

June 30, 2022



## **North Dakota State Investment Board Insurance Trust**

**Investment Measurement Service  
Quarterly Review**

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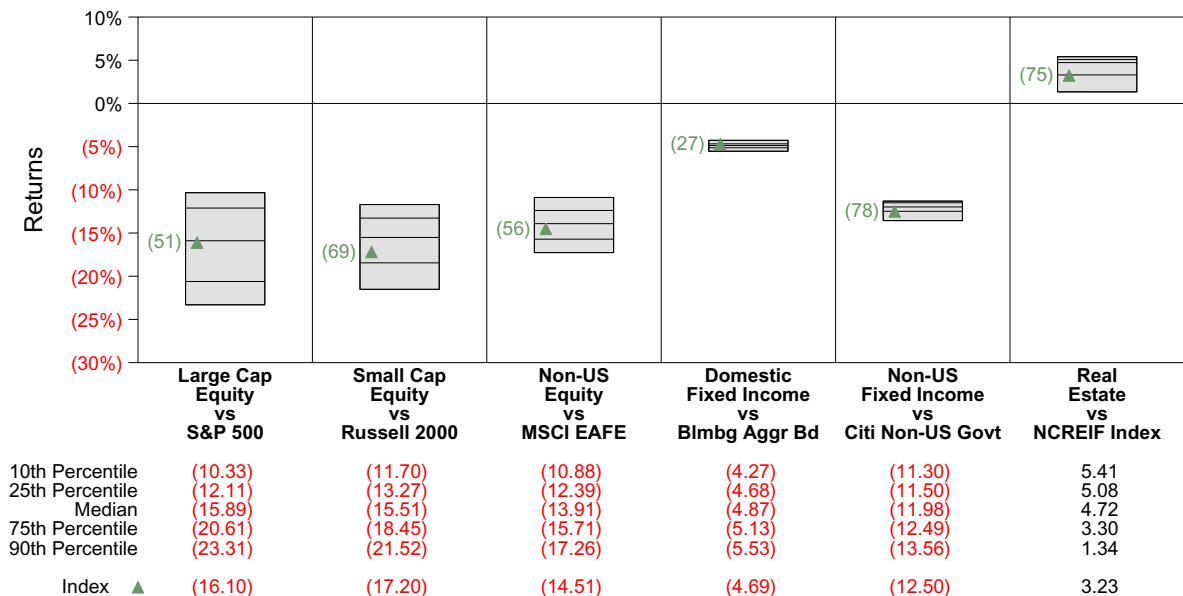
## Market Overview

### Active Management vs Index Returns

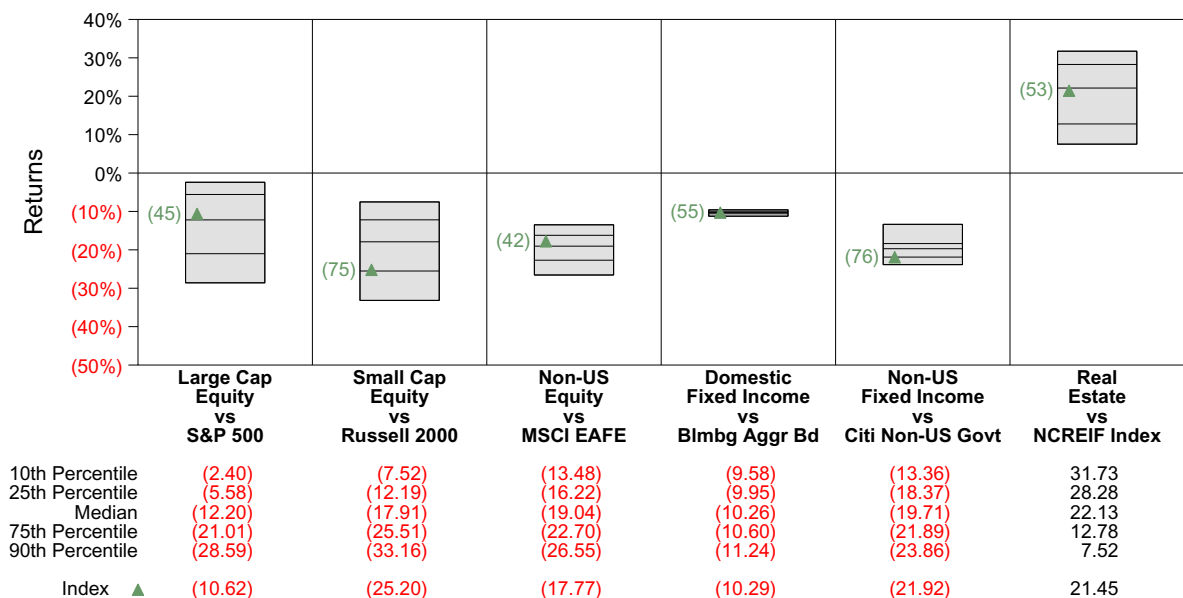
#### Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

#### Range of Separate Account Manager Returns by Asset Class One Quarter Ended June 30, 2022



#### Range of Separate Account Manager Returns by Asset Class One Year Ended June 30, 2022



## Recession Call Waits For NBER Committee

### ECONOMY

**2** Despite two consecutive quarters of a decline in GDP, the United States is not officially in a recession—until a committee of the National Bureau of Economic Research determines that we are. The stock market, however, is not waiting and has already priced one in.

## Pain Is Widespread For Bond Investors

### FIXED INCOME

**8** The Bloomberg US Aggregate Bond Index posted its worst six-month return in its history. Market pricing reflects a Fed Funds rate of 3.4% at year-end. Double-digit negative returns were widespread across developed markets, and all EM indices saw losses as well.

## Illiquidity Premium Slowly Adjusting

### PRIVATE CREDIT

**12** The illiquidity premium between public and private credit had been whittled down close to zero, but we are seeing a slow adjustment. Fundraising slowed in the first half of 2022 as interest rate hikes and market volatility led to investor uncertainty.

## Challenges Galore As Stocks, Bonds Fall

### INSTITUTIONAL INVESTORS

**4** All investor types saw returns fall over the last year ending 2Q22, given the drops in both stocks and bonds. Uncertainty in 2022 creates challenges for planning. Investors have to factor in the invasion of Ukraine, inflation, market declines, higher rates, and recession concerns.

## Private RE Delivers; REITs Underperform

### REAL ESTATE/REAL ASSETS

**10** Core real estate delivered another robust quarter, although returns are expected to moderate for the rest of this year and into next. REITs both globally and in the United States lagged equities. Real assets saw widespread losses, with the notable exception of energy.

## Tough Environment Leads to Losses

### HEDGE FUNDS/MACs

**13** Hedge funds mostly fell in 2Q22 amid a confluence of major macroeconomic forces. Macro managers remained the best-performing strategy for the first half of 2022. Most of the managers in the Callan Multi-Asset Class (MAC) Style Groups generated negative returns, gross of fees.

## Most Major Indices Fall by Double Digits

### EQUITY

**6** The S&P 500 plunged 16.1% in 2Q22; all major U.S. indices across styles and market cap ranges also fell. Global indices followed suit; slowing global growth became clearer toward quarter-end, leading investors toward higher-quality and lower-volatility areas of the market.

## Persistence Amid Volatile Environment

### PRIVATE EQUITY

**11** First-half private equity fundraising and deal activity declined from last year's frenzied levels but volumes remained strong. With the public equity sell-off in 2Q, distributions have been the largest casualty as the strong seller's market has receded.

## DC Index Falls in 1Q22, After 4Q21 Gain

### DEFINED CONTRIBUTION

**15** The Callan DC Index™ fell 5.3% in 1Q22; the Age 45 Target Date Fund dropped 5.9%. Target date funds (TDFs) received the largest net inflows during the quarter. U.S. large cap had the largest percentage decrease in allocation; TDFs saw the largest increase.

## Broad Market Quarterly Returns

### U.S. Equity Russell 3000



### Global ex-U.S. Equity MSCI ACWI ex USA



### U.S. Fixed Income Bloomberg Agg



### Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



Sources: Bloomberg, FTSE Russell, MSCI

# Recession—Are We There Yet?

ECONOMY | Jay Kloepper

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 rockin' 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.

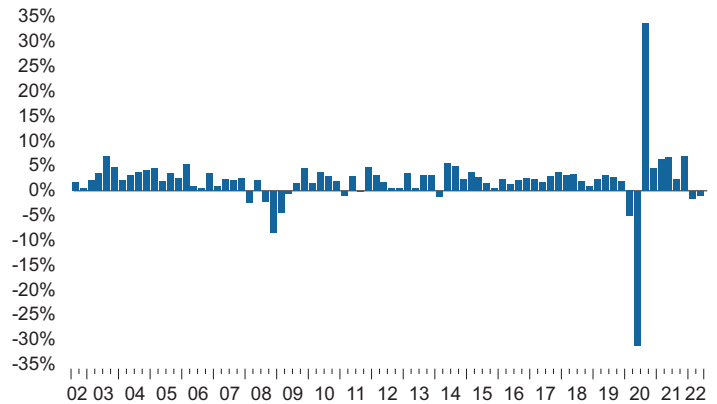
It turns out two consecutive quarters of falling GDP is a nice rule of thumb, but it is not the official definition of recession. So what is, and who gets to decide? First, the decider: the rather grandly named National Bureau of Economic Research Business Cycle Dating Committee. Second, the definition: "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). So ... more spending

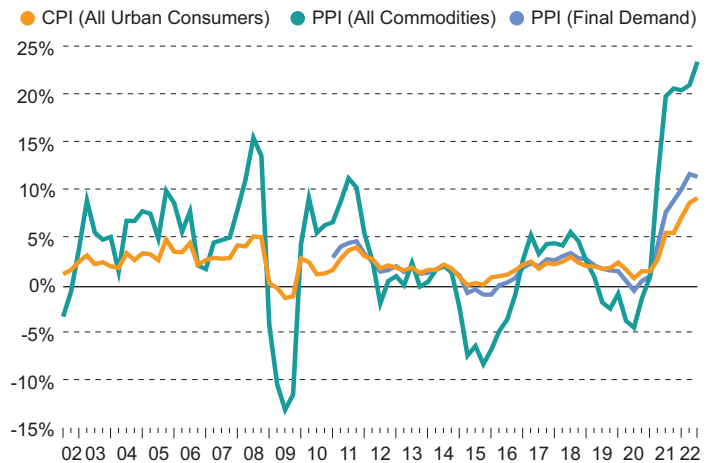
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

on restaurants and hotels and Airbnbs, and less food at home, even with the sharp rise in prices at the grocery store.

What is especially interesting is that the rise in the dollar helped imports and didn't seem to hurt exports, which is very weird, since that rise makes our exports more expensive and our imports cheaper. 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 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

### The Long-Term View

Index	2Q22	Periods Ended 6/30/22			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	-16.7	-13.9	10.6	12.6	8.1
S&P 500	-16.1	-10.6	11.3	13.0	8.0
Russell 2000	-17.2	-25.2	5.2	9.4	7.4
Global ex-U.S. Equity					
MSCI EAFE	-14.5	-17.8	2.2	5.4	3.9
MSCI ACWI ex USA	-13.7	-19.4	2.5	4.8	--
MSCI Emerging Markets	-11.4	-25.3	2.2	3.1	--
MSCI ACWI ex USA Small Cap	-17.5	-22.4	2.6	6.2	5.7
Fixed Income					
Bloomberg Agg	-4.7	-10.3	0.9	1.5	4.4
90-Day T-Bill	0.1	0.2	1.1	0.6	2.0
Bloomberg Long G/C	-12.3	-20.1	1.0	2.6	6.1
Bloomberg GI Agg ex US	-11.0	-18.8	-1.8	-1.1	2.8
Real Estate					
NCREIF Property	3.2	21.5	8.9	9.7	9.5
FTSE Nareit Equity	-17.0	-6.3	5.3	7.4	8.7
Alternatives					
CS Hedge Fund	-2.3	1.9	4.8	4.7	6.3
Cambridge PE*	-1.5	22.0	20.7	16.5	15.4
Bloomberg Commodity	-5.7	24.3	8.4	-0.8	1.8
Gold Spot Price	-7.5	2.0	7.8	1.2	7.0
Inflation – CPI-U	3.1	9.1	3.9	2.6	2.5

\*Data for most recent period lags. Data as of 3/31/22.

Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

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.

### Recent Quarterly Economic Indicators

	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20
Employment Cost–Total Compensation Growth	5.1%	4.5%	4.0%	3.7%	2.9%	2.6%	2.5%	2.4%
Nonfarm Business–Productivity Growth	-6.2%*	-7.3%	6.3%	-3.9%	3.2%	2.2%	-2.8%	6.2%
GDP Growth	-0.9%	-1.6%	6.9%	2.3%	6.7%	6.3%	4.5%	33.8%
Manufacturing Capacity Utilization	79.8%	79.2%	78.6%	77.5%	76.8%	75.7%	75.0%	73.3%
Consumer Sentiment Index (1966=100)	57.8	63.1	69.9	74.8	85.6	80.2	79.8	75.6

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

\*Estimate

# Returns Fall Amid Challenging Environment

## INSTITUTIONAL INVESTORS

### Investors' performance holds up relatively well

- All investor types saw returns decline over the last year ending 2Q22, given the drops in both stocks and bonds over the same period.
- Relatively, their returns held up well, with all investor types outperforming broad U.S. equities and most topping the Bloomberg US Aggregate Bond Index. The sole exception was corporate defined benefit (DB) plans, not surprising given their typically heavy allocations to fixed income.
- Over much longer periods, all institutional investor types have seen returns roughly in line with a 60% S&P 500/40% Aggregate mix.

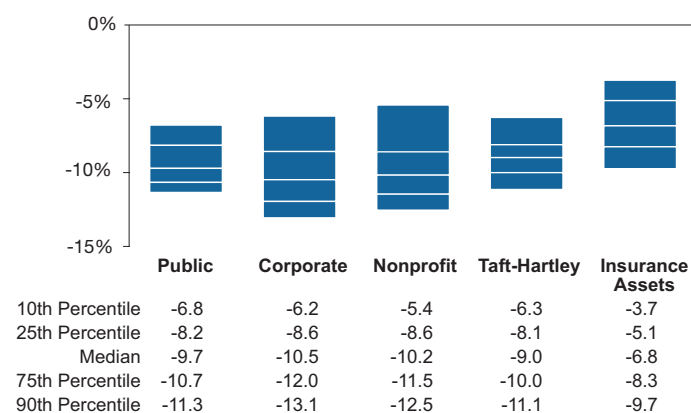
### Strategic planning focus alters

- Drops in both stocks and bonds YTD have changed discussions about asset allocation.
- The questions that investors are focused on now include:
  - How does a yield of 4% change the demand for yield substitutes: investment grade credit, bank loans, high yield, private credit—maybe even real estate and infrastructure?
  - How should investors handle rebalancing, which is a natural outcome of a market downturn, except when everything goes down?

- What should they do about alternatives, which are now over target allocations?
- Uncertainty in the first half of 2022 creates new challenges for planning. Investors are trying to factor in the invasion of Ukraine, inflation, market declines, higher rates, and recession concerns into their decision-making.
- Geopolitical uncertainty has lessened the enthusiasm for emerging market overweights, and raised questions with a number of investors about the value of global ex-U.S. equity broadly to a U.S.-based investor.

### Quarterly Returns, Callan Database Groups

(6/30/22)



Source: Callan

### Callan Database Median and Index Returns\* for Periods Ended 6/30/22

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	-9.7	-9.4	5.9	6.4	7.8	7.1
Corporate Database	-10.5	-13.1	3.6	5.0	6.8	6.6
Nonprofit Database	-10.2	-10.6	5.2	5.9	7.3	6.9
Taft-Hartley Database	-9.0	-7.7	6.1	6.8	8.1	6.8
Insurance Assets Database	-6.8	-8.6	2.2	3.3	3.9	4.9
All Institutional Investors	-9.9	-10.1	5.2	6.0	7.5	6.9
Large (>\$1 billion)	-8.8	-7.9	6.1	6.7	7.8	7.2
Medium (\$100mm - \$1bn)	-10.1	-10.4	5.2	6.0	7.5	6.8
Small (<\$100 million)	-10.1	-10.7	4.8	5.6	7.1	6.6
60% S&P 500/40% Bloomberg Agg	-11.5	-10.2	6.5	7.5	8.6	7.2

\*Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

- Real assets are under review with growing inflation concerns.
  - Renewed interest in inflation-sensitive investments that many investors had grown weary of such as energy, commodities, and other natural resources
  - Steadily growing interest in infrastructure among public plans

### Corporate DB plan priorities

- In general, strong interest in de-risking continues despite rise in yields. Higher yields make for a better entry point into long duration, but how much higher can long-term yields go? Plans on a glidepath tied to funded status are adhering to de-risking their portfolio as funded status improves.
- Total return-oriented plans enjoyed a strong 1Q22 as rates rose, but most of these plans gave back some funded status improvement as equities continued their decline in June.
- We are having some discussions about pension risk transfer.

### Public DB plan priorities

- 2020-21 gains drove improvements in funded status.
- Low projected returns mean downward pressure on actuarial discount rates. Moving to lower discount rates has not typically led to substantial changes in asset allocation, but perhaps greater comfort that the current risk posture has a better chance of achieving the plan discount rate.

- How will inflation impact large public plans?
- U.S. equity studies in 2Q22 saw large public plans examining fewer active managers and increasing the allocation to passive in an effort to increase net-of-fee returns. Global ex-U.S. equity studies recognize that foreign markets continue to lag but active managers, especially style-focused managers, are beating the indices net of fees.

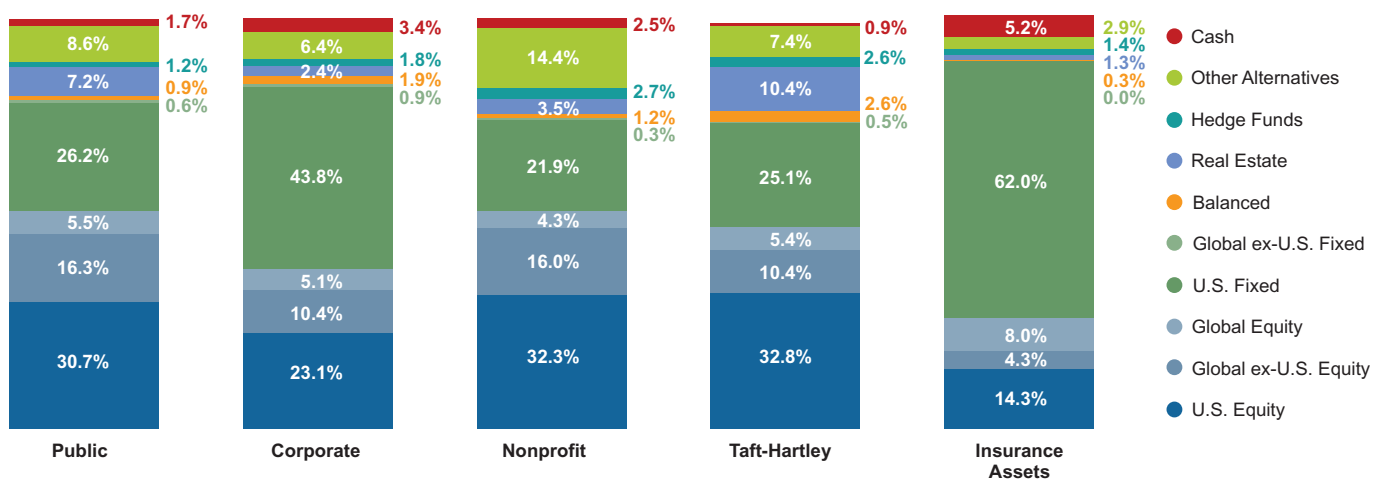
### Defined contribution (DC) plan priorities

- House passed SECURE 2.0 Act; Senate has two versions moving through committees.
- Final version uncertain, but may include allowing CITs in 403(b) plans and pushing RMDs back to age 75
- Target date funds have been adding allocations to growth assets across the spectrum of retirement cohorts to increase income replacement ratios in light of low expected returns across asset classes. Fee sensitivity has led to more passive in large cap U.S. equity.

### Nonprofit priorities

- They continue to expand the depth and breadth of their private markets investments in light of both high valuations in public markets growth assets and the potential for high inflation to erode the real values of their assets and distributions.

### Average Asset Allocation, Callan Database Groups



Note: charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets.  
Source: Callan

# Equity

## U.S. Equities

### All major indices fall

- The S&P 500 plunged 16.1% in 2Q22; all major U.S. indices across styles and market cap ranges fell in the quarter.
- All sectors posted negative returns in the quarter. Energy continued to be the best-performing sector, and the only sector that has posted a gain year-to-date (YTD).
- Large cap stocks nominally outpaced smaller cap stocks. The performance spread between the Russell 1000 and the Russell 2000 Index was around 50 basis points.
- Value stocks have outperformed growth stocks across the market capitalization spectrum.
- Consumer Discretionary (-26%), Communication Services (-21%), and Information Technology (-20%) were the worst-performing sectors.

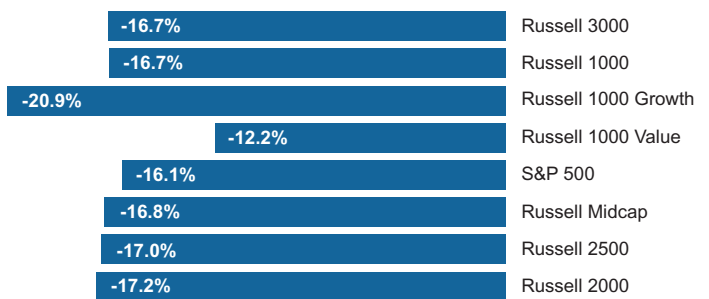
### Volatile environment hits equity markets

- Rising interest rates and inflation along with geopolitical headlines all contributed to a volatile and risk-averse environment.
- Macroeconomic headlines and data releases will continue to impact equity markets.
- Inflation, rising interest rates, and supply-chain disruptions are all headwinds for equity markets.
- Active large cap growth managers have underperformed the Russell 1000 Growth Index meaningfully recently.
- Large tech firms that have sold-off (e.g., Meta) have become an increasingly large proportion of the value index.

- Federal Reserve interest rate hikes may derail the economy, resulting in lower corporate earnings in the near- to intermediate-term.
- With a potential economic slowdown, sell-side analysts have been cutting corporate earnings estimates.
- Longer-duration growth assets, such as growth stocks, are vulnerable during periods of high inflation because of higher interest rates discounting way-out future earnings.

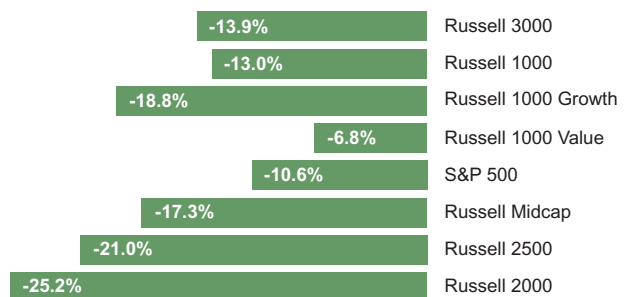
### U.S. Equity: Quarterly Returns

(6/30/22)



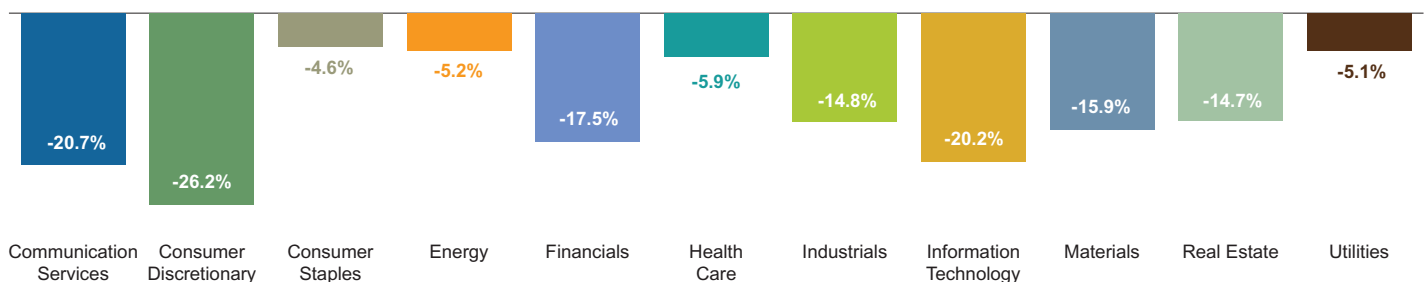
### U.S. Equity: One-Year Returns

(6/30/22)



Sources: FTSE Russell and S&P Dow Jones Indices

### Quarterly Performance of Industry Sectors (6/30/22)



Source: S&P Dow Jones Indices

## Global Equity

- The war in Ukraine tested an already fragile supply chain, led to energy demand/supply imbalances, and created an inflationary environment that sparked fears of a recession.
- Slowing global growth and recession risk became clearer toward quarter-end, leading investors toward higher-quality and lower-volatility areas of the market to offer protection.

## Wide divergence in country returns

- Optimism that the worst is behind China's COVID-19 lockdown buoyed the country to the only gain in 2Q22.
- Japan suffered from a weak yen, slowing growth, and continued supply chain disruptions.

## Growth vs. value

- Value continued to outperform growth as most monetary policies focus on tightening.
- Energy was the only sector with positive YTD results.
- Information Technology had the worst sector return as interest rate increases dampened long duration growth attractiveness.

## U.S. dollar vs. other currencies

- The U.S. dollar strengthened further against other major currencies given its global dominance and perceived safety.

## The rise of the dollar

- The dollar hit a 20-year high after rising roughly 10% YTD.
- The dollar hit parity with the euro; first time since 2002.
- The yen dipped to a 24-year low against the dollar.
- Strong dollar may burden global ex-U.S. markets.

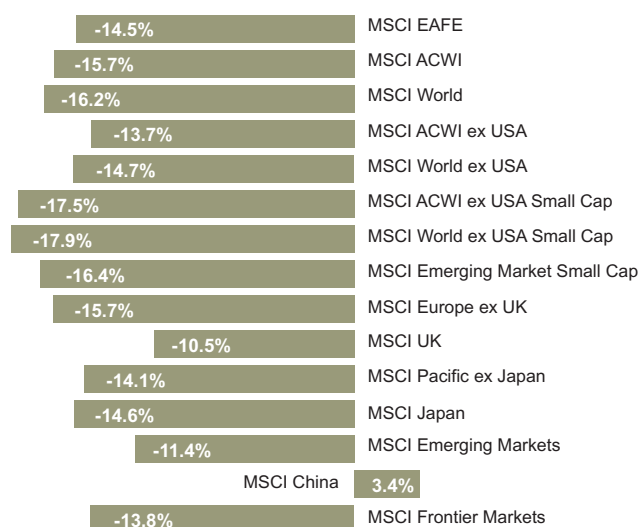
## Strong currency yields purchasing power

- Dollar-denominated debt compounded by depreciating local currencies weighed on the economy.
- The dollar and global ex-U.S. equity have exhibited negative correlation over the past four decades.

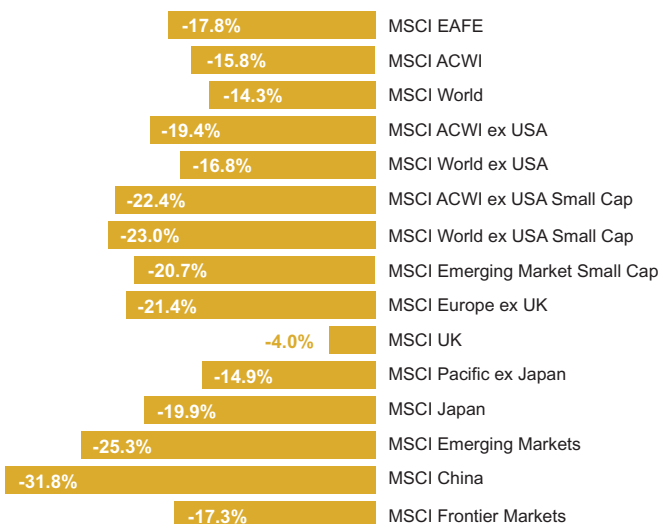
## EM has fared better relative to prior downturns

- EM historically declined 26% during prior S&P 500 drawdowns greater than 10%.
- As of 2Q22, EM has corrected by 18% YTD.

## Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 6/30/22)



## Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 6/30/22)



Source: MSCI

## China presents upside opportunity

- Although divergence of China and EM ex-China is notable, China may support EM should fears of a U.S. recession fuel further drawdown.
- China offers favorable growth and valuation relative to other emerging markets.

# Fixed Income

## U.S. Fixed Income

### Bonds hit hard as rates rise sharply (again)

- Bloomberg US Aggregate Bond Index posted its worst six-month return in its history.
- Yield curve flirted with inversion, but 2-year/10-year yield spread was slightly positive at quarter-end.
- TIPS underperformed nominal Treasuries, and 10-year breakeven spreads fell to 2.33% from 2.84% at 3/31/22.
- Fed raised rates by 75 bps, the largest increase since 1994, with further hikes expected.
- Market pricing reflects Fed Funds rate of 3.4% at year-end.

### Spread sectors underperformed

- Investment grade corporates underperformed like-duration U.S. Treasuries by 205 bps; RMBS by 98 bps.
- High yield underperformed as spreads widened; excess return vs. U.S. Treasuries was -792 bps, hurt by equity market performance and worries over the impact of higher rates on the economy.
- Leveraged loans held up relatively well with lower-quality credits generally underperforming.

### Securitized sectors continue to hang in

- Agency RMBS spreads widened in response to increased rate volatility.
- ABS spreads tightened, led by credit cards.

## Municipal Bonds

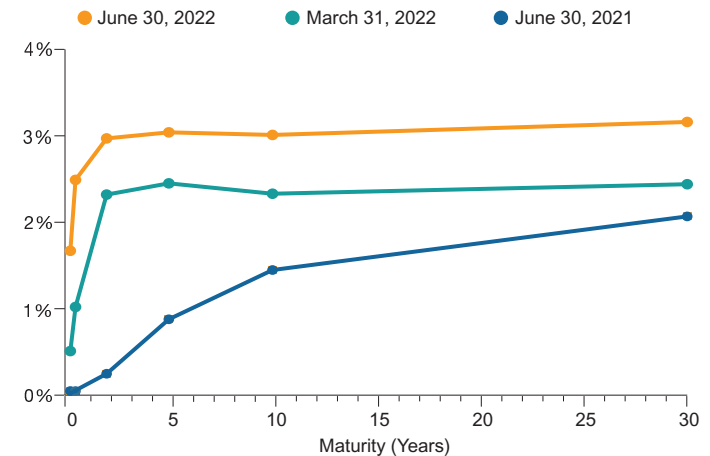
### Returns hurt by rising rates

- Lower quality continued to underperform
- BBB: -4.5%; AAA: -2.5% (YTD BBB: -11.3%; AAA: -8.5%)
- Munis outperformed U.S. Treasuries (Bloomberg US Treasury: -3.8%)

### Valuations relative to U.S. Treasuries at fair value

- 10-year AAA Muni/10-year U.S. Treasury yield ratio roughly 90%; in line with 10-year average
- Municipal Bond Index after-tax yield = 5.4% (source: Eaton Vance)

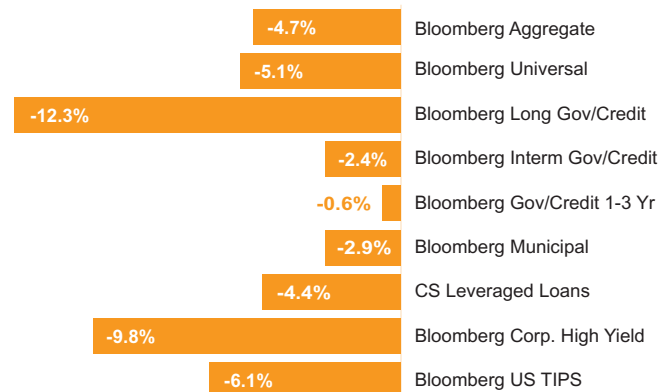
## U.S. Treasury Yield Curves



Source: Bloomberg

## U.S. Fixed Income: Quarterly Returns

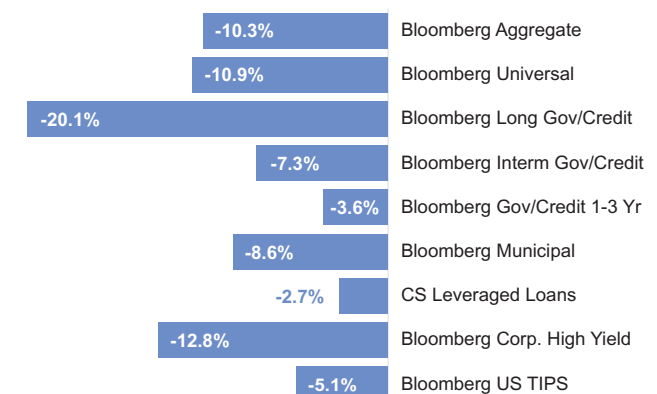
(6/30/22)



Sources: Bloomberg and Credit Suisse

## U.S. Fixed Income: One-Year Returns

(6/30/22)



Sources: Bloomberg and Credit Suisse

### Supply/demand

- Outflows of \$76 billion YTD; highest cycle outflow since data series began in 1992
- YTD supply down 14% vs. last year

### Global Fixed Income

#### Negative returns driven by broad interest rate increases

- U.S. dollar continued to appreciate vs. yen, euro, and pound.
- Double-digit negative returns were widespread across developed markets.

#### Inflation and global recession fears drag on EMD

- All countries in the USD-denominated JPM EMBI Global Diversified Index posted negative returns, hurt by rising rates in the U.S.
- Local currency markets across the JPM GBI-EM Global Diversified were down only slightly, but USD strength eroded returns for U.S. investors.

#### Interest rates significantly increased

- First-half returns worst since inflation of 1970s
- Global phenomenon driven by recent inflationary pressure
- All fixed income asset classes negatively impacted
- Developed market duration becoming more compelling after broad repricing

### Change in 10-Year Global Government Bond Yields

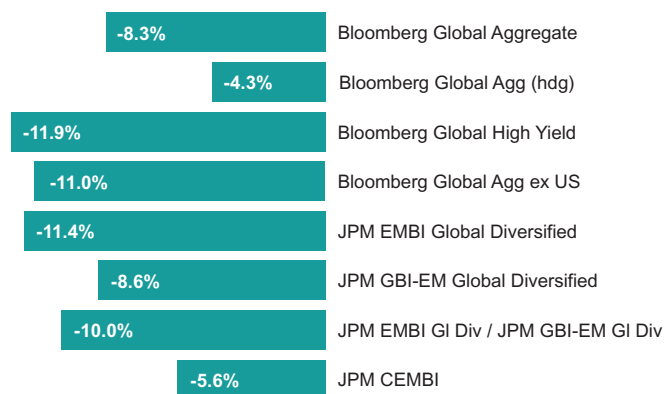
1Q22 to 2Q22



Source: Bloomberg

### Global Fixed Income: Quarterly Returns

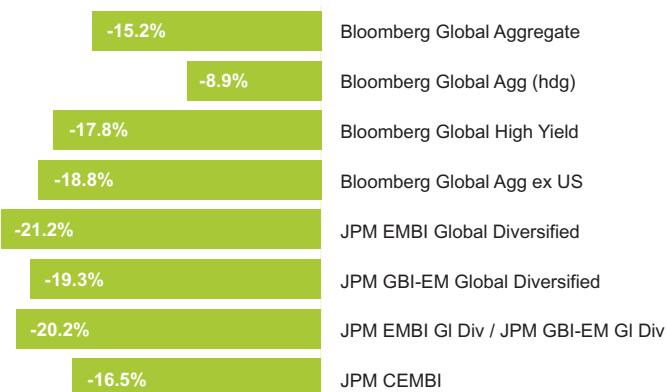
(6/30/22)



Sources: Bloomberg and JPMorgan Chase

### Global Fixed Income: One-Year Returns

(6/30/22)



Sources: Bloomberg and JPMorgan Chase



# Private RE Delivers; REITs Underperform

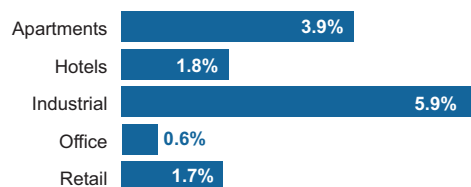
REAL ESTATE/REAL ASSETS | Munir Iman

## Robust quarter for private real estate

Core real estate delivered another robust quarter, with strong fundamentals in the Industrial and Multifamily sectors; the NFI-ODCE Index (value-weighted, net of fees) gained 4.5% in 2Q22 and 12.0% year-to-date (YTD). Real estate returns are expected to moderate to 10% in 2022 and 8% in 2023.

- Income returns were positive across all sectors.
- Transaction volumes are slowing as interest rates rise and economic uncertainty increases.
- Industrial and Multifamily sectors are expected to see continued rent growth.
- Office vacancy is expected to stay above long-term averages for the near term.
- Property types with steady cash flows are experiencing cap rate compression due to the demand for logistics facilities coupled with the housing shortage.

## Sector Quarterly Returns by Property Type (6/30/22)



Source: NCREIF

## Public real estate lags

REITs, both in the United States and globally, underperformed in 2Q22.

- The FTSE EPRA Nareit Developed Index, a measure of global REITs, fell 17.4% in 2Q22 compared to a 15.8% drop for global equities (MSCI World).
- The FTSE Nareit Equity REITs index, measuring U.S. REITs, dropped 17.0%, in contrast with the S&P 500 Index, which lost 16.1%.
- REITs are now trading at a discount to NAV and offer relative value given the strength of underlying fundamentals

## Real assets see widespread drops

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.

## Callan Database Median and Index Returns\* for Periods Ended 6/30/22

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
<b>Real Estate ODCE Style</b>	<b>5.0</b>	<b>12.2</b>	<b>27.9</b>	<b>12.3</b>	<b>10.2</b>	<b>10.6</b>	<b>6.2</b>
NFI-ODCE (value-weighted, net)	4.5	12.0	28.3	11.7	9.6	10.2	6.0
NCREIF Property	3.2	8.7	21.5	10.2	8.9	9.7	7.2
NCREIF Farmland	2.6	5.3	11.0	6.6	6.4	9.6	10.6
NCREIF Timberland	1.9	5.1	12.0	5.0	4.3	5.7	5.1
<b>Public Real Estate</b>							
<b>Global Real Estate Style</b>	<b>-17.2</b>	<b>-20.6</b>	<b>-12.2</b>	<b>1.9</b>	<b>5.0</b>	<b>6.9</b>	<b>3.9</b>
FTSE EPRA Nareit Developed	-17.4	-20.7	-13.5	-1.1	1.9	4.7	2.0
<b>Global ex-U.S. Real Estate Style</b>	<b>-18.5</b>	<b>-21.5</b>	<b>-20.6</b>	<b>-1.2</b>	<b>3.7</b>	<b>6.2</b>	<b>1.4</b>
FTSE EPRA Nareit Dev ex US	-17.7	-20.4	-21.1	-5.0	-0.2	3.3	0.1
<b>U.S. REIT Style</b>	<b>-16.7</b>	<b>-20.0</b>	<b>-6.3</b>	<b>6.0</b>	<b>7.0</b>	<b>8.4</b>	<b>6.8</b>
FTSE EPRA Nareit Equity REITs	-17.0	-20.2	-6.3	4.0	5.3	7.4	5.8

\*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF



# Persistence Amid Volatility

## PRIVATE EQUITY | Gary Robertson

**Fundraising** ► Based on preliminary data, final closes for private equity partnerships in 2Q22 totaled \$233 billion of commitments in 486 partnerships. (Unless otherwise noted, all data in this commentary come from PitchBook.) The dollar volume was up 3% from 1Q22, but the number of funds fell 11%. For the first half, 2022 commitments are running 13% behind those of a year ago, with the number of funds down by 39%. While the figures point to a decline from 2021, the first-half results are in fact tracking to match last year's total because the second half of 2021 weakened as public equity markets grew volatile.

**Buyouts** ► New buyout transactions by count fell 12% from 1Q22 to 2,668, and disclosed deal value dropped 42% to \$125 billion. YTD numbers also saw declines of 16% in number of investments and 7% in disclosed value. Average buyout prices remained comparable to 2021, with a similar pattern in average leverage multiples.

**VC Investments** ► New rounds of financing in venture capital companies totaled 10,244, with \$125 billion of announced value. The number of investments preliminarily fell 24% from 1Q22, and announced value fell 25%. YTD numbers held up stronger, down only 15% for rounds and 13% for disclosed value.

**Exits** ► There were 522 private M&A exits of private equity-backed companies, with disclosed values totaling \$122 billion.

### Private Equity Performance (%) (Pooled Horizon IRRs through 3/31/22\*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-3.6	22.2	35.0	27.5	20.3	14.9	12.1	24.6
Growth Equity	-3.9	17.9	26.5	22.5	16.8	14.3	14.5	15.9
All Buyouts	-0.5	24.6	22.9	20.1	15.7	11.7	14.7	13.6
Mezzanine	1.5	17.2	13.3	12.7	11.9	10.5	11.0	10.3
Credit Opportunities	2.0	12.4	8.4	8.0	8.9	8.8	9.8	9.8
Control Distressed	3.0	33.5	20.8	15.6	13.3	11.1	12.3	12.3
<b>All Private Equity</b>	<b>-1.5</b>	<b>22.6</b>	<b>24.9</b>	<b>21.0</b>	<b>16.1</b>	<b>12.4</b>	<b>13.6</b>	<b>14.6</b>
S&P 500	-4.6	15.7	18.9	16.0	14.6	10.3	9.3	9.4
Russell 3000	-5.3	11.9	18.2	15.4	14.3	10.1	9.4	9.5

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices

\*Most recent data available at time of publication

The preliminary private sale count fell 18% and the announced dollar volume dropped 26%. There were 42 private equity-backed IPOs in 2Q22 raising an aggregate \$7 billion, down 7% by count, with issuance being unchanged from 1Q22.

Venture-backed M&A exits totaled 680 transactions with disclosed value of \$23 billion. The number of sales declined 12% from 1Q22, and announced value plunged 56%. There were 67 VC-backed IPOs in 2Q22 with a combined float of \$10 billion; the count was down 9% and the issuance grew 25%.

**Returns** ► With the strong downturn in public equity markets, private equity outperformance has widened given private equity's more gradual quarterly mark-to-market valuation methodology.

### Funds Closed 1/1/22 to 6/30/22

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	650	156,559	34%
Growth Equity	79	61,601	13%
Buyouts	205	185,235	40%
Mezzanine Debt	7	11,021	2%
Distressed	18	26,353	6%
Energy	5	1,930	0%
Secondary and Other	58	11,743	3%
Fund-of-Funds	12	4,325	1%
<b>Totals</b>	<b>1,034</b>	<b>458,767</b>	<b>100%</b>

Source: PitchBook (Figures may not total due to rounding.)

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

# Appealing to Investors in Low-Yield Climate

PRIVATE CREDIT | Catherine Beard

## Illiquidity premium close to zero

- U.S. corporate yields rose dramatically at the end of 2021 and the first six months of 2022, due to higher interest rates from tighter Fed policy and a widening of high yield spreads. Spreads widened because of weaker credit conditions as the U.S. economic outlook worsened.
- The illiquidity premium between public and private credit had been whittled down close to zero, but we are seeing a slow adjustment with SOFR widening out 200 bps and new private loan pricing at a 75-100 bps wider spread. A full adjustment between the public and private markets may take several quarters.
- Private credit fundraising was robust leading into the COVID dislocation, with a particular focus on direct lending and distressed strategies.
- Fundraising slowed in the first half of 2022 as rate hikes and market volatility led to investor uncertainty.
- For mature private credit programs, demand for diversifying strategies is increasing to capture opportunities outside of traditional sponsor-backed direct lending.

## A permanent part of portfolios

- Core yield and income-generating characteristics remain attractive in private credit portfolios, in spite of the shrinking illiquidity premium.
- Despite the shift from a low-yield environment, private credit has become a permanent asset class in many portfolios.

## Attractive inflation-resistant characteristics

- Many direct lending assets are floating rate, which can add protection against rising rates.

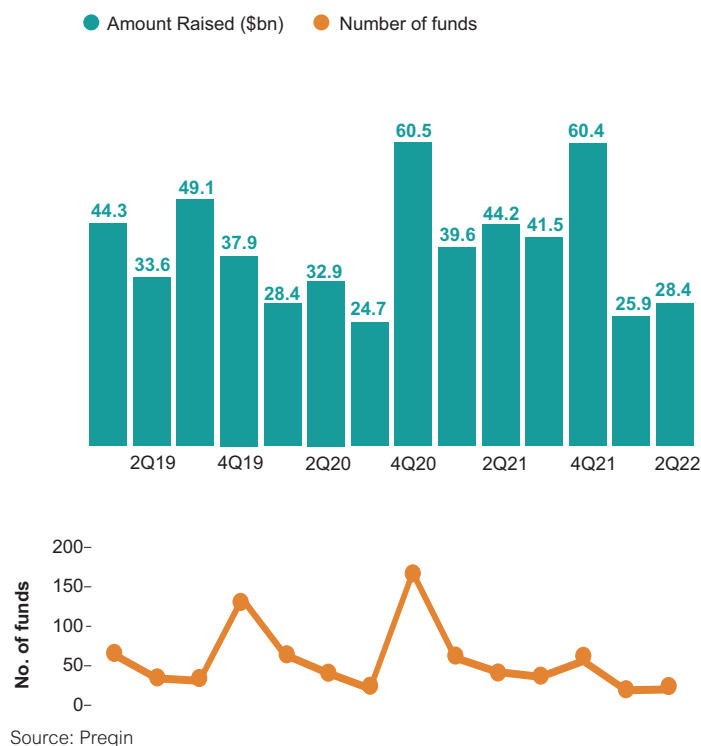
## Distressed cycle on horizon a growing opportunity

- Distressed opportunities in U.S. and Europe are expected to increase across both corporate and non-corporate assets.
  - Enhances importance of seasoned workout talent across sub-strategy types
  - Brings the need for increased underwriting discipline

## Continued evolution of pockets of opportunity

- Opportunities include those that offer diversification through differentiated collateral and/or low correlation to public markets, including specialty finance, asset-backed lending, and niche areas.

## Private Credit Fundraising (\$bn)



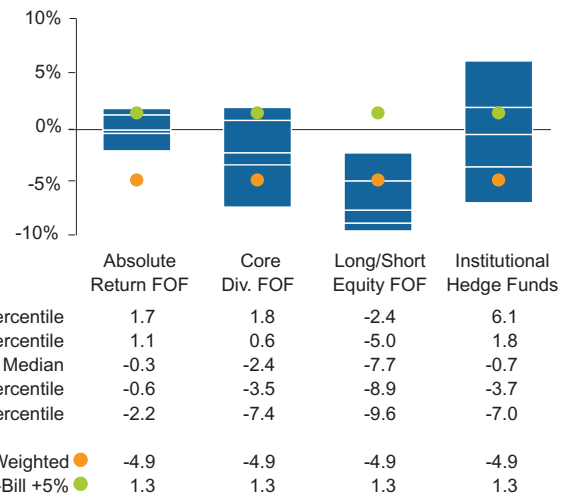
# Tough Environment Leads to Losses

HEDGE FUNDS/MACs | Joe McGuane

Global markets sold off significantly in 2Q22 amid pressure from high inflation, rising interest rates, and Russia's invasion of Ukraine. In this challenging environment, hedge funds as a whole declined during 2Q, as equity hedge managers had a second quarter of disappointing returns. Event-driven strategies continued to struggle, as their deep value equity positions were the main detractor during the first half of the year while their credit positions held up fairly well. Relative value strategies remained in positive territory, as some managers continued to profit off a rising rate environment while others have been successful in capital structure arbitrage given the volatility in credit and equity markets. Macro managers remained the best-performing strategy for the first half of 2022, as commodity trading was the biggest driver of performance. Strong contributions also came from quantitative strategies.

