Callan

Forest Preserve District Employees' Annuity and Benefit Fund of Cook County

Performance Summary

September 30, 2016

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General Market and Economic Conditions

Investor angst over the unexpected vote on Brexit was short-lived with a "risk-on" theme returning to the markets in July and leading to stock market highs for the Dow, NASDAQ and S&P 500 in August. Highly unusual election antics and continued geopolitical concerns on a number of fronts did not dampen investors' risk appetite or their quest for yield. Emerging markets equities posted their best quarterly return since 2012, outperforming developed markets, and high yield bonds were also top performers. Volatility was exceptionally low throughout the quarter as investors appeared to be somewhat complacent about continued accommodative policies from central banks and steady, albeit slow, economic growth.

The Fed continued to stay the course, leaving the fed funds rate unchanged at a target range of 0.25% - 0.50%, but the number of dissenting votes at the September meeting marked a shift in sentiment for the Board. Three of the Federal Reserve officials voted to hike rates; the most since December 2014. As of quarter-end, the markets were pricing in a roughly 50% likelihood of a rate hike before year-end. Fed policymakers now expect growth for all of 2016 to be 1.8%, down from the June expectation of 2.0%. Longer term, the Fed expects the Fed Funds rate to be close to 2% in 2018 while markets are far more dovish. Markets are pricing in a Fed Funds rate of less than 1% in 2018.

Real GDP grew at a surprisingly strong 2.9% in the third quarter, the best rate in two years. Personal consumption has been driving growth in the U.S. for the past several years, but its influence has weakened. Residential investment slowed but remains up 6% over the past twelve months. The average price of a single family home ($274,000) is now just shy of the high hit in October of 2005. Unemployment remained unchanged at 4.9% but wages showed signs of improvement, rising 2.4% over the last twelve months; down slightly from July's 2.7% which had been the highest in seven years. CPI remained muted, +1.1% for the trailing one year period, but Core CPI was up 2.3% year-over-year. Prices of services (less energy) climbed 3.2% with medical care (+5.1%), shelter (+3.4%) and transportation (+3.1%) showing the largest gains. Prices of goods were down modestly and energy prices remain down 9.2% year-over-year. The Fed's favored measure, the core Personal Consumption Expenditures Index, rose 1.7% over the past year, short of the Fed's 2% target but the highest in 6 months. Consumer confidence jumped to its highest level since August 2007, according to the Conference Board's Consumer Confidence Index.

In the Eurozone, fears around Brexit faded though economic growth remained weak. 3rd quarter GDP came in at 0.3%, in line with that of the 2nd quarter. Unemployment remained stubbornly high at just over 10% but down from the high of 12% in July 2013. The range is highly divergent among countries, with Spain's unemployment nearly 20% and Germany anchoring the low end at 4.2%. Inflation remained well short of the 2% goal but has stopped falling; the latest print for Eurozone core inflation was +0.8% (headline +0.4%). The European Central Bank left interest rates unchanged and as the quarter ended, there was speculation that it may taper its bond buying program sooner than the markets expected. While it committed to the €80 billion monthly program through March, 2017, the markets were expecting an extension through September. Also late in the quarter, the Bank of Japan announced a shift in policy and while it is maintaining asset purchases, it has added a new tool to its quantitative easing kit – "yield curve control." The Bank intends to adjust its purchases to target a yield of 0% for the 10-year JGB while maintaining negative short rates with a goal to steepen the yield curve and thus help increase profitability for banks.

Third Quarter 2016 Market Performance

Reduced fears of slowing global growth, particularly in China, optimism about the U.S. economy, and further delays in rate hike contributed to a rebound in domestic equity in the 3rd quarter. The S&P 500 climbed to its all-time high of 2,193 on August 15 and closed up 3.9% for the quarter. Small capitalization stocks outperformed by a large margin for the quarter as the Russell 2000 rose 9.1% and the Russell Mid Cap posted a 4.5% result. Growth outperformed Value modestly across market capitalizations with the largest difference seen in large caps. The Russell 1000 Growth outperformed its Value counterpart by 1.1% (4.6% vs 3.5%). Year-to-date, investors have shown a strong preference for income. The top performing sector based upon MSCI's factor indices was High Dividend Yield, with a 13.2% return y-t-d. At the bottom of the pack, Quality is up 6% for the year. The largest growth sector, Technology (+12.9%) posted the strongest return among all sectors and contributed to the excess return of growth over value. Utilities (-5.9%) and Telecom (-5.6%) were the worst performing sectors, hurt by the prospect of rising short-term rates.

