Callan

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

Performance Summary

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Table of Contents

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

Macroeconomic Environment

Ripple Effects from Central Bank Action

The Fed encountered a hiccup on its path to combat inflation. Nine consecutive rate hikes, the most rapid in its history, took the Fed Funds rate from roughly 0% to 5% in one year's time. While higher rates are a welcome outcome for fixed income investors (on a going-forward basis), they have had deleterious effects on the longer-term balance sheet holdings of some banks. In March, word of losses at a few banks sparked fears for depositors and led to a bank run that resulted in regulators seizing regional lenders Silicon Valley Bank and Signature Bank. The U.S. Treasury, Federal Reserve, and Federal Deposit Insurance Corporation quickly stepped in and announced measures to provide additional liquidity to banks that needed it and further guaranteed depositors would have access to funds (beyond the $250,000 insured amount) at both banks. A third regional lender, First Republic, also came under significant pressure, and a group of larger banks came together in a spirit of unity to provide liquidity.

As of quarter-end, nerves around the health of the U.S. banking system were frayed but fears of contagion were largely allayed. That said, the full impact of the "hiccup" is unknown as lending conditions are expected to tighten and will likely have an adverse effect on businesses and consumers. Despite these events, views are generally that large banks in the U.S. are in reasonably good shape and that this is not a repeat of 2008.

The Fed's 0.25% hike in March was seen as a "dovish" hike reflecting the uncertainty around the degree to which tighter lending conditions for consumers and businesses could lead to slower growth. This hike brought the Fed Funds rate to 4.75% – 5.0% with a unanimous vote. The last time that the Fed Funds rate was at this level was the fall of 2007. Notably, Chairman Jerome Powell softened language around the potential for future rate hikes, raising the possibility that the Fed may take a pause to assess the fallout from the stress seen in small/mid-sized banks. That said, the Fed's median expectation for the Fed Funds rate at year-end remains 5.1%, while market expectations are lower. At quarter-end, futures markets were pricing in rate cuts of 0.50-0.75% before year-end.

Growth is expected to slow; the questions are how much, for how long, and, more importantly, what the impact on inflation will be. The U.S. economy grew 2.6% in 4Q, down slightly from the initial estimate of 2.9%. As of quarter-end, the Atlanta Fed's GDPNow forecast for 1Q GDP growth was 2.5%. Fed projections released at its March meeting show a 0.4% GDP real growth rate for the full year, implying a sharp slowdown in future quarters from the likely 1Q print. The Congressional Budget Office (CBO) projects a similar paltry 0.1% rate for the full year. The Fed expects inflation to fall; the median expectation for the Core PCE Index is 2.6% in 2024 and 2.1% in 2025. Markets also expect inflation to trend lower; the five-year breakeven spread (the difference in yields between five-year U.S. Treasuries and five-year U.S. Treasury Inflation Protected Securities) was 2.4% as of quarter-end.

While inflation has moderated, it remained well above the Fed's 2% target. The CPI rose 6.0% in February (year-over-year) but this was the lowest since September 2021. Ex-food and energy, the Index climbed 5.5% over the past 12 months, also the least since fall of 2021. The Fed's favored measure (Core PCE) was up 4.6% for the same period, down just a tad from 4.7% in January. Much of the inflation has come from the services sector as consumers have been spending money saved during the pandemic. February service sector inflation was 7.6%, the highest since 1982, and it accounts for about 60% of the broad index. Shelter costs, which comprise a significant part of the CPI, were up 8.1%.

The labor market continued to show resilience despite large layoffs in the tech sector. Unemployment was 3.6%, not far from the February 54-year low of 3.4%. Employers added 311,000 jobs in February, well above expectations though less than the massive 504,000 gain in January. The Fed expects unemployment to climb; the median projection is 4.5% in 2023 and 4.6% in 2024 and 2025. Over the past 12 months, average hourly earnings grew 4.6%, but the February increase was the smallest in one year.

The World Bank estimates that global growth will slow to 1.7% for 2023, about half of the rate expected just six months ago and the third weakest in nearly 30 years. The outlook is driven largely by the global effort to tame inflation through higher policy rates and the potential for negative shocks. That said, so far economies have weathered the impact of higher rates reasonably well, outside of the recent hiccups in the banking sector, but inflation remains elevated around the globe.

