Callan

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

## Performance Summary

**June 30, 2017**

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## General Market and Economic Conditions

*What will thwart the "Goldilocks" environment?*

"Not too hot, not too cold, but just right." This Goldilocks sentiment, fueled by years of central bank accommodation and tepid economic growth has kept volatility at multi-decade lows, interest rates range-bound, and propelled domestic stock markets to new highs. In the second quarter, the S&P 500 Index hit a record high, fueled by technology stocks, non-US equities outperformed domestic, and within bonds corporate credit and emerging markets debt posted the strongest returns as the "risk-on" theme continued unabated. The Treasury yield curve flattened, with short rates up and longer rates falling, but the broad bond market returned roughly 1.4%. The U.S. dollar weakened versus most currencies and, as in the first quarter, commodities were the lone area to deliver a negative return as oil prices continued to fall on supply concerns.

While the U.S. entered its 96th month of expansion, economic data was uninspiring. First quarter GDP growth was revised up to 1.4% (annualized) and was the weakest in three quarters. Personal consumption expenditures grew 1.1%, but this was the smallest advance since the second quarter of 2013. While unemployment fell to a 15-year low of 4.3%, declining workforce participation continues to play a role in that metric. Consumer spending continues to be a driver of growth, but its pace of growth has also slowed. Expectations for 2017 U.S. GDP growth were cut by the International Monetary Fund from 2.3% to 2.1% in response to lowered expectations for fiscal stimulus, including tax reform. Inflation remained stubbornly low. Headline CPI was 1.9% as of May (year-over-year) while Core was 1.7%. The Fed's favored measure, the PCE price index, gained 1.4% (year-over-year) still below the 2% target. While growth appears to have moderated, the Fed believes that the upward trajectory is intact and consequently raised the Fed Funds rate by 25 bps, as markets expected, to 1.0% - 1.25%. More significantly, however, was the Fed's announcement that it will begin to reduce the size of its $4.5 trillion balance sheet. While timing remains uncertain, the Fed made clear the process by which it intends to begin the tapering process.

A number of notable events occurred overseas on the political front. Populism appeared to lose favor as both the Netherlands and France declared centrist victories - Italy is up next with its election in spring of 2018. In the U.K., a surprising result came out of the snap election called by Prime Minister Theresa May; her Conservative Party lost its majority in the House of Commons, thus increasing the likelihood of a "softer" Brexit. First quarter GDP growth was 2.3% (annualized) for the euro zone, exceeding expectations and the best in two years. Unemployment dropped to 9.3%, the lowest since 2009. The European Central Bank kept rates unchanged, but it also removed language that suggested rates would continue to decline. Comments in late June by ECB President Mario Draghi hinted at a normalization/reduction of bond buying caused yields to rise; markets have priced in a near 100% probability of an ECB rate hike over the next twelve months. The euro and the pound strengthened significantly versus the U.S. dollar over the course of the quarter, up about 7% and 4%, respectively, on mixed economic data and uncertainty over the political climate. Inflation in the U.K. hit a four-year high of 2.9% (year-over-year) in May, leading to hawkish rhetoric from the Bank of England's chief economist. The post-Brexit decline in the pound has been a key culprit in rising inflation. Japan's first quarter GDP growth was 1.3% (annualized). While lower than expected it was the fifth quarter of economic expansion, the longest in more than a decade, and above Japan's long-range potential of roughly 0.7%. China exceeded expectations with a 6.9% annual growth pace in the first quarter and, more recently, unexpectedly strong manufacturing data.

