Callan

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

Performance Summary

June 30, 2021

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Macroeconomic Environment

Tran-si-to-ry (adj.) — of brief duration: temporary (Merriam-Webster)

There was not a lot for investors to complain about in 2Q21, especially when compared to 2Q20. Fueled by rapid progress in vaccinations and re-opening economies, pent-up demand, and continued monetary and fiscal stimulus, consumer sentiment climbed and economic data were broadly positive. This spurred sharp gains in global stock markets, commodities, and real estate. Atypically, bonds were even well-behaved and delivered positive quarterly returns in spite of rising inflation and buoyant economic growth. Markets were seemingly undisturbed by the ongoing debate as to whether recent increases in inflation will be short-lived or not, with most of Wall Street being in the Fed's "transitory" camp. Investors were also unperturbed by the Fed's move to a more "hawkish" stance coming out of its recent June meeting (more on both topics later).

According to the Centers for Disease Control, nearly 60% of the U.S. population (ages 18 and over) has been vaccinated (more than 150 million). Aside from the U.K., most developed markets are making slower but steady progress. Japan is an exception. According to the World Health Organization, less than 8% of its population has been vaccinated as it prepares for the Olympics this summer. Japan has faced a shortage of doctors and nurses and, further, has had to import all of its vaccines. Emerging market countries have had mixed success but have generally lagged developed markets.

Consumer demand for goods and services has been robust, spurred by stimulus and months of forced solitude, while supply in some channels has been constrained by labor shortages and other bottlenecks. Real GDP growth in 1Q surged 6.4% (annualized) and some expect growth to exceed 9% in 2Q. The most recent prediction from the Congressional Budget Office was for GDP growth to be 7.4% in 2021, the fastest pace since 1984 and double its forecast of 3.7% issued in February 2021. Under the hood of the headline GDP figure, personal consumption and business investment grew 11.4% and 11.7%.

Manufacturing and services indices remained strong in spite of supply bottlenecks and widespread labor shortages. The July 1 release of the Institute for Supply Management (ISM) Manufacturing Index was 60.6 (above 50 signals expansion) and the prices-paid component jumped to 92.1, the highest since 1979. The Conference Board Consumer Confidence Index reached a 13-month high, and the "jobs gap," which measures the difference between those indicating that jobs are "easy" versus "hard" to get, reached 43.5%, near an all-time high. Unemployment fell to 5.8% as of the end of May. There are still nearly 10 million people unemployed, yet job openings are at record levels (9.3 million in April according to the Labor Department's JOLTS report) and labor shortages are widespread. There are a number of theories for this, all of which likely have some element of truth. These range from employees' fear of returning to the workforce given concerns over the virus, to difficulties finding childcare, to a simple reassessment of priorities (early retirements have accelerated) and quality-of-life considerations (did I really like my job?). Further, continued jobless benefits have likely made the choice possible, though this contributor could be short-lived as federal benefits are slated to expire in September and a number of states have already ended theirs. A mismatch in skill requirements is an issue in some industries as well.

Housing prices have been on a tear. The S&P CoreLogic Case-Shiller U.S. National Home Price Index showed a 14.6% increase over the past year (as of April), the highest reading since data began to be collected more than 30 years ago. Demand for houses has surged throughout the country while inventory has never been lower, and builders have been hampered by high costs and labor shortages. Craig Lazzara, managing director and global head of index investment strategy at S&P DJI, summarized it well, "April's performance was truly extraordinary.... Housing prices in all 20 cities rose; price gains in all 20 cities accelerated; price gains in all 20 cities were in the

top quartile of historical performance. In 15 cities, price gains were in the top decile. Five cities—Charlotte, Cleveland, Dallas, Denver, and Seattle-joined the National Composite in recording their all-time highest 12month gains."

