

Juniata College 403(b) Plan

September 30, 2018



C O R N E R S T O N E

Institutional Consulting

Cornerstone Advisors Asset Management, LLC
74 W. Broad Street, Suite 340, Bethlehem, PA 18018

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Section I

Index Flash Report

September 30, 2018

Market Returns

	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
S&P:500	0.57	7.71	10.56	17.91	17.31	13.95	16.91	11.97
Russell:3000 Index	0.17	7.12	10.57	17.58	17.07	13.46	16.86	12.01
NASDAQ	(0.78)	7.33	17.39	25.08	21.67	17.70	20.22	15.76
DJ:30 Industrials	1.97	9.63	8.83	20.76	20.49	14.57	16.35	12.22
Russell:1000 Value	0.20	5.70	3.92	9.45	13.55	10.72	15.02	9.79
Russell:1000 Growth	0.56	9.17	17.09	26.30	20.55	16.58	18.69	14.31
Russell:2000 Value	(2.48)	1.60	7.14	9.33	16.12	9.91	15.26	9.52
Russell:2000 Index	(2.41)	3.58	11.51	15.24	17.12	11.07	16.43	11.11
Russell:2000 Growth	(2.34)	5.52	15.76	21.06	17.98	12.14	17.52	12.65
MSCI:EAFE	0.87	1.35	(1.43)	2.74	9.23	4.42	8.30	5.38
MSCI:ACWI ex US Value	1.81	1.72	(3.66)	0.42	9.30	2.87	6.24	4.50
MSCI:ACWI ex US Growth	(0.83)	(0.26)	(2.54)	3.08	10.59	5.32	8.21	5.83
MSCI:ACWI ex US	0.46	0.71	(3.09)	1.76	9.97	4.12	7.25	5.18
MSCI:EM	(0.53)	(1.09)	(7.68)	(0.81)	12.36	3.61	5.03	5.40
CS:All Hedge Idx	(0.20)	(1.09)	(2.26)	1.00	0.92	0.85	1.81	1.66
FTSE:NAREIT Equity Index	(2.54)	0.79	1.81	3.35	7.64	9.16	11.75	7.44
Blmbg:Commdty Idx	1.92	(2.37)	(3.20)	1.04	(0.95)	(7.66)	(6.85)	(6.54)
Blmbg:Gbl Aggr Idx	(0.86)	(0.92)	(2.37)	(1.32)	1.98	0.75	0.86	2.89
Blmbg:High Yld Corp	0.56	2.40	2.57	3.05	8.15	5.54	7.64	9.46
Blmbg:US Universal Idx	(0.43)	0.27	(1.41)	(1.00)	1.98	2.53	2.56	4.22
Blmbg:Aggregate Index	(0.64)	0.02	(1.60)	(1.22)	1.31	2.16	2.02	3.77
Blmbg:US TIPS Index	(1.05)	(0.82)	(0.84)	0.41	2.04	1.37	1.33	3.32
Blmbg:Muni 1-10 (1-12)	(0.50)	(0.07)	0.03	(0.19)	1.39	2.15	2.21	3.44

Asset Allocation Returns

	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
100% Equity	0.25	5.19	6.36	12.68	14.96	10.64	13.97	10.00
80% Equity; 20% Fixed Income	0.07	4.15	4.78	9.82	12.19	8.98	11.59	8.94
60% Equity; 40% Fixed Income	(0.11)	3.10	3.19	7.01	9.43	7.30	9.20	7.78
40% Equity; 60% Fixed Income	(0.29)	2.07	1.60	4.23	6.70	5.60	6.81	6.53
20% Equity; 80% Fixed Income	(0.46)	1.04	0.00	1.49	3.99	3.89	4.42	5.20

*Equity - 70% Russell 3000; 30% MSCI ACWI ex U.S.

**Fixed Income - 100% Bloomberg Aggregate

Index Flash Report

October 31, 2018

Market Returns

	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
S&P:500	(6.84)	(3.25)	3.01	7.35	11.52	11.34	14.03	13.24
Russell:3000 Index	(7.36)	(3.95)	2.43	6.60	11.27	10.81	13.81	13.35
NASDAQ	(9.20)	(4.56)	6.67	9.69	14.36	14.57	16.80	16.91
DJ:30 Industrials	(4.98)	(0.64)	3.41	9.87	15.25	12.76	13.99	13.33
Russell:1000 Value	(5.18)	(3.59)	(1.46)	3.03	8.88	8.61	12.40	11.30
Russell:1000 Growth	(8.94)	(3.43)	6.62	10.71	13.67	13.43	15.39	15.45
Russell:2000 Value	(8.95)	(9.10)	(2.46)	(0.59)	10.52	7.18	11.56	10.95
Russell:2000 Index	(10.86)	(9.26)	(0.60)	1.85	10.68	8.01	12.25	12.44
Russell:2000 Growth	(12.65)	(9.39)	1.11	4.13	10.72	8.75	12.87	13.89
MSCI:EAFE	(7.96)	(8.95)	(9.28)	(6.85)	3.62	2.02	5.63	6.89
MSCI:ACWI ex US Value	(6.87)	(8.12)	(10.28)	(7.73)	4.25	0.61	3.75	6.39
MSCI:ACWI ex US Growth	(9.36)	(11.12)	(11.66)	(8.76)	4.45	2.62	5.11	7.41
MSCI:ACWI ex US	(8.13)	(9.65)	(10.97)	(8.24)	4.37	1.63	4.45	6.92
MSCI:EM	(8.71)	(11.65)	(15.72)	(12.52)	6.52	0.78	1.85	7.84
CS:All Hedge Idx	(1.40)	(1.23)	(2.78)	(1.50)	0.48	0.55	1.47	2.74
FTSE:NAREIT Equity Index	(2.97)	(2.98)	(1.21)	1.26	4.55	7.56	9.15	11.28
Blmbg:Commdty Idx	(2.16)	(2.38)	(5.45)	(3.28)	(1.58)	(7.82)	(8.00)	(4.49)
Blmbg:Gbl Aggr Idx	(1.12)	(1.87)	(3.46)	(2.05)	1.52	0.33	0.51	3.16
Blmbg:High Yld Corp	(1.60)	(0.32)	0.93	0.97	6.60	4.68	6.51	11.20
Blmbg:US Universal Idx	(0.84)	(0.77)	(2.23)	(1.95)	1.59	2.15	2.36	4.51
Blmbg:Aggregate Index	(0.79)	(0.79)	(2.38)	(2.05)	1.04	1.83	1.89	3.94
Blmbg:US TIPS Index	(1.43)	(1.77)	(2.27)	(1.24)	1.46	0.97	0.85	4.11
Blmbg:Muni 1-10 (1-12)	(0.26)	(0.68)	(0.23)	(0.52)	1.17	1.96	2.24	3.43

Asset Allocation Returns

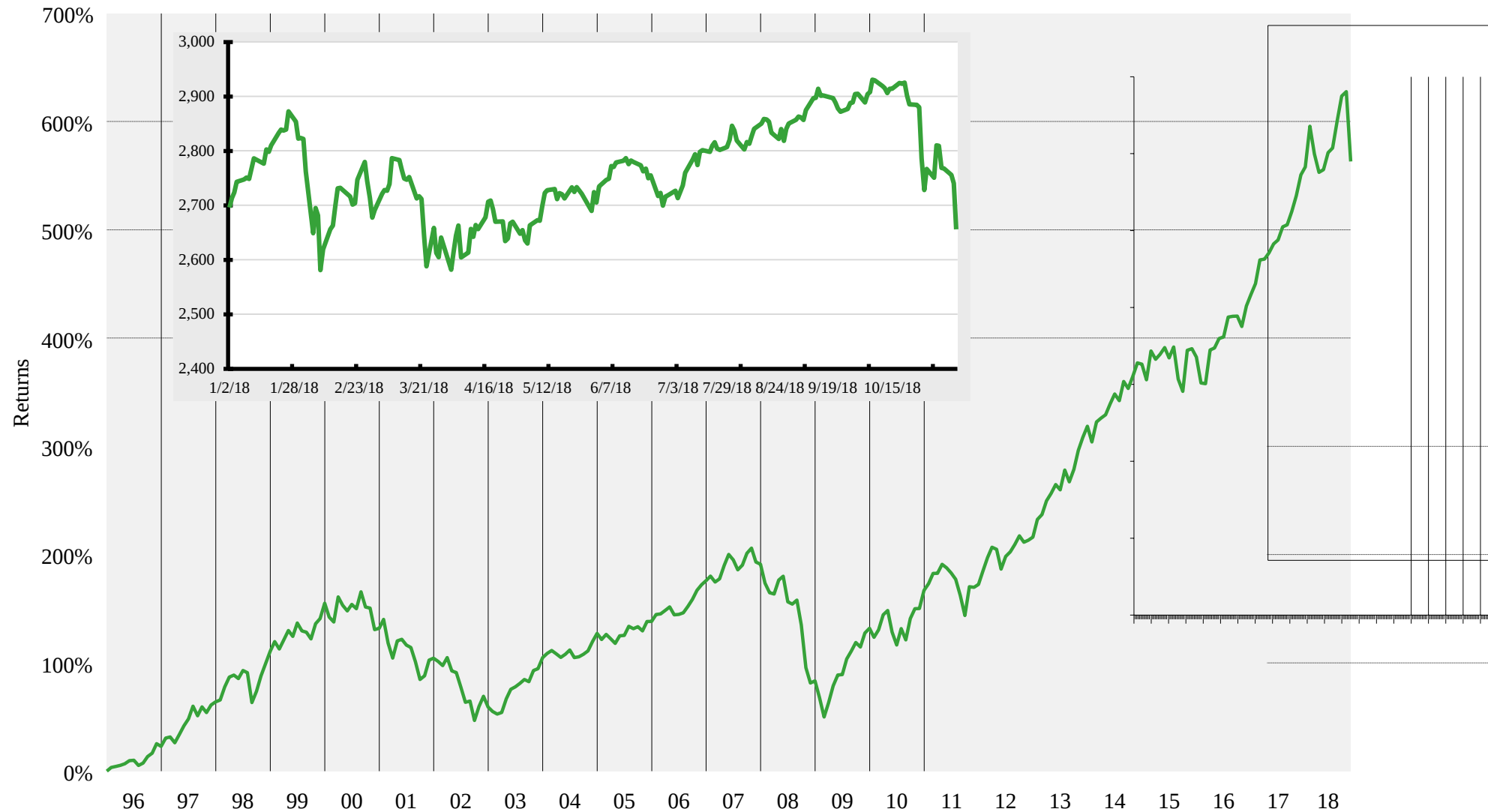
	Last Month	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
100% Equity	(7.59)	(5.67)	(1.72)	1.99	9.22	8.04	10.99	11.46
80% Equity; 20% Fixed Income	(6.23)	(4.67)	(1.76)	1.27	7.62	6.87	9.21	10.10
60% Equity; 40% Fixed Income	(4.87)	(3.69)	(1.84)	0.51	6.00	5.66	7.41	8.67
40% Equity; 60% Fixed Income	(3.51)	(2.71)	(1.97)	(0.30)	4.36	4.41	5.59	7.16
20% Equity; 80% Fixed Income	(2.15)	(1.75)	(2.15)	(1.16)	2.71	3.14	3.75	5.58

*Equity - 70% Russell 3000; 30% MSCI ACWI ex U.S.

**Fixed Income - 100% Bloomberg Aggregate

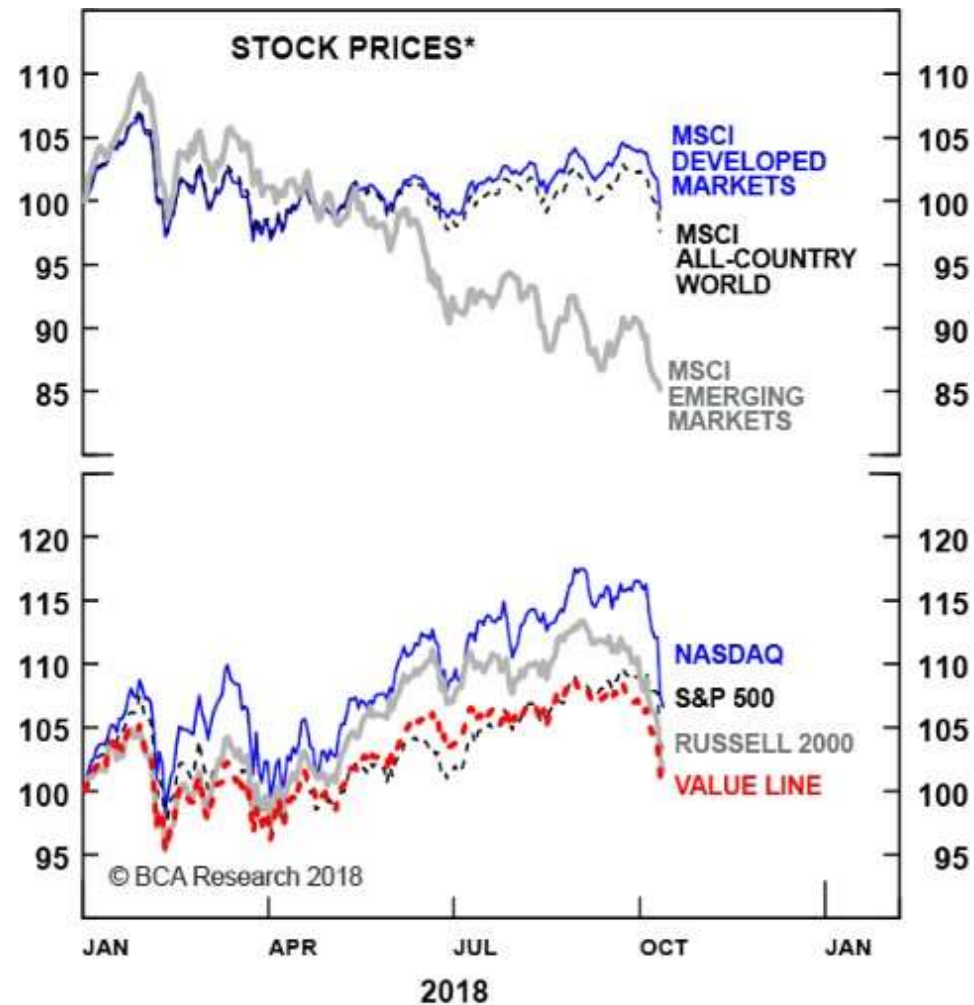
S&P 500

Cumulative Returns



Source: S&P Dow Jones

Stocks Under Pressure



* SHOWN REBASED TO JAN. 2018 = 100. TOP PANEL DATA IS FROM MSCI INC. (SEE COPYRIGHT DECLARATION).

The Market Still Thinks the Fed Can't Raise Rates Above 3%

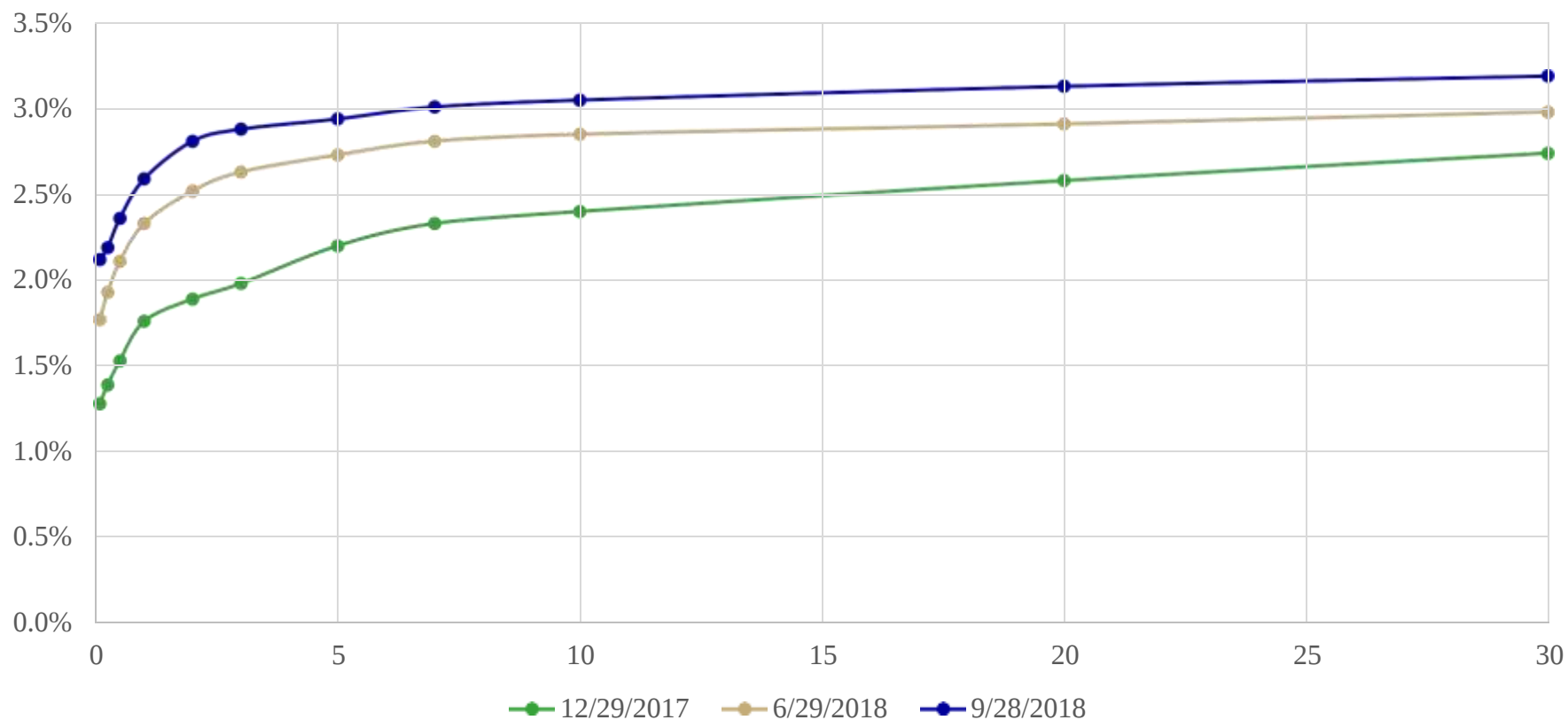
FOMC Median vs. Fed Funds Futures



Two Lines Meet after Three Decades

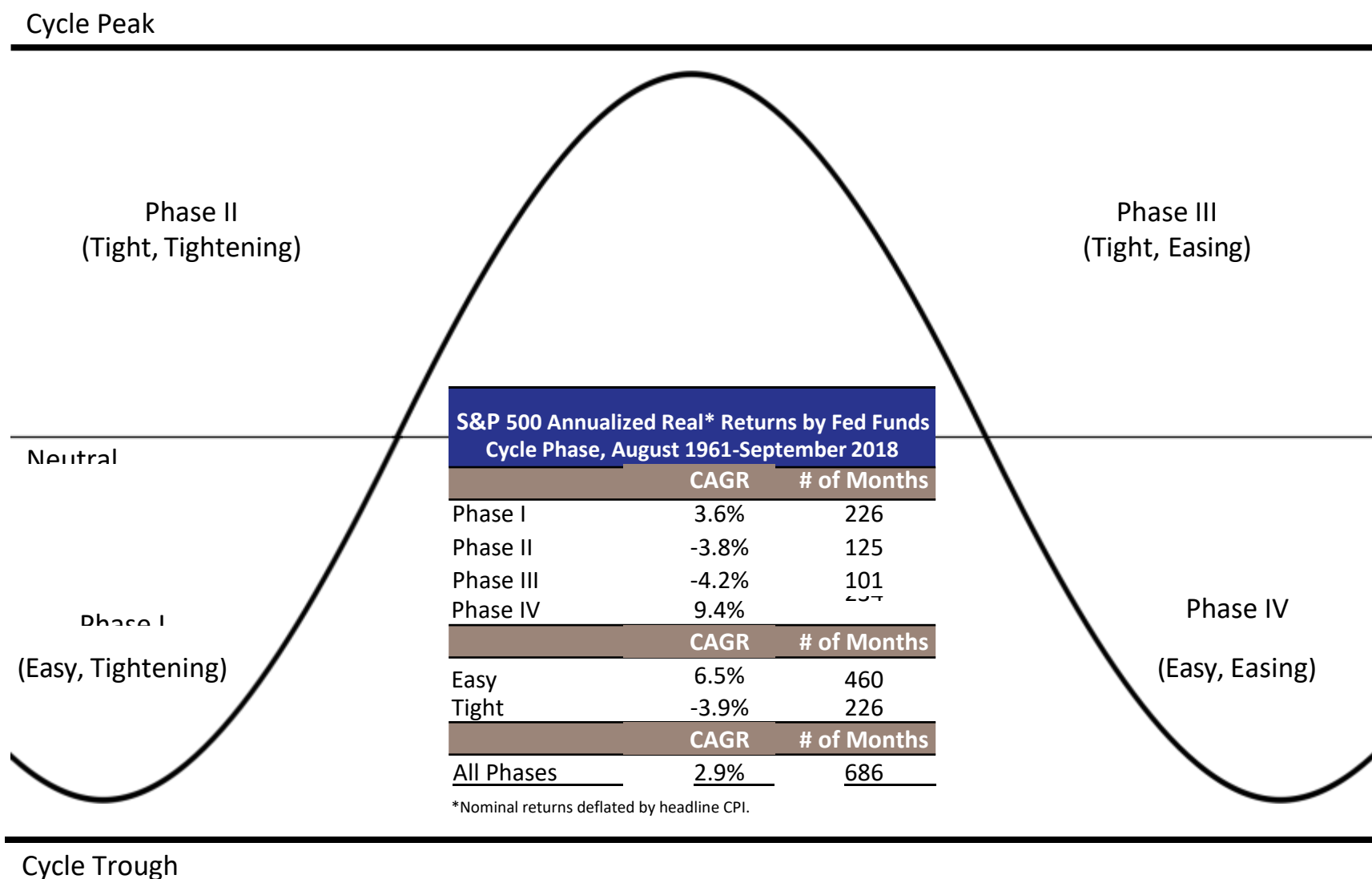


Treasury Yield Curve

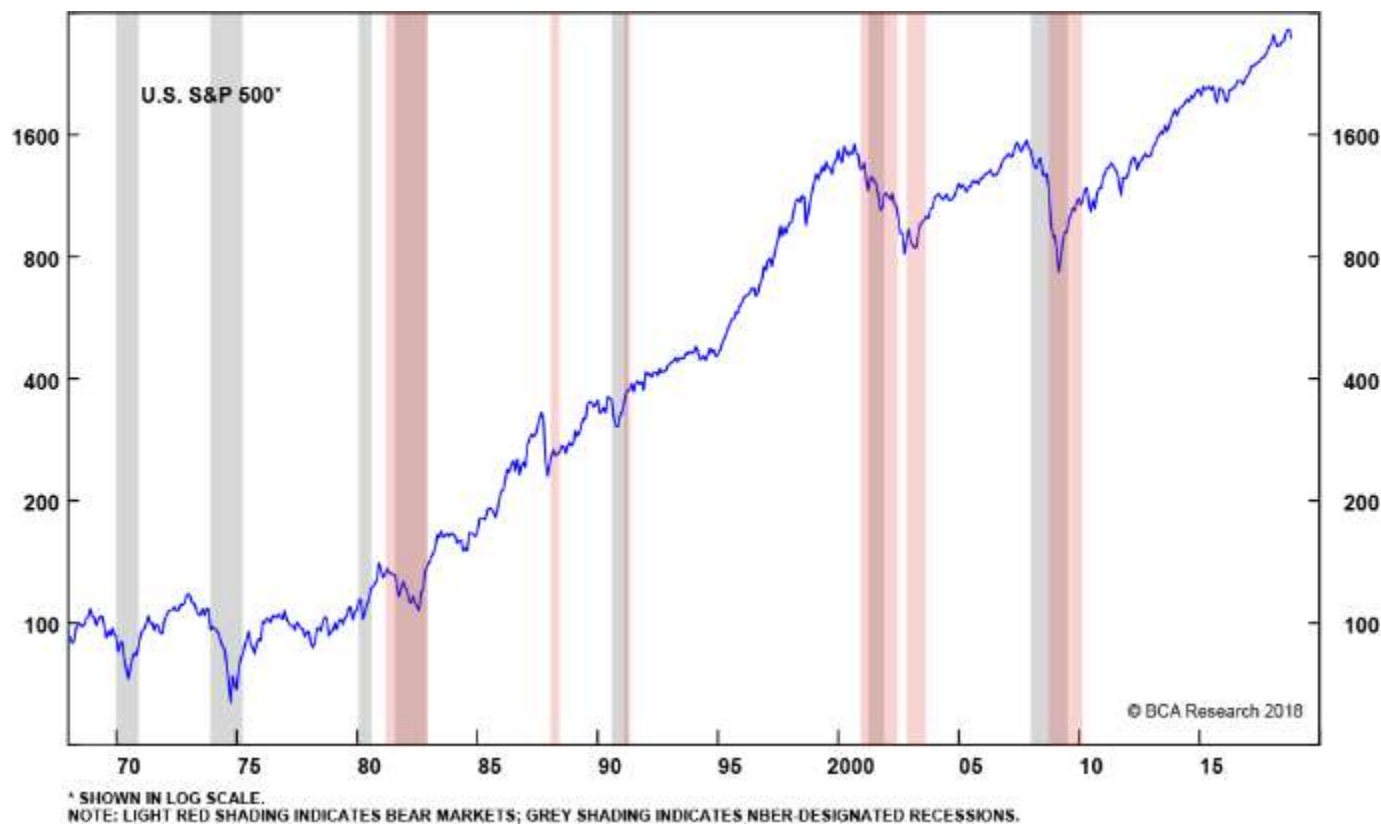


	1 Mo	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
12/29/2017	1.28%	1.39%	1.53%	1.76%	1.89%	1.98%	2.20%	2.33%	2.40%	2.58%	2.74%
6/29/2018	1.77%	1.93%	2.11%	2.33%	2.52%	2.63%	2.73%	2.81%	2.85%	2.91%	2.98%
9/28/2018	2.12%	2.19%	2.36%	2.59%	2.81%	2.88%	2.94%	3.01%	3.05%	3.13%	3.19%

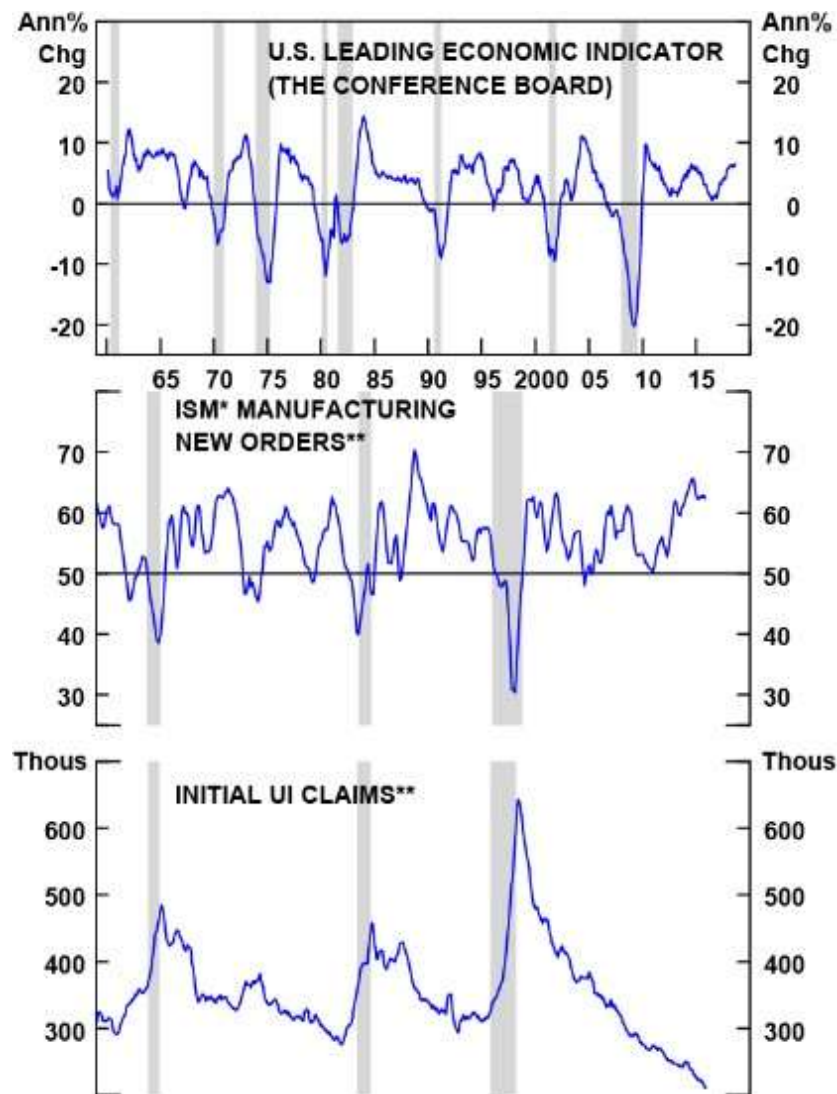
The Fed Funds Rate Cycle



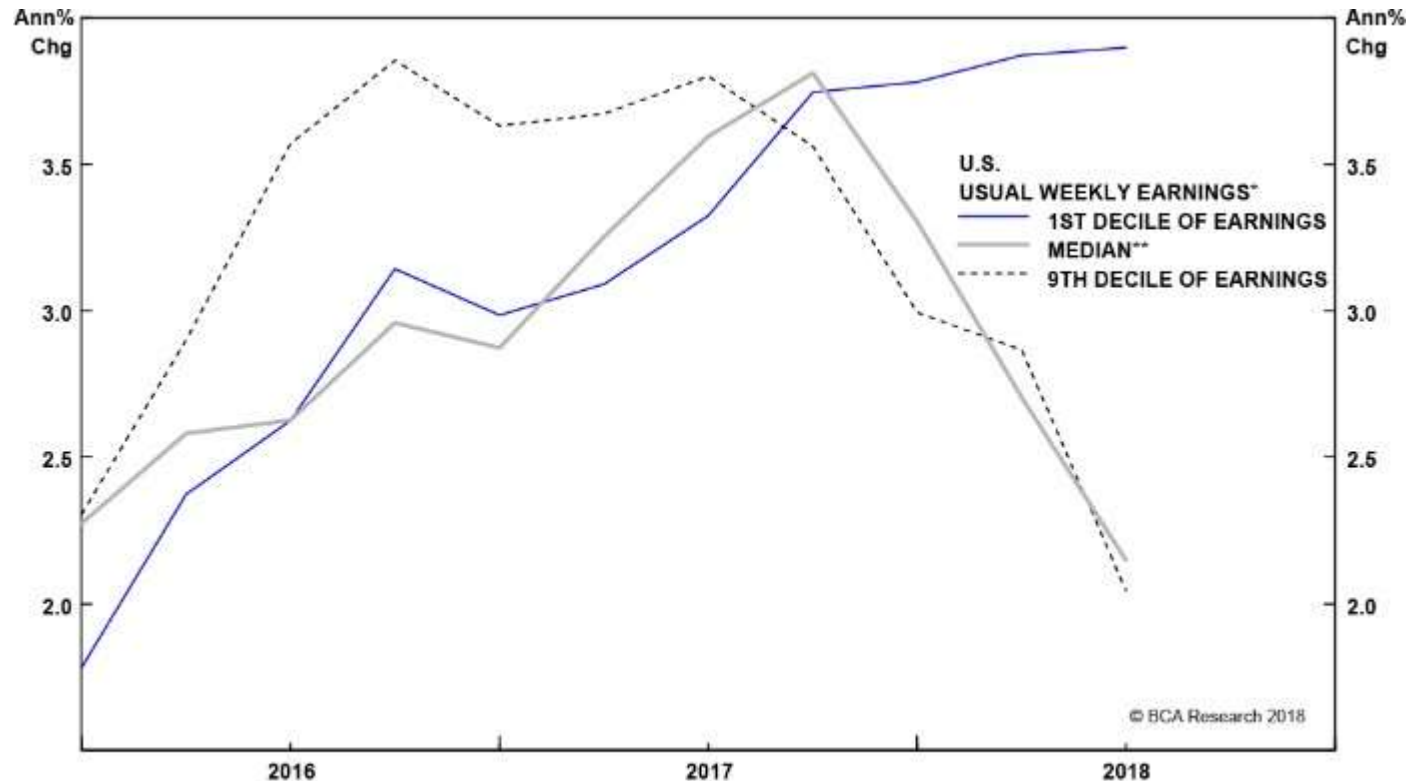
Recessions and Bear Markets Usually Overlap



A U.S. Recession is Not Imminent

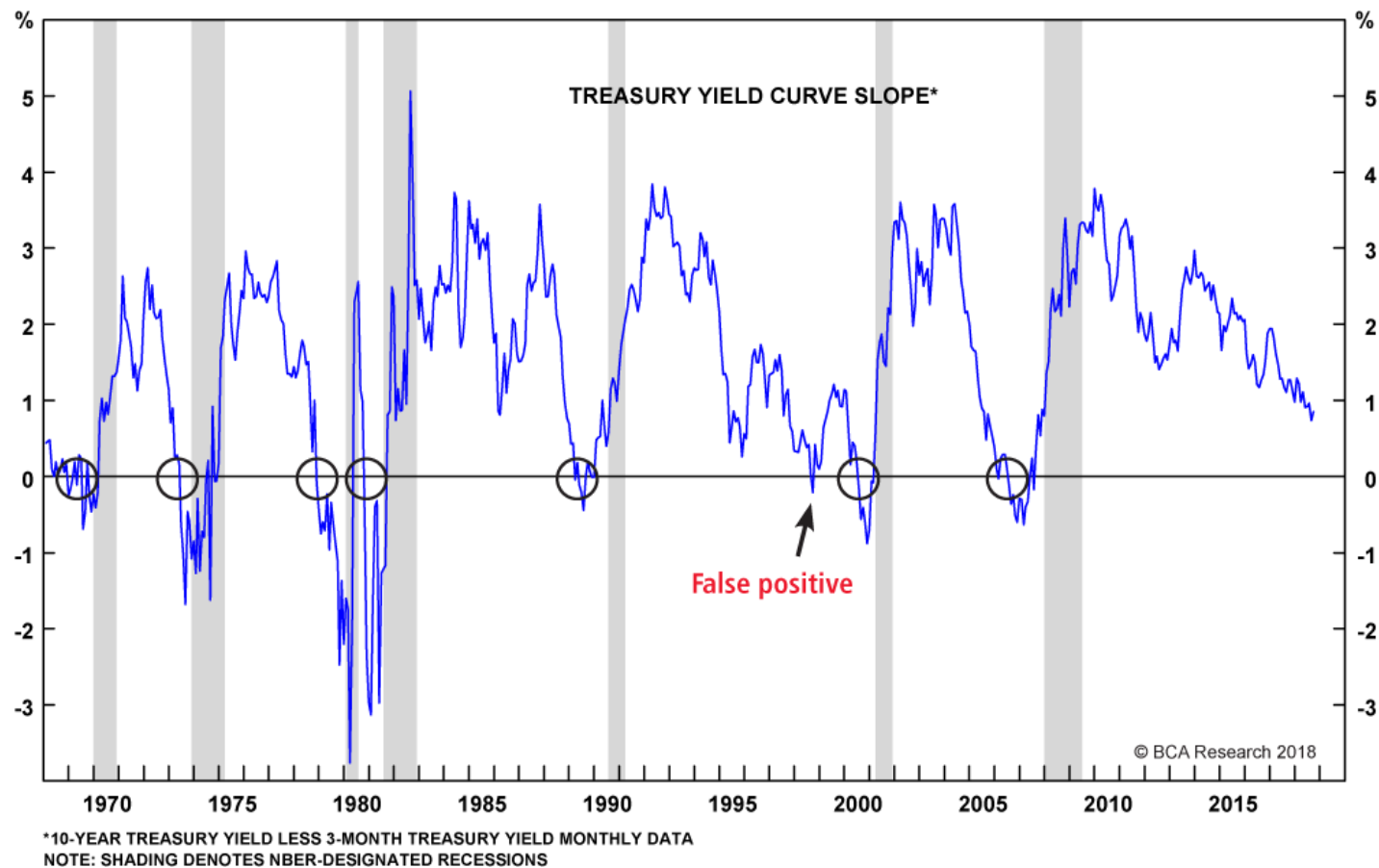


Wage Growth Has Accelerated at the Bottom of the Income Distribution

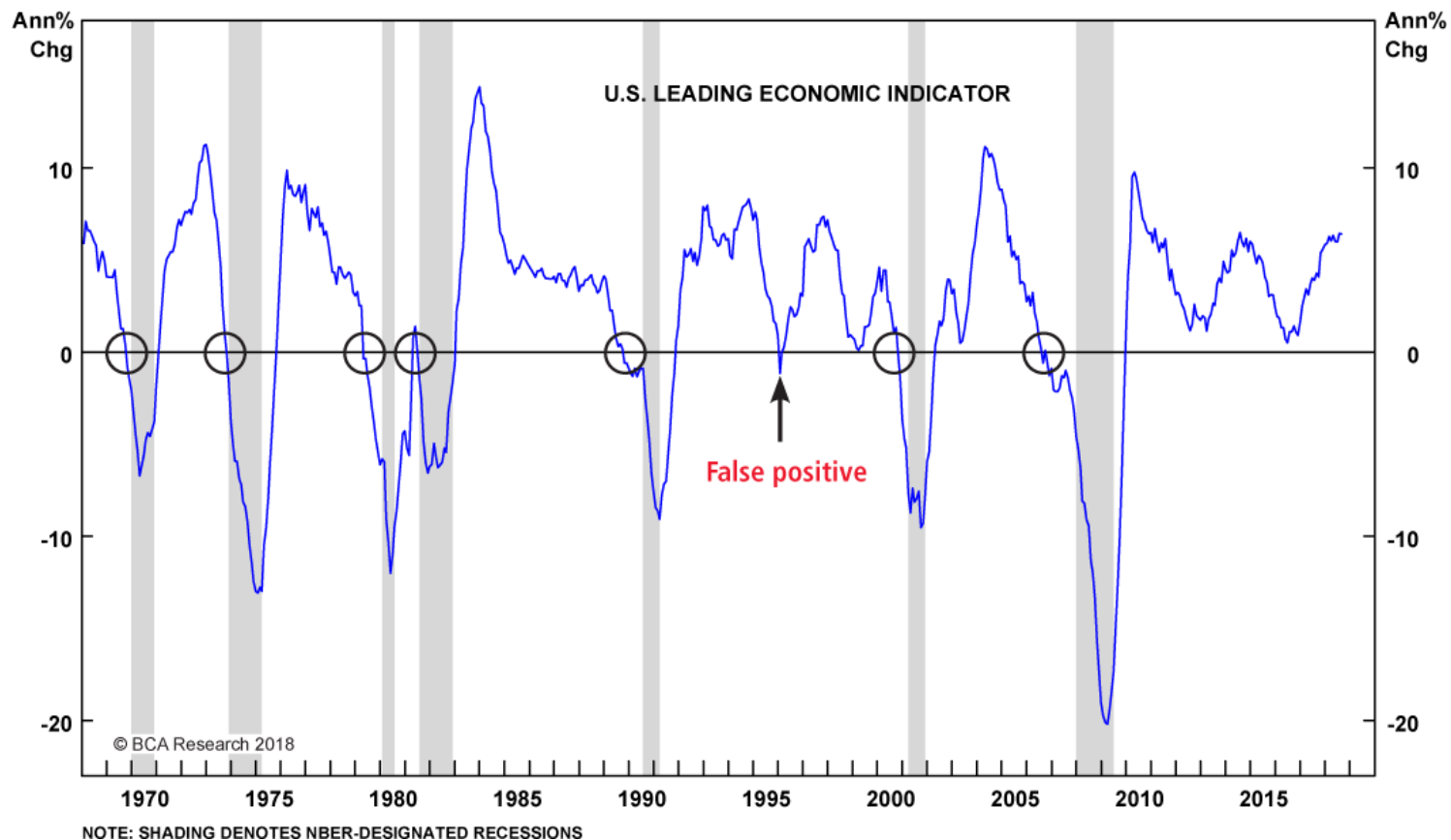


* FOUR-QUARTER MOVING AVERAGE OF USUAL WEEKLY EARNINGS OF FULL-TIME WAGE AND SALARY WORKERS.
** UPPER LIMIT OF SECOND QUANTILE.
SOURCE: BLS.

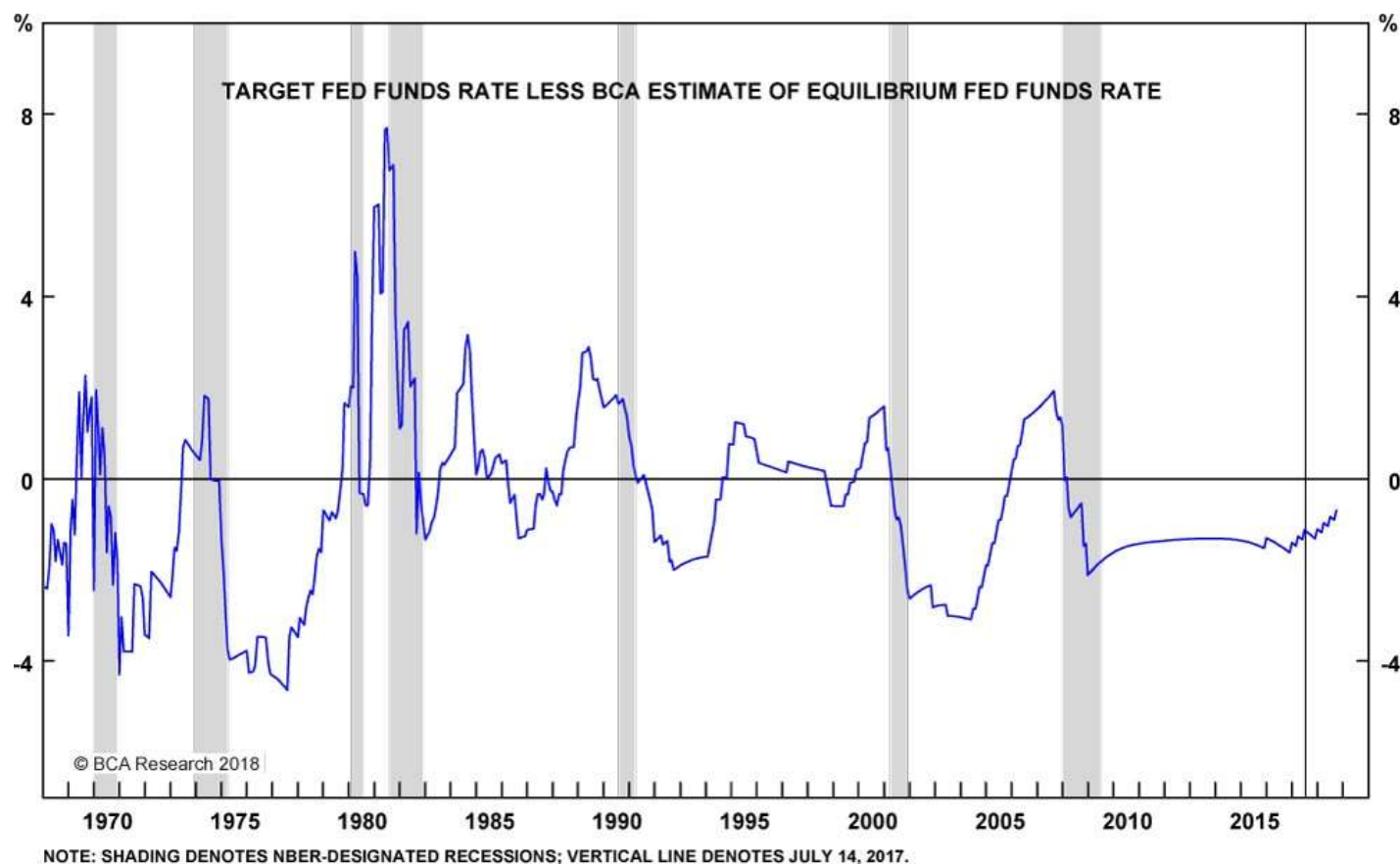
The Yield Curve Has Called 8 Of The Last 7 Recessions...



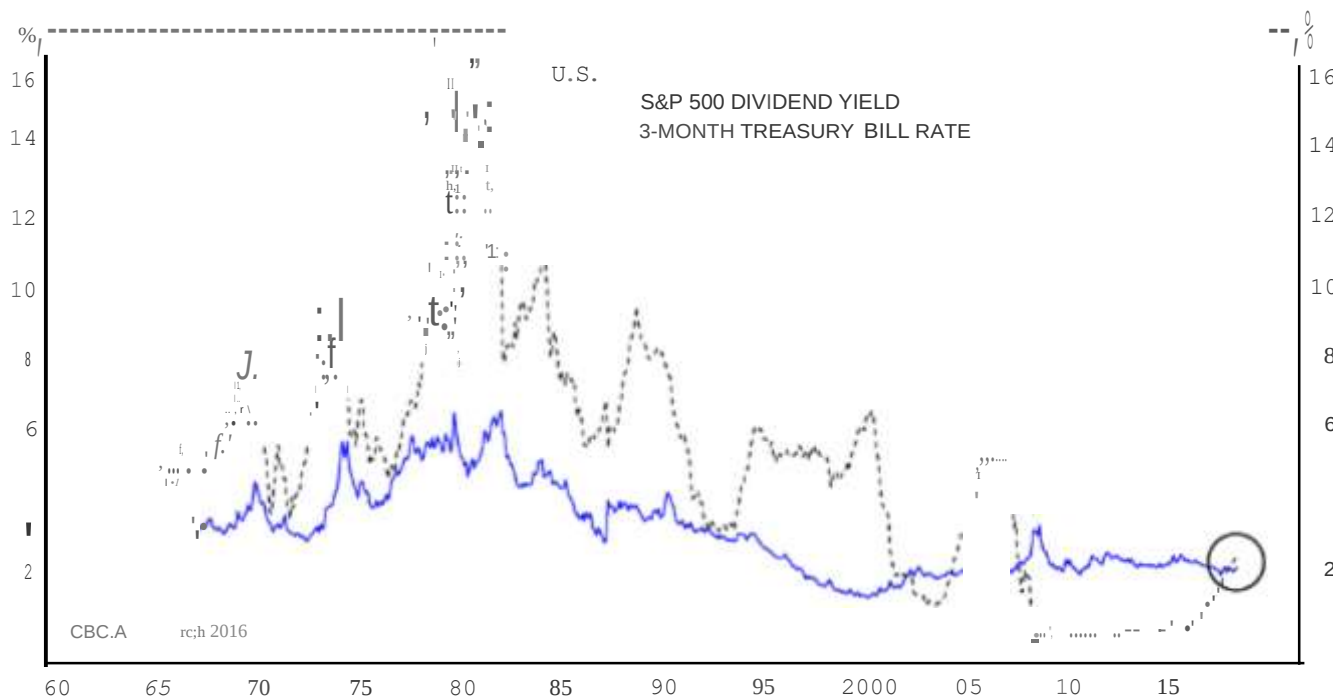
...And So Having Leading Economic Indicators



Recessions Only Occur When Monetary Policy Is Tight



Cash Anyone





Section II

**Juniata College 403(b) Plan
September 30, 2018**

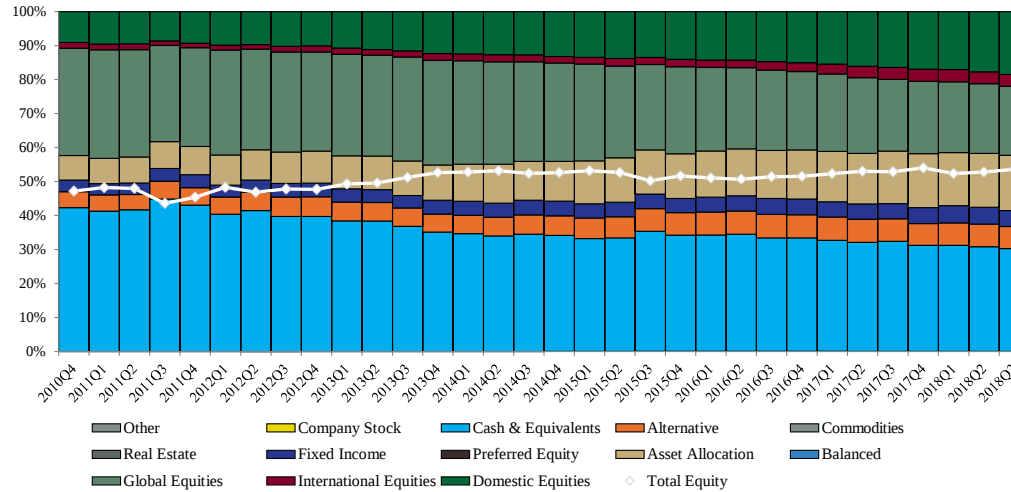
Investments - 06/30/2018 to 09/30/2018

Investment Option	Beginning Market Value	Contributions	Forfeitures	Transfers	Withdrawals	Gain/Loss	Ending Market Value
TIAA-CREF Large-Cap Value Idx Retire	\$1,846,153	\$10,410	\$0	(\$2,123)	(\$8,128)	\$103,458	\$1,949,771
TIAA-CREF Large-Cap Value Retire	\$1,376,327	\$8,210	\$0	(\$129,244)	(\$3,503)	\$48,586	\$1,300,375
TIAA RASRA-CREF:Eq Idx R2	\$3,256,017	\$20,781	\$0	(\$136,995)	(\$25,250)	\$227,971	\$3,342,523
TIAA-CREF Equity Index R	\$720,110	\$6,103	\$0	\$107,185	(\$3,247)	\$53,592	\$883,743
TIAA-CREF Growth & Income Retire	\$503,109	\$4,392	\$0	(\$14,061)	(\$1,133)	\$38,078	\$530,385
TIAA-CREF S&P 500 Index Retire	\$539,357	\$6,474	\$0	\$108,595	(\$1,011)	\$45,647	\$699,062
TIAA-CREF Social Choice Eq Retire	\$540,560	\$4,344	\$0	\$110,141	(\$3,238)	\$39,278	\$691,084
TIAA RASRA-CREF:Growth R2	\$6,693,461	\$25,462	\$0	(\$149,311)	(\$14,676)	\$558,688	\$7,113,625
TIAA-CREF Large-Cap Gr Idx Retire	\$811,343	\$5,966	\$0	(\$6,054)	(\$3,182)	\$69,592	\$877,665
TIAA-CREF Large-Cap Growth R	\$99,251	\$2,033	\$0	\$90,156	\$0	\$11,956	\$203,396
TIAA-CREF Mid-Cap Value Retire	\$1,269,868	\$5,986	\$0	(\$58,914)	(\$2,297)	\$36,413	\$1,251,057
TIAA-CREF Mid-Cap Growth Retire	\$215,736	\$2,564	\$0	(\$5,827)	(\$295)	\$16,317	\$228,497
Victory Sycamore Small Company Opp A	\$387,498	\$2,689	\$0	\$23,048	(\$1,933)	\$15,226	\$426,527
TIAA-CREF Quant Small-Cap Equity Ret	\$1,256,721	\$5,335	\$0	(\$76,317)	(\$5,407)	\$53,046	\$1,233,377
TIAA-CREF Small-Cap Blend Idx Retire	\$355,927	\$4,147	\$0	\$83,681	\$0	\$12,939	\$456,694
PGIM Jennison Small Company Z	\$135,206	\$1,578	\$0	\$35,176	(\$18)	\$1,562	\$173,503
TIAA-CREF International Eq Idx Retire	\$1,511,968	\$10,321	\$0	\$25,773	(\$13,382)	\$19,383	\$1,554,064
TIAA-CREF International Eq Retire	\$549,457	\$2,298	\$0	(\$24,912)	(\$966)	(\$13,721)	\$512,155
American Funds Europacific Growth R4	\$974,416	\$5,570	\$0	\$38,764	(\$4,522)	(\$9,327)	\$1,004,900
Vanguard Emerging Mkts Stock Idx Adm	\$926,041	\$6,507	\$0	\$11,243	(\$3,212)	(\$16,539)	\$924,040
TIAA RASRA-CREF:Gbl Eq R2	\$3,501,819	\$15,189	\$0	\$43,322	(\$11,726)	\$141,423	\$3,690,028
TIAA RASRA-CREF:Stock R2	\$19,635,226	\$56,295	\$0	(\$780,780)	(\$164,045)	\$919,961	\$19,666,656
TIAA-CREF High-Yield R	\$724,857	\$4,096	\$0	\$26,031	(\$5,446)	\$22,948	\$772,486
TIAA-CREF Bond Plus R	\$1,301,790	\$6,147	\$0	\$33,152	(\$10,808)	\$4,306	\$1,334,586
TIAA RASRA-CREF:Bond Mkt R2	\$3,061,967	\$11,596	\$0	(\$304,926)	(\$19,312)	\$5,749	\$2,755,074
TIAA-CREF Bond R	\$398,052	\$1,198	\$0	(\$3,462)	(\$1,752)	\$1,116	\$395,152
T. Rowe Price Emerging Markets Bond	\$69,059	\$1,036	\$0	\$0	\$0	\$1,466	\$71,561
TIAA-CREF Short-Term Bond R	\$93,399	\$771	\$0	\$124	(\$8,057)	\$632	\$86,870
TIAA RASRA-CREF:Infl-Lkd Bond R2	\$1,347,810	\$11,963	\$0	\$23,632	(\$9,494)	(\$6,034)	\$1,367,877
TIAA-CREF Inflation Link Bd R	\$292,372	\$307	\$0	\$1,568	(\$2,861)	(\$1,567)	\$289,819
TIAA RASRA-CREF:Real Estate Acct	\$5,066,001	\$22,372	\$0	(\$37,496)	(\$32,694)	\$58,951	\$5,077,133
TIAA-CREF Real Estate Sec Retire	\$735,303	\$4,216	\$0	\$21,887	(\$2,663)	\$2,427	\$761,169
PIMCO All Asset A	\$7,165	\$131	\$0	(\$2,333)	\$0	\$15	\$4,978
TIAA Traditional Account (RA)	\$34,355,048	\$71,135	\$0	\$801,272	(\$1,186,929)	\$351,279	\$34,391,806
TIAA RASRA-CREF:Money Mkt R2	\$414,366	\$2,407	\$0	\$24,848	(\$10,384)	\$1,362	\$432,599
TIAA-CREF Money Market R	\$63,055	\$98	\$0	\$0	\$0	\$352	\$63,505
Self Directed Brokerage	\$70,862	\$879	\$0	\$0	\$0	\$164	\$71,904
TIAA RASRA-CREF:Social Choice R2	\$5,105,432	\$23,732	\$0	(\$6,000)	(\$19,134)	\$166,664	\$5,270,694
TIAA-CREF Managed Allc R	\$6,766	\$66	\$0	\$0	\$0	\$168	\$7,000
TIAA-CREF Lifecycle 2060 Retirement	\$7,411	\$3,355	\$0	\$0	\$0	\$310	\$11,076
TIAA-CREF Lifecycle 2055 Retirement	\$410,262	\$15,560	\$0	\$0	(\$4,421)	\$15,547	\$436,948
TIAA-CREF Lifecycle 2050 Retirement	\$944,154	\$24,412	\$0	\$0	\$0	\$35,635	\$1,004,201
TIAA-CREF Lifecycle 2045 Retirement	\$1,463,961	\$42,111	\$0	(\$1,169)	(\$14,330)	\$54,116	\$1,544,689
TIAA-CREF Lifecycle 2040 Retirement	\$2,436,664	\$39,919	\$0	(\$62,969)	\$0	\$83,763	\$2,497,377
TIAA-CREF Lifecycle 2035 Retirement	\$2,585,404	\$41,705	\$0	\$80,354	\$0	\$80,916	\$2,788,380
TIAA-CREF Lifecycle 2030 Retirement	\$1,565,410	\$33,761	\$0	(\$2,612)	\$0	\$44,092	\$1,640,651
TIAA-CREF Lifecycle 2025 Retirement	\$1,491,033	\$26,005	\$0	(\$33,429)	\$0	\$36,210	\$1,519,820
TIAA-CREF Lifecycle 2020 Retirement	\$1,164,325	\$13,528	\$0	(\$2,477)	(\$12,133)	\$25,019	\$1,188,262
TIAA-CREF Lifecycle 2015 Retirement	\$486,965	\$7,728	\$0	\$164,958	(\$1,496)	\$9,880	\$668,034
TIAA-CREF Lifecycle 2010 Retirement	\$263,103	\$0	\$0	(\$9,888)	(\$4,819)	\$4,398	\$252,794
TIAA-CREF Lifecycle Retire Income Retire	\$5,628	\$291	\$0	(\$3,608)	(\$536)	\$72	\$1,847
Aggregate	\$113,043,194	\$623,180	\$0	\$0	(\$1,618,441)	\$3,373,485	\$115,421,419

*The cash flow statement is created from unaudited data obtained directly from the Plan's record keeper. For the reporting period, these balances could differ from the actual balances depending on timing of receipt of data by Cornerstone from the record keeper. Please compare to the custodial statement for accuracy, as applicable.

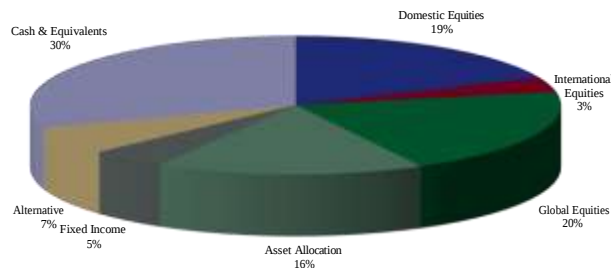
**Juniata College 403(b) Plan
Plan Summary - Style & Capitalization**

Historical Asset Allocation



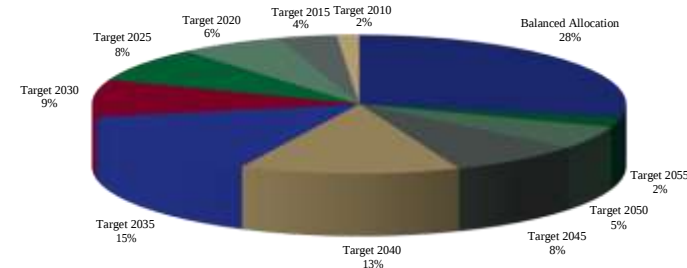
Ending asset allocation as of 2018Q3 is 54% equity and 46% fixed income.

Portfolio Allocation



	Market Value	Last Qtr	Current Qtr	Change
Domestic Equities	\$21,361,284	17.7%	18.5%	0.8%
International Equities	\$3,995,159	3.5%	3.5%	0.0%
Global Equities	\$23,356,685	20.5%	20.2%	-0.2%
Asset Allocation	\$18,831,773	15.9%	16.3%	0.4%
Fixed Income	\$5,415,729	5.0%	4.7%	-0.3%
Alternative	\$7,500,976	6.6%	6.5%	-0.1%
Cash & Equivalents	\$34,887,910	30.8%	30.2%	-0.6%
Other	\$71,904	0.1%	0.1%	0.0%
	\$115,421,419	100%	100%	0%

Target Date/ Asset Allocations



	Market Value	Last Qtr	Current Qtr	Change
Balanced Allocation	\$5,277,694	28.5%	28.0%	-0.5%
Target 2060	\$11,076	0.0%	0.1%	0.0%
Target 2055	\$436,948	2.3%	2.3%	0.0%
Target 2050	\$1,004,201	5.3%	5.3%	0.1%
Target 2045	\$1,544,689	8.2%	8.2%	0.0%
Target 2040	\$2,497,377	13.6%	13.3%	-0.3%
Target 2035	\$2,788,380	14.4%	14.8%	0.4%
Target 2030	\$1,640,651	8.7%	8.7%	0.0%
Target 2025	\$1,519,820	8.3%	8.1%	-0.2%
Target 2020	\$1,188,262	6.5%	6.3%	-0.2%
Target 2015	\$668,034	2.7%	3.5%	0.8%
Target 2010	\$252,794	1.5%	1.3%	-0.1%
Target Retirement	\$1,847	0.0%	0.0%	0.0%
	\$18,831,773	100%	100%	0%

Please note: starting with the 2018 Q1 reporting period, "Total Equity" as reported in the historical asset allocation graph will *exclude* assets categorized as "Other." For assets categorized as "Asset Allocation," equity allocation will be calculated using actual asset allocation fund data when available and industry average values when not available.

**Juniata College 403(b) Plan
Manager Performance Summary***

	<i>Quarterly Return 3rd Quarter 2018</i>	<i>Market Value Beginning of Period</i>	<i>Market Value End of Period</i>
TIAA-CREF Large-Cap Value Idx Retire	5.62%	\$1,846,153	\$1,949,771
TIAA-CREF Large-Cap Value Retire	3.79%	\$1,376,327	\$1,300,375
Russell 1000 Value	5.70%		
TIAA RASRA-CREF:Eq Idx R2	7.06%	\$3,256,017	\$3,342,523
TIAA-CREF Equity Index R	7.05%	\$720,110	\$883,743
TIAA-CREF Growth & Income Retire	7.62%	\$503,109	\$530,385
TIAA-CREF S&P 500 Index Retire	7.62%	\$539,357	\$699,062
TIAA-CREF Social Choice Eq Retire	6.72%	\$540,560	\$691,084
S&P 500	7.71%		
TIAA RASRA-CREF:Growth R2	8.38%	\$6,693,461	\$7,113,625
TIAA-CREF Large-Cap Gr Idx Retire	9.10%	\$811,343	\$877,665
TIAA-CREF Large-Cap Growth R	7.86%	\$99,251	\$203,396
Russell 1000 Growth	9.17%		
TIAA-CREF Mid-Cap Value Retire	2.90%	\$1,269,868	\$1,251,057
Russell Mid-Cap Value	3.30%		
TIAA-CREF Mid-Cap Growth Retire	7.03%	\$215,736	\$228,497
Russell Mid-Cap Growth	7.57%		
Victory Sycamore Small Company Opp A	3.78%	\$387,498	\$426,527
Russell 2000 Value	1.60%		
TIAA-CREF Quant Small-Cap Equity Ret	4.37%	\$1,256,721	\$1,233,377
TIAA-CREF Small-Cap Blend Idx Retire	3.52%	\$355,927	\$456,694
Russell 2000	3.58%		
PGIM Jennison Small Company Z	1.30%	\$135,206	\$173,503
Russell 2000 Growth	5.52%		
TIAA-CREF International Eq Idx Retire	1.34%	\$1,511,968	\$1,554,064
TIAA-CREF International Eq Retire	-2.82%	\$549,457	\$512,155
MSCI:EAFE	1.35%		
American Funds Europacific Growth R4	-0.93%	\$974,416	\$1,004,900
MSCI:ACWI ex US Growth	-0.26%		
Vanguard Emerging Mkts Stock Idx Adm	-1.75%	\$926,041	\$924,040
MSCI Emerging Markets	-0.95%		
TIAA RASRA-CREF:Gbl Eq R2	3.95%	\$3,501,819	\$3,690,028
TIAA RASRA-CREF:Stock R2	4.75%	\$19,635,226	\$19,666,656
MSCI ACWI	4.40%		
TIAA RASRA-CREF:Social Choice R2	3.27%	\$5,105,432	\$5,270,694
60% ACWI; 40% Global Agg	2.25%		
TIAA-CREF Managed Allc R	2.48%	\$6,766	\$7,000
60% ACWI; 40% Global Agg	2.25%		
TIAA-CREF Lifecycle 2060 Retirement	3.86%	\$7,411	\$11,076
Callan Tgt Dt Idx 2050	4.11%		
TIAA-CREF Lifecycle 2055 Retirement	3.77%	\$410,262	\$436,948
Callan Tgt Dt Idx 2050	4.11%		
TIAA-CREF Lifecycle 2050 Retirement	3.75%	\$944,154	\$1,004,201
Callan Tgt Dt Idx 2050	4.11%		
TIAA-CREF Lifecycle 2045 Retirement	3.69%	\$1,463,961	\$1,544,689
Callan Tgt Dt Idx 2045	4.04%		
TIAA-CREF Lifecycle 2040 Retirement	3.48%	\$2,436,664	\$2,497,377
Callan Tgt Dt Idx 2040	3.87%		
TIAA-CREF Lifecycle 2035 Retirement	3.11%	\$2,585,404	\$2,788,380
Callan Tgt Dt Idx 2035	3.57%		

**Juniata College 403(b) Plan
Manager Performance Summary***

	<i>Quarterly Return 3rd Quarter 2018</i>	<i>Market Value Beginning of Period</i>	<i>Market Value End of Period</i>
TIAA-CREF Lifecycle 2030 Retirement Callan Tgt Dt Idx 2030	2.80% 3.16%	\$1,565,410	\$1,640,651
TIAA-CREF Lifecycle 2025 Retirement Callan Tgt Dt Idx 2025	2.44% 2.68%	\$1,491,033	\$1,519,820
TIAA-CREF Lifecycle 2020 Retirement Callan Tgt Dt Idx 2020	2.14% 2.21%	\$1,164,325	\$1,188,262
TIAA-CREF Lifecycle 2015 Retirement CallanTgt Dt Idx 2015	1.86% 1.85%	\$486,965	\$668,034
TIAA-CREF Lifecycle 2010 Retirement Callan Tgt Dt Idx 2010	1.69% 1.67%	\$263,103	\$252,794
TIAA-CREF Lifecycle Retire Income Retire 40% ACWI; 60% Global Agg	1.60% 1.19%	\$5,628	\$1,847
TIAA-CREF High-Yield R Blmbg:Corporate High Yld	2.61% 2.40%	\$724,857	\$772,486
TIAA-CREF Bond Plus R Barclays Capital U.S. Universal Idx	0.06% 0.27%	\$1,301,790	\$1,334,586
TIAA RASRA-CREF:Bond Mkt R2	0.12%	\$3,061,967	\$2,755,074
TIAA-CREF Bond R Barclays Capital Aggregate	0.02% 0.02%	\$398,052	\$395,152
T. Rowe Price Emerging Markets Bond Blmbg:Glob Agg ex USD	1.69% -1.74%	\$69,059	\$71,561
TIAA-CREF Short-Term Bond R Barclays Capital 1-3 Year Govt/Credit	0.44% 0.33%	\$93,399	\$86,870
TIAA RASRA-CREF:Infl-Lkd Bond R2	-0.44%	\$1,347,810	\$1,367,877
TIAA-CREF Inflation Link Bd R Barclays Capital US TIPS	-0.54% -0.82%	\$292,372	\$289,819
TIAA RASRA-CREF:Real Estate Acct	1.17%	\$5,066,001	\$5,077,133
TIAA-CREF Real Estate Sec Retire FTSE:NAREIT Equity Index	0.32% 0.79%	\$735,303	\$761,169
PIMCO All Asset A CS:AllHedge Ix	0.24% -0.21%	\$7,165	\$4,978
TIAA Traditional Account (GSRA)	0.78%	\$0	\$0
TIAA Traditional Account (RA)	0.94%	\$34,355,048	\$34,391,806
TIAA Traditional Account (SRA) Traditional Index	0.78% 0.94%	\$0	\$0
TIAA RASRA-CREF:Money Mkt R2	0.32%	\$414,366	\$432,599
TIAA-CREF Money Market R 3 Month T-Bill	0.42% 0.49%	\$63,055	\$63,505
Self Directed Brokerage	N/A	\$70,862	\$71,904
Weighted Investment Return	2.98%	\$113,043,194	\$115,421,419
Blended Benchmark**	3.03%		

* Fund returns net of fees

**Composite benchmark based on plan assets

	<i>Quarterly Return 3rd Quarter 2018</i>	<i>Market Value Beginning of Period</i>	<i>Market Value End of Period</i>
Plan Assets Excluding Self-Directed	2.99%	\$112,972,333	\$115,349,515

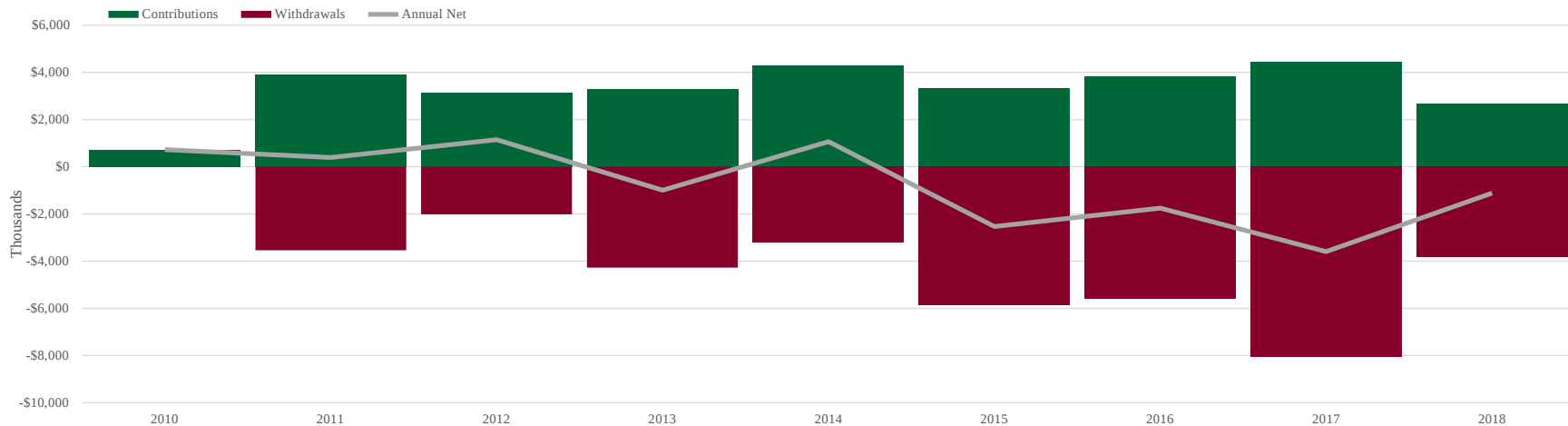
Performance quoted is past performance and is no guarantee of future results.