In a new development, REITs and other listed real estate companies were extracted from the Financials Sector and elevated to a new Real Estate sector in the Global Industry Classification Standard (GICS). The new Real Estate sector, representing 3.1% of the S&P 500, finished the quarter with a -2.1% return.

Foreign developed market indices outperformed the S&P 500 and, consistent with the quarter's risk-on theme, emerging markets were the top performers. The MSCI ACWI ex-US posted a 6.9% return, modestly above the MSCI EAFE's 6.4% result. Currency fluctuations were modest and thus had a relatively muted impact on results. In developed markets, Germany (+10%) and Austria (+17%) were top performers while Denmark (-6%) was the laggard. The MSCI EM Index surged 9.0% for the quarter. Among emerging markets, Brazil continued to post lofty results (+11%) and the country is up nearly 63% year-to-date. Russia (+8%) and China (+14%) were also top performers while Turkey (-5%) and Mexico (-2%) were laggards.

Yields in the US moved modestly higher during the 3rd quarter with the 10-year US Treasury yield rising 11 bps to close at 1.60%. However, the Treasury note did hit a record low of 1.37% on July 8th at the height of the Brexit-induced worries before trending higher through the remainder of the quarter. July was the only positive return month during the quarter for the broad investment grade market. The curve continued its flattening trend in anticipation of eventual Fed rate hikes. The spread between the 2-year US Treasury note and the 30-year US Treasury bond shrank from 171 bps to 154 bps. Spread sectors outperformed US Treasuries with corporates, and especially high yield, being the strongest.

The Bloomberg Barclays US Aggregate returned +0.5% for the quarter and is up 5.8% year-to-date. The Credit sector rose 1.2% even with record issuance in the month of August. (Note that Bloomberg acquired the Barclays indices and rebranded the names in August). Lower quality bonds outperformed, consistent with the resurgence in risk appetite, and high yield performed the best. The Bloomberg Barclays High Yield Index gained 5.6% and is up over 15% year-to-date. At the same time, the default rate for the trailing twelve months ticked up to 4.9%, according to Fitch Ratings; with defaults in the energy sector approaching 16% thus far this year (58 companies through September 13th).

Robust supply overwhelmed demand for municipal bonds, and the sector lagged Treasuries for the quarter. The Bloomberg Barclays 1-10 Year Municipal Bond Index returned -0.1% in the 3rd quarter.

Overseas, yields were generally lower with Mexico and Japan being exceptions. There is now over $12 trillion of negative yielding debt globally with Japan accounting for nearly half of that amount and Western Europe the other half; namely France, Germany, and the Netherlands. Currency fluctuations were relatively muted over the course of the quarter; the yen and euro both gained just over 1% versus the dollar while the pound lost nearly 3%. The Bloomberg Barclays Global Aggregate ex-US Index returned 1.0% for the quarter; up 0.5% on a hedged basis. Emerging markets debt, like its equity counterpart, outperformed developed markets. The JP Morgan EMBI Global Diversified Index gained 4.0% for the quarter and the local currency GBI-EM Global Diversified was up 2.7%.

