



# Capital Cities

INSTITUTIONAL INVESTING MADE PERSONAL

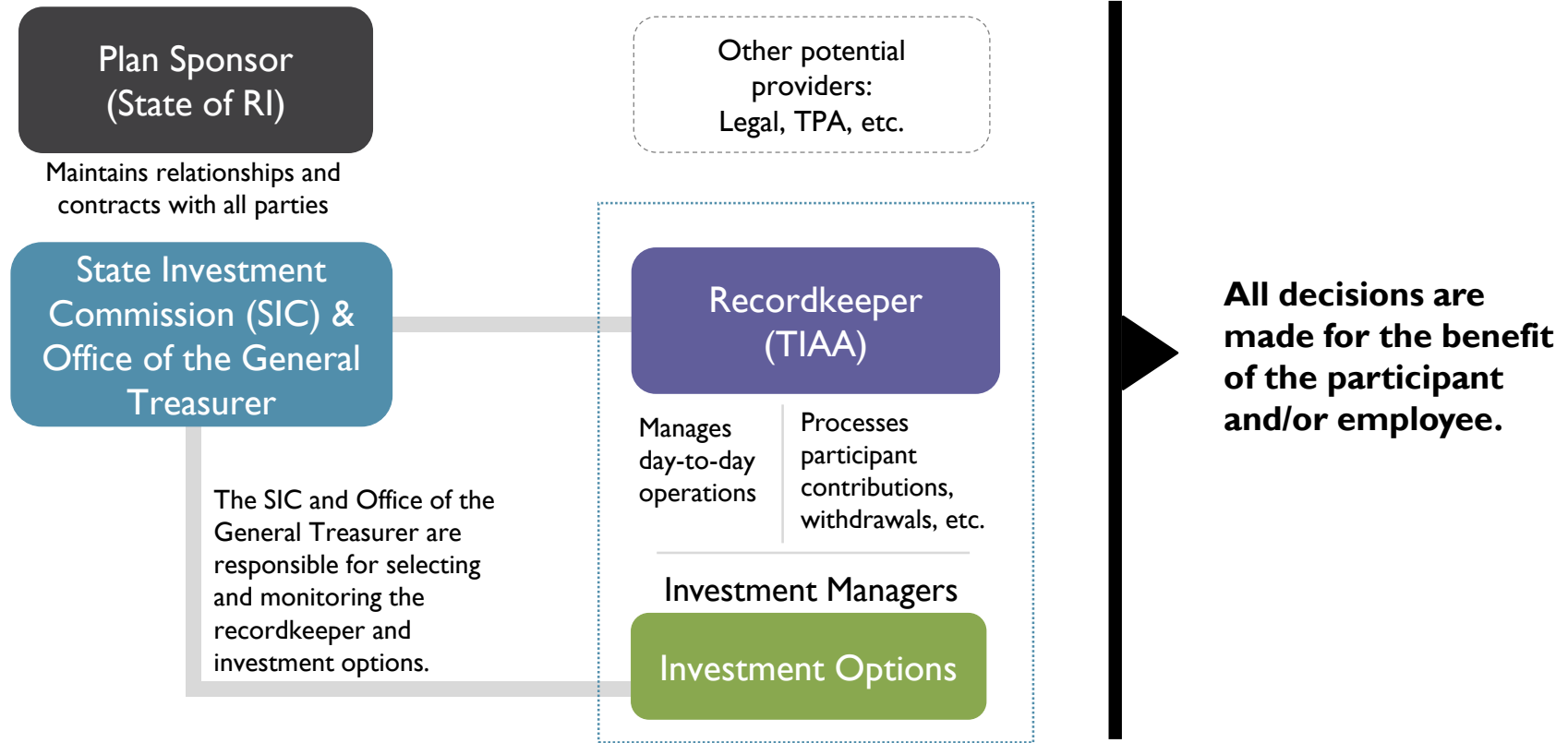
## Rhode Island State Investment Commission 401(a) Plan Project

January 24, 2018



# TIAA 401(a) Plan

## Plan Framework



**The Rhode Island State Investment Commission (SIC) should consider transitioning to primarily non-proprietary TIAA funds within the 401(a) Plan to ensure key roles are clearly delineated. This open architecture approach leads to transparency and objective fiduciary oversight.**

# 401(a) Plan Project

## Summary of Findings and Recommendations

A comprehensive, independent investment review of the TIAA products within the 401(a) Plan has been completed. Capital Cities recommends retaining the TIAA Stable Value Fund. In addition, Capital Cities recommends replacing TIAA-CREF Social Equity, TIAA Real Estate and TIAA-CREF International Equity Index (as discussed in the presentation).

### **Socially Responsible Equity**

TIAA-CREF Social Choice Equity



### **Recommended Investment Option**

Vanguard FTSE Social Index

### **Real Return/Real Estate**

TIAA Real Estate



### **Recommended Investment Option**

Age-Appropriate Vanguard Target Retirement Trust I

### **International Equity**

TIAA-CREF International Equity Index



### **Recommended Investment Option**

Schwab International Index

### **Capital Preservation**

TIAA Stable Value



### **Recommended Investment Option**

TIAA Stable Value

# TIAA Analysis Summary

## Retaining TIAA vs. Utilizing Non-Proprietary Funds

### **Retaining TIAA Funds**

- + No participant disruption
- + Most of the Funds exhibit strong qualitative and quantitative characteristics
- Combination of recordkeeping, advice and investments from single provider can lead to complex governance requirements and fiduciary challenges
- TIAA Real Estate Account's liquidity considerations (e.g., cash allocation, equity wash rule, and liquidity expense)

### **Transitioning to Non-Proprietary Funds**

- + No impact to recordkeeping/administrative fees
- + Segregation of recordkeeping, advice and investment offerings improves Plan governance and makes the Plan more transparent
- Participant communication and transition required
- Stable Value imposes two-year discontinuance with 0.75% crediting rate reduction
- Participants will no longer be able to easily annuitize their Stable Value allocation at retirement