## Hedge Fund Style Group Returns

(6/30/22)



Sources: Callan, Credit Suisse, Federal Reserve

## Callan Peer Group Median and Index Returns\* for Periods Ended 6/30/22

Hedge Fund Universe	Quarter	Year to Date	1 Years	3 Years	5 Years	10 Years
Callan Institutional Hedge Fund Peer Group	-0.7	0.7	3.7	5.6	5.5	6.3
Callan Fund-of-Funds Peer Group	-2.8	-4.5	-4.5	4.8	4.4	5.0
Callan Absolute Return FOF Style	-0.3	1.1	3.4	5.4	4.9	5.0
Callan Core Diversified FOF Style	-2.4	-4.1	-3.9	4.8	4.0	4.7
Callan Long/Short Equity FOF Style	-7.7	-11.5	-12.3	3.2	3.9	5.2
BB GS Cross Asset Risk Premia 6% Vol Idx	4.4	5.0	3.4	-0.1	2.6	4.2
HFRI Fund Weighted Index	-4.9	-5.8	-5.7	6.1	5.1	5.0
HFRI Fixed Convertible Arbitrage	-4.4	-5.0	-2.1	6.1	4.9	5.1
HFRI Distressed/Restructuring	-3.7	-2.5	-1.6	7.4	5.6	5.7
HFRI Emerging Markets	-6.7	-13.0	-15.3	2.6	2.6	3.8
HFRI Equity Market Neutral	0.7	0.2	2.1	2.6	2.5	3.1
HFRI Event-Driven	-6.4	-7.6	-7.1	5.0	4.3	5.2
HFRI Relative Value	-2.6	-1.9	-1.0	3.6	3.6	4.5
HFRI Macro	1.8	8.6	8.0	7.8	5.3	3.1
HFRI Equity Hedge	-8.0	-12.0	-12.2	6.5	5.5	5.9
HFRI Multi-Strategy	-7.0	-8.8	-12.1	4.3	2.0	3.5
HFRI Merger Arbitrage	-2.9	-1.6	0.5	5.8	5.0	4.3
90-Day T-Bill + 5%	1.3	2.6	5.2	5.6	6.1	5.6

\*Net of fees. Sources: Bloomberg GSAM, Callan, Credit Suisse, Hedge Fund Research

The median manager in the Callan Institutional Hedge Fund Peer Group fell 0.7%. Within this style group of 50 peers, the average rates manager gained 1.5%, driven by interest rate volatility. Meanwhile, hedged credit managers lost 4.6% from both performing and distressed credit.

Within the HFRI indices, the best-performing strategy last quarter was again macro (+1.8%), aided by its exposure to commodities and rates trading. Equity hedge strategies had another difficult quarter (-8.0%), as growth-heavy managers experienced a sell-off.

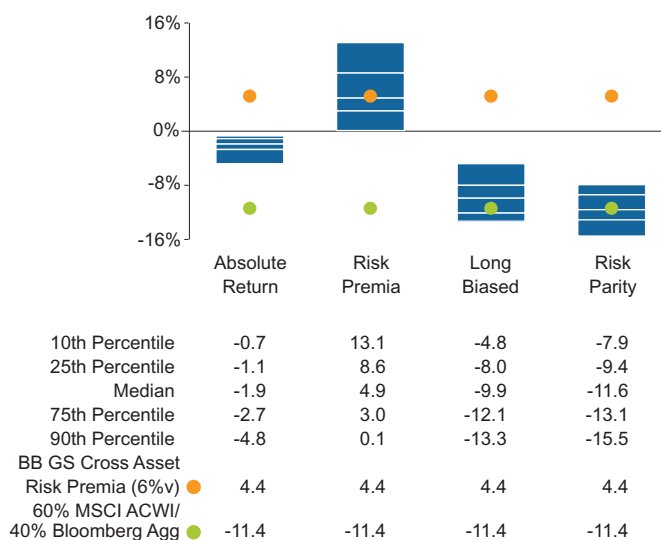
Across the Callan Hedge FOF Database, the median Absolute Return FOF fell 0.3%, as a focus on lower beta strategies held up during the quarter. Meanwhile, the median Callan Long-Short Equity FOF dropped 7.7%, as a growth bias among

managers continued to be a drag on performance. The median Callan Core Diversified FOF declined 2.4%, as macro strategies were able to offset some of the negative performance from equity hedge and event-driven managers.

Measuring the quarter's performance of alternative risk premia, the Bloomberg GSAM Risk Premia Index increased 4.4% based upon a 6% volatility target. The median manager of the Callan Multi-Asset Class (MAC) Style Groups generated negative returns, gross of fees, consistent with their underlying risk exposures. For example, the median Callan Long Biased MAC manager fell 9.9%, as exposure to equity and fixed income continued to be a drag on performance. The Callan Risk Parity MAC index, which typically targets an equal risk-weighted allocation to the major asset classes with leverage, was down 11.6%. The Callan Risk Premia MAC held up the best during the quarter, up 4.9%.

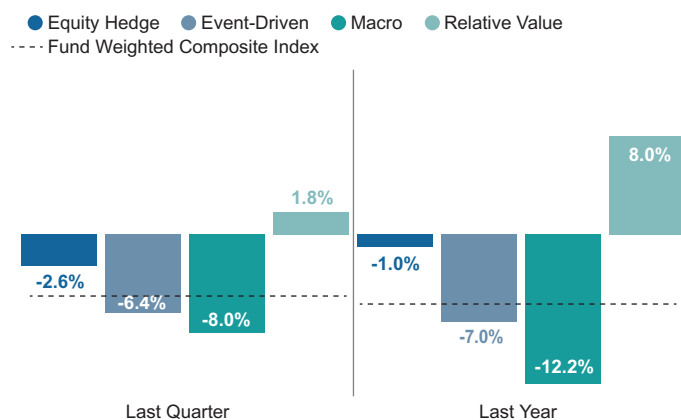
## MAC Style Group Returns

(6/30/22)



## HFRI Hedge Fund Strategy Returns

(6/30/22)



Source: HFRI

Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

# DC Index Falls in 1Q22, Reversing 4Q21 Gain

DEFINED CONTRIBUTION | Patrick Wisdom

## Performance: Index falls to begin year

- The Callan DC Index™ fell 5.3% in 1Q22, a reversal from its 4Q21 gain (5.0%).
- The Age 45 Target Date Fund dropped 5.9%.

## Growth Sources: Losses drive decline in balances

- Balances within the DC Index declined by 5.4% after a 4.4% increase the previous quarter.
- Investment returns (-5.3%) primarily drove the decline.

## Turnover: Net transfers rise

- Turnover (i.e., net transfer activity levels within DC plans) increased to 0.42% from the previous quarter's 0.19%.
- The Index's historical average (0.57%) remained unchanged and signaled that most participants have not drastically altered their allocations.

## Net Cash Flow Analysis: TDFs stay atop leaderboard

- Target date funds (TDFs) received the largest net inflows in the Index, followed closely by stable value.
- Investors transferred assets out of U.S. large-cap equity (-47.4%), U.S. small/mid-cap equity (-16.5%), and global ex-U.S. equity (-3.1%).

## Equity Allocation: Exposure falls slightly

- The Index's overall allocation to equity (72.0%) fell from the previous quarter's level (72.8%), driven by both investor outflows and declines in equity markets.

## Asset Allocation: U.S. equity falls; target date funds gain

- U.S. large cap (26.9%) and U.S. small/mid cap (8.3%) had the largest percentage decreases in allocation.
- Target date funds (32.6%) and stable value (8.6%) had the largest percentage increases.

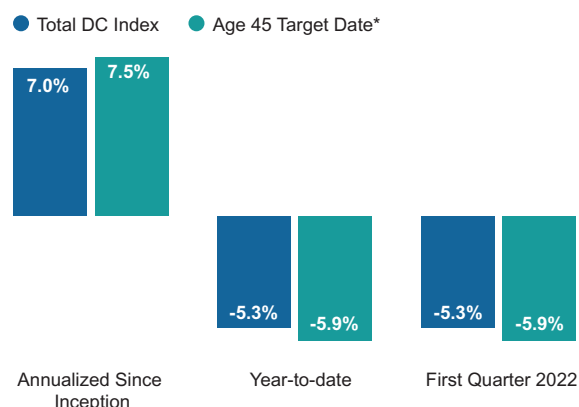
## Prevalance of Asset Class: Balanced funds dip again

- The prevalence of a balanced fund (43.2%) decreased again to its lowest level since the inception of the Index in 2006.

*Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets are tracked in the Callan DC Index.*

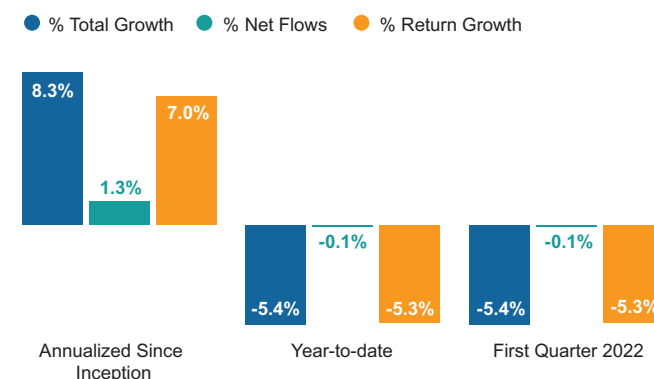
## Investment Performance

(3/31/22)



## Growth Sources

(3/31/22)



## Net Cash Flow Analysis (1Q22)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	48.4%
Stable Value	42.2%
U.S. Fixed Income	-17.1%
U.S. Large Cap	-47.4%
<b>Total Turnover**</b>	<b>0.42%</b>

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

\* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

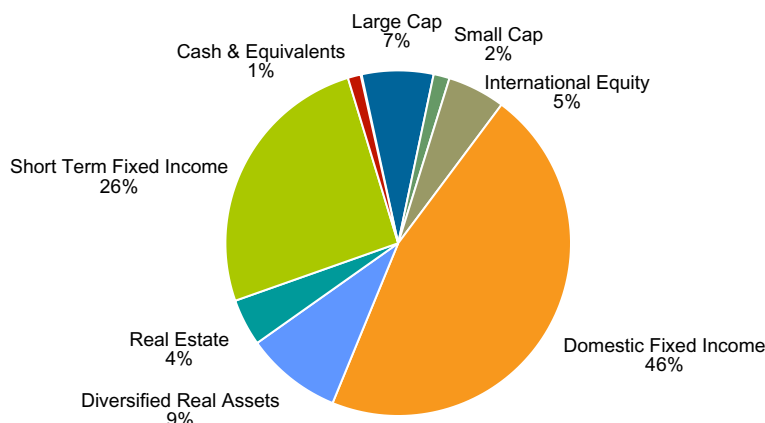
\*\* Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.



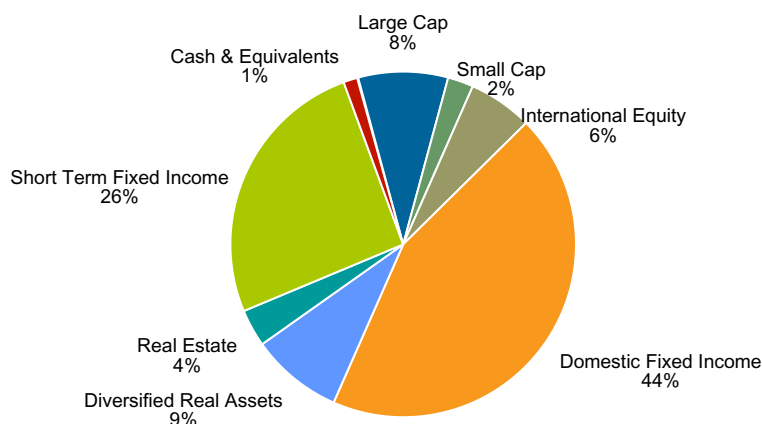
## Actual vs Target Asset Allocation As of June 30, 2022

The first chart below shows the Fund's asset allocation as of June 30, 2022. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

**Actual Asset Allocation**



**Target Asset Allocation**



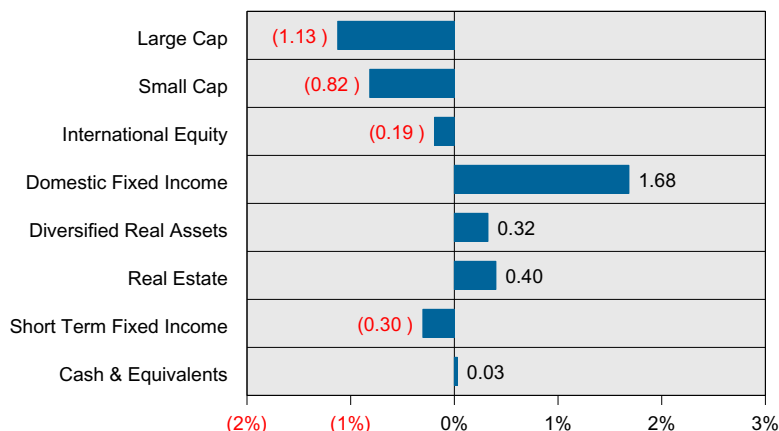
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	195,775	6.7%	8.4%	(1.7%)	(48,091)
Small Cap	43,606	1.5%	2.4%	(0.9%)	(25,598)
International Equity	156,469	5.4%	6.0%	(0.6%)	(17,828)
Domestic Fixed Income	1,337,042	46.0%	44.0%	2.0%	58,546
Diversified Real Assets	261,619	9.0%	8.6%	0.4%	10,930
Real Estate	127,500	4.4%	3.5%	0.8%	24,520
Short Term Fixed Income	747,229	25.7%	25.7%	0.0%	0
Cash & Equivalents	34,977	1.2%	1.3%	(0.1%)	(2,478)
Total	2,904,217	100.0%	100.0%		

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

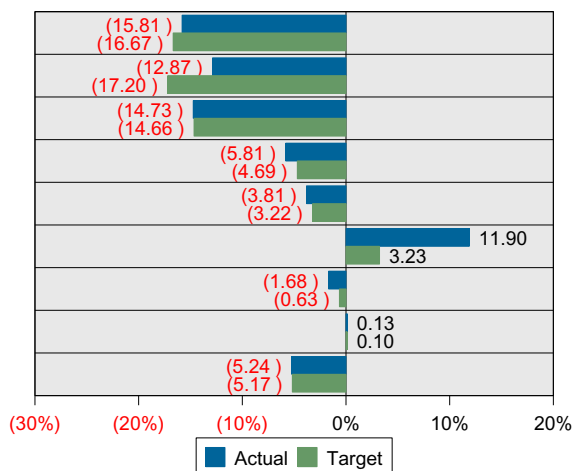
## Quarterly Total Fund Relative Attribution - June 30, 2022

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

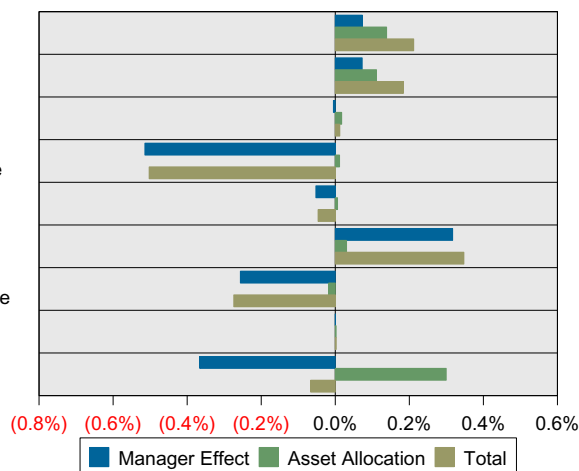
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended June 30, 2022

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	7%	8%	(15.81%)	(16.67%)	0.07%	0.14%	0.21%
Small Cap	2%	2%	(12.87%)	(17.20%)	0.07%	0.11%	0.18%
International Equity	6%	6%	(14.73%)	(14.66%)	(0.00%)	0.02%	0.01%
Domestic Fixed Income	46%	44%	(5.81%)	(4.69%)	(0.51%)	0.01%	(0.50%)
Diversified Real Assets	9%	9%	(3.81%)	(3.22%)	(0.05%)	0.01%	(0.05%)
Real Estate	4%	4%	11.90%	3.23%	0.32%	0.03%	0.35%
Short Term Fixed Income	25%	25%	(1.68%)	(0.63%)	(0.26%)	(0.02%)	(0.27%)
Cash & Equivalents	1%	1%	0.13%	0.10%	0.00%	0.00%	0.00%
<b>Total</b>			<b>(5.24%)</b>	<b>(5.17%)</b>	<b>+ (0.37%)</b>	<b>+ 0.30%</b>	<b>(0.07%)</b>

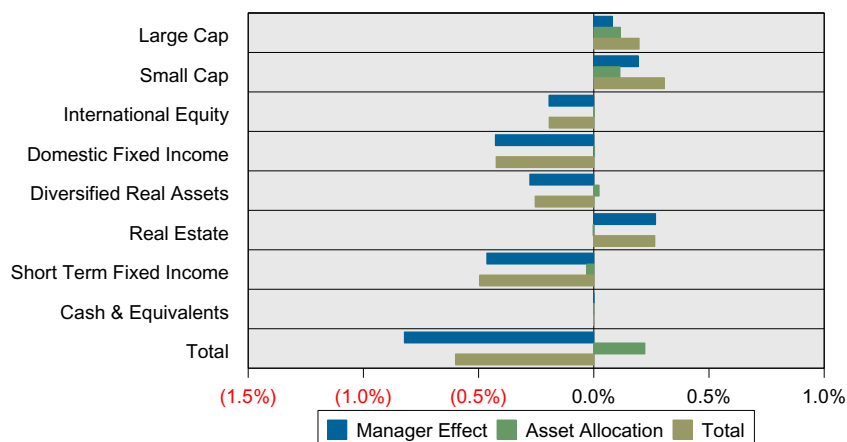
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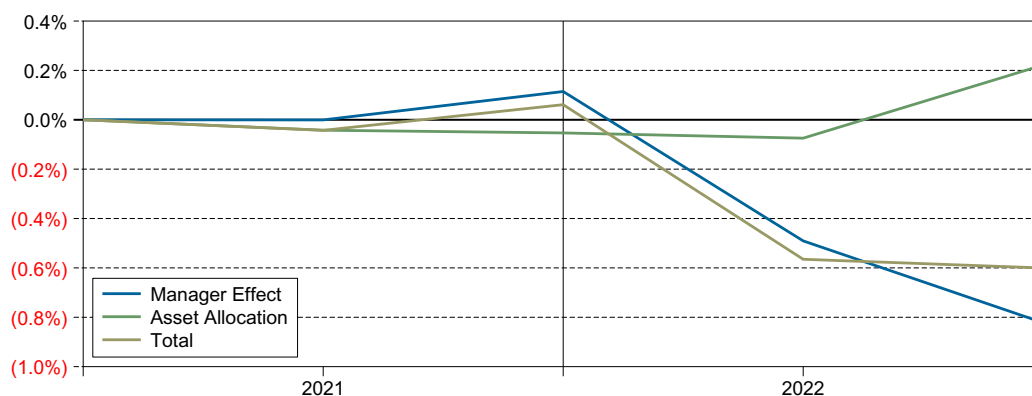
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

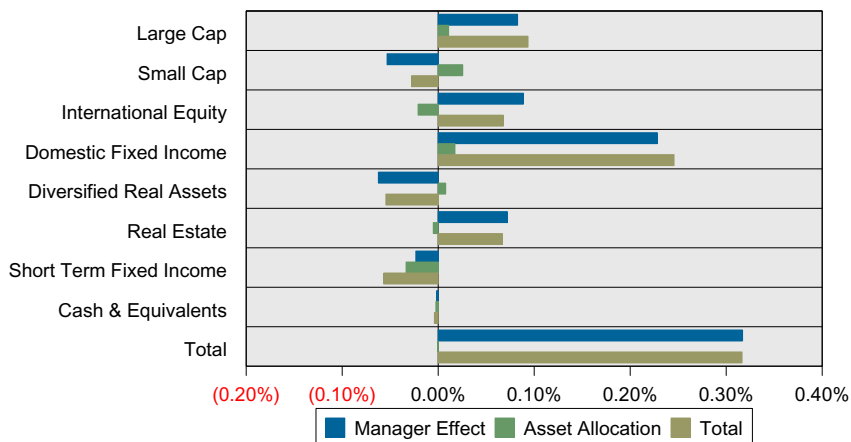
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	8%	9%	(11.99%)	(13.04%)	0.08%	0.12%	0.20%
Small Cap	2%	2%	(16.81%)	(25.20%)	0.19%	0.11%	0.31%
International Equity	6%	6%	(19.69%)	(16.76%)	(0.19%)	0.00%	(0.19%)
Domestic Fixed Income	45%	45%	(11.18%)	(10.29%)	(0.43%)	0.00%	(0.42%)
Diversified Real Assets	9%	9%	(2.33%)	0.94%	(0.28%)	0.02%	(0.25%)
Real Estate	3%	4%	29.83%	21.45%	0.27%	(0.00%)	0.26%
Short Term Fixed Income	24%	25%	(5.48%)	(3.56%)	(0.46%)	(0.03%)	(0.49%)
Cash & Equivalents	1%	1%	0.16%	0.17%	(0.00%)	(0.00%)	(0.00%)
<b>Total</b>			<b>(8.01%)</b>	<b>(7.41%)</b>	<b>(0.82%)</b>	<b>0.22%</b>	<b>(0.60%)</b>

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

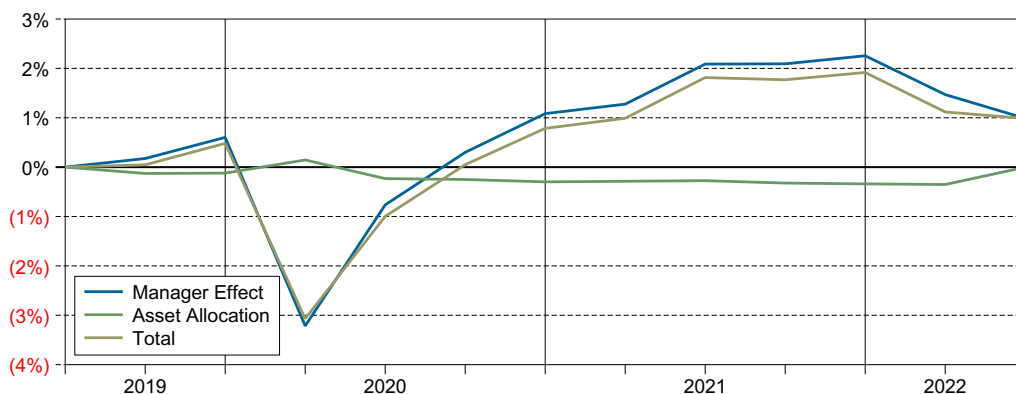
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Three Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Three Year Annualized Relative Attribution Effects

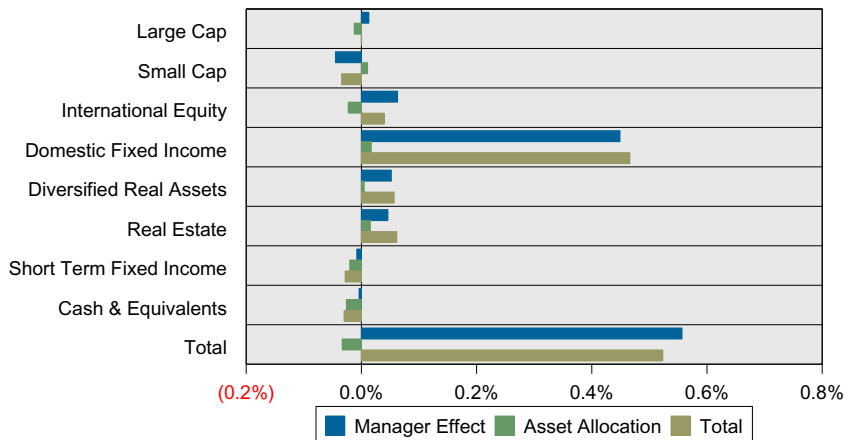
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	9%	11.19%	10.17%	0.08%	0.01%	0.09%
Small Cap	2%	2%	3.07%	4.21%	(0.05)%	0.03%	(0.03)%
International Equity	6%	6%	3.05%	1.70%	0.09%	(0.02)%	0.07%
Domestic Fixed Income	46%	45%	(0.39)%	(0.93)%	0.23%	0.02%	0.25%
Diversified Real Assets	9%	9%	3.28%	3.96%	(0.06)%	0.01%	(0.05)%
Real Estate	3%	4%	11.86%	10.22%	0.07%	(0.01)%	0.07%
Short Term Fixed Income	24%	24%	0.26%	0.31%	(0.02)%	(0.03)%	(0.06)%
Cash & Equivalents	1%	1%	0.52%	0.63%	(0.00)%	(0.00)%	(0.00)%
<b>Total</b>			<b>2.05%</b>	<b>1.74%</b>	<b>0.32%</b>	<b>(0.00)%</b>	<b>0.32%</b>

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

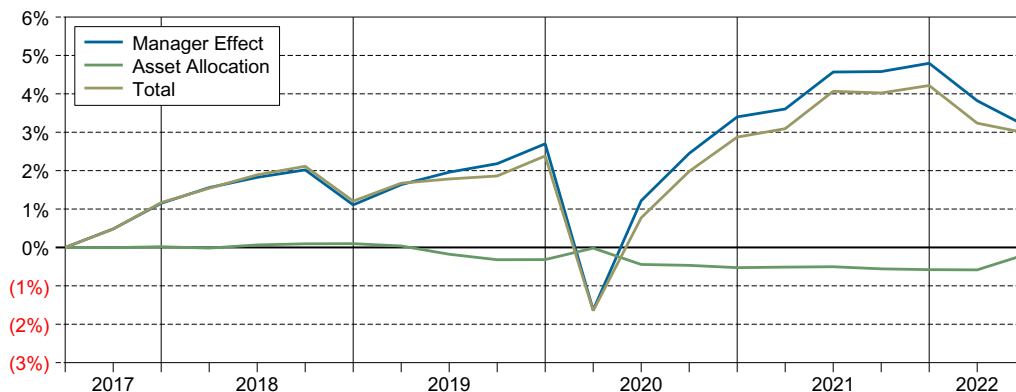
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### Five Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Five Year Annualized Relative Attribution Effects

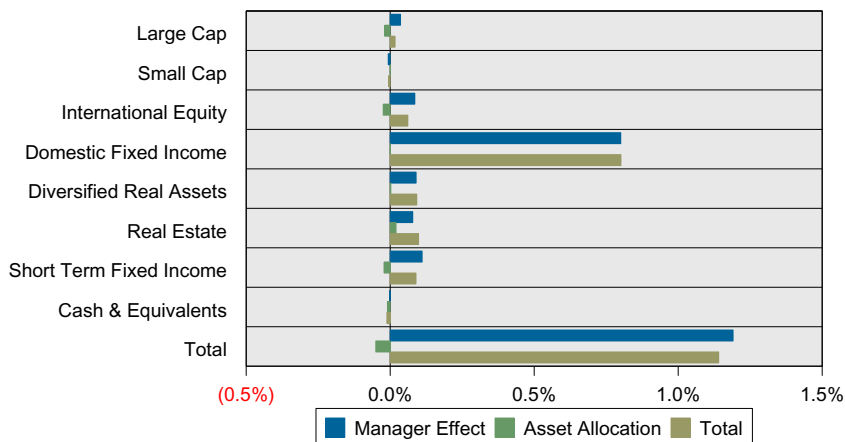
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	9%	11.20%	11.00%	0.01%	(0.01%)	0.00%
Small Cap	3%	3%	4.04%	5.17%	(0.05%)	0.01%	(0.03%)
International Equity	7%	7%	3.38%	2.66%	0.06%	(0.02%)	0.04%
Domestic Fixed Income	48%	48%	1.80%	0.88%	0.45%	0.02%	0.47%
Diversified Real Assets	10%	10%	4.31%	3.96%	0.05%	0.00%	0.06%
Real Estate	4%	4%	9.81%	8.86%	0.05%	0.02%	0.06%
Short Term Fixed Income	16%	16%	1.16%	1.07%	(0.01%)	(0.02%)	(0.03%)
Cash & Equivalents	3%	3%	0.98%	1.11%	(0.00%)	(0.03%)	(0.03%)
<b>Total</b>			<b>3.61%</b>	<b>3.09%</b>	<b>+ 0.56%</b>	<b>+ (0.03%)</b>	<b>0.52%</b>

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

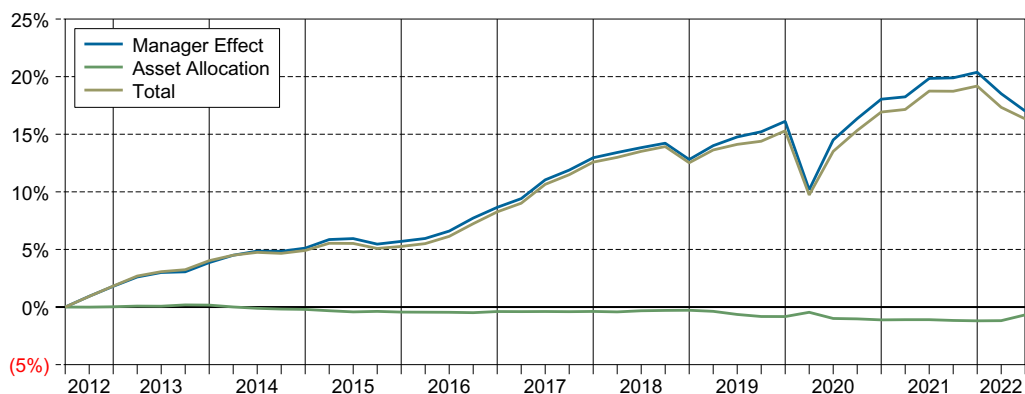
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

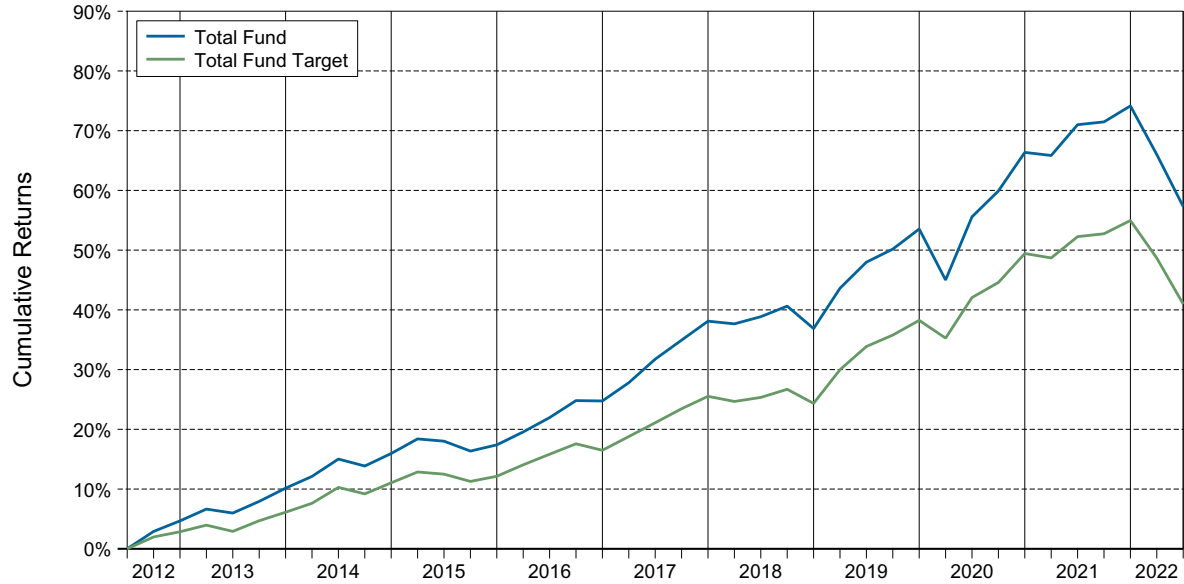
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	10%	10%	13.38%	12.82%	0.04%	(0.02%)	0.02%
Small Cap	3%	3%	9.40%	9.35%	(0.01%)	0.00%	(0.01%)
International Equity	7%	7%	6.98%	5.56%	0.09%	(0.02%)	0.06%
Domestic Fixed Income	43%	43%	3.51%	1.54%	0.80%	0.00%	0.80%
Diversified Real Assets	10%	10%	3.91%	3.10%	0.09%	0.00%	0.09%
Real Estate	4%	4%	11.43%	9.67%	0.08%	0.02%	0.10%
Short Term Fixed Income	20%	20%	1.37%	0.87%	0.11%	(0.02%)	0.09%
Cash & Equivalents	3%	3%	0.58%	0.64%	(0.00%)	(0.01%)	(0.01%)
<b>Total</b>			<b>4.63%</b>	<b>3.49%</b>	<b>+ 1.19%</b>	<b>+ (0.05%)</b>	<b>1.14%</b>

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

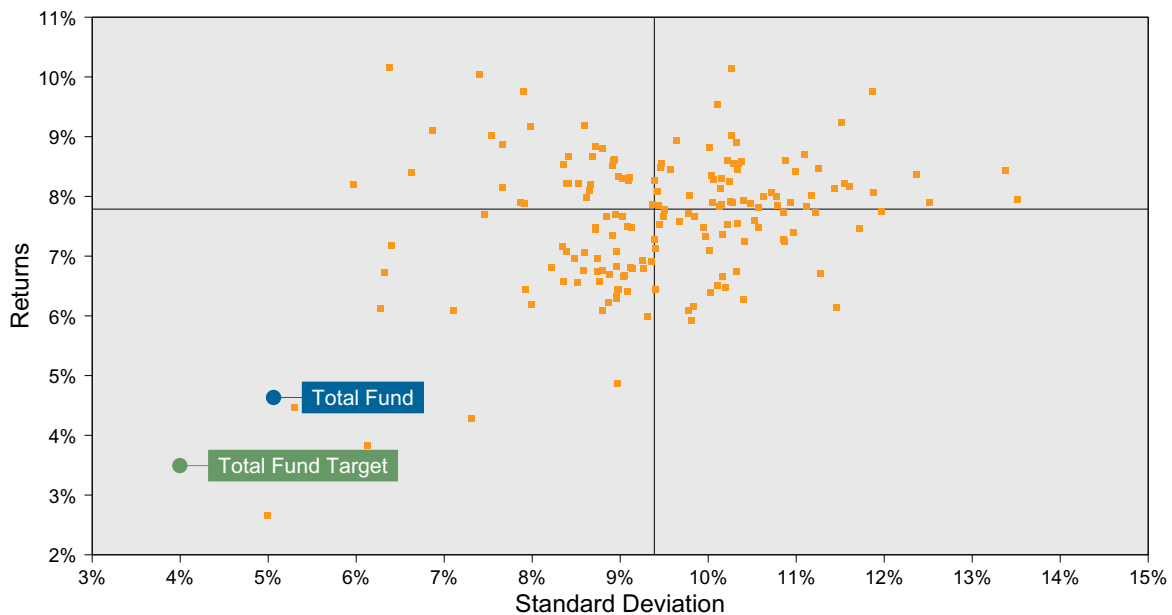
## Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the Callan Public Fund Sponsor Database.

### Cumulative Returns Actual vs Target



### Ten Year Annualized Risk vs Return



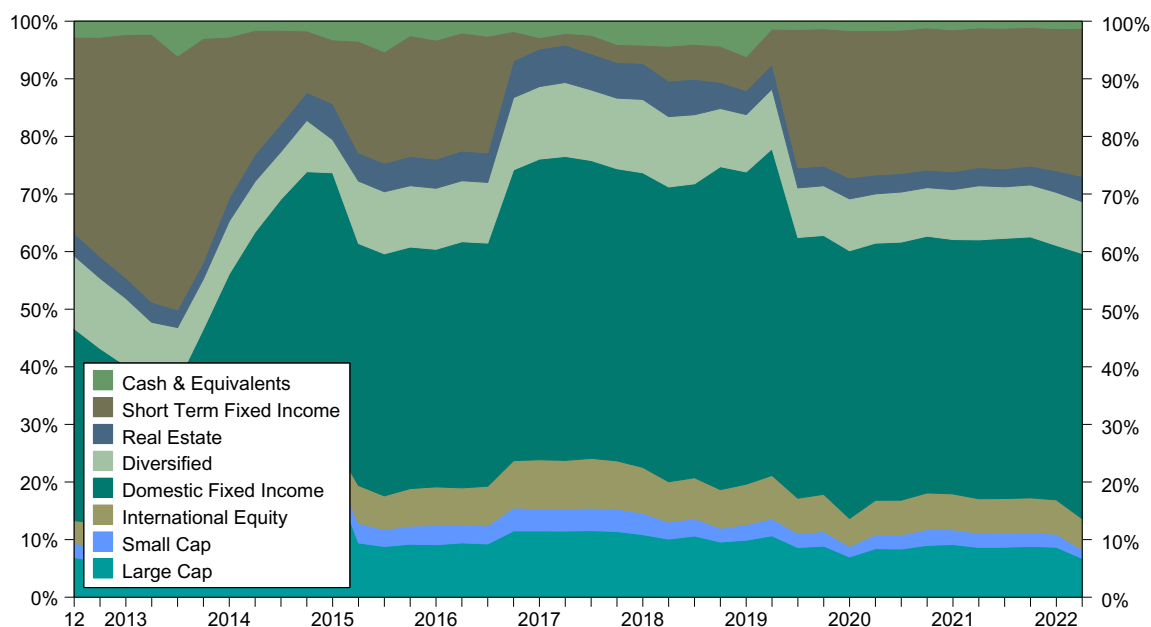
Squares represent membership of the Callan Public Fund Sponsor Database

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

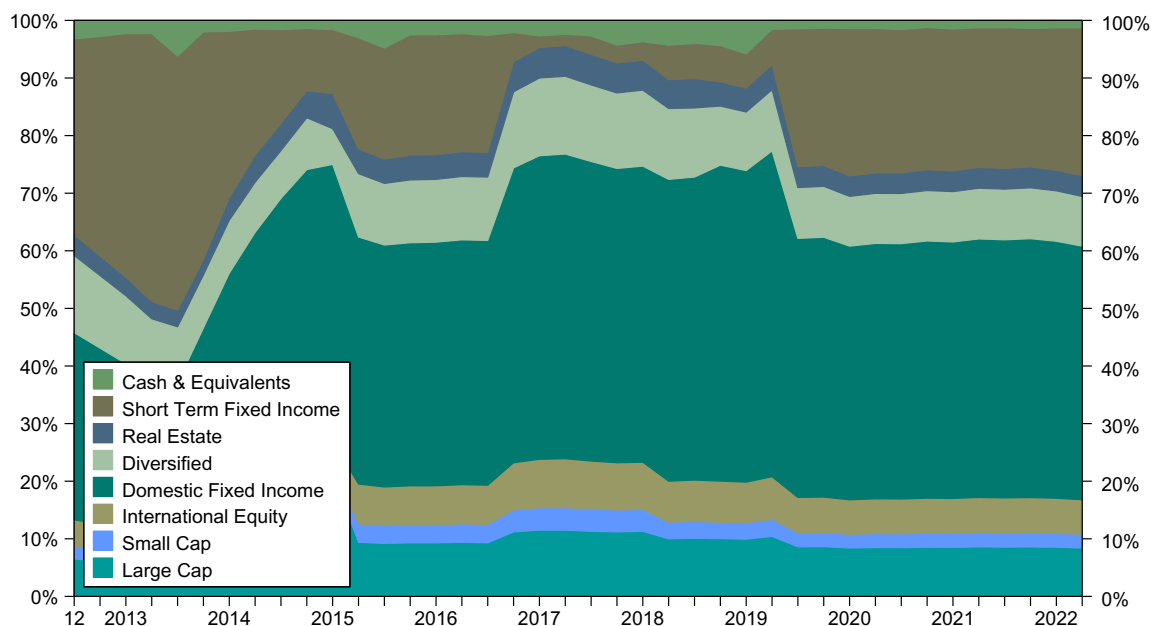
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation

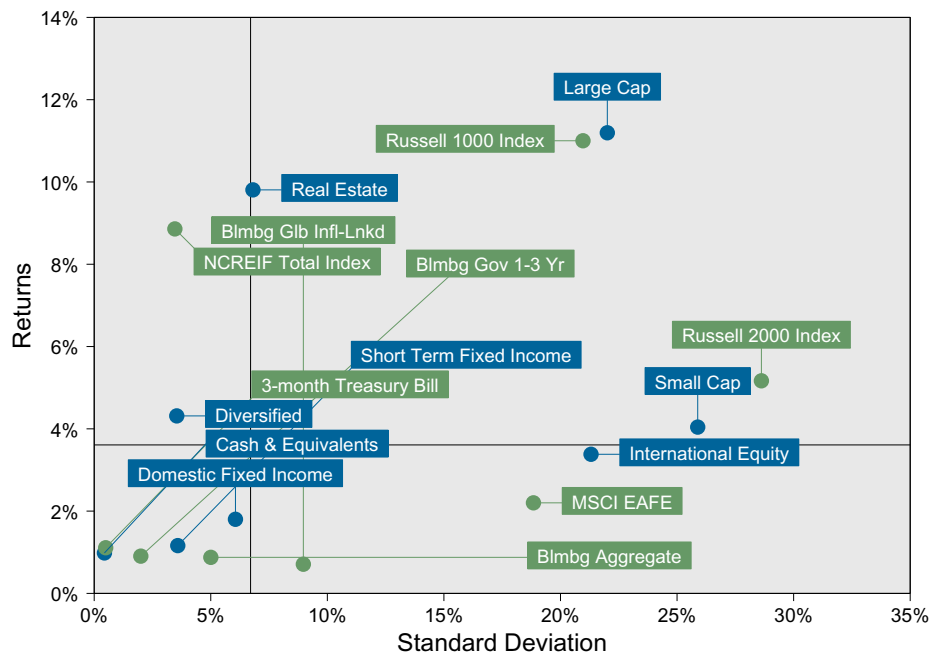


\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

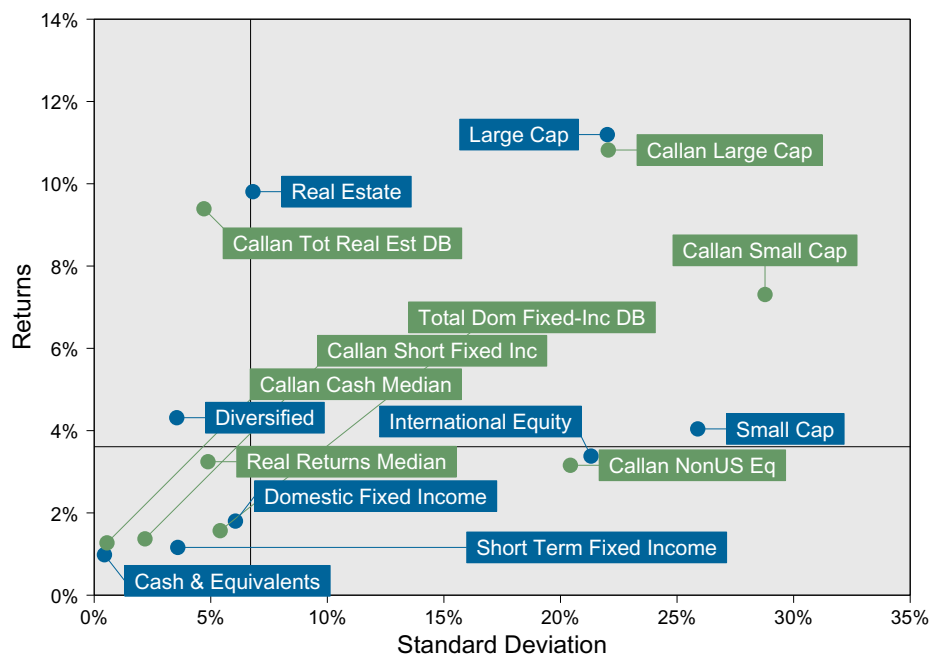
## Asset Class Risk and Return

The charts below show the five year annualized risk and return for each asset class component of the Total Fund. The first graph contrasts these values with those of the appropriate index for each asset class. The second chart contrasts them with the risk and return of the median portfolio in each of the appropriate CAI comparative databases. In each case, the crosshairs on the chart represent the return and risk of the Total Fund.

Five Year Annualized Risk vs Return  
Asset Classes vs Benchmark Indices



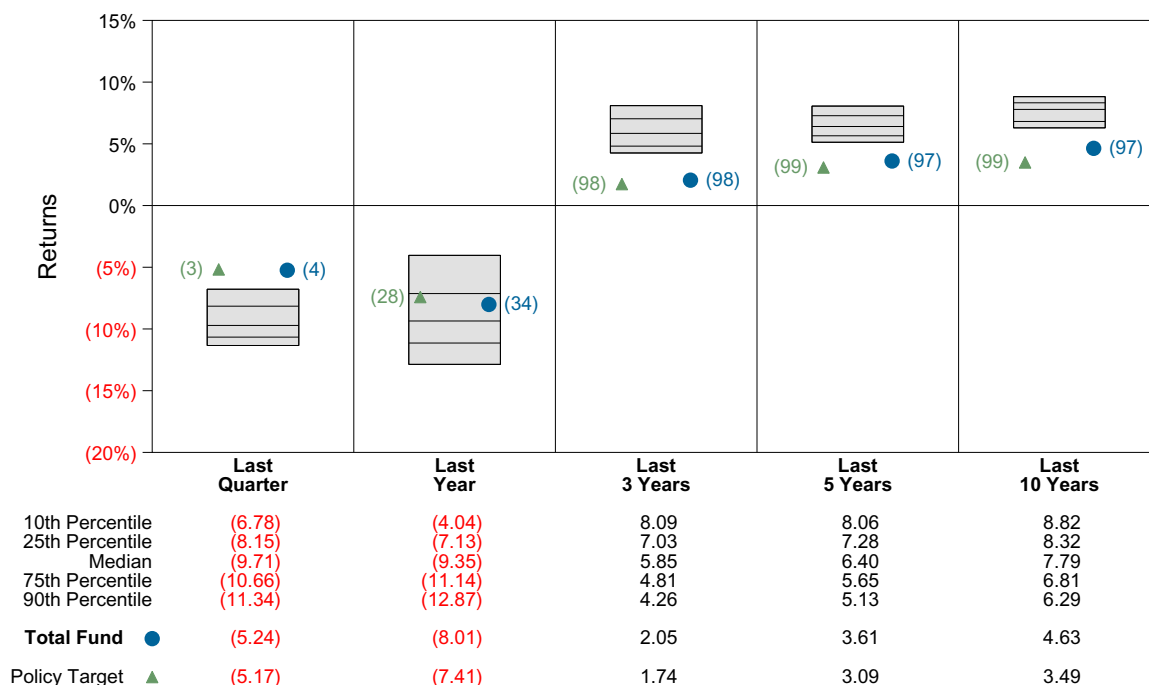
Five Year Annualized Risk vs Return  
Asset Classes vs Asset Class Median



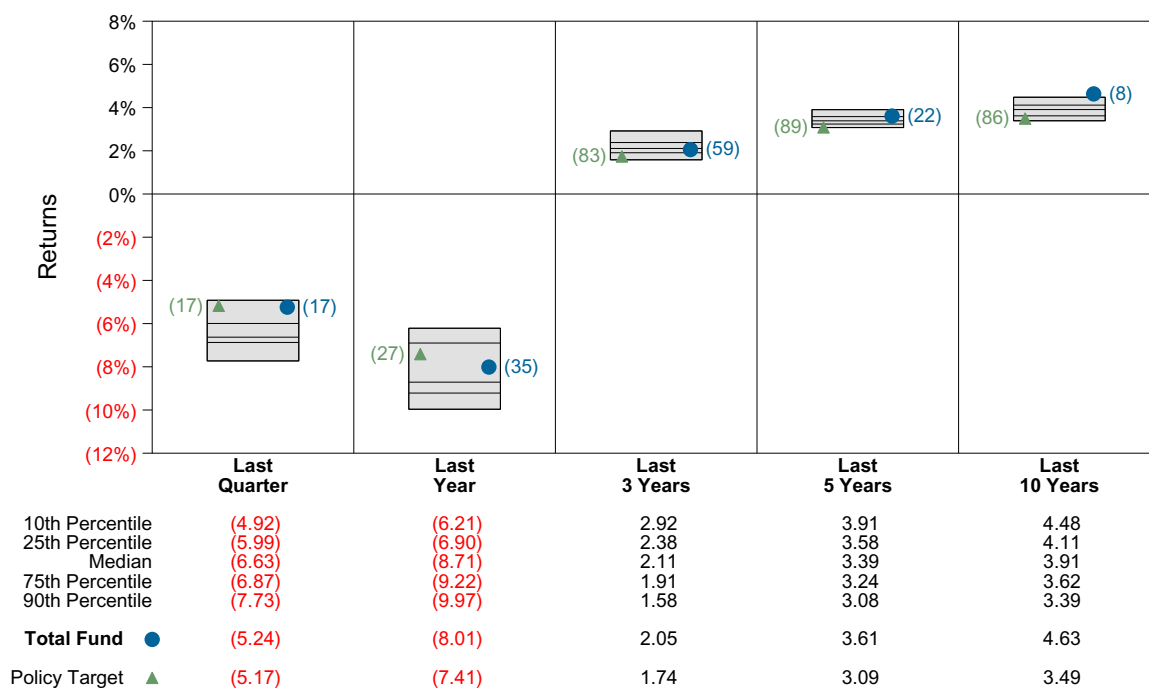
## Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Sponsor Database for periods ended June 30, 2022. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.

