Callan

County Employees’ and Officers’ Annuity and Benefit Fund of Cook County

Performance Summary

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Ann O’Bradovich
Senior Vice President

John Jackson, CFA
Senior Vice President

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Macroeconomic Environment

The Fed's Delicate Walk on a Tightrope

This quarter's well-publicized mantra—higher for longer—conjures up images of a tightrope, an apt descriptor of the Federal Reserve's current challenge. Markets and the Fed expect interest rates to be higher for longer than we all anticipated at the start of the year. The economy has been resilient in the face of sharply rising rates, and while inflation has come down, it remains above the Fed's 2% target. The Fed must carefully balance the risks of too-high inflation with the impact of sharply higher rates on the global economy in 3Q23 while analyzing the ever-changing economic landscape. Plus, throw in a handful of variables that are out of the Fed's control: supply-driven energy prices, strikes, an October resumption of student loan payments, and a looming government shutdown (thwarted at the 11th hour but only through mid-November). These economic headwinds make balancing on a tightrope challenging.

The Fed held short-term rates steady (5.25% – 5.50%) at its September meeting, in what has been labeled a "hawkish pause." While the vote was unanimous, the "dot plot" revealed that the median forecast for year-end rates was 5.6%, signaling that one more hike could be in the cards. Expectations for rate cuts in 2024 declined, with the median projection for year-end 2024 being 5.1% versus the 4.6% projection from the June meeting. The markets reflect a slightly less hawkish view. As of Sept. 30, the CME FedWatch tool revealed a 62% probability of the Fed Funds rate being below 4.75% at the end of 2024.

Inflation continued to show signs of moderating from its June 2022 peak of 9.1%. The Fed's favored measure, the Personal Consumption Expenditures Price Index, was up 3.5% year-over-year in August, the lowest since September 2021 but still above the 2% target. Excluding food and energy, the PCE index was up 3.9%. The Consumer Price Index rose 3.7% year-over-year in August. Gasoline was the biggest driver for the 0.6% monthly increase, accounting for more than half of the gain. Gasoline prices were up 10.6% month-over-month in August. Going into quarter-end, oil spiked to one-year highs on news that stockpiles at the largest storage hub in the U.S. had dropped to the lowest level since July 2022 and were close to "operational minimums." Forecasters expect oil prices to reach $100 / barrel in the coming months. Core CPI remained sticky; up 4.3% over the same period. Shelter costs (+7.3%) have had the biggest impact on the core measure over the past year.

The U.S. economy has been surprisingly resilient in the face of sharp rate hikes while inflation has moderated but remains above the Fed's 2% target. A "soft landing" scenario is looking more likely. Against this backdrop, equity markets have held up well, until recently, while rising yields have hurt the bond market. The widespread consensus is for rates to remain "higher for longer." That said, several thorny issues outside of the Fed's control make its ongoing mission more difficult. A government shutdown was avoided—at least until Nov. 17—but the outcome is far from certain. Rising energy prices pose another threat to inflation/economic growth. The resumption of student loan payments in October may take a bite out of consumer spending, which has been a pillar of support for the U.S. economy.

Global Equities

U.S. stock indices posted negative returns in 3Q. The S&P 500 Index declined 3.3% while the tech-heavy Nasdaq Composite dropped 3.9%. Year-to-date results remain positive with the Nasdaq (+27.1%) well ahead of the S&P 500 (+13.1%). Within the S&P 500, Utilities (-9.2%), Real Estate (-8.9%), and Technology (-5.6%) performed the worst in 3Q while Energy (+12.2%) and Communication Services (+3.1%) led sector returns. In small caps, value stocks (Russell 2000 Value: -3.0%) outperformed growth (Russell 2000 Growth: -7.3%). Growth and value posted similar returns in the large cap space, down 3.1% and 3.2%, respectively. Small cap stocks underperformed large (Russell 2000: -5.1%; Russell 1000: -3.2%). Index concentration continued to have a notable impact on returns in 3Q. The Magnificent Seven stocks helped (Alphabet: +9.3%; NVIDIA: +2.8%) and hurt (Apple: -11.6%; Microsoft: -7.1%; Tesla: -4.4%).