**Juniata College 403(b) Plan
Historical Performance Summary**

Time Period	Overall Plan Growth	Net Flow Change	Investment Return	Blended Market Benchmark Return	Market Value Beginning of Period	Market Value End of Period	Net Flows	Income/MV Gain/Loss			
Year 2010	5.33%	0.78%	4.56%	4.06%	\$68,058,430	\$71,687,586	\$528,724	\$3,100,433			
Year 2011	-0.18%	-0.39%	0.22%	-1.11%	\$71,687,586	\$71,556,256	(\$289,763)	\$158,433			
Year 2012	12.02%	1.54%	10.38%	8.79%	\$71,556,256	\$80,159,260	\$1,146,611	\$7,456,393			
Year 2013	14.17%	-1.16%	15.47%	13.01%	\$80,159,260	\$91,515,435	(\$997,576)	\$12,353,751			
First Quarter 2014	1.04%	-0.23%	1.26%	1.60%	\$91,515,435	\$92,465,523	(\$206,923)	\$1,157,012			
Second Quarter 2014	2.46%	-0.58%	3.04%	3.50%	\$92,465,523	\$94,740,524	(\$539,028)	\$2,814,028			
Third Quarter 2014	0.81%	1.32%	-0.51%	-0.81%	\$94,740,524	\$95,506,025	\$1,250,137	(\$484,636)			
Fourth Quarter 2014	2.47%	0.33%	2.14%	1.83%	\$95,506,025	\$97,867,055	\$319,899	\$2,041,131			
Year 2014	6.94%	0.84%	6.03%	6.21%	\$91,515,435	\$97,867,055	\$824,086	\$5,527,534			
First Quarter 2015	1.12%	-1.03%	2.16%	1.89%	\$97,867,055	\$98,966,096	(\$1,010,566)	\$2,109,607			
Second Quarter 2015	-0.94%	-1.47%	0.54%	0.02%	\$98,966,096	\$98,036,132	(\$1,459,536)	\$529,571			
Third Quarter 2015	-4.22%	-0.22%	-4.00%	-4.13%	\$98,036,132	\$93,898,076	(\$216,816)	(\$3,921,241)			
Fourth Quarter 2015	3.11%	0.16%	2.95%	3.28%	\$93,898,076	\$96,820,276	\$150,771	\$2,771,430			
Year 2015	-1.07%	-2.55%	1.50%	0.91%	\$97,867,055	\$96,820,276	(\$2,536,146)	\$1,489,368			
First Quarter 2016	0.36%	-0.24%	0.60%	1.27%	\$96,820,276	\$97,172,426	(\$232,369)	\$584,518			
Second Quarter 2016	1.03%	-0.34%	1.36%	1.72%	\$97,172,426	\$98,171,206	(\$327,134)	\$1,325,915			
Third Quarter 2016	2.86%	-0.33%	3.18%	2.69%	\$98,171,206	\$100,977,040	(\$319,961)	\$3,125,794			
Fourth Quarter 2016	0.43%	-0.82%	1.25%	0.83%	\$100,977,040	\$101,407,935	(\$828,764)	\$1,259,659			
Year 2016	4.74%	-1.71%	6.54%	6.66%	\$96,820,276	\$101,407,935	(\$1,708,227)	\$6,295,885			
First Quarter 2017	3.87%	0.02%	3.86%	4.00%	\$101,407,935	\$105,333,587	\$15,775	\$3,909,878			
Second Quarter 2017	2.33%	-0.17%	2.50%	2.63%	\$105,333,587	\$107,787,635	(\$183,495)	\$2,637,543			
Third Quarter 2017	-0.17%	-3.41%	3.24%	3.12%	\$107,787,635	\$107,608,610	(\$3,670,447)	\$3,491,422			
Fourth Quarter 2017	3.65%	0.24%	3.41%	3.32%	\$107,608,610	\$111,538,650	\$255,540	\$3,674,500			
Year 2017	9.99%	-3.33%	13.66%	13.72%	\$101,407,935	\$111,538,650	(\$3,582,627)	\$13,713,343			
First Quarter 2018	-0.58%	-0.68%	0.10%	-0.52%	\$111,538,650	\$110,896,483	(\$753,208)	\$111,040			
Second Quarter 2018	1.94%	0.57%	1.37%	1.56%	\$110,896,483	\$113,043,194	\$627,523	\$1,519,189			
Third Quarter 2018	2.10%	-0.88%	2.98%	3.03%	\$113,043,194	\$115,421,419	(\$995,261)	\$3,373,485			
Year 2018	3.48%	-0.99%	4.50%	4.10%	\$111,538,650	\$115,421,419	(\$1,120,946)	\$5,003,715			
Historical Performance Cumulative	69.59%	-6.86%	81.88%	71.21%	\$68,058,430	\$115,421,419	(\$7,735,866)	\$55,098,855			
Historical Performance Annualized	6.83%	-0.88%	7.76%	6.95%							
1 Year Rolling	7.26%	-0.76%	8.07%	7.55%							
3 Year Rolling	7.12%	-1.96%	9.21%	9.25%							
5 Year Rolling	5.68%	-1.66%	7.42%	7.12%							

Performance quoted is past performance and is no guarantee of future results.

Juniata College 403(b) Plan
Plan Summary - Contributions and Withdrawals



Time Period	Contributions	YoY Contribution Change	Withdrawals	Net
Year 2013	\$3,278,472	3.8%	(\$4,276,048)	(\$997,576)
Year 2014	\$4,287,139	30.8%	(\$3,226,941)	\$1,060,198
Year 2015	\$3,338,620	-22.1%	(\$5,874,766)	(\$2,536,146)
First Quarter 2016	\$794,508	-9.1%	(\$1,027,545)	(\$233,037)
Second Quarter 2016	\$766,520	-5.3%	(\$1,093,654)	(\$327,134)
Third Quarter 2016	\$1,290,045	54.4%	(\$1,610,006)	(\$319,961)
Fourth Quarter 2016	\$975,765	19.0%	(\$1,850,481)	(\$874,716)
Year 2016	\$3,826,839	14.6%	(\$5,581,687)	(\$1,754,848)
First Quarter 2017	\$1,378,046	73.4%	(\$1,362,271)	\$15,775
Second Quarter 2017	\$1,037,415	35.3%	(\$1,220,911)	(\$183,495)
Third Quarter 2017	\$774,748	-39.9%	(\$4,445,195)	(\$3,670,447)
Fourth Quarter 2017	\$1,259,021	29.0%	(\$1,021,688)	\$237,332
Year 2017	\$4,449,230	16.3%	(\$8,050,065)	(\$3,600,835)
First Quarter 2018	\$646,667	-53.1%	(\$1,399,875)	(\$753,208)
Second Quarter 2018	\$1,417,477	36.6%	(\$789,954)	\$627,523
Third Quarter 2018	\$623,180	-19.6%	(\$1,618,441)	(\$995,261)
Year 2018	\$2,687,324	N/A	(\$3,808,270)	(\$1,120,946)
Since 2010 Q4 Cumulative	\$29,669,593	N/A	(\$36,364,401)	(\$6,694,808)

Juniata College 403(b) Plan

Fund Selection List

Fund Name	Fund Category	Tot Ret 12 Mo	% Rank Cat 12 Mo	Tot Ret Annld 3 Yr	% Rank Cat 3 Yr	Tot Ret Annld 5 Yr	% Rank Cat 5 Yr	Beta 3 Yr	% Rank Beta	Std Dev 3 Yr	% Rank Std Dev	Alpha 3 Yr	% Rank Alpha	Sharpe Ratio 3 Yr	% Rank Sharpe Ratio	Expense Ratio	% Rank Expense Ratio
TIAA-CREF Large-Cap Value Idx Retire	Large Cap Value	9.06	76	13.20	62	10.36	59	1.00	36	5.04	81	-0.26	71	2.45	30	0.30	98
TIAA-CREF Large-Cap Value Retire	Large Cap Value	6.38	93	12.68	79	9.12	89	0.93	59	5.15	76	0.12	63	2.30	45	0.65	79
Callan Lg Cap Value MF	Large Cap Value	12.06	-	13.75	-	10.65	-	-	-	5.66	-	-	-	2.26	-	0.95	-
Russell 1000 Value	Large Cap Value	9.45	75	13.55	57	10.72	47	1.00	32	5.07	80	0.00	64	2.51	25	-	-
TIAA RASRA-CREF:Eq Idx R2	Large Cap Core	17.26	33	16.72	22	13.10	24	0.91	75	4.37	95	0.89	15	3.63	7	0.30	98
TIAA-CREF Equity Index R	Large Cap Core	17.25	33	16.78	21	13.16	24	0.91	72	4.39	95	0.87	16	3.63	7	0.30	98
TIAA-CREF Growth & Income Retire	Large Cap Core	19.84	11	17.08	16	13.76	12	1.02	45	5.33	59	-0.54	30	3.05	19	0.66	72
TIAA-CREF S&P 500 Index Retire	Large Cap Core	17.51	28	16.93	19	13.59	16	1.00	48	4.74	84	-0.31	28	3.39	13	0.31	97
TIAA-CREF Social Choice Eq Retire	Large Cap Core	15.99	48	16.38	26	12.02	47	0.78	91	3.83	97	2.54	9	4.06	1	0.43	91
Callan Large Cap Core MFs	Large Cap Core	15.52	-	15.49	-	11.98	-	-	-	5.48	-	-	-	2.58	-	0.90	-
S&P 500	Large Cap Core	17.91	23	17.31	7	13.95	10	1.00	48	4.75	84	0.00	23	3.47	9	-	-
TIAA RASRA-CREF:Growth R2	Large Cap Growth	26.36	42	19.64	29	16.44	22	1.14	49	7.22	74	-3.27	37	2.60	14	0.32	99
TIAA-CREF Large-Cap Gr Idx Retire	Large Cap Growth	25.91	50	20.19	16	16.21	26	1.00	84	6.16	88	-0.33	10	3.14	2	0.31	99
TIAA-CREF Large-Cap Growth R	Large Cap Growth	27.99	26	19.97	24	16.63	21	1.26	24	8.68	41	-5.04	69	2.20	47	0.72	79
Callan Large Cap Grwth MF	Large Cap Growth	25.94	-	18.73	-	15.26	-	-	-	8.36	-	-	-	2.16	-	1.00	-
Russell 1000 Growth	Large Cap Growth	26.30	43	20.55	14	16.58	21	1.00	84	6.16	89	0.00	10	3.20	1	-	-
TIAA-CREF Mid-Cap Value Retire	Mid Cap Value	7.45	59	11.19	66	9.14	48	0.76	66	3.43	95	1.03	45	3.02	17	0.66	90
Callan Mid Cap Value MFs	Mid Cap Value	7.97	-	11.84	-	9.11	-	-	-	4.87	-	-	-	2.25	-	1.08	-
Russell Mid-Cap Value	Mid Cap Value	8.81	34	13.09	27	10.72	15	1.00	30	4.21	74	0.00	52	2.91	20	-	-
TIAA-CREF Mid-Cap Growth Retire	Mid Cap Growth	18.77	70	14.39	70	10.53	79	1.28	27	6.50	39	-5.97	78	2.09	63	0.72	93
Callan Mid Cap Growth MFs	Mid Cap Growth	22.47	-	16.09	-	11.85	-	-	-	6.14	-	-	-	2.38	-	1.12	-
Russell Mid-Cap Growth	Mid Cap Growth	21.10	53	16.65	41	13.00	35	1.00	59	4.67	87	0.00	36	3.39	8	-	-
Victory Sycamore Small Company Opp A	Small Cap Value	10.79	40	16.83	14	12.63	1	0.83	37	7.75	48	3.08	49	2.06	38	1.22	38
Callan Sm Cap Value MF	Small Cap Value	9.63	-	13.93	-	9.36	-	-	-	7.69	-	-	-	1.84	-	1.11	-
Russell 2000 Value	Small Cap Value	9.33	52	16.12	19	9.91	41	1.00	10	8.82	22	0.00	70	1.73	52	-	-
TIAA-CREF Quant Small-Cap Equity Ret	Small Cap Broad	13.41	54	16.02	47	11.46	40	1.09	17	7.27	61	-2.34	77	2.09	44	0.66	96
TIAA-CREF Small-Cap Blend Idx Retire	Small Cap Broad	15.10	50	17.05	42	11.03	44	1.00	24	6.25	75	0.00	67	2.59	18	0.31	99
Callan Small Cap MFs	Small Cap Broad	15.13	-	15.86	-	10.64	-	-	-	7.84	-	-	-	2.00	-	1.15	-
Russell 2000	Small Cap Broad	15.24	49	17.12	42	11.07	44	1.00	23	6.28	75	0.00	67	2.59	18	-	-
PGIM Jennison Small Company Z	Small Cap Growth	13.09	91	14.46	86	10.49	76	0.37	100	3.92	100	7.06	7	3.47	7	-	-
Callan Sm Cap Growth MF	Small Cap Growth	27.75	-	18.28	-	11.90	-	-	-	8.06	-	-	-	2.10	-	1.18	-
Russell 2000 Growth	Small Cap Growth	21.06	81	17.98	56	12.14	42	1.00	58	6.47	80	0.00	41	2.65	19	-	-
TIAA-CREF International Eq Idx Retire	International Large Cap Core	2.35	25	8.90	41	4.26	42	0.97	60	7.05	76	-0.06	38	1.14	27	0.31	99
TIAA-CREF International Eq Retire	International Large Cap Core	-3.42	94	7.75	67	3.75	54	1.23	5	9.75	5	-3.08	88	0.71	85	0.74	86
Callan Intl Lg Cap Cor MF	Intl Large Core	0.93	-	8.51	-	3.84	-	-	-	7.66	-	-	-	1.01	-	1.06	-
MSCI:EAFE	Intl Large Cap Core	2.74	20	9.23	32	4.42	37	1.00	49	7.18	72	0.00	37	1.17	26	-	-
American Funds Europacific Growth R4	International Large Cap Growth	1.10	83	9.54	53	5.83	37	0.99	37	9.04	40	-0.82	62	0.96	58	0.83	80
Callan Intl Lg Cap Gr MF	Intl Large Growth	4.17	-	9.75	-	5.48	-	-	-	8.68	-	-	-	1.01	-	1.10	-
MSCI:ACWI ex US Growth	International Equity	3.08	56	10.59	37	5.32	54	1.00	35	8.71	48	0.00	43	1.12	34	-	-
Vanguard Emerging Mkts Stock Idx Adm	Emerging Markets	-3.10	25	10.08	72	2.98	48	0.96	87	10.79	88	-1.95	51	0.86	48	0.14	98
Callan Emerging Equity MF	Emerging Markets	-5.48	-	11.68	-	2.92	-	-	-	12.81	-	-	-	0.83	-	1.37	-
MSCI Emerging Markets	Emerging Markets	-0.44	12	12.77	25	3.99	41	1.00	80	11.11	87	0.00	14	1.07	9	-	-
TIAA RASRA-CREF:Gbl Eq R2	Global Equities	9.40	51	12.32	51	8.83	48	1.08	48	5.64	84	-2.55	69	2.04	32	0.40	100
TIAA RASRA-CREF:Stock R2	Global Equities	11.74	35	14.28	33	10.28	16	0.90	77	4.59	93	1.47	20	2.93	2	0.37	100
Callan Global Equity MFs	Global Equities	9.60	-	12.54	-	8.65	-	-	-	6.56	-	-	-	1.91	-	1.16	-
MSCI ACWI	Global Equities	10.35	43	14.02	35	9.25	41	1.00	69	5.02	90	0.00	39	2.62	5	-	-

Juniata College 403(b) Plan

Fund Selection List

Fund Name	Fund Category	Tot Ret 12 Mo	% Rank Cat 12 Mo	Tot Ret Annld 3 Yr	% Rank Cat 3 Yr	Tot Ret Annld 5 Yr	% Rank Cat 5 Yr	Beta 3 Yr	% Rank Beta	Std Dev 3 Yr	% Rank Std Dev	Alpha 3 Yr	% Rank Alpha	Sharpe Ratio 3 Yr	% Rank Sharpe Ratio	Expense Ratio	% Rank Expense Ratio
TIAA RASRA-CREF:Social Choice R2	Balanced Allocation	6.87	40	9.23	39	7.06	40	0.60	31	2.77	82	3.27	51	3.03	16	0.33	95
Morningstar Alloc 50-70 E	Balanced Allocation	6.50	-	8.90	-	6.78	-	-	-	3.23	-	-	-	2.53	-	1.01	-
60% ACWI; 40% Global Agg	Balanced Allocation	5.61	67	9.16	41	5.89	74	1.00	1	4.05	18	0.00	95	2.06	74	-	-
TIAA-CREF Managed Allc R	Balanced Allocation	6.35	55	9.52	32	7.32	35	0.75	10	3.41	40	2.37	70	2.55	47	0.65	82
Morningstar Alloc 50-70 E	Balanced Allocation	6.50	-	8.90	-	6.78	-	-	-	3.23	-	-	-	2.53	-	1.01	-
60% ACWI; 40% Global Agg	Balanced Allocation	5.61	67	9.16	41	5.89	74	1.00	1	4.05	18	0.00	95	2.06	74	-	-
TIAA-CREF Lifecycle 2060 Retirement	Target Date 2060	10.95	12	13.86	9	-	-	1.18	8	4.75	12	-1.07	66	2.74	54	0.70	53
Morningstar Target 2060+	Target Date 2060	9.82	-	12.73	-	8.73	-	-	-	4.13	-	-	-	2.78	-	0.74	-
Callan Tgt Dt Idx 2050	Target Date 2050	10.26	35	12.84	42	9.10	34	1.00	76	3.88	82	0.00	25	3.09	23	-	-
TIAA-CREF Lifecycle 2055 Retirement	Target Date 2055	10.83	14	13.71	6	9.74	9	1.16	15	4.69	17	-0.97	61	2.75	51	0.70	53
Morningstar Target 2055	Target Date 2055	9.55	-	12.60	-	8.63	-	-	-	4.21	-	-	-	2.77	-	0.74	-
Callan Tgt Dt Idx 2050	Target Date 2050	10.26	27	12.84	30	9.10	35	1.00	70	3.88	73	0.00	29	3.09	23	-	-
TIAA-CREF Lifecycle 2050 Retirement	Target Date 2050	10.74	15	13.58	4	9.68	8	1.16	12	4.68	19	-1.11	58	2.72	51	0.70	57
Morningstar Target 2050	Target Date 2050	9.40	-	12.26	-	8.57	-	-	-	4.20	-	-	-	2.74	-	0.76	-
Callan Tgt Dt Idx 2050	Target Date 2050	10.26	19	12.84	23	9.10	26	1.00	71	3.88	76	0.00	26	3.09	21	-	-
TIAA-CREF Lifecycle 2045 Retirement	Target Date 2045	10.52	18	13.41	3	9.58	8	1.17	8	4.66	10	-1.18	67	2.70	63	0.70	52
Morningstar Target 2045	Target Date 2045	9.28	-	12.20	-	8.55	-	-	-	4.13	-	-	-	2.75	-	0.72	-
Callan Tgt Dt Idx 2045	Target Date 2045	10.07	22	12.67	26	9.00	23	1.00	68	3.82	75	0.00	27	3.10	21	-	-
TIAA-CREF Lifecycle 2040 Retirement	Target Date 2040	9.89	16	12.90	10	9.31	10	1.17	11	4.53	15	-1.27	66	2.67	56	0.69	57
Morningstar Target 2040	Target Date 2040	8.72	-	11.51	-	8.36	-	-	-	3.97	-	-	-	2.70	-	0.76	-
Callan Tgt Dt Idx 2040	Target Date 2040	9.65	18	12.30	27	8.78	20	1.00	71	3.69	80	0.00	25	3.10	18	-	-
TIAA-CREF Lifecycle 2035 Retirement	Target Date 2035	8.82	23	11.92	17	8.76	16	1.15	15	4.15	19	-1.19	66	2.67	61	0.68	53
Morningstar Target 2035	Target Date 2035	7.93	-	10.96	-	7.85	-	-	-	3.69	-	-	-	2.78	-	0.71	-
Callan Tgt Dt Idx 2035	Target Date 2035	8.89	22	11.57	29	8.33	29	1.00	68	3.45	80	0.00	24	3.11	14	-	-
TIAA-CREF Lifecycle 2030 Retirement	Target Date 2030	7.73	26	10.92	16	8.16	14	1.14	18	3.78	20	-0.98	54	2.66	49	0.67	57
Morningstar Target 2030	Target Date 2030	7.08	-	10.00	-	7.28	-	-	-	3.43	-	-	-	2.64	-	0.75	-
Callan Tgt Dt Idx 2030	Target Date 2030	7.86	19	10.55	27	7.71	24	1.00	66	3.14	85	0.00	16	3.09	10	-	-
TIAA-CREF Lifecycle 2025 Retirement	Target Date 2025	6.68	25	9.87	14	7.51	9	1.15	14	3.45	17	-0.61	50	2.62	55	0.66	52
Morningstar Target 2025	Target Date 2025	5.97	-	8.86	-	6.58	-	-	-	3.08	-	-	-	2.68	-	0.68	-
Callan Tgt Dt Idx 2025	Target Date 2025	6.61	25	9.24	36	6.92	27	1.00	73	2.82	79	0.00	17	2.98	13	-	-
TIAA-CREF Lifecycle 2020 Retirement	Target Date 2020	5.71	18	8.85	9	6.83	10	1.13	24	3.09	24	-0.05	34	2.59	38	0.65	56
Morningstar Target 2020	Target Date 2020	4.72	-	7.74	-	5.94	-	-	-	2.82	-	-	-	2.47	-	0.71	-
Callan Tgt Dt Idx 2020	Target Date 2020	5.45	25	7.97	38	6.13	37	1.00	66	2.55	80	0.00	32	2.80	14	-	-
TIAA-CREF Lifecycle 2015 Retirement	Target Date 2015	4.88	21	7.94	18	6.23	16	1.08	19	2.86	16	0.59	41	2.48	53	0.64	49
Morningstar Target 2015	Target Date 2015	4.28	-	7.18	-	5.59	-	-	-	2.48	-	-	-	2.50	-	0.64	-
CallanTgt Dt Idx 2015	Target Date 2015	4.52	40	6.84	70	5.38	54	1.00	45	2.41	73	0.00	75	2.49	51	-	-
TIAA-CREF Lifecycle 2010 Retirement	Target Date 2010	4.28	10	7.29	2	5.74	1	1.02	32	2.62	23	0.84	6	2.47	5	0.63	56
Morningstar Target Ret	Target Retirement	2.78	-	5.22	-	3.95	-	-	-	2.29	-	-	-	1.88	-	0.67	-
Callan Tgt Dt Idx 2010	Target Date 2010	4.06	12	6.29	20	4.96	15	1.00	36	2.34	43	0.00	16	2.32	10	-	-
TIAA-CREF Lifecycle Retire Income Retire	Retirement Income	4.04	12	6.89	6	5.39	4	0.49	31	2.51	31	3.11	7	2.41	8	0.63	56
Morningstar Target Ret	Target Retirement	2.78	-	5.22	-	3.95	-	-	-	2.29	-	-	-	1.88	-	0.67	-
40% ACWI; 60% Global Agg	Moderate Allocation	3.28	30	6.75	10	4.19	45	1.00	1	4.38	1	0.00	94	1.35	85	-	-
TIAA-CREF High-Yield R	High Yield Bond	3.23	15	7.17	24	5.02	20	0.90	34	3.98	33	-0.22	47	1.59	43	0.61	87
Callan High Yield MFs	High Yield Bond	2.09	-	6.46	-	4.39	-	-	-	3.78	-	-	-	1.53	-	0.94	-
Blmbg:Corporate High Yld	High Yield Bond	3.05	18	8.15	5	5.54	5	1.00	14	4.30	16	0.00	35	1.70	20	-	-

Juniata College 403(b) Plan

Fund Selection List

Fund Name	Fund Category	Tot Ret 12 Mo	% Rank Cat 12 Mo	Tot Ret Annld 3 Yr	% Rank Cat 3 Yr	Tot Ret Annld 5 Yr	% Rank Cat 5 Yr	Beta 3 Yr	% Rank Beta	Std Dev 3 Yr	% Rank Std Dev	Alpha 3 Yr	% Rank Alpha	Sharpe Ratio 3 Yr	% Rank Sharpe Ratio	Expense Ratio	% Rank Expense Ratio
TIAA-CREF Bond Plus R	Core Plus Bond	-0.95	31	2.26	35	2.79	31	0.98	46	2.99	55	0.29	32	0.48	32	0.55	69
Callan Core Plus MFs	Core Plus Bond	-1.28	-	1.84	-	2.38	-	-	-	3.01	-	-	-	0.34	-	0.76	-
Barclays Capital U.S. Universal Idx	Universal Bond	-1.00	34	1.98	46	2.53	38	1.00	34	3.04	43	0.00	47	0.38	46	-	-
TIAA RASRA-CREF:Bond Mkt R2	Core Bond	-1.09	20	1.72	19	2.38	13	0.99	52	3.02	56	0.41	19	0.29	15	0.37	91
TIAA-CREF Bond R	Core Bond	-1.24	32	1.93	13	2.62	10	1.01	23	3.09	34	0.60	13	0.35	12	0.55	64
Callan Core Bond MFs	Core Bond	-1.43	-	1.14	-	1.86	-	-	-	3.04	-	-	-	0.10	-	0.71	-
Barclays Capital Aggregate	Core Bond	-1.22	30	1.31	42	2.16	20	1.00	37	3.05	41	0.00	42	0.16	42	-	-
T. Rowe Price Emerging Markets Bond	International Bond	-5.26	87	6.48	1	4.35	2	-	-	6.73	74	-	-	0.84	1	0.92	49
Callan Intl Fixed Inc MF		-3.22	-	2.68	-	0.55	-	-	-	8.85	-	-	-	0.25	-	0.90	-
Blmbg:Glob Agg ex USD	Global Bond	-1.45	21	2.41	62	-0.33	72	1.00	-	9.10	31	0.00	-	0.17	63	-	-
TIAA-CREF Short-Term Bond R	Short Term Bond	0.59	29	1.26	25	1.17	27	0.95	-	0.79	52	0.52	-	0.53	29	0.52	66
Callan Short Term FI MFs	Defensive Fixed Income	0.22	-	0.98	-	0.96	-	-	-	0.80	-	-	-	0.17	-	0.67	-
Barclays Capital 1-3 Year Govt/Credit	Short Term Govt/Credit	0.20	51	0.73	68	0.83	64	1.00	-	0.80	47	0.00	-	-0.14	69	-	-
TIAA RASRA-CREF:Infl-Lkd Bond R2	TIPS	0.17	56	1.50	66	0.96	39	0.82	62	2.75	68	-0.33	66	0.24	68	0.31	90
TIAA-CREF Inflation Link Bd R	TIPS	-0.05	74	1.13	87	0.67	63	0.78	69	2.59	71	-0.65	87	0.11	91	0.51	70
Callan TIPS MFs	TIPS	0.26	-	1.81	-	0.85	-	-	-	3.08	-	-	-	0.30	-	0.74	-
Barclays Capital US TIPS	TIPS	0.41	37	2.04	36	1.37	15	1.00	32	3.30	36	0.00	41	0.36	41	-	-
TIAA RASRA-CREF:Real Estate Acct	Real Estate	5.14	16	5.02	90	7.05	87	0.05	100	0.67	100	3.78	6	6.25	1	0.79	88
TIAA-CREF Real Estate Sec Retire	Real Estate	5.58	13	8.29	12	9.79	10	0.74	82	7.50	82	2.33	12	0.99	10	0.76	91
Callan Real Estate MFs	Real Estate	3.24	-	6.73	-	8.39	-	-	-	8.49	-	-	-	0.69	-	1.11	-
FTSE:NAREIT Equity Index	Real Estate	3.35	49	7.64	32	9.16	27	1.00	1	9.60	3	0.00	52	0.71	46	-	-
PIMCO All Asset A	GTAA	0.81	60	7.76	8	2.93	29	0.28	54	4.66	18	6.84	8	1.49	17	1.46	65
Morningstar Multialt	Multi Alternative	1.66	-	2.50	-	2.20	-	-	-	3.15	-	-	-	0.57	-	1.76	-
CS:AllHedge Ix	Hedge Fund	1.90	43	1.28	72	1.06	78	1.00	6	3.43	45	0.00	75	0.13	71	-	-
TIAA Traditional Account (GSRA)	Cash & Equivalents	3.14	1	3.24	1	3.28	1	-	-	-	-	-	-	-	-	0.55	67
TIAA Traditional Account (RA)	Cash & Equivalents	3.83	1	3.92	1	3.96	1	-	-	-	-	-	-	-	-	0.55	67
TIAA Traditional Account (SRA)	Cash & Equivalents	3.14	1	3.24	1	3.28	1	-	-	-	-	-	-	-	-	0.55	67
Callan Stable Value CT	Cash & Equivalents	1.66	-	1.47	-	1.32	-	-	-	0.08	-	-	-	7.09	-	0.68	-
3 Month T-Bill	Cash & Equivalents	1.59	68	0.84	97	0.52	97	1.00	-	0.30	1	0.00	-	0.00	97	-	-
TIAA RASRA-CREF:Money Mkt R2	Cash & Equivalents	0.97	80	0.44	67	0.26	75	0.00	-	0.22	78	-0.40	-	-1.87	75	0.30	65
TIAA-CREF Money Market R	Cash & Equivalents	1.23	53	0.53	61	0.32	61	0.00	-	0.28	14	-0.31	-	-1.10	40	0.40	52
Callan Money Market Funds	Cash & Equivalents	1.25	-	0.59	-	0.35	-	-	-	0.27	-	-	-	-0.91	-	0.43	-
3 Month T-Bill	Cash & Equivalents	1.59	18	0.84	24	0.52	22	1.00	-	0.30	26	0.00	-	0.00	24	-	-

Performance quoted is past performance and is no guarantee of future results.

Data was obtained from Callan Associates as of September 30, 2018

Juniata College 403(b) Plan

IPS Performance Criteria Dashboard

Fund Name	3 Yr Alpha	Peer Group % Rankings			Sharpe Ratio - 3Yr	Quadrant Rank - 3Yr	Manager Tenure	Composite Rating
		12 Mo	3 Yr	5 Yr				
TIAA-CREF Large-Cap Value Retire	0.12	93	79	89	2.30	3	15.83	14
TIAA-CREF Large-Cap Value Idx Retire	-0.26	76	62	59	2.45	3	12.83	12
TIAA RASRA-CREF:Eq Idx R2	0.89	33	22	24	3.63	1		6
TIAA-CREF S&P 500 Index Retire	-0.31	28	19	16	3.39	1	12.83	7
TIAA-CREF Growth & Income Retire	-0.54	11	16	12	3.05	1	13.58	7
TIAA-CREF Social Choice Eq Retire	2.54	48	26	47	4.06	1	12.83	7
TIAA-CREF Equity Index R	0.87	33	21	24	3.63	1	12.83	7
TIAA-CREF Large-Cap Gr Idx Retire	-0.33	50	16	26	3.14	1	13.17	7
TIAA-CREF Large-Cap Growth R	-5.04	26	24	21	2.20	2	12.58	8
TIAA RASRA-CREF:Growth R2	-3.27	42	29	22	2.60	1		6
TIAA-CREF Mid-Cap Value Retire	1.03	59	66	48	3.02	3	16.00	9
TIAA-CREF Mid-Cap Growth Retire	-5.97	70	70	79	2.09	4	12.33	16
Victory Sycamore Small Company Opp A	3.08	40	14	1	2.06	2	20.33	7
TIAA-CREF Quant Small-Cap Equity Ret	-2.34	54	47	40	2.09	1	11.83	10
TIAA-CREF Small-Cap Blend Idx Retire	0.00	50	42	44	2.59	1	13.17	8
PGIM Jennison Small Company Z	7.06	91	86	76	3.47	3	18.42	13
TIAA-CREF International Eq Retire	-3.08	94	67	54	0.71	4	19.25	17
TIAA-CREF International Eq Idx Retire	-0.06	25	41	42	1.14	1	13.17	7
American Funds Europacific Growth R4	-0.82	83	53	37	0.96	4	26.83	14
Vanguard Emerging Mkts Stock Idx Adm	-1.95	25	72	48	0.86	3	10.17	9
TIAA RASRA-CREF:Stock R2	1.47	35	33	16	2.93	1		6
TIAA RASRA-CREF:Gbl Eq R2	-2.55	51	51	48	2.04	3		9
TIAA RASRA-CREF:Social Choice R2	3.27	40	39	40	3.03	1		7
TIAA-CREF Managed Allc R	2.37	55	32	35	2.55	2	12.58	9
TIAA-CREF Lifecycle 2060 Retirement	-1.07	12	9		2.74	2	4.08	8
TIAA-CREF Lifecycle 2055 Retirement	-0.97	14	6	9	2.75	2	7.50	9
TIAA-CREF Lifecycle 2050 Retirement	-1.11	15	4	8	2.72	2	10.92	9
TIAA-CREF Lifecycle 2045 Retirement	-1.18	18	3	8	2.70	2	10.92	9
TIAA-CREF Lifecycle 2040 Retirement	-1.27	16	10	10	2.67	2	12.58	9
TIAA-CREF Lifecycle 2035 Retirement	-1.19	23	17	16	2.67	2	12.58	9
TIAA-CREF Lifecycle 2030 Retirement	-0.98	26	16	14	2.66	2	12.58	8
TIAA-CREF Lifecycle 2025 Retirement	-0.61	25	14	9	2.62	2	12.58	8
TIAA-CREF Lifecycle 2020 Retirement	-0.05	18	9	10	2.59	2	12.58	7
TIAA-CREF Lifecycle 2015 Retirement	0.59	21	18	16	2.48	2	12.58	8
TIAA-CREF Lifecycle 2010 Retirement	0.84	10	2	1	2.47	2	12.58	7
TIAA-CREF Lifecycle Retire Income Retire	3.11	12	6	4	2.41	2	10.92	7
TIAA-CREF High-Yield R	-0.22	15	24	20	1.59	2	12.58	7
TIAA-CREF Bond Plus R	0.29	31	35	31	0.48	1	12.58	7
TIAA-CREF Bond R	0.60	32	13	10	0.35	2	14.83	7
TIAA RASRA-CREF:Bond Mkt R2	0.41	20	19	13	0.29	1		6
T. Rowe Price Emerging Markets Bond	4.78	87	1	2	0.84	1	23.83	9
TIAA-CREF Short-Term Bond R	0.52	29	25	27	0.53	1	12.58	7
TIAA-CREF Inflation Link Bd R	-0.65	74	87	63	0.11	3	10.17	15
TIAA RASRA-CREF:Infl-Lkd Bond R2	-0.33	56	66	39	0.24	3		10
TIAA-CREF Real Estate Sec Retire	2.33	13	12	10	0.99	1	12.83	7
TIAA RASRA-CREF:Real Estate Acct	3.78	16	90	87	6.25	3		10
PIMCO All Asset A	6.84	60	8	29	1.49	2	16.25	8

Data was obtained from Morningstar and/or Callan Associates as of September 30, 2018

Criteria	
3 Yr Alpha, Peer Group % Rankings & Sharpe Ratio	Indicates % Rank < 50
	Indicates % Rank >= 50 and <= 75
	Indicates % Rank > 75
Quadrant Rank	1 Indicates Risk/Return Upper Left Quadrant - Less Risk & More Return
	2 Indicates Risk/Return Upper Right Quadrant - More Risk & More Return
	3 Indicates Risk/Return Lower Left Quadrant - Less Risk & Less Return
	4 Indicates Risk/Return Lower Right Quadrant - More Risk & Less Return
Manager Tenure	Indicates Fund Manager Tenure >= 3 Years
	Indicates Fund Manager Tenure < 3 Years
Composite Rating	Total Score <= 11
	Total Score > 11 and <= 17
	Total Score > 17

Juniata College 403(b) Plan

IPS Performance Criteria Dashboard

Glossary

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive Alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed, given the expectations established by beta.

Manager Tenure - The number of years that the current manager has been the portfolio manager for the investment product. For products with more than one manager, the tenure of the manager who has been with the product the longest is shown.

Peer Group % Rankings - Percentile Ranking is a standardized ranking. The funds are ranked from 1 to 100 (1 being the best and 100 being the worst) based on their return compared to that of their peers. The rest of the observations are placed an equal distance from each other. All the percentile ranks are based on the peer group (Morningstar or Callan Associates Category).

Quadrant Rank - A measure that encompasses both risk and return. It is calculated by comparing the return and standard deviation (A statistical measurement of dispersion about an average, which, for a fund, depicts how widely the returns varied over a certain period of time) to the return and standard deviation of the peer group. This allows a graph to be generated where items are plotted in one of four quadrants. Each quadrant represents an explanation of the managers ability to produce returns relative to the risk they take.



Sharpe Ratio - A risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the fund's historical risk-adjusted performance. The Sharpe ratio is calculated for the past 36-month period by dividing a fund's annualized excess returns by the standard deviation of a fund's annualized excess returns. Since this ratio uses standard deviation as its risk measure, it is most appropriately applied when analyzing a fund that is an investor's sole holding. The Sharpe Ratio can be used to compare two funds directly on how much risk a fund had to bear to earn excess return over the risk-free rate.

Cornerstone has exercised reasonable care in the preparation of this report. Several portions of this report are obtained from third party sources. While we have attempted to verify all information within, we disclaim all responsibility for any errors that may occur due to third party information and data.

The information is provided solely for informational purposes and therefore should not be considered an offer to buy or sell a security. Except as otherwise required by law, Cornerstone shall not be responsible for any trading decisions or damages or other losses resulting from, this information, data, analyses or opinions or their use. Please read the prospectus carefully before investing.

FundName	Ticker
American Beacon Large Cap Value Instl	AADEX
American Funds Washington Mutual R6	RWMGX
TIAA-CREF Social Choice Eq Instl	TISCX
Vanguard 500 Index Admiral	VFIAX
American Funds Growth Fund of Amer R6	RGAGX
T. Rowe Price Growth Stock	PRGFX
Vanguard Mid Cap Index Admiral	VIMAX
Victory Sycamore Small Company Opp I	VSOIX
Vanguard Small Cap Index Adm	VSMAX
PGIM Jennison Small Company R6	PJSQX
Vanguard Total Intl Stock Index Admiral	VTIAX
American Funds Europacific Growth R6	REGRX
Causeway Emerging Markets Instl	CEMIX
TIAA-CREF Lifecycle 2060 Institutional	TLXNX
TIAA-CREF Lifecycle 2055 Institutional	TTRIX
TIAA-CREF Lifecycle 2050 Institutional	TFTIX
TIAA-CREF Lifecycle 2045 Institutional	TTFIX
TIAA-CREF Lifecycle 2040 Institutional	TCOIX
TIAA-CREF Lifecycle 2035 Institutional	TCIIX
TIAA-CREF Lifecycle 2030 Institutional	TCRIX
TIAA-CREF Lifecycle 2025 Institutional	TCYIX
TIAA-CREF Lifecycle 2020 Institutional	TCWIX
TIAA-CREF Lifecycle 2015 Institutional	TCNIX
TIAA-CREF Lifecycle 2010 Institutional	TCTIX
TIAA-CREF Lifecycle Retire Income Instl	TLRIX
JPMorgan Strategic Income Opports R6	JSOZX
Baird Core Plus Bond Inst	BCOIX
Vanguard Total Bond Market Index Adm	VBTLX
TIAA-CREF Real Estate Sec Instl	TIREX
Goldman Sachs Satellite Strategies R6	GXSUX
TIAA Traditional Account (RC)	
TIAA Stable Value	



Section III



Investment Fee & Expense Disclosure

JUNIATA COLLEGE

Activity for the Reporting Period: 07/01/2018 to 09/30/2018

FUND NAME	FUND ID	TICKER	ASSET CLASS	ASSETS AS OF 09/30/2018	AVERAGE ASSETS FOR THE REPORTING PERIOD	NET EXPENSE RATIO ¹		PLAN SERVICES EXPENSE ¹	
						(%)	(\$)	(%)	(\$)
CREF Stock R2	CO	QCSTPX	Equities	\$19,666,656.33	\$19,721,686.48	0.370%	\$18,242.56	0.200%	\$9,860.84
CREF Growth R2	CU	QCGRPX	Equities	\$7,113,625.02	\$6,966,148.58	0.320%	\$5,572.92	0.200%	\$3,483.07
CREF Global Equities R2	CT	QCGLPX	Equities	\$3,690,028.19	\$3,646,526.22	0.400%	\$3,646.53	0.200%	\$1,823.26
CREF Equity Index R2	CY	QCEQPX	Equities	\$3,342,523.38	\$3,365,171.00	0.290%	\$2,439.75	0.200%	\$1,682.59
TIAA-CREF Lg-Cap Val Idx-Rtmt ⁴	XF	TRCVX	Equities	\$1,949,770.79	\$1,917,865.62	0.300%	\$1,438.40	0.250%	\$1,198.67
TIAA-CREF Intl Eq Idx-Rtmt ^{4 5}	XC	TRIEX	Equities	\$1,554,063.98	\$1,516,937.58	0.310%	\$1,175.63	0.250%	\$948.09
TIAA-CREF Lg-Cap Val-Rtmt ⁴	XE	TRLCX	Equities	\$1,300,375.01	\$1,305,445.64	0.650%	\$2,121.35	0.250%	\$815.90
TIAA-CREF Mid-Cap Val-Rtmt ⁴	XJ	TRVRX	Equities	\$1,251,056.59	\$1,265,152.73	0.660%	\$2,087.50	0.250%	\$790.72
TIAA-CREF Qt Sml Cap Eq Rtmt ⁴	XN	TRSEX	Equities	\$1,233,376.90	\$1,246,715.88	0.660%	\$2,057.08	0.250%	\$779.20
AF EuroPacific Growth Fund R4 ⁴	BI	REREX	Equities	\$1,004,899.97	\$993,505.11	0.830%	\$2,061.52	0.350%	\$869.32
Vanguard Emr Mkts Stk Idx Adm	AA	VEMAX	Equities	\$924,039.97	\$924,155.70	0.140%	\$323.45	0.000%	\$0.00
TIAA-CREF Eq Index-Rtmt ⁴	XV	TIQRX	Equities	\$883,743.29	\$833,529.97	0.300%	\$625.15	0.250%	\$520.96
TIAA-CREF Lg-Cap Gr Idx-Rtmt ⁴	XD	TRIRX	Equities	\$877,664.66	\$830,014.81	0.310%	\$643.26	0.250%	\$518.76
TIAA-CREF Real Est Secs-Rtmt ⁴	XL	TRRSX	Equities	\$761,168.99	\$754,433.16	0.760%	\$1,433.42	0.250%	\$471.52
TIAA-CREF S&P 500 Idx-Rtmt ⁴	XR	TRSPX	Equities	\$699,062.17	\$657,791.65	0.310%	\$509.79	0.250%	\$411.12
TIAA-CREF Social Ch Eq-Rtmt ⁴	XQ	TRSCX	Equities	\$691,083.92	\$629,360.91	0.430%	\$676.56	0.250%	\$393.35
TIAA-CREF Gr & Inc-Rtmt ⁴	XA	TRGIX	Equities	\$530,384.73	\$512,270.42	0.660%	\$845.25	0.250%	\$320.17
TIAA-CREF Intl Eq-Rtmt ^{4 5}	XB	TRERX	Equities	\$512,154.76	\$527,054.65	0.740%	\$975.05	0.250%	\$329.41
TIAA-CREF Sm-Cap BI Idx-Rtmt ⁴	XM	TRBIX	Equities	\$456,694.30	\$425,663.52	0.310%	\$329.89	0.250%	\$266.04
VICTORY SYC SMALL COMP OPP A	UU	SSGSX	Equities	\$426,527.32	\$424,628.36	1.230%	\$1,305.73	0.500%	\$530.79
TIAA-CREF Mid-Cap Gr-Rtmt ⁴	XH	TRGMX	Equities	\$228,496.56	\$243,957.44	0.720%	\$439.12	0.250%	\$152.47
TIAA-CREF Lg-Cap Gr-Rtmt ⁴	XW	TILRX	Equities	\$203,396.17	\$194,409.07	0.720%	\$349.94	0.250%	\$121.51
Prudential Jennison Small Co Z ⁴	NE	PSCZX	Equities	\$173,503.32	\$154,746.57	0.810%	\$313.36	0.250%	\$96.72
CREF Bond Market R2	CR	QCBMPX	Fixed Income	\$2,755,074.03	\$2,945,025.08	0.370%	\$2,724.15	0.200%	\$1,472.51
CREF Inflation-Linked Bond R2	CW	QCILPX	Fixed Income	\$1,367,876.90	\$1,363,096.48	0.305%	\$1,039.36	0.200%	\$681.55
TIAA-CREF Bond Plus-Rtmt ⁴	XZ	TCBRX	Fixed Income	\$1,334,585.89	\$1,314,571.19	0.550%	\$1,807.54	0.250%	\$821.61
TIAA-CREF High-Yield-Rtmt ^{4 5}	XY	TIHRX	Fixed Income	\$772,486.14	\$754,528.24	0.610%	\$1,150.66	0.250%	\$471.58
TIAA-CREF Bond-Rtmt ⁴	XT	TIDRX	Fixed Income	\$395,151.56	\$398,883.80	0.550%	\$548.47	0.250%	\$249.30
TIAA-CREF Infl-Lnkd Bond-Rtmt ⁴	XS	TIKRX	Fixed Income	\$289,818.70	\$291,285.01	0.510%	\$371.39	0.250%	\$182.05
TIAA-CREF Short-Term Bond-Rtmt ⁴	Y1	TISRX	Fixed Income	\$86,870.09	\$96,836.59	0.520%	\$125.89	0.250%	\$60.52



Investment Fee & Expense Disclosure

Activity for the Reporting Period: 07/01/2018 to 09/30/2018

FUND NAME	FUND ID	TICKER	ASSET CLASS	ASSETS AS OF 09/30/2018	AVERAGE ASSETS FOR THE REPORTING PERIOD	NET EXPENSE RATIO ¹		PLAN SERVICES EXPENSE ¹	
						(%)	(\$)	(%)	(\$)
T Rowe Price Emerging Mkts Bnd ^{4 9}	PN	PREMX	Fixed Income	\$71,561.03	\$70,169.82	0.920%	\$161.39	0.150%	\$26.31
TIAA Traditional RA ²	T1	TIAA#	Guaranteed	\$20,458,318.95	\$20,642,471.33	0.490%	\$25,287.03	0.150%	\$7,740.93
TIAA Traditional RA MDO ²	TL	TIAA#	Guaranteed	\$5,816,345.90	\$5,829,963.46	0.490%	\$7,141.71	0.150%	\$2,186.24
TIAA Traditional GSRA ²	T4	TIAA#	Guaranteed	\$2,344,288.59	\$2,335,960.29	0.490%	\$2,861.55	0.150%	\$875.99
TIAA Traditional RA TPA ²	TD	TIAA#	Guaranteed	\$2,311,924.10	\$2,350,352.01	0.490%	\$2,879.18	0.150%	\$881.38
TIAA Traditional RA IPRO ²	TF	TIAA#	Guaranteed	\$1,578,804.72	\$1,581,271.28	0.490%	\$1,937.06	0.150%	\$592.98
TIAA Traditional SRA ²	T3	TIAA#	Guaranteed	\$1,461,024.19	\$1,481,731.80	0.490%	\$1,815.12	0.150%	\$555.65
TIAA Traditional SRA MDO ²	TN	TIAA#	Guaranteed	\$232,156.29	\$232,325.37	0.490%	\$284.60	0.150%	\$87.12
TIAA Traditional GSRA MDO ²	TP	TIAA#	Guaranteed	\$181,388.59	\$180,631.33	0.490%	\$221.27	0.150%	\$67.74
TIAA Traditional RCP 1 ²	TA	TIAA#	Guaranteed	\$7,554.35	\$13,868.49	0.490%	\$16.99	0.150%	\$5.20
CREF Money Market R2	CP	QCMMPX	Money Market	\$432,599.11	\$422,781.31	0.300%	\$317.09	0.200%	\$211.39
TIAA-CREF Money Market-Rtmt ⁴	XU	TIEXX	Money Market	\$63,504.86	\$63,278.67	0.400%	\$63.28	0.250%	\$39.55
CREF Social Choice R2	CQ	QCSCPX	Multi-Asset	\$5,270,694.35	\$5,220,443.77	0.330%	\$4,306.87	0.200%	\$2,610.22
TIAA-CREF Lifecycle 2035-Rtmt ⁴	L6	TCLRXX	Multi-Asset	\$2,788,379.62	\$2,674,818.52	0.680%	\$4,547.19	0.250%	\$1,671.76
TIAA-CREF Lifecycle 2040-Rtmt ⁴	L7	TCLOXX	Multi-Asset	\$2,497,377.07	\$2,484,676.29	0.690%	\$4,286.07	0.250%	\$1,552.92
TIAA-CREF Lifecycle 2030-Rtmt ⁴	L5	TCLNXX	Multi-Asset	\$1,640,650.67	\$1,616,119.40	0.670%	\$2,707.00	0.250%	\$1,010.07
TIAA-CREF Lifecycle 2045-Rtmt ⁴	L9	TTFRXX	Multi-Asset	\$1,544,689.23	\$1,519,352.55	0.700%	\$2,658.87	0.250%	\$949.60
TIAA-CREF Lifecycle 2025-Rtmt ⁴	L4	TCLFX	Multi-Asset	\$1,519,820.01	\$1,508,187.58	0.660%	\$2,488.51	0.250%	\$942.62
TIAA-CREF Lifecycle 2020-Rtmt ⁴	L3	TCLTX	Multi-Asset	\$1,188,262.42	\$1,183,209.50	0.650%	\$1,922.72	0.250%	\$739.51
TIAA-CREF Lifecycle 2050-Rtmt ⁴	LB	TLFRXX	Multi-Asset	\$1,004,200.84	\$981,907.65	0.700%	\$1,718.34	0.250%	\$613.69
TIAA-CREF Lifecycle 2015-Rtmt ⁴	L2	TCLIX	Multi-Asset	\$668,034.36	\$522,096.93	0.640%	\$835.36	0.250%	\$326.31
TIAA-CREF Lifecycle 2055-Rtmt ⁴	ZJ	TTRLXX	Multi-Asset	\$436,947.58	\$425,668.67	0.700%	\$744.92	0.250%	\$266.04
TIAA-CREF Lifecycle 2010-Rtmt ⁴	L1	TCLEX	Multi-Asset	\$252,794.11	\$255,974.05	0.630%	\$403.16	0.250%	\$159.98
TIAA-CREF Lifecycle 2060-Rtmt ⁴	CJ	TLXRX	Multi-Asset	\$11,076.12	\$9,332.70	0.700%	\$16.33	0.250%	\$5.83
TIAA-CREF Managed Alloc-Rtmt ⁴	XX	TITRXX	Multi-Asset	\$7,000.03	\$6,930.22	0.650%	\$11.26	0.250%	\$4.33
PIMCO All Asset Fund A ⁴	IW	PASAX	Multi-Asset	\$4,978.08	\$5,477.67	1.460%	\$19.99	0.400%	\$5.48
TIAA-CREF Lfcyle Rtmt Inc-Rtmt ⁴	LD	TLIRXX	Multi-Asset	\$1,846.97	\$4,664.19	0.630%	\$7.35	0.250%	\$2.92
TIAA-CREF Self Directed Acct	SD	SDA01#	Other	\$71,904.15	\$71,625.69	0.000%	\$0.00	0.000%	\$6.65
TIAA Real Estate	X1	QREARX	Real Estate	\$5,077,133.11	\$5,048,943.12	0.790%	\$9,971.66	0.240%	\$3,029.37
ESTIMATED TOTAL / AVERAGE				\$115,421,419.03	\$114,965,631.12	0.119%	\$137,012.54	0.050%	\$57,491.38



Summary of Fees and Compensation for Your Plan

JUNIATA COLLEGE

Activity for the Reporting Period: 07/01/2018 to 09/30/2018

PLAN FEES AND COMPENSATION PAID TO TIAA-CREF AND BUNDLED SERVICE PROVIDERS	YOUR FEES AND COMPENSATION IN DOLLARS	YOUR FEES AND COMPENSATION AS A PERCENTAGE OF ASSETS	PERCENT OF TOTAL PLAN FEES AND COMPENSATION
Investment Fee & Expense	\$137,012.50	0.119%	99.22%
Direct Fees	\$0.00	0.000%	0.00%
Self-Directed Brokerage - Recordkeeping Offset	\$6.65	0.000%	0.00%
TIAA Traditional Net Plan Loan Interest Expense	\$32.37	0.000%	0.02%
Float	\$110.52	0.000%	0.08%
Transactional Fund Earnings (TFE)	\$11.35	0.000%	0.01%
TOTAL PLAN FEES AND COMPENSATION PAID TO TIAA-CREF AND BUNDLED SERVICE PROVIDERS	\$137,173.39	0.119%	99.33%
Revenue Credit	(\$9,085.38)	-0.008%	-6.58%
TOTAL NET PLAN FEES AND COMPENSATION PAID TO TIAA-CREF AND BUNDLED SERVICE PROVIDERS	\$128,088.01	0.111%	92.75%

PLAN FEES AND COMPENSATION PAID TO OTHER SERVICE PROVIDERS	YOUR FEES AND COMPENSATION IN DOLLARS	YOUR FEES AND COMPENSATION AS A PERCENTAGE OF ASSETS	PERCENT OF TOTAL PLAN FEES AND COMPENSATION
Direct Fees	\$10,000.00	0.009%	7.24%
TOTAL PLAN FEES AND COMPENSATION PAID TO OTHER SERVICE PROVIDERS	\$10,000.00	0.009%	7.24%
TOTAL PLAN FEES AND COMPENSATION PAID TO TIAA-CREF AND BUNDLED SERVICE PROVIDERS AND OTHER SERVICE PROVIDERS	\$138,088.01	0.120%	99.99%



Revenue Credit Account Report

JUNIATA COLLEGE

Activity for the Reporting Period: 07/01/2018 to 09/30/2018

OPENING BALANCE AS OF 07/01/2018	\$8,348.63
PLAN SERVICING CREDITS DURING PERIOD	\$9,085.38
PLAN SERVICING CREDIT ADJUSTMENTS DURING PERIOD	\$0.00
PLAN SERVICING CREDITS ALLOCATED TO PARTICIPANTS	\$0.00
PLAN SERVICING CREDITS ALLOCATION ADJUSTMENTS	\$0.00
INVESTMENT INCOME DURING PERIOD	\$120.34
FEES DURING PERIOD	(\$10,000.00)
MISCELLANEOUS ADJUSTMENTS	\$0.00
CLOSING BALANCE AS OF 09/30/2018	\$7,554.35

DETAILS OF PLAN SERVICING CREDITS and ADJUSTMENTS

INVESTMENT OPTION	DESCRIPTION	TRANSACTION DATE	AMOUNT
TIAA Traditional Benefit Responsive 2	Plan Servicing Credit	07/19/2018	\$9,085.38
TOTAL			\$9,085.38

DETAILS OF FEES DURING PERIOD

FIRM NAME	FEE TYPE	TRANSACTION DATE	AMOUNT
Juniata College	Professional Services Fee	09/14/2018	\$10,000.00
TOTAL			\$10,000.00



Fund Usage and Diversification

Balances and Counts by Fund and Contract Type

JUNIATA COLLEGE

For the Period Ending 09/30/2018

Investment Name	Participant Control		Plan Control		Total	
	Ending Market value	# Participants	Ending Market Value	# Participants	Ending Market Value	# Participants
TIAA Traditional	\$34,384,252.46	446	\$0.00	0	\$34,384,252.46	446
CREF Stock R2	\$19,666,656.32	287	\$0.00	0	\$19,666,656.32	287
CREF Money Market R2	\$432,599.15	39	\$0.00	0	\$432,599.15	39
CREF Social Choice R2	\$5,270,694.38	72	\$0.00	0	\$5,270,694.38	72
CREF Bond Market R2	\$2,755,073.99	124	\$0.00	0	\$2,755,073.99	124
CREF Global Equities R2	\$3,690,028.13	152	\$0.00	0	\$3,690,028.13	152
CREF Growth R2	\$7,113,625.12	150	\$0.00	0	\$7,113,625.12	150
CREF Equity Index R2	\$3,342,523.40	65	\$0.00	0	\$3,342,523.40	65
CREF Inflation-Linked Bond R2	\$1,367,876.92	101	\$0.00	0	\$1,367,876.92	101
TIAA Real Estate	\$5,077,133.02	251	\$0.00	0	\$5,077,133.02	251
TIAA-CREF Bond Plus-Rtmt	\$1,334,585.88	54	\$0.00	0	\$1,334,585.88	54
TIAA-CREF Bond-Rtmt	\$395,151.54	31	\$0.00	0	\$395,151.54	31
TIAA-CREF Eq Index-Rtmt	\$883,743.29	23	\$0.00	0	\$883,743.29	23
TIAA-CREF Gr & Inc-Rtmt	\$530,384.75	34	\$0.00	0	\$530,384.75	34
TIAA-CREF High-Yield-Rtmt	\$772,486.09	49	\$0.00	0	\$772,486.09	49
TIAA-CREF Infl-Lnkd Bond-Rtmt	\$289,818.72	15	\$0.00	0	\$289,818.72	15
TIAA-CREF Intl Eq Idx-Rtmt	\$1,554,063.99	91	\$0.00	0	\$1,554,063.99	91
TIAA-CREF Intl Eq-Rtmt	\$512,154.72	46	\$0.00	0	\$512,154.72	46
TIAA-CREF Lfcyle Rtmt Inc-Rtmt	\$1,846.97	1	\$0.00	0	\$1,846.97	1
TIAA-CREF Lg-Cap Gr Idx-Rtmt	\$877,664.72	46	\$0.00	0	\$877,664.72	46
TIAA-CREF Lg-Cap Gr-Rtmt	\$203,396.17	16	\$0.00	0	\$203,396.17	16
TIAA-CREF Lg-Cap Val Idx-Rtmt	\$1,949,770.79	90	\$0.00	0	\$1,949,770.79	90
TIAA-CREF Lg-Cap Val-Rtmt	\$1,300,374.98	76	\$0.00	0	\$1,300,374.98	76
TIAA-CREF Lifecycle 2010-Rtmt	\$252,794.11	22	\$0.00	0	\$252,794.11	22
TIAA-CREF Lifecycle 2015-Rtmt	\$668,034.36	22	\$0.00	0	\$668,034.36	22
TIAA-CREF Lifecycle 2020-Rtmt	\$1,188,262.44	18	\$0.00	0	\$1,188,262.44	18
TIAA-CREF Lifecycle 2025-Rtmt	\$1,519,819.98	36	\$0.00	0	\$1,519,819.98	36
TIAA-CREF Lifecycle 2030-Rtmt	\$1,640,650.66	38	\$0.00	0	\$1,640,650.66	38
TIAA-CREF Lifecycle 2035-Rtmt	\$2,788,379.61	54	\$0.00	0	\$2,788,379.61	54
TIAA-CREF Lifecycle 2040-Rtmt	\$2,497,376.99	63	\$0.00	0	\$2,497,376.99	63
TIAA-CREF Lifecycle 2045-Rtmt	\$1,544,689.26	48	\$0.00	0	\$1,544,689.26	48
TIAA-CREF Lifecycle 2050-Rtmt	\$1,004,200.83	60	\$0.00	0	\$1,004,200.83	60
TIAA-CREF Lifecycle 2055-Rtmt	\$436,947.57	41	\$0.00	0	\$436,947.57	41
TIAA-CREF Managed Alloc-Rtmt	\$7,000.03	1	\$0.00	0	\$7,000.03	1
TIAA-CREF Mid-Cap Gr-Rtmt	\$228,496.54	31	\$0.00	0	\$228,496.54	31
TIAA-CREF Mid-Cap Val-Rtmt	\$1,251,056.60	77	\$0.00	0	\$1,251,056.60	77
TIAA-CREF Money Market-Rtmt	\$63,504.86	4	\$0.00	0	\$63,504.86	4
TIAA-CREF Real Est Secs-Rtmt	\$761,169.06	102	\$0.00	0	\$761,169.06	102
TIAA-CREF S&P 500 Idx-Rtmt	\$699,062.16	36	\$0.00	0	\$699,062.16	36
TIAA-CREF Short-Term Bond-Rtmt	\$86,870.10	7	\$0.00	0	\$86,870.10	7
TIAA-CREF Sm-Cap BI Idx-Rtmt	\$456,694.28	44	\$0.00	0	\$456,694.28	44
TIAA-CREF Qt Sml Cap Eq Rtmt	\$1,233,376.95	79	\$0.00	0	\$1,233,376.95	79
TIAA-CREF Social Ch Eq-Rtmt	\$691,083.98	38	\$0.00	0	\$691,083.98	38
AF EuroPacific Growth Fund R4	\$1,004,899.98	75	\$0.00	0	\$1,004,899.98	75
Prudential Jennison Small Co Z	\$173,503.33	23	\$0.00	0	\$173,503.33	23



