

September 30, 2022



North Dakota State Investment Board Pension Funds

**Investment Measurement Service
Quarterly Review**

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September 30, 2022

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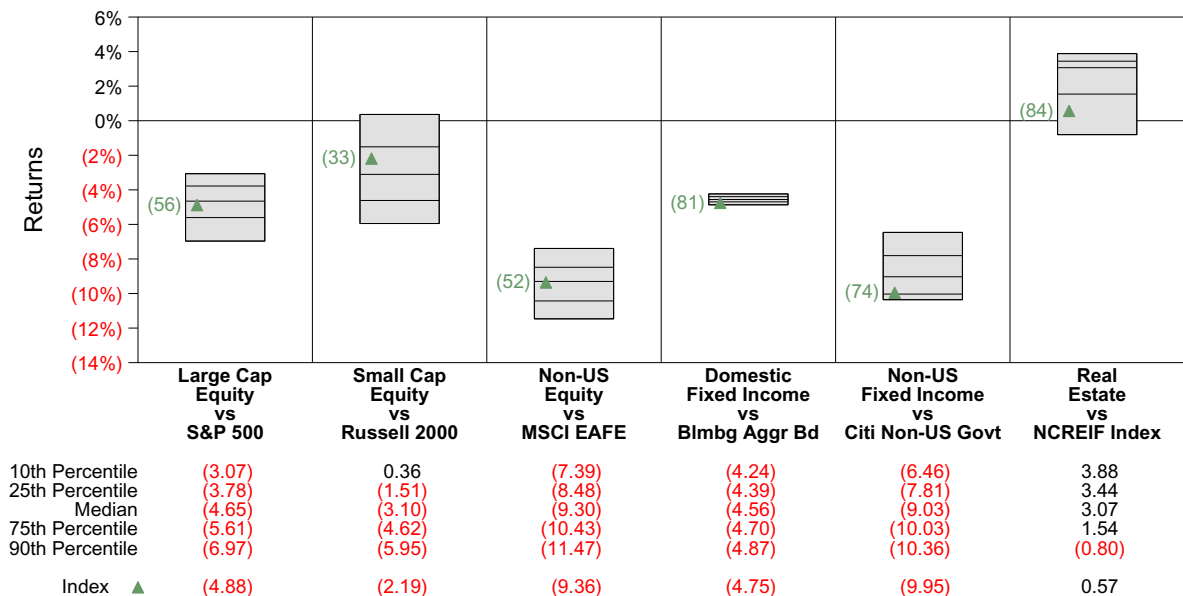
Market Overview

Active Management vs Index Returns

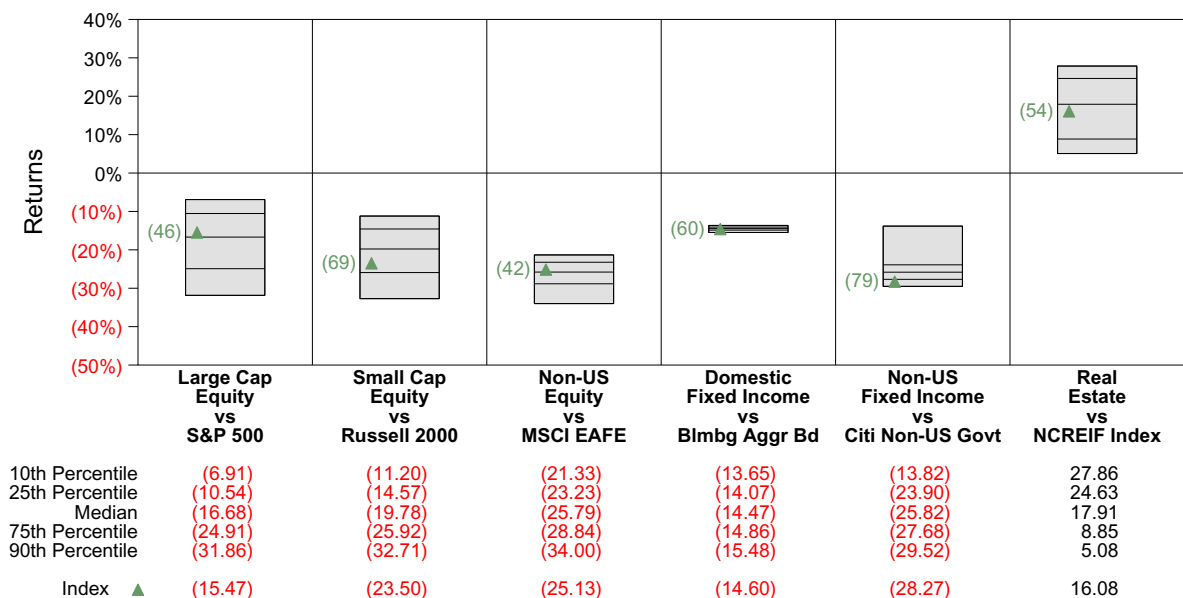
Market Overview

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

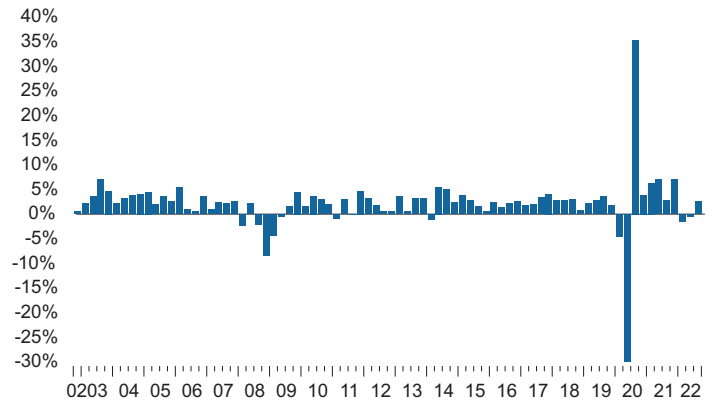
Capital markets abhor uncertainty, and we have seen nothing but uncertainty this year. The Russian invasion of Ukraine threw expectations for an orderly transition from the pandemic era out the window. Kinks in supply chains were expected to be smoothed, energy prices and inflation in general were projected 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

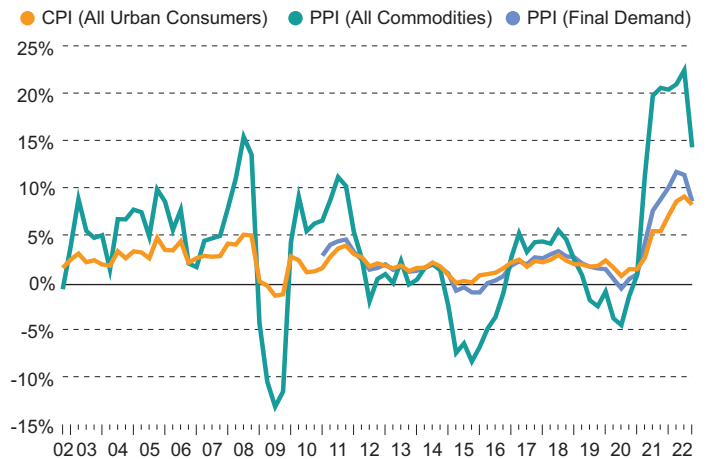
Quarterly Real GDP Growth

(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.

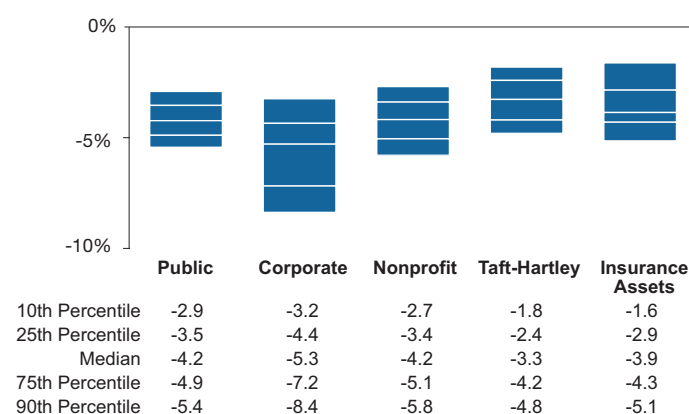
Major concern shifts

- 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.

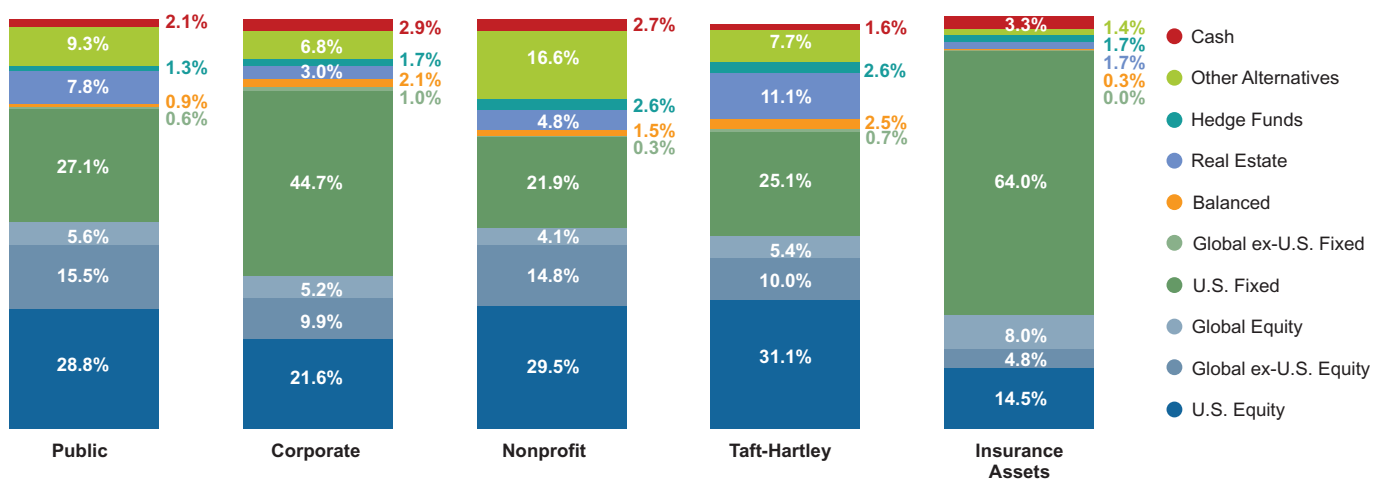
Key issues for defined contribution (DC) plans

- 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

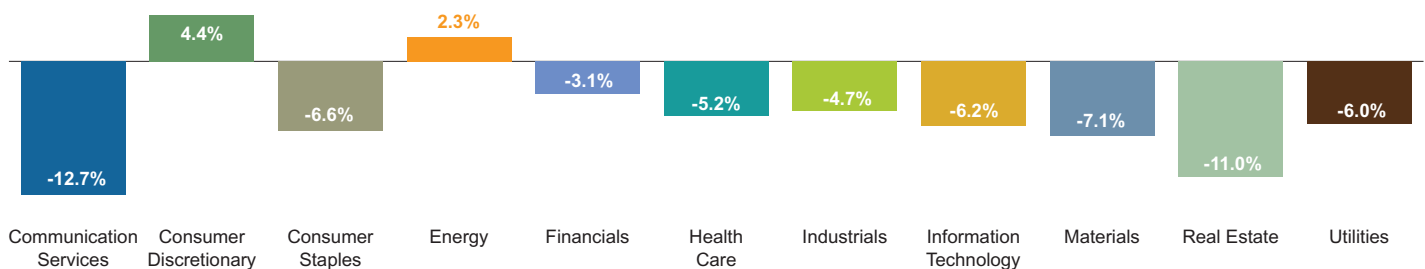
Worst three-quarter start to year in decades

- 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)



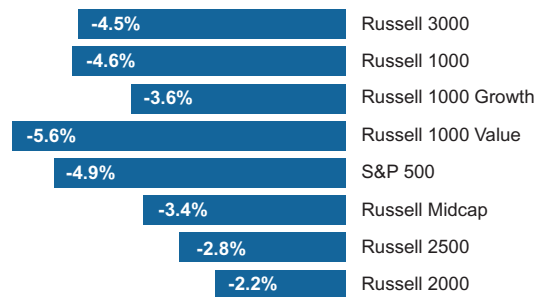
Source: S&P Dow Jones Indices

'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.

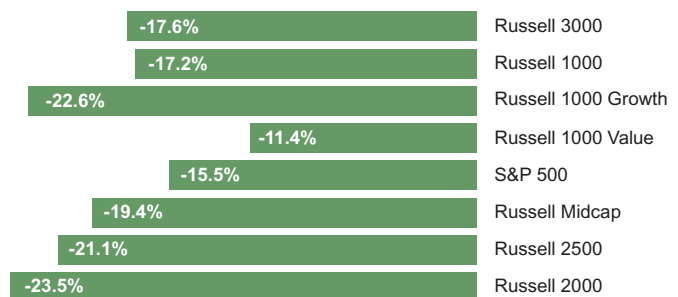
U.S. Equity: Quarterly Returns

(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.

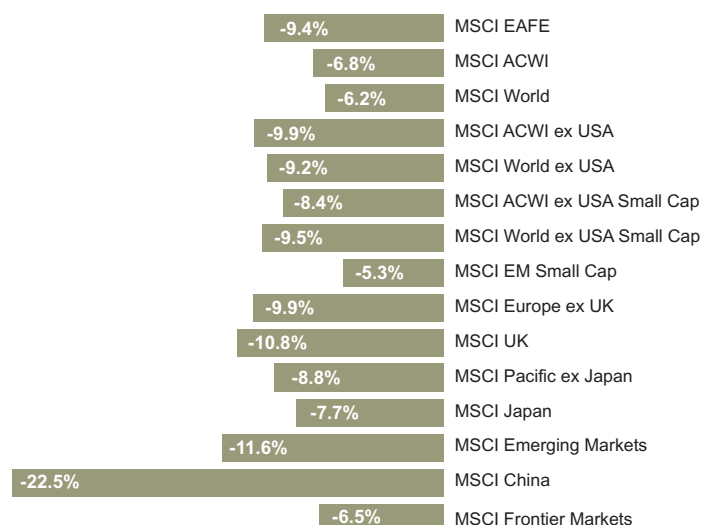
U.S. dollar vs. other currencies

- 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%.

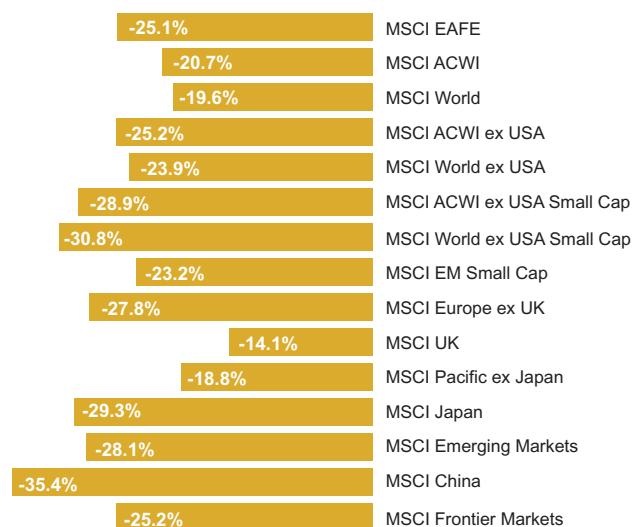
The case for global ex-U.S. equities

- 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

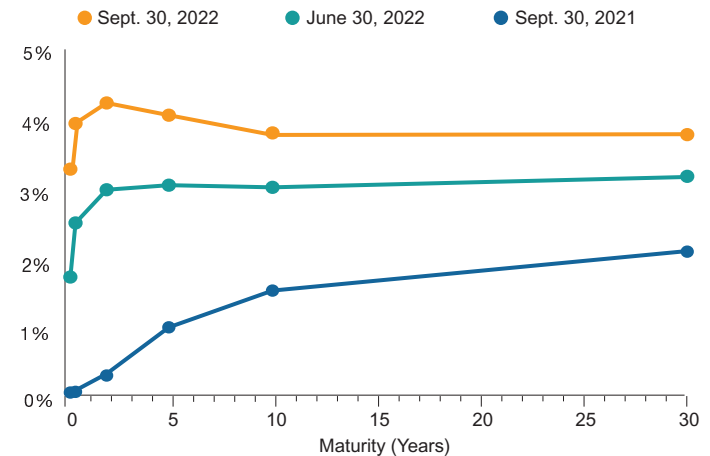
Municipal bond returns hurt by rising rates

- 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)

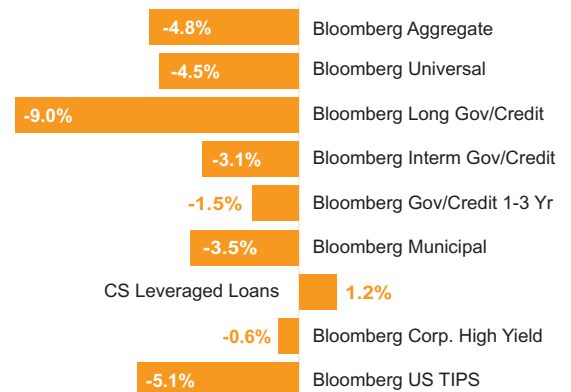
U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns

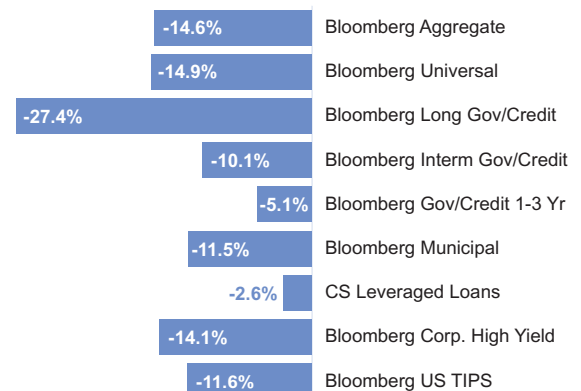
(9/30/22)



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

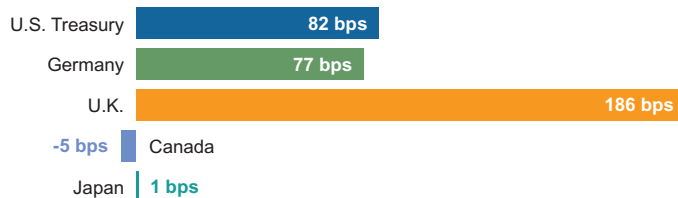
Global Fixed Income

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

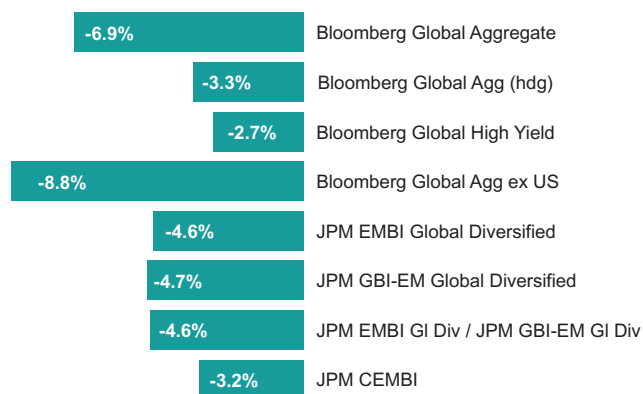
2Q22 to 3Q22



Source: Bloomberg

Global Fixed Income: Quarterly Returns

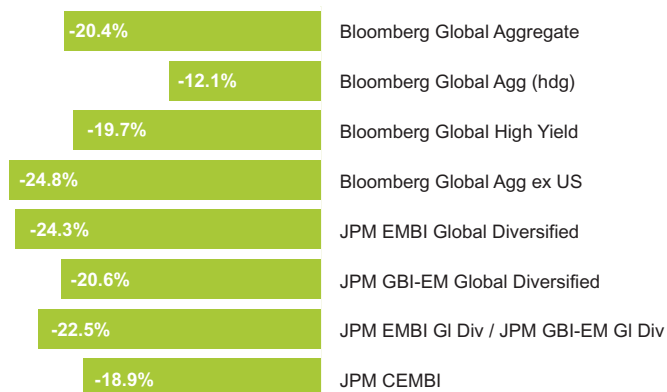
(9/30/22)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns

(9/30/22)



Sources: Bloomberg and JPMorgan Chase

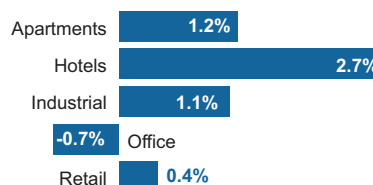
NPI Shows Gains but REITs Lag Equity Indices

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.

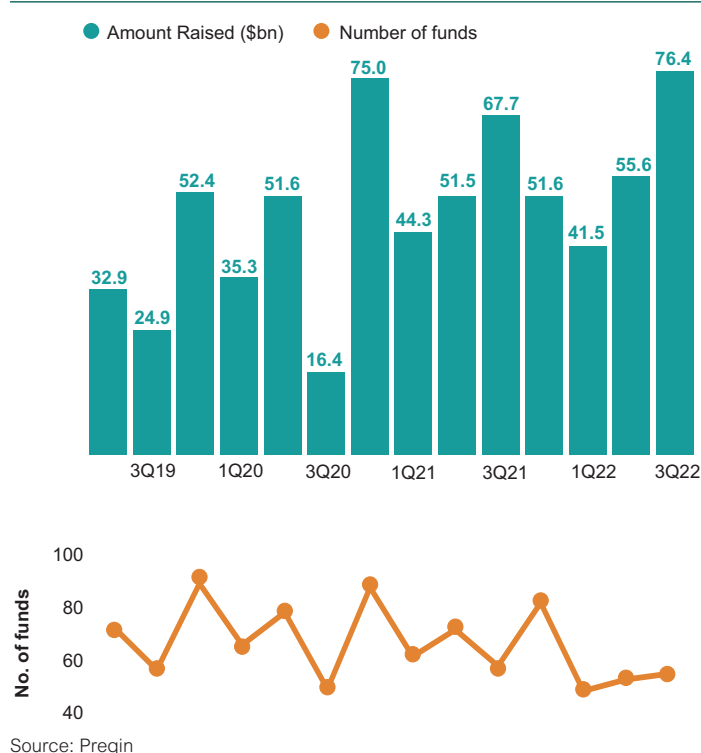
Appealing to Investors in Low-Yield Climate

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

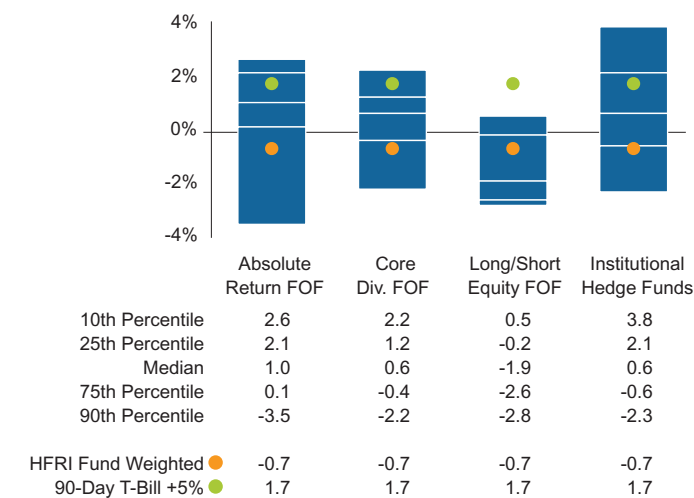
HEDGE FUNDS/MACs | Joe McGuane

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

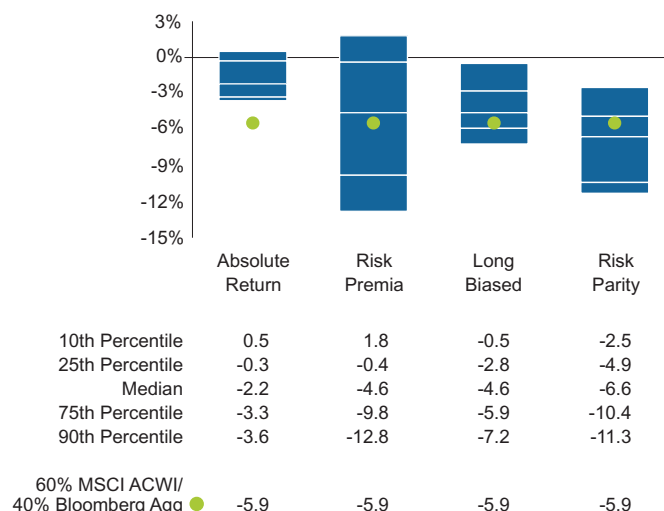
Equity FOF fell 1.9%, and the median Callan Core Diversified FOF rose 0.6%.

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%.

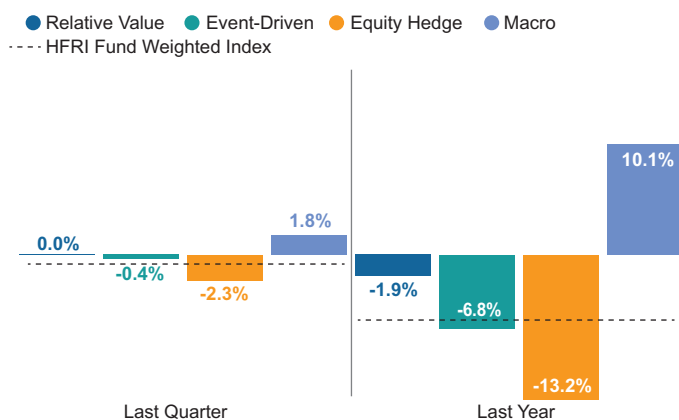
MAC Style Group Returns

(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.

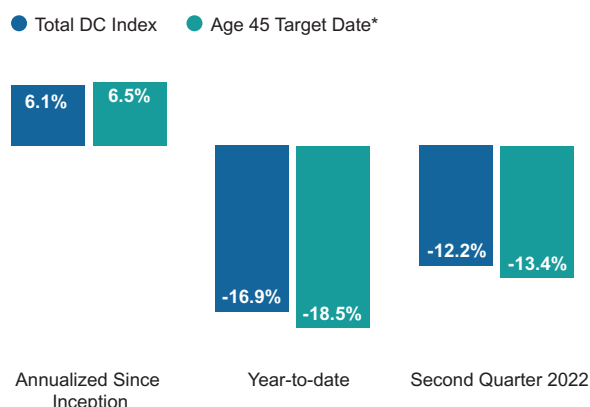
Prevalence of Asset Class: Balanced funds dip again

- 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.

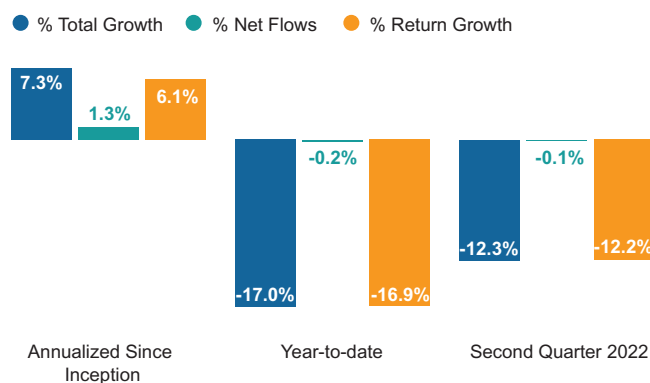
Investment Performance

(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

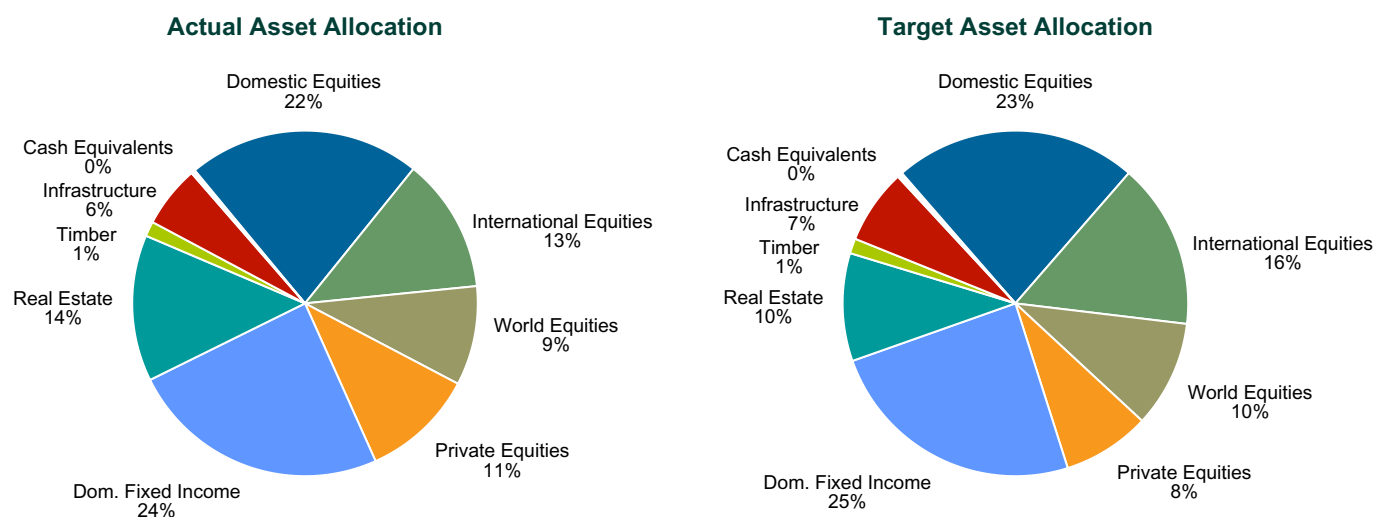
Note: DC Index inception date is January 2006.

* 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.

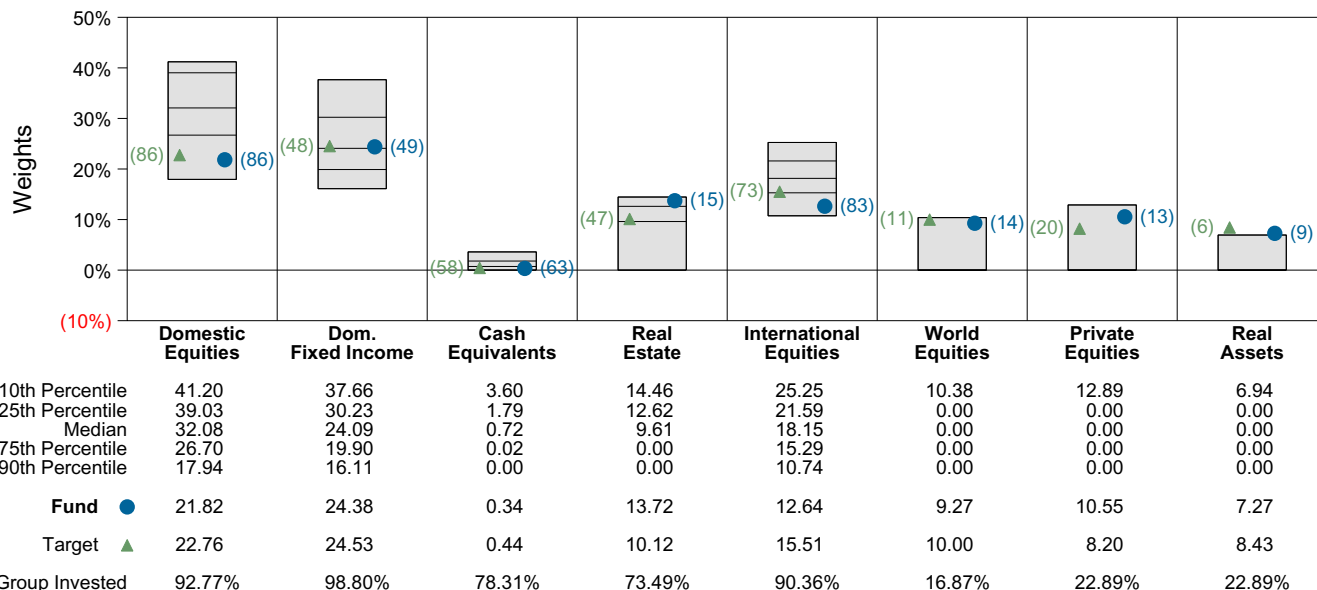
Actual vs Target Asset Allocation As of September 30, 2022

The top left chart shows the Fund's asset allocation as of September 30, 2022. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	1,444,488	21.8%	22.8%	(0.9%)	(61,710)
International Equities	836,543	12.6%	15.5%	(2.9%)	(190,335)
World Equities	613,659	9.3%	10.0%	(0.7%)	(48,258)
Private Equities	698,370	10.6%	8.2%	2.3%	155,387
Dom. Fixed Income	1,613,948	24.4%	24.5%	(0.2%)	(9,954)
Real Estate	908,316	13.7%	10.1%	3.6%	238,274
Timber	94,256	1.4%	1.4%	0.0%	0
Infrastructure	387,121	5.8%	7.0%	(1.2%)	(76,752)
Cash Equivalents	22,461	0.3%	0.4%	(0.1%)	(6,653)
Total	6,619,162	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Sponsor Database

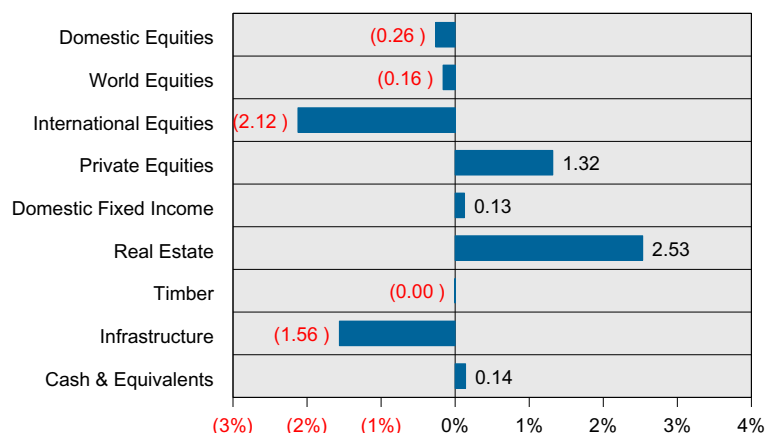


* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

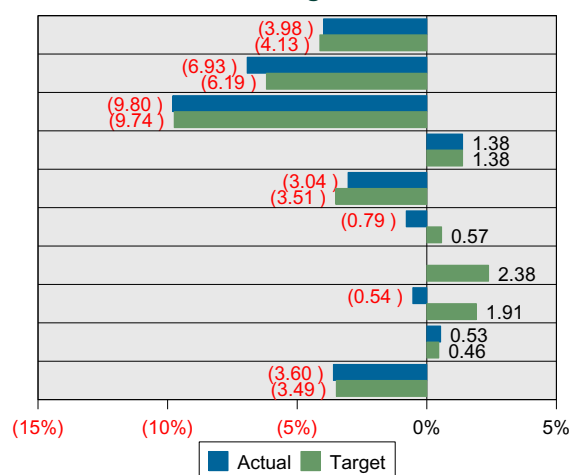
Quarterly Total Fund Relative Attribution - September 30, 2022

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.

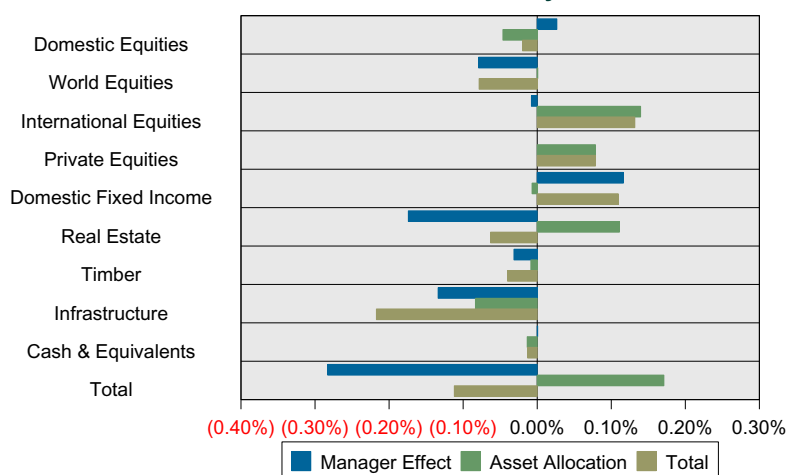
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended September 30, 2022

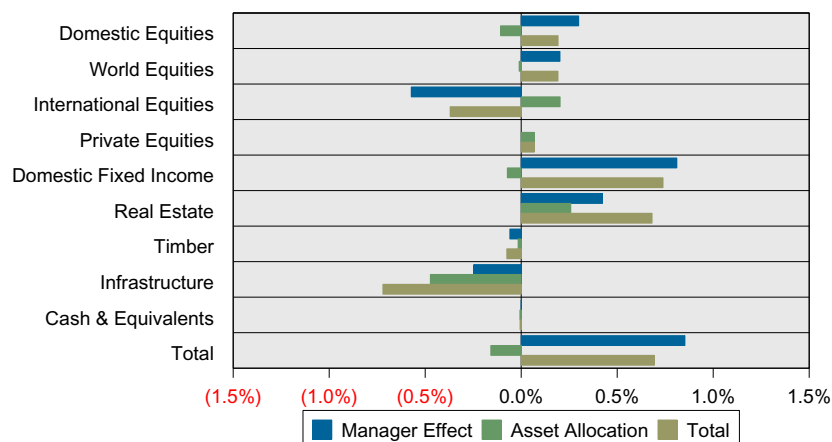
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	22%	23%	(3.98%)	(4.13%)	0.03%	(0.05%)	(0.02%)
World Equities	10%	10%	(6.93%)	(6.19%)	(0.08%)	0.00%	(0.08%)
International Equities	13%	16%	(9.80%)	(9.74%)	(0.01%)	0.14%	0.13%
Private Equities	10%	8%	1.38%	1.38%	0.00%	0.08%	0.08%
Domestic Fixed Income	25%	25%	(3.04%)	(3.51%)	0.12%	(0.01%)	0.11%
Real Estate	13%	10%	(0.79%)	0.57%	(0.17%)	0.11%	(0.06%)
Timber	1%	1%	0.00%	2.38%	(0.03%)	(0.01%)	(0.04%)
Infrastructure	6%	7%	(0.54%)	1.91%	(0.13%)	(0.08%)	(0.22%)
Cash & Equivalents	1%	0%	0.53%	0.46%	0.00%	(0.01%)	(0.01%)
Total			(3.60%)	(3.49%)	(0.28%)	0.17%	(0.11%)

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

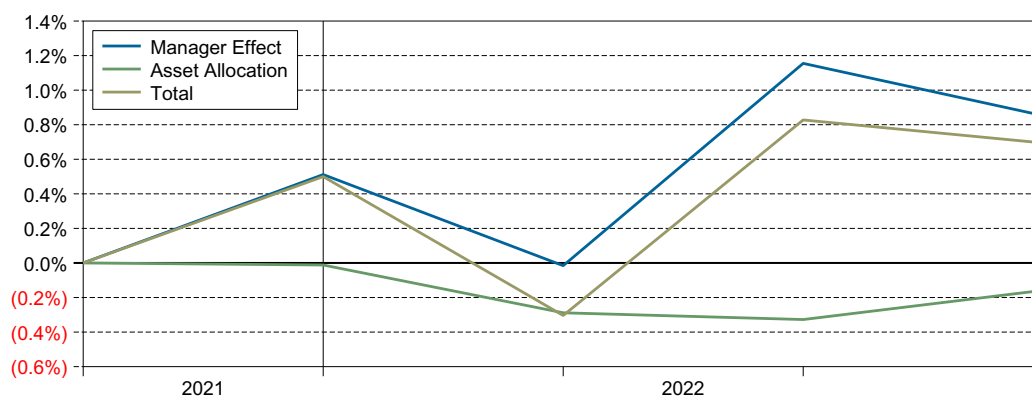
Cumulative Total Fund Relative Attribution - September 30, 2022

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

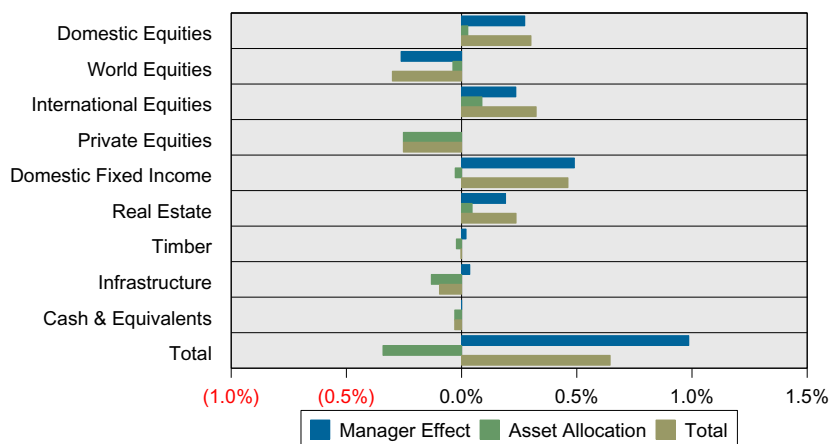
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	24%	23%	(17.33%)	(18.47%)	0.30%	(0.11%)	0.19%
World Equities	10%	10%	(17.67%)	(19.63%)	0.20%	(0.01%)	0.19%
International Equities	14%	16%	(28.19%)	(24.91%)	(0.57%)	0.20%	(0.37%)
Private Equities	9%	8%	7.86%	7.86%	0.00%	0.07%	0.07%
Domestic Fixed Income	25%	25%	(11.30%)	(14.42%)	0.81%	(0.07%)	0.74%
Real Estate	11%	10%	21.34%	16.08%	0.42%	0.26%	0.68%
Timber	1%	1%	7.35%	12.54%	(0.06%)	(0.02%)	(0.07%)
Infrastructure	5%	7%	8.76%	15.24%	(0.25%)	(0.47%)	(0.72%)
Cash & Equivalents	1%	0%	0.74%	0.62%	0.00%	(0.01%)	(0.01%)
Total			(10.01%)	(10.70%)	+ 0.85%	+ (0.16%)	0.69%

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

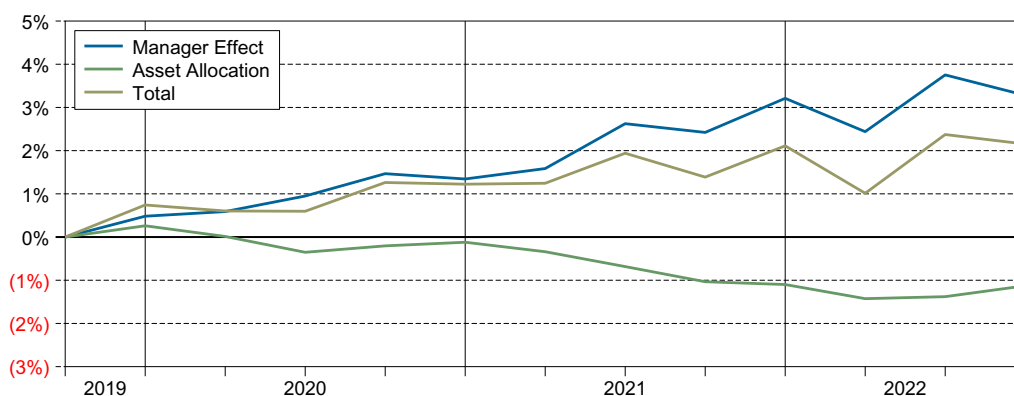
Cumulative Total Fund Relative Attribution - September 30, 2022

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

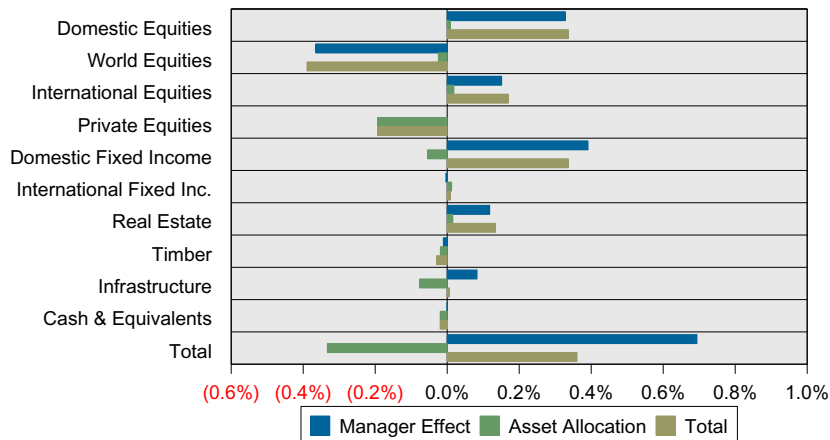
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	8.55%	7.25%	0.27%	0.03%	0.30%
World Equities	13%	12%	3.04%	4.56%	(0.26%)	(0.04%)	(0.30%)
International Equities	15%	15%	0.03%	(1.41%)	0.24%	0.09%	0.32%
Private Equities	6%	8%	20.38%	20.38%	0.00%	(0.25%)	(0.25%)
Domestic Fixed Income	25%	24%	(0.52%)	(2.33%)	0.49%	(0.03%)	0.46%
Real Estate	11%	10%	11.75%	9.91%	0.19%	0.05%	0.24%
Timber	2%	2%	6.16%	5.80%	0.02%	(0.02%)	(0.00%)
Infrastructure	5%	7%	9.10%	8.51%	0.04%	(0.13%)	(0.10%)
Cash & Equivalents	1%	0%	0.59%	0.59%	(0.00%)	(0.03%)	(0.03%)
Total			5.81%	5.17%	+ 0.99%	+ (0.34%)	0.64%

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

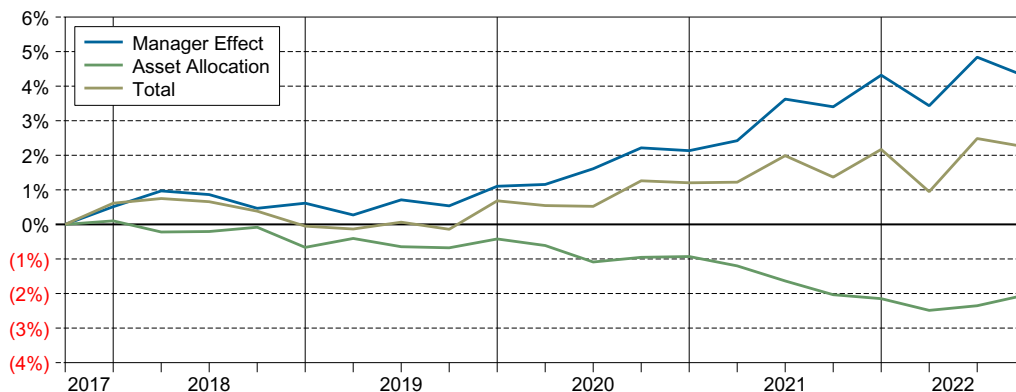
Cumulative Total Fund Relative Attribution - September 30, 2022

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

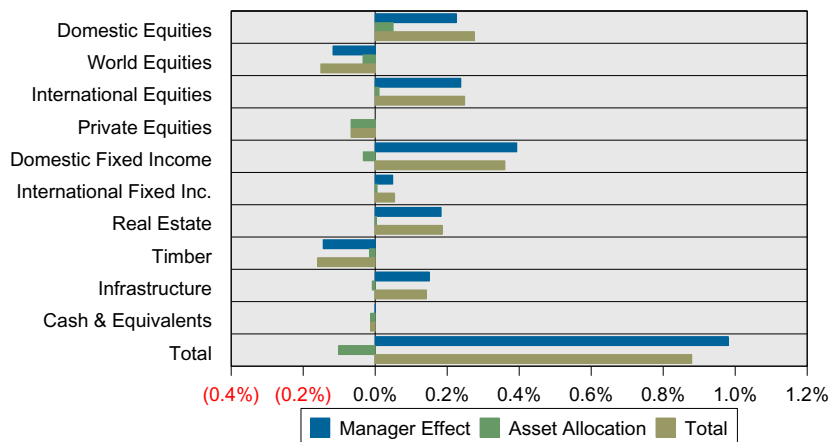
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	9.35%	7.83%	0.33%	0.01%	0.34%
World Equities	14%	14%	3.12%	5.30%	(0.37%)	(0.02%)	(0.39%)
International Equities	15%	15%	0.20%	(0.70%)	0.15%	0.02%	0.17%
Private Equities	5%	7%	15.28%	15.28%	0.00%	(0.19%)	(0.19%)
Domestic Fixed Income	24%	23%	1.88%	0.33%	0.39%	(0.05%)	0.34%
International Fixed Inc.	0%	0%	-	-	(0.00%)	0.01%	0.01%
Real Estate	11%	10%	9.75%	8.62%	0.12%	0.02%	0.13%
Timber	2%	2%	3.96%	4.69%	(0.01%)	(0.02%)	(0.03%)
Infrastructure	5%	6%	8.20%	6.49%	0.08%	(0.08%)	0.01%
Cash & Equivalents	1%	0%	1.15%	1.15%	(0.00%)	(0.02%)	(0.02%)
Total			5.80%	5.44%	+ 0.69%	+ (0.33%)	0.36%

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

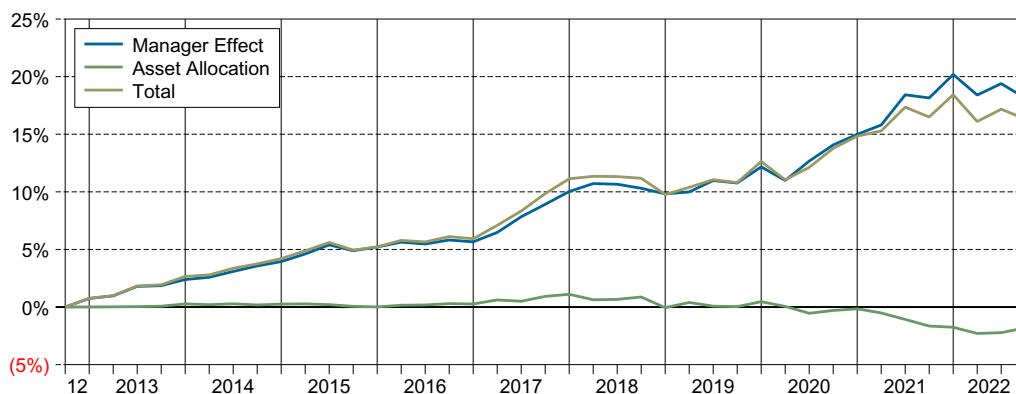
Cumulative Total Fund Relative Attribution - September 30, 2022

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

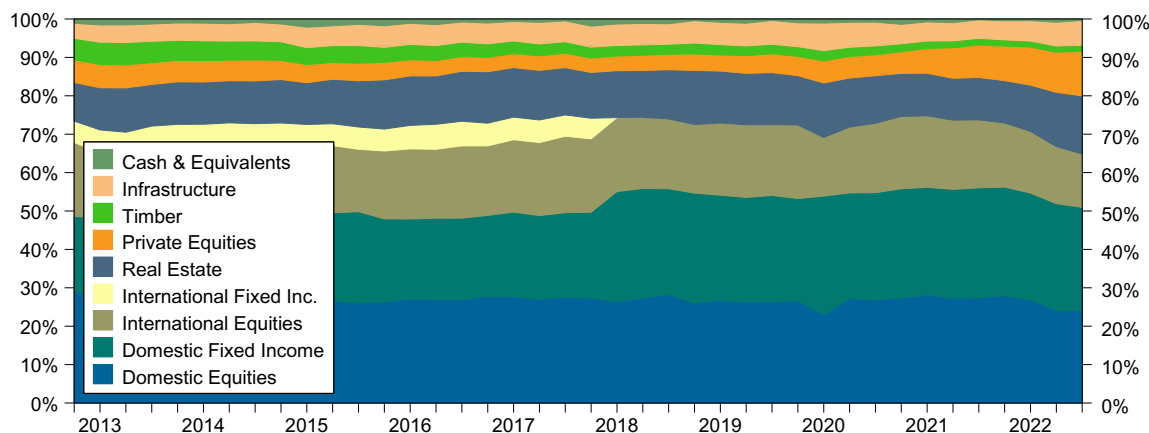
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	12.04%	10.98%	0.23%	0.05%	0.28%
World Equities	15%	15%	7.30%	8.11%	(0.12%)	(0.03%)	(0.15%)
International Equities	15%	15%	4.81%	3.28%	0.24%	0.01%	0.25%
Private Equities	5%	6%	7.87%	7.87%	0.00%	(0.07%)	(0.07%)
Domestic Fixed Income	21%	21%	3.58%	1.77%	0.39%	(0.03%)	0.36%
International Fixed Inc.	3%	3%	-	-	0.05%	0.01%	0.05%
Real Estate	10%	10%	11.35%	9.48%	0.18%	0.00%	0.19%
Timber	3%	3%	2.10%	5.90%	(0.14%)	(0.02%)	(0.16%)
Infrastructure	5%	6%	7.36%	3.76%	0.15%	(0.01%)	0.14%
Cash & Equivalents	1%	1%	0.72%	0.68%	0.00%	(0.01%)	(0.01%)
Total			7.56%	6.68%	+ 0.98%	+ (0.10%)	0.88%

