notable contributors to relative returns was the T. Rowe Price Institutional Large-Cap Growth Fund and TIAA-CREF Real Estate Securities Fund, both of which returned over 100 basis points over their benchmarks in Q1. Another top performing fund was the TIAA-CREF Small Cap Equity Fund, which returned 89 basis points over its benchmark.
- All age bands beat their blended benchmarks by more than 100 basis points over the three-year period ended 3/31/15, as well as since inception.

**ScholarShare College Savings Plan Performance Summary**  
 Actively Managed Portfolios vs. Composite Benchmarks\*  
 For the Period Ending 3/31/2015

Investment Portfolios	Average Annual Total Return						Inception Date
	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	
<b>Active Age-Based Portfolios**</b>							
Active Age-Based Portfolio 0-4	3.11%	3.11%	8.27%	12.37%		13.91%	11/04/11
Blended Benchmark Returns	2.39%	2.39%	8.19%	11.28%		12.73%	
Difference	0.72%	0.72%	0.08%	1.09%		1.18%	
Active Age-Based Portfolio 5-8	2.86%	2.86%	7.79%	11.45%		12.84%	11/04/11
Blended Benchmark Returns	2.32%	2.32%	7.80%	10.23%		11.48%	
Difference	0.54%	0.54%	-0.01%	1.22%		1.36%	
Active Age-Based Portfolio 9-10	2.74%	2.74%	7.42%	10.55%		11.80%	11/04/11
Blended Benchmark Returns	2.24%	2.24%	7.41%	9.17%		10.24%	
Difference	0.50%	0.50%	0.01%	1.38%		1.56%	
Active Age-Based Portfolio 11-12	2.61%	2.61%	6.96%	9.60%		10.71%	11/04/11
Blended Benchmark Returns	2.15%	2.15%	7.01%	8.12%		8.99%	
Difference	0.46%	0.46%	-0.05%	1.48%		1.72%	
Active Age-Based Portfolio 13-14	2.55%	2.55%	6.63%	8.67%		9.64%	11/04/11
Blended Benchmark Returns	2.06%	2.06%	6.61%	7.06%		7.75%	
Difference	0.49%	0.49%	0.02%	1.61%		1.89%	
Active Age-Based Portfolio 15	2.27%	2.27%	5.83%	7.40%		8.18%	11/04/11
Blended Benchmark Returns	1.80%	1.80%	5.69%	5.71%		6.22%	
Difference	0.47%	0.47%	0.14%	1.69%		1.96%	
Active Age-Based Portfolio 16	2.09%	2.09%	5.48%	6.61%		7.27%	11/04/11
Blended Benchmark Returns	1.58%	1.58%	4.99%	4.90%		5.32%	
Difference	0.51%	0.51%	0.49%	1.71%		1.95%	
Active Age-Based Portfolio 17	1.67%	1.67%	4.46%	5.44%		5.99%	11/04/11
Blended Benchmark Returns	1.28%	1.28%	4.03%	3.95%		4.28%	
Difference	0.39%	0.39%	0.43%	1.49%		1.71%	
Active Age-Based Portfolio 18 & Over	1.47%	1.47%	3.71%	4.40%		4.80%	11/04/11
Blended Benchmark Returns	0.98%	0.98%	3.08%	3.00%		3.25%	
Difference	0.49%	0.49%	0.63%	1.40%		1.55%	
<b>Active Multi-Fund Investment Portfolios</b>							
Active Diversified Equity Portfolio	3.37%	3.37%	9.16%	14.13%		15.96%	11/04/11
Blended Benchmark Returns	2.53%	2.53%	8.95%	13.38%		15.23%	
Difference	0.84%	0.84%	0.21%	0.75%		0.73%	
Active Growth Portfolio	2.86%	2.86%	7.86%	11.48%		12.86%	11/04/11
Blended Benchmark Returns	2.32%	2.32%	7.80%	10.23%		11.48%	
Difference	0.54%	0.54%	0.06%	1.25%		1.38%	
Active Moderate Growth Portfolio	2.52%	2.52%	6.56%	8.61%		9.98%	11/09/11
Blended Benchmark Returns	2.06%	2.06%	6.61%	7.06%		8.04%	
Difference	0.46%	0.46%	-0.05%	1.55%		1.94%	
Active Conservative Portfolio	1.09%	1.09%	2.88%	2.83%		3.06%	11/04/11
Blended Benchmark Returns	0.83%	0.83%	2.46%	1.44%		1.43%	
Difference	0.26%	0.26%	0.42%	1.39%		1.63%	
Active International Equity Portfolio	3.74%	3.74%	-1.70%	6.74%		8.85%	11/10/11
Blended Benchmark Returns	3.52%	3.52%	-0.98%	6.66%		8.82%	
Difference	0.22%	0.22%	-0.72%	0.08%		0.03%	
Active Diversified Fixed Income Portfolio	1.98%	1.98%	4.77%	4.64%		5.15%	11/08/11
Blended Benchmark Returns	1.65%	1.65%	4.93%	2.81%		2.85%	
Difference	0.33%	0.33%	-0.16%	1.83%		2.30%	
<b>Active Single Fund Investment Portfolios</b>							
Social Choice Portfolio	0.71%	0.71%	10.01%	15.37%		16.92%	11/04/11
Benchmark Returns	1.80%	1.80%	12.37%	16.43%		18.60%	
Difference	-1.09%	-1.09%	-2.36%	-1.06%		-1.68%	
Principal Plus Interest Portfolio**	0.29%	0.29%	1.16%	1.37%		1.39%	11/04/11
Benchmark Returns	0.01%	0.01%	0.03%	0.05%		0.06%	
Difference	0.28%	0.28%	1.13%	1.32%		1.33%	

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

\*\*There is a guaranteed crediting rate of 1.00% for the TC Life Funding Agreement in the Active Age-Based Portfolio and Principal Plus Interest Portfolio.



