

June 30, 2022



North Dakota State Investment Board Legacy Fund

**Investment Measurement Service
Quarterly Review**

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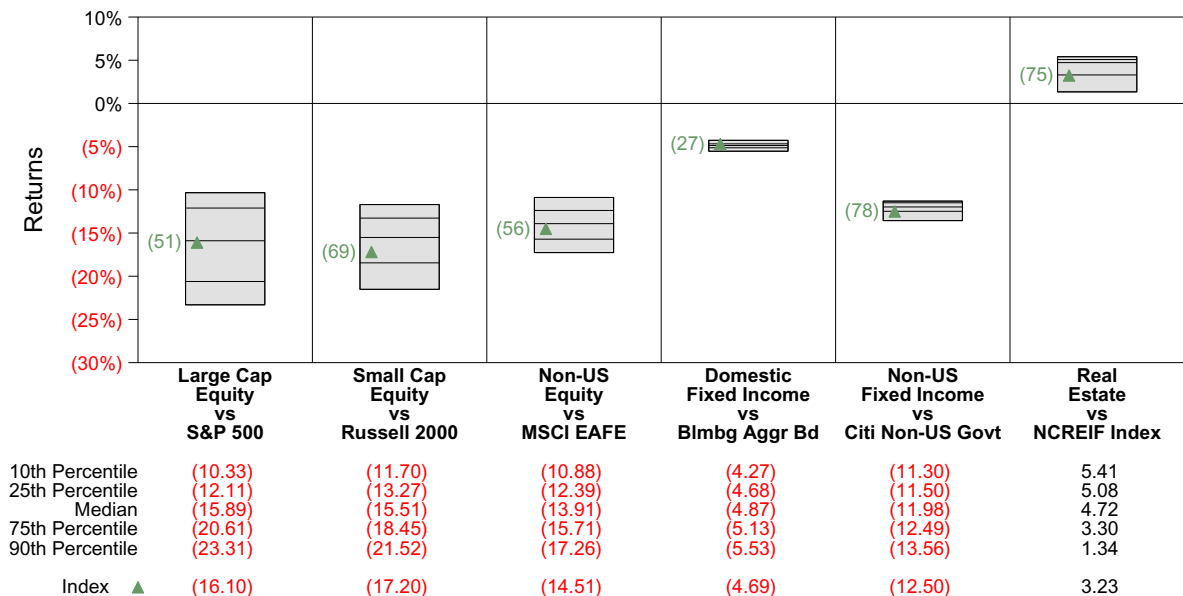
Market Overview

Active Management vs Index Returns

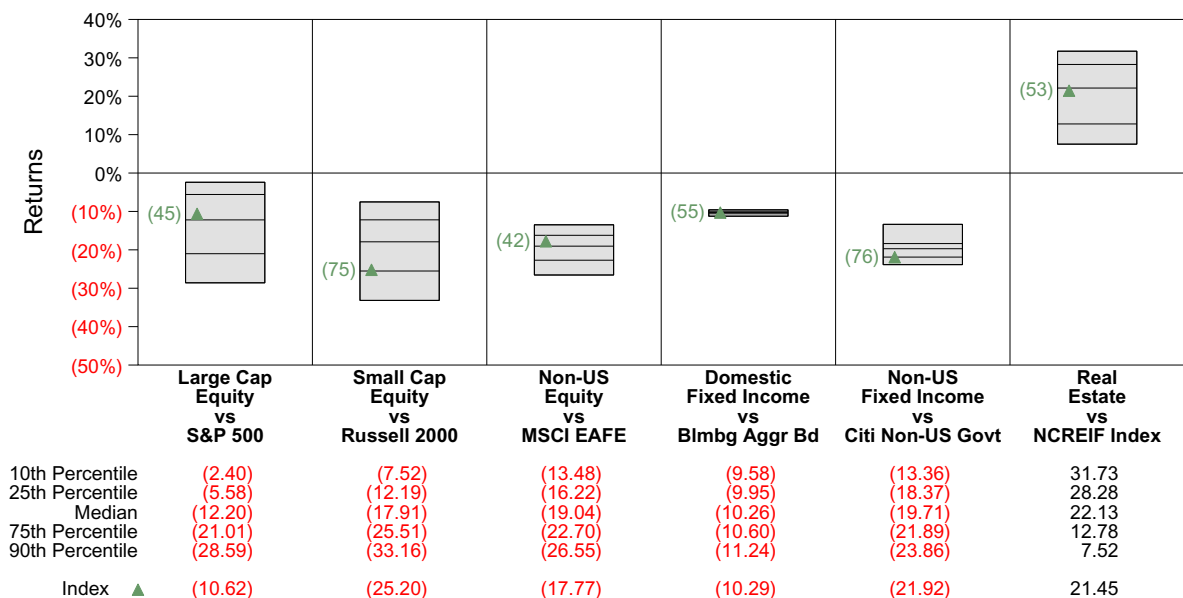
Market Overview

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.

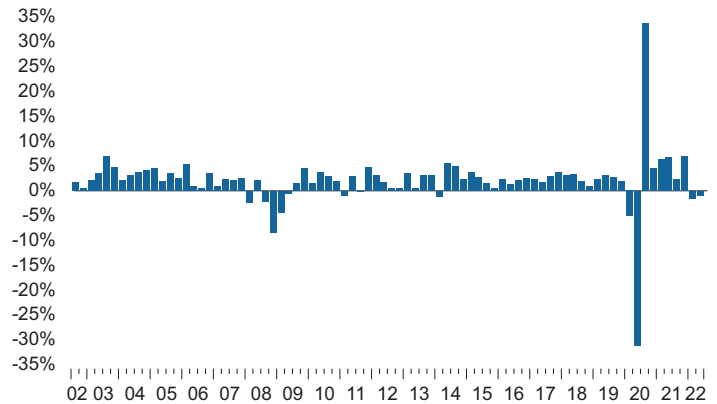
It turns out two consecutive quarters of falling GDP is a nice rule of thumb, but it is not the official definition of recession. So what is, and who gets to decide? First, the decider: the rather grandly named National Bureau of Economic Research Business Cycle Dating Committee. Second, the definition: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

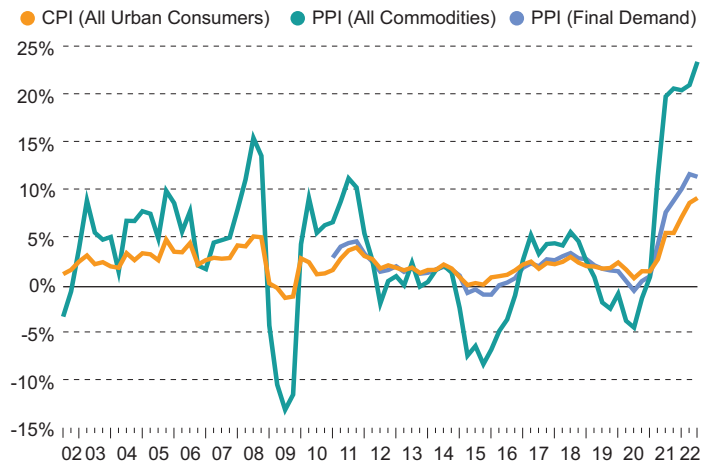
Quarterly Real GDP Growth

(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.

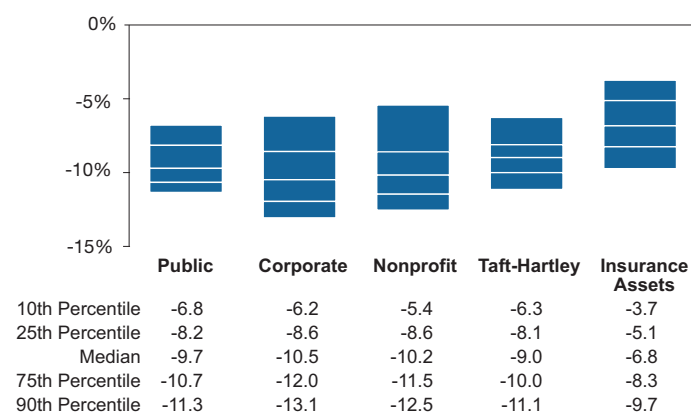
Strategic planning focus alters

- 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.

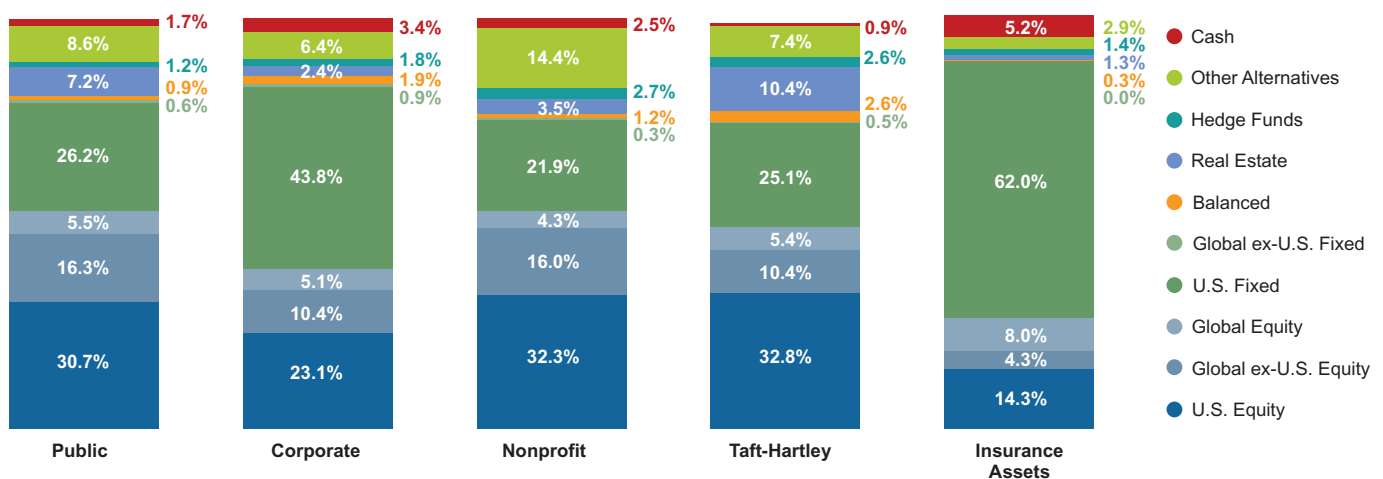
Defined contribution (DC) plan priorities

- 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.

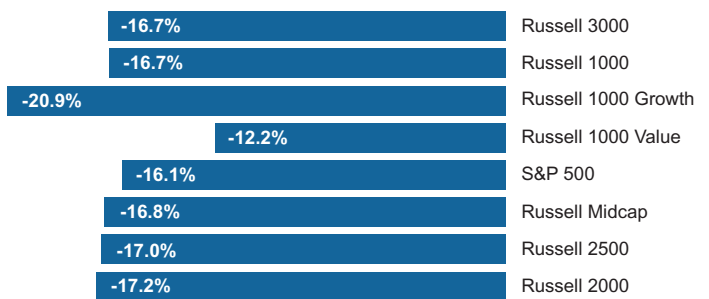
Volatile environment hits equity markets

- 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.

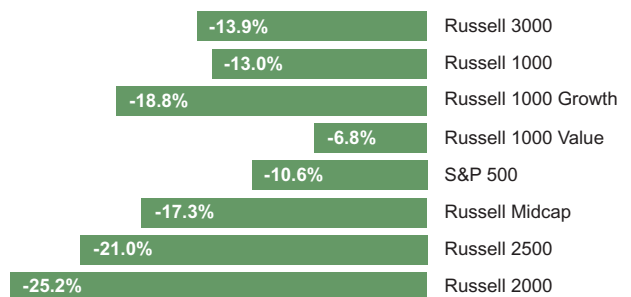
U.S. Equity: Quarterly Returns

(6/30/22)



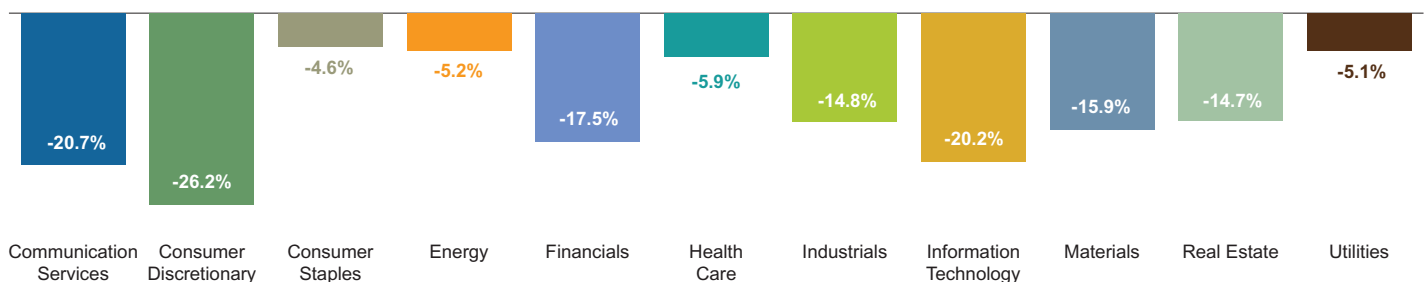
U.S. Equity: One-Year Returns

(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.

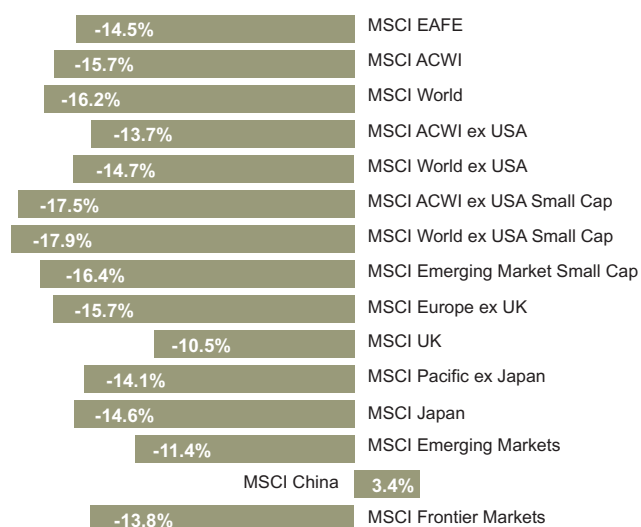
Strong currency yields purchasing power

- 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.

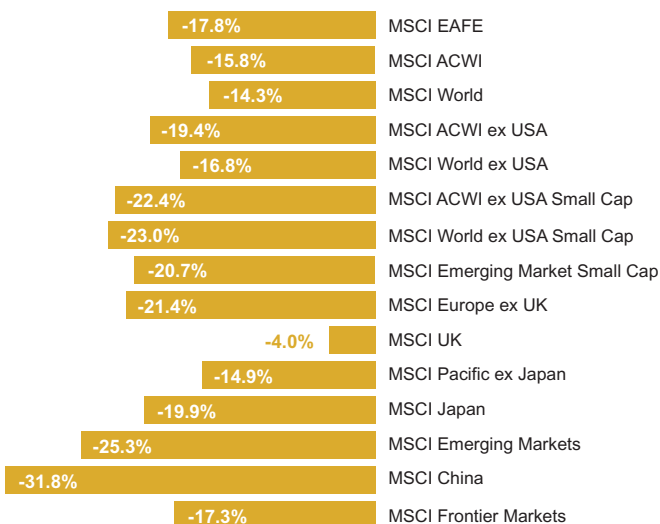
EM has fared better relative to prior downturns

- 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

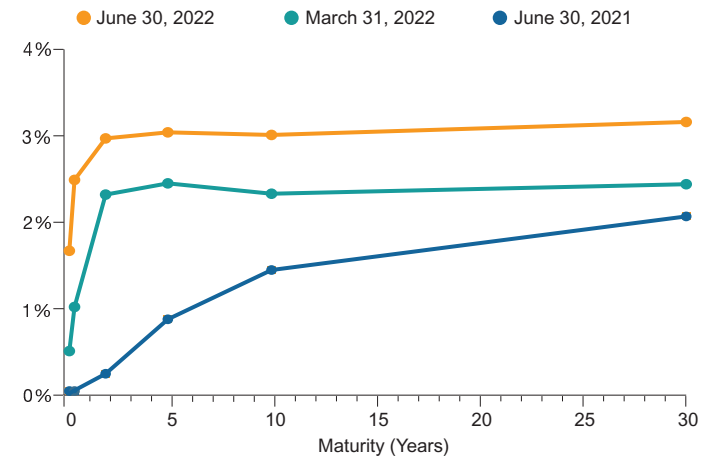
Returns hurt by rising rates

- 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)

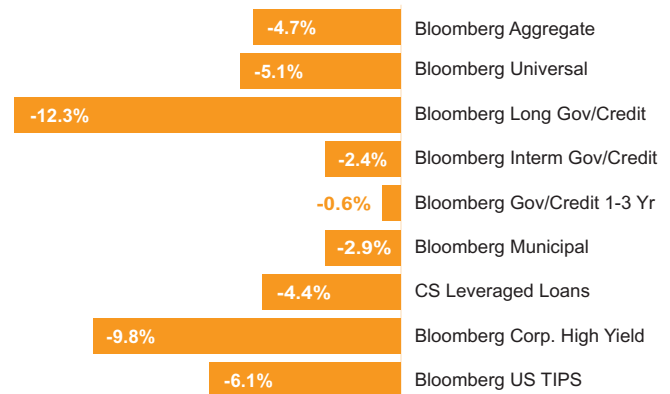
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

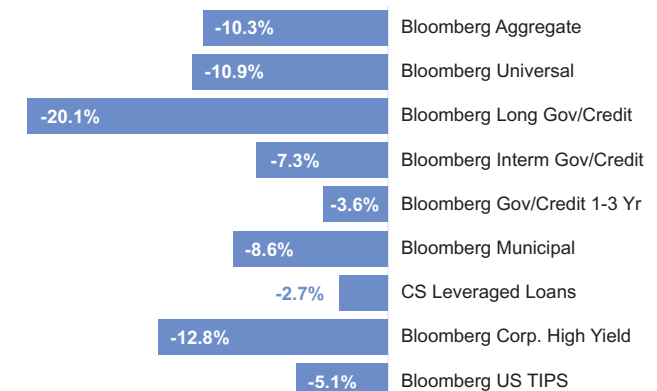
(6/30/22)



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

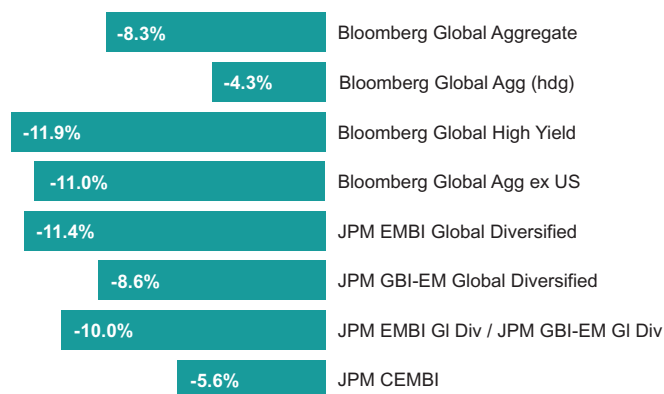
1Q22 to 2Q22



Source: Bloomberg

Global Fixed Income: Quarterly Returns

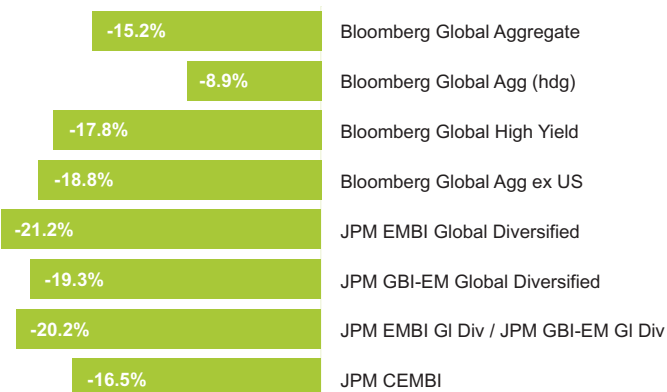
(6/30/22)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(6/30/22)



Sources: Bloomberg and JPMorgan Chase

Private RE Delivers; REITs Underperform

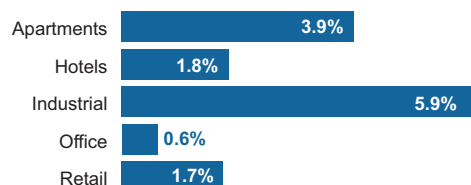
REAL ESTATE/REAL ASSETS | Munir Iman

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
Real Estate ODCE Style	5.0	12.2	27.9	12.3	10.2	10.6	6.2
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
Public Real Estate							
Global Real Estate Style	-17.2	-20.6	-12.2	1.9	5.0	6.9	3.9
FTSE EPRA Nareit Developed	-17.4	-20.7	-13.5	-1.1	1.9	4.7	2.0
Global ex-U.S. Real Estate Style	-18.5	-21.5	-20.6	-1.2	3.7	6.2	1.4
FTSE EPRA Nareit Dev ex US	-17.7	-20.4	-21.1	-5.0	-0.2	3.3	0.1
U.S. REIT Style	-16.7	-20.0	-6.3	6.0	7.0	8.4	6.8
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
All Private Equity	-1.5	22.6	24.9	21.0	16.1	12.4	13.6	14.6
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%
Totals	1,034	458,767	100%

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.

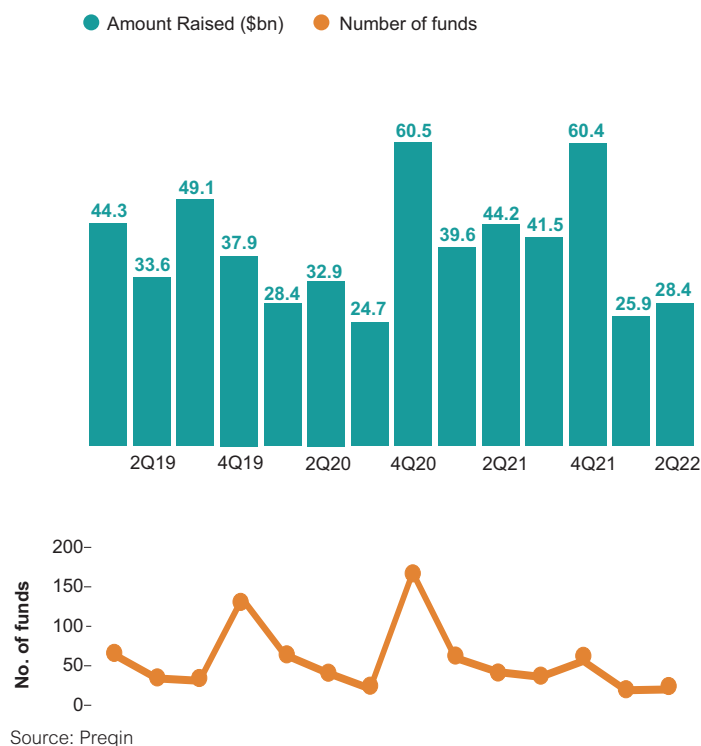
Distressed cycle on horizon a growing opportunity

- 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)



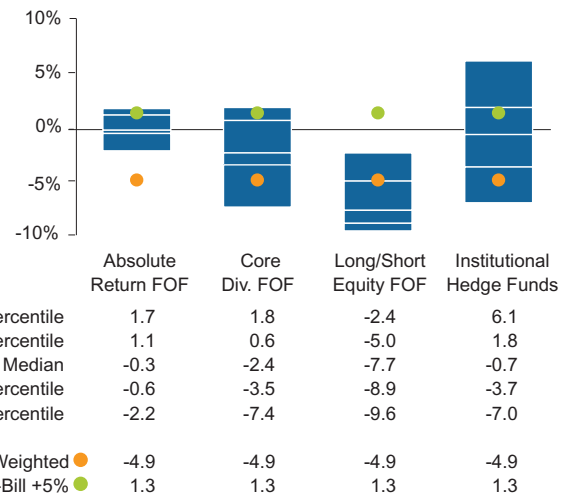
Tough Environment Leads to Losses

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.

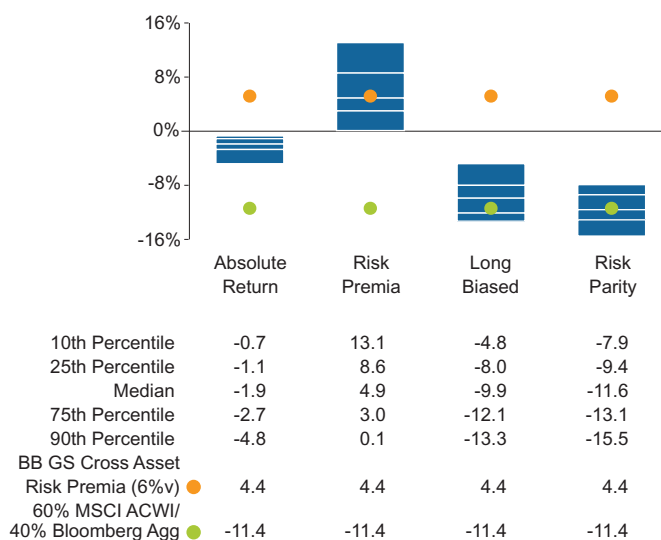
Across the Callan Hedge FOF Database, the median Absolute Return FOF fell 0.3%, as a focus on lower beta strategies held up during the quarter. Meanwhile, the median Callan Long-Short Equity FOF dropped 7.7%, as a growth bias among

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%.

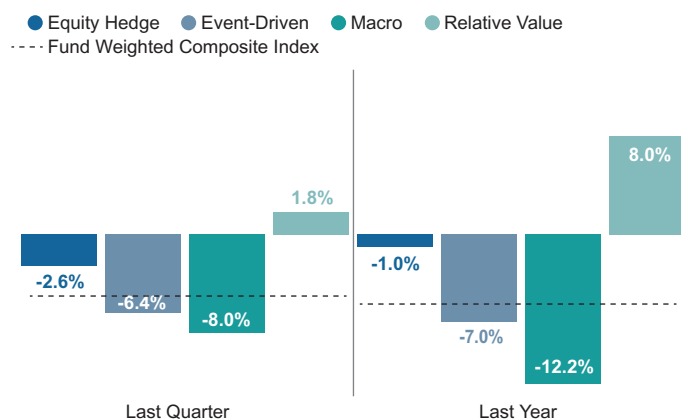
MAC Style Group Returns

(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.

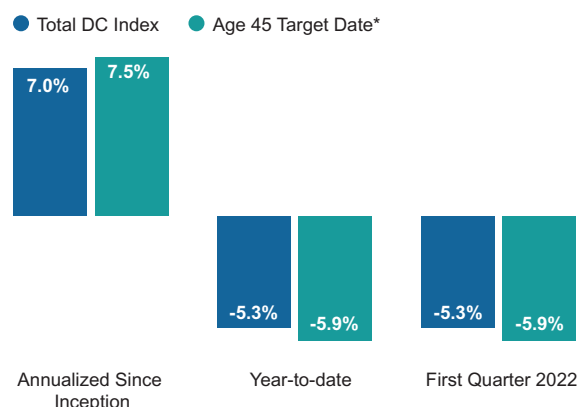
Prevalance of Asset Class: Balanced funds dip again

- 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.

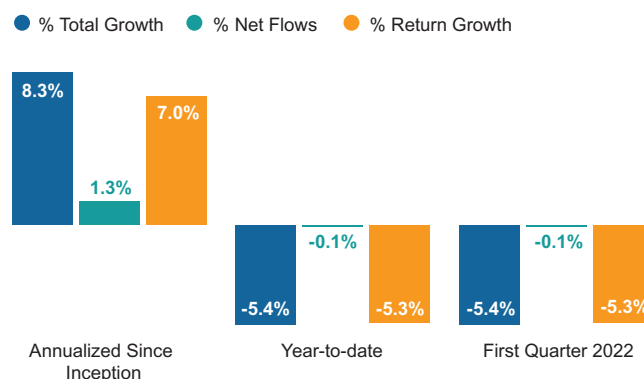
Investment Performance

(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%
Total Turnover**	0.42%

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

Source: Callan DC Index

Note: DC Index inception date is January 2006.

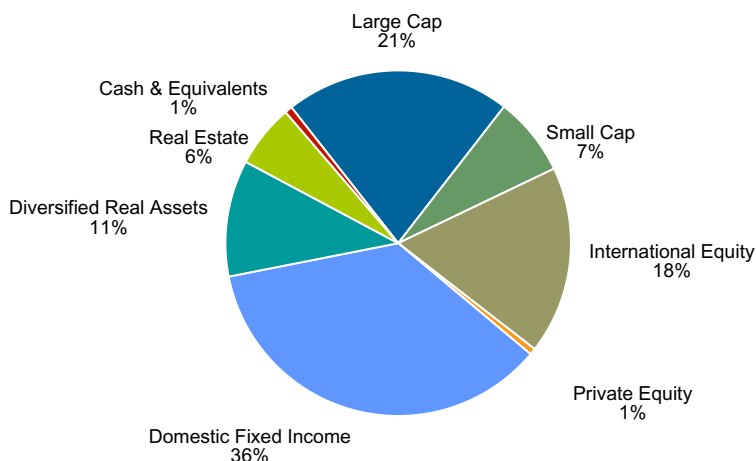
* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

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

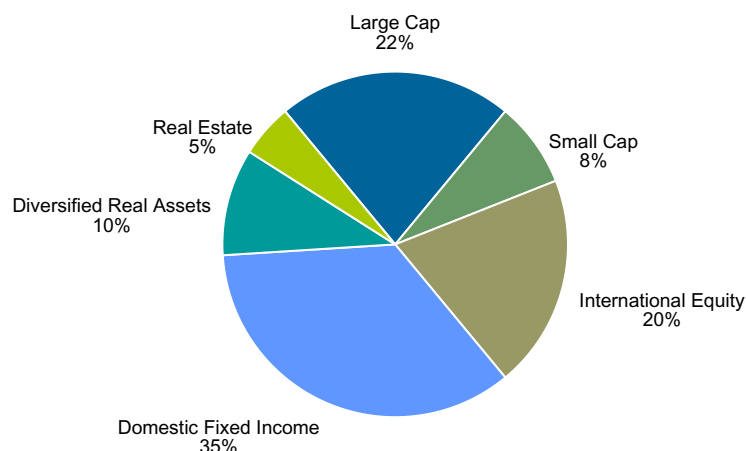
Actual vs Target Asset Allocation As of June 30, 2022

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



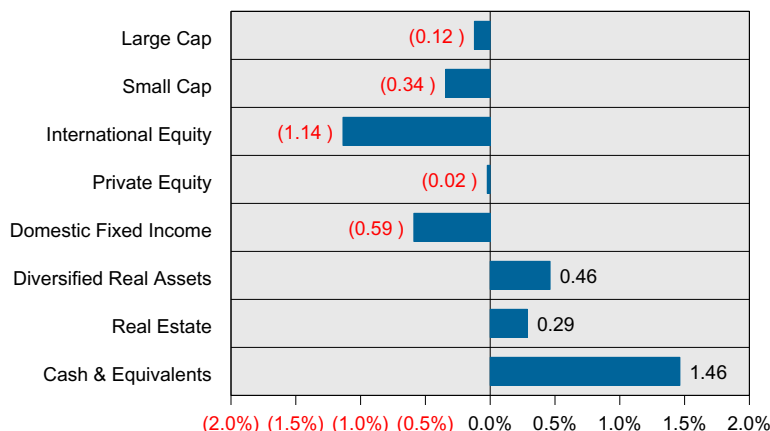
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,674,225	21.1%	22.0%	(0.9%)	(74,441)
Small Cap	586,928	7.4%	8.0%	(0.6%)	(48,950)
International Equity	1,399,965	17.6%	20.0%	(2.4%)	(189,731)
Private Equity	44,510	0.6%	0.0%	0.6%	44,510
Domestic Fixed Income	2,845,789	35.8%	35.0%	0.8%	63,821
Diversified Real Assets	868,498	10.9%	10.0%	0.9%	73,650
Real Estate	471,487	5.9%	5.0%	0.9%	74,063
Cash & Equivalents	57,078	0.7%	0.0%	0.7%	57,078
Total	7,948,481	100.0%	100.0%		

* Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI EAFE, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.