### Callan Public Fund Sponsor Database



### Asset Allocation Adjusted Ranking



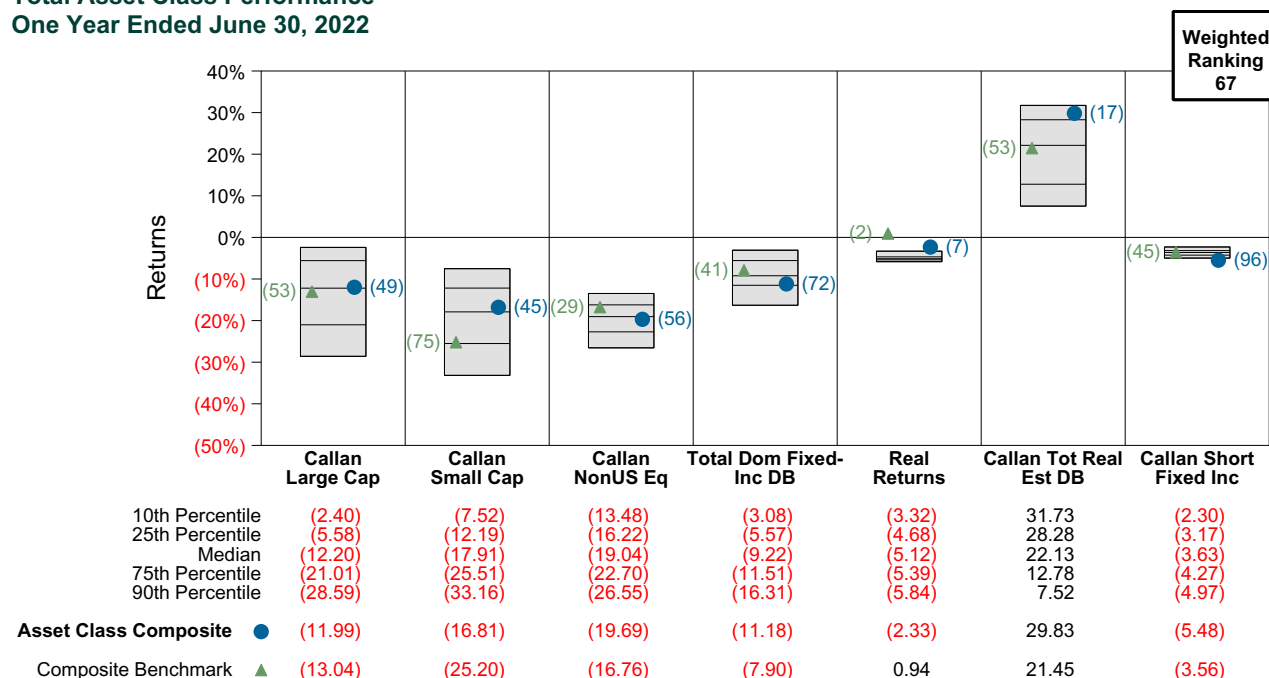
\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.



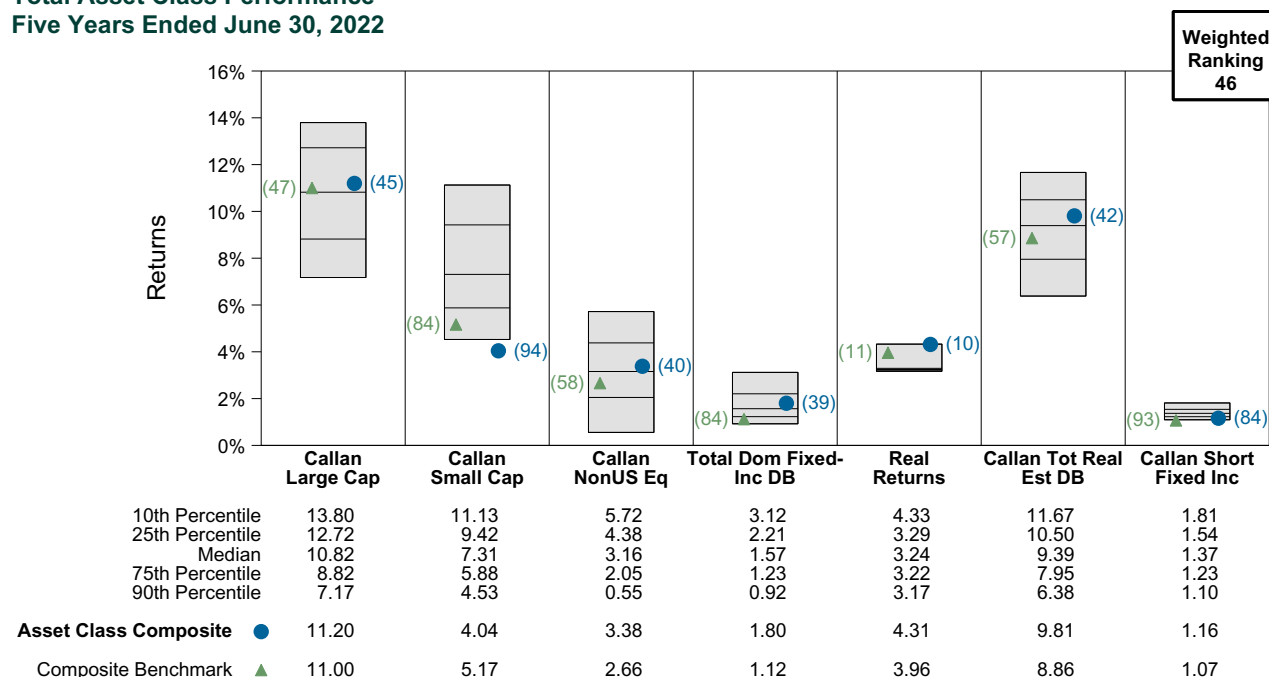
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended June 30, 2022



### Total Asset Class Performance Five Years Ended June 30, 2022



\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2022, with the distribution as of March 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

### Asset Distribution Across Investment Managers

	June 30, 2022				March 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>Global Equity</b>	<b>\$395,849,821</b>	<b>13.63%</b>	<b>\$(54,123,080)</b>	<b>\$(70,110,848)</b>	<b>\$520,083,750</b>	<b>16.90%</b>
<b>Domestic Equity</b>	<b>\$239,381,177</b>	<b>8.24%</b>	<b>\$(54,017,238)</b>	<b>\$(43,070,564)</b>	<b>\$336,468,979</b>	<b>10.93%</b>
<b>Large Cap</b>	<b>\$195,774,776</b>	<b>6.74%</b>	<b>\$(34,606,493)</b>	<b>\$(36,602,282)</b>	<b>\$266,983,551</b>	<b>8.67%</b>
Parametric Large Cap	39,103,999	1.35%	(6,600,000)	(7,994,194)	53,698,193	1.74%
L.A. Capital Large Cap Growth	55,895,557	1.92%	(9,139,904)	(13,412,195)	78,447,656	2.55%
L.A. Capital Enhanced	39,545,944	1.36%	(7,310,523)	(7,199,679)	54,056,147	1.76%
LSV Large Cap Value	61,229,276	2.11%	(11,556,066)	(7,996,213)	80,781,555	2.62%
<b>Small Cap</b>	<b>\$43,606,401</b>	<b>1.50%</b>	<b>\$(19,410,744)</b>	<b>\$(6,468,282)</b>	<b>\$69,485,428</b>	<b>2.26%</b>
Atlanta Capital	15,454,529	0.53%	(7,836,918)	(1,582,179)	24,873,626	0.81%
Riverbridge Small Cap Growth	13,324,153	0.46%	(2,435,259)	(3,326,884)	19,086,296	0.62%
Sycamore Small Cap Value	14,827,719	0.51%	(9,138,567)	(1,559,219)	25,525,506	0.83%
<b>International Equity</b>	<b>\$156,468,644</b>	<b>5.39%</b>	<b>\$(105,842)</b>	<b>\$(27,040,284)</b>	<b>\$183,614,771</b>	<b>5.97%</b>
Arrowstreet ACWI ex US	44,698,345	1.54%	0	(6,162,029)	50,860,374	1.65%
DFA Int'l Small Cap Value	16,823,118	0.58%	0	(2,659,162)	19,482,281	0.63%
LSV Intl Value	47,068,835	1.62%	(57,872)	(6,640,548)	53,767,256	1.75%
Vanguard Intl Explorer Fund	13,684,157	0.47%	0	(3,041,951)	16,726,108	0.54%
William Blair	34,194,189	1.18%	(47,970)	(8,536,593)	42,778,752	1.39%
<b>Domestic Fixed Income</b>	<b>\$1,337,042,216</b>	<b>46.04%</b>	<b>\$59,745,389</b>	<b>\$(82,244,272)</b>	<b>\$1,359,541,099</b>	<b>44.17%</b>
Declaration Total Return	109,786,216	3.78%	(74,100)	(3,214,406)	113,074,722	3.67%
PIMCO Core Plus Constrained	187,350,956	6.45%	7,440,784	(10,957,020)	190,867,192	6.20%
PIMCO DiSCO II	41,705,500	1.44%	0	(661,543)	42,367,043	1.38%
PIMCO Bravo II Fund	3,730,038	0.13%	(1,278,450)	(330,362)	5,338,850	0.17%
Prudential	351,438,639	12.10%	18,414,919	(24,469,553)	357,493,272	11.61%
SSgA US Govt Credit Bd Idx	189,103,032	6.51%	9,592,757	(10,007,119)	189,517,394	6.16%
Wells Capital	104,555,822	3.60%	6,848,517	(9,589,412)	107,296,717	3.49%
Western Asset Management	349,372,014	12.03%	18,800,962	(23,014,858)	353,585,909	11.49%
<b>Global Real Assets</b>	<b>\$389,119,106</b>	<b>13.40%</b>	<b>\$(12,207,844)</b>	<b>\$3,167,632</b>	<b>\$398,159,318</b>	<b>12.94%</b>
<b>Real Estate</b>	<b>\$127,500,130</b>	<b>4.39%</b>	<b>\$(684,099)</b>	<b>\$13,600,385</b>	<b>\$114,583,844</b>	<b>3.72%</b>
Invesco Core Real Estate	67,135,563	2.31%	(100,800)	7,057,861	60,178,501	1.96%
JP Morgan RE Inc & Growth	60,364,568	2.08%	(583,300)	6,542,524	54,405,343	1.77%
<b>Diversified</b>	<b>\$261,618,976</b>	<b>9.01%</b>	<b>\$(11,523,745)</b>	<b>\$(10,432,753)</b>	<b>\$283,575,474</b>	<b>9.21%</b>
Western Asset TIPS	169,642,981	5.84%	(10,553,142)	(12,789,024)	192,985,146	6.27%
JP Morgan IIF Infrastructure	38,225,745	1.32%	(533,774)	(511,574)	39,271,093	1.28%
Eastern Timber Opportunities	33,399,754	1.15%	(2,079,723)	1,423,371	34,056,106	1.11%
Grosvenor CIS Fund	5,593,865	0.19%	0	145,523	5,448,342	0.18%
Grosvenor CIS Fund III	3,130,022	0.11%	367,851	81,431	2,680,740	0.09%
Macquarie Infrastructure Fund V	11,626,609	0.40%	1,275,043	1,217,520	9,134,046	0.30%
<b>Short Term Fixed Income</b>	<b>\$747,228,603</b>	<b>25.73%</b>	<b>\$(211,083)</b>	<b>\$(12,752,542)</b>	<b>\$760,192,227</b>	<b>24.70%</b>
Barings Active Short Duration	367,557,485	12.66%	(114,737)	(9,730,083)	377,402,305	12.26%
JP Morgan Short Term Bonds	379,671,118	13.07%	(96,346)	(3,022,459)	382,789,922	12.44%
<b>Cash</b>	<b>\$34,977,059</b>	<b>1.20%</b>	<b>\$(5,000,555)</b>	<b>\$61,955</b>	<b>\$39,915,659</b>	<b>1.30%</b>
Northern Trust Cash Account	14,652,128	0.50%	(5,000,555)	27,915	19,624,768	0.64%
Bank of ND	20,324,931	0.70%	0	34,040	20,290,891	0.66%
<b>Total Fund</b>	<b>\$2,904,216,806</b>	<b>100.0%</b>	<b>\$(11,797,172)</b>	<b>\$(161,878,075)</b>	<b>\$3,077,892,053</b>	<b>100.0%</b>

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equity</b>					
Gross	(15.06%)	(15.40%)	7.15%	-	-
Net	(15.12%)	(15.71%)	6.84%	-	-
Weighted Benchmark	(16.02%)	(16.12%)	6.36%	-	-
<b>Domestic Equity</b>					
Gross	(15.30%)	(13.16%)	9.34%	9.62%	12.50%
Net	(15.38%)	(13.47%)	9.07%	9.38%	12.24%
Weighted Benchmark	(16.79%)	(15.82%)	8.94%	-	-
<b>Large Cap</b>					
Gross	(15.81%)	(11.99%)	11.19%	11.20%	13.38%
Net	(15.85%)	(12.23%)	10.99%	11.00%	13.17%
Benchmark(1)	(16.67%)	(13.04%)	10.17%	11.00%	12.82%
Parametric Clifton Large Cap - Gross	(17.11%)	(12.72%)	9.94%	10.78%	12.85%
Parametric Clifton Large Cap - Net	(17.11%)	(13.17%)	9.84%	10.71%	12.75%
S&P 500 Index	(16.10%)	(10.62%)	10.60%	11.31%	12.96%
L.A. Capital - Gross	(19.35%)	(16.13%)	13.81%	14.56%	14.97%
L.A. Capital - Net	(19.40%)	(16.32%)	13.58%	14.32%	14.74%
Russell 1000 Growth Index	(20.92%)	(18.77%)	12.58%	14.29%	14.80%
L.A. Capital Enhanced - Gross	(15.40%)	(10.55%)	11.56%	11.61%	13.28%
L.A. Capital Enhanced - Net	(15.42%)	(10.64%)	11.45%	11.49%	13.14%
Russell 1000 Index	(16.67%)	(13.04%)	10.17%	11.00%	12.82%
LSV Asset Management - Gross	(11.52%)	(8.62%)	7.40%	6.63%	11.48%
LSV Asset Management - Net	(11.60%)	(8.88%)	7.10%	6.32%	11.17%
Russell 1000 Value Index	(12.21%)	(6.82%)	6.87%	7.17%	10.50%
<b>Small Cap</b>					
Gross	(12.87%)	(16.81%)	3.07%	4.04%	9.40%
Net	(13.09%)	(17.43%)	2.56%	3.66%	8.99%
Russell 2000 Index	(17.20%)	(25.20%)	4.21%	5.17%	9.35%
Atlanta Capital - Gross	(9.33%)	(7.05%)	-	-	-
Atlanta Capital - Net	(9.55%)	(7.68%)	-	-	-
S&P 600 Small Cap Index	(14.11%)	(16.81%)	7.30%	7.20%	11.26%
Riverbridge Small Cap Growth - Gross	(20.16%)	(34.68%)	-	-	-
Riverbridge Small Cap Growth - Net	(20.37%)	(35.23%)	-	-	-
Russell 2000 Growth Index	(19.25%)	(33.43%)	1.40%	4.80%	9.30%
Sycamore Small Cap Value - Gross	(8.45%)	(7.07%)	-	-	-
Sycamore Small Cap Value - Net	(8.69%)	(7.72%)	-	-	-
Russell 2000 Value Index	(15.28%)	(16.28%)	6.18%	4.89%	9.05%
<b>International Equity</b>					
Gross	(14.73%)	(19.69%)	3.05%	3.38%	6.98%
Net	(14.78%)	(19.92%)	2.75%	3.07%	6.64%
Benchmark(2)	(14.66%)	(16.76%)	1.70%	2.66%	5.56%
Arrowstreet ACWI ex US - Net	(12.12%)	-	-	-	-
MSCI ACWI ex US IMI	(14.28%)	(19.86%)	1.55%	2.50%	5.01%
DFA Intl Small Cap Value - Net	(13.65%)	(13.72%)	3.00%	0.37%	6.85%
World ex US SC Va	(15.64%)	(17.41%)	1.99%	1.43%	6.34%
LSV Asset Management - Gross	(12.36%)	(13.15%)	1.50%	1.00%	5.83%
LSV Asset Management - Net	(12.46%)	(13.52%)	1.09%	0.60%	5.40%
Benchmark(3)	(14.51%)	(17.77%)	1.07%	2.20%	5.40%
Vanguard Intl Explorer Fund - Net	(18.19%)	(30.39%)	(1.60%)	(1.28%)	5.64%
BMI, EPAC, <\$2 B	(17.77%)	(25.19%)	0.98%	0.49%	6.09%
William Blair - Gross	(19.97%)	(28.45%)	2.44%	5.62%	-
William Blair - Net	(20.07%)	(28.75%)	2.05%	5.21%	-
MSCI ACWI ex US IMI	(14.28%)	(19.86%)	1.55%	2.50%	5.01%

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

(3) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Fixed Income</b>					
Gross	(5.81%)	(11.18%)	(0.39%)	1.80%	3.51%
Net	(5.84%)	(11.31%)	(0.52%)	1.68%	3.37%
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Declaration Total Return - Net	(2.84%)	(5.18%)	1.50%	2.85%	-
Libor-3 Month	0.43%	0.66%	0.81%	1.35%	0.91%
PIMCO Core Plus Cons. - Gross	(5.54%)	(11.05%)	(0.40%)	-	-
PIMCO Core Plus Cons. - Net	(5.57%)	(11.29%)	(0.58%)	-	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
PIMCO DiSCO II - Net	(1.56%)	1.64%	4.36%	5.78%	9.67%
PIMCO Bravo II Fund - Net	(8.21%)	(1.66%)	1.17%	2.50%	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Prudential - Gross	(6.53%)	(12.20%)	(0.64%)	1.59%	2.87%
Prudential - Net	(6.58%)	(12.38%)	(0.85%)	1.37%	2.63%
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Wells Capital - Gross	(8.44%)	(14.90%)	0.45%	2.54%	3.91%
Wells Capital - Net	(8.49%)	(15.06%)	0.26%	2.35%	3.72%
Blmbg Credit Baa	(7.94%)	(14.89%)	(0.99%)	1.46%	2.87%
Western Asset - Gross	(6.21%)	(12.63%)	(1.32%)	1.07%	2.57%
Western Asset - Net	(6.23%)	(12.72%)	(1.43%)	0.95%	2.44%
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
SSgA US Govt Cr Bd Idx - Gross	(5.05%)	(10.83%)	(0.69%)	1.12%	-
SSgA US Govt Cr Bd Idx - Net	(5.05%)	(10.84%)	(0.70%)	1.10%	-
Blmbg Govt/Credit Bd	(5.03%)	(10.85%)	(0.77%)	1.05%	1.67%
<b>Global Real Assets</b>					
Gross	0.82%	6.18%	5.74%	-	-
Net	0.71%	5.92%	5.47%	-	-
Weighted Benchmark	(1.37%)	6.57%	5.76%	-	-
<b>Real Estate</b>					
Gross	11.90%	29.83%	11.86%	9.81%	11.43%
Net	11.66%	29.28%	11.37%	9.28%	10.70%
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
Invesco Core Real Estate - Gross	11.73%	27.20%	11.59%	10.01%	-
Invesco Core Real Estate - Net	11.56%	26.80%	11.23%	9.64%	-
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
JP Morgan - Gross	12.08%	32.84%	12.17%	9.59%	11.68%
JP Morgan - Net	11.78%	32.12%	11.54%	8.91%	10.70%
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Diversified</b>					
Gross	(3.81%)	(2.33%)	3.28%	4.31%	3.91%
Net	(3.87%)	(2.50%)	3.10%	4.11%	3.64%
Weighted Benchmark	(3.22%)	0.94%	3.96%	3.96%	3.10%
Western Asset TIPS - Gross	(6.99%)	(6.49%)	2.78%	2.93%	2.17%
Western Asset TIPS - Net	(7.02%)	(6.59%)	2.67%	2.81%	2.04%
Benchmark(1)	(6.57%)	(5.73%)	2.97%	3.37%	2.48%
JP Morgan IIF Infrastructure - Gross	(1.31%)	2.03%	6.13%	7.30%	6.88%
JP Morgan IIF Infrastructure - Net	(1.59%)	1.38%	5.38%	6.58%	5.98%
Benchmark(2)	3.73%	18.33%	8.17%	6.28%	3.66%
Eastern Timber Opportunities - Net	4.28%	8.75%	3.21%	4.52%	4.41%
NCREIF Timberland Index	1.87%	12.01%	5.03%	4.32%	5.73%
Grosvenor CIS Fund - Net	2.67%	6.18%	8.30%	7.10%	8.02%
Grosvenor CIS Fund III - Net	2.73%	-	-	-	-
Benchmark(2)	3.73%	18.33%	8.17%	6.28%	3.66%
Macquarie Infrastructure Fund V - Net	11.60%	-	-	-	-
Benchmark(4)	3.73%	-	-	-	-
<b>Short Term Fixed Income</b>					
Gross	(1.68%)	(5.48%)	0.26%	1.16%	1.37%
Net	(1.71%)	(5.59%)	0.16%	1.05%	1.22%
Benchmark(3)	(0.63%)	(3.56%)	0.31%	1.07%	0.87%
Barings Active Short Duration - Gross	(2.58%)	(7.62%)	-	-	-
Barings Active Short Duration - Net	(2.61%)	(7.74%)	-	-	-
Blmbg Gov/Cred 1-3 Yr	(0.63%)	(3.56%)	0.31%	1.07%	1.01%
JP Morgan Short Term Bds - Gross	(0.79%)	(3.32%)	0.99%	1.60%	1.34%
JP Morgan Short Term Bds - Net	(0.81%)	(3.42%)	0.89%	1.49%	1.22%
Blmbg Gov/Credit 1-3 Yr	(0.63%)	(3.56%)	0.31%	1.07%	1.01%
<b>Cash &amp; Equivalents - Net</b>	<b>0.13%</b>	<b>0.16%</b>	<b>0.52%</b>	<b>0.98%</b>	<b>0.58%</b>
Cash Account- Net	0.11%	0.12%	0.46%	0.91%	0.53%
Bank of ND - Net	0.17%	0.22%	0.60%	1.10%	-
90 Day Treasury Bills	0.10%	0.17%	0.63%	1.11%	0.64%
<b>Total Fund</b>					
Gross	(5.24%)	(8.01%)	2.05%	3.61%	4.63%
Net	(5.28%)	(8.18%)	1.90%	3.45%	4.44%
Target*	(5.17%)	(7.41%)	1.74%	3.09%	3.49%

\* Current Quarter Target = 44.0% Blmbg Aggregate, 25.7% Blmbg Gov/Cred 1-3 Yr, 8.6% DRA Weighted Benchmark, 8.4% Russell 1000 Index, 6.0% MSCI World xUS, 3.5% NCREIF Total Index, 2.4% Russell 2000 Index and 1.3% 3-month Treasury Bill.

(1) Blmbg US TIPS through 12/31/2009; Blmbg Global Inflation-Linked through 10/31/18; Blmbg US Government Inflation Bond Index thereafter.

(2) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

(3) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

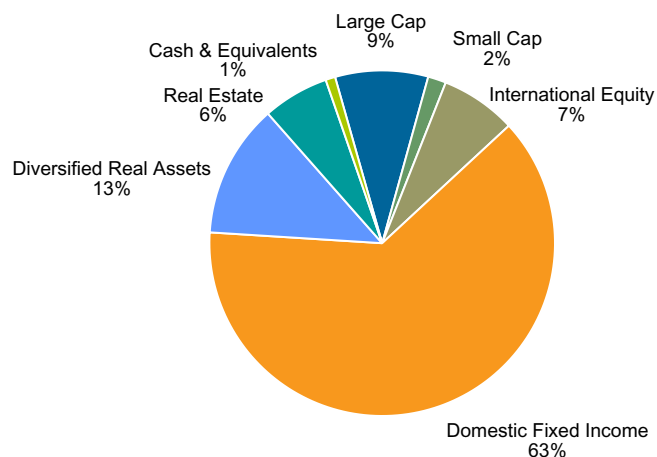
(4) 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.



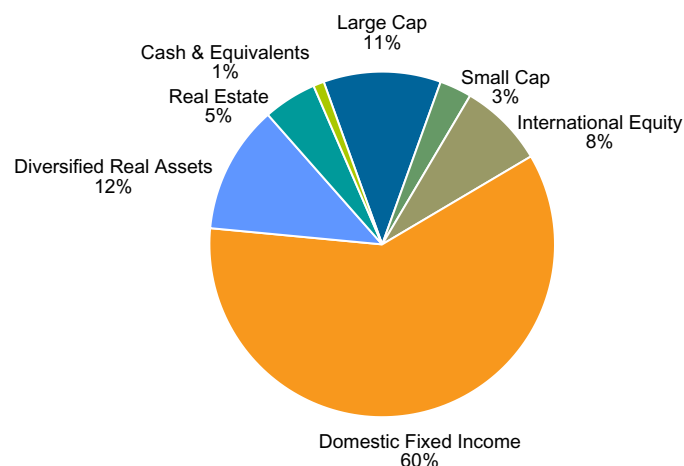
## Actual vs Target Asset Allocation As of June 30, 2022

The first chart below shows the Fund's asset allocation as of June 30, 2022. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

**Actual Asset Allocation**



**Target Asset Allocation**



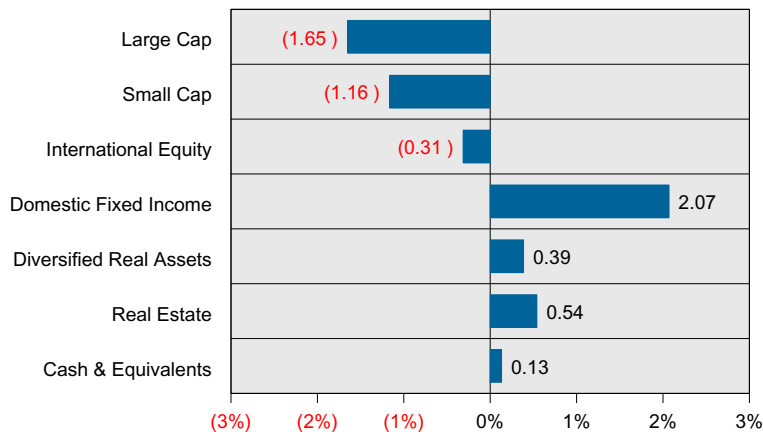
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	178,043	8.7%	11.0%	(2.3%)	(48,047)
Small Cap	35,935	1.7%	3.0%	(1.3%)	(25,726)
International Equity	146,575	7.1%	8.0%	(0.9%)	(17,854)
Domestic Fixed Income	1,291,932	62.9%	60.0%	2.9%	58,713
Diversified Real Assets	257,559	12.5%	12.0%	0.5%	10,915
Real Estate	127,277	6.2%	5.0%	1.2%	24,508
Cash & Equivalents	18,044	0.9%	1.0%	(0.1%)	(2,509)
Total	2,055,364	100.0%	100.0%		

\* Current Quarter Target = 60.0% Bimbg Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

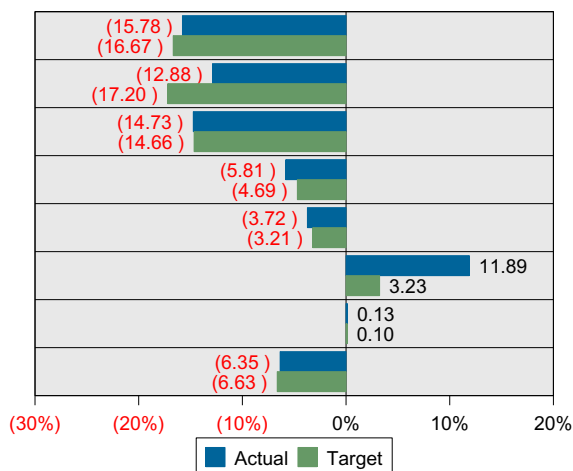
## Quarterly Total Fund Relative Attribution - June 30, 2022

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

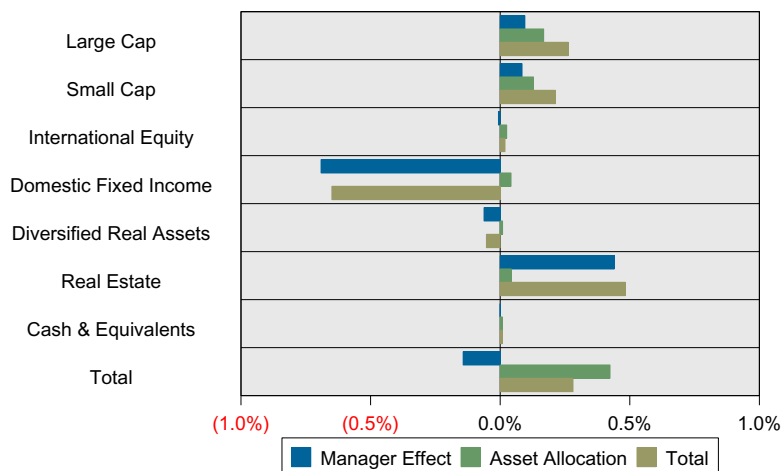
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended June 30, 2022

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	9%	11%	(15.78%)	(16.67%)	0.10%	0.17%	0.26%
Small Cap	2%	3%	(12.88%)	(17.20%)	0.08%	0.13%	0.21%
International Equity	8%	8%	(14.73%)	(14.66%)	(0.01%)	0.03%	0.02%
Domestic Fixed Income	62%	60%	(5.81%)	(4.69%)	(0.69%)	0.04%	(0.65%)
Diversified Real Assets	12%	12%	(3.72%)	(3.21%)	(0.06%)	0.01%	(0.05%)
Real Estate	6%	5%	11.89%	3.23%	0.44%	0.04%	0.48%
Cash & Equivalents	1%	1%	0.13%	0.10%	0.00%	0.01%	0.01%
<b>Total</b>			<b>(6.35%)</b>	<b>(6.63%)</b>	<b>(0.14%)</b>	<b>0.42%</b>	<b>0.28%</b>

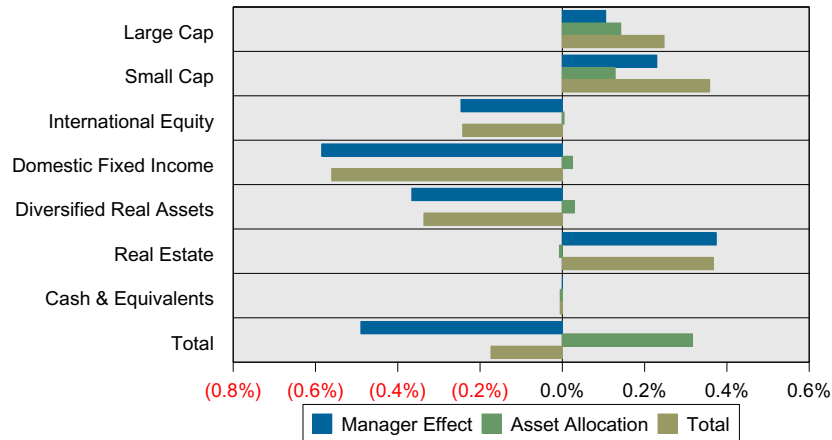
\* Current Quarter Target = 60.0% Blmgb Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.



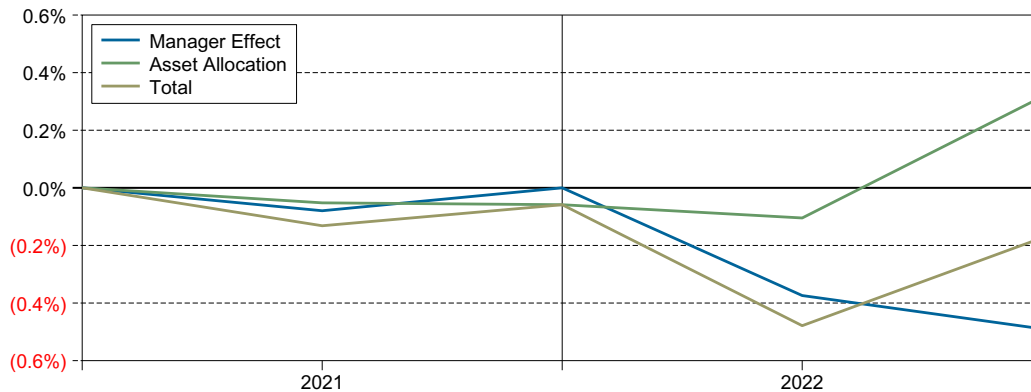
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

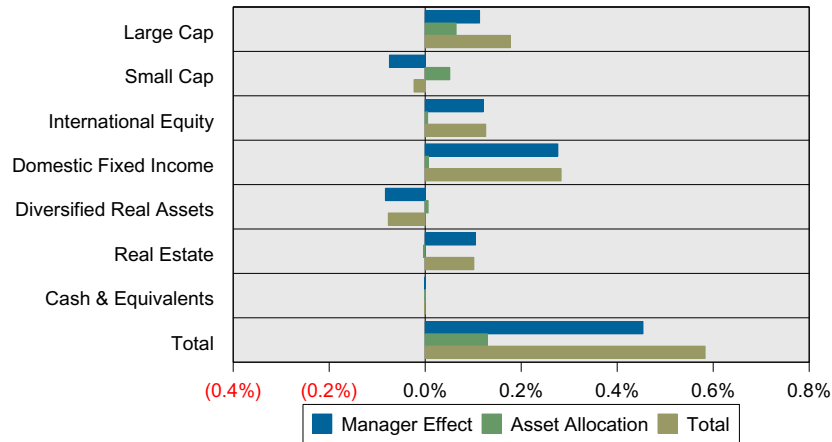
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	(11.96%)	(13.04%)	0.11%	0.14%	0.25%
Small Cap	3%	3%	(16.82%)	(25.20%)	0.23%	0.13%	0.36%
International Equity	8%	8%	(19.62%)	(16.76%)	(0.25%)	0.00%	(0.24%)
Domestic Fixed Income	61%	60%	(11.20%)	(10.29%)	(0.59%)	0.02%	(0.56%)
Diversified Real Assets	12%	12%	(2.24%)	0.97%	(0.37%)	0.03%	(0.34%)
Real Estate	5%	5%	29.83%	21.45%	0.37%	(0.01%)	0.37%
Cash & Equivalents	1%	1%	0.16%	0.17%	0.00%	(0.01%)	(0.01%)
<b>Total</b>			<b>(8.85%)</b>	<b>(8.68%)</b>	<b>(0.49%)</b>	<b>0.32%</b>	<b>(0.17%)</b>

\* Current Quarter Target = 60.0% Blmgb Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

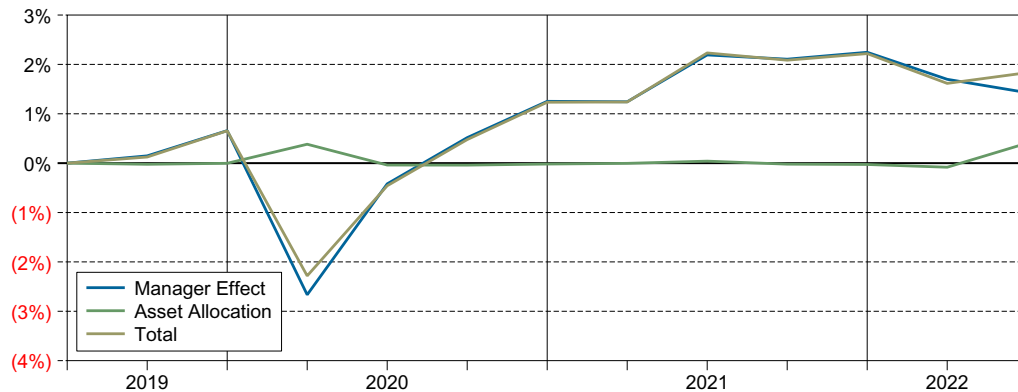
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Three Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Three Year Annualized Relative Attribution Effects

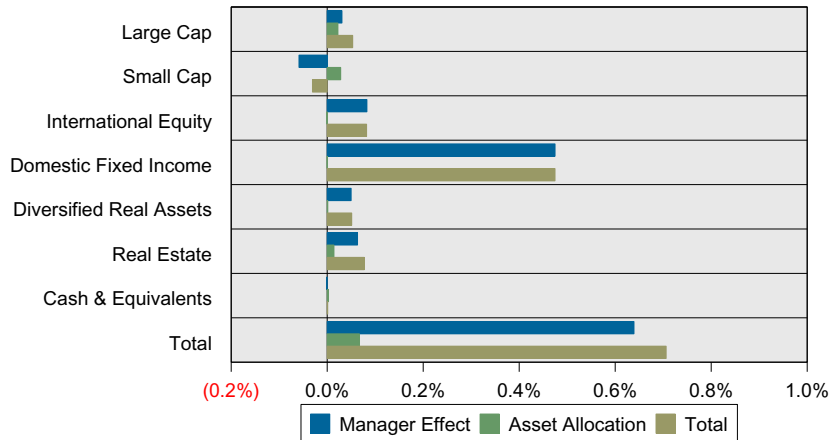
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	11.21%	10.17%	0.11%	0.06%	0.18%
Small Cap	3%	3%	2.95%	4.21%	(0.07%)	0.05%	(0.02%)
International Equity	8%	8%	3.09%	1.70%	0.12%	0.01%	0.13%
Domestic Fixed Income	61%	60%	(0.39%)	(0.93%)	0.28%	0.01%	0.28%
Diversified Real Assets	12%	12%	3.31%	3.96%	(0.08%)	0.01%	(0.08%)
Real Estate	5%	5%	11.86%	10.22%	0.10%	(0.00%)	0.10%
Cash & Equivalents	1%	1%	0.52%	0.63%	(0.00%)	(0.00%)	(0.00%)
<b>Total</b>			<b>2.65%</b>	<b>2.06%</b>	<b>+ 0.45%</b>	<b>+ 0.13%</b>	<b>0.58%</b>

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

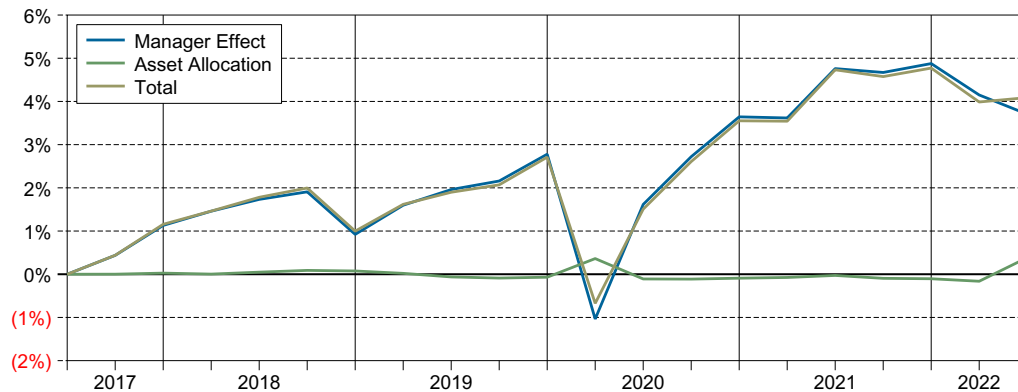
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Five Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Five Year Annualized Relative Attribution Effects

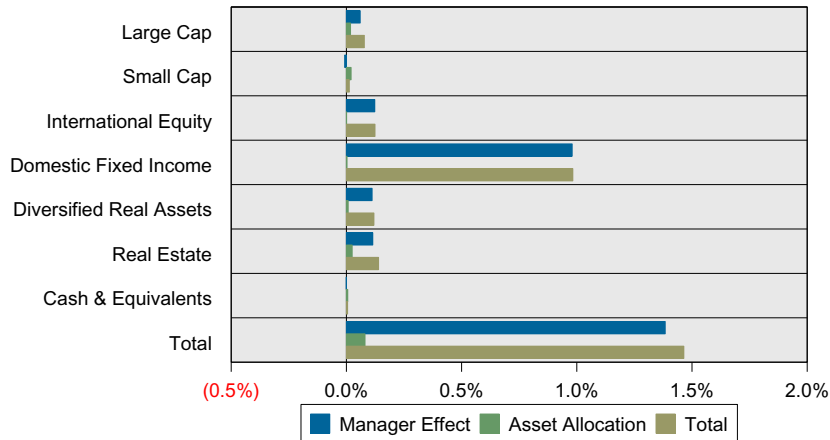
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	11.24%	11.00%	0.03%	0.02%	0.05%
Small Cap	3%	3%	3.96%	5.17%	(0.06%)	0.03%	(0.03%)
International Equity	8%	8%	3.43%	2.66%	0.08%	(0.00%)	0.08%
Domestic Fixed Income	59%	58%	1.76%	0.88%	0.47%	(0.00%)	0.47%
Diversified Real Assets	13%	13%	4.34%	3.99%	0.05%	0.00%	0.05%
Real Estate	5%	5%	9.81%	8.86%	0.06%	0.01%	0.08%
Cash & Equivalents	1%	1%	0.99%	1.11%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>4.09%</b>	<b>3.38%</b>	<b>+ 0.64%</b>	<b>+ 0.07%</b>	<b>0.71%</b>

\* Current Quarter Target = 60.0% Blmgb Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

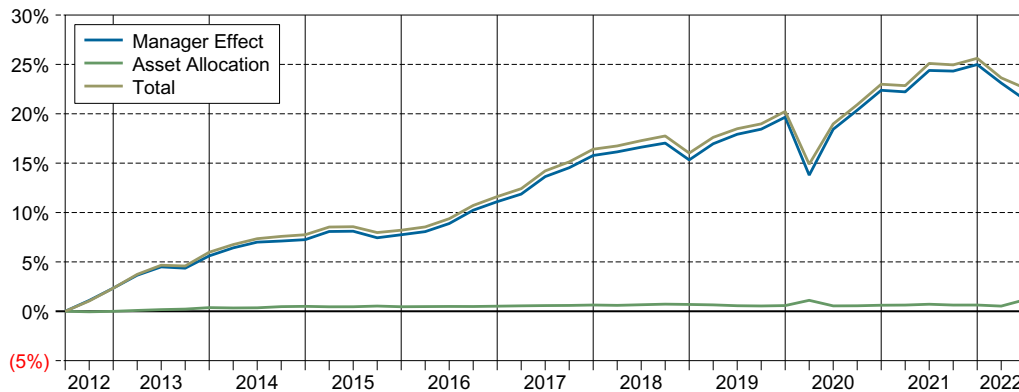
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Ten Year Annualized Relative Attribution Effects



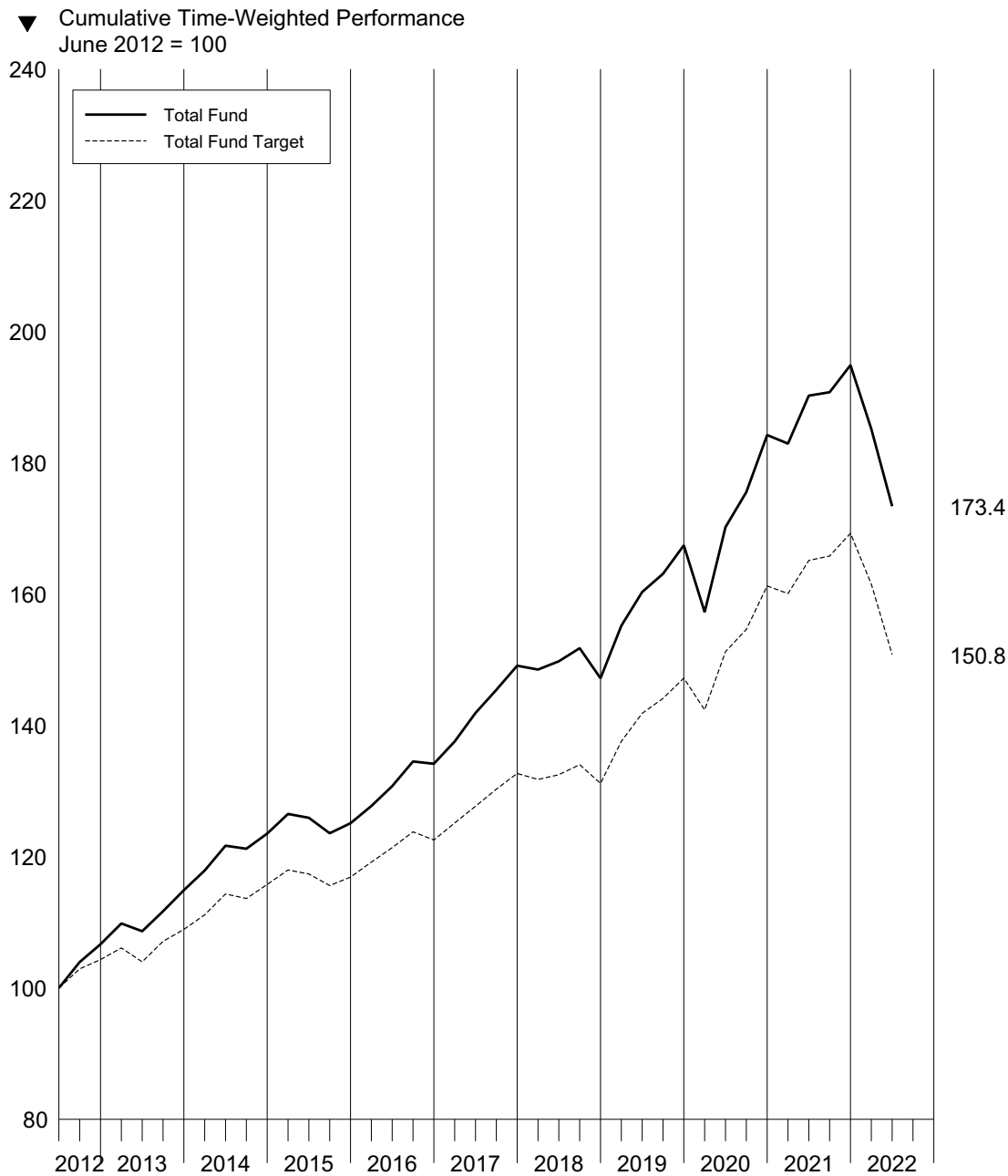
### Cumulative Relative Attribution Effects



### Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	11%	11%	13.39%	12.82%	0.06%	0.02%	0.08%
Small Cap	3%	3%	9.37%	9.35%	(0.01%)	0.02%	0.01%
International Equity	8%	8%	6.96%	5.56%	0.12%	0.00%	0.12%
Domestic Fixed Income	55%	55%	3.40%	1.54%	0.98%	0.00%	0.98%
Diversified Real Assets	15%	15%	4.01%	3.34%	0.11%	0.01%	0.12%
Real Estate	6%	6%	11.42%	9.67%	0.11%	0.03%	0.14%
Cash & Equivalents	1%	1%	0.58%	0.64%	(0.00%)	0.01%	0.01%
<b>Total</b>			<b>5.66%</b>	<b>4.19%</b>	<b>+ 1.38%</b>	<b>+ 0.08%</b>	<b>1.46%</b>

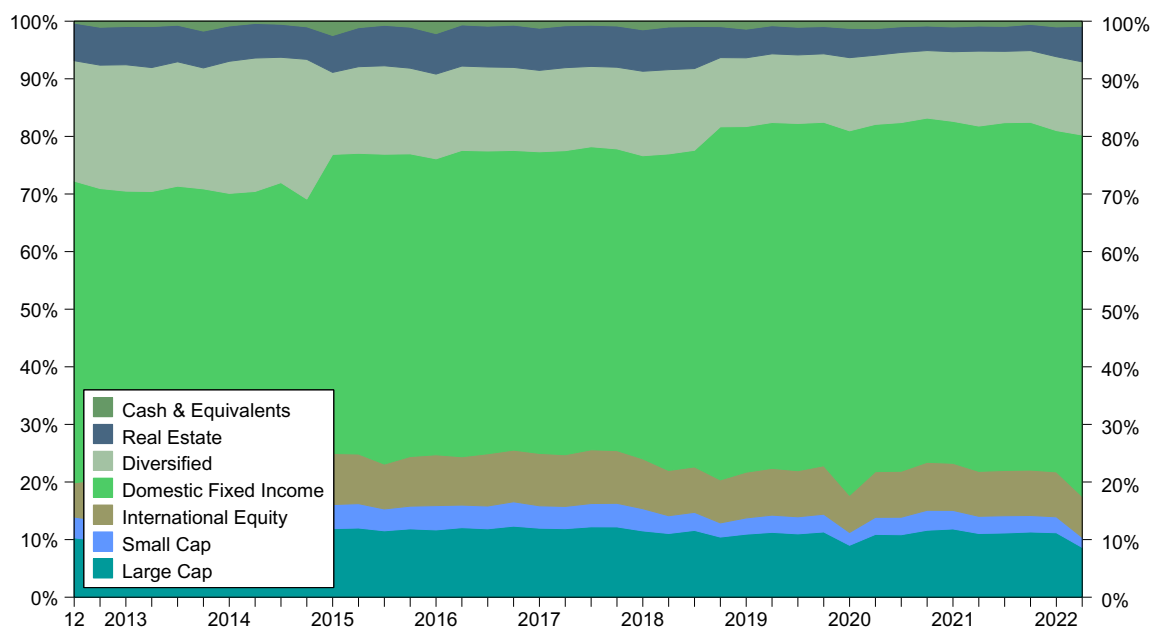
\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.



