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

Performance Summary

June 30, 2022

Ann O'Bradovich
Senior Vice President

John Jackson, CFA
Senior Vice President

Forest Preserve District Employees' Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Second Quarter 2022

Table of Contents

Macroeconomic Environment

Recession – Are We There Yet?

GDP in 2Q22 fell 0.9%, after declining 1.6% in 1Q—so are we already in a recession? If so, that was fast; growth in 4Q21 was a rocking 6.9%. The stock market already thinks so; investors fully priced in a recession during the first half of 2022, with particularly large declines in April and June and a bear market by midyear. Over history, the stock market moves to price in a recession well before the economic data begin to show a decline.

It turns out two consecutive quarters of falling GDP is a nice rule of thumb, but it is not the official definition of recession. So what is, and who gets to decide? First, the decider: the rather grandly named National Bureau of Economic Research Business Cycle Dating Committee. Second, the definition: "a significant decline in economic activity that is spread across the country and lasts more than a few months." The committee uses a number of measures of economic activity, and leans particularly hard on real personal income and nonfarm payroll employment. Interestingly, GDP is used sparingly; the focus of recession dating is typically on a monthly determination of peaks and troughs, while GDP is reported only quarterly.

Data preferences from this arcane Dating Committee aside, two consecutive quarters of GDP decline is still news, even if it does not necessarily indicate recession. The sources of the decline in 2Q GDP included a large decrease in private inventory investment, which subtracted 2 percentage points from GDP. The inventory drop was led by a decrease in retail trade, mainly general merchandise stores, along with motor vehicle dealers. Other detractors to growth were both residential and non-residential fixed investment; and federal, state, and local government spending.

Offsetting the declines were increases in exports and personal consumption expenditures (PCE). The rise in PCE reflected an increase in services (food services, accommodations, and health care) that was partly offset by a decrease in spending on goods (led by food and beverages). More spending on restaurants and hotels and Airbnbs, and less food at home, even with the sharp rise in prices at the grocery store. Exports fell sharply in 1Q as Russia invaded Ukraine, yet as the war intensified, exports shot back up in 2Q, growing by 18% and contributing almost 2 percentage points to GDP growth. Returning to the premise of the Dating Committee, that much more than GDP growth should define a recession, somewhat anomalous components of GDP accounted for the declines in 1Q and 2Q. Both quarters were driven by huge changes in exports and inventories, neither of which are usually so important to a given quarter's GDP growth, and do not often reverse the course of growth coming from the rest of the economy.

Other Data on the Economy Not as Grim

Other data on the broad economy during the first half of 2022 do not necessarily point to a recession, at least not yet. The job market was very robust through both 1Q and 2Q, as the U.S. economy added more than 2.7 million new jobs; since the invasion of Ukraine in February, the job market averaged almost 400,000 new jobs per month, substantially above the 200,000-250,000 rate that indicates an expanding economy. We still have room to recover from the pandemic, however, as we are half a million jobs short of the level set in February 2020.

Disposable personal income increased 6.6% in 2Q, in contrast to a decline of 1.3% in 1Q. Despite this robust growth, incomes could not keep up with inflation, which began ramping up in April 2021. After kicking off the year at 7.5% in January, inflation as measured by the CPI-U index has only gone up each month, reaching 9.1% in the June report. As a result, real disposable personal income (take-home pay, adjusted for inflation) decreased 0.5% in 2Q; while disappointing, this report was substantially better than in 1Q, when real disposable income fell an alarming 7.8%.

The mayhem in the capital markets continued during 2Q, as both stocks and bonds responded to the Fed and the ECB aggressively raising interest rates, Russia's war in Ukraine, concerns about an incipient recession, another COVID surge, and global economic weakness. However, the U.S. economy is still growing robustly. There may be something to this Dating Committee's methodical approach. The caveat to its work is that calling turning points relies on government data reported with lags, so the Committee can only designate a recession after it starts. We may be "there," but we will not know until the Committee decides.

Global Equities

The S&P 500 Index sank 16.1% in 2Q22 on concerns over rising rates and a slowing economy; the Index is down 20.0% YTD. All sectors posted negative returns, but the worst were Consumer Discretionary (-26%), Communication Services (-21%), and Technology (-20%). Energy, Utilities, and Consumer Staples each lost roughly 5%. Value outperformed growth by a substantial margin (Russell 1000 Value: -12.2%; Russell 1000 Growth: -20.9%) and the YTD differential is more than 15 percentage points.