# TIAA Funds' Analysis

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# 401(a) Plan

## Asset Distribution as of September 30, 2017

Investment Option	Style	Market Value	% of Plan Assets	# of Participants
<b>Domestic Equity</b>				
Vanguard Institutional Index	Passive Large Cap Index	\$20,016,772	2.7%	2,136
Vanguard Mid Cap Index	Passive Mid Cap Equity	\$8,160,309	1.1%	1,813
Vanguard Small Cap Index	Passive Small Cap Index	\$8,019,470	1.1%	1,782
<b>International Equity</b>				
TIAA-CREF International Equity Index	Passive Developed International Eq	\$5,068,123	0.7%	1,231
Vanguard Emerging Market Stock Index	Passive Emerging Markets Equity	\$4,024,111	0.5%	1,353
<b>Specialty</b>				
TIAA-CREF Social Choice Equity	Domestic SRI All Cap Equity	\$1,057,323	0.1%	252
TIAA Real Estate	Real Estate	\$4,534,124	0.6%	1,438
<b>Target Date Funds</b>				
Vanguard Target Ret 2060 Trust I	Target Date Fund	\$1,347,767	0.2%	471
Vanguard Target Ret 2055 Trust I	Target Date Fund	\$13,718,767	1.9%	2,150
Vanguard Target Ret 2050 Trust I	Target Date Fund	\$38,709,286	5.3%	3,133
Vanguard Target Ret 2045 Trust I	Target Date Fund	\$67,394,927	9.2%	3,730
Vanguard Target Ret 2040 Trust I	Target Date Fund	\$90,080,109	12.2%	4,085
Vanguard Target Ret 2035 Trust I	Target Date Fund	\$112,431,796	15.3%	5,200
Vanguard Target Ret 2030 Trust I	Target Date Fund	\$106,970,886	14.5%	5,757
Vanguard Target Ret 2025 Trust I	Target Date Fund	\$100,682,558	13.7%	5,954
Vanguard Target Ret 2020 Trust I	Target Date Fund	\$85,251,514	11.6%	5,050
Vanguard Target Ret 2015 Trust I	Target Date Fund	\$38,620,845	5.2%	2,507
Vanguard Target Ret Income Trust I	Target Date Fund	\$11,149,051	1.5%	910
<b>Fixed Income</b>				
PIMCO Real Return	Real Return	\$4,721,675	0.6%	1,082
Vanguard Total Bond Market Index	Core Bond	\$4,997,696	0.7%	1,093
<b>Capital Preservation</b>				
TIAA Stable Value	Stable Value	\$8,942,978	1.2%	1,189
		<b>\$735,900,087</b>	<b>100.0%</b>	<b>35,737</b>

# 401(a) Plan's Investment Menu

## Investment Menu Overview

Investment Menu			
Risk Spectrum	Tier I. Lifestyle Options	Tier II. Core Options	Tier III. Specialty Options
Conservative			
	Vanguard Target Retire Income Trust I	TIAA Stable Value	PIMCO Real Return
	Vanguard Target Retire 2015 Trust I	Vanguard Total Bond Market Index	TIAA Real Estate
	Vanguard Target Retire 2020 Trust I	Vanguard Institutional Index	TIAA-CREF Social Choice Equity
	Vanguard Target Retire 2025 Trust I	TIAA-CREF International Equity Index	Vanguard Emerging Mkts Stock Index
	Vanguard Target Retire 2030 Trust I	Vanguard Mid Cap Index	
	Vanguard Target Retire 2035 Trust I	Vanguard Small-Cap Index	
	Vanguard Target Retire 2040 Trust I		
	Vanguard Target Retire 2045 Trust I		
	Vanguard Target Retire 2050 Trust I		
	Vanguard Target Retire 2055 Trust I		
	Vanguard Target Retire 2060 Trust I		
	Vanguard Target Retire 2065 Trust I		
Aggressive			

# Tier III: Additional/Specialty Options

## Additional/Specialty Options' Review

Style:	Investment Option:	% of Plan Assets
Real Return	PIMCO Real Return	0.6%
Real Estate	TIAA Real Estate	0.6%
Domestic SRI All Cap Equity	TIAA-CREF Social Choice Equity	0.1%
Emerging Markets Equity	Vanguard Emerging Mkts Stock Index	0.5%

### **Recommendations:**

- Retain a Socially Responsible Investment (SRI) and map assets to the Vanguard FTSE Social Index (see *pages 9-11 for further details*).
- Remove the TIAA Real Estate Fund and map assets to the age-appropriate Target Date Fund (the Plan's default option) to follow best practices given a "like" investment option is not available (see *pages 12-13 for further details*).



# Tier III: Additional/Specialty Funds

## Socially Responsible Analysis

- Capital Cities surveyed SRI funds.
- Similar to TIAA-CREF Social Choice Equity, Vanguard FTSE Social Index meets Rhode Island's low-cost objective and provides participants the ability to reflect a SRI bias within their portfolios (see *following pages for further details*).

	Name of Firm	Fund	Elimination Notes
1	Parnassus	Core Equity Investor	Price (.87% Management Fee); People (Key PM Risk)
2	Vanguard	FTSE Social Index Inv	
3	TIAA-CREF	Social Choice Eq	
4	Ave Maria	Rising Dividend Fund	Price (.93% Expense Ratio); Performance (Score 10/40)
5	Calvert	US Large Cap Core Rspnb Idx A	Price (1.32% Expense Ratio); Philosophy/Process (Passive)
6	Domini	Impact Equity Investor	Performance (Score 0/40); Price (.80% Expense Ratio)
7	GuideStone	Funds Equity Index Investor	Price (.98% Expense Ratio)
8	Pax	Large Cap Fund Individual Investor	Price (.96% Expense Ratio); Product (Short Track Record)
9	Sentinel	Sustainable Core Opp I	Product (\$390mm in Strategy); Price (1% Expense Ratio)
10	Fidelity	U.S. Sustainability Index	Product: Low Assets, Short Track Record
11	Steward	Large Cap Enhanced Index Indv	Product (\$371.4mm in Strategy); Price (1% Expense Ratio)
12	Dreyfus	Sustainable US Equity A	Product (\$316.9mm in Strategy); Price (1% Expense Ratio)
13	American Century	Sustainable Equity Inv	Product (\$221.1mm in Strategy), Short Track Record; Price (1% Expense Ratio)
14	Walden	Equity	Product (\$187mm in Strategy), \$100,000 minimum; Price (1% Expense Ratio)
15	Pax	ESG Beta Dividend Fund Indl Inv	Product (\$137.7mm in Strategy); Price (.90% Expense Ratio)
16	Gabelli	ESG AAA	Product (\$67mm in Strategy); Price (1.25% Expense Ratio)
17	RhumbLine Advisors	MSCI USA ESG Select Index Strategy	Product: No Assets, No Track Record
18	BlackRock	Impact US Equity Investor A	Product (\$35.5mm in Strategy, Short Track Record); Price (1.56% Expense Ratio)
19	Epiphany	FFV A	Product (\$26.3mm in Strategy); Price (1.5% Expense Ratio)
20	John Hancock	ESG Large Cap Core A	Product (\$18.6mm in Strategy); Price (1.13% Expense Ratio)
21	JPMorgan	Intrepid Sustainable Equity A	Product (\$18.1mm in Strategy); Price (1.05% Expense Ratio)
22	TCW	New America Premier Equities N	Product (\$12.8mm in Strategy, Short Track Record); Price (1.04% Expense Ratio)
23	Glenmede	Responsible ESG US Equity	Product (\$11mm in Strategy, Short Track Record); Price (1% Expense Ratio)

Legend:

Semi-Finalist

Finalist

# Tier III: Additional/Specialty Funds

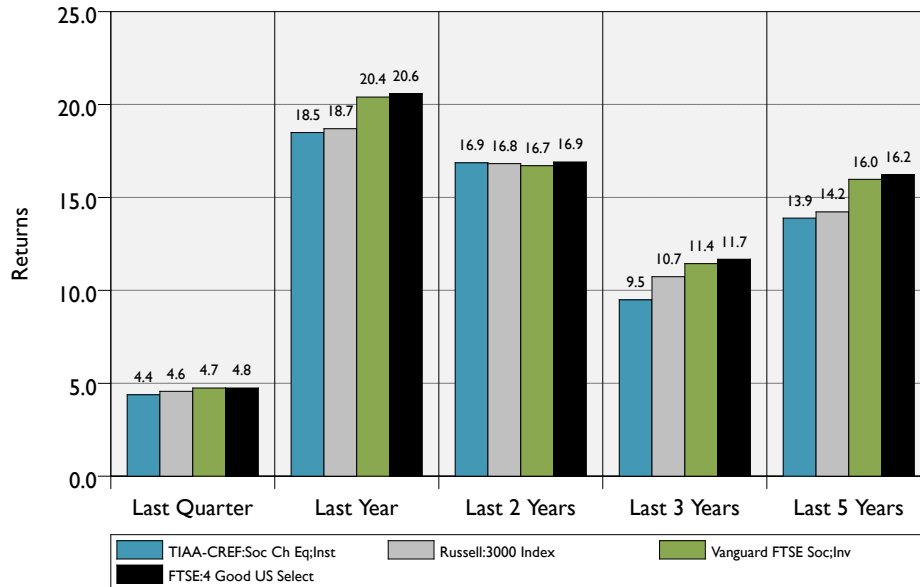
## Socially Responsible Analysis

Organization	TIAA	Vanguard
Product Name	Social Choice Equity Fund	Vanguard FTSE Social Index
Product Inception Date	July 1, 1999	January 14, 2003
Ownership Structure	TIAA is a stock U.S. life insurance company organized under New York law that operates without profit in accordance with the terms of its charter. All outstanding stock of TIAA is held by the TIAA Board of Overseers.	Vanguard is owned by the Vanguard family of mutual funds, which is owned by their shareholders (investor owned).
Firm Information	TIAA purchased Nuveen in 2014. In January 2017, TIAA announced that Nuveen would become the umbrella brand for its asset management and investment groups that oversee TIAA mutual funds. The combined organization manages approximately \$948b in assets.	Located in Valley Forge, Pennsylvania; Founded in 1975 with over \$4.2 trillion in assets under management.
Investment Philosophy	The strategy focuses on identifying companies with positive ESG portfolios rather than excluding bad ones. In doing so, TIAA believes that they can build a diversified portfolio that tracks the risk/return metrics of the Russell 3000 Index while only investing in socially responsible companies.	The fund seeks to track a benchmark of large- and mid-capitalization stocks that have been screened for certain social, human rights, and environmental criteria.
Stock Selection	The Social Investment Team at MSCI ranks the constituents of the MSCI Investible Market Index according to the social criteria set out by TIAA's Social and Community Investing Unit. Starting with approximately 2,600 stocks, the screens pass around 1,200. These screens do a good job of identifying firms with attractive ESG profiles. The Quantitative team at TIAA then optimizes a well-diversified portfolio from the passed stocks that aims to mimic the risk profile of the Russell 3000 Index. The strategy will have active positions versus the benchmark as the screens will eliminate top holdings if they do not possess a strong ESG profile.	The fund seeks to mimic the portfolio characteristics and performance of the FTSE4Good US Select Index. The FTSE USA Index is the standard benchmark that serves as the universe to be screened for SRI factors. FTSE contracts with independent third-party researchers to analyze and rate each company in the standard benchmark. FTSE will exclude securities based on the following areas: human rights, labor standards, environment, anti-corruption principles, and military weapons. The result is a market weighted index of companies that do not violate the SRI criteria set out by FTSE.
# of holdings	700-1000	428
Turnover	16%	11%
Benchmark Awareness	The Fund seeks to possess the risk profile of the Russell 3000 Index but in a socially responsible way. This means that the Fund will not have large deviations in sector weightings but will exclude constituents that don't meet ESG requirements.	Vanguard utilizes full replication for the fund. This means that they will proportionally own all of the constituents of the index.
Wtd. Average Market Cap	\$86.7 billion	\$166 billion
Key Professionals	Amy O'Brien (Head of Social Investing), Philip Campagna (PM), Lei Liao (PM)	Vanguard Equity Index Group: Gerard O'Reilly and William Coleman
Assets In Product	\$2.7 billion	\$3.2 billion
Vehicle/Ticker	TISCX	VFTSX
Fees	0.19%	0.22%

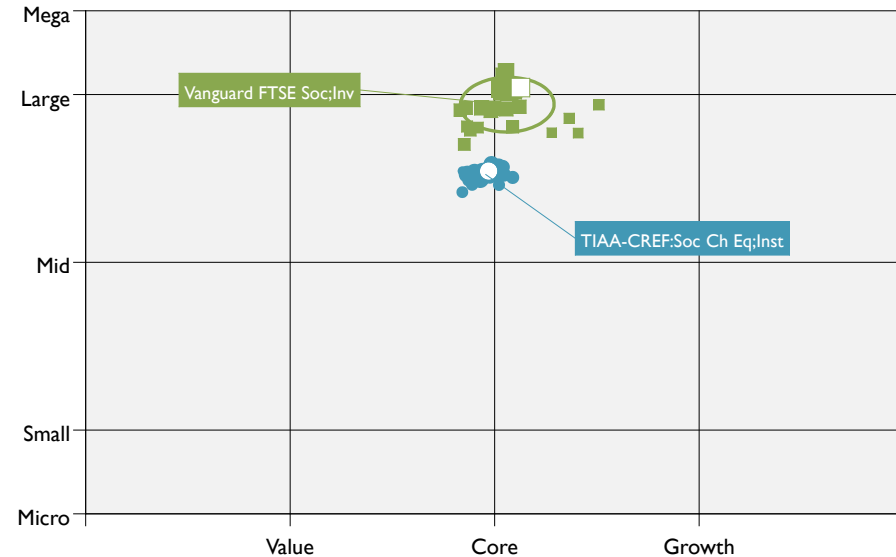
# Tier III: Additional/Specialty Funds

## Socially Responsible Analysis

Returns for Various Periods  
Current Quarter Ending September 30, 2017



Domestic Equity Style Map  
for 7 Years Ended September 30, 2017



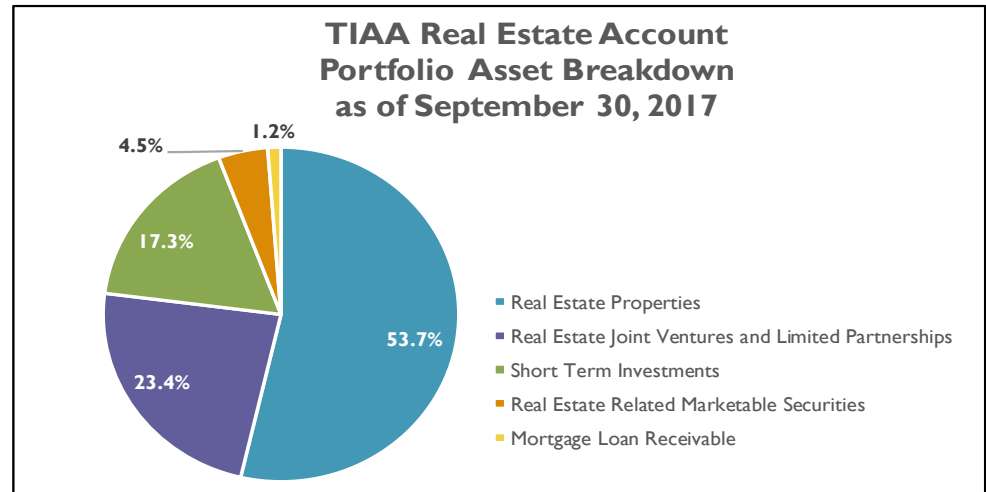
# Tier III: Additional/Specialty Options