The Consumer Price Index (CPI) rose 5.0% over the last 12 months (as of May), exceeding expectations and notching the largest increase since 2008. Core CPI (ex food and energy) was up 3.8% year-over-year, the largest increase since 1992. The Fed's favored measure, core PCE, climbed 3.9% (3.4% core) for the period, well above its long-term 2% target. While leaving the Fed Funds rate alone at 0.0%-0.25% at its June meeting, the Federal Open Market Committee turned a bit more hawkish. Seven of the 18 committee members see the first hike in 2022 and thirteen members expect a hike in 2023. In March, there were four members expecting a 2022 hike and seven expecting a hike in 2023. The Fed also sharply raised its expectation for inflation, measured by the PCE, in 2021 (from 2.4% in March to 3.4%). Asset purchases of \$120 billion per month continue, but Chairman Jerome Powell did acknowledge that "tapering" had been a discussion item at the meeting. It would not be a surprise to see asset purchases tempered at some point this year.

A wide-ranging debate around whether inflation increases will be short-lived is ongoing. Supporting arguments for this include:

- Current inflation figures are off of a low pandemic-induced base and thus unsustainable
- Downward price pressures from secular themes such as globalization and an aging workforce will resurface
- Intensity/pace of this economic rebound has created short-term supply-related price pressures that will

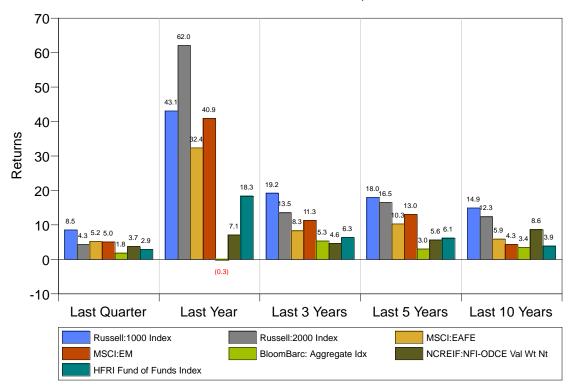
For those concerned about more stubborn inflation increases, the following points are cited:

- Wage pressures can be expected to climb as workers demand higher compensation
- Price increases have been broad-based (used cars, food, energy, construction, car rentals, airfare, appliances)
- Supply constraints could be longer lasting and lead to "cost-push" inflation

Interestingly, the bond market appears to be unfazed and yields fell steadily throughout the guarter after rising sharply in 1Q. One may wonder what the bond market is seeing that others are missing.

Second Quarter 2021 Market Performance

Time Periods June 30, 2021



Global Fixed Income

The 10-year U.S. Treasury yield declined steadily throughout the quarter, from 1.74% as of 3/31 to 1.45%. TIPS outperformed nominal Treasuries for the quarter given strong relative performance in April and May. The Bloomberg Barclays US Aggregate Bond Index rose 1.8% but remains down 1.6% YTD. Strong equity performance and robust economic data fueled risk appetites, and lower-quality securities were the best performers again this quarter. Corporates outperformed Treasuries as investors continued to reach for yield in spite of the paltry yield advantage (the average option-adjusted spread on the Corporate Index was 80 bps as of quarter-end, the lowest since 1998). The Bloomberg Barclays High Yield Index was up 2.7%. The absolute yieldto-worst for the Index reached an all-time low of 3.75% and its option-adjusted spread hit 268 bps, the lowest since 2007. Municipals (Bloomberg Barclays Municipal Bond Index: +1.4%) performed in line with Treasuries for the quarter.

The U.S. dollar was mixed versus developed market currencies but shifts were fairly modest. Thus, currency was not a major contributor to relative results for global ex-U.S. indices. The Bloomberg Barclays Global Aggregate ex-US Bond Index rose 0.9% (+0.4% hedged). Emerging market debt performed well; the JPM EMBI Global Diversified Index gained 4.1% and the local currency JPM GBI-EM Global Diversified Index was up 3.5%. Both remain down YTD, however; -0.7% and -3.4%, respectively.