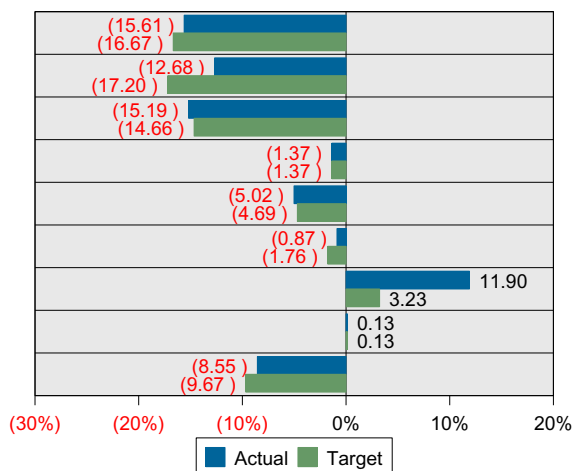
Quarterly Total Fund Relative Attribution - June 30, 2022

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.

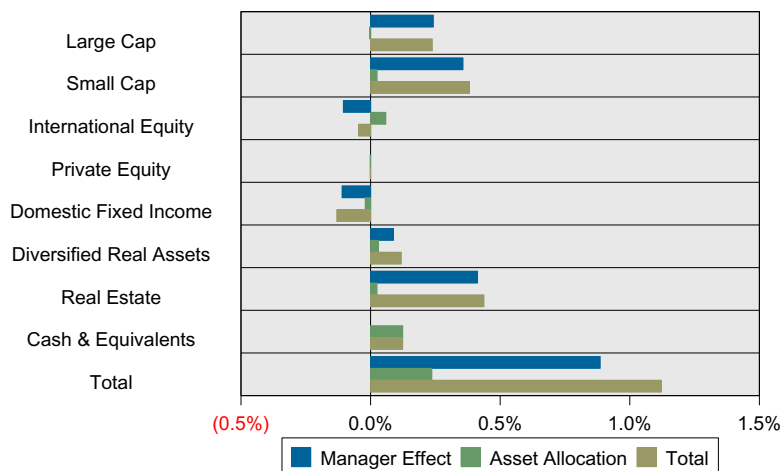
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended June 30, 2022

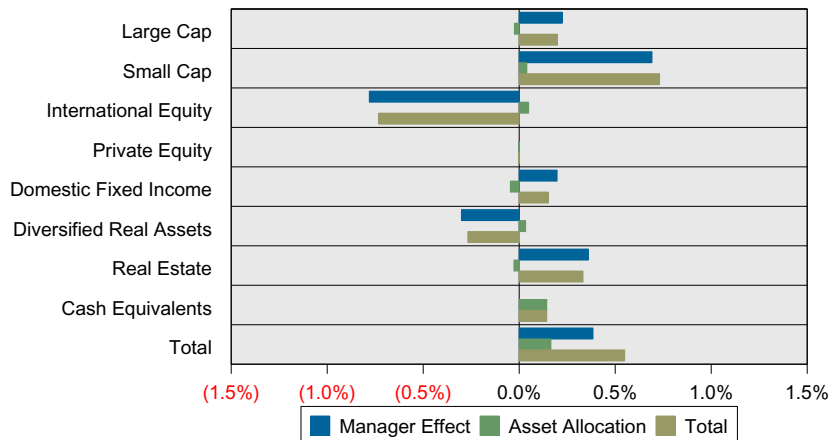
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	(15.61%)	(16.67%)	0.24%	(0.00%)	0.24%
Small Cap	8%	8%	(12.68%)	(17.20%)	0.36%	0.03%	0.38%
International Equity	19%	20%	(15.19%)	(14.66%)	(0.10%)	0.06%	(0.05%)
Private Equity	0%	1%	(1.37%)	(1.37%)	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	34%	35%	(5.02%)	(4.69%)	(0.11%)	(0.02%)	(0.13%)
Diversified Real Assets	10%	10%	(0.87%)	(1.76%)	0.09%	0.03%	0.12%
Real Estate	5%	5%	11.90%	3.23%	0.41%	0.02%	0.44%
Cash & Equivalents	1%	0%	0.13%	0.13%	0.00%	0.12%	0.12%
Total			(8.55%)	(9.67%)	+ 0.89%	+ 0.24%	1.12%

* Current Quarter Target = 35.0% Blmbg Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

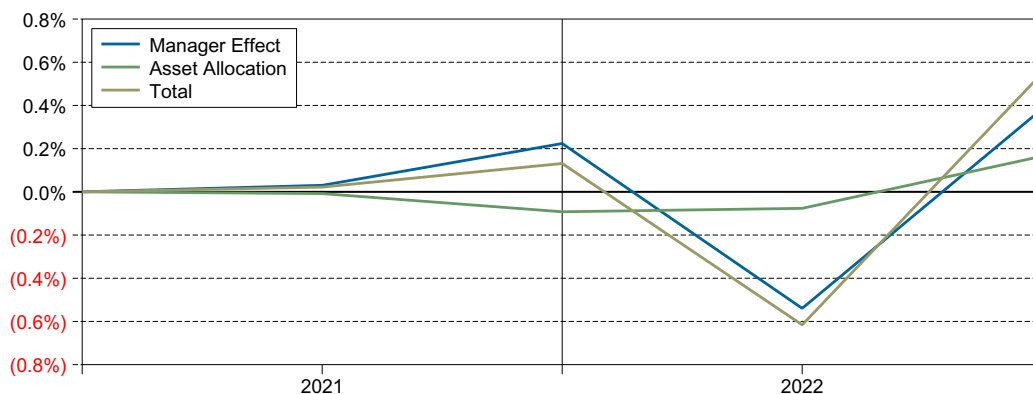
Cumulative Total Fund Relative Attribution - June 30, 2022

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

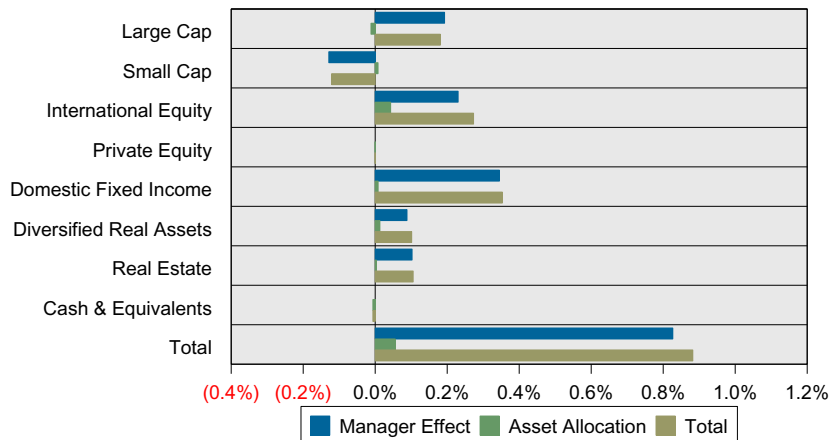
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	(12.00%)	(13.04%)	0.22%	(0.02%)	0.20%
Small Cap	8%	8%	(17.13%)	(25.20%)	0.69%	0.04%	0.73%
International Equity	19%	20%	(20.59%)	(16.76%)	(0.78%)	0.05%	(0.73%)
Private Equity	0%	0%	1.69%	1.69%	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	(9.70%)	(10.29%)	0.20%	(0.05%)	0.15%
Diversified Real Assets	10%	10%	0.93%	4.39%	(0.30%)	0.03%	(0.27%)
Real Estate	5%	5%	29.96%	21.45%	0.36%	(0.03%)	0.33%
Cash Equivalents	1%	0%	0.16%	0.16%	0.00%	0.14%	0.14%
Total			(9.90%)	(10.45%)	+ 0.38%	+ 0.16%	0.55%

* Current Quarter Target = 35.0% Bimbg Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

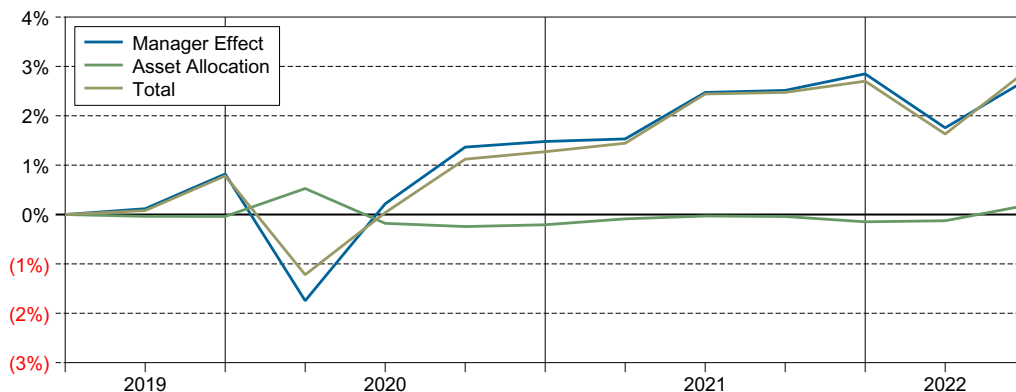
Cumulative Total Fund Relative Attribution - June 30, 2022

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Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

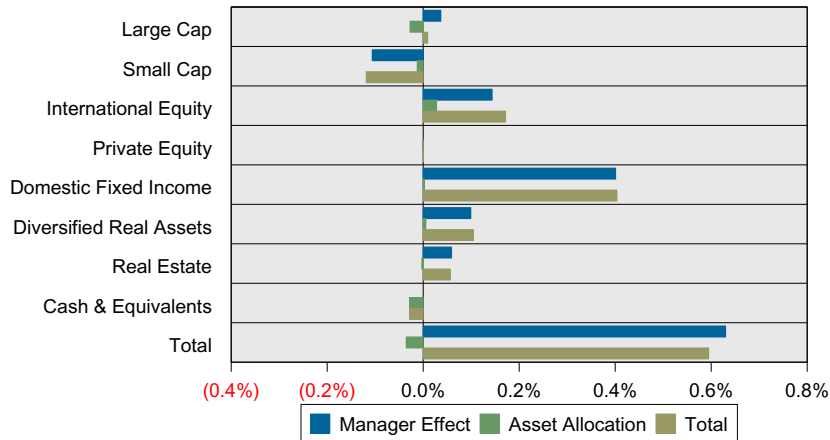
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	11.04%	10.17%	0.19%	(0.01%)	0.18%
Small Cap	8%	8%	3.17%	4.21%	(0.13%)	0.01%	(0.12%)
International Equity	20%	20%	2.69%	1.70%	0.23%	0.04%	0.27%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	0.23%	(0.93%)	0.35%	0.01%	0.35%
Diversified Real Assets	10%	10%	6.45%	5.43%	0.09%	0.01%	0.10%
Real Estate	5%	5%	11.87%	10.22%	0.10%	0.00%	0.11%
Cash & Equivalents	1%	0%	0.51%	0.51%	0.00%	(0.01%)	(0.01%)
Total			4.97%	4.09%	0.83%	0.06%	0.88%

* Current Quarter Target = 35.0% Blmgb Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

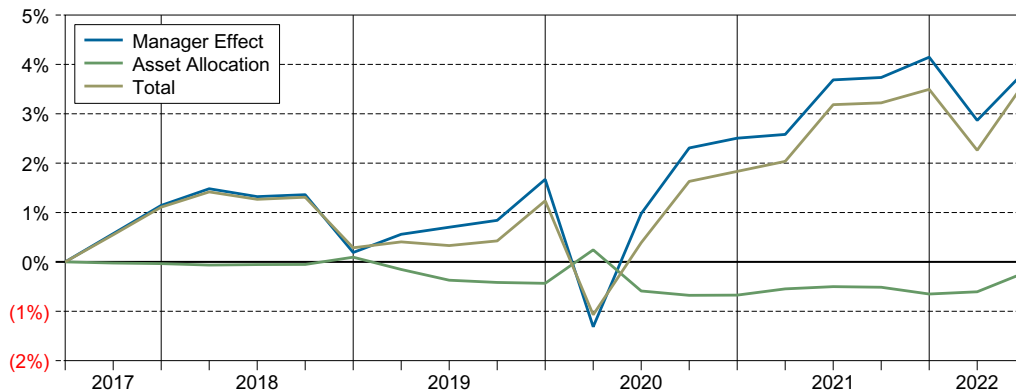
Cumulative Total Fund Relative Attribution - June 30, 2022

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

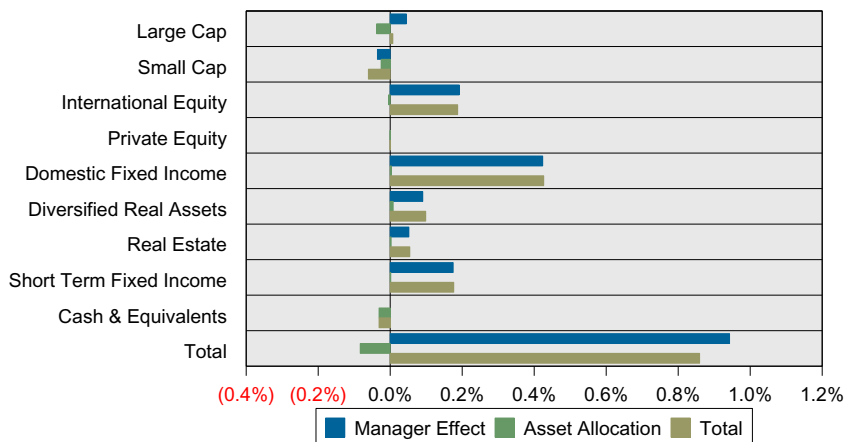
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	11.13%	11.00%	0.04%	(0.03%)	0.01%
Small Cap	8%	8%	4.18%	5.17%	(0.11%)	(0.01%)	(0.12%)
International Equity	20%	20%	3.22%	2.66%	0.14%	0.03%	0.17%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	2.15%	0.88%	0.40%	0.00%	0.40%
Diversified Real Assets	10%	10%	5.86%	4.77%	0.10%	0.01%	0.10%
Real Estate	5%	5%	9.78%	8.86%	0.06%	(0.00%)	0.06%
Cash & Equivalents	1%	0%	0.98%	0.98%	0.00%	(0.03%)	(0.03%)
Total			5.57%	4.97%	0.63%	(0.04%)	0.59%

* Current Quarter Target = 35.0% Blmgb Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

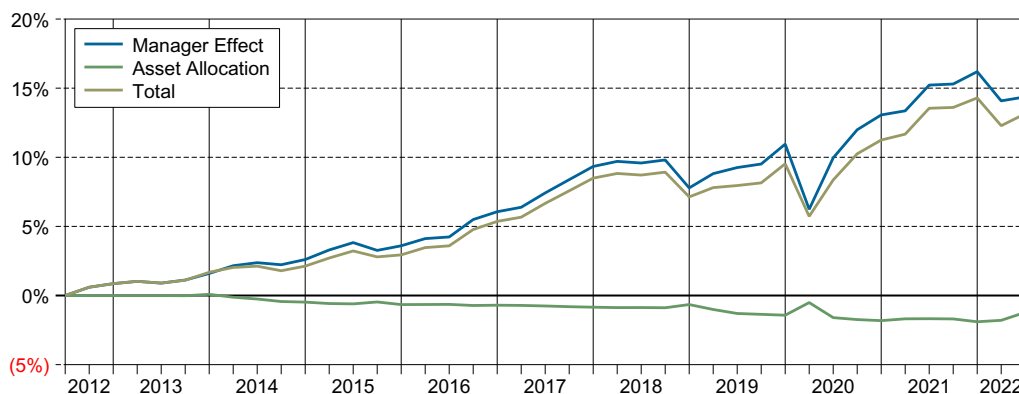
Cumulative Total Fund Relative Attribution - June 30, 2022

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

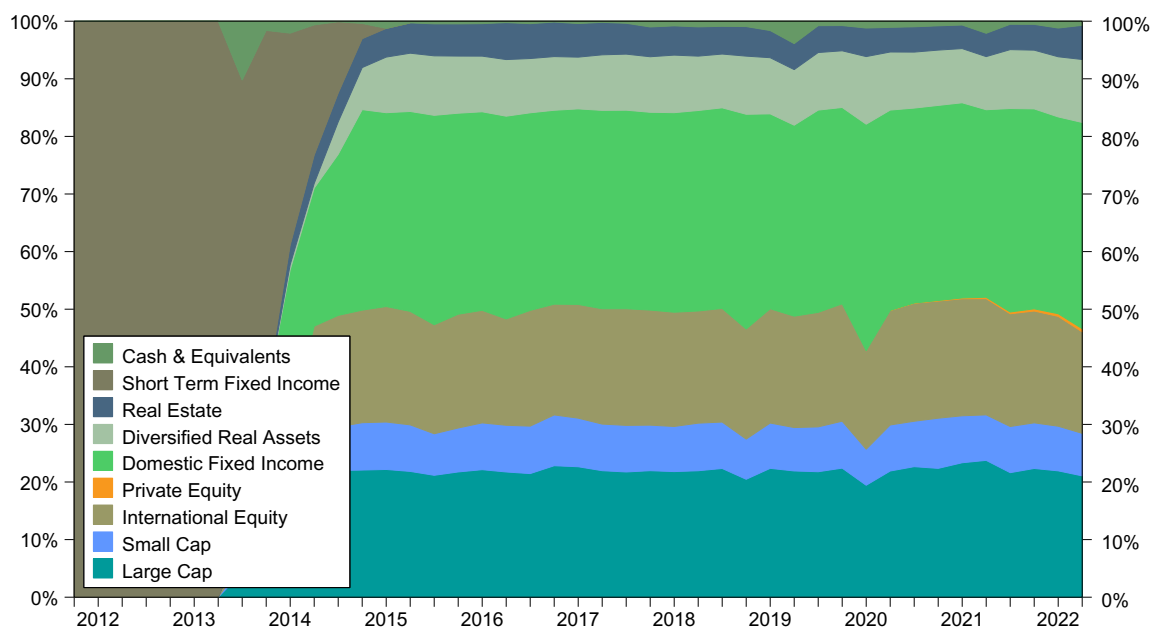
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	18%	18%	-	-	0.04%	(0.04%)	0.01%
Small Cap	7%	7%	-	-	(0.04%)	(0.03%)	(0.06%)
International Equity	17%	17%	-	-	0.19%	(0.00%)	0.19%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	29%	29%	-	-	0.42%	0.00%	0.43%
Diversified Real Assets	8%	8%	-	-	0.09%	0.01%	0.10%
Real Estate	4%	4%	-	-	0.05%	0.00%	0.05%
Short Term Fixed Income	17%	17%	-	-	0.17%	0.00%	0.18%
Cash & Equivalents	1%	0%	0.57%	0.57%	0.00%	(0.03%)	(0.03%)
Total			5.26%	4.40%	+ 0.94%	+ (0.08%)	0.86%

* Current Quarter Target = 35.0% Blmgb Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

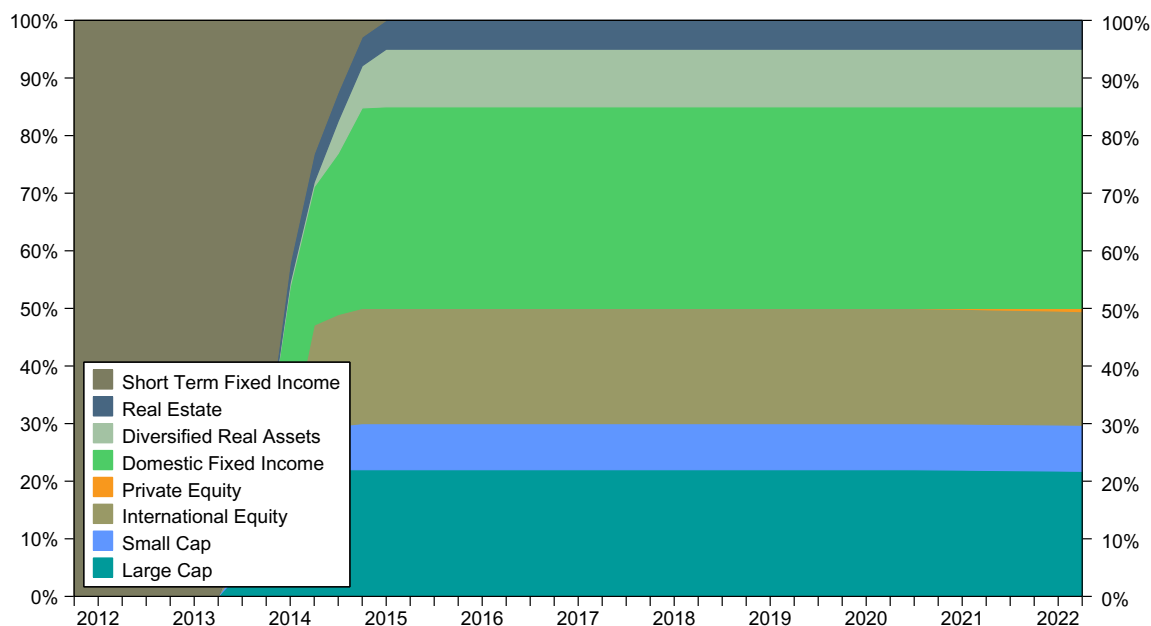
Actual vs Target Historical Asset Allocation

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

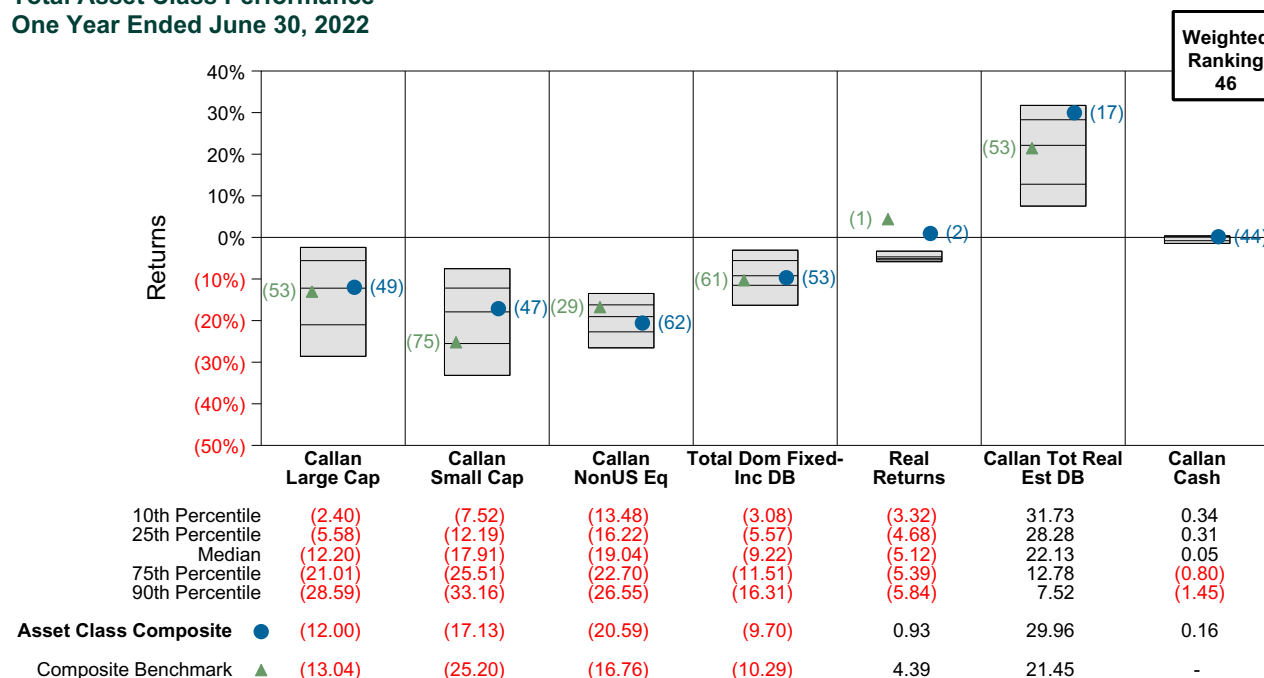


* Current Quarter Target = 35.0% Blmgb Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

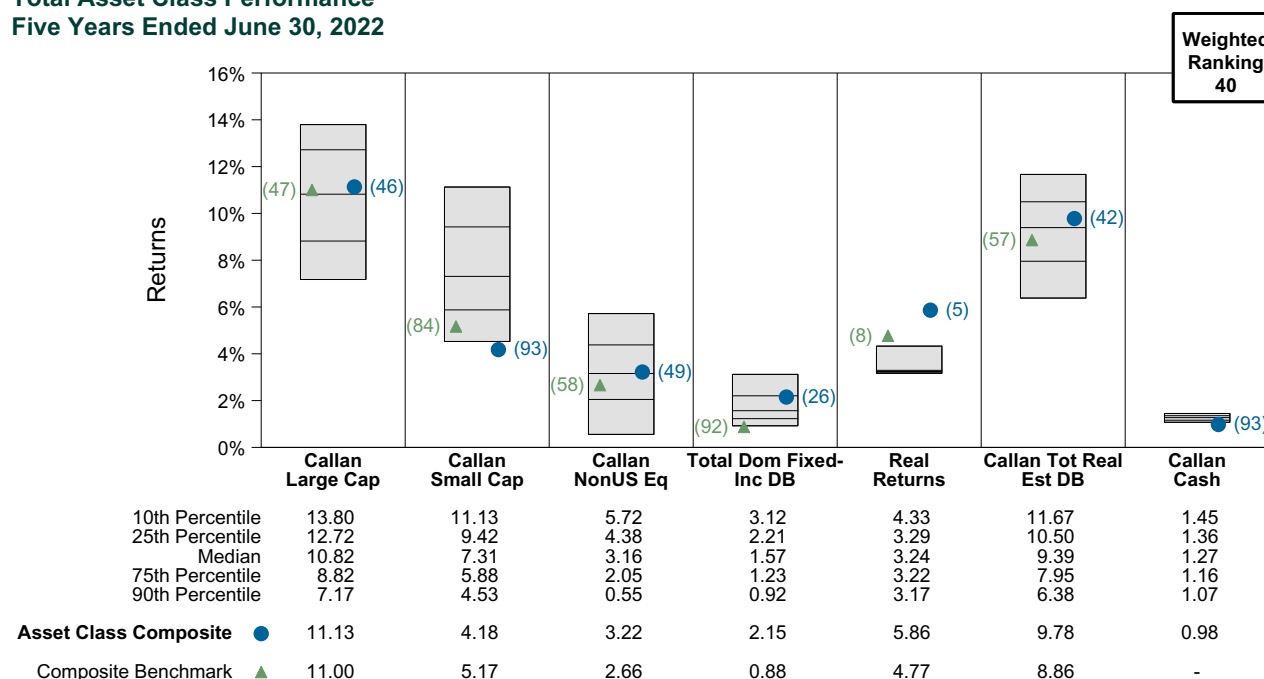
Asset Class Rankings

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 = 35.0% Blmbg Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

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				March 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Equity	\$3,705,627,836	46.62%	\$165,284,158	\$(625,491,262)	\$4,165,834,939	49.22%
Domestic Equity	\$2,261,152,768	28.45%	\$125,185,256	\$(376,548,719)	\$2,512,516,231	29.68%
Large Cap	\$1,674,224,775	21.06%	\$109,232,792	\$(291,862,640)	\$1,856,854,623	21.94%
L.A. Capital Enhanced	347,930,107	4.38%	27,386,980	(60,056,930)	380,600,057	4.50%
L.A. Capital Large Cap Growth	507,573,860	6.39%	54,716,777	(108,147,500)	561,004,583	6.63%
Parametric Large Cap	336,329,951	4.23%	27,500,000	(64,681,048)	373,510,999	4.41%
LSV Large Cap Value	482,390,858	6.07%	(370,965)	(58,977,161)	541,738,984	6.40%
Small Cap	\$586,927,992	7.38%	\$15,952,464	\$(84,686,080)	\$655,661,608	7.75%
Atlanta Capital	206,114,308	2.59%	(337,043)	(20,631,400)	227,082,751	2.68%
Riverbridge Small Cap Growth	179,764,130	2.26%	16,624,684	(43,617,760)	206,757,206	2.44%
Sycamore Small Cap Value	201,049,555	2.53%	(335,177)	(20,436,920)	221,821,652	2.62%
International Equity	\$1,399,965,469	17.61%	\$34,003,404	\$(248,367,185)	\$1,614,329,250	19.07%
Arrowstreet ACWI ex US	346,880,607	4.36%	35,000,000	(46,598,578)	358,479,186	4.24%
DFA Intl SmallCap Value	150,890,061	1.90%	0	(23,850,584)	174,740,645	2.06%
LSV Intl Value	407,988,449	5.13%	(472,949)	(57,814,385)	466,275,783	5.51%
Vanguard Intl Explorer Fund	120,479,633	1.52%	0	(26,782,297)	147,261,930	1.74%
William Blair	373,726,718	4.70%	(523,647)	(93,321,342)	467,571,707	5.52%
Private Equity	\$44,509,599	0.56%	\$6,095,498	\$(575,357)	\$38,989,458	0.46%
50 South Capital	4,768,557	0.06%	0	(934,867)	5,703,424	0.07%
Sixth Street TAO	39,741,042	0.50%	6,095,498	359,510	33,286,034	0.39%
Domestic Fixed Income	\$2,845,788,928	35.80%	\$100,172,253	\$(146,431,515)	\$2,892,048,190	34.17%
Ares ND Credit Strategies Fd	109,568,248	1.38%	0	4,053,741	105,514,507	1.25%
BND CDs	193,008,728	2.43%	147,341,271	1,047,486	44,619,971	0.53%
Cerberus ND Private Credit Fd	134,621,143	1.69%	0	2,133,029	132,488,114	1.57%
Declaration Total Return	216,828,376	2.73%	(146,348)	(6,348,470)	223,323,194	2.64%
PIMCO Bravo II	3,610,617	0.05%	(1,223,911)	(276,613)	5,111,141	0.06%
PIMCO DiSCO II	54,468,911	0.69%	0	(864,000)	55,332,911	0.65%
Prudential	772,306,239	9.72%	(22,938,435)	(55,483,133)	850,727,807	10.05%
SSgA US Govt Credit Bd Idx	383,827,577	4.83%	(15,393)	(20,346,864)	404,189,834	4.78%
Wells Capital	208,666,590	2.63%	(109,417)	(19,259,251)	228,035,257	2.69%
Western Asset Management	768,882,500	9.67%	(22,735,514)	(51,087,439)	842,705,453	9.96%
Global Real Assets	\$1,339,985,522	16.86%	\$(8,417,828)	\$42,500,721	\$1,305,902,628	15.43%
Real Estate	\$471,487,116	5.93%	\$(1,086,500)	\$50,244,290	\$422,329,326	4.99%
Invesco Core Real Estate	235,261,113	2.96%	(353,225)	24,729,770	210,884,568	2.49%
JP Morgan RE Inc & Growth	236,226,003	2.97%	(733,275)	25,514,520	211,444,758	2.50%
Diversified	\$868,498,407	10.93%	\$(7,331,327)	\$(7,743,569)	\$883,573,303	10.44%
Western Asset TIPS	445,343,817	5.60%	(17,136,601)	(33,702,423)	496,182,841	5.86%
ISQ Global Infrastructure II	79,546,760	1.00%	981,331	6,958,080	71,607,349	0.85%
ISQ Global Infrastructure III	5,634,947	0.07%	0	(1,436,056)	7,071,003	0.08%
JP Morgan IIF Infrastructure	102,351,847	1.29%	(1,244,372)	(1,554,614)	105,150,833	1.24%
Grosvenor CIS Fund II	56,796,580	0.71%	517,011	3,785,566	52,494,003	0.62%
Grosvenor CIS Fund III	21,910,155	0.28%	2,574,955	570,026	18,765,174	0.22%
Macquarie Infrastructure Fund IV	87,201,785	1.10%	(633,813)	10,296,835	77,538,763	0.92%
Macquarie Infrastructure Fund V	69,712,515	0.88%	7,610,162	7,339,017	54,763,336	0.65%
Cash	\$57,078,373	0.72%	\$(43,590,599)	\$88,178	\$100,580,794	1.19%
Northern Trust Cash Account	34,799,196	0.44%	(46,249,328)	48,758	80,999,766	0.96%
Bank of ND	22,279,177	0.28%	2,658,729	39,420	19,581,028	0.23%
Total Fund	\$7,948,480,659	100.0%	\$213,447,984	\$(729,333,877)	\$8,464,366,552	100.0%

