Callan

September 30, 2023 Pennsylvania SERS Defined Benefit Plan

Investment Measurement Service Quarterly Review

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Capital Markets Review

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 For Third Annual Fall

FIXED INCOME

8 P A G E Constant of the set of the

Returns Easily Exceed Leveraged Loans

PRIVATE CREDIT

Lagging Bond Gains Hinder Performance

INSTITUTIONAL INVESTORS

4
P A G EWhile 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

10 P A G E 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

13 PAGE 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 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

15 PAGE 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. Fixed Income Bloomberg Agg







Sources: Bloomberg, FTSE Russell, MSCI

Stunning Growth as Clouds Loom

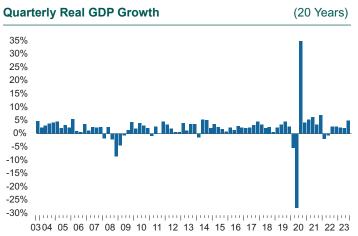
ECONOMY | Jay Kloepfer

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.

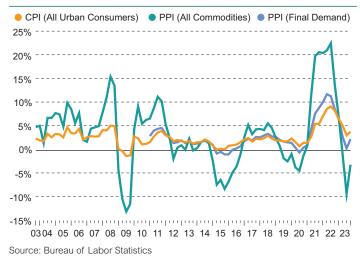
Headline inflation fell from 9% (year-over-year) in June 2022 to 3% in June 2023, a remarkable reduction. The decline likely reflected both the un-knotting of global supply chains following the pandemic, and the efforts of the Federal Reserve and central banks around the globe to contain inflation with 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



Source: Bureau of Economic Analysis





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

Index	3Q23	P 1 Yr		Ended 10 Yrs	
U.S. Equity	0020		•		
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

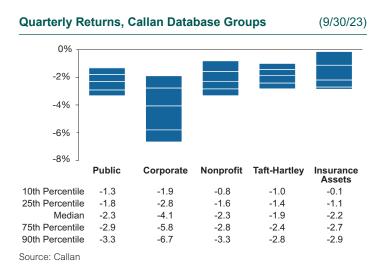
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

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.



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

*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

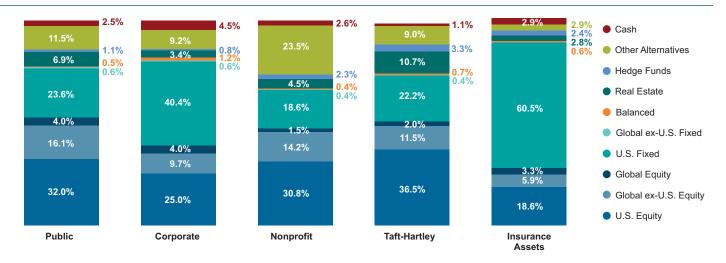
- Liabilities decreased slightly, reflecting a small increase in discount rates. Plans that were fully hedged experienced minimal funded status volatility over the quarter.
- Closed plans' liabilities continue to shorten from aging participants. We are seeing more and more interest in intermediate fixed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

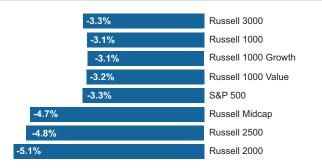
- All U.S. equity indices posted negative absolute returns during 3Q23.
- The Russell 2000 Value Index led the pack during the quarter, which was a reversal of the previous two quarters when the Russell 1000 Growth Index led.
- Only 2 of the 11 S&P 500 Index sectors gained in 3Q; Energy was up 12% and 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.

U.S. Equity: Quarterly Returns





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

 The "Magnificent 7" has buoyed large cap index returns and has outperformed the broader market significantly. YTD, the Magnificent 7 alone is up 83%.

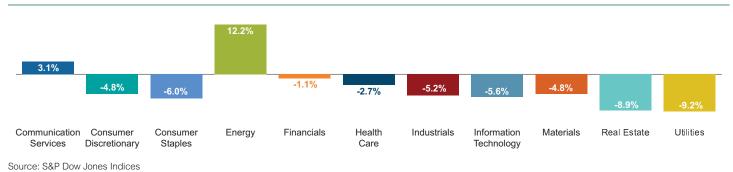
 No exposures or significant underweights to top benchmark names have been disadvantageous to absolute and relative performance for managers' portfolios.

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.



Sources: FTSE Russell and S&P Dow Jones Indices



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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

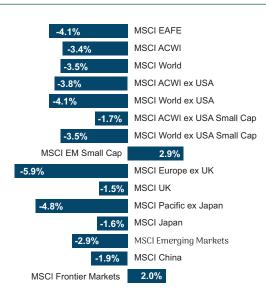
Merits

- 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.

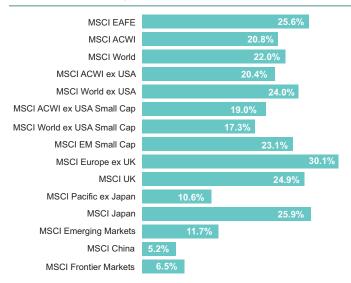
Considerations

- 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.

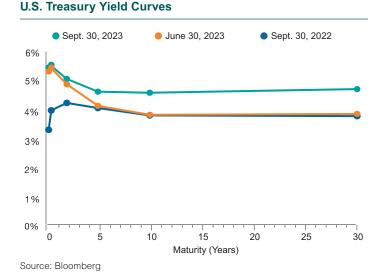
Municipal Bonds

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%

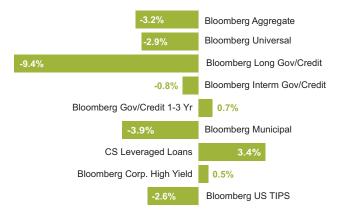
U.S. Treasury yield curve remains inverted

- 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

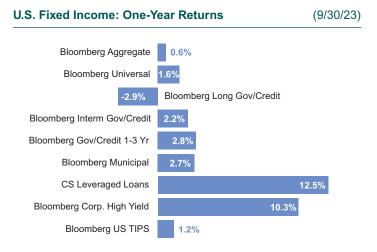


U.S. Fixed Income: Quarterly Returns

(9/30/23)



Sources: Bloomberg and Credit Suisse



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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.

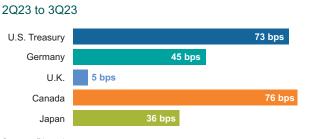
U.S. dollar strength detracted from unhedged returns

 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



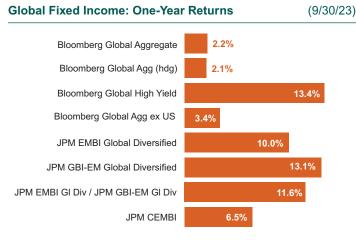
Source: Bloomberg

Global Fixed Income: Quarterly Returns



(9/30/23)

Sources: Bloomberg and JPMorgan Chase



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).



-0.1%

Source: NCREIF

-3.7%

 REITs are now trading at a discount to NAV (-16%) and offer relative value given the recent selloff.

Office

Retail

- 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 equitybacked 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

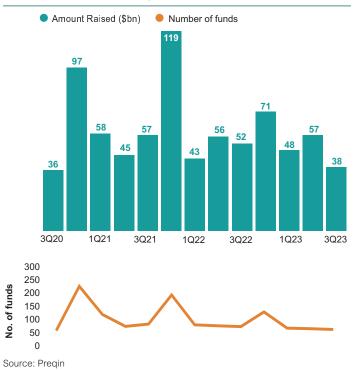
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

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)



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

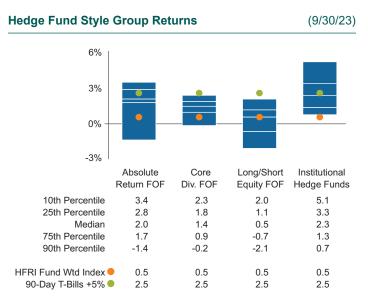
*Most recent data available at time of publication

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.



Sources: Callan, Credit Suisse, Federal Reserve

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

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

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

Hedge funds ended 3Q slightly higher, as equity markets sold off during the quarter 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 quarter. 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.

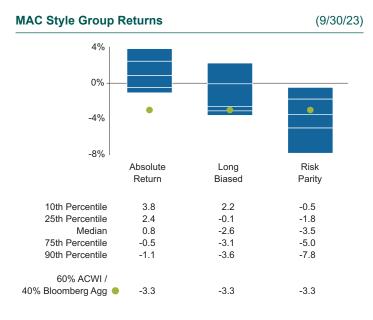
Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group rose 2.3%. Within this style group of 50 peers, the average hedge credit manager gained 4.0%, as lower-rated credits outperformed higher-rated 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 quarter 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.

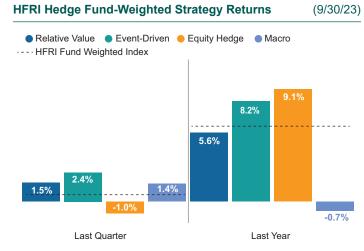
Across the Callan Hedge Fund-of-Funds (FOF) Database, the median Callan Long-Short Equity FOF ended 0.5% higher, as generalist managers offset specialists during the quarter. Meanwhile, the median Callan Core Diverse FOF ended 1.4% higher, as macro and event-driven managers drove performance. Callan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



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





Source: HFRI

Index Finishes 2Q23 with Third Straight Gain

DEFINED CONTRIBUTION | Scotty Lee

Performance: DC Index Gains 4.7%

 The Callan DC Index[™] 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 quarterly 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%).

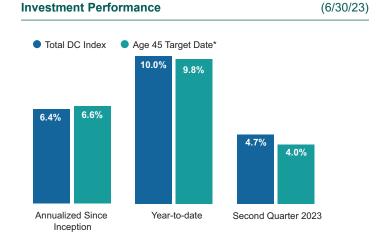
Asset Allocation: Large Cap Gains

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

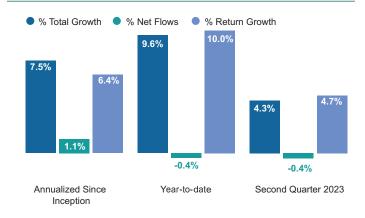
Prevalence of Asset Class: Company Stock Rises

 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.



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.

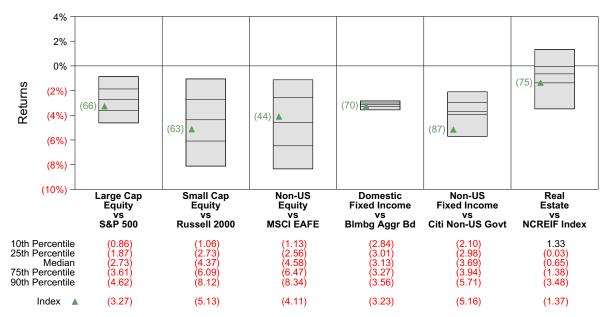
Active Management Overview

Market Overview Active Management vs Index Returns

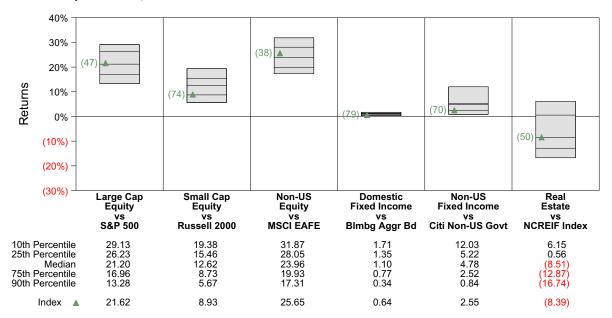
Market Overview

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





Asset Allocation and Performance

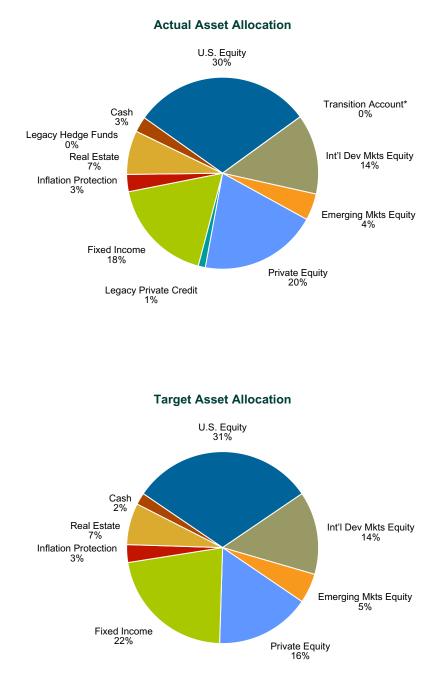
ASSET ALLOCATION AND PERFORMANCE

Asset Allocation and Performance

This section begins with an overview of the fund's asset allocation at the broad asset class level. This is followed by a top down performance attribution analysis which analyzes the fund's performance relative to the performance of the fund's policy target asset allocation. The fund's historical performance is then examined relative to funds with similar objectives. Performance of each asset class is then shown relative to the asset class performance of other funds. Finally, a summary is presented of the holdings of the fund's investment managers, and the returns of those managers over various recent periods.

Actual vs Target Asset Allocation As of September 30, 2023

The first chart below shows the Fund's current asset allocation. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement. Transition account market values are not included in any asset class and are excluded from these charts.



\$000s Weight Percent \$000s Difference Asset Class Difference Actual Actual Target U.S. Equity Transition Account* Int'I Dev Mkts Equity 30.2% 0.0% 13.5% 31.0% 0.0% 14.0% 10,396,188 988 (270,341) 988 (0.8%) 0.0% 4,656,489 (0.5%) (0.5%) 3.9% 1.2% (160,654) (188,588) 5.0% 16.0% 0.0% 22.0% Emerging Mkts Equity Private Equity 1,531,820 4.5% 6,856,175 397,212 6,134,570 19.9% 1,350,870 Legacy Private Credit Fixed Income 397,212 (1,435,225) (36,616) 1.2% (4.2%) (0.1%) 17.8% 2.9% 7.4% 0.0% 3.0% 7.0% 0.0% Inflation Protection 995,629 2,543,394 16.557 0.4% 134,823 Real Estate Legacy Hedge Funds Cash 879,137 2.6% 2.0% 190,973 0.6% 34.408.158 100.0% 100.0% Total

*Market values are shown net of accrued fees.



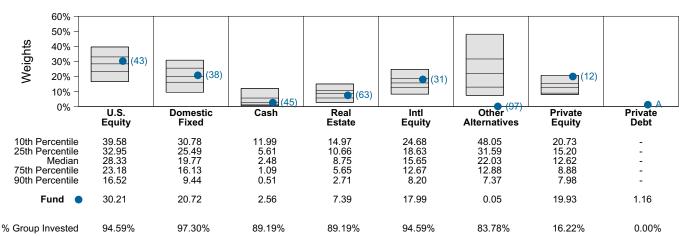
Actual Asset Allocation As of September 30, 2023

The first chart below shows the Fund's asset allocation as of September 30, 2023. The second chart ranks the fund's asset allocation versus the Callan Public Fund Spons- V Lg DB (>10B).

Actual Asset Allocation

U.S. Equity 30% Cash Transition Account* 0% 3% Legacy Hedge Funds 0% Int'l Dev Mkts Equity 14% Real Estate 7% Legacy Fixed Income 0% Inflation Protection 3% **Emerging Mkts Equity** Nominal U.S. Treasuries 4% 2% Opp Fixed Income 3% Private Equity Core Fixed Income 20% 13% Legacy Private Credit 1%

Asset Class	\$000s Actual	Weight Actual
U.S. Equity	10,396,188	30.2%
Transition Account*	988	0.0%
Int'l Dev Mkts Equity	4,656,489	13.5%
Emerging Mkts Equity	1,531,820	4.5%
Private Equity	6,856,175	19.9%
Legacy Private Credit	397,212	1.2%
Core Fixed Income	4,330,741	12.6%
Opp Fixed Income	891,741	2.6%
Nominal U.S. Treasuries	810,179	2.4%
Inflation Protection	995,629	2.9%
Legacy Fixed Income	101,909	0.3%
Real Estate	2,543,394	7.4%
Legacy Hedge Funds	16,557	0.0%
Cash	879,137	2.6%
Total	34,408,158	100.0%



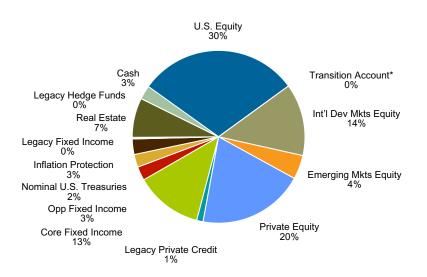
Asset Class Weights vs Callan Public Fund Spons- V Lg DB (>10B)

*Market values are shown net of accrued fees.



Actual 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 ranks the fund's asset allocation versus the Callan Public Fund Spons - Large (>1B).



Actual Asset Allocation

Asset Class	\$000s Actual	Weight Actual
U.S. Equity	10,396,188	30.2%
Transition Account*	988	0.0%
Int'l Dev Mkts Equity	4,656,489	13.5%
Emerging Mkts Equity	1,531,820	4.5%
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Cash	879,137	2.6%
Total	34,408,158	100.0%

60% 50% Weights 40% (48) 30% (49) **(**6) 20% • (43) 10% (69) (33) 0% Other U.S. Domestic Cash Real Intl Private Equity Equity Fixed Estate Alternatives Equity 43.98 37.00 29.50 23.26 8.51 3.77 1.57 0.74 10th Percentile 39.42 15.48 26.08 45.57 18.55 26.57 20.67 16.81 11.36 9.35 6.77 20.32 16.54 13.74 29.52 20.22 7.69 14.54 12.62 10.21 25th Percentile Median 75th Percentile 90th Percentile 17.02 0.44 5.09 9.47 2.85 8.50 13.73 20.72 2.56 7.39 0.05 19.93 Fund 30.21 17.99 % Group Invested 95.16% 96.77% 87.10% 75.81% 93.55% 72.58% 19.35%

Asset Class Weights vs Callan Public Fund Spons - Large (>1B)

*Market values are shown net of accrued fees.



Private

Debt

-

-

-

-

1.16

0.00%

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.



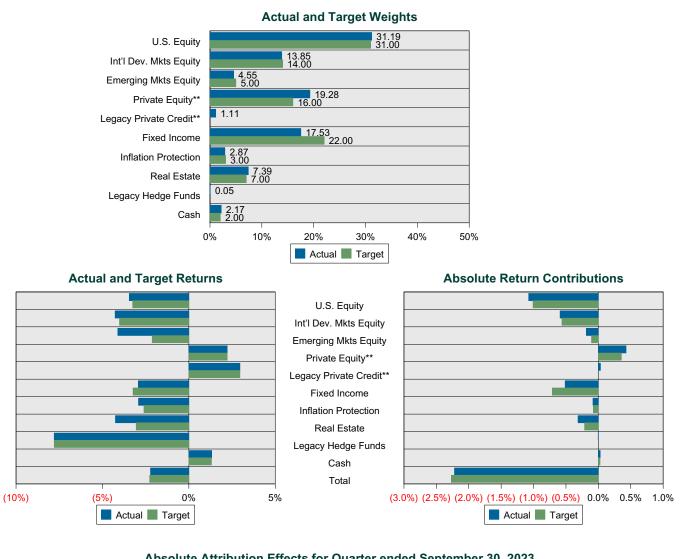
\$Millions \$Millions Weight Percent Asset Class Actual Actual Target Difference Difference 75.0% 25.0% 4.4% **Return Seeking** 26,995 79.4% 1,487 Capital Preservation 7,016 20.6% (4.4% 1,487) 34,011 100.0% Total 100.0%

*Return Seeking Assets: U.S. Equity, Int'l Developed Markets Equity, Emerging Markets Equity, Transition Account, Private Equity, Real Estate, Opportunistic Fixed Income, Legacy Hedge Funds and Legacy Fixed Income. *Capital Preservation Assets: Core Fixed Income, Nominal U.S. Treasuries, Inflation Protection (TIPS) and Cash. *Market values are shown net of accrued fees; Legacy Private Credit is excluded from this analysis.



Quarterly Total Fund Absolute Attribution - September 30, 2023

The following analysis approaches Total Fund Attribution from the perspective of Absolute Return Contribution. Absolute return attribution quantifies the contribution of each asset class to total fund absolute performance as well as target performance. Absolute return contribution is a function of both the size of the exposure (\$ weight) to each asset class as well as the actual return of each asset class.



Absolute Attribution Effects for Quarter ended September 30, 2023

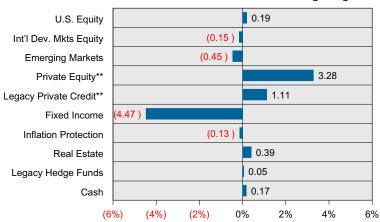
	Effective Actual Weight	Actual Return	Absolute Return Contribution	Effective Target Weight	Target Return	Target Return Contribution	Return Contribution Difference
U.S. Equity	31%	(3.45%)	(1.08%)	31%	(3.25%)	(1.01%)	(0.07%)
Int'l Dev. Mkts Equity	14%	(4.27%)	(0.59%)	14%	(4.02%)	(0.56%)	(0.03%)
Emerging Mkts Equity	5%	(4.11%)	(0.19%)	5%	(2.12%)	(0.11%)	(0.08%)
Private Equity**	19%	2.22%	0.43%	16%	2.22%	0.36%	0.07%
Legacy Private Credit**	1%	2.96%	0.03%	0%	2.96%	0.00%	0.03%
Fixed Income	18%	(2.93%)	(0.51%)	22%	(3.23%)	(0.71%)	0.20%
Inflation Protection	3%	(2.92%)	(0.08%)	3%	(2.60%)	(0.08%)	(0.01%)
Real Estate	7%	(4.25%)	(0.31%)	7%	(3.05%)	(0.21%)	(0.10%)
Legacy Hedge Funds	0%	(7.79%)	(0.00%)	0%	(7.79%)	0.00%	(0.00%)
Cash	2%	1.33%	0.03%	2%	1.31%	0.03%	0.00%
	Total Fun	d Return	(2.22%)		Target Return	(2.27%)	0.05%

* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.

**For this analysis, PE and PC are benchmarked to the SERS' PE and PC program returns, respectively.

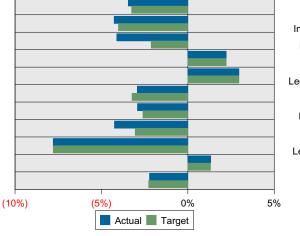
Quarterly Total Fund Relative Attribution - September 30, 2023

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.



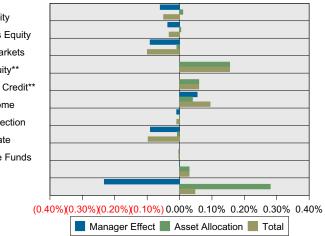
Asset Class Under or Overweighting

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
U.S. Equity	31%	31%	(3.45%)	(3.25%)	(0.06%)	0.01%	(0.05%)
Int'l Dev. Mkts Equity	14%	14%	(4.27%)	(4.02%)	(0.04%)	0.00%	(0.03%)
Emerging Markets	5%	5%	(4.11%)	(2.12%)	(0.09%)	(0.01%)	(0.10%)
Private Equity**	19%	16%	2.22%	2.22%	0.00%	0.15%	0.15%
Legacy Private Credit**	1%	0%	2.96%	2.96%	0.00%	0.06%	0.06%
Fixed Income	18%	22%	(2.93%)	(3.23%)	0.05%	0.04%	0.09%
Inflation Protection	3%	3%	(2.92%)	(2.60%)	(0.01%)	0.00%	(0.01%)
Real Estate	7%	7%	(4.25%)	(3.05%)	(0.09%)	(0.01%)	(0.10%)
Legacy Hedge Funds	0%	0%	(7.79%)	(7.79%)	0.00%	(0.00%)	(0.00%)
Cash	2%	2%	1.33%	1.31%	(0.00%)	0.03%	0.03%
Total			(2.22%) =	(2.27%) +	(0.23%) +	0.28%	0.05%

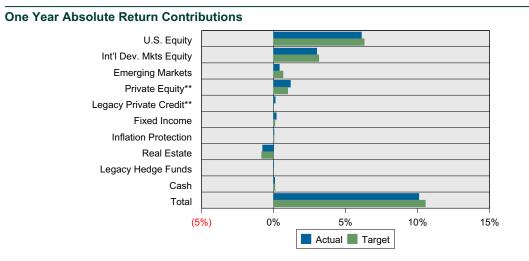
* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index. 2% ICE BofAML 3 Mo US T-Bill Index.

**For this analysis, PE and PC are benchmarked to the SERS' PE and PC program returns, respectively.

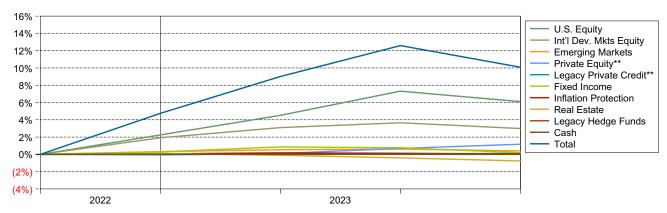


Cumulative Total Fund Absolute Attribution - September 30, 2023

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of absolute total fund performance and target performance. These cumulative results quantify the longer-term contribution of each asset class to absolute total fund return as well as the target return.



Cumulative Absolute Return Contributions



One Year Absolute Attribution Effects

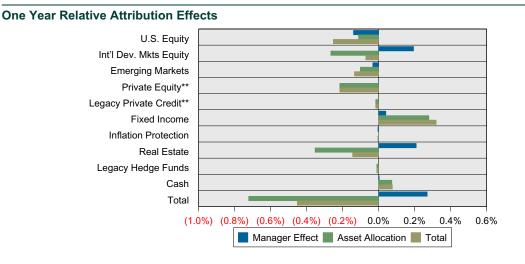
	Effective Actual Weight	Actual Return	Absolute Return Contribution	Effective Target Weight	Target Return	Target Return Contribution	Return Contribution Difference
U.S. Equity	31%	19.95%	6.10%	31%	20.46%	6.29%	(0.18%)
Int'l Dev. Mkts Equity	13%	24.63%	2.99%	14%	23.03%	3.14%	(0.15%)
Emerging Markets	4%	12.78%	0.40%	5%	13.21%	0.65%	(0.25%)
Private Equity**	19%	5.59%	1.17%	16%	5.59%	0.98%	0.19%
Legacy Private Credit**	1%	9.07%	0.11%	0%	9.07%	0.00%	0.11%
Fixed Income	18%	0.91%	0.19%	22%	0.64%	0.09%	0.09%
Inflation Protection	3%	1.14%	0.03%	3%	1.25%	0.03%	(0.00%)
Real Estate	8%	(8.52%)	(0.76%)	7%	(10.51%)	(0.83%)	0.07%
Legacy Hedge Funds	0%	(7.63%)	(0.00%)	0%	`(7.63%)	0.00%	(0.00%)
Cash	2%	4.70%	0.08%	2%	4.47%	0.09%	(0.02%)
	Total Fu	nd Return	10.09%		Target Return	10.54%	(0.45%)

* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.

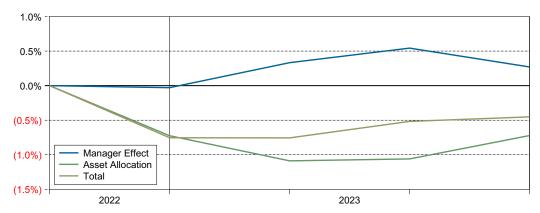
**For this analysis, PE and PC are benchmarked to the SERS' PE and PC program returns, respectively.

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.



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
	U	0					
U.S. Equity	31%	31%	19.95%	20.46%	(0.14%)	(0.11%)	(0.25%)
Int'l Dev. Mkts Equity	13%	14%	24.63%	23.03%	0.19%	(0.27%)	(0.07%)
Emerging Markets	4%	5%	12.78%	13.21%	(0.03%)	(0.10%)	(0.13%)
Private Equity**	19%	16%	5.59%	5.59%	0.00%	(0.22%)	(0.22%)
Legacy Private Credit**	1%	0%	9.07%	9.07%	0.00%	(0.02%)	(0.02%)
Fixed Income	18%	22%	0.91%	0.64%	0.04%	0.28%	0.32%
Inflation Protection	3%	3%	1.14%	1.25%	(0.00%)	(0.00%)	(0.00%)
Real Estate	8%	7%	(8.52%)	(10.51%)	0.21%	(0.35%)	(0.14%)
Legacy Hedge Funds	0%	0%	(7.63%)	(7.63%)	0.00%	(0.01%)	(0.01%)
Cash	2%	2%	4.70%	4.47%	0.00%	0.07%	0.08%
Total			10.09% =	10.54% +	• 0.27% +	(0.72%)	(0.45%)

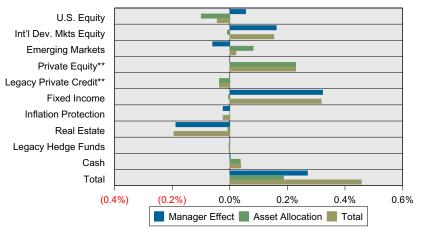
* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index. 2% ICE BofAML 3 Mo US T-Bill Index.

**For this analysis, PE and PC are benchmarked to the SERS' PE and PC program returns, respectively.

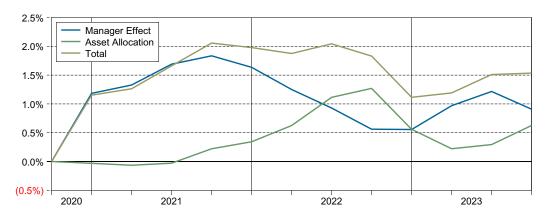
Cumulative Total Fund Relative Attribution - September 30, 2023

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.





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
	U						
U.S. Equity	29%	29%	9.66%	9.38%	0.06%	(0.10%)	(0.04%)
Int'l Dev. Mkts Equity	13%	14%	6.70%	5.45%	0.16%	(0.01%)	0.15%
Emerging Markets	4%	5%	(1.76%)	(0.29%)	(0.06%)	0.08%	0.02%
Private Equity**	17%	14%	20.37%	20.37%	0.00%	0.23%	0.23%
Legacy Private Credit**	3%	2%	13.60%	13.60%	0.00%	(0.04%)	(0.04%)
Fixed Income	22%	23%	(4.00%)	(5.21%)	0.32%	(0.00%)	0.32%
Inflation Protection	3%	3%	(2.68%)	(1.98%)	(0.02%)	(0.00%)	(0.02%)
Real Estate	8%	7%	5.33%	7.57%	(0.19%)	(0.01%)	(0.19%)
Legacy Hedge Funds	0%	0%	0.52%	(0.38%)	0.00%	(0.00%)	(0.00%)
Cash	2%	2%	1.81%	1.70%	0.00%	0.04%	0.04%
Total			6.02% =	5.56% +	0.27% +	0.19%	0.46%

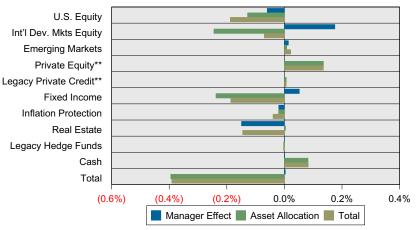
* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index. 2% ICE BofAML 3 Mo US T-Bill Index.

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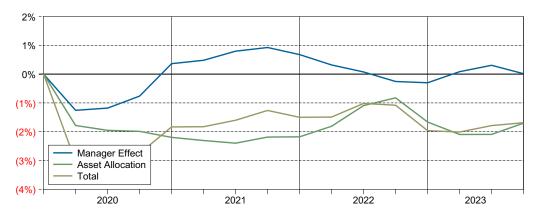
Cumulative Total Fund Relative Attribution - September 30, 2023

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.





Cumulative Relative Attribution Effects



Three and Three-Quarter Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
U.S. Equity	28%	28%	8.73%	8.96%	(0.06%)	(0.13%)	(0.19%)
Int'l Dev. Mkts Equity	13%	14%	3.68%	2.42%	0.18%	(0.24%)	(0.07%)
Emerging Markets	4%	5%	(0.49%)	(0.58%)	0.01%	0.01%	0.02%
Private Equity**	16%	14%	17.31%	17.31%	0.00%	0.14%	0.14%
Legacy Private Credit**	2%	3%	10.52%	10.52%	0.00%	0.01%	0.01%
Fixed Income	22%	24%	(2.33%)	(2.49%)	0.05%	(0.24%)	(0.19%)
Inflation Protection	3%	3%	0.15%	0.76%	(0.02%)	(0.02%)	(0.04%)
Real Estate	8%	7%	3.87%	5.62%	(0.15%)	0.00%	(0.15%)
Legacy Hedge Funds	0%	0%	0.04%	0.37%	(0.00%)	(0.00%)	(0.00%)
Cash	2%	2%	1.61%	1.53%	0.00%	0.08%	0.08%
Total			5.04% =	5.44% +	• 0.00% +	(0.39%)	(0.39%)

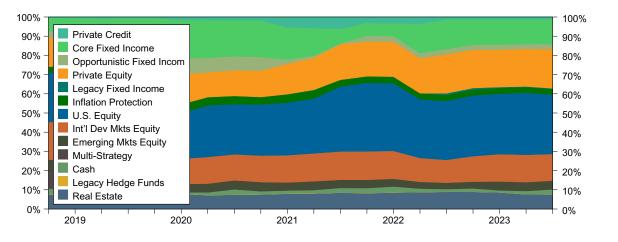
* Current Quarter Target = 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index. 2% ICE BofAML 3 Mo US T-Bill Index.

**For this analysis, PE and PC are benchmarked to the SERS' PE and PC program returns, respectively.

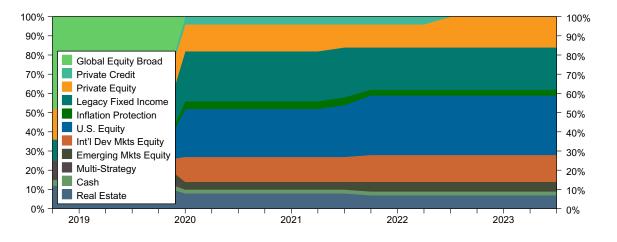
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Spons- V Lg DB (>10B).

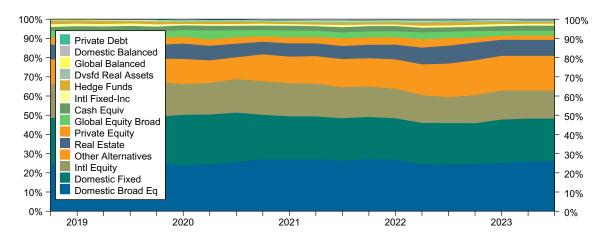
Actual Historical Asset Allocation



Target Historical Asset Allocation



Average Callan Public Fund Spons- V Lg DB (>10B) Historical Asset Allocation



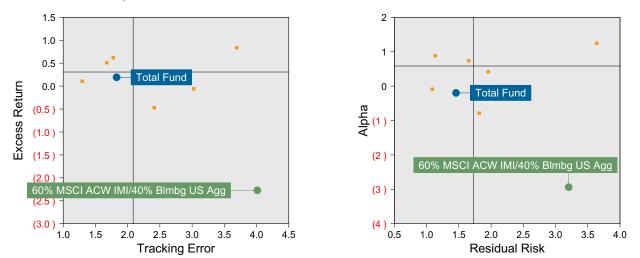


Total Fund Total Fund vs Target Risk Analysis

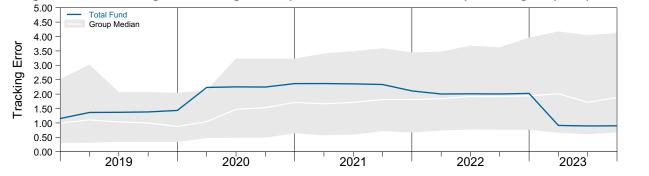
Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

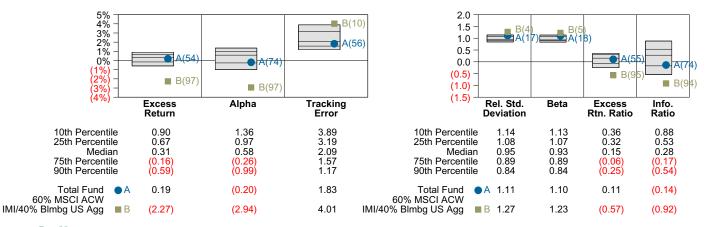
Risk Analysis vs Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2023





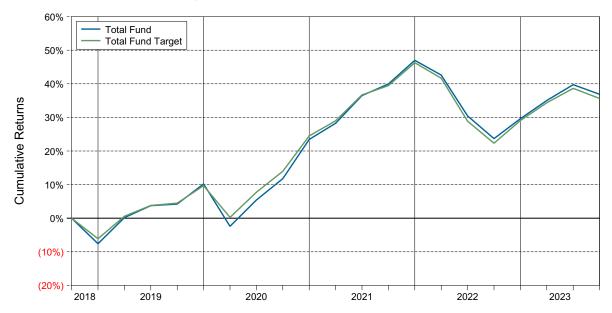


Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2023



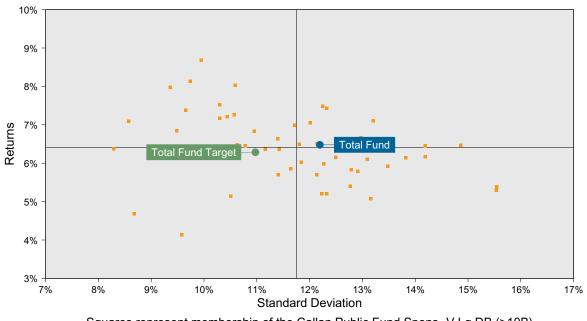
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the Callan Public Fund Spons- V Lg DB (>10B).



Cumulative Returns Actual vs Target

Five Year Annualized Risk vs Return

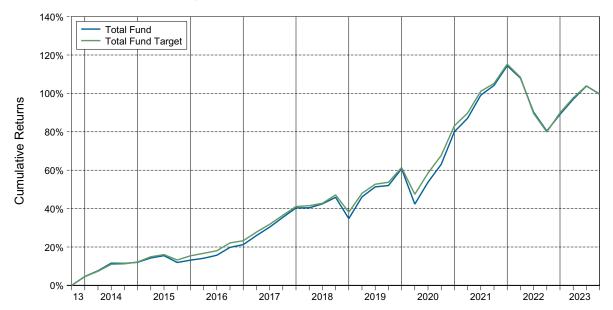


Squares represent membership of the Callan Public Fund Spons- V Lg DB (>10B)



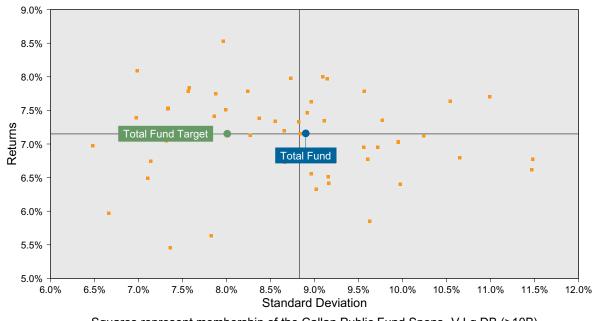
Cumulative Performance Relative to Target

The first chart below illustrates the cumulative performance of the Total Fund relative to the cumulative performance of the Fund's Target Asset Mix. The Target Mix is assumed to be rebalanced each quarter with no transaction costs. The second chart below shows the return and the risk of the Total Fund and the Target Mix, contrasted with the returns and risks of the funds in the Callan Public Fund Spons- V Lg DB (>10B).



Cumulative Returns Actual vs Target

Ten Year Annualized Risk vs Return



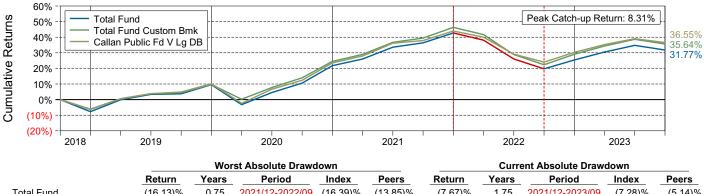
Squares represent membership of the Callan Public Fund Spons- V Lg DB (>10B)

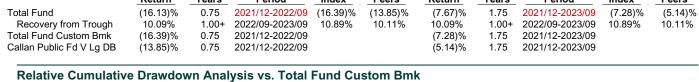


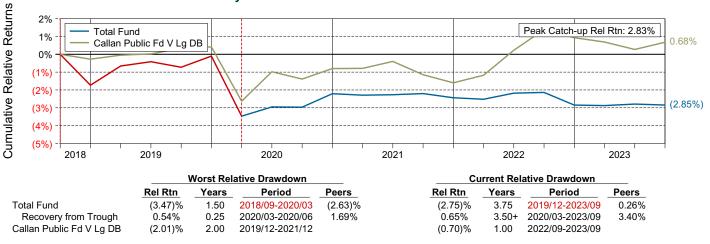
Total Fund Drawdown Analysis for Five Years Ended September 30, 2023

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.

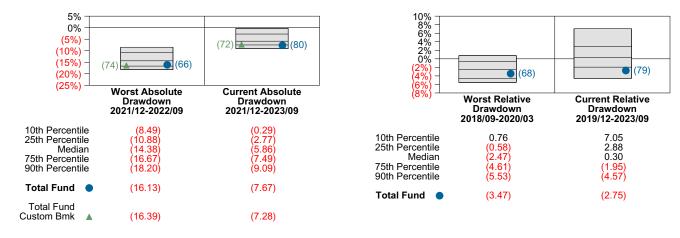
Absolute Cumulative Drawdown Analysis







Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Five Years Ended September 30, 2023



Total Fund Drawdown Analysis for Ten 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.

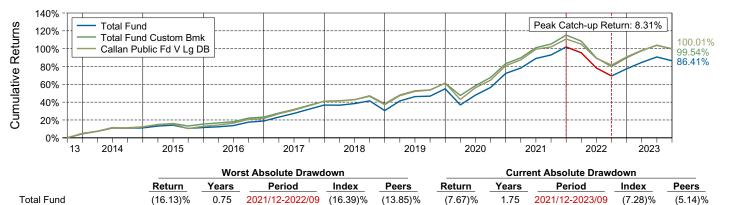
Absolute Cumulative Drawdown Analysis

10.09%

1.00 +

2022/09-2023/09

Recovery from Trough



10.89%

10.11%

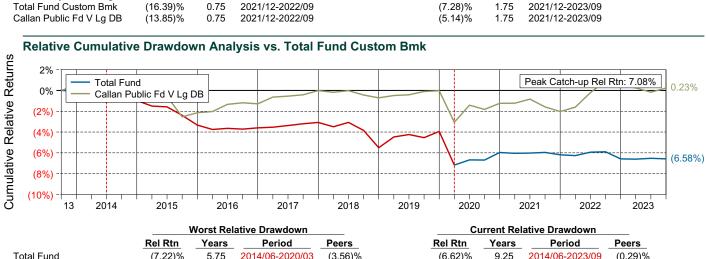
10.09%

1.00+

2022/09-2023/09

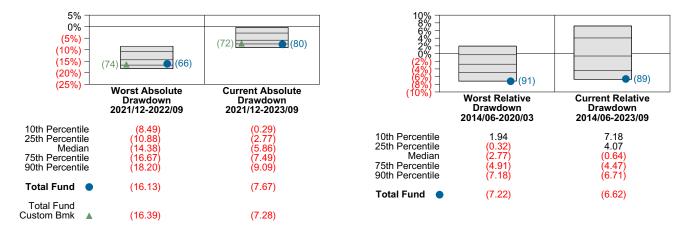
10.89%

10.11%



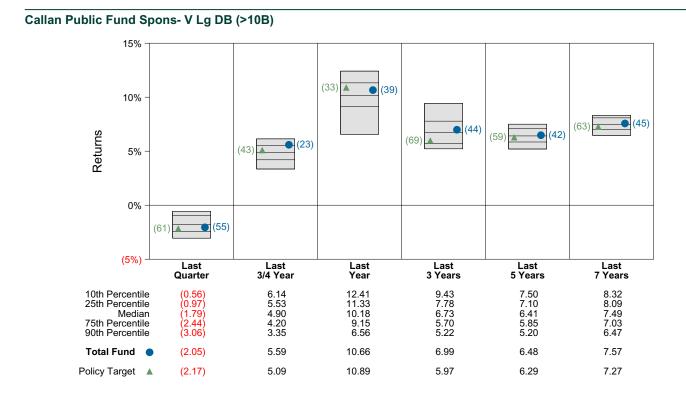
		NOI SLINEI							
	Rel Rtn	Years	Period	Peers	Rel Rtn	Years	Period	Peers	
Total Fund	(7.22)%	5.75	2014/06-2020/03	(3.56)%	(6.62)%	9.25	2014/06-2023/09	(0.29)%	
Recovery from Trough	0.65%	3.50+	2020/03-2023/09	3.40%	0.65%	3.50+	2020/03-2023/09	3.40%	
Callan Public Fd V Lg DB	(3.56)%	5.75	2014/06-2020/03		(0.70)%	1.00	2022/09-2023/09		

Drawdown Rankings vs. Total Fund Custom Bmk Rankings against Callan Public Fund Spons- V Lg DB (>10B) Ten Years Ended September 30, 2023

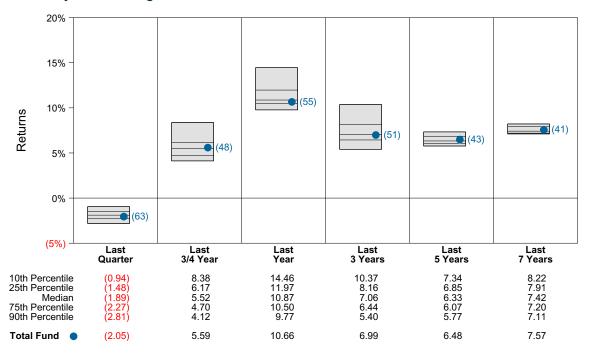


Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Spons- V Lg DB (>10B) for periods ended September 30, 2023. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.



Asset Allocation Adjusted Ranking



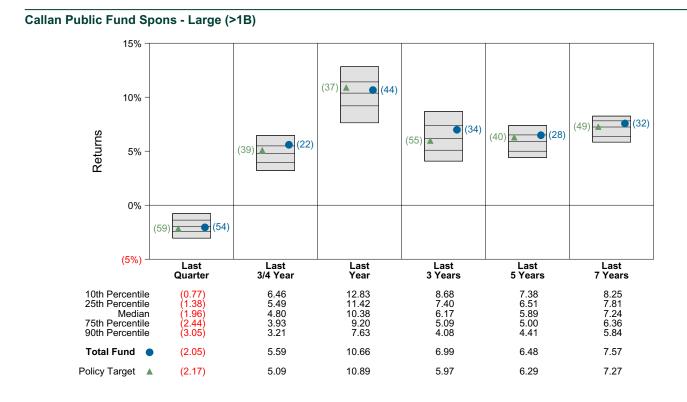
* Current Quarter Target = 31.0% Russell 3000 Index, 22.0% Blmbg:Aggregate, 16.0% Private Equity, 14.0% MSCI World xUS IMI, 7.0% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 5.0% MSCI EM IMI, 3.0% Blmbg TIPS and 2.0% 3-month Treasury Bill.

*The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.

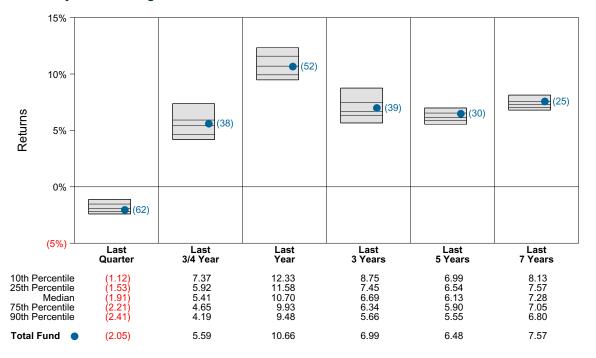


Total Fund Ranking

The first two charts show the ranking of the Total Fund's performance relative to that of the Callan Public Fund Spons - Large (>1B) for periods ended September 30, 2023. The first chart is a standard unadjusted ranking. In the second chart each fund in the database is adjusted to have the same historical asset allocation as that of the Total Fund.



Asset Allocation Adjusted Ranking



* Current Quarter Target = 31.0% Russell 3000 Index, 22.0% Blmbg:Aggregate, 16.0% Private Equity, 14.0% MSCI World xUS IMI, 7.0% NCREIF NFI-ODCE Eq Wt Net lagged 3 months, 5.0% MSCI EM IMI, 3.0% Blmbg TIPS and 2.0% 3-month Treasury Bill.

*The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.



Total Fund Period Ended September 30, 2023

Gross Performance History

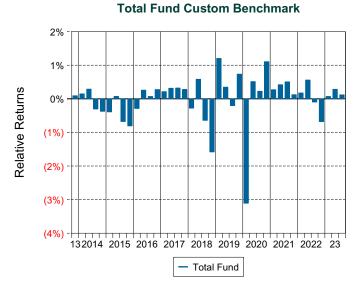
The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.

Quarterly Summary and Highlights

- Total Fund's portfolio posted a (2.05)% return for the quarter placing it in the 55 percentile of the Callan Public Fund Spons- V Lg DB (>10B) group for the quarter and in the 39 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Custom Benchmark by 0.12% for the quarter and underperformed the Total Fund Custom Benchmark for the year by 0.23%.

Performance vs Callan Public Fund Spons- V Lg DB (>10B) (Gross)





Relative Returns vs

Cumulative Returns vs Total Fund Custom Benchmark



Total Fund Period Ended September 30, 2023

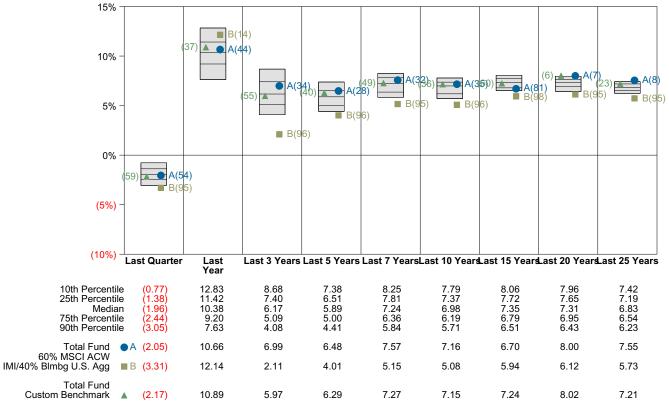
Gross Performance History

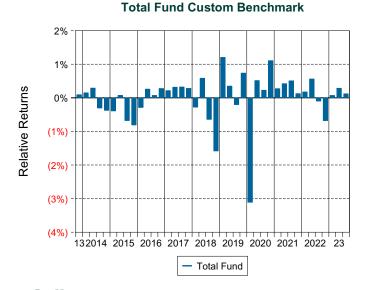
The gross history shown is estimated by BNY Mellon using a gross-up methodology through 12/31/19. Gross performance is calculated for the Total Fund starting 01/01/2020.

Quarterly Summary and Highlights

- Total Fund's portfolio posted a (2.05)% return for the quarter placing it in the 54 percentile of the Callan Public Fund Spons Large (>1B) group for the quarter and in the 44 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Custom Benchmark by 0.12% for the quarter and underperformed the Total Fund Custom Benchmark for the year by 0.23%.

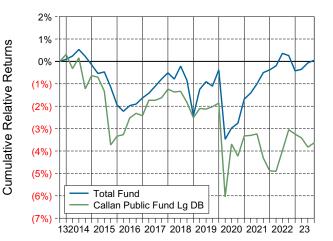
Performance vs Callan Public Fund Spons - Large (>1B) (Gross)





Relative Returns vs

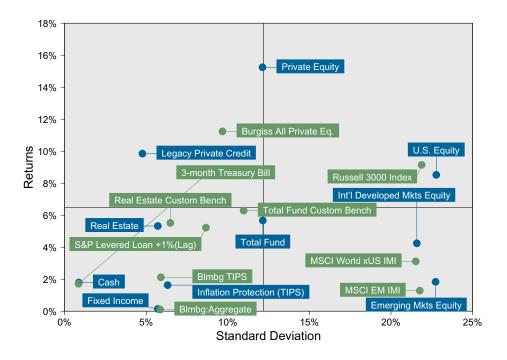
Cumulative Returns vs Total Fund Custom Benchmark



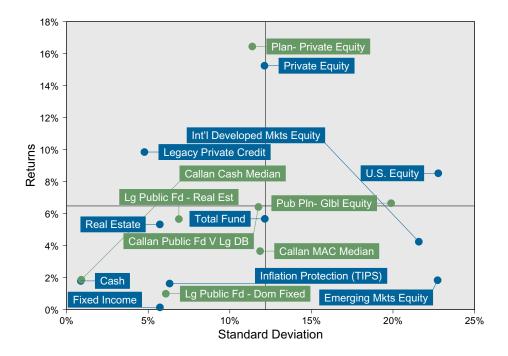
Asset Class Risk and Return

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

Five Year Annualized Risk vs Return Asset Classes vs Benchmark Indices



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



Investment Manager Asset 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.

