MARCH 12, 2015

AGENDA ITEM 4 INFORMATION ITEM

SCHOLARSHARE INVESTMENT BOARD

Review and Analysis of Investment Performance for the ScholarShare College Savings Plan for Fourth Quarter 2014

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 "Plan Investment Performance Status Report" (Exhibit A) for the fourth quarter of 2014. PCA's report compares each underlying fund allocated to the portfolios in the Plan to applicable benchmark criteria and labels the current status of the funds as "positive," "acceptable," "caution," or "watch."

For fourth quarter 2014:

- 12 underlying funds were in "positive" status (two of which were on "watch" status),
- Seven underlying funds were in "acceptable" status, and
- No underlying funds were in "caution" 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 fourth quarter 2014 (Exhibit C).

Presenters

Eric White, Principal, Pension Consulting Alliance, Inc. Jeremy Thiessen, Senior Director, TIAA-CREF Tuition Financing, Inc.



4Q 2014 SCHOLARSHARE COLLEGE SAVINGS PLAN INVESTMENT PERFORMANCE STATUS REPORT



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TAKEAWAYS

- US Equities reached all time highs near the end of 2014. For early age bands with larger Equity allocations, this gain was offset by poor performance in Non-US Equities which posted their second consecutive negative quarter.
- Fixed Income markets posted positive returns for the quarter, excluding high yield. The Federal Reserve ended its bondbuying program; later age bands with heavy fixed income allocations continued to be affected.
- Interest rate risk remains at high levels.



SECTION 1 ECONOMIC OVERVIEW





ECONOMIC & MARKET OVERVIEW – 4Q 2014



Overview: US Equities recovered from sharp selloffs in October and December to reach all time highs near the end of 2014. International equities faced economic growth concerns and deflationary pressures, causing equities to post their second consecutive negative quarter and pushing them into negative territory for the year. US GDP (advanced estimate) continued to grow in the fourth quarter but decelerated from the third quarter, primarily due to an upturn in imports, a downturn in federal government spending, and declines in nonresidential fixed investment and in exports. The unemployment rate continued its gradual decline hitting 5.6% at the end of the quarter. Inflation also declined during the quarter and finished <1% for the year. In October, the Fed followed through and ended its bond-buying program in addition to assuring investors that they are taking a cautious approach to raising short-term interest rates in 2015. The US dollar continued to rally against the Euro, acting as a headwind for international and emerging markets, as it appreciated another 4.2% during the quarter ending at +12.0% for the year. Commodities suffered a double digit decline for the second straight quarter as oil prices ended the quarter near \$50 a barrel, a level not seen since 2009.

Economic Growth

- Real GDP increased at an annualized rate of 2.5 percent in the fourth quarter of 2014 after increasing at an annualized rate of 5.0 percent in the third quarter of 2014.
- GDP growth deceleration was accounted for by an upturn in imports, a downturn in federal government spending, and declines in nonresidential fixed investment and in exports.
- Private inventory investment and an acceleration in personal consumption expenditures were two of the main contributors to GDP growth during the quarter.

Inflation

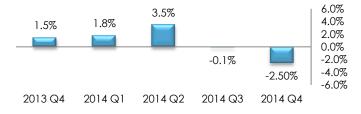
- The Consumer Price Index for All Urban Consumers (CPI-U) decreased by 2.5 percent in the quarter on an annualized basis, after seasonal adjustment.
- Quarterly percent changes may be adjusted between data publications due to periodic updates in seasonal factors.
- Core CPI-U increased by 1.1 percent for the quarter on an annualized basis.
- Over the last 12 months, CPI-U increased 1.6 percent after seasonal adjustment.

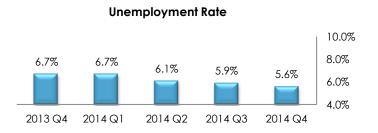
Unemployment

- The US economy gained approximately 866,000 jobs in the quarter.
- The official unemployment rate dropped to 5.6% at quarter end.
- The majority of jobs gained occurred in professional and business services, education and health services, and leisure and hospitality.



CPI-U After Seasonal Adjustment

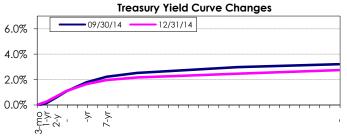






Interest Rates & US Dollar

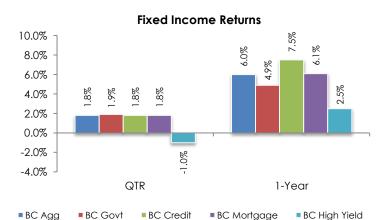
- US Treasury yields fell on average over the quarter.
- The Federal Reserve has maintained the federal funds rate between 0.00% and 0.25% since December 2008.
- The US dollar appreciated against the Euro, Yen and Sterling by 4.2%, 9.2%, and 3.9%, respectively.



Source: US Treasury Department

Fixed Income

- US bond markets delivered positive returns during the quarter excluding high yield.
- Investment grade credit led positive bond market returns in all sectors over the trailing 1-year period.

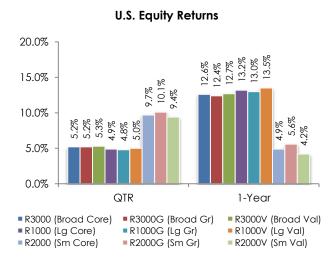


US Fixed Income Sector Performance (BC Aggregate Index)					
Sector	Weight	QTR	1 Year		
Governments	40.3%	1.9%	4.9%		
Agencies	5.0%	0.7%	3.6%		
Inv. Grade Credit	23.3%	1.8%	7.5%		
Mortgage-Backed Securities	28.8%	1.8%	6.1%		
Asset-Backed Securities	0.6%	0.5%	1.9%		
Commercial Mortgage- Backed Securities	2.0%	1.4%	3.9%		

PCA

US Equities

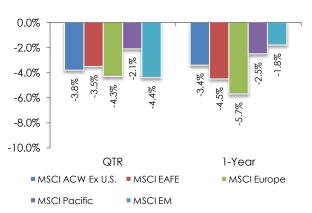
- Large cap US equities were outpaced by small cap stocks during the quarter but remained ahead during the longer 1-year period.
- During the quarter and 1-year periods, value outperformed growth in large cap stocks, while growth outperformed value in small cap stocks.



US Equity Sector Performance (Russell 3000 Index)				
Sector	Weight	QTR	1 Year	
Information Tech.	19.0%	5.4%	17.8%	
Financials	18.0%	7.8%	14.4%	
Health Care	14.0%	8.6%	25.1%	
Consumer Disc.	12.8%	8.9%	9.2%	
Industrials	11.4%	7.0%	8.0%	
Consumer Staples	8.5%	8.4%	15.9%	
Energy	7.5%	-13.1%	-10.0%	
Materials	3.6%	-0.8%	5.7%	
Utilities	3.2%	13.0%	26.9%	
Telecomm. Serv.	2.0%	-3.9%	2.5%	

International Equities

- International markets performed poorly during the quarter partially due to the strengthening US dollar.
- One year returns also performed poorly as most markets finished in negative territory.



International Equity Region Performance (in USD) (MSCI ACW Index ex US)				
Sector	Weight	QTR	1 Year	
Europe Ex. UK	31.8%	-4.3%	-5.8%	
Emerging Markets	21.7%	-4.4%	-1.8%	
United Kingdom	15.0%	-4.2%	-5.4%	
Japan	15.1%	-2.4%	-3.7%	
Pacific Ex. Japan	8.8%	-1.5%	-0.3%	
Canada	7.6%	-4.6%	2.2%	

International Equity Returns (in USD)

Market Summary – Long-term Performance*

Indexes	1 Year	3 Year	5 Year	10 Year	20 Year
Global Equity					
MSCI All Country World	4.7%	14.7%	9.7%	6.6%	7.4%
Domestic Equity					
S&P 500	13.7%	20.4%	15.5%	7.7%	9.9%
Russell 3000	12.6%	20.5%	15.6%	7.9%	10.0%
Russell 3000 Growth	12.4%	20.3%	15.9%	8.5%	8.9%
Russell 3000 Value	12.7%	20.7%	15.3%	7.3%	10.5%
Russell 1000	13.2%	20.6%	15.6%	8.0%	10.0%
Russell 1000 Growth	13.0%	20.3%	15.8%	8.5%	9.0%
Russell 1000 Value	13.5%	20.9%	15.4%	7.3%	10.5%
Russell 2000	4.9%	19.2%	15.5%	7.8%	9.6%
Russell 2000 Growth	5.6%	20.1%	16.8%	8.5%	7.8%
Russell 2000 Value	4.2%	18.3%	14.3%	6.9%	11.0%
CBOE BXM	5.6%	8.0%	7.1%	4.8%	8.0%
International Equity					
MSCI All Country World ex US	-3.4%	9.5%	4.9%	5.6%	5.8%
MSCI EAFE	-4.5%	11.6%	5.8%	4.9%	5.4%
MSCI Pacific	-2.5%	9.8%	5.8%	4.4%	2.0%
MSCI Europe	-5.7%	12.5%	5.9%	5.2%	8.0%
MSCI EM (Emerging Markets)	-1.8%	4.4%	2.1%	8.8%	6.0%
Fixed Income					
BC Universal Bond	5.6%	3.2%	4.8%	4.9%	6.4%
BC Global Agg – Hedged	7.6%	4.3%	4.6%	4.7%	6.3%
BC Aggregate Bond	6.0%	2.7%	4.4%	4.7%	6.2%
BC Government	4.9%	1.4%	3.7%	4.3%	5.9%
BC Credit Bond	7.5%	4.8%	6.3%	5.5%	6.9%
BC Mortgage Backed Securities	6.1%	2.4%	3.7%	4.7%	6.1%
BC High Yield Corporate Bond	2.5%	8.4%	9.0%	7.7%	7.9%
BC WGILB - Hedged	9.0%	2.9%	5.0%	4.9%	NA
BC Emerging Markets	4.8%	5.8%	7.4%	7.8%	10.7%
Real Estate					
NCREIF (Private RE)	11.8%	11.1%	12.1%	8.4%	9.6%
NAREIT (Public RE)	27.2%	16.4%	16.6%	7.5%	11.1%
Commodity Index					
Bloomberg Commodity (formerly DJUBS)	-17.0%	-9.4%	-5.5%	-1.9%	3.2%

* Performance is annualized for periods greater than one year.

PCA

SECTION 2 INVESTMENT MARKET RISK METRICS





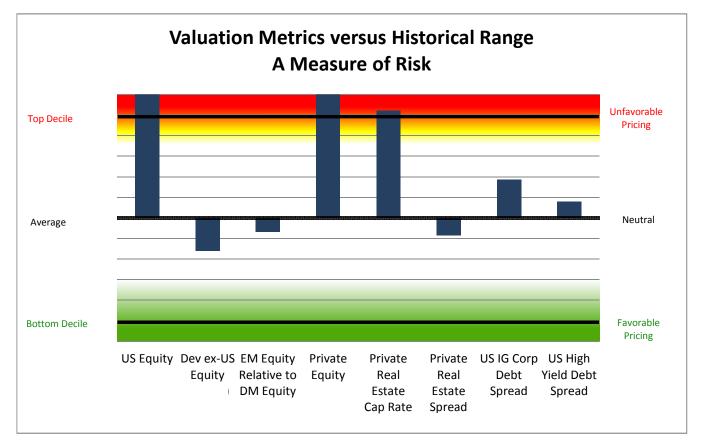
Takeaways

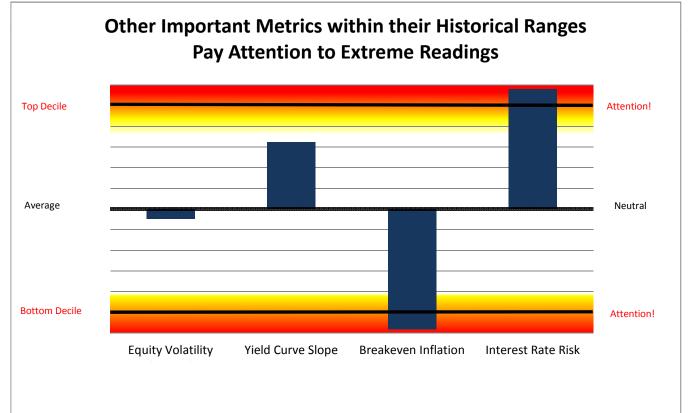
- Commodity prices remain in freefall (oil <\$50), hitting lowest inflation adjusted levels since index inception. Oil prices declined almost 30% in a month.
- Breakeven inflation continued to drop, declining to a reading of below 1.7% for the first time since the Euro crisis and bailouts of 2010.
- The yield on the 10-year Treasury declined towards 2% after month end.
- The yield curve slope flattened (bearish), as long-term rates declined.
- The PCA Market Sentiment Indicator "PMSI" remained <u>neutral</u> in December, after turning neutral in November. The trend is down.
 - This change was driven by year-over-year credit spread widening
 - While, year-over-year equity returns remain comfortably positive
 - Conflicting signals result in a grey (inconclusive / neutral) sentiment reading
- Commodity price declines, low inflation expectations, and falling interest rates point to global growth concerns, particularly outside the United States.
- U.S. stock markets rose. Stock markets outside the U.S. broadly declined.
- Valuations in U.S. equity and private equity remain at top decile levels.
- U.S. equity volatility (VIX) rose, but only to 19, near long-term average levels.

¹See Appendix for the rationale for selection and calculation methodology used for the risk metrics.



