# Callan

September 30, 2023

North Dakota State Investment Board Legacy Fund

Investment Measurement Service Quarterly Review

# Table of Contents September 30, 2023

Executive Summary	
Active Management Overview	2
Capital Market Review	3
Asset Allocation and Performance	
Actual vs Target Asset Allocation	19
Actual vs Target Asset Allocation	20
Quarterly Total Fund Attribution	21
Cumulative Total Fund Attribution	23
Historical Asset Allocation	31
Asset Class Rankings	32
Asset Class Allocation	33
Asset Class Returns	35
Domestic Equity	
Domestic Equity Overview	48
Domestic Equity Composite	49
Parametric-Clifton Enh R1000	65
L.A. Capital Large Cap Growth	75
L.A. Capital Enhanced	85
NTAM R1000 Index	95
NTAM Quant Enh R1000	102
NTAM R2000 Index	109
Atlanta Capital	116
Riverbridge Small Cap Growth	126
Sycamore Small Cap Value	133
International Equity	
International Equity Overview	141
International Equity Composite	142
William Blair Int'l Leaders	161
Arrowstreet ACWI ex US	172
State St MSCI World exUS	180
DFA International Small Cap Value	188
State St MSCI exUS Small	199
DFA EM All Cap Core	207
SSgA EM China	213
SSgA EM ex China	218
Private Equity	
Sixth Street TAO	224



# Table of Contents September 30, 2023

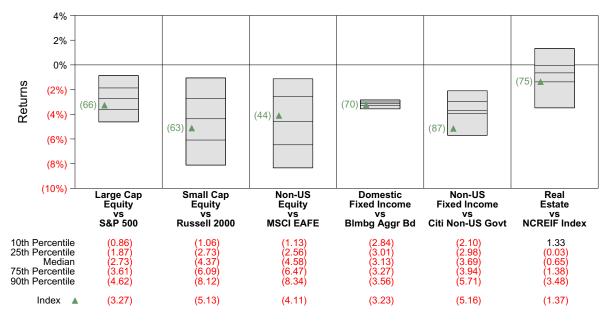
Domestic Fixed Income	
Domestic Fixed Income Overview	226
Bond Market Environment	227
Domestic Fixed Income Composite	228
Ares ND Credit Strategies Fund	241
Cerberus ND Private Credit Fund	243
Allspring Med Quality Credit	245
Manulife-Declaration TRBF	258
PIMCO Bravo Fund II	271
PIMCO DISCO II	273
Prudential Core Plus	275
State Street Gov Index	288
State Street Credit Index	289
Western Asset Core Plus	292
Real Estate	
Real Estate Overview	306
Invesco Core Real Estate	307
JP Morgan Inc & Growth Fd	312
Diversified	
Real Assets Overview	317
Western Asset Management TIPS	318
JP Morgan IIF Infrastructure	319
Grosvenor CIS Fund II	320
Grosvenor CIS Fund III	321
ISQ Global Infrastructure II	322
ISQ Global Infrastructure III	323
Macquarie Infrastructure Fund IV	324
Macquarie Infrastructure Fund V	325
Callan Research/Education	326
Disclosures	320

# Market Overview Active Management vs Index Returns

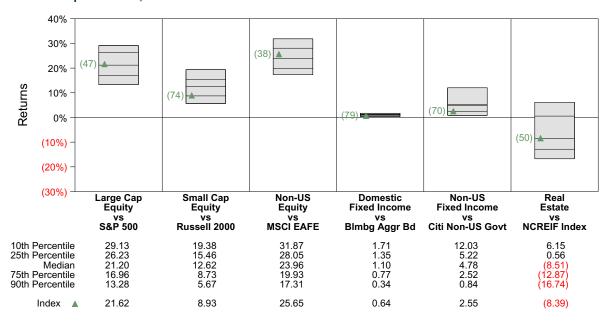
#### **Market Overview**

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.

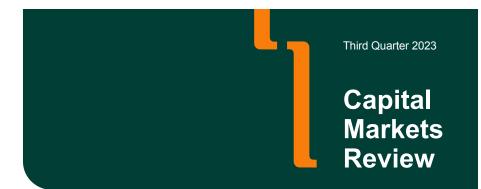
## Range of Separate Account Manager Returns by Asset Class One Quarter Ended September 30, 2023



#### Range of Separate Account Manager Returns by Asset Class One Year Ended September 30, 2023









# Stunning Growth but Clouds Loom Ahead

**ECONOMY** 

A year ago, a recession was on all forecasters' radar. Now ... not so much. GDP stunned with a 4.9% 3Q23 gain, after strong reports in 1Q and 2Q. This despite a number of headwinds, such as war, inflation, and rate hikes. And there are more shocks in store.

# Aggregate on Track Priv

FIXED INCOME

The Bloomberg Aggregate fell in 3Q, with the rise in yields continuing to detract from performance.
U.S. Treasuries continued to climb, with the 10-year ending the quarter at 4.6%. Developed markets sold off as long-term inflation moved higher. Emerging markets also fell.

# Returns Easily Exceed Leveraged Loans

PRIVATE CREDIT

Private credit has generated a net IRR of 11.8% over the three years ending 2Q23, easily exceeding leveraged loans. And continued 3Q23 rate rises across the yield curve have made private credit even more attractive than in the past for many institutional investors.

# **Lagging Bond Gains Hinder Performance**

INSTITUTIONAL INVESTORS

While equity gains helped, low fixed income returns left all major investor types lagging a 60% stocks/40% bonds benchmark over the last year ending 3Q23. Most investor types matched or nearly equaled the gains of the 60%/40% benchmark over the last 20 years.

# Private RE, REITs Both Show Drops in Quarter

REAL ESTATE/REAL ASSETS

The NCREIF Property Index, a measure of U.S. institutional real estate assets, fell 1.4% during 3Q23. The NCREIF Open-End Diversified Core Equity (ODCE) Index dropped 1.9%. REITs, both in the U.S. and globally, also fell and underperformed equities.

# Most Strategies Slightly Higher

HEDGE FUNDS/MACs

Geopolitics and an elevated rate environment helped set a backdrop for strong alpha generation for hedge funds. Managers continue to see high dispersion between winners and losers in the stock market, which will favor stock selection and alpha generation over beta returns.

# All Indices Decline During Tough Quarter

EQUITY

All U.S. equity indices posted negative returns posted negative returns in 3Q, and only 2 of the 11 S&P 500 sectors were up. The Russell 2000 Value Index led the pack in a tough quarter. Global markets retreated amid fears of a worldwide recession driven by higher interest rates and slowing growth.

# Focus on Exits as Activity Dipped

PRIVATE EQUITY

Private equity activity measures generally dipped in 3Q23 compared to the previous quarter, except for some increases in exit measures. While continued volatility is expected to hamper volumes, GPs are keenly focused on providing liquidity.

# 2Q23 Finishes With Third Straight Gain

**DEFINED CONTRIBUTION** 

The Callan DC Index™ gained again in 2Q23, while balances also rose again. While target date funds, as is typical, saw the largest increase in net flows, stable value saw big outflows for the third straight quarter, while money market saw small net inflows.

# 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

# **Stunning Growth as Clouds Loom**

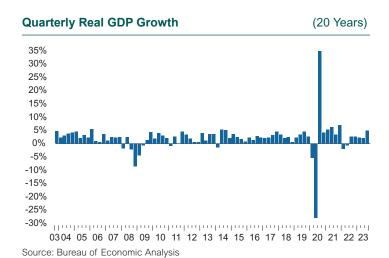
#### **ECONOMY** | Jay Kloepfer

A year ago, no one saw this coming. Recession was on everyone's radar for 2023, and the only disagreement was the quarter in which it would show up. Then the U.S. economy generated 2.2% GDP growth in 1Q and another 2.1% in 2Q. The strong job market continued to add new jobs, inflation came down from the 9% spike last summer, and wage growth boosted consumer incomes and spending. Now 3Q GDP has clocked a stunning 4.9% gain, mocking all those who try to predict economic growth (including us). This despite the Federal Reserve's rate hikes, the war in Ukraine, elevated inflation, and geopolitical uncertainty. How are we defying economic gravity?

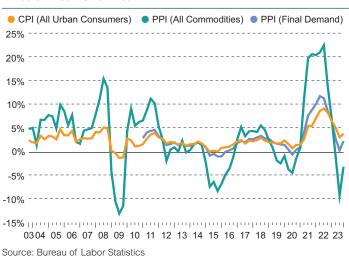
The robust 3Q economic report is the result of strong retail sales, industrial production, and investment in inventory. Retail sales came in much stronger than expected, driven by demand for building materials, recreational goods, and vehicles, as well as core goods such as food and household items. Growth in total consumption expenditures has been broad-based and spread across both goods and services, and it accounted for more than half of GDP growth in 3Q. This surge in spending suggests that many U.S. consumers feel financially secure and are spending freely in a tight labor market.

Headline inflation fell from 9% (year-over-year) in June 2022 to 3% in June 2023, a remarkable reduction. The decline likely reflected both the un-knotting of global supply chains following the pandemic, and the efforts of the Federal Reserve and central banks around the globe to contain inflation with higher interest rates. The lower rates also reflected a denominator effect, perhaps twice, in which the sharp rise in 2022 came off an abnormally low base for prices set during the lockdown in 2020 and 2021, and price increases were measured during the first half of 2023 against the now-higher prices set in 2022. However, headline inflation (including food and energy) edged back up in each of the last three months.

Labor markets are tight. The U.S. economy added 336,000 new jobs in September and has created an average of 260,000 per month this year. (For reference, a monthly rate of 200,000 suggests continuing growth in the economy.) The unemployment rate



#### Inflation Year-Over-Year



remains below 4%, coming in at 3.8% in September. Finally, the Job Openings and Labor Turnover Survey (JOLTS) reported that the U.S. economy had 9.6 million job openings at the end of August, and 6.4 million unemployed people, so a ratio of unemployed people to job openings of just 0.7.

The current strong GDP growth suggests we may not see an easing in tight labor markets for some time. Hence, the prospect for continued inflationary pressure from the labor market is high. Average hourly earnings have grown between 4.0% and 5.0% (annual rate) during the first three quarters of 2023, meaning real wages finally turned positive starting in May, and this real growth carried through

September (wage growth is exceeding inflation). Inflation has come down significantly from its 2022 peak, but getting down to the Fed's stated goal of 2% will take more time, and some discomfort.

The housing market is in a conundrum. Housing starts have fallen in response to substantially higher mortgage rates, but not as much as might be expected. After plummeting earlier in the year, single-family starts rose 3.2% in September, while multi-family starts surged 17.6%. The single-family housing market is historically tight—and tightening. Inventory of homes for sale declined for the eighth straight month in August to 857,000, a record low. Low inventory has driven home prices up, and with mortgage rates at 7.5%, buying a home is increasingly unaffordable. As a result, sales of existing homes have collapsed.

If we thought clouds loomed at the start of 2023, there are more now. Interest rates are higher still and financial conditions are tight. Geopolitical uncertainty has certainly not abated (the conflict in the Middle East began in the fourth quarter and is not reflected in 3Q data). Another shutdown of the U.S. government is lurking. The full impact of higher interest rates is working through the real estate market, the cost of capital, the cost of home ownership, and the cost of debt to government, business, and consumers. The UAW strike began in mid-September, and the impact will likely show up in 4Q. The bond market has been calling for a recession since May 2022, with an inverted yield curve, and the curve has only become more inverted over the past year.

Expectations that the Fed would be done with rate hikes and would soon revert to rate easing have been continually thwarted by the strength in the job market, in industrial activity, in exports and by strong consumption expenditures. Financial conditions tightened toward the end of 3Q as investors pushed up yields on the long end

The Long-Term View

		P	eriods	Ended	9/30/23
Index	3Q23	1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	-3.3	20.5	9.1	11.3	8.1
S&P 500	-3.3	21.6	9.9	11.9	7.9
Russell 2000	-5.1	8.9	2.4	6.6	8.0
Global ex-U.S. Equity					
MSCI EAFE	-4.1	25.6	3.2	3.8	4.8
MSCI ACWI ex USA	-3.8	20.4	2.6	3.3	
MSCI Emerging Markets	-2.9	11.7	0.6	2.1	
MSCI ACWI ex USA Small Cap	-1.7	19.0	2.6	4.3	7.4
Fixed Income					
Bloomberg Agg	-3.2	0.6	0.1	1.1	3.6
90-Day T-Bill	1.3	4.5	1.7	1.1	1.9
Bloomberg Long G/C	-9.4	-2.9	-1.2	1.9	4.7
Bloomberg GI Agg ex US	-4.0	3.4	-3.1	-1.7	2.0
Real Estate					
NCREIF Property	-1.4	-8.4	5.3	7.4	8.3
FTSE Nareit Equity	-7.1	3.0	2.8	6.0	8.5
Alternatives					
CS Hedge Fund	0.5	6.3	5.0	4.5	6.5
Cambridge PE*	1.6	2.7	15.4	14.9	13.7
Bloomberg Commodity	4.7	-1.3	6.1	-0.7	2.4
Gold Spot Price	-3.3	11.6	9.3	3.5	7.6
Inflation – CPI-U	0.9	3.7	4.0	2.8	2.6

\*Data for most recent period lags. Data as of 2Q23.

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

of the Treasury curve. This tightening may less reflect a change in expectations for short-term monetary policy than investors' lower demand for term risk, as banks lower allocations to Treasuries. Investor sentiment also may indicate concern about our Congress. That the U.S. economy continues to thrive through such crosswinds has been both remarkable and baffling.

#### **Recent Quarterly Economic Indicators**

	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22
Employment Cost: Total Compensation Growth	4.3%	4.5%	4.8%	5.1%	5.0%	5.1%
Nonfarm Business: Productivity Growth	4.7%	3.6%	-0.8%	1.6%	0.4%	-3.6%
GDP Growth	4.9%	2.1%	2.2%	2.6%	2.7%	-0.6%
Manufacturing Capacity Utilization	77.8%	78.0%	78.2%	78.5%	79.4%	79.6%
Consumer Sentiment Index (1966=100)	69.6	62.3	64.6	58.8	56.1	57.8

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

# **Weak Bond Gains Hinder Performance in Last Year**

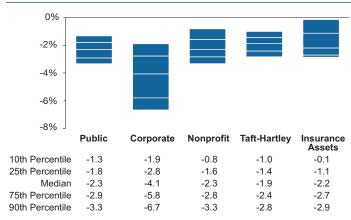
#### **INSTITUTIONAL INVESTORS**

- A big jump in equities over the year ending 3Q23 helped institutional investors' returns over that period, but weak fixed income performance left them trailing a composite index of 60% S&P 500/40% Bloomberg US Aggregate Bond Index.
- Corporate defined benefit (DB) plans, with their higher allocations to fixed income than most other investor types, fared worst among major investor types. Nonprofits slightly topped public DB plans.
- But the returns so far this year have helped make up for double-digit losses for calendar year 2022 for all investor types, and all major indices.
- Despite low gains for bonds over 20 years, most investor types nearly matched the gains of the 60%/40% composite, powered by strong gains from broad U.S. equities.
- Key issues for institutional investors now include:
  - Inflation: Its fall eases some concerns for institutional investors, but the Fed remains on its mission to combat it
  - Stocks: Equity markets through 3Q23 continue to meet or outpace long-term expectations.
  - Bonds: The Bloomberg Aggregate faces its third straight year of losses.

- Asset-Allocation: Equity studies revisit active management while fixed income structures focus on the role of the asset class as it becomes more attractive.
- Alternatives: Interest varies widely by investor type.

### **Quarterly Returns, Callan Database Groups**

(9/30/23)



Source: Callan

### Callan Database Median and Index Returns\* for Periods Ended 9/30/23

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	-2.3	11.1	5.3	5.5	6.7	7.2
Corporate Database	-4.1	6.9	-0.3	3.2	5.2	6.6
Nonprofit Database	-2.3	11.5	5.2	5.2	6.2	7.1
Taft-Hartley Database	-1.9	9.8	5.4	5.4	6.8	6.9
Insurance Assets Database	-2.2	5.4	0.7	2.7	3.5	4.7
All Institutional Investors	-2.4	10.3	4.5	5.0	6.2	6.9
Large (>\$1 billion)	-2.1	9.4	5.5	5.6	6.7	7.2
Medium (\$100mm - \$1bn)	-2.5	10.3	4.7	5.0	6.3	7.0
Small (<\$100 million)	-2.6	11.0	4.2	4.7	5.9	6.6
60% S&P 500/40% Bloomberg Agg	-3.3	12.9	4.0	6.4	7.8	7.3

<sup>\*</sup>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.

#### **Public DB Plans**

- The average or median discount rate, according to the most recent NASRA survey, is 7.00%, which is now attainable without taking undue risk.
- For plans that measure at 6/30, the effect of investing in alternatives is measurable. Alternatives helped investors for FYE 2022 but are causing lags (when compared to nonalternatives investors) for FYE 2023.

## **Corporate DB Plans**

- Liabilities decreased slightly, reflecting a small increase in discount rates. Plans that were fully hedged experienced minimal funded status volatility over the quarter.
- Closed plans' liabilities continue to shorten from aging participants. We are seeing more and more interest in intermediate fixed income.

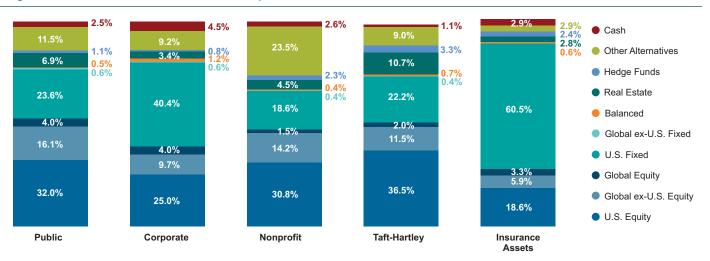
### **Nonprofits**

Interest in private credit remains strong. Inflation concerns continue to affect real returns. Finally, with fixed income yields approaching 5%, should allocations to fixed income be revisited?

#### **Defined Contribution Plans**

- Plan sponsors, recordkeepers, and payroll providers are actively engaging on what and how to implement SECURE 2.0; significant regulatory guidance is anticipated over the next two years.
- The IRS released guidance delaying the implementation of mandatory Roth catch-up contributions, based on income, until 2026.
  - An age 50 catch-up contribution must be Roth for those that earned more than \$145,000 the previous year.
  - To comply, those plans that don't offer Roth will need to add Roth as a plan feature; OR
  - Plans not able to track the previous year's earnings and feed to the recordkeeper will need to eliminate all age 50 catch-up contributions.
- Guidance also resolved a drafting error in SECURE 2.0 that had accidentally removed a provision that authorized any age-50 catch-up contributions.

#### 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**

#### Tough quarter for all indices

- All U.S. equity indices posted negative absolute returns during 3Q23.
- The Russell 2000 Value Index led the pack during the quarter, which was a reversal of the previous two quarters when the Russell 1000 Growth Index led.
- Only 2 of the 11 S&P 500 Index sectors gained in 3Q; Energy was up 12% and Communication Services rose 3%.
- On a YTD basis, six sectors generated positive returns, with Information Technology, Communication Services, and Consumer Discretionary substantially leading the group.

### Active management remains challenging for large cap

- Index concentration stayed notable within the Russell 1000
   Growth Index; the top 10 issuers comprised 51% of the index and the top 5 issuers comprised 40% of the index.
- YTD, 97% of the S&P 500's return has been driven by the 10 largest weighted stocks.

- The "Magnificent 7" has buoyed large cap index returns and has outperformed the broader market significantly. YTD, the Magnificent 7 alone is up 83%.
- No exposures or significant underweights to top benchmark names have been disadvantageous to absolute and relative performance for managers' portfolios.

#### Compelling small cap valuations

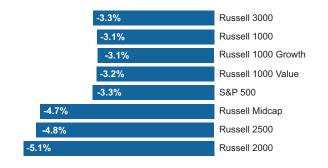
- Small cap valuations, on both an absolute and relative (to large cap valuations) basis, continue to look compelling and may point to an attractive entry point for investors.
- What continues to pressure the asset class is the rhetoric around interest rates; as investors anticipate a higher-forlonger interest rate environment, there are concerns about small cap companies' ability to repay and re-finance debt.
- If inflation data continues to improve in 2023, the small cap market could be positioned for a boost to performance.

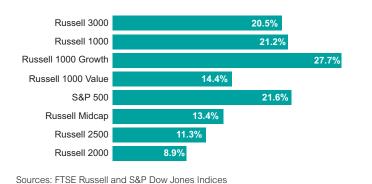
# **U.S. Equity: Quarterly Returns**

(9/30/23)

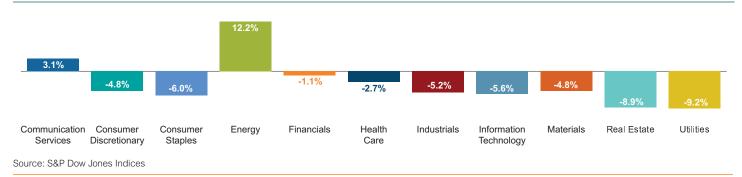


(9/30/23)





#### **Quarterly Performance of Industry Sectors** (9/30/23)



## **Global Equity**

Most global markets were in the red for 3Q23.

#### Narrow market with India and Japan leading

- Global markets retreated in 3Q23 amid fears of a global recession driven by higher interest rates and slowing growth in regions outside the U.S.
- Emerging markets outperformed developed markets, buoyed by good results from India, whose economy grew nearly 8% on the heels of supportive infrastructure spending.
- Japan was strong again in local currency as it continues to benefit from post-COVID exuberance, easy monetary policy, and a new economic stimulus plan.

#### Value outpaces growth

 With energy as a strong outperformer on the heels of oil price increases, value outpaced growth by a wide margin in global ex-U.S. markets.

#### Strong U.S. dollar a headwind

 The stronger U.S. dollar, which gained 3% over the quarter, was a notable headwind for the period.

#### Market dispersion is low

- Global markets have seen a prolonged period of low dispersion, excluding the 2016-2018 challenges with Brexit and oil price volatility. The global markets have seen high correlations for most of the last 10 years.
- This was in conjunction with a period of universally tight monetary policies, which helped mitigate any volatility.
- With increased dispersion of central bank actions, we expect there to be fewer co-movements across countries, a period that may benefit active management.

### **China: Danger or opportunity**

#### **Merits**

- Long-term growth potential: China has the second-largest
   GDP and the world's largest population of consumers.
- Compelling valuation: Forward earnings yield is at a decade high.

#### Considerations

- Downside risk: Chinese federal debt has continued to grow aggressively and may become unsustainable.
- Political risk: China is run by an authoritarian regime that may act against investors.
- Old before rich: China currently has 2.26 workers for every retiree—the U.S. has 2.8.

#### Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 9/30/23)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 9/30/23)



Source: MSCI

# **Fixed Income**

#### U.S. Fixed Income

#### U.S. fixed income fell for a second straight quarter

The Bloomberg Aggregate Index is on track for a third calendar year of negative returns, with the rise in yields continuing to detract from performance.

#### U.S. Treasury 10-year yield climbed roughly 80 bps

- 10-year ended the quarter at 4.6%, its highest level since '07.
- The yield curve's inversion narrowed as it bear-steepened with long-term rates rising more than short-term rates.

#### **TIPS** outperformed nominal Treasuries

- 10-year break-even spreads widened over 10 bps.
- Fed policy rate held to 5.25%-5.50%
- The updated dot plot suggested an additional rate hike may be in the cards before year-end.

## Lower-quality credit continued to outperform

- High yield spreads were flat, but the sector was buoyed by strong performance in July.
- IG corporate spreads tightened slightly and remain close to their 10-year average.
- Agency MBS underperformed other securitized sectors as interest rate volatility weighed on the sector.

#### **Municipal Bonds**

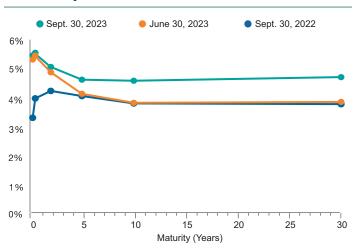
# Bloomberg Aggregate down sharply in 3Q

- Corporate excess return: +84 bps; YTD +237 bps
- Mortgage excess return: -85 bps; YTD -58 bps
- High yield corporates excess return: +102 bps; YTD +516 bps
- Taxable equivalent yield is 7.3%

# U.S. Treasury yield curve remains inverted

- 106 bps as of 6/30; 44 bps as of 9/30
- 2-year UST: 5.03%; 10-year UST: 4.59%
- Long rates rose more than short rates in a bear-steepening

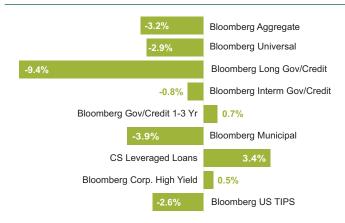
#### **U.S. Treasury Yield Curves**



Source: Bloomberg

# **U.S. Fixed Income: Quarterly Returns**

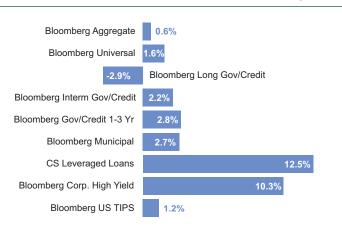
(9/30/23)



Sources: Bloomberg and Credit Suisse

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

(9/30/23)



#### FIXED INCOME (Continued)

#### **Fed Funds rate expectations**

- "Higher for longer" theme prevails.
- Median expectation from Fed is 5.5% for year-end 2023.
- Market expectations are similar at 5.4%, up sharply from market expectations at the end of 1Q for cuts.

#### **Valuations**

- Credit spreads close to historical averages
- Mortgage spreads widened on interest rate volatility and slowing prepayments.

#### **Global Fixed Income**

#### Down on both a hedged and unhedged basis

- Developed market rates sold off as long-term inflation and rate expectations in the U.S. moved higher.
- The ECB continued to tighten monetary policy in September, bringing rates to the highest level since launching the euro.

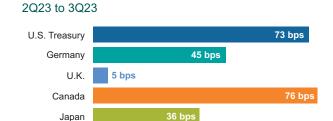
# U.S. dollar strength detracted from unhedged returns

 U.S. dollar gained over 3% versus a basket of developed market currencies.

#### Emerging market debt indices also negative

- EM yield curves steepened; central banks in Latin America and Eastern Europe have begun monetary easing.
- Heightened geopolitical risk, war, commodity price volatility, and an economic slowdown in China remain significant headwinds to the sector.

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

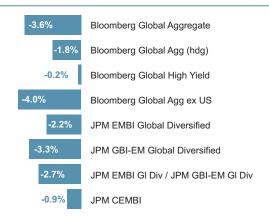


Source: Bloomberg

Japan

#### **Global Fixed Income: Quarterly Returns**

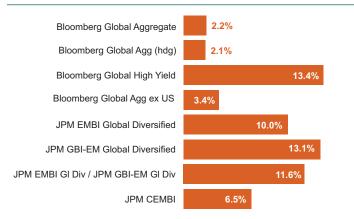
(9/30/23)



Sources: Bloomberg and JPMorgan Chase

#### Global Fixed Income: One-Year Returns

(9/30/23)



Sources: Bloomberg and JPMorgan Chase

# **Private Real Estate Falls While REITs Lag Equities**

#### REAL ESTATE/REAL ASSETS | Munir Iman and Aaron Quach

## Private valuations reflect higher interest rates

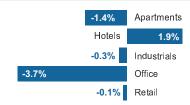
- The NCREIF Property Index, a measure of U.S. institutional real estate assets, fell 1.4% during 3Q23. The income return was 1.1% while the appreciation return was –2.4%.
- Hotels, which represent a small portion of the index, led property sector performance with a gain of 1.9%. Office finished last with a loss of 3.7%.
- Regionally, the South led with a loss of 0.5%, while the West was the worst performer with a drop of 1.8%.
- Income returns were positive across sectors and regions.
- All property sectors and regions experienced negative appreciation.
- The NCREIF Open-End Diversified Core Equity (ODCE) Index, representing equity ownership positions in U.S. core real estate, fell 2.1% during 3Q.

### REITs lag equities, globally and in the U.S.

- U.S. REITs fell 7.1% in 3Q23, in contrast with the S&P 500 Index, which declined 3.3%.
- The underperformance in the U.S. was driven by the resilient U.S. economy, but a stronger-than-expected economy spelled trouble for rate-sensitive stocks as real rates continued to rise and the yield curve steepened.
- Global REITs underperformed in 3Q23, falling 5.9% compared to a 3.5% decline for global equities (MSCI World).

#### **Sector Quarterly Returns by Property Type**





Source: NCREIF

- REITs are now trading at a discount to NAV (-16%) and offer relative value given the recent selloff.
- Historically, global REITS have traded at a -5% discount to NAV.
- The FTSE EPRA Nareit Developed Asia Index (USD) fell
   4.3% during the quarter.
- The FTSE EPRA Nareit Developed Europe Index (USD) increased by 1.2% during the quarter. German real estate stocks stood out as the top performers, benefiting from the European Central Bank's perceived shift to a more accommodative monetary policy stance, potentially marking the end of its rate-hiking cycle.
- Conversely, U.K. self-storage stocks underperformed due to reduced demand from businesses and the ongoing housing market sluggishness.

#### Callan Database Median and Index Returns\* for Periods Ended 9/30/23

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	-0.6	-7.9	-12.3	6.5	5.3	7.7	4.6
NFI-ODCE (value-weighted, net)	-2.1	-8.1	-12.9	6.2	4.7	7.2	4.7
NCREIF Property	-1.4	-5.1	-8.4	6.0	5.3	7.4	6.0
NCREIF Farmland	-0.3	2.6	5.8	7.2	6.1	8.0	9.8
NCREIF Timberland	1.4	4.9	10.0	9.2	5.9	5.9	4.6
Public Real Estate							
Global Real Estate Style	-5.4	-2.8	3.7	1.6	1.4	4.4	5.6
FTSE EPRA Nareit Developed	-5.9	-4.9	1.6	0.6	-1.2	2.0	3.6
Global ex-U.S. Real Estate Style	-3.5	-4.2	4.9	-3.9	-1.5	2.8	3.8
FTSE EPRA Nareit Dev ex US	-3.0	-7.5	2.1	-4.8	-4.2	-0.5	2.5
U.S. REIT Style	-7.4	-2.1	2.6	5.0	4.3	6.9	7.0
FTSE EPRA Nareit Equity REITs	-7.1	-2.1	3.0	5.8	2.8	6.0	5.9

\*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

# **Focus on Exits**

#### PRIVATE EQUITY | Gary Robertson

While private equity fundraising and investment measures in 3Q23 fell from 2Q, exits were a bright spot with dollar volume increases for buyout and venture M&A and buyout IPO volumes. The number of venture IPOs increased as well.

Fundraising ▶ Based on preliminary data, private equity partnerships holding final closes in 3Q totaled \$171 billion, with 435 new partnerships formed (unless otherwise noted, all data are from PitchBook). The dollar volume fell 13% from 2Q23, and the number of funds holding final closes declined 19%. So far, capital raised is running only 22% behind YTD 2022, but the number of funds trails by 42%.

**Buyouts** ► New buyout transactions and dollar volume fell moderately. Funds closed 2,398 company investments with \$123 billion of disclosed deal value, a 16% decrease in count and an 8% drop in dollar value from 2Q23.

VC Investments ► New financing rounds in venture capital companies totaled 8,977, with \$82 billion of announced value. The number of investments was down 21% from the prior quarter, but the announced value fell only 1%.

Exits ► There were 507 private M&A exits of private equity-backed companies (excluding venture capital), with disclosed values totaling \$123 billion. Exits fell 7% from the prior quarter

but announced dollar volume increased 23%. There were 43 private equity-backed IPOs in 3Q raising \$12 billion, the count fell by 2 IPOs but dollar volume leapt 50%.

Venture-backed M&A exits totaled 489 with disclosed value of \$27 billion. The number of sales declined 10% but announced dollar volume jumped 93%. There were 102 VC-backed IPOs (up 19% from 2Q) but the combined float fell to \$10 billion.

**Returns** ▶ With the significant 3Q rally in public equity markets, private equity trailed for the quarter and last 12 months. Private equity posted a third consecutive quarterly gain after the large retreat across most of 2022. Continued capital markets volatility is expected, and private equity should provide a beneficial dampening effect.

#### Funds Closed 1/1/23 to 9/30/23

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	930	121,173	22%
Growth Equity	91	63,798	12%
Buyouts	319	239,538	43%
Mezzanine Debt	16	35,010	6%
Distressed/Special Credit	20	21,575	4%
Energy	6	3,008	1%
Secondary and Other	74	65,295	12%
Fund-of-funds	16	3,005	1%
Totals	1,472	552,402	100%

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

#### Private Equity Performance (%) (Pooled Horizon IRRs through 6/30/23\*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-0.74	-9.26	20.20	18.89	18.21	13.19	12.58	19.11
Growth Equity	1.31	-0.33	17.20	15.61	15.04	12.78	14.14	14.25
All Buyouts	2.57	8.12	21.06	15.67	15.30	11.22	14.80	12.72
Mezzanine	3.17	10.75	15.01	11.14	11.17	10.49	11.29	9.92
Credit Opportunities	1.39	7.37	11.93	7.11	7.63	9.12	9.42	9.46
Control Distressed	1.17	4.88	22.37	13.61	11.99	10.75	11.69	11.40
All Private Equity	1.59	2.72	19.68	15.58	15.03	11.59	13.74	13.25
S&P 500	8.74	19.59	14.60	12.31	12.86	10.88	10.04	7.61
Russell 3000	8.39	18.95	13.89	11.39	12.34	10.61	10.05	7.72

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

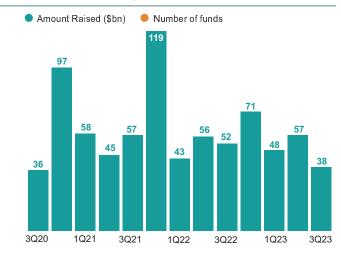
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the Capital Markets Review and other Callan publications.

# **Returns Exceed Those of Leveraged Loans**

#### PRIVATE CREDIT | Catherine Beard

- Private credit performance varies across sub-asset class and underlying return drivers.
- Over the past three years, the asset class has generated a net IRR of 11.8%, outperforming leveraged loans as of June 30, 2023.
- It has also outperformed over longer time periods, with a net IRR of 9.5% over the last 20 years, compared to 5.3% for leveraged loans and 7.2% for corporate high yield.
- Higher-risk strategies have performed better than lower-risk strategies.
- Private credit remained in high demand across Callan's investor base, and a number of large pensions are looking to increase their existing private credit allocations from 2%–3% to 5%–10%.
- While we always work to build out diversified client portfolios, we think there is particularly interesting relative value in upper middle market sponsor-backed lending, asset-based lending, and opportunistic/special situations.
- Callan is seeing an uptick in stress for some individual names in direct lending portfolios due, in many cases, to a combination of input cost inflation and increased interest expense burden.
- Continued 3Q23 rate rises across the yield curve have made private credit even more attractive than in the past.
- Traditional lenders have not reentered the market in a meaningful way, allowing private credit to expand its opportunity set into larger companies, which are better credits but where loans still command high rates.
- With slight increases in default rates and rating agencies predicting further increases, both opportunistic (flexible) credit

# Private Credit Fundraising (\$bn)





Source: Pregin

funds and dedicated distressed credit funds are seeing more investor interest.

- To foster ease of limited partner access and ongoing administration, more private credit general partners are launching evergreen structures and other legal structures.
- Based on the success of traditional private credit, more niche and targeted strategies are being launched such as legal assets, leasing, various royalties (pharma, music), and asset-backed industry-specific funds (shipping, energy).
- Finally, we are seeing a wave of consolidation across private credit asset managers as entities look to build out diversified product offerings and scale their businesses.

#### Private Credit Performance (%) (Pooled Horizon IRRs through 6/30/23\*)

	` ' '		•	,				
Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	1.9	8.6	8.0	6.3	6.9	6.8	7.0	N/A
Mezzanine	3.2	10.7	15.0	11.1	11.2	11.2	10.7	10.6
Credit Opportunities	1.4	7.4	11.9	7.1	7.4	7.6	9.2	8.9
Total Private Credit	1.9	8.4	11.8	7.9	8.2	8.3	9.2	9.0

Source: Refinitiv/Cambridge

\*Most recent data available at time of publication

# **Most Strategies End Quarter Slightly Higher**

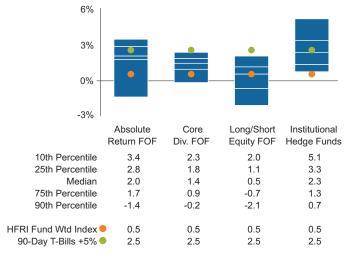
#### **HEDGE FUNDS/MACs | Joe McGuane**

Equity markets retreated during 3Q23, as investors came to terms with the fact that central banks were likely to keep rates higher for longer. Inflationary pressures persisted and long-term government bonds sold off with the U.S. 10-year Treasury yield reaching a 16-year high, while crude oil prices surged amid Russia and OPEC supply cuts.

The S&P 500 detracted (-3%) with small-cap, growth, and technology stocks leading declines, as the realization of a longer period of tighter policy sank in and eroded the case for lofty valuations. European, emerging market, and Asian equity markets posted negative results for the quarter. Credit indices generated mixed returns, as U.S. high yield and leveraged loan indices ended the quarter flat to positive, while investment grade credit posted negative returns.

### **Hedge Fund Style Group Returns**

(9/30/23)



Sources: Callan, Credit Suisse, Federal Reserve

#### Callan Peer Group Median and Index Returns\* for Periods Ended 9/30/23

Hedge Fund Universe	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years
Callan Institutional Hedge Fund Peer Group	2.3	5.7	6.0	7.1	6.2	5.8
Callan Fund-of-Funds Peer Group	1.3	4.1	5.9	5.2	4.2	4.3
Callan Absolute Return FOF Style	2.0	3.2	4.9	6.4	4.5	4.4
Callan Core Diversified FOF Style	1.4	4.1	5.9	5.2	4.1	4.0
Callan Long/Short Equity FOF Style	0.5	4.7	7.8	2.3	3.9	4.0
HFRI Fund-Weighted Index	0.5	3.9	6.3	6.7	5.0	4.5
HFRI Fixed Convertible Arbitrage	0.5	3.3	6.7	5.6	5.5	4.8
HFRI Distressed/Restructuring	1.2	3.5	4.3	8.2	4.5	4.1
HFRI Emerging Markets	-1.0	3.5	8.3	2.4	3.1	3.0
HFRI Equity Market Neutral	1.3	2.7	3.5	4.1	2.2	2.9
HFRI Event-Driven	2.4	4.9	8.2	7.8	4.6	4.5
HFRI Relative Value	1.5	4.1	5.6	5.4	3.6	4.0
HFRI Macro	1.4	0.6	-0.7	7.4	5.3	3.4
HFRI Equity Hedge	-1.0	4.7	9.1	6.5	5.2	5.1
HFRI Multi-Strategy	2.7	4.9	6.5	4.6	2.7	2.8
HFRI Merger Arbitrage	4.4	1.5	4.0	8.1	5.4	4.4
90-Day T-Bill + 5%	2.5	7.3	9.5	6.7	6.7	6.1

<sup>\*</sup>Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research

Hedge funds ended 3Q slightly higher, as equity markets sold off during the guarter when the excitement around technology names expected to benefit from the prospects of generative AI subsided and the view of elevated rates trimmed those lofty valuations. Equity hedge strategies ended the quarter negative, as sector-focused managers in health care, technology, and real estate struggled during the final month of the guarter. Event-driven strategies ended the quarter on a positive note, as a number of strategic deals either closed or received regulatory approval. Macro managers had a solid quarter, as they profited from rising sovereign bond yields and steeper yield curves.

Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group rose 2.3%. Within this style group of 50 peers, the average hedge credit manager gained 4.0%, as lower-rated credits outperformed higher-rated peers later in the quarter. The median Callan institutional hedged rates manager rose 2.4%, largely driven by relative value bond trades in the U.S., given opportunities across the yield curve. Meanwhile, the average hedged equity manager added 1.0%, as managers were able to profit off the dispersion across small cap and growth names.

Within the HFRI indices, one of the best-performing strategy last guarter was the event-driven index (2.4%), as a number of strategic deals received regulatory approval. Relative value strategies ended up 1.5%, as fixed income trading drove gains. Macro strategies finished up 1.4%, as gains came from short positions in U.S., Japanese, and European rates, and short positions in U.S. equities.

Across the Callan Hedge Fund-of-Funds (FOF) Database, the median Callan Long-Short Equity FOF ended 0.5% higher, as generalist managers offset specialists during the quarter. Meanwhile, the median Callan Core Diverse FOF ended 1.4% higher, as macro and event-driven managers drove performance. Callan Absolute Return FOF ended 2.0% higher, as macro managers drove performance.

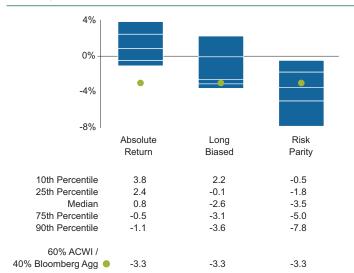
Within Callan's database of liquid alternative solutions, the Callan MAC Absolute Return peer group rose 0.8%, as commodities and currencies drove performance. The Callan MAC Risk Parity peer group fell 3.5%, as equities and fixed income moved lower during the quarter. The Callan MAC Long Biased peer group fell 2.6%, as equity investors dumped stocks after realizing interest rates were likely to be higher for longer.

#### **MAC Style Group Returns**



#### **HFRI Hedge Fund-Weighted Strategy Returns**

(9/30/23)



■ Relative Value
■ Event-Driven■ Equity Hedge■ Macro ---- HFRI Fund Weighted Index 8.2% 5.6% 1.4% -1.0% -0.7% Last Quarter Last Year

Source: HFRI

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

# Index Finishes 2Q23 with Third Straight Gain

#### **DEFINED CONTRIBUTION | Scotty Lee**

#### Performance: DC Index Gains 4.7%

 The Callan DC Index<sup>™</sup> rose 4.7% in 2Q23, which brought the Index's trailing one-year gain to 11.7%. The Age 45 Target Date Fund (analogous to the 2040 vintage) had a slightly lower guarterly return (4.0%).

### **Growth Sources: Balances Grow Again**

Balances within the DC Index rose by 4.3% after a 5.3% increase in the previous quarter. Investment gains (4.7%) were the sole driver of the gain, while net flows (-0.4%) had a negligible effect.

#### **Turnover: Material Fall in Net Transfers**

 Turnover (i.e., net transfer activity levels within DC plans) in the DC Index decreased materially to 0.33% from the previous quarter's measure of 0.70%, which marked the Index's highest level since 2020.

#### **Net Cash Flow Analysis: Stable Value Declines Sharply**

- Target date funds (TDFs) got 67.4% of quarterly net flows.
- Stable value (-39.9%) saw relatively large outflows for the third consecutive quarter, while money market (6.1%) experienced small net inflows.

#### **Equity Allocation: Exposure Rises Slightly**

 The Index's overall allocation to equity (71.8%) rose from the previous quarter's level (70.8%), primarily driven by gains in equity markets. The current equity allocation continues to sit above the Index's historical average (68.4%).

#### **Asset Allocation: Large Cap Gains**

 U.S. large cap (26.4%) and target date funds (33.8%) were among the asset classes with the largest percentage increases in allocation.

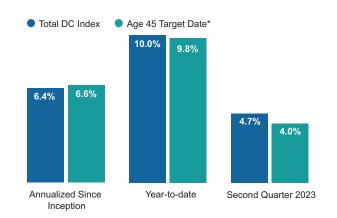
#### **Prevalence of Asset Class: Company Stock Rises**

The prevalence of company stock (21.8%) rose by 3.8 percentage points. Other notable movements included a 1.5 percentage point decrease in the prevalence of a brokerage window offering (39.9%) as well as a 1.5 percentage point decrease in the prevalence of stable value (71.4%).

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.

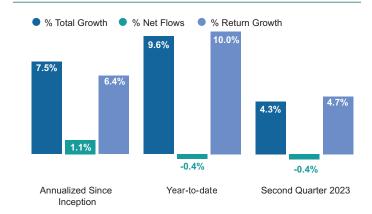
#### **Investment Performance**

(6/30/23)



#### **Growth Sources**

(6/30/23)



# Net Cash Flow Analysis (2Q23)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	67.4%
U.S. Fixed Income	11.8%
U.S. Large Cap	-27.6%
Stable Value	-39.9%
Total Turnover**	0.3%

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

Source: Callan DC Index

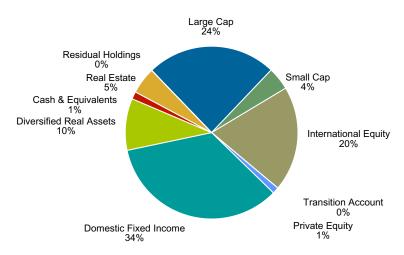
Note: DC Index inception date is January 2006.

- \* 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.

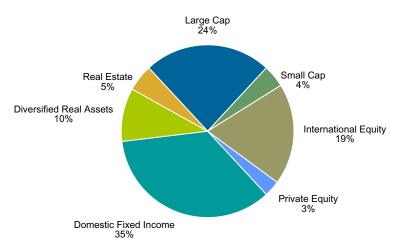
# Actual vs Target Asset Allocation As of September 30, 2023

The first chart below shows the Fund's asset allocation as of September 30, 2023. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

#### **Actual Asset Allocation**



# **Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	2,175,624	24.3%	23.8%	0.5%	47,992
Small Cap	384,316	4.3%	4.2%	0.1%	8,851
International Equity	1,760,277	19.7%	19.0%	0.7%	61,747
Transition Account	43	0.0%	0.0%	0.0%	43
Private Equity	106,685	1.2%	3.0%	(1.8%)	(161,503)
Domestic Fixed Income	3,076,895	34.4%	35.0%	(0.6%)	(51,976)
Diversified Real Assets	862,853	9.7%	10.0%	(0.3%)	(31,110)
Cash & Equivalents	120,768	1.4%	0.0%	`1.4%´	120,768
Real Estate	450,014	5.0%	5.0%	0.0%	3,033
Residual Holdings	2,156	0.0%	0.0%	0.0%	2,156
Total	8,939,632	100.0%	100.0%		

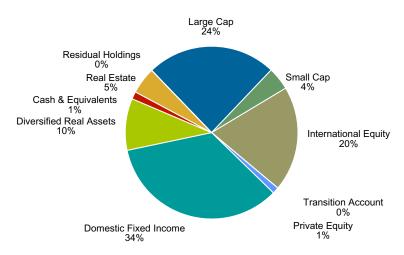
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



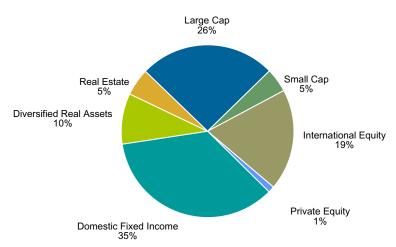
# Actual vs Corridor Target Asset Allocation As of September 30, 2023

The first chart below shows the Fund's asset allocation as of September 30, 2023. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

#### **Actual Asset Allocation**



# **Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	2,175,624	24.3%	25.5%	(1.2%)	(106,127)
Small Cap	384,316	4.3%	4.5%	(0.2%)	(18,346)
International Equity	1,760,277	19.7%	19.0%	`0.7%′	`61,747
Transition Account	43	0.0%	0.0%	0.0%	43
Private Equity	106,685	1.2%	1.2%	0.0%	2,618
Domestic Fixed Income	3,076,895	34.4%	35.2%	(0.8%)	(69,171)
Diversified Real Assets	862,853	9.7%	9.5%	`0.1%′	9,564
Cash & Equivalents	120,768	1.4%	0.0%	1.4%	120,768
Real Estate	450,014	5.0%	5.1%	(0.0%)	(3,252)
Residual Holdings	2,156	0.0%	0.0%	`0.0%	2,156
Total	8,939,632	100.0%	100.0%		

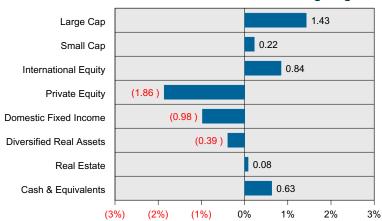
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



# Quarterly Total Fund Relative Attribution - September 30, 2023

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.

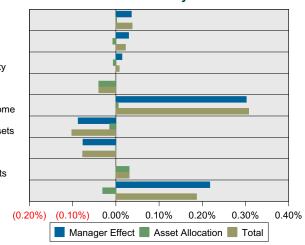




## **Actual vs Target Returns**

#### Large Cap (4.38 ) (5.13 ) Small Cap International Equity Private Equity Domestic Fixed Income **Diversified Real Assets** (2.85)Real Estate 1.37 1.37 Cash & Equivalents (8%)(6%)(4%)(2%)2% 4% Actual Target

## **Relative Attribution by Asset Class**



#### Relative Attribution Effects for Quarter ended September 30, 2023

Total

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	25%	24%	(3.00%)	(3.15%)	0.04%	0.00%	0.04%
Small Cap	4%	4%	(4.38%)	(5.13%)	0.03%	(0.01%)	0.02%
International Equity	20%	19%	(3.39%)	(3.49%)	0.01%	(0.01%)	0.01%
Private Equity .	1%	3%	(0.63%)	(0.63%)	0.00%	(0.04%)	(0.04%)
Domestic Fixed Incom	e 34%	35%	(2.34%)	(3.23%)	0.30%	`0.01%´	`0.31%´
Diversified Real Asset	s 10%	10%	(1.21%)	(0.30%)	(0.09%)	(0.01%)	(0.10%)
Real Estate	5%	5%	(2.85%)	(1.37%)	(0.08%)	(0.00%)	(0.08%)
Cash & Equivalents	1%	0%	1.37%	`1.37%′	`0.00%′	`0.03%′	`0.03%´_
Total			(2.65%) =	(2.83%) +	0.22% +	· (0.03%)	0.19%

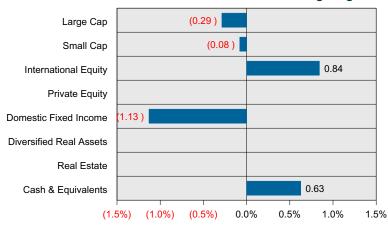
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# Quarterly Total Fund Relative Attribution Versus Corridor Target - September 30, 2023

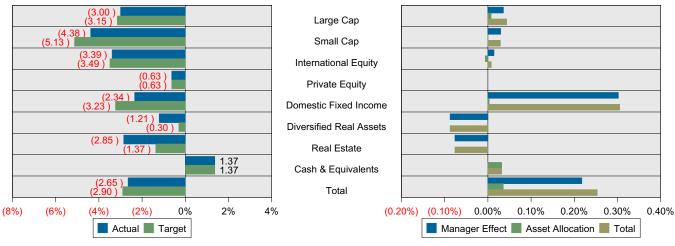
The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation 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.





# **Actual vs Target Returns**

# Relative Attribution by Asset Class



#### Relative Attribution Effects for Quarter ended September 30, 2023

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	25%	26%	(3.00%)	(3.15%)	0.04%	0.01%	0.04%
Small Cap	4%	5%	(4.38%)	(5.13%)	0.03%	(0.00%)	0.03%
International Equity	20%	19%	(3.39%)	(3.49%)	0.01%	(0.01%)	0.01%
Private Equity .	1%	1%	(0.63%)	(0.63%)	0.00%	0.00%	0.00%
Domestic Fixed Incom		35%	(2.34%)	(3.23%)	0.30%	0.00%	0.31%
Diversified Real Assets	s 10%	10%	(1.21%)	(0.30%)	(0.09%)	0.00%	(0.09%)
Real Estate	5%	5%	(2.85%)	(1.37%)	(0.08%)	0.00%	(0.08%)
Cash & Equivalents	1%	0%	1.37%	`1.37%′	`0.00%′	0.03%	
Total			(2.65%) =	(2.90%) +	0.22% +	0.04%	0.25%

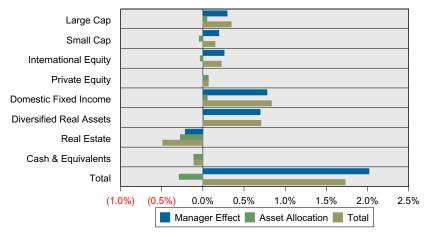
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



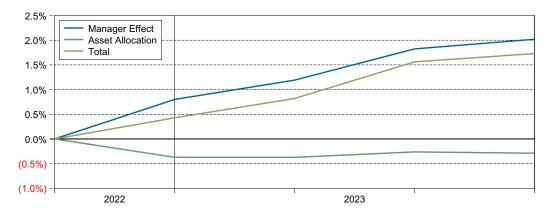
# **Cumulative Total Fund Relative Attribution - September 30, 2023**

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

#### **One Year Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



#### One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	25%	24%	22.52%	21.19%	0.30%	0.05%	0.35%
Small Cap	4%	4%	13.83%	8.93%	0.19%	(0.05%)	0.15%
International Equity	19%	19%	21.80%	20.19%	0.26%	(0.03%)	0.23%
Private Equity .	1%	3%	3.69%	3.69%	0.00%	0.07%	0.07%
Domestic Fixed Incom-	e 34%	35%	2.81%	0.64%	0.78%	0.05%	0.83%
Diversified Real Assets	s 10%	10%	6.20%	(0.81%)	0.70%	0.01%	0.71%
Real Estate	5%	5%	(12.15%)	(8.39%)	(0.22%)	(0.27%)	(0.49%)
Cash & Equivalents	1%	0%	4.51%	4.51%	0.00%	(0.11%)	(0.11%)
Total			10.69% =	8.96%	+ 2.02% +	(0.29%)	1.73%

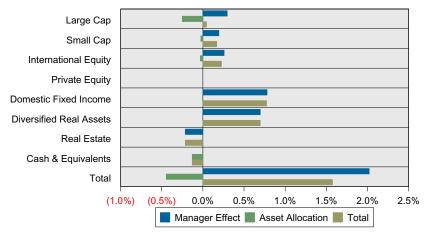
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



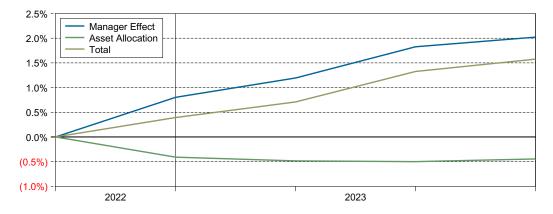
# Cumulative Total Fund Relative Attribution Versus Corridor Target - September 30, 2023

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

#### **One Year Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



#### One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	25%	26%	22.52%	21.19%	0.30%	(0.25%)	0.04%
Small Cap	4%	5%	13.83%	8.93%	0.19%	(0.03%)	0.17%
International Equity	19%	19%	21.80%	20.19%	0.26%	(0.03%)	0.23%
Private Equity .	1%	1%	3.69%	3.69%	0.00%	0.00%	0.00%
Domestic Fixed Incom-	e 34%	35%	2.81%	0.64%	0.78%	(0.01%)	0.77%
Diversified Real Assets		10%	6.20%	(0.81%)	0.70%	0.00%	0.70%
Real Estate	5%	5%	(12.15%)	(8.39%)	(0.21%)	0.00%	(0.21%)
Cash & Equivalents	1%	0%	4.51%	4.51%	0.00%	(0.13%)	(0.13%)
Total			10.69% =	9.11%	+ 2.02% +	(0.45%)	1.58%

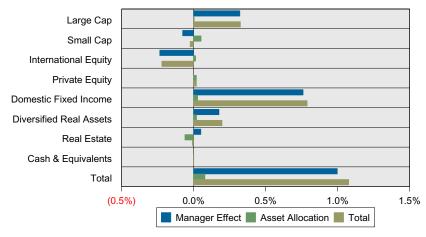
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



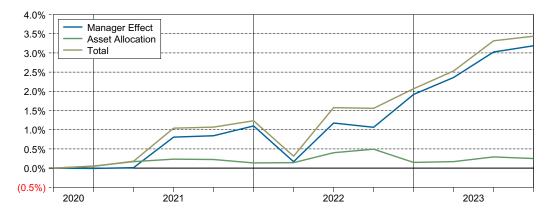
# **Cumulative Total Fund Relative Attribution - September 30, 2023**

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

#### **Three Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



# **Three Year Annualized Relative Attribution Effects**

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	23%	23%	11.04%	9.53%	0.32%	0.00%	0.33%
Small Cap	7%	6%	7.56%	7.16%	(0.08%)	0.05%	(0.02%)
International Equity	20%	20%	3.73%	4.98%	(0.24%)	0.01%	(0.22%)
Private Equity .	0%	1%	6.16%	6.16%	`0.00%	0.02%	0.02%
Domestic Fixed Incom		35%	(3.09%)	(5.21%)	0.76%	0.03%	0.79%
Diversified Real Asset	s 10%	10%	4.14%	2.12%	0.18%	0.02%	0.20%
Real Estate	5%	5%	6.65%	6.04%	0.05%	(0.06%)	(0.01%)
Cash & Equivalents	1%	0%	1.70%	1.70%	0.00%	0.00%	`0.00%´_
Total			3.64% =	2.56%	+ 1.00% +	0.08%	1.08%

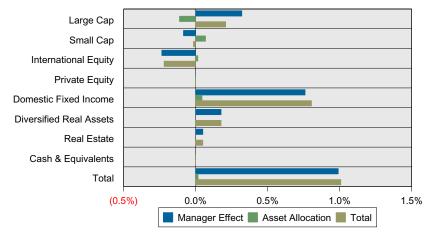
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



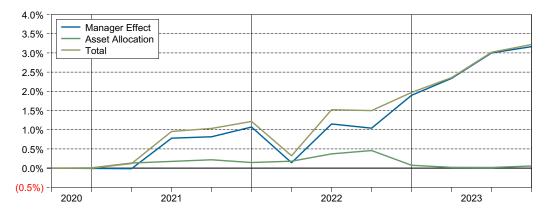
# Cumulative Total Fund Relative Attribution Versus Corridor Target - September 30, 2023

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

#### **Three Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



#### Three Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	23%	23%	11.04%	9.53%	0.32%	(0.11%)	0.21%
Small Cap	7%	7%	7.56%	7.16%	(0.08%)	`0.07%´	(0.02%)
International Equity	20%	20%	3.73%	4.98%	(0.24%)	0.02%	(0.22%)
Private Equity ' ´	1%	0%	6.16%	6.16%	`0.00%´	0.00%	0.00%
Domestic Fixed Income	e 34%	35%	(3.09%)	(5.21%)	0.76%	0.04%	0.81%
Diversified Real Assets		10%	4.14%	2.12%	0.18%	0.00%	0.18%
Real Estate	5%	5%	6.65%	6.04%	0.05%	0.00%	0.05%
Cash & Equivalents	1%	0%	1.70%	1.70%	0.00%	0.00%	0.00%
Total			3.64% =	2.63% ·	+ 0.99% +	0.02%	1.01%

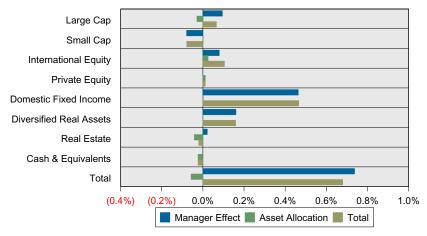
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



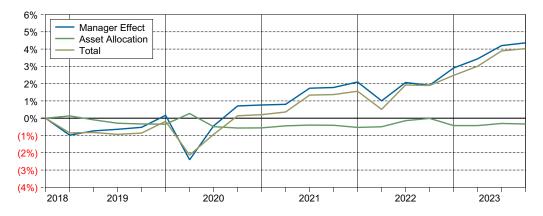
# Cumulative Total Fund Relative Attribution - September 30, 2023

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

#### **Five Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



# **Five Year Annualized Relative Attribution Effects**

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	23%	22%	10.01%	9.63%	0.09%	(0.03%)	0.07%
Small Cap	7%	7%	2.22%	2.40%	(0.08%)	0.00%	(0.08%)
International Equity	20%	20%	3.08%	2.79%	`0.08%	0.03%	`0.10%´
Private Equity ' ´	0%	1%	-	-	0.00%	0.01%	0.01%
Domestic Fixed Income		35%	1.56%	0.10%	0.46%	0.00%	0.47%
Diversified Real Assets		10%	5.67%	3.87%	0.16%	(0.00%)	0.16%
Real Estate	5%	5%	5.36%	5.26%	0.02%	(0.04%)	(0.02%)
Cash & Equivalents	1%	0%	1.63%	1.63%	0.00%	(0.02%)	(0.02%)
Total			4.66% =	3.98%	+ 0.74% +	(0.06%)	0.68%

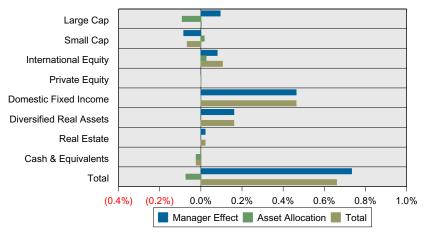
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



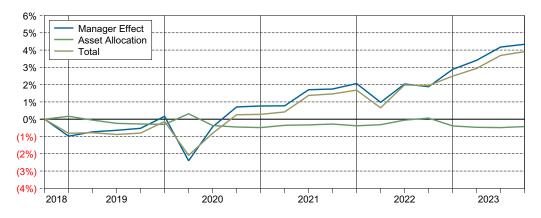
# Cumulative Total Fund Relative Attribution Versus Corridor Target - September 30, 2023

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

#### **Five Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



# **Five Year Annualized Relative Attribution Effects**

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	23%	23%	10.01%	9.63%	0.09%	(0.09%)	0.00%
Small Cap	7%	7%	2.22%	2.40%	(0.08%)	0.02%	(0.07%)
International Equity	20%	20%	3.08%	2.79%	`0.08%	0.03%	0.11%
Private Equity ' ´	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income		35%	1.56%	0.10%	0.46%	(0.00%)	0.46%
Diversified Real Assets		10%	5.67%	3.87%	0.16%	`0.00%	0.16%
Real Estate	5%	5%	5.36%	5.26%	0.02%	0.00%	0.02%
Cash & Equivalents	1%	0%	1.63%	1.63%	0.00%	(0.02%)	_(0.02%)
Total			4.66% =	4.00%	+ 0.73% +	(0.07%)	0.66%

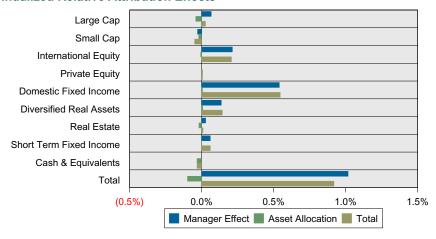
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



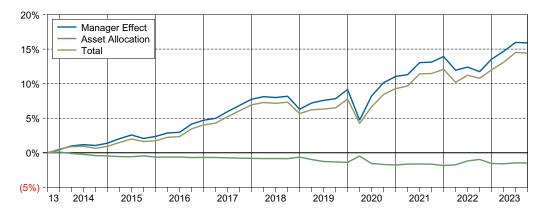
# **Cumulative Total Fund Relative Attribution - September 30, 2023**

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

#### **Ten Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



# **Ten Year Annualized Relative Attribution Effects**

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	21%	21%	12.00%	11.63%	0.07%	(0.04%)	0.03%
Small Cap	7%	7%	6.79%	6.65%	(0.03%)	(0.02%)	(0.05%)
International Equity	19%	19%	4.61%	3.55%	`0.21%´	(0.01%)	`0.21%´
Private Equity .	0%	0%	-	-	0.00%	`0.01%´	0.01%
Domestic Fixed Incom		33%	2.89%	1.18%	0.54%	0.01%	0.55%
Diversified Real Asset	ts 9%	9%	-	-	0.14%	0.01%	0.14%
Real Estate	5%	5%	7.90%	7.40%	0.03%	(0.02%)	0.01%
Short Term Fixed Inco	ome 4%	5%	-	-	0.06%	`0.00%	0.06%
Cash & Equivalents	1%	0%	1.04%	1.04%	0.00%	(0.03%)	_(0.03%)
Total			5.59% =	4.67%	+ 1.02% +	(0.10%)	0.92%

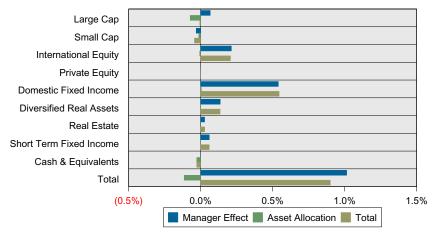
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



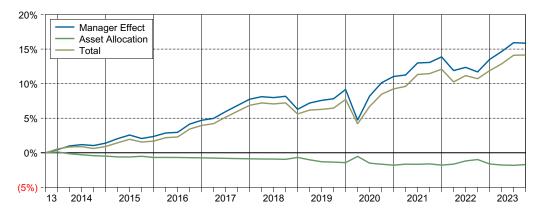
# Cumulative Total Fund Relative Attribution Versus Corridor Target - September 30, 2023

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

#### **Ten Year Annualized Relative Attribution Effects**



#### **Cumulative Relative Attribution Effects**



# **Ten Year Annualized Relative Attribution Effects**

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	21%	22%	12.00%	11.63%	0.07%	(0.07%)	(0.01%)
Small Cap	7%	7%	6.79%	6.65%	(0.03%)	(0.01%)	(0.04%)
International Equity	19%	19%	4.61%	3.55%	0.21%	(0.01%)	`0.21%´
Private Equity .	0%	0%	-	-	0.00%	`0.00%	0.00%
Domestic Fixed Incom		34%	2.89%	1.18%	0.54%	0.01%	0.54%
Diversified Real Asset		9%	-	-	0.14%	(0.00%)	0.13%
Real Estate	5%	5%	7.90%	7.40%	0.03%	`0.00%	0.03%
Short Term Fixed Inco		5%	-	-	0.06%	(0.00%)	0.06%
Cash & Equivalents	1%	0%	1.04%	1.04%	0.00%	(0.03%)	_(0.03%)
Total			5.59% =	4.69%	+ 1.01% +	(0.11%)	0.90%

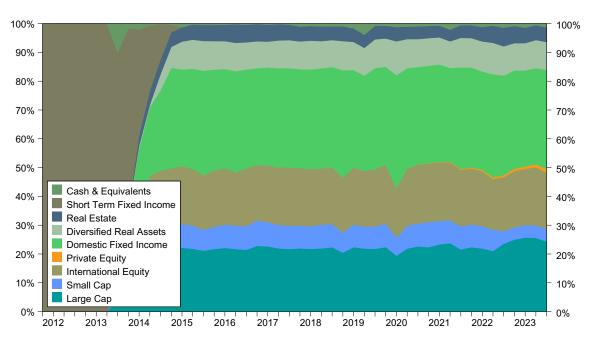
<sup>\*</sup> Current Quarter Target = 35.2% Blmbg:Aggregate, 25.5% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 9.5% DRA Weighted Benchmark, 5.1% NCREIF Total Index, 4.5% Russell 2000 Index and 1.2% Private Equity.



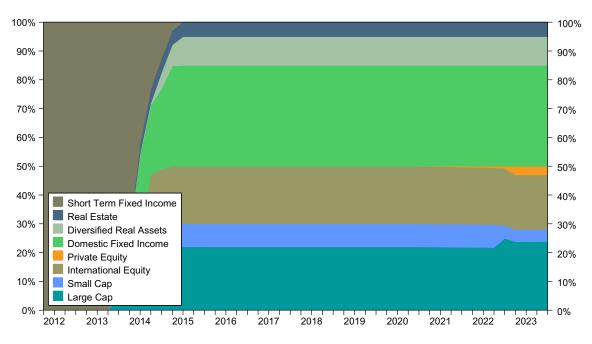
# **Actual vs Target Historical Asset Allocation**

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

### **Actual Historical Asset Allocation**



### **Target Historical Asset Allocation**

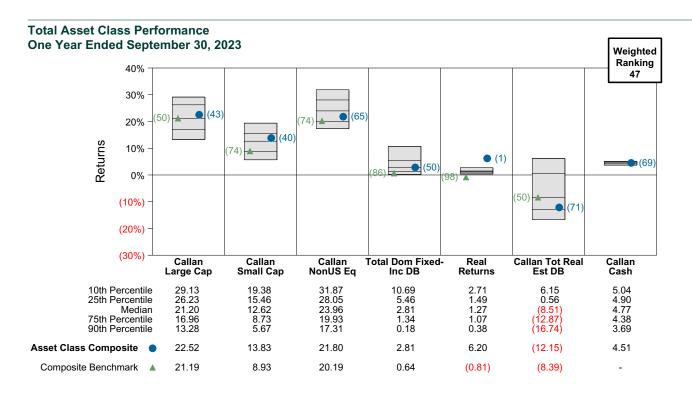


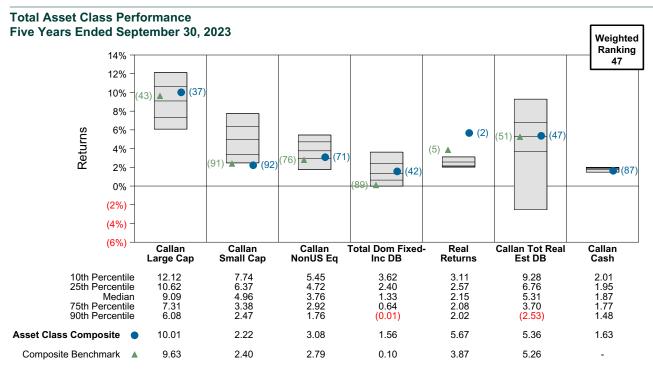
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



## **Asset Class Rankings**

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





<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.



# **Asset Class Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2023, with the distribution as of June 30, 2023. 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 3	0, 2023			June 30, 2	2023
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Global Equity	\$4,426,945,569	49.52%	\$(32,768,079)	\$(145,732,042)	\$4,605,445,690	51.15%
Public Equity	\$4,320,260,106	48.33%	\$(50,138,900)	\$(145,059,818)	\$4,515,458,824	50.15%
Domestic Equity	\$2,559,940,007	28.64%	\$(54,738,758)	\$(84,485,535)	\$2,699,164,300	29.98%
Large Cap	\$2,175,624,172	24.34%	\$(61,352,672)	\$(66,954,041)	\$2,303,930,884	25.59%
LA Capital Large Cap Growth	75,850,999	0.85%	(34,517)	(2,569,772)	78,455,288	0.87%
L.A. Capital Enhanced	957,204,170	10.71%	(63,703,344)	(30,249,458)	1,051,156,972	11.67%
Parametric-Clifton Enh R1000	379,946,541	4.25%	Ô	(12,683,949)	392,630,491	4.36%
NTAM Quant Enhanced R1000	377,445,138	4.22%	0	(9,276,242)	386,721,380	4.29%
NTAM R1000 Index	385,177,324	4.31%	2,385,189	(12,174,619)	394,966,754	4.39%
Small Cap	\$384,315,835	4.30%	\$6,613,914	\$(17,531,494)	\$395,233,416	4.39%
Atlanta Capital SmallCap	121,893,856	1.36%	(4,204,619)	(4,557,229)	130,655,704	1.45%
Riverbridge Small Cap Growth	121,561,220	1.36%	166,483	(7,428,011)	128,822,748	1.43%
Sycamore Small Cap Value	120,061,905	1.34%	1,159,447	(4,486,939)	123,389,397	1.37%
NTAM Russell 2000 Index	20,798,854	0.23%	9,492,603	(1,059,315)	12,365,567	0.14%
Total International Equity	\$1,760,277,081	19.69%	\$4,599,858	\$(60,572,493)	\$1,816,249,716	20.17%
International All Cap	\$670,877,642	7.50%	\$(778,090)	\$(24,443,494)	\$696,099,226	7.73%
William Blair Int'l Leaders	258,275,772	2.89%	(300,290)	(28,272,745)	286,848,807	3.19%
Arrowstreet ACWI ex US	412,601,870	4.62%	(477,800)	3,829,251	409,250,419	4.54%
Developed Intl Large Cap	\$681,957,349	7.63%	\$32,125,388	\$(28,411,684)	\$678,243,645	7.53%
LSV Intl LargeCap Value	7,168	0.00%	(31)	(268)	7,466	0.00%
State St MSCI World exUS	681,950,182	7.63%	32,125,418	(28,411,416)	678,236,179	7.53%
Developed Intl Small Cap	\$109,109,654	1.22%	\$2,789,184	\$(2,690,329)	\$109,010,799	1.21%
DFA Intl SmallCap Value	44,271,774	0.50%	(5,367,844)	59,540	49,580,078	0.55%
Wellington Intl SM Cap	43,884	0.00%	(37,700,901)	821,892	36,922,893	0.41%
State St MSCI exUS Small	64,793,997	0.72%	45,857,930	(3,571,761)	22,507,828	0.25%
Emerging Markets	\$298,332,435	3.34%	\$(29,536,625)	\$(5,026,986)	\$332,896,047	3.70%
Axiom Emerging Markets	0	0.00%	(187,899,661)	4,176,708	183,722,953	2.04%
DFA EM All Cap Core	154,580,536	1.73%	61,507,678	(3,285,985)	96,358,843	1.07%
State St MSCI EM China	42,553,523	0.48%	28,550,262	(1,841,027)	15,844,288	0.18%
State St MSCI EM ex China	101,198,376	1.13%	68,305,096	(4,076,682)	36,969,962	0.41%
Transition Account	\$43,018	0.00%	\$0	\$(1,790)	\$44,808	0.00%
Private Equity	\$106,685,463	1.19%	\$17,370,821	\$(672,224)	\$89,986,866	1.00%
50 South Capital	38,852,310	0.43%	17,060,000	(672,224)	22,464,534	0.25%
Sixth Street TAO	67,833,153	0.76%	310,821	Ó	67,522,332	0.75%



### **Asset Class Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2023, with the distribution as of June 30, 2023. 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 3	0, 2023			June 30, 2	2023
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Fixed Income	\$3,076,895,308	34.42%	\$141,036,965	\$(72,926,905)	\$3,008,785,248	33.41%
Allspring Med Quality Credit	203,648,887	2.28%	(114,259)	(5,378,934)	209,142,080	2.32%
Ares ND Credit Strategies Fd	118,050,022	1.32%	Ó	Ó	118,050,022	1.31%
BND CDs	179,658,925	2.01%	(3,034,686)	1,359,985	181,333,625	2.01%
Cerberus ND Private Credit Fd	153,653,888	1.72%	Ó	3,192,675	150,461,213	1.67%
Manulife-Declaration TRBF	158,987,086	1.78%	(215,269)	(2,699,057)	161,901,412	1.80%
PIMCO Core Plus Constrained	651,600,177	7.29%	133,802,777	(18,394,495)	536,191,895	5.95%
PIMCO Bravo II	1,126,746	0.01%	0	0	1,126,746	0.01%
PIMCO DISCO II	105,773,592	1.18%	0	1,662,665	104,110,927	1.16%
Prudential Core Plus	649,145,357	7.26%	(8,334,017)	(20,228,747)	677,708,121	7.53%
State Street Gov Index	122,585,799	1.37%	17,322,862	(3,435,713)	108,698,650	1.21%
State Street Credit Index	84,083,119	0.94%	4,019,752	(2,451,336)	82,514,703	0.92%
Western Asset Core Plus	648,552,525	7.25%	(2,410,196)	(26,583,133)	677,545,854	7.52%
Fixed Income Transition	29,185	0.00%	Ó	29,185	-	-
Global Real Assets	\$1,312,867,403	14.69%	\$(3,100,455)	\$(23,854,474)	\$1,339,822,332	14.88%
Real Estate	\$450,014,204	5.03%	\$(775,760)	\$(13,223,670)	\$464,013,634	5.15%
Invesco Core Real Estate	207,987,852	2.33%	(189,631)	(3,312,515)	211,489,999	2.35%
Invesco RE Fund VI	42,710,901	0.48%	Ó	0	42,710,901	0.47%
JP Morgan RE Inc & Growth	199,315,451	2.23%	(586,129)	(9,911,155)	209,812,735	2.33%
Diversified	\$862,853,199	9.65%	\$(2,324,695)	\$(10,630,803)	\$875,808,698	9.73%
Western Asset TIPS	369,951,146	4.14%	(218,851)	(12,909,096)	383,079,092	4.25%
ISQ Global Infrastructure II	79,933,447	0.89%	1,537,428	(441,155)	78,837,174	0.88%
ISQ Global Infrastructure III	26,693,295	0.30%	0	15,012	26,678,283	0.30%
JP Morgan IIF Infrastructure	105,390,519	1.18%	(1,905,598)	60,132	107,235,985	1.19%
Grosvenor CIS Fund II	50,689,097	0.57%	(2,647,907)	(136,439)	53,473,443	0.59%
Grosvenor CIS Fund III	40,443,642	0.45%	(4,827,417)	2,606,913	42,664,146	0.47%
Macquarie Infrastructure Fund IV	91,879,327	1.03%	(42,978)	42,978	91,879,327	1.02%
Macquarie Infrastructure Fund V	97,872,727	1.09%	5,780,628	130,851	91,961,248	1.02%
Cash	\$120,767,789	1.35%	\$71,574,923	\$824,714	\$48,368,152	0.54%
Northern Trust Cash Account	6,385,048	0.07%	(33,359,763)	277,207	39,467,603	0.44%
Bank of ND	114,382,741	1.28%	104,934,686	547,507	8,900,549	0.10%
Residual Holdings	\$2,156,008	0.02%	<b>\$</b> (5,119)	\$(61,997)	\$2,223,124	0.02%
Total Fund	\$8,939,632,076	100.0%	\$176,738,234	\$(241,750,704)	\$9,004,644,546	100.0%



Returns for Periods Ended September 30, 2023

	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Global Equity					
Gross	(3.21%)	20.89%	7.67%	6.05%	-
Net	(3.25%)	20.68%	7.39%	5.78%	-
Weighted Benchmark	(3.27%)	18.91%	7.48%	5.83%	-
Public Equity					
Gross	(3.27%)	21.19%	-	-	-
Net	(3.31%)	20.97%	-	=	-
Weighted Benchmark	(3.45%)	19.88%	-	-	-
Domestic Equity					
Gross	(3.20%)	21.18%	10.31%	8.02%	10.67%
Net	(3.24%)	21.02%	10.03%	7.78%	10.44%
Weighted Benchmark	(3.43%)	19.36%	9.34%	7.96%	-
Large Cap					
Gross	(3.00%)	22.52%	11.04%	10.01%	12.00%
Net	(3.01%)	22.44%	10.86%	9.84%	11.81%
Russell 1000 Index	(3.15%)	21.19%	9.53%	9.63%	11.63%
L.A. Capital Enhanced - Gross	(3.05%)	20.97%	10.50%	10.47%	12.00%
L.A. Capital Enhanced - Net	(3.08%)	20.88%	10.39%	10.34%	11.87%
Russell 1000 Index	(3.15%)	21.19%	9.53%	9.63%	11.63%
L.A. Capital LargeCap Growth - Gross	(3.28%)	26.95%	9.30%	12.79%	14.36%
L.A. Capital LargeCap Growth - Net	(3.32%)	26.23%	8.94%	12.48%	14.09%
Russell 1000 Growth Index	(3.13%)	27.72%	7.97%	12.42%	14.48%
Parametric-Clifton Enh R1000 - Gross	(3.23%)	21.35%	9.59%	9.70%	11.88%
Parametric-Clifton Enh R1000 - Net	(3.23%)	21.35%	9.42%	9.64%	11.81%
Benchmark(1)	(3.15%)	21.19%	10.13%	9.90%	11.91%
NTAM R1000 Index - Gross	(3.14%)	-	_	-	_
NTAM R1000 Index - Net	(3.14%)	_	_	_	_
Russell 1000 Index	(3.15%)	21.19%	9.53%	9.63%	11.63%
NTAM Quant Enh R1000 - Gross	(2.40%)	16.83%			_
NTAM Quant Enh R1000 - Gloss NTAM Quant Enh R1000 - Net	(2.40%)	16.83%	-	-	
Russell 1000 Index	(3.15%)	21.19%	9.53%	9.63%	11.63%
	, ,				
Small Cap Gross	(4.38%)	13.83%	7.56%	2.22%	6.79%
Net	(4.58%)	13.22%	6.88%	1.73%	6.39%
Russell 2000 Index	(5.13%)	8.93%	7.16%	2.40%	6.65%
Atlanta Capital - Gross	(3.68%)	19.01%	11.44%	_	_
Atlanta Capital - Gross Atlanta Capital - Net	(3.98%)	18.26%	10.73%	-	-
S&P 600 Small Cap Index	(4.93%)	10.08%	12.10%	3.21%	8.15%
Riverbridge Small Cap Growth - Gross	(5.74%)	10.59%	_	_	_
Riverbridge Small Cap Growth - Gross Riverbridge Small Cap Growth - Net	(5.74%)	9.76%	-	-	-
Russell 2000 Growth Index	(7.32%)	9.59%	1.09%	1.55%	6.72%
Sycamore Small Can Value Crass	(3.64%)	12.87%			_
Sycamore Small Cap Value - Gross Sycamore Small Cap Value - Net	(3.79%)	12.87%	-	<u>-</u>	-
Russell 2000 Value Index	(2.96%)	7.84%	13.32%	2.59%	- 6.19%
	(2.0070)	7.0170	10.0270	2.0070	0.1070
NTAM R2000 Index - Gross	(5.10%)	-	-	=	-
NTAM R2000 Index - Net Russell 2000 Index	(5.10%) (5.13%)	8.93%	- 7.16%	2.40%	- 6.65%
NUSSEII ZUUU IIIUEX	(0.10%)	0.93%	1.10%	∠.40%	0.00%



Returns for Periods Ended September 30, 2023

	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Total International Equity Gross Net Benchmark(1)	(3.39%) (3.44%) (3.49%)	21.80% 21.48% 20.19%	3.73% 3.45% 4.98%	3.08% 2.79% 2.79%	4.61% 4.31% 3.55%
International All Cap Gross Net	(3.52%) (3.62%)	23.91% 23.35%	<u>-</u>	-	<u>-</u>
MSCI ACWI xUS IMI	(3.49%)	20.19%	3.77%	2.57%	3.48%
William Blair Int'l Leaders - Gross William Blair Int'l Leaders - Net MSCI ACWI xUS IMI	(9.87%) (9.96%) (3.49%)	14.29% 13.85% 20.19%	(2.62%) (2.98%) 3.77%	3.40% 3.02% 2.57%	- - 3.48%
Arrowstreet ACWI ex US - Gross Arrowstreet ACWI ex US - Net MSCI ACWI ex US IMI	0.93% 0.82% (3.49%)	31.14% 30.48% 20.19%	- 3.77%	- - 2.57%	- - 3.48%
Developed Intl Large Cap Gross Net	(4.10%) (4.10%)	22.35% 22.26%	-	-	-
MSCI World xUS	(4.10%)	24.00%	6.07%	3.44%	3.84%
State St MSCI World exUS - Gross State St MSCI World exUS - Net MSCI World xUS	(4.10%) (4.10%) (4.10%)	21.29% 21.27% 24.00%	- - 6.07%	- - 3.44%	- - 3.84%
Developed Intl Small Cap Gross Net MSCI World xUS Small	(2.60%) (2.72%) (3.48%)	21.59% 21.26% 17.32%	- - 1.85%	- - 1.28%	- - 4.13%
DFA Intl Small Cap Value - Net World ex US SC Va	0.07% (1.01%)	28.28% 21.75%	10.44% 6.90%	2.40% 1.74%	4.47% 3.78%
State St MSCI exUS Small - Gross State St MSCI exUS Small - Net MSCI World xUS Small	(3.39%) (3.40%) (3.48%)	18.85% 18.81% 17.32%	- - 1.85%	- - 1.28%	- - 4.13%
Emerging Markets Gross Net MSCI EM	(1.93%) (1.94%) (2.93%)	8.39% 8.20% 11.70%	- (1.73%)	- - 0.56%	- - 2.07%
DFA EM All Cap Core - Gross DFA EM All Cap Core - Net MSCI EM	(1.52%) (1.52%) (2.93%)	- - 11.70%	- (1.73%)	- - 0.56%	- - 2.07%
State St MSCI EM China - Gross State St MSCI EM China - Net MSCI China	(1.97%) (1.97%) (1.94%)	- 5.24%	- (14.27%)	- (4.16%)	- - 1.67%
State St MSCI EM ex China - Gross State St MSCI EM ex China - Net MSCI EM x China	(3.39%) (3.39%) (3.33%)	- - 14.67%	- - 5.88%	- - 3.02%	- - 2.74%
Private Equity Net	(0.63%)	3.69%	6.16%	-	-
50 South Capital - Net	(1.70%)	(15.43%)	-	-	-
Sixth Street TAO - Net Benchmark(2)	0.00% 2.15%	11.52% 12.36%	10.87% 4.07%	<del>-</del> -	- -



<sup>(1)</sup> MSCI EAFE through 6/30/2016; MSCI World ex-US through 9/30/2022; MSCI ACWI xUS IMI(Net) thereafter. (2) 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.

