

September 30, 2022



North Dakota State Investment Board Legacy Fund

**Investment Measurement Service
Quarterly Review**

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September 30, 2022

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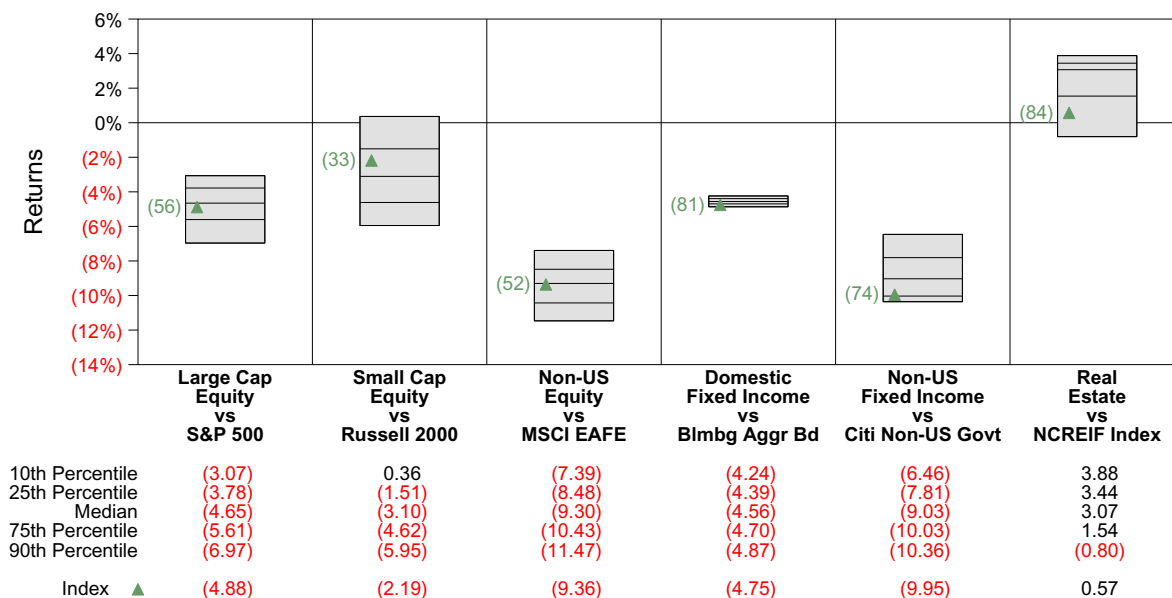
Market Overview

Active Management vs Index Returns

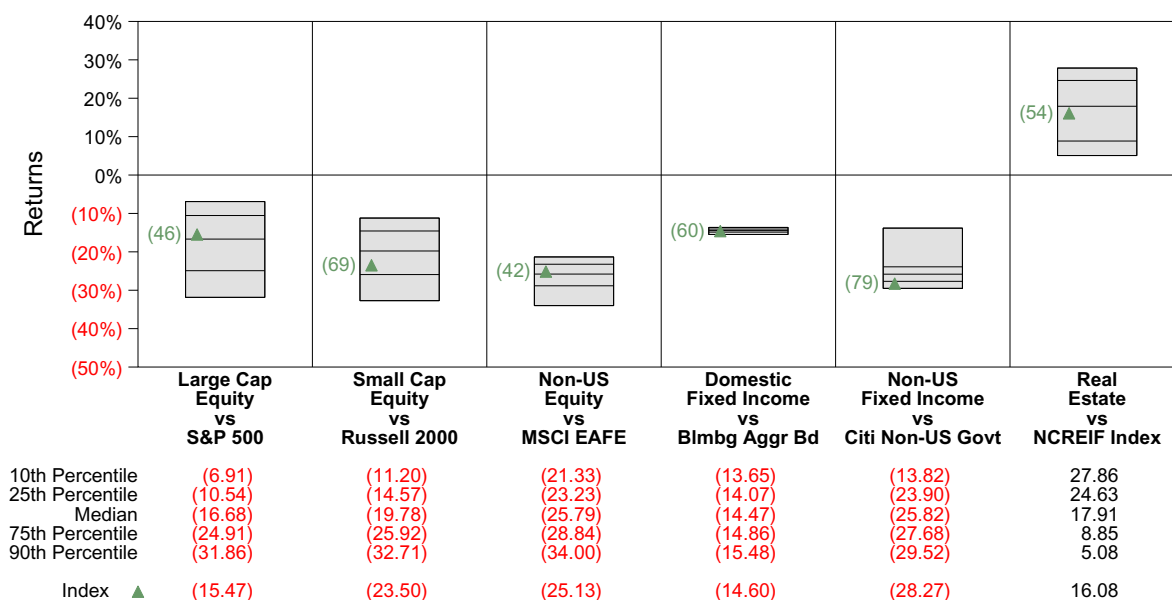
Market Overview

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 September 30, 2022



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



Mayhem Continues in the Capital Markets

ECONOMY

2 Mayhem continued to plague the capital markets, with both stocks and bonds falling through the first three quarters of the year. But the underlying U.S. economy remains strong, with an uptick in GDP in 3Q and the job market reaching its pre-pandemic level in August.

Bonds Hit Hard as Rates Rose Sharply

FIXED INCOME

8 The Bloomberg US Aggregate saw its worst nine-month return in its history. The yield curve inverted at quarter-end; the 10-year was at 3.83% and 2-year at 4.22%. Negative returns for global fixed income were driven by broad interest rate increases.

Appeal for Investors in Low-Yield Climate

PRIVATE CREDIT

12 Clients moved away from new allocations to traditional sponsor-backed direct lending due to the increased competition and commoditization within the space. Demand has continued to be healthy for less-competitive areas of private credit with high barriers to entry.

Double-digit Declines for Last 12 Months

INSTITUTIONAL INVESTORS

4 Institutional investors saw double-digit losses over the year ending 9/30/22. Almost every asset class was down, and it was the worst start to a year for a 60/40 portfolio in decades. Despite inflation worries, the drop in stocks and bonds became the top concern of institutional investors.

NPI Shows Gains; REITs Lag Equities

REAL ESTATE/REAL ASSETS

10 The NCREIF Property Index rose 0.6% during 3Q22. The NCREIF Open-End Diversified Core Equity Index rose 0.5%. The FTSE EPRA Nareit Developed Asia Index (USD) fell 9.4%. The FTSE EPRA Nareit Developed Europe Index (USD) plunged 21.7%.

Managers in General Outpace Benchmarks

HEDGE FUNDS/MACs

13 Hedge funds fell but outperformed broader indices. The median member of the Callan Institutional Hedge Fund Peer Group rose 0.6%. The median manager of the Callan Multi-Asset Class (MAC) Style Groups saw lower returns, consistent with their underlying risk exposures.

First Three Quarters The Worst in Decades

EQUITY

6 The S&P 500 Index fell 4.9% in 3Q22, and equities are off to the worst three quarters in decades. All major U.S. indices across styles and market cap ranges were negative except for the Russell 2000 Growth. Global markets waned for three straight quarters as well.

Activity Reflects Pre-Pandemic Levels

PRIVATE EQUITY

11 All private equity activity measures dipped in 3Q22 compared to the previous quarter, except for an increase in IPOs. Steep year-to-date declines are largely in contrast to last year's stimulus-induced hyper-liquidity, with 2022 generally reflecting active pre-pandemic levels.

DC Index Sees Third-Worst Decline Ever

DEFINED CONTRIBUTION

15 The Callan DC Index™ fell 12.2% in 2Q22; the Age 45 Target Date Fund dropped 13.4%. Balances within the DC Index declined by 12.3%. Stable value received 47.7% of net flows, topping target date funds. U.S. large cap (25.1%) had the largest percentage decrease in allocation.

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

Mayhem in the Capital Markets

ECONOMY | Jay Kloepfer

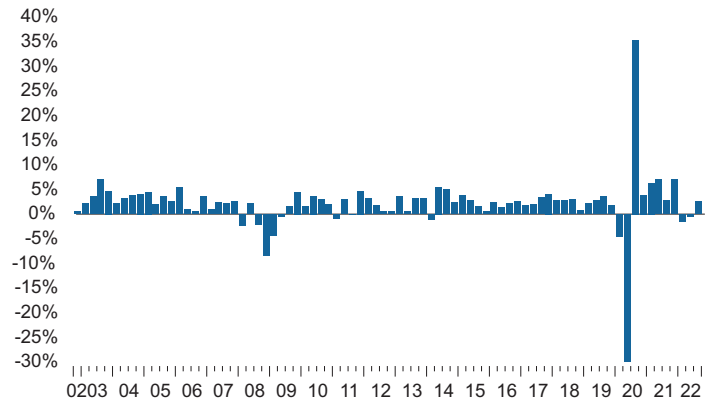
Capital markets abhor uncertainty, and we have seen nothing but uncertainty this year. The Russian invasion of Ukraine threw expectations for an orderly transition from the pandemic era out the window. Kinks in supply chains were expected to be smoothed, energy prices and inflation in general were projected to calm and subside after surging in 2021, and market participants anticipated an orderly transition from zero interest rate policy to a more “normal” yield curve. All these were key components to a consensus view that U.S. and global economies, and their capital markets, would slow gradually toward trend growth and reach the proverbial “Goldilocks” scenario: not too hot, not too cold. Like a soft landing for the Fed, the Goldilocks scenario is aspirational and has never really been achieved.

Instead, inflation is burning out of control. Global energy markets are surging and volatile. Geopolitical uncertainty is moving toward a level some experts liken to the period after World War II, when the United States and the Soviet Union were trying to figure out a new world order. This time, China represents a third axis of power with another agenda. Stock and bond markets around the globe are down together for three quarters in a row through September 2022. The S&P 500 plunged 24% year-to-date, and developed and emerging market equities are down a similar amount, punished by the strong dollar. While painful, such a drawdown in the equity markets is expected periodically. What is not expected is the 14.6% loss in the bond market (Bloomberg Aggregate) at the same time. The nine-month returns for the Aggregate are the worst in its history. There is no place to hide for a diversified portfolio.

The losses in both the bond and stock markets this year are primarily due to the sharp rise in interest rates. The lack of any yield cushion at the start of 2022 makes the rise in rates particularly painful for bonds. Rates have risen this much in the past, but the last time was during the regime change for monetary policy in the early 1980s. The giant capital losses were cushioned by yields as high as 14%. We began this year with the yield on the Aggregate at 1.75%; by Sept. 30, it reached 4.75%. With a duration of over

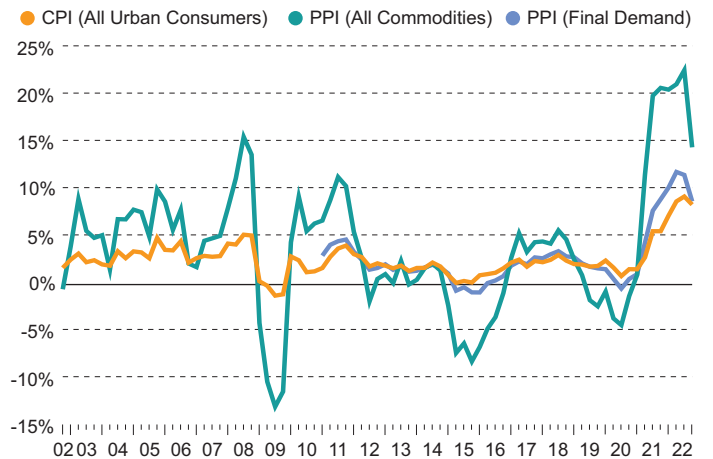
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

six years for the Aggregate, the capital loss implied by such a rate rise is close to 20%. The rising yield collected offsets some of this capital loss.

The Fed announced plans to raise rates aggressively in 2022, targeting a Fed Funds rate of 3.25% to 3.5% by December, but the market didn't really believe it until the Russian invasion in February. Then investors fully priced in the Fed's plans all at once. During the long period of zero interest rate policy over the past decade, we often mused that the best way to return to normal in the bond market would be to rip the “low-rate bandage” off and

move at once to the new normal. Get the pain over with, absorb the capital loss, and start collecting the higher yield. Be careful what you wish for.

Underneath this mayhem in the capital markets, the U.S. economy has been strong, with a particularly robust job market and healthy consumer spending. The economy added 263,000 jobs in September, down from the torrid pace set earlier this year, but for the quarter nonfarm employment increased by more than 1.1 million jobs. Even more importantly, we finally reached the pre-pandemic level for total employment in August 2022. Personal income growth has recovered from the withdrawal of pandemic support (transfer payments), rising 5.9% in 2Q and 5.5% in 3Q. Disposable income (after tax) rose by similar rates. However, inflation has taken a toll this year; real disposable income is 4% to 5% lower than the same month one year ago starting in May 2022, while real consumption expenditures are 6% to 7% higher.

Traditional measures of economic health are still out of whack as they often were during the pandemic. GDP is the biggest puzzle so far this year. GDP fell 1.6% in 1Q and another 0.6% in 2Q, while at the same time we generated more than 2 million new jobs. The GDP declines were deemed to be anomalies driven by inventory swings and net exports, not underlying economic weakness. Third quarter GDP grew by 2.6%, with strong contributions from exports, business fixed investment (equipment and intellectual property), and a resumption of government spending. However, fourth quarter GDP is now projected to fall. After all the mayhem, GDP growth will likely end up being positive in 2022—but it is projected to be negative in 2023, signaling more challenges ahead and the potential for a recession to extend through 2Q23.

The Long-Term View

Index	3Q22	Periods Ended 9/30/22			
		1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	-4.5	-17.6	8.6	11.4	7.5
S&P 500	-4.9	-15.5	9.2	11.7	7.4
Russell 2000	-2.2	-23.5	3.6	8.6	6.7
Global ex-U.S. Equity					
MSCI EAFE	-9.4	-25.1	-0.8	3.7	3.5
MSCI ACWI ex USA	-9.9	-25.2	-0.8	3.0	--
MSCI Emerging Markets	-11.6	-28.1	-1.8	1.0	--
MSCI ACWI ex USA Small Cap	-8.4	-28.9	-0.6	4.4	5.6
Fixed Income					
Bloomberg Agg	-4.8	-14.6	-0.3	0.9	4.0
90-Day T-Bill	0.5	0.6	1.1	0.7	1.9
Bloomberg Long G/C	-9.0	-27.4	-1.2	1.4	5.5
Bloomberg GI Agg ex US	-8.8	-24.8	-4.0	-2.4	2.4
Real Estate					
NCREIF Property	0.6	16.1	8.6	9.5	9.4
FTSE Nareit Equity	-9.9	-16.4	2.9	6.3	7.7
Alternatives					
CS Hedge Fund	0.4	1.1	4.5	4.3	5.9
Cambridge PE*	-5.6	3.3	18.2	15.9	14.7
Bloomberg Commodity	-4.1	11.8	7.0	-2.1	1.5
Gold Spot Price	-7.5	-4.8	5.4	-0.6	6.6
Inflation – CPI-U	0.2	8.2	3.8	2.5	2.5

*Data for most recent period lags. Data as of 6/30/22.

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

Recent Quarterly Economic Indicators

	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21	1Q21	4Q20
Employment Cost–Total Compensation Growth	5.0%	5.1%	4.5%	4.0%	3.7%	2.9%	2.6%	2.5%
Nonfarm Business–Productivity Growth	0.3%	-4.1%	-5.9%	4.4%	-2.4%	2.7%	3.0%	-3.9%
GDP Growth	2.6%	-0.9%	-1.6%	6.9%	2.3%	6.7%	6.3%	4.5%
Manufacturing Capacity Utilization	79.7%	79.5%	79.1%	78.6%	77.5%	76.8%	75.7%	75.0%
Consumer Sentiment Index (1966=100)	56.1	57.8	63.1	69.9	74.8	85.6	80.2	79.8

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

Double-digit Declines for Last 12 Months

INSTITUTIONAL INVESTORS

Rough year but most investors topped benchmarks

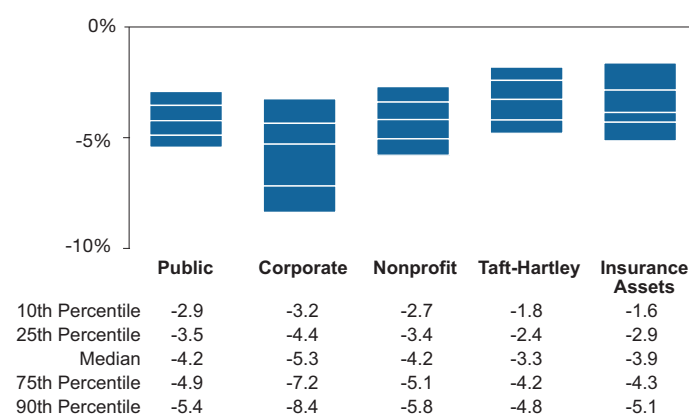
- Institutional investors saw double-digit losses over the year ending 9/30/22.
- Corporate defined benefit (DB) plans had the lowest returns, Taft-Hartley plans the best.
- All investor types aside from corporate DB plans outperformed a 60% S&P 500/40% Bloomberg Aggregate benchmark.
- And all types but corporate DB plans also outperformed equity and bond benchmarks.
- Over longer time periods, all investor types generally underperformed the stocks/bonds benchmark.

Major concern shifts

- Declines in both equities and fixed income replaced inflation as the greatest concern for institutional investors in 3Q22.
- Almost every asset class was down, and it was the worst start to a year for a 60/40 portfolio in decades.
- But ... inflation is still burning out of control. One ray of hope: month-to-month inflation flattened to zero starting in June.
- Institutional investors are starting to ask questions about what to do now:
 - How does a yield of 4% change the demand for yield substitutes: investment grade credit, bank loans, high yield, private credit? Real estate and infrastructure?

- Rebalancing is a natural outcome of a market downturn, except when everything goes down.
- Alternatives are now over target allocations.
 - *This stems from the denominator effect: the plunge in stocks and bonds is immediate but there is a delay in private market loss reporting, meaning the overweight is somewhat artificial.*
 - *This is not the time to hold back on re-upping private market commitments—the “overweight” will self-correct as appraisals reflect public market performance.*

Quarterly Returns, Callan Database Groups (9/30/22)



Source: Callan

Callan Database Median and Index Returns* for Periods Ended 9/30/22

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	-4.2	-13.4	4.1	4.8	6.8	7.3
Corporate Database	-5.3	-17.8	0.8	3.0	5.6	6.9
Nonprofit Database	-4.2	-14.5	3.6	4.3	6.3	7.4
Taft-Hartley Database	-3.3	-11.1	4.8	5.4	7.2	7.1
Insurance Assets Database	-3.9	-11.8	0.7	2.3	3.8	4.8
All Institutional Investors	-4.3	-14.3	3.4	4.3	6.5	7.2
Large (>\$1 billion)	-4.2	-13.0	4.2	5.0	6.8	7.5
Medium (\$100mm - \$1bn)	-4.3	-14.7	3.4	4.4	6.6	7.1
Small (<\$100 million)	-4.3	-14.5	3.0	4.0	6.2	6.8
60% S&P 500/40% Bloomberg Agg	-4.8	-14.9	3.9	5.7	7.5	7.4

*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.

Key issues for corporate DB plans

- Corporate plans are rethinking their approach to liability-driven investing (LDI). LDI portfolios were hammered by long duration exposure; the typical LDI plan treaded water in funded status.
- According to a survey of client activity, there was a big drop in concern about funded status in recent quarters; plans' interest in alternative asset classes dropped significantly.

Key issues for public DB plans

- Downward pressure on actuarial discount rates continued into 2022, with the typical rate at or below 7%. This trend may abate now as capital markets expectations rise following the market decline.
- Inflation impacts future liabilities through pressure on salary, and hits plans now with COLAs.
- According to our survey, return enhancement remains the top issue of concern; interest in adding to alternatives stayed steady.
- Clients plan to make few changes with allocations to most traditional asset classes.

- The survey started tracking private credit in 3Q20, and since then interest in increasing allocations to the asset class has held steady, with no clients saying they plan to cut their allocations.

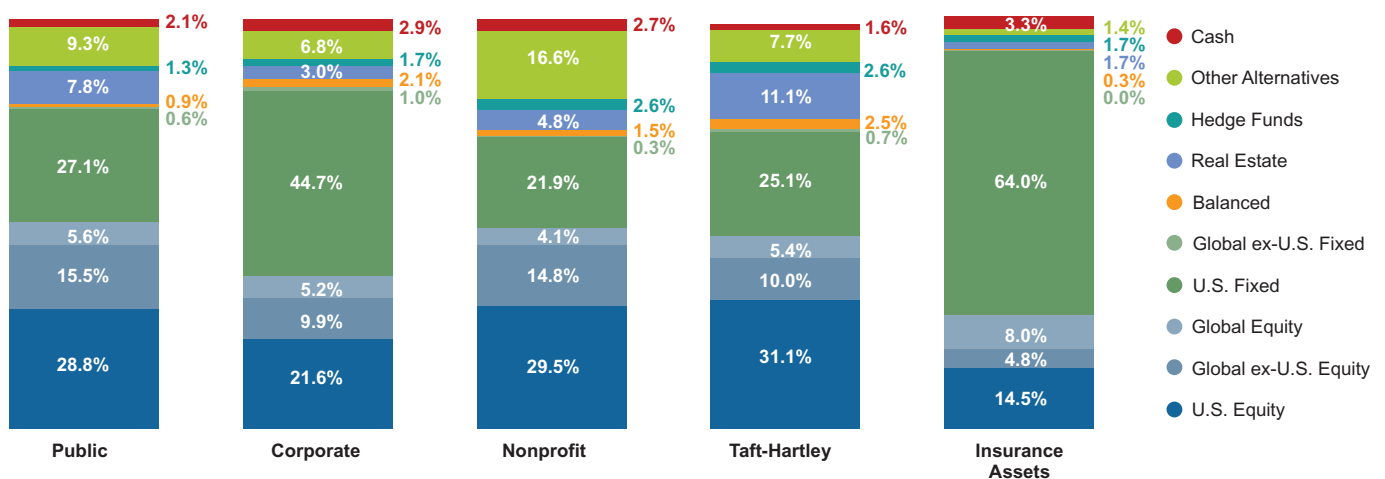
Key issues for defined contribution (DC) plans

- Use of passive target date funds hit an all-time high.
- Fees remained, as they have for years, the top issue, but some plans are focusing on participant communication amid the market turmoil.

Nonprofit priorities

- Nonprofits have expanded the depth and breadth of their private markets investments after a decade of high valuations in public markets growth assets. The inflation surge heightens concern about the erosion of the real values of their assets and distributions.
- According to our survey, there was a noticeable drop in their concerns about liquidity; interest in increasing private real estate allocations hit another high.
- There was also a significant decline in plans to increase private credit allocations between 1Q22 and 3Q22.

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

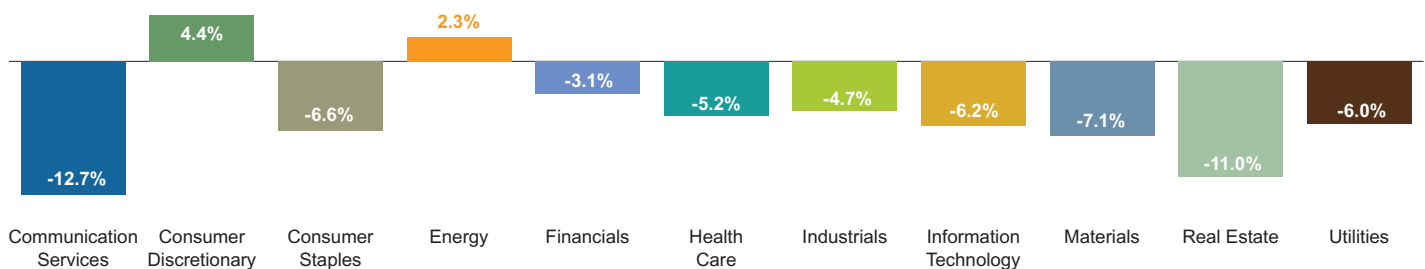
Worst three-quarter start to year in decades

- The S&P 500 Index fell 4.9% in 3Q22; all major U.S. indices across styles and market cap ranges were negative except for the Russell 2000 Growth Index, which gained 0.24%.
- During the quarter, all sectors posted negative returns except for Energy (+2%) and Consumer Discretionary (+4%). The return for Consumer Discretionary was aided by an exceptional July when the sector was up more than 18%. Returns for Real Estate and Communication Services were the worst, down 11% and 13%, respectively.
- Small cap (Russell 2000) outpaced large cap (Russell 1000) and growth outperformed value during the quarter, a reversal from previous quarters this year.
- Continued concerns around inflation and a potential recession, along with geopolitical headlines, contributed to a volatile and risk-averse environment.

More market difficulties; no place to hide

- The pullback of the U.S. equity markets was reminiscent of other periods marked by bearish sentiment, such as 2008 (Global Financial Crisis) and 2020 (start of pandemic).
- High inflation and interest rates continued to pressure the markets. While some inflationary data (particularly around energy) seemed to soften, other data points around food, shelter, and services remained elevated.
- U.S. equity did not provide a safe haven for investors. Like most other asset classes, it has not generated YTD gains and continues to be overshadowed by the outsized outperformance of commodities.

Quarterly Performance of Industry Sectors (9/30/22)



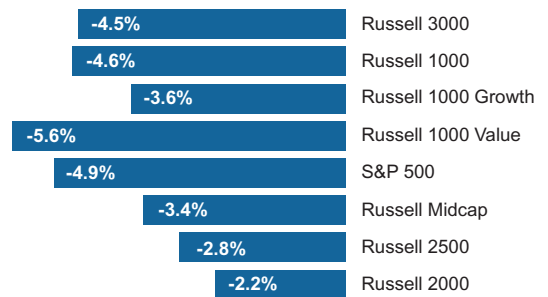
Source: S&P Dow Jones Indices

'Relief rally' but not for active managers

- The market experienced a "relief rally" in late June to August based on optimism that inflation had peaked, lessening the urgency for continued rate hikes.
- The rally was marked by a rebound of cyclical growth companies, and unprofitable companies outperformed profitable companies by wide margins across caps. Active managers underperformed significantly during this period.

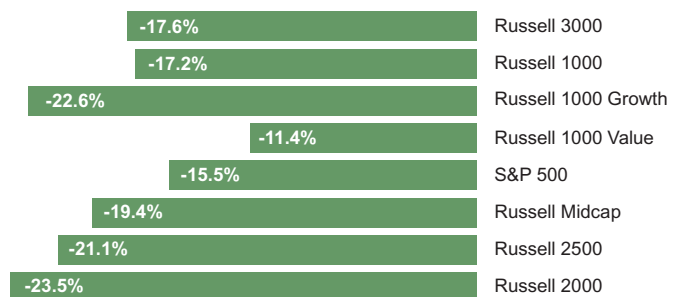
U.S. Equity: Quarterly Returns

(9/30/22)



U.S. Equity: One-Year Returns

(9/30/22)



Sources: FTSE Russell and S&P Dow Jones Indices

Global Equity

Market turmoil around the world

- Global and global ex-U.S. equity markets waned for three straight quarters due to inflation, rising rates, and fears of global recession.

Geopolitical and macro factors plague market

- Political instability in Italy and the U.K. as a result of prime minister departures weighed on the market.
- U.K. equities lost confidence as its newly elected prime minister Liz Truss announced her economic policy.
- China's COVID-19 lockdowns and growing concerns around the property sector sapped sentiment and economic activity.

Growth and value switch places globally

- Growth outpaced value in developed markets but lagged value in emerging markets.
- Rate-sensitive sectors in developed markets (e.g., Communication Services and Real Estate) were challenged given the tightening cycle by global central banks.
- The profitability of Chinese internet companies has compressed due to lockdowns and regulation, and a cyclical downturn in electronics weakened Taiwan and Korean semiconductors.

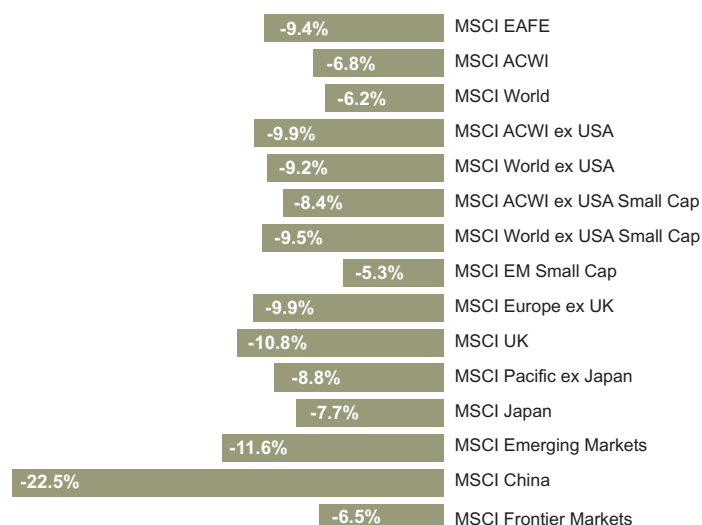
U.S. dollar vs. other currencies

- Growth and the interest rate differential as well as its safe-haven status fueled the U.S. dollar to its highest level in decades.
- The dollar gained vs. the euro and the yen by about 6%.

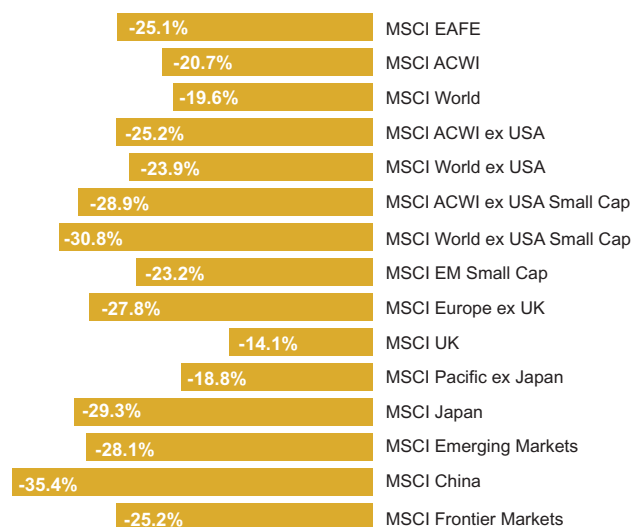
The case for global ex-U.S. equities

- Diversification: Global ex-U.S. equities remain a good diversifier to other public markets investments.
- Valuations/Yield: Valuation of U.S. stocks took off after the Global Financial Crisis (GFC); many of the tailwinds have dissipated—rates, inflation, and liquidity.
- Developed ex-U.S. stocks continue to be undervalued and currently provide a 1.6% yield premium to U.S. stocks (MSCI EAFE 3.5% vs. S&P 500 1.9%).

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 9/30/22)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 9/30/22)



Source: MSCI

- Economic exposure: Emerging market and developing economies' contribution to global GDP has increased while advanced economies' share has steadily decreased since the GFC.
- U.S. companies do not provide significant exposure to non-U.S. economies

Fixed Income

U.S. Fixed Income

Bonds hit hard as rates rose sharply (again)

- Bloomberg US Aggregate saw its worst nine-month return in its history—as did trailing 1-, 3-, 5-, and 10-year returns!
- 10-year annualized return for Aggregate is a mere 0.9%.
- Yield curve inverted at quarter-end; 10-year at 3.83% and 2-year at 4.22%
- 10-year at 4% briefly in late September; first time since 2009
- TIPS underperformed nominal Treasuries, and 10-year breakeven spreads fell to 2.11% from 2.33% as of 6/30/22.
- Fed raised rates by 150 bps during the quarter, bringing target to 3.0% to 3.25%.
- Median expectation from Fed is 4.4% at year-end and 4.6% at the end of 2023.
- Longer-term expectations are much lower.
- Volatility climbed to levels not seen since early 2020.

Spread sectors underperformed

- Mortgages had worst month ever vs. like-duration U.S. Treasuries in September; underperformed by 169 bps for 3Q.
- Corporates also underperformed: 33 bps of excess return.
- Bloomberg Corporate Bond Index yield-to-worst 5.7%
- High yield fared better and loans posted a positive return.
- Bloomberg High Yield Corp yield-to-worst 9.7%

Municipal Bonds

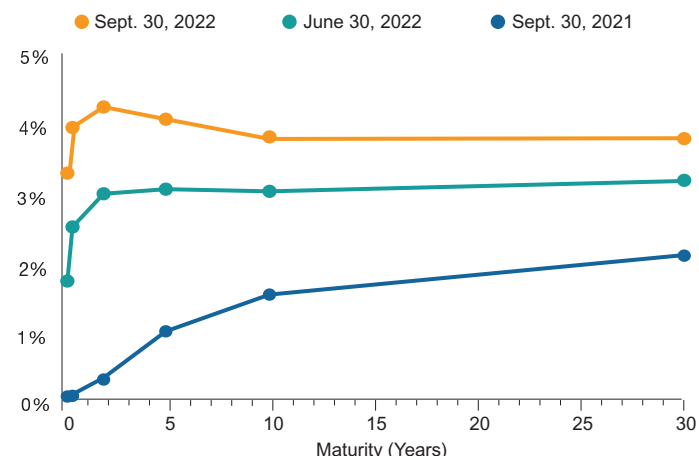
Municipal bond returns hurt by rising rates

- Lower quality continued to underperform.
- BBB: -4.1%; AAA: -3.5% (YTD BBB: -14.9%; AAA: -11.7%)

Valuations relative to U.S. Treasuries at fair value

- 10-year AAA Muni/10-year U.S. Treasury yield ratio roughly 87%; in line with 10-year average
- Municipal Bond Index after-tax yield = 6.8% (source: Morgan Stanley)

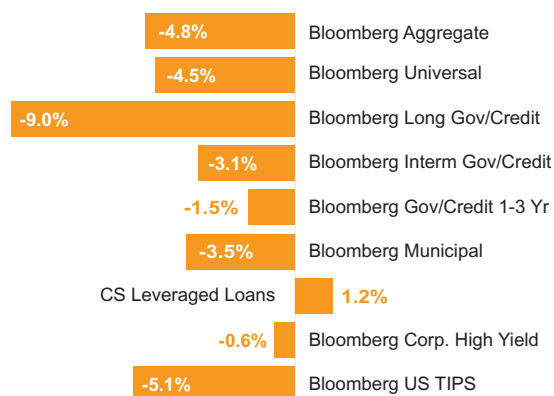
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

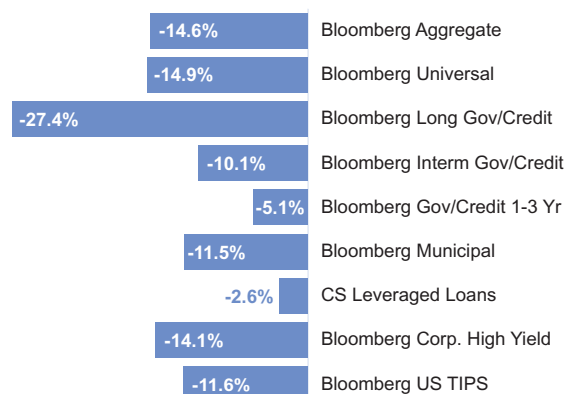
(9/30/22)



Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns

(9/30/22)



Sources: Bloomberg and Credit Suisse

Supply/demand

- Outflows of \$91.5 billion YTD—highest cycle outflow since data series began in 1992
- YTD issuance down 14% vs. last year

Credit quality remains stable to improving

- State revenues up more than 18% vs. 2021
- Number of defaults lower than 2021 and concentrated in senior living and industrial revenue bonds

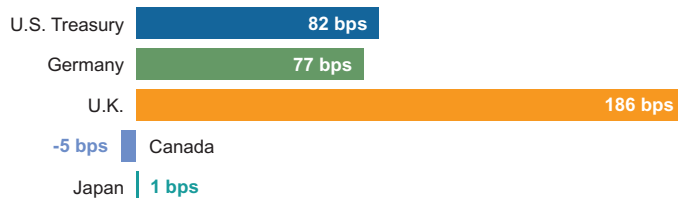
Global Fixed Income

Negative returns driven by broad interest rate increases

- U.S. dollar continued to appreciate vs. yen, euro, and pound
- Bank of Japan intervened to support currency for first time since 1998.
- Pound hit record low vs. U.S. dollar.
- Double-digit negative returns were widespread across developed markets.
- U.K. government bonds were hard-hit on U.K.'s "mini-budget" fiasco.
- ICE BofA U.K. Gilts Index -20.6% in 3Q
- Emerging market debt returns also sharply negative
- Most countries in the USD-denominated JPM EMBI Global Diversified Index posted negative returns, hurt by rising rates in the U.S.
- JPM GBI-EM Global Diversified also fell due largely to EM currency depreciation vs. the U.S. dollar.

