

June 30, 2016



## City of Milwaukee Employees' Retirement System

### Investment Measurement Service Quarterly Review

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This "Preview" contains excerpts from the upcoming *Capital Market Review* (CMR) newsletter, which will be published at the end of July.

## Greener Grass

**U.S. EQUITY** | [Lauren Mathias, CFA](#)

Though the S&P 500 Index ended in positive territory (+2.46%), it was subject to substantial volatility during the quarter. The U.K.'s vote to leave the European Union sent global markets reeling in late June; the S&P 500 fell 5.3% in the first two trading days after the vote. Volatility, as measured by VIX, spiked but remained below values posted in January. Despite uncertainty abroad and the steep drop after Brexit, the S&P 500 ended the quarter only 1.5% below its all-time high achieved in May 2015. Amid the global turmoil, it appears the grass is greener in the U.S.

[Continued on pg. 2](#)

## Fasten Your Seat Belts

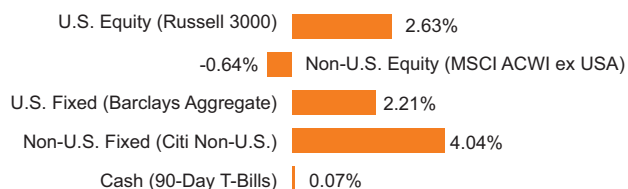
**NON-U.S. EQUITY** | [Lyman Jung](#)

For the second consecutive quarter, non-U.S. equity markets endured a bout of extreme volatility. After a tepid start to the quarter, markets reacted to the surprise June 23 Brexit referendum to leave the European Union. Global markets lost \$2 trillion the day after, but quickly stabilized. In this uncertain environment, we expect volatility to continue.

Despite the vote, the **MSCI ACWI ex USA Index** ended the quarter down only slightly (-0.64%), buoyed by accommodating central bank policies and a strong rebound in commodity prices. Energy (+8.05%) led the charge, followed by Health

[Continued on pg. 3](#)

## Broad Market Quarterly Returns



Sources: Barclays, Citigroup, Merrill Lynch, MSCI, Russell Investment Group

## Rally Across the Board

**U.S. FIXED INCOME** | [Nathan Wong, CFA](#)

Treasuries rallied in a flight to quality during the second quarter as U.S. economic data and trepidation surrounding the U.K.'s Brexit dominated activity. The Fed changed to a more dovish tone as the quarter ended. The **Barclays U.S. Aggregate Index** increased 2.21%, while the **Barclays High Yield Corporate Index** again outpaced it with a 5.52% gain.

[Continued on pg. 4](#)

## How Low Can Rates Go?

**NON-U.S. FIXED INCOME** | [Kevin Machiz, CFA, FRM](#)

Sovereign yields fell in the second quarter, driven largely by a knee-jerk reaction to Brexit, sentiment to reduce risk, and globally loose monetary policy. That led major global bond indexes to show positive returns for the quarter.

In addition, most major global currencies weakened against the U.S. dollar during the quarter. The British pound was the hardest hit, plummeting 7% versus the U.S. dollar. While the U.S. dollar broadly strengthened immediately following Brexit,

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## U.S. Equity: Greener Grass

Continued from pg. 1

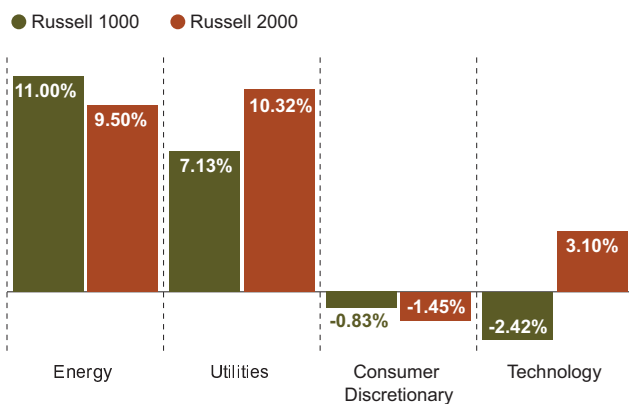
Global markets did not appear to affect domestic production either: Manufacturing activity increased (the ISM Composite Index hit a 16-month high); existing home sales were up 4.5% in May; and retail sales showed strength. But disappointing unemployment figures—4.7% due to a lower labor force participation rate of 62.6%—and first-quarter GDP lower than the rate for 2015 (1.1% vs. 2.4%) prompted the Fed to keep interest rates at current levels.

After another strong quarter, value remained ahead of growth in all capitalizations (**Russell 2000 Value Index: +4.31%** and **Russell 2000 Growth Index: +3.24%**); the difference was most significant within large capitalizations (**Russell 1000 Value Index: +4.58%** and **Russell 1000 Growth Index: +0.61%**). Smaller was better: micro-, small-, and mid-capitalization companies outpaced large-capitalization stocks (**Russell Microcap Index: +3.97%**, **Russell 2000 Index: +3.79%**, **Russell Midcap Index: +3.18%**, and **Russell 1000 Index: +2.54%**).

With economic uncertainty and lower interest rates in the foreseeable future, defensive and yielding areas of the market did well: Utilities, Telecommunications, Health Care, and Consumer Staples. Factors like low beta and high dividend yield were in favor and boosted the performance of these sectors. After a long period of poor performance, Energy was by far the leading sector, buoyed by an almost 30% increase in oil prices. Financials lagged, mostly due to a tough June—both the Brexit crisis and absent interest rate hike were the culprits. Health Care and Technology, large sectors in the growth benchmark, were dragged down by the pharmaceuticals/biotechnology and hardware and equipment industries, respectively. Stock correlations elevated in June, making it challenging for active management; however, levels remain below those experienced in 2015.

The U.S. equity market managed to escape a tumultuous June with positive results in the full quarter. However, active funds have found it challenging to outpace their respective benchmarks this year—fewer than 50% were able to do so.

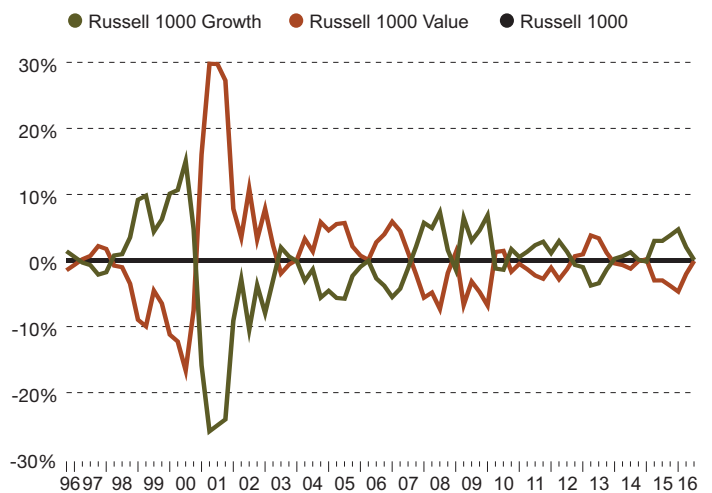
### Quarterly Performance of Select Sectors



Source: Russell Investment Group

### Rolling One-Year Relative Returns

(vs. Russell 1000)



Source: Russell Investment Group

## Non-U.S. Equity: Fasten Your Seat Belts

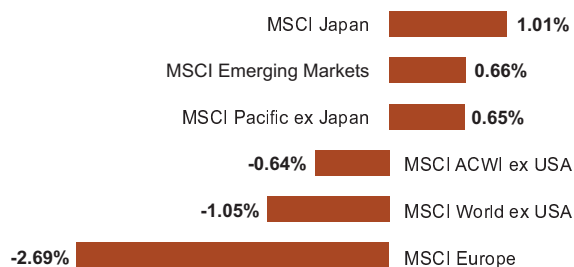
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Care (+4.29%) as investors favored defensive, dividend-paying stocks amid the turmoil. Economic and interest-rate-sensitive sectors fared worst, with Consumer Discretionary (-6.87%) and Financials (-4.31%) leading the plunge.

Around the broader markets, the **MSCI Emerging Markets Index** (+0.66%) bested its developed counterpart in the **MSCI World ex USA Index** (-1.05%). Without Canada (+3.4%), the best-performing country in developed markets, the **MSCI EAFE Index** was even more depressed (-1.46%). **MSCI ACWI ex USA Growth Index** continued an eight-quarter trend of outperforming the Value Index. Moreover, **MSCI ACWI ex USA Small Cap** (-0.87%) topped its developed cousin, **MSCI World ex USA Small Cap Index** (-1.28%).

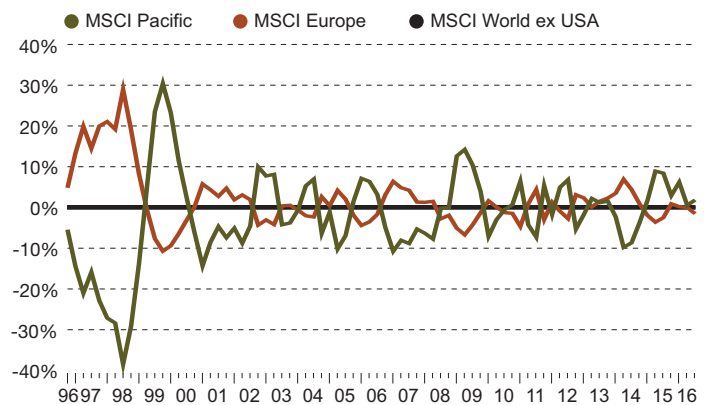
As Brexit dominated the headlines, European equity markets fell sharply only to rally in the final few days of the quarter. The **MSCI Europe Index** finished down 2.69%. Amid a general trend to safe-haven countries, Switzerland (+2.03%) was a top-performer. Italy (-10.45%) and Spain (-7.67%) were among the worst mainly due to double-digit declines in banks burdened by souring loans and the potential loss of the U.K. as the financial center. Regionally, European sectors performed in line with the rest of the developed world. Energy stocks contributed 12.51% thanks to oil at nearly \$50. Conversely, Consumer Discretionary and Financials tumbled 11.10% and 10.82%, respectively, weighed down by recession fears and concerns about a slow-down in finance and investment activity.

### Regional Quarterly Performance (U.S. Dollar)



Source: MSCI

### Rolling One-Year Relative Returns (vs. MSCI World ex USA, USD hedged)



Source: MSCI

In contrast to Europe, the **MSCI Pacific Index** (+0.87%) fared much better, boosted by Japan (+1.01%) and New Zealand (+5.85%). While Japan was positive on a U.S. dollar-return basis, on a local-return basis Japan fell 7.80% because the yen surged 10% in the quarter—despite operating in a negative interest rate environment. The yen has been bolstered by its re-emergence as a haven currency with an uncertain Europe and also by the dollar's recent weakness after the Federal Reserve pared back expectations of U.S. interest rate increases. New Zealand gained on improved sentiment partly due to a reported trade surplus that was more than double analysts' forecast.

Emerging market countries produced a wide spectrum of returns, but closed out the quarter slightly ahead (**MSCI Emerging Market Index**: +0.66%). Commodity producers such as Brazil (+13.90%) and Russia (+4.05%) benefited from the rebound in oil prices, continuing their first-quarter rally. The former was also propped up by an impeachment motion against President Dilma Rousseff that sent the equity market into a frenzied rally. Stocks in China ended the quarter nearly flat (+0.11%) thanks to a slower predicted growth of 6.6%, the weakest since the Global Financial Crisis. Further, concerns about the amount of debt on corporate balance sheets and recent policy changes led to questions on how much stimulus the government would provide to sustain growth. Elsewhere, stocks in India (+3.72%) advanced on faster-than-expected growth and earnings of some of its biggest companies, bolstered by optimism about the nation's economic recovery.

## U.S. Fixed Income: Rally Across the Board

Continued from pg. 1

The surprising vote in the U.K. to exit the European Union triggered an immediate run on risk assets. The panic was short-lived and credit spreads ended the quarter marginally tighter as more-rational investors assessed the broader strength of the U.S. economy and the relatively attractive opportunities within the U.S. fixed income markets.

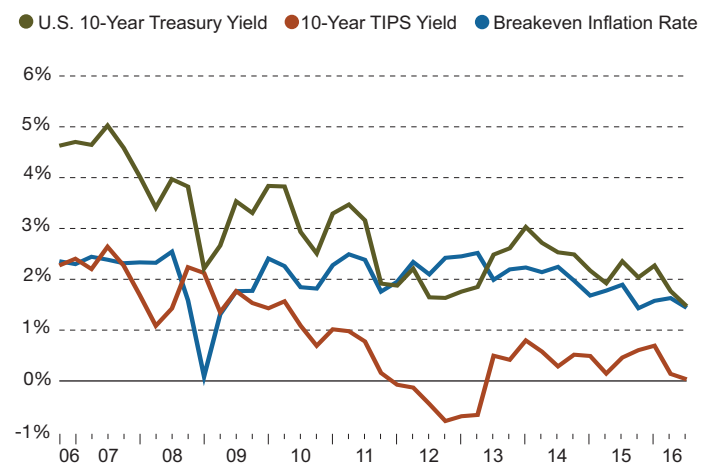
Following the Brexit vote, the Fed elected not to make any changes at its June meeting. Its forward-looking dot plot now implies a reduced number of rate hikes from four to three, while the long-term projection for the short-term rate was lowered from 3.25% to 3.0%.

Yields declined across the maturity spectrum with the 10-year yield closing the quarter at 1.47%, its lowest level in nearly three years. Weak economic data and the negative yield environment around the globe contributed to downward pressure on U.S. yields. The 2- to 30-year spread tightened to 170 bps by the end of the quarter. Treasury returns were strong, particularly on the long end of the curve, with 30-year Treasuries gaining 7.24%. All sectors rallied and produced positive returns, with investment-grade corporates leading the way. Inflation-protected securities trailed their nominal counterparts but continued their strong performance for the year.