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
Global Equity					
Gross	(14.84%)	(16.04%)	6.55%	-	-
Net	(14.90%)	(16.32%)	6.25%	-	-
Weighted Benchmark	(15.80%)	(16.33%)	5.96%	-	-
Domestic Equity					
Gross	(14.87%)	(13.40%)	8.94%	9.28%	-
Net	(14.94%)	(13.72%)	8.65%	9.04%	-
Weighted Benchmark	(16.81%)	(16.40%)	8.67%	-	-
Large Cap					
Gross	(15.61%)	(12.00%)	11.04%	11.13%	-
Net	(15.65%)	(12.23%)	10.83%	10.94%	-
Russell 1000 Index	(16.67%)	(13.04%)	10.17%	11.00%	12.82%
L.A. Capital Enhanced - Gross	(15.42%)	(11.03%)	11.37%	11.49%	-
L.A. Capital Enhanced - Net	(15.45%)	(11.15%)	11.24%	11.36%	-
Russell 1000 Index	(16.67%)	(13.04%)	10.17%	11.00%	12.82%
L.A. Capital LargeCap Growth - Gross	(19.53%)	(16.21%)	13.60%	14.35%	-
L.A. Capital LargeCap Growth - Net	(19.58%)	(16.39%)	13.37%	14.12%	-
Russell 1000 Growth Index	(20.92%)	(18.77%)	12.58%	14.29%	14.80%
Parametric Clifton Large Cap - Gross	(16.68%)	(12.20%)	10.17%	10.97%	-
Parametric Clifton Large Cap - Net	(16.68%)	(12.61%)	10.07%	10.92%	-
S&P 500 Index	(16.10%)	(10.62%)	10.60%	11.31%	12.96%
LSV Large Cap Value - Gross	(10.89%)	(8.26%)	7.59%	7.01%	-
LSV Large Cap Value - Net	(10.96%)	(8.52%)	7.29%	6.71%	-
Russell 1000 Value Index	(12.21%)	(6.82%)	6.87%	7.17%	10.50%
Small Cap					
Gross	(12.68%)	(17.13%)	3.17%	4.18%	-
Net	(12.83%)	(17.68%)	2.64%	3.80%	-
Russell 2000 Index	(17.20%)	(25.20%)	4.21%	5.17%	9.35%
Atlanta Capital - Gross	(9.09%)	(6.97%)	-	-	-
Atlanta Capital - Net	(9.23%)	(7.54%)	-	-	-
S&P 600 Small Cap Index	(14.11%)	(16.81%)	7.30%	7.20%	11.26%
Riverbridge Small Cap Growth - Gross	(20.03%)	(34.52%)	-	-	-
Riverbridge Small Cap Growth - Net	(20.20%)	(35.02%)	-	-	-
Russell 2000 Growth Index	(19.25%)	(33.43%)	1.40%	4.80%	9.30%
Sycamore Small Cap Value - Gross	(9.22%)	(7.91%)	-	-	-
Sycamore Small Cap Value - Net	(9.36%)	(8.49%)	-	-	-
Russell 2000 Value Index	(15.28%)	(16.28%)	6.18%	4.89%	9.05%
International Equity					
Gross	(15.19%)	(20.59%)	2.69%	3.22%	-
Net	(15.24%)	(20.81%)	2.39%	2.92%	-
Benchmark(1)	(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	(13.65%)	(13.72%)	3.00%	0.37%	-
World ex US SC Va	(15.64%)	(17.41%)	1.99%	1.43%	6.34%
LSV Intl Value - Gross	(12.41%)	(12.56%)	1.72%	1.19%	-
LSV Intl Value - Net	(12.50%)	(12.93%)	1.32%	0.80%	-
MSCI EAFE Index	(14.51%)	(17.77%)	1.07%	2.20%	5.40%
Vanguard Intl Explorer Fund	(18.19%)	(30.39%)	(1.60%)	(1.28%)	-
BMI, EPAC, <\$2 B	(17.77%)	(25.19%)	0.98%	0.49%	6.09%
William Blair - Gross	(19.97%)	(28.53%)	2.45%	5.64%	-
William Blair - Net	(20.07%)	(28.82%)	2.07%	5.24%	-
MSCI ACWI ex US IMI	(14.28%)	(19.86%)	1.55%	2.50%	5.01%
Private Equity					
Net	(1.37%)	1.69%	-	-	-
50 South Capital - Net	(16.39%)	(32.51%)	-	-	-
Sixth Street TAO - Net	1.14%	6.80%	-	-	-
Benchmark(2)	(7.35%)	(7.96%)	-	-	-

(1) MSCI EAFE through 6/30/2016 and MSCI World ex-US thereafter.

(2) 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.

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
Domestic Fixed Income					
Gross	(5.02%)	(9.70%)	0.23%	2.15%	-
Net	(5.04%)	(9.80%)	0.13%	2.04%	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Ares ND Credit Strategies Fd - Net	3.84%	8.90%	7.94%	-	-
Cerberus ND Private Credit Fd - Net	1.61%	7.23%	9.20%	-	-
S&P/LSTA Leveraged Loan B	(4.91%)	(2.97%)	2.32%	3.12%	3.91%
BND CDs - Net	0.71%	2.68%	2.72%	2.91%	-
Declaration Total Return - Net	(2.84%)	(5.18%)	1.50%	2.84%	-
Libor-3 Month	0.43%	0.66%	0.81%	1.35%	0.91%
PIMCO Bravo II - Net(1)	(7.19%)	(0.57%)	1.54%	2.73%	-
PIMCO DiSCO II - Net (1)	(1.56%)	1.64%	4.29%	5.74%	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Prudential - Gross	(6.60%)	(12.22%)	(0.60%)	1.68%	-
Prudential - Net	(6.65%)	(12.41%)	(0.80%)	1.47%	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
Wells Capital - Gross	(8.45%)	(14.89%)	0.46%	2.50%	-
Wells Capital - Net	(8.49%)	(15.05%)	0.27%	2.32%	-
Blmbg Credit Baa	(7.94%)	(14.89%)	(0.99%)	1.46%	2.87%
Western Asset - Gross	(6.13%)	(12.51%)	(1.24%)	1.12%	-
Western Asset - Net	(6.16%)	(12.61%)	(1.35%)	1.00%	-
Blmbg Aggregate	(4.69%)	(10.29%)	(0.93%)	0.88%	1.54%
SSgA US Govt Credit Bd Idx - Gross	(5.03%)	(10.80%)	(0.67%)	1.13%	-
SSgA US Govt Credit Bd Idx - Net	(5.04%)	(10.81%)	(0.68%)	1.11%	-
Blmbg Govt/Credit Bd	(5.03%)	(10.85%)	(0.77%)	1.05%	1.67%

(1) Prior to 7/1/2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning 7/1/2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

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
Global Real Assets					
Gross	3.27%	9.55%	8.22%	-	-
Net	3.16%	9.29%	7.94%	-	-
Weighted Benchmark	(0.11%)	9.83%	7.02%	-	-
Real Estate					
Gross	11.90%	29.96%	11.87%	9.78%	-
Net	11.67%	29.41%	11.38%	9.25%	-
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
Invesco Core Real Estate - Gross	11.73%	27.19%	11.58%	10.00%	-
Invesco Core Real Estate - Net	11.56%	26.79%	11.22%	9.63%	-
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
JP Morgan RE Inc & Growth - Gross	12.08%	32.84%	12.16%	9.58%	-
JP Morgan RE Inc & Growth - Net	11.78%	32.12%	11.54%	8.90%	-
NCREIF Total Index	3.23%	21.45%	10.22%	8.86%	9.67%
Diversified					
Gross	(0.87%)	0.93%	6.45%	5.86%	-
Net	(0.92%)	0.79%	6.26%	5.66%	-
Weighted Benchmark	(1.76%)	4.39%	5.43%	4.77%	-
Western Asset TIPS - Gross	(6.96%)	(6.40%)	2.86%	2.99%	-
Western Asset TIPS - Net	(6.99%)	(6.50%)	2.75%	2.87%	-
Benchmark(3)	(6.57%)	(5.73%)	2.97%	3.37%	2.48%
JP Morgan IIF Infrastructure - Gross	(1.48%)	1.85%	6.06%	7.25%	-
JP Morgan IIF Infrastructure - Net	(1.74%)	1.23%	5.29%	6.51%	-
Grosvenor CIS Fund II - Net	7.14%	10.66%	13.37%	12.86%	-
Grosvenor CIS Fund III - Net	2.73%	-	-	-	-
Benchmark(1)	3.73%	18.33%	8.17%	6.28%	3.66%
ISQ Global Infrastructure II - Net	9.69%	12.90%	12.85%	-	-
ISQ Global Infrastructure III - Net	(20.31%)	-	-	-	-
Macquarie Infrastructure Fd IV - Net	13.29%	15.50%	14.97%	-	-
Macquarie Infrastructure Fd V - Net	11.66%	18.12%	-	-	-
Benchmark(2)	3.73%	18.33%	8.17%	-	-
Cash & Equivalents - Net	0.13%	0.16%	0.51%	0.98%	0.57%
NT Cash Account - Net	0.11%	0.13%	0.45%	-	-
Bank of ND - Net	0.17%	0.23%	0.60%	-	-
90 Day Treasury Bills	0.10%	0.17%	0.63%	1.11%	0.64%
Total Fund					
Gross	(8.55%)	(9.90%)	4.97%	5.57%	5.26%
Net	(8.61%)	(10.12%)	4.75%	5.35%	5.06%
Target*	(9.67%)	(10.45%)	4.09%	4.97%	4.40%

* Current Quarter Target = 35.0% Blmbg Aggregate, 21.7% Russell 1000 Index, 19.7% MSCI World xUS, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.6% Private Equity.

(1) CPI-W through 6/30/2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

(2) 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

(3) Blmbg Global Inflation-Linked through 10/31/2018 and Blmbg US Govt Inflation Linked Bond Index thereafter.

Domestic Equity Period Ended June 30, 2022

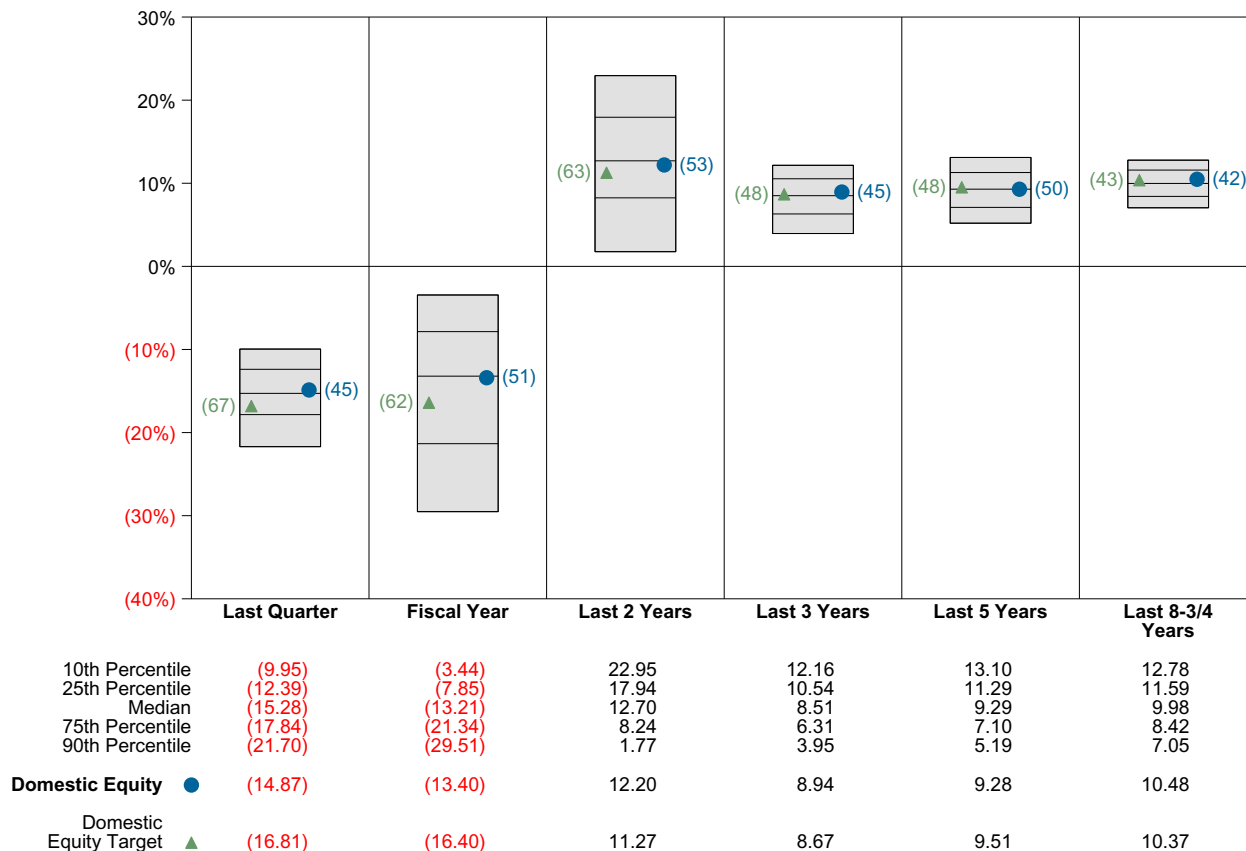
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a (14.87)% return for the quarter placing it in the 45 percentile of the Total Domestic Equity Database group for the quarter and in the 51 percentile for the last year.
- Domestic Equity's portfolio outperformed the Domestic Equity Target by 1.94% for the quarter and outperformed the Domestic Equity Target for the year by 3.00%.

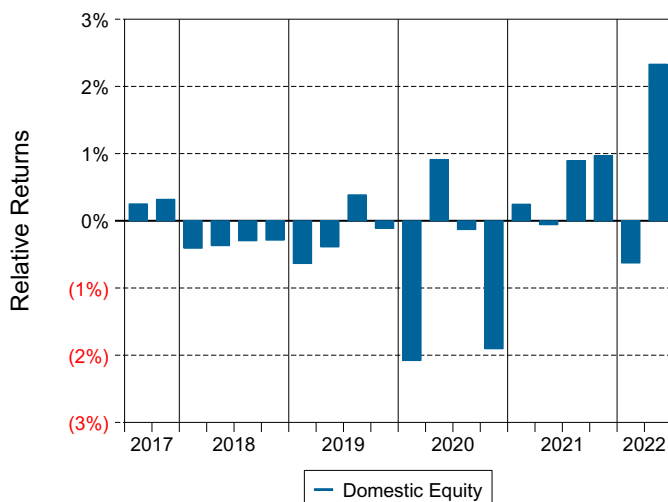
Quarterly Asset Growth

Beginning Market Value	\$2,512,516,231
Net New Investment	\$125,185,256
Investment Gains/(Losses)	\$-376,548,719
Ending Market Value	\$2,261,152,768

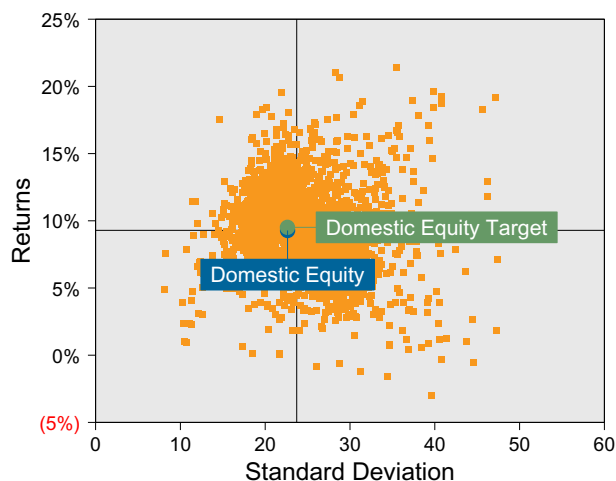
Performance vs Total Domestic Equity Database (Gross)



Relative Return vs Domestic Equity Target



Total Domestic Equity Database (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.

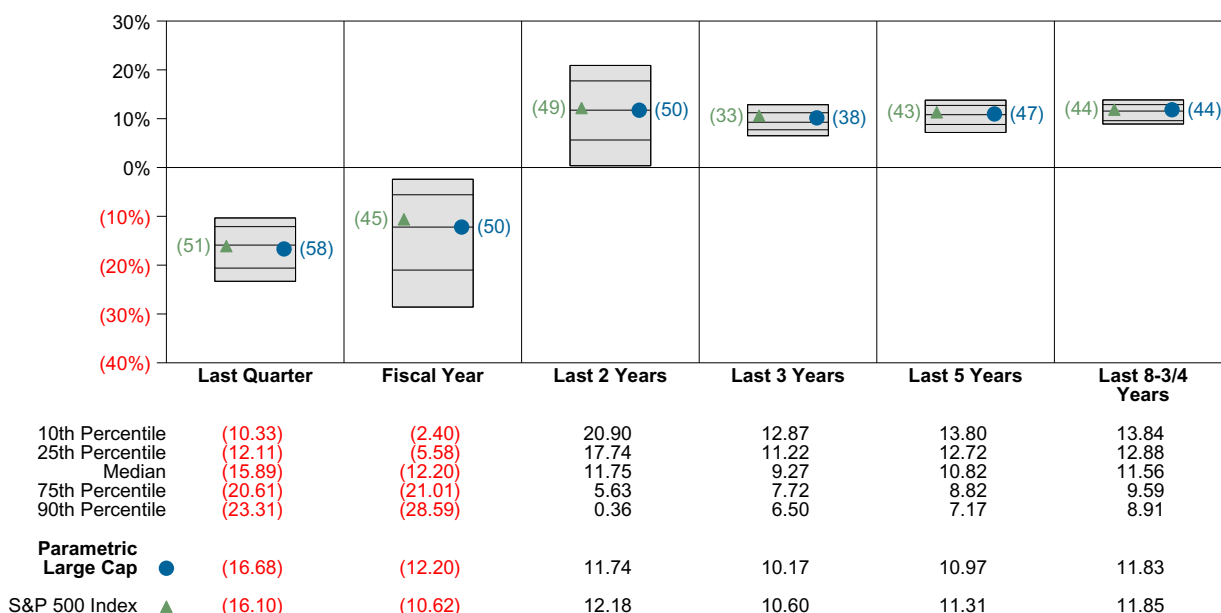
Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a (16.68)% return for the quarter placing it in the 58 percentile of the Callan Large Capitalization group for the quarter and in the 50 percentile for the last year.
- Parametric Large Cap's portfolio underperformed the S&P 500 Index by 0.58% for the quarter and underperformed the S&P 500 Index for the year by 1.58%.

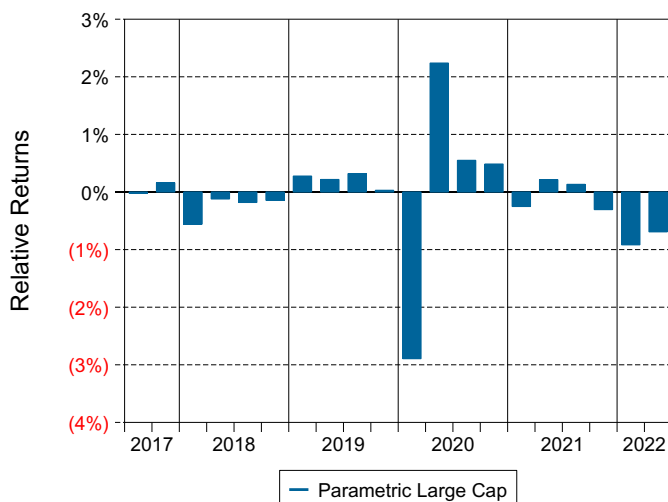
Quarterly Asset Growth

Beginning Market Value	\$373,510,999
Net New Investment	\$27,500,000
Investment Gains/(Losses)	\$-64,681,048
Ending Market Value	\$336,329,951

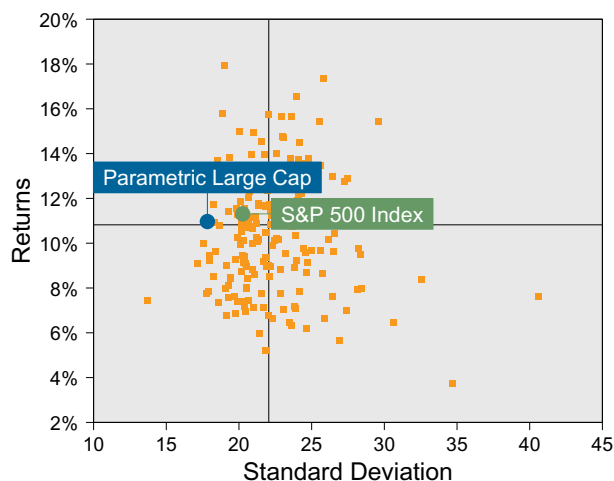
Performance vs Callan Large Capitalization (Gross)



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.

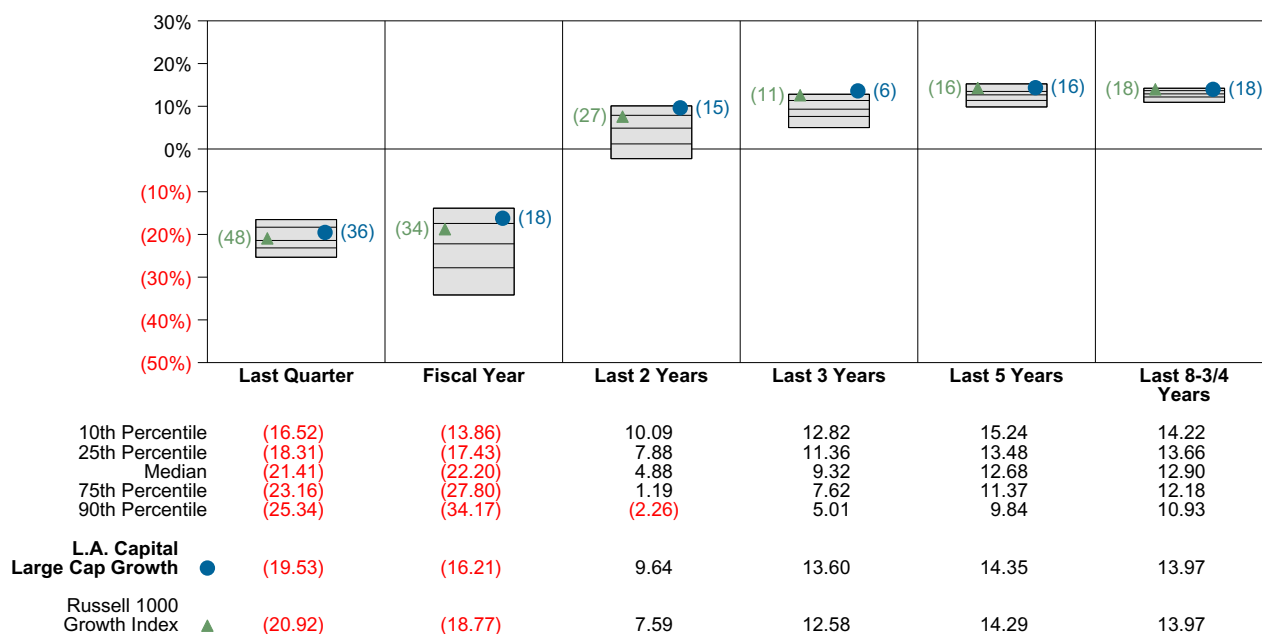
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a (19.53)% return for the quarter placing it in the 36 percentile of the Callan Large Cap Growth group for the quarter and in the 18 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio outperformed the Russell 1000 Growth Index by 1.39% for the quarter and outperformed the Russell 1000 Growth Index for the year by 2.56%.

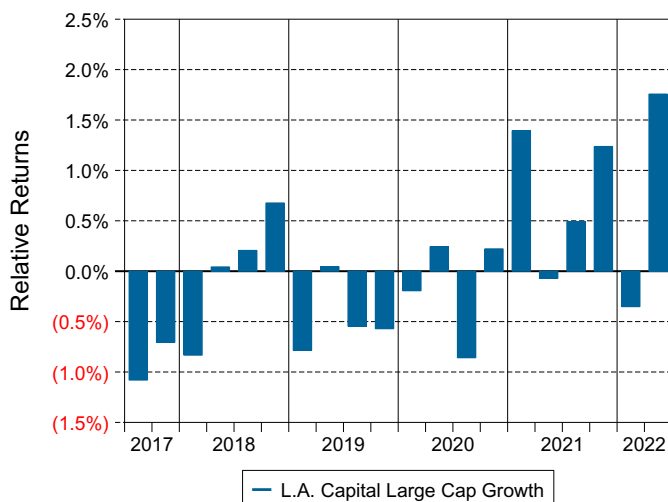
Quarterly Asset Growth

Beginning Market Value	\$561,004,583
Net New Investment	\$54,716,777
Investment Gains/(Losses)	\$-108,147,500
Ending Market Value	\$507,573,860

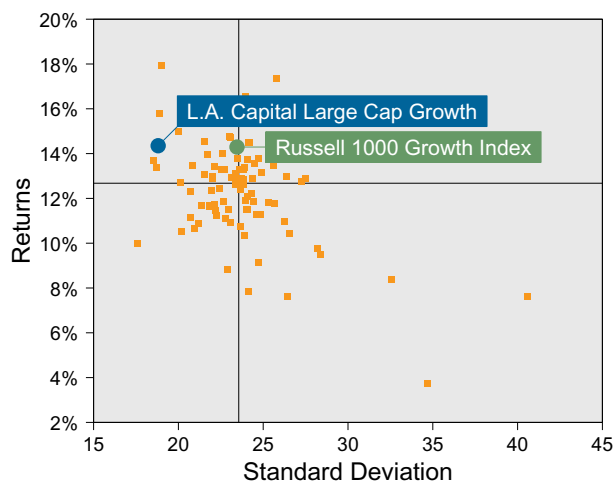
Performance vs Callan Large Cap Growth (Gross)



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.

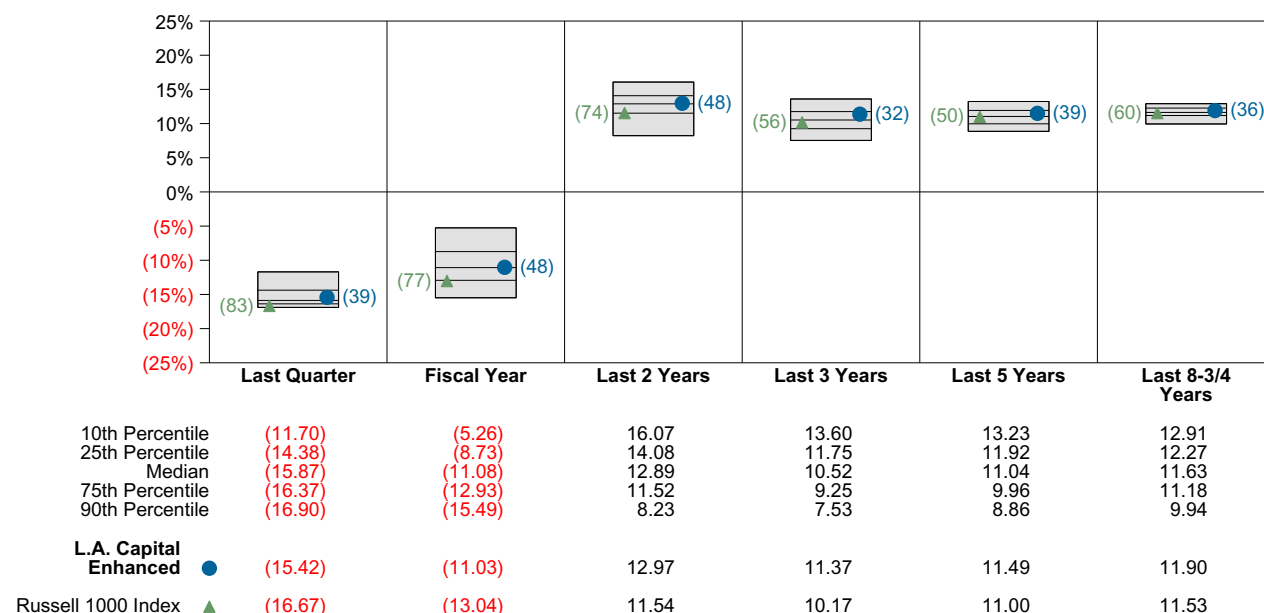
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (15.42)% return for the quarter placing it in the 39 percentile of the Callan Large Cap Core group for the quarter and in the 48 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 1.25% for the quarter and outperformed the Russell 1000 Index for the year by 2.00%.