## Second Quarter 2017 Market Performance

In the U.S., pro-growth initiatives such as tax reform and infrastructure investment failed to materialize, and repeal/replacement of the Affordable Health Care Act has also stalled. Instead, Russia's alleged influence over the Presidential election and multiple corresponding investigations took center stage during the quarter. However, investors shrugged off political drama choosing instead to focus on climbing after-tax corporate profits. S&P 500 companies reported the strongest quarterly earnings growth in six years with more than 75% reporting earnings above expectations. The S&P 500 Index gained 3.1% in the second quarter as the bull market reached its 99$^{th}$ month, nearly twice as long as the historical average of 54 months. Year-to-date, the Index is up 9.3%. Apple was added to "FANG" – now "FAANG" as this technology collective continue to fuel results in the large cap growth space. Technology stocks now comprise 22% of the S&P 500 Index and 36% of the Russell Growth Index. Growth stocks continued to solidly outperform Value (R1000G: +4.7% vs. R1000V: +1.3%). Along with Technology (+4.1%), Health Care (+7.1%) and Industrials (+4.7%) were strong performers. Large caps outperformed small caps across styles, but by a smaller margin (R1000: +3.1% vs. R2000: +2.5%). Telecomm, which includes only four companies (AT&T, Verizon, CenturyLink and Level3), sank 7% with AT&T and Verizon down over 8%. Energy returned -6.4% on falling oil prices. Financials got a June boost from the Fed's announcement that 34 of the largest U.S. banks had passed their stress tests; the sector was up 4.2% for the quarter.

Overseas, the MSCI EAFE Index (+6.1%) outperformed U.S. markets, bringing year-to-date returns to 13.8%. Gains were broad-based, though helped by U.S. dollar weakness. Within the MSCI, Europe ex-U.K. was up 8.4%, the U.K. gained 4.7% and Japan returned +5.2%. Emerging markets modestly outperformed developed (MSCI EM USD: +6.3%) and are up 18.4% year-to-date. Emerging Asia was the key driver in both the first and second quarters. Countries with the top performance in the second quarter included China (+10.6%), Greece (+33.8%), Korea (+10.2%), Turkey (+19.3%) and Poland (+13.6%). Elsewhere, Russia and Brazil posted sharp declines (-10.0% and -6.7%) and India's gain was muted at +2.9%. Brazil's president was implicated in country's wide-ranging corruption investigation and Russia suffered from falling oil prices and questions over US/Russian relations. In other news, MSCI announced that it would be adding China A-shares to its emerging markets indices, albeit in a fairly small sliver.

Intermediate and long U.S. Treasury yields fell modestly in the second quarter as inflation data releases were persistently weak. Short rates rose, consistent with the Fed hike, and thus the yield curve flattened. Risky assets continued their long streak of outperformance. The 10-year U.S. Treasury yield closed the quarter at 2.31%, down from 2.40% as of 3/31, though it hit a 2017 low of 2.12% earlier in June. The 2-year U.S. Treasury yield climbed 11 bps to close at 1.38%. As a result, short and intermediate maturity Treasuries underperformed; the Bloomberg Barclays Intermediate Treasury Index returned 0.7% while the Long Index gained 4.0%. The Bloomberg Barclays Aggregate Index earned 1.4% with corporate bonds performing the best on strong demand. The Bloomberg Barclays Corporate Index was up 2.5% for the quarter, outperforming the High Yield Index (+2.2%). TIPS underperformed as expectations for inflation sank. The Bloomberg Barclays TIPS Index lost 0.4% for the quarter. The 10-year breakeven spread (the difference between nominal and real yields) was 173 bps as of quarter-end, down from 1.97% at the end of the first quarter.

Overseas, broad-based dollar weakness boosted returns. The U.S. dollar lost nearly 7% versus the euro and almost 5% versus a broad basket of developed markets currencies. The Bloomberg Barclays Global Aggregate Index returned 2.6% (unhedged) versus 1.0% for the hedged version. Emerging markets debt posted solid returns. The JPM EMBI Global Diversified Index ($ denominated) was up 2.2% with broad-based gains across countries. The local currency JPM GBI-EM Global Diversified Index returned +3.6% with more divergent results. Russia, Brazil and Argentina lost over 2% while Mexico and Turkey were among the strongest performers with 7.5% gains.