In Europe, a warm winter helped to avoid the potentially devastating impact of higher energy prices, but inflation remains stubbornly high. According to Eurostat, inflation in the euro zone was 8.5% (year-over-year) and the estimate for March is 6.9%. The decline reflects a drop in energy inflation from 13.7% in February to -0.9% in March (both year-over-year). In March, the European Central Bank raised its benchmark deposit rate 0.5%, bringing it to 3.0%. The U.K. central bank has raised rates 11 times since December 2021, with a 0.25% increase in March bringing its rate to 4.25%. Inflation in the country surged 10.4% in February (year-over-year). Even Japan has experienced inflation, though modest in comparison. Japan's annual inflation rate fell to 3.3% in February, down from a 41-year high of 4.3%. Core inflation was up 3.1%, above the Bank of Japan's 2% target for the 11th consecutive month.

China is recovering and benefiting from the end of its "zero-COVID" policy in December 2022. The International Monetary Fund projects that China's economy will expand 5.2% in 2023, one of the world's few growth engines this year and, importantly, contributing roughly one-third of global growth. However, challenges remain in the beleaguered property sector and over longer periods in China's slowing population growth and declining productivity.

Global Equities

U.S. stock indices posted positive returns in 1Q but it was not smooth sailing; strong returns in January were followed by negative results in February and mixed performance across sectors and styles in March. The S&P 500 Index rose 7.5% for the quarter and the tech-heavy Nasdaq 100 soared 20.8%. Within the S&P 500, Technology (+22%) and Communication Services (+21%) were the top performing sectors. Growth stocks trounced value for the quarter (Russell 1000 Growth: +14.4%; Russell 1000 Value: +1.0%) due largely to the sharp outperformance of Technology relative to Financials. Within the Russell 1000 Index, just five stocks: Apple (+27%), Meta (+76%), Microsoft (+21%), NVIDIA (+90%), and Tesla (+68%) accounted for 60% of the 1Q return and made up about 15% of the Index. Small value (Russell 2000 Value: -0.7%) was the one sector to post negative returns, hurt by its exposure to smaller banks. Banks comprise just under 20% of this Index and were down 17% for the quarter. Small cap stocks underperformed mid and large (Russell 2000: +2.7%; Russell MidCap: +4.1%; Russell 1000: +7.5%) across the style spectrum.

Global ex-U.S. markets also posted solid results. The MSCI ACWI ex USA Index gained 6.9% (Local: +6.2%). Results were mixed across developed markets but most delivered positive returns. Europe ex-U.K. (+12%) outperformed Japan (+6%), the U.K. (+6%), and Canada (+4%). Emerging markets (MSCI Emerging Markets: +4.0%; Local: +3.8%) were mixed; India (-6%) and Brazil (-3%) weighed on broad market returns while China (+5%) and Korea (+10%) outperformed. Quarterly returns were positive across regions: Latin America (+3.9%), Emerging Europe (+1.5%), and Emerging Asia (+4.8%).

Global Fixed Income

Following the worst year ever for core fixed income, the Bloomberg US Aggregate Bond Index rose 3.0% in 1Q. As with equities, it was a bumpy ride with solid returns in January and March sandwiching a negative February. The yield curve remained inverted as of quarter-end, by 0.58% for the 2-year/10-year and 1.16% for the 1-year/10-year. Historically, a yield curve inversion has been a good indicator of a coming recession. High yield (Bloomberg High Yield Index: +3.6%) performed well as defaults remained low, supply subdued, and equity markets climbed.

While short-term rates were broadly higher, longer-term rates fell across developed markets in 1Q. The Bloomberg Global Aggregate ex USD Index rose 3.1% (hedged: +2.9%). Emerging markets debt indices were also up (JPM EMBI Global Diversified: +1.9% and the local currency JPM GBI-EM Global Diversified: + 5.2%). Emerging market currencies, broadly, did well vs. the U.S. dollar during the quarter.