Fund Usage and Diversification

Balances and Counts by Fund and Contract Type

JUNIATA COLLEGE

For the Period Ending 09/30/2018

Investment Name	Participant Control		Plan Control		Total	
	Ending Market value	# Participants	Ending Market Value	# Participants	Ending Market Value	# Participants
T Rowe Price Emerging Mkts Bnd	\$71,561.00	11	\$0.00	0	\$71,561.00	11
VICTORY SYC SMALL COMP OPP A	\$426,527.35	57	\$0.00	0	\$426,527.35	57
TIAA-CREF Lifecycle 2060-Rtmt	\$11,076.13	8	\$0.00	0	\$11,076.13	8
Vanguard Emr Mkts Stk Idx Adm	\$924,039.98	104	\$0.00	0	\$924,039.98	104
PIMCO All Asset Fund A	\$4,978.08	1	\$0.00	0	\$4,978.08	1
TIAA-CREF Self Directed Acct	\$71,904.15	1	\$0.00	0	\$71,904.15	1
Total	\$115,413,865.87	827	\$0.00	0	\$115,413,865.87	827



Fund Usage and Diversification

Fund Utilization by Age Group – All Participants

For the Period Ending 09/30/2018

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control														
TIAA Traditional	\$0.00	0	\$124,634.33	6	\$607,237.75	53	\$2,140,143.91	87	\$8,615,954.48	136	\$22,896,281.99	164	\$34,384,252.46	446
CREF Stock R2	\$0.00	0	\$108,532.59	5	\$833,942.41	41	\$2,711,268.50	66	\$5,607,146.83	86	\$10,405,765.99	89	\$19,666,656.32	287
CREF Money Market R2	\$0.00	0	\$579.48	2	\$5,074.38	2	\$162,954.06	13	\$75,768.01	10	\$188,223.22	12	\$432,599.15	39
CREF Social Choice R2	\$0.00	0	\$0.00	0	\$127,188.14	9	\$1,513,596.14	26	\$1,543,840.52	26	\$2,086,069.58	11	\$5,270,694.38	72
CREF Bond Market R2	\$0.00	0	\$1,068.63	2	\$117,670.41	18	\$299,214.81	31	\$1,091,556.09	48	\$1,245,564.05	25	\$2,755,073.99	124
CREF Global Equities R2	\$0.00	0	\$21,171.27	4	\$271,735.42	21	\$1,033,277.53	51	\$1,456,793.92	46	\$907,049.99	30	\$3,690,028.13	152
CREF Growth R2	\$0.00	0	\$19,552.38	8	\$586,329.46	24	\$2,252,814.41	42	\$2,936,035.95	51	\$1,318,892.92	25	\$7,113,625.12	150
CREF Equity Index R2	\$0.00	0	\$2,745.63	2	\$324,338.13	7	\$729,059.57	19	\$1,239,662.50	26	\$1,046,717.57	11	\$3,342,523.40	65
CREF Inflation-Linked Bond R2	\$0.00	0	\$432.52	1	\$93,332.40	14	\$94,262.91	16	\$532,077.41	41	\$647,771.68	29	\$1,367,876.92	101
TIAA Real Estate	\$0.00	0	\$14,698.14	11	\$380,396.17	46	\$824,180.31	62	\$1,514,028.33	78	\$2,343,830.07	54	\$5,077,133.02	251
TIAA-CREF Bond Plus-Rtmt	\$0.00	0	\$0.00	0	\$15,487.87	3	\$75,090.88	10	\$496,612.41	28	\$747,394.72	13	\$1,334,585.88	54
TIAA-CREF Bond-Rtmt	\$0.00	0	\$358.08	1	\$11,903.48	4	\$66,494.31	8	\$84,073.47	8	\$232,322.20	10	\$395,151.54	31
TIAA-CREF Eq Index-Rtmt	\$0.00	0	\$3,447.94	3	\$8,885.42	1	\$113,991.20	6	\$692,514.31	12	\$64,904.42	1	\$883,743.29	23
TIAA-CREF Gr & Inc-Rtmt	\$0.00	0	\$25,337.79	2	\$41,150.98	5	\$116,548.11	13	\$175,708.83	11	\$171,639.04	3	\$530,384.75	34
TIAA-CREF High-Yield-Rtmt	\$0.00	0	\$591.12	1	\$10,487.11	4	\$47,555.47	10	\$304,457.61	25	\$409,394.78	9	\$772,486.09	49
TIAA-CREF Infl-Lnkd Bond-Rtmt	\$0.00	0	\$0.00	0	\$506.43	1	\$12,028.64	3	\$9,100.48	5	\$268,183.17	6	\$289,818.72	15
TIAA-CREF Intl Eq Idx-Rtmt	\$0.00	0	\$9,526.51	3	\$139,974.10	10	\$232,482.24	25	\$799,863.29	37	\$372,217.85	16	\$1,554,063.99	91
TIAA-CREF Intl Eq-Rtmt	\$0.00	0	\$4,623.47	3	\$16,307.51	6	\$96,118.55	17	\$332,992.82	12	\$62,112.37	8	\$512,154.72	46
TIAA-CREF Lg-Cap Gr Idx-Rtmt	\$0.00	0	\$2,874.39	3	\$89,266.18	6	\$310,221.30	12	\$312,908.95	22	\$162,393.90	3	\$877,664.72	46
TIAA-CREF Lg-Cap Gr-Rtmt	\$0.00	0	\$103.76	1	\$470.77	2	\$44,947.71	8	\$97,605.80	4	\$60,268.13	1	\$203,396.17	16
TIAA-CREF Lg-Cap Val Idx-Rtmt	\$0.00	0	\$19,336.24	5	\$146,780.31	12	\$238,330.31	18	\$856,732.13	38	\$688,591.80	17	\$1,949,770.79	90
TIAA-CREF Lg-Cap Val-Rtmt	\$0.00	0	\$12,793.66	3	\$131,236.87	12	\$242,769.80	16	\$681,652.48	31	\$231,922.17	14	\$1,300,374.98	76
TIAA-CREF Lifecycle 2010-Rtmt	\$0.00	0	\$0.00	0	\$353.70	1	\$6,868.67	4	\$15,249.19	2	\$230,322.55	15	\$252,794.11	22
TIAA-CREF Lifecycle 2015-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$175,571.25	2	\$492,463.11	20	\$668,034.36	22
TIAA-CREF Lifecycle 2020-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1,188,262.44	18	\$0.00	0	\$1,188,262.44	18
TIAA-CREF Lifecycle 2025-Rtmt	\$0.00	0	\$0.00	0	\$13,661.13	1	\$487,329.66	5	\$1,018,829.19	30	\$0.00	0	\$1,519,819.98	36
TIAA-CREF Lifecycle 2030-Rtmt	\$0.00	0	\$0.00	0	\$7,219.01	1	\$1,561,090.16	35	\$13,404.23	1	\$58,937.26	1	\$1,640,650.66	38
TIAA-CREF Lifecycle 2035-Rtmt	\$0.00	0	\$0.00	0	\$414,971.53	6	\$1,943,672.55	46	\$429,735.53	2	\$0.00	0	\$2,788,379.61	54
TIAA-CREF Lifecycle 2040-Rtmt	\$0.00	0	\$43,321.90	3	\$2,210,972.35	54	\$243,082.74	6	\$0.00	0	\$0.00	0	\$2,497,376.99	63
TIAA-CREF Lifecycle 2045-Rtmt	\$0.00	0	\$118,727.75	4	\$1,364,441.44	41	\$61,520.07	3	\$0.00	0	\$0.00	0	\$1,544,689.26	48
TIAA-CREF Lifecycle 2050-Rtmt	\$0.00	0	\$949,846.95	58	\$0.00	0	\$54,353.88	2	\$0.00	0	\$0.00	0	\$1,004,200.83	60
TIAA-CREF Lifecycle 2055-Rtmt	\$0.00	0	\$435,876.03	40	\$0.00	0	\$0.00	0	\$1,071.54	1	\$0.00	0	\$436,947.57	41
TIAA-CREF Managed Alloc-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$7,000.03	1	\$0.00	0	\$0.00	0	\$7,000.03	1
TIAA-CREF Mid-Cap Gr-Rtmt	\$0.00	0	\$0.00	0	\$30,295.42	8	\$75,461.02	10	\$52,013.87	8	\$70,726.23	5	\$228,496.54	31
TIAA-CREF Mid-Cap Val-Rtmt	\$0.00	0	\$9,518.30	3	\$74,923.71	15	\$306,942.08	18	\$580,445.08	26	\$279,227.43	15	\$1,251,056.60	77
TIAA-CREF Money Market-Rtmt	\$0.00	0	\$290.24	1	\$0.00	0	\$2,519.98	2	\$60,694.64	1	\$0.00	0	\$63,504.86	4
TIAA-CREF Real Est Secs-Rtmt	\$0.00	0	\$4,781.54	4	\$42,069.22	14	\$152,717.80	27	\$380,943.75	40	\$180,656.75	17	\$761,169.06	102
TIAA-CREF S&P 500 Idx-Rtmt	\$0.00	0	\$15,867.91	3	\$12,809.78	2	\$327,946.53	15	\$214,060.07	12	\$128,377.87	4	\$699,062.16	36
TIAA-CREF Short-Term Bond-Rtmt	\$0.00	0	\$434.20	1	\$1,641.58	1	\$41,628.61	3	\$43,165.71	2	\$0.00	0	\$86,870.10	7
TIAA-CREF Sm-Cap Bl Idx-Rtmt	\$0.00	0	\$11,067.99	3	\$46,484.13	7	\$116,621.64	16	\$204,943.83	15	\$77,576.69	3	\$456,694.28	44
TIAA-CREF Qt SmI Cap Eq Rtmt	\$0.00	0	\$7,756.16	2	\$75,683.92	14	\$263,422.07	18	\$461,891.82	29	\$424,622.98	16	\$1,233,376.95	79
TIAA-CREF Social Ch Eq-Rtmt	\$0.00	0	\$835.25	1	\$18,848.91	2	\$153,854.46	14	\$265,510.12	14	\$252,035.24	7	\$691,083.98	38
AF EuroPacific Growth Fund R4	\$0.00	0	\$9,639.69	4	\$51,603.86	9	\$292,659.51	29	\$303,533.41	21	\$347,463.51	12	\$1,004,899.98	75
Prudential Jennison Small Co Z	\$0.00	0	\$2,202.37	1	\$11,121.60	3	\$47,716.29	9	\$111,292.39	9	\$1,170.68	1	\$173,503.33	23
T Rowe Price Emerging Mkts Bnd	\$0.00	0	\$924.59	2	\$0.00	0	\$17,291.25	5	\$33,470.26	3	\$19,874.90	1	\$71,561.00	11
VICTORY SYC SMALL COMP OPP A	\$0.00	0	\$4,197.77	2	\$16,556.17	8	\$67,052.19	16	\$225,180.60	23	\$113,540.62	8	\$426,527.35	57
Vanguard Emr Mkts Stk Idx Adm	\$0.00	0	\$10,053.95	5	\$87,359.21	12	\$192,701.06	27	\$473,783.68	45	\$160,142.08	15	\$924,039.98	104
PIMCO All Asset Fund A	\$0.00	0	\$0.00	0	\$0.00	0	\$4,978.08	1	\$0.00	0	\$0.00	0	\$4,978.08	1
TIAA-CREF Lifecycle 2060-Rtmt	\$11,003.14	7	\$0.00	0	\$72.99	1	\$0.00	0	\$0.00	0	\$0.00	0	\$11,076.13	8
TIAA-CREF Self Directed Acct	\$0.00	0	\$0.00	0	\$0.00	0	\$71,904.15	1	\$0.00	0	\$0.00	0	\$71,904.15	1
TIAA-CREF Lfcoyle Rtmt Inc-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1,846.97	1	\$1,846.97	1



Fund Usage and Diversification

Fund Utilization by Age Group – All Participants

For the Period Ending 09/30/2018

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control Total	\$11,003.14	7	\$1,997,750.52	114	\$8,440,791.36	145	\$19,857,685.15	180	\$35,710,139.22	186	\$49,396,496.48	195	\$115,413,865.87	827
Total	\$11,003.14	7	\$1,997,750.52	114	\$8,440,791.36	145	\$19,857,685.15	180	\$35,710,139.22	186	\$49,396,496.48	195	\$115,413,865.87	827



Fund Usage and Diversification

Fund Utilization by Age Group - Active Participants

For the Period Ending 09/30/2018

Active

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control														
TIAA Traditional	\$0.00	0	\$1,057.16	3	\$483,666.99	23	\$1,508,423.14	48	\$5,927,018.61	70	\$6,147,752.89	32	\$14,067,918.79	176
CREF Stock R2	\$0.00	0	\$714.38	1	\$614,129.35	16	\$2,030,566.83	37	\$4,727,253.00	58	\$3,082,453.06	25	\$10,455,116.62	137
CREF Money Market R2	\$0.00	0	\$289.74	1	\$3,751.07	1	\$140,475.61	5	\$16,630.94	2	\$28,034.91	3	\$189,182.27	12
CREF Social Choice R2	\$0.00	0	\$0.00	0	\$108,291.64	5	\$1,422,482.38	18	\$1,256,799.91	17	\$1,371,100.78	6	\$4,158,674.71	46
CREF Bond Market R2	\$0.00	0	\$709.88	1	\$103,225.88	9	\$260,892.30	21	\$958,678.30	36	\$345,064.72	11	\$1,668,571.08	78
CREF Global Equities R2	\$0.00	0	\$16,619.80	2	\$244,899.90	11	\$823,610.47	31	\$1,251,181.57	29	\$544,237.01	17	\$2,880,548.75	90
CREF Growth R2	\$0.00	0	\$3,633.18	4	\$511,498.47	15	\$1,897,904.50	23	\$2,544,675.62	35	\$983,537.48	12	\$5,941,249.25	89
CREF Equity Index R2	\$0.00	0	\$2,745.63	2	\$320,920.77	6	\$579,030.59	9	\$1,143,727.75	18	\$754,407.75	5	\$2,800,832.49	40
CREF Inflation-Linked Bond R2	\$0.00	0	\$0.00	0	\$90,306.65	9	\$94,146.53	15	\$476,807.68	32	\$453,934.24	17	\$1,115,195.10	73
TIAA Real Estate	\$0.00	0	\$9,468.80	8	\$343,187.43	24	\$764,481.58	44	\$1,302,144.00	57	\$964,029.57	23	\$3,383,311.38	156
TIAA-CREF Bond Plus-Rtmt	\$0.00	0	\$0.00	0	\$15,205.68	2	\$74,619.33	9	\$432,107.17	23	\$509,742.47	8	\$1,031,674.65	42
TIAA-CREF Bond-Rtmt	\$0.00	0	\$0.00	0	\$11,570.28	3	\$66,494.31	8	\$67,004.68	6	\$97,740.94	4	\$242,810.21	21
TIAA-CREF Eq Index-Rtmt	\$0.00	0	\$3,447.94	3	\$8,885.42	1	\$113,391.79	5	\$692,514.31	12	\$0.00	0	\$818,239.46	21
TIAA-CREF Gr & Inc-Rtmt	\$0.00	0	\$25,020.95	1	\$38,075.69	3	\$105,398.92	11	\$141,692.59	9	\$124,003.46	1	\$434,191.61	25
TIAA-CREF High-Yield-Rtmt	\$0.00	0	\$591.12	1	\$9,501.25	3	\$45,206.26	9	\$283,372.59	21	\$168,481.64	6	\$507,152.86	40
TIAA-CREF Infl-Lnkd Bond-Rtmt	\$0.00	0	\$0.00	0	\$506.43	1	\$12,028.64	3	\$4,005.55	3	\$43,403.22	2	\$59,943.84	9
TIAA-CREF Intl Eq Idx-Rtmt	\$0.00	0	\$4,994.04	2	\$136,188.18	8	\$227,362.63	22	\$670,305.30	25	\$142,482.39	7	\$1,181,332.54	64
TIAA-CREF Intl Eq-Rtmt	\$0.00	0	\$4,576.16	2	\$14,378.01	3	\$78,530.17	12	\$324,978.05	9	\$23,552.12	3	\$446,014.51	29
TIAA-CREF Lg-Cap Gr Idx-Rtmt	\$0.00	0	\$2,874.39	3	\$89,266.18	6	\$309,709.40	11	\$260,371.32	15	\$93,660.14	1	\$755,881.43	36
TIAA-CREF Lg-Cap Gr-Rtmt	\$0.00	0	\$103.76	1	\$470.77	2	\$16,924.48	6	\$97,605.80	4	\$0.00	0	\$115,104.81	13
TIAA-CREF Lg-Cap Val Idx-Rtmt	\$0.00	0	\$9,587.36	4	\$141,186.85	10	\$224,050.09	14	\$656,734.14	26	\$446,466.11	8	\$1,478,024.55	62
TIAA-CREF Lg-Cap Val-Rtmt	\$0.00	0	\$8,331.17	2	\$128,761.69	9	\$234,268.15	14	\$590,407.56	22	\$119,308.31	6	\$1,081,076.88	53
TIAA-CREF Lifecycle 2010-Rtmt	\$0.00	0	\$0.00	0	\$353.70	1	\$5,711.35	3	\$6,884.59	1	\$127,288.26	5	\$140,237.90	10
TIAA-CREF Lifecycle 2015-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$175,571.25	2	\$355,204.37	14	\$530,775.62	16
TIAA-CREF Lifecycle 2020-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1,053,957.53	13	\$0.00	0	\$1,053,957.53	13
TIAA-CREF Lifecycle 2025-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$442,794.62	3	\$862,235.64	22	\$0.00	0	\$1,305,030.26	25
TIAA-CREF Lifecycle 2030-Rtmt	\$0.00	0	\$0.00	0	\$7,219.01	1	\$1,526,481.89	31	\$13,404.23	1	\$0.00	0	\$1,547,105.13	33
TIAA-CREF Lifecycle 2035-Rtmt	\$0.00	0	\$0.00	0	\$324,005.94	4	\$1,652,558.50	35	\$429,735.53	2	\$0.00	0	\$2,406,299.97	41
TIAA-CREF Lifecycle 2040-Rtmt	\$0.00	0	\$18,914.97	1	\$2,027,227.37	40	\$243,082.74	6	\$0.00	0	\$0.00	0	\$2,289,225.08	47
TIAA-CREF Lifecycle 2045-Rtmt	\$0.00	0	\$118,727.75	4	\$1,165,929.75	34	\$40,362.63	1	\$0.00	0	\$0.00	0	\$1,325,020.13	39
TIAA-CREF Lifecycle 2050-Rtmt	\$0.00	0	\$650,792.93	34	\$0.00	0	\$54,353.88	2	\$0.00	0	\$0.00	0	\$705,146.81	36
TIAA-CREF Lifecycle 2055-Rtmt	\$0.00	0	\$375,111.86	27	\$0.00	0	\$0.00	0	\$1,071.54	1	\$0.00	0	\$376,183.40	28
TIAA-CREF Managed Alloc-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$7,000.03	1	\$0.00	0	\$0.00	0	\$7,000.03	1
TIAA-CREF Mid-Cap Gr-Rtmt	\$0.00	0	\$0.00	0	\$28,773.83	7	\$70,883.41	9	\$46,993.84	6	\$69,660.65	4	\$216,311.73	26
TIAA-CREF Mid-Cap Val-Rtmt	\$0.00	0	\$4,579.39	2	\$68,904.88	10	\$286,275.88	15	\$530,706.96	20	\$80,979.77	7	\$971,446.88	54
TIAA-CREF Money Market-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$2,519.98	2	\$60,694.64	1	\$0.00	0	\$63,214.62	3
TIAA-CREF Real Est Secs-Rtmt	\$0.00	0	\$2,099.06	2	\$40,390.86	11	\$148,699.95	22	\$308,545.15	26	\$90,227.72	7	\$589,962.74	68
TIAA-CREF S&P 500 Idx-Rtmt	\$0.00	0	\$15,867.91	3	\$9,374.19	1	\$303,573.49	12	\$155,533.79	8	\$35,844.06	2	\$520,193.44	26
TIAA-CREF Short-Term Bond-Rtmt	\$0.00	0	\$0.00	0	\$1,641.58	1	\$41,628.61	3	\$43,165.71	2	\$0.00	0	\$86,435.90	6
TIAA-CREF Sm-Cap Bl Idx-Rtmt	\$0.00	0	\$11,067.99	3	\$46,484.13	7	\$116,621.64	16	\$204,120.78	14	\$9,589.52	1	\$387,884.06	41
TIAA-CREF Qt Sml Cap Eq Rtmt	\$0.00	0	\$2,204.25	1	\$68,760.94	10	\$262,775.61	17	\$325,151.11	19	\$236,791.84	7	\$895,683.75	54
TIAA-CREF Social Ch Eq-Rtmt	\$0.00	0	\$835.25	1	\$18,848.91	2	\$152,404.14	13	\$151,617.25	8	\$39,692.98	2	\$363,398.53	26
AF EuroPacific Growth Fund R4	\$0.00	0	\$4,495.91	2	\$49,459.07	8	\$272,787.49	24	\$148,172.27	11	\$244,582.52	6	\$719,497.26	51
Prudential Jennison Small Co Z	\$0.00	0	\$2,202.37	1	\$11,121.60	3	\$42,705.63	6	\$107,277.96	8	\$0.00	0	\$163,307.56	18
T Rowe Price Emerging Mkts Bnd	\$0.00	0	\$504.33	1	\$0.00	0	\$15,782.07	4	\$33,470.26	3	\$19,874.90	1	\$69,631.56	9
VICTORY SYC SMALL COMP OPP A	\$0.00	0	\$3,741.10	1	\$15,493.73	6	\$48,312.61	11	\$191,458.00	17	\$92,548.79	4	\$351,554.23	39
Vanguard Emr Mkts Stk Idx Adm	\$0.00	0	\$6,066.30	4	\$85,014.71	10	\$182,291.55	22	\$379,519.56	31	\$90,214.17	8	\$743,106.29	75
PIMCO All Asset Fund A	\$0.00	0	\$0.00	0	\$0.00	0	\$4,978.08	1	\$0.00	0	\$0.00	0	\$4,978.08	1
TIAA-CREF Lifecycle 2060-Rtmt	\$7,081.37	6	\$0.00	0	\$72.99	1	\$0.00	0	\$0.00	0	\$0.00	0	\$7,154.36	7
TIAA-CREF Self Directed Acct	\$0.00	0	\$0.00	0	\$0.00	0	\$71,904.15	1	\$0.00	0	\$0.00	0	\$71,904.15	1



Fund Usage and Diversification

Fund Utilization by Age Group - Active Participants

For the Period Ending 09/30/2018

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control Total	\$7,081.37	6	\$1,311,976.83	71	\$7,386,951.77	90	\$17,026,488.03	111	\$29,055,304.03	100	\$17,935,892.76	43	\$72,723,694.79	421
Total	\$7,081.37	6	\$1,311,976.83	71	\$7,386,951.77	90	\$17,026,488.03	111	\$29,055,304.03	100	\$17,935,892.76	43	\$72,723,694.79	421



Fund Usage and Diversification

Fund Utilization by Age Group - Terminated Participants

For the Period Ending 09/30/2018

Terminated

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control														
TIAA Traditional	\$0.00	0	\$123,577.17	3	\$123,570.76	30	\$631,720.77	39	\$2,688,935.87	66	\$16,748,529.10	132	\$20,316,333.67	270
CREF Stock R2	\$0.00	0	\$107,818.21	4	\$219,813.06	25	\$680,701.67	29	\$879,893.83	28	\$7,323,312.93	64	\$9,211,539.70	150
CREF Money Market R2	\$0.00	0	\$289.74	1	\$1,323.31	1	\$22,478.45	8	\$59,137.07	8	\$160,188.31	9	\$243,416.88	27
CREF Social Choice R2	\$0.00	0	\$0.00	0	\$18,896.50	4	\$91,113.76	8	\$287,040.61	9	\$714,968.80	5	\$1,112,019.67	26
CREF Bond Market R2	\$0.00	0	\$358.75	1	\$14,444.53	9	\$38,322.51	10	\$132,877.79	12	\$900,499.33	14	\$1,086,502.91	46
CREF Global Equities R2	\$0.00	0	\$4,551.47	2	\$26,835.52	10	\$209,667.06	20	\$205,612.35	17	\$362,812.98	13	\$809,479.38	62
CREF Growth R2	\$0.00	0	\$15,919.20	4	\$74,830.99	9	\$354,909.91	19	\$391,360.33	16	\$335,355.44	13	\$1,172,375.87	61
CREF Equity Index R2	\$0.00	0	\$0.00	0	\$3,417.36	1	\$150,028.98	10	\$95,934.75	8	\$292,309.82	6	\$541,690.91	25
CREF Inflation-Linked Bond R2	\$0.00	0	\$432.52	1	\$3,025.75	5	\$116.38	1	\$55,269.73	9	\$193,837.44	12	\$252,681.82	28
TIAA Real Estate	\$0.00	0	\$5,229.34	3	\$37,208.74	22	\$59,698.73	18	\$211,884.33	21	\$1,379,800.50	31	\$1,693,821.64	95
TIAA-CREF Bond Plus-Rtmt	\$0.00	0	\$0.00	0	\$282.19	1	\$471.55	1	\$64,505.24	5	\$237,652.25	5	\$302,911.23	12
TIAA-CREF Bond-Rtmt	\$0.00	0	\$358.08	1	\$333.20	1	\$0.00	0	\$17,068.79	2	\$134,581.26	6	\$152,341.33	10
TIAA-CREF Eq Index-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$599.41	1	\$0.00	0	\$64,904.42	1	\$65,503.83	2
TIAA-CREF Gr & Inc-Rtmt	\$0.00	0	\$316.84	1	\$3,075.29	2	\$11,149.19	2	\$34,016.24	2	\$47,635.58	2	\$96,193.14	9
TIAA-CREF High-Yield-Rtmt	\$0.00	0	\$0.00	0	\$985.86	1	\$2,349.21	1	\$21,085.02	4	\$240,913.14	3	\$265,333.23	9
TIAA-CREF Infl-Lnkd Bond-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$5,094.93	2	\$224,779.95	4	\$229,874.88	6
TIAA-CREF Intl Eq Idx-Rtmt	\$0.00	0	\$4,532.47	1	\$3,785.92	2	\$5,119.61	3	\$129,557.99	12	\$229,735.46	9	\$372,731.45	27
TIAA-CREF Intl Eq-Rtmt	\$0.00	0	\$47.31	1	\$1,929.50	3	\$17,588.38	5	\$8,014.77	3	\$38,560.25	5	\$66,140.21	17
TIAA-CREF Lfycle Rtmt Inc-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$1,846.97	1	\$1,846.97	1
TIAA-CREF Lg-Cap Gr Idx-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$511.90	1	\$52,537.63	7	\$68,733.76	2	\$121,783.29	10
TIAA-CREF Lg-Cap Gr-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$28,023.23	2	\$0.00	0	\$60,268.13	1	\$88,291.36	3
TIAA-CREF Lg-Cap Val Idx-Rtmt	\$0.00	0	\$9,748.88	1	\$5,593.46	2	\$14,280.22	4	\$199,997.99	12	\$242,125.69	9	\$471,746.24	28
TIAA-CREF Lg-Cap Val-Rtmt	\$0.00	0	\$4,462.49	1	\$2,475.18	3	\$8,501.65	2	\$91,244.92	9	\$112,613.86	8	\$219,298.10	23
TIAA-CREF Lifecycle 2010-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$1,157.32	1	\$8,364.60	1	\$103,034.29	10	\$112,556.21	12
TIAA-CREF Lifecycle 2015-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$137,258.74	6	\$137,258.74	6
TIAA-CREF Lifecycle 2020-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$134,304.91	5	\$0.00	0	\$134,304.91	5
TIAA-CREF Lifecycle 2025-Rtmt	\$0.00	0	\$0.00	0	\$13,661.13	1	\$44,535.04	2	\$156,593.55	8	\$0.00	0	\$214,789.72	11
TIAA-CREF Lifecycle 2030-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$34,608.27	4	\$0.00	0	\$58,937.26	1	\$93,545.53	5
TIAA-CREF Lifecycle 2035-Rtmt	\$0.00	0	\$0.00	0	\$90,965.59	2	\$291,114.05	11	\$0.00	0	\$0.00	0	\$382,079.64	13
TIAA-CREF Lifecycle 2040-Rtmt	\$0.00	0	\$24,406.93	2	\$183,744.98	14	\$0.00	0	\$0.00	0	\$0.00	0	\$208,151.91	16
TIAA-CREF Lifecycle 2045-Rtmt	\$0.00	0	\$0.00	0	\$198,511.69	7	\$21,157.44	2	\$0.00	0	\$0.00	0	\$219,669.13	9
TIAA-CREF Lifecycle 2050-Rtmt	\$0.00	0	\$299,054.02	24	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$299,054.02	24
TIAA-CREF Lifecycle 2055-Rtmt	\$0.00	0	\$60,764.17	13	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$60,764.17	13
TIAA-CREF Mid-Cap Gr-Rtmt	\$0.00	0	\$0.00	0	\$1,521.59	1	\$4,577.61	1	\$5,020.03	2	\$1,065.58	1	\$12,184.81	5
TIAA-CREF Mid-Cap Val-Rtmt	\$0.00	0	\$4,938.91	1	\$6,018.83	5	\$20,666.20	3	\$49,738.12	6	\$198,247.66	8	\$279,609.72	23
TIAA-CREF Money Market-Rtmt	\$0.00	0	\$290.24	1	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$290.24	1
TIAA-CREF Real Est Secs-Rtmt	\$0.00	0	\$2,682.48	2	\$1,678.36	3	\$4,017.85	5	\$72,398.60	14	\$90,429.03	10	\$171,206.32	34
TIAA-CREF S&P 500 Idx-Rtmt	\$0.00	0	\$0.00	0	\$3,435.59	1	\$24,373.04	3	\$58,526.28	4	\$92,533.81	2	\$178,868.72	10
TIAA-CREF Short-Term Bond-Rtmt	\$0.00	0	\$434.20	1	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$434.20	1
TIAA-CREF Sm-Cap Bl Idx-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$823.05	1	\$67,987.17	2	\$68,810.22	3
TIAA-CREF Qt Sml Cap Eq Rtmt	\$0.00	0	\$5,551.91	1	\$6,922.98	4	\$646.46	1	\$136,740.71	10	\$187,831.14	9	\$337,693.20	25
TIAA-CREF Social Ch Eq-Rtmt	\$0.00	0	\$0.00	0	\$0.00	0	\$1,450.32	1	\$113,892.87	6	\$212,342.26	5	\$327,685.45	12
AF EuroPacific Growth Fund R4	\$0.00	0	\$5,143.78	2	\$2,144.79	1	\$19,872.02	5	\$155,361.14	10	\$102,880.99	6	\$285,402.72	24
Prudential Jennison Small Co Z	\$0.00	0	\$0.00	0	\$0.00	0	\$5,010.66	3	\$4,014.43	1	\$1,170.68	1	\$10,195.77	5
T Rowe Price Emerging Mkts Bnd	\$0.00	0	\$420.26	1	\$0.00	0	\$1,509.18	1	\$0.00	0	\$0.00	0	\$1,929.44	2
VICTORY SYC SMALL COMP OPP A	\$0.00	0	\$456.67	1	\$1,062.44	2	\$18,739.58	5	\$33,722.60	6	\$20,991.83	4	\$74,973.12	18
Vanguard Emr Mkts Stk Idx Adm	\$0.00	0	\$3,987.65	1	\$2,344.50	2	\$10,409.51	5	\$94,264.12	14	\$69,927.91	7	\$180,933.69	29
TIAA-CREF Lifecycle 2060-Rtmt	\$3,921.77	1	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$3,921.77	1



Fund Usage and Diversification

Fund Utilization by Age Group - Terminated Participants

For the Period Ending 09/30/2018

Investment Name	<25		25 – 34		35 – 44		45 – 54		55 – 64		65+		Total	
	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part	Ending Market Value	# Part
Participant Control Total	\$3,921.77	1	\$685,773.69	43	\$1,053,839.59	55	\$2,831,197.12	69	\$6,654,835.19	86	\$31,460,603.72	152	\$42,690,171.08	406
Total	\$3,921.77	1	\$685,773.69	43	\$1,053,839.59	55	\$2,831,197.12	69	\$6,654,835.19	86	\$31,460,603.72	152	\$42,690,171.08	406



Fund Usage and Diversification

Fund Diversification by Age Group and Status

For the Period Ending 09/30/2018

	1	2	3	4	Number of Funds Invested		7	8	9	10+	Total
					5	6					
Active Participant Count											
Participant Control											
<25	6	0	0	0	0	0	0	0	0	0	6
25_34	58	5	1	0	1	1	1	2	0	2	71
35_44	56	7	1	3	4	4	0	1	1	13	90
45_54	44	14	4	5	6	4	2	6	1	25	111
55_64	19	7	6	13	8	4	2	4	2	35	100
65+	9	4	3	5	3	5	2	1	0	11	43
Participant Control Active Total	192	37	15	26	22	18	7	14	4	86	421
Total Active Participants	192	37	15	26	22	18	7	14	4	86	421
Terminated Participant Count											
Participant Control											
<25	1	0	0	0	0	0	0	0	0	0	1
25_34	37	3	0	0	0	1	0	0	0	2	43
35_44	24	5	6	8	5	2	0	0	3	2	55
45_54	25	9	11	4	9	4	1	1	0	5	69
55_64	45	7	6	6	4	2	0	2	0	14	86
65+	78	34	11	8	6	1	2	0	1	11	152
Participant Control Terminated Total	210	58	34	26	24	10	3	3	4	34	406
Total Terminated Participants	210	58	34	26	24	10	3	3	4	34	406



Fund Usage and Diversification

Fund Diversification by Age Group and Status

For the Period Ending 09/30/2018

	1	2	3	4	Number of Funds Invested		7	8	9	10+	Total
					5	6					
Plan Total Participant Count											
Active											
<25	6	0	0	0	0	0	0	0	0	0	6
25_34	58	5	1	0	1	1	1	2	0	2	71
35_44	56	7	1	3	4	4	0	1	1	13	90
45_54	44	14	4	5	6	4	2	6	1	25	111
55_64	19	7	6	13	8	4	2	4	2	35	100
65+	9	4	3	5	3	5	2	1	0	11	43
Total Active Participants	192	37	15	26	22	18	7	14	4	86	421
Plan Total Participant Count											
Terminated											
<25	1	0	0	0	0	0	0	0	0	0	1
25_34	37	3	0	0	0	1	0	0	0	2	43
35_44	24	5	6	8	5	2	0	0	3	2	55
45_54	25	9	11	4	9	4	1	1	0	5	69
55_64	45	7	6	6	4	2	0	2	0	14	86
65+	78	34	11	8	6	1	2	0	1	11	152
Total Terminated Participants	210	58	34	26	24	10	3	3	4	34	406
Total	402	95	49	52	46	28	10	17	8	120	827



Fund Usage and Diversification

Number of Participants in a Single Investment by Fund

For the Period Ending 09/30/2018

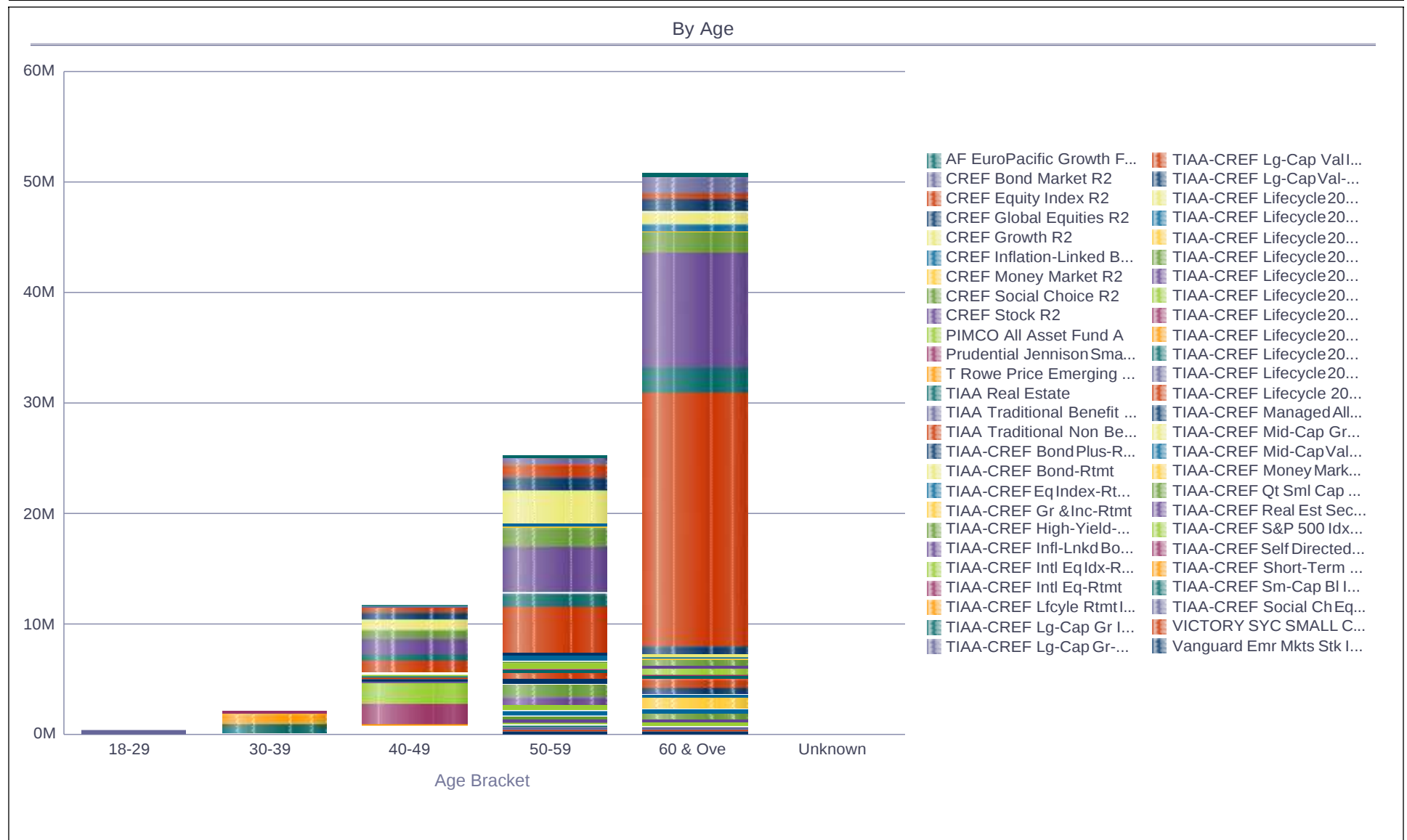
Investment Name	Participant Control	Plan Control	Total Plan
TIAA Traditional	114	0	114
CREF Stock R2	10	0	10
CREF Money Market R2	4	0	4
CREF Social Choice R2	5	0	5
CREF Growth R2	1	0	1
CREF Equity Index R2	3	0	3
TIAA Real Estate	1	0	1
TIAA-CREF Bond Plus-Rtmt	1	0	1
TIAA-CREF Gr & Inc-Rtmt	1	0	1
TIAA-CREF Lifecycle 2010-Rtmt	2	0	2
TIAA-CREF Lifecycle 2015-Rtmt	7	0	7
TIAA-CREF Lifecycle 2020-Rtmt	8	0	8
TIAA-CREF Lifecycle 2025-Rtmt	18	0	18
TIAA-CREF Lifecycle 2030-Rtmt	19	0	19
TIAA-CREF Lifecycle 2035-Rtmt	34	0	34
TIAA-CREF Lifecycle 2040-Rtmt	40	0	40
TIAA-CREF Lifecycle 2045-Rtmt	35	0	35
TIAA-CREF Lifecycle 2050-Rtmt	55	0	55
TIAA-CREF Lifecycle 2055-Rtmt	37	0	37
TIAA-CREF Lifecycle 2060-Rtmt	7	0	7
Total	402	0	402



Asset Allocation Statistics

JUNIATA COLLEGE

For the Period Ending 09/30/2018





Section IV

Strategic Action Summary 2018

1st Quarter (1/1/2018 – 3/31/2018)

- Reviewed Capital Market Expectations
- Reviewed and executed Plan Sponsor Acknowledgement form
- Reviewed proposed fund lineup for RC Platform transition
- Discussed potential plan design changes and document consolidation
- Discussed 2018 goals

2nd Quarter (4/1/2018 – 6/30/2018)

- Approved fund lineup for RC Platform
- Discussed initial plan design changes, payroll integration, and implementation timeline
- Made decision to perform an informal pricing RFP
- Introduced Fee Policy Statement (FPS)

3rd Quarter (7/1/2018 – 9/30/2018)

- Provided a brief explanation summarizing the reason for the transition to the RC platform
- Reviewed results of informal pricing RFP
- Approved plan design change decisions including loan policy
- Reviewed Fee Policy Statement (FPS)
- Begin the payroll integration process along with transition to ADP in August

4th Quarter (10/1/2018 – 12/31/2018)

- Received Board approval for the RC Platform transition
- Received Board approval for plan design changes
- Review draft RC Transition Group Presentation
- Review and Execute updated FPS
- Discuss goals for next year

IRS Guidance: Hardship Withdrawals

Recent legislative changes were made to the rules governing hardship withdrawals from certain retirement plans. These changes will become effective as of the first day of the plan year beginning in 2019. In order to implement these changes, a plan document amendment will very likely be needed by the end of the 2019 plan year.

The Internal Revenue Service has not yet released the document language that will be required in order for Plan Sponsors to formally adopt these changes. Once this language is released, it will be possible to proceed with any necessary plan document amendment. Many service providers are already in the process of updating their recordkeeping systems in order to be ready to timely implement the new hardship rules.

New options that will become available in 2019 :

- Participants will no longer be subject to six-month suspension following a hardship withdrawal
- Participants will no longer be required to take all available plan loans prior to taking a hardship withdrawal
- Earnings on elective deferral contributions will be included in hardship available amounts
- QNEC/QMAC account balances, including safe harbor contribution accounts and prevailing wage accounts, will be available for hardship distribution

DOL Guidance: Disability Determination

The Department of Labor (“DOL”) recently announced final regulations relating to disability benefit determinations under employee benefit plans. These guidelines are intended to further protect participant rights by ensuring that disability determinations are impartial and independent and that claimants must be given sufficient time and information regarding actions that can be taken in the event of a denial of disability benefits under a retirement plan.

If a Plan Sponsor relies on an independent determination such as Social Security or the insurer for the Sponsor’s long-term disability program:

- No further action is needed
- The language in the plan document and Summary Plan Description satisfies DOL guidelines

If the determination of disability is made by the Plan Sponsor or a delegate such as a physician chosen by the Plan Sponsor

- The new requirements apply to the plan
- Disability Claims Procedures must be distributed to all eligible plan participants
- Disability Claims Procedures should be attached to the Summary Plan Description for distribution to future participants



Section V

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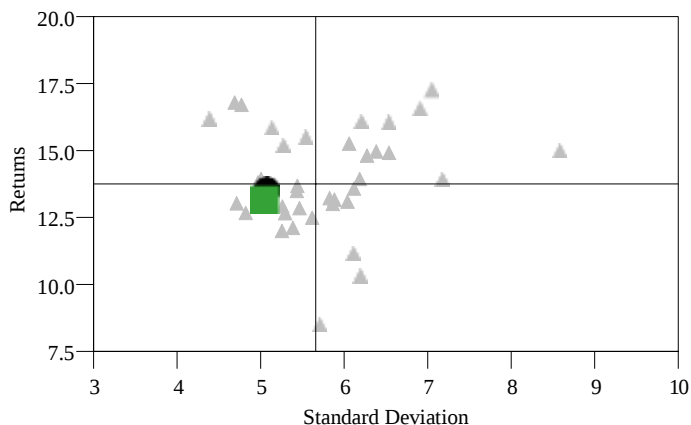
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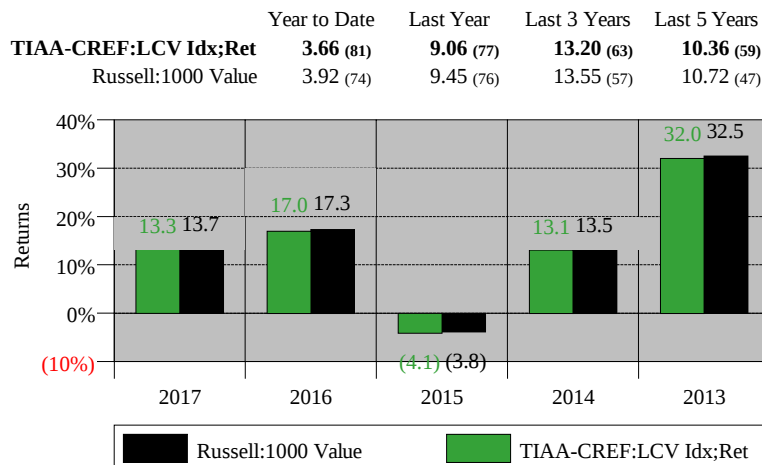
TIAA-CREF:LCV Idx;Ret

Russell:1000 Value - (Callan Lg Cap Value MF)

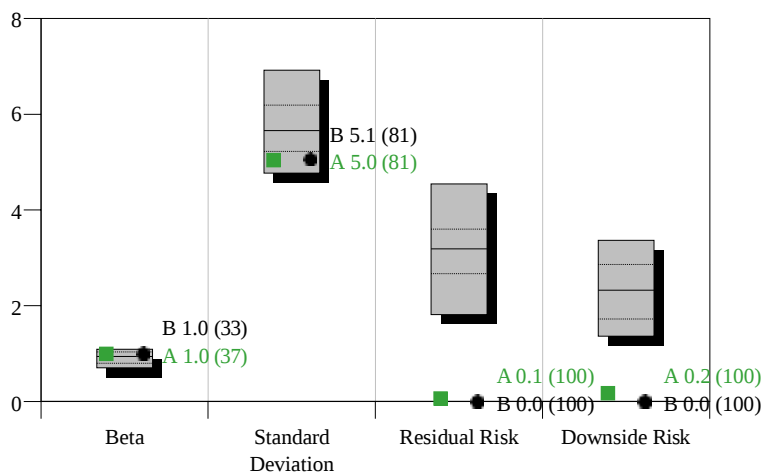
Scatter Chart
for 3 Years Ended September 30, 2018



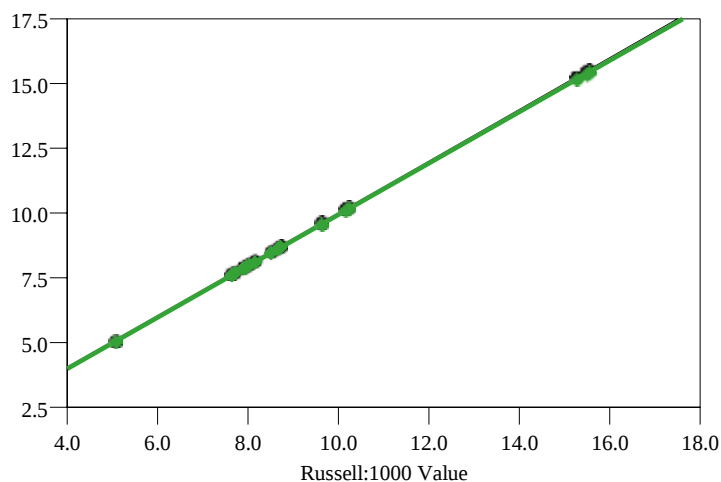
Returns for Various Periods



Risk Statistics for 3 Years



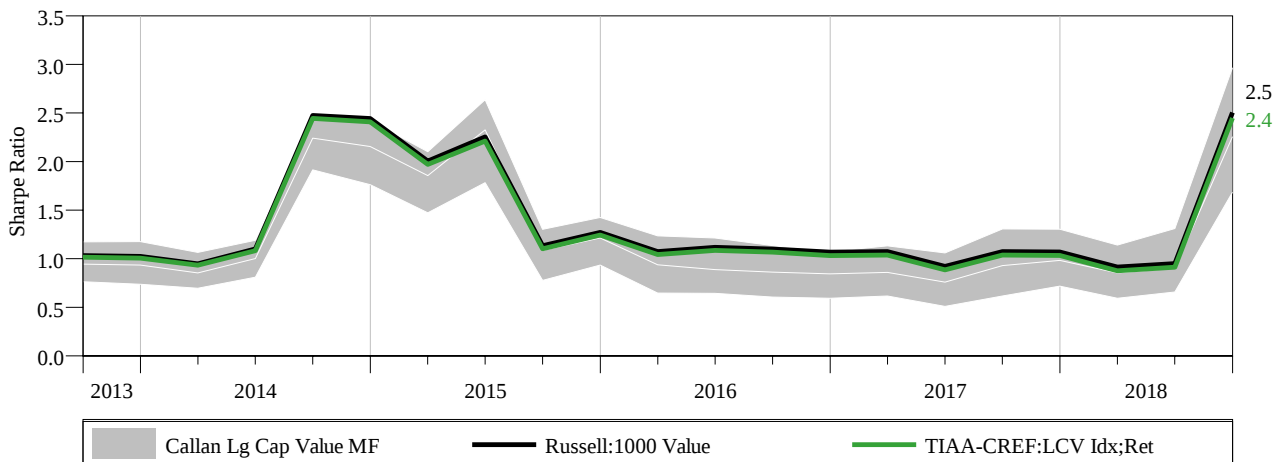
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:LCV Idx;Ret	(0.26) (71)	2.45 (31)	12.42 (71)	(4.15) (100)	(2.02) (99)
Russell:1000 Value	0.00 (65)	2.51 (25)	12.71 (64)	0.00 (65)	--

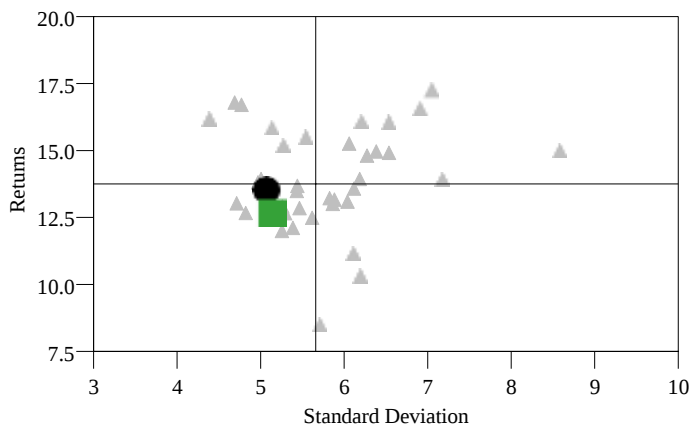
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



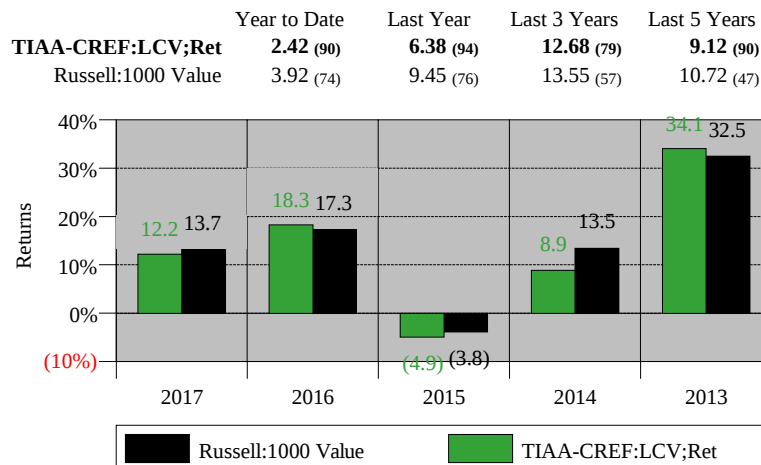
TIAA-CREF:LCV;Ret

Russell:1000 Value - (Callan Lg Cap Value MF)

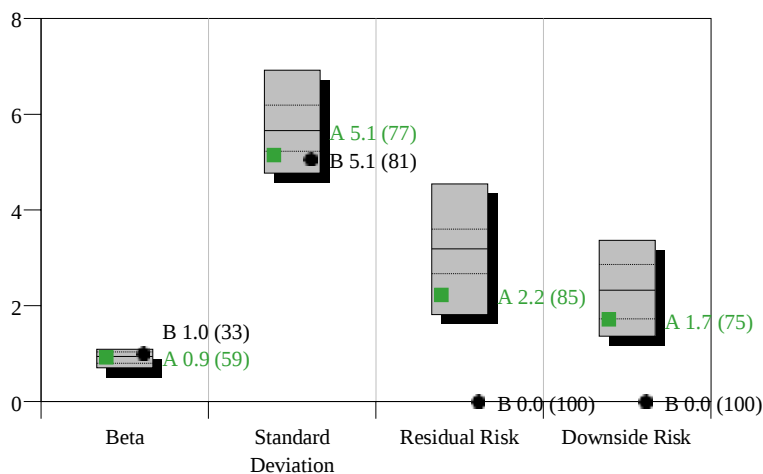
Scatter Chart
for 3 Years Ended September 30, 2018



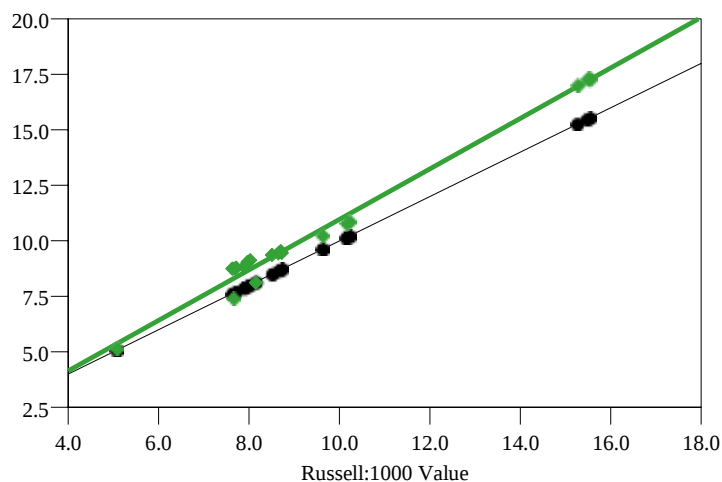
Returns for Various Periods



Risk Statistics for 3 Years



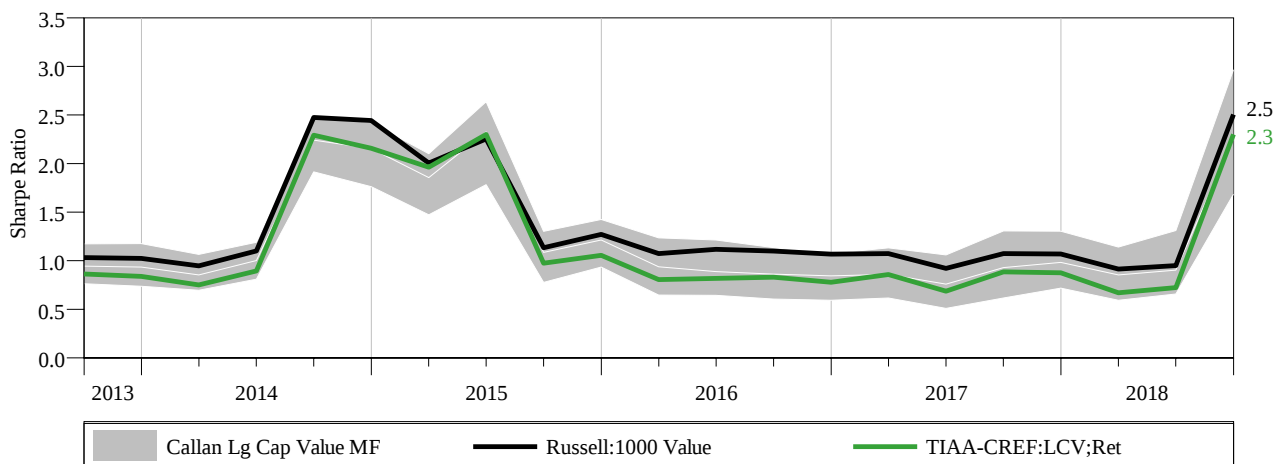
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:LCV;Ret	0.12 (63)	2.30 (46)	12.79 (63)	0.05 (63)	(0.51) (85)
Russell:1000 Value	0.00 (65)	2.51 (25)	12.71 (64)	0.00 (65)	--

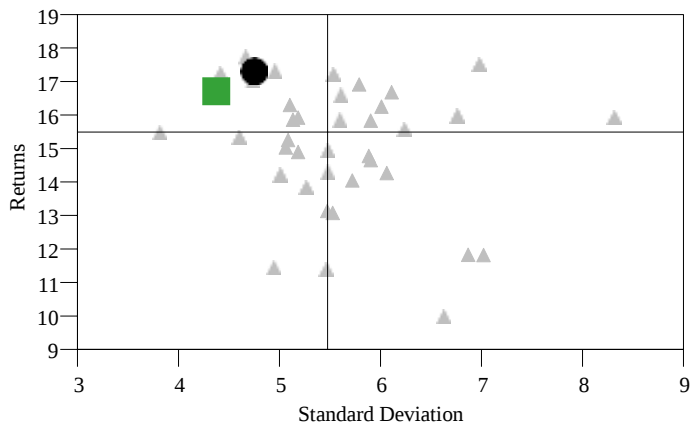
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



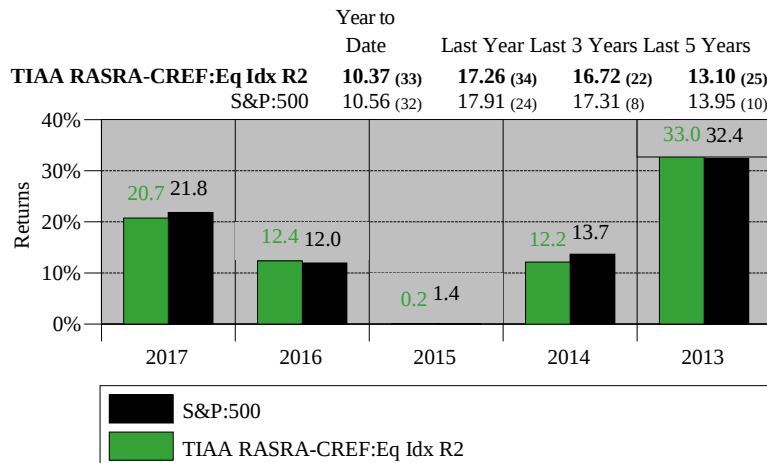
TIAA RASRA-CREF:Eq Idx R2

S&P:500 - (Callan Large Cap Core MFs)

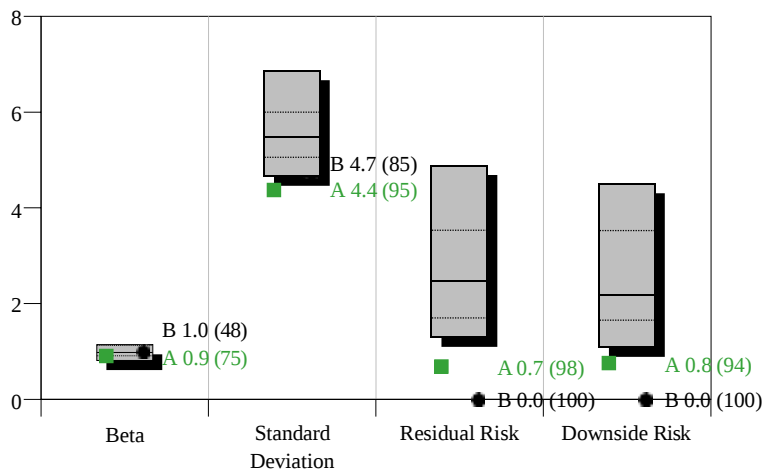
Scatter Chart
for 3 Years Ended September 30, 2018



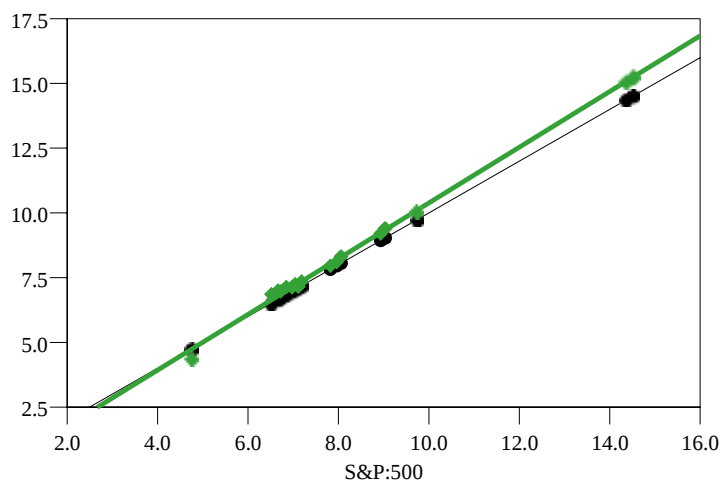
Returns for Various Periods



Risk Statistics for 3 Years



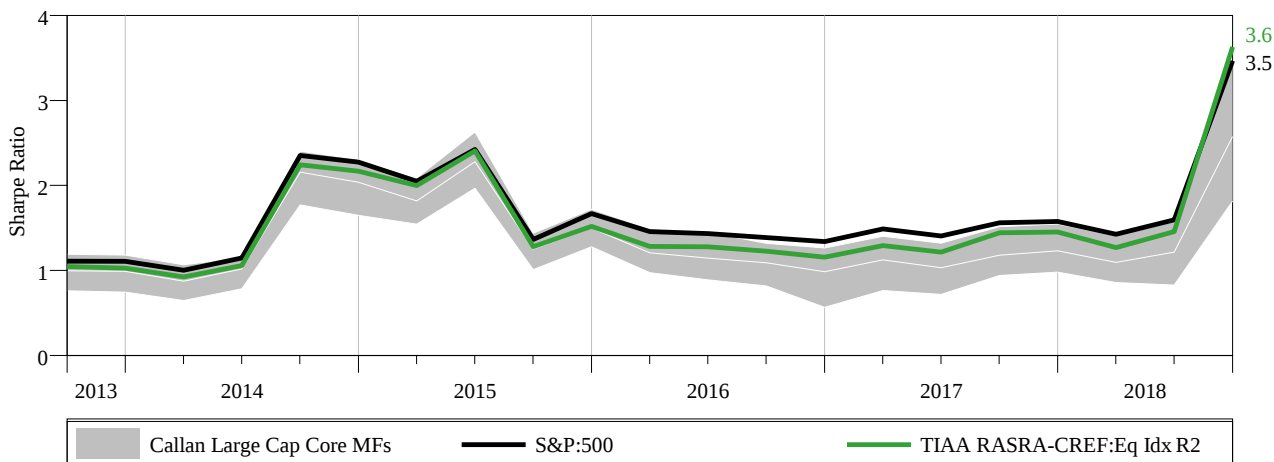
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Eq Idx R2	0.89 (16)	3.63 (7)	17.49 (16)	1.29 (6)	(0.78) (47)
S&P:500	0.00 (24)	3.47 (10)	16.47 (24)	0.00 (25)	--

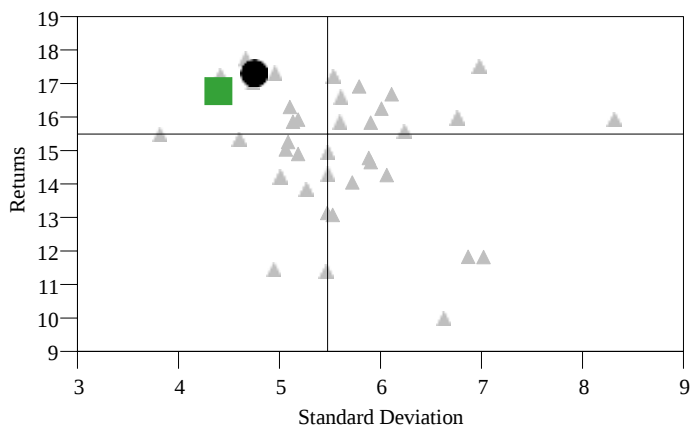
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



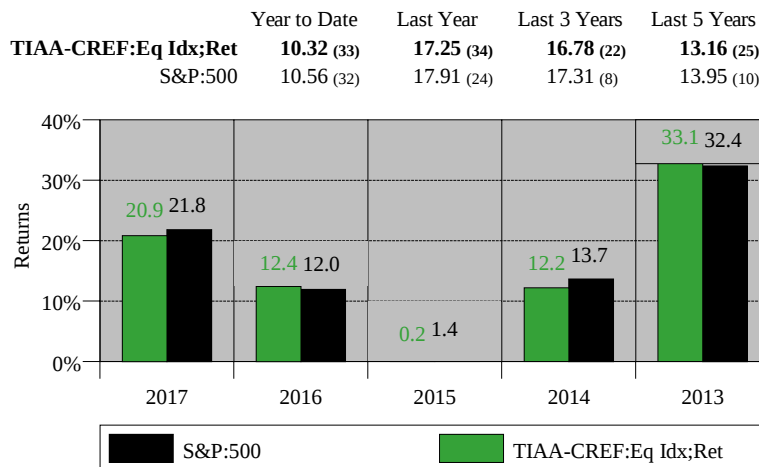
TIAA-CREF:Eq Idx;Ret

S&P:500 - (Callan Large Cap Core MFs)