## Real Estate Overview

Direct Real Estate Funds are typically not offered in participant-directed plans as there are material liquidity constraints at both the Fund and asset level.

### **TIAA Real Estate Account:**

- Currently holds 17.3% in Short-Term Investments to meet liquidity needs
  - Reduces diversification and return potential
- Imposes a 90-day equity wash restriction with the Stable Value option
- Charges 0.20% by TIAA's General Account as a liquidity guarantee expense to the Fund

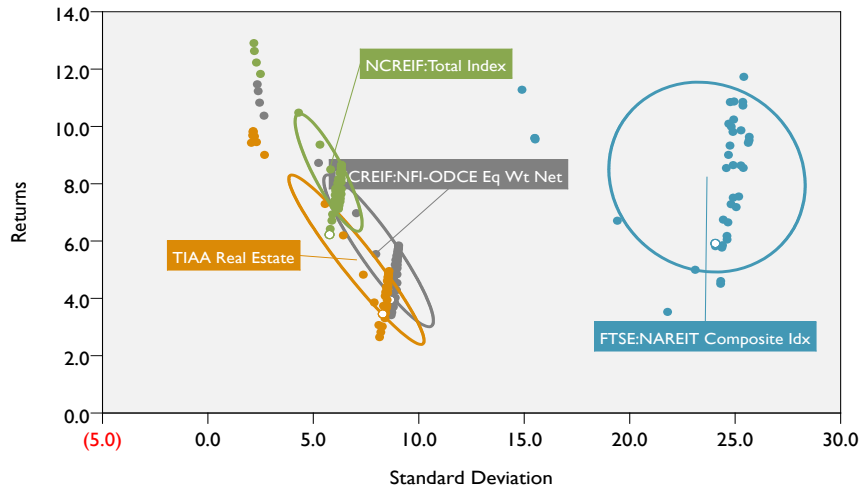


Capital Cities recommends eliminating the TIAA Real Estate Account given liquidity constraints. An analysis of alternative Real Estate options has been conducted; however, there are no appropriate “like” options available on the TIAA recordkeeping platform (see *page 13 and Appendix*). As a result, Capital Cities recommends mapping the TIAA Real Estate assets to the age-appropriate target date fund (the Plan’s default option) to follow best practices.

# Tier III: Additional/Specialty Funds

## Private Real Estate vs. REITs

Rolling 40 Quarter Scatter Chart  
for 10 Years Ended September 30, 2017



Correlation Table  
for 10 Years Ended September 30, 2017

	FTSE:NAREIT Composite Idx	NCREIF:Total Index	NCREIF:NFI-ODCE Eq Wt Net	TIAA Real Estate
FTSE:NAREIT Composite Idx	1.0000			
NCREIF:Total Index	0.2612	1.0000		
NCREIF:NFI-ODCE Eq Wt Net	0.1849	0.9861	1.0000	
TIAA Real Estate	(0.1976)	0.1267	0.1240	1.0000
	FTSE:NAREIT Composite Idx	NCREIF:Total Index	NCREIF:NFI-ODCE Eq Wt Net	TIAA Real Estate

- The TIAA Real Estate Fund invests primarily in direct, illiquid private real estate and provides liquidity to investors through the Fund's liquidity reserve and TIAA's General Account liquidity guarantee.
- A Real Estate Investment Trust (REIT) is a publicly listed security that is exchange traded.
- The risk/return profile between private real estate and REITs are distinctly different at both the TIAA Fund level and asset class level.

Index Description	
<b>FTSE: NAREIT Index</b>	The FTSE Nareit Composite REIT Index is a free-float adjusted, market capitalization-weighted index of U.S. Equity and Mortgage REITs. Constituents of the Index include all tax-qualified REITs that also meet FTSE's minimum size and liquidity criteria.
<b>NCREIF: Total Index</b> (TIAA Real Estate Secondary Benchmark)	The NCREIF Property Index (NPI) is a quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors and held in a fiduciary environment.
<b>NCREIF: NFI-ODCE Index</b> (TIAA Real Estate Primary Benchmark)	The NFI-ODCE is a capitalization-weighted index based on the returns of constituent open-end real estate fund's net invested capital, which is defined as beginning market value net assets (BMV), adjusted for weighted cash flows (WCF) during the period.

# Tier II: Core Options

## Core Options' Review

	Basic Building Block:	Investment Option:	Asset Class Coverage:
Fixed Income	Capital Preservation	TIAA Stable Value	✓
	Core Bond	Vanguard Total Bond Market Index	✓
Equity	Large Cap Equity	Vanguard Institutional Index	✓
	International Equity	TIAA-CREF International Equity Index	✓
	Small/Mid Cap Equity	Vanguard Mid Cap Index Vanguard Small-Cap Index	✓

### **Recommendations:**

- Replace the TIAA-CREF International Equity Index Fund and map assets to Schwab International Index (see *page 15* for further details).
- Retain the TIAA Stable Value Fund (see *page 16* for further details).

# Tier II: Core Options

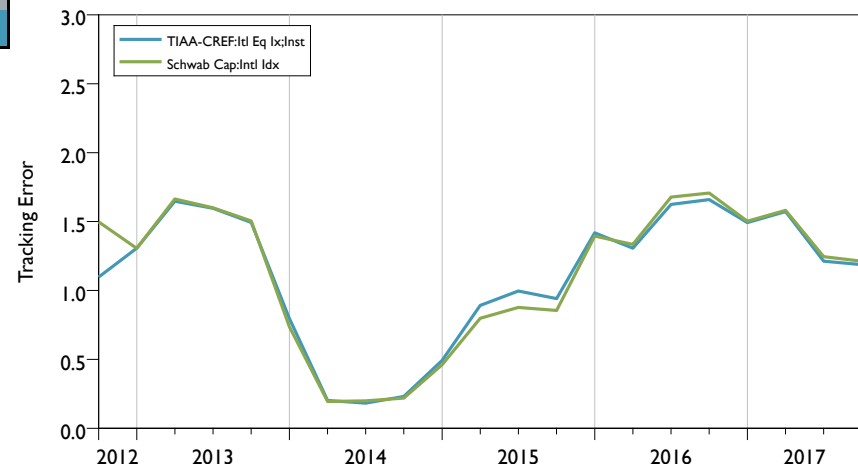
## Passive International Equity Analysis

- Schwab International Index is an appropriate alternative to the TIAA-CREF International Equity Index Fund.
- Both Funds have demonstrated the ability to successfully track the portfolio characteristics and performance of the MSCI EAFE Index, providing participants with exposure to Developed International Equity stocks.
- The Funds also exhibit low fees relative to other passive International Equity options.