Global ex-U.S. equities (MSCI ACWI ex USA: -3.8%) fell in 3Q. The stronger U.S. dollar was a notable headwind (MSCI ACWI ex USA Local: -1.4%). Value (MSCI ACWI ex-USA Value: -0.1%) outperformed growth (MSCI ACWI ex-USA Growth Index: -7.3%) by a wide margin. Only Energy (+9.0%) posted a positive return, while Technology saw the biggest decline (-8.7%). Oil prices surged on supply cuts and falling reserves in the U.S. European equities (MSCI Europe ex-UK: -5.9%) fell though returns were mixed across countries. Japan (MSCI Japan: -1.6%) performed well in relative terms and even better in local terms (+1.6%).

Global Fixed Income

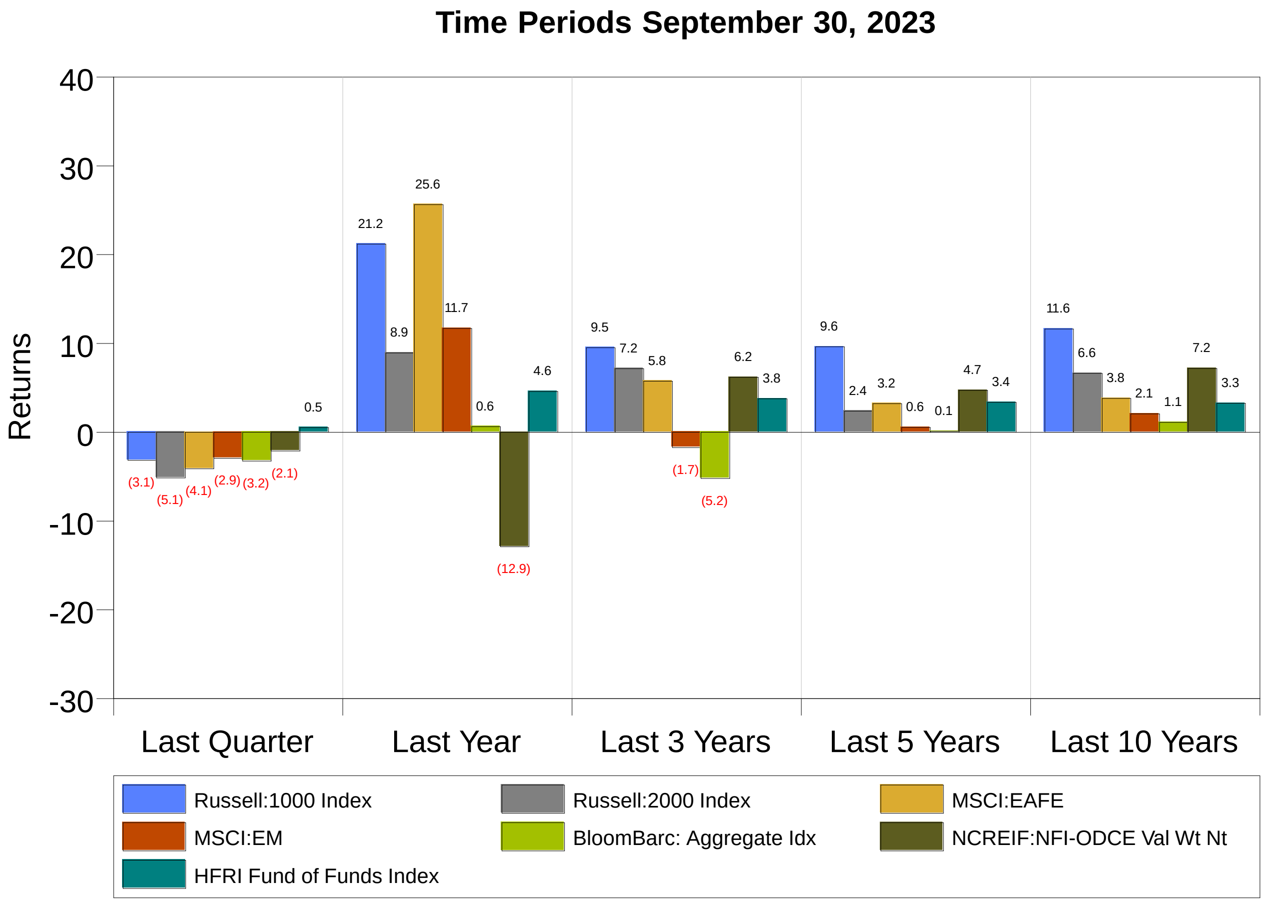
The Bloomberg US Aggregate Bond Index sank 3.2% in 3Q and is down 1.2% year-to-date. The U.S. Treasury 10-year yield soared nearly 80 bps during the quarter, closing at 4.59%, its highest since 2007. The yield curve "bear-steepened" with long-term rates rising more than short-term rates. As a result, the inversion between the 2-year and 10-year U.S. Treasury yields shrank from 106 bps to 44 bps. TIPS outperformed as 10-year breakeven spreads widened from 2.22% to 2.35% over the quarter. Corporates outperformed U.S. Treasuries with excess returns of 84 bps while agency-backed mortgages underperformed (-85 bps of excess return). High yield corporates continued to post strong relative returns (Bloomberg Corporate High Yield Index: +0.5%) and are up 5.9% year-to-date.