Returns for Periods Ended September 30, 2023

	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Domestic Fixed Income					
Gross	(2.34%)	2.81%	(3.09%)	1.56%	2.89%
Net	(2.38%)	2.73%	(3.18%)	1.46%	2.77%
Blmbg Aggregate Index	(3.23%)	0.64%	(5.21%)	0.10%	1.13%
Ares ND Credit Strategies Fd - Net	0.00%	7.74%	10.03%	7.92%	_
Cerberus ND Private Credit Fd - Net	2.12%	8.76%	9.10%	8.96%	_
S&P/LSTA Leveraged Loan B	3.85%	14.42%	6.34%	4.86%	4.59%
BND CDs - Net	0.76%	3.04%	2.85%	2.94%	-
Allspring Med Quality Credit - Gross	(2.57%)	5.43%	(3.18%)	2.30%	_
Allspring Med Quality Credit - Net	(2.63%)	5.28%	(3.35%)	2.12%	-
Blmbg Credit Baa	(2.89%)	4.76%	(4.33%)	1.23%	2.57%
Manulife-Declaration TRBF - Net	(1.67%)	1.11%	(0.51%)	1.99%	_
Libor-3 Month	1.45%	5.32%	2.19%	2.08%	1.46%
PIMCO Bravo II(1)	0.00%	(35.97%)	(6.50%)	(7.12%)	_
PIMCO DISCO II(1)	1.60%	6.70%	4.58%	4.75%	_
Blmbg Aggregate	(3.23%)	0.64%	(5.21%)	0.10%	1.13%
PIMCO Core Plus Constrained - Gross	(2.88%)	-	-	-	_
PIMCO Core Plus Constrained - Net	(2.90%)	-	-	-	-
Blmbg Aggregate	(3.23%)	0.64%	(5.21%)	0.10%	1.13%
Prudential Core Plus - Gross	(3.01%)	2.17%	(4.81%)	0.91%	-
Prudential Core Plus - Net	(3.06%)	2.01%	(4.99%)	0.72%	-
Blmbg Aggregate	(3.23%)	0.64%	(5.21%)	0.10%	1.13%
State Street Gov Index - Gross	(2.99%)	-	-	-	_
State Street Gov Index - Net	(2.99%)	_	_	_	_
Blmbg Government	(2.99%)	(0.74%)	(5.73%)	(0.03%)	0.65%
State Street Credit Index - Gross	(2.94%)	-	-	-	_
State Street Credit Index - Net	(2.95%)	-	-	_	-
Blmbg Credit	(3.01%)	3.47%	(4.83%)	0.86%	2.12%
Western Asset Core Plus - Gross	(3.93%)	1.19%	(5.85%)	0.04%	_
Western Asset Core Plus - Net	(3.99%)	1.07%	(5.95%)	(0.08%)	-
Blmbg Aggregate	(3.23%)	0.64%	(5.21%)	0.10%	1.13%

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



The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2023. 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, 2023

	14	Last	Last	Last 3	Last 5	Last 10
			-	Years	Years	
	Quarter	Year	Years	rears	rears	
Other Real Assets						
Gross	(1.78%)	(0.90%)	4.73%	5.47%	-	
Net	(1.84%)	(1.23%)	4.45%	5.17%	-	
Weighted Benchmark	(0.66%)	(3.40%)	3.43%	4.35%	-	
Real Estate						
Gross	(2.85%)	(12.15%)	6.65%	5.36%	7.90%	
Net	(2.99%)	(12.69%)	6.13%	4.84%	7.29%	
NCREIF Total Index	(1.37%)	(8.39%)	6.04%	5.26%	7.40%	
Invesco Core Real Estate - Gross	(1.57%)	(11.24%)	6.77%	5.71%	8.07%	
Invesco Core Real Estate - Net	(1.66%)	(11.59%)	6.40%	5.35%	7.70%	
NCREIF Total Index	(1.37%)	(8.39%)	6.04%	5.26%	7.40%	
NONEII Total Ilidex	(1.57 70)	(0.5570)	0.0470	3.2070	7.4070	
JP Morgan RE Inc & Growth - Gross	(4.73%)	(14.70%)	5.85%	4.63%	7.56%	
JP Morgan RE Inc & Growth - Net	(4.93%)	(15.51%)	5.14%	3.92%	6.71%	
NCREIF Total Index	(1.37%)	(8.39%)	6.04%	5.26%	7.40%	
Diversified						
Gross	(1.21%)	6.20%	4.14%	5.67%	_	
Net	(1.24%)	6.02%	3.97%	5.47%	_	
Weighted Benchmark	(0.30%)	(0.81%)	2.12%	3.87%	-	
Western Asset TIPS - Gross	(2.270/)	1.40%	(2.49%)	1.88%	_	
Western Asset TIPS - Gloss Western Asset TIPS - Net	(3.37%)	1.28%		1.76%	-	
	(3.43%)		(2.60%)		4 700/	
Benchmark(3)	(2.80%)	1.24%	(2.27%)	2.18%	1.78%	
JP Morgan Infrastructure - Gross	0.06%	12.56%	8.44%	7.27%	_	
JP Morgan Infrastructure - Net	0.06%	11.52%	7.63%	6.46%	-	
Grosvenor CIS Fund II - Net	(0.26%)	16.13%	17.26%	14.49%	-	
Grosvenor CIS Fund III - Net	6.44%	11.97%	-	-	-	
Benchmark(1)	(0.52%)	(5.36%)	6.26%	4.58%	3.08%	
Macquarie Infrastructure Fund IV - Net	0.05%	3.41%	13.05%	_	_	
Macquarie Infrastructure Fund V - Net	0.03%	6.26%	13.0376	-	_	
ISQ Global Infrastructure II - Net	(0.55%)	10.14%	14.00%	8.73%	_	
ISQ Global Infrastructure III - Net	0.06%	41.10%		-	_	
Benchmark(2)	(0.52%)	(5.36%)	6.26%	4.58%	-	
Death & Fred Sale of Sale of		4.540/	4.700/	4.000/	4.040/	
Cash & Equivalents - Net	1.37%	4.51%	1.70%	1.63%	1.04%	
NT Cash Account - Net	1.52%	4.56%	1.68%	-	-	
Bank of ND - Net	1.35%	4.66%	1.81%	-	-	
90 Day Treasury Bills	1.31%	4.47%	1.70%	1.72%	1.11%	
Total Fund						
Gross	(2.65%)	10.69%	3.64%	4.66%	5.59%	
Net	(2.69%)	10.51%	3.43%	4.45%	5.37%	
Target*	(2.83%)	8.96%	2.56%	3.98%	4.67%	

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



<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.

<sup>(1)</sup> ČPI-W through March 31, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

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

	12/2022-				
	9/2023	2022	2021	2020	2019
Global Equity					
Gross	9.78%	(18.43%)	20.07%	15.72%	27.65%
Net	9.66%	(18.66%)	19.68%	15.41%	27.39%
Weighted Benchmark	8.70%	(18.14%)	18.98%	15.48%	26.91%
Public Equity					
Gross	9.87%	-	-	-	-
Net	9.75%	-	-	-	-
Weighted Benchmark	8.96%	=	=	=	-
Domestic Equity					
Gross	12.07%	(17.99%)	25.91%	17.08%	28.90%
Net	11.99%	(18.22%)	25.48%	16.81%	28.71%
Weighted Benchmark	11.45%	(19.59%)	23.36%	20.94%	29.88%
Large Cap					
Gross	13.17%	(17.89%)	29.25%	19.81%	30.62%
Net	13.14%	(18.02%)	28.93%	19.67%	30.41%
Russell 1000 Index	13.01%	(19.13%)	26.45%	20.96%	31.43%
L.A. Capital Enhanced - Gross	13.56%	(18.20%)	29.09%	22.07%	29.51%
L.A. Capital Enhanced - Net	13.50%	(18.28%)	28.93%	21.93%	29.35%
Russell 1000 Index	13.01%	(19.13%)	26.45%	20.96%	31.43%
I A Conital Large Con Crowth Cross	22.55%	(27.440/)	31.52%	37.68%	33.87%
L.A. Capital LargeCap Growth - Gross L.A. Capital LargeCap Growth - Net	22.55% 22.43%	(27.44%) (27.89%)	31.52% 31.26%	37.68% 37.41%	33.60%
Russell 1000 Growth Index	24.98%	(27.89%)	27.60%	38.49%	36.39%
Nussell 1000 Glowill lildex	24.90 /0	(29.1470)	21.0076	30.4976	30.39 /6
Parametric-Clifton Enh R1000 - Gross	12.71%	(19.31%)	28.43%	18.77%	32.59%
Parametric-Clifton Enh R1000 - Net	12.71%	(19.31%)	27.84%	18.98%	32.59%
Benchmark(1)	13.01%	(18.12%)	28.71%	18.40%	31.49%
NTAM R1000 Index - Gross	13.02%	-	-	-	-
NTAM R1000 Index - Net	13.02%	-	-	-	-
Russell 1000 Index	13.01%	(19.13%)	26.45%	20.96%	31.43%
NTAM Quant Enh R1000 - Gross	11.61%	-	_	_	_
NTAM Quant Enh R1000 - Net	11.61%	-	-	-	_
Russell 1000 Index	13.01%	(19.13%)	26.45%	20.96%	31.43%
		,			
Small Cap Gross	5.79%	(47.00%)	16.70%	9.63%	24.16%
Net	5.79% 5.40%	(17.09%) (17.73%)	16.70%	9.05%	24.16% 24.02%
Russell 2000 Index	2.54%	(20.44%)	14.82%	19.96%	25.52%
		,			20.0270
Atlanta Capital - Gross	7.99%	(11.34%)	20.30%	13.78%	-
Atlanta Capital - Net	7.49%	(11.99%)	19.61%	13.41%	-
S&P 600 Small Cap Index	0.81%	(16.10%)	26.82%	11.29%	22.78%
Riverbridge Small Cap Growth - Gross	10.07%	(32.50%)	4.59%	-	-
Riverbridge Small Cap Growth - Net	9.47%	(33.11%)	3.91%	-	-
Russell 2000 Growth Index	5.24%	(26.36%)	2.83%	34.63%	28.48%
Sycamore Small Cap Value - Gross	0.40%	(5.88%)	26.40%	-	_
Sycamore Small Cap Value - Net	0.08%	(6.56%)	25.69%	-	-
Russell 2000 Value Index	(0.53%)	(14.48%)	28.27%	4.63%	22.39%
NTAM R2000 Index - Gross	2.67%				
NTAM R2000 Index - Gross NTAM R2000 Index - Net	2.67%	-	-	-	<u>-</u>
Russell 2000 Index	2.54%	(20.44%)	14.82%	19.96%	25.52%
. MOOON 2000 MINOX	2.0470	(20.7770)	11.02/0	10.0070	20.02 /0

<sup>(1)</sup> S&P 500 Index through 6/30/2022 and Russell 1000 Index thereafter.



	12/2022-				
	9/2023	2022	2021	2020	2019
Total International Equity					
Gross	6.54%	(19.26%)	11.59%	13.68%	25.75%
Net	6.37%	(19.50%)	11.29%	13.35%	25.39%
Benchmark(1)	5.30%	(15.79%)	12.62%	7.59%	22.49%
International All Cap					
Gross	8.55%	_	_	_	_
Net	8.24%	_	_	_	_
MSCI ACWI xUS IMI	5.30%	(16.58%)	8.53%	11.12%	21.63%
		(**************************************		,•	
William Blair Int'l Leaders - Gross	1.29%	(28.14%)	10.77%	28.49%	33.67%
William Blair Int'l Leaders - Net	1.08%	(28.48%)	10.38%	28.03%	33.20%
MSCI ACWI xUS IMI	5.30%	(16.58%)	8.53%	11.12%	21.63%
	40.0404				
Arrowstreet ACWI ex US - Gross	13.84%	-	-	-	-
Arrowstreet ACWI ex US - Net	13.45%	-	-	-	-
MSCI ACWI ex US IMI	5.30%	(16.58%)	8.53%	11.12%	21.63%
Developed Intl Large Cap					
Gross	6.69%	-	-	-	-
Net	6.68%	_	_	_	_
MSCI World xUS	6.73%	(14.29%)	12.62%	7.59%	22.49%
State St MSCI World exUS - Gross	6.69%	_	_	_	-
		-	-	-	-
State St MSCI World exUS - Net	6.68%	(4.4.000()	-	- 7.500/	-
MSCI World xUS	6.73%	(14.29%)	12.62%	7.59%	22.49%
Developed Intl Small Cap					
Gross	3.06%	-	-	-	-
Net	2.78%	-	-	-	-
MSCI World xUS Small	1.83%	(20.59%)	11.14%	12.78%	25.41%
DFA Intl Small Cap Value - Net	7.54%	(9.78%)	15.89%	0.81%	21.00%
World ex US SC Va	4.23%	(14.00%)	13.27%	2.58%	22.83%
World ex 03 30 Va	4.25 /0	(14.00%)	13.27 /0	2.30 /6	22.03 /0
State St MSCI exUS Small - Gross	1.86%	-	-	-	-
State St MSCI exUS Small - Net	1.83%	-	-	-	-
MSCI World xUS Small	1.83%	(20.59%)	11.14%	12.78%	25.41%
Emerging Markets					
Gross	2.38%	_	_	-	_
Net	2.19%	_	_	_	_
MSCI EM	1.82%	(20.09%)	(2.54%)	18.31%	18.44%
Delivata Equify					
Private Equity	0.000/	0.050/	40.400/		
Net	3.98%	0.85%	10.46%	-	-
50 South Capital - Net	(10.24%)	(21.48%)	-	-	-
a	9.60%	6.05%	13.50%		
Sixth Street TAO - Net	9.00%	0.05%	13.30%	-	-



<sup>(1)</sup> MSCI EAFE through 6/30/2016; MSCI World ex-US through 9/30/2022; MSCI ACWI xUS IMI(Net) thereafter. (2) 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.

	12/2022- 9/2023	2022	2021	2020	2019
Domestic Fixed Income					
Gross	0.71%	(11.82%)	0.41%	8.32%	11.08%
Net	0.66%	(11.91%)	0.31%	8.21%	10.95%
Blmbg Aggregate Index	(1.21%)	(13.01%)	(1.54%)	7.51%	8.72%
Ares ND Credit Strategies Fd - Net	6.29%	7.85%	12.08%	3.29%	8.35%
Cerberus ND Private Credit Fd - Net	6.46%	7.02%	11.08%	8.81%	8.57%
S&P/LSTA Leveraged Loan B	11.31%	(1.07%)	5.22%	3.80%	8.99%
BND CDs - Net	2.26%	2.88%	2.72%	2.47%	3.50%
Allspring Med Quality Credit - Gross	1.26%	(16.18%)	1.51%	12.23%	17.37%
Allspring Med Quality Credit - Net	1.16%	(16.34%)	1.32%	12.02%	17.16%
Blmbg Credit Baa	0.56%	(15.94%)	(0.40%)	9.43%	16.46%
Manulife-Declaration TRBF - Net	0.79%	(6.88%)	2.45%	5.75%	7.16%
Libor-3 Month	4.14%	2.25%	0.17%	0.78%	2.43%
PIMCO Bravo II(1)	(17.18%)	(26.24%)	33.16%	(17.51%)	0.96%
PIMCO DISCO II(1)	5.96%	(0.28%)	6.33%	4.18%	7.76%
Blmbg Aggregate	(1.21%)	(13.01%)	(1.54%)	7.51%	8.72%
Prudential Core Plus - Gross	(0.39%)	(14.40%)	(1.08%)	10.03%	11.31%
Prudential Core Plus - Net	(0.50%)	(14.58%)	(1.27%)	9.81%	11.04%
Blmbg Aggregate	(1.21%)	(13.01%)	(1.54%)	7.51%	8.72%
Western Asset Core Plus - Gross	(1.10%)	(15.80%)	(1.19%)	8.29%	10.93%
Western Asset Core Plus - Net	(1.19%)	(15.90%)	(1.29%)	8.17%	10.80%
Blmbg Aggregate	(1.21%)	(13.01%)	(1.54%)	7.51%	8.72%

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



	12/2022-	2022	2024	2022	0040
	9/2023	2022	2021	2020	2019
Other Real Assets	(4.000()	0.050/	40.000/	7.440/	0.040/
Gross	(1.83%)	3.95%	10.32%	7.44%	8.04%
Net	(2.10%)	3.70%	10.04%	7.14%	7.71%
Weighted Benchmark	(2.06%)	(0.14%)	11.65%	5.41%	6.85%
Real Estate					
Gross	(12.22%)	20.97%	14.29%	(0.02%)	4.57%
Net	(12.68%)	20.47%	13.79%	(0.46%)	4.02%
NCREIF Total Index	(5.07%)	5.53%	17.70%	1.60%	6.42%
Invesco Core Real Estate - Gross	(12.47%)	19.92%	16.28%	(0.94%)	6.46%
Invesco Core Real Estate - Net	(12.76%)	19.56%	15.90%	(1.27%)	6.10%
NCREIF Total Index	(5.07%)	5.53%	17.70%	1.60%	6.42%
ID Marrier DE Las A Care the Corre	(40.450()	04.400/	40.040/	0.000/	0.700/
JP Morgan RE Inc & Growth - Gross	(13.15%)	21.40%	12.31%	0.89%	2.79%
JP Morgan RE Inc & Growth - Net	(13.86%)	20.75%	11.69%	0.34%	2.06%
NCREIF Total Index	(5.07%)	5.53%	17.70%	1.60%	6.42%
Diversified					
Gross	4.63%	(3.56%)	8.62%	10.97%	9.77%
Net	4.50%	(3.69%)	8.43%	10.75%	9.55%
Weighted Benchmark	(0.53%)	(2.92%)	8.72%	7.35%	7.05%
Western Asset TIPS - Gross	(1.23%)	(12.92%)	5.90%	11.17%	10.31%
Western Asset TIPS - Net	(1.32%)	(13.02%)	5.79%	11.04%	10.18%
Benchmark(3)	(0.87%)	(12.60%)	6.00%	11.54%	8.75%
JP Morgan Infrastructure - Gross	14.34%	(1.27%)	8.51%	9.05%	5.77%
JP Morgan Infrastructure - Net	13.51%	(1.91%)	7.68%	8.18%	5.12%
Grosvenor CIS Fund II - Net	16.10%	9.19%	17.74%	14.05%	13.02%
Grosvenor CIS Fund III - Net	13.27%	(4.23%)	17.74%	14.05%	13.02%
Benchmark(1)	(2.95%)	7.91%	13.37%	1.07%	3.43%
Macquarie Infrastructure Fund IV - Net	2.36%	18.38%	13.12%	11.16%	0.26%
Macquarie Infrastructure Fund V - Net	4.33%	16.47%	(2.23%)	=	-
ISQ Global Infrastructure II - Net	10.36%	8.77%	18.83%	9.58%	26.47%
ISQ Global Infrastructure III - Net	9.42%	(25.81%)	-	-	-
Benchmark(2)	(2.95%)	7.91%	13.37%	1.07%	3.43%
Cash & Equivalents - Net	3.67%	1.42%	0.03%	0.42%	2.10%
NT Cash Account - Net	3.78%	1.29%	0.01%	0.34%	-
Bank of ND - Net	3.72%	1.63%	0.08%	0.56%	_
90 Day Treasury Bills	3.60%	1.46%	0.05%	0.67%	2.28%
Total Fund					
Gross	4.83%	(12.70%)	11.54%	12.44%	18.35%
Net	4.71%	(12.70%)	11.28%	12.44%	18.13%
		· /	11.28%	12.22%	18.13%
Target*	3.61%	(13.52%)	10.45%	12.07%	17.47%

<sup>(2) 50%</sup> CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.
(3) Blmbg Global Inflation-Linked through 10/31/2018 and Blmbg US Govt Inflation Linked Bond Index thereafter.



<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.

<sup>(1)</sup> ČPI-W through March 31, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

	6/2023- 9/2023	FY 2023	FY 2022	FY 2021	FY 2020
Global Equity	9/2023	F1 2023	F1 2022	F1 2021	F1 2020
Gross	(3.21%)	16.74%	(16.04%)	42.77%	0.92%
Net	(3.25%)	16.51%	(16.32%)	42.35%	0.70%
Weighted Benchmark	(3.27%)	15.37%	(16.33%)	42.18%	(0.01%)
Domestic Equity					
Gross	(3.20%)	19.08%	(13.40%)	45.37%	2.71%
Net	(3.24%)	18.89%	(13.72%)	44.96%	2.55%
Weighted Benchmark	(3.43%)	18.36%	(16.40%)	48.11%	3.66%
Large Cap					
Gross	(3.00%)	20.11%	(12.00%)	46.02%	6.53%
Net	(3.01%)	20.01%	(12.23%)	45.85%	6.36%
Russell 1000 Index	(3.15%)	19.36%	(13.04%)	43.07%	7.48%
L.A. Capital Enhanced - Gross	(3.05%)	19.82%	(11.03%)	43.44%	8.26%
L.A. Capital Enhanced - Net	(3.08%)	19.74%	(11.15%)	43.28%	8.12%
Russell 1000 Index	(3.15%)	19.36%	(13.04%)	43.07%	7.48%
L.A. Capital LargeCap Growth - Gross	(3.28%)	26.06%	(16.21%)	43.46%	21.97%
L.A. Capital LargeCap Growth - Net	(3.32%)	25.34%	(16.39%)	43.18%	21.73%
Russell 1000 Growth Index	(3.13%)	27.11%	(18.77%)	42.50%	23.28%
Parametric-Clifton Enh R1000 - Gross	(3.23%)	19.33%	(12.20%)	42.20%	7.10%
Parametric-Clifton Enh R1000 - Net	(3.23%)	19.33%	(12.61%)	42.46%	7.10%
Benchmark(1)	(3.15%)	19.36%	(10.62%)	40.79%	7.50%
Small Cap					
Gross	(4.38%)	15.09%	(17.13%)	42.89%	(7.26%)
Net	(4.58%)	14.42%	(17.68%)	41.82%	(7.36%)
Russell 2000 Index	(5.13%)	12.31%	(25.20%)	62.03%	(6.63%)
Atlanta Capital - Gross	(3.68%)	16.57%	(6.97%)	36.91%	-
Atlanta Capital - Net	(3.98%)	15.91%	(7.54%)	36.09%	-
S&P 600 Small Cap Index	(4.93%)	9.75%	(16.81%)	67.40%	(11.29%)
Riverbridge Small Cap Growth - Gross		16.91%	(34.52%)	-	-
Riverbridge Small Cap Growth - Net	(5.90%)	15.92%	(35.02%)	-	-
Russell 2000 Growth Index	(7.32%)	18.53%	(33.43%)	51.36%	3.48%
Sycamore Small Cap Value - Gross	(3.64%)	13.22%	(7.91%)	-	-
Sycamore Small Cap Value - Net	(3.79%)	12.58%	(8.49%)	-	-
Russell 2000 Value Index	(2.96%)	6.01%	(16.28%)	73.28%	(17.48%)

<sup>(1)</sup> S&P 500 Index through 6/30/2022 and Russell 1000 Index thereafter.



	6/2023-				
	9/2023	FY 2023	FY 2022	FY 2021	FY 2020
Total International Equity					
Gross	(3.39%)	14.30%	(20.59%)	38.84%	(1.79%)
Net	(3.44%)	14.01%	(20.81%)	38.46%	(2.09%)
Benchmark(1)	(3.49%)	13.08%	(16.76%)	33.60%	(5.42%)
International All Cap					
William Blair Int'l Leaders - Gross	(9.87%)	17.15%	(28.53%)	38.38%	8.74%
William Blair Int'l Leaders - Net	(9.96%)	16.73%	(28.82%)	37.92%	8.33%
MSCI ACWI xUS IMI	(3.49%)	12.47%	(19.86%)	37.18%	(4.74%)
Arrowstreet ACWI ex US - Gross	0.93%	17.76%	-	-	-
Arrowstreet ACWI ex US - Net	0.82%	17.26%	-	-	-
MSCI ACWI ex US IMI	(3.49%)	12.47%	(19.86%)	37.18%	(4.74%)
Developed Intl Small Cap					
DFA Intl Small Cap Value - Net	0.07%	15.25%	(13.72%)	43.90%	(11.98%)
World ex US SC Va	(1.01%)	10.58%	(17.41%)	44.91%	(11.36%)
Private Equity					
Net	(0.63%)	4.30%	1.69%	-	-
50 South Capital - Net	(1.70%)	(14.24%)	(32.51%)	-	-
Sixth Street TAO - Net	0.00%	11.52%	6.80%	-	-
Benchmark(2)	2.15%	10.33%	(7.96%)	-	-

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



<sup>(1)</sup> MSCI EAFE through 6/30/2016; MSCI World ex-US through 9/30/2022; MSCI ACWI xUS IMI(Net) thereafter.

	6/2023- 9/2023	FY 2023	FY 2022	FY 2021	FY 2020
Domestic Fixed Income					
Gross	(2.34%)	1.40%	(9.70%)	3.40%	7.86%
Net	(2.38%)	1.32%	(9.80%)	3.29%	7.74%
Blmbg Aggregate Index	(3.23%)	(0.94%)	(10.29%)	(0.33%)	8.74%
Ares ND Credit Strategies Fd - Net	0.00%	7.74%	8.90%	13.53%	1.72%
Cerberus ND Private Credit Fd - Net	2.12%	7.89%	7.23%	11.36%	9.05%
S&P/LSTA Leveraged Loan B	3.85%	11.48%	(2.97%)	11.68%	(1.14%)
BND CDs - Net	0.76%	3.03%	2.68%	2.67%	2.82%
Allspring Med Quality Credit - Gross	(2.57%)	3.11%	(14.89%)	9.20%	9.08%
Allspring Med Quality Credit - Net	(2.63%)	2.97%	(15.05%)	9.00%	8.87%
Blmbg Credit Baa	(2.89%)	2.64%	(14.89%)	5.41%	8.19%
Manulife-Declaration TRBF - Net	(1.67%)	1.18%	(5.18%)	6.88%	3.18%
Libor-3 Month	1.45%	4.53%	0.48%	0.22%	1.74%
PIMCO Bravo II(1)	0.00%	(35.97%)	(0.57%)	28.42%	(18.00%)
PIMCO DISCO II(1)	1.60%	5.07%	1.64%	8.47%	2.89%
Blmbg Aggregate	(3.23%)	(0.94%)	(10.29%)	(0.33%)	8.74%
Prudential Core Plus - Gross	(3.01%)	0.62%	(12.22%)	2.64%	9.00%
Prudential Core Plus - Net	(3.06%)	0.45%	(12.41%)	2.44%	8.79%
Blmbg Aggregate	(3.23%)	(0.94%)	(10.29%)	(0.33%)	8.74%
Western Asset Core Plus - Gross	(3.93%)	(0.55%)	(12.51%)	1.11%	8.89%
Western Asset Core Plus - Net	(3.99%)	(0.64%)	(12.61%)	1.00%	8.77%
Blmbg Aggregate	(3.23%)	(0.94%)	(10.29%)	(0.33%)	8.74%

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



	6/2023-				
	9/2023	FY 2023	FY 2022	FY 2021	FY 2020
Other Real Assets					
Gross	(1.78%)	(0.98%)	9.55%	9.33%	5.81%
Net	(1.84%)	(1.24%)	9.29%	9.04%	5.52%
Weighted Benchmark	(0.66%)	(3.22%)	9.83%	6.44%	4.85%
Real Estate					
Gross	(2.85%)	(9.57%)	29.96%	6.23%	1.41%
Net	(2.99%)	(9.99%)	29.41%	5.79%	0.92%
NCREIF Total Index	(1.37%)	(6.60%)	21.45%	7.37%	2.69%
Invesco Core Real Estate - Gross	(1.57%)	(9.83%)	27.19%	7.80%	1.32%
Invesco Core Real Estate - Net	(1.66%)	(10.10%)	26.79%	7.45%	0.98%
NCREIF Total Index	(1.37%)	(6.60%)	21.45%	7.37%	2.69%
JP Morgan RE Inc & Growth - Gross	(4.73%)	(10.47%)	32.84%	4.65%	1.50%
JP Morgan RE Inc & Growth - Net	(4.93%)	(11.10%)	32.12%	4.12%	0.86%
NCREIF Total Index	(1.37%)	(6.60%)	21.45%	7.37%	2.69%
Diversified					
Gross	(1.21%)	4.33%	0.93%	10.81%	7.83%
Net	(1.24%)	4.16%	0.79%	10.59%	7.64%
Weighted Benchmark	(0.30%)	(1.52%)	4.39%	5.96%	5.93%
Western Asset TIPS - Gross	(3.37%)	(0.91%)	(6.40%)	7.18%	8.49%
Western Asset TIPS - Net	(3.43%)	(1.00%)	(6.50%)	7.06%	8.36%
Benchmark(3)	(2.80%)	(1.33%)	(5.73%)	6.51%	8.74%
JP Morgan Infrastructure - Gross	0.06%	12.50%	1.85%	11.25%	5.29%
JP Morgan Infrastructure - Net	0.06%	11.49%	1.23%	10.24%	4.60%
Grosvenor CIS Fund II - Net	(0.26%)	16.30%	10.66%	25.15%	5.23%
Grosvenor CIS Fund III - Net	6.44%	5.19%	-	-	-
Benchmark(1)	(0.52%)	(3.04%)	18.33%	5.27%	1.62%
Macquarie Infrastructure Fund IV - Net	0.05%	2.67%	15.50%	20.58%	9.14%
Macquarie Infrastructure Fund V - Net	0.13%	6.21%	18.12%	-	-
ISQ Global Infrastructure II - Net	(0.55%)	10.04%	12.90%	19.91%	6.15%
ISQ Global Infrastructure III - Net	0.06%	1.78%	-	-	-
Benchmark(2)	(0.52%)	(3.04%)	18.33%	5.27%	1.62%
Cash & Equivalents - Net	1.37%	3.58%	0.16%	0.04%	1.34%
NT Cash Account - Net	1.52%	3.42%	0.13%	0.01%	1.24%
Bank of ND - Net	1.35%	3.82%	0.23%	0.10%	1.49%
90 Day Treasury Bills	1.31%	3.59%	0.17%	0.09%	1.63%
Total Fund					
Gross	(2.65%)	8.37%	(9.90%)	22.95%	4.41%
Net	(2.69%)	8.19%	(10.12%)	22.68%	4.23%
Target*	(2.83%)	6.82%	(10.45%)	20.65%	4.38%

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



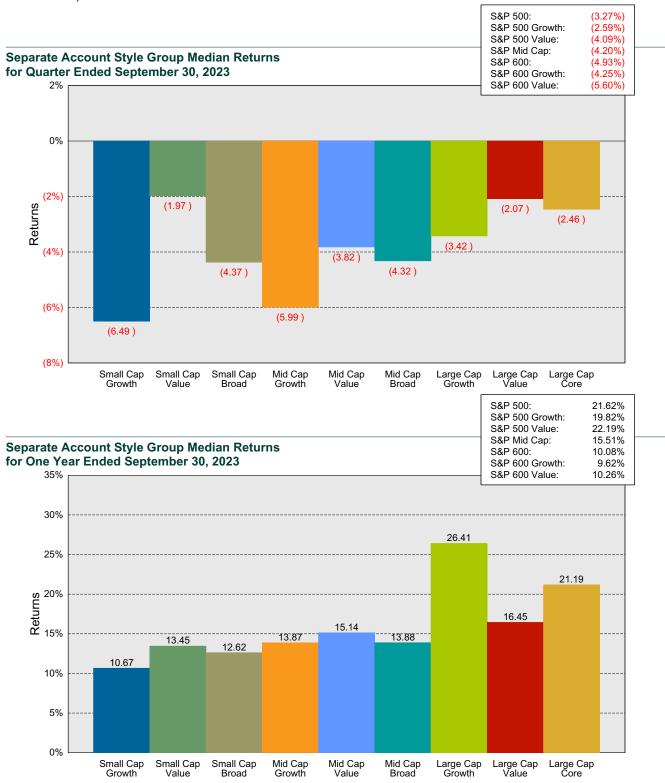
<sup>\*</sup> Current Quarter Target = 35.0% Blmbg:Aggregate, 23.8% Russell 1000 Index, 19.0% MSCI ACWI xUS IMI, 10.0% DRA Weighted Benchmark, 5.0% NCREIF Total Index, 4.2% Russell 2000 Index and 3.0% Private Equity.

<sup>(1)</sup> ČPI-W through March 31, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

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

# Domestic Equity Active Management Overview

U.S. stock indices posted negative returns in 3Q. The S&P 500 Index declined 3.3% while the tech-heavy Nasdaq Composite dropped 3.9%. Within the S&P 500, Utilities (-9.2%), Real Estate (-8.9%), and Technology (-5.6%) performed the worst while Energy (+12.2%) and Communication Services (+3.1%) led sector returns. In small caps, value stocks (Russell 2000 Value: -3.0%) outperformed growth (Russell 2000 Growth: -7.3%). Growth and value posted similar returns in the large cap space, down 3.1% and 3.2%, respectively. Small cap stocks underperformed large (Russell 2000: -5.1%; Russell 1000: -3.1%). Year-to-date results remain positive for most indices (Russell 1000 Growth: +25.0%; S&P 500 +13.1%; Russell 2000 Value: -0.5%).





## Domestic Equity Period Ended September 30, 2023

#### **Quarterly Summary and Highlights**

- Domestic Equity's portfolio posted a (3.20)% return for the quarter placing it in the 53 percentile of the Callan All Cap Broad group for the quarter and in the 44 percentile for the last year.
- Domestic Equity's portfolio outperformed the Domestic Equity Target by 0.24% for the quarter and outperformed the Domestic Equity Target for the year by 1.82%.

#### **Quarterly Asset Growth**

 Beginning Market Value
 \$2,699,164,300

 Net New Investment
 \$-54,738,758

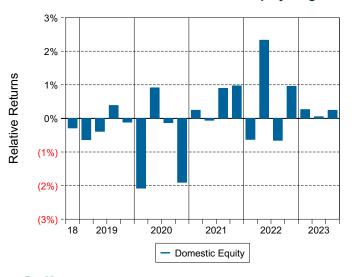
 Investment Gains/(Losses)
 \$-84,485,535

Ending Market Value \$2,559,940,007

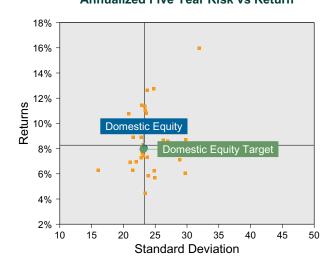
#### Performance vs Callan All Cap Broad (Gross)



## Relative Return vs Domestic Equity Target



## Callan All Cap Broad (Gross) Annualized Five Year Risk vs Return



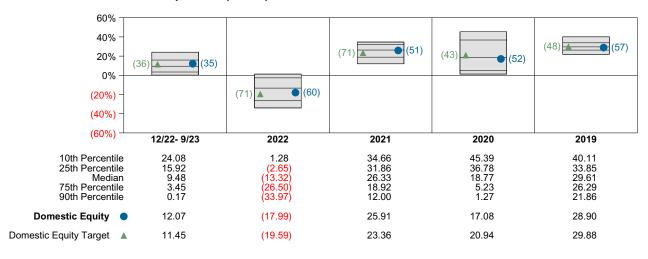


### Domestic Equity Return Analysis Summary

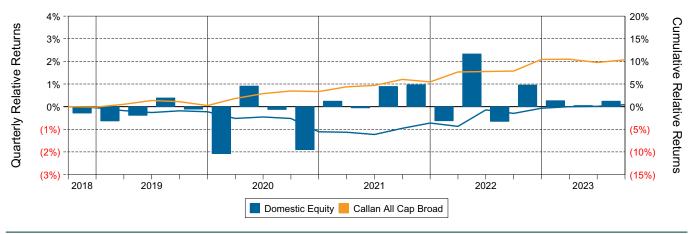
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

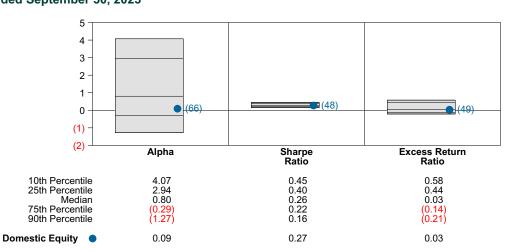
#### Performance vs Callan All Cap Broad (Gross)



#### **Cumulative and Quarterly Relative Returns vs Domestic Equity Target**



Risk Adjusted Return Measures vs Domestic Equity Target Rankings Against Callan All Cap Broad (Gross) Five Years Ended September 30, 2023



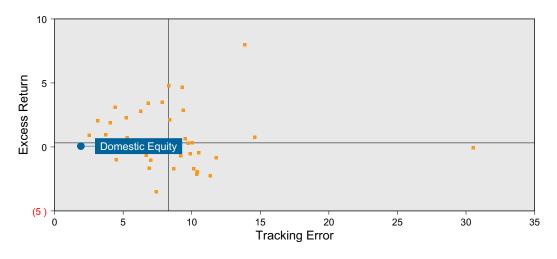


### Domestic Equity Risk Analysis Summary

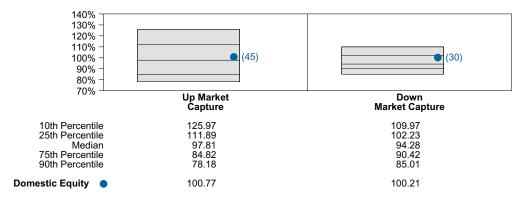
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

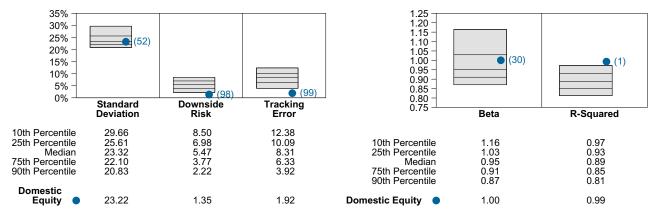
#### Risk Analysis vs Callan All Cap Broad (Gross) Five Years Ended September 30, 2023



Market Capture vs Domestic Equity Target Rankings Against Callan All Cap Broad (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Domestic Equity Target Rankings Against Callan All Cap Broad (Gross) Five Years Ended September 30, 2023

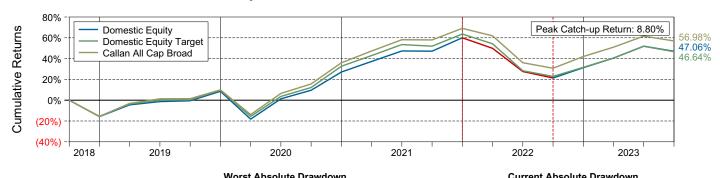




# Domestic Equity Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**

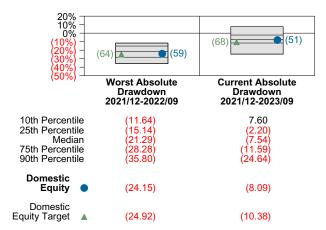


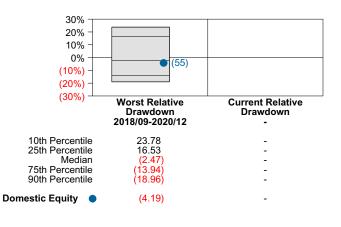
		****	ot / tboolate Blane							
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Domestic Equity	(24.15)%	0.75	2021/12-2022/09	(24.92)%	(22.69)%	(8.09)%	1.75	2021/12-2023/09	(10.38)%	(7.16)%
Recovery from Trough	21.18%	1.00+	2022/09-2023/09	19.36%	20.09%	21.18%	1.00+	2022/09-2023/09	19.36%	20.09%
Domestic Equity Target	(24.92)%	0.75	2021/12-2022/09			(10.38)%	1.75	2021/12-2023/09		
Callan All Cap Broad	(22.69)%	0.75	2021/12-2022/09			(7.16)%	1.75	2021/12-2023/09		

#### Relative Cumulative Drawdown Analysis vs. Domestic Equity Target Cumulative Relative Returns 8% Domestic Equity 7.05% Callan All Cap Broad 6% 4% 2% 0.29% 0% (2%)(4%)(6%)2018 2020 2021 2022 2023 2019

	\	Norst Rel	ative Drawdown		Current Relative Drawdown					
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers		
Domestic Equity	(4.19)%	2.25	2018/09-2020/12	2.51%	-	-	-	-		
Recovery from Trough	0.24%	0.25	2020/12-2021/03	0.54%	-	-	-	-		
Callan All Cap Broad	(1.39)%	0.50	2022/12-2023/06		(0.81)%	0.75	2022/12-2023/09			

Drawdown Rankings vs. Domestic Equity Target Rankings against Callan All Cap Broad Five Years Ended September 30, 2023



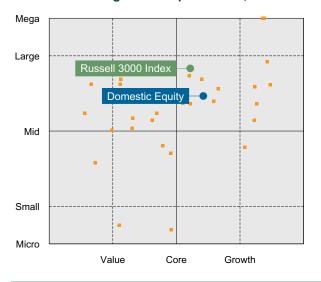




## Current Holdings Based Style Analysis Domestic Equity As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

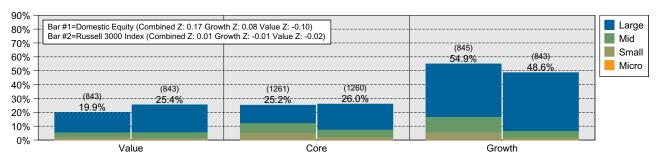
## Style Map vs Callan All Cap Broad Holdings as of September 30, 2023



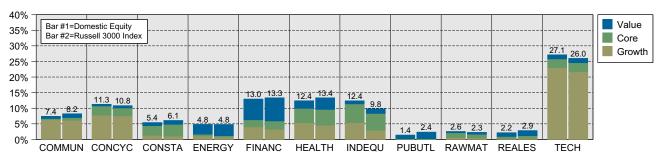
#### Style Exposure Matrix Holdings as of September 30, 2023

	Value	Core	Growth	Total
	25.4% (843)	26.0% (1260)	48.6% (843)	100.0% (2946)
Total	( )		( )	( ) ,
	19.9% (843)	25.2% (1261)	54.9% (845)	100.0% (2949)
	0.2% (302)	0.3% (425)	0.1% (157)	0.6% (884)
Micro				
	0.0% (302)	0.1% (425)	0.2% (157)	0.3% (884)
	1.2% (285)	2.2% (530)	1.7% (364)	5.1% (1179)
Small	, ,		, ,	, ,
	2.0% (285)	5.3% (531)	5.4% (365)	12.7% (1181)
	4.3% (157)	5.2% (218)	4.8% (214)	14.3% (589)
Mid				
	3.6% (157)	7.0% (218)	11.2% (215)	21.7% (590)
· ·	19.6% (99)	18.3% (87)	42.0% (108)	80.0% (294)
Large	(55)	(31)	(100)	(2014)
	14.2% (99)	12.9% (87)	38.1% (108)	65.2% (294)

## Combined Z-Score Style Distribution Holdings as of September 30, 2023



#### Sector Weights Distribution Holdings as of September 30, 2023



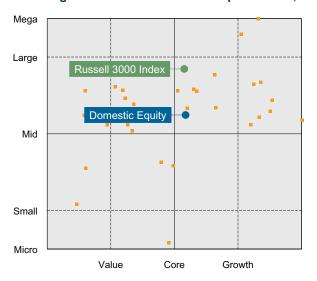


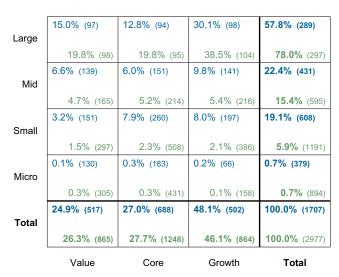
### Historical Holdings Based Style Analysis Domestic Equity For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

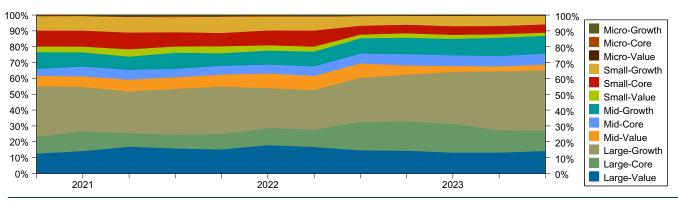
## Average Style Map vs Callan All Cap Broad Holdings for Three Years Ended September 30, 2023

Average Style Exposure Matrix Holdings for Three Years Ended September 30, 2023

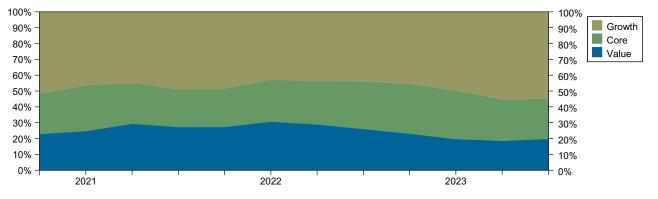




#### **Domestic Equity Historical Cap/Style Exposures**



**Domestic Equity Historical Style Only Exposures** 

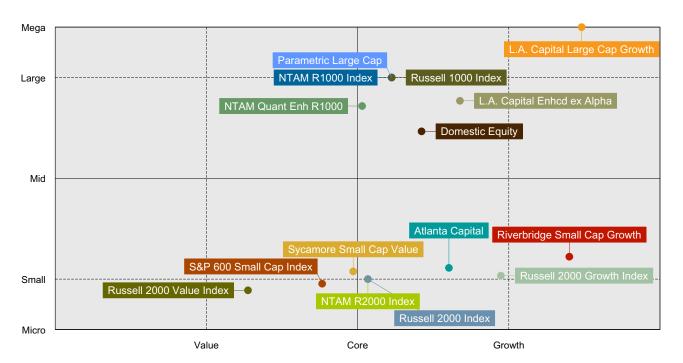




### **Holdings Based Style Analysis** For One Quarter Ended September 30, 2023

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

Style Map Holdings for One Quarter Ended September 30, 2023



	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
NTAM R1000 Index	143.73	0.02	(0.01)	(0.02)	1009	46.83
NTAM Quant Enh R1000	107.28	(0.14)	0.00	0.14	184	32.00
L.A. Capital Enhcd ex Alpha	113.93	0.37	0.18	(0.19)	220	28.31
L.A. Capital Large Cap Grow	rth 742.90	1.01	0.43	(0.57)	119	7.05
Parametric Large Cap	143.73	0.02	(0.01)	(0.02)	1009	46.83
Atlanta Capital	3.82	0.31	0.07	(0.24)	63	18.88
NTAM R2000 Index	2.45	(0.11)	(0.10)	0.01	1984	314.77
Riverbridge Small Cap Grow	th 5.19	0.94	0.28	(0.67)	48	14.55
Sycamore Small Cap Value	3.39	(0.19)	(0.05)	0.13	110	40.29
Domestic Equity	74.87	0.17	0.08	(0.10)	2999	72.94
S&P 600 Small Cap Index	2.27	(0.36)	(0.12)	0.24	601	158.34
Russell 1000 Index	143.73	0.02	(0.01)	(0.02)	1009	46.83
Russell 2000 Index	2.45	(0.11)	(0.10)	0.01	1984	314.77
Russell 2000 Growth Index	2.87	0.58	0.11	(0.47)	1083	144.58
Russell 2000 Value Index	2.02	(0.76)	(0.29)	0.47	1447	205.51

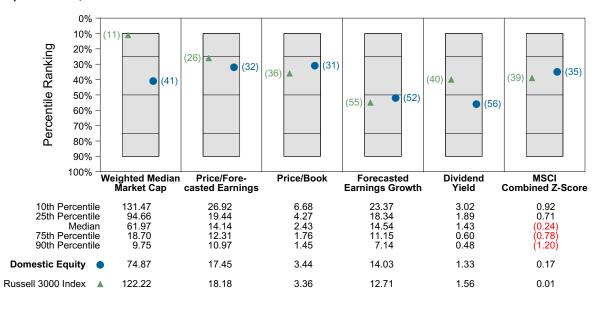


# Domestic Equity Equity Characteristics Analysis Summary

#### **Portfolio Characteristics**

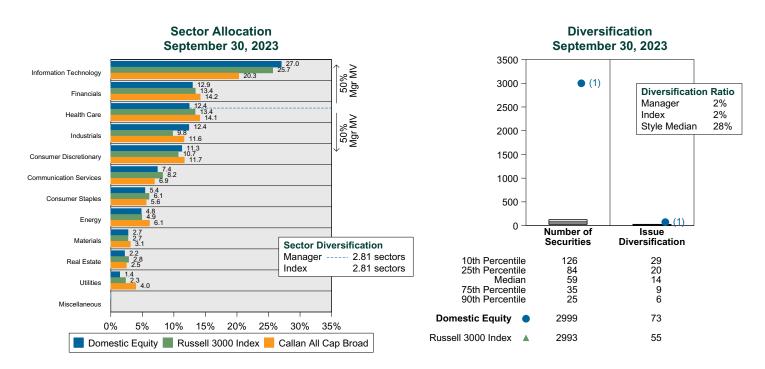
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

#### Portfolio Characteristics Percentile Rankings Rankings Against Callan All Cap Broad as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.

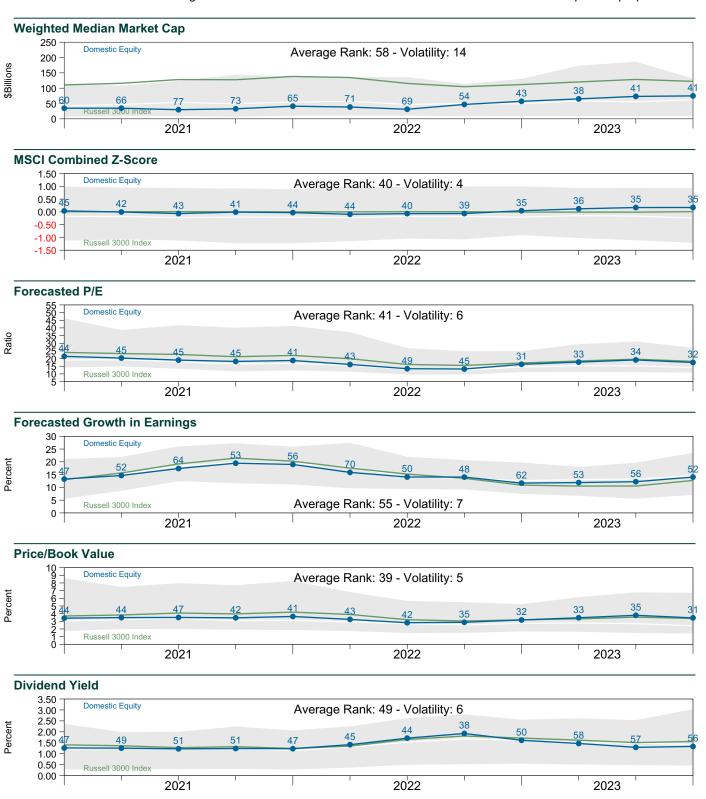




### **Portfolio Characteristics Analysis**

#### Callan All Cap Broad

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan All Cap Broad Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 3000 Index is shown for comparison purposes.

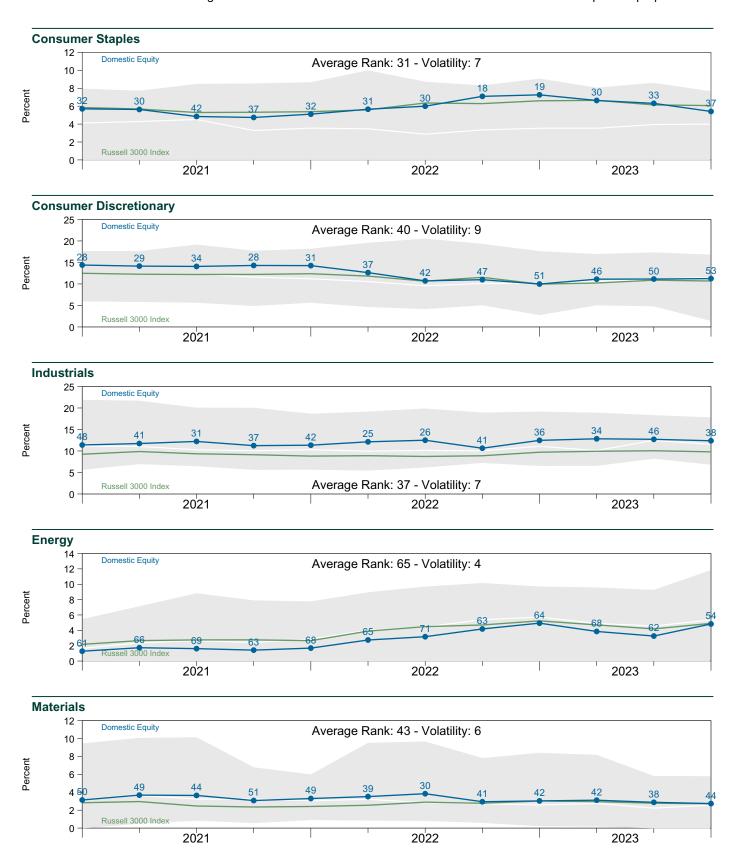


Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.



#### **Historical Sector Weight Analysis**

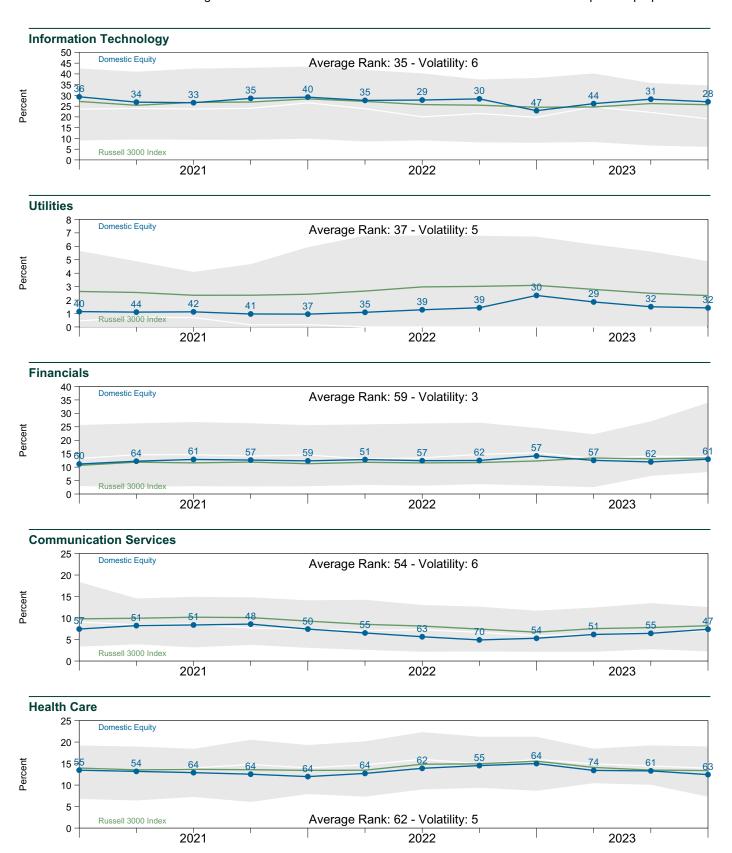
The charts below illustrate the behavior of the product over different industry sectors weights through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan All Cap Broad Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The Russell 3000 Index is shown for comparison purposes.





#### **Historical Sector Weight Analysis**

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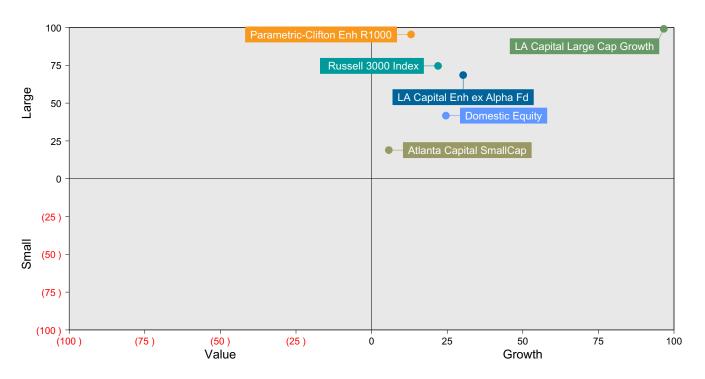




### Historical Returns Based Style Analysis For Three Years Ended September 30, 2023

This page analyzes and compares the investment styles of multiple portfolios using returns-based style analysis. The methodology utilizes a seven factor regression analysis to find the mix of equity style factors that best explains the past return patterns exhibited by each portfolio. The result is a determination of "implied" historical style exposures as implied by past performance patterns. The top "style map" chart illustrates the results in a two dimensional (market capitalization and growth vs. value) style format. The bottom table gives a more detailed breakdown of the regression results. It includes all seven implied style factor exposures, as well as the "R-squared" of the results, which is used to gauge the veracity of the analysis.

#### Average Style Map For Three Years Ended September 30, 2023



	Weight	R-							
	%	Squared	LCG	LCV	MCG	MCV	SCG	SCV	T-BILLS
LA Capital Enh ex Alpha Fd	15.27%	1.00	52.82%	27.64%	0.00%	0.00%	8.51%	3.41%	7.63%
LA Capital Large Cap Growth	17.88%	0.99	97.43%	1.69%	0.88%	0.00%	0.00%	0.00%	0.00%
Atlanta Capital SmallCap	7.86%	0.90	0.00%	43.42%	24.61%	0.00%	24.50%	0.00%	7.48%
Parametric-Clifton Enh R1000	16.39%	1.00	51.94%	43.48%	4.58%	0.00%	0.00%	0.00%	0.00%
Domestic Equity	100.00%	1.00	40.85%	27.19%	0.00%	0.00%	18.60%	7.70%	5.67%
Russell 3000 Index	-	1.00	46.16%	36.29%	9.09%	0.00%	5.42%	2.41%	0.63%



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

### Return Based Risk Statistics for 3 Years Ended September 30, 2023 vs the Russell 3000 Index and the Callan All Cap Broad PEER GROUP

(12)	Parametric- Clifton Enh R1	0.22	17.37% (71)	1.65 (98)	1.20% (97)	0.45	0.13	0.28%	0.99	0.99
(40)	Atlanta	0.00	47.000/	0.50	5 5 4 6 7	0.55	0.04	0.740/	2.22	0.70
(12)	Capital	2.06	17.80%	8.56	5.51%	0.55	0.24	2.74%	0.90	0.78
	SmallCap	(48)	(60)	(44)	(38)	(46)	(55)	(45)	(69)	(62)
	LA Capital									
(12)	Large Cap	(80.0)	20.79%	7.11	4.58%	0.37	(0.01)	(0.51)%	1.12	0.89
	Growth	(61)	(30)	(61)	(60)	(65)	(61)	(66)	(24)	(33)
	LA Capital Enh									
(12)	ex Alpha	1.35	16.60%	1.87	1.13%	0.54	0.72	1.58%	0.95	0.99
	Fd	(52)	(83)	(97)	(97)	(49)	(23)	(51)	(57)	(3)
		Excess Return	Standard Deviation	Tracking Error	Downside Risk	Sharpe Ratio	Excess Return Ratio	Alpha	Beta	R-Squared



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

#### Excess Return Correlations for 3 Years Ended September 30, 2023 vs the Russell 3000 Index

(12)	Parametric- Clifton Enh R1	0.46	0.51	(0.34)	1.00
(12)	Atlanta Capital SmallCap	(0.29)	(0.59)	1.00	(0.34)
(12)	LA Capital Large Cap Growth	0.36	1.00	(0.59)	0.51
(12)	LA Capital Enh ex Alpha Fd	1.00	0.36	(0.29)	0.46
		LA Capital Enh ex Alpha Fd	LA Capital Large Cap Growth	Atlanta Capital SmallCap	Parametric- Clifton Enh R1



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

#### Average Equity Characteristics for 3 Years Ended September 30, 2023 **VS THE Callan All Cap Broad Peer Group**

(12)	Parametric- Clifton Enh R1	165.87 (9)	673 (2)	44.90 ( <b>4</b> )	(0.02) (49)	(0.01) (60)	(0.02) (41)	19.36 (33)	14.88 ( <b>54</b> )	1.37% (36)	3.87	1.54% ( <b>40</b> )
	Atlanta											
(12)	Capital	3.70	63	20.62	0.06	(0.18)	0.24	19.31	13.58	1.45%	3.11	0.91%
	SmallCap	(95)	(46)	(29)	(34)	(68)	(33)	(33)	(64)	(31)	(44)	(68)
	LA Capital											
(12)	Large Cap	339.40	150	12.22	0.34	(0.44)	0.79	23.43	18.60	1.28%	9.04	0.87%
	Growth	(5)	(9)	(69)	(12)	(78)	(18)	(27)	(28)	(45)	(3)	(71)
	LA Capital Enh											
(12)	ex Alpha	108.60	256	36.55	0.07	(0.05)	0.13	17.52	15.30	1.17%	3.92	1.39%
	Fd	(16)	(5)	(7)	(33)	(62)	(36)	(42)	(52)	(56)	(31)	(49)
		Weighted	Number	Security	MSCI	MSCI	MSCI	Forecasted	Forecasted	P/E	Price/	Indicated
		Median	of	Divers-	Growth	Value	Combined	P/E	Growth	to	Book	Dividend
		Mkt Cap	Holdings	ification	Z-Score	Z-Score	Z-Score	F/E	Earnings	Growth	Value	Yield



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. The holding overlap matrices illustrate the degree of individual stock overlap between various portfolios' holdings. The number in parentheses in the lower left corner of each box is the number of stocks that a given portfolio pair hold in common. The number in the upper left corner is the total weight of these overlapping holdings in the y-axis (vertical) portfolio. The number in the lower right corner is the total weight of those same stocks in the x-axis (horizontal) portfolio.

#### Average Holding Overlap for 3 Years Ended September 30, 2023

(12)	Parametric- Clifton Enh R1	64%	85%	49 ( <b>114</b> )	% 91%	(5)	0% 7%		
(12)	Atlanta Capital SmallCap	10%	1%	6%	1%			7% (5)	0%
(12)	LA Capital Large Cap Growth	96%	65%			(3)	1% 6%	91%	49%
(12)	LA Capital Enh ex Alpha Fd			65 (122)	% 96%	(6)	1% 10%	85% (193)	64%
		LA Capit ex Alp Fd	oha	LA Capital Large Cap Growth		Atlanta Capital SmallCap			ametric- n Enh R1



### Parametric-Clifton Enh R1000 Period Ended September 30, 2023

#### **Investment Philosophy**

The Enhanced US Large Cap strategy seeks to outperform the Russell 1000 Index by 50-100 basis points annually. The strategy seeks to exhibit risk levels similar to the Russell Index and achieve a modest level of outperformance consistency relative to the Russell Index. Effective July 1, 2022, the strategy benchmark changed from S&P500 to Russell 1000. Benchmark returns for the S&P500 Index are linked to Russell 1000 Index.

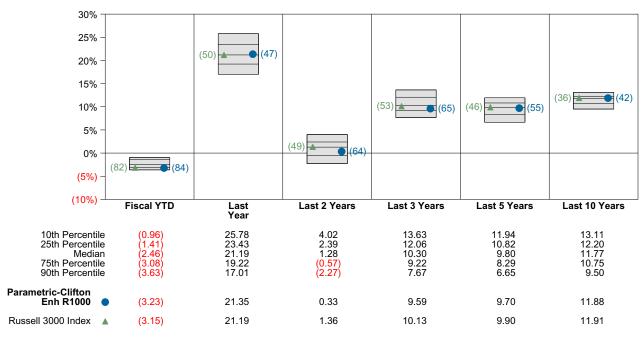
#### **Quarterly Summary and Highlights**

- Parametric-Clifton Enh R1000's portfolio posted a (3.23)% return for the quarter placing it in the 84 percentile of the Callan Large Cap Core group for the quarter and in the 47 percentile for the last year.
- Parametric-Clifton Enh R1000's portfolio underperformed the Russell 3000 Index by 0.08% for the quarter and outperformed the Russell 3000 Index for the year by 0.16%.

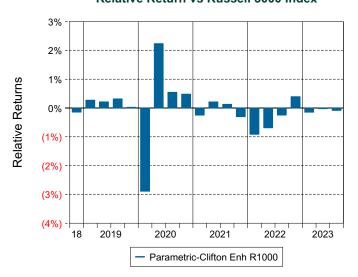
Quarterl	y Asset	Growth
----------	---------	--------

Beginning Market Value	\$392,630,491
Net New Investment	\$0
Investment Gains/(Losses)	\$-12,683,949
Ending Market Value	\$379,946,541

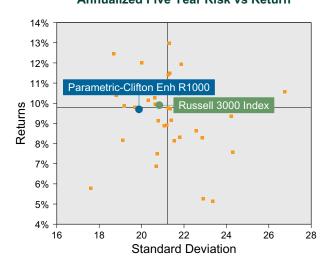
#### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs Russell 3000 Index



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



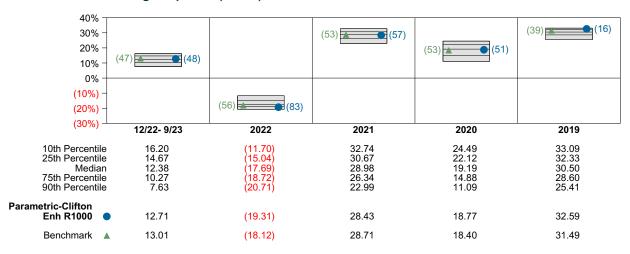


## Parametric-Clifton Enh R1000 Return Analysis Summary

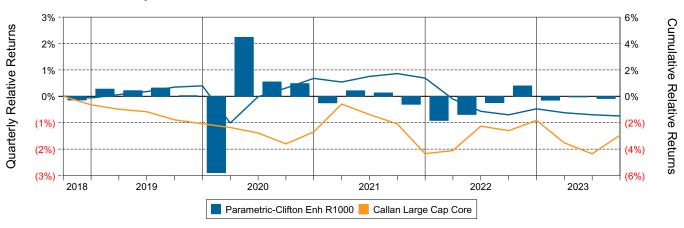
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

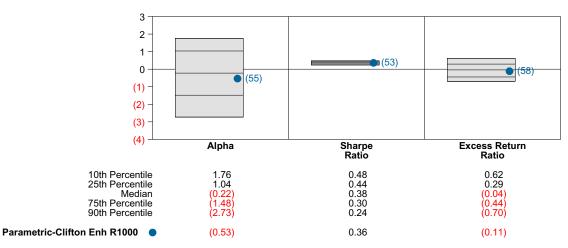
#### Performance vs Callan Large Cap Core (Gross)



#### **Cumulative and Quarterly Relative Returns vs Benchmark**



Risk Adjusted Return Measures vs Benchmark Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



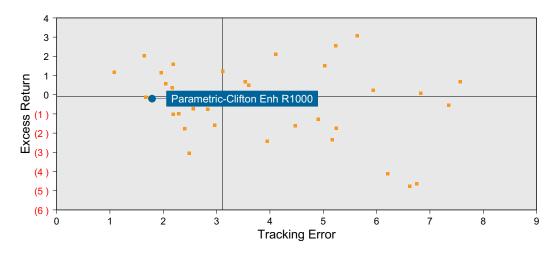


# Parametric-Clifton Enh R1000 Risk Analysis Summary

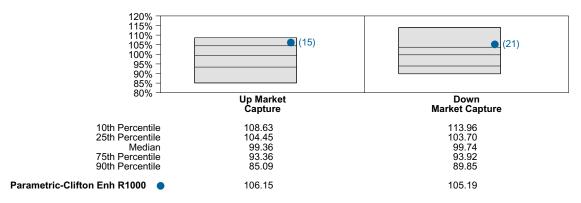
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

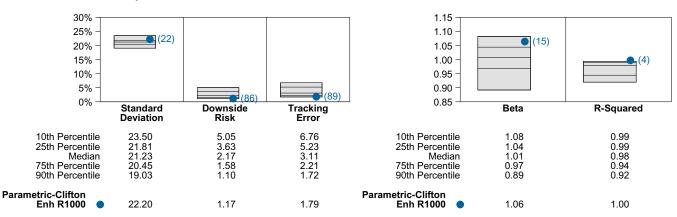
## Risk Analysis vs Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



Market Capture vs Benchmark Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Benchmark Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023

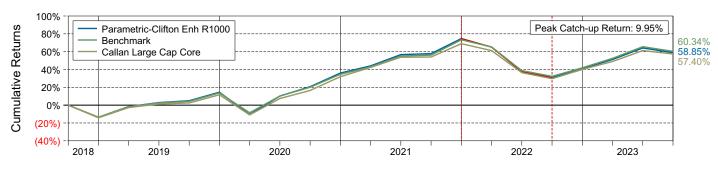




### Parametric-Clifton Enh R1000 Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



	Worst Absolute Drawdown					Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Parametric-Clifton Enh R1000	(25.05)%	0.75	2021/12-2022/09	(23.65)%	(23.23)%	(9.05)%	1.75	2021/12-2023/09	(7.47)%	(6.83)%
Recovery from Trough	21.35%	1.00+	2022/09-2023/09	21.19%	21.36%	21.35%	1.00+	2022/09-2023/09	21.19%	21.36%
Benchmark	(23.65)%	0.75	2021/12-2022/09			(7.47)%	1.75	2021/12-2023/09		
Callan Large Cap Core	(23.23)%	0.75	2021/12-2022/09			(6.83)%	1.75	2021/12-2023/09		

## Relative Cumulative Drawdown Analysis vs. Benchmark Cumulative Relative Returns Parametric-Clifton Enh R1000 Peak Catch-up Rel Rtn: 2.05% Callan Large Cap Core (0.93%)(1%)(1.83%)(3%)

2021

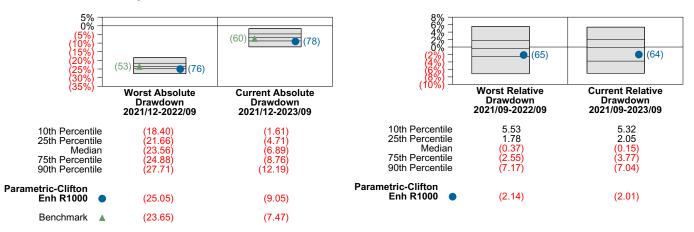
	Worst Relative Drawdown				Current Relative Drawdown			
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Parametric-Clifton Enh R1000	(2.14)%	1.00	2021/09-2022/09	(0.64)%	(2.01)%	2.00	2021/09-2023/09	(0.50)%
Recovery from Trough	0.13%	1.00+	2022/09-2023/09	0.14%	0.13%	1.00+	2022/09-2023/09	0.14%
Callan Large Cap Core	(3.00)%	2.00	2018/09-2020/09		(1.43)%	2.50	2021/03-2023/09	

2020

Drawdown Rankings vs. Benchmark Rankings against Callan Large Cap Core Five Years Ended September 30, 2023

2019

2018





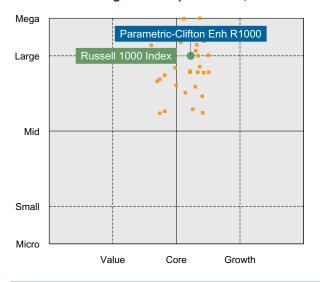
2023

2022

## Current Holdings Based Style Analysis Parametric-Clifton Enh R1000 As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

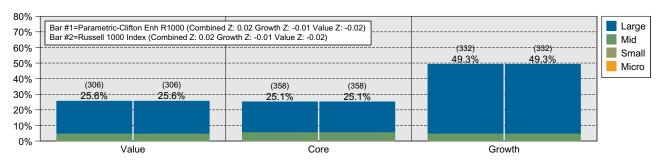
## Style Map vs Callan Large Cap Core Holdings as of September 30, 2023



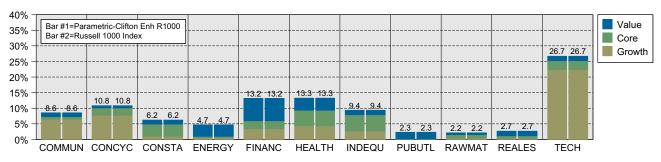
#### Style Exposure Matrix Holdings as of September 30, 2023

	Value	Core	Growth	Total
	25.6% (306)	25.1% (358)	49.3% (332)	100.0% (996)
Total	, ,	, ,	, ,	, ,
	25.6% (306)	25.1% (358)	49.3% (332)	100.0% (996)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro				
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
Small				
	0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
	4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
Mid				
	4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
	20.7% (99)	19.4% (87)	44.3% (108)	84.4% (294)
Large	, ,		, ,	, ,
	20.7% (99)	19.4% (87)	44.3% (108)	84.4% (294)

## Combined Z-Score Style Distribution Holdings as of September 30, 2023



### Sector Weights Distribution Holdings as of September 30, 2023

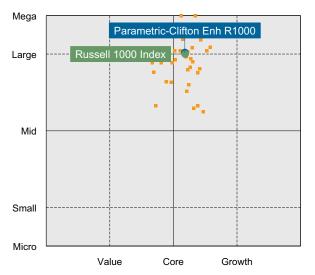


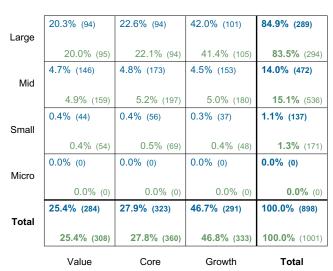


### Historical Holdings Based Style Analysis Parametric-Clifton Enh R1000 For One and 1/4 Years Ended September 30, 2023

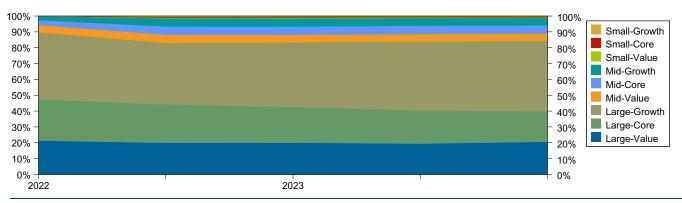
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

### Average Style Map vs Callan Large Cap Core Average Style Exposure Matrix Holdings for One and 1/4 Years Ended September 30, 2023 Holdings for One and 1/4 Years Ended September 30, 2023

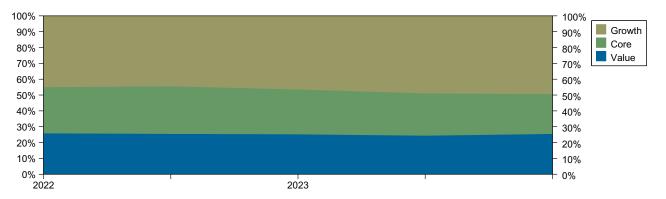




### Parametric-Clifton Enh R1000 Historical Cap/Style Exposures



#### Parametric-Clifton Enh R1000 Historical Style Only Exposures



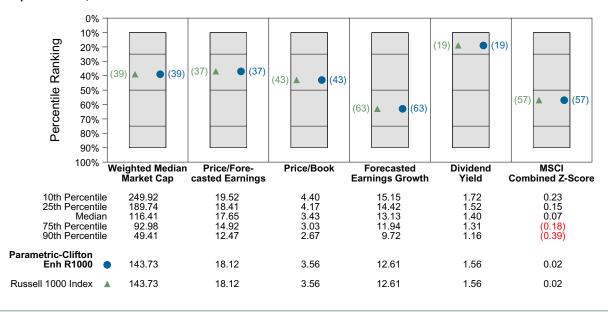


### Parametric-Clifton Enh R1000 Equity Characteristics Analysis Summary

#### **Portfolio Characteristics**

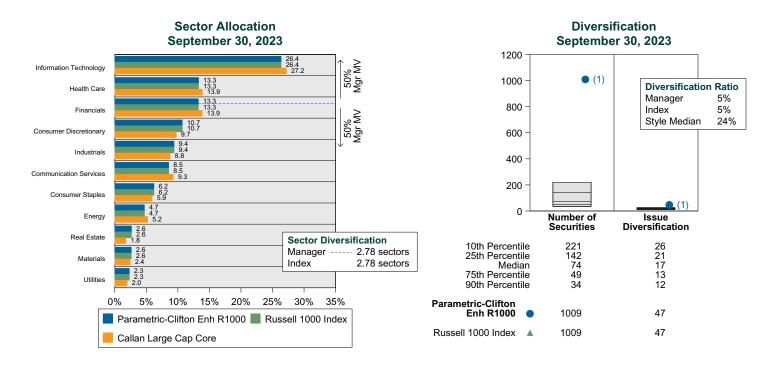
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





### Parametric-Clifton Enh R1000 Top 10 Portfolio Holdings Characteristics as of September 30, 2023

### 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Apple Inc	Information Technology	\$24,506,943	6.5%	(11.61)%	2676.74	25.98	0.56%	7.40%
Microsoft Corp	Information Technology	\$22,539,086	5.9%	(7.08)%	2345.95	27.72	0.86%	13.76%
Amazon.Com	Consumer Discretionary	\$10,984,968	2.9%	(2.49)%	1311.59	43.61	0.00%	6.05%
Nvidia Corp	Information Technology	\$9,913,687	2.6%	2.84%	1074.43	29.54	0.04%	78.70%
Alphabet Inc CI A	Communication Services	\$7,458,699	2.0%	9.32%	776.39	20.34	0.00%	18.50%
Tesla Mtrs Inc	Consumer Discretionary	\$6,621,852	1.7%	(4.41)%	794.20	59.11	0.00%	8.56%
Alphabet Inc CI C	Communication Services	\$6,431,859	1.7%	8.99%	764.86	20.64	0.00%	18.50%
Meta Platforms Inc	Communication Services	\$6,369,021	1.7%	4.61%	667.24	18.92	0.00%	32.00%
Berkshire Hathaway Inc Del Cl B New	Financials	\$6,152,541	1.6%	2.73%	458.22	19.49	0.00%	10.86%
Exxon Mobil Corp	Energy	\$4,517,496	1.2%	10.55%	470.70	12.76	3.10%	(10.00)%

### **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Applovin Corp	Information Technology	\$80,425	0.0%	55.32%	11.05	33.36	0.00%	-
Gs Acquisition Hldgs Corp Com Cl A	Industrials	\$122,351	0.0%	50.18%	14.16	19.86	0.03%	64.52%
Capri Holdings Limited Shs	Consumer Discretionary	\$57,577	0.0%	46.58%	6.11	8.78	0.00%	1.10%
Rivian Automotive Inc A Common Stock	Consumer Discretionary	\$154,267	0.0%	45.71%	22.83	(6.45)	0.00%	-
Texas Pacific Land Corporati	Energy	\$100,976	0.0%	38.75%	14.00	34.85	0.71%	33.39%
Affirm Holdings Inc	Financials	\$44,330	0.0%	38.68%	5.10	(7.77)	0.00%	-
Splunk Inc	Information Technology	\$214,067	0.1%	37.85%	24.65	34.67	0.00%	25.10%
Block H & R Inc	Consumer Discretionary	\$62,640	0.0%	36.22%	6.30	10.04	2.97%	10.00%
Ollies Bargain Outlt Hldgs I	Consumer Discretionary	\$45,570	0.0%	33.23%	4.76	26.11	0.00%	0.95%
Zion Bancorporation Na	Financials	\$48,631	0.0%	31.42%	5.17	7.96	4.70%	16.31%

### **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Amc Entmt Hldgs Inc CI A New	Communication Services	\$4,502	0.0%	(79.41)%	1.58	(4.38)	0.00%	6.01%
Hawaiian Elec Industries	Utilities	\$12,923	0.0%	(64.98)%	1.35	5.81	11.70%	3.74%
Novocure	Health Care	\$16,235	0.0%	(61.08)%	1.72	(3.54)	0.00%	-
Apellis Pharmaceuticals Inc	Health Care	\$36,344	0.0%	(58.24)%	4.48	(12.17)	0.00%	-
Viasat Inc	Information Technology	\$20,669	0.0%	(55.26)%	2.29	19.21	0.00%	190.99%
Petco Health & Wellness Co Inc CI A	Consumer Discretionary	\$3,212	0.0%	(54.05)%	0.94	12.39	0.00%	(31.63)%
Driven Brands Hldgs Inc Com	Industrials	\$7,494	0.0%	(53.48)%	2.11	11.90	0.00%	7.45%
Olaplex Holdings	Consumer Staples	\$2,434	0.0%	(47.56)%	1.28	10.83	0.00%	(28.10)%
Masimo Corp	Health Care	\$36,257	0.0%	(46.72)%	4.63	23.17	0.00%	6.09%
Spirit Aerosystems Hldgs Inc Com Cl	Industrials	\$16,162	0.0%	(44.71)%	1.70	(27.36)	0.00%	(53.55)%

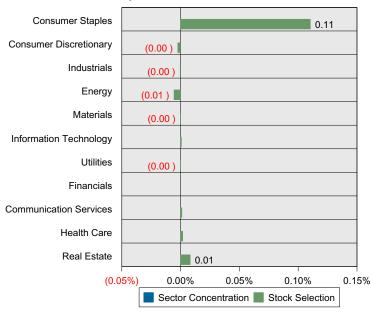


### Parametric-Clifton Enh R1000 vs Russell 1000 Index Quarterly Equity Buy and Hold Attribution

### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Large Cap Core over the same time period.

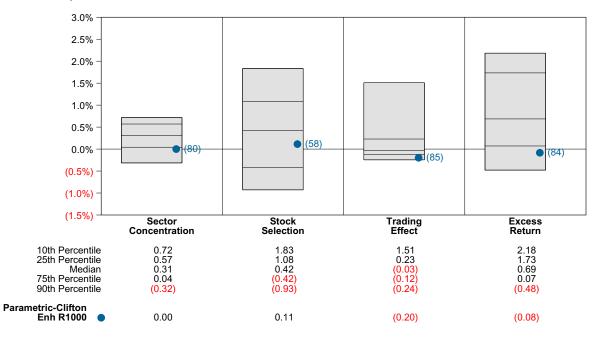
### Attribution Effects by Sector vs Russell 1000 Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.00%	0.11%
Consumer Discretionary	0.00%	(0.00%)
Industrials	0.00%	(0.00%)
Energy	0.00%	(0.01%)
Materials	0.00%	(0.00%)
Information Technology	0.00%	0.00%
Utilities	0.00%	(0.00%)
Financials	0.00%	0.00%
Communication Services	s 0.00%	0.00%
Health Care	0.00%	0.00%
Real Estate	0.00%	0.01%
Total	0.00%	0.11%

Manager Return _	Index Return	Sector Concentration	L Stock Selection	Trading
(3.23%)	(3.15%)	0.00%	0.11%	(0.20%)

### Equity Attribution Ranking vs Callan Large Cap Core Quarter ended September 30, 2023



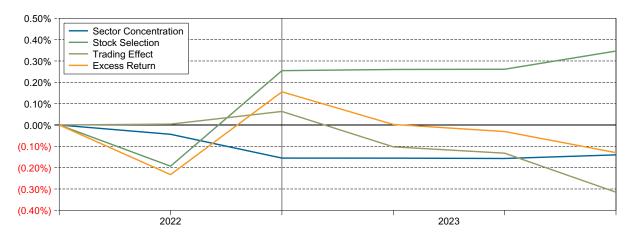


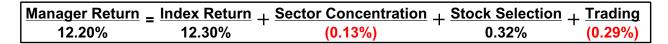
### Parametric-Clifton Enh R1000 vs Russell 1000 Index Cumulative Equity Buy and Hold Attribution

#### **Cumulative Attribution and Ranking**

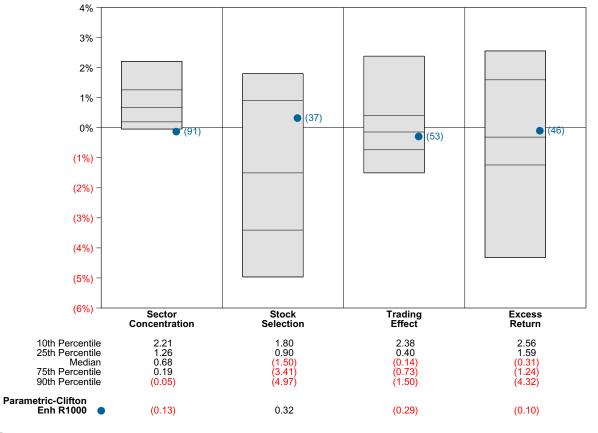
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Large Cap Core over the same time period.

#### **Cumulative Attribution Effects vs Russell 1000 Index**





### Equity Attribution Ranking vs Callan Large Cap Core One and One-Quarter Years Ended September 30, 2023





### L.A. Capital Period Ended September 30, 2023

#### **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.

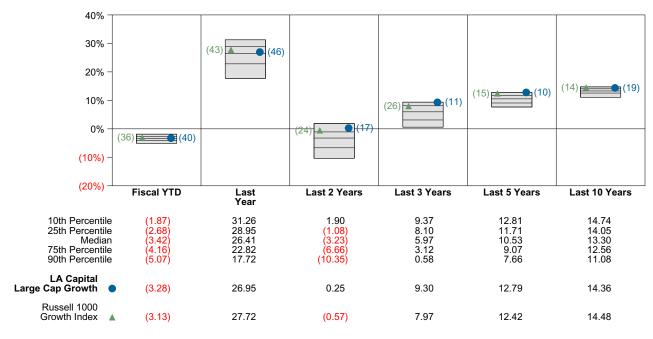
### **Quarterly Summary and Highlights**

- LA Capital Large Cap Growth's portfolio posted a (3.28)% return for the quarter placing it in the 40 percentile of the Callan Large Cap Growth group for the quarter and in the 46 percentile for the last year.
- LA Capital Large Cap Growth's portfolio underperformed the Russell 1000 Growth Index by 0.15% for the quarter and underperformed the Russell 1000 Growth Index for the year by 0.77%.