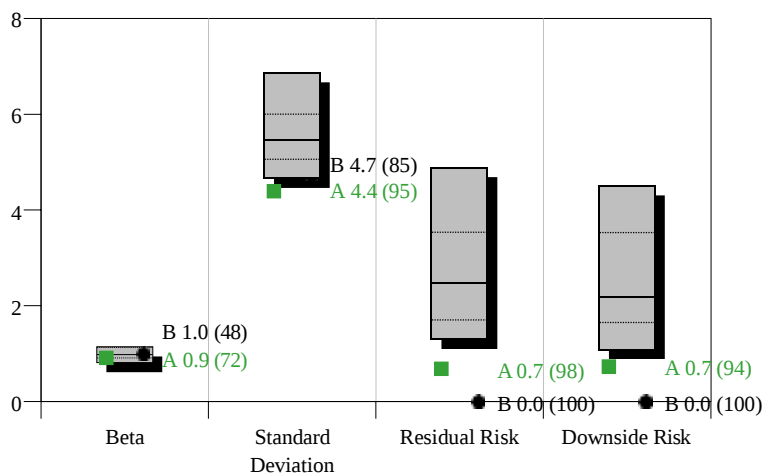
Scatter Chart
for 3 Years Ended September 30, 2018



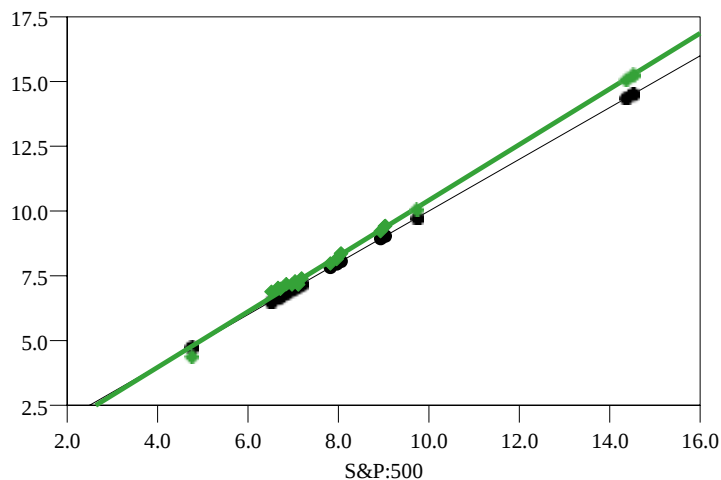
Returns for Various Periods



Risk Statistics for 3 Years



Rolling 12 Quarter Standard Deviation Comparison Chart

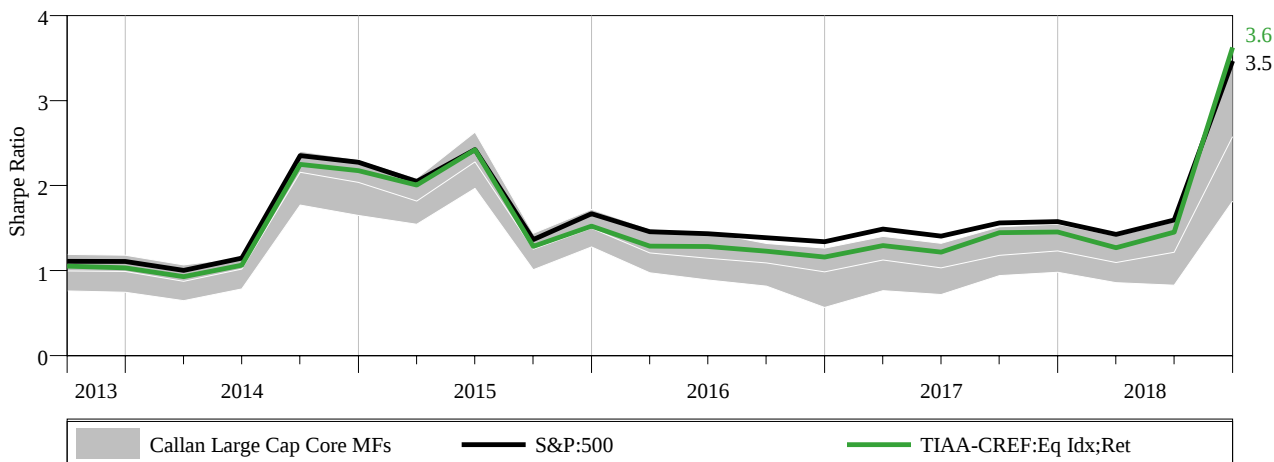


Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Eq Idx;Ret	0.87 (16)	3.63 (8)	17.45 (16)	1.27 (6)	(0.73) (44)
S&P:500	0.00 (24)	3.47 (10)	16.47 (24)	0.00 (25)	--



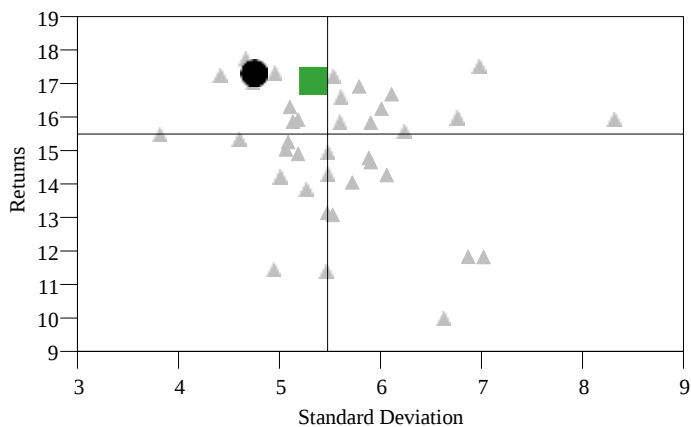
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



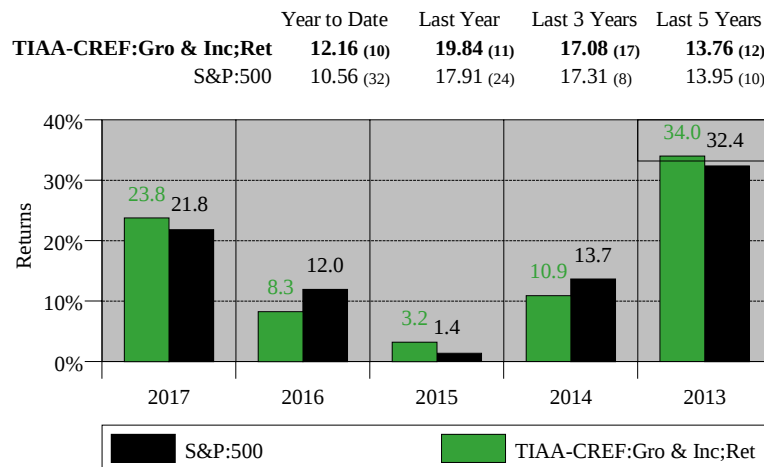
TIAA-CREF:Gro & Inc;Ret

S&P:500 - (Callan Large Cap Core MFs)

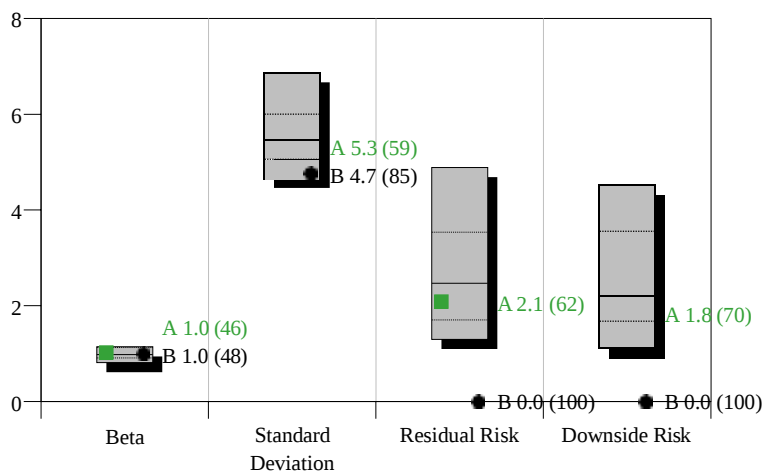
Scatter Chart
for 3 Years Ended September 30, 2018



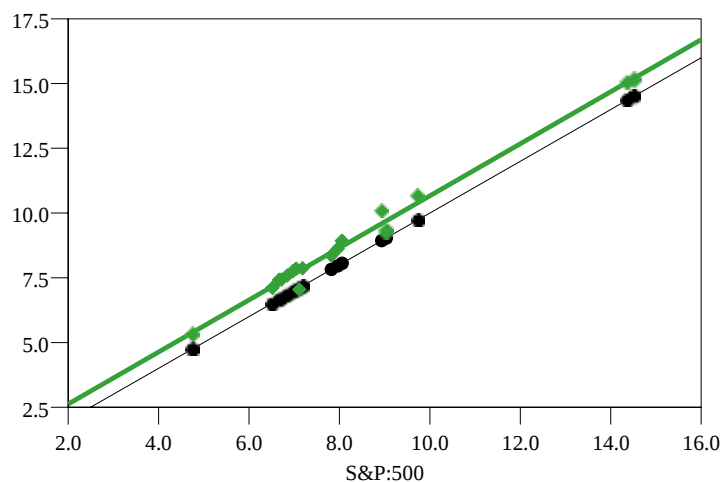
Returns for Various Periods



Risk Statistics for 3 Years



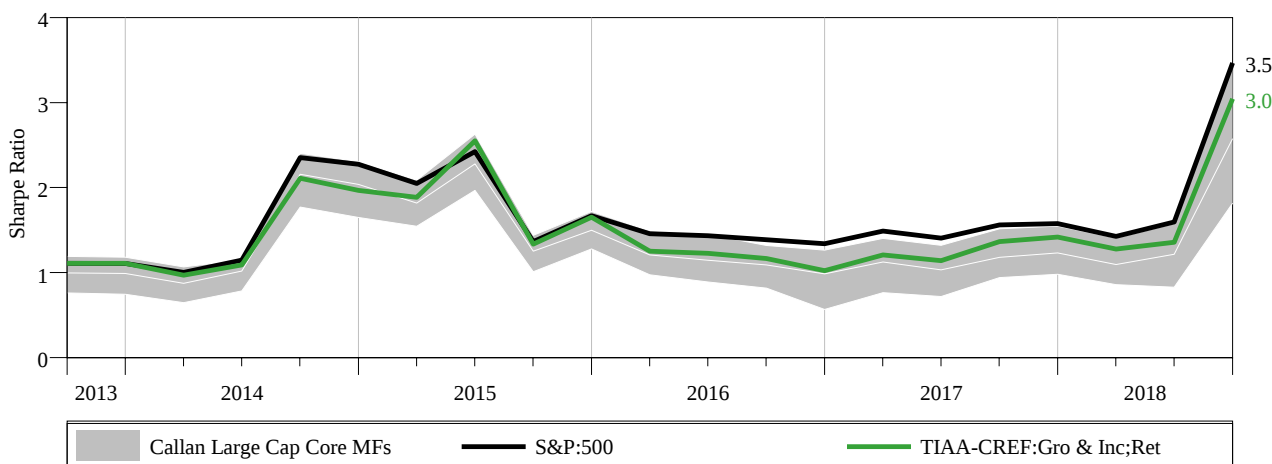
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Gro & Inc;Ret	(0.54) (30)	3.05 (20)	15.87 (30)	(0.26) (31)	(0.12) (15)
S&P:500	0.00 (24)	3.47 (10)	16.47 (24)	0.00 (25)	--

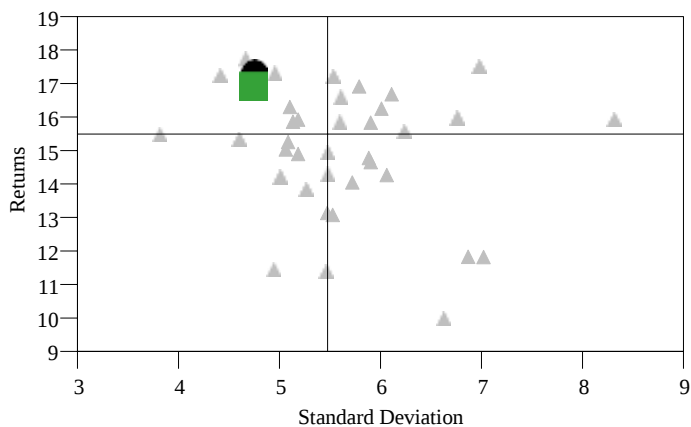
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



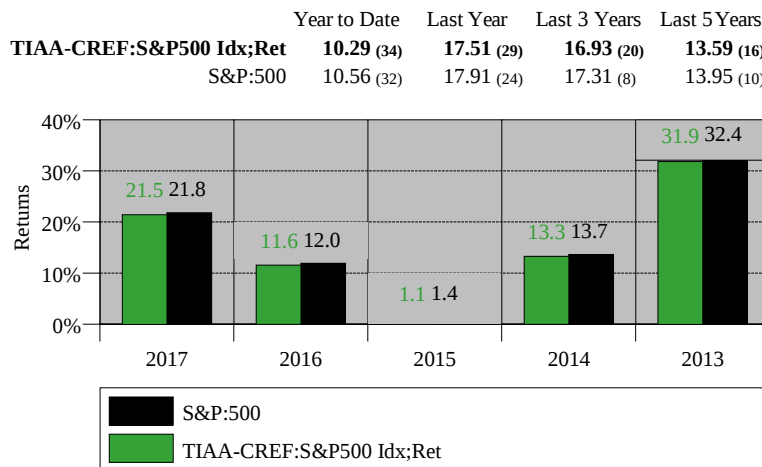
TIAA-CREF:S&P500 Idx;Ret

S&P:500 - (Callan Large Cap Core MFs)

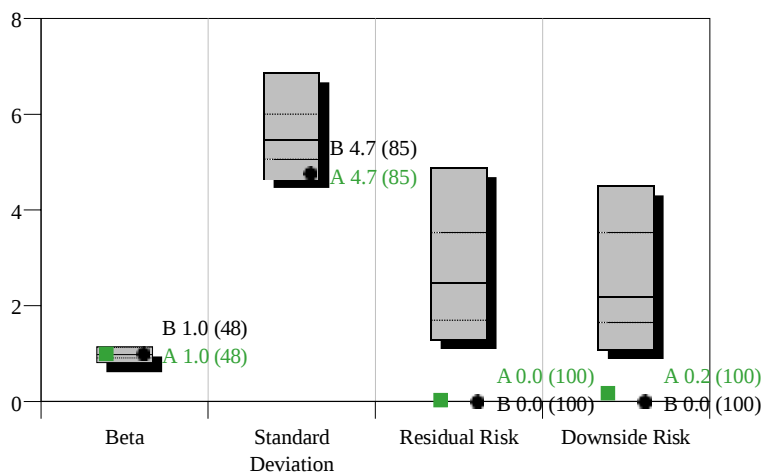
Scatter Chart
for 3 Years Ended September 30, 2018



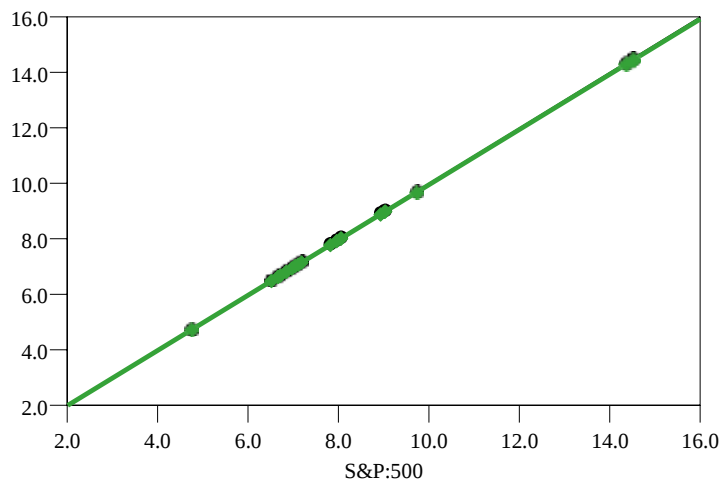
Returns for Various Periods



Risk Statistics for 3 Years



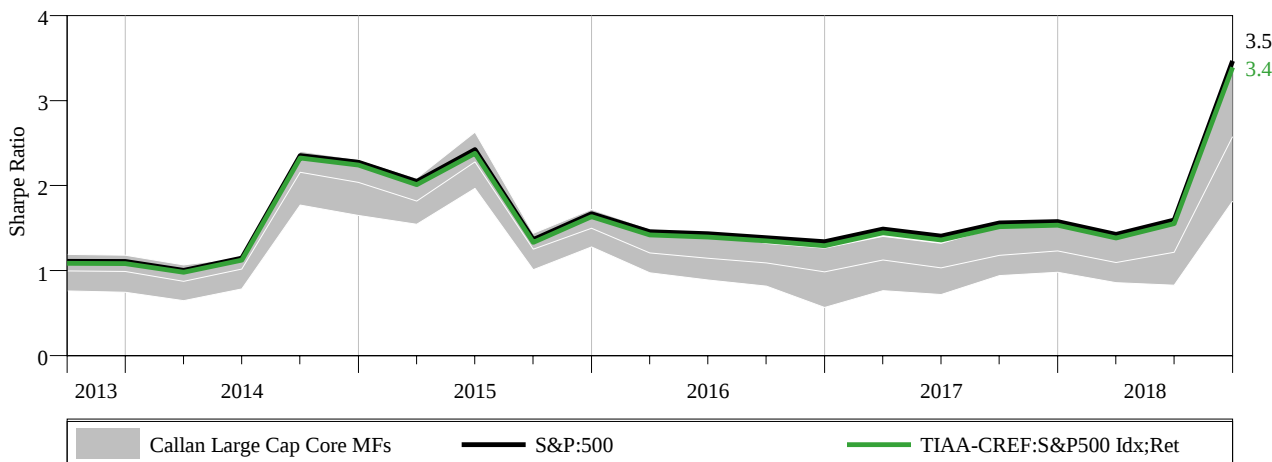
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

TIAA-CREF:S&P500 Idx;Ret	Alpha (0.31) (29)	Sharpe Ratio 3.39 (13)	Treynor Ratio 16.12 (28)	Information Ratio (10.16) (99)	Sortino Ratio (2.21) (99)
S&P:500	0.00 (24)	3.47 (10)	16.47 (24)	0.00 (25)	--

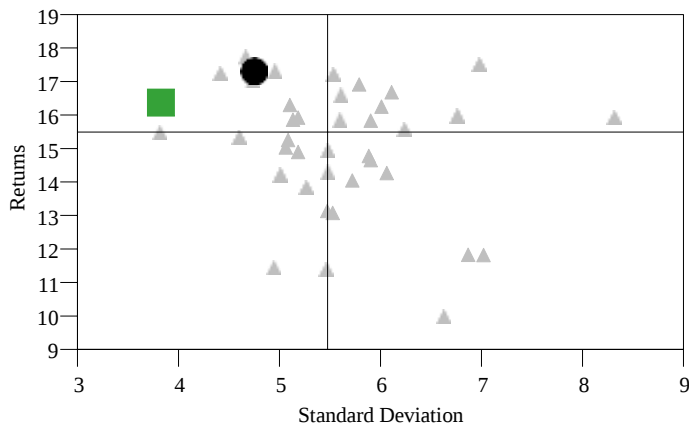
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



TIAA-CREF:Soc Ch Eq;Ret

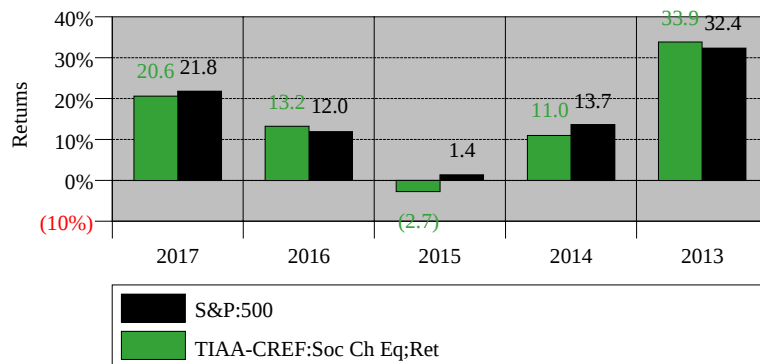
S&P:500 - (Callan Large Cap Core MFs)

Scatter Chart
for 3 Years Ended September 30, 2018

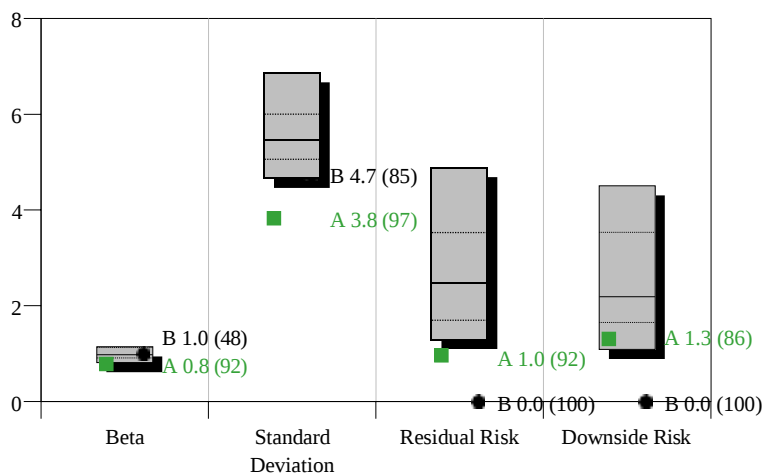


Returns for Various Periods

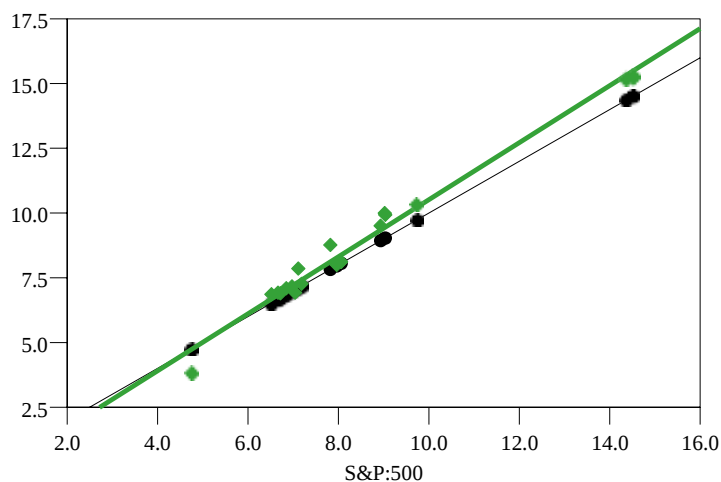
	Year to Date	Last Year	Last 3 Years	Last 5 Years
TIAA-CREF:Soc Ch Eq;Ret	9.29 (45)	15.99 (48)	16.38 (27)	12.02 (47)
S&P:500	10.56 (32)	17.91 (24)	17.31 (8)	13.95 (10)



Risk Statistics for 3 Years

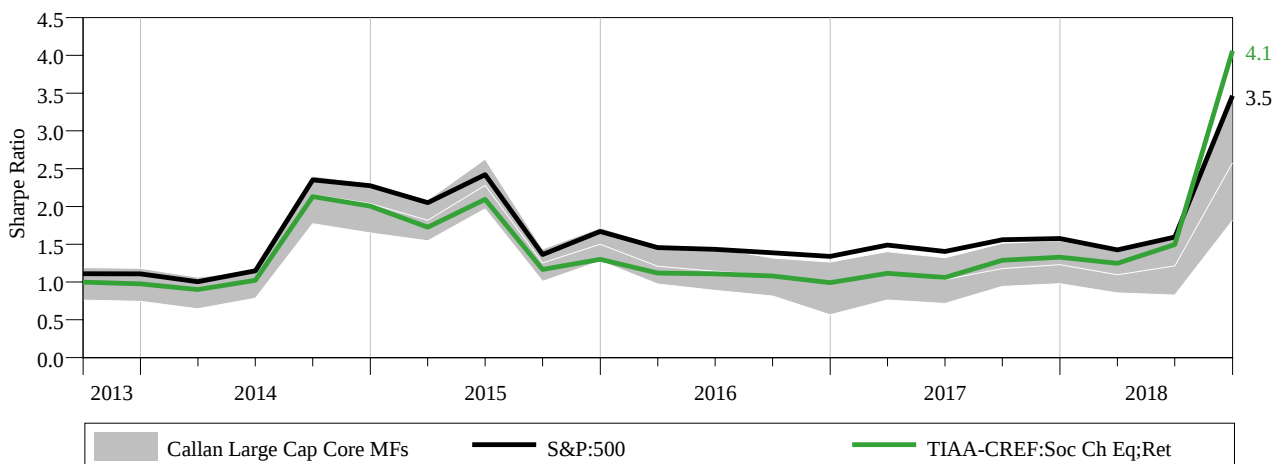


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Soc Ch Eq;Ret	2.54 (10)	4.06 (1)	19.86 (9)	2.64 (1)	(0.71) (43)
S&P:500	0.00 (24)	3.47 (10)	16.47 (24)	0.00 (25)	--

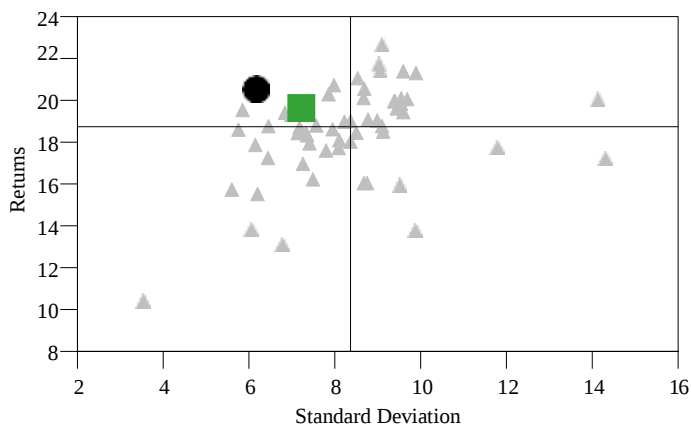


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

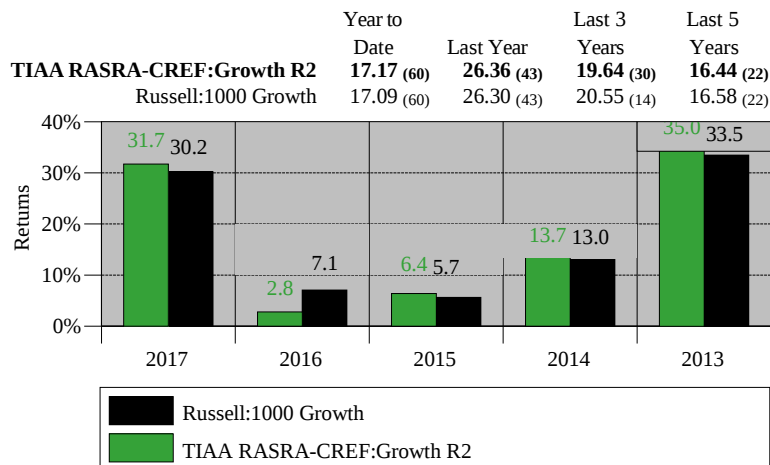
TIAA RASRA-CREF:Growth R2

Russell:1000 Growth - (Callan Large Cap Grwth MF)

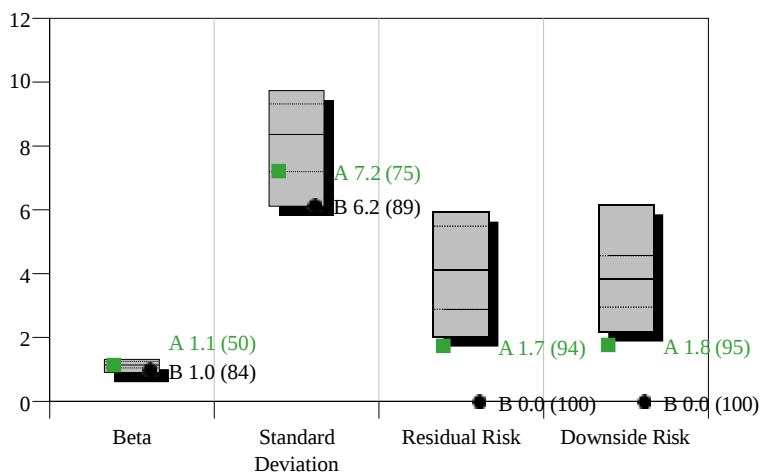
Scatter Chart
for 3 Years Ended September 30, 2018



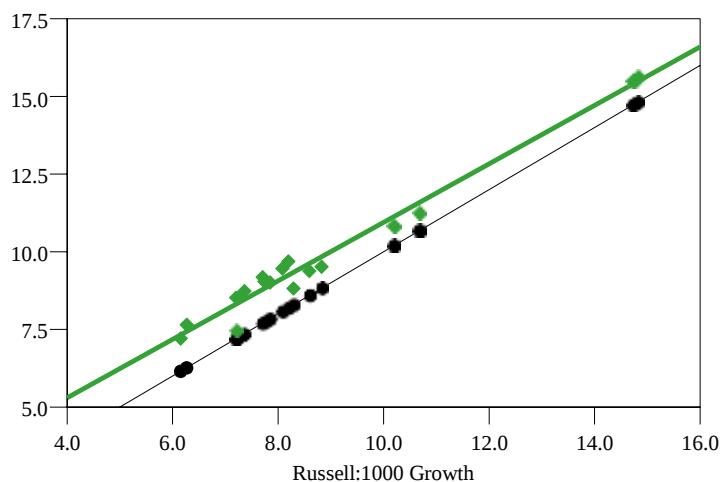
Returns for Various Periods



Risk Statistics for 3 Years



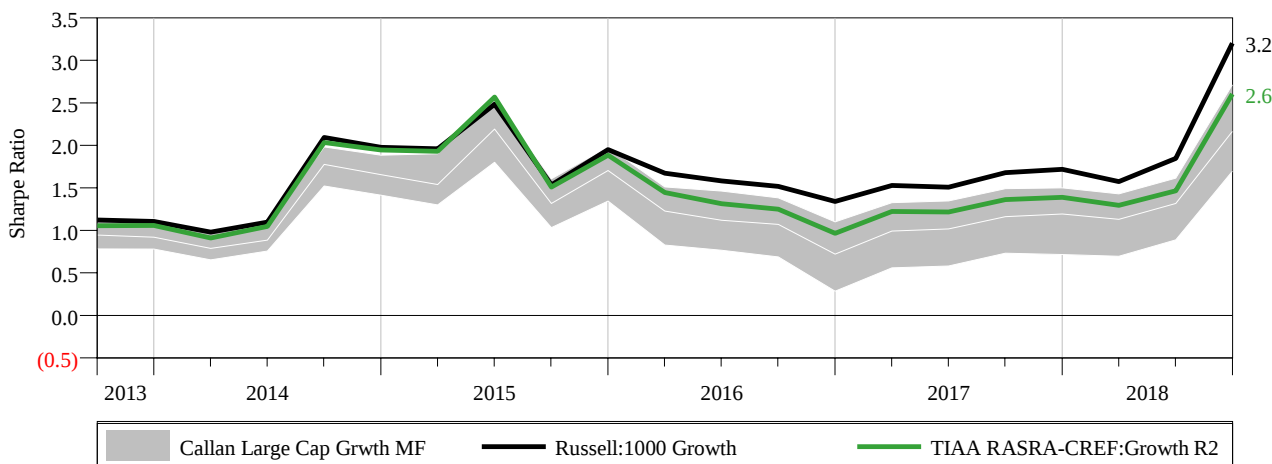
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Growth R2	(3.27) (37)	2.60 (15)	16.50 (32)	(1.88) (95)	(0.52) (48)
Russell:1000 Growth	0.00 (10)	3.20 (2)	19.71 (10)	0.00 (10)	--

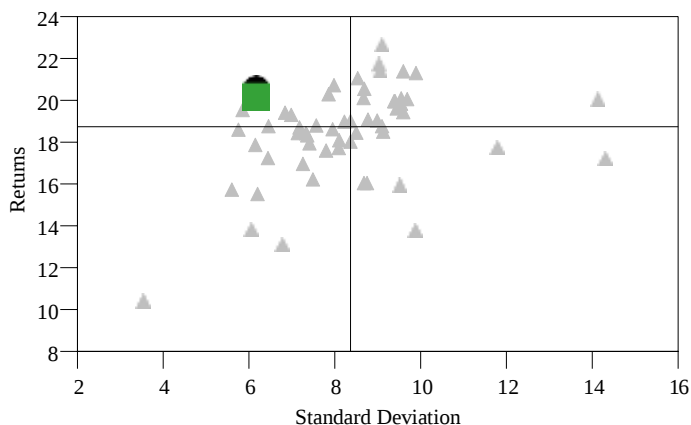
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



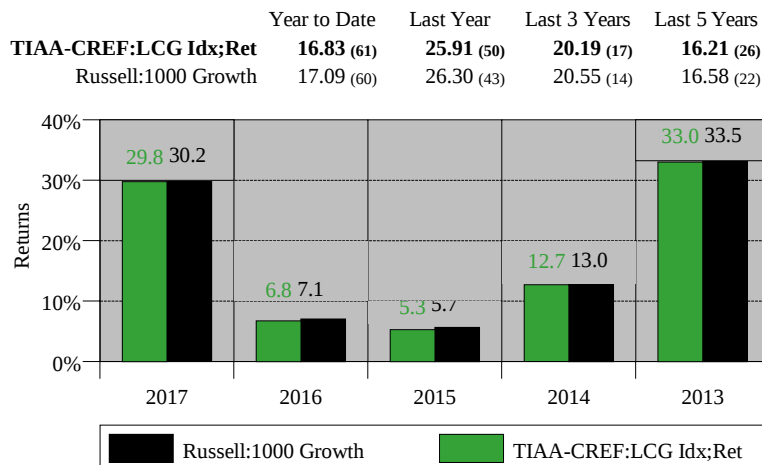
TIAA-CREF:LCG Idx;Ret

Russell:1000 Growth - (Callan Large Cap Grwth MF)

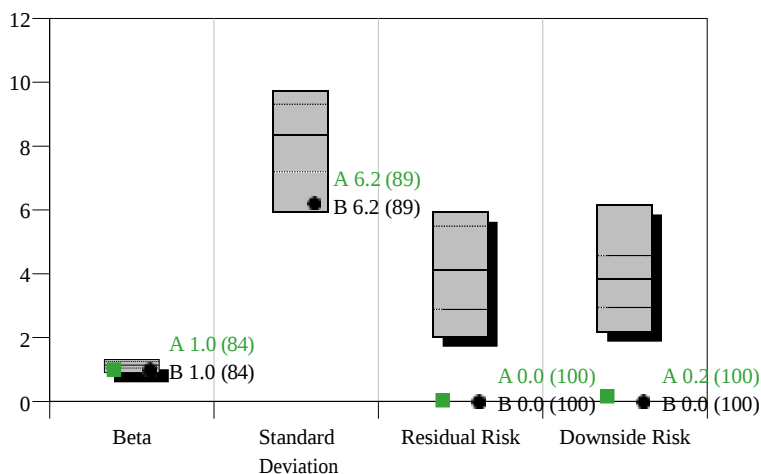
Scatter Chart
for 3 Years Ended September 30, 2018



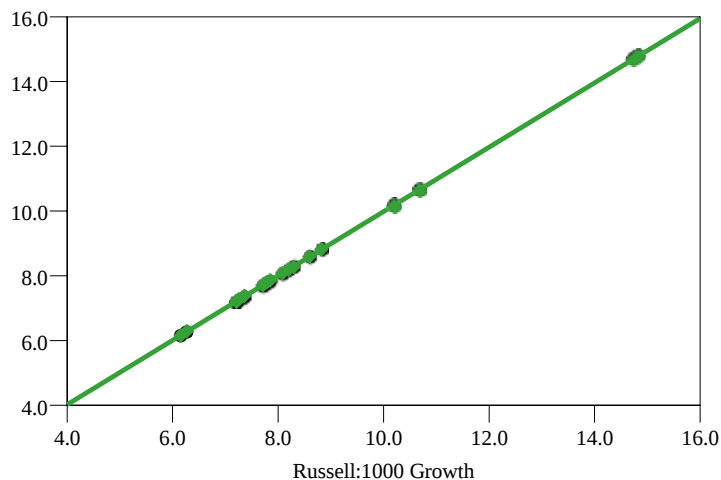
Returns for Various Periods



Risk Statistics for 3 Years



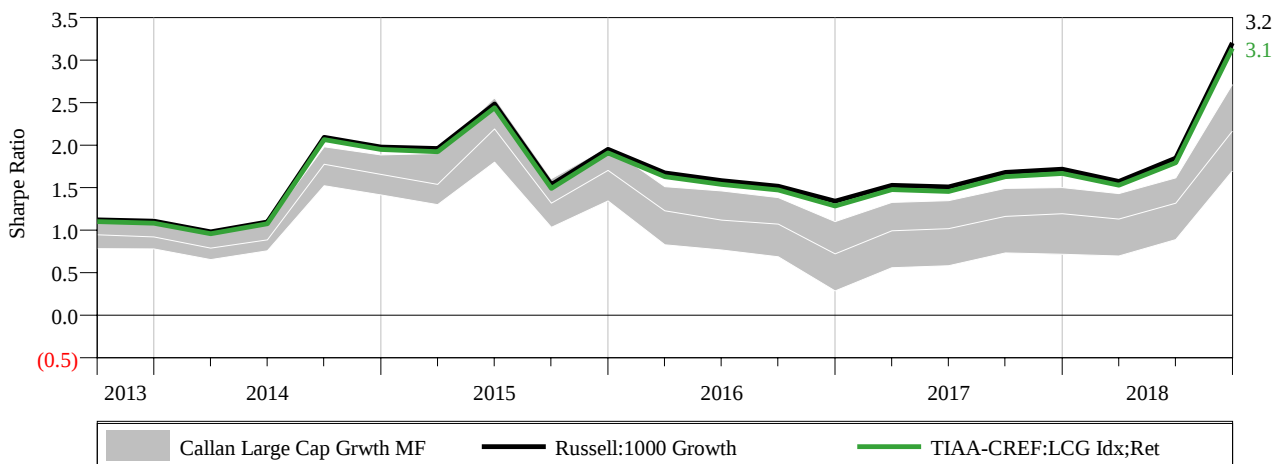
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:LCG Idx;Ret	(0.33) (11)	3.14 (3)	19.33 (10)	(8.89) (100)	(2.24) (99)
Russell:1000 Growth	0.00 (10)	3.20 (2)	19.71 (10)	0.00 (10)	--

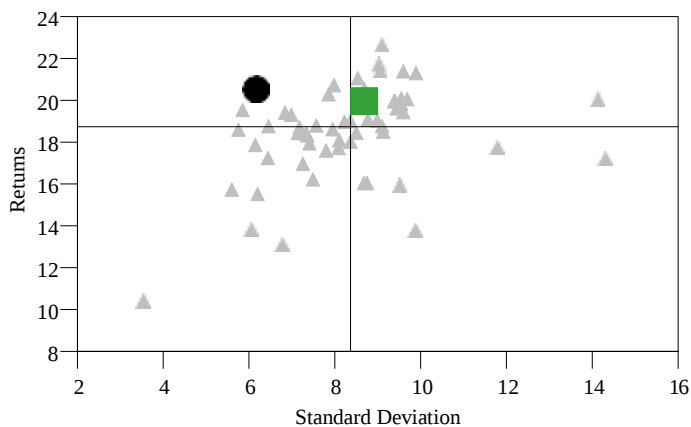
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



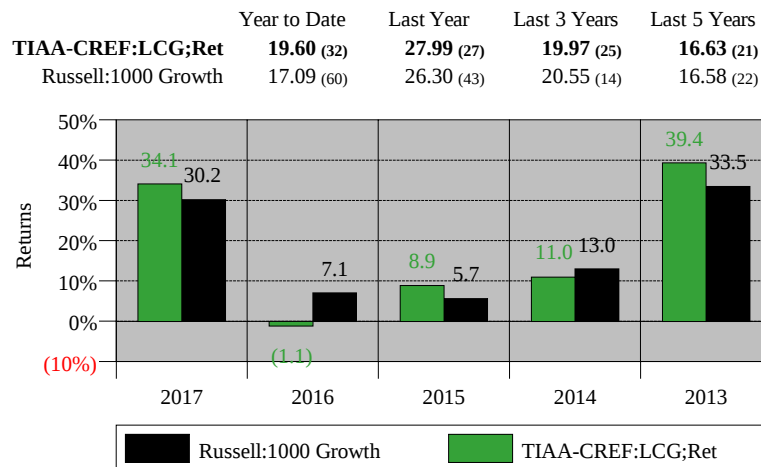
TIAA-CREF:LCG;Ret

Russell:1000 Growth - (Callan Large Cap Growth MF)

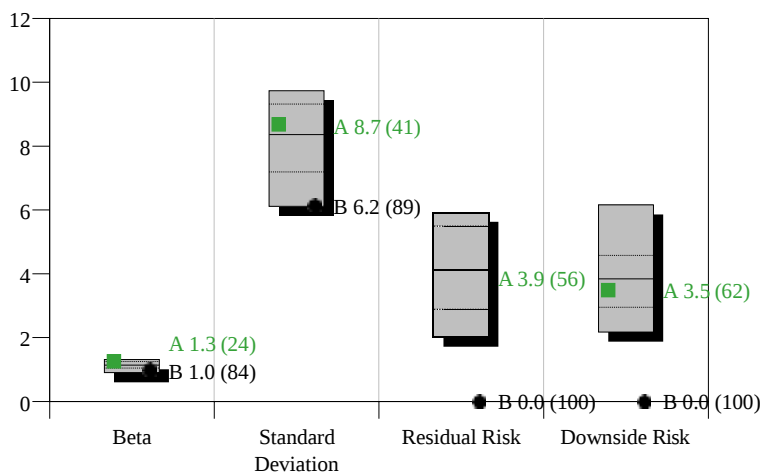
Scatter Chart
for 3 Years Ended September 30, 2018



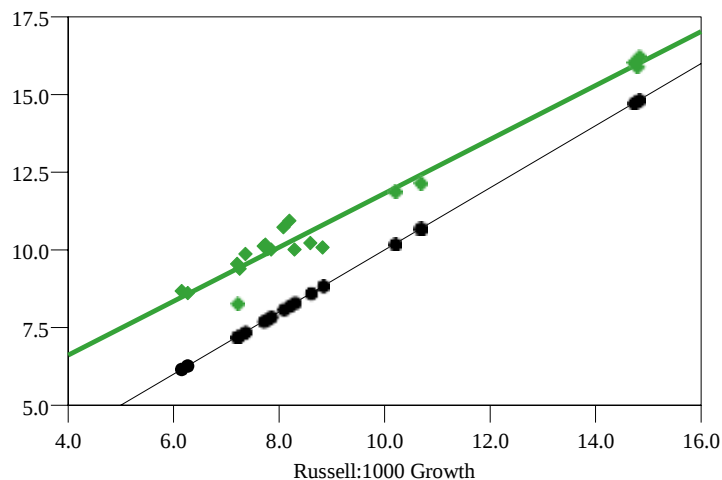
Returns for Various Periods



Risk Statistics for 3 Years

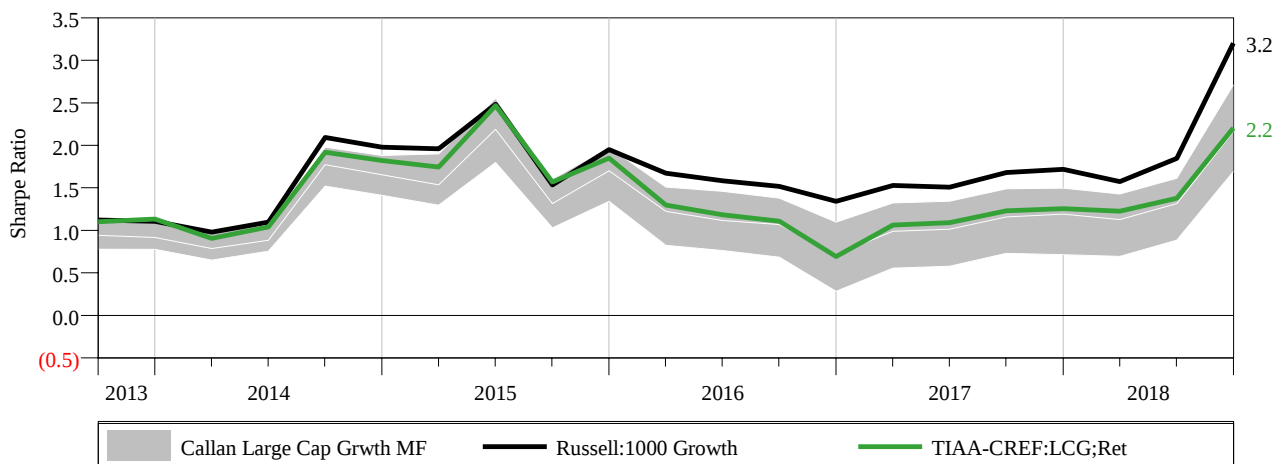


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:LCG;Ret	(5.04) (69)	2.20 (48)	15.18 (63)	(1.29) (72)	(0.17) (28)
Russell:1000 Growth	0.00 (10)	3.20 (2)	19.71 (10)	0.00 (10)	--

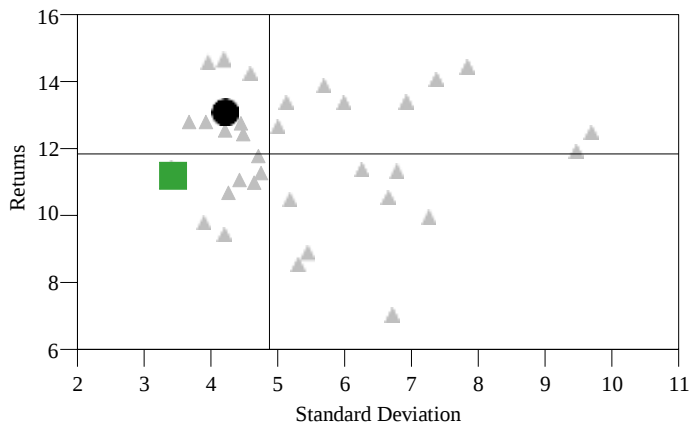


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

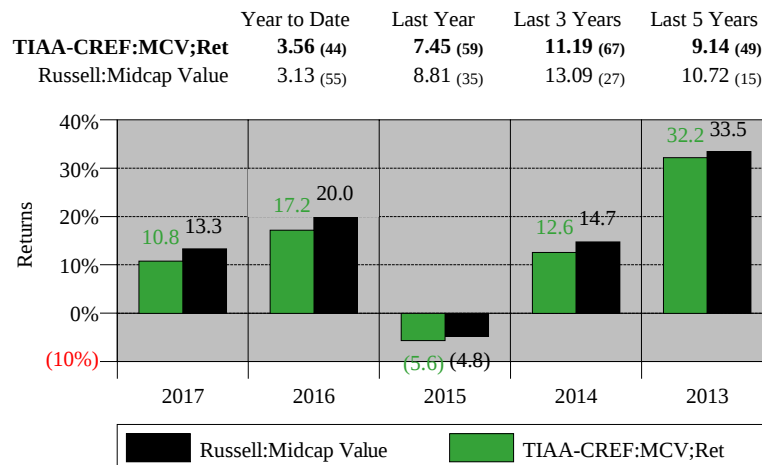
TIAA-CREF:MCV;Ret

Russell:Midcap Value - (Callan Mid Cap Value MFs)

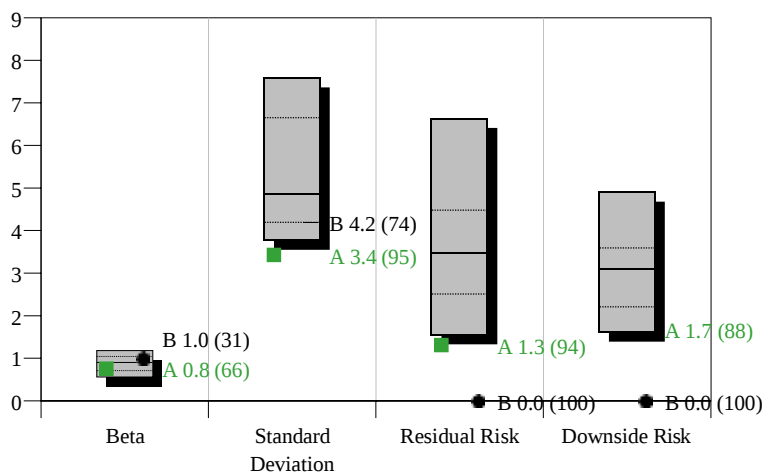
Scatter Chart
for 3 Years Ended September 30, 2018



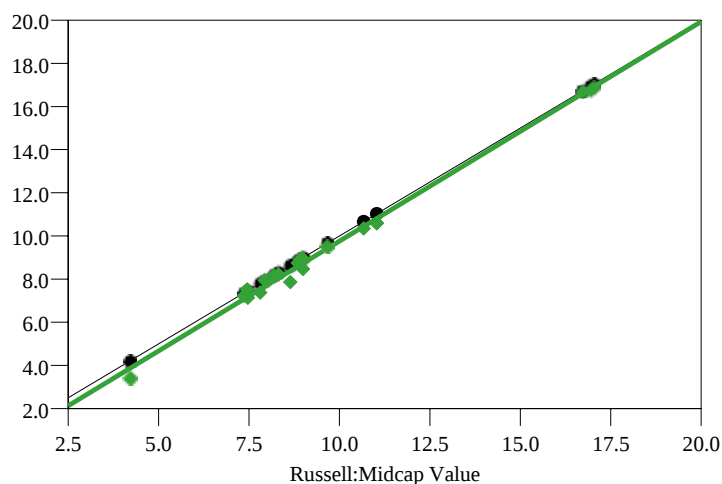
Returns for Various Periods



Risk Statistics for 3 Years



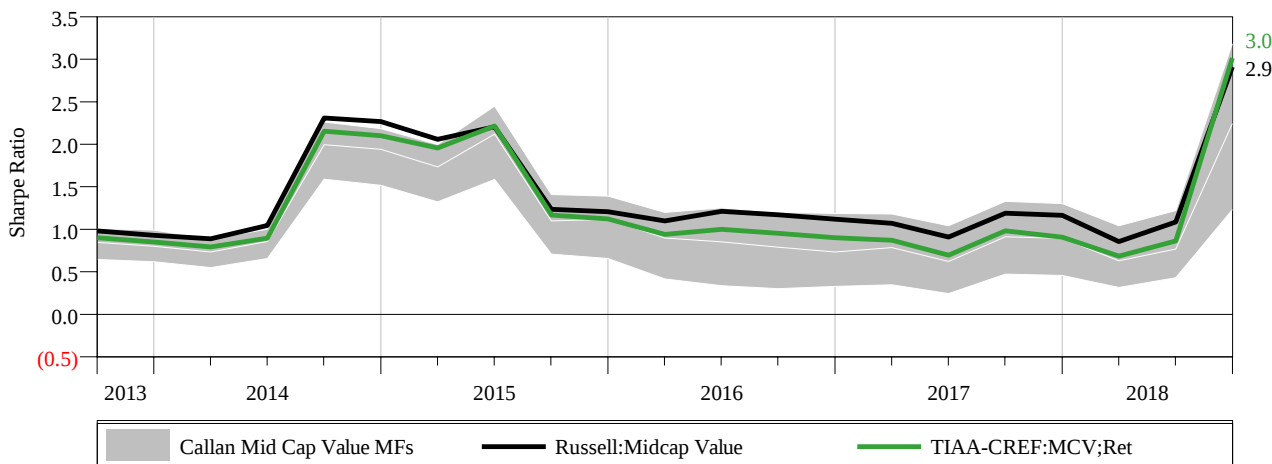
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:MCV;Ret	1.03 (46)	3.02 (18)	13.59 (46)	0.78 (29)	(1.12) (86)
Russell:Midcap Value	0.00 (53)	2.91 (20)	12.25 (52)	0.00 (53)	--

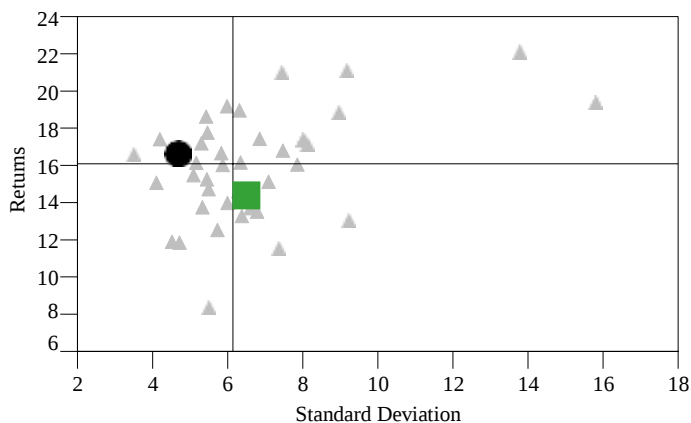
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



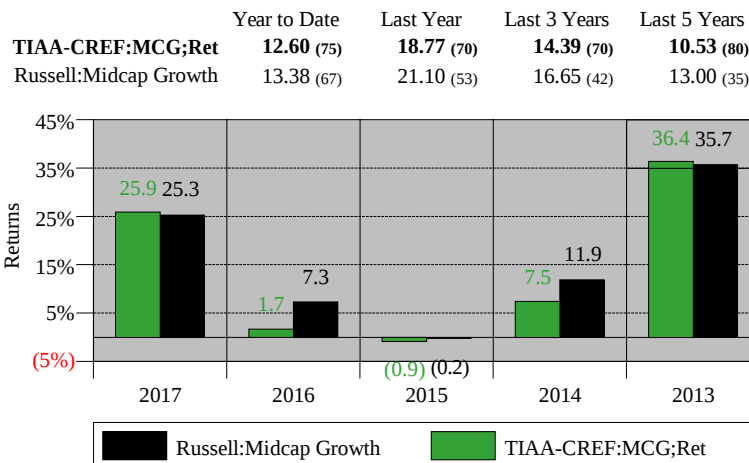
TIAA-CREF:MCG;Ret

Russell:Midcap Growth - (Callan Mid Cap Growth MFs)

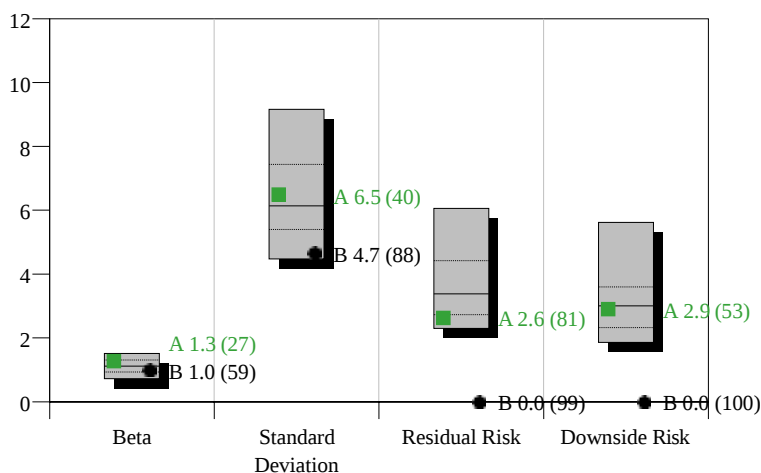
Scatter Chart
for 3 Years Ended September 30, 2018



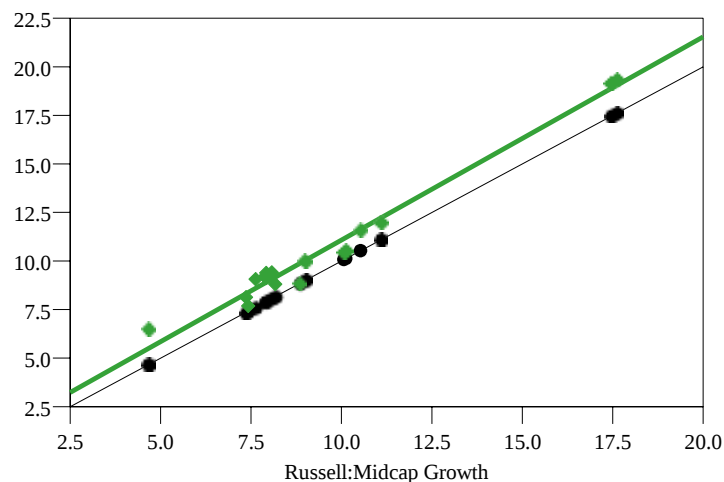
Returns for Various Periods



Risk Statistics for 3 Years



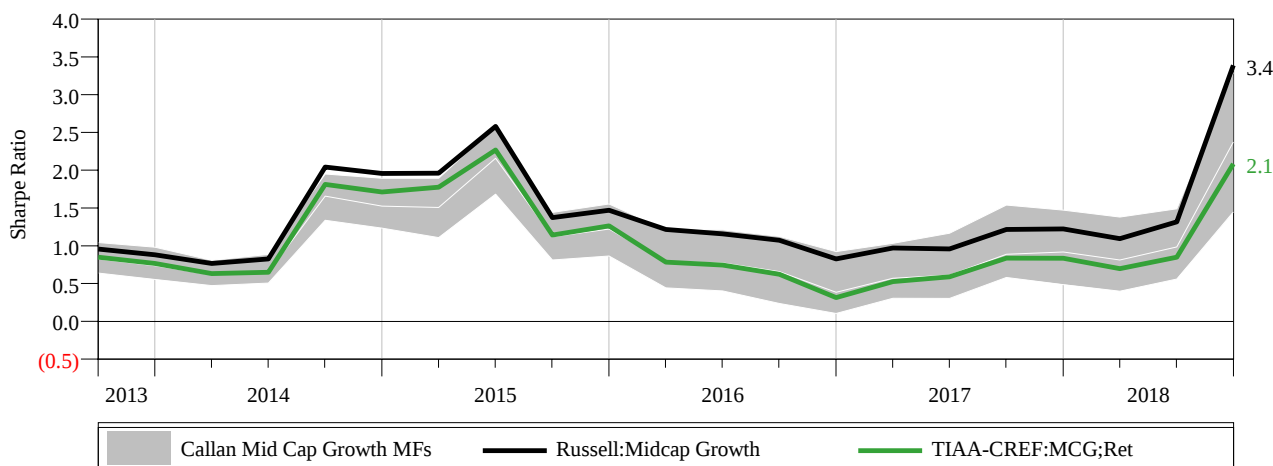
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:MCG;Ret	(5.97) (79)	2.09 (63)	10.59 (78)	(2.27) (96)	(0.78) (72)
Russell:Midcap Growth	0.00 (36)	3.39 (9)	15.81 (36)	0.00 (37)	--

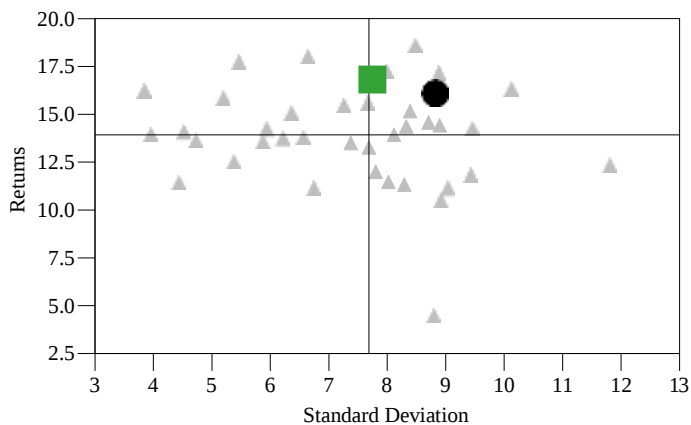
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



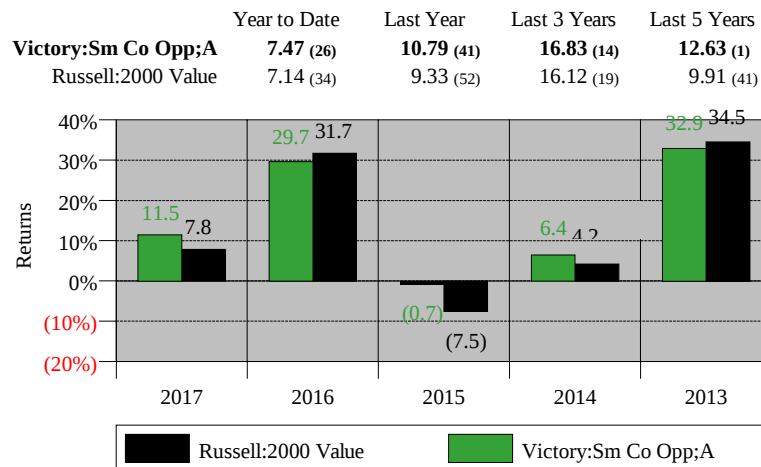
Victory:Sm Co Opp;A

Russell:2000 Value - (Callan Sm Cap Value MF)

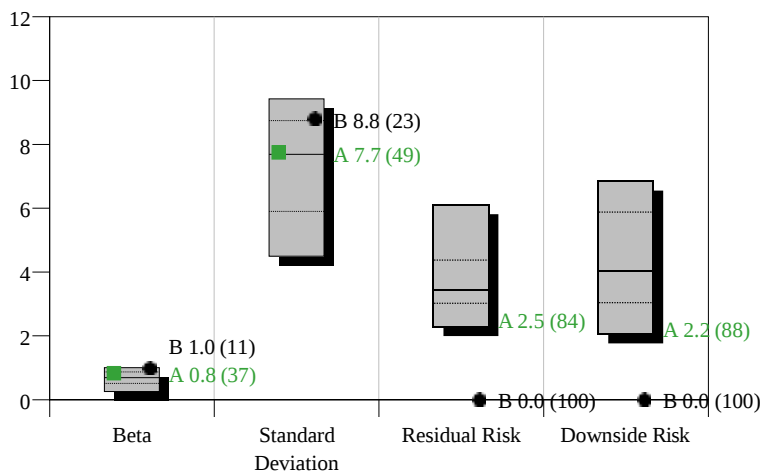
Scatter Chart
for 3 Years Ended September 30, 2018



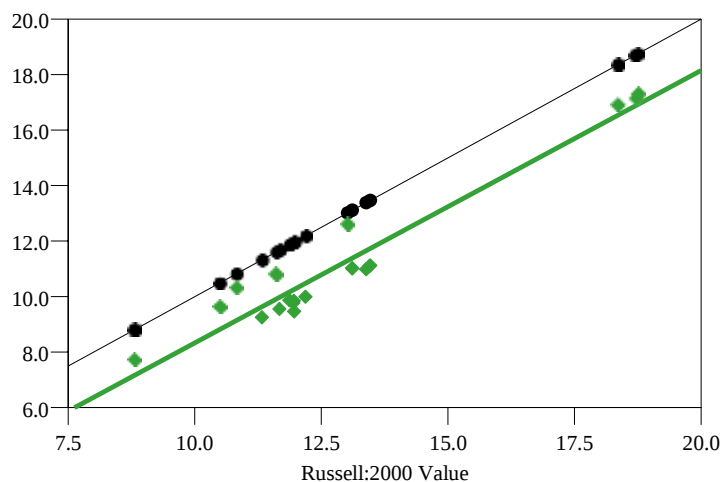
Returns for Various Periods



Risk Statistics for 3 Years



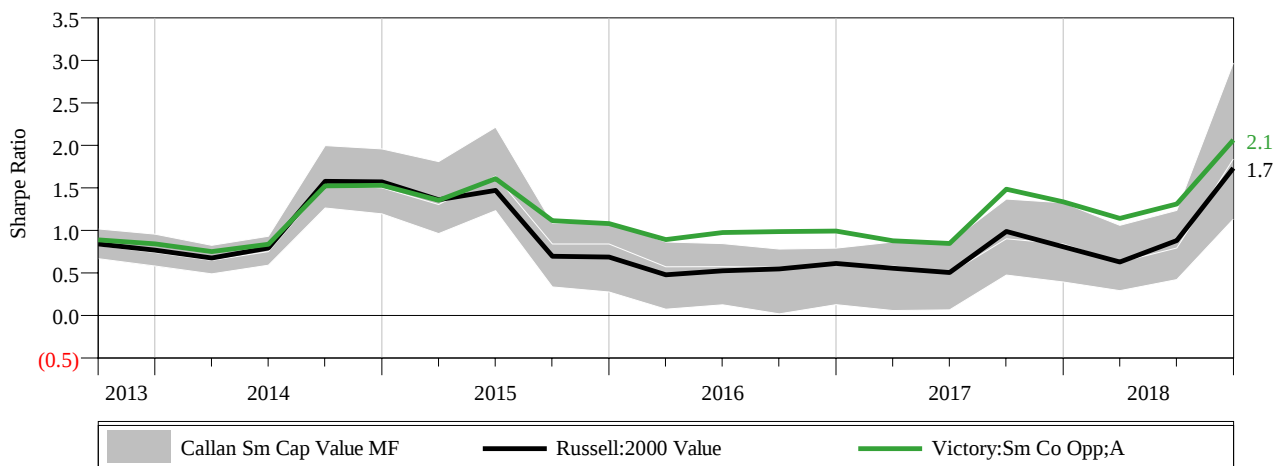
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Victory:Sm Co Opp;A	3.08 (49)	2.06 (39)	19.25 (47)	1.21 (40)	0.32(12)
Russell:2000 Value	0.00 (70)	1.73 (52)	15.28 (70)	0.00 (70)	--