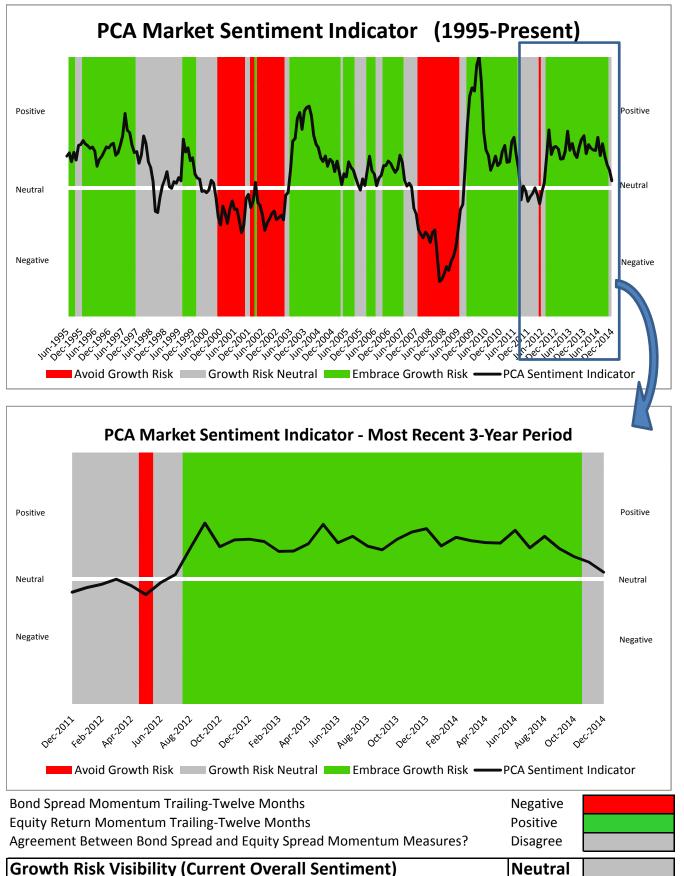
Risk Overview





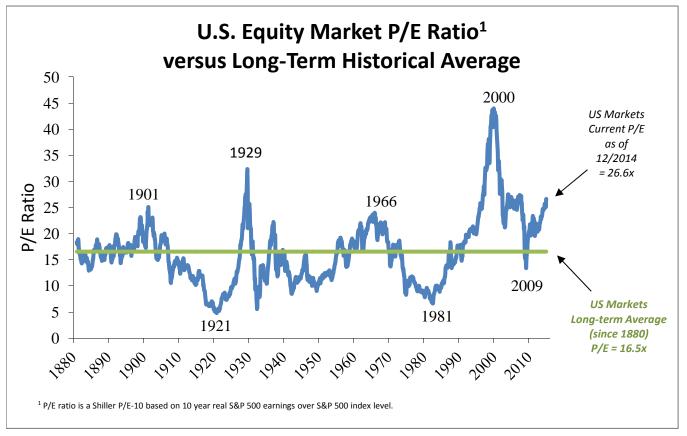
A PENSION CONSULTING ALLIANCE

Market Sentiment

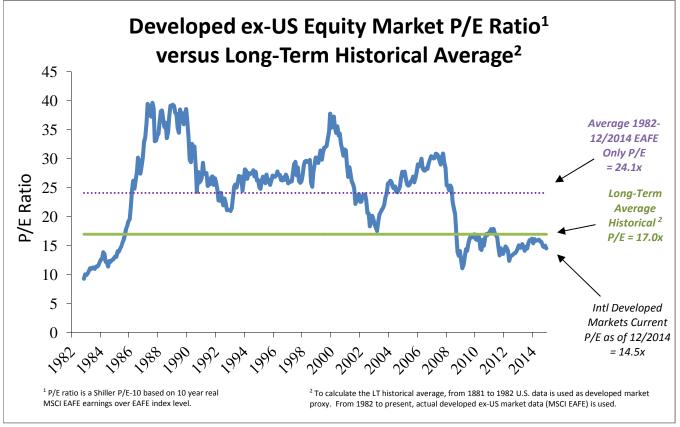


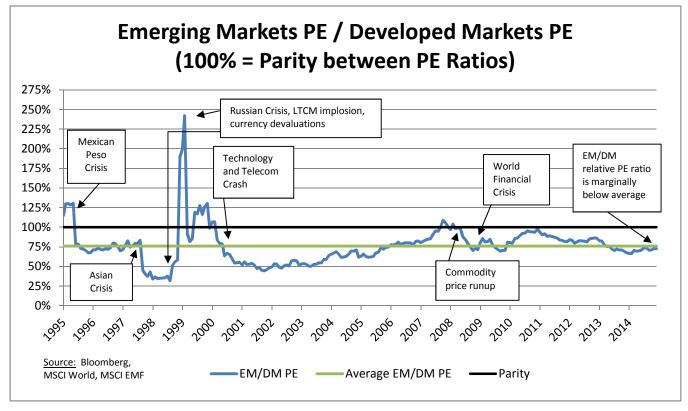
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Developed Public Equity Markets



⁽Please note the different time scales)

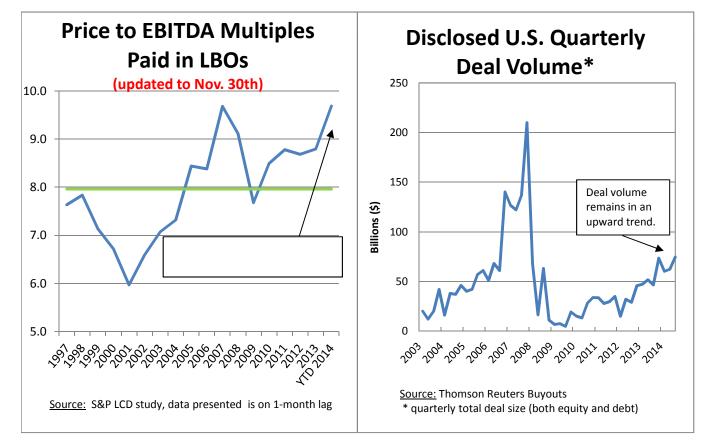




Emerging Market Public Equity Markets

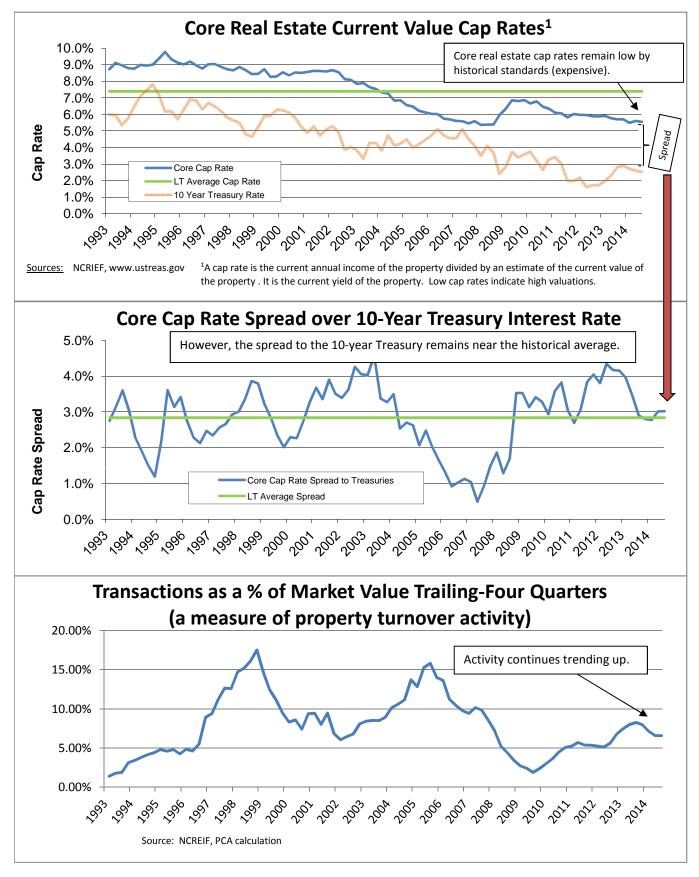
US Private Equity

Quarterly Data, Updated to Sept. 30th

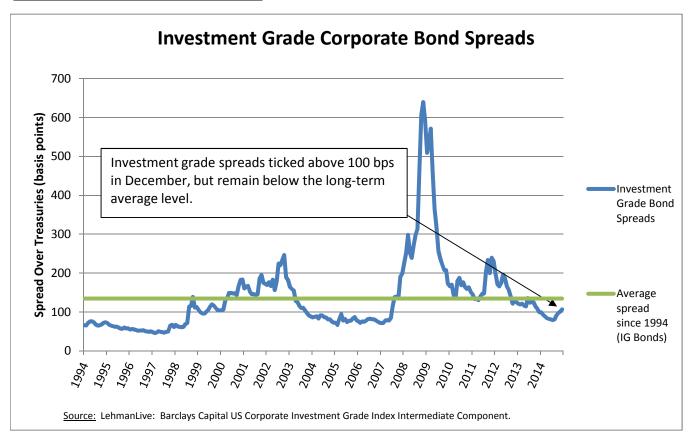


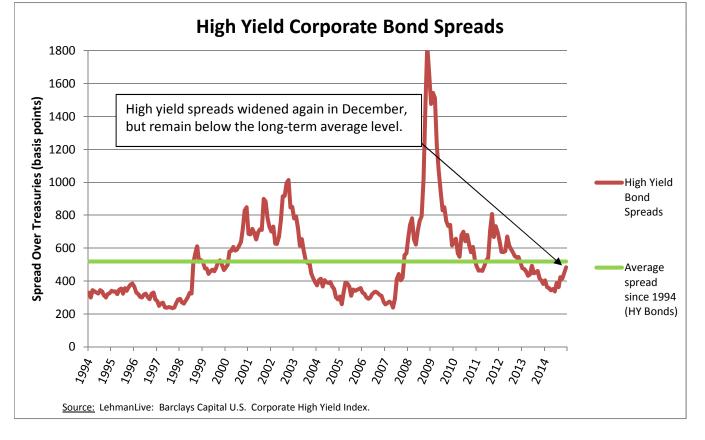
Private Real Estate Markets

Quarterly Data, Updated to Sept. 30th

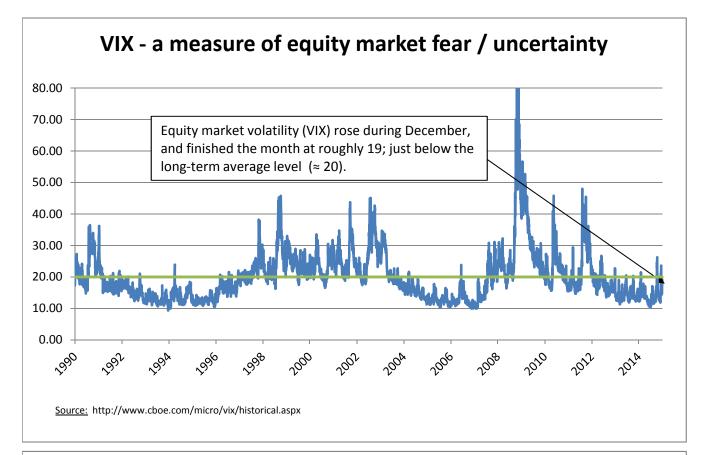


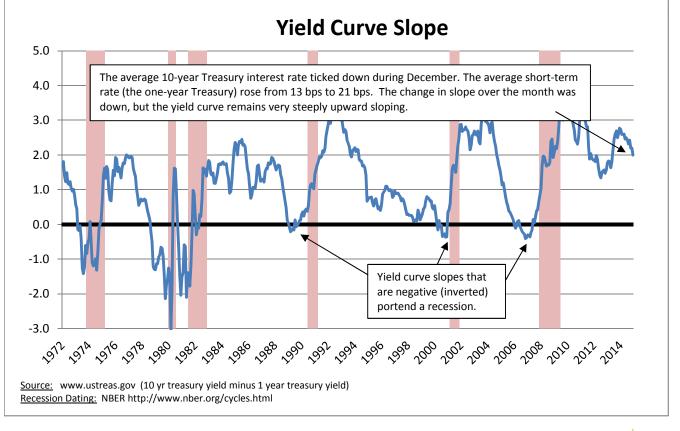
Credit Markets US Fixed Income





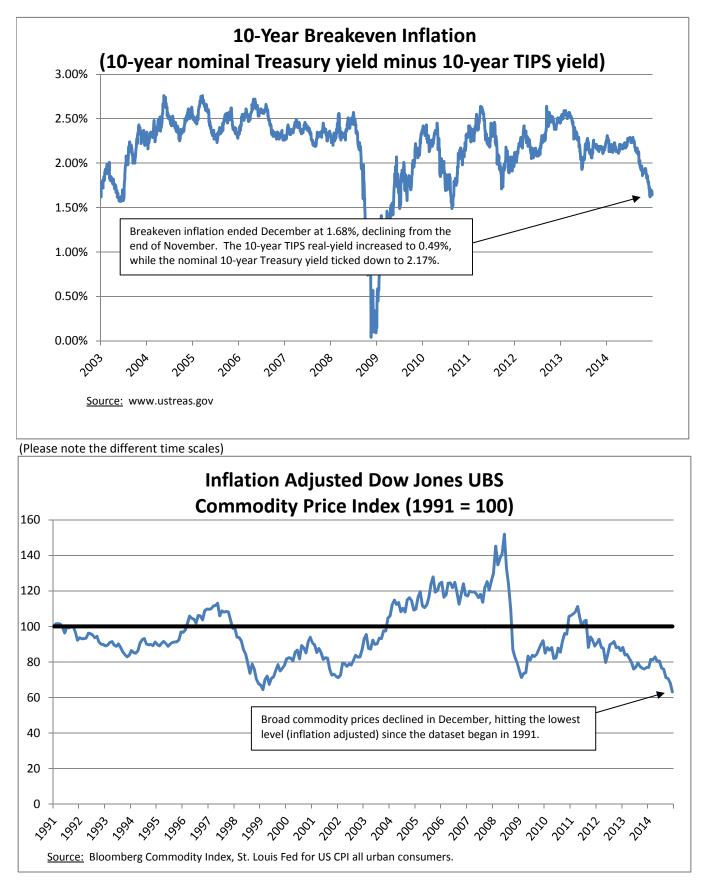
Other Market Metrics





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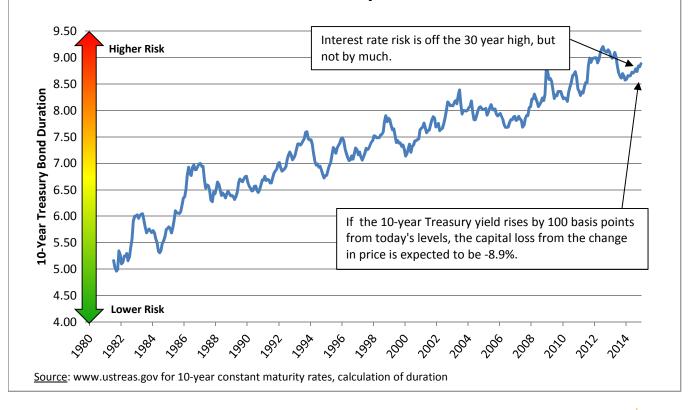
Measures of Inflation Expectations



Measures of U.S. Treasury Interest Rate Risk



LO-Tear Treasury Duration



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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 Professor Shiller's data and calculation of the E-10 are available on his website at the index. 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.