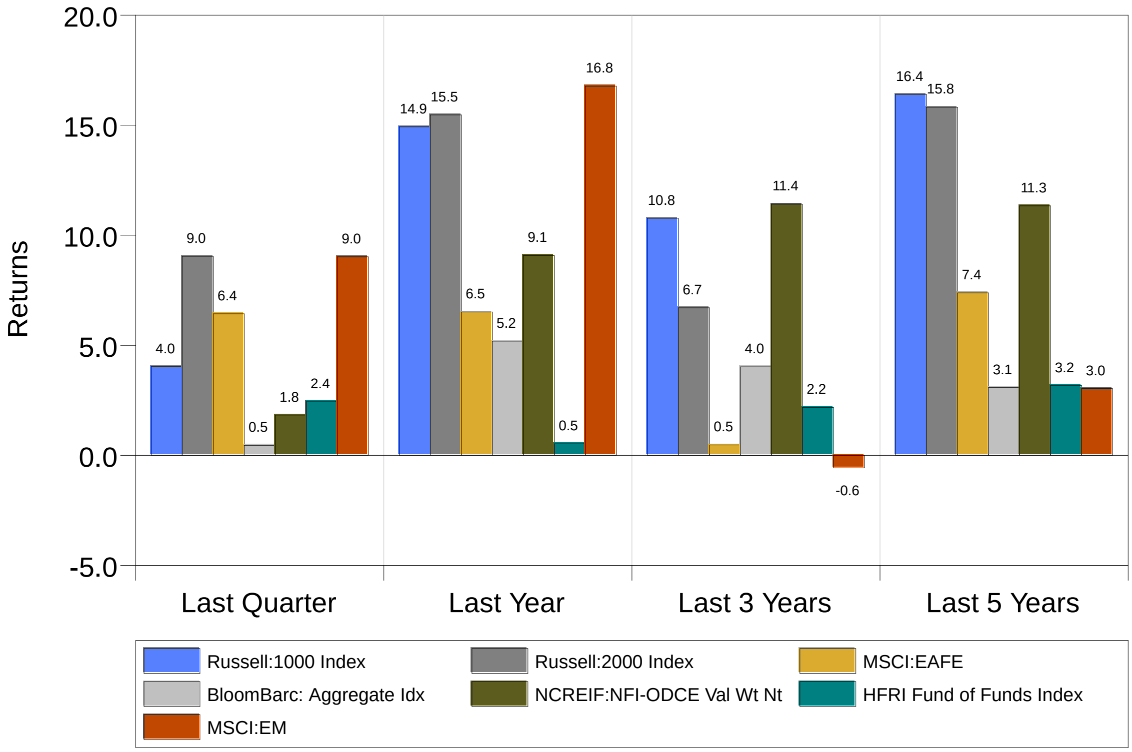
In the wake of Brexit, "risk-on" strategies outperformed as investors shrugged off concerns. The Credit Suisse Hedge Fund Index (CS HFI) gained 1.74% while the median manager in the Callan Hedge Fund-of-Funds Database edged ahead at 2.92%, net of fees. As measured by the CS Hedge Fund Indices, returns across the underlying strategies were varied. The strongest performing strategy was Emerging Markets (+4.20%), supported by strong debt and equity amid growing economies. Tightening credit spreads and improving fundamentals supported Convertible Arbitrage (+3.83%), Event-Driven Multi-Strategy (+3.06%) and Distressed (+2.75%). Aided by strong equity tailwinds, Long/Short Equity gained 1.88%.

Low long-term interest rates have provided a strong tailwind for U.S. Real Estate and this asset class posted another steady return for the quarter. Real Estate gained 1.83% as measured by the preliminary return of the NFI-ODCE Index. The return was comprised of a 0.90% income return and 0.94% appreciation. Publicly traded U.S. REITS as measured by the FTSE NAREIT Equity Index lost 1.43% during the quarter as mixed economic data fueled concerns of a Federal Reserve rate increase.

Closing Thoughts

The quarter ended with OPEC surprising markets with an announcement that it would curtail production and worries over the financial health of Deutsche Bank, (whose assets total one-half of Germany's GDP) which is facing a large fine for its mortgage-related dealings during the crisis. The focus in coming weeks will likely be on the US election as well as more speculation as to when the Fed decides to lift rates. Volatility, which has been subdued amidst investor complacency, is likely to pick up and we would further caution clients to temper expectations for returns from the robust gains we have seen thus far in 2016. As always, prudent asset allocation with appropriate levels of diversification and a long-term perspective remain Callan's recommended course.

Investment Returns for Periods Ended September 30, 2016



Domestic equities were positive, but trailed as non-U.S. developed (MSCI EAFE) and emerging market equities (MSCI EM) exhibited strong returns. Fixed income, real estate, and hedge funds were also positive as measured by the representative market indices.