The MSCI ACWI ex USA Index sank 13.7% (Local: -8.3%), bringing its YTD loss to 18.4% (Local: -11.9%). The U.S. dollar continued to strengthen, benefiting from its "safe haven" status as well as attractive interest rates relative to other developed markets. The yen lost 11% versus the dollar, the euro 6%, and the British pound 8%. Across developed market countries, losses were broad-based, with nearly all posting double-digit declines. As in the U.S., Value (MSCI ACWI ex USA Value: -11.9%) outperformed Growth (MSCI ACWI ex USA Growth: -15.7%). Technology (MSCI ACWI ex USA Technology: -23%) fared the worst with Energy (MSCI ACWI ex USA Energy: -5%) being the relative outperformer.

Emerging markets (MSCI Emerging Markets: -11.4%; Local: -8.1%) outperformed developed markets for the quarter, led by China (MSCI China: +3%), which was helped by improving data as lockdowns ended, as well as promises of government stimulus. Returns were mixed but negative across regions: Latin America (-22%), Emerging Europe (-21%), and Emerging Asia (-9%).

Global Fixed Income

The Bloomberg US Aggregate Bond Index fell 4.7% in 2Q as rates rose sharply and spreads widened. Mortgages and corporates underperformed U.S. Treasuries, and the yield-to-worst of the Aggregate Index climbed to 3.7%. High yield corporates (Bloomberg High Yield: -9.8%) underperformed investment grade, and the Index is down 14.2% YTD. Rates were volatile during the quarter; the 10-year U.S. Treasury hit an intra-quarter high of 3.49% in June, the highest since 2011, before closing the quarter at 2.98%. TIPS (Bloomberg TIPS: -6.1%; -8.9% YTD) sharply underperformed nominal U.S. Treasuries for the quarter as longer-term inflation expectations declined. The 10-year breakeven spread was 2.3% at the end of the quarter, down from 2.8% on 3/31/22.

Interest rates also rose overseas and the U.S. dollar continued to strengthen, hurting unhedged fixed income returns. The Bloomberg Global Aggregate ex USD fell 11.0% (hedged: -4.0%). Losses were broad-based with double-digit declines across Europe, in Japan, and in the U.K. Emerging market debt was hurt by rising rates; the JPM EMBI Global Diversified fell 11.4% and the local currency JPM GBI-EM Global Diversified was off 8.6%.

