

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

Performance Summary

December 31, 2017

Ann O'Bradovich

Senior Vice President

John Jackson, CFA

Senior Vice President

Michael Joecken

Senior Vice President

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

Table of Contents

General Market & Economic Conditions	1
Forest Preserve Pension Fund Commentary and Performance	6

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

General Market and Economic Conditions

Another record low in volatility, more record highs in global stock markets, mixed records in global temperatures, a record number of natural disasters in the U.S., and many records associated with President Trump. The VIX Index, a widely used measure of expected stock market volatility, fell more than 20% in 2017, reaching an all-time low in November. Stock markets hit a number of record highs, adding trillions of dollars to global market capitalization. U.S. consumer confidence remained near a 17-year high and unemployment at a 17-year low. At the same time, geopolitical concerns, domestic political drama and other noteworthy news items littered the headlines but had little effect on investors' complacency. Risk appetite was robust, fueling returns for traditional and non-traditional assets. In the public realm, emerging market equities outperformed developed markets; within fixed income, high yield corporate bonds posted the best returns. Cash, returning less than 1%, was the worst place to be in 2017. Commodities fared well, bolstered by oil prices and by copper, which gained about 30% for the year on strong global growth and demand from China, the world's largest consumer. A "loser" for the year was the U.S. dollar. As economies overseas gained traction, the U.S. dollar depreciated roughly 10% versus developed market currencies, most notably the euro, after hitting a 14-year high at the outset of 2017. The year closed with the rushed passage of the largest tax reform bill in 30 years, lending further support to stocks given the significant cut in corporate tax rates. Estimates as to the likely effect of the package on U.S. annual GDP growth vary from "negligible" to upwards of 3%, and the package is expected to add \$1.5 trillion to the budget deficit over 10 years.