Change in 10-Year Global Government Bond Yields

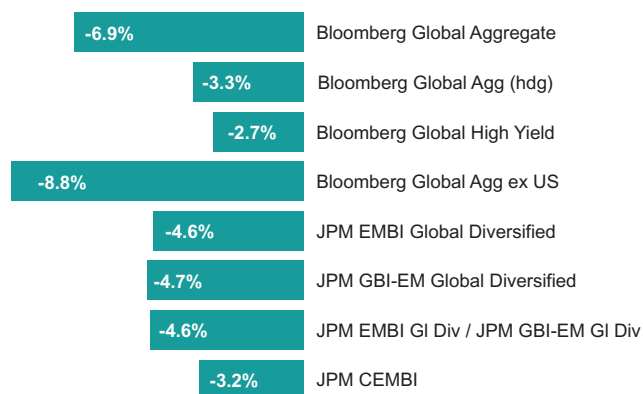
2Q22 to 3Q22



Source: Bloomberg

Global Fixed Income: Quarterly Returns

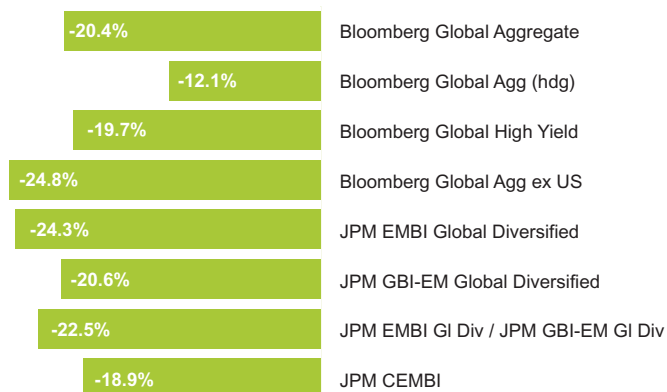
(9/30/22)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(9/30/22)



Sources: Bloomberg and JPMorgan Chase

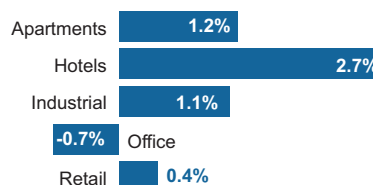
NPI Shows Gains but REITs Lag Equity Indices

REAL ESTATE/REAL ASSETS | Munir Iman

- The NCREIF Property Index, an unlevered measure of U.S. institutional real estate assets, rose 0.6% during 3Q22. The income return was 0.9%; the appreciation return was -0.4%.
- Hotels, which represent a small portion of the index, led property sector performance with a gain of 2.7%. Office finished last with a loss of 0.7%.
- Regionally, the South led with a 1.1% gain, while the Midwest was the worst performer but still rose 0.2%.
- The NCREIF Open-End Diversified Core Equity Index, representing equity ownership positions in U.S. core real estate with leverage, rose 0.3% during 3Q, with an income return of 0.6% and an appreciation return of -0.3%.
- U.S. REITs underperformed the S&P 500 (-4.9%) but exhibited strong performance relative to European REITs. Real estate securities underperformed on the cloudy economic outlook as well as a sizeable upward move in U.S. government bond yields.
- While all property sectors traded lower during the quarter, the sectors that were most resilient included self-storage and hotels amid strong fundamentals and pricing power. Malls also outperformed after being a meaningful laggard year to date.
- The poorest-performing sectors included data centers, due to fears around power costs and higher cost of capital; office,

Sector Quarterly Returns by Property Type

(9/30/22)



Source: NCREIF

- due to sluggish return-to-office momentum; and health care, due to labor cost pressures in senior housing.
- The FTSE EPRA Nareit Developed Asia Index (USD) fell 9.4% during the quarter.
- Australian REITs (-11.5%) were the weakest performers in the region, driven by concerns over slowing demand in office and cap rate expansion in industrial stocks.
- The FTSE EPRA Nareit Developed Europe Index (USD) fell 21.7% during the quarter, led by the United Kingdom (-25.9%), which lagged on the new government's approach to a debt-financed fiscal expansion that resulted in a sharp decline in the pound and government bonds.
- Continental Europe (-19.2%) performed better on a relative basis, but was still weighed down by currency headwinds, accelerating inflation, rate hike expectations, soaring energy prices, and continued conflict between Russia and Ukraine.

Callan Database Median and Index Returns* for Periods Ended 9/30/22

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	3.1	14.8	23.3	12.4	9.9	10.4	6.0
NFI-ODCE (value-weighted, net)	0.3	12.4	21.0	11.4	9.3	9.9	5.8
NCREIF Property	0.6	9.4	16.1	9.9	8.6	9.5	7.0
NCREIF Farmland	2.0	7.4	11.5	6.9	6.6	9.6	10.6
NCREIF Timberland	2.4	7.6	12.5	5.8	4.7	5.9	5.0
Public Real Estate							
Global Real Estate Style	-11.4	-29.9	-22.0	-3.7	2.0	5.1	2.8
FTSE EPRA Nareit Developed	-11.6	-29.9	-22.8	-6.5	-0.9	2.9	0.9
Global ex-U.S. Real Estate Style	-13.8	-32.0	-30.8	-8.6	-2.3	3.7	0.7
FTSE EPRA Nareit Dev ex US	-13.8	-31.4	-30.0	-10.1	-3.7	0.7	-1.2
U.S. REIT Style	-10.4	-28.3	-16.6	-0.4	4.5	7.1	5.8
FTSE EPRA Nareit Equity REITs	-9.9	-28.1	-16.4	-2.0	2.9	6.3	4.9

*Returns less than one year are not annualized.

Sources: Callan, FTSE Russell, NCREIF

Persistence Amid Volatility

PRIVATE EQUITY | Gary Robertson

Private equity activity measures in 3Q22 fell from 2Q, although totals reflect reasonable pre-pandemic levels. The IPO market for both venture capital and buyouts increased, but dollar volumes remained miniscule.

Fundraising ► Based on preliminary data, private equity partnerships holding final closes in 3Q totaled \$226 billion, with 484 new partnerships formed (unless otherwise noted, all data are from PitchBook). The dollar volume fell 6% from 2Q22, and the number of funds holding final closes declined 9%. So far, capital raised is running only 2% behind YTD 2021, but the number of funds trails by 31%.

Buyouts ► New buyout transactions and dollar volume fell moderately. Funds closed 2,881 company investments with \$152 billion of disclosed deal value, a 10% decrease in count and a 7% drop in dollar value from 2Q22.

VC Investments ► New financing rounds in venture capital companies totaled 9,985, with \$97 billion of announced value. The number of investments was down 17% from the prior quarter, and the announced value plunged 32%.

Exits ► There were 594 private M&A exits of private equity-backed companies (excluding venture capital), with disclosed values totaling \$128 billion. Exits fell 3% from the prior quarter

and announced dollar volume dropped 10%. There were 62 private equity-backed IPOs in 3Q raising \$11 billion, up from 46 totaling \$7 billion in 2Q.

Venture-backed M&A exits totaled 520 transactions with disclosed value of \$24 billion. The number of sales declined 26% but announced dollar volume fell only 4%. There were 104 VC-backed IPOs with a combined float of \$15 billion.

Returns ► With the strong 2Q retreat in public equity markets, private equity outperformance has widened given private equity's more gradual quarterly mark-to-market valuation methodology. While GPs have put forward persistently high valuations relative to public markets, continued declines are expected.

Funds Closed 1/1/22 to 9/30/22

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	1,030	222,528	32%
Growth Equity	106	81,859	12%
Buyouts	350	297,832	43%
Mezzanine Debt	13	24,423	3%
Distressed/Special Credit	29	36,121	5%
Energy	7	2,050	0%
Secondary and Other	81	29,338	4%
Fund-of-funds	20	5,807	1%
Totals	1,636	699,958	100%

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

Private Equity Performance (%) (Pooled Horizon IRRs through 6/30/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-8.5	0.8	29.2	25.2	19.5	14.0	12.1	22.6
Growth Equity	-7.6	-3.1	21.4	19.7	16.1	13.1	14.1	14.9
All Buyouts	-4.5	5.4	19.7	17.6	15.8	10.8	14.5	13.3
Mezzanine	-0.5	9.3	12.1	11.9	11.6	10.3	11.0	10.1
Credit Opportunities	-1.7	5.4	7.9	7.4	8.8	8.6	9.8	9.6
Control Distressed	-1.1	20.5	20.0	14.5	13.4	10.7	12.0	12.0
All Private Equity	-5.7	3.6	21.2	18.6	15.9	11.5	13.5	14.1
S&P 500	-16.1	-10.6	10.6	11.3	13.0	8.5	9.1	8.0
Russell 3000	-16.7	-13.9	9.8	10.6	12.6	8.4	9.1	8.1

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

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.

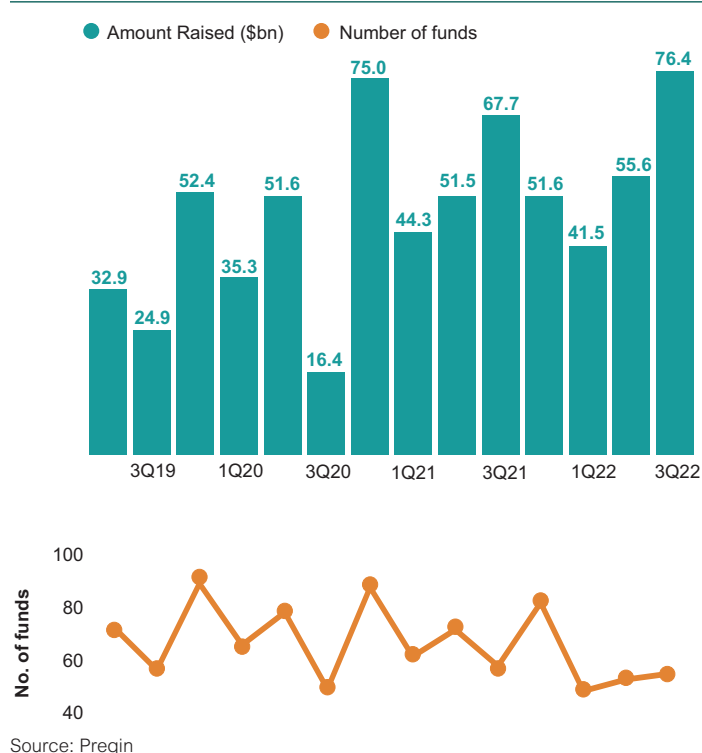
Appealing to Investors in Low-Yield Climate

PRIVATE CREDIT | Catherine Beard

Illiquidity premium close to zero

- There is continued strong private credit demand in a rising rate environment where the returns of floating-rate loans are bolstered.
- During 3Q22, clients moved away from new allocations to traditional sponsor-backed direct lending due to the increased competition and commoditization within the space.
- Demand has continued to be robust for less-competitive areas of private credit with high barriers to entry and attractive risk/reward opportunities.
 - Includes opportunistic lending, specialty finance, and industry or other niche-focused lending strategies such as venture debt and health care lending
- Limited partners (LPs) are seeking alternative structures designed to streamline the investment process while improving underlying liquidity. A number of general partners are launching evergreen structures as a response to LP interest.
- Private credit fundraising was robust leading into the COVID dislocation with a particular focus on direct lending, asset-based lending, and distressed strategies.
- Fundraising activity increased year-over-year, with \$68 billion in capital raised in 3Q21 vs. \$76 billion in 3Q22.
- The average fund size year-over-year increased from \$1.4 billion in 3Q21 to \$1.6 billion in 3Q22 as established managers grow fund sizes in response to strong LP demand.
- For mature private credit programs, demand is increasing for diversifying strategies like specialty finance and royalties' strategies to capture opportunities outside of traditional sponsor-backed direct lending.

Private Credit Fundraising (\$bn)



Private Credit Performance (%) (Pooled Horizon IRRs through 6/30/22*)

Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	-2.2	0.0	5.3	6.3	6.3	6.5	6.8	6.7
Mezzanine	-0.5	9.3	12.1	11.9	11.1	11.6	10.3	11.0
Credit Opportunities	-1.7	5.4	7.9	7.4	6.4	8.8	8.6	9.8
Total Private Credit	-1.6	5.0	8.3	8.2	7.4	9.1	8.8	9.7

Source: Refinitiv/Cambridge

*Most recent data available at time of publication

Managers See Declines but Outpace Benchmarks

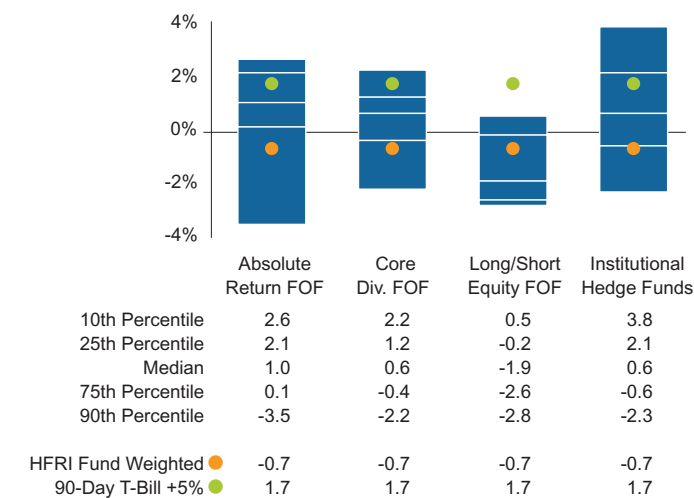
HEDGE FUNDS/MACs | Joe McGuane

Global markets were volatile throughout 3Q22, as persistent inflation, slowing economic growth, and interest rate hikes by central banks caused most asset classes to fall. The S&P 500 dropped 4.9% as U.S. equities ended 3Q back in bear market territory, reversing a bounce upward that began in the final weeks of 2Q. Within technology, the Nasdaq ended the quarter down 4.0%, as the communication and media sectors fell meaningfully for the quarter, slightly offset by mega-cap stocks like Apple, Amazon, and Tesla. Credit markets remained choppy for the quarter as high yield bond prices whipsawed.

Hedge funds again finished the quarter lower but outperformed broader market indices, as equity hedge strategies that focused on growth spaces like tech, media, and telecom continued to be a drag on performance. Some of those declines were offset by managers that focused on the energy sector.

Hedge Fund Style Group Returns

(9/30/22)



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 9/30/22

Hedge Fund Universe	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years
Callan Institutional Hedge Fund Peer Group	0.6	3.2	4.0	5.4	6.0	6.2
Callan Fund-of-Funds Peer Group	0.5	-3.4	-3.5	4.7	3.8	4.3
Callan Absolute Return FOF Style	1.0	3.0	3.0	5.9	4.3	4.6
Callan Core Diversified FOF Style	0.6	-4.3	-4.2	4.7	3.7	4.1
Callan Long/Short Equity FOF Style	-1.9	-13.5	-15.5	2.7	2.9	4.3
HFRI Fund-Weighted Index	-0.7	-6.3	-5.9	6.1	4.5	4.6
HFRI Fixed Convertible Arbitrage	0.9	-4.1	-2.6	6.0	4.8	5.0
HFRI Distressed/Restructuring	-1.4	-5.0	-4.3	7.1	4.8	5.0
HFRI Emerging Markets	-5.5	-16.9	-17.3	1.8	0.7	2.9
HFRI Equity Market Neutral	0.7	0.4	1.0	2.5	2.1	3.0
HFRI Event-Driven	-0.4	-7.7	-6.8	5.2	4.0	4.9
HFRI Relative Value	0.0	-2.1	-1.9	3.5	3.3	4.1
HFRI Macro	1.8	10.5	10.1	7.8	5.6	3.1
HFRI Equity Hedge	-2.3	-13.8	-13.2	6.2	4.4	5.3
HFRI Multi-Strategy	-1.7	-10.8	-11.9	4.2	2.0	3.0
HFRI Merger Arbitrage	2.3	0.3	1.9	6.1	5.2	4.5
90-Day T-Bill + 5%	1.7	4.3	5.6	5.6	6.1	5.7

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

Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median member of the Callan Institutional Hedge Fund Peer Group rose 0.6%. Within this style group of 50 peers, the average rates manager gained 1.9%, driven by the continued volatility in interest rates. Meanwhile, hedged credit managers were slightly higher at 0.6%, as managers were actively trading around interest rate volatility. The average equity hedge manager gained 1.9%, as this group of managers was able to profit off dispersion in equity indices.

Within the HFRI indices, the best-performing strategy last quarter continued to be macro (+1.8%), aided by its exposure to commodities, currencies, and rates trading. Equity hedge had its third consecutive quarter of negative performance (-2.3%), as managers with a focus on growth sectors continued to be the main drag on performance.

Across the Callan Hedge FOF Database, the median Absolute Return FOF gained 1.0%, the median Callan Long-Short

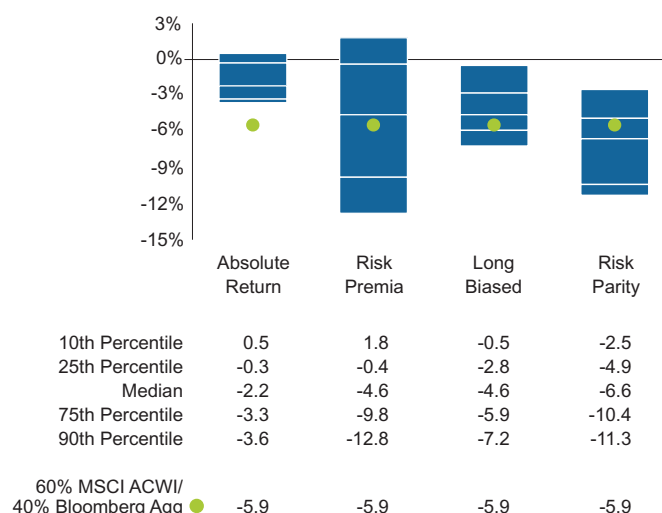
Equity FOF fell 1.9%, and the median Callan Core Diversified FOF rose 0.6%.

The Bloomberg GSAM Risk Premia Index increased 3.0% based upon a 6% volatility target. Within the underlying styles of the index's derivative-based risk premia, Bond Futures Value (+5.8%) and FX Trend (+4.7%) profited from the volatility in interest rates, along with commodity and currency exposures. The weakest risk premia strategy was FX G10 Value (-1.6%).

Within Callan's database of liquid alternative solutions, the median manager in the Callan Multi-Asset Class (MAC) Style Groups generated lower returns for the quarter, gross of fees, consistent with their underlying risk exposures. For example, the median Callan Long Biased MAC manager fell 4.6%, as exposure to equity and fixed income continued to be a drag on performance. The Callan Risk Parity MAC Index, which typically targets an equity risk-weighted allocation to the major asset classes with leverage, fell 6.6%.

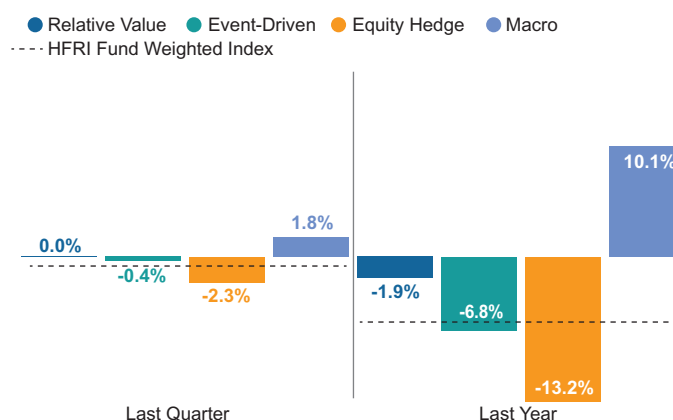
MAC Style Group Returns

(9/30/22)



HFRI Hedge Fund-Weighted Strategy Returns

(9/30/22)



Source: HFRI

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

DC Index Sees Third-Worst Decline Ever

DEFINED CONTRIBUTION | Patrick Wisdom

Performance: Index dips again

- The Callan DC Index™ fell 12.2% in 2Q22, its third-largest quarterly decline ever.
- The Age 45 Target Date Fund fell 13.4%.

Growth Sources: Balances take a hit

- Balances within the DC Index declined by 12.3% after a 5.4% decrease the previous quarter.

Turnover: Net transfers fall

- Turnover (i.e., net transfer activity levels within DC plans) decreased to 0.37% from the previous quarter's 0.42%.

Net Cash Flow Analysis: Stable value takes top spot

- Bucking the trend of the last five quarters, TDFs (29.1% of net flows) took a back seat to stable value, which received 47.7% of net flows in perhaps a signal that some participants sought a flight to safety.
- Also of note, real return/TIPS (0.6%) did not attract a large share of flows, even as inflation has remained elevated.

Equity Allocation: Exposure drops sharply

- The Index's overall allocation to equity (69.8%) fell meaningfully from the previous quarter's level (72.0%), which had been within reach of the Index's high mark of 4Q07 (72.9%). The decrease was driven by a combination of investor outflows and declines in equity markets.

Asset Allocation: U.S. large cap equity falls

- U.S. large cap (25.1%) had the largest percentage decrease in allocation.
- Stable value (10.0%) had the largest percentage increase.

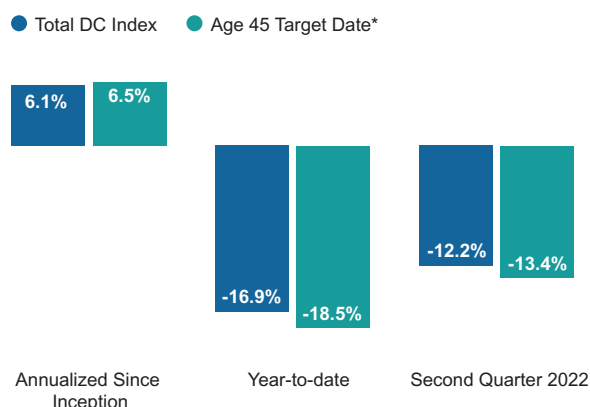
Prevalence of Asset Class: Balanced funds dip again

- The prevalence of a balanced fund (41.4%) decreased again to its lowest level since the inception of the Index in 2006.
- Other notable movements included a 1.1 percentage point decrease in the prevalence of a money market offering (49.6%); on the other hand, the prevalence of a real estate offering (21.8%) increased by 0.6 percentage points.

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.

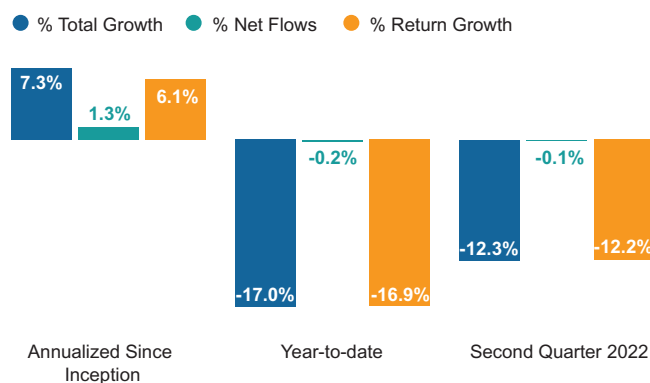
Investment Performance

(6/30/22)



Growth Sources

(6/30/22)



Net Cash Flow Analysis (2Q22)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Stable Value	47.7%
Target Date Funds	29.1%
U.S. Fixed Income	-19.5%
U.S. Large Cap	-48.1%
Total Turnover**	0.37%

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

Source: Callan DC Index

Note: DC Index inception date is January 2006.

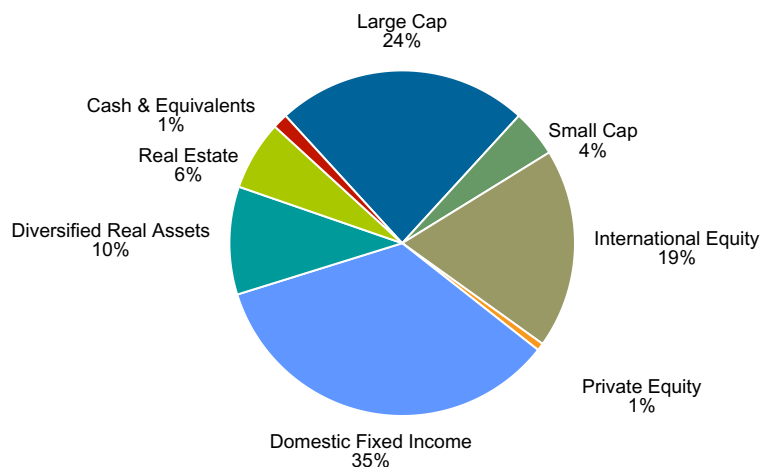
* The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.

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

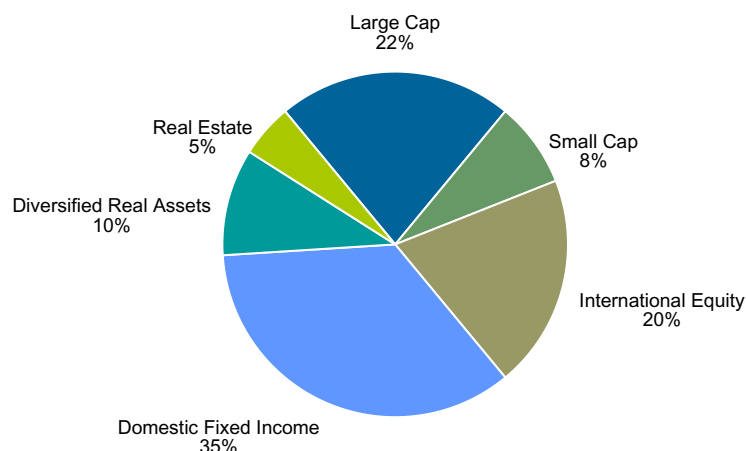
Actual vs Target Asset Allocation As of September 30, 2022

The first chart below shows the Fund's asset allocation as of September 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



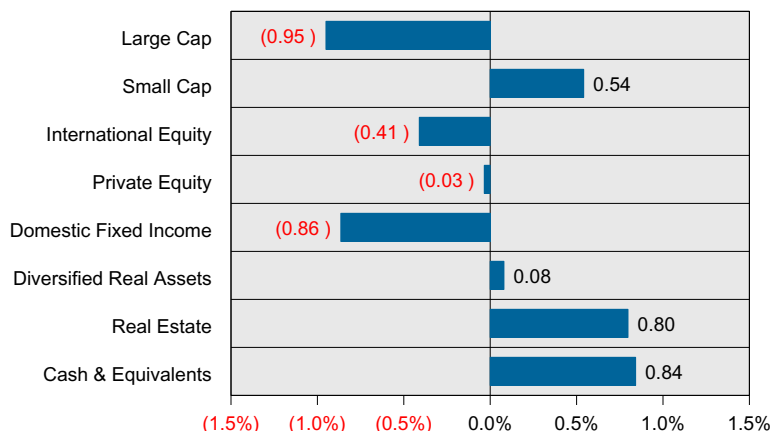
Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,843,839	23.6%	22.0%	1.6%	123,611
Small Cap	342,202	4.4%	8.0%	(3.6%)	(283,336)
International Equity	1,464,403	18.7%	20.0%	(1.3%)	(99,441)
Private Equity	56,615	0.7%	0.0%	0.7%	56,615
Domestic Fixed Income	2,704,596	34.6%	35.0%	(0.4%)	(32,131)
Diversified Real Assets	791,914	10.1%	10.0%	0.1%	9,992
Real Estate	504,613	6.5%	5.0%	1.5%	113,653
Cash & Equivalents	111,037	1.4%	0.0%	1.4%	111,037
Total	7,819,219	100.0%	100.0%		

* Current Quarter Target = 35.0% Blmgb 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.

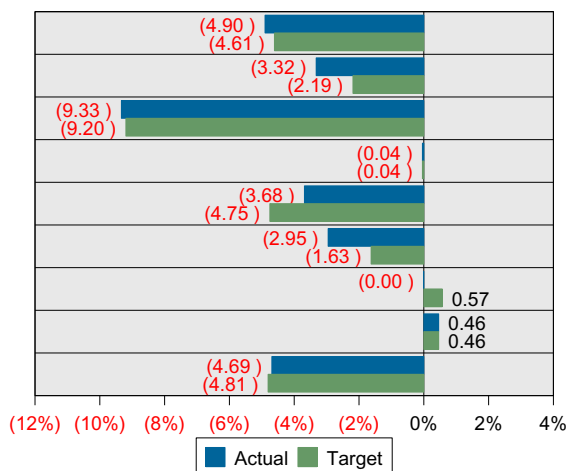
Quarterly Total Fund Relative Attribution - September 30, 2022

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.

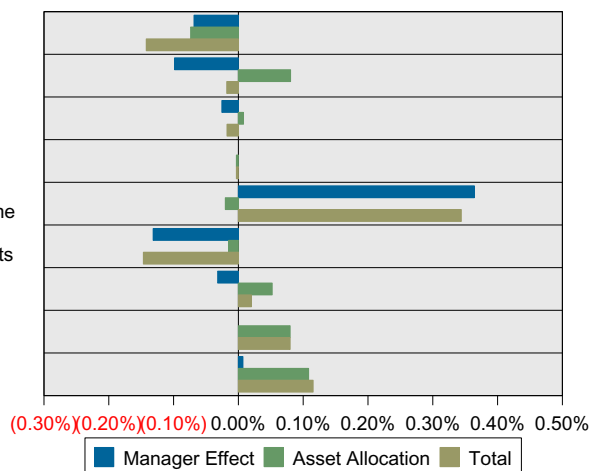
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended September 30, 2022

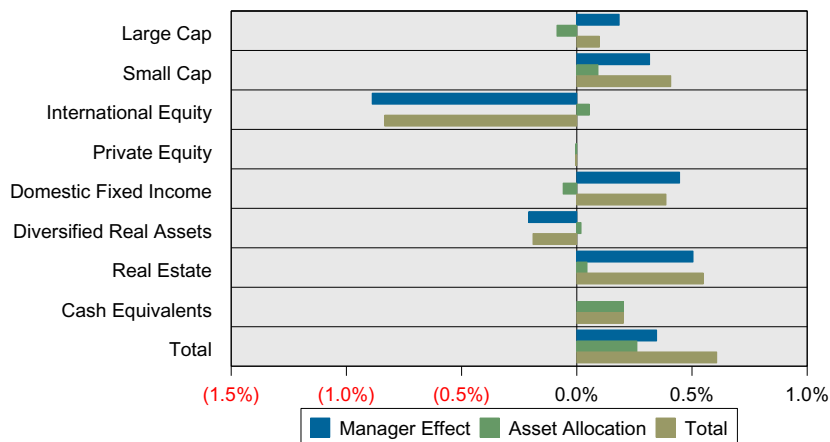
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	24%	25%	(4.90%)	(4.61%)	(0.07%)	(0.07%)	(0.14%)
Small Cap	5%	4%	(3.32%)	(2.19%)	(0.10%)	0.08%	(0.02%)
International Equity	20%	20%	(9.33%)	(9.20%)	(0.03%)	0.01%	(0.02%)
Private Equity	1%	1%	(0.04%)	(0.04%)	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	34%	35%	(3.68%)	(4.75%)	0.36%	(0.02%)	0.34%
Diversified Real Assets	10%	10%	(2.95%)	(1.63%)	(0.13%)	(0.02%)	(0.15%)
Real Estate	6%	5%	(0.00%)	0.57%	(0.03%)	0.05%	0.02%
Cash & Equivalents	1%	0%	0.46%	0.46%	0.00%	0.08%	0.08%
Total			(4.69%)	(4.81%)	+ 0.01%	+ 0.11%	0.12%

* Current Quarter Target = 35.0% Blmbg Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

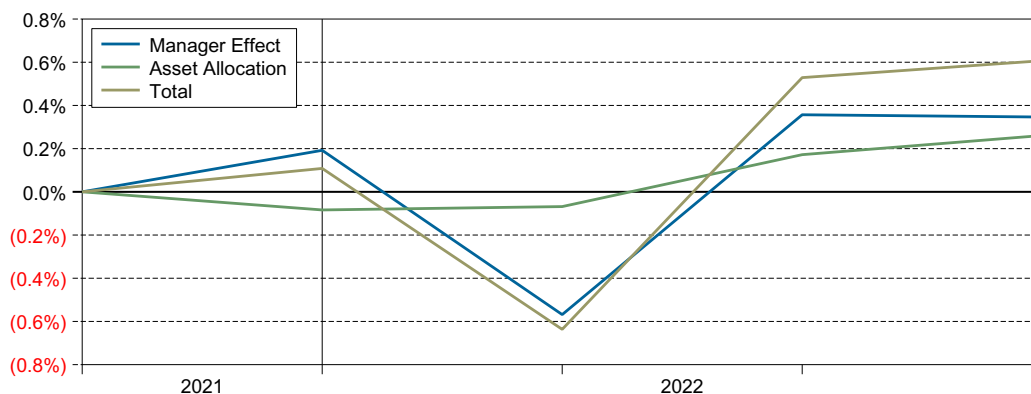
Cumulative Total Fund Relative Attribution - September 30, 2022

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

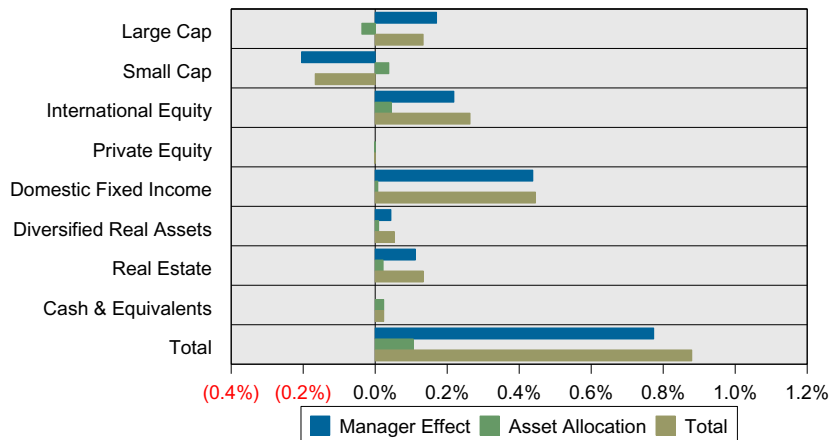
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	23%	(16.34%)	(17.22%)	0.18%	(0.09%)	0.10%
Small Cap	7%	7%	(19.44%)	(23.50%)	0.32%	0.09%	0.41%
International Equity	19%	20%	(28.01%)	(23.91%)	(0.89%)	0.05%	(0.83%)
Private Equity	0%	0%	3.41%	3.41%	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	(13.27%)	(14.60%)	0.45%	(0.06%)	0.39%
Diversified Real Assets	10%	10%	(2.56%)	(0.15%)	(0.21%)	0.02%	(0.19%)
Real Estate	5%	5%	29.96%	16.08%	0.50%	0.04%	0.55%
Cash Equivalents	1%	0%	0.60%	0.60%	0.00%	0.20%	0.20%
Total			(14.27%)	(14.88%)	+ 0.35%	+ 0.26%	0.61%

* Current Quarter Target = 35.0% Blmgb Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