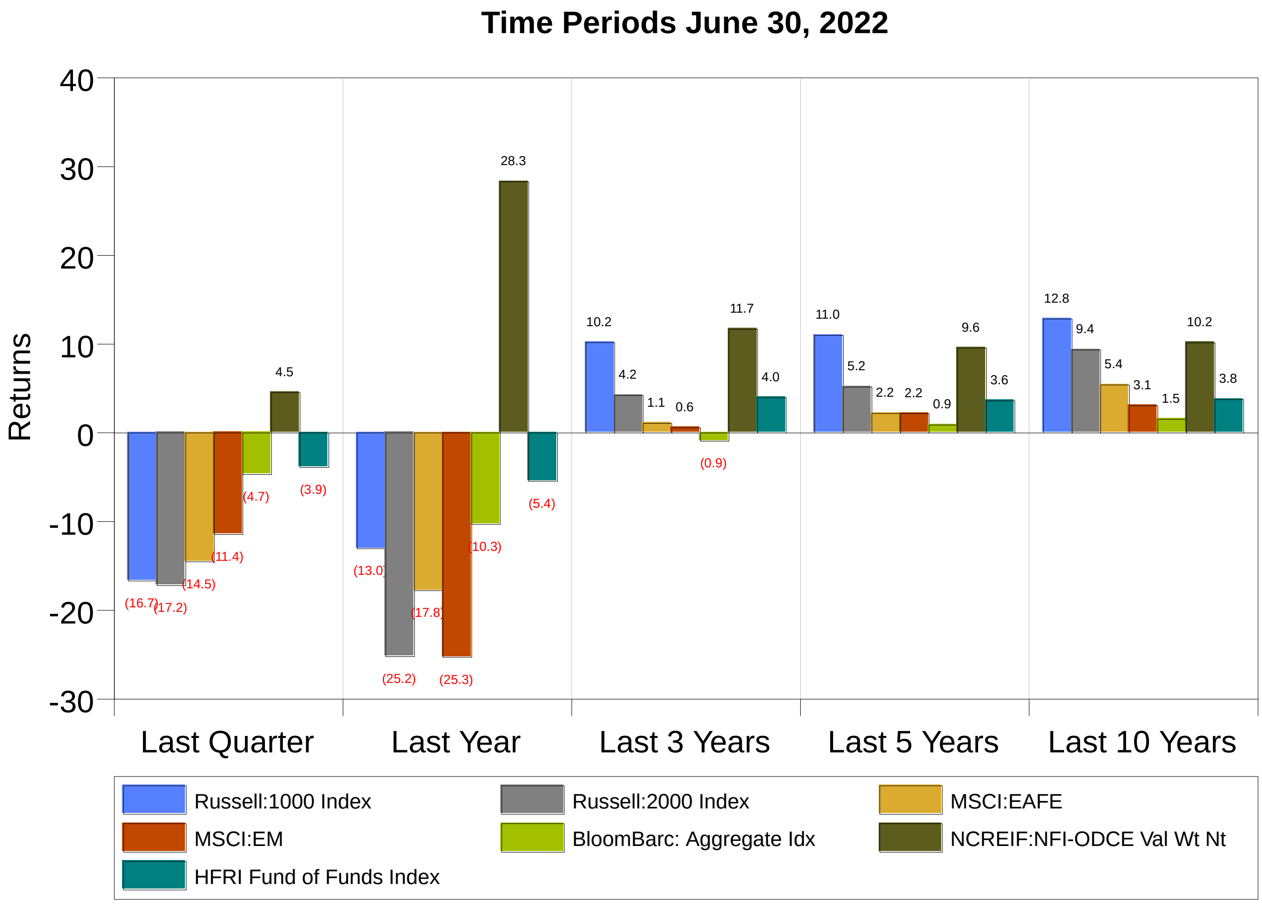
Real Assets

Following very strong 1Q results, real assets as a group posted negative returns in 2Q as concerns over slowing global growth mounted. A lone exception was the energy-heavy S&P GSCI Index, which eked out a 2.0% gain during the quarter while the Bloomberg Commodity TR Index fell 5.7%. WTI Crude closed the quarter at $106/barrel, up from $100 on 3/31/22 and $76 at year-end. Gold (S&P Gold Spot Price Index: -7.5%), listed infrastructure (DJB Global Infrastructure: -7.1%), REITs (MSCI US REIT: -16.9%), and TIPS (Bloomberg TIPS: -6.1%) declined.

Closing Thoughts

This market is very challenging for investors as traditional correlations between asset classes—especially bonds and stocks—have broken down when investors need them the most. It is during times like these that our advice to clients, to focus on the long run and adhere to a prudent long-term investment program, matters most. Despite the recent market declines, it bears repeating that investors have benefitted from the strong capital markets in the post-GFC era, growing wealth at an unprecedented rate.

Second Quarter 2022 Market Performance



The Callan Periodic Table of Investment Returns
Second Quarter 2022

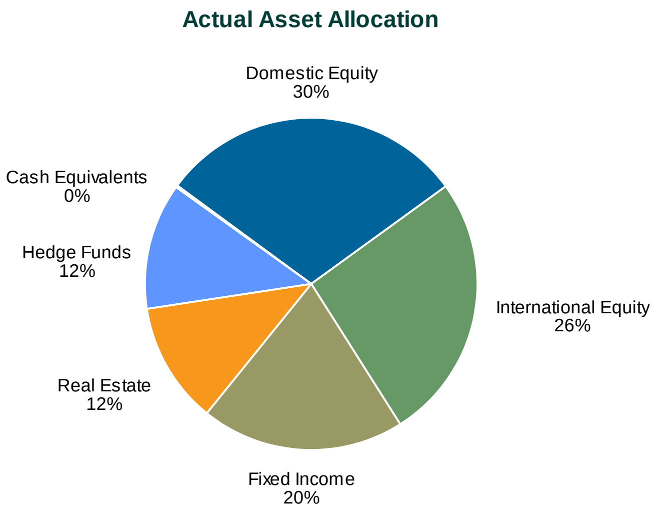
2013	2014	2015	2016	2017	2018	2019	2020	2021	2 Qtrs. 2022
Russell:2000 Index **38.8%**	Russell:1000 Index **13.2%**	NCREIF:NFI-ODCE Val Wt Nt **14.0%**	Russell:2000 Index **21.3%**	MSCI:EM **37.3%**	Cambridge:PE Idx **10.0%**	Russell:1000 Index **31.4%**	Cambridge:PE Idx **29.4%**	Cambridge:PE Idx **36.3%**	NCREIF:NFI-ODCE Val Wt Nt **12.0%**
Russell:1000 Index **33.1%**	Cambridge:PE Idx **11.8%**	Cambridge:PE Idx **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 (6.5%)
MSCI:EAFE **22.8%**	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%**	BC Aggregate **(10.3%)**
Cambridge:PE Idx **21.1%**	BC Aggregate **6.0%**	BC Aggregate **0.5%**	Cambridge:PE Idx **9.5%**	Cambridge:PE Idx **19.9%**	HFRI Fund of Funds Index (4.0%)	MSCI:EM **18.4%**	MSCI:EM **18.3%**	Russell:2000 Index **14.8%**	MSCI:EM **(17.6%)**
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%**	Russell:1000 Index **(4.8%)**	Cambridge:PE Idx **16.2%**	HFRI Fund of Funds Index 10.9%	MSCI:EAFE **11.3%**	MSCI:EAFE **(19.6%)**
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 7.8%	Russell:2000 Index **(11.0%)**	BC Aggregate **8.7%**	MSCI:EAFE **7.8%**	HFRI Fund of Funds Index 6.2%	Russell:1000 Index **(20.9%)**
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:EAFE **(13.8%)**	HFRI Fund of Funds Index 8.4%	BC Aggregate **7.5%**	BC Aggregate **(1.5%)**	Russell:2000 Index **(23.4%)**
MSCI:EM **(2.6%)**	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%)**	**PE Idx Not Yet Reported**