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.



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.

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 certainly 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

PENSION

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 <u>complement</u> 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 <u>risk seeking trend</u> or a <u>risk aversion trend</u>.

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

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.

¹Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

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



SECTION 3 REVIEW OF SCHOLARSHARE POLICY





Active Funds

Fund

T. Rowe Price Instl Large Cap Growth T. Rowe Price Instl Large Cap Value TIAA-CREF Small Cap Equity TIAA-CREF Social Choice Equity TIAA-CREF Real Estate Securities DFA Large Cap International DFA Emerging Markets Core Equity TIAA-CREF Bond Plus PIMCO Real Return PIMCO Income TIAA-CREF Inflation-Linked Bond T. Rowe Price Institutional Floating Rate TIAA-CREF High Yield Bond Asset Class Domestic Equity Domestic Equity Domestic Equity Domestic Equity Domestic Equity International Equity International Equity Fixed Income Fixed Income Fixed Income Fixed Income High Yield High Yield

<u>Benchmark</u>

Russell 1000 Growth TR USD
Russell 1000 Value TR USD
Russell 2000 TR USD
Russell 3000 TR USD
FTSE NAREIT All Equity REITS TR
MSCI World ex US NR USD
MSCI EM NR USD
BarCap US Universal TR USD
BarCap US Trsy US TIPS TR USD
BarCap US Trsy US TIPS TR USD
BarCap US Trsy US TIPS TR USD
S&P/LSTA Performing Loan TR
BofA ML US HY C Pay BB-B Constd TR

Passive Funds

Fund	Asset Class	Benchmark
TIAA-CREF Equity Index	Domestic Equity	Russell 3000 TR USD
TIAA-CREF S&P 500 Index	Domestic Equity	S&P 500 TR
TIAA-CREF International Equity Index	International Equity	MSCI EAFE NR USD
TIAA-CREF Emerging Markets Equity Index	International Equity	MSCI EM NR USD
TIAA-CREF Bond Index	Fixed Income	BarCap US Agg Bond TR USD

T-C Life Funding Agreements

T-C Life Funding Agreements*

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



Performance Criteria for Placing a Fund on Watch

Actively Managed Funds

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



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



Investment Status Schedule

Performance Category	Actively Managed Portfolios	Passively Managed Portfolios
Positive	Performance exceeds the benchmark.	 Performance exceeds the benchmark (first 1-12 month period), or Tracking error is within the allowable range¹ (short, medium, and long time periods).
Acceptable	 Performance meets or is under the benchmark and is within the allowable range. 	 Performance does not exceed the benchmark but is within the allowable range (first 1-12 month period only).
Caution	 Performance is below allowable range but either: for less than six consecutive months, or the Board has not taken (or decided not to take) a formal action to place the asset class or individual fund portfolio on Watch even though performance has been below allowable range for six months or longer. 	 Tracking error falls outside of the allowable range but either i) for less than six consecutive months, or ii) the Board has not voted to place the asset class or stand alone fund on Watch
Watch ²	 Performance is below allowable range for more than six consecutive months and the Board has formally voted to place the asset class or individual fund on Watch. 	 Tracking error falls outside of the allowable range for more than six consecutive months and the Board has formally voted to place the asset class or individual fund portfolio on Watch.

¹ Ranges are shown in the Investment Performance Criteria Schedules.
 ² The amount of time generally required before an investment is put on watch.



SUMMARY OF FUND PERFORMANCE STATUS

	Prior Quarter		Current Q	uarter
Funds	Status	On Watch	Status	On Watch
Active Funds			-	
T. Rowe Price Instl Large Cap Growth	Positive		Acceptable	
T. Rowe Price Instl Large Cap Value	Positive		Acceptable	
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	Acceptable		Positive	
DFA Emerging Markets Core Equity	Positive		Positive	
TIAA-CREF Bond Plus	N/A*		Positive	
PIMCO Real Return	Positive		Positive	Х
PIMCO Income	Positive		Positive	Х
TIAA-CREF Inflation-Linked Bond	Acceptable		Acceptable	
T. Rowe Price Instl Floating Rate	Acceptable		Acceptable	
TIAA-CREF High-Yield Bond	Acceptable		Acceptable	
Passive Funds				
TIAA-CREF Equity Index	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	
T-C Life Funding Agreements				
T-C Life Funding Agreements	Positive		Positive	

*Funded on 10/10/14 to replace PIMCO Total Return

- 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 12/31/2014

Funds	Assets (\$)	% of Total
Active Funds		
T. Rowe Price Instl Large Cap Growth	277,246,080	4.51%
T. Rowe Price Instl Large Cap Value	273,944,808	4.46%
TIAA-CREF Small Cap Equity	62,488,360	1.02%
TIAA-CREF Social Choice Equity	126,337,069	2.06%
TIAA-CREF Real Estate Securities	207,883,053	3.38%
DFA Large Cap International	204,809,357	3.33%
DFA Emerging Markets Core Equity	44,465,280	0.72%
TIAA-CREF Bond Plus	273,519,839	4.45%
PIMCO Real Return	97,865,705	1.59%
PIMCO Income	113,752,304	1.85%
TIAA-CREF Inflation-Linked Bond	243,110,048	3.96%
T. Rowe Price Instl Floating Rate	50,854,439	0.83%
TIAA-CREF High-Yield Bond	137,696,951	2.24%
Active Funds Total	2,113,973,292	34.40%
Passive Funds		
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%
Passive Funds Total	3,249,840,919	52.89%
T-C Life Funding Agreements		
T-C Life Funding Agreements	781,222,521	12.71%
TOTAL	6,145,036,732	100.00%



SECTION 4 SENSITIVITY ANALYSES

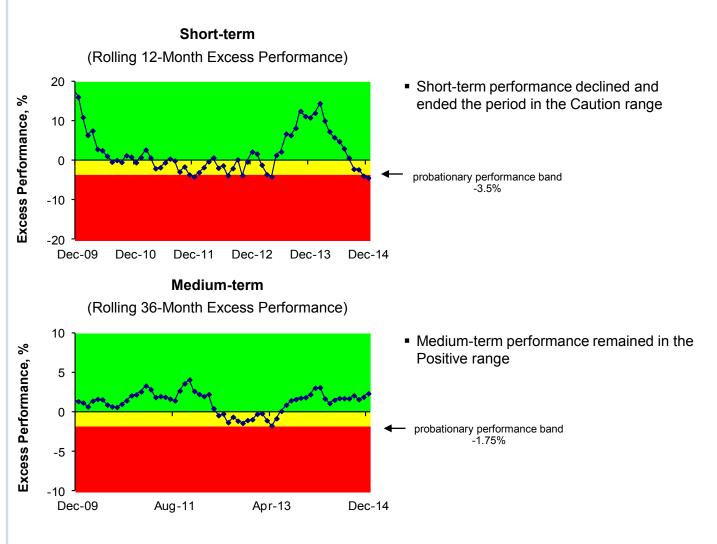
ACTIVE FUNDS





T.ROWE PRICE INSTL. LARGE CAP GROWTH FUND

Positive Acceptable Caution or Watch



Long-term criteria to take effect 4Q 2016

Annualized Performance Results (net of fund management fees)

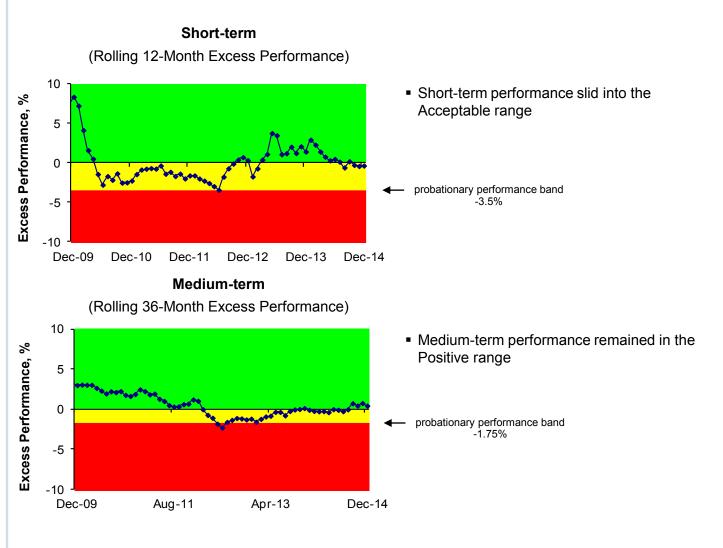
	1 Year	3 Year	5 Year	Program Inc. (11/2011)	
T. Rowe Price Instl Large Cap Growth	8.72	22.67	16.18	21.97	Current Status
Russell 1000 Growth TR	13.05	20.26	15.81	20.33	
Peer Rank (Percentile)	67	7	12	9	Acceptable

Source: Morningstar Direct Peer Group = US OE Large Growth



T.ROWE PRICE INSTL. LARGE CAP VALUE FUND

Positive Acceptable Caution or Watch



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	13.13	21.33	14.86	22.32
Russell 1000 Value TR	13.45	20.89	15.42	21.86
Peer Rank (Percentile)	13	11	19	8



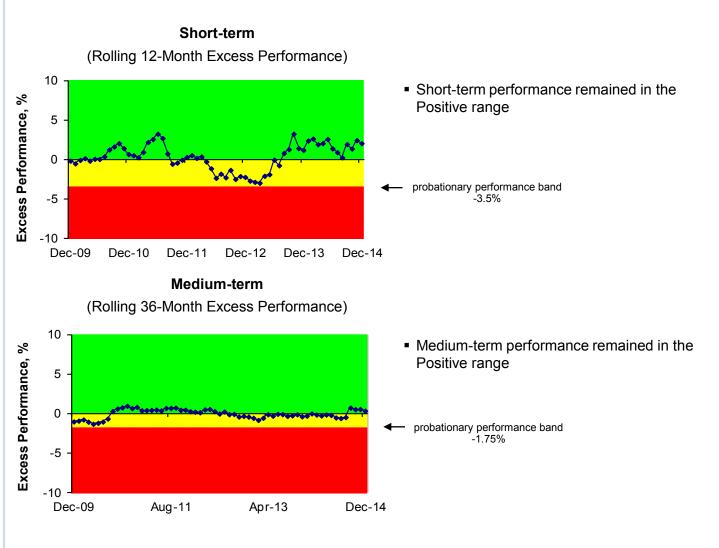


Current Status

Acceptable

TIAA-CREF SMALL CAP EQUITY FUND

Positive Acceptable Caution or Watch



Long-term criteria to take effect 4Q 2016

Annualized Performance Results (net of fund management fees)

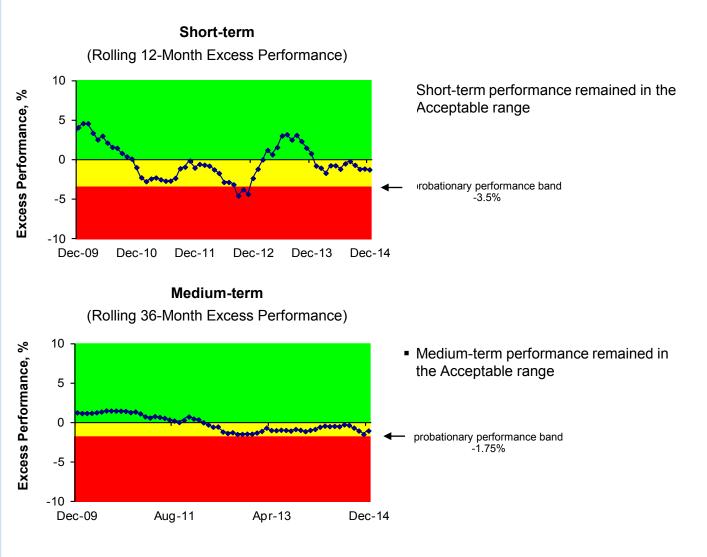
		1 Year	3 Year	5 Year	Program Inc. (11/2011)	
	TIAA-CREF Small Cap Equity	6.92	19.52	15.91	19.87	Current Status
L	Russell 2000 TR	4.89	19.21	15.55	19.65	
l	Peer Rank (Percentile)	22	36	34	35	Positive
L						