Corporate credit performed well across the quality spectrum, gaining 3.48% and outperforming Treasuries by 97 bps on a duration-adjusted basis. Companies took advantage of low

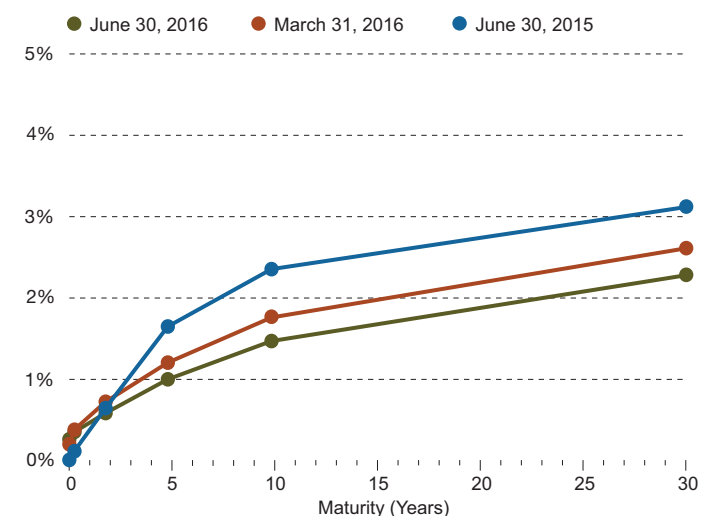
rates, with new issuance of \$350 billion during the quarter. On a duration-adjusted basis, industrials outperformed utilities and financials. Corporate spreads were generally flat before experiencing some widening in reaction to the Brexit and ended the quarter at 156 bps. MBS gained 1.11%, outperforming like-duration Treasuries by 3 bps. MBS spreads also widened as the quarter closed on prepayment fears. High-yield bonds continued to rebound, gaining 5.52% and outperforming like duration Treasuries by 411 bps. New issuance amounted to \$84 billion, returning to more normal levels and more than doubling the amount in the prior quarter.

### Historical 10-Year Yields



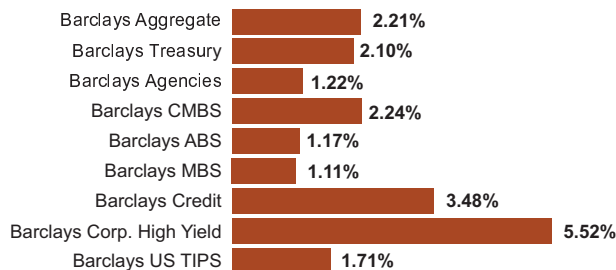
Source: Bloomberg

### U.S. Treasury Yield Curves



Source: Bloomberg

### Fixed Income Index Quarterly Returns



Source: Barclays

## Non-U.S. Fixed Income: How Low Can Rates Go?

*Continued from pg. 1*

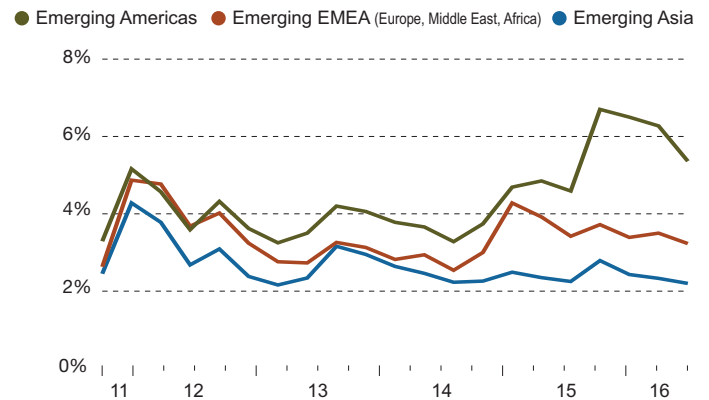
some of those gains were quickly erased over the remainder of the quarter. The Japanese yen took an opposite tack among global currencies during the quarter and had soared 10% versus the U.S. dollar by the end of the period. The yen's tendency to strengthen in risk-off environments proved a tailwind to unhedged foreign bond returns for the quarter. The euro was weaker versus the dollar (-2.5%). The ECB maintained its dovish stance, keeping interest rates negative and proceeding with asset purchases announced in March. Interest rates fell across developed markets, leading to strong bond returns. The **Citi Non-US World Government Bond Index** was up 4.04% for the quarter (+3.11% hedged) while the **Barclays Global Aggregate** returned 2.89% (+2.51% hedged).

In Germany, 10-year yields fell 28 bps and joined the rapidly growing universe of negative-yielding bonds. Similarly, 10-year yields in Japan, which were already negative, fell a further 19 bps as the Bank of Japan maintained its easy monetary policy stance. The 10-year yield in the U.K. led the pack following Brexit, falling 55 bps, though it remained in positive territory by the end of the quarter. Market expectations moved firmly toward relatively easier monetary policy in the U.K.

Emerging market bonds continued to rebound in the second quarter despite a bumpy ride. Falling bond yields were a tailwind and narrowing sovereign credit spreads further contributed to returns. The hard currency **JPM EMBI Global Diversified Index** returned 5.02%. Hard currency returns in most countries were positive, led by Venezuela. Bonds there have suffered extreme volatility as markets speculate on the timing of the country's default. The local currency **JPM GBI-EM Global Diversified** returned 2.96%, as local yields in emerging markets generally followed those in developed markets lower. Brazil was the leader for returns in local markets as yields fell and the currency strengthened. During the quarter, Brazil's President Dilma Rousseff was suspended from the presidency during her impeachment trial. The market in Brazil has experienced volatility as the political future of the country is being determined.

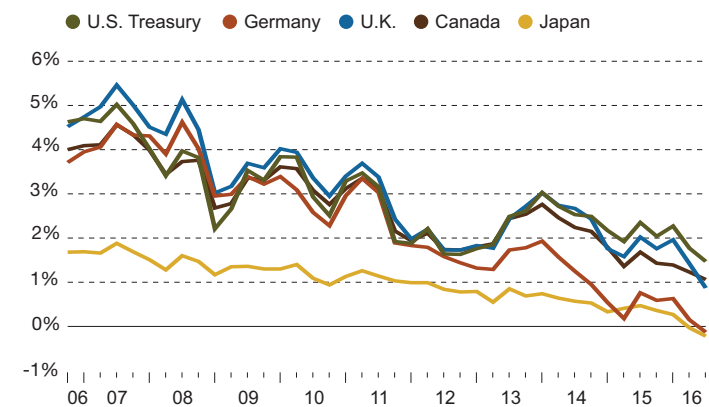
## Emerging Spreads Over Developed

(By Region)

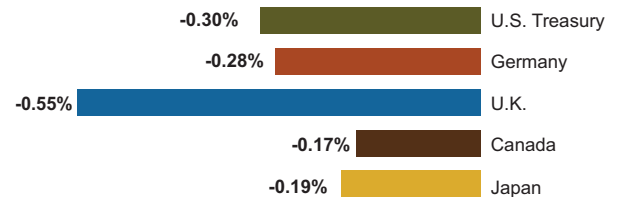


Source: Barclays

## 10-Year Global Government Bond Yields



## Change in 10-Year Yields from 1Q16 to 2Q16



Source: Bloomberg





## Investment Manager Asset Allocation

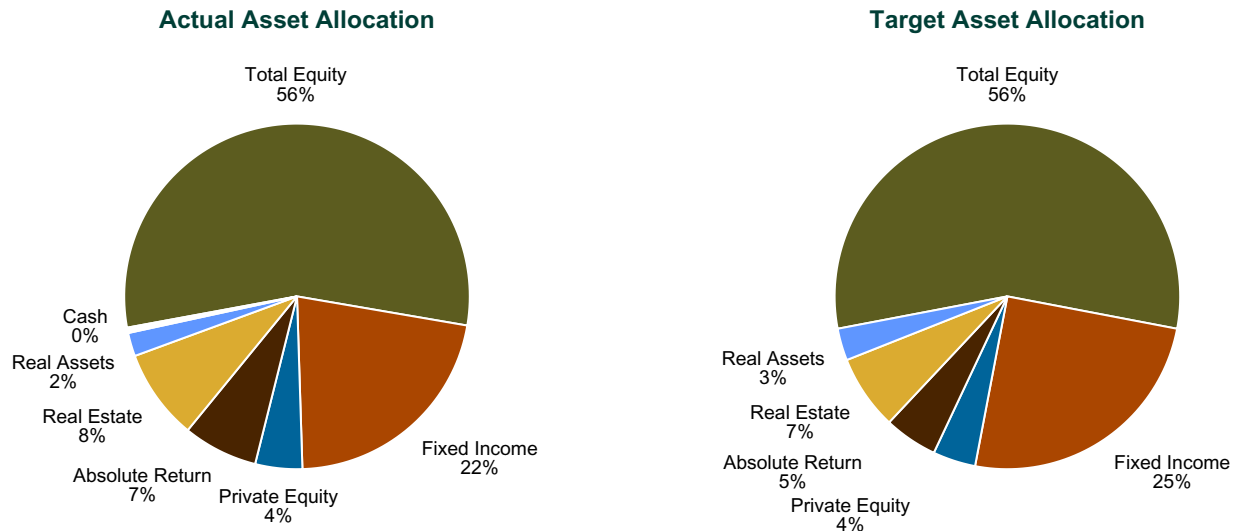
The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2016, with the distribution as of March 31, 2016.

### Asset Distribution Across Investment Managers

	June 30, 2016		March 31, 2016	
	Market Value	Weight	Market Value	Weight
<b>Total Domestic Equity</b>	<b>\$1,233,000,259</b>	<b>25.94%</b>	<b>\$1,249,130,022</b>	<b>26.14%</b>
Northern Trust Global	478,083,026	10.06%	481,290,985	10.07%
Cornerstone Investment Partners	174,909,611	3.68%	177,626,336	3.72%
Polen Capital Management	176,032,135	3.70%	194,636,410	4.07%
Earnest Partners LLC	125,916,316	2.65%	121,123,747	2.54%
Dimensional Fund Advisors Inc.	190,619,451	4.01%	188,572,275	3.95%
CastleArk Management	87,439,719	1.84%	85,880,268	1.80%
<b>Total Global Equity</b>	<b>\$507,511,198</b>	<b>10.68%</b>	<b>\$518,808,103</b>	<b>10.86%</b>
BlackRock ACWI Value	-	-	82,969	0.00%
BlackRock Global Alpha Tilts	280,020,508	5.89%	278,157,193	5.82%
MFS Investment Management	227,490,689	4.79%	240,567,941	5.04%
<b>Total International Equity</b>	<b>\$903,265,773</b>	<b>19.00%</b>	<b>\$920,157,631</b>	<b>19.26%</b>
BlackRock Emerging Markets	59,048,893	1.24%	58,671,146	1.23%
Brandes Investment Partners	393,213,463	8.27%	402,802,388	8.43%
William Blair & Company	278,692,302	5.86%	280,751,742	5.88%
Dimensional Fund Advisors Inc.	172,311,116	3.63%	177,932,355	3.72%
<b>Total Fixed Income</b>	<b>\$1,034,272,018</b>	<b>21.76%</b>	<b>\$1,112,678,837</b>	<b>23.29%</b>
BlackRock US Agg Fund	120,808,518	2.54%	-	-
BlackRock Intermediate Agg	246,649,282	5.19%	243,062,372	5.09%
Reams Asset Management	313,757,815	6.60%	257,004,948	5.38%
Loomis, Sayles & Company, L.P.	352,855,903	7.42%	412,029,572	8.62%
Wellington Management Company	200,500	0.00%	200,581,945	4.20%
<b>Total Private Equity</b>	<b>\$209,090,903</b>	<b>4.40%</b>	<b>\$187,810,617</b>	<b>3.93%</b>
Abbott Capital Management 2010	25,343,212	0.53%	23,243,184	0.49%
Abbott Capital Management 2011	36,279,805	0.76%	32,935,837	0.69%
Abbott Capital Management 2012	20,840,250	0.44%	16,847,469	0.35%
Abbott Capital Management 2013	14,393,843	0.30%	11,477,716	0.24%
Abbott Capital Management 2014	10,715,262	0.23%	8,924,964	0.19%
Abbott Capital Management 2015	3,375,904	0.07%	2,337,865	0.05%
Abbott Capital Management 2016	793,125	0.02%	15,000	0.00%
Mesirow V	64,578,599	1.36%	63,054,869	1.32%
Mesirow VI	15,235,980	0.32%	13,357,447	0.28%
NB Secondary Opp Fund III	12,988,003	0.27%	11,983,888	0.25%
Private Advisors	4,546,920	0.10%	3,632,378	0.08%
<b>Absolute Return</b>	<b>\$333,727,136</b>	<b>7.02%</b>	<b>\$265,741,832</b>	<b>5.56%</b>
Allianz SA 1000	91,490,830	1.92%	74,366,071	1.56%
Newton	93,202,206	1.96%	63,555,224	1.33%
UBS A & Q	149,034,100	3.14%	127,820,538	2.68%
<b>Real Assets</b>	<b>\$106,621,684</b>	<b>2.24%</b>	<b>\$87,274,208</b>	<b>1.83%</b>
Principal DRA	106,621,684	2.24%	87,274,208	1.83%
<b>Total Real Estate</b>	<b>\$402,286,332</b>	<b>8.46%</b>	<b>\$406,368,011</b>	<b>8.51%</b>
Real Estate	402,286,332	8.46%	406,368,011	8.51%
<b>Total Cash</b>	<b>\$23,600,718</b>	<b>0.50%</b>	<b>\$29,741,697</b>	<b>0.62%</b>
Cash	23,600,718	0.50%	29,741,697	0.62%
<b>Total Fund</b>	<b>\$4,753,376,021</b>	<b>100.0%</b>	<b>\$4,777,710,957</b>	<b>100.0%</b>