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

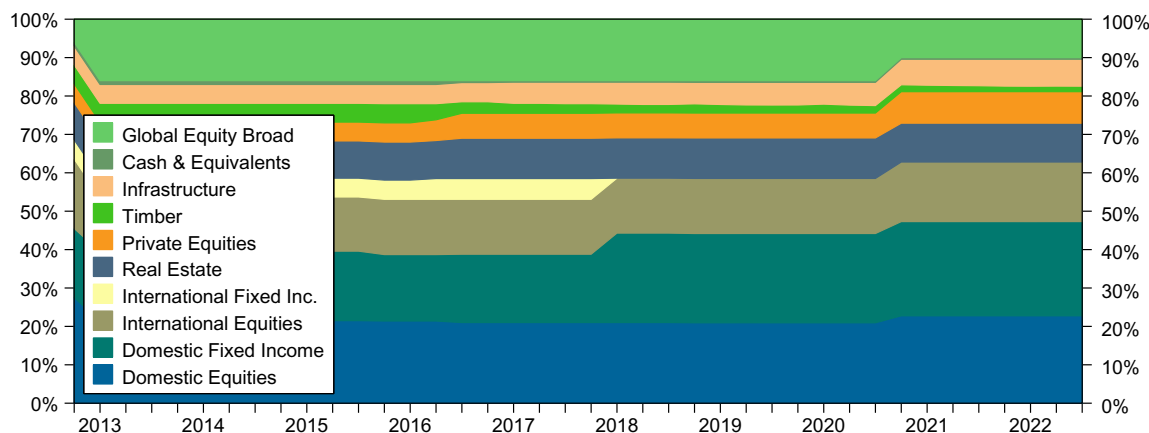
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

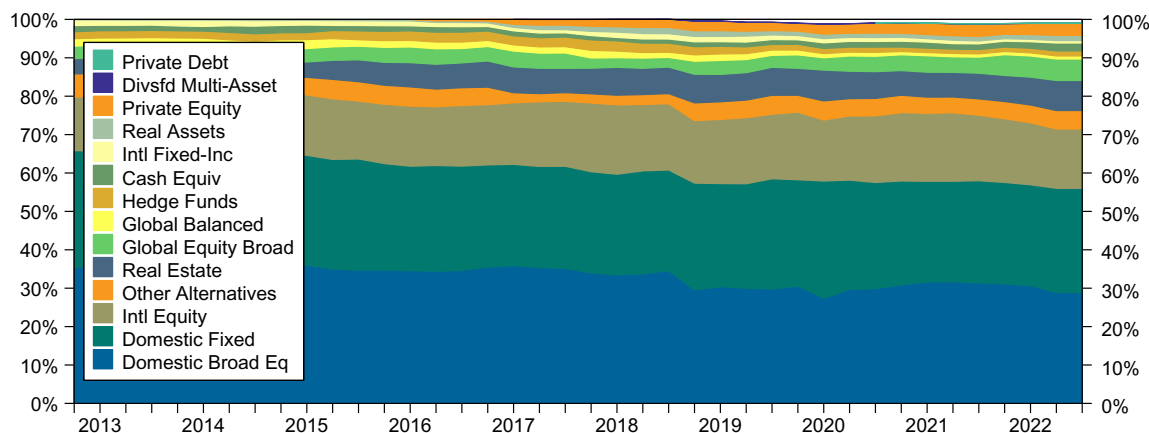
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Sponsor Database Historical Asset Allocation

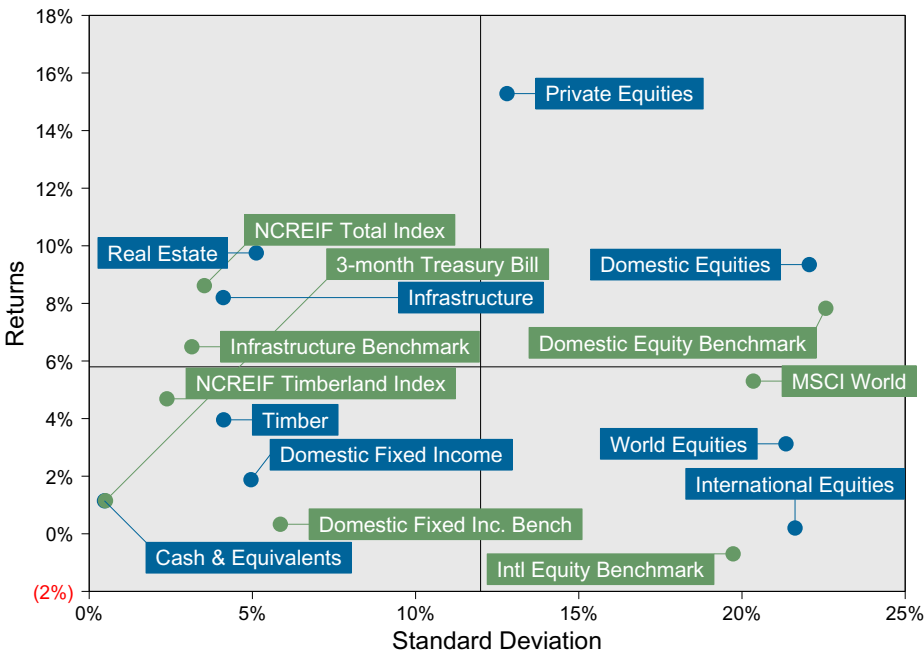


* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

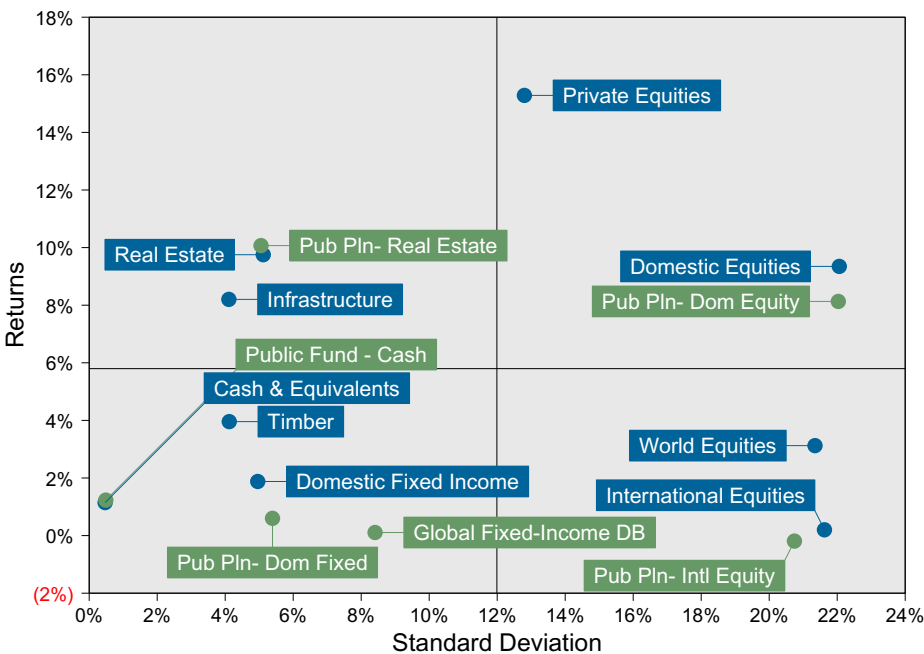
Asset Class Risk and Return

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

Five Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices



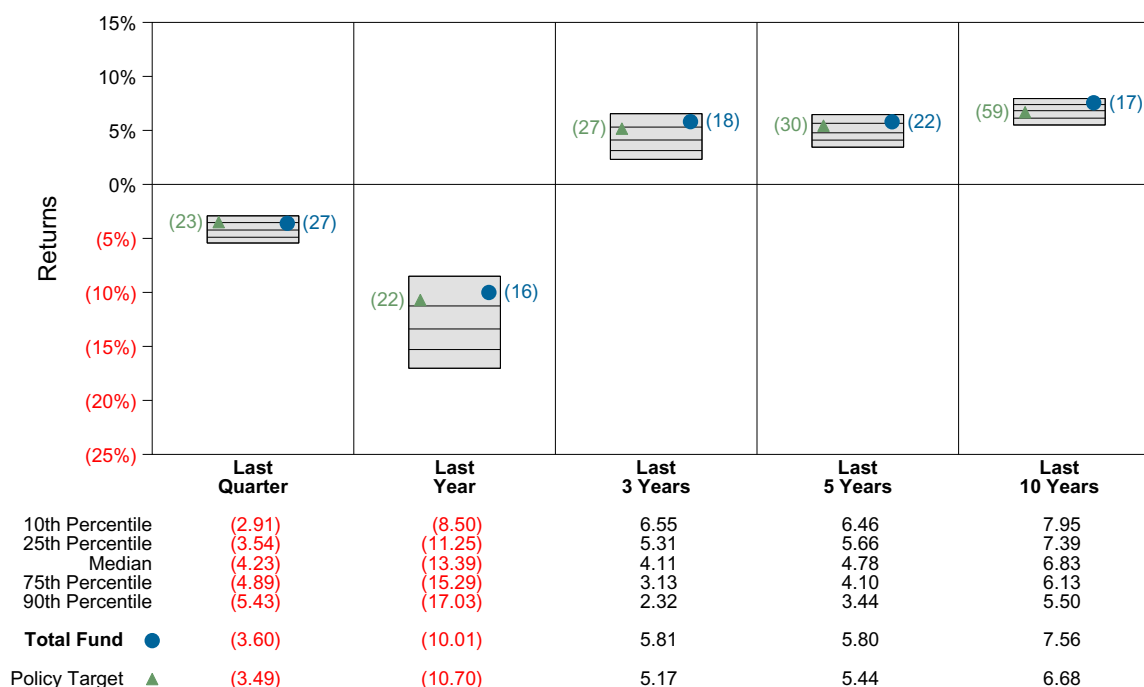
Five Year Annualized Risk vs Return
Asset Classes vs Asset Class Median



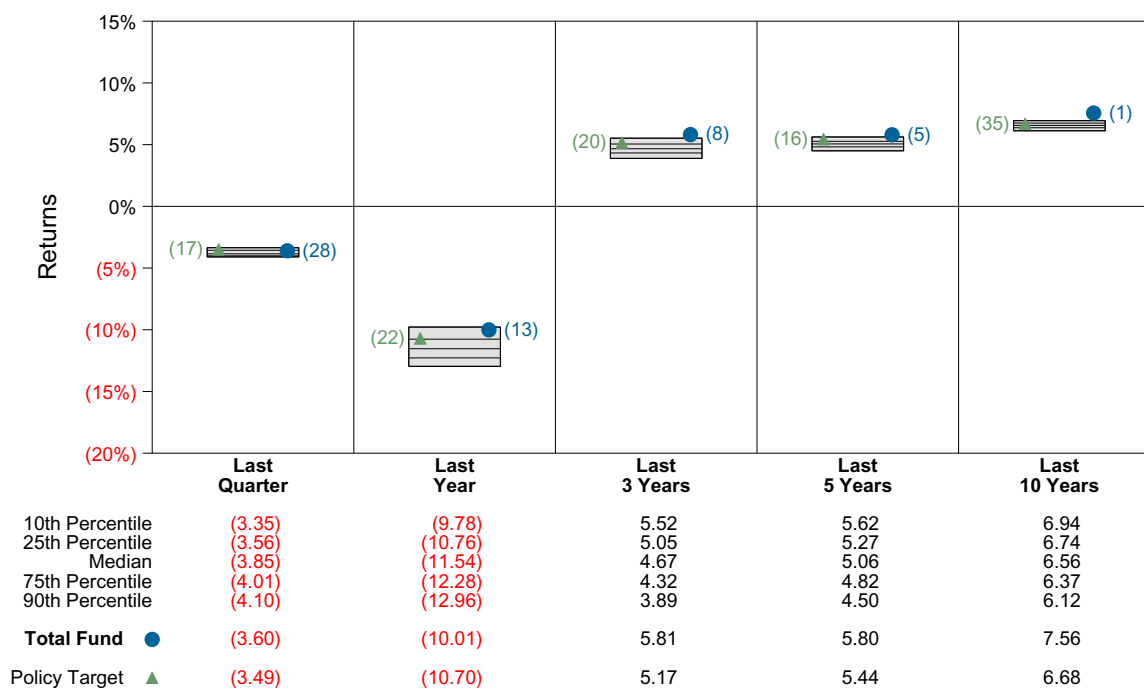
Total Fund Ranking

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

Callan Public Fund Sponsor Database



Asset Allocation Adjusted Ranking

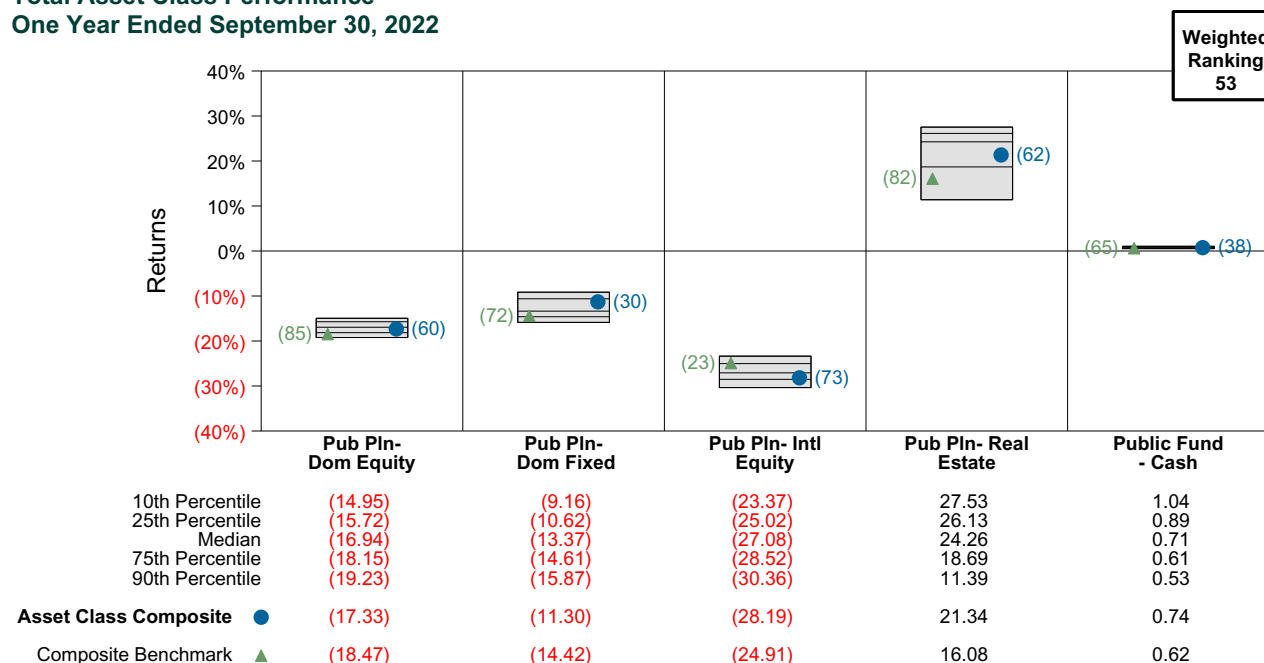


* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

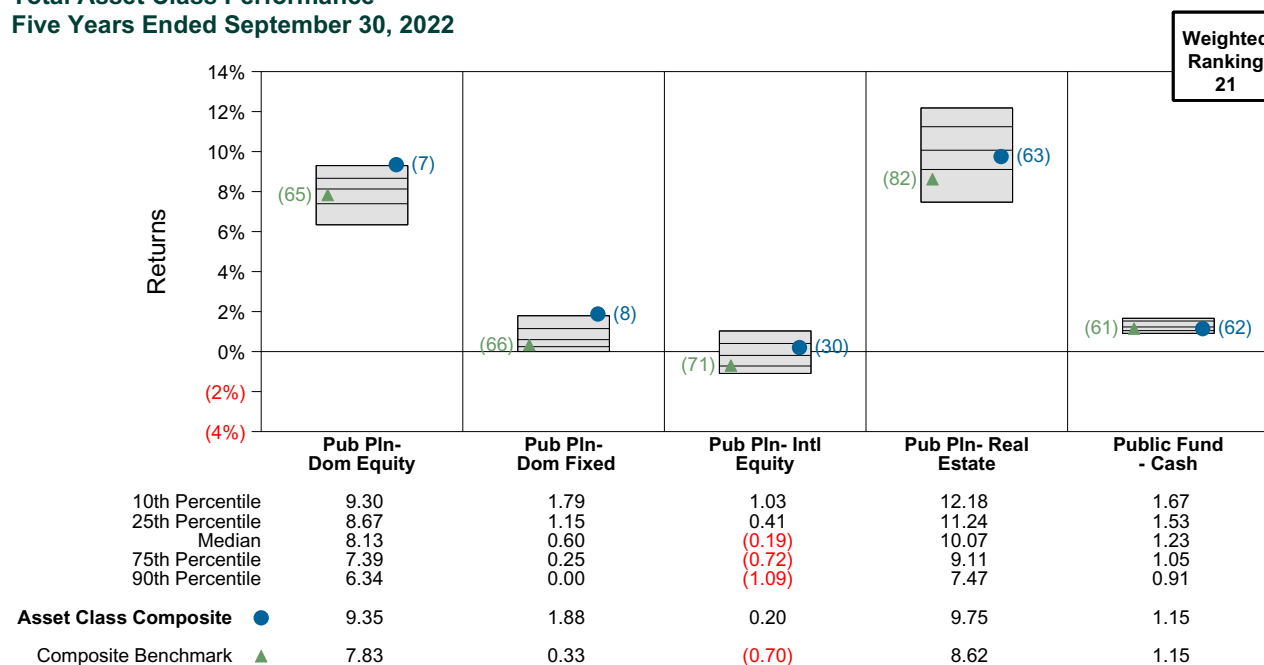
Asset Class Rankings

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

Total Asset Class Performance One Year Ended September 30, 2022



Total Asset Class Performance Five Years Ended September 30, 2022



* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.

Investment Manager Asset 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 Distribution Across Investment Managers

	September 30, 2022				June 30, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Equities	\$3,593,060,323	54.28%	\$18,241,221	\$(187,286,155)	\$3,762,105,257	54.36%
Public Equities	\$2,894,690,210	43.73%	\$(17,208,765)	\$(196,591,358)	\$3,108,490,333	44.92%
World Equities	\$613,658,605	9.27%	\$(14,619,288)	\$(45,992,640)	\$674,270,533	9.74%
EPOCH Investment Partners	263,402,218	3.98%	(335,369)	(16,232,601)	279,970,187	4.05%
LSV Asset Management	350,256,388	5.29%	(14,283,919)	(29,760,039)	394,300,346	5.70%
Domestic Equities	\$1,444,488,215	21.82%	\$(1,961,698)	\$(59,718,168)	\$1,506,168,081	21.76%
Large Cap	\$1,150,803,134	17.39%	\$(1,454,716)	\$(50,752,943)	\$1,203,010,794	17.38%
L.A. Capital	427,350,576	6.46%	(242,452)	(16,046,702)	443,639,730	6.41%
LA Capital Enhanced	248,380,818	3.75%	(73,419)	(10,761,260)	259,215,497	3.75%
NTAM Quant Enh S&P 500	240,823,841	3.64%	(1,138,845)	(11,695,444)	253,658,131	3.67%
Parametric Enh S&P 500	234,247,899	3.54%	0	(12,249,537)	246,497,436	3.56%
Small Cap	\$293,685,081	4.44%	\$(506,982)	\$(8,965,224)	\$303,157,287	4.38%
Atlanta Capital	103,953,549	1.57%	(171,252)	(6,210,652)	110,335,454	1.59%
Riverbridge Small Cap Growth	79,099,471	1.20%	(153,935)	771,267	78,482,139	1.13%
Sycamore Small Cap Value	110,632,061	1.67%	(181,794)	(3,525,839)	114,339,694	1.65%
International Equities	\$836,543,389	12.64%	\$(627,779)	\$(90,880,550)	\$928,051,719	13.41%
Developed	\$656,986,643	9.93%	\$(469,662)	\$(65,490,942)	\$722,947,247	10.45%
Arrowstreet ACWI ex US	244,359,404	3.69%	(105,121)	(25,251,287)	269,715,813	3.90%
DFA Int'l Small Cap	70,319,419	1.06%	0	(7,891,299)	78,210,719	1.13%
NTAM World Ex US	101,014,198	1.53%	(10,980)	(11,135,266)	112,160,444	1.62%
Wellington Management Co.	67,429,508	1.02%	(168,646)	(6,980,503)	74,578,658	1.08%
William Blair	173,864,114	2.63%	(184,914)	(14,232,587)	188,281,614	2.72%
Emerging Markets	\$179,556,746	2.71%	\$(158,117)	\$(25,389,608)	\$205,104,472	2.96%
Axiom	126,335,767	1.91%	(158,117)	(20,190,009)	146,683,893	2.12%
DFA	53,220,979	0.80%	0	(5,199,599)	58,420,579	0.84%
Private Equity	\$698,370,113	10.55%	\$35,449,986	\$9,305,203	\$653,614,924	9.44%
Total ASP (Brinson) Fds 1998-2003	397,384	0.01%	0	13	397,371	0.01%
Total ASP (Brinson) Non-US Fds 1999-2004	173,495	0.00%	0	0	173,495	0.00%
Adams Street 2008 Non-US Partnership Fd	4,335,704	0.07%	(291,011)	99,500	4,527,215	0.07%
Adams Street Direct Co-Invest Fund 2006	15,673	0.00%	0	(57)	15,730	0.00%
Total Adams Street 2010 Funds	9,761,750	0.15%	(328,719)	61,990	10,028,479	0.14%
Adams Street 2015 Global Fund	42,228,476	0.64%	(947,869)	497,304	42,679,041	0.62%
Adams Street 2016 Global Fund	36,883,403	0.56%	(467,702)	1,257,446	36,093,659	0.52%
Adams Street 2017 Global Fund	79,581,030	1.20%	1,136,618	2,701,528	75,742,884	1.09%
Adams Street 2018 Global Fund	65,998,124	1.00%	2,360,896	3,185,140	60,452,088	0.87%
Adams Street 2019 Global Fund	53,943,298	0.81%	5,547,750	1,747,476	46,648,072	0.67%
Adams Street 2020 Global Fund	29,726,997	0.45%	4,325,087	0	25,401,910	0.37%
Adams Street 2021 Global Fund	8,721,423	0.13%	4,200,000	0	4,521,423	0.07%
BlackRock PEP	202,346,512	3.06%	(1,231,277)	(215,818)	203,793,607	2.94%
Blackrock PEP 2020	56,406,463	0.85%	11,109,549	0	45,296,914	0.65%
Sixth Street Partners - TAO	70,317,183	1.06%	10,703,682	0	59,613,501	0.86%
Private Equity Misc Funds*	37,533,198	0.57%	(667,018)	(29,319)	38,229,535	0.55%

* Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.

Investment Manager Asset 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 Distribution Across Investment Managers

	September 30, 2022				June 30, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Fixed Income	\$1,613,947,780	24.38%	\$(71,027,279)	\$(51,328,681)	\$1,736,303,740	25.09%
Domestic Fixed Income	\$1,613,947,780	24.38%	\$(71,027,279)	\$(51,328,681)	\$1,736,303,740	25.09%
Investment Grade	\$1,127,478,967	17.03%	\$(61,819,519)	\$(53,283,826)	\$1,242,582,312	17.96%
Manulife-Declaration TRBF	146,190,495	2.21%	(96,170)	(2,385,482)	148,672,147	2.15%
PIMCO DISCO II	100,551,584	1.52%	0	53,963	100,497,621	1.45%
PIMCO Core Plus Constrained	390,959,324	5.91%	(19,588,953)	(20,211,627)	430,759,904	6.22%
Prudential Core	390,179,118	5.89%	(24,129,176)	(19,043,802)	433,352,096	6.26%
SSgA Long US Treas Index	99,598,447	1.50%	(18,005,219)	(11,696,877)	129,300,543	1.87%
Below Investment Grade	\$486,468,813	7.35%	\$(9,207,760)	\$1,955,145	\$493,721,428	7.13%
Ares ND Credit Strategies Fd	156,115,483	2.36%	0	0	156,115,483	2.26%
Cerberus ND Private Credit Fd	169,735,615	2.56%	0	2,150,416	167,585,199	2.42%
Goldman Sachs 2006 Offshore	23,848	0.00%	(16,809)	(8,997)	49,654	0.00%
Goldman Sachs Offshore V	111,236	0.00%	0	(7,693)	118,929	0.00%
Loomis Sayles	153,141,976	2.31%	(9,190,951)	(178,581)	162,511,508	2.35%
PIMCO Bravo II Fund	7,340,655	0.11%	0	0	7,340,655	0.11%
Global Real Assets	\$1,389,692,878	20.99%	\$30,466,157	\$(9,125,423)	\$1,368,352,144	19.77%
Real Estate	\$908,315,931	13.72%	\$33,126,592	\$(7,030,298)	\$882,219,637	12.75%
Invesco Core Real Estate	445,065,072	6.72%	0	(292)	445,065,364	6.43%
Invesco RE Fund VI	33,126,592	0.50%	33,126,592	0	-	-
Invesco Asia RE Fund III	17,400,021	0.26%	0	0	17,400,021	0.25%
Invesco Value Added Fd IV	5,077,569	0.08%	0	0	5,077,569	0.07%
Invesco Value Added Fd V	72,589,900	1.10%	0	0	72,589,900	1.05%
JP Morgan	334,525,700	5.05%	0	(6,994,336)	341,520,035	4.93%
JP Morgan Greater European Opp Fd	531,076	0.01%	0	(35,671)	566,747	0.01%
Other Real Assets	\$481,376,947	7.27%	\$(2,660,435)	\$(2,095,125)	\$486,132,507	7.02%
Infrastructure	\$387,120,607	5.85%	\$3,419,565	\$(2,095,125)	\$385,796,167	5.57%
ISQ Global Infrastructure II	71,552,217	1.08%	3,062,336	(450,647)	68,940,528	1.00%
ISQ Global Infrastructure III	4,513,845	0.07%	1,864,428	(1,107,215)	3,756,632	0.05%
The Rohatyn Group	15,910,711	0.24%	0	38,017	15,872,694	0.23%
JP Morgan IIF Infrastructure	122,455,619	1.85%	(2,120,978)	(14)	124,576,611	1.80%
Grosvenor CIS Fund	9,941,672	0.15%	(1,171,780)	(74,276)	11,187,728	0.16%
Grosvenor CIS Fund II	22,430,330	0.34%	(263,680)	(24,622)	22,718,632	0.33%
Grosvenor CIS Fund III	16,693,451	0.25%	0	0	16,693,451	0.24%
Macquarie Infrastructure Fund IV	77,147,752	1.17%	2,087,561	(514,690)	75,574,881	1.09%
Macquarie Infrastructure Fund V	46,475,010	0.70%	(38,321)	38,321	46,475,010	0.67%
Timber	\$94,256,340	1.42%	\$(6,080,000)	\$0	\$100,336,340	1.45%
TIR Teredo	20,272,958	0.31%	0	0	20,272,958	0.29%
TIR Springbank	73,983,382	1.12%	(6,080,000)	0	80,063,382	1.16%
Cash	\$22,461,338	0.34%	\$(31,513,484)	\$267,383	\$53,707,439	0.78%
Northern Trust Cash Account	11,787,374	0.18%	(31,513,484)	210,738	43,090,120	0.62%
Bank of ND	10,673,964	0.16%	0	56,645	10,617,319	0.15%
Total Fund	\$6,619,162,319	100.0%	\$(53,833,384)	\$(247,472,876)	\$6,920,468,579	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 Equities					
Gross	(4.94%)	(16.78%)	6.69%	6.22%	8.90%
Net	(5.02%)	(16.99%)	6.42%	5.98%	8.60%
Weighted Benchmark	(5.16%)	(16.95%)	6.66%	6.42%	8.42%
Public Equities					
Gross	(6.36%)	(20.83%)	4.38%	-	-
Net	(6.45%)	(21.06%)	4.09%	-	-
Weighted Benchmark	(6.36%)	(20.78%)	3.90%	-	-
World Equities					
Gross	(6.93%)	(17.67%)	3.04%	3.12%	7.30%
Net	(7.01%)	(17.94%)	2.68%	2.77%	6.79%
MSCI World	(6.19%)	(19.63%)	4.56%	5.30%	8.11%
EPOCH Investment - Gross(1)	(5.81%)	(19.65%)	2.19%	3.92%	7.83%
EPOCH Investment - Net	(5.92%)	(20.12%)	1.56%	3.28%	7.13%
MSCI World	(6.19%)	(19.63%)	4.56%	5.30%	8.11%
LSV Asset Management - Gross(2)	(7.73%)	(16.24%)	3.48%	2.35%	-
LSV Asset Management - Net	(7.80%)	(16.36%)	3.35%	2.24%	-
Benchmark(4)	(6.64%)	(21.18%)	3.64%	4.55%	-
Domestic Equities					
Gross	(3.98%)	(17.33%)	8.55%	9.35%	12.04%
Net	(4.10%)	(17.58%)	8.30%	9.12%	11.80%
Weighted Benchmark	(4.13%)	(18.47%)	7.25%	7.83%	10.98%
Large Cap					
Gross	(4.24%)	(17.07%)	10.01%	10.56%	12.82%
Net	(4.34%)	(17.25%)	9.85%	10.41%	12.66%
Large Cap Benchmark(3)	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
L.A. Capital - Gross	(3.62%)	(20.34%)	12.06%	12.76%	14.02%
L.A. Capital - Net	(3.67%)	(20.51%)	11.84%	12.54%	13.79%
Russell 1000 Growth Index	(3.60%)	(22.59%)	10.67%	12.17%	13.70%
LACM Enhanced Index - Gross	(4.15%)	(14.89%)	9.26%	9.67%	12.13%
LACM Enhanced Index - Net	(4.18%)	(14.98%)	9.15%	9.55%	12.01%
Russell 1000 Index	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
NTAM Quant Enh S&P500 - Gross	(4.68%)	(12.49%)	7.97%	8.17%	11.11%
NTAM Quant Enh S&P500 - Net	(5.06%)	(12.96%)	7.78%	8.05%	10.92%
S&P 500 Index	(4.88%)	(15.47%)	8.16%	9.24%	11.70%
Parametric Enh S&P500 - Gross	(4.97%)	(17.62%)	7.48%	8.73%	11.48%
Parametric Enh S&P500 - Net	(4.97%)	(17.62%)	7.45%	8.71%	11.44%
S&P 500 Index	(4.88%)	(15.47%)	8.16%	9.24%	11.70%
Small Cap					
Gross	(2.98%)	(18.40%)	3.16%	5.09%	9.17%
Net	(3.12%)	(18.94%)	2.57%	4.59%	8.70%
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%	8.55%
Atlanta Capital - Gross	(5.64%)	(10.49%)	4.48%	8.17%	-
Atlanta Capital - Net	(5.78%)	(11.03%)	3.83%	7.48%	-
S&P 600 Small Cap Index	(5.20%)	(18.83%)	5.48%	4.84%	10.09%
Riverbridge Small Cap Growth - Gross	0.96%	(35.34%)	-	-	-
Riverbridge Small Cap Growth - Net	0.79%	(35.85%)	-	-	-
Russell 2000 Growth Index	0.24%	(29.27%)	2.94%	3.60%	8.81%
Sycamore Small Cap Value - Gross	(3.10%)	(8.90%)	-	-	-
Sycamore Small Cap Value - Net	(3.24%)	(9.44%)	-	-	-
Russell 2000 Value Index	(4.61%)	(17.69%)	4.72%	2.87%	7.94%

(1) EPOCH Investment was removed from the Domestic Equities Composite to the World Equities Composite as of 1/1/2012.

(3) LSV Asset Management was removed from the Domestic Equities and Intl Equities Composites to the World Equities Composite as of February 1, 2013.

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

(4) MSCI ACWI Gross through 6/30/2019 and MSCI ACWI IMI thereafter.

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
International Equities					
Gross	(9.80%)	(28.19%)	0.03%	0.20%	4.81%
Net	(9.86%)	(28.38%)	(0.25%)	(0.04%)	4.55%
Weighted Benchmark	(9.74%)	(24.91%)	(1.41%)	(0.70%)	3.28%
Developed					
Gross	(9.07%)	(26.99%)	0.31%	0.54%	5.44%
Net	(9.12%)	(27.15%)	0.09%	0.33%	5.18%
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 Int'l Small Cap Value - Net	(10.09%)	(22.89%)	(0.40%)	(3.17%)	4.89%
World ex US SC Value	(10.09%)	(25.84%)	(1.65%)	(2.03%)	4.42%
NTAM World ex US - Gross	(9.93%)	(23.77%)	(1.05%)	(0.15%)	-
NTAM World ex US - Net	(9.94%)	(23.83%)	(1.09%)	(0.19%)	-
MSCI World ex US	(9.20%)	(23.91%)	(1.21%)	(0.39%)	3.62%
Wellington Management - Gross	(9.39%)	(33.93%)	(1.43%)	(2.49%)	6.06%
Wellington Management - Net	(9.59%)	(34.51%)	(2.26%)	(3.31%)	5.17%
Benchmark(3)	(9.83%)	(33.12%)	(1.98%)	(2.70%)	4.25%
William Blair - Gross	(7.57%)	(34.30%)	0.28%	2.52%	-
William Blair - Net	(7.66%)	(34.54%)	(0.07%)	2.16%	-
MSCI ACWI ex US IMI	(9.69%)	(25.72%)	(1.27%)	(0.78%)	3.19%
Emerging Markets					
Gross	(12.39%)	(32.11%)	(0.81%)	(0.92%)	2.31%
Net	(12.46%)	(32.35%)	(1.32%)	(1.22%)	2.02%
Emerging Mkts - Net	(11.57%)	(28.11%)	(2.07%)	(1.80%)	1.05%
Axiom - Gross(2)	(13.77%)	(35.50%)	(2.37%)	(1.53%)	-
Axiom - Net	(13.87%)	(35.81%)	(3.05%)	(1.94%)	-
Emerging Mkts - Net	(11.57%)	(28.11%)	(2.07%)	(1.80%)	1.05%
DFA - Net	(8.90%)	(22.36%)	3.32%	0.61%	3.58%
Emerging Mkts - Net	(11.57%)	(28.11%)	(2.07%)	(1.80%)	1.05%

(1) MSCI EAFE through 12/31/1996; 50% Hedged EAFE through 3/31/2011; MSCI EAFE again through 6/30/2016; MSCI World ex-US thereafter.

(2) Axiom's performance are reported net of fees through 6/30/2020.

(3) EPAC, Developed World, <\$2B through 2/28/2022; MSCI EAFE Small Cap Index thereafter.

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
Private Equity*					
Net	1.38%	7.86%	20.38%	15.28%	7.86%
Total ASP (Brinson) Fds 1998-2003	0.00%	(17.45%)	(2.15%)	0.49%	2.09%
Total ASP (Brinson) Non-US 1999-2004	0.00%	(10.18%)	(0.93%)	0.91%	4.08%
Adams St 2008 Non-US P-ship Fund	2.35%	(17.75%)	11.45%	13.11%	12.87%
Adams St Direct Co-Invest Fd 2006	(0.36%)	18.50%	(24.34%)	(24.70%)	(8.48%)
Total Adams Street 2010 Funds	0.63%	(3.43%)	23.89%	21.06%	16.53%
Adams Street 2015 Global Fund	1.17%	2.56%	28.28%	23.91%	-
Adams Street 2016 Global Fund	3.49%	11.01%	26.49%	20.68%	-
Adams Street 2017 Global Fund	3.55%	18.14%	30.04%	-	-
Adams Street 2018 Global Fund	5.19%	17.55%	32.18%	-	-
Adams Street 2019 Global Fund	3.59%	15.50%	-	-	-
Adams Street 2020 Global Fund	0.00%	6.15%	-	-	-
Adams Street 2021 Global Fund	0.00%	-	-	-	-
BlackRock PEP	(0.11%)	8.75%	21.01%	14.51%	-
Blackrock PEP 2020	0.00%	7.00%	-	-	-
Sixth Street Partners - TAO	0.00%	7.43%	-	-	-
Private Equity Misc Funds**	(0.08%)	(14.30%)	(4.26%)	(0.79%)	(3.09%)

* Corsair III was taken out from the Private Equity Composite on July 1, 2009. It was then added back into the Private Equity Composite on October 1, 2011. At this time Corsair IV, Capital Intl and EIG were also added to this composite.

** Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.

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 Fixed Income					
Gross	(3.04%)	(11.30%)	(0.52%)	2.00%	3.21%
Net	(3.09%)	(11.42%)	(0.65%)	1.86%	3.02%
Weighted Benchmark	(3.51%)	(14.42%)	(2.33%)	0.57%	1.49%
Domestic Fixed Income					
Gross	(3.04%)	(11.30%)	(0.52%)	1.88%	3.58%
Net	(3.09%)	(11.42%)	(0.65%)	1.74%	3.41%
Weighted Benchmark	(3.51%)	(14.42%)	(2.33%)	0.33%	1.77%
Investment Grade					
Gross	(4.42%)	(14.83%)	(2.51%)	0.65%	2.50%
Net	(4.48%)	(14.94%)	(2.62%)	0.54%	2.39%
Bimbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Manulife-Declaration TRBF- Net	(1.61%)	(7.44%)	0.30%	2.21%	3.46%
Libor-3 Month	0.69%	1.15%	0.85%	1.43%	0.97%
PIMCO Core Plus Cons. - Gross(1)	(4.81%)	(15.42%)	(2.78%)	0.17%	1.48%
PIMCO Core Plus Cons. - Net	(4.94%)	(15.61%)	(2.98%)	(0.00%)	1.26%
Blended Benchmark(2)	(4.75%)	(14.60%)	(3.26%)	0.26%	0.40%
PIMCO DiSCO II - Net	0.05%	(0.18%)	4.07%	4.90%	8.66%
Bimbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Prudential Core - Gross	(4.60%)	(15.58%)	(3.05%)	-	-
Prudential Core - Net	(4.63%)	(15.68%)	(3.16%)	-	-
Bimbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
SSgA Long US Treas Idx - Gross	(9.62%)	(26.65%)	(8.46%)	(1.58%)	-
SSgA Long US Treas Idx - Net	(9.62%)	(26.66%)	(8.47%)	(1.60%)	-
Bimbg Long Treas	(9.63%)	(26.65%)	(8.51%)	(1.62%)	0.59%
Below Investment Grade					
Gross	0.39%	(1.27%)	4.81%	5.11%	6.40%
Net	0.35%	(1.43%)	4.62%	4.88%	6.06%
Bimbg HY Corp 2% Issue	(0.64%)	(14.15%)	(0.47%)	1.56%	3.94%
Ares ND Credit Strategies Fd - Net	0.00%	8.95%	7.96%	7.38%	-
Cerberus ND Private Credit Fd - Net	1.28%	6.91%	9.00%	9.62%	-
S&P/LSTA Leveraged Loan B	1.18%	(2.94%)	2.39%	3.15%	3.69%
Goldman Sachs 2006 Offshore - Net	(21.41%)	(16.97%)	(2.18%)	1.78%	13.37%
Goldman Sachs Offshore V - Net	(6.47%)	(12.52%)	19.50%	21.12%	12.85%
PIMCO Bravo II Fund - Net	0.00%	(1.13%)	1.35%	2.62%	-
Bimbg HY Corp 2% Issue	(0.64%)	(14.15%)	(0.47%)	1.56%	3.94%
Loomis Sayles - Gross	(0.17%)	(15.69%)	(0.41%)	1.27%	4.14%
Loomis Sayles - Net	(0.28%)	(16.09%)	(0.89%)	0.78%	3.63%
Bimbg HY Corp 2% Issue	(0.64%)	(14.15%)	(0.47%)	1.56%	3.94%

(1) The product changed from Commingled Fund to Separate Account in March 2014.

(2) Libor-3 month through Feb. 28, 2014; Fund's performance through March 31, 2014; Libor-3 month through June 30, 2018; Bimbg Aggregate thereafter.

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.

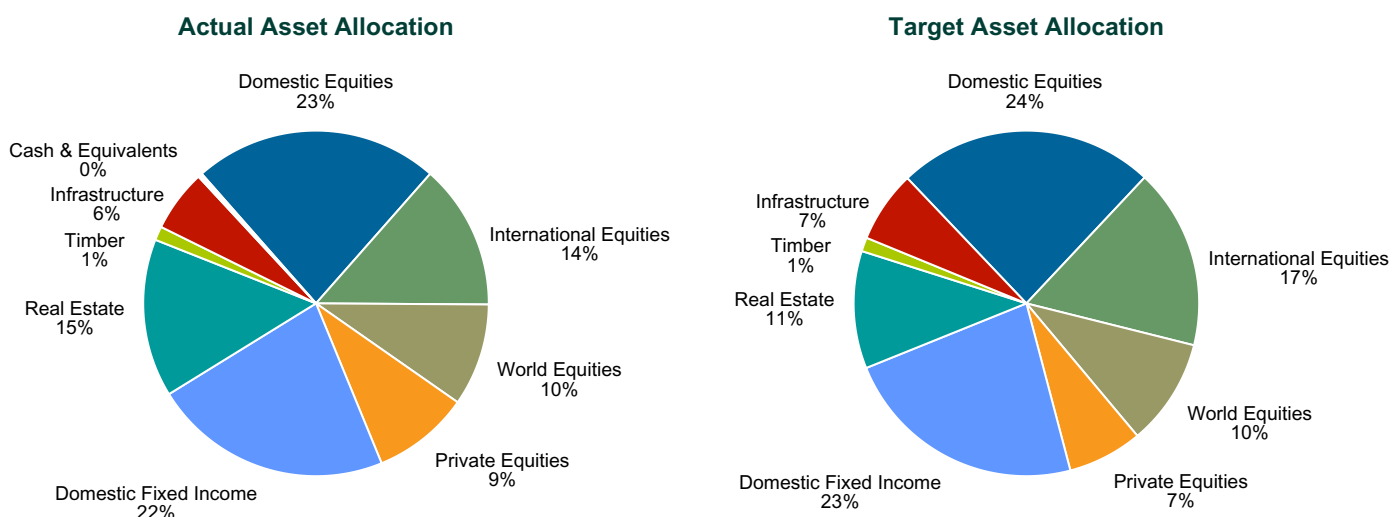
Returns for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Real Assets					
Gross	(0.67%)	16.47%	10.54%	8.71%	8.67%
Net	(0.72%)	16.03%	10.09%	8.26%	8.24%
Weighted Benchmark	1.21%	15.49%	9.05%	7.53%	7.37%
Real Estate					
Gross	(0.79%)	21.34%	11.75%	9.75%	11.35%
Net	(0.88%)	20.73%	11.18%	9.21%	10.81%
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%	10.69%
Invesco Core Real Estate - Net	(0.00%)	26.79%	11.22%	9.33%	10.31%
Invesco Asia RE Fund III - Net	0.00%	(9.77%)	5.14%	19.80%	-
Invesco Value Added Fd IV - Net	0.00%	3.60%	6.86%	8.91%	-
Invesco Value Added Fd V - Net	0.00%	18.37%	13.64%	-	-
JP Morgan - Gross	(2.05%)	17.49%	11.52%	9.69%	11.12%
JP Morgan - Net	(2.27%)	16.46%	10.49%	8.69%	10.08%
JPM Greater European Opp Fd - Net	(6.29%)	(16.48%)	(13.19%)	(19.08%)	(5.88%)
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
Other Real Assets					
Gross	(0.43%)	8.47%	8.31%	-	-
Net	(0.43%)	8.28%	8.05%	-	-
Weighted Benchmark	1.99%	14.78%	7.99%	-	-
Infrastructure					
Gross	(0.54%)	8.76%	9.10%	8.20%	7.36%
Net	(0.53%)	8.51%	8.74%	7.79%	6.86%
Weighted Benchmark	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%)	-	-	-	-
The Rohatyn Group - Net	0.24%	(0.75%)	(7.57%)	(9.11%)	(0.51%)
JP Morgan IIF - Gross	(0.00%)	0.57%	6.13%	7.39%	6.55%
JP Morgan IIF - Net	0.03%	(0.03%)	5.37%	6.65%	5.73%
Grosvenor CIS Fund - Net	(0.72%)	5.50%	8.07%	7.11%	7.97%
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%
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%	-	-
Timber					
Net	0.00%	7.35%	6.16%	3.96%	2.10%
TIR Teredo - Net	0.00%	15.73%	7.54%	5.13%	5.44%
TIR Springbank - Net	0.00%	5.24%	5.93%	3.69%	0.61%
NCREIF Timberland Index	2.38%	12.54%	5.80%	4.69%	5.90%
Cash & Cash Equivalents - Net	0.53%	0.74%	0.59%	1.15%	0.72%
Cash Account - Net	0.53%	0.74%	0.58%	1.14%	0.72%
Bank of ND - Net	0.53%	0.74%	0.60%	1.15%	-
3-month Treasury Bill	0.46%	0.62%	0.59%	1.15%	0.68%
Total Fund					
Gross	(3.60%)	(10.01%)	5.81%	5.80%	7.56%
Net	(3.67%)	(10.23%)	5.55%	5.54%	7.26%
Target*	(3.49%)	(10.70%)	5.17%	5.44%	6.68%

* Current Quarter Target = 18.2% Russell 1000 Index, 17.1% Blmbg Aggregate, 11.6% MSCI World xUS, 10.1% NCREIF Total Index, 10.0% MSCI World, 8.2% Private Equity, 7.4% Blmbg HY Corp 2% Iss Cap, 4.6% Russell 2000 Index, 3.9% MSCI EM, 3.5% CPI All Urban Cons lagged 3 months, 3.5% NCREIF NFI-ODCE Eq Wt Net, 1.4% NCREIF Timberland Index and 0.4% 3-month Treasury Bill.
(1) CPI-W through June 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.

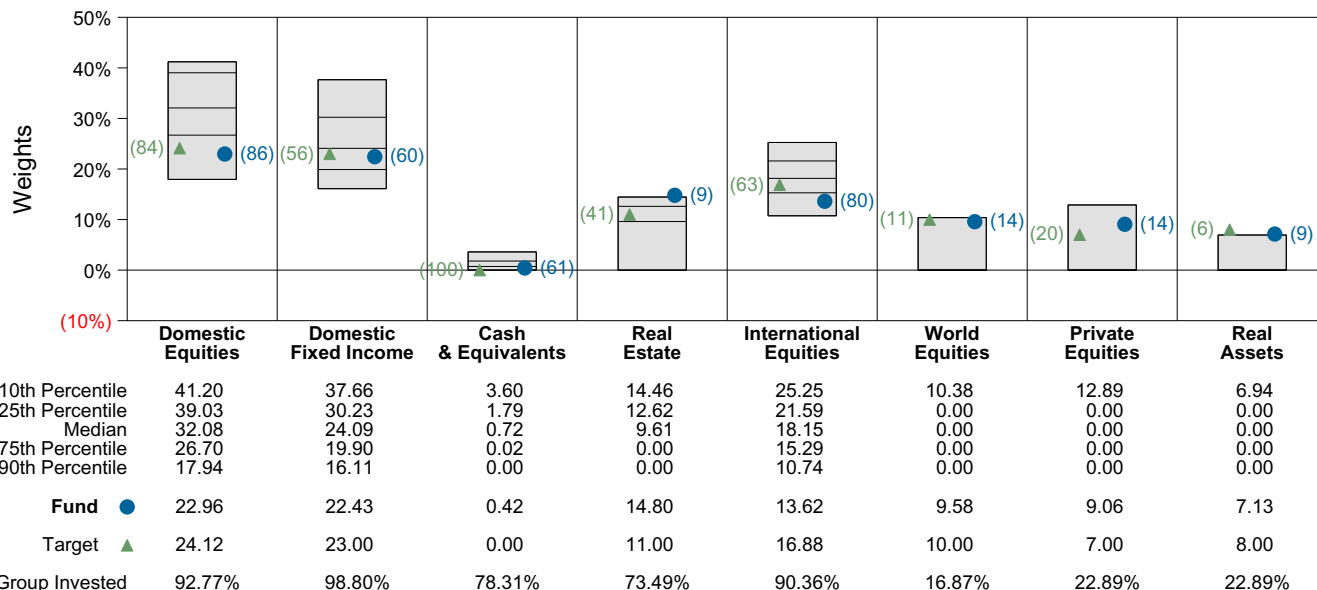
Actual vs Target Asset Allocation As of September 30, 2022

The top left chart shows the Fund's asset allocation as of September 30, 2022. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	812,840	23.0%	24.1%	(1.2%)	(40,798)
International Equities	482,061	13.6%	16.9%	(3.3%)	(115,481)
World Equities	339,005	9.6%	10.0%	(0.4%)	(14,943)
Private Equities	320,844	9.1%	7.0%	2.1%	73,080
Domestic Fixed Income	793,766	22.4%	23.0%	(0.6%)	(20,315)
Real Estate	523,746	14.8%	11.0%	3.8%	134,403
Timber	47,665	1.3%	1.3%	0.0%	0
Infrastructure	204,702	5.8%	6.7%	(0.9%)	(30,792)
Cash & Equivalents	14,854	0.4%	0.0%	0.4%	14,854
Total	3,539,482	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Sponsor Database

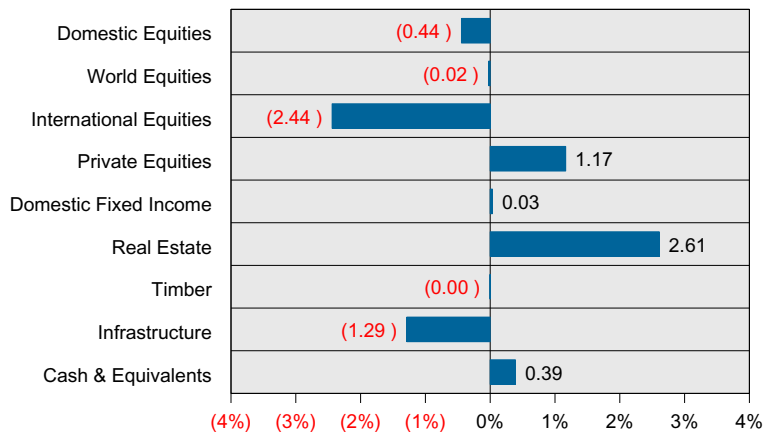


* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

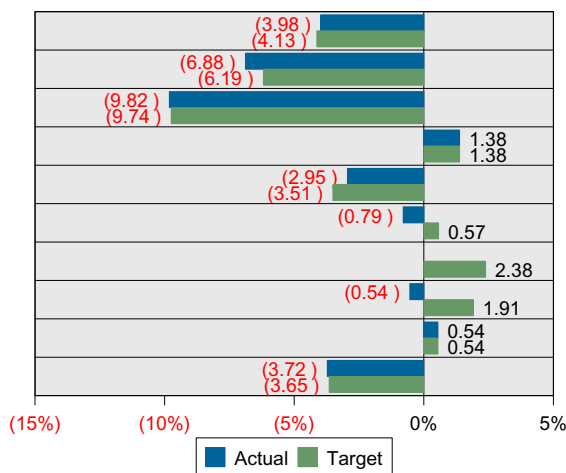
Quarterly Total Fund Relative Attribution - September 30, 2022

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.