Peer Group = US OE Small Blend Source: Morningstar Direct



TIAA-CREF SOCIAL CHOICE EQUITY FUND

Positive Acceptable Caution or Watch



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	11.25	19.45	14.57	19.58
Russell 3000 TR	12.56	20.51	15.63	21.02
Peer Rank (Percentile)	54	50	39	54

Source: Morningstar Direct Peer Group = US OE Large Cap Blend

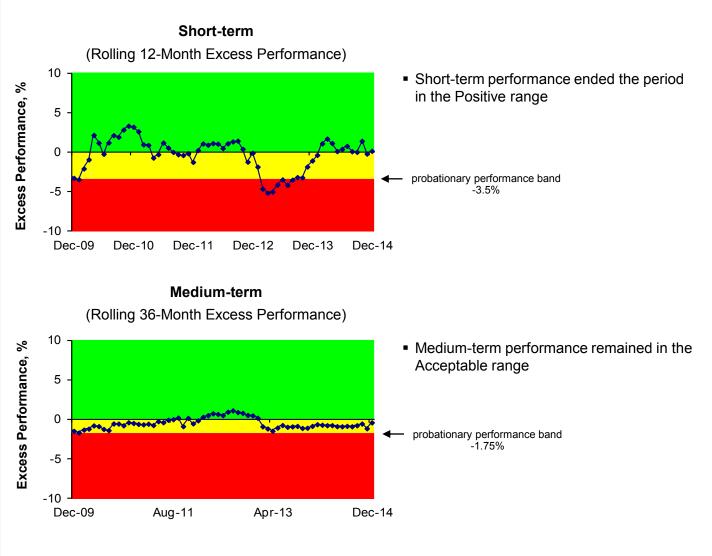


Current Status

Acceptable

TIAA-CREF REAL ESTATE SECURITIES FUND

Positive
 Acceptable
 Caution or Watch



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	28.13	15.93	16.92	17.15
FTSE NAREIT All Equity REITs TR	28.03	16.38	16.91	17.85
Peer Rank (Percentile)	71	26	18	32

Source: Morningstar Direct Peer Group = US OE Real Estate



Current Status

Acceptable

DFA LARGE CAP INTERNATIONAL PORTFOLIO

Positive Acceptable Caution or Watch



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	-5.24	10.43	5.24	10.38
MSCI World ex US NR USD	-4.32	10.47	5.21	10.42
Peer Rank (Percentile)	55	40	50	43

Source: Morningstar Direct Peer Group = US OE Foreign Large Blend

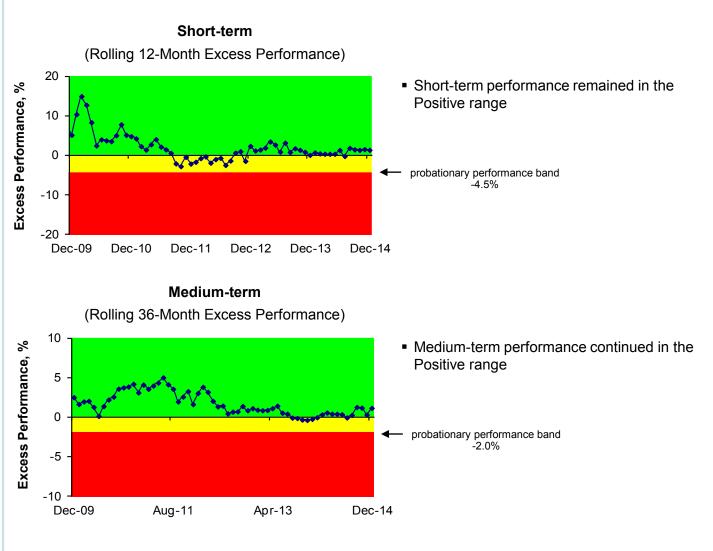


Current Status

Positive

DFA EMERGING MARKETS CORE EQUITY PORTFOLIO

Positive Acceptable Caution or Watch



Long-term criteria to take effect 4Q 2016

Annualized Performance Results (net of fund management fees)

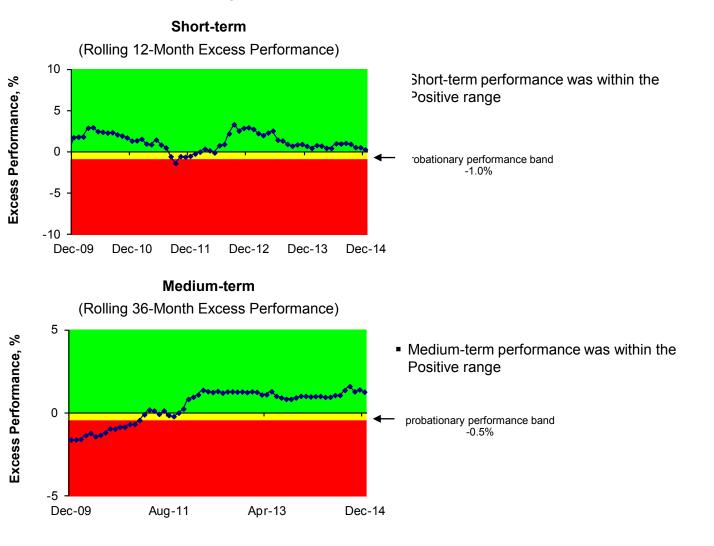
	1 Year	3 Year	5 Year	Program Inc. (11/2011)	
DFA Emerging Markets Core Equity	-0.91	5.14	2.66	4.25	Current Status
MSCI EM NR USD	-2.19	4.04	1.78	3.29	
Peer Rank (Percentile)	29	40	34	40	Positive

Source: Morningstar Direct Peer Group = US OE Diversified Emerging Markets



TIAA-CREF BOND PLUS FUND

Positive Acceptable Caution or Watch As approved by the Board, TIAA-CREF Bond Plus Fund was added to the ScholarShare Plan on October 10, 2014, to replace the PIMCO Total Return Fund due to organizational concerns.



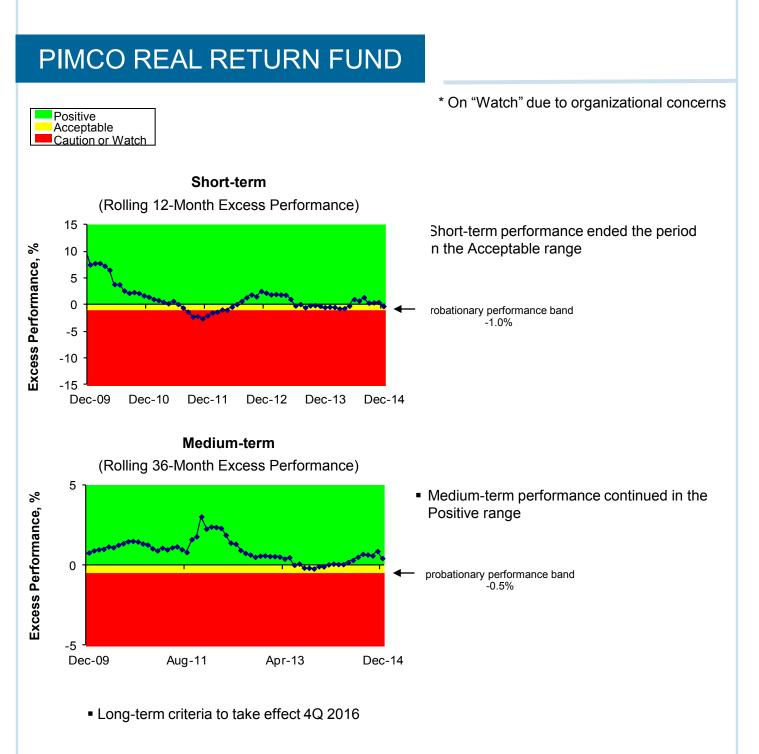
Long-term criteria to take effect 4Q 2019

Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (10/2014)	
TIAA-CREF Bond Plus Institutional	5.80	4.45	5.72	0.42	Current Status
BarCap US Universal TR	5.56	3.20	4.81	0.47	
Peer Rank (Percentile)	36	20	20	56	Positive
Source: Morningstar Direct Peer Group =	US OE Intermedia	ate-Term Bond			



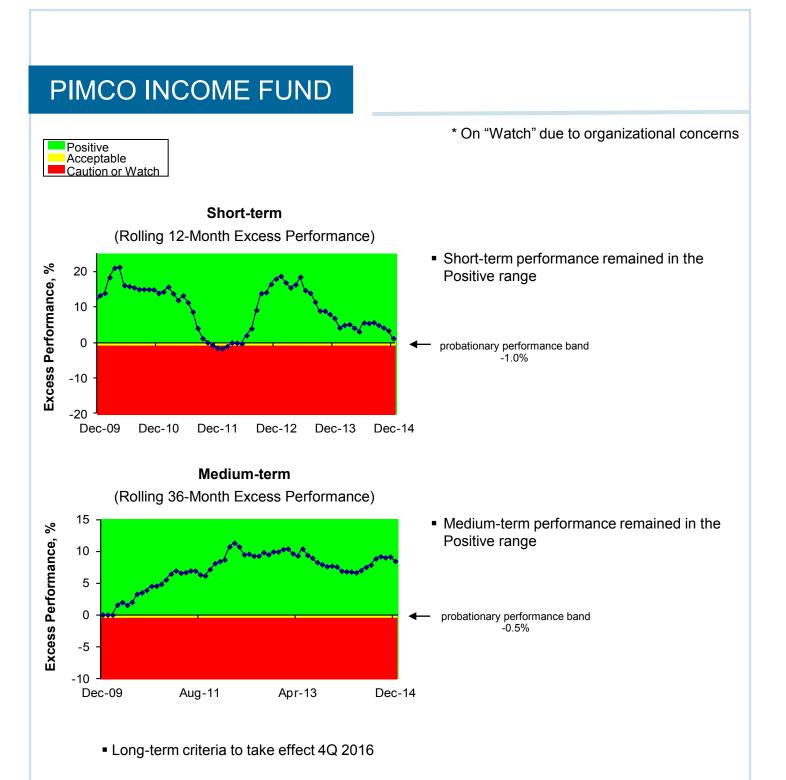




Annualized Performance Results (net of fund management fees)

		1 Year	3 Year	5 Year	Program Inc. (11/2011)	
l	PIMCO Real Return Institutional	3.42	0.91	4.33	1.07	Current Status
L	BarCap US Treasury US TIPS TR	3.64	0.44	4.11	0.55	
l	Peer Rank (Percentile)	13	5	4	4	Positive
	Source: Morningstar Direct Peer Group =	US OE Inflation-F	Protected Bond			





Annualized Performance Results (net of fund management fees)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)	
PIMCO Income Institutional	7.18	11.13	11.95	11.11	Current Status
BC US Aggregate Bond TR	5.97	2.66	4.45	2.85	
Peer Rank (Percentile)	6	1	1	1	Positive
Source: Merningster Direct Deer Cr	- US OF Multicopt	or Pond	2		

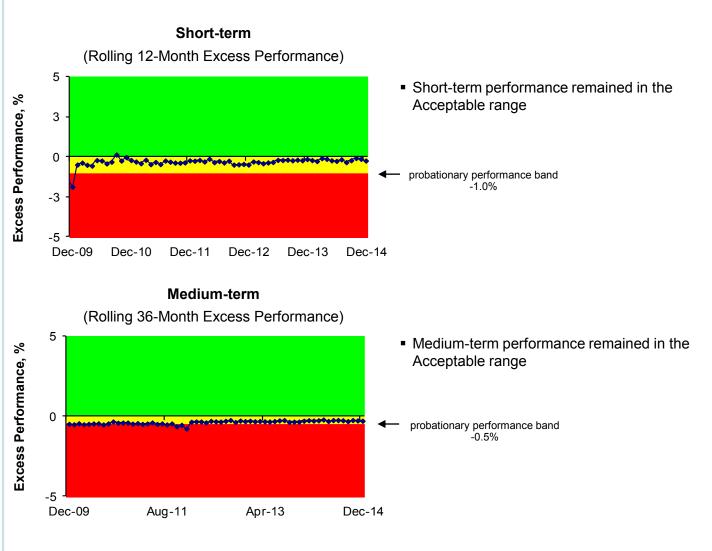
Source: Morningstar Direct Peer Group = US OE Multisector Bond



NA'S 529 COLLEGE SAV

TIAA-CREF INFLATION-LINKED BOND FUND

Positive Acceptable Caution or Watch



Long-term criteria to take effect 4Q 2016

Annualized Performance Results (net of fund management fees)