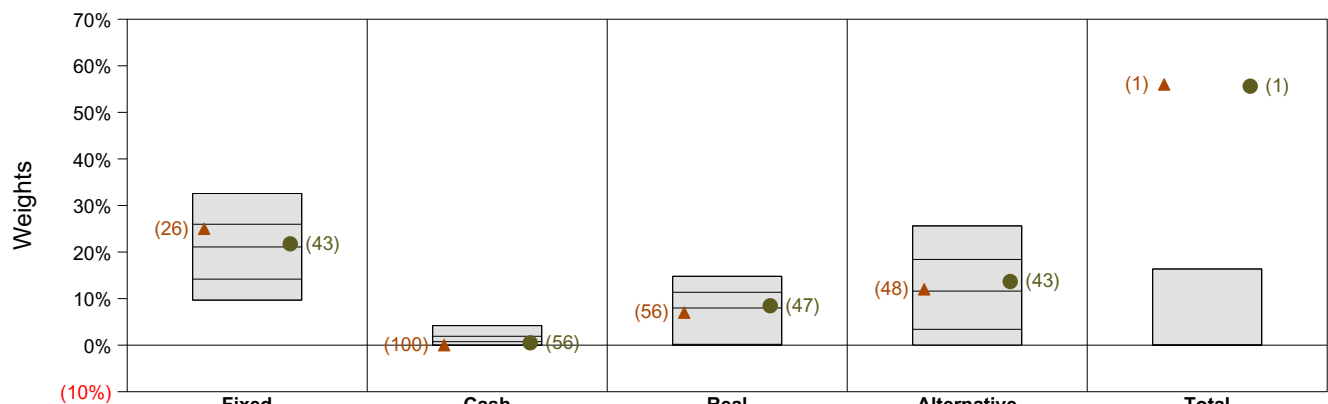
## Actual vs Target Asset Allocation As of June 30, 2016

The top left chart shows the Fund's asset allocation as of June 30, 2016. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the CAI Public Fund Sponsor - Large (>1B).



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Total Equity	2,643,777	55.6%	56.0%	(0.4%)	(18,113)
Fixed Income	1,034,272	21.8%	25.0%	(3.2%)	(154,072)
Private Equity	209,091	4.4%	4.0%	0.4%	18,956
Absolute Return	333,727	7.0%	5.0%	2.0%	96,058
Real Estate	402,286	8.5%	7.0%	1.5%	69,550
Real Assets	106,622	2.2%	3.0%	(0.8%)	(35,980)
Cash	23,601	0.5%	0.0%	0.5%	23,601
<b>Total</b>	<b>4,753,376</b>	<b>100.0%</b>	<b>100.0%</b>		

### Asset Class Weights vs CAI Public Fund Sponsor - Large (>1B)



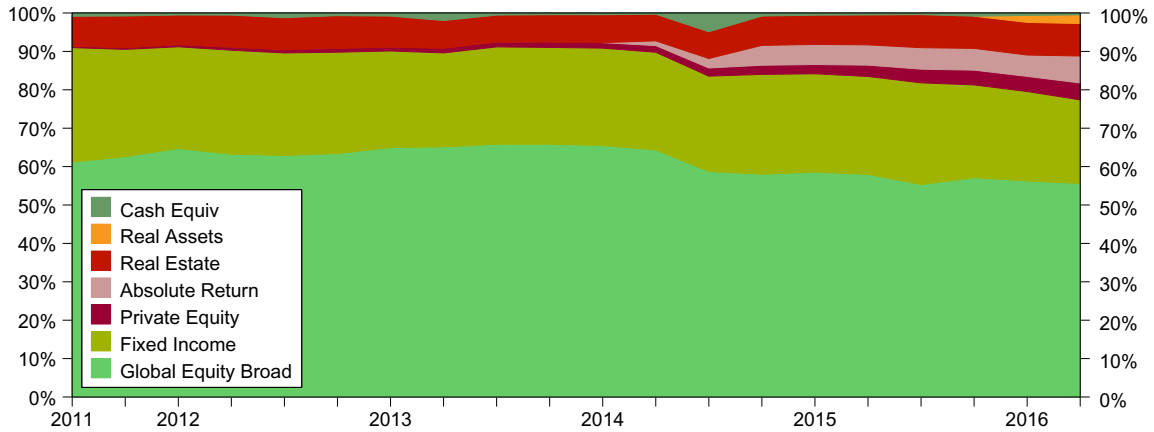
	Fixed Income	Cash	Real Estate	Alternative	Total Equity
10th Percentile	32.57	4.20	14.79	25.62	16.36
25th Percentile	25.97	1.90	11.36	18.42	0.00
Median	21.09	0.75	7.98	11.61	0.00
75th Percentile	14.18	0.00	0.18	3.40	0.00
90th Percentile	9.67	0.00	0.00	0.00	0.00
<b>Fund</b> ●	21.76	0.50	8.46	13.66	55.62
<b>Target</b> ▲	25.00	0.00	7.00	12.00	56.00
% Group Invested	95.45%	69.70%	74.24%	77.27%	24.24%

\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

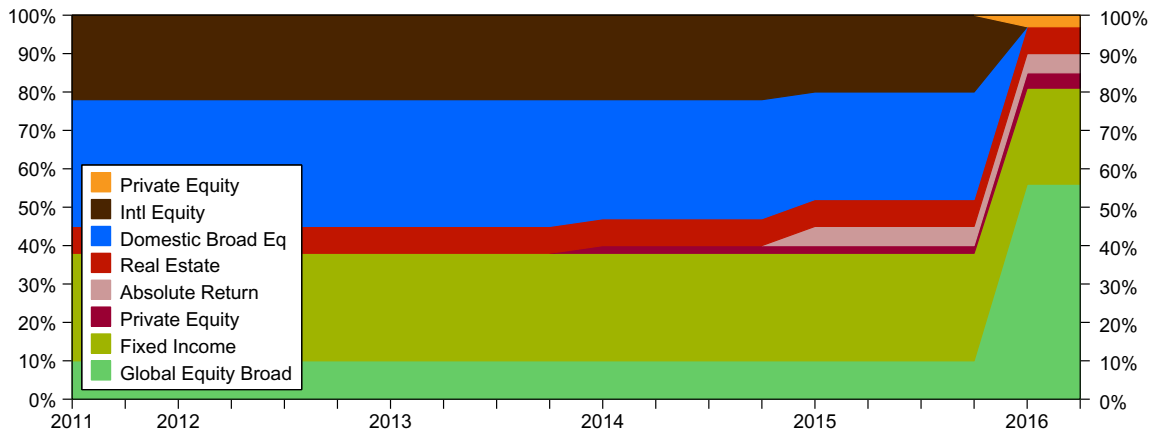
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the CAI Public Fund Sponsor Database.

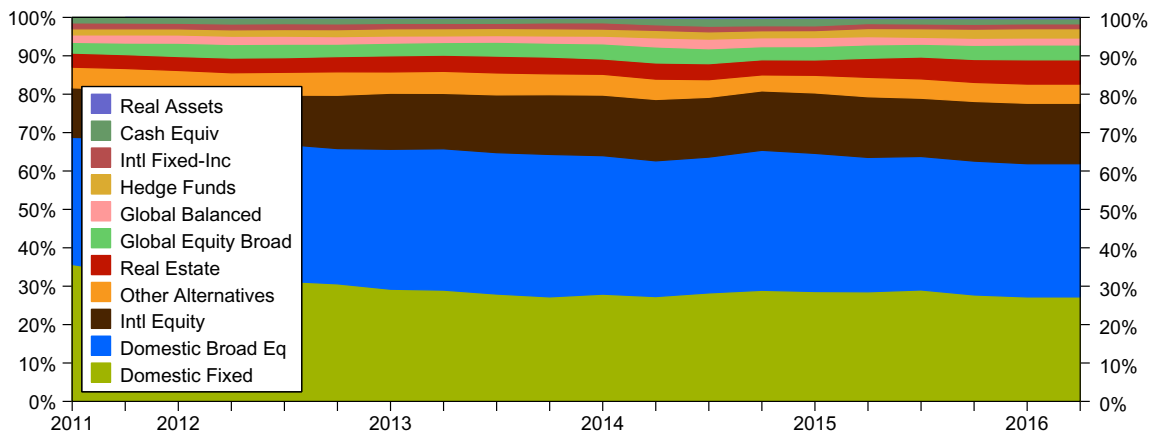
### Actual Historical Asset Allocation



### Target Historical Asset Allocation



### Average CAI Public Fund Sponsor Database Historical Asset Allocation



\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

# Total Fund

## Period Ended June 30, 2016

### Investment Philosophy

The Public Fund Sponsor Database consists of public employee pension total funds including both Callan Associates client and surveyed non-client funds. The Total Fund Reference Index consists of 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill +3.0%, 4.0% Russell 3000 (1 Qtr in Arrears) +3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

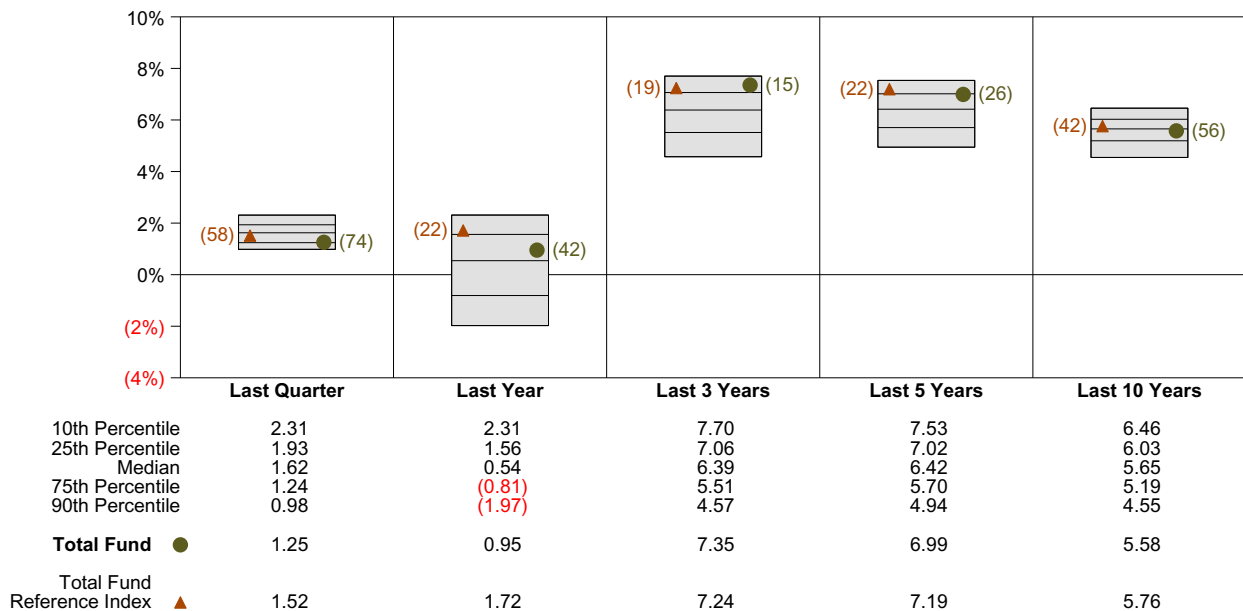
### Quarterly Summary and Highlights

- Total Fund's portfolio posted a 1.25% return for the quarter placing it in the 74 percentile of the CAI Public Fund Sponsor Database group for the quarter and in the 42 percentile for the last year.
- Total Fund's portfolio underperformed the Total Fund Reference Index by 0.26% for the quarter and underperformed the Total Fund Reference Index for the year by 0.76%.