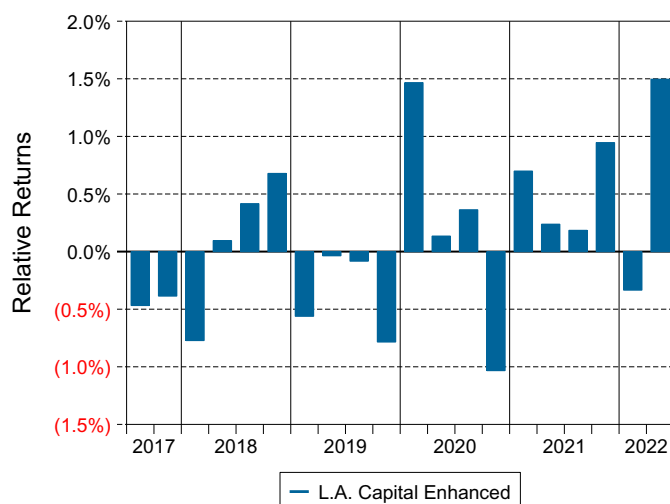
Quarterly Asset Growth

Beginning Market Value	\$380,600,057
Net New Investment	\$27,386,980
Investment Gains/(Losses)	\$-60,056,930
Ending Market Value	\$347,930,107

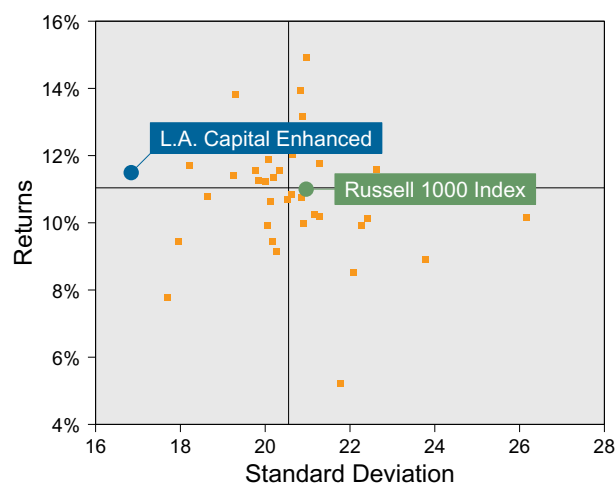
Performance vs Callan Large Cap Core (Gross)



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.

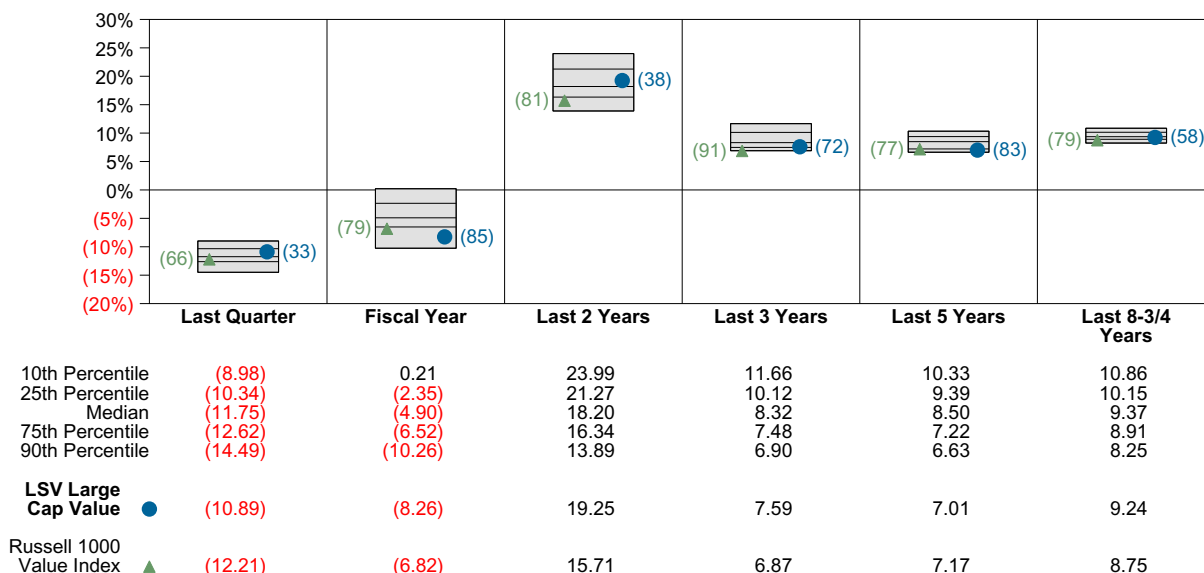
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a (10.89)% return for the quarter placing it in the 33 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 1.32% for the quarter and underperformed the Russell 1000 Value Index for the year by 1.44%.

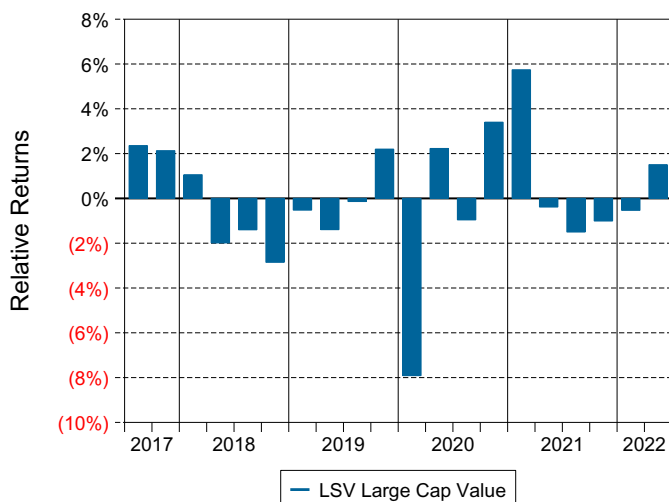
Quarterly Asset Growth

Beginning Market Value	\$541,738,984
Net New Investment	\$-370,965
Investment Gains/(Losses)	\$-58,977,161
Ending Market Value	\$482,390,858

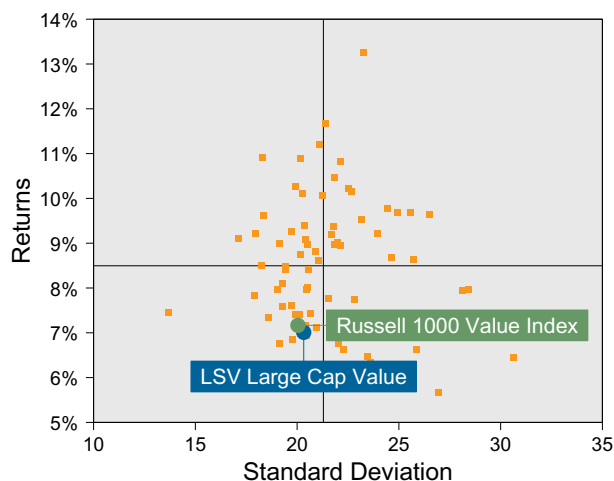
Performance vs Callan Large Cap Value (Gross)



Relative Return vs Russell 1000 Value Index



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



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.

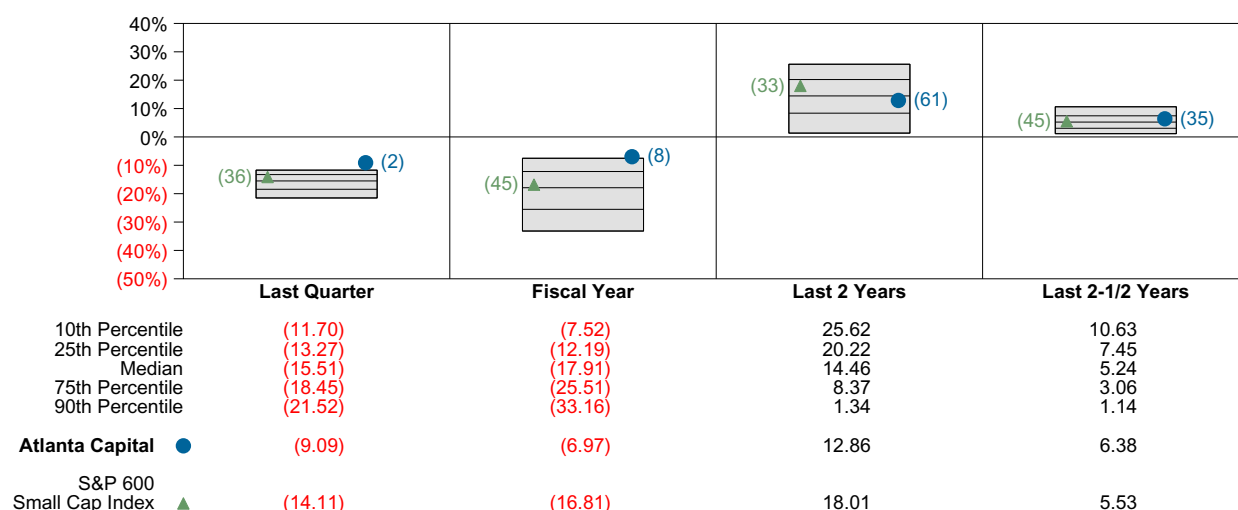
Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a (9.09)% 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 5.03% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 9.83%.

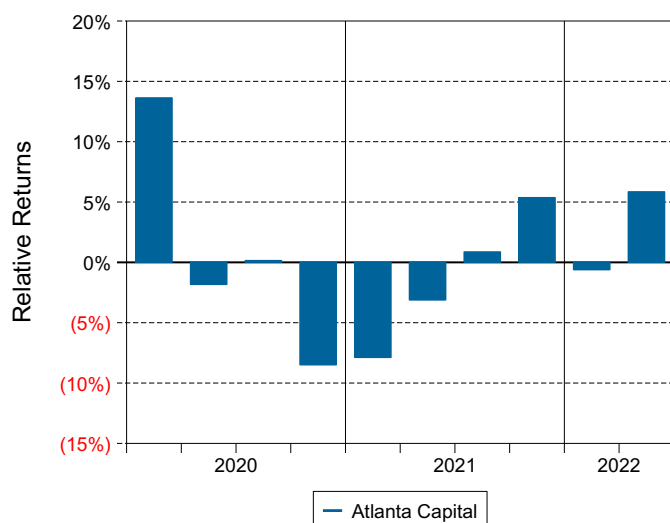
Quarterly Asset Growth

Beginning Market Value	\$227,082,751
Net New Investment	\$-337,043
Investment Gains/(Losses)	\$-20,631,400
Ending Market Value	\$206,114,308

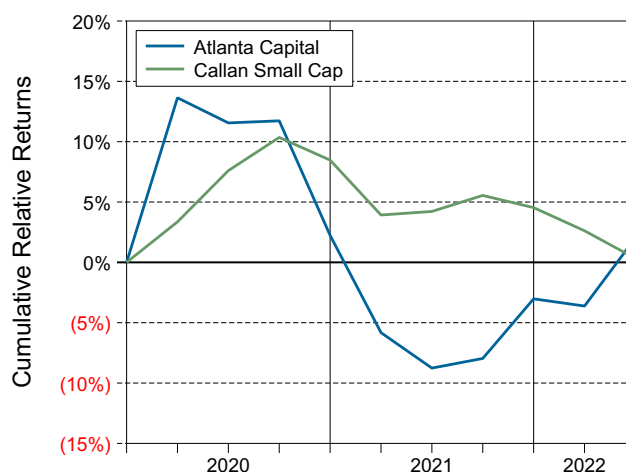
Performance vs Callan Small Capitalization (Gross)



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.

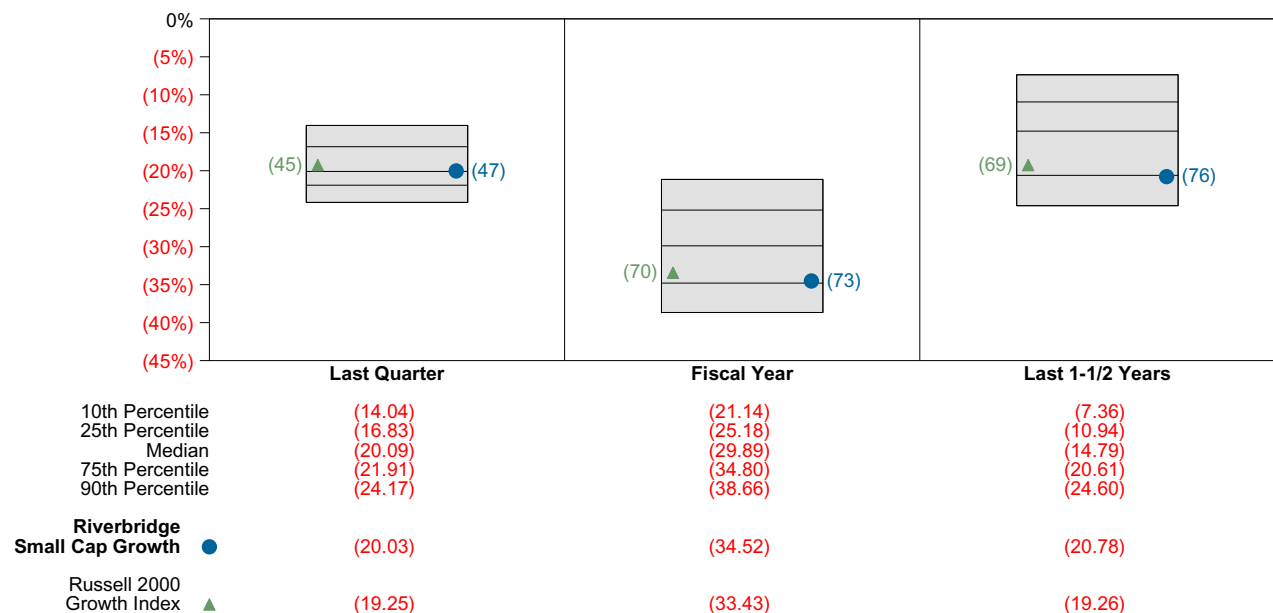
Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (20.03)% return for the quarter placing it in the 47 percentile of the Callan Small Cap Growth group for the quarter and in the 73 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 0.77% for the quarter and underperformed the Russell 2000 Growth Index for the year by 1.09%.

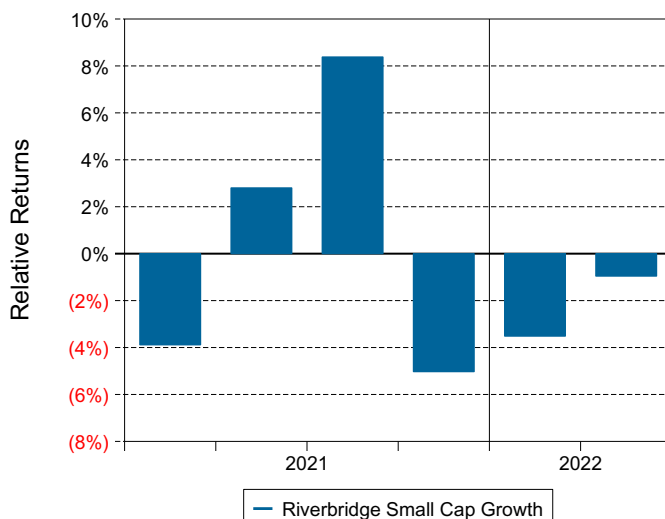
Quarterly Asset Growth

Beginning Market Value	\$206,757,206
Net New Investment	\$16,624,684
Investment Gains/(Losses)	\$-43,617,760
Ending Market Value	\$179,764,130

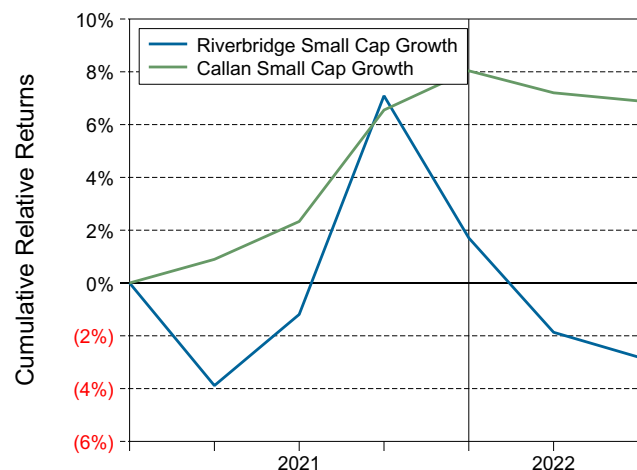
Performance vs Callan Small Cap Growth (Gross)



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.

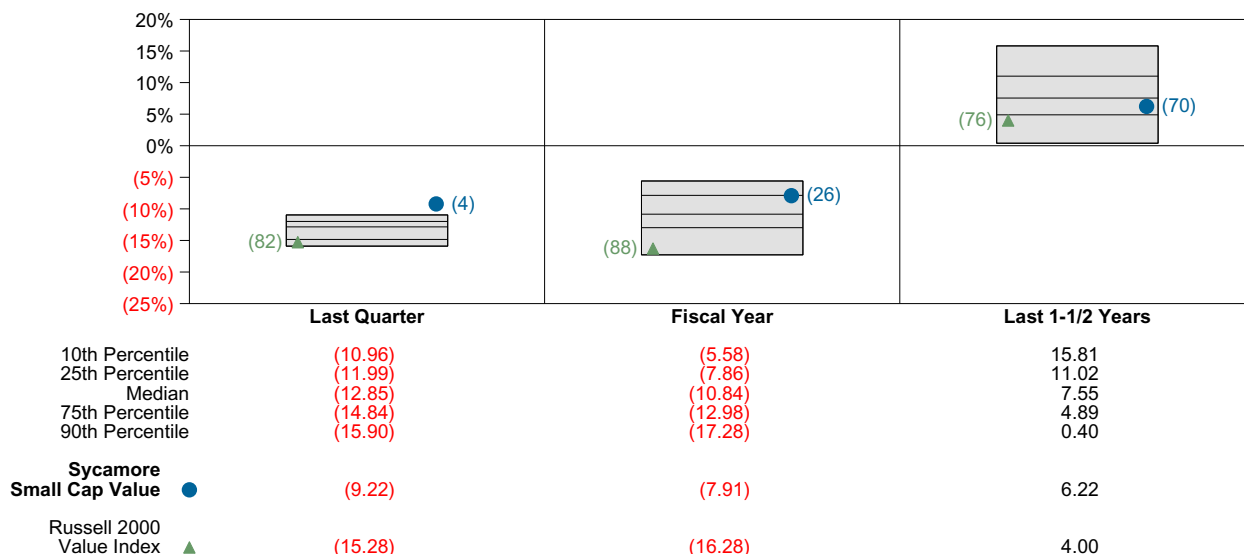
Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a (9.22)% return for the quarter placing it in the 4 percentile of the Callan Small Cap Value group for the quarter and in the 26 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 6.06% for the quarter and outperformed the Russell 2000 Value Index for the year by 8.37%.

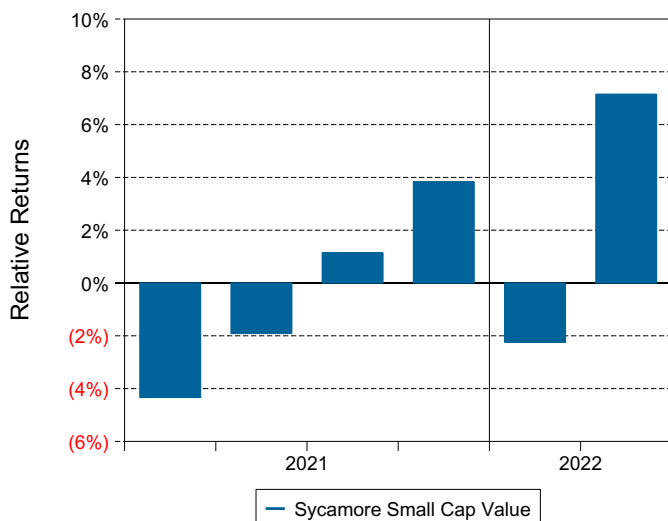
Quarterly Asset Growth

Beginning Market Value	\$221,821,652
Net New Investment	\$-335,177
Investment Gains/(Losses)	\$-20,436,920
Ending Market Value	\$201,049,555

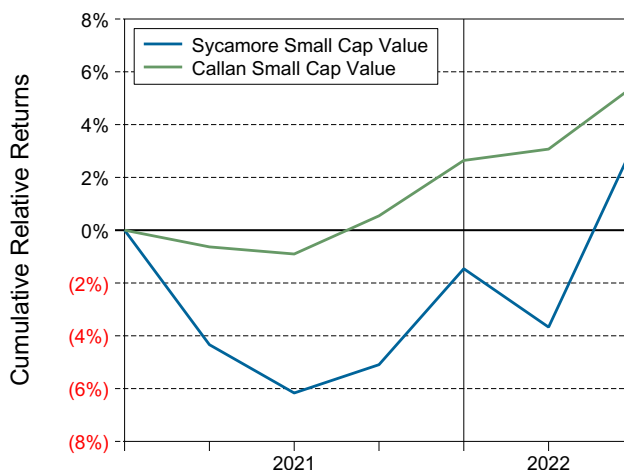
Performance vs Callan Small Cap Value (Gross)



Relative Return vs Russell 2000 Value Index



Cumulative Returns vs Russell 2000 Value Index



International Equity Period Ended June 30, 2022

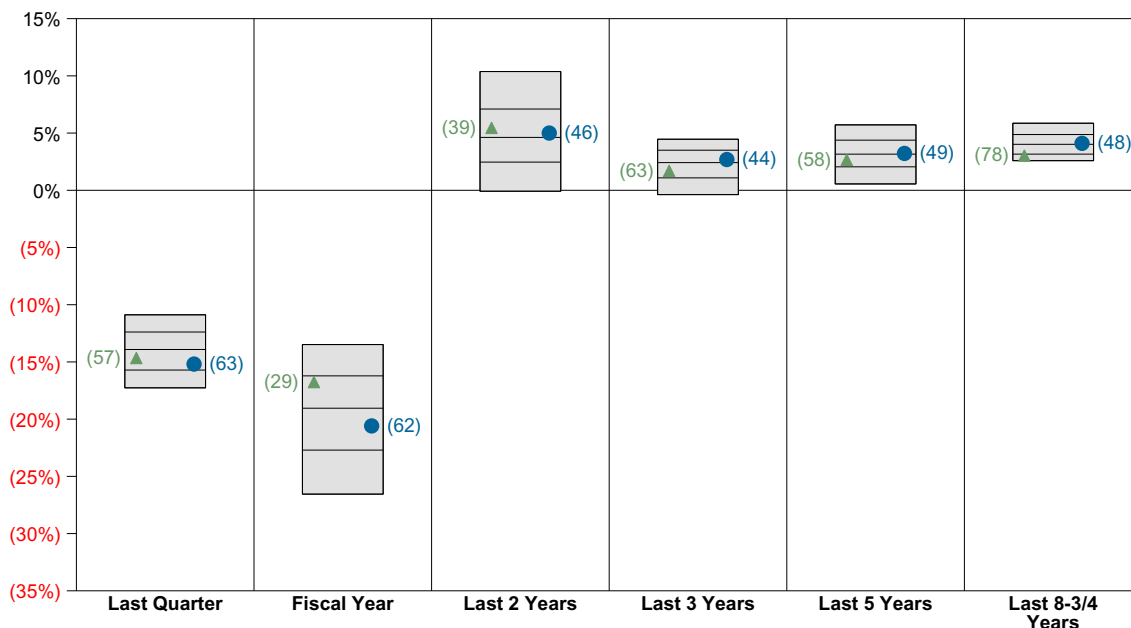
Quarterly Summary and Highlights

- International Equity's portfolio posted a (15.19)% return for the quarter placing it in the 63 percentile of the Callan Non-US Equity group for the quarter and in the 62 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 0.53% for the quarter and underperformed the International Equity Target for the year by 3.83%.

Quarterly Asset Growth

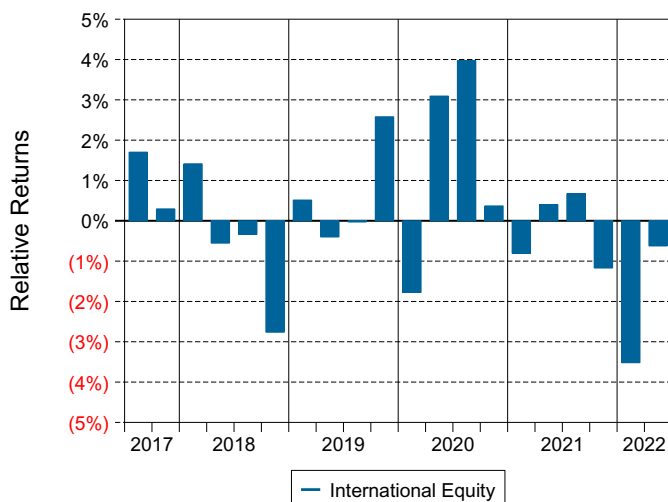
Beginning Market Value	\$1,614,329,250
Net New Investment	\$34,003,404
Investment Gains/(Losses)	\$-248,367,185
Ending Market Value	\$1,399,965,469

Performance vs Callan Non-US Equity (Gross)

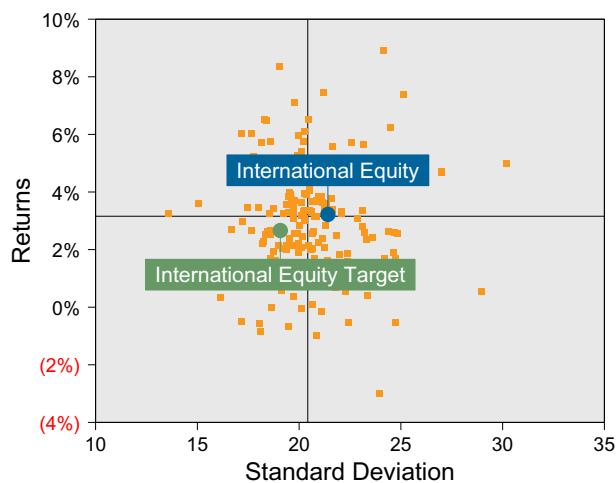


10th Percentile	(10.88)	(13.48)	10.38	4.46	5.72	5.86
25th Percentile	(12.39)	(16.22)	7.10	3.50	4.38	4.87
Median	(13.91)	(19.04)	4.62	2.42	3.16	4.02
75th Percentile	(15.71)	(22.70)	2.46	1.09	2.05	3.16
90th Percentile	(17.26)	(26.55)	(0.08)	(0.38)	0.55	2.59
International Equity	(15.19)	(20.59)	5.00	2.69	3.22	4.10
International Equity Target	(14.66)	(16.76)	5.46	1.70	2.66	3.03

Relative Return vs International Equity Target



Callan Non-US 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.

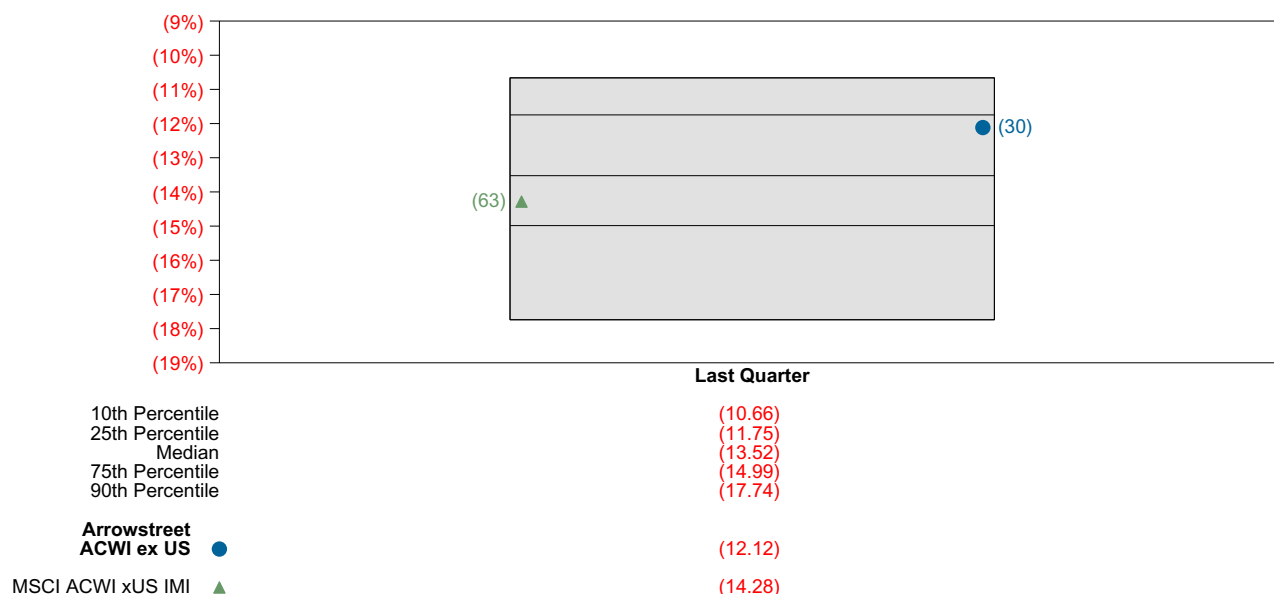
Quarterly Summary and Highlights

- 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 2.16% for the quarter.

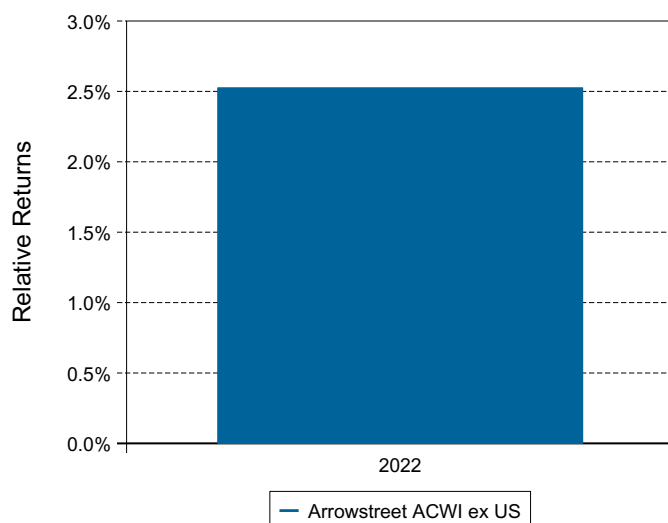
Quarterly Asset Growth

Beginning Market Value	\$358,479,186
Net New Investment	\$35,000,000
Investment Gains/(Losses)	\$-46,598,578
Ending Market Value	\$346,880,607

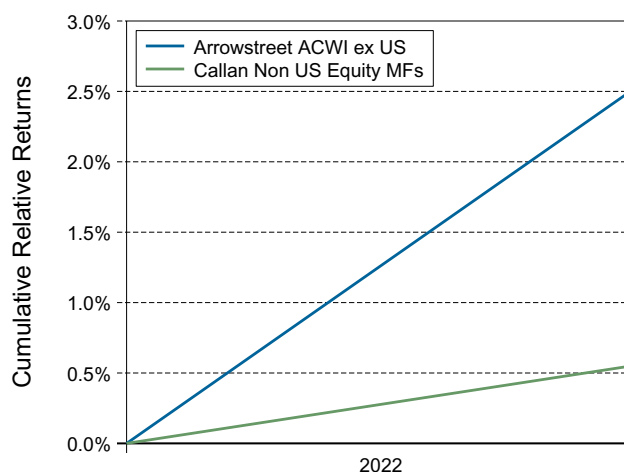
Performance vs Callan Non US Equity Mutual Funds (Net)



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.