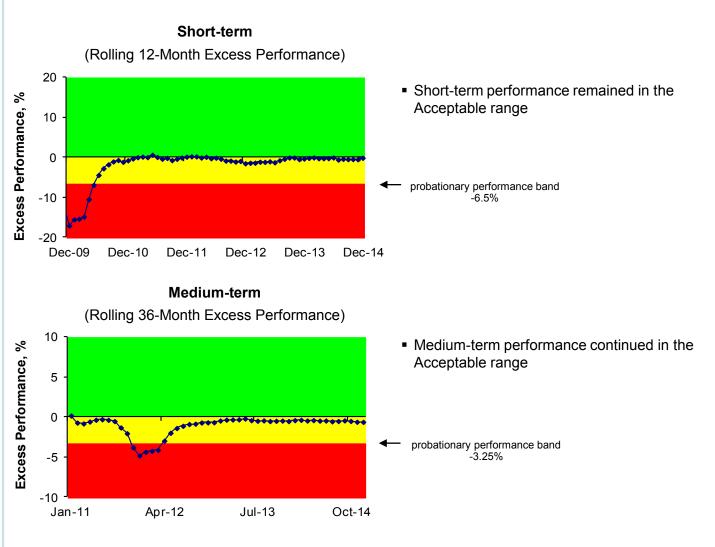
		1 Year	3 Year	5 Year	Program Inc. (11/2011)	
	TIAA-CREF Inflation-Linked Bond	3.42	0.17	3.87	0.31	Current Status
	BarCap US Treasury US TIPS TR	3.64	0.44	4.11	0.55	Current Status
	Peer Rank (Percentile)	12	32	16	30	Acceptable
L	Source: Morningstar Direct Peer Group	= US OE Inflation-	Protected Bond		•	

Pension Consulting Alliance, Inc. || Investment Performance Status Report: 4Q2014



T.ROWE PRICE INSTL. FLOATING RATE FUND

Positive Acceptable Caution or Watch



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	1.73	5.01	5.24	4.98	Current Status
S&P/LSTA Performing Loan TR	1.82	5.61	5.71	5.40	
Peer Rank (Percentile)	8	38	39	35	Acceptable
Source: Morningstar Direct Peer Group =	US OE Bank Loar	1			



TIAA-CREF HIGH YIELD BOND FUND

Positive Acceptable Caution or Watch Short-term (Rolling 12-Month Excess Performance) 10 Short-term performance continued in the Excess Performance, % Acceptable range 5 0 -5 probationary performance band -6.5% -10 Dec-09 Dec-10 Dec-12 Dec-13 Dec-14 Dec-11 Medium-term (Rolling 36-Month Excess Performance) 5 Excess Performance, % Medium-term performance slid into the Acceptable range 0 probationary performance band -3.25% -5 Dec-09 Aug-11 Apr-13 Dec-14

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	2.48	7.55	8.64	8.00	Current Status
BofA ML US HY C Pay BB-B Constd TR	3.48	8.02	8.71	8.33	
Peer Rank (Percentile)	22	49	19	45	Acceptable
Source: Morningstar Direct Peer Group = US O	E High Yield Bor	nd			



SENSITIVITY ANALYSES

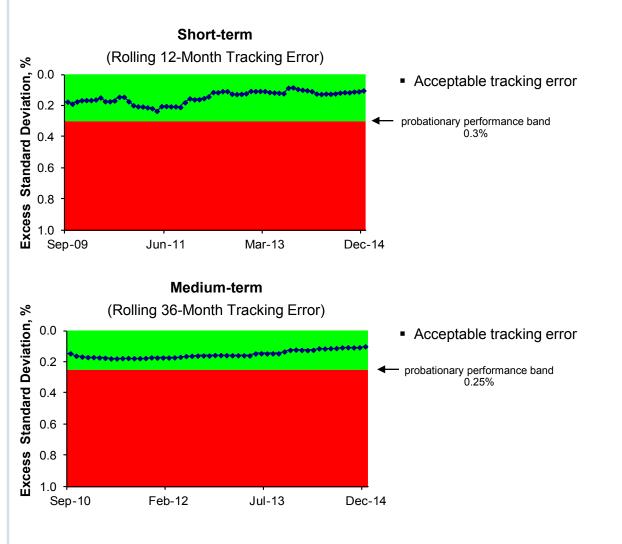
PASSIVE FUNDS





TIAA-CREF EQUITY INDEX FUND

Positive Acceptable Caution or Watch



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	12.52	20.44	15.57	20.93
Russell 3000 TR	12.56	20.51	15.63	21.02
Peer Rank (Percentile)	36	27	16	26
Source: Morningstar Direct Peer Group	= US OF Large Bl	end		

Current Status

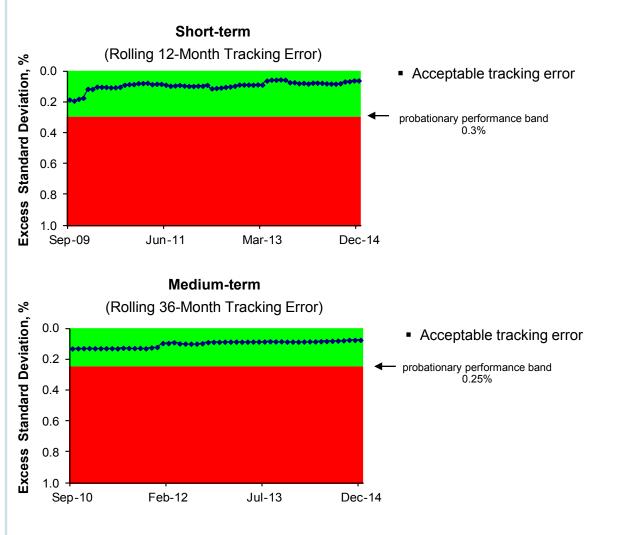
Positive

e: Morning



TIAA-CREF S&P 500 INDEX FUND

Positive Acceptable Caution or Watch



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	13.60	20.32	15.35	20.90
S&P 500 Index TR	13.69	20.41	15.45	21.00
Peer Rank (Percentile)	18	30	20	27
Source: Morningstar Direct Peer Group =	US OE Large Ble	nd		

ce: Morningstar Direct Peer Group US OE Large

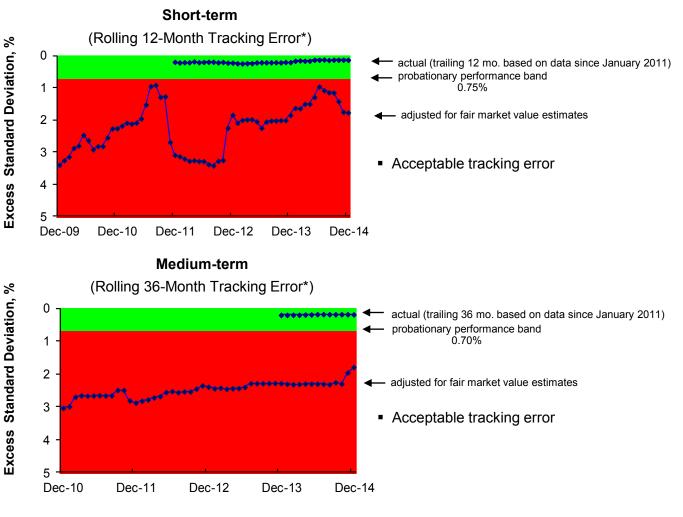


Current Status

Positive

T

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)
Annualized i chonnaliec Results	net of fund management (CCS)

	1 Year	3 Year	5 Year	Program Inc. (11/2011)
TIAA-CREF International Equity Index	-5.51	11.13	5.36	10.99
MSCI EAFE Index NR	-4.90	11.06	5.33	10.98
Peer Rank (Percentile)	59	27	46	29
	59	27		

Source: Morningstar Direct Peer Group = US OE Foreign Large Blend

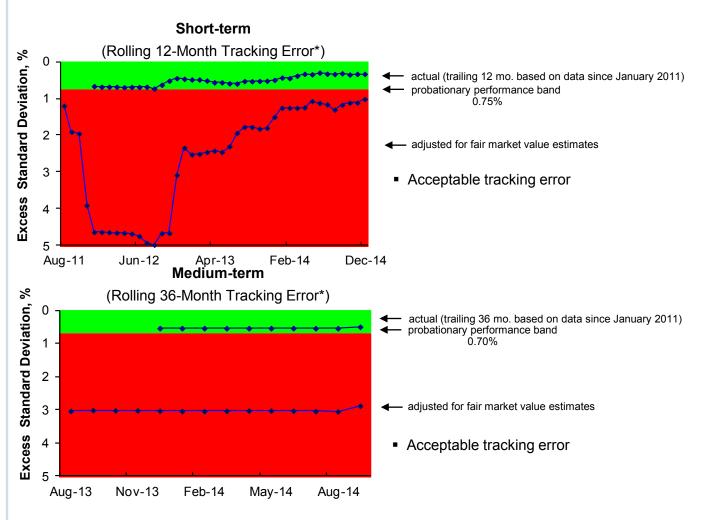


Current Status

Positive

TIAA-CREF EMERGING MARKETS EQUITY INDEX FUND

Positive Acceptable Caution or Watch



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 i	management tees)
---	------------------

	1 Year	3 Year	5 Year	Program Inc. (11/2011)	
TIAA-CREF Emerging Markets Equity Index	-3.21	3.58		2.82	Current Status
MSCI EM NR USD	-2.19	4.04		3.29	
Peer Rank (Percentile)	51	63		63	Positive
Source: Merningster Direct Deer Crown - US OF Di					

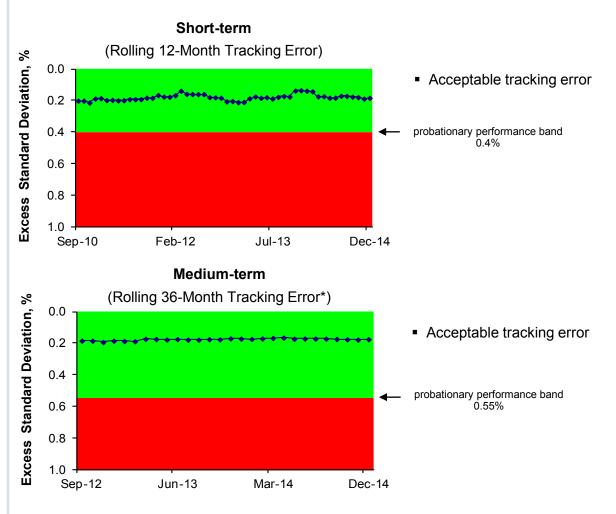
Source: Morningstar Direct Peer Group = US OE Diversified Emerging Markets



RNIA'S 529 COLLEGE SAVINGS PLAN

TIAA-CREF BOND INDEX FUND

Positive Acceptable Caution or Watch



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	5.87	2.49	4.26	2.66
BC US Aggregate Bond TR	5.97	2.66	4.45	2.85
Peer Rank (Percentile)	33	80	73	79

Source: Morningstar Direct Peer Group = US OE Intermediate-Term Bond



Current Status

Positive

Т

T-C LIFE FUNDING AGREEMENTS





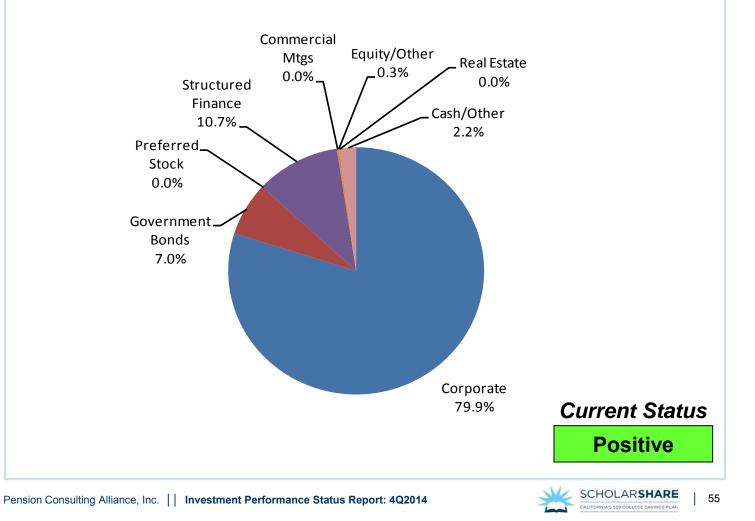
T-C LIFE FUNDING AGREEMENTS

(based on non investment performance criteria)

Criteria	Status as of 12/31/2014	Status as of 9/30/2014	Status as of 6/30/2014	Status as of 3/31/2014
Financial Strength	Moody's = Aa1	Moody's = Aa1	Moody's = Aaa	Moody's = Aaa
	Standard & Poor's = AA+			
	A.M. Best = A++			
	Fitch = AAA	Fitch = AAA	Fitch = AAA	Fitch = AAA
Mortgage Portfolio	100% in Good Standing*			
Bond Portfolio	98.40% in Investment	98.33% in Investment	98.30% in Investment	98.40% in Investment
	Grade (at least 90%)			
Account Diversification	Portfolio is diversified	Portfolio is diversified	Portfolio is diversified	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



SECTION 5 SUMMARY POINTS





SUMMARY POINTS

	Crite	ria Utilized for Per	formance Watch St	tatus
	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 <u>relative</u> 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





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: Manager Cumulative Return / Benchmark Cumulative Return.



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Date: February 18, 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 October 1, 2014 through December 31, 2014. 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.