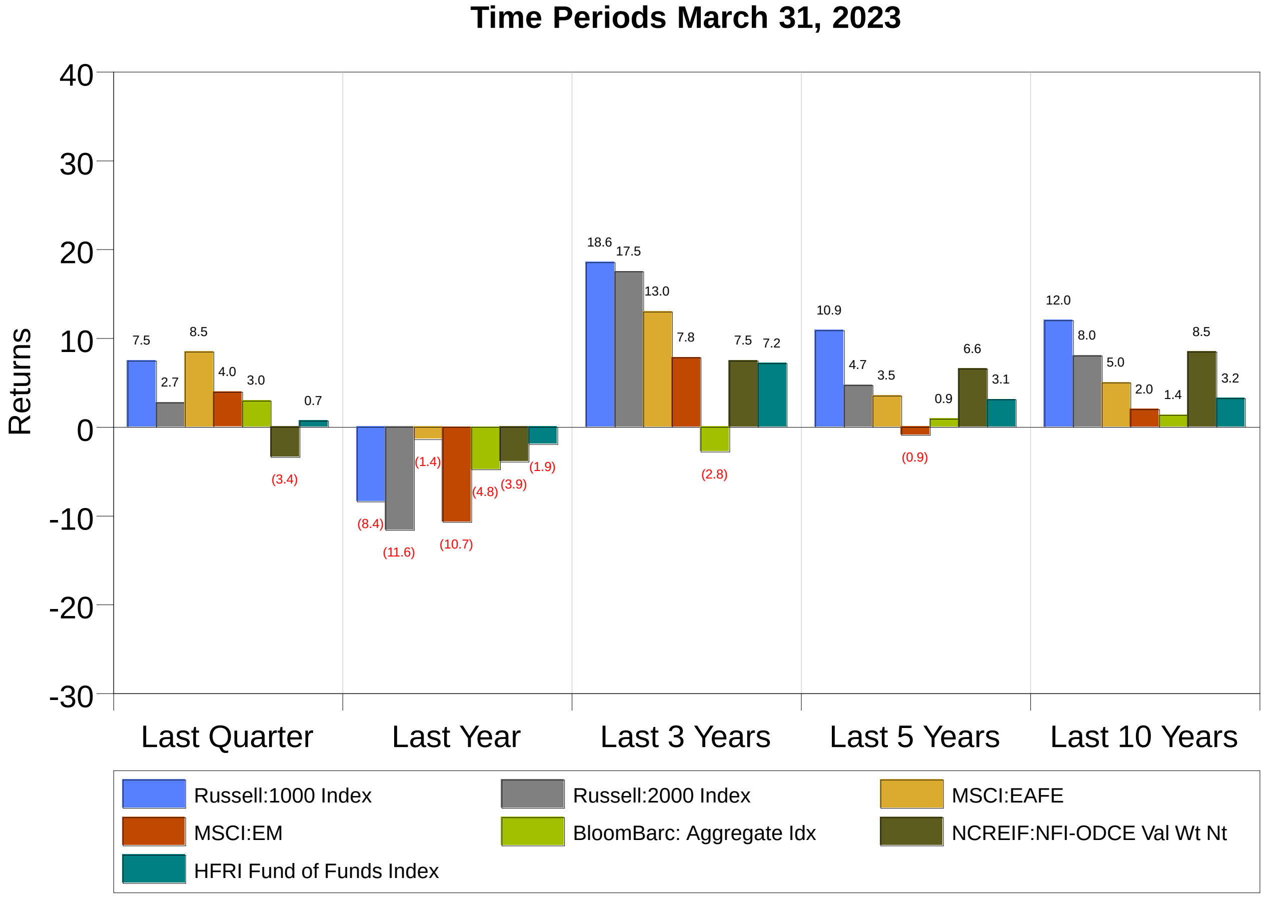
Real Assets

Real assets were mixed in 1Q but generally underperformed global equities. Gold (S&P Gold Spot Price Index: +8.8%), REITs (MSCI US REIT: +2.7%), infrastructure (DJB Global Infrastructure: +2.5%), and TIPS (Bloomberg TIPS: +2.0%) all posted positive returns. The S&P GSCI Index fell 4.9% with oil down about 7%. WTI Crude closed the quarter at $74/barrel, just before OPEC announced its intention to cut production in May.

Closing Thoughts

After a grim 2022, stock and bond markets provided a reasonable start to the year despite the unforeseen swoon in the banking sector that muddies the picture going forward as it relates to both the impact of tighter lending conditions for businesses and consumers and the Fed's next moves. Perhaps not surprising, equity and fixed income markets appear to differ in their views, with equity investors being more sanguine/optimistic than bond investors. Thus far, the economy appears to have weathered the most rapid Fed rate hikes in history with only a hiccup, but it remains to be seen if deeper and more profound effects will be revealed. At the very least, the Fed has been forced to add a third consideration to its twin mandates of managing inflation and employment—financial stability. Further, geopolitical tensions, weakness in Europe, a continuing war in Ukraine, and a looming debt ceiling provide additional fodder for an uncertain and likely volatile remainder of the year. With this in mind, Callan continues to recommend a disciplined investment process that includes a well-defined long-term asset-allocation policy.