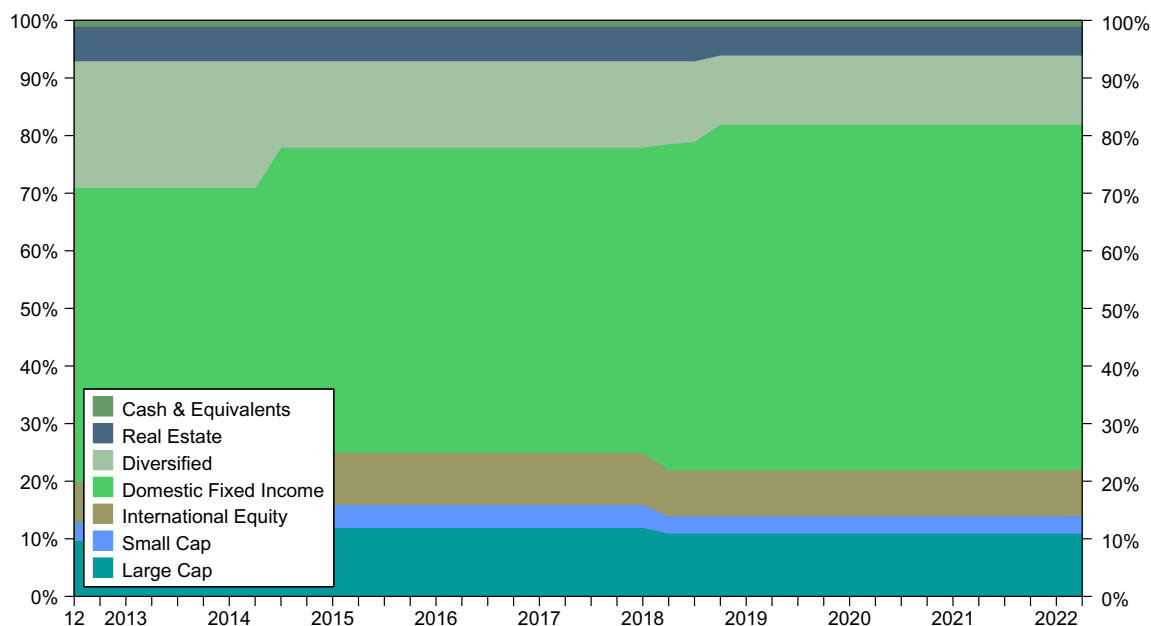
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation

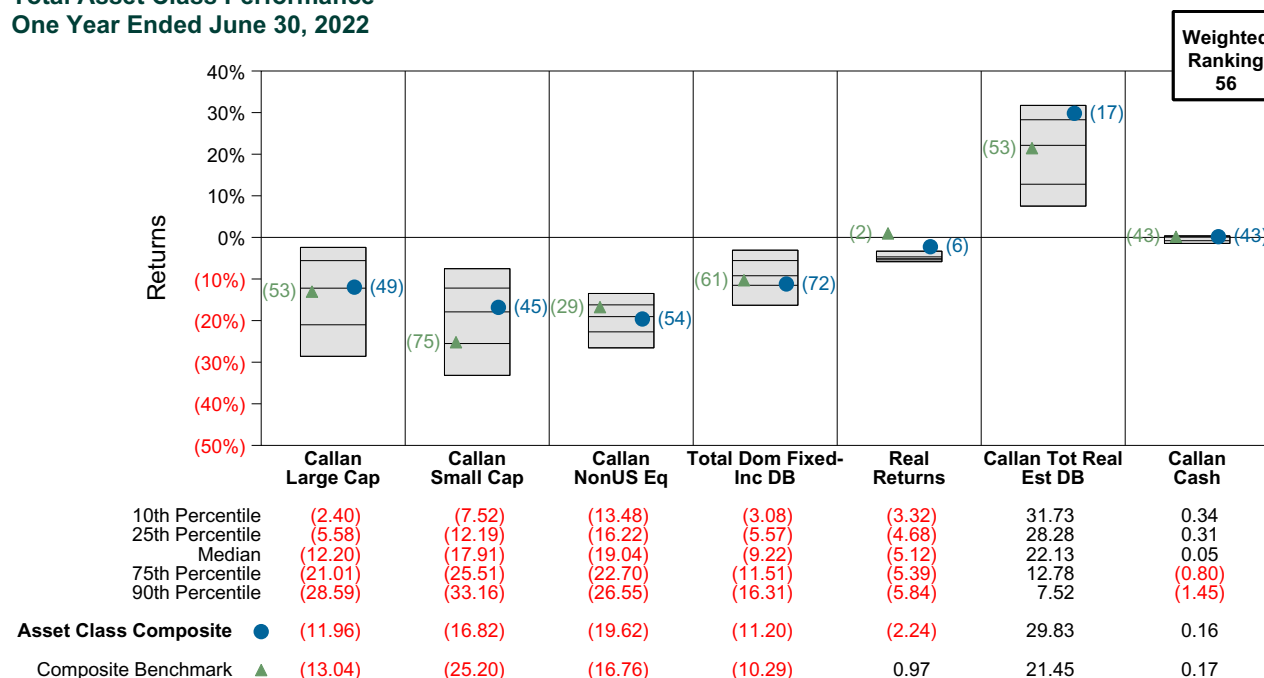


\* Current Quarter Target = 60.0% Blmgb Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

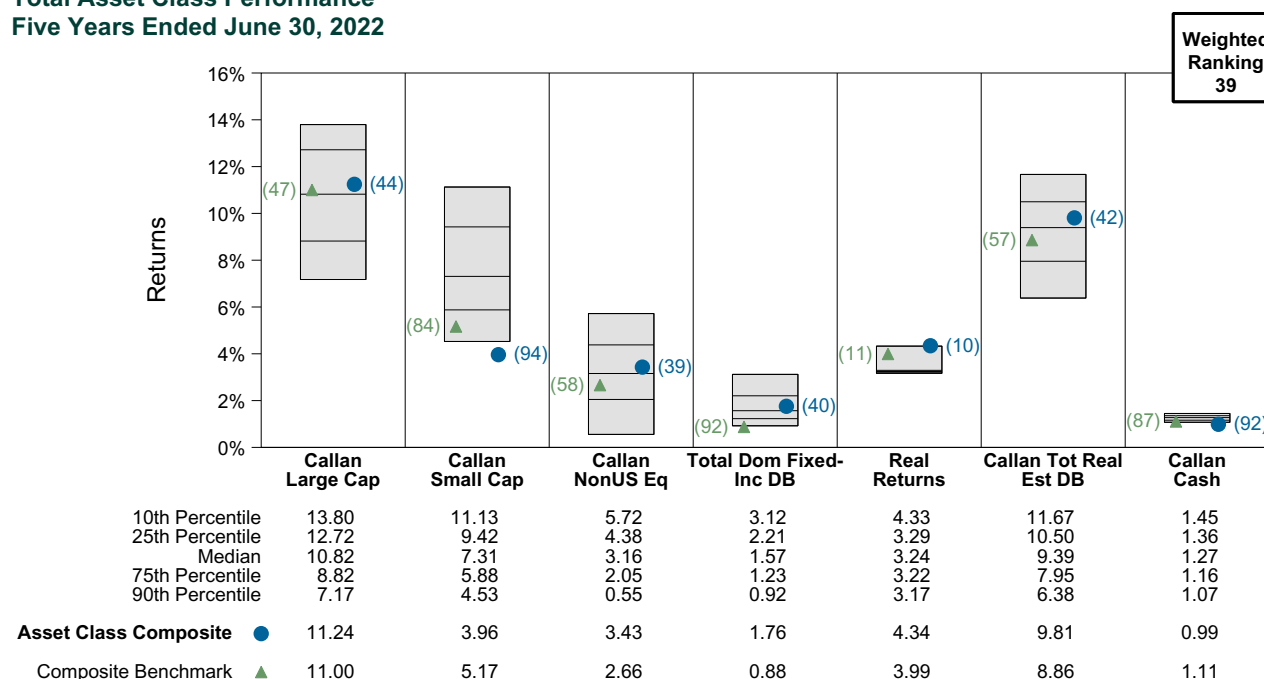
## Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.

### Total Asset Class Performance One Year Ended June 30, 2022



### Total Asset Class Performance Five Years Ended June 30, 2022



\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2022, with the distribution as of March 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

### Asset Class Allocation

	June 30, 2022		Net New Inv.	Inv. Return	March 31, 2022	
	Market Value	Weight			Market Value	Weight
<b>Global Equity</b>	<b>\$360,553,044</b>	<b>17.54%</b>	<b>\$(56,362,453)</b>	<b>\$(64,218,778)</b>	<b>\$481,134,275</b>	<b>21.81%</b>
<b>Domestic Equity</b>	<b>\$213,978,304</b>	<b>10.41%</b>	<b>\$(55,705,514)</b>	<b>\$(38,833,419)</b>	<b>\$308,517,237</b>	<b>13.98%</b>
Large Cap	178,043,497	8.66%	(35,962,166)	(33,451,496)	247,457,159	11.22%
Small Cap	35,934,808	1.75%	(19,743,348)	(5,381,922)	61,060,078	2.77%
<b>International Equity</b>	<b>\$146,574,740</b>	<b>7.13%</b>	<b>\$(656,939)</b>	<b>\$(25,385,359)</b>	<b>\$172,617,038</b>	<b>7.82%</b>
<b>Domestic Fixed Income</b>	<b>\$1,291,931,681</b>	<b>62.86%</b>	<b>\$61,264,350</b>	<b>\$(79,381,434)</b>	<b>\$1,310,048,765</b>	<b>59.38%</b>
<b>Global Real Assets</b>	<b>\$384,835,474</b>	<b>18.72%</b>	<b>\$(11,921,073)</b>	<b>\$3,560,117</b>	<b>\$393,196,430</b>	<b>17.82%</b>
Real Estate	127,276,638	6.19%	(650,090)	13,574,225	114,352,503	5.18%
Diversified	257,558,836	12.53%	(11,270,983)	(10,014,108)	278,843,927	12.64%
<b>Cash</b>	<b>\$18,044,208</b>	<b>0.88%</b>	<b>\$(3,891,857)</b>	<b>\$31,487</b>	<b>\$21,904,578</b>	<b>0.99%</b>
<b>Total Fund</b>	<b>\$2,055,364,407</b>	<b>100.0%</b>	<b>\$(10,911,033)</b>	<b>\$(140,008,608)</b>	<b>\$2,206,284,047</b>	<b>100.0%</b>

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.



## Asset Class Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended June 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Global Equity</b>					
Gross	(15.11%)	(15.48%)	7.13%	-	-
Net	(15.17%)	(15.76%)	6.85%	-	-
Weighted Benchmark	(16.00%)	(16.07%)	6.33%	-	-
<b>Domestic Equity</b>					
Gross	(15.38%)	(13.19%)	9.38%	9.67%	12.54%
Net	(15.45%)	(13.50%)	9.11%	9.43%	12.28%
Weighted Benchmark	(16.78%)	(15.73%)	8.98%	-	-
<b>Large Cap</b>					
Gross	(15.78%)	(11.96%)	11.21%	11.24%	13.39%
Net	(15.82%)	(12.21%)	11.01%	11.05%	13.18%
Benchmark(1)	(16.67%)	(13.04%)	10.17%	11.00%	12.82%
<b>Small Cap</b>					
Gross	(12.88%)	(16.82%)	2.95%	3.96%	9.37%
Net	(13.09%)	(17.44%)	2.43%	3.57%	8.96%
Russell 2000	(17.20%)	(25.20%)	4.21%	5.17%	9.35%
<b>International Equity</b>					
Gross	(14.73%)	(19.62%)	3.09%	3.43%	6.96%
Net	(14.78%)	(19.85%)	2.79%	3.12%	6.62%
Benchmark(2)	(14.66%)	(16.76%)	1.70%	2.66%	5.56%
<b>Domestic Fixed Income</b>					
Gross	(5.81%)	(11.20%)	(0.39%)	1.76%	3.40%
Net	(5.84%)	(11.32%)	(0.52%)	1.63%	3.26%
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
<b>Global Real Assets</b>					
Gross	0.93%	6.35%	5.79%	-	-
Net	0.82%	6.09%	5.52%	-	-
Weighted Benchmark	(1.34%)	6.65%	5.79%	-	-
<b>Real Estate</b>					
Gross	11.89%	29.83%	11.86%	9.81%	11.42%
Net	11.66%	29.28%	11.37%	9.28%	10.70%
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
<b>Diversified</b>					
Gross	(3.72%)	(2.24%)	3.31%	4.34%	4.01%
Net	(3.78%)	(2.41%)	3.13%	4.14%	3.74%
Weighted Benchmark	(3.21%)	0.97%	3.96%	3.99%	3.34%
<b>Cash &amp; Equivalents - Net</b>	<b>0.13%</b>	<b>0.16%</b>	<b>0.52%</b>	<b>0.99%</b>	<b>0.58%</b>
90 Day Treasury Bills	0.10%	0.17%	0.63%	1.11%	0.64%
<b>Total Fund</b>					
Gross	(6.35%)	(8.85%)	2.65%	4.09%	5.66%
Net	(6.40%)	(9.04%)	2.46%	3.90%	5.43%
Target*	(6.63%)	(8.68%)	2.06%	3.38%	4.19%

\* Current Quarter Target = 60.0% Blmbg Aggregate, 12.0% DRA Weighted Benchmark, 11.0% Russell 1000 Index, 8.0% MSCI World xUS, 5.0% NCREIF Total Index, 3.0% Russell 2000 Index and 1.0% 3-month Treasury Bill.

(1) S&P 500 Index through 12/31/2011 and Russell 1000 Index thereafter.

(2) MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

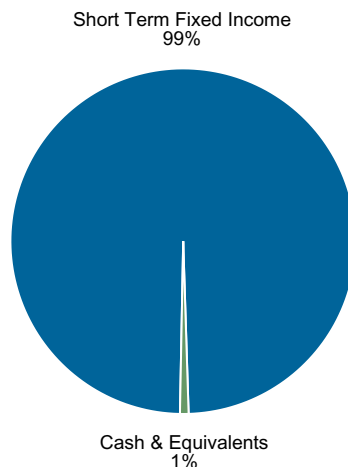
PLEASE REFER TO PAGE 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.



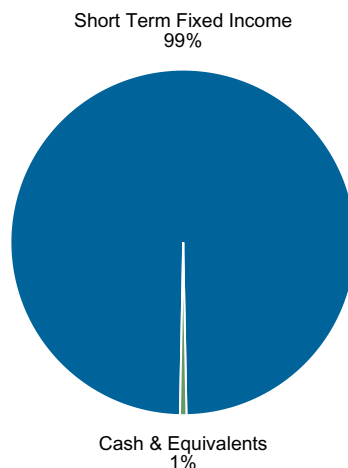
## Actual vs Target Asset Allocation As of June 30, 2022

The first chart below shows the Fund's asset allocation as of June 30, 2022. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

### Actual Asset Allocation



### Target Asset Allocation



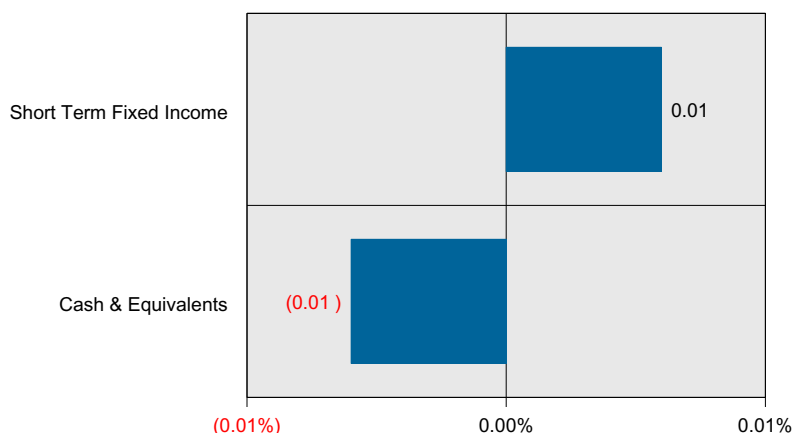
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Short Term Fixed Income	712,199	99.2%	99.4%	(0.2%)	(1,096)
Cash & Equivalents	5,474	0.8%	0.6%	0.2%	1,096
Total	717,673	100.0%	100.0%		

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

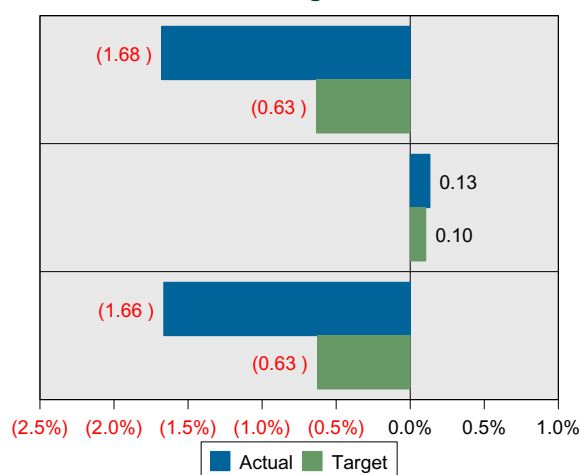
## Quarterly Total Fund Relative Attribution - June 30, 2022

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

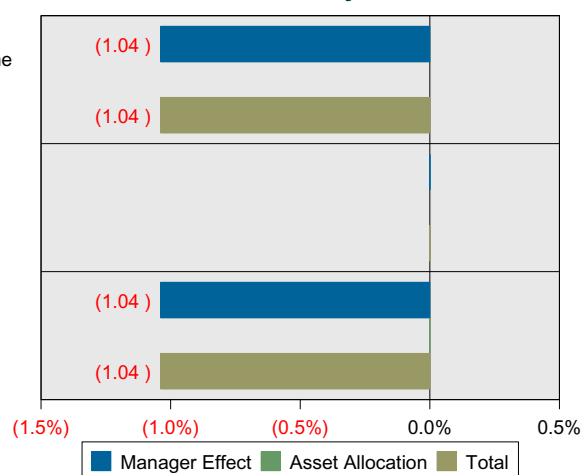
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended June 30, 2022

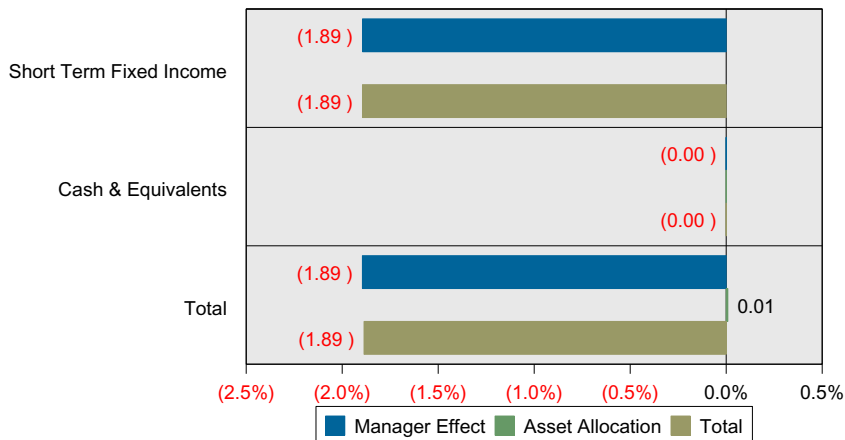
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	(1.68%)	(0.63%)	(1.04%)	0.00%	(1.04%)
Cash & Equivalents	1%	1%	0.13%	0.10%	0.00%	0.00%	0.00%
<b>Total</b>			<b>(1.66%)</b>	<b>(0.63%)</b>	<b>(1.04%)</b>	<b>0.00%</b>	<b>(1.04%)</b>

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

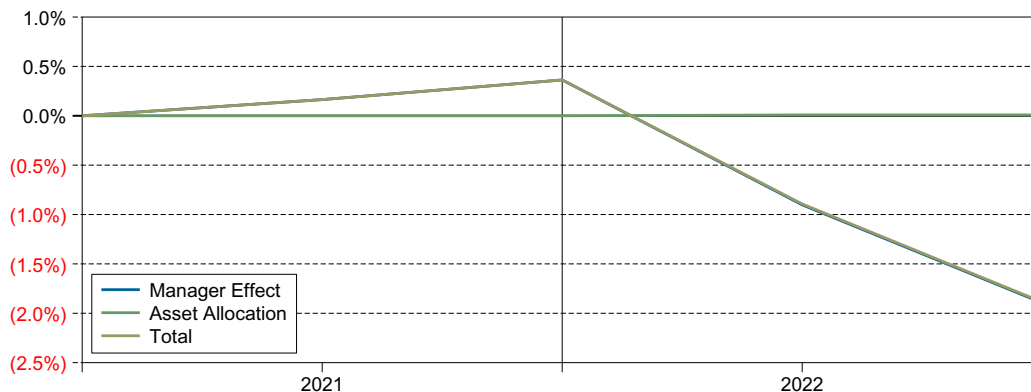
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

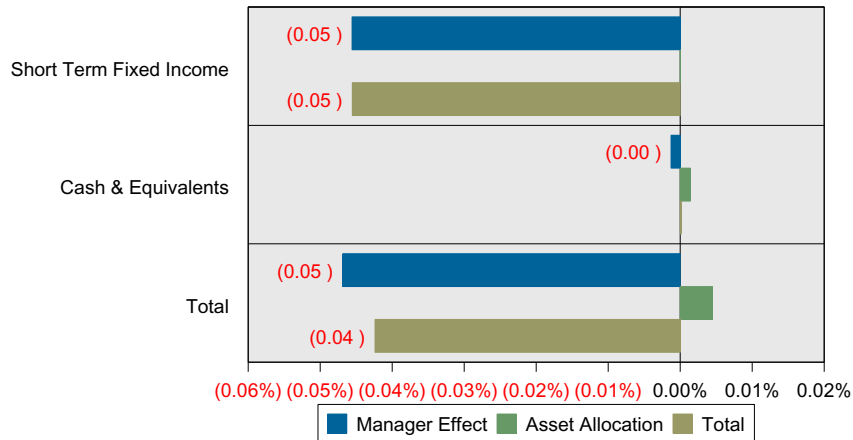
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	(5.48%)	(3.56%)	(1.89%)	0.00%	(1.89%)
Cash & Equivalents	1%	1%	0.16%	0.17%	(0.00%)	0.00%	(0.00%)
Total			(5.40%) = (3.51%) + (1.89%) + 0.01%				(1.89%)

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

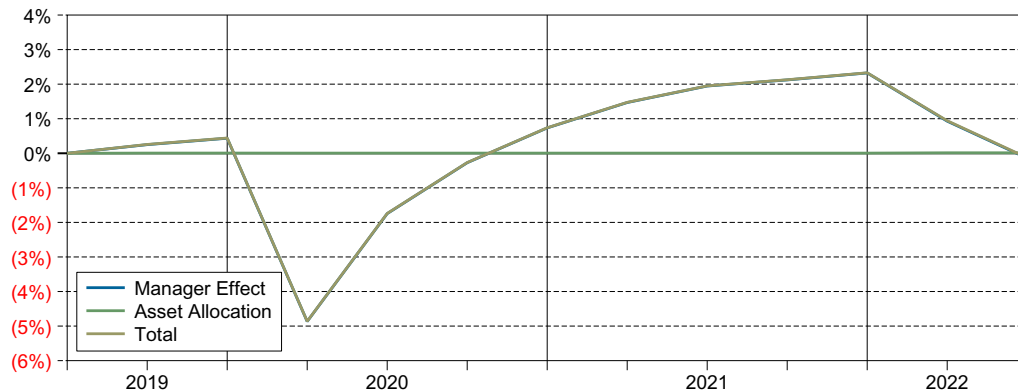
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Three Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Three Year Annualized Relative Attribution Effects

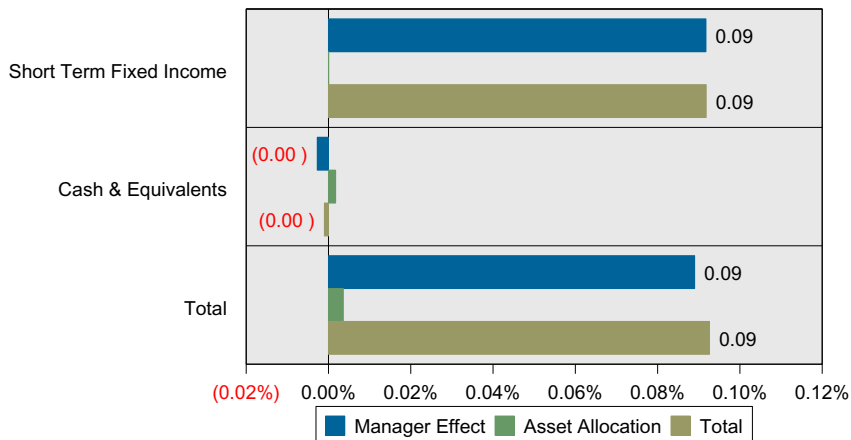
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	99%	99%	0.26%	0.31%	(0.05%)	0.00%	(0.05%)
Cash & Equivalents	1%	1%	0.53%	0.63%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>0.27% = 0.32% + (0.05%) + 0.00%</b>				<b>(0.04%)</b>

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

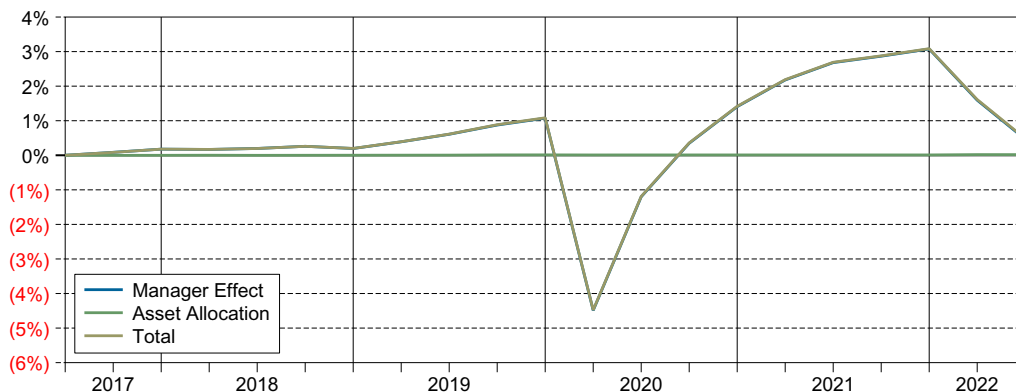
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Five Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Five Year Annualized Relative Attribution Effects

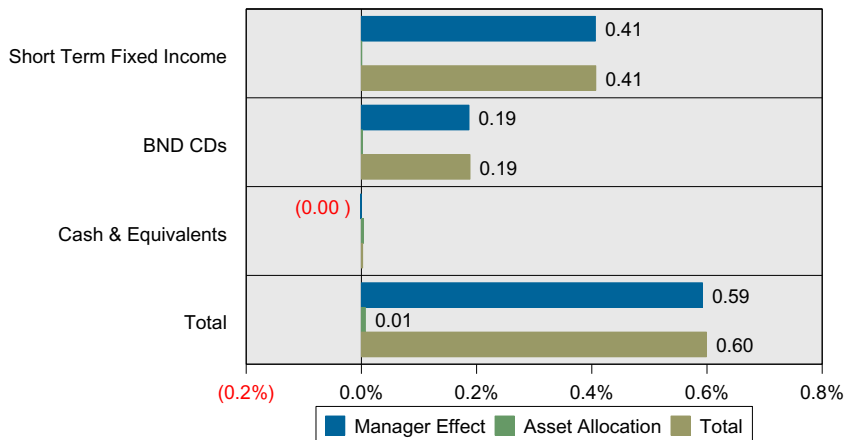
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	98%	98%	1.16%	1.07%	0.09%	0.00%	0.09%
Cash & Equivalents	2%	2%	0.99%	1.11%	(0.00)%	0.00%	(0.00)%
<b>Total</b>			<b>1.16%</b>	<b>= 1.07%</b>	<b>+ 0.09%</b>	<b>+ 0.00%</b>	<b>0.09%</b>

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

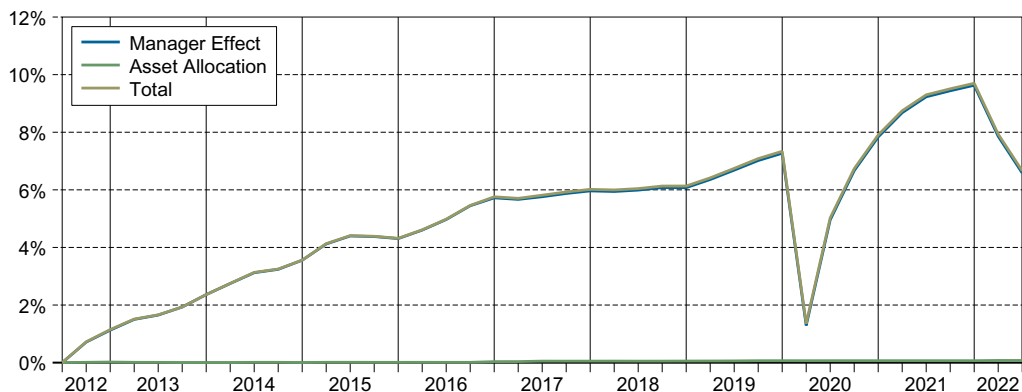
## Cumulative Total Fund Relative Attribution - June 30, 2022

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Ten Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



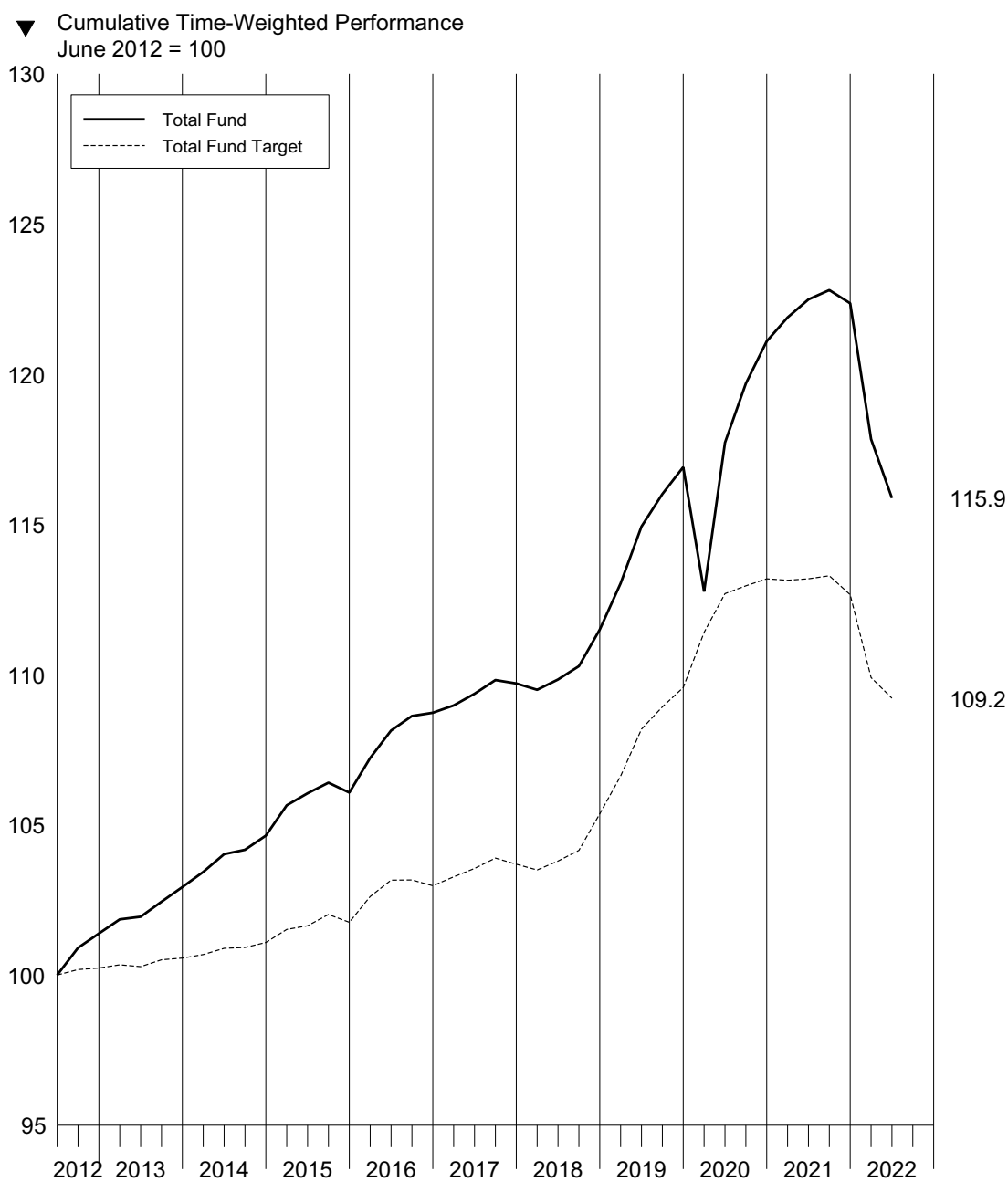
### Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Short Term Fixed Income	89%	89%	1.37%	0.87%	0.41%	0.00%	0.41%
BND CDs	9%	9%	-	-	0.19%	0.00%	0.19%
Cash & Equivalents	2%	2%	0.58%	0.64%	(0.00%)	0.00%	0.00%
<b>Total</b>			<b>1.48%</b>	<b>0.89%</b>	<b>+ 0.59%</b>	<b>+ 0.01%</b>	<b>0.60%</b>

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.



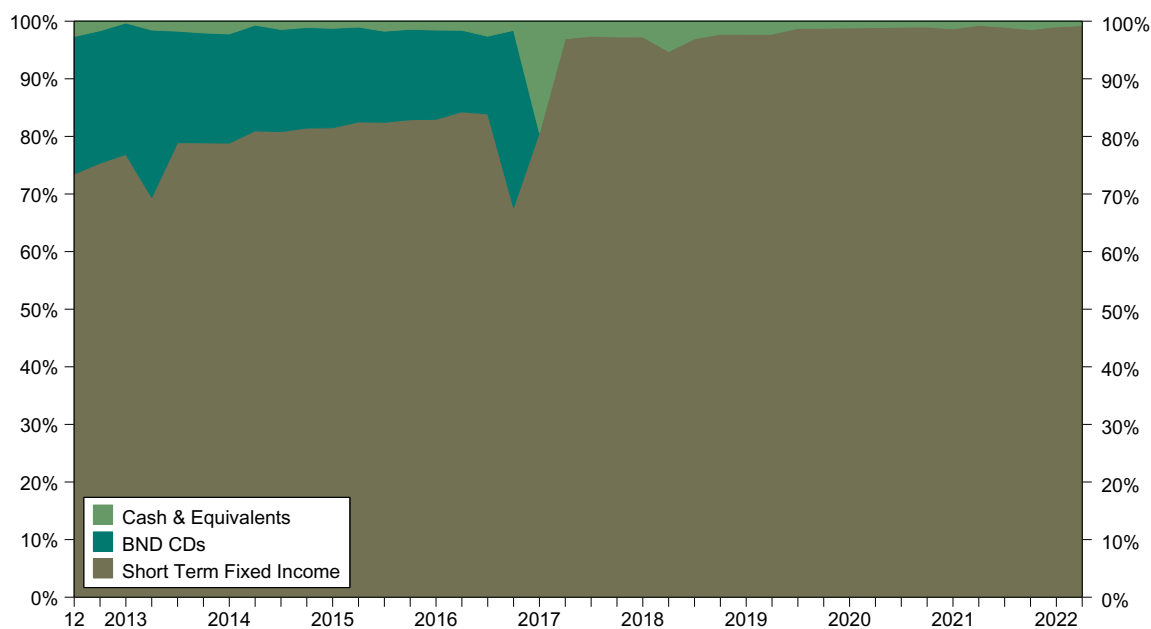
NDSIB - Budget Stabilization Fund  
Cumulative Results



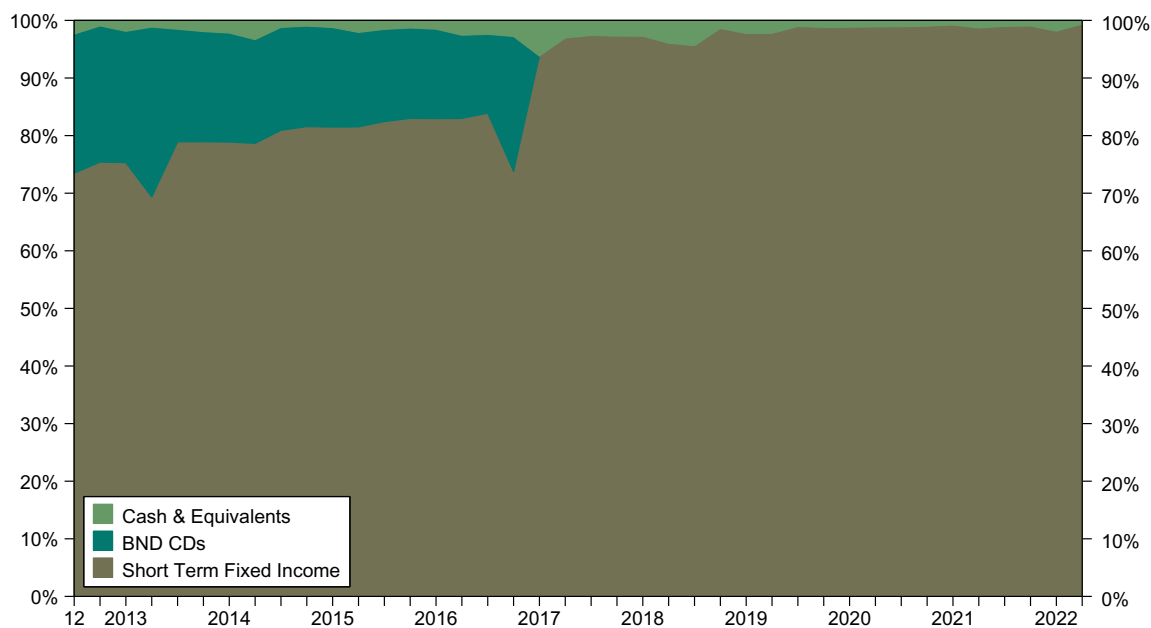
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation



\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

## Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2022, with the distribution as of March 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

	Asset Class Allocation					
	June 30, 2022		Net New Inv.	Inv. Return	March 31, 2022	
	Market Value	Weight			Market Value	Weight
Short Term Fixed Income	\$712,199,190	99.24%	\$1,468,671	\$(12,154,088)	\$722,884,607	99.02%
Cash & Equivalents	\$5,473,566	0.76%	\$(1,689,358)	\$6,778	\$7,156,147	0.98%
Total Fund	\$717,672,757	100.0%	\$(220,687)	\$(12,147,310)	\$730,040,754	100.0%

PLEASE REFER TO PAGE 30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended June 30, 2022					
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Short Term Fixed Income</b>					
Gross	(1.68%)	(5.48%)	0.26%	1.16%	1.37%
Net	(1.71%)	(5.59%)	0.16%	1.05%	1.22%
Blended Benchmark(1)	(0.63%)	(3.56%)	0.31%	1.07%	0.87%
<b>Cash &amp; Equivalents - Net</b>	<b>0.13%</b>	<b>0.16%</b>	<b>0.53%</b>	<b>0.99%</b>	<b>0.58%</b>
3-month Treasury Bill	0.10%	0.17%	0.63%	1.11%	0.64%
<b>Total Fund</b>					
Gross	(1.66%)	(5.40%)	0.27%	1.16%	1.48%
Net	(1.69%)	(5.51%)	0.17%	1.05%	1.36%
Target*	(0.63%)	(3.51%)	0.32%	1.07%	0.89%

\* Current Quarter Target = 99.4% Blmbg Gov/Cred 1-3 Yr and 0.6% 3-month Treasury Bill.

(1) Blmbg Gov 1-3 Yr through March 31, 2017 and Blmbg Gov/Credit 1-3 Yr thereafter.

PLEASE REFER TO PAGES 31-33 FOR INVESTMENT MANAGER LEVEL RETURNS.



## Large Cap Period Ended June 30, 2022

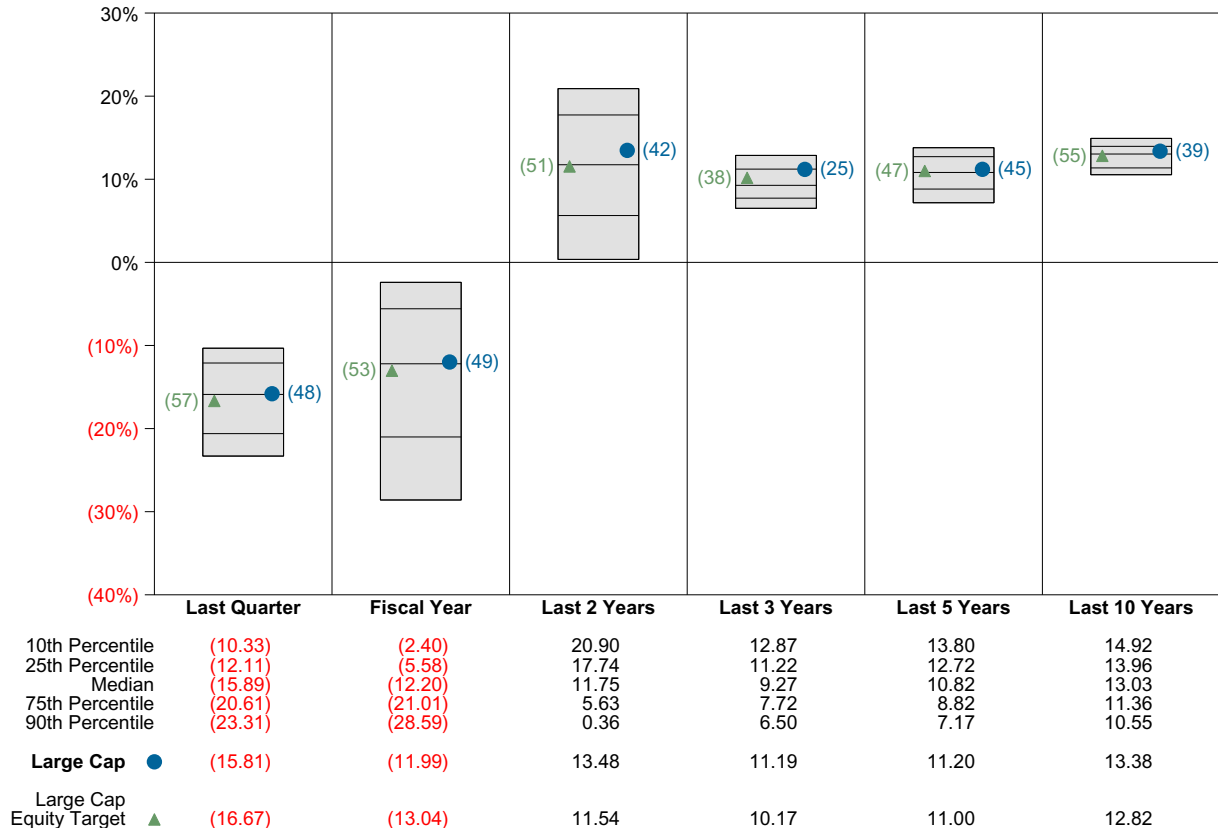
### Quarterly Summary and Highlights

- Large Cap's portfolio posted a (15.81)% return for the quarter placing it in the 48 percentile of the Callan Large Capitalization group for the quarter and in the 49 percentile for the last year.
- Large Cap's portfolio outperformed the Large Cap Equity Target by 0.86% for the quarter and outperformed the Large Cap Equity Target for the year by 1.04%.