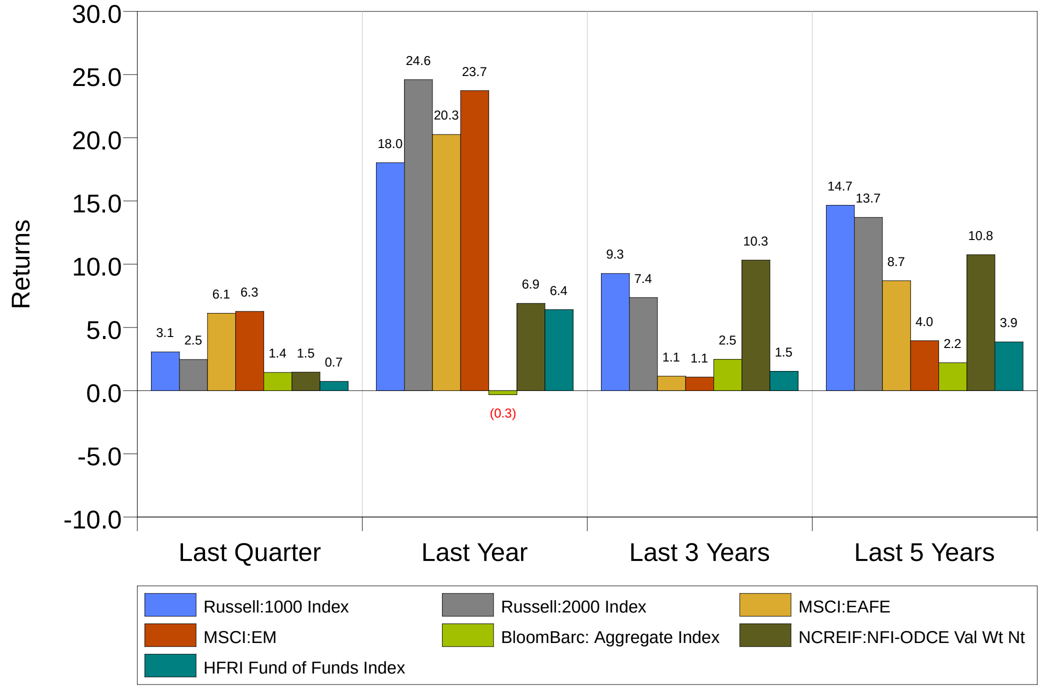
The Bloomberg Barclays Municipal Bond Index returned +2.0% in the second quarter and, generally, lower quality bonds outperformed. Results were bolstered by lowered investor expectations for meaningful tax reform, both in terms of scale and timing. Additional support came from favorable supply/demand technicals; supply declined roughly 14% year-over-year while investors put new money into the sector. Fundamentals remained broadly positive in spite of a few troubled credits making headlines. Illinois failed to pass a budget on the last day of the quarter (the end of its fiscal year) for the third consecutive calendar year, prompting threats of a downgrade to junk by S&P.

Real assets had a tough quarter with few exceptions. Brent crude oil prices fell 10% to $47 as of quarter-end. The energy-heavy S&P GSCI Commodity Index lost 5.5% while the more diversified Bloomberg Commodity Index fell 3.0%. MLPs suffered alongside oil; the Alerian MLP Index was down 6.4%. Gold was down nearly 1% and REITs were up only modestly (MSCI REIT: +1.7%). U.S. TIPS performed poorly as expectations for future inflation sank. The Barclays U.S. TIPS Index returned -0.4%. In a bright spot, global infrastructure (DJB Global Infrastructure Index) gained 3.7%.

## Closing Thoughts

We entered 2017 with U.S. stock markets at record highs and historically low volatility. Not much has changed although geopolitical risks have not abated and the previously envisioned pro-growth policies sought by enthusiastic market participants remain elusive. That said, economic news has brightened outside of the U.S. with global economies seemingly on steadier footing and the prospect of reflation on the horizon. While consensus is that valuations remain stretched across asset classes, it is impossible to predict what will thwart this Goldilocks environment. We caution investors to temper return expectations and, as always, Callan encourages investors to maintain a long-term perspective and prudent asset allocation with appropriate levels of diversification.

**Investment Returns for Periods Ended June 30, 2017**




Returns were up across the board during the second quarter. Emerging markets (MSCI: EM) again outpaced the developed markets, propelled by Technology companies in China, South Korea, and Taiwan. Non-U.S. developed equity (MSCI: EAFE) outperformed U.S. equities for the second consecutive quarter, fueled by economic recovery in Europe and market-friendly outcomes in European elections. Domestic equity returns were led by large cap equities (Russell 1000 Index) as they continued to dominate small cap equities (Russell 2000). Fixed income returns (Bloomberg Aggregate) were positive as low rates kept pushing investors out on the risk spectrum for higher yields. Real estate (NFI-ODCE) and hedge funds (HFRI Fund of Funds) were positive as measured by the representative market indices.