First Quarter 2023 Market Performance



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

The Callan Periodic Table of Investment Returns
First Quarter 2023

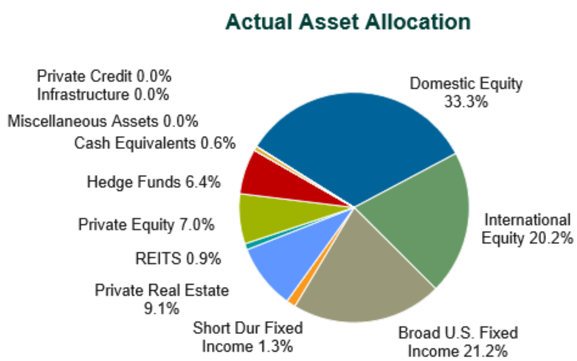
2014	2015	2016	2017	2018	2019	2020	2021	2022	1 Qtr. 2023
Russell:1000 Index **13.2%**	NCREIF:NFI-ODCE Val Wt Nt **14.0%**	Russell:2000 Index **21.3%**	MSCI:EM **37.3%**	Cambrdg:Gl Pvt Eq & Cred **10.0%**	Russell:1000 Index **31.4%**	Cambrdg:Gl Pvt Eq & Cred **29.8%**	Cambrdg:Gl Pvt Eq & Cred **36.9%**	NCREIF:NFI-ODCE Val Wt Nt **6.5%**	MSCI:EAFE **8.5%**
Cambrdg:Gl Pvt Eq & Cred **11.8%**	Cambrdg:Gl Pvt Eq & 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%)	Russell:1000 Index **7.5%**
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%**	Cambrdg:Gl Pvt Eq & Cred **(7.8%)**	MSCI:EM **4.0%**
BC Aggregate **6.0%**	BC Aggregate **0.5%**	Cambrdg:Gl Pvt Eq & Cred **9.5%**	Cambrdg:Gl Pvt Eq & Cred **19.9%**	HFRI Fund of Funds Index (4.0%)	MSCI:EM **18.4%**	MSCI:EM **18.3%**	Russell:2000 Index **14.8%**	BC Aggregate **(13.0%)**	BC Aggregate **3.0%**
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%)**	Cambrdg:Gl Pvt Eq & Cred **16.2%**	HFRI Fund of Funds Index 10.9%	MSCI:EAFE **11.3%**	MSCI:EAFE **(14.5%)**	Russell:2000 Index **2.7%**
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%)**	HFRI Fund of Funds Index 0.7%
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 **(3.4%)**
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**

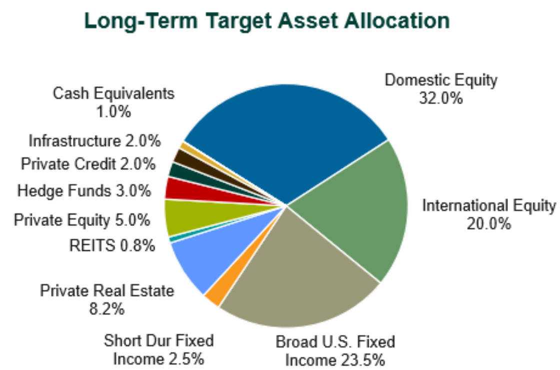
In the first quarter of 2023, Developed International Equities (MSCI: EAFE Index: +8.5%) were the top performing asset class, outperforming Emerging Markets (MSCI: EM: +4.0%). For U.S. Equities, Large Caps (Russell: 1000 Index: +7.5%) led Small Caps (Russell: 2000 Index: +2.7%). Fixed Income (Bloomberg Aggregate Index: +3.0%) started the year on a positive note after a challenging 2022. Real Estate (NCREIF: NFI-ODCE Value Weighted Net Index: -3.4%) declined for the quarter and trailed Hedge Funds (HFRI Fund of Funds Index: +0.7%).

Cook County Pension Fund Commentary

Asset Allocation

The Cook County Fund ("Fund") stood at $12.3 billion at the end of March, a $445 million increase from the 4th quarter ending value of $11.8 billion. The Fund experienced investment returns of $515 million and net outflows of -$70 million in the 1st 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). The Hedge Fund allocation is overweighted versus its long-term target by 3.4%, but a redemption request has been submitted. All other allocations are within their target ranges. The Hedge Fund overweight is offset by the underweights to Infrastructure and Private Credit, which have yet to be implemented.