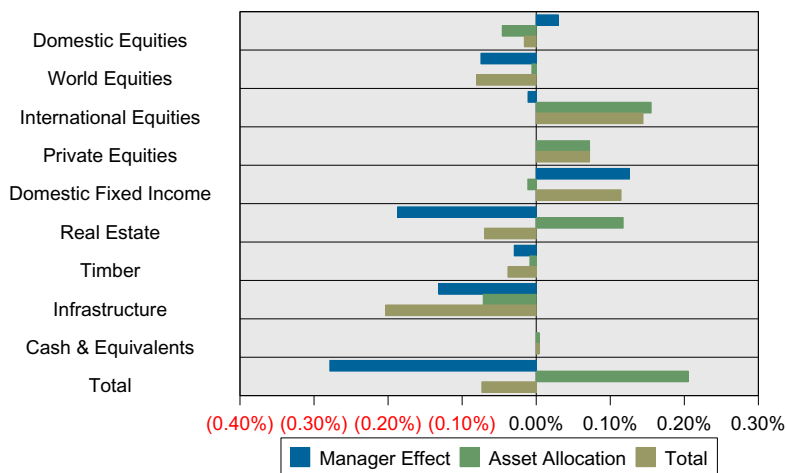
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended September 30, 2022

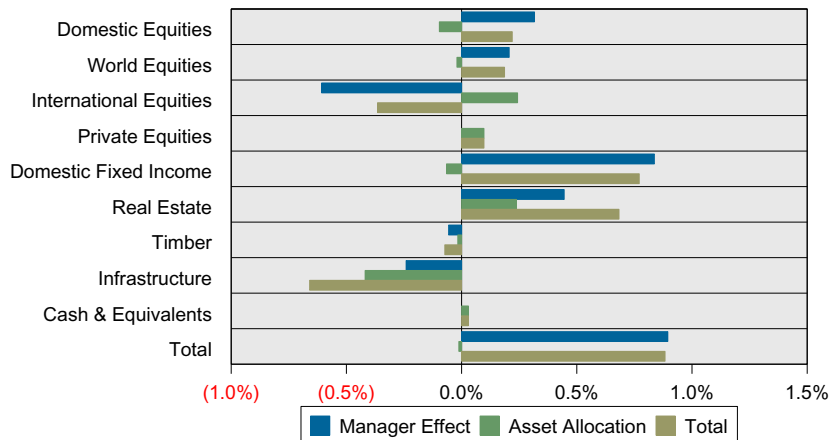
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	24%	24%	(3.98%)	(4.13%)	0.03%	(0.05%)	(0.02%)
World Equities	10%	10%	(6.88%)	(6.19%)	(0.07%)	(0.01%)	(0.08%)
International Equities	14%	17%	(9.82%)	(9.74%)	(0.01%)	0.16%	0.14%
Private Equities	8%	7%	1.38%	1.38%	0.00%	0.07%	0.07%
Domestic Fixed Income	23%	23%	(2.95%)	(3.51%)	0.13%	(0.01%)	0.11%
Real Estate	14%	11%	(0.79%)	0.57%	(0.19%)	0.12%	(0.07%)
Timber	1%	1%	0.00%	2.38%	(0.03%)	(0.01%)	(0.04%)
Infrastructure	5%	7%	(0.54%)	1.91%	(0.13%)	(0.07%)	(0.20%)
Cash & Equivalents	0%	0%	0.54%	0.54%	0.00%	0.00%	0.00%
Total			(3.72%)	(3.65%)	(0.28%)	0.21%	(0.07%)

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

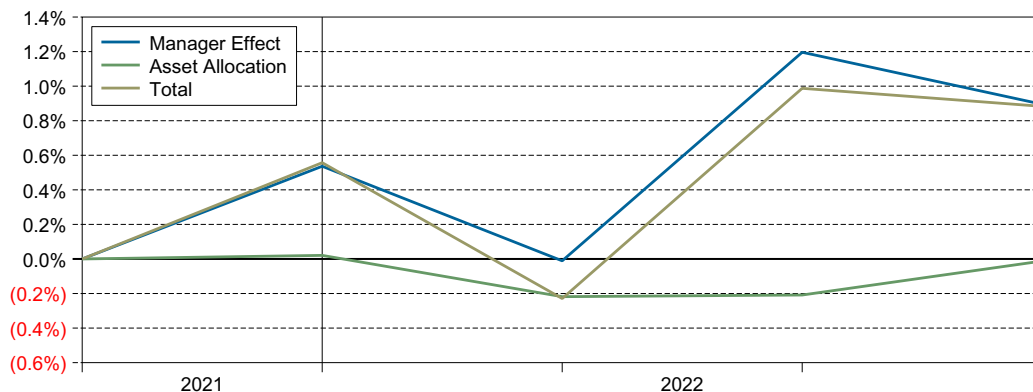
Cumulative Total Fund Relative Attribution - September 30, 2022

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

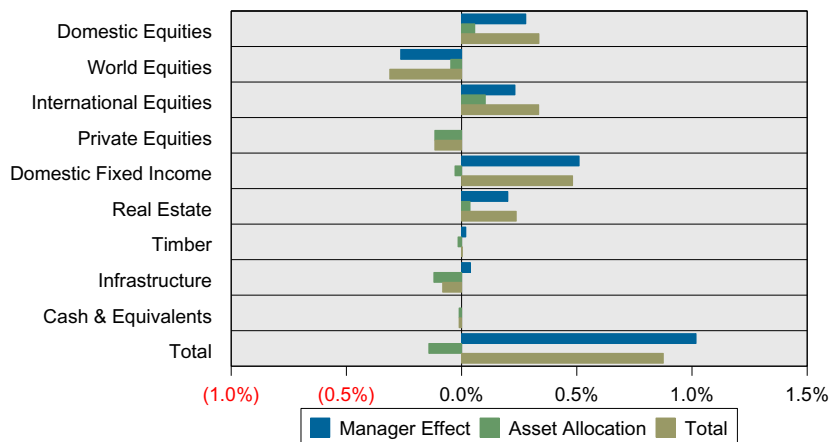
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	25%	24%	(17.31%)	(18.47%)	0.32%	(0.10%)	0.22%
World Equities	10%	10%	(17.62%)	(19.63%)	0.21%	(0.02%)	0.19%
International Equities	15%	17%	(28.19%)	(24.91%)	(0.61%)	0.24%	(0.36%)
Private Equities	8%	7%	7.86%	7.86%	0.00%	0.10%	0.10%
Domestic Fixed Income	24%	23%	(10.95%)	(14.42%)	0.84%	(0.07%)	0.77%
Real Estate	12%	11%	21.33%	16.08%	0.45%	0.24%	0.68%
Timber	1%	1%	7.37%	12.54%	(0.06%)	(0.02%)	(0.07%)
Infrastructure	5%	7%	8.76%	15.24%	(0.24%)	(0.42%)	(0.66%)
Cash & Equivalents	0%	0%	0.76%	0.76%	0.00%	0.03%	0.03%
Total			(10.23%)	(11.11%)	+ 0.90%	+ (0.01%)	0.88%

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

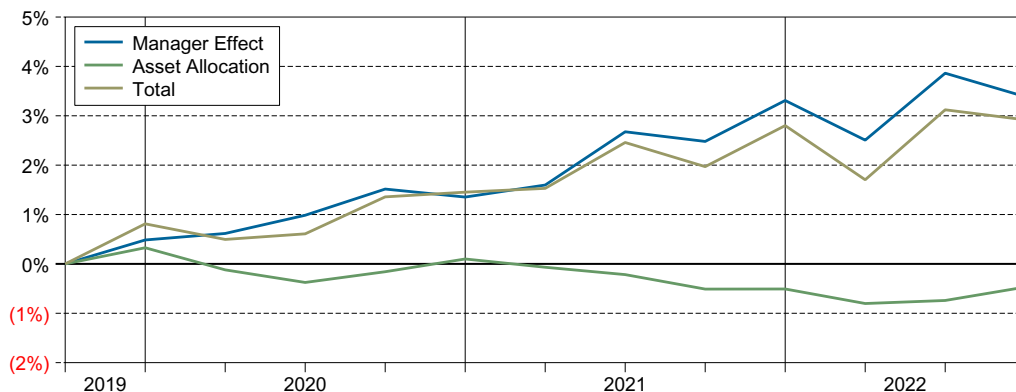
Cumulative Total Fund Relative Attribution - September 30, 2022

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

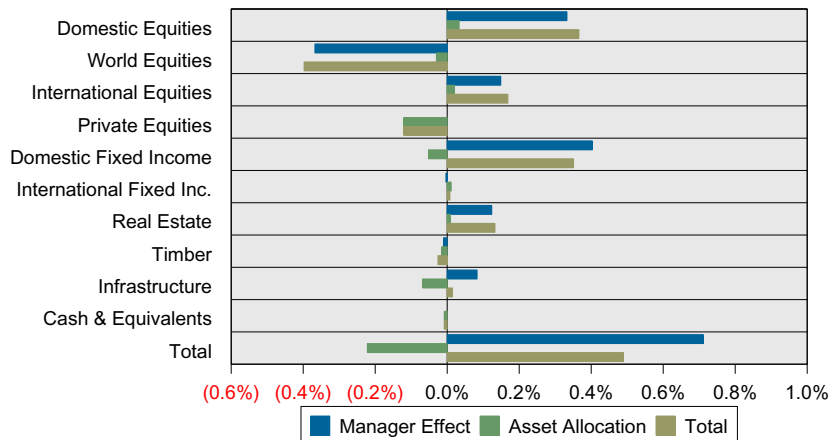
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	24%	23%	8.55%	7.26%	0.28%	0.06%	0.34%
World Equities	13%	12%	3.06%	4.56%	(0.26%)	(0.05%)	(0.31%)
International Equities	16%	16%	0.11%	(1.35%)	0.23%	0.10%	0.33%
Private Equities	6%	7%	20.38%	20.38%	0.00%	(0.12%)	(0.12%)
Domestic Fixed Income	24%	23%	(0.32%)	(2.33%)	0.51%	(0.03%)	0.48%
Real Estate	11%	11%	11.75%	9.91%	0.20%	0.04%	0.24%
Timber	2%	2%	6.17%	5.80%	0.02%	(0.02%)	0.00%
Infrastructure	5%	6%	9.11%	8.51%	0.04%	(0.12%)	(0.08%)
Cash & Equivalents	0%	0%	0.60%	0.60%	0.00%	(0.01%)	(0.01%)
Total			5.83%	4.96%	+ 1.02%	+ (0.14%)	0.88%

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

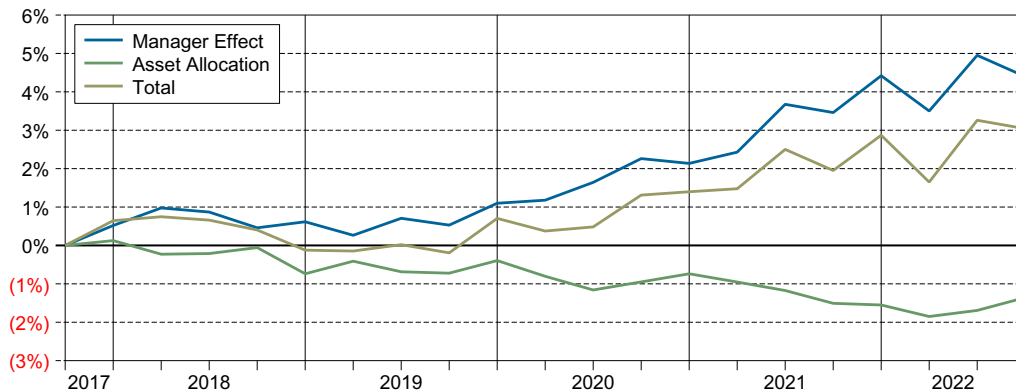
Cumulative Total Fund Relative Attribution - September 30, 2022

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

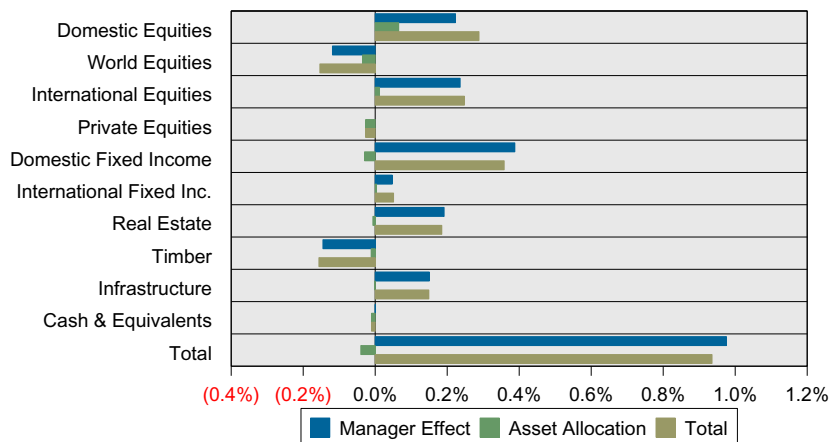
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	9.35%	7.84%	0.33%	0.03%	0.37%
World Equities	14%	14%	3.14%	5.30%	(0.37%)	(0.03%)	(0.40%)
International Equities	16%	15%	0.23%	(0.67%)	0.15%	0.02%	0.17%
Private Equities	5%	7%	15.29%	15.29%	0.00%	(0.12%)	(0.12%)
Domestic Fixed Income	23%	23%	2.01%	0.34%	0.40%	(0.05%)	0.35%
International Fixed Inc.	0%	0%	-	-	(0.00%)	0.01%	0.01%
Real Estate	11%	11%	9.75%	8.62%	0.12%	0.01%	0.13%
Timber	2%	2%	3.96%	4.69%	(0.01%)	(0.02%)	(0.03%)
Infrastructure	5%	6%	8.20%	6.49%	0.08%	(0.07%)	0.01%
Cash & Equivalents	1%	0%	1.17%	1.17%	0.00%	(0.01%)	(0.01%)
Total			5.80%	5.31%	+ 0.71%	+ (0.22%)	0.49%

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

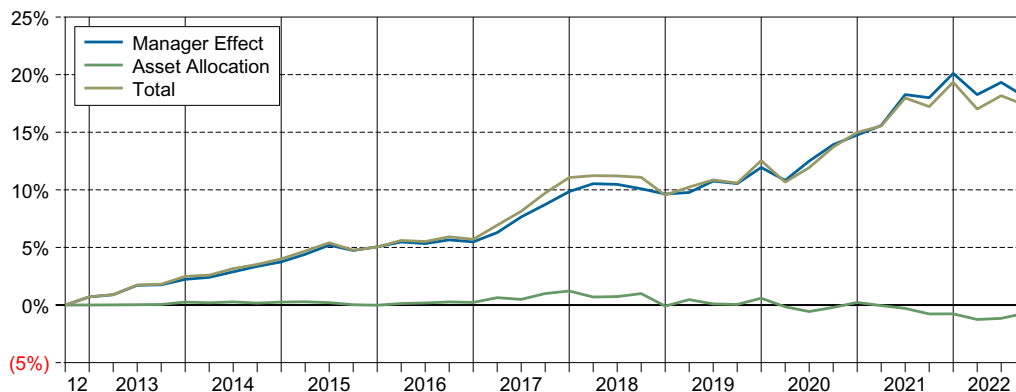
Cumulative Total Fund Relative Attribution - September 30, 2022

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

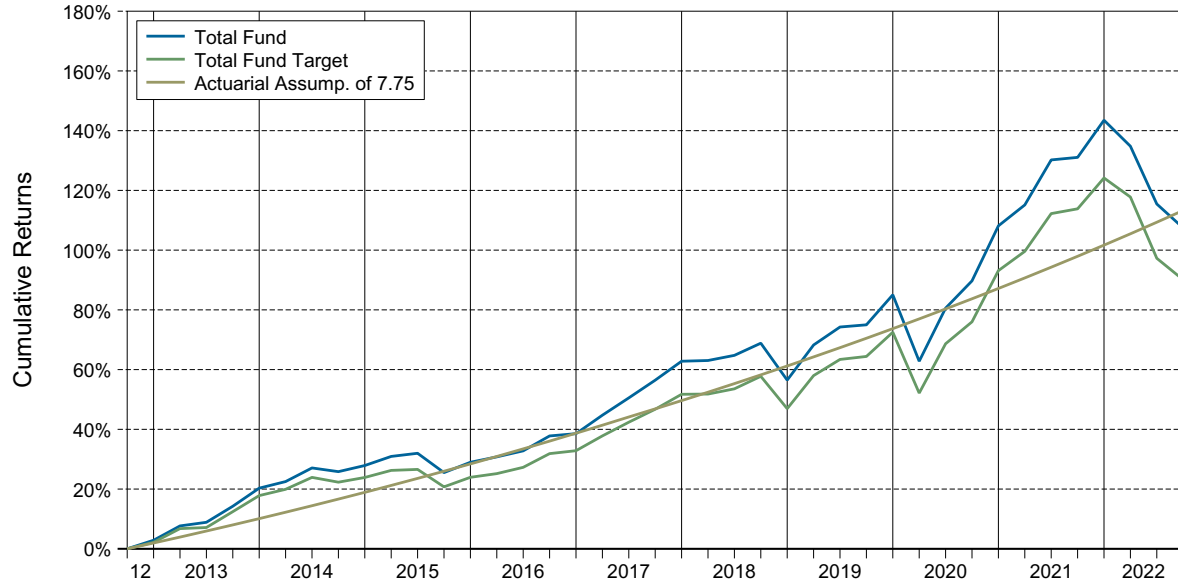
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	22%	12.02%	10.99%	0.22%	0.07%	0.29%
World Equities	15%	15%	7.31%	8.11%	(0.12%)	(0.04%)	(0.15%)
International Equities	16%	15%	4.76%	3.25%	0.24%	0.01%	0.25%
Private Equities	4%	6%	7.85%	7.85%	0.00%	(0.03%)	(0.03%)
Domestic Fixed Income	20%	20%	3.67%	1.82%	0.39%	(0.03%)	0.36%
International Fixed Inc.	3%	3%	-	-	0.05%	0.00%	0.05%
Real Estate	11%	11%	11.37%	9.48%	0.19%	(0.01%)	0.18%
Timber	3%	3%	2.10%	5.90%	(0.15%)	(0.01%)	(0.16%)
Infrastructure	4%	6%	7.37%	3.76%	0.15%	(0.00%)	0.15%
Cash & Equivalents	1%	0%	0.73%	0.72%	0.00%	(0.01%)	(0.01%)
Total			7.57%	6.63%	+ 0.98%	+ (0.04%)	0.94%

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

Cumulative Performance Relative to Target

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

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



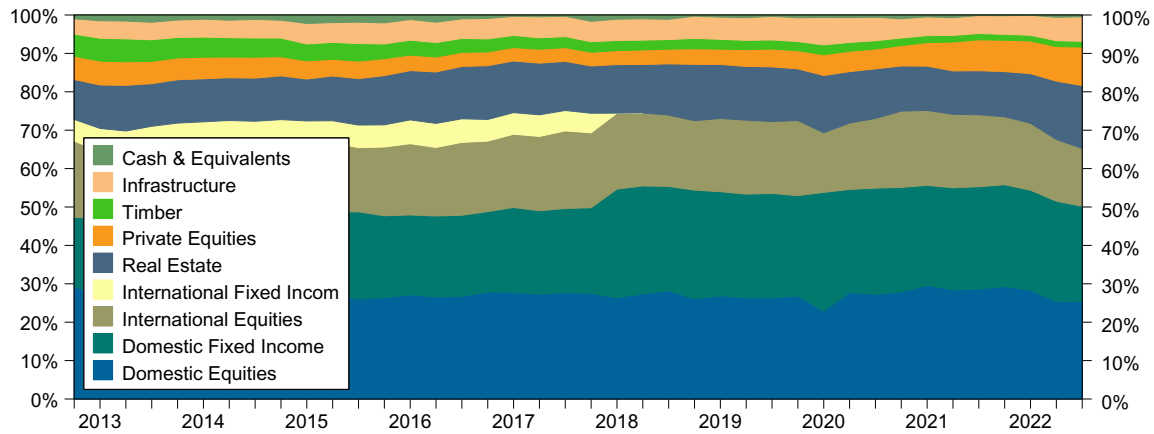
Squares represent membership of the Callan Public Fund Sponsor Database

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

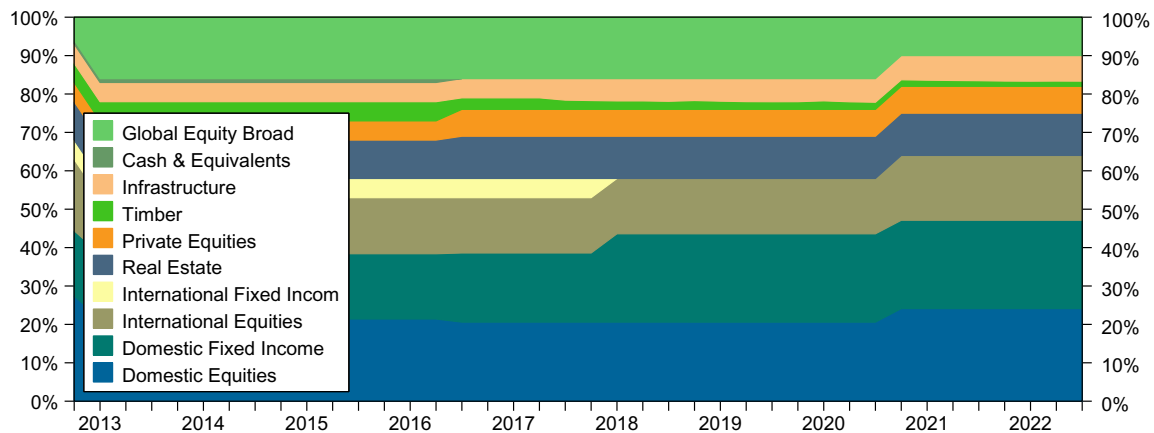
Actual vs Target Historical Asset Allocation

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, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

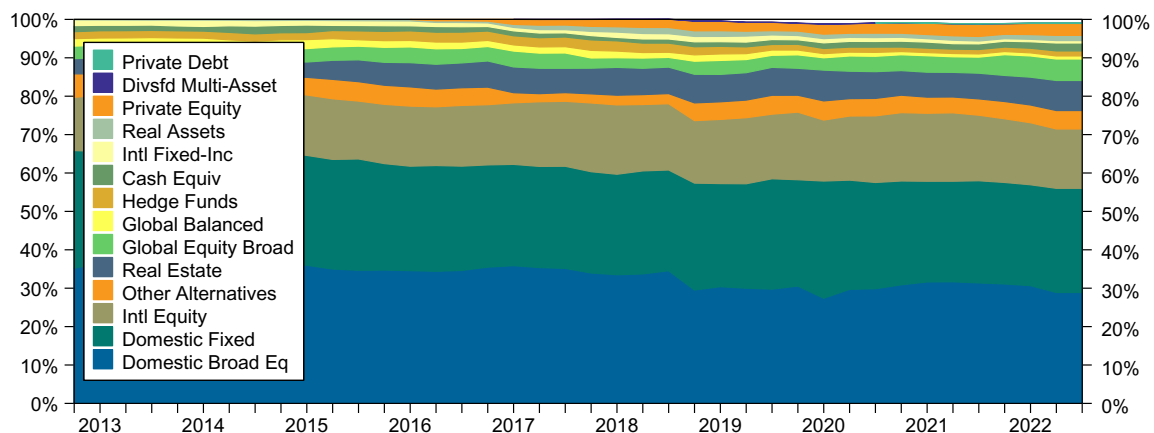
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Sponsor Database Historical Asset Allocation

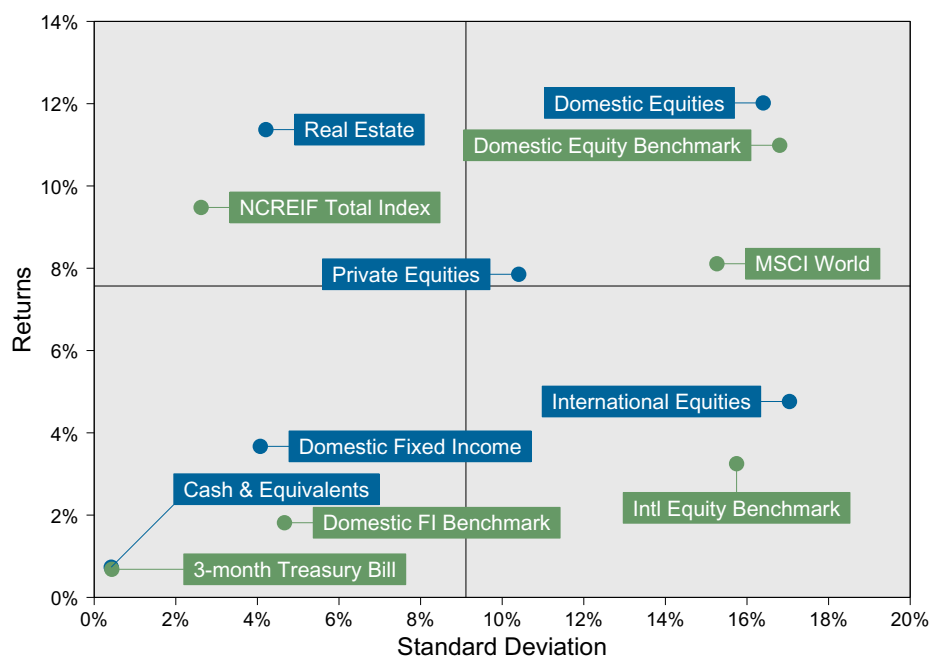


* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

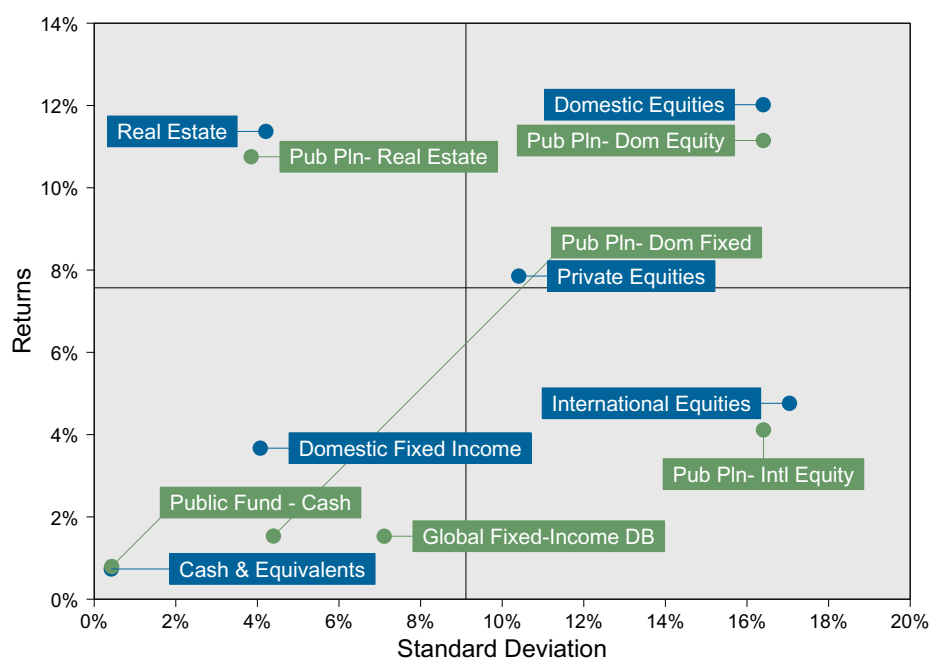
Asset Class Risk and Return

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

**Ten Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices**



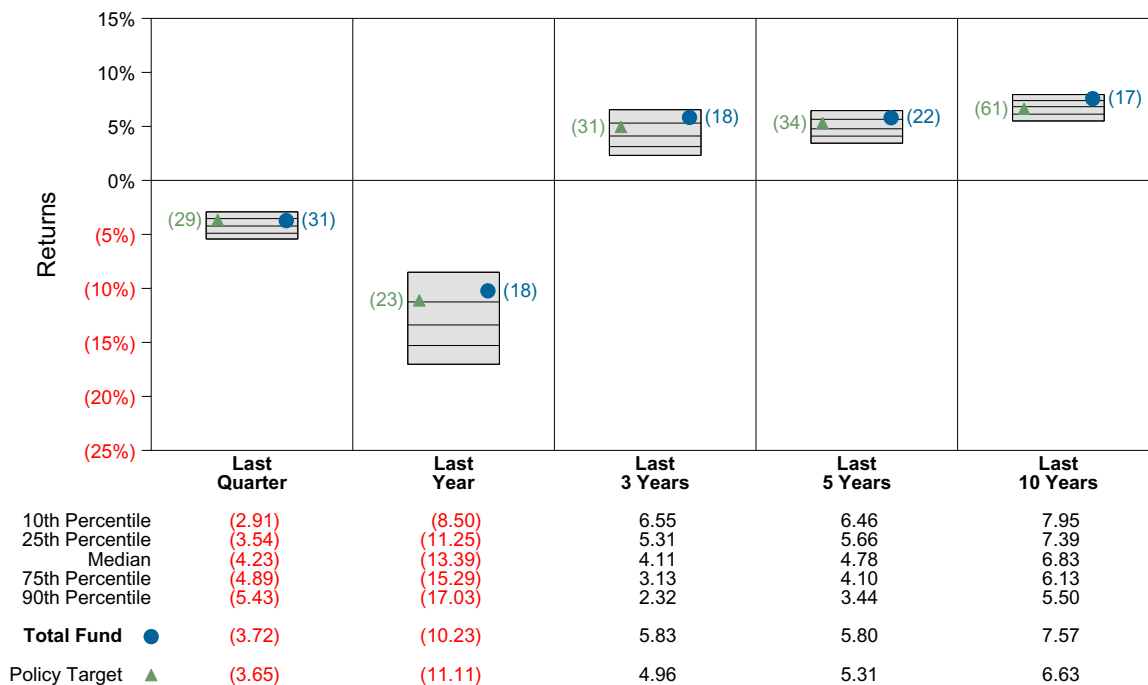
**Ten Year Annualized Risk vs Return
Asset Classes vs Asset Class Median**



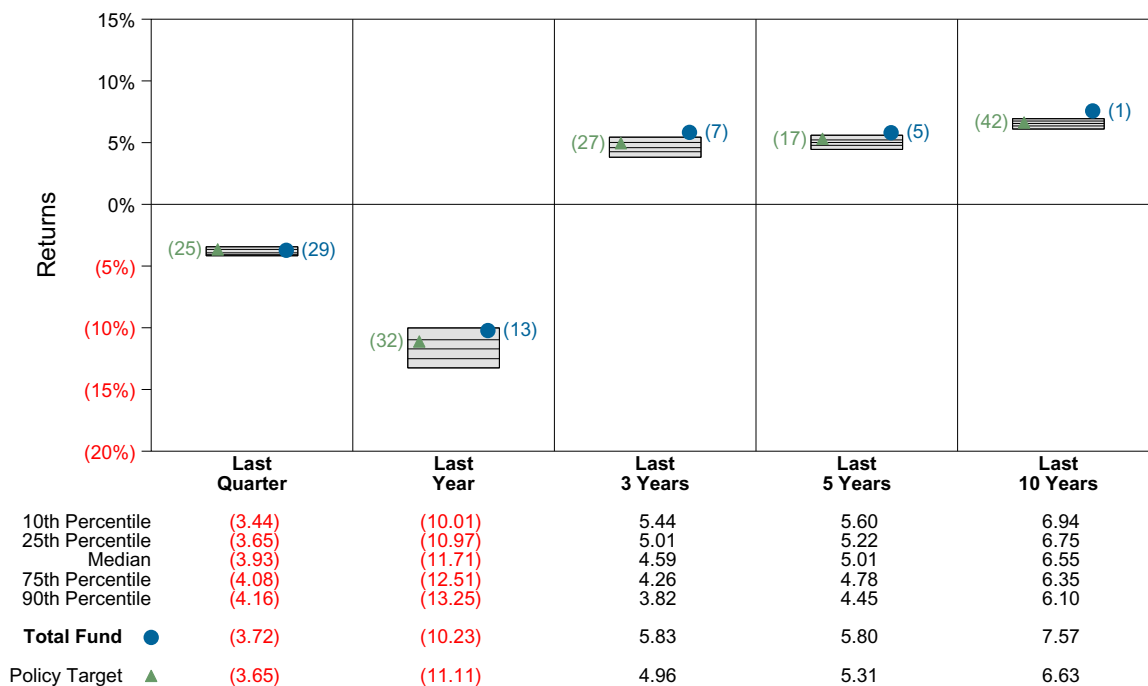
Total Fund Ranking

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

Callan Public Fund Sponsor Database



Asset Allocation Adjusted Ranking

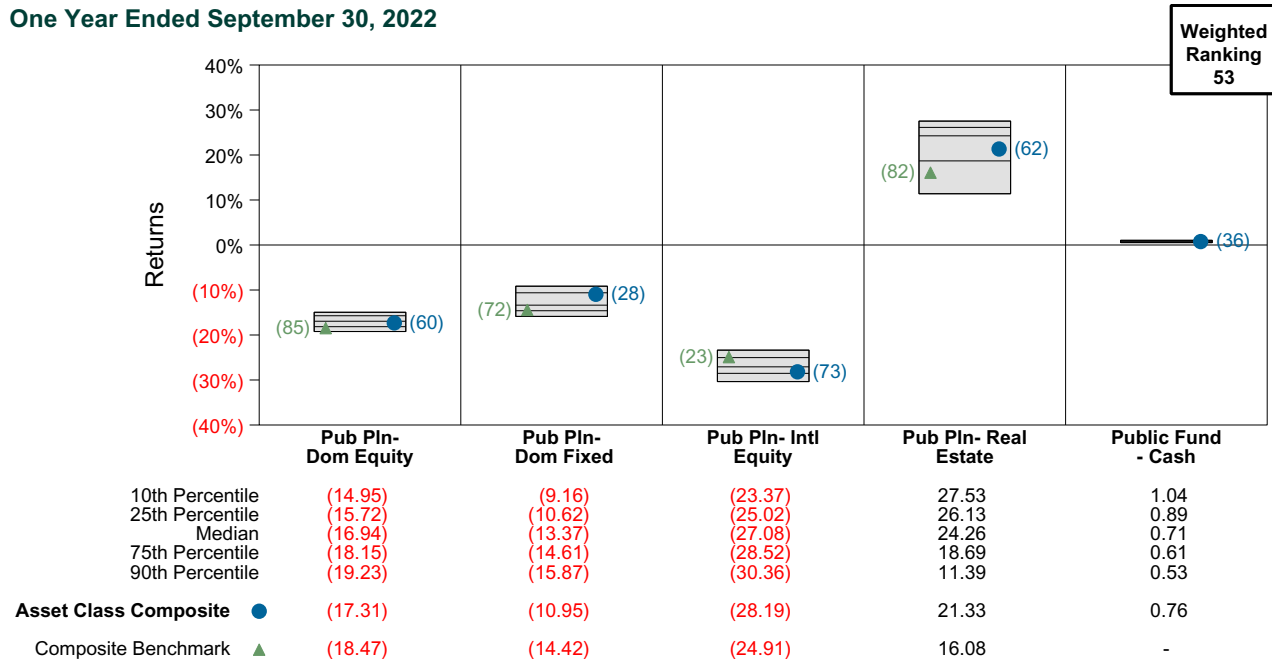


* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Bimbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Bimbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

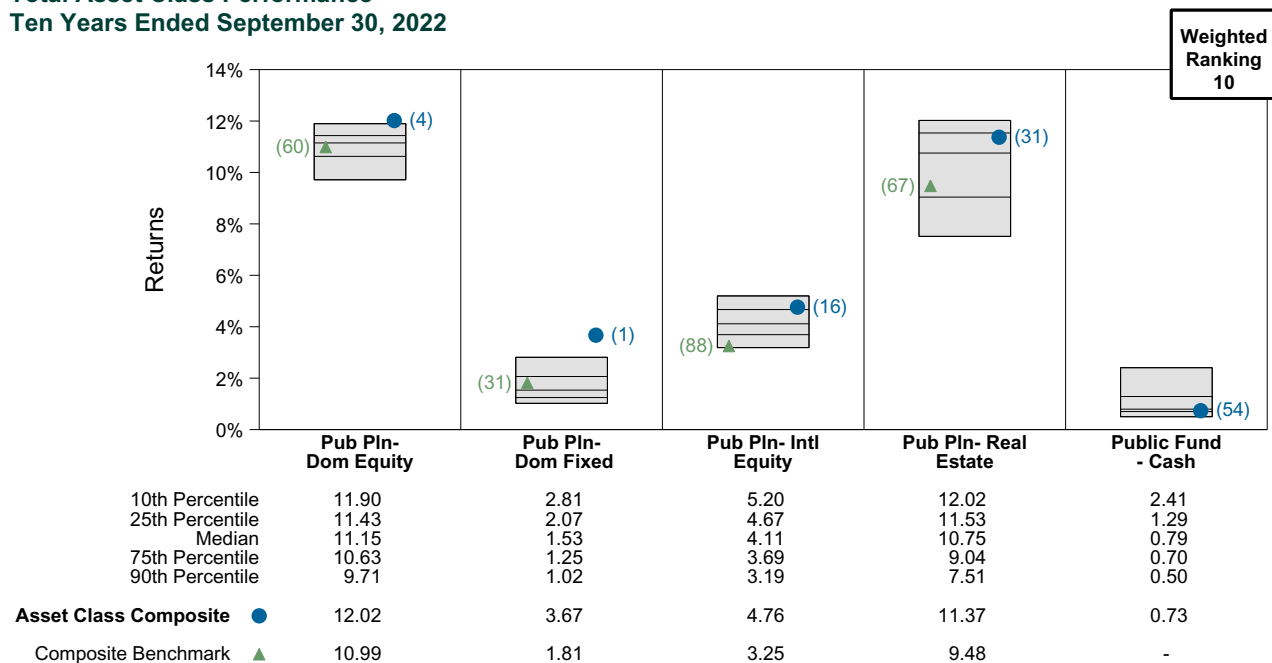
Asset Class Rankings

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 Ten Years Ended September 30, 2022



* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.

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 Equities	\$1,954,749,463	55.23%	\$13,866,235	\$(107,041,229)	\$2,047,924,456	55.35%
Public Equities	\$1,633,905,492	46.16%	\$(2,420,135)	\$(111,316,209)	\$1,747,641,836	47.24%
World Equities	\$339,004,858	9.58%	\$(268,395)	\$(25,075,318)	\$364,348,571	9.85%
Domestic Equities	\$812,839,612	22.96%	\$(1,235,215)	\$(33,676,118)	\$847,750,945	22.91%
Large Cap	647,382,699	18.29%	(1,247,608)	(28,589,643)	677,219,950	18.30%
Small Cap	165,456,912	4.67%	12,393	(5,086,475)	170,530,995	4.61%
International Equities	\$482,061,022	13.62%	\$(916,525)	\$(52,564,773)	\$535,542,321	14.48%
Developed	376,323,597	10.63%	(614,524)	(37,588,323)	414,526,444	11.20%
Emerging Markets	105,737,426	2.99%	(302,001)	(14,976,450)	121,015,877	3.27%
Private Equities	\$320,843,971	9.06%	\$16,286,370	\$4,274,980	\$300,282,620	8.12%
Global Fixed Income	\$793,765,531	22.43%	\$(52,124,756)	\$(24,667,104)	\$870,557,392	23.53%
Domestic Fixed Income	\$793,765,531	22.43%	\$(52,124,756)	\$(24,667,104)	\$870,557,392	23.53%
Investment Grade	542,019,262	15.31%	(37,515,157)	(25,800,442)	605,334,861	16.36%
Below Investment Grade	251,746,270	7.11%	(14,609,599)	1,133,337	265,222,531	7.17%
Global Real Assets	\$776,113,093	21.93%	\$19,960,595	\$(5,148,036)	\$761,300,534	20.58%
Real Estate	\$523,746,262	14.80%	\$20,501,000	\$(4,044,108)	\$507,289,369	13.71%
Other Real Assets	\$252,366,831	7.13%	\$(540,406)	\$(1,103,928)	\$254,011,164	6.87%
Infrastructure	204,702,292	5.78%	2,534,193	(1,103,928)	203,272,027	5.49%
Timber	47,664,539	1.35%	(3,074,598)	(0)	50,739,138	1.37%
Cash	\$14,853,931	0.42%	\$(5,202,071)	\$91,735	\$19,964,267	0.54%
Total Fund	\$3,539,482,017	100.0%	\$(23,499,998)	\$(136,764,634)	\$3,699,746,649	100.0%

PLEASE REFER TO PAGES 29-30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended 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 Equities					
Gross	(5.18%)	(17.44%)	6.36%	6.01%	8.75%
Net	(5.26%)	(17.66%)	6.10%	5.77%	8.47%
Weighted Benchmark	(5.39%)	(17.65%)	6.08%	6.11%	8.18%
Public Equities					
Gross	(6.37%)	(20.87%)	4.37%	-	-
Net	(6.47%)	(21.11%)	4.08%	-	-
Weighted Benchmark	(6.39%)	(20.81%)	3.88%	-	-
World Equities					
Gross	(6.88%)	(17.62%)	3.06%	3.14%	7.31%
Net	(6.96%)	(17.91%)	2.70%	2.78%	6.80%
MSCI World	(6.19%)	(19.63%)	4.56%	5.30%	8.11%
Domestic Equities					
Gross	(3.98%)	(17.31%)	8.55%	9.35%	12.02%
Net	(4.09%)	(17.57%)	8.32%	9.14%	11.81%
Weighted Benchmark	(4.13%)	(18.47%)	7.26%	7.84%	10.99%
Large Cap					
Gross	(4.23%)	(17.06%)	10.05%	10.58%	12.82%
Net	(4.34%)	(17.24%)	9.89%	10.44%	12.66%
Benchmark(1)	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
Small Cap Equity					
Gross	(2.97%)	(18.41%)	3.19%	5.11%	9.16%
Net	(3.13%)	(18.96%)	2.60%	4.60%	8.75%
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%	8.55%
International Equities					
Gross	(9.82%)	(28.19%)	0.11%	0.23%	4.76%
Net	(9.88%)	(28.37%)	(0.18%)	(0.00%)	4.52%
Weighted Benchmark	(9.74%)	(24.91%)	(1.35%)	(0.67%)	3.25%
Developed					
Gross	(9.07%)	(27.00%)	0.33%	0.55%	5.42%
Net	(9.12%)	(27.17%)	0.11%	0.33%	5.17%
Benchmark(2)	(9.20%)	(23.91%)	(1.21%)	(0.39%)	3.85%
Emerging Markets					
Gross	(12.39%)	(32.11%)	(0.81%)	(0.90%)	2.29%
Net	(12.46%)	(32.35%)	(1.32%)	(1.21%)	2.05%
Benchmark(3)	(11.57%)	(28.11%)	(2.07%)	(1.80%)	1.05%
Private Equities					
Net	1.38%	7.86%	20.38%	15.29%	7.84%

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

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

(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 31-35 FOR INVESTMENT MANAGER LEVEL RETURNS.

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

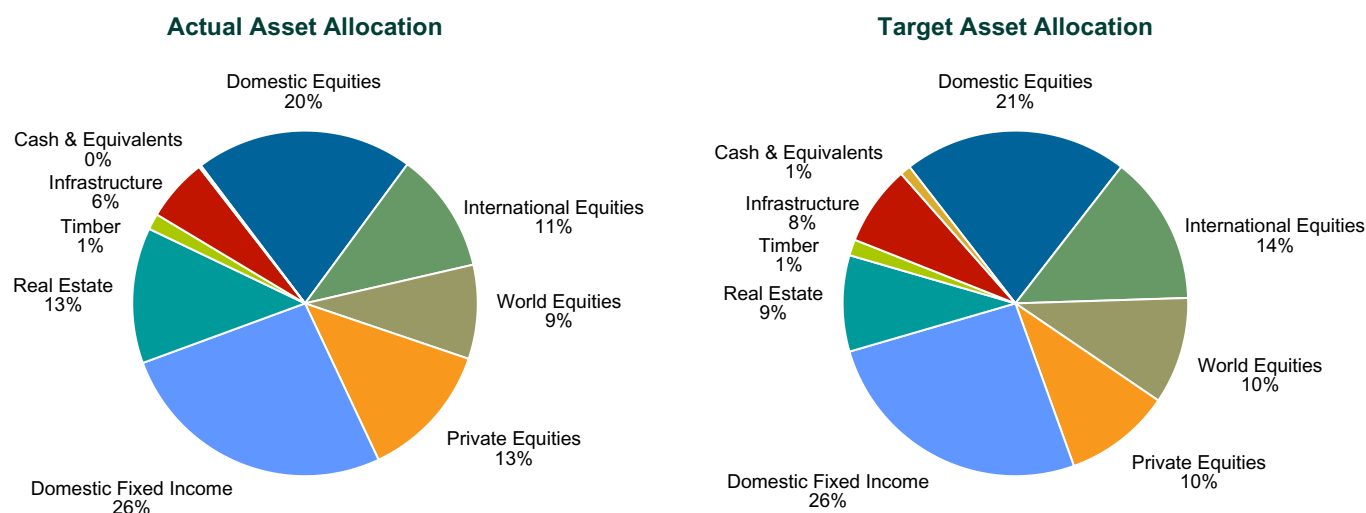
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Global Fixed Income					
Gross	(2.95%)	(10.95%)	(0.32%)	2.13%	3.28%
Net	(3.00%)	(11.07%)	(0.45%)	1.99%	3.08%
Weighted Benchmark	(3.51%)	(14.42%)	(2.33%)	0.56%	1.48%
Domestic Fixed Income					
Gross	(2.95%)	(10.95%)	(0.32%)	2.01%	3.67%
Net	(3.00%)	(11.07%)	(0.45%)	1.87%	3.49%
Weighted Benchmark	(3.51%)	(14.42%)	(2.33%)	0.34%	1.81%
Inv. Grade Fixed Income					
Gross	(4.43%)	(14.86%)	(2.52%)	0.64%	2.50%
Net	(4.49%)	(14.96%)	(2.63%)	0.54%	2.39%
Blmbg Aggregate Index	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Below Inv. Grade Fixed Income					
Gross	0.38%	(0.86%)	4.97%	5.20%	6.45%
Net	0.35%	(1.02%)	4.78%	4.99%	6.11%
Blmbg HY Corp 2% Issue	(0.64%)	(14.15%)	(0.47%)	1.56%	3.94%
Global Real Assets					
Gross	(0.68%)	16.73%	10.62%	8.77%	8.75%
Net	(0.73%)	16.27%	10.16%	8.32%	8.31%
Weighted Benchmark	1.17%	15.54%	9.11%	7.57%	7.41%
Real Estate					
Gross	(0.79%)	21.33%	11.75%	9.75%	11.37%
Net	(0.88%)	20.73%	11.18%	9.21%	10.83%
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
Other Real Assets					
Gross	(0.44%)	8.48%	8.34%	-	-
Net	(0.43%)	8.29%	8.07%	-	-
Weighted Benchmark	1.99%	14.79%	8.00%	-	-
Infrastructure					
Gross	(0.54%)	8.76%	9.11%	8.20%	7.37%
Net	(0.53%)	8.51%	8.74%	7.79%	6.86%
Benchmark(1)	1.91%	15.24%	8.51%	6.49%	3.76%
Timber					
Net	0.00%	7.37%	6.17%	3.96%	2.10%
NCREIF Timberland Index	2.38%	12.54%	5.80%	4.69%	5.90%
Cash & Equivalents - Net	0.54%	0.76%	0.60%	1.17%	0.73%
3-month Treasury Bill	0.46%	0.62%	0.59%	1.15%	0.68%
Total Fund					
Gross	(3.72%)	(10.23%)	5.83%	5.80%	7.57%
Net	(3.79%)	(10.45%)	5.56%	5.55%	7.28%
Target*	(3.65%)	(11.11%)	4.96%	5.31%	6.63%

* Current Quarter Target = 19.3% Russell 1000 Index, 16.0% Blmbg Aggregate, 12.7% MSCI World xUS, 11.0% NCREIF Total Index, 10.0% MSCI World, 7.0% Blmbg HY Corp 2% Iss Cap, 7.0% Private Equity, 4.8% Russell 2000 Index, 4.2% MSCI EM, 3.3% NCREIF NFI-ODCE Eq Wt Net, 3.3% CPI All Urban Cons lagged 3 months and 1.3% NCREIF Timberland Index.
(1) CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

PLEASE REFER TO PAGES 31-35 FOR INVESTMENT MANAGER LEVEL RETURNS.

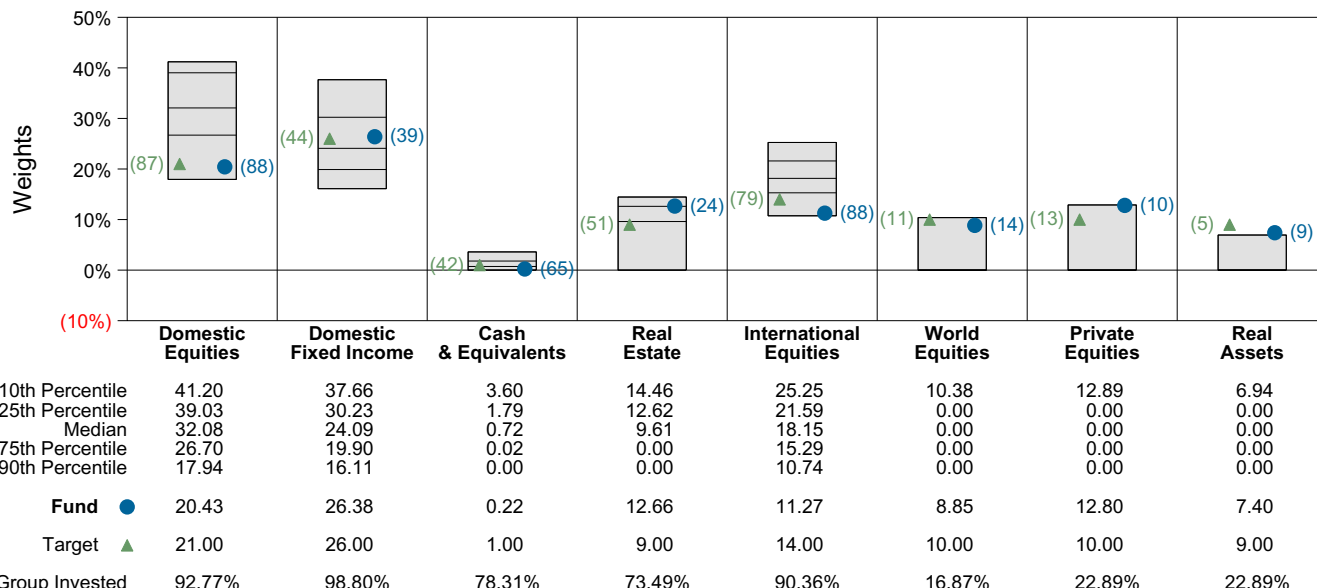
Actual vs Target Asset Allocation As of September 30, 2022

The top left chart shows the Fund's asset allocation as of September 30, 2022. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equities	580,807	20.4%	21.0%	(0.6%)	(16,322)
International Equities	320,344	11.3%	14.0%	(2.7%)	(77,742)
World Equities	251,643	8.8%	10.0%	(1.2%)	(32,704)
Private Equities	363,965	12.8%	10.0%	2.8%	79,618
Domestic Fixed Income	750,116	26.4%	26.0%	0.4%	10,813
Real Estate	360,064	12.7%	9.0%	3.7%	104,151
Timber	42,547	1.5%	1.5%	(0.0%)	(0)
Infrastructure	167,742	5.9%	7.5%	(1.6%)	(45,623)
Cash & Equivalents	6,244	0.2%	1.0%	(0.8%)	(22,190)
Total	2,843,471	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Sponsor Database

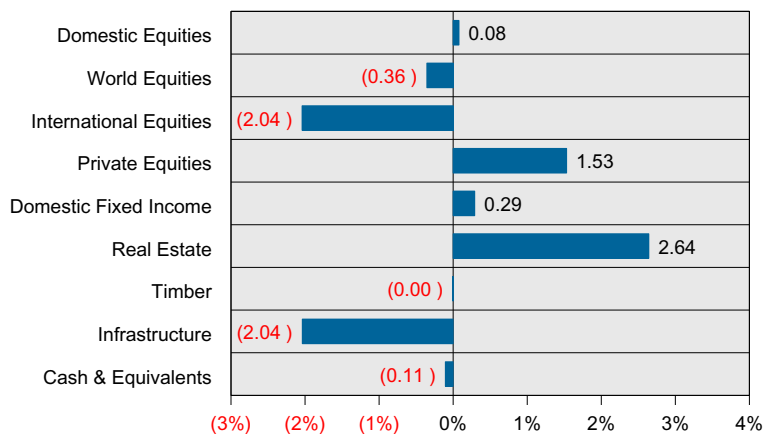


* Current Quarter Target = 18.0% Bmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

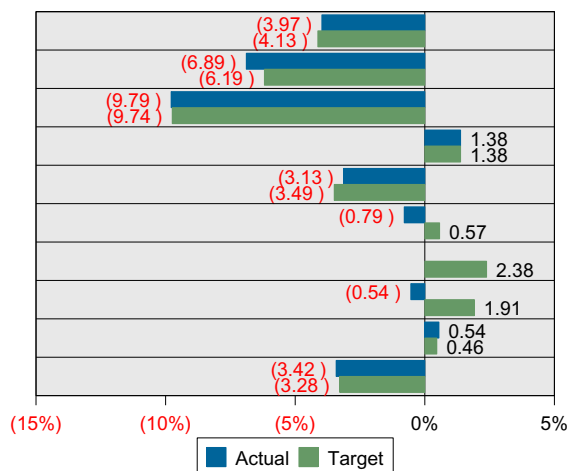
Quarterly Total Fund Relative Attribution - September 30, 2022

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.