Passive International Equity			Notes
1	BlackRock International Index I	MSCI EAFE NR USD	Price (0.12%)
2	BlackRock Total Intl ex US Idx I	MSCI ACWI ex-US NR USD	Price (0.16%)
3	Deutsche EAFE Equity Index Institutional	MSCI EAFE NR USD	Price (0.33%)
4	Nationwide International Index R6	MSCI EAFE NR USD	Price (0.31%)
5	Principal International Eq Index Instl	MSCI EAFE NR USD	Price (0.35%)
6	<b>Schwab International Index</b>	<b>MSCI EAFE NR USD</b>	<b>Price (0.06%)</b>
7	<b>TIAA-CREF International Eq Idx Instl</b>	<b>MSCI EAFE NR USD</b>	<b>Price (0.06%)</b>
8	Vanguard Developed Markets Index Instl	FTSE Dvlp ex US All Cap(US RIC)NR USD	Price (0.06%)
9	Vanguard FTSE All-World ex-US Idx Admiral	FTSE AW Ex US (US RIC) NR USD	Price (0.11%)
10	Vanguard Total Intl Stock Index Admiral	FTSE Global All Cap ex US (USA) NR USD	Price (0.11%)

Legend:
Semi-Finalist
Finalist

Rolling 4 Quarter Tracking Error Relative To MSCI:EAFE  
for 5 Years Ended September 30, 2017



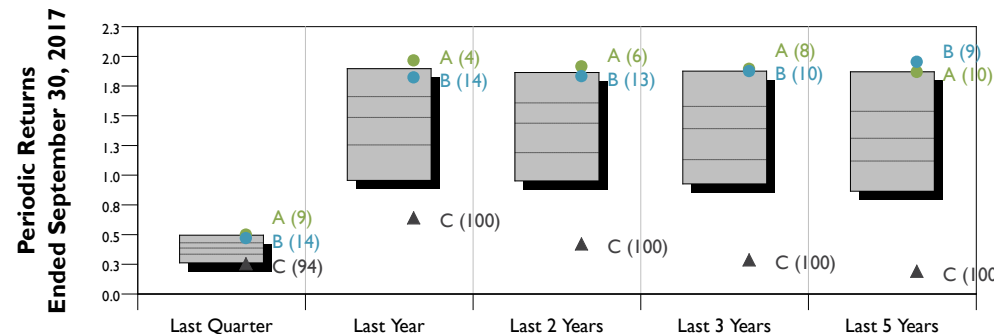
# Tier II: Core Options

## Capital Preservation Analysis

- Capital Cities surveyed the Capital Preservation options offered on the TIAA recordkeeping platform.
- Capital Cities recommends retaining TIAA Stable Value given strong performance and operational considerations.
- By retaining TIAA Stable Value, participants will not be subject to a 0.75% crediting rate reduction during a two-year discontinuance period.
- Additionally, participants will be able to easily annuitize their Stable Value Fund at retirement.
- Capital Cities analyzed the T. Rowe Price Stable Value Common Trust and believes it to be a suitable alternative should the SIC wish to make a change in the future.

Stable Value Funds		Expense	Elimination Notes
1	Columbia Trust Stable Government Fund	0.47%	Product (Government)
2	Columbia Trust Stable Income Fund I-0	0.40%	Performance
3	Federated Capital Preservation Fund	0.46%	Performance
4	Galliard Retirement Income Fund	0.66%	Price
5	Goldman Sachs Stable Value Collective Trust	0.59%	Price
6	Invesco Stable Value Trust Fund	0.62%	Discontinuance Provision (Lesser of BV or MV or 24-Month Put); Price
7	MetLife SV Solutions Fund	0.47%	Discontinuance Provision (Lesser of BV or MV or MetLife GIC)
8	MetLife Stable Value Fund	0.62%	Discontinuance Provision (Lesser of BV or MV or MetLife GIC); Price
9	Morley Stable Value	0.55%	Performance; Price
10	New York Life Anchor Account	0.47%	Performance
11	Putnam Stable Value	0.34% or 0.42%	Product (Currently 34% Exposure to Traditional GIC)
12	T. Rowe Price Stable Value Common Trust	0.49%	
13	TIAA Stable Value	0.35%	
14	Wells Fargo Stable Return	0.82%	Price

Legend:
Semi-Finalist
Finalist



Median	0.39	1.49	1.44	1.39	1.31
TIAA Stable Value 401a	0.50	1.97	1.92	1.90	1.87
T. Rowe Price Stable Value Tr CI A	0.47	1.82	1.83	1.88	1.95
Citi:3 Mo T-Bill	0.26	0.64	0.42	0.29	0.19

\*T. Rowe Price Stable Value Common Trust Fund is subject to T. Rowe Price's approval.





# Appendix:

Stable Value & Real Estate Participant Utilization and Other  
Supporting Materials

# Participant Utilization

## TIAA Real Estate & TIAA Stable Value

Fund Percent of Total Participant Allocation	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	Total
TIAA RE Participant Count	1,090	183	68	37	20	8	4	5	3	17	1,435
TIAA RE Asset Balance	\$2,381,206	\$827,577	\$457,294	\$239,406	\$222,170	\$79,334	\$71,093	\$92,778	\$44,546	\$347,575	\$4,762,980
TIAA SV Participant Count	484	165	121	43	45	18	10	15	11	275	1,187
TIAA SV Asset Balance	\$867,417	\$846,574	\$1,049,699	\$429,762	\$484,911	\$190,198	\$157,267	\$208,150	\$253,316	\$4,710,296	\$9,197,590

Age Group of Participants	21-30	31-40	41-50	51-60	61-70	71-80	81-90	Total
TIAA SV Participant Count	31	153	261	429	283	29	1	1,187
TIAA SV Asset Balance	\$91,946	\$693,044	\$1,975,757	\$3,090,921	\$2,960,245	\$374,705	\$10,972	\$9,197,590