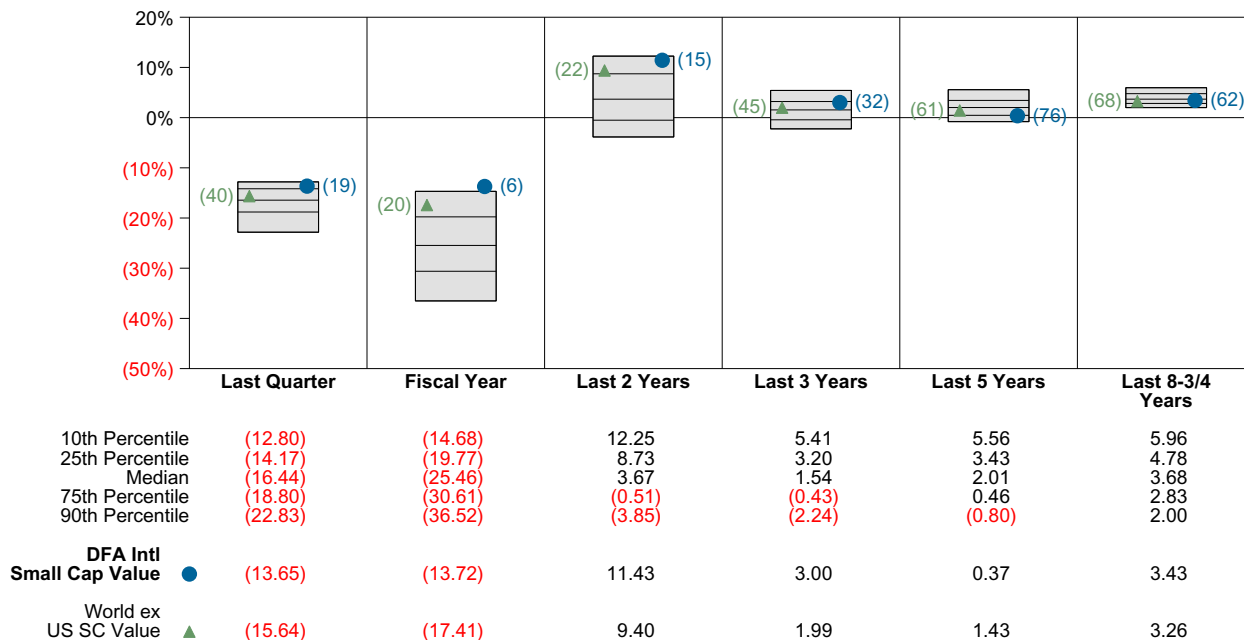
Quarterly Summary and Highlights

- 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%.

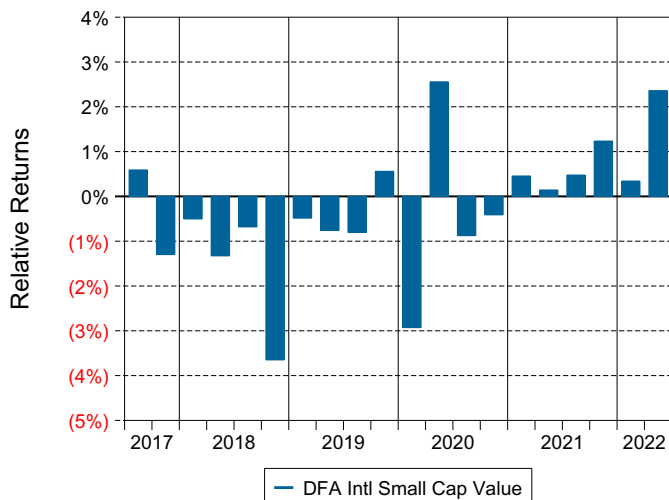
Quarterly Asset Growth

Beginning Market Value	\$174,740,645
Net New Investment	\$0
Investment Gains/(Losses)	\$-23,850,584
Ending Market Value	\$150,890,061

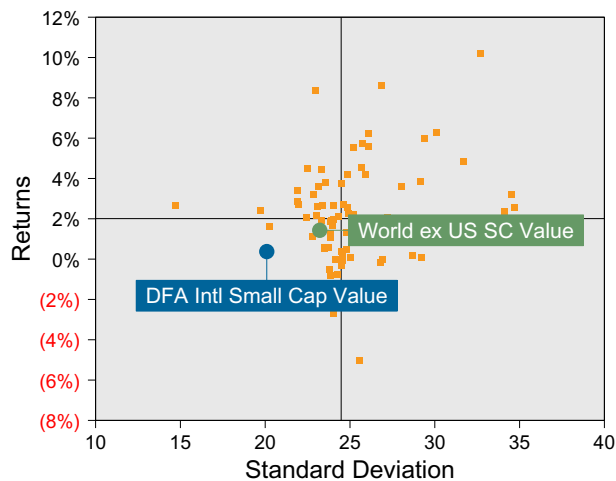
Performance vs Callan International Small Cap Mut Funds (Net)



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.

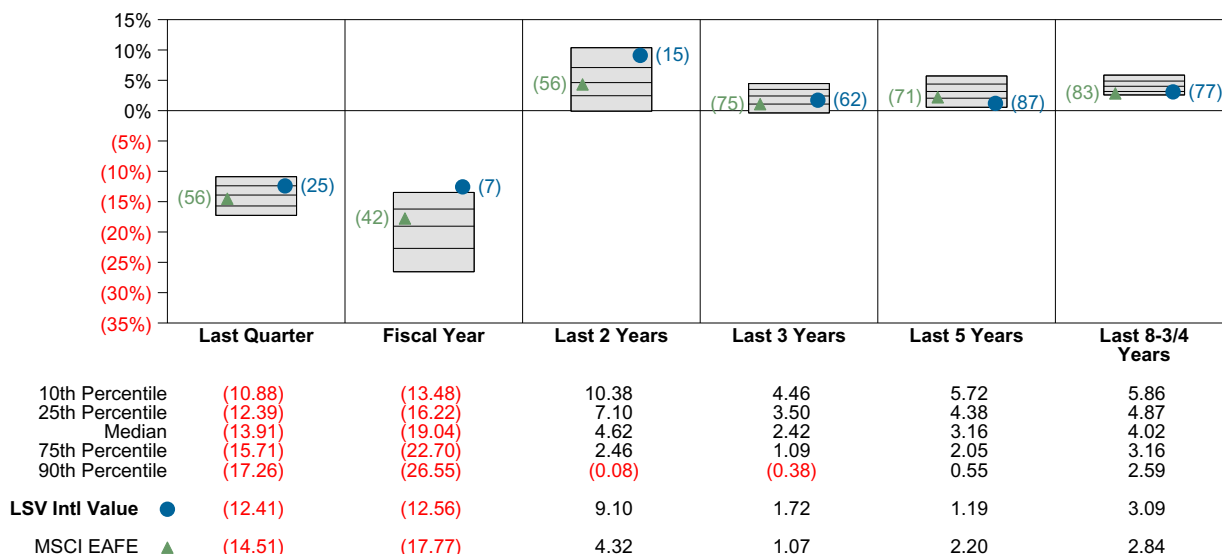
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a (12.41)% return for the quarter placing it in the 25 percentile of the Callan Non-US Equity group for the quarter and in the 7 percentile for the last year.
- LSV Intl Value's portfolio outperformed the MSCI EAFE by 2.10% for the quarter and outperformed the MSCI EAFE for the year by 5.21%.

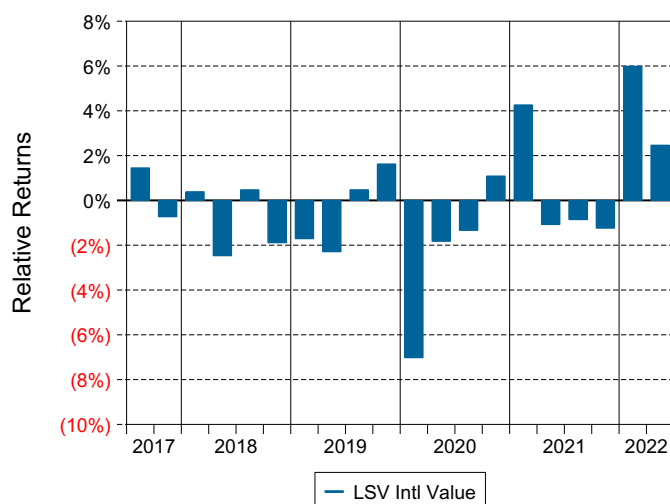
Quarterly Asset Growth

Beginning Market Value	\$466,275,783
Net New Investment	\$-472,949
Investment Gains/(Losses)	\$-57,814,385
Ending Market Value	\$407,988,449

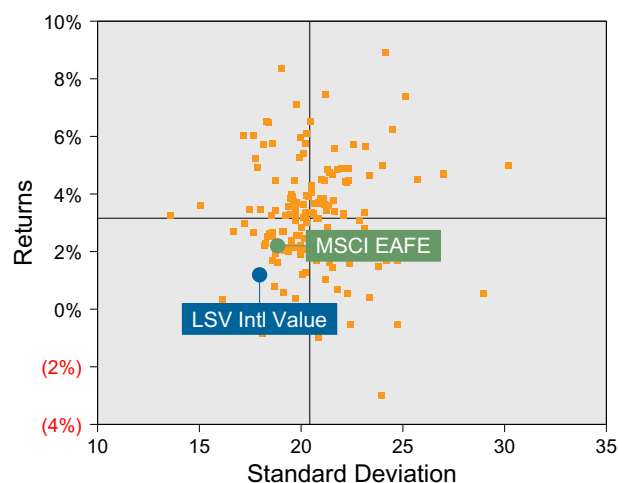
Performance vs Callan Non-US Equity (Gross)



Relative Return vs MSCI EAFE



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.

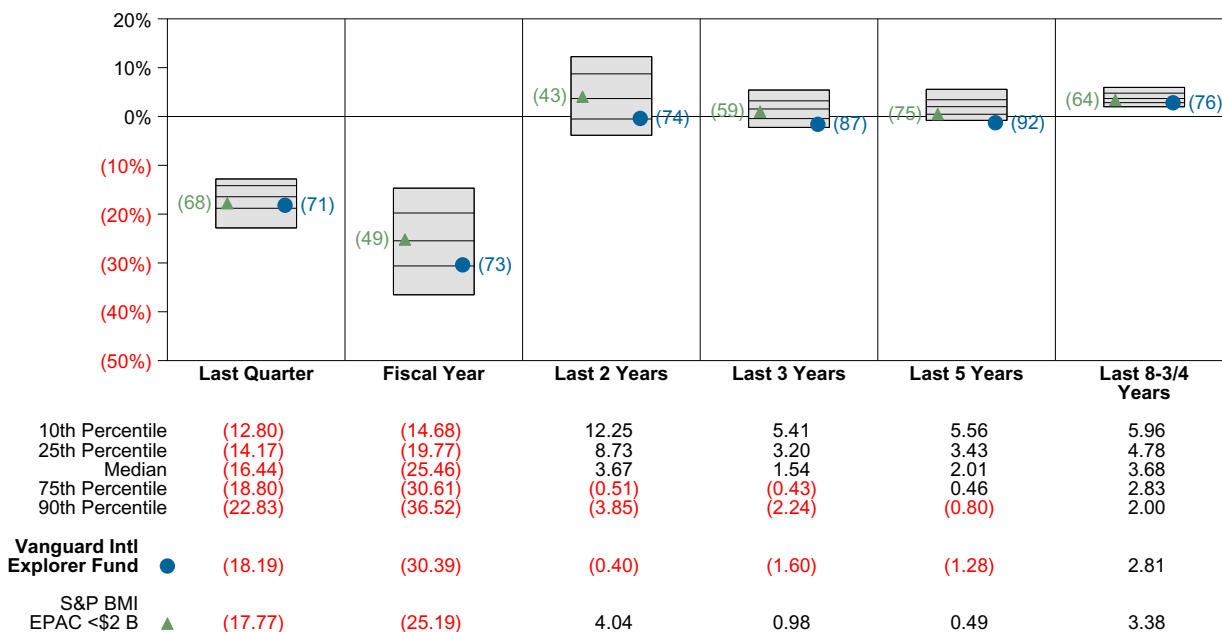
Quarterly Summary and Highlights

- 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%.

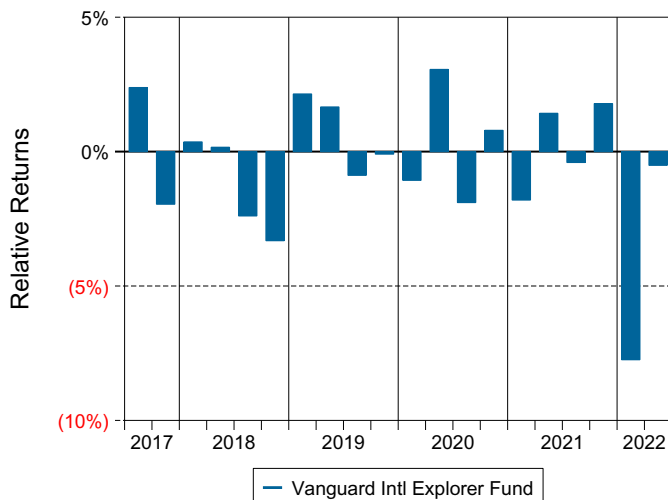
Quarterly Asset Growth

Beginning Market Value	\$147,261,930
Net New Investment	\$0
Investment Gains/(Losses)	\$-26,782,297
Ending Market Value	\$120,479,633

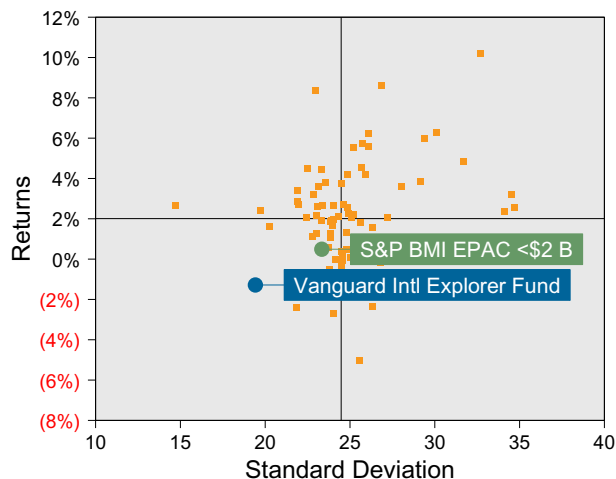
Performance vs Callan International Small Cap Mut Funds (Net)



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.

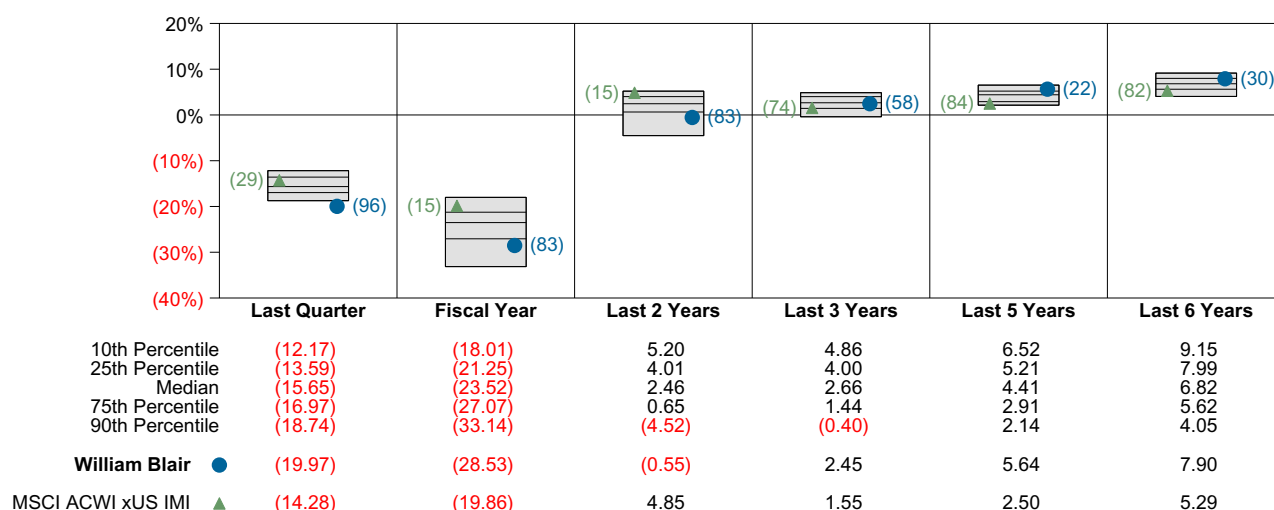
Quarterly Summary and Highlights

- 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 8.67%.

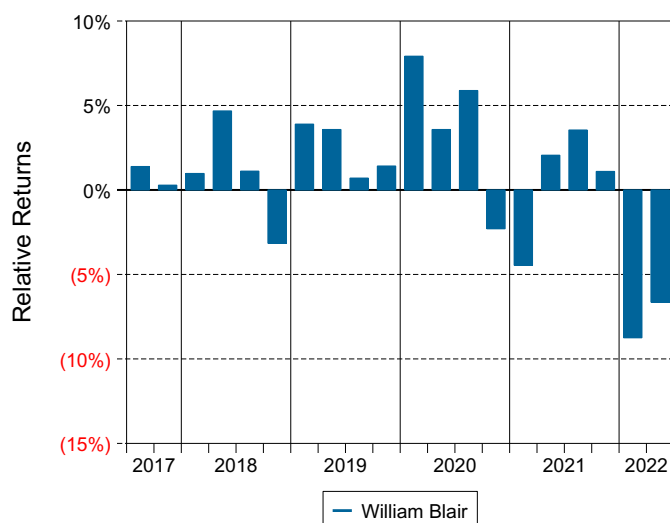
Quarterly Asset Growth

Beginning Market Value	\$467,571,707
Net New Investment	\$-523,647
Investment Gains/(Losses)	\$-93,321,342
Ending Market Value	\$373,726,718

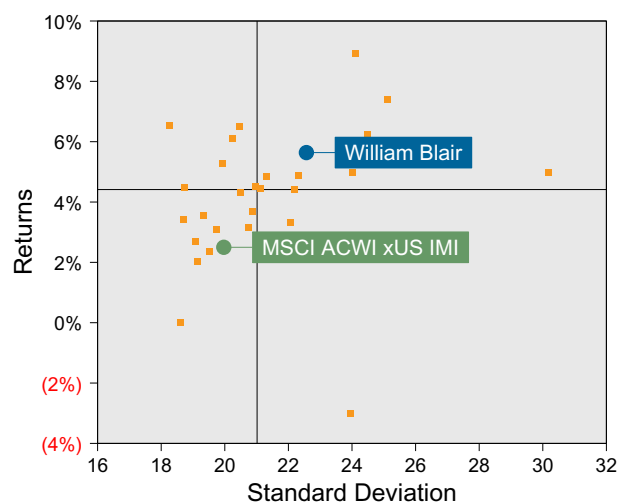
Performance vs Callan Non-US All Country Growth Equity (Gross)



Relative Return vs MSCI ACWI xUS IMI



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



Sixth Street TAO Period Ended June 30, 2022

Investment Philosophy

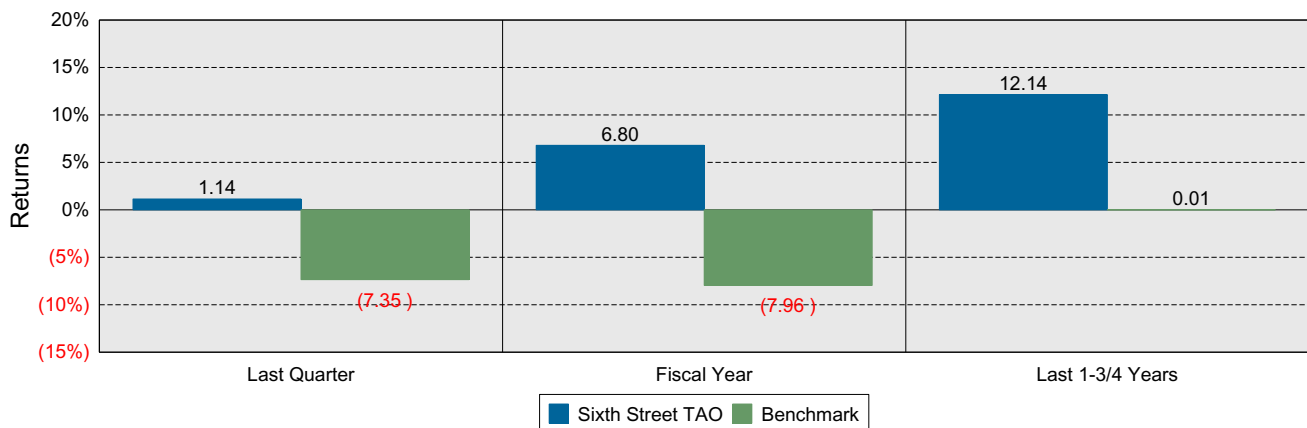
Sixth Street Partners' TAO strategy is an opportunistic, theme-driven multi-strategy credit mandate that seeks to leverage the firm's entire credit platform by investing in theme-driven liquid and less liquid investments across a broad array of credit-oriented opportunities. The strategy invests in opportunities sourced across the firm that feature attractive risk/reward profiles but do not fit the investment mandates of SSP's Special Situations, Direct Lending and Fundamental Strategies platforms, thereby carrying the moniker "Adjacent Opportunities". These opportunities can be an outgrowth of certain conditions: non-control positions with attractive risk-reward profiles; higher return, low money multiples due to short duration situations; and longer duration opportunities with low macroeconomic correlations. **The Benchmark is comprised of 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.**

Quarterly Summary and Highlights

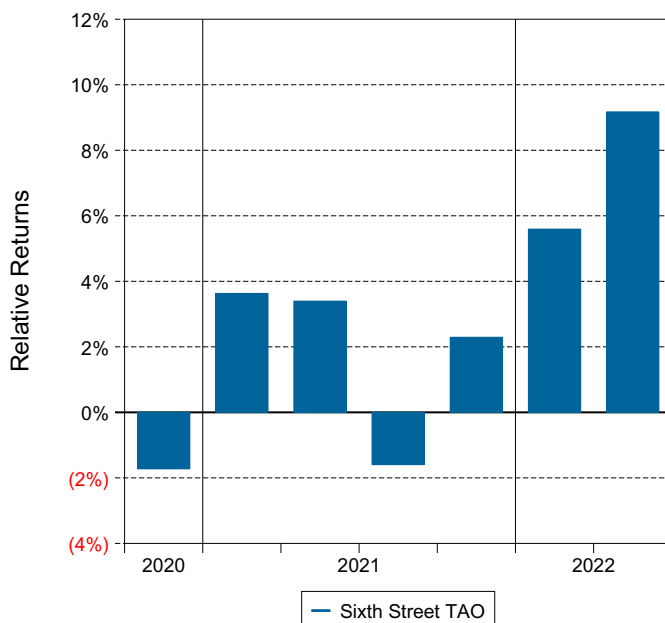
- Sixth Street TAO's portfolio outperformed the Benchmark by 8.50% for the quarter and outperformed the Benchmark for the year by 14.76%.

Quarterly Asset Growth

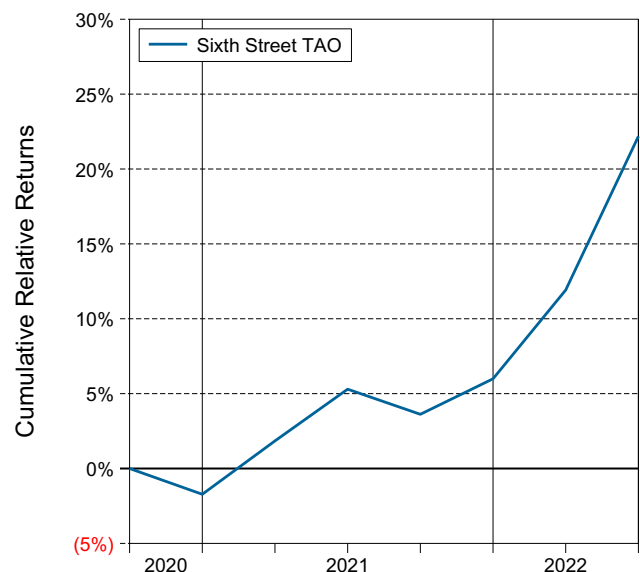
Beginning Market Value	\$33,286,034
Net New Investment	\$6,095,498
Investment Gains/(Losses)	\$359,510
Ending Market Value	\$39,741,042



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



Domestic Fixed Income Period Ended June 30, 2022

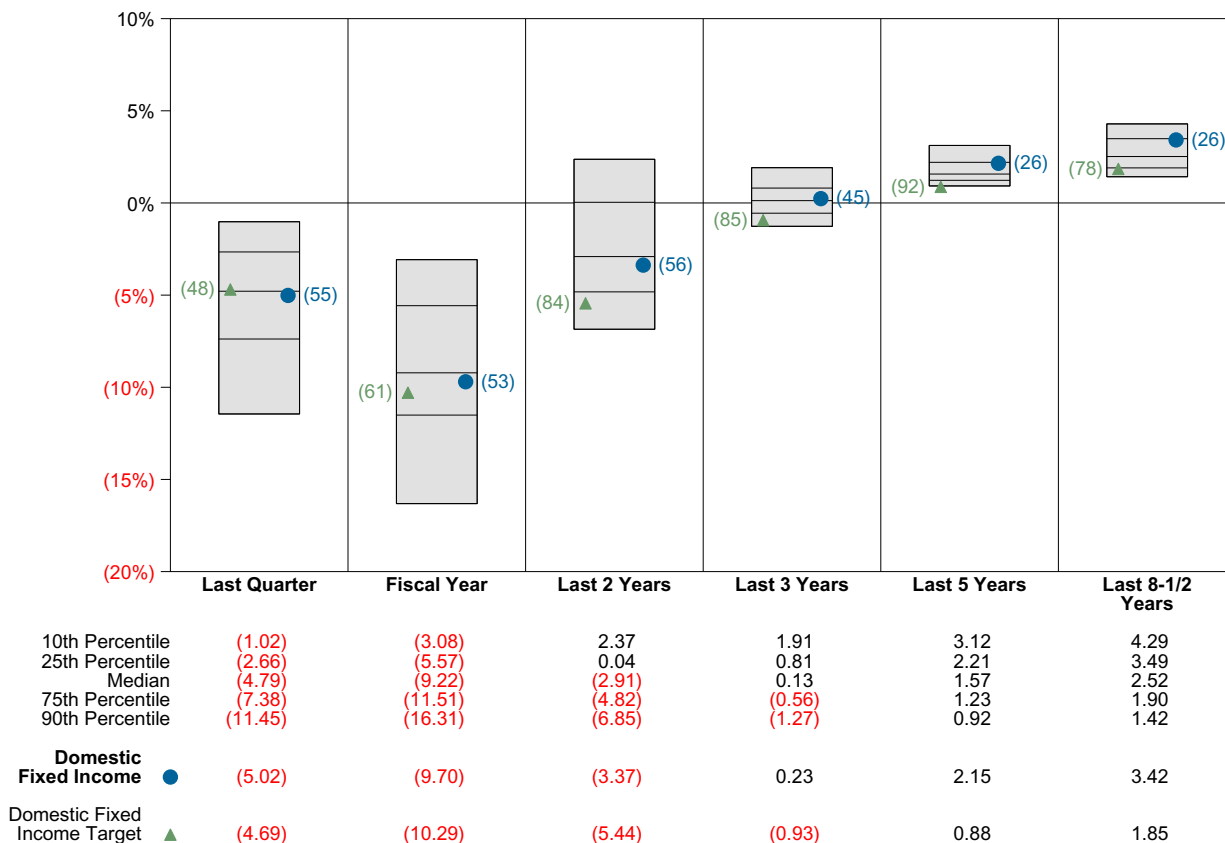
Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a (5.02)% return for the quarter placing it in the 55 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 53 percentile for the last year.
- Domestic Fixed Income's portfolio underperformed the Domestic Fixed Income Target by 0.32% for the quarter and outperformed the Domestic Fixed Income Target for the year by 0.59%.

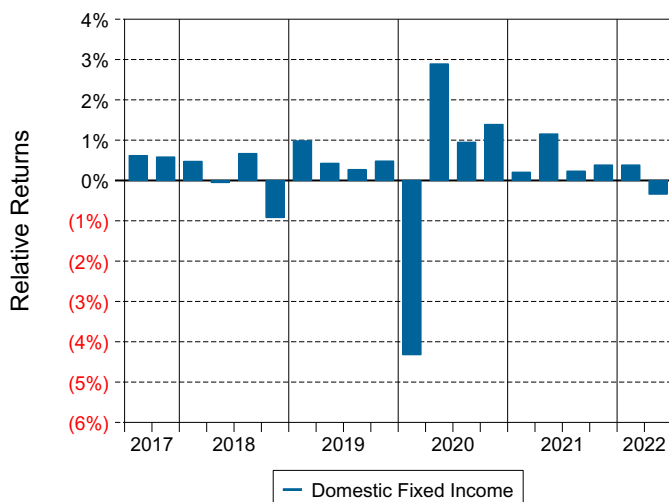
Quarterly Asset Growth

Beginning Market Value	\$2,892,048,190
Net New Investment	\$100,172,253
Investment Gains/(Losses)	\$-146,431,515
Ending Market Value	\$2,845,788,928

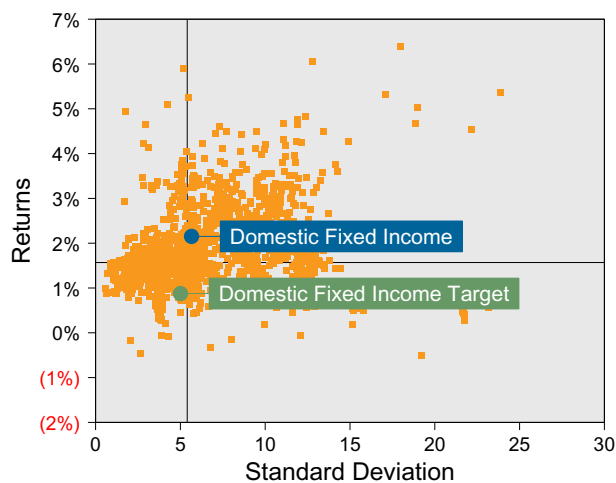
Performance vs Total Domestic Fixed-Inc Database (Gross)



Relative Returns vs Domestic Fixed Income Target



Total Domestic Fixed-Inc Database (Gross) Annualized Five Year Risk vs Return



Ares ND Credit Strategies Fd Period Ended June 30, 2022

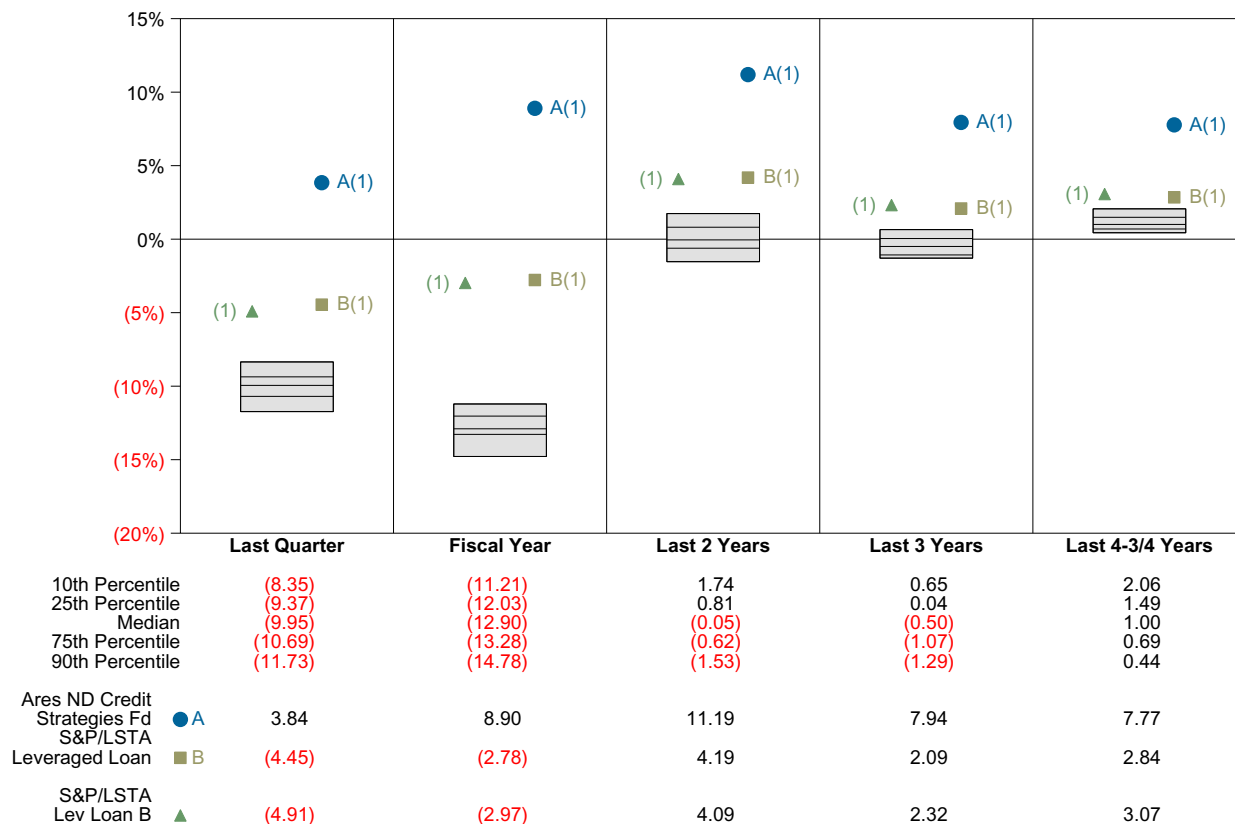
Quarterly Summary and Highlights

- Ares ND Credit Strategies Fd's portfolio posted a 3.84% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Ares ND Credit Strategies Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 8.75% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 11.88%.