Asset Class	$000s Actual	Weight Actual	Min Target	Long-Term Target	Max Target	Percent Difference	$000s Difference
Domestic Equity	4,088,828	33.3%	28.0%	32.0%	37.0%	1.3%	164,332
International Equity	2,480,771	20.2%	16.0%	20.0%	25.0%	0.2%	27,961
Broad U.S. Fixed Income	2,594,218	21.2%	19.5%	23.5%	27.4%	(2.3%)	(287,834)
Short Dur Fixed Income	160,104	1.3%	0.0%	2.5%	5.0%	(1.2%)	(146,497)
Private Real Estate	1,118,001	9.1%	5.0%	8.2%	13.0%	0.9%	112,349
REITS	106,437	0.9%	0.0%	0.8%	2.6%	0.1%	8,325
Private Equity	861,803	7.0%	1.0%	5.0%	9.0%	2.0%	248,601
Hedge Funds	781,139	6.4%	0.0%	3.0%	6.0%	3.4%	413,218
Private Credit	-	0.0%	0.0%	2.0%	4.0%	(2.0%)	(245,281)
Infrastructure	-	0.0%	0.0%	2.0%	4.0%	(2.0%)	(245,281)
Cash Equivalents	72,745	0.6%	0.0%	1.0%	5.0%	(0.4%)	(49,895)
Miscellaneous Assets	3	0.0%	0.0%	0.0%	0.0%	0.0%	3
Total	12,264,049	100.0%		100.0%		0.0%	-

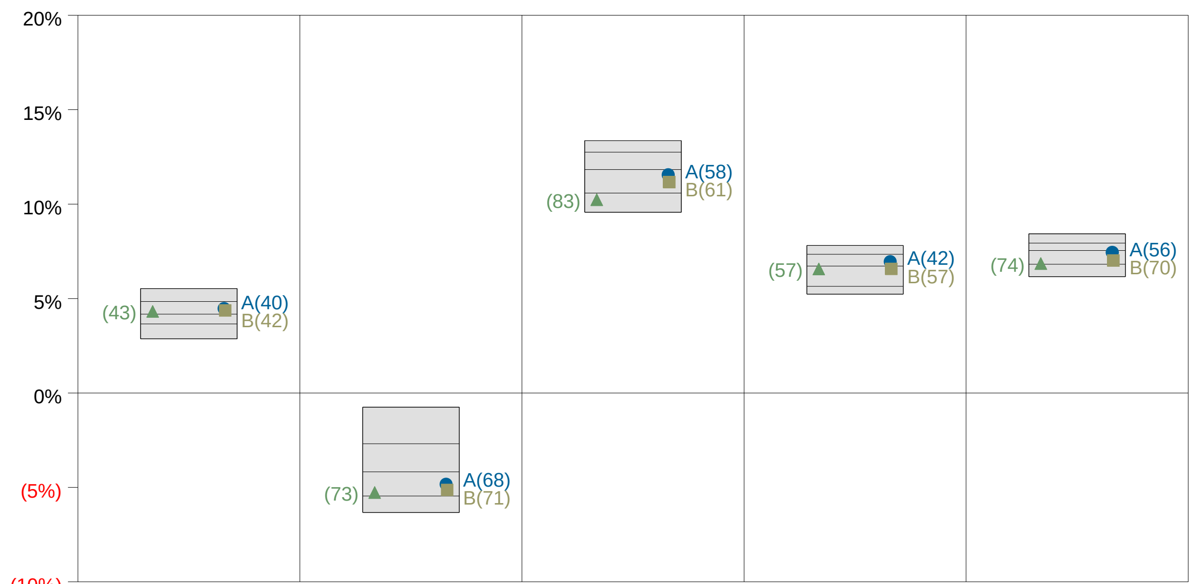
Cook County Performance vs. Target

The Cook County Pension Fund returned 4.37% net of fees (NOF) versus the benchmark return of 4.32% for the quarter. Active management in Private Real Estate and International Equity added the most value for the quarter. Over the last year, the Fund declined 5.13% but edged the benchmark return of -5.27%.