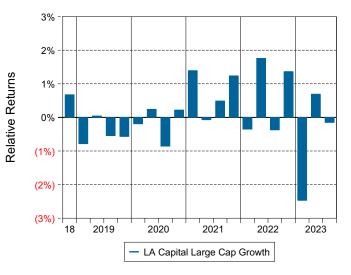
### **Quarterly Asset Growth**

Beginning Market Value	\$78,455,288
Net New Investment	\$-34,517
Investment Gains/(Losses)	\$-2,569,772
Ending Market Value	\$75,850,999

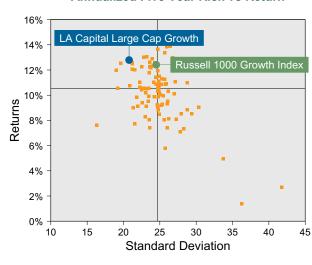
### Performance vs Callan Large Cap Growth (Gross)



### Relative Return vs Russell 1000 Growth Index



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



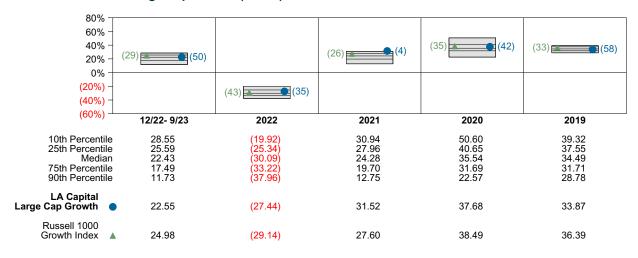


### LA Capital Large Cap Growth Return Analysis Summary

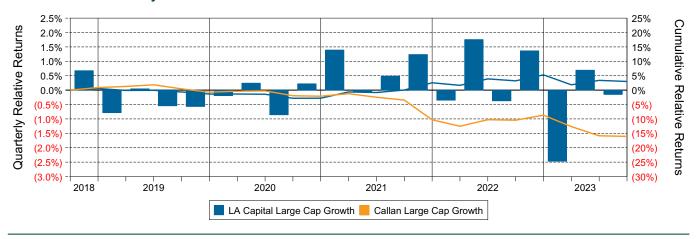
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

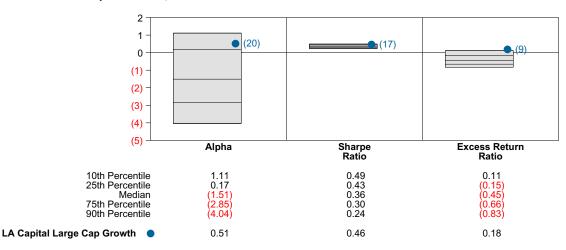
### Performance vs Callan Large Cap Growth (Gross)



### Cumulative and Quarterly Relative Returns vs Russell 1000 Growth Index



Risk Adjusted Return Measures vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth (Gross) Five Years Ended September 30, 2023



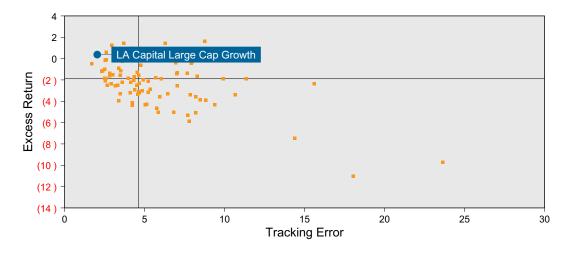


### LA Capital Large Cap Growth Risk Analysis Summary

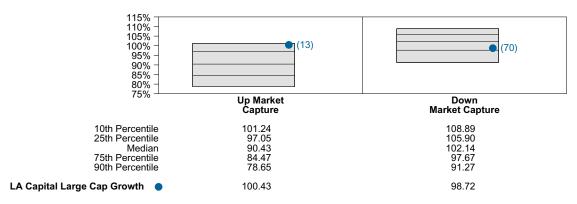
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

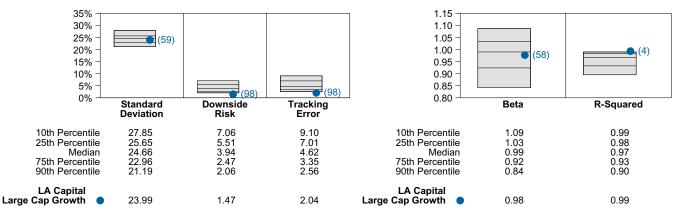
### Risk Analysis vs Callan Large Cap Growth (Gross) Five Years Ended September 30, 2023



Market Capture vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Russell 1000 Growth Index Rankings Against Callan Large Cap Growth (Gross) Five Years Ended September 30, 2023

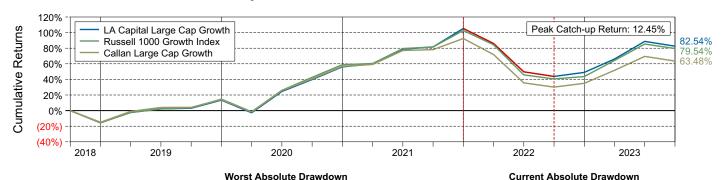




### **LA Capital Large Cap Growth** Drawdown Analysis for Five Years Ended September 30, 2023

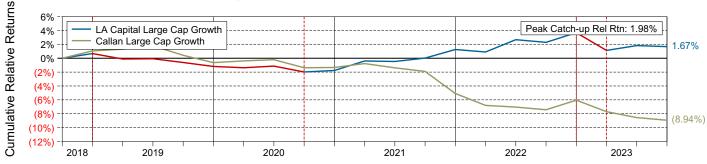
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



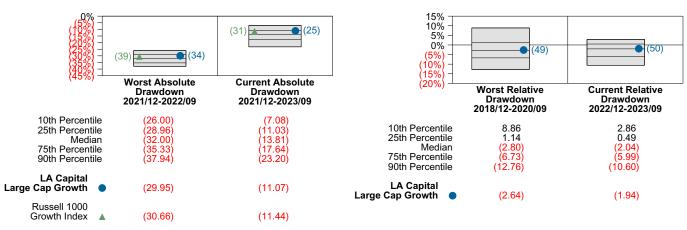
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers		
LA Capital Large Cap Growth	(29.95)%	0.75	2021/12-2022/09	(30.66)%	(32.37)%	(11.07)%	1.75	2021/12-2023/09	(11.44)%	(15.04)%		
Recovery from Trough	26.95%	1.00+	2022/09-2023/09	27.72%	25.63%	26.95%	1.00+	2022/09-2023/09	27.72%	25.63%		
Russell 1000 Growth Index	(30.66)%	0.75	2021/12-2022/09			(11.44)%	1.75	2021/12-2023/09				
Callan Large Cap Growth	(32.37)%	0.75	2021/12-2022/09			(15.04)%	1.75	2021/12-2023/09				

### Relative Cumulative Drawdown Analysis vs. Russell 1000 Growth Index



	Worst Relative Drawdown				Cu	tive Drawdown		
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
LA Capital Large Cap Growth	(2.64)%	1.75	2018/12-2020/09	(2.40)%	(1.94)%	0.75	2022/12-2023/09	(3.08)%
Recovery from Trough	3.31%	1.25	2020/09-2021/12	(3.77)%	0.54%	0.50+	2023/03-2023/09	(1.34)%
Callan Large Cap Growth	(10.56)%	4.25	2019/06-2023/09		(10.56)%	4.25	2019/06-2023/09	

Drawdown Rankings vs. Russell 1000 Growth Index Rankings against Callan Large Cap Growth Five Years Ended September 30, 2023

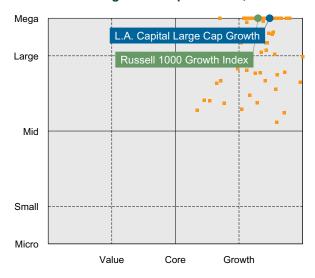




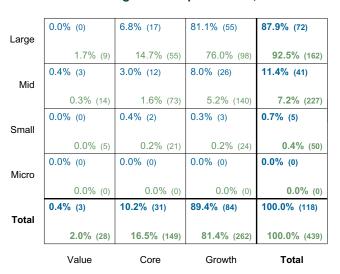
### Current Holdings Based Style Analysis L.A. Capital Large Cap Growth As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

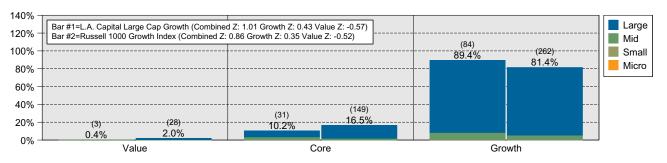
### Style Map vs Callan Large Cap Growth Holdings as of September 30, 2023



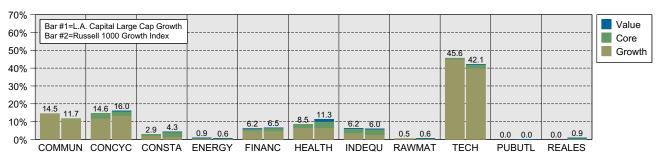
### Style Exposure Matrix Holdings as of September 30, 2023



### Combined Z-Score Style Distribution Holdings as of September 30, 2023



### Sector Weights Distribution Holdings as of September 30, 2023



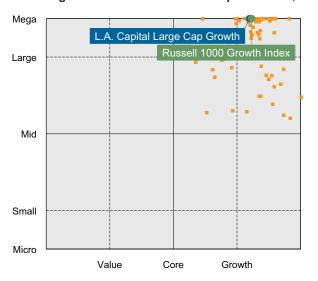


### Historical Holdings Based Style Analysis L.A. Capital Large Cap Growth For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

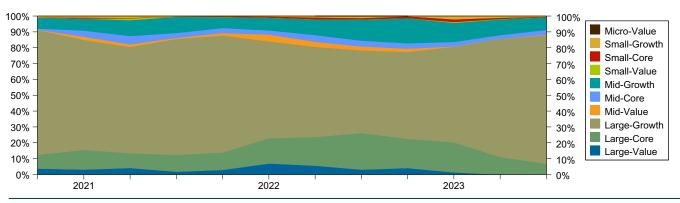
### Average Style Map vs Callan Large Cap Growth Holdings for Three Years Ended September 30, 2023

### Average Style Exposure Matrix Holdings for Three Years Ended September 30, 2023

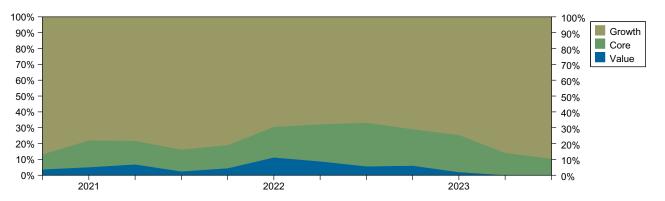


	Value	Core	Growth	Total
iotai	3.9% (41)	18.2% (164)	77.9% (277)	<b>100.0%</b> (482)
Total	4.8% (14)	17.6% (41)	77.6% (93)	100.0% (148)
	0.0% (0)	0.0% (0)	0.0% (0)	<b>0.0%</b> (0)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (6)	0.2% (23)	0.4% (33)	<b>0.6%</b> (62)
Small	0.2% (1)	0.7% (3)	0.7% (4)	1.6% (8)
	0.4% (20)	2.3% (82)	6.6% (147)	9.3% (249)
Mid	1.070 (3)	0.270 (13)	0.070 (04)	14.070 (32)
	3.5% (15) 1.6% (5)	15.7% (59) 3.2% (13)	70.9% (97) 9.9% (34)	90.1% (171) 14.6% (52)
Large				
	3.0% (8)	13.7% (25)	67.0% (55)	83.7% (88)

### L.A. Capital Large Cap Growth Historical Cap/Style Exposures



L.A. Capital Large Cap Growth Historical Style Only Exposures



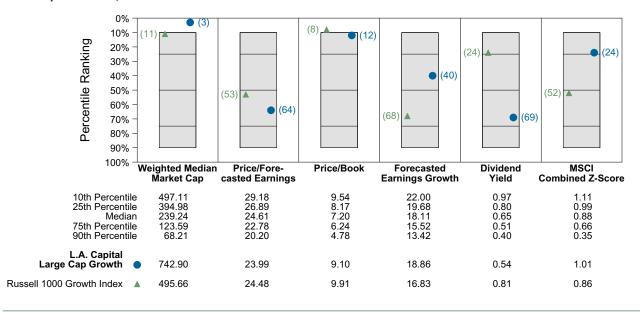


### L.A. Capital Large Cap Growth Equity Characteristics Analysis Summary

#### **Portfolio Characteristics**

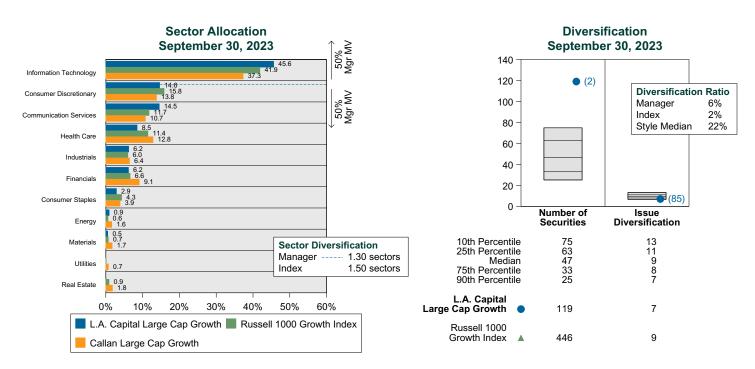
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Growth as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# L.A. Capital Large Cap Growth Top 10 Portfolio Holdings Characteristics as of September 30, 2023

### 10 Largest Holdings

					Price/					
		Ending	Percent			Forecasted		Forecasted		
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in		
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings		
Apple Inc	Information Technology	\$9,498,902	12.5%	(11.61)%	2676.74	25.98	0.56%	7.40%		
Microsoft Corp	Information Technology	\$9,428,295	12.4%	(7.08)%	2345.95	27.72	0.86%	13.76%		
Amazon.Com	Consumer Discretionary	\$4,383,606	5.8%	(2.49)%	1311.59	43.61	0.00%	6.05%		
Nvidia Corp	Information Technology	\$4,218,968	5.6%	2.84%	1074.43	29.54	0.04%	78.70%		
Alphabet Inc CI A	Communication Services	\$3,853,565	5.1%	9.32%	776.39	20.34	0.00%	18.50%		
Alphabet Inc CI C	Communication Services	\$3,458,821	4.6%	8.99%	764.86	20.64	0.00%	18.50%		
Meta Platforms Inc	Communication Services	\$2,829,179	3.7%	4.61%	667.24	18.92	0.00%	32.00%		
Tesla Mtrs Inc	Consumer Discretionary	\$2,307,529	3.0%	(4.41)%	794.20	59.11	0.00%	8.56%		
Lilly (Eli) & Co	Health Care	\$1,948,708	2.6%	14.77%	509.89	45.11	0.84%	24.50%		
Visa Inc Com CI A	Financials	\$1,507,946	2.0%	(2.96)%	369.58	23.35	0.78%	14.76%		
VISA IIIC COIII CI A	i illaliciais	ψ1,30 <i>1</i> ,340	2.0 /0	(2.90) /6	309.30	23.33	0.7076	'		

### **10 Best Performers**

						Price/			
		Ending	Percent			Forecasted		Forecasted	
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in	
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Splunk Inc	Information Technology	\$144,788	0.2%	37.85%	24.65	34.67	0.00%	25.10%	
New Relic Inc	Information Technology	\$341,709	0.5%	30.84%	6.08	45.40	0.00%	79.36%	
Boston Beer Inc Cl A	Consumer Staples	\$61,156	0.1%	26.29%	3.96	38.94	0.00%	25.86%	
Nutanix Inc CI A	Information Technology	\$135,334	0.2%	24.35%	8.36	38.93	0.00%	-	
Amgen	Health Care	\$39,239	0.1%	22.03%	143.76	14.27	3.17%	1.69%	
Apa Corp	Energy	\$256,135	0.3%	21.07%	12.63	7.45	2.43%	(2.00)%	
Neurocrine Biosciences Inc	Health Care	\$133,538	0.2%	19.30%	10.99	26.93	0.00%	12.54%	
Jabil Inc	Information Technology	\$69,663	0.1%	17.65%	16.61	13.21	0.25%	12.00%	
Apollo Global Mgmt Inc	Financials	\$159,593	0.2%	17.49%	50.88	11.43	1.92%	22.20%	
Tradeweb Markets Inc	Financials	\$66,807	0.1%	17.24%	9.19	33.36	0.45%	12.88%	

### **10 Worst Performers**

					Price/				
		Ending	Percent		Forecasted			Forecasted	
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in	
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Inspire Med Sys Inc	Health Care	\$45,244	0.1%	(38.87)%	5.82	(206.92)	0.00%	-	
Dexcom Inc	Health Care	\$111,680	0.1%	(27.40)%	36.19	61.46	0.00%	36.65%	
Fortinet Inc	Information Technology	\$32,743	0.0%	(22.37)%	46.08	34.60	0.00%	18.65%	
Hershey Co	Consumer Staples	\$14,606	0.0%	(19.43)%	29.98	19.81	2.38%	8.90%	
Xylem Inc	Industrials	\$77,193	0.1%	(18.91)%	21.92	23.31	1.45%	2.26%	
Marketaxess Hldgs Inc	Financials	\$133,739	0.2%	(18.05)%	8.05	27.22	1.35%	12.18%	
Docusign Inc	Information Technology	\$41,244	0.1%	(17.79)%	8.53	15.57	0.00%	20.00%	
Globus Med Inc Cl A New	Health Care	\$175,463	0.2%	(16.61)%	5.83	19.67	0.00%	12.20%	
Mongodb Inc Cl A	Information Technology	\$57,067	0.1%	(15.85)%	24.68	129.78	0.00%	-	
Teradata Corp Del	Information Technology	\$101,250	0.1%	(15.71)%	4.50	19.76	0.00%	21.90%	

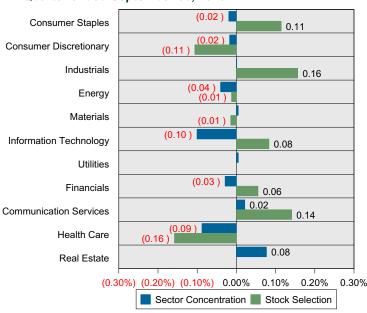


### L.A. Capital Large Cap Growth vs Russell 1000 Growth Index Quarterly Equity Buy and Hold Attribution

### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Large Cap Growth over the same time period.

### Attribution Effects by Sector vs Russell 1000 Growth Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.02%)	0.11%
Consumer Discretionary	(0.02%)	(0.11%)
Industrials	0.00%	0.16%
Energy	(0.04%)	(0.01%)
Materials	0.00%	(0.01%)
Information Technology	(0.10%)	0.08%
Utilities	0.00%	0.00%
Financials	(0.03%)	0.06%
Communication Services	s 0.02%	0.14%
Health Care	(0.09%)	(0.16%)
Real Estate	0.08%	0.00%
Total	(0.19%)	0.26%

Manager Return _	Index Return _	Sector Concen _	Stock Select _	<sub>⊢</sub> <u>Trading</u> _	Asset Alloc
(3.28%)	(3.13%)	(0.19%)	0.26%	(0.23%)	0.01%

### Equity Attribution Ranking vs Callan Large Cap Growth Quarter ended September 30, 2023



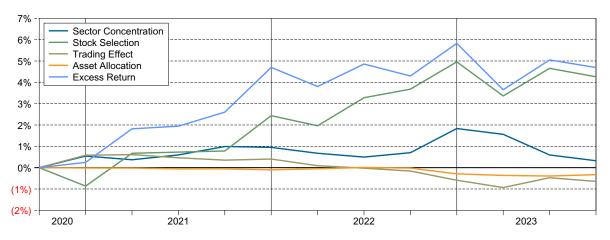


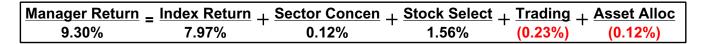
### L.A. Capital Large Cap Growth vs Russell 1000 Growth Index Cumulative Equity Buy and Hold Attribution

#### **Cumulative Attribution and Ranking**

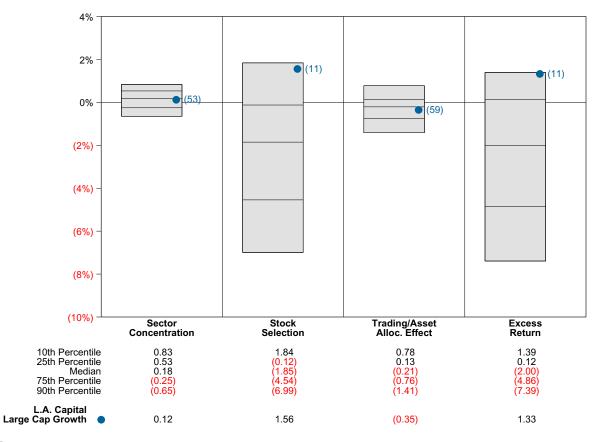
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Large Cap Growth over the same time period.

#### **Cumulative Attribution Effects vs Russell 1000 Growth Index**





### Equity Attribution Ranking vs Callan Large Cap Growth Three Years Ended September 30, 2023



### L.A. Capital Enhanced Period Ended September 30, 2023

#### **Investment Philosophy**

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

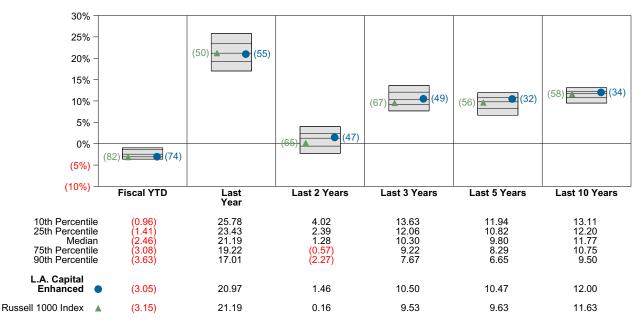
#### **Quarterly Summary and Highlights**

- L.A. Capital Enhanced's portfolio posted a (3.05)% return for the quarter placing it in the 74 percentile of the Callan Large Cap Core group for the quarter and in the 55 percentile for the last year.
- L.A. Capital Enhanced's portfolio outperformed the Russell 1000 Index by 0.10% for the quarter and underperformed the Russell 1000 Index for the year by 0.23%.

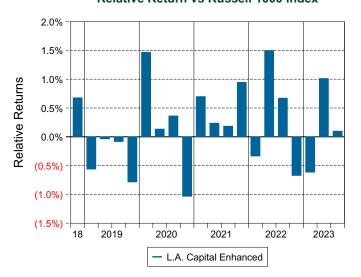
### **Quarterly Asset Growth**

Beginning Market Value	\$1,051,156,972
Net New Investment	\$-63,703,344
Investment Gains/(Losses)	\$-30,249,458
Ending Market Value	\$957 204 170

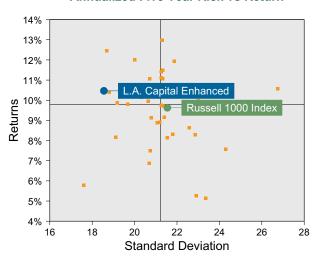
### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs Russell 1000 Index



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



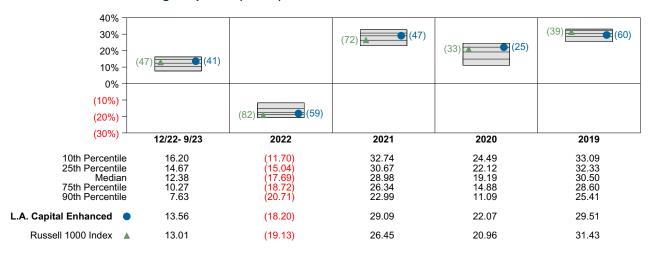


### L.A. Capital Enhanced Return Analysis Summary

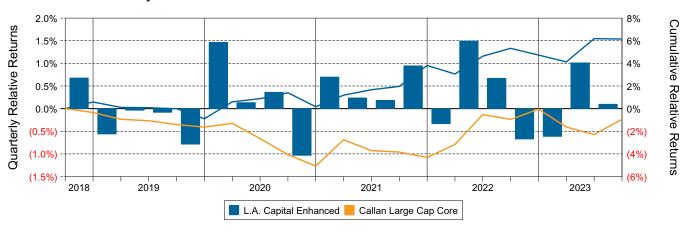
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

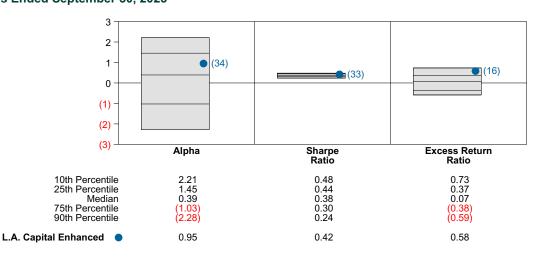
### Performance vs Callan Large Cap Core (Gross)



### Cumulative and Quarterly Relative Returns vs Russell 1000 Index



Risk Adjusted Return Measures vs Russell 1000 Index Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



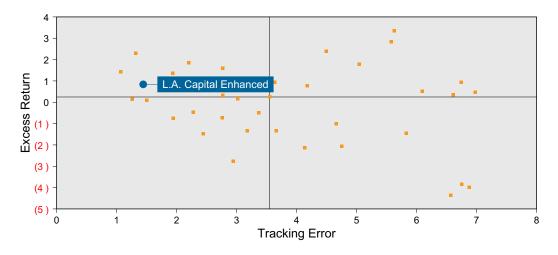


### L.A. Capital Enhanced Risk Analysis Summary

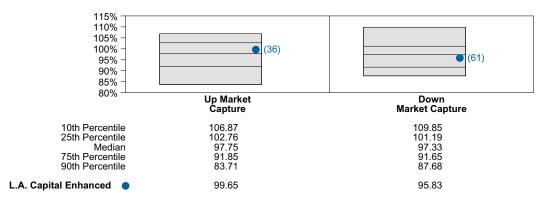
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

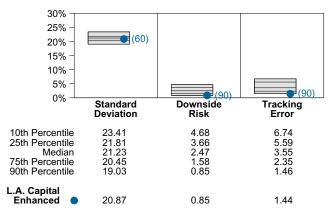
### Risk Analysis vs Callan Large Cap Core (Gross) Five Years Ended September 30, 2023

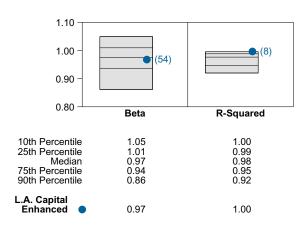


Market Capture vs Russell 1000 Index Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Russell 1000 Index Rankings Against Callan Large Cap Core (Gross) Five Years Ended September 30, 2023



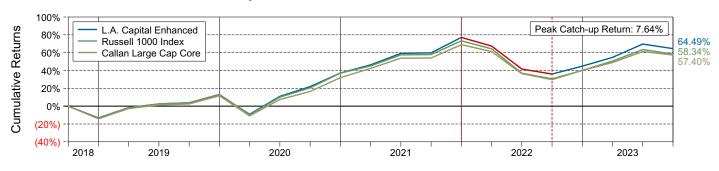




### L.A. Capital Enhanced Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**

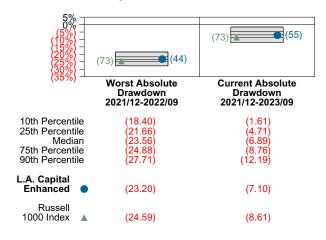


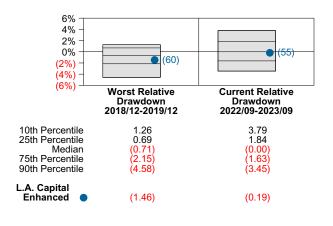
	Worst Absolute Drawdown			Current Absolute Drawdown						
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
L.A. Capital Enhanced	(23.20)%	0.75	2021/12-2022/09	(24.59)%	(23.23)%	(7.10)%	1.75	2021/12-2023/09	(8.61)%	(6.83)%
Recovery from Trough	20.97%	1.00+	2022/09-2023/09	21.19%	21.36%	20.97%	1.00+	2022/09-2023/09	21.19%	21.36%
Russell 1000 Index	(24.59)%	0.75	2021/12-2022/09			(8.61)%	1.75	2021/12-2023/09		
Callan Large Cap Core	(23.23)%	0.75	2021/12-2022/09			(6.83)%	1.75	2021/12-2023/09		

# Relative Cumulative Drawdown Analysis vs. Russell 1000 Index 6% L.A. Capital Enhanced 4% Callan Large Cap Core 0% (4%) (6%) 2018 2019 2020 2021 2022 2023

	Worst Relative Drawdown				Current Relative Drawdown					
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers		
L.A. Capital Enhanced	(1.46)%	1.00	2018/12-2019/12	(1.05)%	(0.19)%	1.00	2022/09-2023/09	0.14%		
Recovery from Trough	1.60%	0.50	2019/12-2020/06	(0.98)%	1.11%	0.50+	2023/03-2023/09	0.49%		
Callan Large Cap Core	(3.70)%	2.25	2018/09-2020/12		(0.56)%	0.75	2022/12-2023/09			

Drawdown Rankings vs. Russell 1000 Index Rankings against Callan Large Cap Core Five Years Ended September 30, 2023



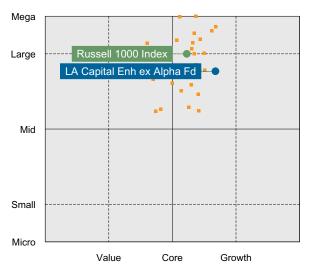




### Current Holdings Based Style Analysis LA Capital Enh ex Alpha Fd As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

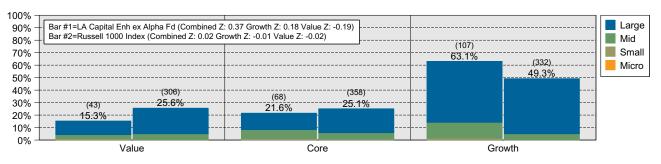
### Style Map vs Callan Large Cap Core Holdings as of September 30, 2023



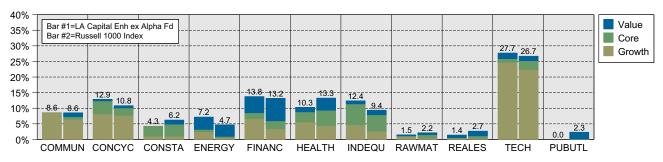
### Style Exposure Matrix Holdings as of September 30, 2023

	Value	Core	Growth	Total
iotai	25.6% (306)	<b>25.1</b> % (358)	49.3% (332)	100.0% (996)
Total	15.3% (43)	21.6% (68)	63.1% (107)	100.0% (218)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	0.076 (0)	0.0 % (0)	0.0 % (0)	0.0 /8 (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Small	0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
0 !!	1.0% (3)	1.0% (6)	1.6% (6)	3.5% (15)
	4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
Mid		,	( ),	(***)
	3.2% (16)	7.3% (27)	12.5% (40)	23.1% (83)
Large	20.7% (99)	19.4% (87)	44.3% (108)	84.4% (294)
1	11.1% (24)	13.3% (35)	49.0% (61)	73.4% (120)

### Combined Z-Score Style Distribution Holdings as of September 30, 2023



### Sector Weights Distribution Holdings as of September 30, 2023



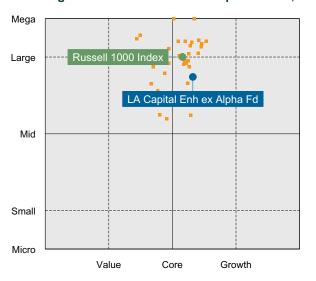


### Historical Holdings Based Style Analysis LA Capital Enh ex Alpha Fd For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

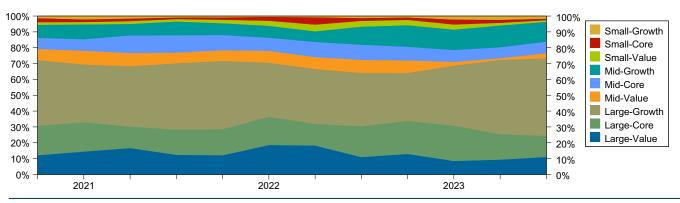
### Average Style Map vs Callan Large Cap Core Holdings for Three Years Ended September 30, 2023

### Average Style Exposure Matrix Holdings for Three Years Ended September 30, 2023

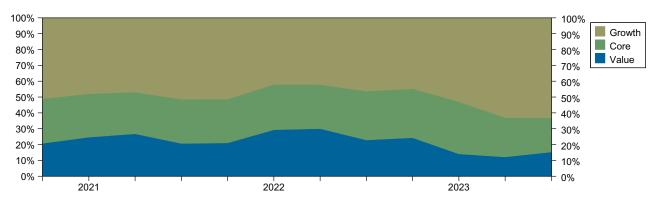


	Value	Core	Growth	Total
Total	26.4% (311)	27.0% (361)	46.5% (334)	<b>100.0%</b> (1006)
Total	21.9% (71)	27.9% (87)	50.2% (98)	100.0% (256)
	0.0% (0)	0.0% (0)	0.0% (0)	<b>0.0%</b> (0)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.5% (53)	0.6% (68)	0.4% (49)	<b>1.4%</b> (170)
Small	2.4 % (12)	2.176 (9)	1.5% (7)	3.0 % (28)
	2.4% (12)	2.1% (9)	1.3% (7)	5.8% (28)
Mid	5.0% (160)	5.3% (198)	5.2% (181)	<b>15.5%</b> (539)
	6.3% (27)	8.6% (37)	9.9% (38)	24.9% (102)
Large	21.0% (98)	21.1% (95)	40.9% (104)	<b>83.1%</b> (297)
·	13.2% (32)	17.2% (41)	39.0% (53)	69.4% (126)

#### LA Capital Enh ex Alpha Fd Historical Cap/Style Exposures



LA Capital Enh ex Alpha Fd Historical Style Only Exposures



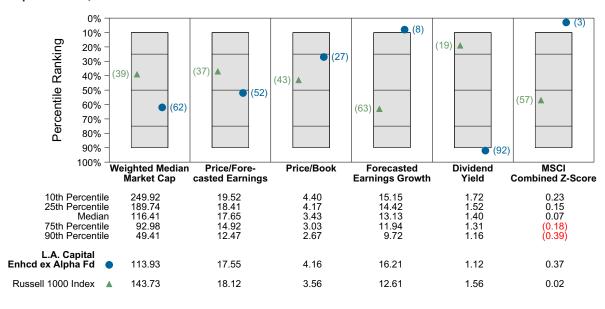


### L.A. Capital Enhcd ex Alpha Fd Equity Characteristics Analysis Summary

#### **Portfolio Characteristics**

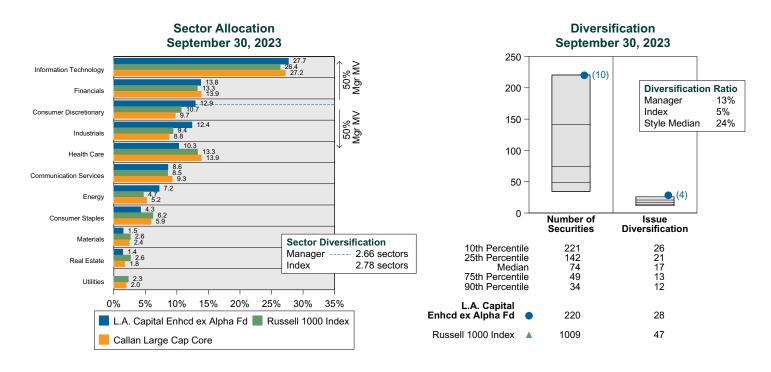
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# L.A. Capital Enhcd ex Alpha Fd Top 10 Portfolio Holdings Characteristics as of September 30, 2023

### 10 Largest Holdings

					Price/		
	Ending	Percent			Forecasted		Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Information Technology	\$34,291,397	6.0%	(7.08)%	2345.95	27.72	0.86%	13.76%
Information Technology	\$32,373,414	5.7%	(11.61)%	2676.74	25.98	0.56%	7.40%
Communication Services	\$16,623,669	2.9%	9.32%	776.39	20.34	0.00%	18.50%
Consumer Discretionary	\$16,494,710	2.9%	(2.49)%	1311.59	43.61	0.00%	6.05%
Information Technology	\$16,328,220	2.9%	2.84%	1074.43	29.54	0.04%	78.70%
Communication Services	\$13,977,814	2.5%	8.99%	764.86	20.64	0.00%	18.50%
Communication Services	\$12,635,839	2.2%	4.61%	667.24	18.92	0.00%	32.00%
Financials	\$11,765,012	2.1%	(2.96)%	369.58	23.35	0.78%	14.76%
Information Technology	\$10,336,435	1.8%	4.69%	217.99	13.15	2.90%	5.00%
Information Technology	\$9,175,417	1.6%	(3.72)%	342.81	18.24	2.22%	10.80%
	Information Technology Information Technology Communication Services Consumer Discretionary Information Technology Communication Services Communication Services Financials Information Technology	Market   Value	Sector         Market Value         of Portfolio           Information Technology Information Technology Information Technology Information Services Communication Services Services Information Technology Services Se	Sector         Market Value         of Value         Qtrly Portfolio           Information Technology         \$34,291,397         6.0%         (7.08)%           Information Technology         \$32,373,414         5.7%         (11.61)%           Communication Services         \$16,623,669         2.9%         9.32%           Consumer Discretionary         \$16,494,710         2.9%         (2.49)%           Information Technology         \$16,328,220         2.9%         2.84%           Communication Services         \$13,977,814         2.5%         8.99%           Communication Services         \$12,635,839         2.2%         4.61%           Financials         \$11,765,012         2.1%         (2.96)%           Information Technology         \$10,336,435         1.8%         4.69%	Market Sector         Value         of Portfolio         Qtrly Return         Market Capital           Information Technology Information Technology Information Technology Information Technology Information Services Section Section Services Section Section Services Section Section Services Section Se	Sector         Value         Percent Portfolio         Qtrly Return         Market Capital Ratio           Information Technology Information Information Services Information Infor	Sector         Value         Percent Portfolio         Qtrly Return         Market Capital         Forecasted Earnings Poil Return         Dividend Particular           Information Technology Information Services Information Services Information

### **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Texas Pacific Land Corporati	Energy	\$1,451,554	0.3%	38.75%	14.00	34.85	0.71%	33.39%
Splunk Inc	Information Technology	\$813,150	0.1%	37.85%	24.65	34.67	0.00%	25.10%
Block H & R Inc	Consumer Discretionary	\$1,559,461	0.3%	36.22%	6.30	10.04	2.97%	10.00%
Zion Bancorporation Na	Financials	\$1,097,639	0.2%	31.42%	5.17	7.96	4.70%	16.31%
New Relic Inc	Information Technology	\$2,329,206	0.4%	30.84%	6.08	45.40	0.00%	79.36%
Marathon Pete Corp	Energy	\$2,590,941	0.5%	30.48%	60.51	8.60	1.98%	(17.90)%
Hf Sinclair Corporation	Energy	\$2,271,279	0.4%	28.63%	10.48	7.37	3.16%	20.27%
Phillips 66	Energy	\$1,498,270	0.3%	27.14%	53.50	8.44	3.50%	(7.90)%
Ryder System	Industrials	\$875,493	0.2%	27.06%	4.87	8.84	2.66%	26.99%
Boston Beer Inc CI A	Consumer Staples	\$471,331	0.1%	26.29%	3.96	38.94	0.00%	25.86%

### **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	<b>Earnings</b>	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Inspire Med Sys Inc	Health Care	\$1,069,592	0.2%	(38.87)%	5.82	(206.92)	0.00%	-
Carnival Corp	Consumer Discretionary	\$267,266	0.0%	(27.14)%	15.37	19.06	0.00%	(26.71)%
Edwards Lifesciences Corp	Health Care	\$172,784	0.0%	(26.56)%	42.12	24.75	0.00%	10.20%
United Contl Hldgs Inc	Industrials	\$2,667,861	0.5%	(22.90)%	13.87	3.85	0.00%	63.25%
Delta Air Lines Inc Del	Industrials	\$2,852,700	0.5%	(22.01)%	23.81	5.25	1.08%	35.51%
Hershey Co	Consumer Staples	\$1,366,146	0.2%	(19.43)%	29.98	19.81	2.38%	8.90%
Xylem Inc	Industrials	\$862,964	0.2%	(18.91)%	21.92	23.31	1.45%	2.26%
Hca Healthcare Inc	Health Care	\$540,172	0.1%	(18.76)%	66.90	12.36	0.98%	9.65%
Marketaxess Hldgs Inc	Financials	\$1,809,531	0.3%	(18.05)%	8.05	27.22	1.35%	12.18%
Amdocs Ltd Shs	Information Technology	\$208,014	0.0%	(17.52)%	10.06	12.89	2.06%	11.10%

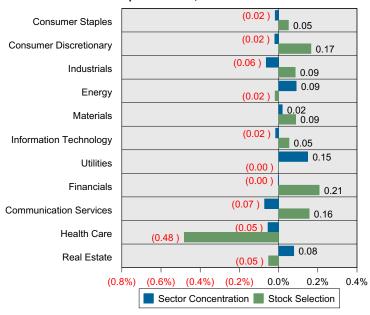


### LA Capital Enh ex Alpha Fd vs Russell 1000 Index Quarterly Equity Buy and Hold Attribution

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Large Cap Core over the same time period.

### Attribution Effects by Sector vs Russell 1000 Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.02%)	0.05%
Consumer Discretionary	(0.02%)	0.17%
Industrials	(0.06%)	0.09%
Energy	0.09%	(0.02%)
Materials	0.02%	0.09%
Information Technology	(0.02%)	0.05%
Utilities	0.15%	(0.00%)
Financials	(0.00%)	0.21%
Communication Services	s (0.07%)	0.16%
Health Care	(0.05%)	(0.48%)
Real Estate	0.08%	(0.05%)
Total	0.09%	0.25%

Manager Return _	Index Return	Lactor Concen	Stock Select	<sub>∔</sub> Trading <sub>→</sub>	Asset Alloc
(3.00%)	(3.15%)	0.09%	0.25%	(0.20%)	0.00%

### Equity Attribution Ranking vs Callan Large Cap Core Quarter ended September 30, 2023



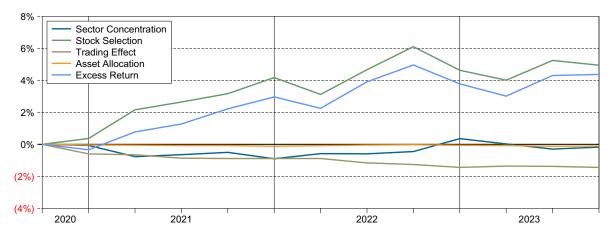


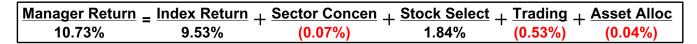
### LA Capital Enh ex Alpha Fd vs Russell 1000 Index Cumulative Equity Buy and Hold Attribution

#### **Cumulative Attribution and Ranking**

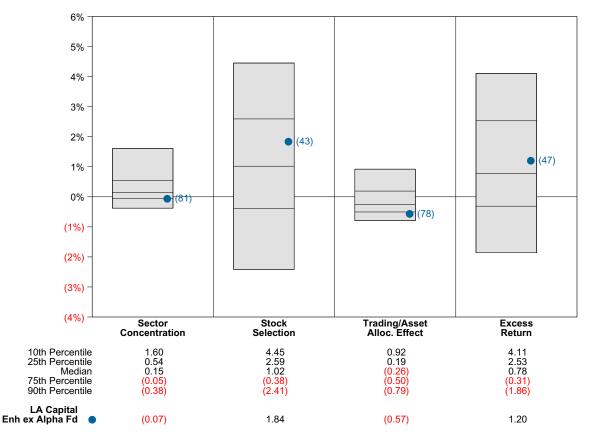
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Large Cap Core over the same time period.

#### **Cumulative Attribution Effects vs Russell 1000 Index**





### Equity Attribution Ranking vs Callan Large Cap Core Three Years Ended September 30, 2023





### NTAM R1000 Index Period Ended September 30, 2023

#### **Investment Philosophy**

The primary objective of the Northern Trust Russell 1000 Index Fund is to approximate the risk and return characteristics of the Russell 1000 Index.

### **Quarterly Summary and Highlights**

- NTAM R1000 Index's portfolio posted a (3.14)% return for the quarter placing it in the 80 percentile of the Callan Large Cap Core group for the quarter and in the 47 percentile for the last three-quarter year.
- NTAM R1000 Index's portfolio outperformed the Russell 1000 Index by 0.01% for the quarter and outperformed the Russell 1000 Index for the three-quarter year by 0.01%.

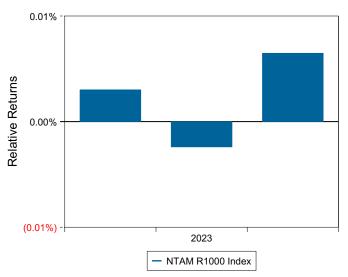
Quarterly As	set Growth
--------------	------------

Beginning Market Value	\$394,966,754
Net New Investment	\$2,385,189
Investment Gains/(Losses)	\$-12,174,619
Ending Market Value	\$385 177 324

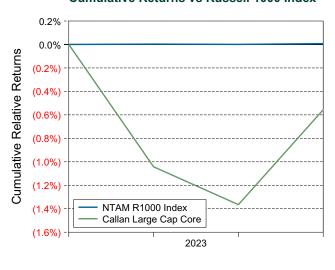
### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs Russell 1000 Index



### **Cumulative Returns vs Russell 1000 Index**

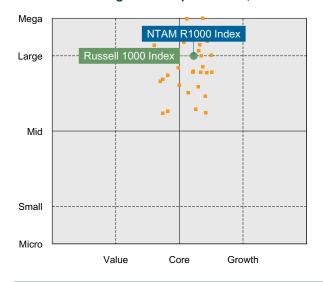




### Current Holdings Based Style Analysis NTAM R1000 Index As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

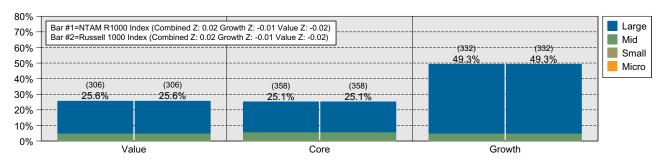
### Style Map vs Callan Large Cap Core Holdings as of September 30, 2023



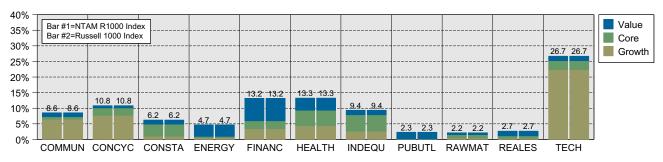
### Style Exposure Matrix Holdings as of September 30, 2023

Total	25.6% (306)	<b>25.1</b> % (358)	49.3% (332)	100.0% (996)
	25.6% (306)	25.1% (358)	49.3% (332)	100.0% (996)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Micro	0.070 (0)	0.070 (0)	0.070 (0)	0.070 (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Oman	0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
Small	0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
	4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
Mid				
	4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
_u.go	20.7% (99)	19.4% (87)	44.3% (108)	84.4% (294)
Large	20.7% (99)	19.4% (87)	44.3% (108)	84.4% (294)

### Combined Z-Score Style Distribution Holdings as of September 30, 2023



### Sector Weights Distribution Holdings as of September 30, 2023



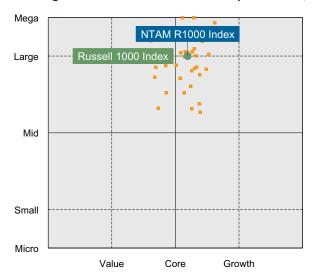


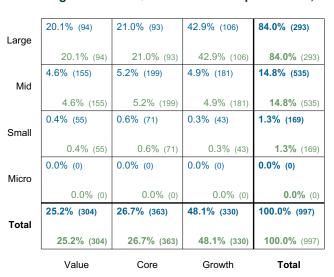
### Historical Holdings Based Style Analysis NTAM R1000 Index For Three Quarters Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

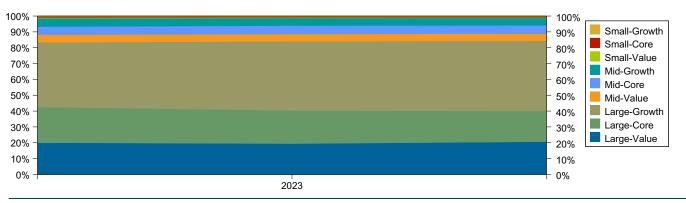
### Average Style Map vs Callan Large Cap Core Holdings for Three Quarters Ended September 30, 2023

### Average Style Exposure Matrix Holdings for Three Quarters Ended September 30, 2023

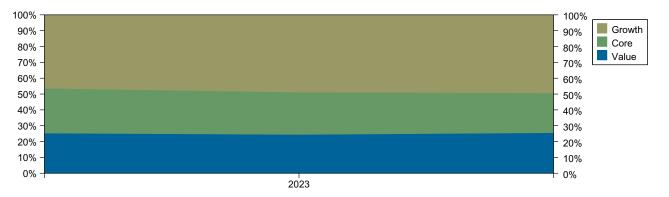




### NTAM R1000 Index Historical Cap/Style Exposures



#### **NTAM R1000 Index Historical Style Only Exposures**



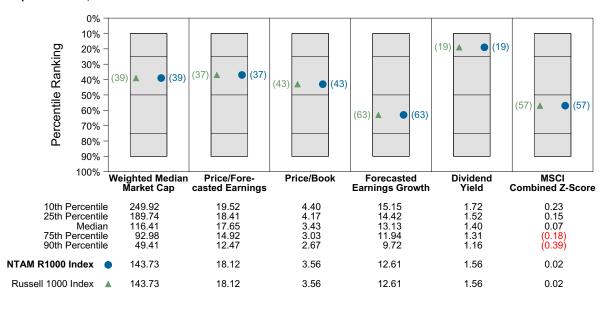


### NTAM R1000 Index Equity Characteristics Analysis Summary

#### **Portfolio Characteristics**

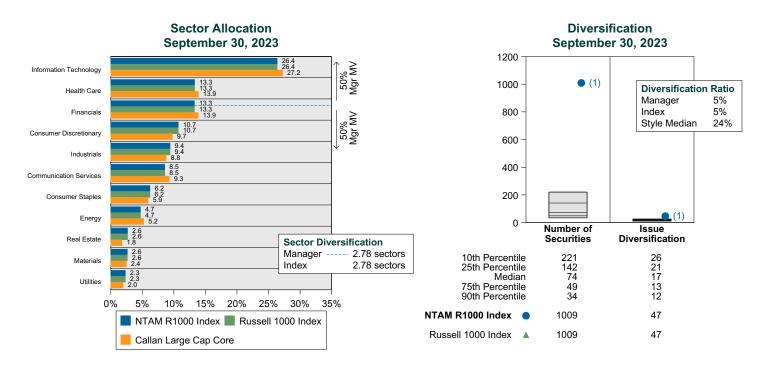
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





### NTAM R1000 Index Top 10 Portfolio Holdings Characteristics as of September 30, 2023

### 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Apple Inc	Information Technology	\$24,844,334	6.5%	(11.61)%	2676.74	25.98	0.56%	7.40%
Microsoft Corp	Information Technology	\$22,849,385	5.9%	(7.08)%	2345.95	27.72	0.86%	13.76%
Amazon.Com	Consumer Discretionary	\$11,136,199	2.9%	(2.49)%	1311.59	43.61	0.00%	6.05%
Nvidia Corp	Information Technology	\$10,050,170	2.6%	2.84%	1074.43	29.54	0.04%	78.70%
Alphabet Inc CI A	Communication Services	\$7,561,384	2.0%	9.32%	776.39	20.34	0.00%	18.50%
Tesla Mtrs Inc	Consumer Discretionary	\$6,713,016	1.7%	(4.41)%	794.20	59.11	0.00%	8.56%
Alphabet Inc CI C	Communication Services	\$6,520,407	1.7%	8.99%	764.86	20.64	0.00%	18.50%
Meta Platforms Inc	Communication Services	\$6,456,704	1.7%	4.61%	667.24	18.92	0.00%	32.00%
Berkshire Hathaway Inc Del Cl B New	Financials	\$6,237,244	1.6%	2.73%	458.22	19.49	0.00%	10.86%
Exxon Mobil Corp	Energy	\$4,579,689	1.2%	10.55%	470.70	12.76	3.10%	(10.00)%

### **10 Best Performers**

Sector  prmation Technology	Ending Market Value	Percent of Portfolio	Qtrly Return	Market	Forecasted Earnings	Dividend	Forecasted Growth in
	Value				•		Growth in
		Portfolio	Return	Conital			
ormation Technology	004 500			Capital	Ratio	Yield	Earnings
	\$81,533	0.0%	55.32%	11.05	33.36	0.00%	-
Industrials	\$124,035	0.0%	50.18%	14.16	19.86	0.03%	64.52%
nsumer Discretionary	\$58,369	0.0%	46.58%	6.11	8.78	0.00%	1.10%
nsumer Discretionary	\$156,391	0.0%	45.71%	22.83	(6.45)	0.00%	-
Energy	\$102,366	0.0%	38.75%	14.00	34.85	0.71%	33.39%
Financials	\$44,941	0.0%	38.68%	5.10	(7.77)	0.00%	-
ormation Technology	\$217,014	0.1%	37.85%	24.65	34.67	0.00%	25.10%
nsumer Discretionary	\$63,502	0.0%	36.22%	6.30	10.04	2.97%	10.00%
nsumer Discretionary	\$46,197	0.0%	33.23%	4.76	26.11	0.00%	0.95%
Financials	\$49,301	0.0%	31.42%	5.17	7.96	4.70%	16.31%
	Industrials Insumer Discretionary Insumer Discretionary Energy Financials Insumer Discretionary Insumer Discretionary Insumer Discretionary Insumer Discretionary	Industrials	Industrials         \$124,035         0.0%           Insumer Discretionary         \$58,369         0.0%           Insumer Discretionary         \$156,391         0.0%           Insumer Discretionary         \$102,366         0.0%           Financials         \$44,941         0.0%           Insumer Discretionary         \$63,502         0.0%           Insumer Discretionary         \$46,197         0.0%	Industrials         \$124,035         0.0%         50.18%           Insumer Discretionary         \$58,369         0.0%         46.58%           Insumer Discretionary         \$156,391         0.0%         45.71%           Energy         \$102,366         0.0%         38.75%           Financials         \$44,941         0.0%         38.68%           Insumer Discretionary         \$63,502         0.0%         36.22%           Insumer Discretionary         \$46,197         0.0%         33.23%	Industrials         \$124,035         0.0%         50.18%         14.16           Insumer Discretionary         \$58,369         0.0%         46.58%         6.11           Insumer Discretionary         \$156,391         0.0%         45.71%         22.83           Energy         \$102,366         0.0%         38.75%         14.00           Financials         \$44,941         0.0%         38.68%         5.10           Insumer Discretionary         \$63,502         0.0%         36.22%         6.30           Insumer Discretionary         \$46,197         0.0%         33.23%         4.76	Industrials         \$124,035         0.0%         50.18%         14.16         19.86           Insumer Discretionary         \$58,369         0.0%         46.58%         6.11         8.78           Insumer Discretionary         \$156,391         0.0%         45.71%         22.83         (6.45)           Energy         \$102,366         0.0%         38.75%         14.00         34.85           Financials         \$44,941         0.0%         38.68%         5.10         (7.77)           Insumer Discretionary         \$63,502         0.0%         36.22%         6.30         10.04           Insumer Discretionary         \$46,197         0.0%         33.23%         4.76         26.11	Industrials         \$124,035         0.0%         50.18%         14.16         19.86         0.03%           Insumer Discretionary         \$58,369         0.0%         46.58%         6.11         8.78         0.00%           Insumer Discretionary         \$156,391         0.0%         45.71%         22.83         (6.45)         0.00%           Energy         \$102,366         0.0%         38.75%         14.00         34.85         0.71%           Financials         \$44,941         0.0%         38.68%         5.10         (7.77)         0.00%           Insumer Discretionary         \$63,502         0.0%         36.22%         6.30         10.04         2.97%           Insumer Discretionary         \$46,197         0.0%         33.23%         4.76         26.11         0.00%

### **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Amc Entmt Hldgs Inc Cl A New	Communication Services	\$4,564	0.0%	(79.41)%	1.58	(4.38)	0.00%	6.01%
Hawaiian Elec Industries	Utilities	\$13,101	0.0%	(64.98)%	1.35	5.81	11.70%	3.74%
Novocure	Health Care	\$16,459	0.0%	(61.08)%	1.72	(3.54)	0.00%	-
Apellis Pharmaceuticals Inc	Health Care	\$36,844	0.0%	(58.24)%	4.48	(12.17)	0.00%	-
Viasat Inc	Information Technology	\$20,954	0.0%	(55.26)%	2.29	19.21	0.00%	190.99%
Petco Health & Wellness Co Inc Cl A	Consumer Discretionary	\$3,256	0.0%	(54.05)%	0.94	12.39	0.00%	(31.63)%
Driven Brands Hldgs Inc Com	Industrials	\$7,597	0.0%	(53.48)%	2.11	11.90	0.00%	7.45%
Olaplex Holdings	Consumer Staples	\$2,467	0.0%	(47.56)%	1.28	10.83	0.00%	(28.10)%
Masimo Corp	Health Care	\$36,756	0.0%	(46.72)%	4.63	23.17	0.00%	6.09%
Spirit Aerosystems Hldgs Inc Com Cl	Industrials	\$16,385	0.0%	(44.71)%	1.70	(27.36)	0.00%	(53.55)%

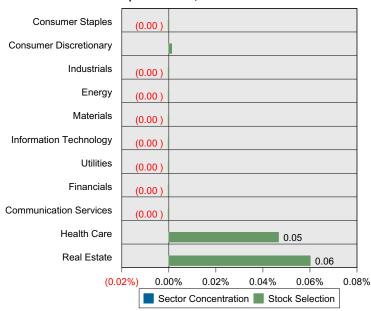


### NTAM R1000 Index vs Russell 1000 Index **Quarterly Equity Buy and Hold Attribution**

### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Large Cap Core over the same time period.

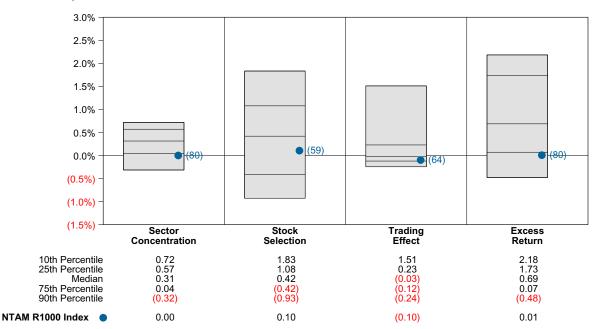
### Attribution Effects by Sector vs Russell 1000 Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.00%	(0.00%)
Consumer Discretionary	0.00%	0.00%
Industrials	0.00%	(0.00%)
Energy	0.00%	(0.00%)
Materials	0.00%	(0.00%)
Information Technology	0.00%	(0.00%)
Utilities	0.00%	(0.00%)
Financials	0.00%	(0.00%)
Communication Services	s 0.00%	(0.00%)
Health Care	0.00%	0.05%
Real Estate	0.00%	0.06%
Total	0.00%	0.10%

Manager Return _	Index Return _	Sector Concentration _	Lack Selection _	<sub>∔</sub> Trading
(3.14%)	(3.15%)	0.00%	0.10%	(0.10%)

### **Equity Attribution Ranking vs Callan Large Cap Core** Quarter ended September 30, 2023



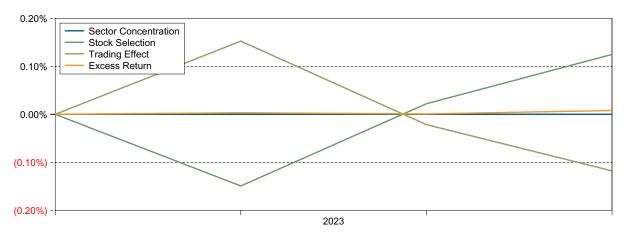


### NTAM R1000 Index vs Russell 1000 Index **Cumulative Equity Buy and Hold Attribution**

### **Cumulative Attribution and Ranking**

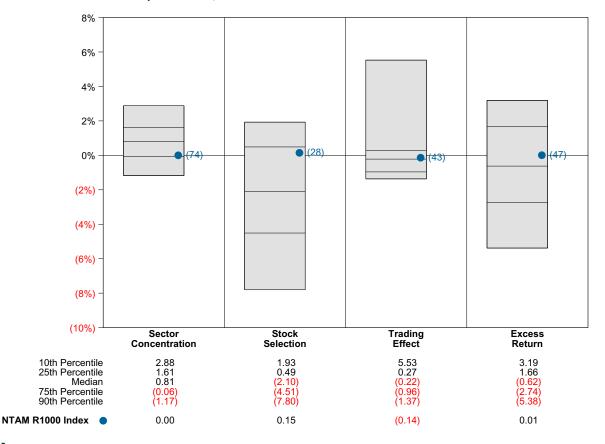
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Large Cap Core over the same time period.

#### **Cumulative Attribution Effects vs Russell 1000 Index**



Manager Return	Index Return _	Sector Concentration _	L Stock Selection	Trading
13.02%	13.01%	0.00%	0.15%	(0.14%)

### **Equity Attribution Ranking vs Callan Large Cap Core** Three Quarters Year Ended September 30, 2023





### **NTAM Quant Enh R1000** Period Ended September 30, 2023

### **Investment Philosophy**

The Fund's Investment Objective is to exceed the total return of the Russell 1000 Index\* (the Benchmark) by 150 basis points on a gross of fee basis while targeting expected tracking error of no greater than 150-200 basis points.

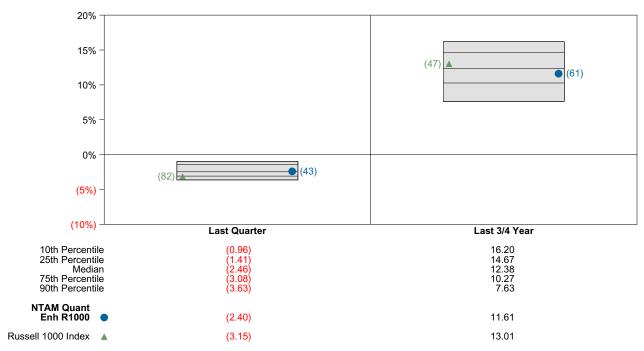
### **Quarterly Summary and Highlights**

- NTAM Quant Enh R1000's portfolio posted a (2.40)% return for the quarter placing it in the 43 percentile of the Callan Large Cap Core group for the quarter and in the 61 percentile for the last three-quarter year.
- NTAM Quant Enh R1000's portfolio outperformed the Russell 1000 Index by 0.75% for the quarter and underperformed the Russell 1000 Index for the three-quarter year by 1.40%.

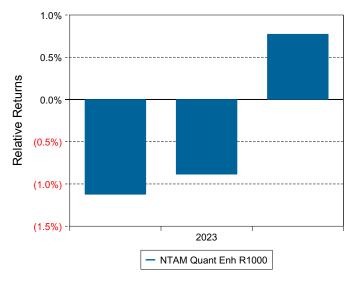
### **Quarterly Asset Growth**

Beginning Market Value	\$386,721,380
Net New Investment	\$0
Investment Gains/(Losses)	\$-9,276,242
Ending Market Value	\$377.445.138

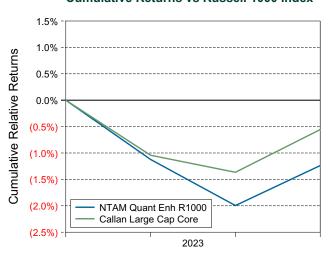
### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs Russell 1000 Index



### **Cumulative Returns vs Russell 1000 Index**

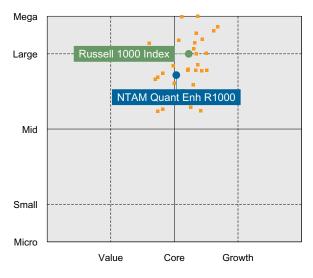




### **Current Holdings Based Style Analysis NTAM Quant Enh R1000** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

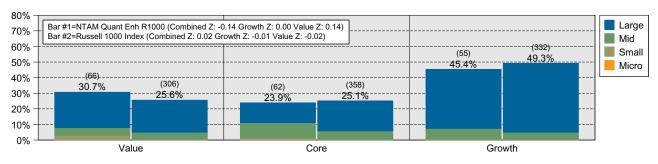
### Style Map vs Callan Large Cap Core Holdings as of September 30, 2023



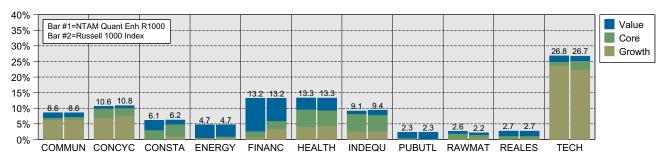
### **Style Exposure Matrix** Holdings as of September 30, 2023

0.0% (0) <b>30.7% (66) 25.6% (306)</b>	0.0% (0) <b>23.9% (62) 25.1% (</b> 358)	0.0% (0) <b>45.4% (55)</b> <b>49.3% (</b> 332)	0.0% (0) 100.0% (183) 100.0% (996)
( )	1 /	( )	` '
0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
(2)	(5)	(5)	(5)
0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
0.4% (51)	0.5% (73)	0.3% (42)	1.2% (166)
2.070 (0)	1.470 (3)	0.470 (2)	4.770 (13)
` '	, ,	, ,	4.7% (13)
4.5% (156)	5.2% (198)	4.6% (182)	14.4% (536)
5.0% (24)	9.6% (30)	0.9% (21)	21.5% (75)
. ,	, ,	, ,	21.5% (75)
20.7% (99)	19.4% (87)	44 3% (108)	84.4% (294)
22.9% (36)	12.9% (27)	38.0% (32)	73.8% (95)
	20.7% (99) 5.0% (24) 4.5% (156) 2.8% (6)	20.7% (99) 19.4% (87) 5.0% (24) 9.6% (30) 4.5% (156) 5.2% (198) 2.8% (6) 1.4% (5) 0.4% (51) 0.5% (73)	20.7% (99)     19.4% (87)     44.3% (108)       5.0% (24)     9.6% (30)     6.9% (21)       4.5% (156)     5.2% (198)     4.6% (182)       2.8% (6)     1.4% (5)     0.4% (2)       0.4% (51)     0.5% (73)     0.3% (42)

### **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



### **Sector Weights Distribution** Holdings as of September 30, 2023



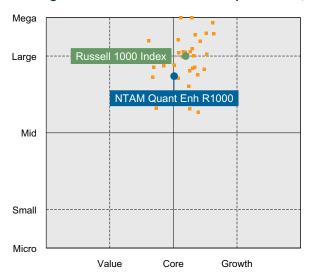


### **Historical Holdings Based Style Analysis NTAM Quant Enh R1000** For Three Quarters Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

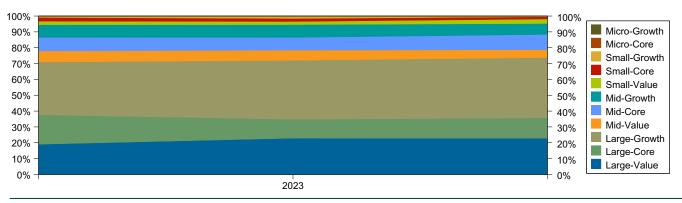
### Average Style Map vs Callan Large Cap Core Holdings for Three Quarters Ended September 30, 2023

### **Average Style Exposure Matrix** Holdings for Three Quarters Ended September 30, 2023

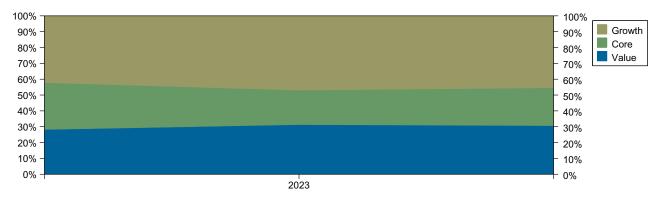




#### NTAM Quant Enh R1000 Historical Cap/Style Exposures



#### NTAM Quant Enh R1000 Historical Style Only Exposures



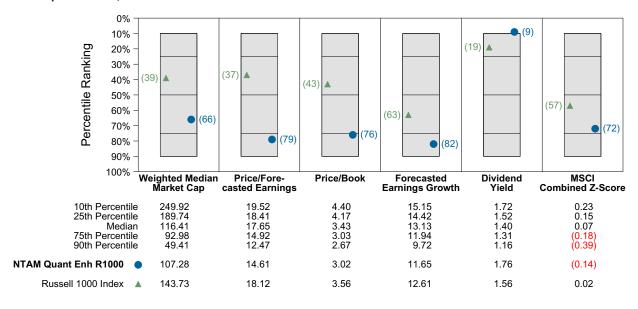


### **NTAM Quant Enh R1000 Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

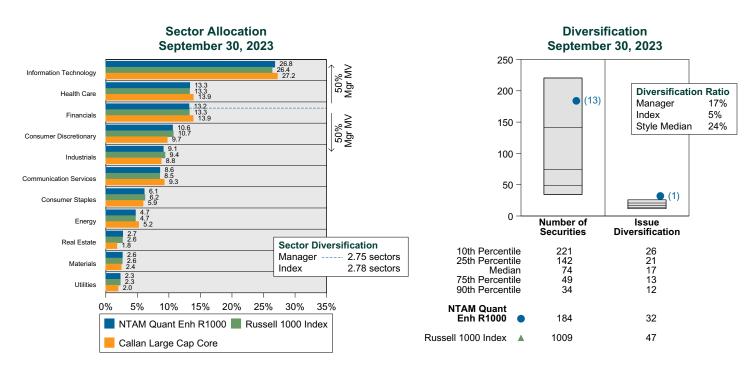
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Large Cap Core as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# NTAM Quant Enh R1000 Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Apple Inc	Information Technology	\$26,227,831	7.0%	(11.61)%	2676.74	25.98	0.56%	7.40%
Microsoft Corp	Information Technology	\$24,177,925	6.4%	(7.08)%	2345.95	27.72	0.86%	13.76%
Alphabet Inc Cl A	Communication Services	\$16,047,885	4.3%	9.32%	776.39	20.34	0.00%	18.50%
Amazon.Com	Consumer Discretionary	\$9,638,493	2.6%	(2.49)%	1311.59	43.61	0.00%	6.05%
Nvidia Corp	Information Technology	\$7,407,010	2.0%	2.84%	1074.43	29.54	0.04%	78.70%
Meta Platforms Inc	Communication Services	\$7,030,018	1.9%	4.61%	667.24	18.92	0.00%	32.00%
Exxon Mobil Corp	Energy	\$5,863,244	1.6%	10.55%	470.70	12.76	3.10%	(10.00)%
Broadcom Ltd Shs	Information Technology	\$5,496,778	1.5%	(3.72)%	342.81	18.24	2.22%	10.80%
JPMorgan Chase & Co	Financials	\$5,476,100	1.5%	0.40%	421.44	9.63	2.90%	16.00%
Berkshire Hathaway Inc Del CI B New	Financials	\$4,883,883	1.3%	2.73%	458.22	19.49	0.00%	10.86%

# **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Applovin Corp	Information Technology	\$715,843	0.2%	55.32%	11.05	33.36	0.00%	-
Block H & R Inc	Consumer Discretionary	\$2,042,207	0.5%	36.22%	6.30	10.04	2.97%	10.00%
Marathon Pete Corp	Energy	\$3,216,278	0.9%	30.48%	60.51	8.60	1.98%	(17.90)%
Hf Sinclair Corporation	Energy	\$788,424	0.2%	28.63%	10.48	7.37	3.16%	20.27%
Phillips 66	Energy	\$1,687,266	0.4%	27.14%	53.50	8.44	3.50%	(7.90)%
Williams-Sonoma	Consumer Discretionary	\$2,267,441	0.6%	25.04%	9.97	10.80	2.32%	40.30%
Cf Inds Hldgs Inc	Materials	\$1,143,857	0.3%	24.14%	16.54	11.93	1.87%	(31.20)%
Amgen	Health Care	\$3,904,814	1.0%	22.03%	143.76	14.27	3.17%	1.69%
Valero Energy Corp New	Energy	\$3,164,809	0.8%	21.79%	50.04	8.08	2.88%	(21.05)%
Constellation Energy Stock	Utilities	\$981,720	0.3%	19.47%	35.08	18.20	1.03%	-

# **10 Worst Performers**

						Price/		
		Ending	Percent		Forecasted			Forecasted
		Market	Market of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Doximity Inc Com Usd0.001 CI A	Health Care	\$55,342	0.0%	(37.62)%	2.66	25.29	0.00%	10.30%
Tapestry Inc	Consumer Discretionary	\$2,173,558	0.6%	(32.09)%	6.59	6.81	4.87%	11.00%
Zimmer Biomet Holdings	Health Care	\$123,105	0.0%	(22.76)%	23.45	14.20	0.86%	7.12%
Fortinet Inc	Information Technology	\$547,543	0.1%	(22.37)%	46.08	34.60	0.00%	18.65%
Omnicom Group	Communication Services	\$1,948,397	0.5%	(20.99)%	14.72	9.68	3.76%	4.80%
Hca Healthcare Inc	Health Care	\$539,188	0.1%	(18.76)%	66.90	12.36	0.98%	9.65%
Amdocs Ltd Shs	Information Technology	\$2,104,561	0.6%	(17.52)%	10.06	12.89	2.06%	11.10%
Toast Inc	Financials	\$6,836	0.0%	(17.03)%	7.70	(44.81)	0.00%	-
Playtika Hldg Corp Com	Communication Services	\$2,191,027	0.6%	(16.98)%	3.53	11.26	0.00%	10.10%
Ge Healthcare Technologies Wi	Health Care	\$2,667,236	0.7%	(16.22)%	30.95	16.26	0.18%	-

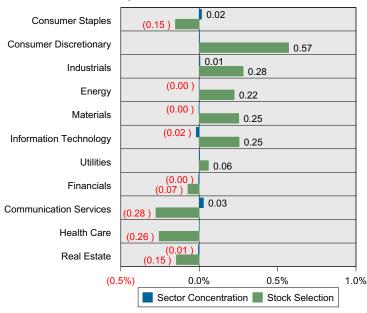


# NTAM Quant Enh R1000 vs Russell 1000 Index **Quarterly Equity Buy and Hold Attribution**

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Large Cap Core over the same time period.

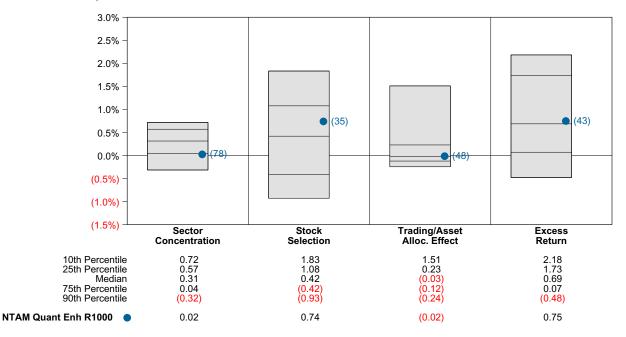
# Attribution Effects by Sector vs Russell 1000 Index Quarter ended September 30, 2023



	Sector	Stock
Sector	Concentration	Selection
Consumer Staples	0.02%	(0.15%)
Consumer Discretionary	0.00%	0.57%
Industrials	0.01%	0.28%
Energy	(0.00%)	0.22%
Materials	(0.00%)	0.25%
Information Technology	(0.02%)	0.25%
Utilities	0.00%	0.06%
Financials	(0.00%)	(0.07%)
Communication Services	s 0.03%	(0.28%)
Health Care	0.00%	(0.26%)
Real Estate	(0.01%)	(0.15%)
Total	0.02%	0.74%

Manager Return _	Index Return	Lactor Concen	Stock Select	<sub>⊥</sub> Trading _	Asset Alloc
(2.40%)	(3.15%)	0.02%	0.74%	(0.04%)	0.02%

# **Equity Attribution Ranking vs Callan Large Cap Core** Quarter ended September 30, 2023



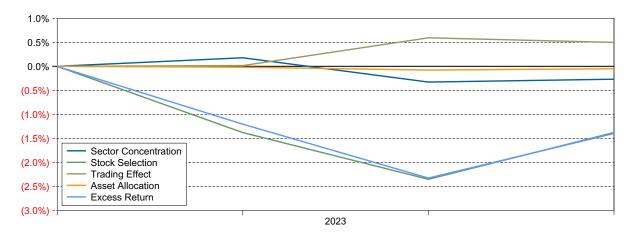


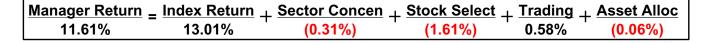
# NTAM Quant Enh R1000 vs Russell 1000 Index **Cumulative Equity Buy and Hold Attribution**

#### **Cumulative Attribution and Ranking**

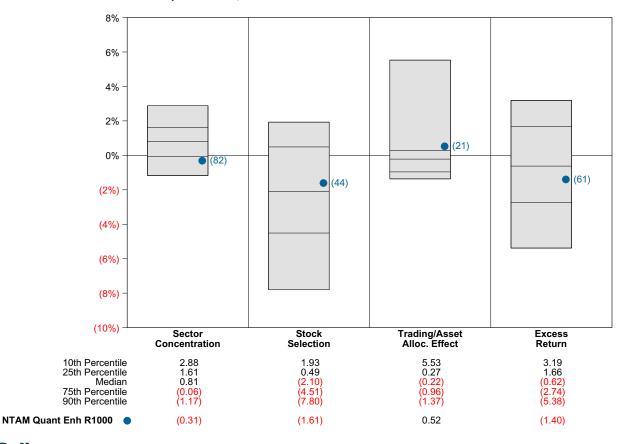
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Large Cap Core over the same time period.

#### Cumulative Attribution Effects vs Russell 1000 Index





# **Equity Attribution Ranking vs Callan Large Cap Core** Three Quarters Year Ended September 30, 2023





# NTAM R2000 Index Period Ended September 30, 2023

#### **Investment Philosophy**

The primary objective of the Northern Trust Russell 2000 Equity Index Fund is to approximate the risk and return characteristics of the Russell 2000 Index.

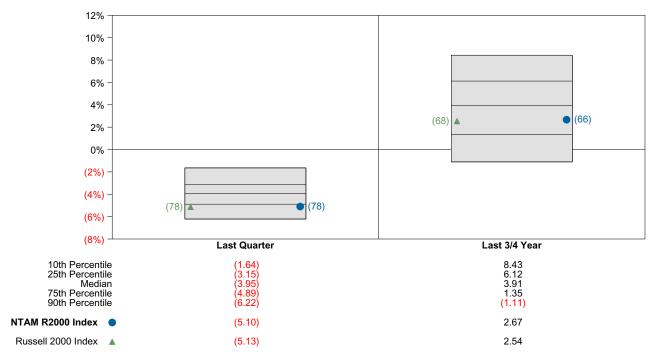
# **Quarterly Summary and Highlights**

- NTAM R2000 Index's portfolio posted a (5.10)% return for the quarter placing it in the 78 percentile of the Callan Small Cap Core group for the quarter and in the 66 percentile for the last three-quarter year.
- NTAM R2000 Index's portfolio outperformed the Russell 2000 Index by 0.03% for the quarter and outperformed the Russell 2000 Index for the three-quarter year by 0.12%.