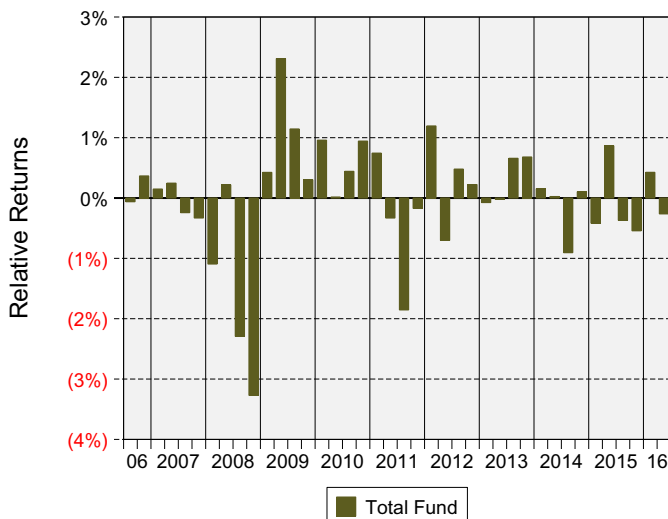
### Quarterly Asset Growth

Beginning Market Value	\$4,777,710,957
Net New Investment	\$-85,282,636
Investment Gains/(Losses)	\$60,947,700
Ending Market Value	\$4,753,376,021

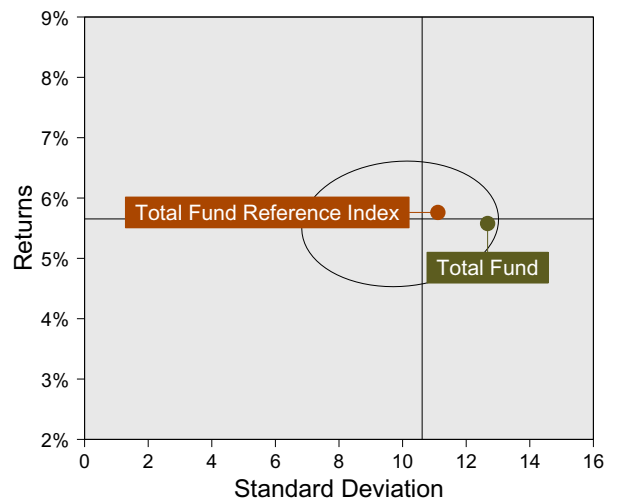
### Performance vs CAI Public Fund Sponsor Database (Gross)



### Relative Return vs Total Fund Reference Index



### CAI Public Fund Sponsor Database (Gross) Annualized Ten Year Risk vs Return

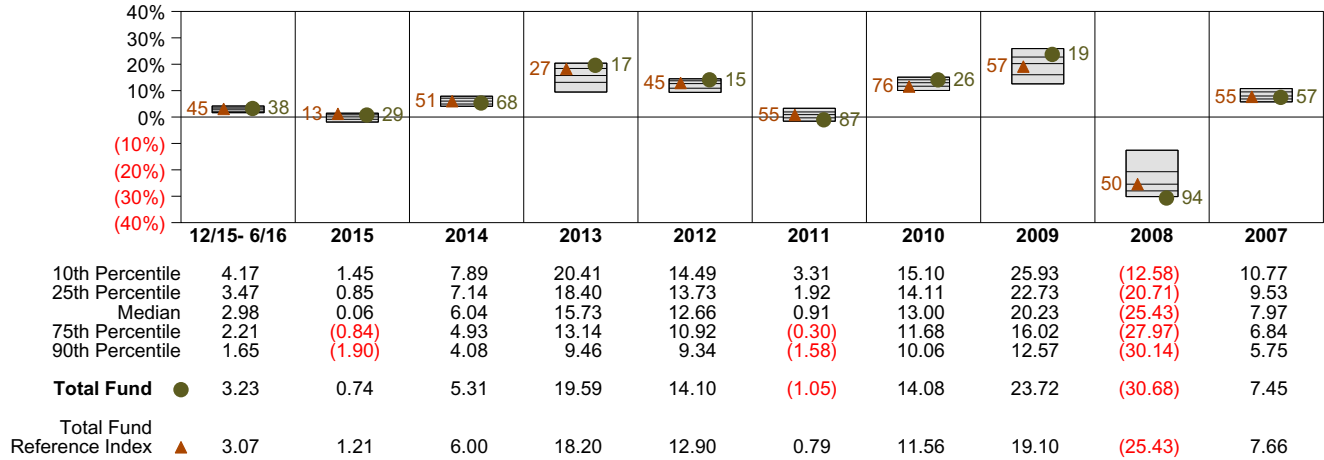


# Total Fund Return Analysis Summary

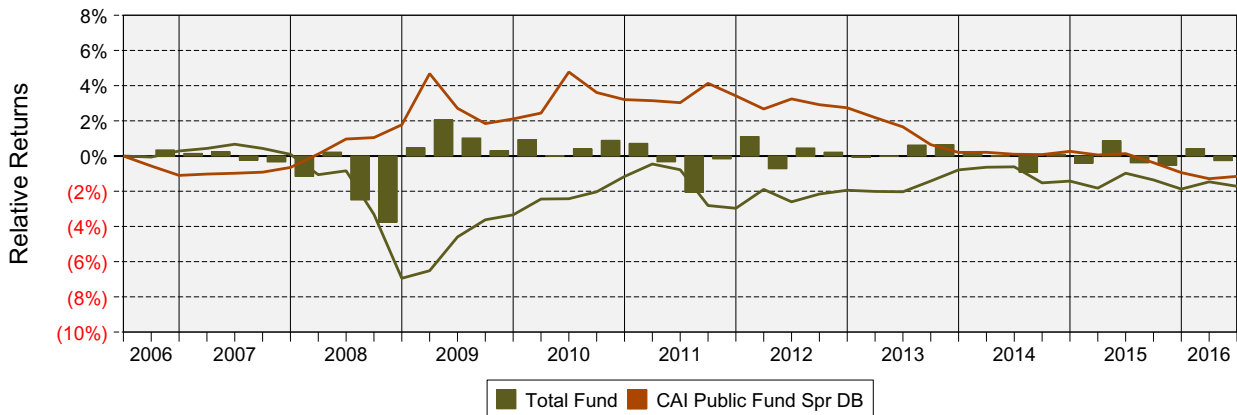
## Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last two charts illustrate the manager's ranking relative to their style using various risk-adjusted return measures.

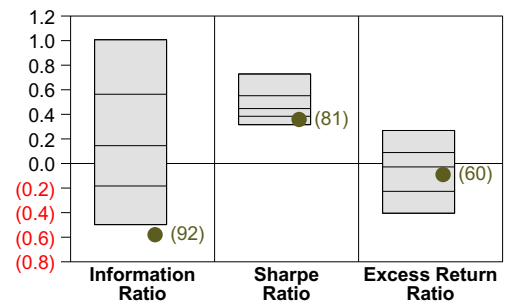
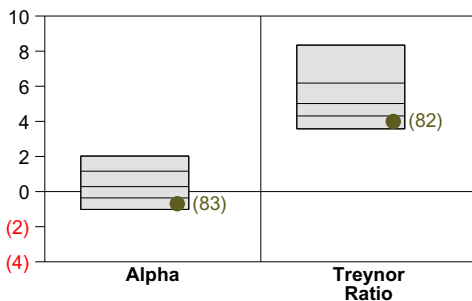
### Performance vs CAI Public Fund Sponsor Database (Gross)



### Cumulative and Quarterly Relative Return vs Total Fund Reference Index



### Risk Adjusted Return Measures vs Total Fund Reference Index Rankings Against CAI Public Fund Sponsor Database (Gross) Ten Years Ended June 30, 2016



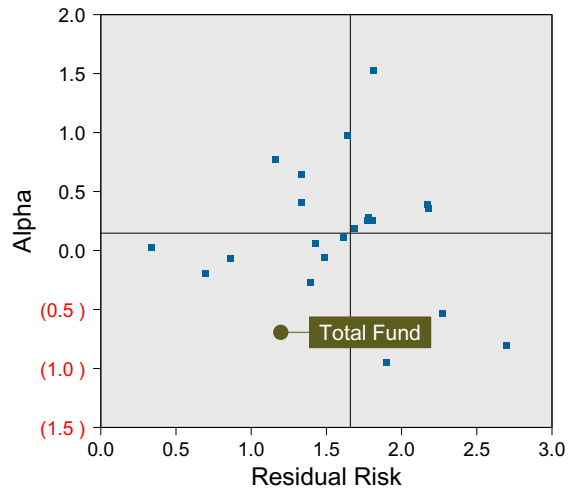
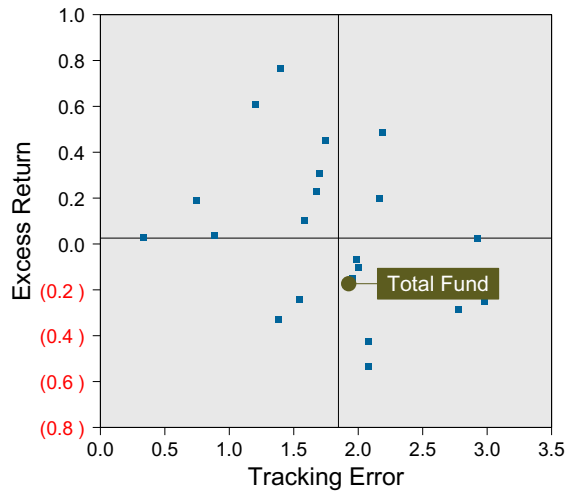
# Total Fund

## Total Fund vs Target Risk Analysis

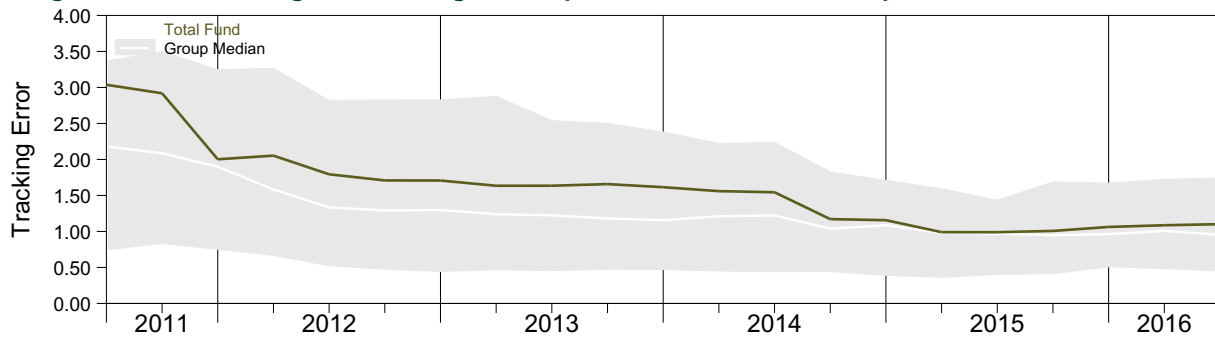
### Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

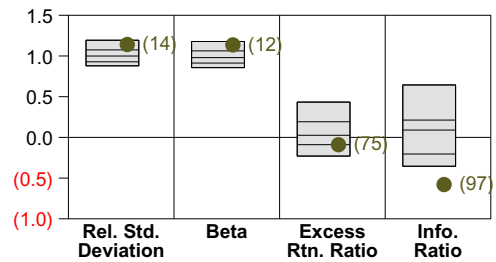
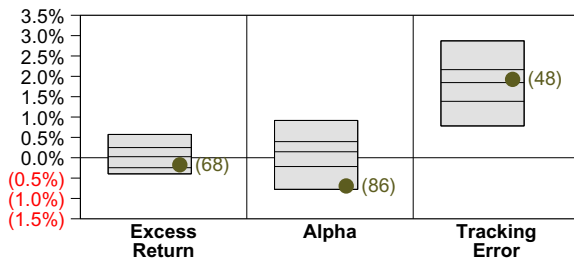
### Risk Analysis vs CAI Public Fund Sponsor Database Ten Years Ended June 30, 2016



### Rolling 12 Quarter Tracking Error vs Targets Compared to CAI Public Fund Sponsor Database



### Risk Statistics Rankings vs Targets Rankings Against CAI Public Fund Sponsor Database Ten Years Ended June 30, 2016



10th Percentile  
25th Percentile  
Median  
75th Percentile  
90th Percentile

Excess Return	Alpha	Tracking Error
0.57	0.92	2.87
0.25	0.40	2.17
0.03	0.15	1.85
(0.24)	(0.22)	1.39
(0.40)	(0.78)	0.78

**Total Fund**

(0.17) (0.69) 1.93

10th Percentile  
25th Percentile  
Median  
75th Percentile  
90th Percentile

Rel. Std. Deviation	Beta	Excess Rtn. Ratio	Info. Ratio
1.19	1.18	0.43	0.64
1.07	1.06	0.19	0.21
1.00	0.98	0.03	0.09
0.93	0.91	(0.09)	(0.20)
0.88	0.86	(0.23)	(0.35)

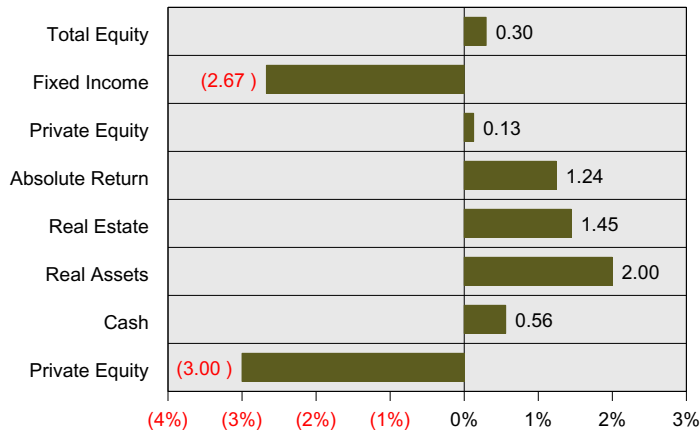
**Total Fund**

1.14 1.14 (0.09) (0.58)

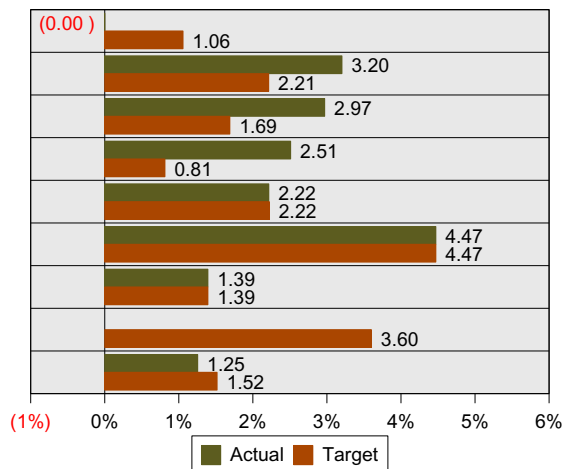
## Quarterly Total Fund Relative Attribution - June 30, 2016

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

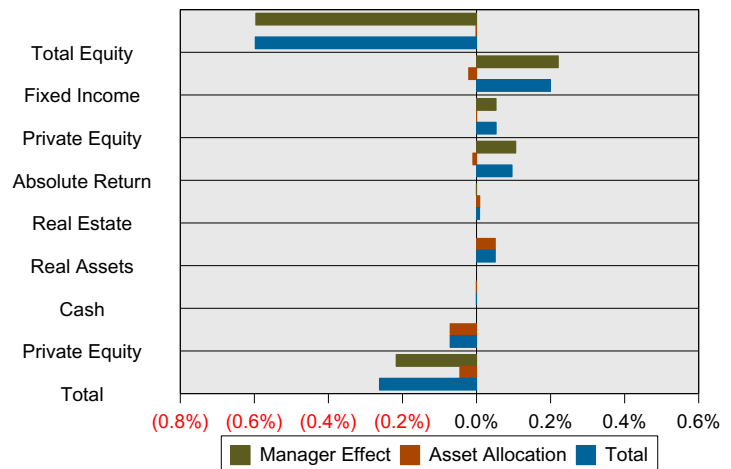
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended June 30, 2016