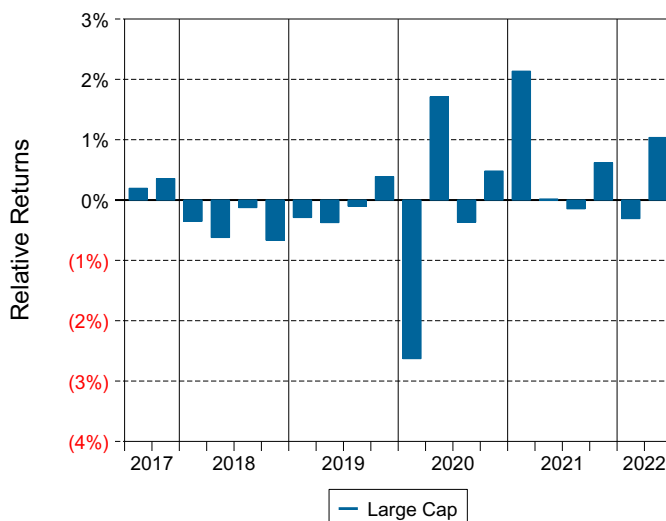
### Quarterly Asset Growth

Beginning Market Value	\$266,983,551
Net New Investment	\$-34,606,493
Investment Gains/(Losses)	\$-36,602,282
Ending Market Value	\$195,774,776

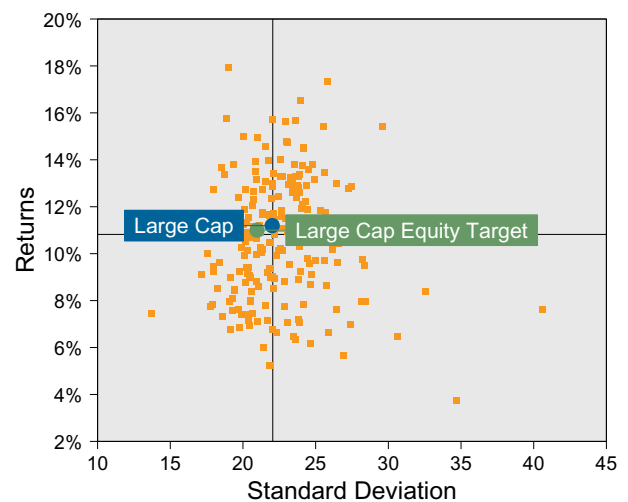
### Performance vs Callan Large Capitalization (Gross)



### Relative Return vs Large Cap Equity Target



### Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return



## Parametric Large Cap Period Ended June 30, 2022

### Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

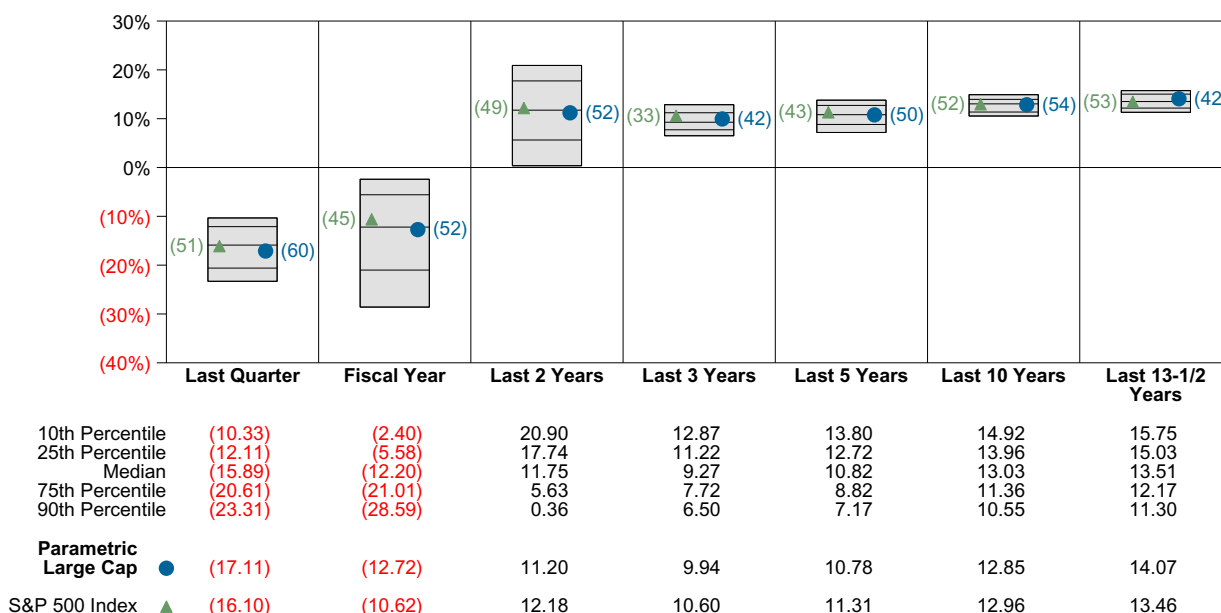
### Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a (17.11)% return for the quarter placing it in the 60 percentile of the Callan Large Capitalization group for the quarter and in the 52 percentile for the last year.
- Parametric Large Cap's portfolio underperformed the S&P 500 Index by 1.01% for the quarter and underperformed the S&P 500 Index for the year by 2.10%.

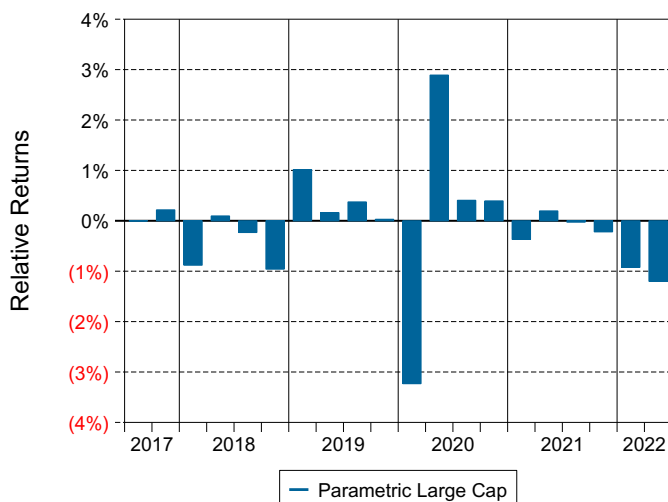
### Quarterly Asset Growth

Beginning Market Value	\$53,698,193
Net New Investment	\$-6,600,000
Investment Gains/(Losses)	\$-7,994,194
Ending Market Value	\$39,103,999

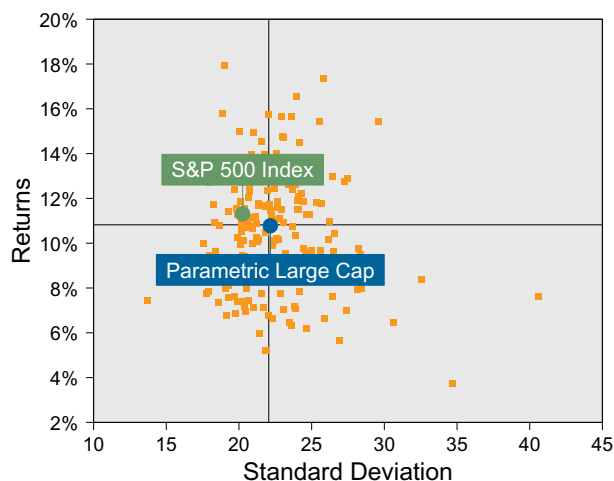
### Performance vs Callan Large Capitalization (Gross)



### Relative Return vs S&P 500 Index



### Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return



## L.A. Capital Period Ended June 30, 2022

### Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

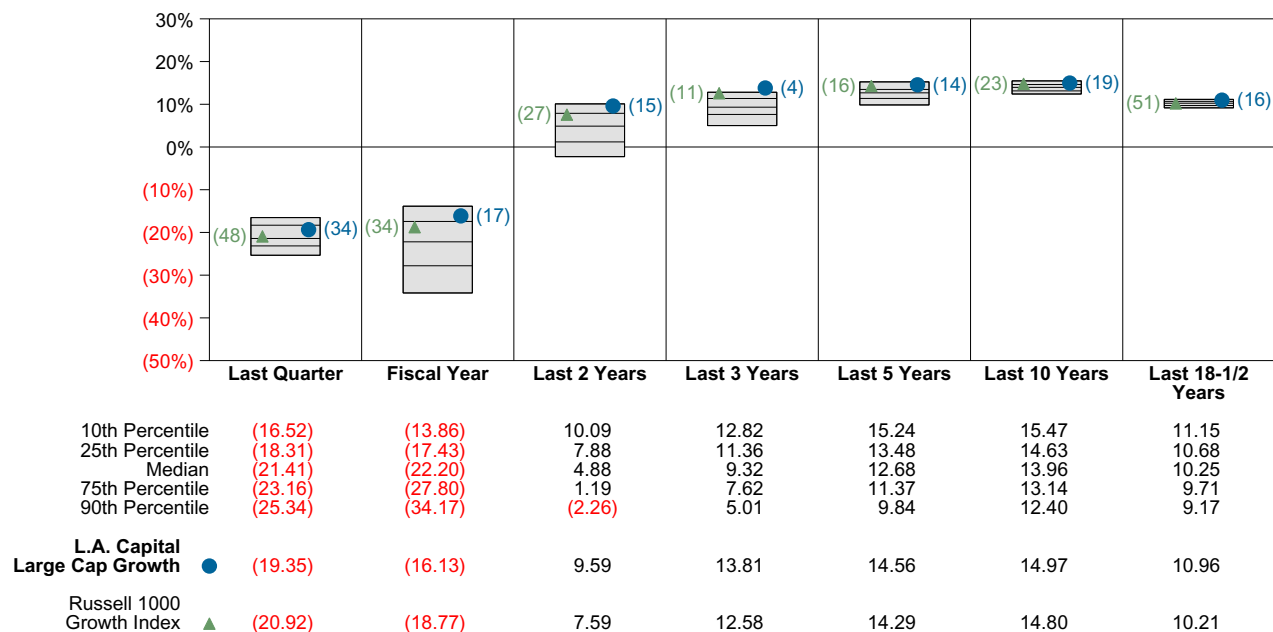
### Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a (19.35)% return for the quarter placing it in the 34 percentile of the Callan Large Cap Growth group for the quarter and in the 17 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 1.57% for the quarter and outperformed the Russell 1000 Growth Index for the year by 2.64%.

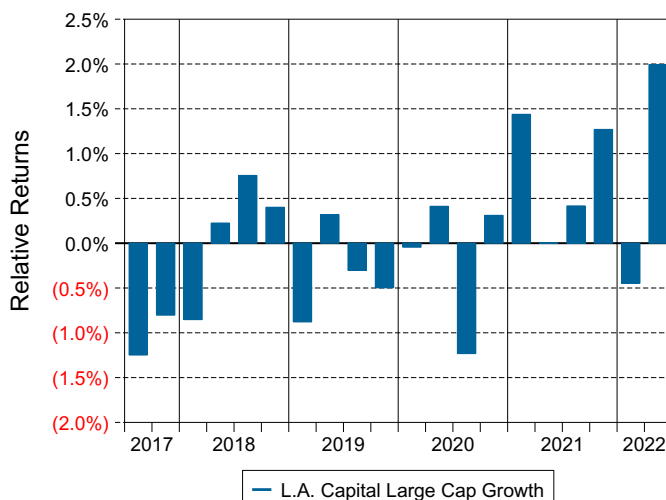
### Quarterly Asset Growth

Beginning Market Value	\$78,447,656
Net New Investment	\$-9,139,904
Investment Gains/(Losses)	\$-13,412,195
Ending Market Value	\$55,895,557

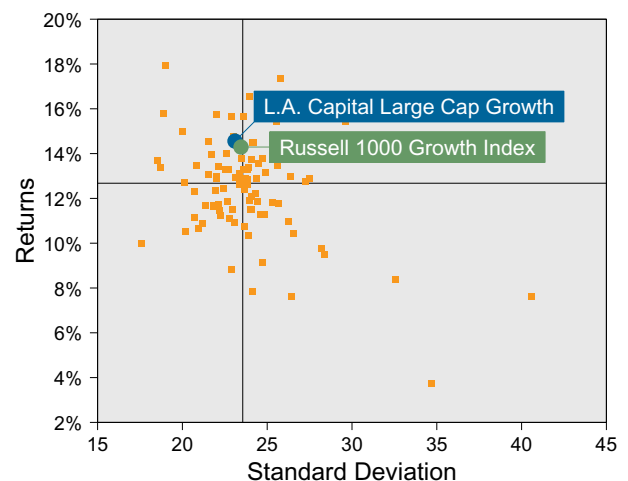
### Performance vs Callan Large Cap Growth (Gross)



### Relative Return vs Russell 1000 Growth Index



### Callan Large Cap Growth (Gross) Annualized Five Year Risk vs Return





## L.A. Capital Enhanced Period Ended June 30, 2022

### Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

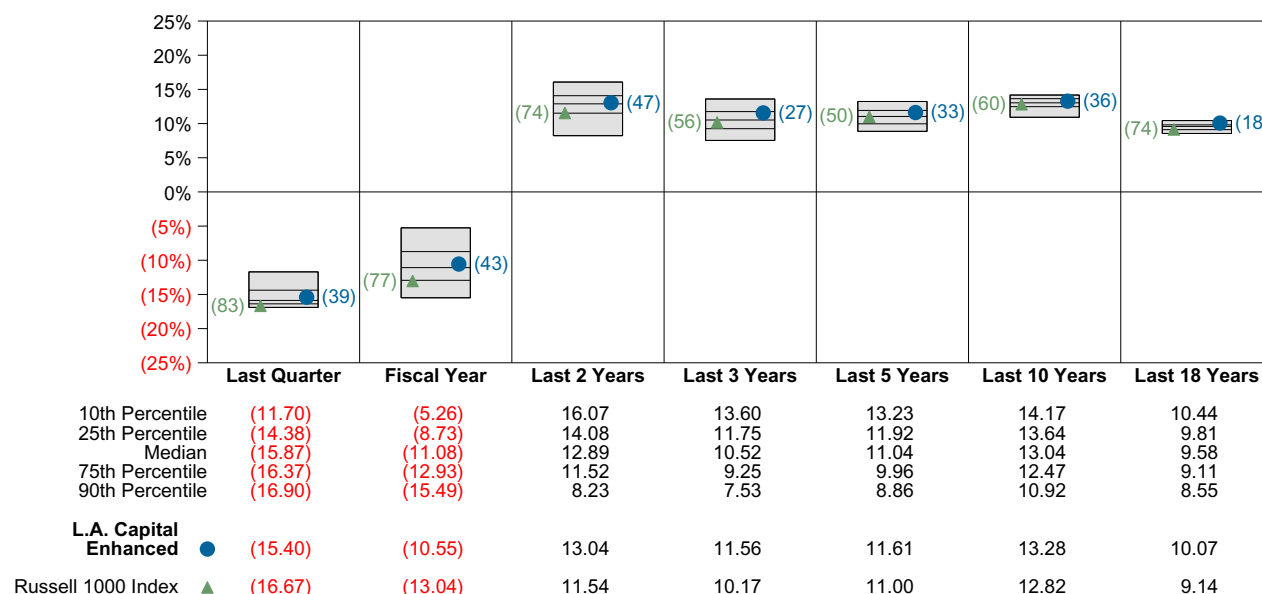
### Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (15.40)% return for the quarter placing it in the 39 percentile of the Callan Large Cap Core group for the quarter and in the 43 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 1.27% for the quarter and outperformed the Russell 1000 Index for the year by 2.48%.

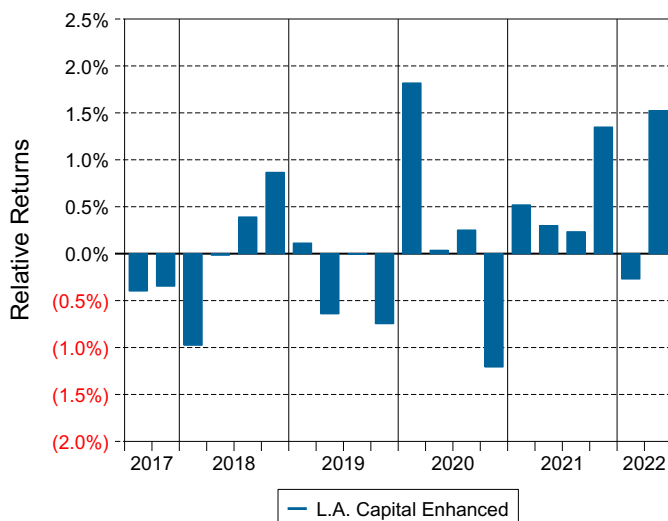
### Quarterly Asset Growth

Beginning Market Value	\$54,056,147
Net New Investment	\$-7,310,523
Investment Gains/(Losses)	\$-7,199,679
Ending Market Value	\$39,545,944

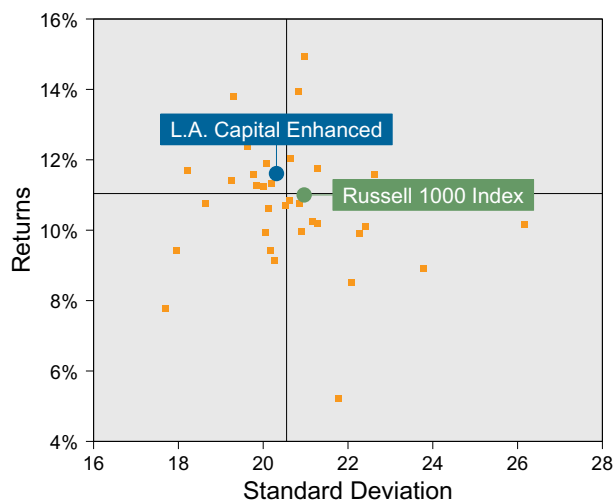
### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs Russell 1000 Index



### Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return



## LSV Asset Management Period Ended June 30, 2022

### Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

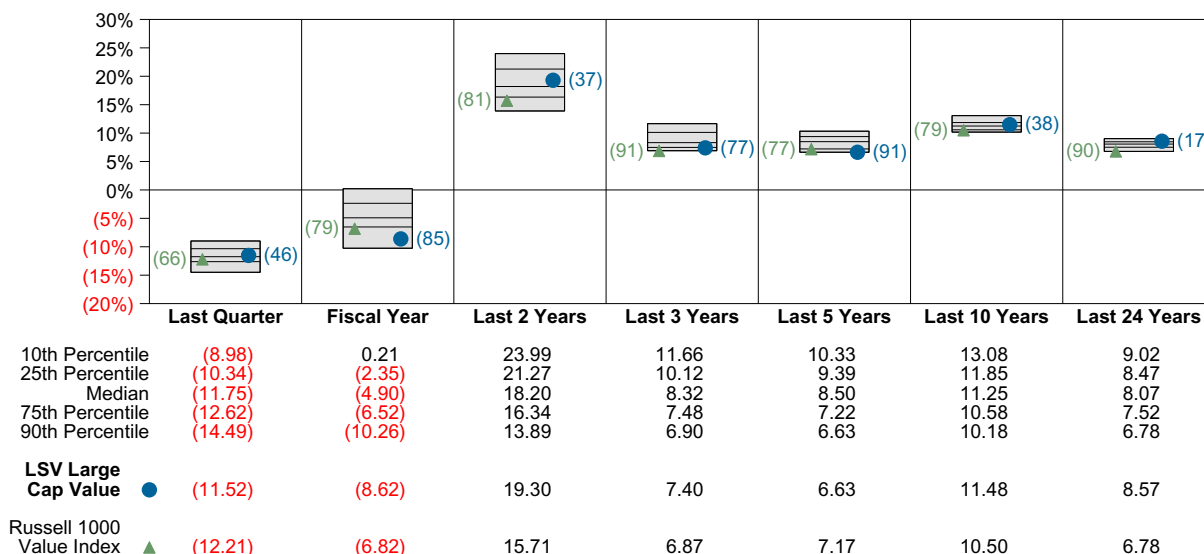
### Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a (11.52)% return for the quarter placing it in the 46 percentile of the Callan Large Cap Value group for the quarter and in the 85 percentile for the last year.
- LSV Large Cap Value's portfolio outperformed the Russell 1000 Value Index by 0.69% for the quarter and underperformed the Russell 1000 Value Index for the year by 1.80%.

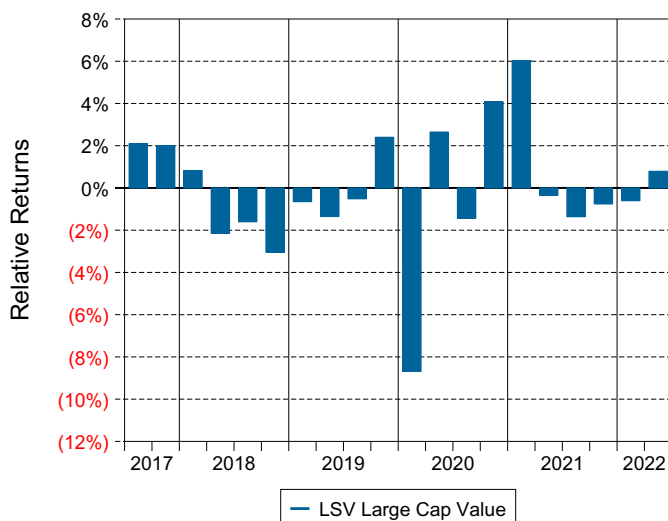
### Quarterly Asset Growth

Beginning Market Value	\$80,781,555
Net New Investment	\$-11,556,066
Investment Gains/(Losses)	\$-7,996,213
Ending Market Value	\$61,229,276

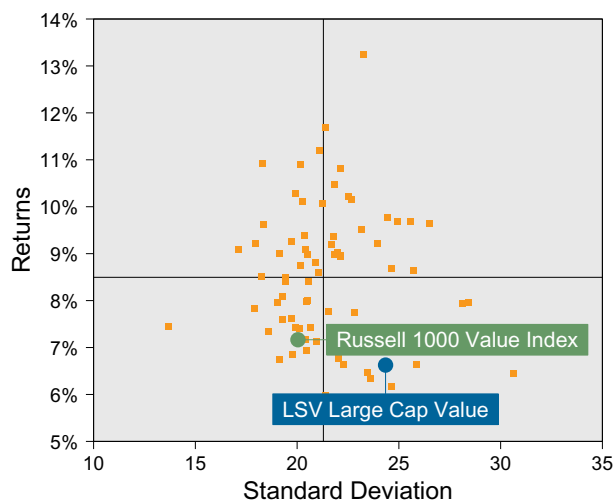
### Performance vs Callan Large Cap Value (Gross)



### Relative Return vs Russell 1000 Value Index



### Callan Large Cap Value (Gross) Annualized Five Year Risk vs Return



## Small Cap Period Ended June 30, 2022

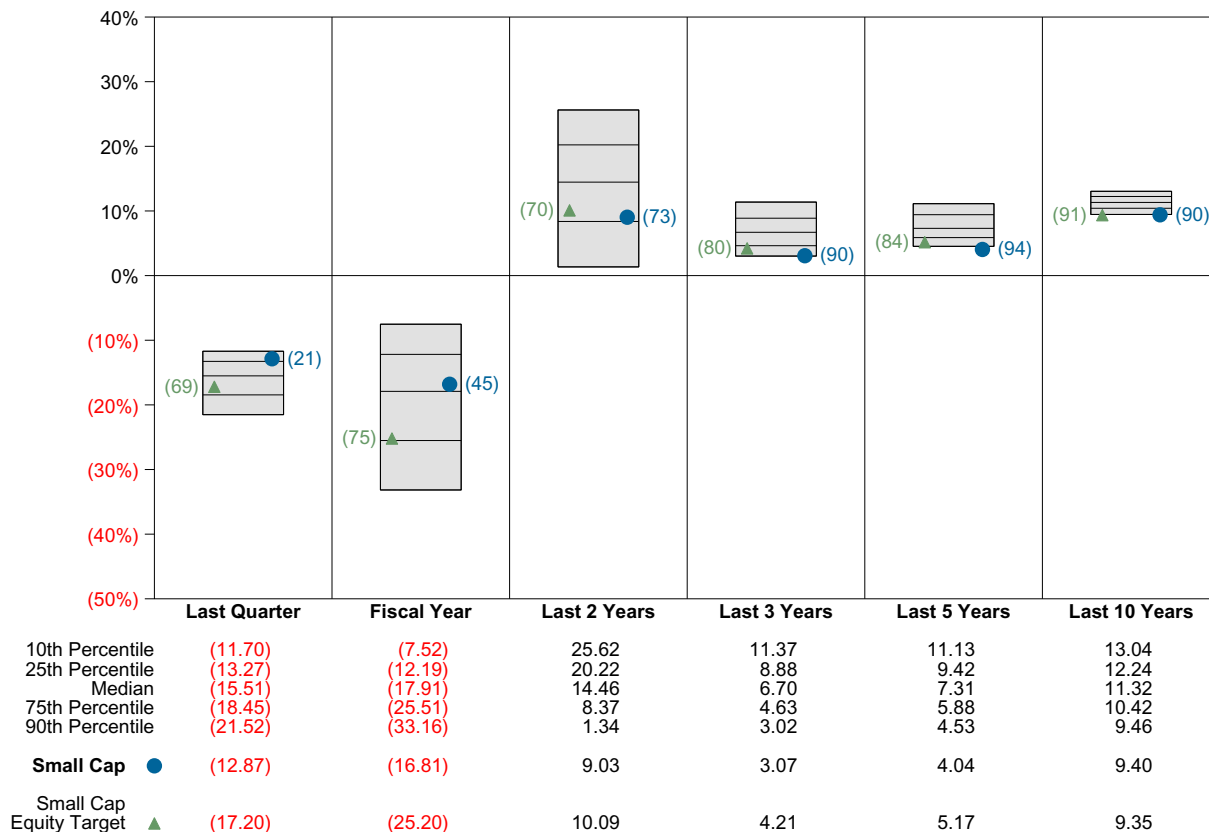
### Quarterly Summary and Highlights

- Small Cap's portfolio posted a (12.87)% return for the quarter placing it in the 21 percentile of the Callan Small Capitalization group for the quarter and in the 45 percentile for the last year.
- Small Cap's portfolio outperformed the Small Cap Equity Target by 4.33% for the quarter and outperformed the Small Cap Equity Target for the year by 8.39%.

### Quarterly Asset Growth

Beginning Market Value	\$69,485,428
Net New Investment	\$-19,410,744
Investment Gains/(Losses)	\$-6,468,282
Ending Market Value	\$43,606,401

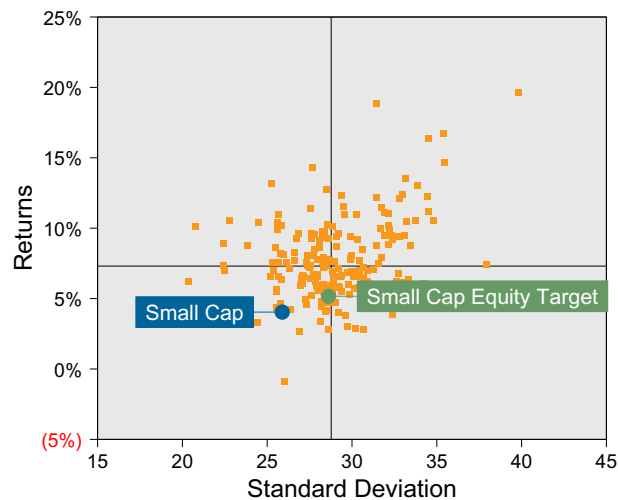
### Performance vs Callan Small Capitalization (Gross)



### Relative Return vs Small Cap Equity Target



### Callan Small Capitalization (Gross) Annualized Five Year Risk vs Return



## Atlanta Capital Period Ended June 30, 2022

### Investment Philosophy

Atlanta Capital Managements approach with its small cap product is to focus on high quality companies with an overall portfolio risk exposure tied to the Russell 2000 Index. Key characteristics of this portfolio include: (1) stocks rated B+ or better by S&P, (2) equally weighting 75 stocks, (3) sector concentrations similar to that of the benchmark. A group of ten analysts is in charge of screening the Russell 2000 to identify companies they believe have strong price appreciation potential and good business fundamentals. These analysts present the ideas to the portfolio management team, led by Chip Reed, who makes the final decisions on the inclusion of stocks. In general, stocks are sold from the portfolio if the B+ or better financial rating is no longer met, there is an adverse change in the fundamental business, or because of regular portfolio maintenance to ensure broad diversification.

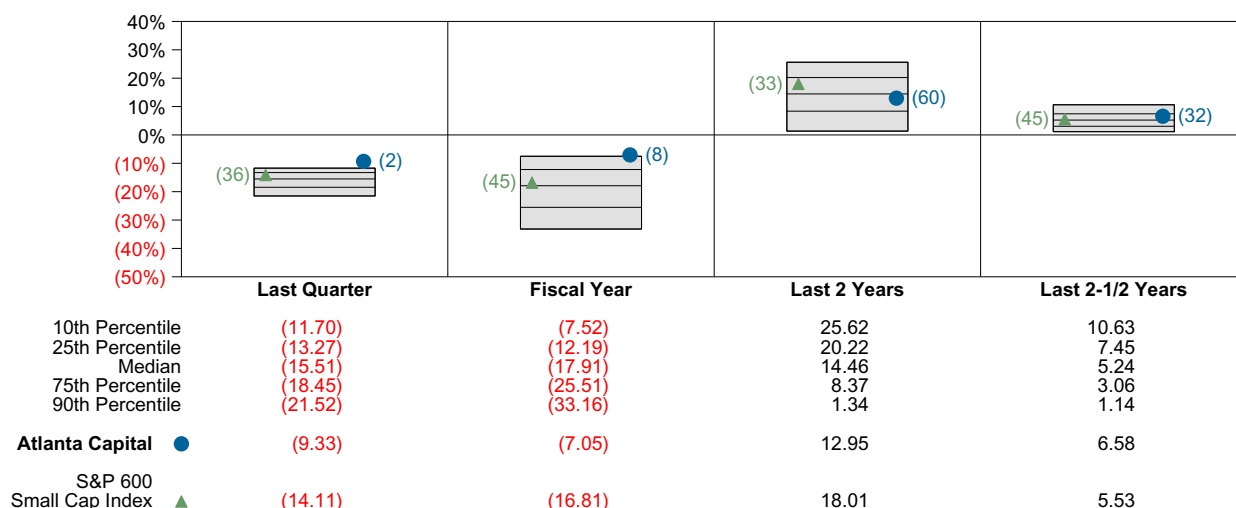
### Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a (9.33)% return for the quarter placing it in the 2 percentile of the Callan Small Capitalization group for the quarter and in the 8 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 4.78% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 9.76%.

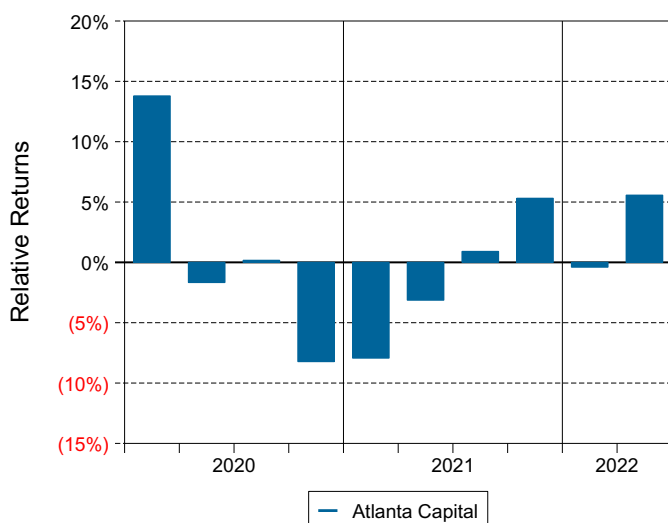
### Quarterly Asset Growth

Beginning Market Value	\$24,873,626
Net New Investment	\$-7,836,918
Investment Gains/(Losses)	\$-1,582,179
Ending Market Value	\$15,454,529

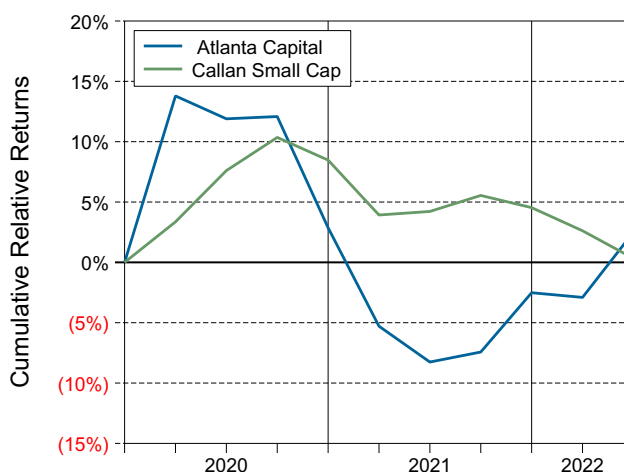
### Performance vs Callan Small Capitalization (Gross)



### Relative Return vs S&P 600 Small Cap Index



### Cumulative Returns vs S&P 600 Small Cap Index



## Riverbridge Small Cap Growth Period Ended June 30, 2022

### Investment Philosophy

Riverbridge believes earnings power determines the value of a franchise. They focus on companies that are building earnings power and intrinsic value of the company over long periods of time. They also look for high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

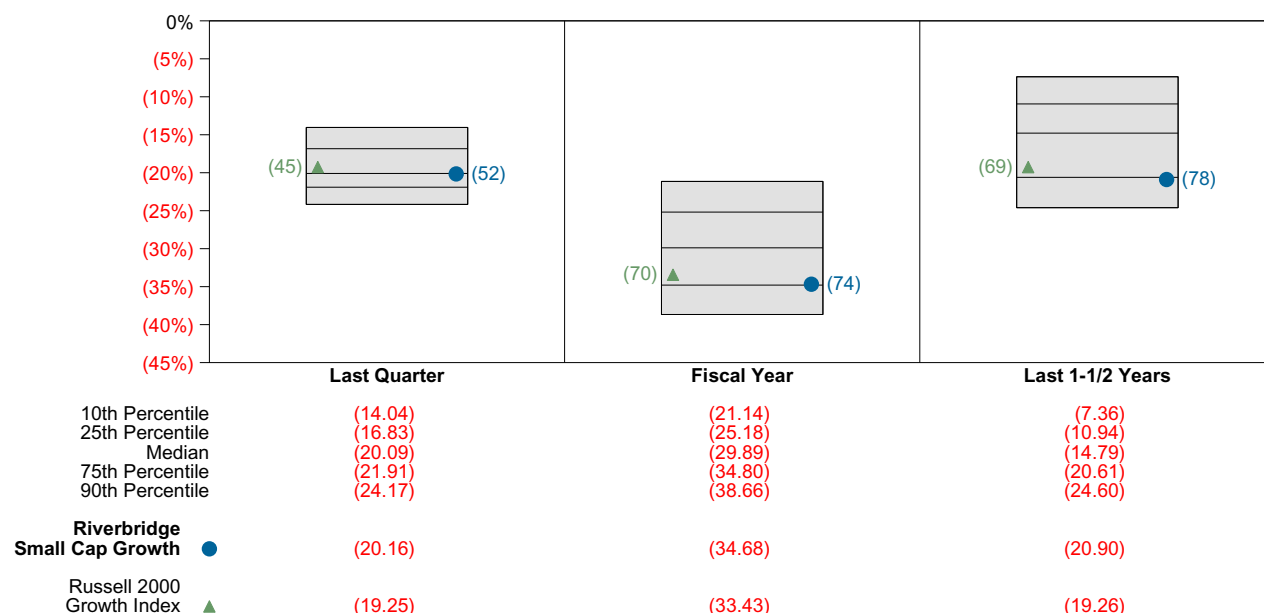
### Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (20.16)% return for the quarter placing it in the 52 percentile of the Callan Small Cap Growth group for the quarter and in the 74 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 0.90% for the quarter and underperformed the Russell 2000 Growth Index for the year by 1.25%.

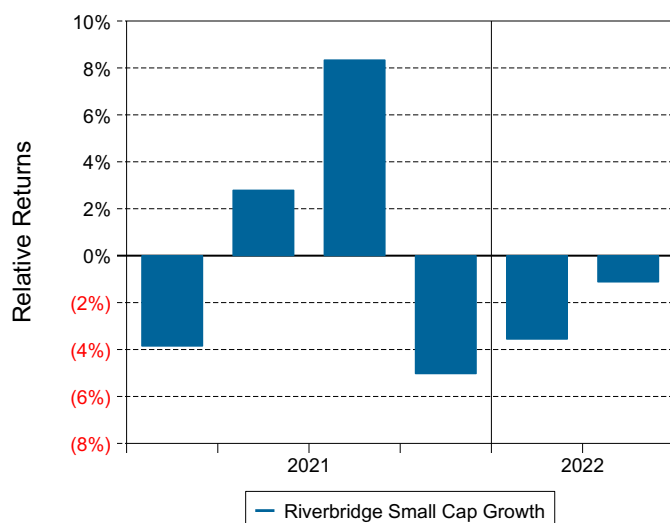
### Quarterly Asset Growth

Beginning Market Value	\$19,086,296
Net New Investment	\$-2,435,259
Investment Gains/(Losses)	\$-3,326,884
Ending Market Value	\$13,324,153

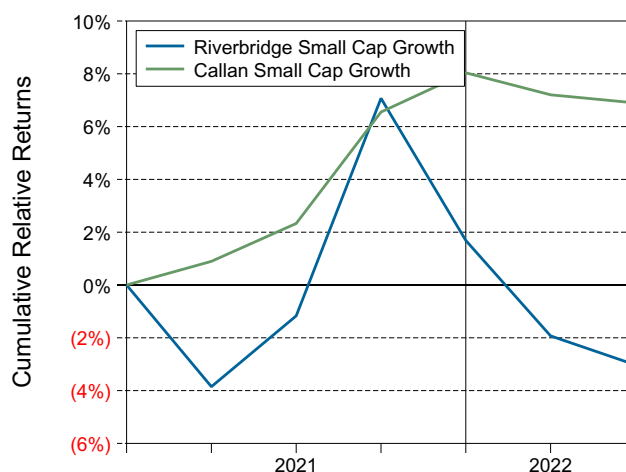
### Performance vs Callan Small Cap Growth (Gross)



### Relative Return vs Russell 2000 Growth Index



### Cumulative Returns vs Russell 2000 Growth Index



## Sycamore Small Cap Value Period Ended June 30, 2022

### Investment Philosophy

The Victory Small Cap Value Equity investment approach focuses on companies with market capitalizations between \$100 million and \$2 billion that are believed offer above-average total return potential with limited risk. The Small Cap Value Equity investment process seeks to identify high quality, low expectation small cap companies that appear poised for continued or improved earnings. Portfolios typically hold 100-125 stocks with average annual portfolio turnover of 40%. The team will begin to sell when a company's market capitalization exceeds \$4 billion, however they focus on the weighted average market capitalization of the total portfolio and thus may retain exposure to some mid cap companies.

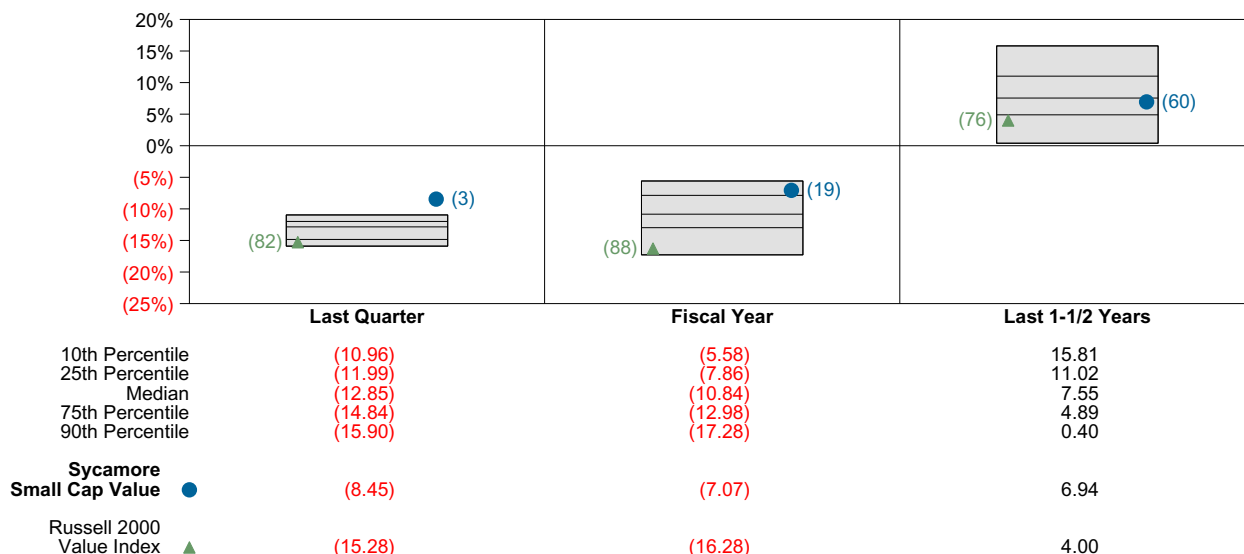
### Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a (8.45)% return for the quarter placing it in the 3 percentile of the Callan Small Cap Value group for the quarter and in the 19 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 6.82% for the quarter and outperformed the Russell 2000 Value Index for the year by 9.21%.

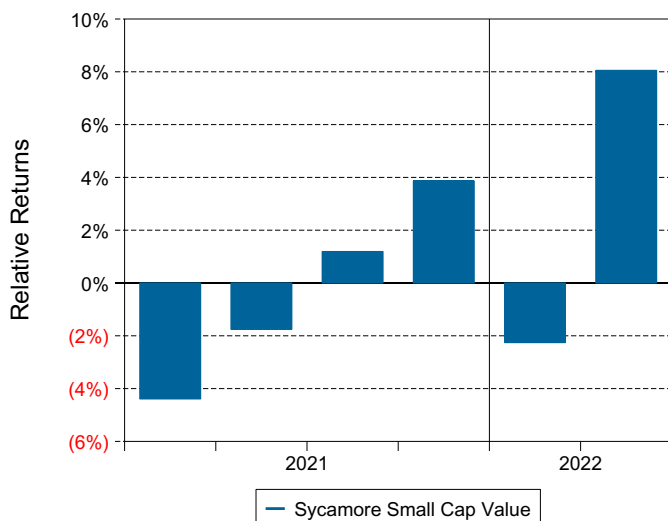
### Quarterly Asset Growth

Beginning Market Value	\$25,525,506
Net New Investment	\$-9,138,567
Investment Gains/(Losses)	\$-1,559,219
Ending Market Value	\$14,827,719

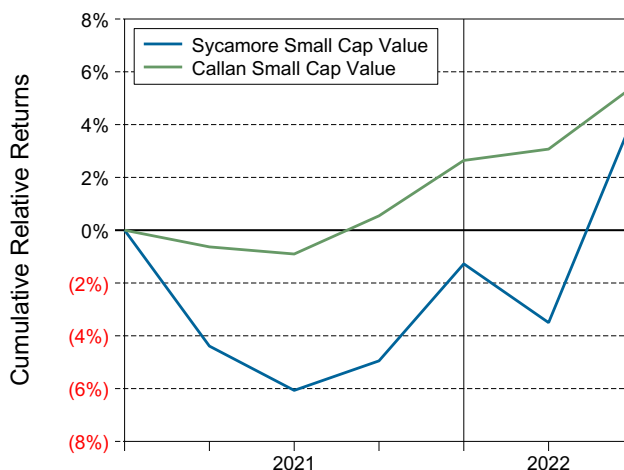
### Performance vs Callan Small Cap Value (Gross)



### Relative Return vs Russell 2000 Value Index



### Cumulative Returns vs Russell 2000 Value Index





## International Equity Period Ended June 30, 2022

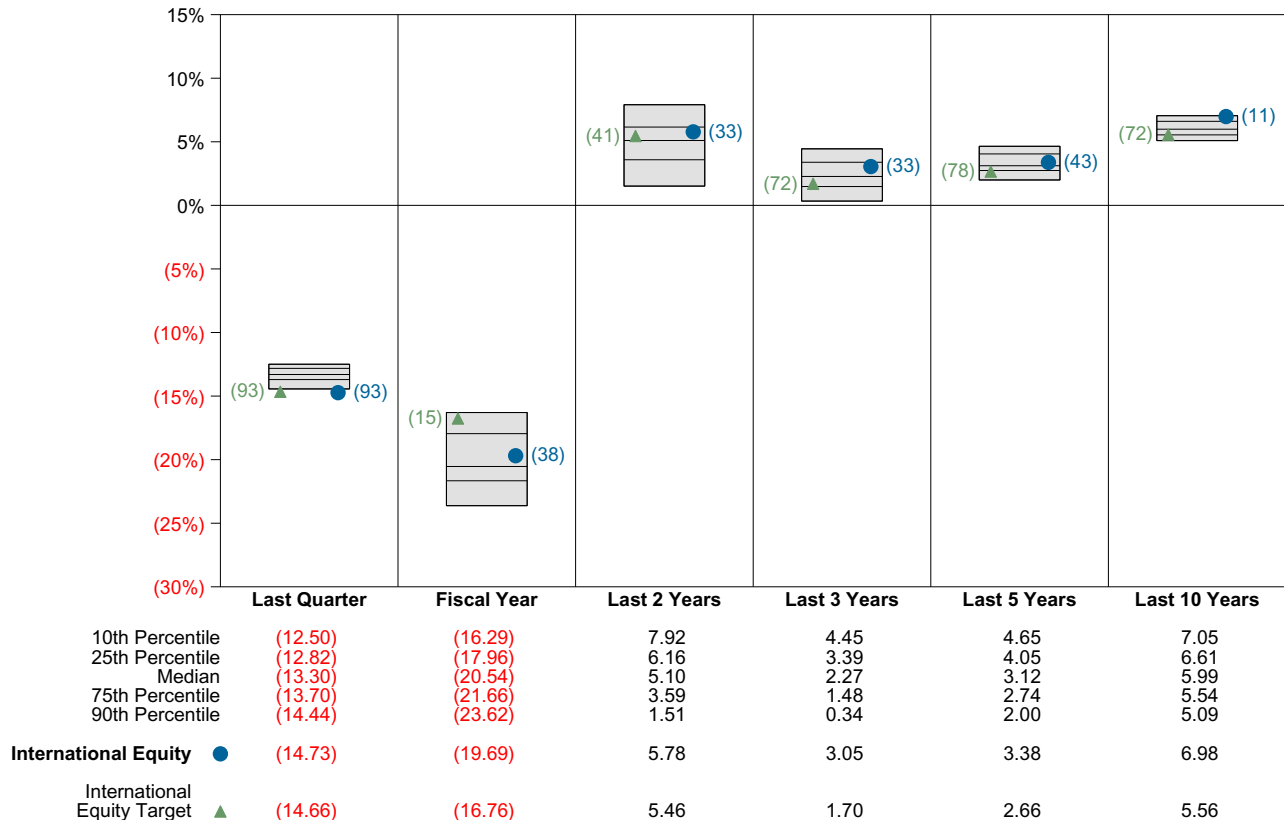
### Quarterly Summary and Highlights

- International Equity's portfolio posted a (14.73)% return for the quarter placing it in the 93 percentile of the Public Fund - International Equity group for the quarter and in the 38 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 0.08% for the quarter and underperformed the International Equity Target for the year by 2.93%.

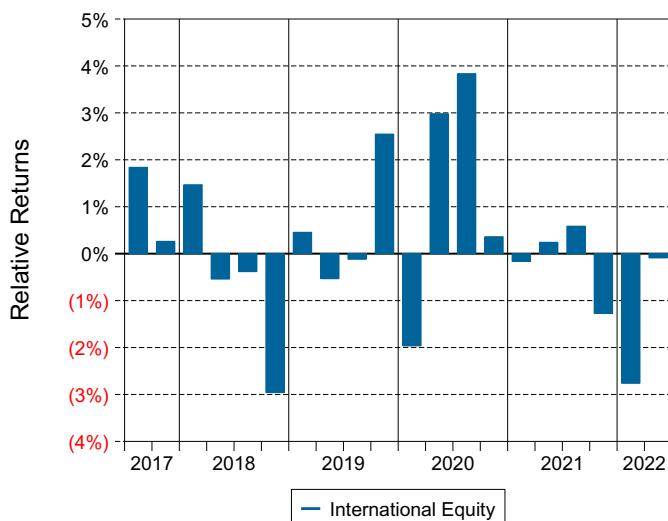
### Quarterly Asset Growth

Beginning Market Value	\$183,614,771
Net New Investment	\$-105,842
Investment Gains/(Losses)	\$-27,040,284
Ending Market Value	\$156,468,644

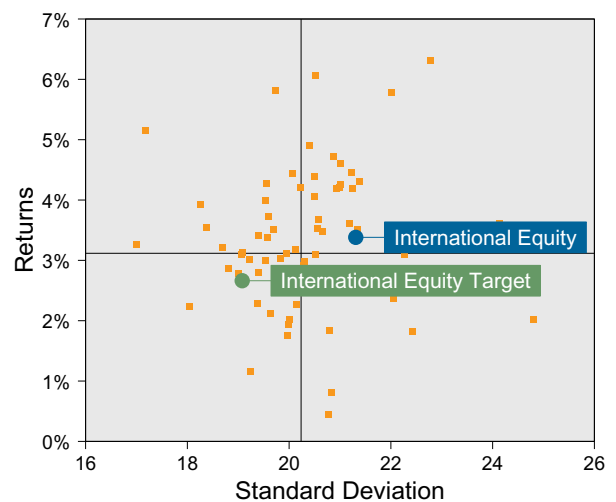
### Performance vs Public Fund - International Equity (Gross)



### Relative Return vs International Equity Target



### Public Fund - International Equity (Gross) Annualized Five Year Risk vs Return





## Arrowstreet ACWI ex US Period Ended June 30, 2022

### Investment Philosophy

Arrowstreet is a 100% employed-owned firm whose strategies are team-managed by a deep and experienced team. The firm employs a quantitative process that identifies direct and indirect relationships to forecast stock price returns. The investment approach seeks to provide a risk controlled, core exposure to Non-US developed and emerging countries. The portfolio is diversified with 150 to 775 holdings (typically 307-467) across countries and sectors. The firm's dedication to research has led to a model that has adapted to multiple market environments and provided consistent results over time.