		Sep	tember 30,	2023			June 30, 2023	
	Market Value	% of Total	(min)	Target	(max)	Market Value	% of Total	Target
	\$(000)	Weight	Weight	%	Weight	Weight		
NET OF FEES*								
U.S. Equity	\$10,396,188	30.21%	26.00%	31.00%	36.00%	\$11,204,054	31.56%	31.00%
Int'l Developed Markets Equity	\$4,656,489	13.53%	9.00%	14.00%	19.00%	\$4,961,854	13.98%	14.00%
Emerging Mkts Equity	\$1,531,820	4.45%	1.00%	5.00%	9.00%	\$1,597,436	4.50%	5.00%
Private Equity (1)	\$6,856,175	19.93%	14.00%	16.00%	18.00%	\$6,800,172	19.15%	16.00%
Buyouts	3,754,849	10.91%				3,786,109	10.66%	
Special Situations	1,665,422	4.84%				1,632,161	4.60%	
Growth Equity	1,233,057	3.58%				1,184,771	3.34%	
Keystone Legacy (2)	202,848	0.59%				197,131	0.56%	
Legacy Private Credit (3)	\$397,212	1.15%	-	-	-	\$401,117	1.13%	-
Fixed Income (4)	\$6,134,570	17.83%	17.00%	22.00%	27.00%	\$6,252,257	17.61%	22.00%
Core Fixed Income	4,330,741	12.59%				4,475,087	12.60%	
Opportunistic Fixed Income	891.741	2.59%				881,508	2.48%	
Nominal U.S. Treasuries	810,179	2.35%				773,300	2.18%	
Legacy Fixed Income	101,909	0.30%				122,363	0.34%	
Inflation Protection (TIPS)	\$995,629	2.89%	0.00%	3.00%	6.00%	\$1,025,546	2.89%	3.00%
Real Estate (1)	\$2,543,394	7.39%	N/A	7.00%	N/A	\$2,665,793	7.51%	7.00%
Core/Core Plus Real Estate Funds		3.49%				1,231,975	3.47%	
Value Add/Opportunistic SMA	476.829	1.39%				555.316	1.56%	
Value Add/Opportunistic Funds	754,823	2.19%				756,535	2.13%	
REITS	112,611	0.33%				121,460	0.34%	
Legacy Real Assets	-	-				507	0.00%	
Legacy Hedge Funds	\$16,557	0.05%	-	-	-	\$17,956	0.05%	-
Cash	\$879,137	2.56%	0.00%	2.00%	7.00%	\$576,224	1.62%	2.00%
Total Fund	\$34,408,158	100.0%		100.0%		\$35,503,417	100.0%	100.0%

Asset Distribution Across Investment Managers

*Market values shown are net of accrued fees.

(1) Private Equity and Real Estate Market Values have a 1 Qtr lag

(2) As of 06/30/2023 Keystone Legacy SPV consists of 43 non-core funds, prior performance reflected in previous sub-asset classes.

(3) The Legacy Private Credit and Legacy Fixed Income composite was incepted on 07/01/2022.

(4) On 07/01/2022, the sub-composites of the new fixed income structure was liquidated and the managers reorganized under Core Fixed Income, Opportunistic Fixed Income, Nominal US Treasuries and Legacy Fixed Income sub-composites.

Investment Manager Asset 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.

	September 30, 2023					June 30, 2023		
I	Market Value	% of Total	(min)	Target	(max)	Market Value	% of Total	Target
	\$(000)	Weight	Weight	%	Weight	Weight		
GROSS OF FEES*								
U.S. Equity	\$10,396,801	30.21%	26.00%	31.00%	36.00%	\$11,204,661	31.56%	31.00%
Int'l Developed Markets Equity	\$4,657,577	13.54%	9.00%	14.00%	19.00%	\$4,962,963	13.98%	14.00%
Emerging Mkts Equity	\$1,532,132	4.45%	1.00%	5.00%	9.00%	\$1,597,727	4.50%	5.00%
Private Equity (1)	\$6,856,175	19.92%	14.00%	16.00%	18.00%	\$6,800,172	19.15%	16.00%
Buyouts	3,754,849	10.91%				3,786,109	10.66%	
Special Situations	1,665,422	4.84%				1,632,161	4.60%	
Growth Equity	1,233,057	3.58%				1,184,771	3.34%	
Keystone Legacy (2)	202,848	0.59%				197,131	0.56%	
Legacy Private Credit (3)	\$397,212	1.15%	-	-	-	\$401,117	1.13%	-
Fixed Income (4)	\$6,135,117	17.83%	17.00%	22.00%	27.00%	\$6,252,837	17.61%	22.00%
Core Fixed Income	4,331,072	12.59%				4,475,422	12.60%	
Opportunistic Fixed Income	891,741	2.59%				881,508	2.48%	
Nominal U.S. Treasuries	810.204	2.35%				773,324	2.18%	
Legacy Fixed Income	102,101	0.30%				122,584	0.35%	
Inflation Protection (TIPS)	\$995,898	2.89%	0.00%	3.00%	6.00%	\$1,025,820	2.89%	3.00%
Real Estate (1)	\$2,543,530	7.39%	N/A	7.00%	N/A	\$2,666,008	7.51%	7.00%
Core/Core Plus Real Estate Funds		3.48%				1,231,975	3.47%	
Value Add/Opportunistic SMA	476,829	1.39%				555,316	1.56%	
Value Add/Opportunistic Funds	754,823	2.19%				756,535	2.13%	
REITS	112,747	0.33%				121,676	0.34%	
Legacy Real Assets	-	-				507	0.00%	
Legacy Hedge Funds	\$16,557	0.05%	-	-	-	\$17,956	0.05%	-
Cash	\$879,137	2.55%	0.00%	2.00%	7.00%	\$576,224	1.62%	2.00%
Total Fund	\$34,411,124	100.0%		100.0%		\$35,506,494	100.0%	100.0%

Asset Distribution Across Investment Managers

*Market values shown are gross of accrued fees.

(1) Private Equity and Real Estate Market Values have a 1 Qtr lag

(2) As of 06/30/2023 Keystone Legacy SPV consists of 43 non-core funds, prior performance reflected in previous sub-asset classes.

(3) The Legacy Private Credit and Legacy Fixed Income composite was incepted on 07/01/2022.

(4) On 07/01/2022, the sub-composites of the new fixed income structure was liquidated and the managers reorganized under Core Fixed Income, Opportunistic Fixed Income, Nominal US Treasuries and Legacy Fixed Income sub-composites.

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.

	Return	ns for Period	s Ended Sept	ember 30, 20	023		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance							
Total Fund	\$34,408	100.00%	(2.22%)	5.10%	10.09%	6.02%	5.67%
Total Fund Custom Benchmark(1)	-	-	(2.17%)	5.09%	10.89%	5.97%	6.29%
Public Market Equiv Benchmark(2)	-	-	(1.06%)	9.42%	14.75%	5.16%	5.99%
60/40 Index(3)	-	-	(3.31%)	5.12%	12.14%	2.11%	4.01%
U.S. Equity	\$10,396	30.21%	(3.45%)	11.88%	19.95%	9.66%	8.52%
Russell 3000 Index (4)	-	-	(3.25%)	12.39%	20.46%	9.38%	9.14%
S&P 1500 Index	-	-	(3.36%)	12.24%	20.98%	10.31%	9.50%
Int'I Developed Mkts Equity	\$4,656	13.53%	(4.27%)	7.58%	24.63%	6.70%	4.24%
MSCI World ex US IMI	-	-	(4.02%)	6.02%	23.03%	5.45%	3.12%
Emerging Mkts Equity	\$1,532	4.45%	(4.11%)	2.69%	12.78%	(1.76%)	1.84%
MSCI EM IMI	-	-	(2.12%)	3.38%	13.21%	(0.29%)	1.28%
Private Equity	\$6,856	19.93%	2.22%	5.94%	5.59%	20.37%	15.24%
Burgiss Private Equity Index (Qtr lag)	_	-	0.01%	0.03%	(1.64%)	13.70%	11.24%
Global Equity + 3% (Qtr lag)(5)	_	-	7.70%	28.20%	22.48%	16.43%	14.00%
Legacy Private Credit Funds (6)	\$397	1.15%	2.96%	7.63%	9.07%	13.60%	9.85%
S&P Levered Loan Index + 1% (Qtr la	ag) -	-	3.38%	10.13%	11.90%	7.38%	5.22%
Fixed Income	\$6,135	17.83%	(2.93%)	(0.54%)	0.91%	(4.00%)	0.14%
BImbg U.S. Agg Bond Index	-	-	(3.23%)	(1.21%)	0.64%	(5.21%)	0.10%
Inflation Protection (TIPS)	\$996	2.89%	(2.92%)	(1.02%)	1.14%	(2.68%)	1.63%
Blmbg U.S. TIPS Index	-	-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%
Real Estate	\$2,543	7.39%	(4.25%)	(9.79%)	(8.52%)	5.33%	5.33%
Real Estate Custom Bench (Qtr lag)(7	7) -	-	(3.05%)	(11.20%)	(10.51%)	7.57%	5.52%
CPI + 3% (Qtr lag)	-	-	1.80%	5.02%	5.97%	8.78%	6.90%
Cash	\$879	2.56%	1.33%	3.72%	4.70%	1.81%	1.79%
3-month Treasury Bill	-	-	1.31%	3.60%	4.47%	1.70%	1.72%

* All returns on this report are shown with 2- decimal precision. This may differ from the decimal precision shown in BNY Mellon reports.

(1)The current total fund benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index. See page 75 for full benchmark history.
(2) The current public equivalent benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 31% Russell 3000, 14% MSCI World ex US IMI Index, 12% Russell 3000+ 3% (Qtr lag), 7% CPI+3% (Qtr Lag), 3% Bloomberg US TIPS Index, 5% MSCI EM IMI Index, 4% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index. See page 75 for full benchmark history.
(3) Benchmark consists of 60% MSCI ACW IMI Index and 40% Bloomberg U.S. Agg Bond Index.
(4) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
(5) As of 01/01/2020 benchmark consists of 25% MSCI World ex US +3% (Qtr lag) and 75% Russell 3000 + 3% (Qtr lag).
(6) Legacy Private Credit performance is included in the total fund starting at the composite's true inception date, 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag). From 03/31/2019 to 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag). From 03/31/2019 to 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag).



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.

	Last 10	Last 15	Last 20	Last 25	Since	
	Years	Years	Years	Years	Inception	n
Net Performance	TCUIS			Tears	mooption	•
Total Fund	6.43%	5.93%	7.18%	6.77%	9.15%	(1/81)
Total Fund Custom Benchmark(1)	7.15%	7.24%	8.02%	7.21%	-	
Public Market Equiv Benchmark(2)	7.15%	7.34%	8.09%	7.27%	-	
60/40 Index(3)	5.08%	5.94%	6.12%	5.73%	-	
U.S. Equity	10.38%	9.83%	9.01%	7.78%	10.55%	(1/81)
Russell 3000 Index (4)	11.28%	11.05%	9.68%	8.09%	10.86%	· · ·
S&P 1500 Index	11.61%	11.18%	9.77%	8.17%	-	. ,
Int'l Developed Mkts Equity	4.63%	5.23%	6.29%	-	5.93%	(1/02)
MSCI World ex US IMI	3.87%	4.79%	6.14%	5.23%		· · ·
Emerging Mkts Equity	2.85%	2.87%	5.47%	_	6.11%	(1/02)
MSCI EM IMI	2.39%	4.17%	7.55%	7.57%	7.94%	(1/02)
Private Equity	12.98%	10.56%	12.83%	11.96%	11.53%	(1/86)
Burgiss Private Equity Index (Qtr lag)	12.45%	10.24%	13.10%	12.31%	16.37%	(1/86)
Global Equity + 3% (Qtr lag)(5)	15.23%	13.86%	13.28%	11.07%	14.53%	· · ·
Legacy Private Credit Funds (6)	-			-	10.21%	(4/18)
S&P Levered Loan Index + 1% (Qtr lag)	-	-	-	-	5.23%	(4/18)
Fixed Income	1.29%	3.57%	3.82%	4.26%	7.41%	(1/81)
Blmbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	6.70%	(1/81)
Inflation Protection (TIPS)	1.54%	2.13%	2.62%	-	2.69%	(2/03)
Blmbg U.S. TIPS Index	1.74%	2.92%	3.47%	4.58%	3.64%	(2/03)
Real Estate	5.29%	2.70%	5.96%	6.65%	7.95%	(3/84)
Real Estate Custom Bench (Qtr lag)(7)	7.56%	4.94%	7.17%	7.39%	-	. ,
CPI + 3% (Qtr lag)	5.71%	5.24%	5.57%	5.54%	5.83%	(3/84)
Cash	1.37%	1.06%	1.67%	2.21%	3.42%	(1/87)
3-month Treasury Bill	1.11%	0.80%	1.41%	1.89%	3.16%	(1/87)

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(1)The current total fund benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index. See page 75 for full benchmark history.

(2) The current public equivalent benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 31% Russell 3000, 14% MSCI World ex US IMI Index, 12% Russell 3000+ 3% (Qtr lag), 7% CPI+3% (Qtr Lag), 3% Bloomberg US TIPS Index, 5% MSCI EM IMI Index, 4% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index. See page 75 for full benchmark history.

(3) Benchmark consists of 60% MSCI ACW IMI Index and 40% Bloomberg U.S. Agg Bond Index

(4) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

(5) As of 01/01/2020 benchmark consists of 25% MSCI World ex US +3% (Qtr lag) and 75% Russell 3000 + 3% (Qtr lag). Benchmark performance represents the historical benchmark (Russell 3000 + 3% Qtr lag) linked to the current benchmark.

(6) Legacy Private Credit performance is included in the total fund starting at the composite's true inception date, 07/01/2022. The history is calculated and shown for informational purposes.

(7) As of 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag). From 03/31/2019 to 07/01/2022 the benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged).



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									
Net Performance- Domestic Equity	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
U.S. Equity	\$10,396	100.00%	(3.45%)	11.88%	19.95%	9.66%	8.52%			
Russell 3000 Index (1)	_	-	(3.25%)	12.39%	20.46%	9.38%	9.14%			
S&P 1500 Index	_	-	(3.36%)	12.24%	20.98%	10.31%	9.50%			
MCM Russell 1000 Index	9,407	90.49%	(3.12%)	13.07%	21.25%	9.73%	9.72%			
Russell 1000 Index	-	-	(3.15%)	13.01%	21.19%	9.53%	9.63%			
S&P 500 Index	-	-	(3.27%)	13.07%	21.62%	10.15%	9.92%			
MCM Russell 2000 Core Index	323	3.11%	(5.14%)	2.68%	9.11%	7.76%	2.72%			
Russell 2000 Index	-	-	(5.13%)	2.54%	8.93%	7.16%	2.40%			
S&P 600 Index	-	-	(4.93%)	0.81%	10.08%	12.10%	3.21%			
MCM Russell 2000 Val Index	320	3.08%	(2.98%)	(0.48%)	7.94%	13.43%	2.66%			
Russell 2000 Value Index	-	-	(2.96%)	(0.53%)	7.84%	13.32%	2.59%			
S&P 600 Value Index	-	-	(5.60%)	(0.83%)	10.26%	15.38%	3.23%			
Emerald Asset Management Russell 2000 Growth Index S&P 600 Growth Index	346 -	3.33% - -	(8.47%) (7.32%) (4.25%)	3.22% 5.24% 2.47%	10.14% 9.59% 9.62%	0.59% 1.09% 8.79%	2.24% 1.55% 2.91%			

* All returns on this report are shown with 2- decimal precision. This may differ from the decimal precision shown in BNY Mellon reports.

**Market values may not sum as a result of accounts funded within the quarter or accounts in the process of liquidation. The market values and performance of such accounts are included within their relevant composites.

(1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

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										
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception						
Net Performance- Domestic Equity					-						
U.S. Equity Russell 3000 Index (1) S&P 1500 Index	10.38% 11.28% 11.61%	9.83% 11.05% 11.18%	9.01% 9.68% 9.77%	7.78% 8.09% 8.17%	10.55% (1/81) 10.86% (1/81) -						
MCM Russell 1000 Index Russell 1000 Index S&P 500 Index	11.68% 11.63% 11.91%	- 11.26% 11.28%	- 9.79% 9.72%	- 8.08% 7.92%	13.07%(1/12)13.05%(1/12)13.18%(1/12)						
MCM Russell 2000 Core Index Russell 2000 Index S&P 600 Index	6.65% 8.15%	- 8.13% 9.55%	- 8.13% 9.63%	- 8.00% 9.75%	6.13%(12/16)5.90%(12/16)6.82%(12/16)						
MCM Russell 2000 Val Index Russell 2000 Value Index S&P 600 Value Index	6.19% 7.58%	- 7.16% 8.86%	- 7.73% 9.14%	- 8.34% 9.38%	4.71%(12/16)4.68%(12/16)5.94%(12/16)						
Emerald Asset Management Russell 2000 Growth Index S&P 600 Growth Index	- 6.72% 8.55%	- 8.82% 10.13%	- 8.27% 10.03%	- 7.15% 9.69%	7.44%(12/16)6.61%(12/16)7.49%(12/16)						

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	Return	s for Period	s Ended Sept	ember 30, 2	023		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance- International Equity							
Int'l Developed Mkts Equity	\$4,656	100.00%	(4.27%)	7.58%	24.63%	6.70%	4.24%
MSCI World ex US IMI		-	(4.02%)	6.02%	23.03%	5.45%	3.12%
Walter Scott & Partners(1)	681	14.63%	(5.95%)	10.00%	24.26%	6.96%	8.32%
MSCI World	-	-	(3.46%)	11.10%	21.95%	8.08%	7.26%
BlackRock MSCI World Ex US Index	3,620	77.75%	(4.05%)	7.17%	24.57%	6.59%	3.88%
MSCI World ex US	-	-	(4.10%)	6.73%	24.00%	6.07%	3.44%
Xponance Non-U.S. Small Cap	215	4.62%	(2.78%)	6.30%	20.58%	2.25%	1.44%
MSCI ACWI ex US Small Cap	-	-	(1.70%)	5.03%	19.01%	4.02%	2.58%
Harris Assoc Int'I SCV	136	2.92%	(2.82%)	7.92%	36.46%	11.07%	5.32%
MSCI World ex US Sm Cap	-	-	(3.48%)	1.83%	17.32%	1.85%	1.28%
MSCI World ex US Sm Value	-	-	(1.01%)	4.23%	21.75%	6.90%	1.74%

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(1) Walter Scott since inception returns were contained in the Global Mandates composite prior to 12/31/2019.

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.

R	eturns for Period	Is Ended Septer	nber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance- International Equity					
Int'l Developed Mkts Equity	4.63%	5.23%	6.29%	-	5.93% (1/02) 5.84% (1/02)
MSCI World ex US IMI	3.87%	4.79%	6.14%	5.23%	
Walter Scott & Partners(1)	9.87%	10.34%	-	-	8.98% (10/06)
MSCI World	8.26%	8.12%	7.92%	6.37%	6.44% (10/06)
BlackRock MSCI World Ex US Index	-	-	-	-	4.51% (6/17)
MSCI World ex US	3.84%	4.59%	5.99%	4.98%	4.04% (6/17)
Xponance Non-U.S. Small Cap	-	-	-	-	1.44% (10/18)
MSCI ACWI ex US Small Cap	4.35%	6.64%	7.68%	7.41%	2.58% (10/18)
Harris Assoc Int'I SCV	4.80%	8.27%	9.26%	-	9.78% (7/03)
MSCI World ex US Sm Cap	4.13%	6.39%	7.10%	-	7.80% (7/03)
MSCI World ex US Sm Value	3.78%	6.30%	7.38%	7.92%	8.01% (7/03)

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Returns for Periods Ended September 30, 2023									
Nat Datamanan Emorging Mida Er	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years		
Net Performance- Emerging Mkts Eq	uity								
Emerging Mkts Equity	\$1,532	100.00%	(4.11%)	2.69%	12.78%	(1.76%)	1.84%		
MSCI EM IMI	-	-	(2.12%)	3.38%	13.21%	(0.29%)	1.28%		
Macquarie Emg Mkts Equity MSCI EM	319	20.84%	(4.22%) (2.93%)	3.53% 1.82%	12.01% 11.70%	(3.62%) (1.73%)	0.67% 0.56%		
Martin Currie Emg Mkts Equity	332	21.69%	(7.82%)	<mark>(1.21%)</mark>	9.89%	(4.81%)	0.84%		
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%		
BlackRock Emg Mkts Index	524	34.18%	(2.99%)	1.66%	11.49%	(1.94%)	0.32%		
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%		
Leading Edge Emg Mkts Fund	214	13.99%	(4.37%)	<mark>(0.20%)</mark>	9.74%	(2.68%)	-		
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%		
GlobeFlex Emerging Small Cap	142	9.30%	1.78%	17.31%	29.22%	15.99%	8.78%		
MSCI EM Small Cap		-	2.93%	13.74%	23.06%	10.61%	6.45%		

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I	Returns for Period	ls Ended Septer	mber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance- Emerging Mkts Equity					
Emerging Mkts Equity MSCI EM IMI	2.85% 2.39%	2.87% 4.17%	5.47% 7.55%	- 7.57%	6.11% (1/02) 7.94% (1/02)
Macquarie Emg Mkts Equity MSCI EM	2.34% 2.07%	- 3.76%	- 7.30%	-	2.49% (5/13) 1.64% (5/13)
Martin Currie Emg Mkts Equity MSCI EM	2.07%	- 3.76%	- 7.30%	2	2.57% (1/14) 1.94% (1/14)
BlackRock Emg Mkts Index MSCI EM	2.07%	- 3.76%	- 7.30%	-	1.31% (7/17) 1.54% (7/17)
Leading Edge Emg Mkts Fund MSCI EM	2.07%	- 3.76%	- 7.30%	-	1.77% (11/18) 2.45% (11/18)
GlobeFlex Emerging Small Cap MSCI EM Small Cap	6.64% 4.57%	- 7.10%	- 9.18%	- 8.95%	6.88% (8/13) 4.79% (8/13)

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	Return	ns for Period	s Ended Sept	ember 30, 20)23		
	Market Value	Ending	Last	Year to	Last Year	Last 3 Years	Last 5 Years
Net Performance - Private Equity	\$(mm)	Weight	Quarter	Date	rear	Tears	rears
Private Equity	\$6,856	100.00%	2.22%	5.94%	5.59%	20.37%	15.24%
Burgiss Private Equity Index (Qtr lag)	-	-	0.01%	0.03%	(1.64%)	13.70%	11.24%
Global Equity + 3% (Qtr lag)(1)	-	-	7.70%	28.20%	22.48%	16.43%	14.00%
Buyouts	3,755	54.77%	2.41%	7.42%	7.02%	19.46%	15.41%
Burgiss Buyout Index (Qtr lag)		-	0.02%	0.07%	(1.77%)	13.67%	10.17%
Special Situations	1,665	24.29%	2.36%	6.61%	8.21%	23.87%	18.37%
Burgiss Special Situations Idx (Qtr lag	J) -		0.02%	0.03%	0.03%	6.45%	4.42%
Growth Equity	1,233	17.98%	0.98%	1.12%	0.27%	23.45%	23.18%
Burgiss Venture Capital Index (Qtr lag	g) -	-	(0.01%)	(0.06%)	(2.53%)	18.30%	17.94%
Keystone Legacy (2)	203	2.96%	4.91%	2.78%	(6.12%)	0.76%	(3.40%)

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(1) As of 01/01/2020 benchmark consists of 25% MSCI World ex US and 75% Russell 3000 + 3% with a 1 quarter lag. (2) As of 06/30/2023, Keystone Legacy SPV consists of 43 non-core funds, prior performance is reflected in previous sub-asset classes.



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Re	eturns for Period	Is Ended Septer	nber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Private Equity					-
Private Equity	12.98%	10.56%	12.83%	11.96%	11.53% (1/86
Burgiss Private Equity Index (Qtr lag)	12.45%	10.24%	13.10%	12.31%	16.37% (1/86
Global Equity + 3% (Qtr lag)(1)	15.23%	13.86%	13.28%	11.07%	14.53% (1/86
Buyouts	14.07%	11.83%	15.04%	13.80%	13.55% (4/86
Burgiss Buyout Index (Qtr lag)	12.01%	9.82%	13.85%	11.83%	18.66% (4/86
Special Situations	12.64%	11.46%	14.02%	12.63%	13.23% (1/95
Burgiss Special Situations Idx (Qtr lag)	6.32%	6.61%	8.62%	8.92%	9.66% (1/95
Growth Equity	15.48%	10.92%	9.21%	7.91%	8.52% (1/86
Burgiss Venture Capital Index (Qtr lag)	17.51%	13.27%	12.25%	12.89%	14.10% (1/86
Keystone Legacy (2)	-	-	-	-	(3.24%) (7/18

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 (2) As of 06/30/2023 Keystone Legacy SPV consists of 43 non-core funds, prior performance is reflected in previous sub-asset classes.



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	Return	s for Period	s Ended Sept	ember 30, 20	23		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - Fixed Income							
Fixed Income (1) BImbg U.S. Agg Bond Index	\$6,135 -	100.00% -	(2.93%) (3.23%)	(0.54%) (1.21%)	0.91% 0.64%	(4.00%) (5.21%)	0.14% 0.10%
Core Fixed Income Blmbg U.S. Agg Bond Index	\$4,331 -	70.60% -	(3.23%) (3.23%)	(0.94%) (1.21%)	0.99% 0.64%	(4.70%) (5.21%)	0.32% 0.10%
PIMCO Core Bond Fund BImbg Agg ex Treasury	508	8.29%	(3.40%) (3.35%)	(0.55%) (0.99%)	1.73% 1.66%	(4.72%) (4.83%)	0.37% 0.15%
Mellon Bond Index BImbg U.S. Agg Bond Index (2)	3,822 -	62.31% -	(3.20%) (3.23%)	(0.99%) (1.21%)	0.89% 0.64%	(5.20%) (5.21%)	0.07% 0.10%
Opportunistic Fixed Income	\$892	14.54%	2.52%	5.77%	7.14%	9.35%	6.38%
BAAM Keystone (3) HFRI FOF Comp Index	892	14.54% -	2.52% 0.51%	5.77% 2.81%	7.14% 4.59%	10.47% 3.77%	6.54% 3.38%
Nominal U.S. Treasuries Blmbg US Treas Bell 10Y	\$810 -	13.21% -	(7.42%) (5.12%)	(4.59%) (3.43%)	(5.05%) (2.82%)	(10.04%) (8.58%)	(1.49%) (0.51%)
Mellon Intermediate Treasury Index BImbg Intmdt Treasury	363	5.92% -	(0.83%) (0.81%)	0.39% 0.28%	1.27% 1.30%	(3.21%)	0.68%
Mellon Long Duration Index BImbg Long Treasury	447	7.29%	(11.83%) (11.83%)	(7.86%) (8.55%)	(9.15%) (9.09%)	(15.73%)	(2.78%)
Legacy Fixed Income	\$102	1.66%	0.55%	(1.27%)	(1.75%)	-	-
Fidelity HY CMBS (4) BImbg US CMBS Ex AAA Index (5	102) -	1.66% -	0.57% (1.08%)	(1.46%) (1.97%)	(1.83%) (2.84%)	0.81% (3.12%)	0.27% 0.13%
SEI Str.Credit: HY Bank Loans (6) FTSE HY Corp (1 month lag)	- 0	0.00% -	7.35% 3.40%	11.04% 6.65%	9.01% 6.99%	16.92% 1.97%	7.27% 3.19%

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(1) Fixed Income included the new fixed income sub-composite from 03/01/2021 to 06/30/2022. On 07/01/2022, the

 Fixed income included the low lixed income sub-composite from 03/01/2021 to 06/30/2022. On 07/01/2022, the sub-composites of the new fixed income structure was liquidated and the managers reorganized under Core Fixed Income, Opportunistic Fixed Income, Nominal US Treasuries and Legacy Fixed Income sub-composites.
 Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
 Blackstone Keystone since inception returns were included in the Legacy Hedge Fund composite through 9/30/2017, included in the Multi-Strategy composite from 10/01/2017 through 12/31/2019, included in the Opportunistic Fixed composite from 01/01/2020 through 12/31/2020, included in the Private Credit from 01/01/2021 through 09/30/2021 and Opportunistic Fixed composite, thereafter.

 (4) Fidelity was included in the Opportunistic Fixed composite prior to 03/01/2021, included in the High Yield under the new fixed income structure from 03/01/2021 through 06/30/2022, and Legacy Fixed Income Structure, thereafter.
 (5) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter. (6) SEI HY Bank Loans has a 1 month lag in valuation. On this chart, SEI's market value of \$36K has been rounded to \$0M



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								
	Last 10	Last 15	Last 20	Last 25	Since			
	Years	Years	Years	Years	Inception			
Net Performance - Fixed Income					•			
Fixed Income (1)	1.29%	3.57%	3.82%	4.26%	7.41% (1/81)			
Blmbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	6.70% (1/81)			
Core Fixed Income	1.37%	3.44%	3.22%	-	3.60% (1/02)			
Blmbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	3.25% (1/02)			
PIMCO Core Bond Fund	1.44%	-	-	-	1.09% (1/13)			
Blmbg Agg ex Treasury	1.38%	2.89%	-	-	1.11% (1/13)			
Mellon Bond Index	1.09%	2.40%	2.75%	3.50%	6.17% (4/84)			
BImbg U.S. Agg Bond Index (2)	1.13%	2.53%	2.85%	3.60%	-			
Opportunistic Fixed Income	4.92%	-	-	-	5.11% (10/12)			
BAAM Keystone (3)	6.27%	-	-	-	7.36% (7/12)			
HFRI FOF Comp Index	3.28%	2.83%	3.33%	4.30%	3.70% (7/12)			
Nominal U.S. Treasuries	0.13%	-	-	-	0.15% (9/11)			
Blmbg US Treas Bell 10Y	0.42%	2.01%	2.55%	3.01%	0.55% (9/11)			
Mellon Intermediate Treasury Index	-	-	-	-	(3.23%) (3/21)			
BImbg Intmdt Treasury	0.80%	1.69%	2.27%	3.02%	(3.22%) (3/21)			
Mellon Long Duration Index	-	-	-	-	(16.16%) (1/21)			
Blmbg Long Treasury	0.75%	2.63%	3.42%	4.03%	(16.11%) (1/21)			
Legacy Fixed Income	-	-	-	-	(2.38%) (7/22)			
Fidelity HY CMBS (4)	2.93%	6.19%	5.58%	6.62%	7.03% (4/97)			
Blmbg US CMBS Ex AAA Index (5)	1.75%	2.01%	0.73%	2.85%	3.12% (4/97)			
SEI Str.Credit: HY Bank Loans (6)	7.38%	11.60%	-	-	11.29% (5/08)			
FTSE HY Corp (1 month lag)	4.23%	6.44%	6.47%	6.07%	6.28% (5/08)			

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(2) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
(3) Blackstone Keystone since inception returns were included in the Legacy Hedge Fund composite through 9/30/2017, included in the Multi-Strategy composite from 10/01/2017 through 12/31/2019, included in the Opportunistic Fixed composite from 01/01/2020 through 12/31/2020, included in the Private Credit from 01/01/2021 through 09/30/2021 and Opportunistic Fixed composite, thereafter.

(4) Fidelity was included in the Opportunistic Fixed composite prior to 03/01/2021, included in the High Yield under the new fixed income structure from 03/01/2021 through 06/30/2022, and Legacy Fixed Income Structure, thereafter.
(5) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.

(6) SEI HY Bank Loans has a 1 month lag in valuation.



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	Return	s for Period	s Ended Sept	ember 30, 20	023		
Net Performance - Inflation Protection	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net renormance - innation riolection							
Inflation Protection (TIPS)	\$996	100.00%	(2.92%)	(1.02%)	1.14%	(2.68%)	1.63%
Blmbg U.S. TIPS Index	-	-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%
NISA Inv Adv TIPS	435	43.71%	(2.55%)	(0.62%)	1.30%	(1.98%)	2.10%
BImbg U.S. TIPS Index (1)		-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%
Brown Brothers TIPS	455	45.73%	(2.72%)	(1.00%)	0.93%	(2.14%)	2.02%
Blmbg U.S. TIPS Index		-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%
New Century Global TIPS	105	10.56%	(5.20%)	(2.69%)	1.41%	(6.94%)	(1.13%)
Blmbg Wrld Inflation Linked Unhdg	I -	-	(4.85%)	(2.39%)	1.35%	(6.32%)	(1.02%)

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Returns for Periods Ended September 30, 2023										
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception					
Net Performance - Inflation Protection										
Inflation Protection (TIPS) Blmbg U.S. TIPS Index	1.54% 1.74%	2.13% 2.92%	2.62% 3.47%	- 4.58%	2.69% (2/03) 3.64% (2/03)					
NISA Inv Adv TIPS	1.73%	2.14%	-	-	2.60% (4/07)					
Blmbg U.S. TIPS Index (1)	1.74%	2.14%	2.93%	4.14%	2.60% (4/07)					
Brown Brothers TIPS	1.72%	-	-	-	1.34% (2/12)					
Blmbg U.S. TIPS Index	1.74%	2.92%	3.47%	4.58%	1.28% (2/12)					
New Century Global TIPS	0.37%	-	-	-	0.37% (2/12)					
BImbg Wrld Inflation Linked Unhdg	0.21%	1.67%	3.00%	3.95%	0.18% (2/12)					

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Returns for Periods Ended September 30, 2023								
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	
Net Performance - Real Estate								
Real Estate	\$2,543	100.00%	(4.25%)	(9.79%)	(8.52%)	5.33%	5.33%	
Real Estate Custom Bench (Qtr lag)	(1) -	-	(3.05%)	(11.20%)	(10.51%)	7.57%	5.52%	
CPI +3% (Qtr lag)	-	-	1.80%	5.02%	5.97%	8.78%	6.90%	
Core/Core Plus Real Estate Funds	1,199	47.15%	(1.86%)	(5.26%)	(2.82%)	7.87%	6.05%	
NCREIF ODCE Index (Qtr lag)	-	-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.07%	
Value Add/Opportunistic SMA	477	18.75%	(11.20%)	(23.63%)	(25.00%)	<mark>(3.40%)</mark>	2.15%	
NCREIF ODCE Index (Qtr lag)	-	-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.07%	
Value Add/Opportunistic Funds	755	29.68%	(2.77%)	(8.55%)	(8.02%)	8.36%	5.85%	
NCREIF ODCE Index (Qtr lag)		-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.07%	
REITS	113	4.43%	(7.29%)	(2.65%)	1.94%	5.80%	3.76%	
FTSE NAREIT US Index	-	-	(7.18%)	(2.28%)	2.67%	5.82%	2.07%	

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(1) As of 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag). From 03/31/2019 to 07/01/2022, the benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged). Prior to 03/31/2019, benchmark history was provided by RVK.

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Re	turns for Period	Is Ended Septer	nber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Net Performance - Real Estate					
Real Estate	5.29%	2.70%	5.96%	6.65%	7.95% (3/84)
Real Estate Custom Bench (Qtr lag) (1)	7.56%	4.94%	7.17%	7.39%	
CPI +3% (Qtr lag)	5.71%	5.24%	5.57%	5.54%	5.83% (3/84)
Core/Core Plus Real Estate Funds	7.82%	6.09%	7.38%	7.66%	7.01% (9/86)
NCREIF ODCE Index (Qtr lag)	8.12%	4.80%	6.84%	7.17%	6.02% (9/86)
Value Add/Opportunistic SMA	2.09%	<mark>(0.66%)</mark>	3.13%	4.32%	4.43% (6/88)
NCREIF ODCE Index (Qtr lag)	8.12%	4.80%	6.84%	7.17%	6.06% (6/88)
Value Add/Opportunistic Funds	7.97%	3.56%	7.19%	7.99%	7.66% (3/84)
NCREIF ODCE Index (Qtr lag)	8.12%	4.80%	6.84%	7.17%	6.26% (3/84)
REITS	4.51%	5.31%	7.89%	7.71%	8.63% (4/96)
FTSE NAREIT US Index	5.00%	5.68%	7.86%	7.58%	8.94% (4/96)

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(1) As of 07/01/2022, the benchmark consists of 100% NCREIF NFI-ODCE (Qtr lag). From 03/31/2019 to 07/01/2022, the benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged). Prior to 03/31/2019, benchmark history was provided by RVK.



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.

	Return	is for Period	s Ended Sept	ember 30, 20)23		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Net Performance - DWDO Managers							
Xponance Non-U.S. Small Cap MSCI ACWI ex US Small Cap	215	0.63% -	(2.78%) (1.70%)	6.30% 5.03%	20.58% 19.01%	2.25% 4.02%	1.44% 2.58%
Leading Edge Emg Mkts Fund MSCI EM	214	0.62%	(4.37%) (2.93%)	<mark>(0.20%)</mark> 1.82%	9.74% 11.70%	(2.68%) (1.73%)	- 0.56%
GlobeFlex Emerging Small Cap MSCI EM Small Cap	142 -	0.41%	1.78% 2.93%	17.31% 13.74%	29.22% 23.06%	15.99% 10.61%	8.78% 6.45%
New Century Global TIPS Blmbg Wrld Inflation Linked Unhdg	105 -	0.31% -	(5.20%) (4.85%)	(2.69%) (2.39%)	1.41% 1.35%	(6.94%) (6.32%)	(1.13%) (1.02%)

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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									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Net Performance - DWDO Managers									
Xponance Non-U.S. Small Cap MSCI ACWI ex US Small Cap	- 4.35%	- 6.64%	- 7.68%	- 7.41%	1.44% (10/18) 2.58% (10/18)				
Leading Edge Emg Mkts Fund MSCI EM	2.07%	- 3.76%	- 7.30%	-	1.77% (11/18) 2.45% (11/18)				
GlobeFlex Emerging Small Cap MSCI EM Small Cap	6.64% 4.57%	- 7.10%	- 9.18%	- 8.95%	6.88% (8/13) 4.79% (8/13)				
New Century Global TIPS Blmbg Wrld Inflation Linked Unhdg	0.37% 0.21%	- 1.67%	- 3.00%	- 3.95%	0.37% (2/12) 0.18% (2/12)				

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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.

	Return	ns for Period	s Ended Sept	tember 30, 20	023		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance							
Total Fund (2) Total Fund Estimated Gross Histo Total Fund Custom Benchmark Public Market Equiv Benchmark 60/40 Index	-	100.00% 100.00% - - -	(2.05%) (2.05%) (2.17%) (1.06%) (3.31%)	5.59% 5.59% 5.09% 9.42% 5.12%	10.66% 10.66% 10.89% 14.75% 12.14%	6.99% 6.99% 5.97% 5.16% 2.11%	6.48% 6.29% 5.99% 4.01%
U.S. Equity	\$10,397	30.21%	(3.44%)	11.90%	19.98%	9.69%	8.58%
Russell 3000 Index (1)	-	-	(3.25%)	12.39%	20.46%	9.38%	9.14%
S&P 1500 Index	-	-	(3.36%)	12.24%	20.98%	10.31%	9.50%
Int'l Developed Mkts Equity	\$4,658	13.54%	(4.24%)	7.67%	24.78%	6.83%	4.38%
MSCI World ex US IMI	-	-	(4.02%)	6.02%	23.03%	5.45%	3.12%
Emerging Mkts Equity	\$1,532	4.45%	(4.02%)	3.02%	13.28%	(1.26%)	2.32%
MSCI EM IMI	-	-	(2.12%)	3.38%	13.21%	(0.29%)	1.28%
Private Equity (2)	\$6,856	19.92%	2.88%	7.96%	7.68%	25.60%	-
Burgiss Private Equity Index (Qtr	lag) -	-	0.01%	0.03%	(1.64%)	13.70%	11.24%
Global Equity +3% (Qtr lag)	-	-	7.70%	28.20%	22.48%	16.43%	14.00%
Legacy Private Credit (3)	\$397	1.15%	3.53%	9.20%	11.10%	16.74%	-
S&P Levered Loan Index +1% (Q	tr Lag) -	-	3.38%	10.13%	11.90%	7.38%	5.22%
Fixed Income	\$6,135	17.83%	(2.87%)	(0.43%)	1.06%	(3.86%)	0.32%
BImbg U.S. Agg Bond Index	-	-	(3.23%)	(1.21%)	0.64%	(5.21%)	0.10%
Inflation Protection (TIPS)	\$996	2.89%	(2.89%)	(0.94%)	1.25%	(2.58%)	1.75%
BImbg U.S. TIPS Index	-	-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%
Real Estate (2)	\$2,544	7.39%	<mark>(3.91%)</mark>	(9.27%)	(7.89%)	6.99%	-
Real Estate Custom Benchmark (Qtr lag) <i>-</i>	-	(3.05%)	(11.20%)	(10.51%)	7.57%	5.52%
CPI +3% (Qtr lag)	-	-	1.80%	5.02%	5.97%	8.78%	6.90%
Cash	\$879	2.55%	1.33%	3.72%	4.70%	1.82%	1.80%
3-month Treasury Bill	-	-	1.31%	3.60%	4.47%	1.70%	1.72%

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Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
 The Total Fund Estimated Gross History is calculated by BNY Mellon using a gross-up methodology through 12/31/2019. Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Legacy Private Credit, and Real Estate, for which gross history was not previously calculated.
 Legacy Private Credit performance is included in the total fund starting at the composite's true inception date, 07/01/2022. The history is calculated and shown for informational purposes.



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.

	Last 10	Last 15	Last 20	Last 25	Since	
	Years	Years	Years	Years	Inception	n
Gross Performance						
Total Fund (2)	-	-	-	-	5.95%	(1/20)
Total Fund Estimated Gross History (2)	7.16%	6.70%	8.00%	7.55%	8.16%	(1/96)
Total Fund Custom Benchmark	7.15%	7.24%	8.02%	7.21%	7.80%	(1/96)
Public Market Equiv Benchmark	7.15%	7.34%	8.09%	7.27%	7.85%	(1/96)
60/40 Index	5.08%	5.94%	6.12%	5.73%	5.93%	(1/96)
U.S. Equity	10.48%	9.96%	9.14%	7.90%	10.62%	(1/81)
Russell 3000 Index (1)	11.28%	11.05%	9.68%	8.09%	10.86%	
S&P 1500 Index	11.61%	11.18%	9.77%	8.17%	-	(
nt'l Developed Mkts Equity	4.82%	5.48%	6.58%	_	6.22%	(1/02)
MSCI World ex US IMI	3.87%	4.79%	6.14%	5.23%	5.84%	(1/02)
	0.0170	4.7070	0.1470	0.2070	0.0470	(1/02)
Emerging Mkts Equity	3.38%	3.33%	5.88%	-		
MSCI EM IMI	2.39%	4.17%	7.55%	7.57%	7.94%	(1/02)
Private Equity (2)	-	-	-		22.19%	(1/20)
Burgiss Private Equity Index (Qtr lag)	12.45%	10.24%	13.10%	12.31%	12.17%	(1/20)
Global Equity +3% (Qtr lag)	15.23%	13.86%	13.28%	11.07%	14.77%	(1/20)
Legacy Private Credit (3)	-	-	-		13.42%	(1/20)
S&P Levered Loan Index +1% (Qtr Lag)	-	-	-	-	5.30%	(1/20)
Fixed Income	1.52%	3.79%	4.05%	4.49%	6.69%	(1/85)
BImbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	5.87%	(1/85)
nflation Protection (TIPS)	1.66%	2.25%	2.75%	-	2.81%	(2/03)
BImbg U.S. TIPS Index	1.74%	2.92%	3.47%	4.58%	3.64%	
Real Estate (2)				_	5.31%	(1/20)
Real Estate Custom Benchmark (Qtr lag)	7.56%	4.94%	7.17%	7.39%	5.62%	(1/20)
CPI +3% (Qtr lag)	5.71%	5.24%	5.57%	5.54%	7.71%	
Cash	1.37%	1.07%	1.71%	2.20%	3.78%	(1/87)
3-month Treasury Bill	1.11%	0.80%	1.41%	1.89%	3.16%	

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 Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
 The Total Fund Estimated Gross History is calculated by BNY Mellon using a gross-up methodology through 12/31/2019. Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Legacy Private Credit, and Real Estate, for which gross history was not previously calculated.
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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.

	Return	s for Period	s Ended Sept	Returns for Periods Ended September 30, 2023							
Gross Performance- Domestic Equit	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years				
U.S. Equity	\$10,397	100.00%	(3.44%)	11.90%	19.98%	9.69%	8.58%				
Russell 3000 Index(1)	-	-	(3.25%)	12.39%	20.46%	9.38%	9.14%				
S&P 1500 Index	-	-	(3.36%)	12.24%	20.98%	10.31%	9.50%				
MCM Russell 1000 Index	9,407	90.48%	(3.12%)	13.07%	21.25%	9.74%	9.73%				
Russell 1000 Index	-	-	(3.15%)	13.01%	21.19%	9.53%	9.63%				
S&P 500 Index	-	-	(3.27%)	13.07%	21.62%	10.15%	9.92%				
MCM Russell 2000 Core Index	323	3.11%	(5.14%)	2.70%	9.13%	7.78%	2.74%				
Russell 2000 Index		-	(5.13%)	2.54%	8.93%	7.16%	2.40%				
S&P 600 Index		-	(4.93%)	0.81%	10.08%	12.10%	3.21%				
MCM Russell 2000 Val Index	320	3.08%	(2.97%)	(0.46%)	7.96%	13.45%	2.69%				
Russell 2000 Value Index		-	(2.96%)	(0.53%)	7.84%	13.32%	2.59%				
S&P 600 Value Index		-	(5.60%)	(0.83%)	10.26%	15.38%	3.23%				
Emerald Asset Management	346	3.33%	(8.35%)	3.58%	10.64%	1.09%	2.75%				
Russell 2000 Growth Index	-	-	(7.32%)	5.24%	9.59%	1.09%	1.55%				
S&P 600 Growth Index	-	-	(4.25%)	2.47%	9.62%	8.79%	2.91%				

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(1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

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.

F	Returns for Period	Is Ended Septer	nber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance- Domestic Equity					
U.S. Equity	10.48%	9.96%	9.14%	7.90%	10.62% (1/81)
Russell 3000 Index(1)	11.28%	11.05%	9.68%	8.09%	10.86% (1/81)
S&P 1500 Index	11.61%	11.18%	9.77%	8.17%	-
MCM Russell 1000 Index	11.69%	-	-	-	13.08% (1/12)
Russell 1000 Index	11.63%	11.26%	9.79%	8.08%	13.05% (1/12)
S&P 500 Index	11.91%	11.28%	9.72%	7.92%	13.18% (1/12)
MCM Russell 2000 Core Index	-	-	-	-	6.15% (12/16
Russell 2000 Index	6.65%	8.13%	8.13%	8.00%	5.90% (12/16
S&P 600 Index	8.15%	9.55%	9.63%	9.75%	6.82% (12/16
MCM Russell 2000 Val Index	-	-	-	-	4.73% (12/16
Russell 2000 Value Index	6.19%	7.16%	7.73%	8.34%	4.68% (12/16
S&P 600 Value Index	7.58%	8.86%	9.14%	9.38%	5.94% (12/16
Emerald Asset Management	-	-	-	-	7.95% (12/16
Russell 2000 Growth Index	6.72%	8.82%	8.27%	7.15%	6.61% (12/16
S&P 600 Growth Index	8.55%	10.13%	10.03%	9.69%	7.49% (12/16

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(1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

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						
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - International Equ	iity						
Int'l Developed Mkts Equity	\$4,658	100.00%	(4.24%)	7.67%	24.78%	6.83%	4.38%
MSCI World ex US IMI	-	-	(4.02%)	6.02%	23.03%	5.45%	3.12%
Walter Scott & Partners (1)	682	14.64%	(5.84%)	10.33%	24.74%	7.39%	8.82%
MSCI World		-	(3.46%)	11.10%	21.95%	8.08%	7.26%
BlackRock MSCI World Ex US Index	3,620	77.73%	(4.04%)	7.18%	24.58%	6.60%	3.89%
MSCI World ex US		-	(4.10%)	6.73%	24.00%	6.07%	3.44%
Xponance Non-U.S. Small Cap MSCI ACWI ex US Small Cap	215	4.62%	(2.61%) (1.70%)	6.84% 5.03%	21.40% 19.01%	2.95% 4.02%	2.03% 2.58%
Harris Assoc Int'I SCV	136	2.93%	(2.62%)	8.55%	37.47%	12.03%	6.24%
MSCI World ex US Sm Cap	-	-	(3.48%)	1.83%	17.32%	1.85%	1.28%
MSCI World ex US Sm Value	-	-	(1.01%)	4.23%	21.75%	6.90%	1.74%

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(1) Walter Scott since inception returns were contained in the Global Mandates composite prior to 12/31/2019.

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.

R	eturns for Period	Is Ended Septer	nber 30, 2023		
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance - International Equity					
Int'l Developed Mkts Equity	4.82%	5.48%	6.58%	-	6.22% (1/02) 5.84% (1/02)
MSCI World ex US IMI	3.87%	4.79%	6.14%	5.23%	
Walter Scott & Partners (1)	10.33%	10.82%	-	-	9.44% (10/06)
MSCI World	8.26%	8.12%	7.92%	6.37%	6.44% (10/06)
BlackRock MSCI World Ex US Index	-	-	-	-	4.52% (6/17)
MSCI World ex US	3.84%	4.59%	5.99%	4.98%	4.04% (6/17)
Xponance Non-U.S. Small Cap	-	-	-	-	2.03% (10/18)
MSCI ACWI ex US Small Cap	4.35%	6.64%	7.68%	7.41%	2.58% (10/18)
Harris Assoc Int'I SCV	5.62%	9.10%	10.08%	-	10.59% (7/03)
MSCI World ex US Sm Cap	4.13%	6.39%	7.10%	-	7.80% (7/03)
MSCI World ex US Sm Value	3.78%	6.30%	7.38%	7.92%	8.01% (7/03)

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(1) Walter Scott since inception returns were contained in the Global Mandates composite prior to 12/31/2019.

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Returns for Periods Ended September 30, 2023							
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - Emerging Mkts	Equity						
Emerging Mkts Equity	\$1,532	100.00%	(4.02%)	3.02%	13.28%	(1.26%)	2.32%
MSCI EM IMI	-	_	(2.12%)	3.38%	13.21%	(0.29%)	1.28%
Macquarie Emg Mkts Equity	319	20.83%	(4.09%)	3.95%	12.63%	(3.08%)	1.24%
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%
Martin Currie Emg Mkts Equity	332	21.69%	(7.74%)	<mark>(0.90%)</mark>	10.38%	(4.35%)	1.34%
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%
BlackRock Emg Mkts Index	524	34.18%	(2.98%)	1.70%	11.55%	(1.90%)	0.40%
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%
Leading Edge Emg Mkts Fund	_214	13.99%	(4.17%)	0.40%	10.62%	(1.90%)	-
MSCI EM		-	(2.93%)	1.82%	11.70%	(1.73%)	0.56%
GlobeFlex Emerging Small Cap	143	9.31%	1.94%	17.85%	30.01%	16.72%	9.51%
MSCI EM Small Cap		-	2.93%	13.74%	23.06%	10.61%	6.45%

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Returns for Periods Ended September 30, 2023									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Gross Performance - Emerging Mkts Equity	/								
Emerging Mkts Equity	3.38%	3.33%	5.88%	-	6.49% (1/02)				
MSCI EM IMI	2.39%	4.17%	7.55%	7.57%	7.94% (1/02)				
Macquarie Emg Mkts Equity	3.01%	-	-	-	3.14% (5/13)				
MSCI EM	2.07%	3.76%	7.30%		1.64% (5/13)				
Martin Currie Emg Mkts Equity	-	-	-	-	3.10% (1/14)				
MSCI EM	2.07%	3.76%	7.30%		1.94% (1/14)				
BlackRock Emg Mkts Index	-	-	-	-	1.38% (7/17)				
MSCI EM	2.07%	3.76%	7.30%		1.54% (7/17)				
Leading Edge Emg Mkts Fund	-	-	-	-	2.46% (11/18)				
MSCI EM	2.07%	3.76%	7.30%		2.45% (11/18)				
GlobeFlex Emerging Small Cap	7.30%	-	-	-	7.53% (8/13)				
MSCI EM Small Cap	4.57%	7.10%	9.18%	8.95%	4.79% (8/13)				

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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.

	Return	is for Period	s Ended Sept	ember 30, 20	023		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Since Inception
Gross Performance - Private Equity							
Private Equity (1)	\$6,856	100.00%	2.88%	7.96%	7.68%	25.60%	22.19% (1/20)
Burgiss All Private Equity (Qtr Lag)	-	-	0.01%	0.03%	(1.64%)	13.70%	12.17% (1/20)
Global Equity +3% (Qtr lag) (2)	-	-	7.70%	28.20%	22.48%	16.43%	14.77% (1/20)
Buyouts	3,755	54.77%	3.06%	9.41%	8.90%	25.03%	22.80% (1/20)
Burgiss Buyout Index (Qtr Lag)	-	-	0.02%	0.07%	(1.77%)	13.67%	11.32% (1/20)
Special Situations	1,665	24.29%	2.98%	8.65%	10.57%	29.80%	23.48% (1/20)
Burgiss Special Sits Index (Qtr Lag)	-	-	0.02%	0.03%	0.03%	6.45%	4.79% (1/20)
Growth Equity	1,233	17.98%	1.78%	3.45%	2.86%	28.38%	27.40% (1/20)
Burgiss Venture Capital Idx (Qtr Lag	g) -	-	(0.01%)	(0.06%)	(2.53%)	18.30%	18.37% (1/20)
Keystone Legacy (3)	203	2.96%	5.05%	3.27%	(5.55%)	4.80%	0.42% (1/20)

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 (1) Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Private Credit, and Real Estate, for which gross history was not previously calculated.
 (2) As of 01/01/2020 benchmark is 25% MSCI World ex US Index and 75% Russell 3000 + 3% with a 1 Qtr lag.
 (3) As of 06/30/2023, Keystone Legacy SPV consists of 43 non-core funds, prior performance reflected in previous sub-asset classes



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.