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	56%	56%	(0.00%)	1.06%	(0.60%)	(0.00%)	(0.60%)
Fixed Income	22%	25%	3.20%	2.21%	0.22%	(0.02%)	0.20%
Private Equity	4%	4%	2.97%	1.69%	0.05%	0.00%	0.05%
Absolute Return	6%	5%	2.51%	0.81%	0.11%	(0.01%)	0.10%
Real Estate	8%	7%	2.22%	2.22%	(0.00%)	0.01%	0.01%
Real Assets	2%	0%	4.47%	4.47%	0.00%	0.05%	0.05%
Cash	1%	0%	1.39%	1.39%	0.00%	(0.00%)	(0.00%)
Private Equity	0%	3%	0.00%	3.60%	0.00%	(0.07%)	(0.07%)
<b>Total</b>			<b>1.25%</b>	<b>1.52%</b>	<b>+(0.22%)</b>	<b>+(0.05%)</b>	<b>(0.26%)</b>

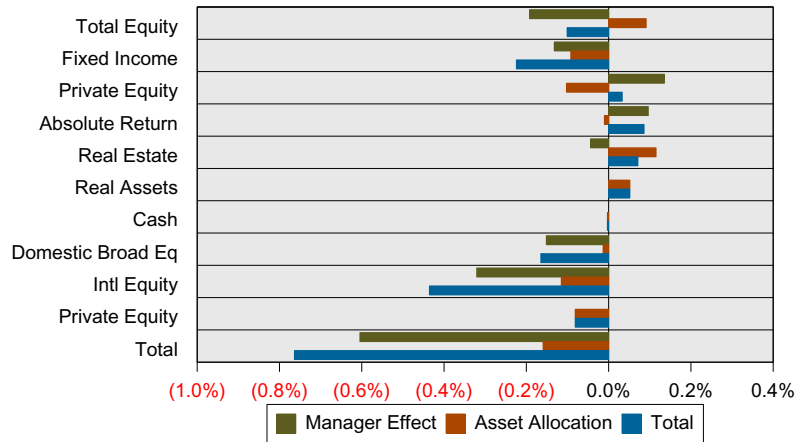
\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.



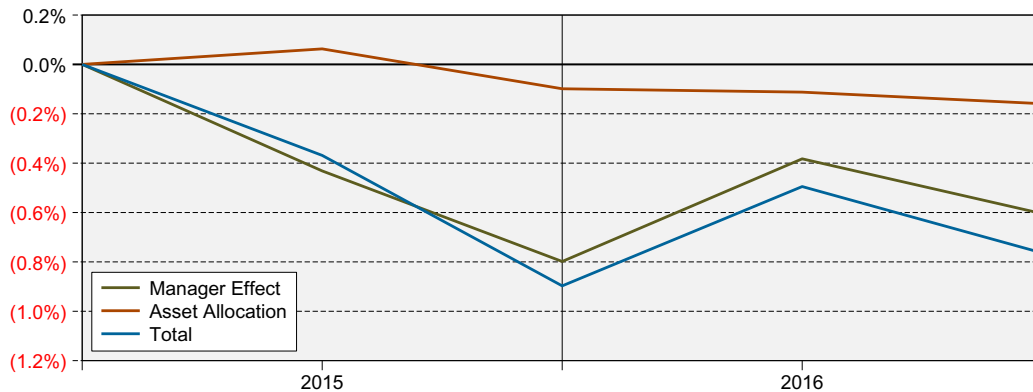
## Cumulative Total Fund Relative Attribution - June 30, 2016

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	32%	33%	(3.68%)	(3.60%)	(0.19%)	0.09%	(0.10%)
Fixed Income	24%	26%	5.74%	6.00%	(0.13%)	(0.09%)	(0.22%)
Private Equity	4%	3%	7.64%	2.71%	0.14%	(0.10%)	0.03%
Absolute Return	6%	5%	4.76%	3.19%	0.10%	(0.01%)	0.09%
Real Estate	8%	7%	12.54%	13.12%	(0.04%)	0.12%	0.07%
Real Assets	1%	0%	-	-	0.00%	0.05%	0.05%
Cash	1%	0%	1.69%	1.69%	0.00%	(0.00%)	(0.00%)
Domestic Broad Eq	14%	14%	-	-	(0.15%)	(0.01%)	(0.16%)
Intl Equity	11%	10%	-	-	(0.32%)	(0.12%)	(0.44%)
Private Equity	0%	2%	-	-	0.00%	(0.08%)	(0.08%)
<b>Total</b>			<b>0.95%</b>	<b>1.72%</b>	<b>(0.60%)</b>	<b>(0.16%)</b>	<b>(0.76%)</b>

\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended June 30, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns and Rankings for Periods Ended June 30, 2016

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since Inception
<b>Total Domestic Equity</b>	<b>1.01%</b>		<b>0.01%</b>		<b>10.49%</b>		<b>10.12%</b>		<b>6.17%</b> <sup>(7/98)</sup>
Russell 3000 Index	2.63%		2.14%		11.13%		11.60%		5.78% <sup>(7/98)</sup>
Northern Trust Global	2.45%	27	4.05%	19	11.74%	31	12.18%	36	10.05% <sup>(8/88)</sup>
S&P 500 Index	2.46%	27	3.99%	20	11.66%	31	12.10%	38	10.00% <sup>(8/88)</sup>
CAI Large Cap Core	1.73%		0.33%		11.02%		11.74%		-
Cornerstone Investment Partners	(1.53%)	99	(7.32%)	95	3.40%	100	-		8.92% <sup>(6/12)</sup>
S&P 500 Index	2.46%	56	3.99%	10	11.66%	6	12.10%	12	14.65% <sup>(6/12)</sup>
CAI Large Cap Value	2.94%		(0.81%)		9.20%		10.97%		-
Polen Capital Management	(2.52%)	96	6.21%	5	16.39%	3	-		14.32% <sup>(7/12)</sup>
S&P 500 Index	2.46%	8	3.99%	13	11.66%	68	12.10%	35	13.83% <sup>(7/12)</sup>
CAI Large Cap Growth	0.14%		(0.14%)		12.60%		11.60%		-
Earnest Partners LLC	3.96%	19	2.03%	16	11.73%	23	10.55%	39	9.48% <sup>(5/05)</sup>
Russell MidCap Index	3.18%	33	0.56%	25	10.80%	36	10.90%	31	9.14% <sup>(5/05)</sup>
CAI Mid Capitalization	2.32%		(3.65%)		10.01%		10.06%		-
Dimensional Fund Advisors Inc.	1.09%	75	(5.13%)	81	7.34%	74	9.68%	60	11.90% <sup>(11/96)</sup>
Russell 2000 Value Index	4.31%	9	(2.58%)	51	6.36%	83	8.15%	80	9.15% <sup>(11/96)</sup>
CAI Small Cap Value	2.40%		(2.44%)		8.63%		9.94%		-
CastleArk Management	1.82%	83	(14.75%)	65	-		-		5.43% <sup>(9/13)</sup>
Russell 2000 Growth Index	3.24%	58	(10.75%)	46	7.74%	39	8.51%	48	6.20% <sup>(9/13)</sup>
CAI Small Cap Growth	3.87%		(12.40%)		7.18%		8.37%		-
<b>Total Global Equity</b>	<b>0.90%</b>		<b>(0.78%)</b>		<b>6.83%</b>		<b>5.50%</b>		<b>6.30%</b> <sup>(4/10)</sup>
MSCI World Index	1.01%		(2.78%)		6.95%		6.63%		7.49% <sup>(4/10)</sup>
BlackRock Global Alpha Tilts	0.64%	46	-		-		-		-
MSCI World Index	1.01%	39	(2.78%)	35	6.95%	52	6.63%	58	-
CAI Global Eq Broad Style	0.48%		(4.47%)		7.16%		7.08%		-
MFS Investment Management	1.24%	34	1.41%	13	8.77%	21	-		9.63% <sup>(12/12)</sup>
MSCI ACWI Idx	1.19%	35	(3.17%)	40	6.60%	59	5.95%	66	8.02% <sup>(12/12)</sup>
CAI Global Eq Broad Style	0.48%		(4.47%)		7.16%		7.08%		-

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended June 30, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns and Rankings for Periods Ended June 30, 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception				
<b>Total International Equity</b>	<b>(1.84%)</b>	<b>(8.86%)</b>	<b>4.17%</b>	<b>3.76%</b>	<b>6.66%</b>				(5/96)
MSCI EAFE Index	(1.46%)	(10.16%)	2.06%	1.68%	3.86%				(5/96)
BlackRock Emerging Mkts	0.64%	-	-	-	-				
MSCI EM Gross Index	0.80%	(11.71%)	(1.21%)	(3.44%)	-				
Emerging Mkts Equity DB	1.98%	(9.11%)	0.20%	(1.31%)	-				
Brandes Investment Partners	(2.38%)	(10.79%)	3.84%	2.94%	7.82%				(2/98)
MSCI EAFE Index	(1.46%)	(10.16%)	2.06%	1.68%	3.87%				(2/98)
CAI Non-U.S. Eq. Style	(1.31%)	(9.43%)	3.27%	2.83%	-				
William Blair & Company	(0.73%)	(7.91%)	3.94%	4.29%	7.05%				(12/03)
MSCI ACWI ex-US Index	(0.40%)	(9.80%)	1.62%	0.56%	6.15%				(12/03)
CAI Non-U.S. Eq. Style	(1.31%)	(9.43%)	3.27%	2.83%	-				
Dimensional Fund Advisors Inc.	(3.16%)	(9.28%)	6.01%	4.24%	3.55%				(5/06)
Blended Benchmark	(2.60%)	(3.67%)	7.26%	4.84%	1.68%				(5/06)
CAI Intl Small Cap	(2.28%)	(3.61%)	7.82%	6.35%	-				
<b>Total Fixed Income</b>	<b>3.20%</b>	<b>5.74%</b>	<b>3.54%</b>	<b>3.93%</b>	<b>7.91%</b>				(12/87)
Barclays Capital Aggregate	2.21%	6.00%	4.06%	3.76%	6.71%				(12/87)
BlackRock Intermediate Agg	1.48%	4.47%	3.36%	3.09%	5.15%				(7/99)
Barclays Capital Int Aggregate	1.44%	4.36%	3.24%	2.96%	5.03%				(7/99)
CAI Intermediate FI	1.58%	4.44%	3.19%	3.23%	-				
Reams Asset Management	2.46%	6.80%	3.95%	4.49%	6.11%				(1/01)
Barclays Capital Aggregate	2.21%	6.00%	4.06%	3.76%	5.15%				(1/01)
CAI Core Plus FI	2.74%	5.45%	4.48%	4.62%	-				
Loomis, Sayles & Company, L.P.	4.91%	3.34%	3.84%	5.28%	9.28%				(12/87)
Barclays Capital Aggregate	2.21%	6.00%	4.06%	3.76%	6.71%				(12/87)
CAI Core Plus FI	2.74%	5.45%	4.48%	4.62%	-				
<b>Total Private Equity</b>	<b>2.97%</b>	<b>7.64%</b>	<b>11.70%</b>	<b>7.87%</b>	<b>5.98%</b>				(6/10)
Abbott Capital Management 2010	3.68%	9.67%	11.09%	3.96%	(14.77%)				(6/10)
Abbott Capital Management 2011	4.15%	9.86%	8.44%	(12.40%)	(12.20%)				(6/11)
Abbott Capital Management 2012	3.26%	5.36%	4.08%	-	(0.21%)				(7/12)
Abbott Capital Management 2013	0.92%	2.71%	(1.53%)	-	(1.45%)				(5/13)
Abbott Capital Management 2014	0.42%	3.66%	-	-	(6.08%)				(4/14)
Abbott Capital Management 2015	(6.12%)	4.43%	-	-	3.53%				(4/15)
Abbott Capital Management 2016	(1.49%)	-	-	-	-				
Mesirov V	3.65%	10.45%	16.93%	13.03%	11.50%				(6/10)
Mesirov VI	0.52%	(1.75%)	(0.79%)	-	(0.79%)				(7/13)
NB Secondary Opp Fund III	5.27%	11.39%	-	-	7.64%				(12/13)
Private Advisors	(1.93%)	(15.64%)	-	-	(14.97%)				(4/15)
Russell 3000 (1 Qtr in Arrears) + 3%	1.69%	2.66%	14.42%	14.29%	15.36%				(9/10)
<b>Absolute Return</b>	<b>2.51%</b>	<b>4.76%</b>	<b>-</b>	<b>-</b>	<b>5.56%</b>				(6/14)
Allianz SA 1000	2.79%	8.90%	-	-	10.15%				(6/14)
T-Bills + 10%	2.48%	10.19%	10.09%	10.09%	10.10%				(6/14)
CAI Abs Return Hedge FoF	0.71%	(2.79%)	2.75%	3.47%	-				
Newton	4.69%	9.09%	-	-	5.84%				(8/14)
1-month LIBOR + 4%	1.09%	4.33%	4.22%	4.22%	4.25%				(8/14)
CAI Abs Return Hedge FoF	0.71%	(2.79%)	2.75%	3.47%	-				
UBS A & Q	0.96%	0.10%	-	-	2.03%				(12/14)
1-month LIBOR + 4%	1.09%	4.33%	4.22%	4.22%	4.27%				(12/14)
CAI Abs Return Hedge FoF	0.71%	(2.79%)	2.75%	3.47%	-				
<b>Real Assets</b>	<b>4.47%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>				
Principal DRA	4.47%	-	-	-	-				
S&P 500 Index	2.46%	3.99%	11.66%	12.10%	-				
CAI Alternative Invest DB	9.84%	(5.06%)	(1.10%)	0.42%	-				
<b>Total Real Estate</b>	<b>2.22%</b>	<b>12.54%</b>	<b>13.63%</b>	<b>12.78%</b>	<b>6.48%</b>				(7/86)
Real Estate	2.22%	12.54%	13.63%	12.78%	6.48%				(7/86)
Blended Benchmark (1)	2.22%	13.12%	12.13%	12.06%	-				
CAI Total Real Estate DB	2.17%	11.86%	13.09%	12.23%	-				
<b>Total Fund</b>	<b>1.25%</b>	<b>0.95%</b>	<b>7.35%</b>	<b>6.99%</b>	<b>9.49%</b>				(1/79)
Total Fund Reference Index*	1.52%	1.72%	7.24%	7.19%	-				