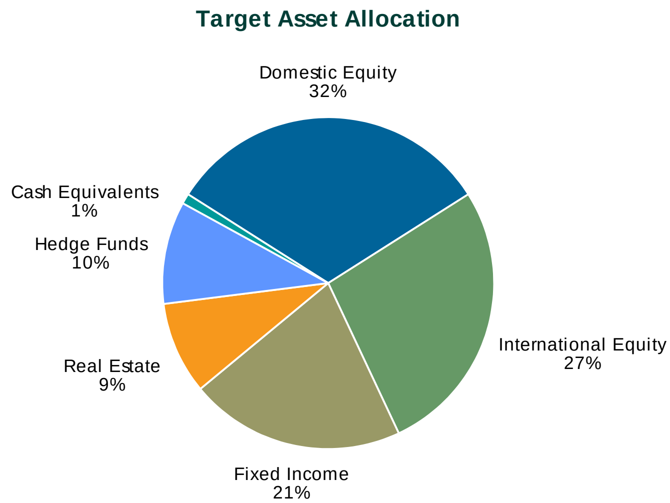
Through the second quarter of 2022, Real Estate was the top performing asset class (NCREIF: NFI-ODCE Value Weighted Net Index: +12.0%), leading Hedge Funds (HFRI Fund of Funds Index: -6.5%). Fixed Income (Bloomberg Aggregate Index: -10.3%) posted its worst six-month return in history. Emerging Markets Equities (MSCI Emerging Markets: -17.6%) outperformed Developed International Equities (MSCI EAFE Index: -19.6%). Large Cap Equities (Russell 1000 Index: -20.9%) fared better than Small Cap (Russell 2000 Index: -23.4%).

Forest Preserve Pension Fund Commentary

Asset Allocation

The Forest Preserve Fund ("Fund") ended June with a market value of $196.2 million, a $23 million decrease from the first quarter-end value of $219.2 million. The Fund experienced investment losses of $18.8 million and outflows of $4.3 million. All asset classes fall within the permissible ranges.





Asset Class	$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	$000s Difference
Domestic Equity	58,822	30.0%	28.0%	32.0%	36.0%	(2.0%)	(3,950)
International Equity	50,913	26.0%	23.0%	27.0%	31.0%	(1.0%)	(2,051)
Fixed Income	38,848	19.8%	17.0%	21.0%	25.0%	(1.2%)	(2,346)
Real Estate	23,056	11.8%	5.0%	9.0%	13.0%	2.8%	5,401
Hedge Funds	24,051	12.3%	6.0%	10.0%	14.0%	2.3%	4,434
Cash Equivalents	473	0.2%	0.0%	1.0%	5.0%	(0.8%)	(1,488)
Total	196,162	100.0%		100.0%			

Forest Preserve Pension Fund Performance vs. Target

The Total Fund returned -8.69% (Net of Fees) and outperformed its benchmark (-9.56%) for the second quarter. Active management and variance from policy weights added value during the quarter. Over the last year, the Total Fund returned -8.38% versus the benchmark return of -9.23%. On a long-term basis, the Fund has fared well, outpacing its benchmark and ranking ahead of its peer group median (GOF basis) over the trailing three-, five-, and ten-year periods.