Global Equities

The S&P 500 Index closed the quarter at a record high and registered an 8.5% gain in 2Q, bringing its YTD return to 15.3%. The Index is up 40.8% over the past year and the annualized return over the past 10 years is a healthy 14.8%. The S&P 500 Index hit 34 record highs in the first half of the year. First quarter earnings were up over 50%, according to FactSet, and second quarter earnings are projected to grow more than 60% (YOY). Real Estate was the strongest-performing sector in the S&P 500 for the quarter (+13.1%) with Technology close behind (+11.6%). Utilities was the only sector to post a negative result (-0.4%). Growth stocks outperformed value (R1000 Growth: + 11.9%; R1000 Value: + 5.2%) but lag for the YTD period (+13.0% vs. +17.0%) Small cap lagged large (R2000: +4.3% vs. R1000: +8.5%) but is ahead by a modest margin YTD (17.5% vs 15.0%).

Developed ex-U.S. stocks also had a strong quarter with virtually all developed market countries posting positive returns. The MSCI ACWI ex-USA Index rose 5.5% for the quarter and is up 9.2% YTD. As in the U.S., Utilities (-0.4%) was the lone sector to produce a negative return. Health Care (+9.9%) and Energy (+8.2%) were the topperforming sectors. Canada (+10.0%) was a strong performer and Japan (-0.3%) was notable as the lone country to deliver a negative return. The U.S. dollar was mixed against developed market currencies and thus shifts were not a major contributor to relative results. The MSCI EM Index performed in line with developed markets (MSCI EM USD: +5.0% and +7.4% YTD), but country returns were mixed. Brazil (+23%) and Russia (+14%) were top performers while Chile (-14%) was at the bottom of the pack. China was up 2% and China A-shares (+9.2%) did especially well as softer economic data in May appeared to ease investors' concerns over potential policy tightening.

Real Assets

Real assets did very well as the economy continued to gain traction. The Bloomberg Commodities TR Index rose 13.3%. Oil prices continued to climb, closing at more than \$73 per barrel, the highest in almost three years. The Alerian MLP Index was up 21.2% for the quarter and 47.8% YTD. The S&P GSCI Index climbed 15.7% and is up 31.4% YTD. REITs, as measured by the MSCI U.S. REIT Index, rose 12.0%. The Bloomberg Barclays US TIPS Index gained 3.2% and the Dow Jones Global Infrastructure Index climbed 6.9%. Gold (S&P Gold Spot Price: +3.3%) was an underperformer for the quarter.

Closing Thoughts

The recent rise in inflation may indeed be transitory, but so may the pace and longevity of the economic recovery. Consumer and investor exuberance may also be transitory, especially when considering base effects (very low one year ago—not so low today!), the potential for the dangerous Delta variant to cause disruption, and a slow-to-heal labor market. On the flipside, inflation increases may prove not to be transitory and rate hikes could be needed sooner than expected. In either scenario, there are a variety of paths that markets could take. Meanwhile, there are few (any?) investment options that can be argued to have "attractive" valuations and thus it is sensible to temper going-forward return expectations. In this vein, it will come as no surprise that Callan continues to advise adherence to a disciplined investment process that includes a well-defined long-term asset allocation policy.