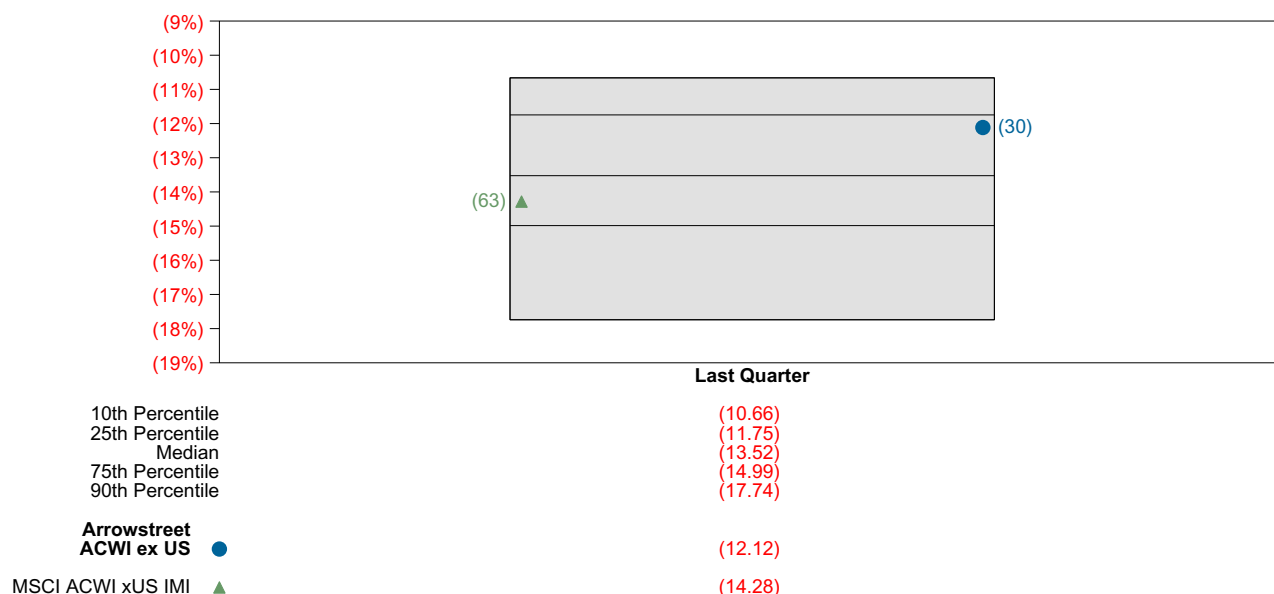
### Quarterly Summary and Highlights

- Arrowstreet ACWI ex US's portfolio posted a (12.12)% return for the quarter placing it in the 30 percentile of the Callan Non US Equity Mutual Funds group for the quarter.
- Arrowstreet ACWI ex US's portfolio outperformed the MSCI ACWI xUS IMI by 2.17% for the quarter.

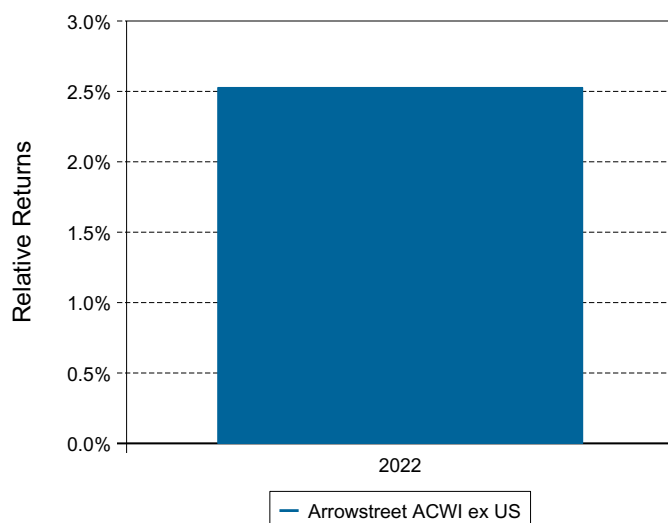
### Quarterly Asset Growth

Beginning Market Value	\$50,860,374
Net New Investment	\$0
Investment Gains/(Losses)	\$-6,162,029
Ending Market Value	\$44,698,345

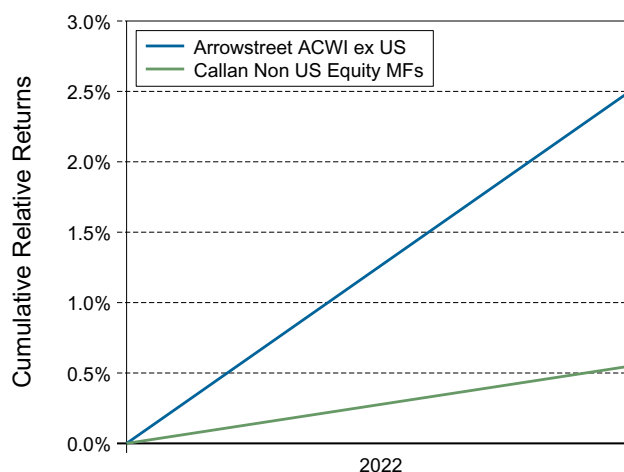
### Performance vs Callan Non US Equity Mutual Funds (Net)



### Relative Return vs MSCI ACWI xUS IMI



### Cumulative Returns vs MSCI ACWI xUS IMI



## DFA Intl Small Cap Value Period Ended June 30, 2022

### Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

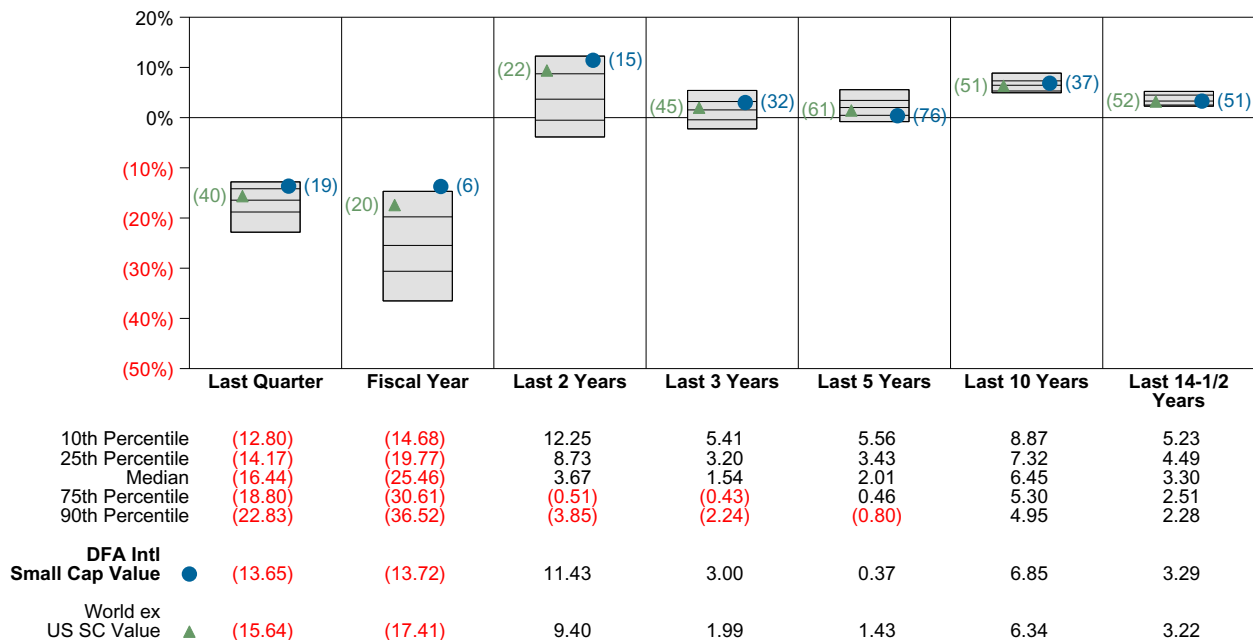
### Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a (13.65)% return for the quarter placing it in the 19 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 6 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 1.99% for the quarter and outperformed the World ex US SC Value for the year by 3.69%.

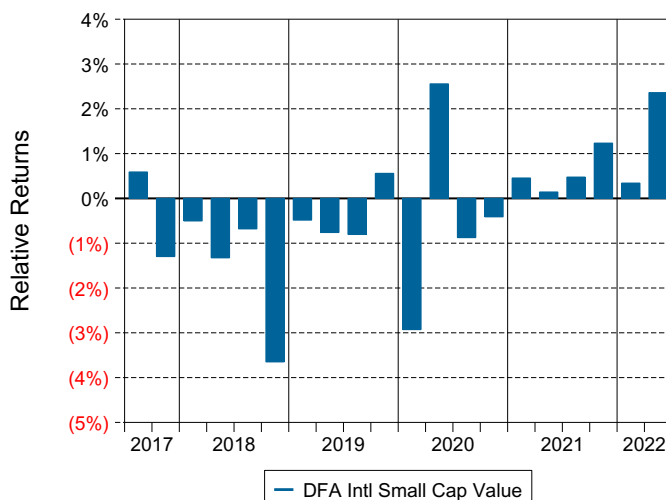
### Quarterly Asset Growth

Beginning Market Value	\$19,482,281
Net New Investment	\$0
Investment Gains/(Losses)	\$-2,659,162
Ending Market Value	\$16,823,118

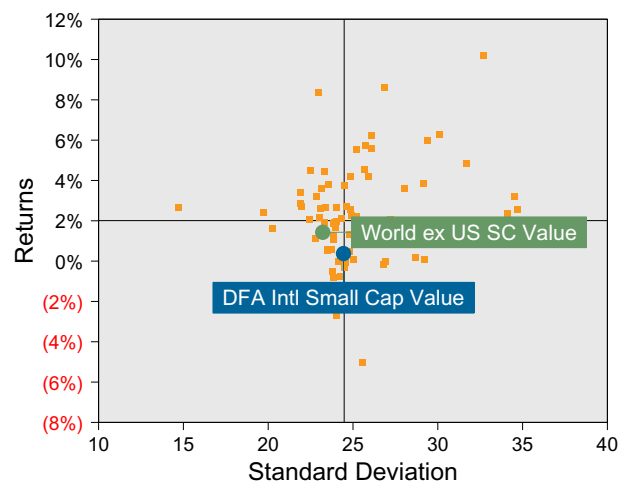
### Performance vs Callan International Small Cap Mut Funds (Net)



### Relative Return vs World ex US SC Value



### Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



## LSV Intl Value Period Ended June 30, 2022

### Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged. **\*MSCI EAFE through 9/30/2000; 50% Hedged EAFE through 3/31/2011 and MSCI EAFE again thereafter.**

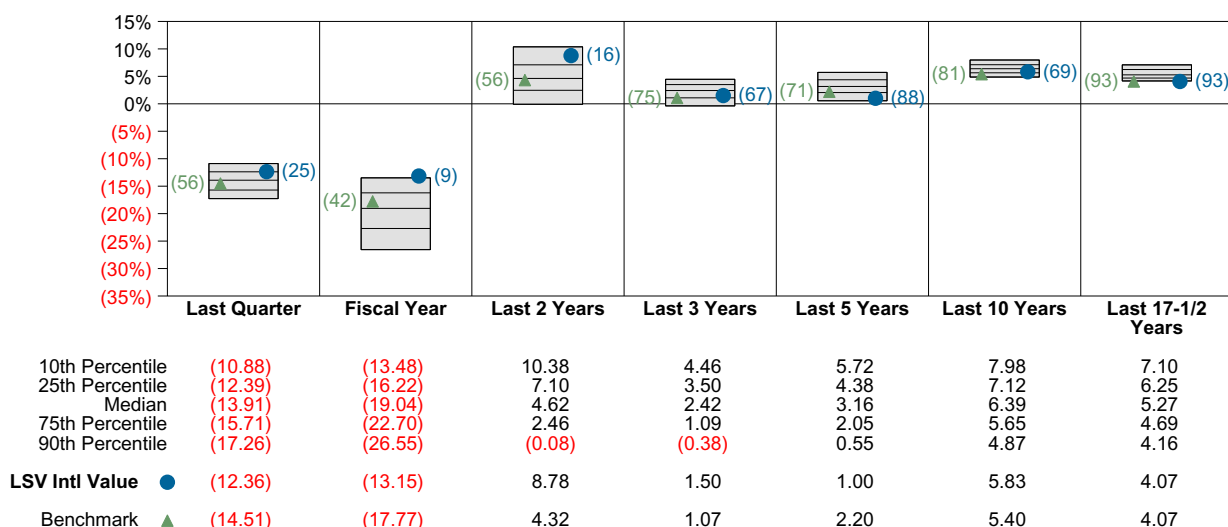
### Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a (12.36)% return for the quarter placing it in the 25 percentile of the Callan Non-US Equity group for the quarter and in the 9 percentile for the last year.
- LSV Intl Value's portfolio outperformed the Benchmark by 2.15% for the quarter and outperformed the Benchmark for the year by 4.62%.

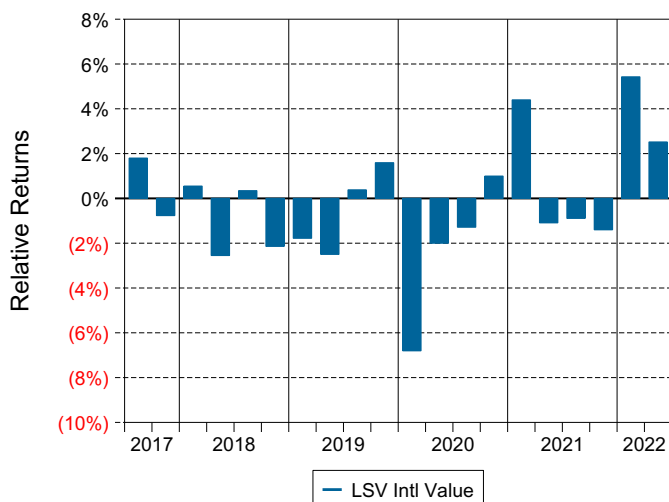
### Quarterly Asset Growth

Beginning Market Value	\$53,767,256
Net New Investment	\$-57,872
Investment Gains/(Losses)	\$-6,640,548
Ending Market Value	\$47,068,835

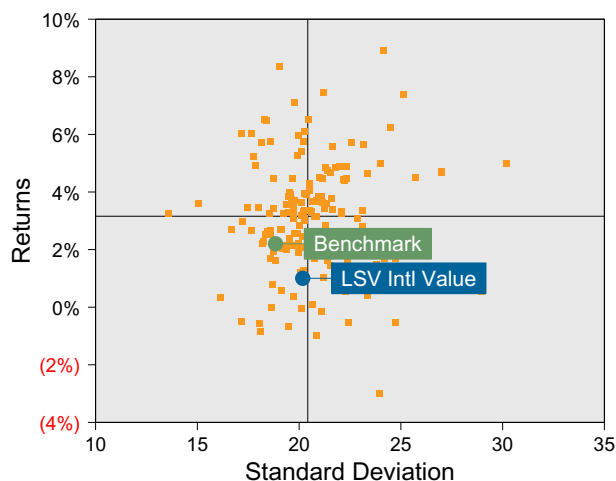
### Performance vs Callan Non-US Equity (Gross)



### Relative Return vs Benchmark



### Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return



## Vanguard Intl Explorer Fund Period Ended June 30, 2022

### Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

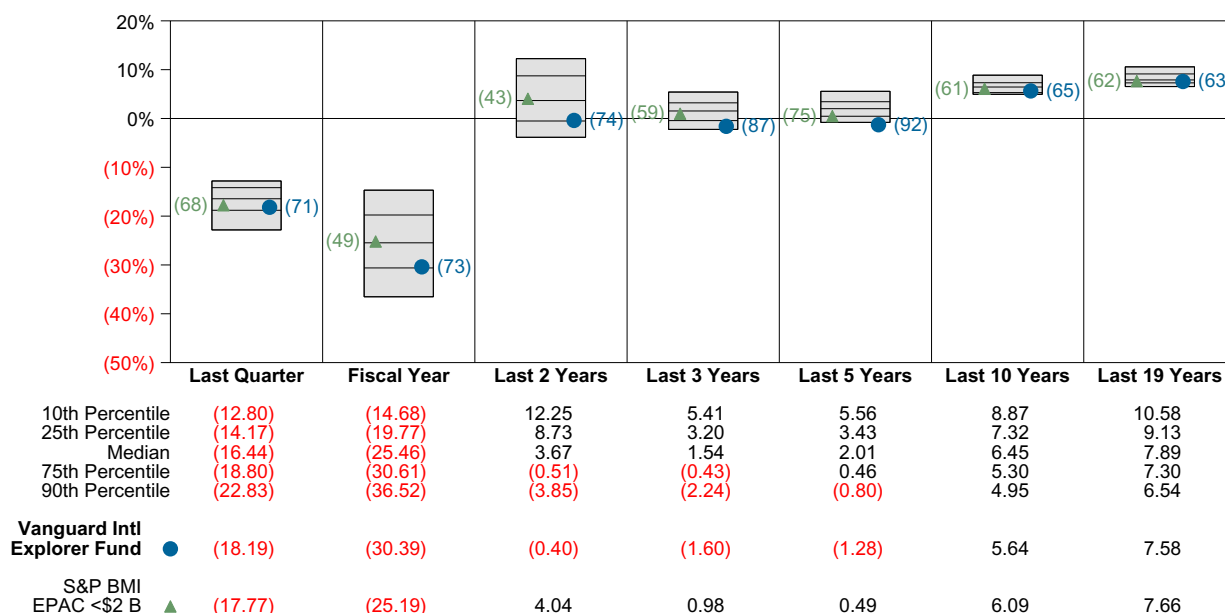
### Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a (18.19)% return for the quarter placing it in the 71 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 73 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio underperformed the S&P BMI EPAC <\$2 B by 0.42% for the quarter and underperformed the S&P BMI EPAC <\$2 B for the year by 5.20%.

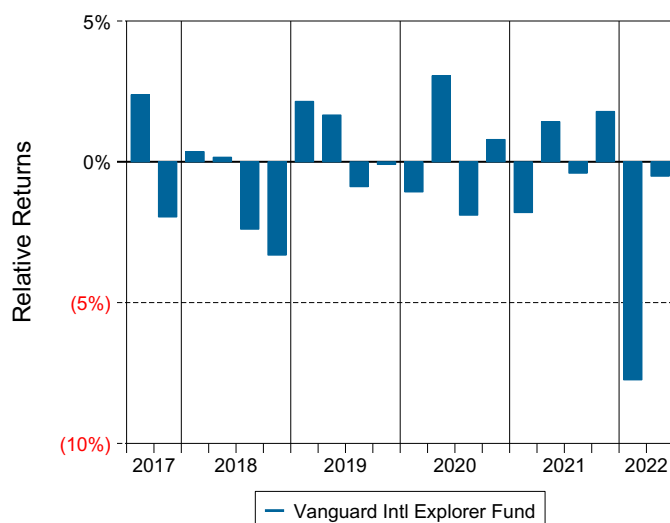
### Quarterly Asset Growth

Beginning Market Value	\$16,726,108
Net New Investment	\$0
Investment Gains/(Losses)	\$-3,041,951
Ending Market Value	\$13,684,157

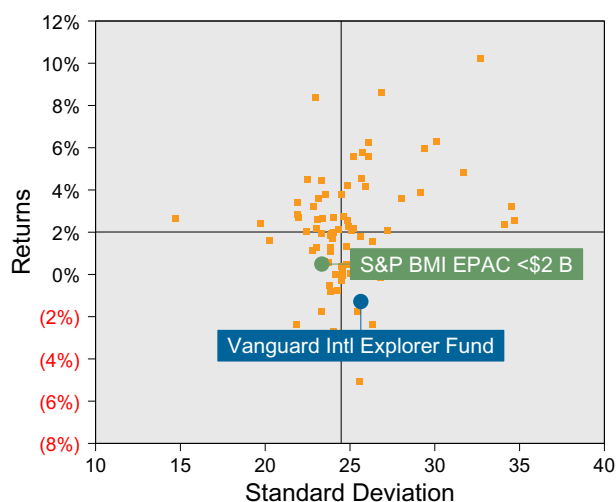
### Performance vs Callan International Small Cap Mut Funds (Net)



### Relative Return vs S&P BMI EPAC <\$2 B



### Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return



## William Blair Period Ended June 30, 2022

### Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

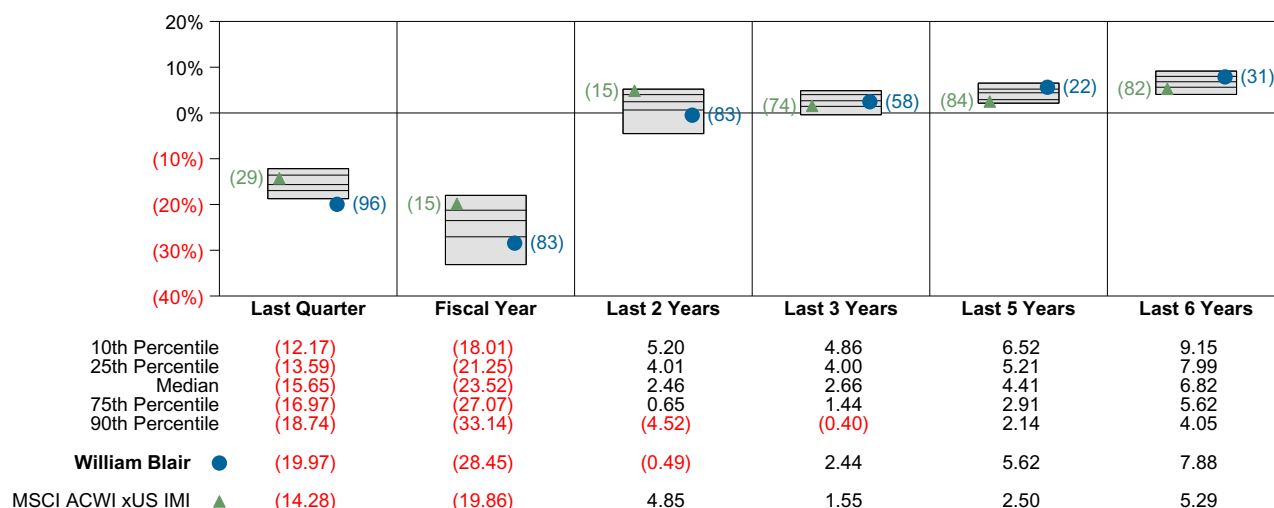
### Quarterly Summary and Highlights

- William Blair's portfolio posted a (19.97)% return for the quarter placing it in the 96 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 83 percentile for the last year.
- William Blair's portfolio underperformed the MSCI ACWI xUS IMI by 5.69% for the quarter and underperformed the MSCI ACWI xUS IMI for the year by 8.59%.

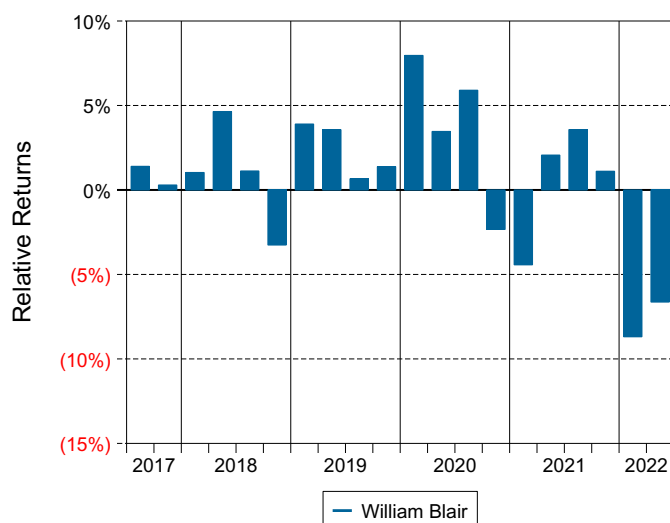
### Quarterly Asset Growth

Beginning Market Value	\$42,778,752
Net New Investment	\$-47,970
Investment Gains/(Losses)	\$-8,536,593
Ending Market Value	\$34,194,189

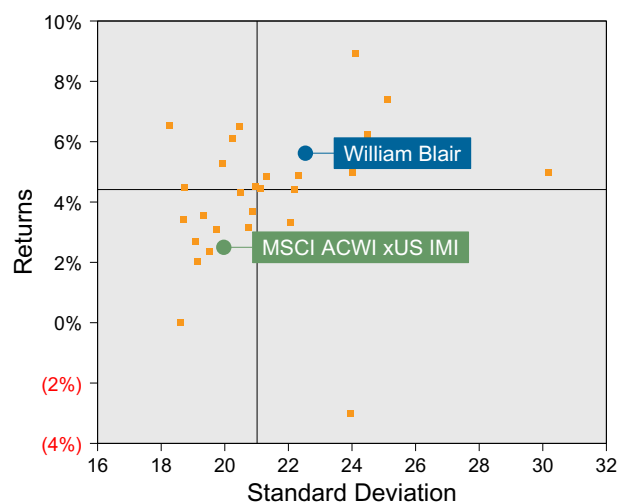
### Performance vs Callan Non-US All Country Growth Equity (Gross)



### Relative Return vs MSCI ACWI xUS IMI



### Callan Non-US All Country Growth Equity (Gross) Annualized Five Year Risk vs Return





## Domestic Fixed Income Period Ended June 30, 2022

### Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a (5.81)% return for the quarter placing it in the 82 percentile of the Public Fund - Domestic Fixed group for the quarter and in the 87 percentile for the last year.
- Domestic Fixed Income's portfolio underperformed the Blmbg Aggregate by 1.12% for the quarter and underperformed the Blmbg Aggregate for the year by 0.89%.

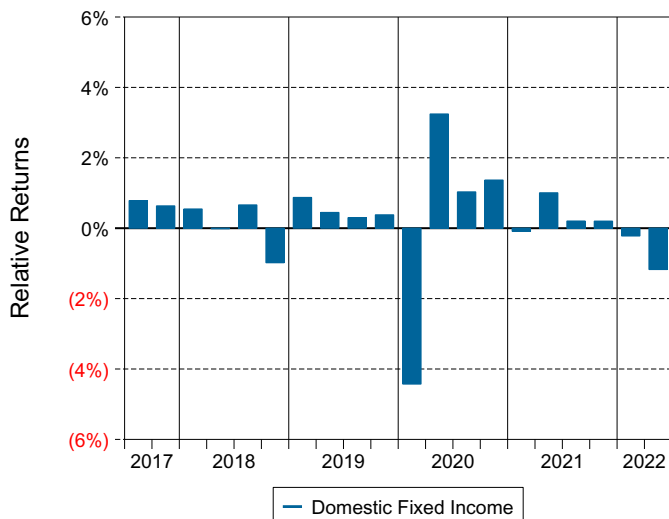
### Quarterly Asset Growth

Beginning Market Value	\$1,359,541,099
Net New Investment	\$59,745,389
Investment Gains/(Losses)	\$-82,244,272
Ending Market Value	\$1,337,042,216

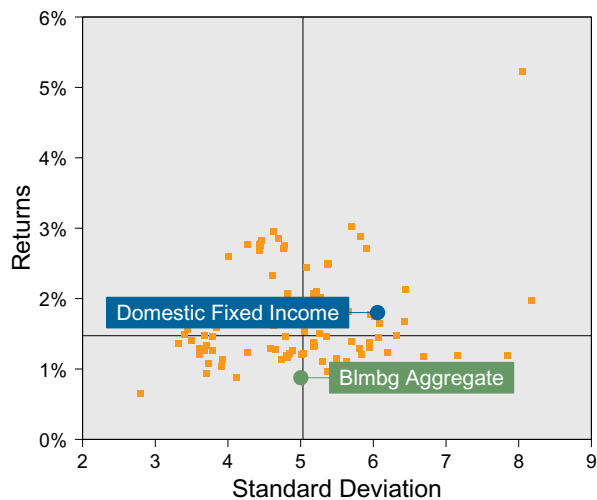
### Performance vs Public Fund - Domestic Fixed (Gross)



### Relative Return vs Blmbg Aggregate



### Public Fund - Domestic Fixed (Gross) Annualized Five Year Risk vs Return



## Declaration Total Return Period Ended June 30, 2022

### Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

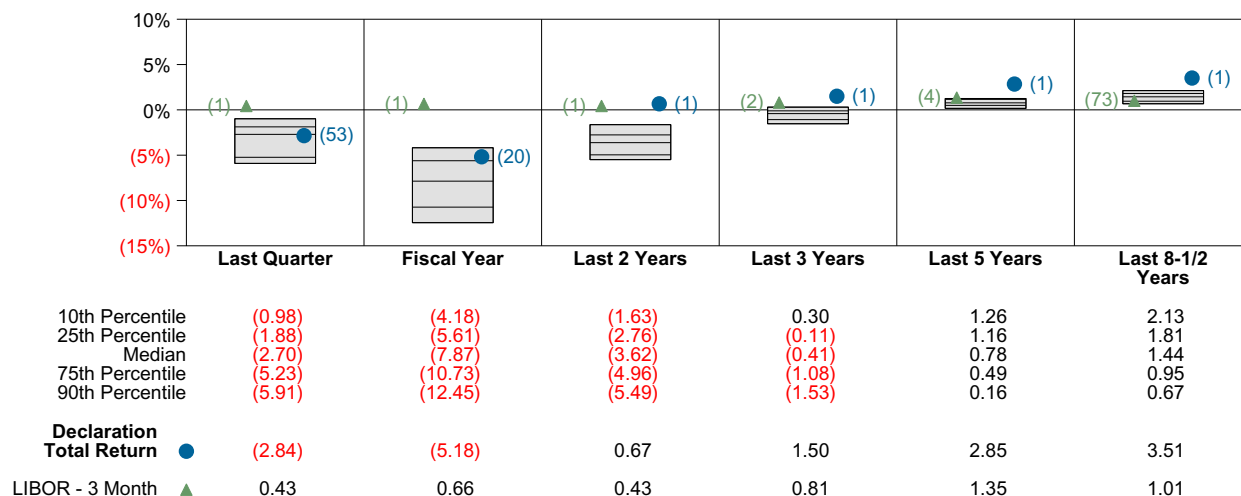
### Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a (2.84)% return for the quarter placing it in the 53 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 20 percentile for the last year.
- Declaration Total Return's portfolio underperformed the LIBOR - 3 Month by 3.28% for the quarter and underperformed the LIBOR - 3 Month for the year by 5.84%.

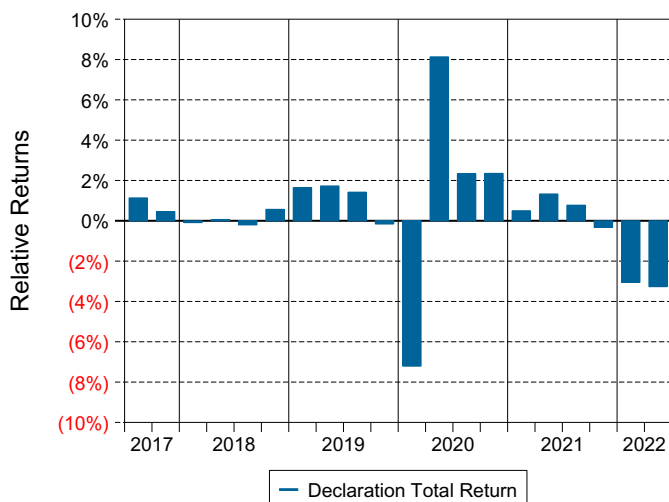
### Quarterly Asset Growth

Beginning Market Value	\$113,074,722
Net New Investment	\$-74,100
Investment Gains/(Losses)	\$-3,214,406
Ending Market Value	\$109,786,216

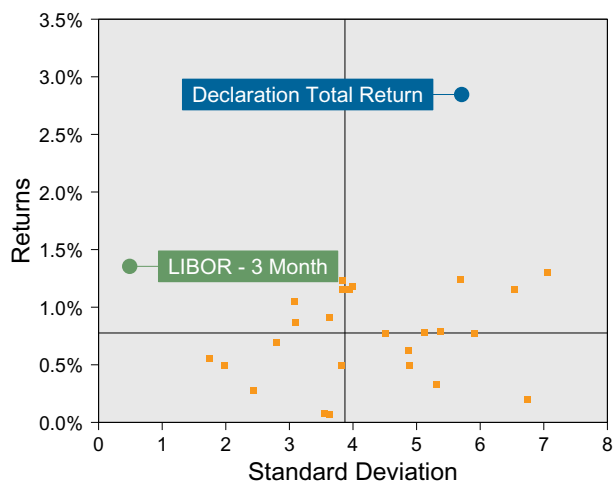
### Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



### Relative Return vs LIBOR - 3 Month



### Callan Intermediate Fixed Inc Mut Funds (Net) Annualized Five Year Risk vs Return





## PIMCO Core Plus Constrained Period Ended June 30, 2022

### Investment Philosophy

PIMCO's investment process utilizes both "top-down" and "bottom-up" strategies. Top-down strategies focus on duration, yield curve positioning, volatility, and sector rotation. These strategies are deployed from a macro view of the portfolio driven by their secular outlook of the forces likely to influence the economy and financial markets over the next three to five years and their cyclical views of two- to four-quarter trends. Implementation in portfolios is effected by selecting securities that achieve the designated objectives. Bottom-up strategies drive their security selection process and facilitate the identification and analysis of undervalued securities.

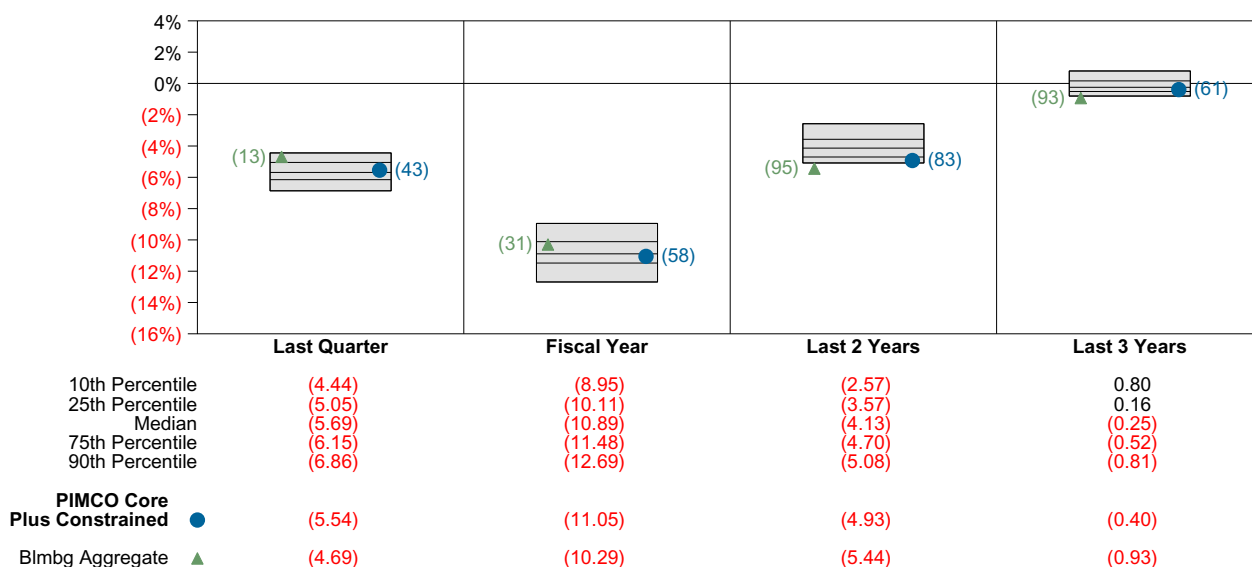
### Quarterly Summary and Highlights

- PIMCO Core Plus Constrained's portfolio posted a (5.54)% return for the quarter placing it in the 43 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 58 percentile for the last year.
- PIMCO Core Plus Constrained's portfolio underperformed the Blmbg Aggregate by 0.85% for the quarter and underperformed the Blmbg Aggregate for the year by 0.76%.

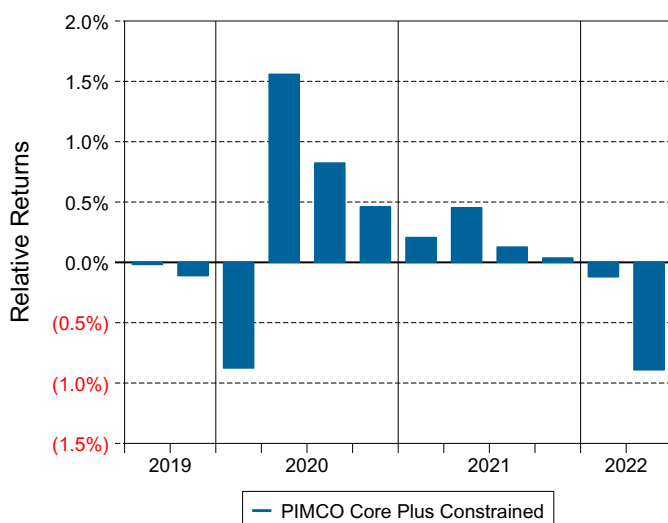
### Quarterly Asset Growth

Beginning Market Value	\$190,867,192
Net New Investment	\$7,440,784
Investment Gains/(Losses)	\$-10,957,020
Ending Market Value	\$187,350,956

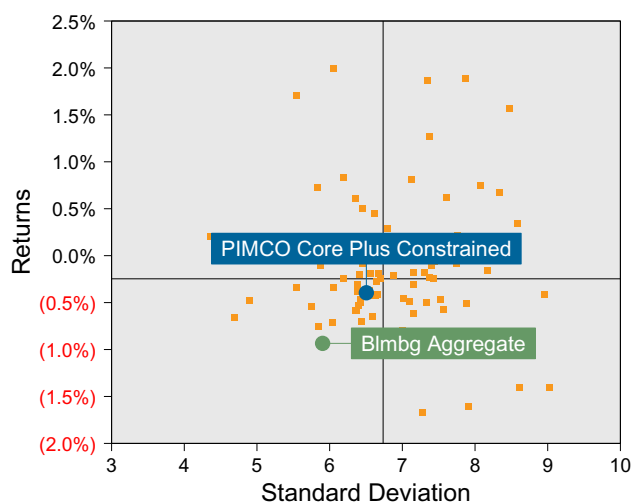
### Performance vs Callan Core Plus Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Plus Fixed Income (Gross) Annualized Three Year Risk vs Return



## PIMCO DiSCO II

### Period Ended June 30, 2022

#### Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors.

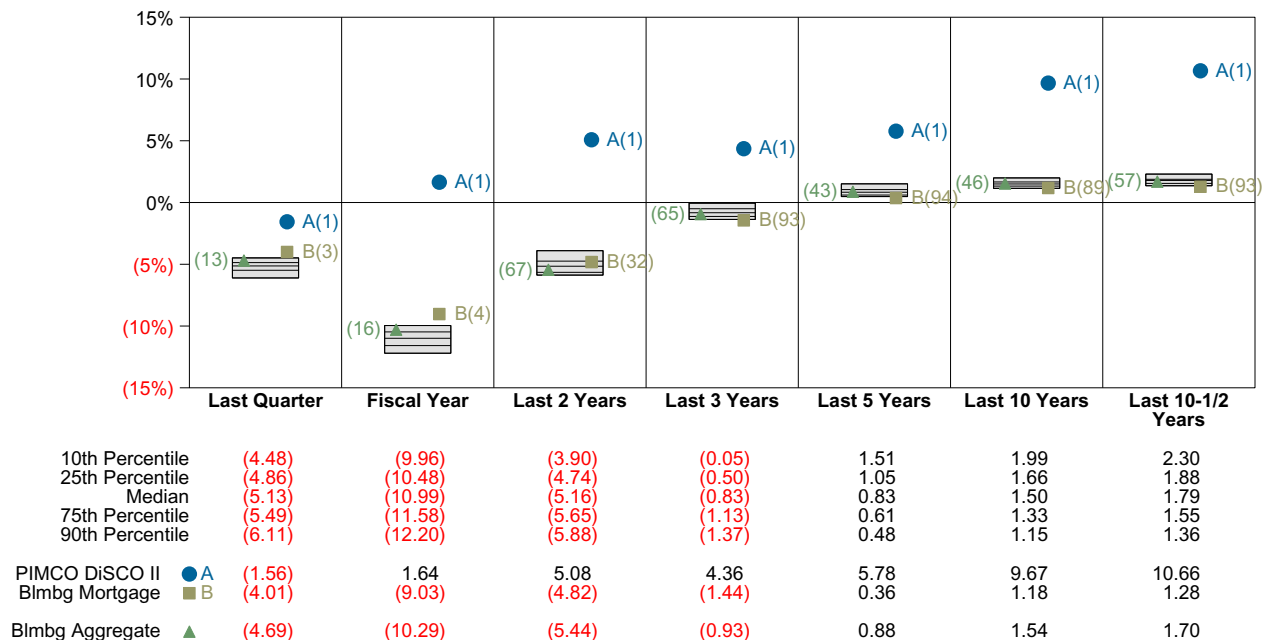
#### Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a (1.56)% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 3.13% for the quarter and outperformed the Blmbg Aggregate for the year by 11.94%.

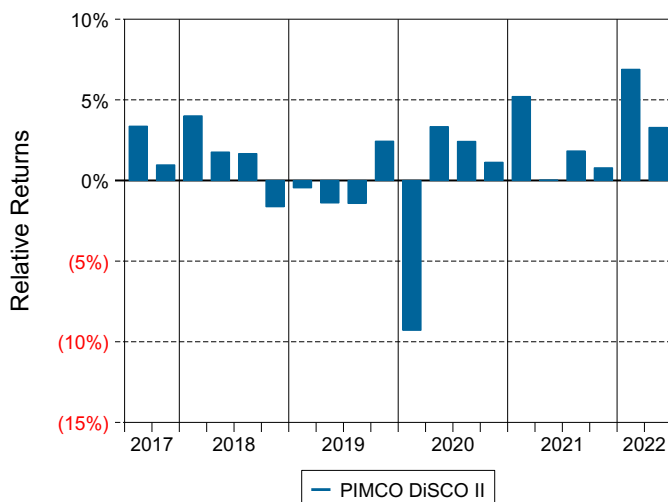
#### Quarterly Asset Growth

Beginning Market Value	\$42,367,043
Net New Investment	\$0
Investment Gains/(Losses)	\$-661,543
Ending Market Value	\$41,705,500

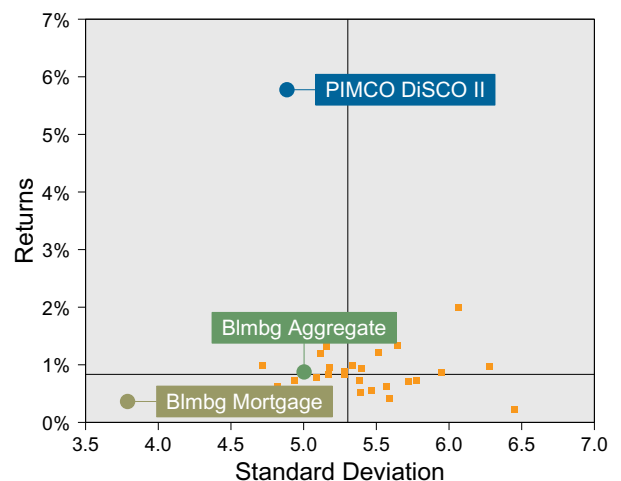
#### Performance vs Callan Core Bond Mutual Funds (Net)



#### Relative Return vs Blmbg Aggregate



#### Callan Core Bond Mutual Funds (Net) Annualized Five Year Risk vs Return



## PIMCO Bravo II Fund Period Ended June 30, 2022

### Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe.

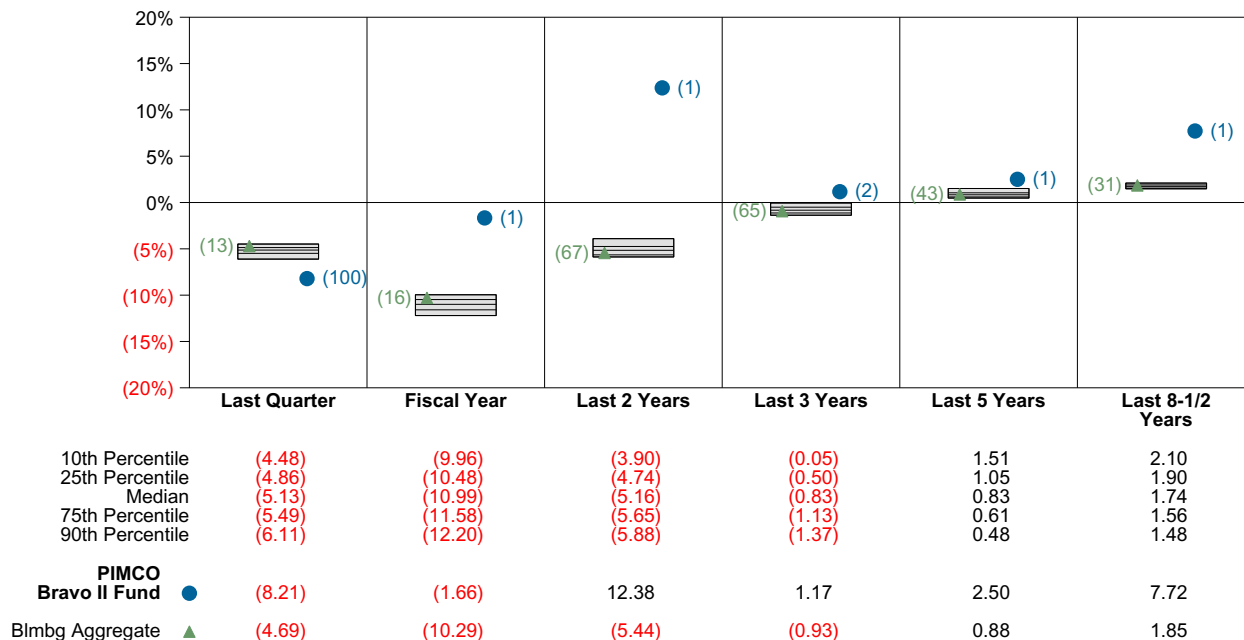
### Quarterly Summary and Highlights

- PIMCO Bravo II Fund's portfolio posted a (8.21)% return for the quarter placing it in the 100 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II Fund's portfolio underperformed the Blmbg Aggregate by 3.52% for the quarter and outperformed the Blmbg Aggregate for the year by 8.63%.