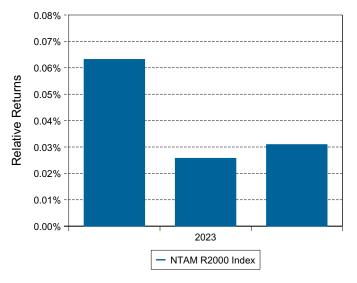
Quarterly	Asset	Growth
-----------	-------	--------

Beginning Market Value	\$12,365,567
Net New Investment	\$9,492,603
Investment Gains/(Losses)	\$-1,059,315
Ending Market Value	\$20 798 854

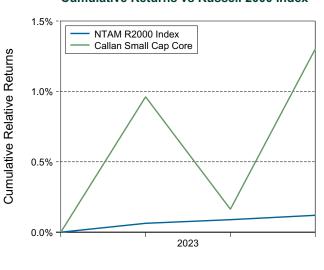
# Performance vs Callan Small Cap Core (Gross)



#### Relative Return vs Russell 2000 Index



# **Cumulative Returns vs Russell 2000 Index**

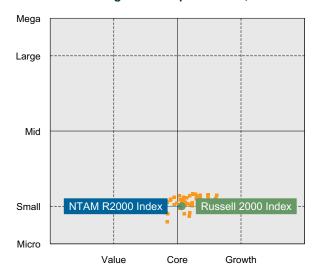




# **Current Holdings Based Style Analysis NTAM R2000 Index** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

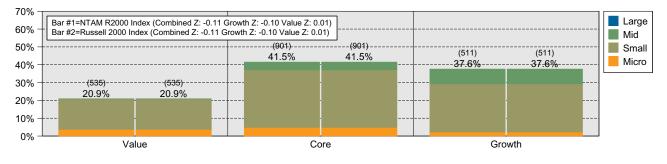
#### Style Map vs Callan Small Cap Core Holdings as of September 30, 2023



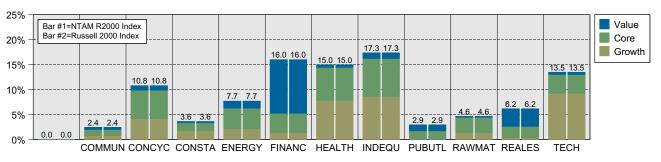
#### **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	20.9% (535)	41.5% (901)	37.6% (511)	100.0% (1947)
Total				
	20.9% (535)	41.5% (901)	37.6% (511)	100.0% (1947)
	3.7% (300)	4.8% (424)	2.2% (157)	10.8% (881)
Micro				
	3.7% (300)	4.8% (424)	2.2% (157)	10.8% (881)
	17.0% (234)	32.2% (457)	27.0% (322)	<b>76.2</b> % (1013)
Small				
	17.0% (234)	32.2% (457)	27.0% (322)	76.2% (1013)
	0.2% (1)	4.4% (20)	8.3% (32)	13.0% (53)
Mid				
	0.2% (1)	4.4% (20)	8.3% (32)	13.0% (53)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Large	3.3 /3 (3)	0.070 (0)	0.0 /0 (0)	0.0 /0 (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



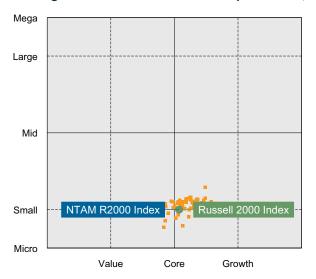


# **Historical Holdings Based Style Analysis** NTAM R2000 Index For Three Quarters Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

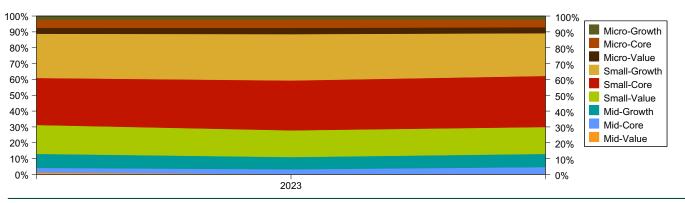
# Average Style Map vs Callan Small Cap Core Holdings for Three Quarters Ended September 30, 2023

# **Average Style Exposure Matrix** Holdings for Three Quarters Ended September 30, 2023

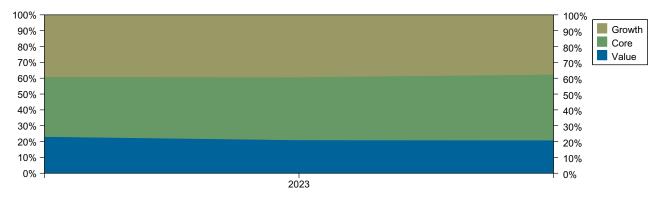




# NTAM R2000 Index Historical Cap/Style Exposures



#### NTAM R2000 Index Historical Style Only Exposures



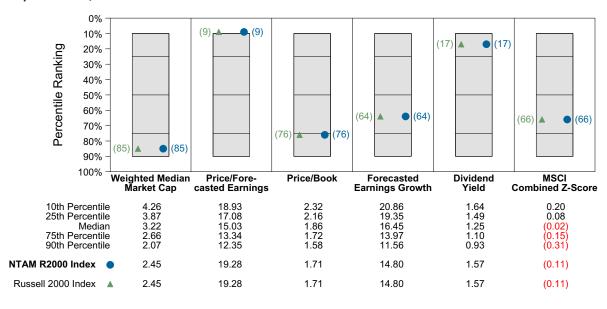


# NTAM R2000 Index **Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

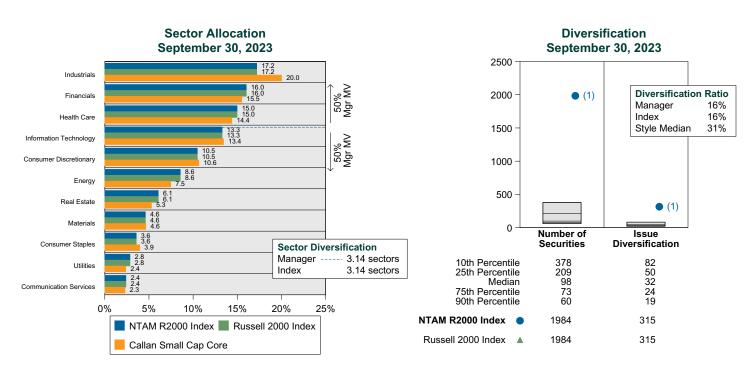
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap Core** as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# NTAM R2000 Index Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

	Ending	Percent					
		. 0.00	Forecasted				Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Information Technology	\$117,939	0.6%	10.02%	14.51	15.73	0.00%	55.97%
Industrials	\$67,412	0.3%	5.84%	7.23	16.63	0.00%	43.52%
Energy	\$65,731	0.3%	15.07%	7.00	15.89	0.95%	31.40%
Energy	\$62,898	0.3%	6.30%	6.73	6.44	3.09%	44.90%
Energy	\$62,503	0.3%	19.15%	7.08	8.06	2.43%	(11.00)%
Energy	\$62,500	0.3%	13.98%	7.09	7.05	1.01%	62.21%
Consumer Discretionary	\$60,409	0.3%	3.74%	6.52	28.34	0.00%	(58.23)%
Industrials	\$59,632	0.3%	8.38%	6.39	17.60	0.72%	30.78%
Information Technology	\$58,064	0.3%	(11.17)%	6.25	56.25	0.00%	22.66%
Information Technology	\$57,913	0.3%	9.49%	6.26	28.96	0.00%	34.51%
	Information Technology Industrials Energy Energy Energy Energy Consumer Discretionary Industrials Information Technology	Sector         Value           Information Technology         \$117,939           Industrials         \$67,412           Energy         \$65,731           Energy         \$62,898           Energy         \$62,503           Energy         \$62,500           Consumer Discretionary         \$60,409           Industrials         \$59,632           Information Technology         \$58,064	Sector         Value         Portfolio           Information Technology         \$117,939         0.6%           Industrials         \$67,412         0.3%           Energy         \$65,731         0.3%           Energy         \$62,898         0.3%           Energy         \$62,503         0.3%           Energy         \$62,500         0.3%           Consumer Discretionary         \$60,409         0.3%           Industrials         \$59,632         0.3%           Information Technology         \$58,064         0.3%	Sector         Value         Portfolio         Return           Information Technology         \$117,939         0.6%         10.02%           Industrials         \$67,412         0.3%         5.84%           Energy         \$65,731         0.3%         15.07%           Energy         \$62,898         0.3%         6.30%           Energy         \$62,503         0.3%         19.15%           Energy         \$62,500         0.3%         13.98%           Consumer Discretionary         \$60,409         0.3%         3.74%           Industrials         \$59,632         0.3%         8.38%           Information Technology         \$58,064         0.3%         (11.17)%	Sector         Value         Portfolio         Return         Capital           Information Technology         \$117,939         0.6%         10.02%         14.51           Industrials         \$67,412         0.3%         5.84%         7.23           Energy         \$65,731         0.3%         15.07%         7.00           Energy         \$62,898         0.3%         6.30%         6.73           Energy         \$62,503         0.3%         19.15%         7.08           Energy         \$62,500         0.3%         13.98%         7.09           Consumer Discretionary         \$60,409         0.3%         3.74%         6.52           Industrials         \$59,632         0.3%         8.38%         6.39           Information Technology         \$58,064         0.3%         (11.17)%         6.25	Sector         Value         Portfolio         Return         Capital         Ratio           Information Technology         \$117,939         0.6%         10.02%         14.51         15.73           Industrials         \$67,412         0.3%         5.84%         7.23         16.63           Energy         \$65,731         0.3%         15.07%         7.00         15.89           Energy         \$62,898         0.3%         6.30%         6.73         6.44           Energy         \$62,503         0.3%         19.15%         7.08         8.06           Energy         \$62,500         0.3%         13.98%         7.09         7.05           Consumer Discretionary         \$60,409         0.3%         3.74%         6.52         28.34           Industrials         \$59,632         0.3%         8.38%         6.39         17.60           Information Technology         \$58,064         0.3%         (11.17)%         6.25         56.25	Sector         Value         Portfolio         Return         Capital         Ratio         Yield           Information Technology         \$117,939         0.6%         10.02%         14.51         15.73         0.00%           Industrials         \$67,412         0.3%         5.84%         7.23         16.63         0.00%           Energy         \$65,731         0.3%         15.07%         7.00         15.89         0.95%           Energy         \$62,898         0.3%         6.30%         6.73         6.44         3.09%           Energy         \$62,503         0.3%         19.15%         7.08         8.06         2.43%           Energy         \$62,500         0.3%         13.98%         7.09         7.05         1.01%           Consumer Discretionary         \$60,409         0.3%         3.74%         6.52         28.34         0.00%           Industrials         \$59,632         0.3%         8.38%         6.39         17.60         0.72%           Information Technology         \$58,064         0.3%         (11.17)%         6.25         56.25         0.00%

# **10 Best Performers**

						Price/		
		Ending Percent				Forecasted		
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Tango Therapeutics Inc	Health Care	\$4,658	0.0%	239.20%	1.14	(7.57)	0.00%	-
Polymet Mng Corp	Materials	\$658	0.0%	166.22%	0.41	(15.26)	0.00%	-
Cardlytics Inc	Communication Services	\$5,166	0.0%	161.07%	0.62	(83.76)	0.00%	-
Telephone & Data Sys Inc	Communication Services	\$16,799	0.1%	124.80%	1.93	(19.92)	4.04%	(9.29)%
Thorne Healthtech Inc	Health Care	\$1,326	0.0%	116.82%	0.55	19.79	0.00%	-
Immunovant Inc	Health Care	\$19,194	0.1%	102.38%	5.47	(19.26)	0.00%	-
Tetra Technologies Inc Del	Energy	\$7,411	0.0%	88.76%	0.83	13.75	0.00%	(28.73)%
Nextnav Inc	Communication Services	\$2,610	0.0%	74.86%	0.56	(10.22)	0.00%	-
Centrus Energy Corp CI A	Energy	\$6,460	0.0%	74.00%	0.84	24.20	0.00%	(55.28)%
Hallador Energy Company	Energy	\$3,053	0.0%	67.78%	0.48	7.99	0.00%	42.94%

# **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Outlook Therapeutics Inc	Health Care	\$318	0.0%	(87.23)%	0.06	(1.94)	0.00%	-
Cxapp Inc Cl A	Information Technology	\$33	0.0%	(83.42)%	0.02	(1.79)	0.00%	-
Cano Health Inc Com Cl A	Health Care	\$584	0.0%	(81.71)%	0.07	(0.53)	0.00%	-
Loop Media Inc	Communication Services	\$173	0.0%	(79.21)%	0.03	(1.33)	0.00%	-
Akoustis Technologies Inc	Information Technology	\$482	0.0%	(76.32)%	0.05	(1.34)	0.00%	-
Benson Hill Inc Common Stock	Consumer Staples	\$532	0.0%	(74.49)%	0.07	(0.66)	0.00%	-
Tpi Composites Inc	Industrials	\$1,017	0.0%	(74.45)%	0.11	(1.60)	0.00%	(50.41)%
Kodiak Sciences Inc	Health Care	\$541	0.0%	(73.91)%	0.09	(0.57)	0.00%	-
System1 Inc CI A Com	Communication Services	\$367	0.0%	(73.11)%	0.11	(0.84)	0.00%	-
Theseus Pharmaceuticals Inc Common S	Health Care	\$504	0.0%	(71.17)%	0.12	(1.81)	0.00%	-

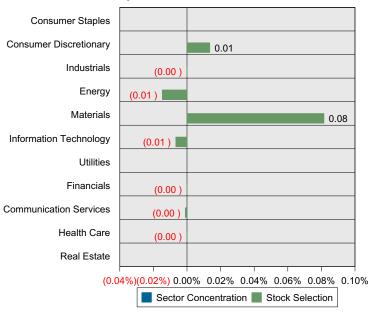


# NTAM R2000 Index vs Russell 2000 Index **Quarterly Equity Buy and Hold Attribution**

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Core over the same time period.

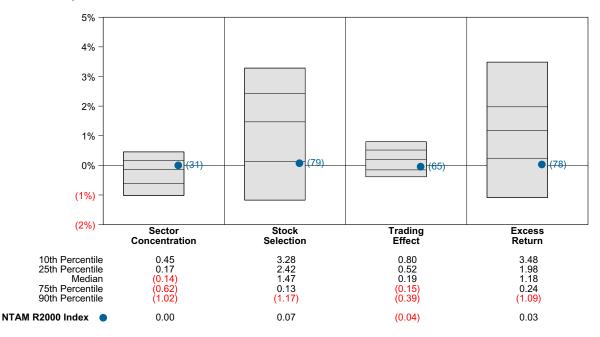
# Attribution Effects by Sector vs Russell 2000 Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.00%	0.00%
Consumer Discretionary	0.00%	0.01%
Industrials	0.00%	(0.00%)
Energy	0.00%	(0.01%)
Materials	0.00%	0.08%
Information Technology	0.00%	(0.01%)
Utilities	0.00%	0.00%
Financials	0.00%	(0.00%)
Communication Services	s 0.00%	(0.00%)
Health Care	0.00%	(0.00%)
Real Estate	0.00%	0.00%
Total	0.00%	0.07%

Manager Return _	Index Return	_ Sector Concentration _	Stock Selection	Trading
(5.10%)	(5.13%)	0.00%	0.07%	(0.04%)

# **Equity Attribution Ranking vs Callan Small Cap Core** Quarter ended September 30, 2023



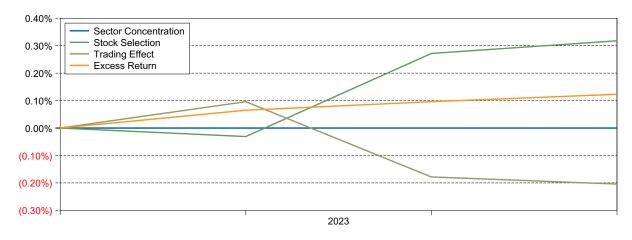


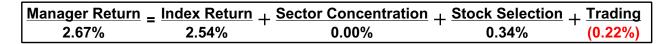
# NTAM R2000 Index vs Russell 2000 Index **Cumulative Equity Buy and Hold Attribution**

#### **Cumulative Attribution and Ranking**

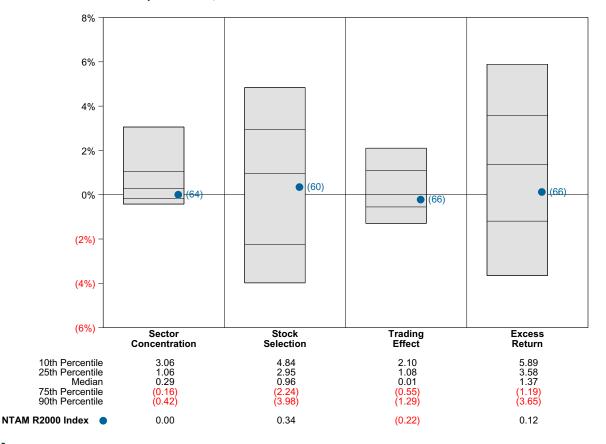
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Small Cap Core over the same time period.

#### **Cumulative Attribution Effects vs Russell 2000 Index**





# **Equity Attribution Ranking vs Callan Small Cap Core** Three Quarters Year Ended September 30, 2023





# **Atlanta Capital** Period Ended September 30, 2023

#### **Investment Philosophy**

Atlanta Capital Management focuses on high quality companies and seeks to develop portfolios with an overall risk profile similar to the Russell 2000 Index. Atlanta screens for stocks rated B+ or better by S&P and with at least five years of financial history. Portfolio managers screen stocks, primarily those in the Russell 2000 Index, to identify companies based on what Atlanta considers a favorable combination of valuation and stable earnings and dividend growth. Atlanta's analyst team also strives to identify companies with a "purchase catalyst" or something that differentiates the company from its industry peers.

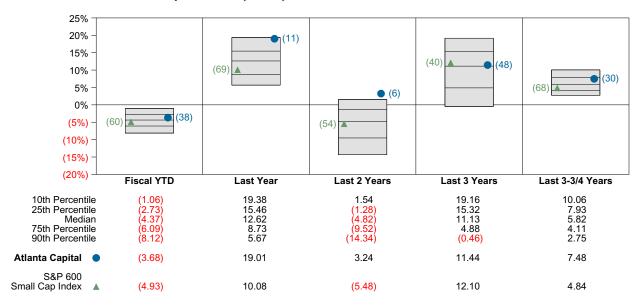
#### **Quarterly Summary and Highlights**

- Atlanta Capital's portfolio posted a (3.68)% return for the quarter placing it in the 38 percentile of the Callan Small Capitalization group for the quarter and in the 11 percentile for the last year.
- Atlanta Capital's portfolio outperformed the S&P 600 Small Cap Index by 1.24% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 8.93%.

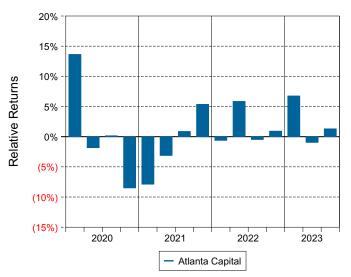
#### **Quarterly Asset Growth**

Beginning Market Value	\$130,655,704
Net New Investment	\$-4,204,619
Investment Gains/(Losses)	\$-4,557,229
Ending Market Value	\$121.893.856

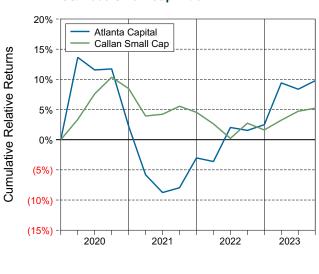
#### Performance vs Callan Small Capitalization (Gross)



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



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



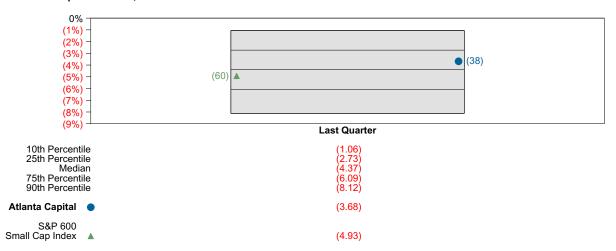


# **Atlanta Capital Return Analysis Summary**

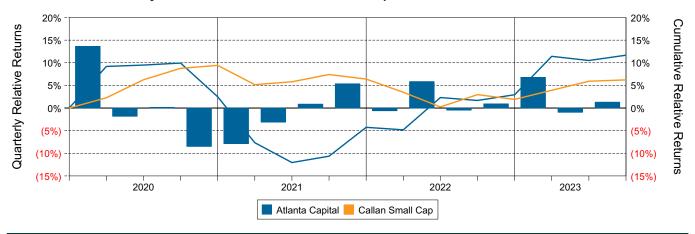
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

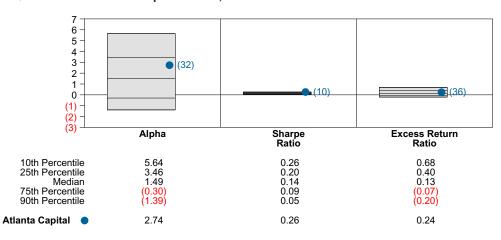
# Performance vs Callan Small Capitalization (Gross) Period ended September 30, 2023



#### Cumulative and Quarterly Relative Returns vs S&P 600 Small Cap Index



Risk Adjusted Return Measures vs S&P 600 Small Cap Index Rankings Against Callan Small Capitalization (Gross) Three and Three-Quarter Years Ended September 30, 2023



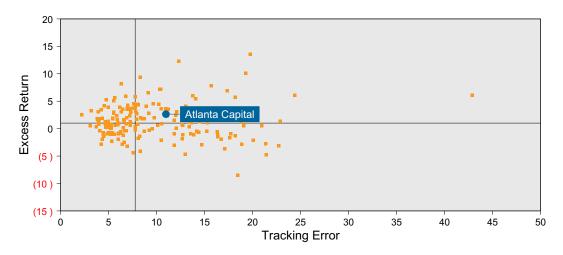


# **Atlanta Capital Risk Analysis Summary**

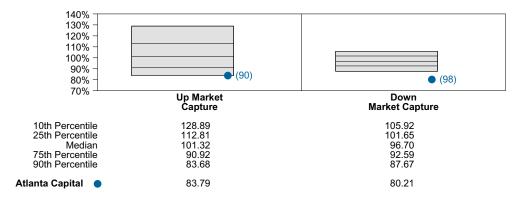
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

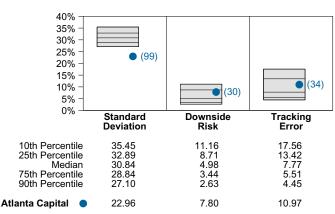
Risk Analysis vs Callan Small Capitalization (Gross) Three and Three-Quarter Years Ended September 30, 2023

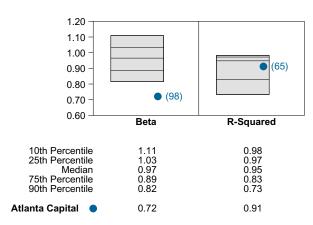


Market Capture vs S&P 600 Small Cap ldx Rankings Against Callan Small Capitalization (Gross) Three and Three-Quarter Years Ended September 30, 2023



Risk Statistics Rankings vs S&P 600 Small Cap Idx Rankings Against Callan Small Capitalization (Gross) Three and Three-Quarter Years Ended September 30, 2023





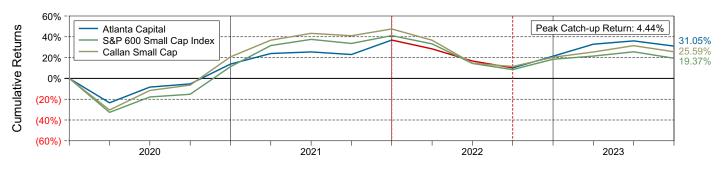


# **Atlanta Capital**

# Drawdown Analysis for Three and Three-Quarter Years Ended September 30, 2023

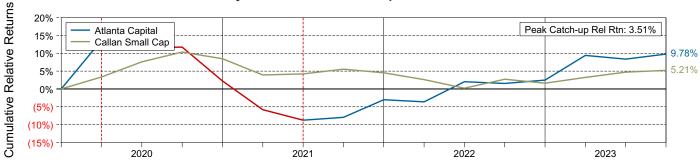
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



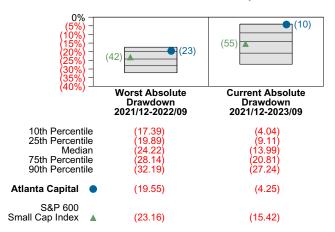
	Worst Absolute Drawdown			Current Absolute Drawdown						
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Atlanta Capital	(19.55)%	0.75	2021/12-2022/09	(23.16)%	(24.49)%	(4.25)%	1.75	2021/12-2023/09	(15.42)%	(14.87)%
Recovery from Trough	19.01%	1.00+	2022/09-2023/09	10.08%	12.74%	19.01%	1.00+	2022/09-2023/09	10.08%	12.74%
S&P 600 Small Cap Index	(23.16)%	0.75	2021/12-2022/09			(15.42)%	1.75	2021/12-2023/09		
Callan Small Cap	(24.49)%	0.75	2021/12-2022/09			(14.87)%	1.75	2021/12-2023/09		

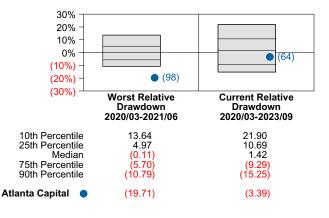
# Relative Cumulative Drawdown Analysis vs. S&P 600 Small Cap Index



	Worst Relative Drawdown			Cu	rrent Rel	ative Drawdown		
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Atlanta Capital	(19.71)%	1.25	2020/03-2021/06	0.83%	(3.39)%	3.50	2020/03-2023/09	1.79%
Recovery from Trough	20.32%	2.25+	2021/06-2023/09	0.95%	20.32%	2.25+	2021/06-2023/09	0.95%
Callan Small Cap	(9.18)%	1.75	2020/09-2022/06		(4.66)%	3.00	2020/09-2023/09	

Drawdown Rankings vs. S&P 600 Small Cap Index **Rankings against Callan Small Capitalization** Three and Three-Quarter Years Ended September 30, 2023



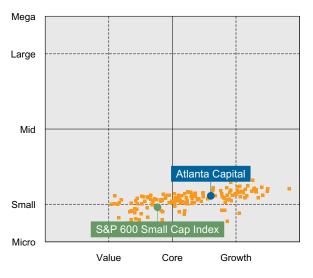




# **Current Holdings Based Style Analysis Atlanta Capital** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

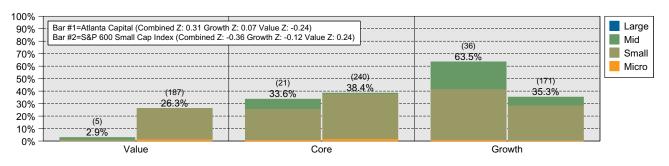
# Style Map vs Callan Small Cap Holdings as of September 30, 2023



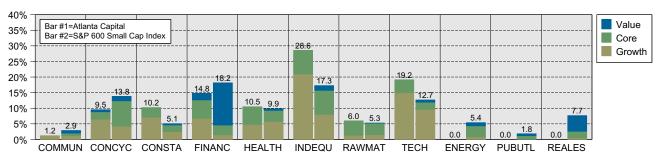
#### **Style Exposure Matrix** Holdings as of September 30, 2023

Total	2.9% (5)	33.6% (21)	63.5% (36)	100.0% (62)
	1.5% (31) <b>2.9% (5)</b>	1.9% (38) <b>33.6% (21)</b>	0.7% (14) <b>63.5% (36)</b>	4.1% (83) 100.0% (62)
Micro				
	0.0% (0)	1.0% (1)	1.0% (1)	2.0% (2)
Siliali	24.7% (156)	36.1% (201)	28.2% (146)	89.0% (503)
Small	1.5% (2)	24.8% (17)	40.8% (25)	67.1% (44)
IVIIG	0.0% (0)	0.5% (1)	6.4% (11)	6.9% (12)
Mid	1.4% (3)	7.8% (3)	21.8% (10)	30.9% (16)
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Lorgo	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

#### **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



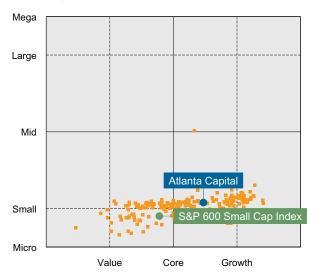


# **Historical Holdings Based Style Analysis Atlanta Capital** For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented guarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

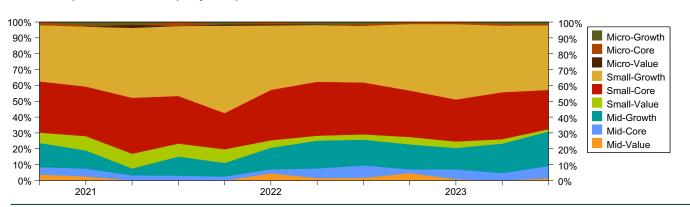
# Average Style Map vs Callan Small Cap Holdings for Three Years Ended September 30, 2023

**Average Style Exposure Matrix** Holdings for Three Years Ended September 30, 2023

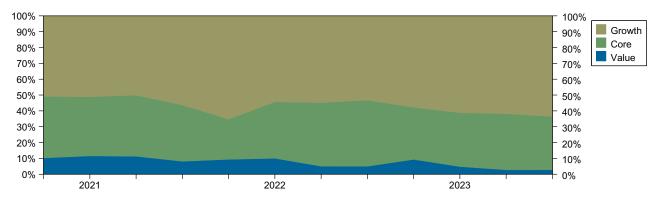




#### Atlanta Capital Historical Cap/Style Exposures



**Atlanta Capital Historical Style Only Exposures** 



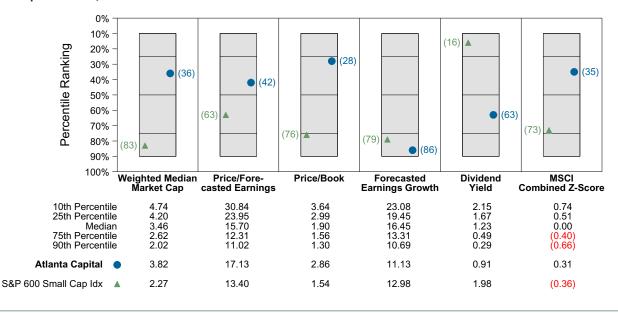


# **Atlanta Capital Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

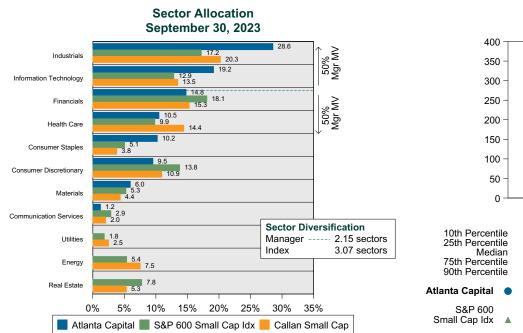
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

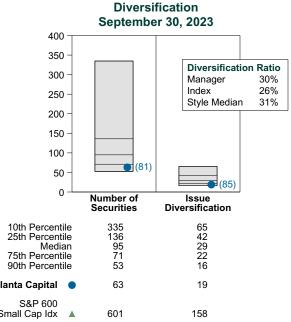
# **Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Capitalization** as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.







# **Atlanta Capital** Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

	Ending	Percent			Forecasted		Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Consumer Staples	\$5,705,017	4.7%	(3.46)%	4.30	27.12	1.86%	25.76%
Financials	\$4,370,797	3.6%	3.99%	6.25	14.32	1.16%	21.40%
Industrials	\$4,010,679	3.3%	(3.36)%	4.87	10.45	0.00%	6.57%
Information Technology	\$3,962,692	3.3%	(9.05)%	5.18	13.92	0.00%	17.31%
Information Technology	\$3,958,978	3.2%	(2.13)%	5.60	31.34	0.00%	20.21%
Information Technology	\$3,454,611	2.8%	(7.61)%	3.79	16.30	0.00%	22.40%
Industrials	\$3,302,950	2.7%	(2.85)%	3.24	16.84	0.96%	1.66%
Consumer Discretionary	\$2,981,156	2.4%	(8.26)%	2.39	12.99	0.00%	5.22%
Industrials	\$2,906,481	2.4%	4.05%	1.98	20.83	0.00%	11.85%
Industrials	\$2,834,467	2.3%	(7.50)%	2.59	19.90	0.00%	18.28%
	Consumer Staples Financials Industrials Information Technology Information Technology Information Technology Industrials Consumer Discretionary Industrials	Sector         Market Value           Consumer Staples         \$5,705,017           Financials         \$4,370,797           Industrials         \$4,010,679           Information Technology         \$3,962,692           Information Technology         \$3,958,978           Information Technology         \$3,302,950           Consumer Discretionary         \$2,981,156           Industrials         \$2,906,481	Sector         Market Value         of Portfolio           Consumer Staples         \$5,705,017         4.7%           Financials         \$4,370,797         3.6%           Industrials         \$4,010,679         3.3%           Information Technology         \$3,962,692         3.3%           Information Technology         \$3,958,978         3.2%           Information Technology         \$3,454,611         2.8%           Industrials         \$3,302,950         2.7%           Consumer Discretionary         \$2,981,156         2.4%           Industrials         \$2,906,481         2.4%	Sector         Market Value         of Portfolio         Qtrly Return           Consumer Staples         \$5,705,017         4.7%         (3.46)%           Financials         \$4,370,797         3.6%         3.99%           Industrials         \$4,010,679         3.3%         (3.36)%           Information Technology         \$3,962,692         3.3%         (9.05)%           Information Technology         \$3,958,978         3.2%         (2.13)%           Information Technology         \$3,454,611         2.8%         (7.61)%           Industrials         \$3,302,950         2.7%         (2.85)%           Consumer Discretionary         \$2,981,156         2.4%         (8.26)%           Industrials         \$2,906,481         2.4%         4.05%	Sector         Market Value         of Portfolio         Qtrly Return         Market Capital           Consumer Staples         \$5,705,017         4.7%         (3.46)%         4.30           Financials         \$4,370,797         3.6%         3.99%         6.25           Industrials         \$4,010,679         3.3%         (3.36)%         4.87           Information Technology         \$3,962,692         3.3%         (9.05)%         5.18           Information Technology         \$3,958,978         3.2%         (2.13)%         5.60           Information Technology         \$3,454,611         2.8%         (7.61)%         3.79           Industrials         \$3,302,950         2.7%         (2.85)%         3.24           Consumer Discretionary         \$2,981,156         2.4%         (8.26)%         2.39           Industrials         \$2,906,481         2.4%         4.05%         1.98	Sector         Market Value         of Portfolio         Qtrly Return         Market Capital         Ratio           Consumer Staples         \$5,705,017         4.7%         (3.46)%         4.30         27.12           Financials         \$4,370,797         3.6%         3.99%         6.25         14.32           Industrials         \$4,010,679         3.3%         (3.36)%         4.87         10.45           Information Technology         \$3,962,692         3.3%         (9.05)%         5.18         13.92           Information Technology         \$3,958,978         3.2%         (2.13)%         5.60         31.34           Information Technology         \$3,454,611         2.8%         (7.61)%         3.79         16.30           Industrials         \$3,302,950         2.7%         (2.85)%         3.24         16.84           Consumer Discretionary         \$2,981,156         2.4%         (8.26)%         2.39         12.99           Industrials         \$2,906,481         2.4%         4.05%         1.98         20.83	Sector         Market Value         of Portfolio         Qtrly Return         Market Capital         Earnings Ratio         Dividend Yield           Consumer Staples         \$5,705,017         4.7%         (3.46)%         4.30         27.12         1.86%           Financials         \$4,370,797         3.6%         3.99%         6.25         14.32         1.16%           Industrials         \$4,010,679         3.3%         (3.36)%         4.87         10.45         0.00%           Information Technology         \$3,962,692         3.3%         (9.05)%         5.18         13.92         0.00%           Information Technology         \$3,958,978         3.2%         (2.13)%         5.60         31.34         0.00%           Information Technology         \$3,454,611         2.8%         (7.61)%         3.79         16.30         0.00%           Industrials         \$3,302,950         2.7%         (2.85)%         3.24         16.84         0.96%           Consumer Discretionary         \$2,981,156         2.4%         (8.26)%         2.39         12.99         0.00%           Industrials         \$2,906,481         2.4%         4.05%         1.98         20.83         0.00%

# **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Donnelley Finl Solutions Inc Com	Financials	\$1,241,087	1.0%	14.23%	1.65	17.08	0.00%	38.04%
National Resh Corp Cl A	Health Care	\$2,447,804	2.0%	8.72%	1.09	52.63	1.08%	13.90%
Techtarget Inc	Communication Services	\$1,426,313	1.2%	5.60%	0.84	18.58	0.00%	(11.59)%
Merit Medical Systems	Health Care	\$1,949,746	1.6%	5.12%	3.98	22.12	0.00%	11.50%
Sprouts Fmrs Mkt Inc	Consumer Staples	\$1,661,539	1.4%	4.93%	4.37	15.42	0.00%	7.72%
Huron Consulting Group Inc	Industrials	\$2,906,481	2.4%	4.05%	1.98	20.83	0.00%	11.85%
Kinsale Cap Group Inc	Financials	\$605,458	0.5%	4.03%	9.59	30.89	0.14%	46.81%
Selective Insurance Grp	Financials	\$4,370,797	3.6%	3.99%	6.25	14.32	1.16%	21.40%
Rli Corp	Financials	\$2,167,581	1.8%	3.32%	6.20	26.65	0.79%	23.03%
Houlihan Lokey Inc Cl A	Financials	\$1,690,246	1.4%	1.69%	5.51	20.59	2.05%	16.34%

# **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Mesa Labs Inc	Health Care	\$1,141,060	0.9%	(26.71)%	0.57	103.82	0.61%	(29.79)%
Omnicell Inc	Health Care	\$759,825	0.6%	(21.70)%	2.04	20.51	0.00%	4.80%
Envestnet Inc	Information Technology	\$1,467,476	1.2%	(19.40)%	2.40	17.22	0.00%	(1.72)%
Icu Med Inc	Health Care	\$2,294,751	1.9%	(17.94)%	2.87	16.57	0.00%	(5.21)%
Sally Beauty Hldgs Inc	Consumer Discretionary	\$548,781	0.5%	(17.52)%	0.90	4.04	0.00%	(0.94)%
Monro Inc	Consumer Discretionary	\$824,019	0.7%	(15.18)%	0.87	17.11	4.03%	15.00%
Stepan Co	Materials	\$1,482,007	1.2%	(14.56)%	1.68	15.90	1.95%	(4.78)%
Balchem Corp	Materials	\$1,493,318	1.2%	(11.72)%	4.00	30.28	0.57%	6.75%
First Horizon Natl Corp	Financials	\$11	0.0%	(11.06)%	6.16	7.97	10.89%	7.44%
Integra Lifesciences Hldgs C	Health Care	\$1,607,455	1.3%	(10.23)%	3.11	11.17	0.00%	3.70%

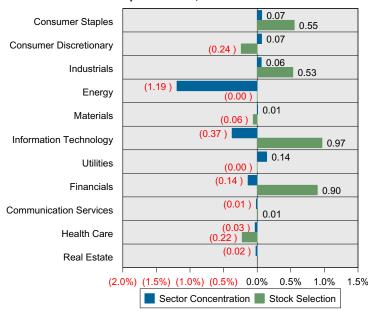


# Atlanta Capital vs S&P 600 Small Cap Index **Quarterly Equity Buy and Hold Attribution**

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Capitalization over the same time period.

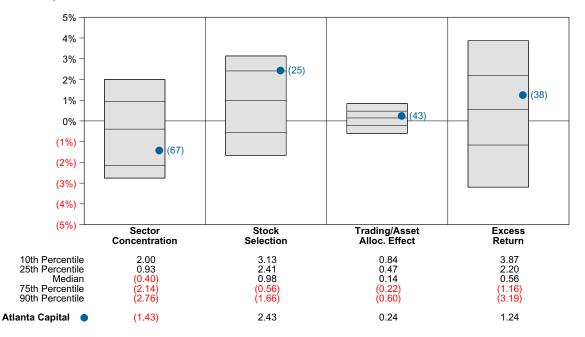
# Attribution Effects by Sector vs S&P 600 Small Cap Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	0.07%	0.55%
Consumer Discretionary	0.07%	(0.24%)
Industrials	0.06%	0.53%
Energy	(1.19%)	(0.00%)
Materials	0.01%	(0.06%)
Information Technology	(0.37%)	0.97%
Utilities	0.14%	(0.00%)
Financials	(0.14%)	0.90%
Communication Services	s (0.01%)	0.01%
Health Care	(0.03%)	(0.22%)
Real Estate	(0.02%)	0.00%
Total	(1.43%)	2.43%

Manager Return _	Index Return _	Sector Concen _	Stock Select _	_ <u>Trading</u> _	⊥ Asset Alloc
(3.68%)	(4.93%)	(1.43%)	2.43%	0.04%	0.20%

# **Equity Attribution Ranking vs Callan Small Capitalization** Quarter ended September 30, 2023



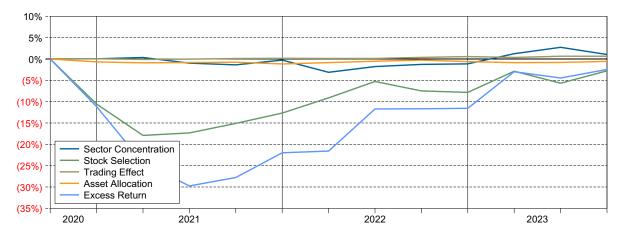


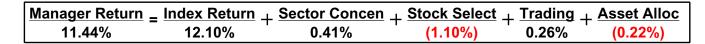
# Atlanta Capital vs S&P 600 Small Cap Index **Cumulative Equity Buy and Hold Attribution**

#### **Cumulative Attribution and Ranking**

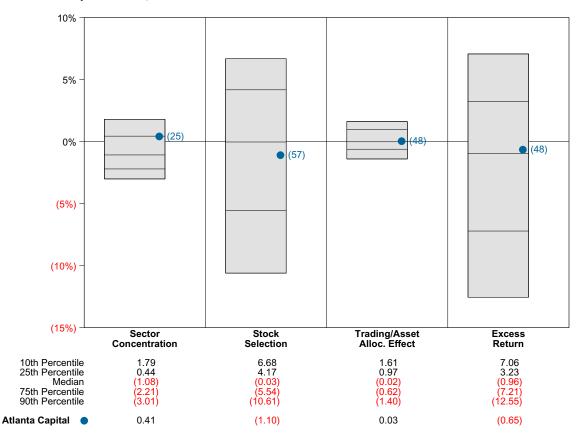
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Small Capitalization over the same time period.

#### Cumulative Attribution Effects vs S&P 600 Small Cap Index





# **Equity Attribution Ranking vs Callan Small Capitalization** Three Years Ended September 30, 2023





# **Riverbridge Small Cap Growth** Period Ended September 30, 2023

#### **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.

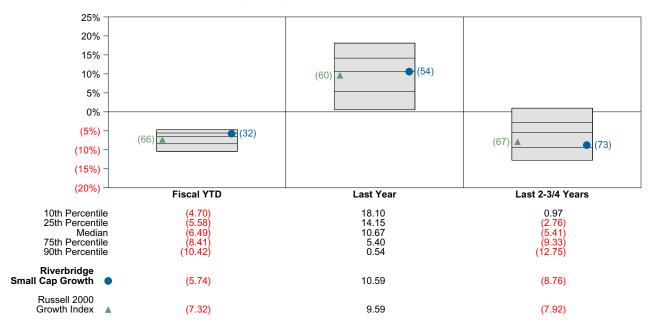
#### **Quarterly Summary and Highlights**

- Riverbridge Small Cap Growth's portfolio posted a (5.74)% return for the quarter placing it in the 32 percentile of the Callan Small Cap Growth group for the quarter and in the 54 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio outperformed the Russell 2000 Growth Index by 1.58% for the guarter and outperformed the Russell 2000 Growth Index for the year by

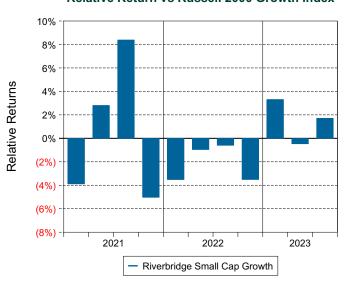
#### **Quarterly Asset Growth**

Beginning Market Value	\$128,822,748
Net New Investment	\$166,483
Investment Gains/(Losses)	\$-7,428,011
Ending Market Value	\$121,561,220

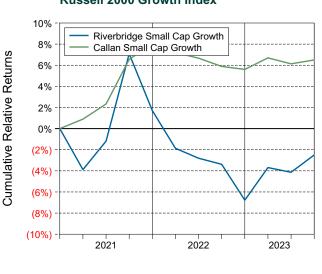
# Performance vs Callan Small Cap Growth (Gross)



# Relative Return vs Russell 2000 Growth Index



# **Cumulative Returns vs Russell 2000 Growth Index**

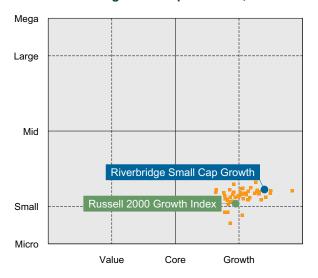




# **Current Holdings Based Style Analysis Riverbridge Small Cap Growth** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

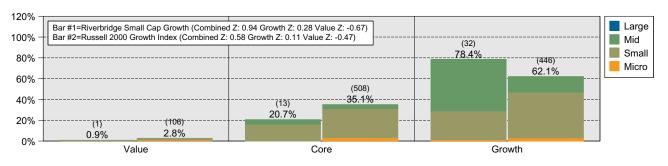
# Style Map vs Callan Small Cap Growth Holdings as of September 30, 2023



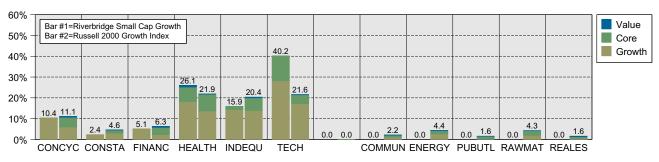
#### **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	2.8% (106)	35.1% (508)	62.1% (446)	100.0% (1060)
Total				
	0.9% (1)	20.7% (13)	78.4% (32)	100.0% (46)
	0.9% (68)	3.1% (207)	2.9% (126)	6.9% (401)
Micro				
	0.0% (0)	0.0% (0)	1.4% (2)	1.4% (2)
	1.9% (38)	27.9% (288)	44.1% (288)	73.9% (614)
Small	, ,		, ,	, ,
	0.9% (1)	15.9% (11)	27.5% (14)	44.2% (26)
	0.0% (0)	4.1% (13)	15.1% (32)	19.2% (45)
Mid				
	0.0% (0)	4.8% (2)	49.6% (16)	54.4% (18)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Large	(3)	(,,	(1)	(1)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

#### **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023

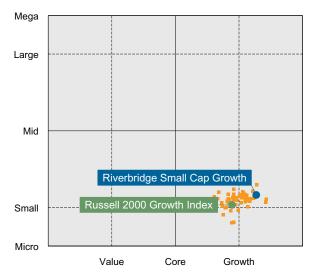


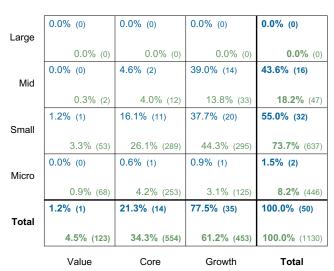


# **Historical Holdings Based Style Analysis Riverbridge Small Cap Growth** For Two and 3/4 Years Ended September 30, 2023

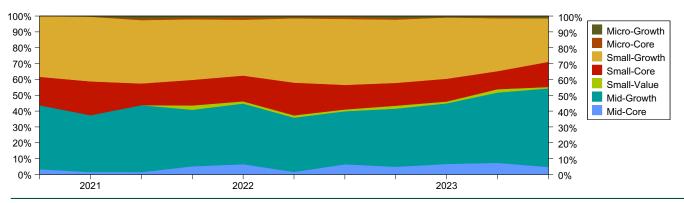
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

#### Average Style Map vs Callan Small Cap Growth **Average Style Exposure Matrix** Holdings for Two and 3/4 Years Ended September 30, 2023 Holdings for Two and 3/4 Years Ended September 30, 2023

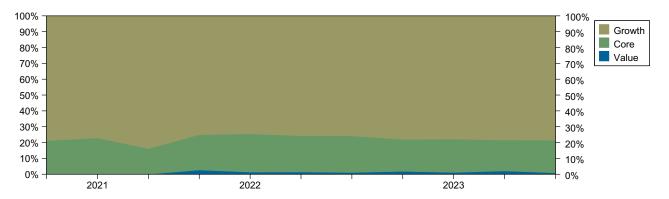




#### Riverbridge Small Cap Growth Historical Cap/Style Exposures



Riverbridge Small Cap Growth Historical Style Only Exposures



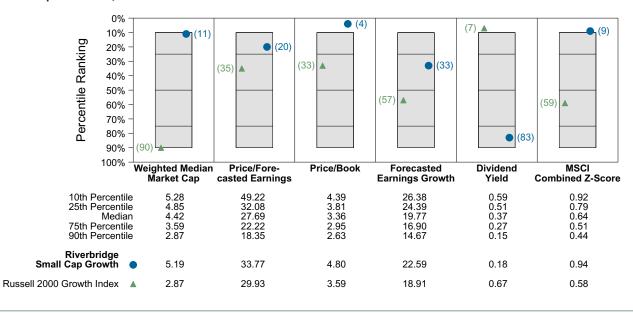


# **Riverbridge Small Cap Growth Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

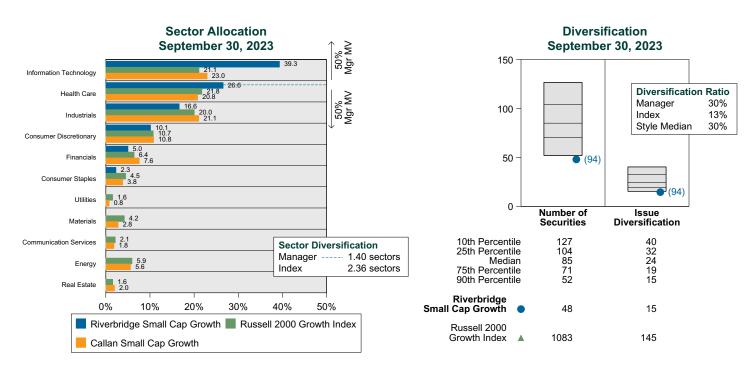
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Small Cap Growth as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# Riverbridge Small Cap Growth Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Globant S A	Information Technology	\$5,821,736	4.8%	17.06%	8.40	29.66	0.00%	29.14%
Sps Comm Inc	Information Technology	\$5,570,928	4.6%	3.28%	6.25	56.25	0.00%	22.66%
Medpace Hldgs Inc	Health Care	\$4,754,707	3.9%	6.84%	7.40	25.85	0.00%	30.24%
Rb Global Inc	Industrials	\$4,638,000	3.9%	(3.80)%	11.38	22.09	1.73%	23.87%
Workiva Inc Com Cl A	Information Technology	\$4,587,459	3.8%	6.27%	5.05	190.85	0.00%	-
Five Below Inc	Consumer Discretionary	\$4,435,691	3.7%	(17.43)%	8.96	26.01	0.00%	20.84%
Grand Canyon Ed Inc	Consumer Discretionary	\$4,354,364	3.6%	8.05%	3.54	16.29	0.00%	3.78%
Paylocity Hldg Corp	Industrials	\$4,084,979	3.4%	(11.65)%	10.16	29.86	0.00%	30.20%
Kinsale Cap Group Inc	Financials	\$3,610,385	3.0%	7.07%	9.59	30.89	0.14%	46.81%
Alarm Com Hldgs Inc	Information Technology	\$3,568,436	3.0%	6.10%	3.05	32.28	0.00%	8.53%

# **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Globant S A	Information Technology	\$5,821,736	4.8%	17.06%	8.40	29.66	0.00%	29.14%
Grid Dynamics Hldgs Inc Class A	Information Technology	\$1,200,302	1.0%	11.57%	0.92	31.15	0.00%	59.79%
Grand Canyon Ed Inc	Consumer Discretionary	\$4,354,364	3.6%	8.05%	3.54	16.29	0.00%	3.78%
Kinsale Cap Group Inc	Financials	\$3,610,385	3.0%	7.07%	9.59	30.89	0.14%	46.81%
Medpace Hldgs Inc	Health Care	\$4,754,707	3.9%	6.84%	7.40	25.85	0.00%	30.24%
Workiva Inc Com CI A	Information Technology	\$4,587,459	3.8%	6.27%	5.05	190.85	0.00%	-
Alarm Com Hldgs Inc	Information Technology	\$3,568,436	3.0%	6.10%	3.05	32.28	0.00%	8.53%
Goosehead Ins Inc Com Cl A	Financials	\$1,484,563	1.2%	4.47%	1.78	50.15	0.00%	40.30%
Pennant Group	Health Care	\$741,692	0.6%	4.34%	0.33	13.66	0.00%	(5.83)%
Ensign Group Inc	Health Care	\$3,028,960	2.5%	3.46%	5.22	18.37	0.25%	21.46%

# **10 Worst Performers**

				Price/				
	Endir		Percent			Forecasted		Forecasted
		Market		Qtrly	Market	Market Earnings Capital Ratio	Dividend Yield	Growth in
Stock		Value		Return	Capital			Earnings
International Mny Express In	Financials	\$883,221	0.7%	(28.56)%	0.60	7.73	0.00%	7.63%
Definitive Healthcare Corp Common St	Health Care	\$759,330	0.6%	(20.56)%	0.91	28.54	0.00%	-
Doubleverify Holdings Inc	Information Technology	\$1,994,568	1.7%	(19.70)%	4.68	63.52	0.00%	43.48%
Model N Inc	Information Technology	\$1,677,895	1.4%	(18.97)%	0.94	20.77	0.00%	54.14%
Five9 Inc	Information Technology	\$1,675,272	1.4%	(17.54)%	4.64	30.90	0.00%	22.65%
Amn Healthcare Services Inc	Health Care	\$1,796,446	1.5%	(17.43)%	3.24	11.84	0.00%	38.98%
Five Below Inc	Consumer Discretionary	\$4,435,691	3.7%	(17.43)%	8.96	26.01	0.00%	20.84%
Certara Inc Com	Health Care	\$1,140,896	0.9%	(16.97)%	2.32	30.94	0.00%	20.30%
Willscot Mobil Mini Hldng Co Com Cl	Industrials	\$2,805,121	2.3%	(14.42)%	8.21	18.80	0.00%	69.77%
Cognex Corp	Information Technology	\$2,152,387	1.8%	(13.65)%	7.31	41.28	0.66%	3.31%

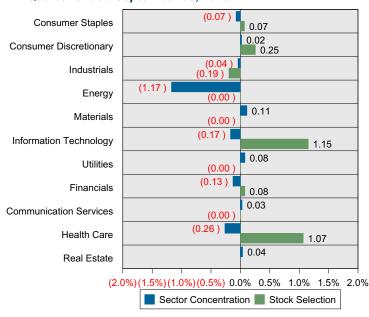


# Riverbridge Small Cap Growth vs Russell 2000 Growth Index **Quarterly Equity Buy and Hold Attribution**

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Growth over the same time period.

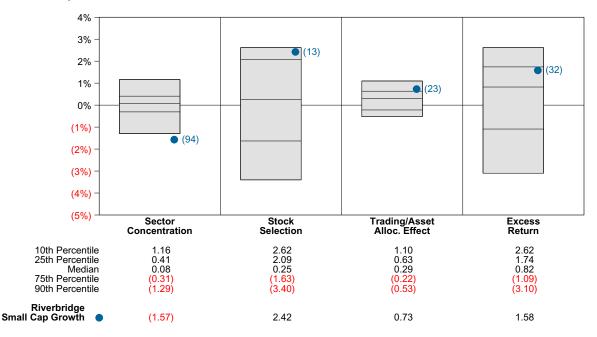
#### Attribution Effects by Sector vs Russell 2000 Growth Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.07%)	0.07%
Consumer Discretionary	0.02%	0.25%
Industrials	(0.04%)	(0.19%)
Energy	(1.17%)	(0.00%)
Materials	0.11%	(0.00%)
Information Technology	(0.17%)	1.15%
Utilities	0.08%	(0.00%)
Financials	(0.13%)	0.08%
Communication Services	s 0.03%	(0.00%)
Health Care	(0.26%)	1.07%
Real Estate	0.04%	0.00%
Total	(1.57%)	2.42%

Manager Return _	Index Return	Sector Concen	Stock Select	<sub>⊢</sub> <u>Trading</u> _	Asset Alloc
(5.74%)	(7.32%)	(1.57%)	2.42%	0.65%	0.08%

# **Equity Attribution Ranking vs Callan Small Cap Growth** Quarter ended September 30, 2023



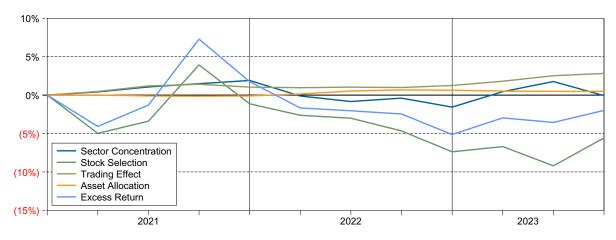


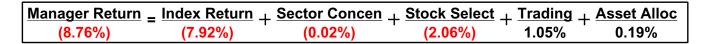
# Riverbridge Small Cap Growth vs Russell 2000 Growth Index **Cumulative Equity Buy and Hold Attribution**

#### **Cumulative Attribution and Ranking**

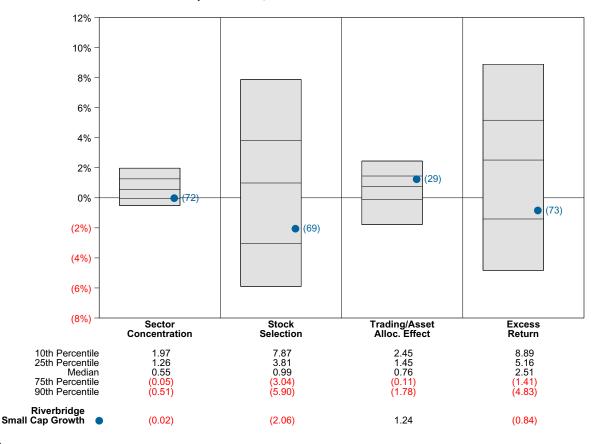
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Small Cap Growth over the same time period.

# **Cumulative Attribution Effects vs Russell 2000 Growth Index**





# **Equity Attribution Ranking vs Callan Small Cap Growth** Two and Three-Quarter Years Ended September 30, 2023





# **Sycamore Small Cap Value** Period Ended September 30, 2023

#### **Investment Philosophy**

The Sycamore 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.

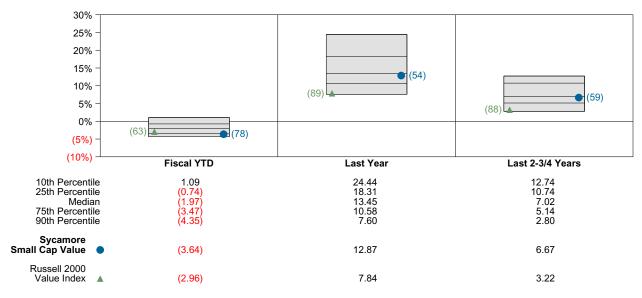
#### **Quarterly Summary and Highlights**

- Sycamore Small Cap Value's portfolio posted a (3.64)% return for the quarter placing it in the 78 percentile of the Callan Small Cap Value group for the quarter and in the 54 percentile for the last year.
- Sycamore Small Cap Value's portfolio underperformed the Russell 2000 Value Index by 0.68% for the quarter and outperformed the Russell 2000 Value Index for the year by 5.03%.

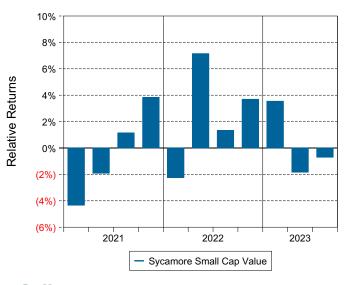
# **Quarterly Asset Growth**

Beginning Market Value	\$123,389,397
Net New Investment	\$1,159,447
Investment Gains/(Losses)	\$-4,486,939
Ending Market Value	\$120,061,905

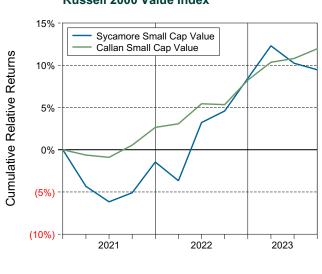
# Performance vs Callan Small Cap Value (Gross)



# Relative Return vs Russell 2000 Value Index



# **Cumulative Returns vs** Russell 2000 Value Index

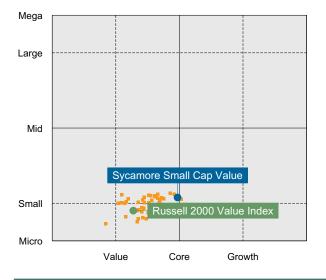




# **Current Holdings Based Style Analysis** Sycamore Small Cap Value As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

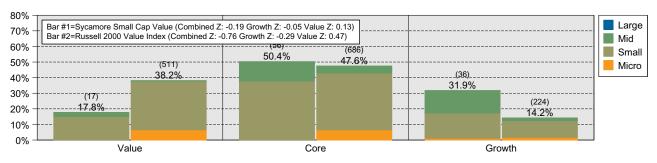
## Style Map vs Callan Small Cap Value Holdings as of September 30, 2023



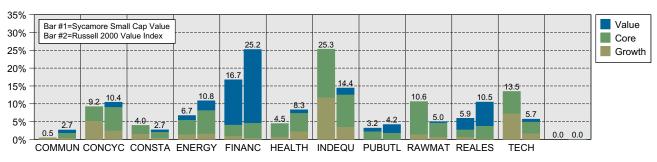
#### **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	38.2% (511)	47.6% (686)	14.2% (224)	100.0% (1421)
Total				
	17.8% (17)	50.4% (56)	31.9% (36)	100.0% (109)
	6.4% (280)	6.4% (343)	1.6% (84)	14.5% (707)
Micro				
	0.0% (0)	0.0% (0)	1.0% (2)	1.0% (2)
	31.3% (230)	36.4% (330)	10.7% (134)	78.4% (694)
Small				
	15.0% (15)	37.8% (43)	16.2% (19)	68.9% (77)
	0.5% (1)	4.7% (13)	1.9% (6)	7.1% (20)
Mid				
	2.8% (2)	12.6% (13)	14.7% (15)	30.1% (30)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Large	, ,	, ,	, ,	. ,
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



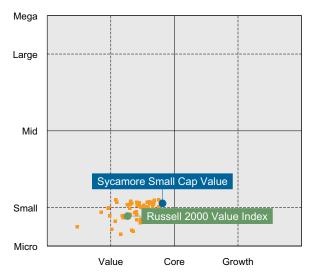


# **Historical Holdings Based Style Analysis Sycamore Small Cap Value** For Two and 3/4 Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

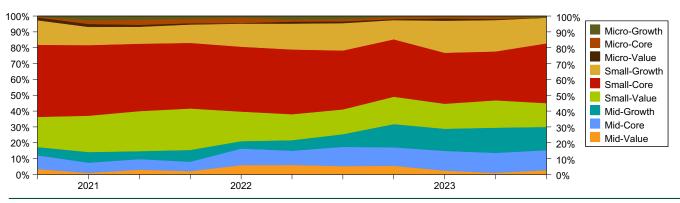
#### Average Style Map vs Callan Small Cap Value **Average Style Exposure Matrix** Holdings for Two and 3/4 Years Ended September 30, 2023 Holdings for Two and 3/4 Years Ended September 30, 2023

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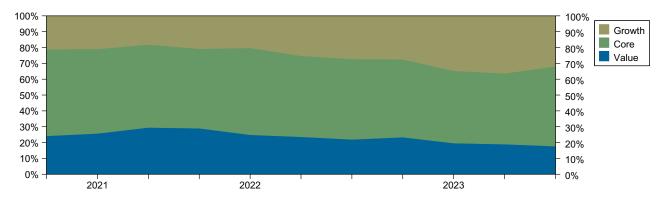


	Value	Core	Growth	Total
. Otta	42.9% (519)	42.2% (660)	14.8% (225)	<b>100.0%</b> (1404)
Total	23.6% (25)	50.7% (54)	25.8% (29)	100.0% (108)
	7.3% (278)	6.5% (329)	1.8% (83)	<b>15.6%</b> (690)
Micro	1.0% (2)	1.7% (3)	1.3% (2)	4.0% (7)
	33.1% (235)	33.0% (322)	10.9% (135)	<b>77.0%</b> (692)
Small	19.0% (20)	39.1% (42)	15.1% (18)	73.2% (80)
	2.5% (6)	2.8% (9)	2.1% (7)	7.4% (22)
Mid	3.5% (3)	9.9% (9)	9.4% (9)	22.8% (21)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

#### Sycamore Small Cap Value Historical Cap/Style Exposures



Sycamore Small Cap Value Historical Style Only Exposures



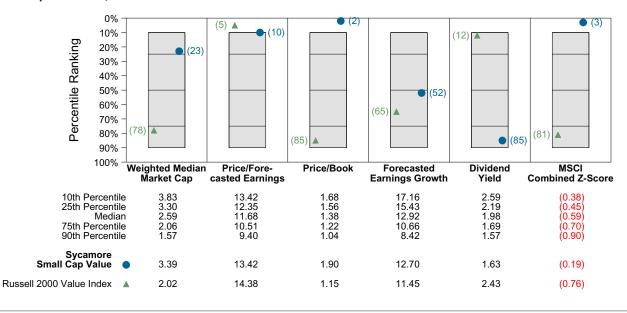


# **Sycamore Small Cap Value Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

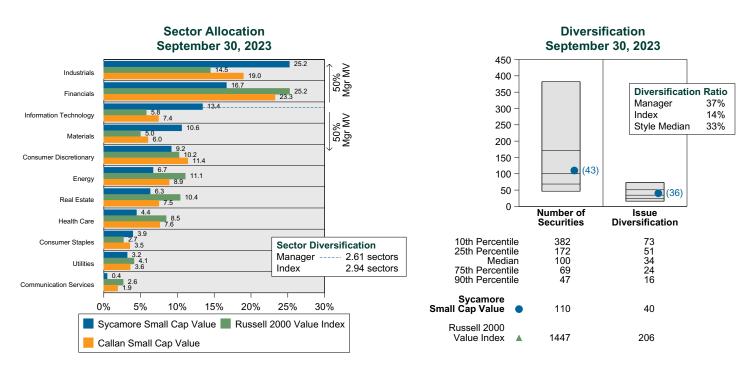
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Small Cap Value as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





# Sycamore Small Cap Value Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
	End		Percent		Forecasted			Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Magnolia Oil & Gas Corp Cl A	Energy	\$1,880,911	1.6%	0.57%	4.30	9.40	2.01%	69.72%
South St Corp	Financials	\$1,823,772	1.5%	(6.83)%	5.12	9.84	3.09%	8.10%
Civitas Resources Inc	Energy	\$1,805,423	1.5%	0.47%	7.58	5.97	2.47%	20.26%
Matador Res Co	Energy	\$1,695,180	1.4%	(6.22)%	7.09	7.05	1.01%	62.21%
Central Garden & Pet Co Cl A Non-Vtg	Consumer Staples	\$1,670,751	1.4%	(1.74)%	1.64	13.98	0.00%	45.52%
Wintrust Finl Corp	Financials	\$1,655,338	1.4%	(2.74)%	4.62	7.97	2.12%	12.88%
Werner Enterprises Inc	Industrials	\$1,619,346	1.3%	(6.08)%	2.47	13.65	1.44%	0.45%
Innospec Inc	Materials	\$1,599,430	1.3%	(4.88)%	2.54	15.50	1.35%	2.89%
Mattel Inc	Consumer Discretionary	\$1,599,378	1.3%	(0.57)%	7.80	15.50	0.00%	9.50%
Sonoco Prods Co	Materials	\$1,593,814	1.3%	(5.39)%	5.32	10.02	3.75%	13.16%

# **10 Best Performers**

						Price/		
		Ending	Percent		Forecasted			Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Delek Us Hldgs Inc New	Energy	\$1,031,993	0.9%	10.33%	1.84	12.05	3.31%	(20.26)%
Murphy USA Inc	Consumer Discretionary	\$1,059,363	0.9%	7.60%	7.33	14.94	0.46%	52.10%
Helmerich & Payne Inc	Energy	\$1,397,604	1.2%	5.27%	4.19	12.05	2.37%	26.71%
Hanover Ins Group Inc	Financials	\$1,365,054	1.1%	4.62%	3.97	11.76	2.92%	35.80%
Selective Insurance Grp	Financials	\$1,434,063	1.2%	3.93%	6.25	14.32	1.16%	21.40%
Fabrinet Shs	Information Technology	\$1,207,995	1.0%	3.73%	6.03	20.29	0.00%	20.18%
Apple Hospitality Reit Inc	Real Estate	\$1,129,408	0.9%	2.65%	3.51	17.94	6.26%	(6.89)%
Chemed Corp New	Health Care	\$909,475	0.8%	1.41%	7.84	23.91	0.31%	8.70%
Columbia Sportswear Co	Consumer Discretionary	\$1,478,295	1.2%	1.07%	4.54	14.56	1.62%	0.69%
Alamo Group Inc	Industrials	\$816,764	0.7%	0.67%	2.08	14.54	0.51%	12.91%

# **10 Worst Performers**

		Ending Market	Percent of	Qtrly	Market	Price/ Forecasted Earnings	Dividend	Forecasted Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Scripps E W Co Ohio Cl A New	Communication Services	\$523,614	0.4%	(28.41)%	0.40	(12.20)	0.00%	34.26%
Verint Sys Inc	Information Technology	\$994,892	0.8%	(28.25)%	1.48	8.37	0.00%	8.00%
Icu Med Inc	Health Care	\$1,029,436	0.9%	(17.94)%	2.87	16.57	0.00%	(5.21)%
Colliers Intl Group Inc Sub Vtg Sh	Real Estate	\$852,488	0.7%	(17.56)%	4.39	12.91	0.31%	15.35%
Tower Semiconductor Ltd Shs New	Information Technology	\$585,142	0.5%	(17.50)%	2.70	10.83	0.00%	15.45%
Worthington Inds Inc	Materials	\$330,737	0.3%	(17.43)%	3.03	11.37	2.07%	24.41%
Summit Matls Inc CI A	Materials	\$1,024,506	0.9%	(16.76)%	3.70	19.01	0.00%	18.40%
Astec Industries	Industrials	\$1,260,192	1.0%	(14.05)%	1.07	14.05	1.10%	(0.82)%
Walker & Dunlop Inc	Financials	\$404,608	0.3%	(13.06)%	2.48	14.40	3.39%	0.13%
Advanced Energy Ind	Information Technology	\$1,188,458	1.0%	(12.68)%	3.88	18.20	0.39%	16.18%

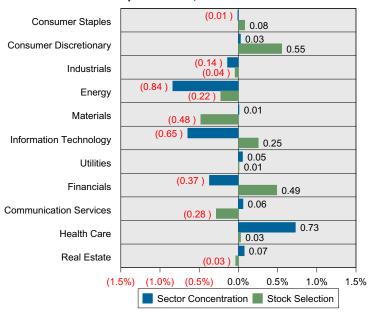


# Sycamore Small Cap Value vs Russell 2000 Value Index **Quarterly Equity Buy and Hold Attribution**

#### **Attribution Ranking and Sector Detail**

The first table and chart below break the manager's Sector Concentration and Stock Selection factors down to the sector level. The table in the center shows these factors for the total portfolio and includes the Trading and Asset Allocation Effects. The bottom chart ranks the excess return and the four attribution factors for the manager vs the factors generated by members of the Callan Small Cap Value over the same time period.

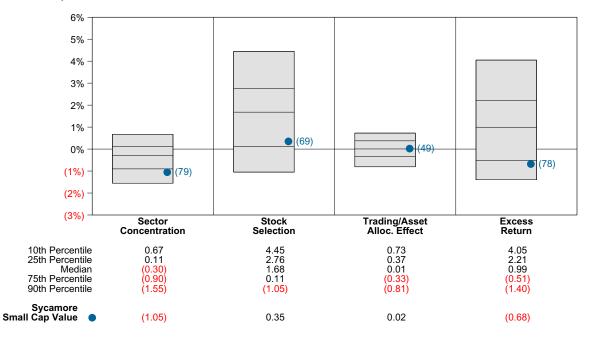
#### Attribution Effects by Sector vs Russell 2000 Value Index Quarter ended September 30, 2023



Sector	Sector Concentration	Stock Selection
Consumer Staples	(0.01%)	0.08%
Consumer Discretionary	0.03%	0.55%
Industrials	(0.14%)	(0.04%)
Energy	(0.84%)	(0.22%)
Materials	0.01%	(0.48%)
Information Technology	(0.65%)	0.25%
Utilities	0.05%	0.01%
Financials	(0.37%)	0.49%
Communication Services	s 0.06%	(0.28%)
Health Care	0.73%	0.03%
Real Estate	0.07%	(0.03%)
Total	(1.05%)	0.35%

Manager Return _	Index Return _	Sector Concen	Stock Select	<sub>∔</sub> Trading _	Asset Alloc
(3.64%)	(2.96%)	(1.05%)	0.35%	(0.10%)	0.12%

# **Equity Attribution Ranking vs Callan Small Cap Value** Quarter ended September 30, 2023



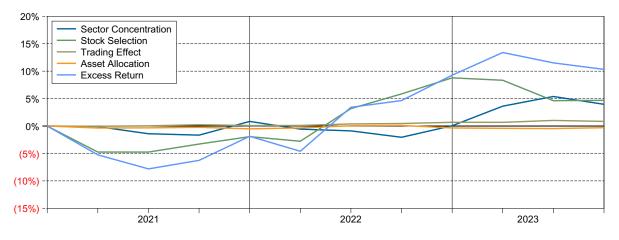


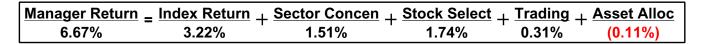
# Sycamore Small Cap Value vs Russell 2000 Value Index **Cumulative Equity Buy and Hold Attribution**

#### **Cumulative Attribution and Ranking**

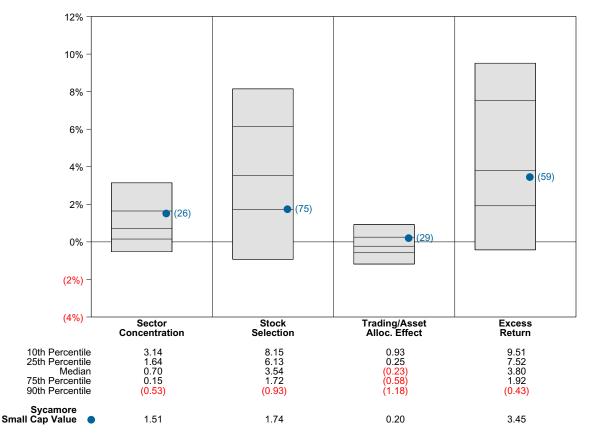
The first chart below illustrates the cumulative path of the four attribution factors, as well as the cumulative path of the manager's total excess return. The table in the center annualizes these cumulative values over the period of analysis. The bottom chart ranks the annualized cumulative values vs the values generated by members of the Callan Small Cap Value over the same time period.

#### Cumulative Attribution Effects vs Russell 2000 Value Index





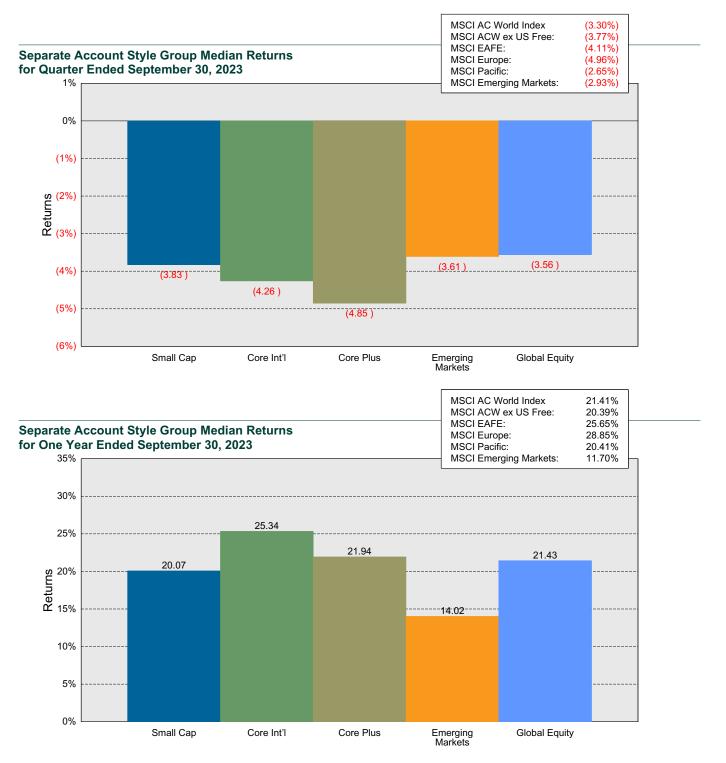
# **Equity Attribution Ranking vs Callan Small Cap Value** Two and Three-Quarter Years Ended September 30, 2023





# **International Equity Active Management Overview**

Global ex-U.S. equities (MSCI ACWI ex USA: -3.8%) fell in 3Q. U.S. dollar strength was a notable headwind (MSCI ACWI ex USA Local: -1.4%). Value (MSCI ACWI ex-USA Value: -0.1%) outperformed growth (MSCI ACWI ex-USA Growth Index: -7.3%) by a wide margin. Only Energy (+9.0%) posted a positive return, while Technology saw the biggest decline (-8.7%). Oil prices surged on supply cuts and falling reserves in the U.S. European equities (MSCI Europe ex-UK: -5.9%) fell though returns were mixed across countries. Japan (MSCI Japan: -1.6%) performed well in relative terms and even better in local terms (+1.6%). Emerging markets (MSCI Emerging Markets: -2.9%) outperformed developed markets (MSCI EAFE: -4.1%). In Asia, major index constituents such as South Korea (-6.6%) and Taiwan (-7.4%) weighed on performance. Latin America (-4.7%) was the worst-performing region with Mexico (-6.5%) and Chile (-9.8%) falling sharply. Broadly, Energy (+6.3%) delivered the strongest performance, while Communications (-5.9%) and Technology (-6.8%) underperformed.



# **International Equity** Period Ended September 30, 2023

#### **Quarterly Summary and Highlights**

- International Equity's portfolio posted a (3.39)% return for the quarter placing it in the 32 percentile of the Callan Non-US Equity group for the guarter and in the 65 percentile for the last year.
- International Equity's portfolio outperformed the International Equity Target by 0.10% for the guarter and outperformed the International Equity Target for the year by 1.61%.

#### **Quarterly Asset Growth**

Beginning Market Value \$1,816,249,716 Net New Investment \$4,599,858 Investment Gains/(Losses) \$-60,572,493

**Ending Market Value** \$1,760,277,081

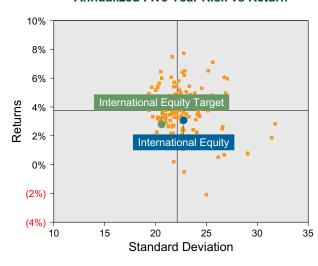
# Performance vs Callan Non-US Equity (Gross)



#### Relative Return vs International Equity Target



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



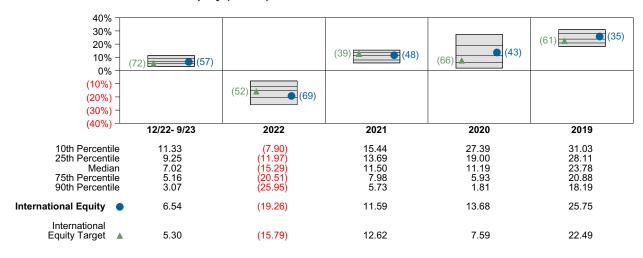


# **International Equity Return Analysis Summary**

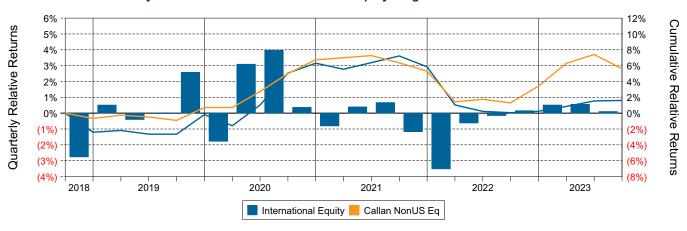
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

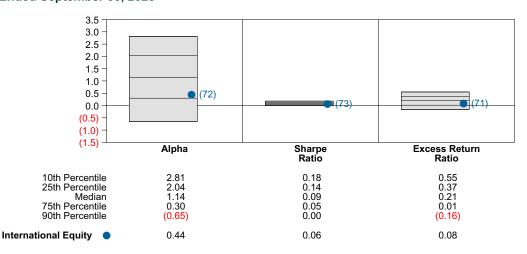
#### Performance vs Callan Non-US Equity (Gross)



## **Cumulative and Quarterly Relative Returns vs International Equity Target**



Risk Adjusted Return Measures vs International Equity Target Rankings Against Callan Non-US Equity (Gross) Five Years Ended September 30, 2023



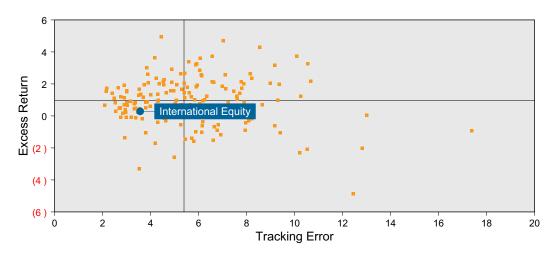


# International Equity **Risk Analysis Summary**

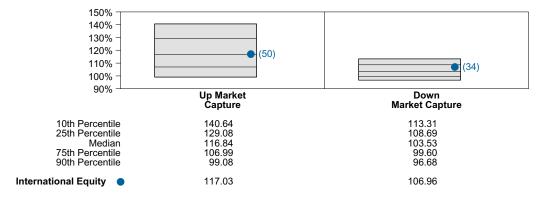
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

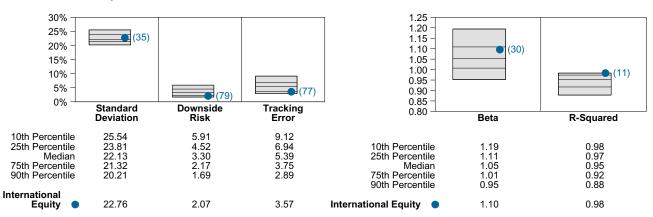
## Risk Analysis vs Callan Non-US Equity (Gross) Five Years Ended September 30, 2023



### **Market Capture vs International Equity Target** Rankings Against Callan Non-US Equity (Gross) Five Years Ended September 30, 2023



### Risk Statistics Rankings vs International Equity Target Rankings Against Callan Non-US Equity (Gross) Five Years Ended September 30, 2023

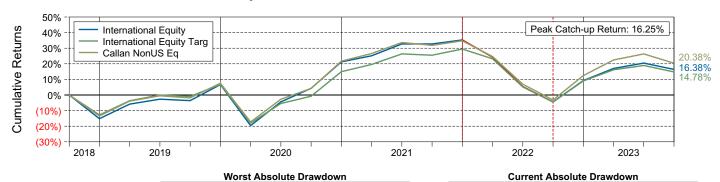




# **International Equity** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**

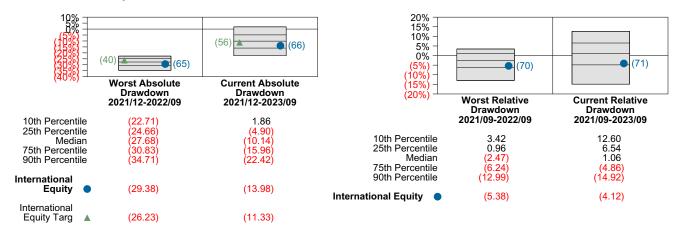


	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
International Equity	(29.38)%	0.75	2021/12-2022/09	(26.23)%	(28.16)%	(13.98)%	1.75	2021/12-2023/09	(11.33)%	(10.66)%
Recovery from Trough	21.80%	1.00+	2022/09-2023/09	20.19%	24.36%	21.80%	1.00+	2022/09-2023/09	20.19%	24.36%
International Equity Targ	(26.23)%	0.75	2021/12-2022/09			(11.33)%	1.75	2021/12-2023/09		
Callan NonUS Eq	(28.16)%	0.75	2021/12-2022/09			(10.66)%	1.75	2021/12-2023/09		

#### Relative Cumulative Drawdown Analysis vs. International Equity Targ Cumulative Relative Returns Peak Catch-up Rel Rtn: 4.30% International Equity Callan NonUS Eq 4.88% 2% 1.40% 2018 2019 2020 2021 2022 2023

	\	Norst Rel	ative Drawdown		Current Relative Drawdown					
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers		
International Equity	(5.38)%	1.00	2021/09-2022/09	(3.52)%	(4.12)%	2.00	2021/09-2023/09	(0.18)%		
Recovery from Trough	1.34%	1.00+	2022/09-2023/09	3.47%	1.34%	1.00+	2022/09-2023/09	3.47%		
Callan NonUS Eq	(4.44)%	1.25	2020/12-2022/03		(1.27)%	0.25	2023/06-2023/09			

**Drawdown Rankings vs. International Equity Targ** Rankings against Callan Non-US Equity Five Years Ended September 30, 2023

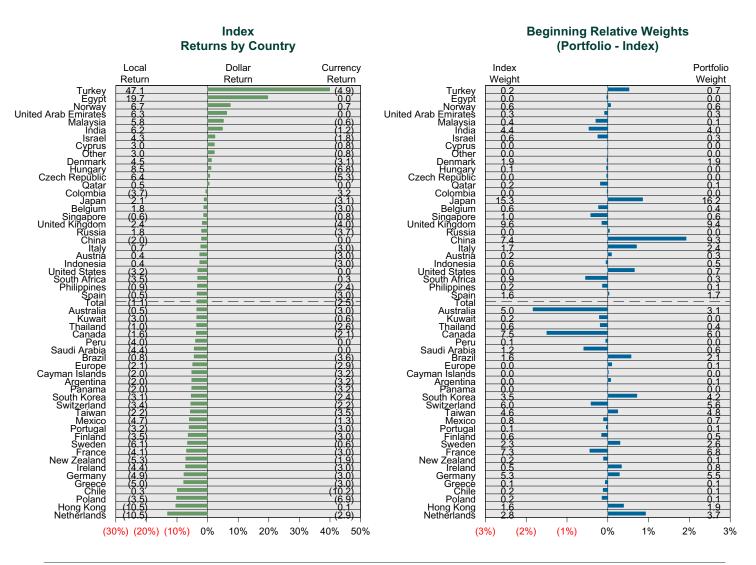




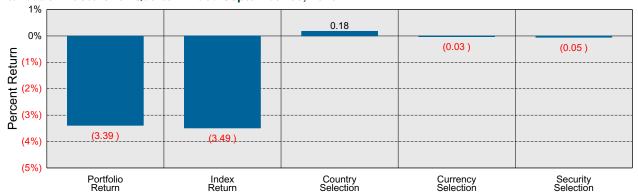
# International Equity vs MSCI ACWI xUS IMI Attribution for Quarter Ended September 30, 2023

#### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.