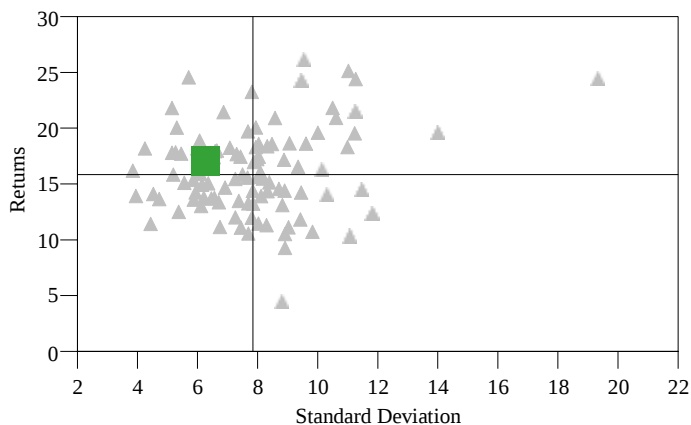
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



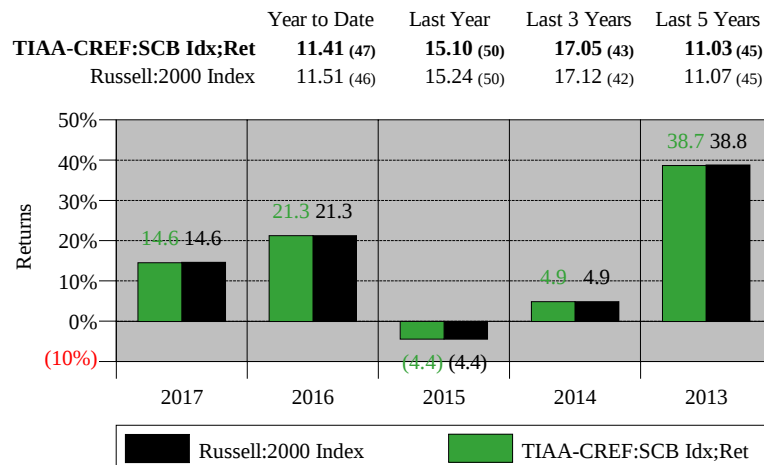
TIAA-CREF:SCB Idx;Ret

Russell:2000 Index - (Callan Small Cap MFs)

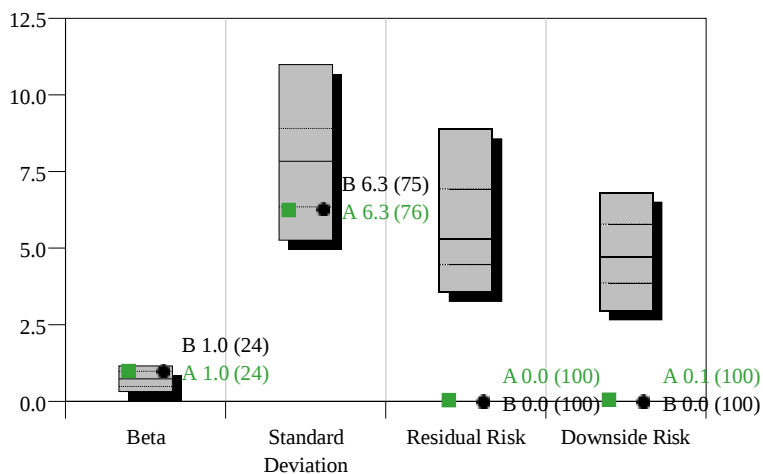
Scatter Chart
for 3 Years Ended September 30, 2018



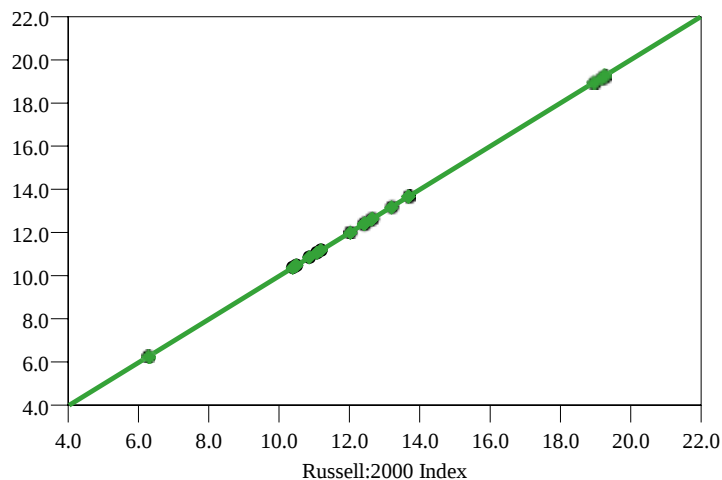
Returns for Various Periods



Risk Statistics for 3 Years



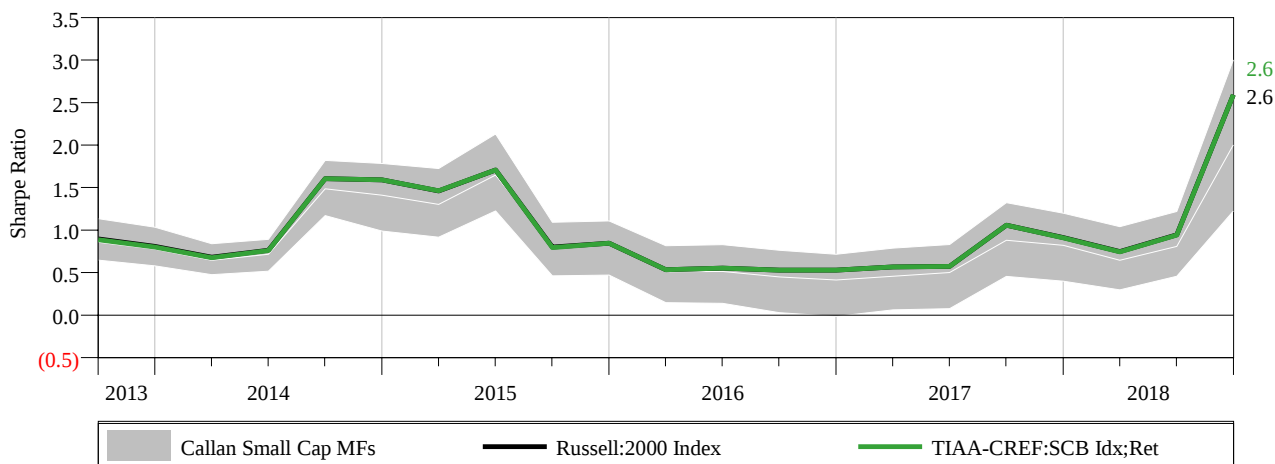
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:SCB Idx;Ret	0.00 (67)	2.59 (19)	16.28 (66)	0.04 (66)	(1.20) (92)
Russell:2000 Index	0.00 (67)	2.59 (19)	16.28 (66)	0.00 (67)	--

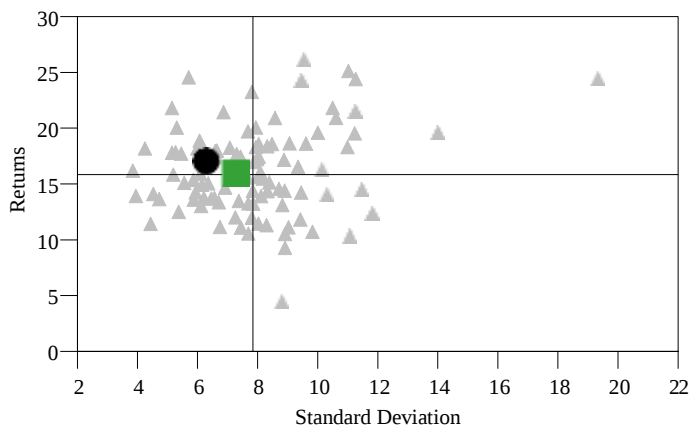
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



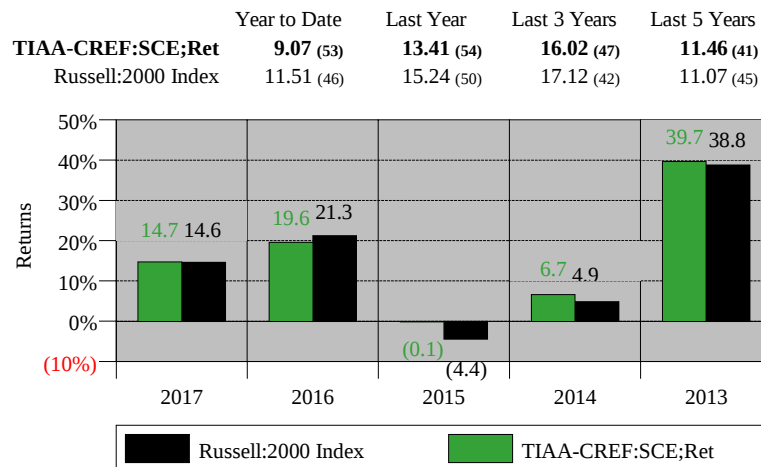
TIAA-CREF:SCE;Ret

Russell:2000 Index - (Callan Small Cap MFs)

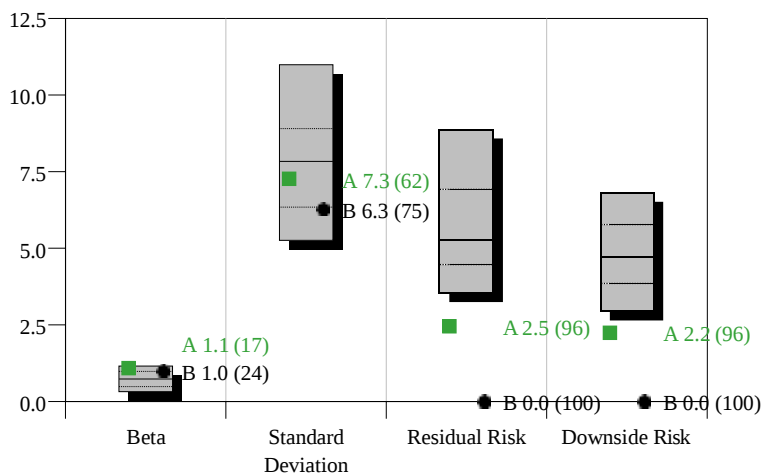
Scatter Chart
for 3 Years Ended September 30, 2018



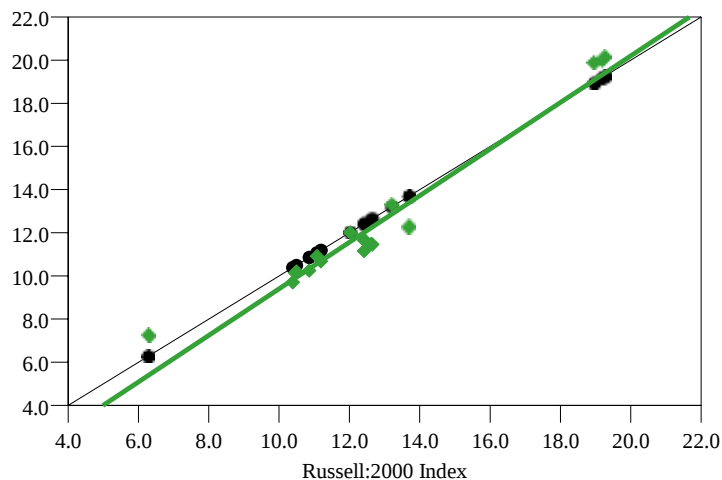
Returns for Various Periods



Risk Statistics for 3 Years



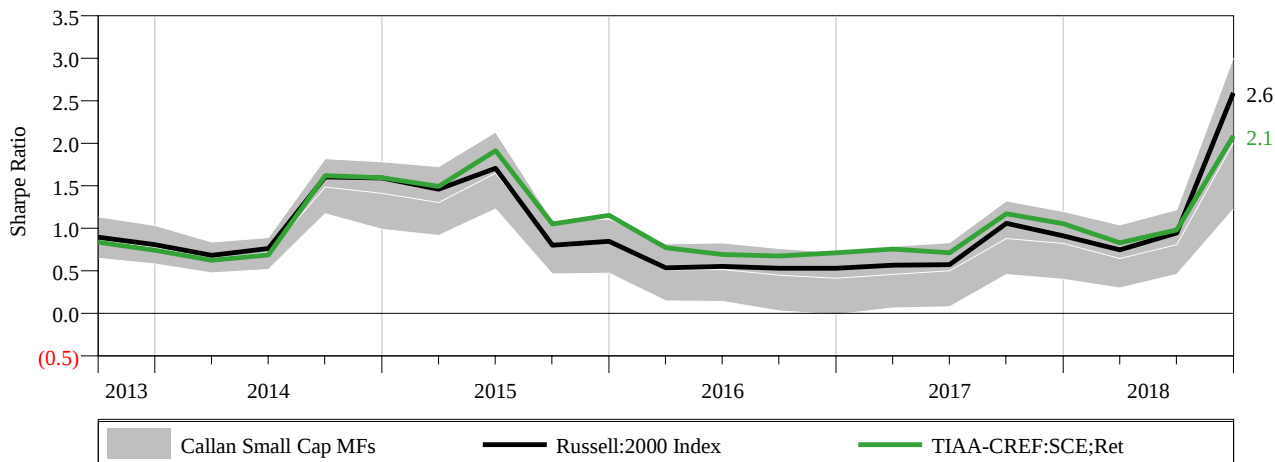
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:SCE;Ret	(2.34) (78)	2.09 (44)	13.89 (74)	(0.95) (81)	(0.49) (57)
Russell:2000 Index	0.00 (67)	2.59 (19)	16.28 (66)	0.00 (67)	--

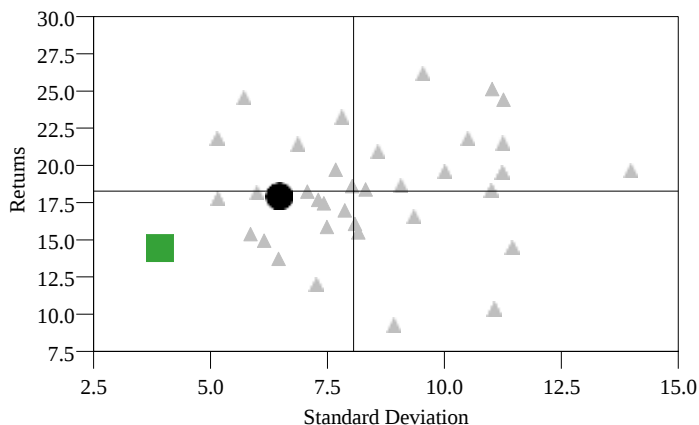
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



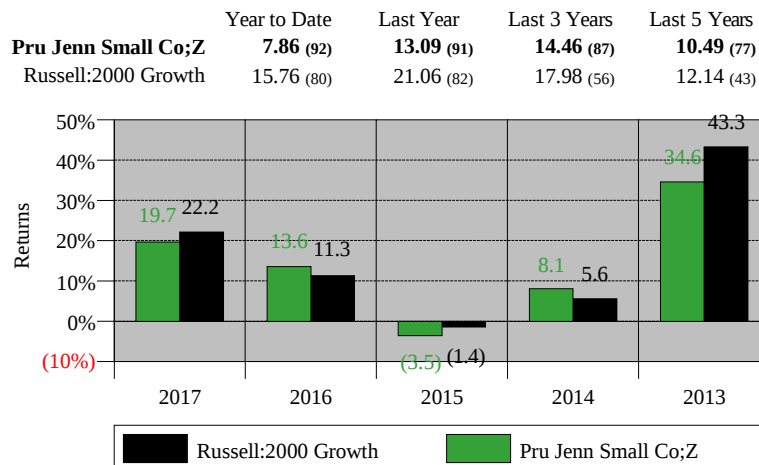
Pru Jenn Small Co;Z

Russell:2000 Growth - (Callan Sm Cap Growth MF)

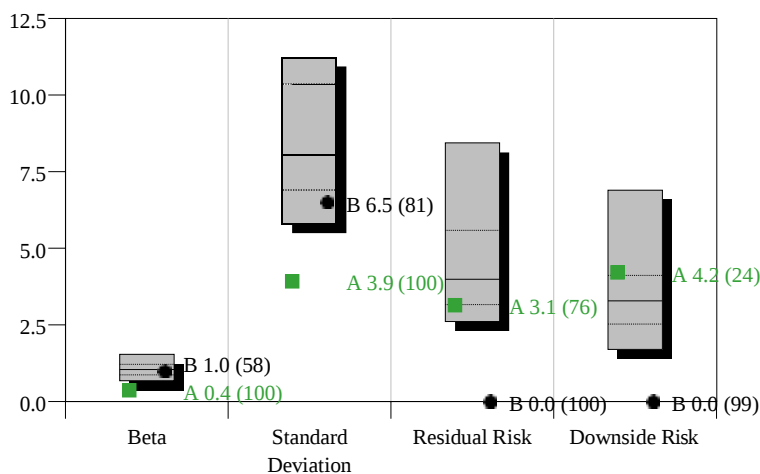
Scatter Chart
for 3 Years Ended September 30, 2018



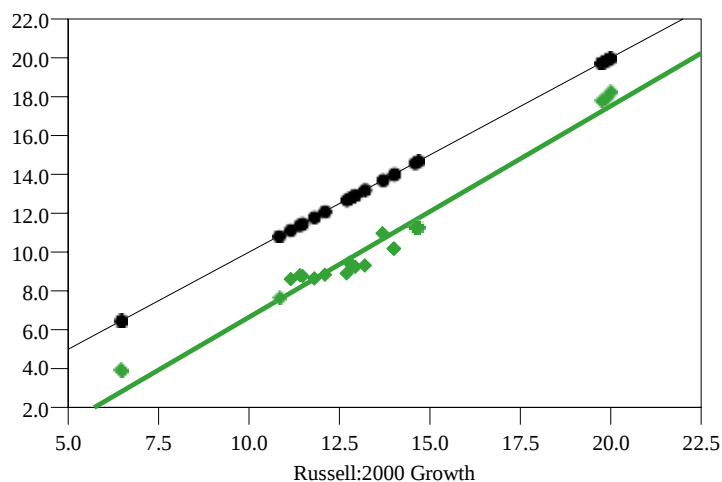
Returns for Various Periods



Risk Statistics for 3 Years



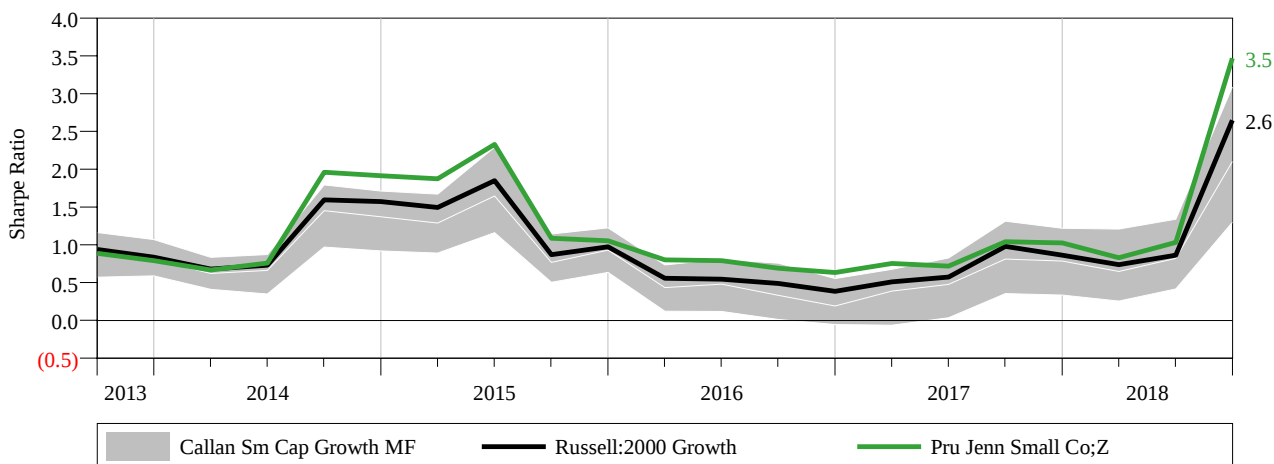
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Pru Jenn Small Co;Z	7.06 (8)	3.47 (8)	36.36 (4)	2.24 (8)	(0.84) (84)
Russell:2000 Growth	0.00 (41)	2.65 (19)	17.14 (41)	0.00 (41)	--

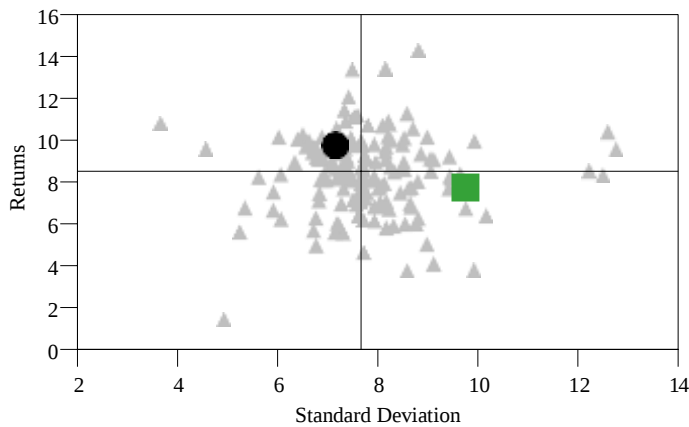
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



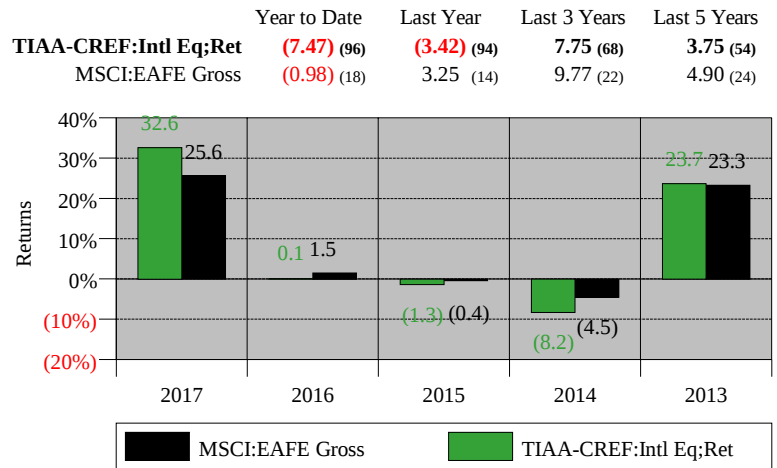
TIAA-CREF:Intl Eq;Ret

MSCI:EAFE Gross - (Callan Intl Lg Cap Cor MF)

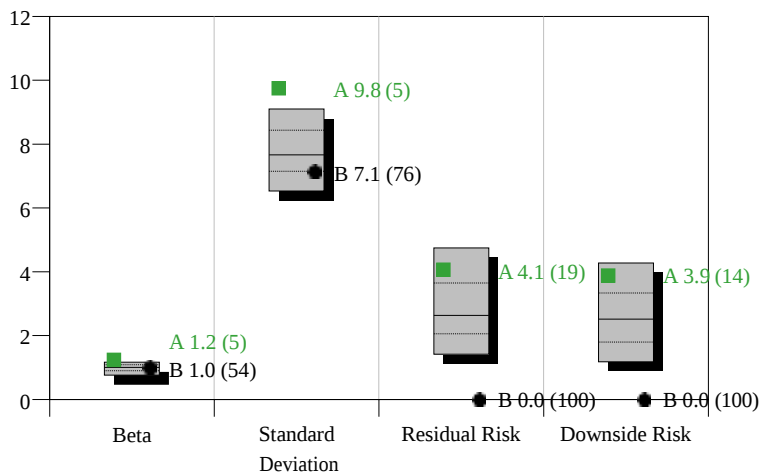
Scatter Chart
for 3 Years Ended September 30, 2018



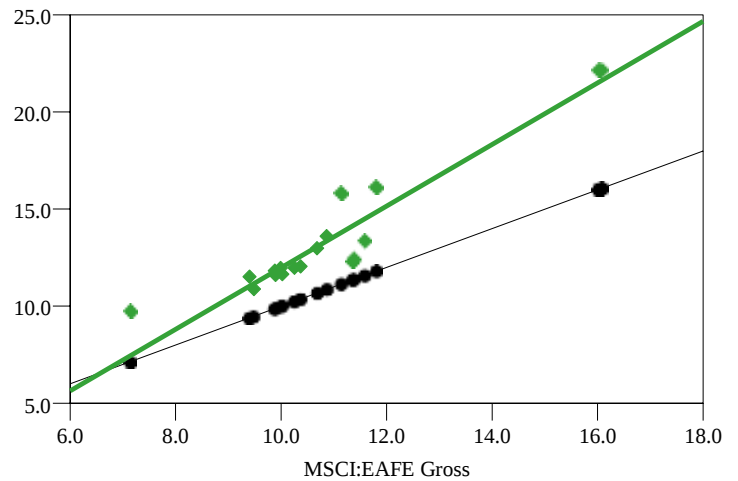
Returns for Various Periods



Risk Statistics for 3 Years



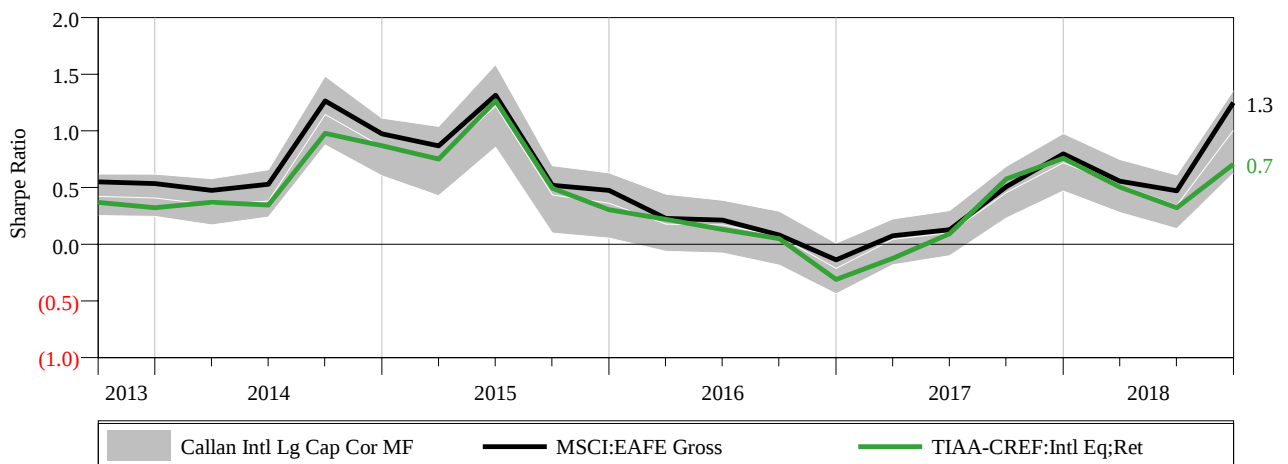
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Intl Eq;Ret	(3.78) (89)	0.71 (85)	5.56 (85)	(0.93) (70)	(0.52) (49)
MSCI:EAFE Gross	0.00 (31)	1.25 (17)	8.93 (31)	0.00 (31)	--

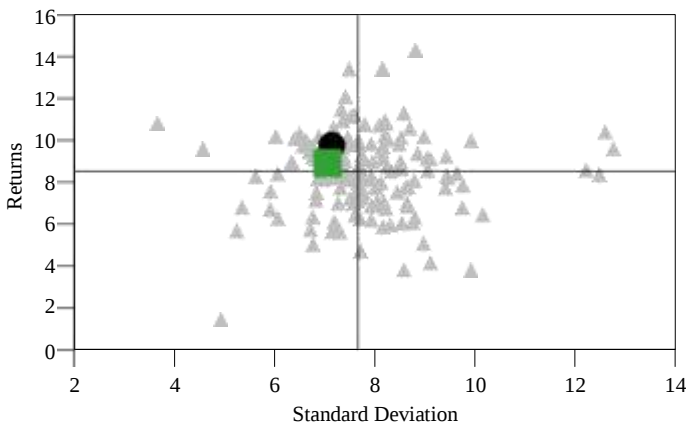
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



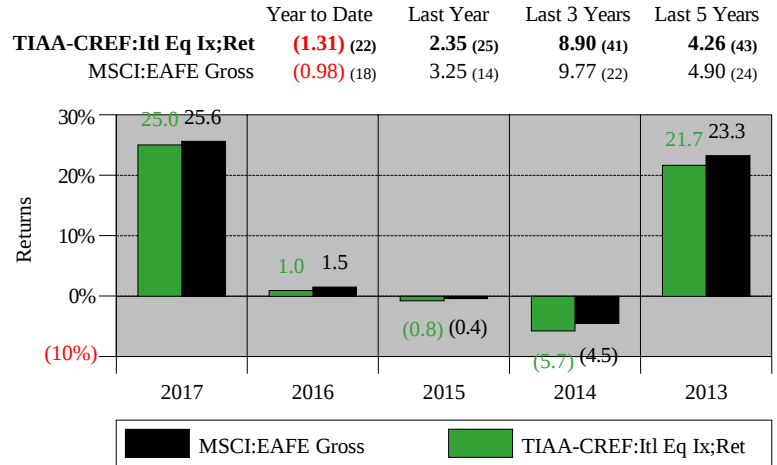
TIAA-CREF:Itl Eq Ix;Ret

MSCI:EAFE Gross - (Callan Intl Lg Cap Cor MF)

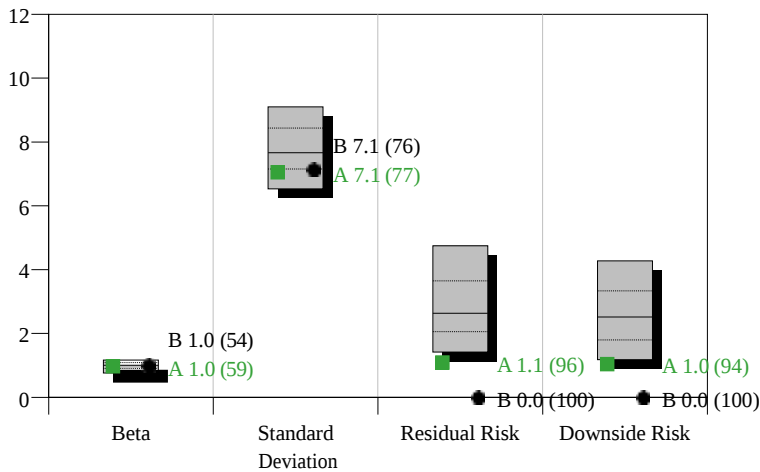
Scatter Chart
for 3 Years Ended September 30, 2018



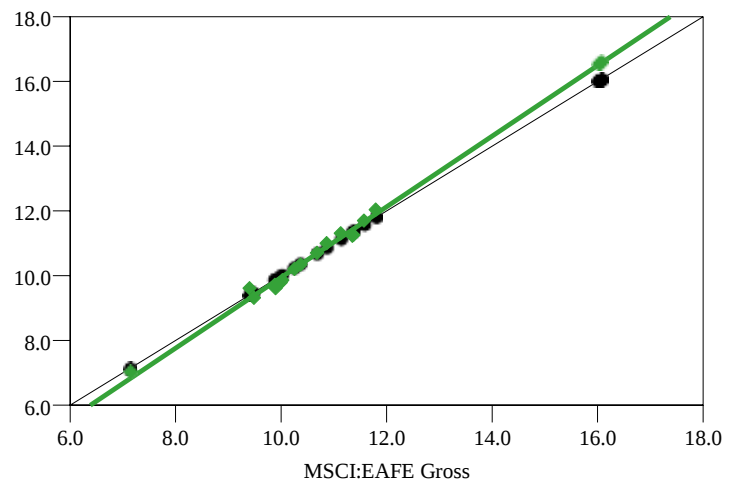
Returns for Various Periods



Risk Statistics for 3 Years



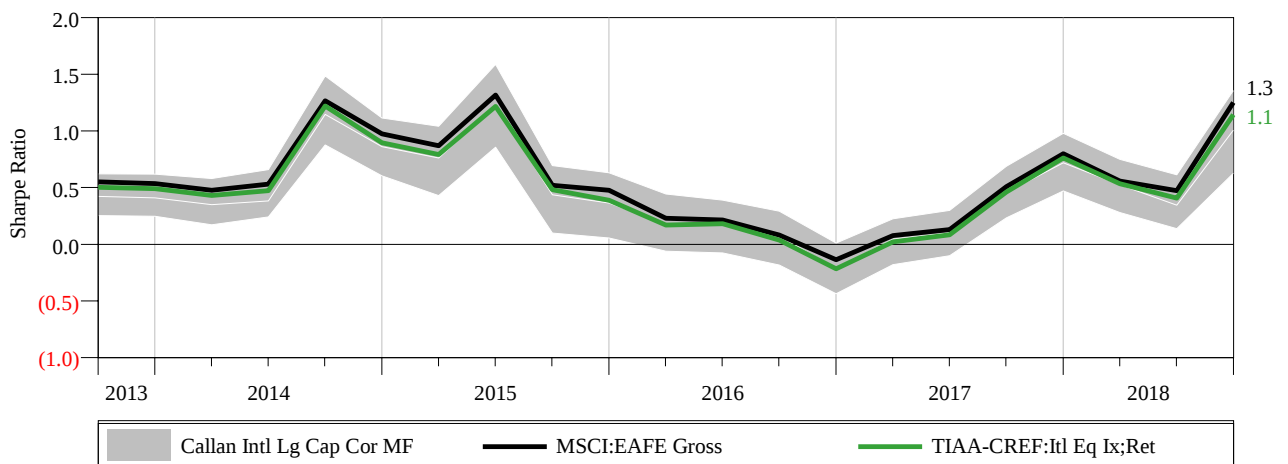
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

TIAA-CREF:Itl Eq Ix;Ret	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
MSCI:EAFE Gross	(0.60) (38)	1.14 (28)	8.26 (38)	(0.55) (53)	(0.83) (67)
	0.00 (31)	1.25 (17)	8.93 (31)	0.00 (31)	--

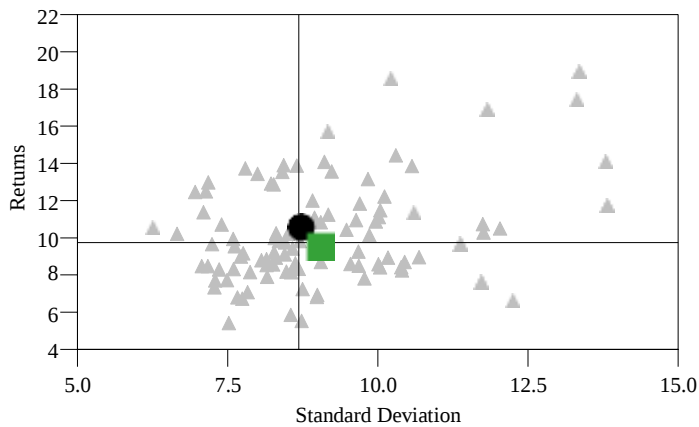
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



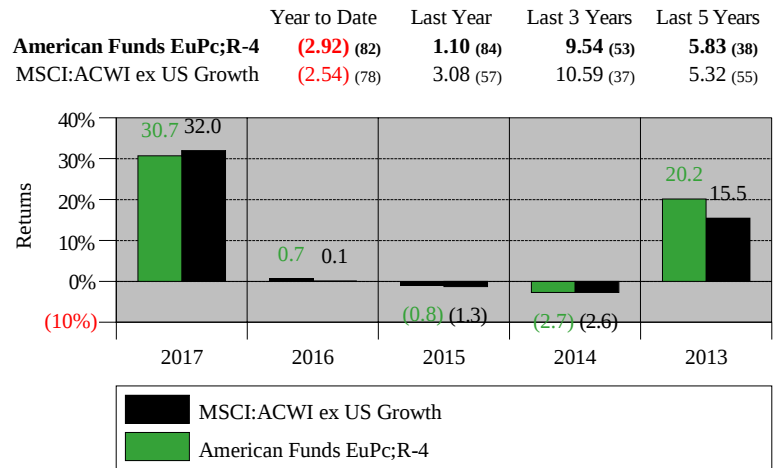
American Funds EuPc;R-4

MSCI:ACWI ex US Growth - (Callan Intl Lg Cap Gr MF)

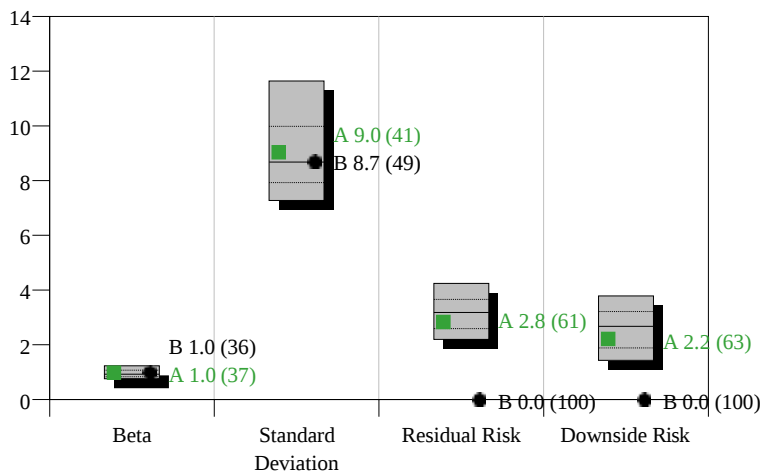
Scatter Chart
for 3 Years Ended September 30, 2018



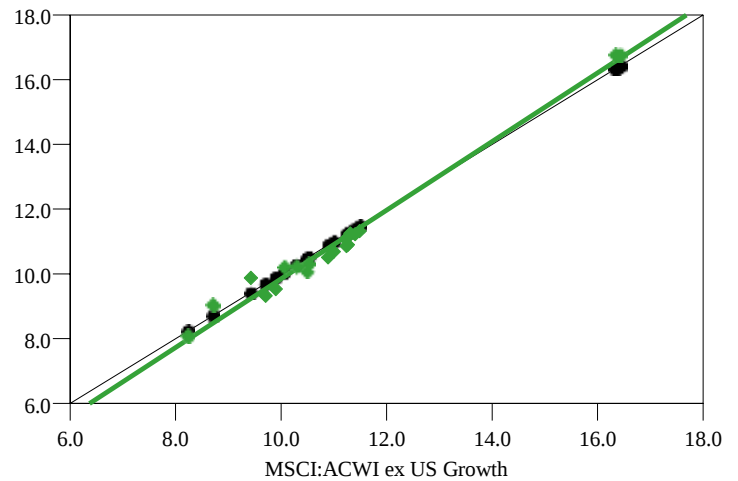
Returns for Various Periods



Risk Statistics for 3 Years



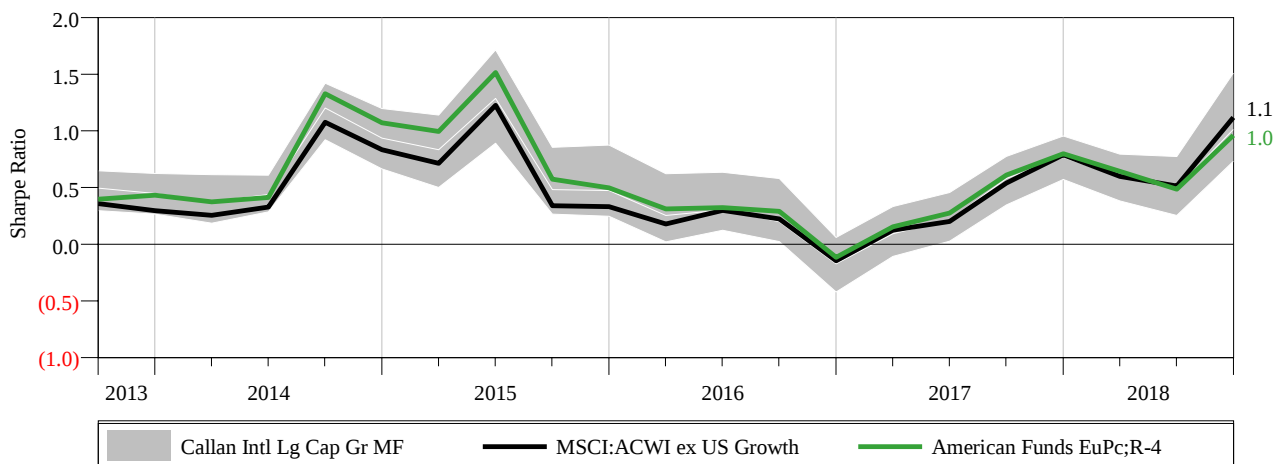
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
American Funds EuPc;R-4	(0.82) (62)	0.96 (59)	8.82 (60)	(0.29) (62)	(0.47) (56)
MSCI:ACWI ex US Growth	0.00 (44)	1.12 (34)	9.75 (44)	0.00 (44)	--

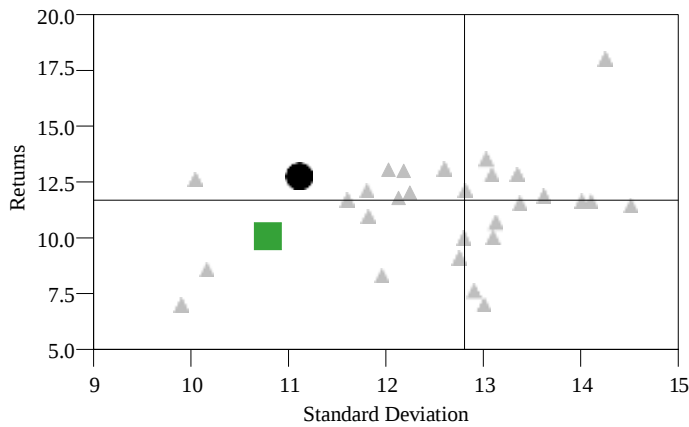
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



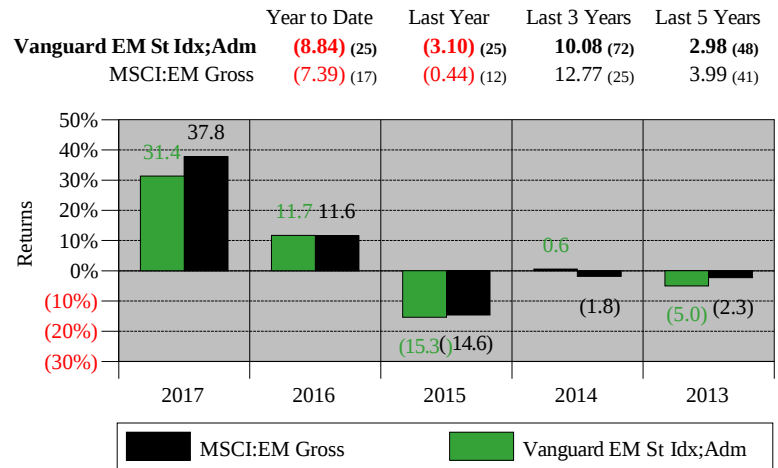
Vanguard EM St Idx;Adm

MSCI:EM Gross - (Callan Emerging Equity MF)

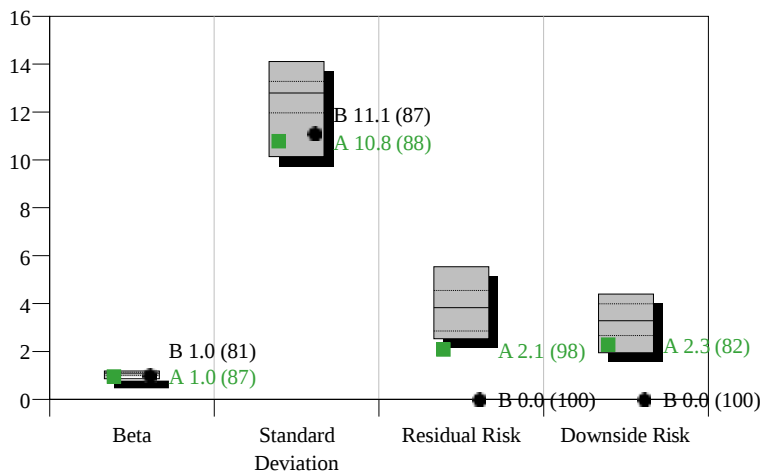
Scatter Chart
for 3 Years Ended September 30, 2018



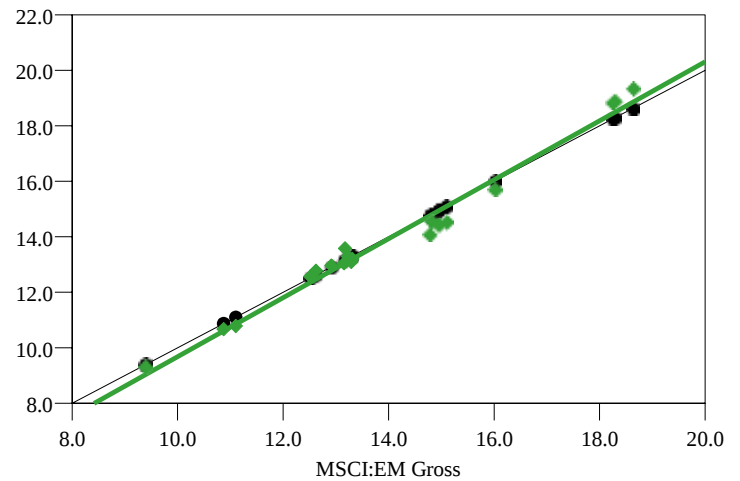
Returns for Various Periods



Risk Statistics for 3 Years

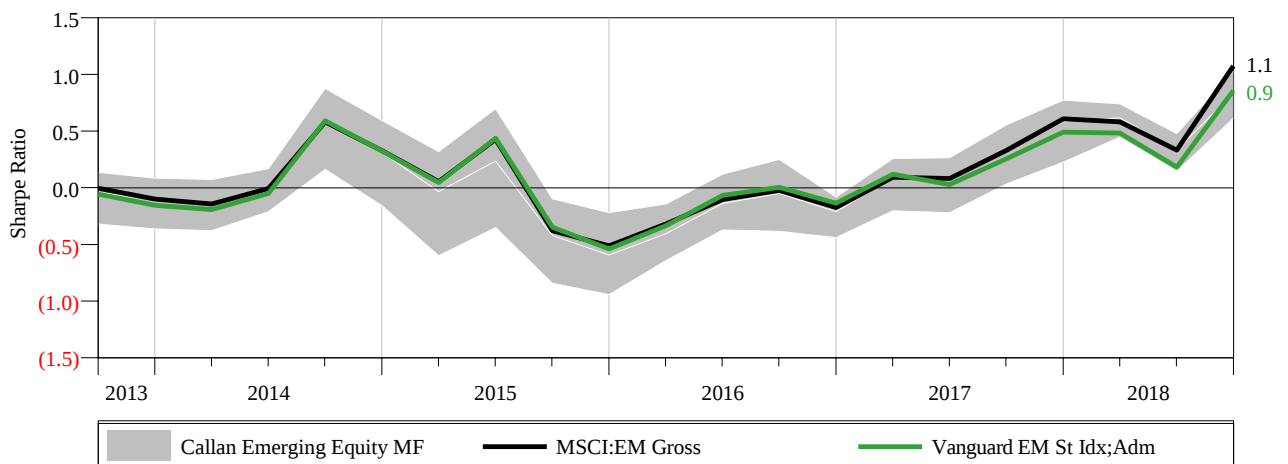


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

Vanguard EM St Idx;Adm	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
MSCI:EM Gross	(1.95) (48)	0.86 (48)	9.68 (50)	(0.94) (80)	(1.17) (91)
	0.00 (10)	1.07 (9)	11.93 (10)	0.00 (10)	--

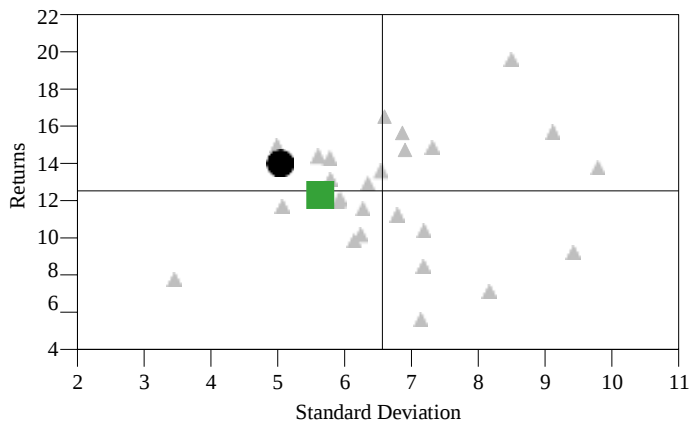


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

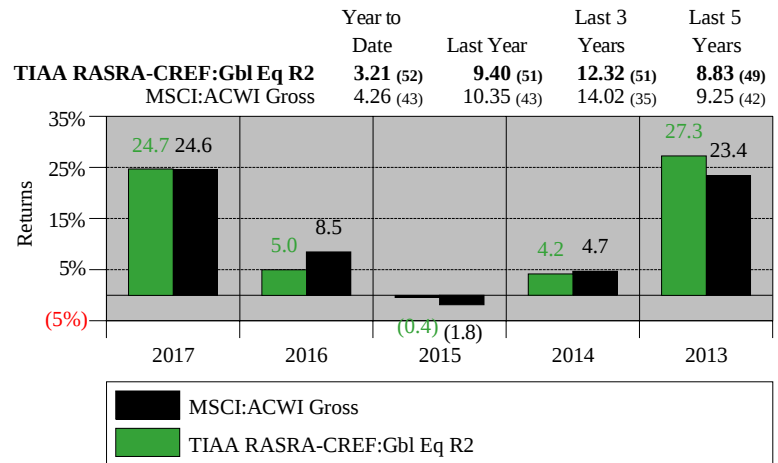
TIAA RASRA-CREF:Gbl Eq R2

MSCI:ACWI Gross - (Callan Global Equity MFs)

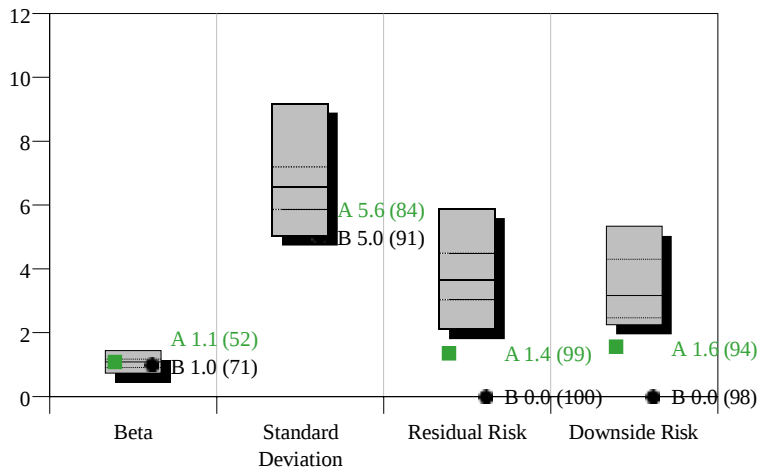
Scatter Chart
for 3 Years Ended September 30, 2018



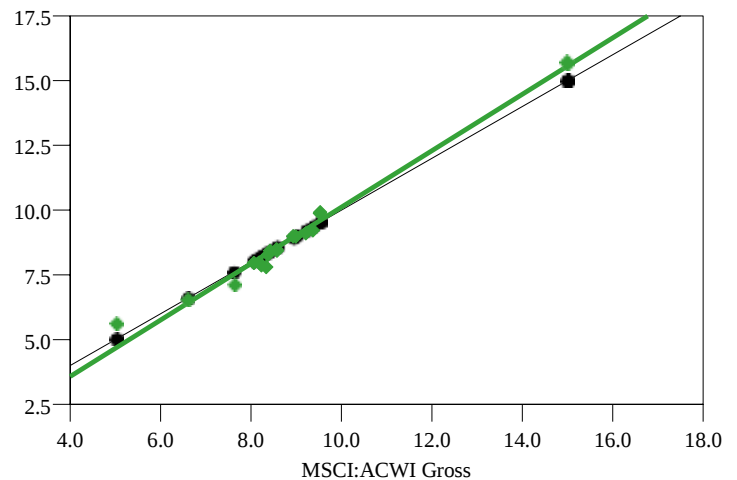
Returns for Various Periods



Risk Statistics for 3 Years



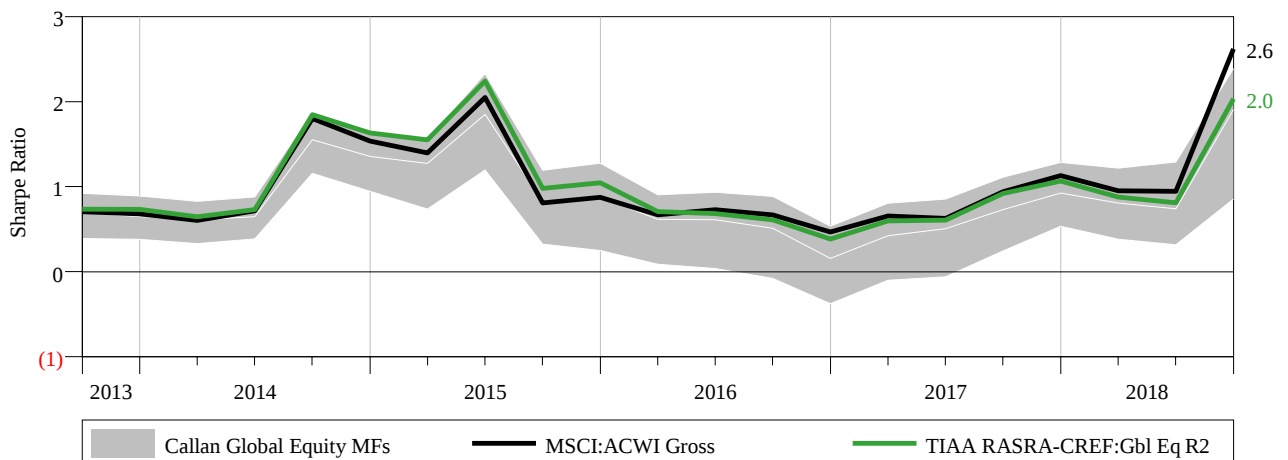
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Gbl Eq R2	(2.55) (68)	2.04 (33)	10.59 (65)	(1.88) (86)	(1.09) (80)
MSCI:ACWI Gross	0.00 (30)	2.62 (6)	13.18 (25)	0.00 (30)	--

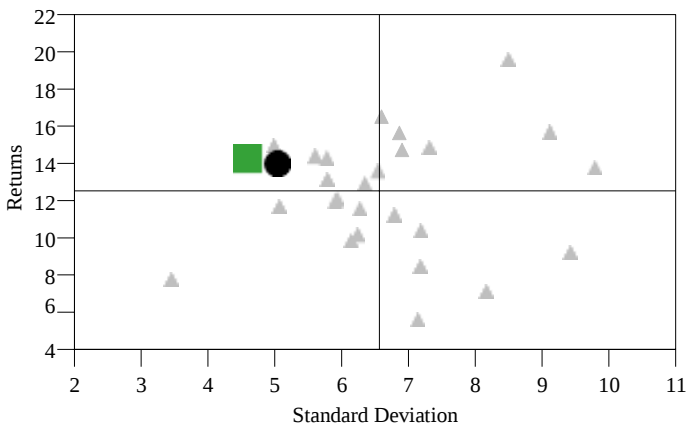
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



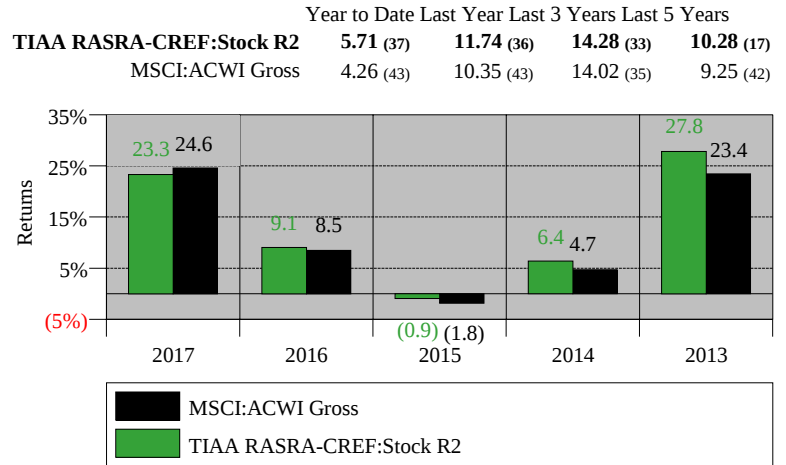
TIAA RASRA-CREF:Stock R2

MSCI:ACWI Gross - (Callan Global Equity MFs)

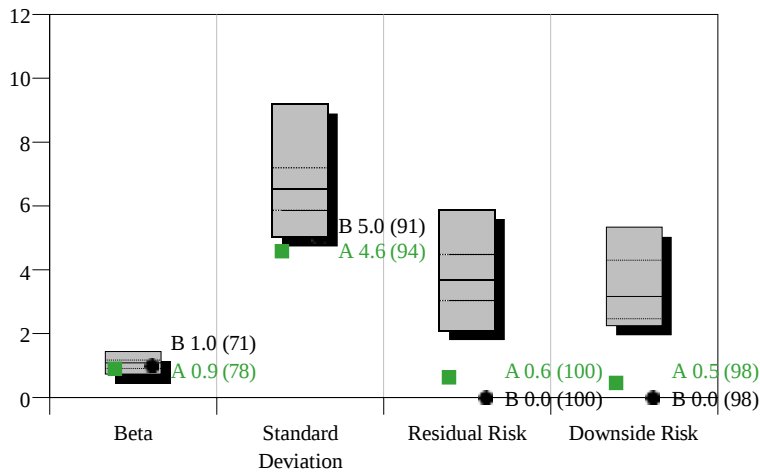
Scatter Chart
for 3 Years Ended September 30, 2018



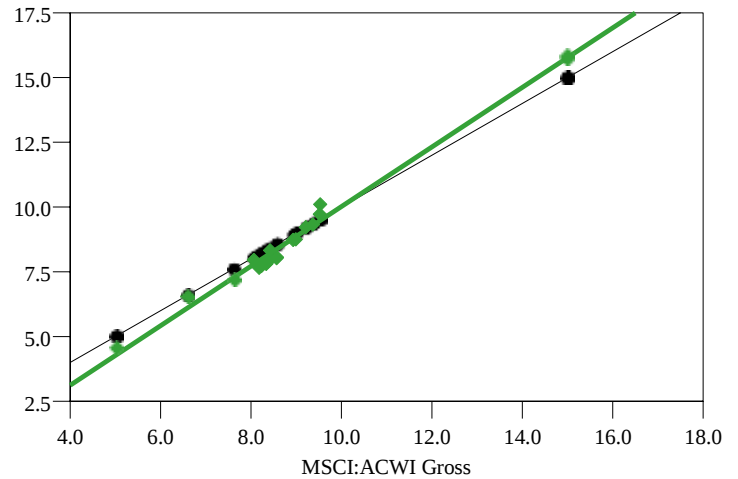
Returns for Various Periods



Risk Statistics for 3 Years



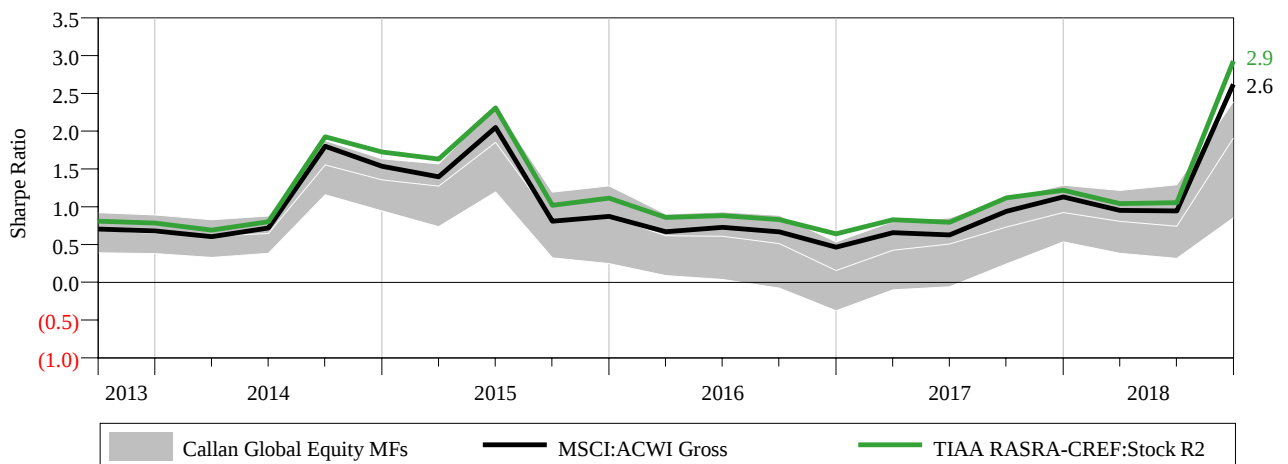
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Stock R2	1.47 (13)	2.93 (3)	14.91 (12)	2.30 (2)	0.58(11)
MSCI:ACWI Gross	0.00 (30)	2.62 (6)	13.18 (25)	0.00 (30)	--

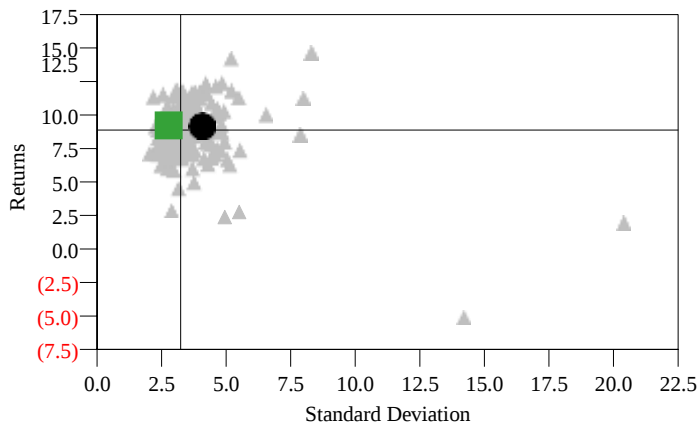
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



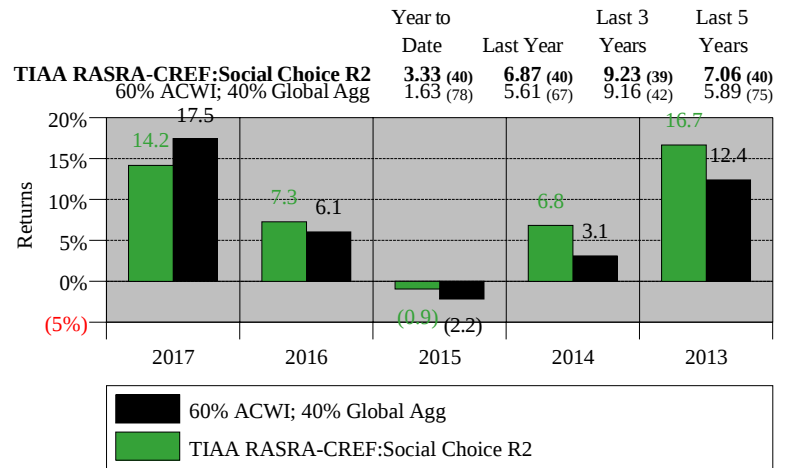
TIAA RASRA-CREF:Social Choice R2

60% ACWI; 40% Global Agg - (Morningstar Alloc 50-70 E)

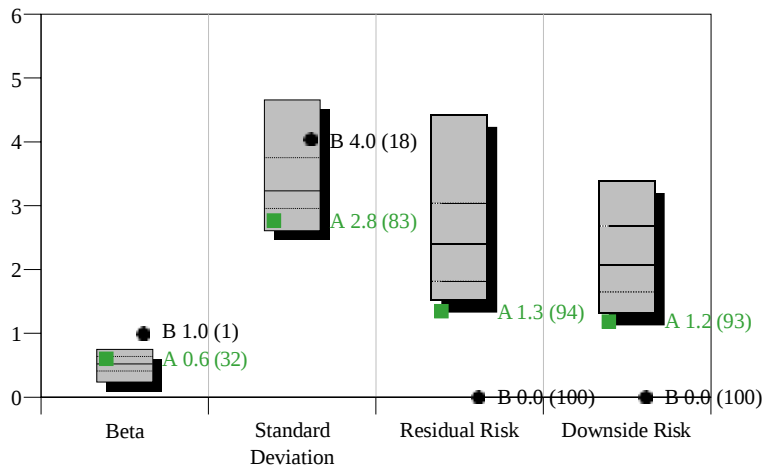
Scatter Chart
for 3 Years Ended September 30, 2018