**ScholarShare College Savings Plan Performance Summary**  
**Actively Managed Portfolios**  
**Asset Allocation, Fees, and Performance**  
**Q1 2015**

**Investment Portfolios**

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 Small Cap Equity Fund	TIAA-CREF Real Estate Securities Fund	DFA Large Cap International Portfolio	DFA Emerging Markets Core Equity I Portfolio	TIAA-CREF Bond Plus Fund	PIMCO Real Return Instl Fund	PIMCO Income Instl Fund	T-C Life Funding Agreement
<b>Underlying Fund Expenses (bp)</b>				<b>56</b>	<b>58</b>	<b>56</b>	<b>49</b>	<b>52</b>	<b>28</b>	<b>61</b>	<b>33</b>	<b>45</b>	<b>45</b>	<b>-</b>
<b>0 - 4</b>	3.11%	2.39%	<b>58</b>	22.68%	22.68%	2.00%	5.04%	5.60%	19.20%	4.80%	10.00%	4.00%	4.00%	0.00%
<b>5 - 8</b>	2.86%	2.32%	<b>57</b>	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	0.00%
<b>9 - 10</b>	2.74%	2.24%	<b>56</b>	17.01%	17.01%	4.00%	3.78%	4.20%	14.40%	3.60%	20.00%	8.00%	8.00%	0.00%
<b>11 - 12</b>	2.61%	2.15%	<b>55</b>	14.18%	14.18%	5.00%	3.14%	3.50%	12.00%	3.00%	25.00%	10.00%	10.00%	0.00%
<b>13 - 14</b>	2.55%	2.06%	<b>54</b>	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	0.00%
<b>15</b>	2.27%	1.80%	<b>49</b>	8.51%	8.51%	6.00%	1.88%	2.10%	7.20%	1.80%	30.00%	12.00%	12.00%	10.00%
<b>16</b>	2.09%	1.58%	<b>44</b>	7.09%	7.09%	5.50%	1.57%	1.75%	6.00%	1.50%	27.50%	11.00%	11.00%	20.00%
<b>17</b>	1.67%	1.28%	<b>38</b>	5.67%	5.67%	4.50%	1.26%	1.40%	4.80%	1.20%	22.50%	9.00%	9.00%	35.00%
<b>18+</b>	1.47%	0.98%	<b>31</b>	4.25%	4.25%	3.50%	0.95%	1.05%	3.60%	0.90%	17.50%	7.00%	7.00%	50.00%
<b>Fund's Performance vs Benchmk Q1 2015 (bp)</b>				<b>165</b>	<b>43</b>	<b>(5)</b>	<b>89</b>	<b>119</b>	<b>39</b>	<b>(28)</b>	<b>49</b>	<b>14</b>	<b>32</b>	<b>24</b>

**Active Multi-Fund Investment Portfolios**

<b>Active Diversified Equity Portfolio</b>	3.37%	2.53%	<b>59</b>	28.35%	28.35%		6.30%	7.00%	24.00%	6.00%				
<b>Active Growth Portfolio</b>	2.86%	2.32%	<b>57</b>	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	
<b>Active Moderate Growth Portfolio</b>	2.52%	2.06%	<b>54</b>	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	
<b>Active Diversified Fixed Income Portfolio</b>	1.98%	1.65%	<b>50</b>			10.00%					50.00%	20.00%	20.00%	
<b>Active Conservative Portfolio</b>	1.09%	0.83%	<b>30</b>			5.00%					25.00%	10.00%	10.00%	50.00%
<b>Active International Equity Portfolio</b>	3.74%	3.52%	<b>45</b>						80.00%	20.00%				
<b>Fund's Performance vs Benchmk Q1 2015 (bp)</b>				<b>165</b>	<b>43</b>	<b>(5)</b>	<b>89</b>	<b>119</b>	<b>39</b>	<b>(28)</b>	<b>49</b>	<b>14</b>	<b>32</b>	<b>24</b>

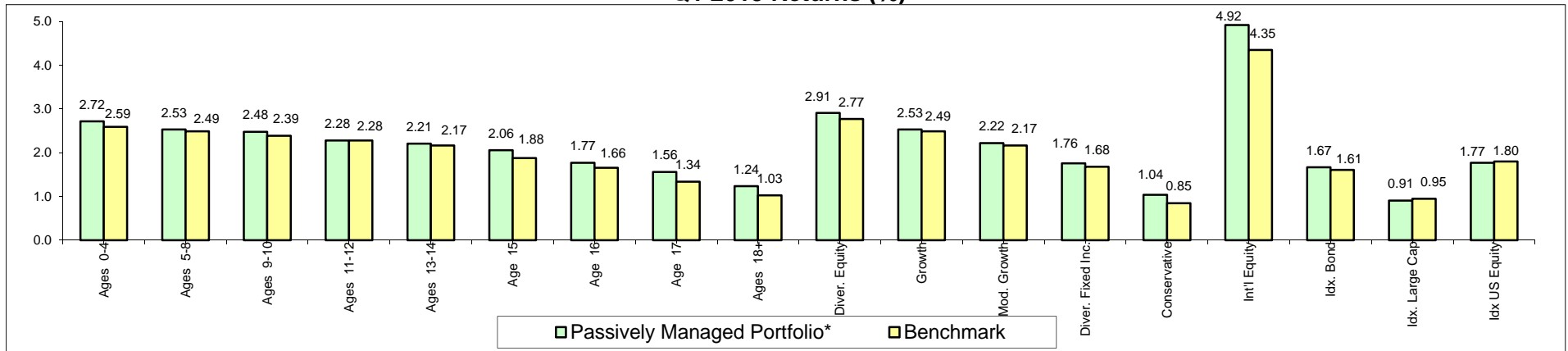
**Active Single Fund Investment Portfolios**