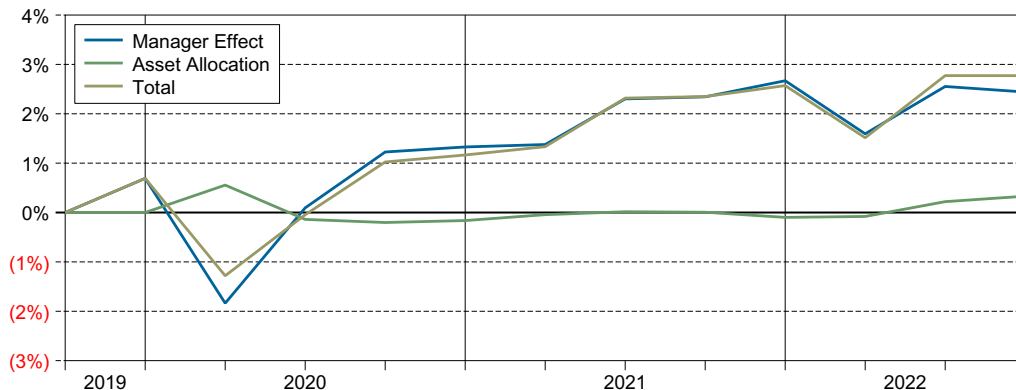
Cumulative Total Fund Relative Attribution - September 30, 2022

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

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

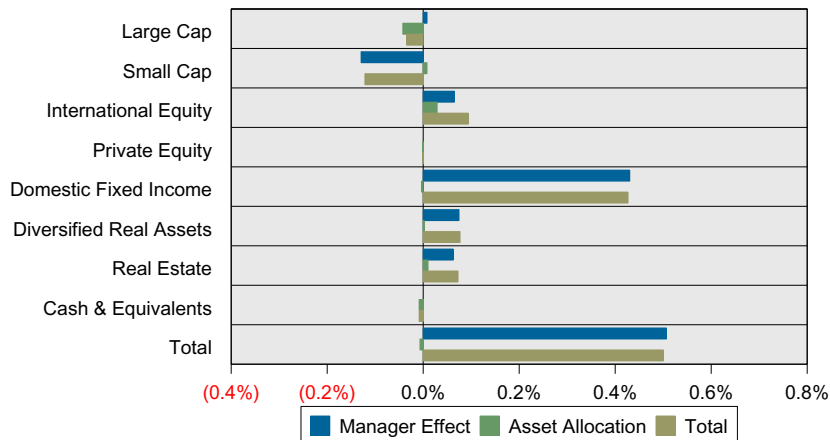
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	8.71%	7.95%	0.17%	(0.04%)	0.13%
Small Cap	8%	8%	2.29%	4.29%	(0.20%)	0.04%	(0.17%)
International Equity	20%	20%	(0.29%)	(1.21%)	0.22%	0.04%	0.26%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	(1.84%)	(3.26%)	0.44%	0.01%	0.45%
Diversified Real Assets	10%	10%	4.97%	4.40%	0.04%	0.01%	0.05%
Real Estate	5%	5%	11.87%	9.91%	0.11%	0.02%	0.13%
Cash & Equivalents	1%	0%	0.49%	0.49%	0.00%	0.02%	0.02%
Total			2.94%	2.06%	0.77%	0.11%	0.88%

* Current Quarter Target = 35.0% Blmgb Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

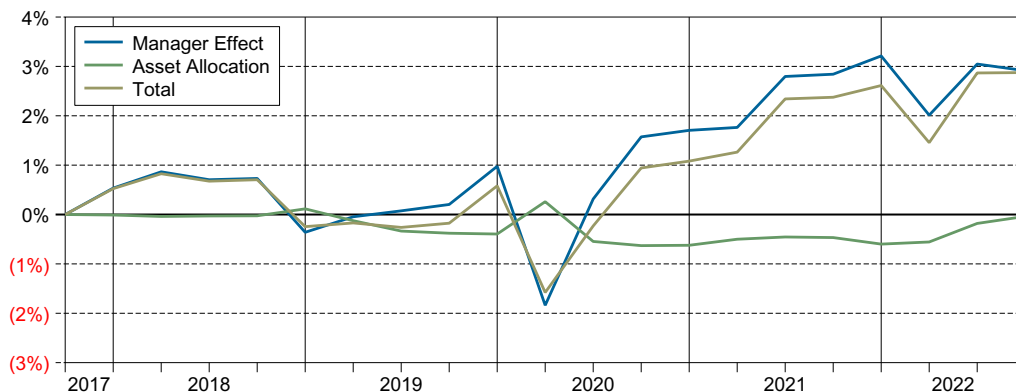
Cumulative Total Fund Relative Attribution - September 30, 2022

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

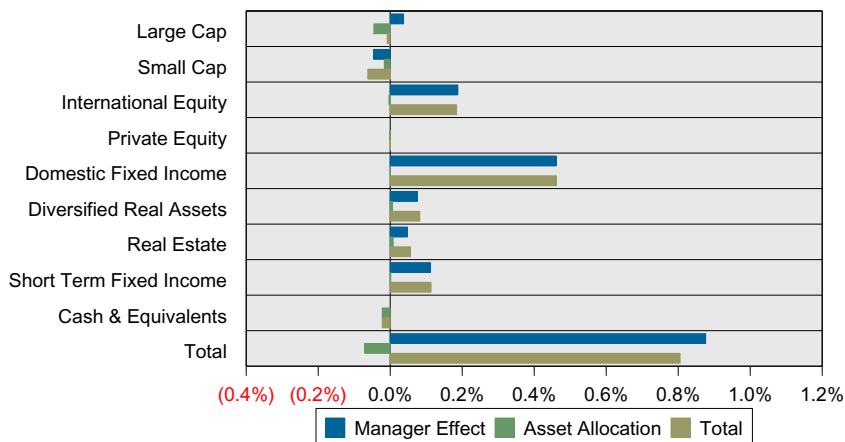
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	9.00%	9.00%	0.01%	(0.04%)	(0.03%)
Small Cap	8%	8%	2.30%	3.55%	(0.13%)	0.01%	(0.12%)
International Equity	20%	20%	(0.22%)	(0.39%)	0.06%	0.03%	0.09%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	35%	35%	1.09%	(0.27%)	0.43%	(0.00%)	0.43%
Diversified Real Assets	10%	10%	4.90%	4.05%	0.07%	0.00%	0.08%
Real Estate	5%	5%	9.63%	8.62%	0.06%	0.01%	0.07%
Cash & Equivalents	1%	0%	1.02%	1.02%	0.00%	(0.01%)	(0.01%)
Total			3.80%	3.30%	0.51%	(0.01%)	0.50%

* Current Quarter Target = 35.0% Blmgb Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

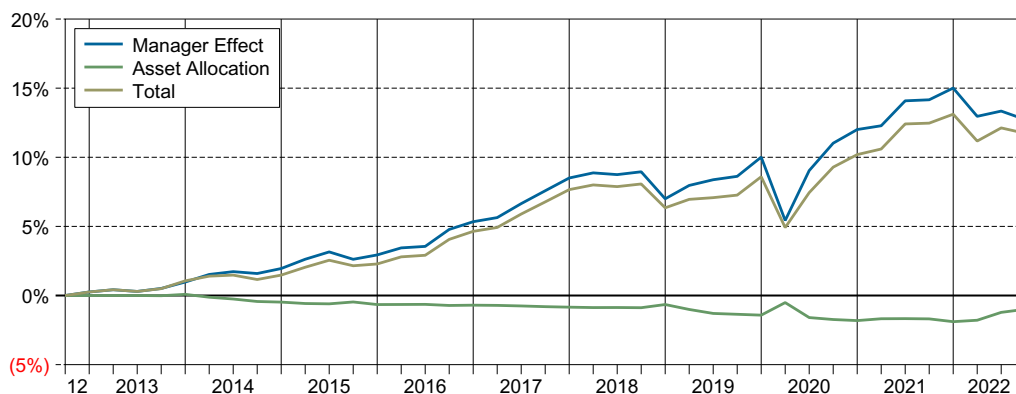
Cumulative Total Fund Relative Attribution - September 30, 2022

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

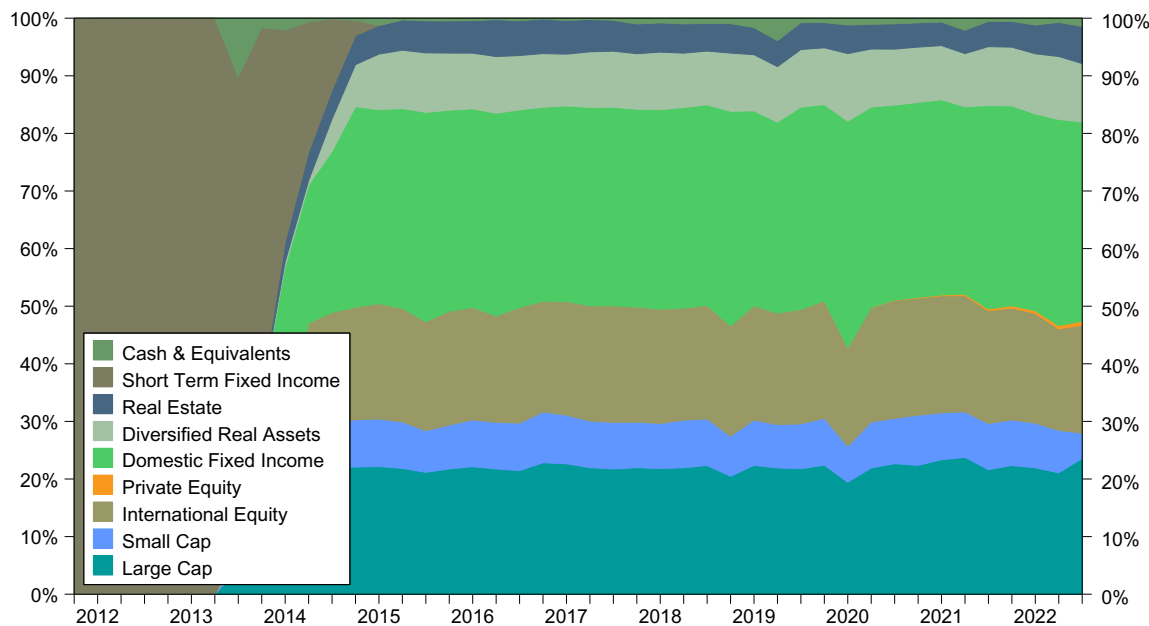
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	19%	19%	-	-	0.04%	(0.05%)	(0.01%)
Small Cap	7%	7%	-	-	(0.05%)	(0.02%)	(0.06%)
International Equity	17%	17%	-	-	0.19%	(0.00%)	0.18%
Private Equity	0%	0%	-	-	0.00%	(0.00%)	(0.00%)
Domestic Fixed Income	30%	30%	-	-	0.46%	0.00%	0.46%
Diversified Real Assets	8%	8%	-	-	0.08%	0.01%	0.08%
Real Estate	4%	4%	-	-	0.05%	0.01%	0.06%
Short Term Fixed Income	14%	14%	-	-	0.11%	0.00%	0.11%
Cash & Equivalents	1%	0%	0.61%	0.61%	0.00%	(0.02%)	(0.02%)
Total			4.67%	3.87%	+ 0.88%	+ (0.07%)	0.81%

* Current Quarter Target = 35.0% Blmgb Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

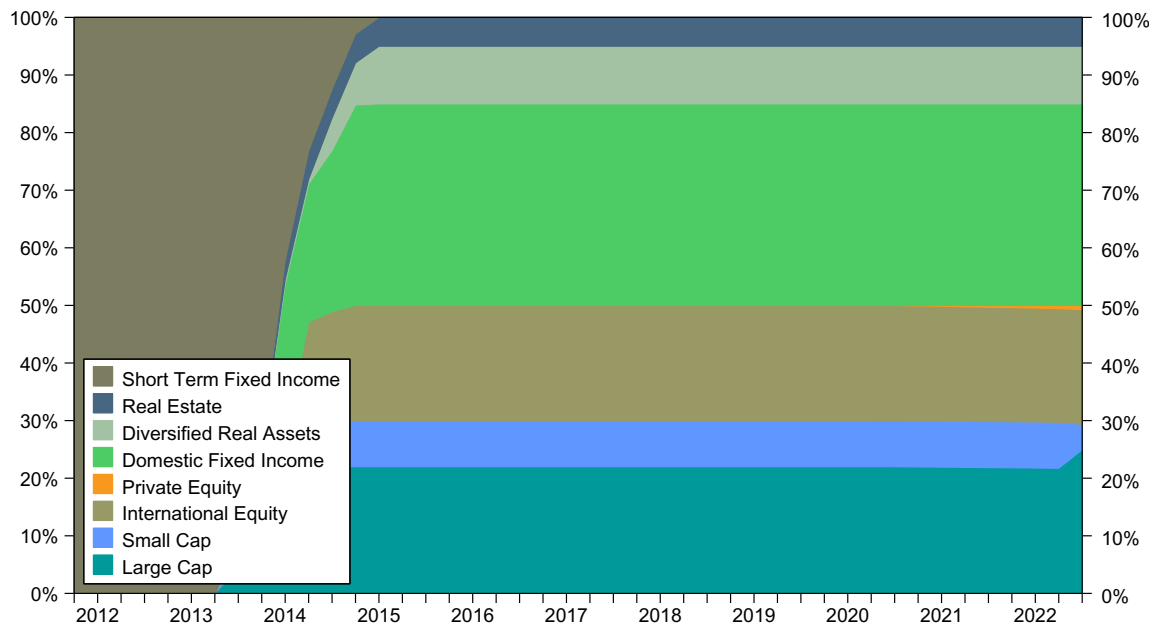
Actual vs Target Historical Asset Allocation

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

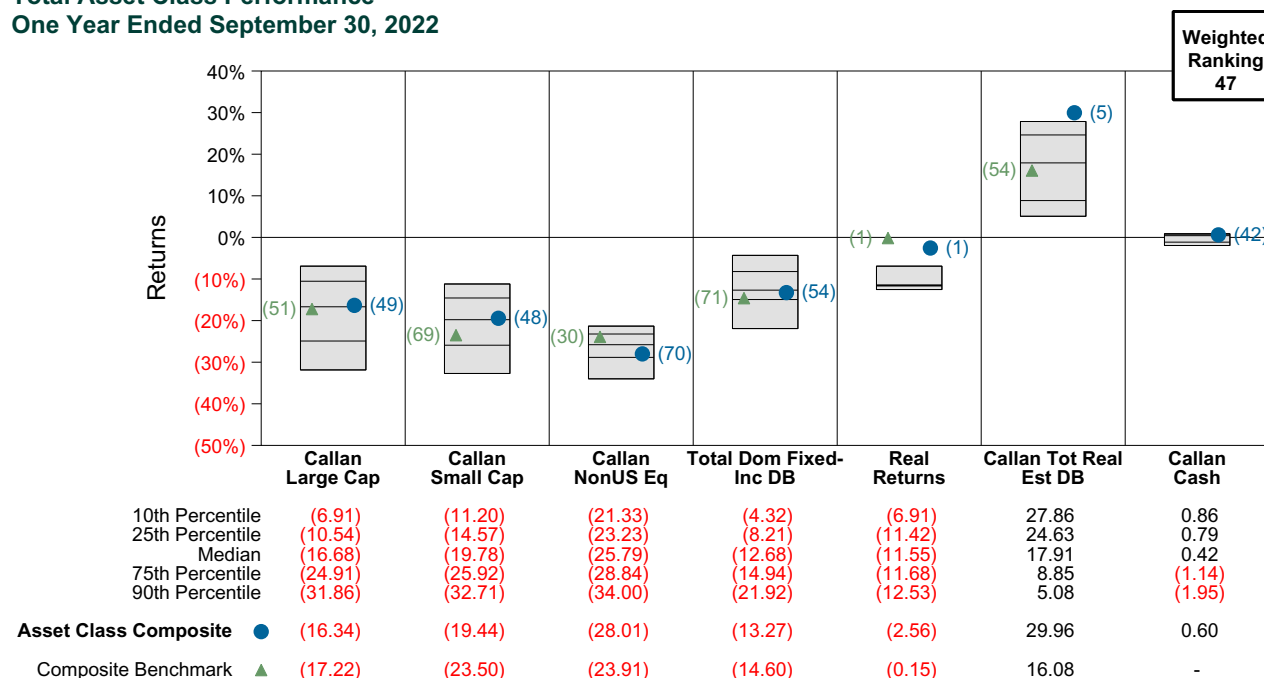


* Current Quarter Target = 35.0% Blmbg Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

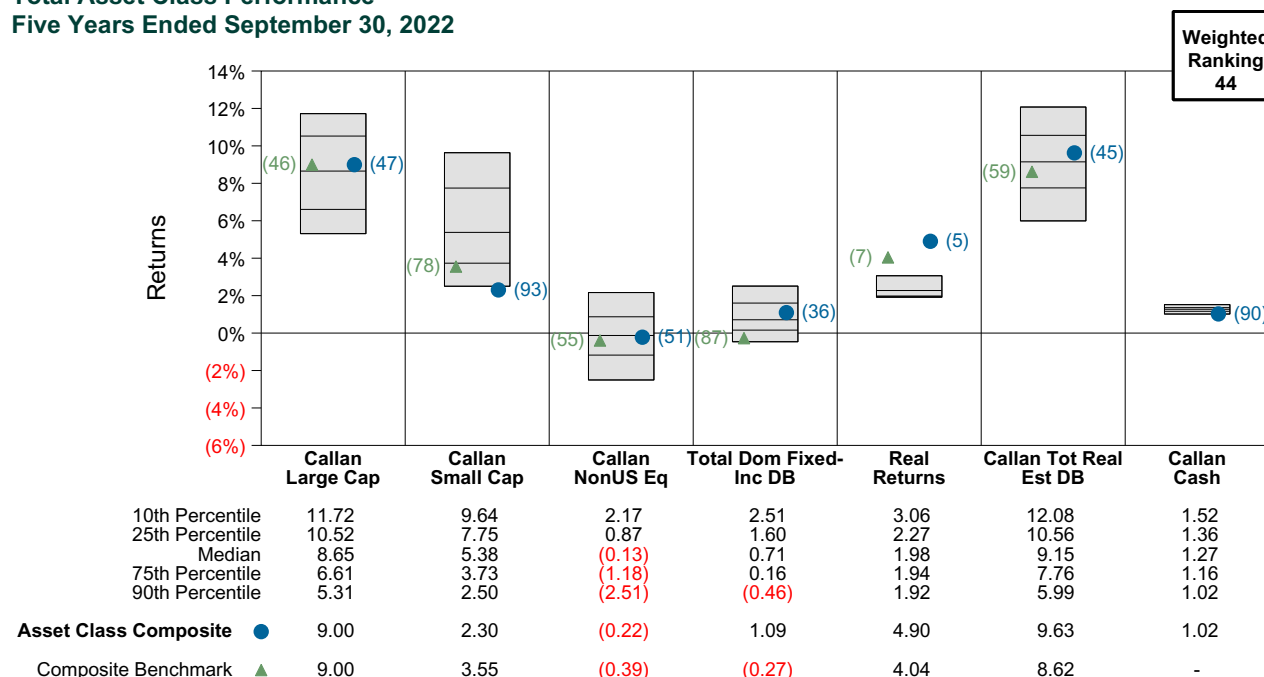
Asset Class Rankings

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 September 30, 2022



Total Asset Class Performance Five Years Ended September 30, 2022



* Current Quarter Target = 35.0% Blmbg Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% Private Equity.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2022, with the distribution as of June 30, 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

	September 30, 2022				June 30, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Equity	\$3,707,059,368	47.41%	\$264,463,625	\$(263,032,093)	\$3,705,627,836	46.62%
Domestic Equity	\$2,186,041,079	27.96%	\$40,300,912	\$(115,412,601)	\$2,261,152,768	28.45%
Large Cap	\$1,843,839,346	23.58%	\$275,293,080	\$(105,678,509)	\$1,674,224,775	21.06%
L.A. Capital Enhanced	398,842,951	5.10%	70,888,360	(19,975,515)	347,930,107	4.38%
L.A. Capital Large Cap Growth	552,510,609	7.07%	70,743,548	(25,806,799)	507,573,860	6.39%
Parametric Large Cap	442,460,333	5.66%	134,000,000	(27,869,618)	336,329,951	4.23%
LSV Large Cap Value	450,025,453	5.76%	(338,828)	(32,026,577)	482,390,858	6.07%
Small Cap	\$342,201,733	4.38%	\$(234,992,168)	\$(9,734,092)	\$586,927,992	7.38%
Atlanta Capital	116,818,043	1.49%	(82,319,912)	(6,976,353)	206,114,308	2.59%
Riverbridge Small Cap Growth	116,692,361	1.49%	(64,352,583)	1,280,814	179,764,130	2.26%
Sycamore Small Cap Value	108,691,329	1.39%	(88,319,673)	(4,038,553)	201,049,555	2.53%
International Equity	\$1,464,402,999	18.73%	\$212,036,691	\$(147,599,161)	\$1,399,965,469	17.61%
Arrowstreet ACWI ex US	398,413,197	5.10%	88,328,606	(36,796,016)	346,880,607	4.36%
DFA Intl SmallCap Value	135,665,567	1.74%	0	(15,224,494)	150,890,061	1.90%
LSV Intl Value	365,014,990	4.67%	(394,745)	(42,578,714)	407,988,449	5.13%
Vanguard Intl Explorer Fund	108,431,670	1.39%	0	(12,047,963)	120,479,633	1.52%
William Blair	456,877,575	5.84%	124,102,830	(40,951,973)	373,726,718	4.70%
Private Equity	\$56,615,290	0.72%	\$12,126,022	\$(20,331)	\$44,509,599	0.56%
50 South Capital	9,738,226	0.12%	4,990,000	(20,331)	4,768,557	0.06%
Sixth Street TAO	46,877,064	0.60%	7,136,022	0	39,741,042	0.50%
Domestic Fixed Income	\$2,704,595,783	34.59%	\$(36,894,523)	\$(104,298,621)	\$2,845,788,928	35.80%
Allspring BBB	198,725,774	2.54%	(100,562)	(9,840,253)	208,666,590	2.63%
Ares ND Credit Strategies Fd	109,568,248	1.40%	0	0	109,568,248	1.38%
BND CDs	191,427,493	2.45%	(3,010,262)	1,429,027	193,008,728	2.43%
Cerberus ND Private Credit Fd	136,380,574	1.74%	0	1,759,431	134,621,143	1.69%
Manulife-Declaration TRBF	213,209,053	2.73%	(140,257)	(3,479,066)	216,828,376	2.73%
PIMCO Bravo II	3,610,617	0.05%	0	0	3,610,617	0.05%
PIMCO DiSCO II	54,498,158	0.70%	0	29,247	54,468,911	0.69%
Prudential	720,588,453	9.22%	(17,408,172)	(34,309,615)	772,306,239	9.72%
SSgA US Govt Credit Bd Idx	366,331,093	4.69%	(14,407)	(17,482,077)	383,827,577	4.83%
Western Asset Management	710,256,321	9.08%	(16,220,863)	(42,405,316)	768,882,500	9.67%
Global Real Assets	\$1,296,527,034	16.58%	\$(19,723,450)	\$(23,735,038)	\$1,339,985,522	16.86%
Real Estate	\$504,613,462	6.45%	\$33,126,589	\$(242)	\$471,487,116	5.93%
Invesco Core Real Estate	235,260,867	3.01%	0	(245)	235,261,113	2.96%
Invesco RE Fund VI	33,126,592	0.42%	33,126,592	0	-	-
JP Morgan RE Inc & Growth	236,226,003	3.02%	(3)	3	236,226,003	2.97%
Diversified	\$791,913,572	10.13%	\$(52,850,039)	\$(23,734,796)	\$868,498,407	10.93%
Western Asset TIPS	365,258,182	4.67%	(59,129,597)	(20,956,039)	445,343,817	5.60%
ISQ Global Infrastructure II	82,560,248	1.06%	3,533,464	(519,976)	79,546,760	1.00%
ISQ Global Infrastructure III	6,770,766	0.09%	2,796,644	(1,660,825)	5,634,947	0.07%
JP Morgan IIF Infrastructure	100,609,245	1.29%	(1,742,592)	(10)	102,351,847	1.29%
Grosvenor CIS Fund II	56,075,825	0.72%	(659,201)	(61,554)	56,796,580	0.71%
Grosvenor CIS Fund III	21,910,155	0.28%	0	0	21,910,155	0.28%
Macquarie Infrastructure Fund IV	89,016,636	1.14%	2,408,724	(593,873)	87,201,785	1.10%
Macquarie Infrastructure Fund V	69,712,515	0.89%	(57,481)	57,481	69,712,515	0.88%
Cash	\$111,036,872	1.42%	\$53,613,632	\$344,867	\$57,078,373	0.72%
Northern Trust Cash Account	65,610,761	0.84%	30,603,373	208,192	34,799,196	0.44%
Bank of ND	45,426,112	0.58%	23,010,259	136,675	22,279,177	0.28%
Total Fund	\$7,819,219,057	100.0%	\$261,459,283	\$(390,720,884)	\$7,948,480,659	100.0%

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended September 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 September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Equity					
Gross	(6.54%)	(21.49%)	4.14%	-	-
Net	(6.60%)	(21.71%)	3.85%	-	-
Weighted Benchmark	(6.15%)	(20.79%)	3.78%	-	-
Domestic Equity					
Gross	(4.87%)	(17.52%)	6.86%	7.13%	-
Net	(4.94%)	(17.77%)	6.57%	6.88%	-
Weighted Benchmark	(4.25%)	(19.14%)	6.97%	-	-
Large Cap					
Gross	(4.90%)	(16.34%)	8.71%	9.00%	-
Net	(4.93%)	(16.48%)	8.52%	8.81%	-
Russell 1000 Index	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
L.A. Capital Enhanced - Gross	(3.97%)	(14.90%)	9.40%	9.73%	-
L.A. Capital Enhanced - Net	(3.99%)	(15.00%)	9.27%	9.60%	-
Russell 1000 Index	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
L.A. Capital LargeCap Growth - Gross	(3.96%)	(20.83%)	11.74%	12.38%	-
L.A. Capital LargeCap Growth - Net	(3.99%)	(20.99%)	11.52%	12.16%	-
Russell 1000 Growth Index	(3.60%)	(22.59%)	10.67%	12.17%	13.70%
Parametric Clifton Large Cap - Gross	(4.84%)	(17.04%)	7.64%	8.91%	-
Parametric Clifton Large Cap - Net	(4.84%)	(17.04%)	7.54%	8.85%	-
S&P 500 Index	(4.88%)	(15.47%)	8.16%	9.24%	11.70%
LSV Large Cap Value - Gross	(6.65%)	(12.37%)	4.73%	4.42%	-
LSV Large Cap Value - Net	(6.71%)	(12.61%)	4.44%	4.13%	-
Russell 1000 Value Index	(5.62%)	(11.36%)	4.36%	5.29%	9.17%
Small Cap					
Gross	(3.32%)	(19.44%)	2.29%	2.30%	-
Net	(3.57%)	(20.05%)	1.69%	1.90%	-
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%	8.55%
Atlanta Capital - Gross	(5.65%)	(10.45%)	-	-	-
Atlanta Capital - Net	(5.89%)	(11.07%)	-	-	-
S&P 600 Small Cap Index	(5.20%)	(18.83%)	5.48%	4.84%	10.09%
Riverbridge Small Cap Growth - Gross	(0.35%)	(36.19%)	-	-	-
Riverbridge Small Cap Growth - Net	(0.62%)	(36.74%)	-	-	-
Russell 2000 Growth Index	0.24%	(29.27%)	2.94%	3.60%	8.81%
Sycamore Small Cap Value - Gross	(3.34%)	(9.29%)	-	-	-
Sycamore Small Cap Value - Net	(3.59%)	(9.93%)	-	-	-
Russell 2000 Value Index	(4.61%)	(17.69%)	4.72%	2.87%	7.94%
International Equity					
Gross	(9.33%)	(28.01%)	(0.29%)	(0.22%)	-
Net	(9.39%)	(28.20%)	(0.57%)	(0.51%)	-
Benchmark(1)	(9.20%)	(23.91%)	(1.21%)	(0.39%)	3.85%
Arrowstreet ACWI ex US - Gross	(9.37%)	-	-	-	-
Arrowstreet ACWI ex US - Net	(9.40%)	-	-	-	-
MSCI ACWI ex US IMI	(9.69%)	(25.72%)	(1.27%)	(0.78%)	3.19%
DFA Intl Small Cap Value	(10.09%)	(22.89%)	(0.40%)	(3.17%)	-
World ex US SC Va	(10.09%)	(25.84%)	(1.65%)	(2.03%)	4.42%
LSV Intl Value - Gross	(10.45%)	(20.67%)	(1.75%)	(2.33%)	-
LSV Intl Value - Net	(10.53%)	(21.00%)	(2.14%)	(2.71%)	-
MSCI EAFE Index	(9.36%)	(25.13%)	(1.83%)	(0.84%)	3.67%
Vanguard Intl Explorer Fund	(10.00%)	(37.35%)	(4.12%)	(4.82%)	-
BMI, EPAC, <\$2 B	(9.41%)	(32.51%)	(1.68%)	(2.52%)	4.34%
William Blair - Gross	(7.62%)	(34.56%)	0.13%	2.44%	-
William Blair - Net	(7.68%)	(34.81%)	(0.24%)	2.06%	-
MSCI ACWI ex US IMI	(9.69%)	(25.72%)	(1.27%)	(0.78%)	3.19%
Private Equity					
Net	(0.04%)	3.41%	-	-	-
50 South Capital - Net	(0.33%)	(23.94%)	-	-	-
Sixth Street TAO - Net	0.00%	7.43%	-	-	-
Benchmark(2)	0.30%	(8.61%)	-	-	-

(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 September 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 September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Fixed Income					
Gross	(3.68%)	(13.27%)	(1.84%)	1.09%	-
Net	(3.71%)	(13.37%)	(1.95%)	0.98%	-
Blmbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Allspring BBB - Gross	(4.72%)	(19.09%)	(2.20%)	1.15%	-
Allspring BBB - Net	(4.76%)	(19.24%)	(2.38%)	0.97%	-
Blmbg Credit Baa	(4.85%)	(19.05%)	(3.66%)	0.13%	1.92%
Ares ND Credit Strategies Fd - Net	0.00%	8.90%	7.94%	7.37%	-
Cerberus ND Private Credit Fd - Net	1.31%	7.04%	9.19%	9.74%	-
S&P/LSTA Leveraged Loan B	1.18%	(2.94%)	2.39%	3.15%	3.69%
BND CDs - Net	0.75%	2.76%	2.68%	2.92%	-
Manulife-Declaration TRBF - Net	(1.61%)	(7.44%)	0.30%	2.21%	-
Libor-3 Month	0.69%	1.15%	0.85%	1.43%	0.97%
PIMCO Bravo II - Net(1)	0.00%	(0.57%)	1.54%	2.73%	-
PIMCO DiSCO II - Net (1)	0.05%	(0.18%)	4.03%	4.87%	-
Blmbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Prudential - Gross	(4.49%)	(16.19%)	(3.01%)	0.42%	-
Prudential - Net	(4.54%)	(16.37%)	(3.21%)	0.21%	-
Blmbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Western Asset - Gross	(5.59%)	(17.63%)	(4.02%)	(0.29%)	-
Western Asset - Net	(5.61%)	(17.72%)	(4.13%)	(0.40%)	-
Blmbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
SSgA US Govt Credit Bd Idx - Gross	(4.55%)	(14.91%)	(3.05%)	0.03%	-
SSgA US Govt Credit Bd Idx - Net	(4.56%)	(14.92%)	(3.06%)	0.01%	-
Blmbg Govt/Credit Bd	(4.56%)	(14.95%)	(3.15%)	(0.05%)	1.02%

(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 September 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 September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Real Assets					
Gross	(1.85%)	7.13%	7.26%	-	-
Net	(1.86%)	6.88%	6.98%	-	-
Weighted Benchmark	(0.88%)	5.03%	6.23%	-	-
Real Estate					
Gross	(0.00%)	29.96%	11.87%	9.63%	-
Net	0.01%	29.41%	11.37%	9.11%	-
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
Invesco Core Real Estate - Gross	(0.00%)	27.19%	11.58%	9.68%	-
Invesco Core Real Estate - Net	(0.00%)	26.79%	11.22%	9.33%	-
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
JP Morgan RE Inc & Growth - Gross	0.00%	32.84%	12.16%	9.58%	-
JP Morgan RE Inc & Growth - Net	0.03%	32.12%	11.53%	8.90%	-
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
Diversified					
Gross	(2.95%)	(2.56%)	4.97%	4.90%	-
Net	(2.96%)	(2.70%)	4.79%	4.70%	-
Weighted Benchmark	(1.63%)	(0.15%)	4.39%	4.04%	-
Western Asset TIPS - Gross	(5.58%)	(13.06%)	0.29%	1.37%	-
Western Asset TIPS - Net	(5.61%)	(13.16%)	0.17%	1.25%	-
Benchmark(3)	(5.26%)	(12.26%)	0.64%	1.81%	1.61%
JP Morgan IIF Infrastructure - Gross	(0.00%)	0.58%	5.91%	7.25%	-
JP Morgan IIF Infrastructure - Net	0.03%	(0.03%)	5.15%	6.51%	-
Grosvenor CIS Fund II - Net	(0.11%)	10.81%	13.47%	12.89%	-
Grosvenor CIS Fund III - Net	0.00%	-	-	-	-
Benchmark(1)	1.91%	15.24%	8.51%	6.49%	3.76%
ISQ Global Infrastructure II - Net	(0.64%)	13.00%	13.15%	-	-
ISQ Global Infrastructure III - Net	(27.83%)	-	-	-	-
Macquarie Infrastructure Fd IV - Net	(0.67%)	20.64%	15.12%	-	-
Macquarie Infrastructure Fd V - Net	0.08%	28.66%	-	-	-
Benchmark(2)	1.91%	15.24%	8.51%	-	-
Cash & Equivalents - Net	0.46%	0.60%	0.49%	1.02%	0.61%
NT Cash Account - Net	0.42%	0.53%	0.43%	-	-
Bank of ND - Net	0.53%	0.74%	0.60%	-	-
90 Day Treasury Bills	0.46%	0.62%	0.59%	1.15%	0.68%
Total Fund					
Gross	(4.69%)	(14.27%)	2.94%	3.80%	4.67%
Net	(4.73%)	(14.46%)	2.72%	3.59%	4.46%
Target*	(4.81%)	(14.88%)	2.06%	3.30%	3.87%

* Current Quarter Target = 35.0% Blmbg Aggregate, 25.0% Russell 1000 Index, 19.9% MSCI World xUS, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.4% Russell 2000 Index and 0.7% 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 September 30, 2022

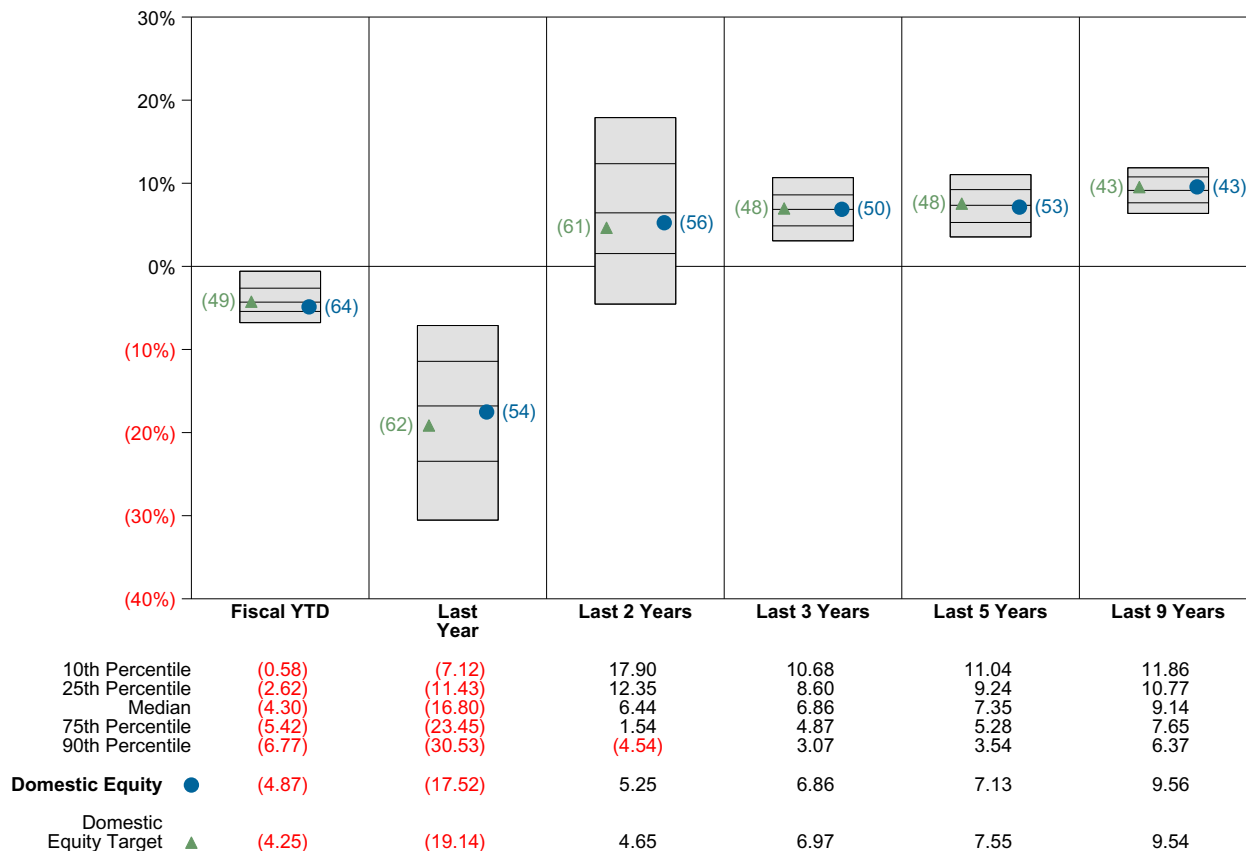
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a (4.87)% return for the quarter placing it in the 64 percentile of the Total Domestic Equity Database group for the quarter and in the 54 percentile for the last year.
- Domestic Equity's portfolio underperformed the Domestic Equity Target by 0.63% for the quarter and outperformed the Domestic Equity Target for the year by 1.62%.