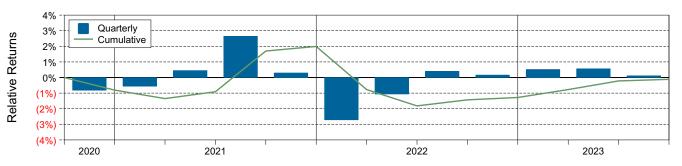


# International Equity vs MSCI ACWI xUS IMI Attribution for Three years Ended September 30, 2023

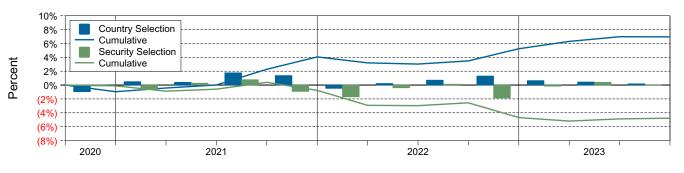
#### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

## Cumulative and Quarterly Return vs MSCI ACWI xUS IMI



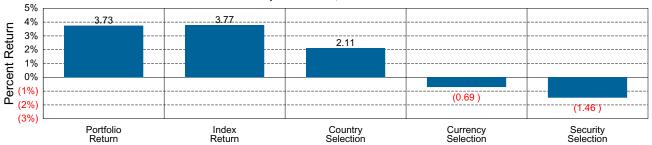
## **Cumulative and Quarterly Country Selection and Security Selection Factors**



# **Cumulative and Quarterly Currency Selection Factors**





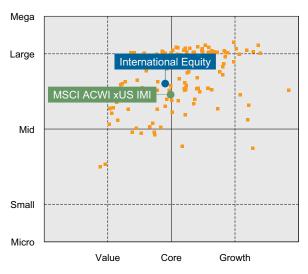




# **Current Holdings Based Style Analysis International Equity** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

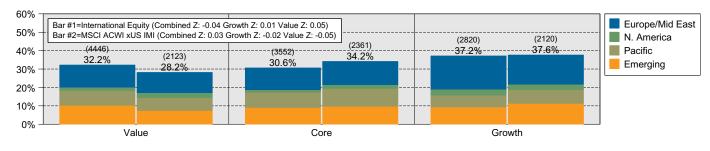
# Style Map vs Callan NonUS Eq Holdings as of September 30, 2023



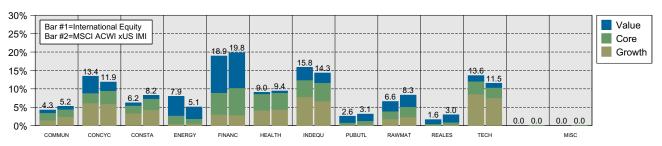
#### **Style Exposure Matrix** Holdings as of September 30, 2023

	12.0% (671)	11.9% (567)	18.2% (509)	42.1% (1747)
Europe/	,	(3.7 )	(333)	,
Mid East	11.1% (473)	12.7% (506)	15.9% (482)	39.6% (1461)
	1.9% (101)	1.4% (71)	3.2% (49)	6.5% (221)
N. America				
	2.7% (98)	2.1% (123)	3.0% (90)	7.7% (311)
	8.0% (1105)	8.3% (654)	6.4% (531)	22.7% (2290)
Pacific				
	7.0% (522)	9.7% (542)	7.5% (471)	24.2% (1535)
	10.3% (2569)	9.1% (2260)	9.3% (1731)	28.7% (6560)
Emerging				
	7.4% (1030)	9.7% (1190)	11.3% (1077)	28.5% (3297)
	32.2% (4446)	30.6% (3552)	37.2% (2820)	100.0% (10818)
Total				
	28.2% (2123)	34.2% (2361)	37.6% (2120)	100.0% (6604)
	Value	Core	Growth	Total

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



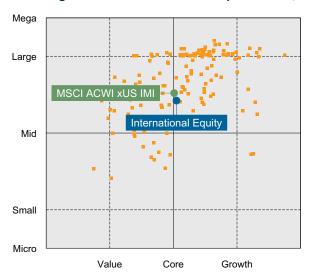


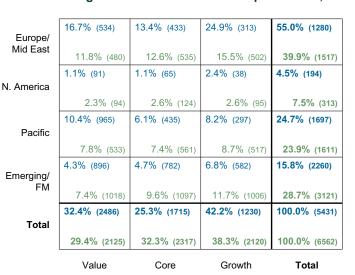
# **Historical Holdings Based Style Analysis International Equity** For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

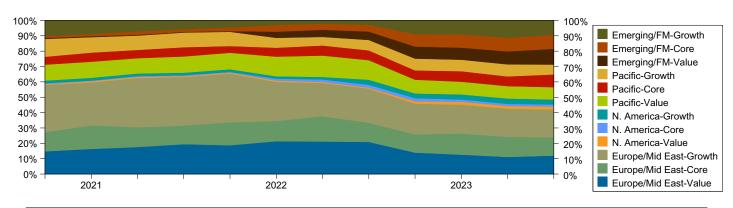
# Average Style Map vs Callan NonUS Eq Holdings for Three Years Ended September 30, 2023

## **Average Style Exposure Matrix** Holdings for Three Years Ended September 30, 2023

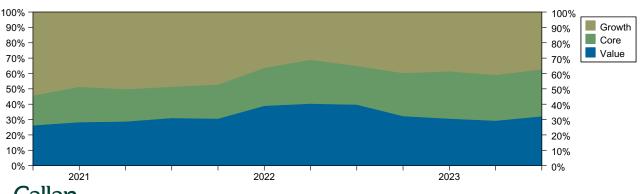




# International Equity Historical Region/Style Exposures



# **International Equity Historical Style Only Exposures**



# **International Holdings Based Style Analysis** For One Quarter Ended September 30, 2023

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitalization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

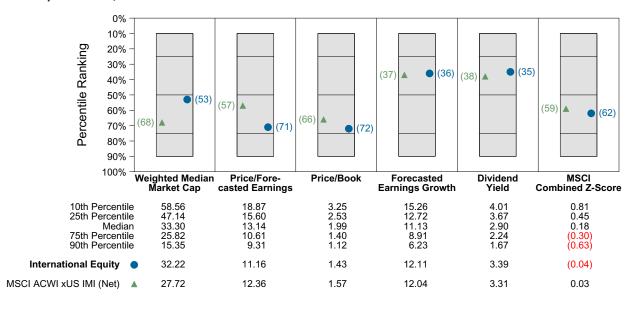


# International Equity **Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

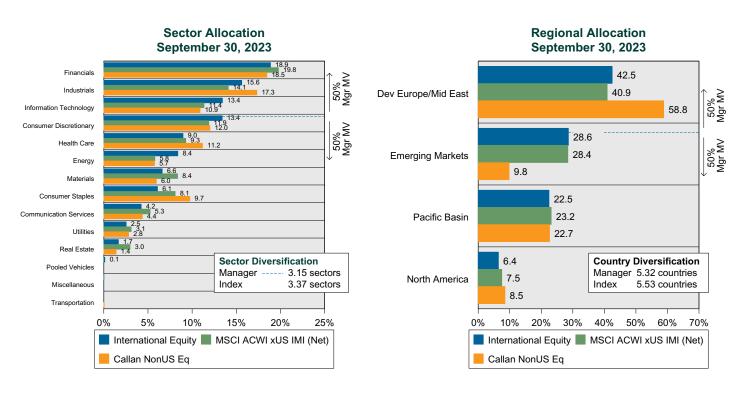
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity** as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

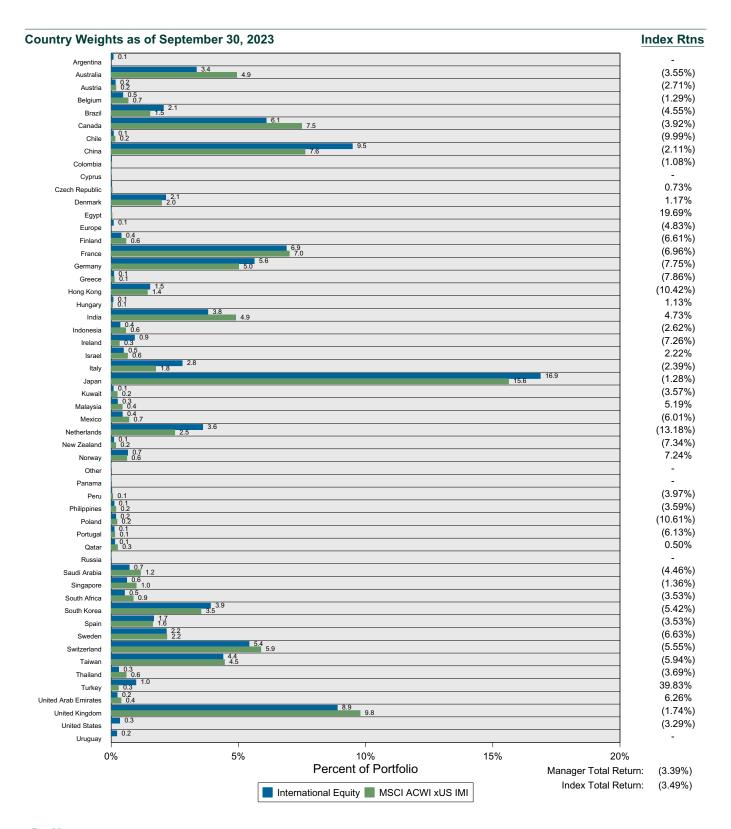




# **Country Allocation** International Equity VS MSCI ACWI xUS IMI (Net)

#### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

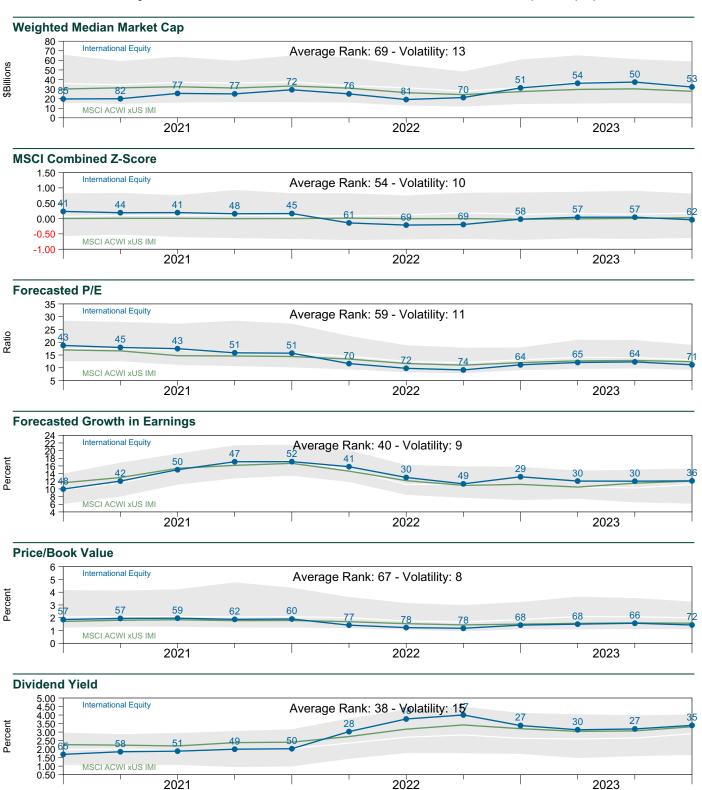




# **Portfolio Characteristics Analysis**

#### Callan NonUS Eq

The charts below illustrate the behavior of the product over different portfolio characteristics through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan NonUS Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI ACWI xUS IMI is shown for comparison purposes.

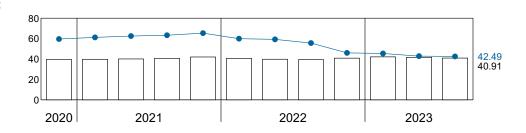


Any particular portfolio characteristic observation(s) may be missing due to a failure to pass a minimum "coverage hurdle" intended to ensure quality. This can occur when the portfolio has a significant weight in stocks for which the data vendor(s) cannot supply the particular relevant financial metric.

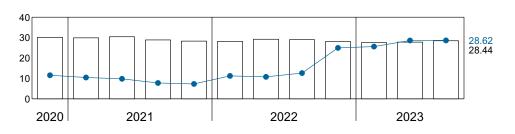


# North Dakota State Investment Board Legacy Fund History of Ending Regional Weights Period Ended September 30, 2023

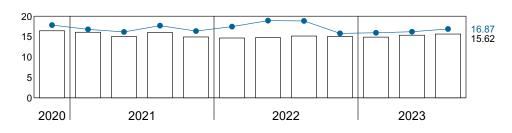
# **Dev Europe/Mid East**



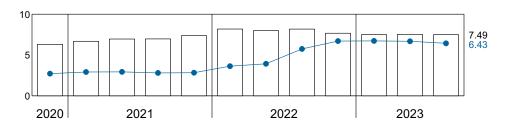
# **Emerging Markets**



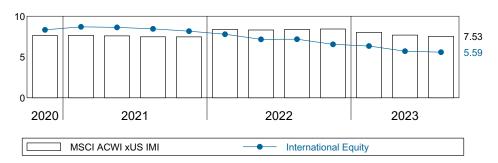
# Japan



# **North America**



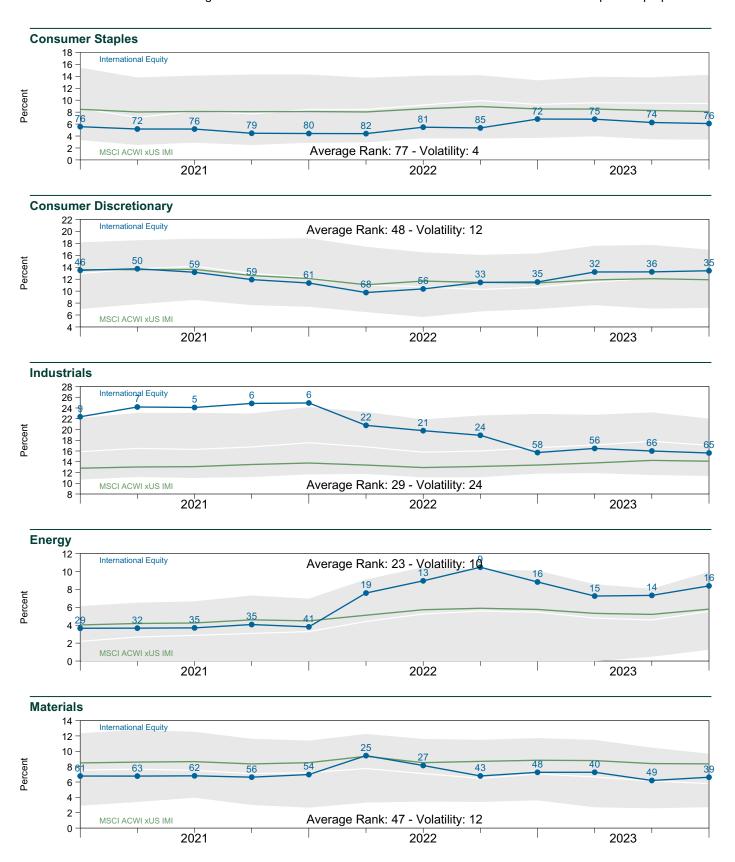
# **Pacific Basin**





#### **Historical Sector Weight Analysis**

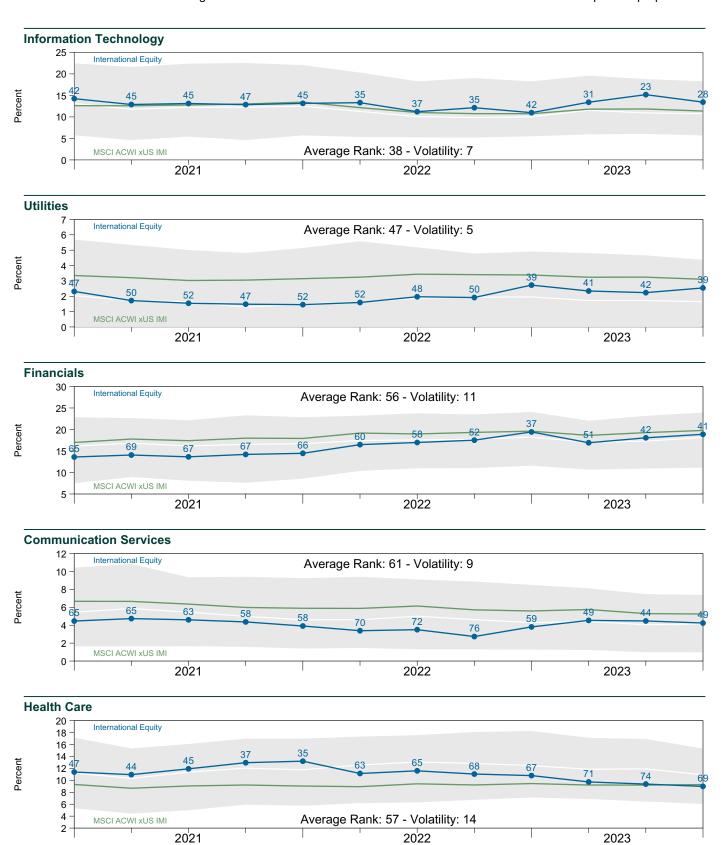
The charts below illustrate the behavior of the product over different industry sectors weights through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan NonUS Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI ACWI xUS IMI is shown for comparison purposes.





#### **Historical Sector Weight Analysis**

The charts below illustrate the behavior of the product over different industry sectors weights through time. As a backdrop the range (from 10th to 90th percentile) is shown for the Callan NonUS Eq Universe. The ranking of the product in this group is shown above each quarter end dot. The average ranking of the product and, if there are at least 12 data points, the standard deviation of that ranking is also shown on the chart. The MSCI ACWI xUS IMI is shown for comparison purposes.





This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

# Return Based Risk Statistics for 3 Years Ended September 30, 2023 vs the International Equity Benc and the Callan NonUS Eq PEER GROUP

	DFA Intl										
(12)	SmallCap	5.47	19.90%	4.76	1.39%	0.44	1.15	5.15%	1.09	0.95	l
	Value	(13)	(40)	(57)	(87)	(11)	(11)	(13)	(34)	(40)	
	William Blair										
(12)	Int'l	(7.59)	21.60%	7.63	7.71%	(0.20)	(0.99)	(7.23)%	1.15	0.89	
	Leaders	(95)	(18)	(15)	(8)	(95)	(93)	(95)	(20)	(83)	
		Excess Return	Standard Deviation	Tracking Error	Downside Risk	Sharpe Ratio	Excess Return Ratio	Alpha	Beta	R-Squared	



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

# Excess Return Correlations for 3 Years Ended September 30, 2023 vs the International Equity Targ

(12)	DFA Intl SmallCap	(0.50)	1.00
	Value		
	William Blair		
(12)	Int'l	1.00	(0.50)
	Leaders		
		William Blair	DFA Intl
		Int'l	SmallCap
		Leaders	Value



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

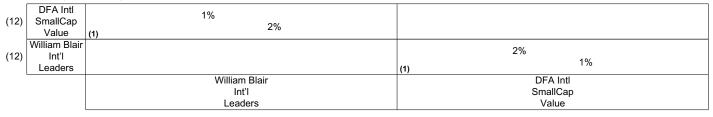
# Average Equity Characteristics for 3 Years Ended September 30, 2023 **VS THE Callan NonUS Eq Peer Group**

	DFA Intl											
(12)	SmallCap	1.72	1911	163.73	(0.19)	0.69	(88.0)	10.19	8.93	1.16%	0.77	3.19%
	Value	(100)	(1)	(1)	(86)	(3)	(96)	(89)	(85)	(58)	(99)	(22)
	William Blair											
(12)	Int'l	50.72	63	21.38	0.32	(0.74)	1.06	28.04	16.79	1.71%	5.50	1.14%
	Leaders	(22)	(63)	(55)	(5)	(96)	(5)	(4)	(13)	(20)	(2)	(94)
		Weighted	Number	Security	MSCI	MSCI	MSCI	Forecasted	Forecasted	P/E	Price/	Indicated
		Median	of	Divers-	Growth	Value	Combined	P/E	Growth	to	Book	Dividend
		Mkt Cap	Holdings	ification	Z-Score	Z-Score	Z-Score	F/E	Earnings	Growth	Value	Yield



This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. The holding overlap matrices illustrate the degree of individual stock overlap between various portfolios' holdings. The number in parentheses in the lower left corner of each box is the number of stocks that a given portfolio pair hold in common. The number in the upper left corner is the total weight of these overlapping holdings in the y-axis (vertical) portfolio. The number in the lower right corner is the total weight of those same stocks in the x-axis (horizontal) portfolio.

# Average Holding Overlap for 3 Years Ended September 30, 2023





# William Blair Int'l Leaders Period Ended September 30, 2023

#### **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.

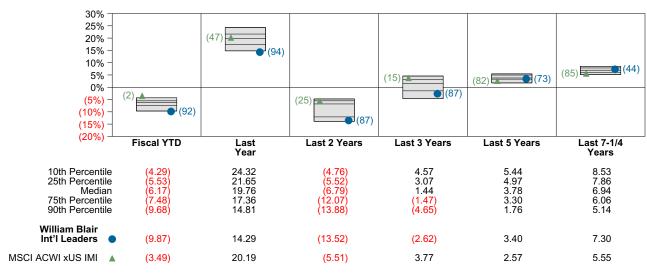
#### **Quarterly Summary and Highlights**

- William Blair Int'l Leaders's portfolio posted a (9.87)% return for the quarter placing it in the 92 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 94 percentile for the last year.
- William Blair Int'l Leaders's portfolio underperformed the MSCI ACWI xUS IMI by 6.38% for the quarter and underperformed the MSCI ACWI xUS IMI for the year by 5.90%.

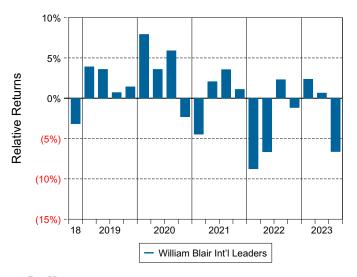
### **Quarterly Asset Growth**

Beginning Market Value	\$286,848,807
Net New Investment	\$-300,290
Investment Gains/(Losses)	\$-28,272,745
Ending Market Value	\$258,275,772

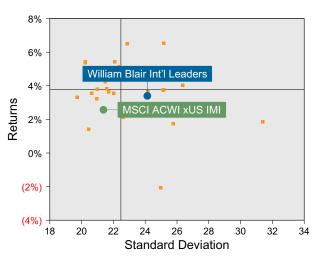
# Performance vs Callan Non-US All Country Growth Equity (Gross)



# Relative Return vs MSCI ACWI xUS IMI



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



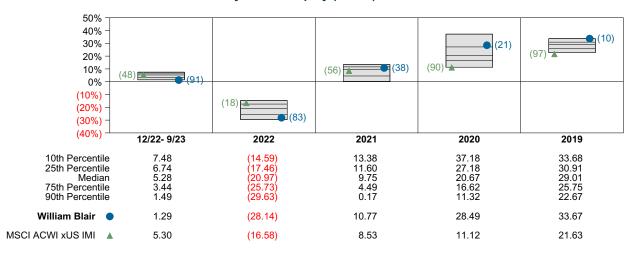


# William Blair **Return Analysis Summary**

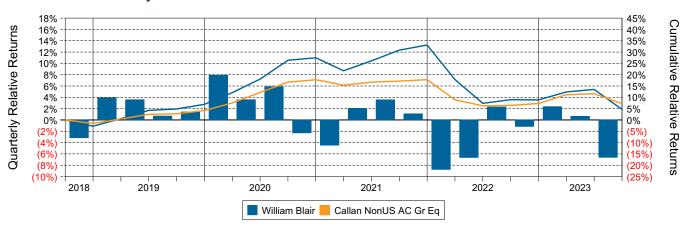
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

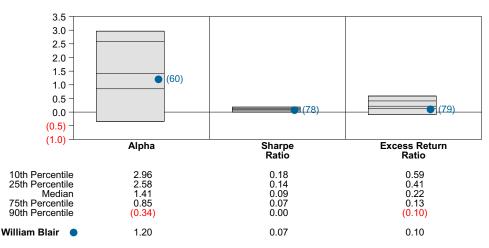
#### Performance vs Callan Non-US All Country Growth Equity (Gross)



## Cumulative and Quarterly Relative Returns vs MSCI ACWI xUS IMI



Risk Adjusted Return Measures vs MSCI ACWI xUS IMI Rankings Against Callan Non-US All Country Growth Equity (Gross) Five Years Ended September 30, 2023



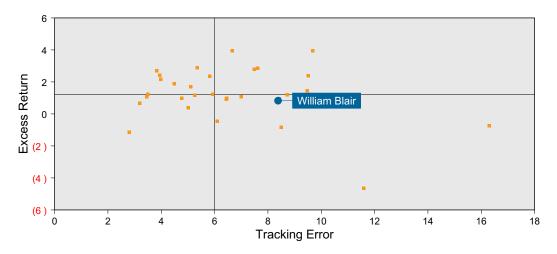


# William Blair **Risk Analysis Summary**

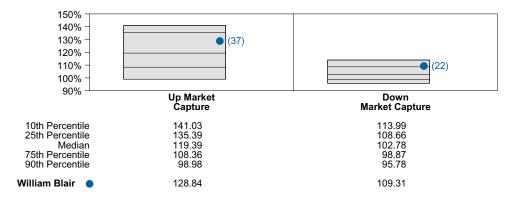
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

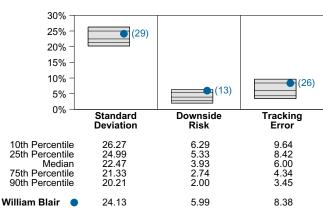
Risk Analysis vs Callan Non-US All Country Growth Equity (Gross) Five Years Ended September 30, 2023

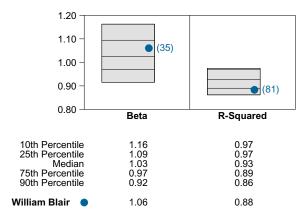


Market Capture vs MSCI ACWI xUS IMI (Net) Rankings Against Callan Non-US All Country Growth Equity (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI ACWI xUS IMI (Net) Rankings Against Callan Non-US All Country Growth Equity (Gross) Five Years Ended September 30, 2023



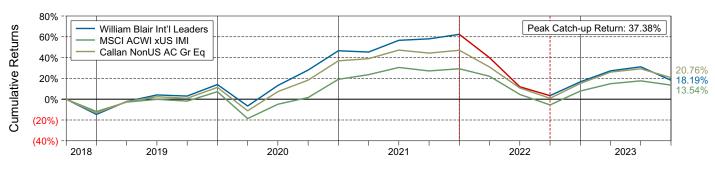




# William Blair Int'l Leaders Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



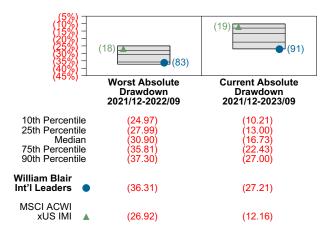
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
William Blair Int'l Leaders	(36.31)%	0.75	2021/12-2022/09	(26.92)%	(31.40)%	(27.21)%	1.75	2021/12-2023/09	(12.16)%	(17.88)%
Recovery from Trough	14.29%	1.00+	2022/09-2023/09	20.19%	19.70%	14.29%	1.00+	2022/09-2023/09	20.19%	19.70%
MSCI ACWI xUS IMI	(27.62)%	1.25	2021/06-2022/09			(13.01)%	2.25	2021/06-2023/09		
Callan NonUS AC Gr Eq	(31.47)%	1.25	2021/06-2022/09			(17.97)%	2.25	2021/06-2023/09		

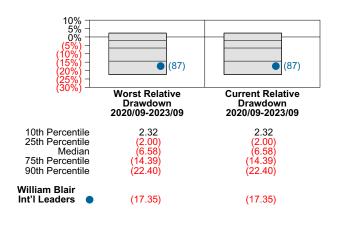
Worst Absolute Drawdown

#### Relative Cumulative Drawdown Analysis vs. MSCI ACWI xUS IMI Cumulative Relative Returns 30% Peak Catch-up Rel Rtn: 21.00% William Blair Int'l Leaders 25% Callan NonUS AC Gr Eq 20% 15% 10% 5% 6.36% 0% (5%)(10%)2018 2019 2020 2021 2022 2023

	V	Vorst Rel	ative Drawdown		Current Relative Drawdown					
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers		
William Blair Int'l Leaders	(17.35)%	3.00	2020/09-2023/09	(8.65)%	(17.35)%	3.00	2020/09-2023/09	(8.65)%		
Recovery from Trough	-	-	-	-	-	-	-	-		
Callan NonUS AC Gr Eq	(9.00)%	1.75	2020/09-2022/06		(8.65)%	3.00	2020/09-2023/09			

Drawdown Rankings vs. MSCI ACWI xUS IMI Rankings against Callan Non-US All Country Growth Equity Five Years Ended September 30, 2023





**Current Absolute Drawdown** 



# **Current Holdings Based Style Analysis** William Blair As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

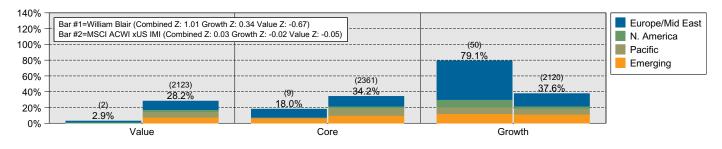
# Style Map vs Callan NonUS AC Gr Eq Holdings as of September 30, 2023



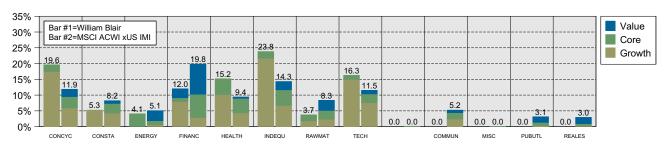
#### **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	28.2% (2123)	34.2% (2361)	37.6% (2120)	100.0% (6604)
Total				
	2.9% (2)	18.0% (9)	79.1% (50)	100.0% (61)
	7.4% (1030)	9.7% (1190)	11.3% (1077)	28.5% (3297)
Emerging				
	0.0% (0)	6.2% (3)	12.2% (8)	18.4% (11)
	7.0% (522)	9.7% (542)	7.5% (471)	24.2% (1535)
Pacific				
	0.0% (0)	1.2% (1)	8.3% (6)	9.5% (7)
	2.7% (98)	2.1% (123)	3.0% (90)	7.7% (311)
N. America				
	1.3% (1)	0.0% (0)	9.4% (4)	10.7% (5)
Europe/ Mid East	11.1% (473)	12.7% (506)	15.9% (482)	39.6% (1461)
Furanc/	1.6% (1)	10.5% (5)	49.2% (32)	61.3% (38)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023





# **Historical Holdings Based Style Analysis** William Blair For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

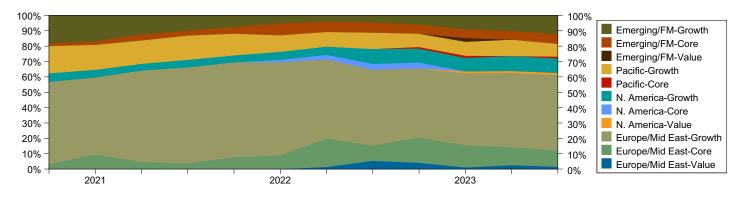
# Average Style Map vs Callan NonUS AC Gr Eq. Holdings for Three Years Ended September 30, 2023

# **Average Style Exposure Matrix** Holdings for Three Years Ended September 30, 2023

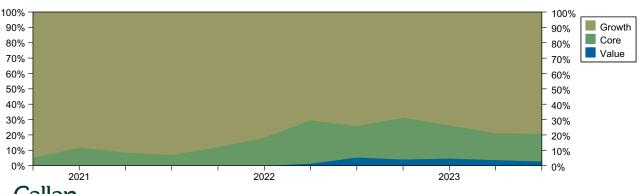




# William Blair Historical Region/Style Exposures



# William Blair Historical Style Only Exposures



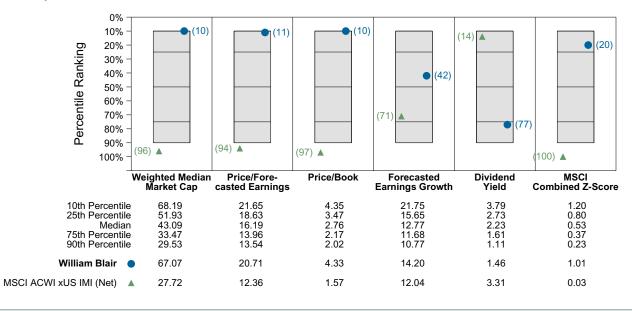
#### William Blair

# **Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

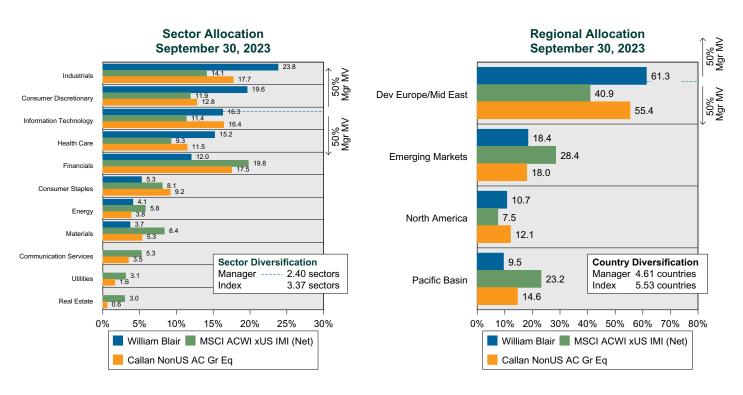
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Non-US All Country Growth Equity as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

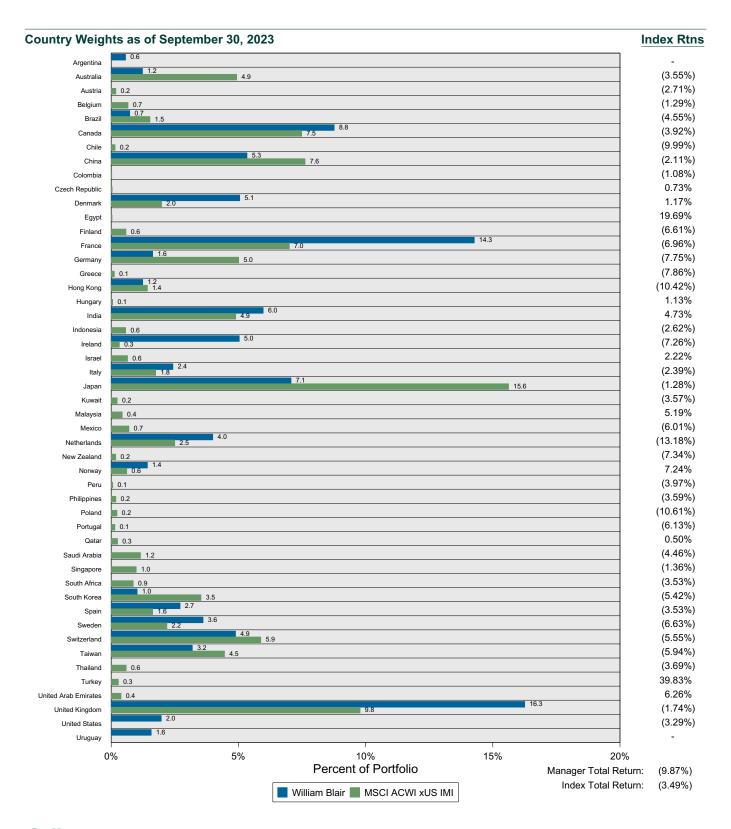




# **Country Allocation** William Blair VS MSCI ACWI xUS IMI (Net)

#### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# William Blair Int'l Leaders Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

					Price/		
	Ending	Percent			Forecasted		Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Health Care	\$8,339,653	3.2%	14.05%	314.04	31.78	1.10%	28.70%
Health Care	\$7,899,563	3.1%	(4.87)%	210.02	16.39	2.14%	13.00%
Information Technology	\$7,885,914	3.1%	(16.51)%	420.14	14.96	2.20%	3.19%
Industrials	\$7,112,033	2.8%	(7.48)%	69.56	22.50	0.75%	13.32%
Information Technology	\$7,079,688	2.8%	(17.98)%	238.63	26.41	1.05%	22.89%
Energy	\$6,579,430	2.6%	(11.28)%	191.05	19.76	0.38%	16.10%
Consumer Discretionary	\$6,504,987	2.5%	2.17%	19.56	25.53	0.30%	17.48%
Consumer Discretionary	\$6,323,519	2.5%	(19.44)%	380.78	20.58	0.77%	10.94%
Financials	\$5,518,460	2.1%	(5.09)%	50.21	22.88	1.35%	10.70%
Consumer Discretionary	\$5,370,869	2.1%	5.27%	222.68	9.33	0.00%	11.73%
	Health Care Health Care Information Technology Industrials Information Technology Energy Consumer Discretionary Consumer Discretionary Financials	Sector         Market Value           Health Care         \$8,339,653           Health Care         \$7,899,563           Information Technology         \$7,885,914           Industrials         \$7,112,033           Information Technology         \$7,079,688           Energy         \$6,579,430           Consumer Discretionary         \$6,504,987           Consumer Discretionary         \$6,323,519           Financials         \$5,518,460	Sector         Market Value         of Portfolio           Health Care         \$8,339,653         3.2%           Health Care         \$7,899,563         3.1%           Information Technology Industrials         \$7,112,033         2.8%           Information Technology Energy         \$7,079,688         2.8%           Energy         \$6,579,430         2.6%           Consumer Discretionary Consumer Discretionary Financials         \$6,323,519         2.5%           \$5,518,460         2.1%	Sector         Market Value         of Portfolio Portfolio Portfolio         Qtrly Return           Health Care         \$8,339,653         3.2%         14.05%           Health Care         \$7,899,563         3.1%         (4.87)%           Information Technology         \$7,885,914         3.1%         (16.51)%           Industrials         \$7,112,033         2.8%         (7.48)%           Information Technology         \$7,079,688         2.8%         (17.98)%           Energy         \$6,579,430         2.6%         (11.28)%           Consumer Discretionary         \$6,504,987         2.5%         2.17%           Consumer Discretionary         \$6,323,519         2.5%         (19.44)%           Financials         \$5,518,460         2.1%         (5.09)%	Sector         Warket Value         of Portfolio         Qtrly Return         Market Capital           Health Care         \$8,339,653         3.2%         14.05%         314.04           Health Care         \$7,899,563         3.1%         (4.87)%         210.02           Information Technology         \$7,885,914         3.1%         (16.51)%         420.14           Industrials         \$7,112,033         2.8%         (7.48)%         69.56           Information Technology         \$7,079,688         2.8%         (17.98)%         238.63           Energy         \$6,579,430         2.6%         (11.28)%         191.05           Consumer Discretionary         \$6,504,987         2.5%         2.17%         19.56           Consumer Discretionary         \$6,323,519         2.5%         (19.44)%         380.78           Financials         \$5,518,460         2.1%         (5.09)%         50.21	Sector         Value         Percent of Portfolio         Qtrly Return         Market Capital         Ratio           Health Care         \$8,339,653         3.2%         14.05%         314.04         31.78           Health Care         \$7,899,563         3.1%         (4.87)%         210.02         16.39           Information Technology         \$7,885,914         3.1%         (16.51)%         420.14         14.96           Industrials         \$7,112,033         2.8%         (7.48)%         69.56         22.50           Information Technology         \$7,079,688         2.8%         (17.98)%         238.63         26.41           Energy         \$6,579,430         2.6%         (11.28)%         191.05         19.76           Consumer Discretionary         \$6,504,987         2.5%         2.17%         19.56         25.53           Consumer Discretionary         \$6,323,519         2.5%         (19.44)%         380.78         20.58           Financials         \$5,518,460         2.1%         (5.09)%         50.21         22.88	Sector         Value         Percent Portfolio         Return         Capital Capital         Ratio         Dividend Yeld           Health Care         \$8,339,653         3.2%         14.05%         314.04         31.78         1.10%           Health Care         \$7,899,563         3.1%         (4.87)%         210.02         16.39         2.14%           Information Technology         \$7,885,914         3.1%         (16.51)%         420.14         14.96         2.20%           Industrials         \$7,112,033         2.8%         (7.48)%         69.56         22.50         0.75%           Information Technology         \$7,079,688         2.8%         (17.98)%         238.63         26.41         1.05%           Energy         \$6,579,430         2.6%         (11.28)%         191.05         19.76         0.38%           Consumer Discretionary         \$6,504,987         2.5%         2.17%         19.56         25.53         0.30%           Consumer Discretionary         \$6,323,519         2.5%         (19.44)%         380.78         20.58         0.77%           Financials         \$5,518,460         2.1%         (5.09)%         50.21         22.88         1.35%

# **10 Best Performers**

/	
ted	Forecasted
gs Dividend	Growth in
Yield	Earnings
3.58%	9.90%
3.03%	(19.90)%
1.10%	28.70%
0.71%	30.52%
0.00%	49.40%
1.44%	19.90%
2.37%	13.70%
0.00%	11.73%
0.30%	17.48%
0.00%	20.00%
3	2.37% 3 0.00% 3 0.30%

# **10 Worst Performers**

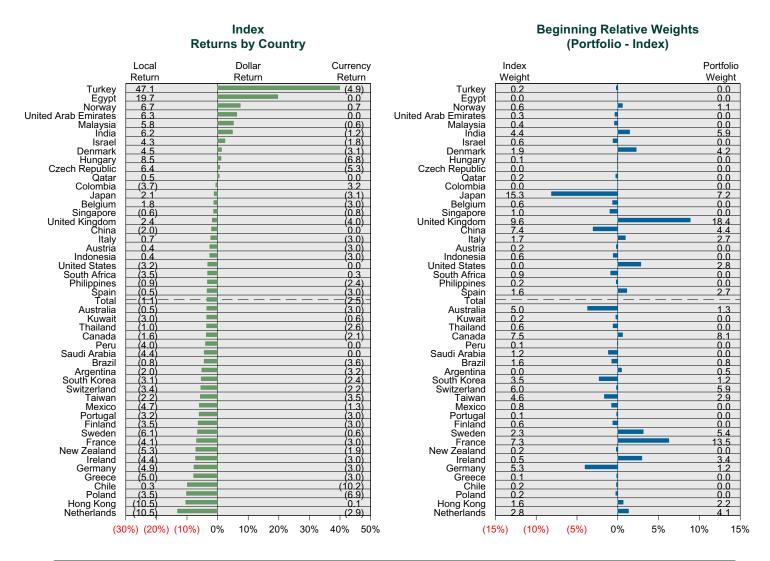
Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Hexagon Ab Shs	Information Technology	\$304,442	0.1%	(30.06)%	22.31	17.62	1.48%	6.69%
Samsung Sdi Co Ltd Shs	Information Technology	\$2,525,472	1.0%	(25.27)%	26.09	14.71	0.20%	18.00%
Lonza Group Ag Zuerich Namen Akt	Health Care	\$2,318,282	0.9%	(21.97)%	34.65	28.42	0.82%	7.37%
Daikin Industries Ltd Shs	Industrials	\$2,013,604	0.8%	(21.91)%	46.11	23.02	1.11%	12.20%
Straumann Holding Ag Namen Akt	Health Care	\$3,297,563	1.3%	(21.03)%	20.43	33.56	0.68%	10.60%
Keyence Corp Ord	Information Technology	\$4,611,828	1.8%	(20.57)%	90.45	34.59	0.54%	14.73%
Amadeus It Group S A Ord Shs	Consumer Discretionary	\$4,857,014	1.9%	(19.52)%	27.32	20.36	1.29%	29.70%
Evolution Gaming Group	Consumer Discretionary	\$3,465,583	1.3%	(19.46)%	21.96	17.88	2.08%	18.25%
Lvmh Moet Hennessy Lou Vuitt Ord	Consumer Discretionary	\$6,323,519	2.5%	(19.44)%	380.78	20.58	0.77%	10.94%
Globant S A	Information Technology	\$1,399,987	0.5%	(19.26)%	8.40	29.66	0.00%	29.14%

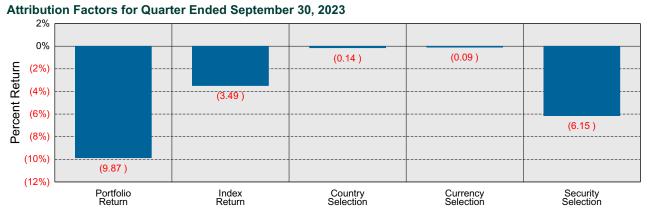


# William Blair vs MSCI ACWI xUS IMI Attribution for Quarter Ended September 30, 2023

#### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.





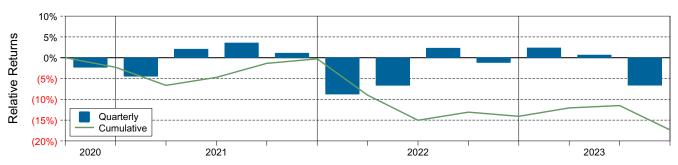


# William Blair vs MSCI ACWI xUS IMI Attribution for Three years Ended September 30, 2023

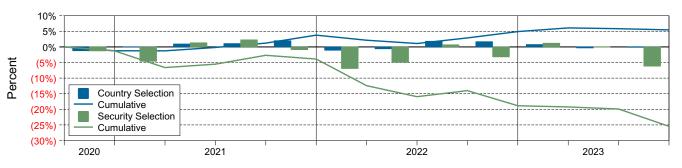
#### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

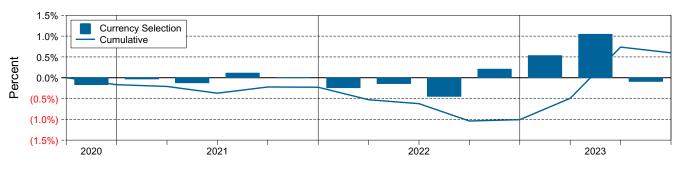
## Cumulative and Quarterly Return vs MSCI ACWI xUS IMI



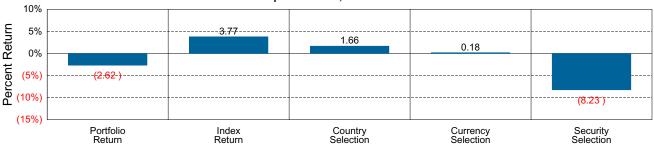
# **Cumulative and Quarterly Country Selection and Security Selection Factors**



# **Cumulative and Quarterly Currency Selection Factors**



# Attribution Factors for Three Years Ended September 30, 2023





# Arrowstreet ACWI ex US Period Ended September 30, 2023

#### **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.

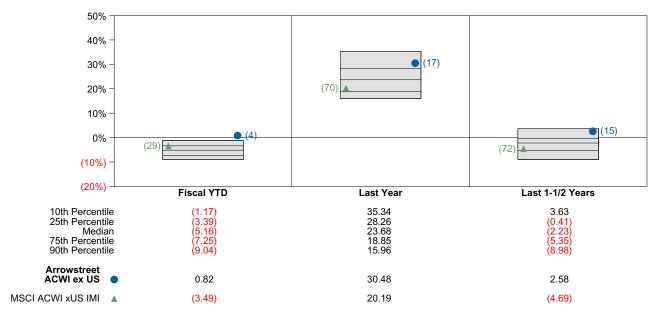
## **Quarterly Summary and Highlights**

- Arrowstreet ACWI ex US's portfolio posted a 0.82% return for the quarter placing it in the 4 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 17 percentile for the last year.
- Arrowstreet ACWI ex US's portfolio outperformed the MSCI ACWI xUS IMI by 4.31% for the quarter and outperformed the MSCI ACWI xUS IMI for the year by 10.29%.

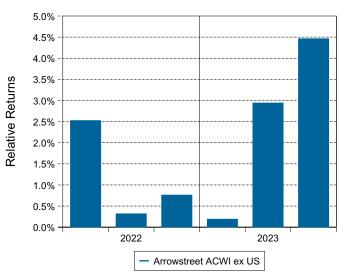
## **Quarterly Asset Growth**

Beginning Market Value	\$409,250,419
Net New Investment	\$0
Investment Gains/(Losses)	\$3,351,451
Ending Market Value	\$412,601,870

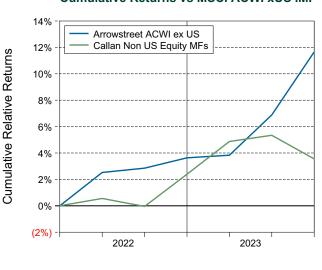
# Performance vs Callan Non US Equity Mutual Funds (Net)



#### Relative Return vs MSCI ACWI xUS IMI



# **Cumulative Returns vs MSCI ACWI xUS IMI**

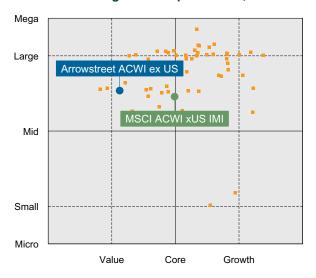




# **Current Holdings Based Style Analysis** Arrowstreet ACWI ex US As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

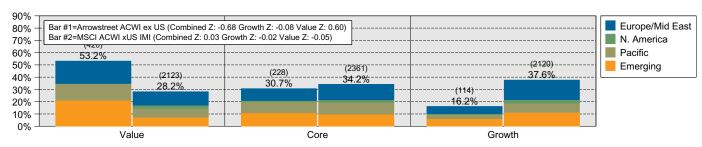
#### Style Map vs Callan Non US Equity MFs Holdings as of September 30, 2023



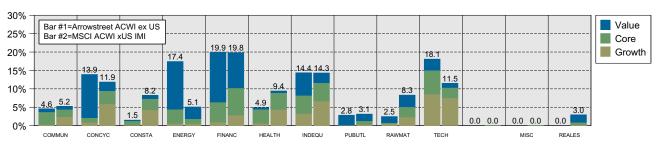
# **Style Exposure Matrix** Holdings as of September 30, 2023

	18.3% (83)	9.7% (37)	5.9% (22)	34.0% (142)
Europe/	(00)	(31)	(==)	(**=)
Mid East	11.1% (473)	12.7% (506)	15.9% (482)	39.6% (1461)
	0.1% (3)	1.0% (9)	0.7% (7)	1.8% (19)
N. America				
	2.7% (98)	2.1% (123)	3.0% (90)	7.7% (311)
	13.5% (133)	9.0% (80)	3.3% (39)	25.9% (252)
Pacific				
	7.0% (522)	9.7% (542)	7.5% (471)	24.2% (1535)
	21.1% (201)	10.9% (102)	6.2% (46)	38.3% (349)
Emerging				
	7.4% (1030)	9.7% (1190)	11.3% (1077)	28.5% (3297)
	53.2% (420)	30.7% (228)	16.2% (114)	100.0% (762)
Total				
	28.2% (2123)	34.2% (2361)	37.6% (2120)	100.0% (6604)
	Value	Core	Growth	Total

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023





# **Historical Holdings Based Style Analysis** Arrowstreet ACWI ex US For One and 1/2 Years Ended September 30, 2023

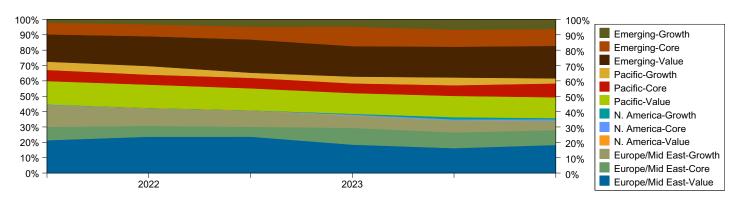
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

#### Average Style Map vs Callan Non US Equity MFs **Average Style Exposure Matrix** Holdings for One and 1/2 Years Ended September 30, 2023 Holdings for One and 1/2 Years Ended September 30, 2023

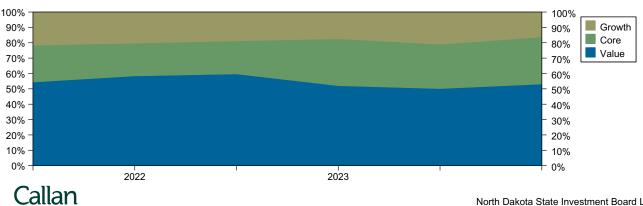


	Value	Core	Growth	Total
al	29.8% (2102)	32.4% (2330)	37.8% (2100)	100.0% (6532)
_1	54.7% (407)	26.2% (200)	19.2% (104)	100.0% (711)
	7.6% (1011)	9.7% (1123)	11.1% (1020)	28.4% (3154)
ıg	, ,	, ,	, ,	, ,
	20.0% (177)	9.7% (76)	4.6% (30)	34.3% (283)
ic	8.0% (511)	7.8% (546)	8.2% (494)	<b>24.1</b> % (1551)
	14.3% (148)	7.2% (81)	4.5% (44)	25.9% (273)
	2.5% (95)	2.6% (130)	2.7% (98)	7.8% (323)
а	0.1% (3)	0.4% (4)	0.5% (4)	1.0% (11)
e/ st	11.6% (485)	12.3% (531)	15.8% (488)	39.8% (1504)
. ,	20.3% (79)	8.8% (39)	9.7% (26)	38.8% (144)

# Arrowstreet ACWI ex US Historical Region/Style Exposures



# Arrowstreet ACWI ex US Historical Style Only Exposures

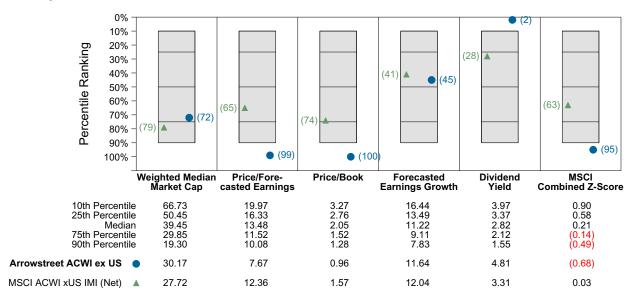


# **Arrowstreet ACWI ex US Equity Characteristics Analysis Summary**

#### **Portfolio Characteristics**

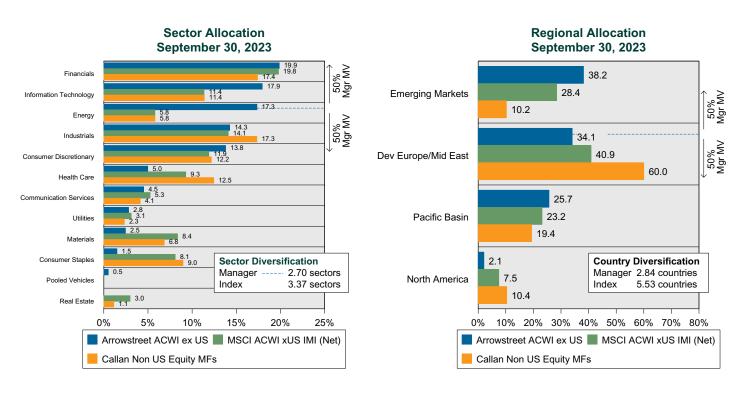
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Non US Equity Mutual Funds as of September 30, 2023



#### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

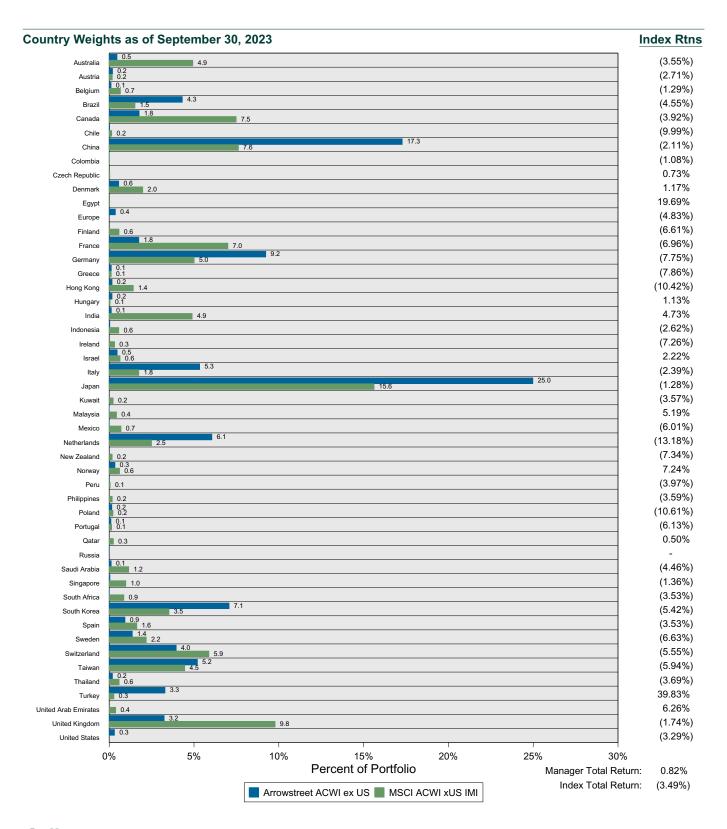




# **Country Allocation** Arrowstreet ACWI ex US VS MSCI ACWI xUS IMI (Net)

#### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# **Arrowstreet ACWI ex US** Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

	Ending	Percent			Forecasted		Forecasted
	Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Energy	\$10,872,466	2.6%	7.28%	214.59	7.88	3.56%	(8.30)%
Information Technology	\$10,772,780	2.6%	(7.03)%	302.60	20.00	2.11%	(6.60)%
Information Technology	\$8,045,124	1.9%	(17.98)%	238.63	26.41	1.05%	22.89%
Energy	\$7,327,040	1.8%	14.11%	54.53	6.36	5.90%	(16.40)%
Consumer Discretionary	\$7,275,813	1.8%	9.83%	60.93	3.38	7.36%	43.81%
Health Care	\$7,007,627	1.7%	(10.44)%	192.35	12.54	3.79%	2.75%
Consumer Discretionary	\$6,777,204	1.6%	(16.64)%	59.21	5.84	8.81%	(17.25)%
Consumer Discretionary	\$6,734,249	1.6%	(13.17)%	74.65	5.08	7.89%	0.39%
Consumer Discretionary	\$6,416,614	1.6%	(14.19)%	23.84	3.60	8.02%	6.63%
Energy	\$5,311,741	1.3%	17.30%	38.77	4.39	26.71%	47.12%
	Energy Information Technology Information Technology Energy Consumer Discretionary Health Care Consumer Discretionary Consumer Discretionary Consumer Discretionary	Sector         Market Value           Energy         \$10,872,466           Information Technology         \$10,772,780           Information Technology         \$8,045,124           Energy         \$7,327,040           Consumer Discretionary         \$7,275,813           Health Care         \$7,007,627           Consumer Discretionary         \$6,777,204           Consumer Discretionary         \$6,734,249           Consumer Discretionary         \$6,416,614	Sector         Market Value         of Portfolio           Energy         \$10,872,466         2.6%           Information Technology         \$10,772,780         2.6%           Information Technology         \$8,045,124         1.9%           Energy         \$7,327,040         1.8%           Consumer Discretionary         \$7,275,813         1.8%           Health Care         \$7,007,627         1.7%           Consumer Discretionary         \$6,777,204         1.6%           Consumer Discretionary         \$6,734,249         1.6%           Consumer Discretionary         \$6,416,614         1.6%	Sector         Market Value         of Value         Qtrly Return           Energy         \$10,872,466         2.6%         7.28%           Information Technology         \$10,772,780         2.6%         (7.03)%           Information Technology         \$8,045,124         1.9%         (17.98)%           Energy         \$7,327,040         1.8%         14.11%           Consumer Discretionary         \$7,275,813         1.8%         9.83%           Health Care         \$7,007,627         1.7%         (10.44)%           Consumer Discretionary         \$6,777,204         1.6%         (16.64)%           Consumer Discretionary         \$6,734,249         1.6%         (13.17)%           Consumer Discretionary         \$6,416,614         1.6%         (14.19)%	Sector         Market Value         of Portfolio         Qtrly Return         Market Capital           Energy         \$10,872,466         2.6%         7.28%         214.59           Information Technology         \$10,772,780         2.6%         (7.03)%         302.60           Information Technology         \$8,045,124         1.9%         (17.98)%         238.63           Energy         \$7,327,040         1.8%         14.11%         54.53           Consumer Discretionary         \$7,275,813         1.8%         9.83%         60.93           Health Care         \$7,007,627         1.7%         (10.44)%         192.35           Consumer Discretionary         \$6,777,204         1.6%         (16.64)%         59.21           Consumer Discretionary         \$6,734,249         1.6%         (13.17)%         74.65           Consumer Discretionary         \$6,416,614         1.6%         (14.19)%         23.84	Sector         Market Value         of Portfolio         Qtrly Return         Market Capital         Ratio           Energy         \$10,872,466         2.6%         7.28%         214.59         7.88           Information Technology         \$10,772,780         2.6%         (7.03)%         302.60         20.00           Information Technology         \$8,045,124         1.9%         (17.98)%         238.63         26.41           Energy         \$7,327,040         1.8%         14.11%         54.53         6.36           Consumer Discretionary         \$7,275,813         1.8%         9.83%         60.93         3.38           Health Care         \$7,007,627         1.7%         (10.44)%         192.35         12.54           Consumer Discretionary         \$6,777,204         1.6%         (16.64)%         59.21         5.84           Consumer Discretionary         \$6,734,249         1.6%         (13.17)%         74.65         5.08           Consumer Discretionary         \$6,416,614         1.6%         (14.19)%         23.84         3.60	Sector         Value         Portfolio         Return         Capital         Ratio         Yield           Energy         \$10,872,466         2.6%         7.28%         214.59         7.88         3.56%           Information Technology         \$10,772,780         2.6%         (7.03)%         302.60         20.00         2.11%           Information Technology         \$8,045,124         1.9%         (17.98)%         238.63         26.41         1.05%           Energy         \$7,327,040         1.8%         14.11%         54.53         6.36         5.90%           Consumer Discretionary         \$7,275,813         1.8%         9.83%         60.93         3.38         7.36%           Health Care         \$7,007,627         1.7%         (10.44)%         192.35         12.54         3.79%           Consumer Discretionary         \$6,777,204         1.6%         (16.64)%         59.21         5.84         8.81%           Consumer Discretionary         \$6,734,249         1.6%         (13.17)%         74.65         5.08         7.89%           Consumer Discretionary         \$6,416,614         1.6%         (14.19)%         23.84         3.60         8.02%

# **10 Best Performers**

						Forecasted		
		Ending	Percent					
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Is Yatirim Mnk.Degerler	Financials	\$8,568	0.0%	161.48%	2.22	7.29	1.24%	(11.78)%
Sekerbank	Financials	\$134,275	0.0%	128.01%	0.43	4.18	-	(11.93)%
Turk Traktor Ve Zirrat Maki Shs	Industrials	\$399,330	0.1%	106.25%	3.22	11.06	2.38%	56.65%
Hanmi Semiconductor	Information Technology	\$45,383	0.0%	70.68%	3.80	36.39	0.38%	(11.16)%
Celestica Sv	Information Technology	\$613,724	0.1%	69.19%	2.77	10.04	0.00%	15.50%
Tripod Technology	Information Technology	\$100,391	0.0%	60.00%	3.13	14.75	3.87%	9.68%
Turkiye Garanti Bankasi A S Ord	Financials	\$2,691,196	0.7%	58.04%	8.16	3.48	4.12%	40.60%
Akbank Akt	Financials	\$535,708	0.1%	57.52%	6.35	3.09	4.92%	79.10%
Dogus Otomotiv Servis	Consumer Discretionary	\$239,206	0.1%	55.14%	2.15	4.17	7.64%	160.51%
Anadolu Efes Biracilik Ve Ma Ord	Consumer Staples	\$22,883	0.0%	53.11%	2.28	7.07	2.01%	46.50%

# **10 Worst Performers**

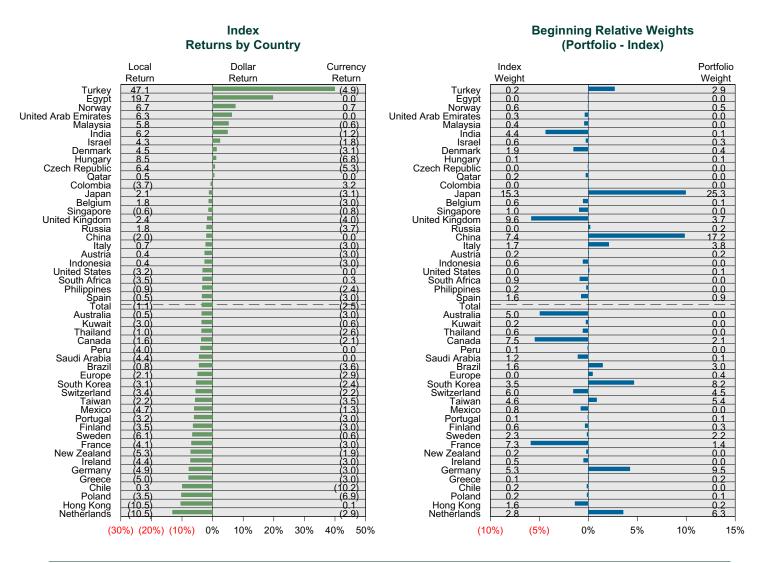
		Ending	Percent			Forecasted		
Stock	Sector	Market Value	of Portfolio	Qtrly Return	Market Capital	Earnings Ratio	Dividend Yield	Growth in Earnings
Wuhu Shunrong Auto Parts 'a'	Communication Services	\$1,069,016	0.3%	(36.59)%	6.59	13.14	4.16%	8.85%
Sanken Electric Co Ltd Shs	Information Technology	\$422,192	0.1%	(34.48)%	1.53	14.36	0.33%	16.98%
Hwa Shin Mnfg.	Consumer Discretionary	\$130,568	0.0%	(30.93)%	0.33	4.02	0.78%	(41.49)%
Socionext	Information Technology	\$50,633	0.0%	(30.91)%	3.52	20.13	0.71%	-
Beijing Ultrapower Sftw. 'a'	Information Technology	\$419,262	0.1%	(28.25)%	2.70	20.60	-	(8.07)%
Hello Group Inc Ads	Communication Services	\$15,561	0.0%	(27.47)%	1.04	4.86	9.17%	(14.61)%
Youngone Corp (New)	Consumer Discretionary	\$9,045	0.0%	(26.80)%	1.59	3.79	3.16%	4.03%
Pc Partner Group	Information Technology	\$14,056	0.0%	(26.16)%	0.15	(15.19)	32.33%	-
Cie Financiere Richemont Ag Units	Consumer Discretionary	\$1,308,321	0.3%	(25.58)%	63.91	15.01	2.23%	7.30%
Cielo Shs	Financials	\$9,009	0.0%	(24.97)%	1.91	4.61	8.28%	14.50%



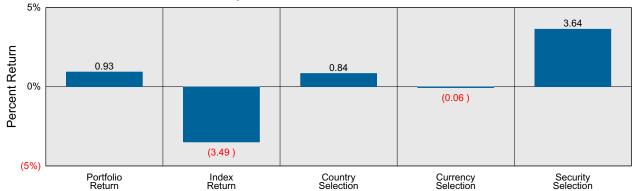
# Arrowstreet ACWI ex US vs MSCI ACWI xUS IMI Attribution for Quarter Ended September 30, 2023

### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.







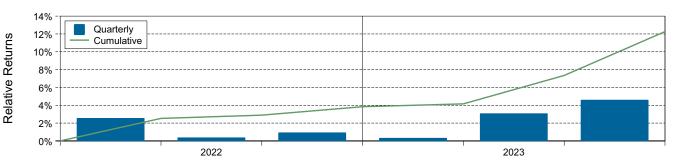


# Arrowstreet ACWI ex US vs MSCI ACWI xUS IMI Attribution for One and One-Half years Ended September 30, 2023

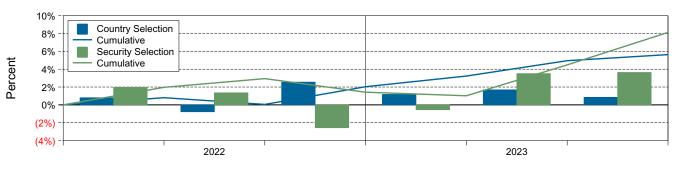
### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

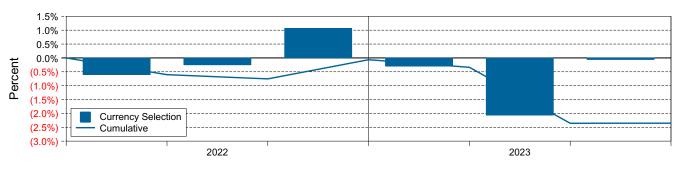
# Cumulative and Quarterly Return vs MSCI ACWI xUS IMI



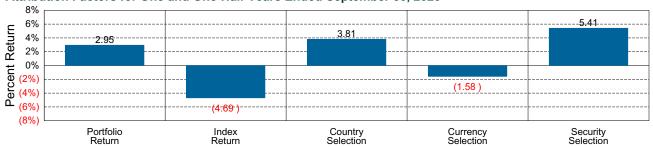
# **Cumulative and Quarterly Country Selection and Security Selection Factors**



# **Cumulative and Quarterly Currency Selection Factors**



# Attribution Factors for One and One-Half Years Ended September 30, 2023





# State St MSCI World exUS Period Ended September 30, 2023

### **Investment Philosophy**

SSGA's investment process is built on meeting the clients objectives, minimizing transaction costs and making decisions through a team framework. To determine which indexing methodology to use, they begin by considering the following factors: size of the portfolio, breadth of the benchmark, liquidity of constituents, custody costs, tracking error tolerance, availability of data, and the seasoning of the portfolio. Most often, full replication is used due to their belief in efficient markets.

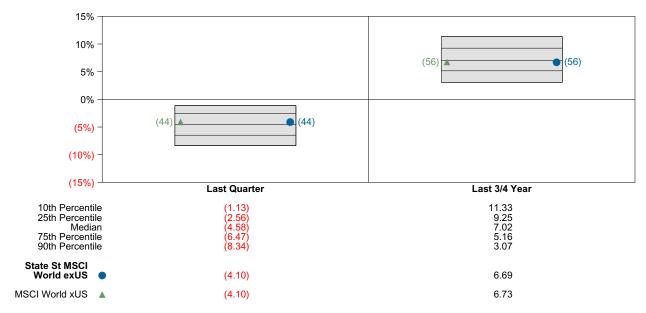
# **Quarterly Summary and Highlights**

- State St MSCI World exUS's portfolio posted a (4.10)% return for the quarter placing it in the 44 percentile of the Callan Non-US Equity group for the quarter and in the 56 percentile for the last three-quarter year.
- State St MSCI World exUS's portfolio outperformed the MSCI World xUS by 0.01% for the guarter and underperformed the MSCI World xUS for the three-quarter year by 0.04%.

# **Quarterly Asset Growth**

Beginning Market Value	\$678,236,179
Net New Investment	\$32,125,418
Investment Gains/(Losses)	\$-28,411,416
Ending Market Value	\$681,950,182

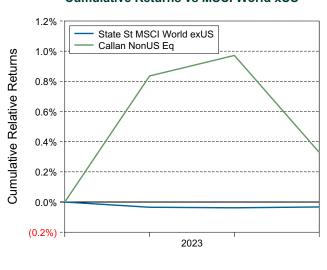
# Performance vs Callan Non-US Equity (Gross)



# Relative Return vs MSCI World xUS

# 0.02% 0.01% Relative Returns 0.00% (0.01%) (0.02%)(0.03%) $(0.04\%)^{-1}$ 2023 State St MSCI World exUS

# **Cumulative Returns vs MSCI World xUS**

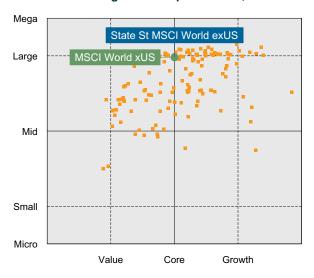




# **Current Holdings Based Style Analysis** State St MSCI World exUS As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

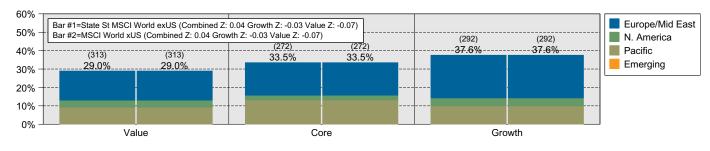
# Style Map vs Callan NonUS Eq Holdings as of September 30, 2023



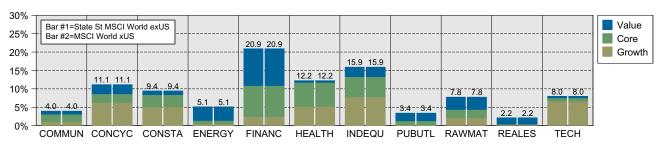
# **Style Exposure Matrix** Holdings as of September 30, 2023

	0.0% (0) <b>29.0% (313)</b>	0.0% (0) <b>33.5% (272)</b>	0.0% (0) <b>37.6% (292)</b>	0.0% (0) 100.0% (877)
Emerging	0.00/ (0)	0.00/ (0)	0.00/ (0)	0.09/ (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
r acilic	9.2% (132)	13.1% (113)	10.0% (109)	32.2% (354)
Pacific	9.2% (132)	13.1% (113)	10.0% (109)	32.2% (354)
	3.9% (27)	2.6% (30)	4.3% (32)	10.8% (89)
N. America	3.9% (27)	2.6% (29)	4.3% (32)	10.8% (88)
Europe/ Mid East	15.9% (154)	17.7% (129)	23.3% (151)	56.9% (434)
Furanc/	15.9% (154)	17.8% (130)	23.3% (151)	56.9% (435)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



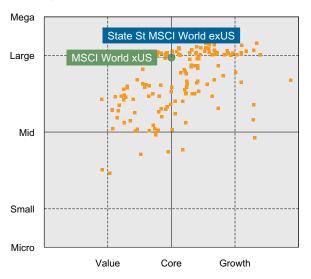


# **Historical Holdings Based Style Analysis** State St MSCI World exUS For Three Quarters Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

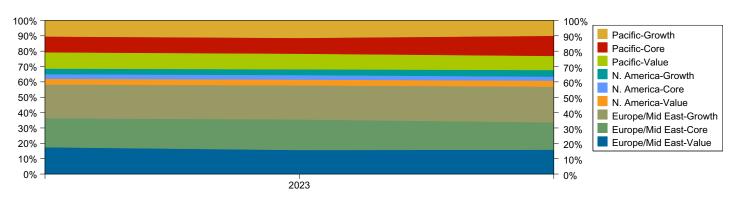
# Average Style Map vs Callan NonUS Eq Holdings for Three Quarters Ended September 30, 2023

# **Average Style Exposure Matrix** Holdings for Three Quarters Ended September 30, 2023

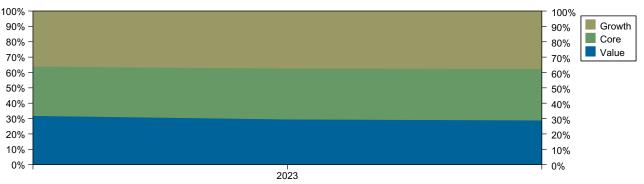




# State St MSCI World exUS Historical Region/Style Exposures



State St MSCI World exUS Historical Style Only Exposures

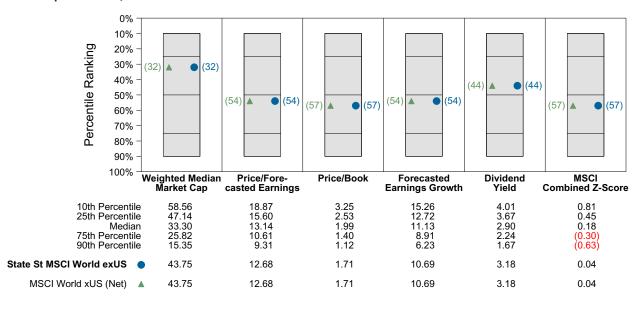


# State St MSCI World exUS **Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

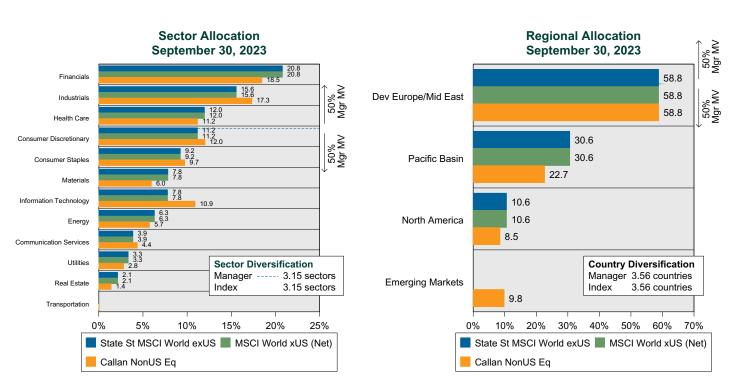
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Equity** as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

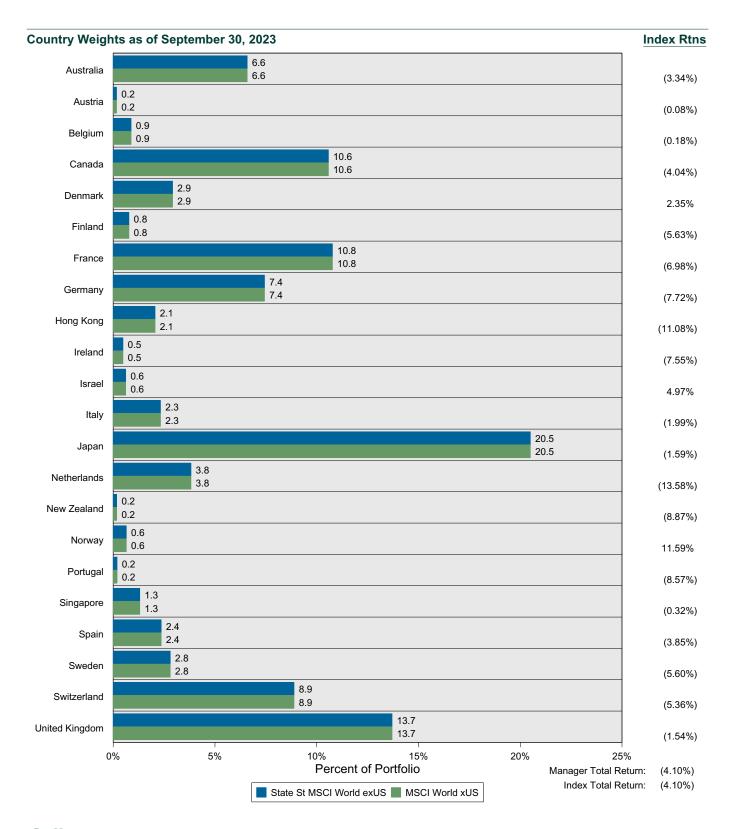




# **Country Allocation** State St MSCI World exUS VS MSCI World xUS (Net)

### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# State St MSCI World exUS Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Nestle S A Shs Nom New	Consumer Staples	\$12,503,281	1.8%	(5.71)%	302.79	19.94	2.84%	6.71%
Novo-Nordisk A S Almindelig Aktie	Health Care	\$12,319,911	1.8%	14.05%	314.04	31.78	1.10%	28.70%
Asml Holding N V Asml Rev Stk Spl	Information Technology	\$9,854,381	1.4%	(17.98)%	238.63	26.41	1.05%	22.89%
Novartis	Health Care	\$8,685,402	1.3%	2.00%	233.70	13.81	3.41%	9.60%
Astrazeneca Plc Ord	Health Care	\$8,672,556	1.3%	(4.87)%	210.02	16.39	2.14%	13.00%
Lvmh Moet Hennessy Lou Vuitt Ord	Consumer Discretionary	\$8,648,682	1.3%	(19.44)%	380.78	20.58	0.77%	10.94%
Roche Hldgs Ag Basel Div Rts Ctf	Health Care	\$7,942,781	1.2%	(10.44)%	192.35	12.54	3.79%	2.75%
Toyota Motor Corp	Consumer Discretionary	\$7,857,432	1.2%	12.34%	292.73	10.15	2.24%	18.30%
Hsbc Holdings (Gb)	Financials	\$6,425,324	0.9%	5.10%	153.97	6.22	4.70%	18.11%
Total Sa Act	Energy	\$6,125,262	0.9%	16.43%	159.13	6.93	4.59%	(9.70)%

# **10 Best Performers**

						Price/		Forecasted
		Ending	Percent			Forecasted		
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Adevinta B	Communication Services	\$119,766	0.0%	51.46%	11.60	34.19	0.00%	-
Futu Hldgs Ltd Sponsored Ads	Financials	\$131,864	0.0%	45.56%	5.32	14.09	0.00%	118.90%
Kawasaki Kisen Kaisha Ltd Shs	Industrials	\$194,760	0.0%	43.11%	8.58	11.89	7.84%	115.60%
Rolls Royce Holdings Plc Lon Shs	Industrials	\$937,099	0.1%	40.40%	22.69	20.93	0.00%	84.12%
Inpex Corp Tokyo Shs	Energy	\$605,983	0.1%	37.15%	20.96	7.89	3.28%	48.15%
Teva Pharmaceutical Inds Ltd Adr	Health Care	\$471,906	0.1%	32.04%	11.26	4.08	0.00%	14.61%
Galp Energia	Energy	\$302,051	0.0%	29.93%	11.25	11.43	3.78%	6.10%
Cameco Corp	Energy	\$712,762	0.1%	27.12%	17.27	37.01	0.22%	(3.47)%
Salmar	Consumer Staples	\$153,035	0.0%	26.38%	7.41	17.01	3.68%	(2.13)%
Adecco Sa Cheserex Ord	Industrials	\$272,730	0.0%	26.34%	6.95	12.15	6.62%	(2.69)%

# **10 Worst Performers**

						Price/		Forecasted
		Ending	Percent			Forecasted		
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Adyen NV Common Stock	Financials	\$669,756	0.1%	(56.81)%	23.17	29.94	0.00%	22.65%
Nuvei Corporation Sub Vtg	Financials	\$39,076	0.0%	(48.75)%	0.95	7.51	2.65%	13.20%
Dong Energy A/S Common Stock	Utilities	\$427,122	0.1%	(42.12)%	22.99	19.14	3.51%	3.98%
Telefonica Deutschland Hldg Ag Npv	Communication Services	\$66,130	0.0%	(36.68)%	5.34	17.60	10.62%	(1.30)%
Delivery Hero	Consumer Discretionary	\$208,081	0.0%	(34.03)%	7.76	(13.45)	0.00%	-
Nibe Industrier Ab Markaryd Shs B	Industrials	\$413,594	0.1%	(30.29)%	11.78	24.30	0.91%	13.70%
Hexagon Ab Shs	Information Technology	\$736,910	0.1%	(30.06)%	22.31	17.62	1.48%	6.69%
Mtu Aero Engines I	Industrials	\$404,169	0.1%	(29.30)%	9.80	14.63	1.86%	15.41%
Sysmex Corp Kobe Shs	Health Care	\$331,206	0.0%	(29.10)%	10.03	26.57	1.15%	10.50%
Entain Plc Shs	Consumer Discretionary	\$300,297	0.0%	(29.06)%	7.27	13.09	1.86%	18.30%



# State St MSCI World exUS vs MSCI World xUS Attribution for Quarter Ended September 30, 2023

### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.

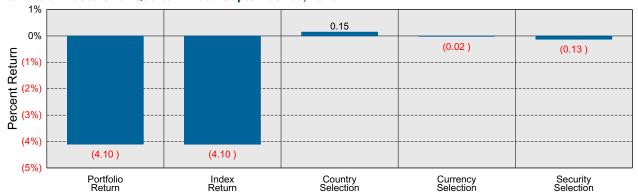
# Index **Returns by Country**

### Dollar Local Currency Return Return Return Norway 11.1 0.7 Israel 6.8 (1.6)5.8 Denmark (3.1)Austria 3.2 (3.0)Belgium 2.9 (3.0)0.5 Singapore (8.0)Japan 1.7 (3.1)United Kingdom 2.6 (4.0)Italy 1.1 (3.0)Australia (0.3)(3.0)(0.9)(3.0)Spain Canada (1.7)(2.1)Total (1.3)(2.8)Switzerland (3.2)(2.2)Finland (2.5)(3.0)Sweden (5.0)(0.6)France (4.1)(3.0)Ireland (4.7)(3.0)Germany (4.9)(3.0)Portugal (3.0)(5.7)New Zealand (6.9)(1.9)Hong Kong (11.1)0.1 Netherlands (11.0)(2.9)(20%) (15%) (10%) (5%) 15% 0% 5% 10%

# **Beginning Relative Weights** (Portfolio - Index)

	Index Weight					Portfolio Weight
Norway	0.6					0.6
Israel	0.6					0.6
Denmark	2.7					2.7
Austria	0.2					0.2
Belgium	0.8					0.8
Singapore	1.3					1.3
Japan	20.1					20.1
United Kingdom	13.2					13.2
Italy	2.3					2.3
Australia	6.6					6.6
Spain	2.3					2.3
Canada	10.5					10.5
Total						
Switzerland	9.0					9.0
Finland	0.8					0.8
Sweden	2.9					2.9
France	11.1					11.1
Ireland	0.7					0.7
Germany	7.7					7.7
Portugal	0.2					0.2
New Zealand	0.2					0.2
Hong Kong	2.2					2.2
Netherlands	4.2					4.2
(1.0	0%)	(0.5%)	0.0	%	0.5%	1.0%

### Attribution Factors for Quarter Ended September 30, 2023



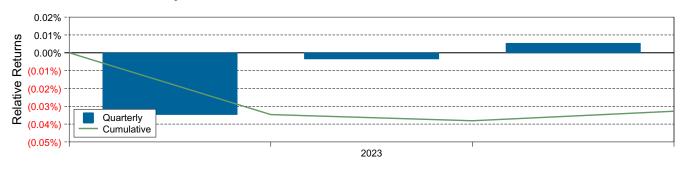


# State St MSCI World exUS vs MSCI World xUS Attribution for Three Quarters year Ended September 30, 2023

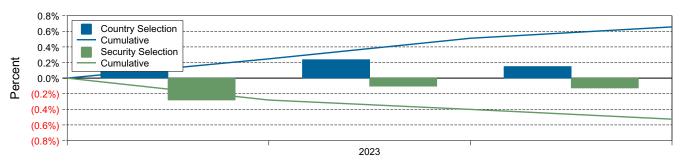
### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

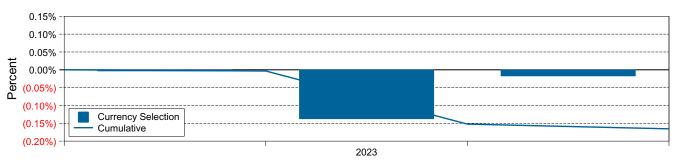
### Cumulative and Quarterly Return vs MSCI World xUS



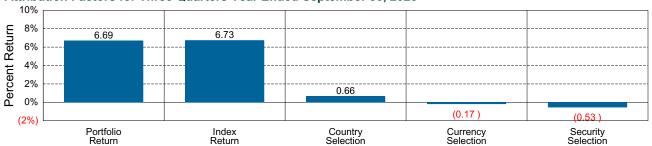
# **Cumulative and Quarterly Country Selection and Security Selection Factors**



# **Cumulative and Quarterly Currency Selection Factors**



# Attribution Factors for Three Quarters Year Ended September 30, 2023





# **DFA Intl Small Cap Value** Period Ended September 30, 2023

### **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.

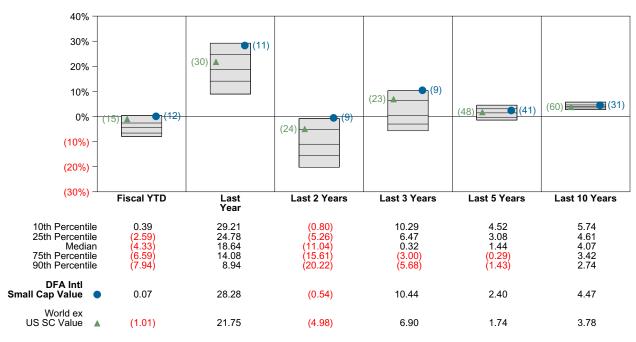
# **Quarterly Summary and Highlights**

- DFA Intl Small Cap Value's portfolio posted a 0.07% return for the quarter placing it in the 12 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 1.08% for the guarter and outperformed the World ex US SC Value for the year by 6.53%.