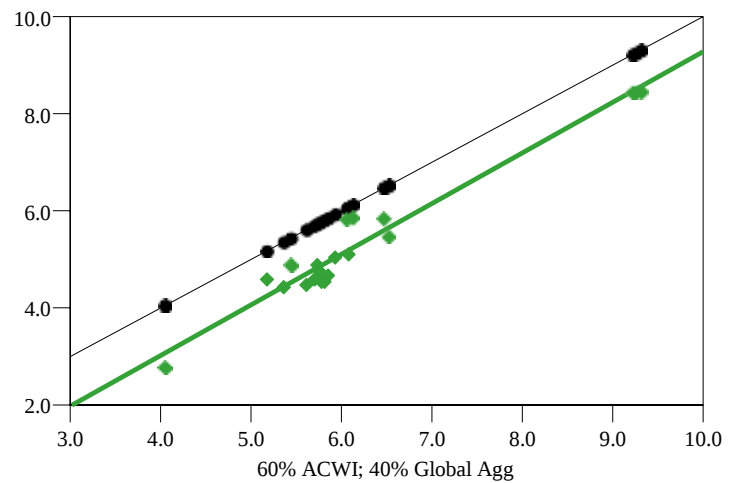
Returns for Various Periods



Risk Statistics for 3 Years



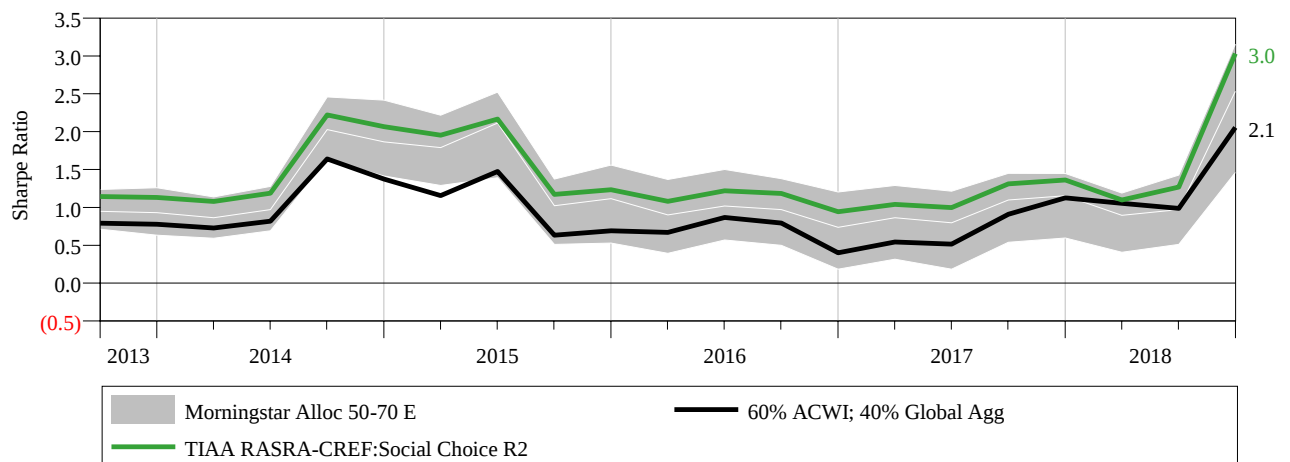
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Social Choice R2	3.27 (52)	3.03 (16)	13.90 (54)	2.43 (11)	0.06(38)
60% ACWI; 40% Global Agg	0.00 (95)	2.06 (75)	8.32 (92)	0.00 (95)	--

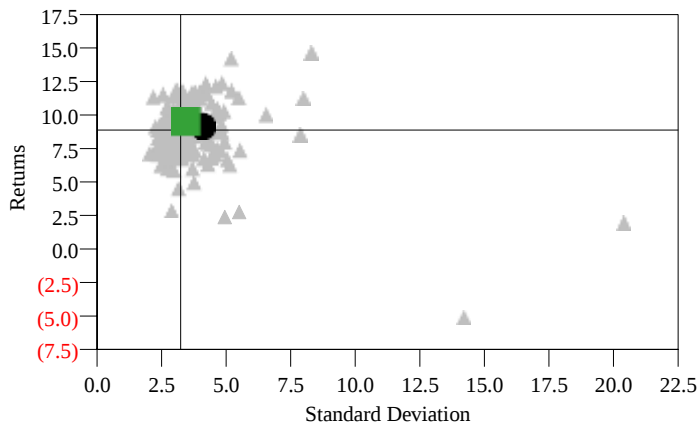
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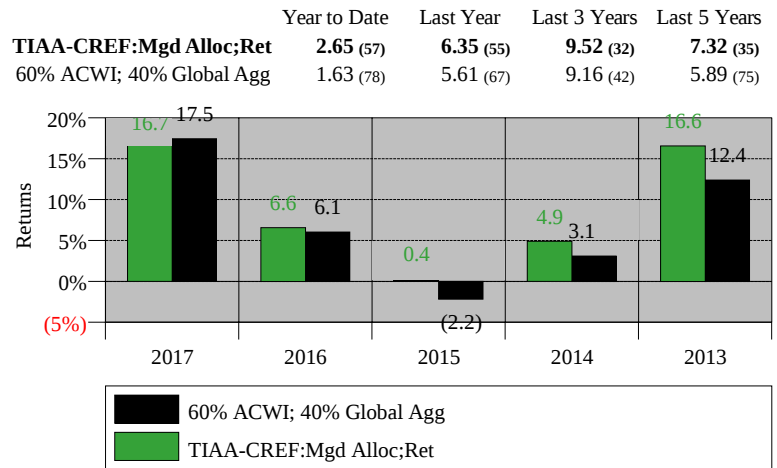
TIAA-CREF:Mgd Alloc;Ret

60% ACWI; 40% Global Agg - (Morningstar Alloc 50-70 E)

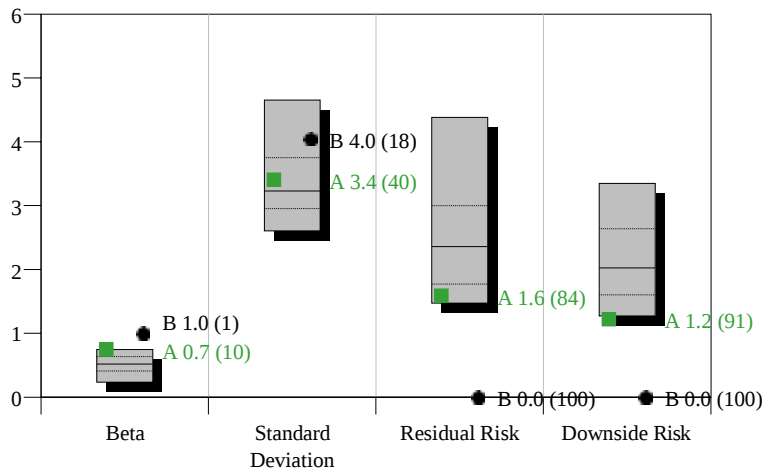
Scatter Chart
for 3 Years Ended September 30, 2018



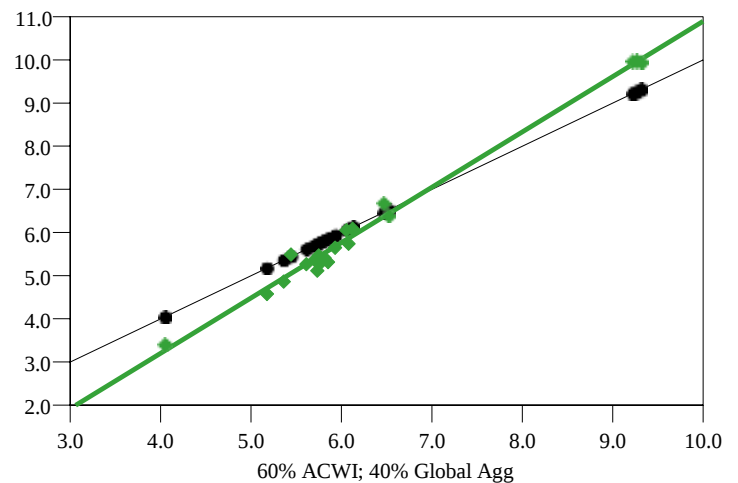
Returns for Various Periods



Risk Statistics for 3 Years



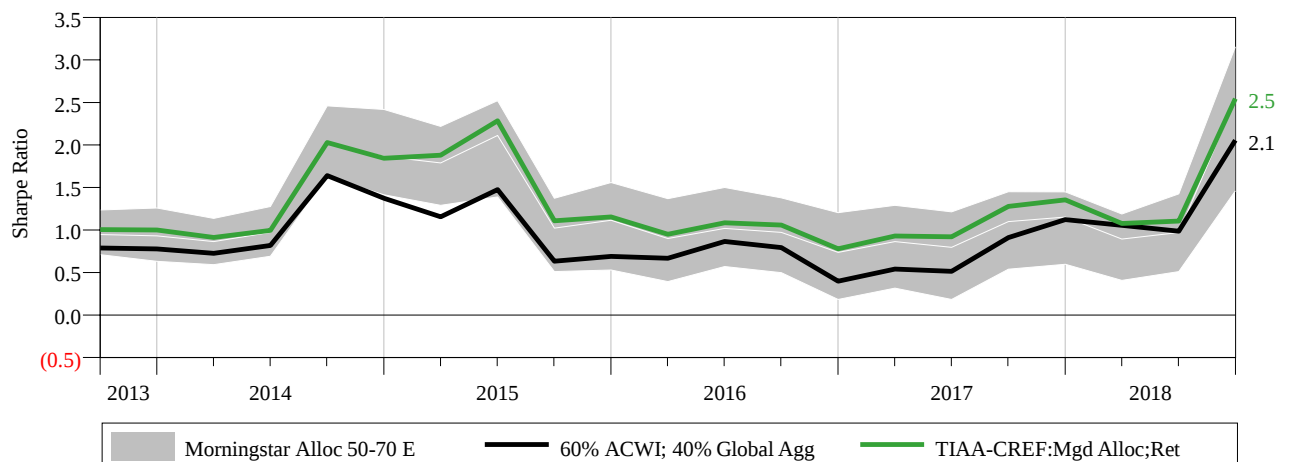
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Mgd Alloc;Ret	2.37 (71)	2.55 (47)	11.59 (74)	1.49 (57)	0.29 (29)
60% ACWI; 40% Global Agg	0.00 (95)	2.06 (75)	8.32 (92)	0.00 (95)	--

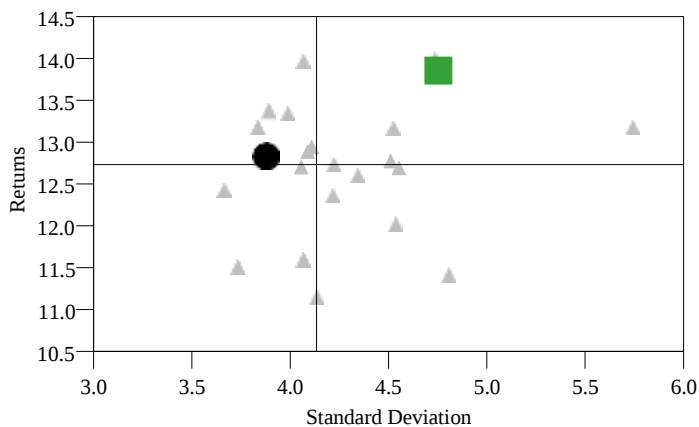
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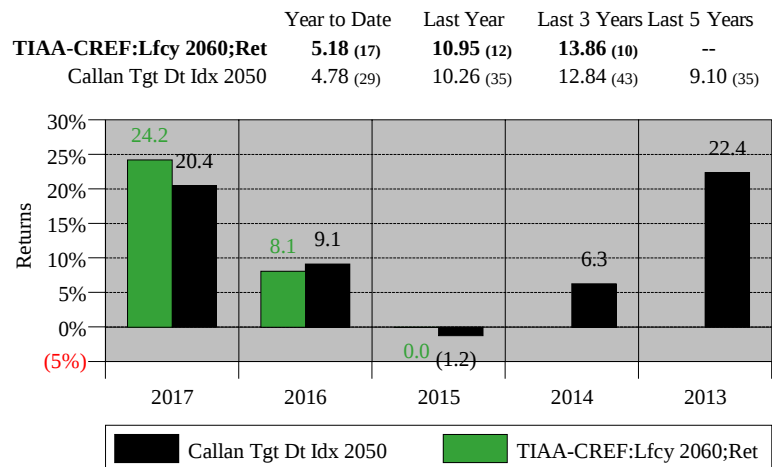
TIAA-CREF:Lfcy 2060;Ret

Callan Tgt Dt Idx 2050 - (Morningstar Target 2060+)

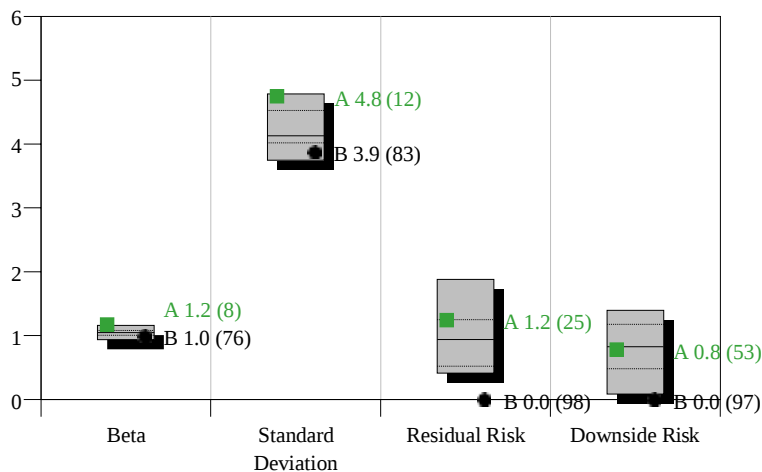
Scatter Chart
for 3 Years Ended September 30, 2018



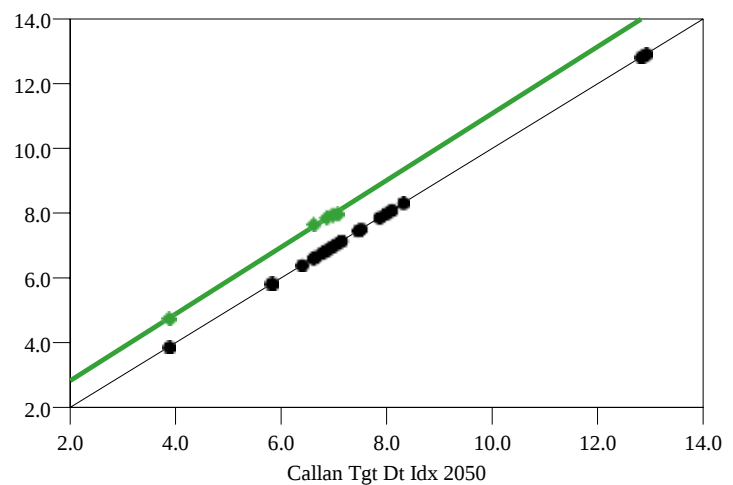
Returns for Various Periods



Risk Statistics for 3 Years

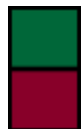


Rolling 12 Quarter Standard Deviation Comparison Chart

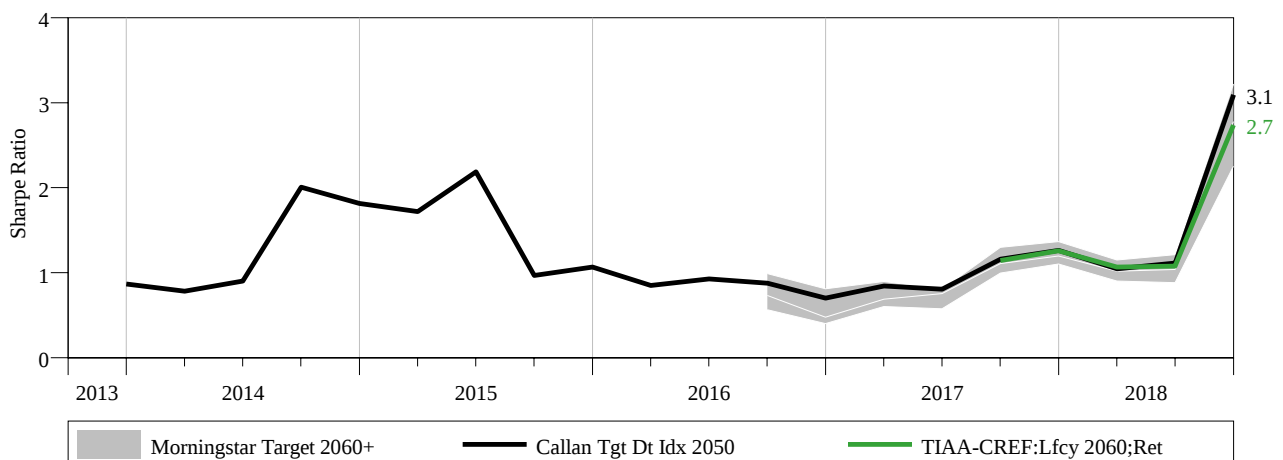


Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Lfcy 2060;Ret	(1.07) (66)	2.74 (54)	11.06 (63)	(0.86) (57)	1.30 (19)
Callan Tgt Dt Idx 2050	0.00 (25)	3.09 (24)	12.00 (25)	0.00 (27)	--



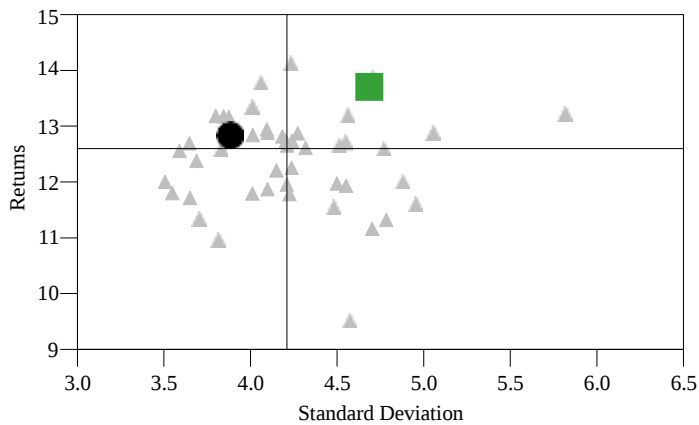
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



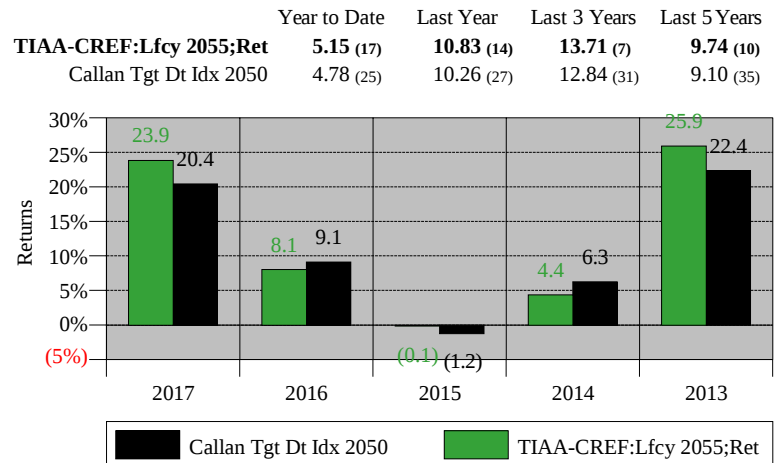
TIAA-CREF:Lfcy 2055;Ret

Callan Tgt Dt Idx 2050 - (Morningstar Target 2055)

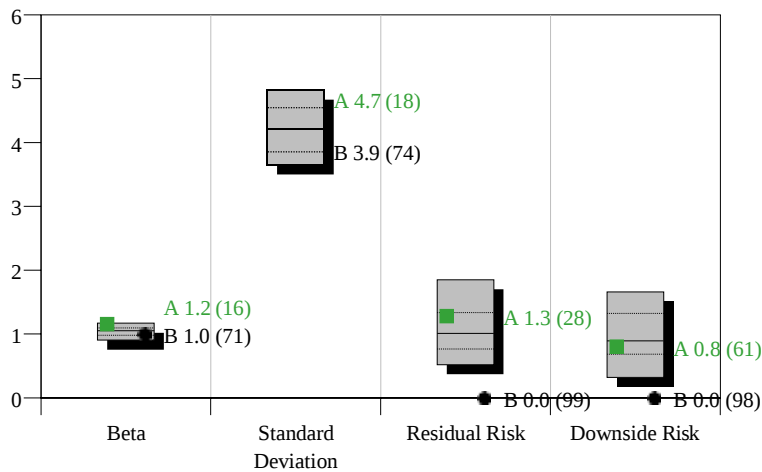
Scatter Chart
for 3 Years Ended September 30, 2018



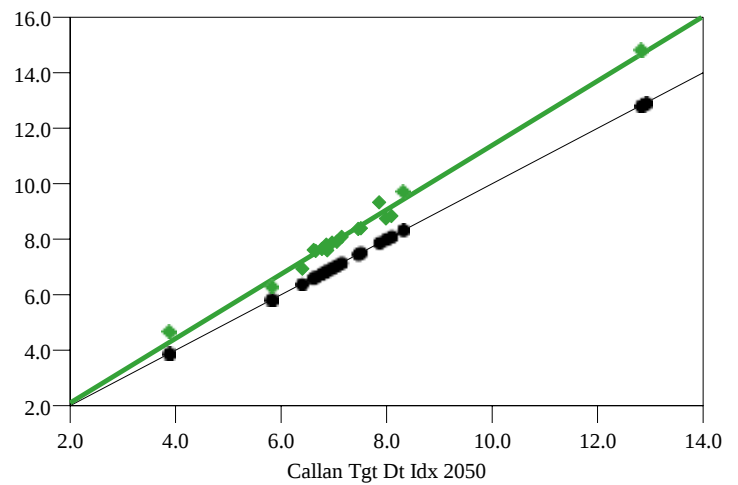
Returns for Various Periods



Risk Statistics for 3 Years



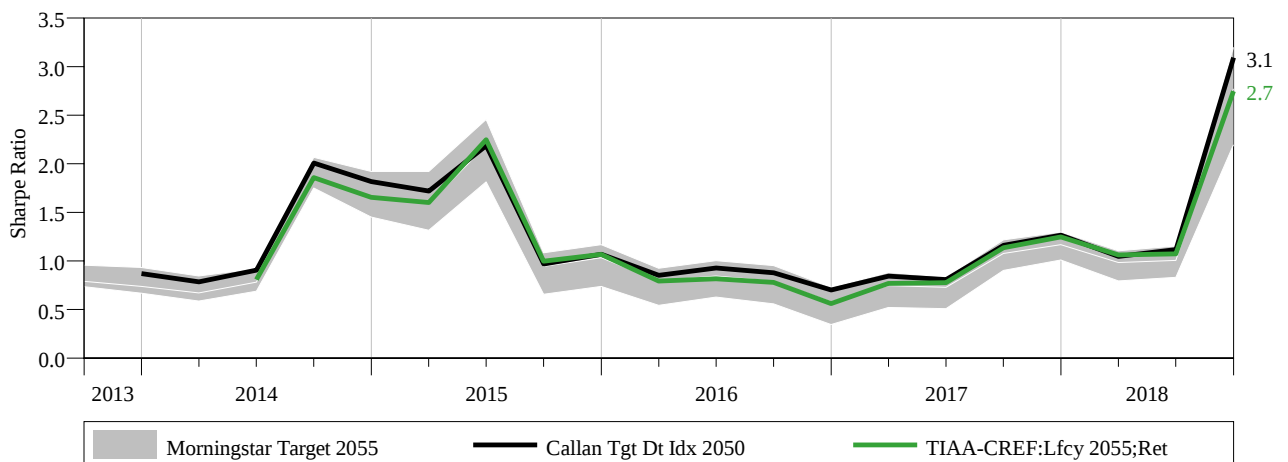
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Lfcy 2055;Ret	(0.97) (61)	2.75 (52)	11.13 (54)	(0.76) (52)	1.08(12)
Callan Tgt Dt Idx 2050	0.00 (29)	3.09 (24)	12.00 (29)	0.00 (29)	--

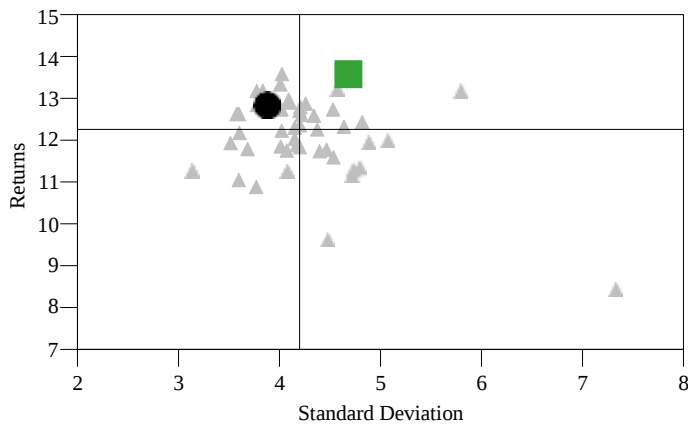
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



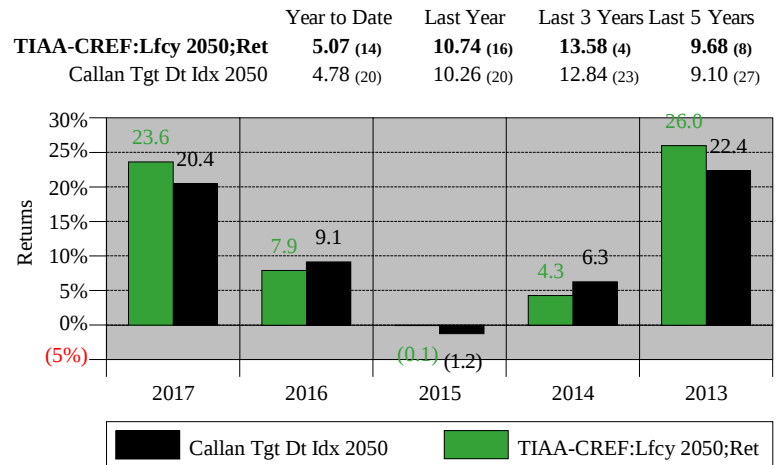
TIAA-CREF:Lfcy 2050;Ret

Callan Tgt Dt Idx 2050 - (Morningstar Target 2050)

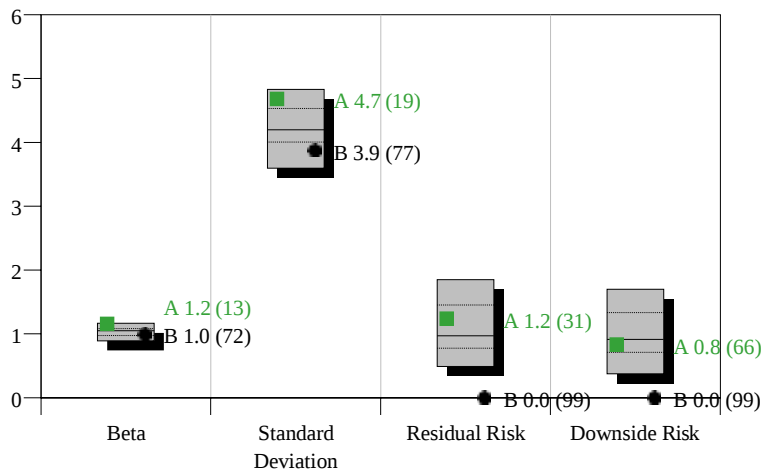
Scatter Chart
for 3 Years Ended September 30, 2018



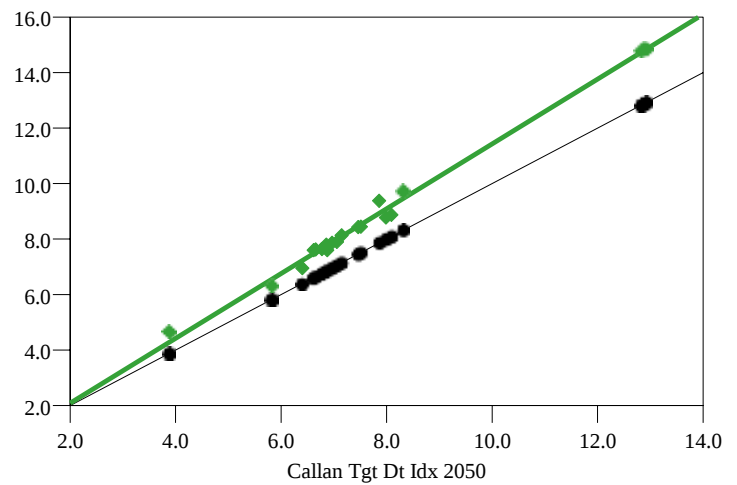
Returns for Various Periods



Risk Statistics for 3 Years



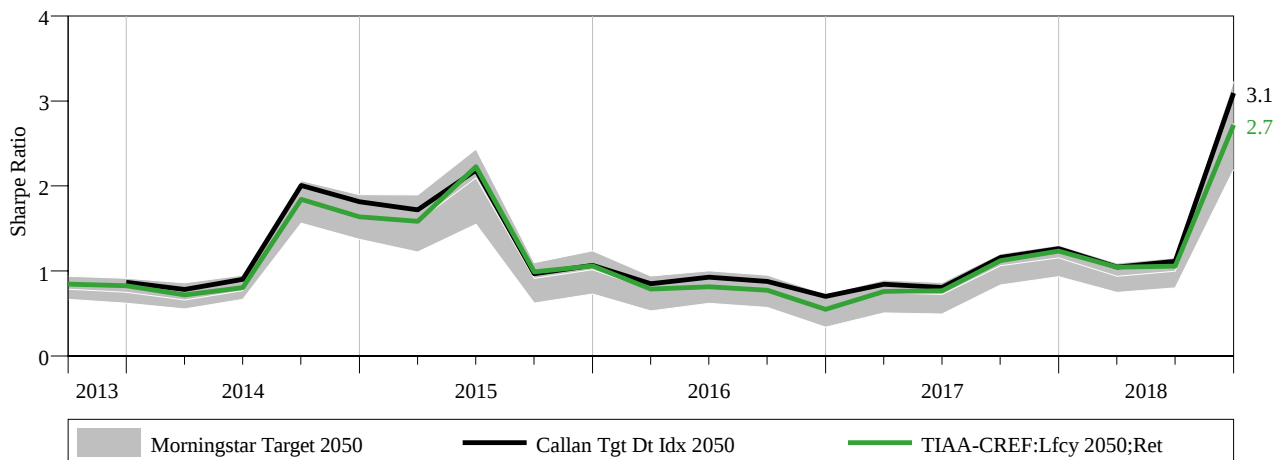
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Lfcy 2050;Ret	(1.11) (58)	2.72 (51)	11.00 (54)	(0.90) (51)	0.88(8)
Callan Tgt Dt Idx 2050	0.00 (26)	3.09 (21)	12.00 (26)	0.00 (27)	--

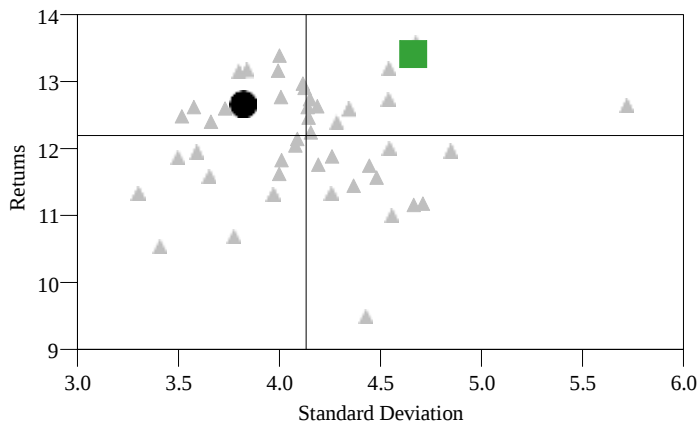
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



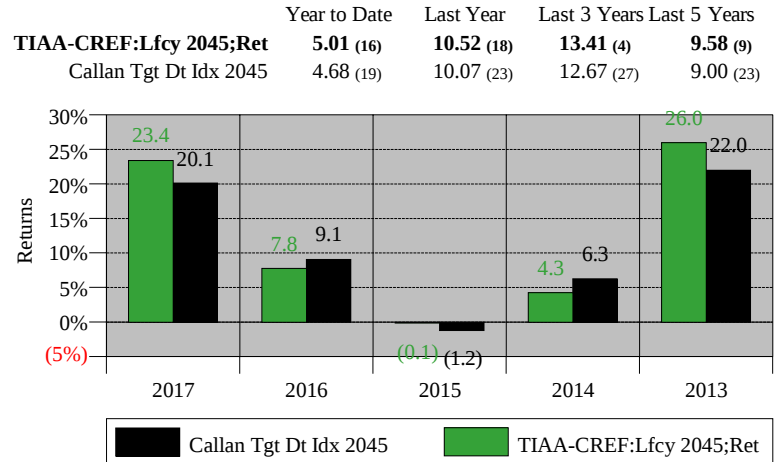
TIAA-CREF:Lfcy 2045;Ret

Callan Tgt Dt Idx 2045 - (Morningstar Target 2045)

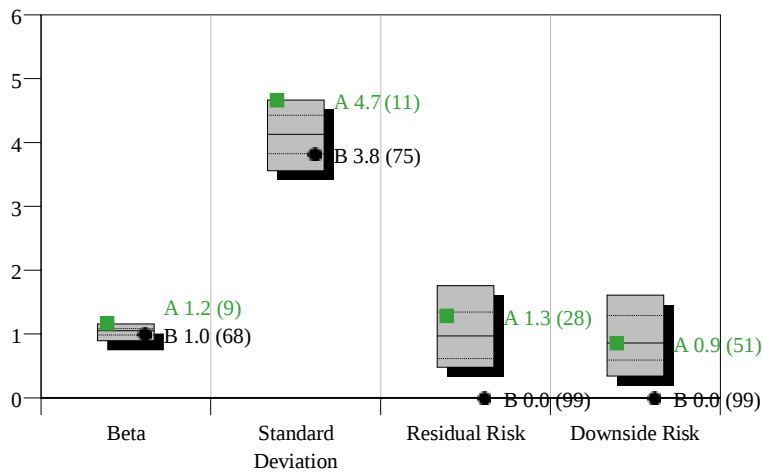
Scatter Chart
for 3 Years Ended September 30, 2018



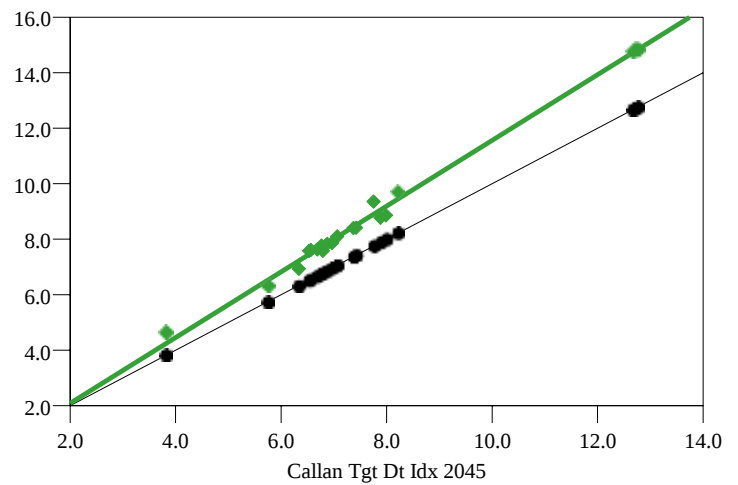
Returns for Various Periods



Risk Statistics for 3 Years



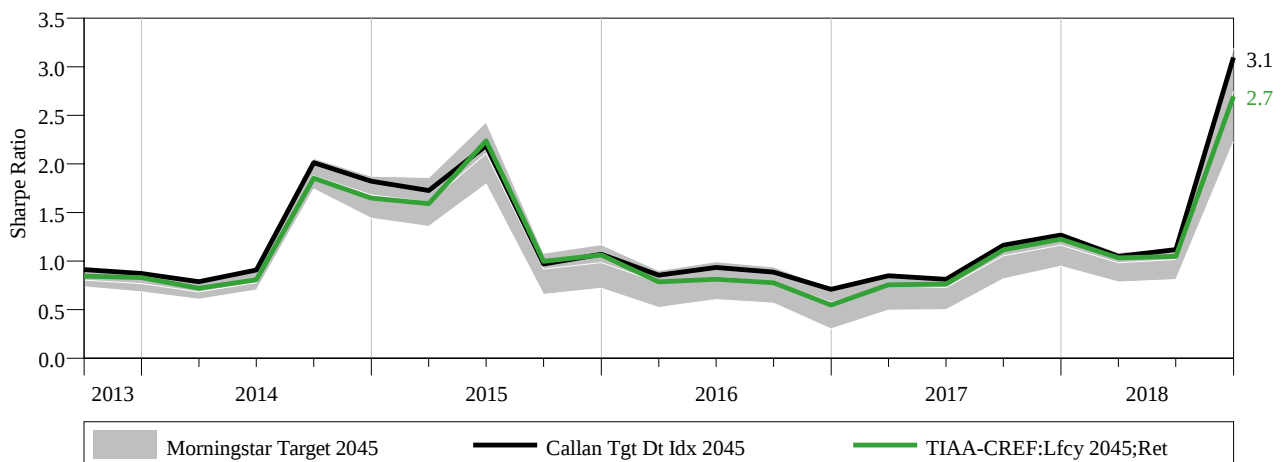
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Lfcy 2045;Ret	(1.18) (68)	2.70 (64)	10.77 (60)	(0.92) (57)	0.87(11)
Callan Tgt Dt Idx 2045	0.00 (28)	3.10 (21)	11.83 (28)	0.00 (28)	--

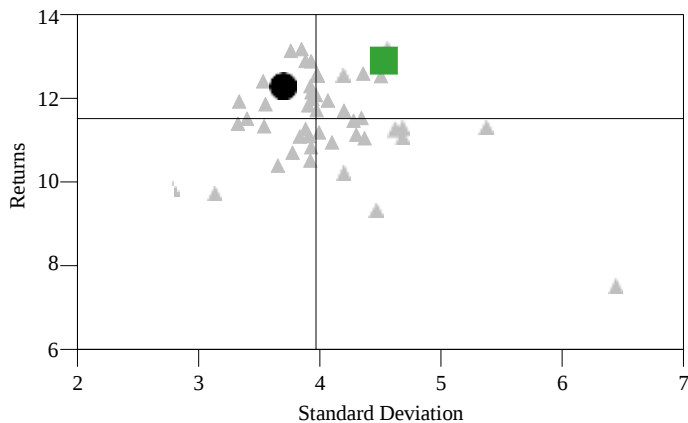
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



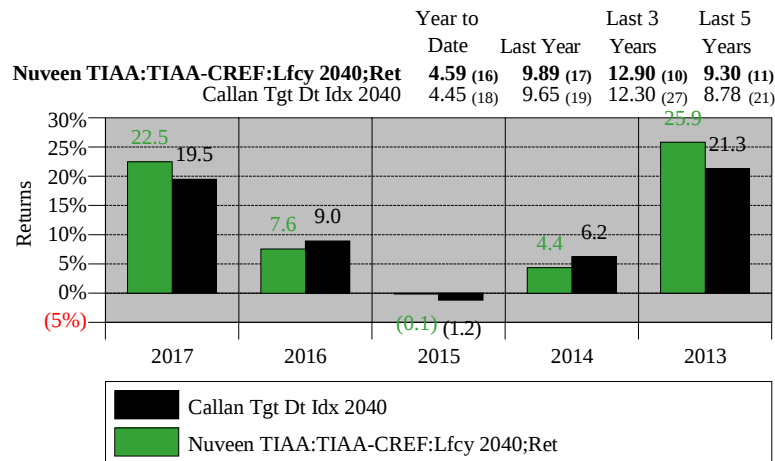
Nuveen TIAA:TIAA-CREF:Lfcy 2040;Ret

Callan Tgt Dt Idx 2040 - (Morningstar Target 2040)

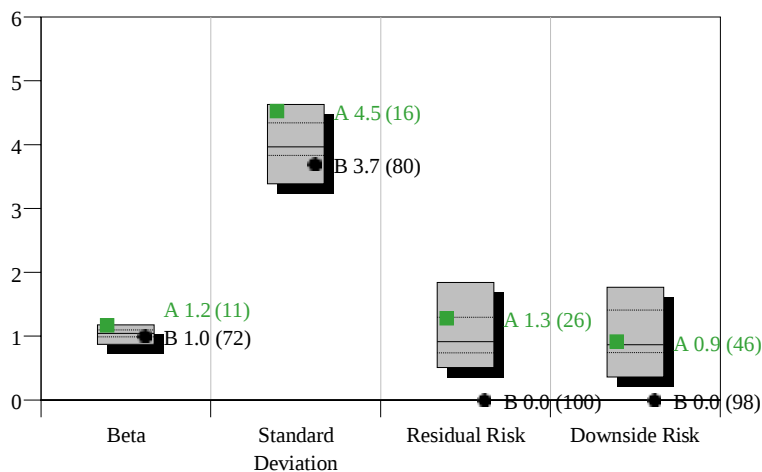
Scatter Chart
for 3 Years Ended September 30, 2018



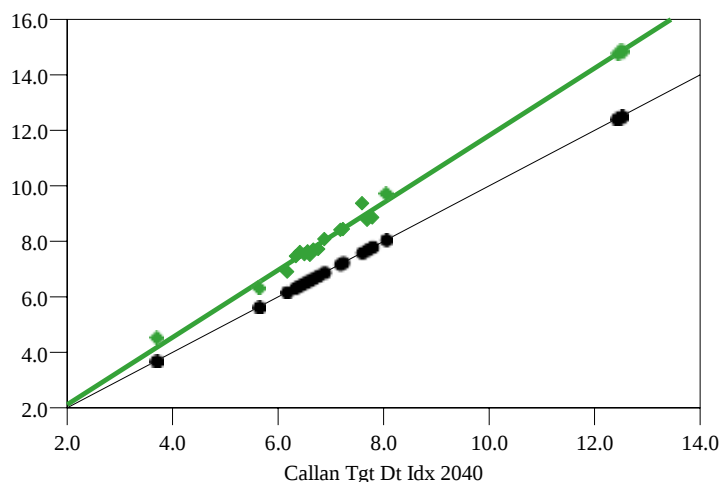
Returns for Various Periods



Risk Statistics for 3 Years

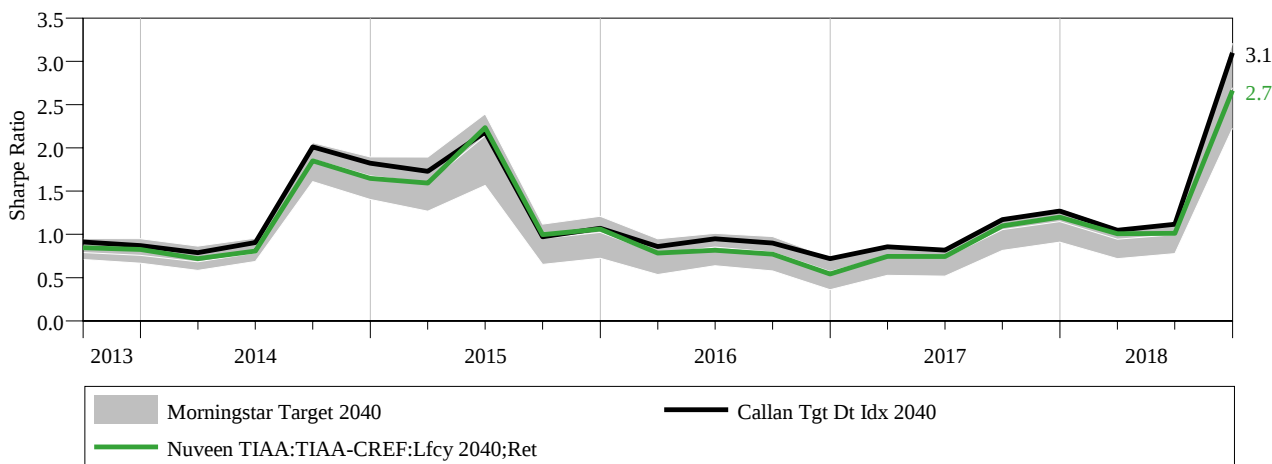


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2040;Ret	(1.27) (67)	2.67 (57)	10.31 (58)	(0.99) (52)	0.66(17)
Callan Tgt Dt Idx 2040	0.00 (25)	3.10 (19)	11.46 (25)	0.00 (26)	--

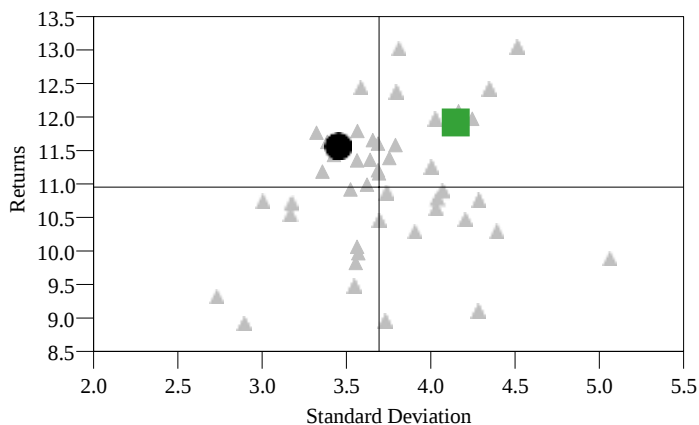


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

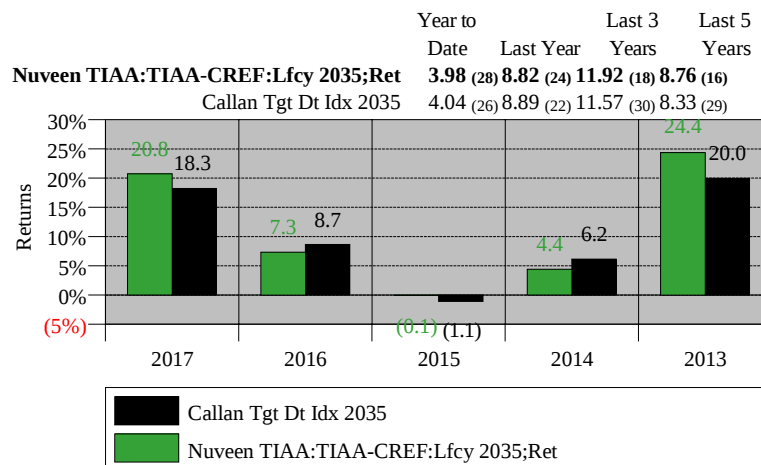
Nuveen TIAA:TIAA-CREF:Lfcy 2035;Ret

Callan Tgt Dt Idx 2035 - (Morningstar Target 2035)

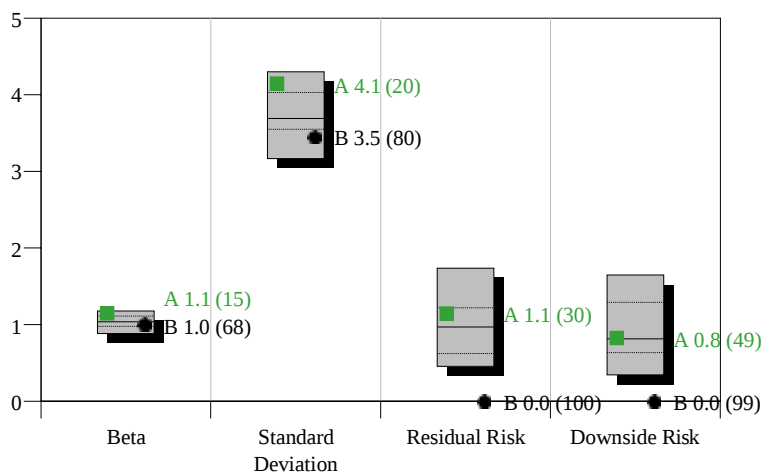
Scatter Chart
for 3 Years Ended September 30, 2018



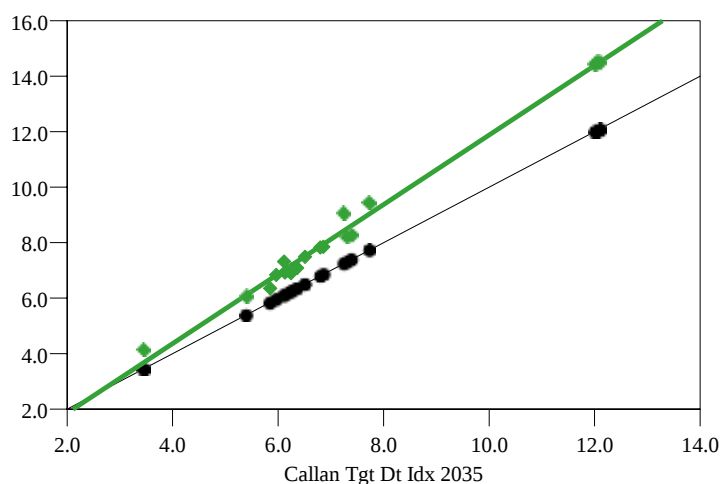
Returns for Various Periods



Risk Statistics for 3 Years

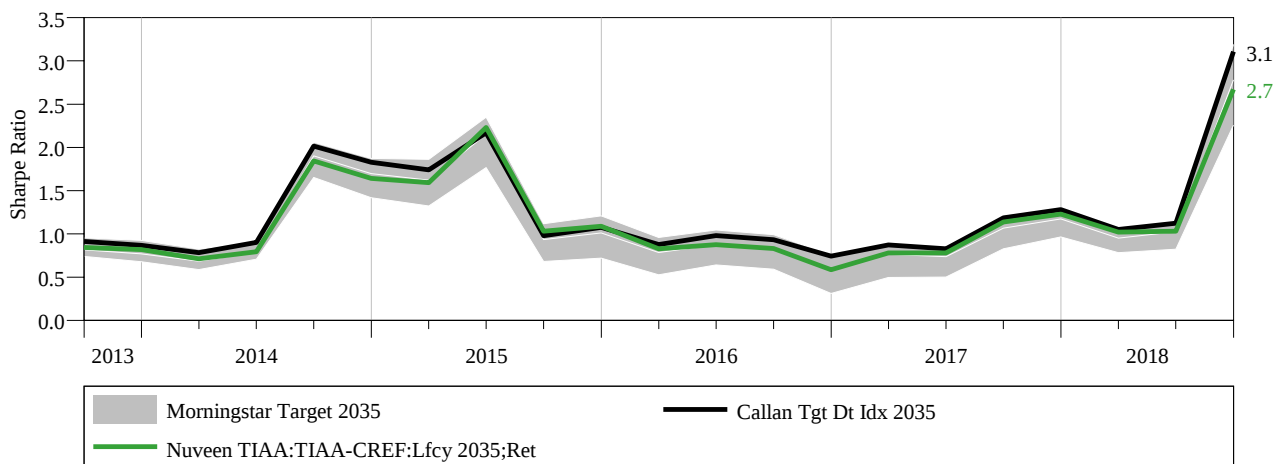


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2035;Ret	(1.19) (67)	2.67 (61)	9.64 (67)	(1.03) (62)	0.42(18)
Callan Tgt Dt Idx 2035	0.00 (25)	3.11 (15)	10.73 (25)	0.00 (25)	--

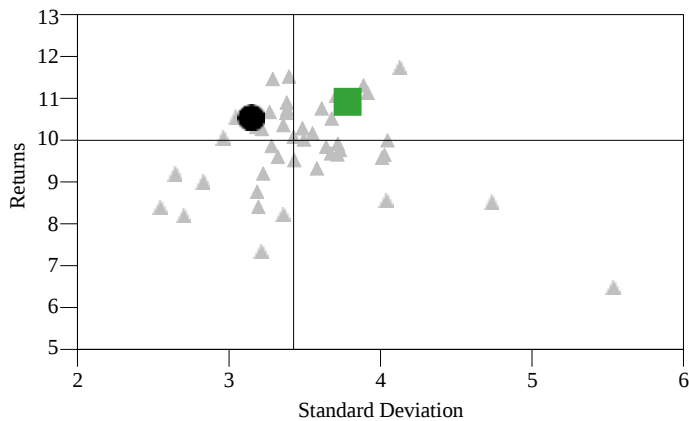


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

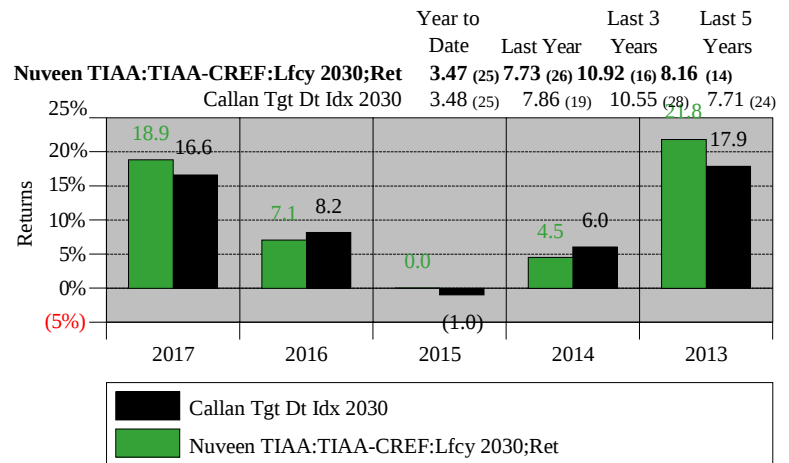
Nuveen TIAA:TIAA-CREF:Lfcy 2030;Ret

Callan Tgt Dt Idx 2030 - (Morningstar Target 2030)

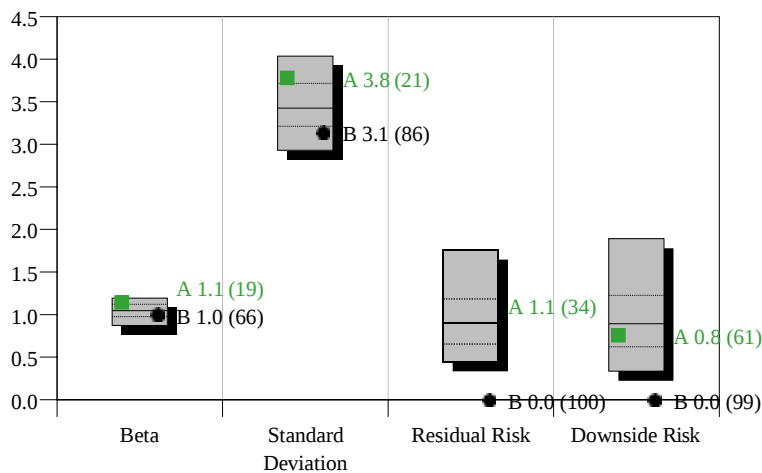
Scatter Chart
for 3 Years Ended September 30, 2018



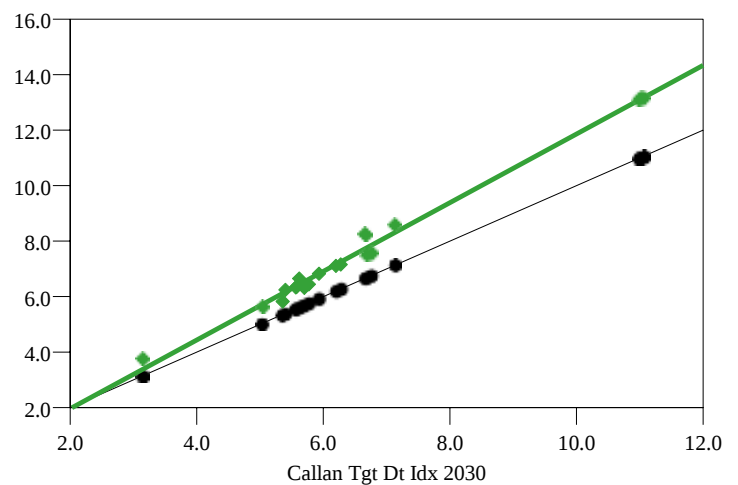
Returns for Various Periods



Risk Statistics for 3 Years

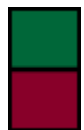


Rolling 12 Quarter Standard Deviation Comparison Chart

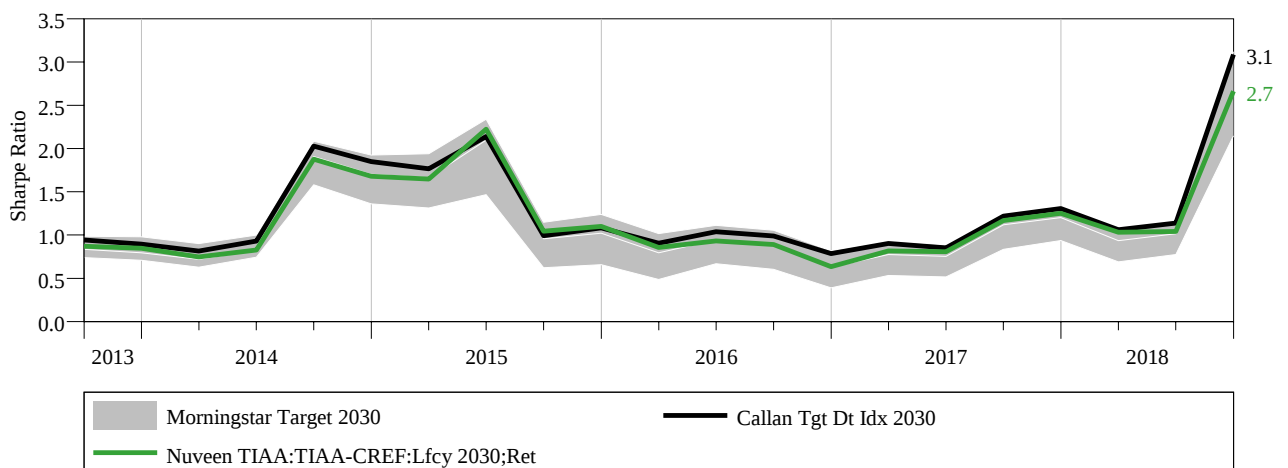


Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2030;Ret	(0.98) (55)	2.66 (49)	8.81 (49)	(0.88) (50)	0.49(22)
Callan Tgt Dt Idx 2030	0.00 (16)	3.09 (11)	9.71 (16)	0.00 (16)	--



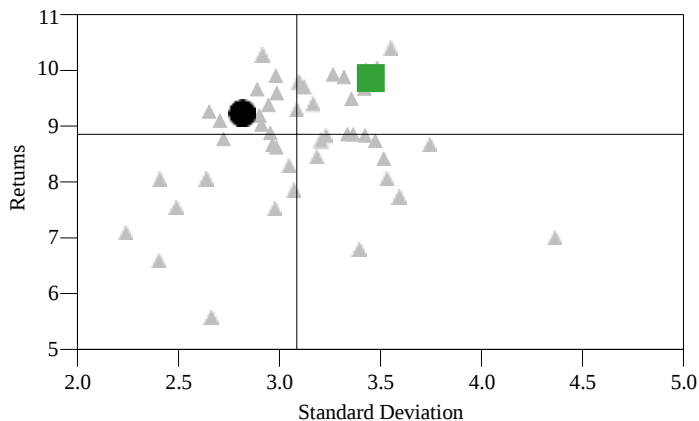
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



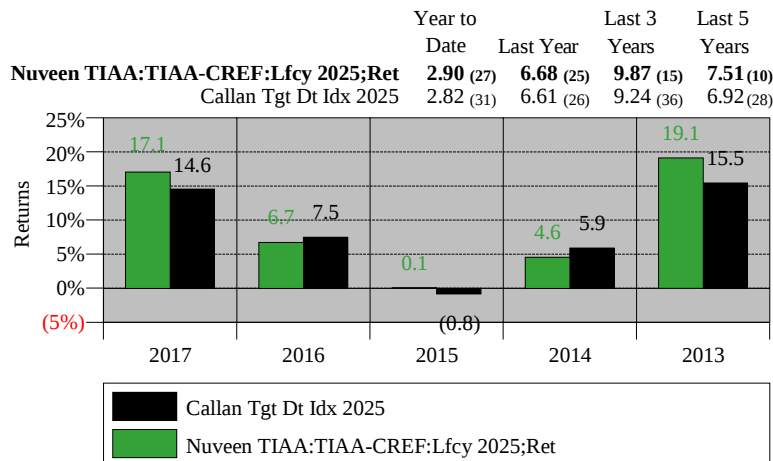
Nuveen TIAA:TIAA-CREF:Lfcy 2025;Ret

Callan Tgt Dt Idx 2025 - (Morningstar Target 2025)

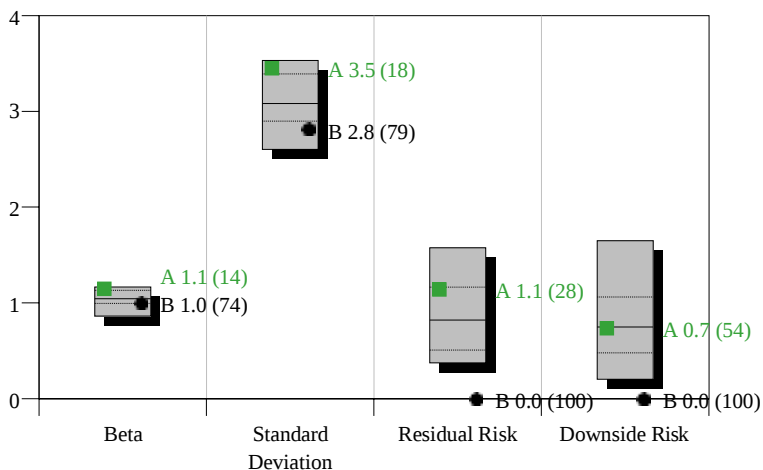
Scatter Chart
for 3 Years Ended September 30, 2018



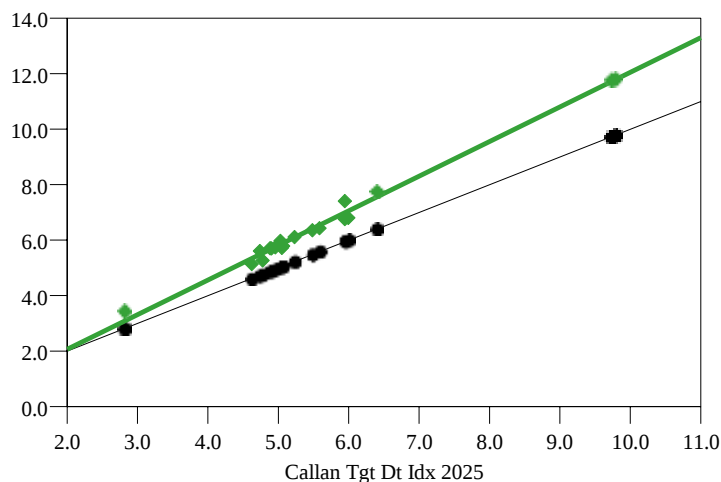
Returns for Various Periods



Risk Statistics for 3 Years



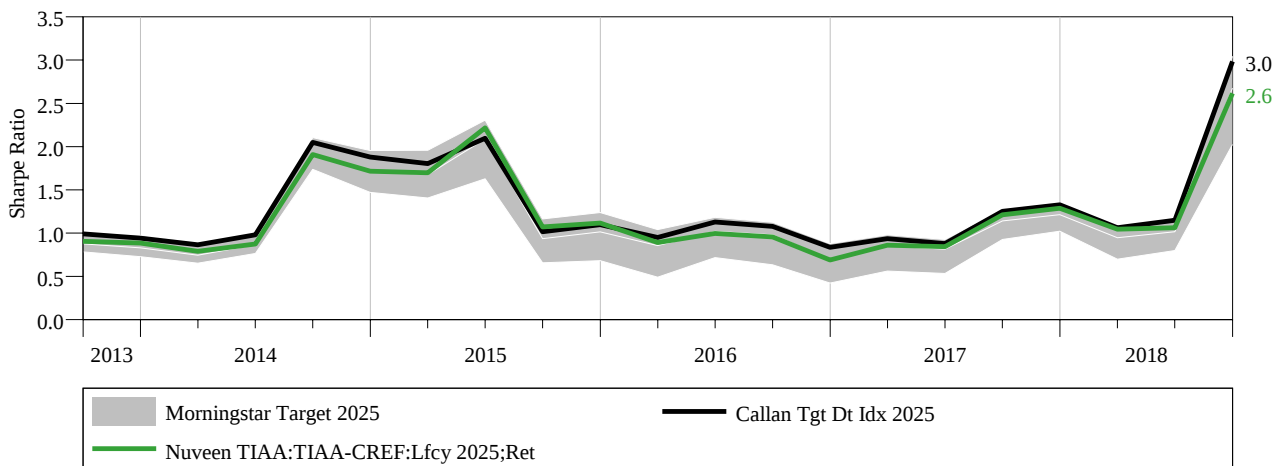
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2025;Ret	(0.61) (50)	2.62 (56)	7.85 (46)	(0.53) (42)	0.85(24)
Callan Tgt Dt Idx 2025	0.00 (18)	2.98 (13)	8.40 (18)	0.00 (18)	--

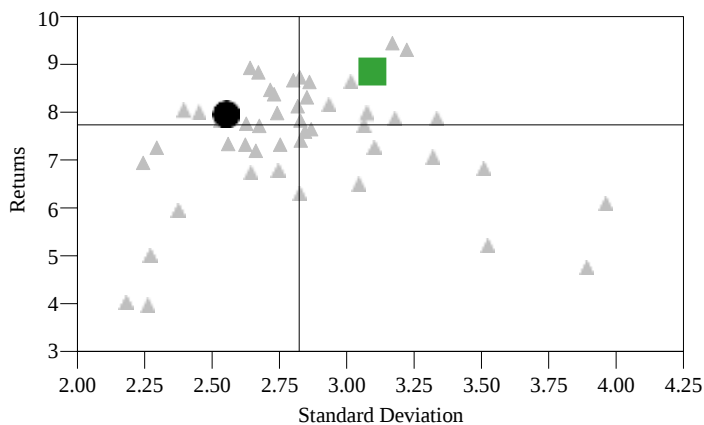
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