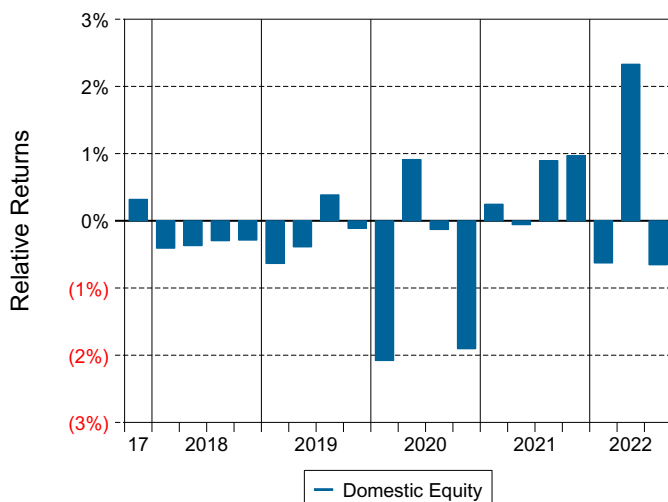
Quarterly Asset Growth

Beginning Market Value	\$2,261,152,768
Net New Investment	\$40,300,912
Investment Gains/(Losses)	\$-115,412,601
Ending Market Value	\$2,186,041,079

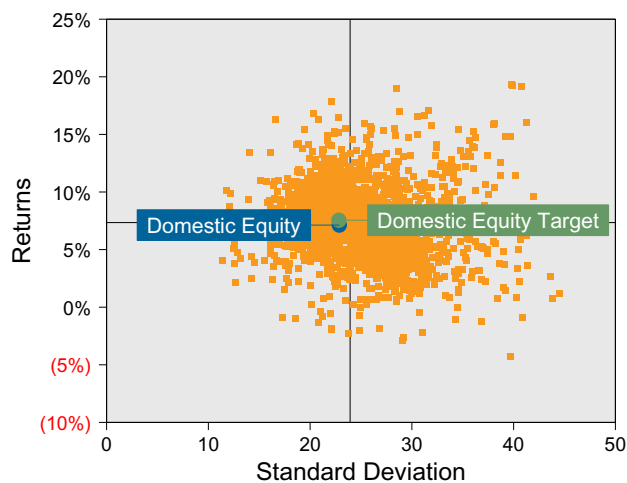
Performance vs Total Domestic Equity Database (Gross)



Relative Return vs Domestic Equity Target



Total Domestic Equity Database (Gross) Annualized Five Year Risk vs Return



Parametric Large Cap Period Ended September 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.

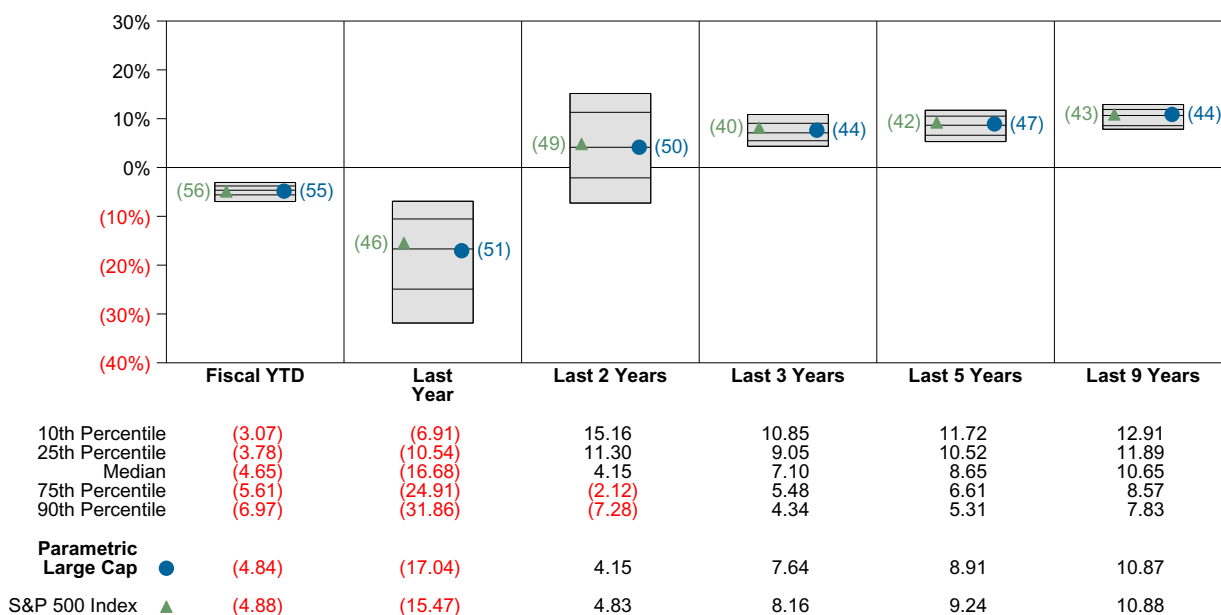
Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a (4.84)% return for the quarter placing it in the 55 percentile of the Callan Large Capitalization group for the quarter and in the 51 percentile for the last year.
- Parametric Large Cap's portfolio outperformed the S&P 500 Index by 0.04% for the quarter and underperformed the S&P 500 Index for the year by 1.57%.

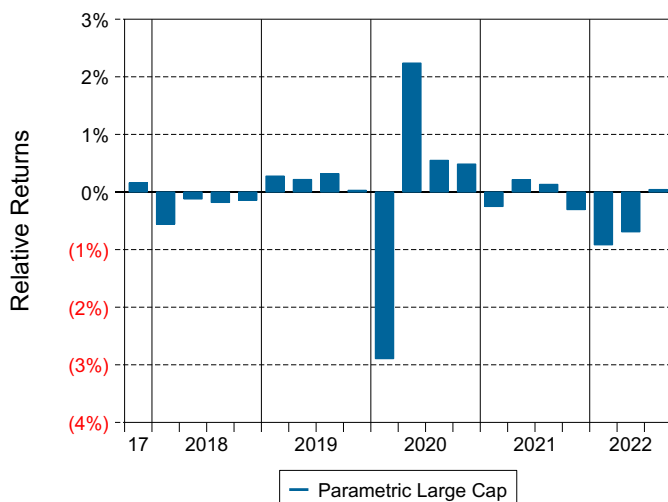
Quarterly Asset Growth

Beginning Market Value	\$336,329,951
Net New Investment	\$134,000,000
Investment Gains/(Losses)	\$-27,869,618
Ending Market Value	\$442,460,333

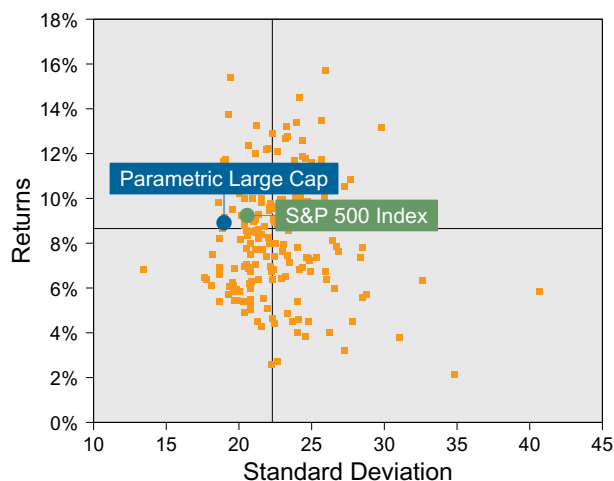
Performance vs Callan Large Capitalization (Gross)



Relative Return vs S&P 500 Index



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



L.A. Capital Period Ended September 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.

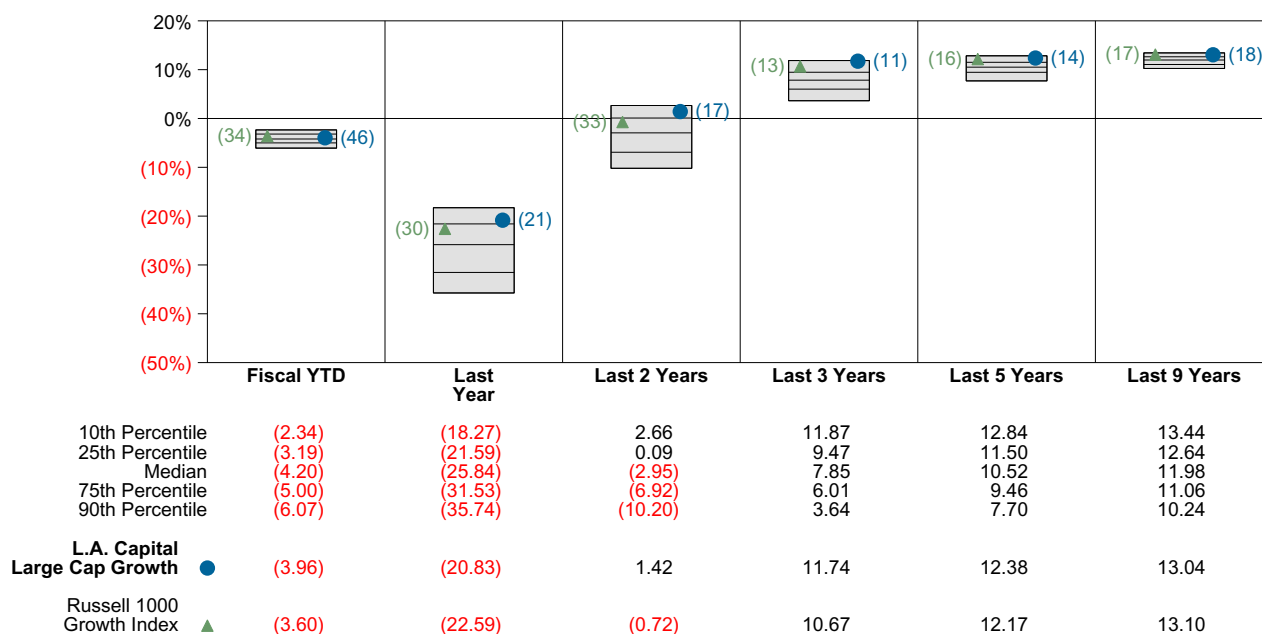
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a (3.96)% return for the quarter placing it in the 46 percentile of the Callan Large Cap Growth group for the quarter and in the 21 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio underperformed the Russell 1000 Growth Index by 0.36% for the quarter and outperformed the Russell 1000 Growth Index for the year by 1.76%.

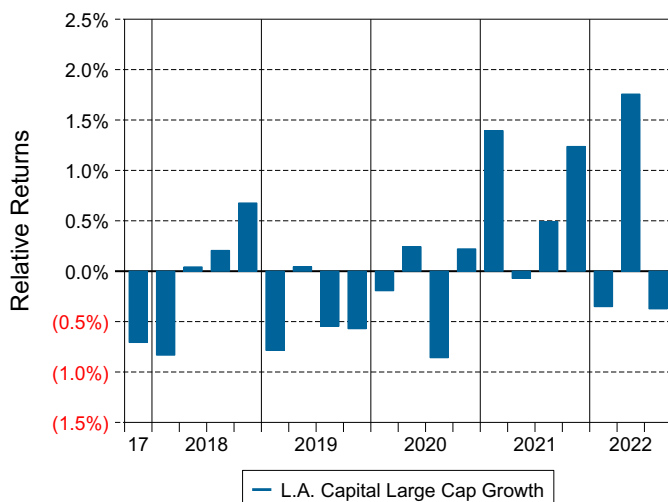
Quarterly Asset Growth

Beginning Market Value	\$507,573,860
Net New Investment	\$70,743,548
Investment Gains/(Losses)	\$-25,806,799
Ending Market Value	\$552,510,609

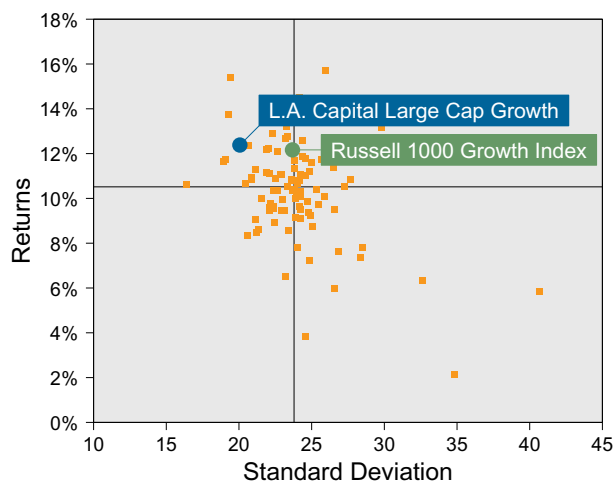
Performance vs Callan Large Cap Growth (Gross)



Relative Return vs Russell 1000 Growth Index



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



L.A. Capital Enhanced Period Ended September 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.

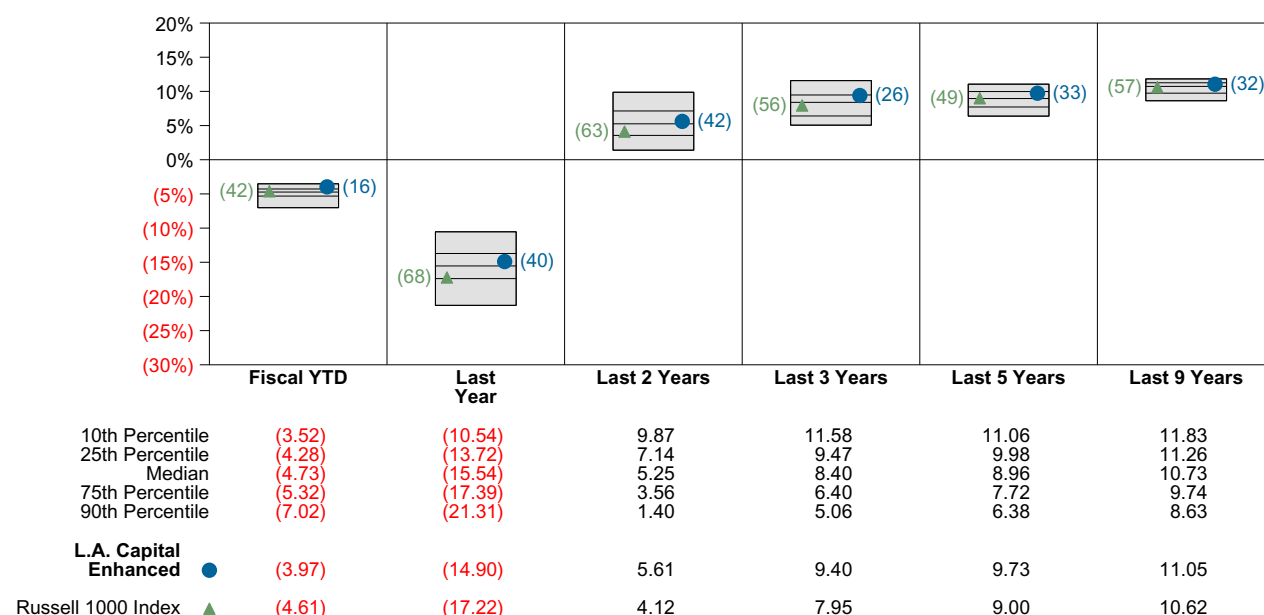
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (3.97)% return for the quarter placing it in the 16 percentile of the Callan Large Cap Core group for the quarter and in the 40 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 0.64% for the quarter and outperformed the Russell 1000 Index for the year by 2.32%.

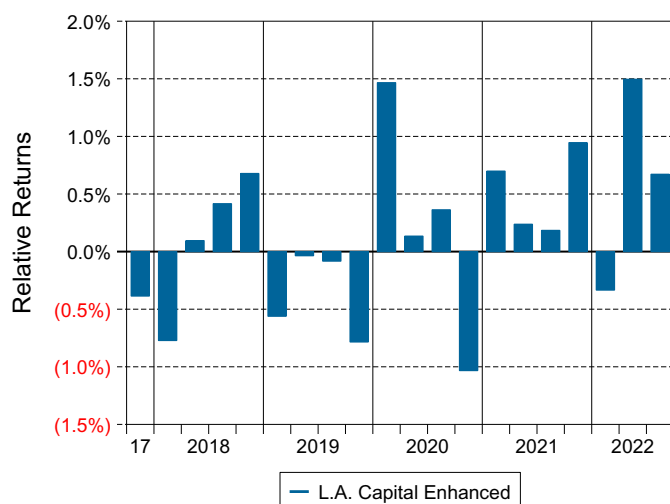
Quarterly Asset Growth

Beginning Market Value	\$347,930,107
Net New Investment	\$70,888,360
Investment Gains/(Losses)	\$-19,975,515
Ending Market Value	\$398,842,951

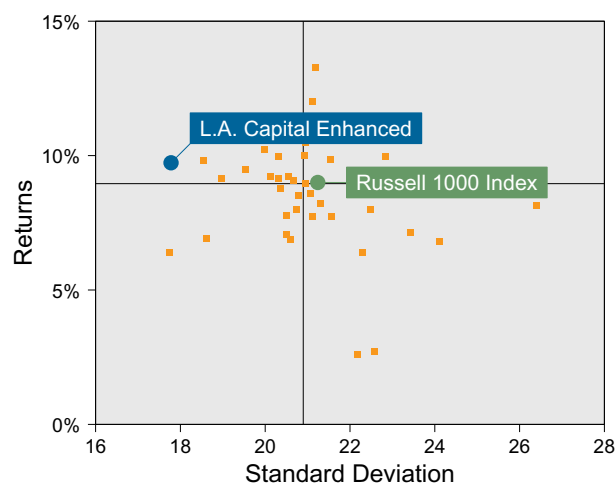
Performance vs Callan Large Cap Core (Gross)



Relative Return vs Russell 1000 Index



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



LSV Asset Management Period Ended September 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.

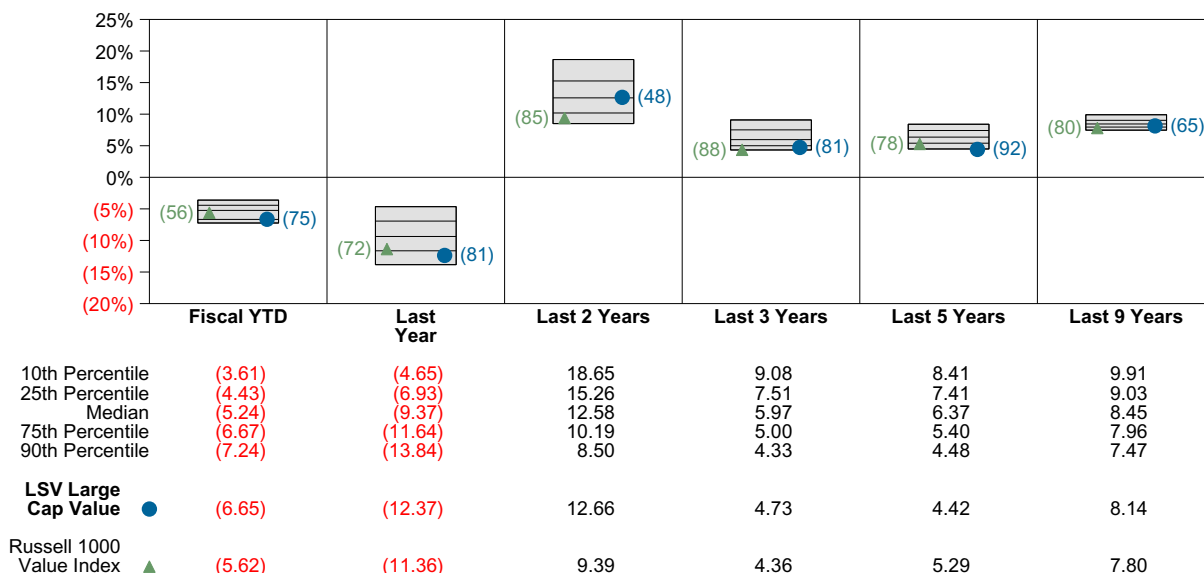
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a (6.65)% return for the quarter placing it in the 75 percentile of the Callan Large Cap Value group for the quarter and in the 81 percentile for the last year.
- LSV Large Cap Value's portfolio underperformed the Russell 1000 Value Index by 1.03% for the quarter and underperformed the Russell 1000 Value Index for the year by 1.01%.

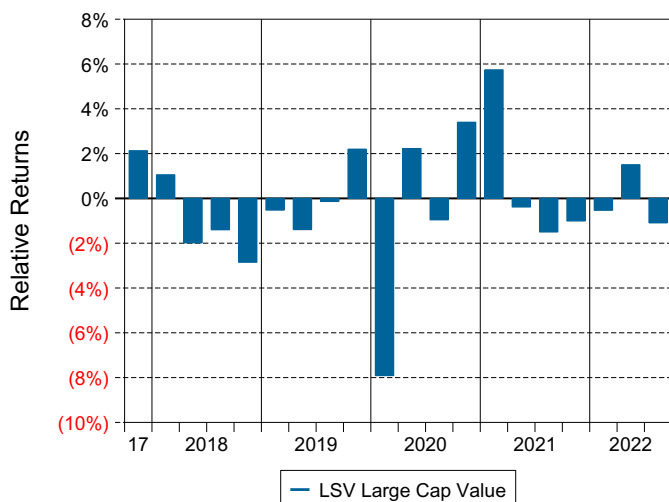
Quarterly Asset Growth

Beginning Market Value	\$482,390,858
Net New Investment	\$-338,828
Investment Gains/(Losses)	\$-32,026,577
Ending Market Value	\$450,025,453

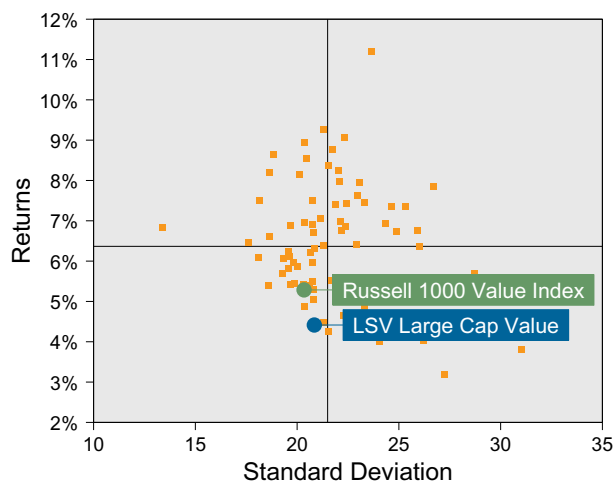
Performance vs Callan Large Cap Value (Gross)



Relative Return vs Russell 1000 Value Index



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



Atlanta Capital

Period Ended September 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.

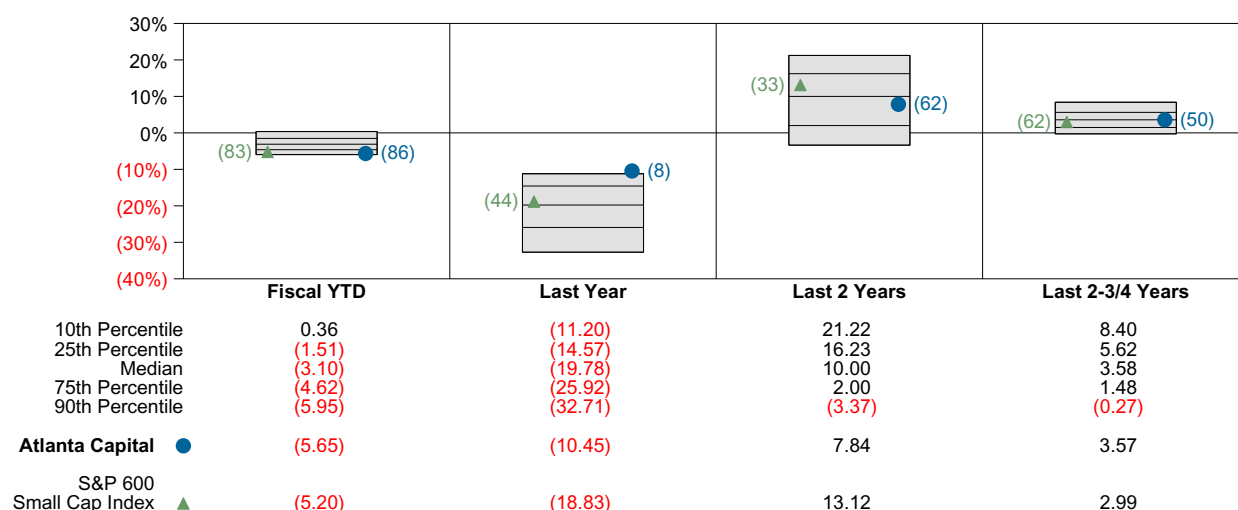
Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a (5.65)% return for the quarter placing it in the 86 percentile of the Callan Small Capitalization group for the quarter and in the 8 percentile for the last year.
- Atlanta Capital's portfolio underperformed the S&P 600 Small Cap Index by 0.45% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 8.38%.

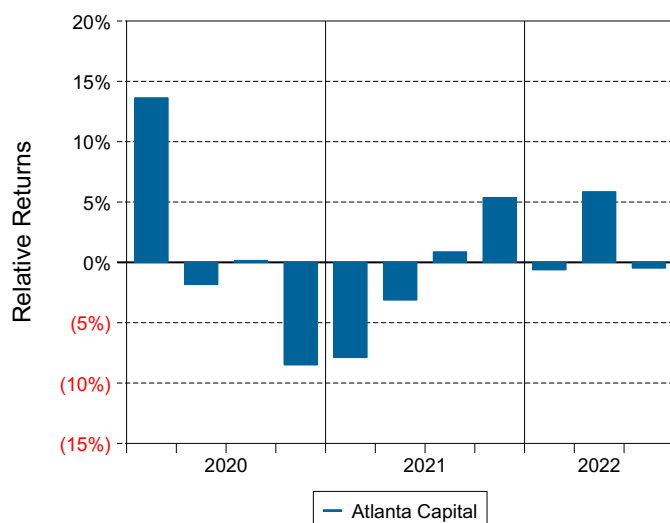
Quarterly Asset Growth

Beginning Market Value	\$206,114,308
Net New Investment	\$-82,319,912
Investment Gains/(Losses)	\$-6,976,353
Ending Market Value	\$116,818,043

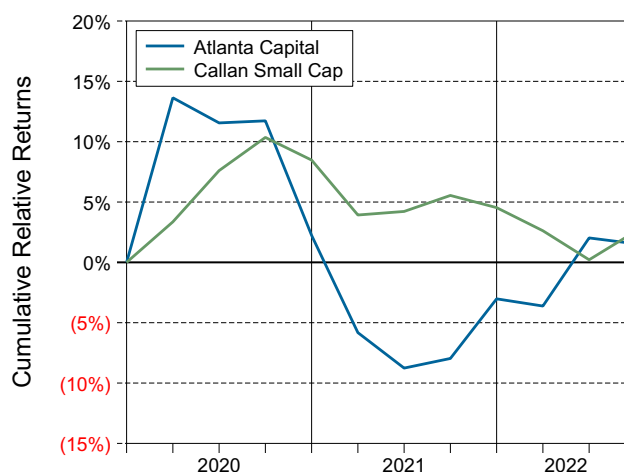
Performance vs Callan Small Capitalization (Gross)



Relative Return vs S&P 600 Small Cap Index



Cumulative Returns vs S&P 600 Small Cap Index



Riverbridge Small Cap Growth Period Ended September 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.

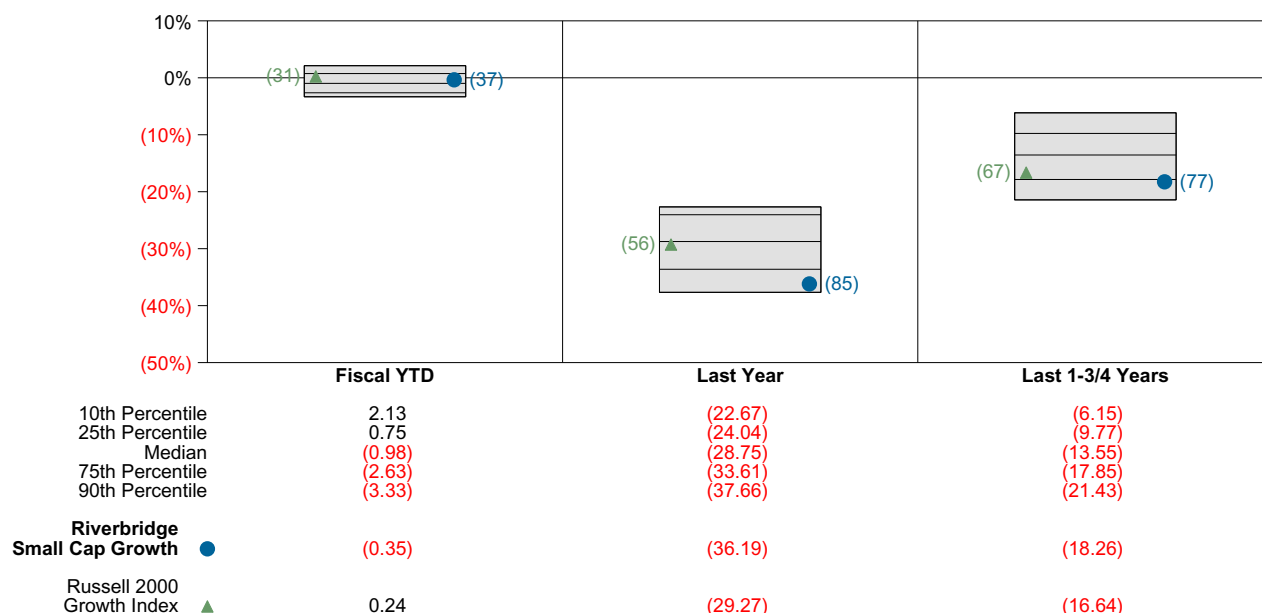
Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (0.35)% return for the quarter placing it in the 37 percentile of the Callan Small Cap Growth group for the quarter and in the 85 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 0.60% for the quarter and underperformed the Russell 2000 Growth Index for the year by 6.92%.

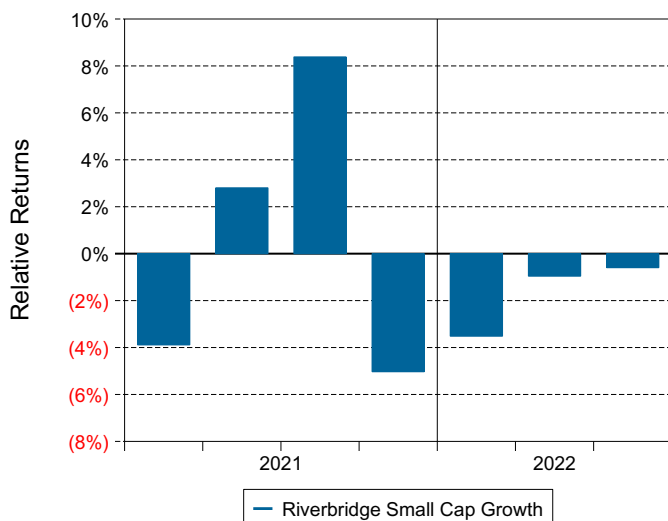
Quarterly Asset Growth

Beginning Market Value	\$179,764,130
Net New Investment	\$-64,352,583
Investment Gains/(Losses)	\$1,280,814
Ending Market Value	\$116,692,361

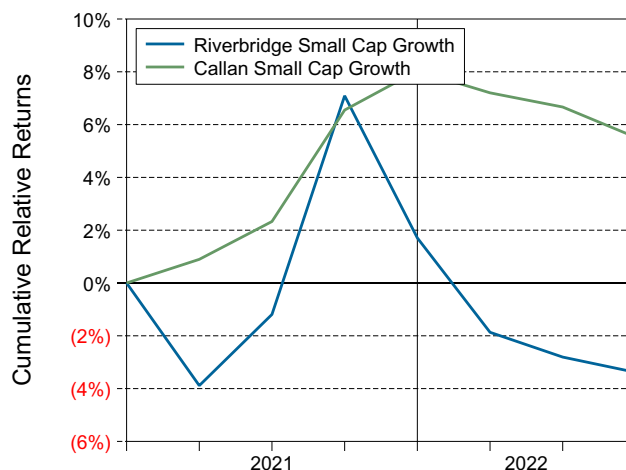
Performance vs Callan Small Cap Growth (Gross)



Relative Return vs Russell 2000 Growth Index



Cumulative Returns vs Russell 2000 Growth Index



Sycamore Small Cap Value Period Ended September 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.