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 2015 (bp)
<b>Social Choice Portfolio</b>	0.71%	1.80%	<b>28</b>	100.00%	TIAA-CREF Social Choice Equity Fund	<b>(103)</b>
<b>Principal Plus Interest Portfolio</b>	0.29%	0.01%	<b>-</b>	100.00%	TIAA-CREF Life Co. Funding Agreement	<b>28</b>

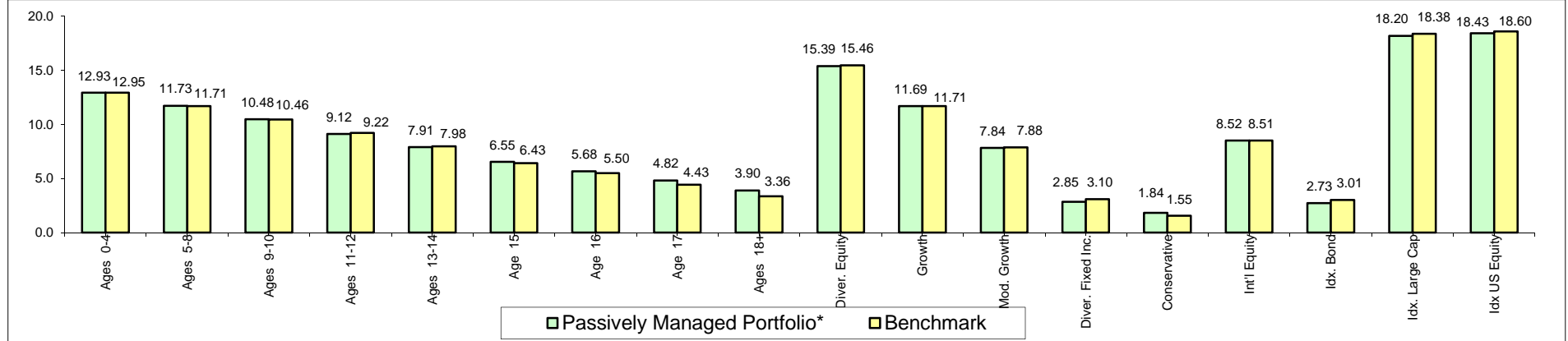
\* Asset Based Fees include most recent weighted average Underlying Fund Fees, Program Management Fees (5 bps) and State Administrative Fees (5 bps).

## Passively Managed Portfolios vs. Composite Benchmarks

### Q1 2015 Returns (%)



### Since Inception Returns as of 3/31/15 (%)



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

- The S&P 500 Index returned a modest 0.95% for the period, its ninth straight quarterly advance. February's robust 5.75% gain was bracketed by losses in January (-3.00%) and March (-1.58%).
- U.S. Treasuries realized positive returns based on Barclays indexes, with the yield on the bellwether 10-year note falling 23 basis points over the course of the quarter, to end at 1.94%.
- All Passively Managed Portfolios posted positive absolute returns for the quarter and most slightly edged out their benchmarks.
- Contributing to Q1 relative performance was the TIAA-CREF Real Estate Securities Fund, which outperformed by 119 basis points, as well as the TC Life Funding Agreement (+24 basis points vs. benchmark) for the quarter based on the 1.00% annual crediting rate). The Funding Agreement has been consistently outperforming the Citigroup 3 Month Treasury Bill Index during the current low interest rate environment.
- The Index International Equity Portfolio, with exposure to developed and emerging market equity through the TIAA-CREF International Equity Index Fund and TIAA-CREF Emerging Markets Equity Index Fund, generated the highest absolute returns for the quarter, returning 4.92%.
- In a trend reversal, the Index U.S. Large Cap Equity Portfolio had the lowest absolute performance among Passively Managed Portfolios in Q1, returning 0.91%.