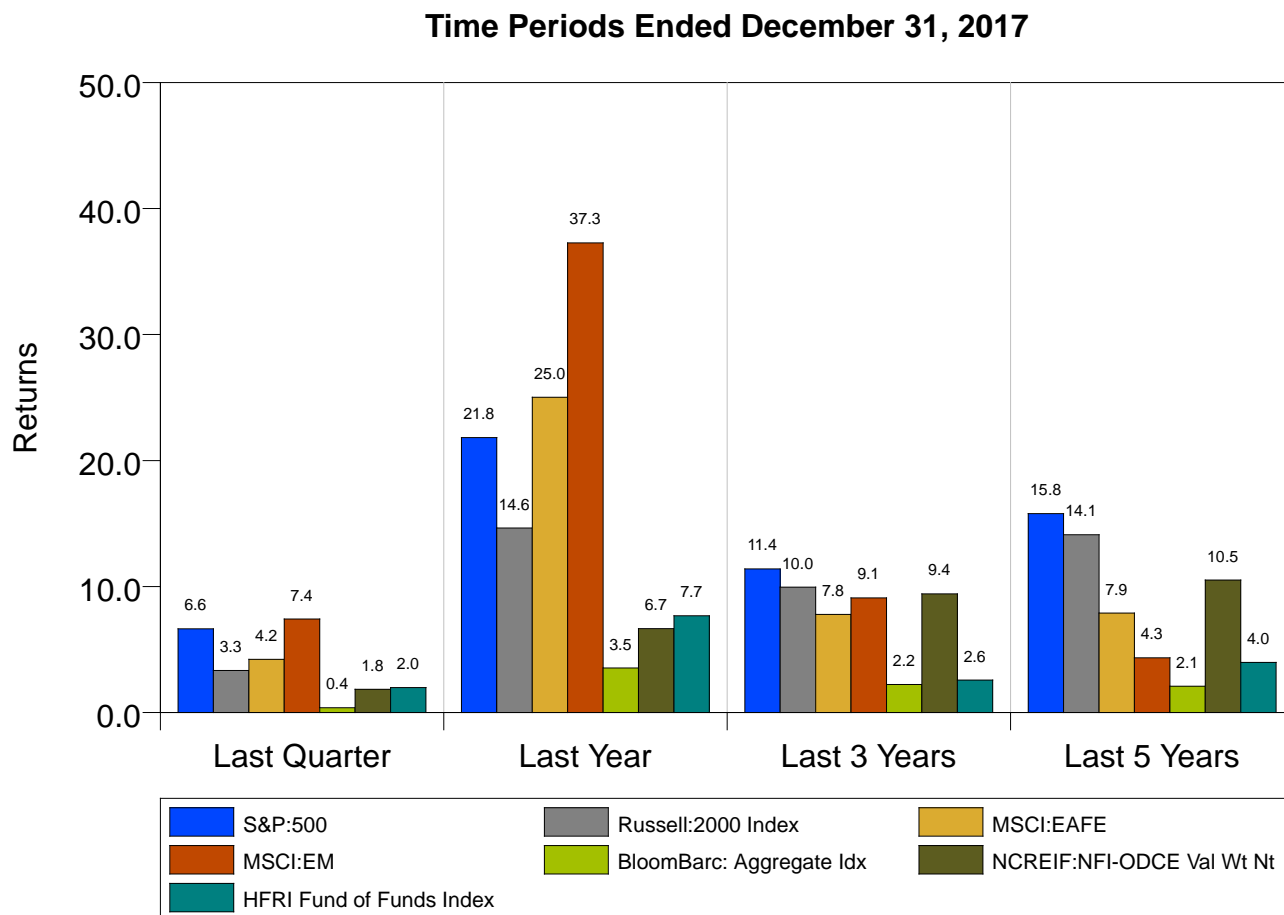
The U.S. economy closed out 2017 with decent momentum, recording a solid 2.6% gain in GDP in the fourth quarter after growth above 3% in each of the prior two quarters. After-tax corporate profits rose 4.7% (9.8% year-over-year), consumer spending gained 2.2% and business equipment spending soared 10.8%, the fastest in three years. Labor markets remained tight with the unemployment rate at 4.1%; the lowest since 2000, but average hourly earnings growth continued to languish at 2.5% for the trailing year (as of November). Fueled by high consumer confidence and a robust job market, U.S. retail sales in the holiday period rose at their best pace since 2011, according to Mastercard SpendingPulse, which tracks online and in-store spending. Manufacturing continued to show strength; the ISM manufacturing sector index exceeded 50 (indicating expansion) for 15 consecutive months through November. Inflation remained benign with headline CPI at 2.2% in November (y-o-y) and Core CPI (ex-food and energy) at 1.7%. Headline CPI was fueled by a 16.5% y-o-y leap in the price of gasoline. Prices of goods, however, fell 0.9% y-o-y with declines broad-based. The Fed's favored measure, the Core PCE price deflator, gained 1.5% y-o-y, remaining below the 2% target. As expected, the Fed hiked the Fed Funds target by 25 bps at its December meeting to 1.25% - 1.50%. This move marked the third increase of 25 bps during the year. Markets are pricing in an additional three hikes in 2018, while Fed projections are for rates to end 2018 between 2.0% and 2.25%. President Trump nominated Jerome Powell to become the next Fed Chair, replacing Janet Yellen, whose term expires in February 2018.

Non-U.S. developed economies continued to gain momentum. Third quarter GDP growth in the euro zone was 2.6% (y-o-y) while inflation remained low (1.5% y-o-y as of November). The European Central Bank (ECB) upgraded its 2018 forecast for growth from 1.8% to 2.3%, though growth in the U.K. is expected to slow given the yet-undetermined effects of Brexit. As expected by markets, the ECB kept its interest rates on hold in the fourth quarter, but it confirmed that it plans to reduce asset purchases to €30bn a month in January 2018, down from the

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

current rate of €60bn. Unemployment in the euro zone fell to 8.8%, below 9% for the first time since 2009. Unemployment in Germany fell to a record low of 3.6%. Outside of Europe, Japan's economy continued to grow and unemployment reached a 24-year low at 2.7%. The Bank of Japan is expected to continue its stimulus measures in an effort to stimulate inflation (Core CPI +0.9% y-o-y in November).