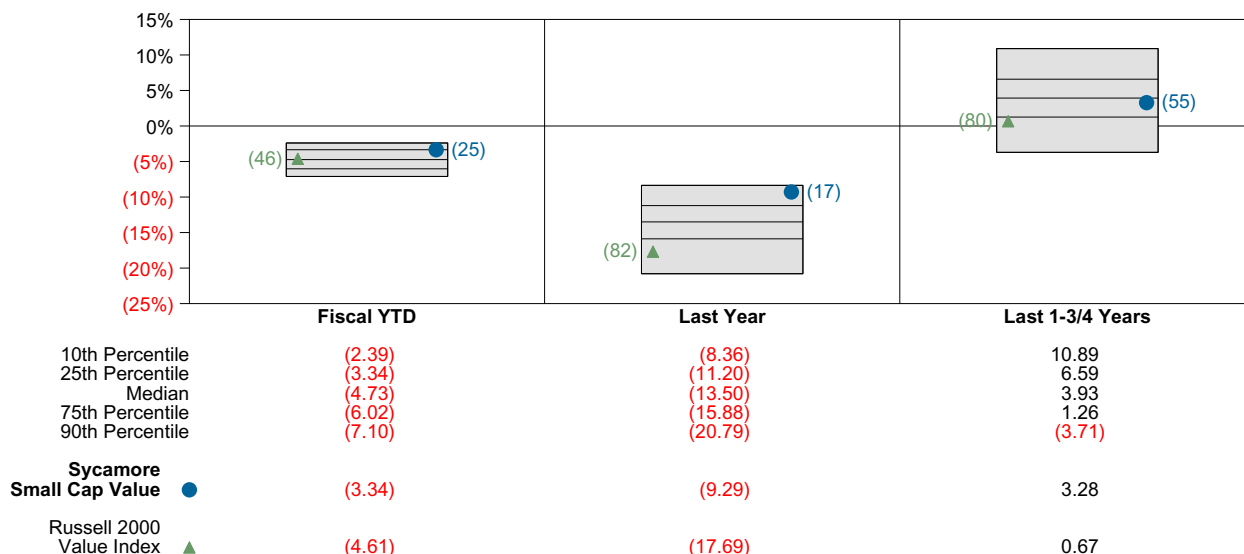
Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a (3.34)% return for the quarter placing it in the 25 percentile of the Callan Small Cap Value group for the quarter and in the 17 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 1.27% for the quarter and outperformed the Russell 2000 Value Index for the year by 8.40%.

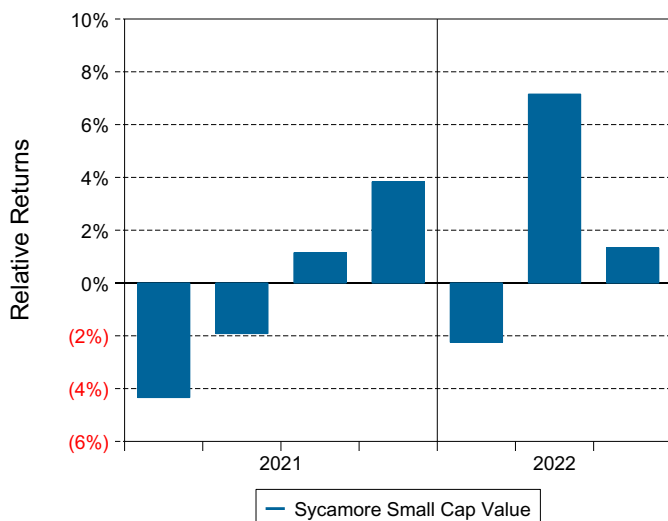
Quarterly Asset Growth

Beginning Market Value	\$201,049,555
Net New Investment	\$-88,319,673
Investment Gains/(Losses)	\$-4,038,553
Ending Market Value	\$108,691,329

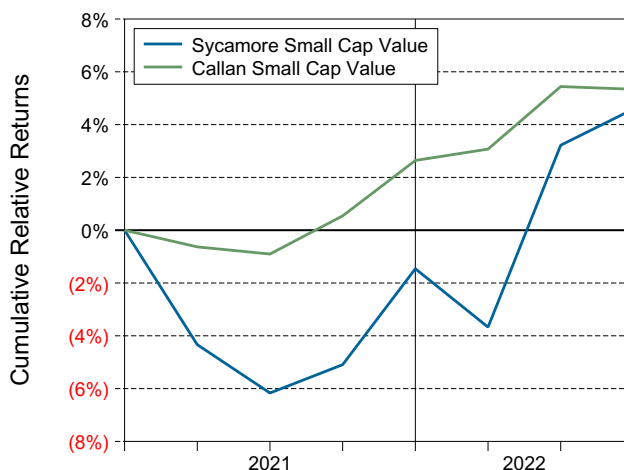
Performance vs Callan Small Cap Value (Gross)



Relative Return vs Russell 2000 Value Index



Cumulative Returns vs Russell 2000 Value Index



International Equity Period Ended September 30, 2022

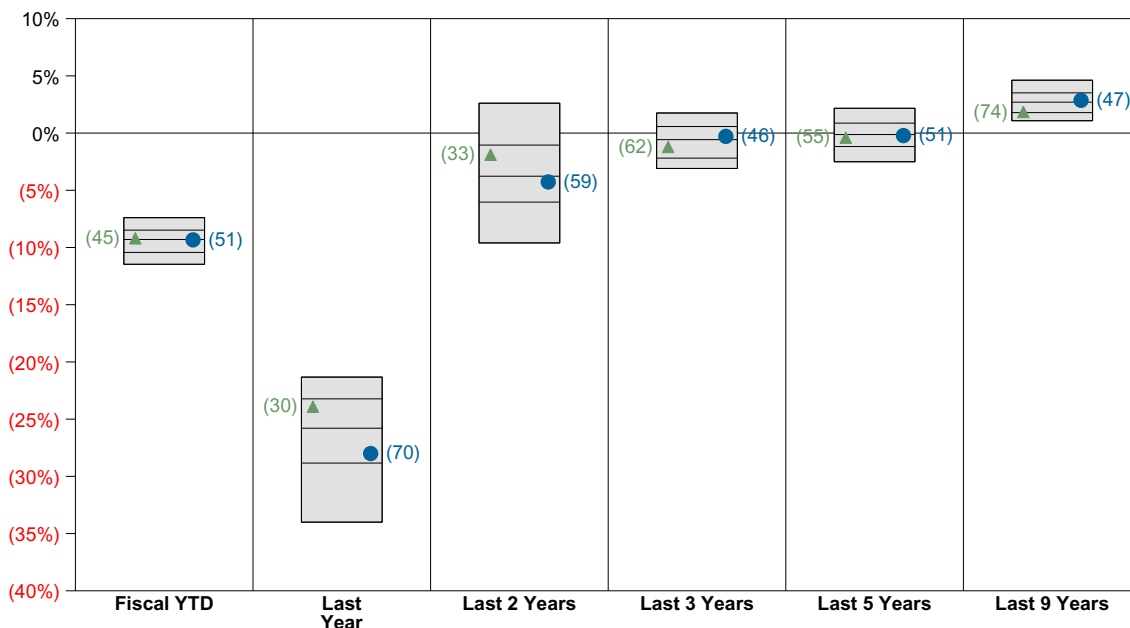
Quarterly Summary and Highlights

- International Equity's portfolio posted a (9.33)% return for the quarter placing it in the 51 percentile of the Callan Non-US Equity group for the quarter and in the 70 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 0.14% for the quarter and underperformed the International Equity Target for the year by 4.10%.

Quarterly Asset Growth

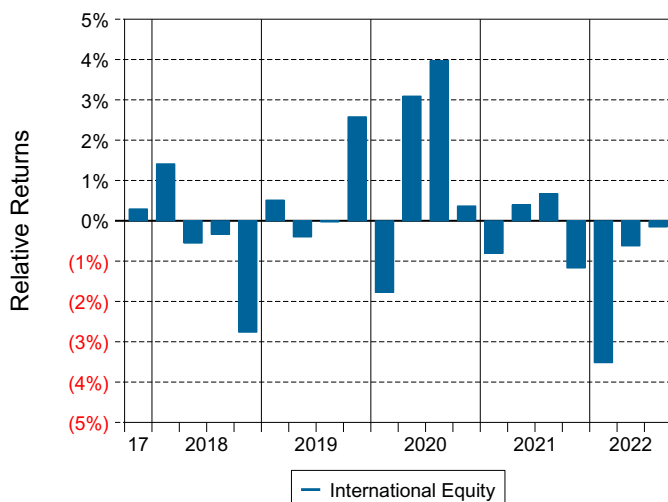
Beginning Market Value	\$1,399,965,469
Net New Investment	\$212,036,691
Investment Gains/(Losses)	\$-147,599,161
Ending Market Value	\$1,464,402,999

Performance vs Callan Non-US Equity (Gross)

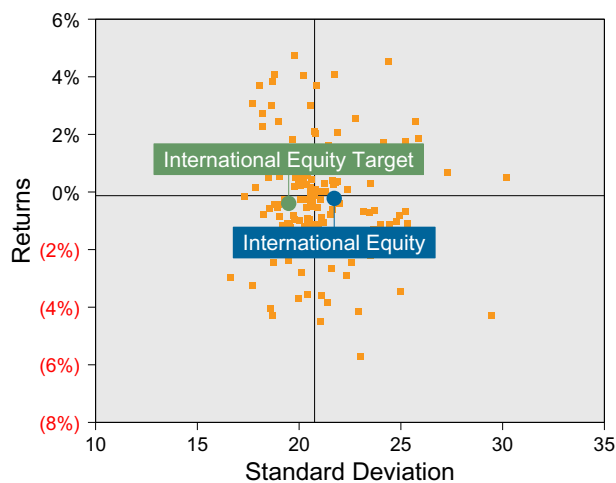


10th Percentile	(7.39)	(21.33)	2.61	1.75	2.17	4.62
25th Percentile	(8.48)	(23.23)	(1.05)	0.57	0.87	3.51
Median	(9.30)	(25.79)	(3.77)	(0.57)	(0.13)	2.70
75th Percentile	(10.43)	(28.84)	(6.03)	(2.19)	(1.18)	1.79
90th Percentile	(11.47)	(34.00)	(9.60)	(3.09)	(2.51)	1.08
International Equity	(9.33)	(28.01)	(4.27)	(0.29)	(0.22)	2.86
International Equity Target	(9.20)	(23.91)	(1.89)	(1.21)	(0.39)	1.85

Relative Return vs International Equity Target



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



Arrowstreet ACWI ex US Period Ended September 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.

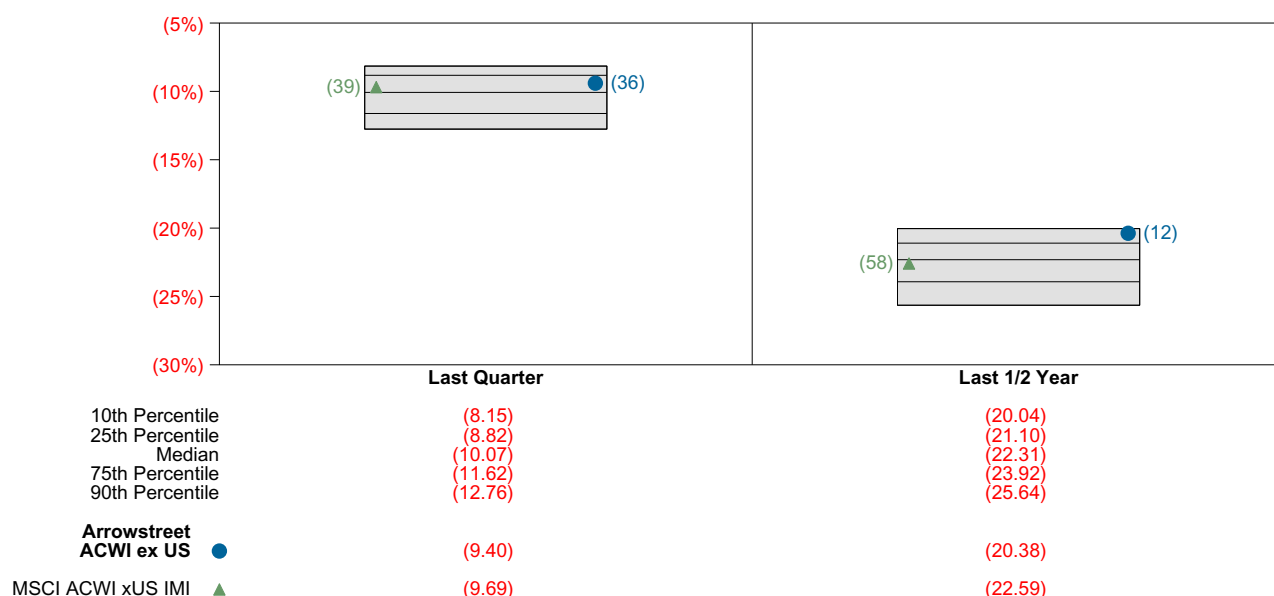
Quarterly Summary and Highlights

- Arrowstreet ACWI ex US's portfolio posted a (9.40)% return for the quarter placing it in the 36 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 12 percentile for the last one-half year.
- Arrowstreet ACWI ex US's portfolio outperformed the MSCI ACWI xUS IMI by 0.29% for the quarter and outperformed the MSCI ACWI xUS IMI for the one-half year by 2.21%.

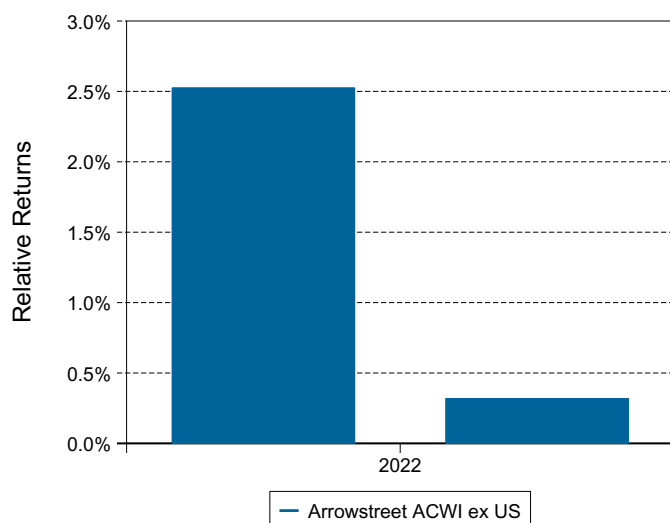
Quarterly Asset Growth

Beginning Market Value	\$346,880,607
Net New Investment	\$88,500,000
Investment Gains/(Losses)	\$-36,967,410
Ending Market Value	\$398,413,197

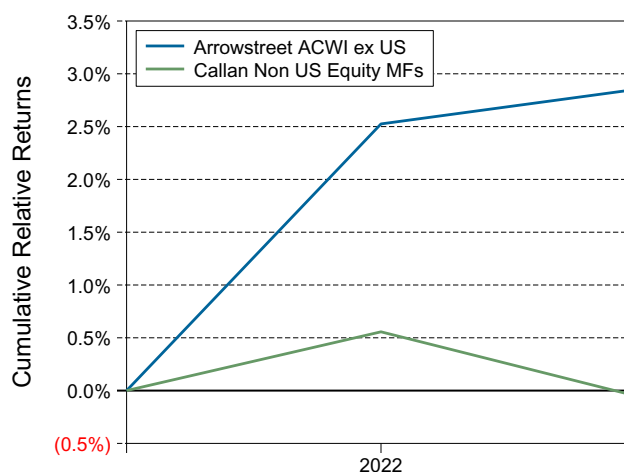
Performance vs Callan Non US Equity Mutual Funds (Net)



Relative Return vs MSCI ACWI xUS IMI



Cumulative Returns vs MSCI ACWI xUS IMI



DFA Intl Small Cap Value Period Ended September 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.

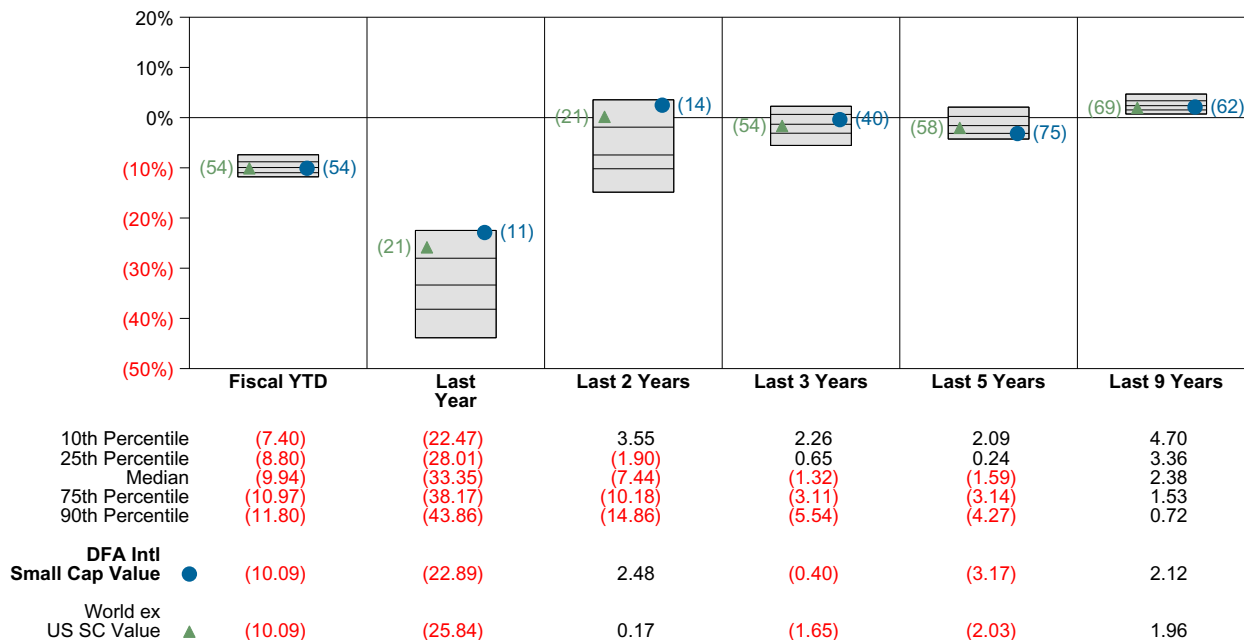
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a (10.09)% return for the quarter placing it in the 54 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 11 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 0.00% for the quarter and outperformed the World ex US SC Value for the year by 2.95%.

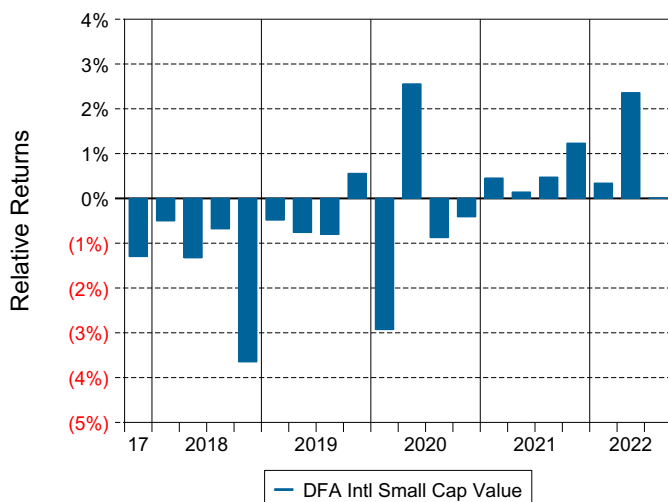
Quarterly Asset Growth

Beginning Market Value	\$150,890,061
Net New Investment	\$0
Investment Gains/(Losses)	\$-15,224,494
Ending Market Value	\$135,665,567

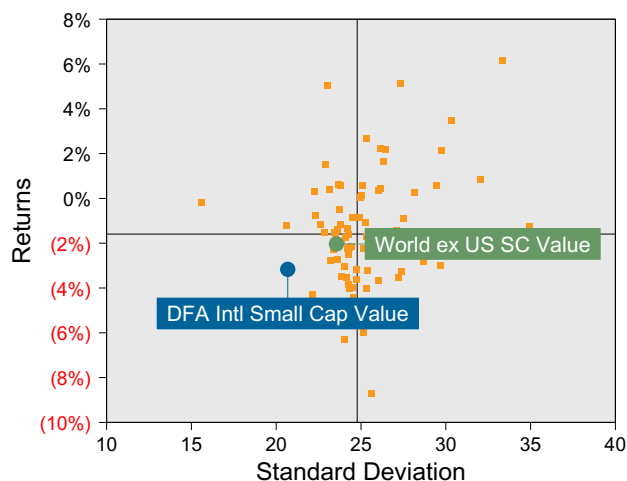
Performance vs Callan International Small Cap Mut Funds (Net)



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 September 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.

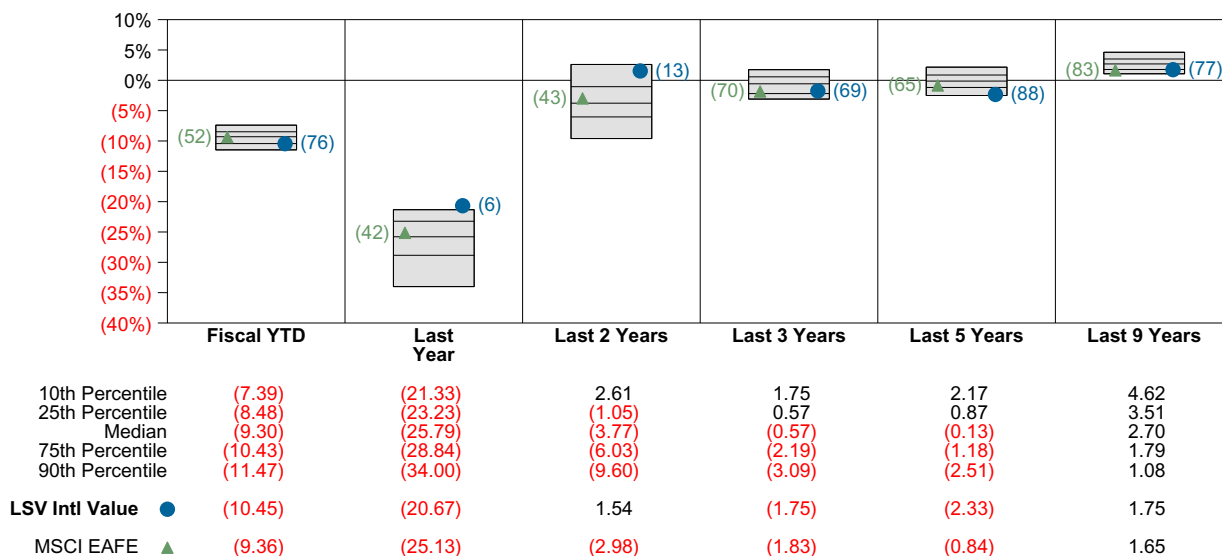
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a (10.45)% return for the quarter placing it in the 76 percentile of the Callan Non-US Equity group for the quarter and in the 6 percentile for the last year.
- LSV Intl Value's portfolio underperformed the MSCI EAFE by 1.09% for the quarter and outperformed the MSCI EAFE for the year by 4.46%.

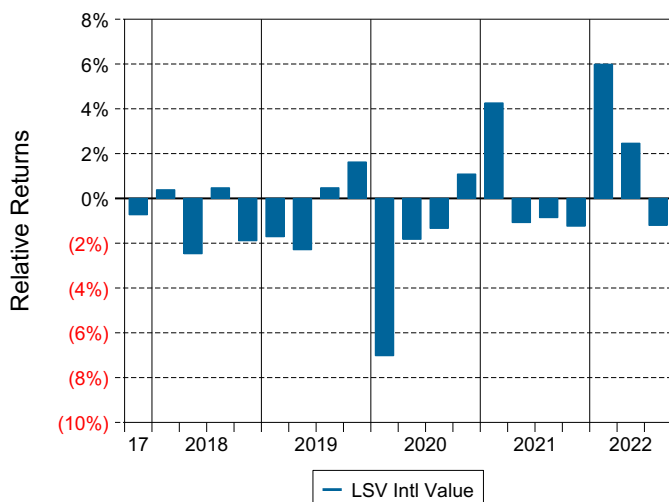
Quarterly Asset Growth

Beginning Market Value	\$407,988,449
Net New Investment	\$-394,745
Investment Gains/(Losses)	\$-42,578,714
Ending Market Value	\$365,014,990

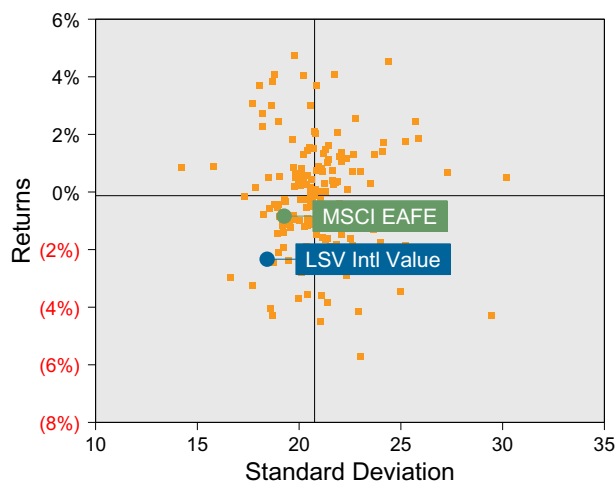
Performance vs Callan Non-US Equity (Gross)



Relative Return vs MSCI EAFE



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



Vanguard Intl Explorer Fund

Period Ended September 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.

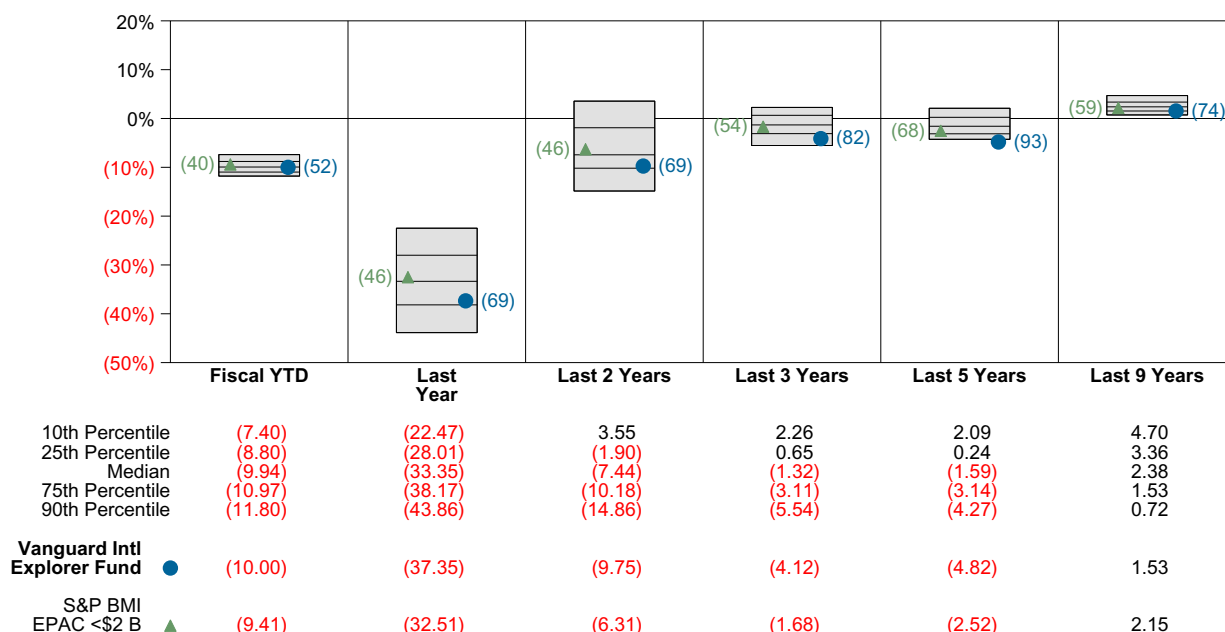
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a (10.00)% return for the quarter placing it in the 52 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 69 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio underperformed the S&P BMI EPAC <\$2 B by 0.59% for the quarter and underperformed the S&P BMI EPAC <\$2 B for the year by 4.85%.

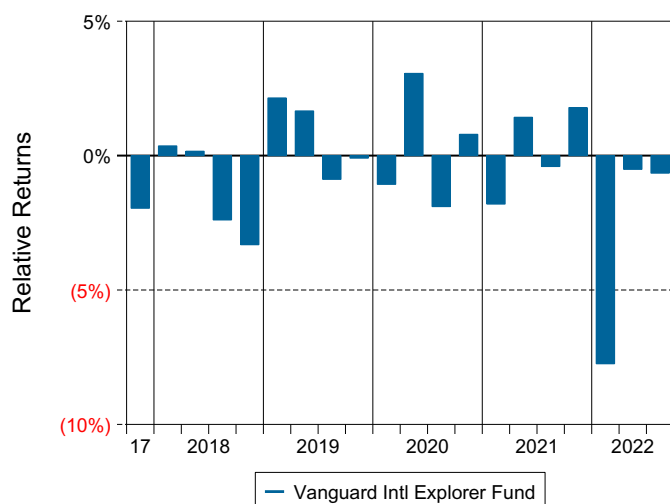
Quarterly Asset Growth

Beginning Market Value	\$120,479,633
Net New Investment	\$0
Investment Gains/(Losses)	\$-12,047,963
Ending Market Value	\$108,431,670

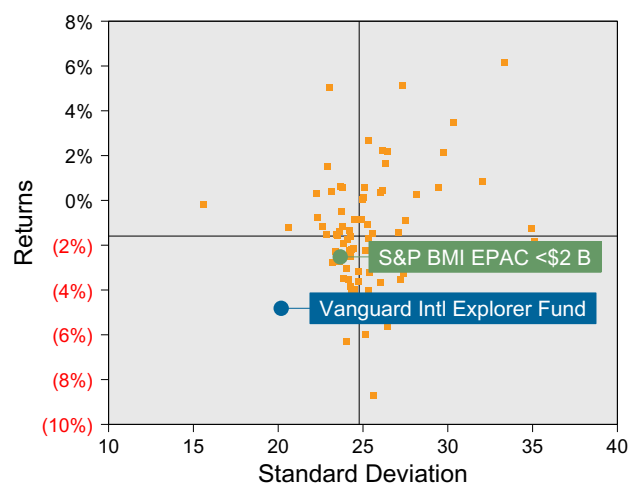
Performance vs Callan International Small Cap Mut Funds (Net)



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 September 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.

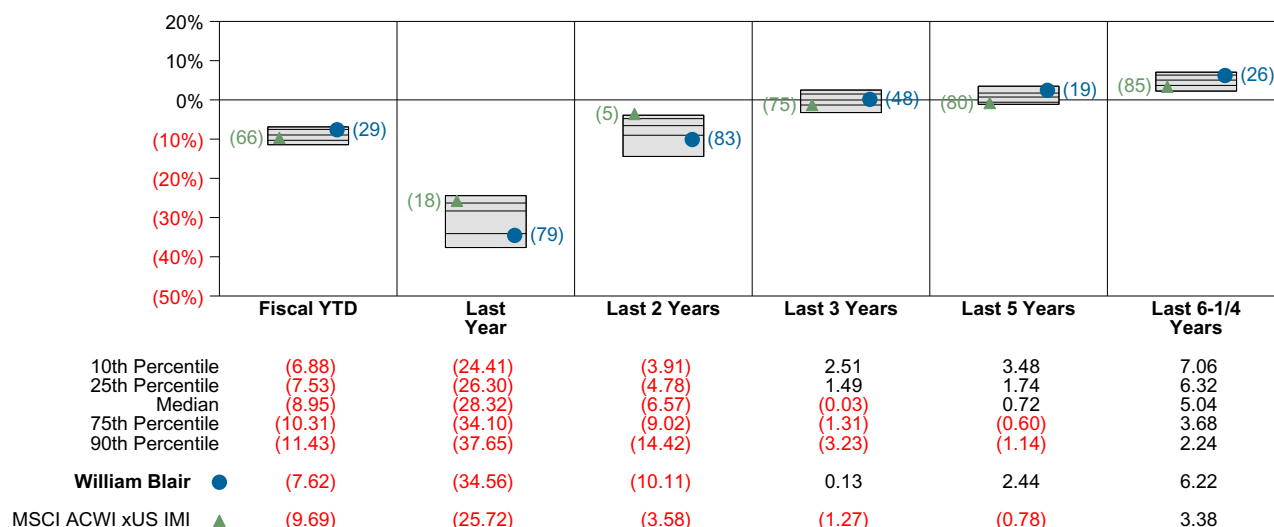
Quarterly Summary and Highlights

- William Blair's portfolio posted a (7.62)% return for the quarter placing it in the 29 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 79 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI xUS IMI by 2.07% for the quarter and underperformed the MSCI ACWI xUS IMI for the year by 8.84%.

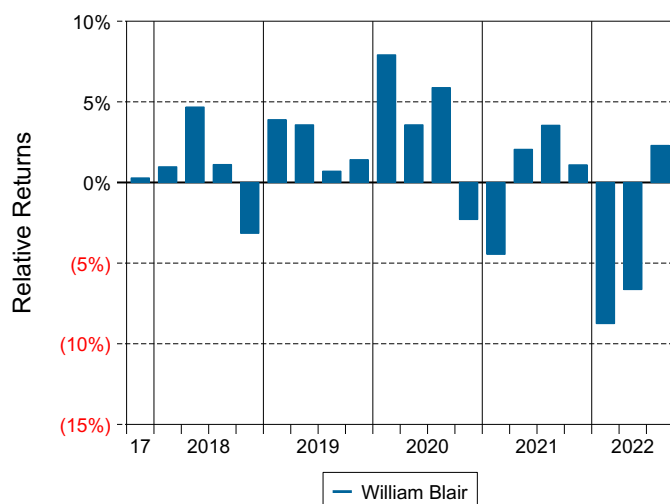
Quarterly Asset Growth

Beginning Market Value	\$373,726,718
Net New Investment	\$124,102,830
Investment Gains/(Losses)	\$-40,951,973
Ending Market Value	\$456,877,575

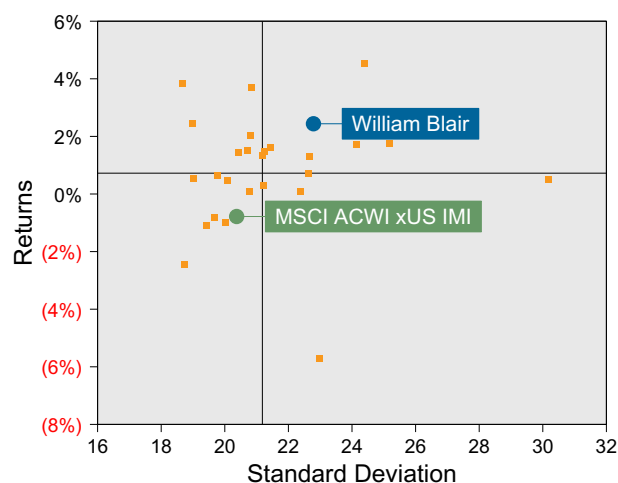
Performance vs Callan Non-US All Country Growth Equity (Gross)



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 September 30, 2022

Investment Philosophy

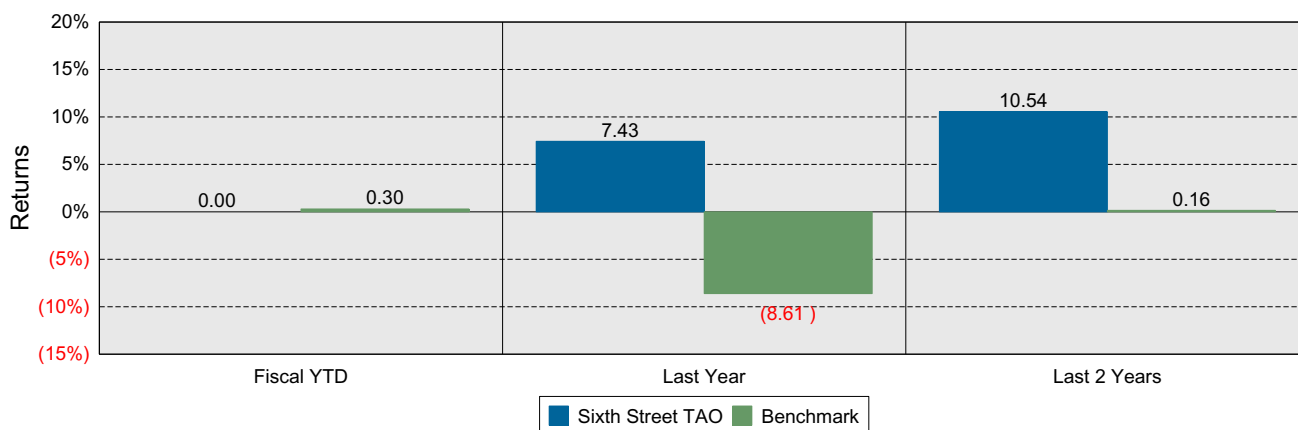
Sixth Street Partners' TAO strategy is an opportunistic, theme-driven multi-strategy credit mandate that seeks to leverage the firm's entire credit platform by investing in theme-driven liquid and less liquid investments across a broad array of credit-oriented opportunities. The strategy invests in opportunities 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

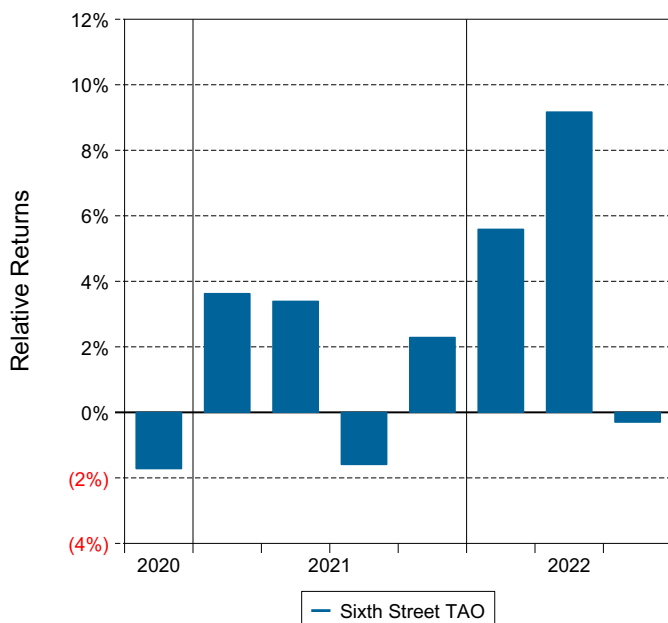
- Sixth Street TAO's portfolio underperformed the Benchmark by 0.30% for the quarter and outperformed the Benchmark for the year by 16.04%.