## The Callan Periodic Table of Investment Returns
## Second Quarter 2017

| 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2 Qtrs. 2017 |
|---|---|---|---|---|---|---|---|---|---|
| BC Aggregate<br>**5.2%** | MSCI:EM<br>**78.5%** | Russell:2000 Index<br>**26.9%** | NCREIF:NFI-ODCE Val Wt Nt<br>**15.0%** | MSCI:EM<br>**18.2%** | Russell:2000 Index<br>**38.8%** | Russell:1000 Index<br>**13.2%** | NCREIF:NFI-ODCE Val Wt Nt<br>**14.0%** | Russell:2000 Index<br>**21.3%** | MSCI:EM<br>**18.4%** |
| NCREIF:NFI-ODCE Val Wt Nt<br>**(10.7%)** | MSCI:EAFE<br>**31.8%** | MSCI:EM<br>**18.9%** | BC Aggregate<br>**7.8%** | MSCI:EAFE<br>**17.3%** | Russell:1000 Index<br>**33.1%** | NCREIF:NFI-ODCE Val Wt Nt<br>**11.5%** | Russell:1000 Index<br>**0.9%** | Russell:1000 Index<br>**12.1%** | MSCI:EAFE<br>**13.8%** |
| HFRI Fund of Funds Index<br>(21.4%) | Russell:1000 Index<br>**28.4%** | Russell:1000 Index<br>**16.1%** | Russell:1000 Index<br>**1.5%** | Russell:1000 Index<br>**16.4%** | MSCI:EAFE<br>**22.8%** | BC Aggregate<br>**6.0%** | BC Aggregate<br>**0.5%** | MSCI:EM<br>**11.2%** | Russell:1000 Index<br>**9.3%** |
| Russell:2000 Index<br>**(33.8%)** | Russell:2000 Index<br>**27.2%** | NCREIF:NFI-ODCE Val Wt Nt<br>**15.3%** | Russell:2000 Index<br>**(4.2%)** | Russell:2000 Index<br>**16.3%** | NCREIF:NFI-ODCE Val Wt Nt<br>**12.9%** | Russell:2000 Index<br>**4.9%** | HFRI Fund of Funds Index<br>(0.3%) | NCREIF:NFI-ODCE Val Wt Nt<br>**7.8%** | Russell:2000 Index<br>**5.0%** |
| Russell:1000 Index<br>**(37.6%)** | HFRI Fund of Funds Index<br>11.5% | MSCI:EAFE<br>**7.8%** | HFRI Fund of Funds Index<br>(5.7%) | NCREIF:NFI-ODCE Val Wt Nt<br>**9.8%** | HFRI Fund of Funds Index<br>9.0% | HFRI Fund of Funds Index<br>3.4% | MSCI:EAFE<br>**(0.8%)** | BC Aggregate<br>**2.6%** | HFRI Fund of Funds Index<br>3.1% |
| MSCI:EAFE<br>**(43.4%)** | BC Aggregate<br>**5.9%** | BC Aggregate<br>**6.5%** | MSCI:EAFE<br>**(12.1%)** | HFRI Fund of Funds Index<br>4.8% | BC Aggregate<br>**(2.0%)** | MSCI:EM<br>**(2.2%)** | Russell:2000 Index<br>**(4.4%)** | MSCI:EAFE<br>**1.0%** | NCREIF:NFI-ODCE Val Wt Nt<br>**3.0%** |
| MSCI:EM<br>**(53.3%)** | NCREIF:NFI-ODCE Val Wt Nt<br>**(30.4%)** | HFRI Fund of Funds Index<br>5.7% | MSCI:EM<br>**(18.4%)** | BC Aggregate<br>**4.2%** | MSCI:EM<br>**(2.6%)** | MSCI:EAFE<br>**(4.9%)** | MSCI:EM<br>**(14.9%)** | HFRI Fund of Funds Index<br>0.5% | BC Aggregate<br>**2.3%** |

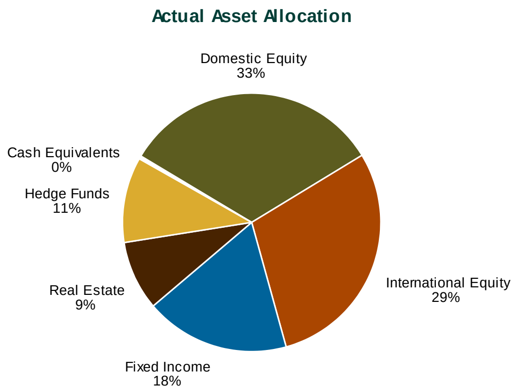
Non-U.S. emerging markets, illustrated by the MSCI EM Index, and developed markets, measured by the EAFE Index, outperformed their U.S. counterparts, helped by a weak U.S. dollar. Continuing the trend from last quarter, the U.S. large cap equity index (Russell 1000) outperformed the U.S. small cap equity index (Russell 2000).