	Returr	ns for Period	s Ended Sept	ember 30, 20)23		
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years
Gross Performance - Fixed Income	,						
Fixed Income (1) BImbg U.S. Agg Bond Index	\$6,135 -	100.00% -	(2.87%) (3.23%)	(0.43%) (1.21%)	1.06% 0.64%	(3.86%) (5.21%)	0.32% 0.10%
Core Fixed Income Blmbg U.S. Agg Bond Index	\$4,331 -	70.59% -	(3.22%) (3.23%)	(0.92%) (1.21%)	1.02% 0.64%	(4.65%) (5.21%)	0.39% 0.10%
PIMCO Core Bond Fund BImbg Agg ex Treasury	509 -	8.29% -	(3.36%) (3.35%)	(0.48%) (0.99%)	1.94% 1.66%	(4.45%) (4.83%)	0.63% 0.15%
Mellon Bond Index BImbg U.S. Agg Bond Index (2)	3,823	62.31% -	(3.20%) (3.23%)	(0.98%) (1.21%)	0.90% 0.64%	(5.19%) (5.21%)	0.09% 0.10%
Opportunistic Fixed Income	\$892	14.54%	2.87%	6.45%	7.99%	10.24%	7.13%
BAAM Keystone (3) HFRI FOF Comp Index	892	14.54% -	2.87% 0.51%	6.45% 2.81%	7.99% 4.59%	11.37% 3.77%	7.25% 3.38%
Nominal U.S. Treasuries Blmbg US Treas Bell 10Y	\$810 -	13.21% -	(7.41%) (5.12%)	(4.58%) (3.43%)	(5.04%) (2.82%)	(9.92%) (8.58%)	(1.36%) (0.51%)
Mellon Intermediate Treasury Index BImbg Intmdt Treasury	363	5.92% -	(0.83%) (0.81%)	0.39% 0.28%	1.29% 1.30%	(3.21%)	- 0.68%
Mellon Long Duration Index BImbg Long Treasury	447 -	7.29%	(11.83%) (11.83%)	(7.85%) (8.55%)	(9.14%) (9.09%)	(15.73%)	(2.78%)
Legacy Fixed Income	\$102	1.66%	0.72%	(0.76%)	(1.09%)	-	-
Fidelity HY CMBS (4) BImbg US CMBS Ex AAA Index (5	102 5) -	1.66% -	0.74% (1.08%)	(0.95%) (1.97%)	(1.18%) (2.84%)	1.41% (3.12%)	0.91% 0.13%
SEI Str. Credit: HY Bank Loans FTSE HY Corp (1 month lag)	0	0.00%	7.88% 3.40%	12.42% 6.65%	10.81% 6.99%	18.52% 1.97%	8.58% 3.19%

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(1) Fixed Income included the new fixed income sub-composite from 03/01/2021 to 06/30/2022. On 07/01/2022, the

 Fixed income included the low lixed income sub-composite from 03/01/2021 to 06/30/2022. On 07/01/2022, the sub-composites of the new fixed income structure was liquidated and the managers reorganized under Core Fixed Income, Opportunistic Fixed Income, Nominal US Treasuries and Legacy Fixed Income sub-composites.
 Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
 Blackstone Keystone since inception returns were included in the Legacy Hedge Fund composite through 9/30/2017, included in the Multi-Strategy composite from 10/01/2017 through 12/31/2019, included in the Opportunistic Fixed composite from 01/01/2020 through 12/31/2020, included in the Private Credit from 01/01/2021 through 09/30/2021 and Opportunistic Fixed composite, thereafter.

 (4) Fidelity was included in the Opportunistic Fixed composite prior to 03/01/2021, included in the High Yield under the new fixed income structure from 03/01/2021 through 06/30/2022, and Legacy Fixed Income Structure, thereafter.
 (5) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter. (6) SEI HY Bank Loans has a 1 month lag in valuation. On this chart, SEI's market value of \$36K has been rounded to \$0M



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.

R	eturns for Period	Is Ended Septer	nber 30, 2023		
	Last 10	Last 15	Last 20	Last 25	Since
	Years	Years	Years	Years	Inception
Gross Performance - Fixed Income					•
Fixed Income (1)	1.52%	3.79%	4.05%	4.49%	6.69% (1/85) 5.87% (1/85)
BImbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	
Core Fixed Income	1.46%	3.59%	3.36%	-	3.74% (1/02)
BImbg U.S. Agg Bond Index	1.13%	2.53%	2.85%	3.59%	3.25% (1/02)
PIMCO Core Bond Fund	1.65%	-	-	-	1.30% (1/13)
Blmbg Agg ex Treasury	1.38%	2.89%	-		1.11% (1/13)
Mellon Bond Index	1.11%	2.44%	2.79%	3.54%	4.25% (10/93
Blmbg U.S. Agg Bond Index (2)	1.13%	2.53%	2.85%	3.60%	4.30% (10/93
Opportunistic Fixed Income	5.64%	-	-	-	5.82% (10/12
BAAM Keystone (3)	6.63%	-	-	4.30%	7.68% (7/12)
HFRI FOF Comp Index	3.28%	2.83%	3.33%		3.70% (7/12)
Nominal U.S. Treasuries	0.24%	-	-	-	0.26% (9/11)
Blmbg US Treas Bell 10Y	0.42%	2.01%	2.55%	3.01%	0.55% (9/11)
Mellon Intermediate Treasury Index	_	-	-	-	(3.22%) (3/21)
BImbg Intmdt Treasury	0.80%	1.69%	2.27%	3.02%	(3.22%) (3/21)
Mellon Long Duration Index	-	2.63%	-	-	(16.15%) (1/21)
BImbg Long Treasury	0.75%		3.42%	4.03%	(16.11%) (1/21)
Legacy Fixed Income	-	-	-	-	(1.74%) (7/22)
Fidelity HY CMBS (4)	3.61%	6.88%	6.26%	7.30%	7.70% (4/97)
BImbg US CMBS Ex AAA Index (5)	1.75%	2.01%	0.73%	2.85%	3.12% (4/97)
SEI Str. Credit: HY Bank Loans (6)	8.53%	12.76%	-	-	12.43% (5/08)
FTSE HY Corp (1 month lag)	4.23%	6.44%	6.47%	6.07%	6.28% (5/08)

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(1) Fixed Income included the new fixed income sub-composite from 03/01/2021 to 06/30/2022. On 07/01/2022, the sub-composites of the new fixed income structure was liquidated and the managers reorganized under Core Fixed Income, Opportunistic Fixed Income, Nominal US Treasuries and Legacy Fixed Income sub-composites.

(2) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.
(3) Blackstone Keystone since inception returns were included in the Legacy Hedge Fund composite through 9/30/2017, included in the Multi-Strategy composite from 10/01/2017 through 12/31/2019, included in the Opportunistic Fixed composite from 01/01/2020 through 12/31/2020, included in the Private Credit from 01/01/2021 through 09/30/2021 and Opportunistic Fixed composite, thereafter.

(4) Fidelity was included in the Opportunistic Fixed composite prior to 03/01/2021, included in the High Yield under the new fixed income structure from 03/01/2021 through 06/30/2022, and Legacy Fixed Income Structure, thereafter.
(5) Fidelity's blended benchmark consists of FTSE High Yield Market Index prior to 12/31/2009 and Blmbg US CMBS Ex AAA Index, thereafter.

(6) SEI HY Bank Loans has a 1 month lag in valuation.



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									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
Gross Performance - Inflation Protecti	on									
Inflation Protection (TIPS)	\$996	100.00%	(2.89%)	(0.94%)	1.25%	(2.58%)	1.75%			
Blmbg U.S. TIPS Index	-	-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%			
NISA Inv Adv TIPS	435	43.71%	(2.53%)	(0.54%)	1.40%	(1.88%)	2.20%			
BImbg U.S. TIPS Index (1)		-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%			
Brown Brothers TIPS	455	45.72%	(2.70%)	(0.94%)	1.01%	(2.06%)	2.12%			
BImbg U.S. TIPS Index		-	(2.60%)	(0.78%)	1.25%	(1.98%)	2.12%			
New Century Global TIPS	105	10.57%	(5.14%)	(2.51%)	1.66%	(6.72%)	(0.89%)			
BImbg Wrld Inflation Linked Unhdg	I -	-	(4.85%)	(2.39%)	1.35%	(6.32%)	(1.02%)			

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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									
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception				
Gross Performance - Inflation Protection									
Inflation Protection (TIPS)	1.66%	2.25%	2.75%	-	2.81% (2/03)				
Blmbg U.S. TIPS Index	1.74%	2.92%	3.47%	4.58%	3.64% (2/03)				
NISA Inv Adv TIPS	1.83%	2.25%	-	-	2.70% (4/07)				
Blmbg U.S. TIPS Index (1)	1.74%	2.14%	2.93%	4.14%	2.60% (4/07)				
Brown Brothers TIPS	1.84%	-	-	-	1.46% (2/12)				
Blmbg U.S. TIPS Index	1.74%	2.92%	3.47%	4.58%	1.28% (2/12)				
New Century Global TIPS	0.62%	-	-	-	0.61% (2/12)				
Blmbg Wrld Inflation Linked Unhdg	0.21%	1.67%	3.00%	3.95%	0.18% (2/12)				

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(1) Benchmark history is a blend of current and past benchmark indices. History prior to 12/31/2018 is provided by RVK.

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										
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Since Inception				
Gross Performance - Real Estate											
Real Estate (1)	\$2,544	100.00%	(3.91%)	(9.27%)	(7.89%)	6.99%	5.31% (1/20)				
Real Estate Custom Bench (Qtr lag	g) (2) -	-	(3.05%)	(11.20%)	(10.51%)	7.57%	5.62% (1/20)				
CPI + 3% (Qtr lag)	-	-	1.80%	5.02%	5.97%	8.78%	7.71% (1/20)				
Core/Core Plus Real Estate Funds	1,199	47.14%	(1.66%)	(5.31%)	(2.72%)	8.90%	6.99% (1/20)				
NCREIF ODCE Index (Qtr lag)	-	-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.17% (1/20)				
Value Add/Opportunistic SMA	477	18.75%	(10.45%)	(23.00%)	(24.51%)	<mark>(2.00%)</mark>	(0.31%) (1/20)				
NCREIF ODCE Index (Qtr lag)		-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.17% (1/20)				
Value Add/Opportunistic Funds	755	29.68%	(2.48%)	(7.20%)	(6.42%)	12.12%	9.20% (1/20)				
NCREIF ODCE Index (Qtr lag)	-	-	(3.05%)	(11.20%)	(10.51%)	7.59%	6.17% (1/20)				
REITS	113	4.43%	(7.16%)	(2.35%)	2.35%	6.19%	0.75% (1/20)				
FTSE NAREIT US Index	-		(7.18%)	(2.28%)	2.67%	5.82%	(1.41%) (1/20)				

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 Starting 01/01/2020 gross performance is calculated for all asset classes and the Total Fund, including Private Equity, Private Credit, and Real Estate, for which gross history was not previously calculated.
 As of 03/31/2019 benchmark consists of 90% NCREIF ODCE Index (Qtr lag) and 10% FTSE NAREIT Index (unlagged). Prior to 03/31/2019, benchmark history was provided by RVK.



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									
	Market Value \$(mm)	Ending Weight	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years			
Gross Performance - DWDO Managers	5									
Xponance Non-U.S. Small Cap MSCI ACWI ex US Small Cap	215 -	0.63%	(2.61%) (1.70%)	6.84% 5.03%	21.40% 19.01%	2.95% 4.02%	2.03% 2.58%			
Leading Edge Emg Mkts Fund MSCI EM	_214	0.62%	(4.17%) (2.93%)	0.40% 1.82%	10.62% 11.70%	(1.90%) (1.73%)	- 0.56%			
GlobeFlex Emerging Small Cap MSCI EM Small Cap	143	0.41%	1.94% 2.93%	17.85% 13.74%	30.01% 23.06%	16.72% 10.61%	9.51% 6.45%			
New Century Global TIPS Blmbg Wrld Inflation Linked Unhdg	105 -	0.31%	(5.14%) (4.85%)	(2.51%) (2.39%)	1.66% 1.35%	(6.72%) (6.32%)	(0.89%) (1.02%)			

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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.

R					
	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Since Inception
Gross Performance - DWDO Managers					
Xponance Non-U.S. Small Cap	-	-	-	-	2.03% (10/18)
MSCI ACWI ex US Small Cap	4.35%	6.64%	7.68%	7.41%	2.58% (10/18)
Leading Edge Emg Mkts Fund	-	-	-	-	2.46% (11/18)
MSCI EM	2.07%	3.76%	7.30%		2.45% (11/18)
GlobeFlex Emerging Small Cap	7.30%	-	-	-	7.53% (8/13)
MSCI EM Small Cap	4.57%	7.10%	9.18%	8.95%	4.79% (8/13)
New Century Global TIPS	0.62%	-	-	-	0.61% (2/12)
Blmbg Wrld Inflation Linked Unhdg	0.21%	1.67%	3.00%	3.95%	0.18% (2/12)

* All returns on this report are shown with 2- decimal precision. This may differ from the decimal precision shown in BNY Mellon reports.



Total Fund Benchmark Definition:

- The Total Fund Custom Benchmark returns were provided by RVK prior to 12/31/2018.
- Starting 01/01/2020, benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 14% SERS Private Equity Composite, 25% Russell 3000 Index, 13% MSCI World ex US IMI Index, 8% Real Estate Custom Benchmark, 4% S&P/LSTA Leveraged Loan Index + 1% (Qtr lag), 4% MSCI Emerging Markets IMI Index, 4% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 07/01/2021, benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 12% SERS Private Equity Composite, 27% Russell 3000 Index, 13% MSCI World ex US IMI Index, 8% Real Estate Custom Benchmark, 4% S&P/LSTA Leveraged Loan Index + 1% (Qtr lag), 4% MSCI Emerging Markets IMI Index, 4% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 10/01/2021, benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 12% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% Real Estate Custom Benchmark, 4% S&P/LSTA Leveraged Loan Index + 1% (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 07/01/2022, benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 16% SERS Private Equity Composite, 31% Russell 3000 Index, 14% MSCI World ex US IMI Index, 7% NCREIF NFI-ODCE (Qtr lag), 5% MSCI Emerging Markets IMI Index, 3% Bloomberg US TIPS Index, 2% ICE BofAML 3 Mo US T-Bill Index.

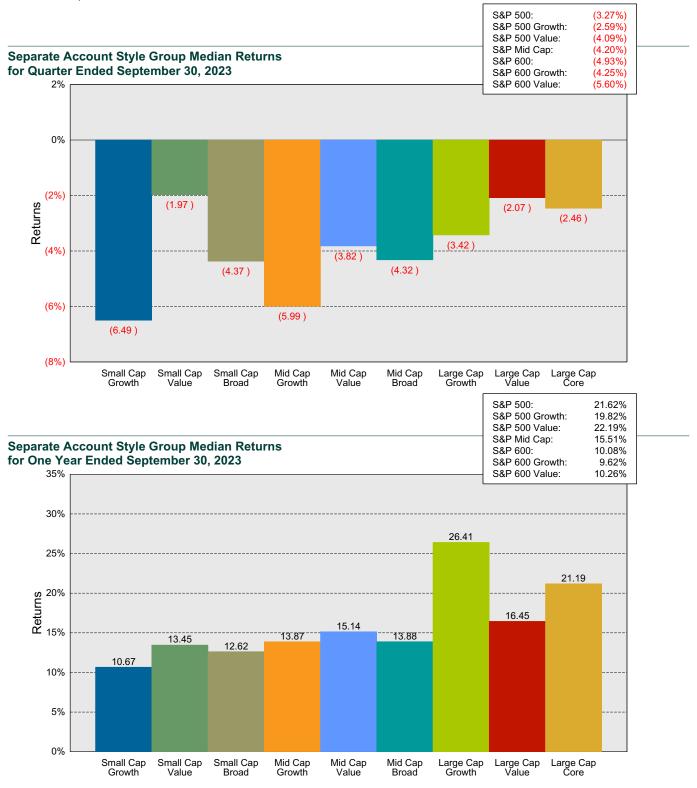
Public Market Equivalent Benchmark Definition:

- The Public Market Equivalent Benchmark returns provided by RVK prior to 12/31/2018.
- As of 01/01/2020, benchmark consists of: 26% Bloomberg U.S. Agg Bond Index, 25% Russell 3000,13% MSCI World ex US Index, 10.5% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr Lag), 4% S&P/LSTA Levered Loan Index +1% (Qtr lag), 4% Bloomberg US TIPS Index, 4% MSCI Emerging Markets Index, 3.5% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 07/01/2021, benchmark consists of 26% Bloomberg U.S. Agg Bond Index, 27% Russell 3000, 13% MSCI World IMI ex US, 9% Russell 3000+ 3% (Qtr lag), 8% CPI+3% (Qtr lag), 4% S&P/LSTA Lev. + 1% (Qtr Lag), 4% US TIPS Index,4% MSCI EM IMI Index, 3% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 10/01/2021, benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 31% Russell 3000, 14% MSCI World ex US IMI Index, 9% Russell 3000+ 3% (Qtr lag), 7% CPI+3% (Qtr Lag), 4% S&P/LSTA Levered Loan Index +1% (Qtr lag), 3% Bloomberg US TIPS Index, 5% MSCI EM IMI Index, 3% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.
- Starting 07/01/2021, benchmark consists of: 22% Bloomberg U.S. Agg Bond Index, 31% Russell 3000, 14% MSCI World ex US IMI Index, 12% Russell 3000+ 3% (Qtr lag), 7% CPI+3% (Qtr Lag), 3% Bloomberg US TIPS Index, 5% MSCI EM IMI Index, 4% MSCI World ex US +3% (Qtr lag), 2% ICE BofAML 3 Mo US T-Bill Index.

U.S. Equity

Domestic Equity Active Management Overview

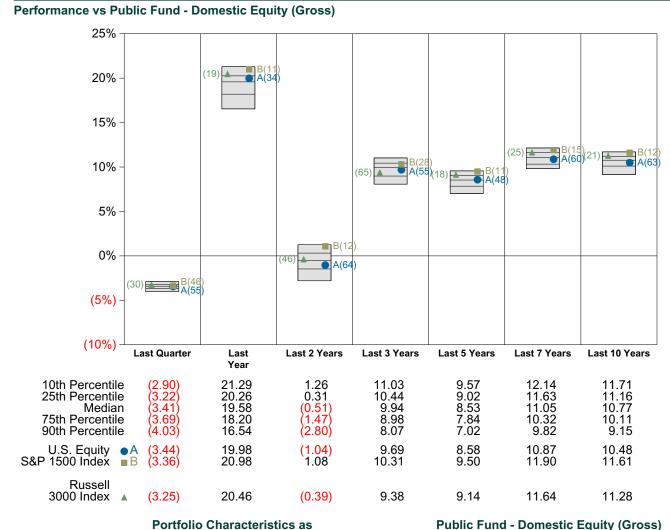
U.S. stock indices posted negative returns in 3Q. The S&P 500 Index declined 3.3% while the tech-heavy Nasdaq Composite dropped 3.9%. Within the S&P 500, Utilities (-9.2%), Real Estate (-8.9%), and Technology (-5.6%) performed the worst while Energy (+12.2%) and Communication Services (+3.1%) led sector 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%).



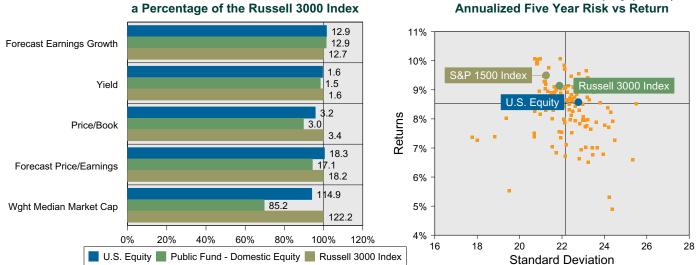
U.S. Equity Period Ended September 30, 2023

Quarterly Summary and Highlights

- U.S. Equity's portfolio posted a (3.44)% return for the quarter placing it in the 55 percentile of the Public Fund Domestic Equity group for the quarter and in the 34 percentile for the last year.
- U.S. Equity's portfolio underperformed the Russell 3000 Index by 0.19% for the quarter and underperformed the Russell 3000 Index for the year by 0.48%.





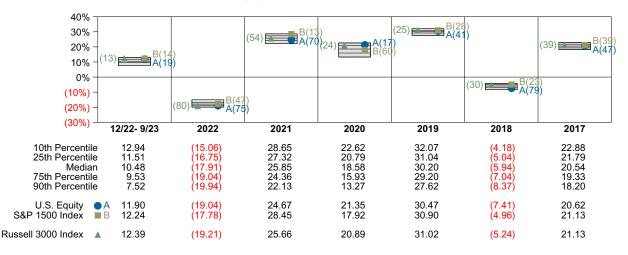


U.S. Equity Return Analysis Summary

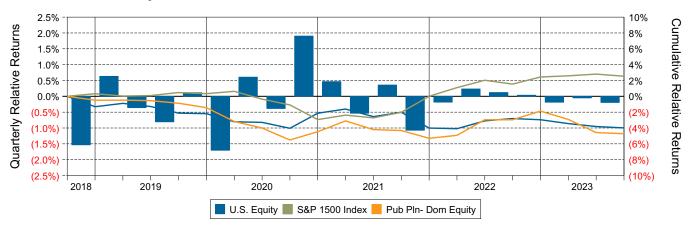
Return Analysis

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.

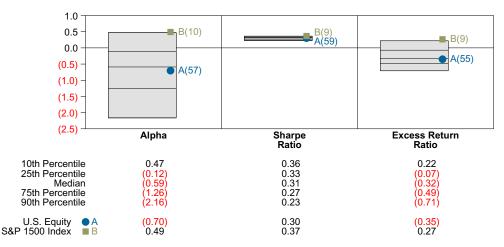
Performance vs Public Fund - Domestic Equity (Gross)



Cumulative and Quarterly Relative Returns vs Russell 3000 Index



Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2023



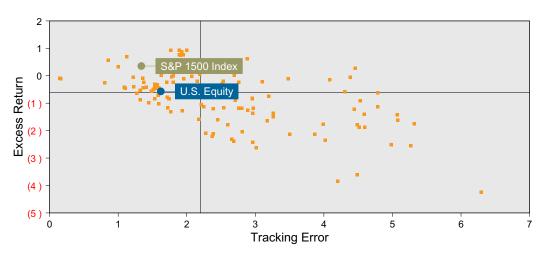


U.S. Equity Risk Analysis Summary

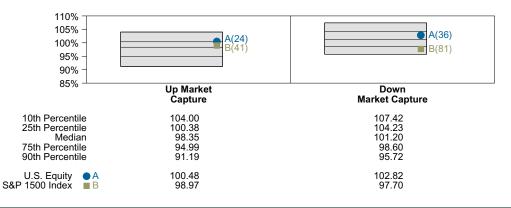
Risk Analysis

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.

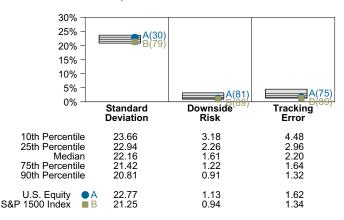
Risk Analysis vs Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2023

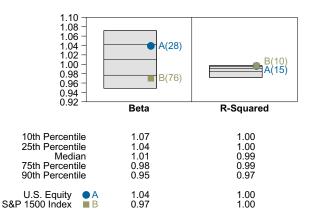


Market Capture vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2023



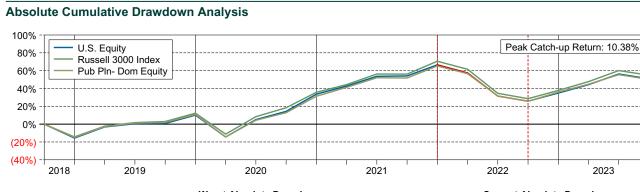
Risk Statistics Rankings vs Russell 3000 Index Rankings Against Public Fund - Domestic Equity (Gross) Five Years Ended September 30, 2023



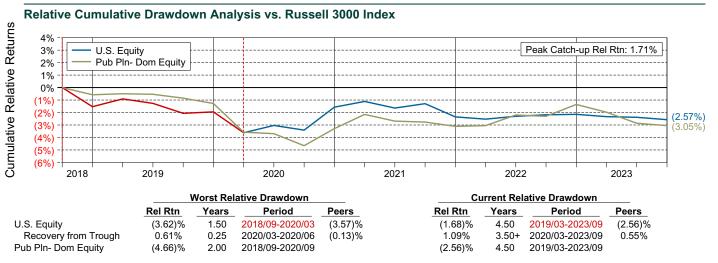


U.S. Equity Drawdown Analysis for Five Years Ended September 30, 2023

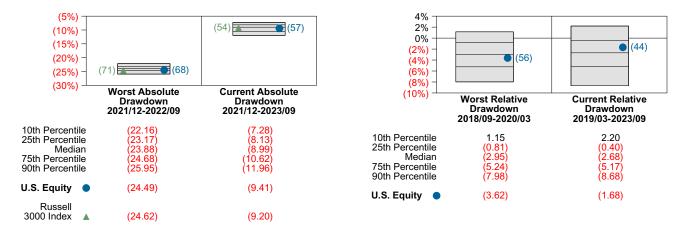
The following analysis focuses on downside risk by looking at cumulative drawdowns experienced from peak-to-trough for the portfolio, index, and peer group. Drawdown is measured from the "high-water mark" of cumulative return to the subsequent "trough". The first chart illustrates the Worst Absolute 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.



		Worst Absolute Drawdown					Current Absolute Drawdown			
	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
U.S. Equity	(24.49)%	0.75	2021/12-2022/09	(24.62)%	(23.99)%	(9.41)%	1.75	2021/12-2023/09	(9.20)%	(9.14)%
Recovery from Trough	19.98%	1.00+	2022/09-2023/09	20.46%	19.54%	19.98%	1.00+	2022/09-2023/09	20.46%	19.54%
Russell 3000 Index	(24.62)%	0.75	2021/12-2022/09			(9.20)%	1.75	2021/12-2023/09		
Pub Pln- Dom Equity	(23.99)%	0.75	2021/12-2022/09			(9.14)%	1.75	2021/12-2023/09		



Drawdown Rankings vs. Russell 3000 Index Rankings against Public Fund - Domestic Equity Five Years Ended September 30, 2023



Cumulative Returns

54.88% 50.89%

50.16%

Current Holdings Based Style Analysis U.S. 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 Exposure Matrix

Holdings as of September 30, 2023

83.5% (274)

80.0% (294)

12.8% (473)

14.3% (589)

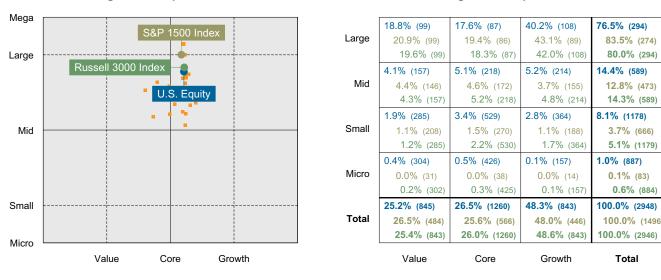
3.7% (666)

5.1% (1179)

0.1% (83)

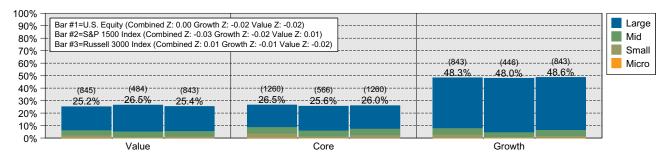
Total

0.6% (884)

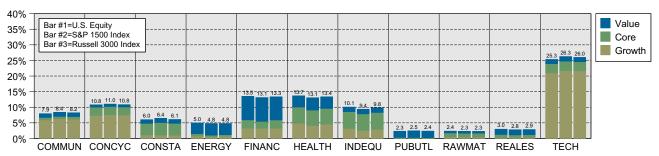


Style Map vs Pub Pln- Dom Equity Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

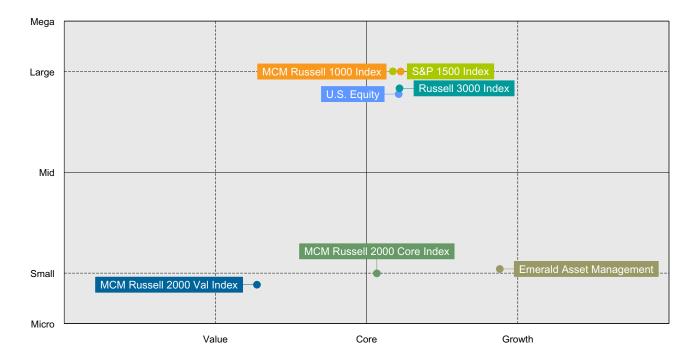


Holdings Based Style Analysis For One Quarter Ended September 30, 2023

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



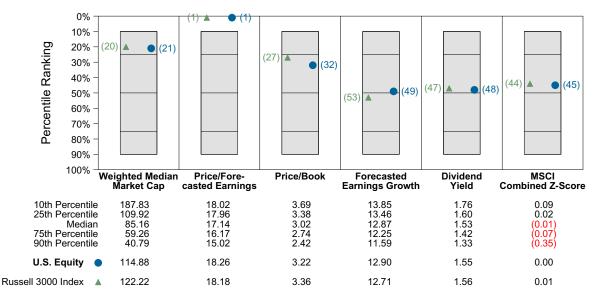
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities D	Security Diversification
MCM Russell 2000 Val Index	3.08%	2.00	(0.76)	(0.29)	0.47	1452	206.02
MCM Russell 2000 Core Inde	x 3.11%	2.44	(0.11)	(0.10)	0.01	1991	315.21
Emerald Asset Management	3.33%	2.96	0.53	0.09	(0.44)	113	34.65
MCM Russell 1000 Index	90.48%	143.74	0.02	(0.01)	(0.02)	1009	46.78
U.S. Equity	100.00%	114.88	0.00	(0.02)	(0.02)	3005	63.30
Russell 3000 Index	-	122.22	0.01	(0.01)	(0.02)	2993	55.23
S&P 1500 Index	-	144.26	(0.03)	(0.02)	0.01	1505	45.42

U.S. Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

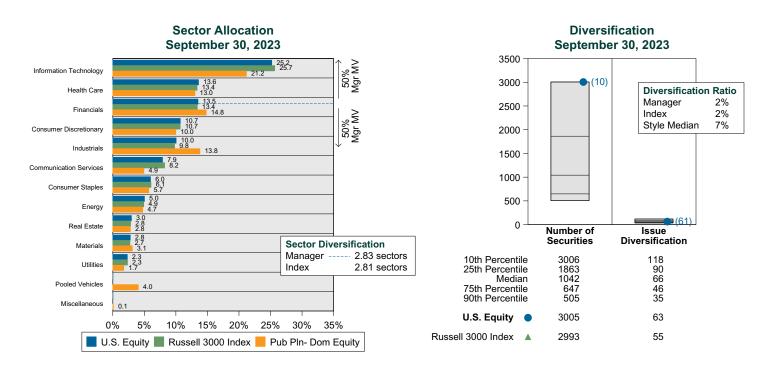
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - Domestic Equity as of September 30, 2023



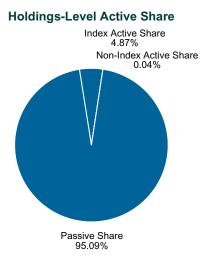
Sector Weights

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. 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.

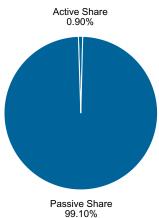


U.S. Equity Active Share Analysis as of September 30, 2023 vs. Russell 3000 Index

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.



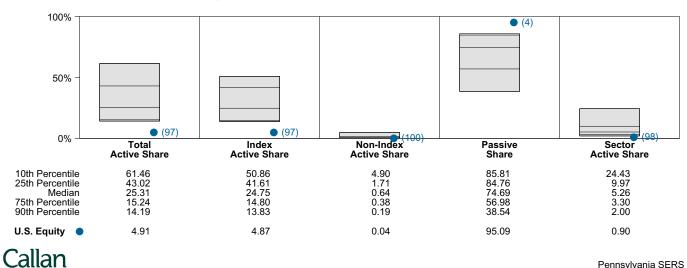
Sector Exposure Active Share



Total Active Share: 4.91%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	1.00%	0.00%	1.00%	8.22%	7.89%	0.22%
Consumer Discretionary	4.34%	0.09%	4.44%	10.68%	10.71%	0.50%
Consumer Staples	3.68%	0.00%	3.68%	6.06%	5.98%	0.26%
Energy	7.94%	0.00%	7.94%	4.91%	5.02%	0.31%
Financials	5.58%	0.06%	5.64%	13.40%	13.51%	0.68%
Health Care	7.29%	0.05%	7.34%	13.37%	13.59%	0.86%
Industrials	7.99%	0.08%	8.07%	9.80%	10.04%	0.69%
Information Technology	2.49%	0.00%	2.49%	25.67%	25.21%	0.94%
Materials	7.12%	0.00%	7.12%	2.72%	2.78%	0.18%
Miscellaneous	0.00%	100.00%	100.00%	-	0.01%	0.00%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.01%	0.00%
Real Estate	7.26%	0.00%	7.26%	2.83%	2.96%	0.17%
Utilities	2.95%	0.00%	2.95%	2.33%	2.31%	0.08%
Total	4.87%	0.04%	4.91%	100.00%	100.00%	4.91%

Active Share vs. Pub Pln- Dom Equity



U.S. Equity Managers

MCM Russell 1000 Index Period Ended September 30, 2023

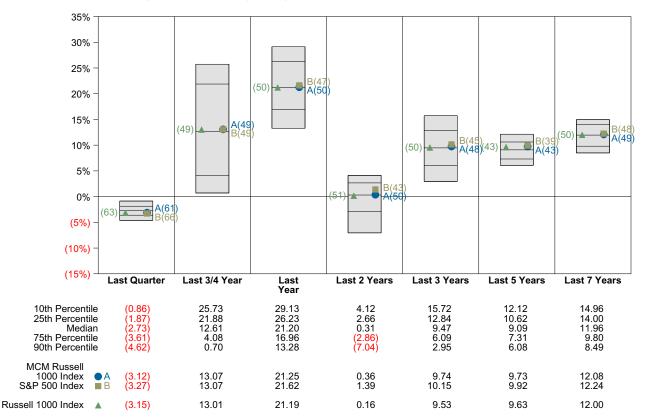
Investment Philosophy

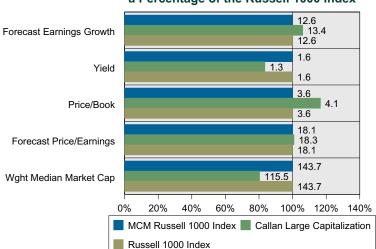
The Russell 1000 Stock Index Fund attempts to replicate the performance and portfolio characteristics of the Russell 1000 Index.

Quarterly Summary and Highlights

- MCM Russell 1000 Index's portfolio posted a (3.12)% return for the quarter placing it in the 61 percentile of the Callan Large Capitalization group for the quarter and in the 50 percentile for the last year.
- MCM Russell 1000 Index's portfolio outperformed the Russell 1000 Index by 0.03% for the quarter and outperformed the Russell 1000 Index for the year by 0.06%.

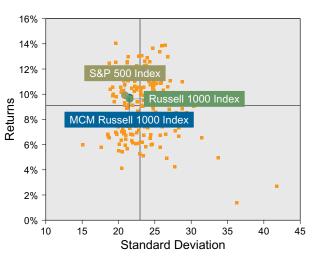
Performance vs Callan Large Capitalization (Gross)





Portfolio Characteristics as a Percentage of the Russell 1000 Index

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



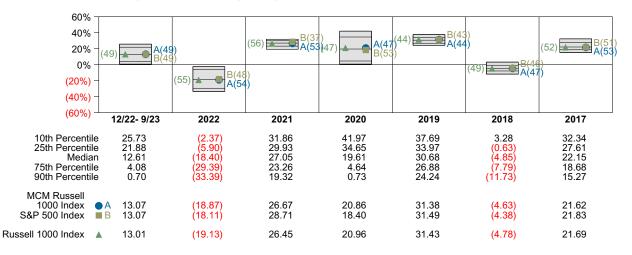


MCM Russell 1000 Index **Return Analysis Summary**

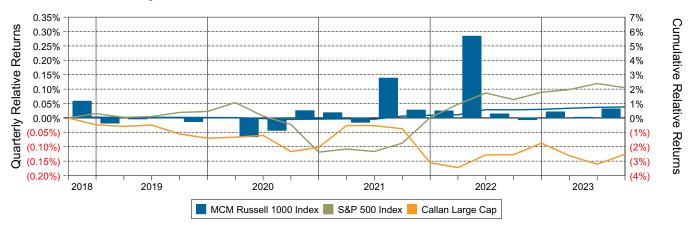
Return Analysis

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.

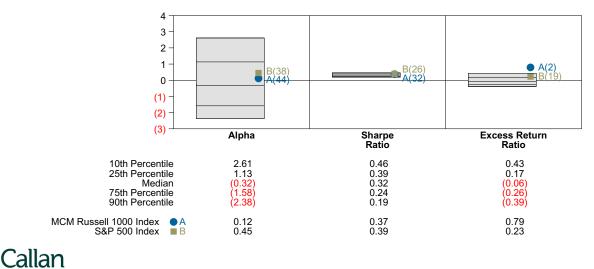
Performance vs Callan Large Capitalization (Gross)



Cumulative and Quarterly Relative Returns vs Russell 1000 Index



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

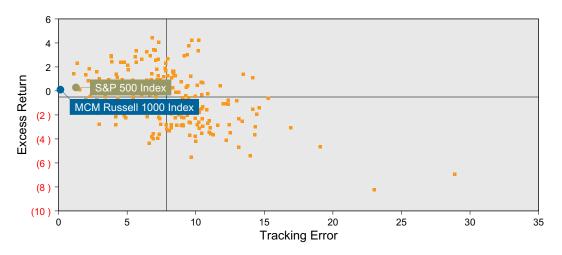


MCM Russell 1000 Index Risk Analysis Summary

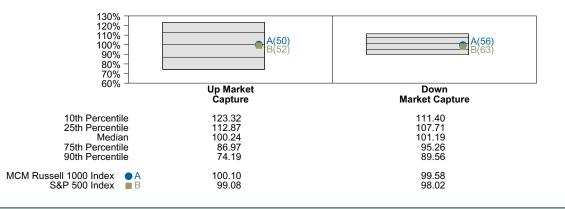
Risk Analysis

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.

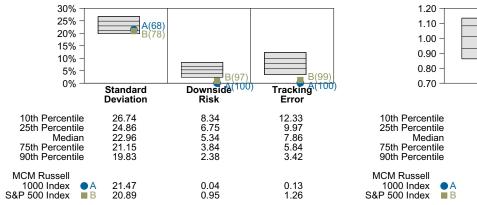
Risk Analysis vs Callan Large Capitalization (Gross) Five Years Ended September 30, 2023

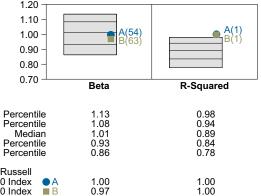


Market Capture vs Russell 1000 Index Rankings Against Callan Large Capitalization (Gross) Five Years Ended September 30, 2023



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

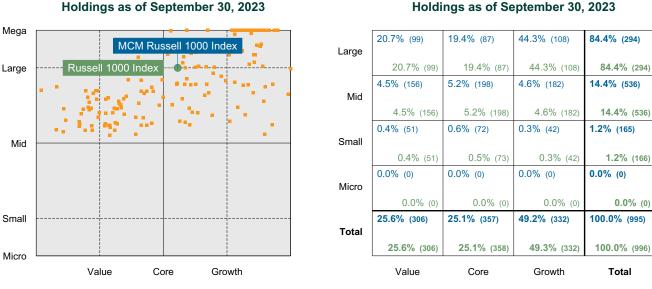




Current Holdings Based Style Analysis MCM Russell 1000 Index As of September 30, 2023

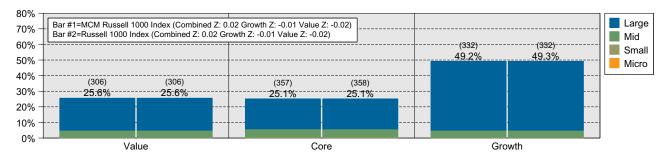
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization 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 Exposure Matrix

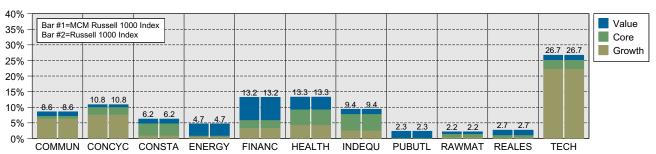


Style Map vs Callan Large Cap Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

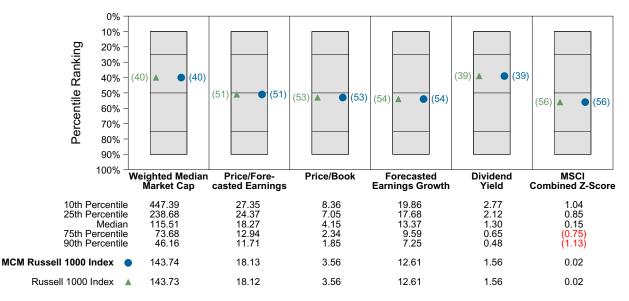


MCM Russell 1000 Index Equity Characteristics Analysis Summary

Portfolio Characteristics

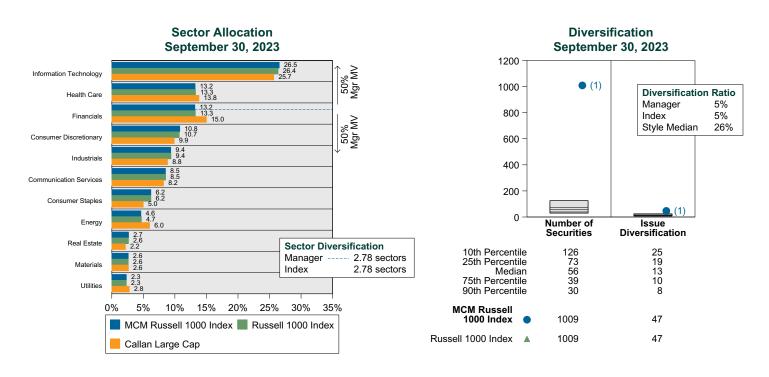
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Capitalization as of September 30, 2023



Sector Weights

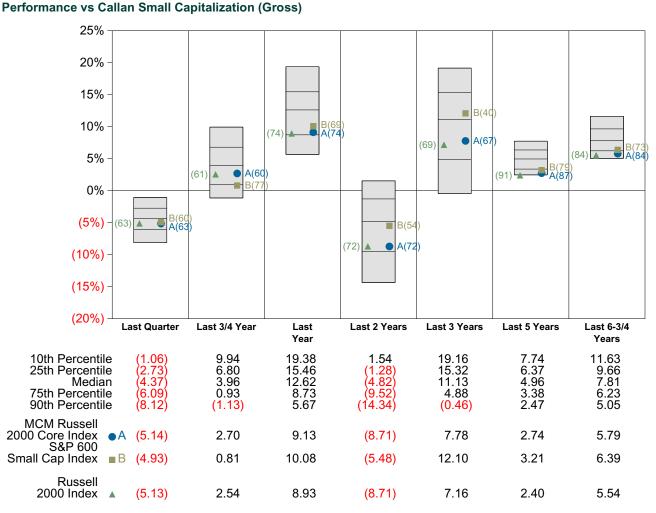
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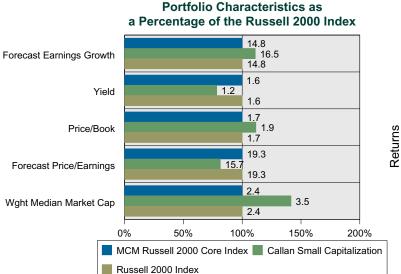


MCM Russell 2000 Core Index Period Ended September 30, 2023

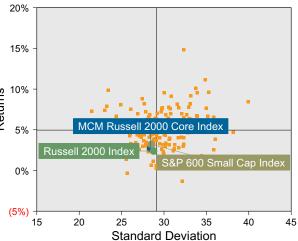
Quarterly Summary and Highlights

- MCM Russell 2000 Core Index's portfolio posted a (5.14)% return for the quarter placing it in the 63 percentile of the Callan Small Capitalization group for the quarter and in the 74 percentile for the last year.
- MCM Russell 2000 Core Index's portfolio underperformed the Russell 2000 Index by 0.01% for the quarter and outperformed the Russell 2000 Index for the year by 0.20%.





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



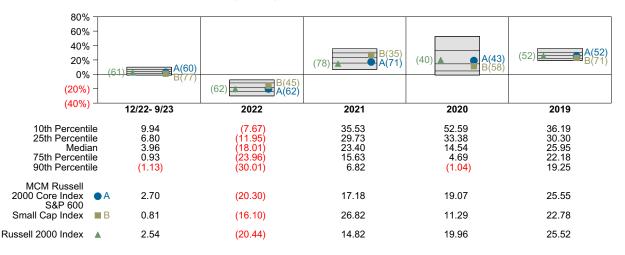


MCM Russell 2000 Core Index Return Analysis Summary

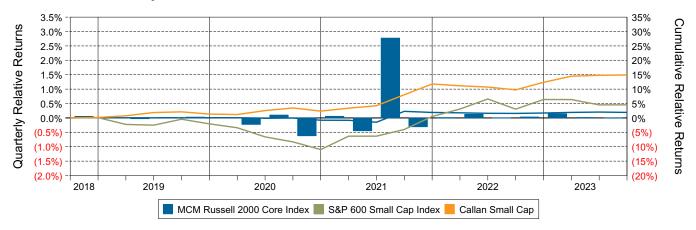
Return Analysis

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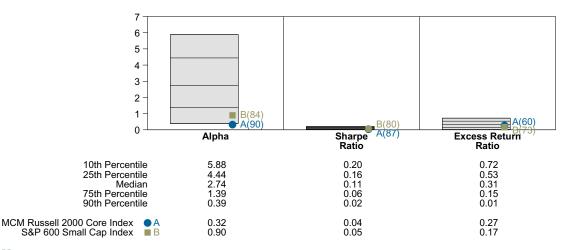
Performance vs Callan Small Capitalization (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Index



Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Five Years Ended September 30, 2023

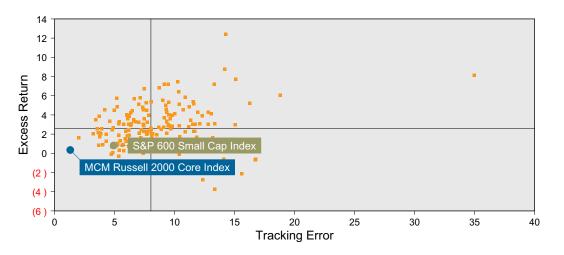


MCM Russell 2000 Core Index Risk Analysis Summary

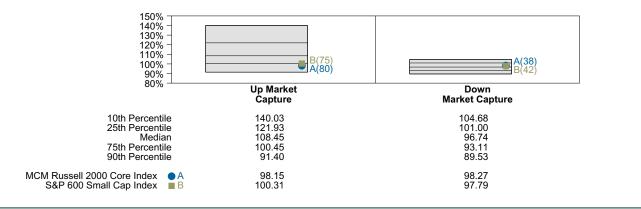
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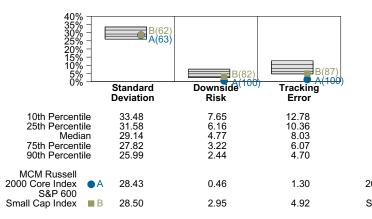
Risk Analysis vs Callan Small Capitalization (Gross) Five Years Ended September 30, 2023

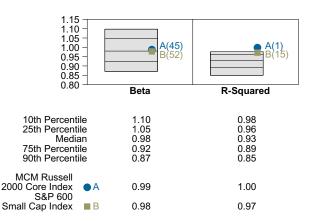


Market Capture vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Five Years Ended September 30, 2023





Current Holdings Based Style Analysis MCM Russell 2000 Core Index As of September 30, 2023

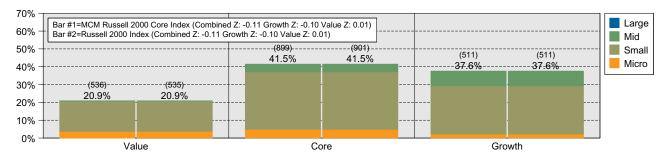
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Style Exposure Matrix

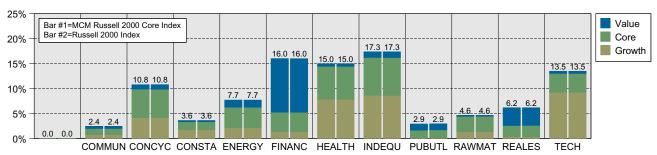


Style Map vs Callan Small Cap Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

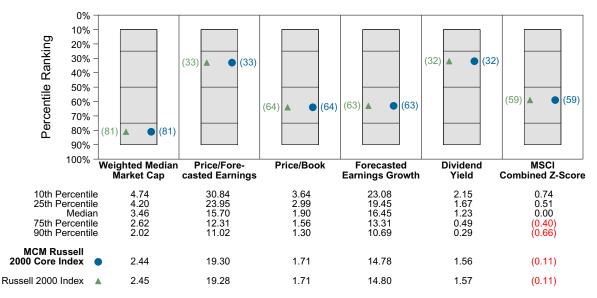


MCM Russell 2000 Core Index Equity Characteristics Analysis Summary

Portfolio Characteristics

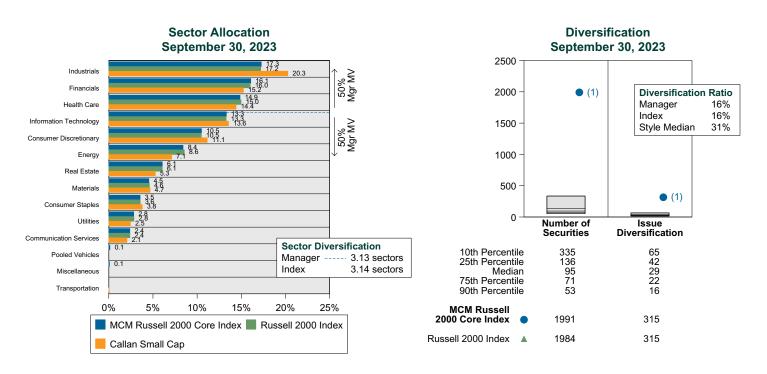
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

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



Sector Weights

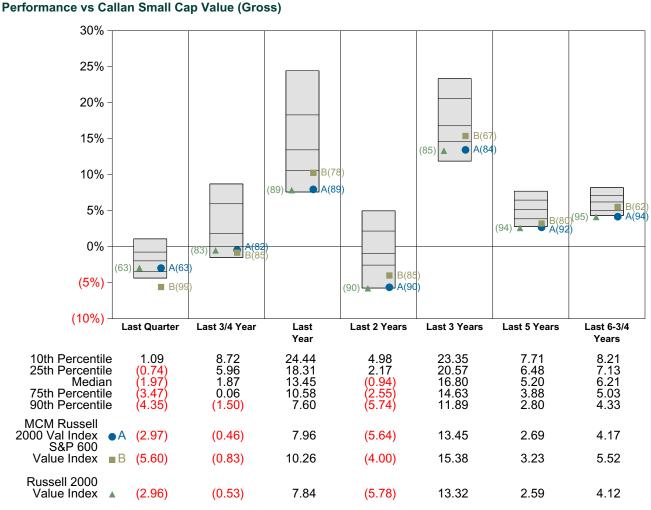
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MCM Russell 2000 Val Index Period Ended September 30, 2023

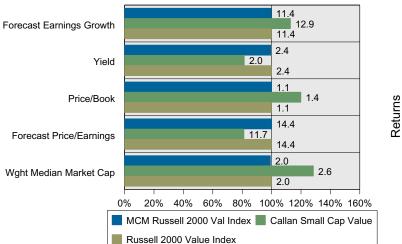
Quarterly Summary and Highlights

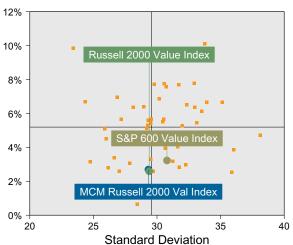
- MCM Russell 2000 Val Index's portfolio posted a (2.97)% return for the quarter placing it in the 63 percentile of the Callan Small Cap Value group for the quarter and in the 89 percentile for the last year.
- MCM Russell 2000 Val Index's portfolio underperformed the Russell 2000 Value Index by 0.01% for the quarter and outperformed the Russell 2000 Value Index for the year by 0.12%.









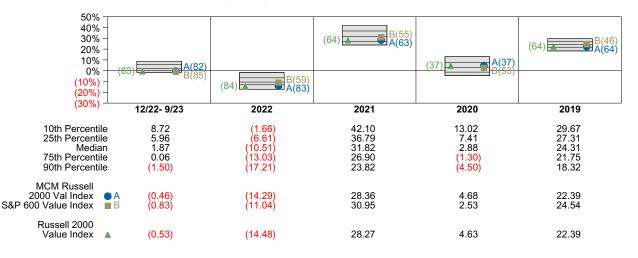


MCM Russell 2000 Val Index Return Analysis Summary

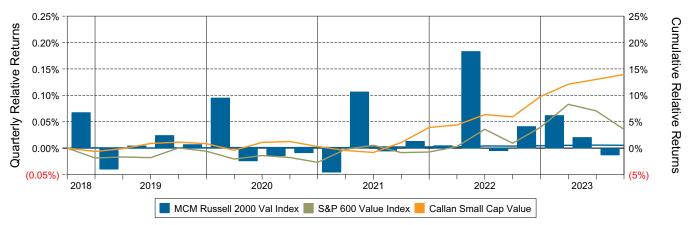
Return Analysis

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.