The Bloomberg Global Aggregate ex USD Index fell 4.0% (hedged: -0.8%). Currency played a key role in results with strong performance from the U.S. dollar. The dollar gained just over 3% versus a basket of six trade-weighted developed market currencies (DXY). Emerging market debt indices were also negative (JPM EMBI Global Diversified: -2.2%; local currency JPM GBI-EM Global Diversified: -3.3%).

Real Assets

Private real estate indices fell again in 3Q23, continuing a trend throughout the year, and U.S. real estate investment trusts (REITs) also dropped, unlike last quarter. But their performance lagged comparable public equity benchmarks, as they did last quarter. The NCREIF Property Index, a measure of U.S. institutional real estate assets, fell 1.4% during 3Q23. The income return was 1.1% while the appreciation return was –2.4%.

Third Quarter 2023 Market Performance



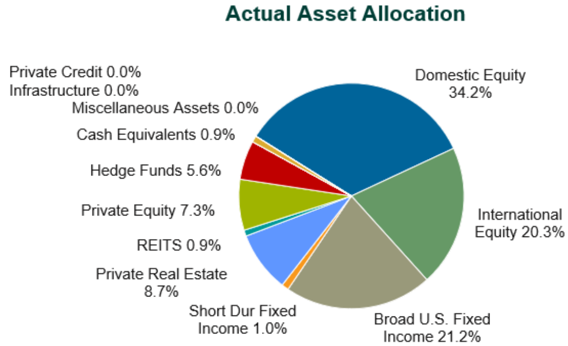
The Callan Periodic Table of Investment Returns
Third Quarter 2023