Over the trailing three-, five-, and ten-year periods, the Fund has outperformed its benchmark on an annualized basis and ranks near the median of peers (gross of fees basis). 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		5.53	(0.75)	13.36	7.81	8.43
25th Percentile		4.85	(2.69)	12.75	7.35	7.94
Median		4.18	(4.17)	11.83	6.72	7.54
75th Percentile		3.66	(5.45)	10.59	5.65	6.82
90th Percentile		2.87	(6.32)	9.57	5.23	6.16
Total Cook (Gross)	● A	4.42	(4.89)	11.49	6.89	7.39
Total Cook County (Net)	■ B	4.37	(5.13)	11.17	6.58	7.02
Total Fund Benchmark	▲	4.32	(5.27)	10.24	6.57	6.86

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Performance Evaluation Executive Summary
First 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	**$4,088,827,636**	**33.34%**	**7.05%**	**(8.08%)**	**18.91%**	**9.88%**	**11.11%**
Domestic Equity Benchmark (2)	-	-	7.18%	(8.58%)	18.48%	10.45%	11.73%
International Equity	**$2,480,770,882**	**20.23%**	**7.21%**	**(4.48%)**	**11.13%**	**1.95%**	**4.57%**
International Equity Benchmark (3)	-	-	6.56%	(5.84%)	12.20%	2.35%	4.12%
Fixed Income	**$2,754,322,268**	**22.46%**	**2.77%**	**(5.38%)**	**(1.45%)**	**0.62%**	**1.27%**
Fixed Income Benchmark (4)	-	-	2.82%	(4.27%)	(2.53%)	1.03%	1.43%
REITS	**$106,436,873**	**0.87%**	**3.80%**	**(21.53%)**	**11.43%**	**6.20%**	**5.72%**
NAREIT Equity Index	-	-	2.68%	(19.22%)	12.08%	6.02%	5.97%
****Private Real Estate**	**$1,118,000,764**	**9.12%**	**(0.41%)**	**7.27%**	**11.90%**	**9.85%**	**9.87%**
NFI-ODCE Value Weight Net	-	-	(3.38%)	(3.91%)	7.46%	6.56%	8.47%
****Private Equity**	**$861,803,194**	**7.03%**	**(0.85%)**	**(12.10%)**	**27.17%**	**25.89%**	**15.31%**
****Hedge Funds**	**$781,139,461**	**6.37%**	**1.61%**	**5.05%**	**4.73%**	**4.11%**	**4.46%**
90-Day Average SOFR + 4% (5)	-	-	1.96%	7.19%	5.25%	5.70%	5.17%
HFRI Fund of Funds Index (6)	-	-	1.79%	(0.86%)	4.62%	3.14%	3.40%
Cash Equivalents	**$72,745,004**	**0.59%**	**1.11%**	**2.71%**	**1.04%**	**1.60%**	**1.06%**
3-month Treasury Bill	-	-	1.07%	2.50%	0.89%	1.41%	0.87%
Total Cook County Fund	**$12,264,048,979**	**100.00%**	**4.37%**	**(5.13%)**	**11.17%**	**6.58%**	**7.02%**
Total Fund Benchmark (1)	-	-	4.32%	(5.27%)	10.24%	6.57%	6.86%

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

Table 1.1 illustrates the Cook County Fund's asset class performance against associated benchmarks. The Cook County Fund's Domestic Equity allocation delivered a solid return of 7.05% for the quarter, slightly trailing the benchmark return of 7.18%. Over the last year, Domestic Equity (-8.08%) outperformed the benchmark return of -8.58%, but Domestic Equity trails the benchmark over longer periods.

International Equity exhibited strong performance, gaining 7.21% for the quarter and surpassing the benchmark return of 6.56%. Over the past year, International Equity (-4.48%) continued its outperformance versus the benchmark return of -5.84%. International Equity surpassed the benchmark over the last ten-year period.

Fixed Income posted a return of 2.77% for the quarter, aligning with the benchmark return of 2.82%. Over the last year, Fixed Income (-5.38%) fell short of the benchmark return of -4.27%, and it lags the benchmark over the trailing three-, five-, and ten-year periods.

The Real Estate allocation is comprised of public real estate securities (REITS) and Private Real Estate. The Private Real Estate allocation contains primarily core (income producing) funds and a small allocation to non-core, closed-end funds. Private Real Estate experienced a slight retreat of 0.41% for the quarter but outperformed the benchmark return of -3.38%. The allocation has outperformed over all periods shown in the table above.

REITS gained 3.80% during the quarter, beating the benchmark return of 2.68%. REITS trailed the benchmark over the last year but have outperformed over the last five-year period.

Private Equity declined 0.85% for the quarter and returned -12.10% over the last year. The allocation has delivered the highest absolute returns over longer periods.

Hedge Funds returned 1.61% for the quarter, trailing the benchmark return of 1.96%. Over longer periods shown above, the Hedge Fund allocation trails its benchmark.

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	1Q 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.