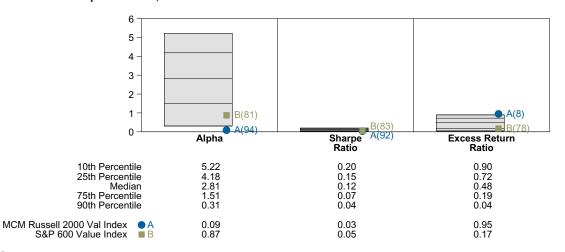
Performance vs Callan Small Cap Value (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Value Index



Risk Adjusted Return Measures vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Five Years Ended September 30, 2023

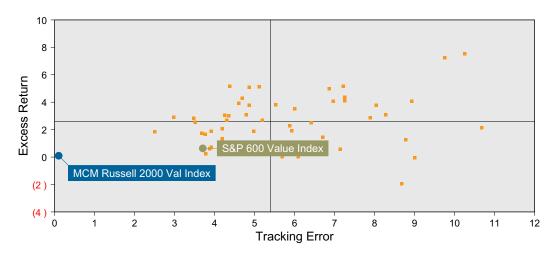


MCM Russell 2000 Val Index **Risk Analysis Summary**

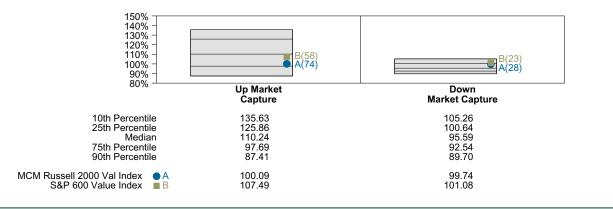
Risk Analysis

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.

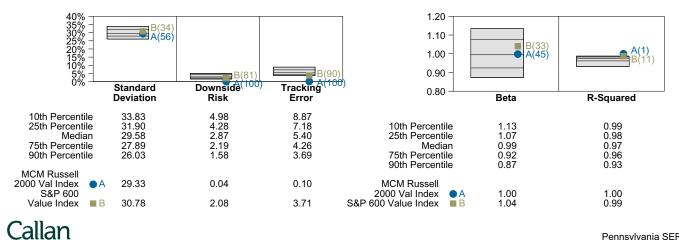
Risk Analysis vs Callan Small Cap Value (Gross) Five Years Ended September 30, 2023



Market Capture vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs Russell 2000 Value Index Rankings Against Callan Small Cap Value (Gross) Five Years Ended September 30, 2023



Current Holdings Based Style Analysis MCM Russell 2000 Val Index As of September 30, 2023

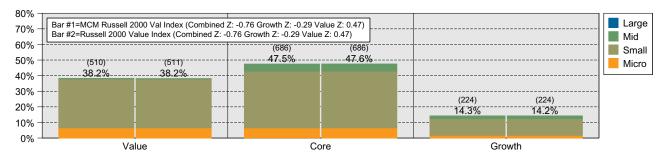
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization 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 Exposure Matrix

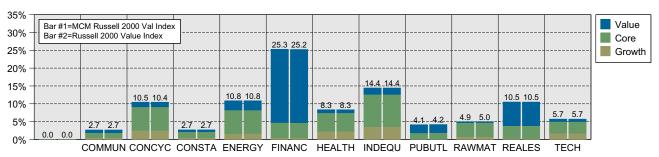


Style Map vs Callan Small Cap Value Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

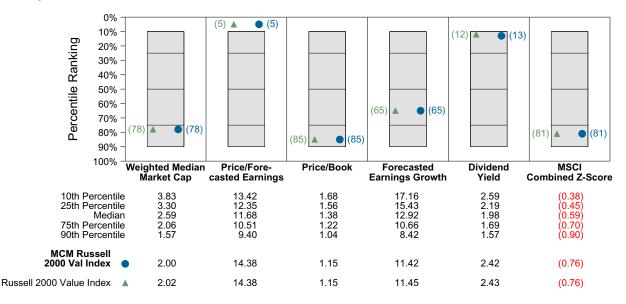


MCM Russell 2000 Val Index Equity Characteristics Analysis Summary

Portfolio Characteristics

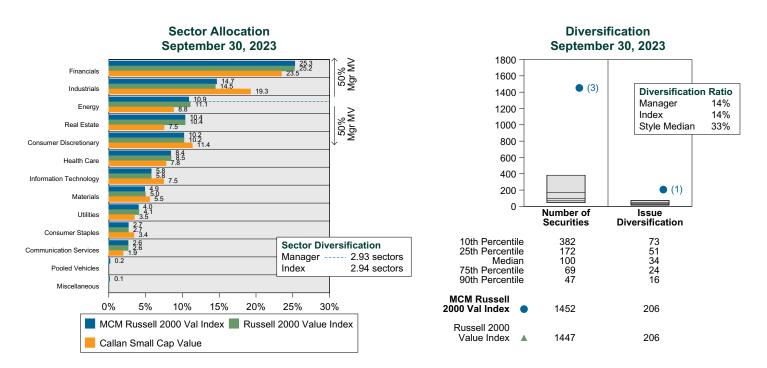
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Cap 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.





Emerald Asset Management Period Ended September 30, 2023

Investment Philosophy

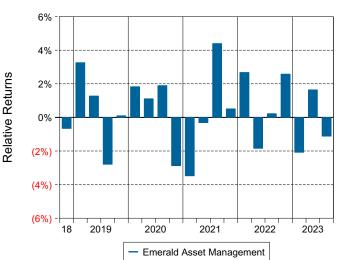
Emerald is dedicated to fundamental, bottom-up research designed to identify unrecognized, under-researched and undervalued growth companies.

Quarterly Summary and Highlights

- Emerald Asset Management's portfolio posted a (8.35)% return for the quarter placing it in the 74 percentile of the Callan Small Cap Growth group for the quarter and in the 53 percentile for the last year.
- Emerald Asset Management's portfolio underperformed the Russell 2000 Growth Index by 1.03% for the quarter and outperformed the Russell 2000 Growth Index for the year by 1.05%.

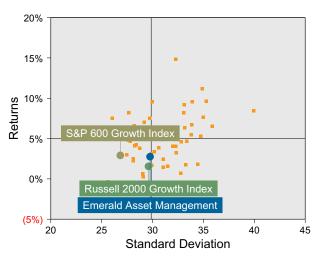






Relative Return vs Russell 2000 Growth Index



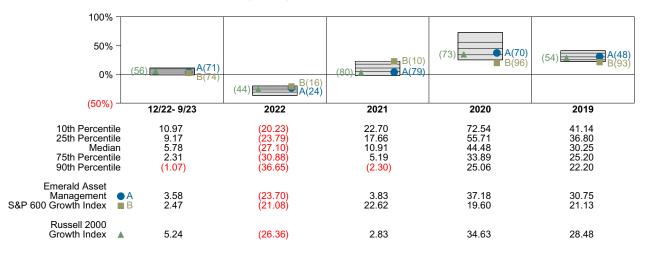


Emerald Asset Management Return Analysis Summary

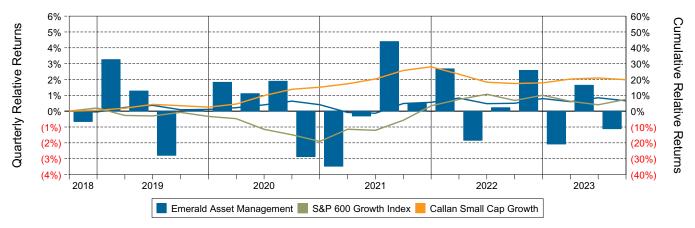
Return Analysis

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.

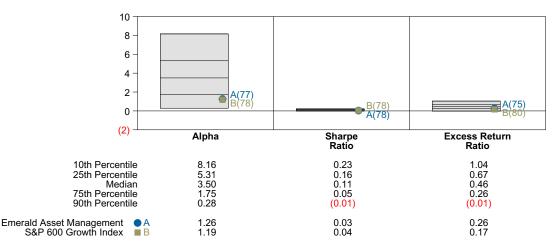
Performance vs Callan Small Cap Growth (Gross)



Cumulative and Quarterly Relative Returns vs Russell 2000 Growth Index



Risk Adjusted Return Measures vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Five Years Ended September 30, 2023

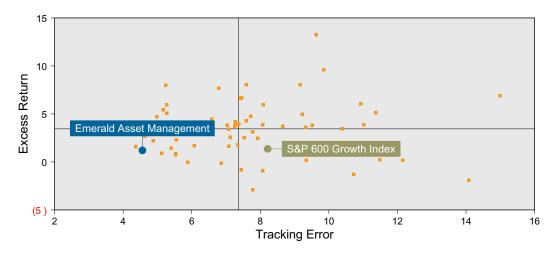


Emerald Asset Management Risk Analysis Summary

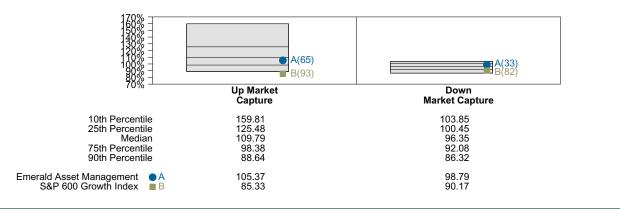
Risk Analysis

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.

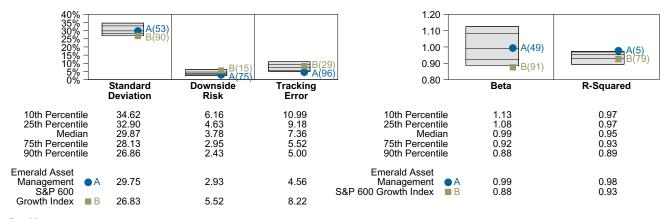
Risk Analysis vs Callan Small Cap Growth (Gross) Five Years Ended September 30, 2023



Market Capture vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Five Years Ended September 30, 2023



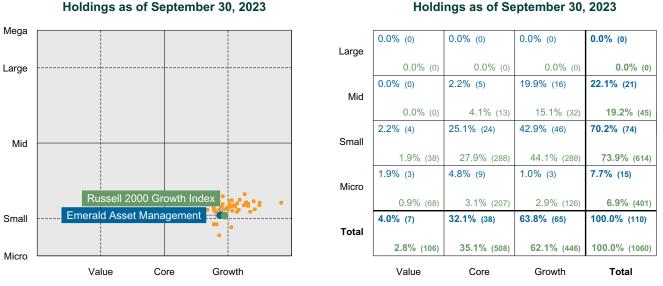
Risk Statistics Rankings vs Russell 2000 Growth Index Rankings Against Callan Small Cap Growth (Gross) Five Years Ended September 30, 2023



Current Holdings Based Style Analysis Emerald Asset Management As of September 30, 2023

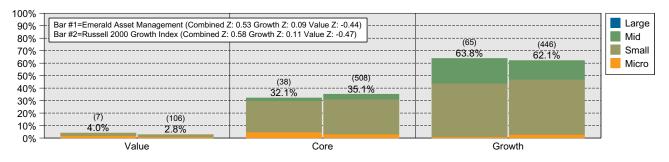
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization 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 Exposure Matrix

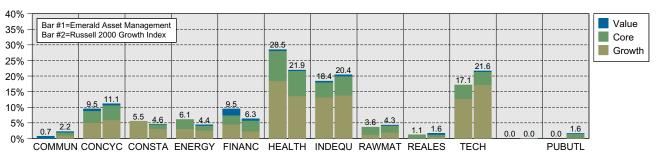


Style Map vs Callan Small Cap Growth Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

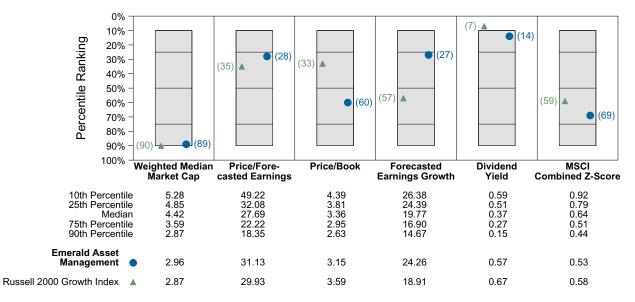


Emerald Asset Management Equity Characteristics Analysis Summary

Portfolio Characteristics

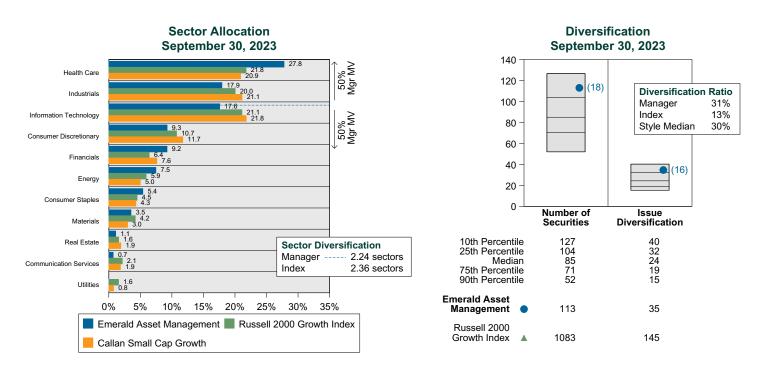
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

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.



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.

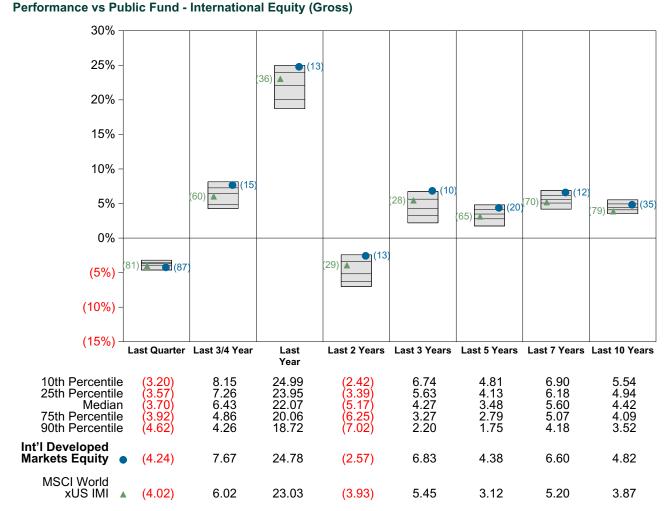


International Developed Markets Equity

Int'l Developed Markets Equity Period Ended September 30, 2023

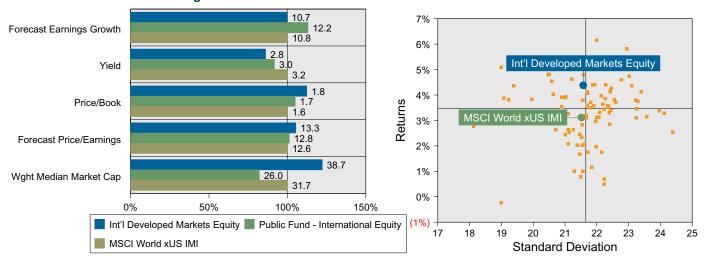
Quarterly Summary and Highlights

- Int'l Developed Markets Equity's portfolio posted a (4.24)% return for the quarter placing it in the 87 percentile of the Public Fund International Equity group for the quarter and in the 13 percentile for the last year.
- Int'l Developed Markets Equity's portfolio underperformed the MSCI World xUS IMI by 0.22% for the quarter and outperformed the MSCI World xUS IMI for the year by 1.75%.







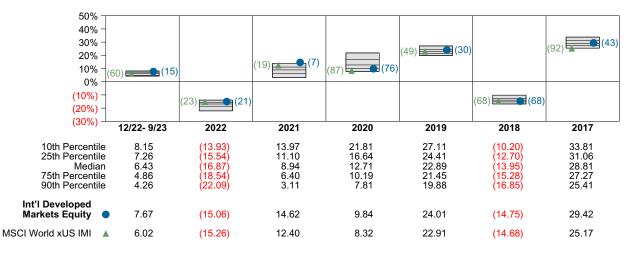


Int'l Developed Markets Equity Return Analysis Summary

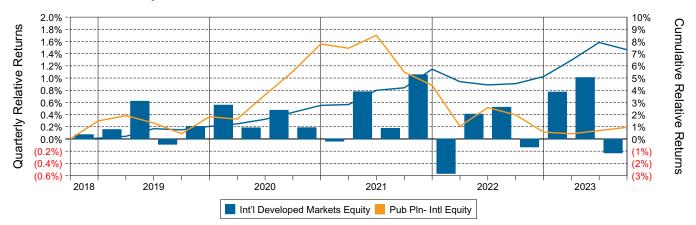
Return Analysis

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.





Cumulative and Quarterly Relative Returns vs MSCI World xUS IMI



Risk Adjusted Return Measures vs MSCI World xUS IMI Rankings Against Public Fund - International Equity (Gross) Five Years Ended September 30, 2023



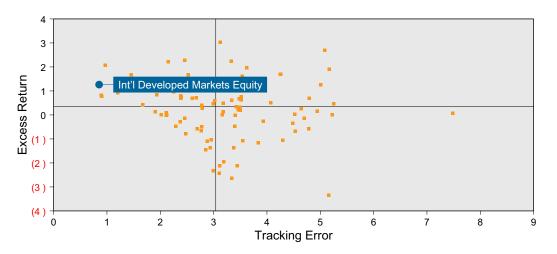


Int'l Developed Markets Equity Risk Analysis Summary

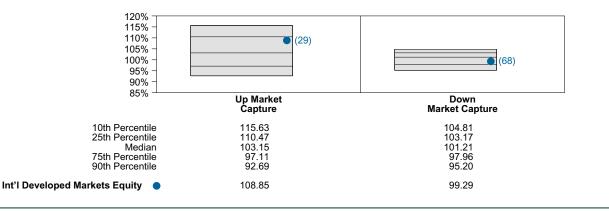
Risk Analysis

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.

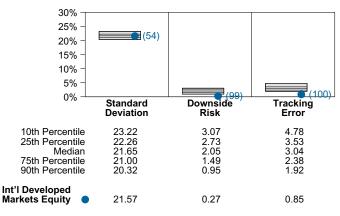
Risk Analysis vs Public Fund - International Equity (Gross) Five Years Ended September 30, 2023

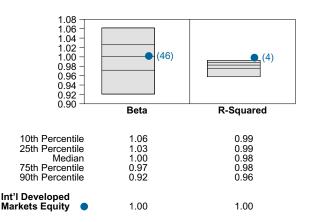


Market Capture vs MSCI World xUS IMI (Net) Rankings Against Public Fund - International Equity (Gross) Five Years Ended September 30, 2023







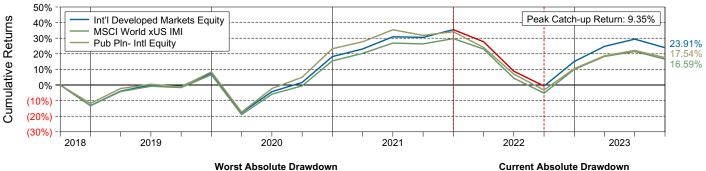




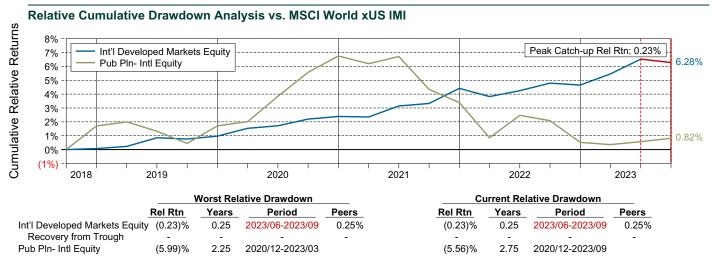
Int'l Developed Markets Equity Drawdown Analysis for Five Years Ended September 30, 2023

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.

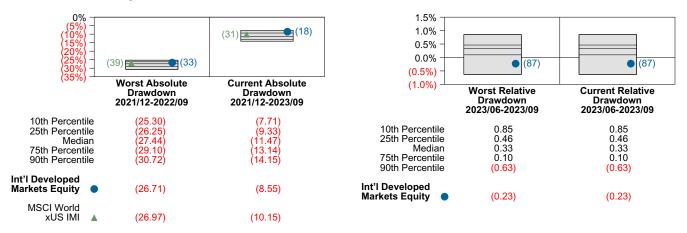
Absolute Cumulative Drawdown Analysis



	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Int'l Developed Markets Equi	ty (26.71)%	0.75	2021/12-2022/09	(26.97)%	(27.90)%	(8.55)%	1.75	2021/12-2023/09	(10.15)%	(12.39)%
Recovery from Trough	24.78%	1.00+	2022/09-2023/09	23.03%	21.51%	24.78%	1.00+	2022/09-2023/09	23.03%	21.51%
MSCI World xUS IMI	(26.97)%	0.75	2021/12-2022/09			(10.15)%	1.75	2021/12-2023/09		
Pub Pln- Intl Equity	(28.56)%	1.25	2021/06-2022/09			(13.20)%	2.25	2021/06-2023/09		



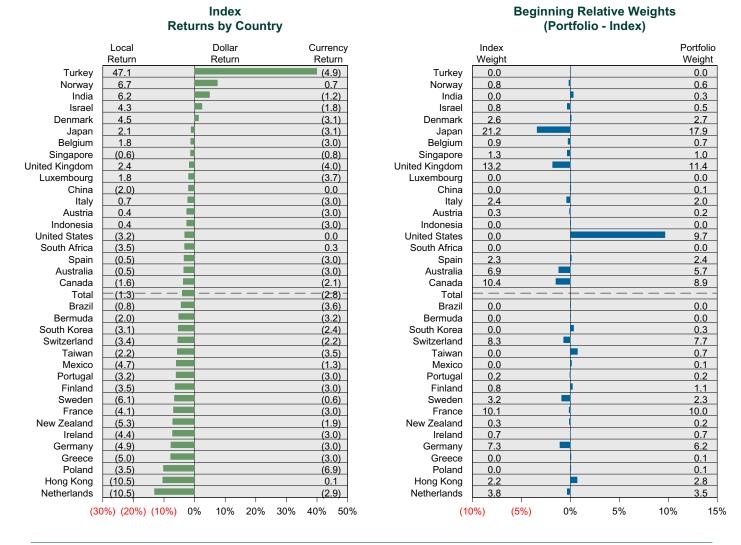
Drawdown Rankings vs. MSCI World xUS IMI Rankings against Public Fund - International Equity Five Years Ended September 30, 2023



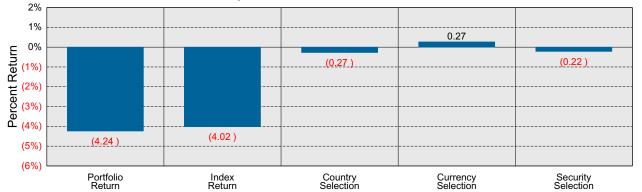
Int'l Developed Markets Equity vs MSCI World xUS IMI Attribution for Quarter Ended September 30, 2023

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.







Current Holdings Based Style Analysis Int'l Developed Markets Equity As of September 30, 2023

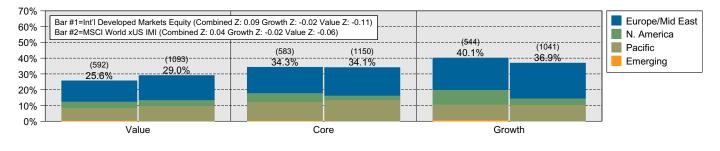
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are 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 Exposure Matrix

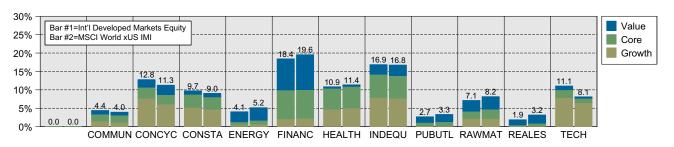


Style Map vs Pub Pln- Intl Equity Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

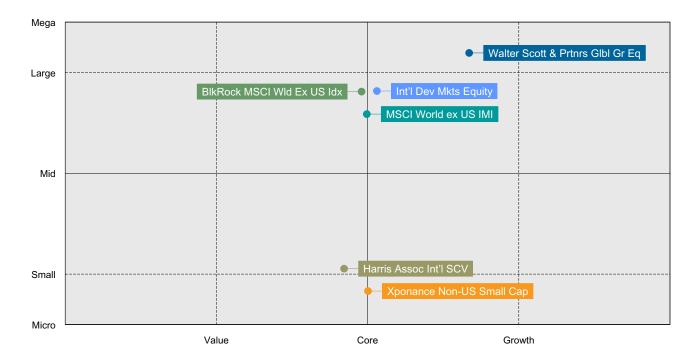


International Holdings Based Style Analysis For One Quarter Ended September 30, 2023

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.

Style Map

Holdings for One Quarter Ended September 30, 2023



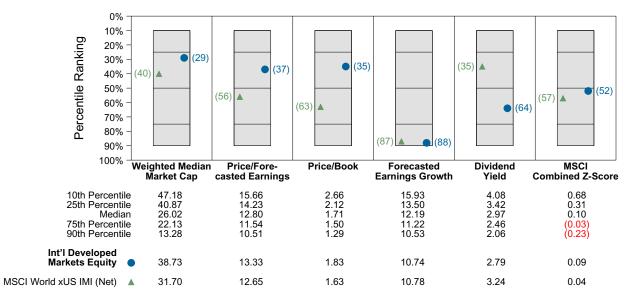
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
Walter Scott & Prtnrs Glbl Gr	E q 4.64%	99.30	0.61	0.07	(0.54)	47	16.47
BlkRock MSCI WId Ex US Idx	77.73%	38.55	0.01	(0.05)	(0.05)	882	103.22
Harris Assoc Int'l SCV	2.93%	2.90	(0.09)	(0.03)	0.06	63	19.23
Xponance Non-US Small Cap	4.62%	1.90	0.04	0.08	0.03	863	117.42
Int'l Dev Mkts Equity	100.00%	38.73	0.09	(0.02)	(0.11)	1785	114.29
MSCI World ex US IMI	-	31.70	0.04	(0.02)	(0.06)	3324	141.05

Int'l Developed Markets Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

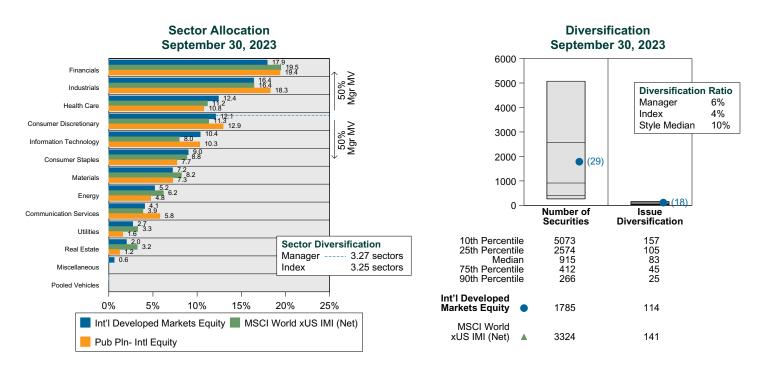
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Public Fund - International Equity as of September 30, 2023



Sector Weights

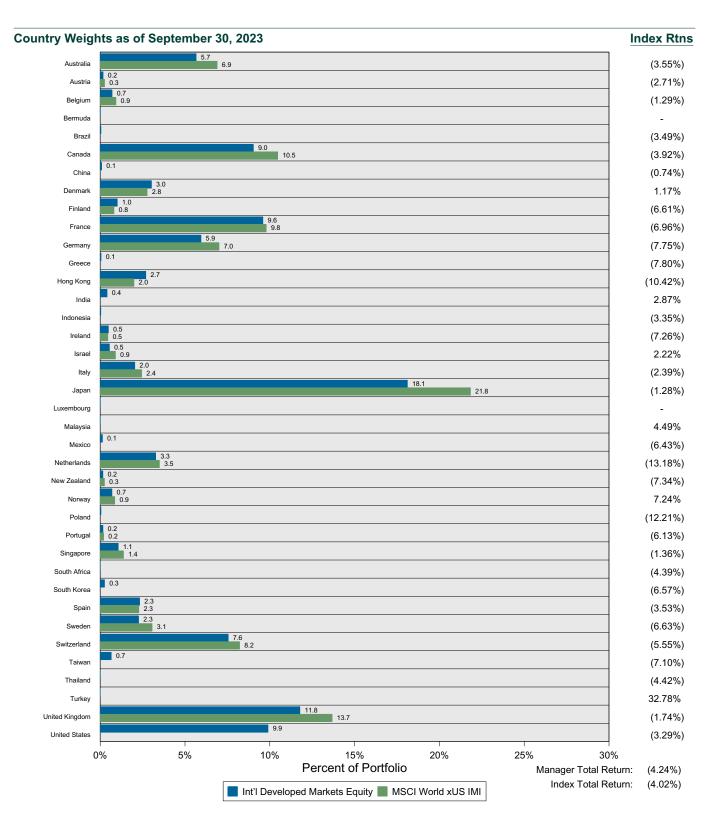
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration 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.



Country Allocation Int'I Developed Markets Equity VS MSCI World xUS IMI (Net)

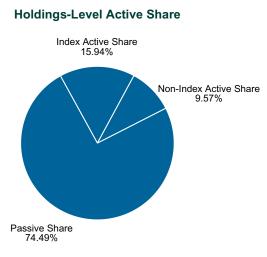
Country Allocation

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.

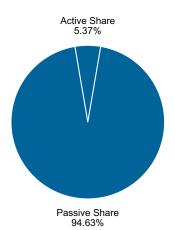


Int'l Developed Markets Equity Active Share Analysis as of September 30, 2023 vs. MSCI World xUS IMI (Net)

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.



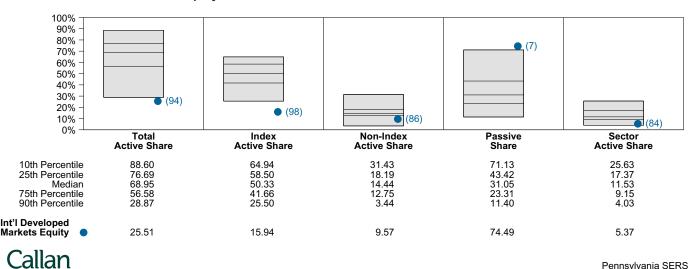
Sector Exposure Active Share



Total Active Share: 25.51%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	14.21%	8.65%	22.86%	3.87%	4.06%	0.84%
Consumer Discretionary	19.37%	9.07%	28.45%	11.31%	12.09%	3.17%
Consumer Staples	11.38%	6.62%	18.00%	8.84%	8.99%	1.58%
Energy	21.47%	14.36%	35.83%	6.19%	5.19%	2.04%
Financials	9.17%	3.80%	12.97%	19.48%	17.94%	3.01%
Health Care	20.10%	16.84%	36.94%	11.17%	12.42%	4.10%
Industrials	18.39%	8.13%	26.52%	16.44%	16.40%	4.36%
Information Technology	21.84%	17.22%	39.06%	7.97%	10.35%	3.01%
Materials	13.78%	3.93%	17.71%	8.22%	7.22%	1.52%
Miscellaneous	0.00%	100.00%	100.00%	-	0.61%	0.30%
Pooled Vehicles	0.00%	100.00%	100.00%	-	0.00%	0.00%
Real Estate	35.78%	8.68%	44.46%	3.22%	2.00%	0.99%
Utilities	14.29%	4.57%	18.86%	3.27%	2.71%	0.57%
Total	15.94%	9.57%	25.51%	100.00%	100.00%	25.49%

Active Share vs. Pub Pln- Intl Equity



International Developed Equity Managers

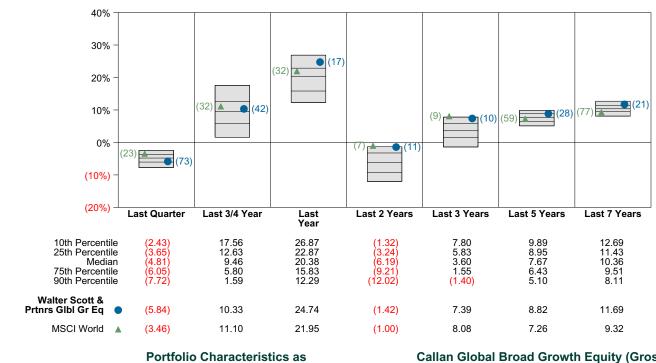
Walter Scott & Prtnrs Glbl Gr Eq Period Ended September 30, 2023

Investment Philosophy

Walter Scott was founded in 1983 and is based in Edinburgh, Scotland. The firm-wide philosophy is centered on the belief that companies with sustainable wealth generation, as defined by 1) cash return on capital employed, 2) return on equity, and 3) growth in earnings per share, will outperform over the long-term. The 24-person investment team of regional experts identifies these opportunities through in-house, bottom-up research. Walter Scott seeks high-quality and competitively-positioned companies that generate strong cash flows and are led by prudent management teams. The Global Equity portfolio holds 40 to 60 stocks with opportunistic exposure to emerging markets. The consistently-applied process is reflected in the strategy's compelling longer-term investment performance.

Quarterly Summary and Highlights

- Walter Scott & Prtnrs Glbl Gr Eq's portfolio posted a (5.84)% return for the quarter placing it in the 73 percentile of the Callan Global Broad Growth Equity group for the quarter and in the 17 percentile for the last year.
- Walter Scott & Prtnrs Glbl Gr Eg's portfolio underperformed the MSCI World by 2.38% for the guarter and outperformed ٠ the MSCI World for the year by 2.79%.



Performance vs Callan Global Broad Growth Equity (Gross)

a Percentage of the MSCI World

41

22.8

200%

20.8

61

250%

14.8

11.5

12 0

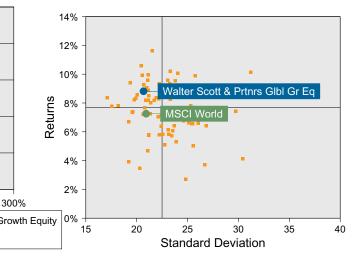
2.0

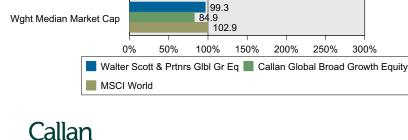
2.7

16.2

1.2 1.2







Forecast Earnings Growth

Forecast Price/Earnings

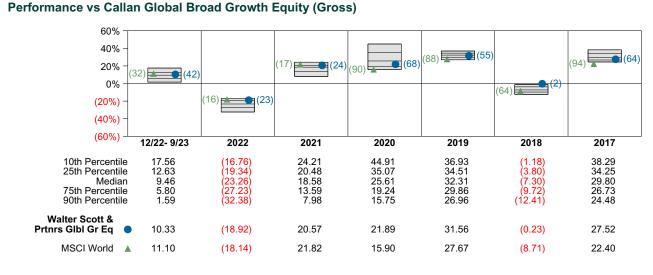
Yield

Price/Book

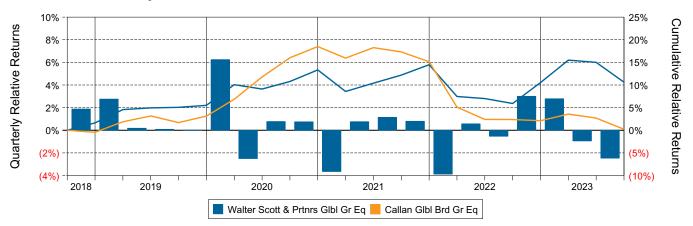
Walter Scott & Prtnrs Glbl Gr Eq Return Analysis Summary

Return Analysis

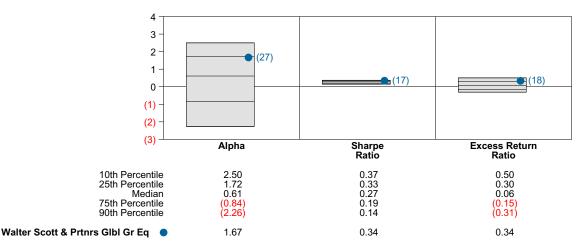
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs MSCI World



Risk Adjusted Return Measures vs MSCI World Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2023

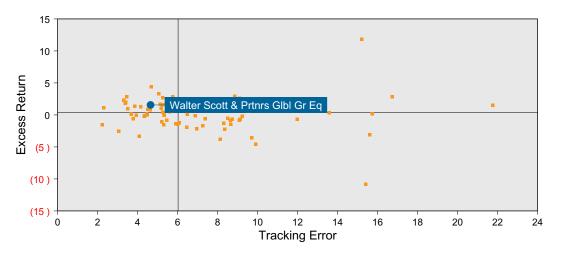


Walter Scott & Prtnrs Glbl Gr Eq Risk Analysis Summary

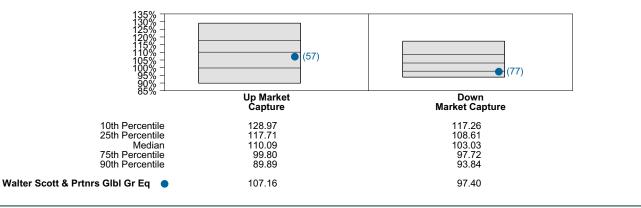
Risk Analysis

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.

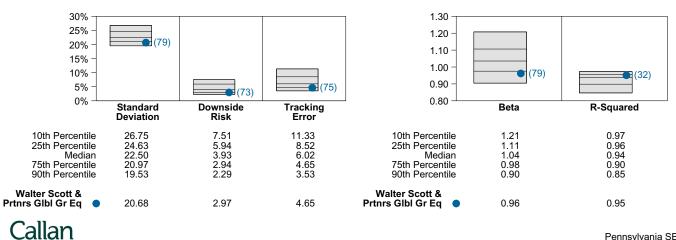
Risk Analysis vs Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI World (Net) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2023

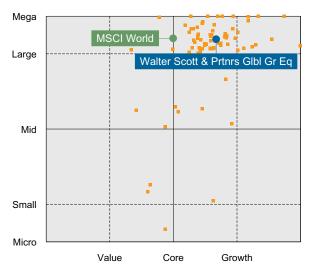


Risk Statistics Rankings vs MSCI World (Net) Rankings Against Callan Global Broad Growth Equity (Gross) Five Years Ended September 30, 2023



Current Holdings Based Style Analysis Walter Scott & Prtnrs Glbl Gr Eq 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.

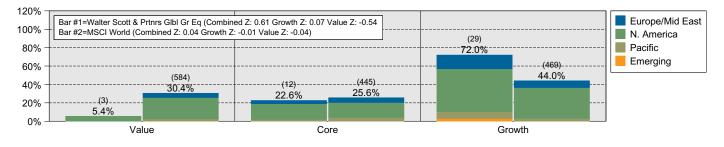


Style Map vs Callan Glbl Brd Gr Eq Holdings as of September 30, 2023

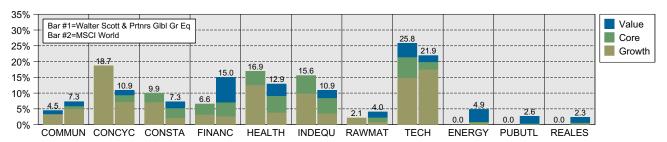
Style Exposure Matrix Holdings as of September 30, 2023

	0.0% (0)	3.5% (3)	14.9% (7)	18.4% (10)	
Europe/					
Mid East	4.7% (149)	5.2% (127)	7.4% (161)	17.3% (437)	
	4.7 /0 (149)	J.Z /0 (127)	7.470 (101)	17.370 (437)	
	5.4% (3)	17.2% (8)	46.6% (17)	69.2% (28)	
N. America					
	23.2% (309)	16.3% (201)	33.5% (194)	72.9% (704)	
	0.0% (0)	1.9% (1)	7.6% (4)	9.4% (5)	
Pacific					
	2.6% (126)	4.0% (116)	3.1% (113)	9.7% (355)	
	0.0% (0)	0.0% (0)	2.9% (1)	2.9% (1)	
Emerging					
	0.0% (0)	0.0% (1)	0.1% (1)	0.1% (2)	
	5.4% (3)	22.6% (12)	72.0% (29)	100.0% (44)	
Total					
	30.4% (584)	25.6% (445)	44.0% (469)	100.0% (1498)	
	Value	Core	Growth	Total	

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





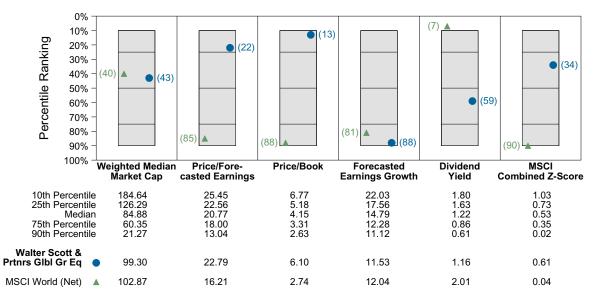


Walter Scott & Prtnrs Glbl Gr Eq Equity Characteristics Analysis Summary

Portfolio Characteristics

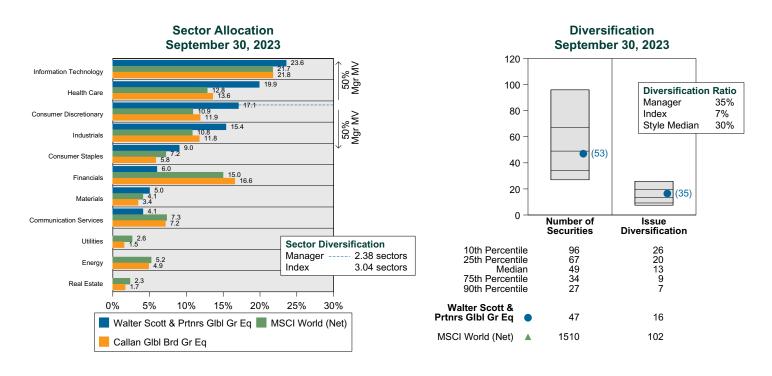
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Global Broad 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. 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.





BlackRock MSCI World Ex US Index Period Ended September 30, 2023

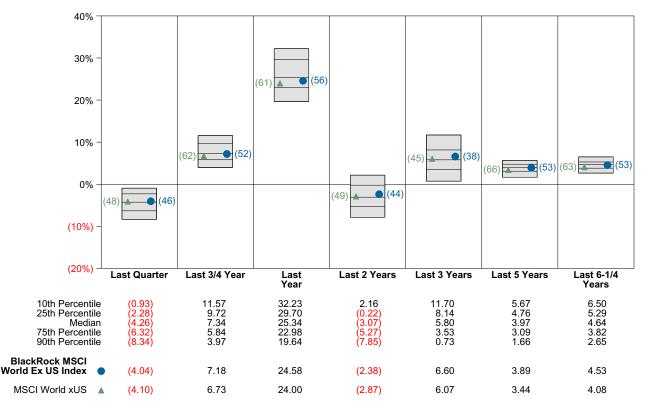
Investment Philosophy

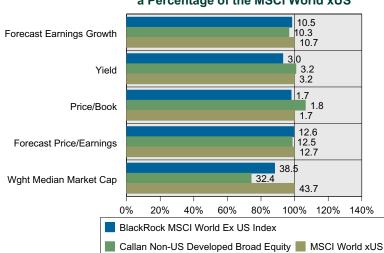
The objective of the World ex-U.S. Index Fund is to track the performance of the MSCI World ex-U.S. Index. The Fund fully replicates the index, holding every stock in the index in its market capitalization weight to ensure close tracking and minimize transaction costs.

Quarterly Summary and Highlights

- BlackRock MSCI World Ex US Index's portfolio posted a (4.04)% return for the quarter placing it in the 46 percentile of the Callan Non-US Developed Broad Equity group for the quarter and in the 56 percentile for the last year.
- BlackRock MSCI World Ex US Index's portfolio outperformed the MSCI World xUS by 0.06% for the quarter and outperformed the MSCI World xUS for the year by 0.59%.

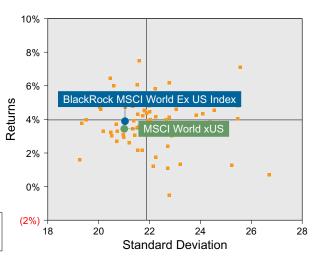
Performance vs Callan Non-US Developed Broad Equity (Gross)





Portfolio Characteristics as a Percentage of the MSCI World xUS

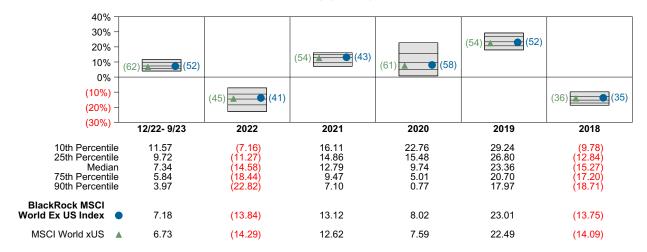
Callan Non-US Developed Broad Equity (Gross) Annualized Five Year Risk vs Return



BlackRock MSCI World Ex US Index Return Analysis Summary

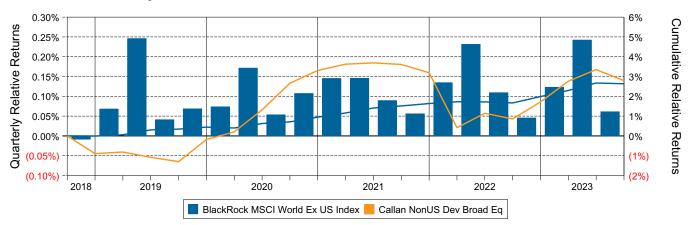
Return Analysis

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.

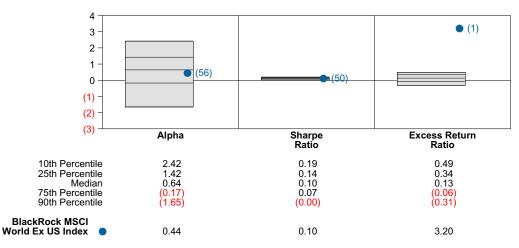


Performance vs Callan Non-US Developed Broad Equity (Gross)

Cumulative and Quarterly Relative Returns vs MSCI World xUS



Risk Adjusted Return Measures vs MSCI World xUS Rankings Against Callan Non-US Developed Broad Equity (Gross) Five Years Ended September 30, 2023

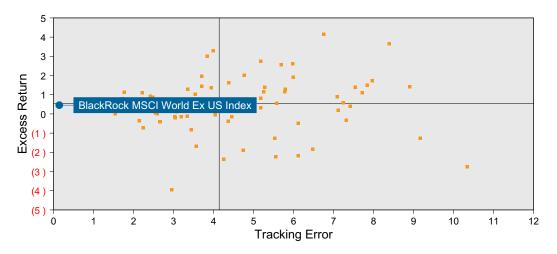


BlackRock MSCI World Ex US Index Risk Analysis Summary

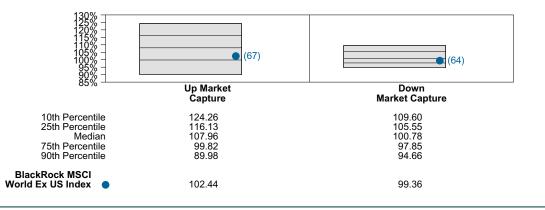
Risk Analysis

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.

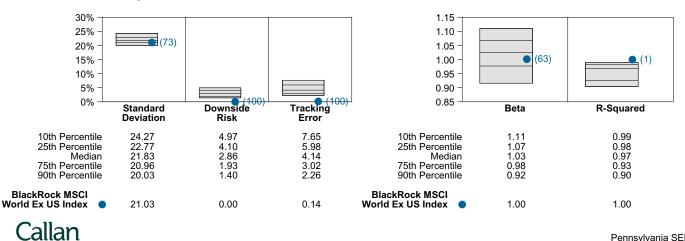
Risk Analysis vs Callan Non-US Developed Broad Equity (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI World xUS (Net) Rankings Against Callan Non-US Developed Broad Equity (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI World xUS (Net) Rankings Against Callan Non-US Developed Broad Equity (Gross) Five Years Ended September 30, 2023



Pennsylvania SERS 130

Current Holdings Based Style Analysis BlackRock MSCI World Ex US Index As of September 30, 2023

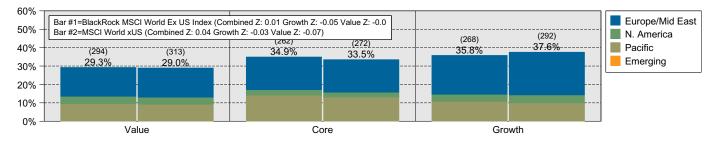
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are 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 Exposure Matrix

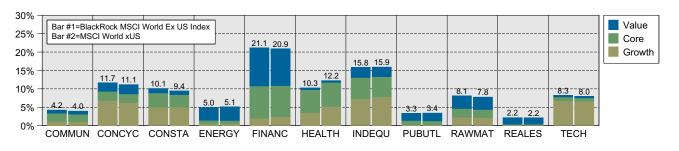


Style Map vs Callan NonUS Dev Broad Eq Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

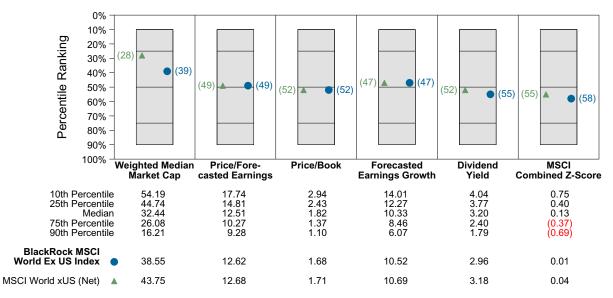


BlackRock MSCI World Ex US Index Equity Characteristics Analysis Summary

Portfolio Characteristics

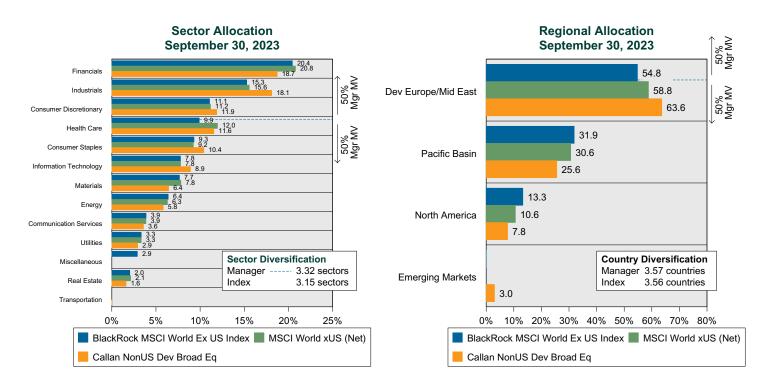
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

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



Sector Weights

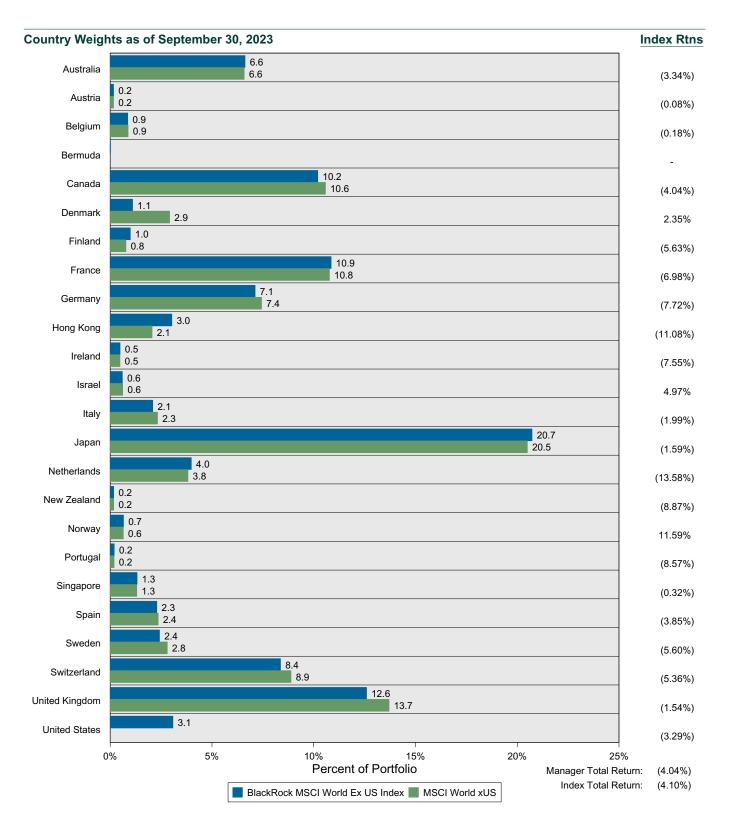
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation BlackRock MSCI World Ex US Index 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 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.



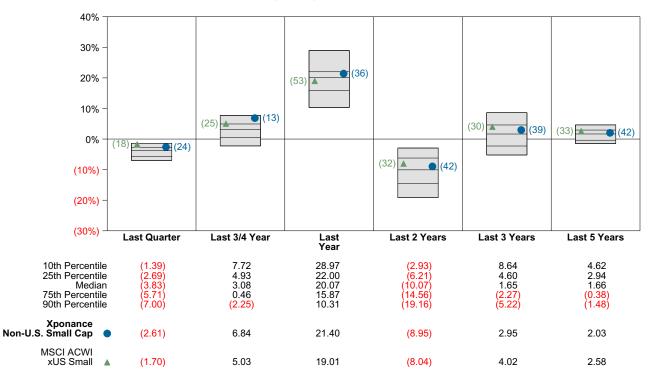
Xponance Non-U.S. Small Cap Period Ended September 30, 2023

Investment Philosophy

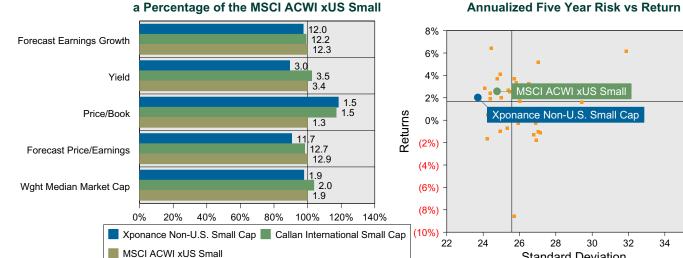
Xponance utilizes an integrated investment process to actively generate investment alpha across its offerings. 25%-50% of outperformance is driven by top-down investment strategy implementation that informs risk management and portfolio construction and provides context to the market environment. Bottom up analysis through manager selection drives 50-75% of outperformance. Xponance uses a forward-looking proprietary factor scoring system in their manager due diligence process to help identify which managers are most likely to produce positive long-term outperformance.