\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

(1) Blended Benchmark consists of NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2015- 6/2016		2015		2014		2013		2012	
<b>Total Domestic Equity</b>	<b>1.99%</b>		<b>(0.07%)</b>		<b>11.63%</b>		<b>33.86%</b>		<b>16.12%</b>	
Russell 3000 Index	3.62%		0.48%		12.56%		33.55%		16.42%	
Northern Trust Global	3.87%	13	1.49%	45	13.77%	47	32.46%	77	16.07%	48
S&P 500 Index	3.84%	14	1.38%	50	13.69%	48	32.39%	77	16.00%	48
CAI Large Cap Core	1.44%		1.38%		13.63%		34.45%		15.89%	
Cornerstone Investment Partners	(0.24%)	96	(13.54%)	98	8.32%	95	34.87%	46	-	
S&P 500 Index	3.84%	45	1.38%	3	13.69%	27	32.39%	75	16.00%	59
CAI Large Cap Value	3.34%		(2.57%)		12.54%		34.59%		16.78%	
Polen Capital Management	(2.36%)	58	15.51%	3	17.60%	6	23.45%	99	-	
S&P 500 Index	3.84%	8	1.38%	93	13.69%	25	32.39%	79	16.00%	55
CAI Large Cap Growth	(1.72%)		6.43%		11.83%		35.60%		16.14%	
Earnest Partners LLC	4.95%	23	1.25%	27	10.38%	46	31.29%	90	16.53%	47
Russell MidCap Index	5.50%	21	(2.44%)	67	13.22%	23	34.76%	63	17.28%	41
CAI Mid Capitalization	2.19%		(0.69%)		9.88%		35.84%		16.26%	
Dimensional Fund Advisors Inc.	3.65%	58	(6.06%)	76	5.04%	67	42.70%	23	22.43%	20
Russell 2000 Value Index	6.08%	33	(7.47%)	83	4.22%	82	34.52%	81	18.05%	50
CAI Small Cap Value	4.64%		(3.73%)		5.93%		38.72%		18.12%	
CastleArk Management	(3.77%)	66	(4.90%)	78	6.15%	31	-		-	
Russell 2000 Growth Index	(1.59%)	51	(1.38%)	50	5.60%	32	43.30%	74	14.59%	50
CAI Small Cap Growth	(1.57%)		(1.29%)		3.41%		46.83%		14.56%	
<b>Total Global Equity</b>	<b>4.01%</b>		<b>(2.08%)</b>		<b>2.32%</b>		<b>24.81%</b>		<b>15.39%</b>	
MSCI The World Index	0.66%		(0.87%)		4.94%		26.68%		15.83%	
MFS Investment Management	5.15%	9	(0.49%)	60	5.59%	34	23.08%	79	-	
MSCI ACWI Idx	1.58%	29	(1.84%)	72	4.71%	47	23.44%	78	16.80%	59
CAI Global Eq Broad Style	(0.92%)		0.17%		4.57%		27.98%		17.49%	

## Investment Manager Returns and Peer Group Rankings

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2015- 6/2016		2015		2014		2013		2012
<b>Total International Equity</b>	<b>(1.57%)</b>		<b>(0.41%)</b>		<b>(3.63%)</b>		<b>26.26%</b>		<b>18.88%</b>
MSCI EAFE Index	(4.42%)		(0.81%)		(4.90%)		22.78%		17.32%
Brandes Investment Partners	(1.30%)	23	(1.25%)	67	(4.45%)	56	29.45%	8	11.97%
MSCI EAFE Index	(4.42%)	64	(0.81%)	62	(4.90%)	61	22.78%	47	17.32%
CAI Non-U.S. Eq. Style	(3.49%)		0.48%		(3.88%)		22.49%		19.25%
William Blair & Company	(2.93%)	42	0.18%	53	(1.77%)	23	21.92%	54	23.79%
MSCI ACWI ex-US Index	(0.67%)	19	(5.25%)	92	(3.44%)	47	15.78%	89	17.39%
CAI Non-U.S. Eq. Style	(3.49%)		0.48%		(3.88%)		22.49%		19.25%
Dimensional Fund Advisors Inc.	(3.94%)	63	3.99%	86	(4.99%)	67	32.60%	35	22.79%
Blended Benchmark	(3.18%)	50	9.59%	56	(4.95%)	67	29.30%	67	20.00%
CAI Intl Small Cap	(3.11%)		10.05%		(3.42%)		31.13%		23.55%
<b>Total Fixed Income</b>	<b>7.71%</b>		<b>(2.49%)</b>		<b>4.00%</b>		<b>(0.53%)</b>		<b>8.82%</b>
Barclays Capital Aggregate	5.31%		0.55%		5.97%		(2.02%)		4.21%
BlackRock Intermediate Agg	3.84%	68	1.31%	43	4.37%	9	(0.93%)	67	3.68%
Barclays Capital Int Aggregate	3.78%	72	1.21%	64	4.12%	13	(1.02%)	74	3.56%
CAI Intermediate FI	3.95%		1.28%		3.47%		(0.49%)		4.89%
Reams Asset Management	6.82%	6	0.38%	49	4.09%	97	(1.08%)	75	7.94%
Barclays Capital Aggregate	5.31%	74	0.55%	38	5.97%	61	(2.02%)	96	4.21%
CAI Core Plus FI	5.68%		0.34%		6.18%		(0.68%)		8.29%
Loomis, Sayles & Company, L.P.	9.31%	1	(6.10%)	100	5.94%	61	2.41%	4	15.47%
Barclays Capital Aggregate	5.31%	74	0.55%	38	5.97%	61	(2.02%)	96	4.21%
CAI Core Plus FI	5.68%		0.34%		6.18%		(0.68%)		8.29%
Wellington Management Company	13.65%	1	(3.20%)	43	(0.55%)	90	(5.38%)	95	3.21%
CG WGFI Index	10.74%	9	(3.57%)	59	(0.48%)	88	(4.00%)	76	1.65%
CAI Global FI (Unhedged)	8.34%		(3.38%)		1.29%		(2.66%)		6.61%
<b>Total Private Equity</b>	<b>2.42%</b>		<b>12.34%</b>		<b>15.40%</b>		<b>8.66%</b>		<b>3.44%</b>
Abbott Capital Management 2010	3.68%		12.32%		12.36%		7.33%		(1.66%)
Abbott Capital Management 2011	4.15%		10.12%		9.17%		1.20%		(5.63%)
Abbott Capital Management 2012	3.26%		2.45%		4.97%		(2.50%)		-
Abbott Capital Management 2013	0.92%		2.23%		(2.17%)		-		-
Abbott Capital Management 2014	0.42%		0.39%		-		-		-
Abbott Capital Management 2015	(6.12%)		-		-		-		-
Mesirow V	2.21%		19.41%		21.07%		14.22%		6.65%
Mesirow VI	(0.42%)		(3.99%)		2.22%		-		-
NB Secondary Opp Fund III	5.27%		33.37%		19.77%		-		-
Private Advisors	(1.93%)		-		-		-		-
Russell 3000 (1 Qtr in Arrears) + 3%	8.83%		2.53%		21.19%		25.11%		33.90%
<b>Absolute Return</b>	<b>3.19%</b>		<b>4.92%</b>		<b>-</b>		<b>-</b>		<b>-</b>
Allianz SA 1000	5.27%	1	9.76%	1	-	-	-	-	-
T-Bills + 10%	5.02%	1	10.05%	1	10.03%	1	10.07%	34	10.11%
CAI Abs Return Hedge FoF	(0.94%)		(0.33%)		3.78%		8.92%		6.42%
Newton	8.47%	1	1.50%	29	-	-	-	-	-
1-month LIBOR + 4%	2.20%	1	4.19%	8	4.16%	39	4.19%	89	4.24%
CAI Abs Return Hedge FoF	(0.94%)		(0.33%)		3.78%		8.92%		6.42%
UBS A & Q	(0.82%)	44	4.09%	9	-	-	-	-	-
1-month LIBOR + 4%	2.20%	1	4.19%	8	4.16%	39	4.19%	89	4.24%
CAI Abs Return Hedge FoF	(0.94%)		(0.33%)		3.78%		8.92%		6.42%
<b>Total Real Estate</b>	<b>5.97%</b>		<b>13.44%</b>		<b>13.87%</b>		<b>13.58%</b>		<b>9.22%</b>
Real Estate	5.97%	21	13.44%	57	13.87%	45	13.58%	41	9.22%
Blended Benchmark (1)	5.50%	28	13.82%	56	11.26%	62	10.99%	59	11.00%
CAI Total Real Estate DB	4.38%		14.57%		12.93%		11.96%		10.51%
<b>Total Fund</b>	<b>3.23%</b>		<b>0.74%</b>		<b>5.31%</b>		<b>19.59%</b>		<b>14.10%</b>
Total Fund Reference Index*	3.07%		1.21%		6.00%		18.20%		12.90%

\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

(1) Blended Benchmark consists of NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended June 30, 2016

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Since Inception	
<b>Net of Fee Returns</b>						
Total Domestic Equity	0.93%	(0.31%)	10.14%	9.79%	5.84%	(7/98)
Russell 3000 Index	2.63%	2.14%	11.13%	11.60%	5.78%	(7/98)
Northern Trust Global	2.45%	4.03%	11.71%	12.15%	9.09%	(9/94)
S&P 500 Index	2.46%	3.99%	11.66%	12.10%	9.12%	(9/94)
Cornerstone Investment Partners	(1.63%)	(7.70%)	2.99%	-	8.49%	(6/12)
S&P 500 Index	2.46%	3.99%	11.66%	12.10%	14.65%	(6/12)
Polen Capital Management	(2.65%)	5.68%	15.81%	-	13.75%	(7/12)
S&P 500 Index	2.46%	3.99%	11.66%	12.10%	13.83%	(7/12)
Earnest Partners LLC	3.82%	1.48%	11.14%	9.95%	8.63%	(5/05)
Russell MidCap Index	3.18%	0.56%	10.80%	10.90%	9.14%	(5/05)
Dimensional Fund Advisors Inc.	0.95%	(5.65%)	6.77%	9.07%	11.23%	(11/96)
Russell 2000 Value Index	4.31%	(2.58%)	6.36%	8.15%	9.15%	(11/96)
CastleArk Management	1.65%	(15.33%)	-	-	4.73%	(9/13)
Russell 2000 Growth Index	3.24%	(10.75%)	7.74%	8.51%	6.20%	(9/13)
Total Global Equity	0.81%	(1.14%)	6.45%	5.10%	5.85%	(4/10)
MSCI World Index	1.01%	(2.78%)	6.95%	6.63%	7.49%	(4/10)
BlackRock Global Alpha Tilts	0.63%	-	-	-	-	-
MSCI World	1.01%	(2.78%)	6.95%	6.63%	-	-
MFS Investment Management	1.14%	1.00%	8.34%	-	9.19%	(12/12)
MSCI ACWI Idx	1.19%	(3.17%)	6.60%	5.95%	8.02%	(12/12)
Total International Equity	(1.95%)	(9.30%)	3.68%	3.21%	5.86%	(5/96)
MSCI EAFE Index	(1.46%)	(10.16%)	2.06%	1.68%	3.86%	(5/96)
BlackRock Emerging Mkts	0.62%	-	-	-	-	-
MSCI EM Gross	0.80%	(11.71%)	(1.21%)	(3.44%)	-	-
Brandes Investment Partners	(2.48%)	(11.16%)	3.42%	2.51%	7.04%	(2/98)
MSCI EAFE Index	(1.46%)	(10.16%)	2.06%	1.68%	3.87%	(2/98)
William Blair & Company	(0.83%)	(8.28%)	3.53%	3.87%	6.61%	(12/03)
MSCI ACWI ex-US Index	(0.40%)	(9.80%)	1.62%	0.56%	6.15%	(12/03)
Dimensional Fund Advisors Inc.	(3.16%)	(9.28%)	6.01%	4.04%	3.08%	(5/06)
Blended Benchmark	(2.60%)	(3.67%)	7.26%	4.84%	1.68%	(5/06)
Total Fixed Income	3.14%	5.56%	3.38%	3.77%	7.01%	(9/94)
Barclays Capital Aggregate	2.21%	6.00%	4.06%	3.76%	5.89%	(9/94)
BlackRock Intermediate Agg	1.47%	4.43%	3.33%	3.06%	5.10%	(7/99)
Barclays Capital Int Aggregate	1.44%	4.36%	3.24%	2.96%	5.03%	(7/99)
Reams Asset Management	2.43%	6.64%	3.79%	4.33%	5.86%	(1/01)
Loomis, Sayles & Company, L.P.	4.88%	3.22%	3.72%	5.15%	8.46%	(9/94)
Barclays Capital Aggregate	2.21%	6.00%	4.06%	3.76%	5.89%	(9/94)
Total Private Equity	2.97%	7.64%	11.70%	7.87%	5.98%	(6/10)
Abbott Capital Management 2010	3.68%	9.67%	11.09%	3.96%	(14.77%)	(6/10)
Abbott Capital Management 2011	4.15%	9.86%	8.44%	(12.40%)	(12.20%)	(6/11)
Abbott Capital Management 2012	3.26%	5.36%	4.08%	-	(0.21%)	(7/12)
Abbott Capital Management 2013	0.92%	2.71%	(1.53%)	-	(1.45%)	(5/13)
Abbott Capital Management 2014	0.42%	3.66%	-	-	(6.08%)	(4/14)
Abbott Capital Management 2015	(6.12%)	4.43%	-	-	3.53%	(4/15)
Abbott Capital Management 2016	(1.49%)	-	-	-	-	-
Mesirow V	3.65%	10.45%	16.93%	13.03%	11.50%	(6/10)
Mesirow IV	0.52%	(1.75%)	(0.79%)	-	(0.79%)	(7/13)
NB Secondary Opp Fund III	5.27%	11.39%	-	-	7.64%	(12/13)
Private Advisors	(1.93%)	(15.64%)	-	-	(14.97%)	(4/15)
Russell 3000 (1 Qtr in Arrears) + 3%	1.69%	2.66%	14.42%	14.29%	15.36%	(9/10)
Absolute Return	2.51%	4.76%	-	-	5.56%	(6/14)
Allianz SA 1000	2.79%	8.90%	-	-	10.15%	(6/14)
T-Bills + 10%	2.48%	10.19%	10.09%	10.09%	10.10%	(6/14)
Newton	4.69%	9.09%	-	-	5.84%	(8/14)
1-month LIBOR + 4%	1.09%	4.33%	4.22%	4.22%	4.25%	(8/14)
UBS A & Q	0.96%	0.10%	-	-	2.03%	(12/14)
1-month LIBOR + 4%	1.09%	4.33%	4.22%	4.22%	4.27%	(12/14)
Real Assets	4.47%	-	-	-	-	-
Principal DRA	4.47%	-	-	-	-	-
Total Real Estate	2.15%	12.27%	13.32%	12.43%	5.28%	(7/86)
Real Estate	2.15%	12.27%	13.32%	12.43%	5.28%	(7/86)
Blended Benchmark (1)	2.22%	13.12%	12.13%	12.06%	-	-
Total Fund	1.18%	0.67%	7.05%	6.69%	9.12%	(1/79)
Total Fund Reference Index*	1.52%	1.72%	7.24%	7.19%	-	-