The Callan Periodic Table of Investment Returns
Third Quarter 2016

2007	2008	2009	2010	2011	2012	2013	2014	2015	3 Qtrs. 2016
MSCI:EM 39.4%	BC Aggregate 5.2%	MSCI:EM 78.5%	Russell:2000 Index 26.9%	NCREIF:NFI-ODCE Eq Wt Net 15.0%	MSCI:EM 18.2%	Russell:2000 Index 38.8%	Russell:1000 Index 13.2%	NCREIF:NFI-ODCE Eq Wt Net 14.2%	MSCI:EM 16.0%
NCREIF:NFI-ODCE Eq Wt Net 15.0%	NCREIF:NFI-ODCE Eq Wt Net (11.1%)	MSCI:EAFE 31.8%	MSCI:EM 18.9%	BC Aggregate 7.8%	MSCI:EAFE 17.3%	Russell:1000 Index 33.1%	NCREIF:NFI-ODCE Eq Wt Net 11.4%	Russell:1000 Index 0.9%	Russell:2000 Index 11.5%
MSCI:EAFE 11.2%	HFRI Fund of Funds Index (21.4%)	Russell:1000 Index 28.4%	Russell:1000 Index 16.1%	Russell:1000 Index 1.5%	Russell:1000 Index 16.4%	MSCI:EAFE 22.8%	BC Aggregate 6.0%	BC Aggregate 0.5%	Russell:1000 Index 7.9%
HFRI Fund of Funds Index 10.3%	Russell:2000 Index (33.8%)	Russell:2000 Index 27.2%	NCREIF:NFI-ODCE Eq Wt Net 15.1%	Russell:2000 Index (4.2%)	Russell:2000 Index 16.3%	NCREIF:NFI-ODCE Eq Wt Net 12.4%	Russell:2000 Index 4.9%	HFRI Fund of Funds Index (0.3%)	NCREIF:NFI-ODCE Eq Wt Net 6.3%
BC Aggregate 7.0%	Russell:1000 Index (37.6%)	HFRI Fund of Funds Index 11.5%	MSCI:EAFE 7.8%	HFRI Fund of Funds Index (5.7%)	NCREIF:NFI-ODCE Eq Wt Net 9.9%	HFRI Fund of Funds Index 9.0%	HFRI Fund of Funds Index 3.4%	MSCI:EAFE (0.8%)	BC Aggregate 5.8%
Russell:1000 Index 5.8%	MSCI:EAFE (43.4%)	BC Aggregate 5.9%	BC Aggregate 6.5%	MSCI:EAFE (12.1%)	HFRI Fund of Funds Index 4.8%	BC Aggregate (2.0%)	MSCI:EM (2.2%)	Russell:2000 Index (4.4%)	MSCI:EAFE 1.7%
Russell:2000 Index (1.6%)	MSCI:EM (53.3%)	NCREIF:NFI-ODCE Eq Wt Net (31.3%)	HFRI Fund of Funds Index 5.7%	MSCI:EM (18.4%)	BC Aggregate 4.2%	MSCI:EM (2.6%)	MSCI:EAFE (4.9%)	MSCI:EM (14.9%)	HFRI Fund of Funds Index (0.2%)

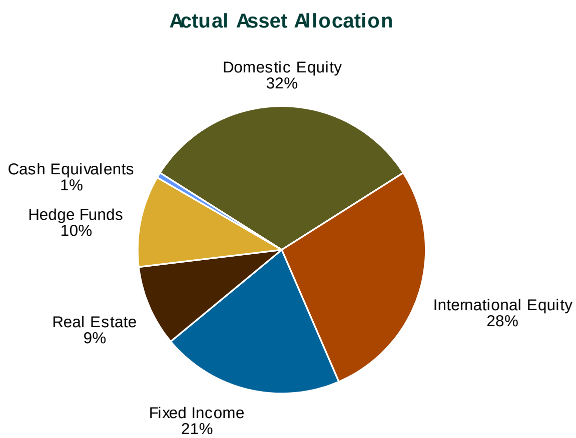
Emerging Market equities (MSCI EM) have staged an impressive turnaround from a dismal 2015. Assisted by a strong quarter where small caps surged by over 9%, the U.S. Small Cap Index (Russell 2000) has returned over 11.5% year to date and now leads the U.S. Large Cap Index (Russell 1000) by 3.6% in 2016. It should be noted that the Russell 1000 Index outperformed the Russell 2000 by 5.3% in 2015.