Fourth Quarter 2017 Market Performance



The S&P 500 Index gained 6.6% in the fourth quarter and its 21.8% gain for the year was its best since 2013. The Index hit 62 record highs during the year and had only eight days of 1% or more fluctuations, the lowest number since 1964. The S&P 500 Price Index has nearly tripled (+295%) since its low in March 2009. Valuations are stretched by most measures, but estimates for future earnings are also strong. Markets were fanned by strong corporate earnings, expectations for tax cuts and deregulation, and share buybacks. Large growth stocks were the winners for the quarter and the year (R1000G: +7.9%, +30.2%) and small cap value pegged the lower end (R2000V: +2.0%, +7.8%). For both periods, value underperformed growth across the capitalization stack and small underperformed large across the style spectrum. Among the S&P 500 sectors, Technology was the clear

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

leader for the year (+38.8%) but its 9.0% quarterly return was bested by Consumer Discretionary (+9.9%). All sectors posted positive results for the quarter, with Utilities eking out a 0.2% result. For the year, Energy (-1.0%) and Telecom (-1.3%) lost ground. Technology stocks now comprise 24% of the S&P 500 Index and 38% of the Russell 1000 Growth Index. The high flying quintet of tech stocks, better known as "FAAMG," continued to perform well in Q4.

Overseas, the MSCI EAFE Index returned 4.2% for the quarter and 25.0% for the year. Annual gains were broad-based and further bolstered by a weakening U.S. dollar. Within the MSCI EAFE, the U.K. notched a record high in the fourth quarter and was up 22.3% for the year. Europe ex-UK posted a modest +0.9% result for the quarter and gained 26.8% for the year. Japan returned +8.5% for the quarter and +24.0% in 2017. From a sector perspective for the quarter, Energy (+7%) and Materials (+8%) did the best while Health Care and Telecommunications were laggards with results of just over 1%. For the year, Technology was the clear leader at +51%. Emerging market equities outperformed developed in the quarter and for the year (MSCI EM USD: +7.4%; +37.3%). Latin America was the only weak spot in the quarter (-2.3%) but was up a robust 23.7% for the year. Emerging Asia performed the best for the quarter and the year (+8.4%; +42.8%) driven by strong results from China (+7.6%, +54.1%) and Korea (+11.4%, +47.3%).

The U.S. yield curve continued its flattening trend in the fourth quarter. The 2-year U.S. Treasury yield climbed 42 bps to close at 1.89%, up 69 bps from 12/31/2016. At the long end of the yield curve, the 30-year U.S. Treasury yield fell 12 bps during the quarter, ending the year at 2.74% and 32 bps lower than its close in 2016. This trend reflects the Fed's tightening bias as well as benign inflation. As a result, longer-term bonds sharply outperformed short-term and intermediate-maturity bonds for the quarter and the year. The Bloomberg Barclays Long U.S. Treasury Index gained 2.4% in the quarter and 8.5% in 2017 versus a -0.4% quarterly and +1.1% annual return for the Bloomberg Barclays Intermediate Treasury Index. Consistent with the low volatility theme evident in the equity markets, the U.S. Treasury 10-year traded in a narrow 60 bps band for the year, the lowest since 2000. The Bloomberg Barclays U.S. Aggregate Bond Index was roughly flat (+0.4%) for the quarter. Its 3.5% full year return was generated largely from its coupon. Corporate bonds outperformed for the quarter and the year and yield spreads reached a post-crisis tight of 93 bps over Treasuries. High yield corporates fared even better, with the Bloomberg Barclays U.S. Corporate High Yield Index up 0.5% for the quarter and 7.5% for the year. Default rates remained below average, but prices are high, relative to historical averages, for the sector. TIPS outperformed nominal U.S. Treasuries as expectations for future inflation rose. The Bloomberg Barclays U.S. TIPS Index rose 1.3% for the quarter and 3.0% for the year and the 10-year breakeven spread (the difference between nominal and real yields) rose to 1.96% as of year-end.

Outside of the U.S., quarterly returns were mostly flat in developed markets. The Bloomberg Barclays Global Aggregate Bond Index returned +1.8% (unhedged) versus +0.8% for the hedged version. Emerging market debt delivered more muted returns than in earlier quarters. The JPM EMBI Global Diversified Index (\$ denominated) gained 1.2% in the quarter and 10.3% for the year. Returns were mixed, but beleaguered Venezuela was the outlier for the quarter (-29%) and the year (-34%). The local currency JPM GBI-EM Global Diversified Index returned +0.8% in the quarter and +15.2% for the year. In the quarter, Asian countries (+5%) performed best while Latin America sank nearly 5%. Argentina (-7%), Brazil (-3%), and Mexico (-9%) were underperformers for the quarter though Brazil and Mexico both posted double-digit returns for the year.