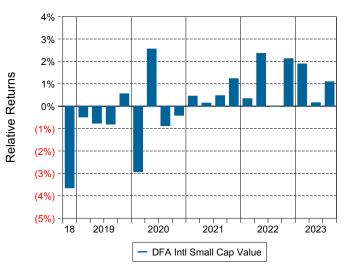
# **Quarterly Asset Growth**

Beginning Market Value	\$49,580,078
Net New Investment	\$-5,367,844
Investment Gains/(Losses)	\$59,540
Ending Market Value	\$44,271,774

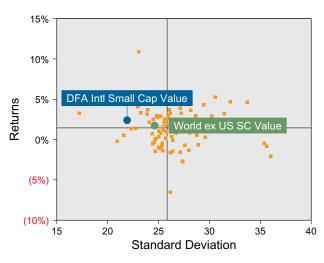
# Performance vs Callan International Small Cap Mut Funds (Net)



# Relative Return vs World ex US SC Value



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



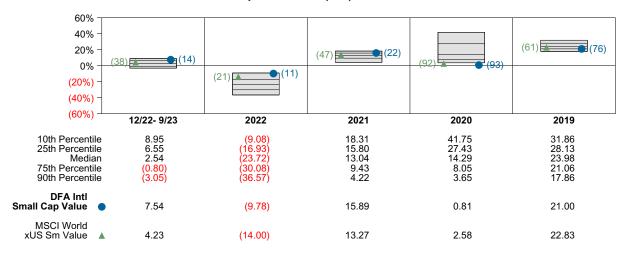


# **DFA Intl Small Cap Value Return Analysis Summary**

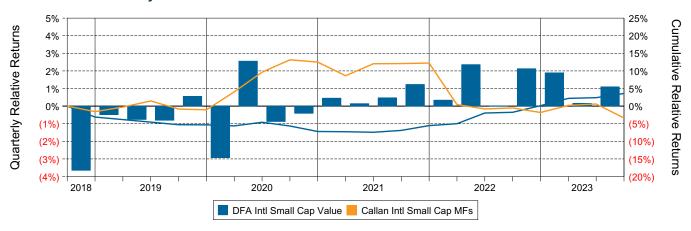
### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

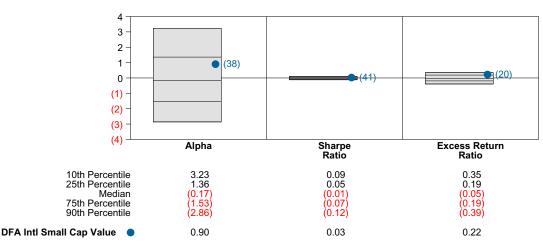
### Performance vs Callan International Small Cap Mut Funds (Net)



# Cumulative and Quarterly Relative Returns vs MSCI World xUS Sm Value



Risk Adjusted Return Measures vs MSCI World xUS Sm Value Rankings Against Callan International Small Cap Mut Funds (Net) Five Years Ended September 30, 2023



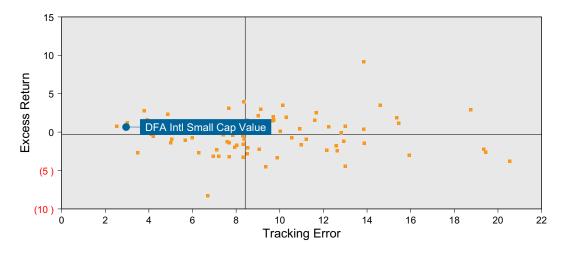


# **DFA Intl Small Cap Value Risk Analysis Summary**

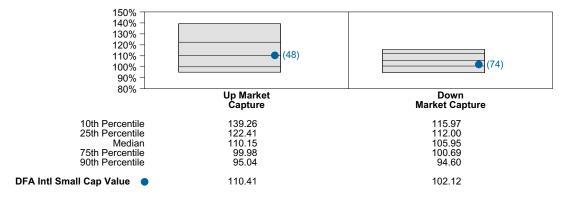
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

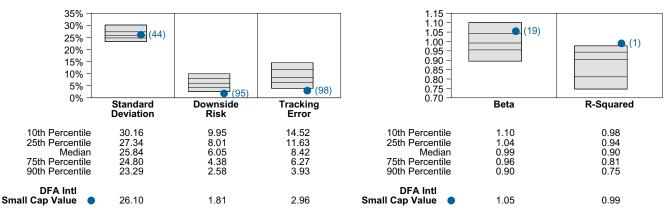
# Risk Analysis vs Callan International Small Cap Mut Funds (Net) Five Years Ended September 30, 2023



Market Capture vs MSCI World xUS Small Value (Net) Rankings Against Callan International Small Cap Mut Funds (Net) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI World xUS Small Value (Net) Rankings Against Callan International Small Cap Mut Funds (Net) Five Years Ended September 30, 2023

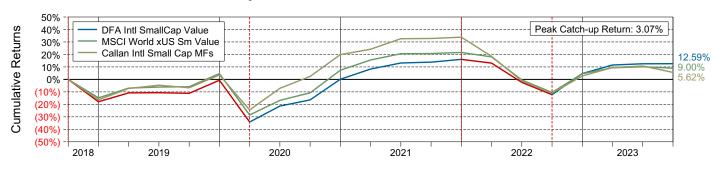




# **DFA Intl SmallCap Value** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

### **Absolute Cumulative Drawdown Analysis**

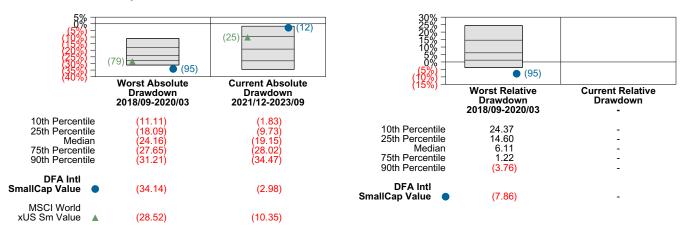


		Worst Absolute Drawdown				Current Absolute Drawdown				
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
DFA Intl SmallCap Value	(34.14)%	1.50	2018/09-2020/03	(28.52)%	(24.47)%	(2.98)%	1.75	2021/12-2023/09	(10.35)%	(21.07)%
Recovery from Trough	52.04%	0.75	2020/03-2020/12	50.18%	58.67%	28.28%	1.00+	2022/09-2023/09	21.75%	18.67%
MSCI World xUS Sm Value	(26.37)%	0.75	2021/12-2022/09			(10.35)%	1.75	2021/12-2023/09		
Callan Intl Small Cap MFs	(33.49)%	0.75	2021/12-2022/09			(21.07)%	1.75	2021/12-2023/09		

### Relative Cumulative Drawdown Analysis vs. MSCI World xUS Sm Value Cumulative Relative Returns DFA Intl SmallCap Value 15% Callan Intl Small Cap MFs 5% 3.30% 0% (3.10%)(10%)2018 2020 2022 2023 2019 2021

	V	Norst Rel	ative Drawdown		Current Relative Drawdown					
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers		
DFA Intl SmallCap Value	(7.86)%	1.50	2018/09-2020/03	5.67%	-	-	-	-		
Recovery from Trough	2.56%	0.25	2020/03-2020/06	5.60%	=	-	-	-		
Callan Intl Small Cap MFs	(15.55)%	3.00	2020/09-2023/09		(15.55)%	3.00	2020/09-2023/09			

Drawdown Rankings vs. MSCI World xUS Sm Value Rankings against Callan International Small Cap Mut Funds Five Years Ended September 30, 2023

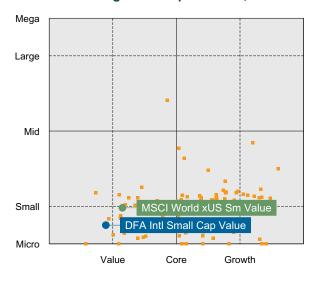




# **Current Holdings Based Style Analysis DFA Intl Small Cap Value** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

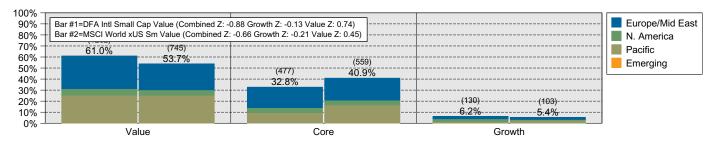
# Style Map vs Callan Intl Small Cap MFs Holdings as of September 30, 2023



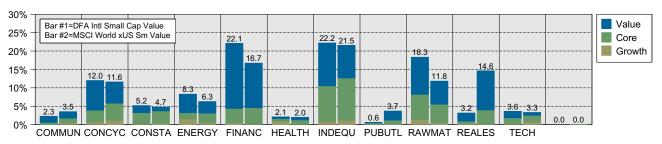
# **Style Exposure Matrix** Holdings as of September 30, 2023

Europe/ Mid East				
	23.6% (307)	20.0% (257)	2.1% (39)	45.6% (603)
	6.0% (74)	4.5% (39)	2.5% (15)	13.0% (128)
N. America				
	4.9% (67)	4.5% (62)	0.8% (13)	10.2% (142)
	25.2% (789)	9.6% (236)	1.4% (54)	36.2% (1079)
Pacific				
	25.2% (371)	16.4% (240)	2.5% (51)	44.2% (662)
	0.0% (3)	0.0% (1)	0.0% (0)	0.0% (4)
Emerging				
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	61.0% (1262)	32.8% (477)	6.2% (130)	100.0% (1869)
Total				
			1	
	53.7% (745)	40.9% (559)	5.4% (103)	100.0% (1407)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



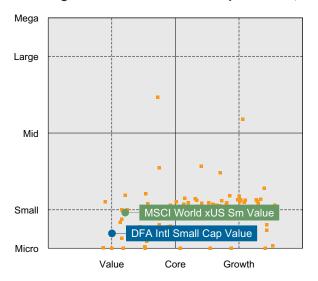


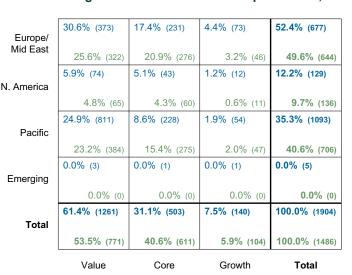
# **Historical Holdings Based Style Analysis DFA Intl Small Cap Value** For Three Years Ended September 30, 2023

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

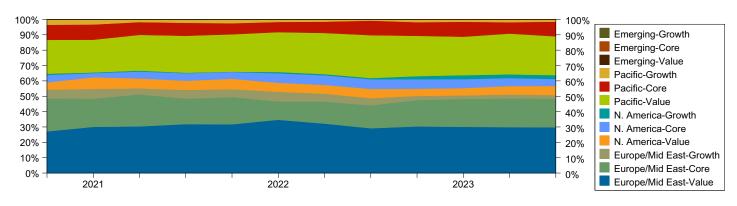
# Average Style Map vs Callan Intl Small Cap MFs Holdings for Three Years Ended September 30, 2023

# **Average Style Exposure Matrix** Holdings for Three Years Ended September 30, 2023

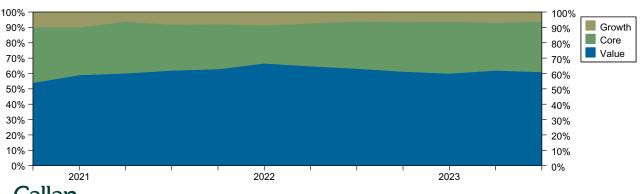




# **DFA Intl Small Cap Value Historical Region/Style Exposures**



# **DFA Intl Small Cap Value Historical Style Only Exposures**

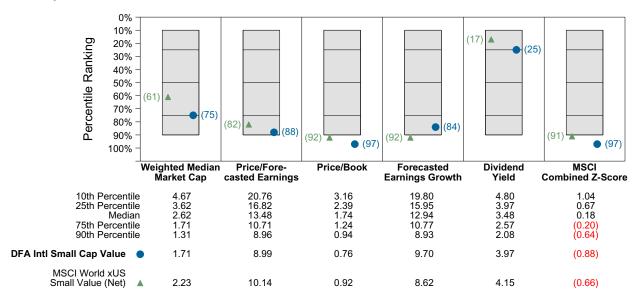


# **DFA Intl Small Cap Value Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

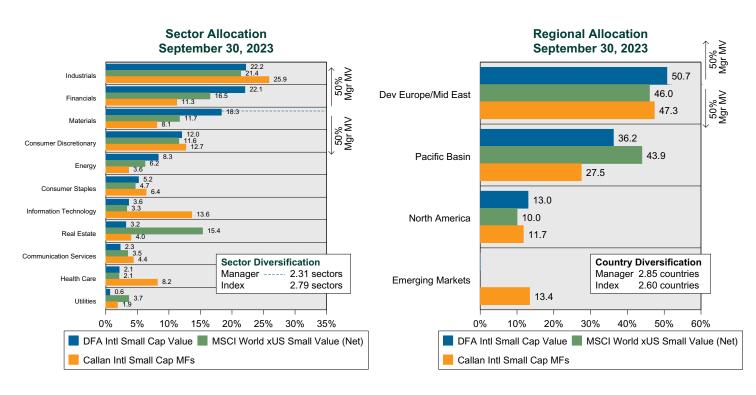
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan International Small Cap Mut Funds as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

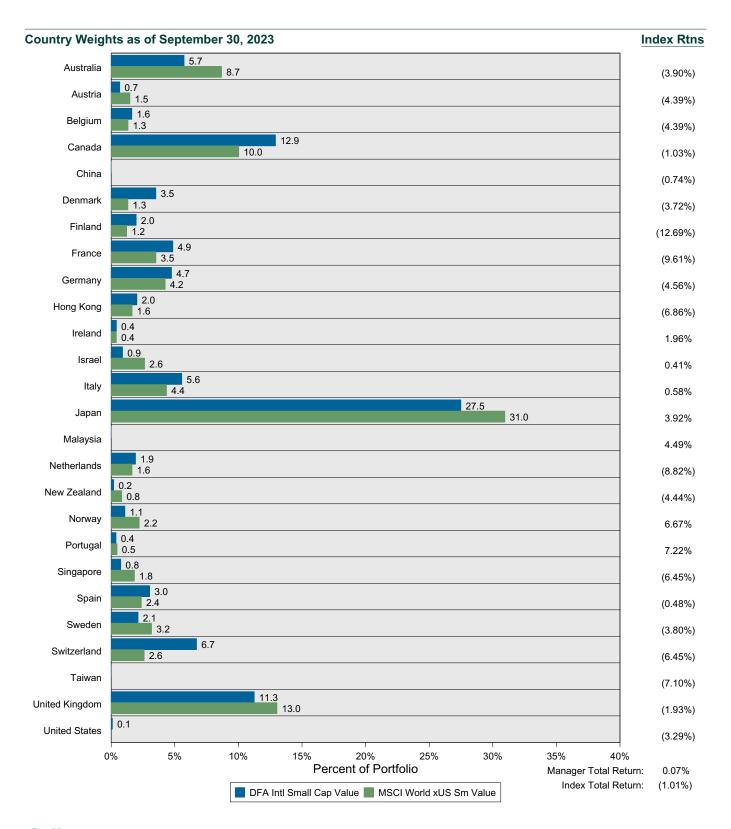




# **Country Allocation** DFA Intl Small Cap Value VS MSCI World xUS Small Value (Net)

### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# **DFA Intl SmallCap Value** Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Banco De Sabadell Sa Shs	Financials	\$479,714	1.1%	1.33%	6.56	5.57	1.72%	12.79%
Banco Popolare Societa Coope Shs New	Financials	\$475,993	1.1%	3.52%	7.27	5.56	5.00%	20.90%
Crescent Pt Energy Corp	Energy	\$385,392	0.9%	25.02%	4.46	7.20	3.55%	(1.00)%
Meg Energy	Energy	\$380,997	0.9%	23.18%	5.58	10.66	0.00%	37.32%
Helvetia Patria Holding	Financials	\$375,442	0.8%	3.78%	7.44	11.78	4.60%	(0.93)%
Leonardo Spa Shs	Industrials	\$362,894	0.8%	27.53%	8.36	9.79	1.02%	(3.15)%
Jyske Bank	Financials	\$356,273	0.8%	(3.32)%	4.72	6.65	0.00%	20.99%
Alamos Gold Inc Inc New	Materials	\$354,234	0.8%	(4.78)%	4.49	19.77	0.88%	40.65%
Sydbank	Financials	\$301,463	0.7%	3.36%	2.70	7.47	4.99%	34.36%
Adecco Sa Cheserex Ord	Industrials	\$286,886	0.6%	26.34%	6.95	12.15	6.62%	(2.69)%

# **10 Best Performers**

		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Vpower Group Intl.	Industrials	\$1,405	0.0%	106.41%	0.56	(2.47)	11.90%	(18.99)%
Shelf Drilling	Energy	\$15,669	0.0%	91.85%	0.68	4.89	0.00%	-
Pendragon Plc Shs	Consumer Discretionary	\$30,219	0.1%	81.03%	0.57	10.79	0.00%	3.64%
Sk Electronics Co.	Information Technology	\$6,114	0.0%	75.62%	0.23	10.18	4.78%	(1.16)%
Japan Pmc	Materials	\$1,078	0.0%	74.60%	0.22	37.29	1.50%	5.51%
Celestica Sv	Information Technology	\$242,675	0.5%	69.19%	2.77	10.04	0.00%	15.50%
Ensign Energy Services	Energy	\$18,706	0.0%	68.82%	0.44	7.07	0.00%	(14.42)%
Lippo China Res.	Consumer Staples	\$324	0.0%	65.86%	0.14	(5.50)	2.90%	(10.29)%
Ishizuka Glass	Materials	\$1,952	0.0%	63.21%	0.08	69.27	1.30%	(9.35)%
Nuix	Information Technology	\$55	0.0%	62.57%	0.30	(459.85)	0.00%	-

# **10 Worst Performers**

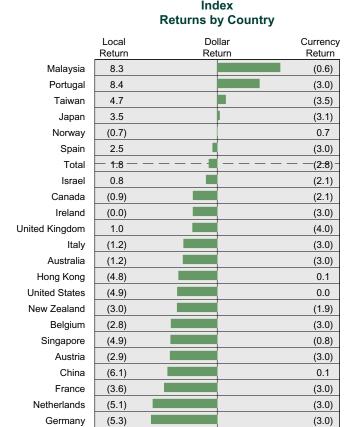
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Synthomer Plc Shs	Materials	\$224	0.0%	(95.85)%	0.46	3.08	86.32%	(19.68)%
Zh Intl Hldgs Ltd Shs Hkd	Real Estate	\$161	0.0%	(69.78)%	0.04	(80.0)	0.00%	-
Frontier Developments	Communication Services	\$37	0.0%	(63.96)%	0.11	(20.30)	0.00%	(45.41)%
Aeris Res Ltd Shs New	Materials	\$31	0.0%	(63.40)%	0.08	(8.94)	0.00%	-
Ajax I A	Consumer Discretionary	\$43	0.0%	(53.92)%	0.02	(0.16)	0.00%	-
Smcp Sa Common Stock	Consumer Discretionary	\$5,943	0.0%	(53.31)%	0.31	4.52	0.00%	-
Marimedia (Di)	Communication Services	\$25	0.0%	(51.08)%	0.25	4.10	8.52%	59.52%
Appen	Information Technology	\$3,064	0.0%	(49.70)%	0.13	(4.23)	0.00%	74.71%
Supergroup	Consumer Discretionary	\$1,650	0.0%	(47.08)%	0.05	18.93	0.00%	(8.29)%
Esprit Hldgs Ltd Shs	Consumer Discretionary	\$212	0.0%	(46.62)%	0.12	(0.65)	-	(46.80)%



# DFA Intl SmallCap Value vs MSCI World xUS Sm Value Attribution for Quarter Ended September 30, 2023

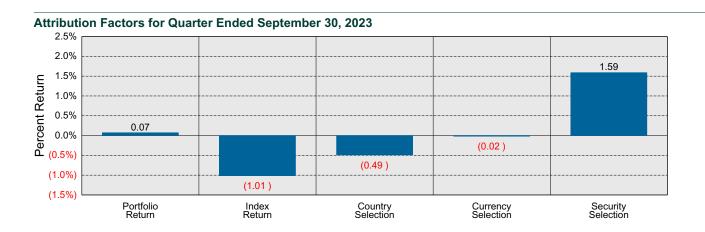
### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



#### (Portfolio - Index) Index Portfolio Weight Weight 0.0 0.0 Malaysia Portugal 0.4 0.3 Taiwan 0.0 0.0 Japan 29.4 26.4 0.9 Norway 2.0 Spain 2.4 2.9 Total Israel 2.5 0.9 Canada 10.1 13.0 Ireland 0.4 0.4 United Kingdom 13.0 11.2 4.3 4.9 Italy Australia 9.0 6.1 Hong Kong 1.8 2.1 **United States** 0.0 0.1 New Zealand 0.9 0.2 Belgium 1.4 1.6 Singapore 1.9 8.0 1.5 0.7 Austria China 0.0 0.0 France 4.0 5.4 Netherlands 2.1 2.1 Germany 4.5 5.2 Switzerland 2.7 6.6 Denmark 1.4 3.5

**Beginning Relative Weights** 



(2.2)

(3.1)

(0.6)

(3.0)

15%

10%

Sweden

Finland

3.1

1.4

(4%)

(2%)

0%

2%

(6%)



Switzerland

Denmark

Sweden

Finland

(15%)

(6.1)

(5.8)

(9.8)

(10%)

(5%)

0%

5%

2.2 2.2

6%

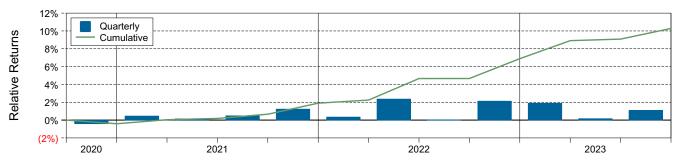
4%

# DFA Intl SmallCap Value vs MSCI World xUS Sm Value Attribution for Three years Ended September 30, 2023

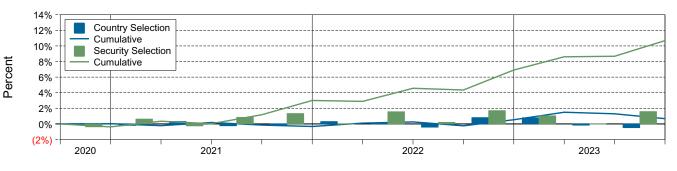
### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

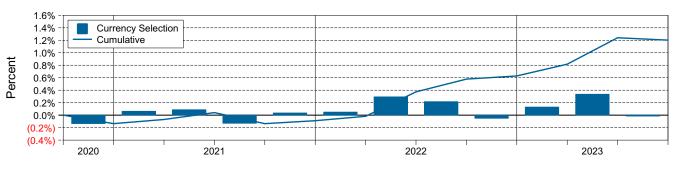
# Cumulative and Quarterly Return vs MSCI World xUS Sm Value



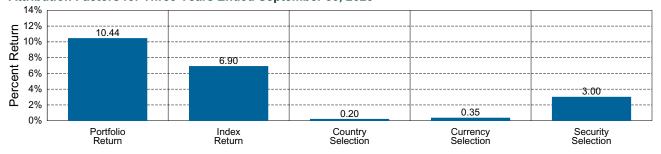
# **Cumulative and Quarterly Country Selection and Security Selection Factors**



# **Cumulative and Quarterly Currency Selection Factors**



### Attribution Factors for Three Years Ended September 30, 2023





# State St MSCI exUS Small Period Ended September 30, 2023

### **Investment Philosophy**

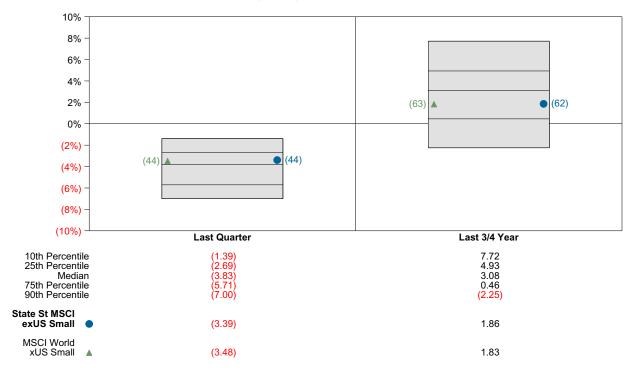
SSGA's objective is to provide the most cost-effective implementation with stringent risk control and tracking requirements.

### **Quarterly Summary and Highlights**

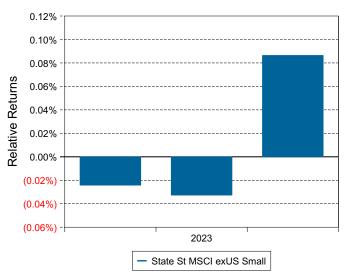
- State St MSCI exUS Small's portfolio posted a (3.39)% return for the quarter placing it in the 44 percentile of the Callan International Small Cap group for the quarter and in the 62 percentile for the last three-quarter year.
- State St MSCI exUS Small's portfolio outperformed the MSCI World xUS Small by 0.08% for the quarter and outperformed the MSCI World xUS Small for the three-quarter year by 0.03%.

Beginning Market Value	\$22,507,828
Net New Investment	\$45,857,930
Investment Gains/(Losses)	\$-3,571,761
Ending Market Value	\$64 703 007

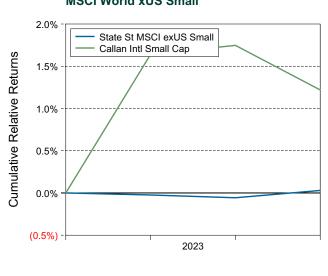
# Performance vs Callan International Small Cap (Gross)



# Relative Return vs MSCI World xUS Small



# Cumulative Returns vs MSCI World xUS Small



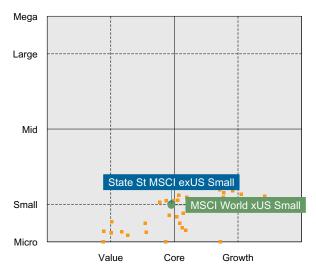


# **Current Holdings Based Style Analysis** State St MSCI exUS Small As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

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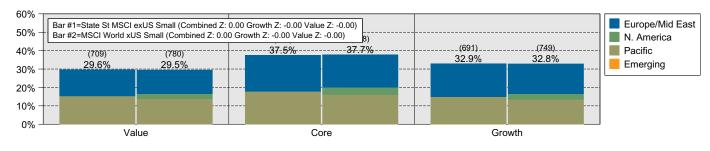
# Style Map vs Callan Intl Small Cap Holdings as of September 30, 2023



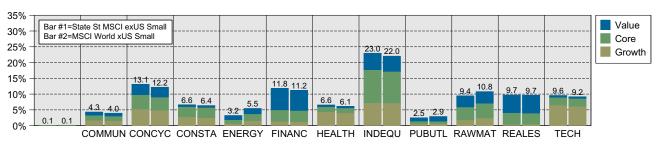
# **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	29.5% (780)	37.7% (878)	32.8% (749)	100.0% (2407)
Total				
	29.6% (709)	37.5% (794)	32.9% (691)	100.0% (2194)
	0.0% (0)	0.0% (1)	0.1% (1)	0.1% (2)
Emerging				
	0.0% (0)	0.0% (1)	0.1% (1)	0.1% (2)
	13.9% (390)	16.1% (412)	13.4% (359)	43.3% (1161)
Pacific				
	15.4% (390)	17.8% (412)	14.9% (359)	48.0% (1161)
	2.8% (71)	4.0% (88)	3.1% (58)	9.9% (217)
I. America				
	0.0% (0)	0.0% (3)	0.0% (0)	0.0% (3)
Europe/ Mid East	12.8% (319)	17.7% (377)	16.2% (331)	46.7% (1027)
Furana/	14.2% (319)	19.6% (378)	17.9% (331)	51.8% (1028)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023





# **Historical Holdings Based Style Analysis** State St MSCI exUS Small For Three Quarters Ended September 30, 2023

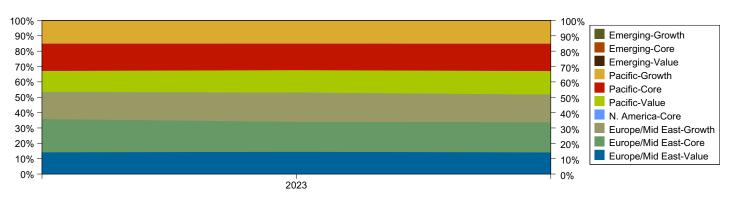
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

# Average Style Map vs Callan Intl Small Cap Holdings for Three Quarters Ended September 30, 2023

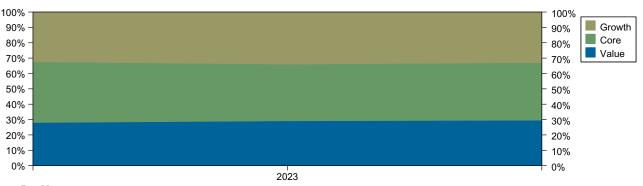
# **Average Style Exposure Matrix** Holdings for Three Quarters Ended September 30, 2023



# State St MSCI exUS Small Historical Region/Style Exposures



State St MSCI exUS Small Historical Style Only Exposures

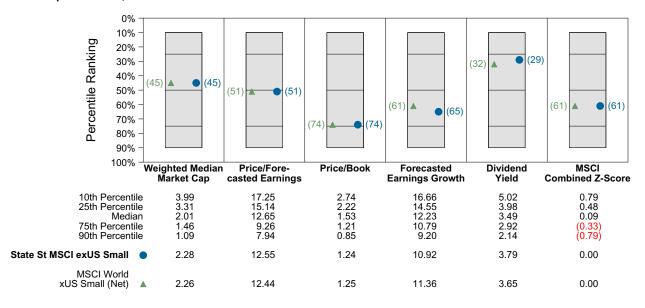


# State St MSCI exUS Small **Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

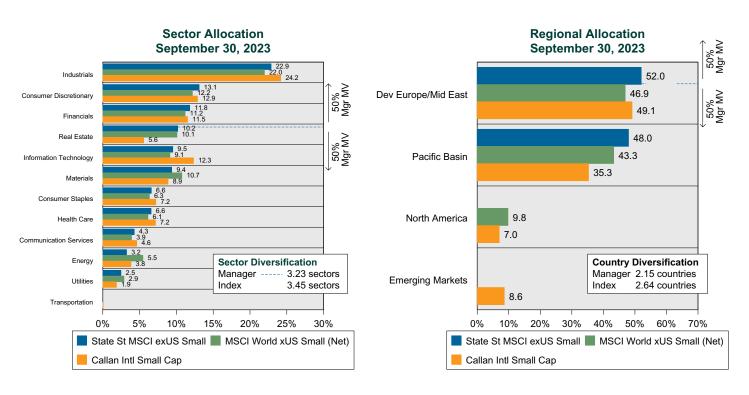
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan International Small Cap as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

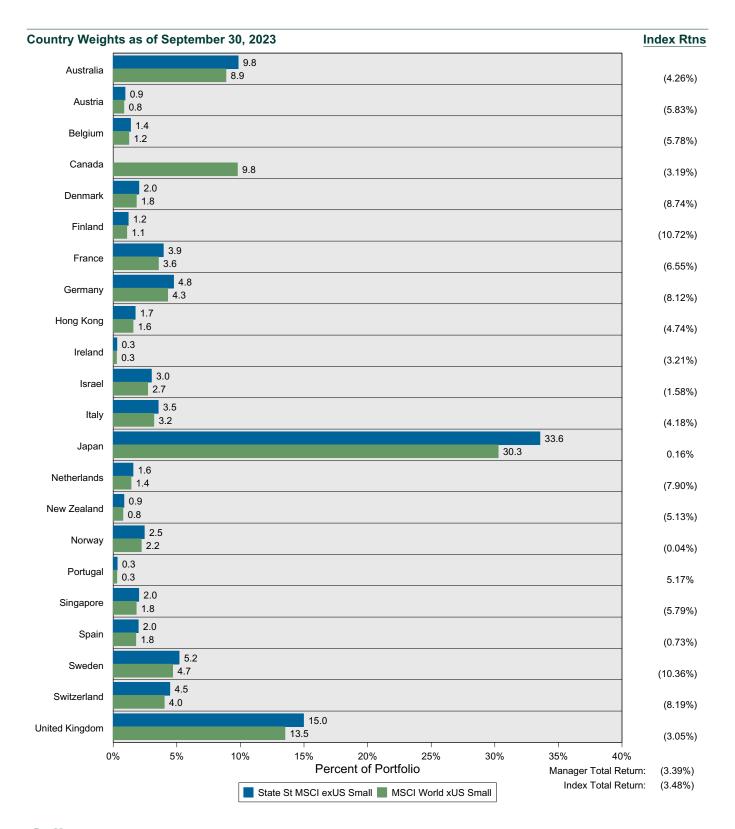




# **Country Allocation** State St MSCI exUS Small VS MSCI World xUS Small (Net)

### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# State St MSCI exUS Small Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Banco Popolare Societa Coope Shs New	Financials	\$189,889	0.3%	3.52%	7.27	5.56	5.00%	20.90%
B&m European Value Retail S A	Consumer Discretionary	\$187,162	0.3%	1.07%	7.17	15.07	5.05%	10.96%
Carsales.Com	Communication Services	\$186,651	0.3%	9.69%	6.80	31.42	2.18%	13.76%
Banco De Sabadell Sa Shs	Financials	\$180,135	0.3%	1.33%	6.56	5.57	1.72%	12.79%
Weir Group Plc Ord	Industrials	\$165,546	0.3%	3.96%	6.03	15.61	1.95%	10.61%
Leonardo Spa Shs	Industrials	\$160,814	0.2%	27.53%	8.36	9.79	1.02%	(3.15)%
Marks & Spencer Group	Consumer Staples	\$156,441	0.2%	17.88%	5.70	11.94	0.00%	12.21%
Trelleborg Ab Akt B	Industrials	\$156,006	0.2%	3.53%	5.68	17.05	2.20%	12.87%
Asics Corp Shs	Consumer Discretionary	\$155,202	0.2%	14.50%	6.65	27.41	1.05%	57.40%
Rightmove Plc Ord	Communication Services	\$153,723	0.2%	3.83%	5.55	21.85	1.57%	7.26%

# **10 Best Performers**

					Price/				
		Ending	Percent			Forecasted		Forecasted	
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in	
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Aroundtown	Real Estate	\$48,494	0.1%	81.04%	3.22	6.34	0.00%	(8.95)%	
Camtek Ltd Ord	Information Technology	\$49,137	0.1%	69.69%	2.71	28.62	0.00%	36.56%	
Pgs Asa Shs	Energy	\$20,905	0.0%	58.36%	0.84	10.86	0.00%	(59.42)%	
Megaport	Information Technology	\$31,463	0.0%	58.06%	1.21	93.78	0.00%	-	
Towa Pharmaceutical Co	Health Care	\$13,474	0.0%	57.00%	0.98	16.86	2.11%	57.50%	
Siteminder	Information Technology	\$18,067	0.0%	53.76%	0.82	(83.01)	0.00%	-	
Drillisch Ag Duesseldorf Shs	Communication Services	\$16,475	0.0%	52.41%	2.96	8.81	0.32%	(0.30)%	
Boss Energy Ltd Ord Shs	Energy	\$28,832	0.0%	51.69%	1.10	31.62	0.00%	-	
United Internet	Communication Services	\$56,578	0.1%	50.46%	4.09	9.36	2.48%	(0.57)%	
Odfjell Drilling	Energy	\$9,256	0.0%	50.01%	0.84	14.47	1.69%	8.21%	

# **10 Worst Performers**

					Price/						
		Ending	Percent			Forecasted		Forecasted Growth in			
		Market	of	Qtrly	Market	Earnings	Dividend Yield				
Stock	Sector	Value	Portfolio	Return	Capital	Ratio		Earnings			
Synthomer Plc Shs	Materials	\$1,363	0.0%	(95.85)%	0.46	3.08	86.32%	(19.68)%			
Realcom	Industrials	\$6,492	0.0%	(69.50)%	0.39	12.73	0.24%	77.97%			
Mesoblast Ltd Shs	Health Care	\$4,786	0.0%	(66.69)%	0.20	(1.00)	0.00%	-			
Chalice Gold Mines	Materials	\$14,356	0.0%	(64.07)%	0.58	(28.79)	0.00%	-			
Abacus Pr.	Real Estate	\$8,280	0.0%	(62.34)%	0.60	10.54	8.85%	(17.89)%			
Idorsia Ltd Common Stock Chf.05	Health Care	\$8,772	0.0%	(60.73)%	0.53	(0.92)	0.00%	(22.10)%			
Nano X Imaging	Health Care	\$8,946	0.0%	(59.24)%	0.38	(6.54)	0.00%	-			
Maxeon Solar Technologies Ltd Com	Information Technology	\$10,876	0.0%	(59.19)%	0.61	(53.17)	0.00%	-			
Wesc Ab Shs	Industrials	\$2,138	0.0%	(56.66)%	0.16	22.78	0.00%	(47.39)%			
Core Exploration	Materials	\$13,628	0.0%	(56.37)%	0.56	6.53	0.00%	-			



# State St MSCI exUS Small vs MSCI World xUS Small Attribution for Quarter Ended September 30, 2023

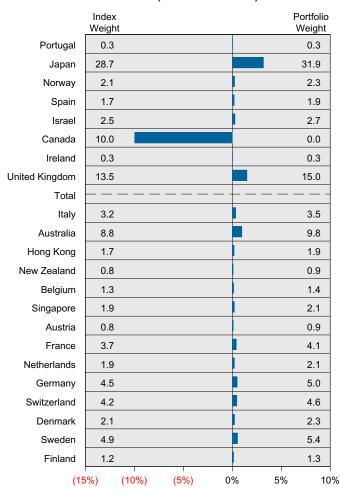
### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.

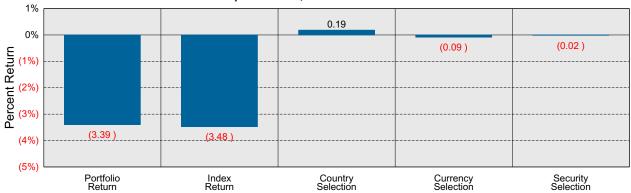


### Dollar Local Currency Return Return Return Portugal 8.4 (3.0)3.5 (3.1)Japan (0.7)0.7 Norway Spain 2.5 (3.0)Israel 0.8 (2.1)Canada (0.9)(2.1)Ireland (0.0)(3.0)United Kingdom 1.0 (4.0)Total (0.8)(2.7)Italy (1.2)(3.0)Australia (3.0)(1.2)Hong Kong (4.8)0.1 New Zealand (3.0)(1.9)Belgium (2.8)(3.0)(4.9)(8.0)Singapore Austria (2.9)(3.0)(3.6)France (3.0)Netherlands (5.1)(3.0)Germany (5.3)(3.0)Switzerland (6.1)(2.2)Denmark (5.8)(3.1)Sweden (9.8)(0.6)Finland (3.0)(15%)(10%)(5%)0% 5% 10%

# **Beginning Relative Weights** (Portfolio - Index)



# Attribution Factors for Quarter Ended September 30, 2023



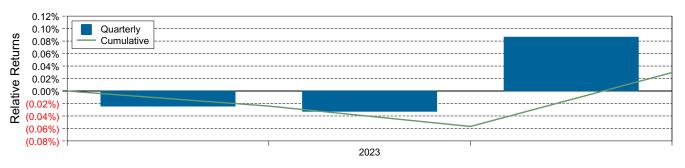


# State St MSCI exUS Small vs MSCI World xUS Small Attribution for Three Quarters year Ended September 30, 2023

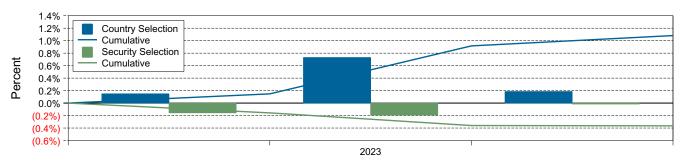
### **Cumulative International Attribution**

The first chart below illustrates the quarterly and cumulative return of the portfolio relative to the index. The second chart shows the cumulative and quarterly impact of the manager's country selection and security selection decisions. The third chart shows the cumulative and quarterly impact of the managers currency selection decisions. The last chart shows the annualized cumulative returns for the manager and the index, as well as the attribution factors that explain the difference in return.

# Cumulative and Quarterly Return vs MSCI World xUS Small

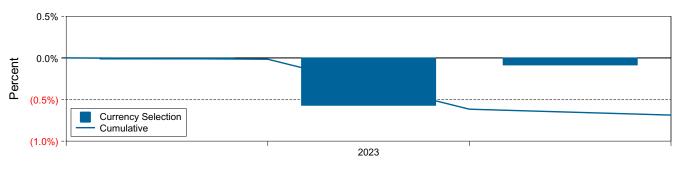


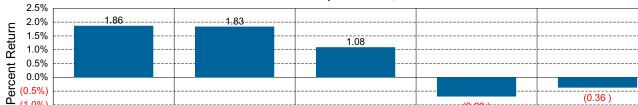
# **Cumulative and Quarterly Country Selection and Security Selection Factors**

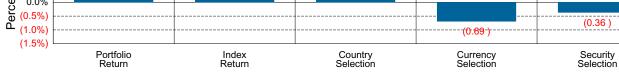


# **Cumulative and Quarterly Currency Selection Factors**

Attribution Factors for Three Quarters Year Ended September 30, 2023









# **DFA EM All Cap Core** Period Ended September 30, 2023

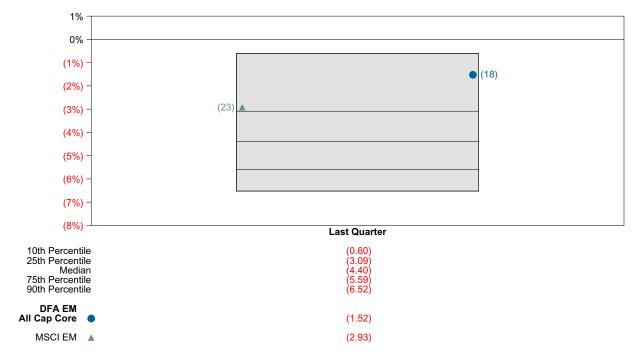
### **Investment Philosophy**

Dimensional Fund Advisors (DFA) is an independent asset management firm founded by David Booth and Rex Sinquefield in 1981. The firm is headquartered in Austin, Texas with regional offices in Santa Monica, Vancouver, Toronto, Charlotte, London, Amsterdam, Berlin, Tokyo, Singapore, Melbourne, and Sydney. The Emerging Markets All Cap Core strategy is managed by a five-member portfolio management team, supported by 89 research professionals and 17 equity traders. The product employs a systematic process leveraging size, value and profitability factors to construct a diversified and risk-controlled portfolio. The strategy consists of approximately 6,600 securities. The expected annual turnover for the portfolio is around 5%-15%. The Fund has consistently performed within expectations over multiple market cycles.

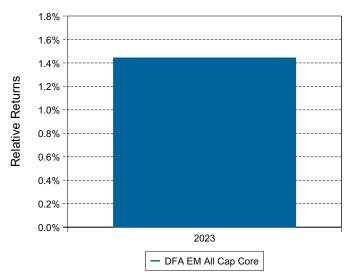
### **Quarterly Summary and Highlights**

- DFA EM All Cap Core's portfolio posted a (1.52)% return for the quarter placing it in the 18 percentile of the Callan Emerging Markets Equity Mut Funds group for the quarter.
- DFA EM All Cap Core's portfolio outperformed the MSCI EM by 1.40% for the guarter.

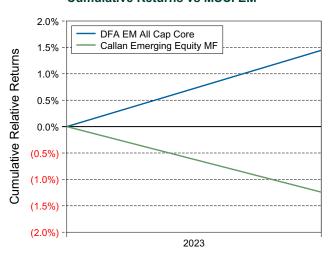
# Performance vs Callan Emerging Markets Equity Mut Funds (Institutional Net)



# Relative Return vs MSCI EM



# **Cumulative Returns vs MSCI EM**





# **Current Holdings Based Style Analysis DFA EM All Cap Core** As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

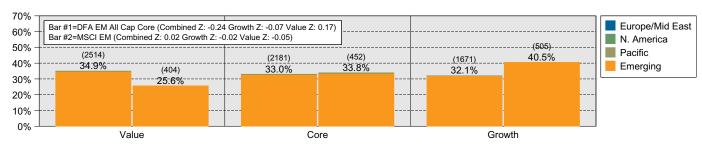
# Style Map vs Callan Emerging Equity MF Holdings as of September 30, 2023



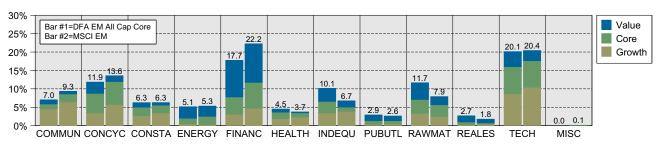
# **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	25.6% (404)	33.8% (452)	40.5% (505)	100.0% (1361)
Total				
	34.9% (2514)	33.0% (2181)	32.1% (1671)	100.0% (6366)
	25.6% (404)	33.6% (449)	40.5% (505)	99.8% (1358)
Emerging	, ,		, ,	
	34.8% (2492)	32.9% (2156)	32.0% (1650)	99.7% (6298)
	0.0% (0)	0.1% (2)	0.0% (0)	0.1% (2)
Pacific				,
	0.1% (21)	0.1% (22)	0.1% (21)	0.2% (64)
	0.0% (0)	0.1% (1)	0.0% (0)	0.1% (1)
N. America		, ,	, ,	
	0.0% (1)	0.1% (3)	0.0% (0)	0.1% (4)
Europe/ Mid East	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
<b>-</b>	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

# **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



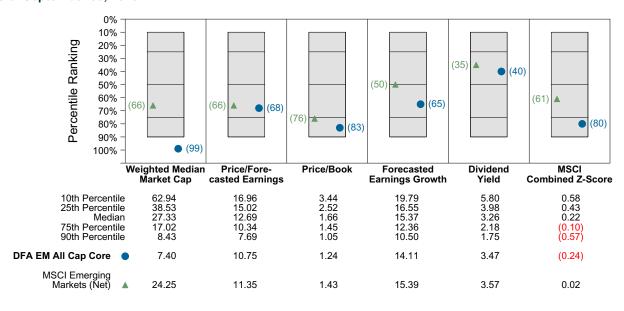


# **DFA EM All Cap Core Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

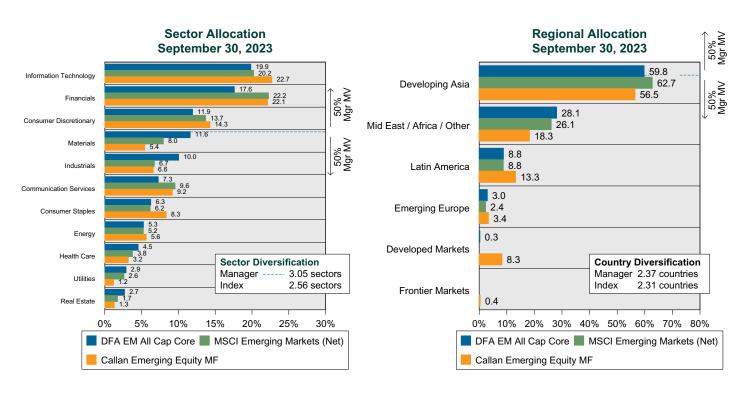
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

# **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Emerging Markets Equity Mut Funds as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

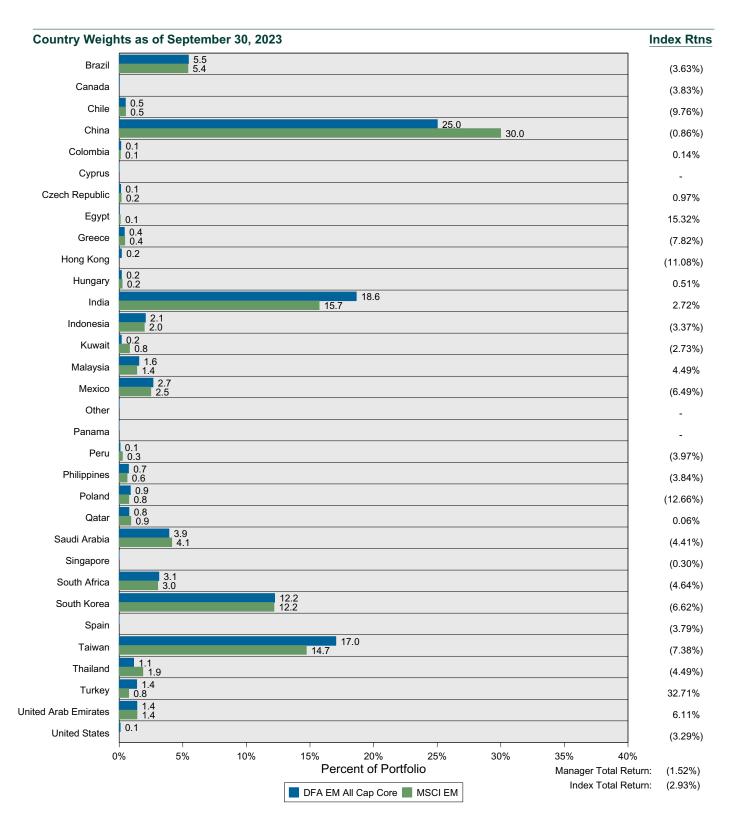




# **Country Allocation DFA EM All Cap Core VS MSCI Emerging Markets (Net)**

# **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# **DFA EM All Cap Core** Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/				
		Ending Percent					Forecasted			
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in		
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings		
Taiwan Semicond Manufac Co L Shs	Information Technology	\$4,520,431	2.9%	(11.92)%	420.14	14.96	2.20%	3.19%		
Samsung Electronics Co Ltd Ord	Information Technology	\$4,282,547	2.8%	(7.03)%	302.60	20.00	2.11%	(6.60)%		
Tencent Holdings Limited Shs Par Hkd	Communication Services	\$4,059,274	2.6%	(7.80)%	372.50	16.31	0.78%	19.31%		
Alibaba Group Holding Ltd	Consumer Discretionary	\$1,938,404	1.3%	5.27%	222.68	9.33	0.00%	11.73%		
Taiwan Semiconductor Mfg Co Ltd Spon	Information Technology	\$1,791,584	1.2%	(16.51)%	420.14	14.96	2.20%	3.19%		
Sk Hynix Inc Shs	Information Technology	\$1,128,415	0.7%	(2.52)%	61.88	37.28	1.05%	30.70%		
China Construction Bank Shs H	Financials	\$1,014,380	0.7%	(4.70)%	135.68	3.00	8.87%	3.40%		
Alibaba Group Hldg Ltd Sponsored Ads	Consumer Discretionary	\$990,677	0.6%	3.91%	220.62	9.07	0.00%	11.50%		
Petroleo Brasileiro Sa Petro Pfd Shs	Energy	\$979,503	0.6%	17.30%	38.77	4.39	26.71%	47.12%		
Infosys Technologies	Information Technology	\$871,416	0.6%	6.18%	71.54	22.08	2.37%	13.70%		

# **10 Best Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Posdata Company	Information Technology	\$41,724	0.0%	247.04%	6.11	62.47	0.14%	6.00%
Anadolu Sigorta	Financials	\$19,042	0.0%	241.25%	1.01	4.14	0.00%	41.82%
Cemas Dokum Sanayi	Materials	\$2,809	0.0%	240.10%	0.18	8.46	0.00%	-
Gunes Sigorta	Financials	\$8,554	0.0%	236.39%	1.63	5.53	-	27.47%
Uem Land Holdings	Real Estate	\$3,275	0.0%	211.11%	0.91	45.00	-	(16.39)%
Metemteks Tekstil	Industrials	\$673	0.0%	209.95%	0.10	11.18	0.00%	6.80%
Dynamic Electronics	Information Technology	\$30,320	0.0%	206.52%	0.72	17.45	0.77%	85.94%
Adel Kalemcilik	Industrials	\$2,370	0.0%	180.79%	0.45	74.43	0.16%	(15.00)%
Hebei Changshan Bioch. Pharm.'a'	Health Care	\$2,712	0.0%	167.19%	1.71	(59.03)	-	11.77%
Mindong Elec.Group A	Information Technology	\$7,518	0.0%	164.26%	1.81	(10.82)	0.00%	36.65%

# **10 Worst Performers**

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Eczacibasi Yatirim Hldg	Industrials	\$5,945	0.0%	-	1.06	13.51	0.69%	18.28%
Konya Cimento	Materials	\$8,554	0.0%	-	0.94	187.96	0.00%	120.19%
Shimao China Hdg. Ltd.	Real Estate	\$1,948	0.0%	(83.06)%	0.36	(0.39)	93.75%	20.40%
Sunshine 100 China Hdg.	Real Estate	\$13	0.0%	(81.85)%	0.02	(0.05)	0.00%	-
Glorious Property Holdings L Shs	Real Estate	\$74	0.0%	(81.53)%	0.01	-	0.00%	(54.98)%
Ibo Technology	Information Technology	\$70	0.0%	(80.92)%	0.01	7.00	0.00%	-
China Motion Telecom	Real Estate	\$69	0.0%	(72.23)%	0.13	2.57	0.00%	-
Joong Ang Digitech	Consumer Discretionary	\$250	0.0%	(70.05)%	0.02	(0.32)	0.00%	133.37%
Intl.All.File.	Financials	\$2,332	0.0%	(69.21)%	0.32	4.50	0.00%	-
Via Sa Reg Com Shs	Consumer Discretionary	\$9,105	0.0%	(67.72)%	0.30	(2.77)	0.00%	-

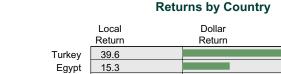


# DFA EM All Cap Core vs MSCI EM Attribution for Quarter Ended September 30, 2023

Index

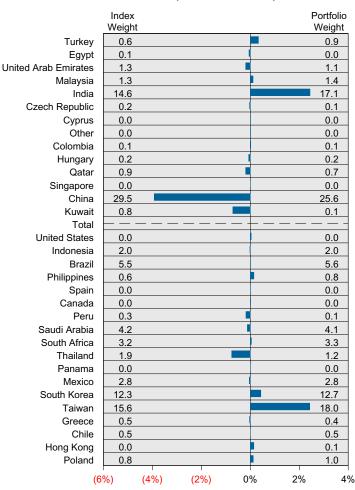
### **International Attribution**

The first chart below illustrates the return for each country in the index sorted from high to low. The total return for the index is highlighted with a dotted line. The second chart (countries presented in the same order) illustrates the manager's country allocation decisions relative to the index. To the extent that the manager over-weighted a country that had a higher return than the total return for the index (above the dotted line) it contributes positively to the manager's country (or currency) selection effect. The last chart details the manager return, the index return, and the attribution factors for the quarter.



Currency Return (4.9)0.0 United Arab Emirates 6.1 0.0 Malavsia (0.6)5.1 4.1 (1.2)Czech Republic 6.7 (5.3)(0.7)Cyprus 1.7 Other 1.7 (0.7)Colombia (2.5)3.2 Hungary 7.8 (6.8)Qatar 0.1 0.0 Singapore 0.5 (8.0)China 0.4 (1.1)Kuwait (2.2)(0.6)Total (1.4)(1.5)**United States** (3.1)Indonesia (0.4)(3.0)Brazil 0.1 (3.6)Philippines (1.1)(2.4)Spain (0.9)П (3.0)Canada (1.7)(2.1)Peru (4.0)0.0 Saudi Arabia (4.3)0.0 South Africa (4.7)0.3 Thailand (1.8)(2.6)Panama (1.6)(3.1)Mexico (5.2)(1.3)South Korea (4.3)(2.4)Taiwan (3.7)(3.5)Greece (5.0)(3.0)Chile 0.6 (10.2)Hong Kong (11.1)0.1

# **Beginning Relative Weights** (Portfolio - Index)



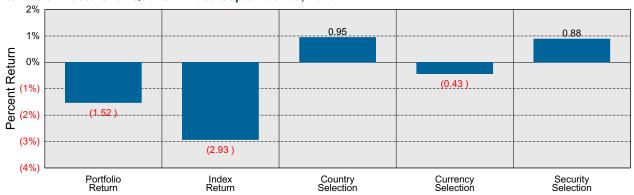
### Attribution Factors for Quarter Ended September 30, 2023

0%

10%

20%

30%



(6.9)

40% 50%



Poland

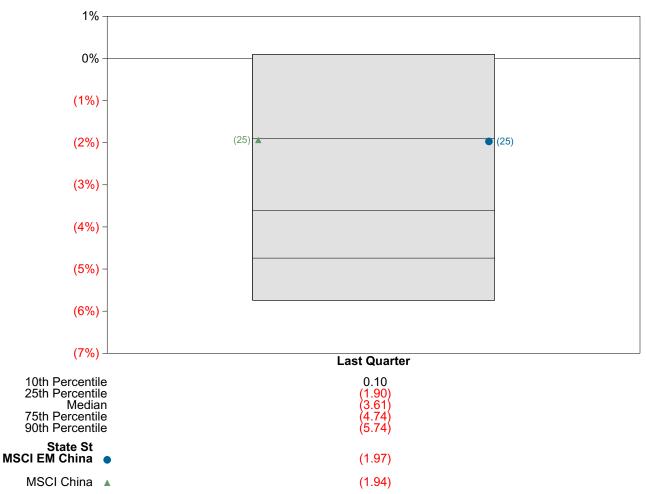
(5.7)(30%) (20%) (10%)

# State St MSCI EM China Period Ended September 30, 2023

### **Quarterly Summary and Highlights**

- State St MSCI EM China's portfolio posted a (1.97)% return for the quarter placing it in the 25 percentile of the Callan Emerging Broad group for the quarter.
- State St MSCI EM China's portfolio underperformed the MSCI China by 0.03% for the quarter.

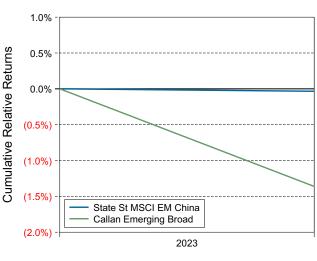
# Performance vs Callan Emerging Broad (Gross)



# Relative Return vs MSCI China

# 0.03% 0.02% 0.01% Relative Returns 0.00% (0.01%)(0.02%)(0.03%)(0.04%)2023 State St MSCI EM China

# **Cumulative Returns vs MSCI China**



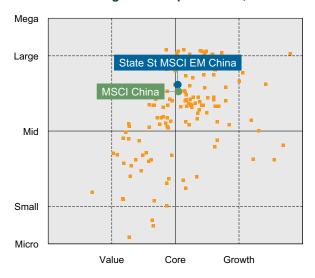


# **Current Holdings Based Style Analysis** State St MSCI EM China As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

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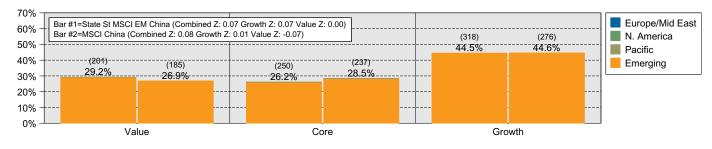
## Style Map vs Callan Emerging Broad Holdings as of September 30, 2023



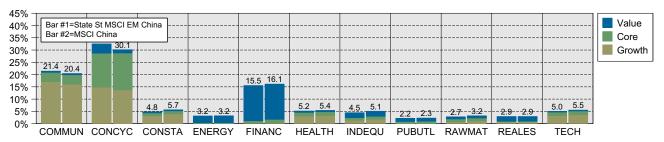
## **Style Exposure Matrix** Holdings as of September 30, 2023

	26.9% (185)	28.5% (237)	44.6% (276)	100.0% (698)
Total				
	29.2% (201)	26.2% (250)	44.5% (318)	100.0% (769)
	26.9% (185)	28.2% (235)	44.6% (276)	99.7% (696)
Emerging				
	29.2% (200)	26.0% (248)	44.5% (318)	99.6% (766)
	0.0% (0)	0.3% (2)	0.0% (0)	0.3% (2)
Pacific				
	0.1% (1)	0.3% (2)	0.0% (0)	0.4% (3)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
I. America				
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid East	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Europe/	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

## **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



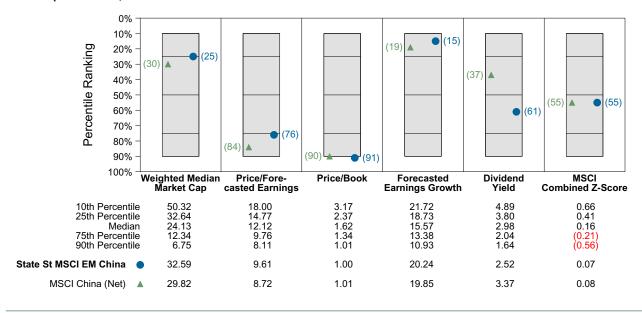


# State St MSCI EM China **Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

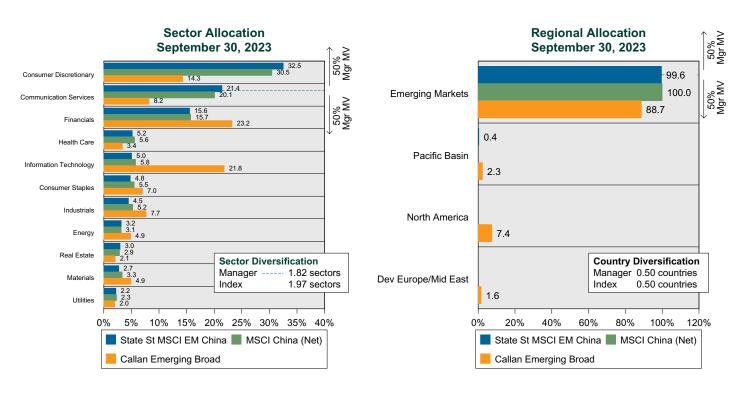
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

## **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Emerging Broad as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

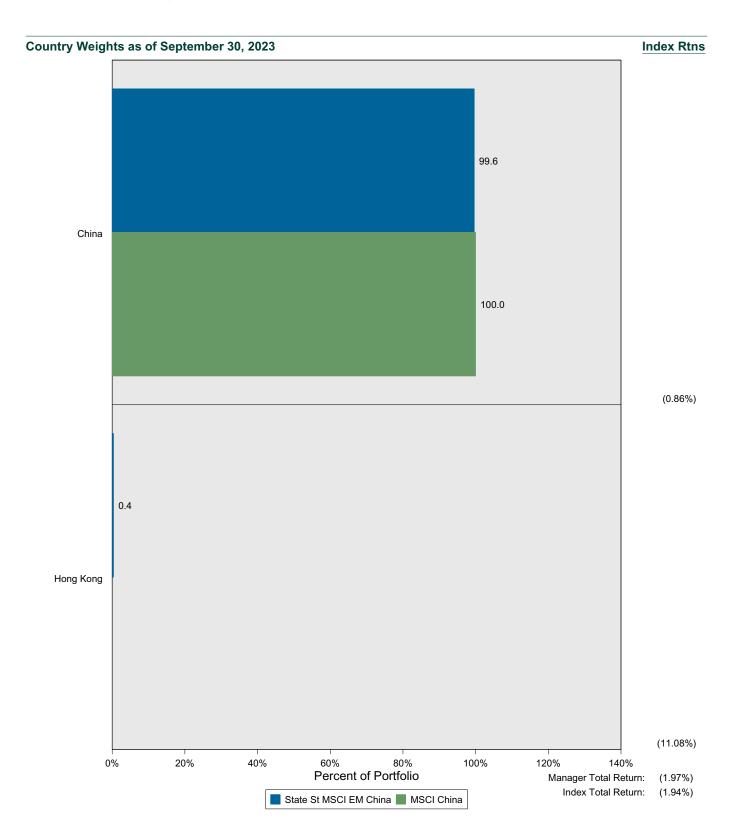




# **Country Allocation** State St MSCI EM China VS MSCI China (Net)

### **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# State St MSCI EM China Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

						Price/		
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Tencent Holdings Limited Shs Par Hkd	Communication Services	\$6,150,384	14.5%	(7.80)%	372.50	16.31	0.78%	19.31%
Alibaba Group Holding Ltd	Consumer Discretionary	\$4,212,726	9.9%	5.27%	222.68	9.33	0.00%	11.73%
Meituan Dianping Hk/03690	Consumer Discretionary	\$1,742,683	4.1%	(6.44)%	82.50	21.71	0.00%	132.50%
Pinduoduo Inc Sponsored Ads	Consumer Discretionary	\$1,376,223	3.2%	41.63%	129.41	17.21	0.00%	21.36%
China Construction Bank Shs H	Financials	\$1,273,921	3.0%	(4.70)%	135.68	3.00	8.87%	3.40%
Netease Inc Common Stock Usd.0001	Communication Services	\$924,920	2.2%	4.92%	65.67	16.96	1.67%	18.41%
Baidu Com Inc Shs A	Communication Services	\$901,721	2.1%	0.30%	48.18	12.37	0.00%	19.30%
Ping An Insurance H	Financials	\$900,975	2.1%	(8.26)%	42.65	5.23	6.46%	(6.98)%
Jd.Com Inc CI A Common Stock Usd.0	Consumer Discretionary	\$809,700	1.9%	(13.20)%	41.05	7.66	2.11%	15.35%
Byd Co Ltd Shs H	Consumer Discretionary	\$756,486	1.8%	(3.35)%	33.93	19.77	0.51%	6.66%
·				• •				

## **10 Best Performers**

					Price/			
		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
New Oriental Education & Techn Hk/09	Consumer Discretionary	\$214,934	0.5%	54.89%	10.34	25.81	0.00%	-
Miniso Group Hldg Ltd Issue_code 10	Consumer Discretionary	\$57,749	0.1%	54.51%	8.18	24.16	1.59%	48.13%
Tal Ed Group Ads Repstg Com	Consumer Discretionary	\$94,613	0.2%	52.62%	4.47	74.07	0.00%	(17.49)%
Chongqing Sokon Igp.A	Consumer Discretionary	\$8,836	0.0%	51.31%	11.50	(52.26)	0.00%	(56.36)%
Byd Electronic Intl Co Ltd Shs	Information Technology	\$84,367	0.2%	50.40%	10.27	17.40	0.50%	36.43%
Wuxi Apptec H	Health Care	\$101,881	0.2%	49.78%	4.82	22.21	1.02%	20.65%
Koolearn Technology Holding	Consumer Discretionary	\$45,059	0.1%	44.68%	4.79	28.42	0.00%	-
Pinduoduo Inc Sponsored Ads	Consumer Discretionary	\$1,376,223	3.2%	41.63%	129.41	17.21	0.00%	21.36%
Yanzhou Coal Mining Co Ltd Ord Cl H	Energy	\$101,204	0.2%	38.72%	12.73	7.08	1.42%	(17.97)%
Wuxi Apptec A	Health Care	\$23,275	0.1%	38.10%	30.28	21.81	1.04%	56.04%

# **10 Worst Performers**

					Price/					
		Ending	Percent			Forecasted		Forecasted		
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in		
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings		
China Meidong Auto Hdg.	Consumer Discretionary	\$8,602	0.0%	(52.57)%	0.74	6.60	3.16%	24.60%		
Ningbo Deye Tech A	Industrials	\$3,349	0.0%	(48.50)%	4.56	8.47	1.62%	-		
Country Garden Hldgs Co Ltd	Real Estate	\$34,067	0.1%	(42.86)%	3.25	(2.23)	0.00%	10.00%		
Qinhuangdao Tito.Hdy.'a'	Information Technology	\$8,832	0.0%	(38.75)%	11.60	7.53	0.67%	56.84%		
Ecovacs Robotics A	Consumer Discretionary	\$2,917	0.0%	(37.73)%	3.83	14.95	1.86%	62.23%		
Yunnan Chuangxin Nmt.A	Materials	\$6,360	0.0%	(37.58)%	8.02	11.48	0.34%	31.30%		
China Resources Cement Holdi Shs	Materials	\$14,666	0.0%	(36.71)%	1.79	5.71	3.89%	33.45%		
Wuhu Shunrong Auto Parts 'a'	Communication Services	\$4,858	0.0%	(36.59)%	6.59	13.14	4.16%	8.85%		
Zhejiang Cen.Huatong Autv.Part 'a'	Communication Services	\$3,618	0.0%	(36.46)%	4.93	17.37	0.00%	(24.20)%		
Ganfeng Lithium H	Materials	\$39,024	0.1%	(35.87)%	1.66	5.24	3.34%	(2.60)%		

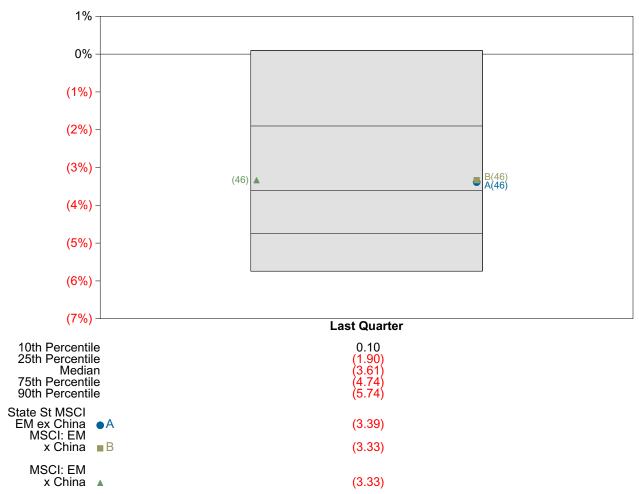


# State St MSCI EM ex China Period Ended September 30, 2023

### **Quarterly Summary and Highlights**

- State St MSCI EM ex China's portfolio posted a (3.39)% return for the quarter placing it in the 46 percentile of the Callan Emerging Broad group for the quarter.
- State St MSCI EM ex China's portfolio underperformed the MSCI: EM x China by 0.05% for the quarter.

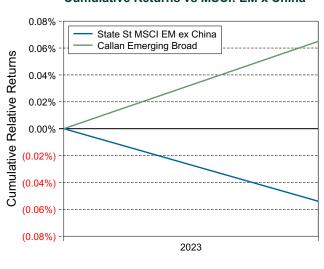
# Performance vs Callan Emerging Broad (Gross)



## Relative Return vs MSCI: EM x China

# 0.04% 0.02% Relative Returns 0.00% (0.02%)(0.04%)(0.06%)(0.08%)2023 State St MSCI EM ex China

## Cumulative Returns vs MSCI: EM x China

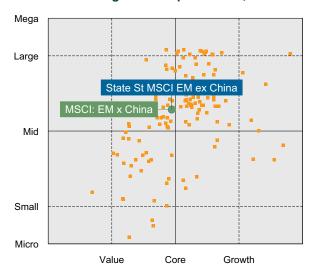




# **Current Holdings Based Style Analysis** State St MSCI EM ex China As of September 30, 2023

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

## Style Map vs Callan Emerging Broad Holdings as of September 30, 2023



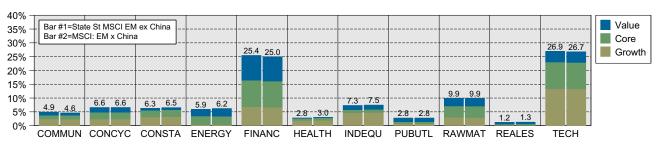
## **Style Exposure Matrix** Holdings as of September 30, 2023

	Value	Core	Growth	Total
	25.1% (219)	36.0% (215)	38.8% (229)	100.0% (663)
Total	, ,		, ,	, ,
	25.3% (210)	35.9% (209)	38.9% (224)	100.0% (643)
	25.1% (219)	36.0% (215)	38.8% (229)	100.0% (663)
Emerging				
	25.3% (210)	35.9% (209)	38.9% (224)	100.0% (643)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Pacific	(5)	(5)	(5)	(0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
N. America	(1)	(1)	(1)	(,,
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid East	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Europe/	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

## **Combined Z-Score Style Distribution** Holdings as of September 30, 2023



# **Sector Weights Distribution** Holdings as of September 30, 2023



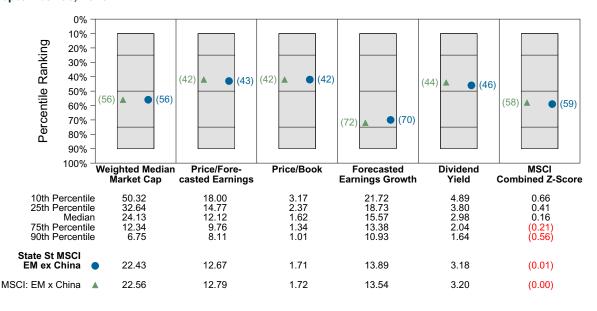


# State St MSCI EM ex China **Equity Characteristics Analysis Summary**

### **Portfolio Characteristics**

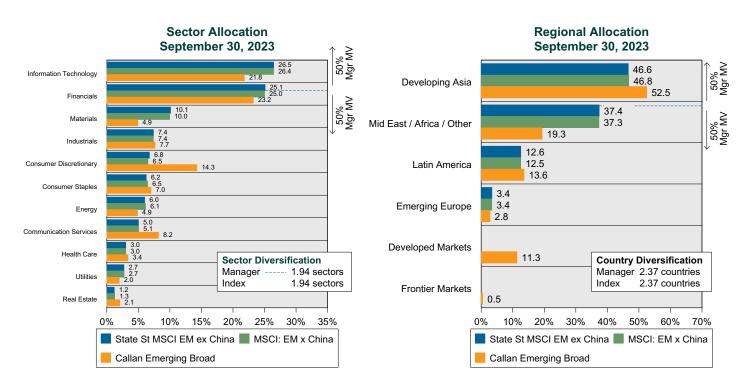
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

## **Portfolio Characteristics Percentile Rankings** Rankings Against Callan Emerging Broad as of September 30, 2023



### **Sector Weights**

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.

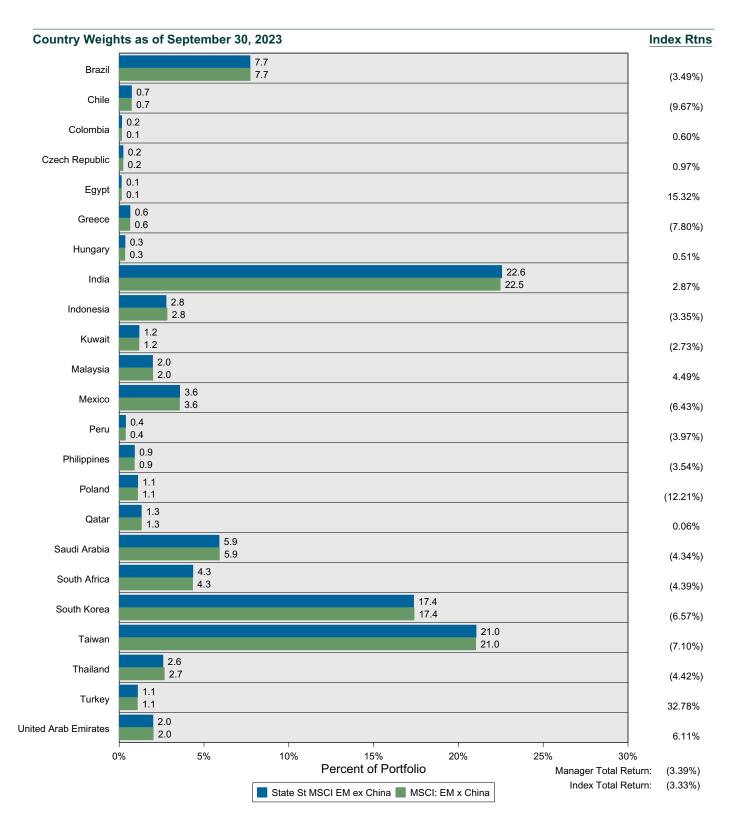




# **Country Allocation** State St MSCI EM ex China VS MSCI: EM x China

## **Country Allocation**

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent guarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.





# State St MSCI EM ex China Top 10 Portfolio Holdings Characteristics as of September 30, 2023

# 10 Largest Holdings

		Ending	Percent			Forecasted		Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Taiwan Semicond Manufac Co L Shs	Information Technology	\$8,854,073	8.7%	(11.92)%	420.14	14.96	2.20%	3.19%
Samsung Electronics Co Ltd Ord	Information Technology	\$5,359,969	5.3%	(7.03)%	302.60	20.00	2.11%	(6.60)%
Reliance Industries Ltd Shs Demateri	Energy	\$1,914,220	1.9%	0.42%	191.05	19.76	0.38%	16.10%
Icici Bank Limited Shs Dematerial	Financials	\$1,321,504	1.3%	1.45%	80.28	16.80	0.87%	126.98%
Infosys Technologies	Information Technology	\$1,277,838	1.3%	6.18%	71.54	22.08	2.37%	13.70%
H D F C Bank Ltd Shs	Financials	\$1,141,307	1.1%	(11.38)%	139.35	16.59	1.25%	15.40%
Sk Hynix Inc Shs	Information Technology	\$1,027,579	1.0%	(2.52)%	61.88	37.28	1.05%	30.70%
Vale Sa Shs	Materials	\$1,018,255	1.0%	4.57%	61.29	5.96	8.25%	(12.62)%
Hon Hai Precision Inds Ltd Ord	Information Technology	\$891,713	0.9%	(6.93)%	44.66	9.91	5.10%	20.45%
Tata Consultancy	Information Technology	\$865,447	0.9%	5.84%	155.48	26.20	1.39%	10.30%

## **10 Best Performers**

		Ending	Percent		Forecasted			Forecasted
		Market	of	Qtrly	Market	Earnings	Dividend	Growth in
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings
Tupras Turkiye Petrol	Energy	\$125,059	0.1%	99.69%	11.17	10.27	4.73%	100.60%
Rural Elecfn.Corp.	Financials	\$91,310	0.1%	79.51%	9.11	5.82	3.69%	1.93%
Daewoo Intl	Industrials	\$61,830	0.1%	74.96%	9.31	16.49	1.40%	46.90%
Hanmi Semiconductor	Information Technology	\$37,876	0.0%	70.68%	3.80	36.39	0.38%	(11.16)%
Barito Pacific Timber	Materials	\$51,577	0.1%	69.27%	7.89	80.00	-	(32.73)%
Akbank Akt	Financials	\$85,230	0.1%	57.52%	6.35	3.09	4.92%	79.10%
Bim Birlesik Magazalar As Shs	Consumer Staples	\$102,133	0.1%	53.21%	6.08	10.46	1.82%	33.10%
Quanta Computer Inc Shs	Information Technology	\$445,009	0.4%	52.02%	28.66	21.45	2.50%	22.90%
Adani Power	Utilities	\$78,066	0.1%	49.24%	17.53	14.26	0.00%	-
Power Finance Corp	Financials	\$89,155	0.1%	44.08%	10.01	6.22	5.27%	(23.28)%

# **10 Worst Performers**

		F. P.	B		Price/				
		Ending Market	Percent of	Qtrly	Market	Forecasted Earnings	Dividend	Forecasted Growth in	
Stock	Sector	Value	Portfolio	Return	Capital	Ratio	Yield	Earnings	
Pepco Group	Consumer Discretionary	\$17,815	0.0%	(48.83)%	2.67	9.28	0.00%	-	
Grupo Televisa S A Ord Part Ctf	Communication Services	\$32,233	0.0%	(40.30)%	1.76	10.97	3.28%	(14.51)%	
Magazine Luiza Sa	Consumer Discretionary	\$28,439	0.0%	(39.37)%	2.86	105.00	2.38%	(11.55)%	
Lojas Renner Sa Com Npv	Consumer Discretionary	\$57,012	0.1%	(34.53)%	2.58	9.96	5.41%	(9.25)%	
Cyfrowy Polsat S A Warszawa Shs	Communication Services	\$15,775	0.0%	(31.87)%	1.77	12.37	9.92%	20.89%	
Hanwha Chemical Corp	Materials	\$50,345	0.0%	(31.32)%	3.79	8.60	0.00%	(45.02)%	
Dino Polska Sa Common Stock Pln.1	Consumer Staples	\$88,797	0.1%	(30.41)%	7.97	19.61	0.00%	23.90%	
L&F	Information Technology	\$72,176	0.1%	(30.32)%	4.66	19.15	0.29%	(0.57)%	
Lg Chem	Materials	\$402,563	0.4%	(27.31)%	25.97	11.07	2.01%	7.00%	
Ncsoft Corp Ord	Communication Services	\$52,098	0.1%	(26.35)%	3.62	13.93	3.00%	13.90%	



# **Sixth Street TAO** Period Ended September 30, 2023

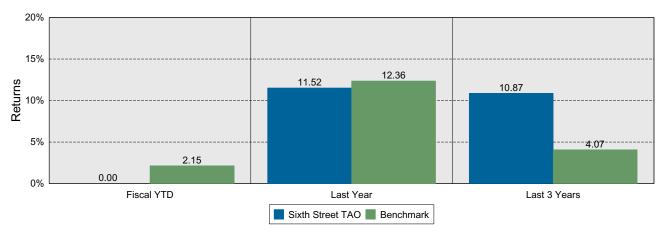
### **Investment Philosophy**

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

### **Quarterly Summary and Highlights**

• Sixth Street TAO's portfolio underperformed the Benchmark by 2.15% for the quarter and underperformed the Benchmark for the year by 0.84%.

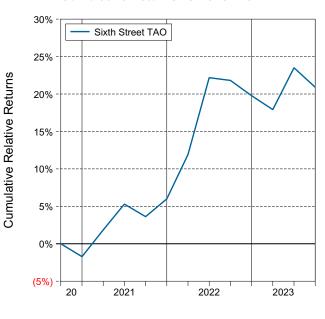
<b>Quarterly Asset Growth</b>						
Beginning Market Value	\$67,522,332					
Net New Investment	\$310,821					
Investment Gains/(Losses)	\$0					
Ending Market Value	\$67,833,153					



### **Relative Return vs Benchmark**

# 12% 10% 8% Relative Returns 6% 4% 2% 0% (2%) 2021 2020 2022 2023 Sixth Street TAO

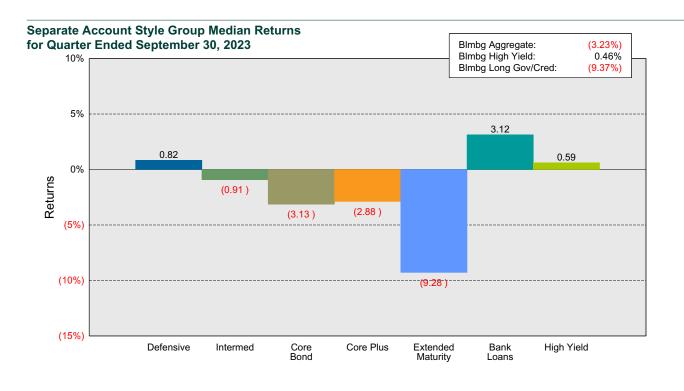
### **Cumulative Returns vs Benchmark**

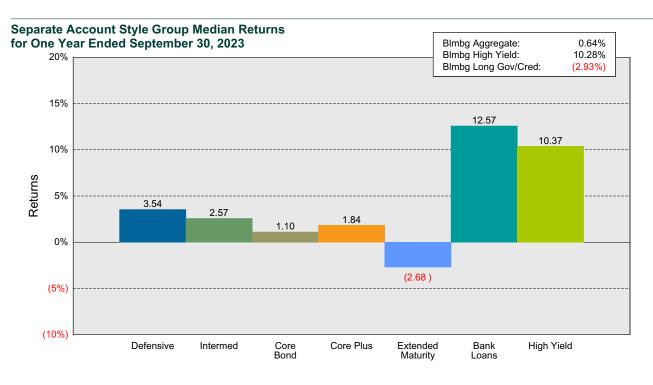




# **Domestic Fixed Income Active Management Overview**

U.S. bond returns are on the path for a third consecutive year of negative returns. The Bloomberg US Aggregate Bond Index sank 3.2% in 3Q and is down 1.2% year-to-date. The U.S. Treasury 10-year yield soared nearly 80 bps during the quarter, closing at 4.59%, its highest since 2007. The yield curve bear-steepened with long-term rates rising more than short-term rates. As a result, the inversion between the 2-year and 10-year U.S. Treasury yields shrank from 106 bps to 44 bps. Corporates outperformed U.S. Treasuries with excess returns of 84 bps while agency-backed mortgages underperformed (-85 bps of excess return). High yield corporates continued to post strong relative returns (Bloomberg Corporate High Yield Index: +0.5%) and are up 5.9% year-to-date.





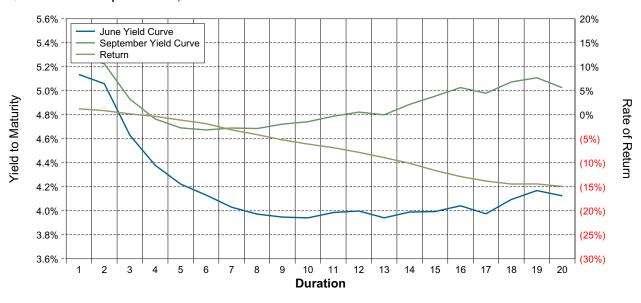


## **Bond Market Environment**

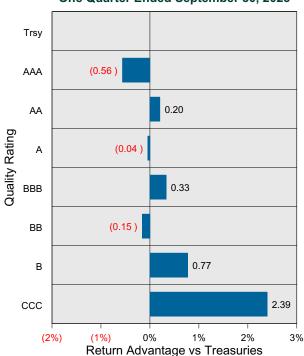
### **Factors Influencing Bond Returns**

The charts below are designed to give you an overview of the factors that influenced bond market returns for the quarter. The first chart shows the shift in the Treasury yield curve and the resulting returns by duration. The second chart shows the average return premium (relative to Treasuries) for bonds with different quality ratings. The final chart shows the average return premium of the different sectors relative to Treasuries. These sector premiums are calculated after differences in quality and term structure have been accounted for across the sectors. They are typically explained by differences in convexity, sector specific supply and demand considerations, or other factors that influence the perceived risk of the sector.