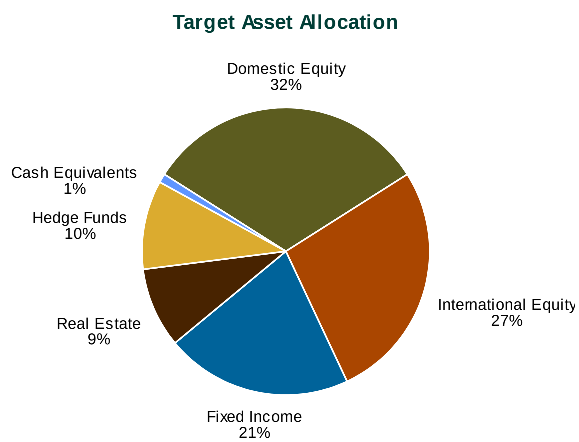
Forest Preserve Pension Fund Commentary

Asset Allocation

The Forest Reserve Pension Fund value at the end of September was $192.3 million; representing a net increase of $3.5 million from the prior quarter end. Investments returned $5.5 million for the quarter while net cash outflows to fund benefit payments were $2.0 million.

The Fund assets are in line with the strategic target allocation.





Asset Class	$000s Actual	Weight Actual	Target	Percent Difference	$000s Difference
Domestic Equity	61,521	32.0%	32.0%	0.0%	(22)
International Equity	52,953	27.5%	27.0%	0.5%	1,026
Fixed Income	39,521	20.5%	21.0%	(0.5%)	(866)
Real Estate	17,429	9.1%	9.0%	0.1%	121
Hedge Funds	19,750	10.3%	10.0%	0.3%	518
Cash Equivalents	1,147	0.6%	1.0%	(0.4%)	(776)
Total	192,321	100.0%	100.0%		

Forest Reserve Pension Fund Performance vs. Target

The Forest Reserve Pension Fund has finished ahead of its benchmark return and finished in the top quartile of its peer universe over the last three- and five-year periods. Over these periods, the fund has generated annualized returns of 6.66% and 10.38%, respectively. These returns exceed those of its custom benchmark by 0.76% and 1.32%, respectively. Active management in the International Equity and Hedge Fund allocations has provided the largest contributions to the outperformance.

During the 3rd quarter, the Forest Reserve Pension Fund posted a strong return of 2.95%, yet trailed its benchmark by 0.69% and ranked in the bottom quartile of its peer universe. In the last year, the fund trailed its benchmark by 1.01%, and fell short of its plan sponsor peers.