		12/31/2014			
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	\$113.8	10/02/2014	10/01/2014	3	-1.86%
PIMCO Real Return Fund	\$97.9	10/02/2014	10/01/2014	3	-0.69%

Performance of Funds on Watch Status As of 12/31/2014

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 4Q2014 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, the PIMCO Income Fund fund has trailed its benchmark, the Barclays US Aggregate Bond Index, by -1.86% and ranked in the 39th percentile versus its peers in the Multisector Bond category. The portfolio outperformed the benchmark by 1.21% over the 1-year period and 8.47% over the 3-year period; these results ranked in the 6th and 1st 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 welldiversified 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, the PIMCO Real Return fund has trailed its benchmark, the Barclays US Treasury US TIPS Index, by (67) basis points and ranked in the 52nd percentile versus its peers in the Inflation-Protected Bond category. The portfolio trailed the benchmark by (22) basis points over the 1-year period, but exceeded the benchmark by 47 basis points over the 3-year period; these results ranked in the 13th and 5th 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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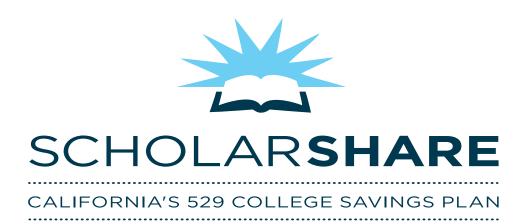
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ScholarShare College Savings Plan

Investment Performance Report 4th Quarter, 2014







Key Themes

- Following third-quarter GDP growth of 5%, the U.S. economy expanded at a 2.6% rate in the fourth quarter.
- Overall, the U.S. economy has not yet reached its full potential, as areas such as wage growth remain relatively weak, but its prospects remained brighter than those of other major regions.

Equities

- With oil prices plunging to multi-year lows, Energy (-10.7%) was the quarter's worst-performing sector.
- Foreign equity markets significantly underperformed broad U.S. benchmarks.

Fixed Income

- Contrary to expectations, the 10-year U.S. Treasury yield fell over the course of 2014.
- A stronger economy normally leads to higher interest rates, but falling supply relative to demand for Treasuries helped keep rates low.

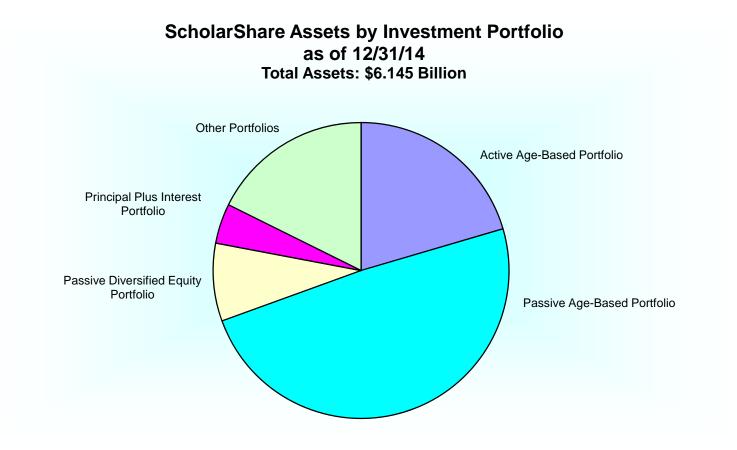
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Market Performance	e as of Dece	mber 31, 20	014 (%)	
Asset Class	Latest Quarter	1 Year	3 Year	5 Year
U.S. Equities	5.24	12.56	20.51	15.63
U.S. Growth Stocks	4.78	13.05	20.26	15.81
U.S. Value Stocks	4.98	13.45	20.89	15.42
U.S. Mid-Cap Stocks	5.94	13.22	21.40	17.19
U.S. Small-Cap Stocks	9.73	4.89	19.21	15.55
Int'l Developed Markets	-3.57	-4.90	11.06	5.33
Emerging Markets	-4.50	-2.19	4.04	1.78
Real Estate Stocks	12.94	28.03	16.38	16.91
U.S. Investment Grade Bonds	1.79	5.97	2.66	4.45
U.S. Treasuries	5.60	19.31	5.77	9.81
Inflation-Linked Bonds	-0.03	3.64	0.44	4.11
High Yield Bonds	-0.37	3.48	8.02	8.71
Commodities	-12.10	-17.01	-9.43	-5.53
Cash	0.00	0.05	0.09	0.11
Annualized Tuition Inflation End	ding as of 2	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 Nonprof	it 4-Year	3.65	3.85	3.94
Consumer Price Index, December	2014	0.76	1.33	1.69

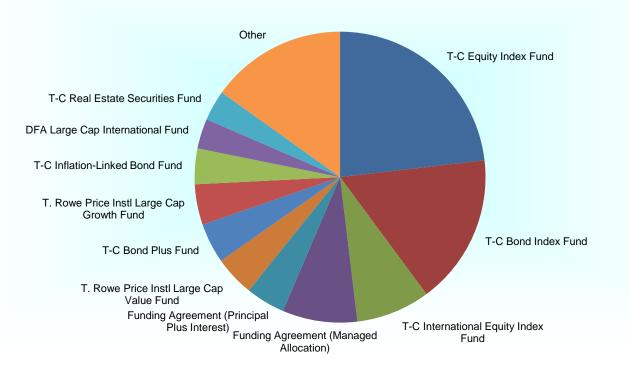
*Data are for the entire academic year and are average total charges for full-time attendance. Tuition and fees were enrollment weighted. SOURCES: CollegeBoard, Trends in College Pricing 2014 and U.S. Department of Labor: Bureau of Labor Statistics

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



Portfolio	% of Assets	\$ N	lillions	Portfolio	% of Assets	\$ I	Aillions
Passive Age-Based Portfolio	49.01%	\$	3,012	Principal Plus Interest Portfolio	4.37%	\$	269
Active Age-Based Portfolio	20.46%	\$	1,257	Other Portfolios (see below)	17.66%	\$	1,085
Passive Diversified Equity Portfolio	8.50%	\$	522				
			Other F	Portfolios			
Index U.S. Equity Portfolio	3.17%	\$	195	Passive Conservative Portfolio	0.47%	\$	29
Index U.S. Large Cap Equity Portfolio	3.14%	\$	193	Active Moderate Growth Portfolio	0.46%	\$	28
Active Diversified Equity Portfolio	2.53%	\$	155	Active Conservative Portfolio	0.45%	\$	28
Social Choice Portfolio	2.06%	\$	126	Passive Moderate Growth Portfolio	0.31%	\$	19
Active Growth Portfolio	1.42%	\$	87	Active Diversified Fixed Income Portfolio	0.24%	\$	15
Index International Equity Portfolio	1.40%	\$	86	Active International Equity Portfolio	0.23%	\$	14
Passive Growth Portfolio	1.09%	\$	67	Passive Diversified Fixed Income Portfolio	0.10%	\$	6
Index Bond Portfolio	0.60%	\$	37				

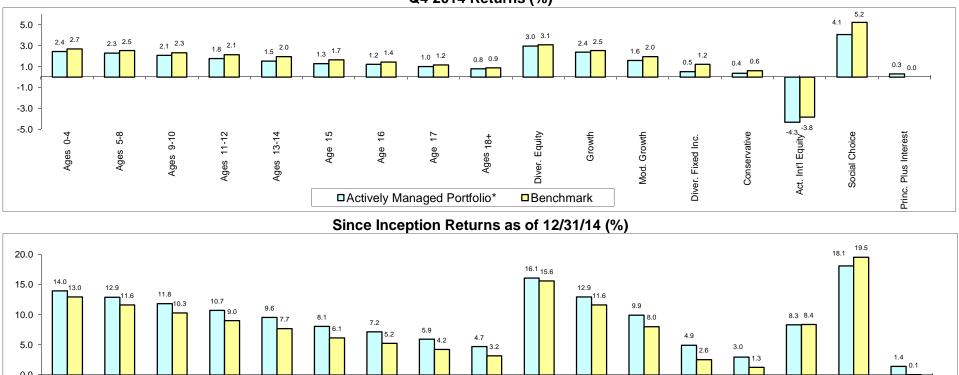
ScholarShare Assets by Underlying Funds as of 12/31/14 Total Assets: \$6.145 Billion



Fund	% of Assets	\$ I	Millions	Fund	% of Assets	\$ M	lillions
T-C Equity Index Fund	23.14%	\$	1,422	TIAA-CREF Bond Plus Fund	4.45%	\$	274
T-C Bond Index Fund	16.73%	\$	1,028	Funding Agreement (Principal Plus Interest)	4.38%	\$	269
Funding Agreement (Managed Allocation)	8.34%	\$	513	T-C Inflation-Linked Bond Fund	3.96%	\$	243
T-C International Equity Index Fund	8.21%	\$	504	T-C Real Estate Securities Fund	3.38%	\$	208
T. Rowe Price Instl Large Cap Growth Fund	4.51%	\$	277	DFA Large Cap International Fund	3.33%	\$	205
T. Rowe Price Instl Large Cap Value Fund	4.46%	\$	274	Other	15.11%	\$	928
			Other	Funds			
T-C S&P 500 Index Fund	3.15%	\$	193	PIMCO Real Return Fund	1.59%	\$	98
T-C High Yield Bond Fund	2.24%	\$	138	T-C Small Cap Equity Fund	1.02%	\$	62
T-C Social Choice Equity Fund	2.06%	\$	126	T. Rowe Price Instl Floating Rate Fund	0.83%	\$	51
PIMCO Income Fund	1.85%	\$	114	DFA Emerging Markets Core Equity Portfolic	0.72%	\$	44
T-C Emerging Markets Equity Index Fund	1.65%	\$	101				

Actively Managed Portfolios vs. Composite Benchmarks

Q4 2014 Returns (%)



0.0 Princ. Plus Interest 9-10 11-12 13-14 16 Ages 18+ Growth 5-8 9-4 **Diver.** Equity Mod. Growth Conservative Social Choice Diver. Fixed Inc. Int'l Equity Age Age Age Ages Ages Ages Ages Ages Act. □Actively Managed Portfolio* Benchmark

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

- The U.S. economy added 866,000 jobs in the fourth quarter, capped by a solid December employment report (+252,000) and upward revisions to October's and November's totals.
- New and existing home sales both dropped in November after increasing in October.
- Most actively managed portfolios had positive absolute returns in Q4 and slightly trailed their blended benchmarks after fees. 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.
- A notable contributor to relative returns was the TIAA-CREF Real Estate Securities Fund, which returned 121 basis points over its benchmark in Q4. Another standout was the T. Rowe Price Floating Rate Fund, which outperformed by 34 basis points.
- Detracting from performance was the PIMCO Income Fund. This fund trailed its benchmark by 186 basis points but still retains very strong longer term performance.

ScholarShare College Savings Plan Performance Summary Actively Managed Portfolios vs. Composite Benchmarks* For the Period Ending 12/31/2014

				Average Annu	al Total Return	l	-	
Investment Portfolios	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception	Inception Date	
Active Age-Based Portfolios**								
Active Age-Based Portfolio 0-4	2.44%	6.71%	6.71%	15.33%		13.97%	11/04/1	
Blended Benchmark Returns	2.70%	7.77%	7.77%	13.92%		12.95%		
Difference	-0.26%	-1.06%	-1.06%	1.41%		1.02%		
Active Age-Based Portfolio 5-8	2.30%	6.54%	6.54%	14.12%		12.91%	11/04/11	
Blended Benchmark Returns	2.52%	7.45%	7.45%	12.47%		11.63%		
Difference	-0.22%	-0.91%	-0.91%	1.65%		1.28%		
Active Age-Based Portfolio 9-10	2.08%	6.27%	6.27%	12.86%		11.83%	11/04/11	
Blended Benchmark Returns	2.33%	7.13%	7.13%	11.03%		10.31%		
Difference	-0.25%	-0.86%	-0.86%	1.83%		1.52%		
Active Age-Based Portfolio 11-12	1.77%	6.00%	6.00%	11.58%		10.69%	11/04/11	
Blended Benchmark Returns	2.14%	6.80%	6.80%	9.59%		9.00%		
Difference	-0.37%	-0.80%	-0.80%	1.99%		1.69%		
Active Age-Based Portfolio 13-14	1.52%	5.71%	5.71%	10.30%		9.56%	11/04/11	
Blended Benchmark Returns	1.96%	6.47%	6.47%	8.16%		7.69%		
Difference	-0.44%	-0.76%	-0.76%	2.14%		1.87%		
Active Age-Based Portfolio 15	1.27%	5.19%	5.19%	8.67%		8.08%	11/04/1 <i>*</i>	
Blended Benchmark Returns	1.65%	5.61%	5.61%	6.48%		6.13%		
Difference	-0.38%	-0.42%	-0.42%	2.19%		1.95%		
Active Age-Based Portfolio 16	1.22%	4.80%	4.80%	7.66%		7.16%	11/04/1	
Blended Benchmark Returns	1.44%	4.93%	4.93%	5.52%		5.23%		
Difference	-0.22%	-0.13%	-0.13%	2.14%		1.93%		
Active Age-Based Portfolio 17	1.01%	3.99%	3.99%	6.31%		5.92%	11/04/11	
Blended Benchmark Returns	1.16%	3.99%	3.99%	4.44%		4.21%	11/04/1	
Difference	-0.15%	0.00%	0.00%	1.87%		1.71%		
Active Age-Based Portfolio 18 & Over	0.78%	3.21%		4.99%		4.70%	44/04/44	
Blended Benchmark Returns	0.78%	3.21%	3.21% 3.06%	4.99% 3.36%		4.70% 3.19%	11/04/11	
Difference	-0.11%	0.15%	0.15%	1.63%		1.51%		
Active Multi-Fund Investment Portfolios	-0.1178	0.1378	0.1378	1.0578		1.0170		
Active Diversified Equity Portfolio	2.96%	7.23%	7.23%	17.76%		16.10%	11/04/11	
Blended Benchmark Returns	3.07%	8.39%	8.39%	16.84%		15.61%		
Difference	-0.11%	-1.16%	-1.16%	0.92%		0.49%		
Active Growth Portfolio	2.37%	6.53%	6.53%	14.15%		12.93%	11/04/11	
Blended Benchmark Returns	2.52%	7.45%	7.45%	12.47%		11.63%	11/04/1	
Difference	-0.15%	-0.92%	-0.92%	1.68%		1.30%		
							11/00/14	
Active Moderate Growth Portfolio Blended Benchmark Returns	1.58% 1.96%	5.73% 6.47%	5.73% 6.47%	10.29% 8.16%		9.94% 8.00%	11/09/11	
Difference	-0.38%	-0.74%	-0.74%	2.13%		1.94%		
Active Conservative Portfolio	0.37%	2.81%	2.81%	3.03%		2.95%	11/04/11	
Blended Benchmark Returns	0.61%	2.54%	2.54%	1.29%		1.28%		
Difference	-0.24%	0.27%	0.27%	1.74%		1.67%		
Active International Equity Portfolio	-4.32%	-4.39%	-4.39%	9.38%		8.31%	11/10/11	
Blended Benchmark Returns	-3.84%	-3.84%	-3.84%	9.21%		8.36%		
Difference	-0.48%	-0.55%	-0.55%	0.17%		-0.05%		
Active Diversified Fixed Income Portfolio	0.52%	4.68%	4.68%	5.02%		4.92%	11/08/11	
Blended Benchmark Returns	1.22%	5.08%	5.08%	2.52%		2.55%		
Difference	-0.70%	-0.40%	-0.40%	2.50%		2.37%		
Active Single Fund Investment Portfolios								
Social Choice Portfolio	4.06%	11.18%	11.18%	19.34%		18.11%	11/04/11	
Benchmark Returns	5.24%	12.56%	12.56%	20.51%		19.53%		
Difference	-1.18%	-1.38%	-1.38%	-1.17%		-1.42%		
Principal Plus Interest Portfolio**	0.29%	1.16%	1.16%	1.41%		1.40%	11/04/11	
Benchmark Returns	0.00%	0.03%	0.03%	0.05%		0.06%		
Difference	0.29%	1.13%	1.13%	1.36%		1.34%		