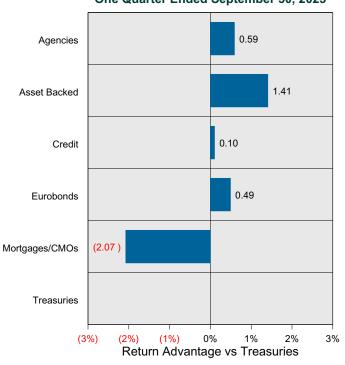
## Yield Curve Change and Rate of Return One Quarter Ended September 30, 2023



**Duration Adjusted Return Premium to Quality** One Quarter Ended September 30, 2023



**Quality and Duration Adjusted Return Premium by Sector** One Quarter Ended September 30, 2023



# **Domestic Fixed Income** Period Ended September 30, 2023

### **Quarterly Summary and Highlights**

- Domestic Fixed Income's portfolio posted a (2.34)% return for the quarter placing it in the 57 percentile of the Total Domestic Fixed-Inc Database group for the guarter and in the 50 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Blmbg:Aggregate by 0.89% for the quarter outperformed the Blmbg:Aggregate for the year by 2.17%.

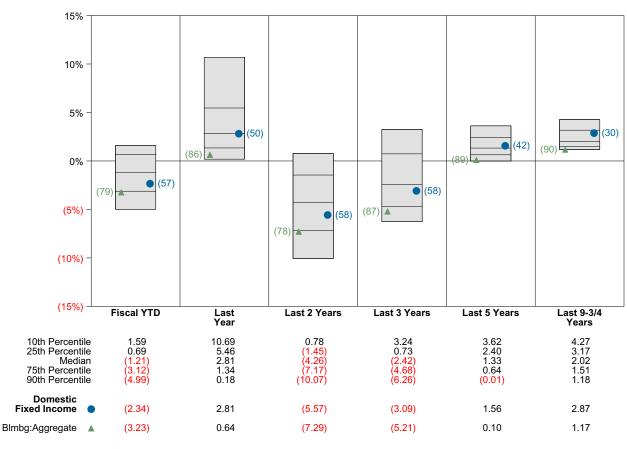
### **Quarterly Asset Growth**

Beginning Market Value Net New Investment Investment Gains/(Losses) \$3,008,785,248 \$141,036,965 \$-72,926,905

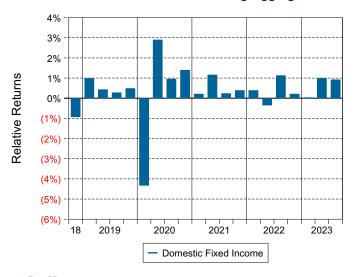
**Ending Market Value** 

\$3,076,895,308

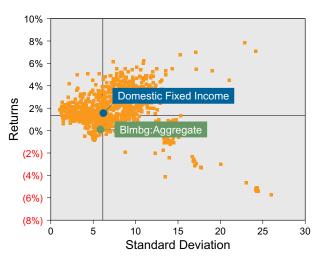
### Performance vs Total Domestic Fixed-Inc Database (Gross)



### Relative Return vs Blmbg:Aggregate



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



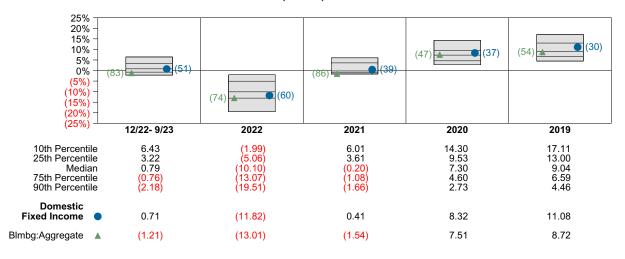


# **Domestic Fixed Income Return Analysis Summary**

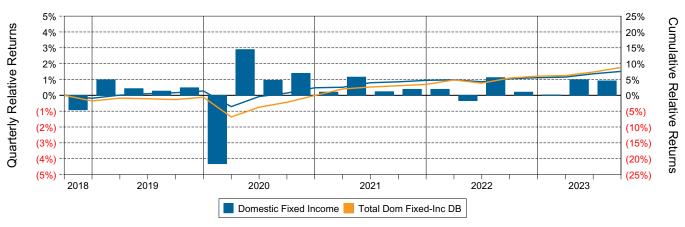
### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

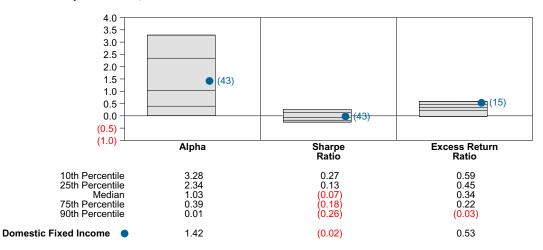
### Performance vs Total Domestic Fixed-Inc Database (Gross)



# **Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate**



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Total Domestic Fixed-Inc Database (Gross) Five Years Ended September 30, 2023



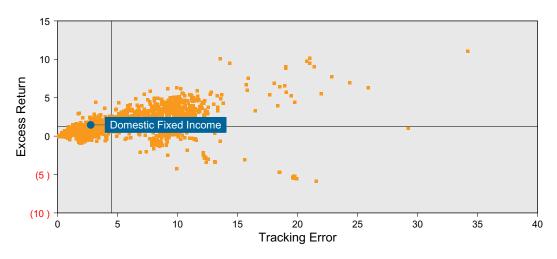


# **Domestic Fixed Income Risk Analysis Summary**

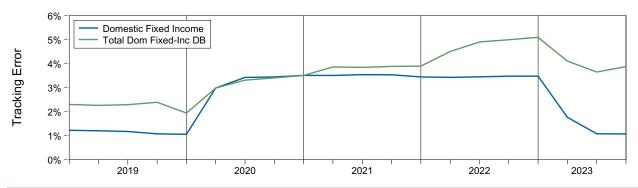
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

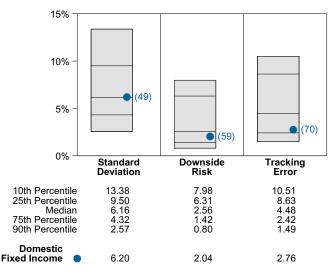
## Risk Analysis vs Total Domestic Fixed-Inc Database (Gross) Five Years Ended September 30, 2023

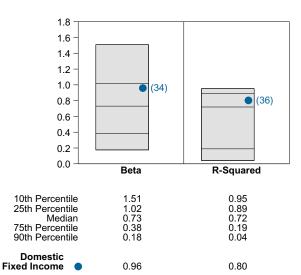


Rolling 12 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Total Domestic Fixed-Inc Database (Gross) Five Years Ended September 30, 2023





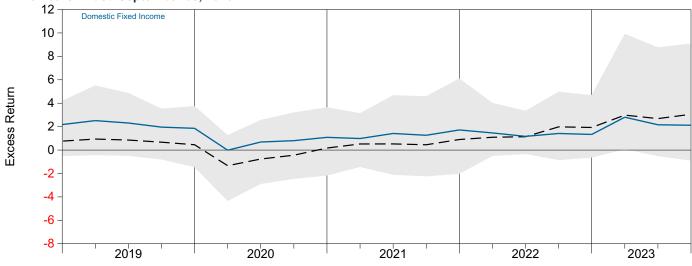


# **Domestic Fixed Income Historical Consistency Analysis**

### Consistency of Excess Return and Relative Std. Dev.

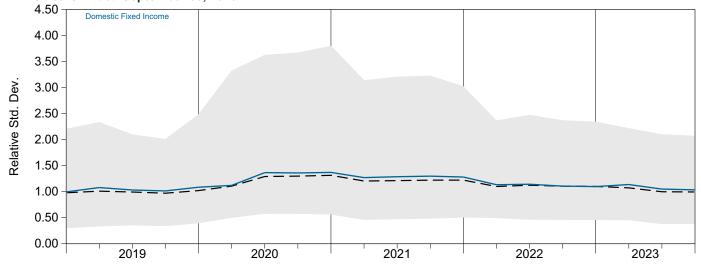
The first chart below illustrates the consistency of excess return over rolling three year periods versus the Blmbg:Aggregate. The gray area represents the range of excess return for the 10th through 90th percentile for the Total Dom Fixed-Inc DB. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

## Rolling Three Year Excess Return Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.93%	1.56%
% Positive Periods	85%	95%
Average Ranking	50	38

## Rolling Three Year Relative Std. Dev. Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	1.12%	1.16%
% Positive Periods	100%	100%
Average Ranking	50	46

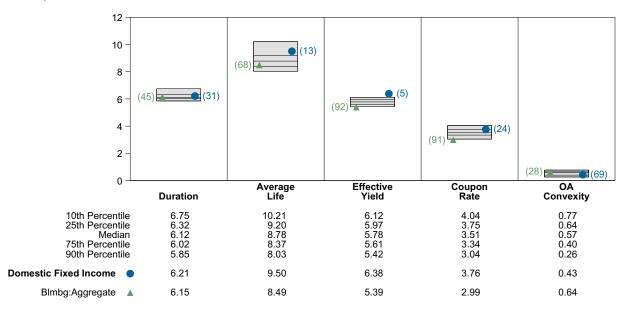


# **Domestic Fixed Income Bond Characteristics Analysis Summary**

### **Portfolio Characteristics**

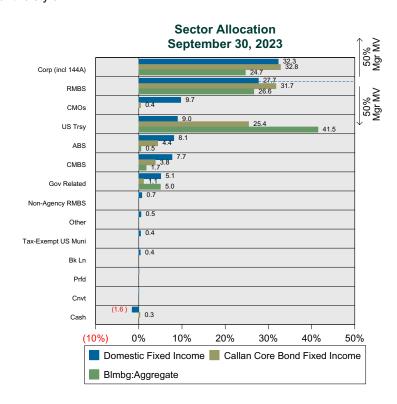
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

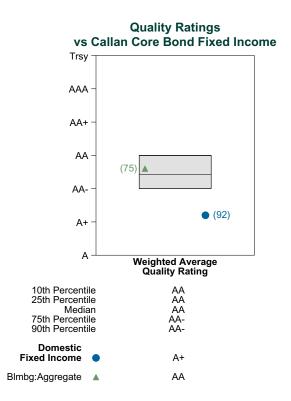
## **Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income** as of September 30, 2023



### **Sector Allocation and Quality Ratings**

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



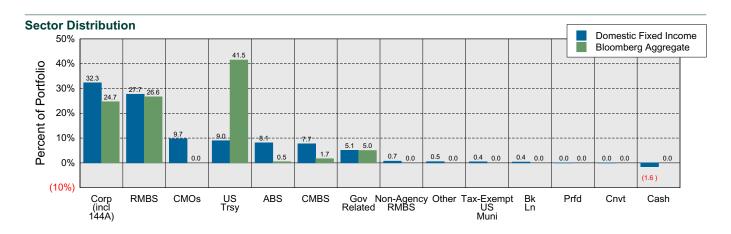


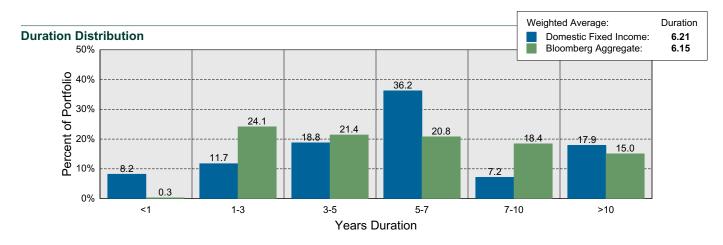


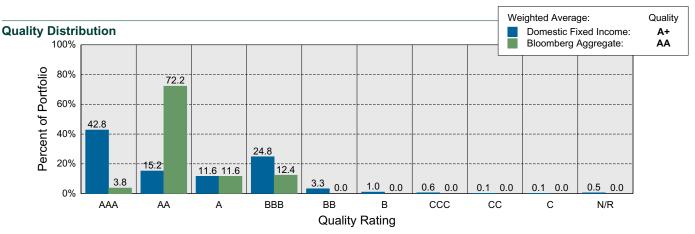
# **Domestic Fixed Income Portfolio Characteristics Summary** As of September 30, 2023

# **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

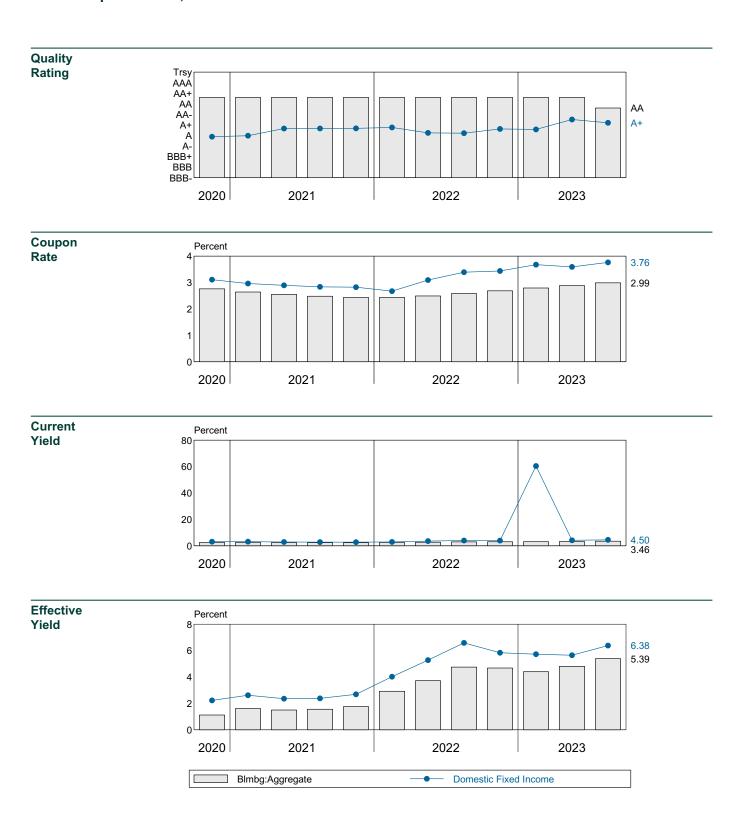






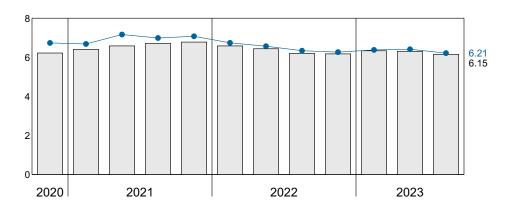


# North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

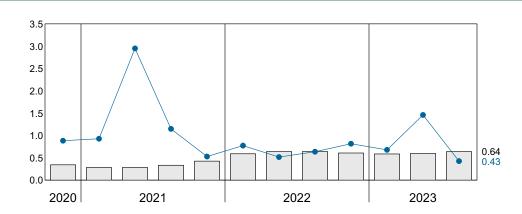


# North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

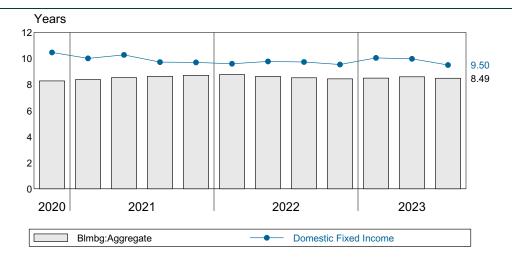
## **Duration**



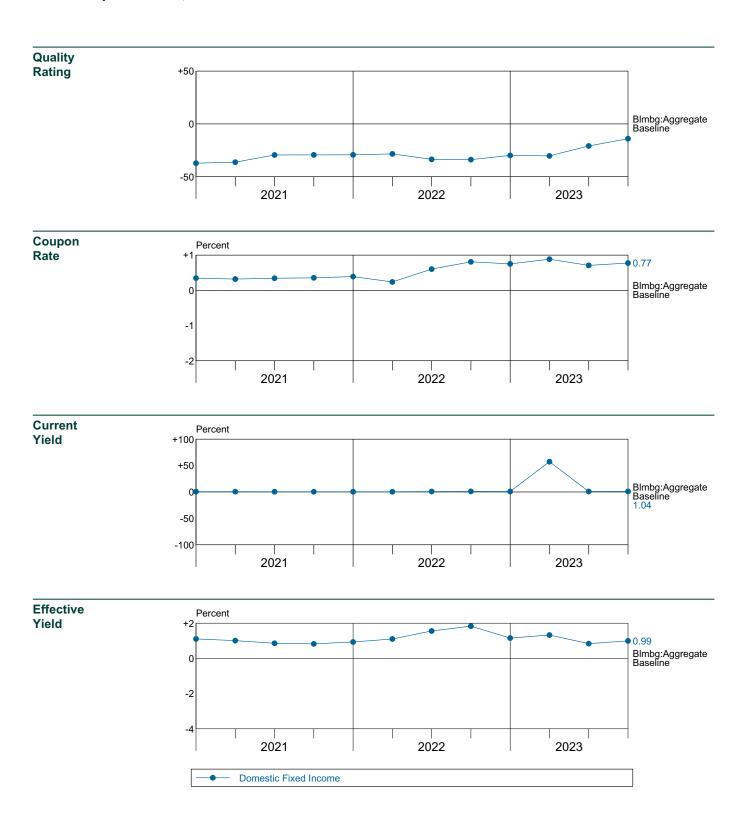
# OA Convexity



# **Average** Life

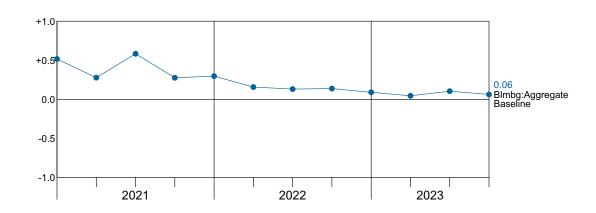


# North Dakota State Investment Board Legacy Fund **Consistency of Fixed Income Characteristics** Period September 30, 2023

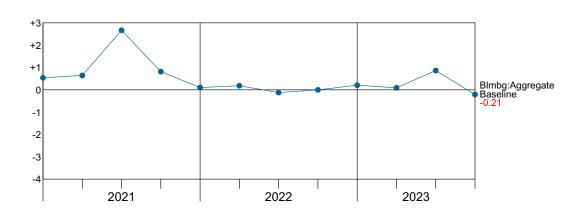


# North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023

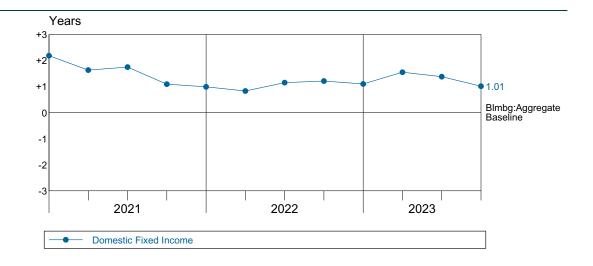




# OA Convexity





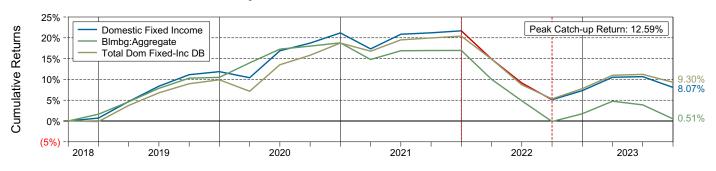




# **Domestic Fixed Income** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

### **Absolute Cumulative Drawdown Analysis**

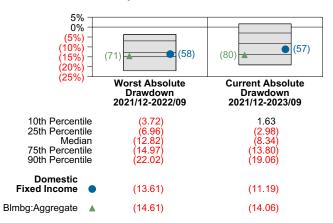


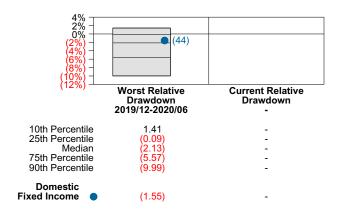
	Worst Absolute Drawdown				Current Absolute Drawdown					
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Domestic Fixed Income	(13.61)%	0.75	2021/12-2022/09	(14.61)%	(12.52)%	(11.19)%	1.75	2021/12-2023/09	(14.06)%	(9.21)%
Recovery from Trough	2.81%	1.00+	2022/09-2023/09	0.64%	3.79%	2.81%	1.00+	2022/09-2023/09	0.64%	3.79%
Blmbg:Aggregate	(15.93)%	1.75	2020/12-2022/09			(15.38)%	2.75	2020/12-2023/09		
Total Dom Fixed-Inc DB	(12.52)%	0.75	2021/12-2022/09			(9.21)%	1.75	2021/12-2023/09		

#### Relative Cumulative Drawdown Analysis vs. Blmbg:Aggregate Cumulative Relative Returns Domestic Fixed Income 10% 8% Total Dom Fixed-Inc DB 7.51% 6% 4% 2% 0% (2%)(4%)(6%) (8%)2018 2019 2021 2023 2020 2022

	Worst Relative Drawdown			Current Relative Drawdown				
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Domestic Fixed Income	(1.55)%	0.50	2019/12-2020/06	(2.68)%	-	-	-	-
Recovery from Trough	2.35%	0.50	2020/06-2020/12	3.26%	-	-	-	-
Total Dom Fixed-Inc DB	(5.99)%	1.50	2018/09-2020/03		-	-	-	

Drawdown Rankings vs. Blmbg:Aggregate Rankings against Total Domestic Fixed-Inc Database Five Years Ended September 30, 2023







# **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

# Average Bond Characteristics for 3 Years Ended September 30, 2023 VS THE Total Dom Fixed-Inc DB Peer Group

(12)	Domestic Fixed	A+	3.19%	8.16%	4.31%	6.63	0.98	9.87
	Income	(52)	(54)	(49)	(35)	(22)	(25)	(21)
		Quality Rating	Coupon Rate	Current Yield	Effective Yield	Duration	OA Convexity	Average Life



# **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

		Return Correlations for 3 Years Ended September 30, 2023 Ilmbg:Aggregate
	Domestic	
(12)	Fixed	1.00
	Income	
		Domestic
		Fixed
		Income



# Ares ND Credit Strategies Fd Period Ended September 30, 2023

### **Quarterly Summary and Highlights**

- Ares ND Credit Strategies Fd's portfolio posted a 0.00% return for the guarter placing it in the 79 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 85 percentile for the last year.
- Ares ND Credit Strategies Fd's portfolio underperformed the Mstar LSTA Lev Loan B by 3.85% for the quarter and underperformed the Mstar LSTA Lev Loan B for the year by 6.68%.

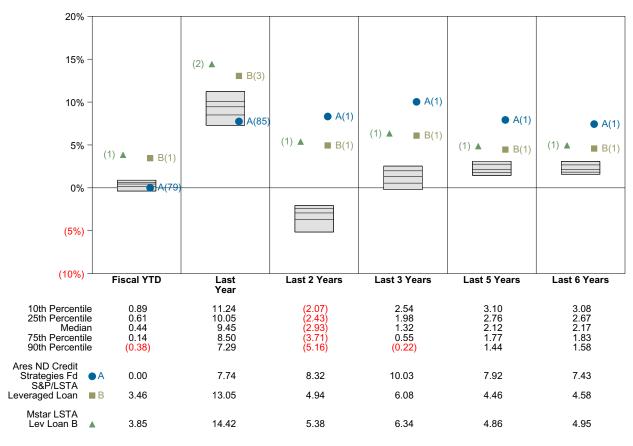
### **Quarterly Asset Growth**

Beginning Market Value \$118,050,022 Net New Investment Investment Gains/(Losses) \$0

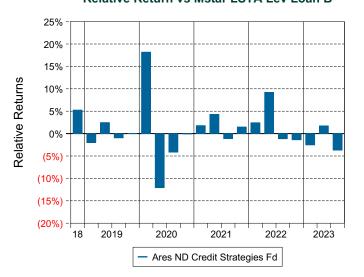
\$118,050,022

**Ending Market Value** 

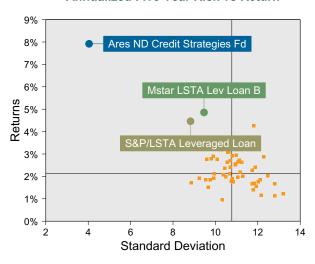
# Performance vs Callan High Yield Mutual Funds (Net)



# Relative Return vs Mstar LSTA Lev Loan B



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



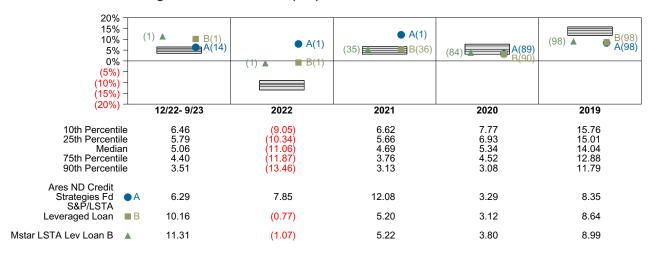


# Ares ND Credit Strategies Fd **Return Analysis Summary**

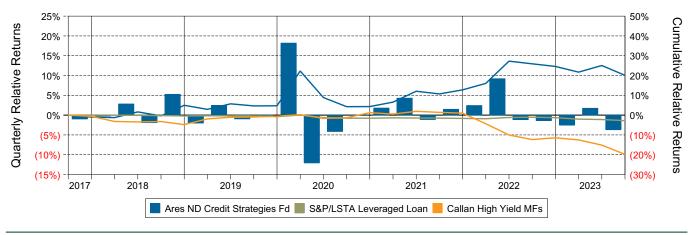
### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

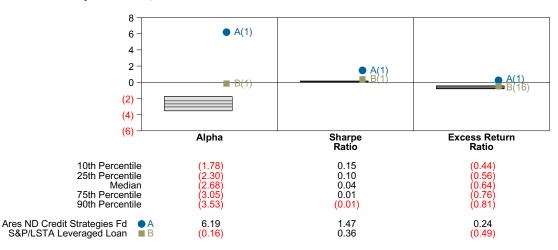
### Performance vs Callan High Yield Mutual Funds (Net)



## Cumulative and Quarterly Relative Returns vs Mstar LSTA Lev Loan B



Risk Adjusted Return Measures vs Mstar LSTA Lev Loan B Rankings Against Callan High Yield Mutual Funds (Net) Six Years Ended September 30, 2023





# **Cerberus ND Private Credit Fd** Period Ended September 30, 2023

### **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.

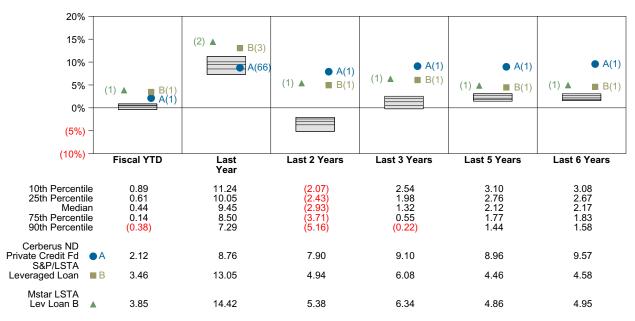
## **Quarterly Summary and Highlights**

- Cerberus ND Private Credit Fd's portfolio posted a 2.12% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 66 percentile for the last year.
- Cerberus ND Private Credit Fd's portfolio underperformed the Mstar LSTA Lev Loan B by 1.72% for the guarter and underperformed the Mstar LSTA Lev Loan B for the year by 5.66%.

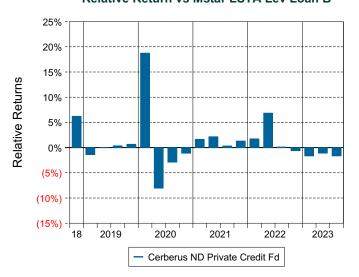
### **Quarterly Asset Growth**

Beginning Market Value	\$150,461,213
Net New Investment	\$0
Investment Gains/(Losses)	\$3,192,675
Ending Market Value	\$153.653.888

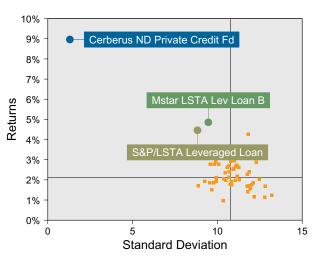
## Performance vs Callan High Yield Mutual Funds (Net)



# Relative Return vs Mstar LSTA Lev Loan B



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



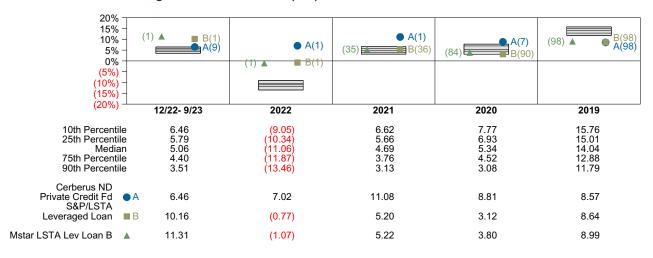


# **Cerberus ND Private Credit Fd Return Analysis Summary**

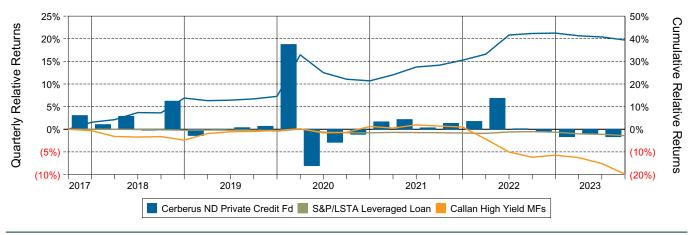
### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

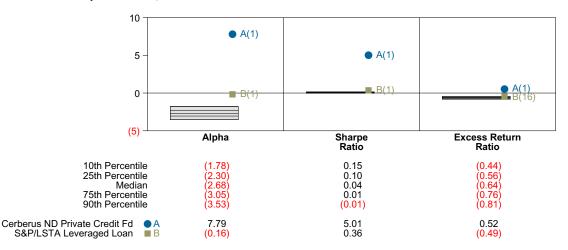
## Performance vs Callan High Yield Mutual Funds (Net)



# Cumulative and Quarterly Relative Returns vs Mstar LSTA Lev Loan B



Risk Adjusted Return Measures vs Mstar LSTA Lev Loan B Rankings Against Callan High Yield Mutual Funds (Net) Six Years Ended September 30, 2023





# Allspring Med Quality Credit Period Ended September 30, 2023

#### **Investment Philosophy**

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

### **Quarterly Summary and Highlights**

- Allspring Med Quality Credit's portfolio posted a (2.57)% return for the quarter placing it in the 10 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 2 percentile for the last year.
- Allspring Med Quality Credit's portfolio outperformed the Blmbg Credit Baa by 0.31% for the quarter and outperformed the Blmbg Credit Baa for the year by 0.68%.

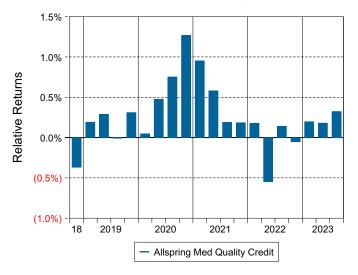
### **Quarterly Asset Growth**

Beginning Market Value	\$209,142,080
Net New Investment	\$-114,259
Investment Gains/(Losses)	\$-5,378,934
Ending Market Value	\$203 648 887

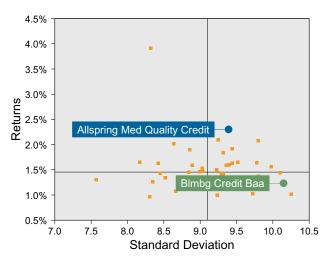
### Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



### Relative Return vs Blmbg Credit Baa



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



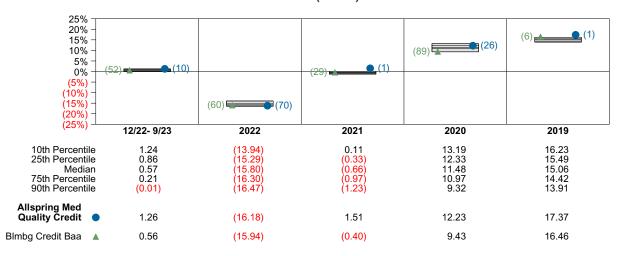


# **Allspring Med Quality Credit Return Analysis Summary**

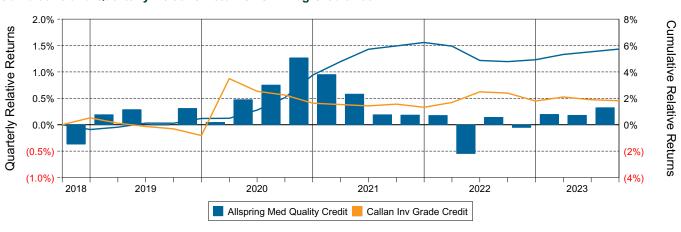
### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

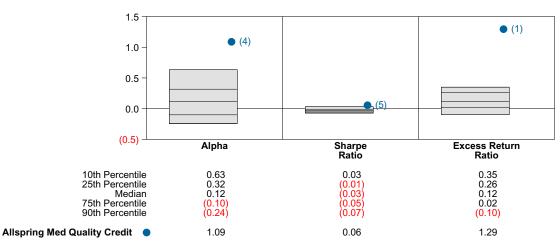
### Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



### Cumulative and Quarterly Relative Returns vs Blmbg Credit Baa



Risk Adjusted Return Measures vs Blmbg Credit Baa Rankings Against Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended September 30, 2023



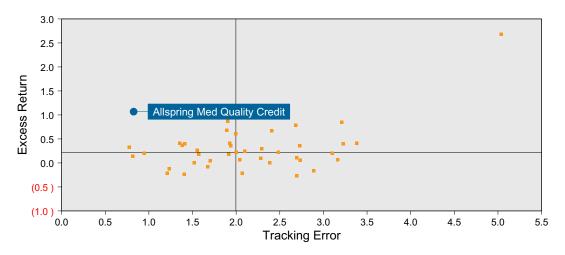


# **Allspring Med Quality Credit Risk Analysis Summary**

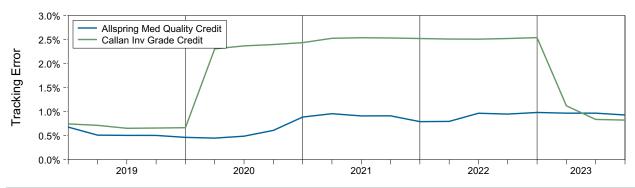
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

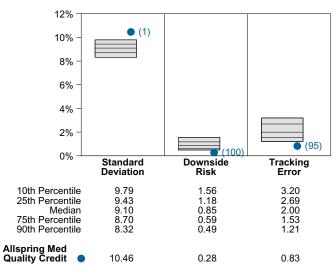
## Risk Analysis vs Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended September 30, 2023

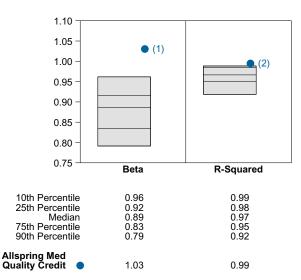


# Rolling 12 Quarter Tracking Error vs Bloomberg Credit Baa



Risk Statistics Rankings vs Bloomberg Credit Baa Rankings Against Callan Investment Grade Credit Fixed Inc (Gross) Five Years Ended September 30, 2023





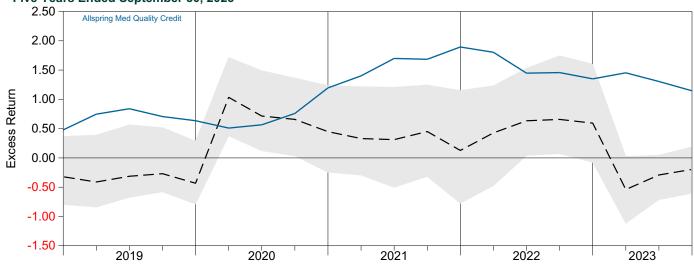


# **Allspring Med Quality Credit Historical Consistency Analysis**

### Consistency of Excess Return and Relative Std. Dev.

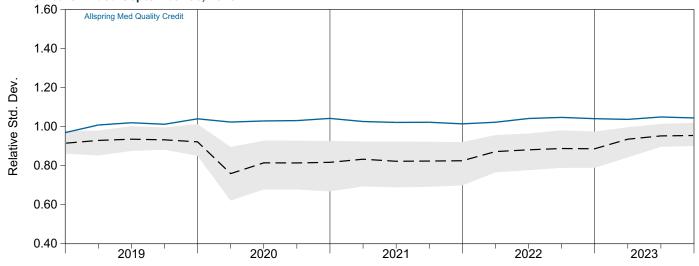
The first chart below illustrates the consistency of excess return over rolling three year periods versus the Blmbg Credit Baa. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan Inv Grade Credit. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

## Rolling Three Year Excess Return Relative to Blmbg Credit Baa Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.18%	1.15%
% Positive Periods	60%	100%
Average Ranking	50	14

## Rolling Three Year Relative Std. Dev. Relative to Blmbg Credit Baa Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	0.88%	1.03%
% Positive Periods	100%	100%
Average Ranking	50	4

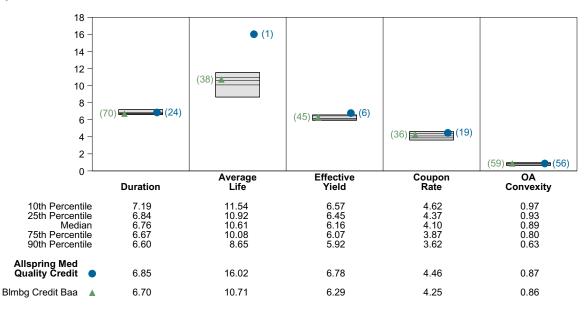


# **Allspring Med Quality Credit Bond Characteristics Analysis Summary**

### **Portfolio Characteristics**

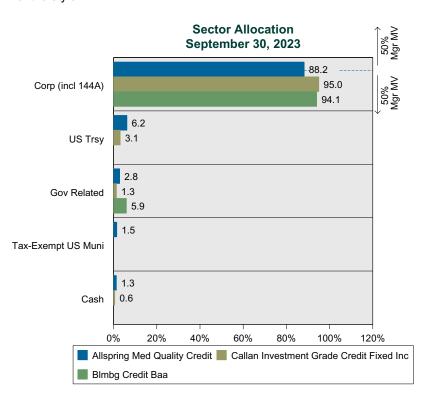
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

## **Fixed Income Portfolio Characteristics** Rankings Against Callan Investment Grade Credit Fixed Inc as of September 30, 2023



### **Sector Allocation and Quality Ratings**

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



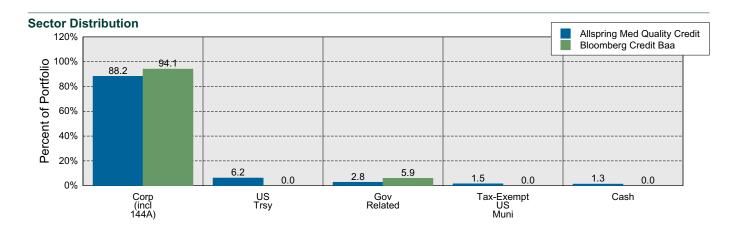
# **Quality Ratings** vs Callan Investment Grade Credit Fixed Inc Trsy AAA AA+ AA AA-Α+ Α A-BBB+ (100)BBB BBB-Weighted Average Quality Rating 10th Percentile 25th Percentile Median BBB 75th Percentile 90th Percentile Allspring Med Quality Credit BBB Blmbg Credit Baa BBB+

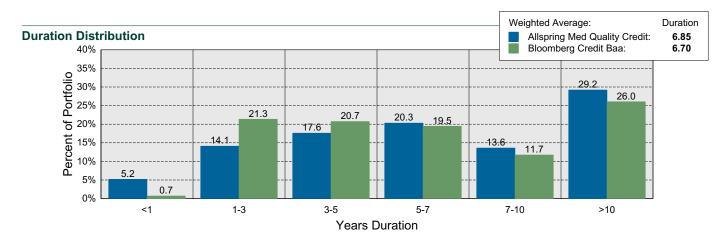


## **Allspring Med Quality Credit Portfolio Characteristics Summary** As of September 30, 2023

#### **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.



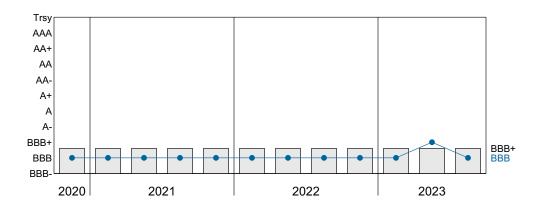




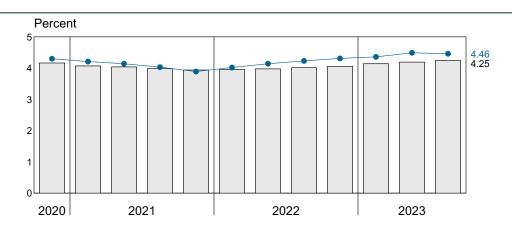


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

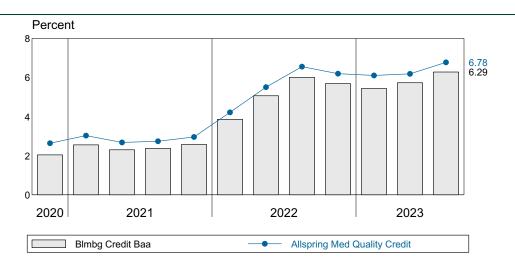




#### Coupon Rate



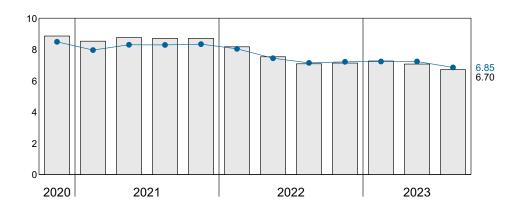
## Effective Yield



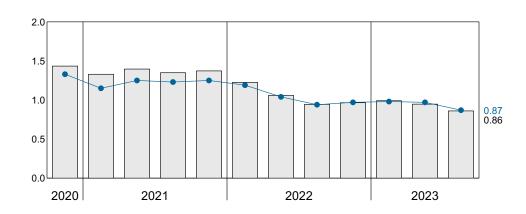


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

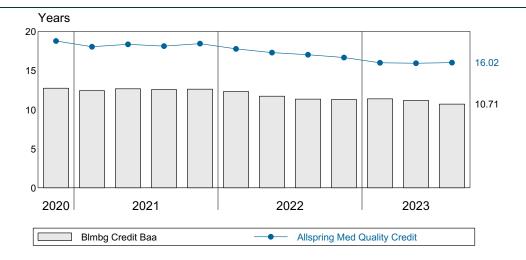
#### **Duration**



## OA Convexity

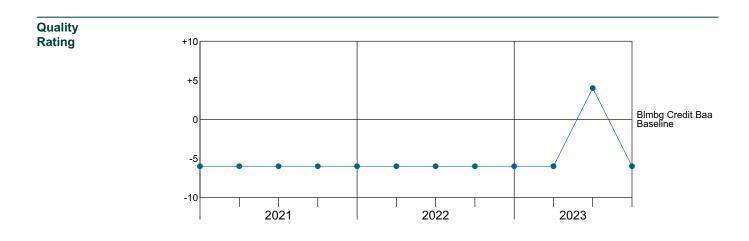


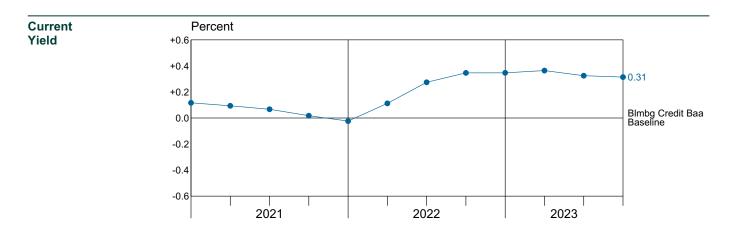
#### **Average** Life

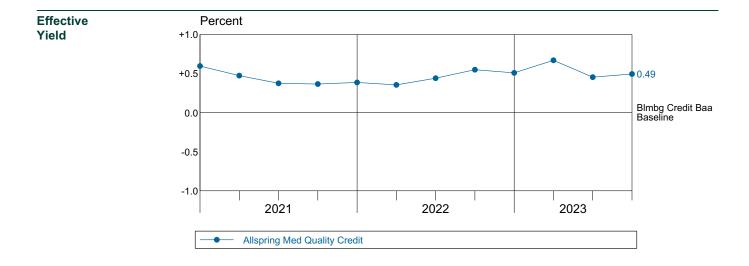




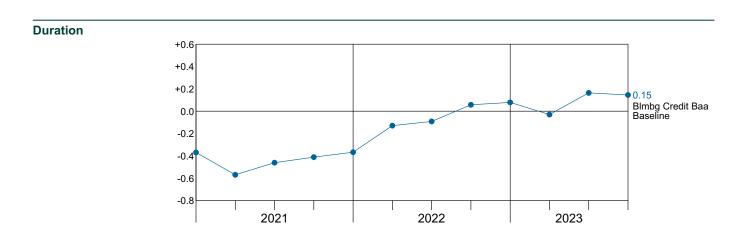
## North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023

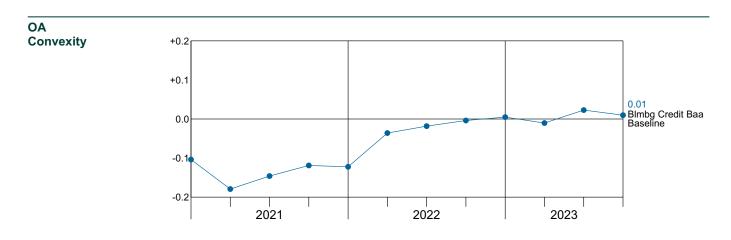


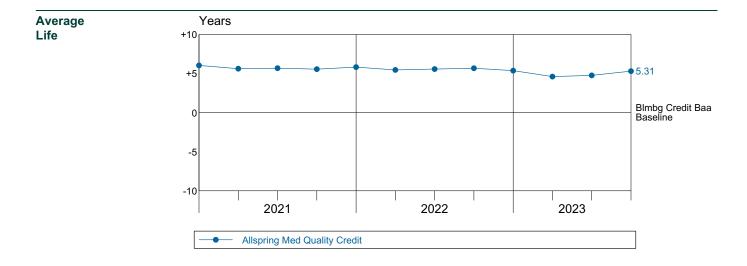




## North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023



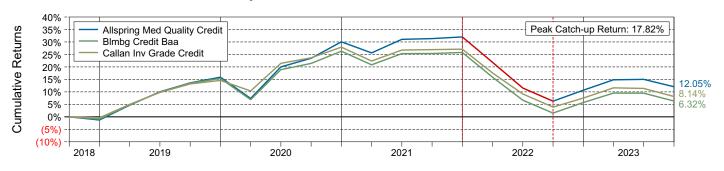




## **Allspring Med Quality Credit** Drawdown Analysis for Five Years Ended September 30, 2023

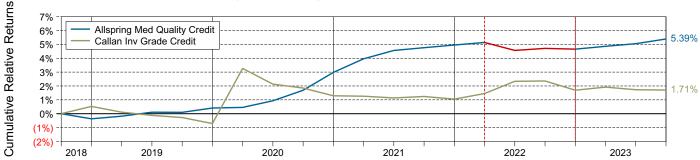
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



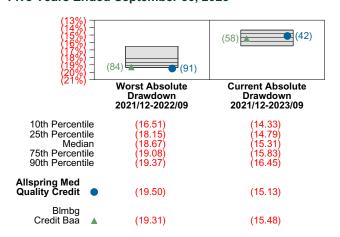
	Worst Absolute Drawdown						Curre	ent Absolute Draw	down	
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Allspring Med Quality Credit	(19.50)%	0.75	2021/12-2022/09	(19.31)%	(18.27)%	(15.13)%	1.75	2021/12-2023/09	(15.48)%	(14.93)%
Recovery from Trough	5.43%	1.00+	2022/09-2023/09	4.76%	4.09%	5.43%	1.00+	2022/09-2023/09	4.76%	4.09%
Blmbg Credit Baa	(19.64)%	1.75	2020/12-2022/09			(15.81)%	2.75	2020/12-2023/09		
Callan Inv Grade Credit	(18.79)%	1.75	2020/12-2022/09			(15.47)%	2.75	2020/12-2023/09		

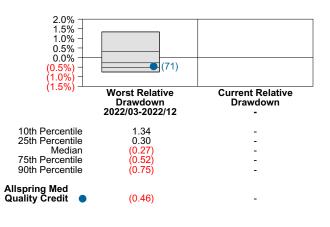
# Relative Cumulative Drawdown Analysis vs. Blmbg Credit Baa



	Worst Relative Drawdown				Cı	ırrent Rel	lative Drawdown	
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Allspring Med Quality Credit	(0.46)%	0.75	2022/03-2022/12	0.24%	-	-	-	-
Recovery from Trough	0.70%	0.75+	2022/12-2023/09	0.01%	-	-	-	-
Callan Inv Grade Credit	(2.15)%	1.75	2020/03-2021/12		(1.51)%	3.50	2020/03-2023/09	

Drawdown Rankings vs. Blmbg Credit Baa Rankings against Callan Investment Grade Credit Fixed Inc Five Years Ended September 30, 2023







## **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

## Average Bond Characteristics for 3 Years Ended September 30, 2023 VS THE Callan Inv Grade Credit Peer Group

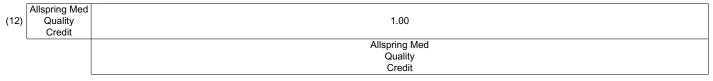
(12)	Allspring Med Quality Credit	BBB <b>(97)</b>	4.22% (10)	4.64%	7.71 <b>(40)</b>	1.10 ( <b>63</b> )	17.38	
		Quality Rating	Coupon Rate	Effective Yield	Duration	OA Convexity	Average Life	



## **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

### Excess Return Correlations for 3 Years Ended September 30, 2023 vs the Blmbg Credit Baa





## **Manulife-Declaration TRBF** Period Ended September 30, 2023

#### **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 (1.67)% return for the quarter placing it in the 62 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 57 percentile for the last year.
- Manulife-Declaration TRBF's portfolio underperformed the LIBOR - 3 Month by 3.12% for the quarter and underperformed the LIBOR - 3 Month for the year by 4.21%.

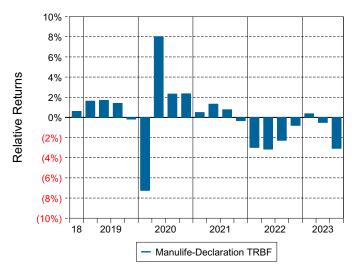
#### **Quarterly Asset Growth**

Beginning Market Value	\$161,901,412
Net New Investment	\$-215,269
Investment Gains/(Losses)	\$-2,699,057
Ending Market Value	\$158.987.086

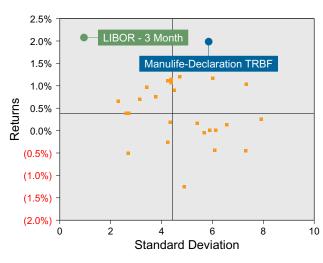
#### Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



## Relative Return vs LIBOR - 3 Month



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



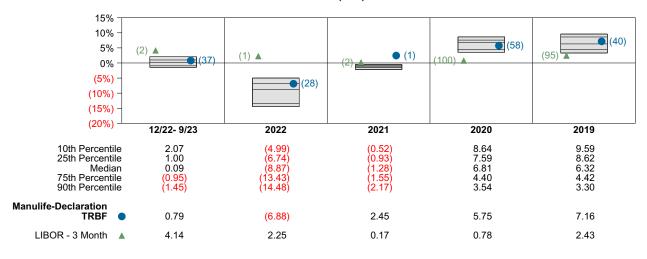


## **Manulife-Declaration TRBF Return Analysis Summary**

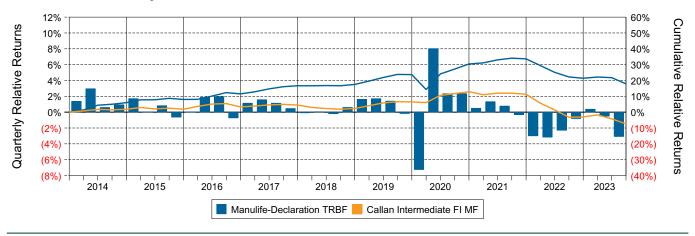
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

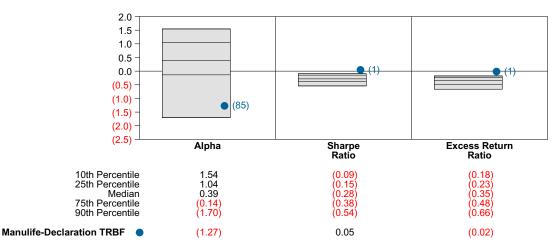
#### Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



#### Cumulative and Quarterly Relative Returns vs LIBOR - 3 Month



Risk Adjusted Return Measures vs LIBOR - 3 Month Rankings Against Callan Intermediate Fixed Inc Mut Funds (Net) Five Years Ended September 30, 2023





## **Manulife-Declaration TRBF Risk Analysis Summary**

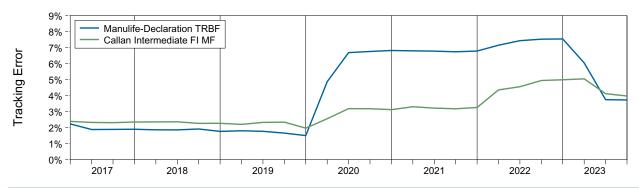
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

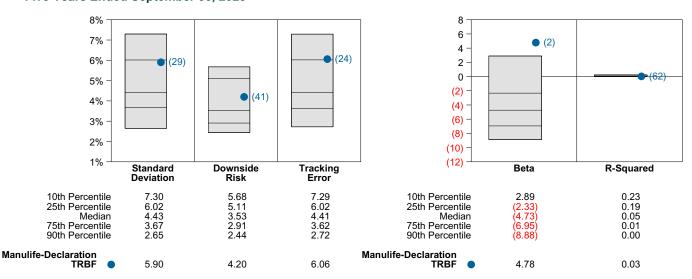
#### Risk Analysis vs Callan Intermediate Fixed Inc Mut Funds (Net) Five Years Ended September 30, 2023



#### Rolling 12 Quarter Tracking Error vs LIBOR - 3 Month (USD)



Risk Statistics Rankings vs LIBOR - 3 Month (USD) Rankings Against Callan Intermediate Fixed Inc Mut Funds (Net) Five Years Ended September 30, 2023



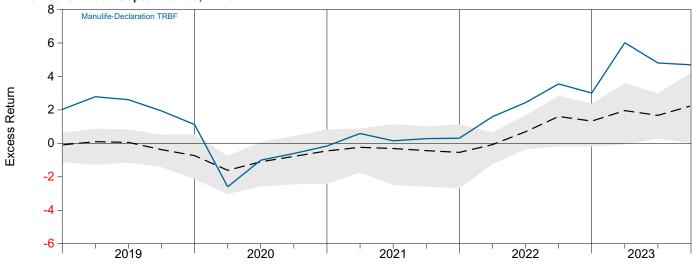


## **Manulife-Declaration TRBF Historical Consistency Analysis**

#### Consistency of Excess Return and Relative Std. Dev.

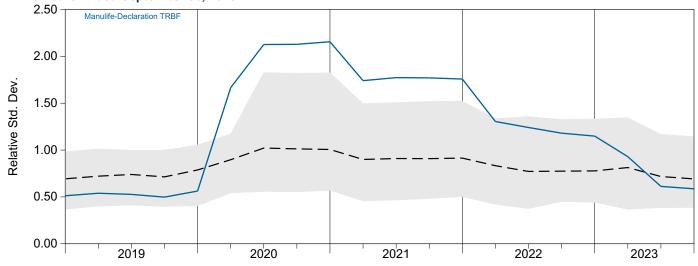
The first chart below illustrates the consistency of excess return over rolling three year periods versus the Blmbg:Aggregate. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan Intermediate FI MF. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

#### Rolling Three Year Excess Return Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.15%	1.68%
% Positive Periods	40%	80%
Average Ranking	50	15

#### Rolling Three Year Relative Std. Dev. Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	0.83%	1.24%
% Positive Periods	100%	100%
Average Ranking	50	32

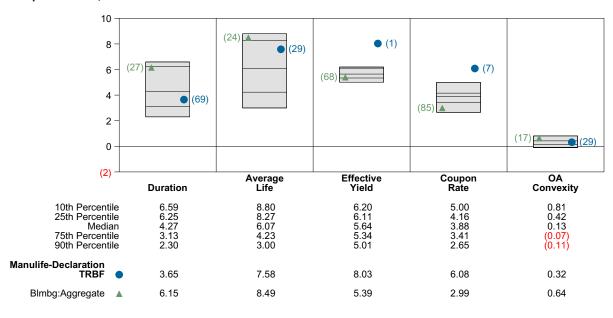


## **Manulife-Declaration TRBF Bond Characteristics Analysis Summary**

#### **Portfolio Characteristics**

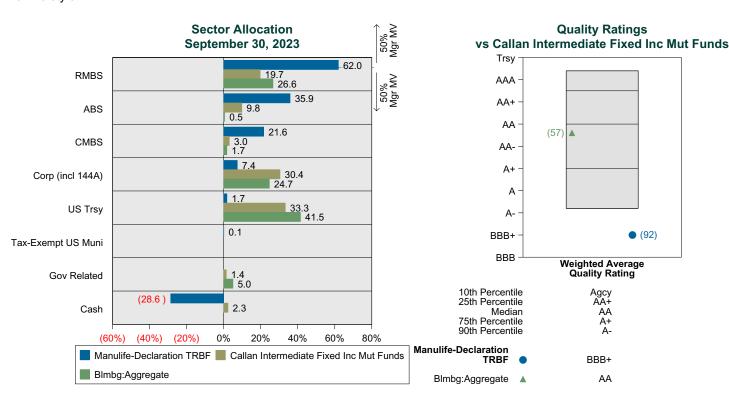
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

#### **Fixed Income Portfolio Characteristics** Rankings Against Callan Intermediate Fixed Inc Mut Funds as of September 30, 2023



#### **Sector Allocation and Quality Ratings**

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

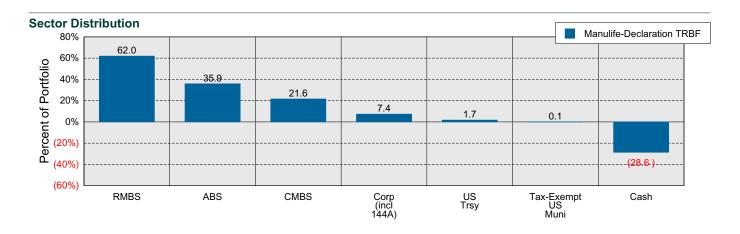


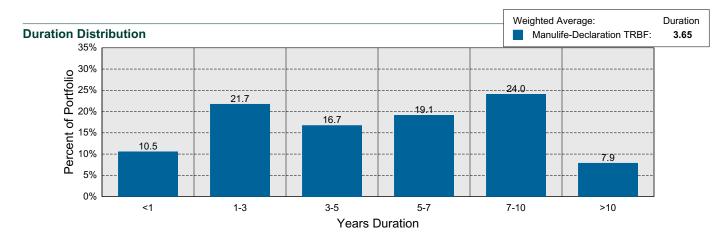


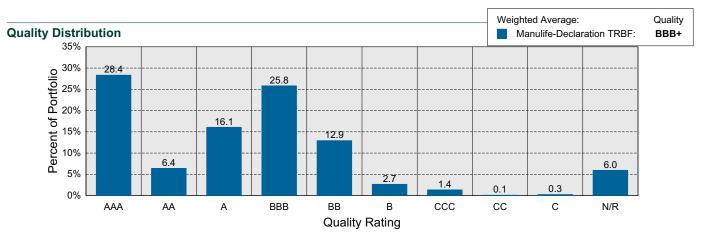
## **Manulife-Declaration TRBF Portfolio Characteristics Summary** As of September 30, 2023

#### **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.



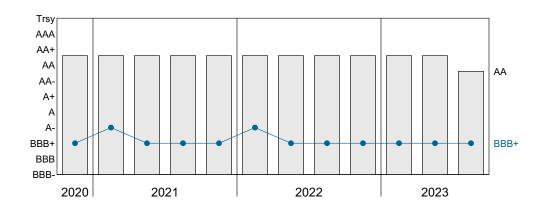




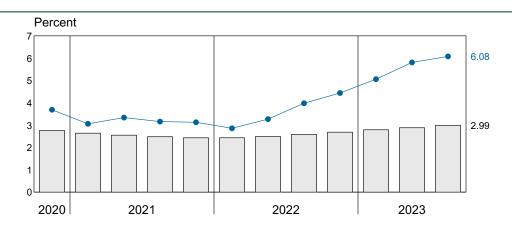


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

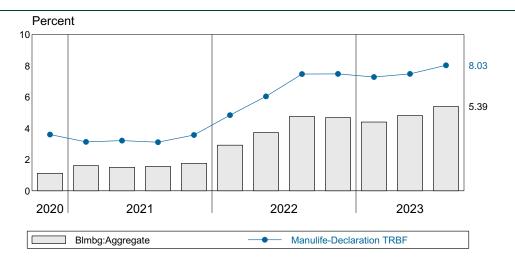




### Coupon Rate



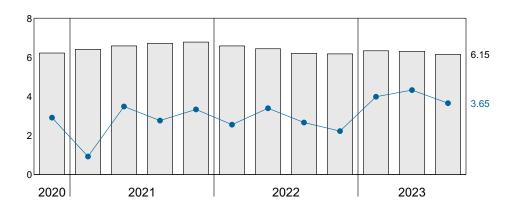




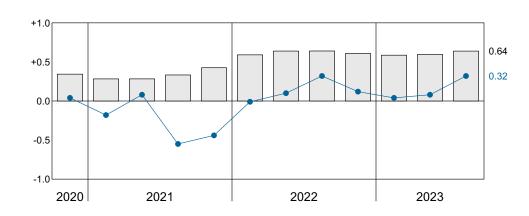


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

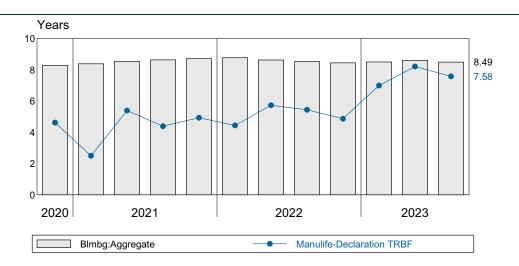
#### **Duration**



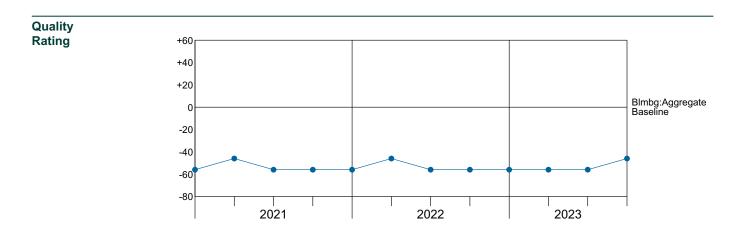
## OA Convexity

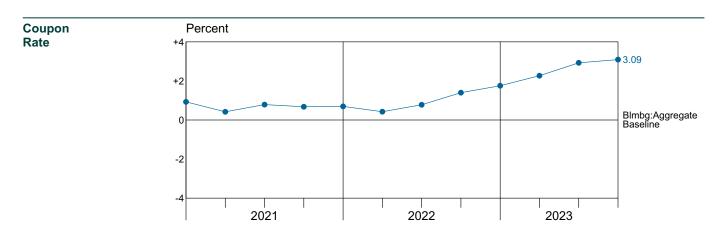


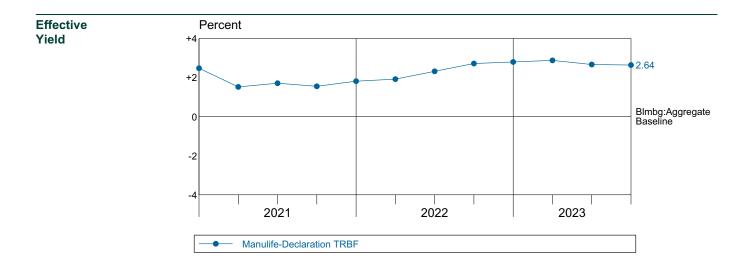
## Average Life



## North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023

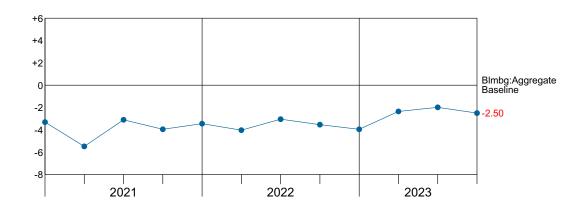




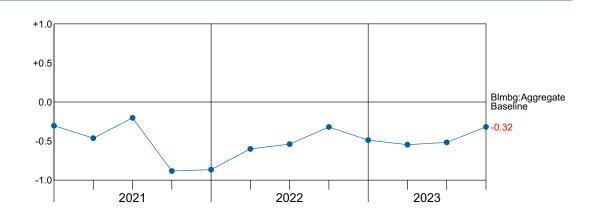


## North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023

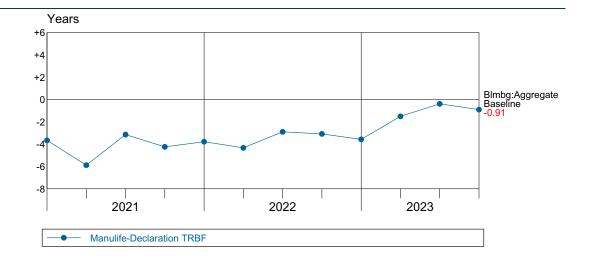




## OA Convexity





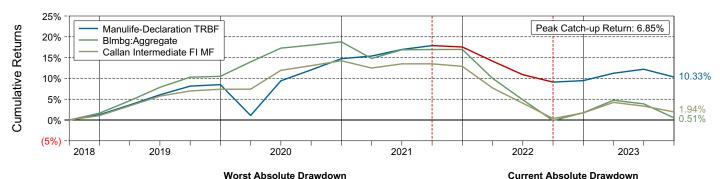




## **Manulife-Declaration TRBF** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**

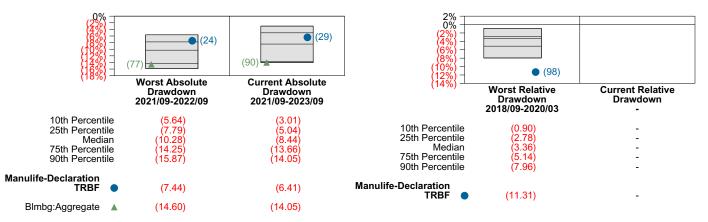


	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Manulife-Declaration TRBF	(7.44)%	1.00	2021/09-2022/09	(14.60)%	(11.57)%	(6.41)%	2.00	2021/09-2023/09	(14.05)%	(10.19)%
Recovery from Trough	1.11%	1.00+	2022/09-2023/09	0.64%	1.57%	1.11%	1.00+	2022/09-2023/09	0.64%	1.57%
Blmbg:Aggregate	(15.93)%	1.75	2020/12-2022/09			(15.38)%	2.75	2020/12-2023/09		
Callan Intermediate FI MF	(12.15)%	1.75	2020/12-2022/09			(10.77)%	2.75	2020/12-2023/09		

#### Relative Cumulative Drawdown Analysis vs. Blmbg:Aggregate **Cumulative Relative Returns** Manulife-Declaration TRBF 10% 9.76% Callan Intermediate FI MF 5% 1.42% 0% 2018 2019 2020 2021 2023 2022

	Worst Relative Drawdown					urrent Relati	ve Drawdown	
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Manulife-Declaration TRBF	(11.31)%	1.50	2018/09-2020/03	(5.75)%	-	-	-	-
Recovery from Trough	5.20%	0.25	2020/03-2020/06	1.28%	-	-	-	-
Callan Intermediate FI MF	(5.75)%	1.50	2018/09-2020/03		-	-	-	

Drawdown Rankings vs. Blmbg:Aggregate Rankings against Callan Intermediate Fixed Inc Mut Funds Five Years Ended September 30, 2023





## **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

## Average Bond Characteristics for 3 Years Ended September 30, 2023 **VS THE Callan Intermediate FI MF Peer Group**

(12)	Manulife- Declaration TR	BBB+ (96)	3.99% (19)	5.44%	3.01 (73)	(0.01) (55)	5.42 ( <b>49</b> )	)
		Quality Rating	Coupon Rate	Effective Yield	Duration	OA Convexity	Average Life	



## **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

### Excess Return Correlations for 3 Years Ended September 30, 2023 vs the Blmbg:Aggregate

(12)	Manulife- Declaration TR	1.00
		Manulife- Declaration TR



## **PIMCO Bravo II** Period Ended September 30, 2023

#### **Investment Philosophy**

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe. Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

#### **Quarterly Summary and Highlights**

- PIMCO Bravo II's portfolio posted a 0.00% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 100 percentile for the last year.
- **PIMCO** Bravo ll's portfolio outperformed the 3.23% Blmbg:Aggregate by for the quarter underperformed the Blmbg:Aggregate for the year by 36.62%.

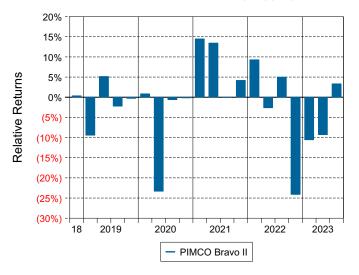
#### **Quarterly Asset Growth**

Beginning Market Value	\$1,126,746
Net New Investment	\$0
Investment Gains/(Losses)	\$0
Ending Market Value	\$1,126,746

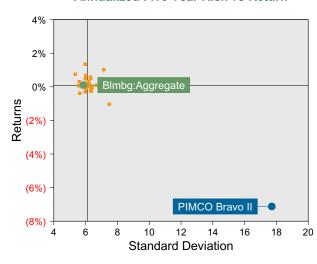
#### Performance vs Callan Core Bond Mutual Funds (Net)



#### Relative Return vs Blmbg:Aggregate



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



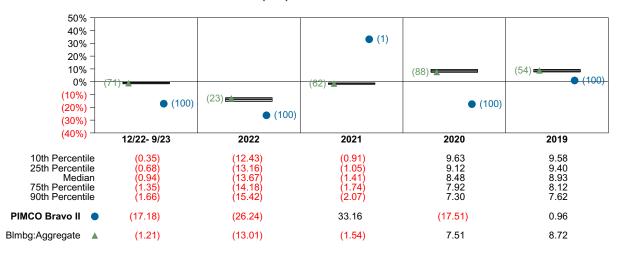


## **PIMCO Bravo II Return Analysis Summary**

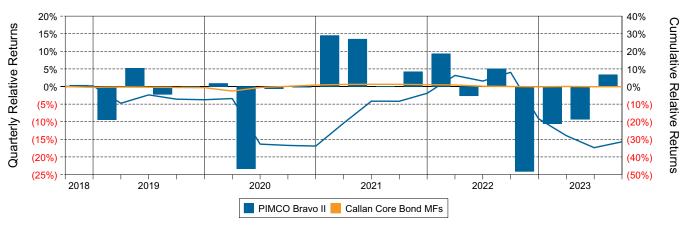
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

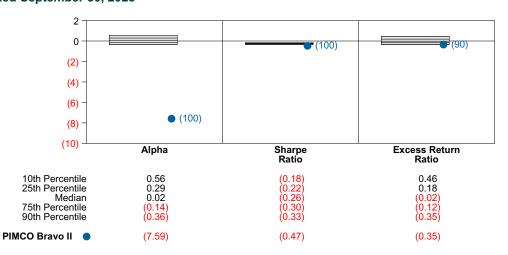
#### Performance vs Callan Core Bond Mutual Funds (Net)



### Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Bond Mutual Funds (Net) Five Years Ended September 30, 2023





## **PIMCO DISCO II** Period Ended September 30, 2023

#### **Investment Philosophy**

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors. Prior to July 1, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

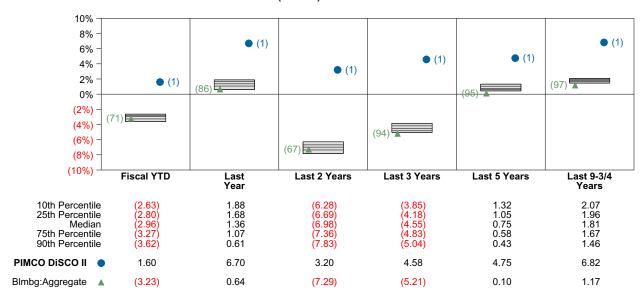
#### **Quarterly Summary and Highlights**

- PIMCO DiSCO II's portfolio posted a 1.60% 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** ll's portfolio outperformed by 4.83% Blmbg:Aggregate for the quarter outperformed the Blmbg:Aggregate for the year by 6.05%.

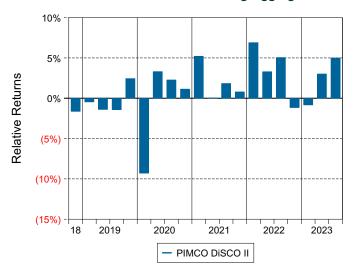
#### **Quarterly Asset Growth**

Beginning Market Value	\$104,110,927
Net New Investment	\$0
Investment Gains/(Losses)	\$1,662,665
Ending Market Value	\$105,773,592

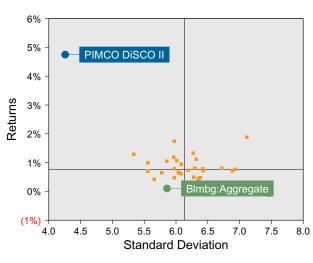
#### Performance vs Callan Core Bond Mutual Funds (Gross)



#### Relative Return vs Blmbg:Aggregate



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



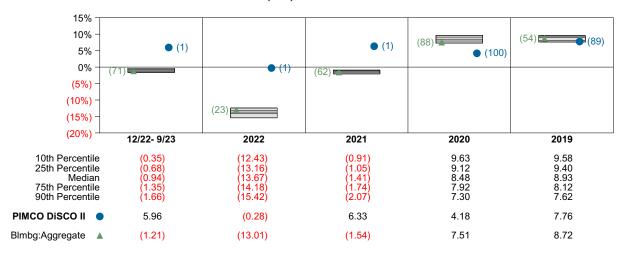


## **PIMCO DISCO II Return Analysis Summary**

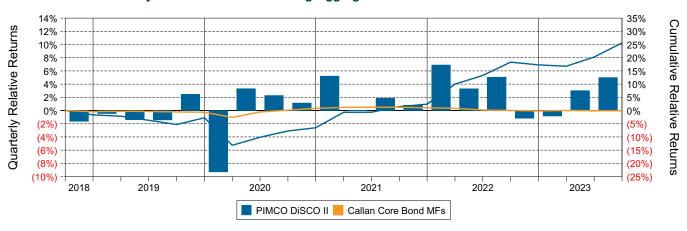
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

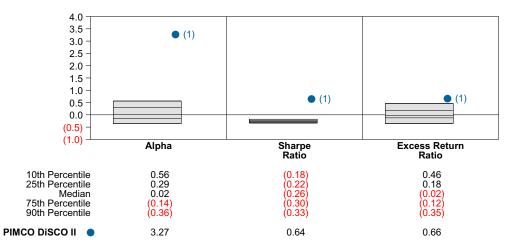
#### Performance vs Callan Core Bond Mutual Funds (Net)



## **Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate**



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Bond Mutual Funds (Net) Five Years Ended September 30, 2023





## **Prudential Core Plus** Period Ended September 30, 2023

#### **Investment Philosophy**

The core plus fixed income account is a multi-sector strategy that is diversified across a broad range of fixed income sectors, including Treasuries, agencies, mortgage-backed securities, structured product (asset-backed securities, commercial mortgage-backed securities), investment grade corporate bonds, high yield bonds, bank loans and international debt. The primary sources of excess return are sector allocation and security selection, with duration and yield curve less of a focus.

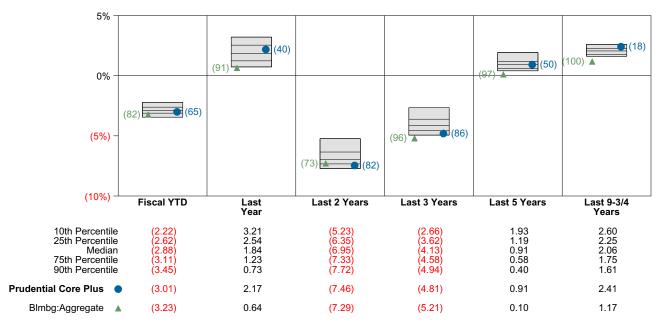
#### **Quarterly Summary and Highlights**

- Prudential Core Plus's portfolio posted a (3.01)% return for the quarter placing it in the 65 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 40 percentile for the last year.
- Prudential Core Plus's portfolio outperformed Blmbg:Aggregate by 0.22% for the quarter outperformed the Blmbg:Aggregate for the year by 1.53%.