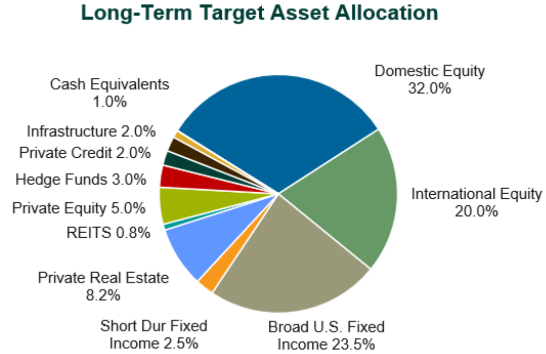
2014	2015	2016	2017	2018	2019	2020	2021	2022	3 Qtrs. 2023
Russell:1000 Index **13.2%**	NCREIF:NFI-ODCE Val Wt Nt **14.0%**	Russell:2000 Index **21.3%**	MSCI:EM **37.3%**	Cambridge:Gl PE & Cred **10.0%**	Russell:1000 Index **31.4%**	Cambridge:Gl PE & Cred **29.8%**	Cambridge:Gl PE & Cred **37.0%**	NCREIF:NFI-ODCE Val Wt Nt **6.5%**	Russell:1000 Index **13.0%**
Cambridge:Gl PE & Cred **11.9%**	Cambridge:Gl PE & Cred **8.7%**	Russell:1000 Index **12.1%**	MSCI:EAFE **25.0%**	NCREIF:NFI-ODCE Val Wt Nt **7.4%**	Russell:2000 Index **25.5%**	Russell:1000 Index **21.0%**	Russell:1000 Index **26.5%**	HFRI Fund of Funds Index (5.3%)	MSCI:EAFE **7.1%**
NCREIF:NFI-ODCE Val Wt Nt **11.5%**	Russell:1000 Index **0.9%**	MSCI:EM **11.2%**	Russell:1000 Index **21.7%**	BC Aggregate **0.0%**	MSCI:EAFE **22.0%**	Russell:2000 Index **20.0%**	NCREIF:NFI-ODCE Val Wt Nt **21.0%**	Cambridge:Gl PE & Cred **(7.8%)**	HFRI Fund of Funds Index 2.8%
BC Aggregate **6.0%**	BC Aggregate **0.5%**	Cambridge:Gl PE & Cred **9.6%**	Cambridge:Gl PE & Cred **20.0%**	HFRI Fund of Funds Index (4.0%)	MSCI:EM **18.4%**	MSCI:EM **18.3%**	Russell:2000 Index **14.8%**	BC Aggregate **(13.0%)**	Russell:2000 Index **2.5%**
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%**	Russell:1000 Index **(4.8%)**	Cambridge:Gl PE & Cred **16.3%**	HFRI Fund of Funds Index 10.9%	MSCI:EAFE **11.3%**	MSCI:EAFE **(14.5%)**	MSCI:EM **1.8%**
HFRI Fund of Funds Index 3.4%	MSCI:EAFE **(0.8%)**	BC Aggregate **2.6%**	HFRI Fund of Funds Index 7.8%	Russell:2000 Index **(11.0%)**	BC Aggregate **8.7%**	MSCI:EAFE **7.8%**	HFRI Fund of Funds Index 6.2%	Russell:1000 Index **(19.1%)**	BC Aggregate **(1.2%)**
MSCI:EM **(2.2%)**	Russell:2000 Index **(4.4%)**	MSCI:EAFE **1.0%**	NCREIF:NFI-ODCE Val Wt Nt **6.7%**	MSCI:EAFE **(13.8%)**	HFRI Fund of Funds Index 8.4%	BC Aggregate **7.5%**	BC Aggregate **(1.5%)**	MSCI:EM **(20.1%)**	NCREIF:NFI-ODCE Val Wt Nt **(8.1%)**
MSCI:EAFE **(4.9%)**	MSCI:EM **(14.9%)**	HFRI Fund of Funds Index 0.5%	BC Aggregate **3.5%**	MSCI:EM **(14.6%)**	NCREIF:NFI-ODCE Val Wt Nt **4.4%**	NCREIF:NFI-ODCE Val Wt Nt **0.3%**	MSCI:EM **(2.5%)**	Russell:2000 Index **(20.4%)**	**PE Idx Not Yet Reported**

Cook County Pension Fund Commentary

Asset Allocation

The Cook County Fund ("Fund") finished September with a market value of $12.0 billion, a $513 million decline from the second quarter ending value of $12.5 billion. The fund experienced investment losses of $330 million and net outflows of $183 million during the quarter. The Long-Term Target was established in June 2022; however, the benchmark will be modified in accordance with the actual implementation of new asset classes (private infrastructure and credit). All asset classes are within target ranges. Private Equity (+2.3%) and Hedge Funds (+2.6%) are the largest overweights relative to their long-term targets. This is offset by underweights to Infrastructure and Private Credit, which are yet to be implemented.