Quarterly Summary and Highlights

- Xponance Non-U.S. Small Cap's portfolio posted a (2.61)% return for the guarter placing it in the 24 percentile of the Callan International Small Cap group for the quarter and in the 36 percentile for the last year.
- Xponance Non-U.S. Small Cap's portfolio underperformed the MSCI ACWI xUS Small by 0.92% for the guarter and ٠ outperformed the MSCI ACWI xUS Small for the year by 2.40%.



Performance vs Callan International Small Cap (Gross)



Portfolio Characteristics as

Callan International Small Cap (Gross)



36

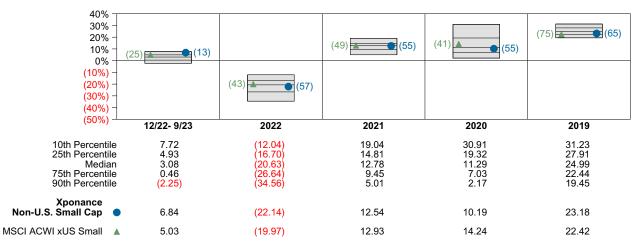
³⁴ Standard Deviation

Xponance Non-U.S. Small Cap Return Analysis Summary

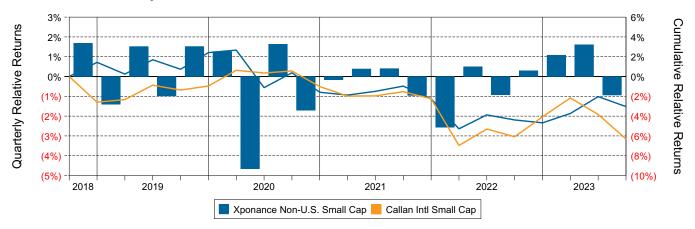
Return Analysis

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.

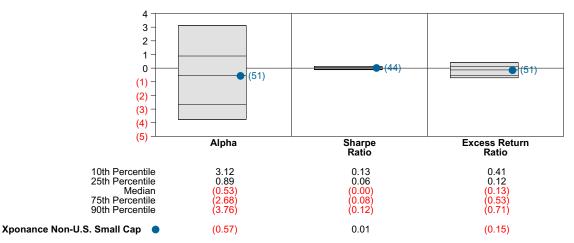
Performance vs Callan International Small Cap (Gross)



Cumulative and Quarterly Relative Returns vs MSCI ACWI xUS Small





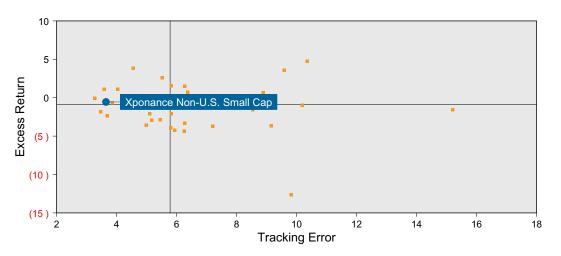


Xponance Non-U.S. Small Cap Risk Analysis Summary

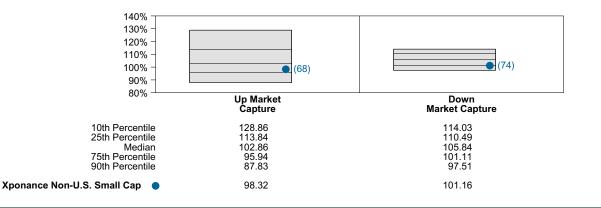
Risk Analysis

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.

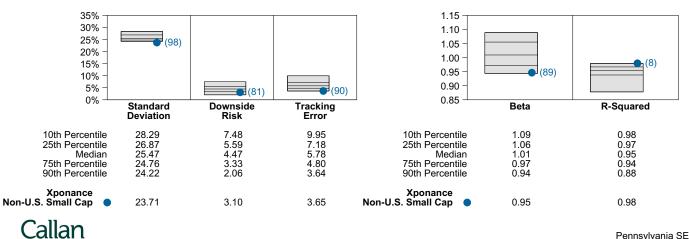
Risk Analysis vs Callan International Small Cap (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI ACWI xUS Small (Net) Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI ACWI xUS Small (Net) Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2023

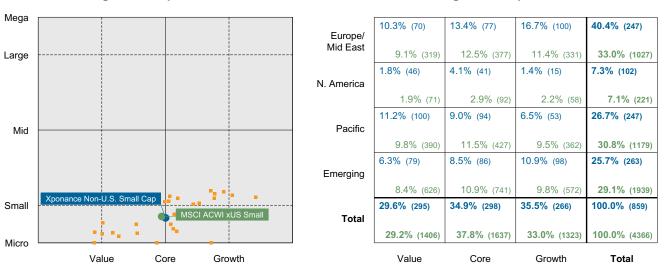


Current Holdings Based Style Analysis Xponance Non-U.S. Small Cap As of September 30, 2023

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.

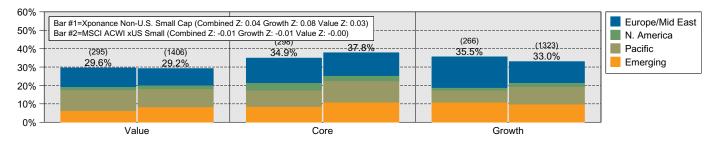
Style Exposure Matrix

Holdings as of September 30, 2023

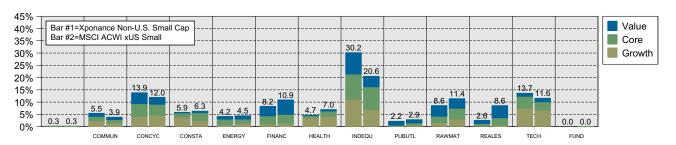


Style Map vs Callan Intl Small Cap Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

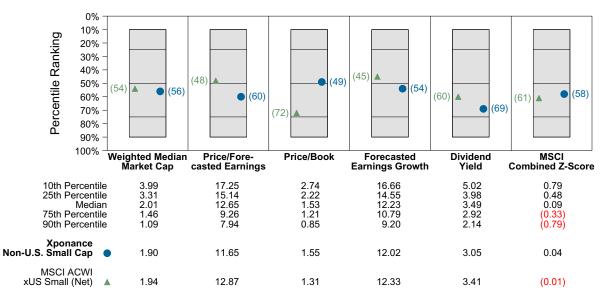


Xponance Non-U.S. Small Cap Equity Characteristics Analysis Summary

Portfolio Characteristics

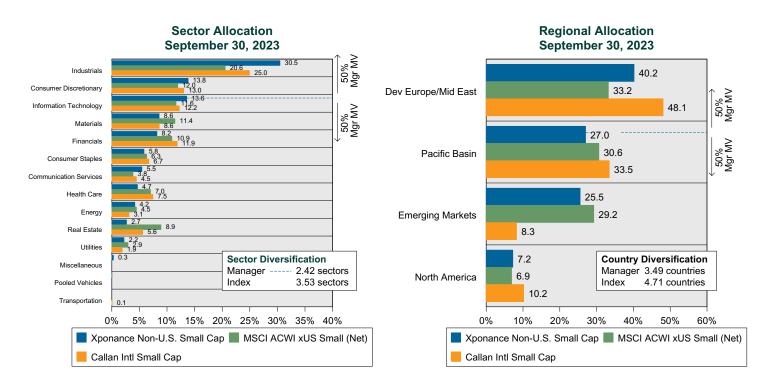
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of September 30, 2023



Sector Weights

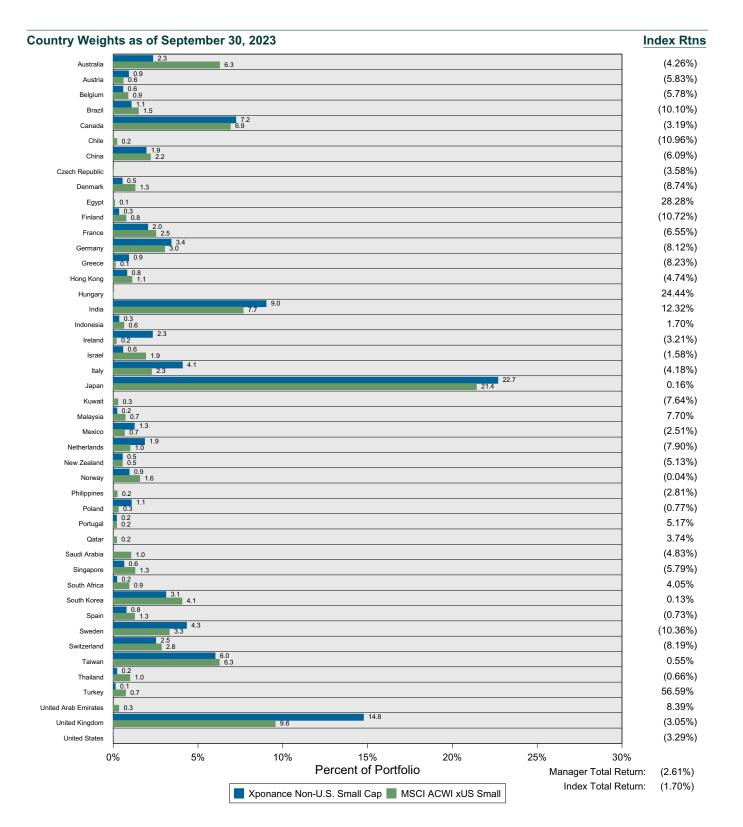
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Xponance Non-U.S. Small Cap VS MSCI ACWI 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 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.



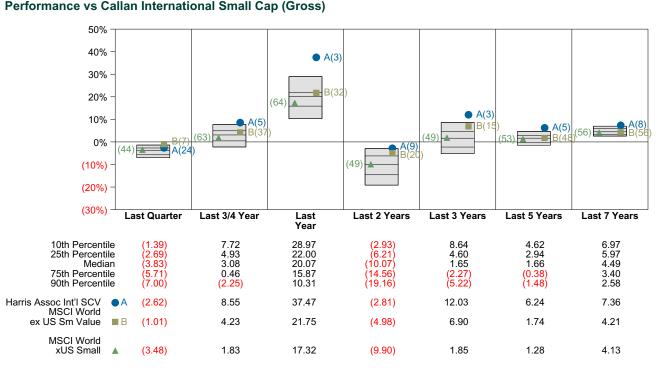
Harris Assoc Int'l SCV Period Ended September 30, 2023

Investment Philosophy

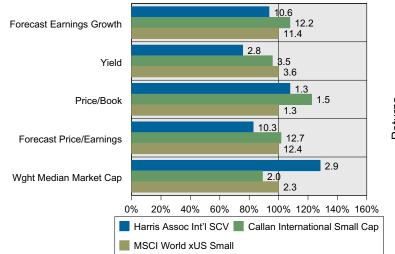
Harris Oakmark employs a value approach to investing and relies on its in-house research capabilities to build focused portfolios. The investment team purchases international stocks in both established and emerging markets that are selling at a substantial discount to intrinsic value. A company must be selling at a 30% or greater discount to its value to be a candidate for purchase. Unlike some value managers, Harris places particular emphasis on a company's ability to generate free cash flow as well as the strength of company management. Stocks are also analyzed in terms of financial strength, the position of the company in its industry, and the attractiveness of the industry.

Quarterly Summary and Highlights

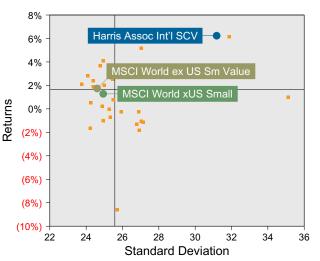
- Harris Assoc Int'I SCV's portfolio posted a (2.62)% return for the quarter placing it in the 24 percentile of the Callan International Small Cap group for the quarter and in the 3 percentile for the last year.
- Harris Assoc Int'I SCV's portfolio outperformed the MSCI World xUS Small by 0.85% for the quarter and outperformed the MSCI World xUS Small for the year by 20.15%.







Callan International Small Cap (Gross) Annualized Five Year Risk vs Return

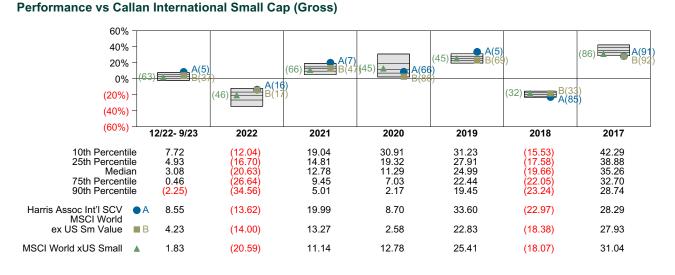




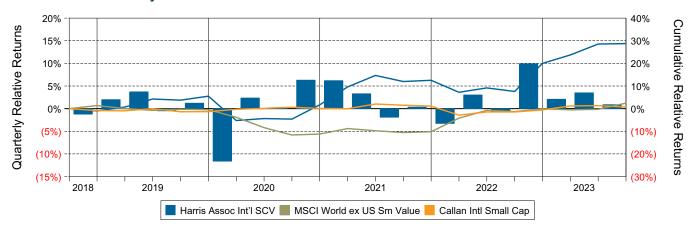
Harris Assoc Int'l SCV Return Analysis Summary

Return Analysis

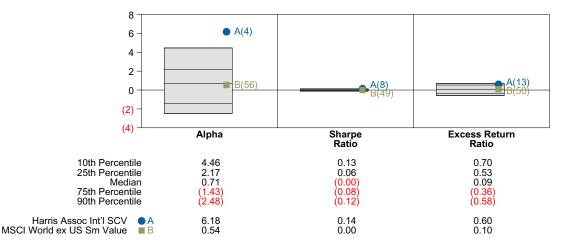
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Cumulative and Quarterly Relative Returns vs MSCI World xUS Small



Risk Adjusted Return Measures vs MSCI World xUS Small Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2023

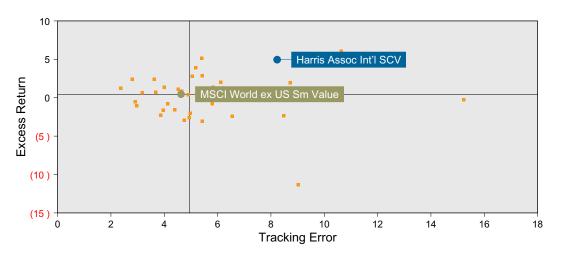


Harris Assoc Int'l SCV Risk Analysis Summary

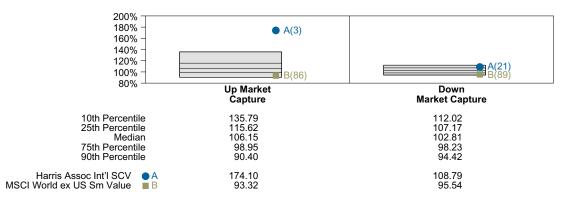
Risk Analysis

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.

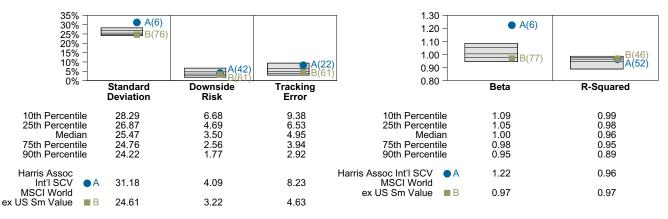
Risk Analysis vs Callan International Small Cap (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI World xUS Small (Net) Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI World xUS Small (Net) Rankings Against Callan International Small Cap (Gross) Five Years Ended September 30, 2023



Current Holdings Based Style Analysis Harris Assoc Int'l SCV As of September 30, 2023

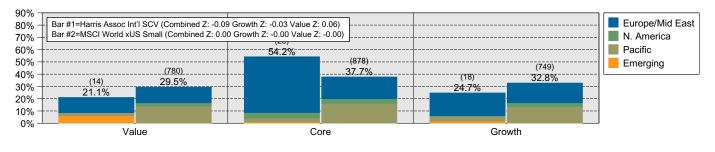
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are 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 Exposure Matrix

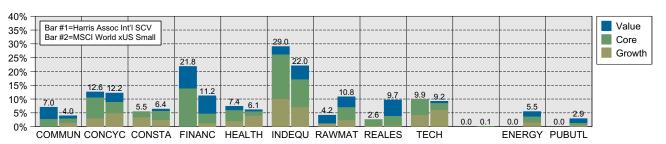


Style Map vs Callan Intl Small Cap Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

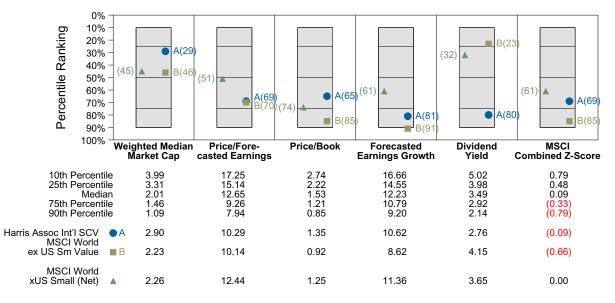


Harris Assoc Int'l SCV Equity Characteristics Analysis Summary

Portfolio Characteristics

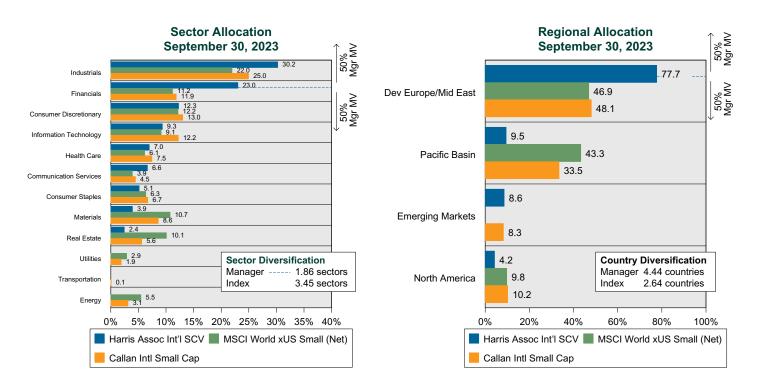
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of September 30, 2023



Sector Weights

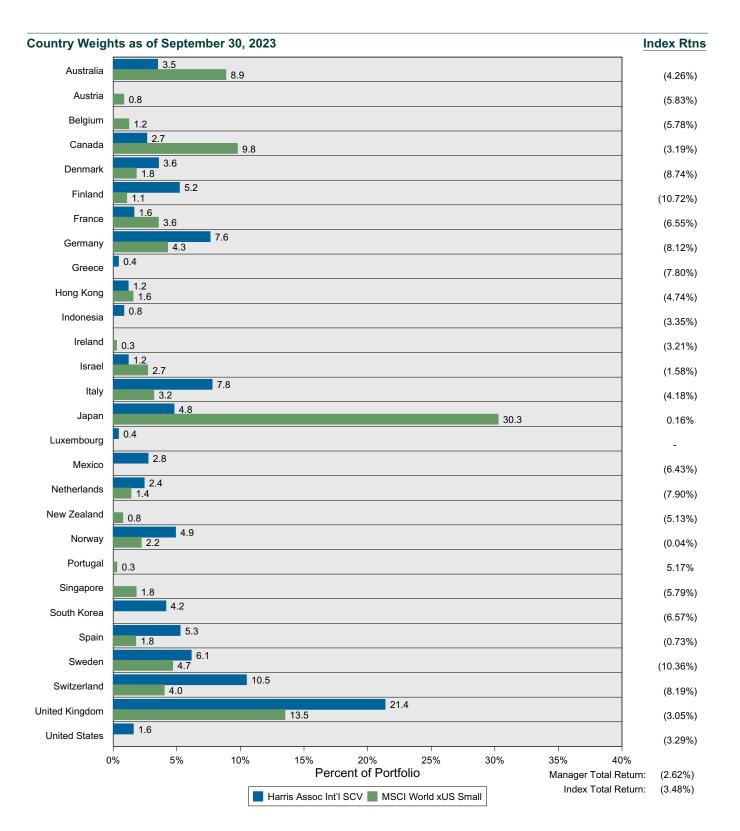
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Harris Assoc Int'I SCV 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 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.



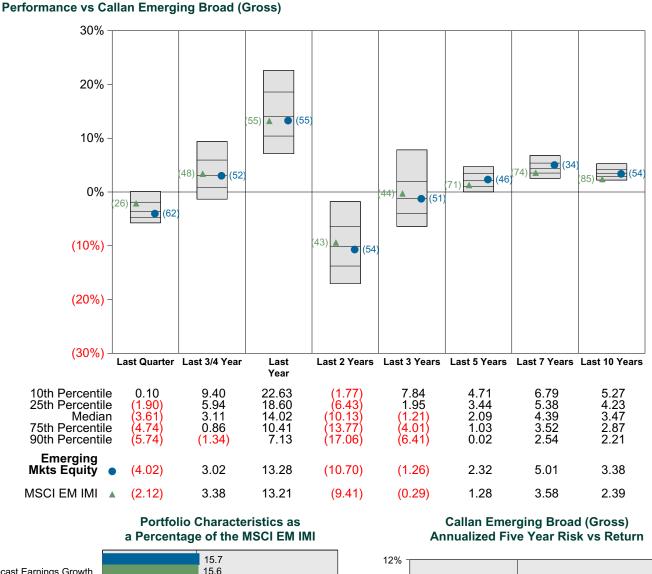


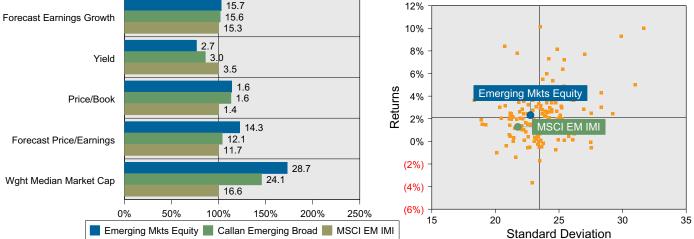
Emerging Markets Equity

Emerging Mkts Equity Period Ended September 30, 2023

Quarterly Summary and Highlights

- Emerging Mkts Equity's portfolio posted a (4.02)% return for the quarter placing it in the 62 percentile of the Callan Emerging Broad group for the quarter and in the 55 percentile for the last year.
- Emerging Mkts Equity's portfolio underperformed the MSCI EM IMI by 1.90% for the quarter and outperformed the MSCI EM IMI for the year by 0.08%.



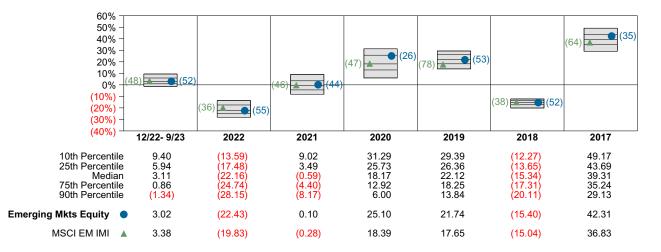


Emerging Mkts Equity Return Analysis Summary

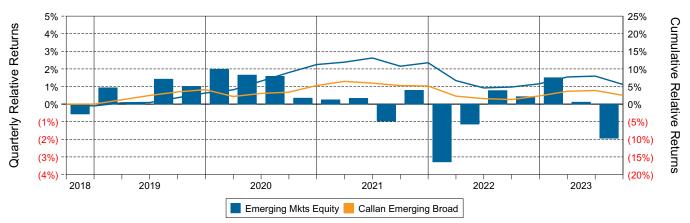
Return Analysis

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.

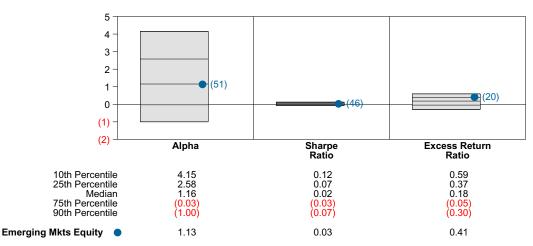
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM IMI



Risk Adjusted Return Measures vs MSCI EM IMI Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



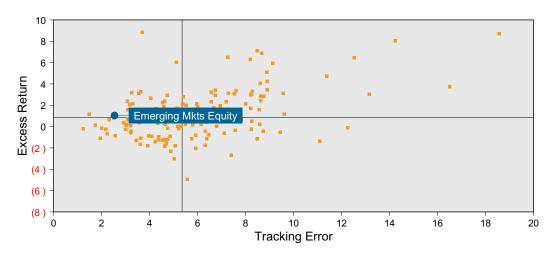


Emerging Mkts Equity Risk Analysis Summary

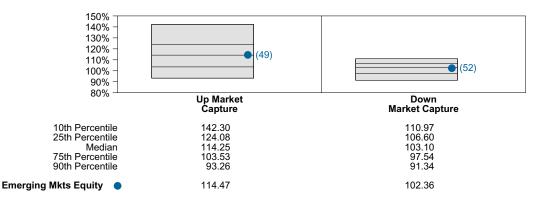
Risk Analysis

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.

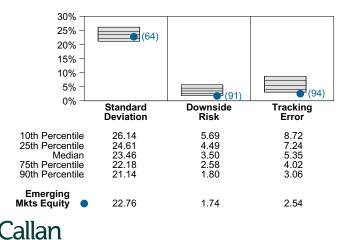
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2023

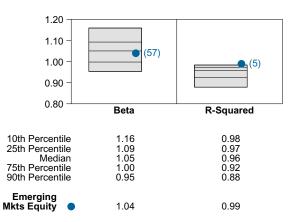


Market Capture vs MSCI EM IMI (Net) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI EM IMI (Net) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023

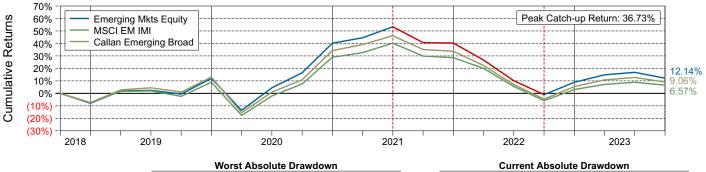




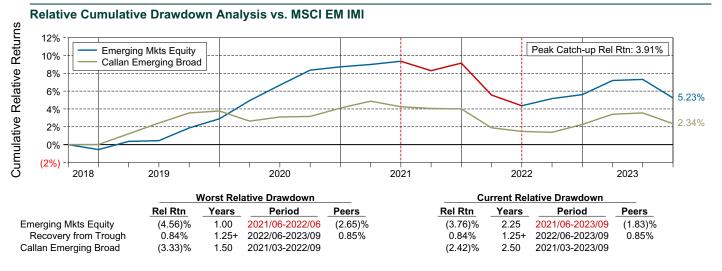
Emerging Mkts Equity Drawdown Analysis for Five Years Ended September 30, 2023

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.

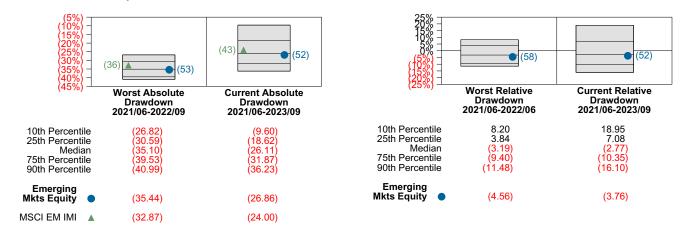
Absolute Cumulative Drawdown Analysis



	Return	Years	Period	Index	Peers	Return	Years	Period	Index	Peers
Emerging Mkts Equity	(35.44)%	1.25	2021/06-2022/09	(32.87)%	(34.71)%	(26.86)%	2.25	2021/06-2023/09	(24.00)%	(25.39)%
Recovery from Trough	13.28%	1.00+	2022/09-2023/09	13.21%	14.28%	13.28%	1.00+	2022/09-2023/09	13.21%	14.28%
MSCI EM IMI	(32.87)%	1.25	2021/06-2022/09			(24.00)%	2.25	2021/06-2023/09		
Callan Emerging Broad	(34.71)%	1.25	2021/06-2022/09			(25.39)%	2.25	2021/06-2023/09		



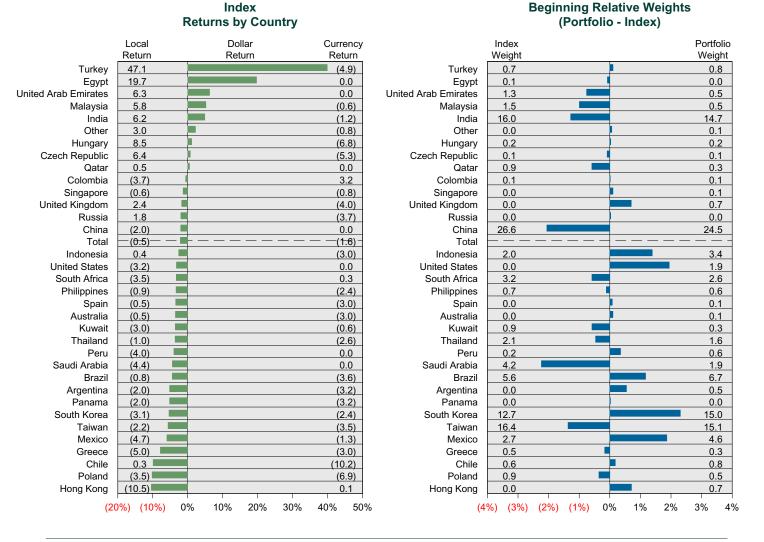
Drawdown Rankings vs. MSCI EM IMI Rankings against Callan Emerging Broad Five Years Ended September 30, 2023



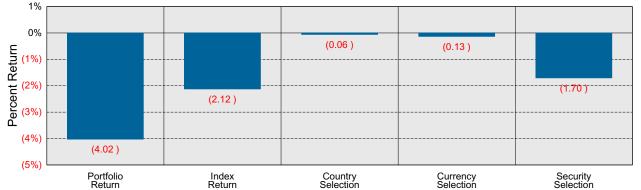
Emerging Mkts Equity vs MSCI EM IMI Attribution for Quarter Ended September 30, 2023

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.

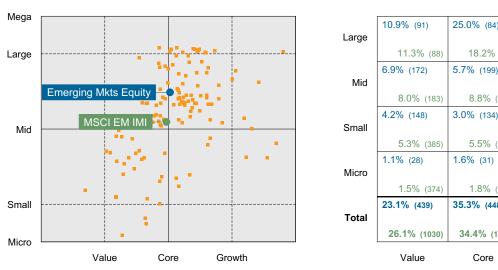






Current Holdings Based Style Analysis Emerging Mkts Equity As of September 30, 2023

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 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.

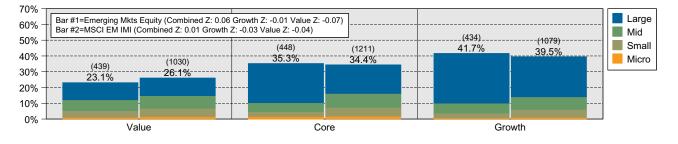


Style Map vs Callan Emerging Broad Holdings as of September 30, 2023

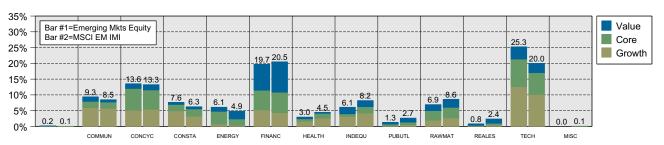
Style Exposure Matrix Holdings as of September 30, 2023

25.0% (84) 31.7% (108) 67.5% (283) 25.5% (116) 18.2% (68) 55.0% (272) 5.7% (199) 6.3% (202) 18.9% (573) 8.0% (269) 8.8% (263) 24.8% (715) 3.0% (134) 3.0% (106) 10.2% (388) 5.5% (490) 5.0% (448) 15.8% (1323) 0.7% (18) 3.4% (77) 1.8% (390) 1.0% (246) 4.4% (1010) 35.3% (448) 41.7% (434) 100.0% (1321) 34.4% (1211) 39.5% (1079) 100.0% (3320) Growth Total

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



Sector Weights Distribution Holdings as of September 30, 2023



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.

Style Map

Holdings for One Quarter Ended September 30, 2023



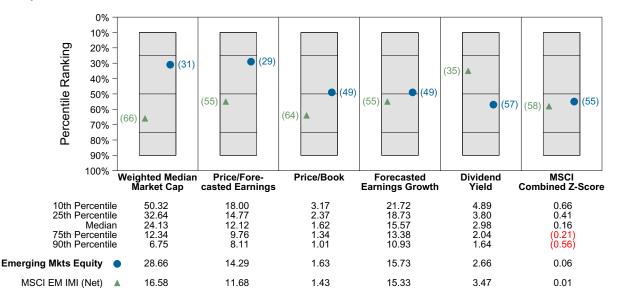
	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities D	Security Diversification
BlackRock Emg Mkts Index	34.18%	23.73	(0.01)	(0.02)	(0.01)	1440	85.28
Leading Edge Emg Mkts Fund	13.99%	19.74	0.22	0.11	(0.11)	236	41.14
Macquarie Emg Mkts Equity	20.83%	67.89	(0.11)	(0.13)	(0.02)	82	9.33
Martin Currie	21.69%	59.02	0.27	0.04	(0.23)	53	12.64
GlobeFlex Emg Small Cap	9.31%	0.70	0.04	0.08	0.04	128	11.19
Emerging Mkts Equity	100.00%	28.66	0.06	(0.01)	(0.07)	1689	47.08
MSCI EM IMI	-	16.58	0.01	(0.03)	(0.04)	3409	133.93

Emerging Mkts Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

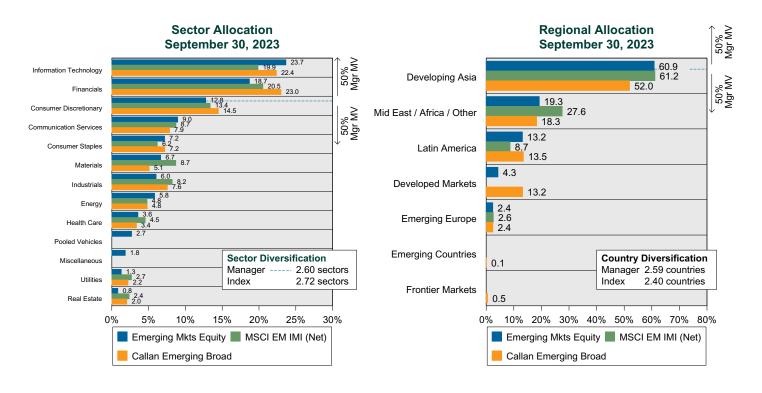
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2023



Sector Weights

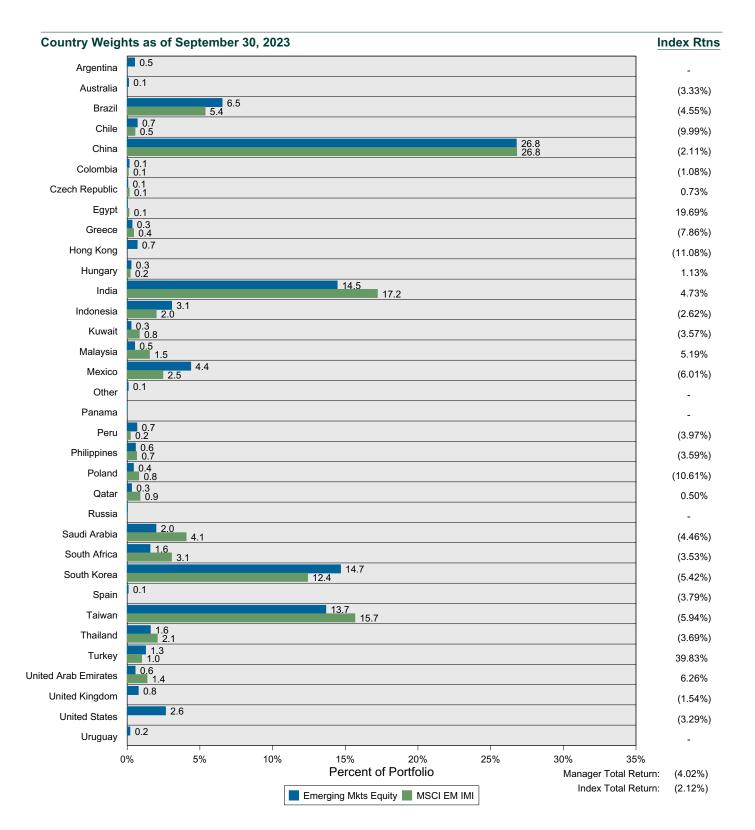
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Emerging Mkts Equity VS MSCI EM IMI (Net)

Country Allocation

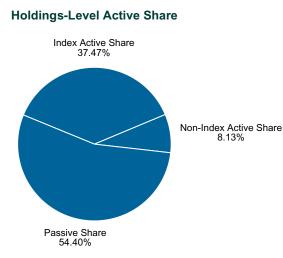
The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2023. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio 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.



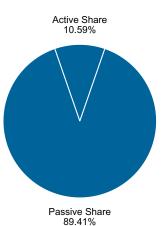


Emerging Mkts Equity Active Share Analysis as of September 30, 2023 vs. MSCI EM IMI (Net)

Active Share analysis compares the holdings of a portfolio to an index to measure how aggressively it differs from the index. Active share is measured at the individual stock level ("holdings-level active share") and using sector weights ("sector exposure active share"). Holdings-level active share comes from: 1) Index Active Share - over/under weighting of stocks in the index, and 2) Non-Index Active Share - positions in stocks not in the index. This analysis displays active share by sector and compares the portfolio to a relevant peer group.



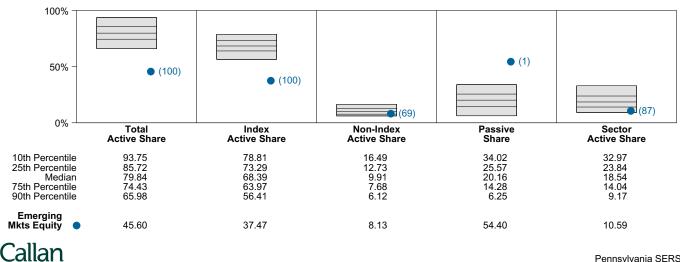
Sector Exposure Active Share



Total Active Share: 45.60%

	Index Active Share Within Sector	Non-Index Active Share Within Sector	Total Active Share Within Sector	Index Weight	Manager Weight	Contribution to Total Portfolio Active Share
Communication Services	41.49%	7.25%	48.74%	8.72%	8.96%	4.27%
Consumer Discretionary	31.34%	13.31%	44.65%	13.38%	12.76%	5.91%
Consumer Staples	47.75%	4.38%	52.13%	6.19%	7.19%	3.43%
Energy	32.86%	6.02%	38.88%	4.80%	5.83%	1.83%
Financials	35.53%	4.72%	40.25%	20.53%	18.71%	8.18%
Health Care	48.19%	10.81%	59.00%	4.54%	3.56%	2.48%
Industrials	52.72%	3.78%	56.50%	8.22%	6.03%	4.23%
Information Technology	29.98%	3.05%	33.04%	19.87%	23.66%	7.05%
Materials	38.61%	8.50%	47.11%	8.70%	6.65%	3.92%
Miscellaneous	0.00%	100.56%	100.56%	-	1.84%	0.83%
Pooled Vehicles	50.00%	50.00%	100.00%	-	2.70%	1.35%
Real Estate	34.46%	5.65%	40.11%	2.36%	0.83%	0.91%
Utilities	33.73%	2.72%	36.45%	2.68%	1.30%	1.07%
Total	37.47%	8.13%	45.60%	100.00%	100.00%	45.47%

Active Share vs. Callan Emerging Broad



Emerging Markets Managers

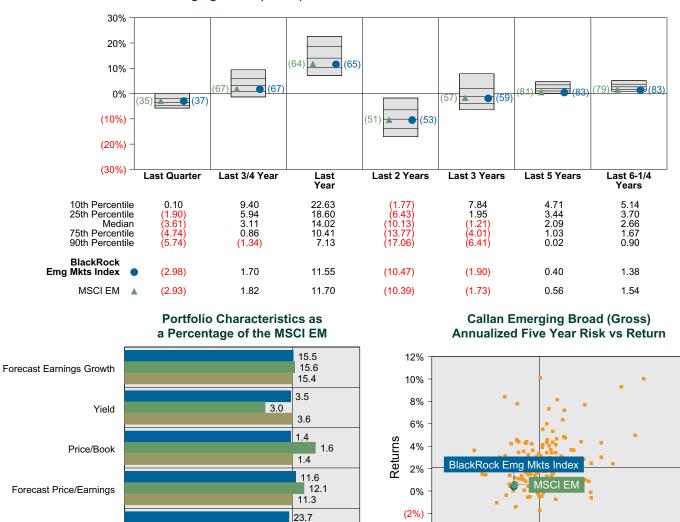
BlackRock Emg Mkts Index Period Ended September 30, 2023

Investment Philosophy

As with all indexing strategies, the objective of the Emerging Markets Index Funds is to match the performance of the benchmark, the MSCI EMF indexes. BlackRock's objective in managing the fund is to deliver a high quality and cost-effective index-based portfolio available to institutional investors. BlackRock's goal in the management of its emerging market country funds is to provide cost-effective and risk controlled exposure with close benchmark tracking. As such, country selection is dictated by the index, and BlackRock's funds approximate the sector and industry breakdowns of the respective country index. The team seeks to construct its country funds using the widest possible range of index constituent stocks to allow for replication of index returns while minimizing transaction costs. Therefore stock selection and weighting is generally dictated by the composition of the index. However, where investment restrictions exist, BlackRock may choose to use alternative investment approaches. In general, BlackRock aims to cover a significant percentage of the security market capitalization of each country index.

Quarterly Summary and Highlights

- BlackRock Emg Mkts Index's portfolio posted a (2.98)% return for the quarter placing it in the 37 percentile of the Callan Emerging Broad group for the quarter and in the 65 percentile for the last year.
- BlackRock Emg Mkts Index's portfolio underperformed the MSCI EM by 0.05% for the quarter and underperformed the MSCI EM for the year by 0.15%.



24.1

24.3

120%

140%

100%

60%

80%

📕 BlackRock Emg Mkts Index 📕 Callan Emerging Broad 📕 MSCI EM

(4%)

(6%)

15

20

25

Standard Deviation

Performance vs Callan Emerging Broad (Gross)

Callan

Wght Median Market Cap

0%

20%

40%

35

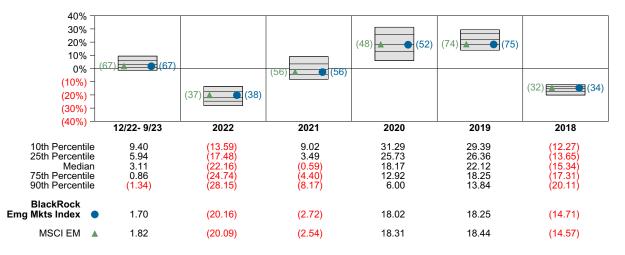
30

BlackRock Emg Mkts Index Return Analysis Summary

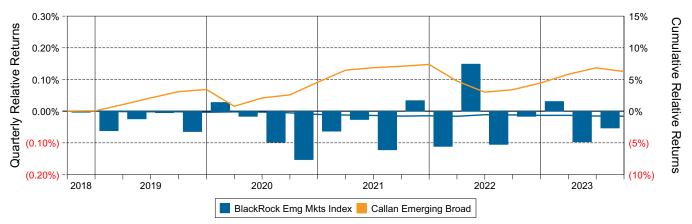
Return Analysis

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.

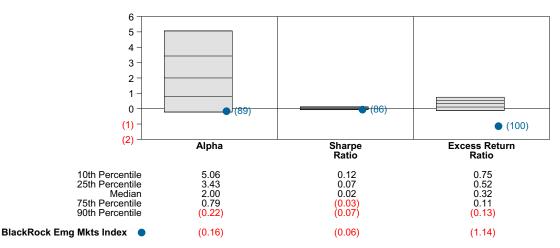
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023

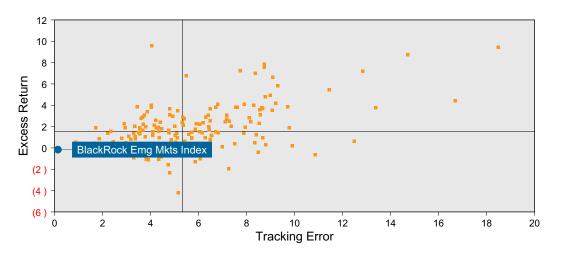


BlackRock Emg Mkts Index Risk Analysis Summary

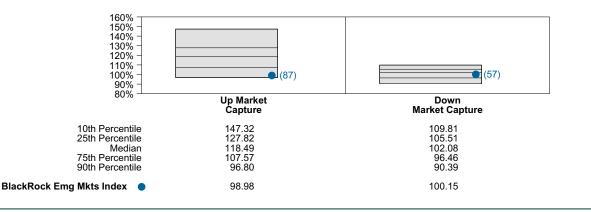
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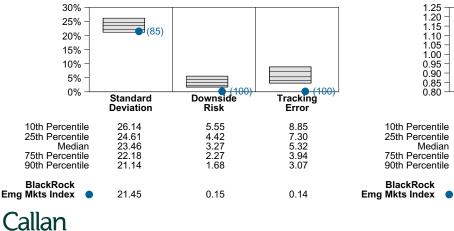
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2023

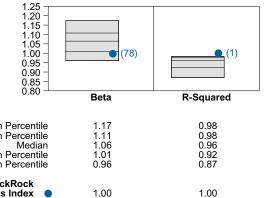


Market Capture vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023









Current Holdings Based Style Analysis BlackRock Emg Mkts 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 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 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.

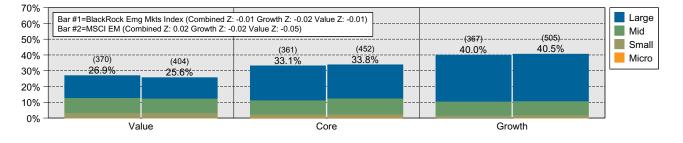


Style Map vs Callan Emerging Broad Holdings as of September 30, 2023

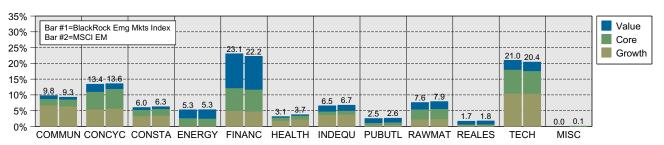
Style Exposure Matrix Holdings as of September 30, 2023

	Value	Core	Growth	Total
	25.6% (404)	33.8% (452)	40.5% (505)	100.0% (1361)
Total	26.9% (370)	33.1% (361)	40.0% (367)	100.0% (1098)
	0.1% (2)	0.4% (3)	0.0% (1)	0.5% (6)
Micro	0.1% (2)	0.4% (4)	0.0% (0)	0.5% (6)
	3.2% (137)	2.1% (128)	1.9% (132)	7.3% (397)
Small	0.270 (120)	2.070 (00)	/ (00)	0.0 /0 (000)
	3.2% (123)	2.0% (99)	1.7% (83)	6.9% (305)
Mid	9.2% (177)	10.0% (253)	8.9% (256)	28.0% (686)
	9.6% (164)	8.9% (194)	8.9% (191)	27.4% (549)
9-	13.2% (88)	21.3% (68)	29.7% (116)	64.2 % (272)
Large	14.1% (81)	21.8% (64)	29.4% (93)	65.2% (238)

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



Sector Weights Distribution Holdings as of September 30, 2023

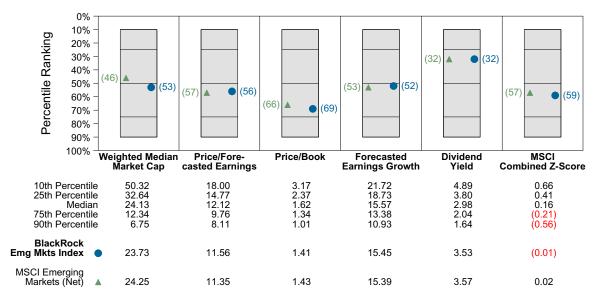


BlackRock Emg Mkts Index Equity Characteristics Analysis Summary

Portfolio Characteristics

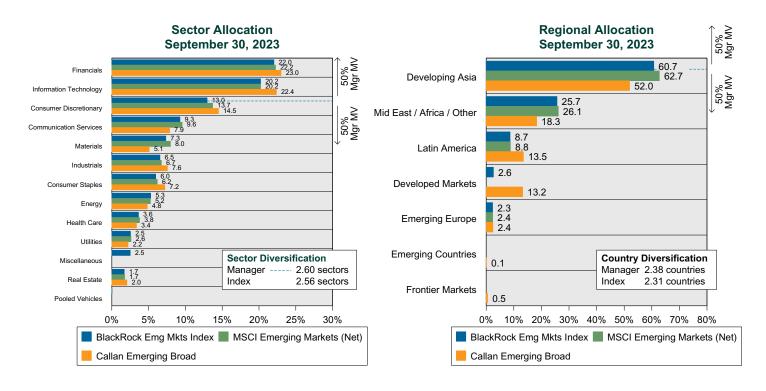
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2023



Sector Weights

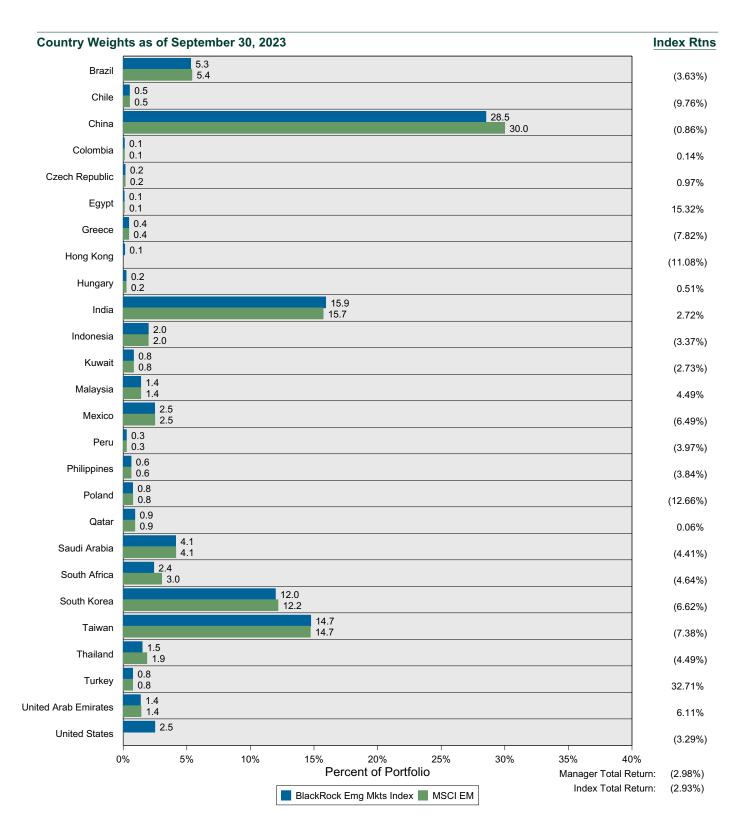
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation BlackRock Emg Mkts Index 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 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.



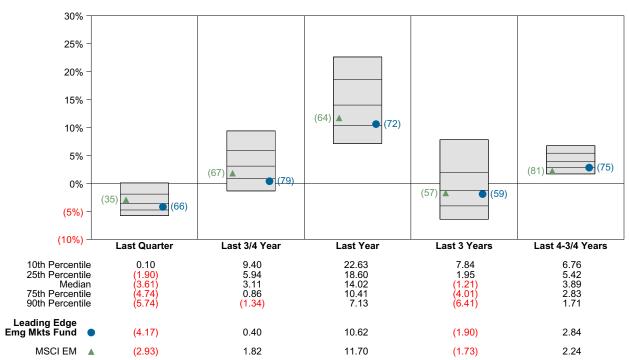
Leading Edge Emg Mkts Fund Period Ended September 30, 2023

Investment Philosophy

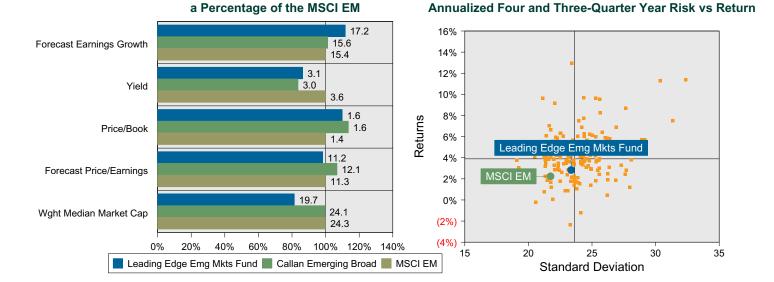
Leading Edge Investment Advisors pursues innovation in research and investment technology to define how managers are discovered, evaluated and selected. They believe smaller, specialized managers are more innovative than their larger peers, thus producing better risk-adjusted performance. They utilize long-term, ongoing proprietary research to quantify and qualify characteristics that make managers competitive and structure these managers into an optimized, risk-managed Emerging Markets portfolio.

Quarterly Summary and Highlights

- Leading Edge Emg Mkts Fund's portfolio posted a (4.17)% return for the quarter placing it in the 66 percentile of the Callan Emerging Broad group for the quarter and in the 72 percentile for the last year.
- Leading Edge Emg Mkts Fund's portfolio underperformed the MSCI EM by 1.25% for the quarter and underperformed the MSCI EM for the year by 1.08%.