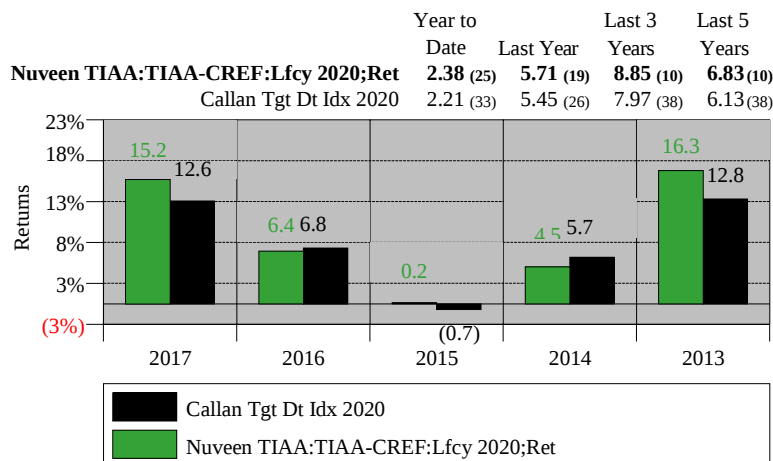
Nuveen TIAA:TIAA-CREF:Lfcy 2020;Ret

Callan Tgt Dt Idx 2020 - (Morningstar Target 2020)

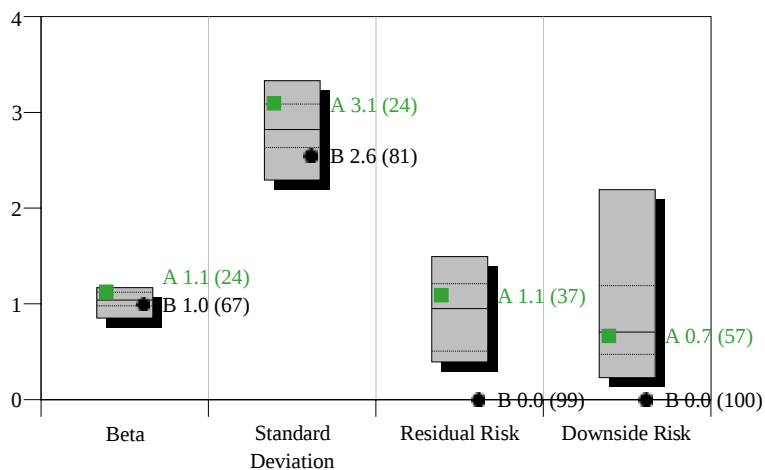
Scatter Chart
for 3 Years Ended September 30, 2018



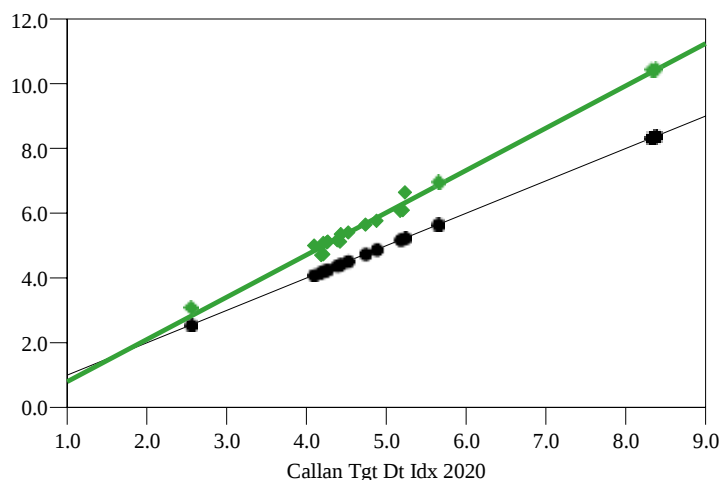
Returns for Various Periods



Risk Statistics for 3 Years

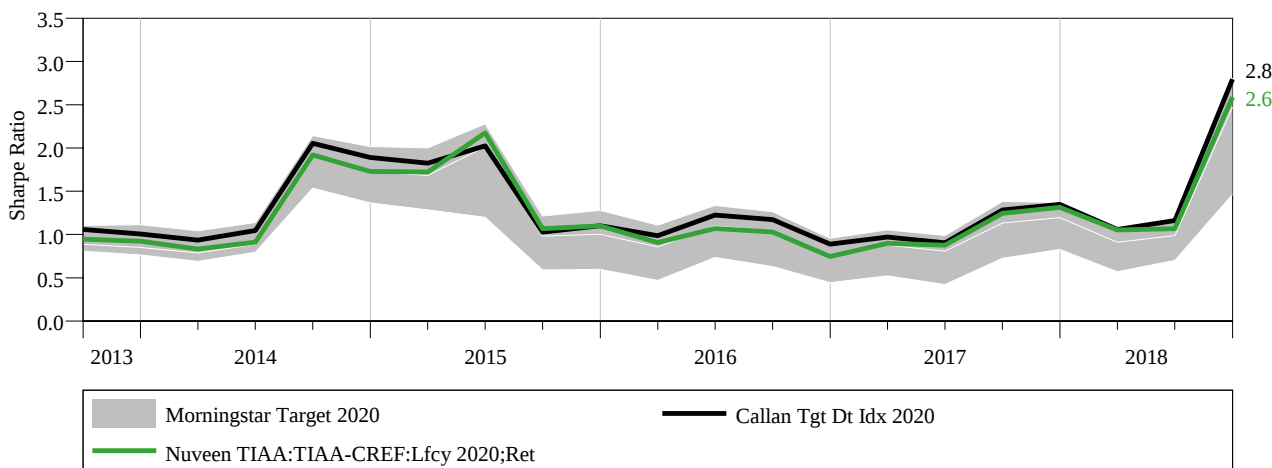


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2020;Ret	(0.05) (34)	2.59 (38)	7.10 (33)	(0.04) (34)	1.32(21)
Callan Tgt Dt Idx 2020	0.00 (33)	2.80 (14)	7.14 (33)	0.00 (33)	--

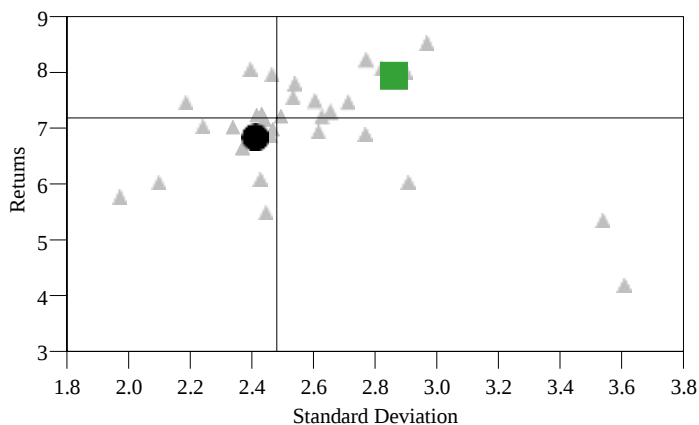


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

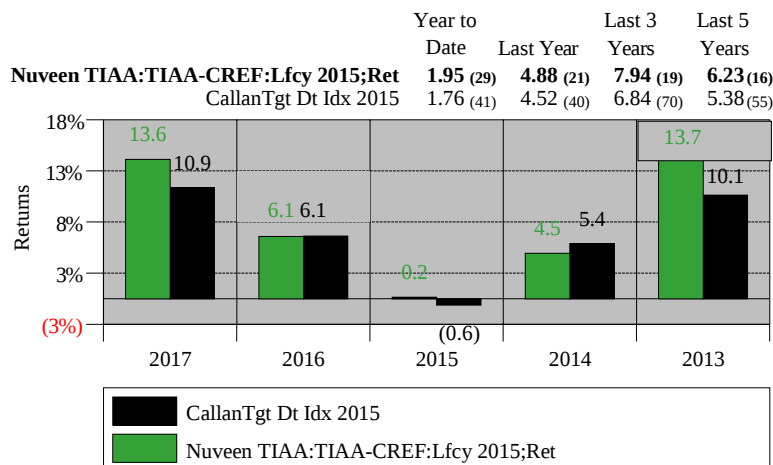
Nuveen TIAA:TIAA-CREF:Lfcy 2015;Ret

CallanTgt Dt Idx 2015 - (Morningstar Target 2015)

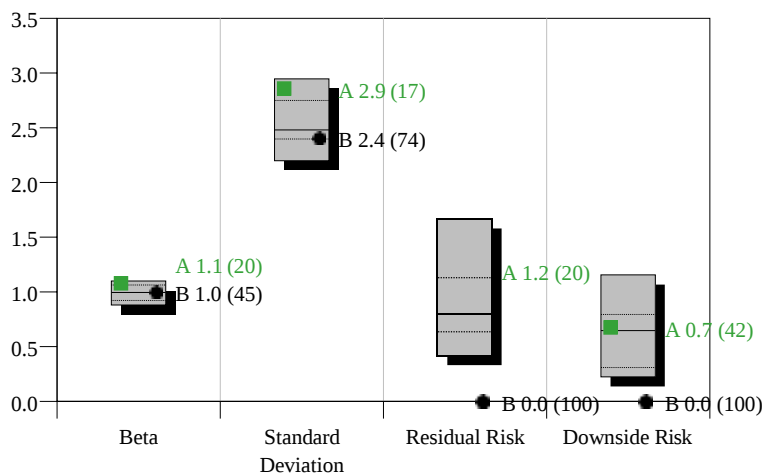
Scatter Chart
for 3 Years Ended September 30, 2018



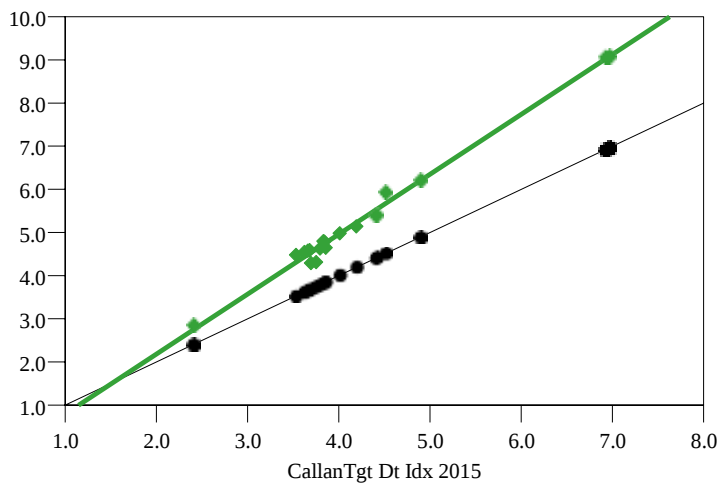
Returns for Various Periods



Risk Statistics for 3 Years



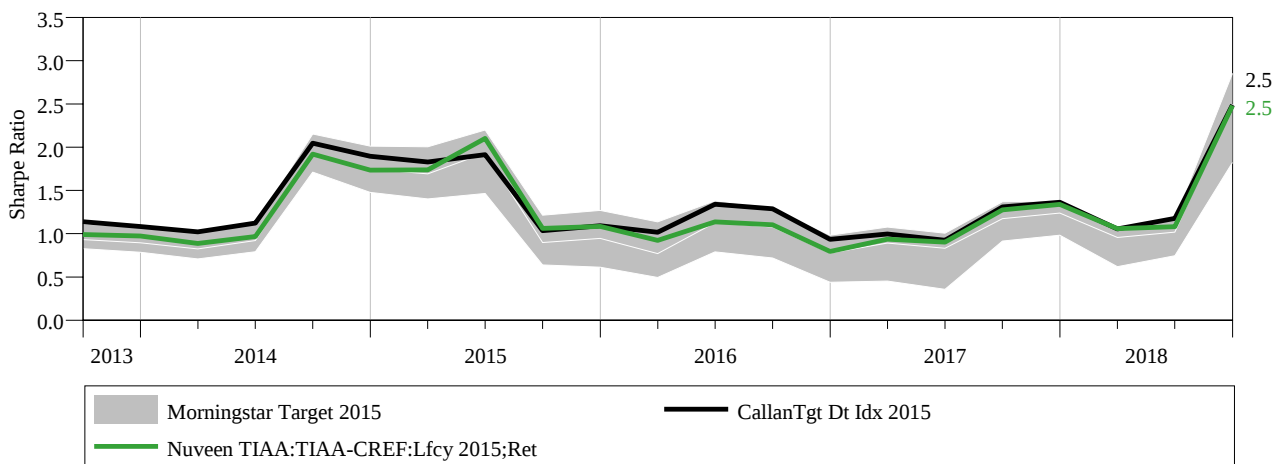
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2015;Ret	0.59 (42)	2.48 (53)	6.58 (46)	0.50 (54)	1.63(30)
CallanTgt Dt Idx 2015	0.00 (75)	2.49 (51)	6.00 (75)	0.00 (75)	--

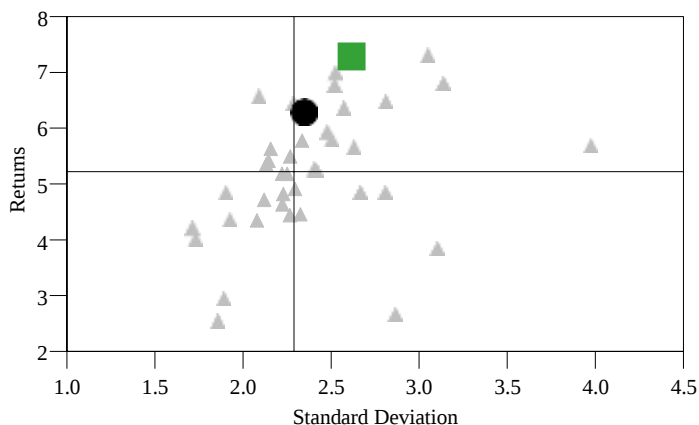
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



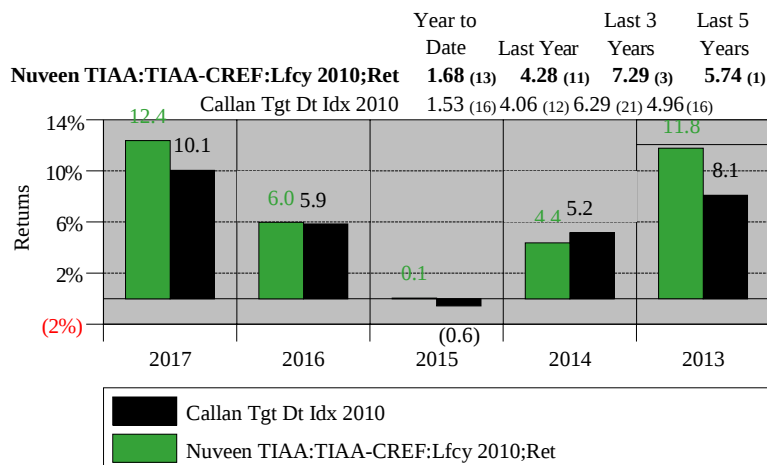
Nuveen TIAA:TIAA-CREF:Lfcy 2010;Ret

Callan Tgt Dt Idx 2010 - (Morningstar Target Ret)

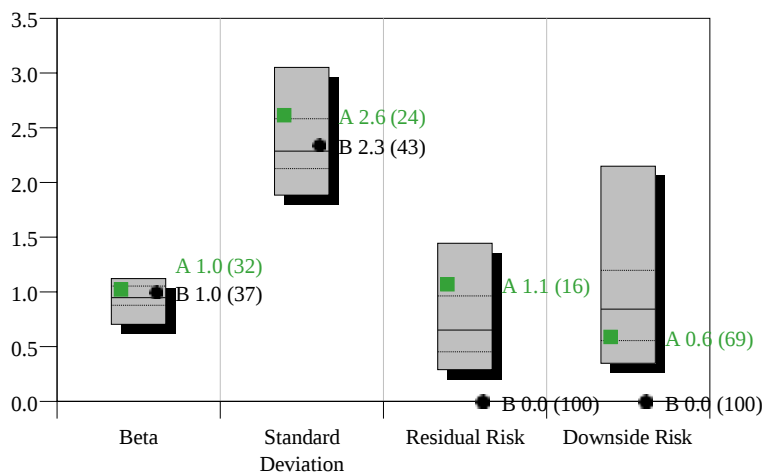
Scatter Chart
for 3 Years Ended September 30, 2018



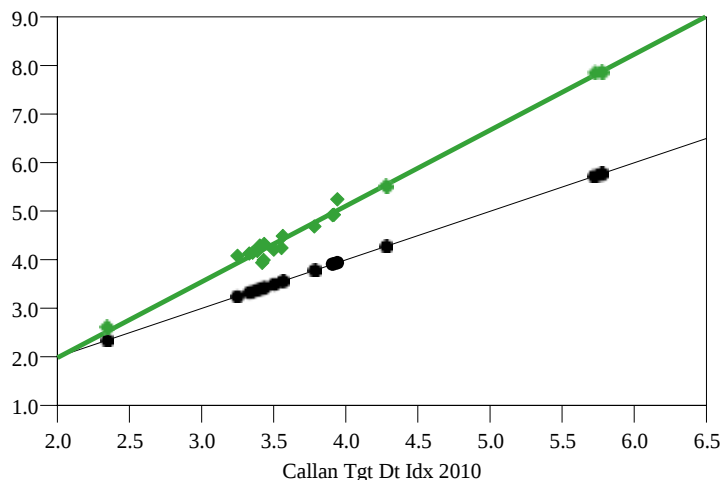
Returns for Various Periods



Risk Statistics for 3 Years

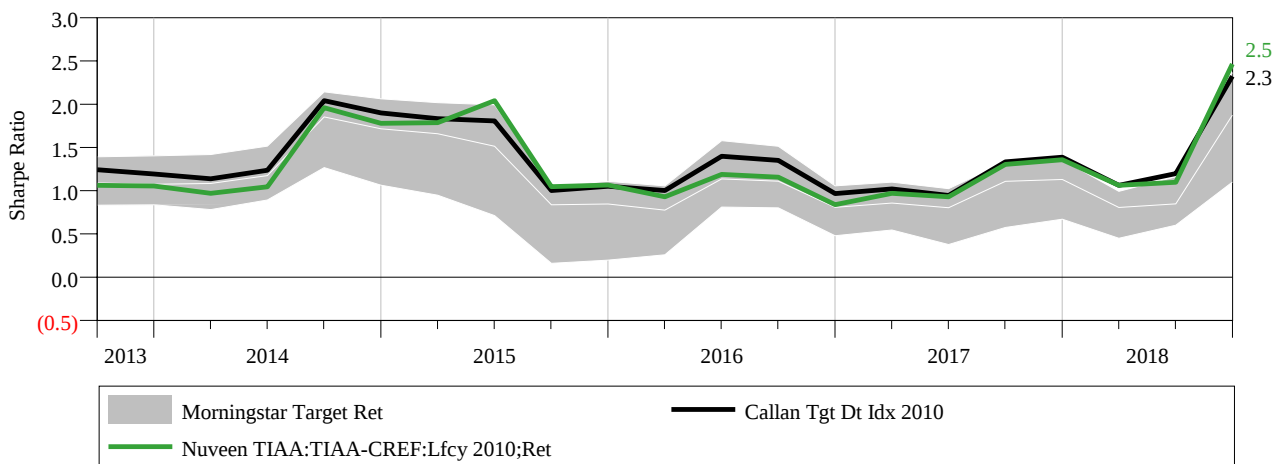


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Nuveen TIAA:TIAA-CREF:Lfcy 2010;Ret	0.84 (7)	2.47 (5)	6.30 (7)	0.78 (7)	1.70(5)
Callan Tgt Dt Idx 2010	0.00 (16)	2.32 (11)	5.45 (16)	0.00 (16)	--

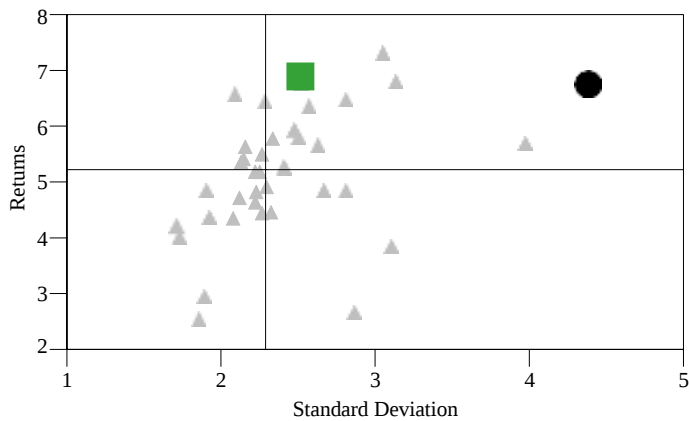


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

TIAA-CREF:Lfcy Ret;Ret

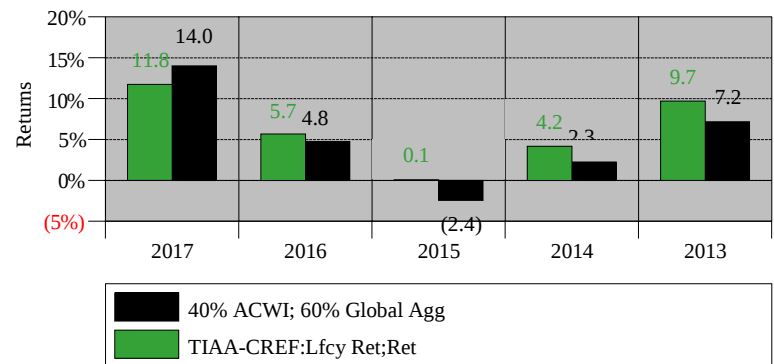
40% ACWI; 60% Global Agg - (Morningstar Target Ret)

Scatter Chart
for 3 Years Ended September 30, 2018

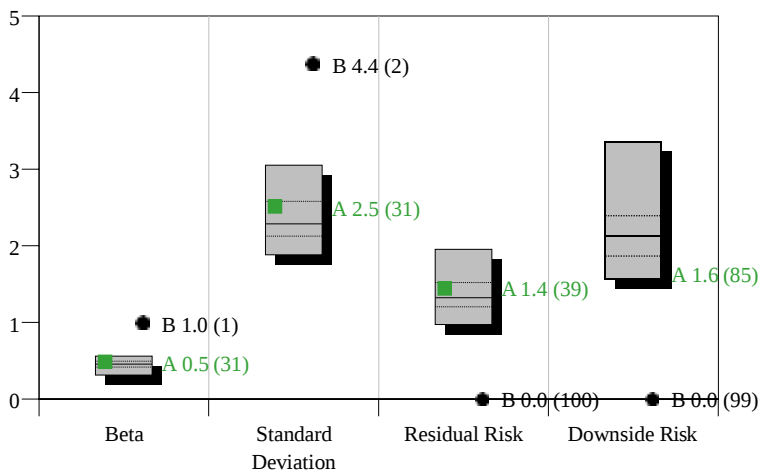


Returns for Various Periods

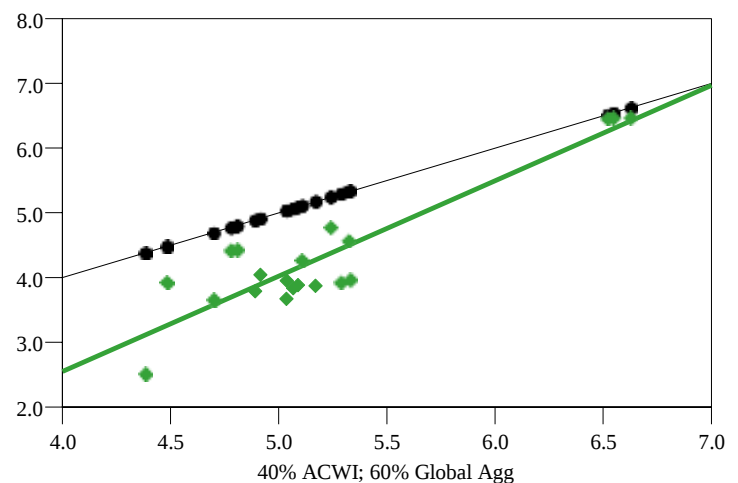
	Year to Date	Last Year	Last 3 Years	Last 5 Years
TIAA-CREF:Lfcy Ret;Ret	1.60 (14)	4.04 (12)	6.89 (7)	5.39 (4)
40% ACWI; 60% Global Agg	0.30 (70)	3.28 (31)	6.75 (11)	4.19 (45)



Risk Statistics for 3 Years



Rolling 12 Quarter Standard Deviation Comparison Chart

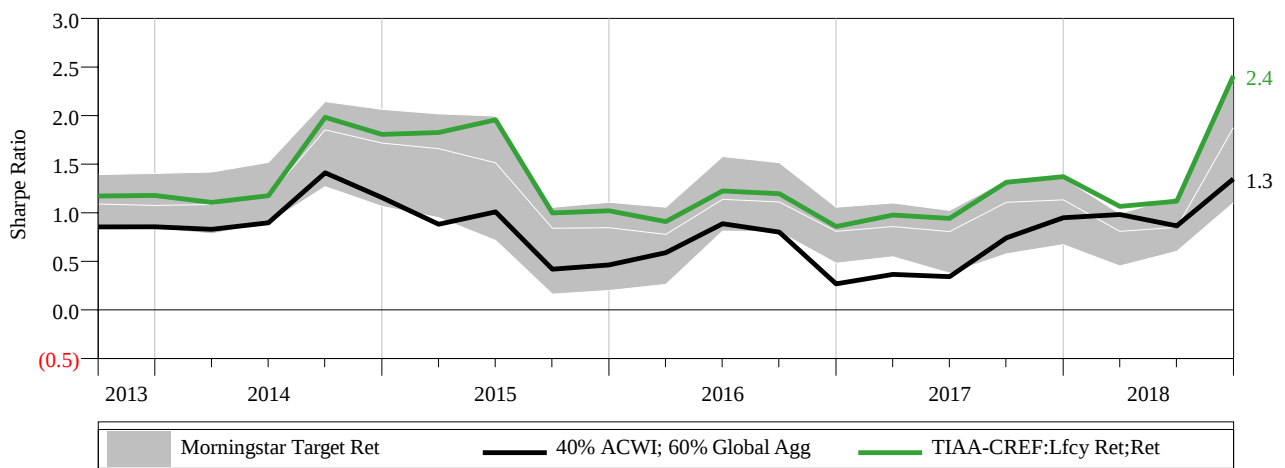


Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Lfcy Ret;Ret	3.11 (7)	2.41 (9)	12.45 (13)	2.15 (11)	0.08 (7)
40% ACWI; 60% Global Agg	0.00 (94)	1.35 (86)	5.92 (94)	0.00 (94)	--



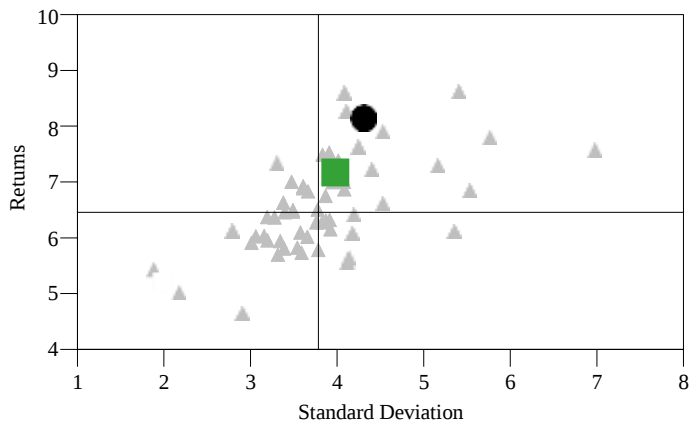
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



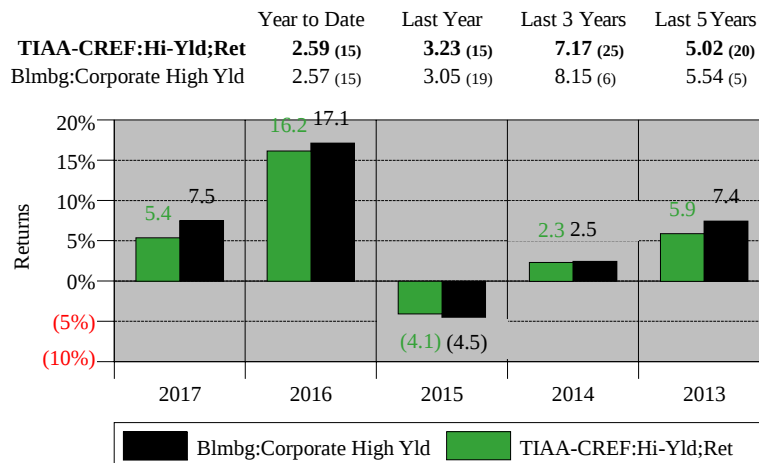
TIAA-CREF:Hi-Yld;Ret

Blmbg:Corporate High Yld - (Callan High Yield MFs)

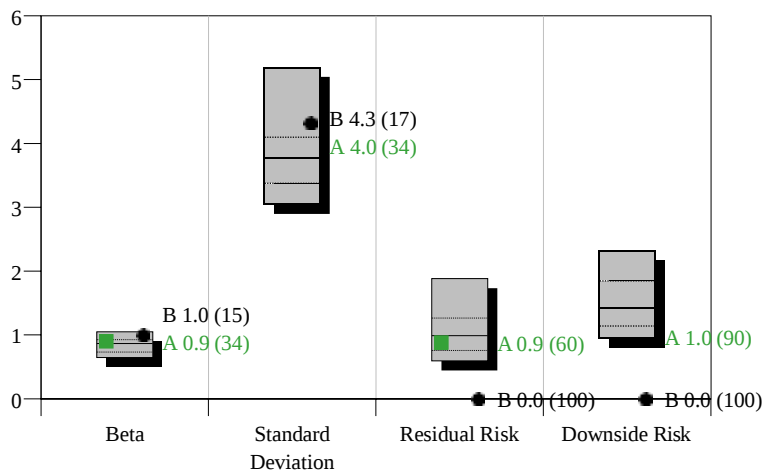
Scatter Chart
for 3 Years Ended September 30, 2018



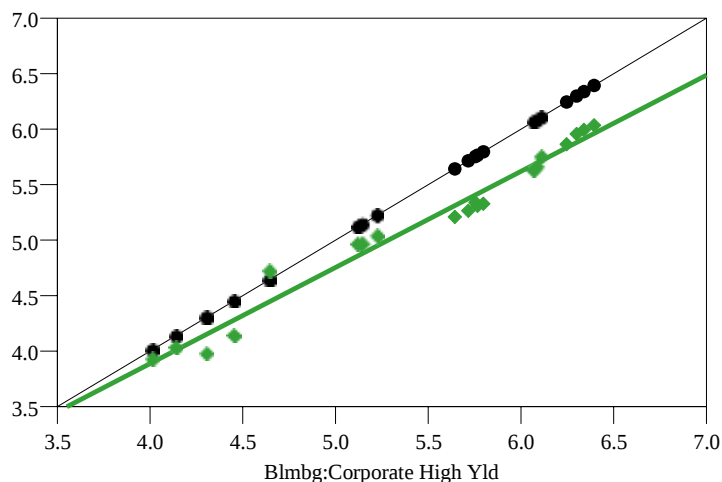
Returns for Various Periods



Risk Statistics for 3 Years



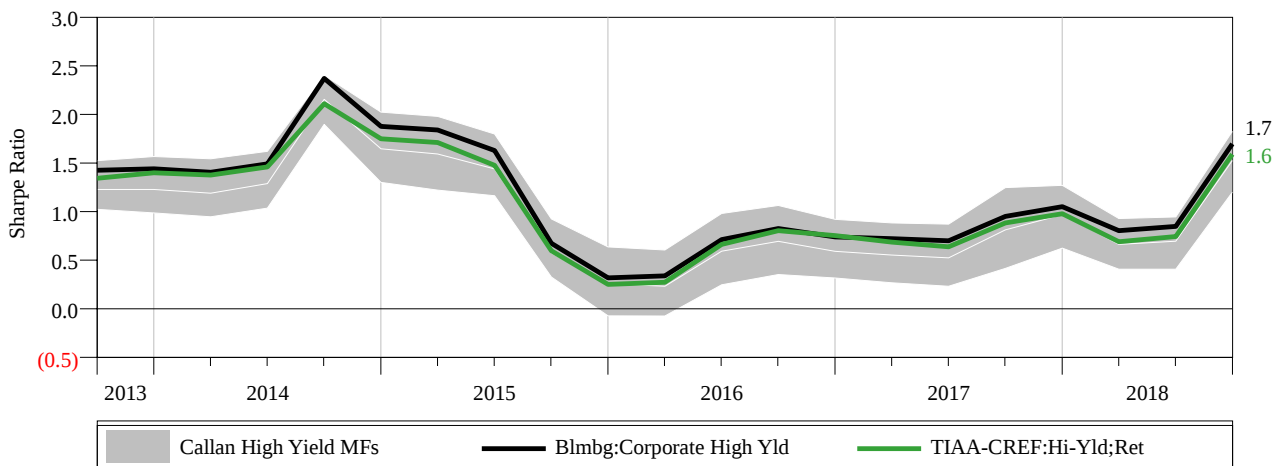
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Hi-Yld;Ret	(0.22) (47)	1.59 (44)	7.03 (47)	(0.25) (47)	(0.99) (36)
Blmbg:Corporate High Yld	0.00 (36)	1.70 (20)	7.31 (35)	0.00 (36)	--

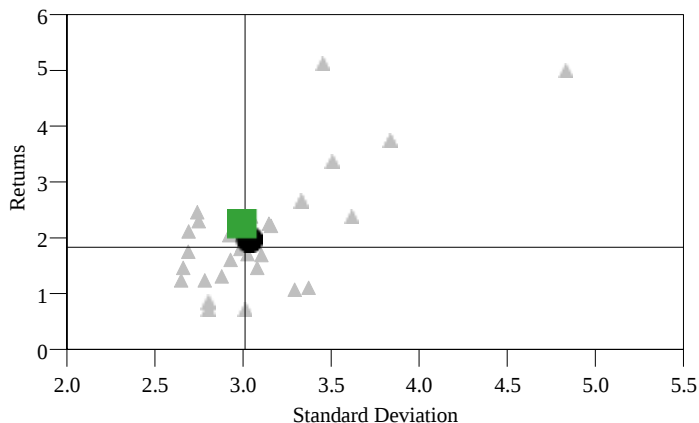
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



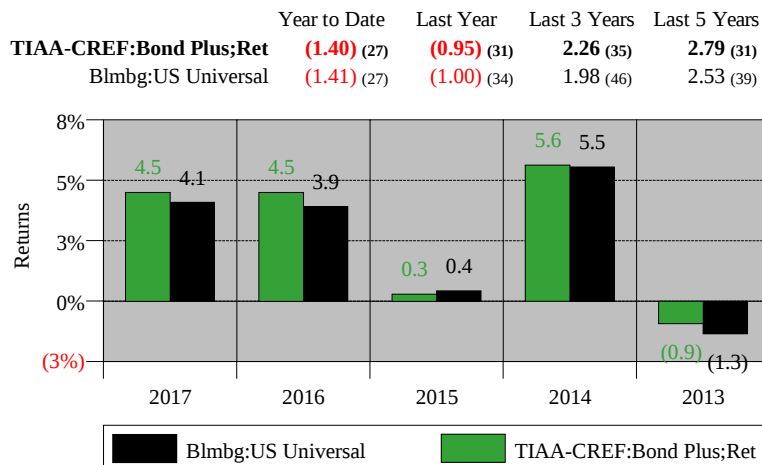
TIAA-CREF:Bond Plus;Ret

Blmbg:US Universal - (Callan Core Plus MFs)

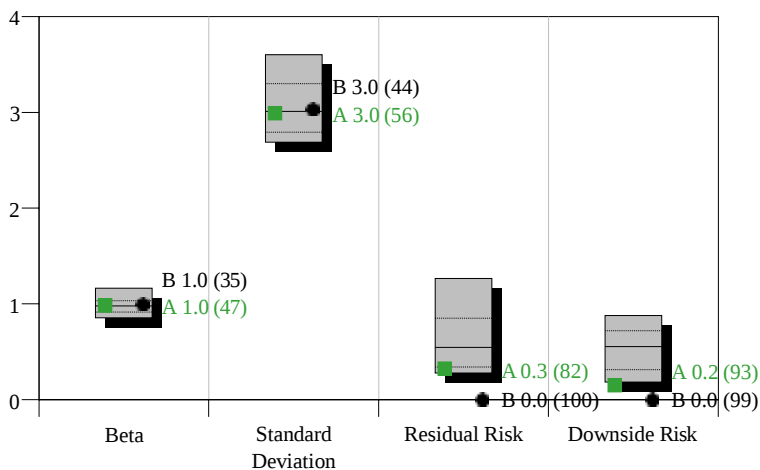
Scatter Chart
for 3 Years Ended September 30, 2018



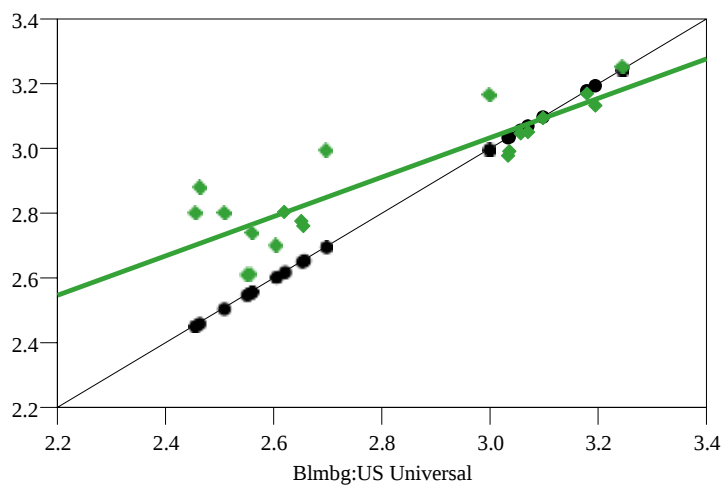
Returns for Various Periods



Risk Statistics for 3 Years



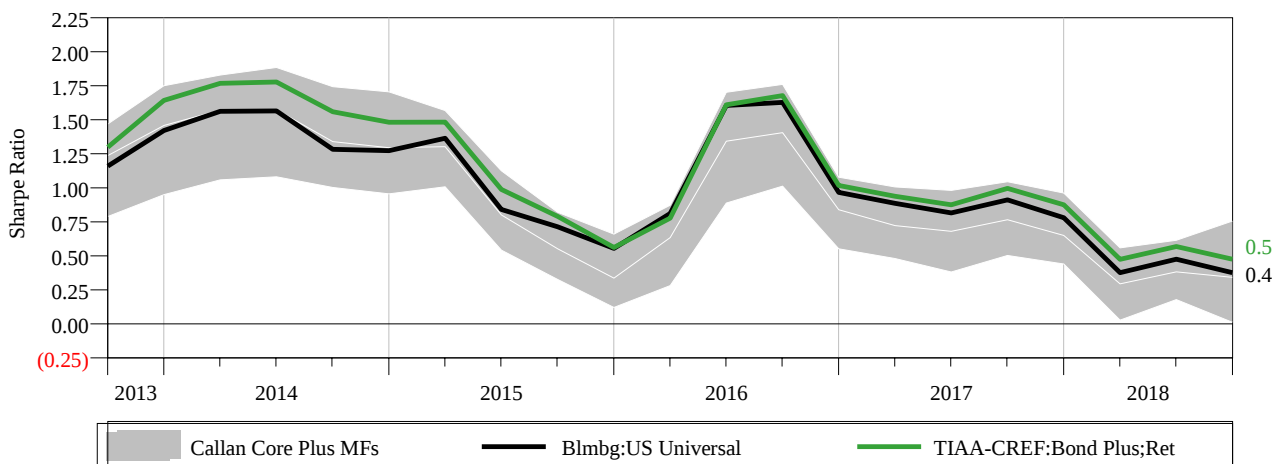
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

TIAA-CREF:Bond Plus;Ret	Alpha 0.29 (32)	Sharpe Ratio 0.47 (32)	Treynor Ratio 1.44 (34)	Information Ratio 0.91 (21)	Sortino Ratio 1.85(19)
Blmbg:US Universal	0.00 (48)	0.38 (47)	1.14 (47)	0.00 (48)	--

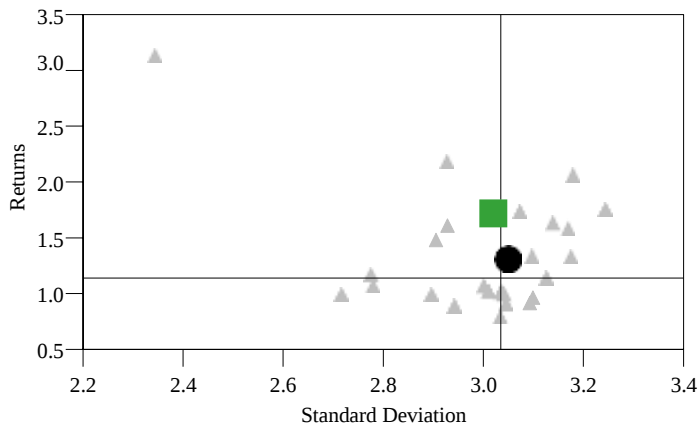
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



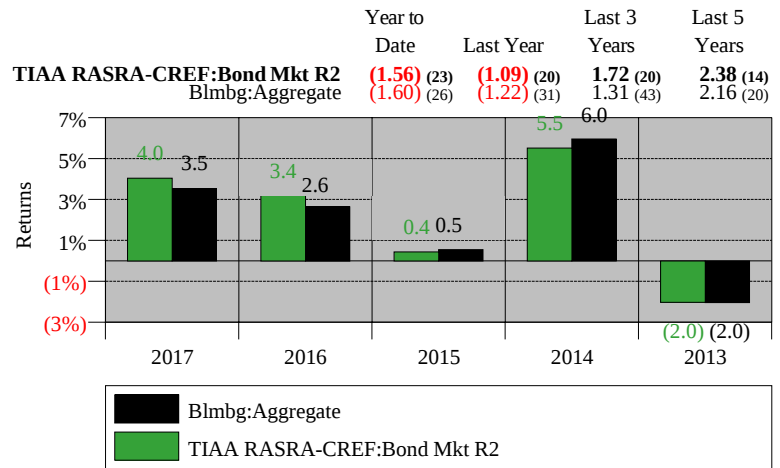
TIAA RASRA-CREF:Bond Mkt R2

Blmbg:Aggregate - (Callan Core Bond MFs)

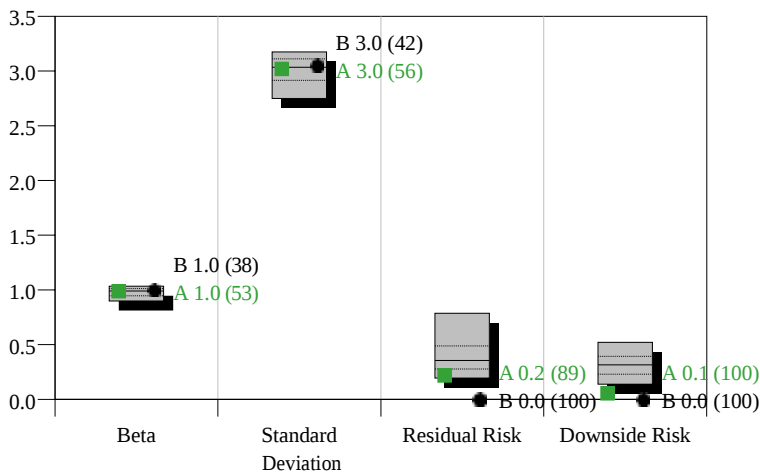
Scatter Chart
for 3 Years Ended September 30, 2018



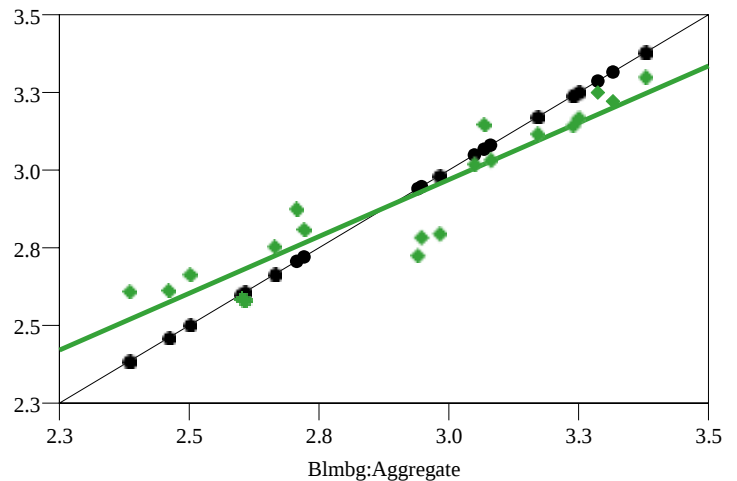
Returns for Various Periods



Risk Statistics for 3 Years



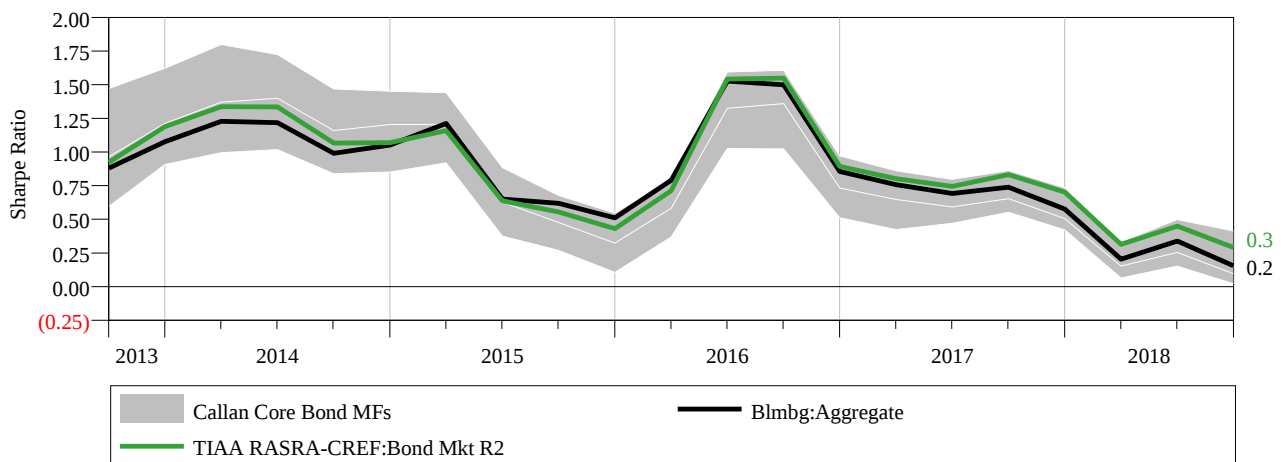
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Bond Mkt R2	0.41 (20)	0.29 (15)	0.89 (19)	1.85 (6)	7.07(1)
Blmbg:Aggregate	0.00 (43)	0.16 (42)	0.47 (43)	0.00 (43)	--

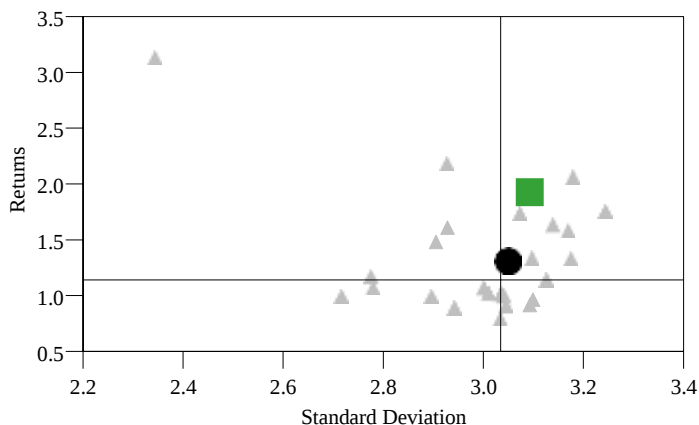
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



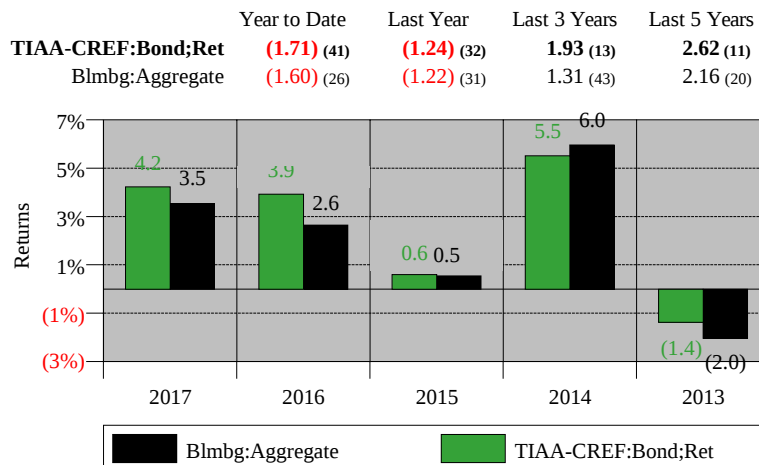
TIAA-CREF:Bond;Ret

Blmbg:Aggregate - (Callan Core Bond MFs)

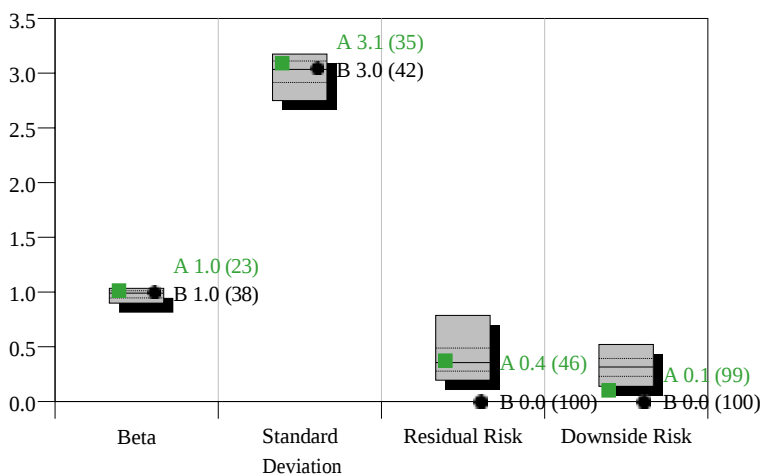
Scatter Chart
for 3 Years Ended September 30, 2018



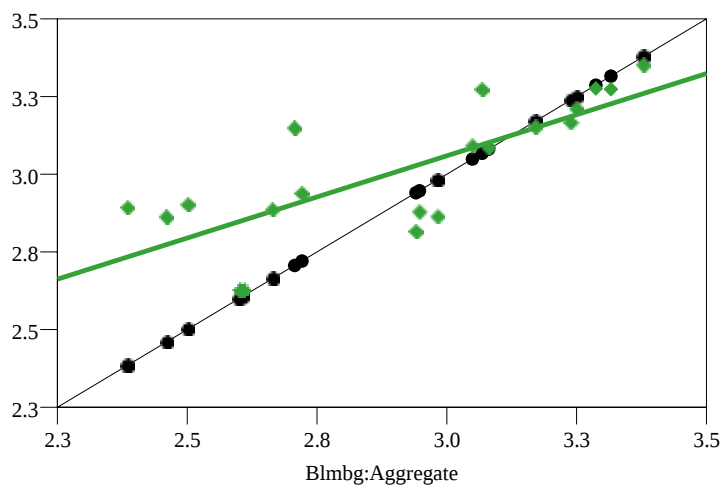
Returns for Various Periods



Risk Statistics for 3 Years



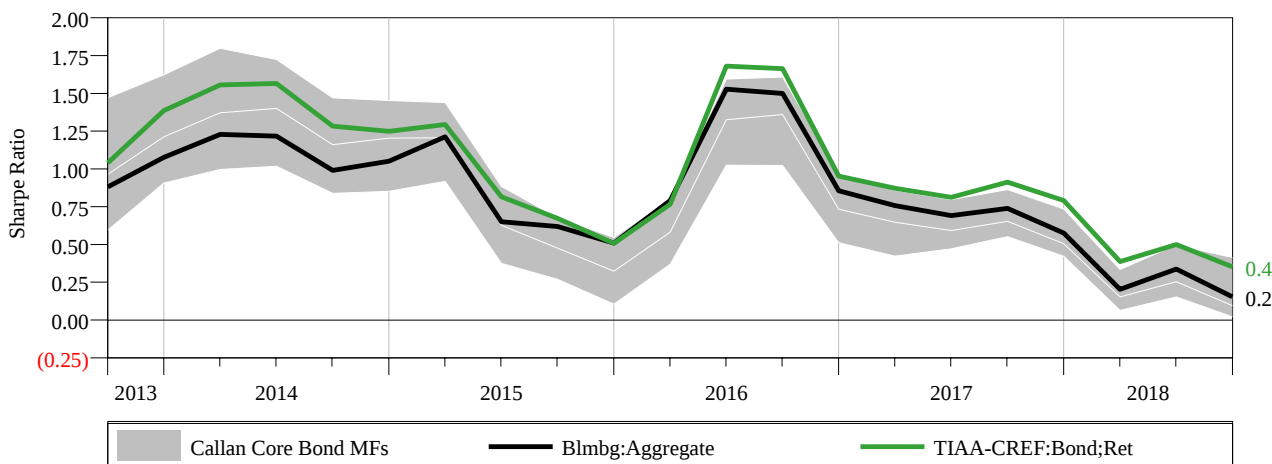
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Bond;Ret	0.60 (13)	0.35 (13)	1.07 (13)	1.61 (8)	5.98(2)
Blmbg:Aggregate	0.00 (43)	0.16 (42)	0.47 (43)	0.00 (43)	--

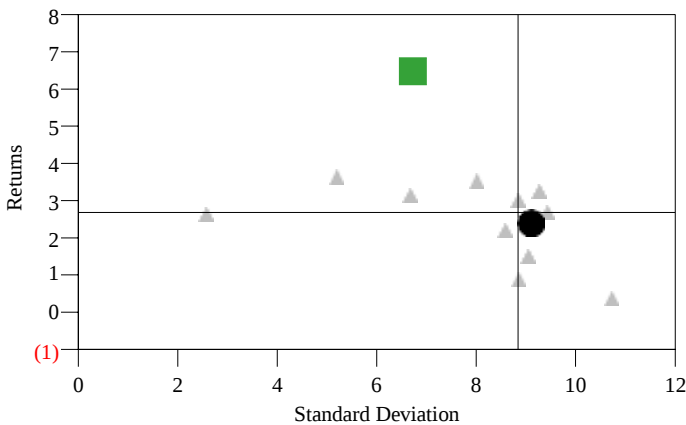
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



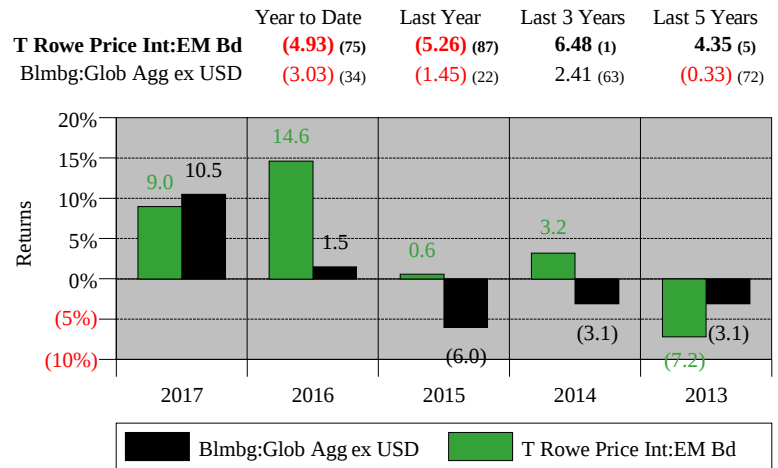
T Rowe Price Int:EM Bd

Blmbg:Glob Agg ex USD - (Callan Intl Fixed Inc MF)

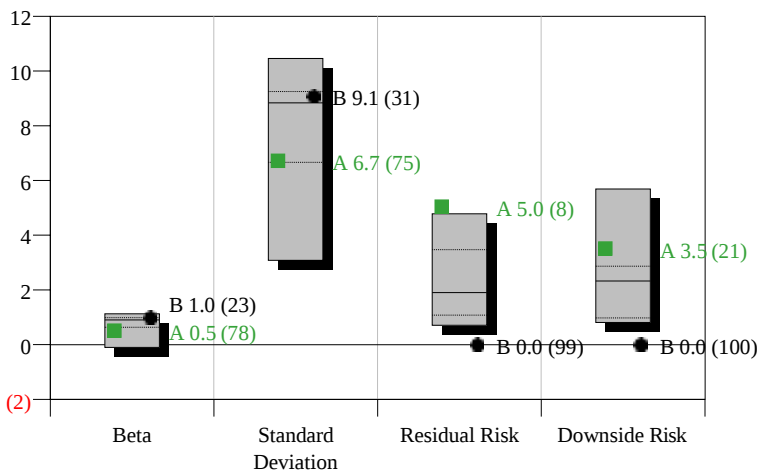
Scatter Chart
for 3 Years Ended September 30, 2018



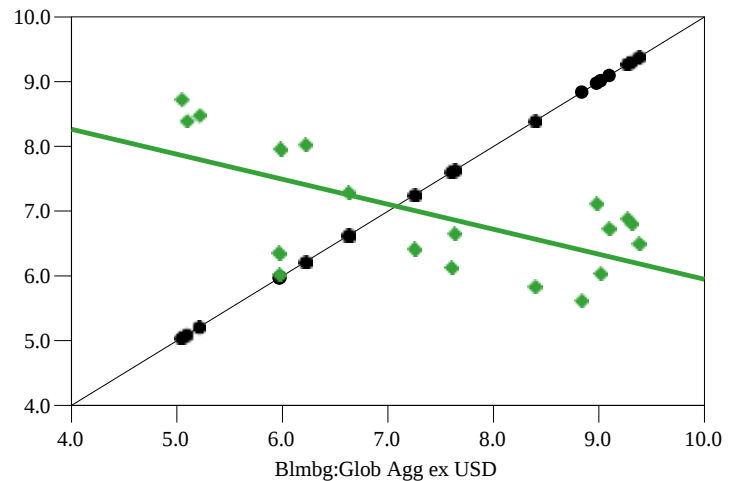
Returns for Various Periods



Risk Statistics for 3 Years



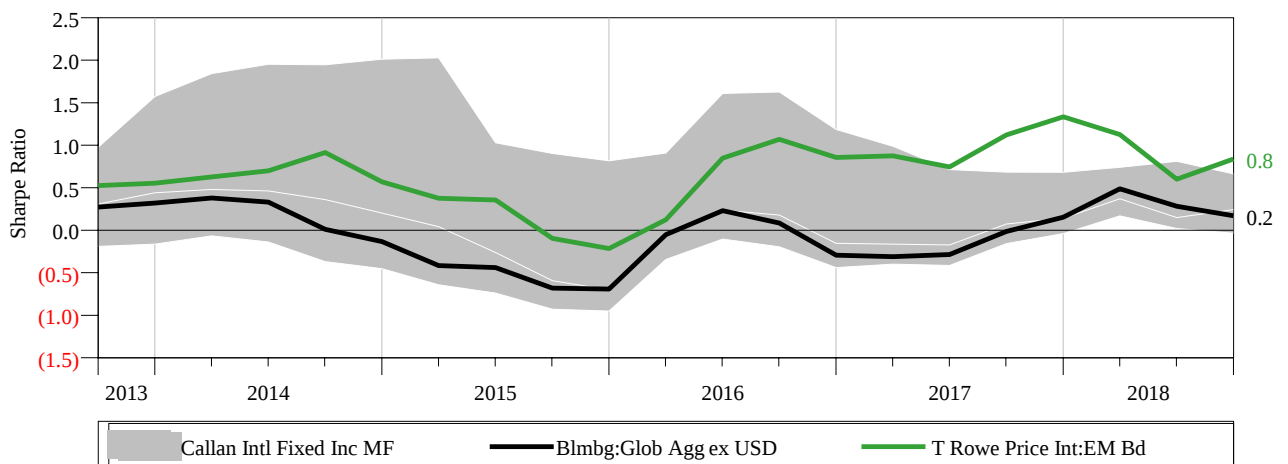
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
T Rowe Price Int:EM Bd	4.78 (5)	0.84 (4)	10.95 (4)	0.95 (13)	1.16(8)
Blmbg:Glob Agg ex USD	0.00 (65)	0.17 (64)	1.57 (56)	0.00 (66)	--

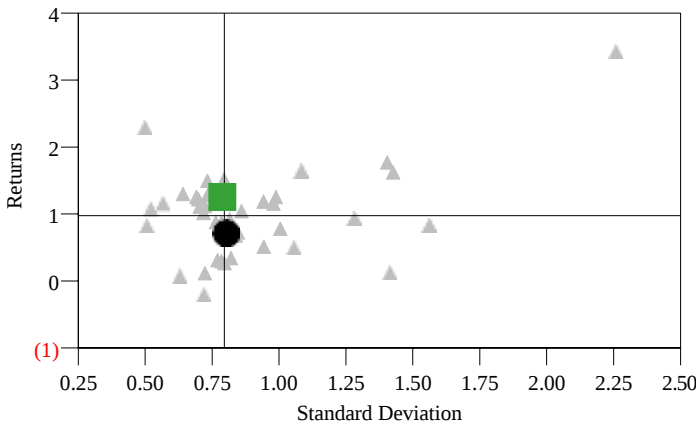
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



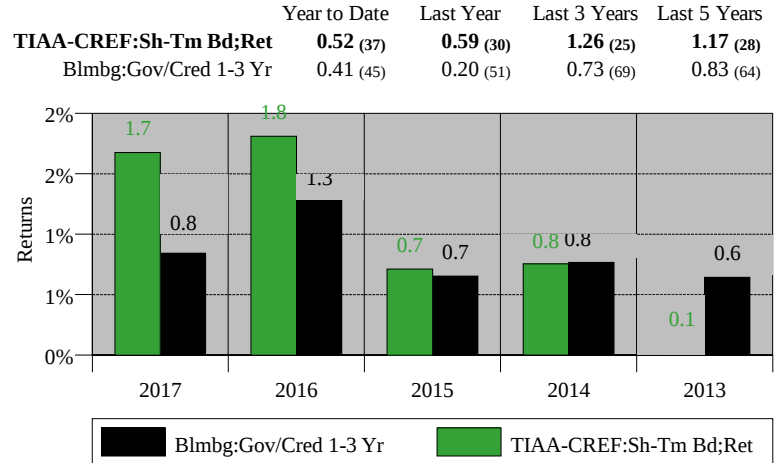
TIAA-CREF:Sh-Tm Bd;Ret

Blmbg:Gov/Cred 1-3 Yr - (Callan Short Term FI MFs)

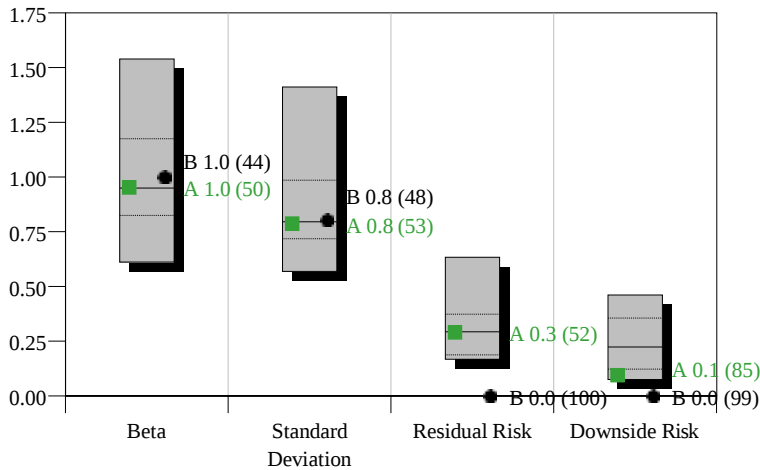
Scatter Chart
for 3 Years Ended September 30, 2018