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

Brent crude oil prices closed the year at \$64/barrel, the highest since 2014 and up roughly 12% for the year. Global growth, improving supply/demand dynamics and OPEC agreements contributed to its rise. The energy-heavy S&P GSCI Commodity Index gained 9.9% in Q4 while the more diversified Bloomberg Commodity Index was up 4.7%. The Alerian MLP Index lost 0.9% for the quarter and sank 6.5% for the year in response to dividend cuts by some of its constituents. Gold gained 1.9% for the quarter and 13.7% in 2017; REITs were up modestly for both periods (MSCI: U.S. REIT: +1.4%; +5.1%). U.S. TIPS outperformed nominal Treasuries; the Bloomberg Barclays U.S. TIPS Index returned +1.3% in Q4 and +3.0% for the year. The DJB Global Infrastructure Index gained 0.5% in the quarter and 15.8% in 2017.

Closing Thoughts

In spite of various simmering concerns, we ended 2017 the same way we started - with U.S. stock markets at record highs and volatility at historic lows. Meanwhile, there are no shortages of potential headwinds that we might encounter in 2018 and valuations across most asset classes remain stretched by many measures. It is impossible to predict what may spark volatility (bitcoin, Brexit, China, geopolitics, domestic politics, or, most likely a nebulous "other"). As a result, Callan still cautions investors to temper return expectations, to maintain a long-term perspective, and to adhere to prudent asset allocation with appropriate levels of diversification.

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

The Callan Periodic Table of Investment Returns
Fourth Quarter 2017

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
BC Aggregate 5.2%	MSCI:EM 78.5%	Russell:2000 Index 26.9%	NCREIF:NFI-ODCE Val Wt Nt 15.0%	MSCI:EM 18.2%	Russell:2000 Index 38.8%	S&P:500 13.7%	NCREIF:NFI-ODCE Val Wt Nt 14.0%	Russell:2000 Index 21.3%	MSCI:EM 37.3%
NCREIF:NFI-ODCE Val Wt Nt (10.7%)	MSCI:EAFE 31.8%	MSCI:EM 18.9%	BC Aggregate 7.8%	MSCI:EAFE 17.3%	S&P:500 32.4%	NCREIF:NFI-ODCE Val Wt Nt 11.5%	S&P:500 1.4%	S&P:500 12.0%	MSCI:EAFE 25.0%
HFRI Fund of Funds Index (21.4%)	Russell:2000 Index 27.2%	NCREIF:NFI-ODCE Val Wt Nt 15.3%	S&P:500 2.1%	Russell:2000 Index 16.3%	MSCI:EAFE 22.8%	BC Aggregate 6.0%	BC Aggregate 0.5%	MSCI:EM 11.2%	S&P:500 21.8%
Russell:2000 Index (33.8%)	S&P:500 26.5%	S&P:500 15.1%	Russell:2000 Index (4.2%)	S&P:500 16.0%	NCREIF:NFI-ODCE Val Wt Nt 12.9%	Russell:2000 Index 4.9%	HFRI Fund of Funds Index (0.3%)	NCREIF:NFI-ODCE Val Wt Nt 7.8%	Russell:2000 Index 14.6%
S&P:500 (37.0%)	HFRI Fund of Funds Index 11.5%	MSCI:EAFE 7.8%	HFRI Fund of Funds Index (5.7%)	NCREIF:NFI-ODCE Val Wt Nt 9.8%	HFRI Fund of Funds Index 9.0%	HFRI Fund of Funds Index 3.4%	MSCI:EAFE (0.8%)	BC Aggregate 2.6%	HFRI Fund of Funds Index 7.7%
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 1.0%	NCREIF:NFI-ODCE Val Wt Nt 6.7%
MSCI:EM (53.3%)	NCREIF:NFI-ODCE Val Wt Nt (30.4%)	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 0.5%	BC Aggregate 3.5%

In 2017, Non-U.S. emerging markets led the way with a strong 37.3% return as illustrated by the MSCI EM Index. Emerging markets have exceeded developed non-U.S. equity markets (EAFE index) for the last two calendar years. U.S. equities (S&P 500 Index and Russell 2000 Index) trailed foreign stocks. In a reversal from 2016, the U.S. large cap equity index (S&P 500) outperformed the U.S. small cap equity index (Russell 2000) last year.