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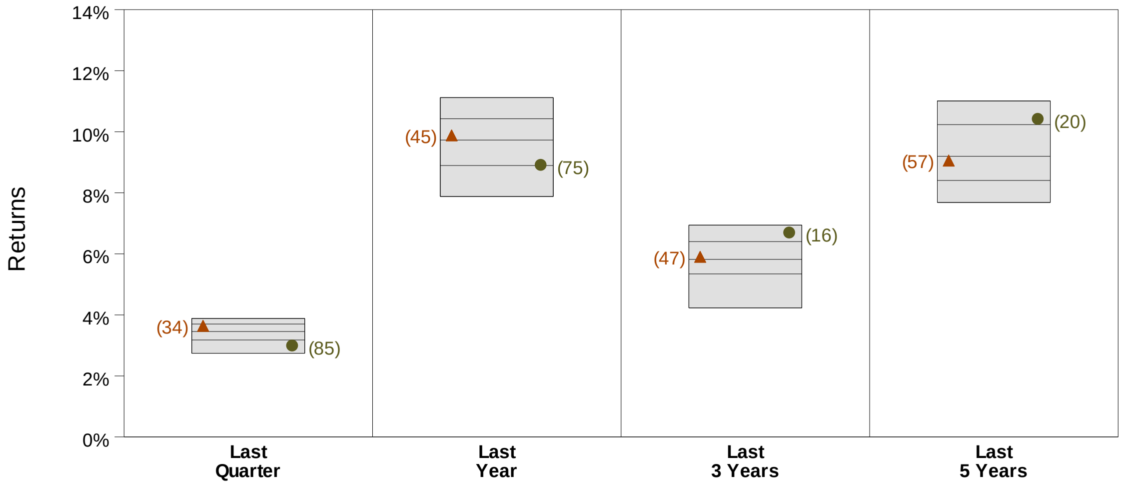
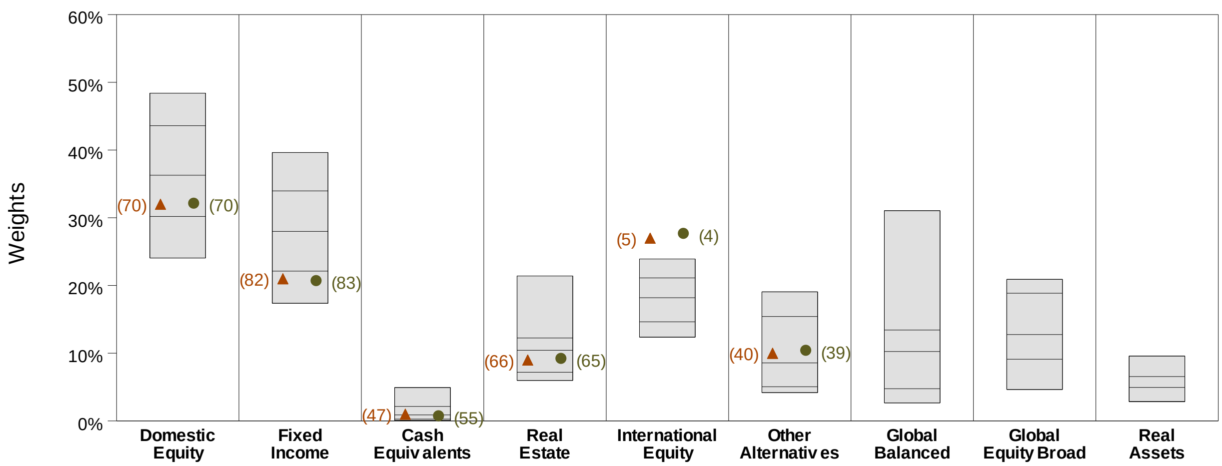
CAI Public Fund Sponsor - Mid (100M-1B)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years
10th Percentile	3.88	11.12	6.94	11.01
25th Percentile	3.70	10.43	6.40	10.23
Median	3.45	9.73	5.82	9.20
75th Percentile	3.18	8.90	5.34	8.40
90th Percentile	2.74	7.88	4.23	7.69
Total Fund ●	2.95	8.87	6.66	10.38
Policy Target ▲	3.64	9.88	5.90	9.06

Asset Class Weights vs CAI Public Fund Sponsor - Mid (100M-1B)



	Domestic Equity	Fixed Income	Cash Equivalents	Real Estate	International Equity	Other Alternatives	Global Balanced	Global Equity Broad	Real Assets
10th Percentile	48.42	39.64	4.93	21.43	23.93	19.06	31.06	20.91	9.59
25th Percentile	43.61	33.98	2.14	12.26	21.14	15.43	13.43	18.87	6.57
Median	36.30	27.99	0.90	10.44	18.19	8.58	10.27	12.75	4.96
75th Percentile	30.21	22.13	0.28	7.20	14.65	5.07	4.77	9.12	2.88
90th Percentile	24.06	17.37	0.08	5.98	12.37	4.19	2.67	4.64	2.85
Fund ●	31.99	20.55	0.60	9.06	27.53	10.27	-	-	-
Target ▲	32.00	21.00	1.00	9.00	27.00	10.00	-	-	-

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Table 1.1
Asset Class Performance vs. Target