Quarterly Asset Growth

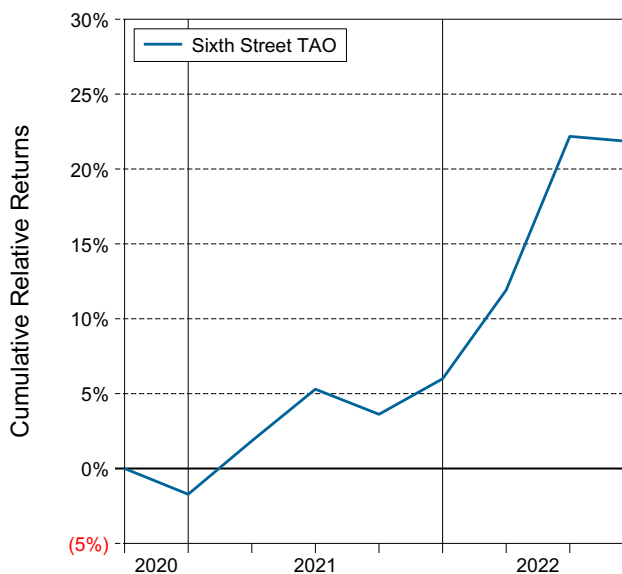
Beginning Market Value	\$39,741,042
Net New Investment	\$7,136,022
Investment Gains/(Losses)	\$0
Ending Market Value	\$46,877,064



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



Domestic Fixed Income Period Ended September 30, 2022

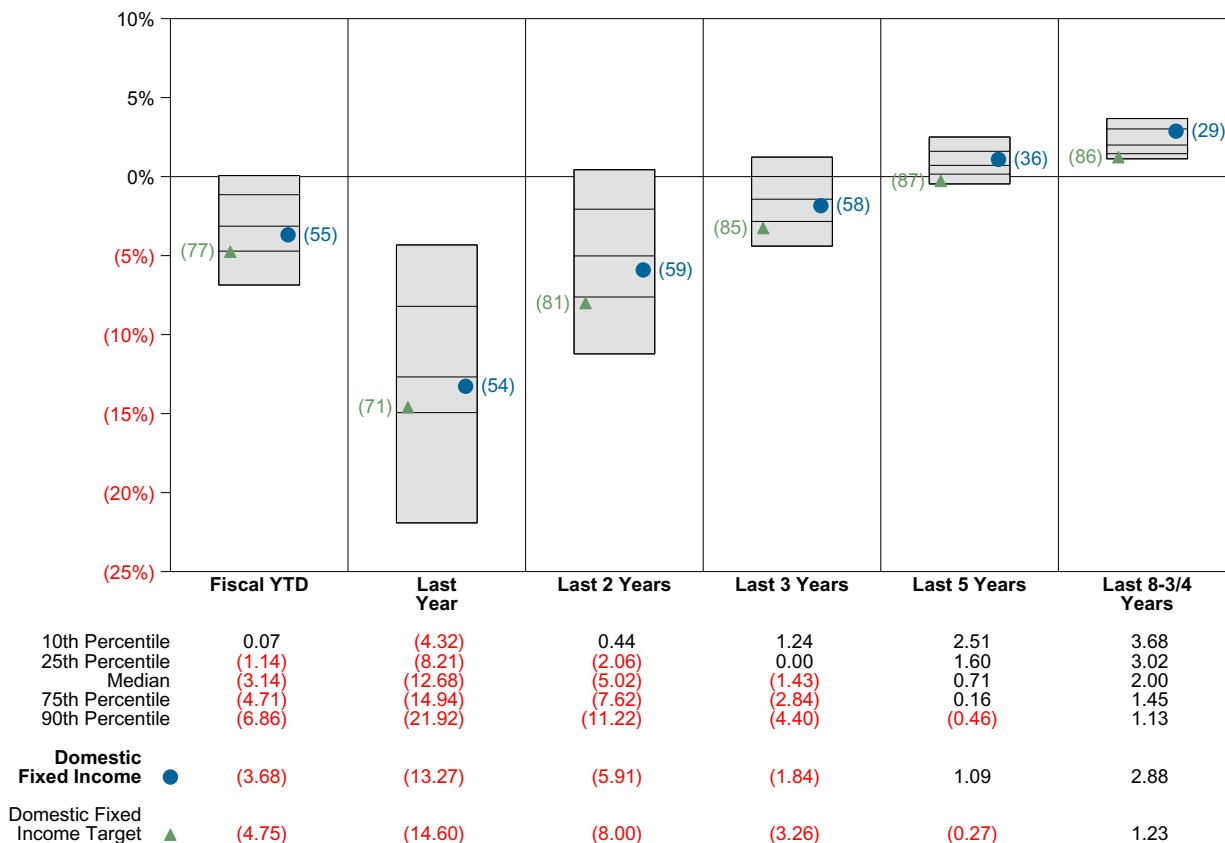
Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a (3.68)% return for the quarter placing it in the 55 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 54 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 1.07% for the quarter and outperformed the Domestic Fixed Income Target for the year by 1.33%.

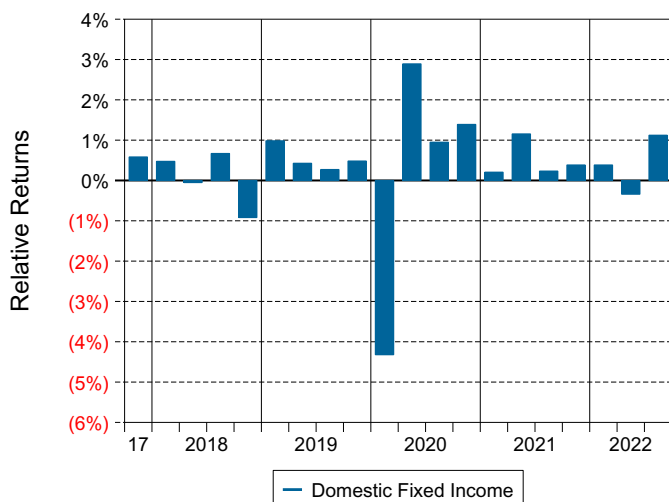
Quarterly Asset Growth

Beginning Market Value	\$2,845,788,928
Net New Investment	\$-36,894,523
Investment Gains/(Losses)	\$-104,298,621
Ending Market Value	\$2,704,595,783

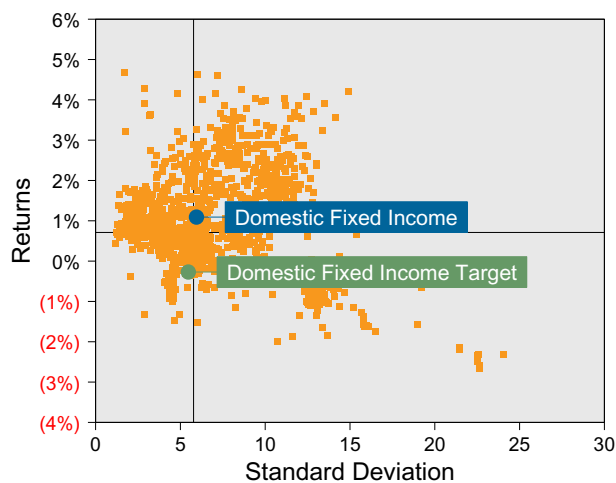
Performance vs Total Domestic Fixed-Inc Database (Gross)



Relative Returns vs Domestic Fixed Income Target



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



Allspring BBB

Period Ended September 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.

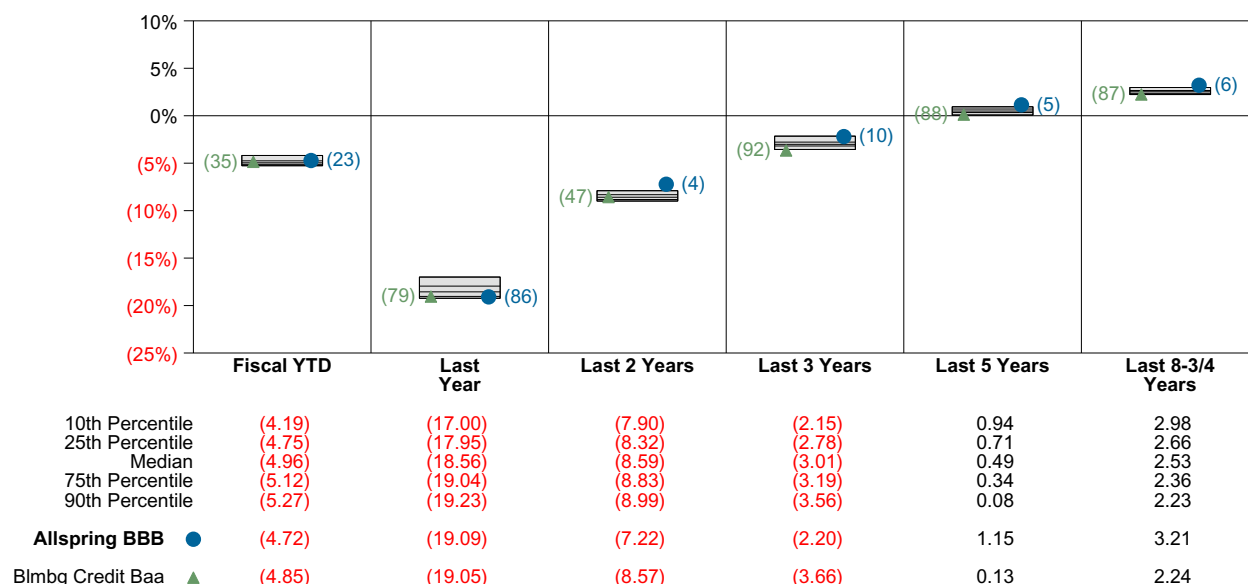
Quarterly Summary and Highlights

- Allspring BBB's portfolio posted a (4.72)% return for the quarter placing it in the 23 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 86 percentile for the last year.
- Allspring BBB's portfolio outperformed the Blmbg Credit Baa by 0.13% for the quarter and underperformed the Blmbg Credit Baa for the year by 0.04%.

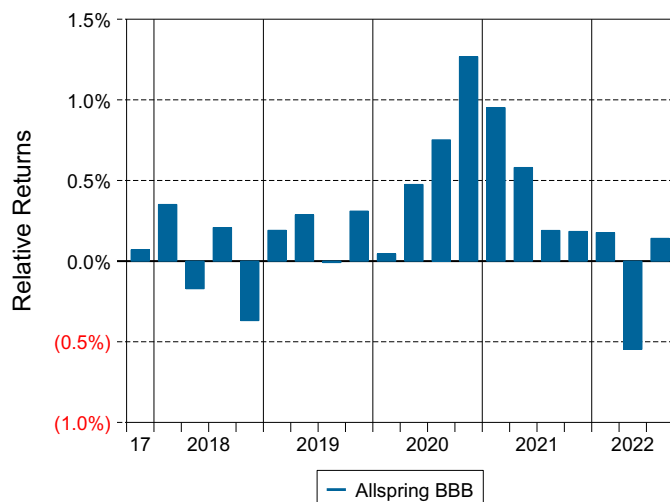
Quarterly Asset Growth

Beginning Market Value	\$208,666,590
Net New Investment	\$-100,562
Investment Gains/(Losses)	\$-9,840,253
Ending Market Value	\$198,725,774

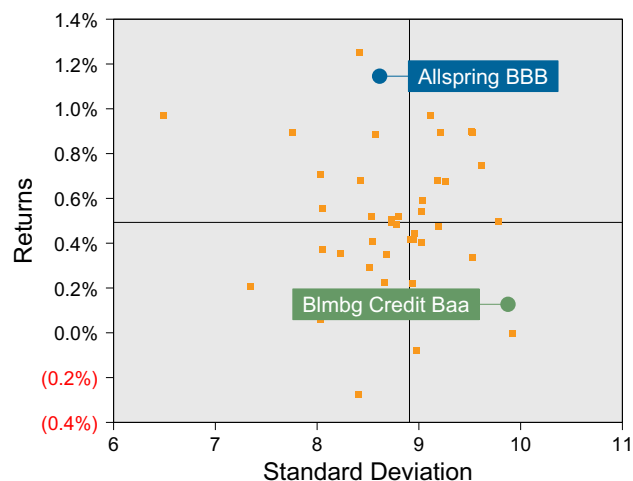
Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



Relative Return vs Blmbg Credit Baa



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



Ares ND Credit Strategies Fd Period Ended September 30, 2022

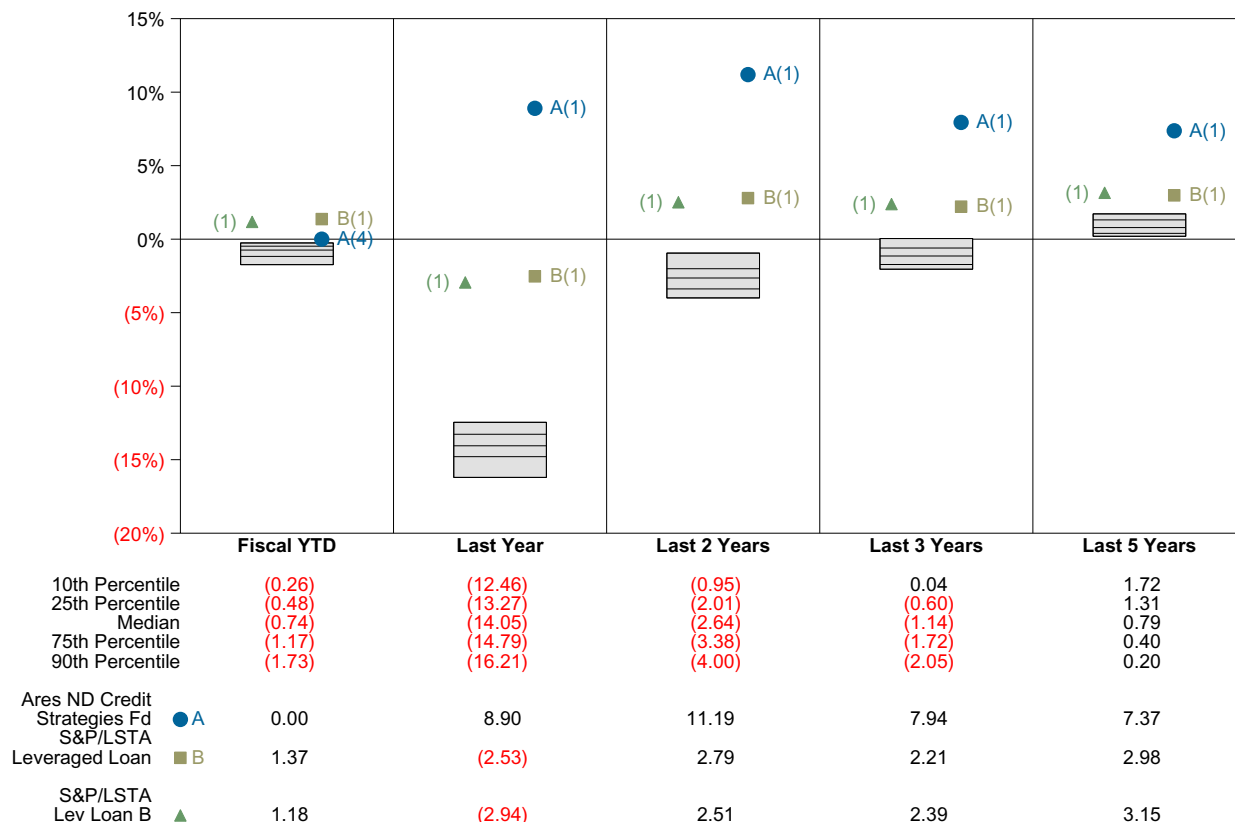
Quarterly Summary and Highlights

- Ares ND Credit Strategies Fd's portfolio posted a 0.00% return for the quarter placing it in the 4 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 underperformed the S&P/LSTA Lev Loan B by 1.18% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 11.84%.

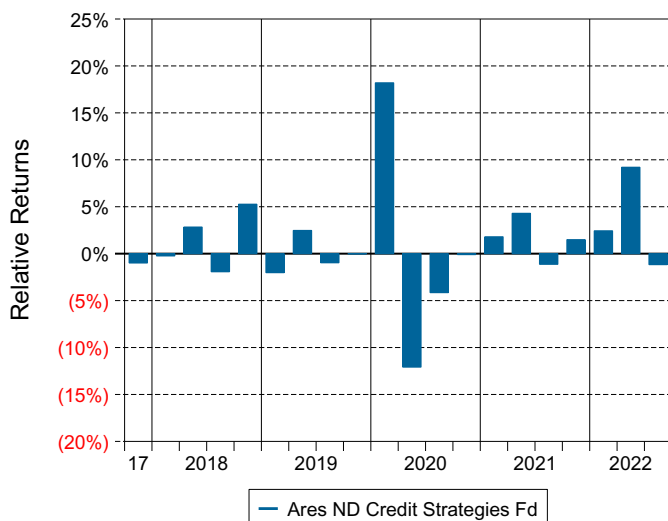
Quarterly Asset Growth

Beginning Market Value	\$109,568,248
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$109,568,248

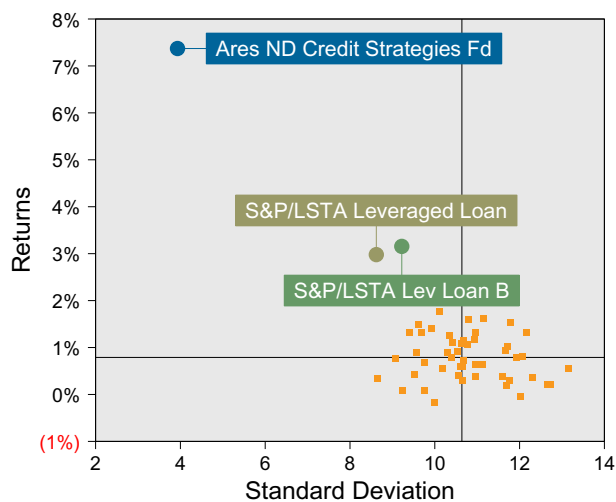
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Five Year Risk vs Return



Cerberus ND Private Credit Fd Period Ended September 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.

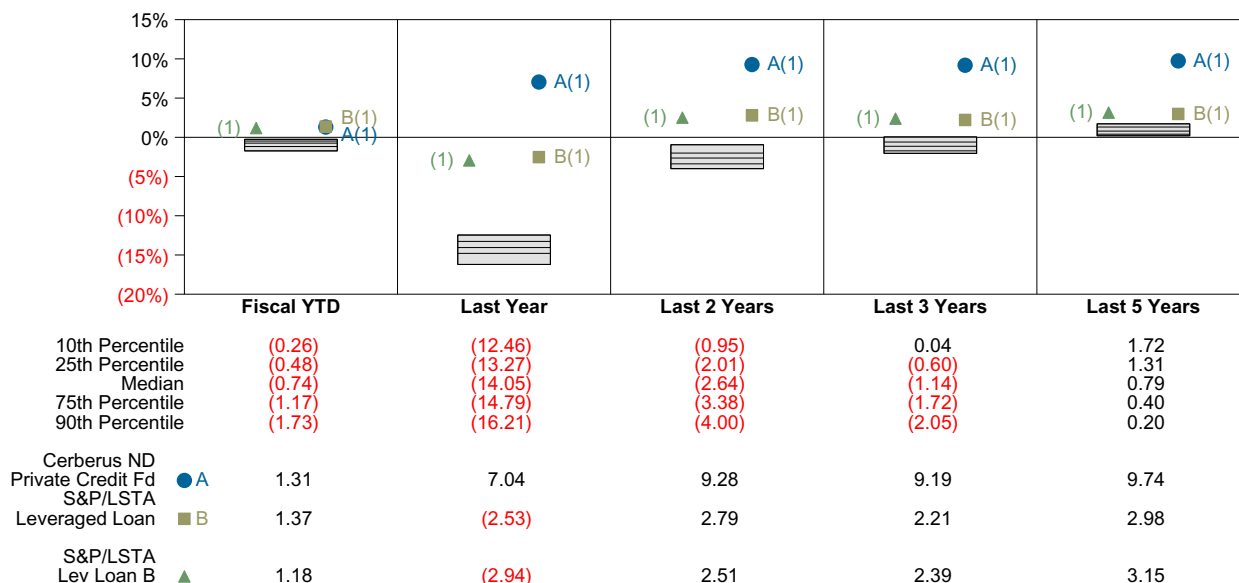
Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 1.31% 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 0.13% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 9.99%.

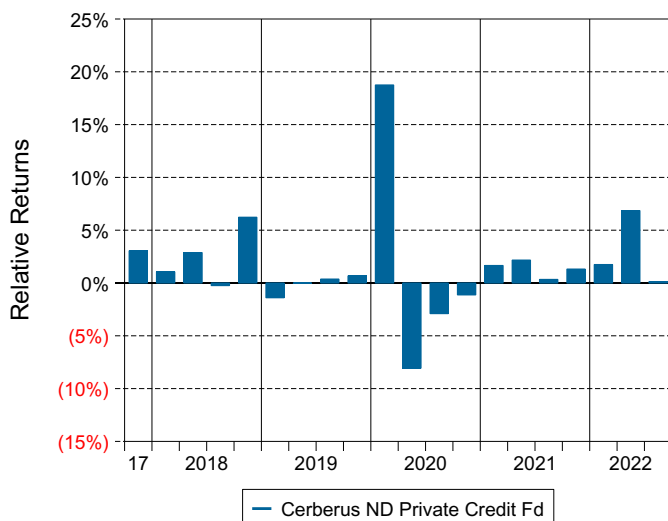
Quarterly Asset Growth

Beginning Market Value	\$134,621,143
Net New Investment	\$0
Investment Gains/(Losses)	\$1,759,431
Ending Market Value	\$136,380,574

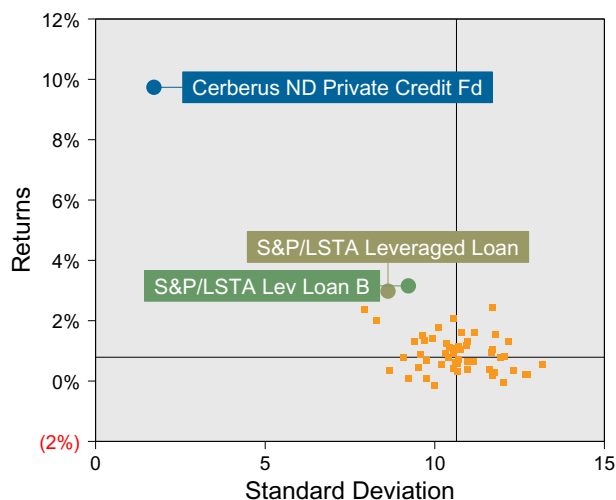
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Five Year Risk vs Return



Manulife-Declaration TRBF

Period Ended September 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.

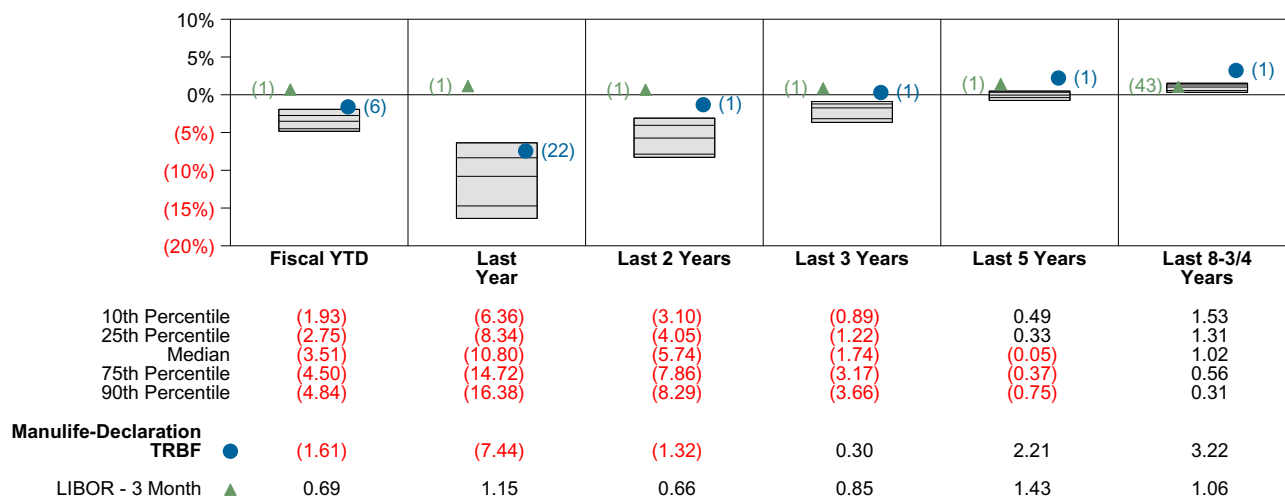
Quarterly Summary and Highlights

- Manulife-Declaration TRBF's portfolio posted a (1.61)% return for the quarter placing it in the 6 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 22 percentile for the last year.
- Manulife-Declaration TRBF's portfolio underperformed the LIBOR - 3 Month by 2.30% for the quarter and underperformed the LIBOR - 3 Month for the year by 8.59%.

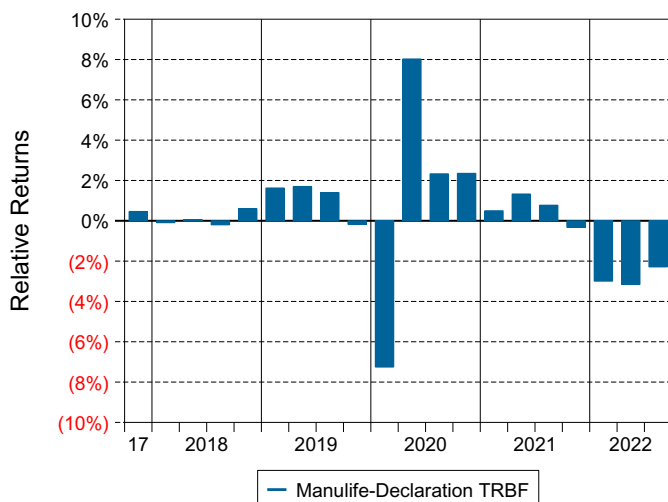
Quarterly Asset Growth

Beginning Market Value	\$216,828,376
Net New Investment	\$-140,257
Investment Gains/(Losses)	\$-3,479,066
Ending Market Value	\$213,209,053

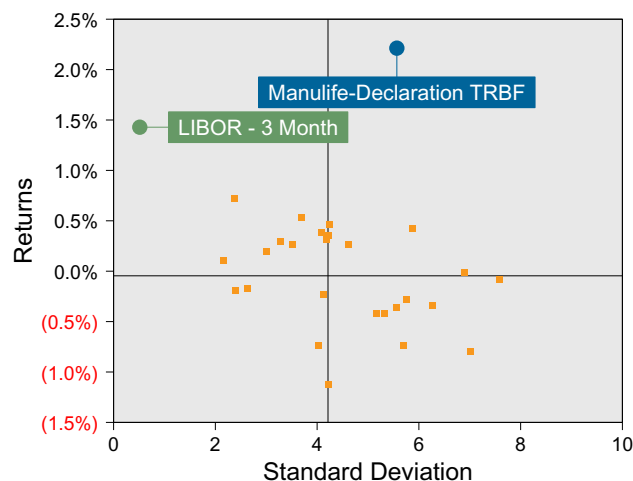
Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



Relative Return vs LIBOR - 3 Month



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



PIMCO Bravo II

Period Ended September 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.**

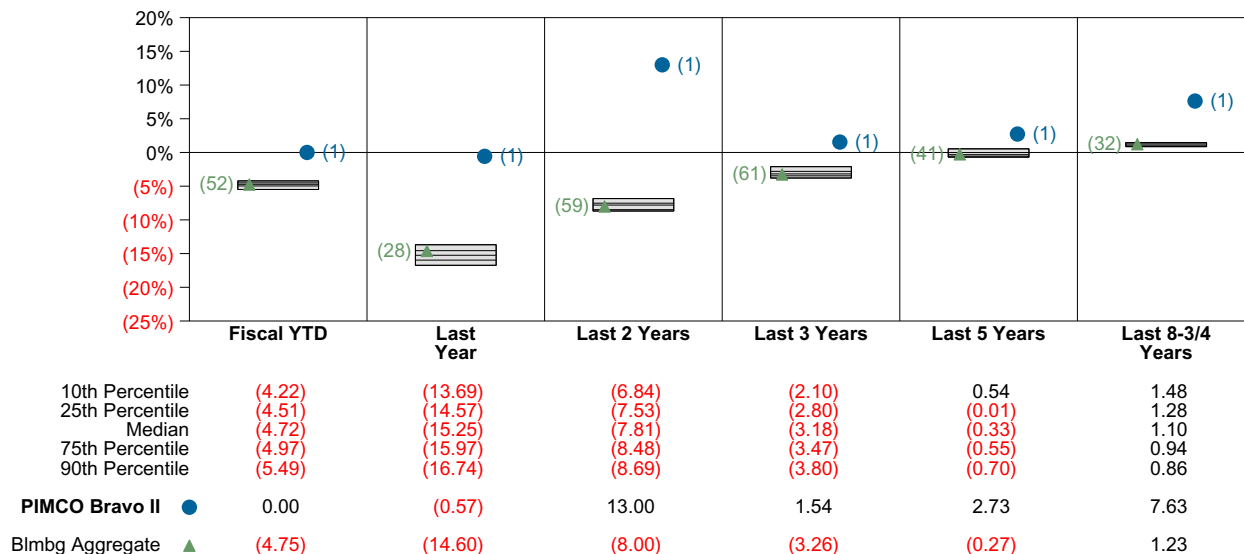
Quarterly Summary and Highlights

- PIMCO Bravo II's portfolio posted a 0.00% 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 Bravo II's portfolio outperformed the Blmbg Aggregate by 4.75% for the quarter and outperformed the Blmbg Aggregate for the year by 14.03%.

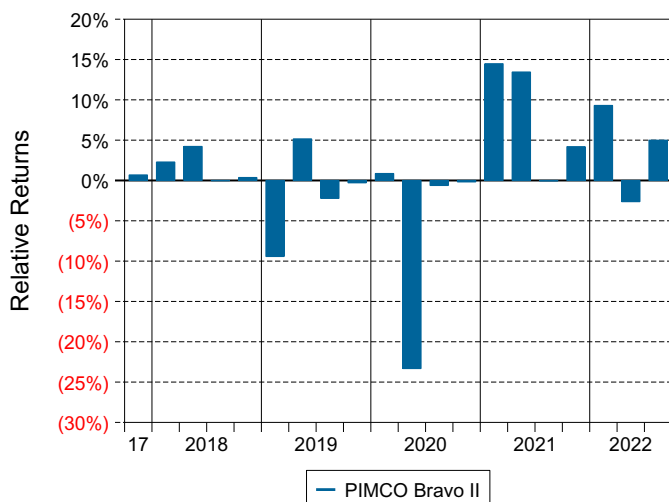
Quarterly Asset Growth

Beginning Market Value	\$3,610,617
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$3,610,617

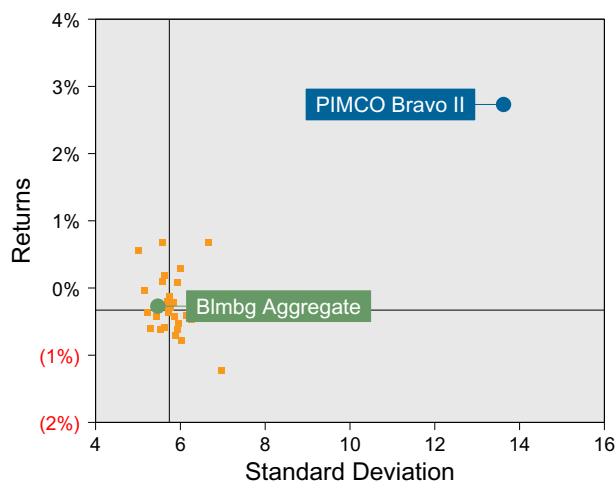
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



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



PIMCO DiSCO II

Period Ended September 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.**

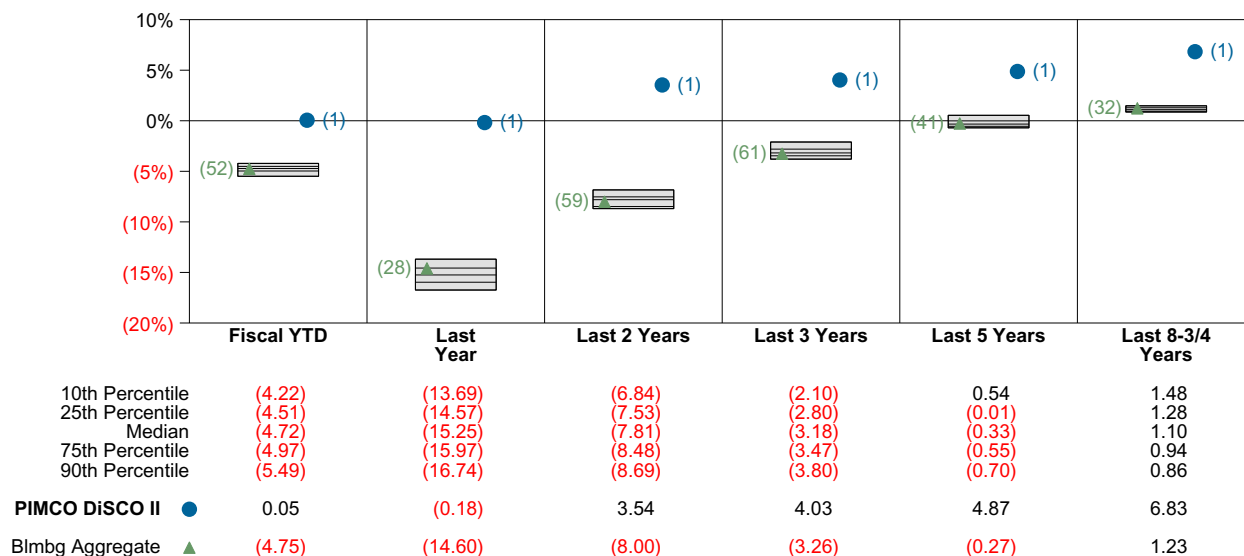
Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 0.05% 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 4.81% for the quarter and outperformed the Blmbg Aggregate for the year by 14.42%.