## ScholarShare College Savings Plan Performance Summary

Passively Managed Portfolios vs. Composite Benchmarks\*

For the Period Ending 3/31/2015

Investment Portfolios	3 Month	YTD	Average Annual Total Return				Inception Date
			1 Year	3 Year	5 Year	Since Inception	
<b>Passive Age-Based Portfolio**</b>							
Passive Age-Based Portfolio 0-4	2.72%	2.72%	8.38%	11.48%	-	12.93%	11/04/11
Blended Benchmark Returns	2.59%	2.59%	8.33%	11.48%	-	12.95%	
Difference	0.13%	0.13%	0.05%	0.00%	-	-0.02%	
Passive Age-Based Portfolio 5-8	2.53%	2.53%	8.07%	10.48%	-	11.73%	11/04/11
Blended Benchmark Returns	2.49%	2.49%	7.92%	10.43%	-	11.71%	
Difference	0.04%	0.04%	0.15%	0.05%	-	0.02%	
Passive Age-Based Portfolio 9-10	2.48%	2.48%	7.59%	9.44%	-	10.48%	11/04/11
Blended Benchmark Returns	2.39%	2.39%	7.51%	9.38%	-	10.46%	
Difference	0.09%	0.09%	0.08%	0.06%	-	0.02%	
Passive Age-Based Portfolio 11-12	2.28%	2.28%	7.00%	8.25%	-	9.12%	11/04/11
Blended Benchmark Returns	2.28%	2.28%	7.10%	8.33%	-	9.22%	
Difference	0.00%	0.00%	-0.10%	-0.08%	-	-0.10%	
Passive Age-Based Portfolio 13-14	2.21%	2.21%	6.67%	7.27%	-	7.91%	11/04/11
Blended Benchmark Returns	2.17%	2.17%	6.68%	7.27%	-	7.98%	
Difference	0.04%	0.04%	-0.01%	0.00%	-	-0.07%	
Passive Age-Based Portfolio 15	2.06%	2.06%	5.89%	6.10%	-	6.55%	11/04/11
Blended Benchmark Returns	1.88%	1.88%	5.75%	5.90%	-	6.43%	
Difference	0.18%	0.18%	0.14%	0.20%	-	0.12%	
Passive Age-Based Portfolio 16	1.77%	1.77%	5.23%	5.29%	-	5.68%	11/04/11
Blended Benchmark Returns	1.66%	1.66%	5.03%	5.07%	-	5.50%	
Difference	0.11%	0.11%	0.20%	0.22%	-	0.18%	
Passive Age-Based Portfolio 17	1.56%	1.56%	4.54%	4.53%	-	4.82%	11/04/11
Blended Benchmark Returns	1.34%	1.34%	4.07%	4.09%	-	4.43%	
Difference	0.22%	0.22%	0.47%	0.44%	-	0.39%	
Passive Age-Based Portfolio 18 & Over	1.24%	1.24%	3.64%	3.68%	-	3.90%	11/04/11
Blended Benchmark Returns	1.03%	1.03%	3.11%	3.11%	-	3.36%	
Difference	0.21%	0.21%	0.53%	0.57%	-	0.54%	
<b>Passive Multi-Fund Investment Portfolios</b>							
Passive Diversified Equity Portfolio	2.91%	2.91%	9.26%	13.51%	-	15.39%	11/04/11
Blended Benchmark Returns	2.77%	2.77%	9.12%	13.58%	-	15.46%	
Difference	0.14%	0.14%	0.14%	-0.07%	-	-0.07%	
Passive Growth Portfolio	2.53%	2.53%	8.01%	10.43%	-	11.69%	11/04/11
Blended Benchmark Returns	2.49%	2.49%	7.92%	10.43%	-	11.71%	
Difference	0.04%	0.04%	0.09%	0.00%	-	-0.02%	
Passive Moderate Growth Portfolio	2.22%	2.22%	6.60%	7.23%	-	7.84%	11/08/11
Blended Benchmark Returns	2.17%	2.17%	6.68%	7.27%	-	7.88%	
Difference	0.05%	0.05%	-0.08%	-0.04%	-	-0.04%	
Passive Conservative Portfolio	1.04%	1.04%	2.90%	1.89%	-	1.84%	11/04/11
Blended Benchmark Returns	0.85%	0.85%	2.47%	1.55%	-	1.55%	
Difference	0.19%	0.19%	0.43%	0.34%	-	0.29%	
Index International Equity Portfolio	4.92%	4.92%	-0.83%	7.28%	-	8.52%	11/04/11
Blended Benchmark Returns	4.35%	4.35%	-0.60%	7.28%	-	8.51%	
Difference	0.57%	0.57%	-0.23%	0.00%	-	0.01%	
Passive Diversified Fixed Income Portfolio	1.76%	1.76%	4.76%	2.78%	-	2.85%	11/08/11
Blended Benchmark Returns	1.68%	1.68%	4.95%	3.04%	-	3.10%	
Difference	0.08%	0.08%	-0.19%	-0.26%	-	-0.25%	
<b>Passive Single Fund Investment Portfolios</b>							
Index Bond Portfolio	1.67%	1.67%	5.69%	2.86%	-	2.73%	11/04/11
Benchmark Returns	1.61%	1.61%	5.72%	3.10%	-	3.01%	
Difference	0.06%	0.06%	-0.03%	-0.24%	-	-0.28%	
Index U.S. Large Cap Equity Portfolio	0.91%	0.91%	12.55%	15.93%	-	18.20%	11/04/11
Benchmark Returns	0.95%	0.95%	12.73%	16.11%	-	18.38%	
Difference	-0.04%	-0.04%	-0.18%	-0.18%	-	-0.18%	
Index U.S. Equity Portfolio	1.77%	1.77%	12.24%	16.30%	-	18.43%	11/04/11
Benchmark Returns	1.80%	1.80%	12.37%	16.43%	-	18.60%	
Difference	-0.03%	-0.03%	-0.13%	-0.13%	-	-0.17%	

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

\*\*There is a guaranteed crediting rate of 1.00% for the TC Life Funding Agreement in the Passive Age-Based Portfolio.