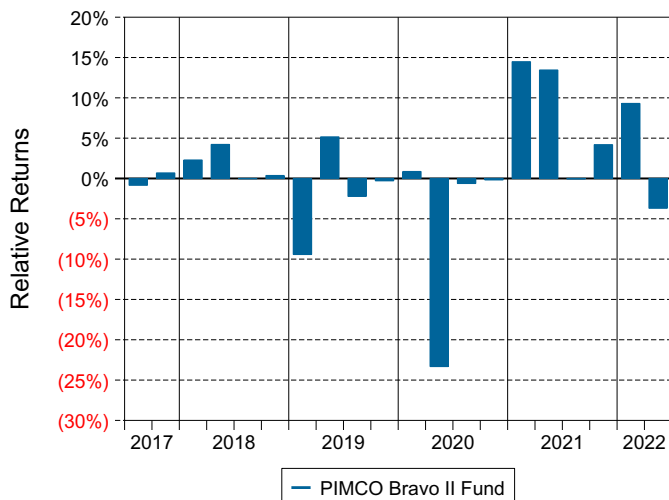
### Quarterly Asset Growth

Beginning Market Value	\$5,338,850
Net New Investment	\$-1,278,450
Investment Gains/(Losses)	\$-330,362
Ending Market Value	\$3,730,038

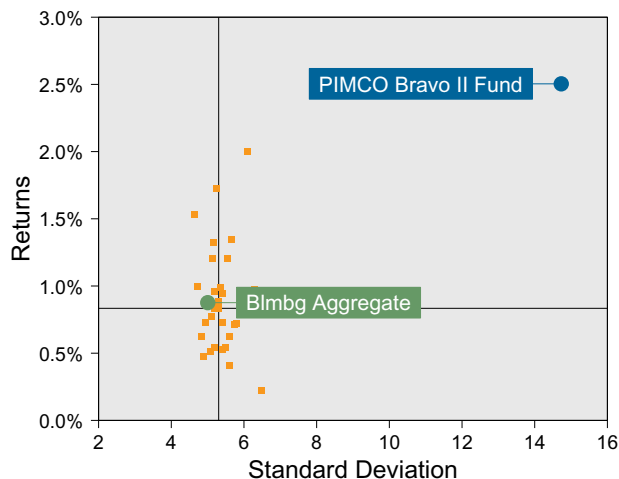
### Performance vs Callan Core Bond Mutual Funds (Net)



### Relative Return vs Blmbg Aggregate



### Callan Core Bond Mutual Funds (Net) Annualized Five Year Risk vs Return



## Prudential Core Plus Period Ended June 30, 2022

### Investment Philosophy

PGIM Fixed Income is the primary public fixed income asset management business of Prudential Investment Management, Inc. (PIM). PIM is the largest investment advisor within Prudential Financial, Inc. (Prudential Financial). PIM was registered as an investment advisor with the US Securities and Exchange Commission (SEC) in December of 1984. The Core Plus strategy is an actively managed strategy that seeks +150 bps over the Bloomberg Barclays U.S. Aggregate Bond Index. Portfolio duration is kept within +/- 0.5 years of benchmark. The lead portfolio managers are Mike Collins, Rich Piccirillo and Greg Peters. As of Q2 2017, the strategy had \$24.6 billion in mutual fund assets.

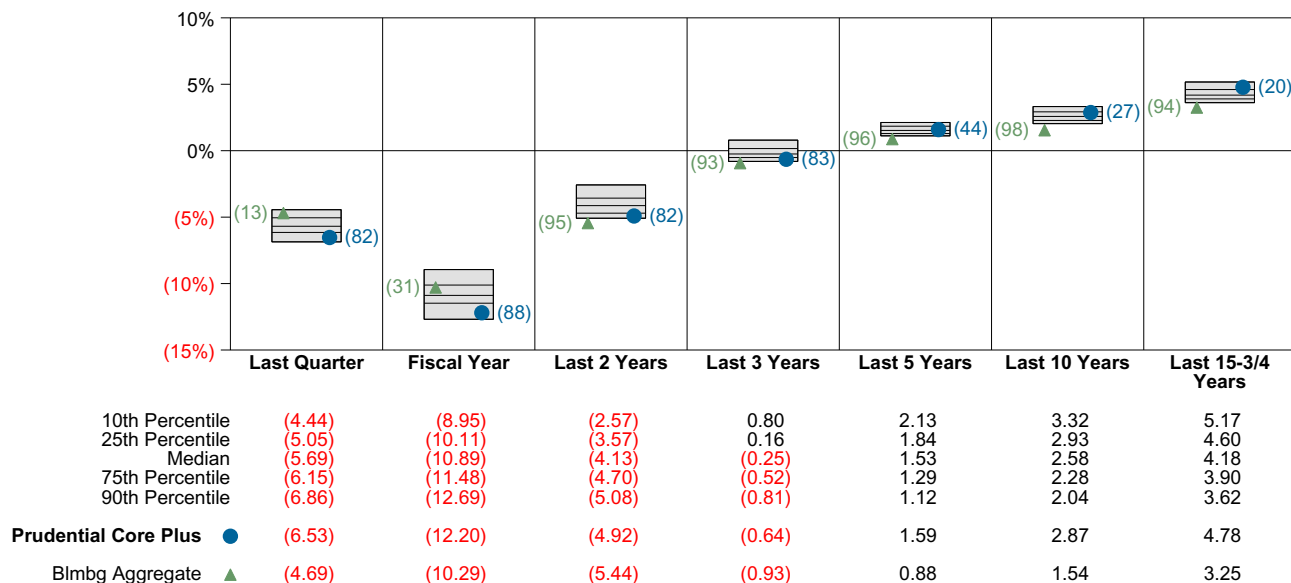
### Quarterly Summary and Highlights

- Prudential Core Plus's portfolio posted a (6.53)% return for the quarter placing it in the 82 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 88 percentile for the last year.
- Prudential Core Plus's portfolio underperformed the Blmbg Aggregate by 1.84% for the quarter and underperformed the Blmbg Aggregate for the year by 1.91%.

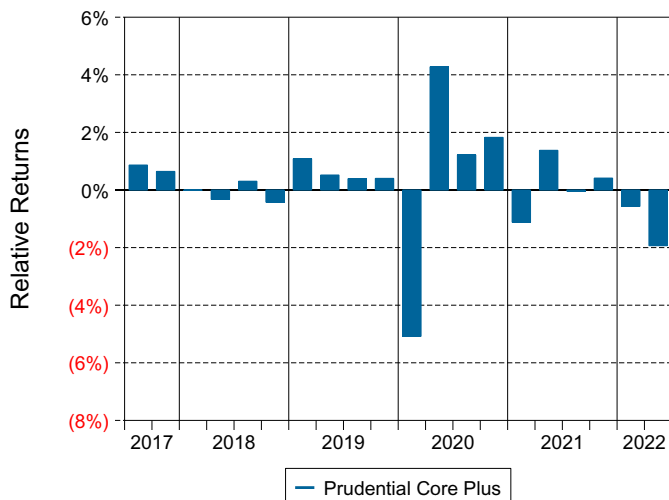
### Quarterly Asset Growth

Beginning Market Value	\$357,493,272
Net New Investment	\$18,414,919
Investment Gains/(Losses)	\$-24,469,553
Ending Market Value	\$351,438,639

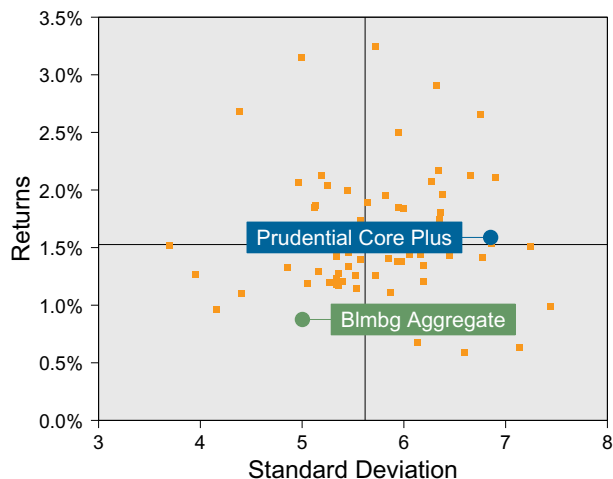
### Performance vs Callan Core Plus Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Plus Fixed Income (Gross) Annualized Five Year Risk vs Return



## SSgA US Govt Cr Bd Index Period Ended June 30, 2022

### Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Bloomberg Capital U.S. Government/Credit Bond Index over the long term.

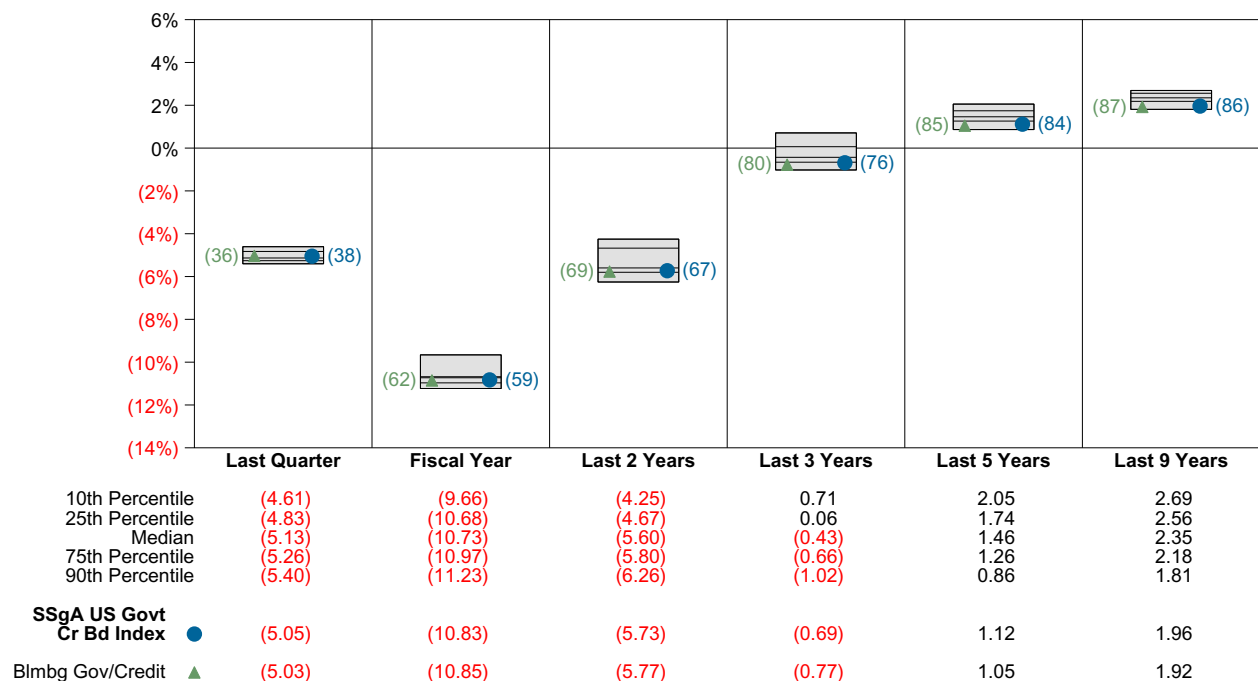
### Quarterly Summary and Highlights

- SSgA US Govt Cr Bd Index's portfolio posted a (5.05)% return for the quarter placing it in the 38 percentile of the Callan Government/Credit group for the quarter and in the 59 percentile for the last year.
- SSgA US Govt Cr Bd Index's portfolio underperformed the Blmbg Gov/Credit by 0.02% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.02%.

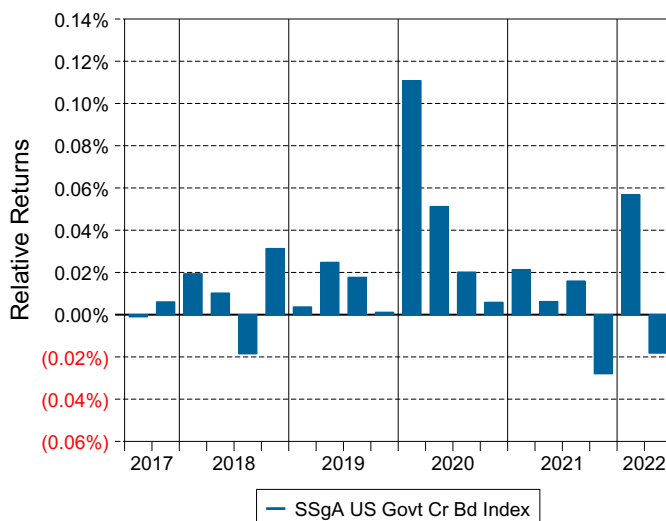
### Quarterly Asset Growth

Beginning Market Value	\$189,517,394
Net New Investment	\$9,592,757
Investment Gains/(Losses)	\$-10,007,119
Ending Market Value	\$189,103,032

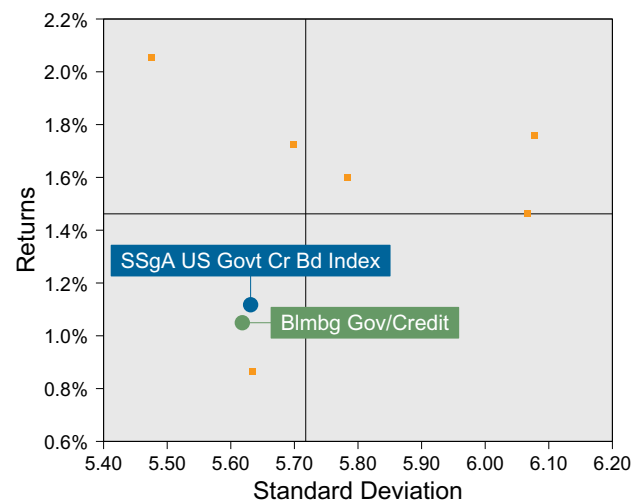
### Performance vs Callan Government/Credit (Gross)



### Relative Return vs Blmbg Gov/Credit



### Callan Government/Credit (Gross) Annualized Five Year Risk vs Return



## Wells Capital Period Ended June 30, 2022

### Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

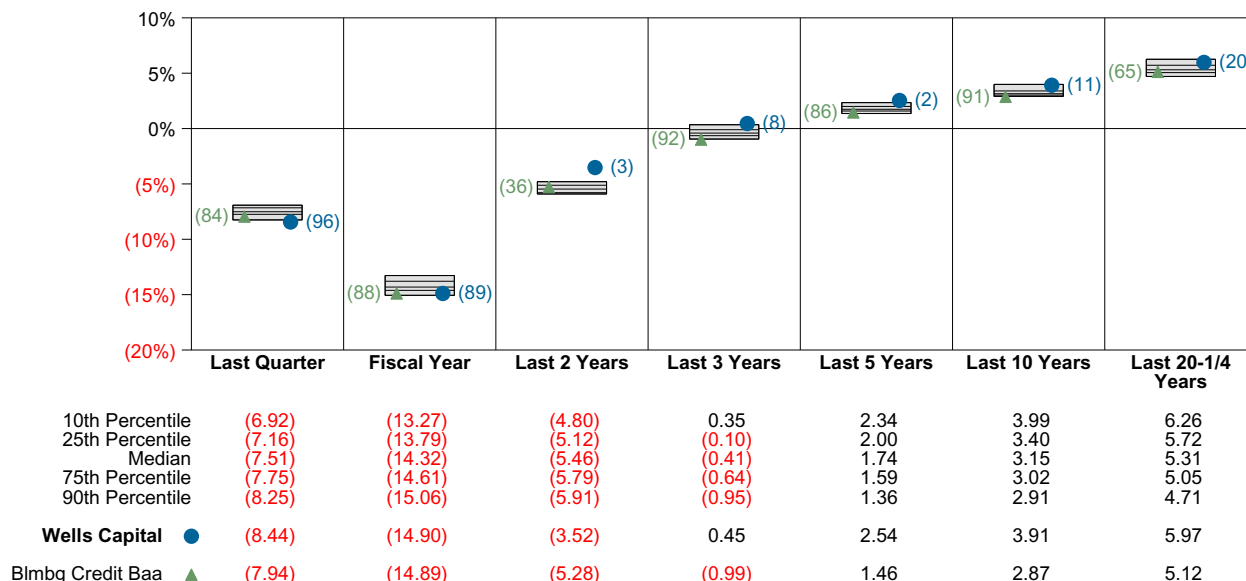
### Quarterly Summary and Highlights

- Wells Capital's portfolio posted a (8.44)% return for the quarter placing it in the 96 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 89 percentile for the last year.
- Wells Capital's portfolio underperformed the Blmbg Credit Baa by 0.50% for the quarter and underperformed the Blmbg Credit Baa for the year by 0.01%.

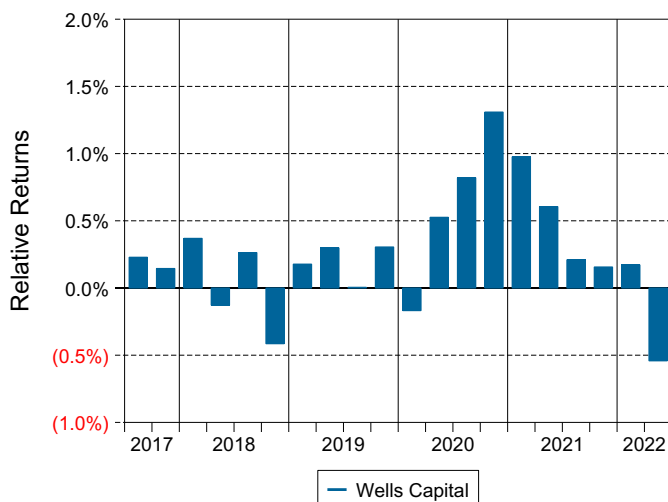
### Quarterly Asset Growth

Beginning Market Value	\$107,296,717
Net New Investment	\$6,848,517
Investment Gains/(Losses)	\$-9,589,412
Ending Market Value	\$104,555,822

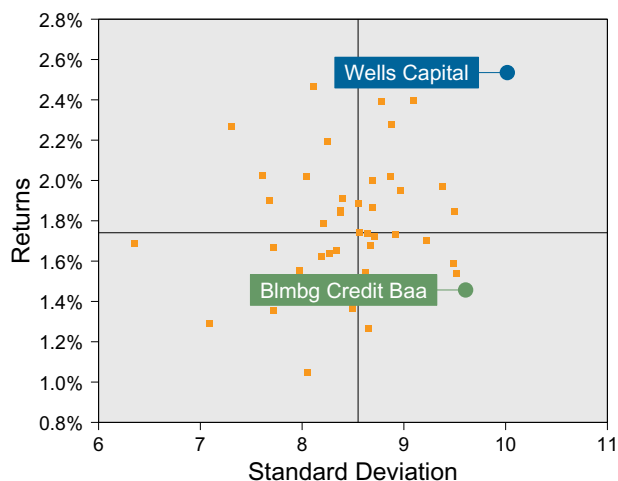
### Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



### Relative Return vs Blmbg Credit Baa



### Callan Investment Grade Credit Fixed Inc (Gross) Annualized Five Year Risk vs Return



## Western Asset Management Company

### Period Ended June 30, 2022

#### Investment Philosophy

Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

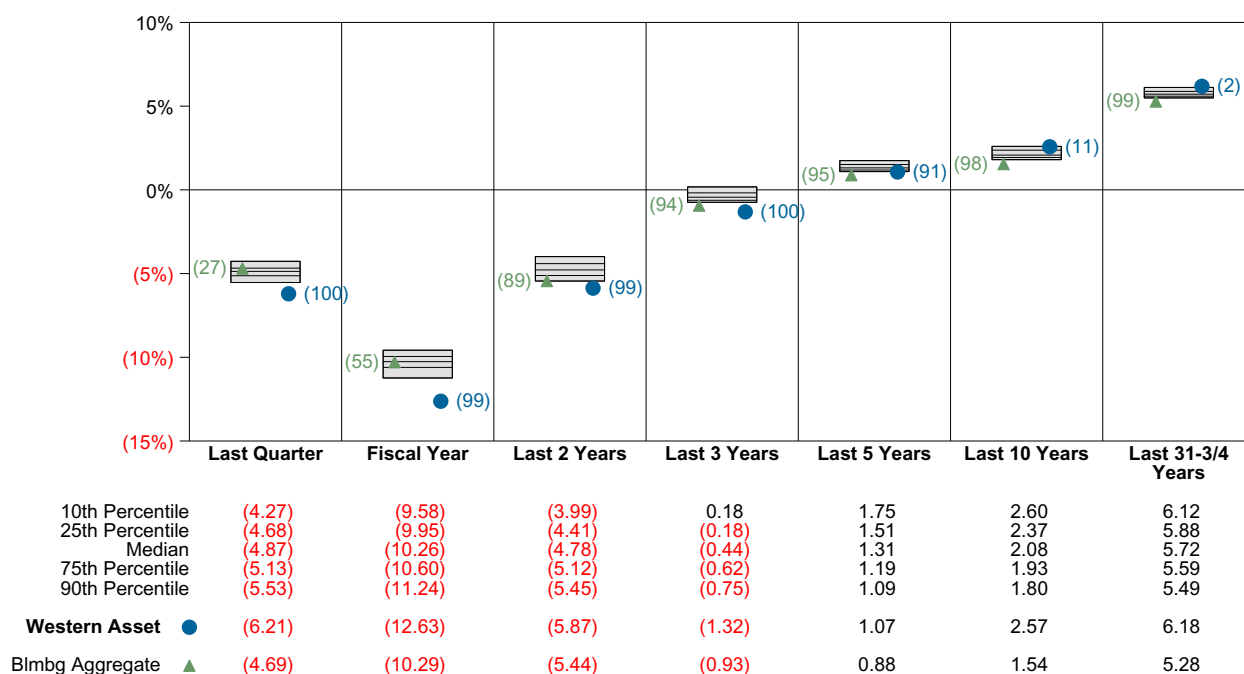
#### Quarterly Summary and Highlights

- Western Asset's portfolio posted a (6.21)% return for the quarter placing it in the 100 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 99 percentile for the last year.
- Western Asset's portfolio underperformed the Blmbg Aggregate by 1.51% for the quarter and underperformed the Blmbg Aggregate for the year by 2.33%.

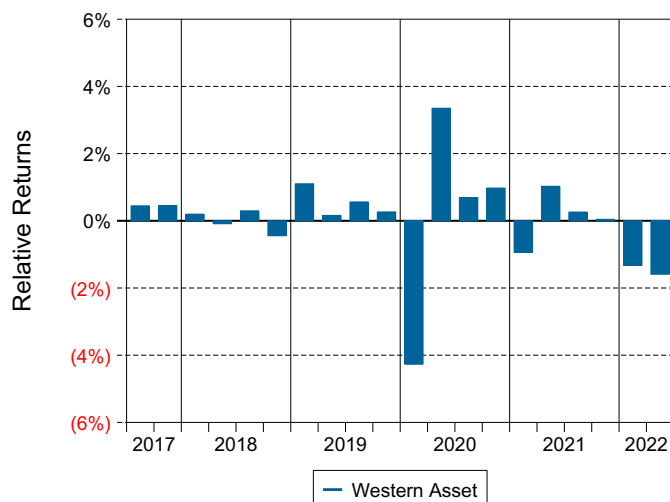
#### Quarterly Asset Growth

Beginning Market Value	\$353,585,909
Net New Investment	\$18,800,962
Investment Gains/(Losses)	\$-23,014,858
Ending Market Value	\$349,372,014

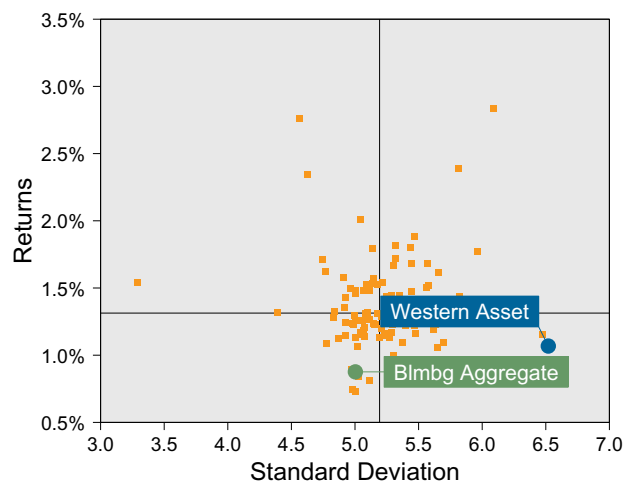
#### Performance vs Callan Core Bond Fixed Income (Gross)



#### Relative Return vs Blmbg Aggregate



#### Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return







## Real Estate Period Ended June 30, 2022

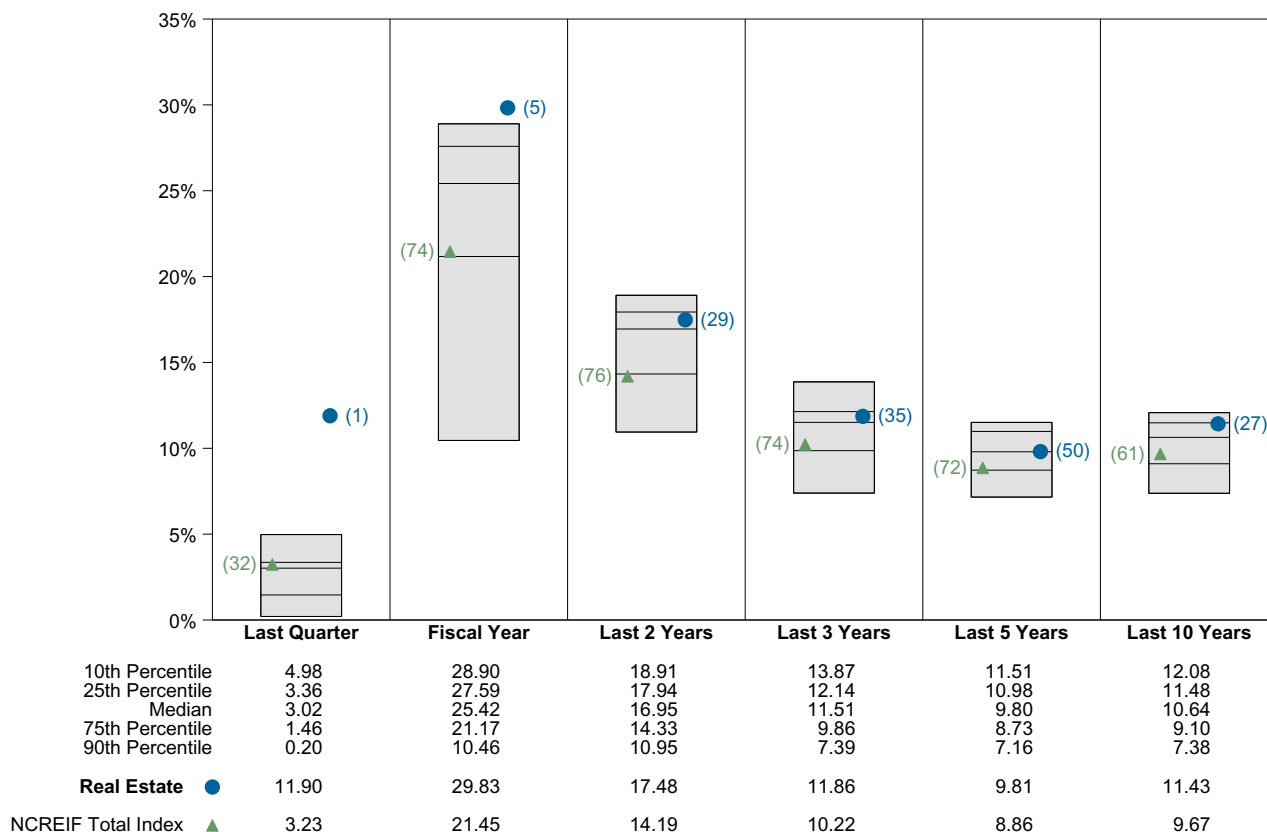
### Quarterly Summary and Highlights

- Real Estate's portfolio posted a 11.90% return for the quarter placing it in the 1 percentile of the Public Fund - Real Estate group for the quarter and in the 5 percentile for the last year.
- Real Estate's portfolio outperformed the NCREIF Total Index by 8.66% for the quarter and outperformed the NCREIF Total Index for the year by 8.38%.

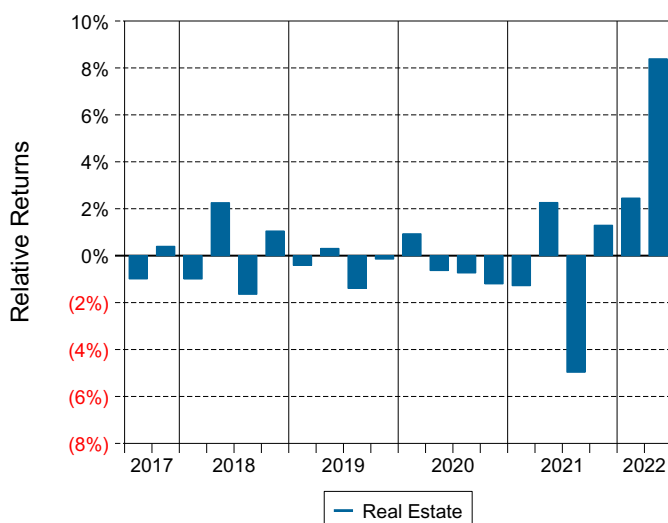
### Quarterly Asset Growth

Beginning Market Value	\$114,583,844
Net New Investment	\$-684,099
Investment Gains/(Losses)	\$13,600,385
Ending Market Value	\$127,500,130

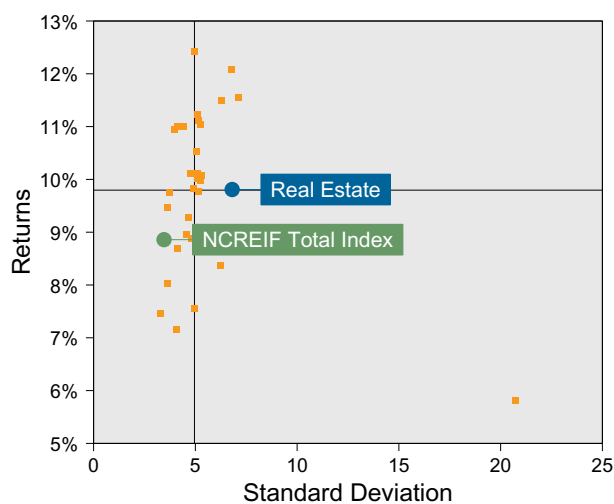
### Performance vs Public Fund - Real Estate (Gross)



### Relative Return vs NCREIF Total Index



### Public Fund - Real Estate (Gross) Annualized Five Year Risk vs Return



## Invesco Core Real Estate Period Ended June 30, 2022

### Investment Philosophy

IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

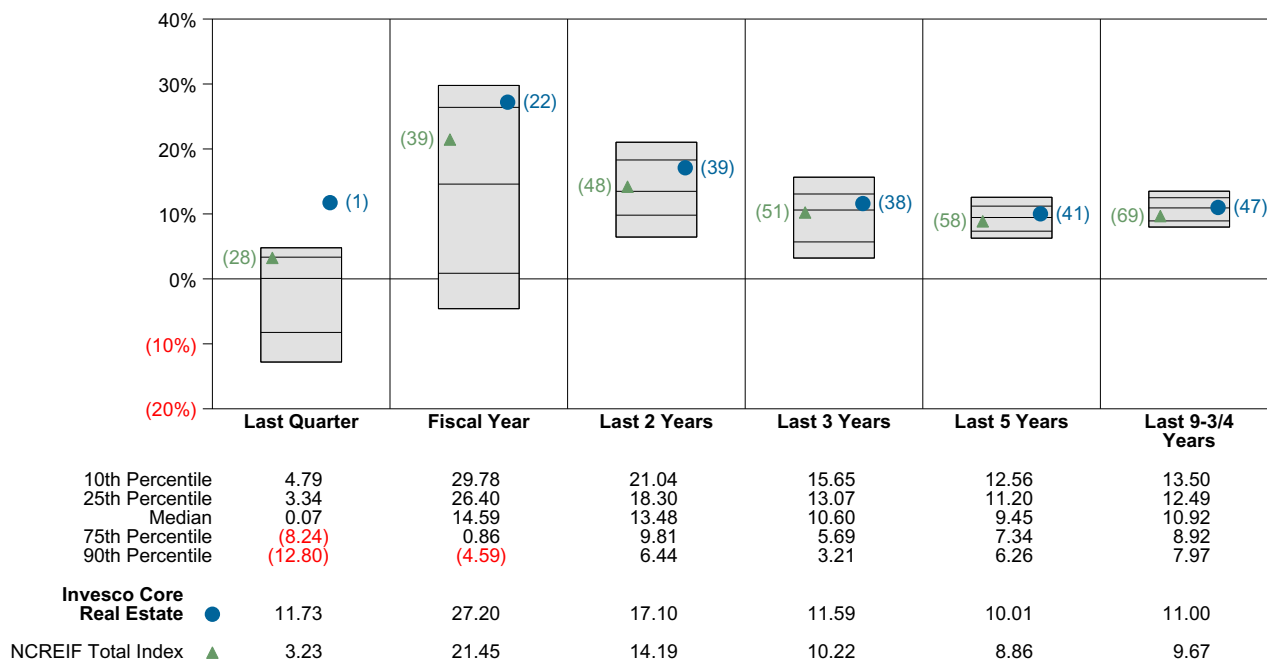
### Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 11.73% return for the quarter placing it in the 1 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 22 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 8.50% for the quarter and outperformed the NCREIF Total Index for the year by 5.75%.

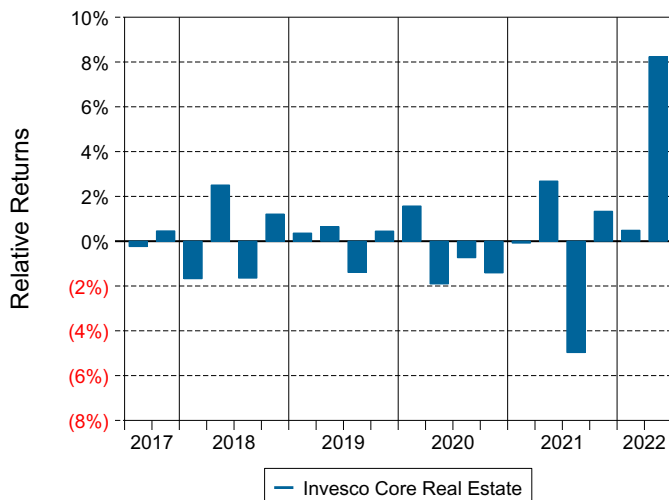
### Quarterly Asset Growth

Beginning Market Value	\$60,178,501
Net New Investment	\$-100,800
Investment Gains/(Losses)	\$7,057,861
Ending Market Value	\$67,135,563

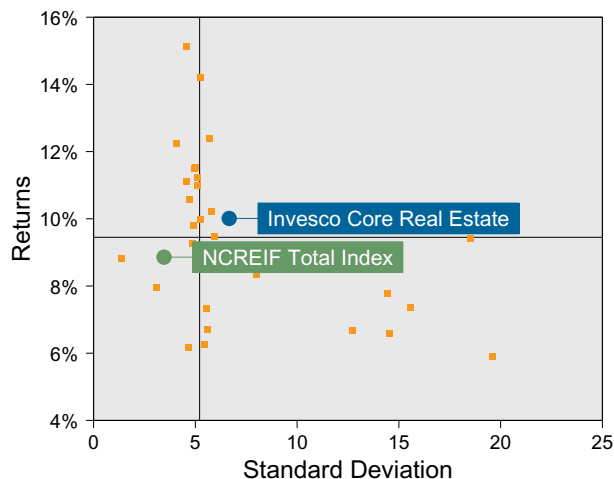
### Performance vs Callan Total Domestic Real Estate DB (Gross)



### Relative Return vs NCREIF Total Index



### Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return



## JP Morgan Real Estate Period Ended June 30, 2022

### Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

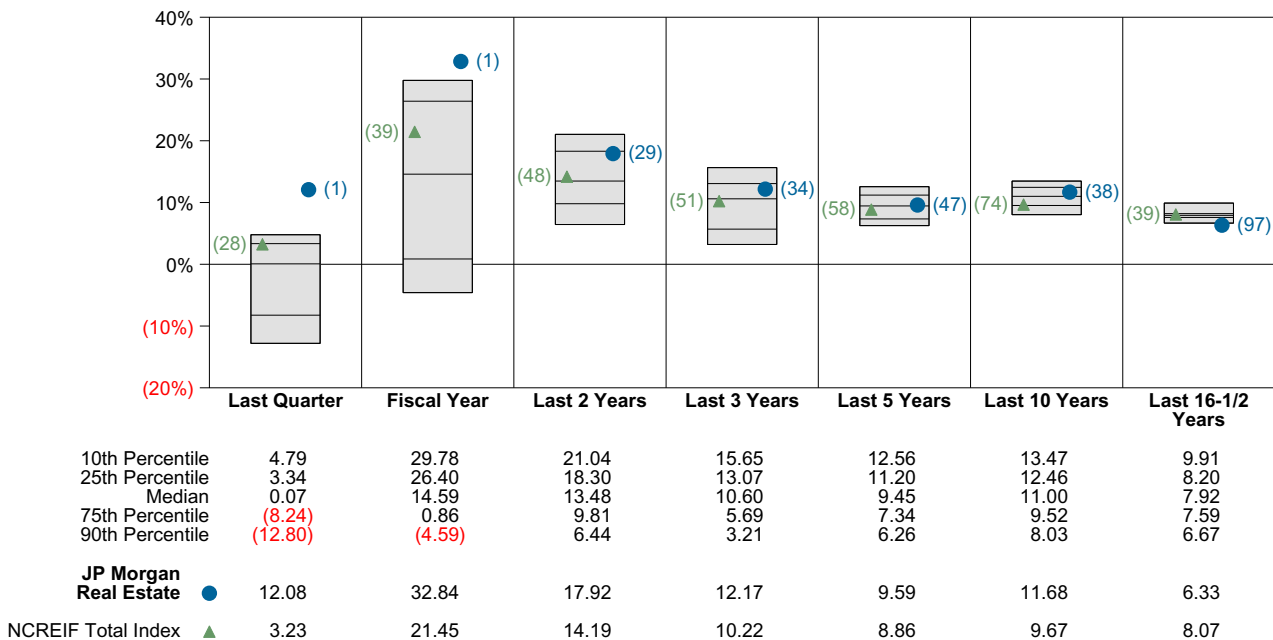
### Quarterly Summary and Highlights

- JP Morgan Real Estate's portfolio posted a 12.08% return for the quarter placing it in the 1 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 1 percentile for the last year.
- JP Morgan Real Estate's portfolio outperformed the NCREIF Total Index by 8.84% for the quarter and outperformed the NCREIF Total Index for the year by 11.39%.

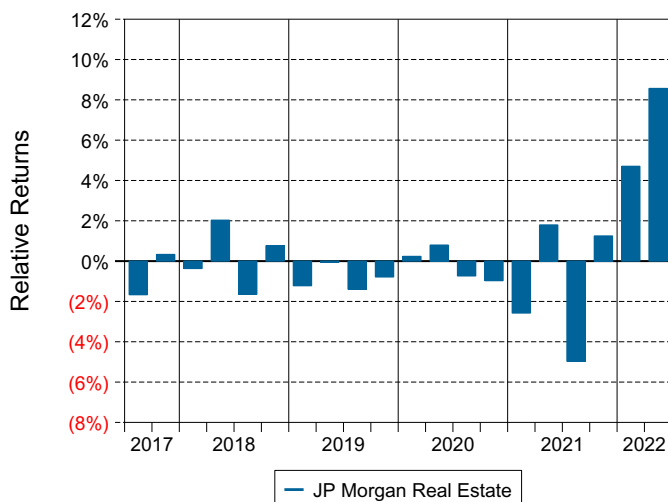
### Quarterly Asset Growth

Beginning Market Value	\$54,405,343
Net New Investment	\$-583,300
Investment Gains/(Losses)	\$6,542,524
Ending Market Value	\$60,364,568

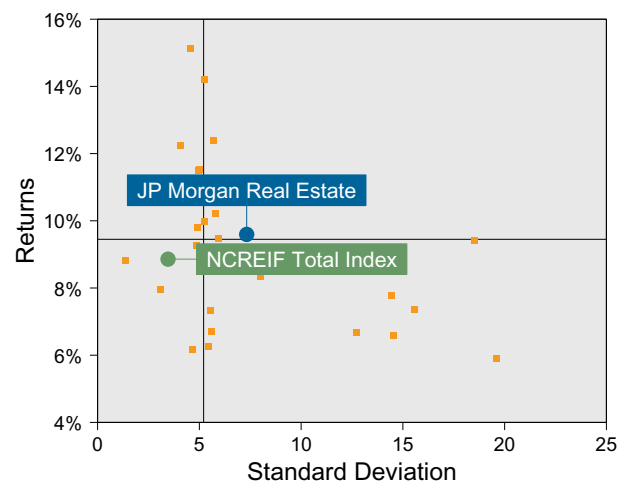
### Performance vs Callan Total Domestic Real Estate DB (Gross)



### Relative Return vs NCREIF Total Index



### Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return





## Western Asset TIPS Period Ended June 30, 2022

### Investment Philosophy

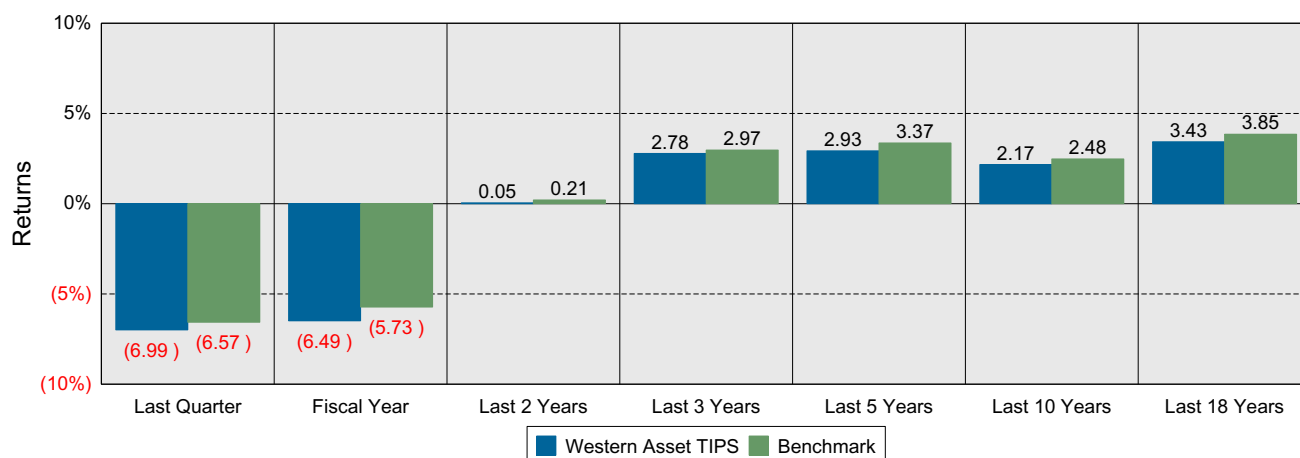
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio using higher-yielding inflation-protected instruments with a bias toward Treasury Inflation-Protected Securities (TIPS). Opportunistic investments include high-yield, emerging markets, non-dollar securities, commodities and bank loans that may also be employed using derivatives. **Benchmark: Bloomberg US TIPS through 12/31/2009; Bloomberg Global Inflation-Linked through 10/31/2018; Bloomberg US Govt Inflation Linked Bond Index thereafter.**

### Quarterly Summary and Highlights

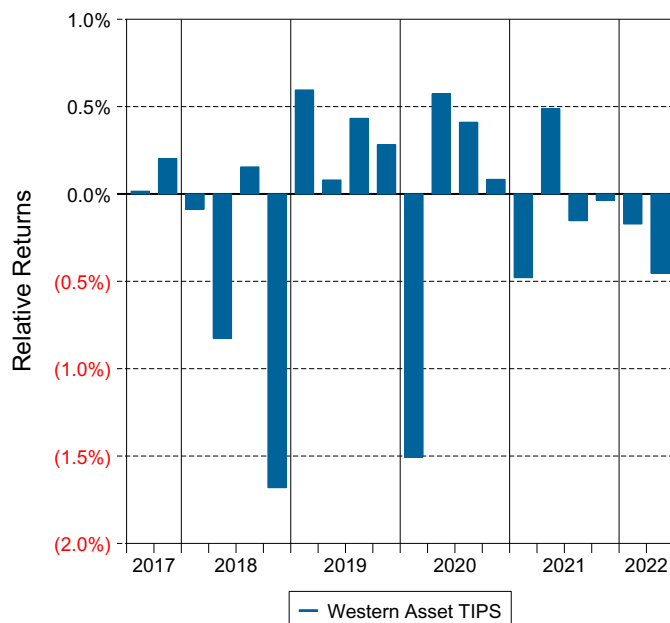
- Western Asset TIPS's portfolio underperformed the Benchmark by 0.42% for the quarter and underperformed the Benchmark for the year by 0.76%.

### Quarterly Asset Growth

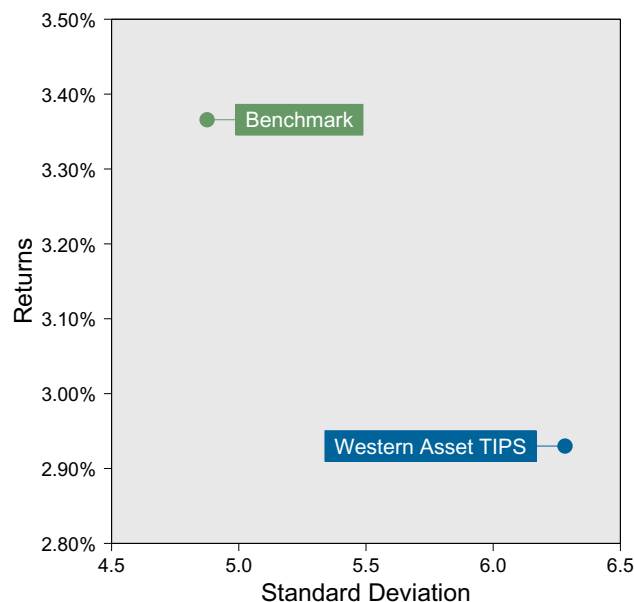
Beginning Market Value	\$192,985,146
Net New Investment	\$-10,553,142
Investment Gains/(Losses)	\$-12,789,024
Ending Market Value	\$169,642,981



### Relative Return vs Benchmark



### Annualized Five Year Risk vs Return



## Eastern Timber Opportunities Period Ended June 30, 2022

### Investment Philosophy

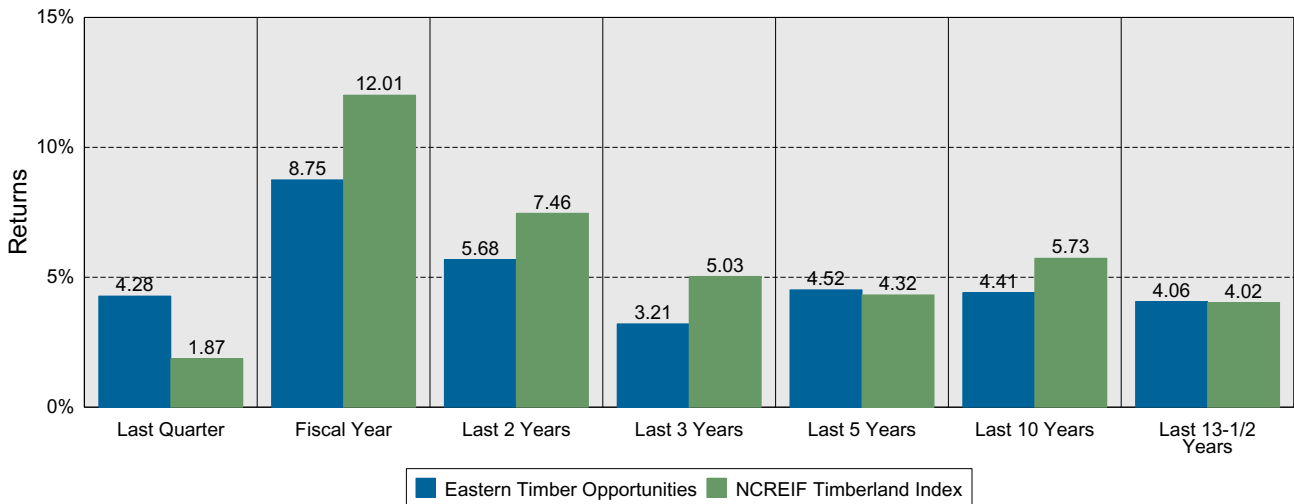
The investment objective of the Eastern Timberland Opportunities fund is to provide competitive timberland investment returns from Eastern US timberland investments by pursuing management strategies to increase timber production and land values through the investment term. TIR will maximize timber values within the portfolio with the application of intensive forest management techniques to accelerate the growth in timber volume and movement into higher value product categories. Additional value will be captured by realizing higher and better use opportunities for select timberland properties throughout the portfolio.