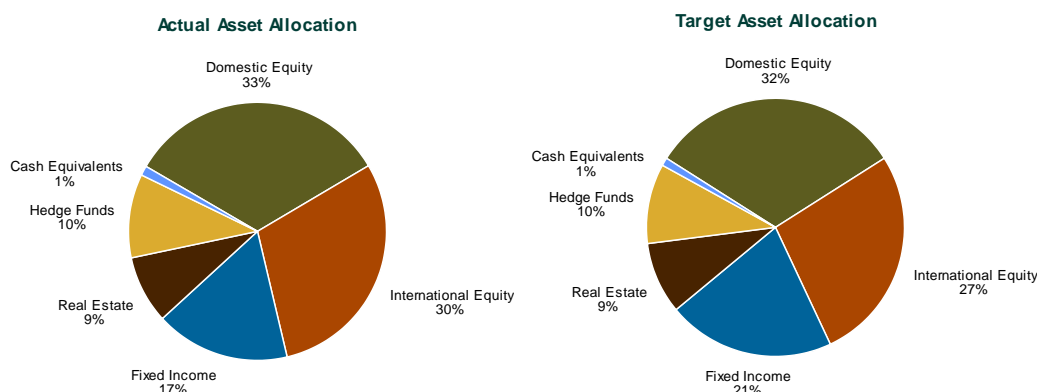
Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

Forest Preserve Pension Fund Commentary

Asset Allocation

The Forest Preserve Fund ("Fund") increased in value during the fourth quarter from \$203.5 million to \$207.2 million. The Fund earned approximately \$8.6 million from investment returns and experienced net withdrawals of approximately \$4.9 million.

The Fund assets are largely in line with the strategic target allocation ranges except for an underweight to Fixed Income.



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
Domestic Equity	68,485	33.1%	28.0%	32.0%	36.0%	1.1%	2,180
International Equity	61,846	29.8%	23.0%	27.0%	31.0%	2.8%	5,900
Fixed Income	35,052	16.9%	17.0%	21.0%	25.0%	(4.1%)	(8,461)
Real Estate	17,631	8.5%	5.0%	9.0%	13.0%	(0.5%)	(1,018)
Hedge Funds	21,740	10.5%	6.0%	10.0%	14.0%	0.5%	1,019
Cash Equivalents	2,451	1.2%	0.0%	1.0%	5.0%	0.2%	379
Total	207,204	100.0%		100.0%			