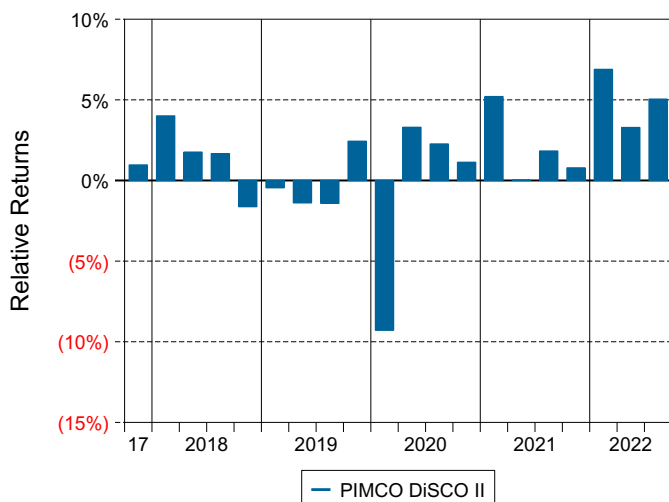
Quarterly Asset Growth

Beginning Market Value	\$54,468,911
Net New Investment	\$0
Investment Gains/(Losses)	\$29,247
Ending Market Value	\$54,498,158

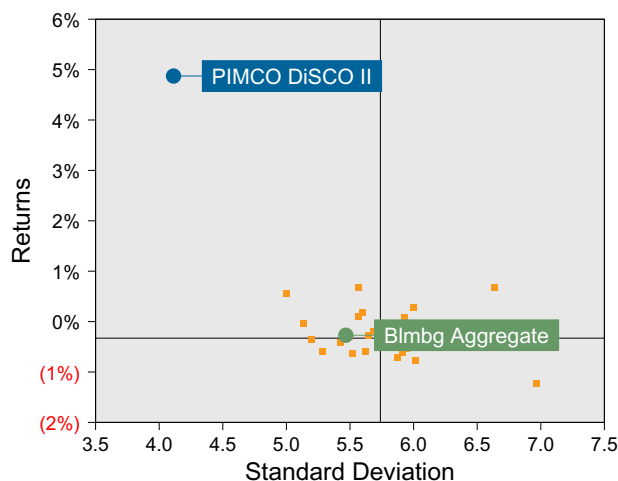
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



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



Prudential Period Ended September 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.

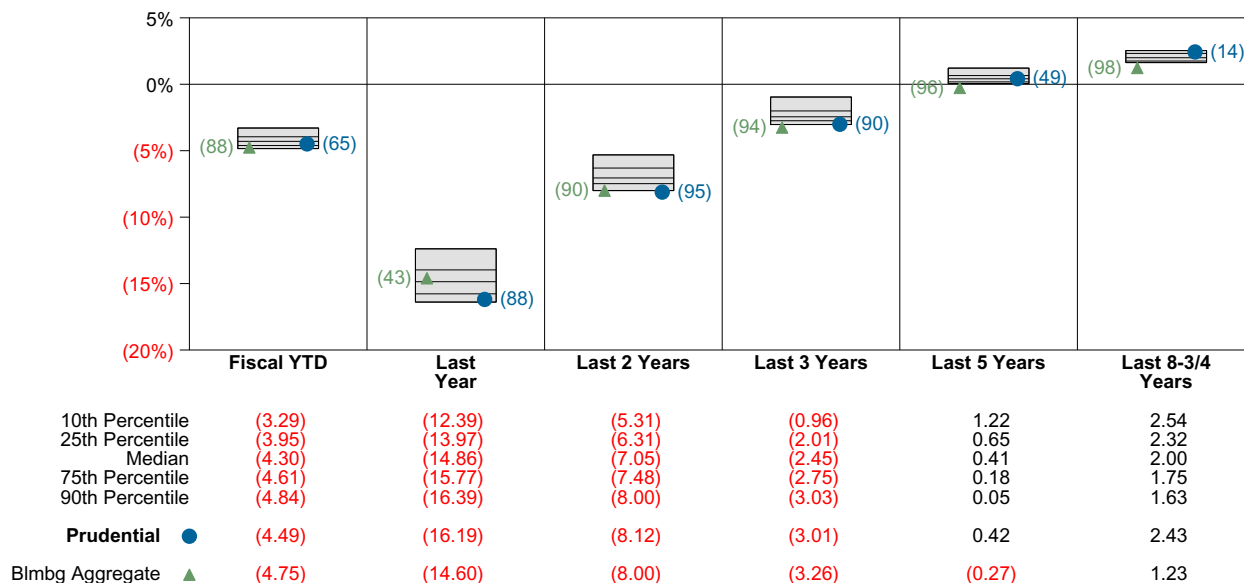
Quarterly Summary and Highlights

- Prudential's portfolio posted a (4.49)% return for the quarter placing it in the 65 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 88 percentile for the last year.
- Prudential's portfolio outperformed the Blmbg Aggregate by 0.26% for the quarter and underperformed the Blmbg Aggregate for the year by 1.60%.

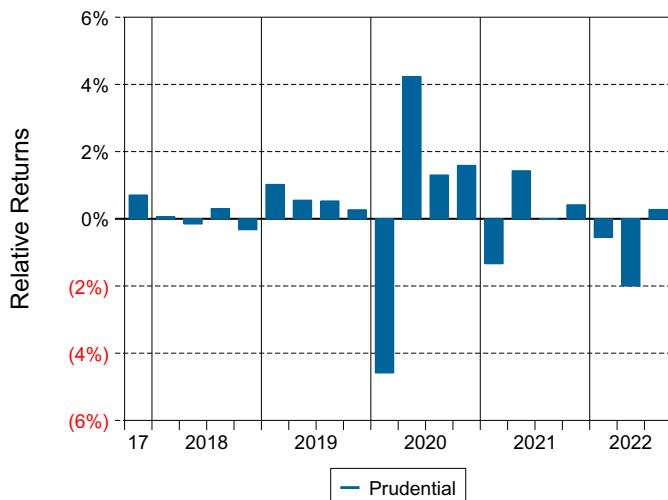
Quarterly Asset Growth

Beginning Market Value	\$772,306,239
Net New Investment	\$-17,408,172
Investment Gains/(Losses)	\$-34,309,615
Ending Market Value	\$720,588,453

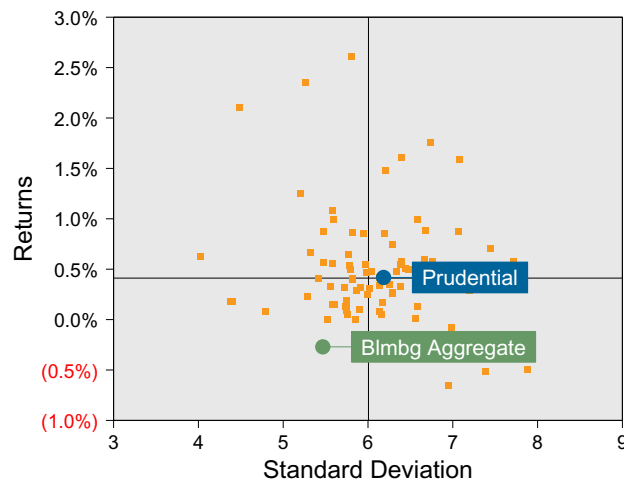
Performance vs Callan Core Plus Fixed Income (Gross)



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 September 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.

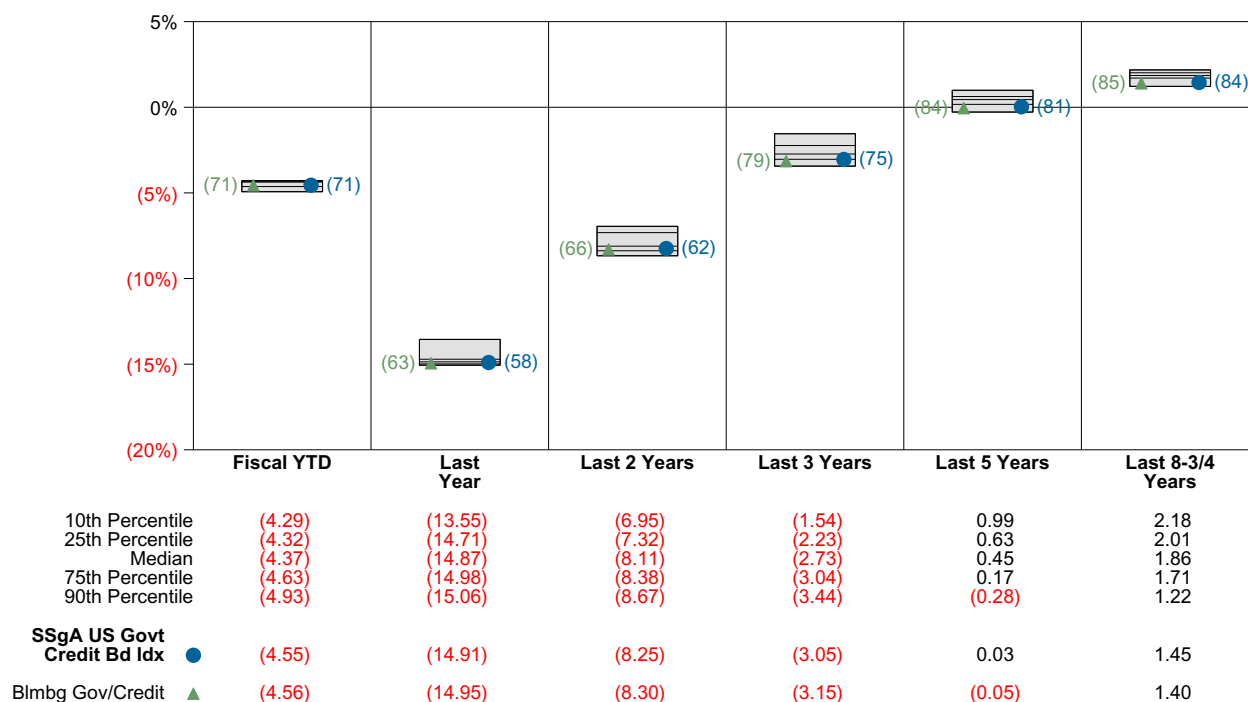
Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a (4.55)% return for the quarter placing it in the 71 percentile of the Callan Government/Credit group for the quarter and in the 58 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio outperformed the Blmbg Gov/Credit by 0.00% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.04%.

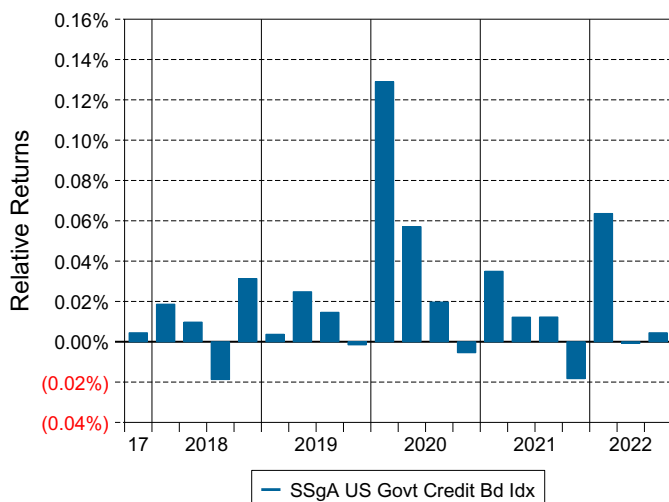
Quarterly Asset Growth

Beginning Market Value	\$383,827,577
Net New Investment	\$-14,407
Investment Gains/(Losses)	\$-17,482,077
Ending Market Value	\$366,331,093

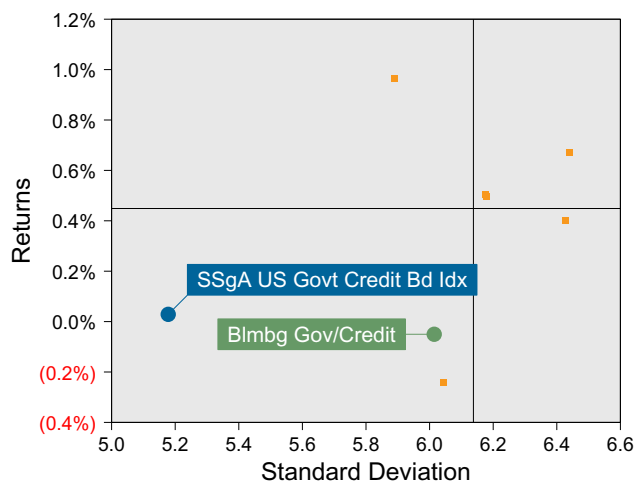
Performance vs Callan Government/Credit (Gross)



Relative Return vs Blmbg Gov/Credit



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



Western Asset Management Company

Period Ended September 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.

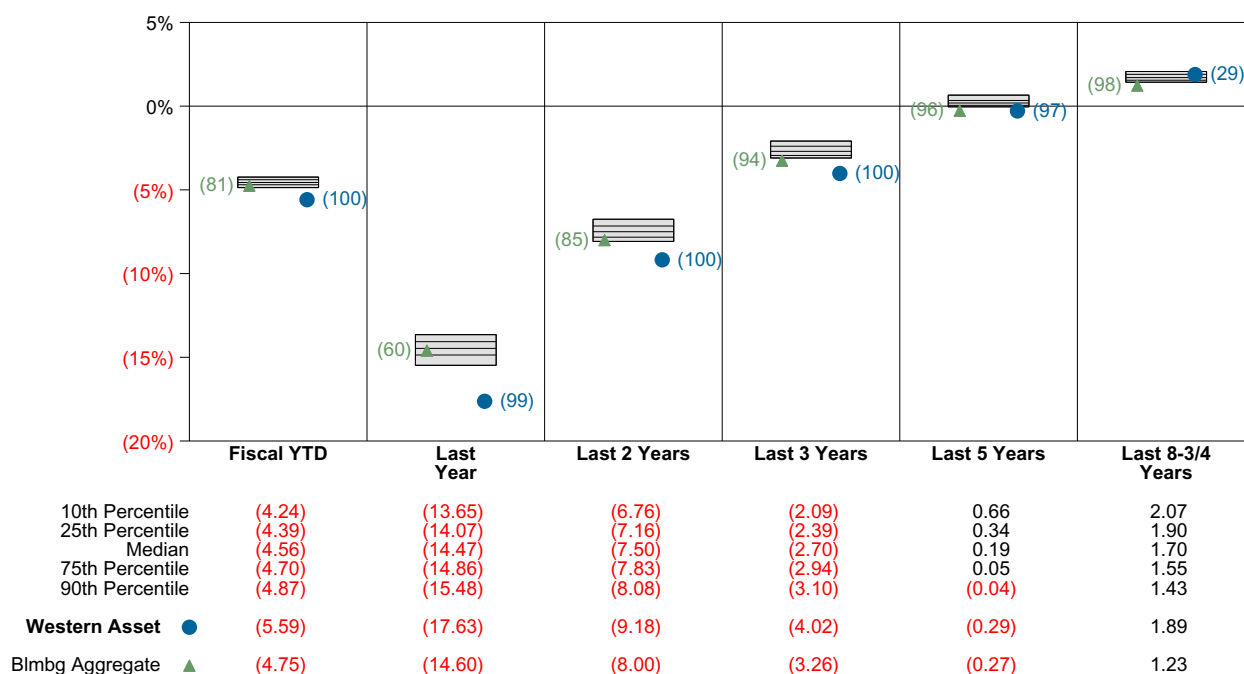
Quarterly Summary and Highlights

- Western Asset's portfolio posted a (5.59)% return for the quarter placing it in the 100 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 99 percentile for the last year.
- Western Asset's portfolio underperformed the Blmbg Aggregate by 0.83% for the quarter and underperformed the Blmbg Aggregate for the year by 3.03%.

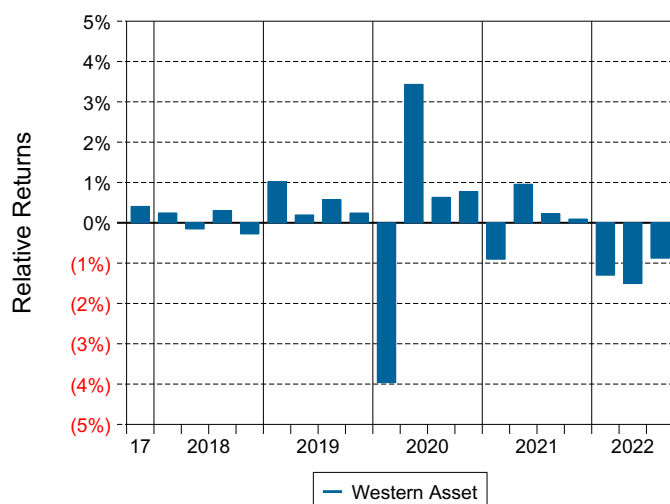
Quarterly Asset Growth

Beginning Market Value	\$768,882,500
Net New Investment	\$-16,220,863
Investment Gains/(Losses)	\$-42,405,316
Ending Market Value	\$710,256,321

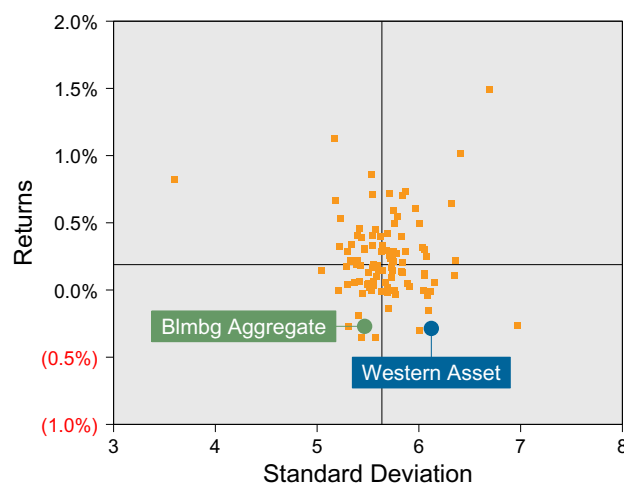
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



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



Invesco Core Real Estate Period Ended September 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.

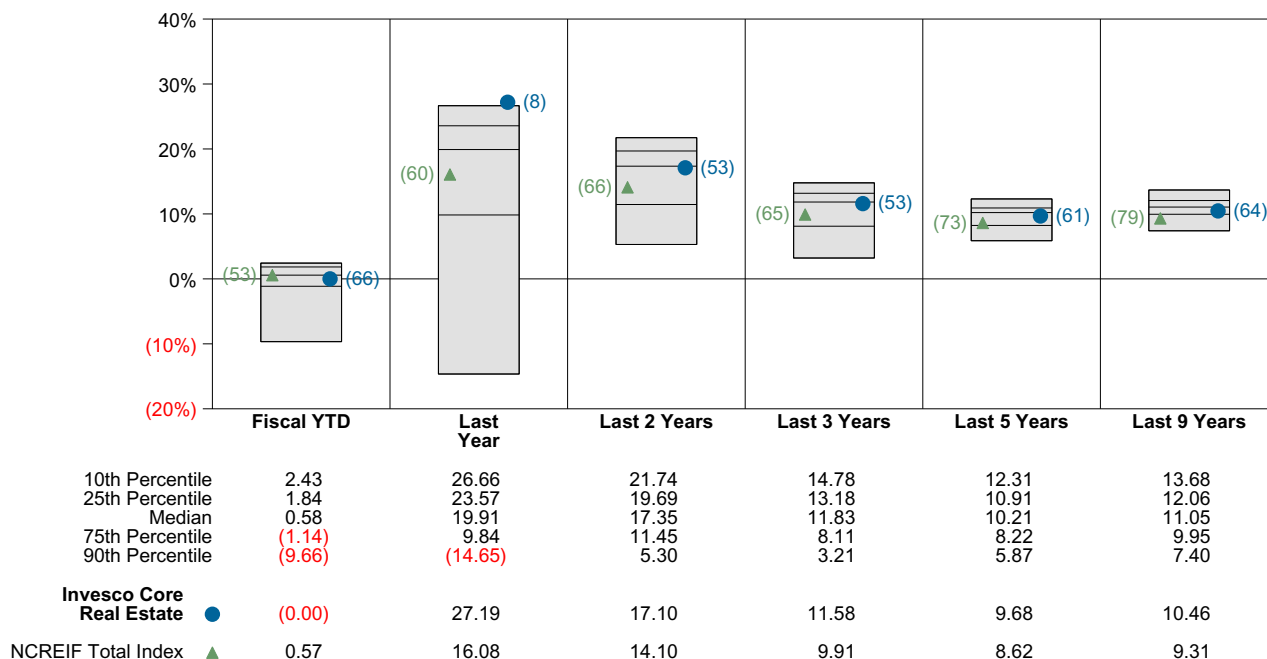
Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a (0.00)% return for the quarter placing it in the 66 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 8 percentile for the last year.
- Invesco Core Real Estate's portfolio underperformed the NCREIF Total Index by 0.57% for the quarter and outperformed the NCREIF Total Index for the year by 11.12%.

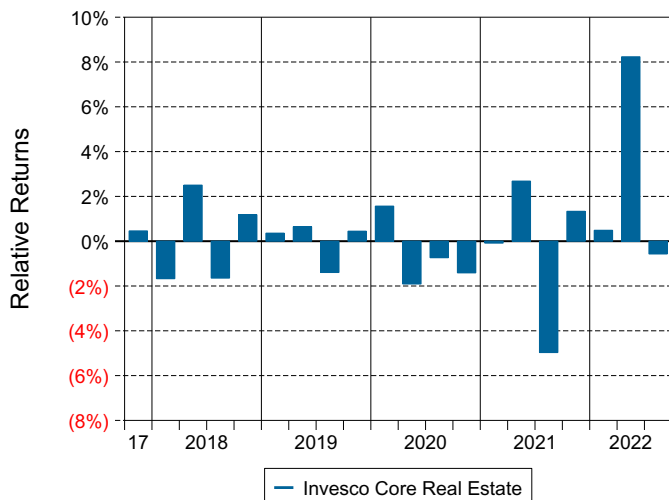
Quarterly Asset Growth

Beginning Market Value	\$235,261,113
Net New Investment	\$0
Investment Gains/(Losses)	\$-245
Ending Market Value	\$235,260,867

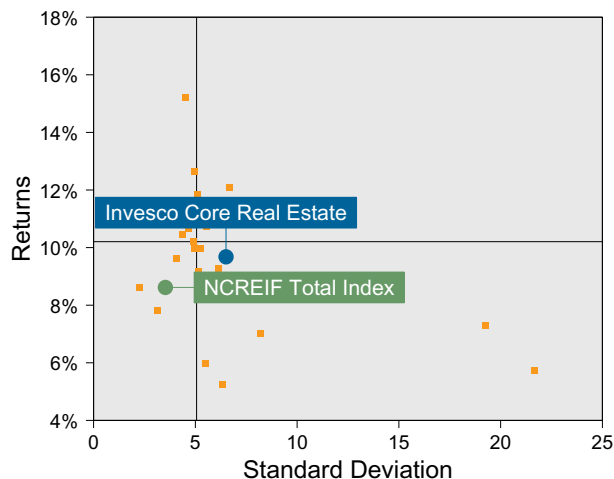
Performance vs Callan Total Domestic Real Estate DB (Gross)



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 September 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.

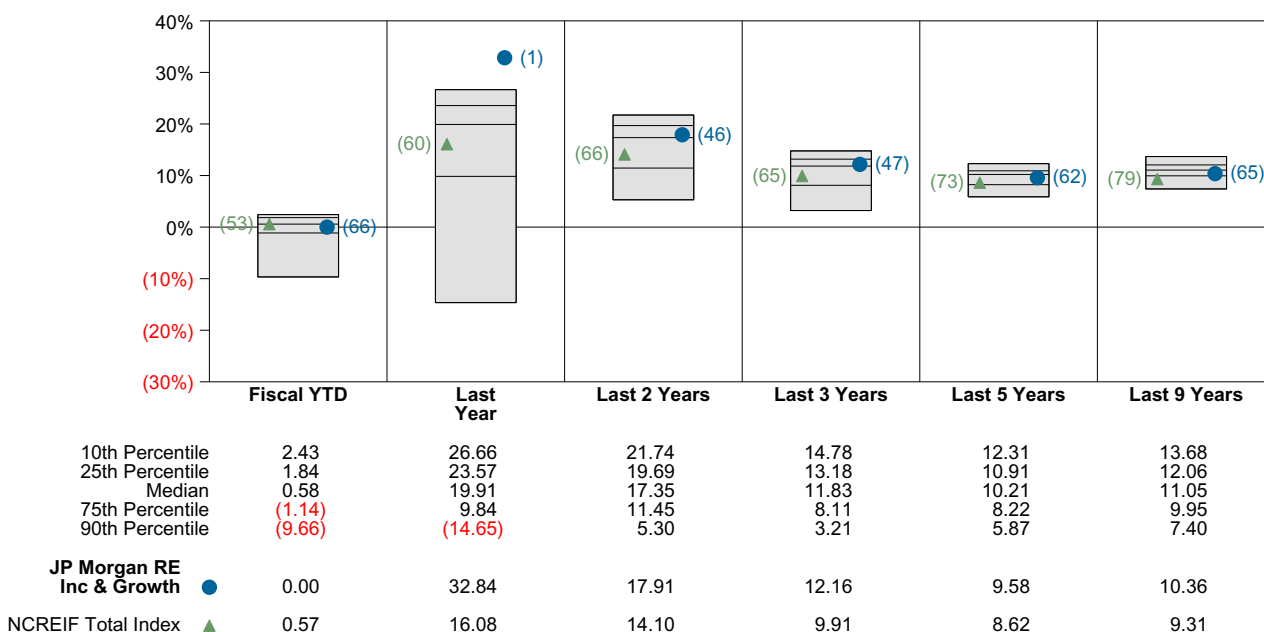
Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth's portfolio posted a 0.00% return for the quarter placing it in the 66 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 underperformed the NCREIF Total Index by 0.57% for the quarter and outperformed the NCREIF Total Index for the year by 16.76%.

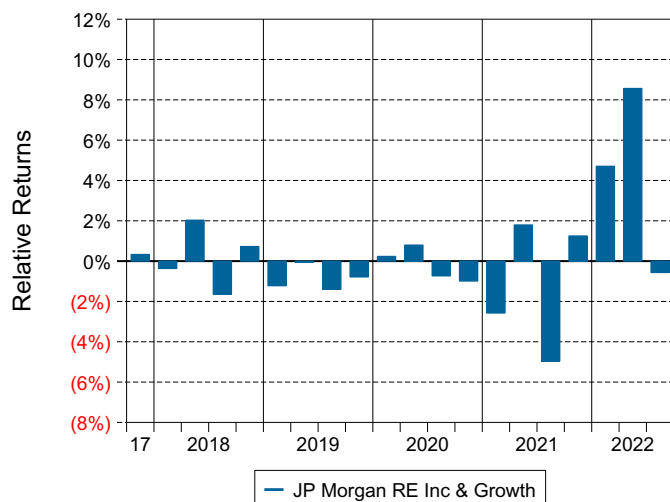
Quarterly Asset Growth

Beginning Market Value	\$236,226,003
Net New Investment	\$-3
Investment Gains/(Losses)	\$3
Ending Market Value	\$236,226,003

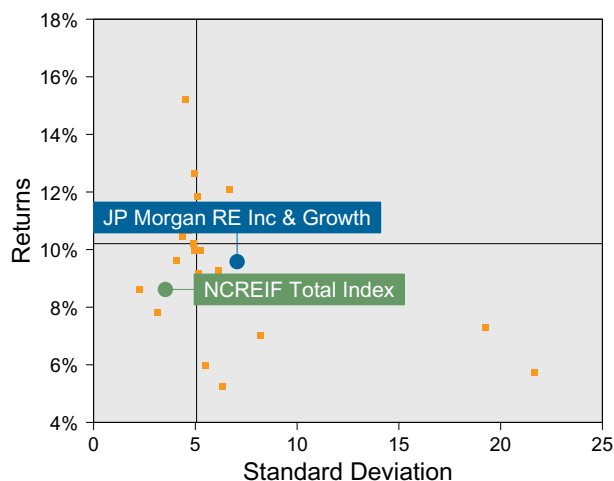
Performance vs Callan Total Domestic Real Estate DB (Gross)



Relative Return vs NCREIF Total Index



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



Western Asset TIPS Period Ended September 30, 2022

Investment Philosophy

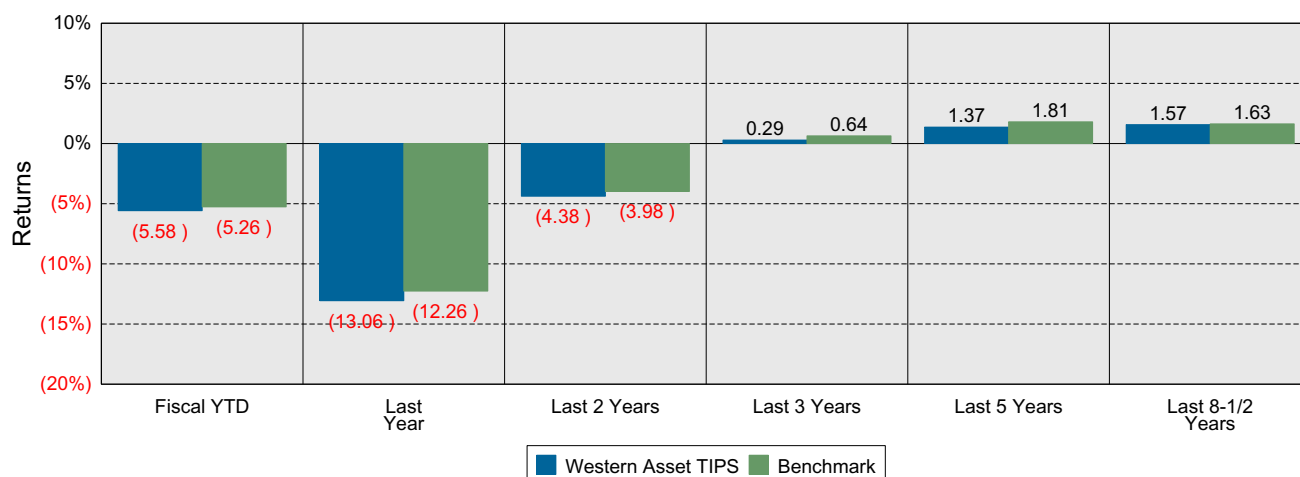
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio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

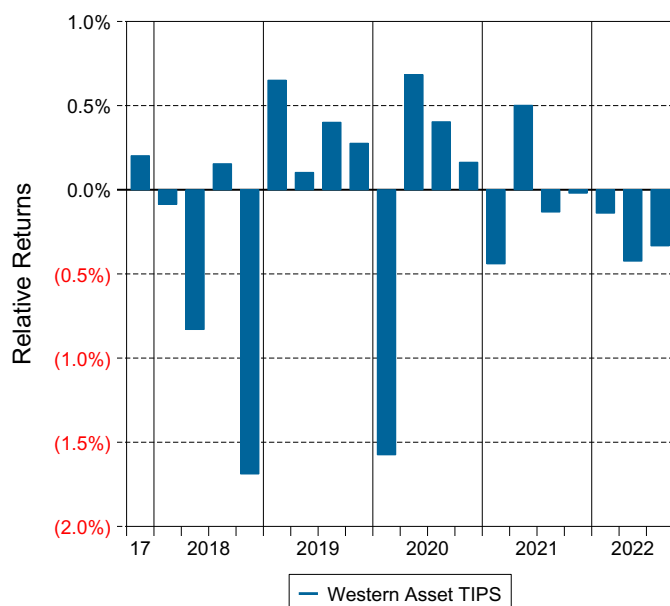
- Western Asset TIPS's portfolio underperformed the Benchmark by 0.32% for the quarter and underperformed the Benchmark for the year by 0.80%.

Quarterly Asset Growth

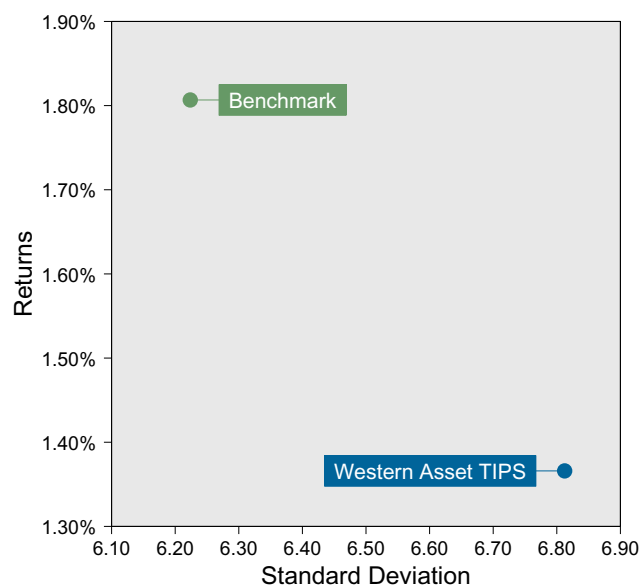
Beginning Market Value	\$445,343,817
Net New Investment	\$-59,129,597
Investment Gains/(Losses)	\$-20,956,039
Ending Market Value	\$365,258,182



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



JP Morgan IIF Infrastructure Period Ended September 30, 2022

Investment Philosophy

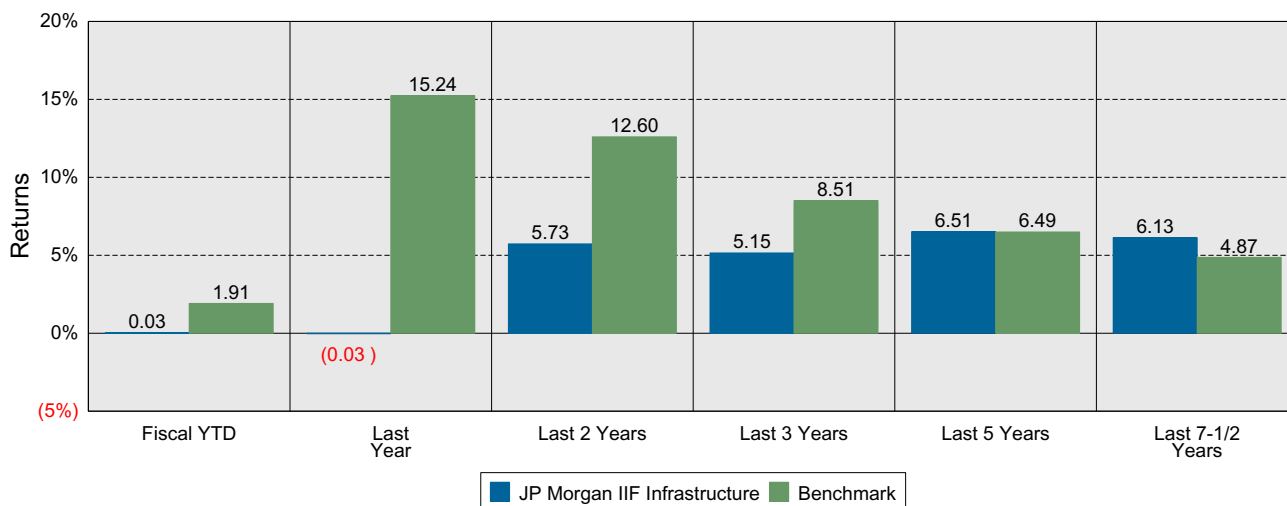
The only open-ended private commingled infrastructure fund in the U.S., the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and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

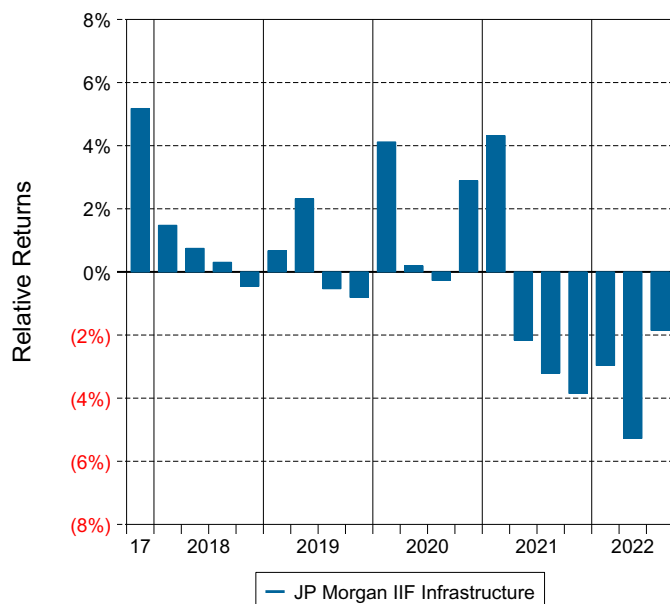
- JP Morgan IIF Infrastructure's portfolio underperformed the Benchmark by 1.88% for the quarter and underperformed the Benchmark for the year by 15.27%.