\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

(1) Blended Benchmark consists of NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.



## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2015- 6/2016	2015	2014	2013	2012
<b>Net of Fee Returns</b>					
Total Domestic Equity	1.82%	(0.39%)	11.28%	33.44%	15.82%
Russell 3000 Index	3.62%	0.48%	12.56%	33.55%	16.42%
Northern Trust Global	3.86%	1.47%	13.75%	32.43%	16.04%
S&P 500 Index	3.84%	1.38%	13.69%	32.39%	16.00%
Cornerstone Investment Partners	(0.44%)	(13.89%)	7.89%	34.35%	-
S&P 500 Index	3.84%	1.38%	13.69%	32.39%	16.00%
Polen Capital Management	(2.60%)	14.94%	17.02%	22.84%	-
S&P 500 Index	3.84%	1.38%	13.69%	32.39%	16.00%
Earnest Partners LLC	4.67%	0.71%	9.79%	30.60%	15.87%
Russell MidCap Index	5.50%	(2.44%)	13.22%	34.76%	17.28%
Dimensional Fund Advisors Inc.	3.37%	(6.57%)	4.47%	41.95%	21.77%
Russell 2000 Value Index	6.08%	(7.47%)	4.22%	34.52%	18.05%
CastleArk Management	(4.10%)	(5.54%)	5.45%	-	-
Russell 2000 Growth Index	(1.59%)	(1.38%)	5.60%	43.30%	14.59%
Total Global Equity	3.82%	(2.44%)	1.95%	24.37%	14.88%
MSCI The World Index	0.66%	(0.87%)	4.94%	26.68%	15.83%
MFS Investment Management	4.93%	(0.89%)	5.17%	22.47%	-
MSCI ACWI	1.58%	(1.84%)	4.71%	23.44%	16.80%
Total International Equity	(1.80%)	(0.89%)	(4.09%)	25.66%	18.32%
MSCI EAFE Index	(4.42%)	(0.81%)	(4.90%)	22.78%	17.32%
Brandes Investment Partners	(1.50%)	(1.66%)	(4.84%)	28.93%	11.51%
MSCI EAFE Index	(4.42%)	(0.81%)	(4.90%)	22.78%	17.32%
William Blair & Company	(3.12%)	(0.22%)	(2.17%)	21.36%	23.38%
MSCI ACWI ex-US Index	(0.67%)	(5.25%)	(3.44%)	15.78%	17.39%
Dimensional Fund Advisors Inc.	(3.94%)	3.99%	(4.99%)	32.39%	22.26%
Blended Benchmark	(3.18%)	9.59%	(4.95%)	29.30%	20.00%
Total Fixed Income	7.60%	(2.63%)	3.85%	(0.69%)	8.65%
Barclays Capital Aggregate	5.31%	0.55%	5.97%	(2.02%)	4.21%
BlackRock Intermediate Agg	3.82%	1.28%	4.34%	(0.96%)	3.65%
Barclays Capital Int Aggregate	3.78%	1.21%	4.12%	(1.02%)	3.56%
Reams Asset Management	6.74%	0.23%	3.94%	(1.23%)	7.78%
Loomis, Sayles & Company, L.P.	9.24%	(6.20%)	5.82%	2.29%	15.33%
Barclays Capital Aggregate	5.31%	0.55%	5.97%	(2.02%)	4.21%
Total Private Equity	2.42%	12.34%	15.40%	8.66%	3.44%
Abbott Capital Management 2010	3.68%	12.32%	12.36%	7.33%	(1.66%)
Abbott Capital Management 2011	4.15%	10.12%	9.17%	1.20%	(5.63%)
Abbott Capital Management 2012	3.26%	2.45%	4.97%	(2.50%)	-
Abbott Capital Management 2013	0.92%	2.23%	(2.17%)	-	-
Abbott Capital Management 2014	0.42%	0.39%	-	-	-
Abbott Capital Management 2015	(6.12%)	-	-	-	-
Mesirow V	2.21%	19.41%	21.07%	14.22%	6.65%
Mesirow VI	(0.42%)	(3.99%)	2.22%	-	-
NB Secondary Opp Fund III	5.27%	33.37%	19.77%	-	-
Private Advisors	(1.93%)	-	-	-	-
Russell 3000 (1 Qtr in Arrears) + 3%	8.83%	2.53%	21.19%	25.11%	33.90%
Absolute Return	3.19%	4.92%	-	-	-
Allianz SA 1000	5.27%	9.76%	-	-	-
T-Bills + 10%	5.02%	10.05%	10.03%	10.07%	10.11%
Newton	8.47%	1.50%	-	-	-
1-month LIBOR + 4%	2.20%	4.19%	4.16%	4.19%	4.24%
UBS A & Q	(0.82%)	4.09%	-	-	-
1-month LIBOR + 4%	2.20%	4.19%	4.16%	4.19%	4.24%
Total Real Estate	5.84%	13.15%	13.54%	13.15%	8.83%
Real Estate	5.84%	13.15%	13.54%	13.15%	8.83%
Blended Benchmark (1)	5.50%	13.82%	11.26%	10.99%	11.00%
Total Fund	3.09%	0.46%	5.02%	19.26%	13.78%
Total Fund Reference Index*	3.07%	1.21%	6.00%	18.20%	12.90%

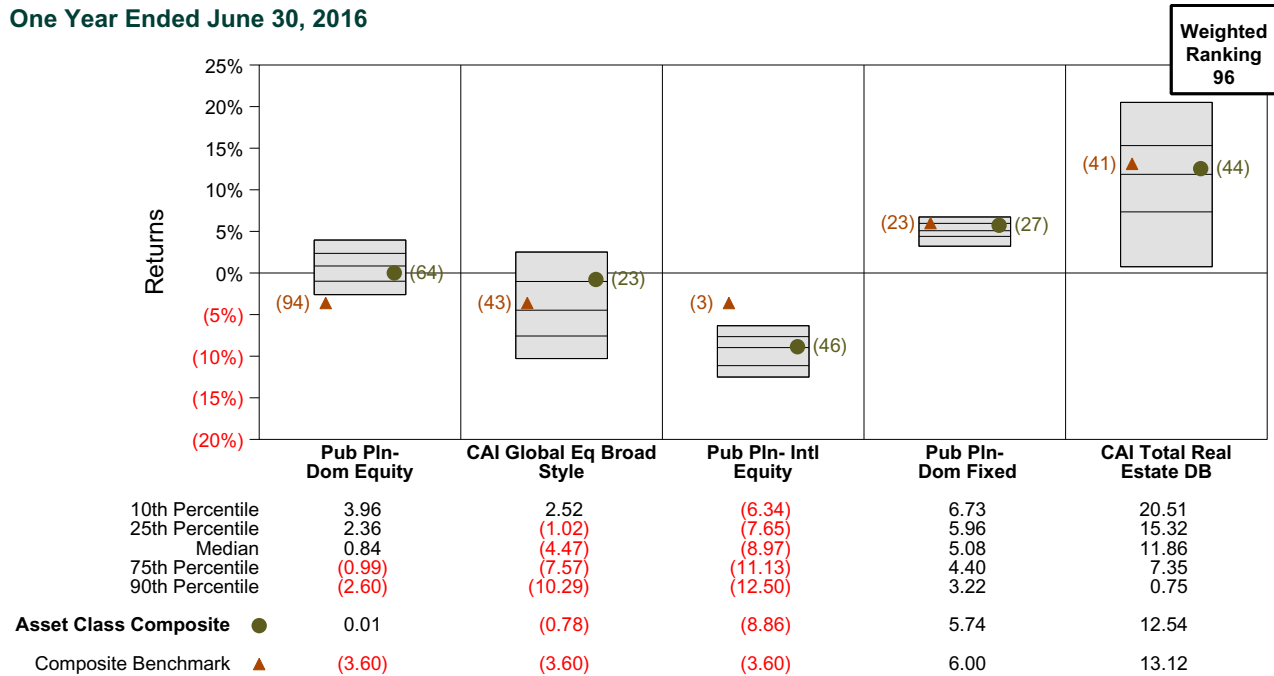
\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.

(1) Blended Benchmark consists of NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

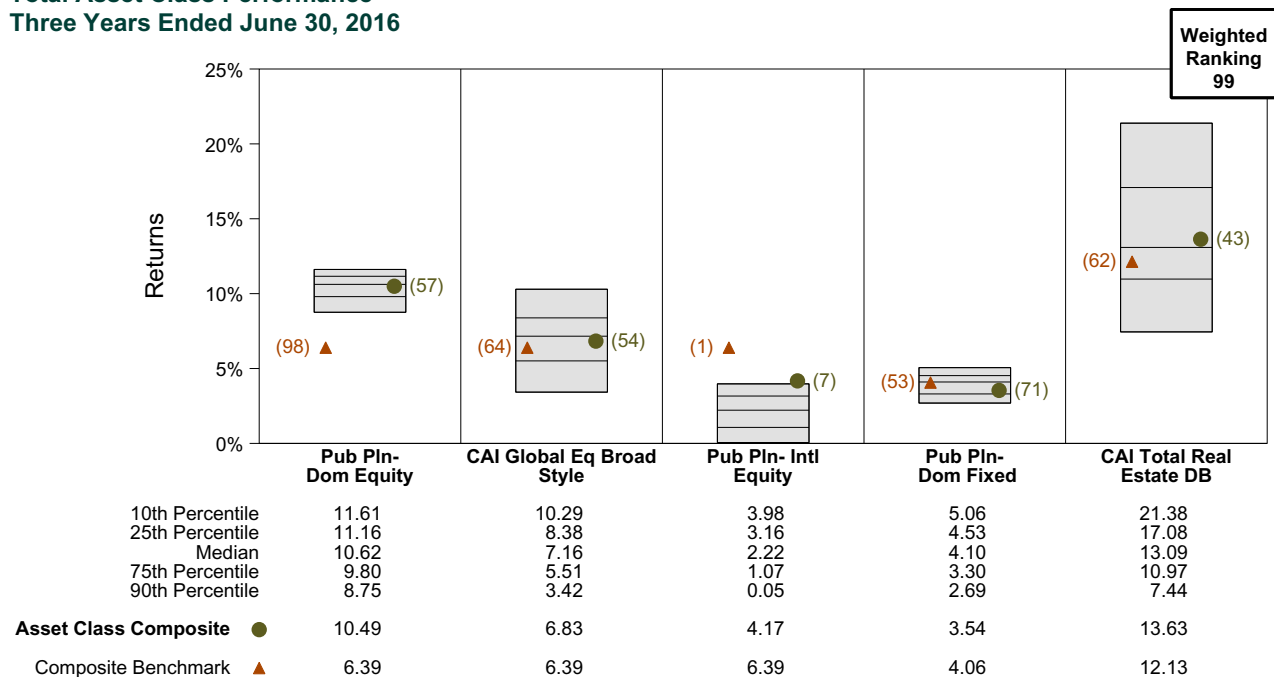
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended June 30, 2016