Performance vs Callan Emerging Broad (Gross)



Portfolio Characteristics as

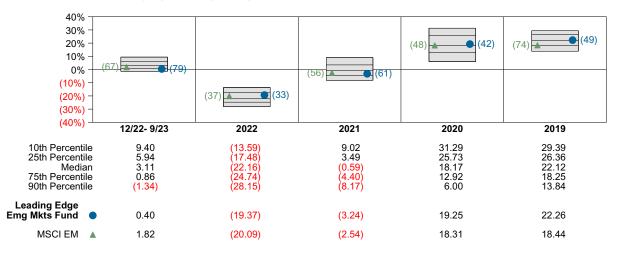
Callan Emerging Broad (Gross)

Leading Edge Emg Mkts Fund Return Analysis Summary

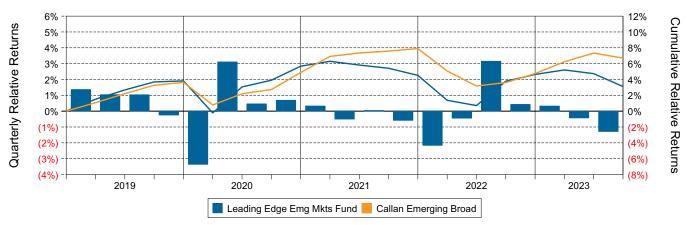
Return Analysis

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.

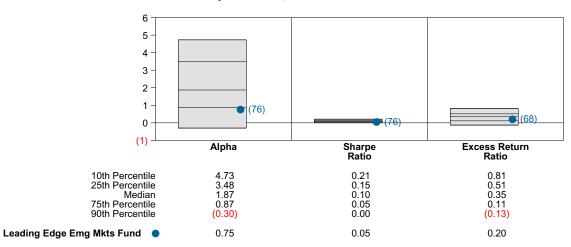
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Four and Three-Quarter Years Ended September 30, 2023



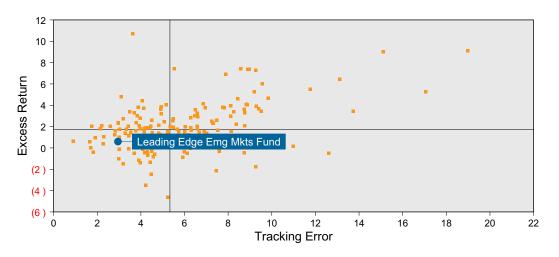


Leading Edge Emg Mkts Fund Risk Analysis Summary

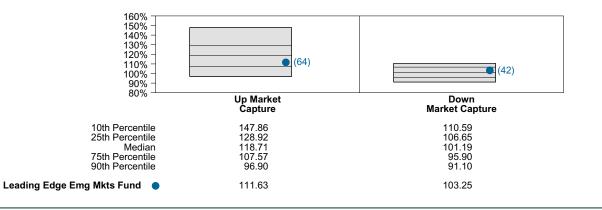
Risk Analysis

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.

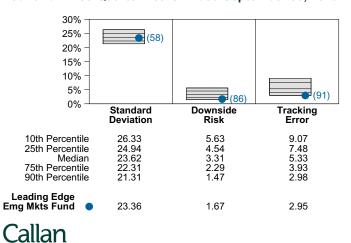
Risk Analysis vs Callan Emerging Broad (Gross) Four and Three-Quarter Years Ended September 30, 2023

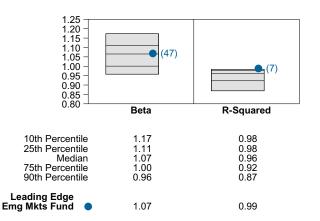


Market Capture vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Four and Three-Quarter Years Ended September 30, 2023



Risk Statistics Rankings vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Four and Three-Quarter Years Ended September 30, 2023





Pennsylvania SERS 166

Current Holdings Based Style Analysis Leading Edge Emg Mkts Fund As of September 30, 2023

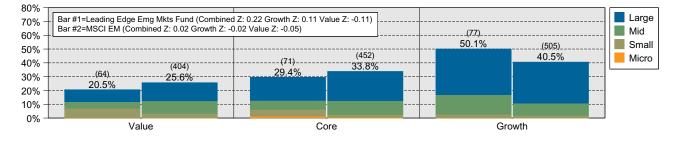
This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are 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 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.



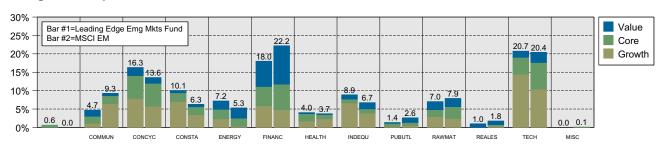
Style Map vs Callan Emerging BroadStyle Exposure MatrixHoldings as of September 30, 2023Holdings as of September 30, 2023

Micro	0.1% (2)	0.4% (3)	0.0% (1)	0.5% (6)
	0.2% (1)	1.3% (2)	0.1% (1)	1.6% (4)
Small	3.2% (137)	2.1% (128)	1.9% (132)	7.3% (397)
	6.9% (27)	5.0% (19)	2.6% (7)	14.5% (53)
Mid	9.2% (177)	10.0% (253)	8.9% (256)	28.0% (686)
	4.7% (16)	6.4% (22)	14.3% (34)	25.4% (72)
Large	13.2% (88)	21.3% (68)	29.7% (116)	64.2% (272)
Lorgo	8.7% (20)	16.7% (28)	33.1% (35)	58.5% (83)

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



Sector Weights Distribution Holdings as of September 30, 2023

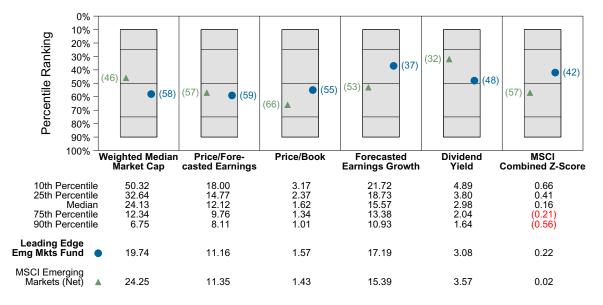


Leading Edge Emg Mkts Fund Equity Characteristics Analysis Summary

Portfolio Characteristics

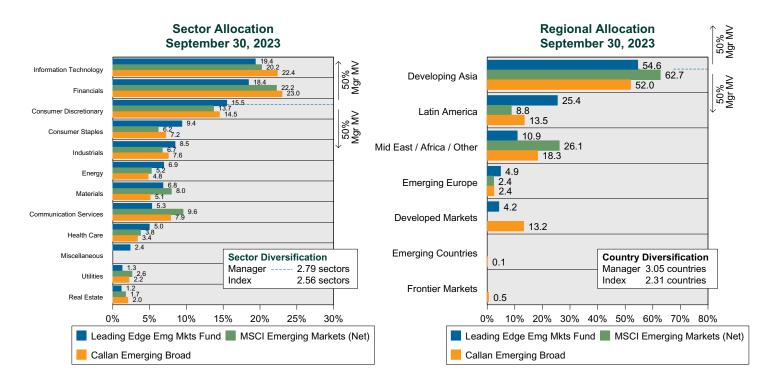
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2023



Sector Weights

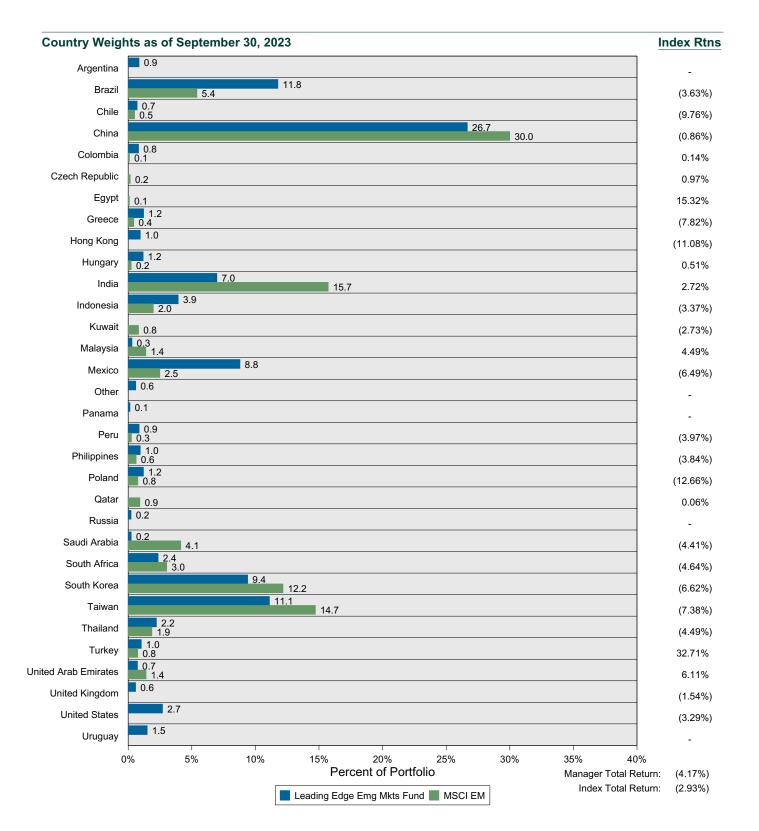
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Leading Edge Emg Mkts Fund 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 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.



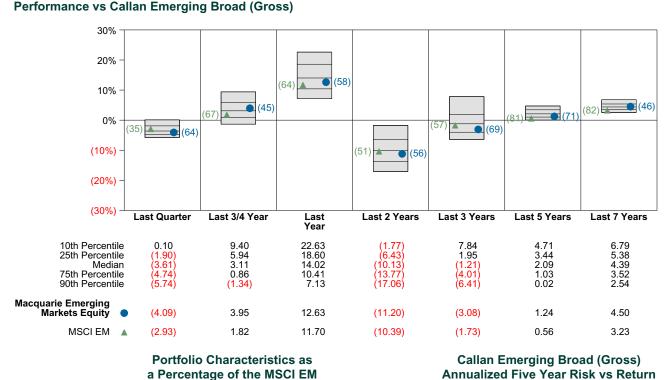
Macquarie Emerging Markets Equity Period Ended September 30, 2023

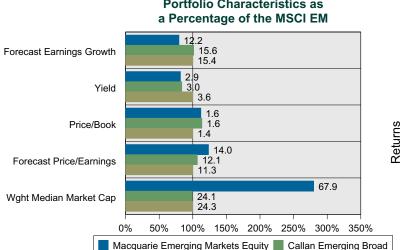
Investment Philosophy

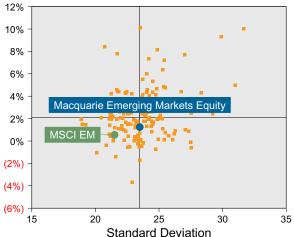
Macquarie believes that market price and intrinsic business value are correlated in the long-run and short-term divergences offer disciplined, bottom-up, fundamental investors, attractive risk-adjusted opportunities. The team defines intrinsic value as the appropriately discounted value of a business' cash flow stream. They buy only when the business trades at a significant discount to their intrinsic value estimate. The team focuses resources on franchises, defined as those companies with high potential to earn excess returns above their cost of capital over the long-run. The team aims to capture market inefficiencies by: 1. Judging a franchise's sustainability and secular growth prospects better than the market 2. Maintaining a long-term, structural bias to capture franchises oversold due to temporary setbacks 3. Exploiting public market and private market valuation discrepancies 4. Buying assets below their replacement costs.

Quarterly Summary and Highlights

- Macquarie Emerging Markets Equity's portfolio posted a (4.09)% return for the quarter placing it in the 64 percentile of the Callan Emerging Broad group for the quarter and in the 58 percentile for the last year.
- Macquarie Emerging Markets Equity's portfolio underperformed the MSCI EM by 1.16% for the guarter and • outperformed the MSCI EM for the year by 0.93%.







Callan

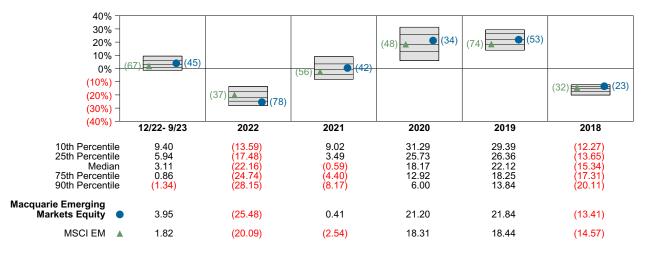
MSCI EM

Macquarie Emerging Markets Equity Return Analysis Summary

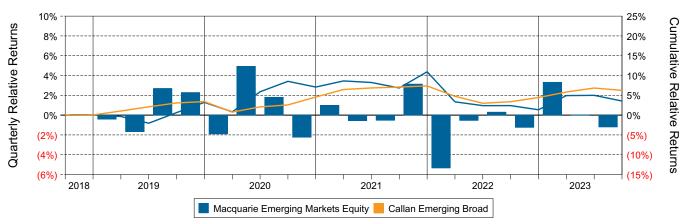
Return Analysis

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.

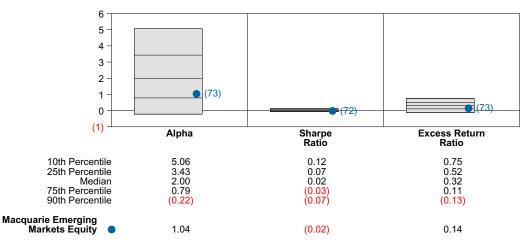
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



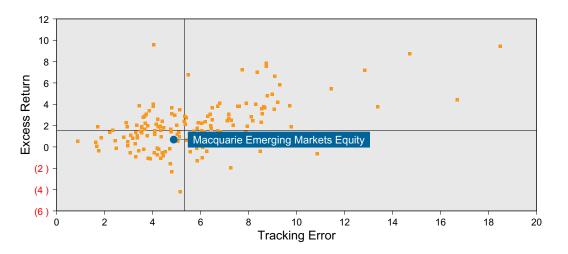


Macquarie Emerging Markets Equity **Risk Analysis Summary**

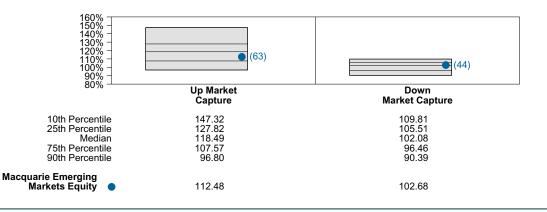
Risk Analysis

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.

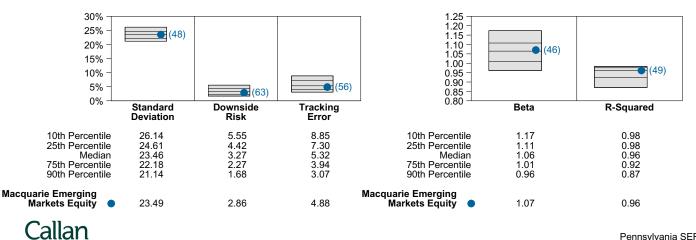
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



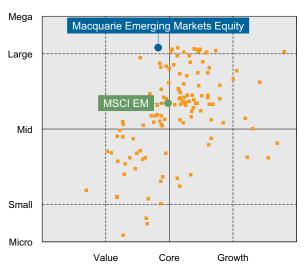




Pennsylvania SERS 172

Current Holdings Based Style Analysis Macquarie Emerging Markets 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 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.

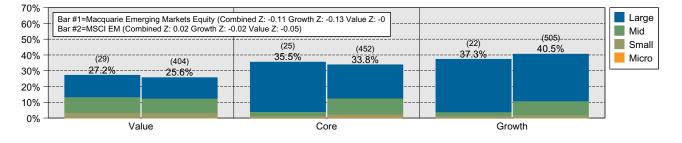


Style Map vs Callan Emerging Broad Holdings as of September 30, 2023

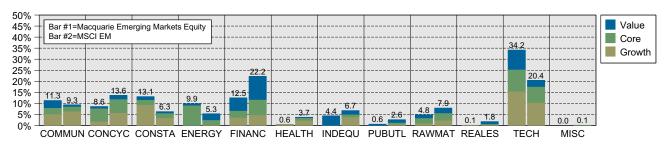
Style Exposure Matrix Holdings as of September 30, 2023

	13.8% (11)	31.5% (15)	33.5% (12)	78.8% (38)
Large				
	13.2% (88)	21.3% (68)	29.7% (116)	64.2% (272)
	10.0% (11)	2.7% (4)	2.6% (4)	15.3% (19)
Mid				
	9.2% (177)	10.0% (253)	8.9% (256)	28.0% (686)
	3.3% (6)	1.1% (5)	1.0% (4)	5.3% (15)
Small				
	3.2% (137)	2.1% (128)	1.9% (132)	7.3% (397)
	0.1% (1)	0.3% (1)	0.3% (2)	0.7% (4)
Micro				
	0.1% (2)	0.4% (3)	0.0% (1)	0.5% (6)
	27.2% (29)	35.5% (25)	37.3% (22)	100.0% (76)
Total				
	25.6% (404)	33.8% (452)	40.5% (505)	100.0% (1361)
	Value	Core	Growth	Total

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



Sector Weights Distribution Holdings as of September 30, 2023



Macquarie Emerging Markets Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

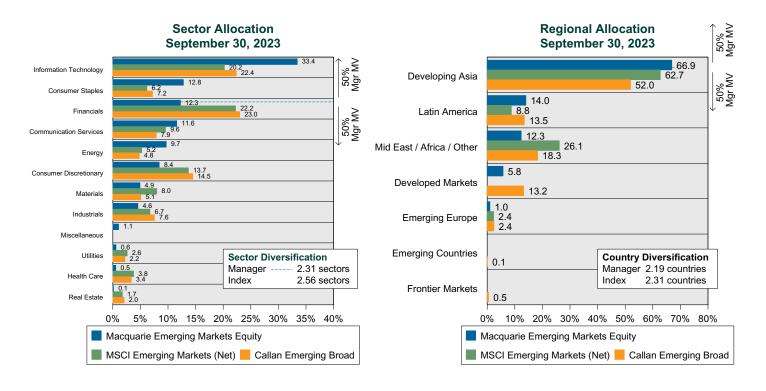
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2023



Sector Weights

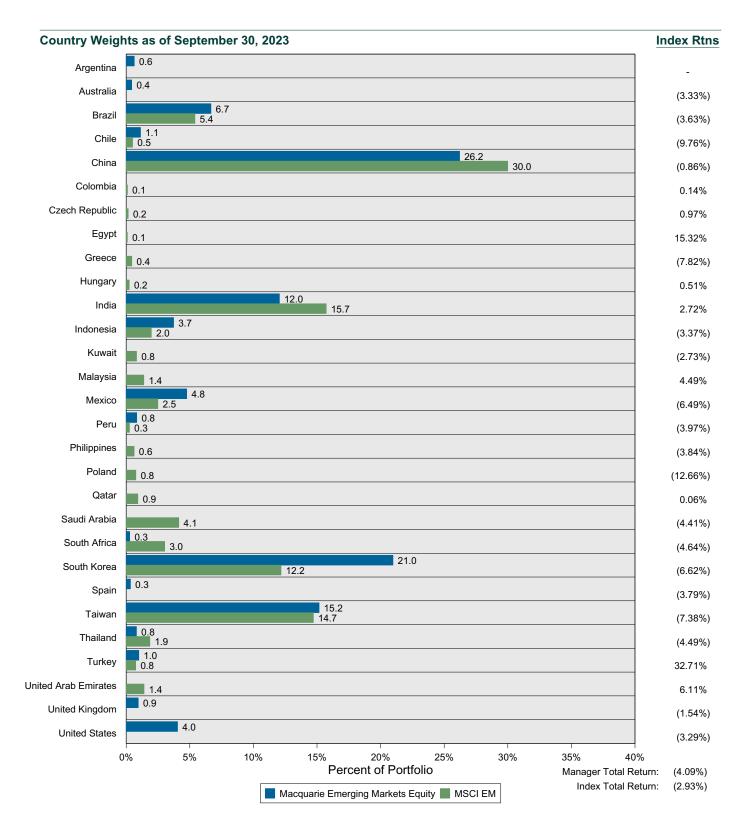
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Macquarie Emerging Markets Equity 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 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.





Martin Currie Period Ended September 30, 2023

Investment Philosophy

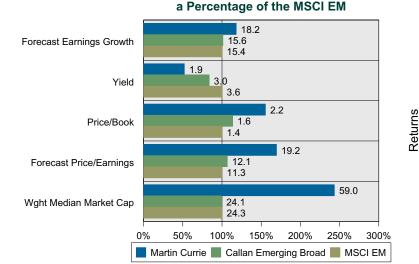
The Martin Currie GEMs team builds long-term, high conviction stock-focused portfolios, driven by fundamental research within an appropriate risk framework. Their primary belief with regard to GEMs investing is that sustainable cash flows and the effective allocation of capital are the main determinants of share-price movement over the long term. They seek to identify those emerging-market companies that can sustain cash-flow growth and generate returns in excess of their cost of capital. They believe that it takes a long time for the success of a business model to become fully apparent, so they typically invest with a three-to-five-year horizon. The Martin Currie GEMs team believes that an assessment of a company environmental, social and governance (ESG) performance, or sustainability, can help identify those business models that are most likely to sustain high returns and resist competitive pressures.

Quarterly Summary and Highlights

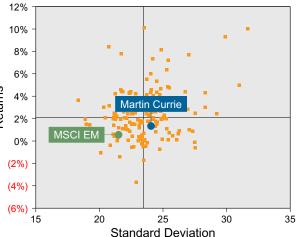
- Martin Currie's portfolio posted a (7.74)% return for the quarter placing it in the 99 percentile of the Callan Emerging Broad group for the quarter and in the 75 percentile for the last year.
- Martin Currie's portfolio underperformed the MSCI EM by 4.82% for the quarter and underperformed the MSCI EM for the year by 1.32%.







Callan Emerging Broad (Gross) Annualized Five Year Risk vs Return



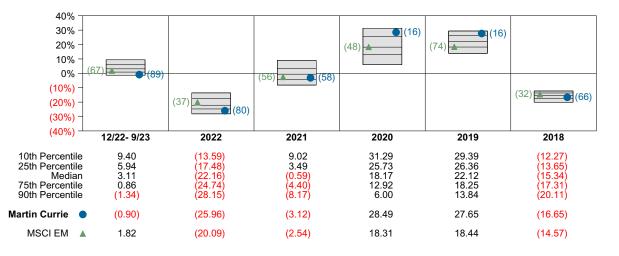


Martin Currie Return Analysis Summary

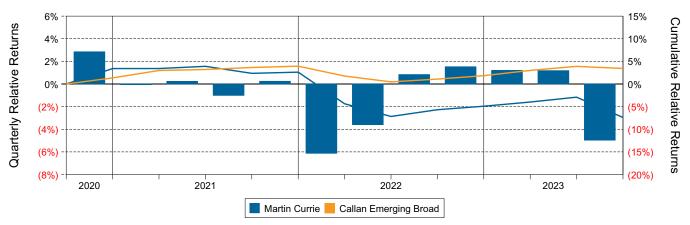
Return Analysis

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.

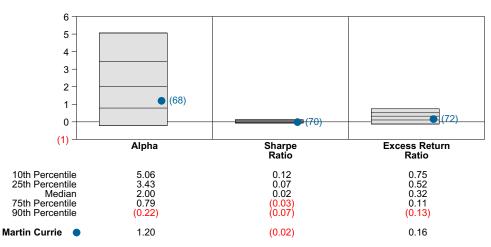
Performance vs Callan Emerging Broad (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM



Risk Adjusted Return Measures vs MSCI EM Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



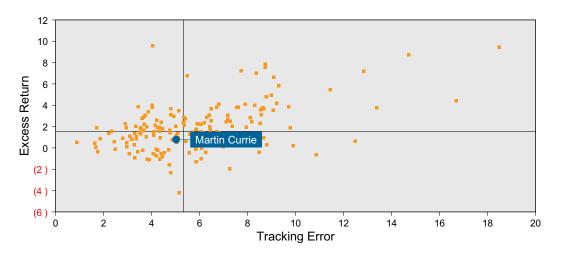


Martin Currie Risk Analysis Summary

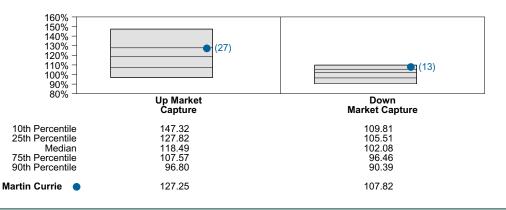
Risk Analysis

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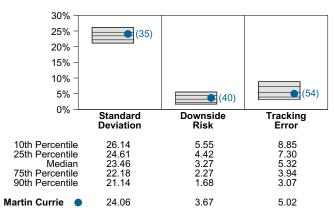
Risk Analysis vs Callan Emerging Broad (Gross) Five Years Ended September 30, 2023

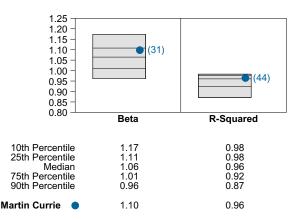


Market Capture vs MSCI Emerging Markets (Net) Rankings Against Callan Emerging Broad (Gross) Five Years Ended September 30, 2023



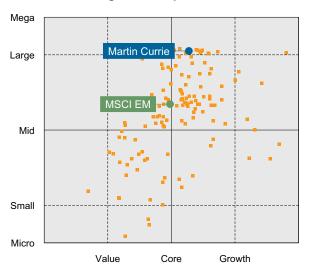






Current Holdings Based Style Analysis Martin Currie As of September 30, 2023

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 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.

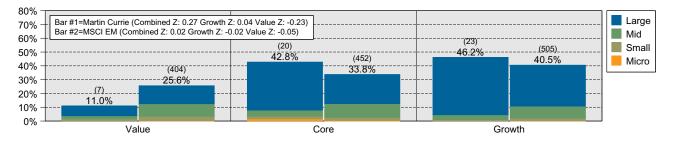


Style Map vs Callan Emerging Broad Holdings as of September 30, 2023

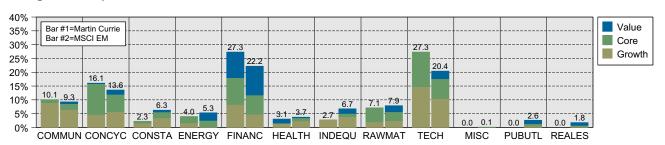
Style Exposure Matrix Holdings as of September 30, 2023

	7.3% (4)	35.0% (14)	41.8% (19)	84.0% (37)
Large				
Ū	13.2% (88)	21.3% (68)	29.7% (116)	64.2% (272)
	2.2% (2)	4.4% (3)	3.5% (3)	10.1% (8)
Mid				
	9.2% (177)	10.0% (253)	8.9% (256)	28.0% (686)
	1.5% (1)	1.8% (2)	1.0% (1)	4.3% (4)
Small				
	3.2% (137)	2.1% (128)	1.9% (132)	7.3% (397)
	0.0% (0)	1.6% (1)	0.0% (0)	1.6% (1)
Micro				
	0.1% (2)	0.4% (3)	0.0% (1)	0.5% (6)
	11.0% (7)	42.8% (20)	46.2% (23)	100.0% (50)
Total				
	25.6% (404)	33.8% (452)	40.5% (505)	100.0% (1361)
	Value	Core	Growth	Total

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



Sector Weights Distribution Holdings as of September 30, 2023

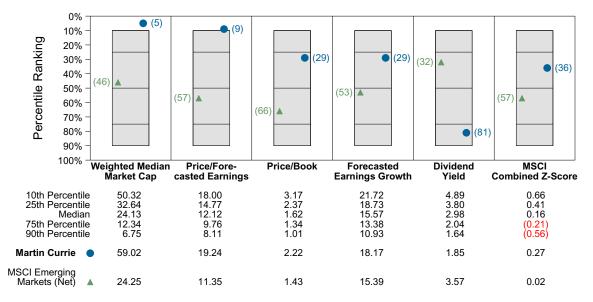


Martin Currie Equity Characteristics Analysis Summary

Portfolio Characteristics

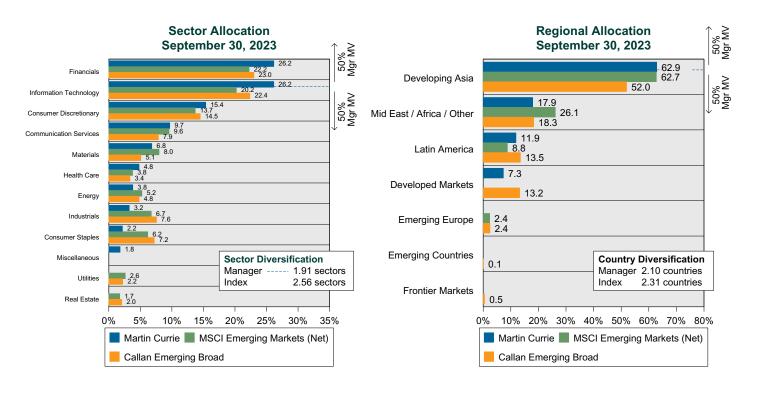
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Broad as of September 30, 2023



Sector Weights

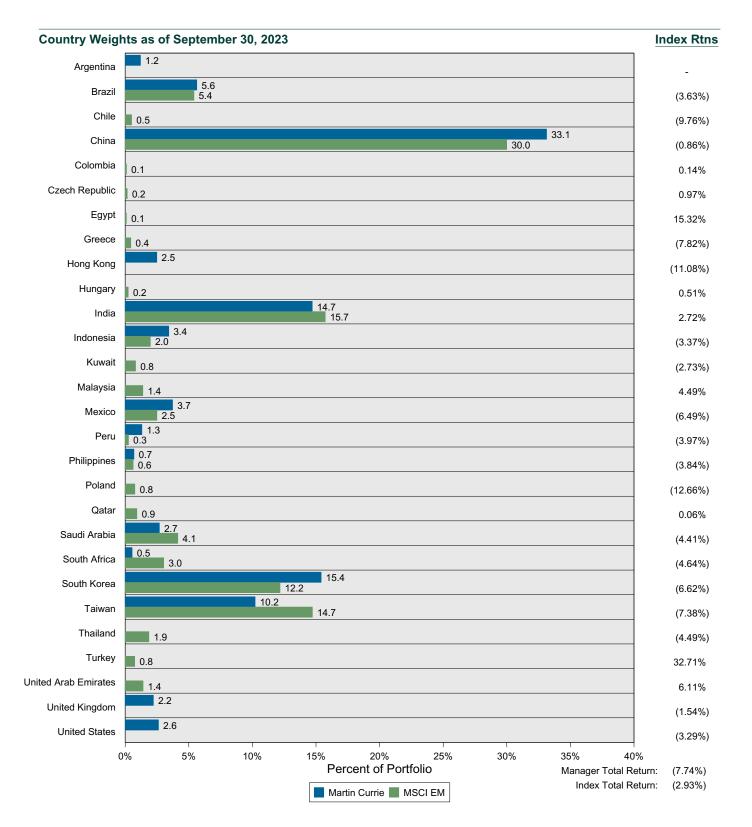
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation Martin Currie 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 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.



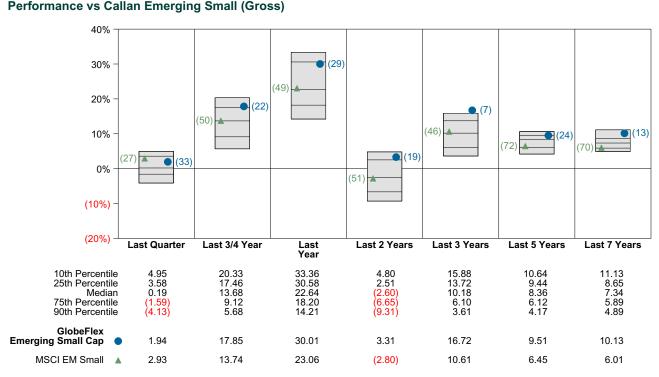
GlobeFlex Emerging Small Cap Period Ended September 30, 2023

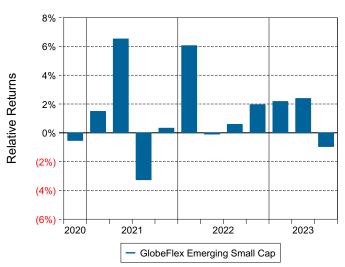
Investment Philosophy

GlobeFlex is an active equity manager focused on bottom-up, stock selection. Their philosophy is based on the early identification of fundamental growth before it is recognized by other investors, defined by: Business Improvement: Finding companies with accelerating business conditions to identify early signs of growth; Management Quality: Evaluating the long-term growth sustainability through in-depth analysis of prospective operating performance and management's skill to increase shareholder wealth; and Relative Value: Recognizing accelerating business conditions early, buying and holding companies below fair market value given future growth prospects.

Quarterly Summary and Highlights

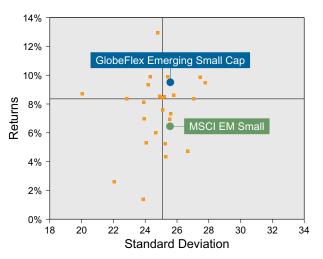
- GlobeFlex Emerging Small Cap's portfolio posted a 1.94% return for the quarter placing it in the 33 percentile of the Callan Emerging Small group for the quarter and in the 29 percentile for the last year.
- GlobeFlex Emerging Small Cap's portfolio underperformed the MSCI EM Small by 0.99% for the quarter and outperformed the MSCI EM Small for the year by 6.94%.





Relative Return vs MSCI EM Small

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

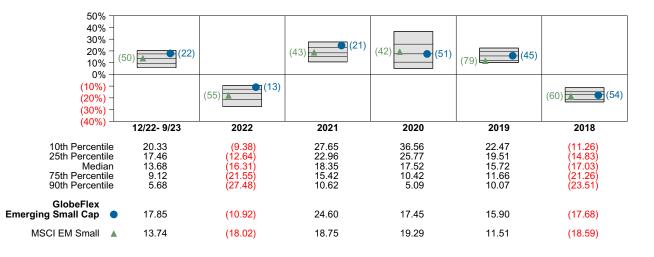


GlobeFlex Emerging Small Cap Return Analysis Summary

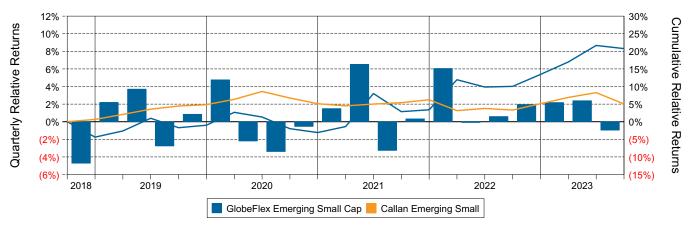
Return Analysis

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.

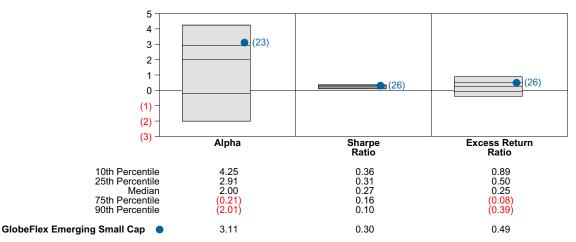
Performance vs Callan Emerging Small (Gross)



Cumulative and Quarterly Relative Returns vs MSCI EM Small







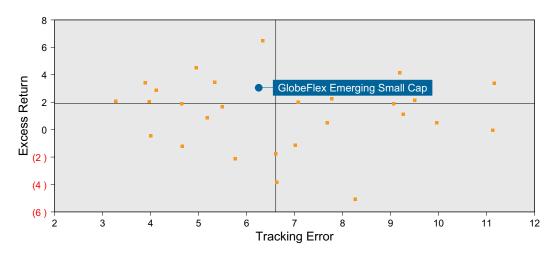


GlobeFlex Emerging Small Cap Risk Analysis Summary

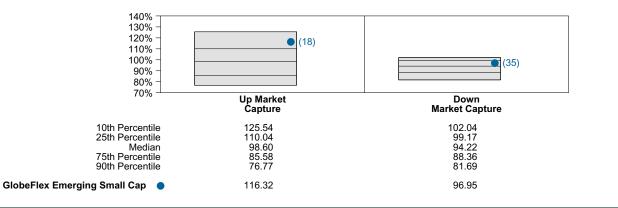
Risk Analysis

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.

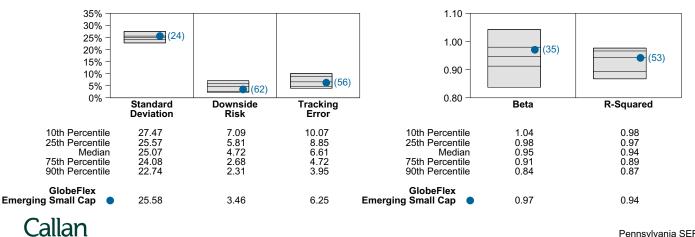
Risk Analysis vs Callan Emerging Small (Gross) Five Years Ended September 30, 2023



Market Capture vs MSCI EM Small (Net) Rankings Against Callan Emerging Small (Gross) Five Years Ended September 30, 2023







Current Holdings Based Style Analysis GlobeFlex Emerging Small Cap 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 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 Exposure Matrix

0.0% (0)

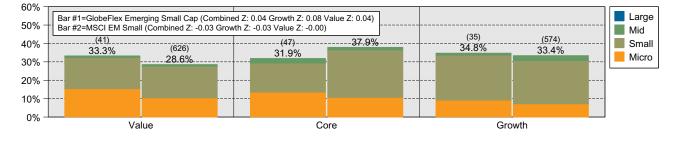
5.3% (29)

Total

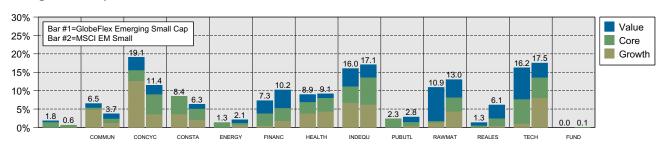


Style Map vs Callan Emerging Small Holdings as of September 30, 2023

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



Sector Weights Distribution Holdings as of September 30, 2023

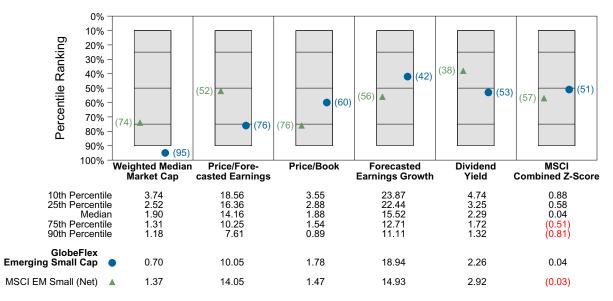


GlobeFlex Emerging Small Cap Equity Characteristics Analysis Summary

Portfolio Characteristics

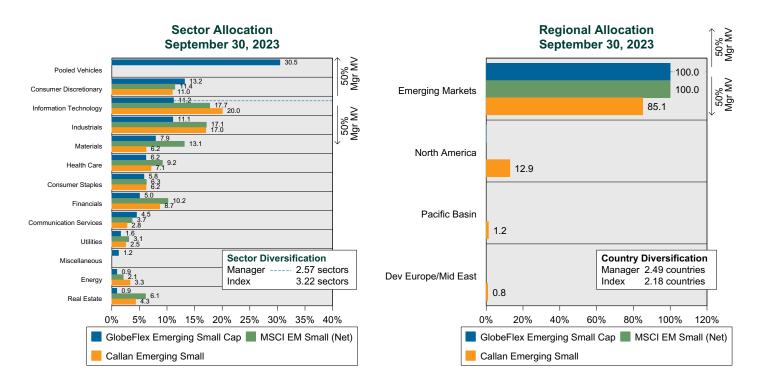
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Small as of September 30, 2023



Sector Weights

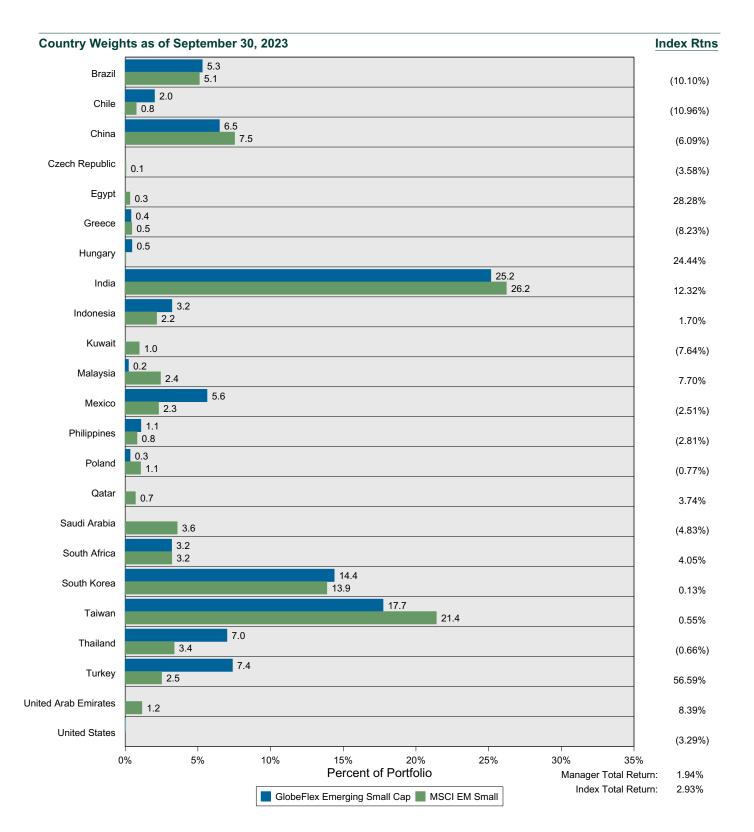
The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares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



Country Allocation GlobeFlex Emerging Small Cap VS MSCI EM 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 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.



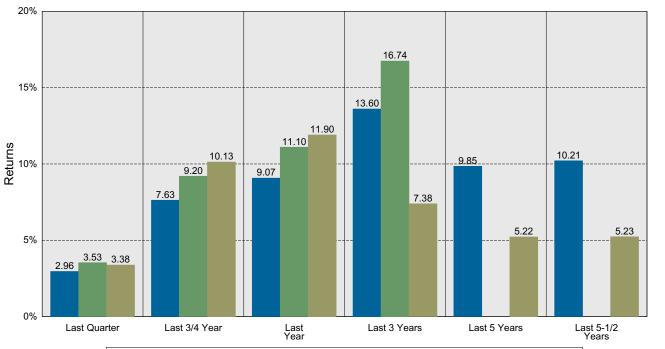
Legacy Private Credit Period Ended September 30, 2023

Asset Class Membership Changes

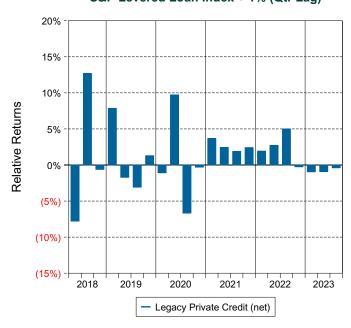
Legacy Private Credit performance is included in the total fund starting at the composite's true inception date, 07/01/2022. The history of this composite is calculated and shown for informational purposes.

Quarterly Summary and Highlights

- Legacy Private Credit (net)'s portfolio posted a 2.96% return for the quarter placing it in the 52 percentile of the Callan Alternative Inv DB group for the quarter and in the 28 percentile for the last year.
- Legacy Private Credit (net)'s portfolio underperformed the S&P Levered Loan Index + 1% (Qtr Lag) by 0.42% for the quarter and underperformed the S&P Levered Loan Index + 1% (Qtr Lag) for the year by 2.83%.

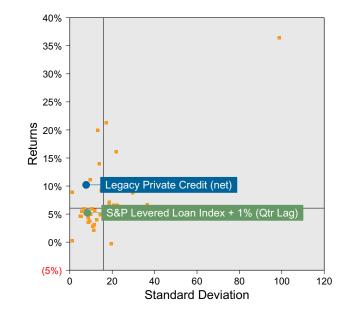


Legacy Private Credit (net) Legacy Private Credit (gross) S&P Levered Loan Index + 1% (Qtr Lag)



Relative Returns vs S&P Levered Loan Index + 1% (Qtr Lag)

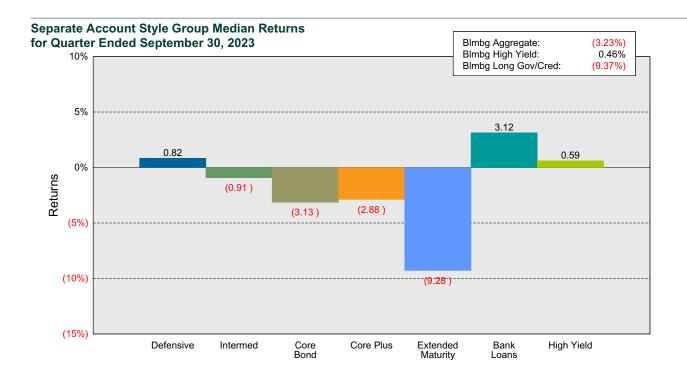
Callan Alternative Inv DB (Gross) Annualized Five and One-Half Year Risk vs Return

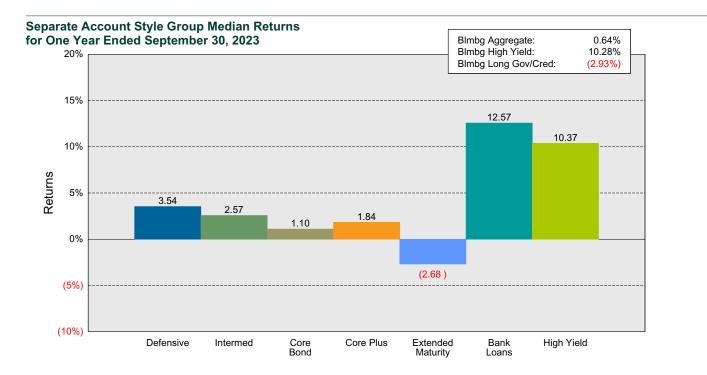


Fixed Income

Domestic Fixed Income Active Management Overview

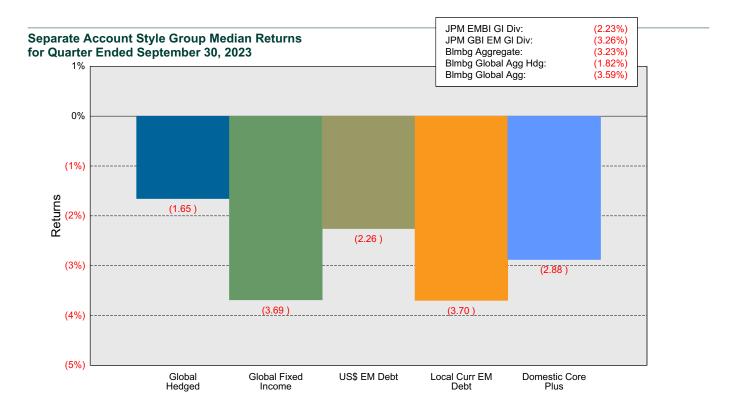
U.S. bond returns are on the path for a third consecutive year of negative returns. The Bloomberg US Aggregate Bond Index sank 3.2% in 3Q and is down 1.2% year-to-date. The U.S. Treasury 10-year yield soared nearly 80 bps during the quarter, closing at 4.59%, its highest since 2007. The yield curve bear-steepened 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.

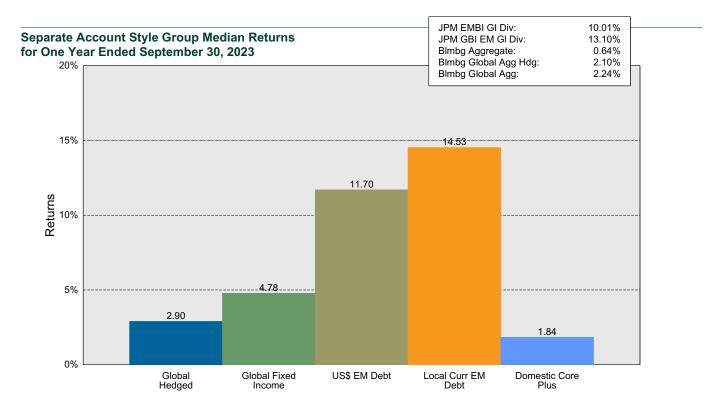




Global Fixed Income Active Management Overview

The Bloomberg Global Aggregate ex USD Index fell 4.0% (hedged: -0.8%) in 3Q. Currency played a key role in results with strong performance from the U.S. dollar. The dollar gained just over 3% versus a basket of six trade-weighted developed market currencies (DXY). Emerging market debt indices were also negative (JPM EMBI Global Diversified: -2.2%; local currency JPM GBI-EM Global Diversified: -3.3%).



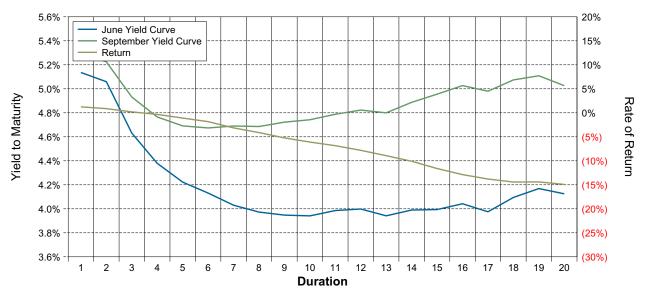


Bond Market Environment

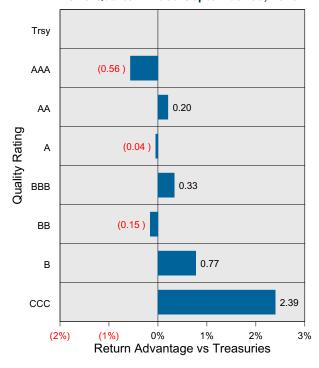
Factors Influencing Bond Returns

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.

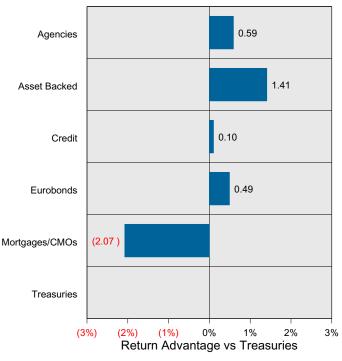
Yield Curve Change and Rate of Return One Quarter Ended September 30, 2023



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





Fixed Income Period Ended September 30, 2023

Asset Class Membership Changes

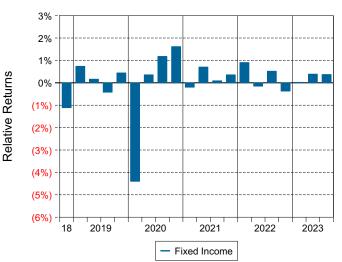
Fixed Income also includes the new fixed income sub-composite which was funded in 03/01/2021 and ended in 06/30/2022.

Quarterly Summary and Highlights

- Fixed Income's portfolio posted a (2.87)% return for the quarter placing it in the 68 percentile of the Public Fund Domestic Fixed group for the quarter and in the 85 percentile for the last year.
- Fixed Income's portfolio outperformed the BImbg:Aggregate by 0.36% for the quarter and outperformed the BImbg:Aggregate for the year by 0.42%.

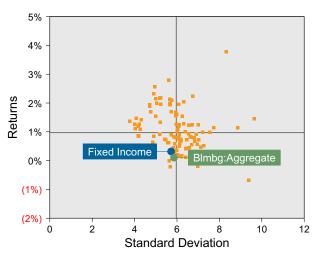
Performance vs Public Fund - Domestic Fixed (Gross)





Relative Return vs Blmbg:Aggregate

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

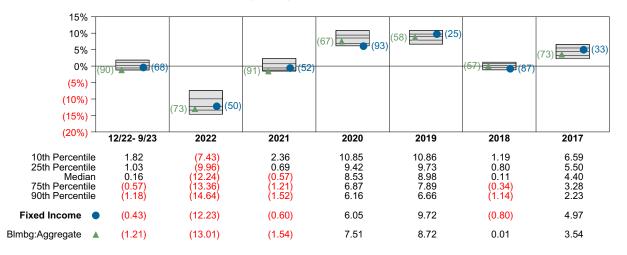


Fixed Income Return Analysis Summary

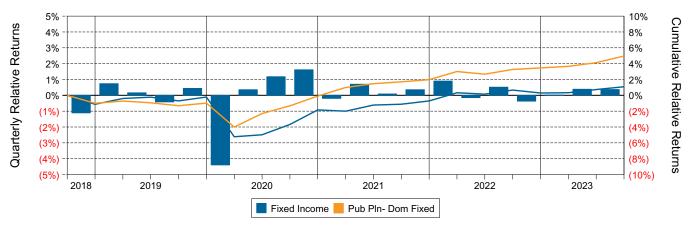
Return Analysis

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.

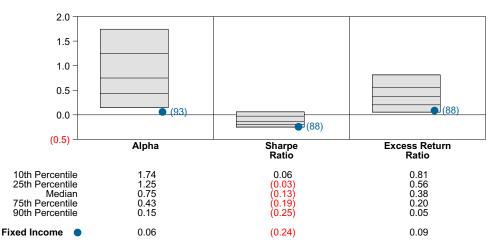
Performance vs Public Fund - Domestic Fixed (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Public Fund - Domestic Fixed (Gross) Five Years Ended September 30, 2023

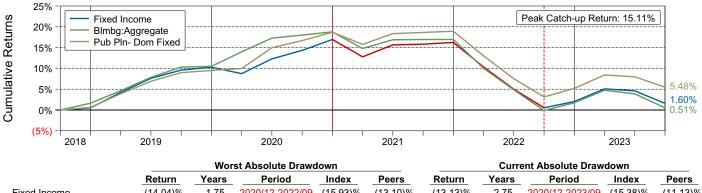




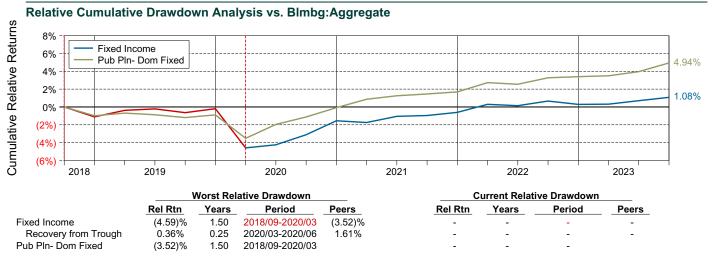
Fixed Income Drawdown Analysis for Five Years Ended September 30, 2023

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.