The Callan Periodic Table of Investment Returns **Second Quarter 2021**

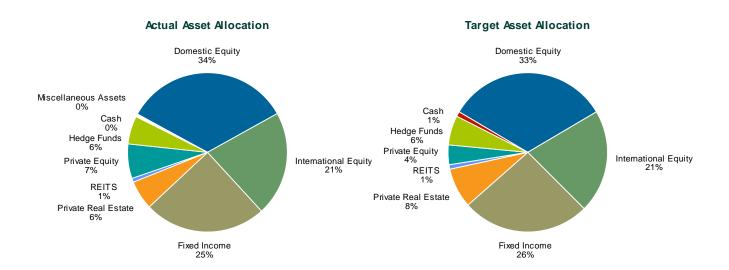
2012	2013	2014	2015	2016	2017	2018	2019	2020	2 Qtrs. 2021
MSCI:EM	Russell:2000 Index	Russell:1000 Index	NCREIF:NFI- ODCE Val Wt Nt	Russell:2000 Index	MSCI:EM	Cambridge:PE Idx	Russell:1000 Index	Cambridge:PE Idx	Russell:2000 Index
18.2%	38.8%	13.2%	14.0%	21.3%	37.3%	10.1%	31.4%	30.0%	17.5%
MSCI:EAFE	Russell:1000	Cambridge:PE	Cambridge:PE	Russell:1000	MSCI:EAFE	NCREIF:NFI-	Russell:2000	Russell:1000	Russell:1000
	Index	ldx	ldx	Index		ODCE Val Wt	Index	Index	Index
17.3%	33.1%	11.8%	8.6%	12.1%	25.0%	Nt 7.4%	25.5%	21.0%	15.0%
Russell:1000	MSCI:EAFE	NCREIF:NFI-	Russell:1000	MSCI:EM	Russell:1000	BC Aggregate	MSCI:EAFE	Russell:2000	MSCI:EAFE
Index		ODCE Val Wt	Index		Index			Index	
16.4%	22.8%	Nt 11.5%	0.9%	11.2%	21.7%	0.0%	22.0%	20.0%	8.8%
Russell:2000						HFRI Fund of	MSCI:EM	MSCI:EM	MSCI:EM
Index	Cambridge:PE Idx	BC Aggregate	BC Aggregate	Cambridge:PE Idx	Cambridge:PE Idx	Funds Index	MSCI:EM	MSCI:EM	MSCI:EM
IIIuex	IUX			IUX	IUX	i unus muex			
16.3%	21.3%	6.0%	0.5%	9.5%	19.7%	(4.0%)	18.4%	18.3%	7.4%
Cambridge:PE	NCREIF:NFI-	Russell:2000	HFRI Fund of	NCREIF:NFI-	Russell:2000	Russell:1000	Cambridge:PE	HFRI Fund of	NCREIF:NFI-
ldx	ODCE Val Wt	Index	Funds Index	ODCE Val Wt	Index	Index	ldx	Funds Index	ODCE Val Wt
13.7%	Nt 12.9 %	4.9%	(0.3%)	Nt 7.8%	14.6%	(4.8%)	16.3%	10.9%	Nt 5.6%
NCREIF:NFI-	HFRI Fund of	HFRI Fund of	MSCI:EAFE	BC Aggregate	HFRI Fund of	Russell:2000	BC Aggregate	MSCI:EAFE	HFRI Fund of
ODCE Val Wt	Funds Index	Funds Index		00 0	Funds Index	Index			Funds Index
Nt									
9.8%	9.0%	3.4%	(0.8%)	2.6%	7.8%	(11.0%)	8.7%	7.8%	4.9%
HFRI Fund of	BC Aggregate	MSCI:EM	Russell:2000	MSCI:EAFE	NCREIF:NFI-	MSCI:EAFE	HFRI Fund of	BC Aggregate	BC Aggregate
Funds Index			Index		ODCE Val Wt		Funds Index		
4.8%	(2.0%)	(2.2%)	(4.4%)	1.0%	Nt 6.7 %	(13.8%)	8.4%	7.5%	(1.6%)
BC Aggregate	MSCI:EM	MSCI:EAFE	MSCI:EM	HFRI Fund of Funds Index	BC Aggregate	MSCI:EM	NCREIF:NFI- ODCE Val Wt Nt	NCREIF:NFI- ODCE Val Wt Nt	Private Equity not yet available
4.2%	(2.6%)	(4.9%)	(14.9%)	0.5%	3.5%	(14.6%)	4.4%	0.3%	

Through the second quarter of 2021, Small Cap Equity was the top performing asset class (Russell 2000 Index: +17.5%), leading Large Cap Equity (Russell 1000 Index: +15.0%). Developed International Equities (MSCI EAFE Index: +8.8%) outperformed Emerging Markets (MSCI Emerging Markets: +7.4%). Real Estate (NCREIF: NFI-ODCE Value Weighted Net Index: +5.6%) outperformed Hedge Funds (HFRI Fund of Funds Index: +4.9%). Fixed Income (Bloomberg Barclays US Aggregate Bond Index: -1.6%) was the only asset class to earn negative returns over the period.

Cook County Pension Fund Commentary

Asset Allocation

The Cook County Fund ("Fund") ended June with a market value of \$13.42 billion, a \$731 million increase from the first quarter value of \$12.68 billion. During the quarter, the Fund gained \$815 million from investment returns and experienced net outflows of \$84 million.