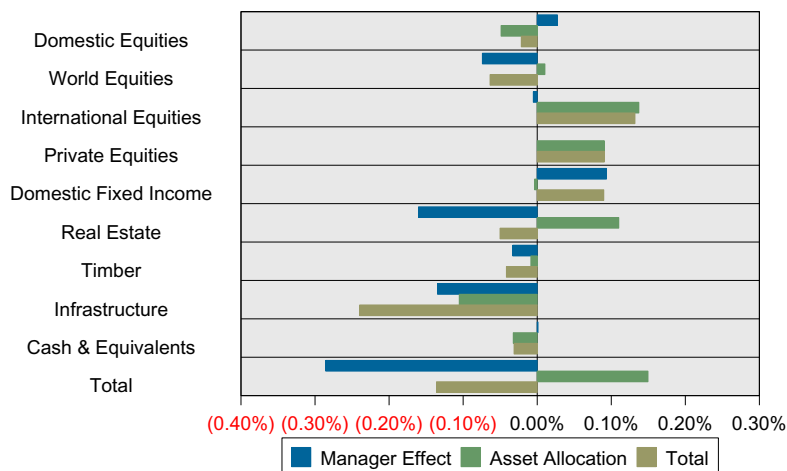
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended September 30, 2022

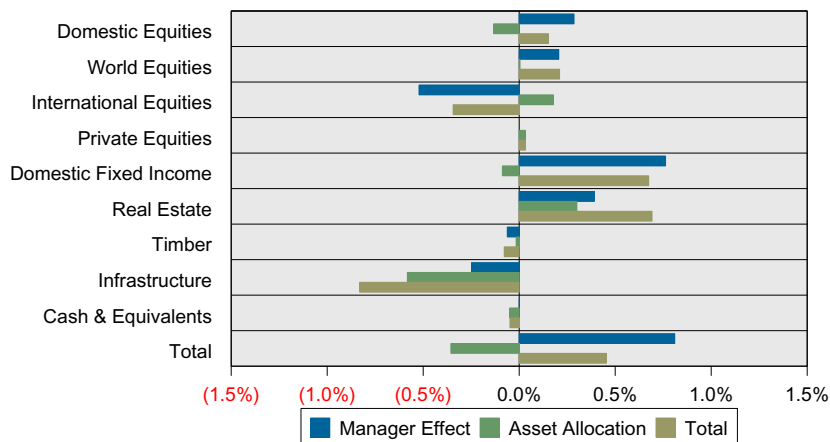
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	21%	21%	(3.97%)	(4.13%)	0.03%	(0.05%)	(0.02%)
World Equities	10%	10%	(6.89%)	(6.19%)	(0.07%)	0.01%	(0.06%)
International Equities	12%	14%	(9.79%)	(9.74%)	(0.01%)	0.14%	0.13%
Private Equities	12%	10%	1.38%	1.38%	0.00%	0.09%	0.09%
Domestic Fixed Income	26%	26%	(3.13%)	(3.49%)	0.09%	(0.00%)	0.09%
Real Estate	12%	9%	(0.79%)	0.57%	(0.16%)	0.11%	(0.05%)
Timber	1%	1%	0.00%	2.38%	(0.03%)	(0.01%)	(0.04%)
Infrastructure	6%	8%	(0.54%)	1.91%	(0.13%)	(0.11%)	(0.24%)
Cash & Equivalents	1%	1%	0.54%	0.46%	0.00%	(0.03%)	(0.03%)
Total			(3.42%)	(3.28%)	(0.29%)	0.15%	(0.14%)

* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

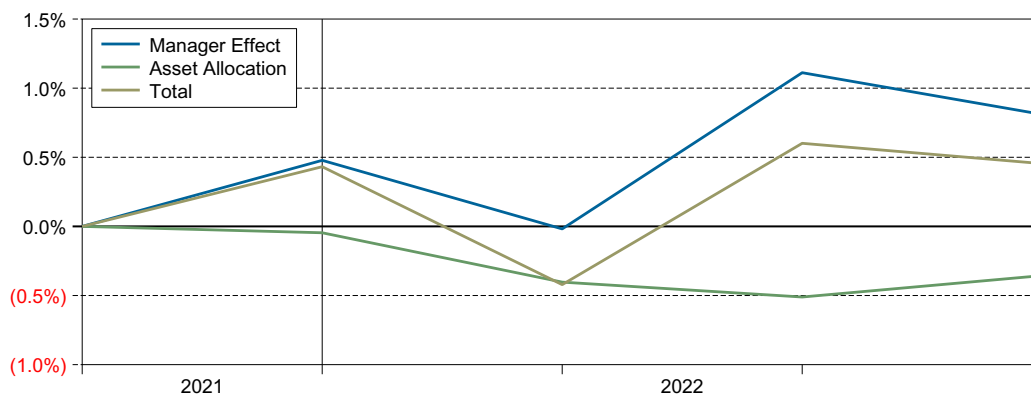
Cumulative Total Fund Relative Attribution - September 30, 2022

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

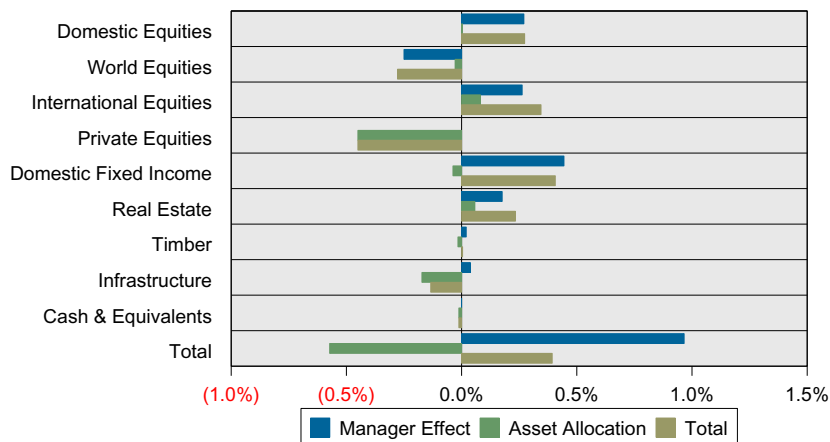
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	22%	21%	(17.33%)	(18.47%)	0.29%	(0.13%)	0.15%
World Equities	10%	10%	(17.62%)	(19.63%)	0.21%	0.00%	0.21%
International Equities	13%	14%	(28.13%)	(24.91%)	(0.52%)	0.18%	(0.34%)
Private Equities	10%	10%	7.86%	7.86%	0.00%	0.03%	0.03%
Domestic Fixed Income	27%	26%	(11.68%)	(14.41%)	0.76%	(0.09%)	0.67%
Real Estate	10%	9%	21.33%	16.08%	0.39%	0.30%	0.69%
Timber	1%	1%	7.37%	12.54%	(0.06%)	(0.02%)	(0.08%)
Infrastructure	5%	8%	8.76%	15.24%	(0.25%)	(0.58%)	(0.83%)
Cash & Equivalents	1%	1%	0.76%	0.62%	0.00%	(0.05%)	(0.05%)
Total			(9.70%)	(10.15%)	0.81%	(0.36%)	0.45%

* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

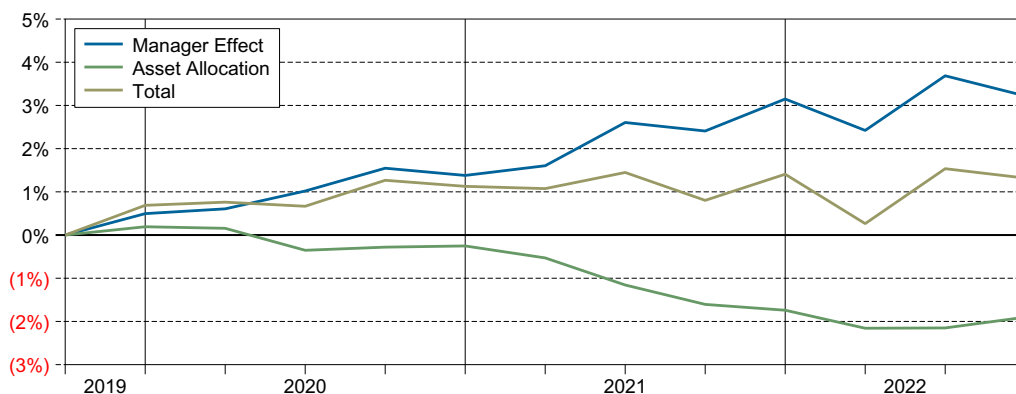
Cumulative Total Fund Relative Attribution - September 30, 2022

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

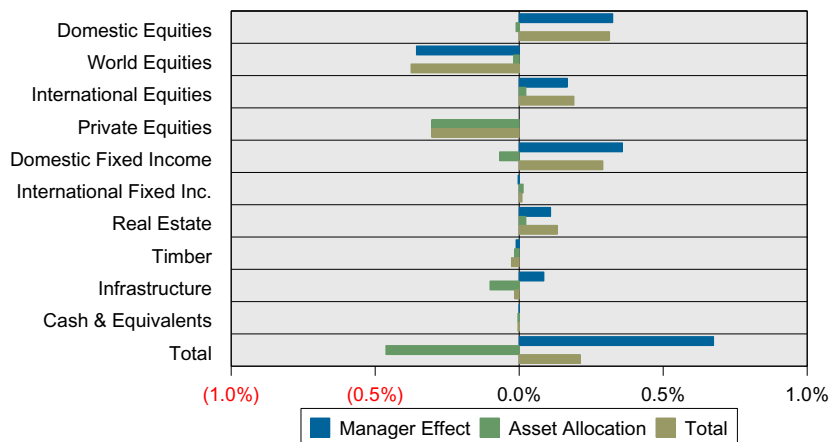
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	22%	21%	8.58%	7.27%	0.27%	0.00%	0.27%
World Equities	13%	12%	3.07%	4.56%	(0.25%)	(0.03%)	(0.28%)
International Equities	15%	14%	0.00%	(1.52%)	0.26%	0.08%	0.34%
Private Equities	7%	8%	20.38%	20.38%	0.00%	(0.45%)	(0.45%)
Domestic Fixed Income	26%	25%	(0.77%)	(2.32%)	0.44%	(0.04%)	0.41%
Real Estate	10%	9%	11.75%	9.91%	0.18%	0.06%	0.23%
Timber	2%	2%	6.17%	5.80%	0.02%	(0.02%)	0.00%
Infrastructure	5%	7%	9.11%	8.51%	0.04%	(0.17%)	(0.13%)
Cash & Equivalents	1%	1%	0.60%	0.59%	(0.00%)	(0.01%)	(0.01%)
Total			5.90%	5.50%	+ 0.97%	+ (0.57%)	0.39%

* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

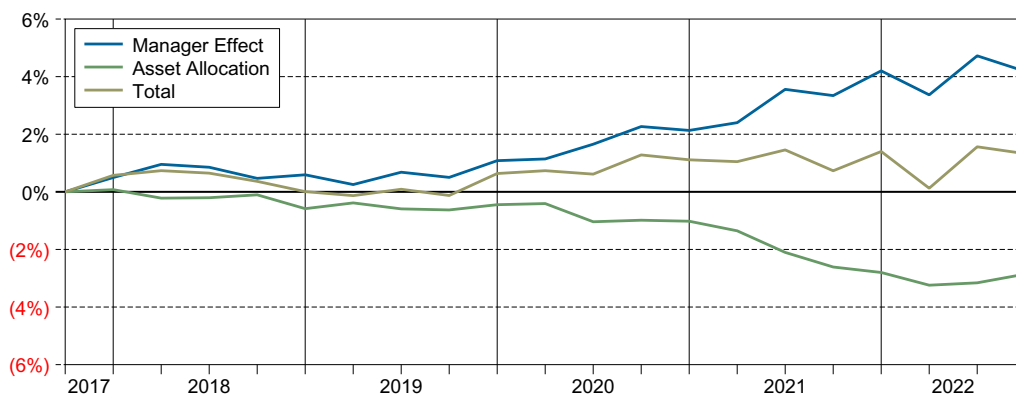
Cumulative Total Fund Relative Attribution - September 30, 2022

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

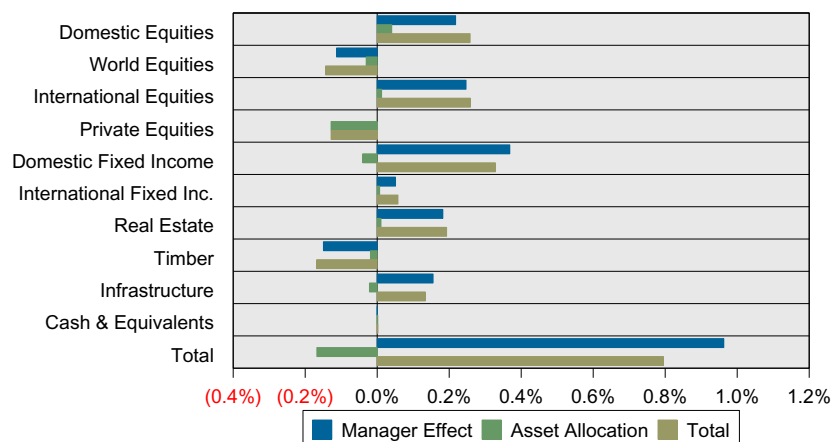
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	9.38%	7.87%	0.32%	(0.01%)	0.31%
World Equities	14%	14%	3.14%	5.30%	(0.36%)	(0.02%)	(0.38%)
International Equities	15%	14%	0.20%	(0.74%)	0.17%	0.02%	0.19%
Private Equities	6%	7%	15.29%	15.29%	0.00%	(0.30%)	(0.30%)
Domestic Fixed Income	24%	24%	1.70%	0.33%	0.36%	(0.07%)	0.29%
International Fixed Inc.	0%	0%	-	-	(0.00%)	0.01%	0.01%
Real Estate	10%	10%	9.75%	8.62%	0.11%	0.02%	0.13%
Timber	2%	2%	3.96%	4.69%	(0.01%)	(0.02%)	(0.03%)
Infrastructure	5%	6%	8.20%	6.49%	0.09%	(0.10%)	(0.02%)
Cash & Equivalents	1%	1%	1.17%	1.15%	0.00%	(0.00%)	(0.00%)
Total			5.85%	5.64%	+ 0.67%	+ (0.46%)	0.21%

* Current Quarter Target = 18.0% Bimbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bimbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

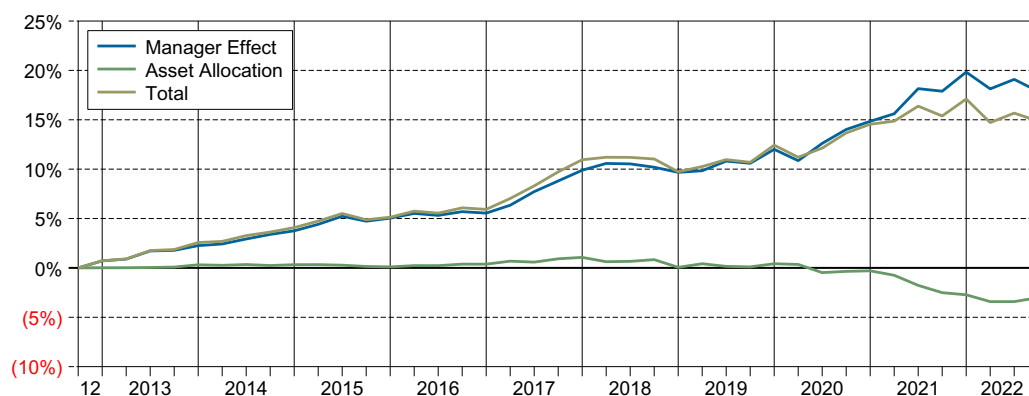
Cumulative Total Fund Relative Attribution - September 30, 2022

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

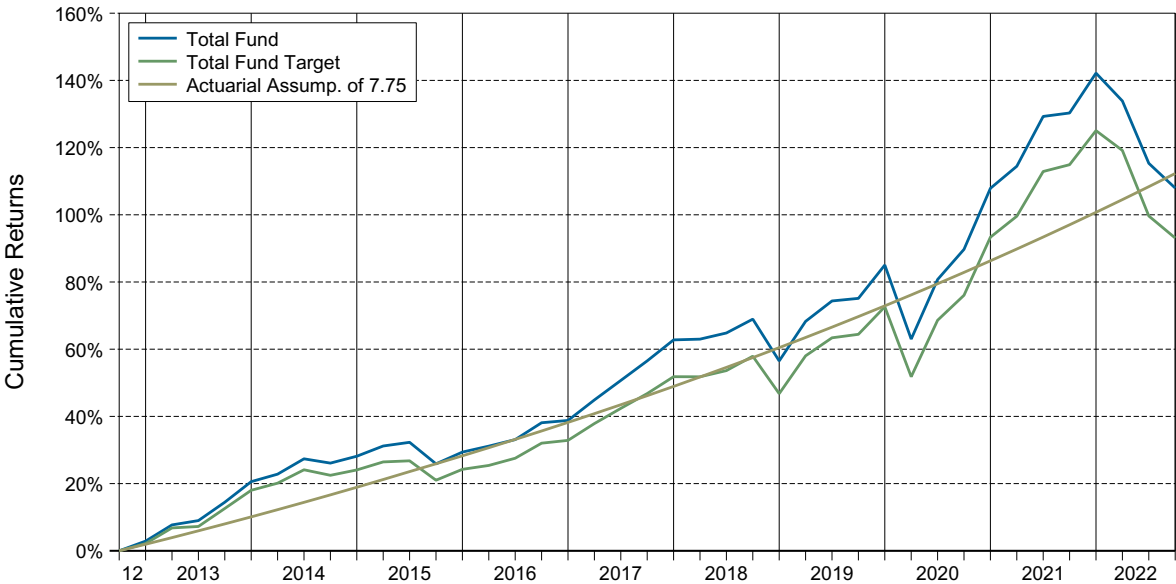
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equities	23%	21%	12.03%	11.00%	0.22%	0.04%	0.26%
World Equities	15%	15%	7.31%	8.11%	(0.11%)	(0.03%)	(0.14%)
International Equities	15%	15%	4.85%	3.31%	0.25%	0.01%	0.26%
Private Equities	5%	6%	7.86%	7.86%	0.00%	(0.13%)	(0.13%)
Domestic Fixed Income	21%	20%	3.49%	1.75%	0.37%	(0.04%)	0.33%
International Fixed Inc.	3%	3%	-	-	0.05%	0.01%	0.06%
Real Estate	10%	10%	11.37%	9.48%	0.18%	0.01%	0.19%
Timber	3%	3%	2.10%	5.90%	(0.15%)	(0.02%)	(0.17%)
Infrastructure	5%	6%	7.37%	3.76%	0.16%	(0.02%)	0.13%
Cash & Equivalents	1%	1%	0.73%	0.68%	0.00%	0.00%	0.00%
Total			7.60%	6.80%	+ 0.96%	+ (0.17%)	0.80%

* Current Quarter Target = 18.0% Bimbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bimbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

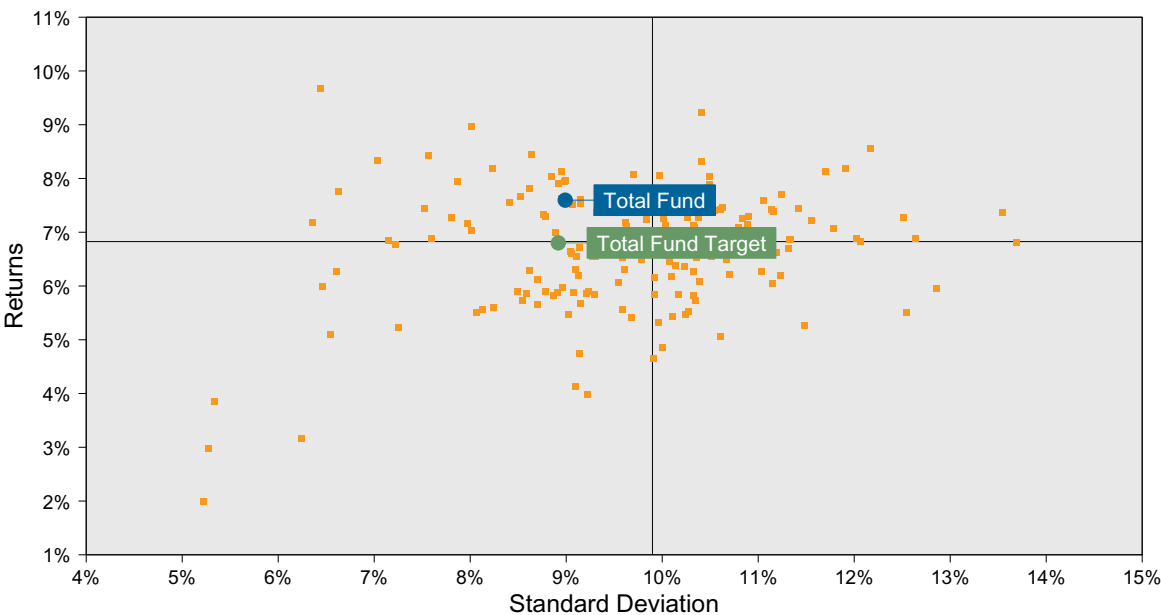
Cumulative Performance Relative to Target

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

Cumulative Returns Actual vs Target



Ten Year Annualized Risk vs Return



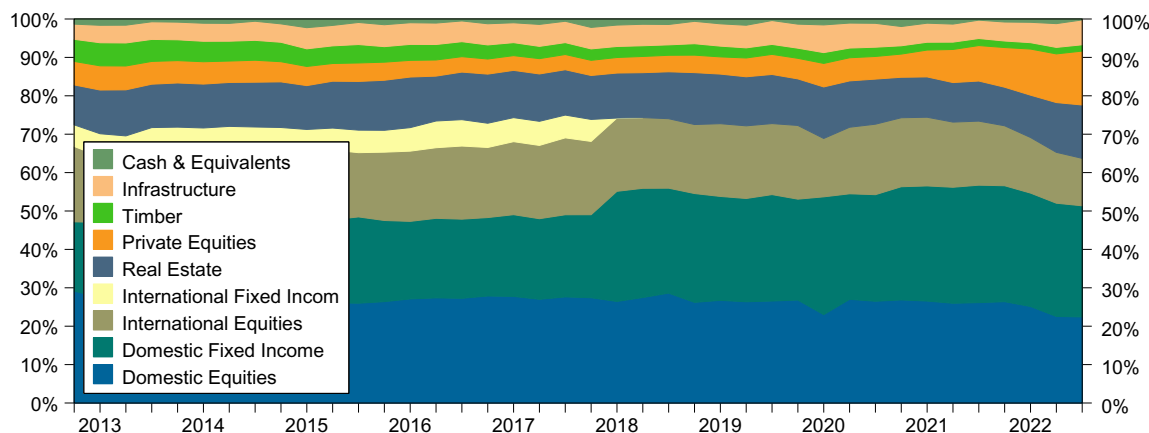
Squares represent membership of the Callan Public Fund Sponsor Database

* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

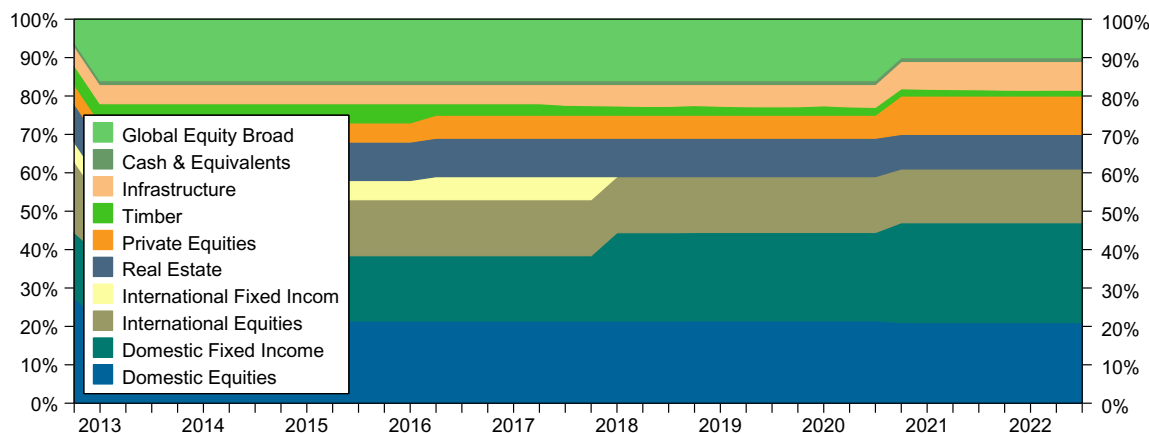
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.

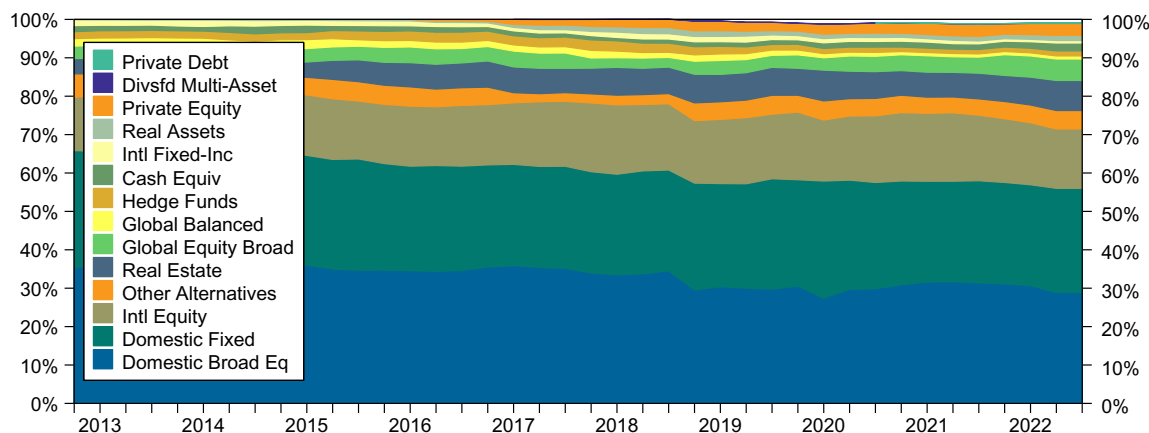
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Sponsor Database Historical Asset Allocation

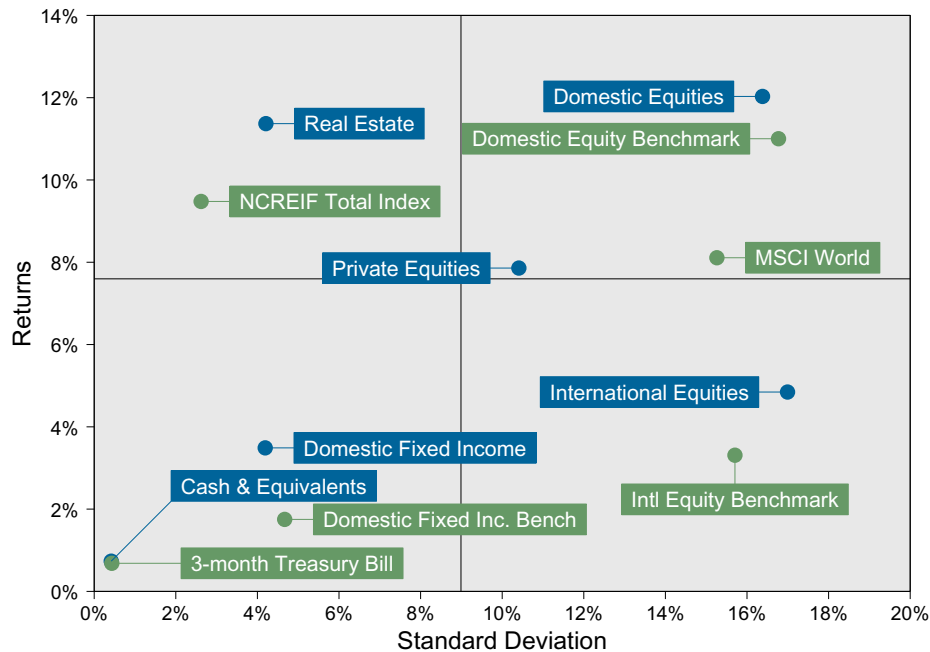


* Current Quarter Target = 18.0% Blmbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Blmbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

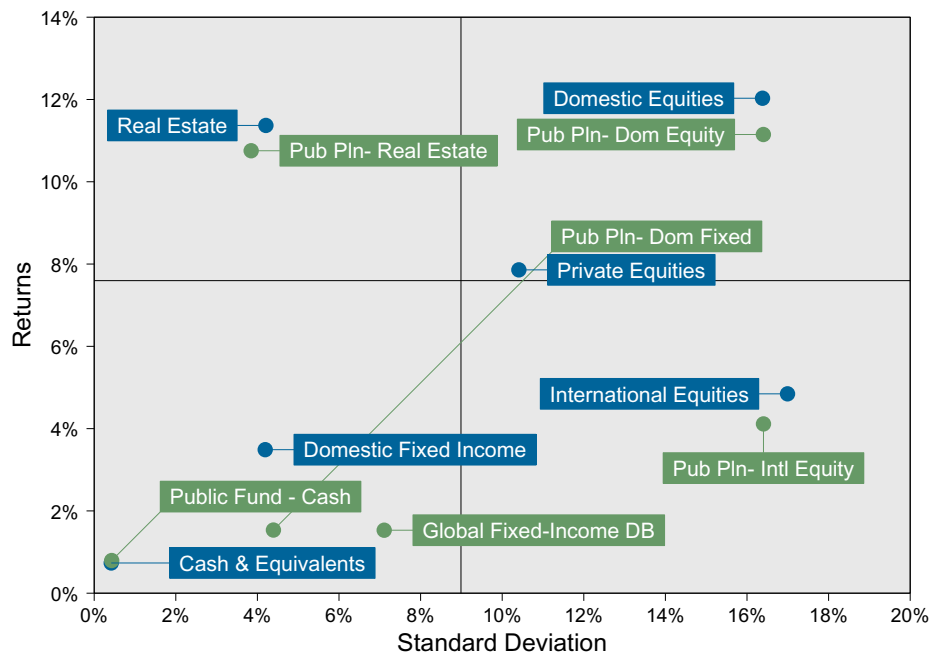
Asset Class Risk and Return

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

**Ten Year Annualized Risk vs Return
Asset Classes vs Benchmark Indices**



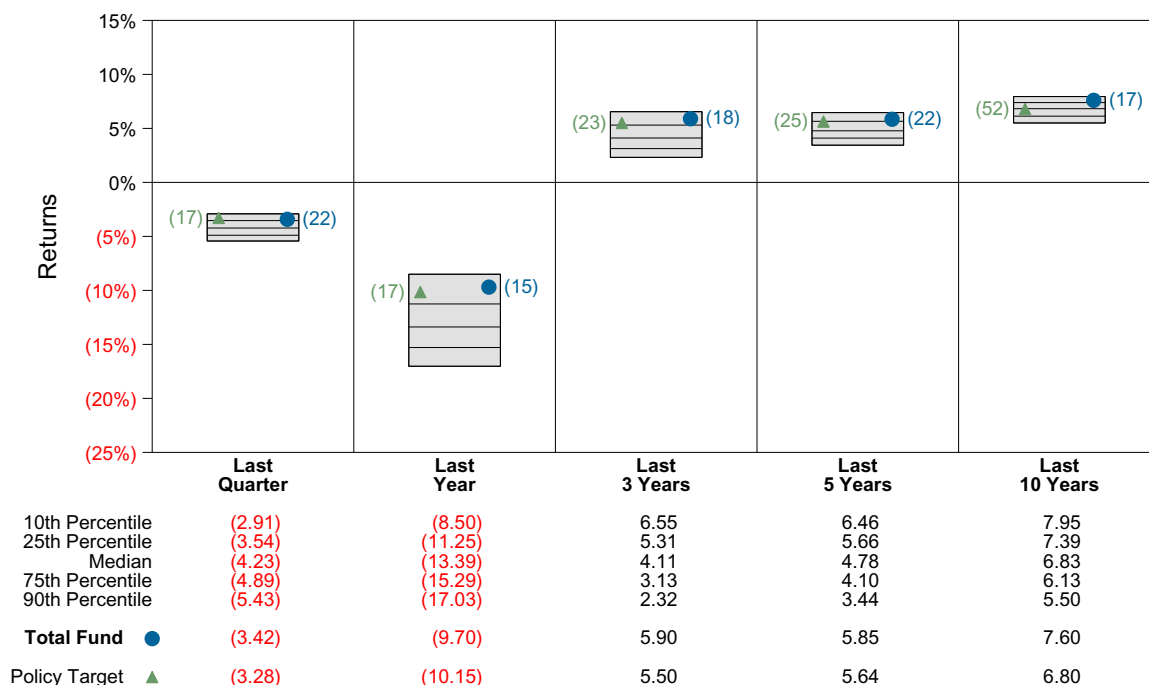
**Ten Year Annualized Risk vs Return
Asset Classes vs Asset Class Median**



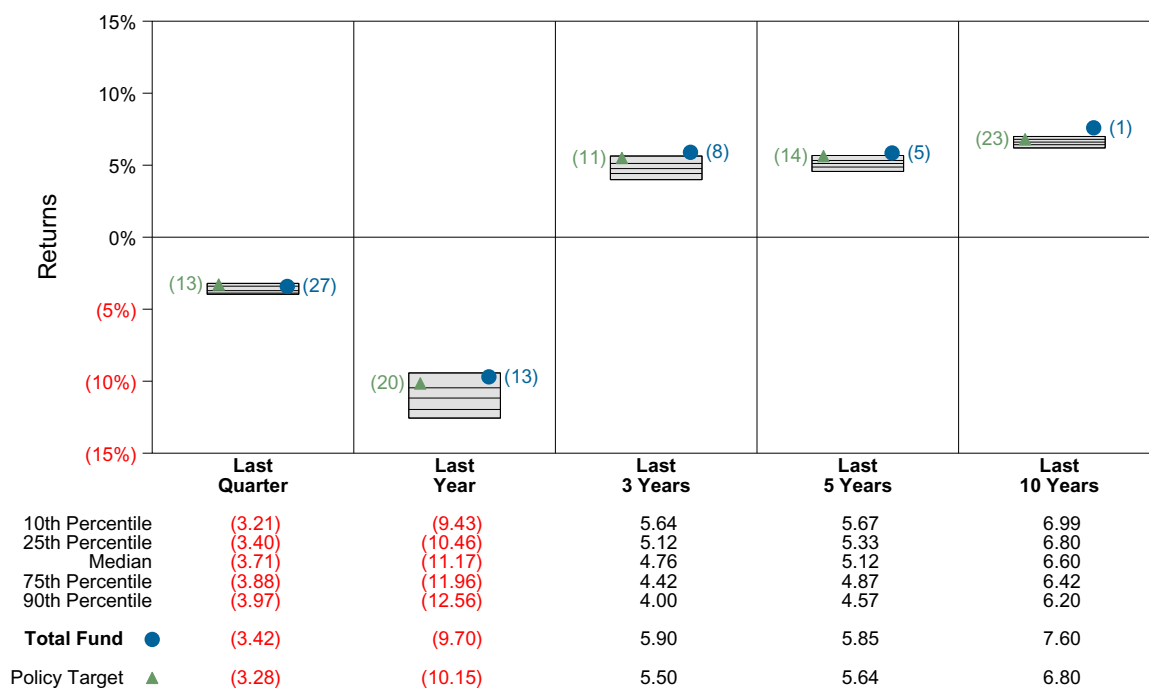
Total Fund Ranking

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

Callan Public Fund Sponsor Database



Asset Allocation Adjusted Ranking

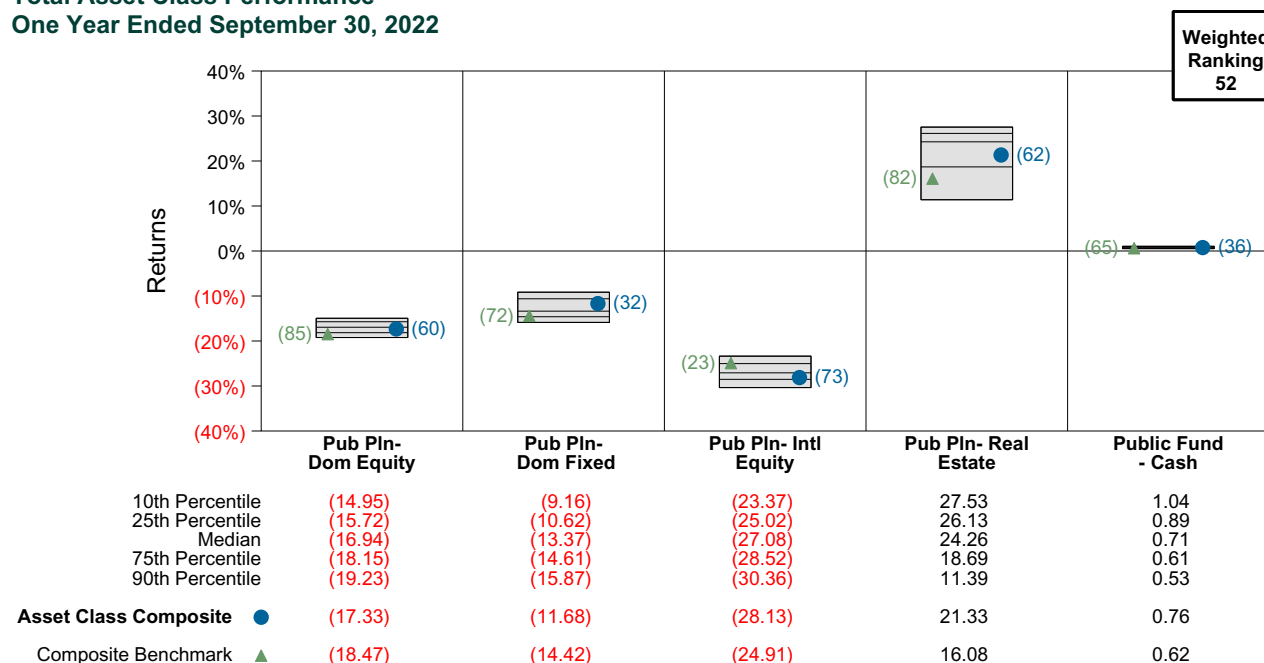


* Current Quarter Target = 18.0% Bimbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bimbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

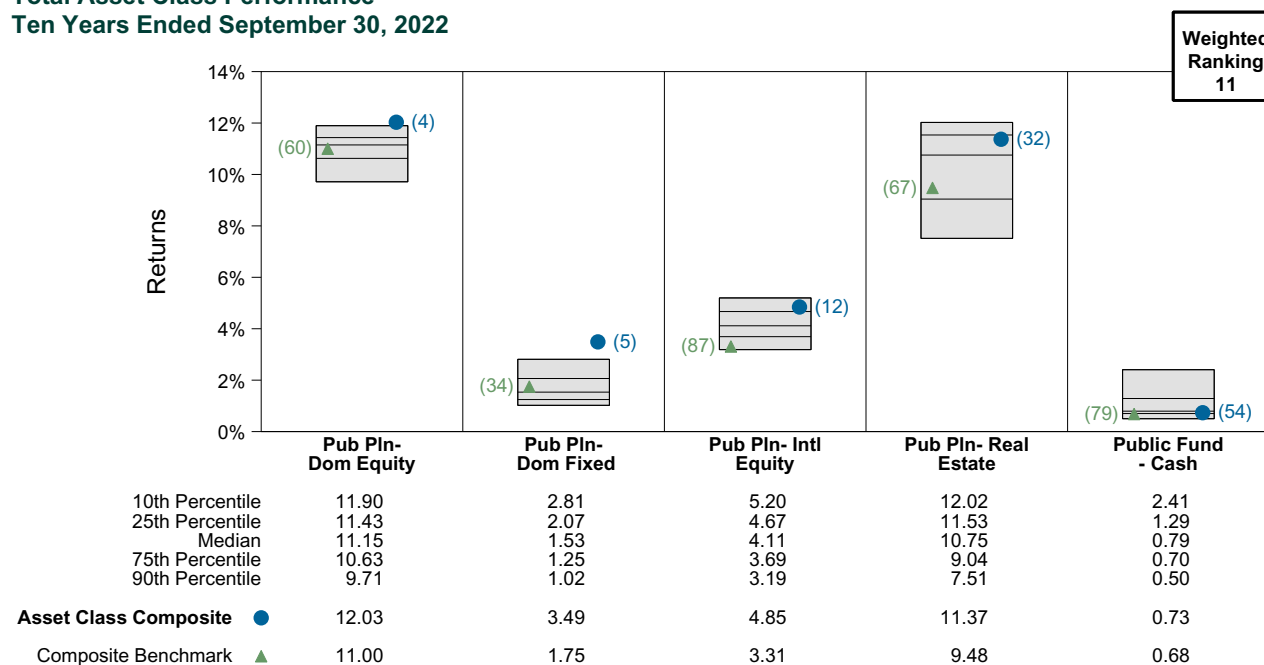
Asset Class Rankings

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

Total Asset Class Performance One Year Ended September 30, 2022



Total Asset Class Performance Ten Years Ended September 30, 2022



* Current Quarter Target = 18.0% Bimbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bimbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of 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 Equities	\$1,516,758,356	53.34%	\$2,564,000	\$(73,334,986)	\$1,587,529,342	53.41%
Public Equities	\$1,152,793,177	40.54%	\$(15,911,247)	\$(78,184,521)	\$1,246,888,945	41.95%
World Equities	\$251,642,666	8.85%	\$(14,195,633)	\$(19,287,821)	\$285,126,120	9.59%
Domestic Equities	\$580,806,734	20.43%	\$(921,063)	\$(24,055,116)	\$605,782,913	20.38%
Large Cap	460,442,405	16.19%	(1,011,299)	(20,345,166)	481,798,870	16.21%
Small Cap	120,364,329	4.23%	90,236	(3,709,950)	123,984,043	4.17%
International Equities	\$320,343,778	11.27%	\$(794,551)	\$(34,841,584)	\$355,979,913	11.98%
Developed	253,021,547	8.90%	(526,378)	(25,297,104)	278,845,029	9.38%
Emerging Markets	67,322,231	2.37%	(268,173)	(9,544,480)	77,134,884	2.59%
Private Equities	\$363,965,179	12.80%	\$18,475,247	\$4,849,534	\$340,640,397	11.46%
Global Fixed Income	\$750,115,832	26.38%	\$(18,100,020)	\$(24,205,012)	\$792,420,864	26.66%
Domestic Fixed Income	\$750,115,832	26.38%	\$(18,100,020)	\$(24,205,012)	\$792,420,864	26.66%
Investment Grade	531,959,051	18.71%	(24,500,143)	(24,946,123)	581,405,317	19.56%
Below Investment Grade	218,156,781	7.67%	6,400,123	741,112	211,015,547	7.10%
Global Real Assets	\$570,352,773	20.06%	\$13,994,686	\$(3,681,116)	\$560,039,203	18.84%
Real Estate	\$360,063,874	12.66%	\$14,531,448	\$(2,777,219)	\$348,309,645	11.72%
Other Real Assets	\$210,288,899	7.40%	\$(536,763)	\$(903,897)	\$211,729,559	7.12%
Infrastructure	167,742,166	5.90%	2,207,712	(903,897)	166,438,351	5.60%
Timber	42,546,733	1.50%	(2,744,475)	0	45,291,207	1.52%
Cash	\$6,244,248	0.22%	\$(26,425,765)	\$170,272	\$32,499,740	1.09%
Total Fund	\$2,843,471,210	100.0%	\$(27,967,099)	\$(101,050,842)	\$2,972,489,150	100.0%

PLEASE REFER TO PAGES 29-30 FOR INVESTMENT MANAGER LEVEL ASSET ALLOCATION.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended 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 Equities					
Gross	(4.58%)	(15.77%)	7.25%	6.58%	9.06%
Net	(4.65%)	(15.97%)	6.99%	6.34%	8.77%
Weighted Benchmark	(4.84%)	(15.92%)	7.53%	6.94%	8.63%
Public Equities					
Gross	(6.31%)	(20.69%)	4.49%	-	-
Net	(6.40%)	(20.93%)	4.20%	-	-
Weighted Benchmark	(6.34%)	(20.73%)	3.91%	-	-
World Equities					
Gross	(6.89%)	(17.62%)	3.07%	3.14%	7.31%
Net	(6.97%)	(17.90%)	2.70%	2.79%	6.80%
MSCI World	(6.19%)	(19.63%)	4.56%	5.30%	8.11%
Domestic Equities					
Gross	(3.97%)	(17.33%)	8.58%	9.38%	12.03%
Net	(4.09%)	(17.58%)	8.33%	9.16%	11.82%
Weighted Benchmark	(4.13%)	(18.47%)	7.27%	7.87%	11.00%
Large Cap					
Gross	(4.23%)	(17.06%)	10.03%	10.57%	12.81%
Net	(4.34%)	(17.25%)	9.87%	10.43%	12.65%
Benchmark(1)	(4.61%)	(17.22%)	7.95%	9.00%	11.60%
Small Cap					
Gross	(2.97%)	(18.40%)	3.19%	5.11%	9.16%
Net	(3.13%)	(18.94%)	2.59%	4.60%	8.75%
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%	8.55%
International Equities					
Gross	(9.79%)	(28.13%)	0.00%	0.20%	4.85%
Net	(9.85%)	(28.31%)	(0.27%)	(0.04%)	4.60%
Weighted Benchmark	(9.74%)	(24.91%)	(1.52%)	(0.74%)	3.31%
Developed					
Gross	(9.07%)	(27.01%)	0.31%	0.54%	5.42%
Net	(9.12%)	(27.17%)	0.10%	0.32%	5.17%
Benchmark(2)	(9.20%)	(23.91%)	(1.21%)	(0.39%)	3.85%
Emerging Markets					
Gross	(12.39%)	(32.12%)	(0.81%)	(0.91%)	2.29%
Net	(12.46%)	(32.35%)	(1.32%)	(1.21%)	2.05%
Benchmark(3)	(11.57%)	(28.11%)	(2.07%)	(1.80%)	1.05%
Private Equities					
Net	1.38%	7.86%	20.38%	15.29%	7.84%

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

(2) 50% Hedged EAFE through 3/31/2011; MSCI EAFE through 6/30/16; MSCI World ex-US thereafter.

(3) MSCI Emerging Mkts Idx (Gross) through 6/30/2011 and MSCI Emerging Mkts Idx Net thereafter.

PLEASE REFER TO PAGES 31-35 FOR INVESTMENT MANAGER LEVEL RETURNS.

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 Fixed Income					
Gross	(3.13%)	(11.68%)	(0.77%)	1.84%	3.09%
Net	(3.19%)	(11.81%)	(0.90%)	1.69%	2.89%
Weighted Benchmark	(3.49%)	(14.42%)	(2.32%)	0.59%	1.44%
Domestic Fixed Income					
Gross	(3.13%)	(11.68%)	(0.77%)	1.70%	3.49%
Net	(3.19%)	(11.81%)	(0.90%)	1.56%	3.31%
Weighted Benchmark	(3.49%)	(14.42%)	(2.32%)	0.33%	1.75%
Inv. Grade Fixed Income					
Gross	(4.43%)	(14.85%)	(2.52%)	0.64%	2.50%
Net	(4.48%)	(14.95%)	(2.62%)	0.54%	2.38%
Bimbg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)	0.89%
Below Inv. Grade Fixed Income					
Gross	0.35%	(1.95%)	4.60%	4.98%	6.33%
Net	0.31%	(2.13%)	4.39%	4.74%	5.99%
Bimbg HY Corp 2% Issue	(0.64%)	(14.15%)	(0.47%)	1.56%	3.94%
Global Real Assets					
Gross	(0.66%)	16.21%	10.44%	8.63%	8.63%
Net	(0.71%)	15.78%	10.00%	8.19%	8.19%
Weighted Benchmark	1.28%	15.44%	8.98%	7.47%	7.35%
Real Estate					
Gross	(0.79%)	21.33%	11.75%	9.75%	11.37%
Net	(0.88%)	20.73%	11.18%	9.21%	10.83%
NCREIF Total Index	0.57%	16.08%	9.91%	8.62%	9.48%
Other Real Assets					
Gross	(0.43%)	8.46%	8.29%	-	-
Net	(0.42%)	8.28%	8.03%	-	-
Weighted Benchmark	1.99%	14.79%	8.00%	-	-
Infrastructure					
Gross	(0.54%)	8.76%	9.11%	8.20%	7.37%
Net	(0.53%)	8.51%	8.74%	7.79%	6.86%
Benchmark(1)	1.91%	15.24%	8.51%	6.49%	3.76%
Timber					
Net	0.00%	7.37%	6.17%	3.96%	2.10%
NCREIF Timberland Index	2.38%	12.54%	5.80%	4.69%	5.90%
Cash & Equivalents - Net	0.54%	0.76%	0.60%	1.17%	0.73%
3-month Treasury Bill	0.46%	0.62%	0.59%	1.15%	0.68%
Total Fund					
Gross	(3.42%)	(9.70%)	5.90%	5.85%	7.60%
Net	(3.48%)	(9.91%)	5.64%	5.60%	7.31%
Target*	(3.28%)	(10.15%)	5.50%	5.64%	6.80%

* Current Quarter Target = 18.0% Bimbg Aggregate, 16.8% Russell 1000 Index, 10.5% MSCI World xUS, 10.0% Private Equity, 10.0% MSCI World, 9.0% NCREIF Total Index, 8.0% Bimbg HY Corp 2% Iss Cap, 4.2% Russell 2000 Index, 3.8% NCREIF NFI-ODCE Eq Wt Net, 3.8% CPI All Urban Cons lagged 3 months, 3.5% MSCI EM, 1.5% NCREIF Timberland Index and 1.0% 3-month Treasury Bill.

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

PLEASE REFER TO PAGES 31-35 FOR INVESTMENT MANAGER LEVEL RETURNS.

Domestic Equities

Period Ended September 30, 2022

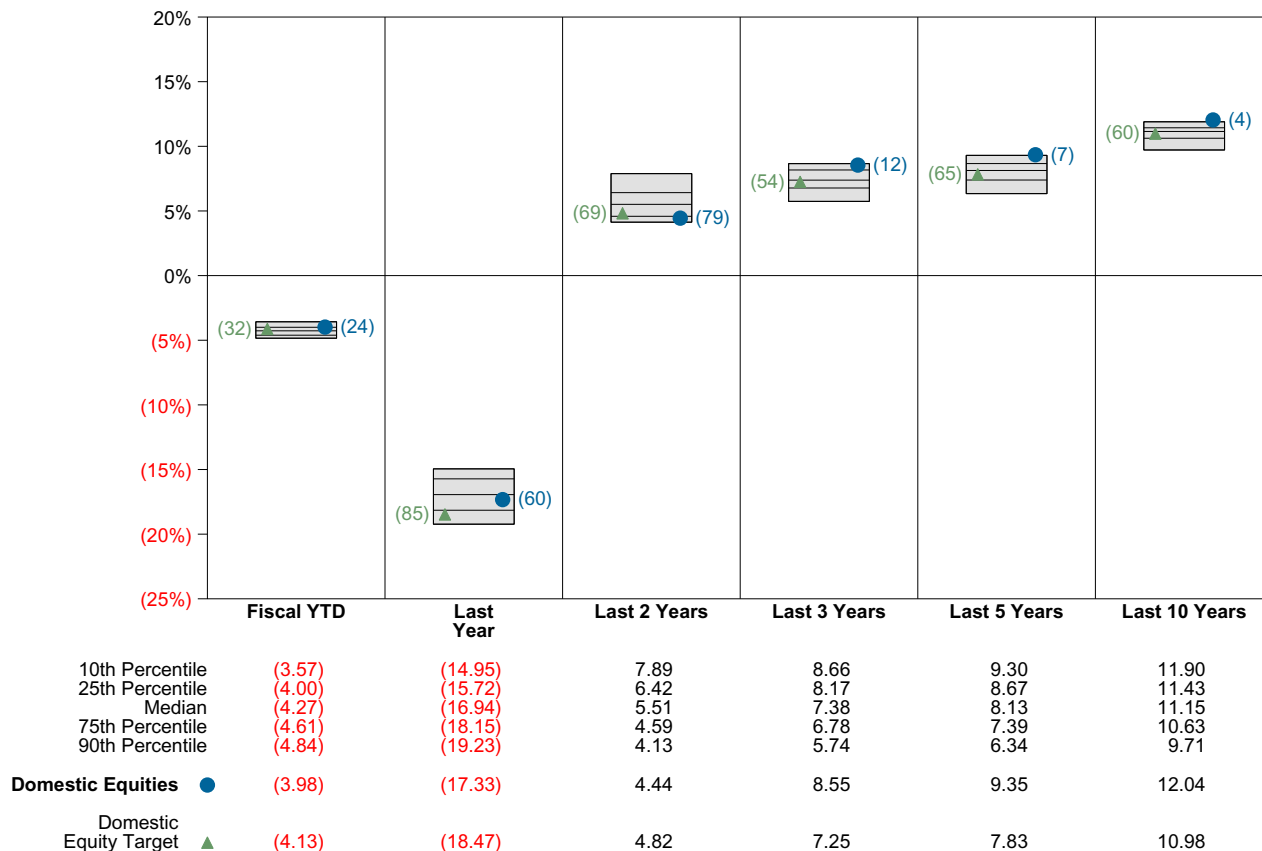
Quarterly Summary and Highlights

- Domestic Equities's portfolio posted a (3.98)% return for the quarter placing it in the 24 percentile of the Public Fund - Domestic Equity group for the quarter and in the 60 percentile for the last year.
- Domestic Equities's portfolio outperformed the Domestic Equity Target by 0.14% for the quarter and outperformed the Domestic Equity Target for the year by 1.14%.

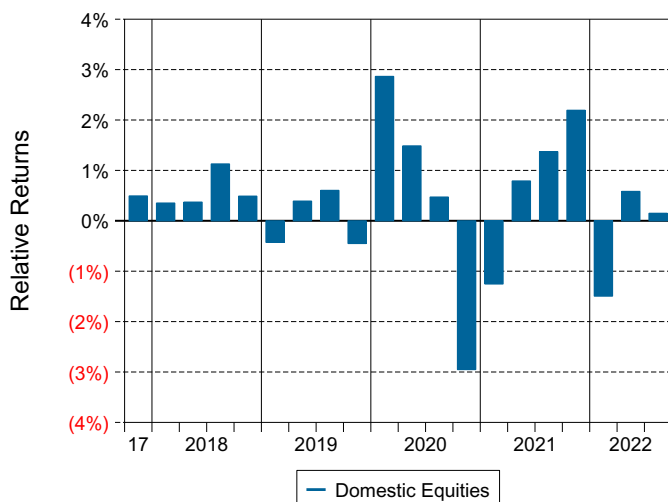
Quarterly Asset Growth

Beginning Market Value	\$1,506,168,081
Net New Investment	\$-1,961,698
Investment Gains/(Losses)	\$-59,718,168
Ending Market Value	\$1,444,488,215

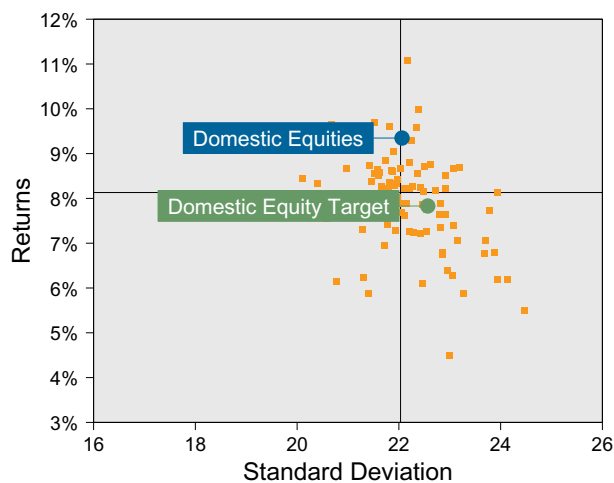
Performance vs Public Fund - Domestic Equity (Gross)



Relative Return vs Domestic Equity Target



Public Fund - Domestic Equity (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.

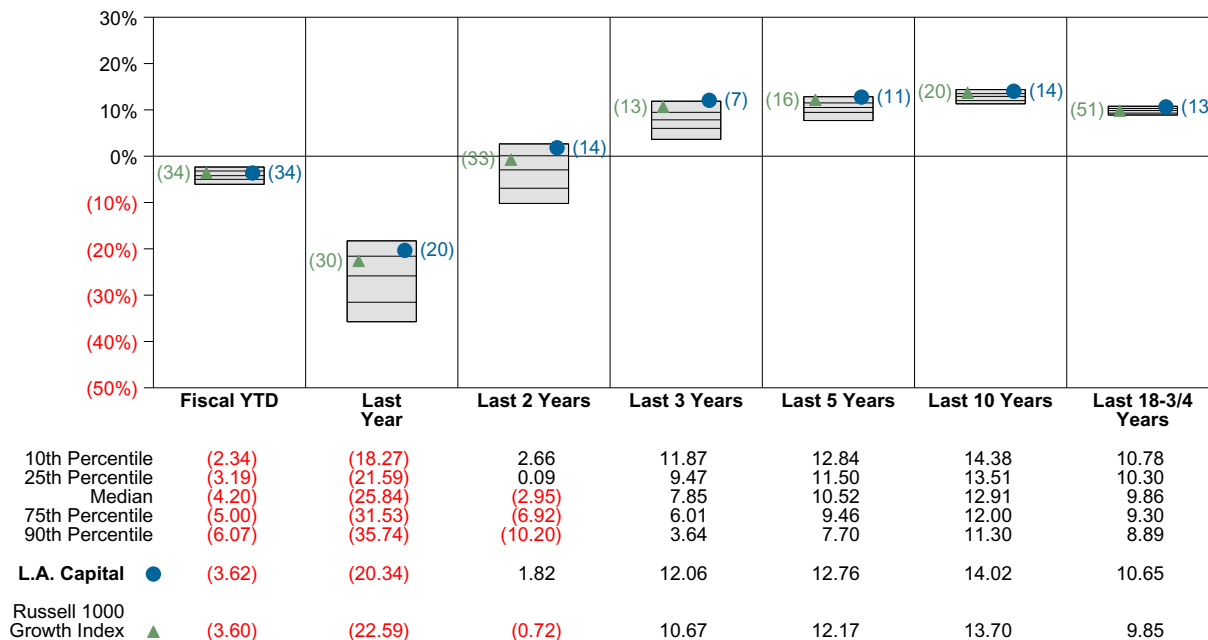
Quarterly Summary and Highlights

- L.A. Capital's portfolio posted a (3.62)% return for the quarter placing it in the 34 percentile of the Callan Large Cap Growth group for the quarter and in the 20 percentile for the last year.
- L.A. Capital's portfolio underperformed the Russell 1000 Growth Index by 0.03% for the quarter and outperformed the Russell 1000 Growth Index for the year by 2.25%.