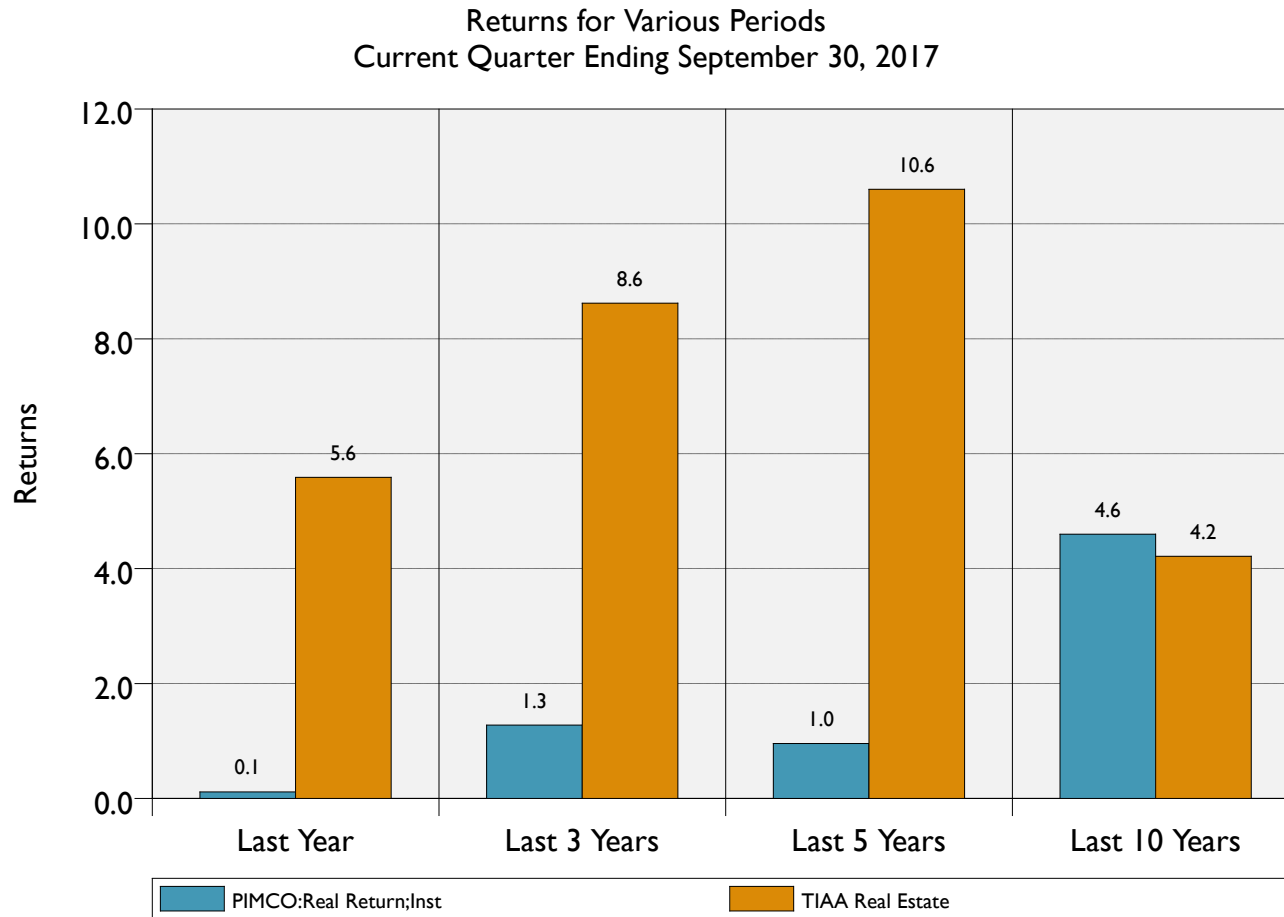
# Tier II: Core Options

## Capital Preservation Analysis

Organization	TIAA	T. Rowe Price
Product Name	TIAA Stable Value	T. Rowe Price Stable Value Common Trust Class A
Stable Value Inception Date	2010	1988
Ownership Structure	TIAA is a stock U.S. life insurance company organized under New York law that operates without profit in accordance with the terms of its charter. All outstanding stock of TIAA is held by the TIAA Board of Overseers.	T. Rowe Price Associates, Inc. is a wholly-owned Subsidiary of T. Rowe Price Group, Inc. (NYSE: TROW)
Firm Information	TIAA is a Fortune 100 diversified financial services organization that includes a retirement plan business serving institutions in the academic, research, medical, cultural and government fields; a retail financial services business serving individuals; and a global asset management business serving individual and institutional investors and advisors.	T. Rowe Price was founded in 1937 and is headquartered in Baltimore, Maryland. The company has been managing institutional portfolios since 1951 and currently has greater than \$810b in assets under management. TRP manages \$22.4b in Stable Value.
Investment Philosophy	The Fund seeks capital preservation and income.	The Fund seeks maximum current income while maintaining stability of principal.
Investment Process	The Separate Account, used as the first line of collateral supporting contract guarantees, is managed and maintained by TIAA. The Separate Account investment strategy is similar to that of TIAA's General Account, but has a shorter maturity profile and a single-A credit quality. The Separate Account's strategy subscribes to both a buy and hold investment approach that seeks predictable income flows to support competitively attractive returns compared with competing annuity products and products with an active management investment approach. Assets are not marked to market but are rather accounted for at book value.	The Fund will invest primarily in Guaranteed Investment Contracts (GICs), Bank Investment Contracts (BICs), Synthetic Investment Contracts (SICs), and Separate Account Contracts (SACs). GICs, BICs, SICs, and SACs are types of investment contracts that are designed to provide principal stability and a competitive yield. Portfolio construction--Unwrapped Reserves: 5-10%; SICs/SACs: 30-50% Short-Term Bond, 30-50% Intermediate-Term Bond and 5-15% Core Bond; and, 0-5% GICs.
Manager Diversification	All assets are managed by TIAA.	All assets are managed by TRP.
Wrap Provider Diversification	Separate Account Collateral Portfolio backed by TIAA's General Account	11 wrap providers
Key Professionals	The collateral portfolios supporting TIAA's insurance obligations are managed by large teams within both the global private markets and global public markets groups. These teams are headed by Heather Davis and Lisa Black, respectively. They have extensive teams of portfolio managers, research analysts and traders who have roles and responsibilities related to the various portfolios. Nicholas Liolis is Senior Managing Director and Chief Investment Officer for the TIAA General Account. The TIAA General Account is the separate account supporting TIAA Stable Value.	Robert Madore, Antonio Luna and Benjamin Gugliotta
Market/Book Value	The TIAA Stable Value contract is a separate account-backed guaranteed annuity contract that is evergreen in nature. The concept of a market-to-book ratio is not applicable to this contract, which is valued at book value.	101.30%
Crediting Rate Declared	January 1st and July 1st	Quarterly
Discontinuance Provision	Within 90 days of discontinuance date or two years from discontinuance date (0.75% crediting rate reduction applies during two-year period)	12-Month Put
Avg Annualized Return over last 2-year time period with discontinuance provisions applied	1.92% - 0.75% = 1.17%	1.83%
Vehicle	Group Annuity Contract	Collective Investment Trust
Expense	0.35%	0.49%