### Quarterly Summary and Highlights

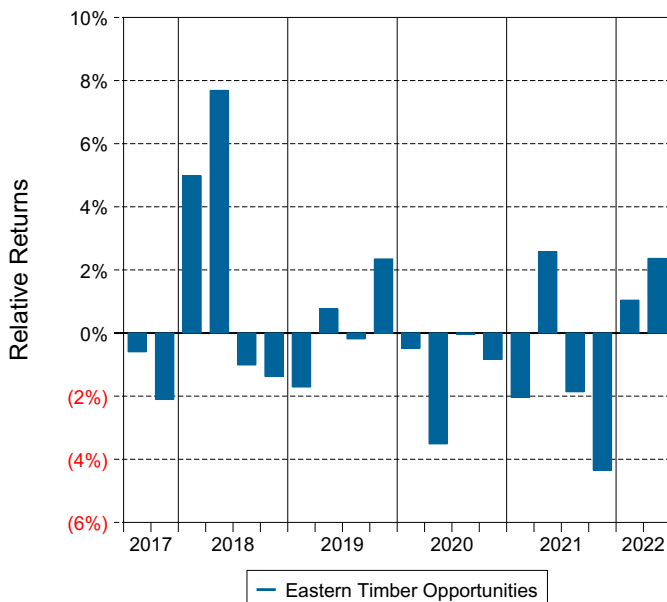
- Eastern Timber Opportunities's portfolio outperformed the NCREIF Timberland Index by 2.41% for the quarter and underperformed the NCREIF Timberland Index for the year by 3.26%.

### Quarterly Asset Growth

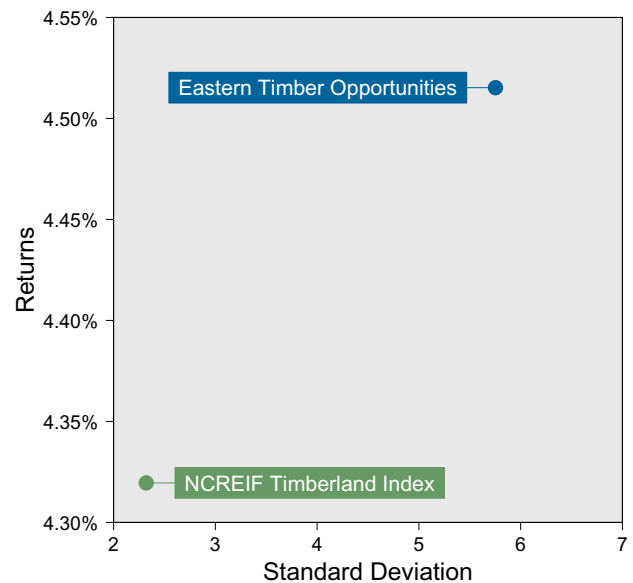
Beginning Market Value	\$34,056,106
Net New Investment	\$-2,079,723
Investment Gains/(Losses)	\$1,423,371
Ending Market Value	\$33,399,754



### Relative Return vs NCREIF Timberland Index



### Annualized Five Year Risk vs Return



## JP Morgan IIF Infrastructure Period Ended June 30, 2022

### Investment Philosophy

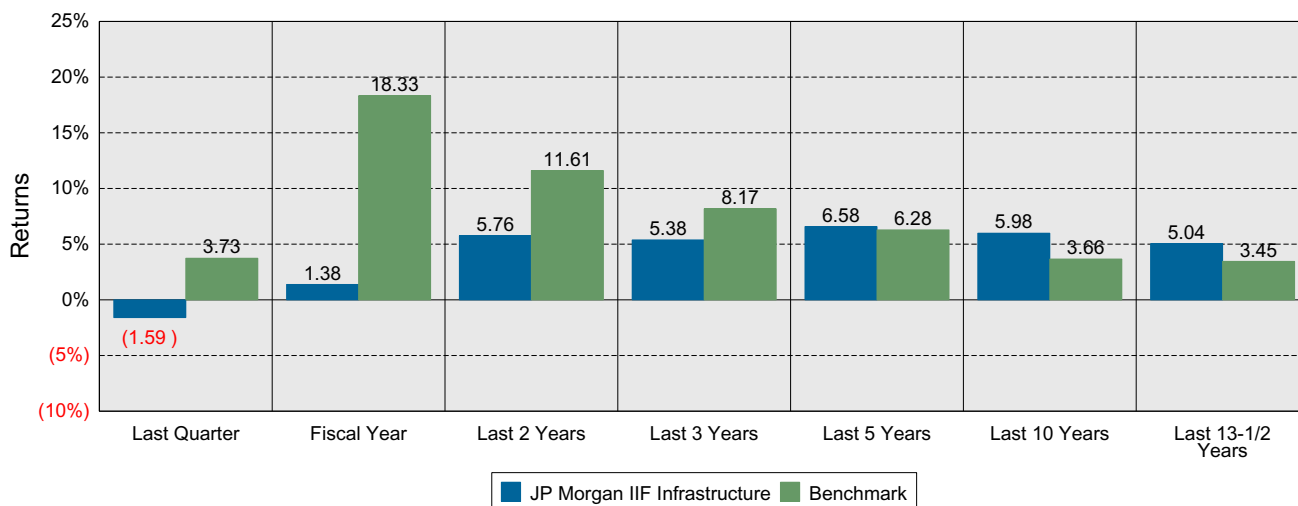
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports. **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

### Quarterly Summary and Highlights

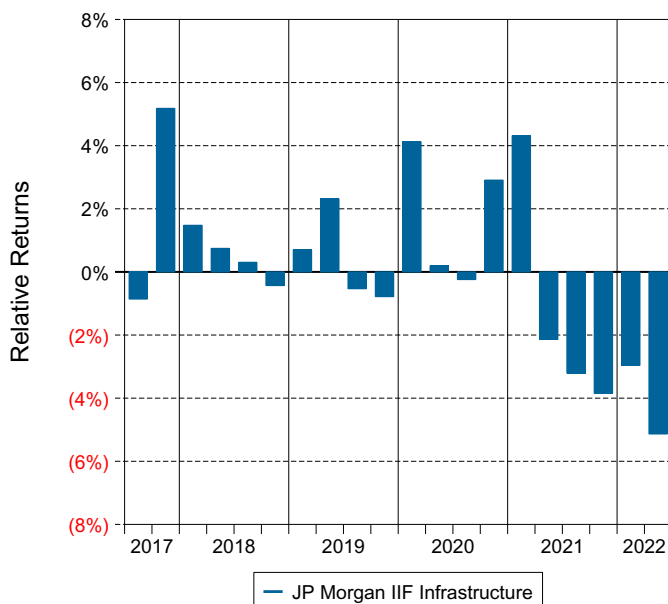
- JP Morgan IIF Infrastructure's portfolio underperformed the Benchmark by 5.32% for the quarter and underperformed the Benchmark for the year by 16.95%.

### Quarterly Asset Growth

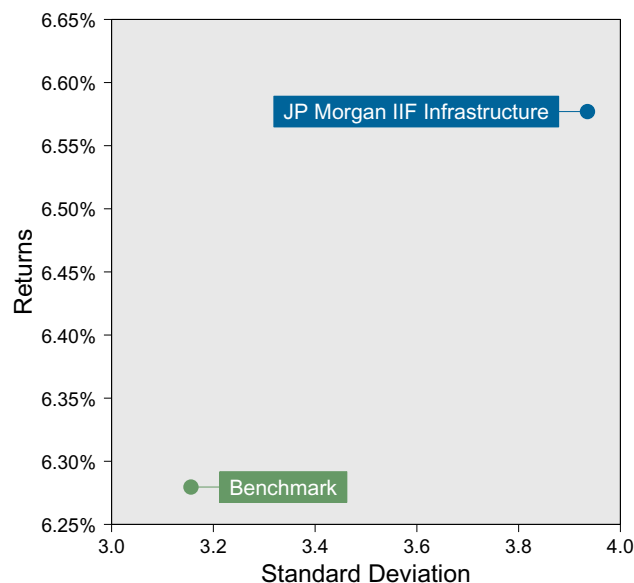
Beginning Market Value	\$39,271,093
Net New Investment	\$-420,762
Investment Gains/(Losses)	\$-624,587
Ending Market Value	\$38,225,745



### Relative Return vs Benchmark



### Annualized Five Year Risk vs Return



## Grosvenor CIS Fund Period Ended June 30, 2022

### Investment Philosophy

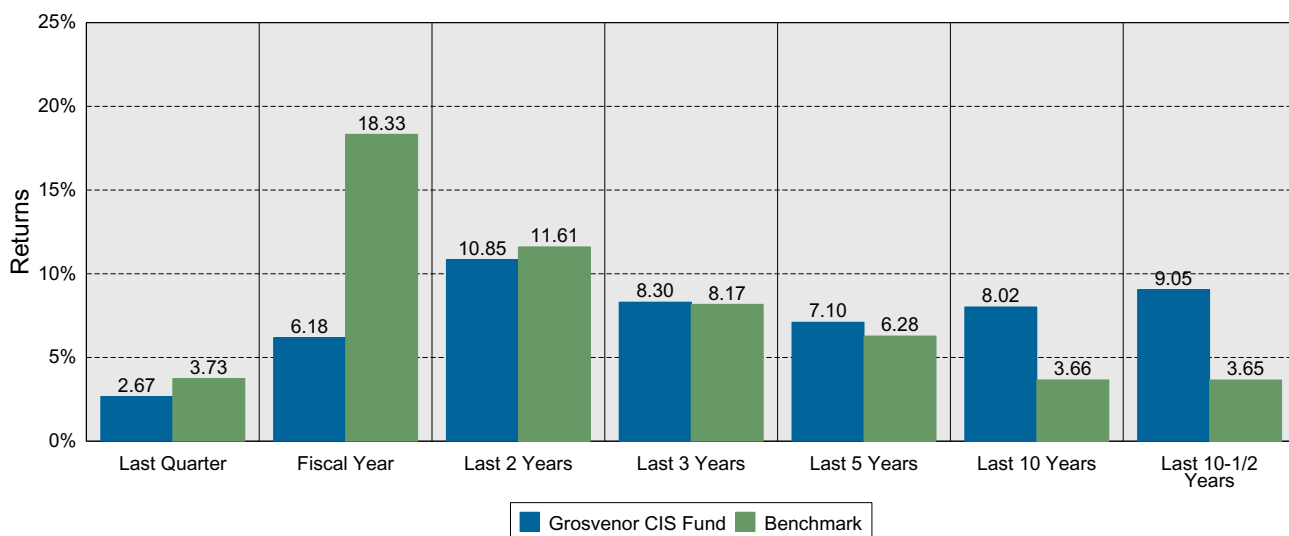
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.**

### Quarterly Summary and Highlights

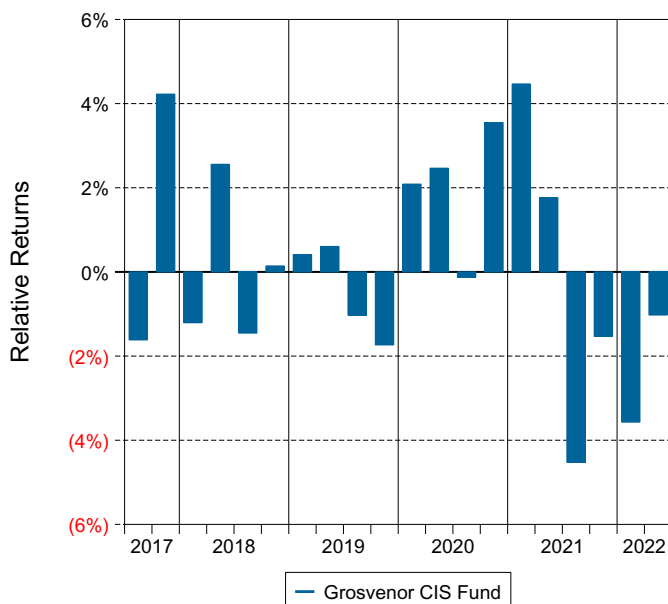
- Grosvenor CIS Fund's portfolio underperformed the Benchmark by 1.06% for the quarter and underperformed the Benchmark for the year by 12.15%.

### Quarterly Asset Growth

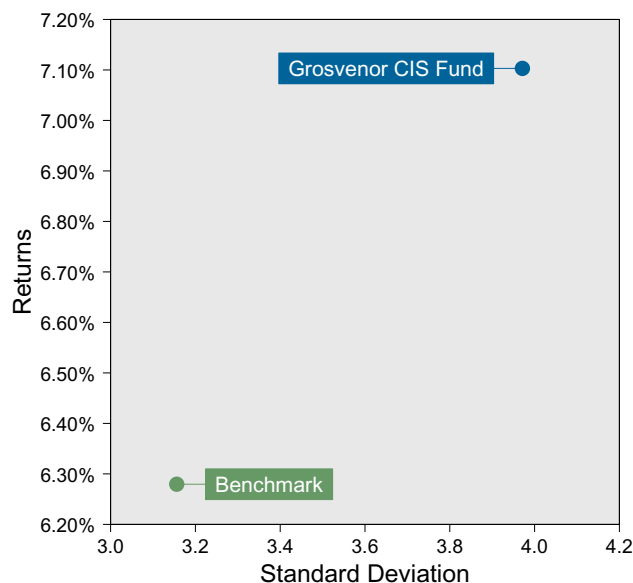
Beginning Market Value	\$5,448,342
Net New Investment	\$0
Investment Gains/(Losses)	\$145,523
Ending Market Value	\$5,593,865



### Relative Return vs Benchmark



### Annualized Five Year Risk vs Return





## Grosvenor CIS Fund III Period Ended June 30, 2022

### Investment Philosophy

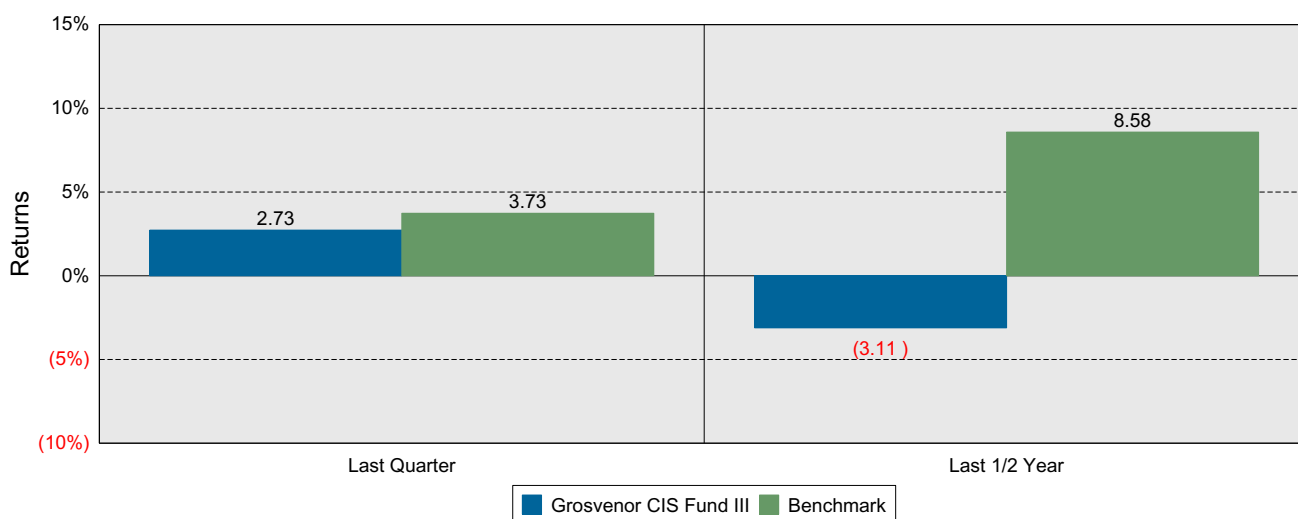
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

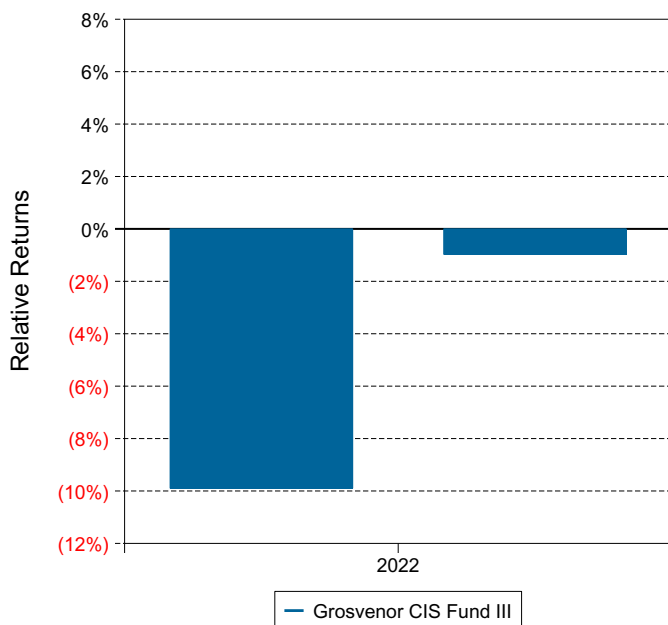
- Grosvenor CIS Fund III's portfolio underperformed the Benchmark by 1.01% for the quarter and underperformed the Benchmark for the one-half year by 11.69%.

### Quarterly Asset Growth

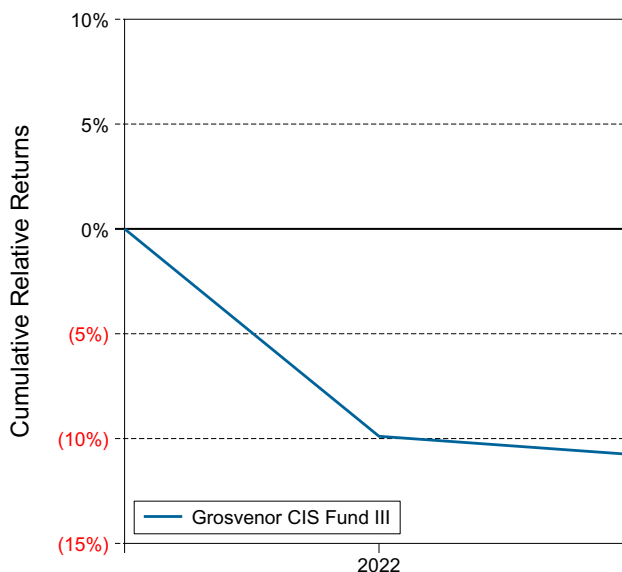
Beginning Market Value	\$2,680,740
Net New Investment	\$367,851
Investment Gains/(Losses)	\$81,431
Ending Market Value	\$3,130,022



### Relative Return vs Benchmark



### Cumulative Returns vs Benchmark



## Macquarie Infrastructure Fund V Period Ended June 30, 2022

### Investment Philosophy

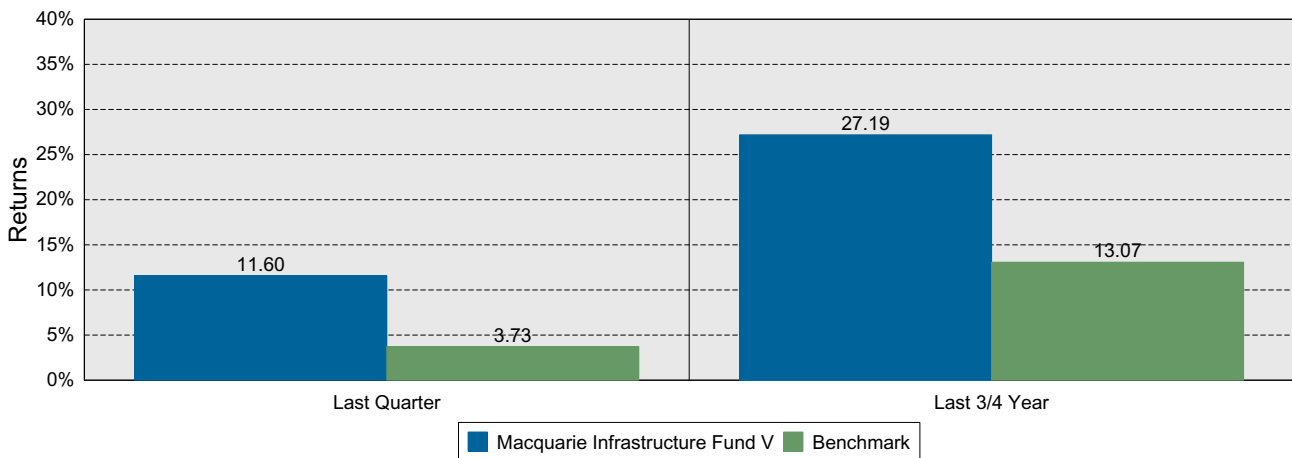
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

### Quarterly Summary and Highlights

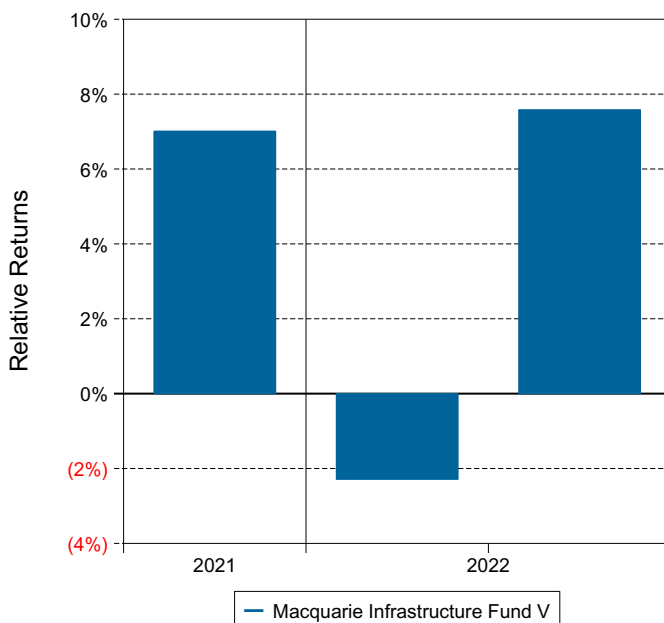
- Macquarie Infrastructure Fund V's portfolio outperformed the Benchmark by 7.86% for the quarter and outperformed the Benchmark for the three-quarter year by 14.12%.

### Quarterly Asset Growth

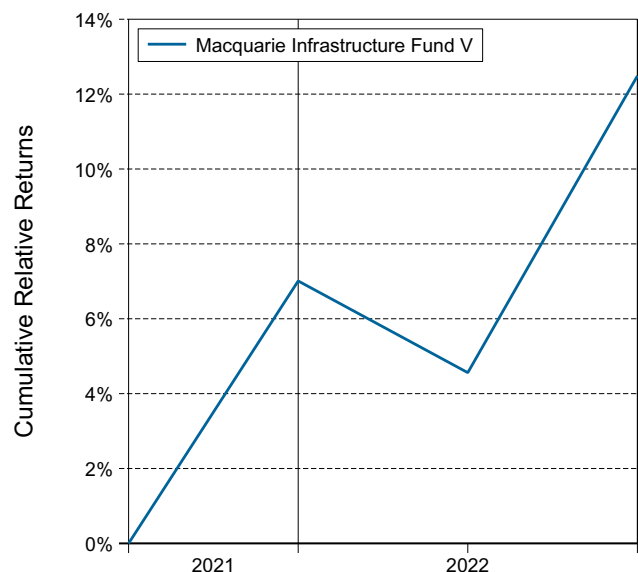
Beginning Market Value	\$9,134,046
Net New Investment	\$1,275,043
Investment Gains/(Losses)	\$1,217,520
Ending Market Value	\$11,626,609



### Relative Return vs Benchmark



### Cumulative Returns vs Benchmark





## Short Term Fixed Income Period Ended June 30, 2022

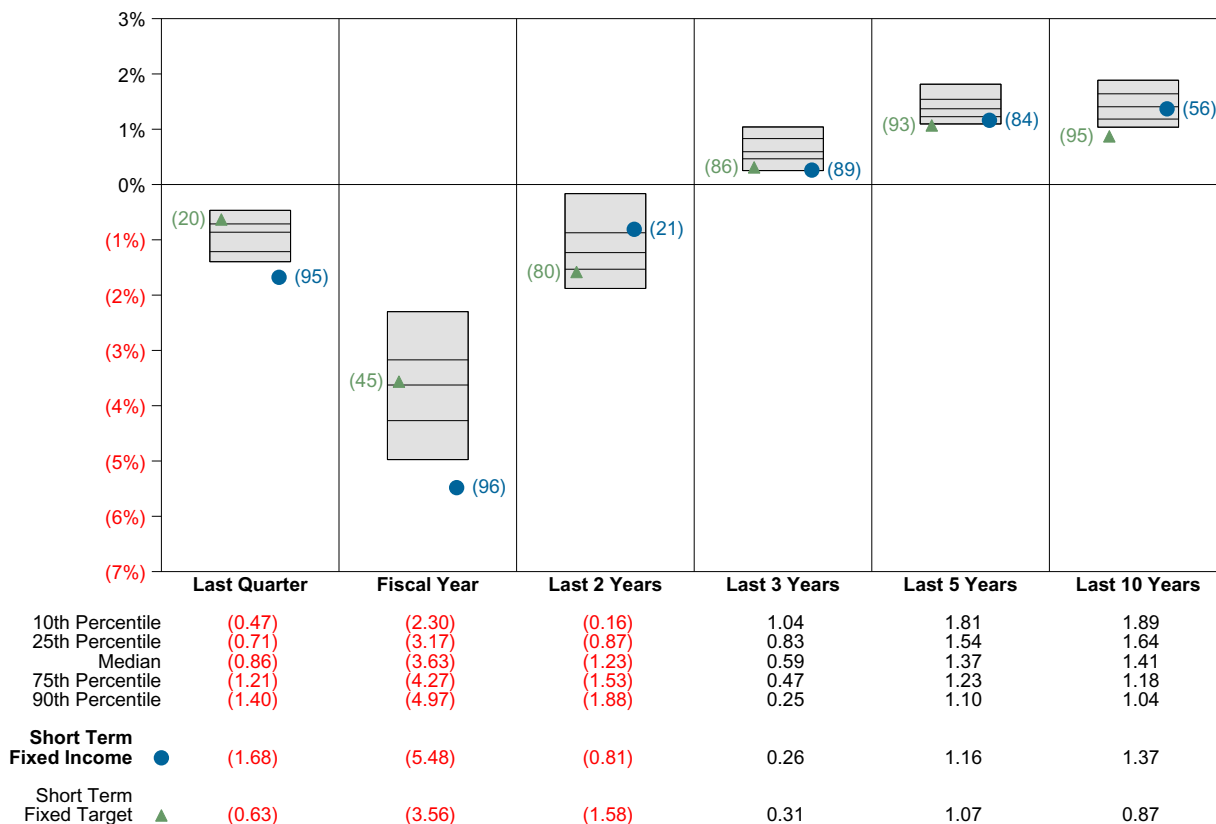
### Quarterly Summary and Highlights

- Short Term Fixed Income's portfolio posted a (1.68)% return for the quarter placing it in the 95 percentile of the Callan Short Term Fixed Income group for the quarter and in the 96 percentile for the last year.
- Short Term Fixed Income's portfolio underperformed the Short Term Fixed Target by 1.05% for the quarter and underperformed the Short Term Fixed Target for the year by 1.92%.

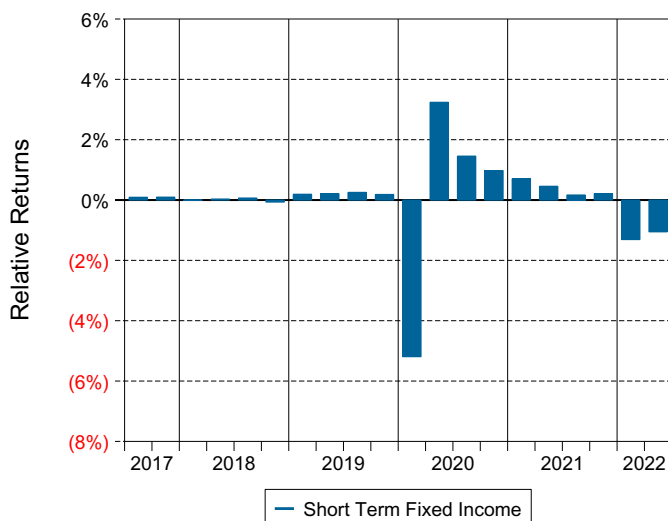
### Quarterly Asset Growth

Beginning Market Value	\$760,192,227
Net New Investment	\$-211,083
Investment Gains/(Losses)	\$-12,752,542
Ending Market Value	\$747,228,603

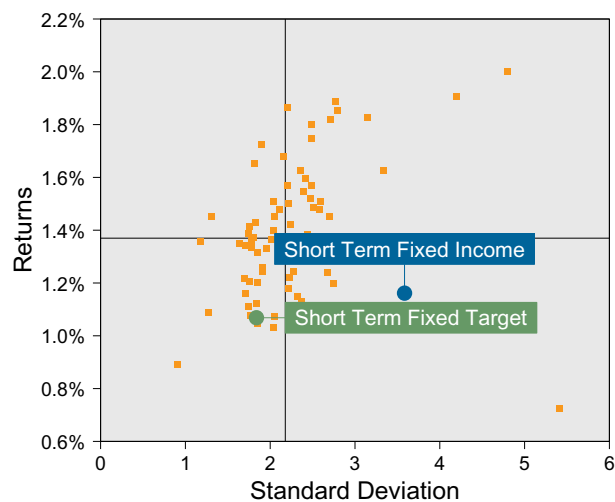
### Performance vs Callan Short Term Fixed Income (Gross)



### Relative Return vs Short Term Fixed Target



### Callan Short Term Fixed Income (Gross) Annualized Five Year Risk vs Return



## Barings Active Short Duration Period Ended June 30, 2022

### Investment Philosophy

Babson's Active Short Duration team employs a total return management style, which dynamically adjusts duration in response to actual yield curve conditions. The approach seeks to take advantage of a variety of relative value opportunities, predominantly in the investment grade universe, which should provide steady income and potential capital appreciation. Value is also added through security selection. The end result is a high quality/short duration portfolio that has historically captured most of the returns of moderate duration bonds.

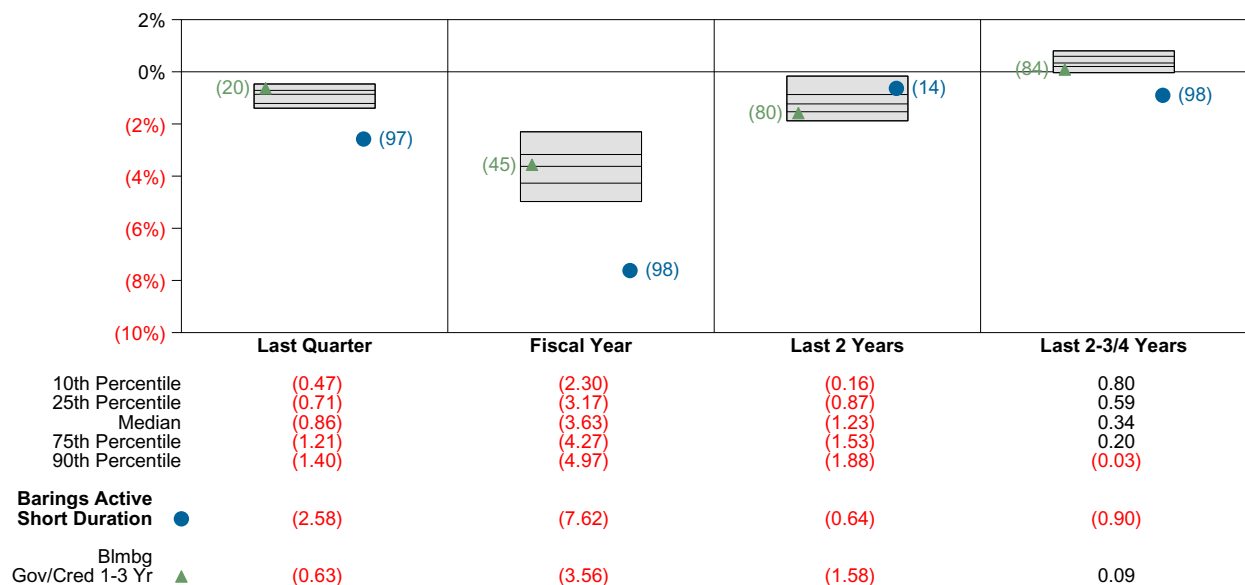
### Quarterly Summary and Highlights

- Barings Active Short Duration's portfolio posted a (2.58)% return for the quarter placing it in the 97 percentile of the Callan Short Term Fixed Income group for the quarter and in the 98 percentile for the last year.
- Barings Active Short Duration's portfolio underperformed the Blmbg Gov/Cred 1-3 Yr by 1.95% for the quarter and underperformed the Blmbg Gov/Cred 1-3 Yr for the year by 4.06%.

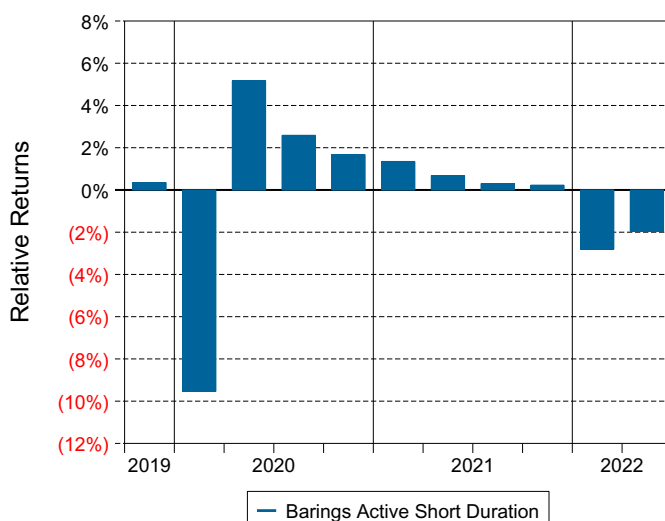
### Quarterly Asset Growth

Beginning Market Value	\$377,402,305
Net New Investment	\$-114,737
Investment Gains/(Losses)	\$-9,730,083
Ending Market Value	\$367,557,485

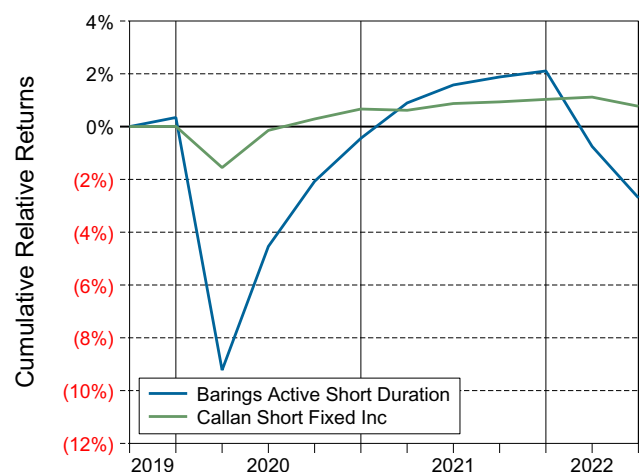
### Performance vs Callan Short Term Fixed Income (Gross)



### Relative Return vs Blmbg Gov/Cred 1-3 Yr



### Cumulative Returns vs Blmbg Gov/Cred 1-3 Yr



## JP Morgan Short Term Bonds Period Ended June 30, 2022

### Investment Philosophy

The investment objective of this account is to outperform the Bloomberg Capital 1-3 year Government/Credit Index while maintaining total return risk similar to that of the benchmark as measured over a market cycle. The weighted average effective duration of the portfolio will typically remain within +/- 30% of the benchmark.

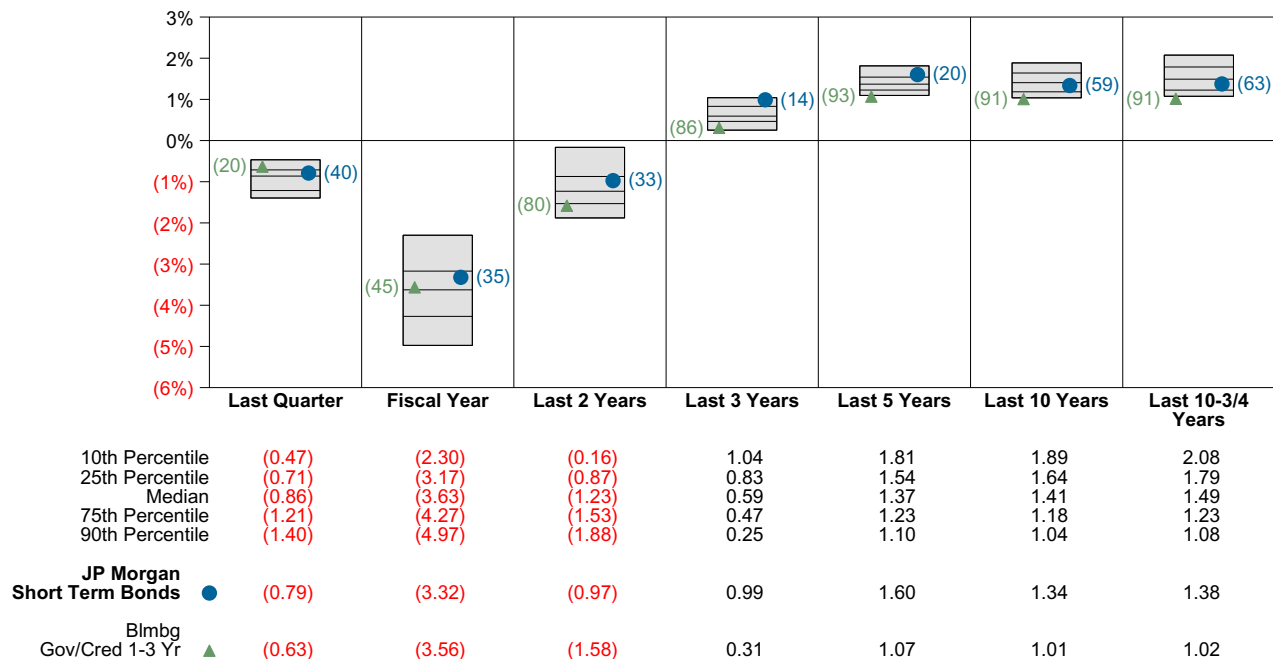
### Quarterly Summary and Highlights

- JP Morgan Short Term Bonds's portfolio posted a (0.79)% return for the quarter placing it in the 40 percentile of the Callan Short Term Fixed Income group for the quarter and in the 35 percentile for the last year.
- JP Morgan Short Term Bonds's portfolio underperformed the Blmbg Gov/Cred 1-3 Yr by 0.16% for the quarter and outperformed the Blmbg Gov/Cred 1-3 Yr for the year by 0.24%.

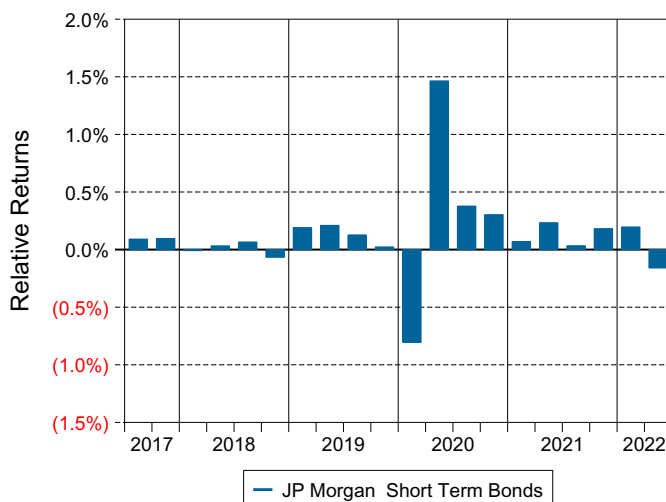
### Quarterly Asset Growth

Beginning Market Value	\$382,789,922
Net New Investment	\$-96,346
Investment Gains/(Losses)	\$-3,022,459
Ending Market Value	\$379,671,118

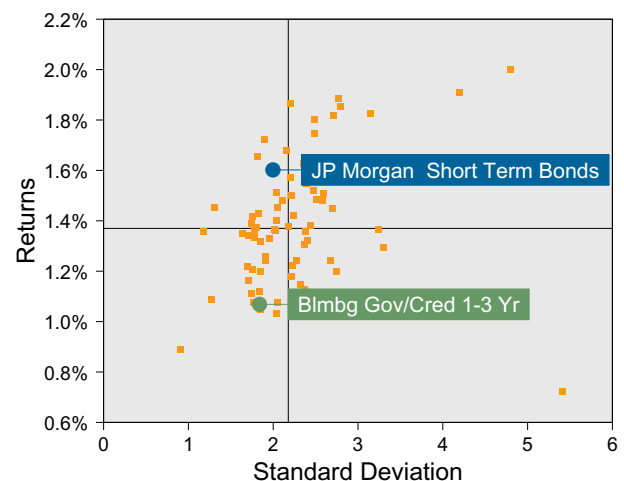
### Performance vs Callan Short Term Fixed Income (Gross)



### Relative Return vs Blmbg Gov/Cred 1-3 Yr



### Callan Short Term Fixed Income (Gross) Annualized Five Year Risk vs Return





## Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit [www.callan.com/research-library](http://www.callan.com/research-library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog. For more information contact Barb Gerraty at 415-274-3093 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts

**Research Cafe: ESG Interview Series** | Mark Wood of Callan discusses with Jon Hale, Director of ESG Strategy at Morningstar, the evolving definition of sustainable investments.

**Research Cafe: Private Equity** | In this session, private equity experts Ashley Kahn and Jonathan Farr provide actionable insights for institutional investors to help them negotiate with private equity managers, and offer private equity managers crucial information about how their peers determine fees and terms. This session also includes a special feature on credit line usage.

**Investing in Data Centers: The Real Assets of the Digital Age** | Lauren Sertich discusses investing in data centers, a growing sector in which institutional investors have more investment options as the universe of qualified managers/operators rapidly expands.

**Do Active Fixed Income Managers Add Value With Sector Rotation?** | Kevin Machiz analyzes whether institutional investors could take a DIY approach to strategic sector allocations and forego sector rotation within fixed income and still achieve results comparable to active managers. Our study found that the average manager has added value with sector rotation.

## Blog Highlights

**SEC Proposes Rule to Enhance and Standardize Climate-Related Disclosures** | The U.S. Securities and Exchange Commission unveiled its proposed rule amendments designed to improve and standardize disclosures around climate change risks for public companies.

**Unprecedented Territory—and the Inherent Limits of Diversification** | Stock and bond markets around the globe were down together for the first four months of 2022. How often does that happen? Did diversification fail us?

**Rising Interest Rates Spur Look at Structured Credit** | Structured credit has seen increased interest from institutional investors as they explore ways to adapt their fixed income portfolios for an expected environment of rising rates.

**Hedge Fund Strategies: A Guide for Institutional Investors** | Hedge fund strategies are beginning to see renewed interest from institutional investors seeking diversification benefits and downside protection. But these strategies can be complex; this explainer educates investors about investing in these strategies.

## Quarterly Periodicals

**Private Equity Update, 1Q22** | A high-level summary of private equity activity in the quarter through all the investment stages

**Active vs. Passive Charts, 1Q22** | A comparison of active managers alongside relevant benchmarks over the long term

**Market Pulse Flipbook, 1Q22** | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

**Capital Markets Review, 1Q22** | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

**Hedge Fund Update, 1Q22** | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

**Real Assets Update, 1Q22** | A summary of market activity for real assets and private real estate during the quarter

**Private Credit Update, 1Q22** | A review of performance and fundraising activity for private credit during the quarter



## Events

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A complete list of all upcoming events can be found on our website: [callan.com/events-education](https://callan.com/events-education).

*Please mark your calendar and look forward to upcoming invitations:*

### October Regional Workshop

Oct. 18, 2022 – Denver, CO

Oct. 20, 2022 – San Francisco, CA

### 2023 National Conference

April 2-4, 2023 – Scottsdale, AZ

For more information about events, please contact Barb Gerraty: 415-274-3093 / [gerraty@callan.com](mailto:gerraty@callan.com)

## Education: By the Numbers

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**50+**

Unique pieces of research the Institute generates each year

**525**

Attendees (on average) of the Institute's annual National Conference

**3,700**

Total attendees of the "Callan College" since 1994

## Education

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Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

### Introduction to Investments

September 20-22 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: [callan.com/events/](https://callan.com/events/)



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer



## List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

### Manager Name

abrdn (Aberdeen Standard Investments)  
Acadian Asset Management LLC  
Adams Street Partners, LLC  
AEGON USA Investment Management Inc.  
AllianceBernstein  
Allianz  
Allspring Global Investments  
American Century Investments  
Amundi US, Inc.  
Antares Capital LP  
AQR Capital Management  
Ares Management LLC  
Ariel Investments, LLC  
Aristotle Capital Management, LLC  
Atlanta Capital Management Co., LLC  
AXA Investment Managers  
Baillie Gifford International, LLC  
Baird Advisors

### Manager Name

Barings LLC  
Baron Capital Management, Inc.  
Barrow, Hanley, Mewhinney & Strauss, LLC  
BentallGreenOak  
Black Creek Investment Management Inc.  
BlackRock  
Blackstone Group (The)  
Blue Vista Capital Management, LLC  
BNY Mellon Asset Management  
Boston Partners  
Brandes Investment Partners, L.P.  
Brandywine Global Investment Management, LLC  
Brookfield Asset Management  
Brown Brothers Harriman & Company  
Brown Investment Advisory & Trust Company  
Capital Group  
Carillon Tower Advisers  
CastleArk Management, LLC

Manager Name
Chartwell Investment Partners
CIBC Asset Management Inc,
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments North America
Credit Suisse Asset Management, LLC
Crescent Capital Group LP
DePrince, Race & Zollo, Inc.
Dimensional Fund Advisors L.P.
Doubleline
Duff & Phelps Investment Management Co.
DWS
EARNEST Partners, LLC
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Hawaiian Bank Wealth Management Division
First Sentier Investors
Fisher Investments
Franklin Templeton
Fred Alger Management, LLC
GAM (USA) Inc.
GlobeFlex Capital, L.P.
GoldenTree Asset Management, LP
Goldman Sachs
Golub Capital
Guggenheim Investments
GW&K Investment Management
Harbor Capital Group Trust
Hardman Johnston Global Advisors LLC
Heitman LLC
Hotchkis & Wiley Capital Management, LLC
Impax Asset Management LLC
Income Research + Management Inc.
Insight Investment
Intech Investment Management LLC
Intercontinental Real Estate Corporation
Invesco

Manager Name
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors
KeyCorp
Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Asset Management
Manning & Napier Advisors, LLC
Manulife Investment Management
Marathon Asset Management, L.P.
McKinley Capital Management, LLC
Mellon
MetLife Investment Management
MFS Investment Management
MidFirst Bank
MLC Asset Management
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
MUFG Union Bank, N.A.
Natixis Investment Managers
Neuberger Berman
Newton Investment Management
Ninety One North America, Inc.
Nomura Asset Management U.S.A. Inc.
Northern Trust Asset Management
Nuveen
P/E Investments
Pacific Investment Management Company
Pantheon Ventures
Parametric Portfolio Associates LLC
Partners Group (USA) Inc.
Pathway Capital Management, LP

**Manager Name**

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Principal Global Investors

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Robeco Institutional Asset Management, US Inc.

Rothschild &amp; Co. Asset Management US

S&amp;P Dow Jones Indices

Schroder Investment Management North America Inc.

Segall Bryant &amp; Hamill

SLC Management

Smith Graham &amp; Co. Investment Advisors, L.P.

State Street Global Advisors

Strategic Global Advisors, LLC

**Manager Name**

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel &amp; Walmsley LLC

Thornburg Investment Management, Inc.

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott &amp; Partners Limited

Washington Capital Management, Inc.

WCM Investment Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

Westwood Holdings Group, Inc.

William Blair &amp; Company LLC