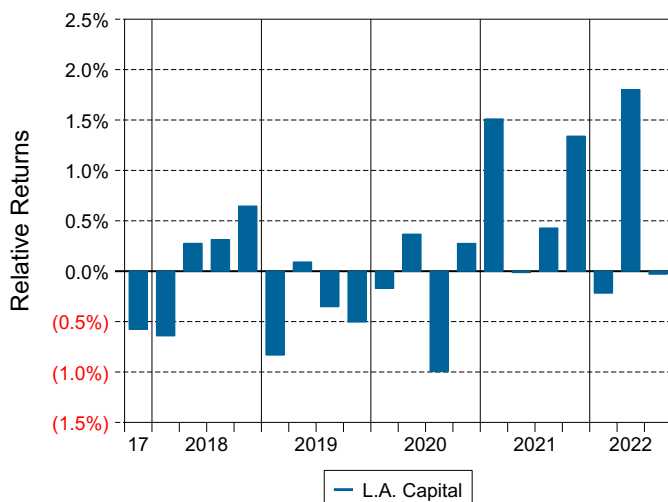
Quarterly Asset Growth

Beginning Market Value	\$443,639,730
Net New Investment	\$-242,452
Investment Gains/(Losses)	\$-16,046,702
Ending Market Value	\$427,350,576

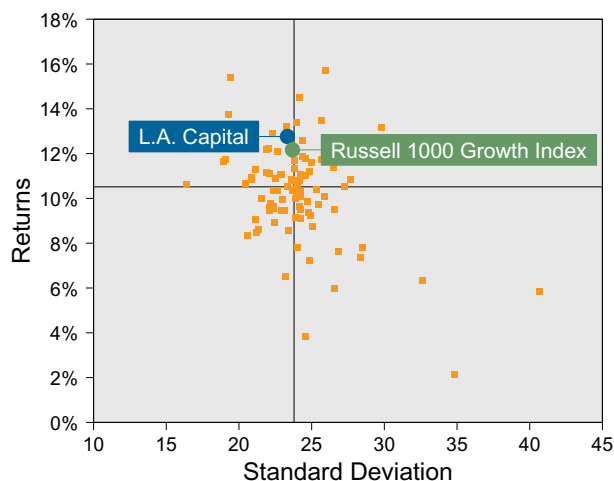
Performance vs Callan Large Cap Growth (Gross)



Relative Return vs Russell 1000 Growth Index



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



L.A. Capital Management Enhanced Index 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.

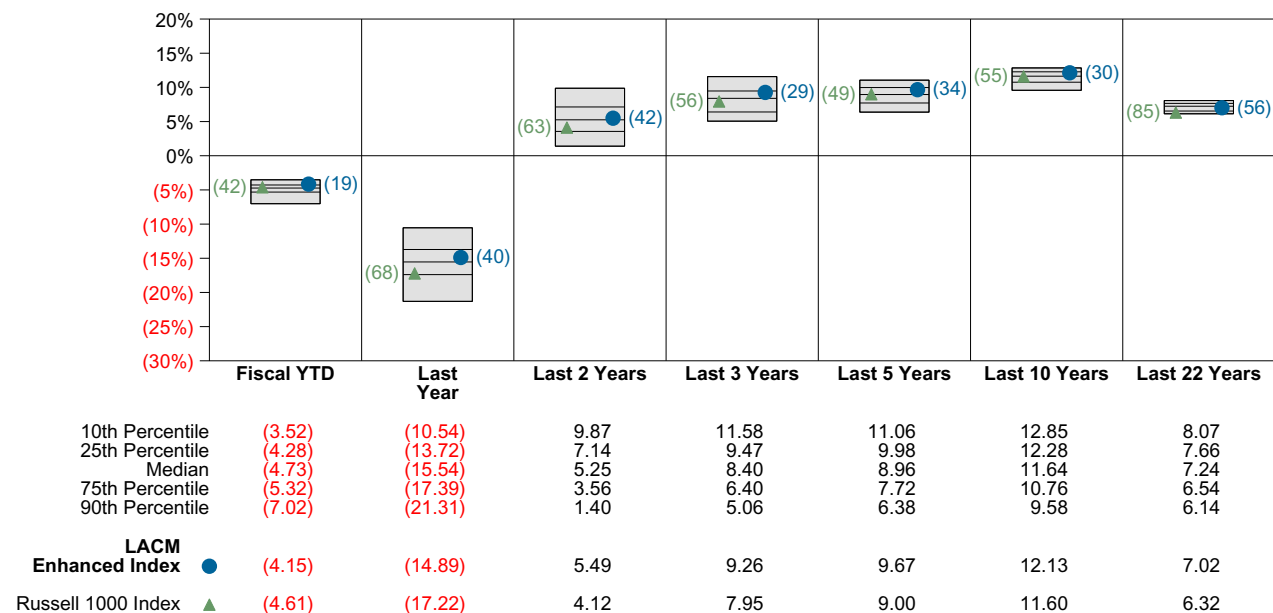
Quarterly Summary and Highlights

- LACM Enhanced Index's portfolio posted a (4.15)% return for the quarter placing it in the 19 percentile of the Callan Large Cap Core group for the quarter and in the 40 percentile for the last year.
- LACM Enhanced Index's portfolio outperformed the Russell 1000 Index by 0.45% for the quarter and outperformed the Russell 1000 Index for the year by 2.33%.

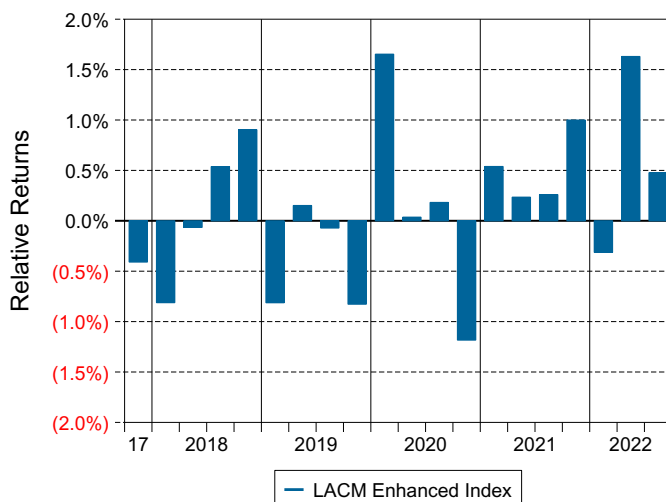
Quarterly Asset Growth

Beginning Market Value	\$259,215,497
Net New Investment	\$-73,419
Investment Gains/(Losses)	\$-10,761,260
Ending Market Value	\$248,380,818

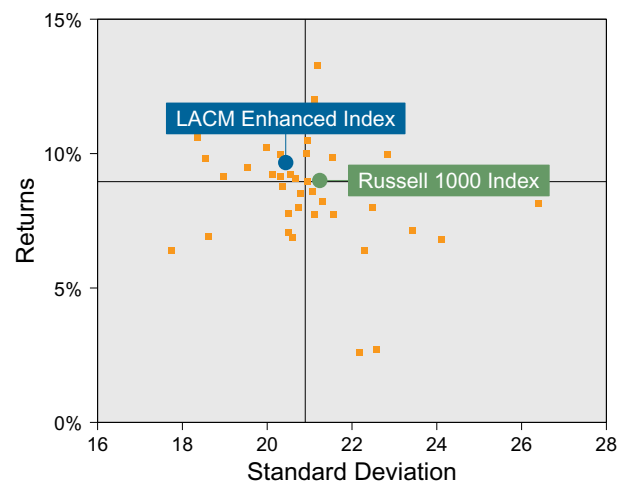
Performance vs Callan Large Cap Core (Gross)



Relative Return vs Russell 1000 Index



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



NTAM Quant Enhanced S&P500 Period Ended September 30, 2022

Investment Philosophy

Northern Trust AM Enhanced S&P 500 employs a quantitative investment approach, focusing on the stock selection process as the principal source of value added. The account invests primarily in a broadly diversified portfolio of equity securities that include securities convertible into equity securities (including common stock), warrants, rights and units or shares in trusts, exchange traded funds and investment companies. The Investment Manager intends to use futures and options to manage market risk associated with the account's investments.

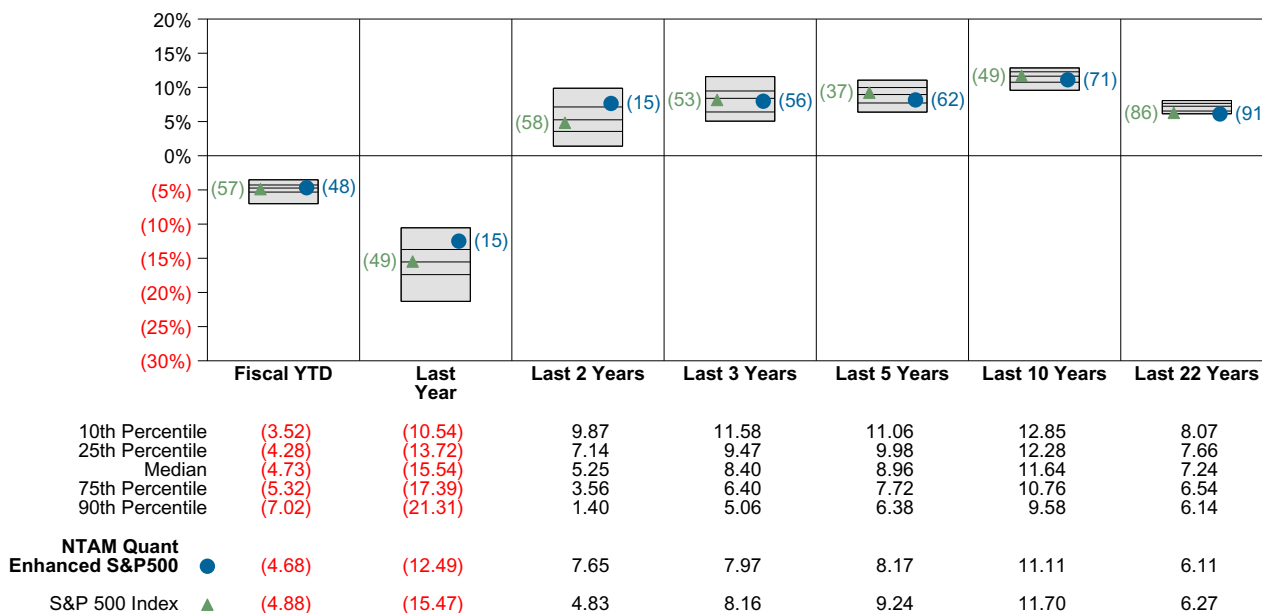
Quarterly Summary and Highlights

- NTAM Quant Enhanced S&P500's portfolio posted a (4.68)% return for the quarter placing it in the 48 percentile of the Callan Large Cap Core group for the quarter and in the 15 percentile for the last year.
- NTAM Quant Enhanced S&P500's portfolio outperformed the S&P 500 Index by 0.20% for the quarter and outperformed the S&P 500 Index for the year by 2.98%.

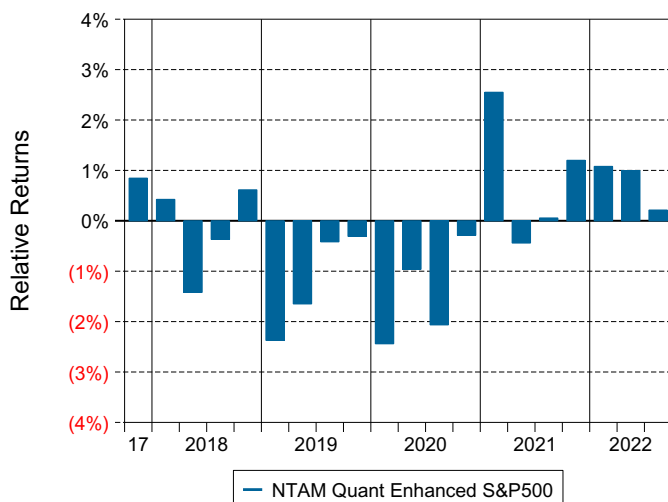
Quarterly Asset Growth

Beginning Market Value	\$253,658,131
Net New Investment	\$-1,138,845
Investment Gains/(Losses)	\$-11,695,444
Ending Market Value	\$240,823,841

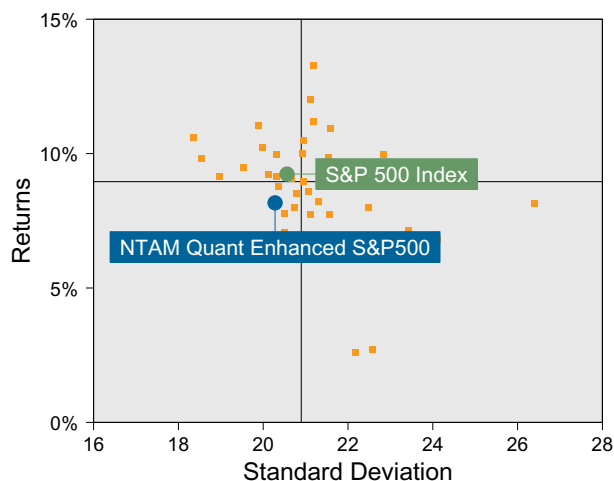
Performance vs Callan Large Cap Core (Gross)



Relative Return vs S&P 500 Index



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



Parametric Enh S&P 500 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.

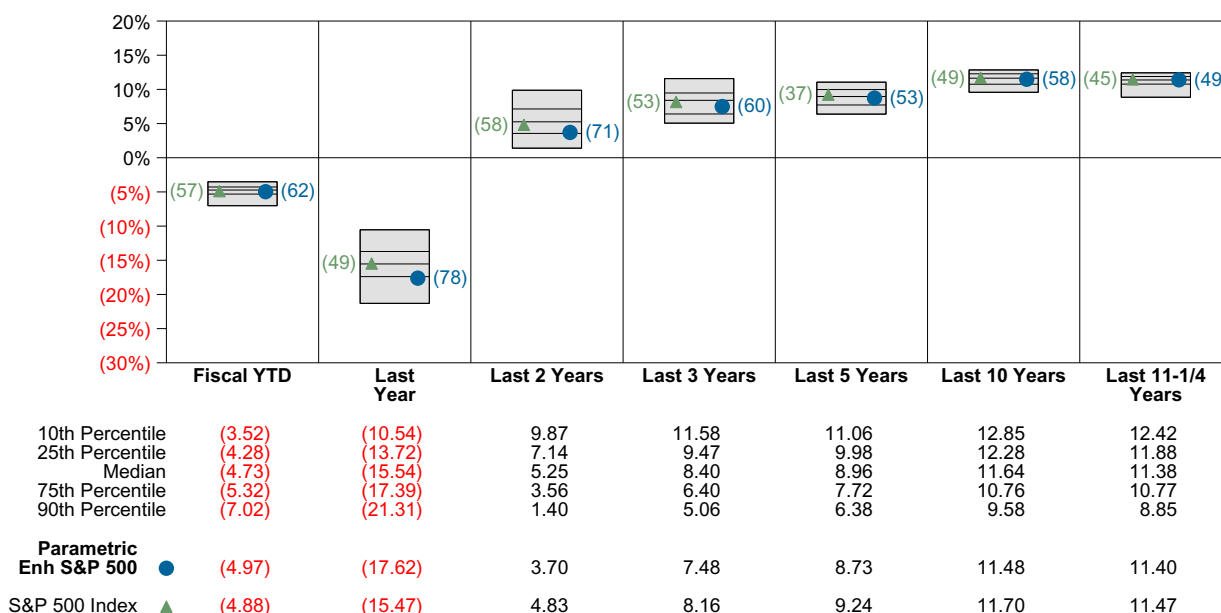
Quarterly Summary and Highlights

- Parametric Enh S&P 500's portfolio posted a (4.97)% return for the quarter placing it in the 62 percentile of the Callan Large Cap Core group for the quarter and in the 78 percentile for the last year.
- Parametric Enh S&P 500's portfolio underperformed the S&P 500 Index by 0.09% for the quarter and underperformed the S&P 500 Index for the year by 2.15%.

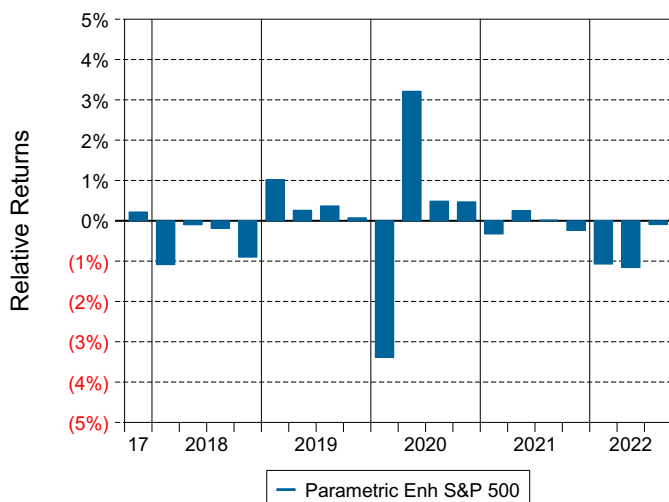
Quarterly Asset Growth

Beginning Market Value	\$246,497,436
Net New Investment	\$0
Investment Gains/(Losses)	\$-12,249,537
Ending Market Value	\$234,247,899

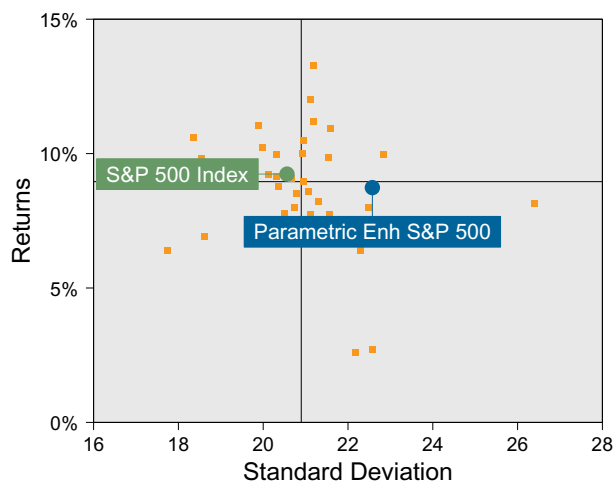
Performance vs Callan Large Cap Core (Gross)



Relative Return vs S&P 500 Index



Callan Large Cap Core (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.

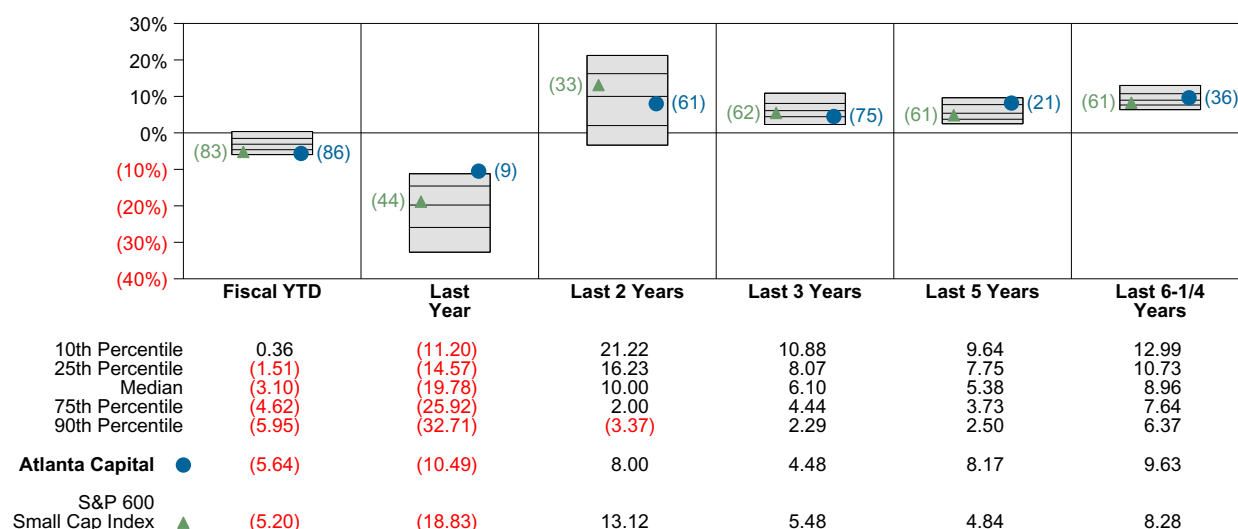
Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a (5.64)% return for the quarter placing it in the 86 percentile of the Callan Small Capitalization group for the quarter and in the 9 percentile for the last year.
- Atlanta Capital's portfolio underperformed the S&P 600 Small Cap Index by 0.44% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 8.34%.

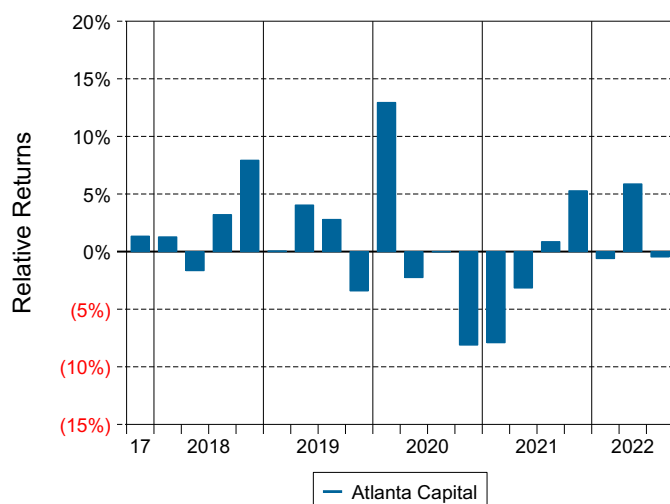
Quarterly Asset Growth

Beginning Market Value	\$110,335,454
Net New Investment	\$-171,252
Investment Gains/(Losses)	\$-6,210,652
Ending Market Value	\$103,953,549

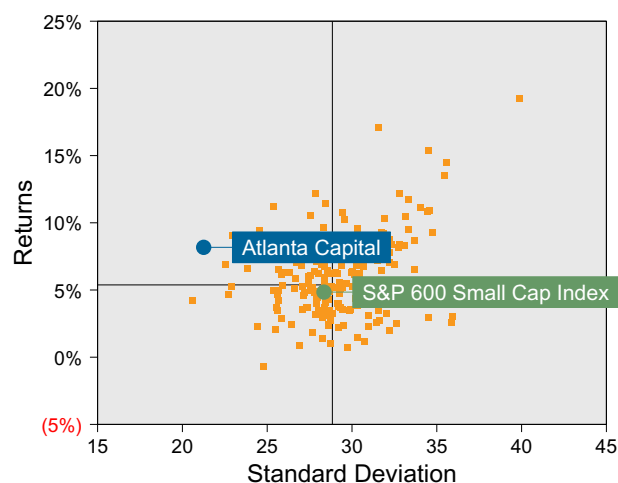
Performance vs Callan Small Capitalization (Gross)



Relative Return vs S&P 600 Small Cap Index



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



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.

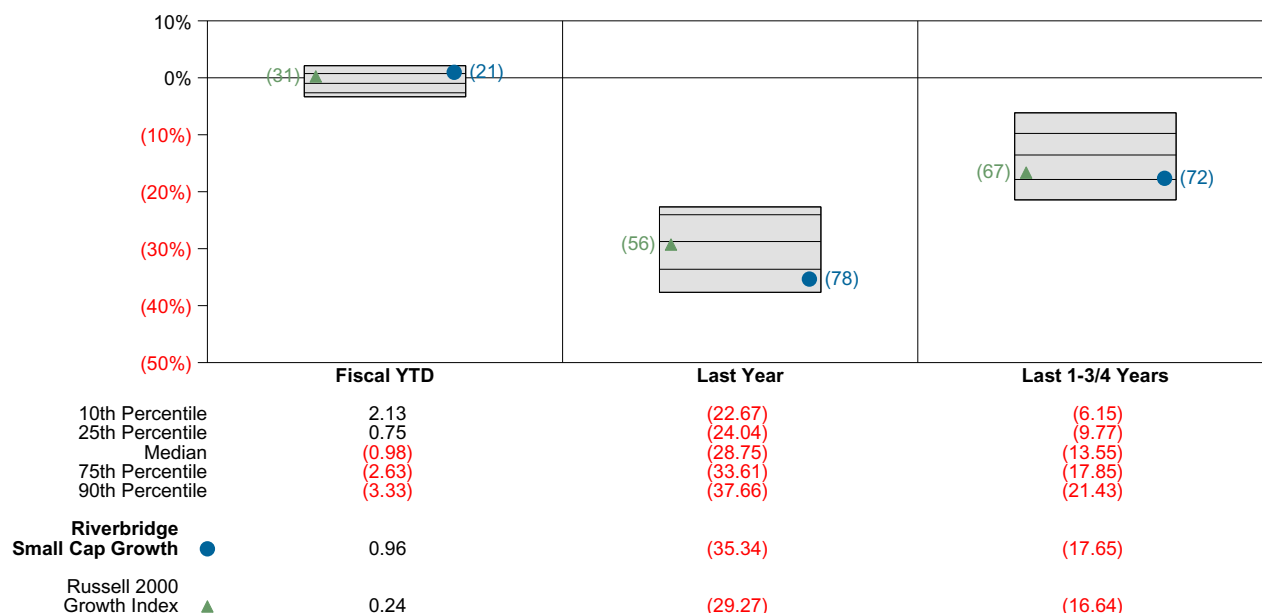
Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a 0.96% return for the quarter placing it in the 21 percentile of the Callan Small Cap Growth group for the quarter and in the 78 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio outperformed the Russell 2000 Growth Index by 0.72% for the quarter and underperformed the Russell 2000 Growth Index for the year by 6.06%.

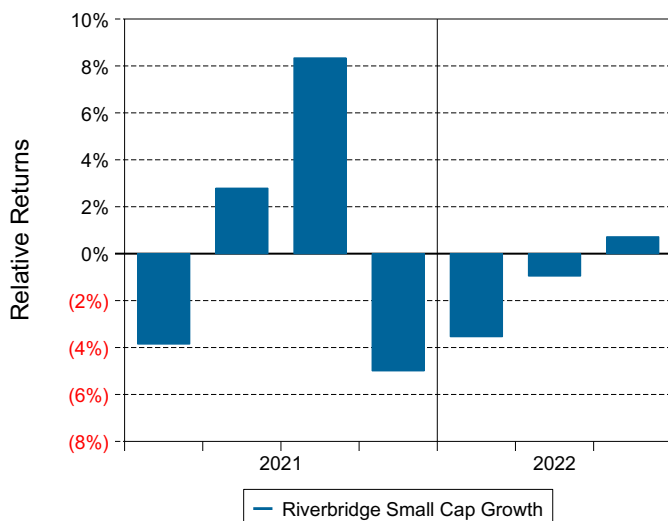
Quarterly Asset Growth

Beginning Market Value	\$78,482,139
Net New Investment	\$-153,935
Investment Gains/(Losses)	\$771,267
Ending Market Value	\$79,099,471

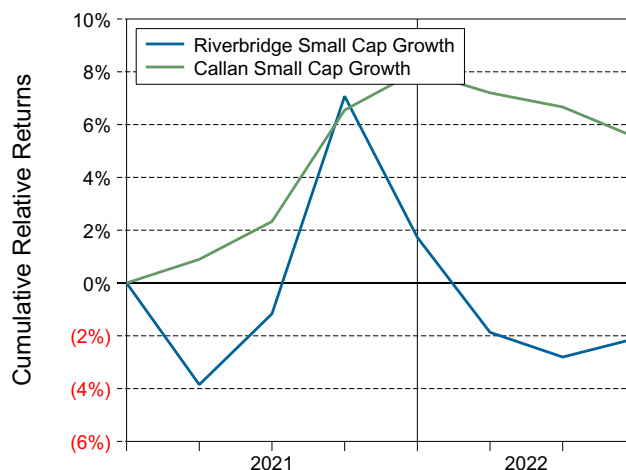
Performance vs Callan Small Cap Growth (Gross)



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.

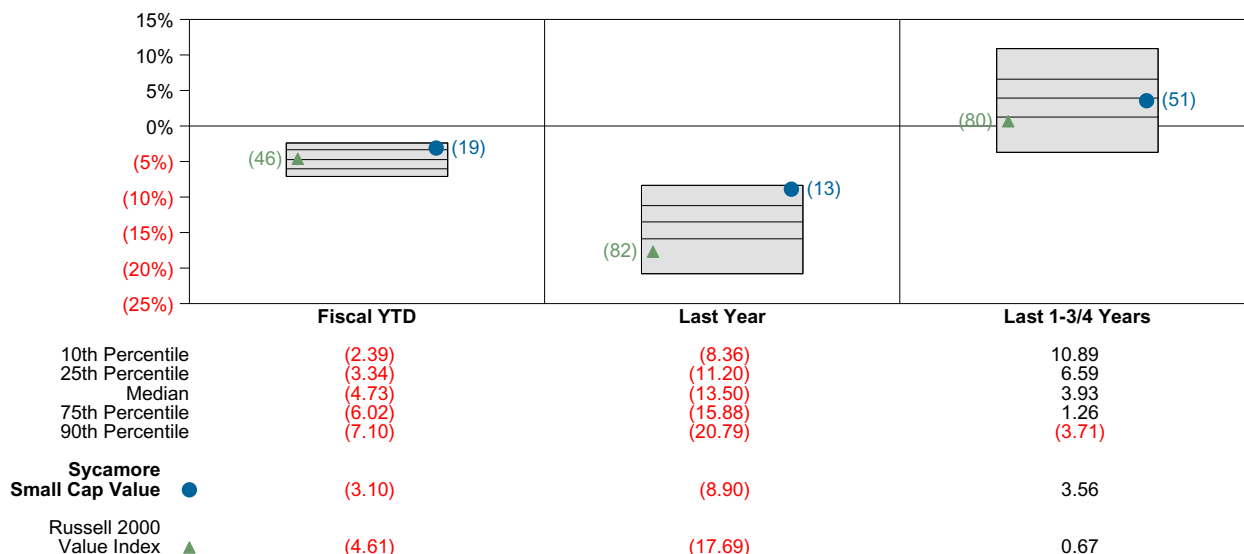
Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a (3.10)% return for the quarter placing it in the 19 percentile of the Callan Small Cap Value group for the quarter and in the 13 percentile for the last year.
- Sycamore Small Cap Value's portfolio outperformed the Russell 2000 Value Index by 1.51% for the quarter and outperformed the Russell 2000 Value Index for the year by 8.79%.

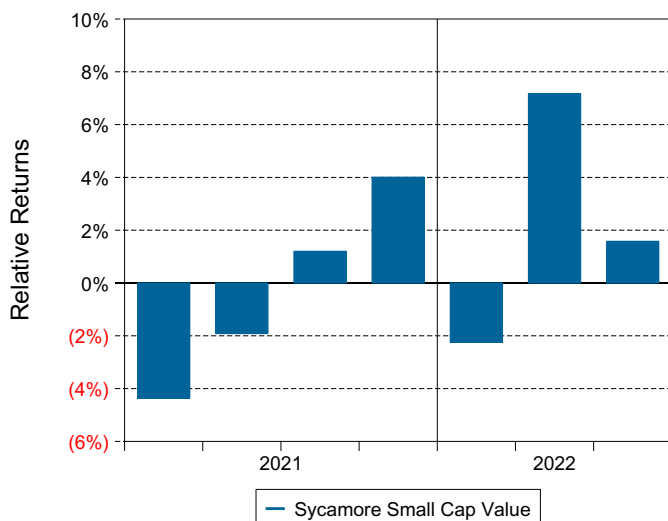
Quarterly Asset Growth

Beginning Market Value	\$114,339,694
Net New Investment	\$-181,794
Investment Gains/(Losses)	\$-3,525,839
Ending Market Value	\$110,632,061

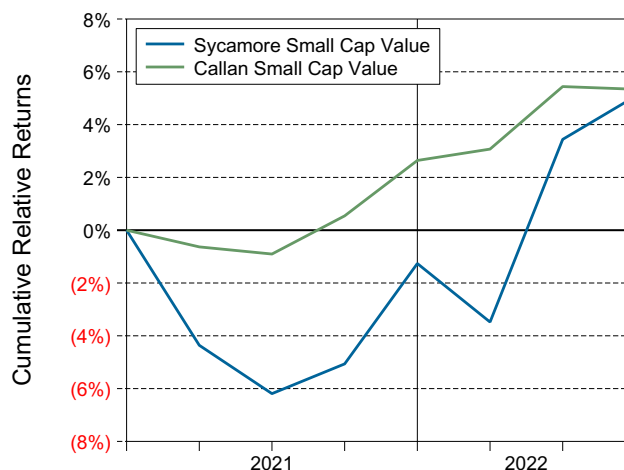
Performance vs Callan Small Cap Value (Gross)



Relative Return vs Russell 2000 Value Index



Cumulative Returns vs Russell 2000 Value Index



International Equities Period Ended September 30, 2022

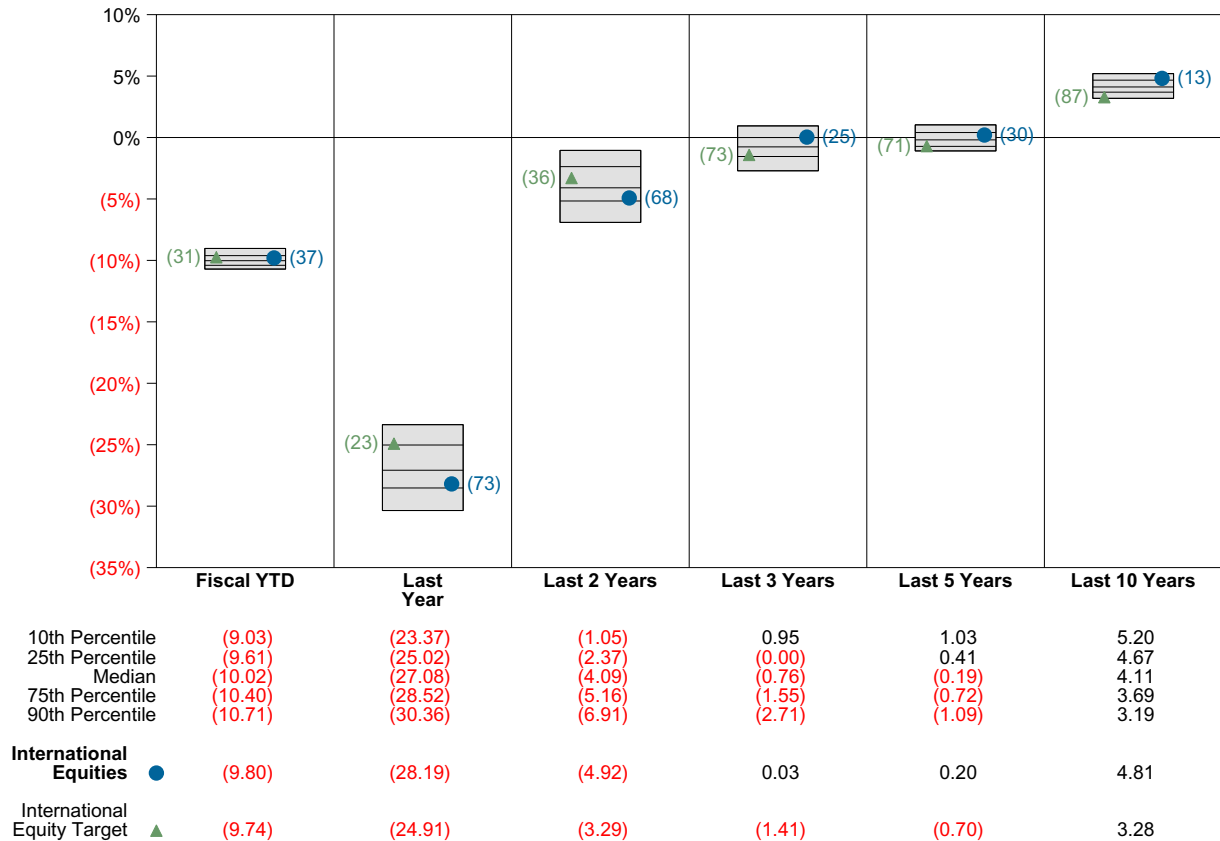
Quarterly Summary and Highlights

- International Equities's portfolio posted a (9.80)% return for the quarter placing it in the 37 percentile of the Public Fund - International Equity group for the quarter and in the 73 percentile for the last year.
- International Equities's portfolio underperformed the International Equity Target by 0.06% for the quarter and underperformed the International Equity Target for the year by 3.28%.

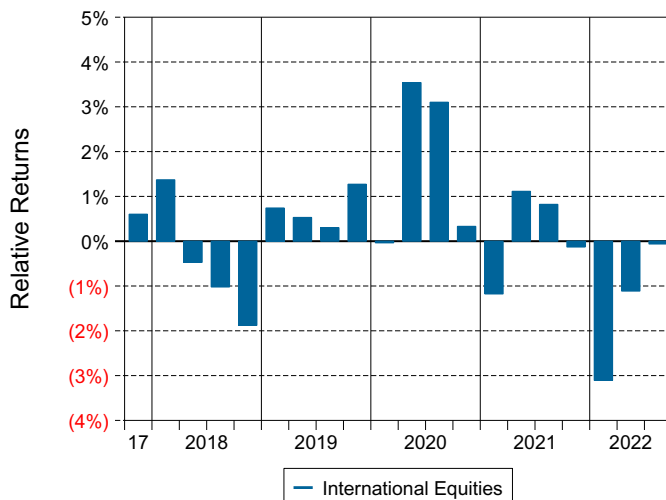
Quarterly Asset Growth

Beginning Market Value	\$928,051,719
Net New Investment	\$-627,779
Investment Gains/(Losses)	\$-90,880,550
Ending Market Value	\$836,543,389

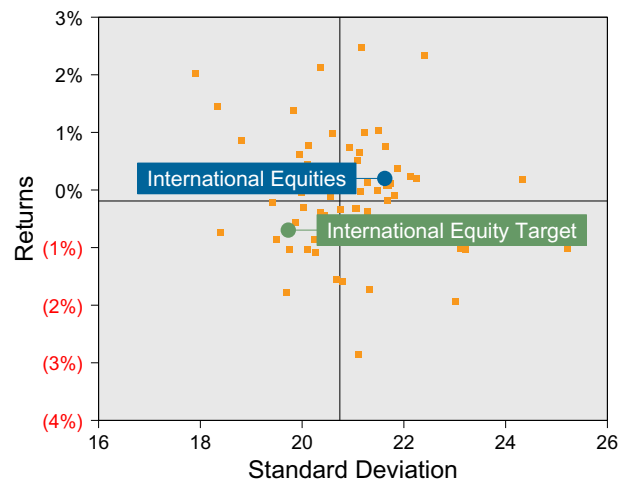
Performance vs Public Fund - International Equity (Gross)



Relative Return vs International Equity Target



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



Arrowstreet ACWI ex US Period Ended 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.

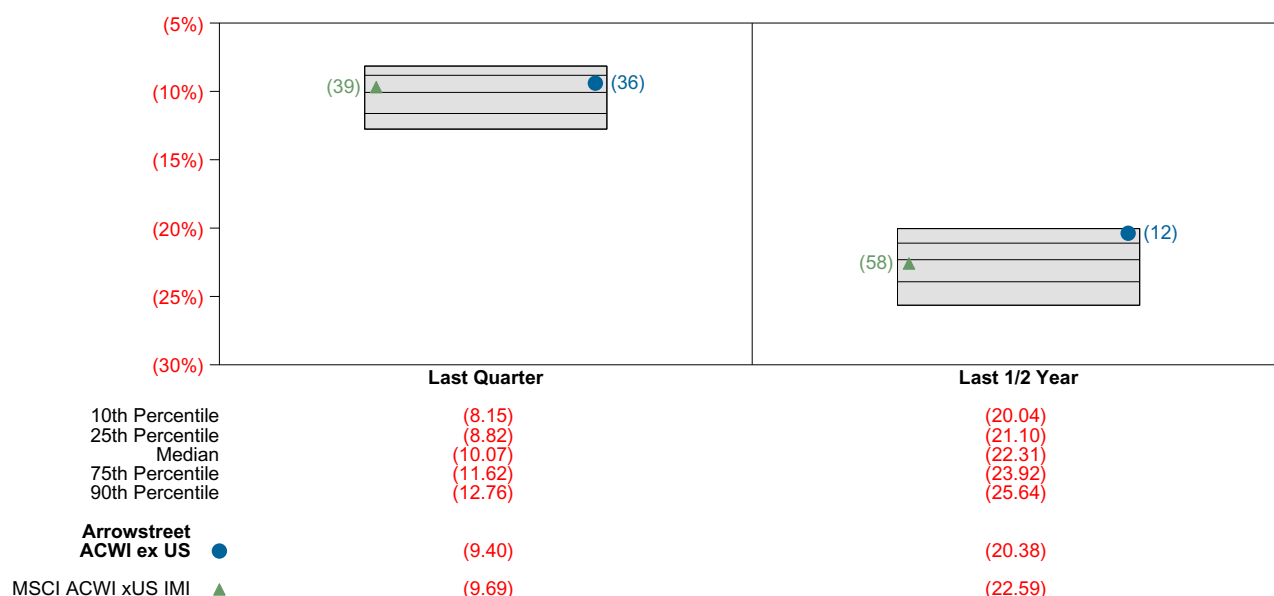
Quarterly Summary and Highlights

- 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%.

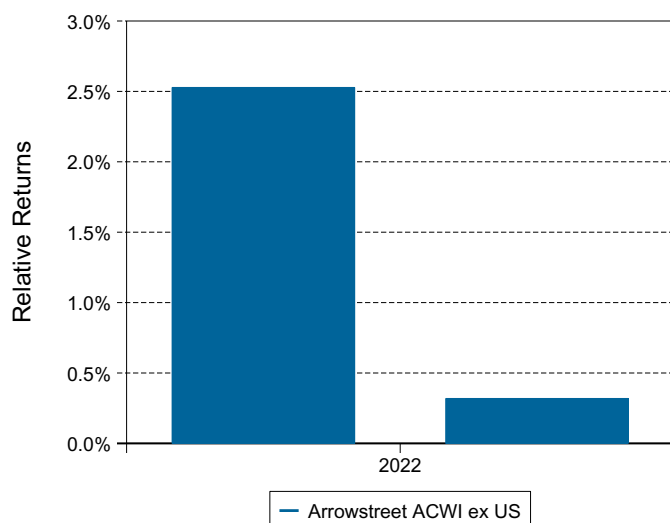
Quarterly Asset Growth

Beginning Market Value	\$269,715,813
Net New Investment	\$0
Investment Gains/(Losses)	\$-25,356,409
Ending Market Value	\$244,359,404

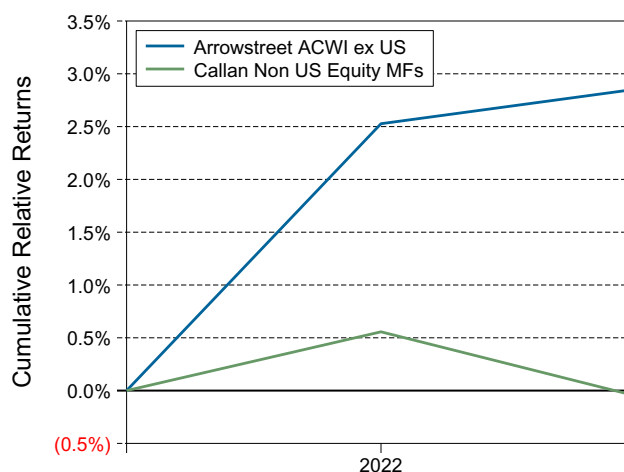
Performance vs Callan Non US Equity Mutual Funds (Net)



Relative Return vs MSCI ACWI xUS IMI



Cumulative Returns vs MSCI ACWI xUS IMI



DFA International Small Cap Value Fund 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.

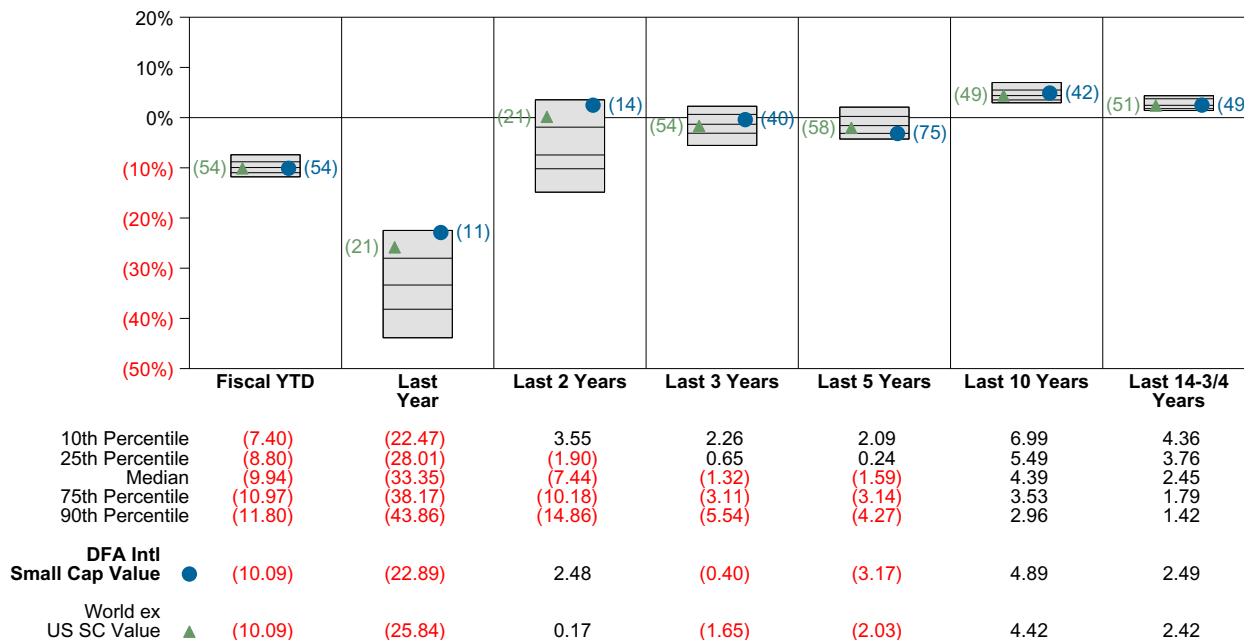
Quarterly Summary and Highlights

- 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%.

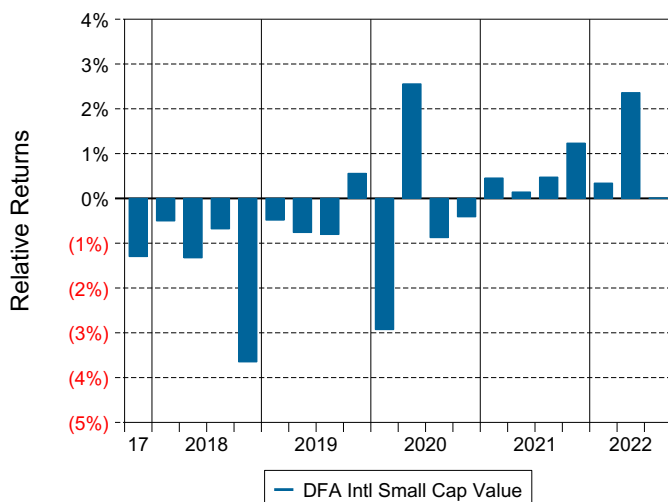
Quarterly Asset Growth

Beginning Market Value	\$78,210,719
Net New Investment	\$0
Investment Gains/(Losses)	\$-7,891,299
Ending Market Value	\$70,319,419

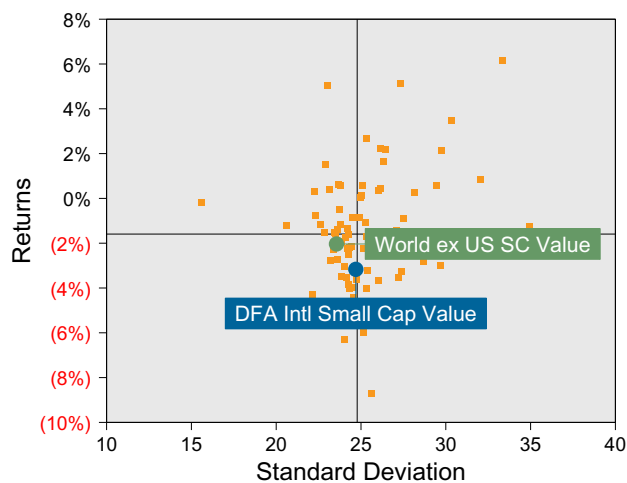
Performance vs Callan International Small Cap Mut Funds (Net)



Relative Return vs World ex US SC Value



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



Northern Tr AM Wrld ex US

Period Ended September 30, 2022

Investment Philosophy

The Fund's objective is to provide investment results that approximate the overall performance of the MSCI World ex-US Equity Index.

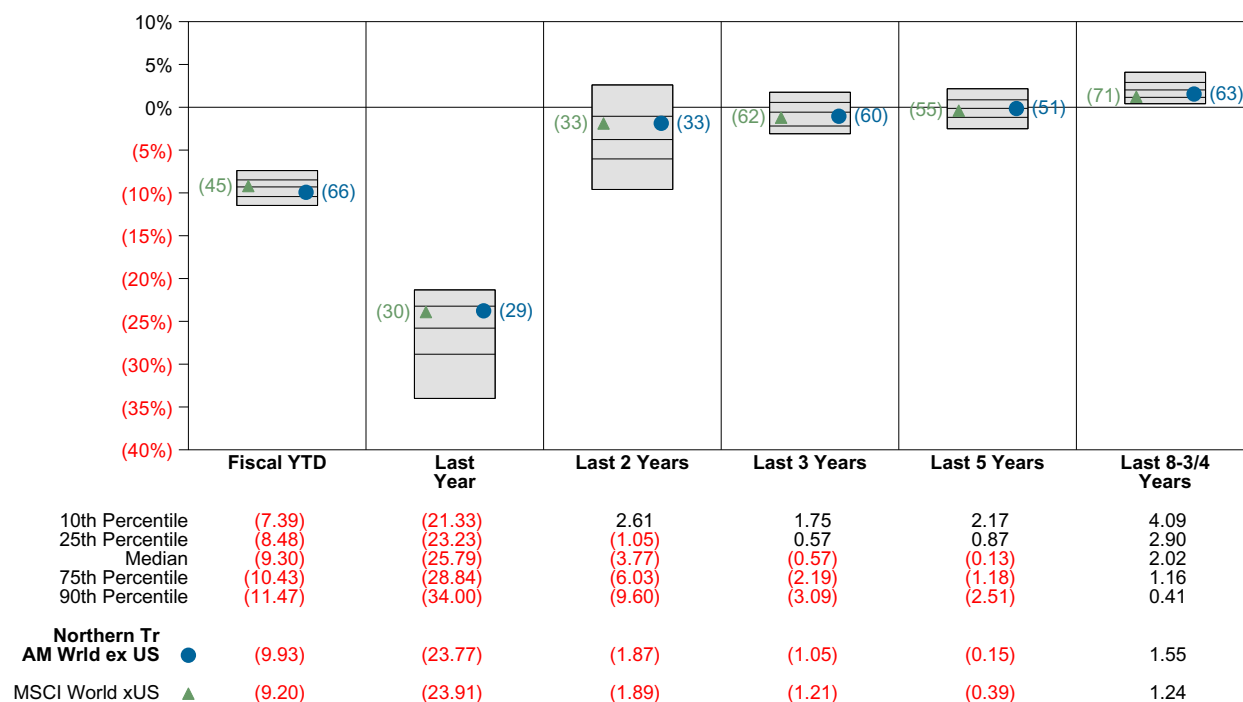
Quarterly Summary and Highlights

- Northern Tr AM Wrld ex US's portfolio posted a (9.93)% return for the quarter placing it in the 66 percentile of the Callan Non-US Equity group for the quarter and in the 29 percentile for the last year.
- Northern Tr AM Wrld ex US's portfolio underperformed the MSCI World xUS by 0.73% for the quarter and outperformed the MSCI World xUS for the year by 0.14%.