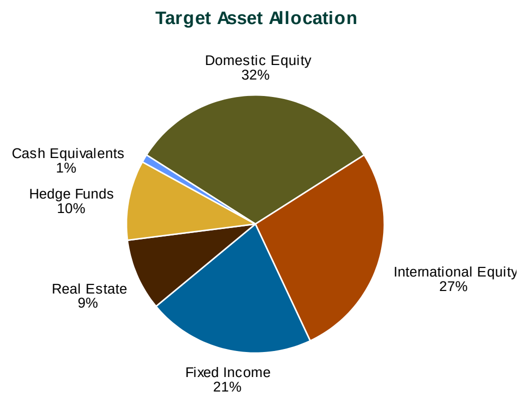
# *Forest Preserve Pension Fund Commentary*

## Asset Allocation

The Forest Preserve Fund ("Fund") increased in value during the second quarter from $194.7 mm to $198.7 mm. The Fund earned $7.7 million from investment returns and experienced net withdrawals of $3.6 million.

The Fund assets are in line with the strategic target allocation ranges with a modest overweight to International Equity and underweight to Fixed Income.




| Asset Class | $000s Actual | Weight Actual | Min Target | Target | Max Target | Percent Difference | $000s Difference |
|---|---|---|---|---|---|---|---|
| Domestic Equity | 65,183 | 32.8% | 28.0% | 32.0% | 36.0% | 0.8% | 1,608 |
| International Equity | 58,338 | 29.4% | 23.0% | 27.0% | 31.0% | 2.4% | 4,697 |
| Fixed Income | 35,874 | 18.1% | 17.0% | 21.0% | 25.0% | (2.9%) | (5,846) |
| Real Estate | 17,289 | 8.7% | 5.0% | 9.0% | 13.0% | (0.3%) | (592) |
| Hedge Funds | 21,193 | 10.7% | 6.0% | 10.0% | 14.0% | 0.7% | 1,326 |
| Cash Equivalents | 793 | 0.4% | 0.0% | 1.0% | 5.0% | (0.6%) | (1,194) |
| Total | 198,670 | 100.0% | | 100.0% | | | |

## Forest Reserve Pension Fund Performance vs. Target

During the second quarter, the Forest Preserve Pension Fund posted a return of 3.99%, exceeded its benchmark by 0.90%, and outperformed 95% of its peer universe. In the last year, the Fund generated a return of 12.19%, yet modestly trailed its benchmark. In the last three- and five-year periods, the Fund outperformed the benchmark and almost 80% of the funds in its peer universe.