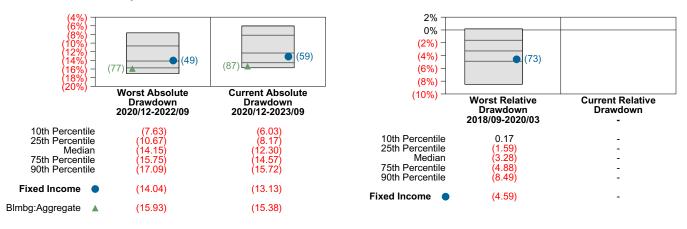
Absolute Cumulative Drawdown Analysis







Drawdown Rankings vs. Blmbg:Aggregate Rankings against Public Fund - Domestic Fixed Five Years Ended September 30, 2023

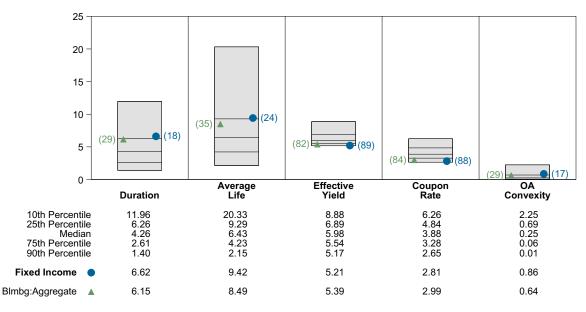


Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

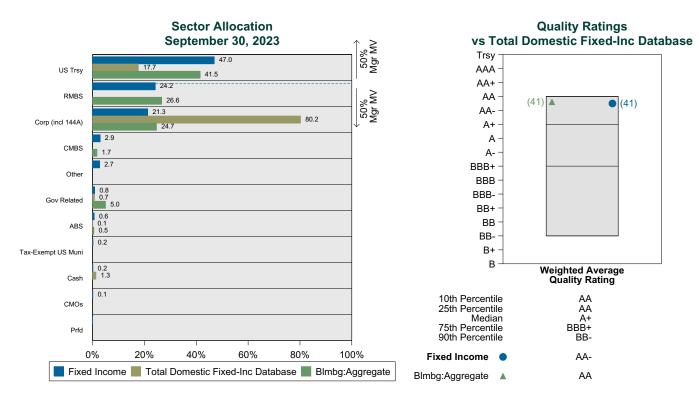
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Total Domestic Fixed-Inc Database as of September 30, 2023



Sector Allocation and Quality Ratings

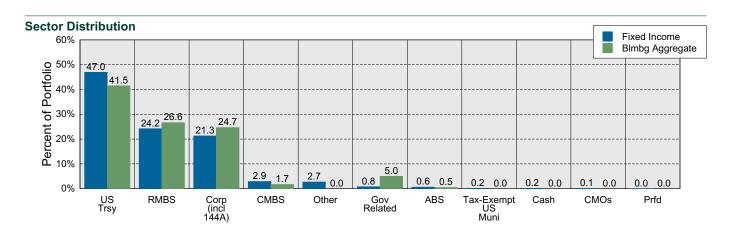
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

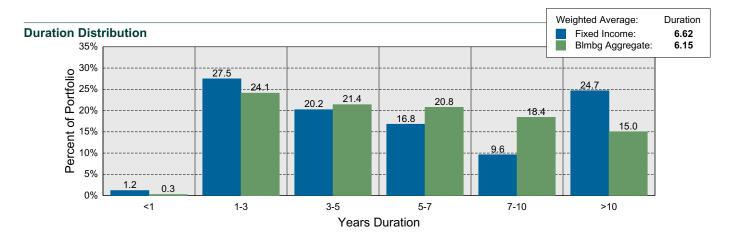


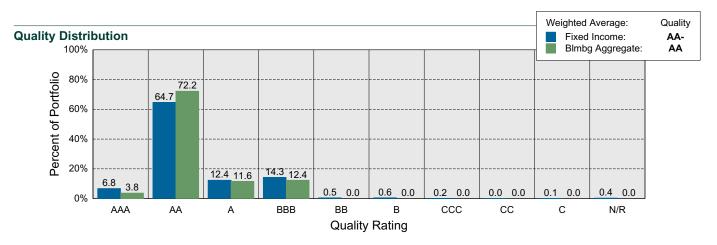
Fixed Income Portfolio Characteristics Summary As of September 30, 2023

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.





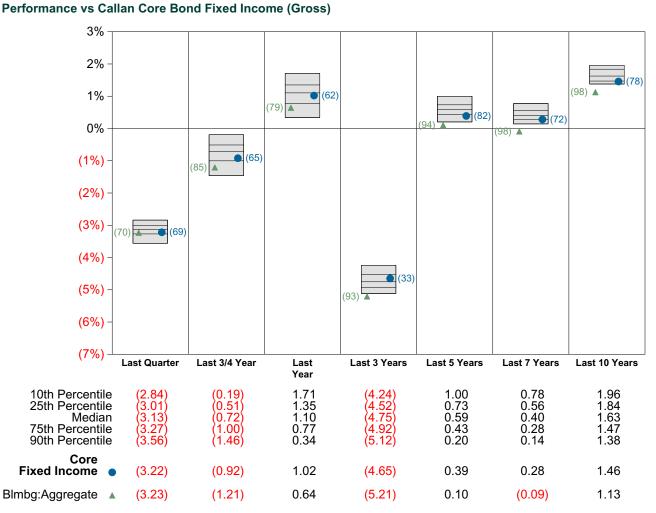


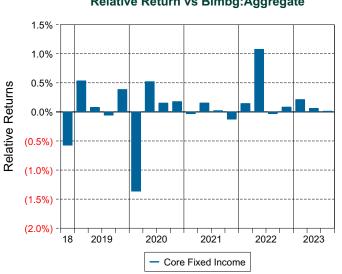
Core Fixed Income

Core Fixed Income Period Ended September 30, 2023

Quarterly Summary and Highlights

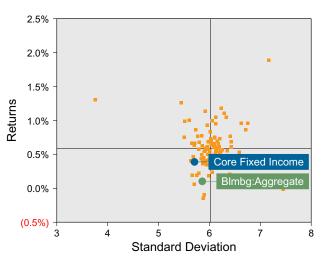
- Core Fixed Income's portfolio posted a (3.22)% return for the guarter placing it in the 69 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 62 percentile for the last year.
- Core Fixed Income's portfolio outperformed the Blmbg:Aggregate by 0.01% for the quarter and outperformed the ٠ Blmbg:Aggregate for the year by 0.38%.





Relative Return vs Blmbg:Aggregate

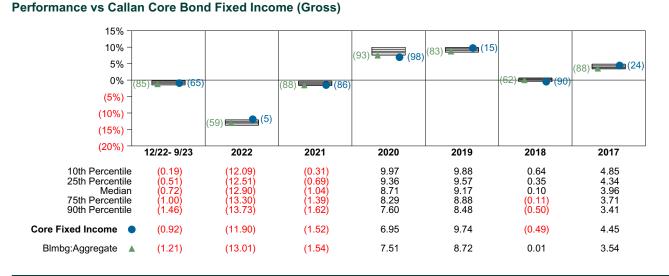
Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return



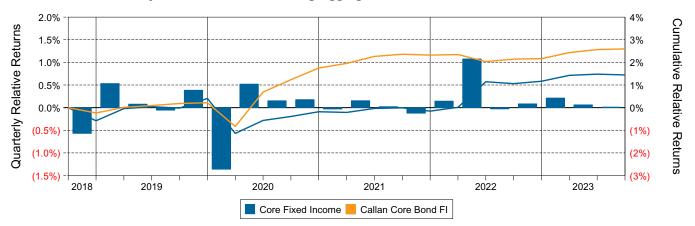
Core Fixed Income Return Analysis Summary

Return Analysis

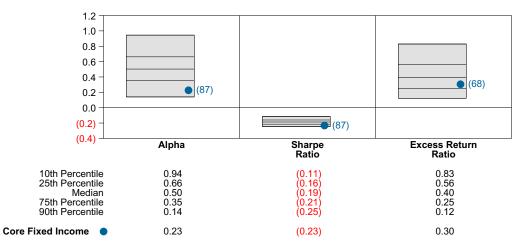
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2023



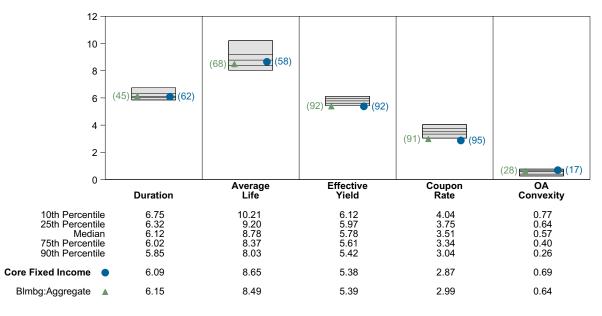


Core Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

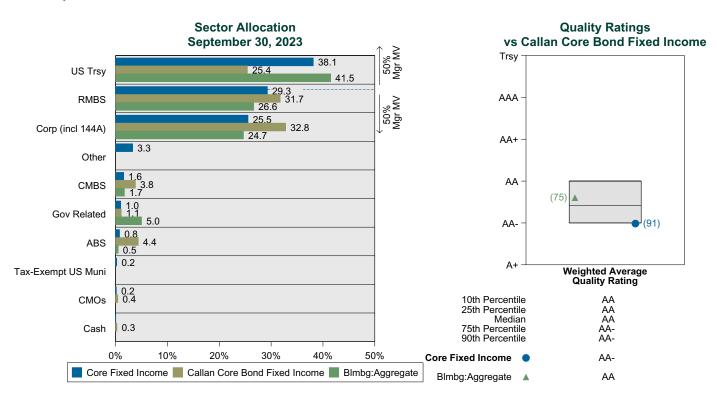
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2023



Sector Allocation and Quality Ratings

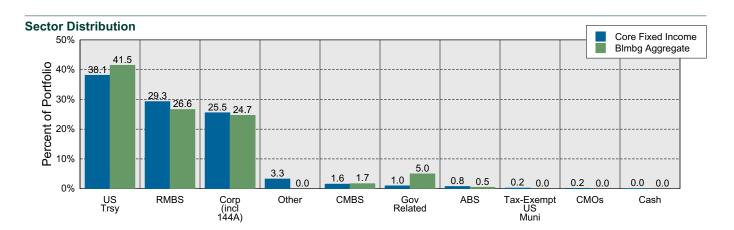
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

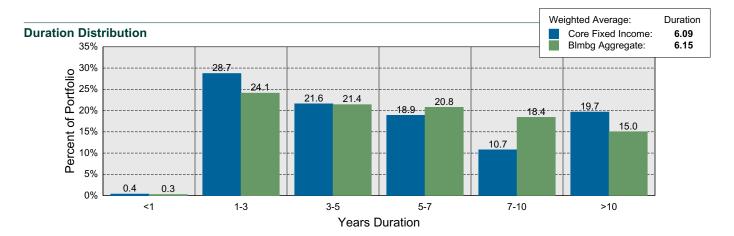


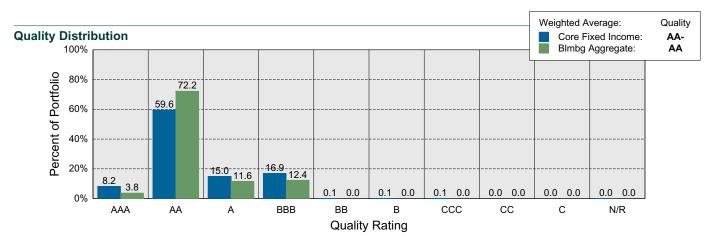
Core Fixed Income Portfolio Characteristics Summary As of September 30, 2023

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.







Core Fixed Income Managers

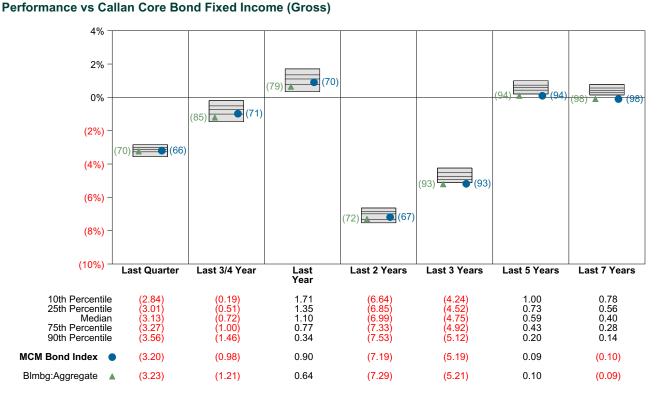
MCM Bond Index Period Ended September 30, 2023

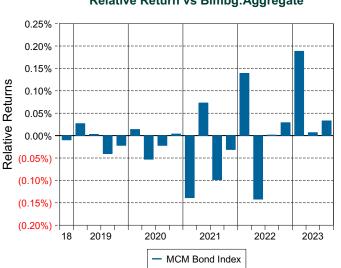
Investment Philosophy

Fixed income indexing offers a cost-effective, sensible investment approach to gaining diversified market exposure and receiving competitive relative returns over the long-term. Mellon Capital's Aggregate Bond Index Strategy employs a stratified sampling approach that has consistently added value with very little tracking error versus the Barclays Capital Aggregate Bond Index. We emphasize low turnover (low transaction costs) and strict risk control in the structuring of our portfolios.

Quarterly Summary and Highlights

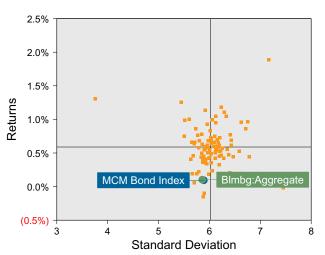
- MCM Bond Index's portfolio posted a (3.20)% return for the quarter placing it in the 66 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 70 percentile for the last year.
- MCM Bond Index's portfolio outperformed the Blmbg:Aggregate by 0.03% for the quarter and outperformed the Blmbg:Aggregate for the year by 0.26%.





Relative Return vs Blmbg:Aggregate

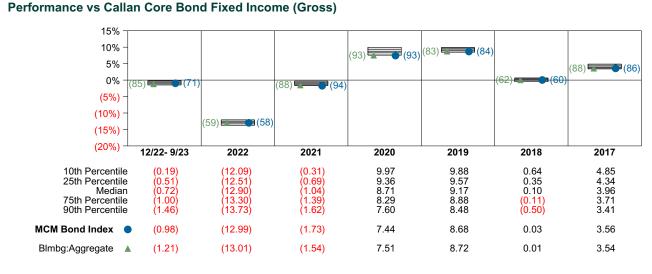
Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return



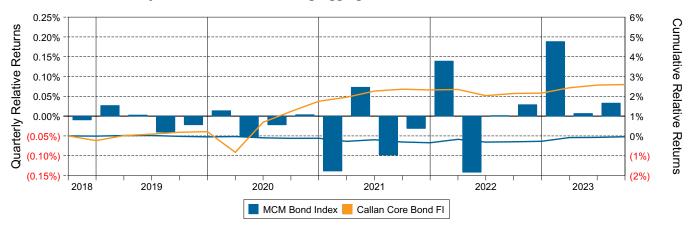
MCM Bond Index Return Analysis Summary

Return Analysis

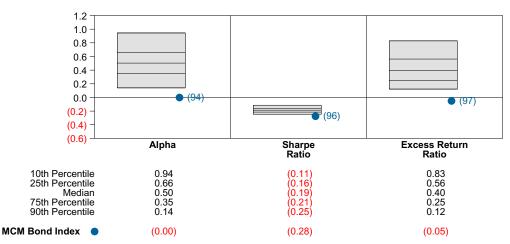
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg:Aggregate



Risk Adjusted Return Measures vs Blmbg:Aggregate Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2023



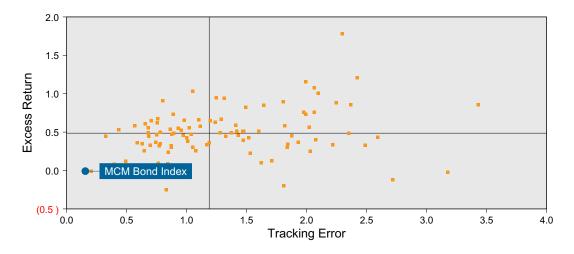


MCM Bond Index Risk Analysis Summary

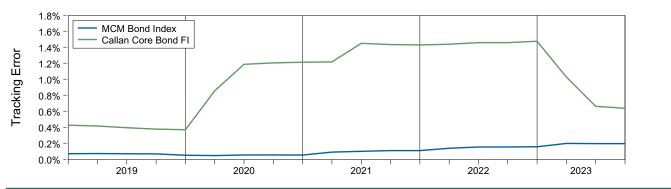
Risk Analysis

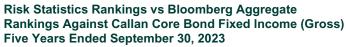
The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over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

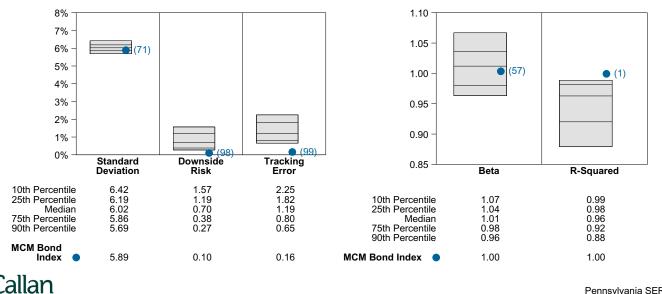
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2023









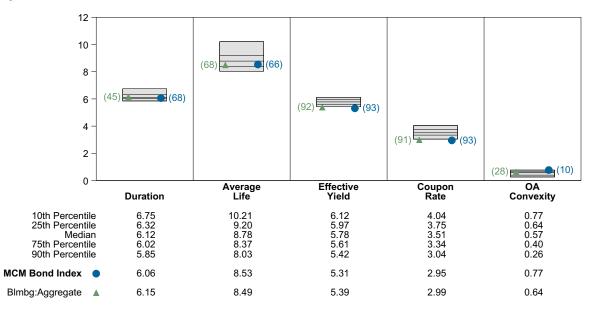


MCM Bond Index Bond Characteristics Analysis Summary

Portfolio Characteristics

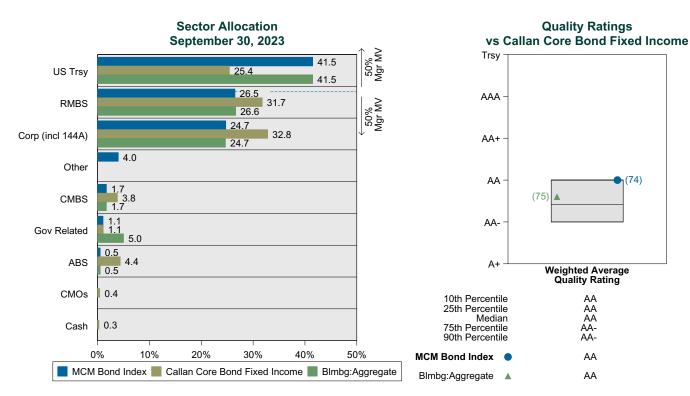
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2023



Sector Allocation and Quality Ratings

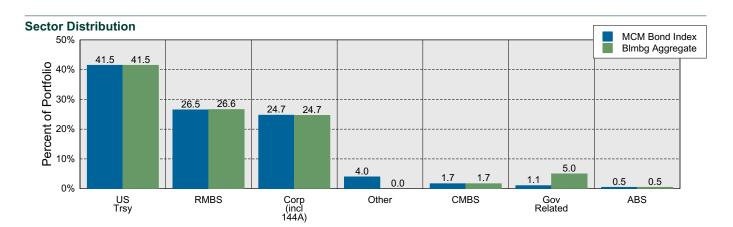
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

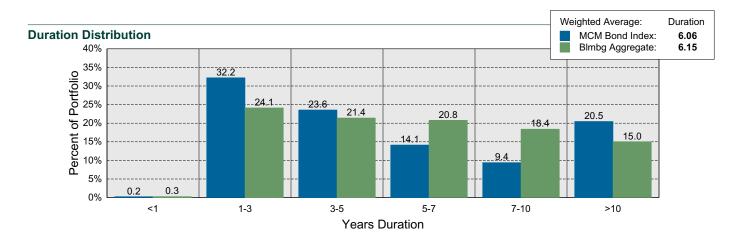


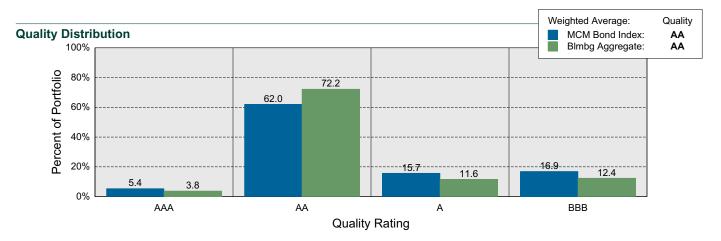
MCM Bond Index Portfolio Characteristics Summary As of September 30, 2023

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.





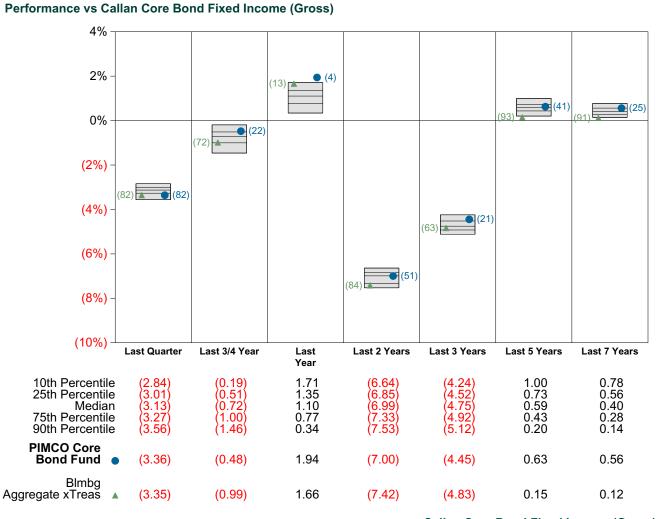


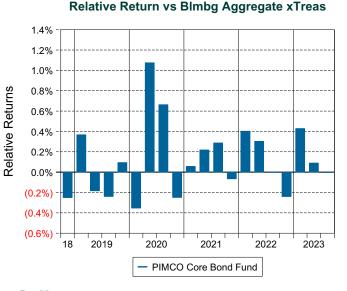


PIMCO Core Bond Fund Period Ended September 30, 2023

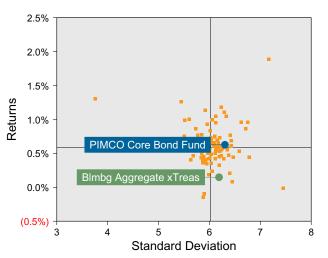
Quarterly Summary and Highlights

- PIMCO Core Bond Fund's portfolio posted a (3.36)% return for the quarter placing it in the 82 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 4 percentile for the last year.
- PIMCO Core Bond Fund's portfolio underperformed the BImbg Aggregate xTreas by 0.00% for the quarter and outperformed the BImbg Aggregate xTreas for the year by 0.28%.





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

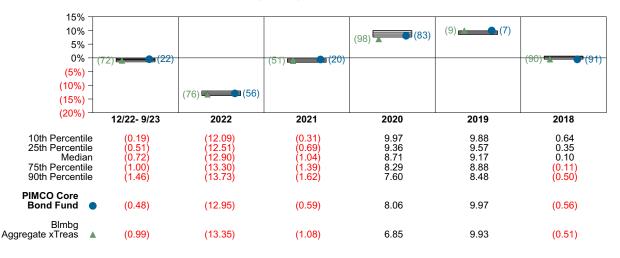


PIMCO Core Bond Fund Return Analysis Summary

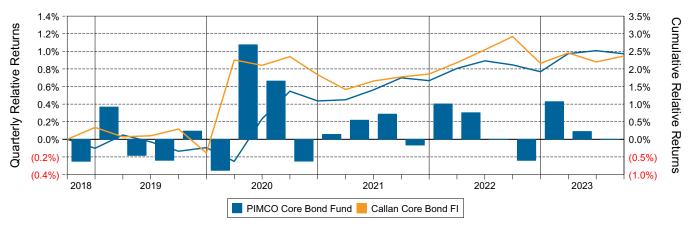
Return Analysis

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.

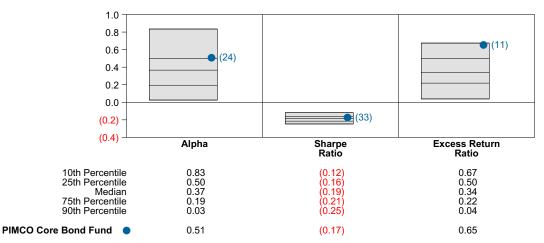
Performance vs Callan Core Bond Fixed Income (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg Aggregate xTreas



Risk Adjusted Return Measures vs Blmbg Aggregate xTreas Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2023



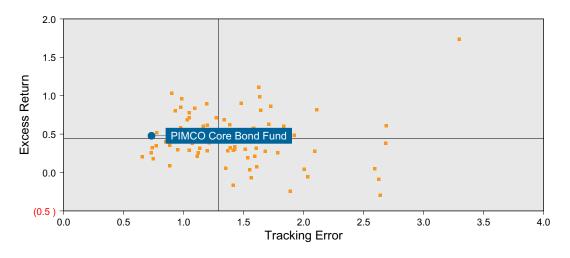


PIMCO Core Bond Fund Risk Analysis Summary

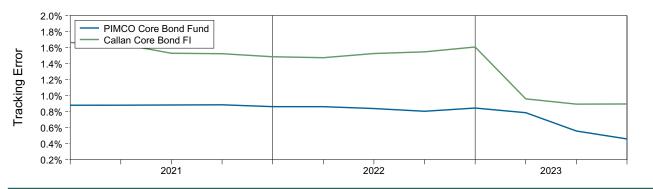
Risk Analysis

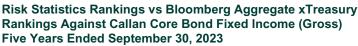
The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over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

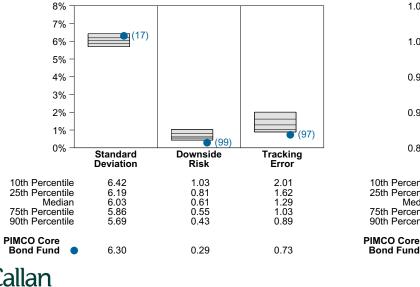
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended September 30, 2023

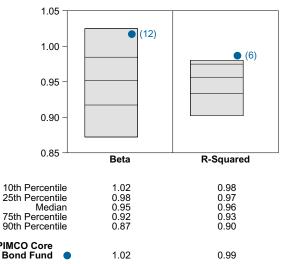










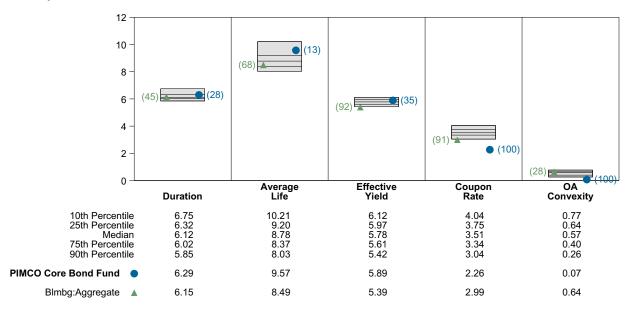


PIMCO Core Bond Fund Bond Characteristics Analysis Summary

Portfolio Characteristics

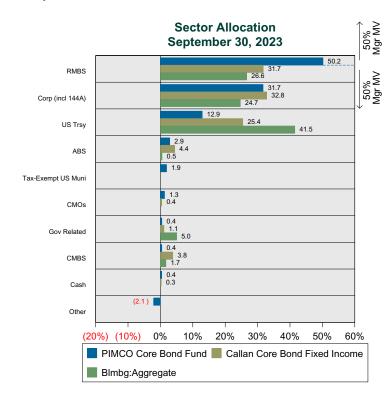
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

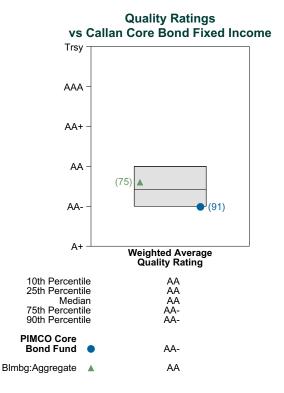
Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of September 30, 2023



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.

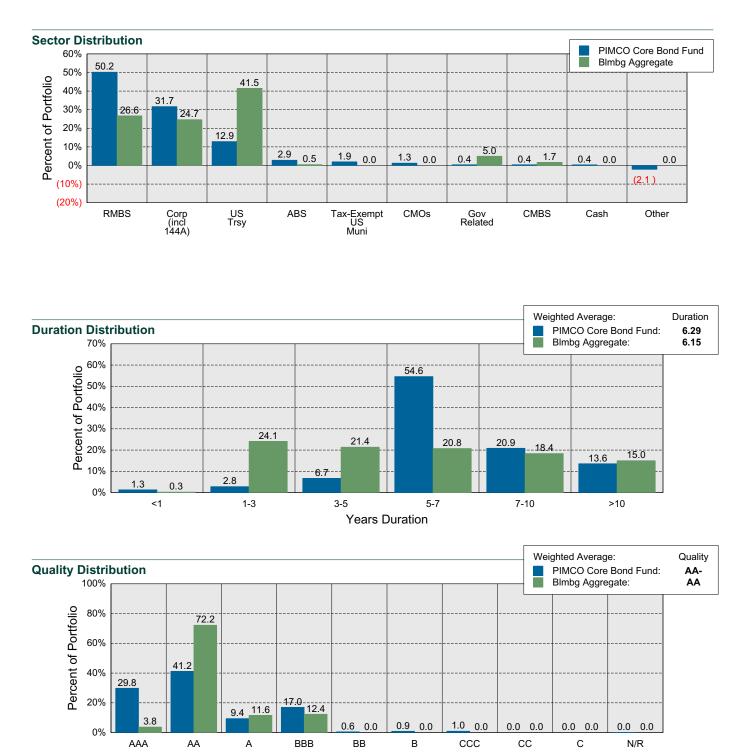




PIMCO Core Bond Fund Portfolio Characteristics Summary As of September 30, 2023

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.



Quality Rating

Opportunistic Fixed Income

Blackstone Keystone Period Ended September 30, 2023

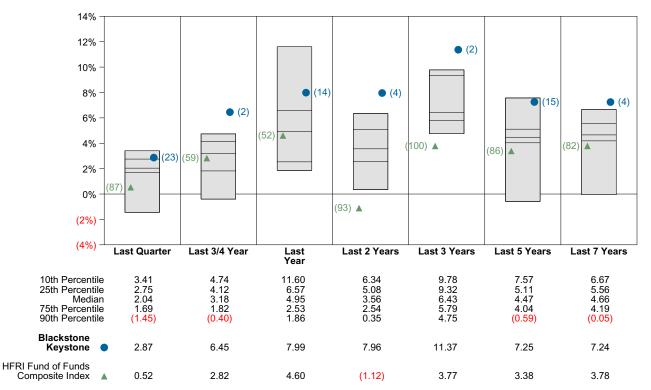
Asset Class Membership Changes

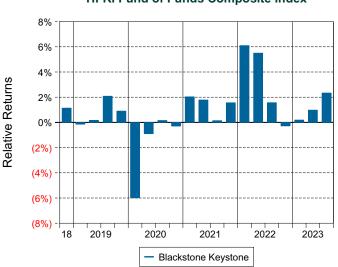
Blackstone Keystone since inception returns were included in the Legacy Hedge Fund composite through 9/30/2017, included in the Multi-Strategy composite from 10/01/2017 through 12/31/2019, included in the Opportunistic Fixed composite from 01/01/2020 through 12/31/2020, included in the Private Credit from 01/01/2021 through 09/30/2021 and Opportunistic Fixed composite, thereafter.

Quarterly Summary and Highlights

- Blackstone Keystone's portfolio posted a 2.87% return for the quarter placing it in the 23 percentile of the Callan Absolute Rtn Hedge Fund of Funds group for the quarter and in the 14 percentile for the last year.
- Blackstone Keystone's portfolio outperformed the HFRI Fund of Funds Composite Index by 2.35% for the quarter and outperformed the HFRI Fund of Funds Composite Index for the year by 3.39%.

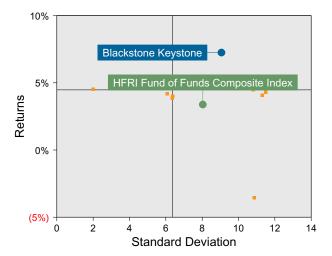
Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)





Relative Returns vs HFRI Fund of Funds Composite Index

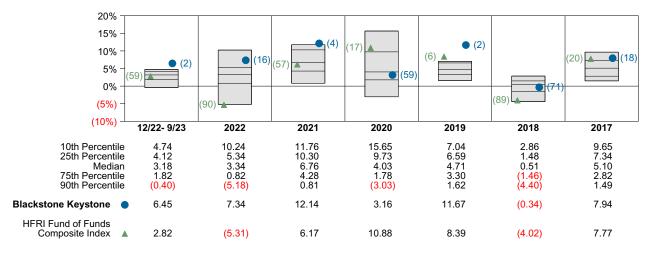
Callan Absolute Rtn Hedge Fund of Funds (Net) Annualized Five Year Risk vs Return



Blackstone Keystone Return Analysis Summary

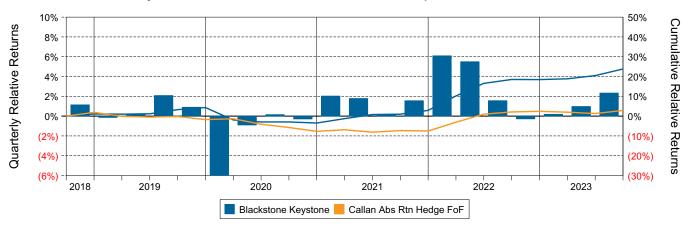
Return Analysis

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.

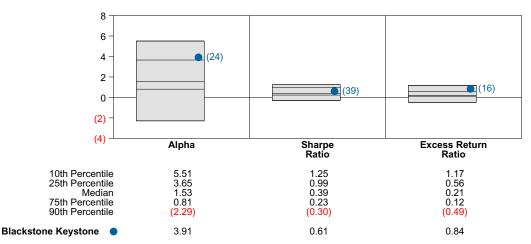


Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)

Cumulative and Quarterly Relative Returns vs HFRI Fund of Funds Composite Index



Risk Adjusted Return Measures vs HFRI Fund of Funds Composite Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended September 30, 2023

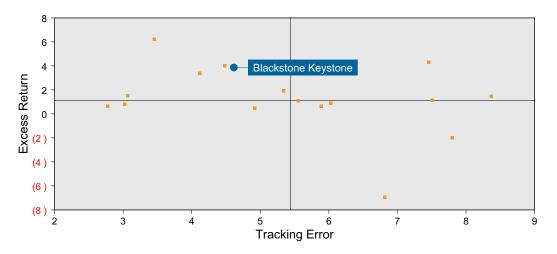


Blackstone Keystone Risk Analysis Summary

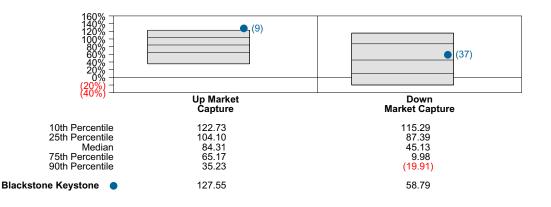
Risk Analysis

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.

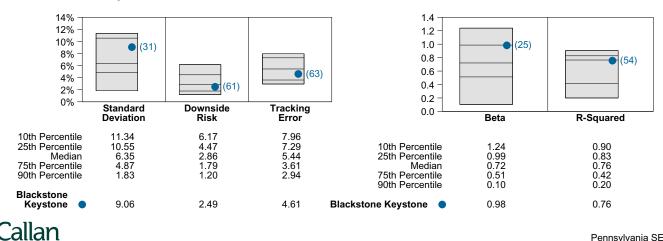
Risk Analysis vs Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended September 30, 2023



Market Capture vs HFRI Fund of Funds Composite Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended September 30, 2023



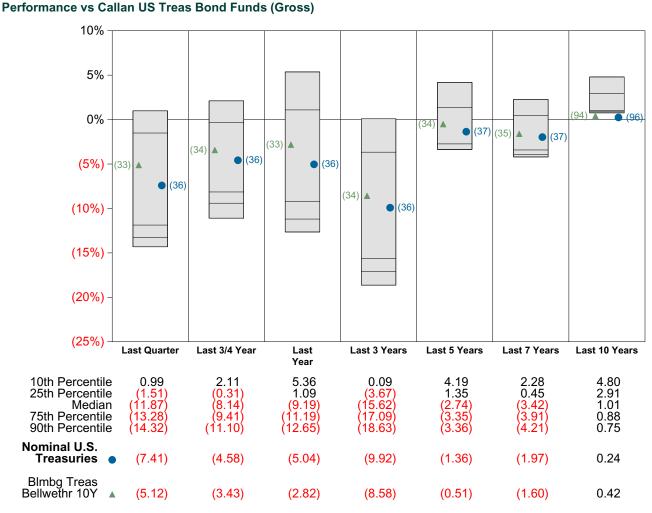
Risk Statistics Rankings vs HFRI Fund of Funds Composite Index Rankings Against Callan Absolute Rtn Hedge Fund of Funds (Net) Five Years Ended September 30, 2023



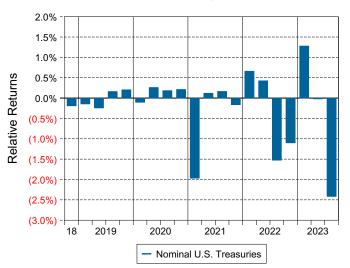
Nominal U.S. Treasuries Period Ended September 30, 2023

Quarterly Summary and Highlights

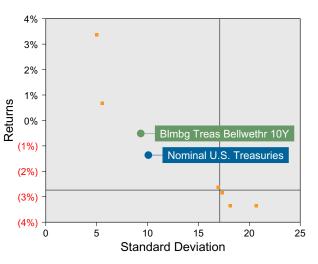
- Nominal U.S. Treasuries's portfolio posted a (7.41)% return for the quarter placing it in the 36 percentile of the Callan US Treas Bond Funds group for the quarter and in the 36 percentile for the last year.
- Nominal U.S. Treasuries's portfolio underperformed the Blmbg Treas Bellwethr 10Y by 2.29% for the quarter and underperformed the Blmbg Treas Bellwethr 10Y for the year by 2.21%.



Relative Return vs Blmbg Treas Bellwethr 10Y





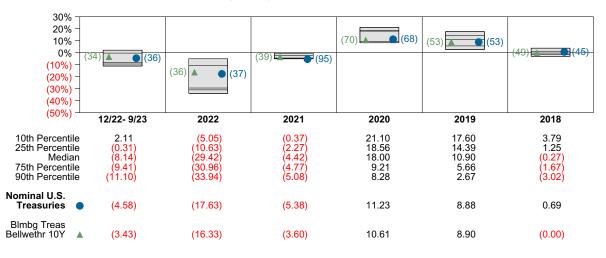


Nominal U.S. Treasuries Return Analysis Summary

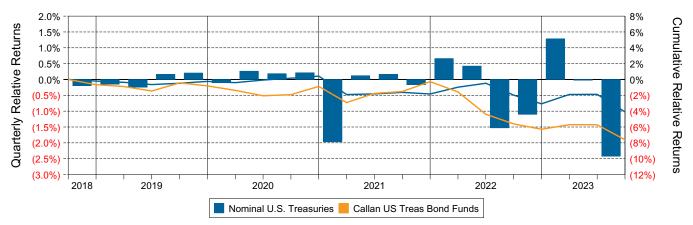
Return Analysis

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.

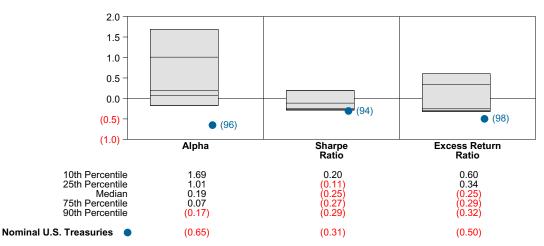
Performance vs Callan US Treas Bond Funds (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg Treas Bellwethr 10Y



Risk Adjusted Return Measures vs Blmbg Treas Bellwethr 10Y Rankings Against Callan US Treas Bond Funds (Gross) Five Years Ended September 30, 2023

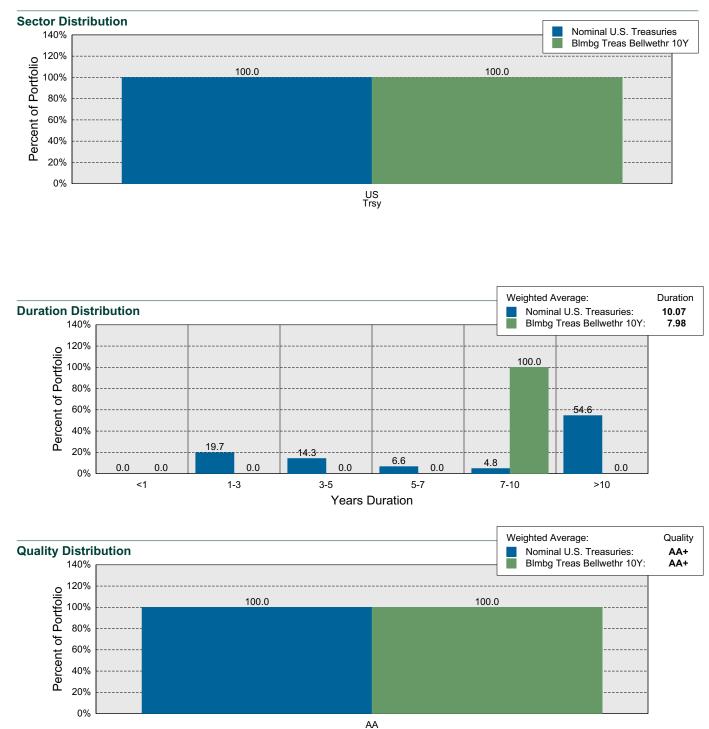




Nominal U.S. Treasuries Portfolio Characteristics Summary As of September 30, 2023

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.



Quality Rating



Nominal U.S. Treasuries Managers

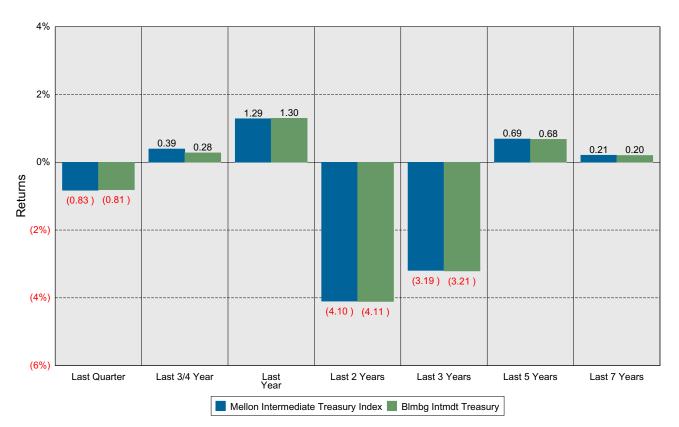
Mellon Intermediate Treasury Index Period Ended September 30, 2023

Return History

The Mellon Intermediate Treasury Index account was funded in March of 2021. Previous history reflects the manager's composite returns.

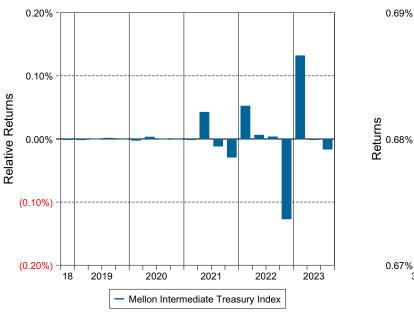
Quarterly Summary and Highlights

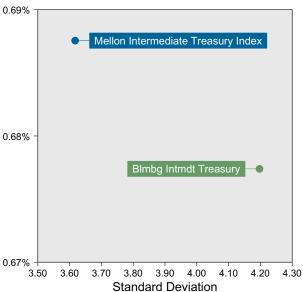
• Mellon Intermediate Treasury Index's portfolio underperformed the BImbg Intmdt Treasury by 0.02% for the quarter and underperformed the BImbg Intmdt Treasury for the year by 0.01%.



Relative Return vs Blmbg Intmdt Treasury



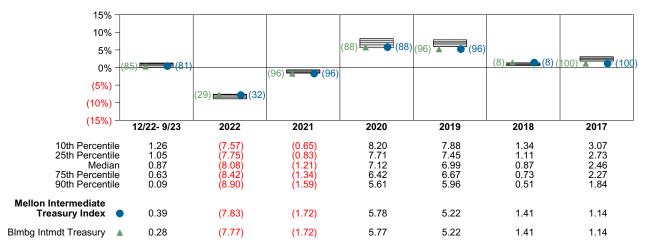




Mellon Intermediate Treasury Index Return Analysis Summary

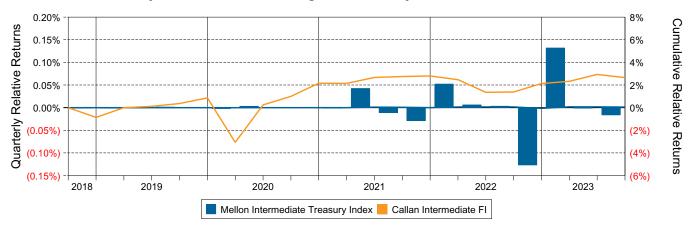
Return Analysis

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.

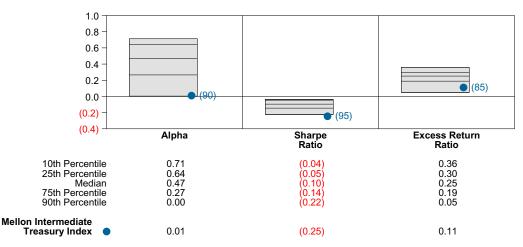


Performance vs Callan Intermediate Fixed Income (Gross)

Cumulative and Quarterly Relative Returns vs Blmbg Intmdt Treasury



Risk Adjusted Return Measures vs Blmbg Intmdt Treasury Rankings Against Callan Intermediate Fixed Income (Gross) Five Years Ended September 30, 2023



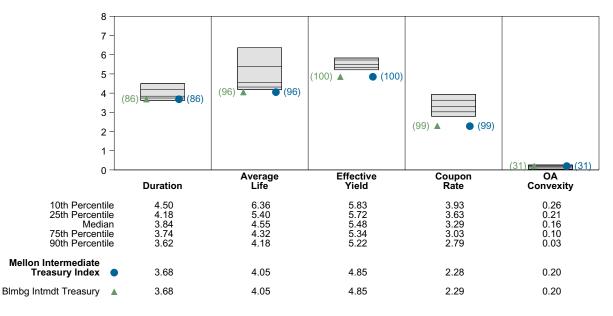


Mellon Intermediate Treasury Index Bond Characteristics Analysis Summary

Portfolio Characteristics

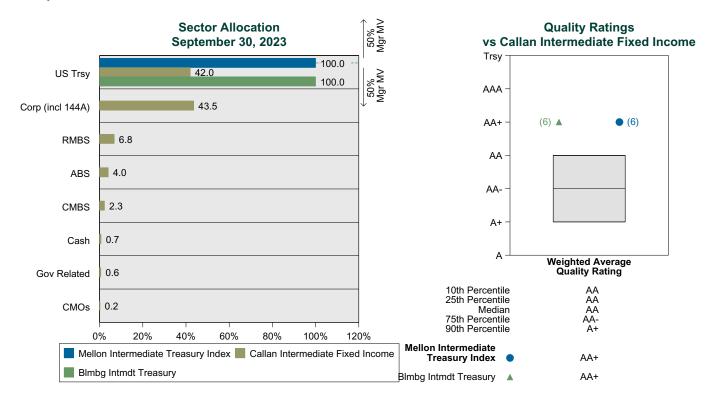
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Intermediate 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.

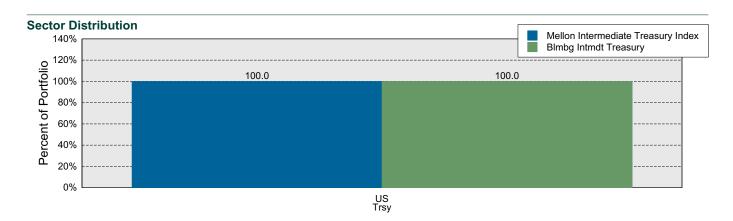


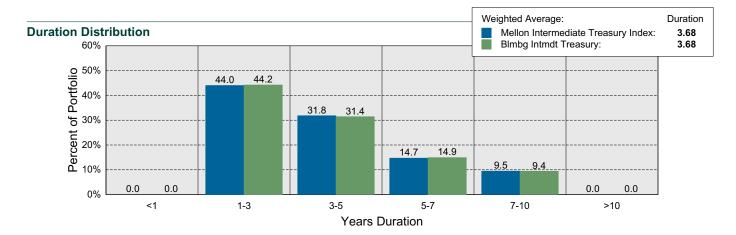


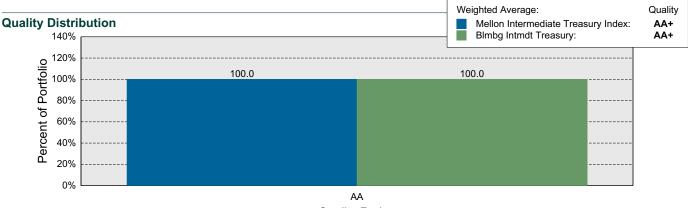
Mellon Intermediate Treasury Index Portfolio Characteristics Summary As of September 30, 2023

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.







Quality Rating



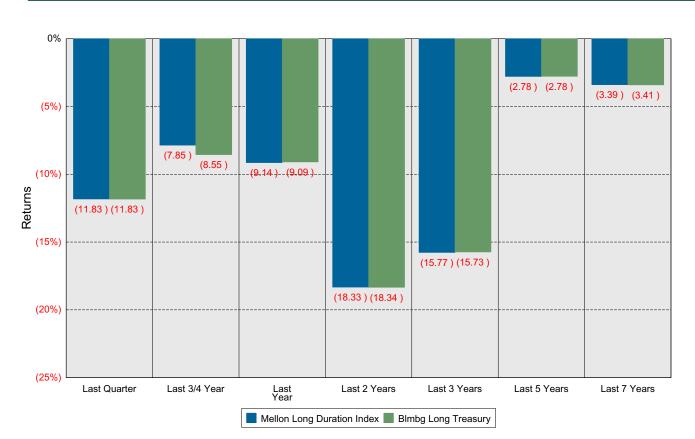
Mellon Long Duration Index Period Ended September 30, 2023

Return History

The Mellon Long Duration Index account was funded in March of 2021. Previous history reflects the manager's composite returns.

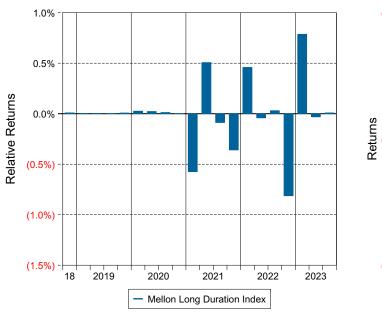
Quarterly Summary and Highlights

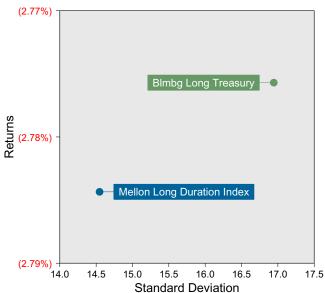
• Mellon Long Duration Index's portfolio outperformed the Blmbg Long Treasury by 0.01% for the quarter and underperformed the Blmbg Long Treasury for the year by 0.05%.