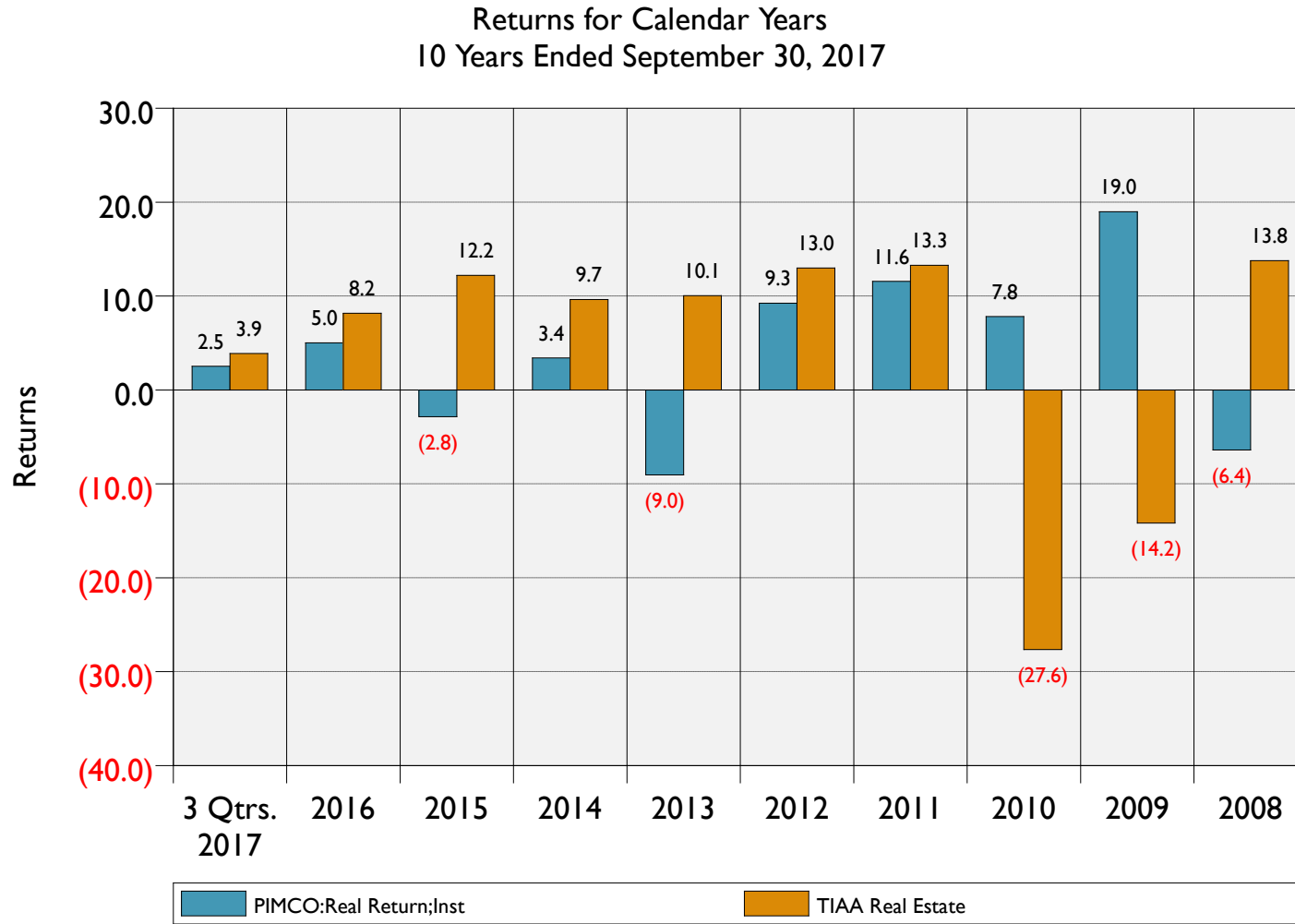
# PIMCO Real Return vs. TIAA Real Estate

## Returns For Various Periods



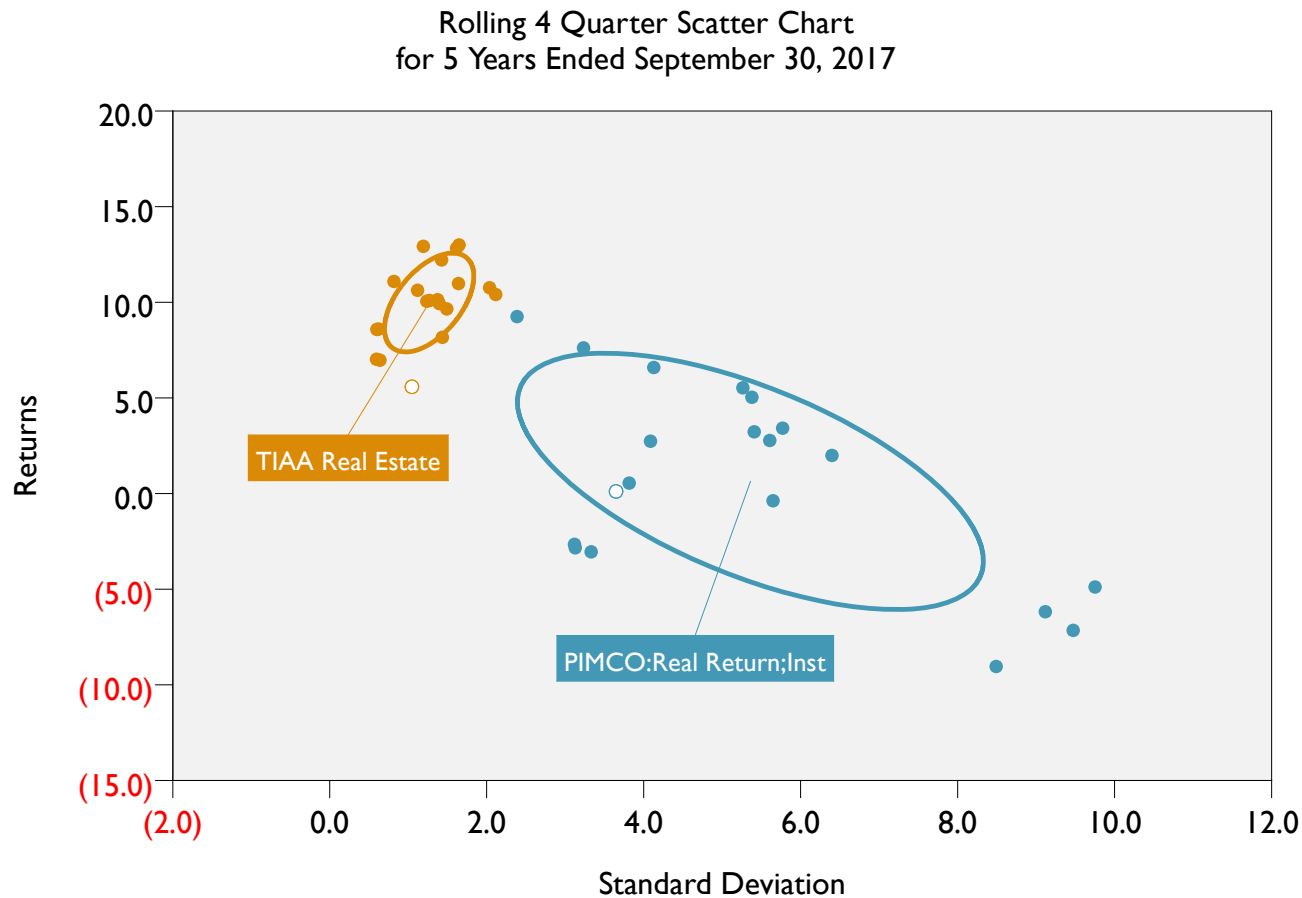
# PIMCO Real Return vs. TIAA Real Estate