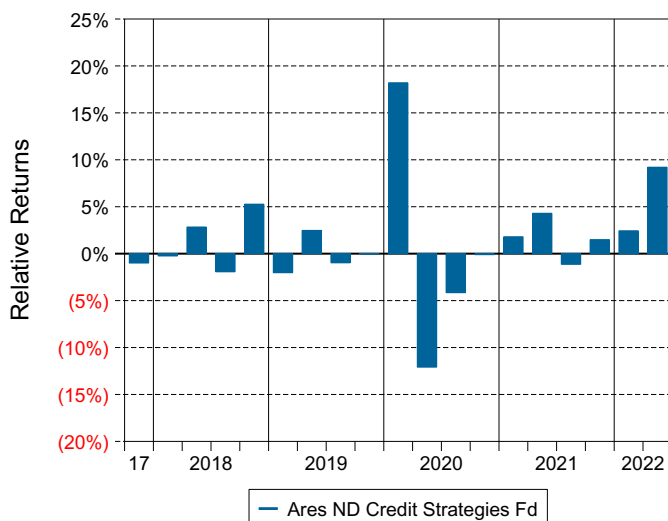
Quarterly Asset Growth

Beginning Market Value	\$105,514,507
Net New Investment	\$0
Investment Gains/(Losses)	\$4,053,741
Ending Market Value	\$109,568,248

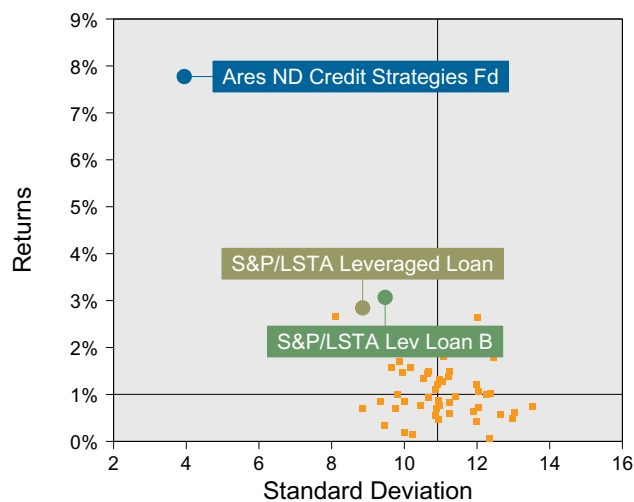
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Four and Three-Quarter Year Risk vs Return



Cerberus ND Private Credit Fd

Period Ended June 30, 2022

Investment Philosophy

The investment objective of the LLC is to achieve superior risk-adjusted rates of return primarily through origination of, and investment in, secured debt assets consistent with the Loan Opportunities Strategy of the Cerberus Business Finance lending platform ("CBF", "Cerberus Business Finance" or the "Cerberus Lending Platform"). The Cerberus Lending Platform is a direct origination and lending business focused on providing secured debt primarily to U.S. middle-market companies. The LLC expects to generate both current income and capital appreciation.

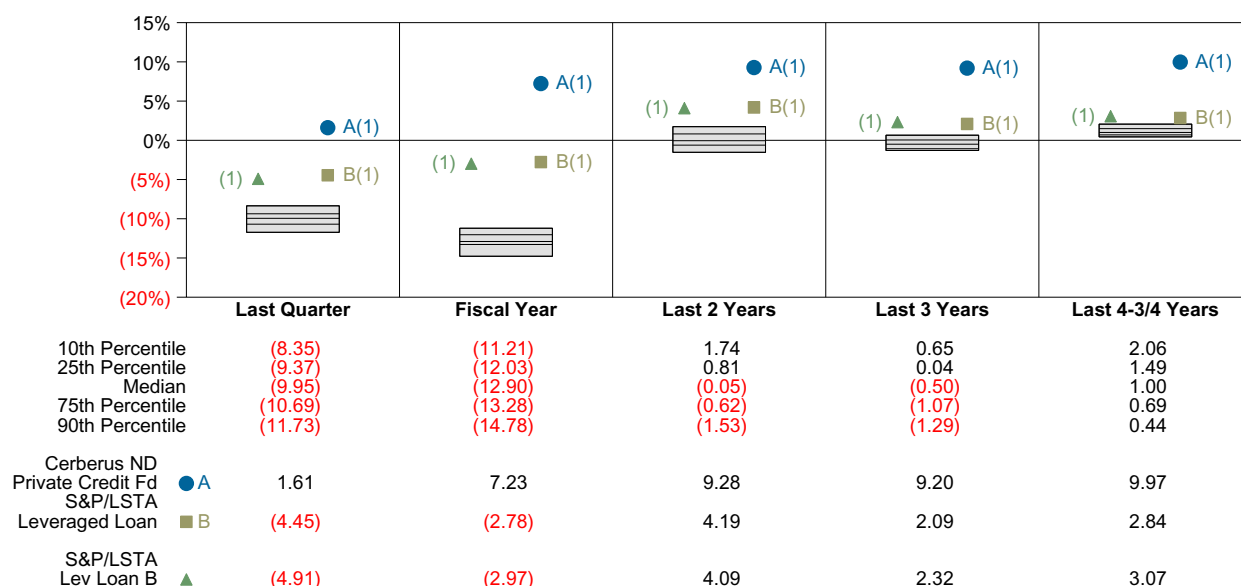
Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 1.61% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Cerberus ND Private Credit Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 6.52% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 10.21%.

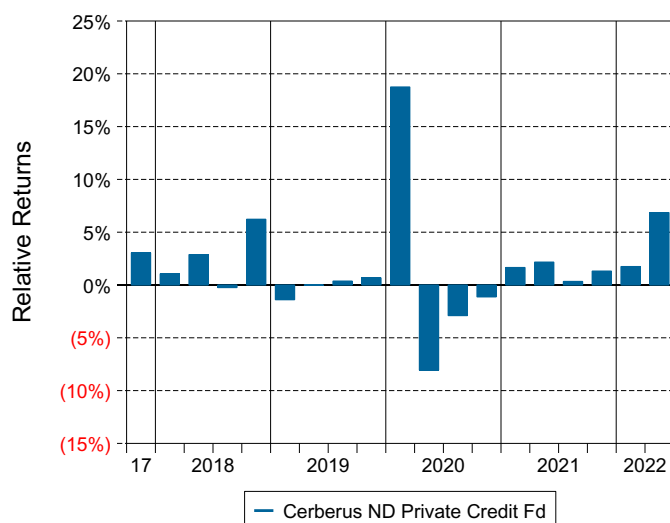
Quarterly Asset Growth

Beginning Market Value	\$132,488,114
Net New Investment	\$0
Investment Gains/(Losses)	\$2,133,029
Ending Market Value	\$134,621,143

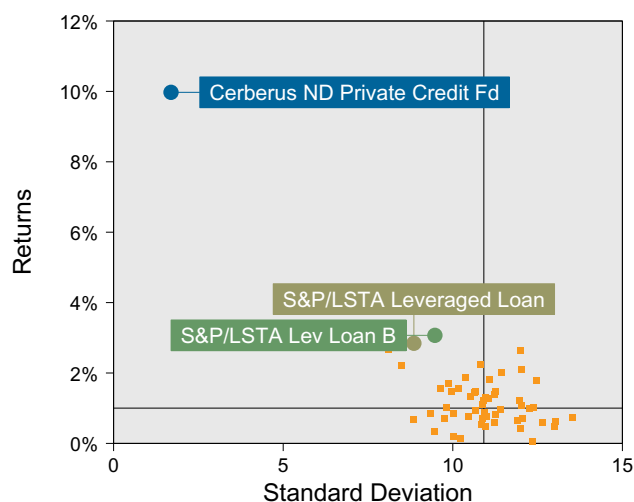
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Four and Three-Quarter 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.

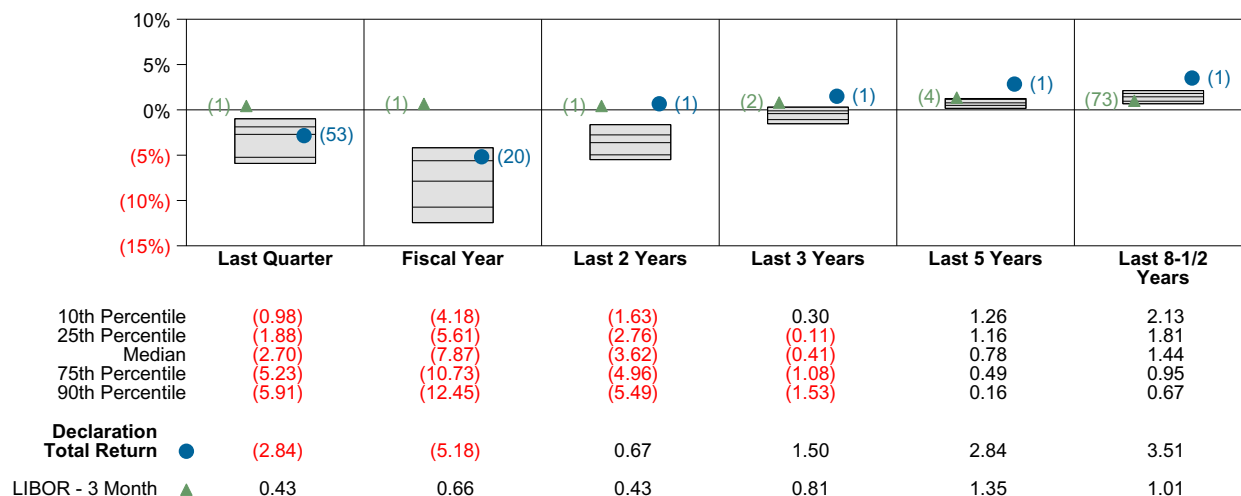
Quarterly Summary and Highlights

- 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%.

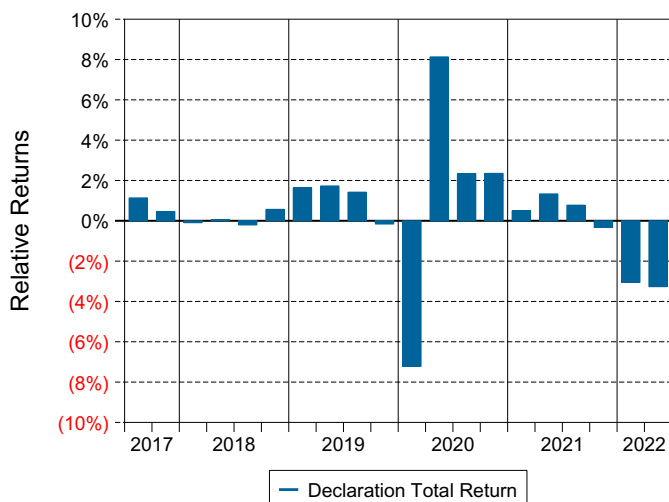
Quarterly Asset Growth

Beginning Market Value	\$223,323,194
Net New Investment	\$-146,348
Investment Gains/(Losses)	\$-6,348,470
Ending Market Value	\$216,828,376

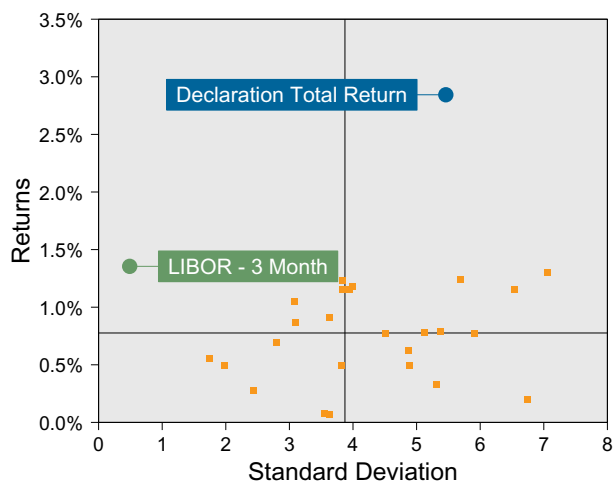
Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



Relative Return vs LIBOR - 3 Month



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



PIMCO Bravo II 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. **Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.**

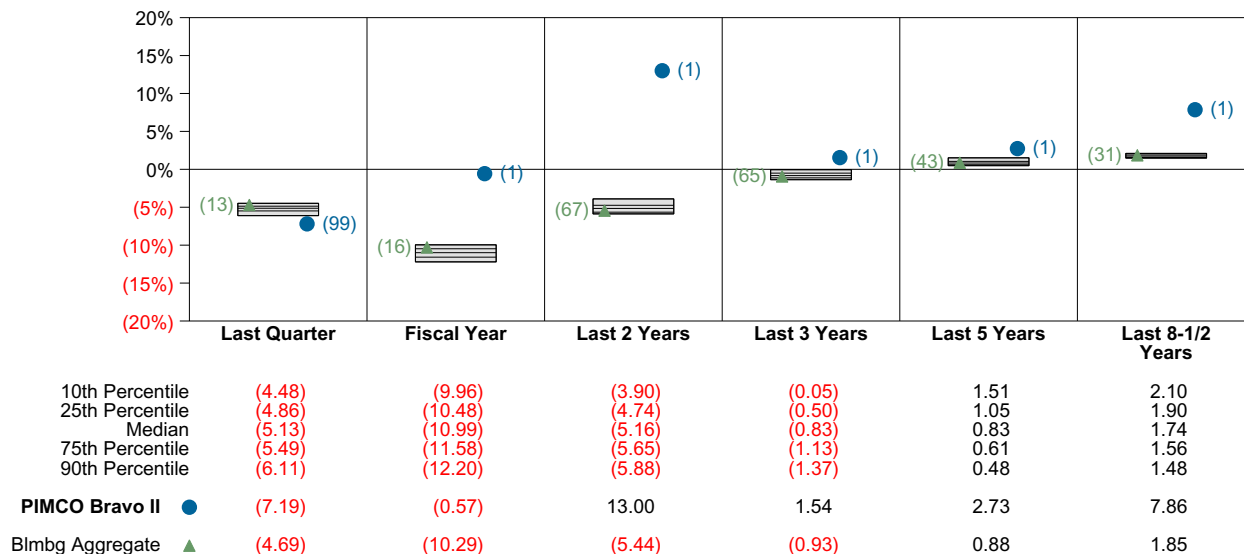
Quarterly Summary and Highlights

- PIMCO Bravo II's portfolio posted a (7.19)% return for the quarter placing it in the 99 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II's portfolio underperformed the Blmbg Aggregate by 2.50% for the quarter and outperformed the Blmbg Aggregate for the year by 9.72%.

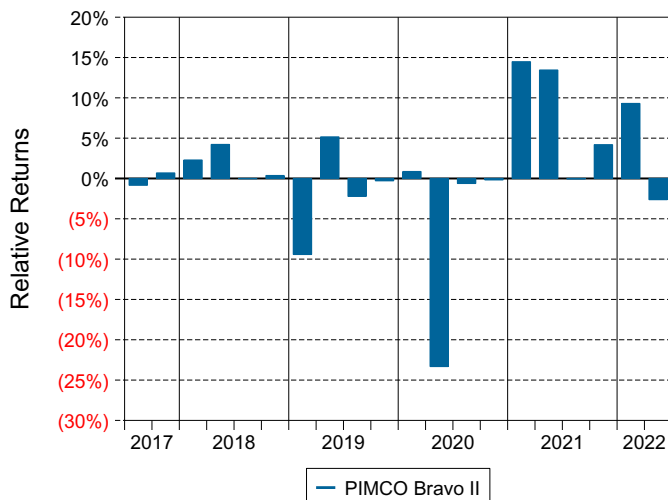
Quarterly Asset Growth

Beginning Market Value	\$5,111,141
Net New Investment	\$-1,223,911
Investment Gains/(Losses)	\$-276,613
Ending Market Value	\$3,610,617

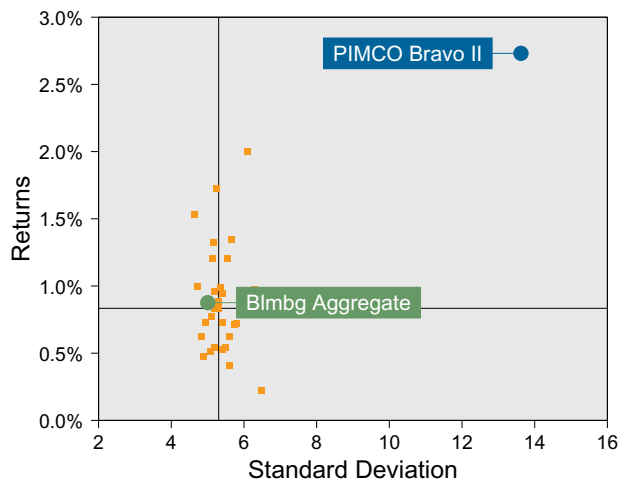
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



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



PIMCO 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. **Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.**

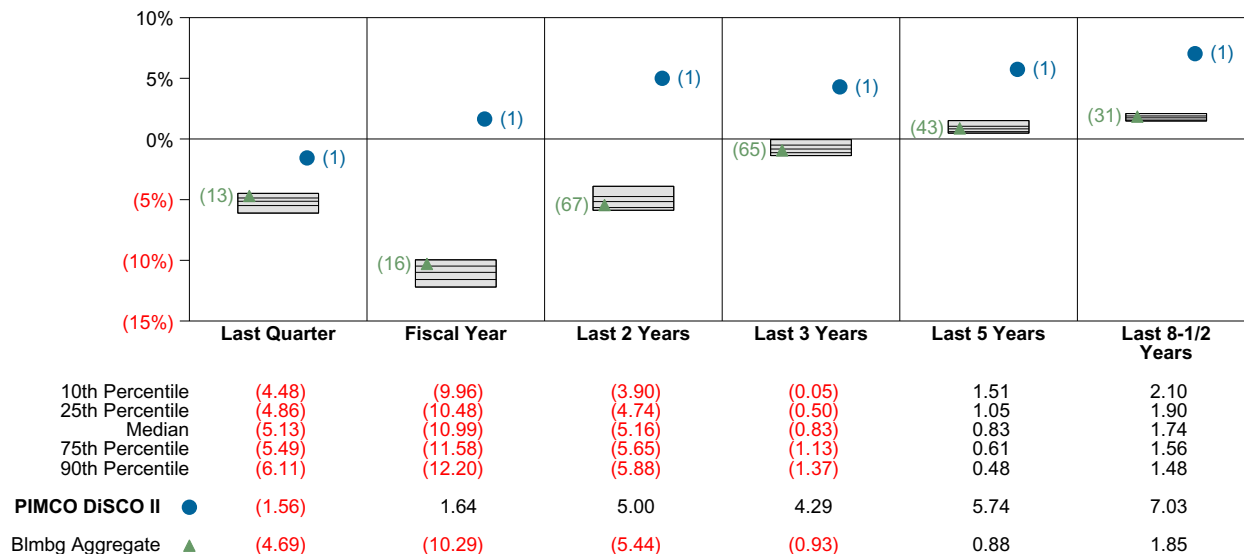
Quarterly Summary and Highlights

- 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	\$55,332,911
Net New Investment	\$0
Investment Gains/(Losses)	\$-864,000
Ending Market Value	\$54,468,911

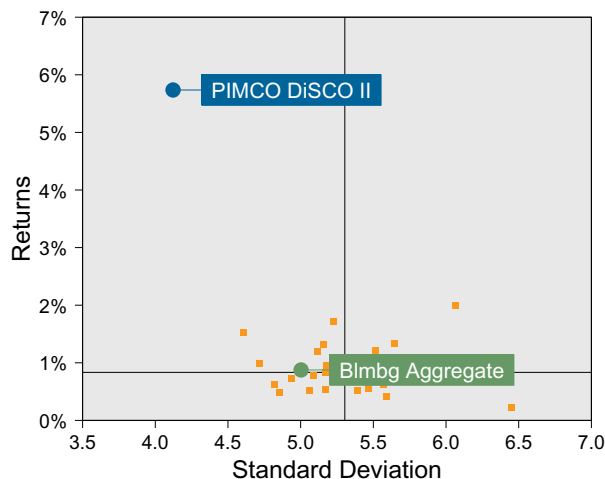
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



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



Prudential 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.

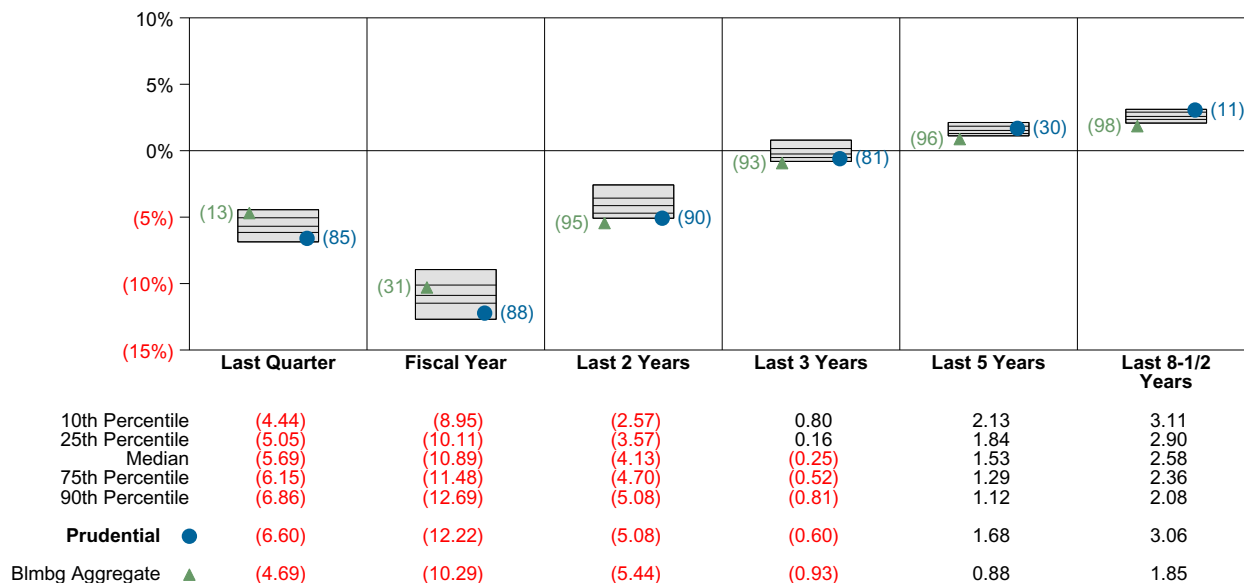
Quarterly Summary and Highlights

- Prudential's portfolio posted a (6.60)% return for the quarter placing it in the 85 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 88 percentile for the last year.
- Prudential's portfolio underperformed the Blmbg Aggregate by 1.91% for the quarter and underperformed the Blmbg Aggregate for the year by 1.93%.

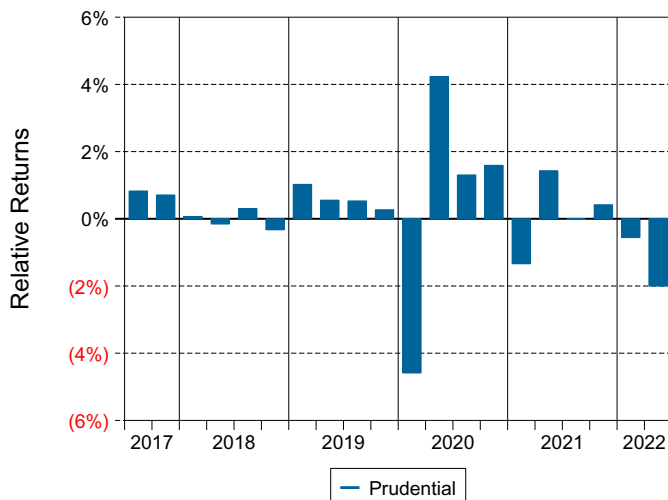
Quarterly Asset Growth

Beginning Market Value	\$850,727,807
Net New Investment	\$-22,938,435
Investment Gains/(Losses)	\$-55,483,133
Ending Market Value	\$772,306,239

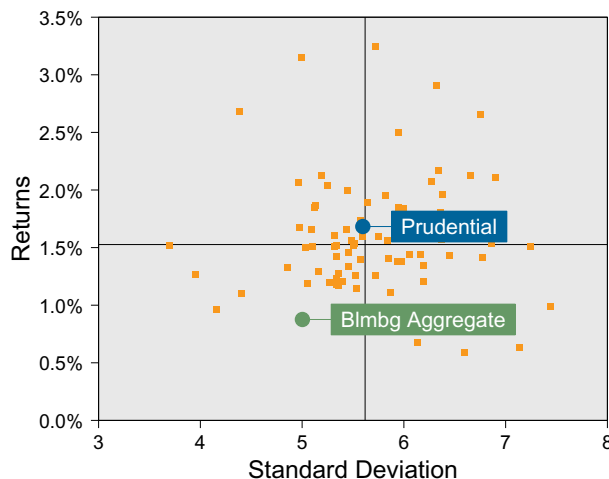
Performance vs Callan Core Plus Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



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



SSgA US Govt Credit Bd Idx 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.

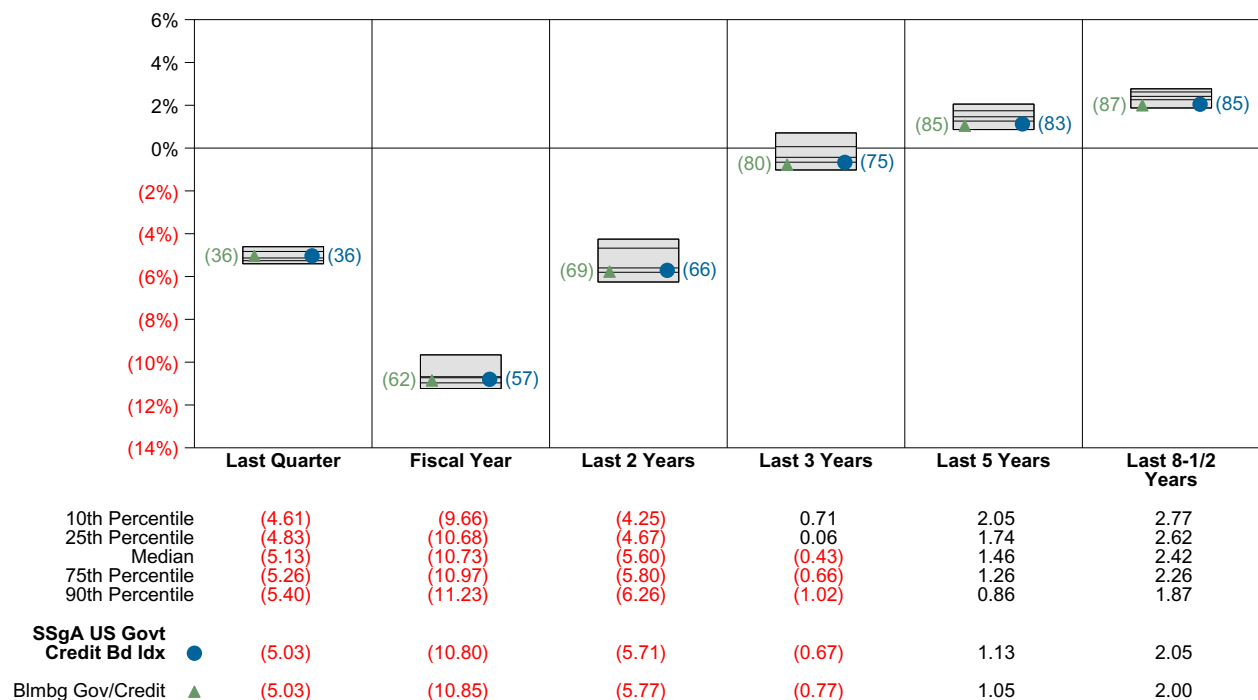
Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a (5.03)% return for the quarter placing it in the 36 percentile of the Callan Government/Credit group for the quarter and in the 57 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio underperformed the Blmbg Gov/Credit by 0.00% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.05%.