Forest Preserve Pension Fund Performance vs. Target

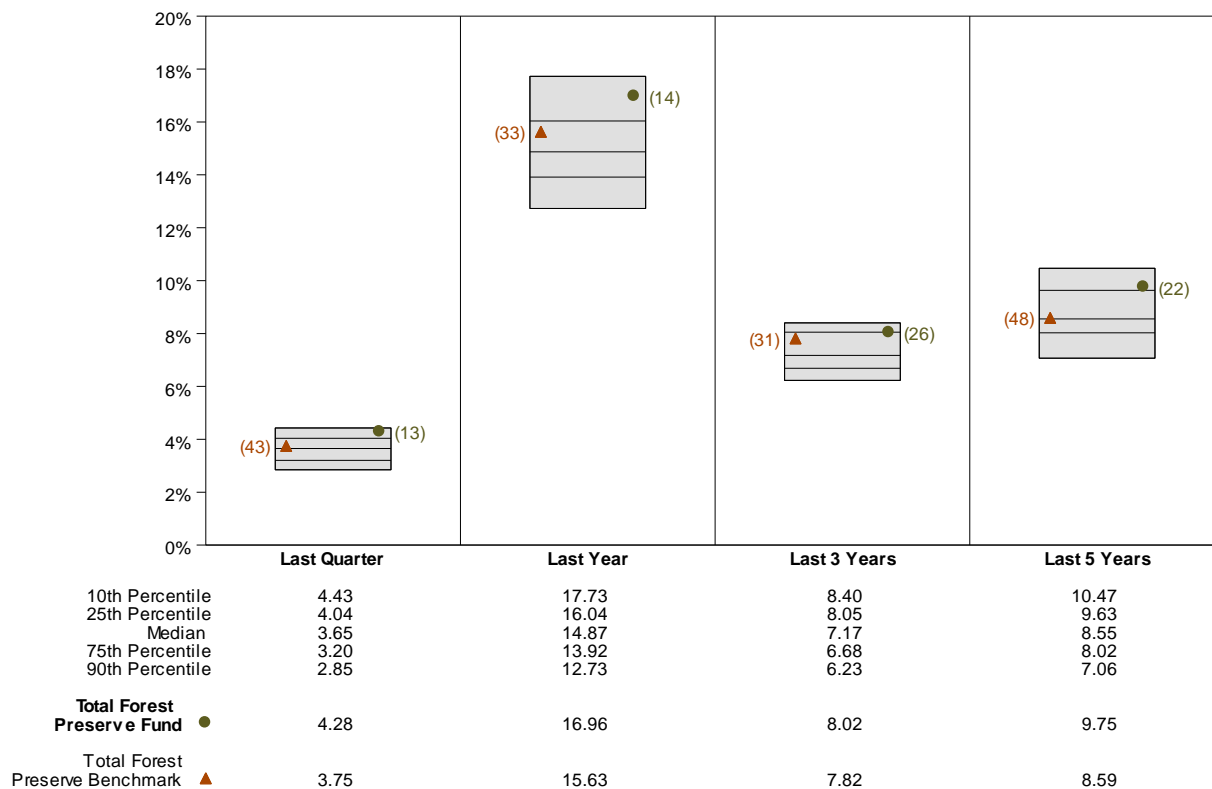
During the fourth quarter, the Forest Preserve Pension Fund posted a return of 4.28%, outperformed its benchmark by 0.53%, and ranked in the top quartile of its peer universe. In 2017, the Fund generated a return of 16.96%, and outperformed its benchmark by 1.33%. In the last three- and five-year periods, the Fund outperformed the benchmark by 0.20% and 1.16% respectively, and ranked in the top third of its peer universe.

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

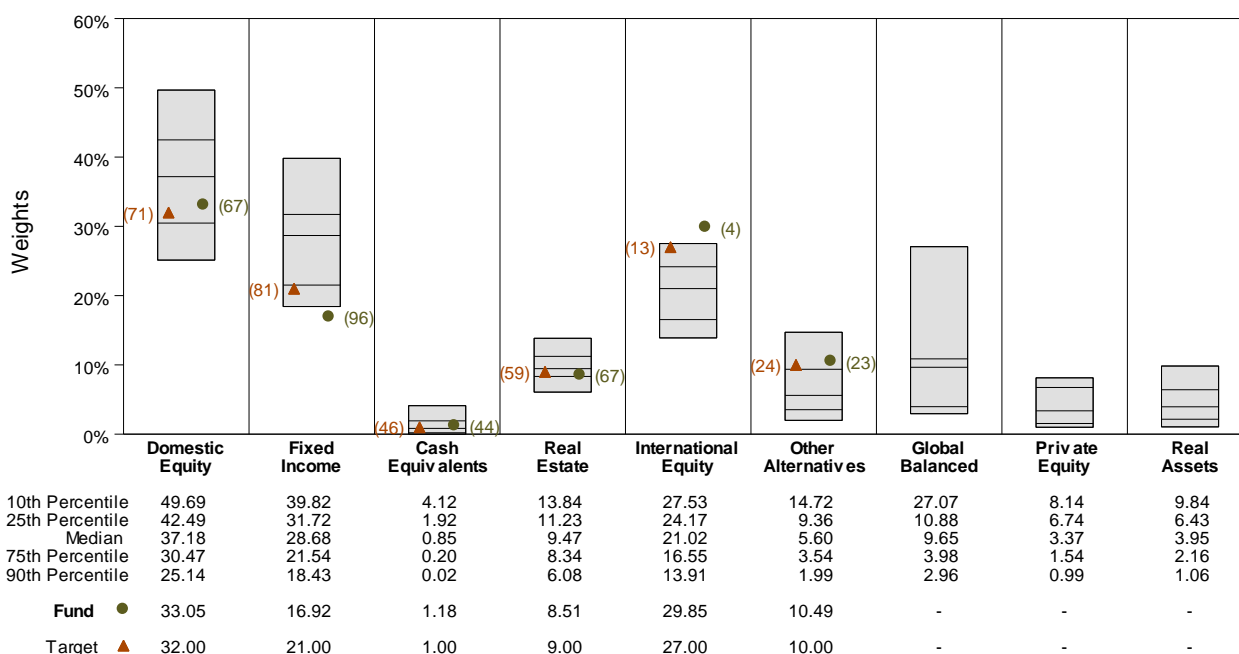
Performance Evaluation Executive Summary