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

		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile		(8.24)	(7.84)	7.22	7.59	8.59
25th Percentile		(9.25)	(8.73)	6.21	6.74	8.13
Median		(10.08)	(10.10)	5.34	5.99	7.66
75th Percentile		(11.07)	(12.03)	4.54	5.39	6.75
90th Percentile		(11.37)	(13.43)	4.03	4.94	6.37
Total Forest (Gross)	● A	(8.66)	(8.19)	5.61	6.42	8.03
Total Forest (Net)	■ B	(8.69)	(8.38)	5.35	6.14	7.74
Total Forest Preserve Benchmark	▲	(9.56)	(9.23)	5.23	5.99	7.10

Forest Preserve District Employees’ Annuity & Benefit Fund of Cook County
Performance Evaluation Executive Summary
Second Quarter 2022

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	**$58,821,537**	**29.99%**	**(16.41%)**	**(12.76%)**	**9.27%**	**9.99%**	**12.52%**
Domestic Equity Benchmark (2)	-	-	(16.70%)	(13.87%)	9.77%	10.60%	12.49%
International Equity	**$50,912,670**	**25.95%**	**(13.17%)**	**(18.79%)**	**1.34%**	**3.51%**	**6.85%**
International Equity Bnmk (4)	-	-	(13.73%)	(19.42%)	1.35%	2.50%	4.83%
Fixed Income	**$38,847,575**	**19.80%**	**(3.47%)**	**(7.69%)**	**(0.19%)**	**1.17%**	**1.68%**
Fixed Income Benchmark (3)	-	-	(4.29%)	(9.63%)	(0.77%)	0.98%	1.59%
****Real Estate**	**$23,055,988**	**11.75%**	**7.55%**	**25.49%**	**10.87%**	**8.89%**	**8.54%**
NFI-ODCE Value Weight Net	-	-	4.54%	28.31%	11.66%	9.55%	10.15%
****Hedge Funds**	**$24,050,582**	**12.26%**	**1.42%**	**2.96%**	**3.90%**	**4.05%**	**5.59%**
LIBOR + 4%	-	-	1.41%	4.66%	4.81%	5.35%	4.91%
HFRI Fund of Funds Index (5)	-	-	(2.41%)	(3.83%)	4.89%	3.86%	3.84%
Cash Equivalents	**$473,194**	**0.24%**	**0.17%**	**0.22%**	**0.65%**	**1.43%**	**0.83%**
3-month Treasury Bill	-	-	0.10%	0.17%	0.63%	1.11%	0.64%
Total Forest Preserve Fund	**$196,161,546**	**100.00%**	**(8.69%)**	**(8.38%)**	**5.35%**	**6.14%**	**7.74%**
Total Fund Benchmark (1)	-	-	(9.56%)	(9.23%)	5.23%	5.99%	7.10%

**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 against associated benchmarks. For the second quarter, active management in Domestic Equity, International Equity, Real Estate, and Hedge Funds added value.

The Fund’s Domestic Equity allocation generated a -16.41% return in the second quarter and finished ahead of the benchmark (-16.70%). Domestic Equity has edged the benchmark over the trailing ten-year period.

International Equity returned -13.17% for the quarter versus the benchmark return of -13.73%. Over longer periods, International Equity has fared well against the benchmark through positive contributions from active managers.

The Fixed Income allocation returned -3.47% in the second quarter and led the benchmark return of -4.29%. Fixed Income outperformed the benchmark over the trailing one-, three-, five-, and ten-year periods.

The Real Estate allocation is comprised of investments to private real estate. The Real Estate allocation beat its benchmark (+4.54%) in the second quarter, earning a 7.55% return. The Real Estate allocation has lagged the benchmark over longer periods.

The Hedge Fund allocation returned 1.42% during the quarter, in line with its absolute return benchmark (+1.41%). Hedge Funds trail the benchmark over the trailing one-, three-, and five-year periods, but have outperformed over the last 10 years.

The Total Fund declined in the second quarter and over the trailing year, but has outperformed the benchmark over all periods shown above.

Benchmarks

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%, 9.0% NFI-ODCE Value Weight Net, and 1.0% 3-Month Treasury Bill.

2. **Domestic Equity Benchmark:** Russell 3000 Index; Prior to 6/30/2016 Blend of 70% S&P 500 and 30% Russell 2500 Index; Prior to 12/31/2012 Blend of 55.6% S&P 500, 11.0% Russell 2000 Value, 16.7% Russell 1000 Growth, and 16.7% Russell 1000 Value.

3. **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 75% Bloomberg Aggregate Index, and 25% Bloomberg Gov/Credit Intermediate Index.

4. **International Equity Benchmark:** MSCI ACWI ex U.S.

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