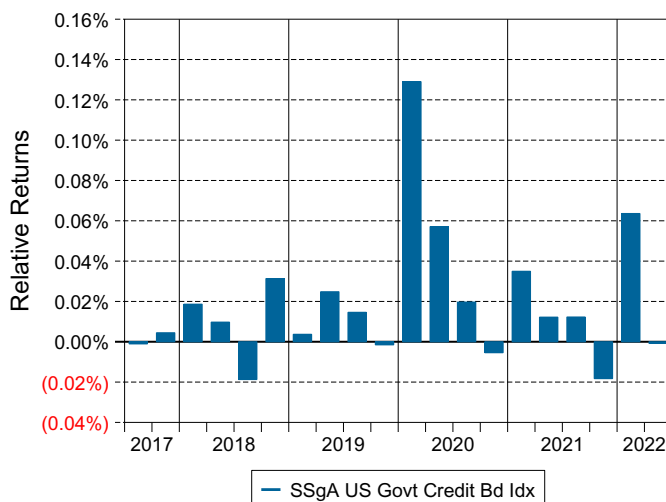
Quarterly Asset Growth

Beginning Market Value	\$404,189,834
Net New Investment	\$-15,393
Investment Gains/(Losses)	\$-20,346,864
Ending Market Value	\$383,827,577

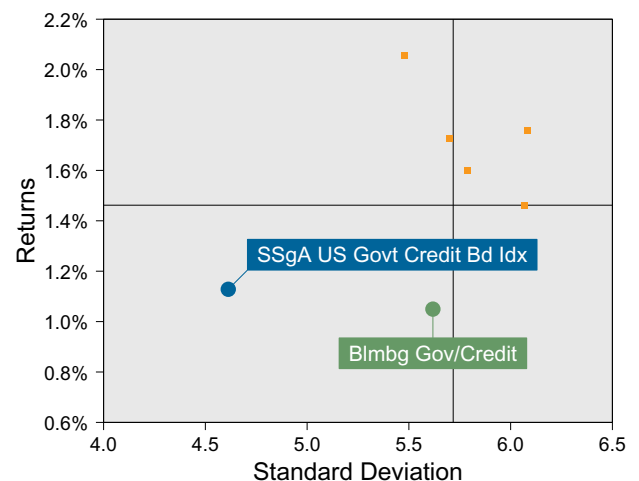
Performance vs Callan Government/Credit (Gross)



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.

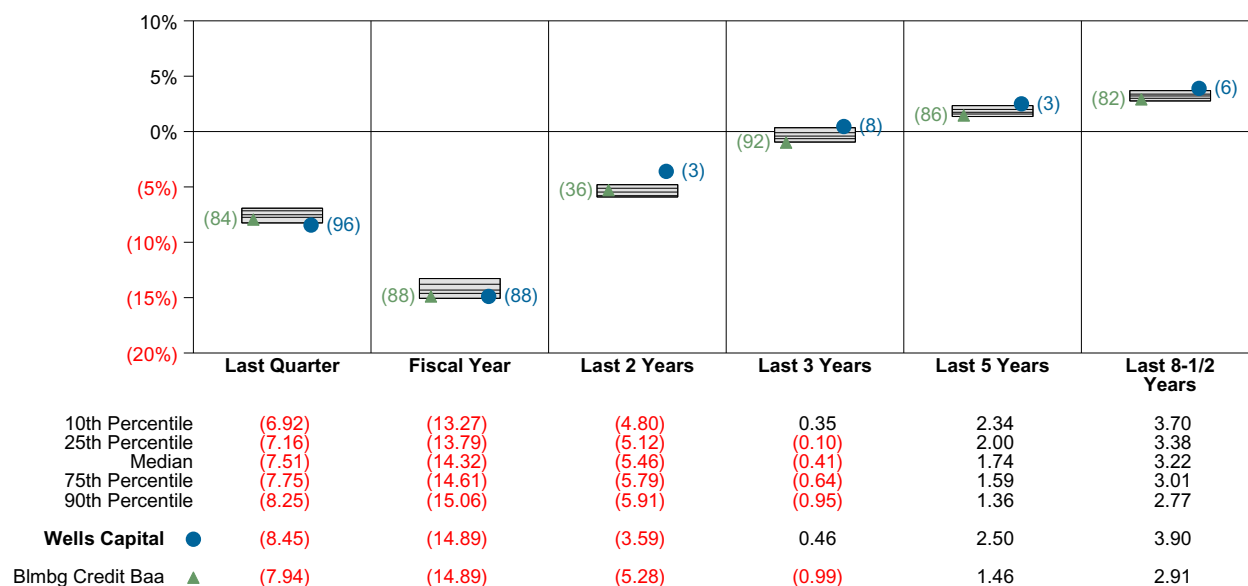
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a (8.45)% 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 88 percentile for the last year.
- Wells Capital's portfolio underperformed the Blmbg Credit Baa by 0.50% for the quarter and outperformed the Blmbg Credit Baa for the year by 0.00%.

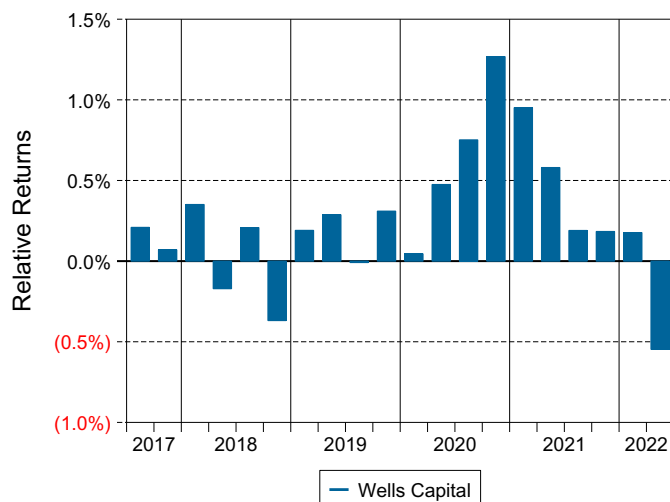
Quarterly Asset Growth

Beginning Market Value	\$228,035,257
Net New Investment	\$-109,417
Investment Gains/(Losses)	\$-19,259,251
Ending Market Value	\$208,666,590

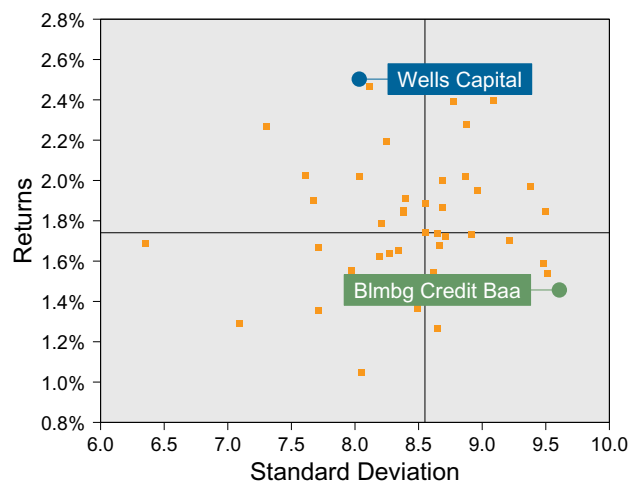
Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



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.

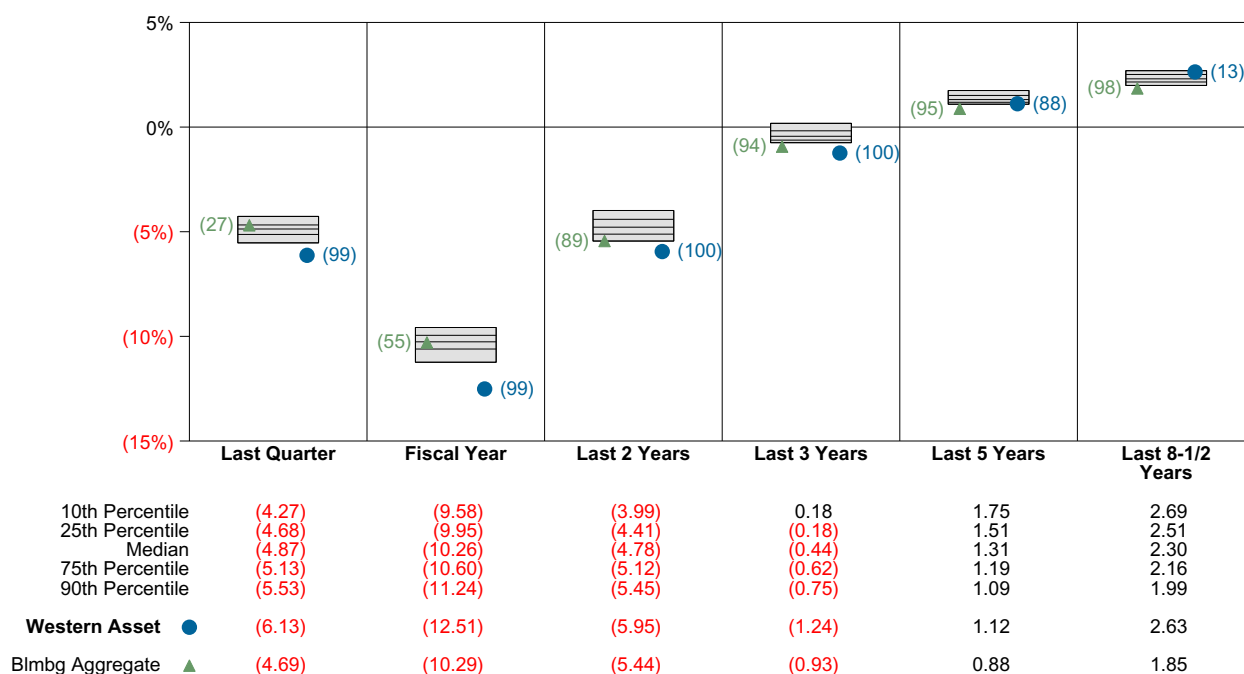
Quarterly Summary and Highlights

- Western Asset's portfolio posted a (6.13)% return for the quarter placing it in the 99 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 1.43% for the quarter and underperformed the Blmbg Aggregate for the year by 2.22%.

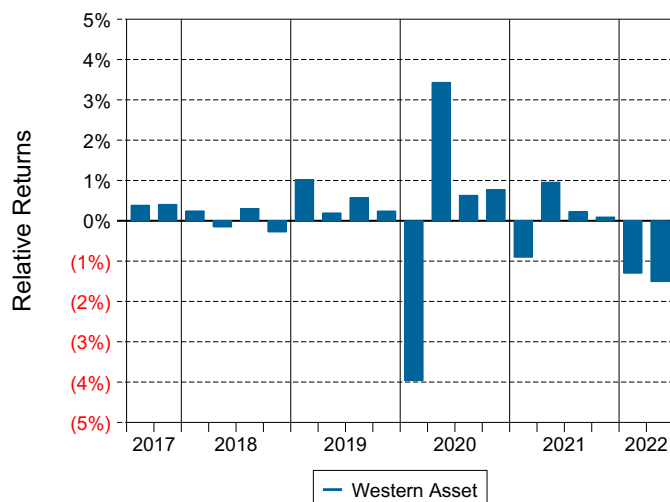
Quarterly Asset Growth

Beginning Market Value	\$842,705,453
Net New Investment	\$-22,735,514
Investment Gains/(Losses)	\$-51,087,439
Ending Market Value	\$768,882,500

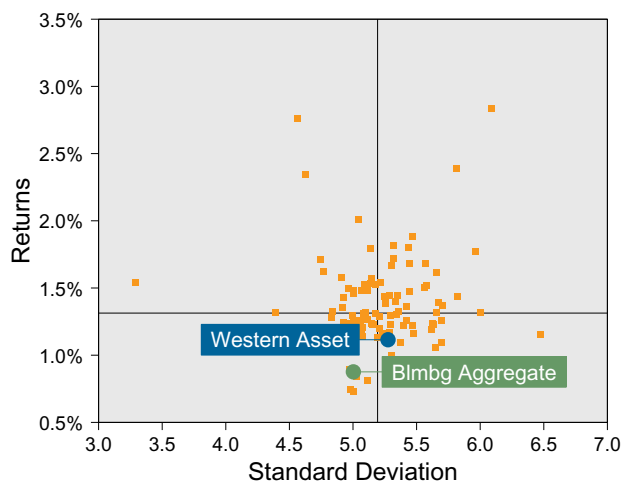
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



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



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.

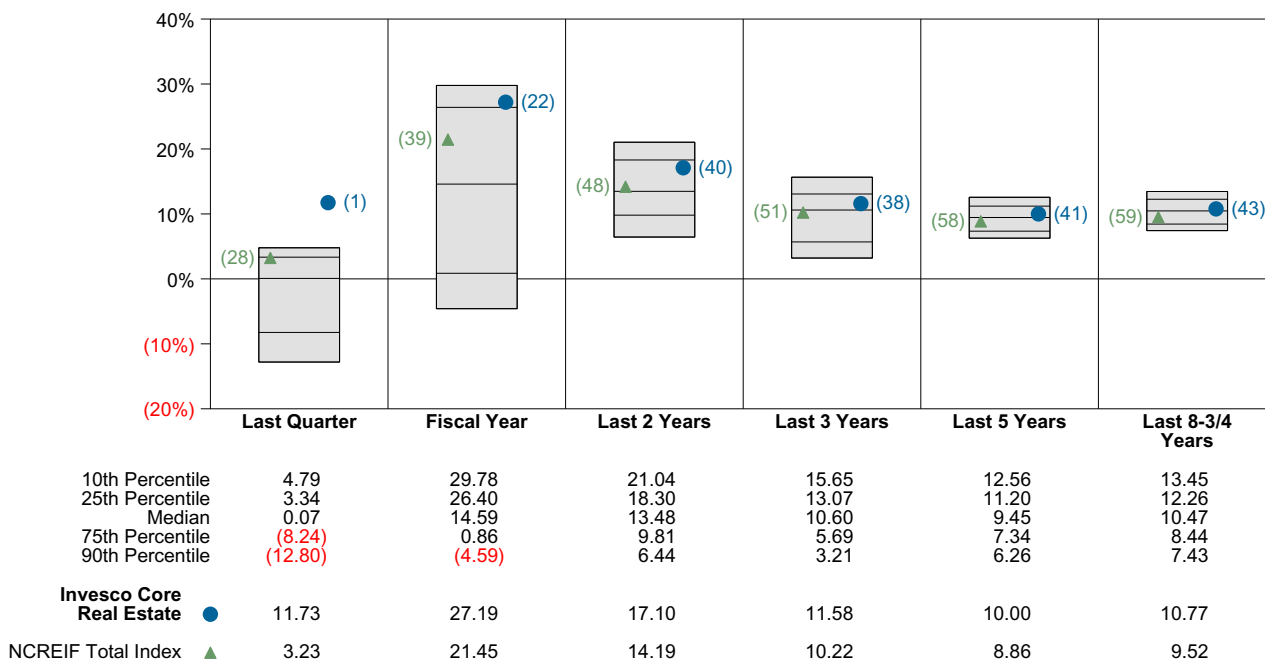
Quarterly Summary and Highlights

- 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 5.74%.

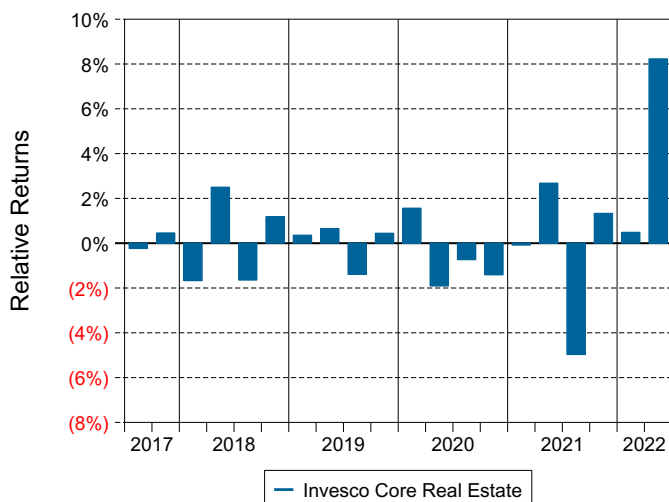
Quarterly Asset Growth

Beginning Market Value	\$210,884,568
Net New Investment	\$-353,225
Investment Gains/(Losses)	\$24,729,770
Ending Market Value	\$235,261,113

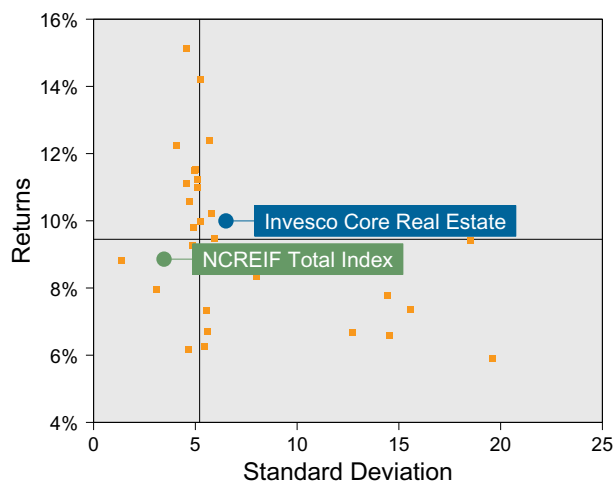
Performance vs Callan Total Domestic Real Estate DB (Gross)



Relative Return vs NCREIF Total Index



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



JP Morgan RE Inc & Growth 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.

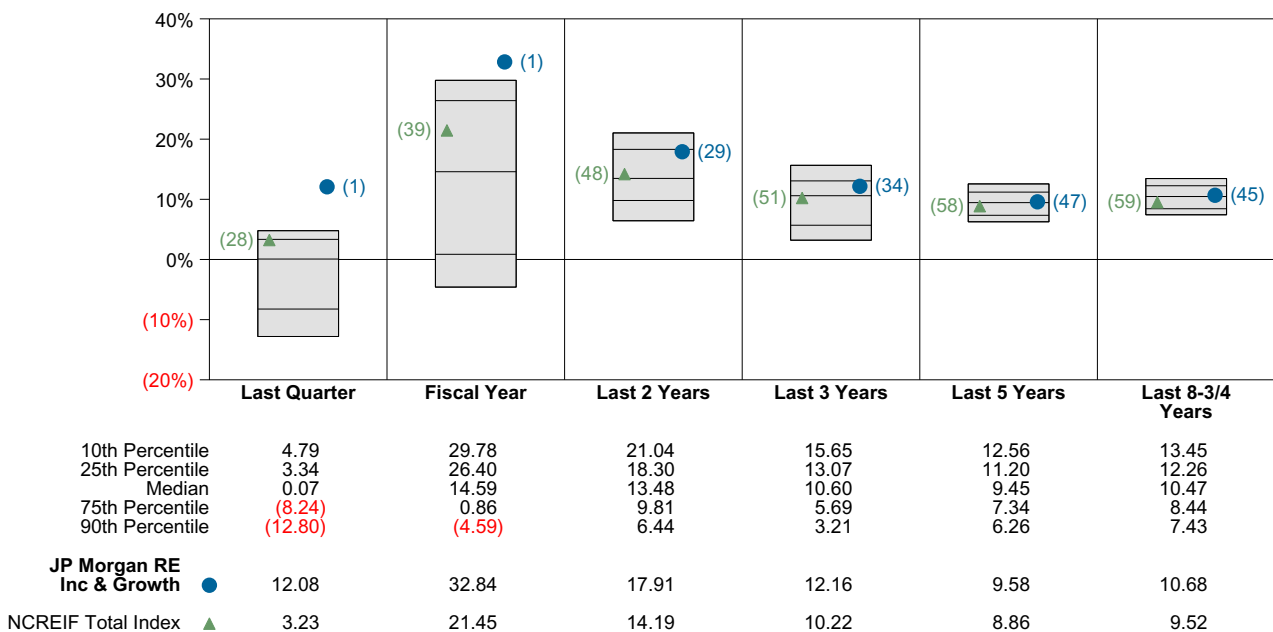
Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth'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 RE Inc & Growth'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%.

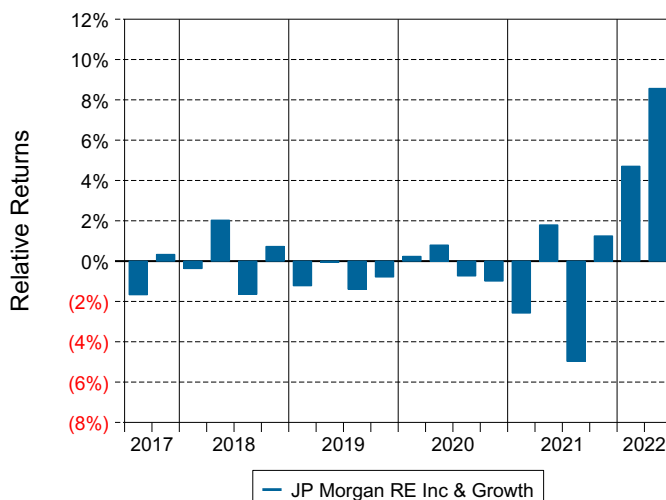
Quarterly Asset Growth

Beginning Market Value	\$211,444,758
Net New Investment	\$-733,275
Investment Gains/(Losses)	\$25,514,520
Ending Market Value	\$236,226,003

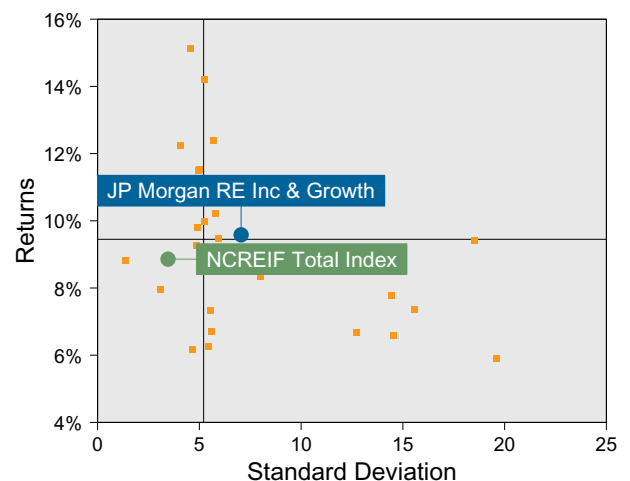
Performance vs Callan Total Domestic Real Estate DB (Gross)



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

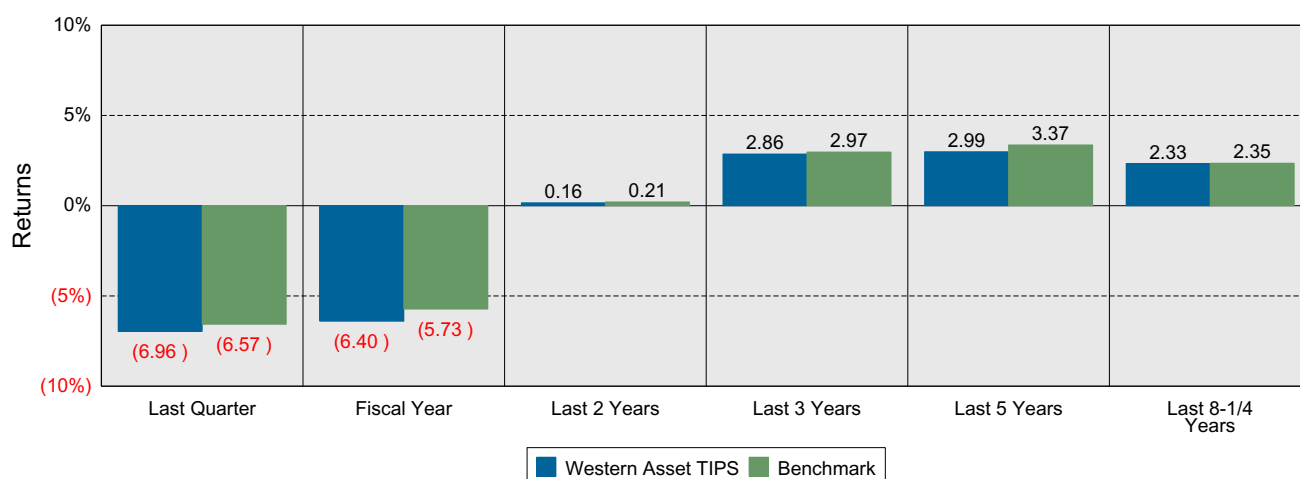
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio 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

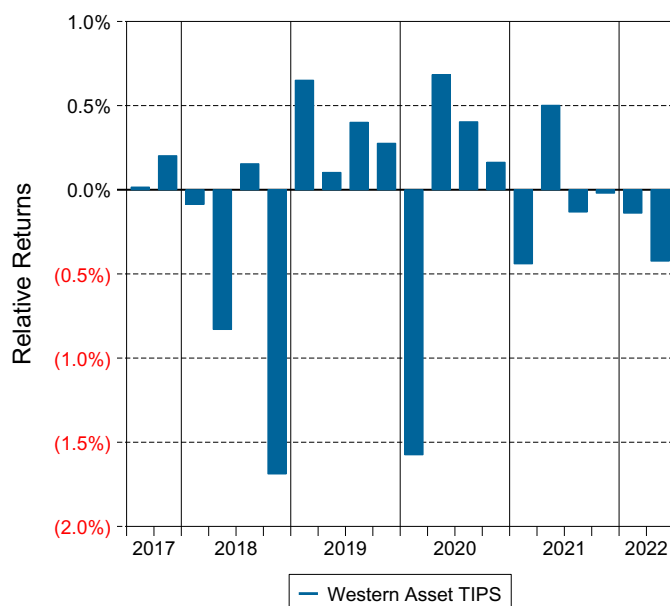
- Western Asset TIPS's portfolio underperformed the Benchmark by 0.40% for the quarter and underperformed the Benchmark for the year by 0.67%.

Quarterly Asset Growth

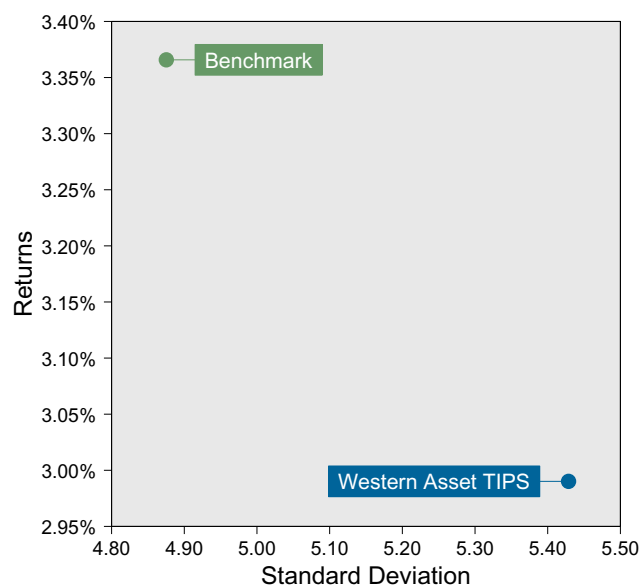
Beginning Market Value	\$496,182,841
Net New Investment	\$-17,136,601
Investment Gains/(Losses)	\$-33,702,423
Ending Market Value	\$445,343,817



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



JP Morgan IIF Infrastructure Period Ended June 30, 2022

Investment Philosophy

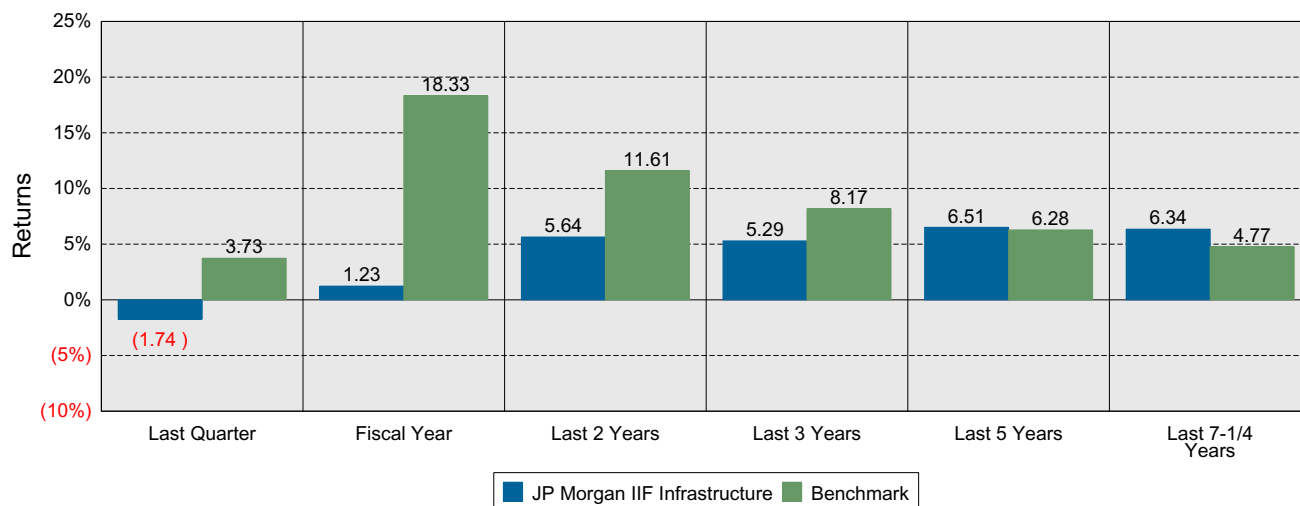
The only open-ended private commingled infrastructure fund in the U.S., the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and 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

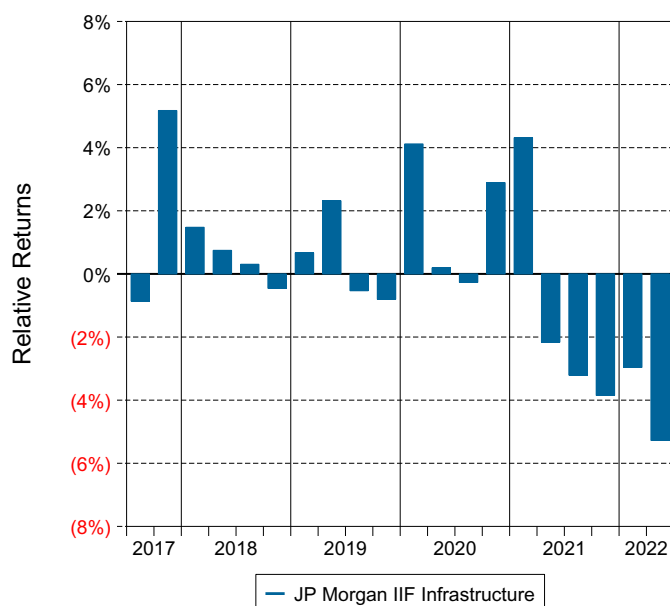
- JP Morgan IIF Infrastructure's portfolio underperformed the Benchmark by 5.47% for the quarter and underperformed the Benchmark for the year by 17.10%.