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
			29.0%	33.0%	37.0%		
Domestic Equity	4,463,603	33.9%				0.9%	124,569
International Equity	2,797,276	21.3%	17.0%	21.0%	25.0%	0.3%	36,073
Fixed Income	3,262,062	24.8%	22.0%	26.0%	30.0%	(1.2%)	(156,570)
Private Real Estate	780,265	5.9%	5.0%	7.9%	13.0%	(2.0%)	(262,418)
REITS	110,721	0.8%	0.0%	1.1%	2.6%	(0.2%)	(29,969)
Private Equity	915,883	7.0%	0.0%	4.0%	8.0%	3.0%	389,940
Hedge Funds	753,171	5.7%	0.0%	6.0%	10.0%	(0.3%)	(35,744)
Cash	65,552	0.5%	0.0%	1.0%	5.0%	(0.5%)	(65,934)
Miscellaneous Assets	52	0.0%	0.0%	0.0%	0.0%	0.0%	52
Total	13,148,586	100.0%		100.0%			

Cook County Performance vs. Target

The Cook County Pension Fund generated a return of 6.46% in the second quarter, leading its custom benchmark and ranking in the top quartile of peers. Domestic Equity returned 7.52% for the quarter, trailing the benchmark. International Equity (+5.44%) trailed its benchmark for the guarter. Fixed Income (+2.29%) posted the lowest absolute return for the quarter, but outperformed its benchmark. REITS (+13.32%) posted a strong absolute return for the quarter and led its benchmark. Private Real Estate trailed its benchmark, while Hedge Funds outperformed. Private Equity (+23.32%) earned the highest absolute return for the quarter. Active

management in Fixed Income and Hedge Funds added value in the quarter. Asset allocation decisions, especially an overweight to Private Equity, added value in the quarter.

Over the trailing year, the Fund returned 28.53% and led its benchmark return (+25.15%). Additionally, the Fund leads its custom benchmark (+10.96%) over the last five-year period with an annualized net of fee return of 11.55%. Over the trailing five years, active management in International Equity and Private Real Estate has added value. An underweight to Fixed Income and an overweight to Private Equity has added value. In relation to peers, the Fund ranks in or near the top quartile of peers over the trailing quarter and one-, three-, and five-year periods (GOF basis). Over the trailing ten years, the Fund's return of 8.78% leads its benchmark (+8.52%).

30% 25% 20% 15% 10% 5% 0% Last Quarter Last 3 Years Last 5 Years Last 10 Years Last Year 10th Percentile 25th Percentile Median 6.70 5.52 4.98 4.61 3.93 31.63 29.02 26.33 24.81 22.53 13.08 11.96 10.95 10.13 9.25 12.58 11.74 10.94 10.16 9.21 10.03 9.30 8.89 8.14 7.26 75th Percentile 90th Percentile 9.16 Total Cook (Gross) 6.51 28.87 12.41 11.91 County (Net) 6.46 28.53 12.05 11.55 8.78 Total Fund 25.15 12.14 10.96 8.52 5.70 Benchmark

Table 1.0 Performance vs Callan Public Fund Spons - Large (>1B) (Gross)



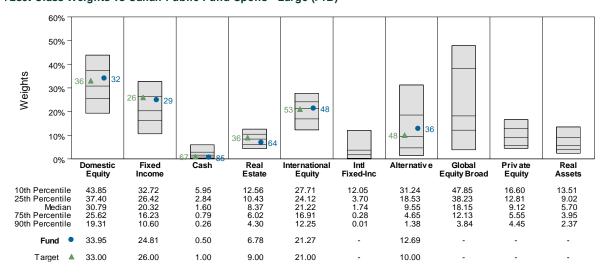


Table 1.1 Asset Class Performance vs. Target (Net of Fees)