## Calendar Year Returns



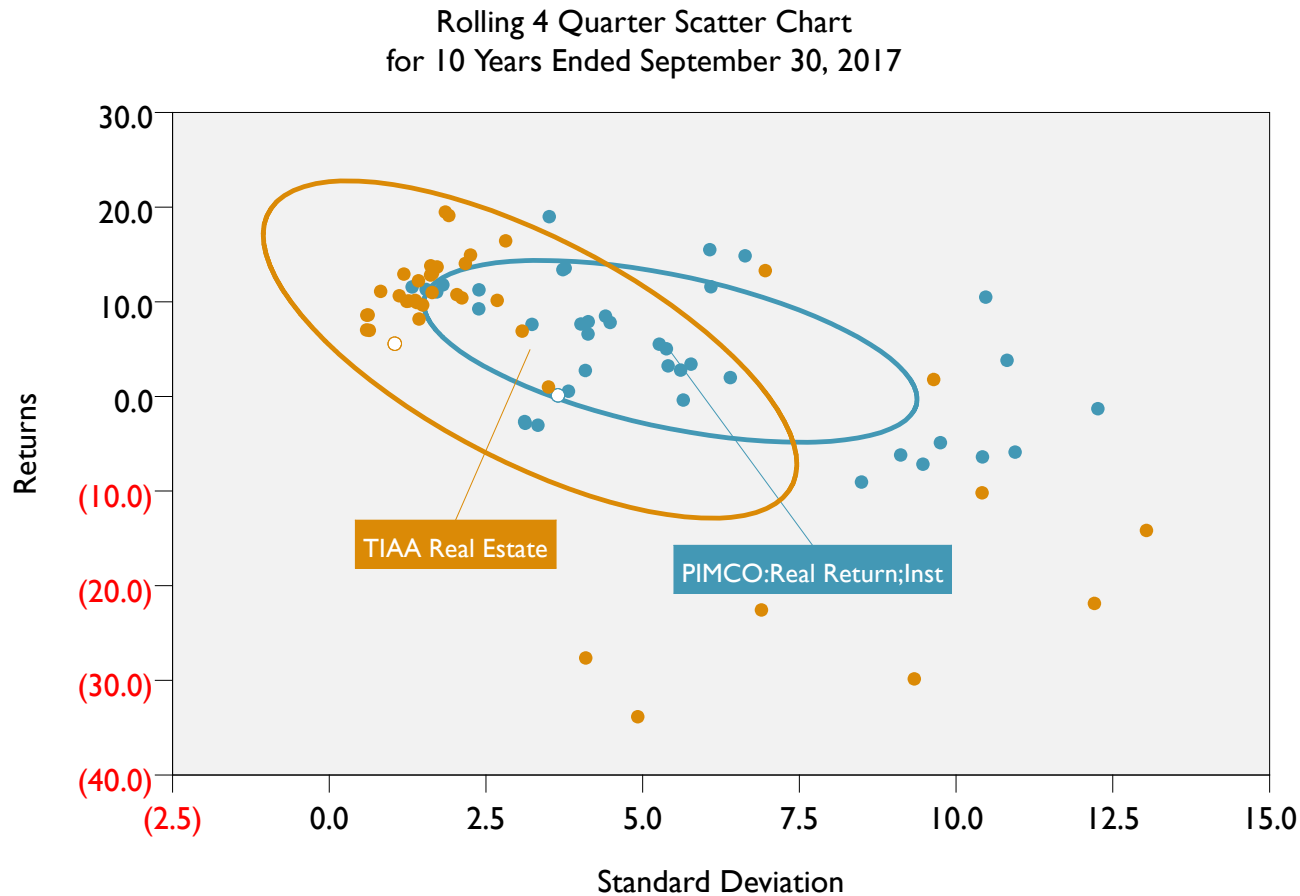
# PIMCO Real Return vs. TIAA Real Estate

## 5-Year Risk/Return



# PIMCO Real Return vs. TIAA Real Estate

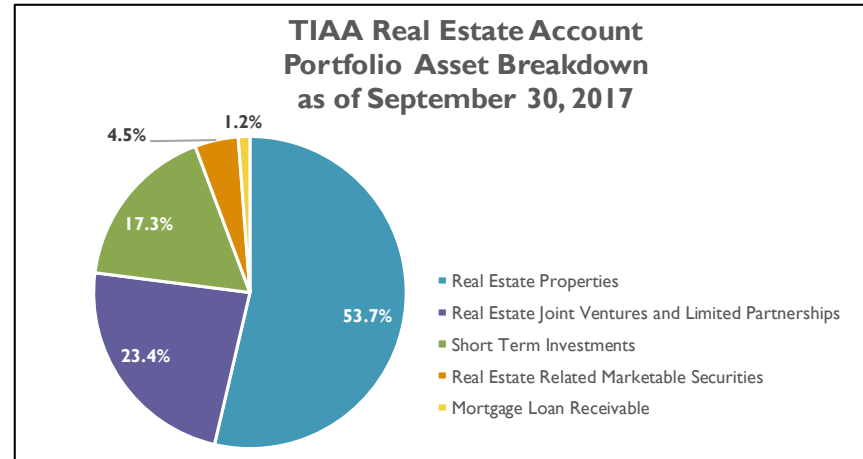
## 10-Year Risk/Return



# Tier III: Additional/Specialty Options

## Real Return Analysis

**Real Return Funds** seek to provide a hedge against rising inflation and protect the purchasing power of a participant's portfolio.



- The 401(a) Plan offers two different inflation-hedge type options: TIAA Real Estate Account and PIMCO Real Return.
  - PIMCO Real Return, which is a common type of Real Return Fund that is offered in defined contribution plans, aims to help participants protect their purchasing power against the effects of inflation by seeking real (inflation-adjusted) returns primarily from Treasury Inflation-Protected Securities (TIPS).
  - A Direct Real Estate Fund, such as the TIAA Real Estate Account, is not typically offered within in defined contribution plans given liquidity considerations. Specifically, the Fund currently holds 17.3% in Short-Term Investments to meet daily liquidity needs, thus reducing diversification and return potential. The Fund also imposes a 90-day equity wash restriction with a Stable Value offering. Further, TIAA's General Account charges 0.20% as a liquidity guarantee expense.