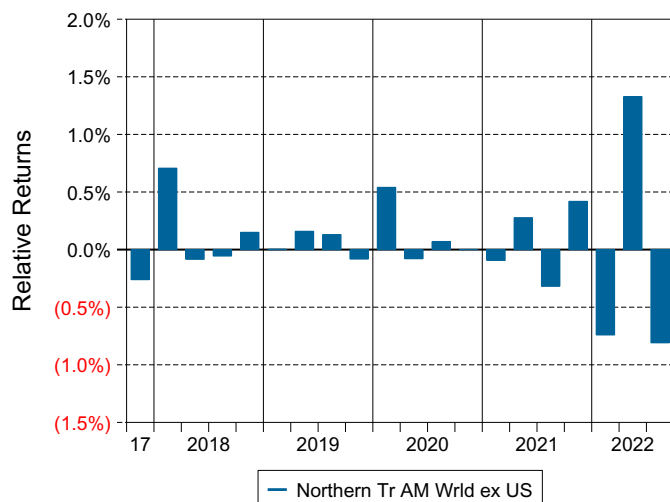
Quarterly Asset Growth

Beginning Market Value	\$112,160,444
Net New Investment	\$-10,980
Investment Gains/(Losses)	\$-11,135,266
Ending Market Value	\$101,014,198

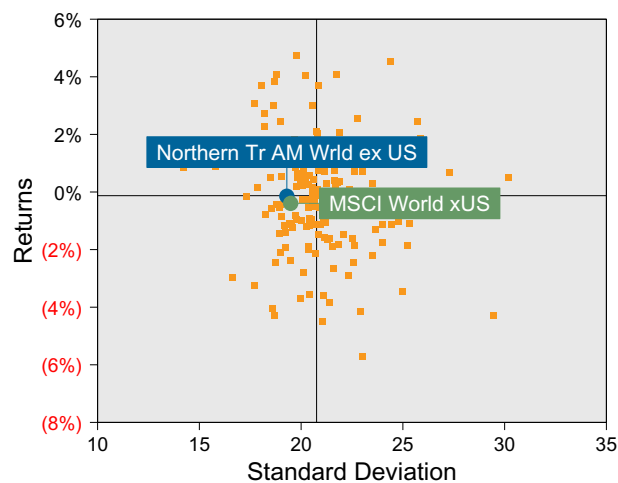
Performance vs Callan Non-US Equity (Gross)



Relative Return vs MSCI World xUS



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



Wellington Management Period Ended September 30, 2022

Investment Philosophy

The objective of the International Small Cap Opportunities Portfolio (the "Portfolio") is to provide long-term total return in excess of the MSCI EAFE Small Cap Index (the "Index"). **The Benchmark is comprised of EPAC, Developed World, <\$2B through 2/28/2022 and MSCI EAFE Small Cap Index thereafter.**

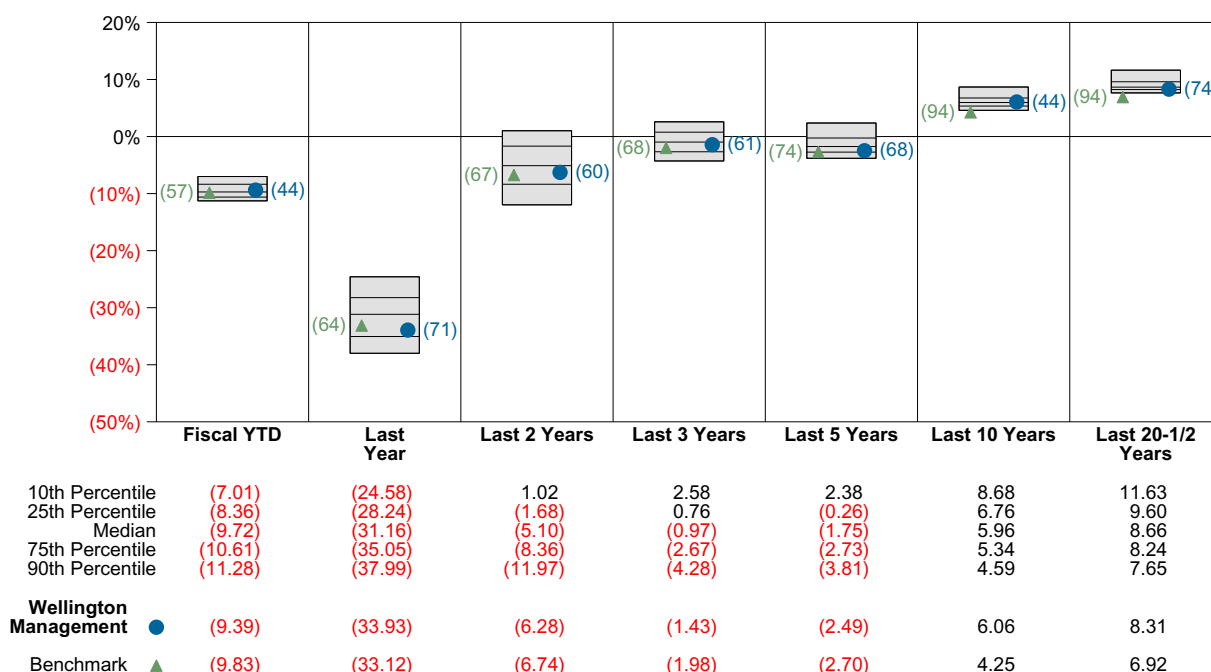
Quarterly Summary and Highlights

- Wellington Management's portfolio posted a (9.39)% return for the quarter placing it in the 44 percentile of the Callan International Small Cap group for the quarter and in the 71 percentile for the last year.
- Wellington Management's portfolio outperformed the Benchmark by 0.44% for the quarter and underperformed the Benchmark for the year by 0.80%.

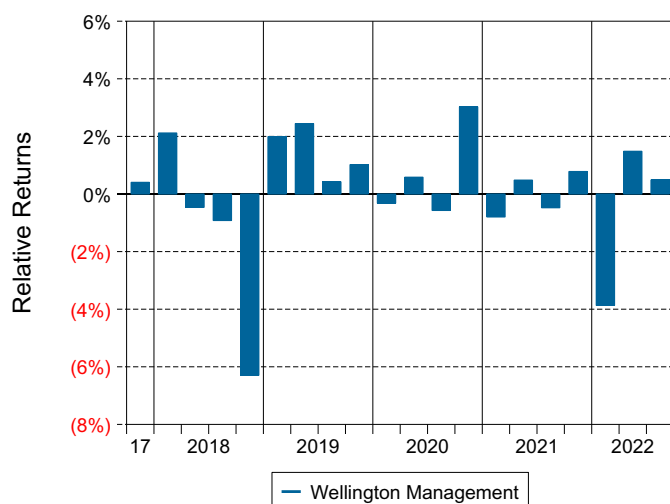
Quarterly Asset Growth

Beginning Market Value	\$74,578,658
Net New Investment	\$-168,646
Investment Gains/(Losses)	\$-6,980,503
Ending Market Value	\$67,429,508

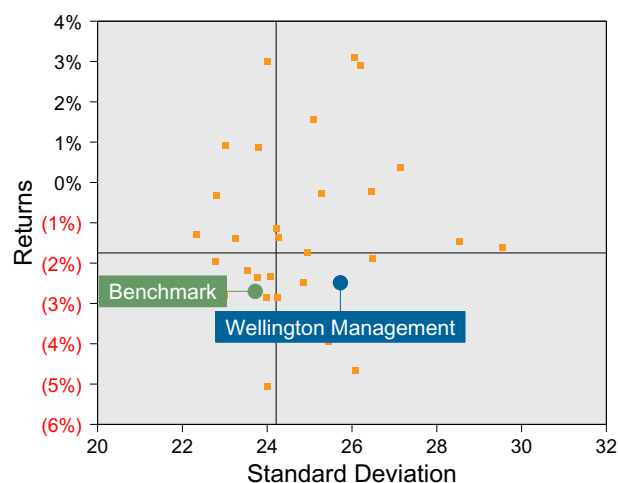
Performance vs Callan International Small Cap (Gross)



Relative Return vs Benchmark



Callan International Small Cap (Gross) 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.

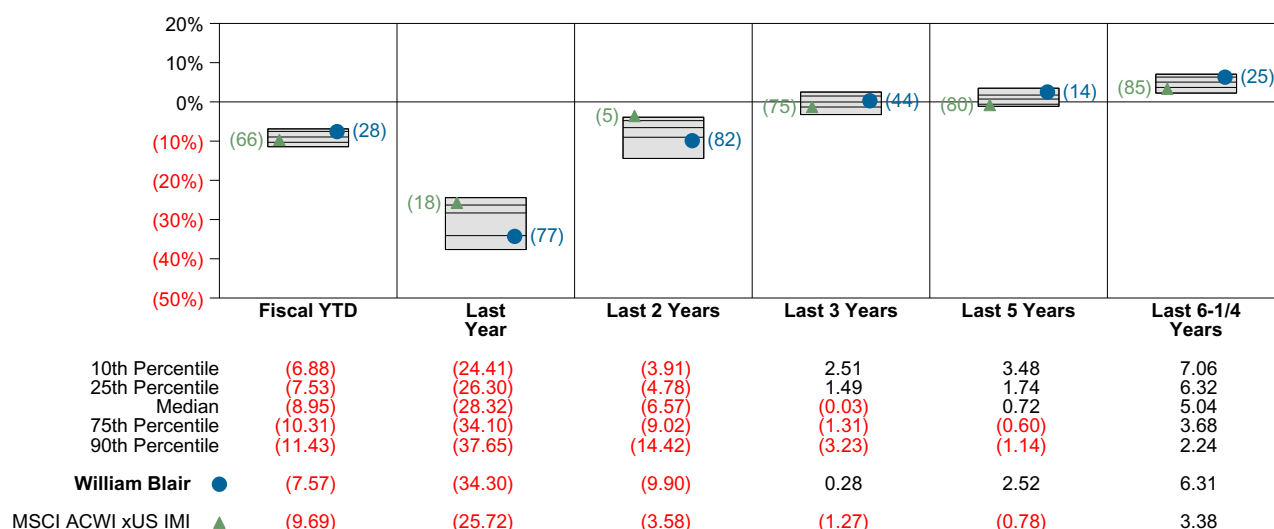
Quarterly Summary and Highlights

- William Blair's portfolio posted a (7.57)% return for the quarter placing it in the 28 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 77 percentile for the last year.
- William Blair's portfolio outperformed the MSCI ACWI xUS IMI by 2.11% for the quarter and underperformed the MSCI ACWI xUS IMI for the year by 8.58%.

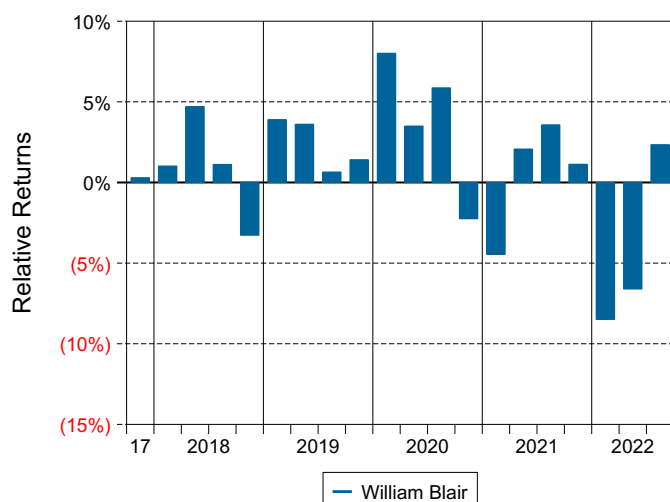
Quarterly Asset Growth

Beginning Market Value	\$188,281,614
Net New Investment	\$-184,914
Investment Gains/(Losses)	\$-14,232,587
Ending Market Value	\$173,864,114

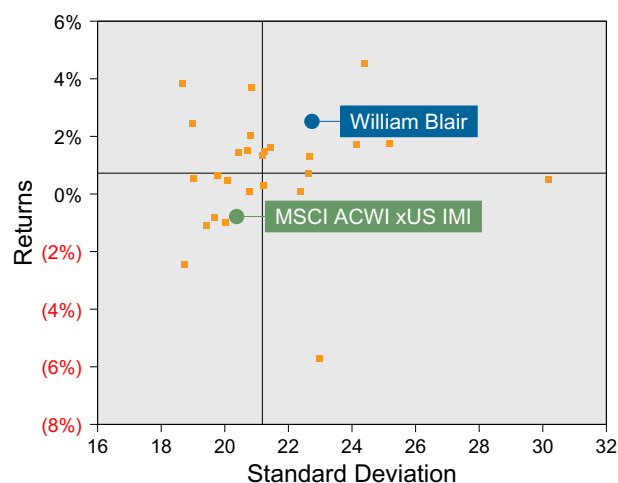
Performance vs Callan Non-US All Country Growth Equity (Gross)



Relative Return vs MSCI ACWI xUS IMI



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



Axiom Emerging Markets Period Ended September 30, 2022

Investment Philosophy

The Emerging Markets Equity strategy seeks to invest in emerging market securities issued by companies whose key business drivers are both improving and exceeding expectations, as determined by Axiom's stock selection techniques focused on fundamental company analysis. The strategy considers companies either (i) located in countries that are not included in the MSCI Developed Markets Index series or (ii) that derive a majority of their revenues or assets from a country or countries not included in the MSCI Developed Markets Index series, in each case at the time of investment. Although the Manager generally expects the strategy's investment portfolio to be geographically diverse, there are no prescribed limits on geographic distribution of the strategy's investments and the strategy has the authority to invest in securities traded in securities markets or any country in the world.

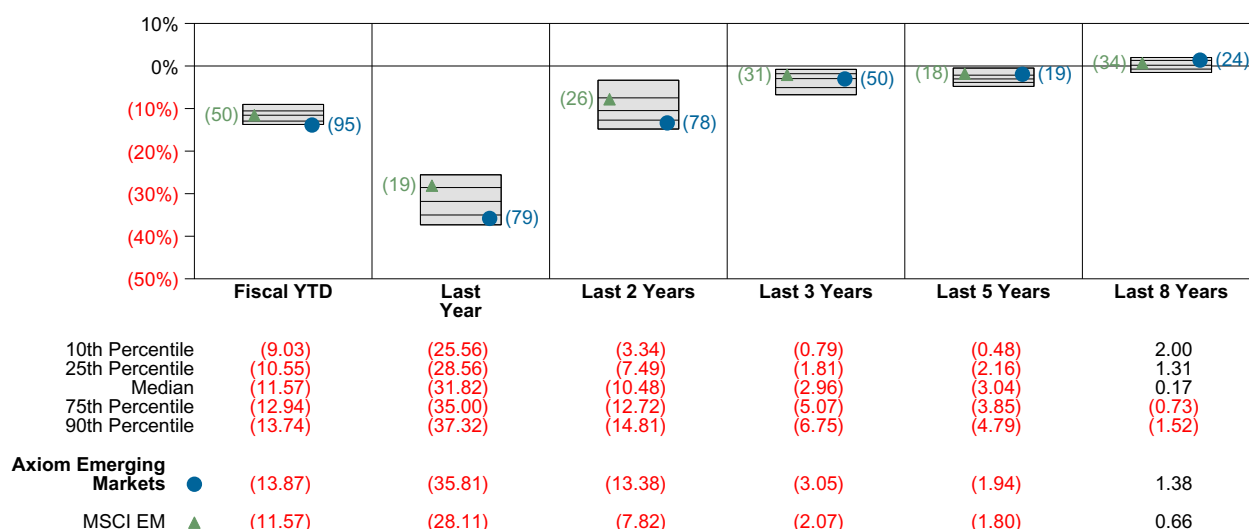
Quarterly Summary and Highlights

- Axiom Emerging Markets's portfolio posted a (13.87)% return for the quarter placing it in the 95 percentile of the Callan Emerging Markets Equity Mut Funds group for the quarter and in the 79 percentile for the last year.
- Axiom Emerging Markets's portfolio underperformed the MSCI EM by 2.30% for the quarter and underperformed the MSCI EM for the year by 7.70%.

Quarterly Asset Growth

Beginning Market Value	\$146,683,893
Net New Investment	\$0
Investment Gains/(Losses)	\$-20,348,126
Ending Market Value	\$126,335,767

Performance vs Callan Emerging Markets Equity Mut Funds (Net)



Relative Return vs MSCI EM



Callan Emerging Markets Equity Mut Funds (Net) Annualized Five Year Risk vs Return



DFA Emerging Markets Period Ended September 30, 2022

Investment Philosophy

The Emerging Markets Small Cap Portfolio invests in small cap emerging markets companies. Presently, this means investment in companies whose market capitalization is less than \$2.3 billion at the time of purchase. Dimensional considers, among other things, information disseminated by the International Finance Corporation in determining and approving emerging market countries.

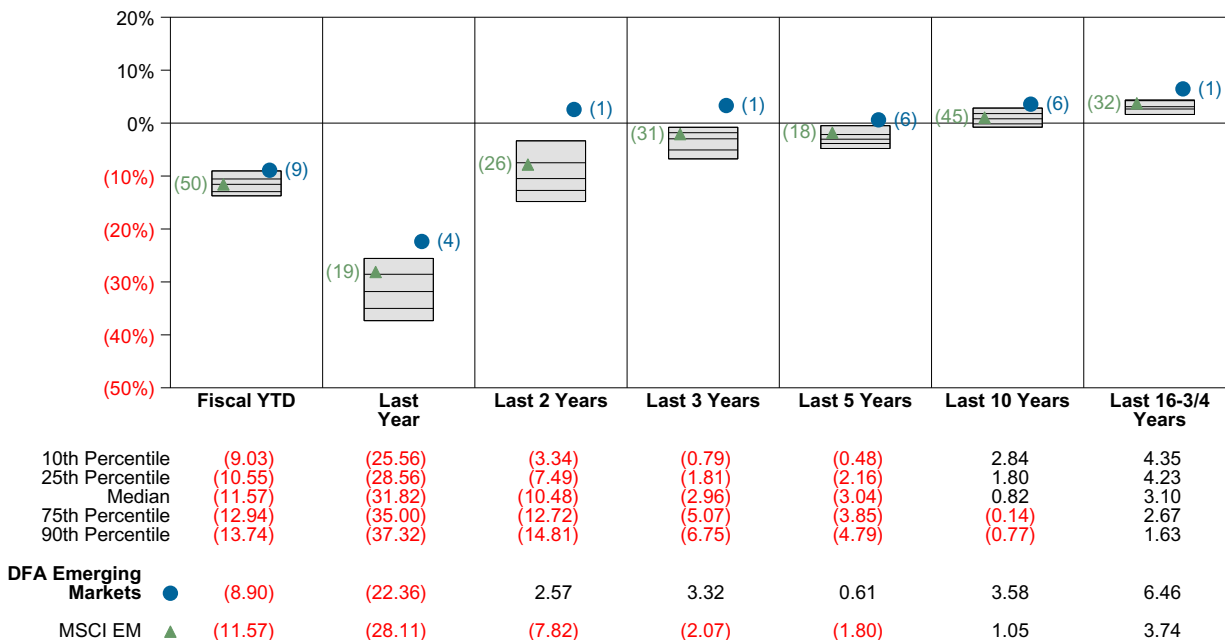
Quarterly Summary and Highlights

- DFA Emerging Markets's portfolio posted a (8.90)% return for the quarter placing it in the 9 percentile of the Callan Emerging Markets Equity Mut Funds group for the quarter and in the 4 percentile for the last year.
- DFA Emerging Markets's portfolio outperformed the MSCI EM by 2.67% for the quarter and outperformed the MSCI EM for the year by 5.76%.

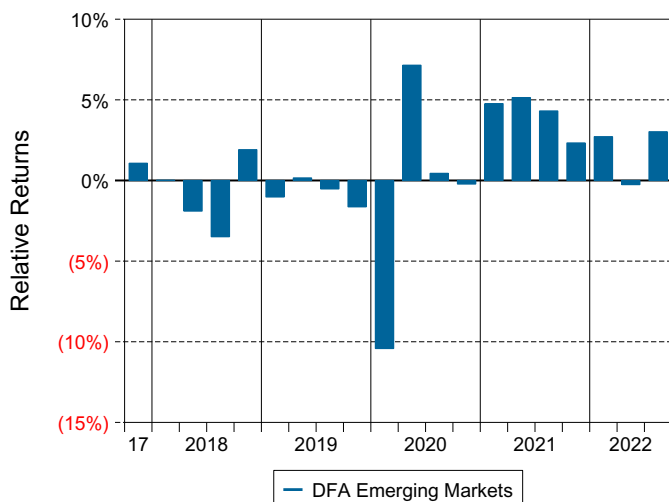
Quarterly Asset Growth

Beginning Market Value	\$58,420,579
Net New Investment	\$0
Investment Gains/(Losses)	\$-5,199,599
Ending Market Value	\$53,220,979

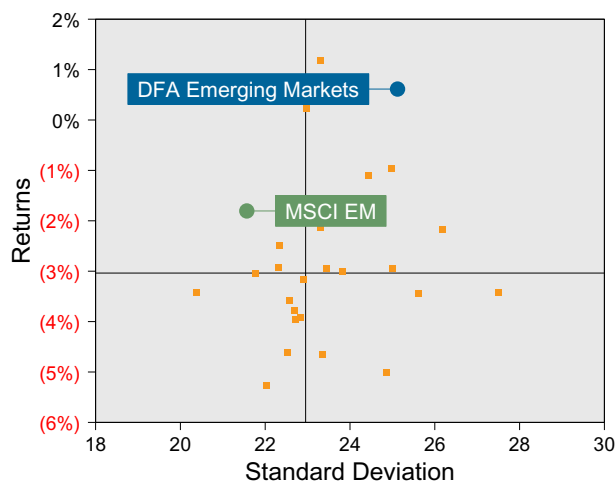
Performance vs Callan Emerging Markets Equity Mut Funds (Net)



Relative Return vs MSCI EM



Callan Emerging Markets Equity Mut Funds (Net) Annualized Five Year Risk vs Return



EPOCH Investment Period Ended September 30, 2022

Investment Philosophy

Epoch seeks to produce superior risk adjusted returns by building portfolios of businesses with outstanding risk/reward profiles without running a high degree of capital risk. They analyze businesses in the same manner private investors would in looking to purchase the entire company. The strategy only invests in businesses that are understood and where they have confidence in the financial statements. They seek businesses that generate "free cash flow" and securities that have unrecognized potential yet possess a combination of above average yield, above average free cash flow growth, and/or below average valuation. Global Choice is a "best ideas" portfolio at Epoch with every stock held in other strategies managed by the firm.

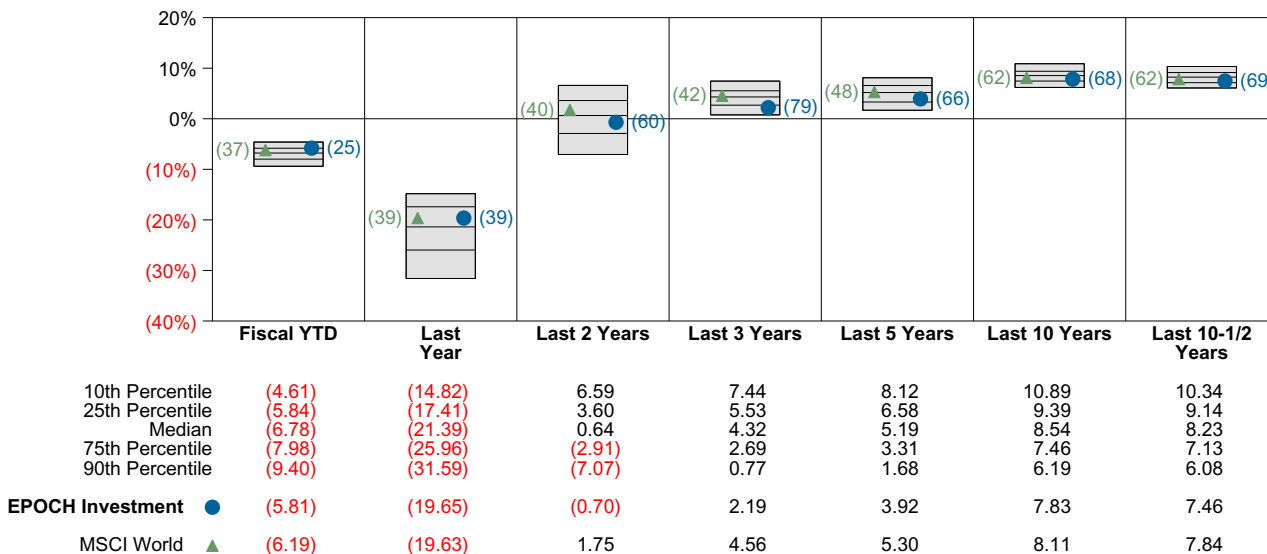
Quarterly Summary and Highlights

- EPOCH Investment's portfolio posted a (5.81)% return for the quarter placing it in the 25 percentile of the Callan Global Equity group for the quarter and in the 39 percentile for the last year.
- EPOCH Investment's portfolio outperformed the MSCI World by 0.37% for the quarter and underperformed the MSCI World for the year by 0.01%.

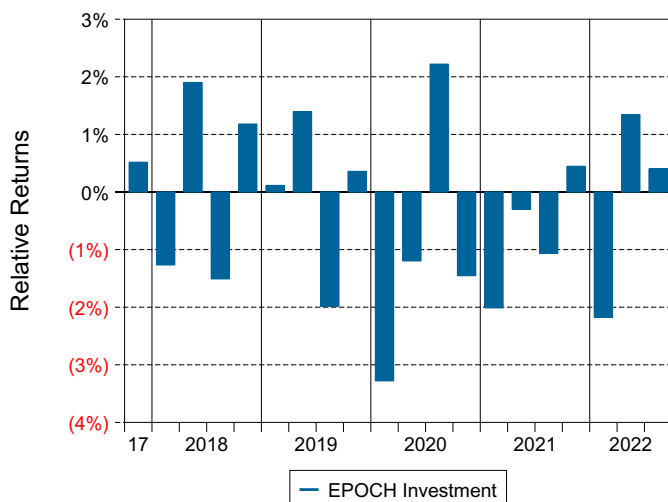
Quarterly Asset Growth

Beginning Market Value	\$279,970,187
Net New Investment	\$-335,369
Investment Gains/(Losses)	\$-16,232,601
Ending Market Value	\$263,402,218

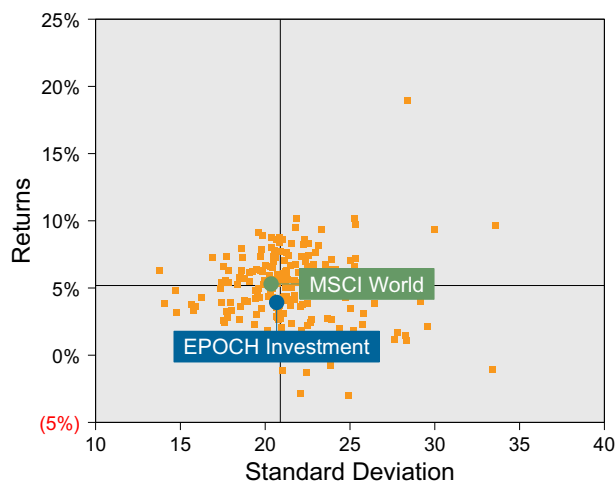
Performance vs Callan Global Equity (Gross)



Relative Return vs MSCI World



Callan Global Equity (Gross) Annualized Five Year Risk vs Return



LSV Asset Management

Period Ended September 30, 2022

Investment Philosophy

The Global Value (ACWI) Equity strategy is managed using quantitative techniques to select individual securities in a risk-controlled, bottom-up approach. Value factors and security selection dominate sector/industry factors as explanators of performance. **The Benchmark is comprised of MSCI ACWI through June 30, 2019; MSCI ACWI IMI Index thereafter.**

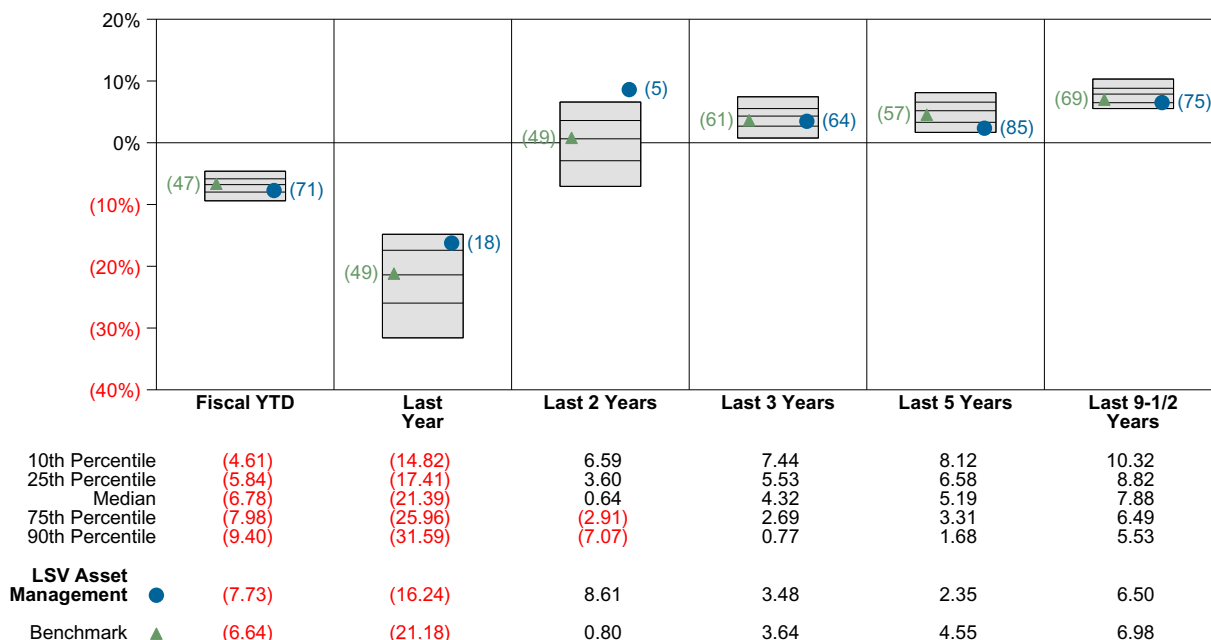
Quarterly Summary and Highlights

- LSV Asset Management's portfolio posted a (7.73)% return for the quarter placing it in the 71 percentile of the Callan Global Equity group for the quarter and in the 18 percentile for the last year.
- LSV Asset Management's portfolio underperformed the Benchmark by 1.10% for the quarter and outperformed the Benchmark for the year by 4.94%.

Quarterly Asset Growth

Beginning Market Value	\$394,300,346
Net New Investment	\$-14,283,919
Investment Gains/(Losses)	\$-29,760,039
Ending Market Value	\$350,256,388

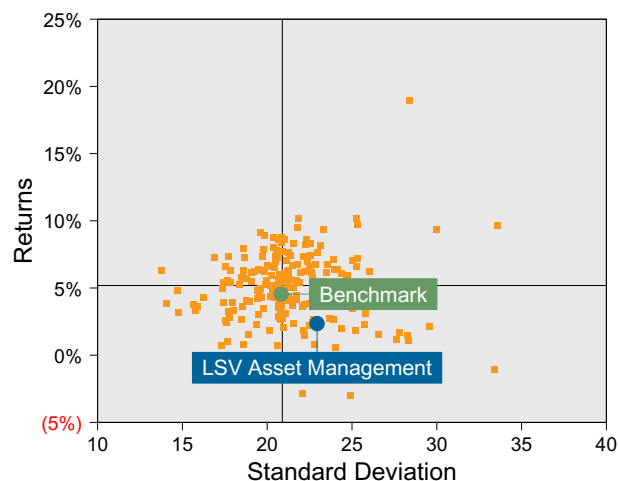
Performance vs Callan Global Equity (Gross)



Relative Return vs Benchmark



Callan Global Equity (Gross) Annualized Five Year Risk vs Return



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 21-3/4 Years
Private Equity	1.38%	7.86%	20.38%	15.28%	5.05%
Total ASP (Brinson) Fds 1998-2003	0.00%	(17.45%)	(2.15%)	0.49%	-
Total ASP (Brinson) Non-US 1999-2004	0.00%	(10.18%)	(0.93%)	0.91%	-
Adams Street 2008 Non-US P-ship Fd	2.35%	(17.75%)	11.45%	13.11%	-
Adams Street Direct Co-Invest Fd 2006	(0.36%)	18.50%	(24.34%)	(24.70%)	-
Total Adams Street 2010 Funds	0.63%	(3.43%)	23.89%	21.06%	-
Adams Street 2015 Global Fund	1.17%	2.56%	28.28%	23.91%	-
Adams Street 2016 Global Fund	3.49%	11.01%	26.49%	20.68%	-
Adams Street 2017 Global Fund	3.55%	18.14%	30.04%	-	-
Adams Street 2018 Global Fund	5.19%	17.55%	32.18%	-	-
Adams Street 2019 Global Fund	3.59%	15.50%	-	-	-
Adams Street 2020 Global Fund	0.00%	6.15%	-	-	-
Adams Street 2021 Global Fund	0.00%	-	-	-	-
BlackRock PEP	(0.11%)	8.75%	21.01%	14.51%	-
Blackrock PEP 2020	0.00%	7.00%	-	-	-
Sixth Street Partners - TAO	0.00%	7.43%	-	-	-
Private Equity Misc Funds*	(0.08%)	(14.30%)	(4.26%)	(0.79%)	-
 Russell 1000 Index	 (4.61%)	 (17.22%)	 7.95%	 9.00%	 6.87%
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%	7.26%

* Comprised of Matlin Patterson II, Matlin Patterson III, InvestAmerica Lewis & Clark, InvestAmerica L&C II, Corsair III, Capital Intl Fd V, Capital Intl Fd VI, EIG, Quantum Energy Partners, Hearthstone MSII, Hearthstone MSIII.

Domestic Fixed Income Period Ended September 30, 2022

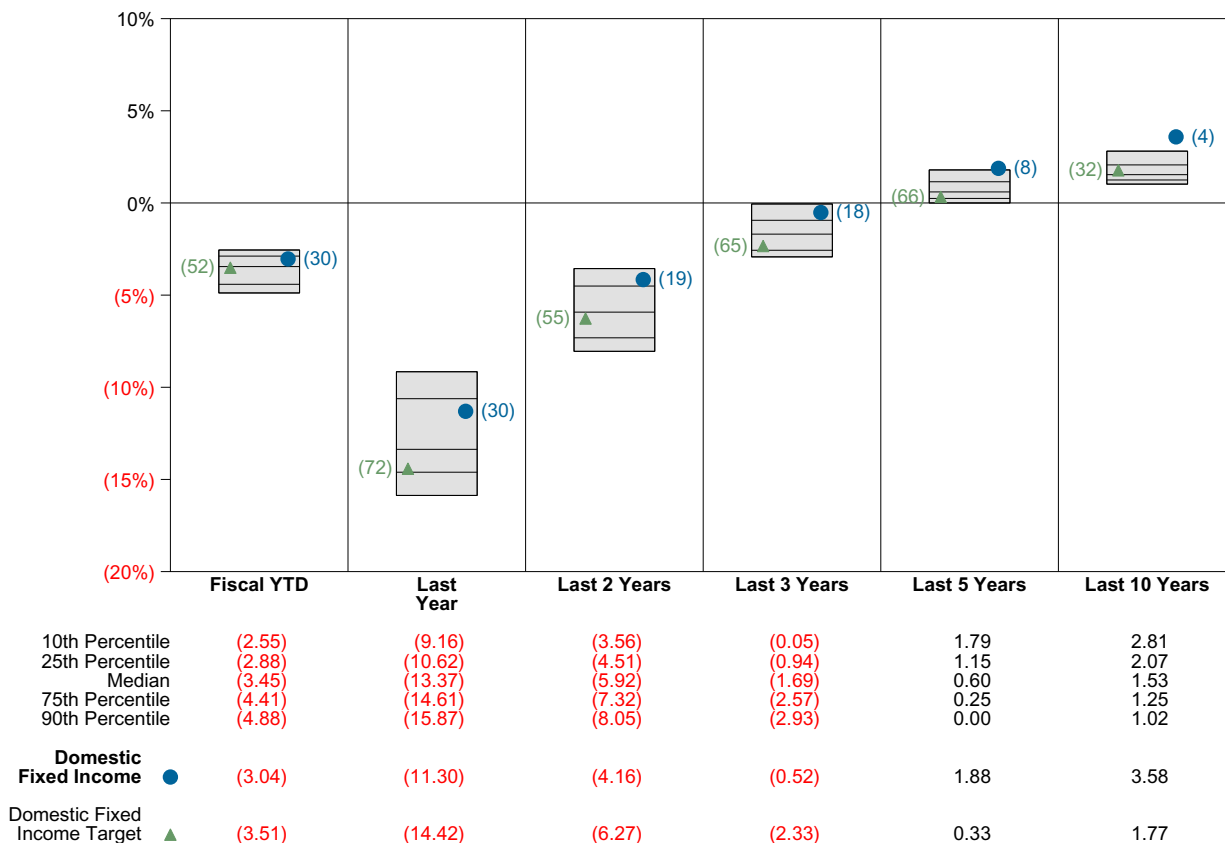
Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a (3.04)% return for the quarter placing it in the 30 percentile of the Public Fund - Domestic Fixed group for the quarter and in the 30 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.48% for the quarter and outperformed the Domestic Fixed Income Target for the year by 3.11%.

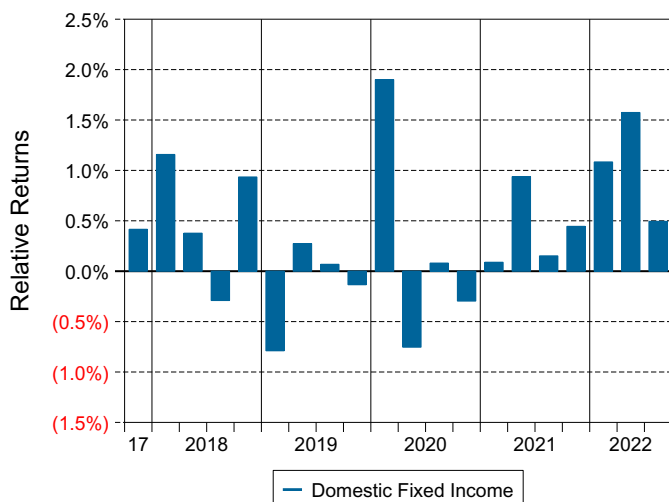
Quarterly Asset Growth

Beginning Market Value	\$1,736,303,740
Net New Investment	\$-71,027,279
Investment Gains/(Losses)	\$-51,328,681
Ending Market Value	\$1,613,947,780

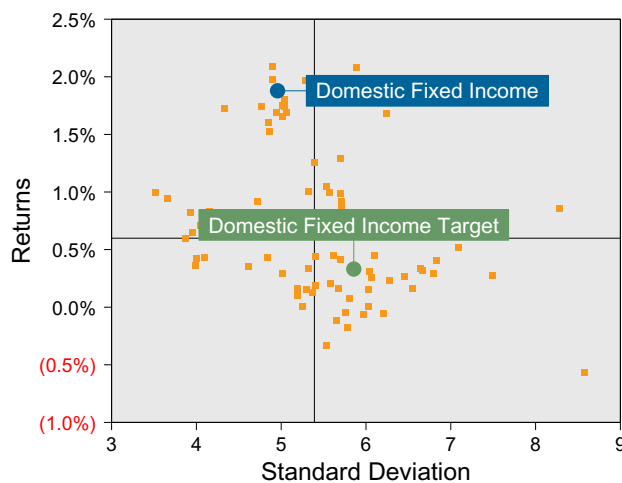
Performance vs Public Fund - Domestic Fixed (Gross)



Relative Returns vs Domestic Fixed Income Target



Public Fund - Domestic Fixed (Gross) 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.

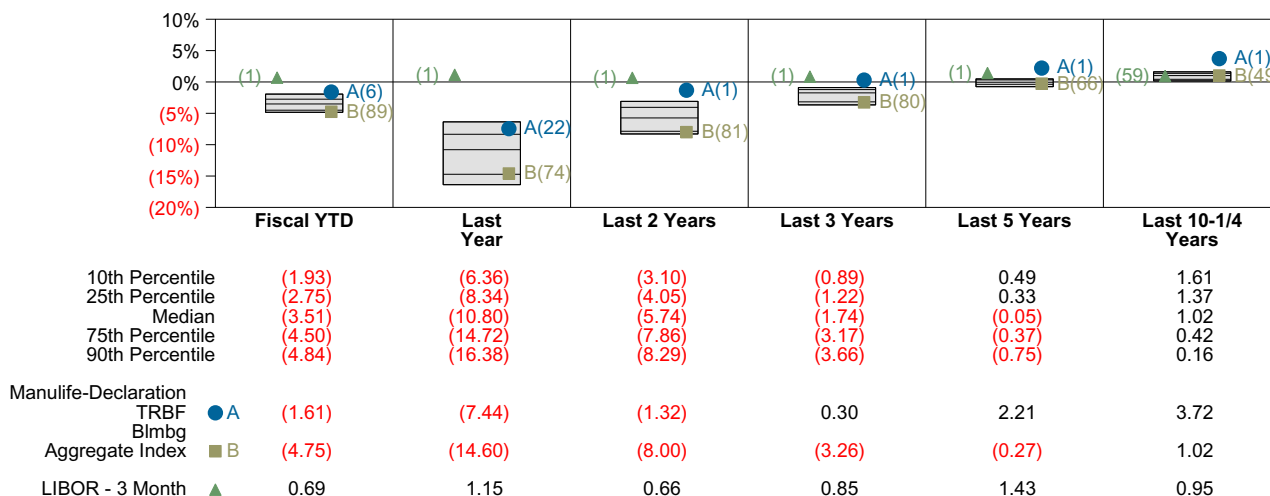
Quarterly Summary and Highlights

- 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%.

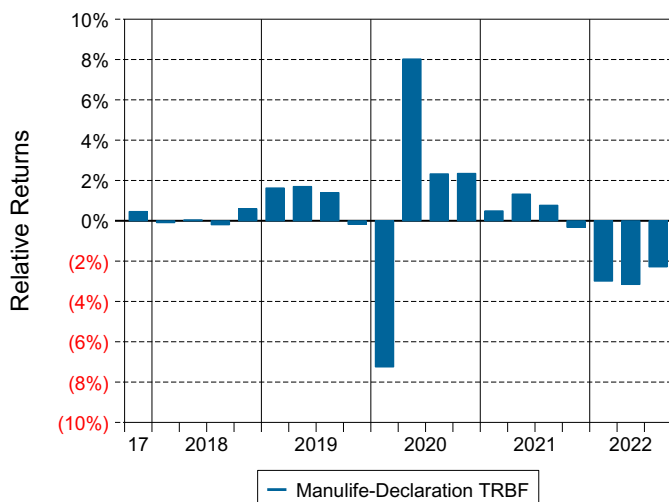
Quarterly Asset Growth

Beginning Market Value	\$148,672,147
Net New Investment	\$-96,170
Investment Gains/(Losses)	\$-2,385,482
Ending Market Value	\$146,190,495

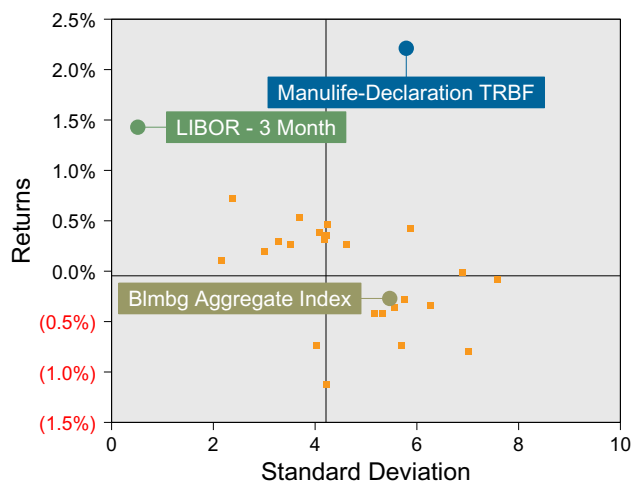
Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



Relative Return vs LIBOR - 3 Month



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



PIMCO 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.

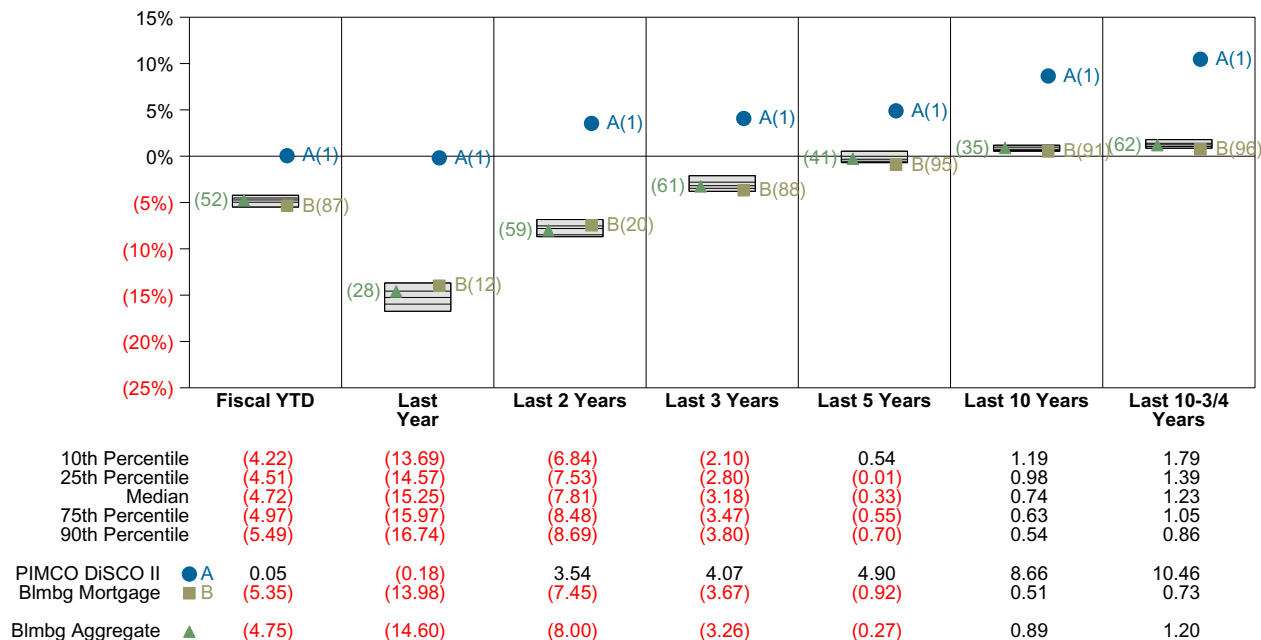
Quarterly Summary and Highlights

- 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%.

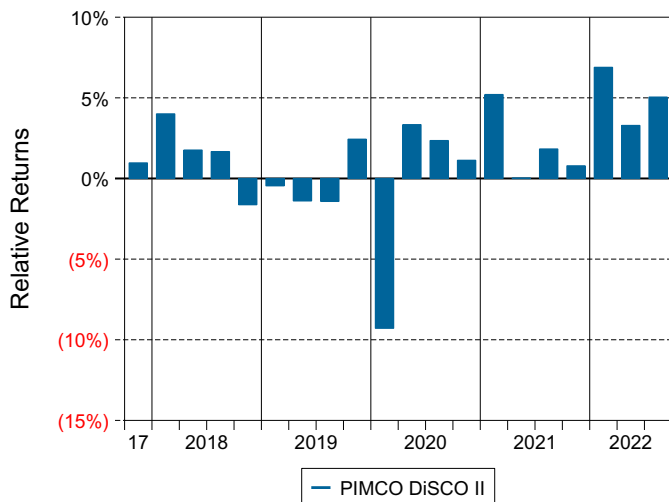
Quarterly Asset Growth

Beginning Market Value	\$100,497,621
Net New Investment	\$0
Investment Gains/(Losses)	\$53,963
Ending Market Value	\$100,551,584

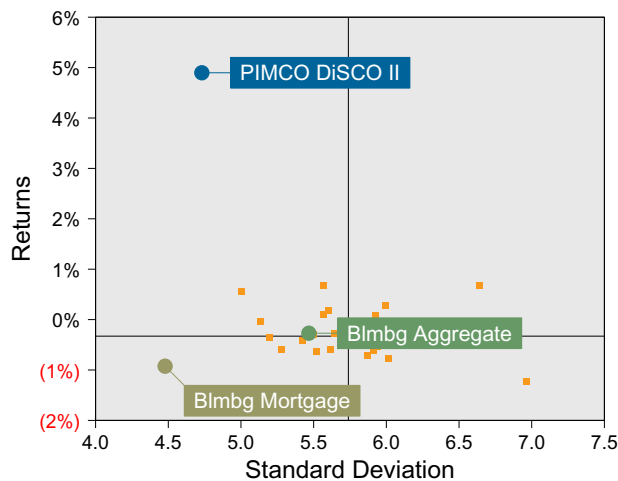
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



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



PIMCO Core Plus Constrained Period Ended September 30, 2022

Investment Philosophy

PIMCO's investment process utilizes both "top-down" and "bottom-up" strategies. Top-down strategies focus on duration, yield curve positioning, volatility, and sector rotation. These strategies are deployed from a macro view of the portfolio driven by their secular outlook of the forces likely to influence the economy and financial markets over the next three to five years and their cyclical views of two- to four-quarter trends. Implementation in portfolios is effected by selecting securities that achieve the designated objectives. Bottom-up strategies drive their security selection process and facilitate the identification and analysis of undervalued securities. **The product changed from Commingled Fund to Separate Account in March 2014. *Libor-3 month through February 28, 2017; Fund's performance through March 31, 2014; Libor-3 month through June 30, 2018; Bloomberg Aggregate thereafter.**

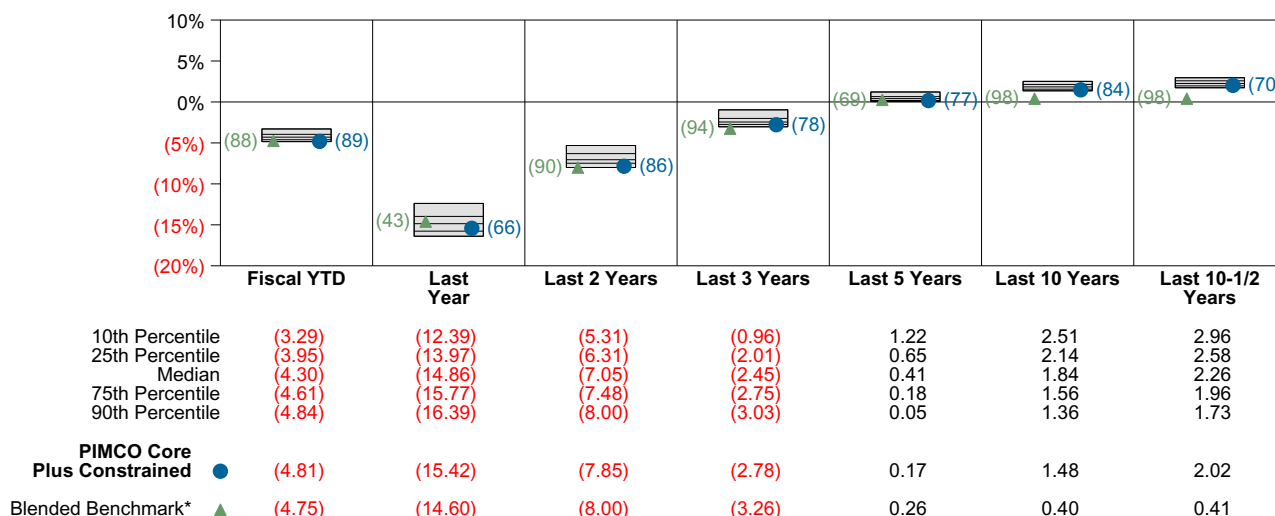
Quarterly Summary and Highlights

- PIMCO Core Plus Constrained's portfolio posted a (4.81)% return for the quarter placing it in the 89 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 66 percentile for the last year.
- PIMCO Core Plus Constrained's portfolio underperformed the Blended Benchmark* by 0.06% for the quarter and underperformed the Blended Benchmark* for the year by 0.82%.

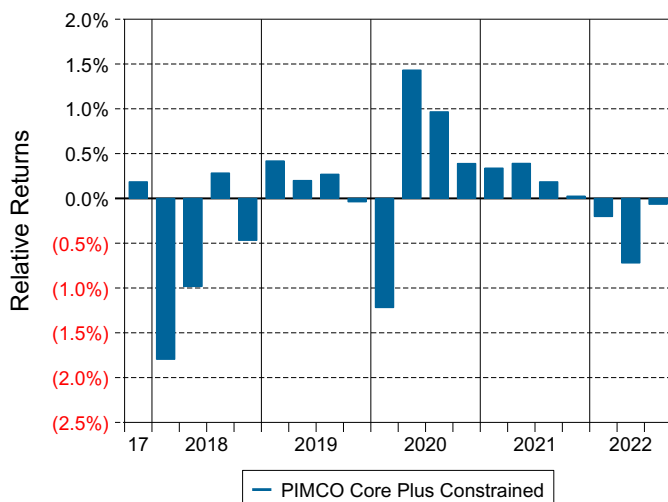
Quarterly Asset Growth

Beginning Market Value	\$430,759,904
Net New Investment	\$-19,588,953
Investment Gains/(Losses)	\$-20,211,627
Ending Market Value	\$390,959,324

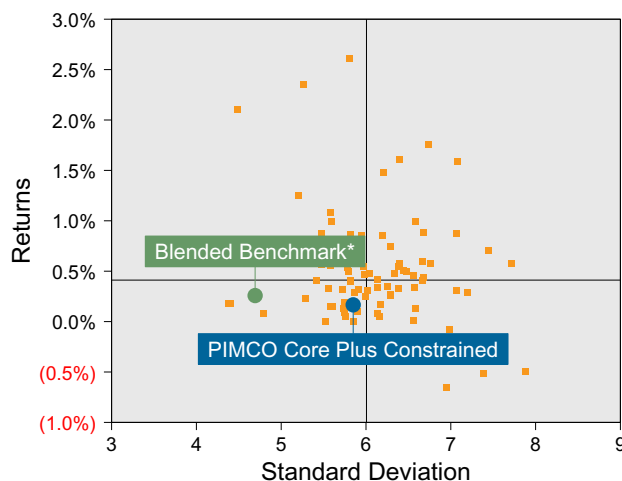
Performance vs Callan Core Plus Fixed Income (Gross)



Relative Return vs Blended Benchmark*



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



Prudential Core Period Ended September 30, 2022

Investment Philosophy

The PGIM Fixed Income Core Fixed Income strategy seeks to provide +60 bps over the Bloomberg Barclays Aggregate Index over a market cycle. The strategy tends to generate its excess return from fairly equal increments of both sector allocation and subsector/security allocation. Duration and yield curve positioning is generally de-emphasized, but will be considered when market opportunities dictate. The primary way they add value is through intensive research-based sector, industry, and security selection. The strategy is predominately investment grade, but may also invest nominally in crossover/high yield bonds and emerging markets debt, when guidelines permit.