Asset Class	$000s Actual	Weight Actual	Min Target	Long-Term Target	Max Target	Percent Difference	$000s Difference
Domestic Equity	4,103,250	34.2%	28.0%	32.0%	36.0%	2.2%	260,080
International Equity	2,432,186	20.3%	16.0%	20.0%	24.0%	0.3%	30,205
Broad U.S. Fixed Income	2,544,147	21.2%	19.5%	23.5%	27.5%	(2.3%)	(278,181)
Short Dur Fixed Income	122,468	1.0%	0.0%	2.5%	5.0%	(1.5%)	(177,780)
Private Real Estate	1,043,797	8.7%	5.0%	8.2%	13.0%	0.5%	58,984
REITS	103,993	0.9%	0.0%	0.8%	2.6%	0.1%	7,913
Private Equity	875,533	7.3%	1.0%	5.0%	9.0%	2.3%	275,038
Hedge Funds	672,507	5.6%	0.0%	3.0%	6.0%	2.6%	312,210
Private Credit	-	0.0%	0.0%	2.0%	4.0%	(2.0%)	(240,198)
Infrastructure	-	0.0%	0.0%	2.0%	4.0%	(2.0%)	(240,198)
Cash Equivalents	109,011	0.9%	0.0%	1.0%	5.0%	(0.1%)	(11,088)
Miscellaneous Assets	16	0.0%	0.0%	0.0%	0.0%	0.0%	16
Total	12,006,907	100.0%		100.0%		(0.0%)	-