**ScholarShare College Savings Plan Performance Summary**  
**Passively Managed Portfolios**  
**Asset Allocation, Fees, and Performance**  
**Q1 2015**

**Investment Portfolios**

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
<b>Underlying Fund Expenses (bp)</b>				<b>5</b>	<b>6</b>	<b>23</b>	<b>52</b>	<b>12</b>	<b>27</b>	<b>37</b>	<b>0</b>
<b>0 - 4</b>	2.72%	2.59%	<b>16</b>	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	0.00%
<b>5 - 8</b>	2.53%	2.49%	<b>17</b>	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	0.00%
<b>9 - 10</b>	2.48%	2.39%	<b>18</b>	37.80%	14.40%	3.60%	4.20%	28.00%	8.00%	4.00%	0.00%
<b>11 - 12</b>	2.28%	2.28%	<b>19</b>	31.50%	12.00%	3.00%	3.50%	35.00%	10.00%	5.00%	0.00%
<b>13 - 14</b>	2.21%	2.17%	<b>19</b>	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	0.00%
<b>15</b>	2.06%	1.88%	<b>18</b>	18.90%	7.20%	1.80%	2.10%	42.00%	12.00%	6.00%	10.00%
<b>16</b>	1.77%	1.66%	<b>17</b>	15.75%	6.00%	1.50%	1.75%	38.50%	11.00%	5.50%	20.00%
<b>17</b>	1.56%	1.34%	<b>15</b>	12.60%	4.80%	1.20%	1.40%	31.50%	9.00%	4.50%	35.00%
<b>18 +</b>	1.24%	1.03%	<b>13</b>	9.45%	3.60%	0.90%	1.05%	24.50%	7.00%	3.50%	50.00%
<b>Fund's Performance vs Benchmk Q1 2015 (bp)</b>				<b>1</b>	<b>57</b>	<b>30</b>	<b>119</b>	<b>4</b>	<b>(1)</b>	<b>20</b>	<b>24</b>

**Passive Multi-Fund Investment Portfolios**

<b>Passive Diversified Equity Portfolio</b>	2.91%	2.77%	<b>15</b>	63.00%	24.00%	6.00%	7.00%				
<b>Passive Growth Portfolio</b>	2.53%	2.49%	<b>17</b>	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	
<b>Passive Moderate Growth Portfolio</b>	2.22%	2.17%	<b>19</b>	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	
<b>Passive Diversified Fixed Income Portfolio</b>	1.76%	1.68%	<b>23</b>					70.00%	20.00%	10.00%	
<b>Passive Conservative Portfolio</b>	1.04%	0.85%	<b>14</b>					35.00%	10.00%	5.00%	50.00%
<b>Index International Equity Portfolio</b>	4.92%	4.35%	<b>14</b>		80.00%	20.00%					
<b>Fund's Performance vs Benchmk Q1 2015 (bp)</b>				<b>1</b>	<b>57</b>	<b>30</b>	<b>119</b>	<b>4</b>	<b>(1)</b>	<b>20</b>	<b>24</b>

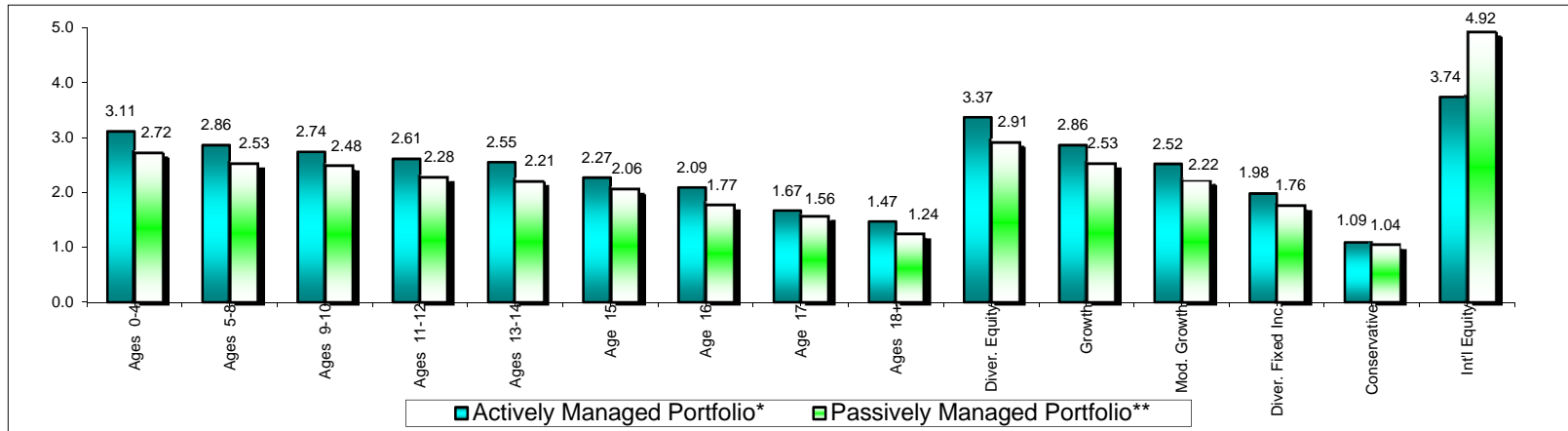
**Passive Single Fund Investment Portfolios**

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 2015 (bp)
<b>Index Bond Portfolio</b>	1.67%	1.61%	<b>17</b>	100.00%	TIAA-CREF Bond Index Fund	<b>4</b>
<b>Index U.S. Large Cap Equity Portfolio</b>	0.91%	0.95%	<b>11</b>	100.00%	TIAA-CREF S&P 500 Index Fund	<b>(4)</b>
<b>Index U.S. Equity Portfolio</b>	1.77%	1.80%	<b>10</b>	100.00%	TIAA-CREF Equity Index Fund	<b>1</b>