Quarterly Asset Growth

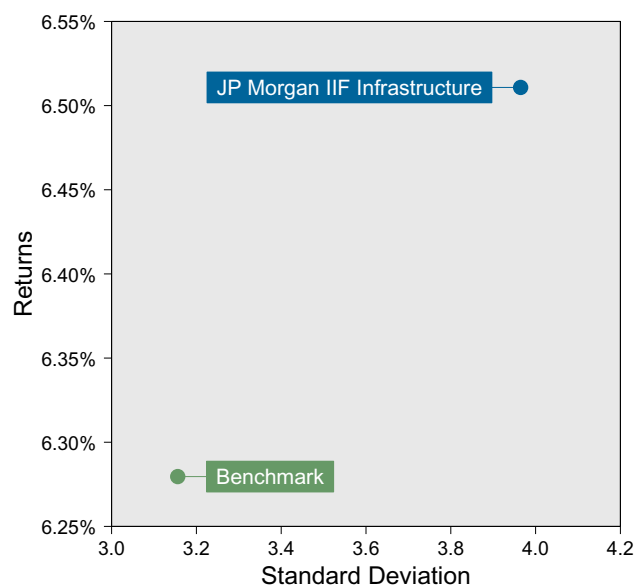
Beginning Market Value	\$105,150,833
Net New Investment	\$-973,155
Investment Gains/(Losses)	\$-1,825,831
Ending Market Value	\$102,351,847



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund II Period Ended June 30, 2022

Investment Philosophy

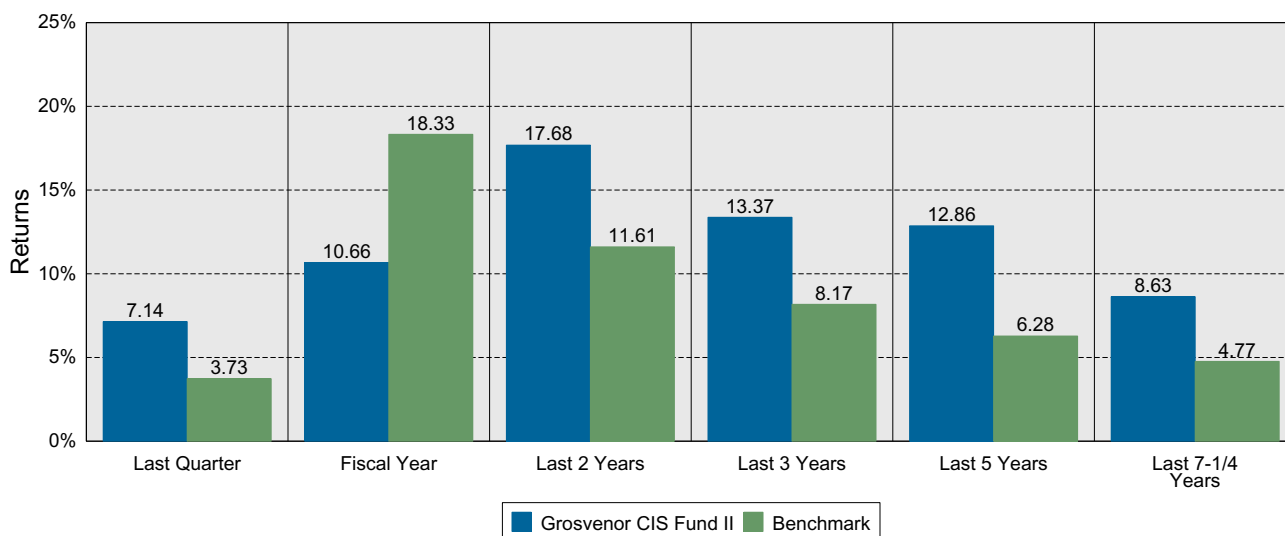
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified 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

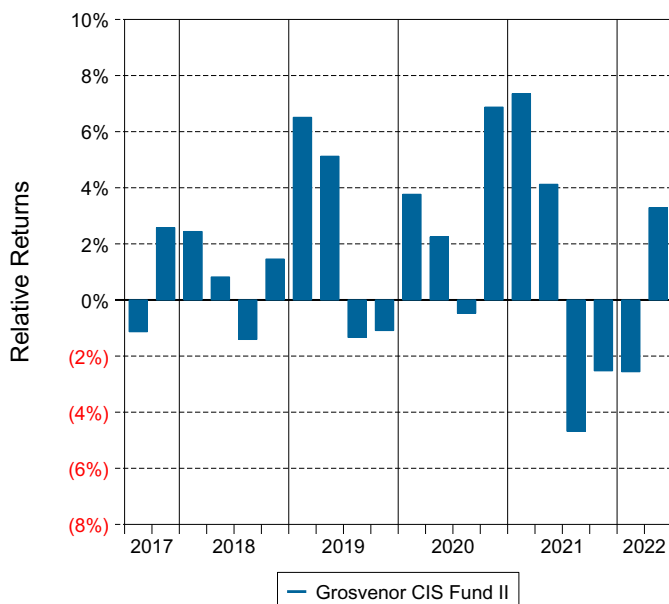
- Grosvenor CIS Fund II's portfolio outperformed the Benchmark by 3.41% for the quarter and underperformed the Benchmark for the year by 7.67%.

Quarterly Asset Growth

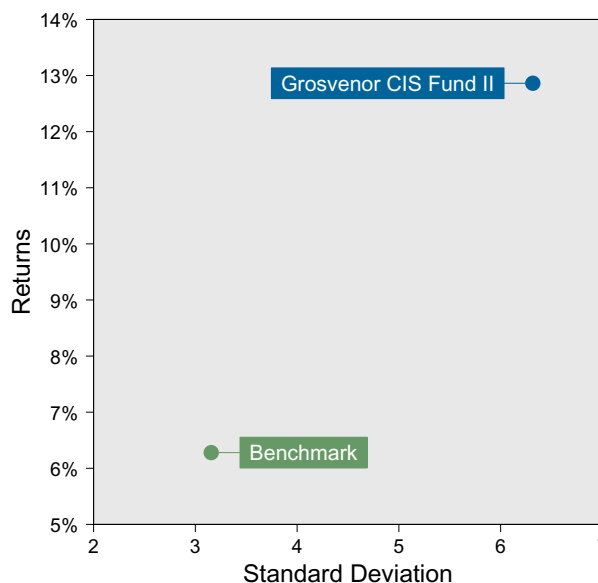
Beginning Market Value	\$52,494,003
Net New Investment	\$517,011
Investment Gains/(Losses)	\$3,785,566
Ending Market Value	\$56,796,580



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund III Period Ended June 30, 2022

Investment Philosophy

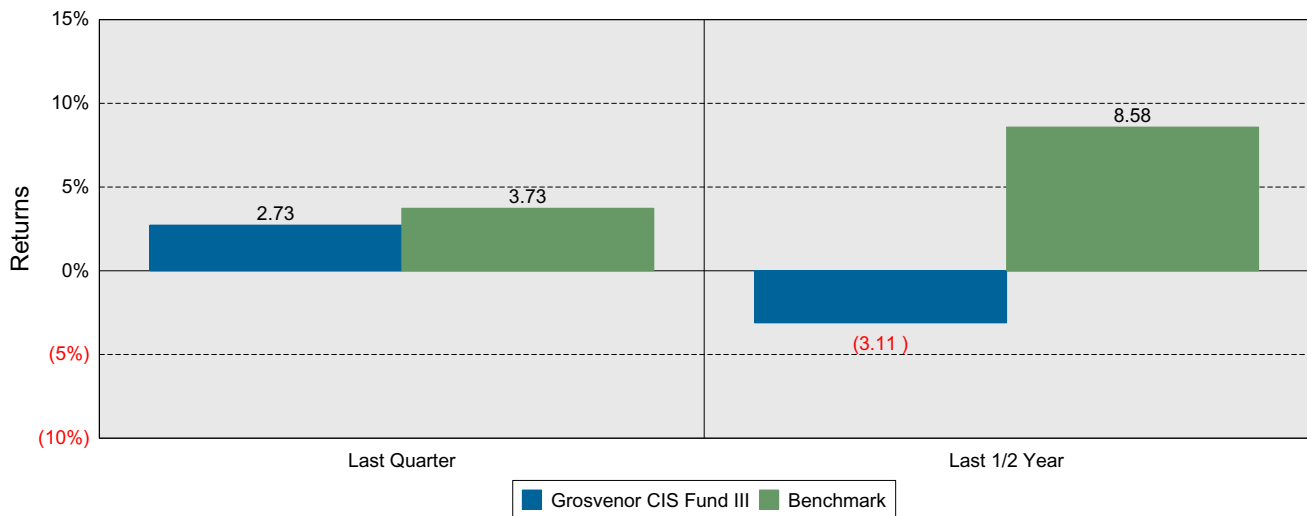
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified 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

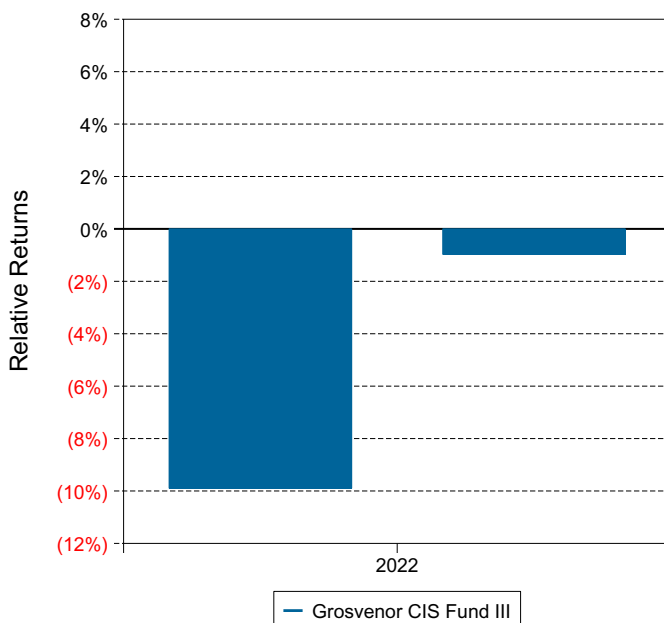
- Grosvenor CIS Fund III's portfolio underperformed the Benchmark by 1.01% for the quarter and underperformed the Benchmark for the one-half year by 11.69%.

Quarterly Asset Growth

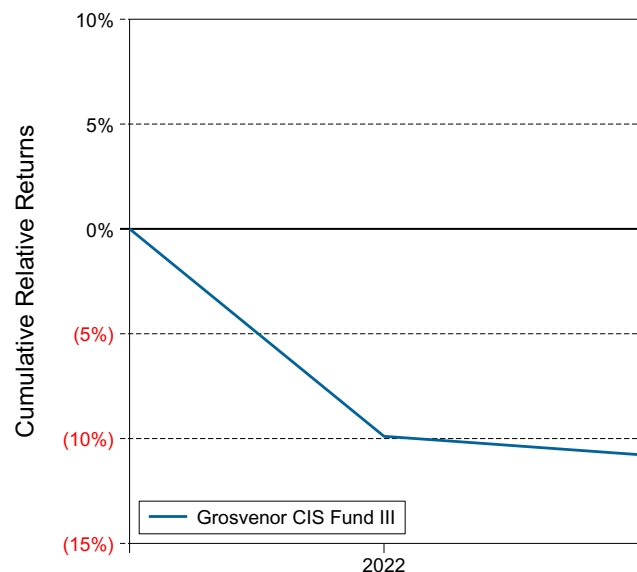
Beginning Market Value	\$18,765,174
Net New Investment	\$2,574,955
Investment Gains/(Losses)	\$570,026
Ending Market Value	\$21,910,155



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



ISQ Global Infrastructure II Period Ended June 30, 2022

Investment Philosophy

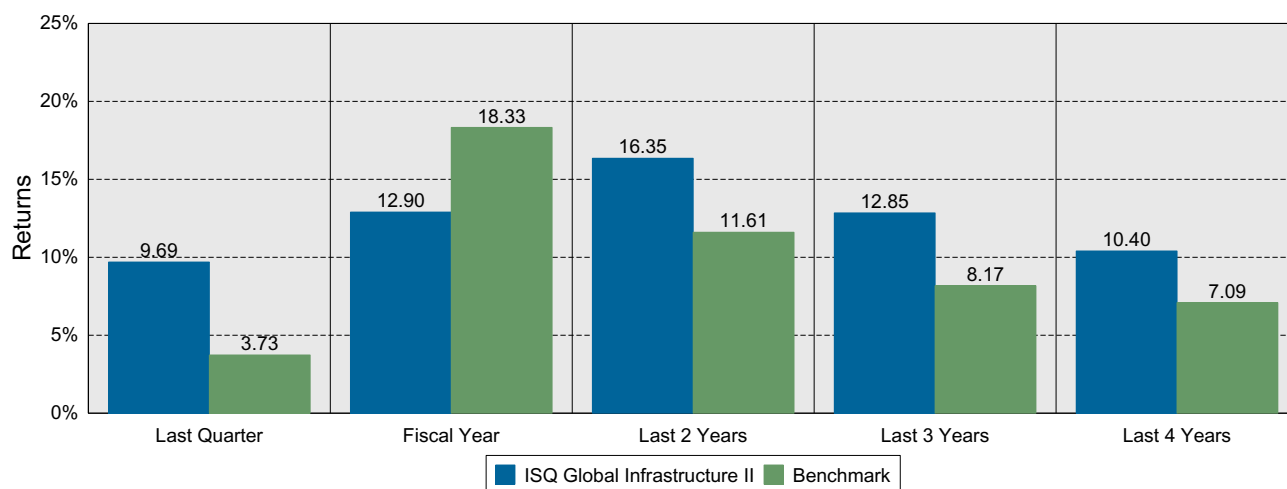
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

Quarterly Summary and Highlights

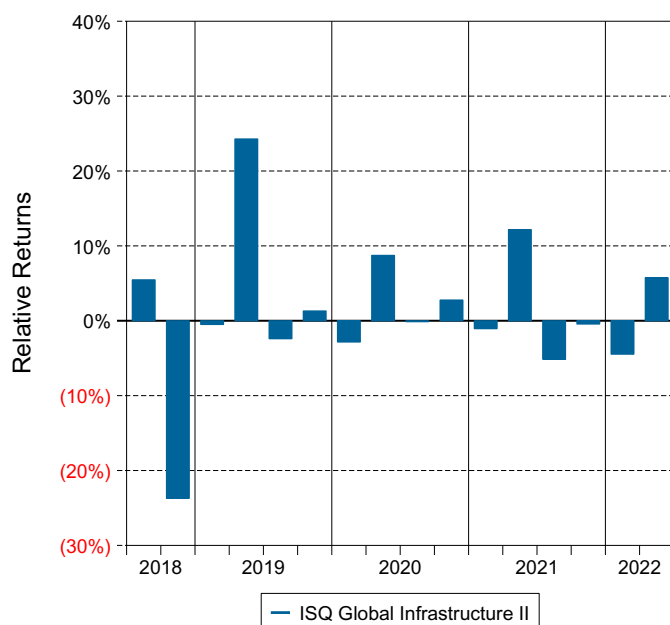
- ISQ Global Infrastructure II's portfolio outperformed the Benchmark by 5.96% for the quarter and underperformed the Benchmark for the year by 5.43%.

Quarterly Asset Growth

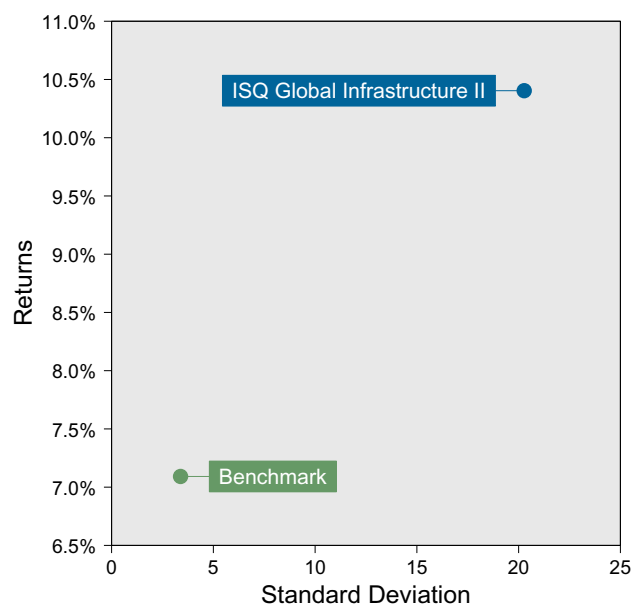
Beginning Market Value	\$71,607,349
Net New Investment	\$981,331
Investment Gains/(Losses)	\$6,958,080
Ending Market Value	\$79,546,760



Relative Return vs Benchmark



Annualized Four Year Risk vs Return



ISQ Global Infrastructure III Period Ended June 30, 2022

Investment Philosophy

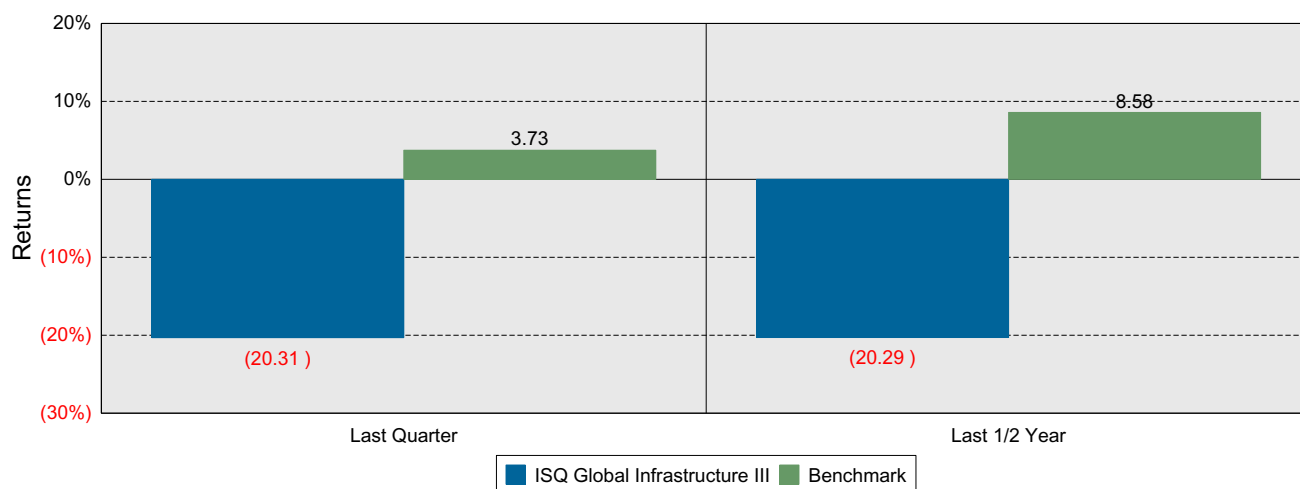
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. **The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.**

Quarterly Summary and Highlights

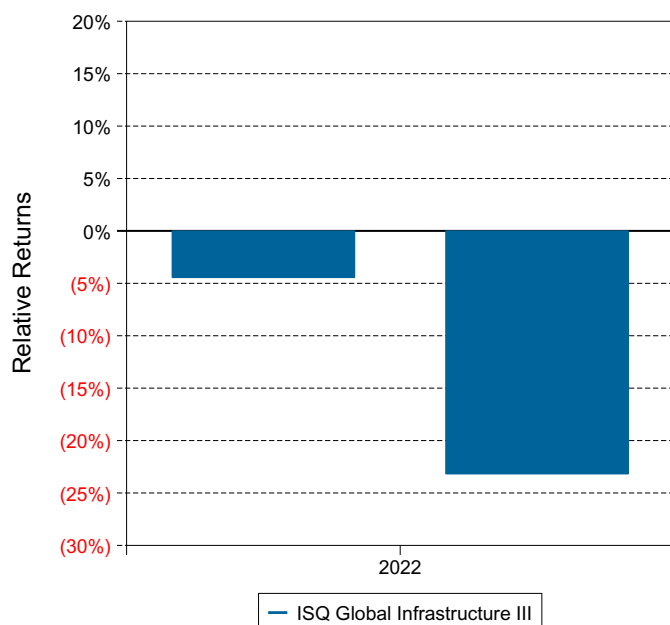
- ISQ Global Infrastructure III's portfolio underperformed the Benchmark by 24.04% for the quarter and underperformed the Benchmark for the one-half year by 28.87%.

Quarterly Asset Growth

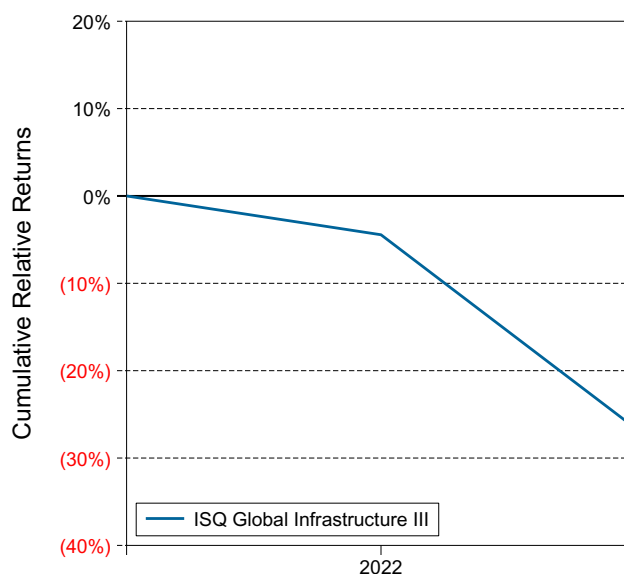
Beginning Market Value	\$7,071,003
Net New Investment	\$0
Investment Gains/(Losses)	\$-1,436,056
Ending Market Value	\$5,634,947



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



Macquarie Infrastructure Fund IV Period Ended June 30, 2022

Investment Philosophy

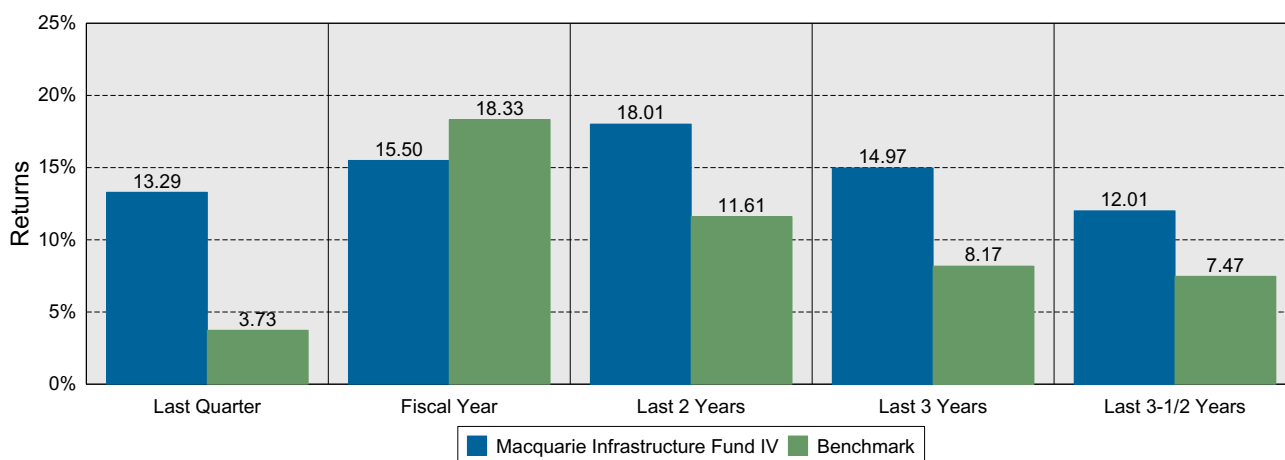
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience 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

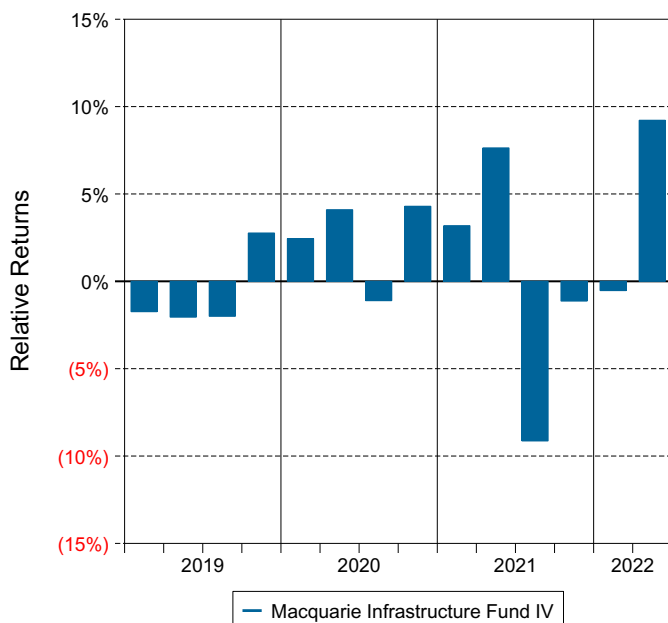
- Macquarie Infrastructure Fund IV's portfolio outperformed the Benchmark by 9.56% for the quarter and underperformed the Benchmark for the year by 2.83%.

Quarterly Asset Growth

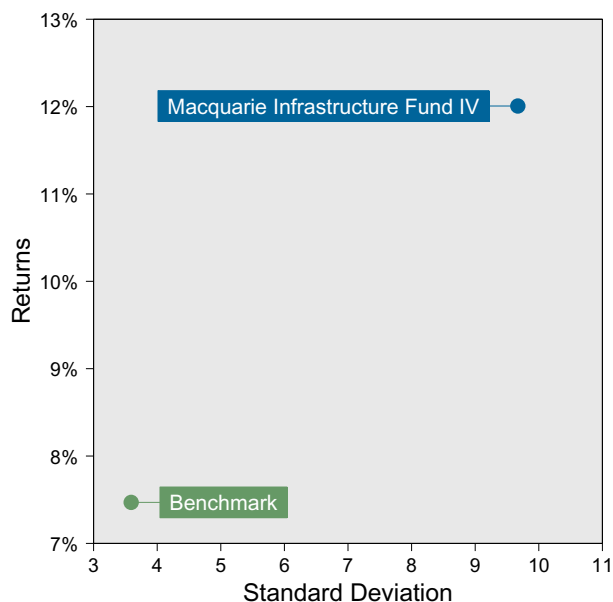
Beginning Market Value	\$77,538,763
Net New Investment	\$-633,813
Investment Gains/(Losses)	\$10,296,835
Ending Market Value	\$87,201,785



Relative Return vs Benchmark



Annualized Three and One-Half Year Risk vs Return



Macquarie Infrastructure Fund V Period Ended June 30, 2022

Investment Philosophy

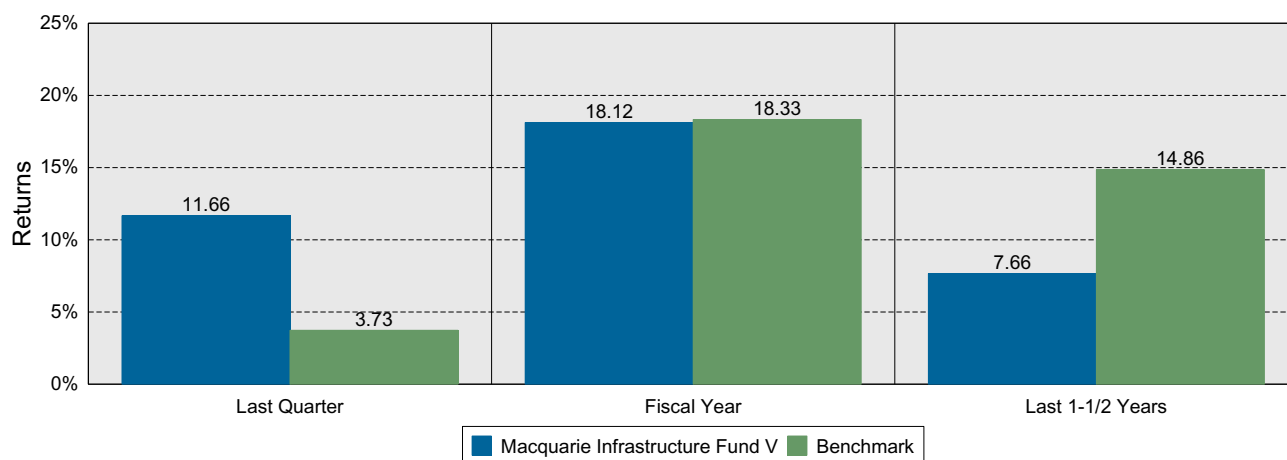
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience 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

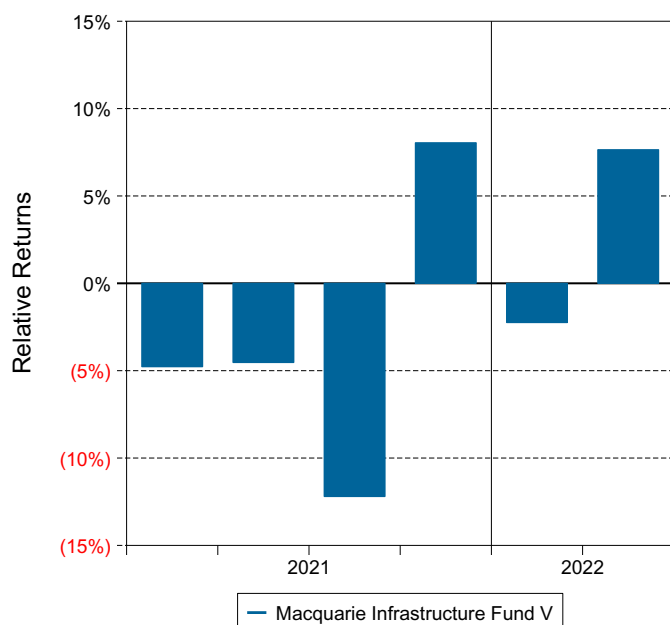
- Macquarie Infrastructure Fund V's portfolio outperformed the Benchmark by 7.93% for the quarter and underperformed the Benchmark for the year by 0.21%.

Quarterly Asset Growth

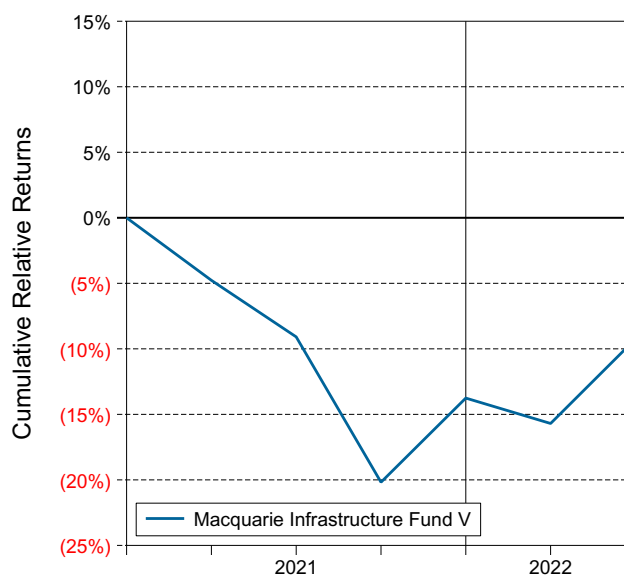
Beginning Market Value	\$54,763,336
Net New Investment	\$7,610,162
Investment Gains/(Losses)	\$7,339,017
Ending Market Value	\$69,712,515



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



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 to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / 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

A complete list of all upcoming events can be found on our website: 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

Education: By the Numbers

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

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/



"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 & Co. Asset Management US

S&P Dow Jones Indices

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

SLC Management

Smith Graham & 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 & 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 & 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 & Company LLC