	Market Value $(Dollars)	Ending Weight	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Domestic Equity	**$61,520,666**	**31.99%**	**4.16%**	**12.79%**	**10.21%**	**16.32%**
Domestic Equity Benchmark (2)	-	-	4.40%	14.88%	10.09%	16.22%
International Equity	**$52,952,765**	**27.53%**	**4.77%**	**9.42%**	**3.58%**	**11.05%**
MSCI ACWI ex US	-	-	6.91%	9.26%	0.18%	6.04%
Fixed Income	**$39,521,215**	**20.55%**	**0.45%**	**5.18%**	**4.12%**	**3.21%**
Fixed Income Benchmark (3)	-	-	0.46%	5.19%	4.03%	3.05%
****Real Estate**	**$17,429,494**	**9.06%**	**0.87%**	**13.84%**	**9.80%**	**10.81%**
NFI-ODCE Value Weight Net	-	-	1.83%	9.08%	11.42%	11.34%
****Hedge Funds**	**$19,749,684**	**10.27%**	**1.50%**	**0.22%**	**5.98%**	**-**
LIBOR + 4%	-	-	1.17%	4.61%	4.37%	-
HFRI Fund of Funds Index	-	-	2.45%	0.54%	2.18%	3.18%
Cash Equivalents	**$1,146,799**	**0.60%**	**0.15%**	**0.40%**	**0.21%**	**0.19%**
3-month Treasury Bill	-	-	0.10%	0.27%	0.11%	0.10%
Total Forest Preserve Fund	**$192,320,623**	**100.00%**	**2.95%**	**8.87%**	**6.66%**	**10.38%**
Total Fund Benchmark (1)	-	-	3.64%	9.88%	5.90%	9.06%

**Represents trailing data.

Definitions for custom benchmarks can be found on the back page

Table 1.1 illustrates the Forest Preserve Pension Fund's asset class performance versus associated benchmarks. The fund's domestic equity allocation modestly trailed its benchmark in the last quarter and twelve month period due to its allocation to smaller cap securities. However, for the five-year period active management in the small cap equities had a positive influence on the relative outperformance.

The fund's International Equity allocation trailed during the quarter; however, during the last three- and five-year periods, this allocation has outperformed the benchmark by 3.4% and 5.0% annualized. In addition, the allocation has ranked in the top quartile of its peer universe.

In the last five years, the Fixed Income allocation posted a similar return to the Bloomberg Barclays Aggregate Index which is comprised of U.S. investment grade securities.

The Real Estate allocation has been one of the best performing asset classes over the last five years with an annual return in excess of 10.8%. This allocation is comprised of investments in public real estate securities (REITS) and private real estate. REITs comprise approximately 30% of the Real Estate allocation and posted a negative return in the 3rd quarter; however, longer term, this investment has been additive.

The Forest Preserve Pension Fund's Hedge Fund allocation outperformed its absolute return benchmark for the last quarter, and finished ahead of the benchmark for the last three years. Despite trailing hedge fund peers as measured by the HFRI Fund of Funds Index for the quarter, the Hedge Fund allocation has significantly outdistanced this group in the last three years.

Notes and Observations

The Forest Preserve Pension Fund has posted a strong 8.9% over the trailing year. In the last three- and five-year periods, this fund has provided a significant excess return over its benchmark, and outperformed at least 80% of its industry peers.

Notes

1. **Total Fund Benchmark:** Blend of asset class benchmarks at policy weights. Third Quarter 2016 benchmark: 32.0% Russell 3000 Index, 27.0% MSCI ACWI ex US, 21.0% BloomBarc Aggregate Index, 10.0% Libor-3 Month+4.0%, and 9.0% NFI-ODCE Value Weight Net, and 1.0% 3-Month Treasury Bill.
2. **Domestic Equity Benchmark:** Russell 3000 Index. Previously, blend of 25.0% S&P 500, 5.0% Russell 2000 Value, 7.5% Russell 1000 Growth, and 7.5% Russell 1000 Value through 12/31/12; then Blend of 21.0% S&P 500 and 9.0% Russell 2500 Index through 6/30/2016.
3. **Fixed Income Benchmark:** BloomBarc Aggregate Index; previously blend of 30.0% BloomBarc Aggregate Index, and 10% BloomBarc Gov/Credit Intermediate Index through 12/31/2012.