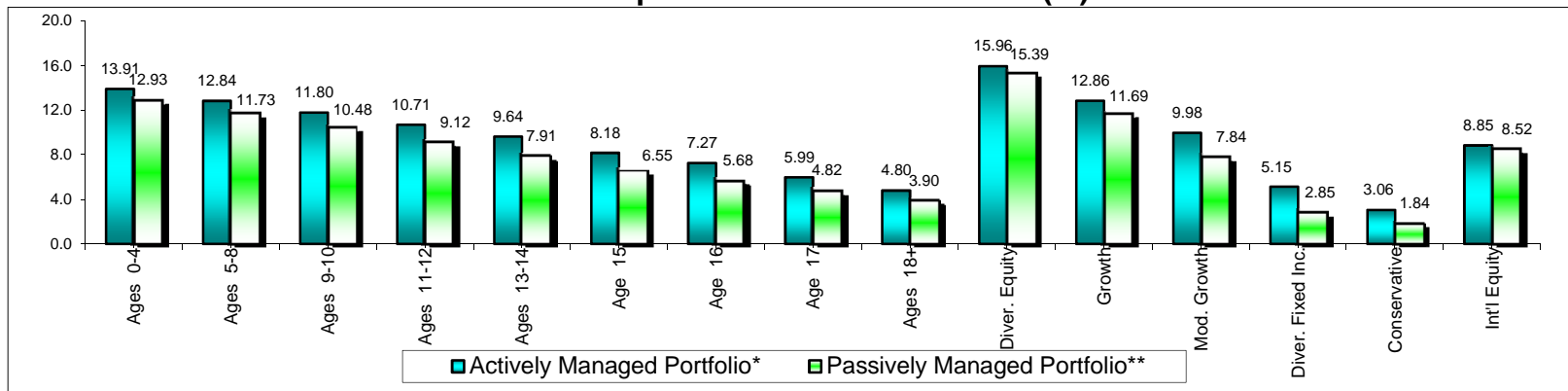
\* Asset Based Fees include most recent weighted average Underlying Fund Fees and Program Management Fees (5 bps).

# Actively Managed Portfolios vs. Passively Managed Portfolios

## Q1 2015 Returns (%)



## Since Inception Returns as of 3/31/15 (%)



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

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

- In Q1, Actively Managed Portfolios tended to outperform the Passively Managed Portfolios. Several underlying funds in the Active Portfolios outperformed their benchmark, which resulted in higher returns for these portfolios compared to their passive counterparts.
- For example, the T. Rowe Price Institutional Large-Cap Growth Fund and T. Rowe Price Large-Cap Value Fund, as well as the DFA Large Cap International Portfolio all outperformed their benchmarks and they have the largest allocations in the younger age bands of the Actively Managed Portfolios.
- Since Inception returns continue to favor the Actively Managed Portfolios.