Fourth Quarter 2017

Performance vs Callan Public Fund Spons- Mid (100M-1B) (Gross)



Asset Class Weights vs Callan Public Fund Spons- Mid (100M-1B)



Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth 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	\$68,485,019	33.05%	5.72%	21.41%	11.58%	15.98%
Domestic Equity Benchmark (2)	-	-	6.34%	21.13%	11.09%	15.42%
International Equity	\$61,845,622	29.85%	6.82%	28.38%	9.06%	9.98%
MSCI ACWI ex US	-	-	5.00%	27.19%	7.83%	6.80%
Fixed Income	\$35,051,663	16.92%	0.38%	3.45%	2.26%	2.11%
Fixed Income Benchmark (3)	-	-	0.39%	3.54%	2.24%	2.10%
**Real Estate	\$17,630,681	8.51%	1.67%	6.58%	6.53%	8.45%
NFI-ODCE Value Weight Net	-	-	1.85%	6.66%	9.42%	10.52%
**Hedge Funds	\$21,739,689	10.49%	1.72%	8.23%	5.42%	7.33%
LIBOR + 4%	-	-	1.34%	5.26%	4.77%	4.56%
HFRI Fund of Funds Index	-	-	1.98%	7.69%	2.58%	3.99%
Cash Equivalents	\$2,451,473	1.18%	0.33%	1.26%	0.64%	0.43%
3-month Treasury Bill	-	-	0.28%	0.86%	0.41%	0.27%
Total Forest Preserve Fund	\$207,204,147	100.00%	4.28%	16.96%	8.02%	9.75%
Total Fund Benchmark (1)	-	-	3.75%	15.63%	7.82%	8.59%

**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 trailed its benchmark in the fourth quarter, yet exceeded its benchmark for the longer-term periods. The Fund's International Equity allocation posted the strongest absolute return during the quarter, gaining 6.82%, and exceeded its benchmark by 1.82%. During the last three- and five-year periods, this allocation has outperformed the benchmark by 1.23% and 3.18% annualized, respectively. This allocation has ranked in the top quartile of its peer universe in the last five years.

The Fixed Income allocation is invested in a Bloomberg Barclays Aggregate Index Fund.

The Real Estate allocation is comprised of investments in public real estate securities (REITS) and private real estate. The Real Estate allocation returned 1.67% for the quarter, trailing its benchmark by 0.18%. The allocation has posted strong absolute returns over the trailing three- and five-year periods, but has also trailed its benchmark in those periods due to its REIT exposure.

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 one- 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 16.96% in the last year exceeding its benchmark and peers due largely to the performance of active management and a relative underweight to fixed income. Over the trailing three- and five-year time periods, the fund has generated an excess return over its benchmark and peers due, in large part, to its International Equity and Hedge Fund performance.

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Fourth Quarter 2017

1. **Total Fund Benchmark:** Blend of asset class benchmarks at policy weights. Current Quarter benchmark: 32.0% Russell 3000 Index, 27.0% MSCI ACWI ex US, 21.0% Bloomberg 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:** Bloomberg Aggregate Index; previously blend of 30.0% Bloomberg Aggregate Index, and 10% Bloomberg Gov/Credit Intermediate Index through 12/31/2012.