* 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 Q4 2014

Investment Portfolios

Active Age-Based Portfolio Age of Beneficiary	Q4 Portfolio Return	Q4 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 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
Underlying Fund Expenses (bp)				56	58	56	55	52	29	63	32	45	45	-
0 - 4	2.44%	2.70%	58	22.68%	22.68%	2.00%	5.04%	5.60%	19.20%	4.80%	10.00%	4.00%	4.00%	0.00%
5 - 8	2.30%	2.52%	57	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	0.00%
9 - 10	2.08%	2.33%	56	17.01%	17.01%	4.00%	3.78%	4.20%	14.40%	3.60%	20.00%	8.00%	8.00%	0.00%
11 - 12	1.77%	2.14%	55	14.18%	14.18%	5.00%	3.14%	3.50%	12.00%	3.00%	25.00%	10.00%	10.00%	0.00%
13 - 14	1.52%	1.96%	54	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	0.00%
15	1.27%	1.65%	49	8.51%	8.51%	6.00%	1.88%	2.10%	7.20%	1.80%	30.00%	12.00%	12.00%	10.00%
16	1.22%	1.44%	44	7.09%	7.09%	5.50%	1.57%	1.75%	6.00%	1.50%	27.50%	11.00%	11.00%	20.00%
17	1.01%	1.16%	38	5.67%	5.67%	4.50%	1.26%	1.40%	4.80%	1.20%	22.50%	9.00%	9.00%	35.00%
18+	0.78%	0.89%	31	4.25%	4.25%	3.50%	0.95%	1.05%	3.60%	0.90%	17.50%	7.00%	7.00%	50.00%
Fund's Performance vs Benchmk Q4 2014	4 (bp)			(20)	(58)	34	(73)	121	(58)	(18)	(55)	(69)	(186)	25

Active Multi-Fund Investment Portfolios

Active Diversified Equity Portfolio	2.96%	3.07%	60	28.35%	28.35%		6.30%	7.00%	24.00%	6.00%				
Active Growth Portfolio	2.37%	2.52%	57	19.85%	19.85%	3.00%	4.40%	4.90%	16.80%	4.20%	15.00%	6.00%	6.00%	
Active Moderate Growth Portfolio	1.58%	1.96%	54	11.34%	11.34%	6.00%	2.52%	2.80%	9.60%	2.40%	30.00%	12.00%	12.00%	
Active Diversified Fixed Income Portfolio	0.52%	1.22%	50			10.00%					50.00%	20.00%	20.00%	
Active Conservative Portfolio	0.37%	0.61%	30			5.00%					25.00%	10.00%	10.00%	50.00%
Active International Equity Portfolio	-4.32%	-3.84%	46						80.00%	20.00%				
Fund's Performance vs Benchmk Q4 2014	(bp)			(20)	(58)	34	(73)	121	(58)	(18)	(55)	(69)	(186)	25

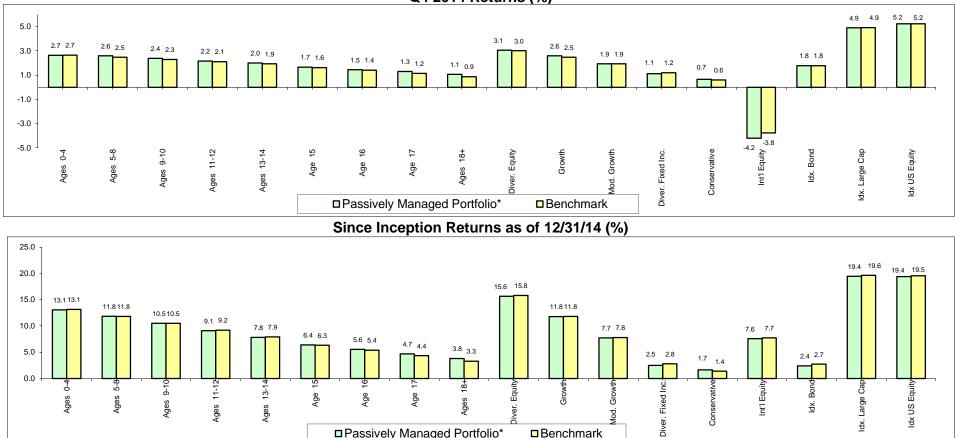
Active Single Fund Investment Portfolios

Investment Portfolios	Q4 Portfolio Return	Q4 Blended Benchmk Return	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q4 2014 (bp)
Social Choice Portfolio	4.06%	5.24%	28	100.00%	TIAA-CREF Social Choice Equity Fund	(118)
Principal Plus Interest Portfolio	0.29%	0.00%	-	100.00%	TIAA-CREF Life Co. Funding Agreement	29

* 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

Q4 2014 Returns (%)



* 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 overcame drops of about 5% in October and December to return 4.93% for the quarter as a whole. Over the course of 2014, the S&P 500 notched 53 record highs en route to a 13.69% total return, its sixth consecutive annual gain.
- Europe produced a flat return (0.00%), with varying results for the region's three largest markets Germany (+3.99%), France (-1.93%), and the U.K. (-0.44%). With a return of just 0.01%, emerging-market stocks lagged the developed world.
- Most Passively Managed Portfolios posted gains for the quarter and generally slightly outperformed their benchmarks.
- Contributing to Q4 relative performance was the TC Real Estate Securities Fund, which outperformed by 121 basis points, as well as the TC Life Funding Agreement (+25 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 U.S. Equity Portfolio, with exposure to the broad U.S. stock market through the TIAA-CREF Equity Index Fund, generated the highest absolute returns for the quarter, returning 5.24%.
- The Index International Equity Portfolio had the lowest absolute performance in Q4 due to continued weakness in the international equity markets, returning -4.19%.

ScholarShare College Savings Plan Performance Summary

Passively Managed Portfolios vs. Composite Benchmarks* For the Period Ending 12/31/2014

				Average Annua			
Investment Portfolios	3 Month	YTD	1 Year	3 Year	5 Year	Since Inception In	ception Date
Passive Age-Based Portfolio**							
Passive Age-Based Portfolio 0-4	2.65%	7.44%	7.44%	14.12%	-	13.06%	11/04/11
Blended Benchmark Returns	2.66%	7.72%	7.72%	14.10%	-	13.13%	
Difference	-0.01%	-0.28%	-0.28%	0.02%	-	-0.07%	
Passive Age-Based Portfolio 5-8	2.60%	7.40%	7.40%	12.74%	-	11.83%	11/04/11
Blended Benchmark Returns Difference	2.48%	7.43%	7.43%	12.65%	-	11.81%	
	0.12%	-0.03%	-0.03%	0.09%	-	0.02%	
Passive Age-Based Portfolio 9-10 Blended Benchmark Returns	2.39%	6.95%	6.95%	11.29%	-	10.49%	11/04/11
Difference	2.30% 0.09%	7.14% -0.19%	7.14% -0.19%	11.22% 0.07%	-	10.50% - <mark>0.01%</mark>	
Passive Age-Based Portfolio 11-12					-		44/04/4
Passive Age-Based Portfolio 11-12 Blended Benchmark Returns	2.17% 2.12%	6.56% 6.83%	6.56% 6.83%	9.77% 9.79%	-	9.09% 9.20%	11/04/11
Difference	0.05%	-0.27%	-0.27%	-0.02%	-	-0.11%	
							44/04/4
Passive Age-Based Portfolio 13-14 Blended Benchmark Returns	2.01% 1.94%	6.38% 6.53%	6.38% 6.53%	8.38% 8.36%	-	7.81% 7.90%	11/04/11
Difference	0.07%	-0.15%	-0.15%	0.02%	-	-0.09%	
					-		44/04/4
Passive Age-Based Portfolio 15 Blended Benchmark Returns	1.67% 1.63%	5.65% 5.68%	5.65% 5.68%	6.84% 6.67%	-	6.39% 6.32%	11/04/11
Difference	0.04%	-0.03%	-0.03%	0.17%	-	0.07%	
					-		44/04/4
Passive Age-Based Portfolio 16	1.45%	5.05%	5.05%	5.92% 5.69%	-	5.55%	11/04/11
Blended Benchmark Returns Difference	1.42% 0.03%	5.00% 0.05%	5.00% 0.05%	0.23%	-	5.40% 0.15%	
					-		44/04/4
Passive Age-Based Portfolio 17	1.31%	4.33%	4.33%	4.99%	-	4.70%	11/04/11
Blended Benchmark Returns Difference	1.15% 0.16%	4.05% 0.28%	4.05% 0.28%	4.58% 0.41%	-	4.35% 0.35%	
					-		44/04/4
Passive Age-Based Portfolio 18 & Over Blended Benchmark Returns	1.08%	3.50%	3.50%	4.04%	-	3.80%	11/04/11
Difference	0.88% 0.20%	3.10% 0.40%	3.10% 0.40%	3.47% 0.57%	-	3.30% 0.50%	
Passive Multi-Fund Investment Portfolios	0.2078	0.4078	0.4078	0.5778	-	0.5078	
Passive Diversified Equity Portfolio	3.06%	8.13%	8.13%	16.95%	-	15.64%	11/04/11
Blended Benchmark Returns	3.02%	8.29%	8.29%	17.00%	-	15.77%	
Difference	0.04%	-0.16%	-0.16%	-0.05%	-	-0.13%	
Passive Growth Portfolio	2.60%	7.33%	7.33%	12.69%	-	11.78%	11/04/11
Blended Benchmark Returns	2.48%	7.43%	7.43%	12.65%	-	11.81%	
Difference	0.12%	-0.10%	-0.10%	0.04%	-	-0.03%	
Passive Moderate Growth Portfolio	1.94%	6.31%	6.31%	8.38%	-	7.73%	11/08/11
Blended Benchmark Returns	1.94%	6.53%	6.53%	8.36%	-	7.79%	
Difference	0.00%	-0.22%	-0.22%	0.02%	-	-0.06%	
Passive Conservative Portfolio	0.67%	2.93%	2.93%	1.70%	-	1.65%	11/04/11
Blended Benchmark Returns	0.61%	2.62%	2.62%	1.40%	-	1.40%	
Difference	0.06%	0.31%	0.31%	0.30%	-	0.25%	
Index International Equity Portfolio	-4.19%	-5.12%	-5.12%	9.65%	-	7.57%	11/04/11
Blended Benchmark Returns	-3.75%	-4.30%	-4.30%	9.69%	-	7.74%	
Difference	-0.44%	-0.82%	-0.82%	-0.04%	-	-0.17%	
Passive Diversified Fixed Income Portfolio	1.12%	4.95%	4.95%	2.46%	-	2.51%	11/08/11
Blended Benchmark Returns	1.21%	5.26%	5.26%	2.75%	-	2.80%	
Difference	-0.09%	-0.31%	-0.31%	-0.29%	-	-0.29%	
Passive Single Fund Investment Portfolios							
Index Bond Portfolio	1.79%	5.79%	5.79%	2.40%	-	2.41%	11/04/11
Benchmark Returns	1.79%	5.97%	5.97%	2.66%	-	2.73%	
Difference	0.00%	-0.18%	-0.18%	-0.26%	-	-0.32%	
Index U.S. Large Cap Equity Portfolio	4.91%	13.55%	13.55%	20.21%	-	19.42%	11/04/11
Benchmark Returns	4.93%	13.69%	13.69%	20.41%	-	19.60%	
Difference	-0.02%	-0.14%	-0.14%	-0.20%	-	-0.18%	
Index U.S. Equity Portfolio	5.24%	12.48%	12.48%	20.34%	-	19.36%	11/04/11
Benchmark Returns	5.24%	12.56%	12.56%	20.51%	-	19.53%	
Difference	0.00%	-0.08%	-0.08%	-0.17%	-	-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 Q4 2014