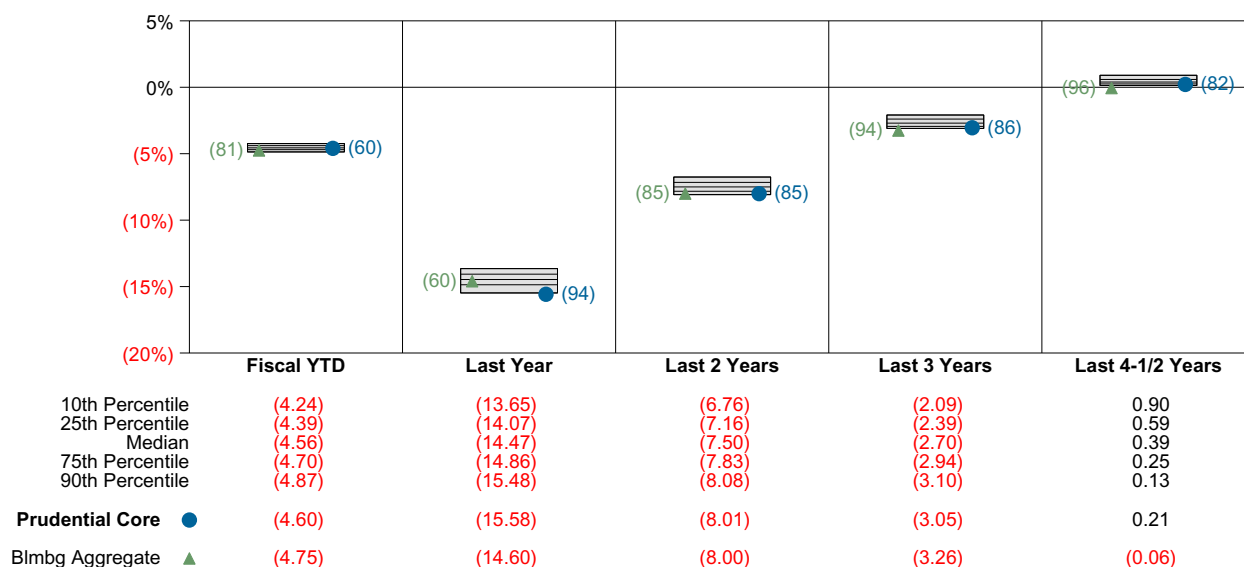
Quarterly Summary and Highlights

- Prudential Core's portfolio posted a (4.60)% return for the quarter placing it in the 60 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 94 percentile for the last year.
- Prudential Core's portfolio outperformed the Blmbg Aggregate by 0.15% for the quarter and underperformed the Blmbg Aggregate for the year by 0.98%.

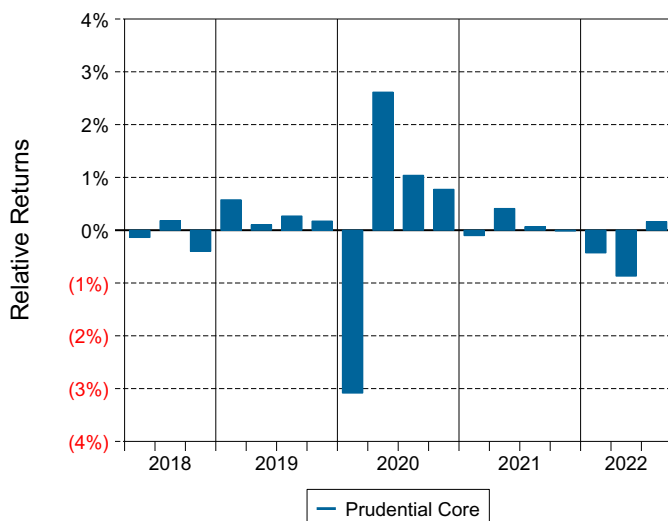
Quarterly Asset Growth

Beginning Market Value	\$433,352,096
Net New Investment	\$-24,129,176
Investment Gains/(Losses)	\$-19,043,802
Ending Market Value	\$390,179,118

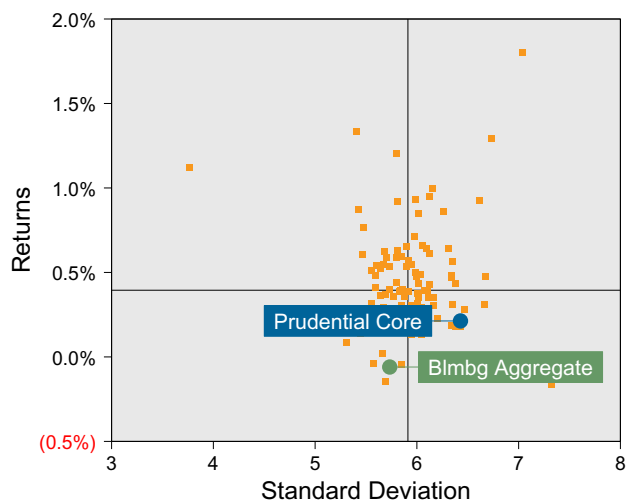
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



Callan Core Bond Fixed Income (Gross) Annualized Four and One-Half Year Risk vs Return



SSgA Long US Treas Index 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. Long Treasury Bond Index over the long term.

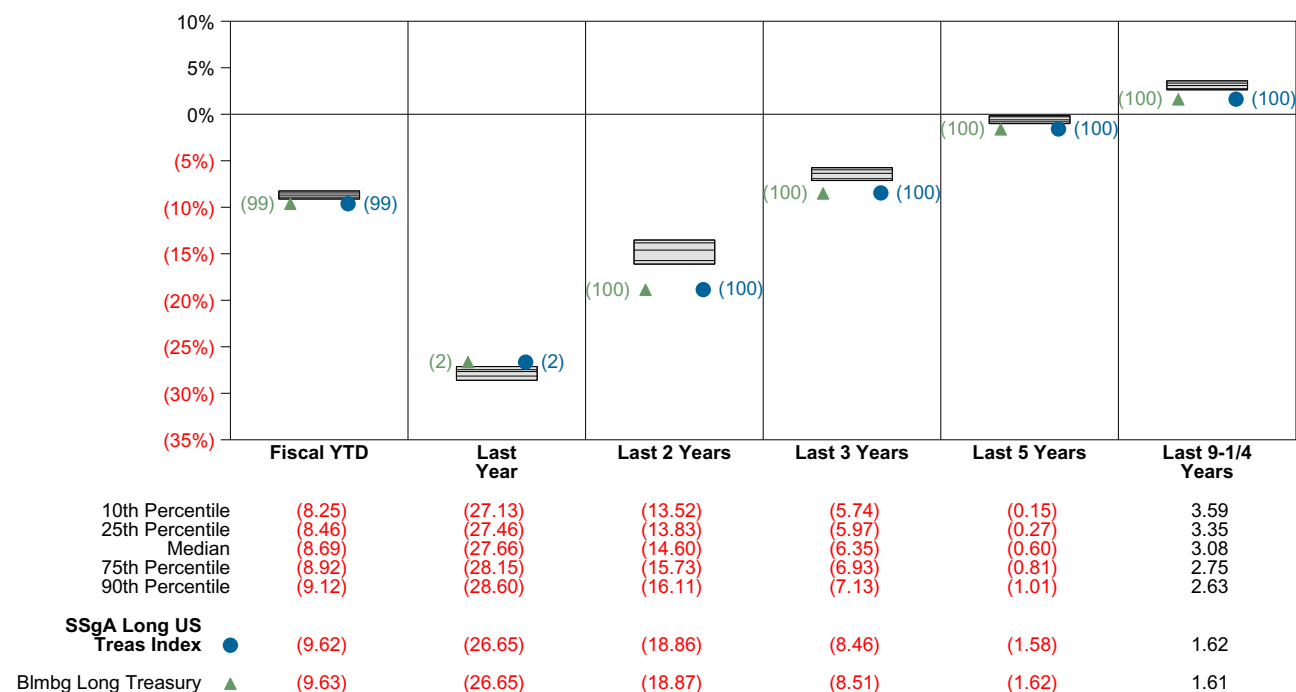
Quarterly Summary and Highlights

- SSgA Long US Treas Index's portfolio posted a (9.62)% return for the quarter placing it in the 99 percentile of the Callan Extended Maturity Fixed Income group for the quarter and in the 2 percentile for the last year.
- SSgA Long US Treas Index's portfolio outperformed the Blmbg Long Treasury by 0.01% for the quarter and underperformed the Blmbg Long Treasury for the year by 0.00%.

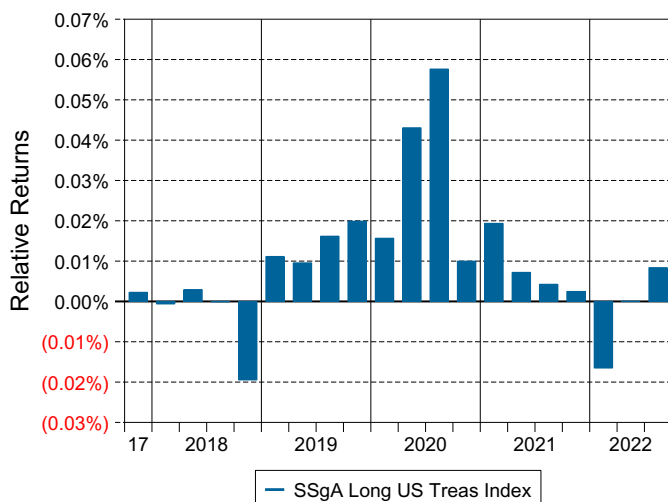
Quarterly Asset Growth

Beginning Market Value	\$129,300,543
Net New Investment	\$-18,005,219
Investment Gains/(Losses)	\$-11,696,877
Ending Market Value	\$99,598,447

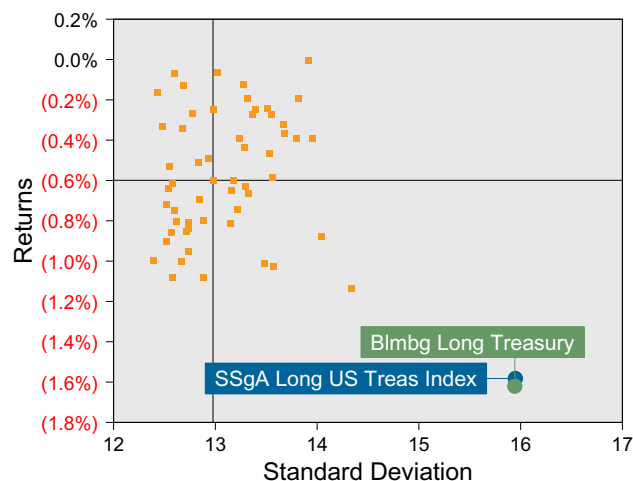
Performance vs Callan Extended Maturity Fixed Income (Gross)



Relative Return vs Blmbg Long Treasury



Callan Extended Maturity Fixed Income (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 11.89%.

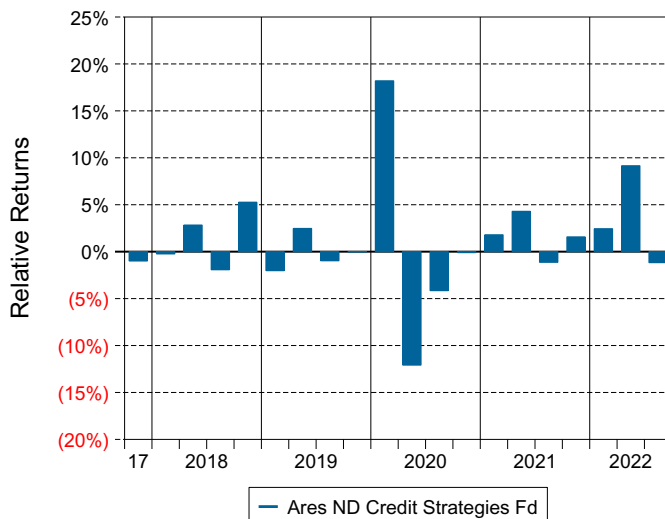
Quarterly Asset Growth

Beginning Market Value	\$156,115,483
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$156,115,483

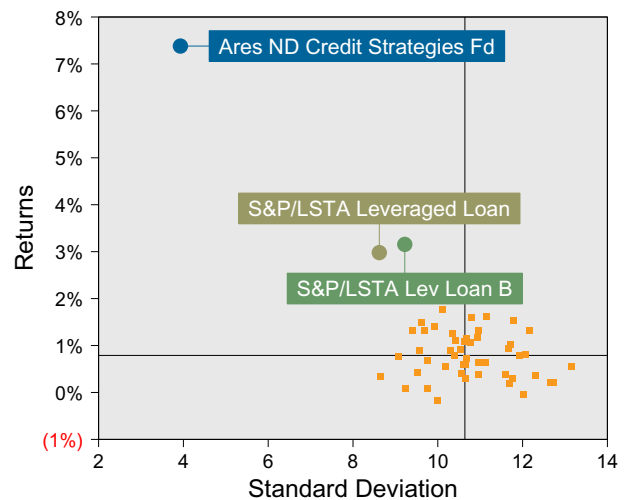
Performance vs Callan High Yield Mutual Funds (Net)



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.

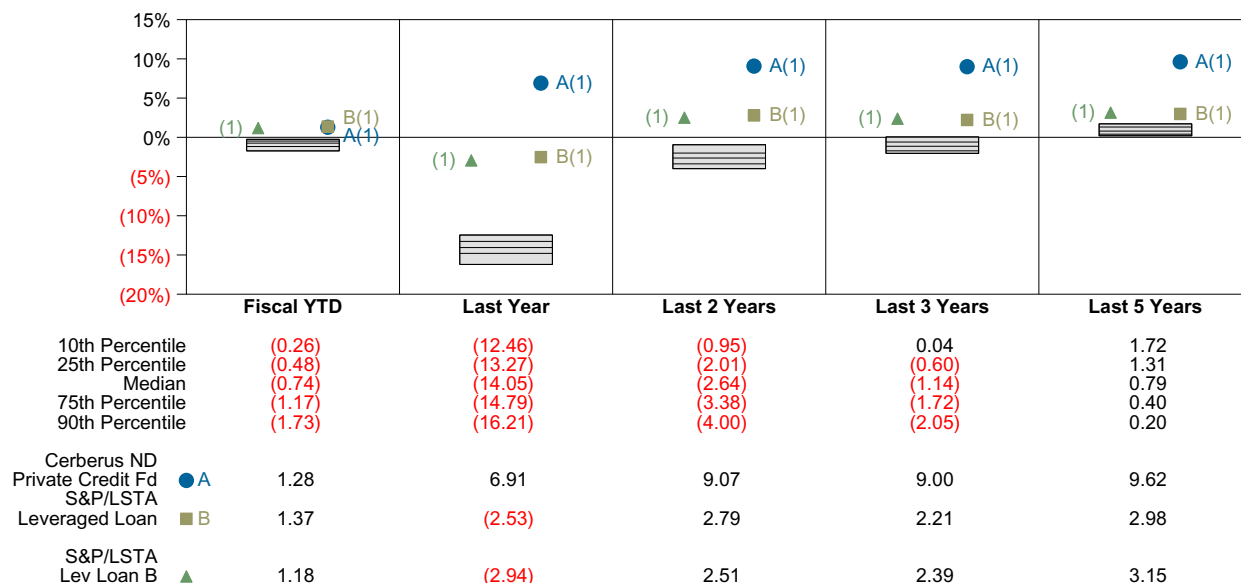
Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 1.28% 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 0.11% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 9.85%.

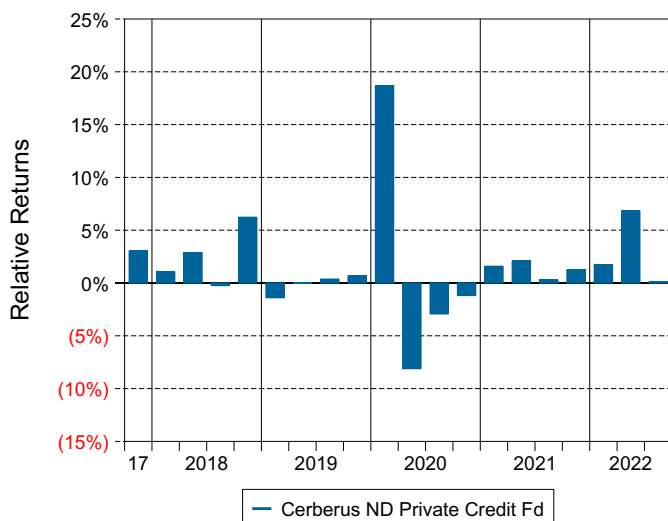
Quarterly Asset Growth

Beginning Market Value	\$167,585,199
Net New Investment	\$0
Investment Gains/(Losses)	\$2,150,416
Ending Market Value	\$169,735,615

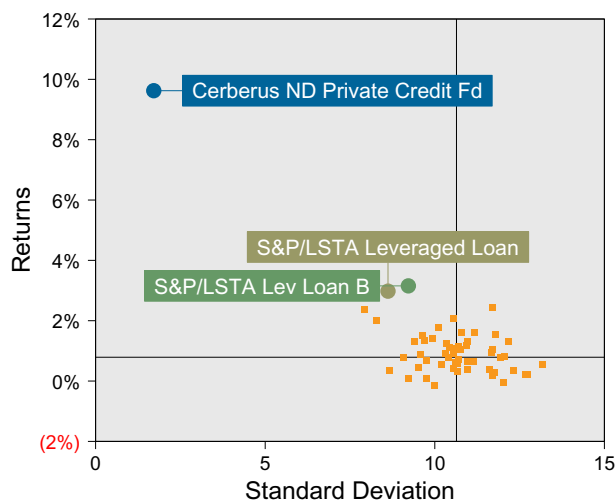
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



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



Goldman Sachs 2006 Offshore Period Ended September 30, 2022

Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

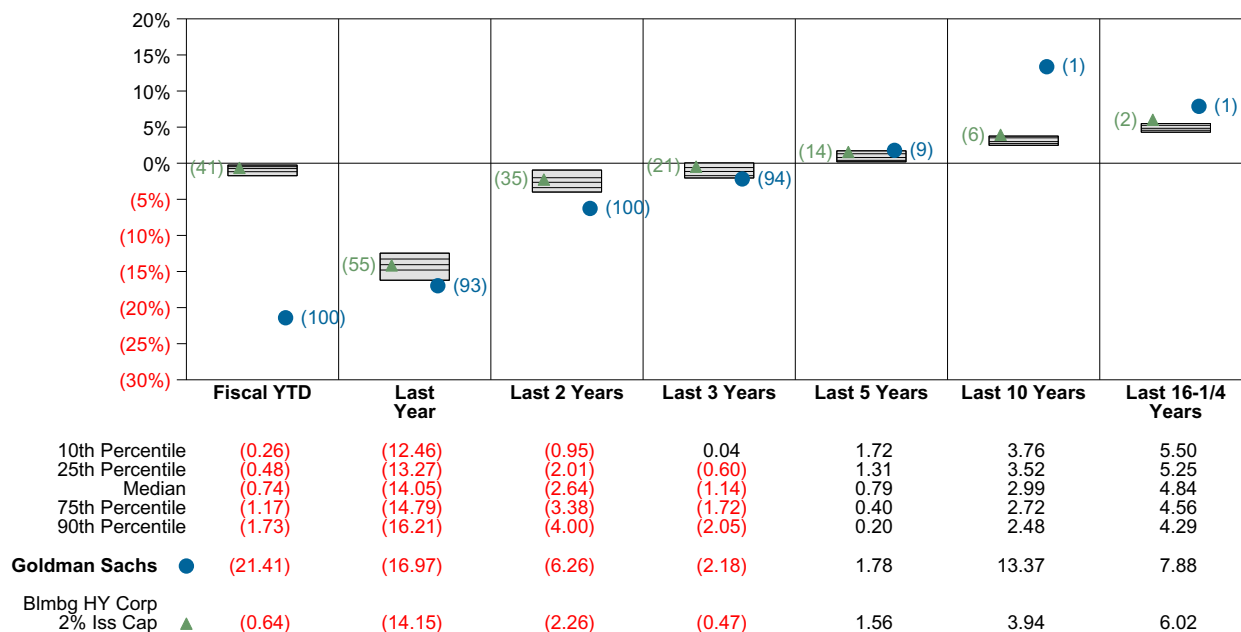
Quarterly Summary and Highlights

- Goldman Sachs's portfolio posted a (21.41)% return for the quarter placing it in the 100 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 93 percentile for the last year.
- Goldman Sachs's portfolio underperformed the Blmbg HY Corp 2% Iss Cap by 20.77% for the quarter and underperformed the Blmbg HY Corp 2% Iss Cap for the year by 2.83%.

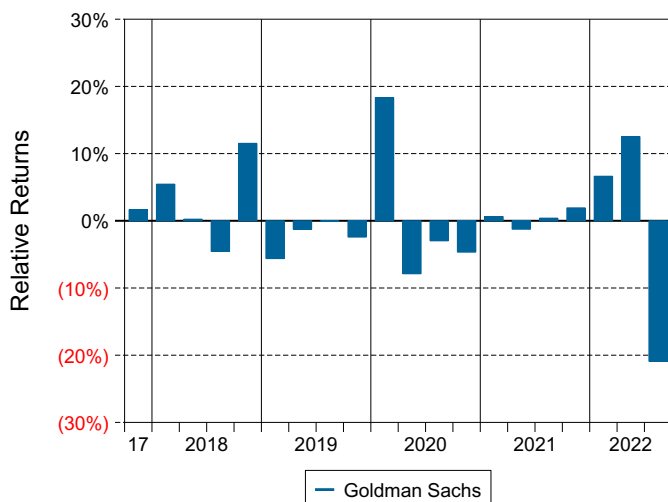
Quarterly Asset Growth

Beginning Market Value	\$49,654
Net New Investment	\$-16,809
Investment Gains/(Losses)	\$-8,997
Ending Market Value	\$23,848

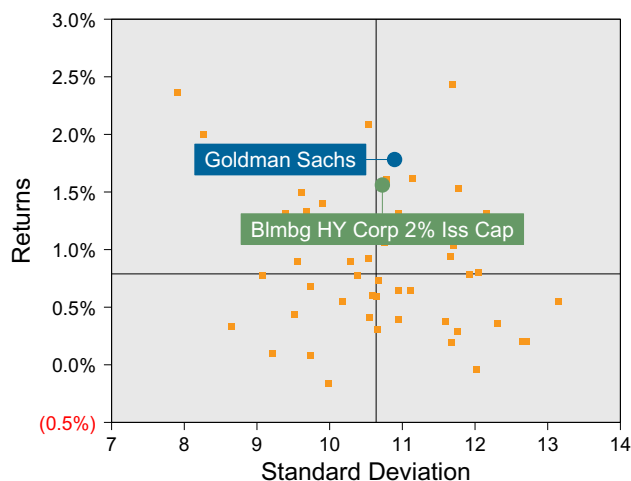
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs Blmbg HY Corp 2% Iss Cap



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



Goldman Sachs Offshore Fund V

Period Ended September 30, 2022

Investment Philosophy

GS Mezzanine Partners seeks large-sized mezzanine investments comprised generally of fixed income securities and an associated equity component. They focus on providing "private high yield" capital for mid- to large-sized leveraged and management buyout transactions, recapitalizations, financings, re-financings, acquisitions and restructurings for private equity firms, private family companies and corporate issuers.

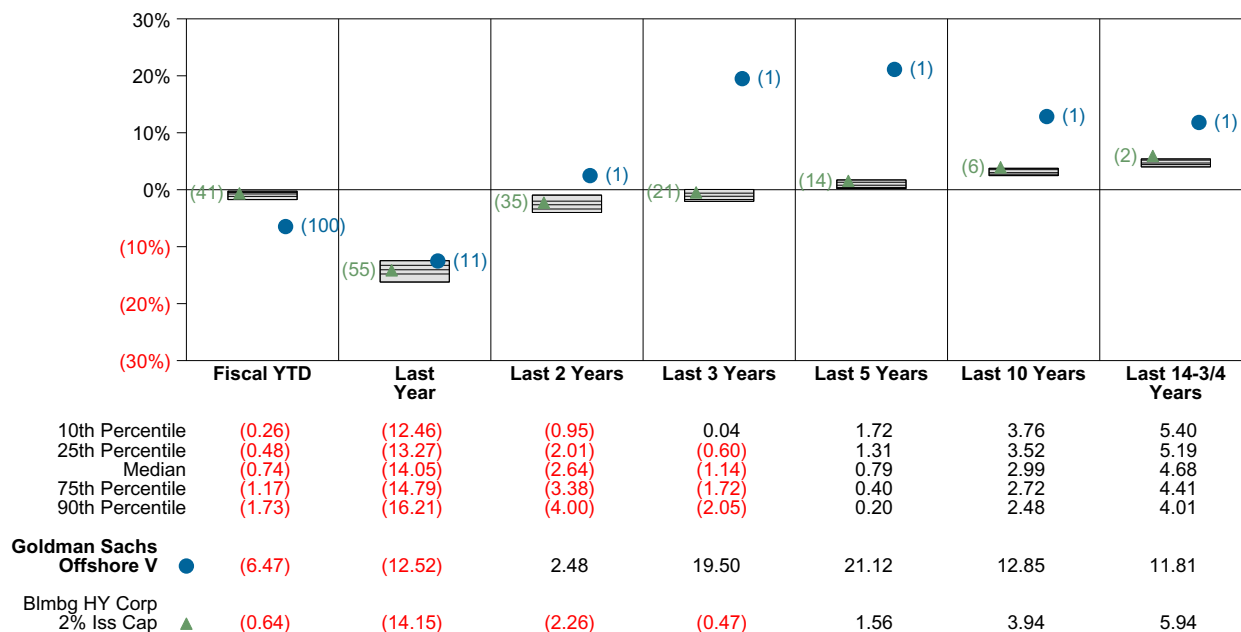
Quarterly Summary and Highlights

- Goldman Sachs Offshore V's portfolio posted a (6.47)% return for the quarter placing it in the 100 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 11 percentile for the last year.
- Goldman Sachs Offshore V's portfolio underperformed the Blmbg HY Corp 2% Iss Cap by 5.83% for the quarter and outperformed the Blmbg HY Corp 2% Iss Cap for the year by 1.63%.

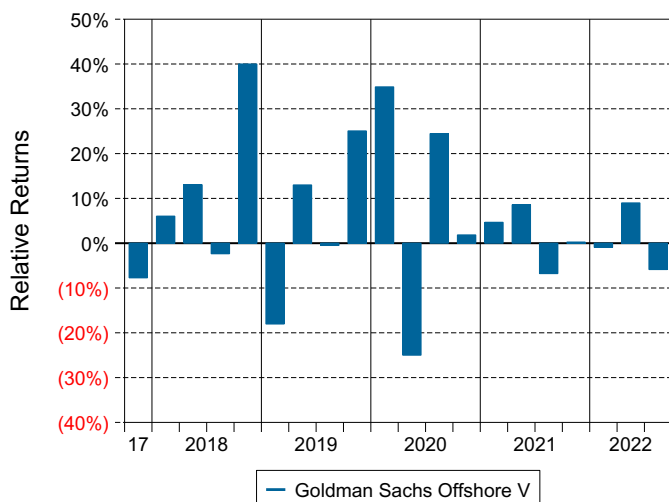
Quarterly Asset Growth

Beginning Market Value	\$118,929
Net New Investment	\$0
Investment Gains/(Losses)	\$-7,693
Ending Market Value	\$111,236

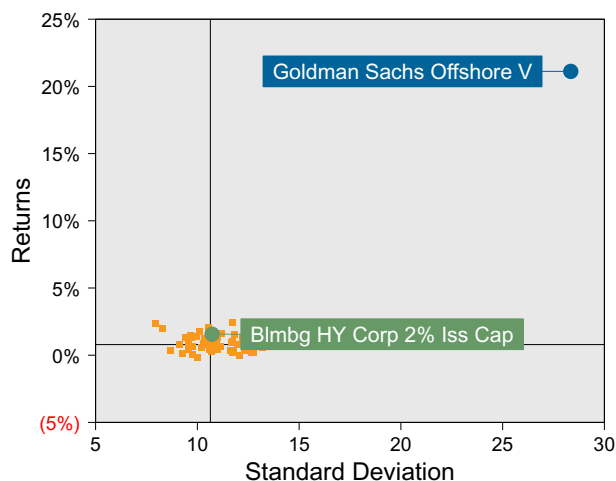
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs Blmbg HY Corp 2% Iss Cap



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



Loomis Sayles

Period Ended September 30, 2022

Investment Philosophy

The High Yield Full Discretion Strategy seeks to identify attractive sectors and specific investment opportunities primarily within the global fixed income market through a global economic and interest rate framework. Portfolio managers incorporate a long-term macroeconomic view along with a stringent bottom-up investment evaluation process that drives security selection and resulting sector allocations. Opportunistic investments in non-benchmark sectors including investment grade corporate, emerging market, and non-US dollar debt and convertible bonds help to manage overall portfolio risk and enhance total return potential.

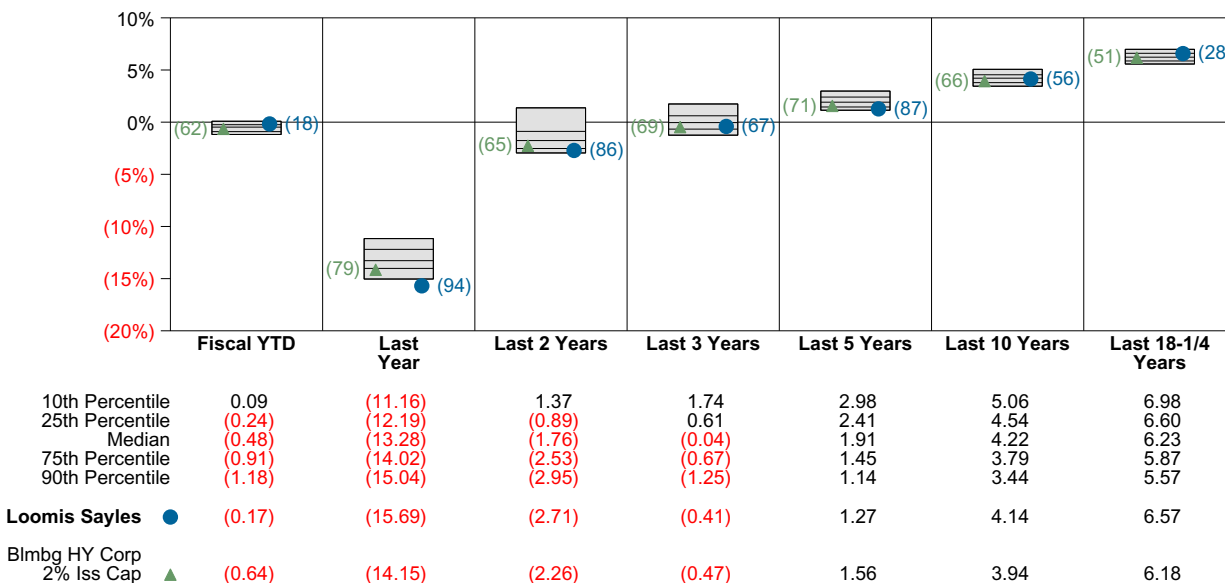
Quarterly Summary and Highlights

- Loomis Sayles's portfolio posted a (0.17)% return for the quarter placing it in the 18 percentile of the Callan High Yield Fixed Income group for the quarter and in the 94 percentile for the last year.
- Loomis Sayles's portfolio outperformed the Blmbg HY Corp 2% Iss Cap by 0.47% for the quarter and underperformed the Blmbg HY Corp 2% Iss Cap for the year by 1.54%.

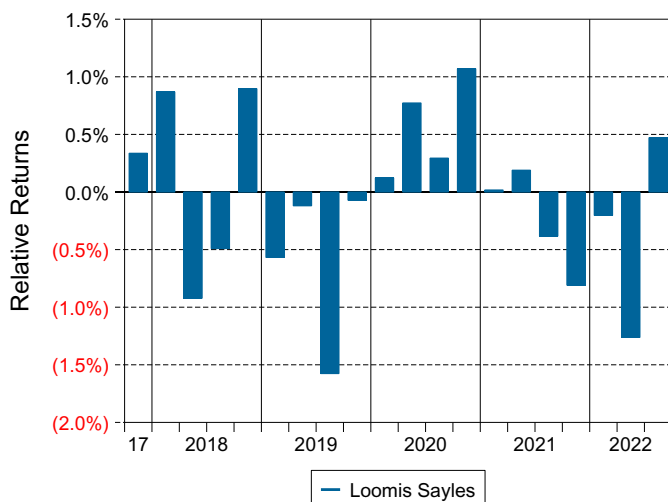
Quarterly Asset Growth

Beginning Market Value	\$162,511,508
Net New Investment	\$-9,190,951
Investment Gains/(Losses)	\$-178,581
Ending Market Value	\$153,141,976

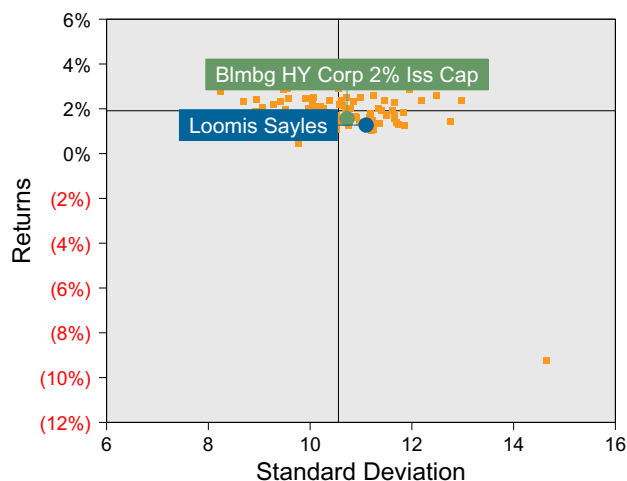
Performance vs Callan High Yield Fixed Income (Gross)



Relative Return vs Blmbg HY Corp 2% Iss Cap



Callan High Yield Fixed Income (Gross) Annualized Five Year Risk vs Return



PIMCO Bravo II Fund

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.

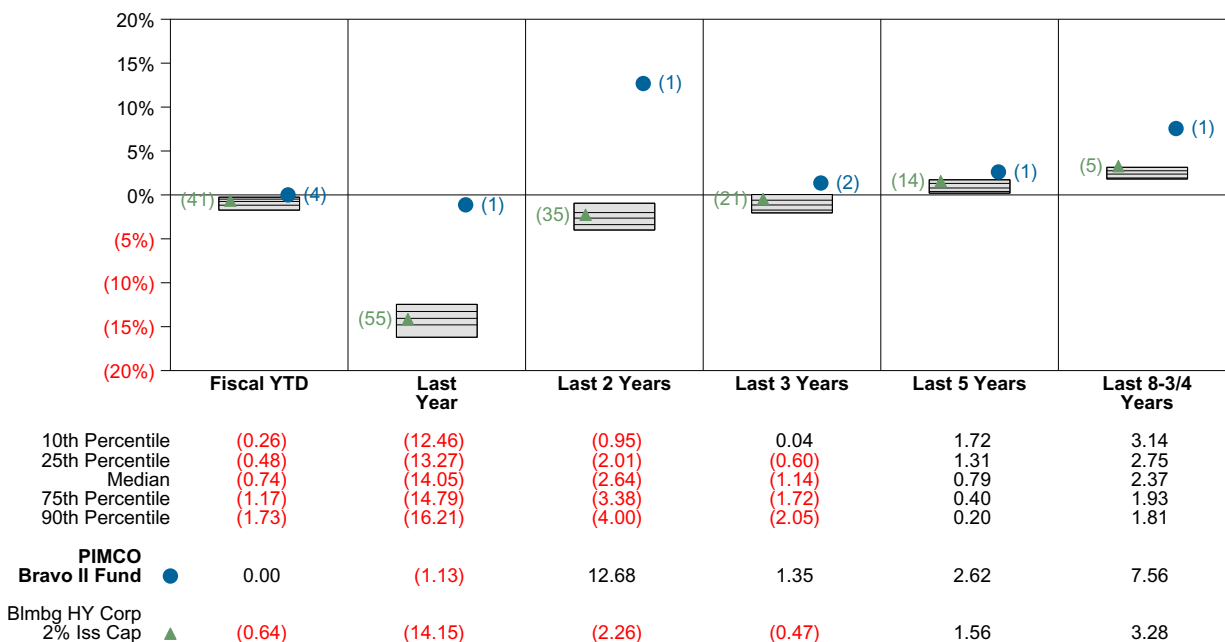
Quarterly Summary and Highlights

- PIMCO Bravo II Fund'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.
- PIMCO Bravo II Fund's portfolio outperformed the Blmbg HY Corp 2% Iss Cap by 0.64% for the quarter and outperformed the Blmbg HY Corp 2% Iss Cap for the year by 13.02%.

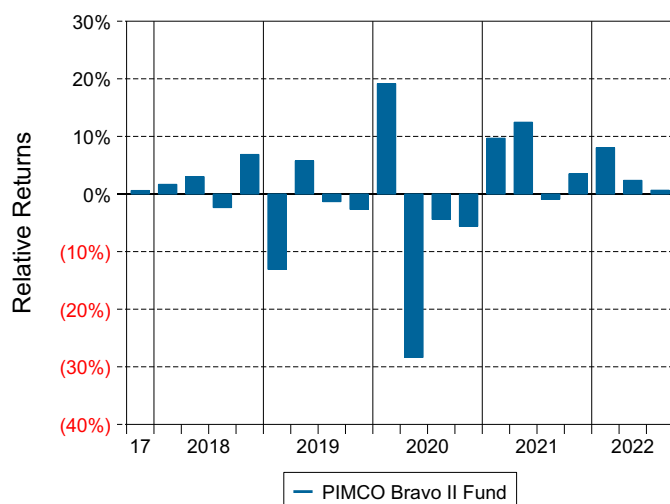
Quarterly Asset Growth

Beginning Market Value	\$7,340,655
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$7,340,655

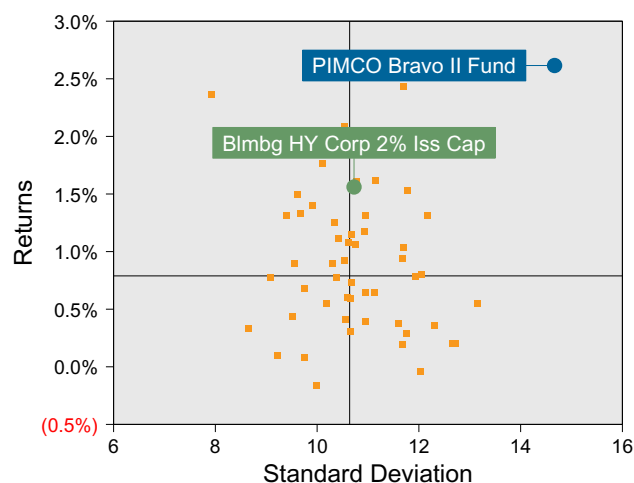
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs Blmbg HY Corp 2% Iss Cap



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



Real Estate Period Ended September 30, 2022

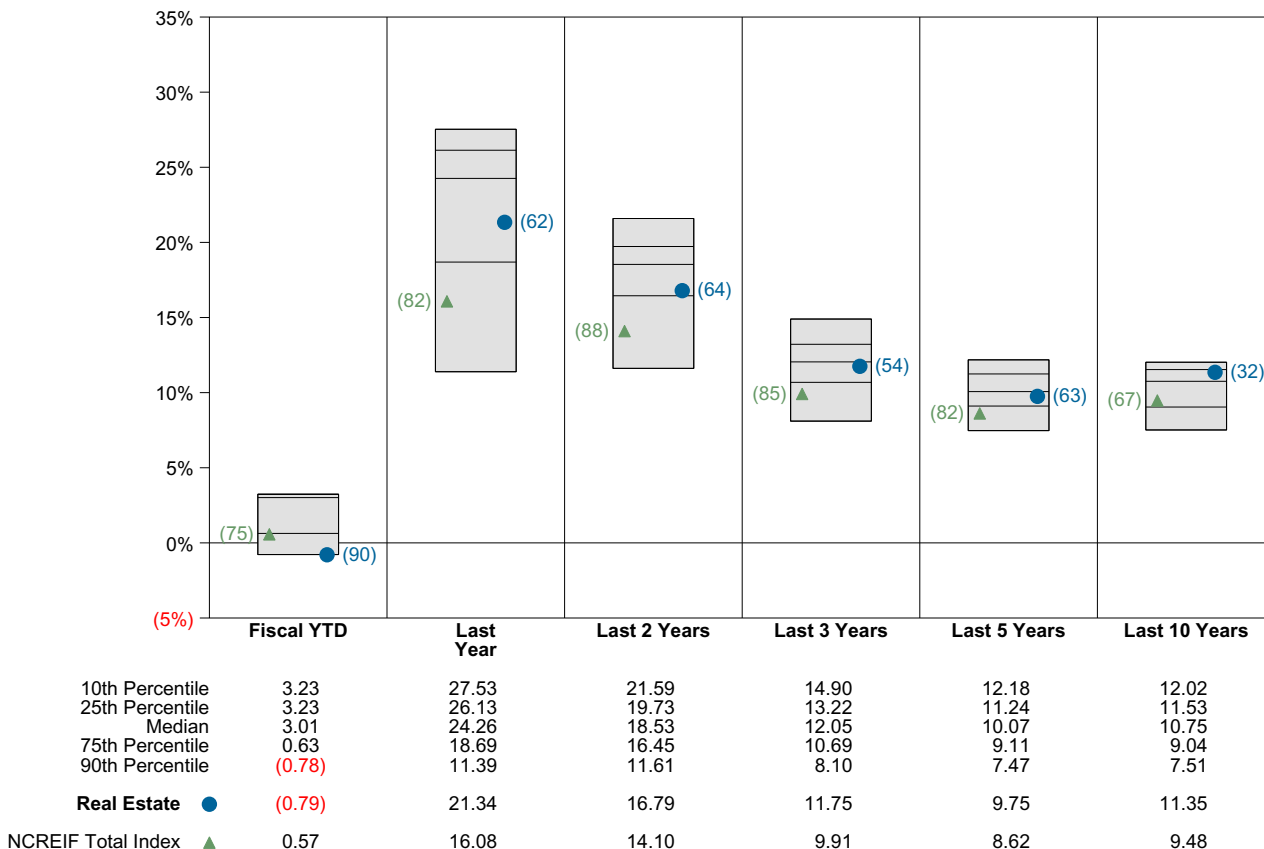
Quarterly Summary and Highlights

- Real Estate's portfolio posted a (0.79)% return for the quarter placing it in the 90 percentile of the Public Fund - Real Estate group for the quarter and in the 62 percentile for the last year.
- Real Estate's portfolio underperformed the NCREIF Total Index by 1.36% for the quarter and outperformed the NCREIF Total Index for the year by 5.26%.

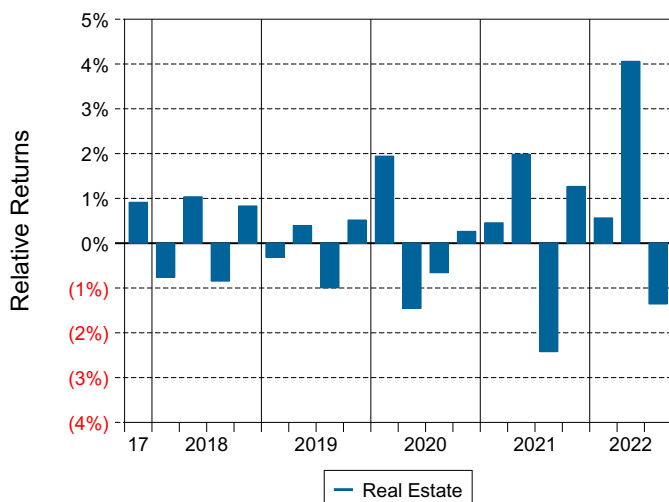
Quarterly Asset Growth

Beginning Market Value	\$882,219,637
Net New Investment	\$33,126,592
Investment Gains/(Losses)	\$-7,030,298
Ending Market Value	\$908,315,931

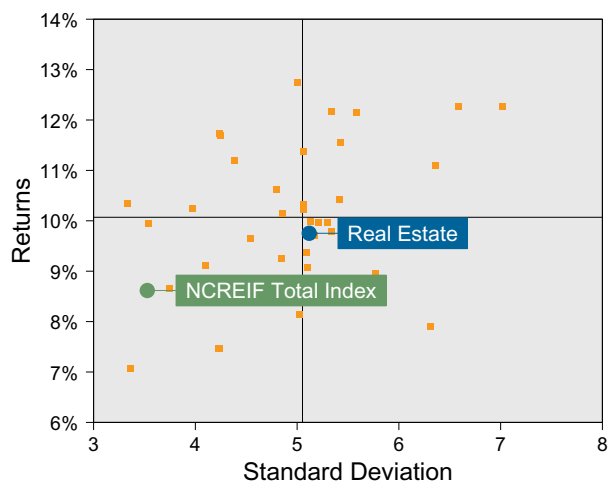
Performance vs Public Fund - Real Estate (Gross)



Relative Return vs NCREIF Total Index



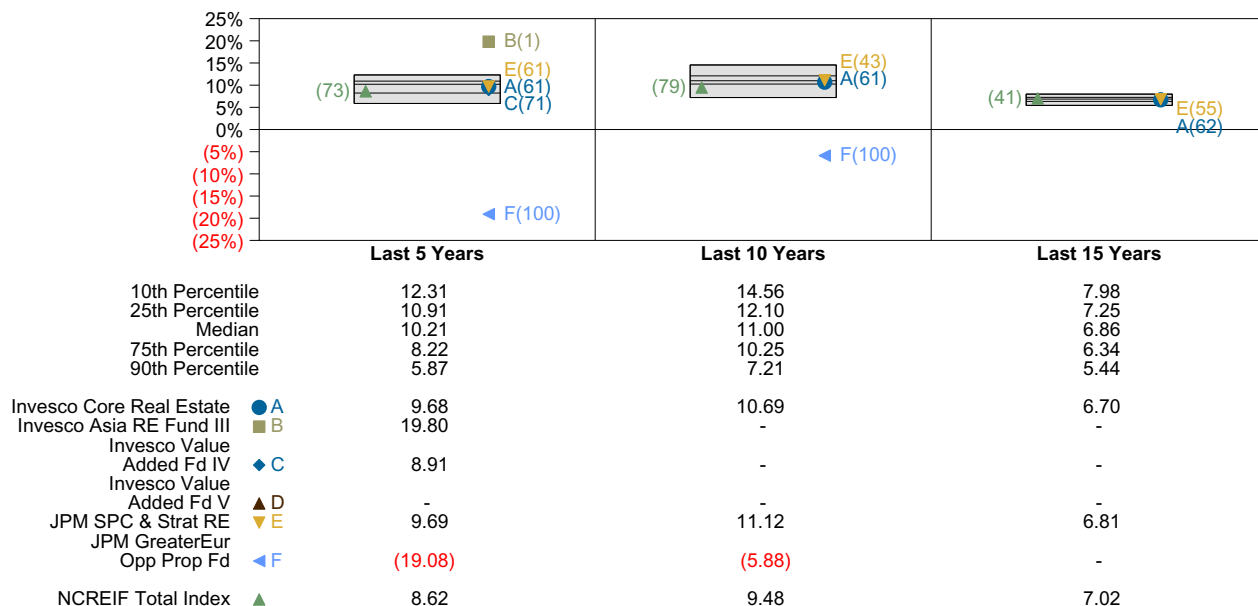
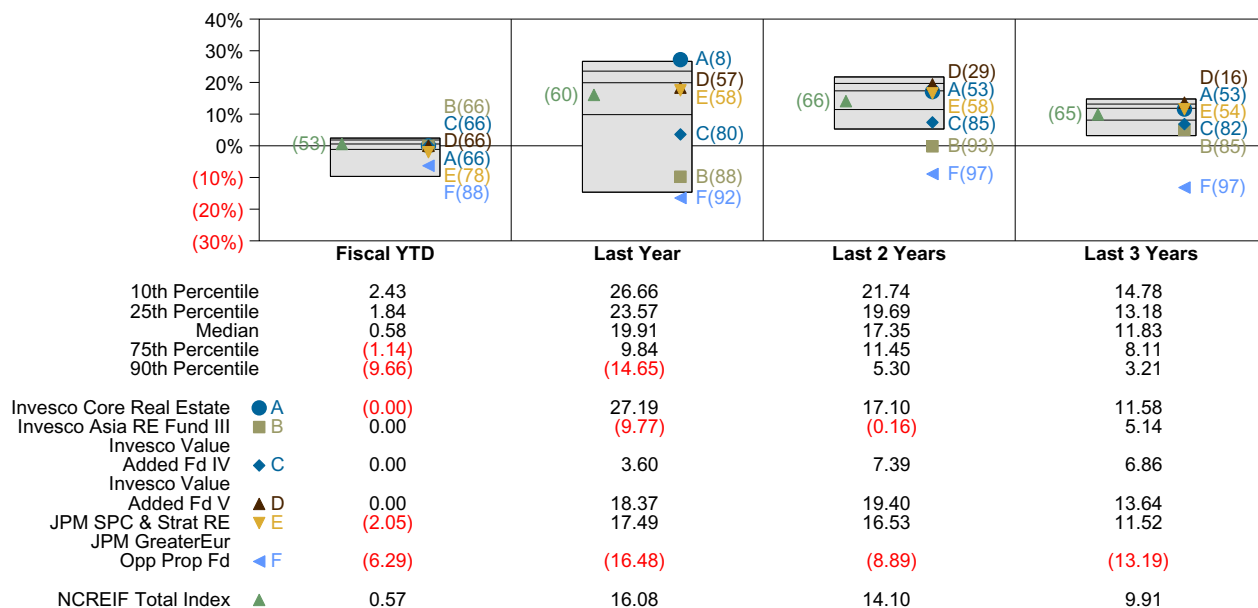
Public Fund - Real Estate (Gross) Annualized Five Year Risk vs Return



North Dakota State Investment Board Pension Funds Performance vs Callan Total Domestic Real Estate DB Periods Ended September 30, 2022

Return Ranking

The chart below illustrates fund rankings over various periods versus the Callan Total Domestic Real Estate DB. The bars represent the range of returns from the 10th percentile to the 90th percentile for each period for all funds in the Callan Total Domestic Real Estate DB. The numbers to the right of the bar represent the percentile rankings of the funds being analyzed. The table below the chart details the rates of return plotted in the graph above.



TIR Teredo

Period Ended September 30, 2022

Investment Philosophy

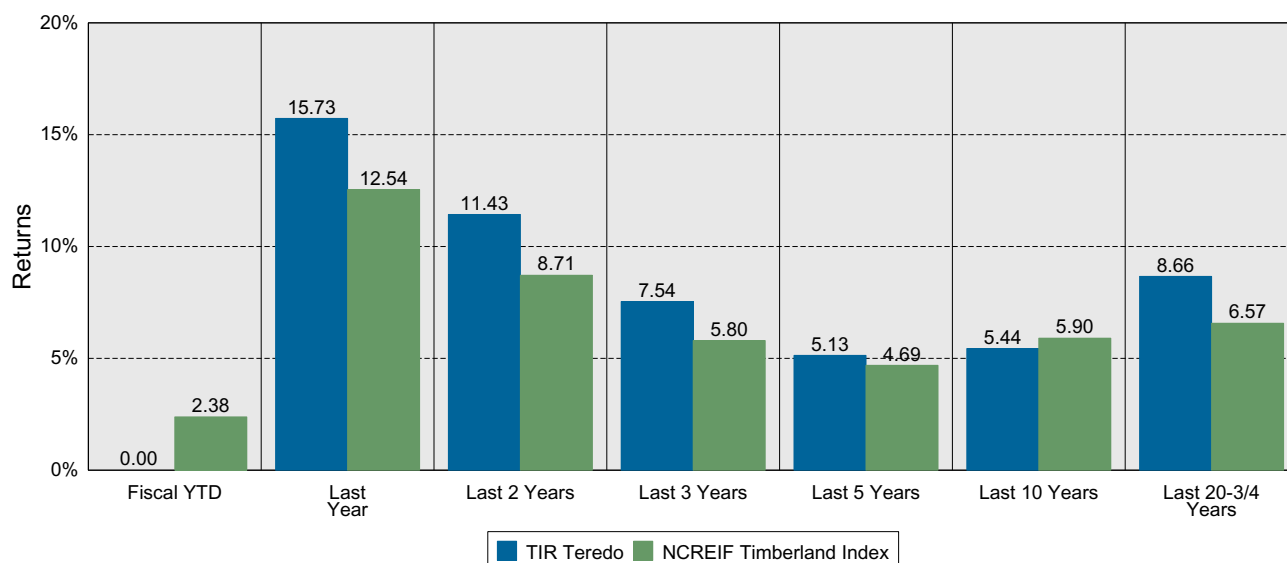
Teredo Timber LLC - The investment objective of Teredo is to provide competitive investment returns from increasing saw timber production through the 20 year term of the partnership. TIR's management strategy is to maximize saw timber volume by applying intensive forest management techniques which accelerate growth through the diameter class distribution. Periodic cash flows are produced from thinning and final harvests of the individual timber stands.