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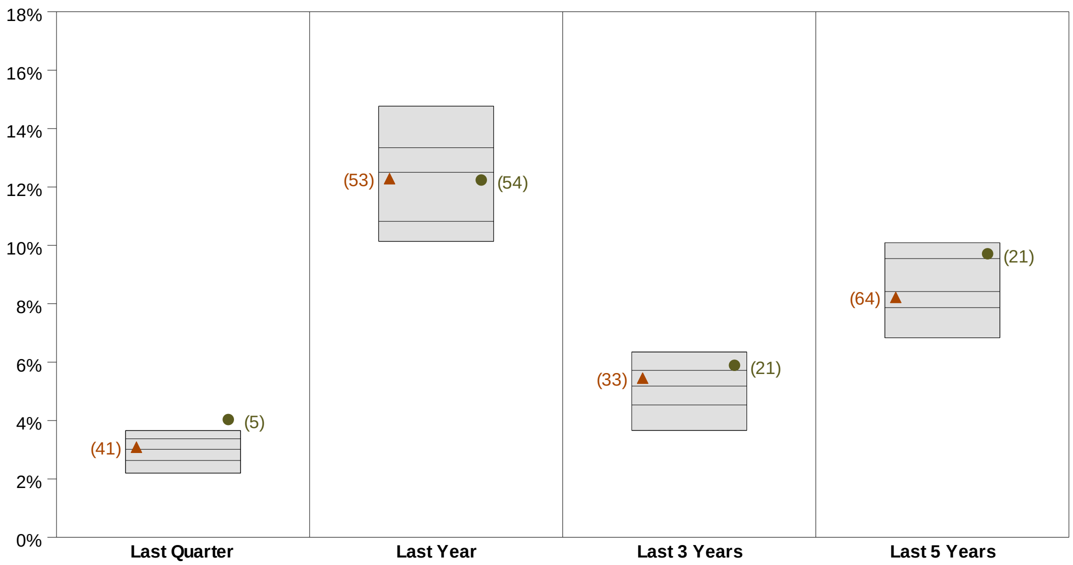
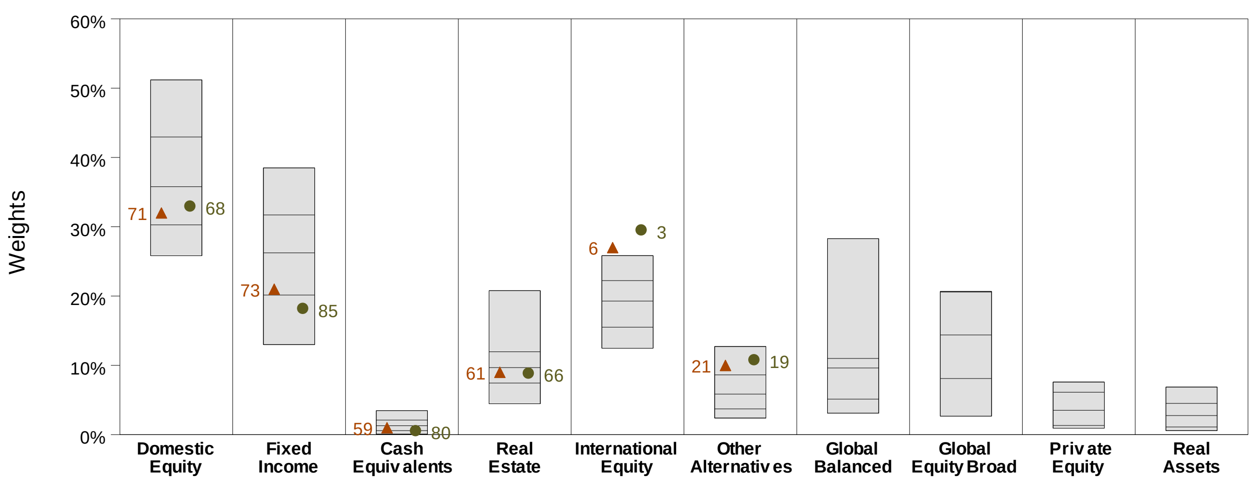
## Performance vs CAI Public Fund Sponsor - Mid (100M-1B) (Gross)




| | Last Quarter | Last Year | Last 3 Years | Last 5 Years |
|---|---|---|---|---|
| 10th Percentile | 3.65 | 14.77 | 6.35 | 10.09 |
| 25th Percentile | 3.37 | 13.34 | 5.72 | 9.54 |
| Median | 3.01 | 12.50 | 5.18 | 8.42 |
| 75th Percentile | 2.63 | 10.82 | 4.53 | 7.86 |
| 90th Percentile | 2.20 | 10.14 | 3.66 | 6.83 |
| **Total Forest Preserve Fund** ● | 3.99 | 12.19 | 5.85 | 9.67 |
| Total Forest Preserve Benchmark ▲ | 3.09 | 12.29 | 5.45 | 8.22 |