Investment Portfolios

Passive Age-Based Portfolio Age of Beneficiary	Q4 Portfolio Return	Q4 Blended Benchmk Return	Annual Asset Based Fees (bp)*	TIAA-CREF Equity Index Fund	TIAA-CREF International Equity Index Fund	TIAA-CREF Emerging Markets Equity Index Fund	TIAA-CREF Real Estate Securities Fund	TIAA-CREF Bond Index Fund	TIAA-CREF Inflation- Linked Bond Fund	TIAA-CREF High Yield Fund	T-C Life Funding Agreement
Underlying Fund Expenses (bp)				7	7	25	52	12	27	37	0
0 - 4	2.65%	2.66%	17	50.40%	19.20%	4.80%	5.60%	14.00%	4.00%	2.00%	0.00%
5 - 8	2.60%	2.48%	18	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	0.00%
9 - 10	2.39%	2.30%	19	37.80%	14.40%	3.60%	4.20%	28.00%	8.00%	4.00%	0.00%
11 - 12	2.17%	2.12%	19	31.50%	12.00%	3.00%	3.50%	35.00%	10.00%	5.00%	0.00%
13 - 14	2.01%	1.94%	20	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	0.00%
15	1.67%	1.63%	19	18.90%	7.20%	1.80%	2.10%	42.00%	12.00%	6.00%	10.00%
16	1.45%	1.42%	17	15.75%	6.00%	1.50%	1.75%	38.50%	11.00%	5.50%	20.00%
17	1.31%	1.15%	15	12.60%	4.80%	1.20%	1.40%	31.50%	9.00%	4.50%	35.00%
	1.08%	0.88%	13	9.45%	3.60%	0.90%	1.05%	24.50%	7.00%	3.50%	50.00%
18 + Fund's Performance vs Benchmk Q4 2014 (bp)				(2)	(49)	(18)	121	(4)	(5)	(32)	25

Passive Multi-Fund Investment Portfolios

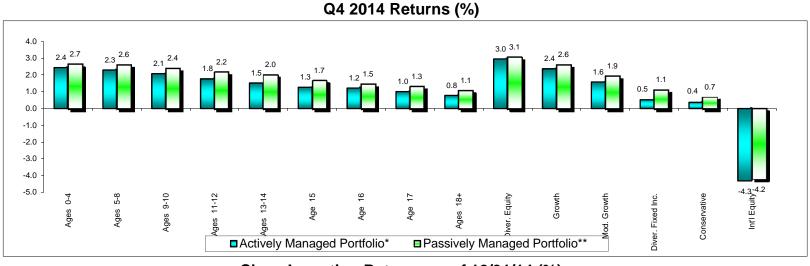
Passive Diversified Equity Portfolio	3.06%	3.02%	16	63.00%	24.00%	6.00%	7.00%				
Passive Growth Portfolio	2.60%	2.48%	18	44.10%	16.80%	4.20%	4.90%	21.00%	6.00%	3.00%	
Passive Moderate Growth Portfolio	1.94%	1.94%	20	25.20%	9.60%	2.40%	2.80%	42.00%	12.00%	6.00%	
Passive Diversified Fixed Income Portfolio	1.12%	1.21%	23					70.00%	20.00%	10.00%	
Passive Conservative Portfolio	0.67%	0.61%	14					35.00%	10.00%	5.00%	50.00%
Index International Equity Portfolio	-4.19%	-3.75%	16		80.00%	20.00%					
Fund's Performance vs Benchmk Q4 2014 (bp)				(2)	(49)	(18)	121	(4)	(5)	(32)	25

Passive Single Fund Investment Portfolios

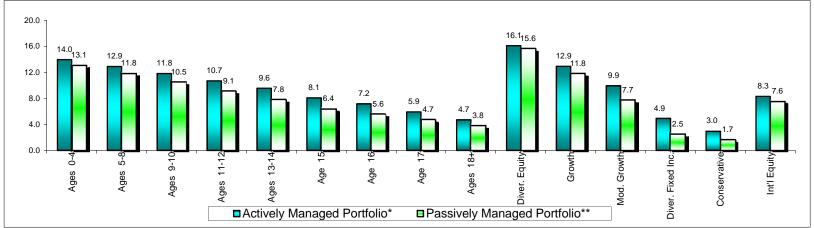
Investment Portfolios	Q4 Portfolio Return	Q4 Blended Benchmk Return	Annual Asset Based Fees (bp)*	Percent Allocation	Underlying Mutual Fund	Fund's Performance vs Benchmk Q4 2014 (bp)
Index Bond Portfolio	1.79%	1.79%	17	100.00%	TIAA-CREF Bond Index Fund	(4)
Index U.S. Large Cap Equity Portfolio	4.91%	4.93%	11	100.00%	TIAA-CREF S&P 500 Index Fund	(1)
Index U.S. Equity Portfolio	5.24%	5.24%	12	100.00%	TIAA-CREF Equity Index Fund	(2)

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

Actively Managed Portfolios vs. Passively Managed Portfolios



Since Inception Returns as of 12/31/14 (%)



* 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 Q4, Passively Managed Portfolios outperformed the Actively Managed Portfolios. While certain underlying funds in the Active Portfolios outperformed their benchmark, many underperformed for the quarter, resulting in lower returns for these portfolios compared to their passive counterparts.
- For example, the TIAA-CREF Bond Index Fund outperformed active fixed income funds as its duration-neutral positioning helped it compared to most active bond funds.
- Since Inception returns continue to favor the Actively Managed Portfolios.

ScholarShare College Savings Plan Performance Summary

Underlying Funds vs. Benchmarks

For the Period Ending 12/31/2014

				Average Annual T	otal Return		-
	3 Month	YTD	1 Year	3 Year	5 Year	Life	Fund Incept. Da
IAA-CREF FUNDS							
-C Bond Index Fund	1.75%	5.87%	5.87%	2.48%	4.26%	4.11%	09/14/2009
arclays Capital U.S. Aggregate Bond Index	1.79%	5.97%	5.97%	2.66%	4.45%	4.36%	
Difference	-0.04%	-0.10%	-0.10%	-0.18%	-0.19%	-0.25%	
-C Bond Plus Fund	1.24%	5.80%	5.80%	4.45%	5.72%	5.25%	3/31/2006
Barclays Capital U.S. Aggregate Bond Index	1.79%	5.97%	5.97%	2.66%	4.45%	5.19%	
lifference	-0.55%	-0.17%	-0.17%	1.79%	1.27%	0.06%	
-C Emerging Markets Equity Index Fund*	-4.68%	-3.21%	-3.21%	3.58%	-	1.42%	08/31/2010
ISCI Emerging Markets® Index	-4.50%	-2.19%	-2.19%	4.04%	-	2.13%	
lifference	-0.18%	-1.02%	-1.02%	-0.46%	-	-0.71%	
-C Equity Index Fund	5.22%	12.52%	12.52%	20.44%	15.58%	5.09%	07/01/1999
Russell 3000 Index	5.24%	12.56%	12.56%	20.50%	15.63%	5.17%	
ifference	-0.02%	-0.04%	-0.04%	-0.06%	-0.05%	-0.08%	
-C High Yield Bond Fund	-0.69%	2.48%	2.48%	7.55%	8.64%	7.64%	03/31/2006
/errill Lynch BB/B Cash Pay Index	-0.37%	3.48%	3.48%	8.01%	8.71%	7.46%	
lifference	-0.32%	-1.00%	-1.00%	-0.46%	-0.07%	0.18%	
-C Inflation-Linked Bond Fund	-0.08%	3.42%	3.42%	0.17%	3.87%	4.74%	
-C Inflation-Linked Bond Fund arclays Capital U.S. TIPS index	-0.08% -0.03%	3.42%	3.42% 3.64%	0.17%	3.87% 4.11%	4.74% 5.02%	
ifference	-0.03% -0.05%	-0.22%	-0.22%	-0.27%	4.11% -0.24%	-0.28%	
-C International Equity Index Fund*	-4.06%	-5.51%	-5.51%	11.13%	5.36%	8.50%	
Iorgan Stanley EAFE Index	-3.57%	-4.90%	-4.90%	11.06%	5.34%	8.55%	
Difference	-0.49%	-0.61%	-0.61%	0.07%	0.02%	-0.05%	
-C Real Estate Securities Fund	14.15%	28.13%	28.13%	15.92%	16.92%	11.64%	
TSE NAREIT Equity Index	12.94%	28.03%	28.03%	16.38%	16.91%	12.06%	
ifference	1.21%	0.10%	0.10%	-0.46%	0.01%	-0.42%	
-C S&P 500 Index Fund	4.92%	13.60%	13.60%	20.31%	15.35%	9.63%	
&P 500 Index	4.93%	13.69%	13.69%	20.41%	15.46%	9.72%	
ifference	-0.01%	-0.09%	-0.09%	-0.10%	-0.11%	-0.09%	
-C Small Cap Equity Fund	9.00%	6.92%	6.92%	19.52%	15.91%	11.55%	
ussell 2000 Index	9.73%	4.89%	4.89%	19.21%	15.55%	11.62%	
ifference	-0.73%	2.03%	2.03%	0.31%	0.36%	-0.07%	
-C Social Choice Equity Fund	4.06%	11.25%	11.25%	19.44%	14.58%	5.01%	07/01/1999
Russell 3000 Index	5.24%	12.56%	12.56%	20.50%	15.63%	5.17%	
lifference	-1.18%	-1.31%	-1.31%	-1.06%	-1.05%	-0.16%	
OFA FUNDS							
0FA Emerging Markets Core Equity Portfolio*	-4.68%	-0.91%	-0.91%	5.14%	2.66%	8.86%	
ISCI Emerging Markets® Index	-4.50%	-2.19%	-2.19%	4.04%	1.78%	8.41%	
ifference	-0.18%	1.28%	1.28%	1.10%	0.88%	0.45%	
FA Large Cap International Portfolio*	-4.27%	-5.24%	-5.24%	10.43%	5.24%	5.75%	07/17/1991
ISCI World Ex US Index	-3.69%	-4.32%	-4.32%	10.46%	5.21%	5.90%	
ifference	-0.58%	-0.92%	-0.92%	-0.03%	0.03%	-0.15%	
PIMCO FUNDS							
IMCO Income Fund	-0.07%	7.18%	7.18%	11.12%	11.95%	9.94%	
arclays Capital U.S. Aggregate Bond Index	1.79%	5.97%	5.97%	2.66%	4.45%	5.00%	
ifference	-1.86%	1.21%	1.21%	8.46%	7.50%	4.94%	
IMCO Real Return Fund	-0.72%	3.42%	3.42%	0.91%	4.33%	6.57%	01/29/1997
arclays Capital U.S. TIPS Index	-0.03%	3.64%	3.64%	0.44%	4.11%	-	
ifference	-0.69%	-0.22%	-0.22%	0.47%	0.22%	-	
. ROWE PRICE FUNDS							
. Rowe Price Instl Floating Rate Fund	0.04%	1.73%	1.73%	5.01%	5.25%	5.66%	
&P/LSTA Performing Loan Index	-0.30%	1.82%	1.82%	5.61%	5.71%	5.74%	
ifference	0.34%	-0.09%	-0.09%	-0.60%	-0.46%	-0.08%	
. Rowe Price Instl Large Cap Growth Fund	4.58%	8.72%	8.72%	22.67%	16.18%	9.10%	
ussell 1000 Growth Index	4.78%	13.05%	13.05%	20.26%	15.82%	7.07%	
ifference	-0.20%	-4.33%	-4.33%	2.41%	0.36%	2.03%	
. Rowe Price Instl Large Cap Value Fund	4.40%	13.13%	13.13%	21.33%	14.87%	8.36%	3/31/2000
ussell 1000 Value Index	4.98%	13.45%	13.45%	20.89%	15.43%	6.70%	
lifference	-0.58%	-0.32%	-0.32%	0.44%	-0.56%	1.66%	

* 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 management¹
- One of the top ten managers of fixed income assets based on institutional tax-exempt assets under management¹
- The largest manager of U.S. tax exempt real estate assets²

Morningstar

- 64% of TIAA-CREF's Funds and Variable Annuity Accounts received an overall Morningstar rating of 4 or 5 stars (49.32% 4 stars and 15.07% 5 stars as of December 31, 2014) ^{3,4}
- 96% of TIAA-CREF Funds and Variable Annuity Accounts received a Morningstar overall rating of 3-, 4-, or 5-stars across all asset classes (31.51% have 3 stars, 49.32% have 4 stars and 15.07% have 5 stars as of December 31, 2014.) ^{3,4}

Barron's/ Lipper

- Ranked among the top 15 mutual fund families for the past three years based on one-year asset-weighted total returns (#13 among 64 fund families in 2013, #10 among 62 fund families in 2012 and #13 among 58 fund families in 2011)⁵
- Awarded the 2014 and 2013 Best Overall Large Fund Company United States based on risk-adjusted performance⁶
 - 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 December 31, 2014. Past performance cannot guarantee future results. For current performance and rankings, please visit 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 19th out of 55 mutual fund families in 2013, 29th out of 53 mutual fund families in 2012 and 2011. TIAA-CREF does not qualify for the 10-year ranking.
- 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 and 11/30/13 respectively. TIAA-CREF was ranked against 36 fund companies in 2012 and 48 fund companies in 2013 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.



The Lipper Awards are based on a review of 36 companies' 2012 and 48 companies' 2013 risk-adjusted performance.

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