Quarterly Summary and Highlights

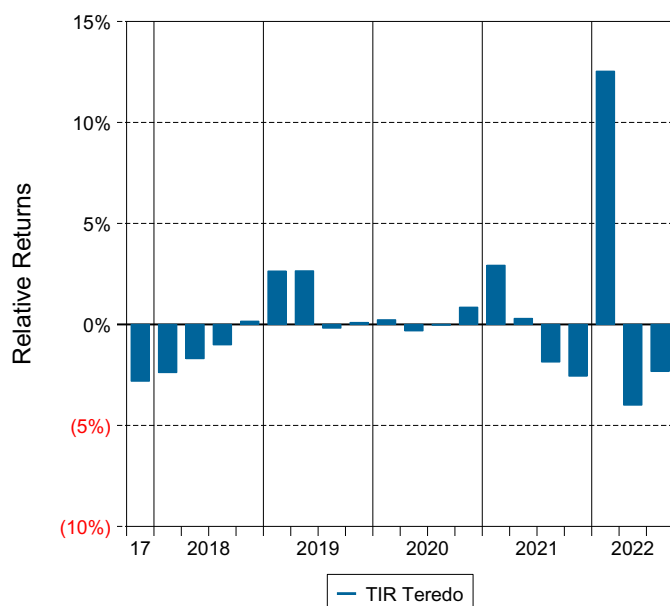
- TIR Teredo's portfolio underperformed the NCREIF Timberland Index by 2.38% for the quarter and outperformed the NCREIF Timberland Index for the year by 3.18%.

Quarterly Asset Growth

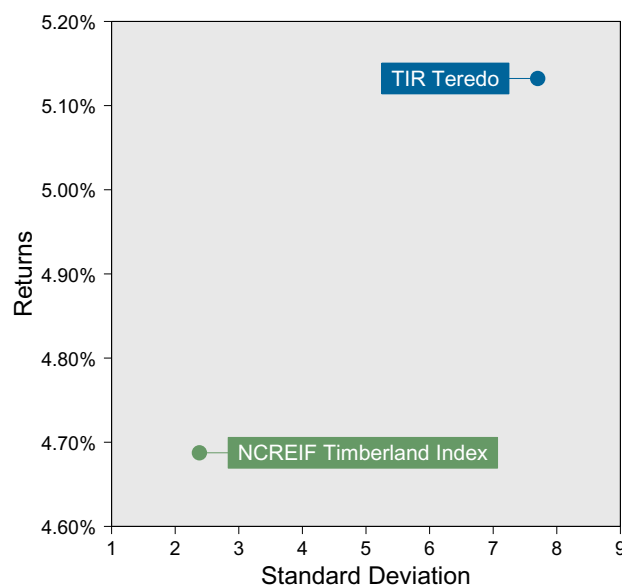
Beginning Market Value	\$20,272,958
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$20,272,958



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



TIR Springbank Period Ended September 30, 2022

Investment Philosophy

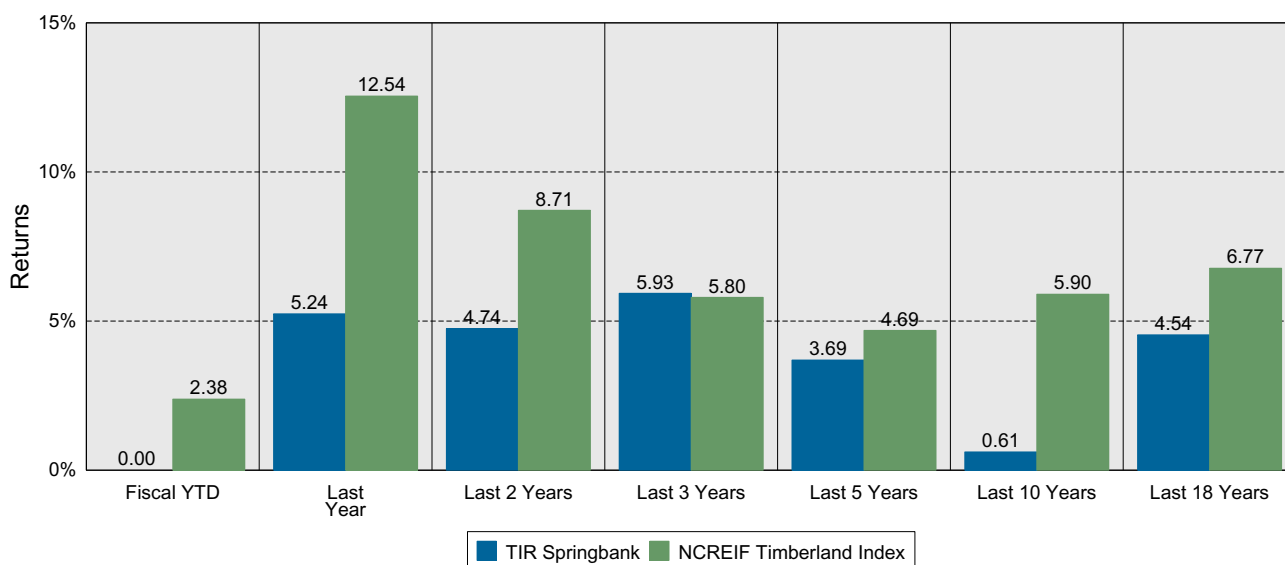
Springbank LLC - The investment objective of Springbank is to maximize long-term investment potential by means of the formation of a dedicated land management group, intensive timber management to increase timber production, the coordination of timber harvesting with land management activities and direct marketing and selective real estate partnerships.

Quarterly Summary and Highlights

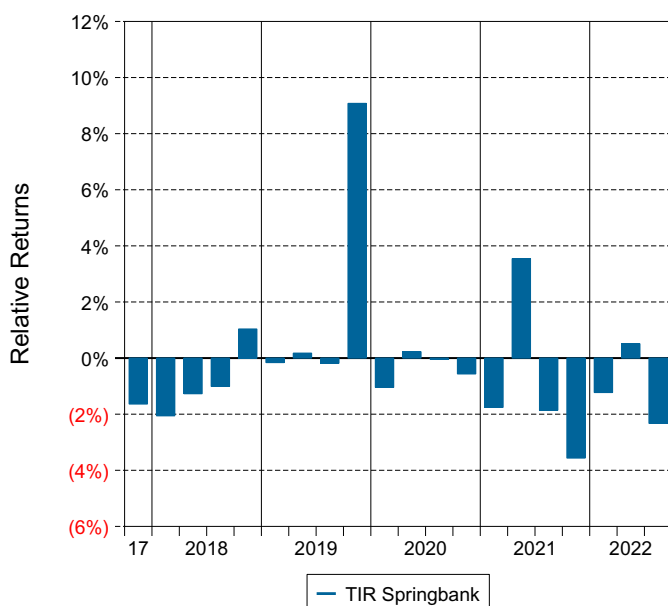
- TIR Springbank's portfolio underperformed the NCREIF Timberland Index by 2.38% for the quarter and underperformed the NCREIF Timberland Index for the year by 7.30%.

Quarterly Asset Growth

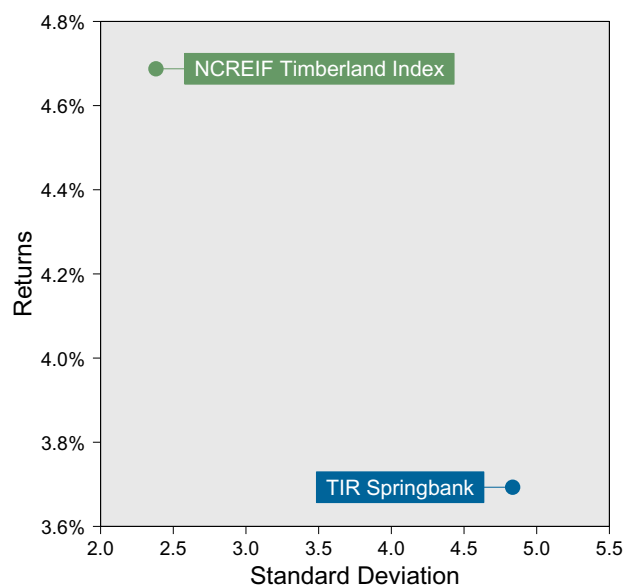
Beginning Market Value	\$80,063,382
Net New Investment	\$-6,080,000
Investment Gains/(Losses)	\$0
Ending Market Value	\$73,983,382



Relative Return vs NCREIF Timberland Index



Annualized Five Year Risk vs Return



ISQ Global Infrastructure II Period Ended September 30, 2022

Investment Philosophy

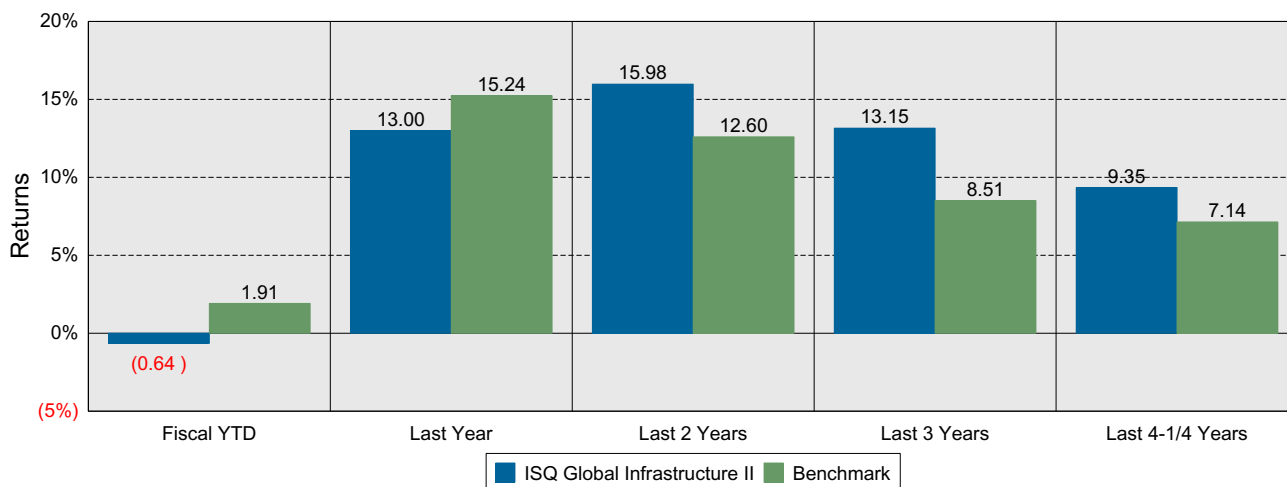
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia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

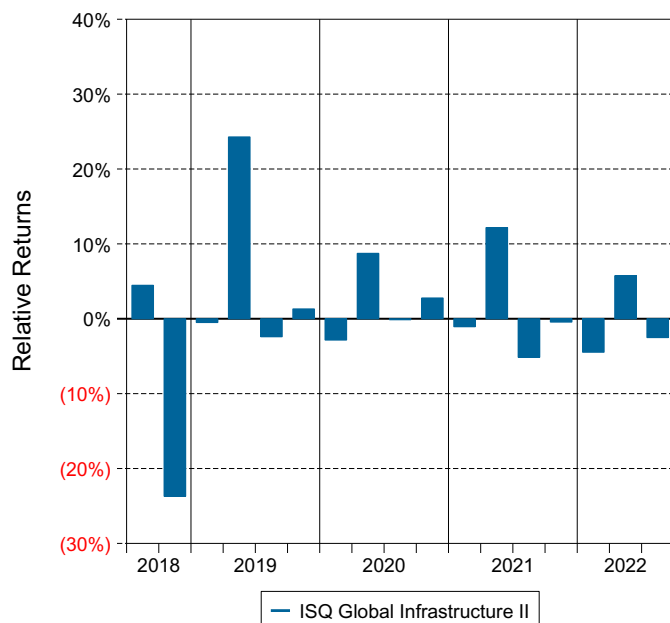
- ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 2.56% for the quarter and underperformed the Benchmark for the year by 2.24%.

Quarterly Asset Growth

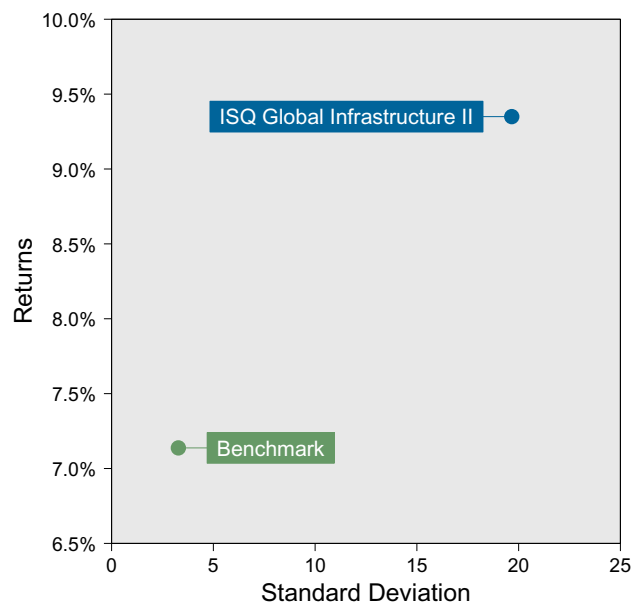
Beginning Market Value	\$68,940,528
Net New Investment	\$3,062,336
Investment Gains/(Losses)	\$-450,647
Ending Market Value	\$71,552,217



Relative Return vs Benchmark



Annualized Four and One-Quarter Year Risk vs Return



ISQ Global Infrastructure III

Period Ended September 30, 2022

Investment Philosophy

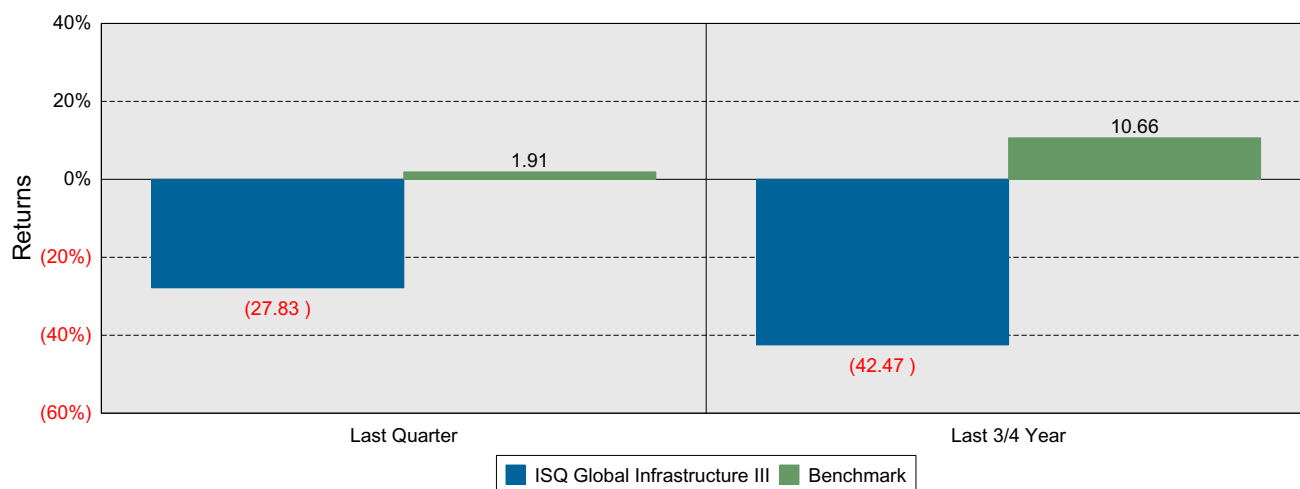
The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia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

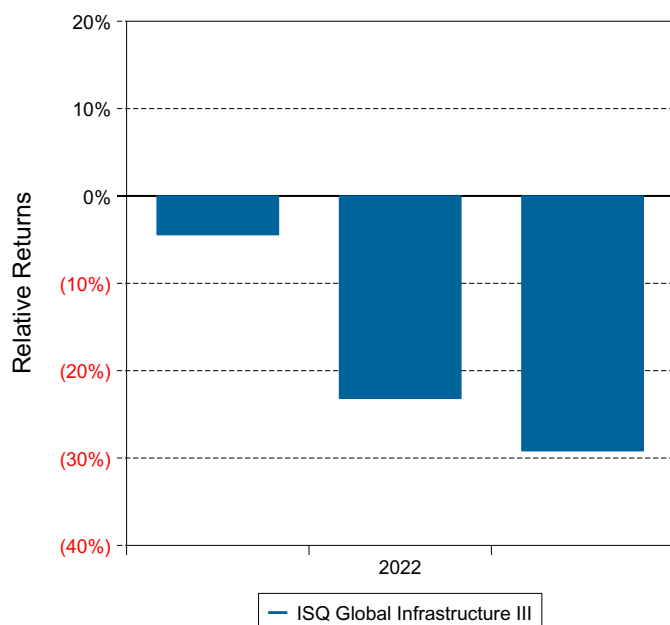
- ISQ Global Infrastructure III's portfolio underperformed the Benchmark by 29.74% for the quarter and underperformed the Benchmark for the three-quarter year by 53.13%.

Quarterly Asset Growth

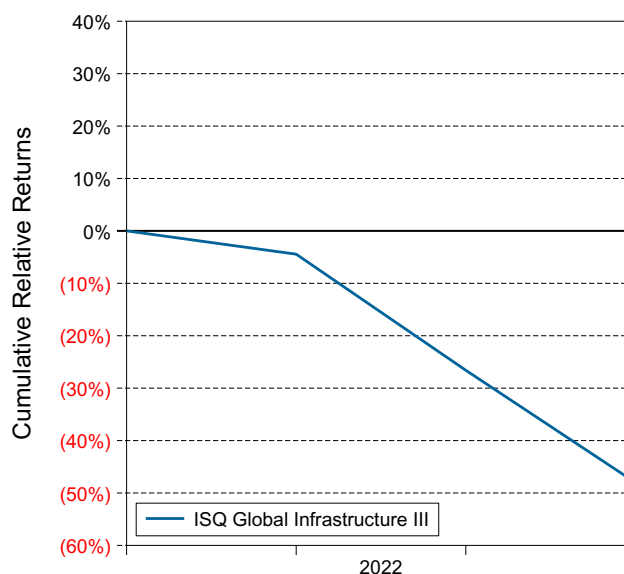
Beginning Market Value	\$3,756,632
Net New Investment	\$1,864,428
Investment Gains/(Losses)	\$-1,107,215
Ending Market Value	\$4,513,845



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



The Rohatyn Group Period Ended September 30, 2022

Investment Philosophy

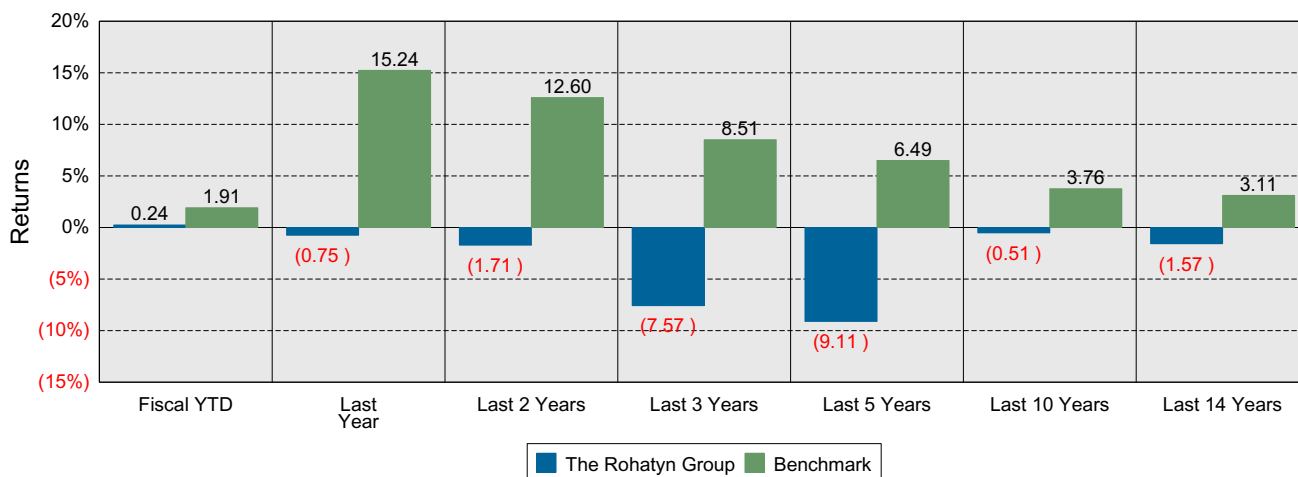
The Rohatyn Group's Asian Infrastructure & Related Resources Opportunity (AIRRO) Fund seeks to invest in infrastructure and related resources opportunities across the greater Asia Pacific region. The Fund seeks to invest in a broad range of assets, including: core infrastructure, power both from conventional and renewable sources, communications, water and waste-water, public works, urban development and other "social" infrastructure assets and related resources. The management of the AIRRO Fund was transferred from JP Morgan to The Rohatyn Group in May, 2018. **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

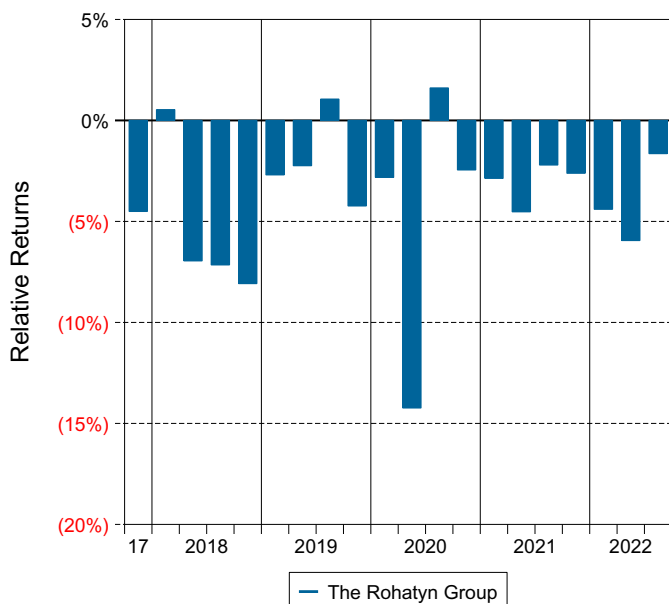
- The Rohatyn Group's portfolio underperformed the Benchmark by 1.67% for the quarter and underperformed the Benchmark for the year by 15.98%.

Quarterly Asset Growth

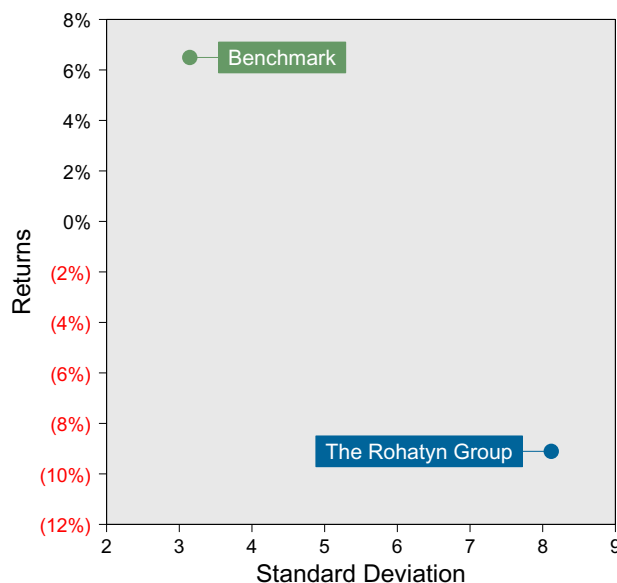
Beginning Market Value	\$15,872,694
Net New Investment	\$0
Investment Gains/(Losses)	\$38,017
Ending Market Value	\$15,910,711



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



JP Morgan IIF Infrastructure Period Ended September 30, 2022

Investment Philosophy

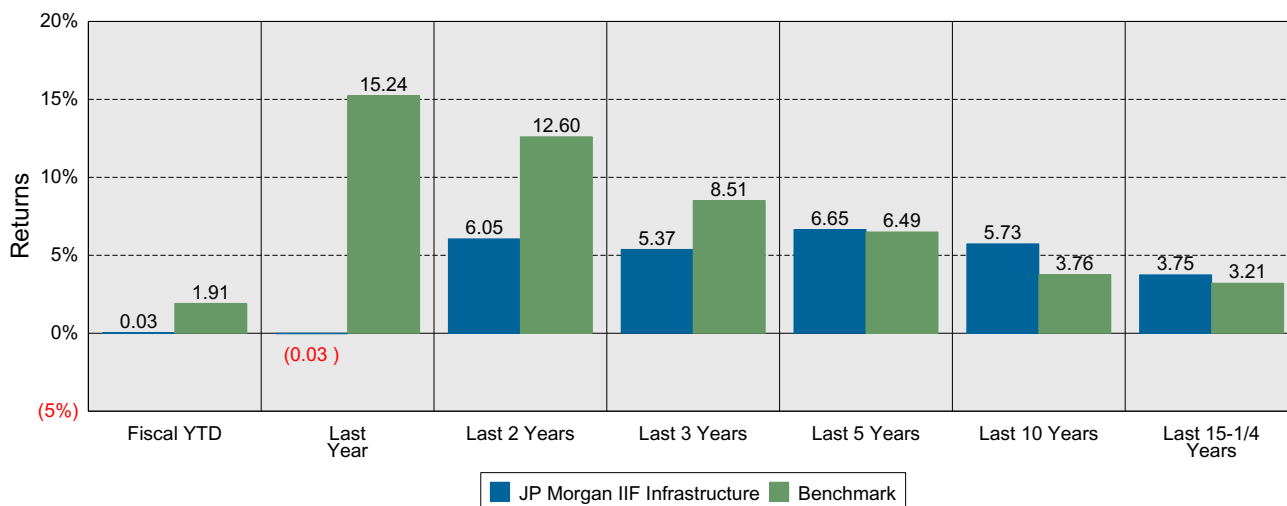
The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas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

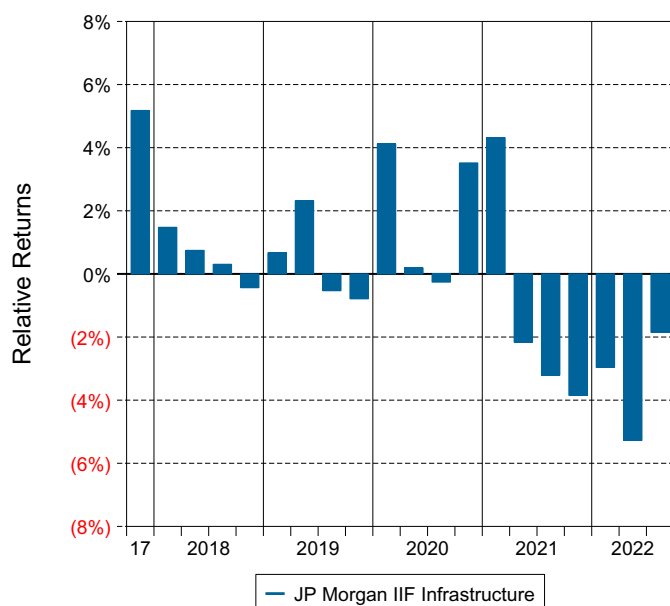
- JP Morgan IIF Infrastructure's portfolio underperformed the Benchmark by 1.88% for the quarter and underperformed the Benchmark for the year by 15.27%.

Quarterly Asset Growth

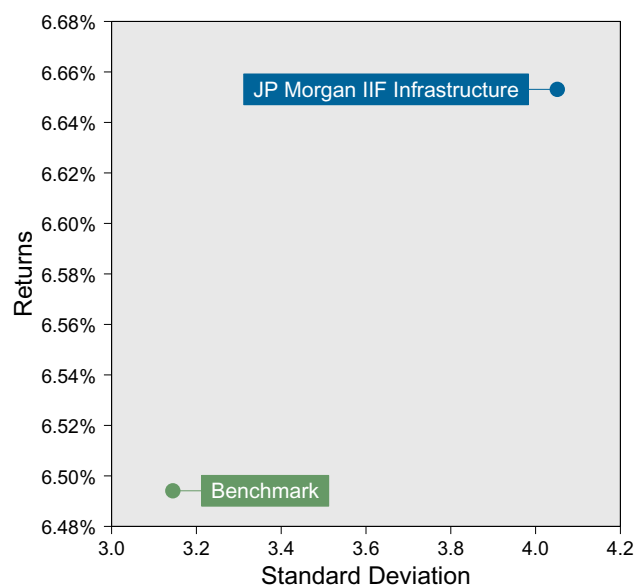
Beginning Market Value	\$124,576,611
Net New Investment	\$-2,158,205
Investment Gains/(Losses)	\$37,213
Ending Market Value	\$122,455,619



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund

Period Ended September 30, 2022

Investment Philosophy

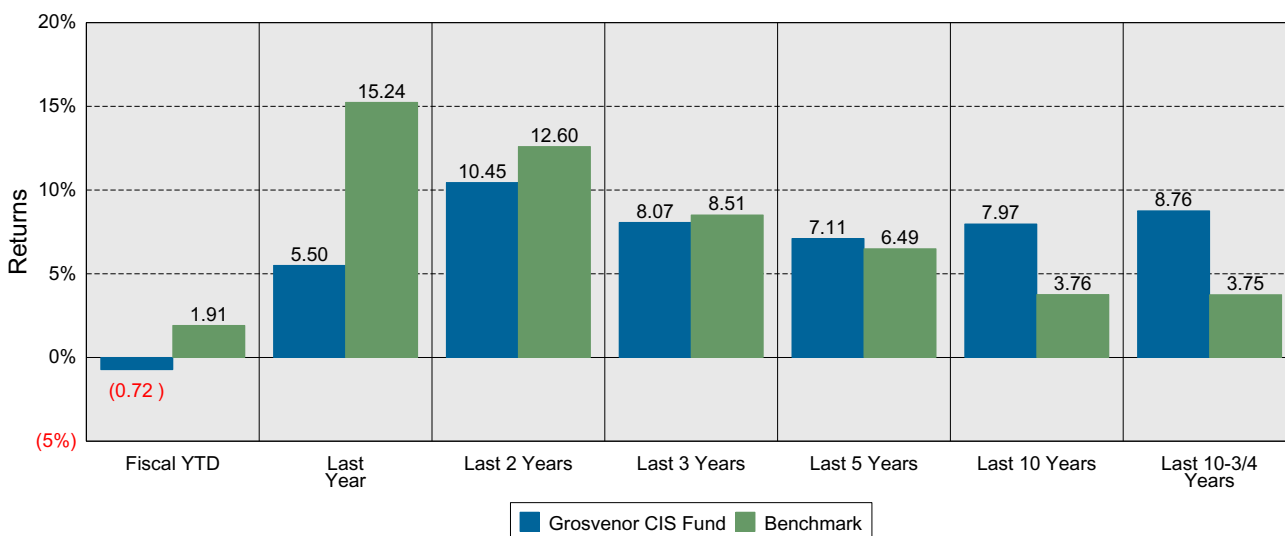
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified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

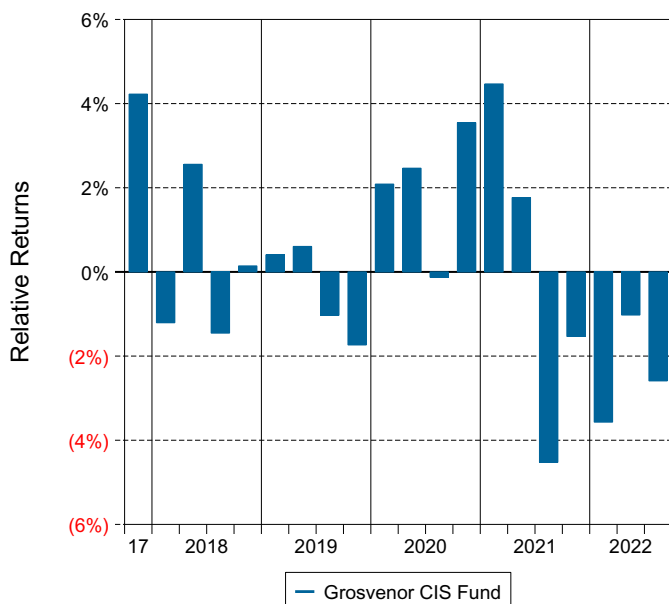
- Grosvenor CIS Fund's portfolio underperformed the Benchmark by 2.64% for the quarter and underperformed the Benchmark for the year by 9.74%.

Quarterly Asset Growth

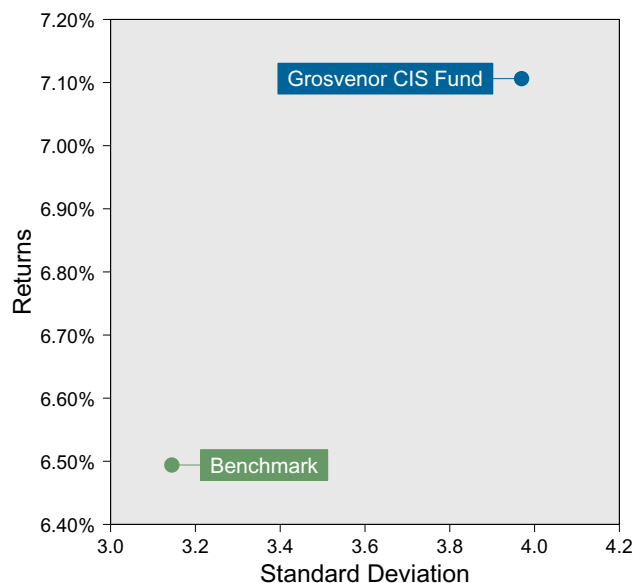
Beginning Market Value	\$11,187,728
Net New Investment	\$-1,171,780
Investment Gains/(Losses)	\$-74,276
Ending Market Value	\$9,941,672



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund II Period Ended September 30, 2022

Investment Philosophy

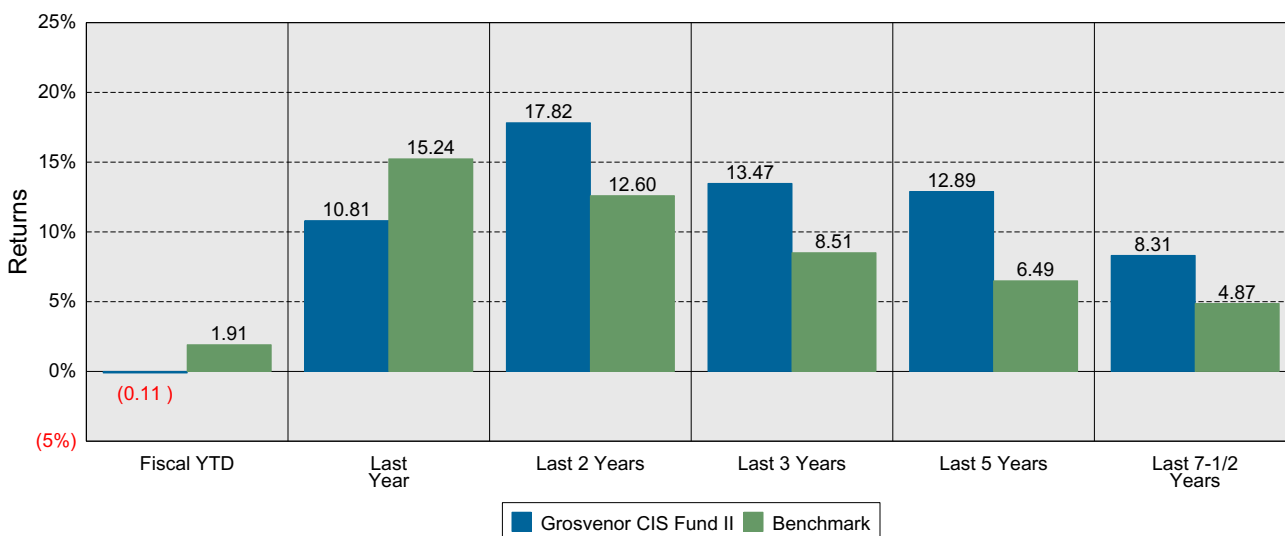
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified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

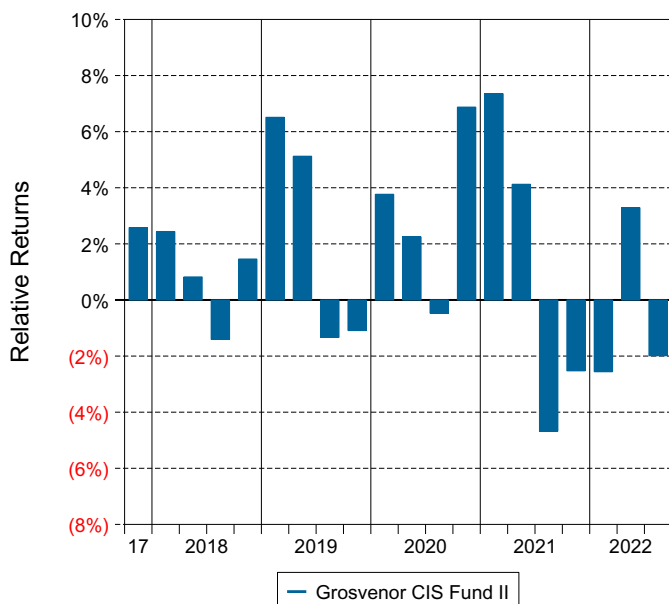
- Grosvenor CIS Fund II's portfolio underperformed the Benchmark by 2.02% for the quarter and underperformed the Benchmark for the year by 4.43%.

Quarterly Asset Growth

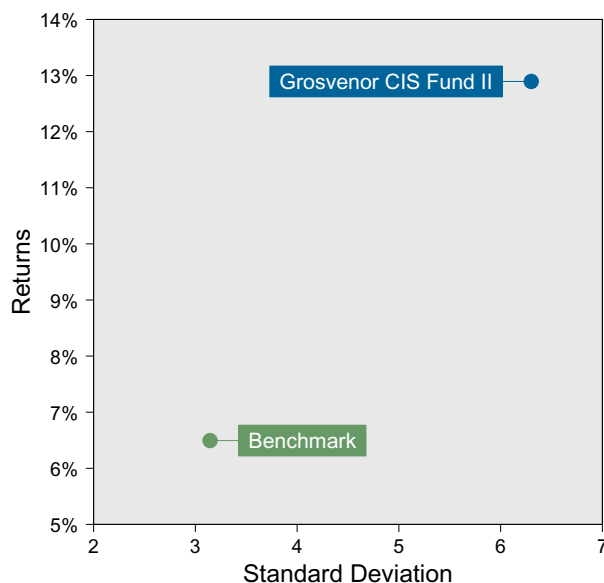
Beginning Market Value	\$22,718,632
Net New Investment	\$-263,680
Investment Gains/(Losses)	\$-24,622
Ending Market Value	\$22,430,330



Relative Return vs Benchmark



Annualized Five Year Risk vs Return



Grosvenor CIS Fund III Period Ended September 30, 2022

Investment Philosophy

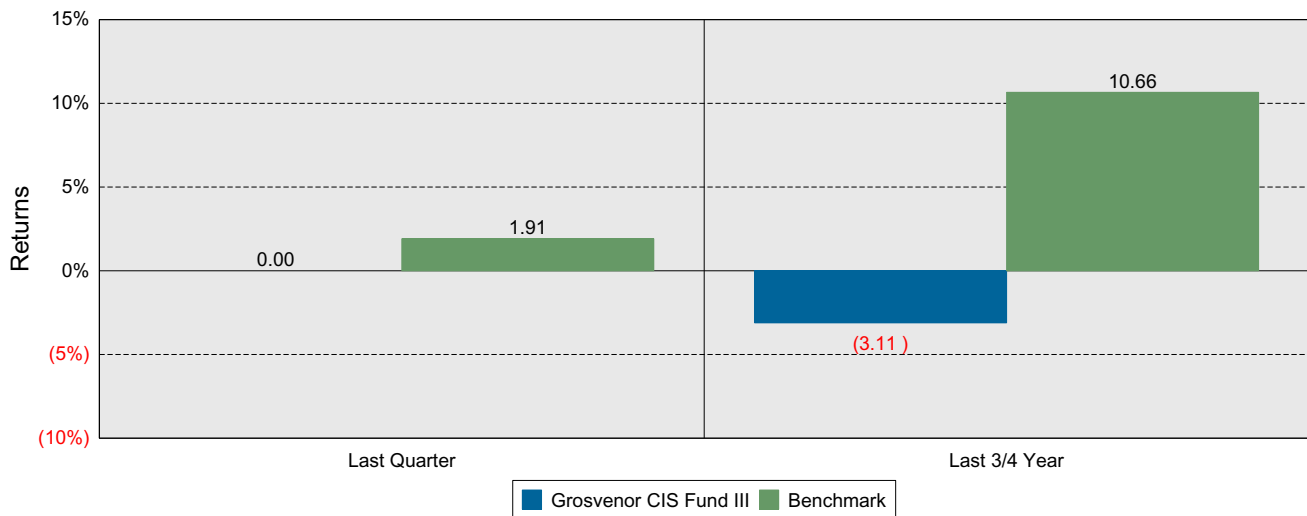
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified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

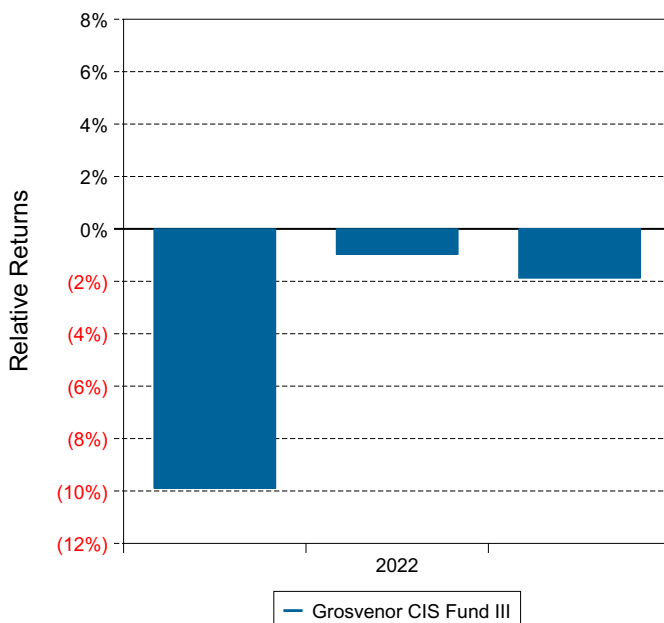
- Grosvenor CIS Fund III's portfolio underperformed the Benchmark by 1.91% for the quarter and underperformed the Benchmark for the three-quarter year by 13.77%.

Quarterly Asset Growth

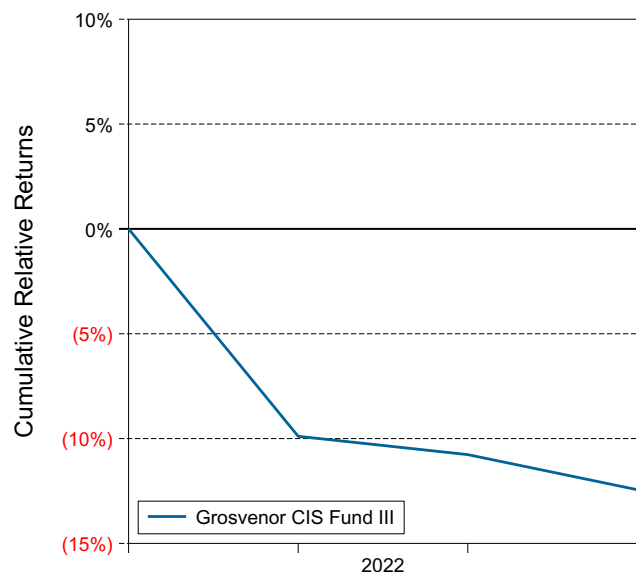
Beginning Market Value	\$16,693,451
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$16,693,451



Relative Return vs Benchmark



Cumulative Returns vs Benchmark



Macquarie Infrastructure Fund IV Period Ended September 30, 2022

Investment Philosophy

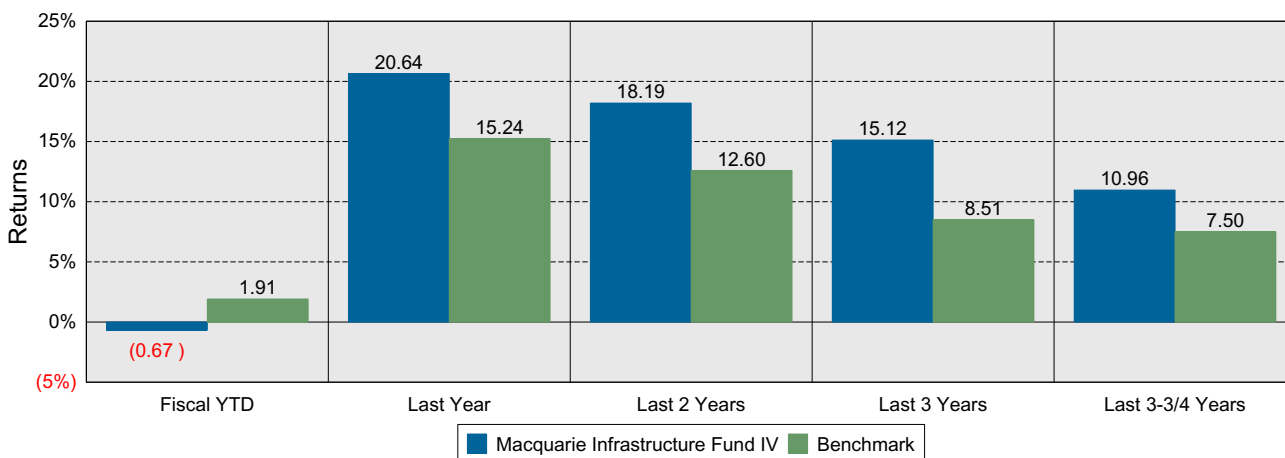
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience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

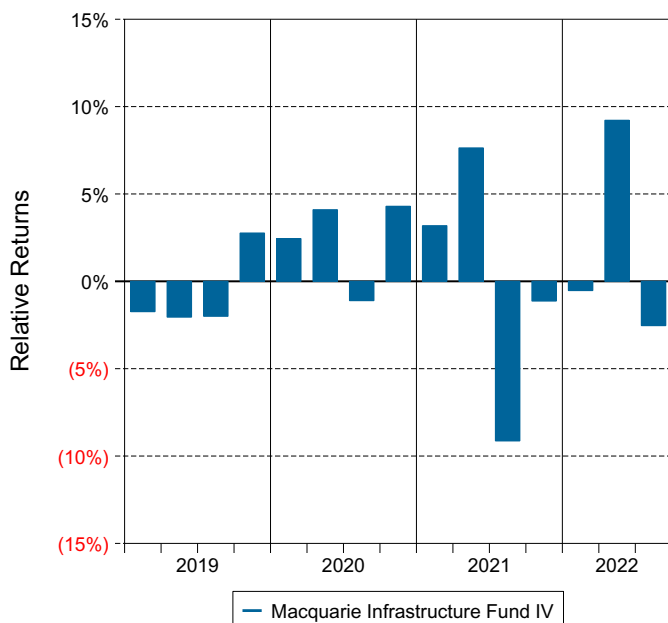
- Macquarie Infrastructure Fund IV's portfolio underperformed the Benchmark by 2.58% for the quarter and outperformed the Benchmark for the year by 5.41%.

Quarterly Asset Growth

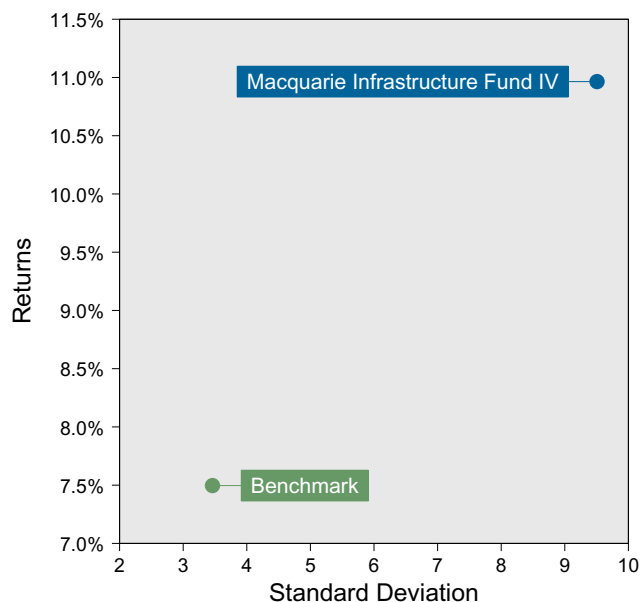
Beginning Market Value	\$75,574,881
Net New Investment	\$2,087,561
Investment Gains/(Losses)	\$-514,690
Ending Market Value	\$77,147,752



Relative Return vs Benchmark



Annualized Three and Three-Quarter Year Risk vs Return



Macquarie Infrastructure Fund V Period Ended September 30, 2022

Investment Philosophy

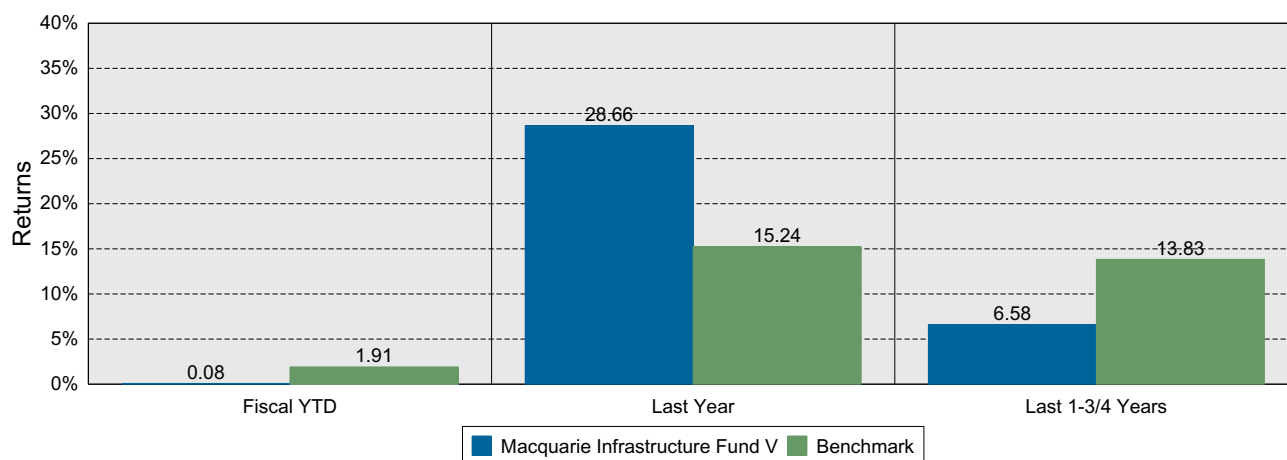
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience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

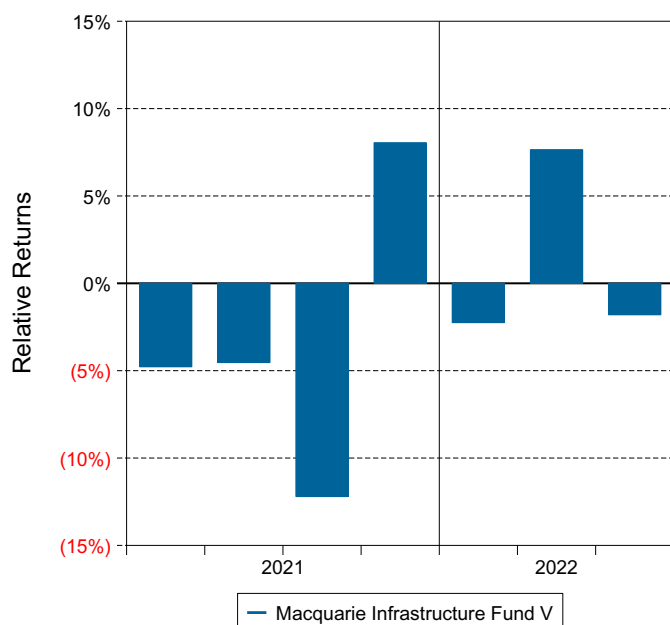
- Macquarie Infrastructure Fund V's portfolio underperformed the Benchmark by 1.83% for the quarter and outperformed the Benchmark for the year by 13.43%.

Quarterly Asset Growth

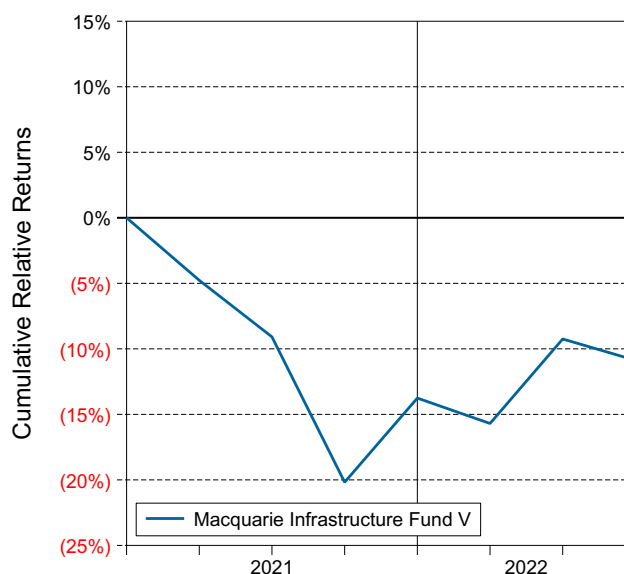
Beginning Market Value	\$46,475,010
Net New Investment	\$-38,321
Investment Gains/(Losses)	\$38,321
Ending Market Value	\$46,475,010



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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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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