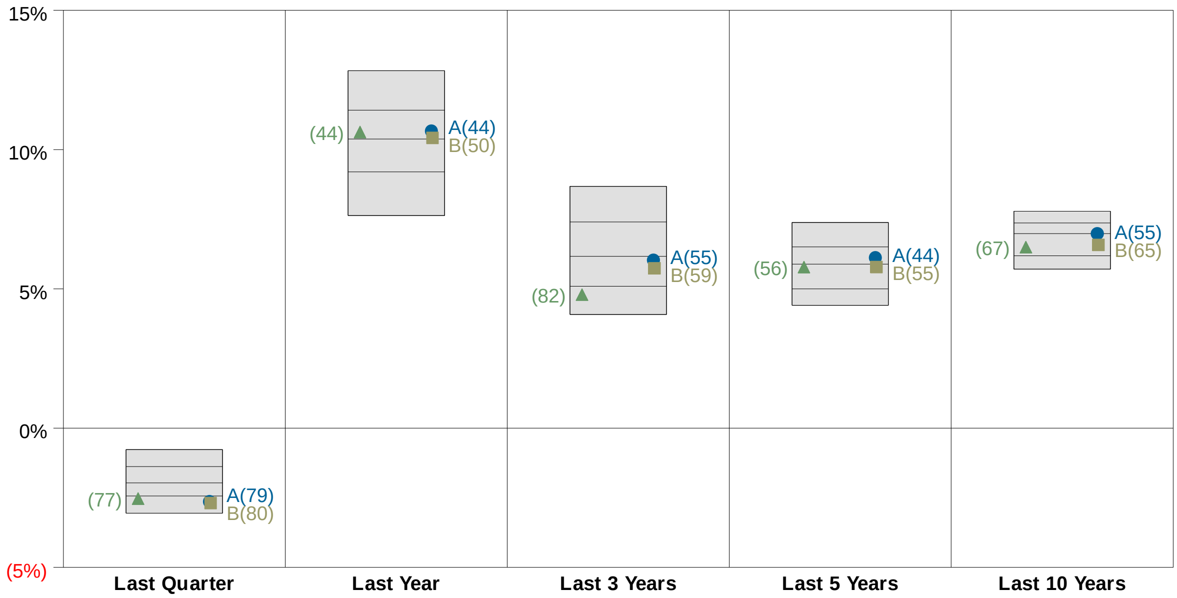
Cook County Performance vs. Target

In the third quarter, the Total Fund returned -2.69% net of fees (NOF) versus the benchmark return of -2.53%. Over the trailing year, the Total Fund returned 10.42% and trailed the benchmark return of 10.63% The Fund's return ranks in the top half of peers (gross of fees) for the last year, and last five-year period.

Over the trailing three- and ten-year periods, the Fund's return exceeds the benchmark and ranks just below its peer group median (gross of fees) at the 55th percentile. An overweight to Private Equity and active management in Private Real Estate have contributed to outperformance over longer time periods.

Table 1.0

Performance vs Callan Public Fund Spons - Large (>1B) (Gross)



		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile		(0.77)	12.83	8.68	7.38	7.79
25th Percentile		(1.38)	11.42	7.40	6.51	7.37
Median		(1.96)	10.38	6.17	5.89	6.98
75th Percentile		(2.44)	9.20	5.09	5.00	6.19
90th Percentile		(3.05)	7.63	4.08	4.41	5.71
Total Cook (Gross)	● A	(2.68)	10.63	5.99	6.08	6.94
Total Cook County (Net)	■ B	(2.69)	10.42	5.74	5.78	6.58
Total Fund Benchmark	▲	(2.53)	10.63	4.79	5.78	6.50

County Employees' and Officers' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Third Quarter 2023

Table 1.1
Asset Class Performance vs. Target (Net of Fees)

	Market Value $(Dollars)	Ending Weight	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity	**$4,103,249,580**	**34.17%**	**(3.57%)**	**20.62%**	**9.81%**	**8.56%**	**10.47%**
Domestic Equity Benchmark (2)	-	-	(3.25%)	20.46%	9.38%	9.14%	11.28%
International Equity	**$2,432,185,782**	**20.26%**	**(4.03%)**	**20.26%**	**2.47%**	**1.98%**	**3.53%**
International Equity Benchmark (3)	-	-	(3.49%)	20.19%	3.77%	2.57%	3.32%
Fixed Income	**$2,666,615,245**	**22.21%**	**(2.78%)**	**1.59%**	**(4.37%)**	**0.01%**	**1.16%**
Fixed Income Benchmark (4)	-	-	(2.84%)	0.87%	(4.76%)	0.32%	1.23%
REITS	**$103,992,723**	**0.87%**	**(6.19%)**	**3.79%**	**6.46%**	**4.26%**	**6.12%**
NAREIT Equity Index	-	-	(7.13%)	2.99%	5.76%	2.77%	5.96%
****Private Real Estate**	**$1,043,796,950**	**8.69%**	**(1.92%)**	**(8.23%)**	**10.08%**	**8.11%**	**8.90%**
NFI-ODCE Value Weight Net	-	-	(2.10%)	(12.88%)	6.19%	4.72%	7.19%
****Private Equity**	**$875,532,723**	**7.29%**	**1.72%**	**2.50%**	**26.13%**	**24.49%**	**15.35%**
****Hedge Funds**	**$672,506,529**	**5.60%**	**2.17%**	**5.58%**	**5.64%**	**4.18%**	**4.51%**
90-Day Average SOFR + 4% (5)	-	-	2.25%	8.71%	6.00%	5.96%	5.40%
HFRI Fund of Funds Index (6)	-	-	2.15%	3.33%	3.86%	3.43%	3.46%
Cash Equivalents	**$109,011,445**	**0.91%**	**1.33%**	**4.71%**	**1.87%**	**1.89%**	**1.31%**
3-month Treasury Bill	-	-	1.31%	4.47%	1.70%	1.72%	1.11%
Total Cook County Fund	**$12,006,906,858**	**100.00%**	**(2.69%)**	**10.42%**	**5.74%**	**5.78%**	**6.58%**
Total Fund Benchmark (1)	-	-	(2.53%)	10.63%	4.79%	5.78%	6.50%

**Represents trailing data.
Footnotes found on the back page

Domestic Equity returned -3.57 % for the quarter versus the benchmark return of -3.25%. Domestic Equity outperformed its benchmark over the last one- and three-year periods but lags the benchmark over longer periods on an annualized basis.