## ScholarShare College Savings Plan Performance Summary

### Underlying Funds vs. Benchmarks

For the Period Ending 3/31/2015

	Average Annual Total Return						Fund Incept. Date
	3 Month	YTD	1 Year	3 Year	5 Year	Life	
<b>TIAA-CREF FUNDS</b>							
T-C Bond Index Fund	1.65%	1.65%	5.73%	2.92%	4.27%	4.23%	09/14/2009
Barclays Capital U.S. Aggregate Bond Index	1.61%	1.61%	5.72%	3.11%	4.41%	4.46%	
Difference	<b>0.04%</b>	<b>0.04%</b>	<b>0.01%</b>	<b>-0.19%</b>	<b>-0.14%</b>	<b>-0.23%</b>	
T-C Bond Plus Fund	2.10%	2.10%	5.66%	4.49%	5.60%	5.34%	3/31/2006
Barclays Capital U.S. Aggregate Bond Index	1.61%	1.61%	5.72%	3.11%	4.41%	5.23%	
Difference	<b>0.49%</b>	<b>0.49%</b>	<b>-0.06%</b>	<b>1.38%</b>	<b>1.19%</b>	<b>0.11%</b>	
T-C Emerging Markets Equity Index Fund*	2.54%	2.54%	0.12%	-0.05%	-	1.90%	08/31/2010
MSCI Emerging Markets® Index	2.24%	2.24%	0.44%	0.31%	-	2.51%	
Difference	<b>0.30%</b>	<b>0.30%</b>	<b>-0.32%</b>	<b>-0.36%</b>	<b>-</b>	<b>-0.61%</b>	
T-C Equity Index Fund	1.81%	1.81%	12.33%	16.39%	14.67%	5.13%	07/01/1999
Russell 3000 Index	1.80%	1.80%	12.37%	16.44%	14.71%	5.21%	
Difference	<b>0.01%</b>	<b>0.01%</b>	<b>-0.04%</b>	<b>-0.05%</b>	<b>-0.04%</b>	<b>-0.08%</b>	
T-C High Yield Bond Fund	2.87%	2.87%	2.33%	7.04%	8.41%	7.76%	03/31/2006
Merrill Lynch BB/B Cash Pay Index	2.67%	2.67%	3.17%	7.41%	8.38%	7.56%	
Difference	<b>0.20%</b>	<b>0.20%</b>	<b>-0.84%</b>	<b>-0.37%</b>	<b>0.03%</b>	<b>0.20%</b>	
T-C Inflation-Linked Bond Fund	1.41%	1.41%	2.92%	0.42%	4.07%	4.76%	10/01/2002
Barclays Capital U.S. TIPS Index	1.42%	1.42%	3.11%	0.63%	4.29%	5.04%	
Difference	<b>-0.01%</b>	<b>-0.01%</b>	<b>-0.19%</b>	<b>-0.21%</b>	<b>-0.22%</b>	<b>-0.28%</b>	
T-C International Equity Index Fund*	5.45%	5.45%	-1.03%	9.08%	6.30%	8.79%	10/01/2002
MSCI EAFE Index	4.88%	4.88%	-0.92%	9.03%	6.16%	8.79%	
Difference	<b>0.57%</b>	<b>0.57%</b>	<b>-0.11%</b>	<b>0.05%</b>	<b>0.14%</b>	<b>0.00%</b>	
T-C Real Estate Securities Fund	5.17%	5.17%	24.80%	13.57%	15.64%	11.85%	10/01/2002
FTSE NAREIT Equity Index	3.98%	3.98%	22.68%	14.06%	15.60%	12.16%	
Difference	<b>1.19%</b>	<b>1.19%</b>	<b>2.12%</b>	<b>-0.49%</b>	<b>0.04%</b>	<b>-0.31%</b>	
T-C S&P 500 Index Fund	0.91%	0.91%	12.62%	16.04%	14.36%	9.51%	10/01/2002
S&P 500 Index	0.95%	0.95%	12.73%	16.13%	14.47%	9.61%	
Difference	<b>-0.04%</b>	<b>-0.04%</b>	<b>-0.11%</b>	<b>-0.09%</b>	<b>-0.11%</b>	<b>-0.10%</b>	
T-C Small Cap Equity Fund	5.21%	5.21%	10.67%	16.72%	15.07%	11.77%	10/01/2002
Russell 2000 Index	4.32%	4.32%	8.21%	16.28%	14.57%	11.76%	
Difference	<b>0.89%</b>	<b>0.89%</b>	<b>2.46%</b>	<b>0.44%</b>	<b>0.50%</b>	<b>0.01%</b>	
T-C Social Choice Equity Fund	0.77%	0.77%	10.12%	15.51%	13.50%	4.98%	07/01/1999
Russell 3000 Index	1.80%	1.80%	12.37%	16.44%	14.71%	5.21%	
Difference	<b>-1.03%</b>	<b>-1.03%</b>	<b>-2.25%</b>	<b>-0.93%</b>	<b>-1.21%</b>	<b>-0.23%</b>	
<b>DFA FUNDS</b>							
DFA Emerging Markets Core Equity Portfolio*	1.96%	1.96%	0.40%	0.98%	2.29%	8.84%	04/05/2005
MSCI Emerging Markets® Index	2.24%	2.24%	0.44%	0.31%	1.75%	8.43%	
Difference	<b>-0.28%</b>	<b>-0.28%</b>	<b>-0.04%</b>	<b>0.67%</b>	<b>0.54%</b>	<b>0.41%</b>	
DFA Large Cap International Portfolio*	4.22%	4.22%	-2.09%	8.15%	5.80%	5.88%	07/17/1991
MSCI World Ex US Index	3.83%	3.83%	-1.39%	8.25%	5.73%	6.00%	
Difference	<b>0.39%</b>	<b>0.39%</b>	<b>-0.70%</b>	<b>-0.10%</b>	<b>0.07%</b>	<b>-0.12%</b>	
<b>PIMCO FUNDS</b>							
PIMCO Income Fund	1.93%	1.93%	5.99%	9.93%	11.22%	9.88%	03/30/2007
Barclays Capital U.S. Aggregate Bond Index	1.61%	1.61%	5.72%	3.11%	4.41%	5.06%	
Difference	<b>0.32%</b>	<b>0.32%</b>	<b>0.27%</b>	<b>6.82%</b>	<b>6.81%</b>	<b>4.82%</b>	
PIMCO Real Return Fund	1.56%	1.56%	2.77%	0.89%	4.39%	6.57%	01/29/1997
Barclays Capital U.S. TIPS Index	1.42%	1.42%	3.11%	0.63%	4.29%	-	
Difference	<b>0.14%</b>	<b>0.14%</b>	<b>-0.34%</b>	<b>0.26%</b>	<b>0.10%</b>	<b>-</b>	
<b>T. ROWE PRICE FUNDS</b>							
T. Rowe Price Instl Floating Rate Fund	2.28%	2.28%	3.08%	4.70%	5.01%	5.79%	01/31/2008
S&P/LSTA Performing Loan Index	2.33%	2.33%	3.02%	5.11%	5.22%	5.88%	
Difference	<b>-0.05%</b>	<b>-0.05%</b>	<b>0.06%</b>	<b>-0.41%</b>	<b>-0.21%</b>	<b>-0.09%</b>	
T. Rowe Price Instl Large Cap Growth Fund	5.49%	5.49%	14.61%	17.70%	16.55%	9.36%	10/31/2001
Russell 1000 Growth Index	3.84%	3.84%	16.09%	16.35%	15.64%	7.24%	
Difference	<b>1.65%</b>	<b>1.65%</b>	<b>-1.48%</b>	<b>1.35%</b>	<b>0.91%</b>	<b>2.12%</b>	
T. Rowe Price Instl Large Cap Value Fund	-0.29%	-0.29%	9.99%	17.28%	13.61%	8.20%	3/31/2000
Russell 1000 Value Index	-0.72%	-0.72%	9.33%	16.45%	13.76%	6.54%	
Difference	<b>0.43%</b>	<b>0.43%</b>	<b>0.66%</b>	<b>0.83%</b>	<b>-0.15%</b>	<b>1.66%</b>	