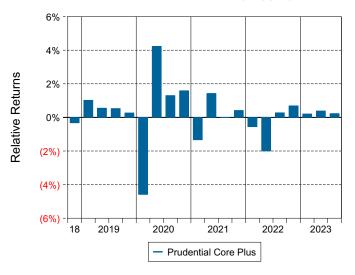
#### **Quarterly Asset Growth**

Beginning Market Value	\$677,708,121
Net New Investment	\$-8,334,017
Investment Gains/(Losses)	\$-20,228,747
Ending Market Value	\$649.145.357

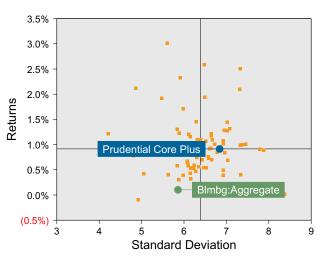
### Performance vs Callan Core Plus Fixed Income (Gross)



#### Relative Return vs Blmbg:Aggregate



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



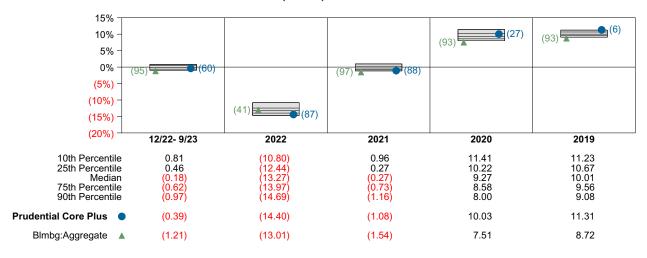


## **Prudential Core Plus Return Analysis Summary**

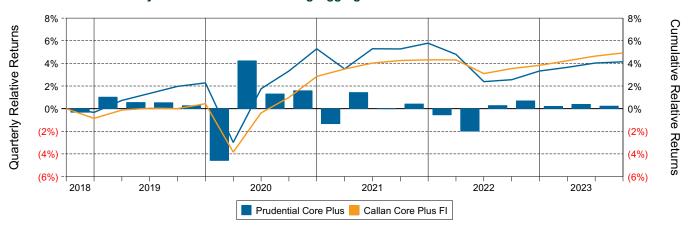
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

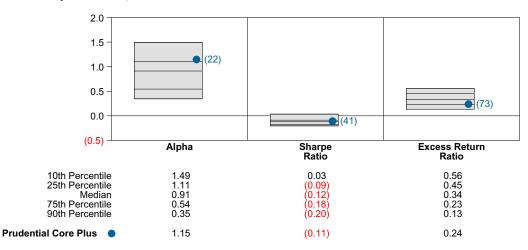
#### Performance vs Callan Core Plus Fixed Income (Gross)



#### Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023



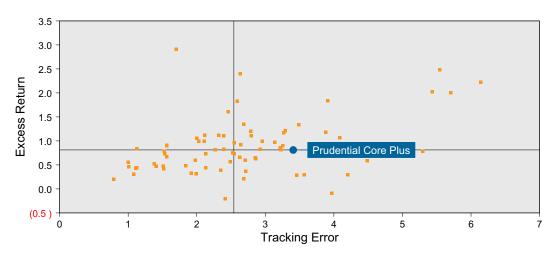


## **Prudential Core Plus Risk Analysis Summary**

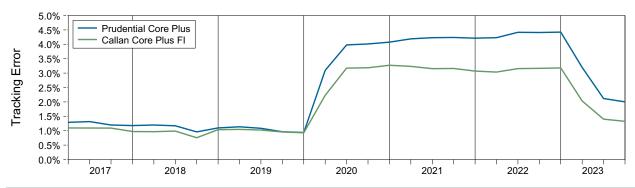
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

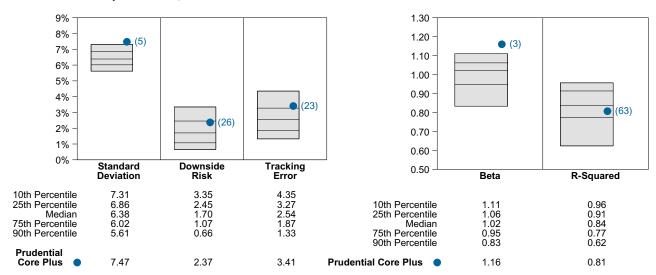
#### Risk Analysis vs Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023



Rolling 12 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023



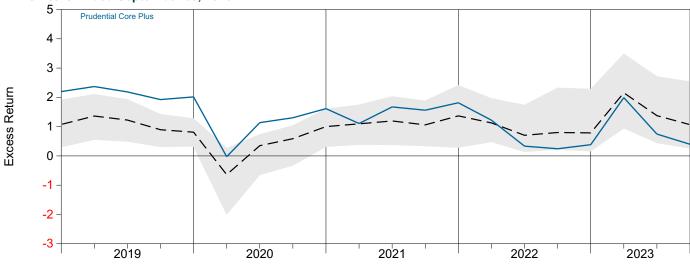


## **Prudential Core Plus Historical Consistency Analysis**

#### Consistency of Excess Return and Relative Std. Dev.

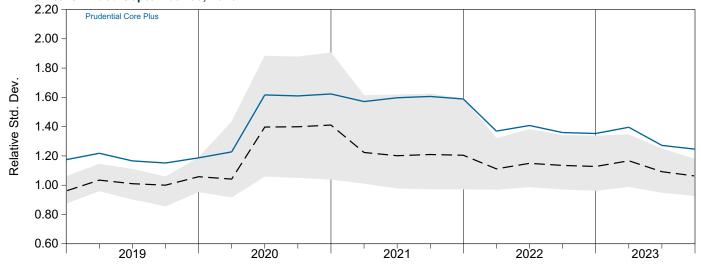
The first chart below illustrates the consistency of excess return over rolling three year periods versus the Blmbq:Aggregate. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan Core Plus FI. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

#### Rolling Three Year Excess Return Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.97%	1.31%
% Positive Periods	95%	95%
Average Ranking	50	35

#### Rolling Three Year Relative Std. Dev. Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	1.15%	1.39%
% Positive Periods	100%	100%
Average Ranking	50	11

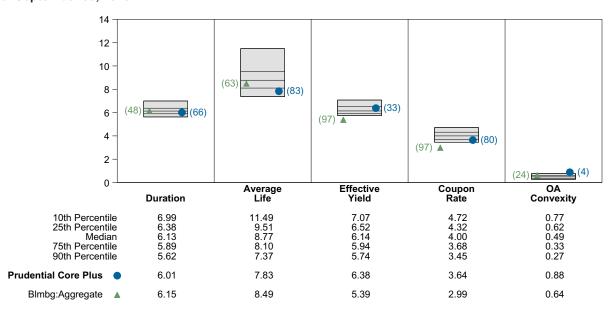


## **Prudential Core Plus Bond Characteristics Analysis Summary**

#### **Portfolio Characteristics**

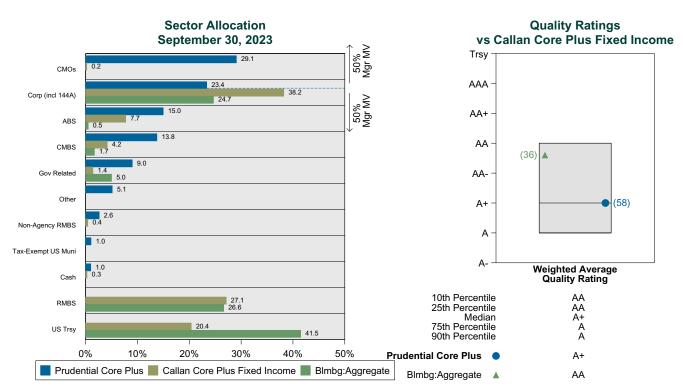
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

#### **Fixed Income Portfolio Characteristics** Rankings Against Callan Core Plus Fixed Income as of September 30, 2023



### **Sector Allocation and Quality Ratings**

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

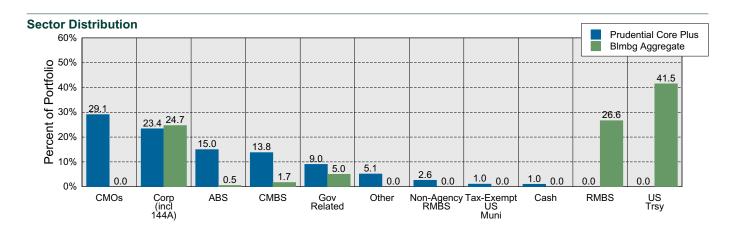


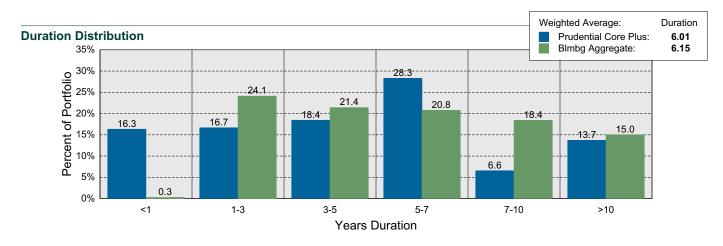


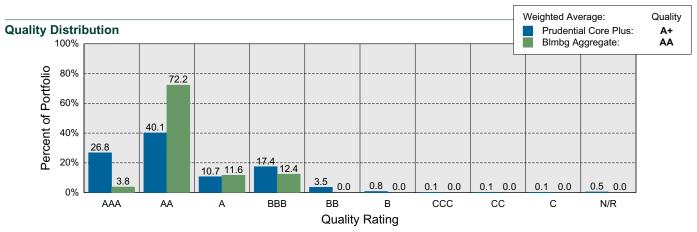
## **Prudential Core Plus Portfolio Characteristics Summary** As of September 30, 2023

#### **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

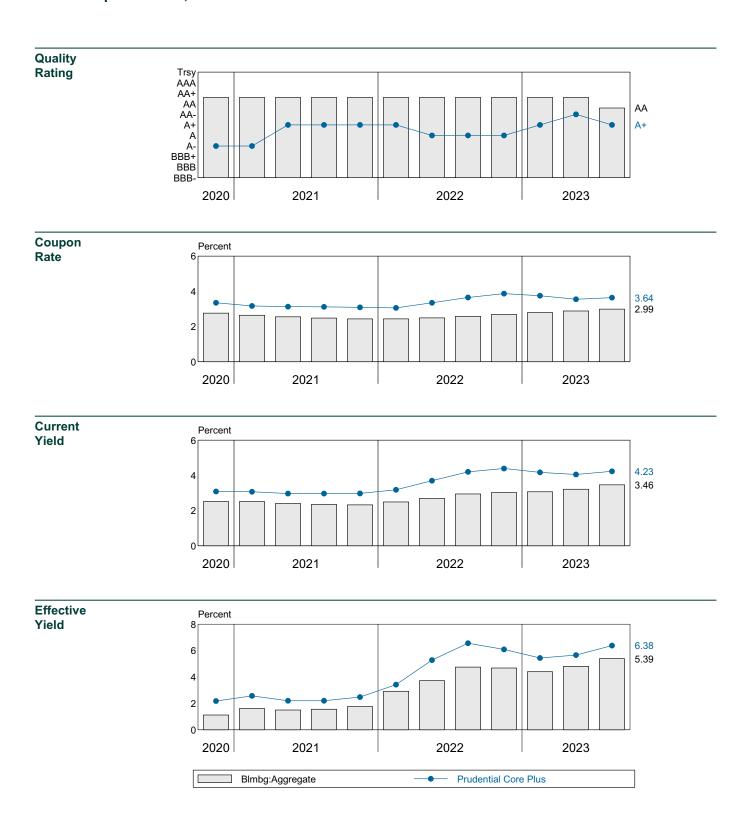






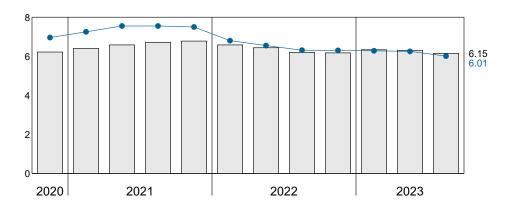


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

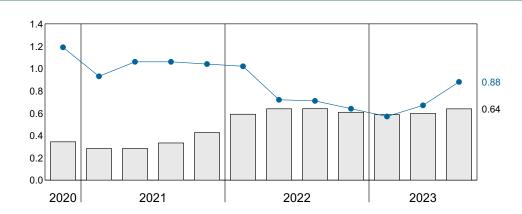


## North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

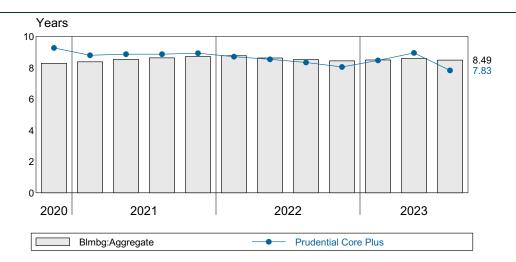
#### **Duration**



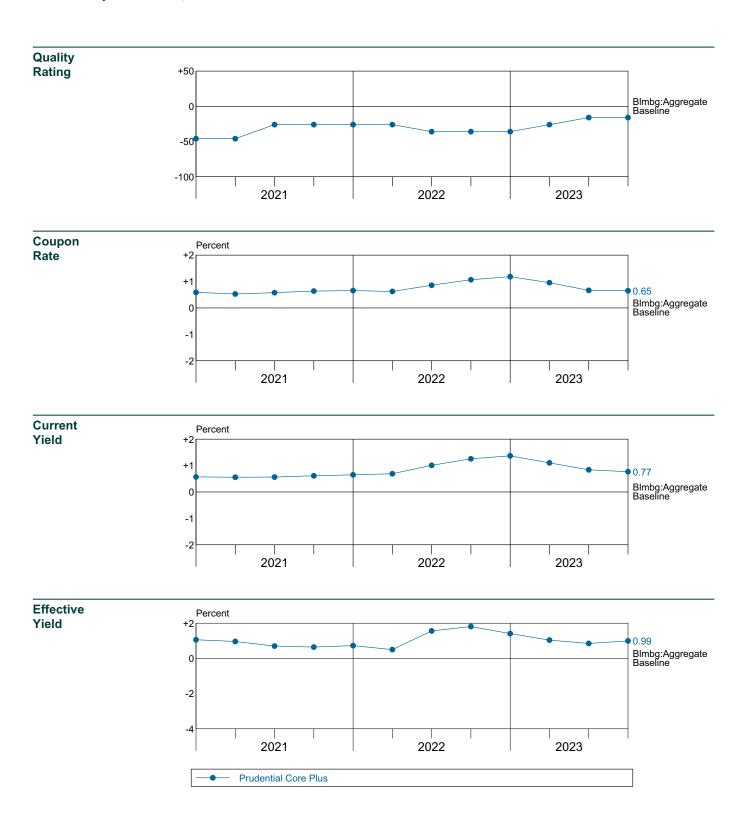
## OA Convexity



## Average Life

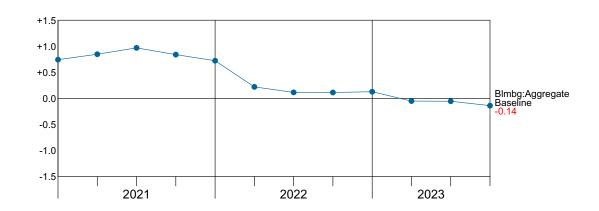


## North Dakota State Investment Board Legacy Fund **Consistency of Fixed Income Characteristics** Period September 30, 2023

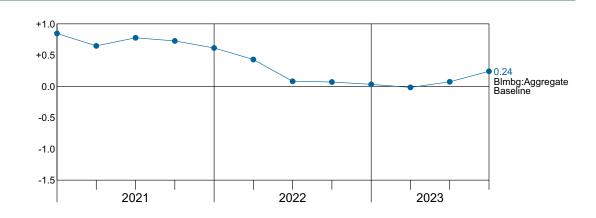


## North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023

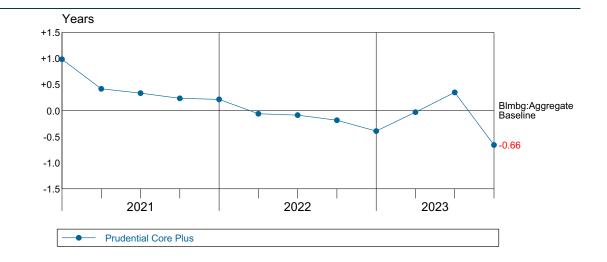




## OA Convexity



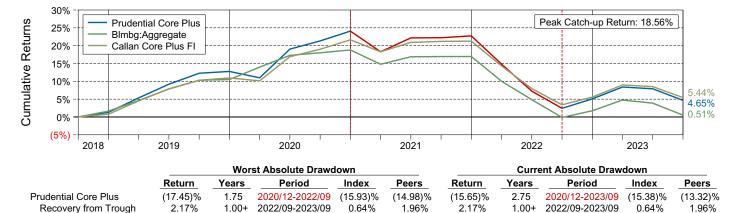




## **Prudential Core Plus** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**



(15.38)%

(13.32)%

2.75

2.75

2020/12-2023/09

2020/12-2023/09

Relative Cumulative Drawdown Analysis vs. Blmbg:Aggregate

1.75

1.75

2020/12-2022/09

2020/12-2022/09

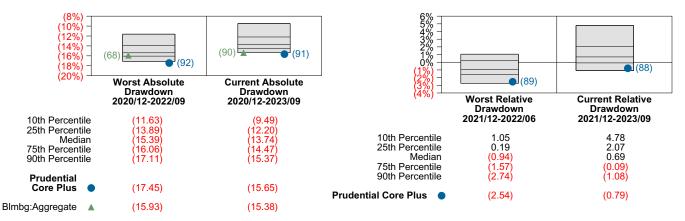
(15.93)%

(14.98)%



	Worst Relative Drawdown			Current Relative Drawdown				
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers
Prudential Core Plus	(2.54)%	0.50	2021/12-2022/06	(0.71)%	(0.79)%	1.75	2021/12-2023/09	1.17%
Recovery from Trough	1.80%	1.25+	2022/06-2023/09	1.89%	1.80%	1.25+	2022/06-2023/09	1.89%
Callan Core Plus FI	(0.71)%	0.50	2019/12-2020/06		-	-	-	

Drawdown Rankings vs. Blmbg:Aggregate Rankings against Callan Core Plus Fixed Income Five Years Ended September 30, 2023





Blmbg:Aggregate

Callan Core Plus FI

# **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can involve various types of performance statistics and holdings-based portfolio analysis over multiple time periods. The number in the middle of each box is the relevant value for a given portfolio, and the smaller number in the lower right corner is the relevant peer group ranking of that value.

# Average Bond Characteristics for 3 Years Ended September 30, 2023 **VS THE Callan Core Plus FI Peer Group**

(12)	Prudential	A	3.39%	3.58%	4.20%	6.78	0.87	8.64
	Core Plus	(62)	( <b>52</b> )	(58)	(41)	<b>(22)</b>	(15)	( <b>48</b> )
		Quality Rating	Coupon Rate	Current Yield	Effective Yield	Duration	OA Convexity	Average Life



# **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

# Excess Return Correlations for 3 Years Ended September 30, 2023 vs the Blmbg:Aggregate

(12)	Prudential Core Plus	1.00
		Prudential Core Plus



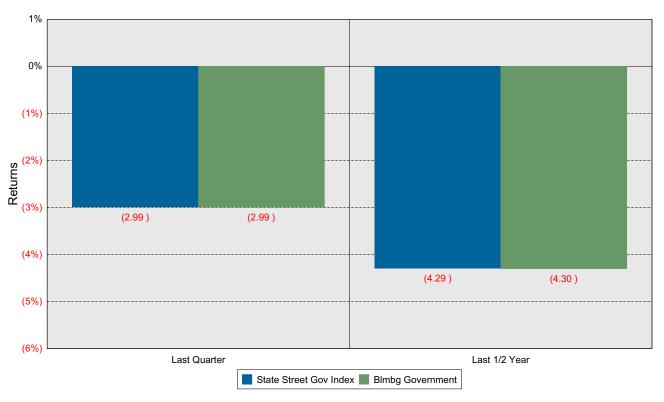
# **State Street Gov Index** Period Ended September 30, 2023

#### **Quarterly Summary and Highlights**

 State Street Gov Index's portfolio outperformed the Blmbg Government by 0.00% for the quarter and outperformed the Blmbg Government for the one-half year by 0.01%.

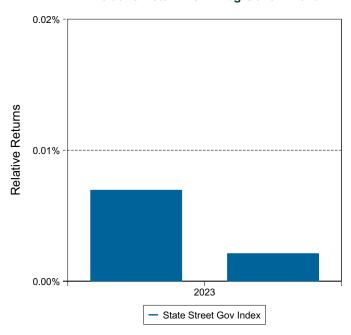
#### **Quarterly Asset Growth**

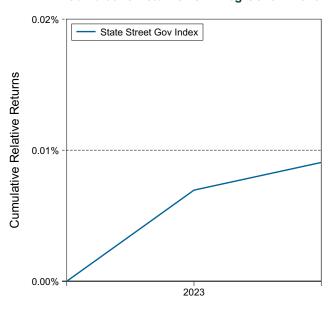
Beginning Market Value	\$108,698,650
Net New Investment	\$17,322,862
Investment Gains/(Losses)	\$-3,435,713
Ending Market Value	\$122,585,799



# Relative Return vs Blmbg Government

#### **Cumulative Returns vs Blmbg Government**







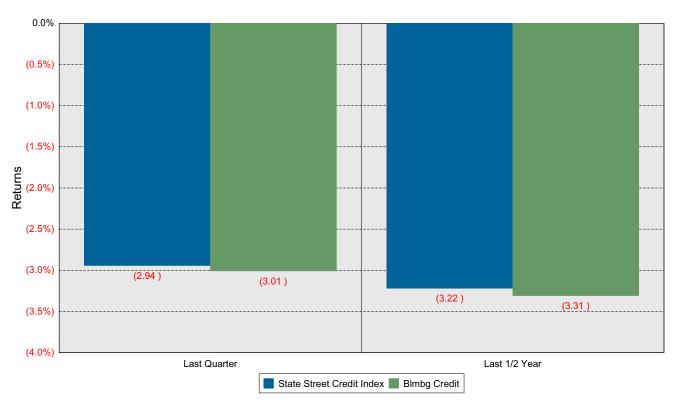
# **State Street Credit Index** Period Ended September 30, 2023

#### **Quarterly Summary and Highlights**

• State Street Credit Index's portfolio outperformed the BImbg Credit by 0.07% for the quarter and outperformed the Blmbg Credit for the one-half year by 0.09%.

# **Quarterly Asset Growth**

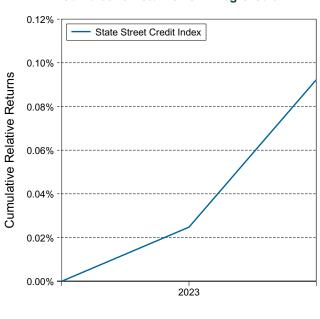
Beginning Market Value	\$82,514,703
Net New Investment	\$4,019,752
Investment Gains/(Losses)	\$-2,451,336
Ending Market Value	\$84,083,119



#### Relative Return vs Blmbg Credit

# 0.08% 0.07% 0.06% Relative Returns 0.05% 0.04% 0.03% 0.02% 0.01% 0.00% 2023 State Street Credit Index

#### **Cumulative Returns vs Blmbg Credit**



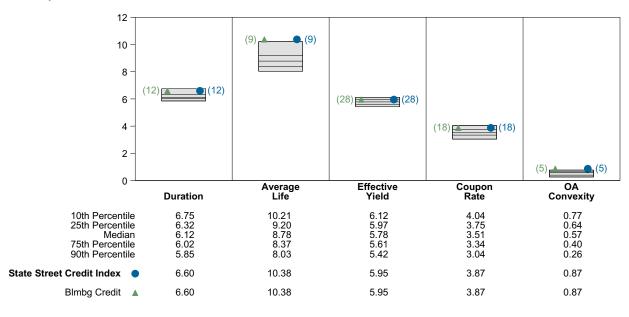


# **State Street Credit Index Bond Characteristics Analysis Summary**

#### **Portfolio Characteristics**

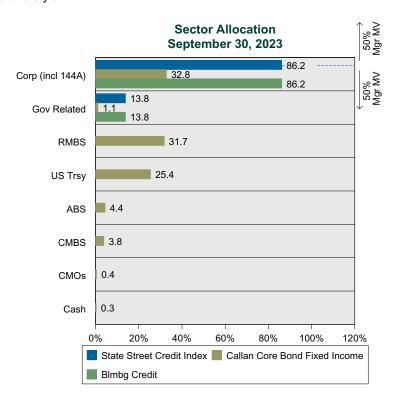
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

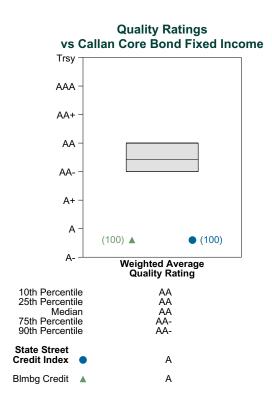
#### **Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income** as of September 30, 2023



#### Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



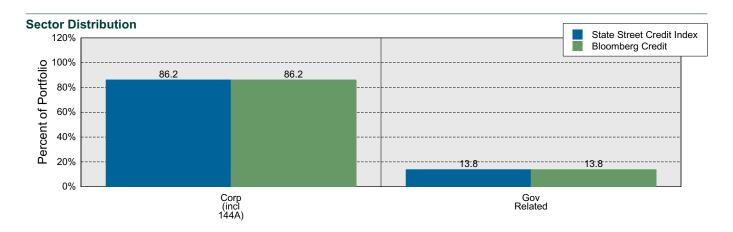


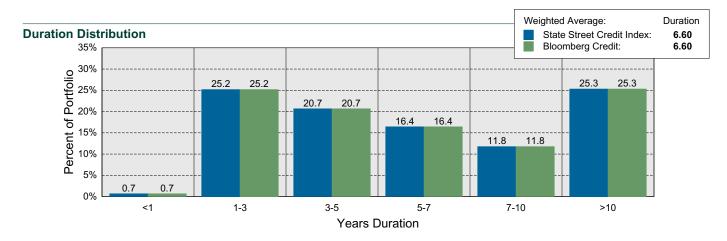


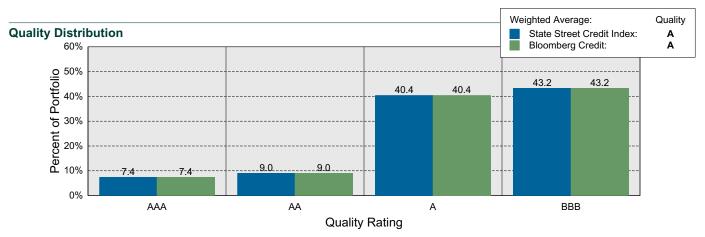
# **State Street Credit Index Portfolio Characteristics Summary** As of September 30, 2023

#### **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.







# **Western Asset Management Company** Period Ended September 30, 2023

#### **Investment Philosophy**

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

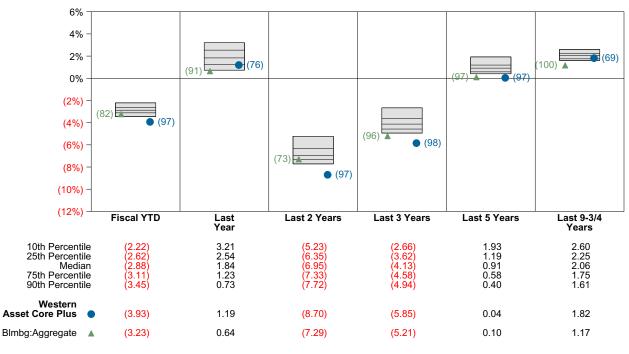
#### **Quarterly Summary and Highlights**

- Western Asset Core Plus's portfolio posted a (3.93)% return for the quarter placing it in the 97 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 76 percentile for the last year.
- Western Asset Core Plus's portfolio underperformed the Blmbg:Aggregate by 0.70% for the guarter outperformed the Blmbg:Aggregate for the year by 0.55%.

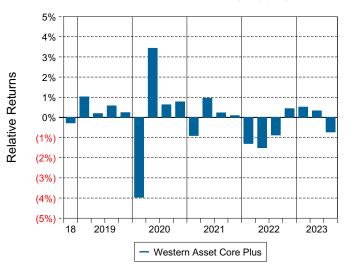
#### **Quarterly Asset Growth**

Beginning Market Value	\$677,545,854
Net New Investment	\$-2,410,196
Investment Gains/(Losses)	\$-26,583,133
Ending Market Value	\$648 552 525

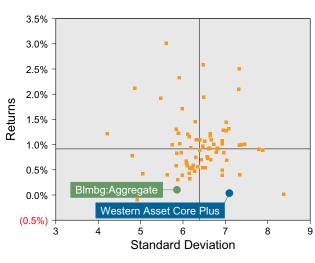
# Performance vs Callan Core Plus Fixed Income (Gross)



#### Relative Return vs Blmbg:Aggregate



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



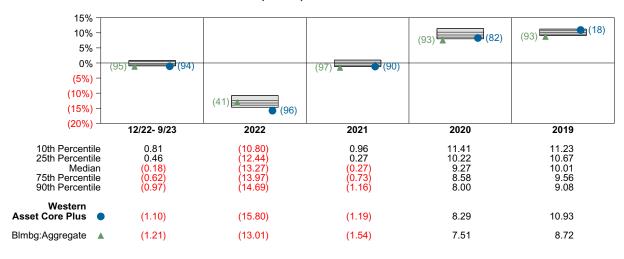


# **Western Asset Core Plus Return Analysis Summary**

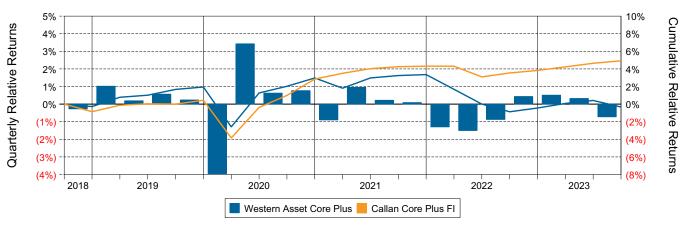
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

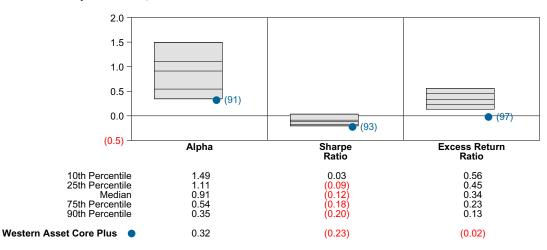
#### Performance vs Callan Core Plus Fixed Income (Gross)



# Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023



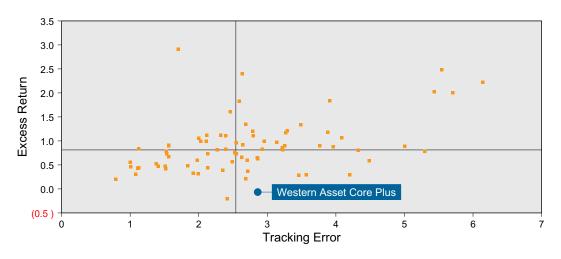


# **Western Asset Core Plus Risk Analysis Summary**

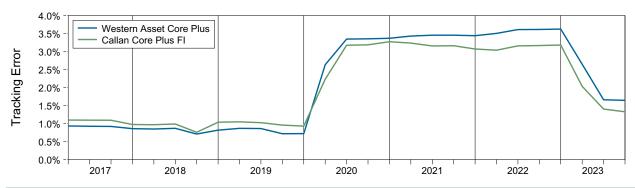
#### **Risk Analysis**

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

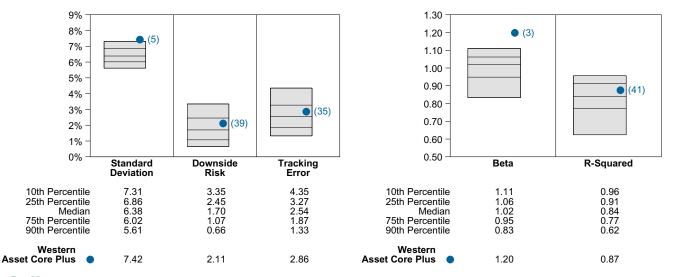
#### Risk Analysis vs Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023



Rolling 12 Quarter Tracking Error vs Bloomberg Aggregate



Risk Statistics Rankings vs Bloomberg Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Five Years Ended September 30, 2023

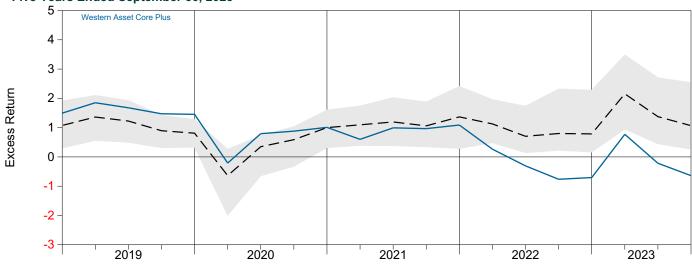


# **Western Asset Core Plus Historical Consistency Analysis**

#### Consistency of Excess Return and Relative Std. Dev.

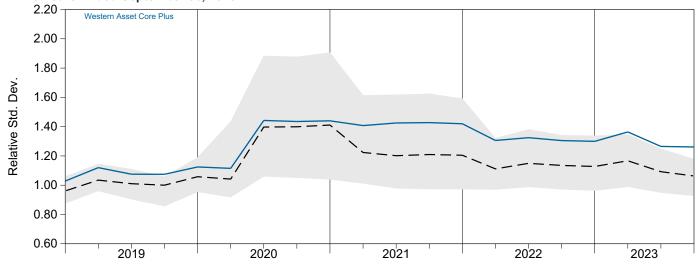
The first chart below illustrates the consistency of excess return over rolling three year periods versus the Blmbq:Aggregate. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan Core Plus FI. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

#### Rolling Three Year Excess Return Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.97%	0.62%
% Positive Periods	95%	70%
Average Ranking	50	57

#### Rolling Three Year Relative Std. Dev. Relative to Blmbg:Aggregate Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	1.15%	1.28%
% Positive Periods	100%	100%
Average Ranking	50	21

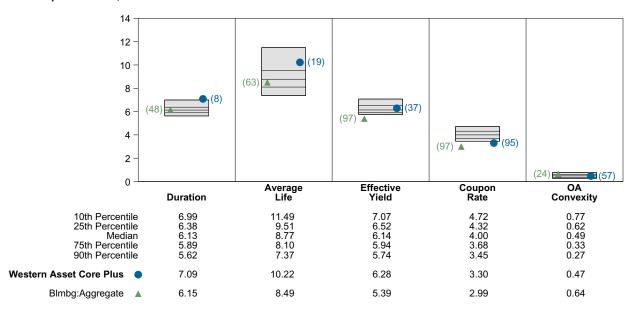


# **Western Asset Core Plus Bond Characteristics Analysis Summary**

#### **Portfolio Characteristics**

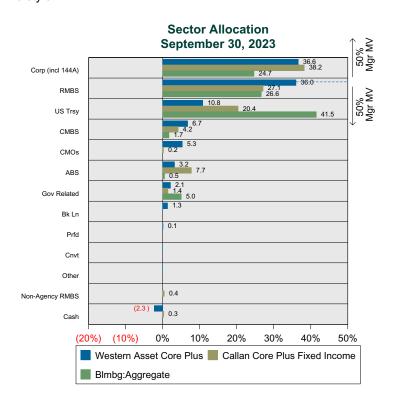
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

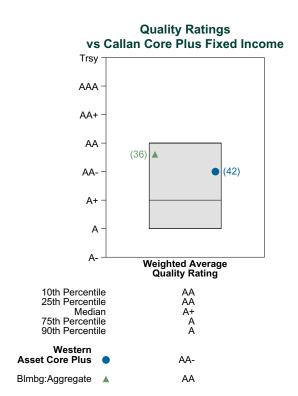
#### **Fixed Income Portfolio Characteristics** Rankings Against Callan Core Plus Fixed Income as of September 30, 2023



#### Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



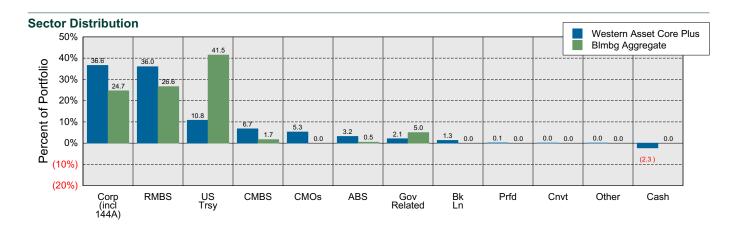


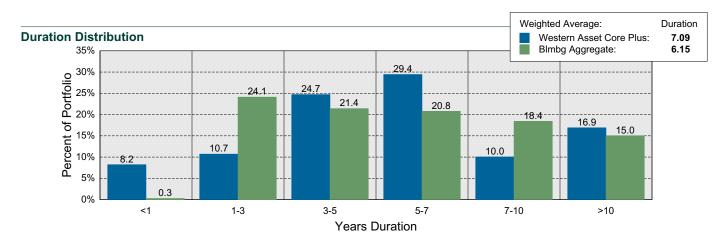


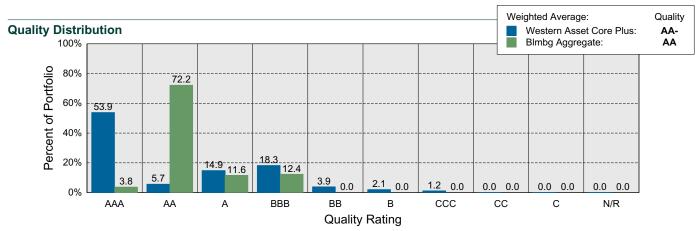
# **Western Asset Core Plus Portfolio Characteristics Summary** As of September 30, 2023

#### **Portfolio Structure Comparison**

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

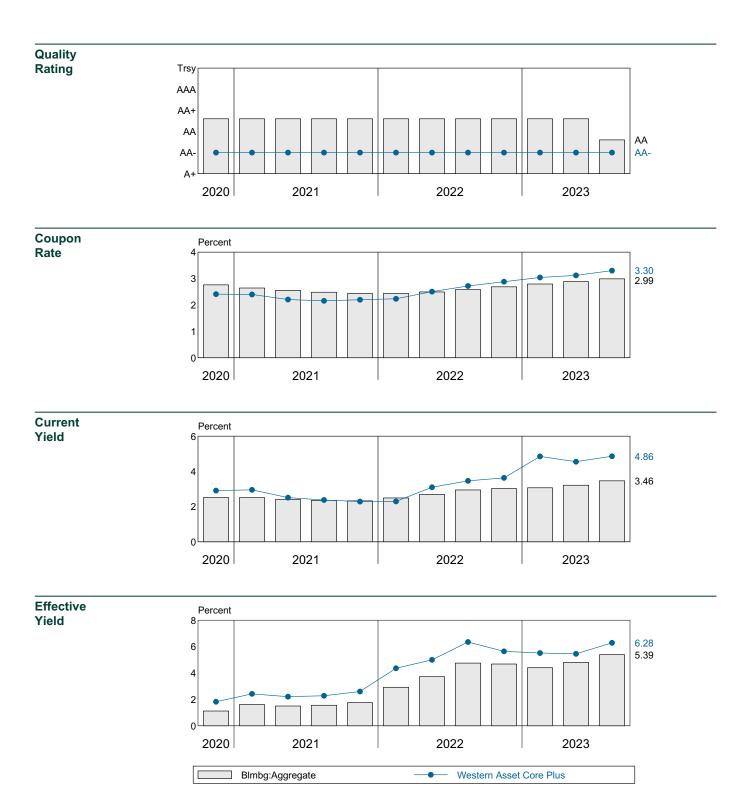






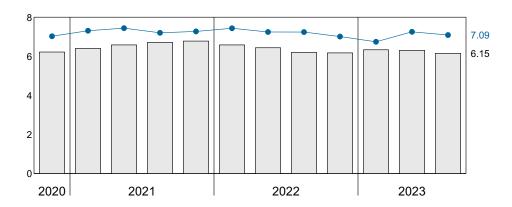


# North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

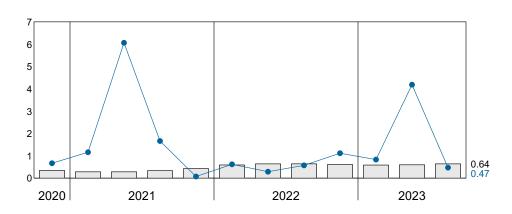


# North Dakota State Investment Board Legacy Fund History of Fixed Income Characteristics Period September 30, 2023

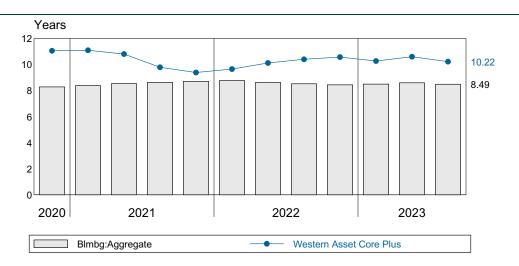
#### **Duration**



# OA Convexity

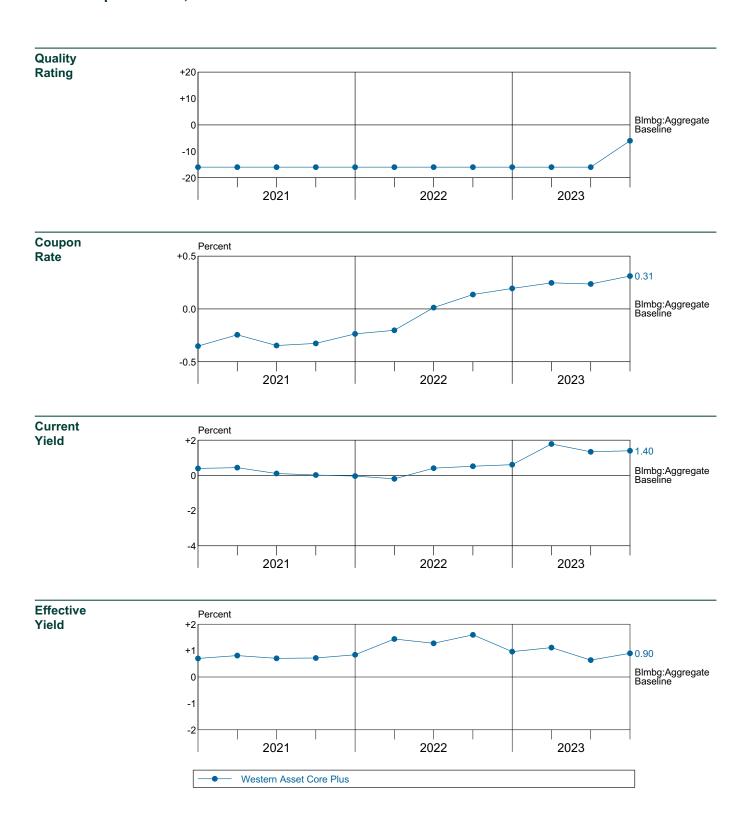


#### **Average** Life

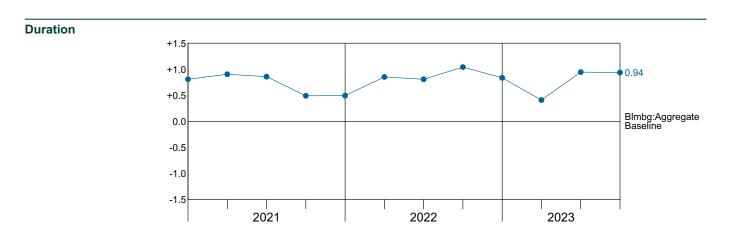


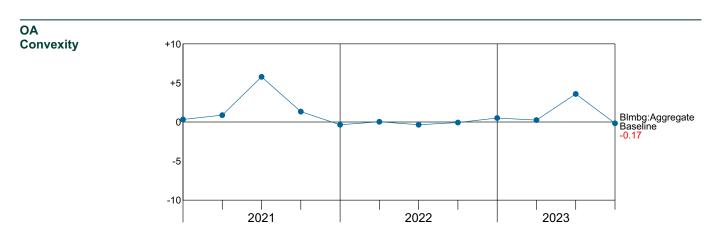


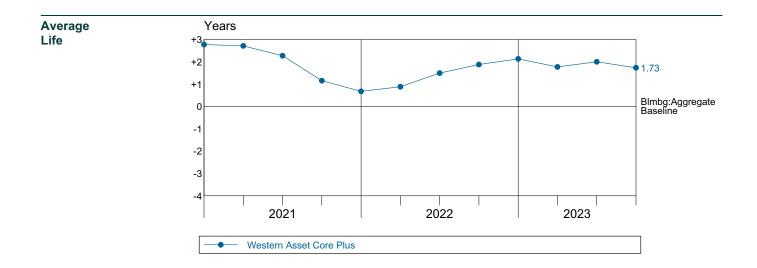
# North Dakota State Investment Board Legacy Fund **Consistency of Fixed Income Characteristics** Period September 30, 2023



# North Dakota State Investment Board Legacy Fund Consistency of Fixed Income Characteristics Period September 30, 2023



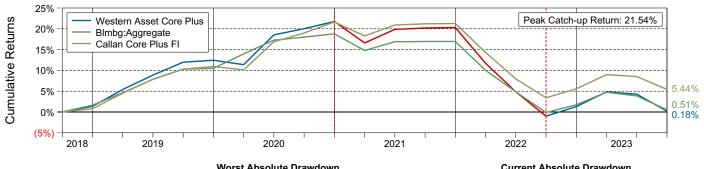




# **Western Asset Core Plus** Drawdown Analysis for Five Years Ended September 30, 2023

The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute Drawdown as well as the Current Drawdown (cumulative return from high-water mark to now). The second chart focuses on Relative Drawdown (negative excess return vs. index). The bottom charts highlight the portfolio's peer rankings during drawdown periods.

#### **Absolute Cumulative Drawdown Analysis**

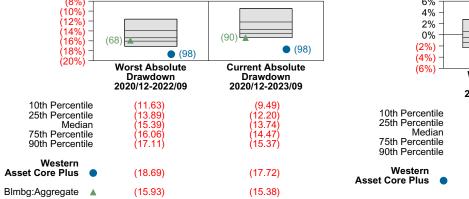


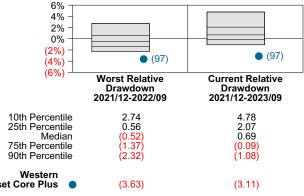
	Worst Absolute Diawdown				Current Absolute Diawdown					
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Western Asset Core Plus	(18.69)%	1.75	2020/12-2022/09	(15.93)%	(14.98)%	(17.72)%	2.75	2020/12-2023/09	(15.38)%	(13.32)%
Recovery from Trough	1.19%	1.00+	2022/09-2023/09	0.64%	1.96%	1.19%	1.00+	2022/09-2023/09	0.64%	1.96%
Blmbg:Aggregate	(15.93)%	1.75	2020/12-2022/09			(15.38)%	2.75	2020/12-2023/09		
Callan Core Plus FI	(14.98)%	1.75	2020/12-2022/09			(13.32)%	2.75	2020/12-2023/09		

#### Relative Cumulative Drawdown Analysis vs. Blmbg:Aggregate Cumulative Relative Returns 4.90% Peak Catch-up Rel Rtn: 3.21% Western Asset Core Plus Callan Core Plus FI 2% (0.33%)2018 2019 2021 2023 2020 2022

	Worst Relative Drawdown				Current Relative Drawdown				
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers	
Western Asset Core Plus	(3.63)%	0.75	2021/12-2022/09	(0.14)%	(3.11)%	1.75	2021/12-2023/09	1.17%	
Recovery from Trough	0.55%	1.00+	2022/09-2023/09	1.30%	0.55%	1.00+	2022/09-2023/09	1.30%	
Callan Core Plus FI	(0.71)%	0.50	2019/12-2020/06		-	-	-		

Drawdown Rankings vs. Blmbg:Aggregate Rankings against Callan Core Plus Fixed Income Five Years Ended September 30, 2023







# **Comparative Manager Matrix**

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# Average Bond Characteristics for 3 Years Ended September 30, 2023 **VS THE Callan Core Plus FI Peer Group**

(12)	Western Asset Core Plus	AA-	2.60%	3.31%	4.16%	7.19	1.48	10.33
	Flus	(31)	(95)	(71)	(43)	(4)	(30)	(17)
		Quality Rating	Coupon Rate	Current Yield	Effective Yield	Duration	OA Convexity	Average Life



# **Comparative Manager Matrix**

This page allows for detailed comparisons of multiple managers against each other, as well as versus market indices and peer groups. This comparative analysis can evaluate, for each portfolio pair, one portfolio's performance and risk patterns relative to the other portfolio's performance patterns. The excess return correlation matrices illustrate the extent to which various manager's excess returns versus the appropriate index are correlated to each other. Managers whose excess returns are less correlated with each other tend to diversify each other's active risk. This complementary type of manager mix can have a beneficial effect on the resulting active risk/return tradeoff.

# Excess Return Correlations for 3 Years Ended September 30, 2023 vs the Blmbg:Aggregate

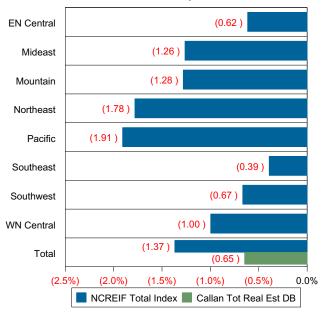
	Western Asset	
(12)		1.00
	Plus	
		Western Asset
		Core
		Plus



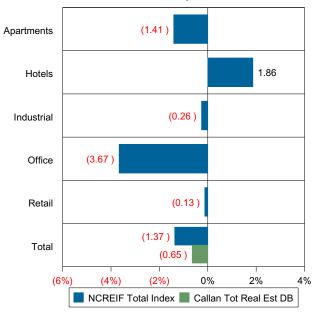
# **Real Estate Market Overview**

The NCREIF Property Index, a measure of U.S. institutional real estate assets, fell 1.4% during 3Q23. The income return was 1.1% while the appreciation return was 2.4%. Hotels, which represent a small portion of the index, led property sector performance with a gain of 1.9%. Office finished last with a loss of 3.7%. Regionally, the South led with a loss of 0.5%, while the West was the worst performer with a drop of 1.8%. The NCREIF Open-End Diversified Core Equity (ODCE) Index, representing equity ownership positions in U.S. core real estate, fell 1.9% during 3Q, with an income return of 0.9% and an appreciation return of -2.8%.

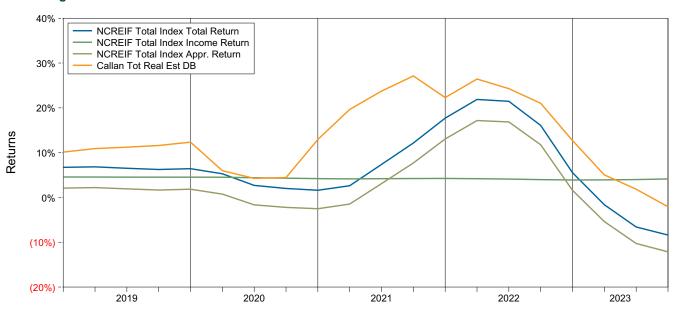
# **NCREIF Total Index Returns by Geographic Area** Quarter Ended September 30, 2023



#### **NCREIF Total Index Returns by Property Type** Quarter Ended September 30, 2023



#### **Rolling 1 Year Returns**





# **Invesco Core Real Estate** Period Ended September 30, 2023

#### **Investment Philosophy**

Invesco will invest in core properties with a focus on investments with stable income and quality locations. Core style investments include existing, substantially leased (typically 70% or greater occupancy at the time of investment) income-producing industrial, multifamily, retail and office properties located principally in metropolitan areas that exhibit reasonable economic diversification

#### **Quarterly Summary and Highlights**

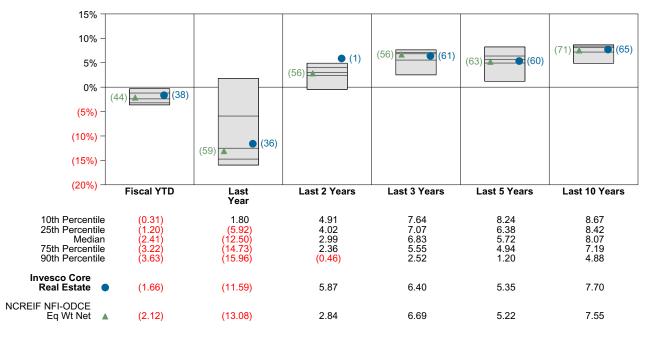
- Invesco Core Real Estate's portfolio posted a (1.66)% return for the quarter placing it in the 38 percentile of the Callan Open End Core Cmmingled Real Est group for the quarter and in the 36 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF NFI-ODCE Eg Wt Net by 0.46% for the guarter and outperformed the NCREIF NFI-ODCE Eq Wt Net for the year by 1.48%.

#### **Quarterly Asset Growth**

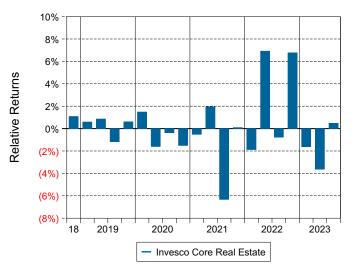
Beginning Market Value \$211,489,999 Net New Investment \$-189,631 Investment Gains/(Losses) \$-3,312,515

**Ending Market Value** \$207,987,852

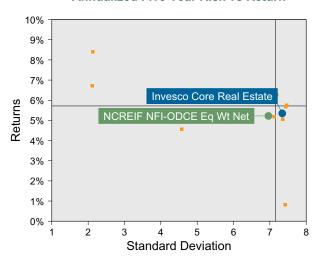
# Performance vs Callan Open End Core Cmmingled Real Est (Gross)



#### Relative Returns vs NCREIF NFI-ODCE Eq Wt Net



#### Callan Open End Core Cmmingled Real Est (Gross) Annualized Five Year Risk vs Return



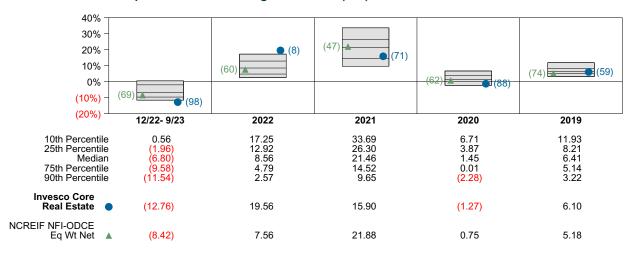


# **Invesco Core Real Estate Return Analysis Summary**

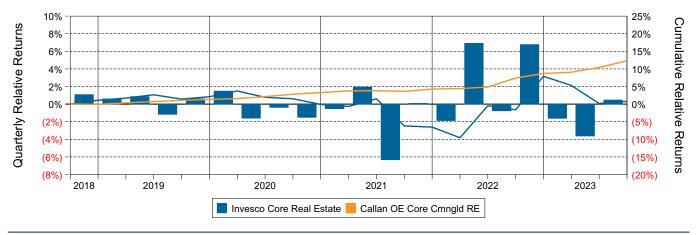
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

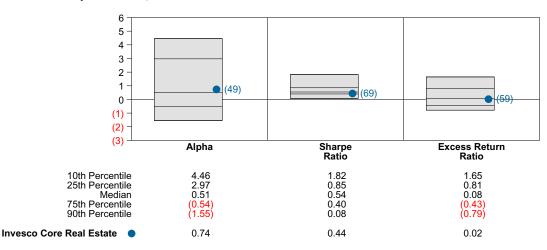
#### Performance vs Callan Open End Core Cmmingled Real Est (Net)



# Cumulative and Quarterly Relative Returns vs NCREIF NFI-ODCE Eq Wt Net



Risk Adjusted Return Measures vs NCREIF NFI-ODCE Eq Wt Net Rankings Against Callan Open End Core Cmmingled Real Est (Net) Five Years Ended September 30, 2023



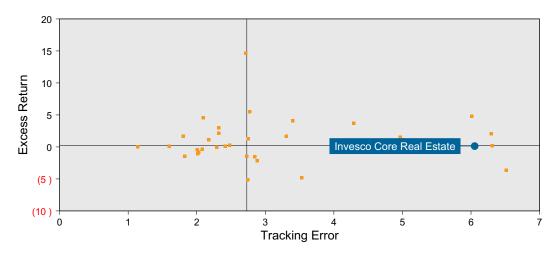


# **Invesco Core Real Estate Risk Analysis Summary**

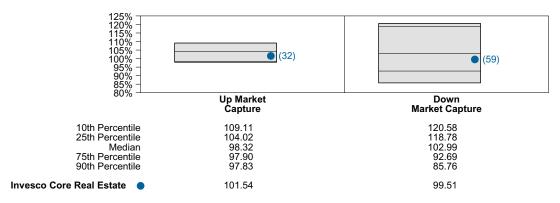
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

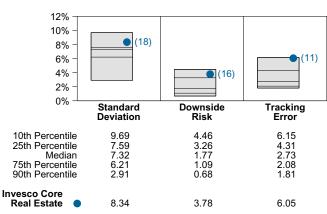
#### Risk Analysis vs Callan Open End Core Cmmingled Real Est (Net) Five Years Ended September 30, 2023

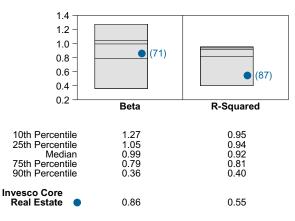


#### Market Capture vs NCREIF NFI-ODCE Equal Weight Net Rankings Against Callan Open End Core Cmmingled Real Est (Net) Five Years Ended September 30, 2023



### Risk Statistics Rankings vs NCREIF NFI-ODCE Equal Weight Net Rankings Against Callan Open End Core Cmmingled Real Est (Net) Five Years Ended September 30, 2023





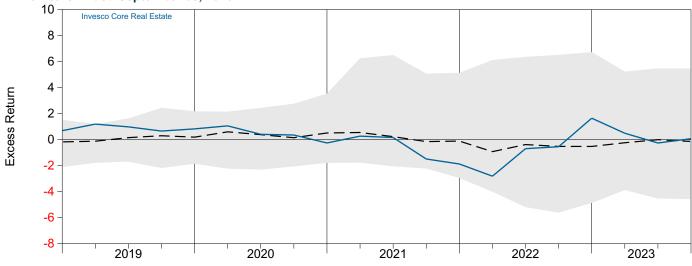


# **Invesco Core Real Estate Historical Consistency Analysis**

#### Consistency of Excess Return and Relative Std. Dev.

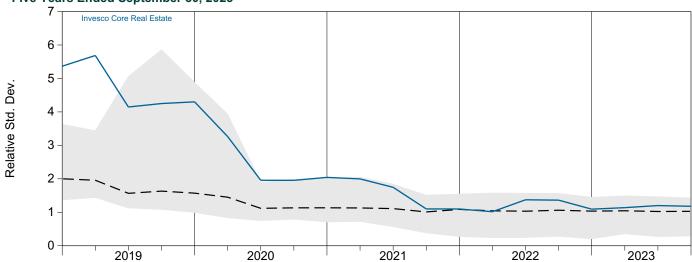
The first chart below illustrates the consistency of excess return over rolling three year periods versus the NCREIF NFI-ODCE Eq Wt Net. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan OE Core Cmngld RE. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

# Rolling Three Year Excess Return Relative to NCREIF NFI-ODCE Eq Wt Net Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	(0.01)	0.05%
% Positive Periods	45%	65%
Average Ranking	50	47

#### Rolling Three Year Relative Std. Dev. Relative to NCREIF NFI-ODCE Eq Wt Net Five Years Ended September 30, 2023



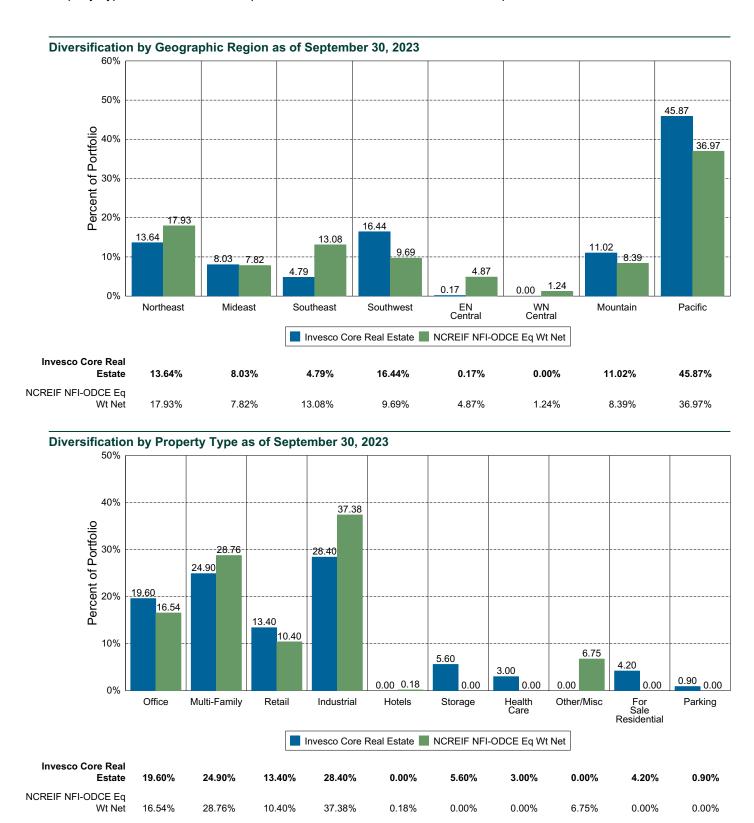
Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	1.26%	2.36%
% Positive Periods	100%	100%
Average Ranking	50	20



# **Invesco Core Real Estate** Diversification Analysis as of September 30, 2023

#### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Property Type. Similar information is provided on the relevant market index for comparison.





# JP Morgan Inc & Growth Fd Period Ended September 30, 2023

#### **Investment Philosophy**

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

#### **Quarterly Summary and Highlights**

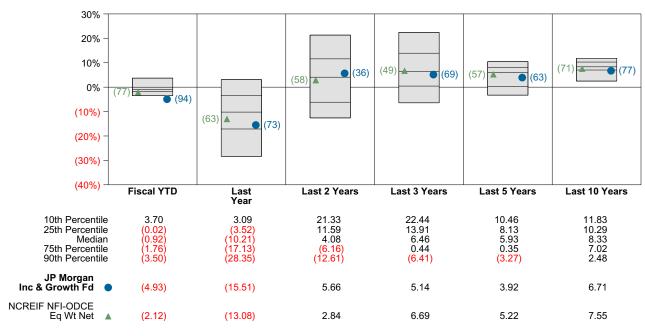
- JP Morgan Inc & Growth Fd's portfolio posted a (4.93)% return for the quarter placing it in the 94 percentile of the Callan Real Estate Value Added group for the quarter and in the 73 percentile for the last year.
- JP Morgan Inc & Growth Fd's portfolio underperformed the NCREIF NFI-ODCE Eg Wt Net by 2.82% for the guarter and underperformed the NCREIF NFI-ODCE Eq Wt Net for the year by 2.43%.

#### **Quarterly Asset Growth**

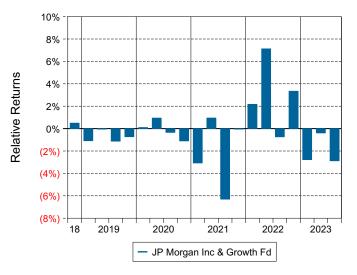
Beginning Market Value	\$209,812,735
Net New Investment	\$-586,129
Investment Gains/(Losses)	\$-9,911,155

**Ending Market Value** \$199,315,451

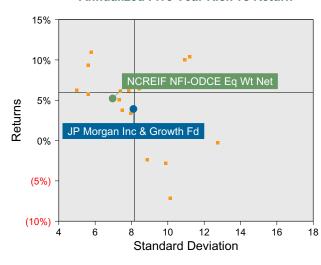
#### Performance vs Callan Real Estate Value Added (Net)



#### Relative Returns vs NCREIF NFI-ODCE Eq Wt Net



#### Callan Real Estate Value Added (Net) Annualized Five Year Risk vs Return



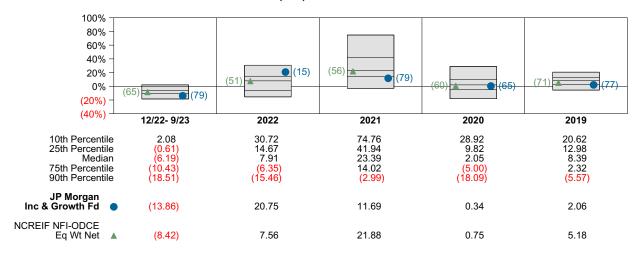


# JP Morgan Inc & Growth Fd **Return Analysis Summary**

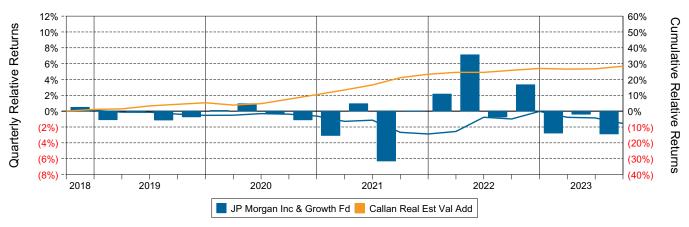
#### **Return Analysis**

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

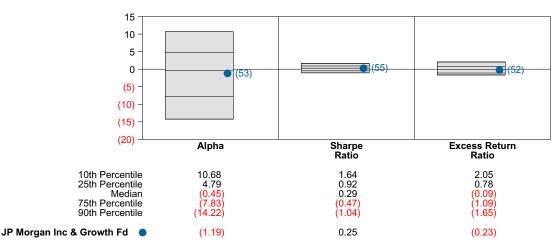
#### Performance vs Callan Real Estate Value Added (Net)



# Cumulative and Quarterly Relative Returns vs NCREIF NFI-ODCE Eq Wt Net



Risk Adjusted Return Measures vs NCREIF NFI-ODCE Eq Wt Net Rankings Against Callan Real Estate Value Added (Net) Five Years Ended September 30, 2023



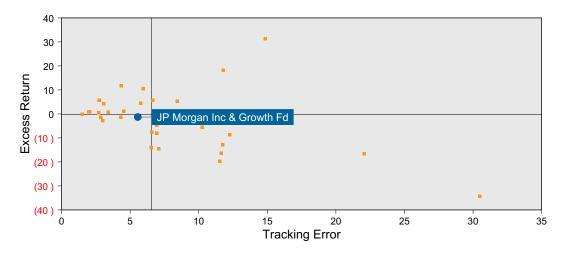


# JP Morgan Inc & Growth Fd **Risk Analysis Summary**

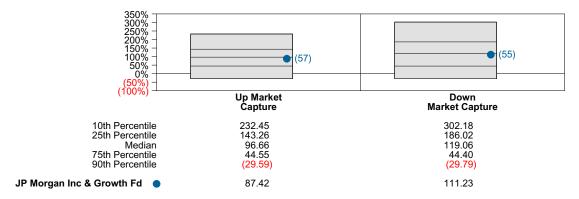
#### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

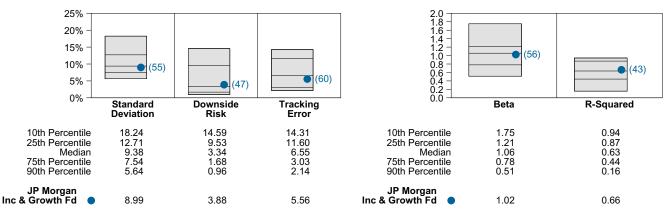
#### Risk Analysis vs Callan Real Estate Value Added (Net) Five Years Ended September 30, 2023



#### Market Capture vs NCREIF NFI-ODCE Equal Weight Net Rankings Against Callan Real Estate Value Added (Net) Five Years Ended September 30, 2023



### Risk Statistics Rankings vs NCREIF NFI-ODCE Equal Weight Net Rankings Against Callan Real Estate Value Added (Net) Five Years Ended September 30, 2023



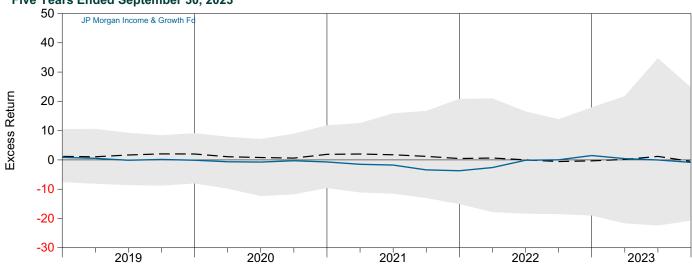


# JP Morgan Income & Growth Fd **Historical Consistency Analysis**

#### Consistency of Excess Return and Relative Std. Dev.

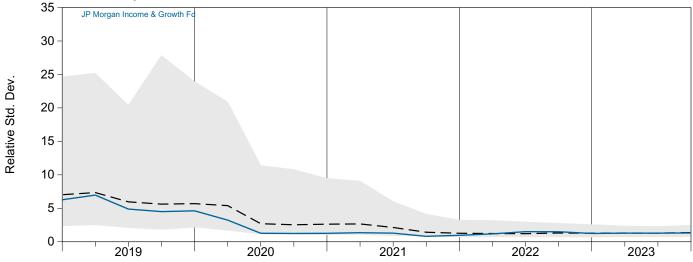
The first chart below illustrates the consistency of excess return over rolling three year periods versus the NCREIF NFI-ODCE Eq Wt Net. The gray area represents the range of excess return for the 10th through 90th percentile for the Callan Real Est Val Add. The second chart below illustrates the consistency of relative std. dev. over rolling three year periods. The tables provide summary statistics for the median manager of the group and the portfolio.

#### Rolling Three Year Excess Return Relative to NCREIF NFI-ODCE Eq Wt Net Five Years Ended September 30, 2023



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Excess Return	0.93%	(0.65)
% Positive Periods	85%	30%
Average Ranking	50	61

#### Rolling Three Year Relative Std. Dev. Relative to NCREIF NFI-ODCE Eq Wt Net Five Years Ended September 30, 2023

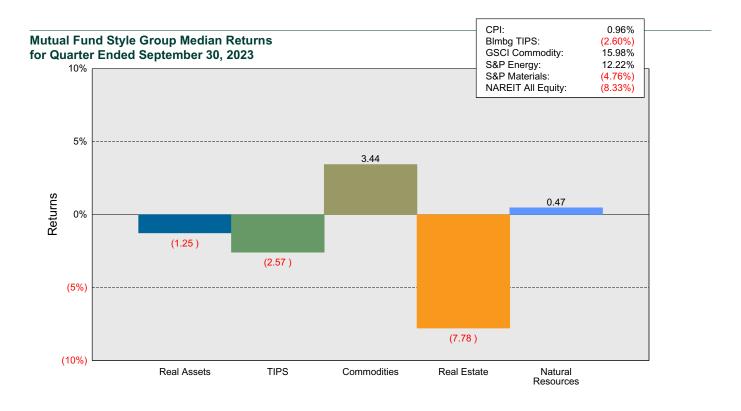


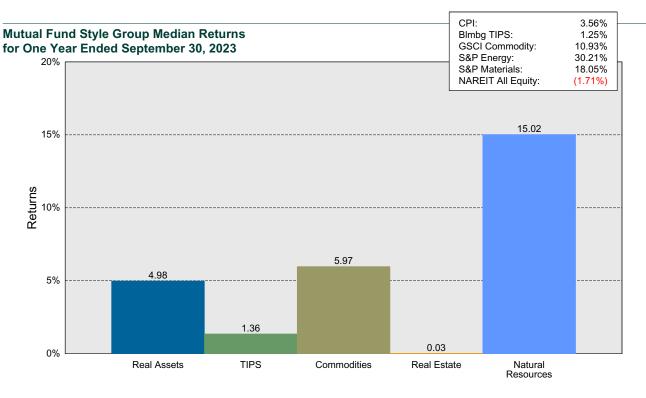
Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Relative Std. Dev.	3.07%	2.40%
% Positive Periods	100%	100%
Average Ranking	50	64



# **Real Assets Active Management Overview**

The energy-heavy S&P GSCI soared 16.0% in 3Q, with oil prices being the key driver. WTI Crude ended the quarter at \$90.79/barrel, up sharply from \$70.64/barrel on 6/30. The Bloomberg Commodity TR Index gained a more modest 4.7% with its energy sub-component up nearly 20% but agriculture down 3.2% and precious metals off 3.6%. Gold (S&P Gold Spot Price: -3.3%), REITs (MSCI US REIT: -7.0%), TIPS (Bloomberg TIPS: -2.6%), and infrastructure (DJB Glbl Infrastructure: -8.1%) all posted negative returns.







# **Western Asset TIPS** Period Ended September 30, 2023

#### **Investment Philosophy**

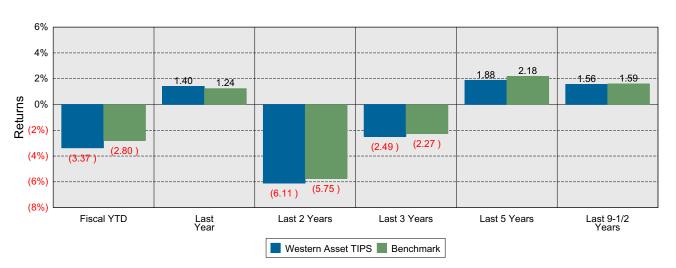
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio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

#### **Quarterly Summary and Highlights**

 Western Asset TIPS's portfolio underperformed the Benchmark by 0.57% for the quarter and outperformed the Benchmark for the year by 0.17%.

#### **Quarterly Asset Growth**

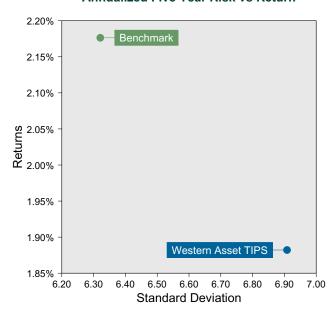
Beginning Market Value	\$383,079,092
Net New Investment	\$-218,851
Investment Gains/(Losses)	\$-12,909,096
Ending Market Value	\$369,951,146



#### Relative Return vs Benchmark

# 1.0% 0.5% 0.0% Relative Returns (0.5%)(1.0%)(1.5%)(2.0%)2019 2020 2021 2022 2023 Western Asset TIPS

#### Annualized Five Year Risk vs Return





# JP Morgan IIF Infrastructure Period Ended September 30, 2023

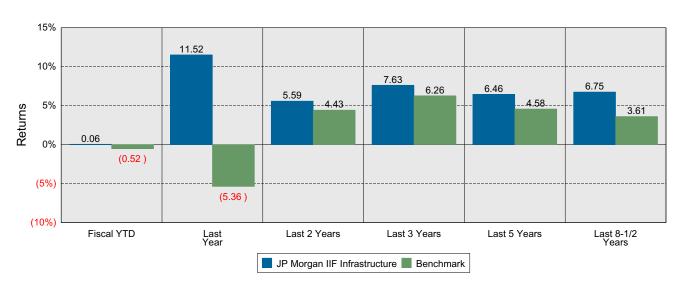
#### **Investment Philosophy**

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 March 31, 2018; 50% CPI-U lagged one guarter and 50% NFI-ODCE Equal Weight Net thereafter.

#### **Quarterly Summary and Highlights**

• JP Morgan IIF Infrastructure's portfolio outperformed the Benchmark by 0.58% for the quarter and outperformed the Benchmark for the year by 16.88%.

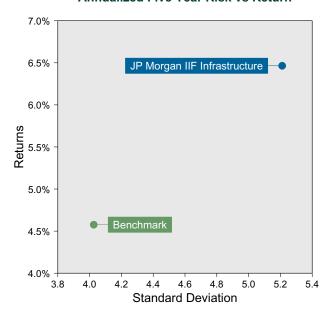
Quarterly Asset Growth		
Beginning Market Value	\$107,235,985	
Net New Investment	\$-1,905,598	
Investment Gains/(Losses)	\$60,132	
Ending Market Value	\$105,390,519	



#### Relative Return vs Benchmark

# 12% 10% 8% 6% Relative Returns 4% 2% (2%) (4%)(6%)2020 18 2019 2021 2022 2023 JP Morgan IIF Infrastructure

#### Annualized Five Year Risk vs Return





# **Grosvenor CIS Fund II** Period Ended September 30, 2023

#### **Investment Philosophy**

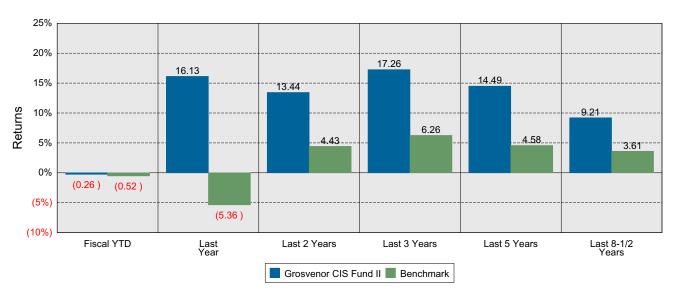
The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified 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 March 31, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

#### **Quarterly Summary and Highlights**

• Grosvenor CIS Fund II's portfolio outperformed the Benchmark by 0.27% for the quarter and outperformed the Benchmark for the year by 21.49%.

Quarterly	Asset	Growth
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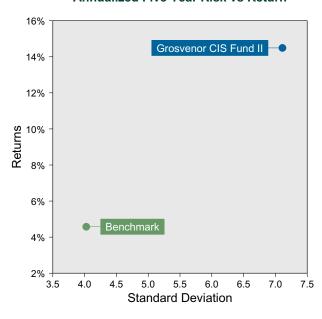
Beginning Market Value	\$53,473,443
Net New Investment	\$-2,647,907
Investment Gains/(Losses)	\$-136,439
Ending Market Value	\$50,689,097



#### Relative Return vs Benchmark

# 12% 10% 6% Relative Returns 4% 2% (2%) (4%)(6%)18 2019 2020 2021 2022 2023 Grosvenor CIS Fund II

#### Annualized Five Year Risk vs Return





# **Grosvenor CIS Fund III** Period Ended September 30, 2023

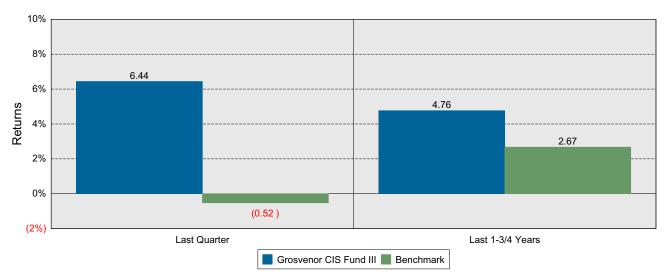
#### **Investment Philosophy**

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 outperformed the Benchmark by 6.96% for the quarter and outperformed the Benchmark for the year by 17.33%.

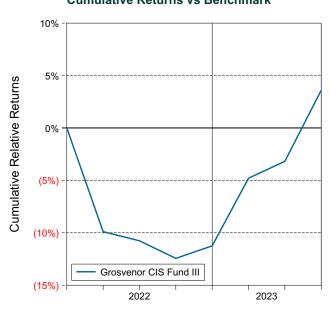
Quarterly Asset Growth		
Beginning Market Value	\$42,664,146	
Net New Investment	\$-4,827,417	
Investment Gains/(Losses)	\$2,606,913	
Ending Market Value	\$40,443,642	



#### **Relative Return vs Benchmark**

# 10% Relative Returns (5%) (10%)(15%)2022 2023 - Grosvenor CIS Fund III

# **Cumulative Returns vs Benchmark**





## ISQ Global Infrastructure II Period Ended September 30, 2023

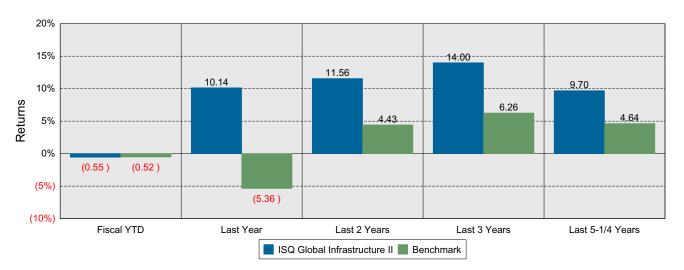
#### **Investment Philosophy**

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 guarter and 50% NFI-ODCE Equal Weight Net.

#### **Quarterly Summary and Highlights**

• ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 0.03% for the quarter and outperformed the Benchmark for the year by 15.50%.

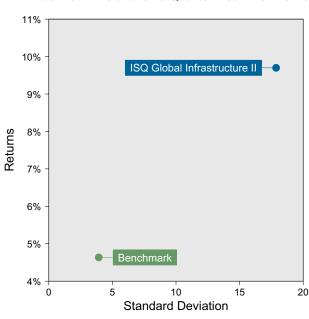
Quarterly Asset Gro	owth
Beginning Market Value	\$78,837,174
Net New Investment	\$1,537,428
Investment Gains/(Losses)	\$-441,155
Ending Market Value	\$79,933,447



#### **Relative Return vs Benchmark**

## 40% 30% 20% Relative Returns 10% 0% (10%)(20%)(30%) 2018 2019 2020 2021 2022 2023 ISQ Global Infrastructure II

#### Annualized Five and One-Quarter Year Risk vs Return





## ISQ Global Infrastructure III Period Ended September 30, 2023

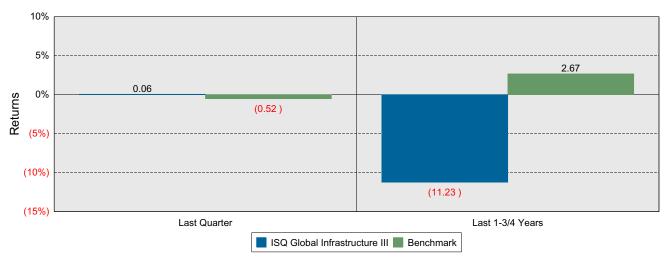
#### **Investment Philosophy**

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 guarter and 50% NFI-ODCE Equal Weight Net.

#### **Quarterly Summary and Highlights**

• ISQ Global Infrastructure III's portfolio outperformed the Benchmark by 0.58% for the quarter and outperformed the Benchmark for the year by 46.47%.

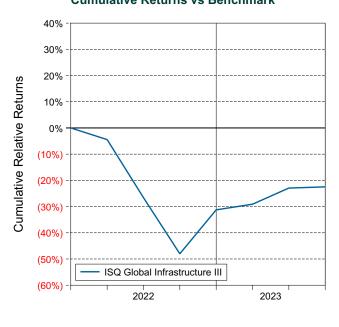
Quarterly Asset Gro	wth
Beginning Market Value	\$26,678,283
Net New Investment	\$0
Investment Gains/(Losses)	\$15,012
Ending Market Value	\$26,693,295



#### **Relative Return vs Benchmark**

# 40% 30% 20% Relative Returns 10% 0% (10%)(20%)(30%)(40%)2022 2023 ISQ Global Infrastructure III

## **Cumulative Returns vs Benchmark**





## **Macquarie Infrastructure Fund IV** Period Ended September 30, 2023

#### **Investment Philosophy**

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

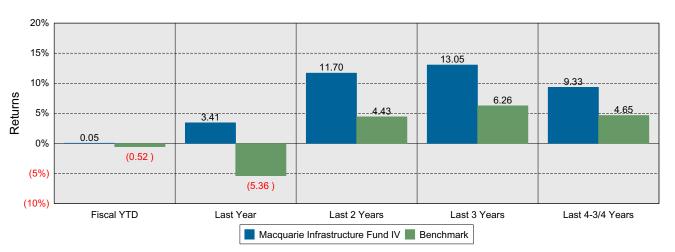
#### **Quarterly Summary and Highlights**

 Macquarie Infrastructure Fund IV's portfolio outperformed the Benchmark by 0.57% for the quarter and outperformed the Benchmark for the year by 8.77%.

Quarterly Asset Growth	
Beginning Market Value	\$91,879,327
Net New Investment	\$-42,978
Investment Gains/(Losses)	\$42,978

\$91,879,327

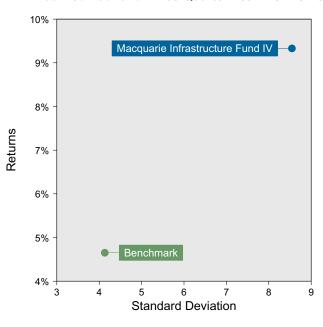
**Ending Market Value** 



## Relative Return vs Benchmark

# 15% 10% 5% Relative Returns (5%)(10%)(15%)2019 2020 2021 2022 2023 Macquarie Infrastructure Fund IV

#### Annualized Four and Three-Quarter Year Risk vs Return





## **Macquarie Infrastructure Fund V** Period Ended September 30, 2023

#### **Investment Philosophy**

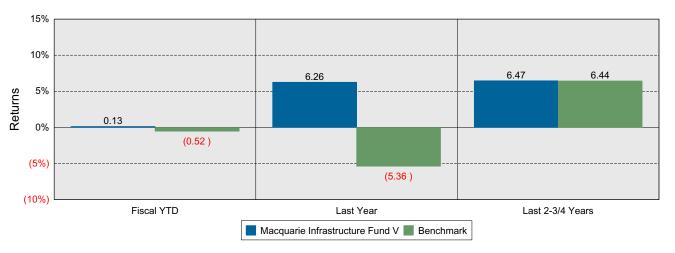
Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience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

#### **Quarterly Summary and Highlights**

 Macquarie Infrastructure Fund V's portfolio outperformed the Benchmark by 0.66% for the quarter and outperformed the Benchmark for the year by 11.63%.

#### **Quarterly Asset Growth**

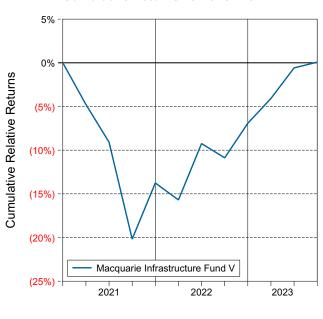
Beginning Market Value	\$91,961,248
Net New Investment	\$5,780,628
Investment Gains/(Losses)	\$130,851
Ending Market Value	\$97,872,727



#### **Relative Return vs Benchmark**

# 15% 10% Relative Returns 0% (5%)(10%)(15%)2021 2022 2023 Macquarie Infrastructure Fund V

#### **Cumulative Returns vs Benchmark**









3rd Quarter 2023

## **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

#### 3Q23 Real Assets Reporter: Office-to-Residential Conversions

This paper discusses issues surrounding office-to-residential conversions and the key elements that institutional investors need to understand about these challenging projects.

Real Estate Indicators: Too Hot to Touch or Cool Enough to Handle? 2Q23 | Callan's Real Assets Consulting group identifies seven indicators—based on spreads in real estate and fixed income markets—that, combined with an understanding of prevailing market dynamics, have helped signal when the institutional real estate market is overheated or cooled.

#### **Blog Highlights**

Our First Private Credit Fees and Terms Study: What We Found in 2023 | Callan's 2023 Private Credit Fees and Terms Study is our inaugural study in the private credit space. The study is intended to help institutional investors better evaluate private credit funds.

#### An Investor's Guide to the Nasdaq-100's Special Rebalance

Over the summer, the Nasdaq-100 Index implemented a "Special Rebalance" to reduce the influence of a few key stocks, which had grown to have a large effect on the index.

<u>Callan Discount Rate Reporter</u> | These blog posts from our Corporate DB Plan Focus Group are monthly updates about the impact of interest rates on corporate defined benefit (DB) plans, designed to highlight trends in the market.

<u>How Your Public DB Plan's Returns Compare</u> | These blog posts provide context for public defined benefit (DB) plans about their returns over time, from our Public DB Plan Focus Group.

#### **Quarterly Updates**

<u>Private Equity Update</u>, <u>2Q23</u> | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 2Q23 | A comparison of active managers alongside relevant benchmarks over the long term

<u>Market Pulse</u>, <u>2Q23</u> | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

<u>Capital Markets Review, 2Q23</u> | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

<u>Hedge Fund Update, 2Q23</u> | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Update, 2Q23 | A summary of market activity for real assets and private real estate during the quarter

<u>Private Credit Update, 2Q23</u> | A review of performance and fundraising activity for private credit during the quarter

<u>Callan Target Date Index™, 2Q23</u> | Allows plan sponsors, managers, and participants to track the performance and asset allocation of available target date mutual funds and collective trusts.

<u>Callan DC Index™</u>, <u>2Q23</u> | Provides underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately \$400 billion in assets

#### **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:

Webinar: Callan's Retirement Conundrum

Nov. 15, 2023 - Virtual

Webinar: Callan's 2024 Capital Markets Assumptions

Jan. 17, 2024 - Virtual

2024 National Conference

April 8-10, 2024 - San Francisco

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

#### **Education: By the Numbers**

Unique pieces of research the Institute generates each year

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.

#### **Alternative Investments**

Feb. 21-22, 2024 - Virtual

Alternative investments like private equity, hedge funds, and real estate can play a key role in any portfolio. In our "Callan College" on Alternatives, you will learn about the importance of allocations to alternatives, and how to consider integrating, evaluating, and monitoring them.

## Introduction to Investments March 5-7, 2024 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities.

Our virtual sessions are held over two to three days with virtual modules of 2.5-3 hours, while in-person sessions run either a full day or one-and-a-half days. 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







# Callan

Quarterly List as of September 30, 2023

## **List of Callan's Investment Manager Clients**

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

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

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Manager Name
abrdn
ABS Global Investments
Acadian Asset Management LLC
Adams Street Partners, LLC
Aegon Asset Management
AllianceBernstein
Allspring Global Investments, LLC
Altrinsic Global Advisors, LLC
American Century Investments
Amundi US, Inc.
Antares Capital LP
Apollo Global Management, Inc.
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
AXA Investment Managers

Manager Name
Axion Investors LLC
Baillie Gifford International, LLC
Baird Advisors
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BentallGreenOak
Beutel, Goodman & Company Ltd.
BlackRock
Blackstone Group (The)
Blue Owl Capital, Inc.
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management Inc.
Brookfield Public Securities Group LLC
Brown Brothers Harriman & Company



**Manager Name** 

Capital Group

CastleArk Management, LLC

CIBC Asset Management Inc.

ClearBridge Investments, LLC

Cohen & Steers Capital Management, Inc.

Columbia Threadneedle Investments NA

**Comvest Partners** 

CQS

Credit Suisse Asset Management, LLC

D.E. Shaw Investment Management, LLC

DePrince, Race & Zollo, Inc.

Dimensional Fund Advisors L.P.

Doubleline

**DWS** 

**EARNEST Partners, LLC** 

Eleos Partners, LLC

Fayez Sarofim & Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Eagle Investment Management, LLC

First Hawaiian Bank Wealth Management Division

First Sentier Investors

Fisher Investments

Fort Washington Investment Advisors, Inc.

Franklin Templeton

Fred Alger Management, LLC

GAM (USA) Inc.

GAMCO Investors, Inc.

GlobeFlex Capital, L.P.

GoldenTree Asset Management, LP

Goldman Sachs

Golub Capital

Guggenheim Investments

**GW&K Investment Management** 

Harbor Capital Advisors

Hardman Johnston Global Advisors LLC

Heitman LLC

Hotchkis & Wiley Capital Management, LLC

Impax Asset Management LLC

**Manager Name** 

Income Research + Management

Insight Investment

Intech Investment Management LLC

Intercontinental Real Estate Corporation

Invesco

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

KeyCorp

Kohlberg Kravis Roberts & Co. (KKR)

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 (MAM)

Manulife Investment Management

Marathon Asset Management, L.P.

MetLife Investment Management

MFS Investment Management

MidFirst Bank

Mondrian Investment Partners Limited

Montag & Caldwell, LLC

Morgan Stanley Investment Management

MUFG Union Bank, N.A.

Natixis Investment Managers

Neuberger Berman

**Newton Investment Management** 

Northern Trust Asset Management

Nuveen

Oaktree Capital Management, L.P.

P/E Investments

Pacific Investment Management Company

Pantheon Ventures

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.



**Manager Name** 

Pathway Capital Management, LP

PFM Asset Management LLC

**PGIM DC Solutions** 

PGIM Fixed Income

**PGIM Quantitative Solutions LLC** 

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Pretium Partners, LLC

Principal Asset Management

Putnam Investments, LLC

Raymond James Investment Management

**RBC Global Asset Management** 

Regions Financial Corporation

Robeco Institutional Asset Management, US Inc.

**S&P** Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

**SLC Management** 

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

State Street Global Advisors

**Manager Name** 

Strategic Global Advisors, LLC

TD Global Investment Solutions - TD Epoch

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Thrivent Investment Management, Inc.

Tri-Star Trust Bank

**UBS Asset Management** 

ULLICO Investment Advisors, Inc.

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

Xponance, Inc.



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