International Equity declined 4.03% for the quarter and trailed the benchmark return of -3.49%. Over the last year, International Equity (20.26%) edged the benchmark (20.19%). The International Equity composite has modestly outperformed the benchmark over the last ten years.

Fixed Income declined 2.78% for the quarter but fared better than the benchmark return of -2.84%. Fixed Income outperformed the benchmark over the last one- and three-year periods.

REITS fell 6.19% during the quarter but outperformed the benchmark return of -7.13%. Over the last year, REITS (3.79%) outperformed the benchmark return (2.99%).

Private Real Estate retreated 1.92% for the quarter versus the benchmark return of -2.10%. Over longer periods, the allocation has added considerable value over the benchmark net of investment management fees.

Hedge Funds returned 2.17% for the quarter, trailing the benchmark return of 2.25%. The allocation trails its benchmark across long-term periods.

Private Equity earned a 1.72% return for the quarter and gained 2.50% over the last year. Over longer periods, the allocation generated significant double-digit returns.

Benchmarks

1. **Total Fund Benchmark (Target):** Blend of asset class benchmarks at policy weights. The Long-Term Target was established in June 2022; however, the benchmark will be modified in accordance with the actual implementation. This process reflects the practical implementation of non-publicly traded investments.

	Long Term Target	2Q 2023 Target
Russell 3000	32.0%	33.0%
MSCI ACWI ex US IMI	20.0	21.0
Bloomberg Aggregate	23.4	23.4
Blmbg Gov/Cred 1-3yr	2.6	2.6
90-Day Avg SOFR + 4.0%	3.0	6.0
Real Estate*	9.0	9.0
Private Equity**	5.0	4.0
Private Credit	2.0	0.0
Infrastructure	2.0	0.0
Cash (90 day T-Bill)	1.0	1.0
Total Target	100.0%	100.0%

2. **Domestic Equity Benchmark:** Russell 3000 Index; Prior to 9/31/2011 Blend of 40% S&P 500, 16% Russell 2000 Value, 16% Russell Mid Cap Growth, 14% Russell 1000 Growth, and 14% Russell 1000 Value.

3. **International Benchmark**: MSCI ACWI ex-US IMI Index; Prior to 12/31/2017 MSCI ACWI ex-US Index; Prior to 12/31/2012 Blend of 85% MSCI ACWI ex-US, 15% Global ex US under $2 billion; Prior to 9/30/2011 Blend of 80% MSCI ACWI ex-US, 20% Global ex US under $2 billion.

4. **Fixed Income Benchmark:** Blend of 90% Bloomberg Aggregate Index and 10% Bloomberg Gov/Credit 1-3 Year Index; Prior to 12/31/2019 Bloomberg Aggregate Index; Prior to 12/31/2012 Blend of 62.5% Bloomberg Aggregate Index, 12.5% Bloomberg US TIPs Index, and 25% Bloomberg Gov/Credit Intermediate Index.

5. **Hedge Funds**: 90-Day Average SOFR + 4%; Prior to 12/31/2022 3-Month LIBOR + 4%

6. **HFRI Fund of Funds Composite Index:** Returns are lagged 1 month.

***Real Estate Benchmark:** Returns are calculated by weighting the benchmark return for each asset class (i.e. Private RE and Public RE). The Private RE benchmark is the NCREIF NFI-ODCE Value Weight Net Index and the Public RE benchmark is the FTSE NAREIT Equity Index.

****Private Equity Benchmark:** is set equal to actual returns.