	Market Value \$(Dollars)	Ending Weight	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity Domestic Equity Benchmark	\$4,571,025,233 (2)	34.07%	7.52% 8.24%	43.74% 44.16%	17.12% 18.73%	17.33% 17.89%	13.67% 14.57%
International Equity Intemational Equity Benchma	\$2,859,126,775 ark (3) -	21.31% -	5.44% 5.60%	35.96% 37.18%	9.32% 9.43%	11.35% 11.13%	6.60% 5.42%
Fixed Income Fixed Income Benchmark (4)	\$3,283,251,311 -	24.47% -	2.29% 1.65%	2.94% (0.25%)	5.21% 5.26%	3.41% 2.98%	3.52% 3.38%
REITS NAREIT Equity Index	\$116,634,886 -	0.87%	13.32% 12.02%	38.33% 38.02%	11.68% 10.10%	7.63% 6.31%	- 9.41%
**Private Real Estate NFI-ODCE Value Weight Net	\$789,178 <u>,</u> 030	5.88% -	3.35% 3.68%	5.03% 7.09%	6.48% 4.60%	6.32% 5.62%	9.09% 8.60%
**Private Equity	\$956,968,434	7.13%	23.32%	77.75%	36.80%	29.47%	13.63%
**Hedge Funds LIBOR + 4% HFRI Fund of Funds Index (5)	\$774,669,683 - -	5.77% - -	3.88% 1.02% 2.26%	12.60% 4.21% 20.05%	4.45% 5.46% 5.99%	5.37% 5.42% 5.93%	- 4.89% 3.67%
Cash Equiv alents 3-month Treasury Bill	\$64,590,691 -	0.48%	0.01% (0.00%)	0.10% 0.09%	1.52% 1.34%	1.43% 1.17%	0.79% 0.63%
Total Cook County Fund Total Fund Benchmark (1)	\$13,415,497,296 -	100.00%	6.46% 5.70%	28.53% 25.15%	12.05% 12.14%	11.55% 10.96%	8.78% 8.52%

^{**}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 trailed it benchmark in the second quarter and trails over longer periods as well. International Equity trailed its benchmark, but has enjoys success over longer periods, outperforming the benchmark on a trailing five- and ten-year basis.

During the second guarter, the Fixed Income allocation returned 2.29% compared to the 1.65% return of the Bloomberg Barclays Aggregate Index. Active management, as well as an underweight to the asset class, added value in the second quarter. The allocation leads its benchmark over the trailing one-, five-, and ten-year periods.

The Real Estate allocation is comprised of investments in public real estate securities (REITS) and Private Real Estate. The Private Real Estate allocation contains primarily core investments (income producing real estate) and a small allocation to non-core, closed-end funds. In the second quarter, Private Real Estate underperformed its benchmark, returning 3.35%, compared to the benchmark return of 3.68%. Despite underperforming for the quarter and year, Private Real Estate has consistently bested its benchmark over longer periods.

REITS returned 13.32% and led its benchmark by 1.30% for the second quarter. The REITS allocation has performed favorably versus its benchmark over longer periods, leading its benchmark over the trailing one-, three-, and five-year periods.

Private Equity experienced net withdrawals for the quarter and the weight is currently above its strategic allocation target. For the quarter, the Private Equity allocation posted a return of 23.32%. Over the trailing year, the Private Equity allocation returned 77.75%. The Private Equity allocation has performed very well over longer periods, enjoying double-digit annualized returns over the trailing one-, three-, five-, and ten-year periods.

The Hedge Fund allocation (+3.88%) led its absolute return benchmark (+1.02%) for the quarter. In the last year, it returned 12.60%, leading its absolute benchmark return.

Notes and Observations

Notes

Total Fund Benchmark (Target): Blend of asset class benchmarks at policy weights. The Domestic Equity and Private Equity policy weights are adjusted each month such that the Private Equity weight is set equal to the invested capital, up to the Long Term Target of 4%. The uninvested capital is allocated to Domestic Equity. This process reflects the practical implementation of non-publicly traded

	Strategic	Interim
	<u>Target</u>	<u>Target</u>
Russell 3000	33.0%	33.0%
MSCI ACWI ex US	21.0	21.0
BloomBarc Aggregate	26.0	26.0
Libor 3 Month + 4.0%	6.0	6.0
Real Estate	9.0	9.0
Private Equity	4.0	4.0
Cash	1.0	1.0
Total Target	100.0%	100.0%

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