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

# The results of our approach speak for themselves

## Pensions & Investments

- One of the top ten managers of equity assets based on institutional tax-exempt assets under management<sup>1</sup>
- One of the top ten managers of fixed income assets based on institutional tax-exempt assets under management<sup>1</sup>
- The largest manager of U.S. tax exempt real estate assets<sup>2</sup>

## Morningstar

- 71% of TIAA-CREF's Funds and Variable Annuity Accounts received an overall Morningstar rating of 4 or 5 stars (47.95% 4 stars and 23.29% 5 stars as of March 31, 2015)<sup>3,4</sup>
- 99% of TIAA-CREF Funds and Variable Annuity Accounts received a Morningstar overall rating of 3-, 4-, or 5-stars across all asset classes (27.40% have 3 stars, 47.95% have 4 stars and 23.29% have 5 stars as of March 31, 2015)<sup>3,4</sup>

## Barron's/ Lipper

- In the five-year overall ranking, TIAA-CREF ranked 8<sup>th</sup> out of 56 mutual fund families<sup>5</sup>
- Overall, in the 2014 one-year Fund Family performance rankings, TIAA-CREF came in at 28<sup>th</sup> out of 65 mutual fund families, down from 13<sup>th</sup> in 2013, 10<sup>th</sup> in 2012, 13<sup>th</sup> in 2011, and 21<sup>st</sup> in 2010, but higher than 48<sup>th</sup> in 2009 and 30<sup>th</sup> in 2008.<sup>5</sup>
- Awarded the 2015, 2014 and 2013 Best Overall Large Fund Company United States based on risk-adjusted performance<sup>6</sup>



1. Pensions & Investments, May 26, 2014. Rankings based on institutional tax-exempt assets under management as of December 31, 2013 reported by each responding asset manager.
2. Pensions & Investments, October 27, 2014. Rankings based on institutional tax-exempt assets under management as of June 30, 2014 as reported by each responding asset manager.
3. Morningstar ratings based on the lowest cost share class for each mutual fund, based on U.S. open end mutual funds; CREF Variable Accounts; and the Life Funds. For a fund or account with multiple share classes and the same pricing, the share class with the longest performance history is used. Please note Morningstar rates CREF group variable annuities within the open end mutual fund universe. Morningstar ratings may be higher or lower on a monthly basis. Morningstar is an independent service that rates mutual funds. The top 10% of funds or accounts in an investment category receive five stars, the next 22.5% receive four stars and the next 35% receive three stars. Morningstar proprietary ratings reflect historical risk-adjusted performance and can change every month. They are calculated from the fund or account's three-, five- and ten-year average annual returns in excess of 90-day Treasury bill returns with appropriate fee adjustments, and a risk factor that reflects fund or account performance below 90-day T-bill returns. The overall star ratings are Morningstar's published ratings, which are weighted averages of its three-, five- and ten-year ratings for periods ended March 31, 2015. Past performance cannot guarantee future results. For current performance and rankings, please visit [www.tiaa-cref.org/public/tcfpi/InvestResearch](http://www.tiaa-cref.org/public/tcfpi/InvestResearch) Please note variable annuity account options are available through contracts issued by TIAA or CREF. These contracts are designed for retirement or other long-term goals, and offer a variety of income options, including lifetime income. Payments from the variable annuity accounts are not guaranteed and will rise or fall based on investment performance.
4. Please note variable annuity account options are available through contracts issued by TIAA or CREF. These contracts are designed for retirement or other long-term goals, and offer a variety of income options, including lifetime income. Payments from the variable annuity accounts are not guaranteed and will rise or fall based on investment performance. TIAA-CREF ranked #13 among 64 fund families in 2013, #10 among 62 fund families in 2012, # 13 among 58 fund families in 2011. The Lipper/Barron's Fund Family survey uses an asset-weighted ranking system. Each fund's return was measured against all those in its Lipper category, and the resulting percentile ranking was then weighted by asset size relative to the fund family's other assets in its general category. The family's overall ranking was then determined by weighting the five fund categories in proportion to their overall importance within Lipper's fund universe. In the five-year overall ranking, TIAA-CREF is ranked 19<sup>th</sup> out of 55 mutual fund families in 2013, 29<sup>th</sup> out of 53 mutual fund families in 2012 and 2011. TIAA-CREF does not qualify for the 10-year ranking.
6. The Lipper Award is given to the group with the lowest average decile ranking of three years' Consistent Return for eligible funds over the three-year period ended 11/30/12, 11/30/13 and 11/30/14 respectively. TIAA-CREF was ranked against 36 fund companies in 2012 and 48 fund companies in 2013 and 2014 with at least five equity, five bond, or three mixed-asset portfolios. Past performance does not guarantee future results. For current performance and rankings, please visit the Research and Performance section on [tiaa-cref.org](http://tiaa-cref.org).



## Important Information

TIAA-CREF products may be subject to market and other risk factors. See the applicable product literature, or visit [www.tiaa-cref.org](http://www.tiaa-cref.org) for details.

***You should consider the investment objectives, risks, charges and expenses carefully before investing. Please call 877-518-9161 or log on to [www.tiaa-cref.org](http://www.tiaa-cref.org) for product and fund prospectuses that contain this and other information. Please read the prospectuses carefully before investing.***

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