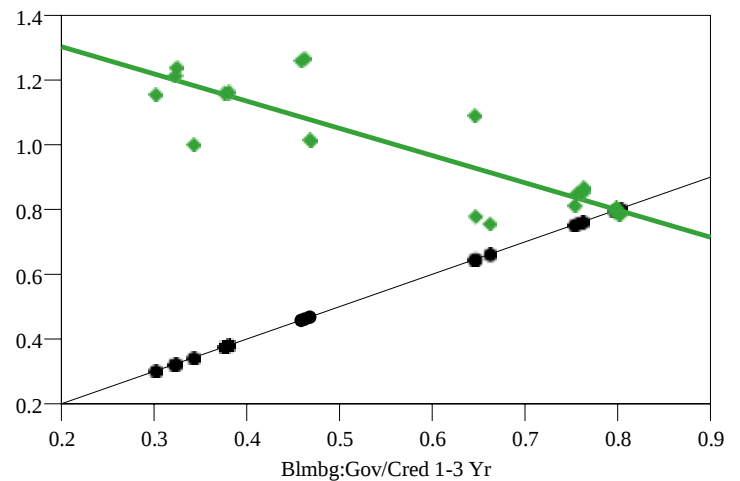
Returns for Various Periods



Risk Statistics for 3 Years



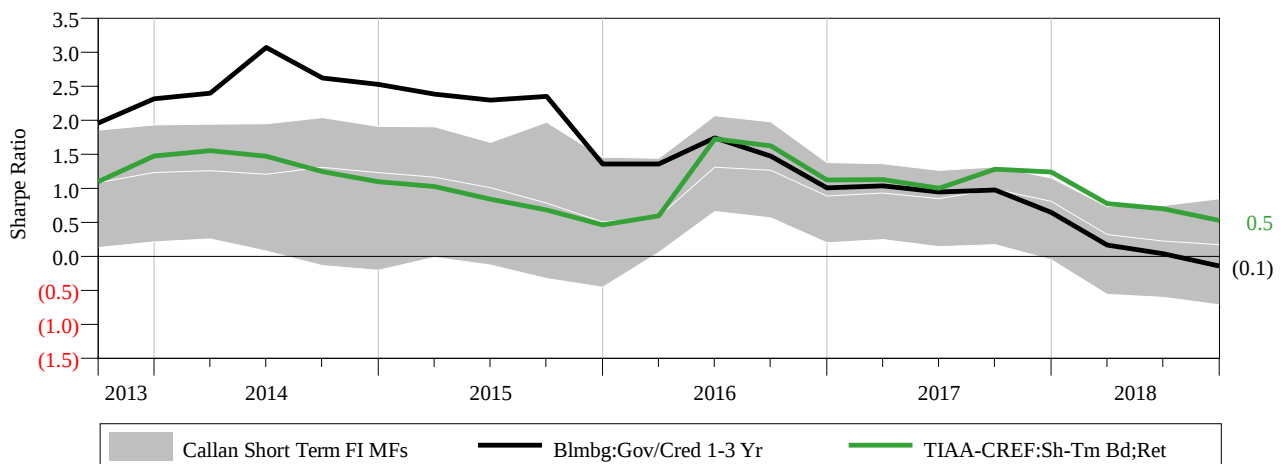
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

TIAA-CREF:Sh-Tm Bd;Ret	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
Blmbg:Gov/Cred 1-3 Yr	0.52 (25)	0.53 (30)	0.44 (32)	1.80 (19)	5.59(16)
	0.00 (69)	(0.14) (70)	(0.11) (69)	0.00 (70)	--

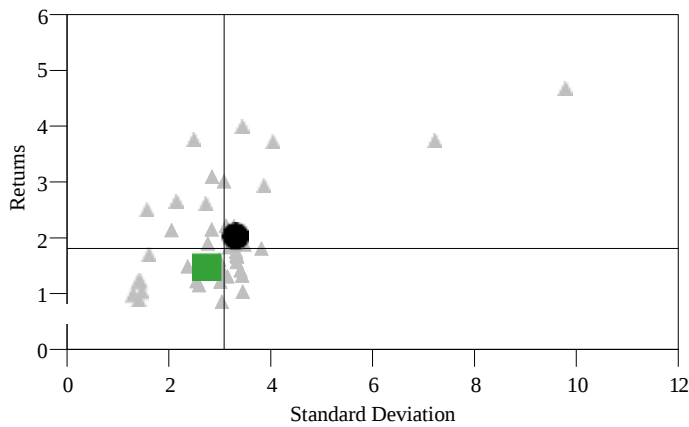
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



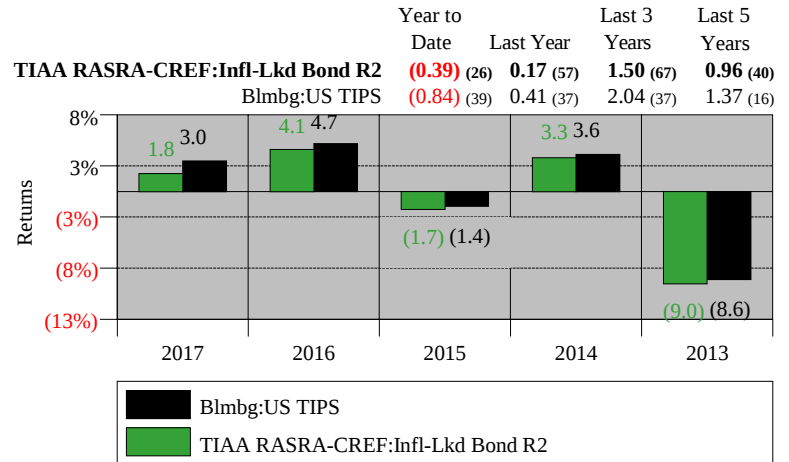
TIAA RASRA-CREF:Infl-Lkd Bond R2

Blmbg:US TIPS - (Callan TIPS MFs)

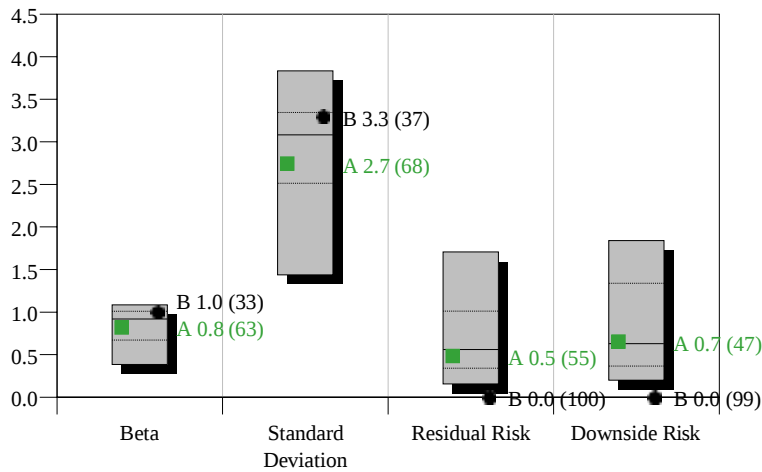
Scatter Chart
for 3 Years Ended September 30, 2018



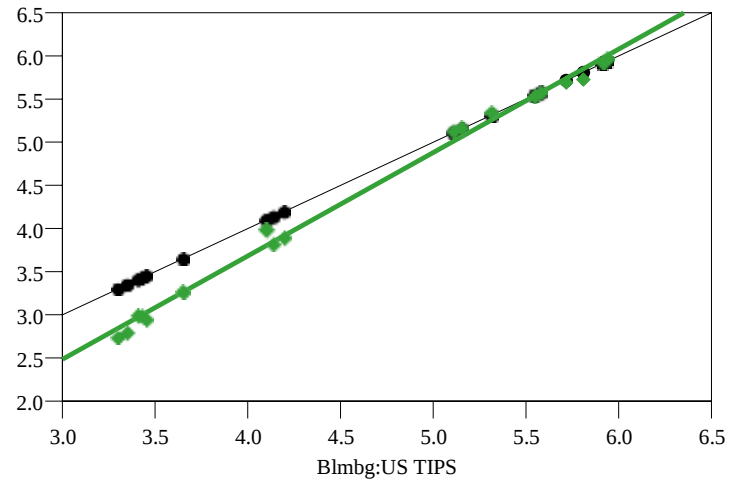
Returns for Various Periods



Risk Statistics for 3 Years



Rolling 12 Quarter Standard Deviation Comparison Chart

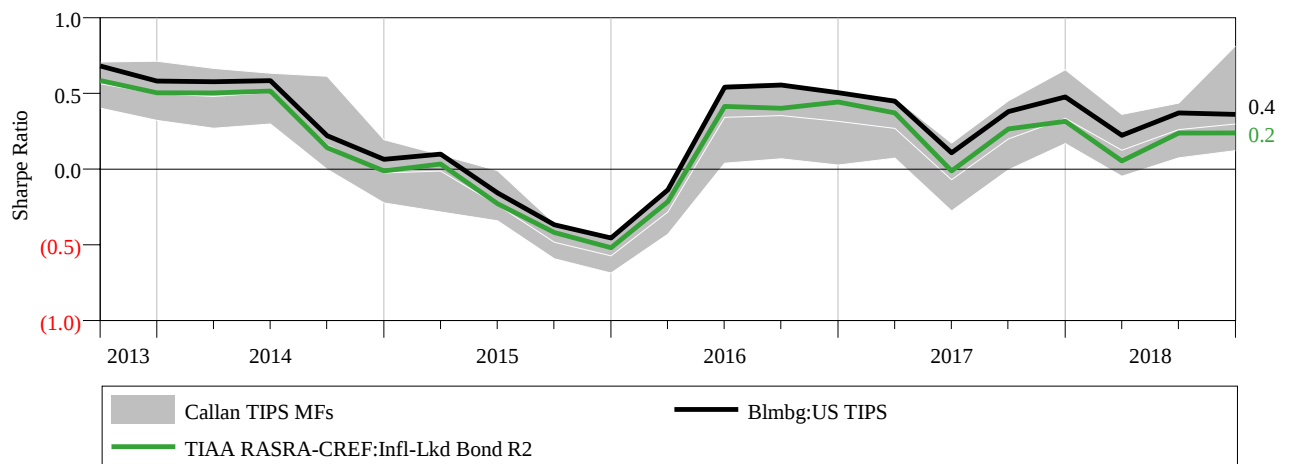


Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Infl-Lkd Bond R2	(0.33) (66)	0.24 (68)	0.80 (66)	(0.68) (61)	(0.83) (67)
Blmbg:US TIPS	0.00 (41)	0.36 (41)	1.20 (39)	0.00 (41)	--



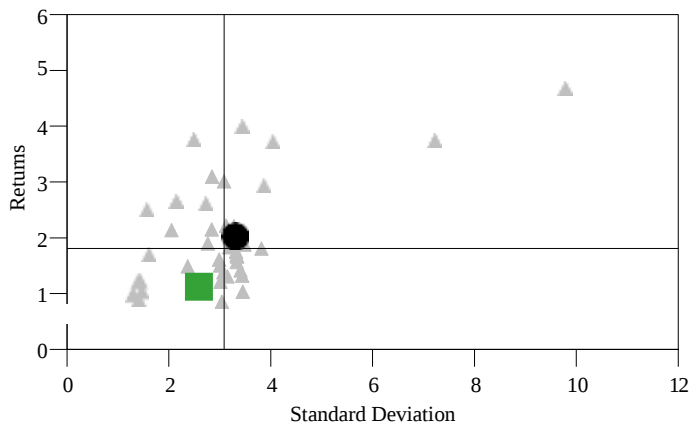
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



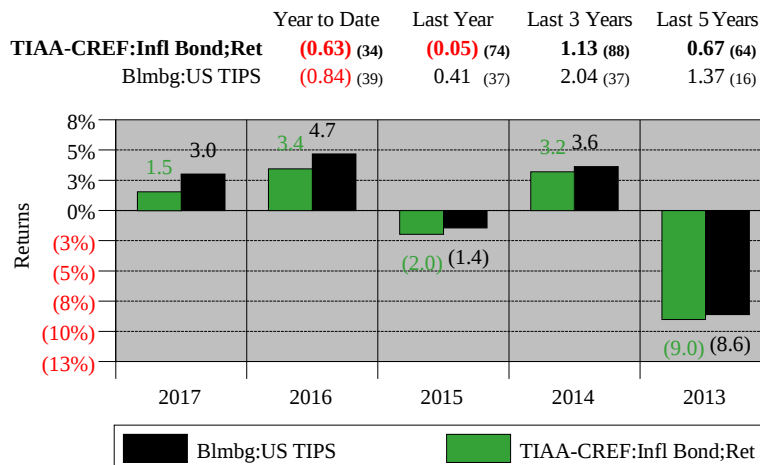
TIAA-CREF:Infl Bond;Ret

Blmbg:US TIPS - (Callan TIPS MFs)

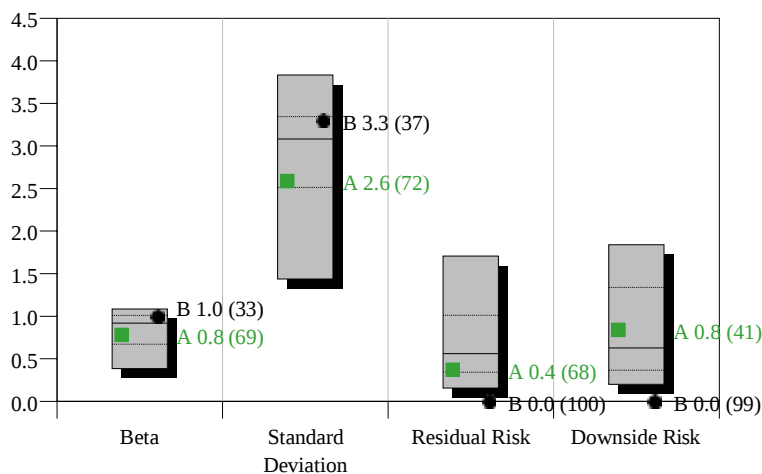
Scatter Chart
for 3 Years Ended September 30, 2018



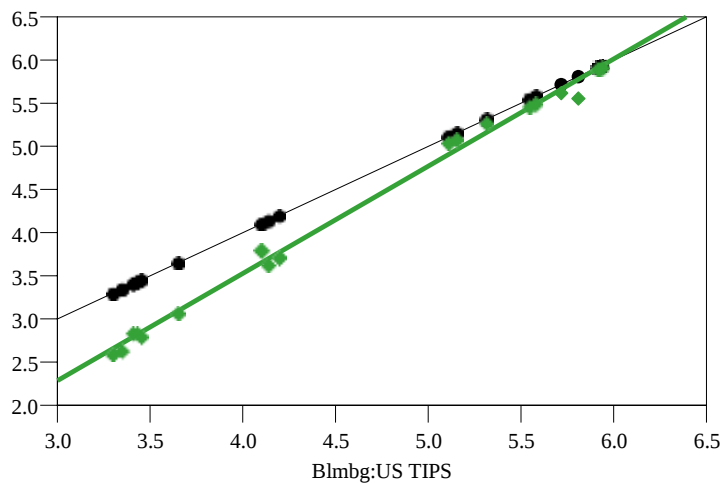
Returns for Various Periods



Risk Statistics for 3 Years



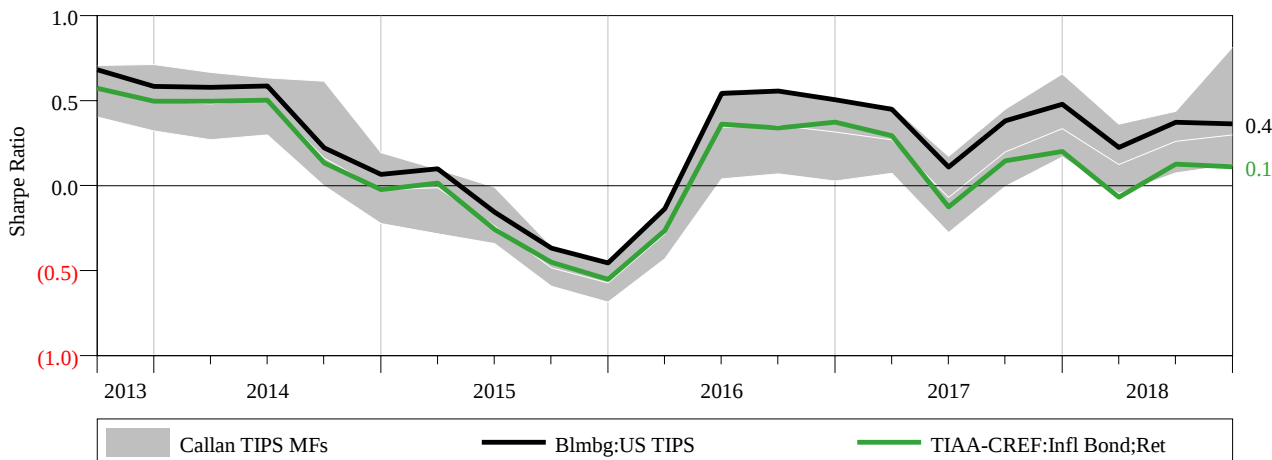
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Infl Bond;Ret	(0.65) (87)	0.11 (92)	0.37 (89)	(1.73) (90)	(1.08) (75)
Blmbg:US TIPS	0.00 (41)	0.36 (41)	1.20 (39)	0.00 (41)	--

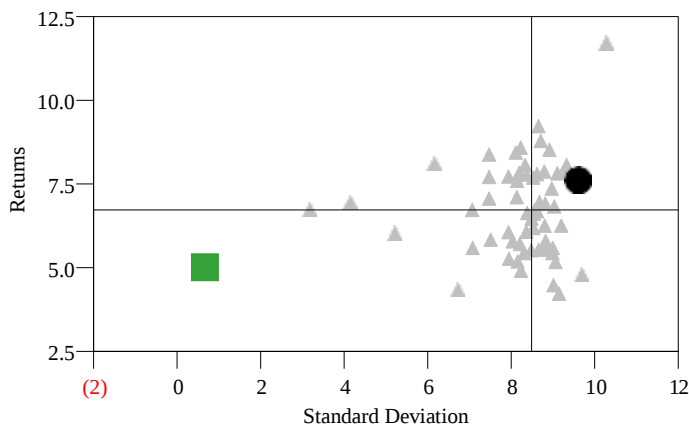
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



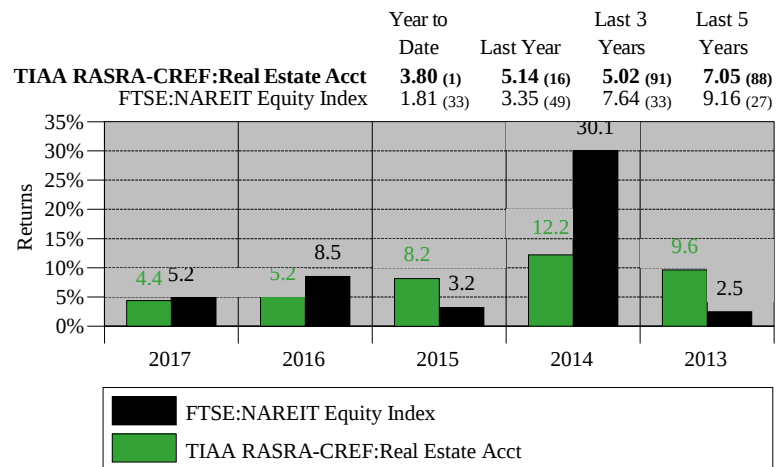
TIAA RASRA-CREF:Real Estate Acct

FTSE:NAREIT Equity Index - (Callan Real Estate MFs)

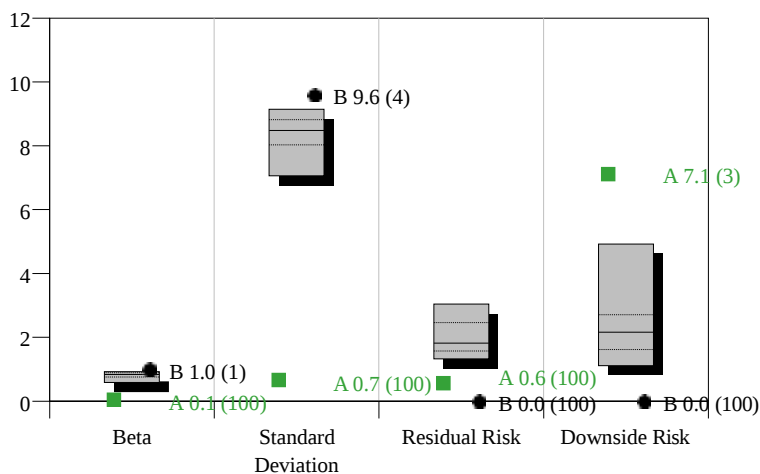
Scatter Chart
for 3 Years Ended September 30, 2018



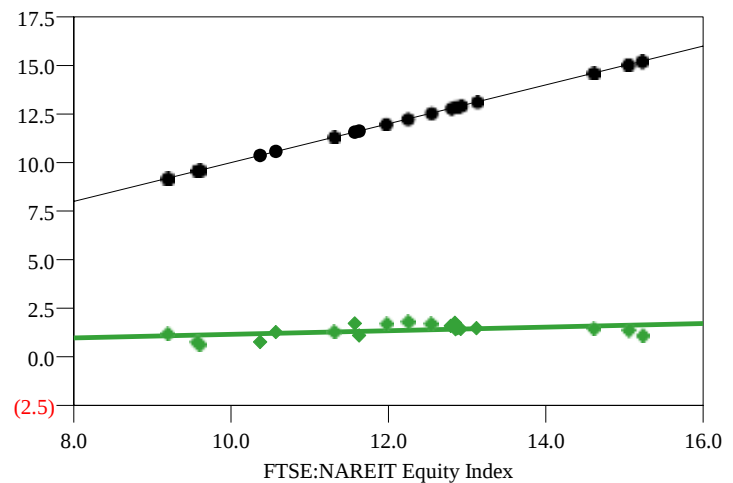
Returns for Various Periods



Risk Statistics for 3 Years

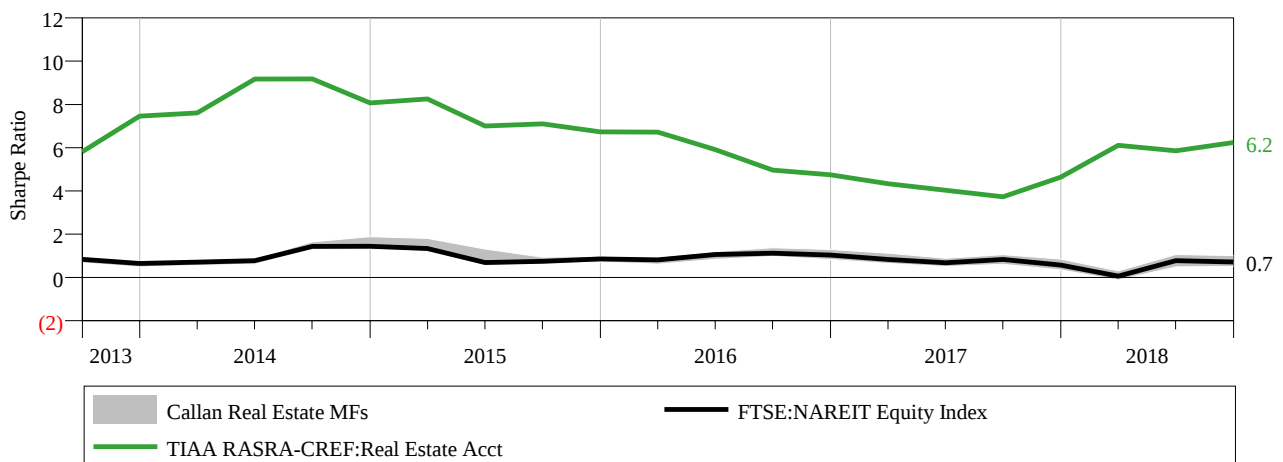


Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA RASRA-CREF:Real Estate Acct	3.78 (6)	6.25 (1)	79.80 (1)	6.65 (1)	(0.37) (47)
FTSE:NAREIT Equity Index	0.00 (52)	0.71 (46)	6.80 (52)	0.00 (52)	--

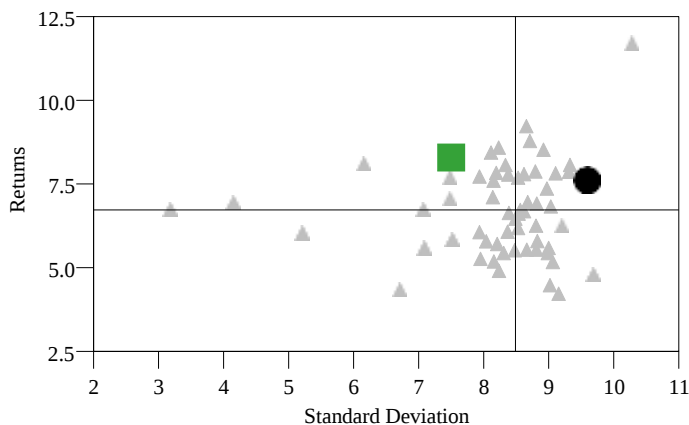


Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

TIAA-CREF:Real Est;Ret

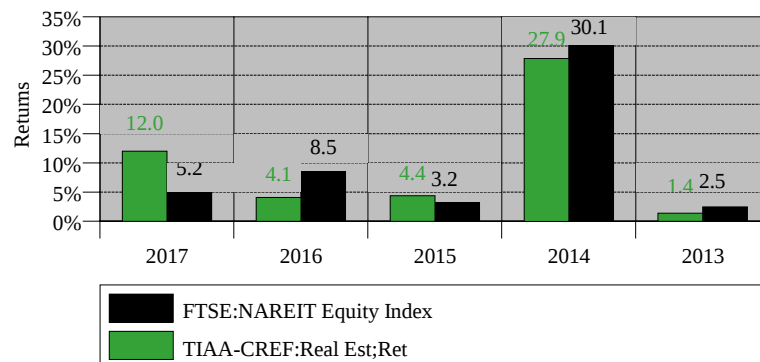
FTSE:NAREIT Equity Index - (Callan Real Estate MFs)

Scatter Chart
for 3 Years Ended September 30, 2018

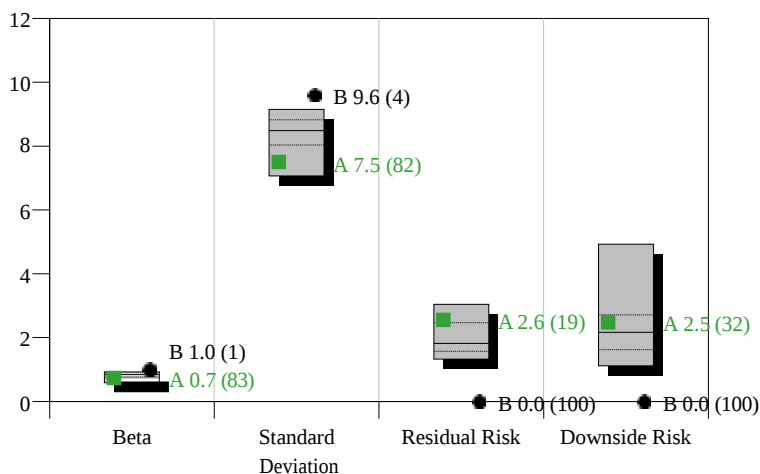


Returns for Various Periods

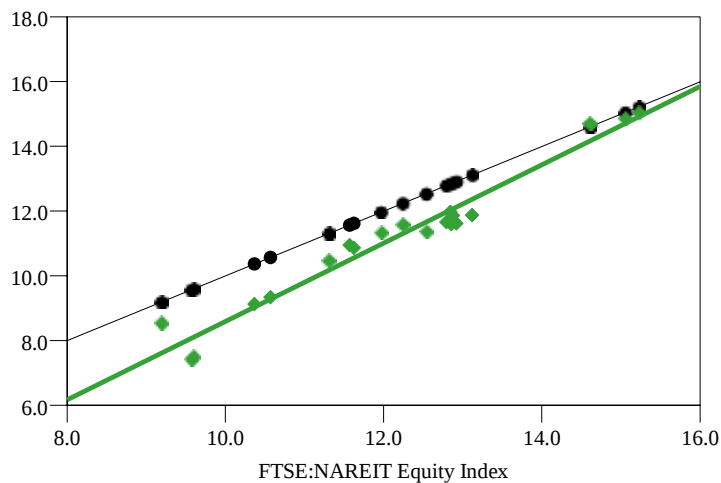
	Year to Date	Last Year	Last 3 Years	Last 5 Years
TIAA-CREF:Real Est;Ret	1.79 (33)	5.58 (13)	8.29 (12)	9.79 (10)
FTSE:NAREIT Equity Index	1.81 (33)	3.35 (49)	7.64 (33)	9.16 (27)



Risk Statistics for 3 Years



Rolling 12 Quarter Standard Deviation Comparison Chart

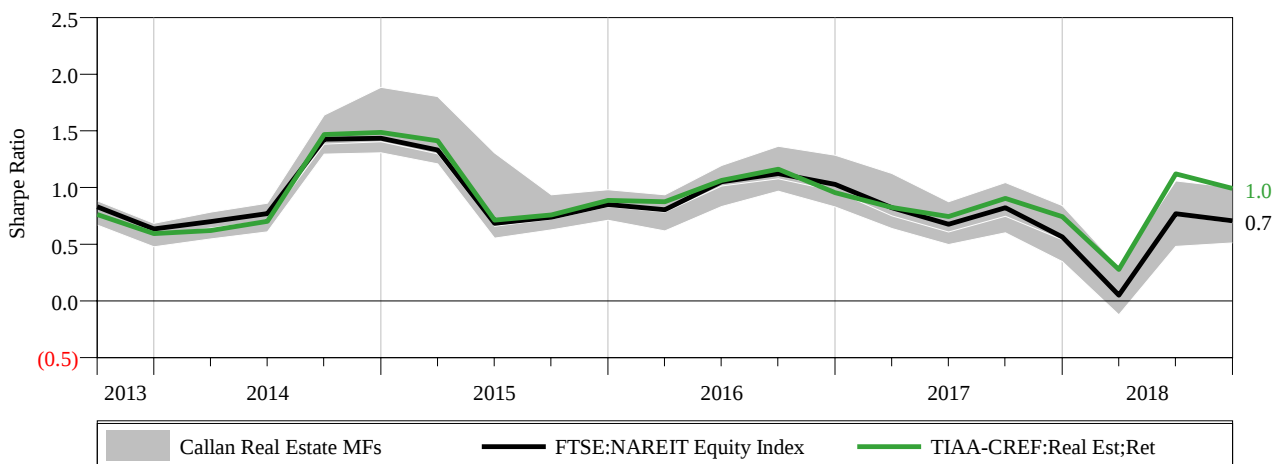


Risk Adjusted Statistics for 3 Years

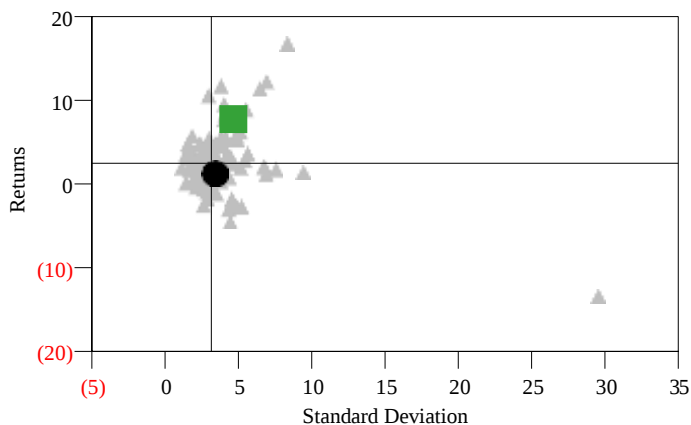
	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
TIAA-CREF:Real Est;Ret	2.33 (13)	0.99 (10)	10.13 (12)	0.91 (14)	0.27 (14)
FTSE:NAREIT Equity Index	0.00 (52)	0.71 (46)	6.80 (52)	0.00 (52)	--



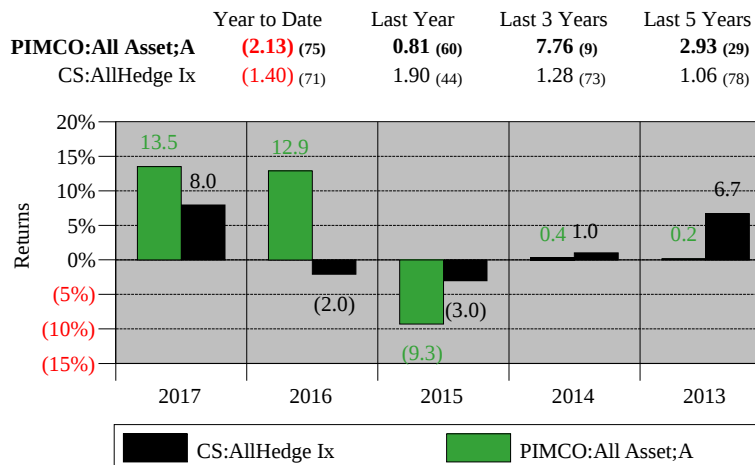
Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.



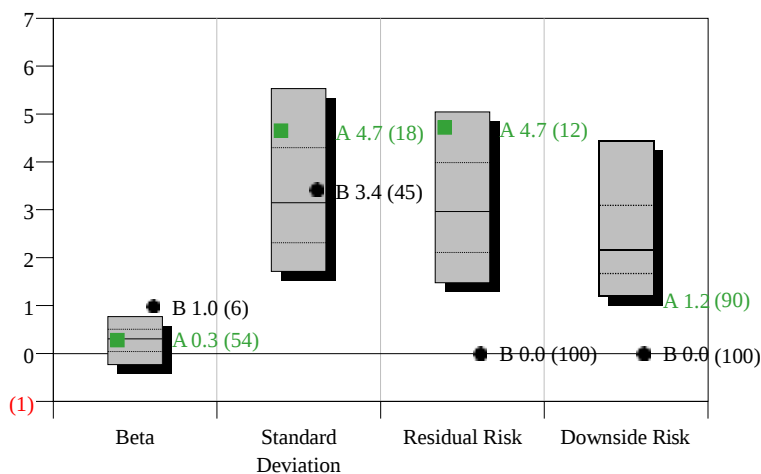
Scatter Chart
for 3 Years Ended September 30, 2018



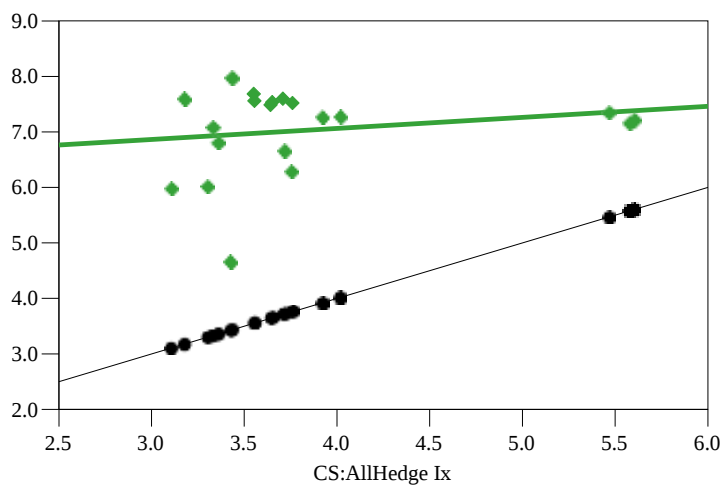
Returns for Various Periods



Risk Statistics for 3 Years



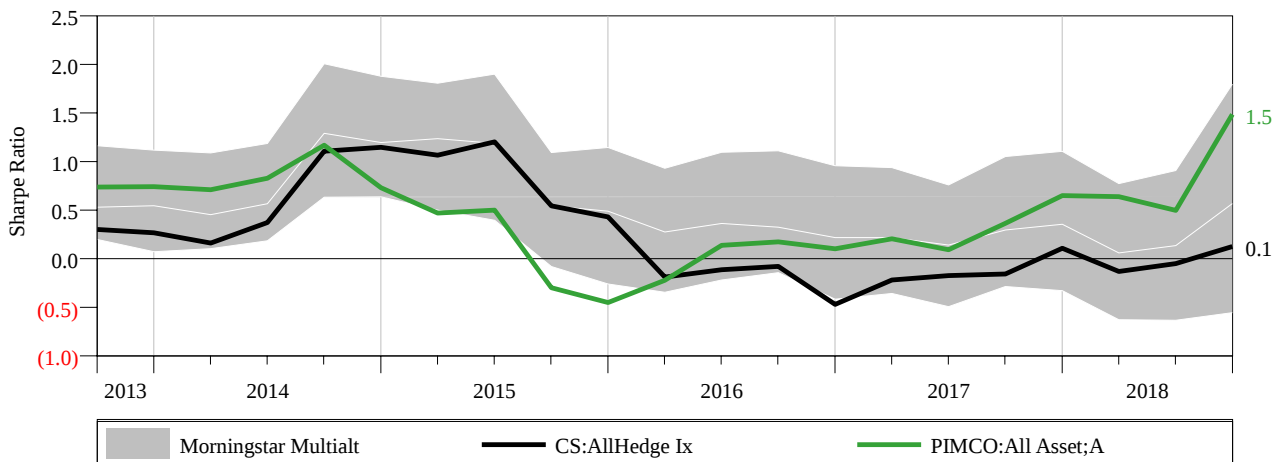
Rolling 12 Quarter Standard Deviation Comparison Chart



Risk Adjusted Statistics for 3 Years

	Alpha	Sharpe Ratio	Treynor Ratio	Information Ratio	Sortino Ratio
PIMCO:All Asset;A	6.84 (8)	1.49 (18)	24.70 (11)	1.45 (23)	5.60 (5)
CS:AllHedge Ix	0.00 (76)	0.13 (71)	0.44 (67)	0.00 (75)	--

Sharpe Ratio is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.





Section VI

Juniata College

403(b) Plan Transition (DRAFT)

2019

Thomas J. Scalici, CFP®, AIF®, CEBS

Chief Executive Officer



74 W. Broad Street, Suite 340, Bethlehem, PA 18018

Background and Process

- Starting in 2009, the Department of Labor “DOL” passed and began enforcing a new set of rules for 403(b) plans.
- One of the biggest changes is that the Juniata College must serve as the plan fiduciary, which means Juniata College assumed financial and compliance responsibility for the plan.
- The rules also require the plan to have a written document, a formal fund review and monitoring process, an annual audit of administrative procedures and to monitor the reasonableness of fees.
- Several years ago, a 403(b) Retirement Plan Committee was formed to formalize the governance process.
- The transition plan was reviewed and approved by the Board of Trustees

Background and Process

- Cornerstone is an independent investment advisory firm that has been a fiduciary to the XXX University retirement.
- Over this time, the mission has been to meet the highest fiduciary standards, to responsibly manage risk, to control cost, and to drive performance.
- The Committee elected to hire Cornerstone for the retirement plan because they specialize in the 403(b) market and work with numerous not for profit institutions.
- Most recently, Juniata College has been involved in a study of the retirement plan in a desire to improve the plan's overall effectiveness. The study included an analysis of the plan design, contracts, investments, fees, and education program.
- As a result of this work, we are pleased to announce that the plan will be transitioning to the TIAA Retirement Choice Platform effective Spring of 2019.

TIAA's Retirement Choice Platform (RC)

- TIAA-CREF's RC contract is a group contract not an individual contract.
- There are more than 15,000 funds available on this platform giving Juniata College significant flexibility to offer outside funds.
- This is important because the 403(b) Retirement Plan Committee shares fiduciary responsibility over plan assets. This includes a duty to select, monitor and replace plan investments, negotiate pricing and to keep the plan in compliance.
- The contract has more flexible provisions including a 7-year withdrawal restriction on the TIAA Traditional Account (the current contract is 9 years and 1 day) and currently has a higher interest rate.
- More than 700 other plans around the country have already migrated to this platform.

Plan Enhancements

- Juniata College will add new features to the Plan:
 - A new menu of investments with generally lower fees
 - The ability to consolidate all contracts onto the new platform by moving your prior investments to the new platform
- All employees maintain immediate 100% vesting
- You are encouraged to use this time to review your current deferral rate and consider an increase

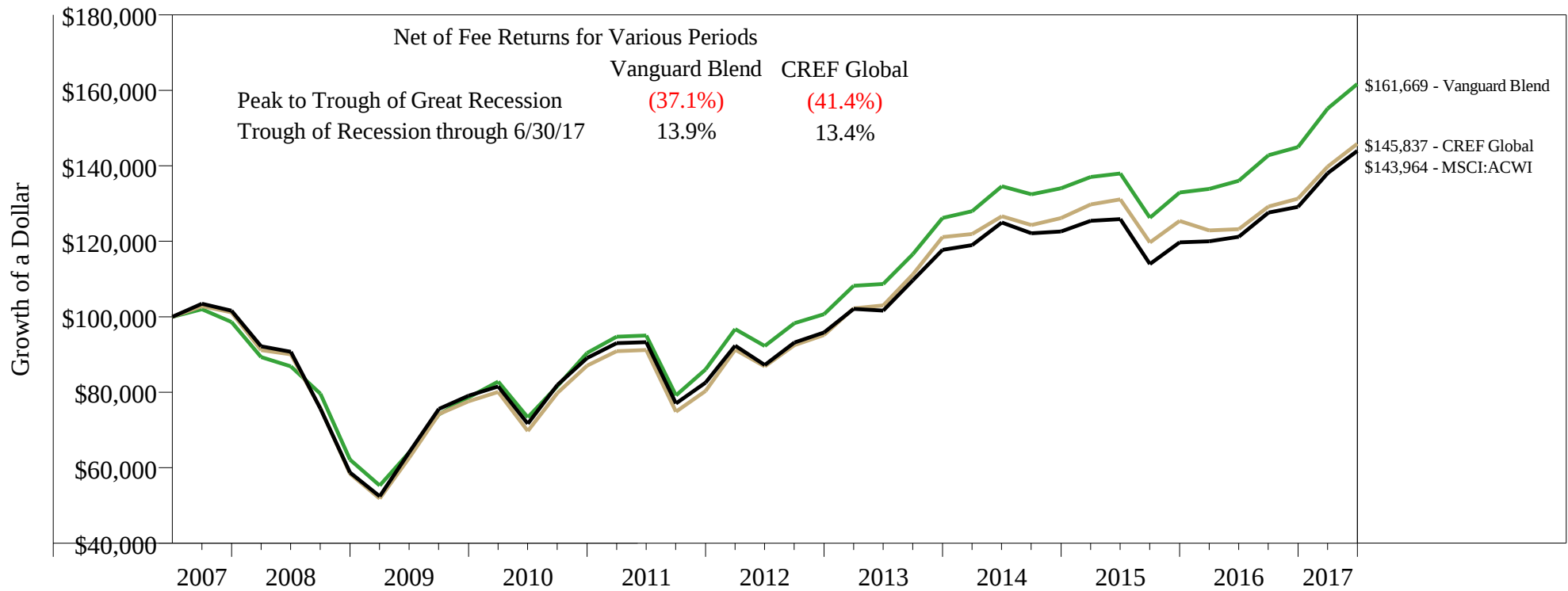
Investments, Transfers and Expenses

- A **new list of investment options** will be available for all contributions after XXX. After that date, no new money can be contributed to your current contracts.
- You can keep your current contracts at TIAA or elect to transfer them to the new investment platform. There are **numerous benefits to consolidation** which you should consider but the choice is ultimately yours.
- New mutual funds will use **institutional pricing** with lower costs. The average expense will drop by approximately 0.XX% (XX basis points) and the target date fund expense ratios will decrease by approximately XX% annually. The cost of the annuity options will remain the same.
- There will be a 0.XX% fee to cover the costs. This will provide **greater transparency** and lower plan expenses.
- The overall cost of the new platform is generally less than the current contracts.
- **These are not new fees**. They have always been built into the expense ratio of the funds.

Macroeconomic Overview

Growth of Dollar for a \$100,000 Mandate

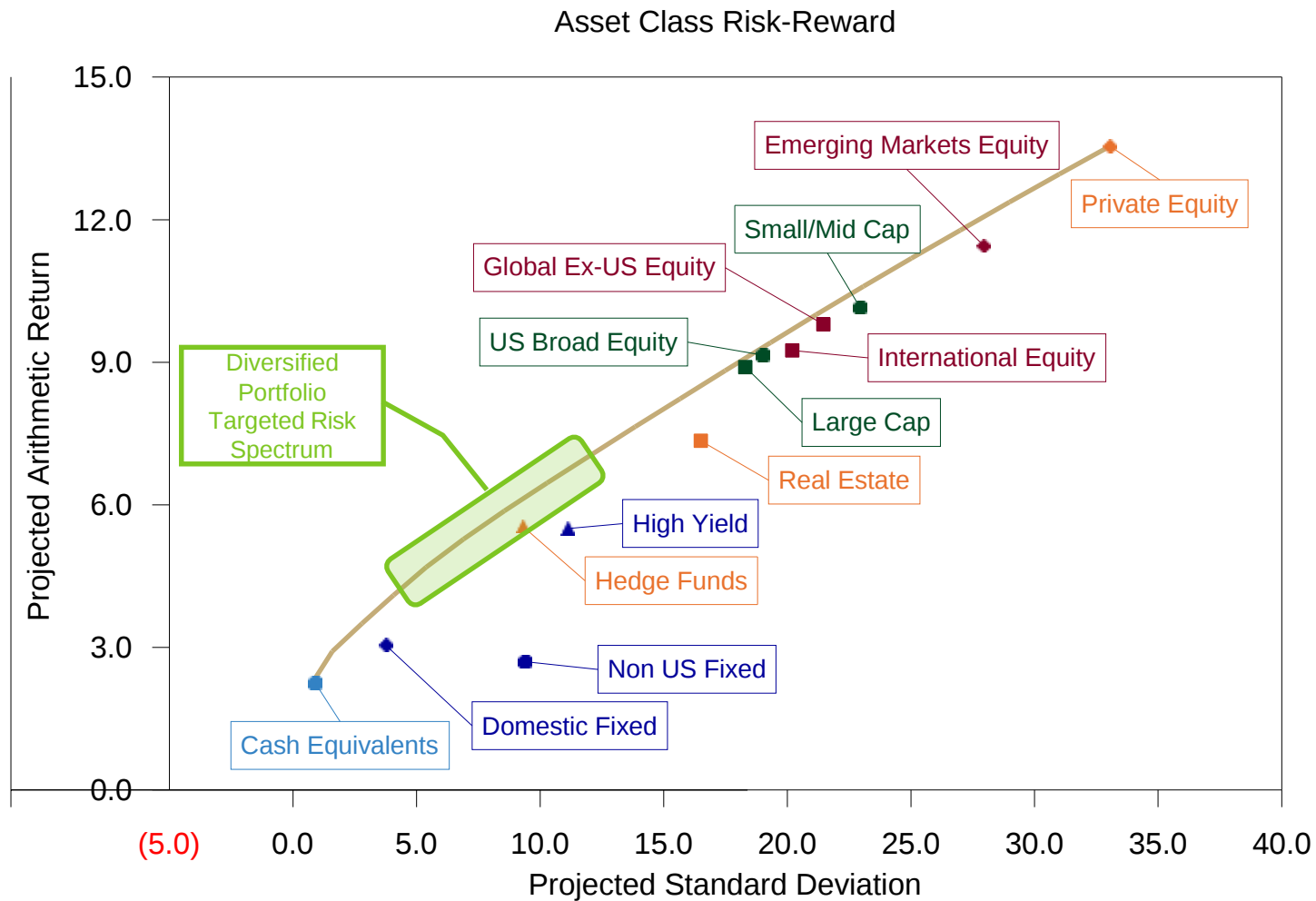
Net of Fee Growth of a Dollar for a \$100,000 Mandate
for 10 Years Ended June 30, 2017



Net of Fee Growth of a Dollar for a \$100,000 Mandate
for Periods Ended June 30, 2017

	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
Vanguard Blend	\$118,836	\$120,134	\$175,256	\$161,669	\$321,836
CREF Global	\$118,366	\$115,143	\$167,931	\$145,837	\$274,684

Asset Class Risk Spectrum



Source: Callan Associates 2016 10 year capital market projections

Investment Options

Hybrid Core Fund Menu



Asset Allocation Funds	Vanguard Target Date Funds											
	Retirement Income	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Passive Core Options	Core Bond	Large Cap Value	Large Cap Core	Large Cap Growth	Real Estate	Intl Core	Mid Cap Core	Mid Cap Growth	Small Cap Value	Small Cap Core	Small Cap Growth	
	Vanguard Total Bond Market Index	Vanguard Value Index	Vanguard 500 Index	Vanguard Growth Index	Vanguard Real Estate Index	Vanguard Total Intl Stock Index	Vanguard Mid Cap Index	Vanguard Mid Cap Growth	Vanguard Small Cap Value Index	Vanguard Small Cap Index	Vanguard Small Cap Growth Index	
Active Core Options	Stable Value			Cash & Equivalents			High Yield Bond			Large Cap Core		
	TIAA Traditional			Vanguard Federal Money Market			Vanguard High-Yield Corporate			TIAA-CREF Social Choice Equity		

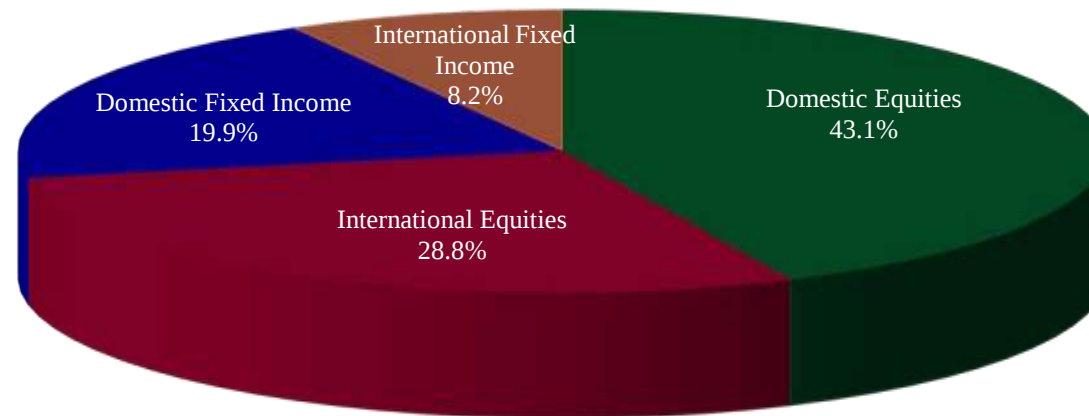
Target Date Funds

Vanguard Target Date Funds

Birth Year	Portfolio
1993 or later	Vanguard Target Retirement 2060
1988-1992	Vanguard Target Retirement 2055
1983-1987	Vanguard Target Retirement 2050
1978-1982	Vanguard Target Retirement 2045
1973-1977	Vanguard Target Retirement 2040
1968-1972	Vanguard Target Retirement 2035
1963-1967	Vanguard Target Retirement 2030
1958-1962	Vanguard Target Retirement 2025
1953-1957	Vanguard Target Retirement 2020
1948-1952	Vanguard Target Retirement 2015
1947 or earlier	Vanguard Target Retirement Income

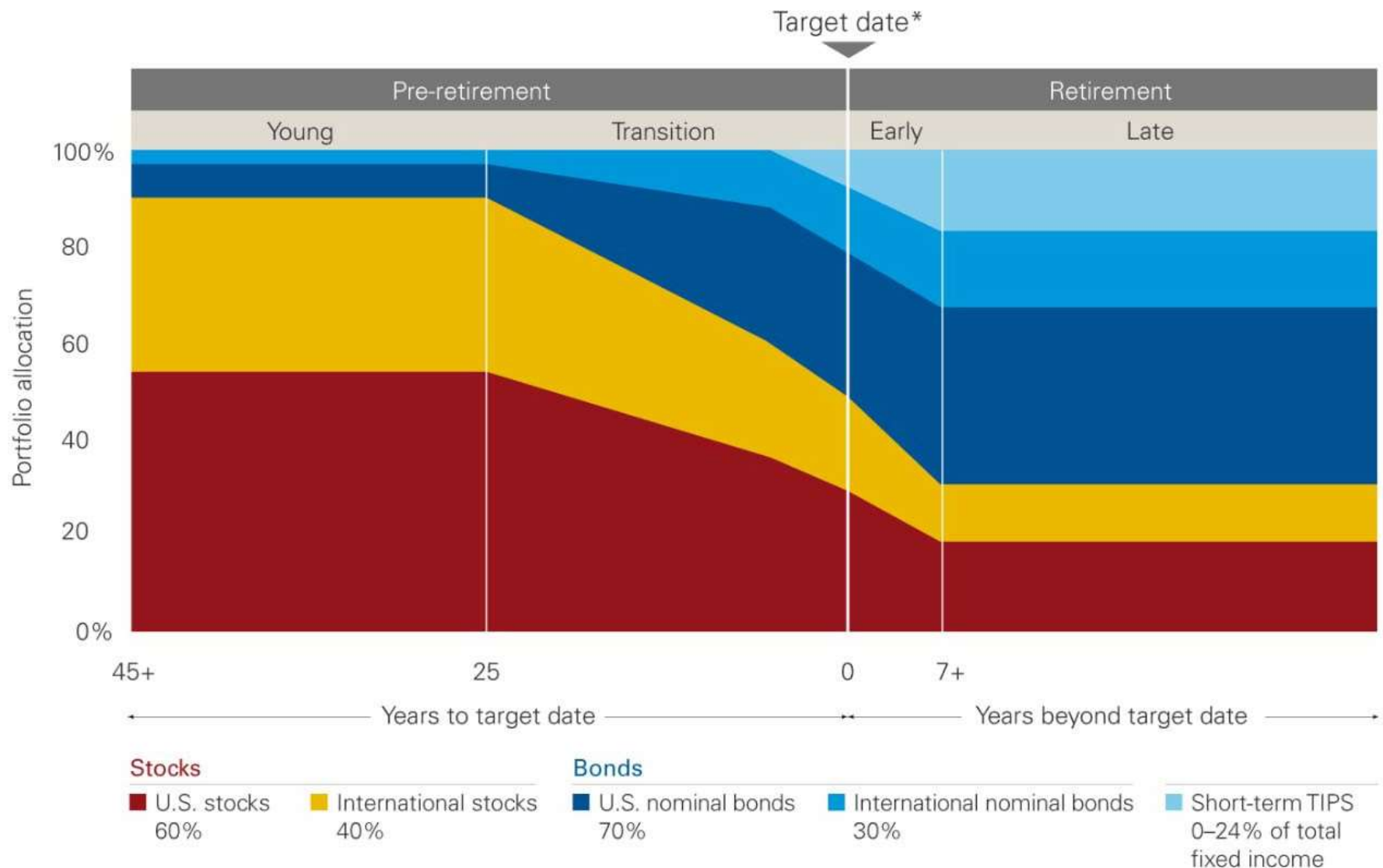
Vanguard Target Date 2030 Investor

Asset Allocation



Asset Category	Investment	% of Portfolio
Domestic Equities	Vanguard Total Stock Market Index Fund Investor Shares	43.1%
International Equities	Vanguard Total International Stock Index Fund Investor Shares	28.8%
Domestic Fixed Income	Vanguard Total Bond Market II Index Fund Investor Shares	19.9%
International Fixed Income	Vanguard Total International Bond Index Fund Investor Shares	8.2%
Total		100.00%

Vanguard Target Date Retirement Investor



What Happens Next?

- A series of educational meetings to introduce the program is occurring this month.
- If you do not make an investment election by your XXX paycheck, your new contributions will automatically be mapped into the appropriate Vanguard Target Date Fund based on your date of birth. A schedule is provided on the next page of this presentation.
 - This is an industry best practice that complies and is supported by the DOL which is designed to put you in an age appropriate mix of investments.
- TIAA will conduct individual participant meetings to help anyone select their new investment options if you wish to switch out of the Target Date Fund.
- Any time after the plan goes live in XXX, you may transfer your assets from your individual contracts into the group contract if you wish. This is entirely your decision.

Key Dates

Date	Milestone
	Participant Communication mailed
	Final payroll contribution directed to existing contracts
	New Retirement Choice contracts established for all Plan participants in preparation for contributions
	Confirmation packets mailed to home address. Able to change investments allocations and beneficiaries
	Information sessions for Faculty & Staff presented Cornerstone
	Information & Individual sessions for Faculty & Staff presented by Cornerstone
	First payroll contribution directed to updated investment lineup in Retirement Choice contracts
	Assets in former contracts are eligible for transfer to the new Retirement choice contracts. Call TIAA or go online to the TIAA website to request this transfer.

Glossary

- *Citigroup 90-Day Treasury Bill Index is an unmanaged index that tracks short-term U.S. government debt instruments.*
- *Barclays Capital Aggregate Bond Index is a market capitalization-weighted index, meaning the securities in the index are weighted according to the market size of each bond type. Most U.S. traded investment grade bonds are represented. Municipal bonds and Treasury Inflation-Protected Securities (TIPS) are excluded, due to tax treatment issues. The index includes US Treasury Securities (non TIPS), Government agency bonds, Mortgage backed bonds, Corporate bonds, and a small amount of foreign bonds traded in U.S.*
- *Barclays Capital 1-3 Year Government/Credit Index is a total return index that incorporates all bonds in both the Treasury Bond Index and the Agency Bond Index, as well as U.S. corporate and some foreign debentures and secured notes, with maturities of one to three years.*
- *Barclays Capital 1-3 Year U.S. Government Index is a broad measure of the performance of short-term government bonds.*
- *Barclays Capital Global Aggregate Bond provides a broad-based measure of the global investment-grade fixed-rate debt markets. The three major components of this index are the US Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The Global Aggregate Bond Index ex-US excludes the US Aggregate component.*
- *Barclays Capital Global Emerging Markets Bond Index consists of the US dollar (USD)-denominated fixed- and floating-rate US Emerging Markets Index and the fixed-rate Pan-European Emerging Markets Index, which is primarily made up of GBP- and EUR-denominated securities. The index includes emerging-markets debt from the following regions: Americas, Europe, Asia, Middle East, and Africa. An emerging market is defined as any country that has a long-term foreign currency debt sovereign rating of Baa1/BBB+/BBB+ or below using the middle rating of Moody's, S&P, and Fitch.*
- *Barclays Capital High Yield Index covers the universe of fixed rate, non-investment grade debt, including corporate and non-corporate sectors. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets are excluded, but Canadian and global bonds (SEC registered) of issuers in non-emerging market countries are included. Original issue zero coupon bonds, step-up coupon structures, and 144-As are also included.*
- *Barclays Capital Intermediate Term Government Bond Index is comprised of approximately 1,000 issues of U.S. Government Treasury and Agency Securities.*
- *Barclays Capital U.S. Long Government Index includes fixed income securities issued by the U.S. Treasury (not including inflation-protected bonds) and U.S. government agencies and instrumentalities, as well as corporate or dollar-denominated foreign debt guaranteed by the U.S. government, with maturities greater than 10 years.*
- *Barclays Capital U.S. Long Government/Credit Bond Index measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate, and investment-grade international dollar-denominated bonds with maturities longer than 10 years. The average maturity is approximately 20 years.*
- *Barclays Capital U.S. Treasury Inflation-Protected Securities (TIPS) Index is a market value-weighted index that tracks inflation-protected securities issued by the US Treasury. To prevent the erosion of purchasing power, TIPS are indexed to the non-seasonally adjusted Consumer Price Index for All Urban Consumers, or the CPI-U (CPI).*
- *Barclays Capital U.S. Universal Bond Index represents the union of the U.S. Aggregate Index, U.S. Corporate High-Yield Index, Investment-Grade 144A Index, Eurodollar Index, U.S. Emerging Markets Index, and the non-ERISA eligible portion of the CMBS Index. The index covers USD-denominated, taxable bonds that are rated either investment-grade or below investment-grade. Some U.S. Universal Index constituents may be eligible for one or more of its contributing subcomponents that are not mutually exclusive. These securities are not double-counted in the index.*
- *Dow Jones-UBS Commodity Index (DJ-UBSCI) is composed of futures contracts on physical commodities. Unlike equities, which typically entitle the holder to a continuing stake in a corporation, commodity futures contracts normally specify a certain date for the delivery of the underlying physical commodity. In order to avoid the delivery process and maintain a long futures position, nearby contracts must be sold and contracts that have not yet reached the delivery period must be purchased. This process is known as "rolling" a futures position.*
- *Dow Jones U.S. Real Estate Index represents Real Estate Investment Trusts (REIT) and other companies that invest directly or indirectly in real estate through development, management or ownership, including property agencies.*
- *Merrill Lynch Convertible Bond Index represents various markets of convertible bonds and provides reliable benchmarks for asset allocation and portfolio management. There are three groups of indexes; the first two, the G300 Global Convertible Master Index and the Global Investment Grade Convertible Master Index, concentrate the larger more liquid issues, and tend to be the most appropriate for benchmarking. The third series of indexes, the Regional All Convertibles Master Indexes, are rules-driven and allow for more detailed analysis.*



Glossary Continued

- *MSCI All Country World Index is a market capitalization weighted equity index of stocks traded in 47 world markets.*
- *MSCI EAFE Growth Index is a market capitalization-weighted index that measures the performance of the leading growth stocks in 21 developed countries outside of North America. (The 21 countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Australia, New Zealand, Hong Kong, Japan and Singapore.)*
- *MSCI EAFE Index is a free float-adjusted market capitalization index designed to measure developed market equity performance, excluding the U.S. and Canada. The MSCI EAFE Index consists of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.*
- *MSCI EAFE Small Cap Index is an unmanaged, free float-adjusted, market-weighted index of small capitalization companies in each industry group of each country represented by the MSCI EAFE Index, which is designed to measure the equity market performance of developed markets outside of the U.S. & Canada.*
- *MSCI EAFE Value Index is an unmanaged index of value stocks of companies located in Europe, Australasia and the Far East.*
- *MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consisted of the following 21 emerging market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.*
- *MSCI Global Small Cap Index provides an exhaustive representation of the small cap size segment. The indices target companies that are in the Investable Market Index (IMI) but that are not in the Standard Index in each market. The indices cover 24 Developed Markets, 21 Emerging Markets and 26 Frontier Markets.*
- *Russell 1000 Growth Index is a market capitalization weighted index that measures the performance of those Russell 1000 companies with higher price-to-book ratio and higher forecasted growth values.*
- *Russell 1000 Value Index is a large cap value index measuring the performance of the largest 1,000 U.S. incorporated companies with lower price-to-book ratios and lower forecasted growth values.*
- *Russell 2000 Index is composed of the 2000 smallest stocks in the Russell 3000® Index and is widely regarded in the industry as the premier measure of small-cap stock performance.*
- *Russell 2000 Growth Index measures the performance of the Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.*
- *Russell 2000 Value Index is an unmanaged, market-value weighted, value-oriented index comprised of small stocks that have relatively low price to book ratios and lower forecasted growth values.*
- *Russell Midcap Growth Index measures the performance of the Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values.*
- *Russell Midcap Index is a market capitalization weighted index representing the smallest 800 companies in the Russell 1000 Index. The average Russell Midcap Index member has a market cap of \$8 billion to \$10 billion, with a median value of \$4 billion to \$5 billion.*
- *Russell Midcap Value Index measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values.*
- *S&P 500 Index is a capitalization-weighted index of 500 stocks. The S&P 500 Index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.*



Definitions

- *Alpha is a measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. A positive Alpha figure indicates the portfolio has performed better than its beta would predict. In contrast, a negative Alpha indicates the portfolio has underperformed, given the expectations established by beta.*
- *Annualized Total Return is the average amount of money earned by an investment each year over a given time period. An annualized total return provides only a snapshot of an investment's performance and does not give investors any indication of its volatility.*
- *Beta is a quantitative measure of the volatility of a given stock, mutual fund, or portfolio, relative to their respective peer group. Specifically, the performance the stock, fund or portfolio has experienced in the last 3 years as their peer group moved 1% up or down. A beta above 1 is more volatile than their respective peer group, while a beta below 1 is less volatile.*
- *Consumer Price Index is a measure of the average change in prices for a fixed market basket of goods and services. This market basket is based on the spending patterns of urban wage earners and clerical workers, who represent 40 percent of the total civilian population.*
- *Down Market Capture Ratio is the percentage of the total market movement achieved by a manager during a period in which the benchmark decreases.*
- *Downside Risk differentiates between "good" risk (upside volatility) and "bad" risk (downside volatility).*
- *Expense Ratio includes management fees, distribution (12b-1) fees, other expenses, and any fee waivers or expense reimbursements.*
- *Inception Date is the date on which an investment began its operations.*
- *Information Ratio is a risk statistic that measures the excess return per unit of residual "non-market" risk in a portfolio.*
- *Manager Tenure is the number of years that the current manager has been the portfolio manager for the investment product. For products with more than one manager, the tenure of the manager who has been with the product the longest is shown.*
- *Median Market Cap is the midpoint of Market Capitalization (market price multiplied by the number of shares outstanding) of the stocks in a portfolio. Half the stocks in the portfolio will have higher market capitalizations; half will have lower.*
- *Peer Group % Rankings is a standardized ranking in which the funds are ranked from 1 to 100 (1 being the best and 100 being the worst) based on their return compared to that of their peers. The rest of the observations are placed an equal distance from each other. All the percentile ranks are based on the peer group (Morningstar or Callan Associates Category).*
- *Quadrant Rank is a measure that encompasses both risk and return. It is calculated by comparing the return and standard deviation (A statistical measurement of dispersion about an average, which, for a fund, depicts how widely the returns varied over a certain period of time) to the return and standard deviation of the peer group. This allows a graph to be generated where items are plotted in one of four quadrants. Each quadrant represents an explanation of the manager's ability to produce returns relative to the risk they take.*
- *Residual Risk is the unsystematic, firm-specific, or diversifiable risk of a security or portfolio.*
- *Sharpe Ratio is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3-Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken.*



Definitions Continued

- *Sortino Ratio identifies the value added per unit of bad risk. This statistic measures excess return divided by downside risk.*
- *Standard Deviation is a historical measure of the variability of a fund's returns. If a fund has a high standard deviation annualized, its returns have been volatile; a low standard deviation indicates returns have been less volatile.*
- *Total Return is the actual rate of return of an investment or a pool of investments over a given evaluation period when measuring performance. Total return includes interest, capital gains, dividends and distributions realized over a given period of time.*
- *Tracking Error is a statistical measure of a portfolio's risk relative to an index. It reflects the standard deviation of a portfolio's individual quarterly or monthly returns from the indexes returns. Typically, the lower the tracking error, the more "index-like" the portfolio.*
- *Treynor Ratio is a risk statistic that measures the excess return per unit of systematic "market" risk taken in a portfolio.*
- *Up Market Capture Ratio is the percentage of the total market movement achieved by a manager during a period in which the benchmark increases.*



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