### Total Asset Class Performance Three Years Ended June 30, 2016



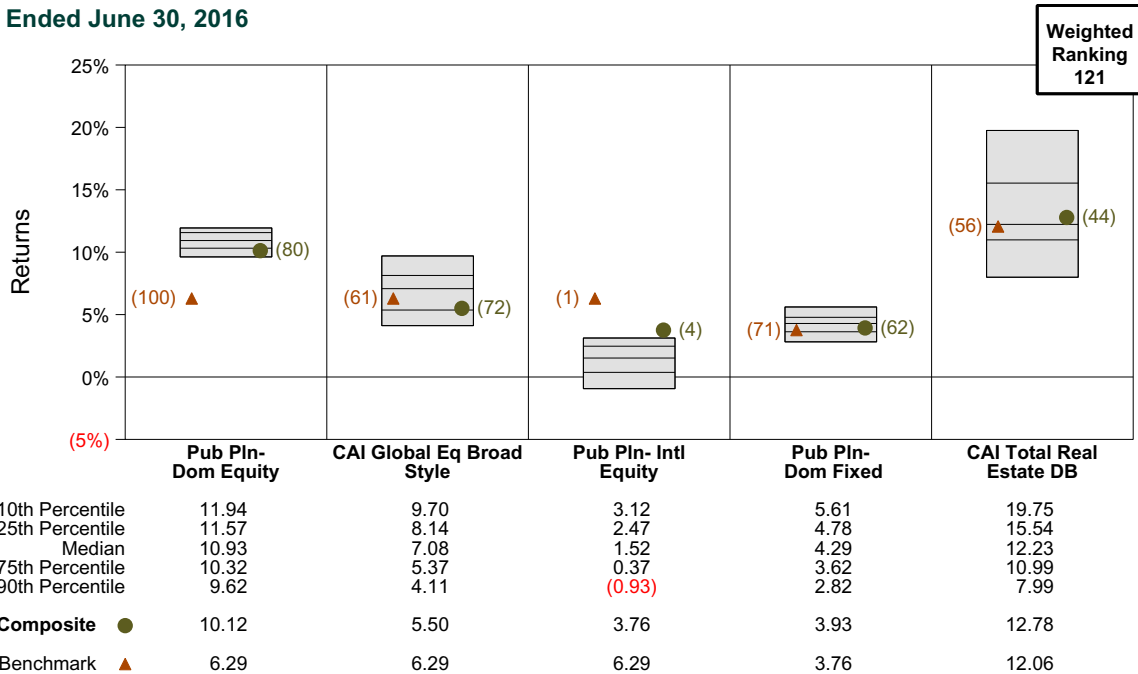
\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.



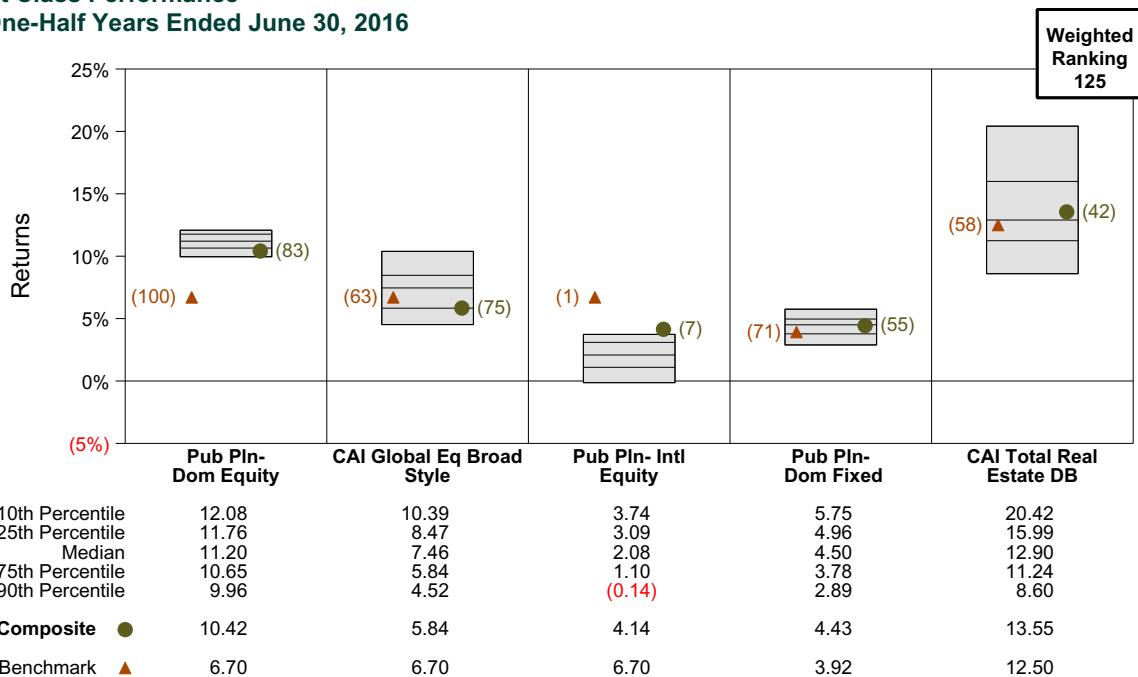
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance Five Years Ended June 30, 2016



### Total Asset Class Performance Five and One-Half Years Ended June 30, 2016



\* Current Quarter Target = 56.0% MSCI ACWI IMI, 25.0% Barclays Aggregate Index, 7.0% NFI-ODCE (1 Qtr in Arrears), 5.0% 3-month Treasury Bill+3.0%, 4.0% Russell 3000 (1 Qtr in Arrears)+3.0% and 3.0% Blend 40% ACWI / 40% TIPS / 20% CMDTY.



## Research and Educational Programs

The Callan Institute provides research that updates clients on the latest industry trends while helping them learn through carefully structured educational programs. Visit [www.callan.com/research](http://www.callan.com/research) to see all of our publications, or for more information contact Anna West at 415.974.5060 / [institute@callan.com](mailto:institute@callan.com).

### New Research from Callan's Experts



**Aspiring Managers: Negotiating the Dual Realities Facing Diverse and Emerging Managers** | Callan Chairman and CEO Ron Peyton and Callan Connects Manager Lauren Mathias, CFA, provide perspective on the diverse and emerging manager arenas and offer thoughts on how these managers can succeed.

**Asset Managers and ESG: Sensing Opportunity, Bigger Firms Lead the Charge** | In Callan's ESG survey of asset managers, author Mark Wood, CFA, reveals that the majority of large asset management firms have formal ESG policies, while smaller firms have yet to exhibit widespread adoption. Around one-third of managers with a formal ESG policy expect it will help them achieve higher risk-adjusted returns and improved risk profiles over the long term.

**Video: Sustainability in Real Estate Investing** | Sarah Angus, CAIA, a consultant in Callan's Real Assets Consulting group, discusses the benefits in using sustainable practices in managing real estate buildings, including higher tenant satisfaction and retention, greater occupancy, and increased values.

**Considering Currency Hedging in an Equity Portfolio: 10 Charts to Help Frame a Policy** | Callan recommends a measured approach to managing currency, including creating a policy to ensure short-term decisions made during painful times are in line with the long-term strategic goals of the plan. These 10 charts provide context for currency hedging discussions.

**Video: The Costs of Closing: Nuclear Decommissioning Trusts** | Julia Moriarty, CFA, of Callan's Capital Markets Research group discusses hedging costs, the impact of license extension, and more.



**Emerging Markets: Opportunities and Challenges in Public Equity Investing** | Callan's global equity investment experts (Andy Iseri, CFA, Ho Hwang, and Lyman Jung) write that despite risks, emerging market equities still can play an important role in well-diversified institutional portfolios.

**Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle?** | Callan's Real Assets Consulting group identifies seven indicators that have helped signal when the institutional real estate market is overheated or has cooled down.

### Periodicals

**Private Markets Trends, Spring 2016** | The latest on private equity.

**DC Observer, 1st Quarter 2016** | The PPA, 10 years later: DC assets have grown and target date funds have skyrocketed.

**Hedge Fund Monitor, 1st Quarter 2016** | The latest on these funds, plus the challenges in the search for above-average managers.

**Market Pulse Flipbook, 1st Quarter 2016** | A guide covering investment and fund sponsor trends, the U.S. economy, the capital markets, and Callan's proprietary DC Index.

**Capital Market Review, 1st Quarter 2016** | Insights on the economy and recent performance in equities, fixed income, alternatives, real estate, and more.

**Inside Callan's Database, 1st Quarter 2016** | A look at performance and risk data from Callan's proprietary database and relevant market indices.

## Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: <https://www.callan.com/education/CII/>

Mark your calendars for our fall **Regional Workshop**, October 25 in New York and October 26 in Chicago, and our **National Conference**, January 23–25, 2017, at the Palace Hotel in San Francisco.

**For more information about events, please contact Barb Gerraty: 415.274.3093 / [gerraty@callan.com](mailto:gerraty@callan.com)**

## The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the “Callan College,” provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next session is:

### Introduction to Investments

*Chicago, October 18–19, 2016*

This session familiarizes fund sponsor trustees, staff, and asset management advisors with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory “Callan College” session is \$2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

### Customized Sessions

The “Callan College” is equipped to customize a curriculum to meet the training and educational needs of a specific organization. These tailored sessions range from basic to advanced and can take place anywhere—even at your office.

**Learn more at <https://www.callan.com/education/college/> or contact Kathleen Cunnie: 415.274.3029 / [cunnie@callan.com](mailto:cunnie@callan.com)**

## Education: By the Numbers

**500** Attendees (on average) of the Institute's annual National Conference

**50+** Unique pieces of research the Institute generates each year

**3,500** Total attendees of the “Callan College” since 1994

**1980** Year the Callan Institute was founded



“We think the best way to learn something is to teach it. Entrusting client education to our consultants and specialists ensures that they have a total command of their subject matter. This is one reason why education and research have been cornerstones of our firm for more than 40 years.”

Ron Peyton, Chairman and CEO



## List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor and disclose potential conflicts on an on-going basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Manager Name
1607 Capital Partners, LLC
Aberdeen Asset Management PLC
Acadian Asset Management LLC
AEGON USA Investment Management
Affiliated Managers Group, Inc.
AllianceBernstein
Allianz Global Investors
Allianz Life Insurance Company of North America
American Century Investment Management
Amundi Smith Breeden LLC
Analytic Investors
Angelo, Gordon & Co.
Apollo Global Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Artisan Holdings
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Babson Capital Management
Baillie Gifford Overseas Limited
Baird Advisors
Bank of America
Baring Asset Management
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BlackRock
BMO Asset Management, Corp.
BNP Paribas Investment Partners
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brown Brothers Harriman & Company
Cambiar Investors, LLC

Manager Name
Capital Group
CastleArk Management, LLC
Causeway Capital Management
Chartwell Investment Partners
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Management Investment Advisers, LLC
Columbus Circle Investors
Corbin Capital Partners, L.P.
Cornerstone Capital Management
Cramer Rosenthal McGlynn, LLC
Crawford Investment Counsel, Inc.
Credit Suisse Asset Management
Crestline Investors, Inc.
DE Shaw Investment Management, LLC
Delaware Investments
DePrince, Race & Zollo, Inc.
Deutsche Asset Management
Diamond Hill Investments
Duff & Phelps Investment Mgmt. Co.
Eagle Asset Management, Inc.
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Investors
Fidelity Institutional Asset Management
Fiera Capital Global Asset Management
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments
Fort Washington Investment Advisors, Inc.
Franklin Templeton Institutional
Fred Alger Management, Inc.
Fuller & Thaler Asset Management, Inc.
GAM (USA) Inc.
GE Asset Management

Manager Name
GMO
Goldman Sachs Asset Management
Grand-Jean Capital Management
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Hartford Funds
Hartford Investment Management Co.
Henderson Global Investors
Hotchkis & Wiley Capital Management, LLC
HSBC Global Asset Management
Income Research + Management, Inc.
Insight Investment Management Limited
Institutional Capital LLC
INTECH Investment Management, LLC
Invesco
Investec Asset Management
Janus Capital Management, LLC
Jensen Investment Management
J.P. Morgan Asset Management
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
LMCG Investments, LLC
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
MacKay Shields LLC
Man Investments Inc.
Manulife Asset Management
Martin Currie Inc.
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Lake Investment Management LLC
MUFG Union Bank, N.A.
Neuberger Berman
Newton Investment Management (fka Newton Capital Management)
Nikko Asset Management Co., Ltd.
Northern Trust Asset Management
Nuveen Investments, Inc.
OFI Global Asset Management
Old Mutual Asset Management
Opus Capital Management Inc.
Pacific Investment Management Company

Manager Name
Parametric Portfolio Associates
Peregrine Capital Management, Inc.
PGIM
PineBridge Investments
Pinnacle Asset Management L.P.
Pioneer Investments
PNC Capital Advisors, LLC
Principal Global Investors
Private Advisors, LLC
Putnam Investments, LLC
QMA (Quantitative Management Associates)
RBC Global Asset Management
Regions Financial Corporation
RidgeWorth Capital Management, Inc.
Rockefeller & Co., Inc.
Rothschild Asset Management, Inc.
Russell Investments
Santander Global Facilities
Schroder Investment Management North America Inc.
Scout Investments
SEI Investments
Smith, Graham & Co. Investment Advisors, L.P.
Smith Group Asset Management
Standard Life Investments Limited
Standish
State Street Global Advisors
Stone Harbor Investment Partners, L.P.
Systematic Financial Management
T. Rowe Price Associates, Inc.
Taplin, Canida & Habacht
The Boston Company Asset Management, LLC
The Hartford
The London Company
The TCW Group, Inc.
Tri-Star Trust Bank
UBS Asset Management
Van Eck Global
Versus Capital Group
Victory Capital Management Inc.
Vontobel Asset Management, Inc.
Voya Financial
Voya Investment Management (fka ING)
Waddell & Reed Asset Management Group
WCM Investment Management
WEDGE Capital Management
Wellington Management Company, LLP
Wells Capital Management
Western Asset Management Company
William Blair & Company