Relative Return vs Blmbg Long Treasury



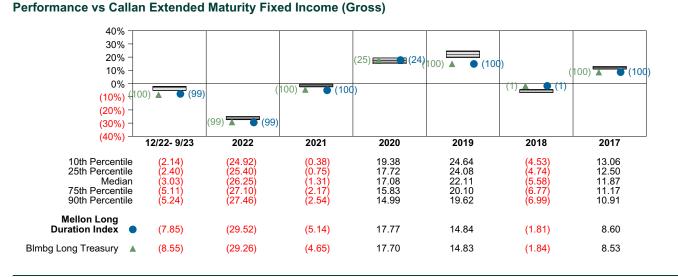




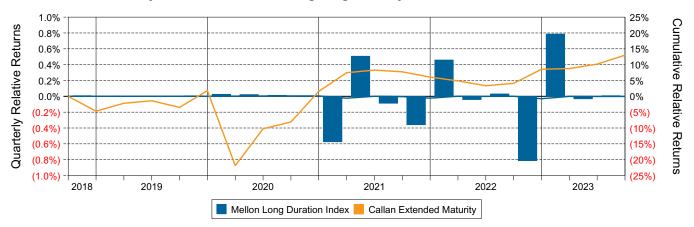
Mellon Long Duration Index Return Analysis Summary

Return Analysis

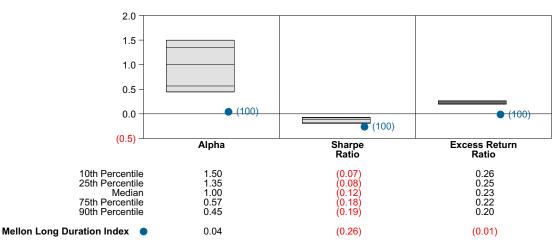
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg Long Treasury



Risk Adjusted Return Measures vs Blmbg Long Treasury Rankings Against Callan Extended Maturity Fixed Income (Gross) Five Years Ended September 30, 2023



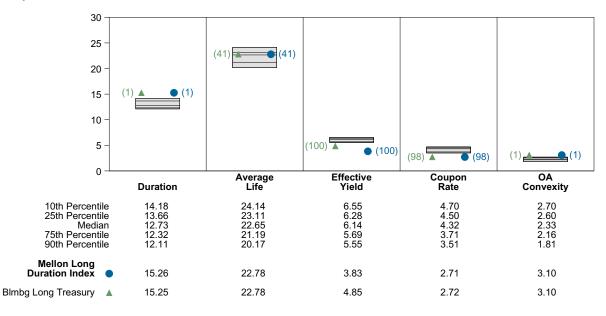


Mellon Long Duration Index Bond Characteristics Analysis Summary

Portfolio Characteristics

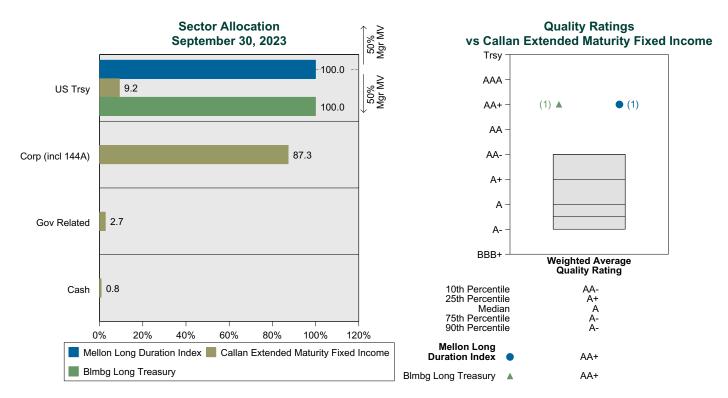
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Extended Maturity Fixed Income as of September 30, 2023



Sector Allocation and Quality Ratings

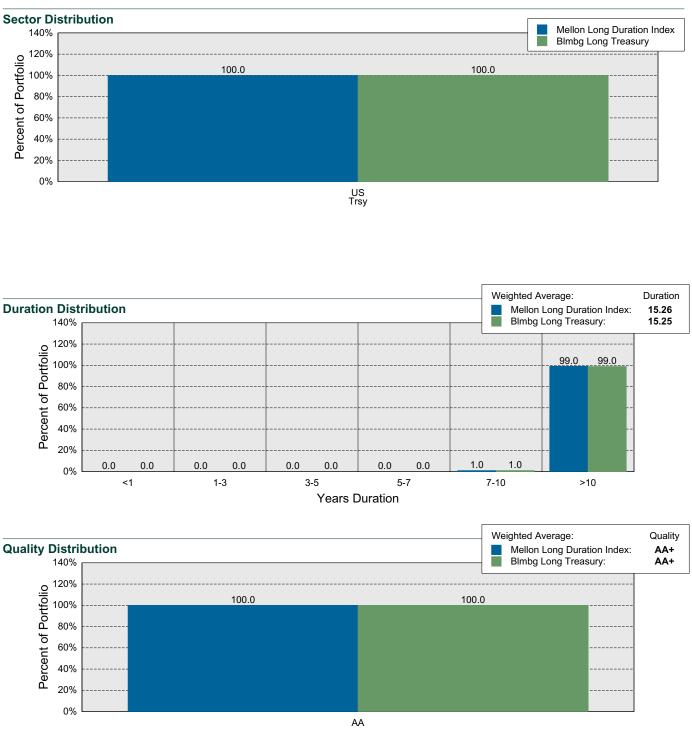
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Mellon Long Duration 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.



Quality Rating



Legacy Fixed Income

Fidelity HY CMBS Period Ended September 30, 2023

Asset Class Membership Changes

Fidelity was included in the Opportunistic Fixed composite prior to 03/01/2021, included in the High Yield under the new fixed income structure from 03/01/2021 through 06/30/2022, and Legacy Fixed Income Structure, thereafter.

Quarterly Summary and Highlights

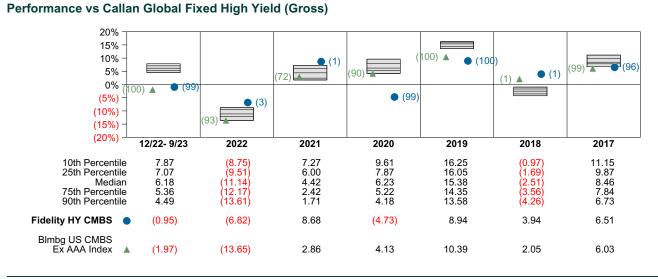
- Fidelity HY CMBS's portfolio posted a 0.74% return for the quarter placing it in the 71 percentile of the Callan Global Fixed High Yield group for the quarter and in the 100 percentile for the last year.
- Fidelity HY CMBS's portfolio outperformed the BImbg US CMBS Ex AAA Index by 1.82% for the quarter and outperformed the BImbg US CMBS Ex AAA Index for the year by 1.66%.



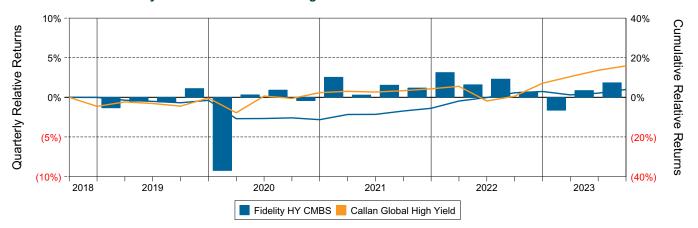
Fidelity HY CMBS Return Analysis Summary

Return Analysis

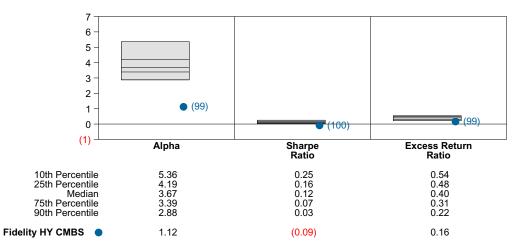
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs BImbg US CMBS Ex AAA Index



Risk Adjusted Return Measures vs Blmbg US CMBS Ex AAA Index Rankings Against Callan Global Fixed High Yield (Gross) Five Years Ended September 30, 2023



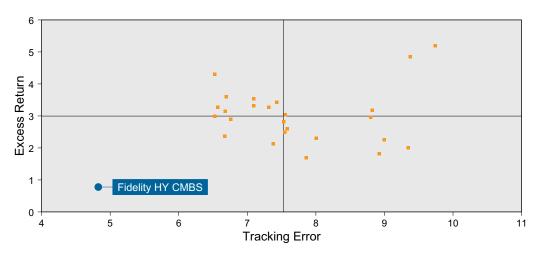


Fidelity HY CMBS Risk Analysis Summary

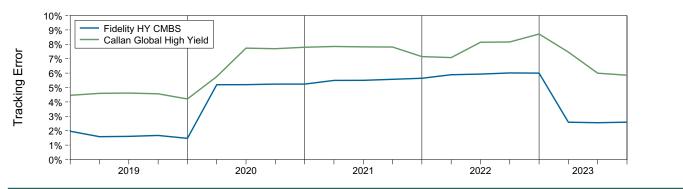
Risk Analysis

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.

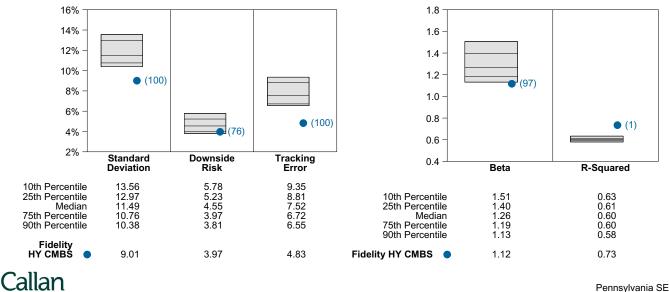
Risk Analysis vs Callan Global Fixed High Yield (Gross) Five Years Ended September 30, 2023









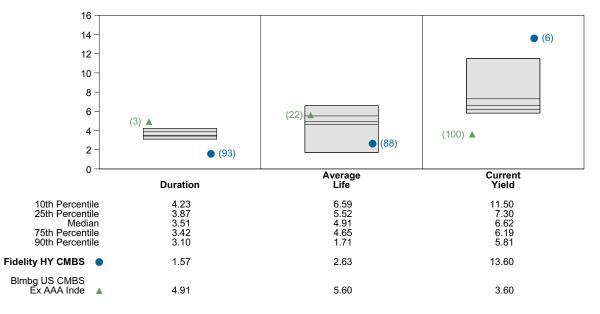


Fidelity HY CMBS Bond Characteristics Analysis Summary

Portfolio Characteristics

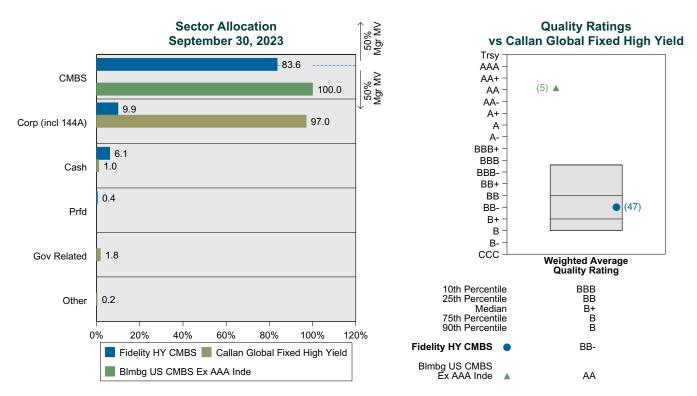
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Global Fixed High Yield as of September 30, 2023



Sector Allocation and Quality Ratings

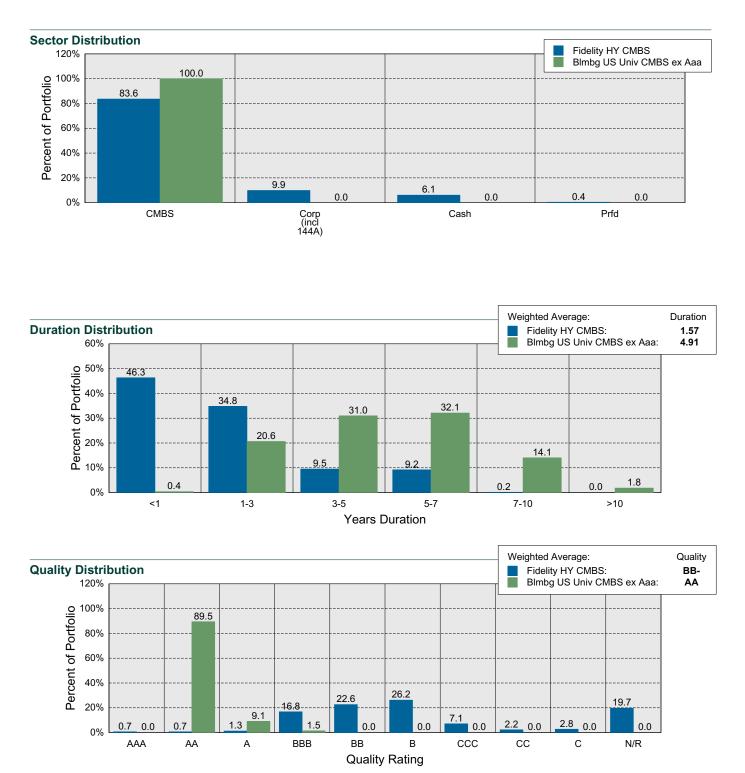
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Fidelity HY CMBS Portfolio Characteristics Summary As of September 30, 2023

Portfolio Structure Comparison

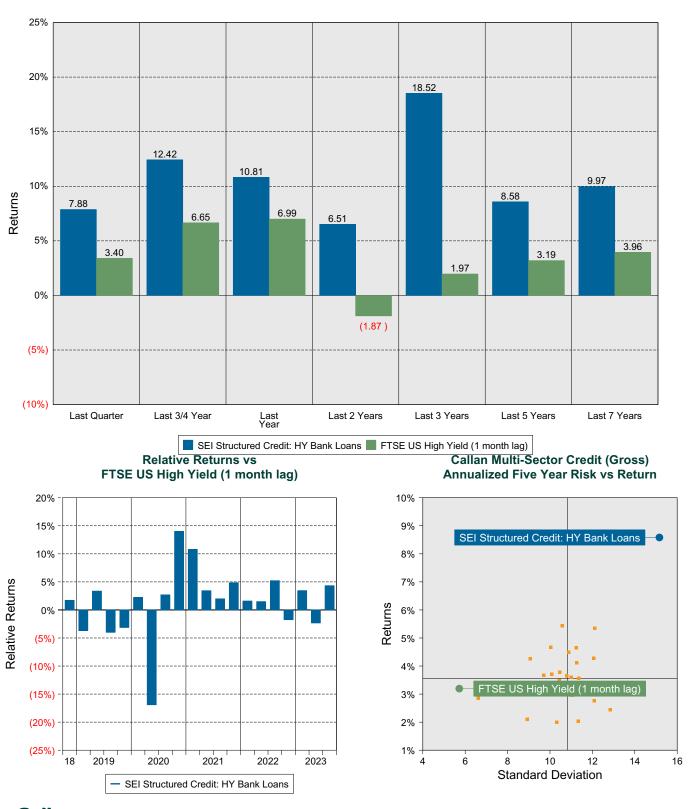
The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.



SEI Structured Credit: HY Bank Loans Period Ended September 30, 2023

Quarterly Summary and Highlights

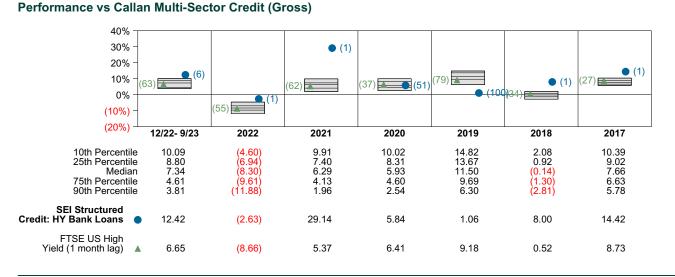
- SEI Structured Credit: HY Bank Loans's portfolio posted a 7.88% return for the quarter placing it in the 1 percentile of the Callan Multi-Sector Credit group for the quarter and in the 52 percentile for the last year.
- SEI Structured Credit: HY Bank Loans's portfolio outperformed the FTSE US High Yield (1 month lag) by 4.48% for the quarter and outperformed the FTSE US High Yield (1 month lag) for the year by 3.82%.



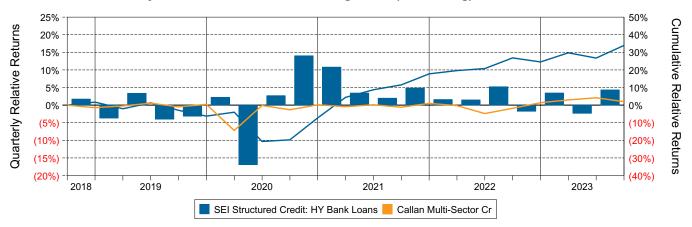
SEI Structured Credit: HY Bank Loans Return Analysis Summary

Return Analysis

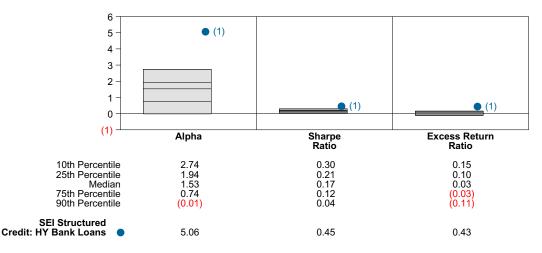
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs FTSE US High Yield (1 month lag)



Risk Adjusted Return Measures vs FTSE US High Yield (1 month lag) Rankings Against Callan Multi-Sector Credit (Gross) Five Years Ended September 30, 2023



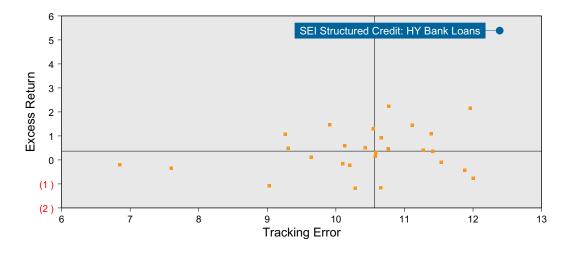


SEI Structured Credit: HY Bank Loans **Risk Analysis Summary**

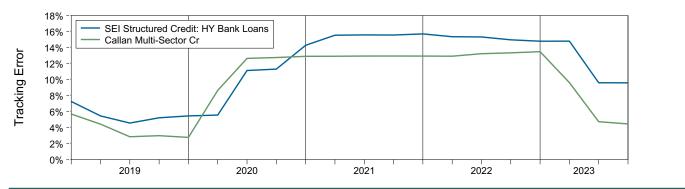
Risk Analysis

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.

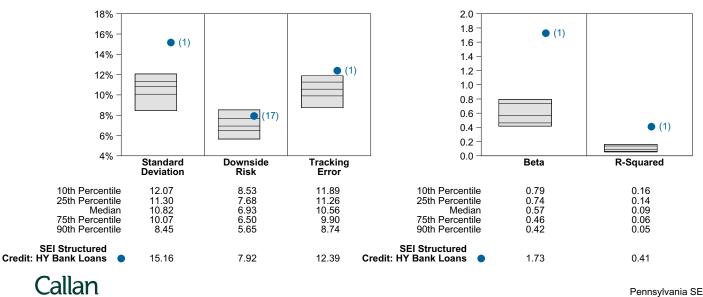
Risk Analysis vs Callan Multi-Sector Credit (Gross) Five Years Ended September 30, 2023









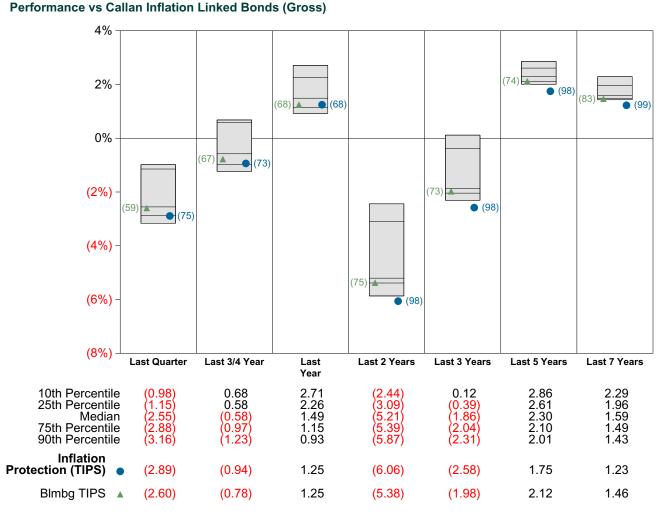


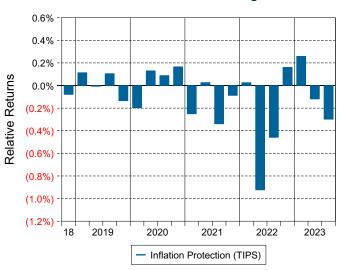
Inflation Protection (TIPS)

Inflation Protection (TIPS) Period Ended September 30, 2023

Quarterly Summary and Highlights

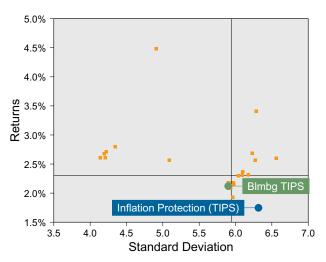
- Inflation Protection (TIPS)'s portfolio posted a (2.89)% return for the quarter placing it in the 75 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 68 percentile for the last year.
- Inflation Protection (TIPS)'s portfolio underperformed the BImbg TIPS by 0.29% for the quarter and outperformed the BImbg TIPS for the year by 0.00%.





Relative Return vs Blmbg TIPS

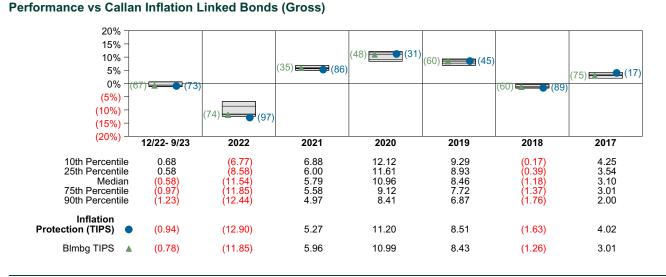




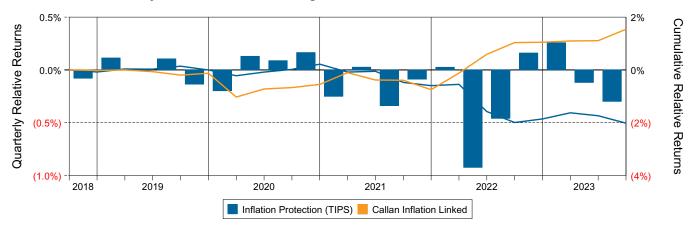
Inflation Protection (TIPS) Return Analysis Summary

Return Analysis

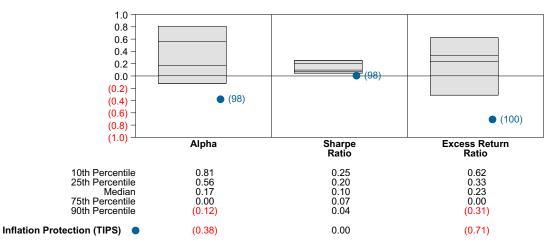
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg TIPS







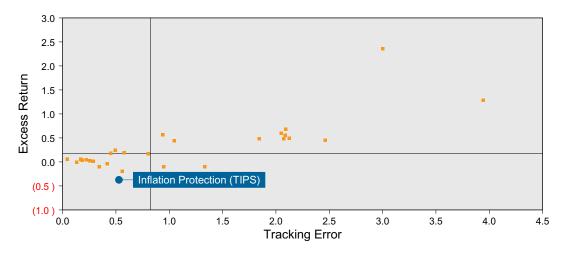


Inflation Protection (TIPS) Risk Analysis Summary

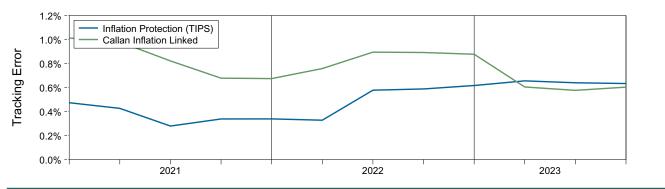
Risk Analysis

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.

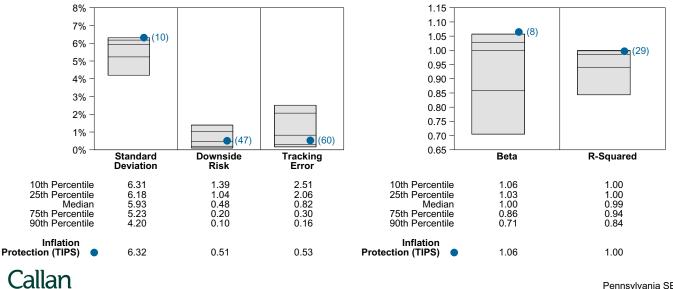
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023









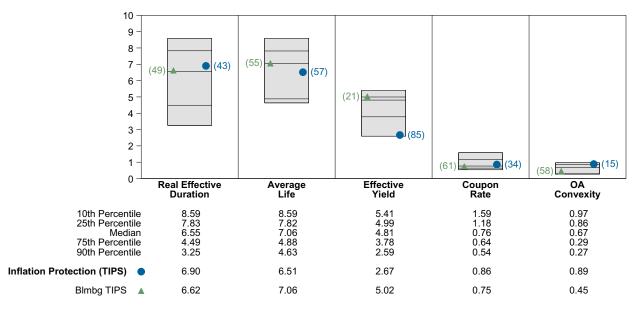


Inflation Protection (TIPS) Bond Characteristics Analysis Summary

Portfolio Characteristics

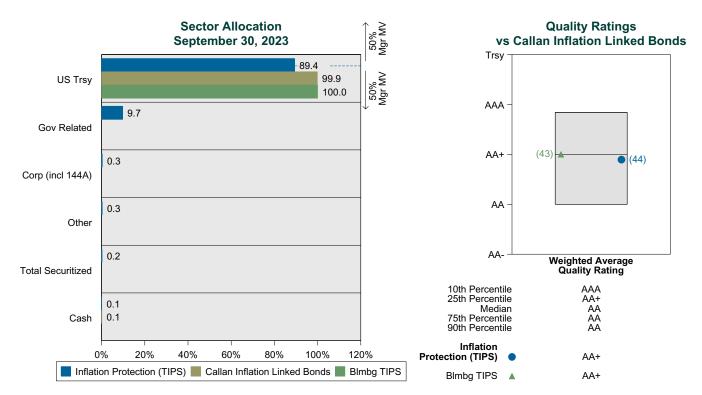
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2023



Sector Allocation and Quality Ratings

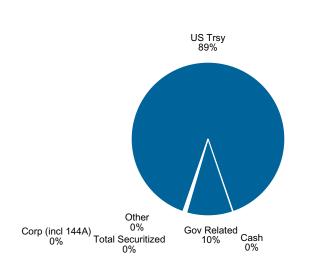
The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



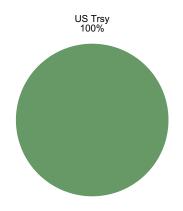
Inflation Protection (TIPS) Portfolio Characteristics Summary As of September 30, 2023

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.

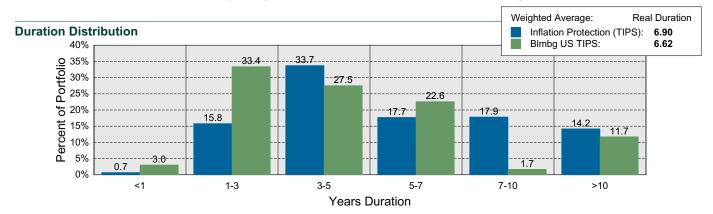


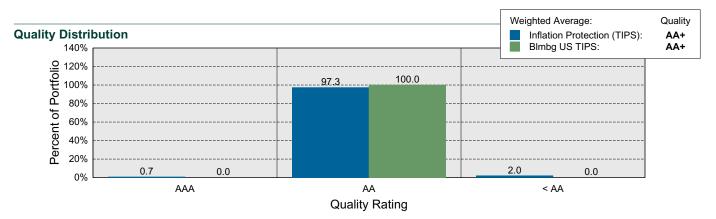
Sector Allocation



Inflation Protection (TIPS)









Inflation Protection (TIPS) Managers

Brown Brothers TIPS Period Ended September 30, 2023

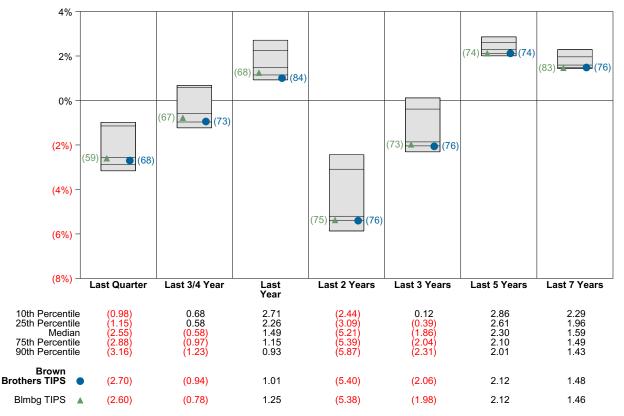
Investment Philosophy

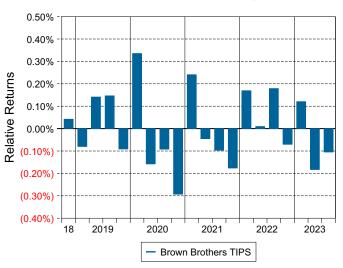
The BBH U.S. TIPS strategy seeks to capture a range of fundamentally-based and technically-based opportunities in the inflation-indexed securities market.

Quarterly Summary and Highlights

- Brown Brothers TIPS's portfolio posted a (2.70)% return for the quarter placing it in the 68 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 84 percentile for the last year.
- Brown Brothers TIPS's portfolio underperformed the BImbg TIPS by 0.10% for the quarter and underperformed the BImbg TIPS for the year by 0.24%.

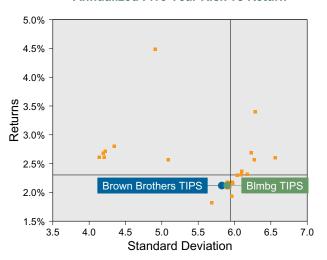
Performance vs Callan Inflation Linked Bonds (Gross)





Relative Return vs Blmbg TIPS

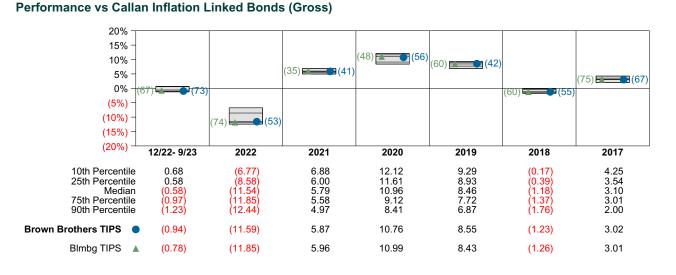
Callan Inflation Linked Bonds (Gross) Annualized Five Year Risk vs Return



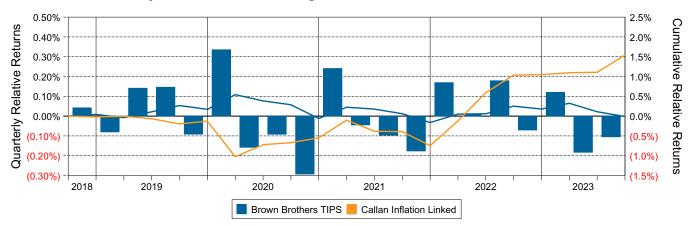
Brown Brothers TIPS Return Analysis Summary

Return Analysis

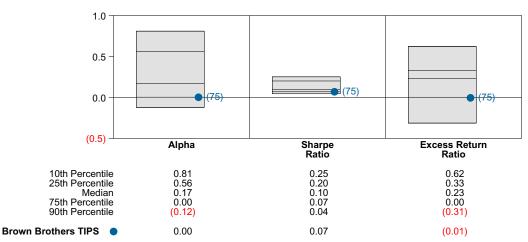
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023



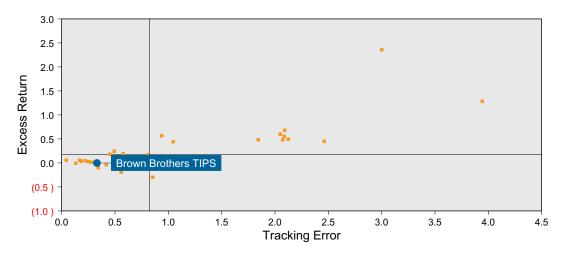


Brown Brothers TIPS Risk Analysis Summary

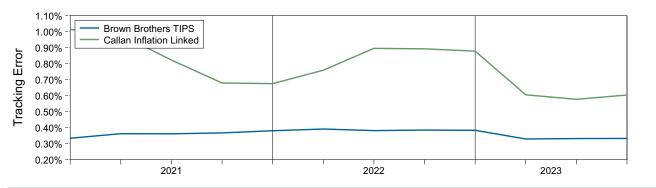
Risk Analysis

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.

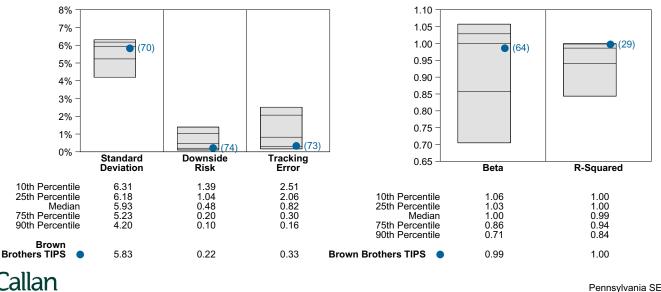
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023









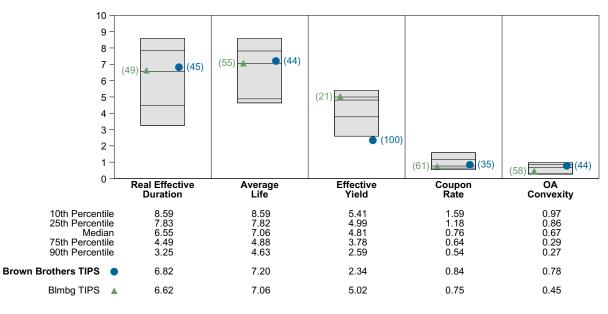


Brown Brothers TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

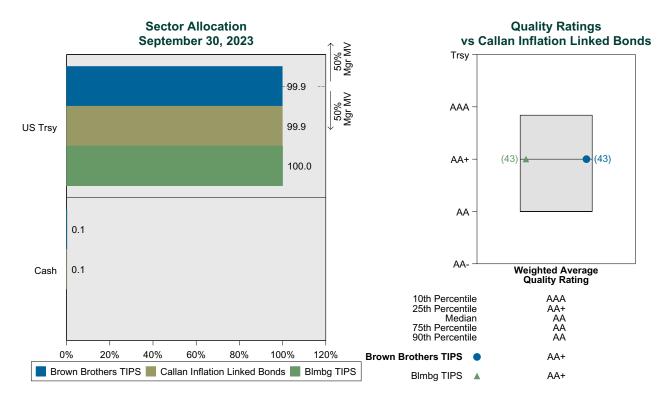
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds 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.



Brown Brothers TIPS Portfolio Characteristics Summary As of September 30, 2023

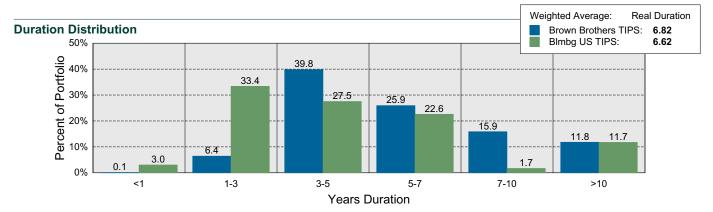
Portfolio Structure Comparison

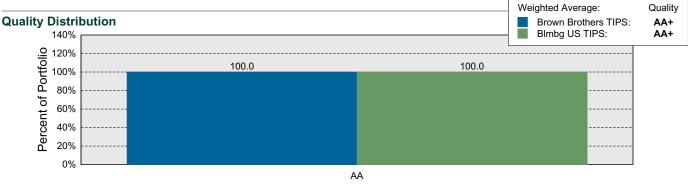
The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.



Brown Brothers TIPS







Quality Rating



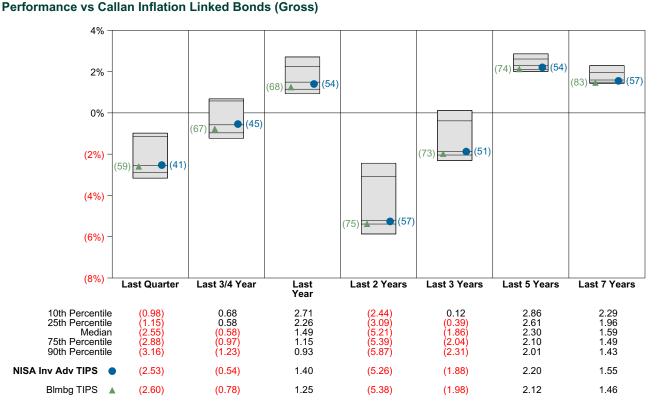
NISA Inv Adv TIPS Period Ended September 30, 2023

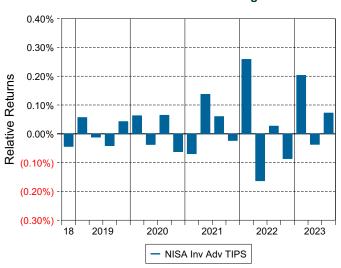
Investment Philosophy

NISA believes that markets offer opportunities to capitalize on moderate inefficiencies for predictable gains. The team applies a fundamental approach and strategy to all fixed income portfolios, regardless of benchmark. Central to their investment philosophy is the following: practice active trading, hold high average credit quality, maintain tight duration collars, and avoid large exposure to any one entity.

Quarterly Summary and Highlights

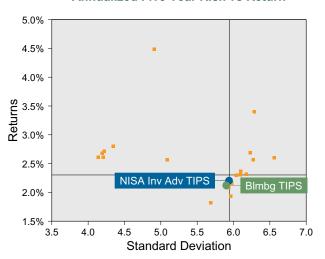
- NISA Inv Adv TIPS's portfolio posted a (2.53)% return for the quarter placing it in the 41 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 54 percentile for the last year.
- NISA Inv Adv TIPS's portfolio outperformed the BImbg TIPS by 0.07% for the quarter and outperformed the BImbg TIPS for the year by 0.15%.





Relative Return vs Blmbg TIPS

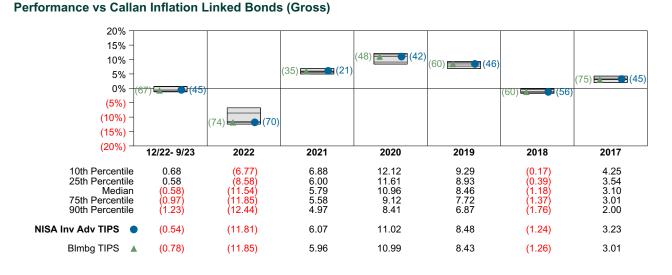
Callan Inflation Linked Bonds (Gross) Annualized Five Year Risk vs Return



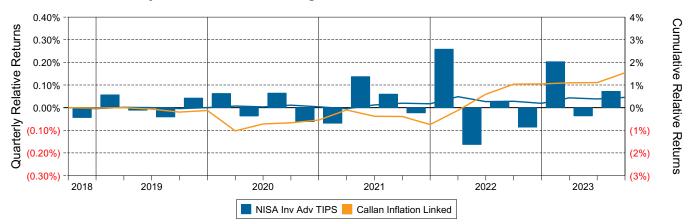
NISA Inv Adv TIPS Return Analysis Summary

Return Analysis

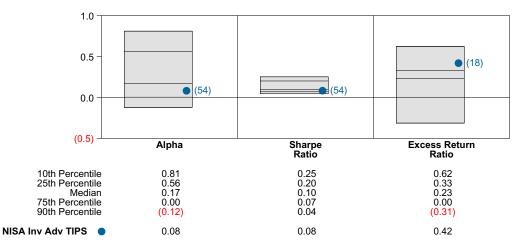
The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate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



Cumulative and Quarterly Relative Returns vs Blmbg TIPS



Risk Adjusted Return Measures vs Blmbg TIPS Rankings Against Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023



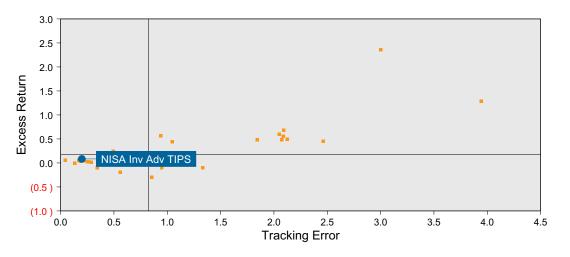


NISA Inv Adv TIPS Risk Analysis Summary

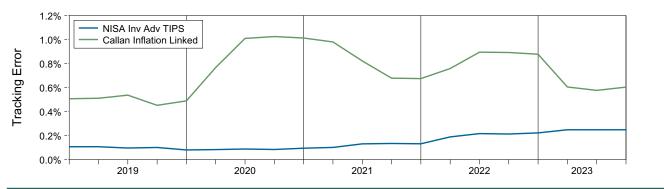
Risk Analysis

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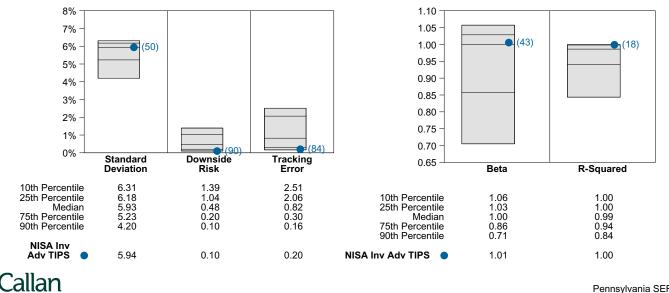
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023









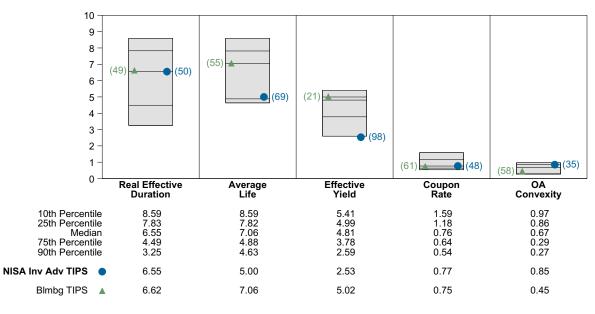


NISA Inv Adv TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

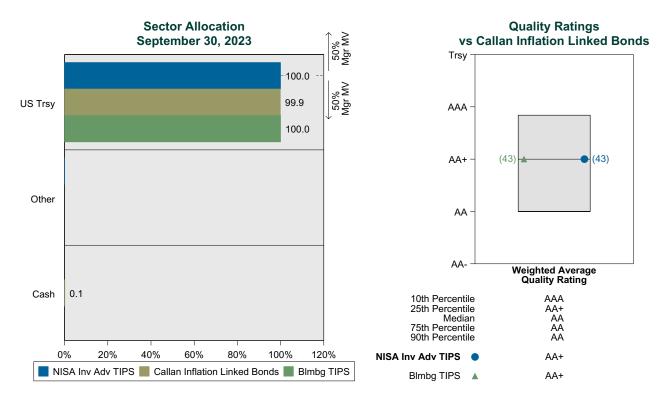
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds 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.

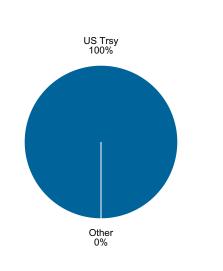


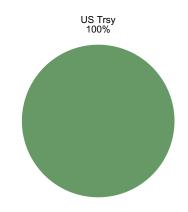
NISA Inv Adv TIPS Portfolio Characteristics Summary As of September 30, 2023

Portfolio Structure Comparison

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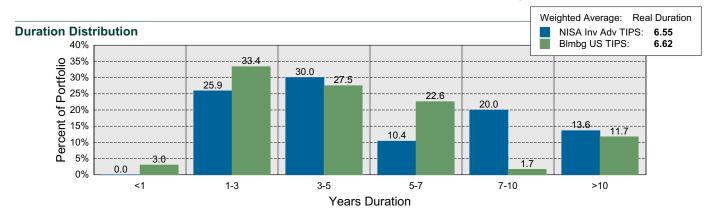
Sector Allocation

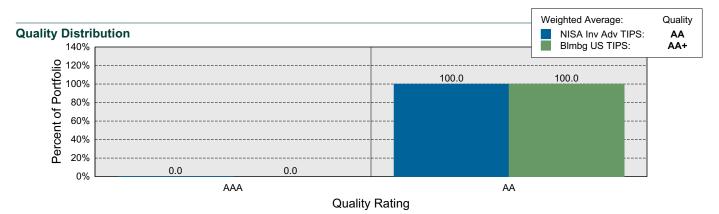




NISA Inv Adv TIPS







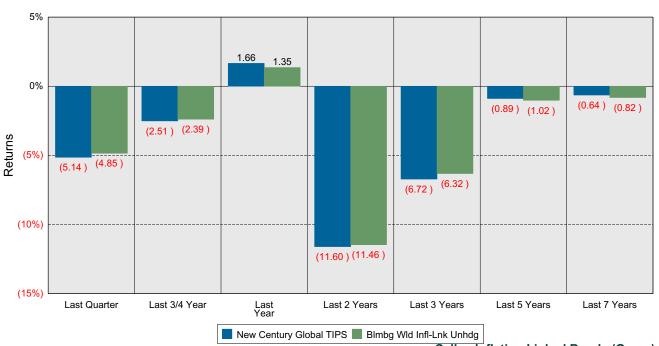
New Century Global TIPS Period Ended September 30, 2023

Investment Philosophy

New Century Advisors believes there are five main sources of excess return that an active manager can capture in the Global Inflation Linked Bond Product: duration management, county selection, currency management, yield curve positioning, and nominal/linker relative value. New Century Advisors approach to adding value in each case is the same, a three pronged approach combining fundamental analysis, technical analysis and human judgment.

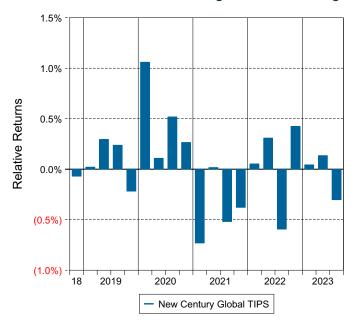
Quarterly Summary and Highlights

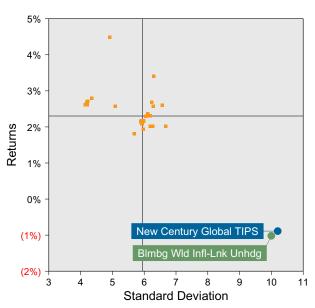
- New Century Global TIPS's portfolio posted a (5.14)% return for the quarter placing it in the 100 percentile of the Callan Inflation Linked Bonds group for the quarter and in the 41 percentile for the last year.
- New Century Global TIPS's portfolio underperformed the Blmbg Wld Infl-Lnk Unhdg by 0.29% for the quarter and outperformed the Blmbg Wld Infl-Lnk Unhdg for the year by 0.30%.



Relative Return vs Blmbg Wld Infl-Lnk Unhdg



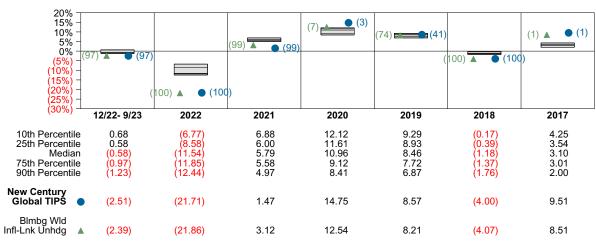




New Century Global TIPS Return Analysis Summary

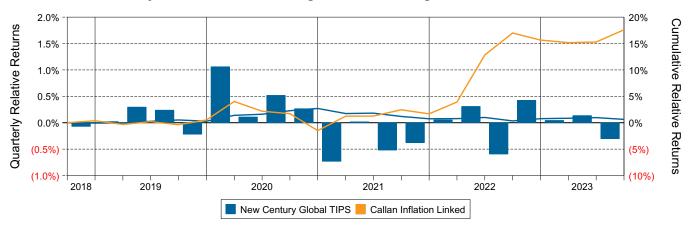
Return Analysis

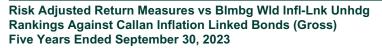
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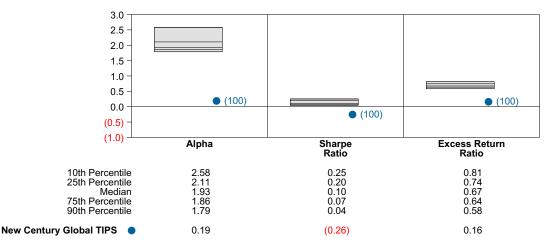


Performance vs Callan Inflation Linked Bonds (Gross)

Cumulative and Quarterly Relative Returns vs Blmbg Wld Infl-Lnk Unhdg





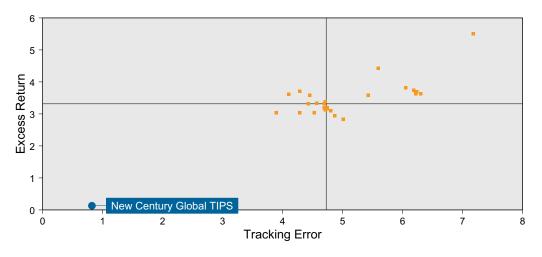


New Century Global TIPS Risk Analysis Summary

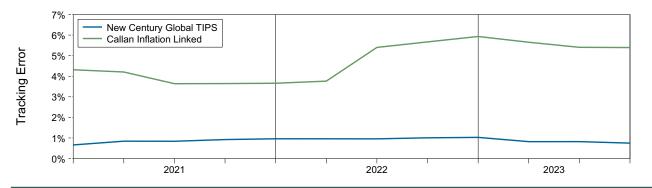
Risk Analysis

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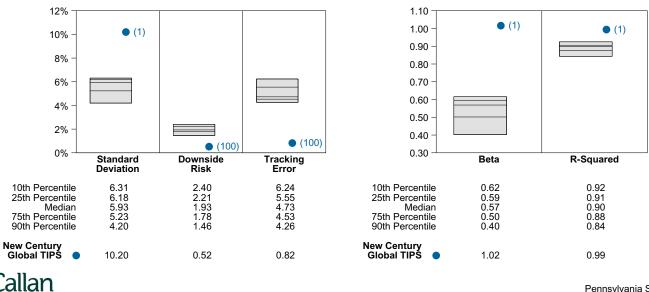
Risk Analysis vs Callan Inflation Linked Bonds (Gross) Five Years Ended September 30, 2023









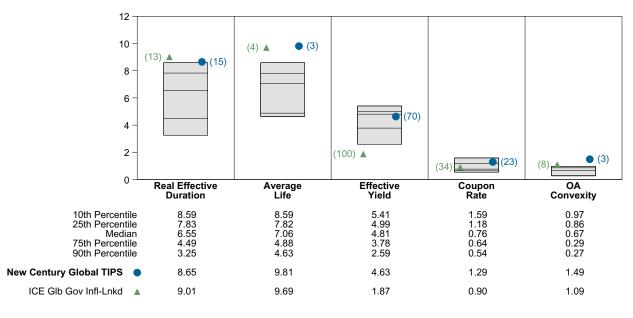


New Century Global TIPS Bond Characteristics Analysis Summary

Portfolio Characteristics

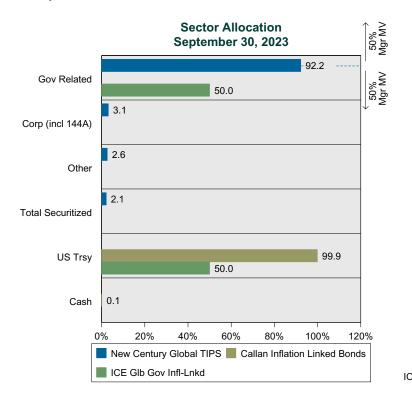
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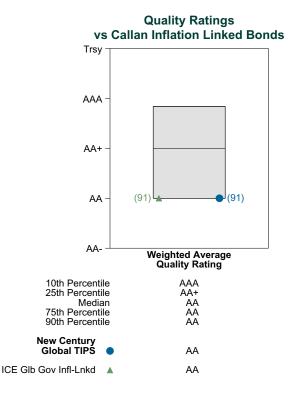
Fixed Income Portfolio Characteristics Rankings Against Callan Inflation Linked Bonds as of September 30, 2023



Sector Allocation and Quality Ratings

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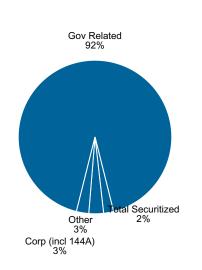


New Century Global TIPS Portfolio Characteristics Summary As of September 30, 2023

Portfolio Structure Comparison

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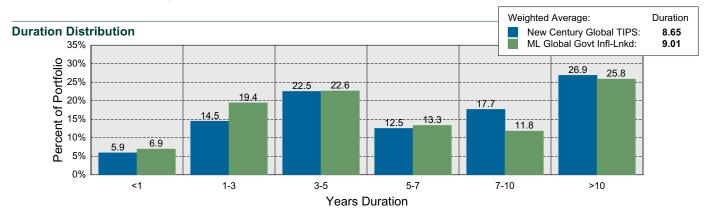
Sector Allocation

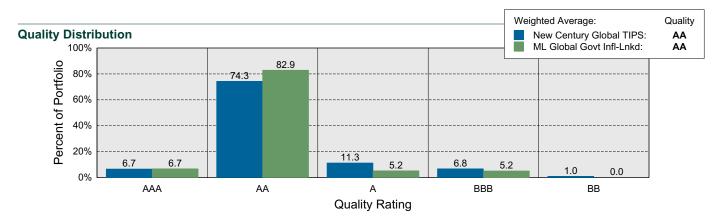


Gov Related 50%

New Century Global TIPS











Education

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.

How Your Public DB Plan's Returns Compare | 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

Private Equity Update, **2Q23** | 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

Market Pulse, 2Q23 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 2Q23 | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

Hedge Fund Update, 2Q23 | 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

Private Credit Update, 2Q23 | A review of performance and fundraising activity for private credit during the quarter

Callan Target Date Index™, 2Q23 | 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™, 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: <u>callan.com/events-education</u>.

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

50+	Unique pieces of research the Institute generates each year
525	Attendees (on average) of the Institute's annual National Conference

3,700 Tota

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, break-fast 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 Institute

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List of Callan's Investment Manager Clients

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

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

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

Manager Name	Manager Name

Manager Name	Manager Name

Manager Name	Manager Name

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