Quarterly Asset Growth

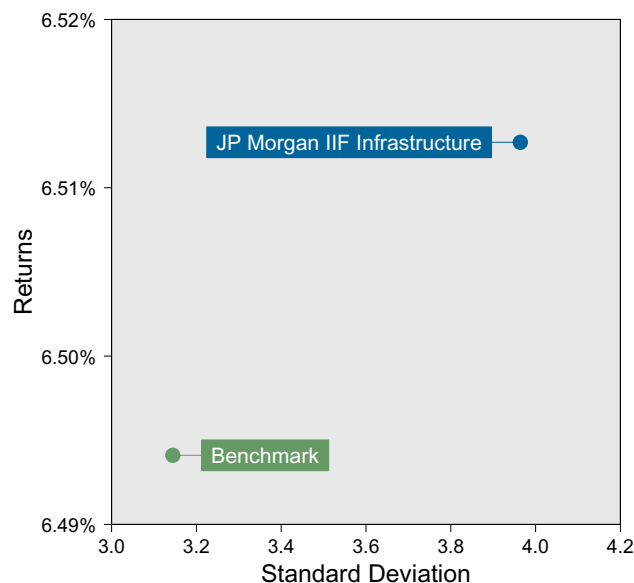
Beginning Market Value	\$102,351,847
Net New Investment	\$-1,773,178
Investment Gains/(Losses)	\$30,576
Ending Market Value	\$100,609,245



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund II

Period Ended September 30, 2022

Investment Philosophy

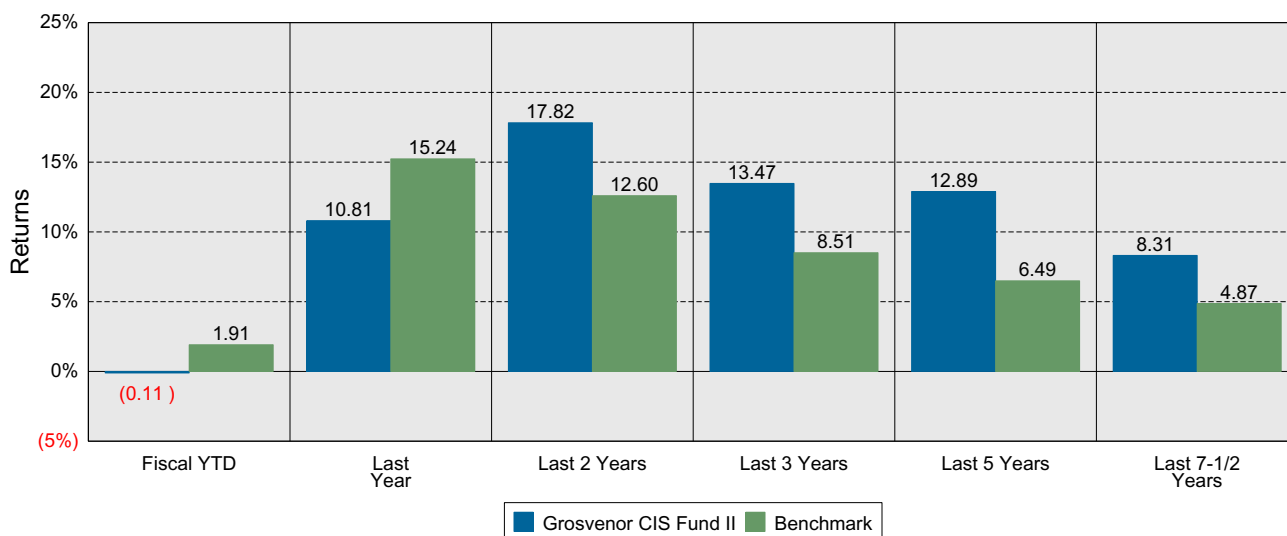
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified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

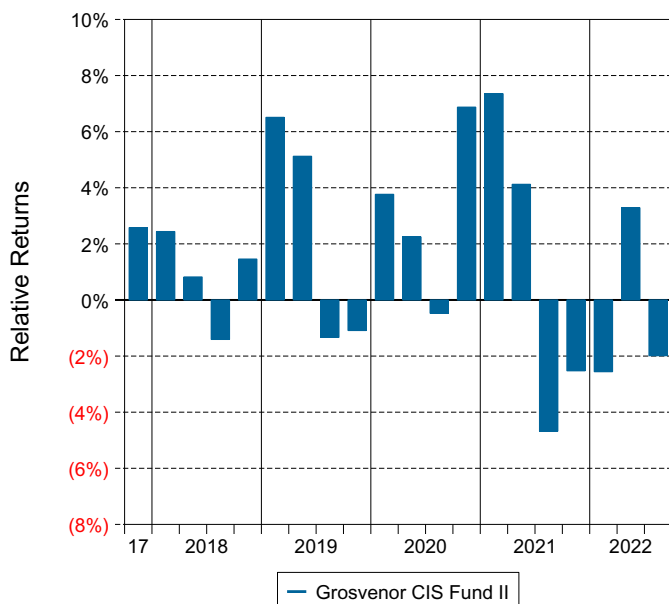
- Grosvenor CIS Fund II's portfolio underperformed the Benchmark by 2.02% for the quarter and underperformed the Benchmark for the year by 4.43%.

Quarterly Asset Growth

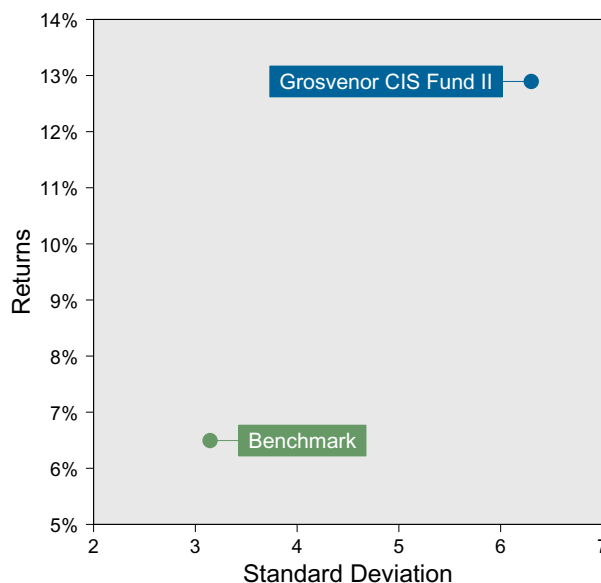
Beginning Market Value	\$56,796,580
Net New Investment	\$-659,201
Investment Gains/(Losses)	\$-61,554
Ending Market Value	\$56,075,825



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund III

Period Ended September 30, 2022

Investment Philosophy

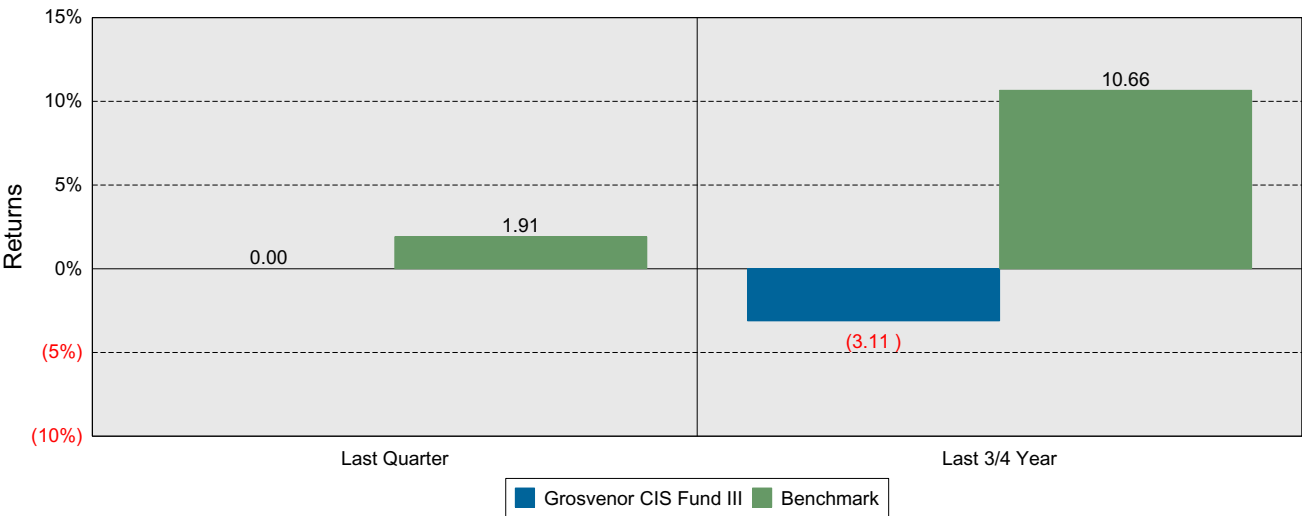
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified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

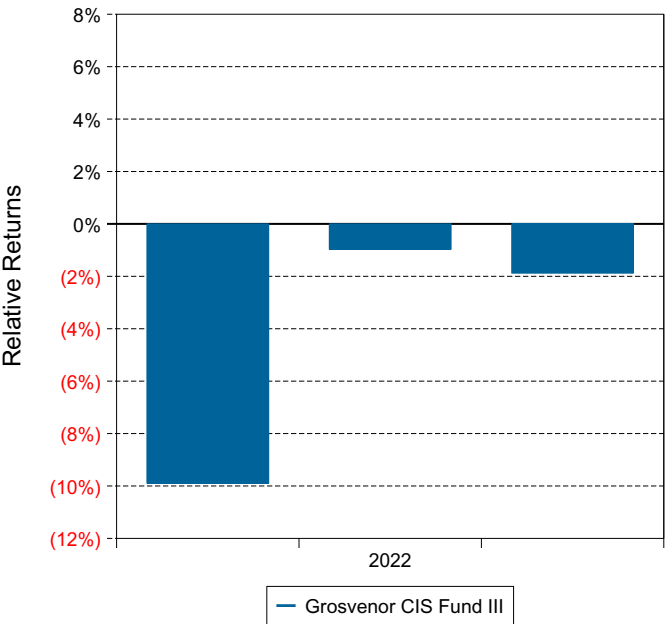
- Grosvenor CIS Fund III's portfolio underperformed the Benchmark by 1.91% for the quarter and underperformed the Benchmark for the three-quarter year by 13.77%.

Quarterly Asset Growth

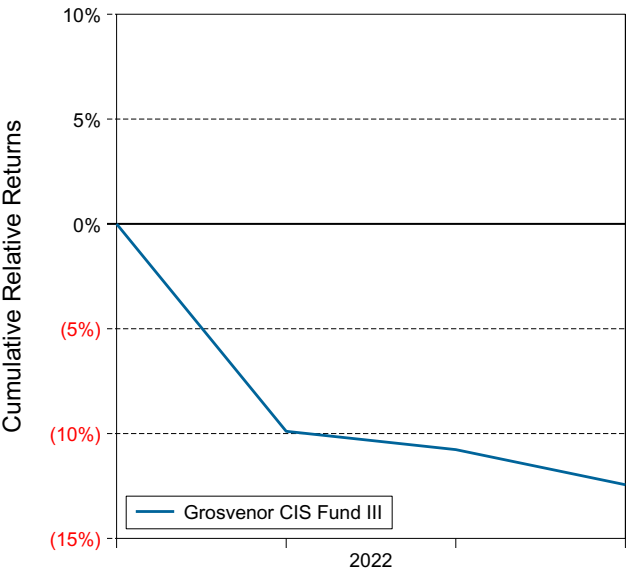
Beginning Market Value	\$21,910,155
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$21,910,155



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



ISQ Global Infrastructure II Period Ended September 30, 2022

Investment Philosophy

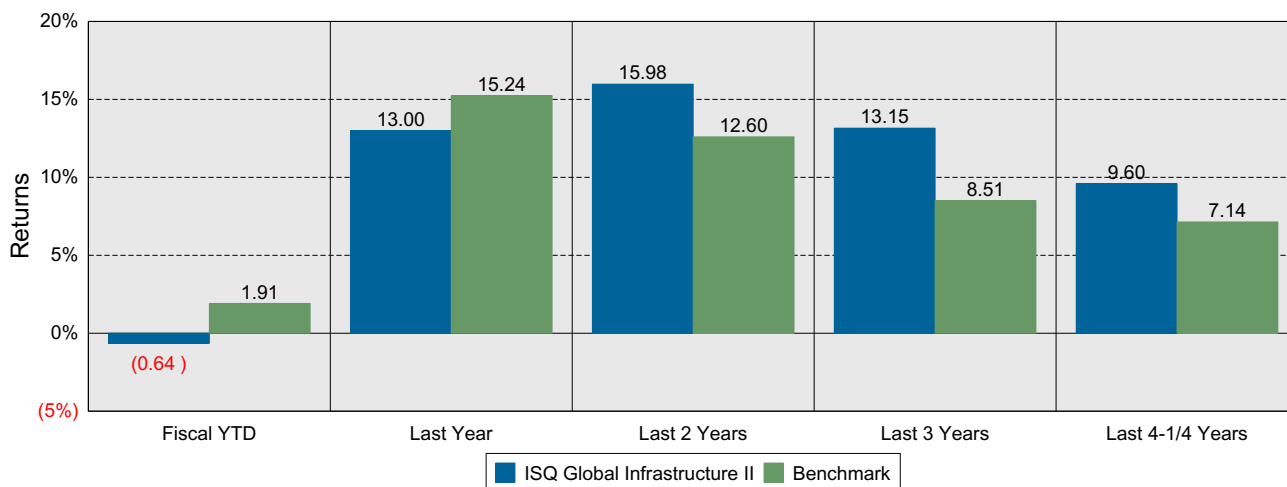
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia 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

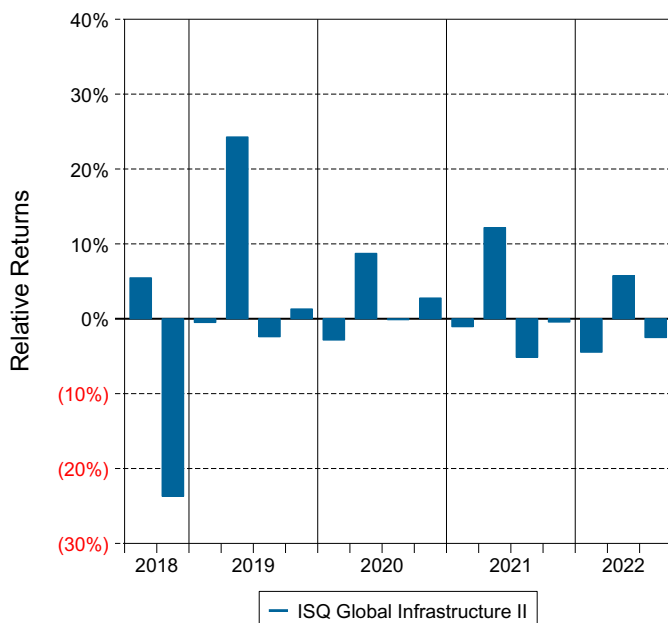
- ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 2.56% for the quarter and underperformed the Benchmark for the year by 2.24%.

Quarterly Asset Growth

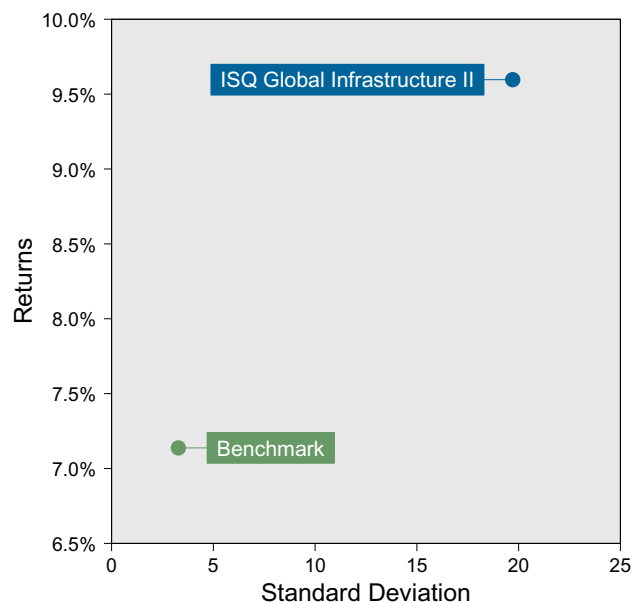
Beginning Market Value	\$79,546,760
Net New Investment	\$3,533,464
Investment Gains/(Losses)	\$-519,976
Ending Market Value	\$82,560,248



Relative Return vs Benchmark



Annualized Four and One-Quarter Year Risk vs Return



ISQ Global Infrastructure III Period Ended September 30, 2022

Investment Philosophy

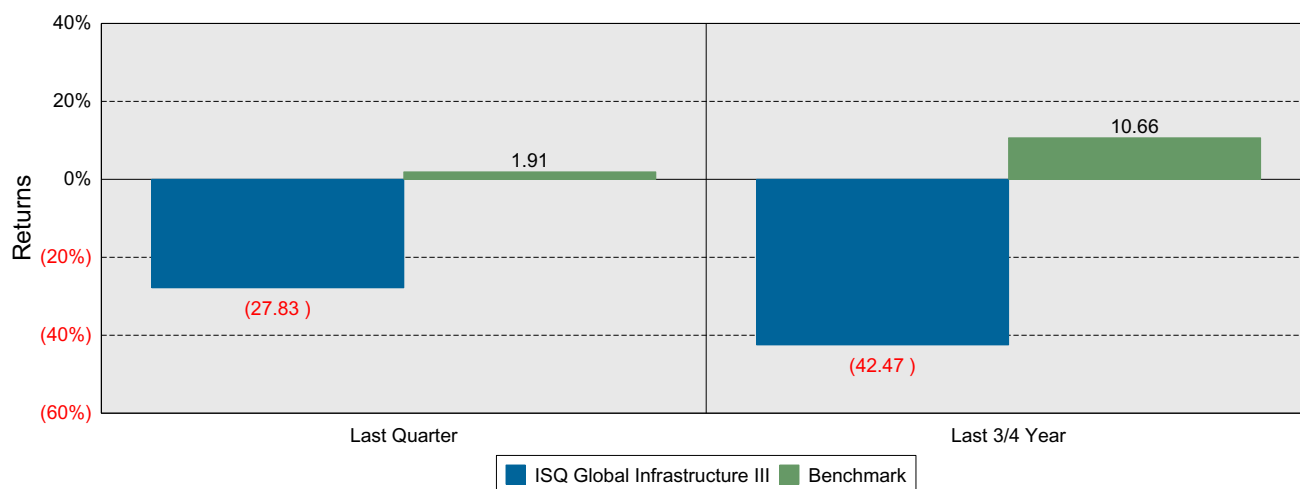
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia 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

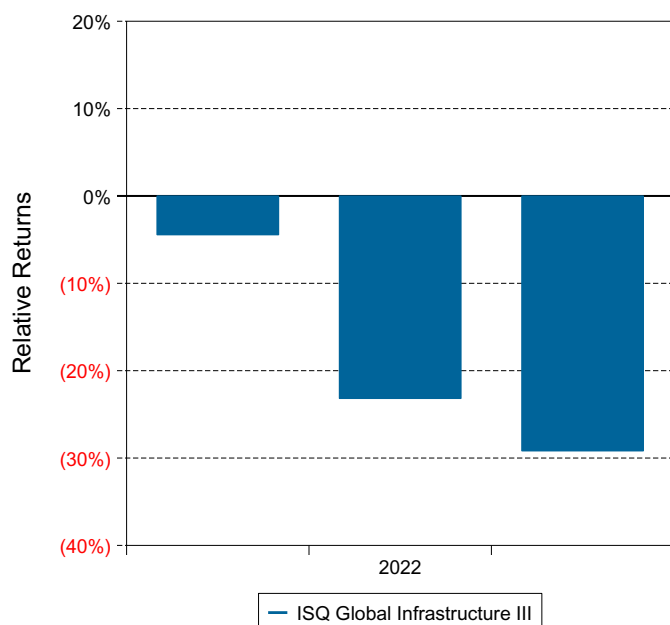
- ISQ Global Infrastructure III's portfolio underperformed the Benchmark by 29.74% for the quarter and underperformed the Benchmark for the three-quarter year by 53.13%.

Quarterly Asset Growth

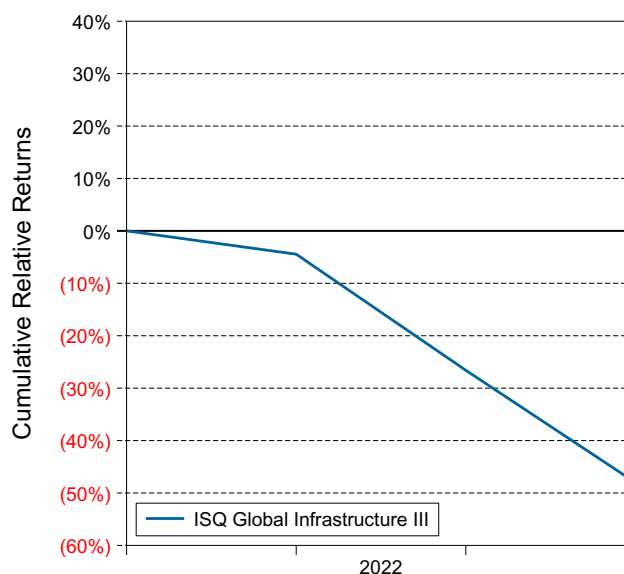
Beginning Market Value	\$5,634,947
Net New Investment	\$2,796,644
Investment Gains/(Losses)	\$-1,660,825
Ending Market Value	\$6,770,766



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



Macquarie Infrastructure Fund IV Period Ended September 30, 2022

Investment Philosophy

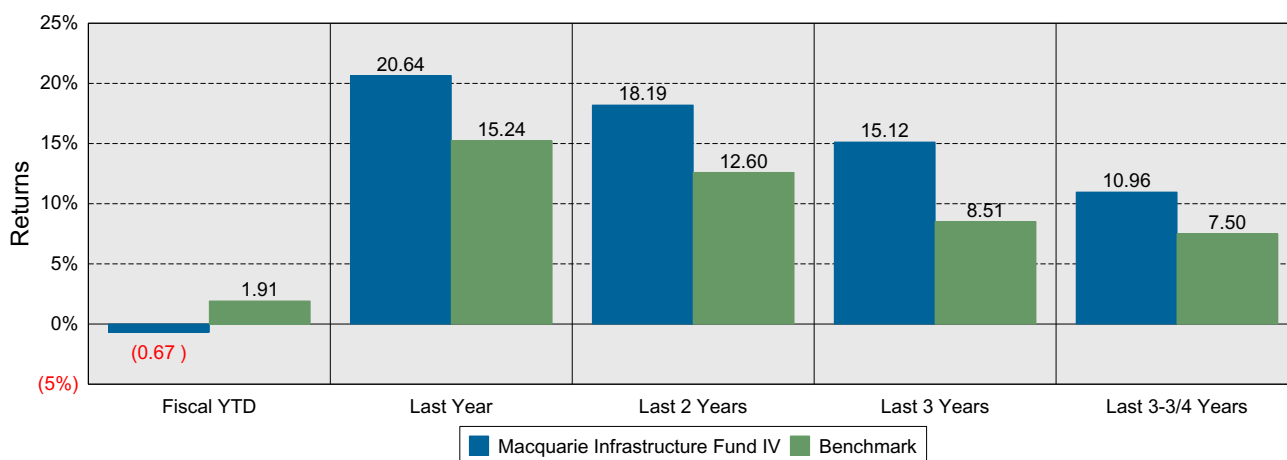
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience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

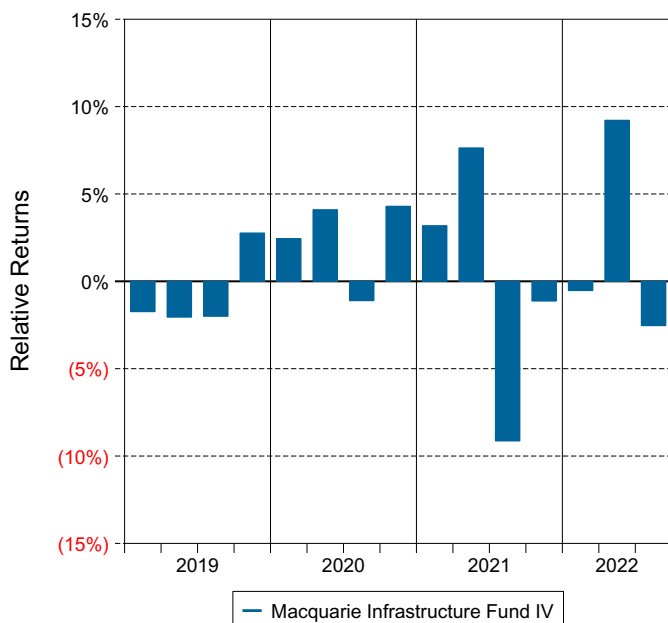
- Macquarie Infrastructure Fund IV's portfolio underperformed the Benchmark by 2.58% for the quarter and outperformed the Benchmark for the year by 5.41%.

Quarterly Asset Growth

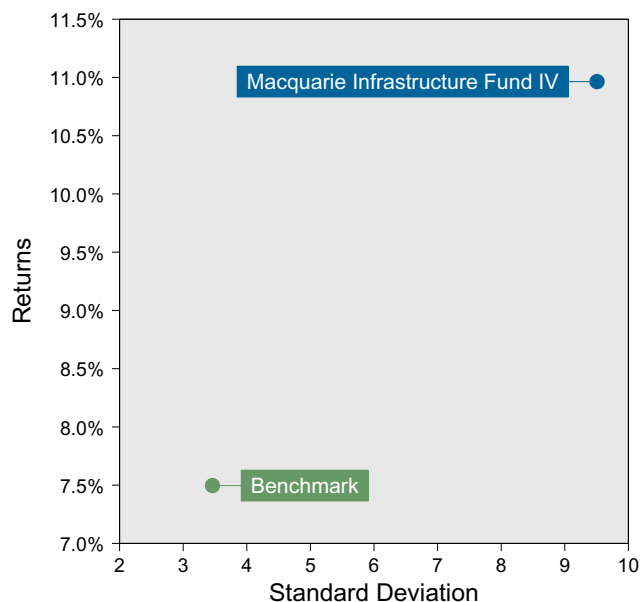
Beginning Market Value	\$87,201,785
Net New Investment	\$2,408,724
Investment Gains/(Losses)	\$-593,873
Ending Market Value	\$89,016,636



Relative Return vs Benchmark



Annualized Three and Three-Quarter Year Risk vs Return



Macquarie Infrastructure Fund V Period Ended September 30, 2022

Investment Philosophy

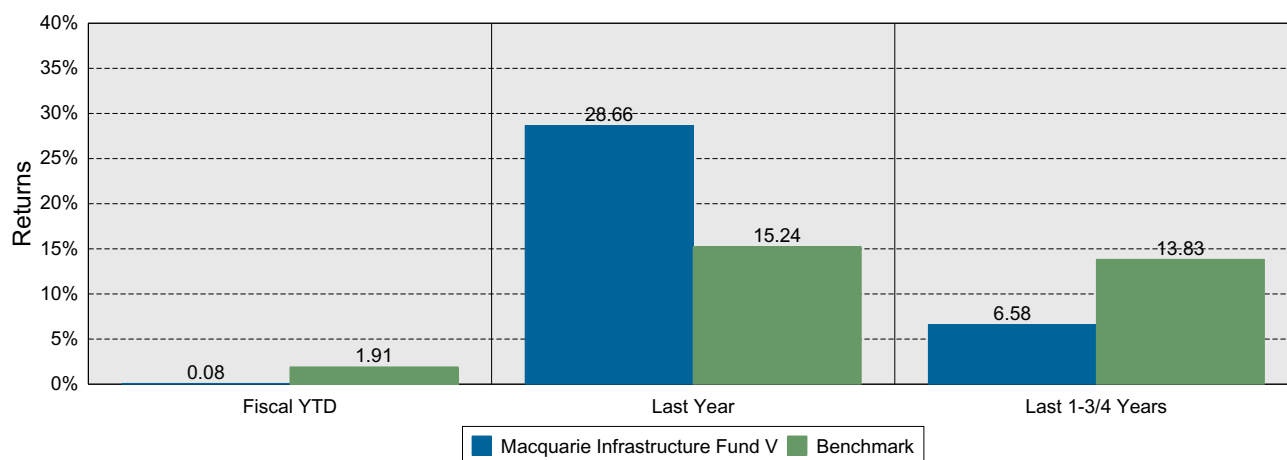
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience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

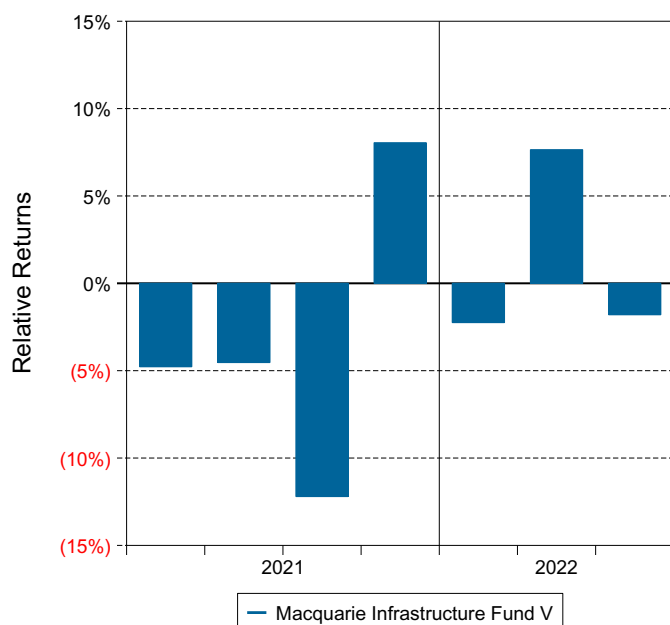
- Macquarie Infrastructure Fund V's portfolio underperformed the Benchmark by 1.83% for the quarter and outperformed the Benchmark for the year by 13.43%.

Quarterly Asset Growth

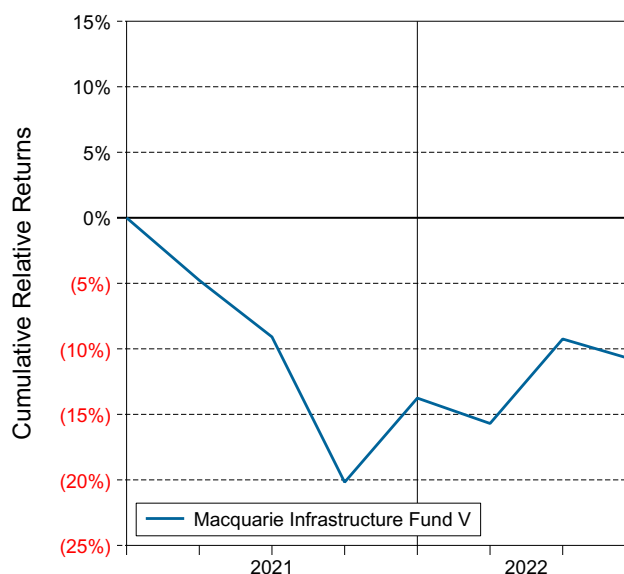
Beginning Market Value	\$69,712,515
Net New Investment	\$-57,481
Investment Gains/(Losses)	\$57,481
Ending Market Value	\$69,712,515



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: Preliminary Mid-Year Capital Markets Assumptions | In this coffee break session, our experts, Jay Kloepfer and Adam Lozinski, describe our preliminary 2023-2032 Capital Markets Assumptions, discuss the process and rationale behind the adjustments of these long-term projections, and explain the potential implications for strategic recommendations.

Is Financial Wellness the Right Prescription for Your DC Plan? Jana Steele discusses what financial wellness is and how it can be incorporated effectively into a defined contribution (DC) plan.

Blog Highlights

Do Active Core Plus Fixed Income Managers Add Value With Sector Rotation? | To help answer this question, we used benchmark indices and risk-adjusted them to disentangle an active manager's contribution to performance from a strategic overweight to credit vs. the contribution added by true sector rotation. This provides a quantitative framework for evaluating potential performance, which can be balanced against other considerations, including fees and expenses, complexity, and desired risk and performance patterns.

Bubbles Bursting Everywhere | The S&P 500 posted its worst six-month return in over 50 years to start the year. Inflation is surging, hitting 40-year highs in the United States. At the same time, interest rates are rising, and, to top it off, a recession may be on the horizon. For institutional investors, navigating these treacherous cross-currents requires an understanding of just how we arrived at this point.

The Fading Unicorn: How Volatility, Inflation, and Rate Hikes Impact Venture Capital | With Fed rate hikes, skyrocketing prices, and a Nasdaq selloff, venture capital (VC) limited partners have no shortage of worries. The unicorn stampede of the past decade has begun to fade, with many technology companies drastically declining

in value in the public markets. By understanding venture capital's relationship with interest rates, inflation, and the public markets, institutional investors can better navigate the effect on their portfolios in 2022 and beyond.

Target Date Funds and the Ever-Evolving Glidepath | In 2021 and the first half of 2022, multiple target date fund (TDF) providers announced changes to their strategic TDF glidepaths. The timing of these changes was unique, as capital markets adjusted to a post-pandemic world and a vastly different global outlook.

Quarterly Periodicals

Private Equity Update, 2Q22 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 2Q22 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse, 2Q22 | 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, 2Q22 | 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, 2Q22 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Update, 2Q22 | A summary of market activity for real assets and private real estate during the quarter

Private Credit Update, 2Q22 | A review of performance and fund-raising 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:

2023 Capital Markets Projections Webinar

Jan. 18, 2023 – Virtual

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

March 1-2 – Chicago

May 23-25 – 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-education



"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

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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
BlackRock
Blackstone Group (The)
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management Inc.
Brown Brothers Harriman & Company
Capital Group
Carillon Tower Advisers
CastleArk Management, LLC
Chartwell Investment Partners
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.

Manager Name

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

Insight Investment

Intech Investment Management LLC

Intercontinental Real Estate Corporation

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

Manager Name

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.

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

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

Manager Name
PineBridge Investments
Polen Capital Management, LLC
Principal Global Investors
Putnam Investments, LLC
Raymond James Investment Management
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
T. Rowe Price Associates, Inc.

Manager Name
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
WCM Investment Management
Wellington Management Company, LLP
Western Asset Management Company LLC
Westfield Capital Management Company, LP
William Blair & Company LLC

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