## 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 | Private Equity | Real Assets |
|---|---|---|---|---|---|---|---|---|---|---|
| 10th Percentile | 51.20 | 38.50 | 3.47 | 20.78 | 25.85 | 12.72 | 28.29 | 20.69 | 7.61 | 6.88 |
| 25th Percentile | 42.97 | 31.72 | 2.10 | 11.97 | 22.24 | 8.63 | 10.99 | 20.59 | 6.13 | 4.51 |
| Median | 35.78 | 26.24 | 1.29 | 9.69 | 19.28 | 5.85 | 9.62 | 14.39 | 3.52 | 2.77 |
| 75th Percentile | 30.29 | 20.15 | 0.58 | 7.45 | 15.52 | 3.73 | 5.13 | 8.11 | 1.33 | 1.12 |
| 90th Percentile | 25.82 | 13.00 | 0.08 | 4.46 | 12.47 | 2.39 | 3.11 | 2.67 | 0.94 | 0.59 |
| **Fund** ● | 32.81 | 18.06 | 0.40 | 8.70 | 29.36 | 10.67 | - | - | - | - |
| Target ▲ | 32.00 | 21.00 | 1.00 | 9.00 | 27.00 | 10.00 | - | - | - | - |

## Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
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**Second Quarter 2017**

**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** | **$65,182,764** | **32.81%** | **3.60%** | **20.34%** | **9.79%** | **15.39%** |
| Domestic Equity Benchmark (2) | - | - | 3.02% | 18.51% | 8.85% | 14.42% |
| **International Equity** | **$58,338,110** | **29.36%** | **7.22%** | **15.42%** | **2.70%** | **10.54%** |
| MSCI ACWI ex US | - | - | 5.78% | 20.45% | 0.80% | 7.22% |
| **Fixed Income** | **$35,874,363** | **18.06%** | **1.36%** | **(0.35%)** | **2.52%** | **2.26%** |
| Fixed Income Benchmark (3) | - | - | 1.45% | (0.31%) | 2.48% | 2.21% |
| ****Real Estate** | **$17,288,576** | **8.70%** | **2.45%** | **5.67%** | **8.52%** | **8.67%** |
| NFI-ODCE Value Weight Net | - | - | 1.47% | 6.90% | 10.33% | 10.76% |
| ****Hedge Funds** | **$21,193,426** | **10.67%** | **2.41%** | **9.71%** | **5.45%** | **8.15%** |
| LIBOR + 4% | - | - | 1.27% | 4.98% | 4.58% | 4.46% |
| HFRI Fund of Funds Index | - | - | 0.74% | 6.41% | 1.53% | 3.86% |
| **Cash Equivalents** | **$793,097** | **0.40%** | **0.42%** | **0.95%** | **0.45%** | **0.33%** |
| 3-month Treasury Bill | - | - | 0.20% | 0.49% | 0.23% | 0.17% |
| **Total Forest Preserve Fund** | **$198,670,337** | **100.00%** | **3.99%** | **12.19%** | **5.85%** | **9.67%** |
| Total Fund Benchmark (1) | - | - | 3.09% | 12.29% | 5.45% | 8.22% |

**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 exceeded its benchmark in the second quarter, and the longer-term periods. The Fund's International Equity allocation posted the strongest absolute and relative returns during the quarter, gaining 7.22% and beating the benchmark by 1.44%. During the last three- and five-year periods, this allocation has outperformed the benchmark by 1.90% and 3.32% annualized, respectively. In addition, this allocation has ranked near or above the top quartile of its peer universe in those periods.

For the quarter and other periods appearing above, the Fixed Income allocation has closely tracked the Bloomberg Barclays Aggregate Index which is comprised of U.S. investment grade securities.

The Real Estate allocation is comprised of investments in public real estate securities (REITS) and private real estate. The Real Estate allocation outpaced the 1.47% return of its benchmark, adding 2.45% during the quarter. The allocation has posted strong absolute returns over the trailing three- and five-year periods, as well.

The Forest Preserve Pension Fund's Hedge Fund allocation outperformed its absolute return benchmark for the last quarter, and finished above the absolute return benchmark for the last three- and five-years. This Fund's Hedge Fund allocation has also outperformed hedge fund peers as measured by the HFRI Fund-of-Funds Index for the last one-, three-, and five-year periods.

The Forest Preserve Pension Fund has posted 12.19% in the last year but trails the benchmark and peers due largely to the underperformance of the International Equity allocation. However, for the last three- and five-year periods, the Fund has generated an excess return over its benchmark and peers due, in large part, to its International exposure.

1. **Total Fund Benchmark:** Blend of asset class benchmarks at policy weights. First Quarter 2017 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.